TRESPASS AND SUICIDE PREVENTION TOOLKIT USER GUIDE

April 2022

Introduction

The Trespass and Suicide Prevention Toolkit (TSP Toolkit) is a resource for identifying effective strategies for preventing rail trespass and/or suicide incidents on the U.S. railroad network. This guide provides an overview of what information is in the TSP Toolkit and how to navigate the toolkit for finding information most relevant to your needs. This document includes the following sections:

- Background
- TSP Toolkit Organization
- Order of Measures Presented
- Using the Filters
- Using the Custom Keyword Search
- Information within a Measure
- Frequently Asked Questions

Background

The leading causes of death on the U.S. railroad network are due to trespassing and suicide. One challenge is that trespass is a complex issue occurring for a wide variety of reasons, including suicide, and selecting a mitigation or prevention strategy can be challenging. The TSP Toolkit aims to simplify this task by providing summarized information about potential strategies along with evidence of effectiveness and examples of lessons learned.

The TSP Toolkit may be useful for FRA field staff and others who work in railroad safety to help them find ways to reduce incidents in their local area. The TSP Toolkit may also be helpful for researchers, community members, suicide prevention groups, and any other individuals looking to engage with railroad safety professionals to address these issues.

TSP Toolkit Organization

The TSP Toolkit content is organized into *measures*. A measure is a single prevention strategy used to address rail trespass and suicide. The information provided includes helpful details about ways to prevent trespass and suicide incidents and reduce their impact on the rail system and the individuals involved. By default, *all* measures are shown when you first arrive at the TSP Toolkit, including measure titles and a short definition for each measure. Figure 1 below describes the main elements of the TSP Toolkit. A description of each element in provided below the figure. You can filter and search for measures relevant to your needs using the elements described in the figure.
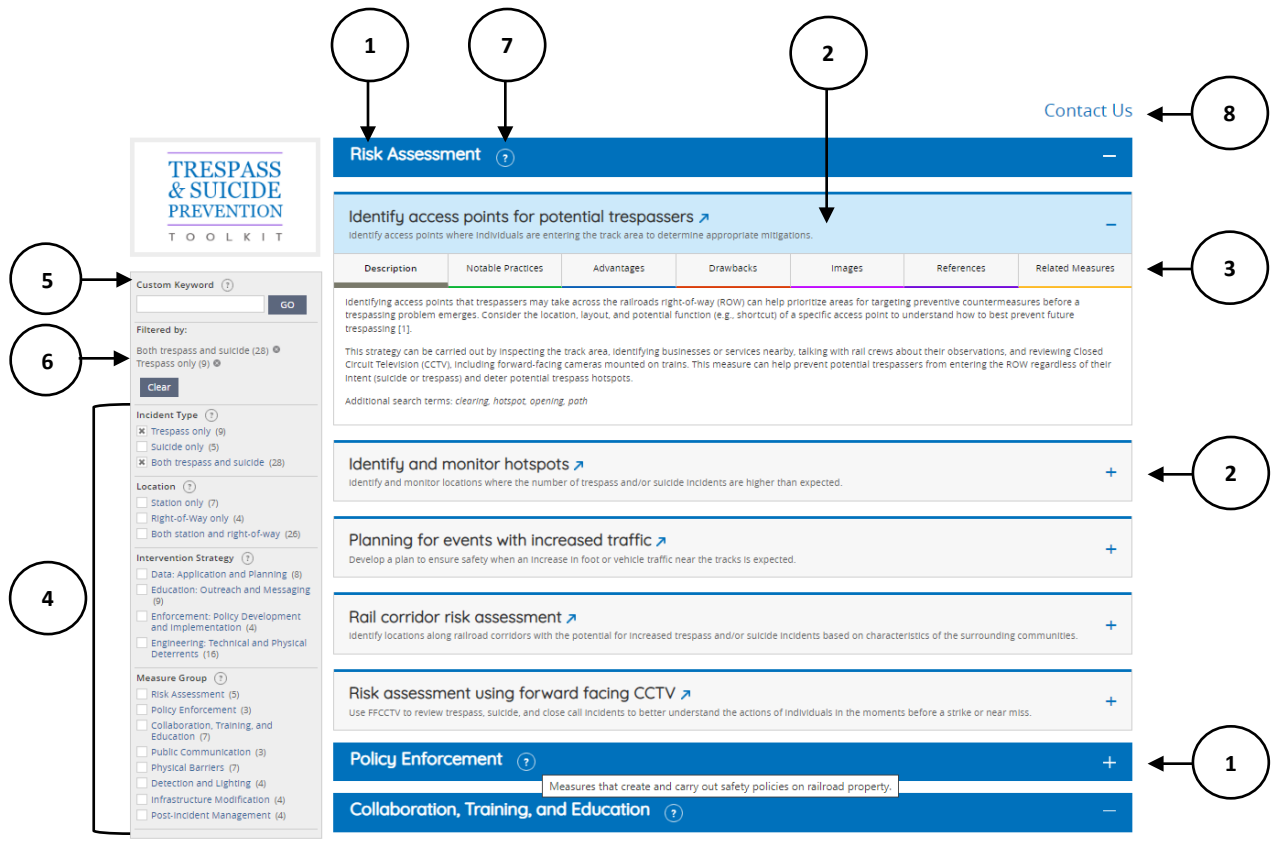
Figure 1. Trespass and Suicide Prevention Toolkit Elements

1. **Measure Group**. Measures that share similar characteristics were grouped together to provide additional filter options. The name of each Measure Group is in darker blue and includes the measures listed immediately below. You can collapse each measure group by selecting the "-" to the right of the measure title, and expand the measure group by selecting the "+".

2. **Measure Title and Definition**. Each measure includes the title and a short definition is shown with a light gray background that turns light blue when selected. Information about each measure can be revealed by selecting the "+" to the right of the measure title. Ince you no longer need the information you can collapsed the measure by selecting the "-". The blue arrow next to each measure title opens the measure in a new tab or window. Once opened, a PDF of the measure is available for download or printing.

3. **Informational Tabs**. Once expanded (+), each measure has seven individual tabs that organizes available information. Select one tab at a time to review the information available.

4. **Filters**. Filters are shown on the left side of the screen. Select as many checkboxes as desired to narrow down the list of measures displayed. Unchecking a box will remove the measure from being displayed.

5. **Custom Keyword**. You can also enter a custom keyword to refine the displayed measures. The keyword search for the exact text in the measure title, definition, or additional search terms listed at the bottom of the Description tab are available.

6. **Applied Filters/Clear Button**. The filter checkboxes and custom keywords you selected will appear below the custom keyword bar on the left. You can remove any filters or keywords by de/selecting the "x" next to the word or start your search over by selecting the "Clear" button to reveal all measures.

7. **Question Marks**. Hover your cursor (if using a mouse/trackpad) or tap (if using a touchscreen) any question mark icon to reveal a description of that item.

8. **Contact Us**. We value your feedback. Select this icon to send an email with any questions, comments, or other feedback, including suggestions for additional information to include.

Order of Measures Presented

Measures displayed on the TSP Toolkit are organized alphabetically within each Measure Group (see Measure Group below for more detail). The groups are presented in the same order as they are displayed in the filter on the left side of the screen. This order follows how someone might think about addressing a rail trespass or suicide issue, starting with assessing risk and ending with actions to take after an incident happens. The list below provides additional information about the logic of this order:

- **Risk Assessment:** Understand the problem through data collection and analysis.

- **Policy Enforcement:** Implement and enforce policies to reduce unsafe actions on or near the tracks.

- **Collaboration, Training, and Education:** Identify potential partners and opportunities to train staff and educate the public about trespass and suicide prevention.

- **Public Communication:** Understand how to publicly talk about the rail trespass and suicide in a responsible way and avoid unintentional negative effects on vulnerable individuals.

- **Physical Barriers:** Restrict or deter access to the rail system.

- **Detection and Monitoring:** Identify unauthorized individuals on the rail system.

- **Infrastructure Modification:** Consider if changes should be made to the physical infrastructure of a new or existing station to reduce the potential for trespass or suicide.

- **Post-Incident Management:** Mitigate the effects on individuals and the rail system after an incident occurs and prevent future incidents.

This order is not a perfect approach for all situations and is only intended to provide a logical flow to follow so that you can find measures most relevant to your needs.

Using the Filters

The filters on the left side of the screen can help narrow down the displayed measures to those most relevant to your needs. When you first arrive at the Toolkit all measures are visible. You may select as many filters as you like, and the list of measures will update after each selection. The first filter you choose (Incident Type, Location, Intervention Strategy, or Measure Group) will update the other three filters to include only measures that match your selections under the first filter. As you continue to

select additional filters and narrow you search, the number of measures displayed will update to match your selections. Figure 2 shows the filter sidebar with the *Trespass only* and *Both trespass and suicide* filters selected.

The selected filters will be listed at the top of the filter sidebar under "Filtered by" heading. To remove filters, either uncheck the box, or select the "x" next to a specific word at the top of the sidebar. To remove all filters, select the "Clear" button. Note that the "Clear" button will also remove any custom keywords.

There are four filters: Incident Type; Location; Intervention Strategy; Measure Group. Each measure only falls into one category under each filter.
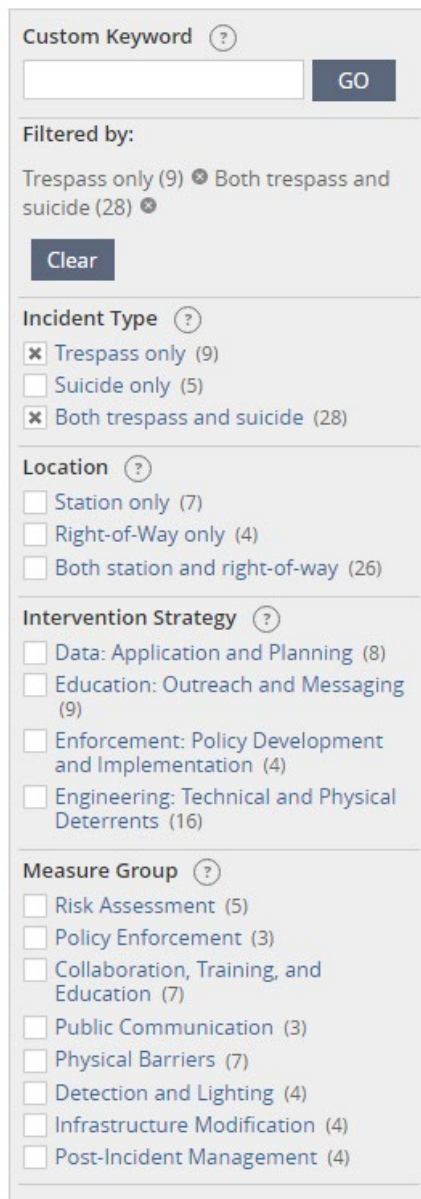
Incident Type

The Incident Type filter allows you to select measures based on the individuals' intent for being on railroad property using the following categories:

- **Trespass only** – Measures that only apply to trespassing <u>without</u> suicidal intent.

- **Suicide only** – Measures that only apply to suicide and <u>not</u> to trespassing for other reasons.

- **Both trespass and suicide** – Measures that apply to both trespassing and suicide.

Many measures have the potential to impact trespass and suicide and are therefore included in the *Both trespass and suicide* category. To find all measures in the Toolkit that can prevent or mitigate suicide, you will need to select *Suicide only* and *Both trespass and suicide*. Likewise, to find all measures that can prevent or mitigate trespassing, select *Trespass only* and *Both trespass and suicide*.

Location

The Location filter allows you to select measures based on where incidents occur:

- **Station only** – Measures that apply only to platforms and property at passenger stations and <u>not</u> to areas away from stations.

- **Right-of-way only** – Measures that apply only to areas along the right-of-way away from stations.

- **Both station and right-of-way** – Measures that apply to both stations and the right-of-way.

Figure 2. Filter Sidebar

The TSP Toolkit does not currently have an option to filter for grade crossing as a location, although some measures may apply to these locations.

Many measures can be implemented at a station and along the right-of-way and therefore are included in the *Both station and right-of-way* category. To find all measures that apply to stations, select *Station only* and *Both station and right-of-way*. Likewise, to find all measures that apply to the right-of-way, select *Right-of-way only* and *Both station and right-of-way*.

Intervention Strategy

The Intervention Strategy filter allows you to search for measures that follow a particular strategy for mitigation. The categories within this filter are based on the concept of FRA's 3 E framework of railroad safety: education, enforcement, and engineering. This filter also includes a fourth category for data-driven approaches. The Implementation Strategy filter options are as follows:

- **Data: Application and Planning** – Measures that use data to inform decision-making about how to approach trespass or suicide issues.

- **Education: Outreach and Messaging** – Measures that focus on formal training and educating the community about railroad safety and suicide prevention or focus on collaboration with groups outside the railroad industry.

- **Enforcement: Policy Development and Implementation** – Measures concerning the development and/or enforcement of policies to deter trespass and suicide.

- **Engineering: Technical and Physical Deterrents** – Measures involving technology to deter or restrict access or to identify individuals who are on or near railroad property.

Measure Group

The Measure Group filter allows you to find specific categories of measures. Measures were grouped by subject matter experts into categories based on common themes, actions, and goals. The list of measures displayed in the TSP Toolkit is organized by Measure Group, which are displayed in darker blue headings. The Measure Group filter options are as follows:

- **Risk Assessment** – Measures that focus on data driven activities to identify areas most in need of mitigation efforts.

- **Policy Enforcement** – Measures that create or carry out safety policies on railroad property.

- **Collaboration, Training, and Education** – Measures that focus on stakeholder coordination, employees training, and public education.

- **Public Communication** – Measures that educate the public through a variety of methods.

- **Physical Barriers** – Measures that act as physical deterrents within a specified location.

- **Detection and Lighting** – Measures that increase the potential to detect the presence of individuals on railroad property.

- **Infrastructure Modification** – Measures that create physical changes to stations, rights-of-way or to the locomotive.

- **Post-Incident Management** – Measures that can mitigate the effects of incidents after they occur.

Using the Custom Keyword Search

The keyword function searches the title, definition, and additional search terms listed at the bottom of the measure description, within the measures currently displayed. It also searches the filters that apply to each individual measure. For example, entering the term "policy" will return any measures in the Intervention strategy, *Enforcement: Policy Development and Implementation*, and the measure group, *Policy Enforcement*, as well as measures that include the term "policy" in the title, description, or additional search terms. The keyword function does <u>not</u> search additional text on any of the informational tabs. Figure 3 below shows the results of the custom keyword search "policy" without any other filters selected. The word "policy" is listed under the "Filtered by" heading, indicating that it was entered as a keyword.
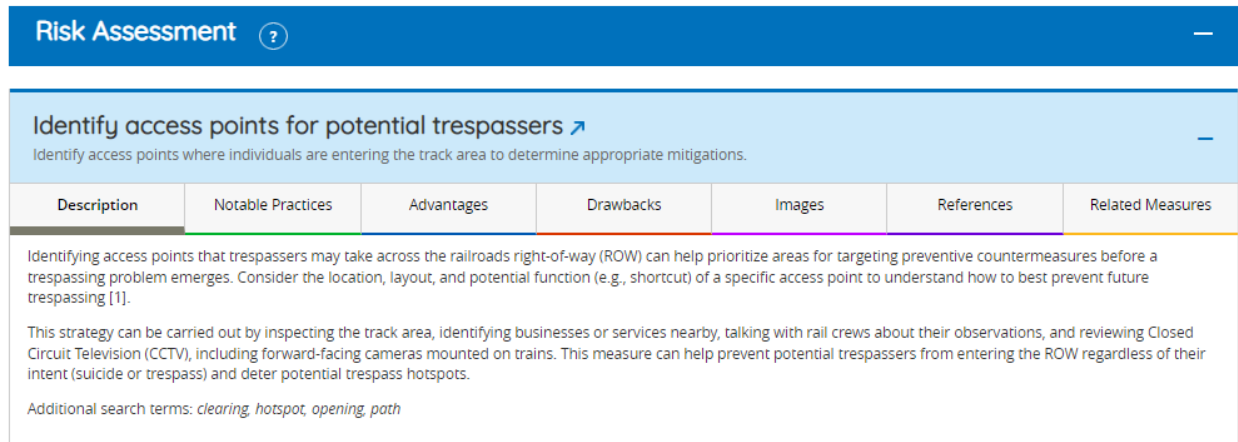

Figure 3. Custom Keyword Search Example

The search function will return only <u>exact text</u> matches, including any spaces or punctuation, and is limited to the measures that are displayed at the time of the search. Therefore, be sure to carefully consider any selected filters before using the keyword search.

To search for multiple forms of a word (e.g., *fence, fencing, fenced, fences)*, enter only the core portion of the word, such as *fenc* rather than *fence*s. Entering the word *fence* returns any measure with the words fence, fenced and fences, but not fencing.

Information Within a Measure

If you are interested in more information about a certain measure, select the "+" icon to the right of the measure title, which reveals seven tabs with additional content. Each of these tabs includes unique information and only one tab can be viewed at a time. Figure 4 shows the informational tabs for the *Identify access points for potential trespassers* measure.

Figure 4. Informational Tabs Example

The seven tabs are described below:

- **Description**: A short summary of the measure, how it is intended to work, and any evidence of effectiveness. A list of additional search terms is also included at the bottom of the description.

- **Notable Practices**: A list of known practices and examples from pilot studies, evaluations, lessons learned in the field, and subject matter experts.

- **Advantages**: A list of positive outcomes and potential benefits of the measure.

- **Drawbacks**: A list of potential challenges to consider before or after implementing the measure.

- **Images**: Images of what various implementations of the measure look like. Not all measures have images. To view the images, select a thumbnail to expand an image and open the gallery. If the measure does not have an image, the phrase "No images available" will be displayed.

- **References**: A list of published references and additional resources about the measure. References are cited using bracketed numbers [#]. Clicking on a hyperlinked reference will open that document in a new tab or window.

- **Related Measures**: A list of links to other measures that share similar features or that work well with that measure. Clicking on a hyperlinked measure will open that measure in a new tab or window.

Viewing A Measure in A New Tab or Window

To view a single measure in a new tab or window, click on the arrow next to the measure title. This feature is useful for comparing measures, and to save or print a PDF version of a measure. You can

download the PDF file by clicking on the link above the Description tab, as shown in Figure 5. To return to the Toolkit, click on the *Back to Search Results* link at the top left of the page. Note that the date a specific measure was last reviewed is located at the bottom of each PDF file.

Figure 5. Example of A Measure in A New Tab or Window

Frequently Asked Questions

What is the Trespass and Suicide Prevention Toolkit?

The TSP Toolkit is a resource to help identify effective strategies to prevent rail trespass and suicide incidents.

Who is the TSP Toolkit for?

The TSP Toolkit is for anyone interested in preventing rail trespass and suicide or mitigating the effects of these incidents. Individuals directly involved in the railroad industry, such as FRA inspectors or railroad safety officials, may find the TSP Toolkit information directly relevant to their jobs. The TSP Toolkit offers insights for a wide range of stakeholders including community members, local government officials, suicide prevention and mental health groups, and researchers.

What is included in the TSP Toolkit?

The TSP Toolkit provides concise, summarized information about rail trespass and suicide mitigation and prevention strategies (measures). This includes background information about how a measure is intended to work, advantages, drawbacks, notable practices, images and additional resources for more information.

What is a measure?

A measure is a single prevention or mitigation strategy used to address rail trespass and suicide. A measure can help you understand how to mitigate and prevent rail trespass and suicide incidents, and how to reduce their impact on the rail system and the individuals involved.

Can I find highway–rail grade crossing safety measures in the TSP Toolkit?

No. At this time, the TSP Toolkit is focused on trespass and suicide at stations and along the right-of-way. Many measures may be effective for pedestrian safety at a grade crossings, but the TSP Toolkit does not specifically focus on this type of location. FRA is currently developing another toolkit that focuses specifically on grade crossings.

How do I find the best measures for my situation?

The TSP Toolkit includes filters to help you narrow the list of measures down to those most relevant for your situation. By default, all measures are displayed if no filters are selected. Select as many of the filter options as needed and/or use the custom keyword function.

How does the Custom Keyword function work?

The keyword function searches the title, definition, and additional search terms (listed at the bottom of the Description tab) of the currently displayed measures for the exact text entered in the search box. The function also searches the filters that apply to each individual measure; for example, entering the term "suicide" will produce the same results as selecting the *suicide only* and *both trespass and suicide* filters.

The content from the informational tabs <u>not</u> included in the keyword function. The search is also limited to the measures that are being displayed at the time of the search. Be sure to carefully consider any selected filters prior to using the keyword function. Only <u>exact</u> matches of the text will return a result,

including spaces and punctuation. For example, entering for the term *fence* will only return measures with that exact term, but will not return measures that include the word *fencing*. To search for multiple forms of a word, enter only the core portion of the word (such as *fenc* rather than *fence*) so that the search returns measures with the terms *fence, fencing, fenced, fences.*

How are the Measures organized?

Measures are listed in alphabetical order within their Measure Group. The order of the Measure Groups on the page are the same as the order in the Measure Group filter on the left side of the TSP Toolkit. This order roughly reflects how someone might approach addressing trespass and suicide issues, starting from before incidents occur and ending with mitigating the impacts of these incidents after they occur. The Measure Groups are shown in the following order: Risk Assessment > Policy Enforcement > Collaboration, Training, and Education > Public Communication > Physical Barriers > Detection and Lighting > Infrastructure Modification > Post-Incident Management.

What information is available for each measure?

Content is organized in seven tabs, each providing different information about the measure. The seven tabs are: Description, Notable Practices, Advantages, Drawbacks, Images, References, and Related Measures.

What are the numbers in brackets (e.g., [2]) that are found through the measure content?

These numbers refer to a published reference that can be found in the References tab. These citations are used so that you can know where a piece of information came from. If you are interested in reviewing the original source for more detail, a link is provided when available.

Can I download information from the TSP Toolkit?

Yes. A downloadable PDF is provided for each measure. Click on the arrow next to the measure title to open the measure in a new window or tab. The PDF file is located above the Description tab.

Is the information in the TSP Toolkit up to date?

The TSP Toolkit is reviewed and updated regularly. The date that a specific measure was last reviewed can be found at the bottom of each individual measure's PDF file.

How do I provide feedback about the TSP Toolkit?

We value your feedback! please use the *Contact Us* button at the top right of the webpage to leave feedback about the content or functionality of the toolkit.

How do I propose new content or a new measure?

To propose new content be added to an existing measure, or to propose a new measure, please use the *Contact Us* button at the top right of the webpage.