E-CRASH DATA ELEMENT RECOMMENDATIONS

MMUCC vs. the PR-1

National MMUCC Guidelines (Model Minimum Uniform Crash Criteria) were establish in 1998 in response to requests by States interested in improving and standardizing their State motor vehicle crash data.

Uniformity of Motor Vehicle Crash Data

Lack of uniform reporting makes the sharing and comparison of State crash data difficult. Different elements and definitions can result in incomplete data and misleading results. Add to that edit rules, which have evolved over time without broad stakeholder input and which are now embedded into mobile data software used by officers at the crash scene, coupled with crash report training, which is outdated and/or non-existent and which has created a culture of attitude among law enforcement that the main reason for completing a crash report is for insurance purposes. Unfortunately for many states this remains fairly unchanged, reflecting the low priority often given to the "traffic function" in law enforcement.

National Guidelines

National Guidelines for motor vehicle crash reporting have continued to evolve. The 3rd Edition of the National MMUCC Guidelines was published in 2008. This updated comparison of the National Guidelines with the PR-1 is based on 75 data elements, recommended for law enforcement to collect at the scene of a crash. The designation of these 75 recommended data elements is divided into crash, vehicle and person level data:

▪ **Crash Level**	page - 3	18 data elements related to the	**C**rash	(date, location, first harmful event, weather, etc.)
▪ **Vehicle Level**	page - 16	30 data elements related to the	**V**ehicle(s) involved	(body type, maneuver, sequence of events, etc.)
▪ **Person Level**	page - 43	27 data elements related to the	**P**eople involved	(person type, driver actions, injury status, etc.)

The designation of each of these data elements within the National Guidelines - utilizes a **C**, **V** or a **P**, followed by a numeric value (C1 Case Identifier, C2 Crash Date and Time, V1 Motor Vehicle Identification Number (VIN), P1 Date of Birth, etc.). In addition to the 75 data elements recommended to be captured at the scene, MMUCC recommends that 10 additional data elements be derived (day of week, age of driver, number of vehicles involved, etc.) from data collected at the scene. MMUCC also recommends that 22 additional data elements be obtained after linkage to driver history (driver license status, restrictions, etc.), roadway (curvature, grade, etc.) or other State data.

State Moves to Adopt National Guideline Recommendations

The following pages include a **4th column** (**User Needs - Illustrations - Background - Recommendations),** which has been added to the MMUCC Guideline / PR-1 Crash Comparison.

Note: The first 3 columns of this comparison
represent the MMUCC/PR-1 component
of the Section 408 Application for Safety Data Improvement funding
submitted to the
National Highway Traffic Safety Administration

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the 4th column represents
user needs for each data element,
illustrations, background information
and recommendations

Adopt National Guideline Recommendations

focusing on electronic crash reporting
that excludes all questions and/or data element fields
that are not applicable to the crash,
the PR-1 work group and the TRCC have agreed in principle
to the importance of
MMUCC compliance following
National Guideline recommendations

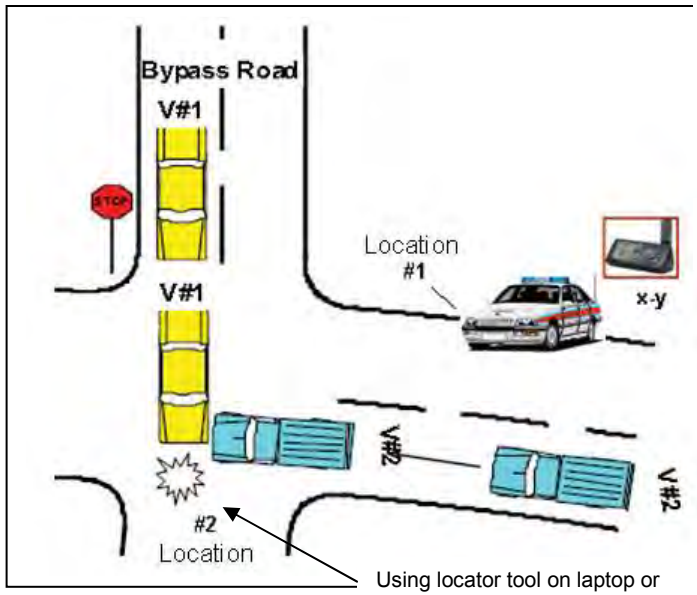
Data Element in MMUCC *(First column)*	Comparison with PR-1 *(Second column)*	DOT Crash File *(Third column)*	User Needs - Illustrations - Background - Recommendations *(Fourth column)*

---------- CRASH LEVEL DATA ELEMENTS ----------

(To be collected at the crash scene)

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Case Identifier (C1) Definition: The unique identifier within a given year that identifies a given crash within a state. Attribute: State specific identifier Rationale: Used to document a specific crash. If this identifier is available at the scene, it can also be recorded on the EMS record for linkage purposes. Enables subfiles to be created for analyses and linked back to the crash data file.	**DOT Use Only** Definition: Special DOT coding used to track the accident cases within the DOT system. **Police Case Number** Definition: The case number that a department assigned to this accident case. See page 19 in Investigator's Guide	For use by DOT only. The police case number from the PR-1 is not entered into the DOT Crash file.	Goal is for a unique State specific identifier – to be addressed with the development of a State Crash Data Repository (CDR). ✓ **Adopt** C1 as recommended in the National Guidelines. **User Needs** - important to be able to link subfiles used for analyses back to the crash data file. Unique identifier to be a system generated identification number made up of alphanumeric characters. Currently, there is no unique identifier statewide.
Crash Date and Time (C2) Definition: The date (year, month, and day) and time (00:00-23:59) at which the crash occurred. Attribute: Date and Time (YYYYMMDDHHMM) Absence of year should result in an edit check. In rare situations, MMDDHHMM can be unknown. Midnight is designated as 00:00 and is considered the start of a new day. Rationale: Important for management/administration, evaluation, and linkage.	**Date of Accident** Definition: The date (month, day and year) Code Format: MMDDYY **Military Time** Definition: The time that the accident occurred using Military Time. Code Format: HHMM Note: The time of the accident is not necessarily the time that the investigating officer was dispatched to the scene. Page 19 – Investigator's Guide	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Accident Summary Record.	✓ **Adopt** C2 as recommended in the National Guidelines. Code midnight as 00:00 **User Needs -** The date and time should refer to when the crash occurred, not when the investigating agency was notified or dispatched to the scene.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Crash County (C3) Definition: The county or equivalent entity in which the crash occurred. Attribute: □ Name of the County Record the county or equivalent entity in which a crash occurred. If codes are used instead of name, use the GSA Geographic Locator Codes (GLC) that can be found at: www.gsa.gov. See Appendix G. If state-assigned codes are used, they should be convertible to the GSA / FIPS format. Rationale: Important for analyses of county area programs such as "Safe Communities." Critical for linkage of the crash file to other state data files (EMS, hospital, roadway, etc.). Important for intrastate comparisons.	**County** Note: Not contained on the PR-1 Crash Form.	Not recorded	Can derive County from the Town codes. County is a recommended data element in MMUCC. **User Needs** - important for linking the crash file to other state data files, e.g., EMS, roadway, etc.
Crash City/Place (C4) - Political Jurisdiction Definition: The city /place (political jurisdiction) in which the crash occurred. Attribute: □ Name of the Political Jurisdiction Record the name identifying the city /place in which the crash occurred. If codes are used instead of names, use the GSA Geographic Locator Codes (GLC) that can be found at www.gsa.gov. See Appendix D. If state-assigned codes are used, they should be convertible to the GSA/FIPS format. Rationale: Important for analyses of local area programs such as "Safe Communities." Critical for linkage of the crash file to other state data files (EMS, hospital, roadway, etc.).	**Town or City** Definition: The name of the city or town in which the accident occurred. Attribute: □ Town or City Name Page 20 – Investigator's Guide Page 32 in Guide for a list of towns (with town codes).	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Accident Summary Record.	City is a recommended data element in MMUCC. ✓ **Adopt** C4 as recommended in the National Guidelines. **User Needs** - important for analyses of local area programs.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Crash Location (C5) Definition: Exact location on the roadway to document where the first harmful event of the crash occurred. Attributes: □ Latitude / Longitude Coordinates The optimum definition of Crash Location is a route name and GPS (global positioning system)/GIS (geographic information system), if a highway agency has a linear referencing system that can relate geographic coordinates to specific locations in road inventory, traffic, driver, and other files. The location information in a crash file must have the capability to be linked to location information in these other important files required to study site-specific safety issues. GPS/GIS provides the latitude/longitude coordinates indicating where the crash occurred. □ Linear Referencing System (LRS) An LRS can create complex overlays of multiple events or occurrences along a route to support corridor planning, pavement rehabilitation, or other complex analysis. An LRS permits users to share information maintained by different data providers across different data layers. An LRS is not created by the geographic information system (GIS), but is actually replicated to model what is in the field. All linear data (traffic volumes, pavement types, speed limit zones, etc.) and point data (crashes, signs, etc.) collection efforts need only specify the location or endpoint locations in terms of the LRS components. □ Link Node System (not recommended) Note: States with no system or a link node system should plan to develop or upgrade to a linear referencing system or one that documents latitude/longitude coordinates. Rationale: Critical for problem identification, prevention programs, engineering evaluations, mapping, and linkage purposes.	**Accident Occurred On** Definition: Enter the Street Name and/or the Route Number upon which the accident occurred. **At Its Intersection With** Definition: If the accident occurred at an intersection, enter the Street Name and/or the Route Number of the Intersecting Street. Note: When two vehicles both traveling on different roads have an accident at the intersection of those roads, the road that was being traveled by the vehicle whose operator violated the traffic control (i.e., stop sign; yield sign; traffic signal, etc.) or failed to grant the right of way, should appear as the road that the accident occurred on. **If Not At Intersection** Definition: Fields used to describe the exact location of any accident not occurring at an intersection. The investigator measures the distance between the point of accident and the nearest intersection, town line or mile marker. Note: Further definition – pages 20-21, Investigator's Guide **Refer to Frequency Lists for:** ***Route Class** ***At or Between Intersections** ***Roadway Type** **GPS Readings** GPS technology will provide Latitude, Longitude and Time readings that can be converted to a roadway location. See page 19 in Investigator's Guide for instructions, as well as availability and use.	✓ This data element is entered into DB – DOT Crash file **From the information contained on the PR-1, Coders determine:** -Route Class -Route/Local Rd Number -Route Letter -Cum Route Mileage -etc. Source – ConnDOT Collision Analysis System: Description of Accident Summary Record.	Location (C5) is a recommended data element in MMUCC. Route Name, #, and GPS-GIS reference. **Recommendation:** ✓ **ConnDOT Coders to continue current location coding procedures** ✓ **Law Enforcement to continue recording latitude/longitude data into the electronic PR-1**. DPS already utilizes this data within their own system to record "hotspots" and to compare other data, e.g., construction related, speed or other contributing circumstances to determine appropriate enforcement countermeasures. Latitude/longitude data will be included along with all other electronic PR-1 data that is uploaded to the proposed new Crash Data Repository (CRD) **The following is included for informational/training purposes:** ---------- C5 relates to C7 – Location of First Harmful Event Relative to the Trafficway, in addition to a variety of Trafficway specific data elements: C15 Relation to Junction ✓ (See diagrams – page 39) C16 Type of Intersection ✓ " – page 39 C18 Work Zone-Related ✓ " – page 41 V14 Trafficway Description ✓ " – page 38, 43 V13 Direction of Travel Before Crash V17 Traffic Control Device V12 Motor Vehicle Posted/Statutory Speed Limit V15 Total Lanes in Roadway V16 Roadway Alignment and Grade All of These relate to Crash Location Challenge – Exact location of First Harmful Event (FHE) **(Refer to Frequency List)**  Portable GPS Using locator tool on laptop or MDT, officer can drag the x-y to the location of the FHE

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)

First Harmful Event (C6)

Definition: The first injury or damage-producing event that characterizes the crash type.

Attributes:

Non-Collision:
- Overturn / Rollover
- Fire / Explosion
- Immersion
- Jackknife
- Cargo /Equipment Loss or Shift
- Fell /Jumped from Motor Vehicle
- Thrown or Falling Object
- Other Non-Collision

Collision with Person, Motor Vehicle, or Non-Fixed Object:
- Pedestrian
- Pedalcycle
- Railway Vehicle (train, engine)
- Animal
- Motor Vehicle in Transport
- Parked Motor Vehicle
- Struck by Falling/Shifting Cargo or Anything Set in Motion by Motor Vehicle
- Work Zone /Maintenance Equipment
- Other Non-Fixed Object

Collision with Fixed Object:
- Impact Attenuator/Crash Cushion
- Bridge Overhead Structure
- Bridge Pier or Support
- Bridge Rail
- Cable Barrier
- Culvert
- Curb
- Ditch
- Embankment
- Guardrail Face
- Guardrail End
- Concrete Traffic Barrier
- Other Traffic Barrier
- Tree (standing)
- Utility Pole /Light Support
- Traffic Sign Support
- Traffic Signal Support
- Fence
- Mailbox
- Other Post, Pole or Support
- Other Fixed Object (wall, building, tunnel, etc.)
- Unknown

Collision Type (R)

Definition: Select the code which best describes the initial or first harm producing event.

Attributes:
- Turning – Same Direction
- Turning – Opposite Direction
- Turning – Intersecting Paths
- Sideswipe – Same Direction
- Sideswipe – Opposite Direction
- Miscellaneous – Non Collision
- Overturn
- Angle
- Rear – End
- Head – On
- Backing
- Parking
- Pedestrian
- Jackknife
- Fixed Object
- Moving Object
- Unknown

See page 12 in Investigator's Guide for further explanation of the appropriate code to use in describing the initial or first harm producing event.

Object Struck (J)

Definition: Utilize these fields to describe objects impacted by vehicles involved in the accident. Two objects may be coded for each involved vehicle.

Attributes:
- Animal other than Deer
- Bank, Ledge, Rock (Off Road)
- Bridge Structure
- Building, House
- Catch Basin, Manhole
- Construction Barricade, Barrel
- Culvert, Endwall
- Curbing
- Deer
- Ditch
- Fence
- Fire Hydrant
- Foreign Object on Pavement
- Highway Sign, Post, Delineator
- Illumination Pole
- Impact Attenuator

✓
This data element is entered into DB – DOT Crash file

Source – ConnDOT Collision Analysis System: Description of Accident Summary Record.

First Harmful Event (C6) is a recommended data element in MMUCC.

Recommendation:

✓ **Adopt** C6 as recommended in the National Guidelines. Additional recommendation, is to separate motor vehicle crash type into C6 and C8. C8 (Manner of Crash), provides a detailed breakdown of the first harmful event involving two motor vehicles in transport.

The following is included for informational/training purposes ----------

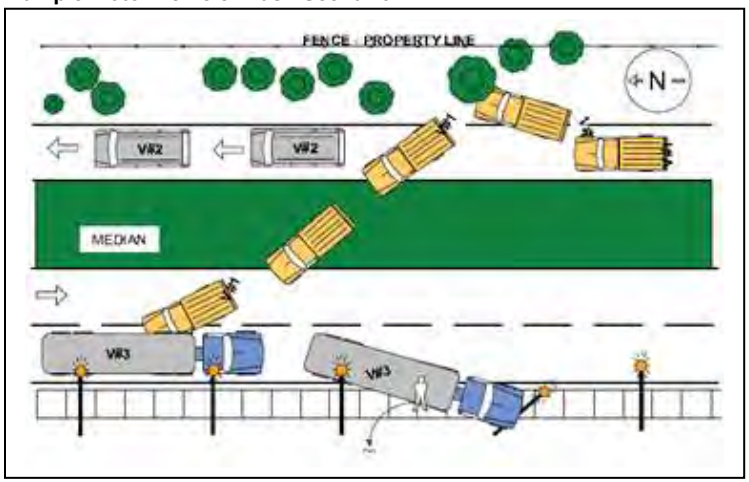
C6 relates to **crash event** data elements, including:

V18 Motor Vehicle Maneuver/Action
P15 Driver Distracted By
P13 Driver Actions at Time of Crash
V20 Sequence of Events
C7 Location of First Harmful Event Relative to the Trafficway
V21 Most Harmful Event for This Motor Vehicle
V23 Hit and Run

National Guideline

Crash Event Related Data Elements at the -Person, -Vehicle, and -Crash levels

Example Motor Vehicle Crash Scenario

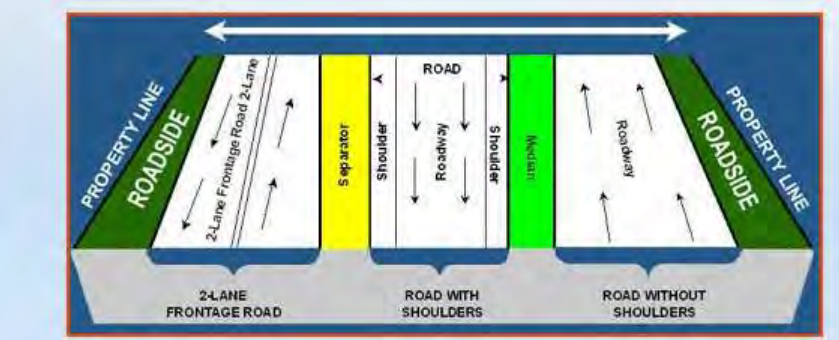


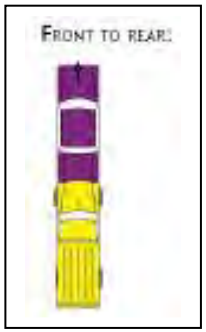
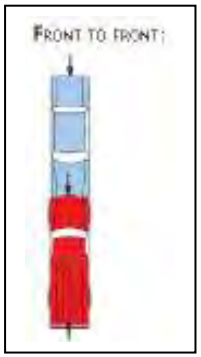
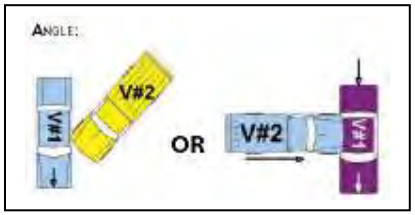
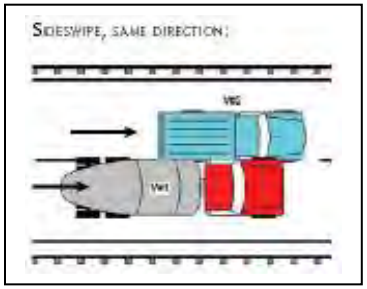
For example of narrative - relating to this motor vehicle crash scenario

refer to page 133 in the MMUCC Guideline

Example Scenario using **National Guideline** – recommended data elements

V18) Vehicle maneuver – Vehicle #1 moving essentially straight P15) Driver (Vehicle #1) is distracted P13) Driver (Vehicle #1) following too close P13) Driver (Vehicle #1) swerved to avoid a motor vehicle V20) Ran off rdwy right (Vehicle #1 - 1st event) V20) Collision with tree (Vehicle #1 - 2nd event) **C06) First harmful event (FHE) – collision with tree** C07) Roadside – location of FHE relative to Trafficway	V20) Cross median (Vehicle #1 - 3rd event) V20) Collision with MV in Trans (Vehicle #1 - 4th event) **V21) Most harmful event (Veh #1) – Collision with MV in Transport** V23) Hit and Run (only if Vehicle #1 departed the scene without stopping to render aid)

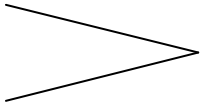
MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Location of First Harmful Event Relative to the Trafficway (C7) Definition: The location of the first harmful event as it relates to its position within or outside the trafficway. See Appendix E for a diagram of the trafficway. Attributes: □ On Roadway □ Shoulder □ Median □ Roadside □ Gore □ Separator □ In Parking Lane or Zone □ Off Roadway, Location Unknown □ Outside Right-of-Way (trafficway) □ Unknown Rationale: Important to identify highway geometric deficiencies.	**Object(s) Location (K)** Definition: This field may only be used in tandem with the object struck field. An object location code must be selected for each object struck coded above. Attributes: □ Off Road & Shoulder Ahead □ In Roadway □ On Shoulder, Right □ On Shoulder, Left □ Off Road & Shoulder, Right □ Off Road & Shoulder, Left □ On Median Divider □ Gore Area, Ramp Nose □ Over Roadway See page 7 in Investigator's Guide for further definition of select attribute locations, e.g., Off Road & Shoulder Ahead, and Gore Area.	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Accident Summary Record.	C7 is a recommended data element in MMUCC. Location of the FHE as it relates to its position within or outside the trafficway (not the final resting place of the vehicle). **Recommendation:** ✓ **Adopt** C7 as recommended in the National Guidelines  Trafficway: Any land way open to the public as a matter of right or custom for moving persons or property from one place to another. Refer to C5 (above), relative to other data elements. **User Needs** - For engineering and other highway safety officials to be able to analyze specific areas of a trafficway as they relate to motor vehicle crash involvement. **(Refer to Frequency List)**

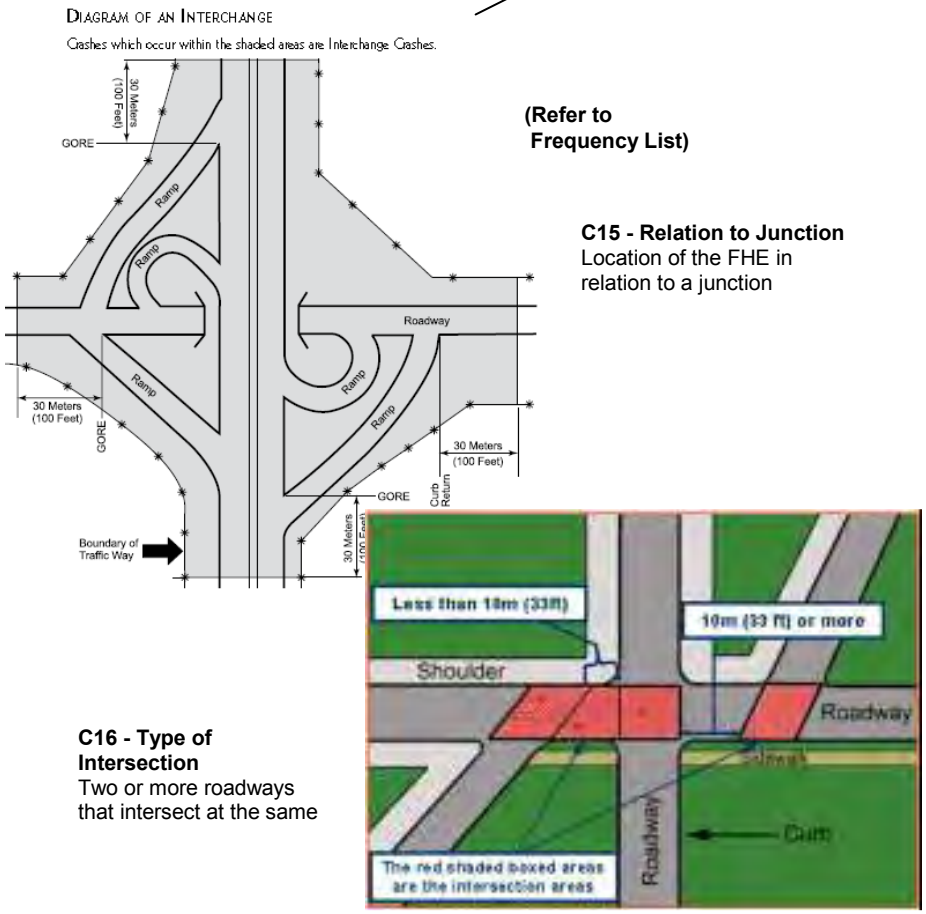
MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Manner of Crash/Collision Impact (C8) Definition: The identification of the manner in which two motor vehicles in transport initially came together without regard to the direction of force. This data element refers only to crashes where the first harmful event involves a collision between two motor vehicles in transport. See Appendix F for a diagram of the manner of collision. Attributes: □ Front to Rear □ Front to Front □ Angle □ Sideswipe, Same Direction □ Sideswipe, Opposite Direction □ Rear-to-Side □ Rear-to-Rear □ Other □ Unknown Rationale: Important for evaluation of occupant injuries and structural defects. This data element can be used in conjunction with **Motor Vehicle Maneuver/Action (V18)** to describe the crash.	**Collision Type (R)** Definition: Select the code which best describes the initial or first harm producing event. Attributes: □ Turning – Same Direction □ Turning – Opposite Direction □ Turning – Intersecting Paths □ Sideswipe – Same Direction □ Sideswipe – Opposite Direction □ Miscellaneous – Non Collision □ Overturn □ Angle □ Rear – End □ Head – On □ Backing □ Parking □ Pedestrian □ Jackknife □ Fixed Object □ Moving Object □ Unknown See page 12 in Investigator's Guide for further explanation of the appropriate code to use in describing the collision type (initial or first harm producing event).	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Accident Summary Record.	C8 is a recommended data element in MMUCC. ✓ **Adopt** C8 as recommended in the National Guidelines. Additional proposal as described above is to separate motor vehicle crash type into C6 and C8, which further illustrates examples of the first harmful event involving two motor vehicles in transport. **The following is included for informational/training purposes** ---------- Further discussion is also recommended regarding the application of the edit rules for the PR-1, embedded into the crash reporting software, which can be restrictive in allowing the officer to record the manner in which two motor vehicles come together on limited access highways. **(Refer to Frequency List)** Examples of first harmful event - two vehicles    
Source of Information (C9) Definition: Affiliation of the person completing the crash report. Attributes: **Source of Information** □ Law Enforcement Agency Identifier □ Motorist Rationale: Important for quality control and identification purposes. The law enforcement reporting agency identifier is critical to report SAFETYNET crashes.	**Investigating Agency Data** Definition: Specific information relative to the investigation; the investigator; and the investigating agency will be entered in the appropriate fields. a) Rank and Signature of Investigating Officer b) Officer ID# c) Police Agency Identification d) Report Date e) Case Status ( ) Open; ( ) Closed f) Supervisor Page 31 – Investigator's Guide	The following data elements from the PR-1 are not entered into the DOT Crash file. -Invest Officer ID -Invest Officer Rank -Invest Officer Name -Police Agency ID -Case Status -Supervisor Name	Source is a recommended data element in MMUCC. **User Needs** - for quality control/law enforcement agency identifier important for crashes reported to SAFETYNET.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Weather Conditions (C10) Definition: The prevailing atmospheric conditions that existed at the time of the crash. Attributes: **Subfield 1:** Weather Condition 1 □ Clear □ Cloudy □ Fog, Smog, Smoke □ Rain □ Sleet, Hail (freezing rain or drizzle) □ Snow □ Blowing Snow □ Severe Crosswinds □ Blowing Sand, Soil, Dirt □ Other □ Unknown **Subfield 2:** Weather Condition 2 See attributes in Subfield 1 Rationale: Important for management /administration and evaluation. Critical for prevention programs and engineering evaluations.	**Weather Condition (A)** Definition: The weather condition (that most influenced the accident occurrence) at the time the accident occurred. Attributes: □ No Adverse Condition □ Rain □ Sleet □ Hail □ Snow □ Fog □ Blowing Sand, Soil, Dirt or Snow □ Severe Crosswinds □ Other □ Unknown Investigator's Guide, page 4 – Enter the one code which best describes the weather conditions at the time the accident occurred. In the event that more than one code applies, please enter the code in which in your opinion best describes the condition that most influenced the accident occurrence.	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Accident Summary Record.	Attribute changes recommended in addition to those already recorded on the PR-1. • Sleet combined with hail • Smog, smoke added to fog • Blowing snow separated out **(Refer to Frequency List)** 104,187 Total crashes – 2008 Connecticut Statewide – clear 81,705, rain 15,411, snow 4,809, sleet 550, fog 488, hail 4, unknown or other 1,220, blowing sand, soil, dirt or snow 0, severe crosswinds 0 MMUCC allows for recording more than one weather condition attribute. Currently, only one code is recorded on the PR-1.  **User Needs -** important for analysis and evaluation leading to engineering/highway safety applications for crash prevention initiatives.

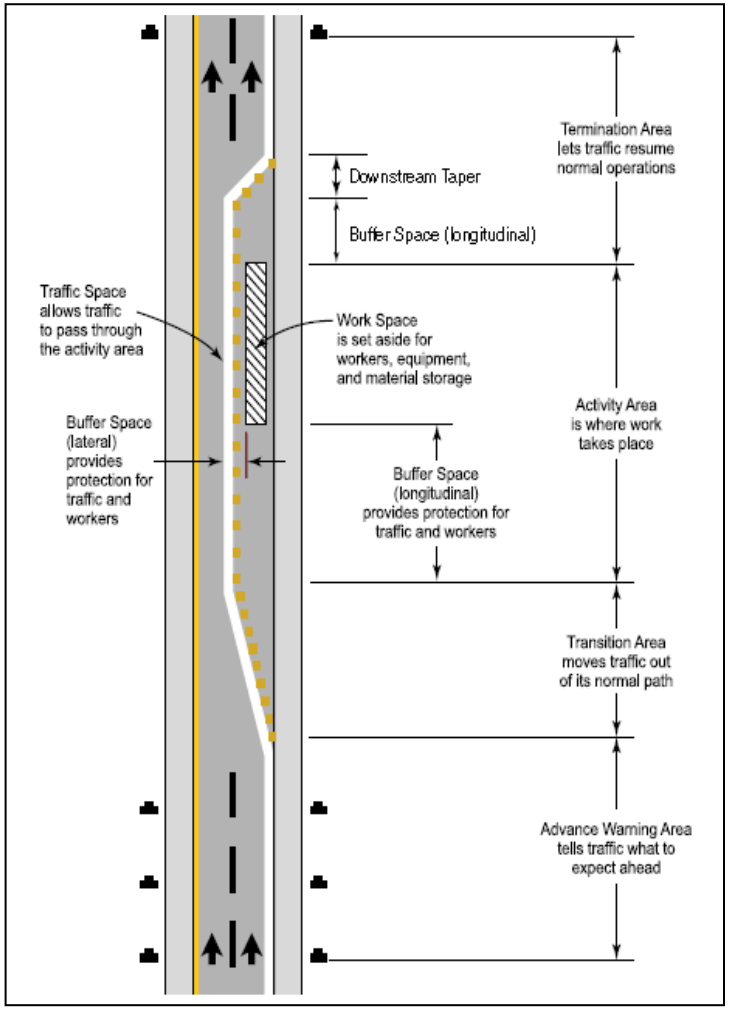
MMUCC Guideline	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Light Condition (C11) Definition: The type /level of light that existed at the time of the motor vehicle crash. Attributes: □ Daylight □ Dawn □ Dusk □ Dark — Lighted □ Dark — Not Lighted □ Dark — Unknown Lighting □ Other □ Unknown Rationale: Important for management /administration and evaluation. Critical for prevention programs and engineering evaluations.	**Light Condition ©** Definition: The light condition at the time of the accident. Attributes: □ Daylight □ Dark – Not Lighted □ Dark – Lighted □ Dawn □ Dusk □ Unknown Page 4 – Investigator's Guide	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Accident Summary Record.	Attributes recommended in addition to those already recorded on the PR-1 include: • Dark – Unknown Lighting, and • Other **(Refer to Frequency List)** 104,187 Total crashes – 2008 Connecticut Statewide – daylight 72,125, dark lighted 21,478, dark not lighted 7,993, dusk 1,107, dawn 737, unknown 747 **User Needs –** important for analysis and evaluation leading to engineering/highway safety applications for crash prevention initiatives.
Roadway Surface Condition (C12) Definition: The roadway surface condition at the time and place of a crash. Attributes: □ Dry □ Wet □ Snow □ Slush □ Ice / Frost □ Water (standing, moving) □ Sand □ Mud, Dirt, Gravel □ Oil □ Other □ Unknown Rationale: Important to identify and correct high wet-surface crash locations and provide information for setting coefficient of pavement friction standards. Critical for prevention programs and engineering evaluations.	**Road Surface Condition (B)** Definition: The condition of the road surface at the time of the accident. Attributes: □ Dry □ Wet □ Snow/Slush □ Ice □ Sand, Mud, Dirt or Oil □ Other □ Unknown Page 4 – Investigator's Guide	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Accident Summary Record.	✓ **Adopt** – data element attributes for Roadway Surface Condition recommended in MMUCC. Attribute changes recommended in addition to those already recorded on the PR-1 include: • Snow/Slush – separated into individual attributes • Ice – expanded to include Frost • Sand and Oil separated from attribute on PR-1 • Gravel added to Mud and Dirt **(Refer to Frequency List)** 104,187 Total crashes – 2008 Connecticut Statewide – dry 74,348, wet 20,498, snow/slush 5,658, ice 2,401, sand, mud, dirt, oil 335, unknown/other 947  **User Needs -** important for analysis and evaluation leading to engineering/highway safety applications for crash prevention initiatives. For any data element changes, important to be able to map old data to the new to be able to compare totals from a previous year to newer years with updated attribute values.

MMUCC Guideline	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Contributing Circumstances, Environment (C13) Definition: Apparent environmental conditions which may have contributed to the crash. Attributes: **Subfield 1:** Environmental Circumstances 1 □ None □ Weather Conditions □ Physical Obstruction(s) □ Glare □ Animal(s) in Roadway □ Other □ Unknown **Subfield 2:** Environmental Circumstances 2 See attributes for Subfield 1 **Subfield 3:** Environmental Circumstances 3 See attributes for Subfield 1 Rationale: Important to determine existence of unusual conditions that could be useful in determining the need for additional traffic control devices or geometric improvements. (Pedestrians and pedalcyclists are covered in traffic units.)	**Contributing Circumstances, Environment (W)** Note: Not contained on PR-1 Crash Form; however, data element Contributing Factor contains the following attributes. Attributes: □ Driver's View Obstructed □ Animal or Foreign Object in Road See page 15 in Investigator's Guide for an example of "Driver's View Obstructed." Other information/examples provided.	Not recorded	Contributing Circumstances Environment (C13) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** C13 as recommended in the National Guidelines. **The following is included for informational/training purposes** ---------- **User Needs** – important to determine existence of unusual conditions that could be useful in determining the need for additional traffic control devices or geometric improvements. C13 relates to a variety of Environment specific related data elements: C10 Weather Conditions C11 Light Condition C12 Roadway Surface Condition C14 Contributing Circumstances Road Environment specific related data elements **W. CONTRIBUTING FACTOR:** Select the one factor whose absence you believe would have provided the greatest probability that the accident could have been avoided. The contributing factor is a circumstance associated with the accident that analysts or reconstructionists should be aware of if they want to take action to prevent recurrence of the crash. **W. CONTRIBUTING FACTOR (Select one only)** 01. Driving on the Wrong Side of Road 02. Speed Too Fast for Conditions 03. Violated Traffic Control 04. Under the Influence 05. Failed to Grant Right of Way 06. Improper Passing Maneuver 07. Improper Lane Change 08. Following Too Closely 09. Slippery Surface 10. Driver Lost Control 11. Animal or Foreign Object in Road 12. Fell Asleep 13. Defective Equipment 14. Driver Illness 15. Driver's View Obstructed 16. Unsafe Tires 17. Unsafe Use of Highway by Pedestrian 18. Unsafe Right Turn on Red 19. Driverless Vehicle 20. Insufficient Vertical Clearance 21. Proper Turn Signal Not Displayed 22. Disabled or Illegally Parked Vehicle 23. Abnormal Road Condition 24. Vehicle Without Lights 25. Traffic Signal Not Operating 26. Vehicle Involved in Emergency 27. Entered Roadway in Wrong Direction 28. Roadway Width Restricted 29. Unknown 30. Unsafe Backing 31. Improper Turning Maneuver **Example:** It has been determined that a driver had a view that was obstructedby the sun, was driving too fast for conditions, and violated a red traffic signal. The best contributing factor would be (15) DRIVER'S VIEW OBSTRUCTED. If the view was not obstructed, appropriate action would have been possible. Enforcement action would explain the rest of the events.

MMUCC Guideline	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Contributing Circumstances, Road (C14) Definition: Apparent condition of the road which may have contributed to the crash. Attributes: **Subfield 1:** Road Circumstances 1 □ None □ Road Surface Condition (wet, icy, snow, slush, etc.) □ Debris □ Rut, Holes, Bumps □ Work Zone (construction /maintenance /utility) □ Worn, Travel-Polished Surface □ Obstruction in Roadway □ Traffic Control Device Inoperative, Missing or Obscured □ Shoulders (none, low, soft, high) □ Non-Highway Work □ Other □ Unknown **Subfield 2:** Road Circumstances 2 See attributes in Subfield 1 **Subfield 3:** Road Circumstances 3 See attributes in Subfield 1 Rationale: Important to determine highway maintenance and possible engineering needs.	**Contributing Factor (W)** Definition: Factors mostly attributed to the driver, include the following attributes related to the Road. Attributes: □ Slippery Surface □ Abnormal Road Condition □ Traffic Signal Not Operating □ Roadway Width Restricted See page 15 in Investigator's Guide for instructions/examples for recording most of the attributes listed.	Not recorded	Contributing Circumstances Road (C14) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** C14 as recommended in the National Guidelines. Refer to P13 and comparative stakeholder suggestions. • Allow for more than one attribute to be recorded • Allow for unknown or undetermined contributing factor • Allow for "none" for a contributing factor **User Needs** – important to determine highway maintenance and possible engineering needs. **The following is included for informational/training purposes** ---------- C14 relates to a variety of Environment specific related data elements: C10 Weather Conditions C11 Light Condition C12 Roadway Surface Condition C13 Contributing Circumstances Environment  Environment specific related data elements

MMUCC Guideline	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Relation to Junction (C15) Definition: The location of the first harmful event in relation to a junction. Attributes: **Subfield 1:** Junction □ Non-Junction □ Intersection □ Intersection-Related □ Entrance /Exit Ramp □ Railway Grade Crossing □ Crossover-Related □ Driveway, Alley-Access-Related □ Shared-Use Path or Trail □ Acceleration/Deceleration Lane □ Through Roadway □ Other Location not listed above within an Interchange Area (median, shoulder and roadside) □ Unknown **Subfield 2:** Within Interchange Area □ No □ Yes □ Unknown Rationale: Important for site-specific safety studies to identify locations with actual or potential problems.	**Other Roadway Feature (E)** Definition: This data element is used to describe that feature whose presence at the accident site significantly impacted the accident occurrence. Attributes: □ Intersection with Public Road □ Intersection with Private Road □ Intersection with Residential Drive □ Intersection with a Commercial Drive □ On a Bridge □ At a Railroad (RR) Crossing □ At a Median Crossover □ At an On Ramp □ At an Off Ramp □ No Influential feature detected (See examples – page 5 in Investigator's Guide) If an accident is related to an intersection, even though the physical location of the collision is not at the intersection, the appropriate intersectional code 1-4, 8 or 9 should be coded. **Accident Occurred On (D)** Definition: This data element is used to describe the roadway upon which the accident occurred. Attributes: □ Main Roadway □ On Ramp □ Off Ramp □ HOV Lane □ Collector-Distributor Roadway □ Service or Rest Area □ Weigh Station □ Connector (See further explanation of the use of these categories/codes – page 4 in Investigator's Guide)	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Accident Summary Record.	Relation to Junction (C15) is a recommended data element in MMUCC. Contains two subfields, a) for Junction description and b) whether or not located within an interchange area. **Recommendation:** ✓ **Adopt** C15 as recommended in the National Guidelines. ConnDOT Coders must be able to continue their current location coding procedures (refer to C5). **The following is included for informational/training purposes** ---------- Refer to C5 Crash Location. C15 is related to C16 Type of Intersection, as well as to a number of other crash and vehicle level data elements. V14 Trafficway Description V13 Direction of Travel Before Crash V17 Traffic Control Device V12 Motor Vehicle Posted/Statutory Speed Limit → Crash location and vehicle level related data elements **(Refer to Frequency List)** **C15 - Relation to Junction** Location of the FHE in relation to a junction **C16 - Type of Intersection** Two or more roadways that intersect at the same 

MMUCC Guideline	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Type of Intersection (C16) Definition: An intersection consists of two or more roadways that intersect at the same level. See Appendix H for a diagram of the intersection. Attributes: □ Not at Intersection □ Four-Way Intersection □ T-Intersection □ Y-Intersection □ Traffic Circle □ Roundabout □ Five-Point, or More Rationale: Important for site-specific safety studies to identify actual or potential safety problem locations.	**Type of Intersection** Note: Not contained on the PR-1 Crash Form.	Not recorded	Type of Intersection (C16) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** C16 as recommended in the National Guidelines. ConnDOT Coders must be able to continue their current location coding procedures (refer to C5). **User Needs** – important for site location safety studies for engineering and other highway safety officials. **The following is included for informational/training purposes** ---------- Refer to C5 Crash Location. C16 is related to C15 Relation to Junction, as well as to a number of other crash and vehicle level data elements. V14 Trafficway Description V13 Direction of Travel Before Crash V17 Traffic Control Device V12 Motor Vehicle Posted/Statutory Speed Limit (See diagram previous page)
School Bus-Related (C17) Definition: Indicates whether a school bus or motor vehicle functioning as a school bus for a school-related purpose is involved in the crash. The "school bus," with or without a passenger on board, must be directly involved as a contact motor vehicle or indirectly involved as a non-contact motor vehicle (children struck when boarding or alighting from the school bus, two vehicles colliding as the result of the stopped school bus, etc.). Attributes: □ No □ Yes, School Bus Directly Involved □ Yes, School Bus Indirectly Involved Rationale: Important in determining where and how school children are at the greatest risk of injury when being transported by school bus and the extent to which school bus operations affect overall traffic safety.	**School Bus-Related (H)** Note: School bus may be recorded either as a contact or non-contact vehicle. Vehicle Type, and Vehicle Maneuver. Vehicle Type (9) School Bus Vehicle Maneuver (S) Prefix 1. None apply 2. Vehicle slowing for 3. Vehicle stopped for 4. Vehicle skidded slowing or stopping for 5. Vehicle avoiding (T) Suffix 48. School Bus Pages 6 and 13 in the Investigator's Guide.	Not recorded	✓ **Adopt** C17 as recommended in the National Guidelines. **User Needs** - importance of child safety going to and from school; being able to determine where school children are at risk. From stakeholder discussion – data element can be determined elsewhere … - Page 21 in Investigator's Guide. If school bus is involved as a contact vehicle, check box ☐ Vehicle - would be checked. If the school bus is indirectly involved, check box ☐ Non-Contact Vehicle - would be checked.

MMUCC Guideline	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Work Zone-Related (Construction /Maintenance / Utility) (C18) Definition: A crash that occurs in or related to a construction, maintenance, or utility work zone, whether or not workers were actually present at the time of the crash. "Work zone-related" crashes may also include those involving motor vehicles slowed or stopped because of the work zone, even if the first harmful event occurred before the first warning sign. See Appendix I for a diagram of the work zone area. Attributes: **Subfield 1:** Was the crash in or near a construction, maintenance or utility work zone? □ Yes (complete Subfields 2–5) □ No □ Unknown **Subfield 2:** Location of the Crash: □ Before the First Work Zone Warning Sign □ Advance Warning Area □ Transition Area □ Activity Area □ Termination Area **Subfield 3:** Type of Work Zone: □ Lane Closure □ Lane Shift /Crossover □ Work on Shoulder or Median □ Intermittent or Moving Work □ Other **Subfield 4:** Workers Present: □ No □ Yes □ Unknown **Subfield 5:** Law Enforcement Present: □ No □ Officer Present □ Law Enforcement Vehicle Only Present ⇨ Rationale: Important to assess the impact on traffic safety of various types of on-highway work activity, to evaluate Traffic Control Plans used at work zones, and to make adjustments to the	**Construction or Maintenance Related (G)** Definition: Data element that describes the influence that highway construction or roadway maintenance activities had upon the occurrence of the accident. Attributes: Construction or maintenance related? □ Yes □ No An accident need not involve construction or maintenance vehicles or equipment nor need it have occurred within the actual work site in order to be considered a construction or maintenance related accident. Page 6 in the Investigator's Guide. Traffic Control Plans for the safety of workers and the traveling public. This data element needs to be collected at the scene because work zones are relatively short term or moving operations that are not recorded in permanent road inventory files.	Not recorded	Work Zone-Related Construction/Maintenance/Utility (C18) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** C18 as recommended in the National Guidelines. ConnDOT Coders must be able to continue their current location coding procedures (refer to C5). **The following is included for informational/training purposes** ----------  Recommended data element for Work Zone (C18), also related to new definition in the 7th Edition of the ANSI D16.1 Manual on Classification of Motor Vehicle Traffic Accidents. **User Needs** refer to Rationale under C18 in left column for description of this long-range challenge as U.S. highways face continual construction upgrade and maintenance/ repair. Diagram of a Work Zone – Refer to National MMUCC Guidelines

Data Element in MMUCC *(First column)*	Comparison with PR-1 *(Second column)*	DOT Crash File *(Third column)*	User Needs - Illustrations - Background - Recommendations *(Fourth column)*

---------- VEHICLE LEVEL DATA ELEMENTS ----------

(To be collected at the crash scene)

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Motor Vehicle Identification Number (VIN) (V1) Definition: A unique combination of alphanumeric characters assigned to a specific motor vehicle that is designated by the manufacturer. Attribute: □ Manufacturer assigned number (permanently affixed to the motor vehicle) Rationale: Important to identify specific motor vehicle design characteristics and occupant protection systems for effectiveness evaluations.	**Vehicle Identification Number** Definition: Enter the vehicle identification number (VIN) as it appears on the vehicle. Attribute: □ Vehicle identification number Special attention will ensure the accuracy of the VIN. In the event that the VIN cannot be determined from the vehicle due to circumstances beyond the control of the investigator, the VIN may be obtained from other documentation that may be available - page 23 in Investigator's Guide	The following data element from the PR-1 is not entered into the DOT Crash file. -Vehicle ID Number	See example: VIN locations. V1 is a recommended data element in MMUCC  **User Needs** - to permit the identification of vehicle design characteristics for evaluating occupant protection.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Motor Vehicle Unit Type and Number (V2) Definition: Motor vehicle unit type and number assigned to uniquely identify each motor vehicle involved in the crash. This number is not assigned to pedestrians or bicyclists. (See **Non-Motorist Number (P21)**.) Attributes: **Subfield 1:** Type □ Motor Vehicle in Transport □ Parked Motor Vehicle □ Working Vehicle / Equipment **Subfield 2:** Number □ Sequential number Rationale: Uniquely identifies each motor vehicle unit involved in the crash. Permits occupants to be assigned to the appropriate motor vehicle.	**Motor Vehicle Unit Type and Number** Note: Other than traffic unit number, this data element is not contained on the PR-1 Crash Form. (See further explanation – page 21 in Investigator's Guide)	Not recorded	✓ **Adopt** – data element attributes for V2 recommended in MMUCC **User Needs** - permits unique identification of vehicles involved in a crash and the assignment of occupants to the appropriate vehicles. --- **Definitions from ANSI D16.1 Manual on Classification of Motor Vehicle Traffic Accidents** Motor Vehicle in Transport: Motor vehicle on a roadway or in motion within or outside the trafficway open to the public as a matter of right or custom for moving persons or property from one place to another. Parked Motor Vehicle: A parked motor vehicle is a motor vehicle not in-transport, other than a working motor vehicle, that is not in motion and not located on the roadway. Working Vehicle/Equipment: A working motor vehicle is a motor vehicle in the act of performing construction, maintenance or utility work related to the trafficway.
Motor Vehicle Registration State and Year (V3) Definition: The state, commonwealth, territory, Indian Nation, U.S. Government, foreign country, etc., issuing the registration plate and the year of registration as indicated on the registration plate displayed on the motor vehicle. For foreign countries, MMUCC requires only the name of the country. Border states may want to collect the name of individual Canadian provinces or Mexican states. Attributes: □ State Identifier State, foreign country, U.S. government, Indian Nation, etc. □ Year of Motor Vehicle Registration (YYYY) Rationale: This element is critical in providing linkage between the crash and motor vehicle registration files to access the motor vehicle identification number.	**Registration Number; State** Definition: The full registration number of the subject vehicle together with the appropriate two letter USPS abbreviation of the registering state. Attributes: □ Registration Number □ State **Registration Year** Note: This data element is not contained on the PR-1 Crash Form. Page 23 – Investigator's Guide	The following data elements from the PR-1 are not entered into the DOT Crash file. -Registration No -Registration State -Registration Year	✓ **Adopt** – data element attributes for V3 recommended in MMUCC **User Needs -** Critical in providing linkage between the crash and motor vehicle registration files 

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Motor Vehicle License Plate Number (V4) Definition: The alphanumeric identifier or other characters, exactly as displayed, on the registration plate or tag affixed to the motor vehicle. For combination trucks, motor vehicle plate number is obtained from the power unit or tractor. Attributes: □ Alphanumeric Identifier Assigned by the state, foreign country, U.S. Government, or Indian Nation Rationale: Critical for linkage between the crash and motor vehicle registration files.	**Registration Number** Definition: The full registration number of the subject vehicle. Attributes: □ Registration Number Page 23 – Investigator's Guide	The following data element from the PR-1 is not entered into the DOT Crash file. -Registration No	Already recorded on the PR-1  **User Needs -** to permit data linkage of the motor vehicle crash and vehicle registration files.
Motor Vehicle Make (V5) Definition: The distinctive (coded) name applied to a group of motor vehicles by a manufacturer. Attribute: □ Name Assigned by motor vehicle manufacturer. Rationale: Important for use in identifying motor vehicle make, for evaluation, research and crash comparison purposes.	**Vehicle Year and Make** Definition: The model year and make of the subject vehicle. Attributes: □ Vehicle Year □ Make Page 23 – Investigator's Guide	The following data elements from the PR-1 are not entered into the DOT Crash file. -Vehicle Year -Vehicle Make	Already recorded on the PR-1 **User Needs -** Vehicle make and model are important for vehicle research and crash comparison purposes.
Motor Vehicle Model Year (V6) Definition: The year which is assigned to a motor vehicle by the manufacturer. Attribute: □ Model Year YYYY as assigned by motor vehicle manufacturer (obtain from the vehicle registration). Rationale: Important for use in identifying motor vehicle model year for evaluation, research, and crash comparison purposes.	**Motor Vehicle Model Year** Note: Not contained on the PR-1 Crash Form. Page 23 – Investigator's Guide	The following data element from the PR-1 is not entered into the DOT Crash file. -Vehicle Model Year	Already recorded on the PR-1 **User Needs -** Important for use with vehicle make and model in conducting vehicle research.

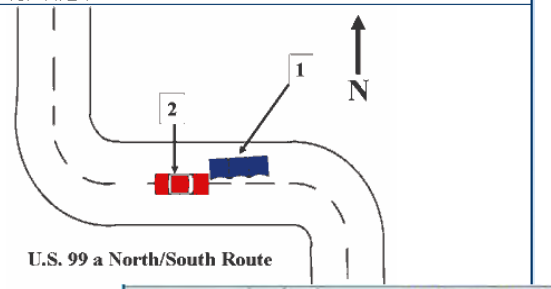
MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Motor Vehicle Model (V7) Definition: The manufacturer-assigned code denoting a family of motor vehicles (within a make) that have a degree of similarity in construction, such as body, chassis, etc. Attribute: • Code for model assigned by motor vehicle manufacturer (obtain from the vehicle registration). Rationale: Important for use in identifying the motor vehicle model for evaluation, research, and crash comparison purposes.	**Motor Vehicle Model** Note: Not contained on the PR-1 Crash Form.	The following data element from the PR-1 is not entered into the DOT Crash file. -Vehicle Model	✓ **Adopt** – V7 data element recommended in MMUCC Discussion to add this data element to Vehicle Make, V5. **User Needs** - important data element compliment to Motor Vehicle Make and Year in conducting research and motor vehicle crash comparison evaluations.

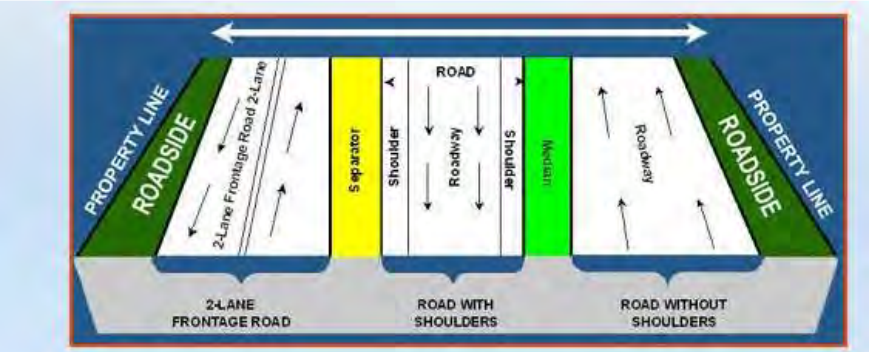
MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Motor Vehicle Body Type Category (V8) Definition: The category indicating the general configuration or shape of a motor vehicle distinguished by characteristics such as number of doors, rows of seats, windows, or roof line. Personal conveyances – such as skateboards, motorized toy cars, and wheelchairs are not considered motor vehicles. Attributes: □ Passenger Car □ (Sport) Utility Vehicle □ Passenger Van □ Cargo Van (10,000 lbs or less) □ Pickup □ Motor Home □ School Bus □ Transit Bus □ Motor Coach □ Other Bus □ Motorcycle □ Moped □ Low Speed Vehicle □ All Terrain Vehicle (ATV) □ Snowmobile □ Other Light Trucks (10,000 lbs or less) □ Medium /Heavy Trucks (more than 10,000 lbs) □ Other (e.g., farm equipment, heavy machinery) Rationale: Important to identify the specific type of motor vehicle involved in the crash for evaluation and comparison purposes.	**Vehicle Type (H)** Definition: For each vehicle involved in the accident, enter the code which best describes the vehicle type (pg. 6 in PR-1 Guide) Attributes: □ Automobile □ Motorcycle □ Moped – Motor Scooter □ Pedalcycle □ Taxi □ Train □ Emergency Vehicle □ School Bus □ Commercial Bus □ Motor home/Camper □ Off Road Vehicle □ Passenger Van □ Single Unit Truck (2 Axle, 4 Tire) □ Single Unit Truck (2 Axle, 6 Tire) □ Single Unit Truck (3 or more Axles) □ Car – Trailer Combination □ Truck – Trailer Combination □ Truck Tractor Only □ Tractor Semi - Trailer □ Tractor Double Trailers □ Tractor Triple Trailers □ Heavy Vehicle (Unclassifiable) □ Construction Farm Equipment □ Other □ Unknown Refer to Body Type – page 23 in Investigator's Guide, e.g., 4DR Sedan, Conv., 2DR HDTP, etc. Abbreviations of the body type are acceptable.	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Traffic Unit Information Record.	✓ **Adopt** – data element attributes recommended in MMUCC **User Needs -** important to be able to identify the type of motor vehicle involved in the crash for evaluation of specific types of vehicles, e.g., motorcycles, sport utility vehicles, buses and other vehicle types. Separate listing for commercial vehicle configuration (V28), recommended by the Federal Motor Carrier Safety Administration (FMCSA), important to maintain for application to electronic reporting. **In most cases, officers will not be recording crash information involving commercial motor vehicles; thus alleviating the need for officers having to view the commercial vehicle configuration codes in every instance.** --- **Refer to Frequency List** (available on request) Question during discussion as to whether to retain 'train' and/or 'taxi' 190,418 Vehicles involved in crashes – 2008 Connecticut Statewide – train 3, taxi 290 Discussion regarding the relationship between this data element (V8) and V10 – Special function of motor vehicle in transport, see comments, p 22 V11 – Emergency motor vehicle use, see comments, p 23

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Total Occupants in Motor Vehicle (V9) Definition: The total number of injured and uninjured occupants in this motor vehicle involved in the crash, including persons in or on the motor vehicle at the time of the crash. Attribute: • Total number of injured and uninjured occupants including the driver Rationale: Important for the officer at the scene to indicate how many people (injured and uninjured) are involved for reporting purposes. Useful for evaluating the effectiveness of countermeasures that prevent or reduce injury and injury severity.	**Total Occupants in Motor Vehicle** Note: Not contained on the PR-1 Crash Form.	Not recorded	✓ **Adopt** – V9 data element recommended in MMUCC **User Needs** - Helpful as a cross-check to make sure all persons are listed and described on the PR-1. Future electronic reporting to a Crash Data Repository may rely on electronic reporting coming directly from the law enforcement officer.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Special Function of Motor Vehicle in Transport (V10) Definition: The type of special function being served by this vehicle regardless of whether the function is marked on the vehicle. Attributes: □ No Special Function □ Taxi □ Vehicle Used as School Bus □ Vehicle Used as Other Bus □ Military □ Police □ Ambulance □ Fire Truck □ Unknown Rationale: Important to evaluate the outcome of vehicles used for special uses that are involved in crashes.	**Special Function of Motor Vehicle** Note: Not contained on the PR-1 Crash Form.	Not recorded	Special Function of Motor Vehicle (V10) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** V10 as recommended in the National Guidelines. **User Needs** – Important to evaluate events, i.e., using a vehicle as a school bus, ambulance, etc., resulting in a motor vehicle crash. Need to record the frequency and details for these events when they occur.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Emergency Motor Vehicle Use (V11) Definition: Indicates operation of any motor vehicle that is legally authorized by a government authority to respond to emergencies with or without the use of emergency warning equipment, such as a police vehicle, fire truck, or ambulance while actually engaged in such response. Select "Yes" only if the motor vehicle involved in the crash was on an emergency response, regardless of whether the emergency warning equipment was in use. Attributes: □ No □ Yes □ Unknown Rationale: Driver behavior related to emergency vehicle response is an emerging national issue. This is true for both operators of emergency vehicles and operators of vehicles in the vicinity of an emergency vehicle engaged in a response. It is the intent of this element to gather information that will guide development of training or other countermeasures to reduce the number of crashes involving emergency vehicle response.	**Emergency Motor Vehicle Use** Note: Not contained on the PR-1 Crash Form.	Not recorded	Emergency Motor Vehicle Use (V11) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** V11 as recommended in the National Guidelines. **User Needs - Driver behavior related to emergency vehicle response is an emerging issue** - for operators of emergency vehicles as well as operators of vehicles in the vicinity of an emergency vehicle engaged in a response.
Motor Vehicle Posted/Statutory Speed Limit (V12) Definition: The posted/statutory speed limit for the motor vehicle at the time of the crash. The authorization may be indicated by the posted speed limit, blinking sign at construction zones, etc. Attributes: □ Posted/Statutory Value (miles per hour) □ Not Applicable □ Unknown Rationale: Important for evaluation purposes (even though the speed of the motor vehicle at the time of the crash may differ significantly from the authorized speed limit).	**Motor Vehicle Authorized Speed Limit** Note: Not contained on the PR-1 Crash Form.	Not recorded	Motor Vehicle Posted/Statutory Speed Limit (V12) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** V12 as recommended in the National Guidelines.  **User Needs** – important indicator, related to crash involvement for an increasing challenge in highway safety – excessive motor vehicle speeds.

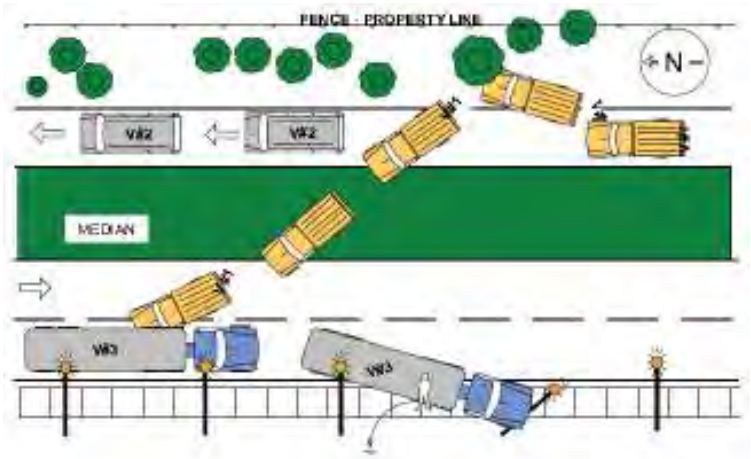
MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Direction of Travel Before Crash (V13) Definition: The direction of a motor vehicle's travel on the roadway before the crash. Notice that this is not a compass direction, but a direction consistent with the designated direction of the road. For example, the direction of a state designated north-south highway must be either northbound or southbound even though a motor vehicle may have been traveling due east as a result of a short segment of the highway having an east-west orientation. Attributes: □ Northbound □ Southbound □ Eastbound □ Westbound □ Not on Roadway □ Unknown Rationale: Important to indicate direction the motor vehicle was traveling before the crash for evaluation purposes.	**Direction of Travel** Definition: The direction of travel and the name of the street being traveled (for each Traffic Unit involved). Attributes: □ North □ South □ East □ West □ Traveling on _____ Page 30 in Investigator's Guide.	**This data element is determined by coders** Probably just for state routes. Uncertain whether entered into DB for all crashes.	Direction of Travel Before Crash (V13) is a recommended data element in MMUCC **Recommendation:** ✓ **Adopt** V13 as recommended in the National Guidelines for crashes occurring on all roadways. **The following examples provided for informational/training purposes** ---------- In the example, U.S. 99 is designated a North-South highway. Although the motor vehicles were traveling due east/west as a result of a short segment of the highway having an East-West orientation and they had the collision in that portion of the highway, the proper recording of direction of travel would be NORTHBOUND for V#1 and SOUTHBOUND for V#2 .  (From a State Police Instruction Manual): When a collision occurs while a vehicle is making a turn at an intersection and the location of the collision is within the intersection, the direction of travel is the direction of the vehicle prior to the turning movement. In the example, V#1 is making a left hand turn in a westerly direction but would be recorded as NORTHBOUND. V#2 would be recorded as EASTBOUND. 

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Trafficway Description (V14) Definition: Indication of whether or not the trafficway for this vehicle is divided and whether it serves 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. See Appendix E for diagram of the trafficway). Attributes: □ Two-Way, Not Divided □ Two-Way, Not Divided with a Continuous Left Turn Lane □ Two-Way, Divided, Unprotected (painted >4 feet) Median □ Two-Way, Divided, Positive Median Barrier □ One-Way Trafficway □ Unknown Rationale: Used in classifying crashes as well as identifying the environment of a particular crash. Note that the data must be in a road inventory file or collected by the reporting officer at the scene. It is not readily derived from other road data such as classification or route. Important to guide future trafficway design and traffic control.	**Trafficway Description (F)** Note: Not contained on the PR-1 Crash Form; however, the data element **Median Barrier Penetration** contains the following attributes, which describe the degree that the median barrier was penetrated. Attributes: □ Full □ Partial □ None □ Not Applicable ---------- • Median barrier occurs on divided highways only • Median barrier penetration occurs only when a vehicle is not fully retained on the impact side • Partial penetration occurs when a vehicle is partially through or on top of the barrier • Full penetration occurs when the entire vehicle is on the other side of the barrier • Not applicable is the appropriate code when no median barrier is present or when the median barrier is present but was not impacted in the collision. Page 6 – Investigator's Guide	Not recorded	Trafficway Description (V14) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** V14 as recommended in the National Guidelines. ConnDOT Coders must be able to continue their current location coding procedures (refer to C5). **The following is included for informational/training purposes** ---------- **User Needs** - Important for highway safety officials to understand this data element is an indication of whether or not … **the trafficway for this vehicle (thus it is a vehicle level data element)** … is divided and whether it serves one-way or two-way traffic. As stated at the beginning, the designation of this data element with a "V" means that it is related to the vehicle(s) involved. Source of information including definitions of Trafficway components: ANSI D16.1 Manual on Classification of Motor Vehicle Traffic Accidents  Trafficway: Any land way open to the public as a matter of right or custom for moving persons or property from one place to another.

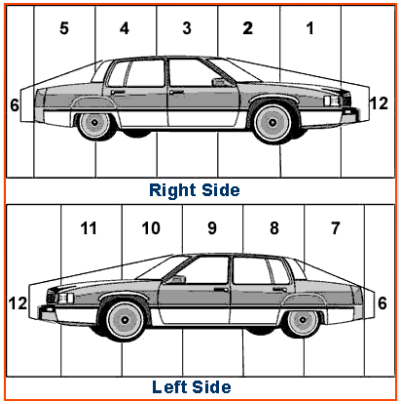
MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Total Lanes in Roadway (V15) Definition: Total number of lanes in the roadway on which this motor vehicle was traveling. Attributes: **For undivided highways** □ Enter the total through lanes in both directions, excluding designated turn lanes. **For divided highways** □ Enter the total through lanes for the roadway on which the motor vehicle under consideration was traveling. Rationale: Used in studying roadway safety issues as well as identifying the environment of a particular crash.	**Total Lanes in Roadway** Note: Not contained on the PR-1 Crash Form.	Not recorded	Total Lanes in Roadway (V15) is a recommended data element in MMUCC. Similar to previous data element, **this is a vehicle related data element (V)**, even though the data represented describes the roadway (number of lanes) in the roadway on which this motor vehicle is traveling. **Recommendation:** ✓ **Adopt** V15 as recommended in the National Guidelines. **User Needs** – important to engineering and other highway safety officials in analyzing specific roadway safety issues. **The following examples are provided for informational/training purposes** ---------- Examples: 

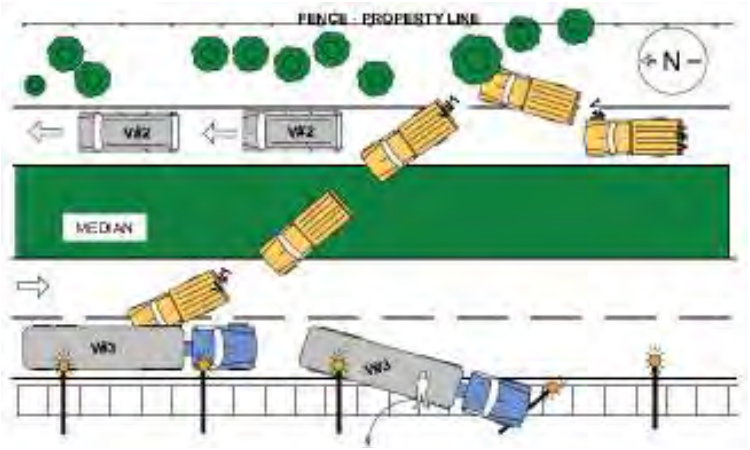
MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Roadway Alignment and Grade (V16) Definition: The geometric or layout and inclination characteristics of the roadway in the direction of travel for this vehicle. Attributes: **Subfield 1:** Horizontal Alignment □ Straight □ Curve Left □ Curve Right **Subfield 2:** Grade □ Level □ Hillcrest □ Uphill □ Downhill □ Sag (bottom) Rationale: Important to document the horizontal alignment and grade of the roadway as it relates to this specific vehicle involved in the crash for the purpose of evaluating vehicles that run-off-road, rollover, or are runaways.	**Roadway Alignment and Grade** Note: Not contained on the PR-1 Crash Form.	Not recorded	Roadway Alignment and Grade (V16) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** V16 as recommended in the National Guidelines. **User Needs** – important for engineering and other highway safety officials to be able to analyze the horizontal alignment and grade of the roadway as it relates to this specific vehicle involved in the crash for the purpose of evaluating vehicles that run-off-road, rollover, or are runaways. Similar to previous data elements, **this is a vehicle related data element (V)**, even though the data represented describes the roadway (horizontal alignment and grade) on which this motor vehicle is traveling.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Traffic Control Device Type (V17) Definition: The type of traffic control device (TCD) applicable to this motor vehicle at the crash location. Attributes: **Subfield 1:** Type TCD: □ No Controls □ Person (including flagger, law enforcement, crossing guard, etc.) □ Traffic Control Signal □ Flashing Traffic Control Signal □ School Zone Sign/Device □ Stop Sign □ Yield Sign □ Warning Sign □ Railway Crossing Device □ Other □ Unknown **Subfield 2:** Inoperative/Missing? □ Yes □ No □ Unknown 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 traffic control devices (TCD) and crashes, and identifying the need for upgraded TCDs at specific crash locations.	**Traffic Control Device Type** Note: Not contained on the PR-1 Crash Form.	Not recorded	✓ **Adopt** – V17 data element recommended in MMUCC **User Needs** - Important for engineers as well as other highway safety officials to measure the relationship between the various traffic control devices and motor vehicle crashes; especially in determining the need for upgrading traffic control devices at specific locations. This is a vehicle related data element (V), even though the data represented describes the roadway (type of traffic control device) applicable to this motor vehicle at the crash location. This element needs to be collected at the scene because the presence of specific devices is better verified at the time of the crash. **The following is included for informational/training purposes:** ---------- Examples: Warning signs warn traffic of existing or potentially hazardous conditions on or adjacent to a road. 

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Motor Vehicle Maneuver /Action (V18) Definition: The controlled maneuver for this motor vehicle prior to the beginning of the sequence of events. Attributes: □ Movements Essentially Straight Ahead □ Backing □ Changing Lanes □ Overtaking /Passing □ Turning Right □ Turning Left □ Making U-Turn □ Leaving Traffic Lane □ Entering Traffic Lane □ Slowing □ Negotiating a Curve □ Parked □ Stopped in Traffic □ Other □ Unknown Rationale: Important for evaluation purposes, particularly when combined with sequence of events (V20).	**Vehicle Maneuver Fields** Definition: Vehicle maneuver consists of a PREFIX and a SUFFIX. These fields will be utilized by the investigating officer to describe the actions of each vehicle in a manner that will be helpful in understanding events and/or conditions that had an influence on the occurrence of the accident. **Subfield 1:** Vehicle Maneuver Prefix **(S)** Attributes: □ None Apply □ Vehicle Slowing For □ Vehicle Stopped For □ Vehicle Skidded, Slowing or Stopping For □ Vehicle Avoiding **Subfield 2:** Vehicle Maneuver Suffix **(T)** □ Vehicle Going Straight □ Vehicle Negotiating Curve □ Vehicle on Wrong Side of Road □ Vehicle Passing Same Direction on Left □ Vehicle Passing Same Direction on Right □ Vehicle Passing Improperly Parked Vehicle □ Vehicle Turning Right from Proper Lane □ Vehicle Turning Right from Improper Lane □ Vehicle Turning Left from Proper Lane □ Vehicle Turning Left from Improper Lane □ Vehicle Making "U" Turn □ Vehicle Turning Right from Driveway □ Vehicle Turning Left from Driveway □ Vehicle Turning Right on Red Light □ Vehicle Engaged in Parking Maneuver □ Occupant Exiting or Entering Vehicle □ Vehicle Skidding in Roadway □ Vehicle Entering Traffic from Ramp	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Traffic Unit Information Record.	Motor Vehicle Maneuver/Action (V18) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** V18 as recommended in the National Guidelines. **User Needs** - Important for evaluation purposes, particularly when combined with sequence of events (V20) to generate complete information about the crash. **The following is included for informational/training purposes** ---------- **Application of Data Elements for a Motor Vehicle Crash Scenario** Comparing National Guidelines with the PR-1  For example of narrative - relating to this motor vehicle crash scenario refer to page 133 in the MMUCC Guideline Using MMUCC data elements **Data Element** No. - Description - Value V18 Veh Maneuver - V#1 moving straight P15 Drv (V#1) distracted by electronic device P13 Drv (V#1) following too close P13 Drv (V#1) swerved to avoid motor veh V20 V#1, 1st event - Ran off rdwy right V20 V#1, 2nd event - Collision with tree **C06 1st Harmful Event-Collision with tree** C07 Location FHE rel to Traffway-Roadside V20 V#1, 3rd event - Cross median V20 V#1, 4th event - Coll w. MV in Transport V21 V#1, MHE - Coll w. MV in Transport V23 V#1, Hit/Run only if Veh departed scene Using data elements from the PR-1 **Data Element** No. - Description - Value S Veh Maneuver - V#1 avoiding T Veh Maneuver - V#2 going straight .... *No Distracted Driving Code on PR-1* W Drv (V#1) following too close AA V#1, 1st event - Ran off rdwy AA V#1, 2nd event - Collision w. fixed object **R 1st Harmful Event - Fixed object** K Object location - no value for roadside AA V#1, 3rd event - Other AA V#1, 4th event - Coll w. MV in Transport … *No Most Harmful Event Code for Veh #1* … *No Hit and Run Code for Veh #1* Recording a crash scenario using the PR-1, the data element Sequence of Events (AA) is only recorded for crashes involving vehicles subject to Motor Carrier regulation. For additional comments regarding Vehicle Maneuver fields on the PR-1 (pages 13-14 and 16-17 in PR-1 Guide)

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
	□ Vehicle Changing One Lane to Exit □ Vehicle Changing More Than One Lane to Exit □ Vehicle Changing Lane(s) to Left □ Vehicle Changing Lane(s) to Right □ Vehicle Changing More Than One Lane from Entrance □ Vehicle Backing Along Roadway □ Vehicle Backing Along Shoulder □ Vehicle Backing Into Roadway □ Vehicle Backing Into Driveway or Side Road □ Vehicle Being Towed or Pushed □ Vehicle Traveling on Shoulder □ Vehicle Engaged in Highway Maintenance □ Traffic Signal □ Traffic □ Traffic Sign □ Traffic Officer □ Stopped Vehicle □ Parking □ Parked Vehicle □ Train □ Bicycle □ Motorcycle □ Other □ Emergency Vehicle □ Turn Right □ Turning Left □ Mechanical Failure □ Previous Accident □ Construction or Maintenance Work □ School Bus □ Pedestrian in Road □ Animal in Road □ Foreign Object in Road □ Unknown Reason For further explanation and examples, see pages 13-14 in the Investigator's Guide.		

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Area(s) of Impact (V19) Definition: The area of the motor vehicle that received the initial impact and the area that was most damaged in a crash. Attributes: **Subfield 1:** Area of Initial Impact □ Non-Collision □ 12-point Clock Diagram (see Appendix J) □ Top (roof) □ Undercarriage □ Unknown **Subfield 2:** Most Damaged Area See attributes in Subfield 1 Rationale: Important for use in evaluating injury severity in relation to motor vehicle impact and crash severity.	**Area(s) of Impact** Note: Not contained on the PR-1 Crash Form; however, the data element Parts of Vehicle Damaged lists the parts of the vehicle that were damaged as a result of the accident. When extensive damage is incurred, describe the most severely damaged areas first. Parts of Vehicle Damaged See page 28 in Investigator's Guide.	Not recorded	Area(s) of Impact (V19) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** V19 as recommended in the National Guidelines. **User Needs - for use in evaluating injury severity** in relation to the vehicle impact point(s) and area of the vehicle most damaged.  Example of 12-point Clock Diagram 

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Sequence of Events (V20) Definition: The events in sequence related to this motor vehicle, including both non-collision as well as collision events. For examples, refer to Appendix L. Attributes: **Subfield 1:** First Event **Non-Collision:** □ Overturn / Rollover □ Fire /Explosion □ Immersion □ Jackknife □ Cargo / Equipment Loss or Shift □ Equipment Failure (blown tire, brake failure, etc.) □ Separation of Units □ Ran Off Roadway Right □ Ran Off Roadway Left □ Cross Median □ Cross Centerline □ Downhill Runaway □ Fell /Jumped from Motor Vehicle □ Reentering Roadway □ Thrown or Falling Object □ Other Non-Collision **Collision with Person, Motor Vehicle, or Non-Fixed Object:** □ Pedestrian □ Pedalcycle □ Railway Vehicle (train, engine) □ Animal □ Motor Vehicle in Transport □ Parked Motor Vehicle □ Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle □ Work Zone / Maintenance Equipment □ Other Non-Fixed Object **Collision with Fixed Object:** □ Impact Attenuator / Crash Cushion □ Bridge Overhead Structure □ Bridge Pier or Support □ Bridge Rail □ Cable Barrier □ Culvert □ Curb □ Ditch □ Embankment □ Guardrail Face □ Guardrail End	**Sequence of Events (AA)** Definition: This field **applies only to vehicles subject to motor carrier regulation**. It will be used to report the sequence of events. Describe the events in sequence for each qualifying vehicle. Not all qualifying vehicles will experience more than one event; however, each applicable event should be recorded in the order in which it occurred. Record only the first four events. Attributes: □ Ran Off the Road □ Jackknife □ Overturn □ Downhill Runaway □ Cargo Loss or Shift □ Explosion or Fire □ Separation of Units □ Collision Involving Pedestrian □ Collision Involving Motor Vehicle in Transport □ Collision Involving Parked Motor Vehicle □ Collision Involving Train □ Collision Involving Pedalcycle □ Collision Involving Animal □ Collision Involving Fixed Object □ Collision Involving Other Object □ Other See page 17 in Investigator's Guide.	The following data element from the PR-1 is not entered into the DOT Crash file. -Sequence of Events	Sequence of Events (V20) is a recommended data element in MMUCC for all motor vehicle crashes, not just crashes involving commercial motor vehicles. **Recommendation:** ✓ **Adopt** V20 as recommended in the National Guidelines. **User Needs** - Important for evaluation purposes, particularly when combined with vehicle maneuver (V18) to generate complete information about the crash. **The following is included for informational/training purposes** ---------- **Application of Data Elements for a Motor Vehicle Crash Scenario** Comparing National Guidelines with the PR-1  For example of narrative - relating to this motor vehicle crash scenario refer to page 133 in the MMUCC Guideline Using MMUCC data elements **Data Element** No. - Description - Value V18 Veh Maneuver - V#1 moving straight P15 Drv (V#1) distracted by electronic device P13 Drv (V#1) following too close P13 Drv (V#1) swerved to avoid motor veh V20 V#1, 1st event - Ran off rdwy right V20 V#1, 2nd event - Collision with tree **C06 1st Harmful Event-Collision with tree** C07 Location FHE rel to Traffway-Roadside V20 V#1, 3rd event - Cross median V20 V#1, 4th event - Coll w. MV in Transport V21 V#1, MHE - Coll w. MV in Transport V23 V#1, Hit/Run only if Veh departed scene Using data elements from the PR-1 **Data Element** No. - Description - Value S Veh Maneuver - V#1 avoiding T Veh Maneuver - V#2 going straight .... *No Distracted Driving Code on PR-1* W Drv (V#1) following too close AA V#1, 1st event - Ran off rdwy AA V#1, 2nd event - Collision w. fixed object **R 1st Harmful Event - Fixed object** K Object location - no value for roadside AA V#1, 3rd event - Other AA V#1, 4th event - Coll w. MV in Transport … *No Most Harmful Event Code for Veh #1* … *No Hit and Run Code for Veh #1* Recording a crash scenario using the PR-1, the data element Sequence of Events (AA) is only recorded for crashes involving vehicles subject to Motor Carrier regulation. For additional comments regarding Vehicle Maneuver fields on the PR-1 (pages 13-14 and 16-17 in PR-1 Guide)

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
□ Concrete Traffic Barrier □ Other Traffic Barrier □ Tree (standing) □ Utility Pole / Light Support □ Traffic Sign Support □ Traffic Signal Support □ Other Post, Pole, or Support □ Fence □ Mailbox □ Other Fixed Object (wall, building, tunnel, etc.) □ Unknown **Subfield 2:** Second Event See attributes in Subfield 1 **Subfield 3:** Third Event See attributes in Subfield 1 **Subfield 4:** Fourth Event See attributes in Subfield 1 Rationale: Important for use in conjunction with most harmful event and motor vehicle maneuver to generate complete information about the crash.			

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Most Harmful Event for This Motor Vehicle (V21) Definition: Event that resulted in the most severe injury or, if no injury, the greatest property damage involving this motor vehicle. Attributes: **Non-Collision:** □ Overturn / Rollover □ Fire / Explosion □ Immersion □ Jackknife □ Cargo / Equipment Loss or Shift □ Fell / Jumped from Motor Vehicle □ Thrown or Falling Object □ Other Non-Collision **Collision with Person, Motor Vehicle, or Non-Fixed Object:** □ Pedestrian □ Pedalcycle □ Railway Vehicle (train, engine) □ Animal □ Motor Vehicle in Transport □ Parked Motor Vehicle □ Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle □ Work Zone / Maintenance Equipment □ Other Non-Fixed Object **Collision with Fixed Object:** □ Impact Attenuator / Crash Cushion □ Bridge Overhead Structure □ Bridge Pier or Support □ Bridge Rail □ Cable Barrier □ Culvert □ Curb □ Ditch □ Embankment □ Guardrail Face □ Guardrail End □ Concrete Traffic Barrier □ Other Traffic Barrier □ Tree (standing) □ Utility Pole / Light Support □ Traffic Sign Support □ Traffic Signal Support □ Fence □ Mailbox □ Other Post, Pole, or Support	**Most Harmful Event for This Motor Vehicle** Note: Not contained on the PR-1 Crash Form. For reference to First Harmful Event (Collision Type (**R**)) – page 12 in Investigator's Guide. Object Struck (**J**) – page 7 in Investigator's Guide.	Not recorded	Most Harmful Event for this Motor Vehicle (V21) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt V21** as recommended in the National Guidelines. **User Needs** - Most Harmful Event for a vehicle is important to use in conjunction with the Sequence of Events to generate complete information about the crash. One option is to mirror the attributes in V21 so they are a direct match with the attributes in V20. Refer to example above for Sequence of Events – the application of data elements for a motor vehicle crash scenario.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
□ Other Fixed Object (wall, building, tunnel, etc.) □ Unknown Rationale: Important for use in conjunction with the **Sequence of Events (V20)** to generate complete information about the crash.			
Bus Use (V22) Definition: This element describes the common type of bus service this vehicle was being used as at the time of the crash. Buses are any motor vehicle with seats to transport nine (9) or more people, including the driver's seat. This element does not include vans which are owned and operated for personal use. Refer to the Glossary for attribute definitions. Attributes: □ Not a Bus □ School □ Transit/Commuter □ Intercity □ Charter/Tour □ Shuttle Rationale: This data element provides additional information to evaluate the outcome of motor vehicles used as buses that are involved in crashes.	**Bus Use** Note: Not contained on the PR-1 Crash Form.	Not recorded	✓ **Adopt** – the data element Bus Use (V22) recommended in MMUCC **User Needs** - This data element is recommended by the FMCSA. It provides them with additional information used to evaluate the outcomes of motor vehicles used as buses that are involved in crashes. Discussion by workgroup that this data element should be covered in the Commercial Motor Vehicle (CMV) Section. This will in fact apply to CMVs.
Hit and Run (V23) Definition: Refers to cases where the vehicle or the driver of the vehicle, in transport is a contact vehicle in the crash and departs the scene without stopping to render aid or report the crash. Attributes: □ No, Did Not Leave Scene □ Yes, Driver or Car and Driver Left Scene Rationale: Important for uniformity, quality control and identification purposes in reported motor vehicle crash statistics.	**Hit and Run** Note: Not contained on the PR-1 Crash Form.	Not recorded	Hit and Run (V23) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** V23 as recommended in the National Guidelines. **User Needs** - important for quality control and identification of cases in which the vehicle or driver of the vehicle in transport is a contact vehicle in the crash and departs the scene without stopping to render aid or report the crash. Review frequency lists from National Guidelines to determine how often this data element is recorded.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Extent of Damage / Removal (V24) Definition: Estimation of total damage to motor vehicle from crash. Disabling damage implies damage to the motor vehicle that is sufficient to require the motor vehicle to be towed or carried from the scene. **Towed Due to Disabling Damage** identifies whether a vehicle involved in a crash is removed from the scene. "Yes" is used for vehicles towed due to ***disabling*** damage in the crash. "No" is used for those that are driven from the scene or towed for other reasons (i.e., the driver is arrested or without required license, vehicle is placed out of service because it is unsafe to drive or impounded, etc.). Towing assistance without removal of the vehicle from the scene, such as pulling a vehicle out of a ditch, is not considered to be "towed" for the purposes of this element. NOTE: For states requiring a more detailed set of damage description attributes on the crash report (e.g., moderate/ severe, severe, very severe), **Towed Due to Disabling Damage** is important to specifically identify if the vehicle was towed due to disabling vehicle damage. Attributes: **Subfield 1:** Extent of Damage □ No Damage □ Minor Damage □ Functional Damage □ Disabling Damage □ Unknown **Subfield 2:** Towed Due to Disabling Damage □ Yes □ No Rationale: Standardizing the extent of damage a motor vehicle sustains in a crash is essential to consistent collection of crash data. Towed Due to Disabling Damage is important to identifying non-injury, "tow-away" crashes involving any vehicle towed due to damage sustained in the crash.	**Parts of Vehicle Damaged** Definition: Enter a list of the parts of the vehicle that were damaged as a result of the accident. When extensive damage is incurred, describe the most severely damaged areas first. Parts of Vehicle Damaged **Vehicle Towed To** Definition: Enter the name of the towing service and enter the address where the vehicle may be retrieved. Enter a check mark in the box "Towed due to Damage" if the vehicle was towed due to damage incurred as a result of this accident. Vehicle Towed To: Towed Due to Damage: See page 28 in Investigator's Guide. This information is vital to the Federal Motor Carrier Safety Administration (FMCSA) in their selection criteria for truck and bus crashes.	The following data element from the PR-1 is not entered into the DOT Crash file. -Parts of Vehicle Damaged	✓ **Adopt** – the data element attributes for Extent of Damage/Removal (V24) recommended in MMUCC This data element is recommended by the FMCSA   **User Needs -** important for standardizing motor vehicle crash reporting.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Contributing Circumstances, Motor Vehicle (V25) Definition: Pre-existing motor vehicle defects or maintenance conditions that may have contributed to the crash. Attributes: □ None **Subfield 1:** Motor Vehicle Circumstance 1: □ Brakes □ Exhaust System □ Body, Doors □ Steering □ Power Train □ Suspension □ Tires □ Wheels □ Lights (head, signal, tail) □ Windows / Windshield □ Mirrors □ Wipers □ Truck Coupling / Trailer Hitch / Safety Chains □ Other □ Unknown **Subfield 2:** Motor Vehicle Circumstance 2 See attributes in Subfield 1 Rationale: Important for determining the significance of pre-existing problems, including equipment and operation, in motor vehicles involved in crashes that could be useful in determining the need for improvements in manufacturing and consumer alerts.	**Contributing Factor (W)** Definition: Factors mostly attributed to the driver, include the following attributes related to the vehicle. Attributes: □ Defective Equipment □ Unsafe Tires □ Vehicle Without Lights □ Suspension Enter the number of the Traffic Unit to which the contributing factor applies. □ Traffic Unit #1 □ Traffic Unit #2 □ Traffic Unit #3 See pages 15 and 16 in the Investigator's Guide. **Defective Equipment (X)** Definition: This field, which applies only to vehicles subject to motor carrier regulation, will be utilized to describe the condition of the equipment. Attributes: □ Brakes □ Tires/Wheels □ Steering □ Suspension/Frame □ Lighting □ Other □ None □ Unknown	The following data element from the PR-1 is not entered into the DOT Crash file. -Defective Equipment	Contributing Circumstances, Motor Vehicle (V25) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** V25 as recommended in the National Guidelines. Refer to P13 (above) and comparative stakeholder suggestions. **The following is included for informational/training purposes** ---------- Currently on the PR-1, defective equipment (X) is recorded for crash involved vehicles, which are subject to motor carrier regulation. **(Refer to Frequency List)** **W. CONTRIBUTING FACTOR:** Select the one factor whose absence you believe would have provided the greatest probability that the accident could have been avoided. The contributing factor is a circumstance associated with the accident that analysts or reconstructionists should be aware of if they want to take action to prevent recurrence of the crash. **W. CONTRIBUTING FACTOR (Select one only)** → 01. Driving on the Wrong Side of Road 02. Speed Too Fast for Conditions 03. Violated Traffic Control 04. Under the Influence 05. Failed to Grant Right of Way 06. Improper Passing Maneuver 07. Improper Lane Change 08. Following Too Closely 09. Slippery Surface 10. Driver Lost Control 11. Animal or Foreign Object in Road 12. Fell Asleep 13. Defective Equipment 14. Driver Illness 15. Driver's View Obstructed 16. Unsafe Tires 17. Unsafe Use of Highway by Pedestrian 18. Unsafe Right Turn on Red 19. Driverless Vehicle 20. Insufficient Vertical Clearance 21. Proper Turn Signal Not Displayed 22. Disabled or Illegally Parked Vehicle 23. Abnormal Road Condition 24. Vehicle Without Lights 25. Traffic Signal Not Operating 26. Vehicle Involved in Emergency 27. Entered Roadway in Wrong Direction 28. Roadway Width Restricted 29. Unknown 30. Unsafe Backing 31. Improper Turning Maneuver **Example:** It has been determined that a driver had a view that was obstructedby the sun, was driving too fast for conditions, and violated a red traffic signal. The best contributing factor would be (15) DRIVER'S VIEW OBSTRUCTED. If the view was not obstructed, appropriate action would have been possible. Enforcement action would explain the rest of the events.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Motor Carrier Identification (V26)** Definition: The identification number, name and address of an individual, partnership or corporation responsible for the transportation of persons or property as indicated on the shipping manifest. Attributes: **Subfield 1:** □ US DOT Number (7 digits, right justified) **Subfield 2:** □ If no US DOT Number, State Issued Identification Number and State Name **Subfield 3:** □ Name **Subfield 4:** Street Address □ Street or P.O. Box □ City □ State (two-letter code) □ Zip Code □ Country **Subfield 5:** Commercial/Non-Commercial □ Interstate Carrier □ Intrastate Carrier □ Not in Commerce/Government □ Not in Commerce/Other Truck Rationale: (**Required by the Federal Motor Carrier Safety Administration CFR 350.201.) The Federal Motor Carrier Safety Administration (FMCSA) has the authority to fine and sanction unsafe interstate (and some intrastate) truck and bus companies. A key way to identify potentially unsafe motor carriers is to collect crash data by the identification number, name and address of the company. The street address allows FMCSA to visit carriers to conduct review of compliance with Federal Motor Carrier Safety Regulations and provides a crosscheck for the correct identity of the carrier. Identification number ⇨	**Carrier Name; Carrier Address** Enter the full name of the motor carrier responsible for directing the transportation of the cargo or persons within the subject vehicle, together with the address of the carrier's principal place of business. Attributes: □ Carrier Name □ Carrier Address **Source of Carrier Name** Enter a check mark to indicate the source from which the carrier name was determined. Shipping papers are normally associated with trucks, while trip manifests are associated with busses. Attributes □ Source of Carrier Name **Carrier ID Number** Place a check mark in the appropriate box to identify whether the number being recorded is a US DOT or an ICCMC number. Enter the appropriate six digit number in the space provided. Attributes □ Carrier Identification Number (US DOT # or ICCMC #) See page 24 in the Investigator's Guide for further explanation and examples. The identification number (found on the power unit, and assigned by the U.S. DOT or by a State) is a key element for carrier identification in the FMCSA databases for crashes and other carrier information. This data element is collected at the scene to meet FMCSA 90 day reporting requirements.	The following data elements from the PR-1 are not entered into the DOT Crash file. -Carrier Name -Carrier Address	✓ **Adopt** – the data element subfields and attributes for Motor Carrier Identification (V26) recommended in MMUCC This data element is recommended by the FMCSA **User Needs** - allows FMCSA to be able to identify potentially unsafe motor carriers and to visit these carriers to conduct reviews of compliance with Federal Motor Carrier Safety Regulations.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Gross Vehicle Weight Rating/Gross Combination Weight Rating (V27)** Definition: The Gross Vehicle Weight Rating (GVWR) is the amount recommended by the manufacturer as the upper limit to the operational weight for a motor vehicle and any cargo (human or other) to be carried. The Gross Combination Weight Rating (GCWR) is the sum of all GVWRs for each unit in a combination-unit motor vehicle. Thus for single-unit trucks there is no difference between the GVWR and the GCWR. For combination trucks (truck tractors pulling a single semi-trailer, truck tractors pulling double or triple trailers, trucks pulling trailers, and trucks pulling other motor vehicles) the GCWR is the total of the GVWRs of all units in the combination. Attributes: □ Not Applicable □ 10,000 lbs or less □ 10,001–26,000 lbs □ More than 26,000 lbs Rationale: (**Required by the Federal Motor Carrier Safety Administration CFR 350.201.) The Federal Motor Carrier Safety Administration (FMCSA) imposes certain regulations on all single or combination-unit trucks that have a Gross Combination Weight Rating (GCWR) of more than 10,000 lbs. Additional regulations are imposed on all motor vehicles with GCWRs of more than 26,000 lbs. This data element is collected at the scene because FMCSA requires reporting within 90 days.	**Gross Vehicle Weight Rating** Definition: The Gross Vehicle Weight Rating is the sum of all the individual GVWR ratings for the power unit and all of the trailing units. Enter the sum of the GVWR ratings in the space provided. Attributes: □ Gross Vehicle Weight Rating # (appears to be GCWR) See examples – page 25 in the Investigator's Guide.	The following data element from the PR-1 is not entered into the DOT Crash file. -GVWR	✓ **Adopt** – data element attributes for Gross Vehicle Weight Rating/Gross Combination Weight Rating (V27) recommended in MMUCC This data element is recommended by the FMCSA  **User Needs** - helpful to FMCSA as it imposes certain regulations on single or combination unit trucks that have a GCWR of more than 10,000 lbs.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Vehicle Configuration (V28)** Definition: Indicates the general configuration of this motor vehicle. Refer to Appendix K for chart displaying types of truck configurations. Attributes: □ Vehicle 10,000 pounds or less placarded for hazardous materials □ Single-Unit Truck (2-axle and GVWR more than 10,000 lbs) □ Single-Unit Truck (3 or more axles) □ Truck Pulling Trailer(s) □ Truck Tractor (bobtail) □ Truck Tractor /Semi-Trailer □ Truck Tractor /Double □ Truck Tractor /Triple □ Truck More Than 10,000 lbs, Cannot Classify □ Bus /Large Van (seats for 9-15 occupants, including driver) □ Bus (seats for more than 15 occupants, including driver) □ Unknown Rationale: (**Required by the Federal Motor Carrier Safety Administration CFR 350.201.) This data element provides information about the general configuration of the motor vehicle that is important to evaluate the types of motor vehicles that have the most crashes and the effectiveness of various safety countermeasures. This data element is collected at the scene because FMCSA requires reporting within 90 days.	**Vehicle Type (H)** Definition: Data element that describes the vehicle type for each vehicle involved in the accident. The following codes pertain to commercial motor vehicles. Attributes: □ School Bus □ Commercial Bus □ Passenger Van □ Single Unit Truck (2 Axle, 4 Tire) □ Single Unit Truck (2 Axle, 6 Tire) □ Single Unit Truck (3 or more Axles) □ Truck – Trailer Combination □ Truck Tractor Only □ Tractor Semi - Trailer □ Tractor Double Trailers □ Tractor Triple Trailers □ Heavy Vehicle (Unclassifiable) Refer to page 6 in Investigator's Guide for all other vehicle types.	The following data element from the PR-1 is not entered into the DOT Crash file for commercial motor vehicles. -Vehicle Type	✓ **Adopt** – the data element Vehicle Configuration (V28) recommended in MMUCC This data element is recommended by the FMCSA **In most cases, officers will not be recording crash information involving commercial motor vehicles; thus alleviating the need for officers having to view the commercial vehicle configuration codes in every instance.**  **User Needs** - this data element provides information for the FMCSA to be able to evaluate the types of motor vehicles that have the most crashes and the effectiveness of various safety countermeasures. **The following is included for informational/training purposes:** ---------- **Refer to Frequency List** 190,418 Vehicles involved in crashes – 2008 Connecticut Statewide – included totals for - Commercial Bus --- 640 - Tractor Trailer --- 2,466 - Other Tuck Trailer Combination --- 504 - Construction or Farm Equipment --- 124 2008 Vehicle Involved totals did not include - Single Unit Truck (3 or more Axles) - Truck Tractor Only - Tractor Semi - Trailer - Tractor Double Trailers - Tractor Triple Trailers - Heavy Vehicle (Unclassifiable)

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Cargo Body Type (V29)** Definition: The type of body for buses and trucks more than 10,000 lbs GVWR. Attributes: □ No Cargo Body — (bobtail, light motor vehicle with hazardous materials (HM) placard, etc.) □ Bus □ Van /Enclosed Box □ Grain /Chips /Gravel □ Pole-Trailer □ Cargo Tank □ Log □ Intermodal Container Chassis □ Vehicle Towing Another Vehicle □ Flatbed □ Dump □ Concrete Mixer □ Auto Transporter □ Garbage /Refuse □ Other □ Not Applicable — (motor vehicle 10,000 lbs or less not displaying HM placard) □ Unknown Rationale: (**Required by the Federal Motor Carrier Safety Administration CFR 350.201.) This data element provides additional information about the motor vehicle, including all major cargo body types. The information it provides can be important in helping FMCSA make decisions on regulatory strategies for different types of motor vehicles. This data element is collected at the scene because FMCSA requires reporting within 90 days.	**Cargo Body Type (Z)** Definition: Used to report the cargo body type. Select the code that best describes the type of cargo body of the qualifying vehicle(s). Attributes: □ Bus □ Van /Enclosed Box □ Cargo Tank □ Flatbed □ Dump □ Concrete Mixer □ Auto Transporter □ Garbage/Refuse □ Other See page 16 in the Investigator's Guide for additional examples, explanations.	The following data element from the PR-1 is not entered into the DOT Crash file. -Cargo Body Type	✓ **Adopt** – the data element attributes for Cargo Body Type (V29) recommended in MMUCC This data element is recommended by the FMCSA **User Needs** - provides FMCSA additional information about the motor vehicle, including all major cargo body types. This information is important in helping FMCSA make decisions on regulatory strategies for different types of motor vehicles.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Hazardous Materials (Cargo Only) (V30)** Definition: Indication of whether or not the motor vehicle had a hazardous materials placard as required by Federal/State regulations, and whether or not hazardous materials were released. Attributes: **Subfield 1:** Did this vehicle display a hazardous materials (HM) placard? □ Yes (go to Subfield 2) □ No □ Not Applicable **Subfield 2:** If Subfield 1 answer is "Yes," record from the hazardous materials placard: (1) • 4-digit Hazardous Materials ID number or name taken from the middle of the diamond or from the rectangular box; and (2) • 1-digit Class number from bottom of diamond **Subfield 3:** Release of hazardous materials from the cargo compartment: Hazardous materials that were released from the **package (cargo compartment)** should be documented whether or not the motor vehicle displayed a placard. □ Yes □ No □ Not Applicable 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 calculating risk assessments, determining response methods, imposing tighter regulations 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 90 days.	**Hazardous Material Placard** Definition: The following four fields will be used to report information relative to the Hazardous Material Placard. Attributes: □ Hazardous Material Placard Required? □ Hazardous Material Placard Displayed? □ Hazardous Material 4 Digit Number □ Hazardous Material 1 Digit Number **Hazardous Cargo Released** Definition: Enter a check mark in the appropriate box to indicate whether hazardous cargo was released into the environment as a result of the accident. Attributes: □ Yes □ No See page 26 in the Investigator's Guide for additional examples, explanations.	The following data elements from the PR-1 are not entered into the DOT Crash file. -Haz Mat Placard -Haz Cargo Released	✓ **Adopt** – the data element subfields and attributes for Hazardous Materials (Cargo Only) (V30) recommended in MMUCC **User Needs** - important to FMCSA, which devotes special attention to motor carriers that transport hazardous materials (HM), including calculating risk assessments, determining response methods, imposing tighter regulations and conducting compliance reviews on a higher percentage of HM carriers. 

Data Element in MMUCC *(First column)*	Comparison with PR-1 *(Second column)*	DOT Crash File *(Third column)*	User Needs - Illustrations - Background - Recommendations *(Fourth column)*

---------- PERSON LEVEL DATA ELEMENTS ----------

(To be collected at the crash scene)

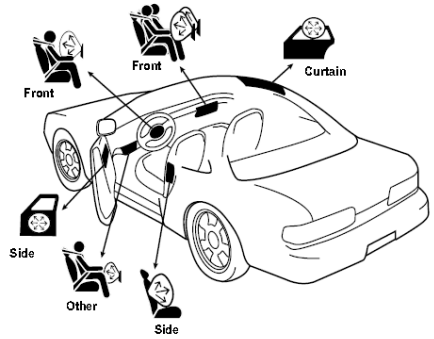
MMUCC Guideline	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
----------	**Level 1: All Persons Involved**	----------	
Date of Birth (P1) Definition: The year, month, and day of birth, (or age to be used only when date of birth cannot be obtained), of the person involved in a crash. Attributes: **Subfield 1:** Date of Birth □ YYYYMMDD □ Unknown **Subfield 2:** Age □ AAA Rationale: Accurate reporting of date of birth is used to assess the effectiveness of occupant protection systems for specific age groups, and to identify the need for safety programs directed toward them. This element is also critical in providing linkage between the crash, EMS, and hospital records.	**Operator or Pedestrian Date of Birth** Definition: Enter the birth date of the operator or the pedestrian using the last two digits of the year of birth. Attributes: □ MMDDYY Page 23 in Investigator's Guide.	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Involved Person Record	✓ **Adopt** – the data element subfields and attributes for Date of Birth (P1) recommended in MMUCC **User Needs** - This data element is important both for assessing the effectiveness of occupant protection systems, and to provide linkage between various safety data system records. When recording this data for persons involved in a crash, **age of person is recommended** when the date of birth cannot be obtained.
Sex (P2) Definition: The sex of the person involved in the crash. Attributes: □ Male □ Female □ Unknown Rationale: Necessary, for example, to evaluate the effect of sex of the person involved on occupant protection systems and motor vehicle design characteristics.	**Sex** Definition: Enter the gender of the operator or pedestrian by placing a check mark in the appropriate box. Attributes: □ M □ F Page 22 in Investigator's Guide.	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Involved Person Record	Already recorded on the PR-1 **(Refer to Frequency List)** 182,470 Drivers involved in crashes – 2008 Connecticut Statewide 101,056 Male 73,874 Female 7,540 Unknown

MMUCC Guideline	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Person Type (P3) Definition: Type of person involved in a crash. Attributes: **Motorist**: □ Driver □ Passenger **Non-Motorist** (non-occupant of vehicle in transport): □ Pedestrian □ Other Pedestrian (wheelchair, person in a building, skater, personal conveyance, etc.) □ Bicyclist □ Other Cyclist □ Occupant of Motor Vehicle Not in Transport (parked, etc.) □ Occupant of a Non-Motor Vehicle Transportation Device □ Unknown Type of Non-Motorist **Unknown**: Rationale: Need to know person type for classification purposes to evaluate specific countermeasures designed for specific people.	**Involved Person Identifier (L)** Definition: Each person involved in an accident must be identified with respect to that involvement. Attributes: □ Occupant Vehicle #1 □ Occupant Vehicle #2 □ Pedestrian □ Witness See page 8 in the Investigator's Guide for additional instruction. Also note relationship with the following data elements and the data element – Involved Person Identifier. Injury Classification Seating Position Occupant Protection System Use Airbag Status Ejection Status	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Involved Person Record	✓ **Adopt** – the data element sub categories for Motorist and Non-Motorist and attributes for Person Type (P3) recommended in MMUCC **User Needs** - important for highway safety planners to be able to identify appropriate countermeasures (occupant restraints, bicycle helmets, reflective clothing), etc., based on the types of people involved in a motor vehicle crash. 
Injury Status (P4) Definition: The injury severity level for a person involved in crash. Attributes: **Fatal Injury** (K) **Nonfatal Injury** □ Incapacitating (A) □ Non-Incapacitating (B) □ Possible (C) **No Injury** (O) **Unknown** Rationale: Necessary for injury outcome analysis and evaluation. This element is also critical in providing linkage between the crash, EMS, and hospital records.	**Injury Classification (M)** Definition: Each person involved in an accident must receive the appropriate injury codification. Attributes: □ Fatal Injury □ Incapacitating Injury (Prevents return to normal activity) □ Non-Incapacitating Evident Injury □ Possible Injury (Claim of Non-evident Injury) □ Not Injured See page 8 in the Investigator's Guide for additional instructions.	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Involved Person Record	✓ **No change** – Injury Status is a recommended data element in MMUCC. **Refer to Frequency List** (available on request or at next PR-1 meeting) **User Needs** - important for analyzing motor vehicle crash outcomes by crash severity and for linking the following files associated with the evaluation of crash outcome and injury control. Crash Event – EMS – Emergency Department – Hospital Inpatient – Outpatient – Death Certificates –

MMUCC Guideline	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
----------	**Level 2: All Occupants**	----------	
Occupant's Motor Vehicle Unit Number (P5) Definition: The unique number assigned for this crash to the motor vehicle in which this person was an occupant. Attribute: • Number to indicate in which motor vehicle the occupant was located. Rationale: Important to link occupants back to motor vehicles in which they were riding. Necessary, for example, to evaluate the effect motor vehicle type and specific make/ model have on occupant protection effectiveness and injury status.	**Involved Person Identifier (L)** Definition: Includes the number which identifies which vehicle person was riding in; #1, #2 Page 8 in Investigator's Guide.	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Involved Person Record	Occupant's Motor Vehicle Unit Number is a recommended data element in MMUCC **User Needs** - important to be able to link occupants back to the motor vehicles in which they were riding.

MMUCC Guideline	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Seating Position (P6) Definition: The location for this occupant in, on, or outside of the motor vehicle prior to the first event in the sequence of events. See Appendix N. Attributes: **Subfield 1:** Row □ Front □ Second □ Third □ Fourth □ Other Row (bus, 15 passenger van, etc.) □ Unknown **Subfield 2:** Seat □ Left (usually the motor vehicle or motorcycle driver except for postal vehicles and some foreign vehicles) □ Middle □ Right □ Other □ Unknown **Subfield 3:** Other Location □ Not Applicable □ Sleeper Section of Cab (truck) □ Other Enclosed Cargo Area □ Unenclosed Cargo Area □ Trailing Unit □ Riding on Motor Vehicle Exterior (non-trailing unit) □ Unknown Rationale: Without known seating position for each person in the motor vehicle, it is not possible to fully evaluate, for example, the effect of occupant protection programs.	**Seating Position (N)** Definition: This entry will be utilized to indicate the positioning of each occupant with respect to the vehicle in or on which they were traveling. Enter the one code which best describes that position. Attributes: □ Front Seat Left/Motorcycle Driver □ Front Seat Middle □ Front Seat Right □ Second Seat Left/Motorcycle Passenger □ Second Seat Middle □ Second Seat Right □ Third Row Behind Driver/ Motorcycle Passenger □ Third Row Behind Front Seat Middle □ Third Row Right □ Sleeper Section of Cab (Truck) □ Enclosed Passenger or Cargo Area □ Unenclosed Passenger or Cargo Area □ Trailing Unit □ Riding on Vehicle Exterior □ Unknown See page 9 in Investigator's Guide for additional instruction.	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Involved Person Record	✓ **Adopt** – the data element subfields and attributes for Seating Position (P6) recommended in MMUCC MMUCC and PR-1 are essentially the same with the exception of fourth row, bus and 15 passenger vans. Also, difference in format with MMUCC representing a more structured representation of the attributes. **User Needs** - seating position for motor vehicle occupants involved in a crash is critical for the analyses and evaluation of occupant protection programs.

MMUCC Guideline	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Restraint Systems/Helmet Use (P7) Definition: The restraint equipment in use by the occupant, or the helmet use by a motorcyclist, at the time of the crash. Attributes: **Subfield 1:** Restraint Systems □ Not Applicable □ None Used-Motor Vehicle Occupant □ Shoulder and Lap Belt Used □ Shoulder Belt Only Used □ Lap Belt Only Used □ Restraint Used — Type Unknown □ Child Restraint System — Forward Facing □ Child Restraint System — Rear Facing □ Booster Seat □ Child Restraint Type Unknown □ Other □ Unknown **Subfield 2:** Helmet Use □ DOT-Compliant Motorcycle Helmet □ Other Helmet □ No Helmet Rationale: Proper classification of the use of available occupant restraint systems and helmet use is vital to evaluating the effectiveness of such equipment.	**Occupant Protection System Use (O)** Definition: This field applies only to those individuals who are occupants of a motor vehicle. Attributes: □ None Used-Vehicle Occupant □ Shoulder Belt Only □ Lap Belt Only □ Shoulder and Lap Belt □ Child Safety Seat □ Helmet/High Visibility Clothing □ Helmet/No High Visibility Clothing □ No Helmet/High Visibility Clothing □ Restraint Use Unknown Page 9 in Investigator's Guide.	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Involved Person Record	✓ **Adopt** – the data element subfields and attributes for Restraint Systems/Helmet Use (P7) recommended in MMUCC. **User Needs** - this data is critical to evaluating the effectiveness of restraint systems/helmet use. **Refer to Frequency List** (available on request or at next PR-1 meeting)  Question raised during stakeholder discussion - Can we add or modify attributes pertaining to child restraints to indicate whether or not restraint used is – age appropriate?

MMUCC Guideline	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Air Bag Deployed (P8) Definition: Deployment status of an air bag relative to the position in the vehicle for this occupant. Refer to Appendix M for a diagram of air bag types. Attributes: □ Not Applicable □ Not Deployed □ Deployed - Front □ Deployed - Side □ Deployed - Other (knee, air belt, etc.) □ Deployed - Combination □ Deployed - Curtain □ Deployment Unknown Rationale: Necessary to evaluate the effectiveness of air bags and other occupant protection equipment, especially at a time when air bags are becoming standard equipment.	**Airbag Status (P)** Definition: This field will be utilized to describe the airbag status as it relates to each occupant involved in the accident. Attributes: □ Deployed □ Not Deployed □ Not Applicable □ Unknown Page 10 in Investigator's Guide – additional instruction.	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Involved Person Record	✓ **Adopt** – the data element attributes for Air Bag Deployed (P8) recommended in MMUCC Air bag types as illustrated in the MMUCC Guideline **Refer to Frequency List** (available on request or at next PR-1 meeting)  **User Needs -** important for analysis and evaluation of the effectiveness of air bags and other occupant protection systems.
Ejection (P9) Definition: Occupant completely or partially thrown from the interior of the motor vehicle, excluding motorcycles, as a result of a crash. Attributes: □ Not Ejected □ Ejected, Partially □ Ejected, Totally □ Not Applicable □ Unknown Rationale: Occupant protection systems prevent or mitigate ejections to various degrees. Analyses of the effectiveness of safety belts depend on information from this data element.	**Ejection Status (Q)** Definition: This field will be utilized to describe the ejection/trapped status of each person who was an occupant of a vehicle. Attributes: □ Not Applicable □ Totally Ejected □ Partially Ejected □ Trapped □ Unknown Page 10 – Investigator's Guide	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Involved Person Record	Ejection is a recommended data element in MMUCC  **User Needs -** data is important in analyzing the effectiveness of occupant restraints.

MMUCC Guideline	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
----------	**Level 3: All Drivers**	----------	
Driver License Jurisdiction (P10) Definition: The geographic or political entity issuing a driver license. Includes the States of the United States (including the District of Columbia and outlying areas), Indian Nations, U.S. Government, Canadian Provinces, and Mexican States (including the Distrito Federal), as well as other jurisdictions. Attributes: □ Not Applicable □ Not Licensed □ State □ Indian Nation □ U.S. Government □ Canadian Province □ Mexican State □ International License (other than Mexico, Canada) □ Unknown Rationale: Necessary to evaluate the effectiveness of various licensing laws. This element is also critical in providing linkage between the crash and driver license files at the State level.	**Operator License #; State** Definition: Enter the full license number of the operator together with the appropriate two letter USPS abbreviation of the licensing state. Attributes: □ Operator License # □ State Page 22 Investigator's Guide.	Not recorded	✓ **Adopt** – the data element attributes for Driver License Jurisdiction (P10) recommended in MMUCC **User Needs** - important for licensing officials to be able to track and compare the effectiveness of various licensing laws.

MMUCC Guideline	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Driver License Number, Class, CDL and Endorsements (P11)** Definition: A unique set of alphanumeric characters assigned by the authorizing agent issuing a driver license to the individual. Attributes: **Subfield 1:** License Number □ Alphanumeric identifier assigned by the authorizing jurisdiction (State, foreign country, U.S. government, Indian Nation, etc.) **Subfield 2:** Class This indicates the type of driver's license issued by the State and the type of motor vehicle the driver is qualified to drive. □ None □ Not Applicable □ Class A Any combination of vehicles with a gross combination weight rating (GCWR) of 26,001 pounds or more provided the GVWR of the vehicle(s) being towed is in excess of 10,000 pounds. □ Class B Any single vehicle with a GVWR of 26,001 pounds, or any such vehicle towing a vehicle not in excess of 10,000 pounds GVWR. □ Class C Any single vehicle, or combination of vehicles, that does not meet the definition of Class A or Class B, but is either designed to transport 16 or more passengers, including the driver, or is used in the transportation of materials found to be hazardous which require the motor vehicle to be placarded. □ Regular Driver's License Class Any regular or standard driver's license issued for the operation of automobiles and light trucks by States that separate these vehicles from Class "C". Other class designation codes such as "D", "R" and others may be used by States to indicate a regular driver's license class. □ Class M Motorcycles, Mopeds, Motor-Driven Cycles	**Operator License #; State** Definition: Enter the full license number of the operator together with the appropriate two letter USPS abbreviation of the licensing state. Attributes: □ Operator License # □ State **Proper License Class** Definition: Indicate if the operator was operating a vehicle for which he was properly licensed by placing a check mark in the appropriate box. Attributes: □ Yes □ No Page 22 Investigator's Guide.  **Subfield 3:** Commercial Driver License (CDL). This indicates whether the driver's license is a commercial driver license (CDL). Also, this information is important to separate the non-commercial licenses included by some States in Class C with the commercial licenses. □ No □ Yes **Subfield 4:** Endorsements This indicates any endorsements to the driver's license, both commercial and non-commercial. □ None/Not Applicable □ T – Double/Triple Trailers □ P – Passenger □ N – Tank Vehicle □ H – Hazardous Materials □ X – Combination of Tank Vehicle and Hazardous Materials □ S – School □ Other non-commercial license endorsements (e.g., motorcycle, etc.)	Not recorded	✓ **Adopt** – the data element subfields and attributes for Driver License Number, Class, CDL and Endorsements (P11) recommended in MMUCC This data element is recommended by the FMCSA **User Needs** - provides the licensing or authorizing agency a unique set of identifiers for each individual requesting a driver licensing.

MMUCC Guideline	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Driver Name (P12) Definition: The full name of the individual driver. Attributes: □ Name Rationale: This data element should be collected to corroborate the driver license number and to facilitate linkage when names are available in the health and insurance files. When possible, obtain this information from the driver license (via a bar code or "smart" license or via on-line linkage).	**Operator or Pedestrian Name** Definition: Enter the name of the operator or the pedestrian: last name, first name and middle initial. Attributes: Operator or Pedestrian Name □ Last □ First □ Middle Initial Page 22 – Investigator's Guide	Not recorded	Record the name of the operator or pedestrian as recommended in the PR-1 Investigator's Guide. Recommended that names of all persons should be captured – drivers, passengers, non-motorists (pedestrians and pedalcyclists) Pedalcyclists treated same as vehicle operators – page 8 Investigator's Guide **User Needs** - important for file linkage to be able to follow people to determine health care outcomes Secure level access only

MMUCC Guideline	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Driver Actions at Time of Crash (P13) Definition: The actions by the driver that may have contributed to the crash. This data element is based on the judgment of the law enforcement officer investigating the crash and need not match **Violation Codes (P14)**. Attributes: **Subfield 1:** Driver Action 1 □ No Contributing Action □ Ran Off Roadway □ Failed to Yield Right-of-Way □ Ran Red Light □ Ran Stop Sign □ Disregarded Other Traffic Sign □ Disregarded Other Road Markings □ Exceeded Posted Speed Limit □ Drove Too Fast For Conditions □ Improper Turn □ Improper Backing □ Improper Passing □ Wrong Side or Wrong Way □ Followed Too Closely □ Failed to Keep in Proper Lane □ Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner □ Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway □ Over-Correcting /Over-Steering □ Other Contributing Action □ Unknown **Subfield 2:** Driver Action 2 See attributes in Subfield 1 **Subfield 3:** Driver Action 3 See attributes in Subfield 1 **Subfield 4:** Driver Action 4 See attributes in Subfield 1 Rationale: Important for evaluating the effect that dangerous driver behavior has on crashes.	**Contributing Factor (W)** Definition: Select the one factor whose absence you believe would have provided the greatest probability that the accident could have been avoided. The contributing factor is a circumstance associated with the accident that analysts or reconstructionists should be aware of if they want to take action to prevent recurrence of the crash. Attributes: □ Driving on the Wrong Side of Road ····· □ Speed Too Fast for Conditions □ Violated Traffic Control ····· □ Under the Influence □ Failed to Grant Right of Way □ Improper Passing Maneuver ····· □ Improper Lane Change □ Following Too Closely □ Slippery Surface ····· □ Driver Lost Control □ Animal or Foreign Object in Road □ Fell Asleep ····· □ Defective Equipment □ Driver Illness □ Driver's View Obstructed □ Unsafe Tires ····· □ Unsafe Use of Highway by Pedestrian □ Unsafe Right Turn on Red □ Driverless Vehicle ····· □ Insufficient Vertical Clearance □ Proper Turn Signal Not Displayed □ Disabled or Illegally Parked Vehicle ····· □ Abnormal Road Condition □ Vehicle Without Lights ····· □ Traffic Signal Not Operating □ Vehicle Involved in Emergency □ Entered Roadway in Wrong Direction □ Roadway Width Restricted ····· □ Unknown □ Unsafe Backing □ Improper Turning Maneuver See page 15 in Investigator's Guide for additional examples and explanations.	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Accident Summary Record **Driver** (D) D D D D D D **Road** (R) D R D **Vehicle** (V) D R V **Pedestrian** (P) D V R R V R V R V D R - D D	Driver Actions at Time of Crash (P13) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** P13 as recommended in the National Guidelines. Stakeholder suggestions include: • Allow for more than one attribute to be recorded • Allow for at least one attribute per vehicle • Consider a CAUSATIVE factor box for the investigator to determine which one of the contributing factors contributed the greatest to the cause of the collision? • Allow for unknown or undetermined contributing factor • Allow for "none" for a contributing factor **National Guideline breaks down contributing factors under …** P13 – Driver Actions V25 – Contributing Circumstances Motor Vehicle C14 – Contributing Circumstances Road P23 – Non-Motorist Actions **The following is included for informational/training purposes** ---------- **Currently on the PR-1 …** A circumstance associated with the accident, related to … the Driver, the Roadway, Animal or Object in the Road, the Vehicle, the Environment (Vertical Clearance), Traffic Control – pick one Some of the factors, i.e., Traffic Signal Not Operating, Defective Equipment, call for further description in the Narrative Section. Examples on p. 15 of the Investigator's Guide are Driver – related, i.e., view obstructed, too fast for conditions, violated red light Question – with Defective Equipment, Unsafe Tires, Vehicle without Lights, which one to use? **Refer to Frequency List (designations for D, V, R, and P)** 2008 (104,187) – Defective equipment?, Vehicle had mechanical failure 695, Unsafe tires 369, Driverless vehicle 241, Disabled or illegally parked vehicle 96, Vehicle without lights 48, Vehicle involved in emergency 53 Assume that vehicle defects in this field on the PR-1 pertain to all vehicles - compared to (**X - Defective Equipment**), page 16 in the Investigator's Guide for Defective Equipment for vehicles subject to Motor Carrier Regulations. Compare frequencies … CMV totals vs. non-CMV totals

MMUCC Guideline	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Violation Codes (P14) Definition: All motor vehicle-related violation codes, if any, which apply to this driver. Attributes: **Subfield 1:** Violation Code 1 □ No Violation □ (Violation Code) □ Unknown **Subfield 2:** Violation Code 2 See attributes in Subfield 1 Rationale: Important for evaluation of safety laws and enforcement practices. This information is not available from the driver license file.	**Statute # or Ordinance #** Definition: The statute numbers or ordinance numbers that were violated by the individual or vehicle with respect to the traffic unit. In the event that the list of violations is extensive, list the most severe violations in the block provided. The remaining violations should be listed in the narrative section on the form. Attributes: □ Statute or Ordinance #'s Page 27 in Investigator's Guide.	The following data elements are not entered into the DOT Crash file. -Enforcement Action -Statute/Ordinance #	✓ **Adopt** – the data element subfields and attributes for Violation Codes (P14) recommended in MMUCC **Recommendation to add a box for "cited", "ticketed" or "infraction issued" in addition to just going from "written warning" to "arrested" - Operators complain they were not arrested, only ticketed. Insurance Companies may look at arrested differently from receiving a ticket.** MMUCC is a minimum – only two violation codes are recommended. **User Needs** - important for law enforcement and other highway safety officials to evaluate safety laws and enforcement practices. For secure level access only in a Crash Data Repository

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Driver Distracted By (P15) Definition: Distractions which may have influenced the driver performance. The distractions can be inside the motor vehicle (internal) or outside the motor vehicle (external). Attributes: □ Not Distracted □ Electronic Communication Device □ Other Electronic Device (navigation device, DVD player, etc.) □ Other Inside the Vehicle □ External Distraction (outside the vehicle) □ Unknown Rationale: Important for evaluating the effect that driver behavior has on crashes.	**Driver Distracted By** Note: Not contained on the PR-1 Crash Form.	Not recorded	✓ **Adopt** – the data element attributes for Driver Distracted By (P15) recommended in MMUCC. This data element has already been implemented in a limited application with select jurisdictions.  **User Needs -** this emerging highway safety challenge has caused leaders to mobilize at National, State and Local levels to evaluate and implement appropriate countermeasures. Quality motor vehicle related crash data that can be used by highway safety leaders to pinpoint this aspect of driver behavior to be able to enact appropriate countermeasures is critical.
----------	**Level 4: All Drivers & Non-Motorists**	----------	
Condition at Time of Crash (P16) Definition: Any relevant condition of the individual (motorist or non-motorist) that is directly related to the crash. Attributes: □ Apparently Normal □ Physically Impaired □ Emotional (depressed, angry, disturbed, etc.) □ Ill (sick), Fainted □ Asleep or Fatigued □ Under the Influence of Medications/Drugs/Alcohol □ Other □ Unknown Rationale: Important for evaluating the effect that fatigue, medications/ alcohol/drugs, or other conditions have on the crash.	**Condition at Time of Crash** Note: Not contained on the PR-1 Crash Form.		Condition at Time of Crash (P16) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** P16 as recommended in the National Guidelines. **User Needs** – Condition/impairment related data element – important for evaluating the effect that emotion (anger), fatigue, medications, alcohol/drugs, or other conditions have on the crash occurrence. 

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Law Enforcement Suspects Alcohol Use (P17) Definition: Driver or non-motorist involved in the crash suspected by law enforcement to have used alcohol. Attributes: □ No □ Yes □ Unknown Rationale: Alcohol-related crashes remain a serious traffic safety problem. Identifying crashes in which alcohol may have been involved will help evaluate the effectiveness of programs to decrease the incidence of drunk driving or to identify problem areas.	**Law Enforcement Suspects Alcohol Use** Note: Not contained on the PR-1 Crash Form.	Not recorded	Law Enforcement Suspects Alcohol Use (P17) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** P17 as recommended in the National Guidelines. **User Needs - important to help identify crashes in which alcohol may have been involved** • to help evaluate programs aimed at alcohol involved crashes • to help reduce the incidence of crashes involving impaired drivers • to help identify problem areas Stakeholders discussed the need for law enforcement to substantiate any enforcement actions taken or data recorded, e.g., suspected alcohol use. **(Refer to Frequency List)** **Alcohol and/or drug involvement determination –** (C) in Required Column of the DOT Accident Summary Record – means that **the field may be supplied on an Auxiliary Input File or entered by the DOT Accident Coders**
Alcohol Test (P18) Definition: Indication of the presence of alcohol by test, type, and result. Attributes: **Subfield 1:** Test Status □ Test Not Given □ Test Refused □ Test Given □ Unknown if Tested **Subfield 2:** Type of Test □ Blood □ Breath □ Urine □ Other **Subfield 3:** BAC Test Result □ Value □ Pending □ Unknown Rationale: Alcohol remains the most prevalent drug involved in motor vehicle crashes. Capturing alcohol concentration whenever a driver or non-motorist is tested will provide an accurate assessment of the role of alcohol involvement. The type of test used to obtain the alcohol concentration also is important information to collect.	**Alcohol Test** Note: Not contained on the PR-1 Crash Form.	Not recorded	Alcohol Test (P18) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** P18 as recommended in the National Guidelines. **User Needs** - to be able to provide an accurate assessment of the role of alcohol involvement in the crash. This data element is contained on the PR-2 for fatal motor vehicle crashes. **Alcohol and/or drug involvement determination –** (C) in Required Column of the DOT Accident Summary Record – means that **the field may be supplied on an Auxiliary Input File or entered by the DOT Accident Coders**

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Law Enforcement Suspects Drug Use (P19) Definition: Driver or non-motorist involved in the crash suspected by law enforcement to have used drugs. Attributes: □ No □ Yes □ Unknown Rationale: Drug-related crashes remain a serious traffic safety problem. Identifying crashes in which drugs may have been involved will help evaluate the effectiveness of programs to decrease the incidence of driving while under the influence of drugs.	**Law Enforcement Suspects Drug Use** Note: Not contained on the PR-1 Crash Form.	Not recorded	Law Enforcement Suspects Drug Use (P19) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** P19 as recommended in the National Guidelines. **User Needs - important to help identify crashes in which drugs may have been involved** • to help evaluate programs aimed at drug involved crashes • to help reduce the incidence of crashes involving impaired drivers • to help identify problem areas Stakeholders discussed the need for law enforcement to substantiate any enforcement actions taken or data recorded, e.g., suspected drug use. **(Refer to Frequency List)** **Alcohol and/or drug involvement determination –** (C) in Required Column of the DOT Accident Summary Record – means that **the field may be supplied on an Auxiliary Input File or entered by the DOT Accident Coders**
Drug Test (P20) Definition: Indication of the presence of drug test, type, and result. Excludes drugs administered post-crash. See **Drug Test Result (PL3**) to document drug name and value. Attributes: **Subfield 1:** Test Status □ Test Not Given □ Test Refused □ Test Given □ Unknown if Tested **Subfield 2:** Type of Test □ Blood □ Urine □ Other **Subfield 3:** Drug Test Result □ Positive □ Negative □ Unknown Rationale: Identifying drug-related crashes will help develop and evaluate programs directed at reducing their involvement. Whenever evidence of other drug use is available, it should be captured.	**Drug Test** Note: Not contained on the PR-1 Crash Form.	Not recorded	Drug Test (P20) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** P20 as recommended in the National Guidelines. This data element is contained on the PR-2 for fatal motor vehicle crashes. **User Needs** - to be able to provide an accurate assessment of the role of drug involvement in the crash. **Alcohol and/or drug involvement determination –** (C) in Required Column of the DOT Accident Summary Record – means that **the field may be supplied on an Auxiliary Input File or entered by the DOT Accident Coders**

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
----------	**Level 5: Non-Motorists**	----------	
Non-Motorist Number (P21) Definition: The unique number assigned to the non-motorist involved in the crash. Attribute: □ Sequential Number (uniquely identifying the non-motorist involved in the crash) Rationale: Important for management/administration and evaluation. Needed to determine number and type of non-motorists involved in crash. Needed to track non-motorist action before the crash as well as injuries sustained.	**Non-Motorist Number** Note: Not contained on the PR-1 Crash Form.	Not recorded	Non-Motorist Number (P21) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** P21 as recommended in the National Guidelines. **User Needs** – important together with data elements P22-P24 in tracking individual non-motorists involved and for interpreting the outcomes of motor vehicle crashes.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Non-Motorist Action/Circumstance Prior to Crash (P22) Definition: The action of the non-motorist immediately prior to the crash and an indication of whether the non-motorist was walking/cycling to/from school. Attributes: □ Crossing Roadway □ Waiting to Cross Roadway □ Walking/Cycling Along Roadway with Traffic (In or adjacent to travel lane) □ Walking/Cycling Along Roadway against Traffic (In or adjacent to travel lane) □ Walking/Cycling on Sidewalk □ In Roadway – Other (working, playing, etc.) □ Adjacent to Roadway (e.g., shoulder, median) □ Going to or from School (K-12) □ Working in Trafficway (incident response) □ Other □ None □ Unknown Rationale: The development of effective roadway design and operation, education, and enforcement measures to accommodate pedestrians and cyclists and prevent crashes with motor vehicles is enhanced by the collection of the actions and circumstances prior to the crash.	**Pedestrian Maneuver (U)** Definition: Utilized to describe the action of each pedestrian involved in the accident. Select the one maneuver that best describes the pedestrian's action prior to the accident. Attributes: □ Directing Traffic □ Working in Road □ Playing in Road □ Not in Road □ Emergency Personnel □ Crossing at Intersection With Signal □ Crossing at Intersection Against Signal □ Crossing at Unsignalized Intersection □ Crossing Between Intersections □ Crossing From Behind Parked Vehicle □ Entering or Exiting Vehicle □ Waiting for, Exiting or Entering School Bus □ Walking or Jogging in Road □ Other or Unknown See page 15 in the Investigator's Guide for additional explanations.	✓ This data element is entered into DB – DOT Crash file Source – ConnDOT Collision Analysis System: Description of Traffic Unit Information Record	✓ **Adopt** – the data element attributes for Non-Motorist Action/Circumstance Prior to Crash (P22) recommended in MMUCC. Non-Motorist Action/Circumstances include Pedalcyclists as well as Pedestrians Attribute – Going to or from School – combined with person type provides indicator of whether the non-motorist was walking/cycling to or from school. **Refer to Frequency List** (available on request or at next PR-1 meeting)  **User Needs** – important in the development of effective roadway design and operation, education, and enforcement measures to accommodate pedestrians and cyclists and prevent crashes with motor vehicles.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Non-Motorist Actions/Circumstances at Time of Crash (P23) Definition: The actions/circumstances of the non-motorist that may have contributed to the crash. This data element is based on the judgment of the law enforcement officer investigating the crash. Attributes: **Subfield 1:** Non-Motorist Contributing Action/Circumstance 1 □ No Improper Action □ Dart/Dash □ Failure to Yield Right-Of-Way □ Failure to Obey Traffic Signs, Signals, or Officer □ In Roadway Improperly (standing, lying, working, playing) □ Disabled Vehicle Related (working on, pushing, leaving/approaching) □ Entering/Exiting Parked/Standing Vehicle □ Inattentive (talking, eating, etc.) □ Not Visible (dark clothing, no lighting, etc.) □ Improper Turn/Merge □ Improper Passing □ Wrong-Way Riding or Walking □ Other □ Unknown **Subfield 2:** Non-Motorist Contributing Action/Circumstance 2 See attributes in Subfield 1 Rationale: The development of effective roadway design and operation, education, and enforcement measures to accommodate pedestrians and cyclists and prevent crashes with motor vehicles is enhanced by the collection of the actions and circumstances at the time of the crash.	**Non-Motorist Actions at Time of Crash** Note: Not contained on the PR-1 Crash Form. Refer to Contributing Factor (**W**) (page 15 Investigator's Guide) – contains single attribute for Non-Motorist. * Unsafe Use of Highway by Pedestrian	Not recorded	✓ **Adopt** – the data element subfields and attributes for Non-Motorist Actions/Circumstances at Time of Crash (P23) recommended in MMUCC MMUCC allows for two contributing circumstances. Provides a list of possible factors compared to single value provided for pedestrians on existing PR-1, under Contributing Factor.  **User Needs** – important in the development of effective roadway design and operation, education, and enforcement measures to accommodate pedestrians and cyclists and prevent crashes with motor vehicles.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Non-Motorist Location at Time of Crash (P24) Definition: The location of the non-motorist with respect to the roadway at the time of the crash. Attributes: □ Intersection - Marked Crosswalk □ Intersection - Unmarked Crosswalk □ Intersection - Other □ Midblock - Marked Crosswalk □ Travel Lane - Other Location □ Bicycle Lane □ Shoulder/Roadside □ Sidewalk □ Median/Crossing Island □ Driveway Access □ Shared-Use Path or Trail □ Non-Trafficway Area □ Other □ Unknown Rationale: The development of effective roadway design and operation, education, and enforcement measures to accommodate pedestrians and cyclists and prevent crashes with motor vehicles is enhanced by the collection of the location of the non-motorist at the time of the crash.	**Non-Motorist Location at Time of Crash** Note: Not contained on the PR-1 Crash Form; however the data element, Pedestrian Maneuver (**U**) does imply some location information, such as at intersection, in road, etc. Page 15 Investigator's Guide.	Not recorded	Non-Motorist Location at the Time of the Crash (P24) is a recommended data element in MMUCC. **Recommendation:** ✓ **Adopt** P24 as recommended in the National Guidelines. **User Needs** – for engineering and other highway safety officials, this data element (P24) used in combination with P22 Non-Motorist Actions Prior to the Crash and P23 Non-Motorist Contributing Circumstances at the Time of the Crash would be useful for interpreting vehicle - pedestrian and/or vehicle - pedalcyclist crashes. This data is important for roadway design and operation, education, enforcement, and other highway safety measures aimed at pedestrian and cyclist safety.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
Non-Motorist Safety Equipment (P25) Definition: The safety equipment(s) used by the non-motorist. Attributes: **Subfield 1:** Safety Equipment Used by Non-Motorist □ None □ Helmet □ Protective Pads Used (elbows, knees, shins, etc.) □ Reflective Clothing (jacket, backpack, etc.) □ Lighting □ Other □ Not Applicable □ Unknown **Subfield 2:** Safety Equipment Used by Non-Motorist See attributes in Subfield 1 Rationale: Used to evaluate effectiveness of non-motorist safety equipment. Important to calculate usage statistics for the development and evaluation of the effectiveness of educational countermeasures. The use of two sub-fields allows for the recording of two types of safety equipment, such as a helmet and reflective clothing.	**Non-Motorist Safety Equipment** Note: Not contained on the PR-1 Crash Form; however, the data element Occupant Protection System Use (**O**) does contain some related information, such as helmet, etc. Page 9 Investigator's Guide.	Not recorded	✓ **Adopt** – the data element subfields and attributes for Non-Motorist Safety Equipment (P25) recommended in MMUCC **User Needs** - Helpful for interpreting the motor vehicle crash and in determining the effectiveness of non-motorist safety equipment. Multiple subfields allow recording more than one type of safety equipment.
Unit Number of Motor Vehicle Striking Non-Motorist (P26) Definition: Number assigned to identify the motor vehicle that struck the non-motorist in the crash. Attribute: □ Unit number of motor vehicle that was the first motor vehicle to strike the non-motorist Rationale: Used for tracking. Important when multiple motor vehicles are involved in the crash.	**Unit Number of Motor Vehicle Striking Non-Motorist** Note: Not contained on the PR-1 Crash Form.	Not recorded	✓ **Adopt** – the data element Unit Number of Motor Vehicle Striking Non-Motorist (P26) recommended in MMUCC **User Needs** - Helpful for interpreting the motor vehicle crash, when multiple vehicles are involved. Discussion that this data element can be found elsewhere on the PR-1. Need to verify, and also to determine how the data is recorded. Future electronic reporting to a Crash Data Repository may rely on electronic reporting coming directly from the law enforcement officer.

MMUCC Guidelines	PR-1	DOT Crash File	Adopt National Guidelines (MMUCC)
----------	**Level 6: All Injured Persons**	----------	
Transported to Medical Facility By (P27) Definition: Type and identity of unit providing transport to the medical facility receiving the patient. Attributes: **Subfield 1:** Source of Transport □ Not Transported □ EMS Air □ EMS Ground □ Law Enforcement □ Other □ Unknown **Subfield 2:** EMS Response Agency Identifier □ ID for EMS Agency That Responds **Subfield 3:** EMS Response Run Number **Subfield 4:** Name or Number of Medical Facility Receiving Patient Rationale: Important to trace victim from the scene of crash through the health care system. Facilitates linkage of injured crash victims with Emergency Medical Services data files.	**Transported to Medical Facility** Note: Not contained on the PR-1 Crash Form.	Not recorded	✓ **Adopt** – the data element subfields and attributes for Transported to Medical Facility By (P27) recommended in MMUCC FMCSA supports recording whether persons injured in a motor vehicle crash were transported from the scene for medical treatment. **User Needs** - This data element would help support linkage of motor vehicle crash data with medical records, providing a track of a victim from the crash through the health care system.