



# VEHICLE RAMMING SELF-ASSESSMENT TOOL USER GUIDE



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## OVERVIEW

The Vehicle Ramming Self-Assessment Tool User Guide is designed to help users become familiar with the Vehicle Ramming Self-Assessment Tool. The Cybersecurity and Infrastructure Security Agency (CISA), in partnership with the Chicago Police Department’s Crime Prevention and Information Center (CPIC), developed the tool to assist critical infrastructure owners and operators and federal, state, and local law enforcement agencies with evaluating areas of interest against the risk of a vehicle-ramming style of attack.

The tool evaluates multiple user-defined areas of interest, prioritizes the areas based on evaluation criteria, and identifies mitigation options for planning purposes.

## HOW TO USE THE TOOL

### System Requirements

The tool works well in a variety of web browsers, but for optimal performance use Microsoft Edge or Google Chrome. Results are also best viewed when using a computer running Windows 7 (or later) and with Microsoft Word and Excel 97 (or later). The tool does not retain data; all data entered is saved by the user in a text file.

### User Interface

The tool is located at [cisa.gov/vehicle-ramming-self-assessment-tool](https://cisa.gov/vehicle-ramming-self-assessment-tool). Additionally, stakeholders can access the User Guide and tool via the [cisa.gov/vehicle-ramming-attack-mitigation](https://cisa.gov/vehicle-ramming-attack-mitigation) web presence. Upon opening the tool link, users can navigate the tool functions by selecting the Home, Data Entry, Vulnerabilities and Options for Consideration, Results, Information and Resources, and Export tabs across the top of the homepage (see Figure 1). From any tab, users may access instructions by clicking the button on the top left of the page.

FIGURE 1: VEHICLE RAMMING SELF-ASSESSMENT TOOL

**Vehicle Ramming Self-Assessment Tool**

Home | Data Entry | VOFCs | Results | Information and Resources | Exports

[Click here to view Instructions](#) [Clear and Start New Assessment](#)

In partnership with Chicago Police Department’s Crime Prevention and Information Center (CPIC), the Cybersecurity and Infrastructure Security Agency (CISA) developed the Vehicle Ramming Self-Assessment Tool to assist federal, state, local law enforcement agencies, and critical infrastructure owners and operators inform planning considerations and protective measures associated with mitigating risk against a vehicle ramming style of attack.

The objective of the tool is to evaluate multiple user-defined areas of interest, prioritize them based on the evaluation criteria, and identify mitigation options for planning purposes. The two most common types of areas that users may evaluate are city streets, including sidewalks and pedestrian bridges where people gather or walk as part of daily activities, and special event areas.

The evaluation criteria in the tool are separated into three main categories:

1. Environmental Characteristics, where the user can select properties the entrances or openings within the area of interest that would allow vehicular access;
2. Vehicle Size which the tool suggests based on the environmental characteristics; and
3. Pedestrian Factors that evaluate the density of potential pedestrian population as well as other aspect such as congregation features and the ability for pedestrians to escape the potential area of attack.

The results tab allows the user to see a prioritized list of the areas of interest that the user evaluates and their associated options for consideration. This allows the user to see which areas of interest have the highest level of concern and to use the options for consideration for the planning process. The tool also provides references that allow users to find relevant resources for continuing research on barriers and other mitigation strategies. The topics addressed here reflect assessment methodologies and recommended practices that physical security professionals in public and private sector roles use routinely.

[Click here to Begin New Survey](#) OR [Load Previously Saved Vehicle Ramming Self-Assessment:](#)  No file chosen

Site Map: [Home](#) | [Data Entry](#) | [VOFCs](#) | [Results](#) | [Information and Resources](#) Version: 1.5 Last Modified November 10, 2021

## ENTER DATA

### Begin or Continue a Self-Assessment

From the Home tab:

- Start a new survey by clicking on the green “Click Here to Begin New Survey” button, which will direct the user to the data entry tab to begin entering the organization’s areas of interest (see Figure 1); or
- Click on “Choose File” under the heading “Load Previously Saved Vehicle Ramming Assessment” to re-open an existing assessment. Refer to Figure 2: Save an Assessment for more information on this function.
- Once the text file is selected, click on “Load Chosen File Data.” A pop-up window will appear indicating the previously saved data was uploaded. The tool will automatically direct the user to the Data Entry tab to continue the assessment.

FIGURE 2: SAVE AN ASSESSMENT

This tool allows users to save and upload previous assessments so the user may continue security planning later or share an assessment with another user.

To save an assessment:

- Click on the Exports drop-down tab (see figure 1) and select “Save Input for Later Use.”
- When selected, a pop-up window appears indicating the data is being saved to an unprotected text file and may only be used with this application.
- The generated text file will appear in the browser’s “downloads” section; the naming convention is Assessmentname\_SavedInfo\_date.txt and is not formatted.

Users should save their assessment after each session, not periodically; each save creates a new text file, and saving periodically may create a version control issue.

### Data Entry

Navigate to the Data Entry tab next to begin the self-assessment.

- Add an assessment name in the space provided (see Figure 3). Users must name the assessment for the tool to save data or generate reports.
- Add areas of interest. An area of interest is any location that the user wants to evaluate.
  - Select the “Add” button (see Figure 3) and enter the name, location, and description for each area of interest in the pop-up window (see Figure 4 ). For optimal reporting and interpretation of results, keep names and descriptions for each area of interest consistent.
  - NOTE: The coordinates field is exported into the areas of interest, VOFCs, and all data MS Excel reports, which can assist users in loading data into mapping software.
  - Select the green “Add Area of Interest” button at the bottom of the pop-up window, and a message will confirm the new area of interest).
  - Edit or delete areas of interest using the edit and delete buttons, respectively.

FIGURE 3: AREA OF INTEREST DATA ENTRY

- Answer questions for each area of interest
  - Select an area of interest. Ensure it is highlighted in blue (see Figure 3) or you will be unable to proceed.
  - For each area of interest, answer all eight questions across the three evaluation categories: Environmental Characteristics, Vehicle Characteristics, and Pedestrian Factors.
  - Expand each category to view the questions, and make the appropriate selections for your area of interest. Each category has a question count indicating how many questions have been answered; this feature serves as the signal to move to the next area of interest (see Figure 5).
  - Access the “More Information” menu under each question for clarifying information about how best to answer.
  - Note: Users may proceed one of two ways: Create all areas of interest first and then answer assessment questions for each area; or create an area of interest, answer the assessment questions, and repeat.
  - Once all areas of interest and questions are complete, continue to the next step.

FIGURE 4: CREATE AN AREA OF INTEREST POP-UP

FIGURE 5: QUESTION COUNT

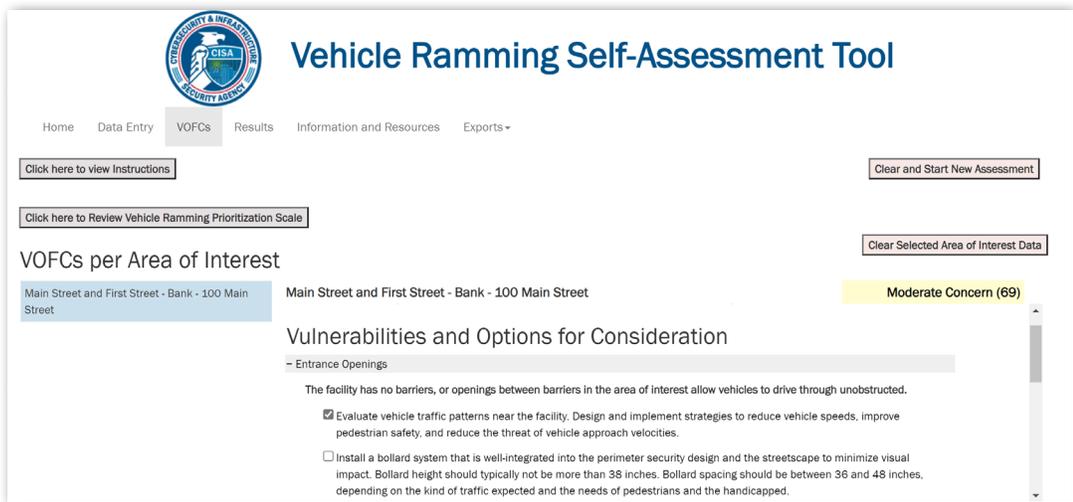
|                                 |                               |
|---------------------------------|-------------------------------|
| + Environmental Characteristics | Answered 0 out of 3 Questions |
| + Vehicle Characteristics       | Answered 0 out of 1 Question  |
| + Pedestrian Factors            | Answered 0 out of 4 Questions |

## REVIEW VULNERABILITIES AND OPTIONS FOR CONSIDERATION

After entering all areas of interest data and answering the corresponding questions for each area, proceed to the Vulnerabilities and Options for Consideration (VOFCs) tab. Here, users can select an area of interest and review the vulnerability categories (entrance openings, openings along street, and crowd management), prioritization scale rating (see Table 1), and options for consideration to mitigate the vulnerabilities.

Expand each vulnerability category to view the corresponding vulnerabilities, and select any or all applicable options for consideration by selecting the box next to the option (see Figure 6). Several options for consideration are available; some options may be the same across vulnerabilities. The options for consideration should not serve as an endorsement or prescriptive measure to be installed or used at a specific location. Rather, they are intended to serve as a guide or potential indicator for additional research and consideration based on organizational needs. The selected VOFCs will appear with the area of interest.

FIGURE 6: SELECTING OPTIONS FOR CONSIDERATION



## VIEW RESULTS

From the Results tab, users can view a simplified version of the prioritization scale ratings for each area of interest. The areas of interest self-assessment score results (see Figure 7) are prioritized based on a scale of some concern, moderate concern, and elevated concern (see Table 1). This prioritization scale allows the user and security planning team to order their tasks based on level of concern, problem area, and operational needs/resource constraints of their organization. Areas of interest categorized with moderate concern likely have problems in either vehicle size or pedestrian factors, whereas areas of interest with elevated concern usually have problems related to both vehicle size and pedestrian factors. The tool allows each stakeholder to develop a risk mitigation strategy based on their identified vulnerabilities and options for consideration.

NOTE: The prioritization scale methodology is viewable in the results tab at the “Click Here to Review Vehicle Ramming Prioritization Scale” button and in Appendix B of the Word document version of the report.

FIGURE 7: AREAS OF INTEREST SELF-ASSESSMENT SCORE RESULTS

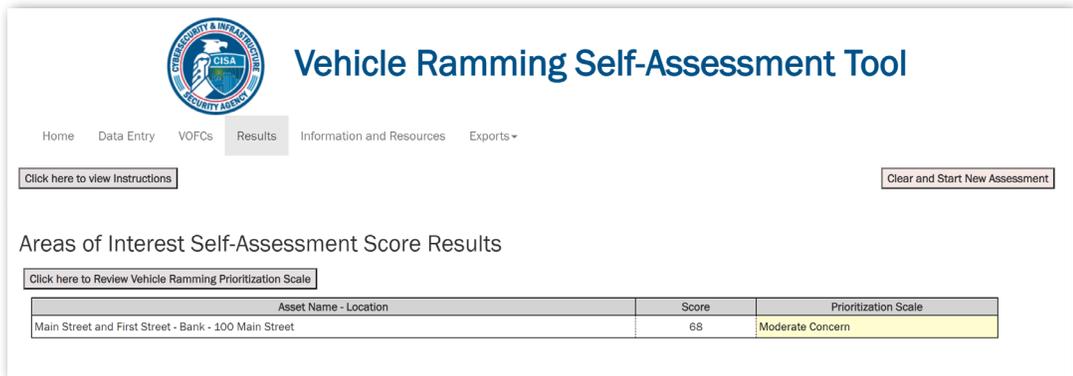


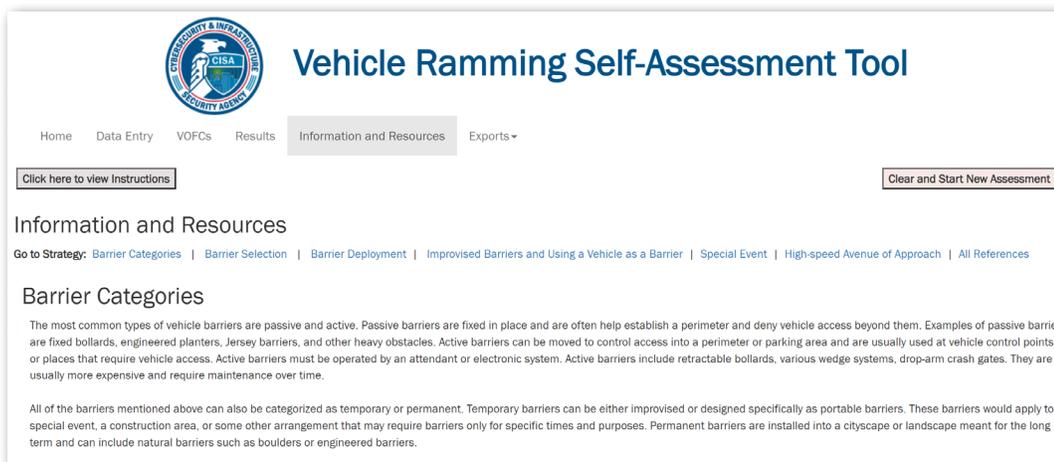
TABLE 1: VEHICLE RAMMING PRIORITIZATION SCALE

|                         |   |               |
|-------------------------|---|---------------|
| <b>Elevated Concern</b> | Areas of interest in this category usually have problems related to both vehicle size and pedestrian factors. Mitigation in this category will likely be more complex and depend on various factors.                | <b>76-100</b> |
| <b>Moderate Concern</b> | Areas of interest in this category likely have problems in either vehicle size or pedestrian factors. Mitigation efforts may focus more heavily on one aspect of the problem.                                       | <b>51-75</b>  |
| <b>Some Concern</b>     | Areas of interest in this level likely do not require immediate action but may benefit from general mitigation efforts. If there are areas of interest in other levels of concern, they should be considered first. | <b>0-50</b>   |

## INFORMATION AND RESOURCES

The Information and Resources tab (see Figure 8) provides a starting point for users to learn more about vehicle barriers and/or crowd management to help mitigate the risk of a vehicle ramming incident. Within the tab, users can explore barrier categories, selection, and deployment, with corresponding references. In this tab, users will find discussion of special event vehicle ramming mitigations strategies, as well as considerations for high-speed avenues of approach. The information contained in this tab is included at the end of the tool-generated MS Word document version of the report.

FIGURE 8: INFORMATION AND RESOURCES



## DATA EXPORTS

The Exports drop-down tab allows users to export entered data in different configurations to make the information available for organizational use (see Figure 2 as also shown above under Data Entry). The first export function saves the assessment data from the tool for the user to continue the assessment later or share the assessment with another user to upload.

The second export function of the tool is to an MS Excel document; users may create four separate, Excel-based exports (see Table 2). To complete a data export, click on the Exports drop-down tab, and select the desired MS Excel report. The tool will download the data to a comma-separated values (.csv) file in the browser's "downloads" location. The MS Excel reports are not formatted but are organized depending on report type.

Finally, the assessment data may be exported to an MS Word document. By exporting to Word, the user may add photos, tables, graphs, text, or any other desired inputs. The MS Word report is not meant to be a finished product; instead, it acts as a starting point for further security planning and finalization to meet the organization's needs.

Users should save any generated file from the tool to their computer to ensure they do not lose their work. As noted earlier, the tool does not store or save any user information.

FIGURE 2: SAVE AN ASSESSMENT (ALSO SHOWN ABOVE UNDER ENTER DATA SECTION)

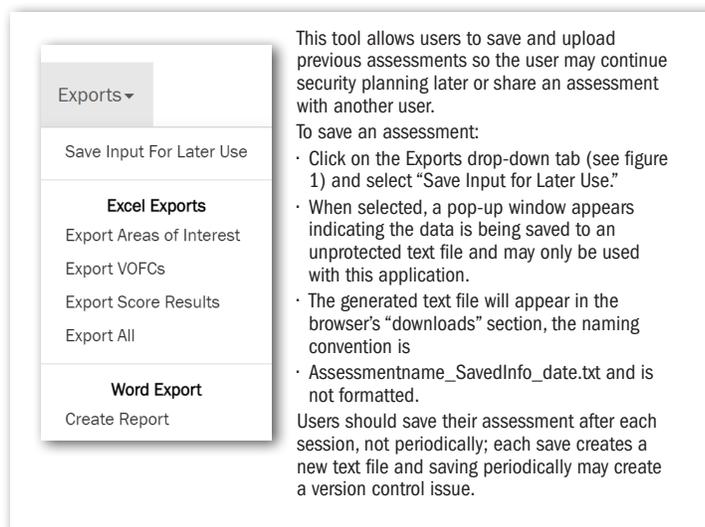


TABLE 2: EXCEL EXPORTS

| EXPORT NAME                     | EXPORT DESCRIPTION   |
|---------------------------------|--|
| <b>Export Areas of Interest</b> | All data related to the area of interest including name, description, answers to questions, score, and latitude/longitude                          |
| <b>Export VOFCs</b>             | List of areas of interest, latitude/longitude, vulnerabilities, options for consideration, and references  |
| <b>Export Score Results</b>     | Prioritization list from the results tab including area of interest name and location, score, and prioritization scale (without scale definitions) |
| <b>Export All</b>               | All data entered in the assessment tool  |

## ADDITIONAL RESOURCES

If you need technical assistance with the Vehicle Ramming Self-Assessment tool, please email [CISA.ISD.OSP.VehicleRammingMitigation@cisa.dhs.gov](mailto:CISA.ISD.OSP.VehicleRammingMitigation@cisa.dhs.gov).

To access additional vehicle ramming mitigation resources, visit [cisa.gov/vehicle-ramming-attack-mitigation](https://cisa.gov/vehicle-ramming-attack-mitigation).

If you have questions or need assistance with vehicle-ramming mitigation measures, please contact your local Protective Security Advisor (PSA). The CISA PSAs, who are located throughout the country, are available to assist stakeholders with vulnerability assessments, emergency action planning, and security-based coordination. To reach your local PSA, visit [cisa.gov/protective-security-advisors](https://cisa.gov/protective-security-advisors) or email [central@cisa.dhs.gov](mailto:central@cisa.dhs.gov).

For additional information regarding the types of threats posed to public gatherings and resources with options for consideration to support risk-mitigation activities, visit [cisa.gov/securing-public-gatherings](https://cisa.gov/securing-public-gatherings).