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1. INTRODUCTION

The Pennsylvania Department of Transportation developed the Crash Reporting System (CRS) Web Site in 2001. It was designed to allow for Police Agencies to have a means to electronically file, store and retrieve crash investigation data as well as a means for PennDOT to verify, validate, and process the data to be used by the Bureau of Maintenance and Operations for a variety of highway safety needs. The current software release was designed to function the same way as the paper forms. This was done to facilitate data entry on the web site using data captured on paper crash report forms.

PennDOT has been collecting crash statistics for decades. The Bureau of Maintenance and Operations is currently responsible for collection of crash report data in accordance with both State and Federal Law. The collection of crash data is currently handled by one of three input methods:

- Computer software that utilizes PennDOT’s recognized data standard will send the data electronically through File Transfer Protocol (FTP).
- Crash reports are entered directly into the system by police using the Crash Reporting System (CRS) web site
- Driver reports are submitted using form AA 600 for crashes not investigated by the appropriate police agency. If the data from the report is determined to meet the criteria for reportability, then the data is entered by hand by a PennDOT analyst.

Regardless of input method, the crash report is reviewed by PennDOT before the crash data is placed in a completed status for use by the Bureau. Driver, and vehicle information is verified before it is provided to the Bureau of Driver Licensing.

2. GETTING STARTED

A. System Requirements

i. Browser Requirements and Settings

PennDOT actively tests and supports Internet Explorer 11.x. for use with Crash Reporting System (CRS). Other common browsers, such as Chrome and Firefox can also be used to access CRS. However, PennDOT will not provide technical support for any browser other than Internet Explorer at this time.

- Please note that CRS is currently not compatible with Microsoft Edge.
• CRS is best viewed in 1024x768 screen solution using medium sized text at 100% zoom.

ii. Cookies

When visiting the CRS site, PennDOT may place a small text file, known as a ‘cookie’ on your computer. PennDOT uses session cookies that last only as long as your web browser is open. The cookie collects information about your visit to site. PennDOT does not collect personal information about you through cookies.

iii. Plug-ins

The Image History Viewer plug-in requires a Microsoft Windows operating system. Users must have Administrator rights to get CRS plug-ins.

iv. JavaScript™

JavaScript must be enabled for your browser.

v. Printing Requirements

All forms are in PDF file format and requires Adobe Acrobat Reader for viewing and printing.

Click here to download the latest version of Adobe Acrobat Reader: https://get.adobe.com/reader/

HELPFUL TIP: When downloading Adobe Acrobat Reader, be alert to opt-in offers on the page (see figure below). These are optional, and may cause harmless – but undesired - toolbars or other software to be installed on your PC. Adobe makes these opt-in by default, but you can easily avoid them by unchecking to boxes next to those offers.
vi. Trusted Sites

Certain features might be blocked on some browsers if the CRS website is not on the trusted sites list. Under the Tools drop down menu, select Internet Options, then select the Security tab. Click on the Sites button and add *.state.pa.us to the trusted sites list.

B. Access to the Crash Reporting System

Access to the Crash Reporting System will be provided by a designated CRS Security Administrator. Each reporting police agency will designate at least one Security Administrator to be approved by the Chief of Police, Officer in Charge, or ranking municipal official.

The Security Administrator will be responsible for creating, and maintaining CRS User accounts, ensuring that the users follow accepted procedures for use of the
PennDOT Crash Reporting System, and determining the appropriate security level(s) for each user.

Security Levels:

- **System Administrator**: Allows this user to setup, and administer CRS user accounts.
- **View Records**: Allows a user to lookup crashes within the agency, view the case, view the image archive of the case (if applicable) and print reports.
- **Add and Update Records**: Allows a user to create a new case, make changes to existing cases, and validate the data on the report.
- **Approve Records**: Allows a user to approve a record, setting the case status to “Approved” for PennDOT review, or in the case of PennDOT approvers, setting the case status to “Complete” for addition to the PennDOT production database.

C. User Consent Worksheet

All users must read and sign a “User ID Worksheet and Agreement”. This is provided to the new user from the agency’s system administrator. A signed copy must be kept on file by the agency’s crash system administrator. By signing this agreement, each User agrees to abide by the terms specified for using the Crash System.

As a User of the Commonwealth’s Crash Reporting System, users must agree to only use the Crash System for those official business activities for which it is intended. All other uses are strictly prohibited. Users are bound by appropriate sections of Pennsylvania Consolidated Statutes Title 75 (Vehicles), including §3751(b) “Furnishing copies of report.”

By signing this User Agreement, each User agrees to not engage in any of the following:

- Use of the Crash System to conduct non-official business activities.
- Use of the Crash System for the purpose of personal financial gain.
- Use of the Crash System to isolate or infringe upon the rights of any person.
- Use of the Crash System for disseminating unauthorized or confidential information.
- Use of the Crash System for any illegal activities.
- Use of the Crash System via another person’s User ID/password.
- Use of the Crash System for any other inappropriate activity not covered above.
3. LOGGING ON TO THE CRASH REPORTING SYSTEM

To access the Crash Reporting System, go to: https://www.dot6.state.pa.us/crash.nsf

Once the user has entered the Web Site, to Log In to the Crash Reporting System click Log In in the Navigation Bar section of the screen.

**IMPORTANT:** The first time you sign in with a new account or after you have been assigned a temporary password by your administrator you must supply all 4 fields on the log in screen in order to sign in:

- **User ID:** The User ID assigned by your local administrator
- **Password:** The temporary password you were provided
- **New Password:** Make up an new password that is at least 6 characters and contains at least one letter and one number
- **Confirm Password:** Carefully type in the new password once again keeping in mind that the password is Case Sensitive.
Logging in for the First Time

Once your new password has been chosen and you have successfully logged into the system, the new password is permanent. You will only need to enter your User ID and current password. You must log in to your account at least once a year to remain active.

Changing Your Password

If you receive a message stating that your password has expired or if you wish to change your password at any time enter your User ID, old Password, a new Password, and Confirm Password on the sign in screen. Failure to enter all 4 items properly will cause your account to become locked; if you become locked out, call 717-787-2855, Opt 3, to have your password reset.
11. BASIC CRS WEB SITE LAYOUT

Each web page is comprised of 3 sections:

1. Banner which runs horizontally across the top.
2. Navigation Bar which runs vertically along the left side.
3. Report Page and the main part of the web page displaying the data being reviewed or entered.

A. Banner

The Banner runs horizontally across the top of the page. In the Banner, the user will find the Record Type, Crash Number, Agency, Incident Number, and Status for the case being reviewed or worked on and any other key information that is appropriate to the Web Data page being displayed. This information is for display only. When a new case is being added, initially you will see n/a in the fields that make up the Banner section. As the data is entered and saved, the Banner will display the available information.

The Status field may contain one of four values:

- **Work In Progress**: Case in progress, not pending approval or approved.
- **Pending Approval**: Case is waiting for review and approval.
- **Approved**: Case has been reviewed and approved.
• **Complete:** Case has been reviewed by PennDOT
  
  o Note: police users will not be able to view PennDOT work in progress or complete cases.

**B. The Navigation Bar**

The Navigation Bar runs vertically along the left side of the panel. The Navigation Bar is always displayed when running the Crash Application.

When a user initially logs into the system, what they see in the Navigation Bar depends on their account profile. For instance if a user does not have “Add/Edit” privileges, then the “Add a New Case” option will not be visible.

**Navigation Bar Functions**

- **Log Out:** When you are finished working with crash data click Log Out in the Navigation Bar. This will exit the system and return you to the Crash System Log in screen. Logging-Out is important because it ends the user’s session and the use of his ID.

- **Add a New Case:** To enter a new crash case into the system, click Add A New Case. The system will display a new Crash Data page for recording the new case.

- **Find a Case:** If crash data about a case has already been entered but the user wants to review, add, or change information, the Find a Case function will allow him/her to find the appropriate case.

- **Crash System Help:** Brings up a window with links to the following documentation:
  
  o **Web Manual:** A copy of this manual in PDF form
  
  o **Publication 153:** The Police Officers Crash Report Manual
  
  o **Errors andWARNINGS:** A list of Error and Warning Messages and their description
  
  o **Browser Settings:** A list of recommended browser specifications

**Using the Navigation Bar Page Titles**

By clicking on a page title in the Navigation Bar a user may navigate between the pages within a crash case.
You can see an example case with 4 Units with 2 commercial units (3,6) a motorcycle (unit 1), and a pedalcycle (unit 2), taking place in a work zone. The person information for units 1,2,3 and part of unit 5 are on page AA 500 3. The person information for unit 6 and the remaining people in unit 5 are on page AA 500 P (additional person info).

The website was designed to navigate through pages the same way it as would be done if using the paper AA 500 forms.

This was done to make entering data from the paper forms using the web site easier. It also makes following the written instructions in the PENNDOT Publication 153 much easier to follow when using the web site to enter data.

C. The Report Pages

In general you can tell which page of the report is currently displayed on the Report Screen by looking in the upper left corner. The AA 500 page title will appear in RED just below the blue buttons on the report page. The pages of the report can include the following:

- AA 500 1 – General Crash Data
- AA 500 2 or AA 500 U – Unit Data • AA 500 3 or AA 500 P – Person Data
- AA 500 4 or AA 500 H – Harmful Event and Crash Factor Data
- AA 500 5 or AA 500 N – Diagram and Narrative Data
- AA 500 F – Fatal Crash Data
- AA 500 C – Commercial Vehicle Data
- AA 500 M – Additional Information (Motorcycle, Bicycle, Pedestrian, or Work Zone)

For information on how to fill out the items on the Report pages, please refer to the PennDOT Publication 153. The manual is available on the Crash Website under “Crash System Help”. Paper copies of the manual can be obtained by contacting PennDOT at (717) 787-2855.

D. Additional Features

1. Toggling the Navigation Bar
Make more room on the screen by closing the left menu. A new icon is located beside the PennDOT logo that allows you to open and close the left menu column. Here is the closed position.

Reopen the left menu by toggling the button (circled in red above).

2. Opening and Closing Report Blocks

The diagram below shows Block 1 in the CLOSED position and Block 2 in the OPEN Position. These can be toggled using the downward facing arrow symbol to the right of the Block Title.
Now the reverse - Police Agency is in the open position and Crash Data is in the close position.

3. Toggling the Stacked / Unstacked Field View

To use the drop down view shown below you can drag the right side of the browser window to the left until drop down view displays or use the toggle button.
4. Toggling the Case Validation Format

If you use a narrow Crash screen, revisions have been made to allow more screen to display.
The Validation Page/Case window displays to the right of the main screen when validating. Decreasing your window size will move the Validate Page/Case display to the bottom of the screen.

5. WEBSITE FUNCTIONALITY

A. Required and Key Fields

On the General Crash Data page, and some other data input pages, the fields that have a red asterisk (*) next to them are required to have data entered before saving or continuing to the next page.
The “Key” fields on the General Crash Data page must always be present including:

- Crash Number
- Incident Number
- Police Agency

The combination of these 3 fields must be unique in the police database. As a result, if any of the fields are changed the system must first check to see if the new combination is the same as an already existing case. If so an error message will be displayed on the error list and the changes to the 3 fields will NOT be made.

### B. Record Locking

The Crash Reporting System (CRS) has record locking built in to prevent more than one user from editing the same crash case at the same time. When you create a new crash case, or select a record from the search screen, you have exclusive access to that case until you do one of two things:

- Upon completing the case, it is approved using the APPROVE button; or
- While working on the case, it is released for anyone to work on using the DONE button.

If someone tries to select a locked record, CRS will notify them that the record is locked and by whom. A locked case can still be viewed, but cannot be accessed by anyone else until the case is approved, or released, or the system unlocks the record after it has been inactive for a sufficient amount of time (at least 30 minutes).

### C. Finding a Case
From the Navigation Bar a user can click “Find a Case” and the system will display the Search screen which will allow the user to filter the search using one of the following:

- Crash Number
- CRN (Crash Record Number)
- Incident Number
- License Plate
- Driver’s License

This screen also allows the user to use multiple search criteria. You may search for a crash case by using a combination of the follow data elements.

- Police Agency (PennDOT only)
- Patrol Zone
- County
- Investigation From/Through
- Reportable/Non-Reportable
- Closed Cases
- Case Status

Using one or any combination of these items will narrow the search results and help the user identify the case they want to review, add to, or change information on.

**Note:** The system will default the dates on the search to the period 1 year prior to the current date. When you first enter this screen the “Through” date will be today’s date. The “Investigations From” from will be one year prior to the “Through” date.

**D. Tab to New Field**

To move from one field to the next the user will be required to either mouse click on the desired field or use the tab key to advance to the next field, or button. If a field is divided into parts, for example telephone number, the tab key will move from the first part of the field to the second part, and so on. Filling a field in completely with data will not automatically move you to the next field for entry.
Note: some fields are skipped because they are read only.

E. Types of Fields

1. Drop-Down Boxes

Drop-down Boxes allow for two types of selection – drop down list or text selection.

Clicking the grey box on the right edge of the drop down will display the entire list of selectable values.

Typing a value in the text box will display only those selectable values that contain the value in the text box. For example: typing “be” will show a drop down that includes Beaver, Bedford, Berks, Cumberland and Northumberland.

2. Text Entry Fields

Certain fields allow the user to type in the required information (i.e. no drop-down windows or radio buttons to enter data). They are free text fields that are typically just a single box. The example above shows the Driver section of the Unit Page, where the First Name, Middle Initial, Last Name, Date of Birth and Telephone Number are Text Entry Fields.

Note that date fields allow for both direct text entry or select from a calendar function. This calendar allows you to select a Day, Month or Year. To switch between these functions, click on the calendar icon to the right of the field.

3. Radio Buttons

Radio buttons allow you to make a choice between options within the crash system. The example below shows how in the Drugs Suspected section, you can choose between the different test results (Test Refused, Unknown Results, or Test Given with Contaminated Results). To make a selection, click on the appropriate circle. Only one option can be selected.
4. Selection Boxes

A few fields use selection boxes. Click on the box symbol (or tab to it and press the space bar) to select any options that apply. For example, Work Zone fields, “select all that apply”.

![Work Zone Selection Boxes](image)

F. Crash Page Buttons

- **Undo** – Reverts all items on the page back to the previous save
- **Save** – Saves the contents of the page to the website database
- **Validate Page** – Validates all the data items on the current page
- **Validate Case** – Runs a complete validation on every item on every page
- **Print** – Prints a copy of the crash report as it currently exists
- **Done** – Exits the report currently being worked on and removes the record lock
- **Delete** – Delete a selected Unit or Person from the crash report. This option will only appear on the Unit page (AA 500 2) and on the Person Page (AA 500 3)
- **Approve/Submit** – Changes a “work in progress” case to either “PENDING APPROVAL” status (Submit button), or to an “APPROVED” status (Approve button). Cases in approved status will then be reviewed by PennDOT. Only accounts with approve authority will see the “Approve” button. Others will see the “Submit” button.
- **Continue** - When you are entering a crash, after completing the information on any page, clicking the “Continue” button will save the information and automatically move you to the next page.

G. Approve / Submit

After all of the information has been entered by the investigating officer, the case should be validated. If there are no errors, the investigating officer should then **Submit** the case for review. The case status will change from “Work in Progress” to “Pending Approval”.

The reviewing officer should then review each case that is pending approval. Once the reviewing officer is satisfied with the report, he/she can **Approve** the case for review by PennDOT. This will change the status of the case from “Pending Approval” to “Approved”. If the investigating officer has Approve authority, then the case will go directly from Work in Progress to Approved.

If you have made every reasonable effort to get rid of all validation errors, and errors still exist, the reviewing officer can still approve the case with errors.

Clicking the **Approve** button, will open a window that requests the badge number of the approving officer.

Click the **Approve** button in this pop up window to finalize the approval.

Note: the Badge Number entered should match the Badge Number of the user in their account profile.
A dialog box will then be displayed showing any errors or warnings generated by the validate process (if any). This dialog box will ask for Final Approval. If there are errors, you will be given a chance to Abort the Approval Process. This will allow further changes to be made. If there are no errors and you do not wish to make any further changes, (scroll to the bottom of the screen if necessary) and then click on the “Approve with Errors” button.

6. ENTERING CRASH REPORT DATA

This section addresses how to enter crash data using the CRS web site for items that are specific to using the web site versus completing reports on the paper form. For instructions of completing specific fields on the report, please refer to the PennDOT Publication 153, available in PDF format in the “Crash System Help” section on the web site.

A. Crash Investigation and Location Data page (AA 500 1)

The Case Closed field is a required field that an agency can use to indicate that its investigation is complete.

The Reportable Crash field indicates the police officer’s assessment of the reportable status of the crash.

The Crash Number should be left blank. CRS will automatically generate a crash number. If the agency is entering this number, the crash number must be must begin with a “W” followed by 7 digits, and should not be repeated within that agency. Note: This number should not be your “incident number”.

B. Unit Information page (AA 500 2 & AA 500 U)

Block 10 – Unit Info

The Type Unit field indicates the classification of the unit such as motor vehicle in transport, pedestrian etc. This field will determine which information will be displayed on the webpage:

- **Pedestrian** – If the Type Unit Selected is a Pedestrian or Pedestrian Conveyance, then additional information will need to be completed on report page AA 500 M.
- **Bicycle** - If the Vehicle Type selected is a Pedalcycle (Bicycle, Unicycle etc), then additional information will need to be completed on report page AA 500 M.
The **Commercial vehicle** field indicates if the motor vehicle is designed or used to transport passengers or property (i.e. a bus, or truck more than 10,000 pounds). If “Yes” then additional information will need to be completed on report page **AA 500 C** for all commercial vehicles involved in a reportable crash.

**Block 11 – Vehicle Driver / Pedestrian Information**

The **Number of Persons** in Unit field indicates the number of persons riding in a unit. It is not required for pedestrians. This field is required for Web entry but does not appear on the paper AA 500.

If the user enters data including the Driver License Number and State, Name, Address and City, and clicks the **Driver Search Page** button that information will be copied to the “Vehicle Driver Lookup Page” and automatically used to do a lookup. The “Vehicle Driver Lookup Page” has spaces that can be used to modify the search criteria fields and re-execute the search. (See Vehicle Driver Lookup section).

**Block 12 – Vehicle Information**

**Vehicle Lookup** – This should be used to verify that the correct vehicle has been entered.

When a Vehicle Lookup is performed, the decoded information from the VIN will be displayed. If a PA Plate is present, the vehicle information, including the VIN, will also be returned. This information will then be compared to the Vehicle Make and the Model Year. If the lookup has not been performed, or if the data does not match, the following validation errors will be displayed:

061430E FOR UNIT (##) VEHICLE MAKE DOES NOT MATCH THE VIN CODE

061435E FOR UNIT (##) VEHICLE MODEL YEAR DOES NOT MATCH THE VIN CODE

**C. Person Information (AA 500 3 & AA 500 P)**

Please note that there will ALWAYS be exactly as many entries for person information as there are number of people listed on page 1 in block 2.

- **Person No** – Be sure to start numbering each unit with person number 01. i.e. Unit 01 Person 01, Unit 01 Person 02, Unit 02 Person 01, Unit 03 Person 01, etc.
- **Delete?** – This option allows the selected person(s) to be deleted from the crash. You must use the DELETE button (at the top of the page) to delete the selected persons from the crash. You will be prompted to verify each person that is deleted from a crash. (See section 4.10.2)
- **Same as Operator** – This allows information entered in for the operator to be filled into the applicable fields. Note: you should select this box before entering the name so that you can use the address of the operator for all persons with the same address.

**D. Harmful Events and Factors (AA 500 4 & AA 500 H)**

The General Information (Block 15) at the top of this page which includes Crash Description, Relation to Roadway, Illumination, Weather Conditions and Road Surface Conditions, is specific to the crash and needs only be entered once. If there are more than 2 units in the crash, a page **AA 500 H** will be added for every 2 additional vehicles. The Block 15 data will be repeated on these **AA 500 H** pages but will not be able to be modified. Block 15 data can only be changed on the **AA 500 4** page.

**E. Diagram / Narrative (AA 500 5)**
Block 20 - Diagram

To create or edit the Diagram of the Crash, click the Create or Edit Diagram button.

See Chapter 8 (pg. 30) for instructions on how to use the Easy Street Draw software.

Block 22 – Narrative

Anything not covered in is the report pages that are needed by local agencies, such as Property damage and other facts related to the accident investigation, should be included in the narrative. There is no PennDOT requirement to repeat anything here that had been covered in the codes.

Additional narrative can simply be appended to the existing narrative. You might want to add the date and investigator for any additional narrative that is appended after the initial investigation.

F. Fatal Information (AA 500 F)

Block 24 – Fatal Page Roadway Information

The Road Surface Type and Special Jurisdiction fields are required and will appear only once per crash case.

Block 25 – Fatal Page Unit Information

There must be a Fatal Page Unit Information entry for every unit involved in the crash except for Trains, Parked Vehicles, and Phantom Vehicles. The fields that need to be completed in this section will be determined by the unit type.

G. M-Page Information (AA 500 M)

This Page is used to collect additional information for certain unit types, or information on work zone crashes where applicable. Please refer to PENNDOT pub 153 for details.

NOTE: An M-Page will appear only if M-Page information is required for the case. All sections that need to be filled out will appear and all information must be completed.

7. TOOLS

A. Deleting a Unit

To delete a Unit and all records associated with it click the Delete button. This will delete all information on the Unit page and items for this unit including:

- Driver information
- All people associated with that unit
- Commercial vehicle information
- Fatal page information
- Harmful events and Crash Factors
- The Navigation Bar will be modified to show only the remaining units.

After clicking the Delete button, the system will ask “Are you sure you want to DELETE this Unit Information completely and permanently?”

Click to delete the record and return to the next page higher up in the Navigation Bar.
B. Deleting a Person

To delete a person from a crash report, check the Delete? check box for the person or persons you wish to delete. The click the Delete button at the top of the screen to delete those people from the report.

The system will then ask “Are you sure you want to DELETE this Person Information completely and Permanently?”

Click OK to delete the record and refresh the Navigation Bar.

C. Vehicle Lookup

NOTE: Only Vehicle Types 01 through 19 will allow a VIN to be entered for the vehicle. A blank, other or unknown vehicle type will not accept a VIN.

When the system completes its search of VIN and PA Registration the user must compare the returned information to the data entered on the crash report.

- If the vehicle information appears to be correct, you should click Return with key Vehicle Info to return Vehicle Information from the VIN lookup
- If the vehicle information seems to be incorrect, you should click Return WITHOUT VINA/CARATS Info. You should then verify that you have the correct VIN and correct it if necessary.

Note: When looking for a non-Pennsylvania vehicle, be sure to use the VIN. When looking for a Pennsylvania vehicle the License Plate number or VIN can be used.

When the search is done, if both VIN and Plate are entered, only the VIN will be used to conduct the search. If the VINA value is invalid the search will stop. In that case, clear the VIN field and press the Vehicle Lookup to allow the search to proceed using the plate value.

When the Vehicle Retrieval Page is used and either of the buttons at the bottom of the page are used, the system will not prompt you with the “Owner Automatic Lookup Page” when you eventually save the page.

D. Driver Lookup

The Vehicle Driver Lookup page provides the user with a method for searching for driver information. To search for driver information, click the Driver Search Page button. The system will display the Vehicle Driver Lookup page.

The Vehicle Driver Lookup Page will only work with a licensed Pennsylvania Driver. The system will check information for a valid Pennsylvania operator’s license and then at the user’s option populate the corresponding crash system fields on the Vehicle Driver/ Pedestrian page.

The user can enter either the Driver License Number, Driver License State, Last name, First Name or FI initial, Middle Initial (MI), Date of Birth, and/or City.

After entering information, the user will click the Driver License Lookup button. The system will use the provided information to search for the appropriate record.
Once the system returns a record, if the user decides the information is correct and wants to accept the information returned from the system click the **Return with DL&C Data** button. This will take the returned information and populate the fields in the Vehicle Driver / Pedestrian page.

If the user does not want to use the data returned from the search, click the **Return without DL&C Data** button. This will return the user to the Vehicle Driver / Pedestrian page to enter the driver information.

When the system completes its search of DL&C the user at that point must compare the returned information to the data entered and decide one of the following:

- Return to the Vehicle Driver / Pedestrian page with the data returned from DL&C by clicking **Return with DL&C Data**.
- Return to the Vehicle Driver / Pedestrian page without replacing what was entered by clicking **Return without DL&C Data**.
- Modify the Driver information in the top of the Vehicle Driver Lookup Page and click the **Driver License Lookup** button.
- Abort the lookup process by clicking the **X** in the upper right hand corner of the Vehicle Driver Lookup Page. This will return the user to the Vehicle Driver / Pedestrian Page.

**Note:** When entering search information including the Driver License Number, Driver License State, Last name, First Name or FI initial, Middle Initial (MI), Date of Birth, or City, there are certain restrictions. First, only the first seven characters of the last name are used. Only the first three characters of the first name are used. Only the first 14 characters of the city name are used in the search. If you provide the driver license number, the system will only use that to perform the search. The system will ignore anything else entered.

If you only enter part of the information (i.e., “smi” for “smith” in the name field) the system will still try to find records that match the information you do provide.

If the system cannot uniquely identify a single record, then a list of records will be displayed on a separate screen allowing the user to pick the correct record (example of “smi” search to the left).

After reviewing the records returned from the search on “smi”, simply click on the appropriate record to select it or close the window and type the driver information into the Vehicle / Driver Pedestrian page.
The data returned through this search can be used to verify what was entered on the Vehicle Driver / Pedestrian page.

When the system completes its search of DL&C the user at that point must compare the returned information to the data entered and decide one of the following:

- Continue with the Save process, replacing what was entered into the Vehicle Driver / Pedestrian page with the data returned from DL&C by clicking Return with DL&C Data. If the user had entered name, address, city, state, zip, and phone on the Vehicle Driver / Pedestrian page that information will not be over written by the information from DL&C.
- Continue with the Save process, without replacing what was entered into the Vehicle Driver / Pedestrian page by clicking Return without DL&C Data.
- Correct the Driver information in the top of the Vehicle Driver Automatic Lookup page and click one of the Driver License Lookup buttons.
- Abort the Save process by clicking the X in the upper right hand corner of the “Vehicle Driver Automatic Lookup page. This will return the user to the Vehicle Driver / Pedestrian page.
E. Crash Location (GIS Lookup)

PennDOT must determine an exact or very close approximation of every crash entered into the system. Each and every reportable crash MUST take place on a roadway open to the public.

The GIS Module requires certain minimum location data to perform a lookup on the crash location.

- **Municipality:** Make sure the County and Municipality are selected.
- **Intersection Type:** GIS will need to know if the crash took place where 2 or more streets meet, or if it took place on a roadway between intersections or landmarks
- **Principal Road:** All reportable crashes take place on a roadway open to the public
  - For named roadways, please provide either the route number (for state roads if known) or the Street Name, Street Ending AND Route Signing
  - For unnamed travelways traversing a piece of property, supply the property name, and not the street address of the property
    - For example, if the crash took place at the Washington Middle School on the school’s main travelway and the school is on Main Street you would use “WASHINGTON MIDDLE SCHOOL” “LT” as the street name/ending. You would not use “MAIN” “ST” with the address of the school.
- **Intersecting Road or Landmarks (or GPS coordinates):**
  - For intersections, provide:
    - An intersecting roadway such as in 3a above; or
    - The GPS coordinates of the intersection
  - For midblocks, provide:
    - The postal address (house number) where the crash took place.
    - An intersecting roadway on either side of the crash; or
    - The GPS coordinates where the crash took place
  - Alternately you can locate the crash directly on the map by selecting the “COUNTY/MUNICIPALITY” option to the right of the “GIS lookup” button then pressing that button. (Please only use this option for midblock crashes)

Once you have provided sufficient location data, you can then perform a GIS lookup by clicking the **GIS Lookup** button.
As long as sufficient location data has been supplied, you should see a municipal map with the location of the crash highlighted. If the square is not on the exact location, you can use the pencil icon button to relocate and redraw the map.

**Note:** You can order a County type 10 map that will show the state route numbers for your county by contacting PennDOT’s Geographic Information Division at: mailto:mra-penndotsalesstore@pa.gov or (717) 787-6746.

All 67 County maps as well as many municipality maps are available on the PennDOT web site in PDF format.

Type 10 County Maps:
http://www.dot.state.pa.us/Internet/Bureaus/pdPlanRes.nsf/infoBPRCartoCountyType10

Municipality Maps:
http://www.dot.state.pa.us/Internet/Bureaus/pdPlanRes.nsf/PlanningAndResearchHomePage (Geographic Information division)

**F. Using Global Positioning System (GPS) Coordinates**

Entering GPS Latitude and Longitude can provide PennDOT with an accurate location, only if the data is entered properly. To get GPS coordinates, you can use a hand held GPS device or an internet based mapping program.

Make sure the coordinates entered are in the format Degrees, Minutes, Seconds and Hundredths.

- For example, the State Capitol Dome in Harrisburg is at: **40 deg 15 min 51.90 sec North** and **-76 deg 53 min 00.20 sec West**

If your coordinates are listed as **Degrees** and some decimal portion, then the coordinates must be converted. To convert the decimal portion of degrees into minutes or minutes into seconds,
multiply the decimal portion by 60 then enter the resulting digits into the next part of the coordinate.

- Example: if your GPS coordinates show 40 deg 15.865 minutes latitude, multiply the .865 by 60 giving 51.90 resulting in a latitude of 40 degrees 15 minutes 51.90 seconds.
- 2nd example: if your GPS coordinates show 40.2644 degrees latitude, multiply the .2644 by 60 giving 15.865 resulting in a latitude of 40 degrees 15.865 minutes. Then follow the example above to convert the minutes into minutes and seconds.

G. Synopsis page

The Synopsis Page gives the user information on the crash. The information is displayed in story format. The system uses the coded crash and converts it to a story. To execute this function, retrieve the desired crash and click on “Synopsis” in the Navigation Bar to display the Synopsis screen. There are two choices within the Synopsis. Quality Assurance which will include what was not entered and Report which shows only what was entered into the crash record.

To print the information on the synopsis page, right click in the body of the synopsis then select Print. This will bring up the windows print dialog box.

H. Image History page

Computerized images of all the forms and other types of documents related to crashes, are permanently stored as digital images. PennDOT staff, Pennsylvania State Police and Police Agencies can now view documents associated with crashes.

Once the appropriate case is retrieved for reviewing (using the Find a Case option), click on “Image History” in the Navigation Bar section. The system will display the Image History Viewer window.

There is no need to select anything other than Show All in the upper right part of the screen. This action will automatically take you to the document viewer and display all the document(s) associated with the crash record one at a time.

Click “Show All” to scroll through all pages of a case.

Crash Case you selected!

The Image Viewer window presents the case you selected.
You can **scroll between pages** within the document by using the page scroll buttons shown here.

If there are multiple documents (such as when supplemental data was submitted after the initial report), you can scroll to the next or previous document using the **green arrow buttons**.

Any or all documents can be printed by clicking the **Printer** button within the Image History option.

The remaining buttons on the left allow you to **zoom** in or out, **rotate** the document image, or adjust the position of the document in the viewer window.
8. CREATING AND EDITING DIAGRAMS

To create or edit the diagram, click the **Edit Diagram** button at the top of the **AA 500 A** page.

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**A. Creating a New Diagram**

When creating a new diagram, the diagramming tool will appear blank. Disregard the portion of the text that calls for you to use a template; templates currently do not work in this version of the diagramming tool. See below, in Section 3, for more on this.

The tool is broken up into three main areas:

- The **top menu**,
- the **sidebar menu**, and
- the **drawing area**.

Let’s look at each of these in detail:
1. Top Menu

The Top Menu consists of the following:

- **Done drop-down:** This is a drop-down box with three options:
  - *Save Diagram and Exit Editor:* Saves whatever changes you’ve made, and closes the diagramming tool, taking you back to AA 500 A.
  - *Revert to Saved Diagram:* This un-does any changes you have made since opening the diagram, without exiting the diagramming tool.
  - *Exit Editor Without Saving:* Throws away any changes you’ve made, and closes the diagramming tool, taking you back to AA 500 A.

- **Editing Block:**
  Contains tools which allow you to undo, redo, copy, cut, and paste.

- **Tools Block**
  - *Basic Drawing Tools:* A collection of useful widgets you can use to create your diagrams, including a number of shapes, streets, text boxes, and so on. One item to take note of in particular is **Callout.**

  The Callout option allows you to create a text box with an arrow pointing to whatever you desire. This is very useful when your diagram is very complex, or you are documenting a collision with many vehicles, movements, or contributing factors.

  To draw a Callout box, simply select it from the drop-down, click and hold the left mouse button where you’d like the arrow to point, and drag away until the text box is where you’d like it to be. You can then enter whatever text you’d like.

- **Text Block:**
  Provides options for increasing and decreasing the size of the font you are using.

- **Zoom Block:**
  Provides several options for zooming, including the ability to zoom based on a selection.

- **Delete Icon:**
  Deletes the entire diagram. This is useful if you wish to start over. If you click this button by mistake, hold down the CTRL button and press Z, to undo.

- **Grid Toggle:**
  If you find a grid helpful in lining up your diagram, click this to toggle it on. Clicking it again will toggle it back off.
2. Sidebar Menu

The menu contains three subsections:

- **Streets**
  
  This section is fairly self-explanatory; it is broken down into actual streets, should, stripes, markers, and indicators.

- **Symbols**
  
  Contains dozens of commonly used items, including vehicles, animals, pedestrians, traffic control devices, and so on. These are sorted by category and sub-category.

  Motorcycles are filed under Vehicle > Recreation, along with snowmobiles, bicycles, and campers/RVs.

- **Measurements**
  
  This name is a bit misleading, as this section does not actually contain measurements, but rather the ability to post triangulation points and compass roses.

**NOTE:** There is also a section for Labels in both Streets and Symbols; this section is empty, and cannot be used. For more information on how to create labels, see the Tools.
Block in Section a (page 31), as well as Manipulating Object Properties & Adding Labels in Section d (page 36).

3. Drawing Area

The majority of the diagramming screen is taken up by the drawing here. Here, you can drag and drop objects, paste images, and make labels. This section has been broken up into sub-tasks, for ease of reading.

a. Placing Objects

To add an object to your diagram, simply find it in the Sidebar Menu, and drag and drop it onto the drawing area. If the object seems very small, use the Zoom tool in the Top Menu to view it more clearly.

Usually, users prefer to add streets first, and add other objects once this portion has been complete.

b. Importing Images

As mentioned previously, templates do not currently work in this release. As such, you may find it useful to import screenshots from previous diagrams, or from Google Maps.

If you are running Windows 7 or higher, the easiest way to do this is by using the Snipping Tool. To access it, go to the Start Menu and type Snipping Tool into the search bar. You should see a program appear. Click on it to launch it.

Once it is open, you will notice that a small window will appear, and everything else will appear grey and muted, as so:
Click and hold down the mouse button anywhere on the screen, and a rectangle will appear. Draw the mouse cursor to any other point on the screen, and you will see that the portion of the screen you have drawn the rectangle around is no longer faded out.

Release the button, and everything that appeared within that rectangle will now appear in a new window, as so:
Save it with a filename that suits your needs, such as "Avenue A and Main Street" or "Interchange 123".

Any time you need to make use of that portion of road again, you can find the image you saved, and you can quickly insert the image into a new diagram by using the Import an image icon located at the top of the diagramming tool:

![Import an image icon](Image)

Of course, if you do not have an old template, you can always save a new one as an image for future use, in exactly the same way. Simply create the roadway portion of the diagram, and then use the Snipping Tool to save it.

One more method you can use is to actually capture an image from Google Maps (or any other online mapping service). Find the location you wish to grab an image of, and use the Snipping Tool to take a screenshot.

Whenever possible, use the satellite view/Earth view (in Google Maps, simply click on that icon, which will appear somewhere near the bottom of the map), because in Map view, you will not be able to see how many lanes a road has, nor where turning lanes and traffic control devices are.

As you can see below, this offers a clean and easy way to create a "template" which you can then save and import into the diagramming tool any time you wish.
Please note, however, that in some cases, the satellite view may show cars or construction, it could be out-of-date, or may be partially obstructed by trees or other foliage/structures. Keep this in mind when attempting to use this method.

In any case, you can save these images either on your own device, or if you have the means, to a shared drive, so other users can also make use of it. You can effectively build up a library of images which will serve as a replacement for your old templates.

c. Joining Streets

It’s possible to make very elegant, intricate roadways using this tool. By dragging one or more road sections together, the software will automatically join them, and turn them into an intersection, taking the angles, number of lanes, and dividers into account.

IMPORTANT!

When saving screen captures, be sure to save them as JPG files. PNG and BMP files are not currently compatible with the diagram tool due to format and file size issues.

Attempting to upload these types of files may result in a General Exception Error.

d. Manipulating Object Properties & Adding Labels
Virtually every object in the diagramming tool is highly customizable.

To edit the properties of an object, simply right click on any object you have placed. A drop down menu will appear. Click on Properties.

A dialogue box will open. Depending what kind of an object it is, you will have a variety of tabs at the top. For example, if you are modifying a vehicle, you will have three tabs; Text, Style, and Size.

The Text tab allows you to add a label and change its color, font size, and position.

The Style tab allows you to modify elements of the object, such as its orientation and color.

The Size tab allows you to adjust the length, width, and rotation of the object.
For road segments, there is a **Lanes** tab, which offers a variety of customization options, such as:

- **Number of lanes**
- **Divider type**
- **Width of lanes**

When editing these properties, it is possible to edit each lane or divider individually. Simply click on that specific lane while viewing the properties, and then adjust its width using the **Lane Width** tool near the bottom of the dialogue box.

You can add turning lanes, as follows:

1. Click and hold down the right mouse button over one of the green arrows in the corner.
2. Drag the arrow to the desired size.
3. Release the mouse button, and the street will automatically redraw itself with a turning lane.

You can create curved road segments as follows:

1. Click and hold down the right mouse button over the green diamond in the center.
2. Drag the mouse in the direction you wish the road to curve. It will dynamically change shape.

Like any other road segment, a curved piece can be joined with other road segments.
9. CASE VALIDATION

A. Errors and Warnings

Users will encounter two types of system messages:

- **Errors**: messages ending with “E” are considered errors. These are issues found by the system to be wrong. These should be corrected before approving the case.

- **Warnings**: messages ending in “W” are warnings. These are items that may or may not be errors. The system is prompting the user to confirm the data entered.

For a complete listing of Error and Warning messages, refer to the on-line help for Errors and warnings. If you encounter an error that can’t be explained using the errors and warnings table, feel free to give us a call at (717) 787-2855 Option 4.

Please note that there are a few unusual circumstances where crash reports cannot be completed without errors. If you have made every reasonable effort to eliminate every validation error from your crash report and errors still exist, then have the approving officer approve the case regardless.

B. Case Validation Window

After entering data on any panel in the Crash system, when the user Saves the page, Continues, Validates, or Approves the case, the system will check for any errors or warnings. If errors or warnings exist a list will appear on the right side of the page listing the errors and/or warnings.

In the above example, the Crash Time was entered incorrectly. The system displays the Error / Warning window. Error numbers listed in the window can be looked up on-line in the Crash System Help section.

C. Common Validation Errors

<table>
<thead>
<tr>
<th>ERROR MESSAGE</th>
<th>RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>If the error messages ends with …not found in reference table or …must not be blank</td>
<td>This simply means that the field is empty and a value was expected to be filled in.</td>
</tr>
<tr>
<td>For unit 01: Invalid VIN entered failed check digit validation</td>
<td>All VINs have a check digit that is calculated using all the remaining characters. If the check digit does not match the calculated check digit, then the VIN is not a valid VIN.</td>
</tr>
<tr>
<td>For unit 01: Harmful event 1 and Left/Right 1 are not compatible.</td>
<td>The Left/Right indicator should only be completed if the harmful event is a “hit fixed object” type of event. All “hit fixed object” events require that this field be completed.</td>
</tr>
<tr>
<td>For the driver/pedestrian in unit 01: Alcohol Test Type and Alcohol Test Result are not compatible. Or For the driver/pedestrian in unit 01: for this Type of Unit an Alcohol Test Type must be supplied.</td>
<td>Alcohol test type and results are required, even if it is “no test given”. These types of errors are the result of either the test type, or results, either missing or incompatible.</td>
</tr>
<tr>
<td>For unit 01: Registration State and Vehicle Type are not compatible.</td>
<td>Most of these errors involve a vehicle type (block 12) of “Other” or “Unknown” or some vehicle that doesn’t require registration.</td>
</tr>
<tr>
<td>Error Message</td>
<td>Details</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>For unit 01: Travel Speed and Movement are not compatible.</td>
<td>Any movement that indicates that the vehicle is stopped requires a speed of “000”. Any movement that indicates that the vehicle is in motion requires either an unknown speed (“999”) or a speed greater than “000”.</td>
</tr>
<tr>
<td>For unit 01: the First Harmful Event and Travel Speed of 000 are not compatible.</td>
<td>Any harmful event that involves striking requires movement. If that event was the first harmful event for the unit then it must have been in motion for that event.</td>
</tr>
<tr>
<td>The crash Most Harmful Event is not the Most Harmful Event for any Unit or the Unit # is invalid.</td>
<td>The First and Most harmful event for the crash must be selected from one of the first and most harmful events listed for the unit(s). Double check the unit number and harmful event code.</td>
</tr>
<tr>
<td>For Unit 01: Commercial Vehicle Indicator must not be blank for this Type of Unit.</td>
<td>If the unit type (block 10) is not a pedestrian, train, non-motorized, phantom, hit and run, disabled from previous crash or legally parked vehicle, then the commercial vehicle indicator must be present.</td>
</tr>
<tr>
<td>Indicated Prime Factor Source value not found in reference table, or The Unit Number for the prime factor must match a Unit Number in the crash or = '99' or be blank.</td>
<td>The prime factor must be selected from one of the Contributing Information factors in block 18. If the driver factor is known, but the unit cannot be determined, enter “99” for the unit number for both the driver action and the prime factor.</td>
</tr>
<tr>
<td>For unit 01: Movement and vehicle Alignment are not compatible.</td>
<td>If the roadway alignment is curved, then the movement should NOT be “going straight”, but should instead be “negotiating curve left/right” (or vice versa)</td>
</tr>
<tr>
<td>The Crash Number of People must match the persons specified for the crash, or The number injured does not match the count of injured persons. Or The Crash Number of Units must match the units specified for the crash: there are 2 units specified.</td>
<td>The number of Units, People, Injured and Killed listed in Block 2, must match the number of units entered on the Unit Page and their “number of people”, as well as the number of people entered on the person page and their tally of injuries and fatalities.</td>
</tr>
<tr>
<td>For unit 01: Restrictions Compliance and Driver License State are not compatible. OR For unit 01: Type of Unit and Endorsement Compliance are not compatible. OR For unit 01: Type of Unit and License Compliance are not compatible.</td>
<td>These errors have to do with the restrictions and endorsements on the Fatal Page. Make sure that the driver information in block 11 and the Licensure compliance data in block 25 are complete and correct.</td>
</tr>
<tr>
<td>For Unit 01: the Unit Harmful Events and Initial Impact Point are not compatible.</td>
<td>This usually indicates a non-collision with an impact point given or a collision with no impact point.</td>
</tr>
</tbody>
</table>
| First Harmful Event for the crash is not compatible with the Crash Description. | - “Hit deer” and the like are “Other/Unknown”  
- Motorcycle spills are “non-collision”  
- Striking any fixed object should NOT be described as Head On, Sideswipe, etc., always list those as “Hit Fixed Object” |
| For non-interstate/non-turnpike (road number 01) the route must be 0000 or T followed by a number | If the roadway is not a state route, interstate or turnpike, leave it blank, or put in the Township Road number. This field is not for street address, or “..block of” information. |
| For unit 01: the Type of Unit and Owner Driver Code are not compatible.        | A registered motor vehicle should have an Owner/Driver code other than blank or “not applicable”. Double check the Type Unit (block 10) and the Owner Driver Code (Block 11) |
| Landmark 2 has not been recorded properly.                                   | A midblock crash must have sufficient landmark data. If you are providing landmarks, it is not sufficient to say the crash took place 200 feet from MAPLE ST. PennDOT needs to know if it is 200 feet heading towards ELM ST or heading towards JUNIPER ST. |
| For person <# PERSON> in unit <# UNIT>: Vehicle Type and Extrication Indicator are not compatible. (also Ejection Indicator and Ejection Path) | Ejection and Extrication are only applicable for vehicles with a passenger compartment. For motorcycles, fill in “G”, “H”, and “I” on the person page as “not applicable” |