

★ WARS

**WyTRCC's Efforts to Improve The Wyoming  
Accident Reporting System (WARS)**

**Data Dictionary**

**Vehicle Segment**

**December 19, 2006**

**WORKING COPY**

Drafted By:  
Jim Stout

# VEHICLE SECTION

## V1. VKEY 13N (WARS Page 1 Vehicle Section)

**Definition - VKEY is a combination of these fields:**

**Attribute:**

**YEAR + REPORT NUMBER + FORM + VEHICLE SEGMENT NUMBER + "V"**

**Clarification - VEHICLE SEGMENT NUMBER** is a sequential number for each vehicle in the accident; each accident must have at least one vehicle, and the **VEHICLE SEGMENT NUMBER** cannot exceed the **NUMBER OF VEHICLES** value in the base segment. "V" merely identifies this data as a vehicle segment data group. **FORM** allows the analyst to quickly identify the report form origin of the data.

This field may be used for quality control and reports within the Highway Safety Program; it should NOT be used on reports released to the general public or outside of Highway Safety.

**Rationale:** This field is normally a transparent element of a database, but is useful to advanced users that need verification of correct parent - child relationships in special reporting requests.

## V2. Motor Vehicle Identification Number 17N (VIN) (MMUCC V1 Page 44) (WARS Vehicle Section Page 10)

**Definition -** A unique combination of alphanumeric or numeric characters assigned to a specific motor vehicle that is designated by the manufacture. Manufacture assigned number.

**Clarification -** The 17 digit code identifies the origin, make, model and attributes of cars, trucks, buses even trailers worldwide. Every car manufactured and sold in the United States since 1981 has a unique VIN number. Prior to 1981 there was not an industry standard for VINs.

In short the VIN is to vehicles what DNA is to humans. VIN Numbers are used to track recalls, registrations, warranty claims, thefts, and insurance coverage, and provides a history of every vehicle from the factory to the scrap yard.

VIN Numbers can be found on the drivers side of every late model car; on the dashboard or windshield post, on the safety certification label on the drivers door, and on the drivers side door jam. Locations vary on early models but typically the VIN is found on the windshield, drivers door, or post on the passenger side, the firewall, the left hand inner wheel arch, and/or on the steering column.

The first three characters are known as the WMI, for World Manufacturer Identifier.

The first character identifies the country in which the vehicle was manufactured: USA (1 or 4), Canada (2), Mexico (3), Brazil (9), France (F), Japan (J), Korea (K), Taiwan (L), England (S), Yugoslavia (V), Germany (W), Sweden (Y), Italy (Z).

The second character identifies the manufacturer; Audi (A), BMW (B), Buick (4), Cadillac(6), Chevrolet (1), Chrysler C, Dodge (B), Ford (F), GM Canada (7), General Motors (G), Honda (H), Jaguar (J), Lincoln (L), Mercedes Benz (D), Mercury (M), Nissan (N), Oldsmobile (3), Pontiac (2 or 5), Plymouth (P), Saturn (8), Toyota (T), VW (V), Volvo (V).

The third character identifies vehicle type or manufacturing division.

The 4<sup>th</sup> through 8<sup>th</sup> characters identify vehicle features such as body style, engine type, model series etc.

The 9<sup>th</sup> character is used to verify VIN accuracy.

The 10<sup>th</sup> character identifies model year:

1981 - B	1986 - G	1991 - M	1996 - T	2001 - 1	2006 - 6
1982 - C	1987 - H	1992 - N	1997 - V	2002 - 2	2007 - 7
1983 - D	1988 - J	1993 - P	1998 - W	2003 - 3	2008 - 8
1984 - E	1989 - K	1994 - R	1999 - X	2004 - 4	2009 - 9
1985 - F	1990 - L	1995 - S	2000 - Y	2005 - 5	2010 - A
					2011 - B

The 11<sup>th</sup> character identifies the assembly plant.

Characters 12 - 17 identify the sequence of the vehicle of production as it rolled out of the manufactures assembly line.

**Rationale:** Important to identify specific motor vehicle design characteristics and occupant protection systems for effectiveness. Used by many of our customers to track motor vehicles involved in crashes. VIN Numbers are used to track recalls, registrations, warranty claims, thefts, and insurance coverage, and provides a history of every vehicle from the factory to the scrap yard.

### **V3. Motor Vehicle Unit Type 1N (MMUCC V2 Page 45)**

**Definition** - Motor vehicle unit type assigned to uniquely identify each motor vehicle involved in the crash

#### **Attributes:**

- 1 Motor Vehicle in Transport**
- 2 Parked Motor Vehicle**
- 3 Working Vehicle/Equipment**

Note: Working Vehicle/Equipment (If the road is open to the public the Feds require these types of crash information even though it does not involve a Motor Vehicle in Transport) See FHE Work Zone/Maintenance Equipment.

**Rationale:** Uniquely identifies each MV Type involved in the crash.

### **V4. Vehicle Segment Number 2N: (MMUCC V2 Page 45)**

**Definition** - Sequential Vehicle Number (each vehicle is assigned a number) .

**Clarification** - This number is not assigned to Pedestrians or Bicyclist. See Non-Motorist Number.

**Rationale:** Uniquely identifies each motor vehicle involved in the crash. Permits occupants to be assigned to the appropriate motor vehicle.

### **V5. Vehicle Owner 2N (WARS Vehicle Section Page 1)**

**Definition** - This identifies the Type of vehicle owner.

#### **Attributes:**

- |                                     |   |
|-------------------------------------|---|
| <b>1 Same as Driver</b>             | <b>11 County: Law Enforcement</b>       |
| <b>2 Other</b>                      | <b>12 County: Fire Department</b>       |
| <b>3 Passenger</b>                  | <b>13 County: Other</b>                 |
| <b>4 Relative</b>                   | <b>14 City: Law Enforcement</b>         |
| <b>5 Rental Vehicle</b>             | <b>15 City: Fire Department</b>         |
| <b>6 Commercial</b>                 | <b>16 City: Other</b>                   |
| <b>7 Occupant</b>                   | <b>17 Government Other</b>              |
| <b>8 Vehicle Parked, Unattended</b> | <b>18 Ambulance / EMS (begins 1990)</b> |
| <b>9 Federal: Law Enforcement</b>   | <b>19 WHP</b>                           |
| <b>10 Federal: Other</b>            | <b>20 State Law Enforcement Other</b>   |

Commercial (#6) includes any vehicle used in business or rental vehicles including most semi-tractor trailers and other trucks. Codes 9-19 began in 1988. Ambulance/ EMS was commercial prior to 1990. VEHICLE TYPE 15, Emergency Vehicle, must be OWNER 9, 11, 13, 14, 16, 17, or 20.

**Rationale:** Important to identify and evaluate the outcome of vehicles used that are involved in crashes.

**V6. Vehicle Owner's Last Name 25A:** (Can be Same as Driver)

**V7. Vehicle Owner's First Name 25A:**

**V8. Vehicle Owner's Middle Int. 1A:**

**V9. Vehicle Owner's Street Address or P.O. Box Number 25A**

**V10. Vehicle Owner's City 25A**

**V11. Vehicle Owner's State 2A**

**V12. Vehicle Owner's ZIP CODE 10N**

## V13. Motor Vehicle Registration 4A (MMUCC V3, Page 45) (WARS Page 1)

**Definition** - The state, commonwealth, territory, Indian Nation, US Government, foreign country, etc., issuing the registration plate as indicated on the plate displayed on the motor vehicle. State and Province FIPS Codes.

### Attributes:

#### United States:

AL 01	Alabama	LA 22	Louisiana	PA 42	Pennsylvania
AK 02	Alaska	ME 23	Maine	RI 44	Rhode Island
AZ 03	Arizona	MD 24	Maryland	SC 45	South Carolina
AR 05	Arkansas	MA 25	Massachusetts	SD 46	South Dakota
CA 06	California	MI 26	Michigan	TN 47	Tennessee
CO 08	Colorado	MN 27	Minnesota	TX 48	Texas
CT 09	Connecticut	MS 28	Mississippi	UT 49	Utah
DE 10	Delaware	MO 29	Missouri	VT 50	Vermont
DC 11	District of Columbia	MT 30	Montana	VA 51	Virginia
FL 12	Florida	NE 31	Nebraska	WA 53	Washington
GA 13	Georgia	NV 32	Nevada	WV 54	West Virginia
HI 15	Hawaii	NH 33	New Hampshire	WI 55	Wisconsin
ID 16	Idaho	NJ 34	New Jersey	WY 56	Wyoming
IL 17	Illinois	NM 35	New Mexico	DS 57	Department of State
IN 18	Indiana	NY 36	New York		
IA 19	Iowa	NC 37	North Carolina		
KS 20	Kansas	ND 38	North Dakota	XX 00	Unknown
KY 21	Kentucky	OH 39	Ohio		

#### Canada:

AB01	Alberta	ON08	Ontario
BC02	British Columbia	PE09	Prince Edward Island
MB03	Manitoba	QC 10	Quebec
NB04	New Brunswick	SK11	Saskatchewan
NF05	Newfoundland	YT12	Yukon Territory
NT06	Northwest Territory	NU13	Nunavut
NS07	Nova Scotia		

## Mexico:

AG01	Aguascalientes	MR17	Morelos
BA02	Baja California Norte	NA18	Nayarit
BJ03	Baja California Sur	NL19	Nuevo Leon
CM04	Campeche	OA20	Oaxaca
CI05	Chiapas	PB21	Puebla
CH06	Chihuahua	QU22	Queretaro de Arteaga
CU07	Coahuila de Zaragoza	QR23	Quintana Roo
CL08	Colima	SL24	San Luis Potosi
DF09	Distrito Federal	SI25	Sinaloa
DO10	Durango	SO26	Sonora
GT11	Guanajuato	TB27	Tobasco
GR12	Guerrero	TA28	Tamaulipas
HL13	Hidalgo	TL29	Tlaxcala
JL14	Jalisco	VC30	Veracruz-Llava
MX15	Mexico	YU31	Yucatan
MC16	Michoacan de Ocampo	ZA32	Zacatecas

## Other Jurisdictions: (OT)

AS60	American Samoa	PR72	Puerto Rico
PZ61	Panama Canal Zone	UM74	US Minor Outlying Islands
FM64	Federated States of Micronesia	MH75	Marshall Islands
GU66	Guam	VI78	Virgin Islands
MP69	Northern Mariana Islands	WK79	Wake Island
PW70	Palau	OT99	All Others (Includes Indian Reservations)

**Rationale:** This element is critical in providing linkage between the crash and the motor vehicle registration files to access the motor vehicle identification number.

## V14. Motor Vehicle Registration Expiration Date: 8N (MMUCC V3 Page 45)

**Definition** - The date that the motor vehicle registration expires.

### Attribute:

**YYYYMMDD**

MMUCC requires the year of the registration as indicated by the plate displayed on the MV. (Should be able to Bar Code the Vehicle Registration.)

**Rationale:** This element is critical in providing linkage between the crash and the motor vehicle registration files to access the motor vehicle identification number.

## V15. Motor Vehicle License Plate Number 25A (MMUCC V4 Page 45)

**Definition** - The alphanumeric identifier, exactly as displayed, on the registration plate affixed to the motor vehicle. For combination trucks, the motor vehicle plate number is obtained from the power unit or tractor. . (Should be able to Bar Code the Vehicle Registration.)

**Rationale:** This element is critical in providing linkage between the crash and the motor vehicle registration files to access the motor vehicle identification number.

## V16. Vehicle Make 2N (MMUCC V5, Page 45) (WARS Page 2)

**Definition** - The distinctive (coded) name applied to a group of motor vehicles by a manufacture. Could be derived from VIN. 99 is Unknown.

### Attributes:

Automobiles and Light Trucks (See Appendix A for more information.)

55 Acura	68 Ferrari	72 Lotus	45 Rover
1 Alfa Romeo	18 Ford	73 Maserati	46 Saab
2 American	58 Geo 1989 to	74 Maybach	63 Saturn
64 AM General	19 GMC	29 Mazda	76 Scion
65 Aston Martin	20 Honda	31 Mercedes	47 Studebaker
78 Asuna	21 Hudson	30 Mercury	48 Subaru
3 Audi	69 Hummer	80 Merkur	49 Suzuki
5 Austin Healy	57 Hyundai	32 MG	50 Toyota
6 Bently	22 Imperial	75 Mini	51 Truimph
7 BMW	59 Infiniti	33 Mitsubis	52 Volkswagen
8 Buick	23 International	34 Morgan	53 Volvo
9 Cadillac	24 Isuzu	35 Nash	77 Willy's
10 Checker	25 Jaguar	13 Nissan	83 Winnebago
11 Chevolet	26 Jeep	36 Oldsmobi	56 Yugo
12 Chrysler	81 Jenson	37 Opel	98 Other
66 Daewoo	70 KIA	38 Packard	99 Unknown
14 Delorean	82 Lada	39 Peugeot	
15 Desoto	27 Lancia	40 Plymouth	
79 Diahatsu	71 Lamborghini	41 Pontiac	
16 Dodge	61 Land Rover	42 Porsche	
67 Eagle	60 Lexus	43 Renault	
17 Fiat	28 Lincoln	44 Rolls	

## MOTORCYCLES

16 Beta	19 Husqvarna	12 Triumph
1 BMW	20 Indian	24 Ural
2 BSA (No Longer In Production)	7 Kawasaki	13 Vespa
17 Buell	21 Moto Guzzi	14 Yamaha
3 Bultaco (1984 Last Year of Production)	8 Norton (No Longer In Production)	75 Other
18 Derbi	22 Polaris	99 Unknown
4 Ducati	9 Puch	
5 Harley Davidson	11 Suzuki	
6 Honda	23 Titan	

## LARGE TRUCKS

19 Allvan	5 Dodge	10 Kenworth	13 Peterbuilt
20 American LaFrance	26 Feterl	11 Mack	14 RIO
21 Autocar	7 Ford	32 Magnum	40 Sterling
22 Bering	06 Freightliner	33 Marmon	41 UD
23 Bluebird	27 FWD	12 Mercedes-Benz	15 Volvo
1 Brockway	8 GMC	34 Mitsubishi	16 Western Star
24 Capacity	28 Grumman	35 Mitsubishi Fuso	17 White
2 Catepillar	29 Hino	36 Navistar	42 White/GMC
25 CCC	9 International	37 Oshkosh	75 Other
3 Chevrolet	30 Isuzu	38 Ottawa	99 Unknown
4 Diamond Reo	31 Iveco	39 PACCAR	

**Rationale:** Important for identifying motor vehicle make for evaluation, research, and crash comparison purposes.

### **V17. Vehicle Model 2N** (MMUCC V7, Page 46) (WARS Starting on Page 2)

**Definition** - The manufacture assigned code denoting a family of motor vehicles (within a make) that have a degree of similarity in construction. Could be derived from VIN.

To report on one of the following models must be in conjunction with Motor Vehicle Type Category 01 - 05 and Vehicle MAKE codes for Automobiles and Light Trucks. This list is updated annually. Vans and 4wd vehicles added in 1990. Also see VIN to find a particular model.

## **Clarification - See Appendix A for Vehicle Model Codes.**

75 Other and 99 Unknown for all makes/models not on the list or unidentifiable.

Notes; Some of the major changes in manufacture Makes and Models are as follows:

American Motors 1954 - 1987, American Motors began when Hudson, Nash and Willys combined in 1954. AMC sold Jeep and Eagle divisions to Chrysler in 1987. American Motors are no longer in production.

Eagle 1988 - 1998 also known as Jeep/Eagle, But Eagle is the correct name, No Longer in Production. Eagle was absorbed by Chrysler in 1999.

GEO was imported by Chevrolet and sold as GEO until 1997. In 1998 Chevrolet absorbed the GEO line and started selling them as Chevrolets. So GEO is no longer a valid name, see Chevrolet for GEO models after 1997.

Jeep a division of Chrysler began in 1988.

International (International Harvester) ended production October 1980.

Oldsmobile 1897 - 2004 Production ended May 2004 on the last model the Alero.

Plymouth Last Produced in 2001. Plymouth was absorbed by Chrysler.

Renault Medallion became a Eagle product in 1988.

Volkswagen produced the Old Beetle for sale in the United States from 1949 through 1977. Older versions are possible. And the Old Beetle is still produced in Mexico but not for sale in the United States. (It may be possible to have a crash involving one of these Mexico produced Old Beetles) The New Beetle began production in 1998.

**Rationale:** Important for identifying motor vehicle model for evaluation, research, and crash comparison purposes

### **V18. Year of Manufacture 4N (MMUCC V6, Page 46) (WARS Page 6)**

**Definition -** The year which is assigned to a motor vehicle by the manufacture. Could be derived from VIN.

**Rationale:** Important for use in identifying motor vehicle model year for evaluation, research, and crash comparison purposes.

**V19. Total Number of Occupants in Motor Vehicle 2N** (MMUCC V9 Page 47)  
(WARS Page 7)

**Definition** - The total number of occupants in this motor vehicle involved in the crash, including persons in or on the motor vehicle at the time of the crash.

**Attribute:**

**1- 50**

**Rationale:** Important for the officer at the scene to indicate how many people are involved for reporting purposes. Useful for evaluating the effectiveness of countermeasures that prevent or reduce injury and injury severity.

**V20. Motor Vehicle Type Category 2N** (MMUCC V8, Page 46 and 47) (WARS Body Style and Vehicle Type Combined Page 7, and Page 8)

**Definition** - Indicates the general configuration or shape of a motor vehicle. A “motor vehicle” means every vehicle which is self propelled except vehicles moved solely by human power. A bicycle is not a motor vehicle, motorized bicycles are a moped.

**Attributes:**

- 1 Passenger Car**
- 2 Passenger Van**
- 3 Pickup Truck**
- 4 School Bus**
- 5 Other Bus**
- 6 Transit Bus**
- 7 Charter Bus**
- 8 Motorcycle with greater than 150 cc engine size (2 or 3 wheels)**
- 9 Off Road Motorcycle (Dirt Bike, Mini-Bike, Pocket Bike, all 2 wheeled off road or not street legal motorcycles)**
- 10 Motorized Skateboards/Scooters (Gasoline or electric motors)**
- 11 Pedestrian Vehicle (Motorized Wheel Chair, Handicap Scooters, Power Chairs etc.)**
- 12 Low Speed Vehicle (Golf Cart, etc.)**
- 13 Other Vehicles (All other motorized vehicles please describe in the narrative)**
- 14 Sport Utility Vehicle**
- 15 Cargo Van (10,000 lbs or less)**
- 16 Motor Home**
- 17 Light Truck (Commercial Trucks 10,000 lbs GVWR or less)**
- 18 Medium Truck (Commercial Trucks 10,001 to 26,000 lbs GVWR)**
- 19 Heavy Truck (Semi Tractor/Trailer or more than 26,000 lbs GVWR)**
- 20 Farm Equipment (Tractor, Combine etc.)**
- 21 Construction Vehicle**
- 22 Motor-Driven Cycle (any street legal motorcycle with 150 cc or less engine)**
- 23 Moped (Gasoline or Electric Motorized Bicycle)**
- 24 Snowmobile**
- 25 Segway**
- 26 ATV (3 or more wheeled off road motor-driven vehicles even if licensed)**
- 99 Unknown**

## Attribute Details:

### Passenger Car

#### **Automobile (from ANSI D-16.1)**

- a motor vehicle other than a motor cycle or utility vehicle consisting of a transport device. Automobiles may be classified by size or weight, or both.



#### **Passenger Car Body Types (from FARS Coding Manual):**

- Convertible (excludes sun-roof, t-bar)
- 2-door sedan, hardtop, coupe
- 3-door/2-door hatchback
- 4-door sedan, hardtop
- 5-door/4-door hatchback
- Station wagon (excluding van and truck based)

#### **Automobile Derivatives:**

- Auto-based pickup (includes El Camino, Caballero, Ranchero, Chevrolet – SSR; Subaru - Brat, Baha; Volkswagen - Rabbit Pickup)
- Auto-based panel (cargo station wagon, auto-based ambulance or hearse)
- Large limousine – more than four side doors or stretch chassis
- Three-wheel automobile or automobile derivative

## **Sport Utility Vehicle**

**Sport Utility Vehicle** – any utility vehicle other than a “Pickup” body style.

**(Sport) Utility Vehicle (from ANSI D-16.1):** - A motor vehicle other than a motorcycle or bus consisting primarily of a transport device, and generally considered a multi-purpose vehicle that is designed to have off-road capabilities. These vehicles are generally four-wheel-drive (4x4) and have increased ground clearance. Sizes range from mini, small, midsize, full-size and large. Four-wheel-drive automobiles are not considered utility vehicles.

### **Sport Utility Vehicle**

#### **Examples:**

**Small: GMC Jimmy**

**Midsize: Jeep Cherokee**

**Full Size: Chevy**

**Suburban**

**Large: Hummer**



## Passenger Van

**Clarification: Van (from ANSI D-16.1):** a motor vehicle consisting primarily of a transport device which has a GVWR of 10,000lbs or less and is basically a “box on wheels” that is identifiable by its enclosed passenger and/or cargo area, step-up floor, and relatively short (or nonexistent) hood. Vans are classified by size based on frame type and overall vehicle body width.

**Passenger Van** – a van body style that is configured to carry people.



**Passenger Van Used as School  
(See Special Function)**



## Cargo Van

**Cargo Van (10, 000 lbs. or less)** – motor vehicle less than 10,000 lbs. that is configured for transporting cargo.



**\*Note** - Vans with a GVWR greater than 10,000 lbs. would be classified as Medium/Heavy Trucks. The actual GVWR on this type of vehicle is between 16,000 to 19,000 lbs. This will be picked up under Cargo Body Type as Van/Enclosed Box.



## Pickup

**Pickups** - any utility vehicle identifiable by a body style consisting of an open cargo area “bed” behind the cab.

### Pickup - Examples:

**Small:** Chevy S-10

**Midsized:** Nissan Frontier

**Full Size:** Ford F150, F250

**Large:** Ford F450 Super Duty



## Motor Home

**Motor Home** – A van where a frame-mounted recreational unit is added behind the driver or cab area or mounted on a bus/truck chassis that is suitable to live in and drive across the country.

Top picture is a Motor Home.



Bottom picture is a Class A Motor Home built on a larger Bus frame or Truck Chassis.



## School Bus

**School Bus** – examples of this body style include full size and van-based school bus configurations (see photos below). Also included are those without the standard “school bus” color and markings but still having this configuration. (e.g. – a full size school bus painted blue and used by a church.)



**"Van Based" Configured School Bus**



**Full Size School Bus Body Style**

## Transit Bus



**Bus (as related to FMCSA Elements see: Vehicle Configuration, Cargo Body Type)** a motor vehicle consisting primarily of a transport device designed for carrying more than eight persons per the regulations of the Federal Motor Carrier Safety Administration.

## Other Bus

**Other Bus** – a vehicle designed/converted to carry eight or more people with a body type other than that of a school bus, or transit bus. Includes vehicles such as: Vans specially configured as bus body type such as; Cab-chassis seating greater than 8 people, specially configured buses (tour buses).



**Other Light Truck – trucks that are 10,000 lbs. or less.**

**Truck (from ANSI D-16.1):** a motor vehicle designed primarily for carrying property.

**Note that this does not include Sport Utility Vehicles, Vans (Passenger/Cargo), or Pickups.**



## Medium/Heavy Trucks

**Medium/Heavy Trucks** – trucks greater than 10,000 lbs.

**(GVWR of the Single Unit Truck and the Power Unit of Single Unit Truck pulling a trailer)**

**(Truck/Trailer)**





**Heavy Truck (Semi Tractor/Trailer or more than 26,000 lbs GVWR)**



**Construction Vehicle**



**Farm Equipment (Tractor, Combine etc.)**



**Motorcycle / Moped**

**Motorcycle** - A two- or three-wheeled motor vehicle designed to transport one or two people. Included are motor scooters, mini-bikes, and mopeds.

**Moped (from ANSI D-16.1)** – a speed-limited motor-driven cycle (motorcycle) which may be propelled by pedaling.

**Motorcycle**



**Moped**



**Motor-Driven Cycle** (By Wyoming Statutes is any street legal motorcycle with 150 cc or less engine)



**Off Road Motorcycle** (Dirt Bike, Mini-Bike, Pocket Bike, all 2 wheeled off road or not street legal motorcycles)

The little one is a pocket bike.

**ATV** (3 or more wheeled off road motor-driven vehicles even if licensed.)

## Pedestrian Vehicle



## Motorized Skate Board/Skooter



## Snowmobile



## **Low Speed Vehicle (LSV)**

**Low Speed Vehicle** – Includes golf carts, go-carts, tractors, or other low speed motor vehicle used for transport.

**Low Speed Vehicle (from NHTSA)** - a vehicle having a top speed of 20 to 25 mph. Any golf cart or other four-wheeled motorized vehicle with a top speed in that range qualifies for the class.

**Excluded from Low Speed Vehicle are Pedestrian Conveyances (See Person Type) such as:** motorized wheelchairs, motorized skateboards, motorized handicapped scooters, and personal devices such as the Segway.



## **Segway - Personal Device**



**Other Vehicle** - would apply to body styles that do not fit any other attribute, and would require description in the narrative.

**Rationale:** Important to identify the specific type of motor vehicle involved in the crash for evaluation and comparison purposes.

## **V21. Special Function of Motor Vehicle in Transport 2N (MMUCC V10, Page 47)**

**Definition** - The type of special function being served by this vehicle regardless of whether the function is marked on the vehicle.

### **Attributes:**

- 1 No Special Function**
- 2 Police**
- 3 Ambulance (EMT)**
- 4 Fire Truck**
- 5 Military**
- 6 Snow Plow**
- 7 Tow Truck**
- 8 Vehicle used as a School Bus**
- 9 Vehicle used as Other Bus**
- 10 Construction Equipment**
- 11 Farm Equipment**
- 12 Taxi**
- 13 Train**
- 99 Unknown**

### **Attribute Details:**

**Police (from the FARS Coding Manual):** refers to a vehicle which is owned by any local, county, state or federal police agency. The vehicles are presumed to be in special police use at all times. Personal vehicles (not owned by the agency) that are used by officers or agents (e.g., undercover) are excluded.

**Ambulance (from the FARS Manuals):** - refers to vehicles: (1) whose sole purpose is to provide ambulance service and which is always presumed to be in special ambulance use at all times, or (2) vehicles serving dual purposes such as a hearse used for both funeral and emergency purposes, which is only coded when used for the latter purpose. This includes both publicly and privately owned vehicles.

**Fire Truck (from the FARS Coding Manual)** - refers to a vehicle which is owned by any local, county, state or fire protection agency. The vehicles are presumed to be in special use at all times.

**Military (from the FARS Coding Manual)** - refers to a vehicle which is owned by any of the Armed Forces. These vehicles are presumed to be in special military use at all times. This includes all military vehicles even if they are police, ambulance, or fire trucks.



**Snow Plow** - refers to a vehicle with a plow blade or a snow blower attached to the front of it for the purpose of removing snow. It may be a WYDOT snow plow, city, or privately owned vehicle (could even be a pickup truck with a blade being used to remove snow). Some of these vehicles are speciality vehicles made only to plow snow or spread sand and are presumed to be snow plows all the time (WYDOT Snow Plow)



others often serve as multiple use vehicles and would be coded as special use only when being used as a Snow Plow (Pickup with a blade). See Vehicle Owner.

This is an example of a multiple use vehicle a dump truck with a plow blade attached. Would be coded as a snow plow if plowing snow or traveling to or from snow plowing operations. Dump Truck Otherwise.

**Tow Truck** - refers to vehicles specially designed to tow other vehicles. Such vehicles can tow or carry other disabled vehicles, and come in a variety of sizes from a modified pickup truck to Semi Tractors modified to tow other Semi's. These vehicles are presumed to be in special uses at all times regardless if towing another vehicle or not at the time of the crash.



**Taxi** - refers to vehicles used during this trip (at the time of the accident) on a fee-for-hire basis to transport persons. Most of these vehicles will be marked and formally registered as taxis; however, vehicles that are used as taxis, even though they are not registered (e.g., Gypsy Cabs), are included here. Taxis and drivers who are off-duty at the time of the accident are considered "No Special Use."

**Vehicle Used as School Bus** - would apply to a motor vehicle being used by a public or private school or school system to transport children up to the 12th Grade to/from school or any other school function or activity. This includes chartered buses. The body type can be van-based.



**Vehicle Used as Other Bus** - would apply to a vehicle that is functioning as a "Bus" by virtue of its configuration to carry more than 8 passengers including the driver. An example would be, a 10 passenger Limousine, van-based shuttle bus, or a tour bus.



**Rationale:** Important to evaluate the outcome of vehicles used for special uses that are involved in crashes.

## **V22. Emergency Vehicle Use 2A (MMUCC V11 Page 47)**



**Definition -** Indicates official motor vehicles that are involved in a crash while on an emergency response. Emergency refers to an official motor vehicle that is usually traveling with physical signals in use. Select “Yes” only if the motor vehicle was on an emergency response, regardless of whether the emergency equipment was actuated.

### **Attributes:**

**N No**

**Y Yes**

**99 Unknown**

### **Attribute Details:**

**No -** is used if the motor vehicle was not on an emergency response.

**Yes -** is used if the motor vehicle was on an emergency response, regardless of whether the emergency equipment was actuated.

**Unknown -** is used if it cannot be determined that the vehicle was responding to an emergency at the time of the accident.

## **V23. Emergency Equipment Actuated 2A**

## Attributes:

N No

Y Yes

99 Unknown

## Attribute Details:

**No** - is used if the emergency equipment was not actuated on an emergency response.

**Yes** - is used if the emergency equipment was actuated on an emergency response, regardless of whether the emergency equipment was actuated.

**Unknown** - is used if it cannot be determined if the emergency equipment was actuated while responding to an emergency at the time of the accident.

**Rationale:** Important for determining the total emergency motor vehicles involved in an emergency response at the time of a motor vehicle crash.

## **V24. Initial Impact Point 2N:(MMUCC V19 Page 51) (WARS Page 6 Initial Point of Impact)**

**Definition** - The area of the motor vehicle that received the initial impact.

**Initial impact (From the FARS Coding Manual):** refers to the first impact point that produced property damage or personal injury for each motor vehicle.

## Attributes:

00 Non Collision (Overturn or Rollover)

1-12 12 Point Clock Diagram (See Appendix B)

13 Top (Roof)

14 Undercarriage

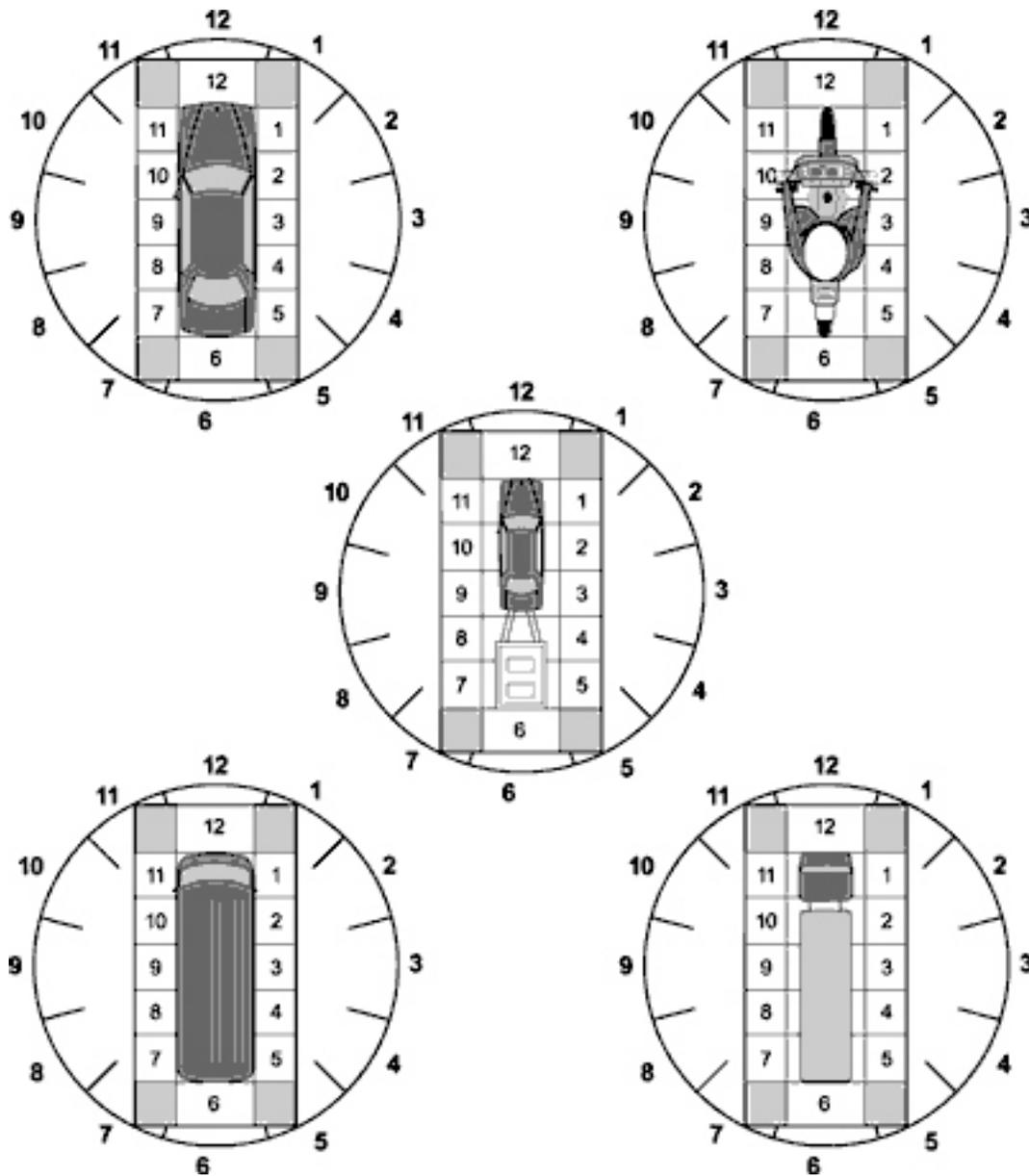
99 Unknown (Cannot Determine the Initial Point of Impact)

## Attribute Details:

**Non-Collision** - Any motor vehicle crash not involving a collision. Includes overturn/rollover, fire/explosion, immersion, jackknife, cargo/equipment loss or shift, equipment failure, separation of units, ran off road right or left, cross median/centerline, downhill runaway, fell/jumped from motor vehicle, thrown or falling object.

**Clarification: Non-Collision related to Area of Impact** - The actual impact points would be coded if the vehicle incurred damage from impacting against a vehicle or object at any time during the accident, whether an overturn occurs or not. If the only event is an overturn, the accident is considered a non-collision. Hitting the ground is not regarded as an impact. Also included as Non-Collision would be crashes involving only a fire or jackknife.

## 12 Point Diagram for Different Types of Vehicles:



**Top (Roof)** - The Initial point of impact was on the top.

**Undercarriage** - The initial point of impact was on the undercarriage of the vehicle.

**Rationale:** Important for use in evaluation injury severity in relation to motor vehicle impact and crash severity.

**V25. Most Damaged Area 2N:** (MMUCC V19 Page 51) (WARS Page 6 Initial Point of Impact)

**Definition** - The area that was most damaged in a crash.

**Clarification** - In many cases the Initial Point of Impact and the Most Damaged Area are the same. It's possible to have an Initial Point of Impact that leads to another Most Damaged Area. Example: Vehicle leaves the road striking a delineator post with the front of the vehicle, then over corrects and rolls on to it's top. The initial point of impact would be the front with the most damage occurring to the top. The Attribute Details for both Initial Point of Impact and Most Damaged Area are the same.

**Attributes:**

**00 Non Collision (Overturn or Rollover)**

**1-12 12 Point Clock Diagram (See Appendix B)**

**13 Top (Roof)**

**14 Undercarriage**

**99 Unknown (Cannot Determine Most Damaged Area)**

**Rationale:** Important for use in evaluation injury severity in relation to motor vehicle impact and crash severity.

**V26. Estimated Motor Vehicle Repair Cost 6N** (WARS Page 6)

**Definition** - This is the estimated repair cost as submitted from the Operator/Owner Crash Report Form 801. If an estimate is not submitted by the Owner/Operator then the Investigating Officers estimate is utilized (often only indicating that the damage was above or below the current legal reporting thresholds).

Generally this data is missing or invalid for commercial trucks as final estimates to both the vehicle and the cargo are not available.

**Clarification** - Law Enforcement Officers are NOT expected to be body shop repair estimators they need to merely indicate that the combined total of damage estimates to be \$1,000 or Greater. With today's market on repairs only a minimum amount of damage needs to be sustained to result in a total of \$1,000 or greater. Owner/Operators are required to submit damage estimates prepared by a garage or by an insurance company. How or even 'if' the vehicle is repaired is irrelevant to this estimate; our concern is the determination of a crash that exceeds the statutory dollar threshold value. IF THE AMOUNT IS QUESTIONABLE, REPORT THE CRASH.

Damage Estimates included all vehicles, public property and/or private property damaged in a crash. If one vehicle sustained an estimated \$500, there was a building, a sign, guardrail or an second vehicle involved that was estimated at \$500 then the threshold was met.

The importance of this item is to determine "IF" the statutory reporting threshold was met.

**Rationale:** Necessary to determine if the crash meets legal reporting thresholds for the State of Wyoming.

## **V27. Posted Speed for Motor Vehicle 2N (MMUCC V12 Page 48) (WARS Page 6)**



**Definition** - Posted (Authorized) speed limit for the motor vehicle at the time of the crash. May be indicated by posted speed limit signs, blinking signs, school zones, or temporary signs in construction zones, etc.

### **Attributes:**

**2N Posted Value (Miles Per Hour 10 - 75)**

**00 Speed Limit Not Posted**

**98 Not Applicable (example Snowmobiles or Working Vehicles on the Right of Way)**

**99 Unknown**

## Attribute Details:

**Posted Speed Limit (Miles Per Hour)** - That is the Posted Speed Limit which would include school zones. It is the legal speed limit.

### Clarification -

On a divided trafficway with different speed limits (e.g. Northbound 45mph Southbound 55mph) use the posted/displayed value for the travel lane on which the vehicle is traveling.

When applicable, use the maximum speed limit designated for each vehicle type where the collision occurred. (e.g. Truck/Bus Speed on a rural highway that is reduced to 45mph)

Advisory or Warning signs are NOT considered the Legal Speed limit (e.g. Yellow background ramp suggested speed signs) in these cases use the statutory speed limit for this roadway. This sign is NOT considered the Legal Speed Limit.



If there is a posted statute or regulation established for this type of street enter the value. In some cities there is a sign that says speed limit 25 mph unless otherwise posted. Each individual street may not be posted but if the statute is posted it applies as the Posted Speed Limit.

**NOT Posted** - This attribute applies when there is no posted speed limit. Many of our dirt roads are not Posted.

**NOT Applicable** - This attribute applies only when there is no posted speed limit and no law that governs the maximum speed that you can drive. (e.g. Private roads open to the public) This is not used for roadways with a posted advisory speed where the statutory limit is in effect but not posted. (e.g. Interchange Ramps)

**Unknown** - Used when there legal limit is unknown. This should be rare because one of the other attributes would apply.

**Rationale:** Important for evaluation purposes, even though the actual speed of the motor vehicle at the time of the crash may differ significantly from the authorized speed limit.

## **V28. Estimated Speed of the Motor Vehicle 3N (WARS Page 7)**

**Definition** - The estimated speed of the motor vehicle at the time of the crash as determined by the Investigating Officer. Estimated speed may differ significantly from the authorized or posted speed limit. If only one vehicle is involved in the crash speed cannot be zero mph except under extremely rare circumstances.

**Clarification** - This is the Investigating Officers Opinion of the approximate speed of the vehicle prior to the crash. This speed may be based upon the evidence gathered at the scene, or from witness reports that are reasonable.

### **Attributes:**

**00 - 200 (if estimate of speed is 100 or greater have the system question are you sure.)**

**99 - Unknown**

**Rationale:** Important for evaluation purposes, because the actual speed of the motor vehicle at the time of the crash may differ significantly from the authorized speed limit.

## **V29. Direction of Travel Before Crash 2N (MMUCC V13 Page 48) (WARS Page 10)**

### **Definition -**

**Clarification** - Notice that this is a compass direction, the direction consistent with the general designated direction of the roadway. For example, the Interstate 25 is a north-south roadway however a motor vehicle may have been traveling due east as the result of a segment of the highway having an east-west alignment or orientation. Local city streets are not all north-south or east-west roadways use a direction consistent with the general direction of the roadway.

## Attributes:

- 1 North Bound
- 2 Northeast Bound
- 3 East Bound
- 4 Southeast Bound
- 5 South Bound
- 6 Southwest Bound
- 7 West Bound
- 8 Northwest Bound
- 99 Unknown

**Rationale:** This field is used to validate the collision type. Important to indicate the direction the motor vehicle was traveling before the crash for evaluation purposes.

## V30. Horizontal Alignment 2N (MMUCC Roadway Alignment and Grade Subfield 1 V16 Page 49) (WARS Page A9)

**Definition:** The geometric layout characteristics of the roadway in the direction of travel for this vehicle.

## Attributes:

- 1 Straight
- 2 Curve Right
- 3 Curve Left
- 99 Unknown

**Rationale:** Important to document the horizontal alignment of the roadway as it relates to a specific crash for evaluation purposes.

## V31. Grade 2N (MMUCC Roadway Alignment and Grade Subfield 2 V16 Page 49) (WARS Page A9)

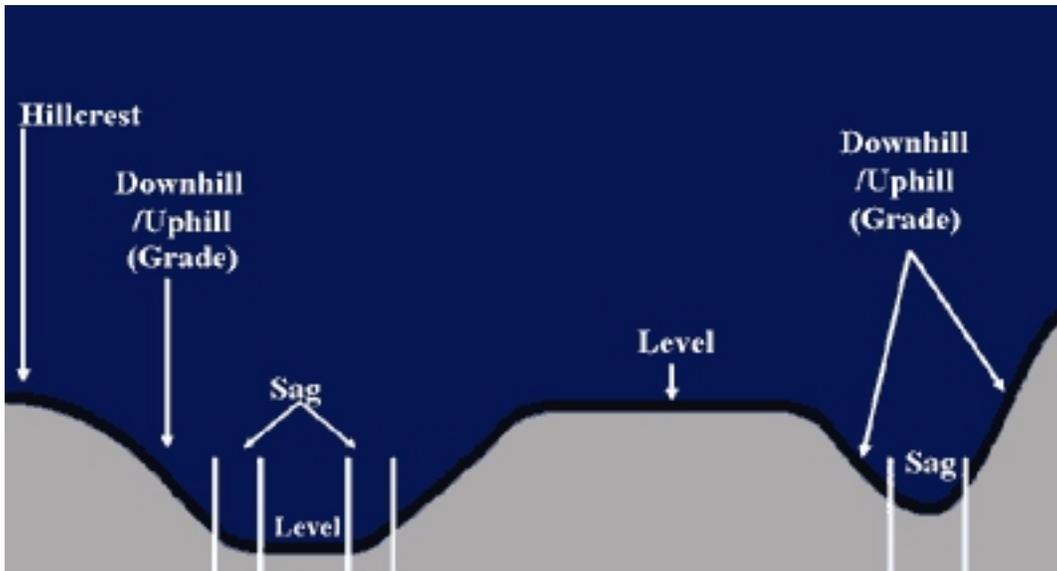
**Definition:** The geometric inclination characteristics of the roadway in the direction of travel for this vehicle.

## Attributes:

1 Level  
2 Hillcrest

3 Uphill  
4 Downhill

5 Sag (Bottom)  
99 Unknown



**Rationale:** Important to document the grade of the roadway as it relates to a specific crash for evaluation purposes.

## V32. Road Surface 2N (WARS Page A9)

**Definition -** The road paving material at the crash scene, or the road from which this vehicle originated. Wyoming has numerous road surfaces.

**Clarification -** This is the surface type of the roadway, not the shoulders, or any other surface at the crash scene. In the event of two different roadways meeting select the surface from which this vehicle was traveling. Example at the intersection of a dirt and an asphalt road it's important to note that the dirt may have been the reason this vehicle couldn't stop. In a collision involving two motor vehicles at this intersection one vehicle would be dirt the other would be asphalt.

## Attributes:

1 Concrete  
2 Asphalt  
3 Gravel/Rock  
4 Dirt  
5 Brick/Stone  
99 Unknown

**Rationale:** Important to provide information for setting coefficient of pavement friction standards. Critical for prevention programs and engineering evaluations.

**V33. Trafficway Description 2N (MMUCC V14, Page 48) (Related to Divided Highway in the Base)**

**Description -** Indication of whether or not the trafficway for this vehicle is divided and whether it serves as one way or two way traffic. (A divided trafficway is one on which roadways for travel in opposite directions are physically separated by a median or barrier)

**Attributes:**

- 1 Two-Way, Undivided
- 2 Two-Way, Undivided, with a Continuous Left Turn Lane
- 3 Two-Way, Divided, Unprotected Median
- 4 Two-Way, Divided, Positive Median Barrier
- 5 One-Way
- 99 Unknown

**Attribute Details:**



Two-Way, Not Divided



Two-Way, Not Divided w/ a Continuous Left Turn Lane



Two-Way, Divided, Positive Median Barrier

**Rationale:** Used in classifying crashes as well as identifying the environment of a crash. Best collected at the scene by the investigating officer.

### **V34. Total Lanes in Roadway 2N (MMUCC V15, Page 49) (WARS Page A13)**

**Definition -** Total Number of lanes in the roadway on which this motor vehicle was traveling.

#### **Attributes:**

**1 - 6**

**99 Unknown**

**Clarification -** For undivided trafficways it the total number of “Thru” lanes in both directions excluding designated turn lanes.

For divided trafficways it’s the total “Thru” lanes for the roadway on which the vehicle under consideration was traveling. i.e. I-25 Southbound in Cheyenne at the Central Avenue Interchange has only 2 lanes.

For crashes occurring in intersections it’s the total “Thru” lanes for the roadway on which the vehicle under consideration was traveling prior to entering the intersection.

## Attribute Details:



**Rationale:** Used in studying the roadway safety issues as well as identifying the environment of a particular crash.

### **V35. Traffic Control 2N** (MMUCC V17 Page 49) (WARS Page A10)

**Definition** - The type of traffic control device (TCD) applicable to this motor vehicle at the crash location.

**Clarification** - Describes the traffic control device at the scene of the accident that regulates this unit. Note that this data element is designed to collect information about traffic controls at the scene of the crash WITHOUT regard to whether or not a traffic control (or malfunction thereof) was related to the crash.

**Warning Signs (From the Manual on Uniform Traffic Control Devices):** are used when it is deemed necessary to warn traffic of existing or potentially hazardous conditions on or adjacent to a highway or street.

## **Regulatory Signs (From the Manual on Uniform Traffic Control Devices):**

Regulatory signs shall be used to inform road users of selected traffic laws or regulations and indicate the applicability of the legal requirements.

### **Attributes:**

- 1 None Present**
- 2 Stop Sign**
- 3 Yield Sign**
- 4 Flashing Traffic Control Signal**
- 5 Do Not Enter Sign**
- 6 Traffic Control Signals**
- 7 Traffic Signals with Pedestrian Sign or Signals**
- 8 Traffic Signals with Pedestrian Signals AND Audible Signal for the Blind.**
- 9 Person (Officer/ Flagger/Crossing Guard etc.)**
- 10 Pedestrian Crossing**
- 11 No passing zone**
- 12 Warning Signs**
- 13 Pavement Markings**
- 14 Traffic Barrels / Cones (begins 1991)**
- 15 Temporary Jersey Barrier (1991)**
- 16 School Bus Flashing Stop Lamps (1991)**
- 17 School Zone (2005) (School Pedestrian Crossing)**
- 18 Railroad Crossing Signal**
- 19 Railroad Crossing Gate & Signal (2005)**
- 20 Railroad Crossing Cross Buck Sign Only (2005)**
- 21 RR Crossing Cross Buck with Stop Sign (2005)**
- 22 RR Crossing Cross Buck with Yield Sign (2005)**
- 23 Other**
- 99 Unknown**

Note: Traffic Control Pavement Markings should be linked to a separate data base and included under Pavement Markings, Longitudinal.

Traffic Control is checked against JUNCTION RELATIONSHIP, and HIGHWAY ELEMENT, ie rail crossings are not permitted on interstate highways. Teton County has no rail system, and rail crossings, when involved, are verified for accuracy.

While it is important to identify a crash with involvement of a particular traffic control, it is equally important to know that some controls are NOT or rarely involved.

## Attribute Details:

**None Present** - No Controls - This code should be used only in situations when no traffic controls are present. This excludes situations where existing controls are knocked down, obscured, or malfunctioning.

**Stop Sign** - Eight sided Octagonal Sign is a Stop Sign Usually Red with White letters.

**Yield Sign** - Triangular Yield.

**Flashing Traffic Control Signal** - Controls traffic movements by flashing a red light for stop or yellow for caution. In some locations Traffic Control Signals flash after hours or during low periods of traffic (Flash Cycle).

**Do Not Enter** -



**Traffic Control Signal** - Controls traffic movements by illuminating systematically, a green, yellow, or red light.



**Traffic Control Signal With Pedestrian Sign or Signals -** Controls traffic movements by illuminating systematically a green, yellow or red light but also has Pedestrian Signs or Pedestrian Signals and a cross walk.



**Traffic Control Signal With Pedestrian Signals AND Audible Signal for the BLIND** Same as above only it also has an Audible Signal for the Blind and a cross walk.

**Person as Traffic Control -** Includes flagger, law enforcement personnel, crossing guard, etc.

**Pedestrian Crossing -**



**No Passing Zone -**



**Warning Signs** - Warn traffic of existing or potentially hazardous conditions on or adjacent to a road.



**Pavement Markings** - Painted lines on the roadway that indicate such things as a Pedestrian Crosswalk or double lines for no passing.

**Traffic Barrels / Cones** - Barrels or Cones normally used in Work or Construction Zones.



**Temporary Jersey Barrier** - Many construction companies are using plastic water filled Jersey Barriers, but this can also be concrete Jersey Barriers installed for long term construction projects.



**School Bus Flashing Stop Lamps** State Law requires all vehicles to Stop for Buses with Flashing Stop Lamps Illuminated. See SCHOOL BUS Related.

**School Zone Signs** - Signs which change the speed limit on roads adjacent to a school on school days; signs which give advance warning of a school; and signs which warn of children crossing the road.



### **Railroad Crossing Signal**



**This is a Railroad Crossing Cross Buck sign with Flashing Signals.** Warns of on-coming trains or train tracks crossing the roadway.

## Railroad Crossing Gate & Signal



**This is a Railroad Crossing Cross Buck sign with Gates, Flashing Signals, may even have bells.** Warns of on-coming trains or train tracks crossing the roadway.

**Railroad Crossing Cross Buck Sign Only** - This is a Railroad Crossing Cross Buck sign ONLY. It does not have any Signal Lights, Stop Sign or Yield Signs, just the Cross Buck. Does not warn of on-coming trains only that tracks are crossing the roadway.

**RR Crossing Cross Buck with Stop Sign** - This is a Railroad Crossing Cross Buck sign combined with an Octagon Stop Sign. Does not warn of on-coming trains only that tracks are crossing the roadway.

**RR Crossing Cross Buck with Yield Sign** This is a Railroad Crossing Cross Buck sign combined with an Yellow Triangle Yield Sign. Does not warn of on-coming trains only that tracks are crossing the roadway.

**Other** - Used for any other Traffic Control Device please describe in the narrative.

**Rationale:** This element needs to be collected at the scene because the presence of specific devices is better verified at the time of the crash. It is also important for ascertaining the relationship between the use of various TCD's and crashes and identifying the need for upgraded TCD's at specific crash locations.

### **V36. Traffic Control Working Properly: 2N (MMUCC V17 Page 49, Subfield 1)**

**Definition** - This is not to determine if the driver(s) obeyed the traffic control. Its to determine if the traffic control device at this location was working properly at the time of the crash. Power failure, malfunctioning Traffic Control Signal. Would also include obscured, knocked down, damaged or missing traffic control devices.

## Attributes:

- 1 - Yes
- 2 - No
- 99 - Unknown

**Clarification - Damaged Signs** - signs can be damaged as a result of natural actions, crashes or vandalism.

Signs ‘may’ be considered damaged if because of their retroreflective characteristics or orientation they cannot be seen at night.

Natural actions such as long term exposure to sunlight can result in fading, discoloration and/or loss of retroreflectivity.

Previous crashes can result in bends or scrapes that can make the sign difficult to read.

Vandalized signs are usually sprayed over with paint or shot with bullet holes which can also make the sign difficult to read.

Note: If in the opinion of the investigating officer traffic control at this location is not working properly it normally requires description in the narrative. Judgement must be used to determine if signs are serviceable; legible both day and night.

**Rationale:** This element needs to be collected at the scene because the presence of specific devices is better at the time of the crash. It is also important for ascertaining the relationship between the use of various traffic control devices and crashes, and identifying the need for upgraded traffic control devices at specific crash locations.

**V37. Rumble Strips Present 2N (Not MMUCC) (Not in WARS requested by Highway Safety)**

**Definition** - To determine if rumble strips were present at the scene of the crash. **It is best that this information be collected at the scene by the investigating officer.** Note that this data element is designed to collect information about rumble strips at the scene of the crash **WITHOUT** regard to whether or not rumble strips were related to the crash.

## Attributes:

- 1 - Yes
- 2 - No
- 99 - Unknown

## Attribute Details:

- 1 No Rumble Strips at this location
- 2 Centerline Rumble Strips
- 3 Rumble Strips on Median Shoulder Only (Divided Highways)
- 4 Transverse Rumble Strips (Intersection Approach)
- 5 Rumble Strips on Both Shoulders (Median and Outside on Divided Highways)
- 6 Both Centerline and Outside Shoulder Rumble Strips
- 7 Rumble Strips on Outside Shoulders Only
- 99 Unknown

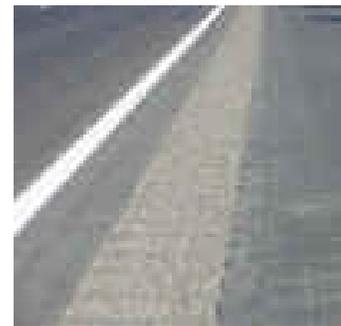
**Clarification** - Rumble strips are grooves or rows of raised pavement markers placed perpendicular to the direction of travel to alert inattentive drivers. As a vehicle passes over the rumble strips, noise and vibration are produced, alerting the driver they are approaching a hazard.

The Wyoming Department of Transportation (WYDOT) currently uses Transverse Rumble Strips and Shoulder Rumble Strips (SRS) as a matter of policy. We are also experimenting with Centerline Rumble Strips in a few locations.

Transverse rumble strips are placed across the traveled way to alert drivers approaching a change of roadway condition or a hazard that requires substantial speed reduction or other maneuvering. Transverse rumble strips are supplementary traffic control devices that provide enhanced warning to motorists the noise and vibration felt by the driver when the vehicle is driven over the rumble-strip portion of the roadway act as warnings to tired and inattentive drivers to reduce their speed and adjust to a new traffic situation.



Shoulder rumble strips are placed on the shoulders just beyond the traveled way to warn drivers they are entering a part of the roadway not intended for routine traffic use. WYDOT uses milled-in SRS as their standard design. Various patterns are used from continuous to [intermittent](#).



Centerline Rumble Strips are placed on centerline of undivided highways to warn drivers they are leaving their intended lane of travel.



**Rationale:** Important to determine the effectiveness of rumble strips, especially for single vehicle run-off-the- roadway crashes and identifying the need the for rumble strips at specific crash locations.

## V38. Rumble Strips Applicable 2N

**Definition** - This data element is in the officer's opinion were the rumble strips related to the crash. There are crashes where the presence of rumble strips is not a factor or would not be a factor.

**Clarification** - Rumble Strips are designed to help prevent certain types of crashes. For example shoulder rumble strips help prevent run-off-the-road crashes, centerline rumble strips are designed to help prevent head-on crashes on undivided highways and transverse rumble strips warn of an upcoming stop or change in speed. So as an example the presence of centerline rumble strips in a location wouldn't necessarily be applicable if the crash was a run-off-the-roadway and rolled over.

Rumble strips are installed intermittently they do not cross for example Junctions with drive ways, business access, or other roadways. A vehicle can run off the road and never come in contact with the rumble strips. If the vehicle left the roadway in such a location where it missed the rumble strips this is what this element is looking for. In such a crash rumble strips although were installed would not be applicable.

### Attributes:

- 1 - Yes
- 2 - No
- 99 - Unknown

**Rationale:** Important to determine the effectiveness of rumble strips design and location, especially for single vehicle run-off-the- roadway crashes and identifying the need the for rumble strips at specific crash locations.

## V39. Motor Vehicle Maneuver/Action 2N (MMUCC V18, Page 50) (WARS page 10 Activity Prior)

**Definition** - The controlled maneuver for this motor vehicle prior to the beginning of the sequence of events. Choose the attribute that best describes the movement of the vehicle prior to the crash.

**Clarification** - The last action for this vehicle before the start of the unstabilized situation that begins the "crash."

## Attributes:

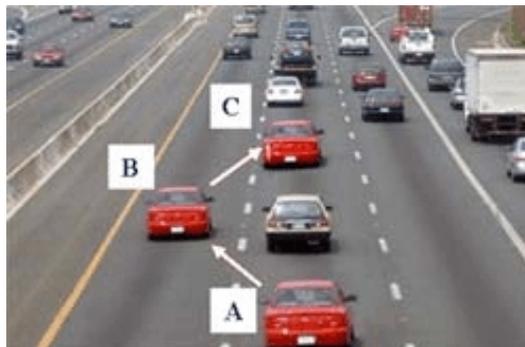
- 1 Essentially Straight Ahead
- 2 Backing
- 3 Changing Lanes
- 4 Overtaking/Passing
- 5 Turning Right
- 6 Turning Left
- 7 Making a U-Turn
- 8 Leaving a Traffic Lane/Parking
- 9 Entering a Traffic Lane
- 10 Slowing
- 11 Negotiating a Curve
- 12 Parked
- 13 Stopped in Traffic
- 14 Driverless Motor Vehicle
- 15 Trafficway Maintenance
- 16 Other
- 99 Unknown

## Attribute Details:

**Backing** – a start from a parked or stopped position in the direction of the rear of the motor vehicle.

**Changing Lanes** – Shift from one traffic lane to another traffic lane moving in the same direction. Note that on an undivided highway moving into an opposing travel lane would not be changing lanes.

**Overtaking/Passing** - In the photo below the red car is in the process of overtaking or passing the white car. The arrows show the points where the red car was changing lanes. Determination of whether this is changing lanes or passing would be by officer investigation.



**Turning Right** – used when in the actual process of executing a right turn at an intersection, interchange, driveway access, etc. This would include Right Turn on Red. This would not apply to a vehicle that is waiting to initiate a turn, see **Stopped in Traffic**.

**Turning Left** – used when in the actual process of executing a left turn at an intersection, interchange, driveway access, etc. This would not apply to a vehicle that is waiting to initiate a turn, see **Stopped in Traffic**.

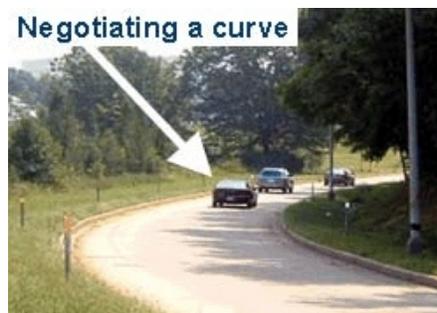
**Making a U Turn** – used when in the actual process of executing a U-turn at an intersection, interchange, driveway access, etc.

**Leaving Traffic Lane** – a motor vehicle or person moving outside the travel lane. This would also include a vehicle leaving the traffic lane to park.



**Entering Traffic Lane** – physical presence in trafficway. (Merging)

**Negotiating a Curve** applies to vehicles traveling along curved trafficways. A motor vehicle in the process of moving along a curved travel lane. This is NOT a left or right turn.



**Parked** – a transport motor vehicle that is not in motion or on a roadway. A motor vehicle, or any portion of the motor vehicle outline, parked on the roadway during periods when parking is prohibited is considered in transport, See **Stopped In Traffic**.

**Stopped in Traffic** – applies to a vehicle which is stopped on the trafficway in an area normally used for vehicle travel (i.e. outside a parking lane). It includes but is not limited to motor vehicles legally stopped for a stop sign or signal, motor vehicles stopped to turn PRIOR to initiating a turn, motor vehicles stopped in traffic due to a slow down in traffic ahead, and motor vehicles illegally stopped in a traffic lane.

**Driverless Motor Vehicle** - A vehicle stopped in traffic may or may NOT have a driver and the vehicle engine may or may NOT be running, if the vehicle does NOT have a driver it is a driver less motor vehicle.. Most “double parked” vehicles are actually stopped in traffic Driver Less Motor Vehicles rather than parked.

**Traffic Way Maintenance** - indicates a working vehicle performing an operation such as mowing grass, plowing snow, paint striping etc.

**Other** - Used for any other controlled maneuver for this motor vehicle prior to the beginning of the sequence of events that lead up to this crash please describe in the narrative.

**Unknown** - Used if it’s unknown what the the movement of the vehicle was prior to the crash.

**Rationale:** Important for evaluation purposes, particularly when combined with sequence of events.

## **V40. Sequence of Events First Event 2N (MMUCC V20 Page 51)**

**Definition** - The events in sequence 1 - 4 related to this Motor Vehicle, including both non-collision as well as collision events. Up to four crash events:

**Clarification:** MMUCC recommends capturing 4 events in the Sequence of Events.

**Attributes are grouped as:**

**Non-Collision Events**

**Collision with Person, Motor Vehicle, or Non-Fixed Object**

**Animals**

**Collision with Fixed Object**

**Unknown**

## Attributes:

### V41. Sequence of Events Second Event 2N:

Same attributes Sequence of Events First Event.

### V42. Sequence of Events Third Event 2N:

Same attributes Sequence of Events First Event.

### V43. Sequence of Events Fourth Event 2N:

Same attributes Sequence of Events First Event.

## Attribute Details: See Also First Harmful Event.

**Separation Of Units** - When the truck or truck tractor becomes separated from the semi-trailer and/or trailer(s) it is pulling. Would also apply to non-commercial vehicle pulling trailers.



**Clarification:** Equipment Failure (blown tire, break failure, etc.) – this event would apply to this photograph if it could be determined that the “fifth-wheel” hitch failed causing the units to separate.

**Ran Off Road (Right/Left)** - Failure of the driver to keep the motor vehicle on the roadway.

**Cross Median Centerline (from FARS Coding Manual)** – is used when a vehicle completely crosses the median and enters the shoulder or travel lane on the opposite side of a divided highway. It also includes crossing over the center line of a two-way, undivided highway.

**Down Hill Run Away** - Usually occurs with heavy trucks on a steep grade AFTER an Equipment Failure (Breaks). It’s important to document down hill run away.

## **V44. Most Harmful Event of this Motor Vehicle 2N (MMUCC V21 page 53)**

**Definition** - The event that resulted in the most severe injury or if no injury the greatest property damage involving this motor vehicle.

### **Attributes:**

#### **Non-Collision:**

- 1 Overturn/Rollover**
- 2 Fire/Explosion**
- 3 Immersion**
- 4 Jackknife**
- 5 Cargo/Equipment Loss or Shift**
- 6 Equipment Failure (Blown Tire, Brake Failure etc.)**
- 7 Separation of Units**
- 8 Ran Off The Road Right**
- 9 Ran Off The Road Left**
- 10 Cross Median or Centerline**
- 11 Downhill Runaway**
- 12 Fell or Jumped from the Motor Vehicle**
- 13 Thrown or Falling Object**
- 14 Avoiding an Object on the Road**
- 15 Avoiding an Animal on the Road**
- 16 Carbon Monoxide (CO) Poisoning**
- 17 Injuries by being thrown against part of the Vehicle**
- 18 Other Non-Collision (Motorcycle Loss of Control)**

**Collision with Person, Motor Vehicle, or Non-Fixed Object:**

- 19 Pedestrian**
- 20 Pedalcycle**
- 21 Railway Vehicle (Train, Engine or other vehicle on the railway)**
- 22 Motor Vehicle in Transport on Roadway**
- 23 Motor Vehicle in Transport on Other Roadway**
- 24 Parked Motor Vehicle**
- 25 Struck by Falling, Shifting Cargo or Anything set in motion by Motor Vehicle**
- 26 Other Non-Fixed Object**
- 27 Work Zone/Maintenance Equipment**
- 28 Work Zone Channeling Device**
- 29 Objects set in Motion by Another Vehicle**

**Animals:**

- 30 Horse**
- 31 Cow**
- 32 Pig**
- 33 Sheep**
- 34 Other Domestic (Dog, Llama, ...)**
- 35 Elk**
- 36 Deer**
- 37 Moose**
- 38 Antelope**
- 39 Buffalo**
- 40 Other Wild**

**Collision with Fixed Object:**

- 41 Guardrail End
- 42 Guardrail Face
- 43 Impact Attenuator/Crash Cushion
- 44 Bridge Pier or Support
- 45 Bridge Overhead Structure
- 46 Bridge Rail
- 47 Concrete Traffic Barrier/Jersey Barrier
- 48 Other Traffic Barrier (Includes Temporary)
- 49 Utility Pole/Light Support
- 50 Traffic Signal Support
- 51 Traffic Sign Support
- 52 Overhead Traffic Sign
- 53 Sign Support Single Post
- 54 Sign Support Multiple Post
- 55 Other Traffic Sign Support
- 56 Barricade
- 57 Tree/Shrubbery
- 58 Cut Slope
- 59 Road Approach
- 60 Rock, Boulder, Rock Slide
- 61 End of Drainage Pipe/Structure/Culvert
- 62 Building or Other Structure Wall
- 63 Fence (Including Posts)
- 64 Raised Median or Curb
- 65 Delineator Post
- 66 Earth Embankment/Berm
- 67 Ditch
- 68 Snow Embankment
- 69 Mailbox
- 70 Tunnel
- 71 Cattle Guard
- 99 Unknown

**Attribute Details:** See First Harmful Event, and Sequence of Events for attribute details.

**Clarification** - See also Motor Vehicle Maneuver/Action, and Driver Actions at Time of Crash.

**Rationale:** Needed for uniformity in reported MV crash statistics, understanding crash causation, and identifying possible crash avoidance countermeasures. For analytic purposes it may be desirable to collect and use information about subsequent events, some of which may be harmful.

## V45. Underride/Override 2N (MMUCC V22 Page 54)

**Definition** - An Underride refers to this motor vehicle sliding under another motor vehicle during a crash. An Override refers to this motor vehicle riding up over or onto another motor vehicle. Either can occur with a parked motor vehicle.

**Clarification from FARS Coding Manual:** A vehicle straddling a guardrail, for example, is not coded as an Override. In cases in which two vehicles collide “head-on” and one vehicle ends up under the other, you must determine whether an Underride or Override has occurred.

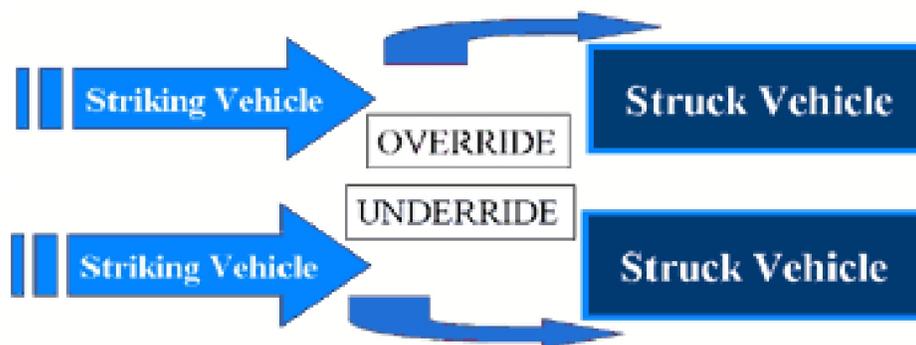
**(From FARS Coding Manual):** Underride is not applicable to motorcycles or snowmobiles. The reason for the exclusion of these vehicles is that the element’s intent is to measure the effect of size disparity pertaining to bumper compatibility research.

**Compartment Intrusion** - a breach of the occupant compartment as a result of a crash. (This can include damaged windshield or glass area to qualify.)

### Attributes:

- 1 No Underride or Override
- 2 Underride, Compartment Intrusion
- 3 Underride, No Compartment Intrusion
- 4 Underride, Compartment Intrusion Unknown
- 5 Override, Motor Vehicle in Transport
- 6 Override, Other Motor Vehicle
- 99 Unknown if Underride or Override

**Attribute Details:** It’s one or the other NOT both.



**Underride, Override (from FARS Coding Manual):** It is important to determine the vehicle performing the action. Two vehicles cannot be considered to Underride and Override simultaneously.

**Examples:**

A car underriding the side of a truck would be coded for the car. You would not in-turn code override for the truck.

A truck changes lanes and turns over a car traveling along side the truck, you would code override for the truck but would not in this case code underride for the car.

**Underride, Compartment Intrusion:** In this example, the car struck the trailer resulting in a breach of the passenger compartment as it traveled under the trailer.



**Underride, No Compartment Intrusion:** In this example, the car struck and went under the trailer but stopped short of damaging the passenger compartment.



**Override, Motor Vehicle in Transport (from FARS Coding Manual):** is used when a motor vehicle overrides another motor vehicle in transport.



In this example the trash truck struck and drove up over a stopped car in the roadway.

**Rationale:** Needed to identify the magnitude of crashes in which an underride or override occurs to support NHTSA rulemaking and motor vehicle bumper compatibility research.

**V46. Extent of Damage 2N (MMUCC V24, Page 54) (WARS Page 8, Damage Severity)**

**Definition -** Estimation of total damage to the motor vehicle from the crash. Disabling damage implies damage that is sufficient to require towing or being carried from the scene.

**Attributes:**

- 1 No Damage
- 2 Minor Damage
- 3 Functional Damage
- 4 Disabling Damage
- 99 Unknown

**Attribute Details:**

**No Damage -** No visible damage to this motor vehicle due to the crash.

**Minor Damage –** Damage which does not affect the operation of or disable the motor vehicle in transport.

**Functional Damage –** Damage that is not disabling, but affects the operation of the motor vehicle or its parts.

**Disabling Damage –** Damage that precludes departure of the motor vehicle from the scene of the crash in its usual daylight-operating manner after simple repairs. As a result, the motor vehicle had to be towed, or carried from the crash scene, or assisted by an emergency motor vehicle.

**Unknown** - Damage is Unknown.

**Clarification - Damage (from ANSI D16)** – Damage is harm to property that reduces the monetary value of that property.

**Attribute Inclusions/Examples from D16**

**Functional Damage:**

Doors, windows, hood, and trunk lids which will not operate properly

Broken glass which obscures vision

Any damage which would prevent the motor vehicle from passing an official motor vehicle inspection

Tire damage even though the tire may be changed at the scene

Bumpers which are loose

**Disabling Damage:**

Vehicles which could be driven but would be further damaged thereby.

At a distance, this appears to be only Functional Damage.



Closer inspection reveals that the damage has rendered the vehicle inoperable without further damaging it, thus it sustained Disabling Damage.

**Rationale:** Standardizing the extent of damage a motor vehicle sustains in a crash is key to consistent collection of crash data.

**Contributing Circumstances, Motor Vehicle (MMUCC V25, Page 55) (WARS Page 8 Mechanical Defects)**

**Definition -** Pre-existing motor vehicle defects or maintenance conditions that may have contributed to the crash. Up to two motor vehicle contributing circumstances.

## **V47. First MV Contributing Circumstance 2N**

### **Attributes:**

- 1 None
- 2 Brakes
- 3 Trailer Brakes
- 4 Steering
- 5 Power Train
- 6 Suspension
- 7 Tires
- 8 Wheels
- 9 Lights (Head, Signal or Tail)
- 10 Windows/Windshield
- 11 Rain/Snow/Ice on Windshield
- 12 Tinted Windows
- 13 Vehicles Cargo Blocking Drivers View
- 14 Exhaust System
- 15 Oversized Load
- 16 Defroster
- 17 Mirrors
- 18 Wipers
- 19 Truck Coupling/Trailer Hitch/Safety Chains
- 20 Stalled Motor Vehicle
- 21 Cruise Control
- 22 Other
- 99 Unknown

## **V48. Second MV Contributing Circumstance 2N**

Same attributes as First MV Contributing Circumstance.

## Clarification:

**Brakes** - Includes loss of break fluid (or system error), faded brakes, or ineffective brakes due to a grossly overloaded vehicle. Excludes locked wheels.

**Trailer Brakes** - A device used for slowing or stopping a large transport trailer hauled by a truck or semi tractor or a trailer drawn by a truck or automobile.

**Steering** - Includes failure of manual or power steering mechanism, tie rod, kingpin, ball joint, etc.

**Power Train** - Includes twisted or sheared driveline, or driveline that has become detached. Also includes universal joint drive shaft transmission, engine clutch, gas pedal, motorcycle chain, gears, etc.

**Suspension** - Includes springs, shock absorbers, MacPherson struts, axle bearing, control arms, etc. Modification to standard suspension (Suspension Lift Kit).

**Tires** - Defective tires, tread separation, sidewall failure, excessively worn, bubbled, or bald tires. Tires improperly sized for this vehicle. (Excludes: Tire damage produced in the crash (hitting pot hole, curb, etc.).)

**Wheels** - includes wheels that have collapsed or split, or bolts that have sheared, allowing the wheel to detach from the vehicle. Also includes hub caps, multiple-piece rings.

**Lights (Head, Signal, Tail)** - Defective/faulty/under-maintained as opposed to failure to use or misuse.

**Windows/Windshield** - severely cracked/pitted/chipped reducing visibility.

**Rain/Snow/Ice on Windshield** - reducing visibility (peep hole drivers).

**Windows** - tinted windows.

**Vehicle Cargo Blocking Drivers View** - this could be cargo within the compartment such as boxes in the passenger seat or cargo outside the compartment that blocks visibility and contributed to the crash.

**Exhaust System** - CO2 Poisoning, fumes etc.

**Oversized Load** - Load too large or too heavy for the vehicle.

**Defroster** - a defroster that is inoperative.

**Mirrors** - Includes missing mirrors.

**Wipers** - Defective/faulty/under-maintained as opposed to failure to use.

**Truck Coupling/Trailer Hitch/Safety Chains** - Defective trailer hitch denotes improperly adjusted trailer hitch, lack of safety chain, 5th wheel hitch, etc. Improper towing denotes towing without a hitch, towing by cable, rope, chain, etc.

**Other** - (if chosen should be explained in narrative) would include defects such as horn, restraint system (accidental air bag deployment), exhaust system failure, fuel system.

**Rationale:** Important for determining the significance of pre-existing problems, that could be useful in determining the need for improvements in manufacturing and consumer alerts.

**V49. Non Commercial Vehicle Trailer Style 2N** (adopted from WARS Page 8 Trailer Style)

**Definition** - any non-commercial vehicle pulling a trailer or multiple trailers, trailer style. Commercial Vehicle Trailer style if applicable will be recorded at Commercial Cargo Body Type.

**Attributes:**

- 1 No Trailer
- 2 Camping Trailer
- 3 Mobile Home
- 4 Utility Trailer
- 5 Boat or Jet Ski Trailer
- 6 Towed Vehicle
- 7 Horse or Stock Trailer
- 8 Motorcycle Trailer
- 9 Multiple Trailers (Camper and a Boat, Camper and a Horse Trailer etc.)
- 10 Other (Bicycle Trailer)
- 99 Unknown

Note: A trailer is part of one vehicle not a separate vehicle in itself.

**Attribute Details:**

**Mobile Home** - this is not a camping trailer it is a Mobile Home being trailed (pulled) non-commercially to some location.

**Towed Vehicle** - this is someone trailing, pulling or towing another vehicle non-commercially. For non-commercial purposes we combine towing and trailing.



**Non Commercial Vehicle Trailing a pickup.**

**Multiple Trailers** - It's legal to pull multiple trailers in Wyoming. For example a pickup pulling a camper trailer followed by a boat trailer out for a weekend vacation. If multiple trailers are pulled it's recommended that it be explained in the narrative especially if the investigating officer feels that this contributed to the crash.



**Other** - For any other trailer style not listed please record in the narrative trailer style.

**Unknown** - We know that the vehicle was towing a trailer style was unknown.

**Rationale:** This data element provided information on non-commercial configurations of trailer styles important to evaluate various types of crashes involving vehicles towing trailers.

## V50. Vehicle Towed 1A

**Definition** - Used to determine if the vehicle was towed from the scene.

### Attributes:

N - No  
Y - Yes

**Rationale:** Standardizing the extent of damage a motor vehicle sustains in a crash is key to consistent collection of crash data. If the vehicle required towing it says a lot about the damage severity.

## V51. Vehicle Towed By (Company Name) 25A

## V52. Vehicle Towed To (Location) 25A

## V53. Driver 1A

**Definition** - This field identifies if this vehicle has a driver. A Driver is any occupant who is in actual physical control of a motor vehicle, or was in control before physical control was lost during the crash sequence. (See ANSI D16.1 Manual on Classification of Motor Vehicle Traffic Accidents.) This includes motorist operating any motor vehicle in transport. Excludes non-motorist such as pedacyclist, non-motorized; skateboards, scooters, wheel chairs etc. and pedestrians.

## Attributes:

**Y - Yes**

**N - No**

## Attribute Detail:

**Yes** - Means this vehicle had a Driver.

**No** - Means this vehicle was driverless.

**Clarification** - If the vehicle was unoccupied or did not have a driver then the Driver Segment of the report will be blank.

**Rationale** - Used as a quality control field for the data base.

## Commercial Vehicles

This section is for vehicles used for commercial purposes; A commercial motor vehicle is any motor vehicle used on a trafficway for the transportation of goods, property or people in interstate or intrastate commerce, would include Medium and Heavy Trucks, Buses, and any vehicle carrying Hazardous Materials.

## V54. Commercial Vehicle 1A (Not in MMUCC)

**Definition** - Is this vehicle used for commercial purposes. Electronically used to continue with the commercial vehicle process.

## Attributes:

**Y - Yes**

**N - No**

**Rationale:** Used for automated data collection. If yes then the remaining vehicle questions will be answered. If No then the remaining questions in the vehicle section are not necessary.

## Motor Carrier Identification (MMUCC V26 Page 55)(WARS page 11)

**Definition** - The identification number, name and address of individual, partnership or corporation responsible for the transportation of persons or property as indicated on the shipping manifest.

## **V55. US DOT NUMBER 10A**

10 digits

## **V56. ICC/MC NUMBER 10A**

10 digits

## **V57. Carrier's Name 50A:**

**Definition** - Name of individual, partnership or corporation.

**Clarification** - A motor carrier is the “business entity, individual, partnership, corporation, or religious organization responsible for the transport of goods, property or people.” The preferred source of the carrier’s name is the shipping manifest, the papers that the driver carries. The second source is the name on the side of the motor vehicle, and the third and least desirable source would be asking the driver for the company name.

Identification of the true carrier can be complex.

## **V58. Street Address or P.O. Box Number of individual, partnership or corporation. 25A**

## **V59. Carrier's City Address 25A**

## **V60. Carrier's State 2A**

## **V61. Carrier's ZIP CODE 10N**

## **V62. Carrier's County 25A**

## **Gross Vehicle Weight Rating (MMUCC V27 Page 56) (WARS Page 14)**

**Definition** - The amount recommended by the manufacture as the upper limit to the operational weight for a motor vehicle and any cargo to be carried. The Gross Combination Weight Rating (GCWR) is the sum of all the GVWRs for each unit in a combination-unit motor vehicle. Thus for single trucks there is no difference between GVWR and GCWR. For combination trucks (semi tractor trailers pulling single or multiple trailers or trucks pulling other motor vehicles) the GCWR is the total of the GVWRs of all units in the combination.

## **V63. Gross Vehicle Weight Rating 1N**

**Definition** - GVWR of the power unit of a combination-unit truck or a single unit truck:

## Attributes:

- 1 10,000 lbs or less
- 2 10,001 to 26,000 lbs
- 3 More than 26,000 lbs

## V64. Gross Combination Weight Rating 1N

**Definition** - GCWR of the power unit and towed units of a combination unit truck.

## Attributes:

- 1 10,000 lbs or less
- 2 10,001 to 26,000 lbs
- 3 More than 26,000 lbs

**Rationale:** Both GVWR and GCWR are Required by the Federal Motor Carrier Safety Administration.

## V65. Commercial Motor Vehicle Configuration 2N (MMUCC V28 Page 57) (WARS Page 7)

**Definition** - Indicates the general configuration of this commercial motor vehicle. (See chart displaying types of truck configurations.)

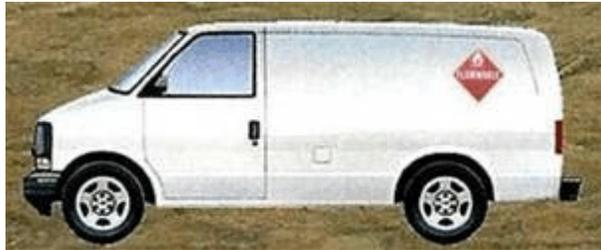
## Attributes:

- 1 Passenger Vehicles Carrying Hazardous Materials
- 2 Single-Unit Truck (2 axle and GVWR more than 10,000 lbs)
- 3 Single-Unit Truck (3 or more axles)
- 4 Truck Pulling Trailer(s)
- 5 Truck Tractor Only (Bobtail)
- 6 Truck Tractor/Semi-Trailer
- 7 Truck Tractor/Double Trailer
- 8 Truck Tractor/Triple Trailer (illegal in Wyoming)
- 9 Truck Cannot Classify (More than 10,000 lbs GVWR)
- 10 Bus/Large Van (seats for 9 to 15 occupants, including driver)
- 11 Bus (seats for more than 15 occupants, including driver)
- 99 Unknown

**Clarification** - This element is used in conjunction with Commercial Cargo Body Type and GVWR to describe the vehicle and determine appropriate regulations.

## Attribute Details:

**Passenger Vehicles Carrying Hazardous Materials** – this attribute would include the passenger car, light truck (cargo van, mini-van, utility truck, panel truck, pickup truck 10,000 lbs. or less GVWR), sport utility vehicle, motorcycle, motor home.



**Single-Unit Truck (2-axle, and GVWR over 10,000 lbs)** - A power unit that includes a permanently mounted cargo body (also called a straight truck) that has only two axles and a GVWR of over 10,000 lbs.



**Single-Unit Truck (3-or-more axles)** - A power unit that includes a permanently mounted cargo body (also called a straight truck) that has three or more axles.



**NOTE:** Large truck tractor-based tow trucks, as in the above photo, should not be confused with bobtails towing other vehicles as these single-unit trucks are not configured to pull a trailer.

**Truck Pulling Trailer(s)** - A motor vehicle combination consisting of a single-unit truck and a trailer. This attribute is not to be used for a Truck Tractor (Bobtail) pulling a trailer.



**This Auto Transporter is not a truck tractor/double, note the location of the axles. The power unit is a straight truck.**

**Truck Tractor (Bobtail)** - A motor vehicle consisting of a single motorized transport device designed primarily for pulling semi-trailers.





In the above photo examples of truck tractors (bobtails) towing other vehicles, it is important that these are not recorded as truck trailers or truck tractor semi-trailers.

**Truck Tractor / Semi-Trailer - A truck tractor that is pulling a semi-trailer.** “Semi-trailer” means every vehicle so designed and used in conjunction with a motor vehicle that some part of its own weight and that of its own load rests upon or is carried by another vehicle, except a pole trailer.



**Truck Tractor/ Double - A truck tractor that is pulling a single semi-trailer and one full trailer.**



**Truck Tractor/ Triple** - A truck tractor that is pulling a single semi-trailer and two full trailers. Currently Illegal In Wyoming.



**Truck More Than 10,000 lbs. Cannot Classify** - this attribute would apply to vehicles that do not fit into any other category.



**Bus/ Large Van (seats for 9-15 occupants, including driver)** - Smaller van-based buses qualify. e.g., commuter vans, van-based school buses, limousines.



**Bus/Large Van (seats for more than 15 occupants, including driver) -** A van-based bus qualifies for this code if it is configured to include more than 15 seats. A CDL is required for the driver of this bus.



**(From the FARS Coding Manual):** A vehicle towing another “motor vehicle” is NOT considered to be a “trailer” but is considered to be a “towed vehicle”. An example would be a bobtail towing one or more other bobtails (Saddleback Mount). A vehicle towing another motor vehicle(s) is where the towed vehicle has two or more wheels on the ground. Towing does not apply to vehicles loaded on a flatbed trailer.

**Rationale:** Required by the Federal Motor Carrier Safety Administration.

**V66 Commercial Cargo Body Type 2N** (MMUCC V29 page 57) (WARS Page 9)

**Definition -** The type of body for buses and trucks more than 10,000 lbs GVWR.

## Attributes:

- 1 No Cargo Body
- 2 Bus
- 3 Van/Enclosed Box
- 4 Hopper (grain/chips/Benonite)
- 5 Pole
- 6 Cargo Tank
- 7 Flatbed
- 8 Dump (Belly, Side, or Tail Dump)
- 9 Concrete Mixer
- 10 Auto Transporter
- 11 Tow Truck
- 12 Garbage/Refuse
- 13 Snowplow
- 14 Livestock
- 15 Drilling Equipment
- 16 Other Truck
- 17 Logging
- 18 Intermodal
- 99 Unknown

**Clarification:** In situations where a single-unit truck is pulling a trailer with a different cargo body type, it is suggested that the cargo body type of the power unit be used. See the photos below.



**Dump**



**Van Enclosed Box**

## Attribute Details:

**No Cargo Body** - (Bobtail, light motor vehicle w/ hazardous materials placard, etc.)

Examples of No Cargo Body



A Truck Tractor (Bobtail) without a trailer has no cargo body type, including towing situations as in the above photo.



**Tow Truck**

**Sign Truck**



**Cherry Picker**

**Fire Truck**



Although these Heavy Machinery vehicles are not typically used on a trafficway, if involved in a crash when “in transport” would be counted as No Cargo Body if greater than 10,000 lbs.

**Bus:** A motor vehicle consisting primarily of a transport device designed for carrying *more than eight persons including the driver* per the regulations of the Federal Motor Carrier Safety Administration.



The 4 Row, 15 Passenger, Extended Van (shown above) would qualify as a Bus.



**Van / Enclosed Box:** A single-unit truck, truck/trailer, or tractor/semi-trailer having an enclosed body integral to the frame of the motor vehicle.



Both Van/Enclosed Box Cargo Design

**Hopper:** A truck body designed to carry grain, chips, gravel, etc.

**Gravel**



**Grain**



**Open Hopper**

Trucks transporting intermodal containerized loads are best treated as flatbed cargo body types rather than Van/Enclosed Box. The cargo container is not integral to the body and is part of the cargo.

**Pole:** A trailer designed to be attached to the towing vehicle by means of a reach or pole, or by being boomed or otherwise secured to the towing motor vehicle, ordinarily used for carrying property of a long or irregular shape.



**Cargo Tank:** a single-unit truck or truck tractor having a cargo body designed to transport dry bulk (fly, ash, etc.), liquid bulk (gasoline, milk), or gas bulk (propane).



**Flatbed:** cargo body is without sides or roof, with or without readily removable stakes which may be tied together with chains, slats, or panels. This includes trucks transporting containerized loads.



**Clarification - Flatbed:** cargo body is without sides or roof, **with or without readily removable stakes** which may be tied together with chains, slats, or panels. This includes trucks transporting containerized loads.



**Dump:** a cargo body designed to be tilted or otherwise manipulated to discharge its load by gravity.  
**Dumps can be belly, side or tail dumps.**



**Concrete Mixer** – a single-unit truck having a body specifically designed to mix or agitate concrete.



**Auto Transporter:** a cargo body designed specifically to transport other motor vehicles.

**Clarification** - a new style of Auto Transporter one with a covering or “skin” over the cargo area is designed to protect the vehicles. It is identifiable by the unique rear loading door (see photo). This is NOT a Van/Enclosed Box cargo body style. Also note this Vehicle Configuration is a Truck/Trailer NOT a Truck Tractor/Double (Note the location of the axles).



**Tow Trucks** - Specifically designed to transport disabled vehicles.

**Clarification** - flatbed-style tow trucks should NOT be classified as auto transporters.



**Flat Bed Tow Truck**

**Garbage / Refuse** – a single-unit truck having a body specifically designed to collect and transport garbage or refuse. This includes both conventional rear loading and over-the-top bucket loading garbage trucks.



**Garbage**

**Snow Plow-**



**Livestock** - Specifically designed to haul livestock.



**Drilling Equipment** - a semi trailer specifically designed to haul drilling equipment and/or drilling platforms unique to the oil industry. Typically these are very large equipment. No Photo available.

**Rationale:** Required by the Federal Motor Carrier Safety Administration.

## **V67. Commercial Cargo 2N** (Not in MMUCC) (WARS Page 9)

**Definition** - Cargo carried by this motor vehicle.

### **Attributes:**

- 1 Not Applicable (light motor vehicle without hazardous materials placard or bobtail)
- 2 General Freight
- 3 Household Goods
- 4 Heavy Machinery
- 5 Motor Vehicles
- 6 Gases in Bulk
- 7 Livestock
- 8 Solids in Bulk
- 9 Liquids in Bulk
- 10 Explosives
- 14 Other Hazardous Materials
- 11 Empty
- 12 Refrigerated Foods
- 13 Other
- 99 Unknown

**Clarification** - best source is the shipping manifest. Shipping manifest should always be checked for cargo contents.

**Rationale:** FARS requires this information.

## **V68. Number of Axles (Trucks over 10,000 lbs GVWR) 2N** (Not In MMUCC) (WARS Page 14)

**Definition** - The total number of axles on the truck or tractor trailer combination, including any auxiliary axles that may be lifted up and off the road surface.

### **Attributes:**

- 2 - 98
- 99 Unknown

**Rationale:** FARS requires the number or axles.

**V69. Hazardous Material Spill (Cargo Only) 1A (MMUCC V30 Page 58)(WARS Page 13)**

**Definition** - Release of hazardous materials from the cargo compartment. Does not include fuel from the motor vehicles own fuel tank. Hazardous materials that were released from the cargo compartment should be documented whether or not the motor vehicle displayed a placard.

**Attributes:**

**Y** Yes

**N** No

**X** Unknown

**Clarification** - If any amount of the hazardous material from the cargo compartment is released or spilled indicate YES. Does not matter if the vehicle properly displayed a placard or not. Do NOT include fuel from the vehicle's own fuel tank.

**Rationale:** Getting good data on crashes involving vehicles carrying Hazardous Materials and whether HM are spilled during the crash helps FMCSA focus on law enforcement efforts and safety requirements.

**V70. Hazardous Materials Placard 1A (MMUCC V30 Page 58)(WARS Page 12)**

**Definition** - Indication that a motor vehicle had a hazardous materials placard as required by federal and state regulations.



See Appendix G Hazardous Materials & Placards.

**Attributes:**

**Clarification** - If the vehicle is displaying a Hazardous Material Placard indicate Yes. Shipping Manifest should be checked to determine vehicles cargo contents, if the shipping papers indicate that the cargo is hazardous and the vehicle was not placarded indicate No.

## Shipping Papers Information:

(from USDOT Office of Hazardous Materials Safety) :

All vehicles transporting hazardous materials must accurately describe and identify the hazardous materials being transported in this sequence:

Proper shipping name (Common Name)

Hazard class or division (Should match the 1-digit placard # from the bottom of the diamond)

Material ID Number (Should match the 4-digit placard number or name taken from the middle of the diamond or from the rectangular box)

Packaging Group

Total Quantity

Shipping papers must also accurately communicate the hazards of the materials being transported. (i.e. corrosive, flammable, toxic)

Should contain an emergency response telephone number

**Rationale:** Required by the Federal Motor Carrier Safety Administration.

### **V71. HM Placard ID Number 4N** (MMUCC V30 Page 58) (WARS Page 12)

**Definition** - If this commercial motor vehicle has a hazardous materials placard as required by federal and state regulations record from the placard the Identification Number which is either UN or NA followed by a 4 digit number. The identification number may appear on the hazard class placard, orange panel or a white square-on-point configuration. ID numbers may not appear on Radioactive, Explosive, Dangerous or subsidiary placards. Some vehicles have multiple placards. Record all placard numbers.

#### **Attributes:**

**4 digit placard ID number**

### **V72. Second Placard ID Number 4N**

### **V73. Third Placard ID Number 4N**

**Clarification** - Transport of several materials may require more than one placard. If more than three placards are required use the narrative section of the report.

**Rationale:** Required by the Federal Motor Carrier Safety Administration.

## **V74. HM Placard Class 2N (MMUCC V30 Page 58)(WARS Page 13)**

**Definition** - If this commercial motor vehicle has a hazardous materials placard as required by federal and state regulations record from the placard the DOT Placard Class Code. The number located on the bottom of the diamond placard. This may be the most important number on the placard. Some older placards may not have a class number identification and status of the materials should be noted in the narrative section of the report.

### **Attributes:**

- 01 Class 1 Explosives**
- 02 Class 2 Gases (Flammable, Non Flammable, Poison and Toxic)**
- 03 Class 3 Flammable Liquids**
- 04 Class 4 Flammable Solids**
- 05 Class 5 Oxidizers & Organic Peroxides**
- 06 Class 6 Poisonous & Toxic**
- 07 Class 7 Radioactive Materials**
- 08 Class 8 Corrosives**
- 09 Class 9 Miscellaneous Hazardous Materials**
- 10 Other Placards (Dangerous Mixed Loads, Hot Markings)**
- 98 Not Applicable**
- 99 Unknown**

**Clarification** - the single digit number from the bottom of the diamond placard. If no number exist use Other, Not Applicable or Unknown and explain in the narrative.

## **V75. Second Placard Class Number 2N**

## **V76. Third Placard Class Number 2N**

**Clarification** - Transport of several materials may require more than one placard. If more than three placards are required use the narrative section of the report.

**Rationale:** (currently required by the Federal Motor Carrier Safety Administration

CFR 350.201) FMCSA devotes special attention to motor carriers that transport hazardous materials (HM), including imposing tighter regulation and conducting compliance reviews on a higher percentage of HM carriers. Getting good data on crashes involving trucks carrying HM and whether HM are spilled during the crashes helps FMCSA focus law enforcement efforts. This data element is collected at the scene because FMCSA requires reporting within 30-60 days.

**Reportable Crashes to FMCSA** - Crashes involving commercial motor vehicles and some non-commercial motor vehicles should be reported to the FMCSA. A commercial motor vehicle is any motor vehicle used on a trafficway for the transportation of goods, property or people in interstate or intrastate commerce.