

Roadsoft® Roundup

January 2022, Vol. 21, Issue 3



For Roadsoft help, visit
the Roadsoft Manual at

<https://roadsoft.org/help>

Roadsoft 2021 Work Plan Review

The annual Roadsoft User Group (RUG) meeting and *Roadsoft Work Plan Survey* provide Center for Technology & Training (CTT) staff with the opportunity to interact with Roadsoft customers and get an idea of features and enhancements that they would like to see in the program. During the 2021 RUG meeting, we reviewed progress on the 2021 work plan and opened the floor for discussion of new ideas for the 2022 work plan.

2021 Roadsoft User Group Meeting Updates

The annual RUG meeting was held on August 21, 2021. The forty-two attendees were provided updates on the progress made on the 2021 Roadsoft work plan. In addition, attendees were able to provide input on suggestions for features and enhancements they would like to see in future versions of Roadsoft.

Senior Project Manager Nick Koszykowski, Principal Programmer Luke Peterson, and Technical Specialist Scott Bershing hosted the meeting. Koszykowski gave an overview and status update on major items in the 2021 work plan. Highlights included the framework migration from v20 to v21; module standardization and usability improvements including the addition of user-defined fields in the Culvert and Sign Modules; improvements to Pavement Management tools; an update to the Culvert Module to account for the Michigan's new Transportation Asset Management Council (TAMC) culvert data collection and inspection procedures; and the implementation of guardrail data collection in Roadsoft Mobile. Peterson gave a brief overview of the addition of the user-defined fields and how they function. Bershing then gave an overview of the Roadsoft training sessions that were offered or yet to be offered in 2021. Koszykowski also provide some other general updates, including an overview of the

updates to the Model Inventory Roadway Elements (MIRE) Fundamental Data Elements.

Following the review of the 2021 work plan, Koszykowski led a discussion regarding the 2022 work plan asking for program features and enhancements that attendees would find most beneficial. Attendees were encouraged to participate in the online *2022 Roadsoft Work Plan Survey* to provide feedback and rank possible work plan items for the upcoming year.

Work Plan Discussion

The *2022 Roadsoft Work Plan Survey* received 66 submissions. Survey participants rated proposed features and enhancements to Roadsoft and submitted additional comments and ideas. The CTT thanks everyone for participating in the development conversation and encourages anyone with thoughts or ideas to get in touch, whether at conferences, webinars, or by emailing us at roadsoft@mtu.edu.

Survey responses involved rating development ideas for Roadsoft, but not all tasks are created equal. Some are easier and more straightforward to implement than others, and some involve different devices and operating systems. Because of this, the survey divides ideas into three groups and has participants vote on the most relevant topics for their agency from each group. The three groups are major tasks, which are the biggest developments like creating new modules and tools and occupy the most time and effort from our programming team; maintenance tasks, which are smaller tweaks and improvements to existing features that are implemented when programmers have time between larger projects; and mobile tasks involving the team developing the Roadsoft Mobile app for Android and iOS devices. For major and maintenance tasks, participants voted on the five tasks most relevant to their

The Center for Technology & Training at Michigan Technological University publishes Roadsoft Roundup four times a year. To obtain permission to reprint any articles or graphics from Roadsoft Roundup, or to subscribe, please contact the CTT.

Director: Tim Colling, PhD, PE

Senior Project Manager: Nick Koszykowski

Principal Programmer: Luke Peterson

Sr. Software Engineer: Mike Pionke

Software Developers: Scott Dohrman, Anupama Josyula, Joe Kurtz, Daniel Morgan, Blaine Thorpe

Civil Engineers: Chris Gilbertson, PhD, PE; Zack Fredin, PE; Ingrid Sandberg, PE; Pete Torola, PE

Systems Support: Christoforo DelReal, Jacob Coulson

User Interface/User Experience Specialist: Lindsey Wells

Editor: Scott Bershing

Center for Technology & Training

Michigan Technological University

309 Dillman Hall

1400 Townsend Dr.

Houghton, MI 49931-1295

Telephone..... (906) 487-2102

Fax (906) 487-3409

E-mail..... roadsoft@mtu.edu

Web..... www.roadsoft.org

Roadsoft® Roundup

agencies, while for mobile tasks, they rated the seven available entries from most to least relevant. Mobile tasks that were rated more important are given a higher rating in the graph.

Proposed Major Tasks

Twenty-five major tasks were included in the survey. These proposed tasks were compiled from staff ideas, customer suggestions, and items left over from previous years that haven't been added to Roadsoft. The list of ideas included:

- Continued module standardization (adding the multi-edit

- tool, forms, dashboards, calendars, improved filtering).
- Continued Project Planning & Selection Tool enhancement (enhanced reports, maps, inclusion of more types).
- Sewer Network Module – Create a module similar to the Drainage Network Module that relates to sewer-related assets (points, lines, and polygons) that are relevant to the road.
- Capital Plan Tool (encompassing multiple modules and assets) – Expand the Capital Plan Tool to include more

Proposed major tasks list continued on page 3

Potential 2022 Work Plan Major Task Rankings

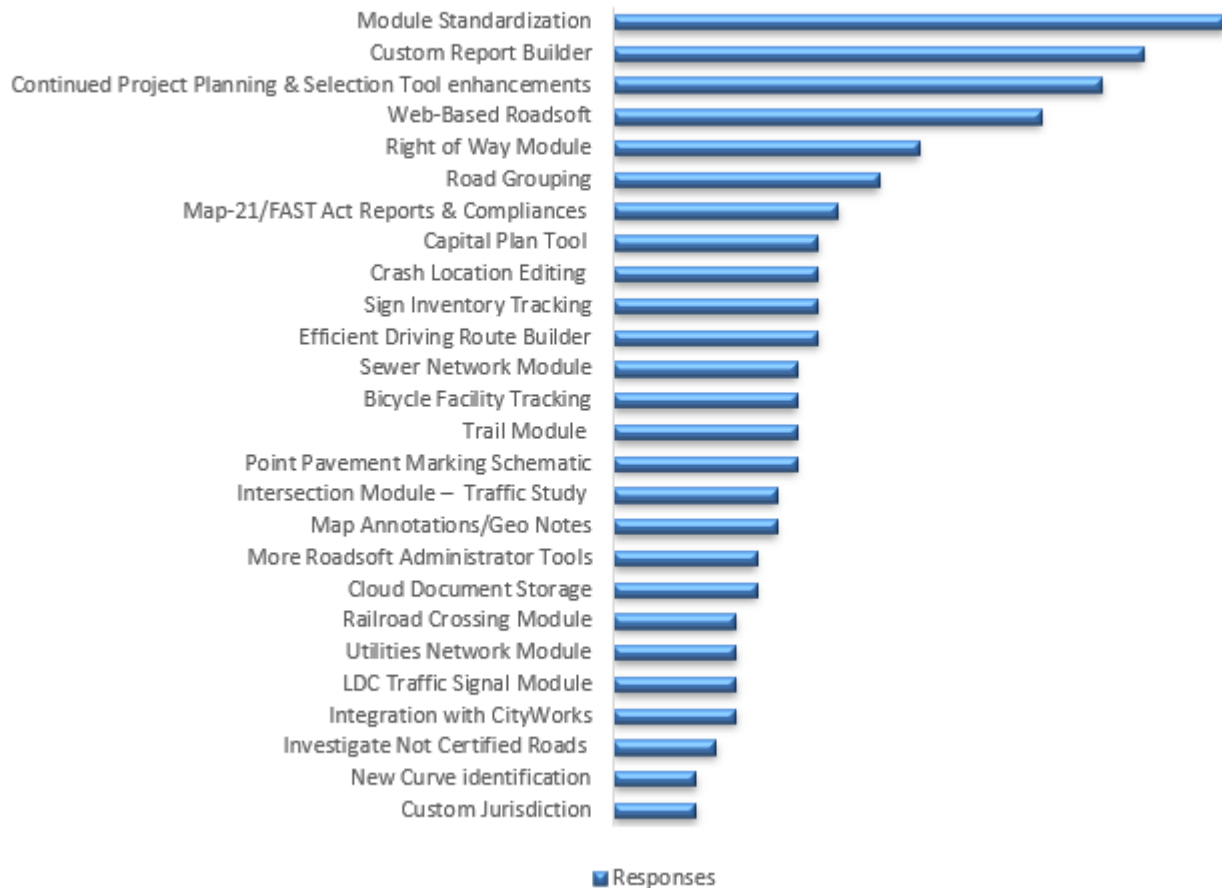


Figure 1 - The major tasks that survey participants voted for. Item ranking is based on the number of responses received in the survey

Roadsoft® Roundup

Proposed major tasks list continued from page 2

asset modules in projects.

- Crash Location Editing - For crashes that have been incorrectly located, add the ability to relocate a crash using GPS coordinates or manually.
- Road Grouping - Allow user to define groups of roads similar to the Project Builder, but with the option to view all segments as a single combined entity showing average PASER rating and to allow applying projects year over year on the group.
- Map-21/FAST Act Reports & Compliances (formulas/datasets for crash rates) – Add new features, formulas and datasets as needed to support new reporting requirements from the Moving Ahead for Progress in the 21st Century Act and the Fixing America’s Surface Transportation Act.
- New Curve identification (new algorithms for identifying curved roads for crash rankings) – Update and improve the algorithm that identifies curved roads, allowing them to be better taken into account when using Crash Module features.
- Investigate Not Certified Roads (decertified/private roads) –Investigate creating an asset module for decertified and private roads that may not be under agency jurisdiction.
- Intersection Module – Traffic Study – Add traffic information to the Intersection Module.
- Railroad Crossing Module – Create a point module for railroad crossings and associated data.
- Bicycle Facility Tracking – Create a line module for bicycle paths and associated data.
- Sign Inventory Tracking (stock/materials/etc) – Create a way to keep track of the sign materials an agency has on hand, such as sheets and posts.
- Trail Module (including those not along roadway) – Create a line module for hiking trails and associated data, including trail segments that do not follow roadways.
- Custom Report Builder (ability to define which fields, layouts and other formatting) – Design a feature that lets users choose the fields they want to include, and do things like add logos and other headers to their report layouts.
- Map Annotations/Geo Notes (addable during data collection) – Make a way to mark locations on the map and add notes. Likely not a full module, but a useful way to mark potholes and other noteworthy spots.
- Utilities Network Module – Create a module similar to the Drainage Network Module that relates to utilities-related assets (points, lines, and polygons related to electric, telephone, cable, and other utilities) that are relevant to the road transportation network.
- Web-Based Roadsoft – Create a web-based version of Roadsoft that runs via a browser with data stored in the cloud.
- Subsets – custom jurisdiction (example: airport, multiple townships) – Work on options to make databases that can consist of custom groups of jurisdictions, such as counties, townships, and special areas like airports.
- Point Pavement Marking Schematic – Make a diagram feature for the Point Pavement Marking Module that illustrates where point pavement marks are located on the road.
- Right of Way Module – Create a module to record the areas agencies control adjacent to their roads.
- More tools and controls for Roadsoft Administrator (permissions to update only certain fields, ability to review LDC files before import, more tracking of updates by name) – Create new features for Roadsoft database administrators, such as locking certain fields for general users, reviewing LDC information before importing them into Roadsoft, and being able to track database changes by user.
- Cloud Document Storage – Add option to store attached documents/images in cloud-based storage rather than in the Roadsoft database.
- LDC Traffic Signal Module - Add a module to the Laptop Data Collector to work with traffic signals and supports.
- Efficient Driving Route Builder - for PASER collection, Pavement marking reviews, etc.
- Integration with CityWorks - Allow for the importing of data from CityWorks

Roadsoft® Roundup

As *Figure 1* shows, module standardization, Project Planning & Selection Tool (PPST) enhancements, and a Sewer Network Module were some of the most voted for major tasks. Continued module standardization and PPST enhancements will be a priority, and other tasks will be addressed as time, resources, and development time are factored in.

Proposed Maintenance Tasks

The list of ideas for maintenance tasks in the survey included:

- Routine Maintenance Filtering (from main reporting tab by township or legal system) – Make a way to filter Routine Maintenance reports by specific townships or legal systems.
- Ability to Copy/Paste Sign & Maintenance data between posts – Make a feature to copy data like sign conditions or

maintenance information and apply it to multiple supports.

- Multi-Edit of Status for Projects/Routine Maintenance – Add the ability to multi-edit the status of multiple projects and/or routine maintenance items.
- Ability to add/remove/re-order Selection Information – Design ways for users to manage the layout of fields in Roadsoft.
- Agency level help comments associated with fields – Allow agency to edit field descriptions/context-sensitive help for module fields in Roadsoft and LDC.
- Search by Memo Field (all modules) – Create a search function to look for entries in the memo field of asset modules.

Proposed maintenance tasks list continued on page 5

Potential 2022 Work Plan Maintenance Task Items Rankings

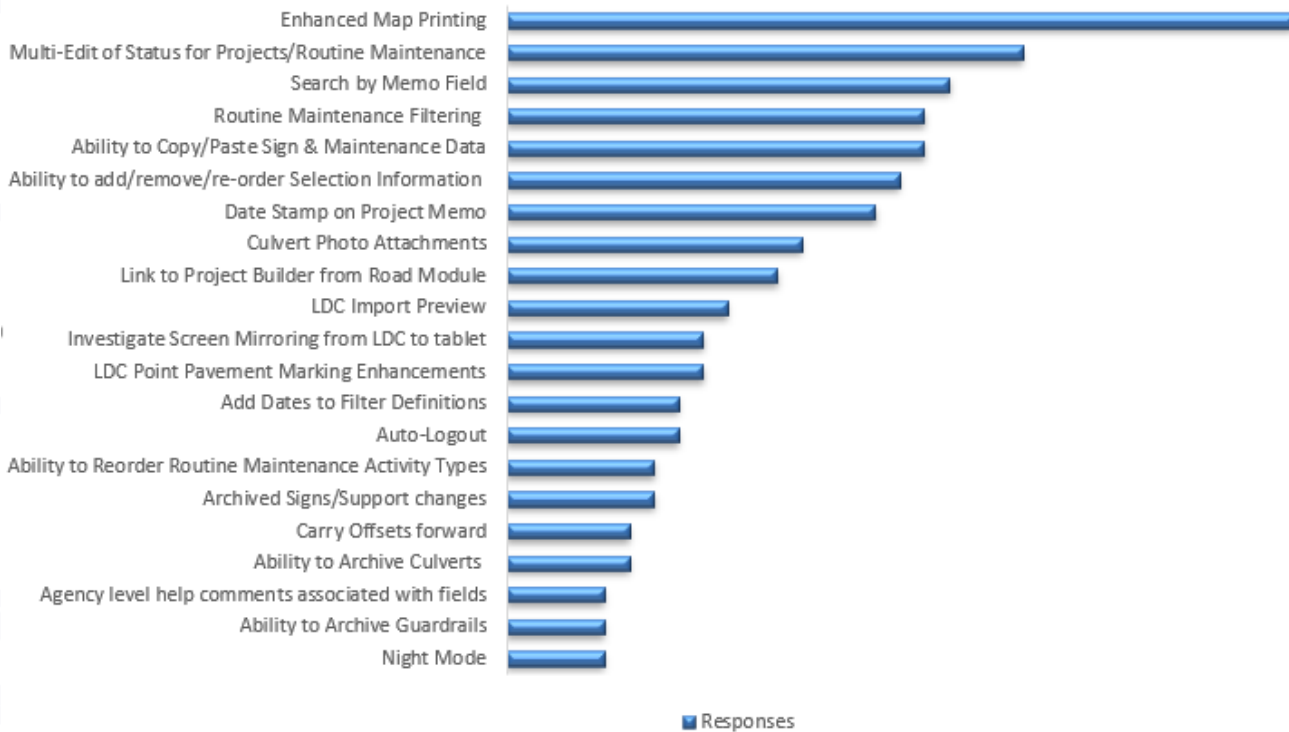


Figure 2 - The maintenance tasks that survey participants voted for. Item ranking based on the number of responses received in the survey

Roadsoft® Roundup

Proposed maintenance tasks list continued from page 4

- Ability to Reorder Routine Maintenance Activity Types (by job numbers & delete/archive option when activity is associated with a record) – Create ways for users to manage the layout of routine maintenance fields, and ways to delete or archive activities maintenance as well.
- Date Stamp on Project Memo – Put date stamps on the memo fields of projects to show when they were last edited.
- Link to Project Builder from Road Module – Create a shortcut from the Road Module to the Project Builder, such as a link or a button.
- Archived Signs/Support changes (add filter ability, archive date, memo field, remove map labels) – Update archived sign settings. Add the ability to filter them out, record the dates signs were archived, add a memo field, and remove labels for archived signs.
- Add Dates to Filter Definitions (created, modified, last

run) – Add notes to filter definitions that record when the filter was created, when it was last modified, and when it was last used.

- Carry Offsets forward (last entered Liner Pavement Marks) – Have the LDC remember the last offset settings used for a linear pavement mark and automatically enter them in the next linear pavement mark if the fields are empty.
- Investigate Screen Mirroring from LDC to tablet – Look into creating a way for a tablet to sync with a laptop running the LDC for use with data gathering.
- Ability to Archive Culverts – Add ability to archive culverts that are no longer in use.
- Ability to Archive Guardrails – Add ability to archive guardrails that are no longer in use.
- Night Mode – Add an option to make the LDC’s background dark colored and roads light to help see things at

Proposed maintenance tasks list continued on page 6

Potential 2022 Work Plan Mobile Task Rankings

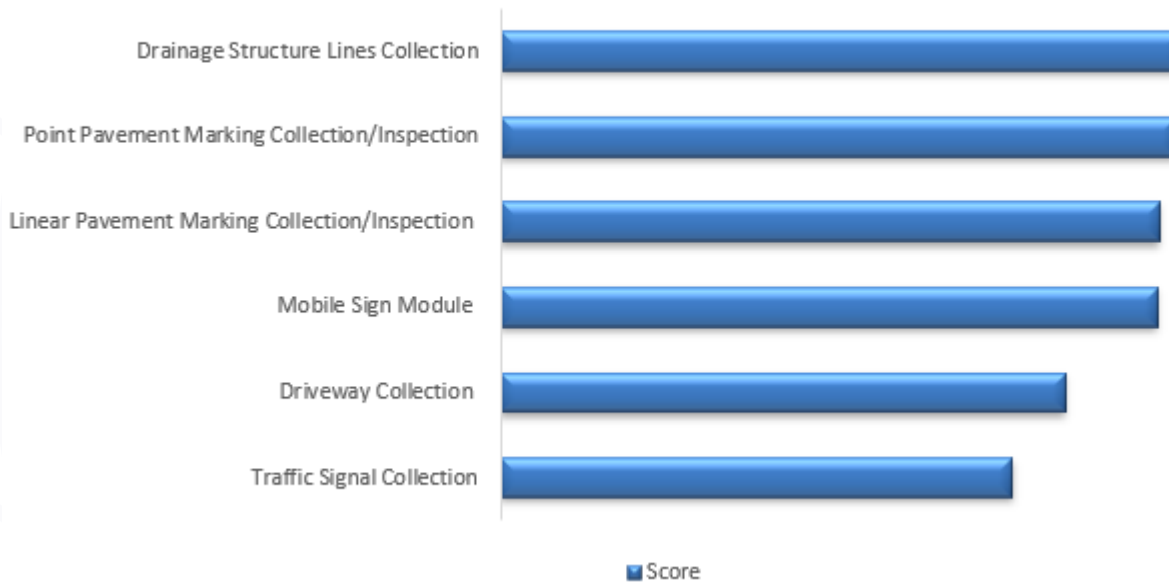


Figure 3 - The mobile tasks that survey participants voted for. Item ranking based on the number of responses received in the survey

Roadsoft® Roundup

Proposed maintenance tasks list continued from page 5

night and maintain night vision.

- Enhanced Map Printing - Add features and functionality with regards to creating maps from Roadsoft. This could include allowing for adjustments of size/location, being able to select by township/jurisdiction, etc.
- LDC Import Preview - IRT preview map to verify data to import.
- LDC Point Pavement Marking Enhancements - Legend color changes based on condition assessment, offsets on map so multiples aren't stacked.
- Culvert Photo Attachments - Revise the way the Culvert module handles photo attachments and how it works with attachments in conjunction with Stream Crossing Surveys.
- Auto-Logout- Automatically log out/exit from Roadsoft or LDC after 12 hours of inactivity.

Figure 2 reflects the maintenance tasks participants found most important. The ability to filter on routine maintenance, the ability to copy & paste sign and maintenance data between posts, and the ability to use the multi-edit tool on project and routine maintenance statuses topped the list. These will be given priority when maintenance tasks are completed, though there is flexibility in what maintenance tasks are done in what order.

Proposed Mobile Tasks

There were also six mobile tasks included in the survey, including:

- Driveway Collection – Add the Driveway module and driveway data collection to Mobile.
- Drainage Structure Lines Collection - Add the ability to collect drainage structure features and store them as lines.
- Point Pavement Marking Collection/Inspection – Add the Point Pavement Marking module and point pavement marking data collection to Mobile.
- Linear Pavement Marking Collection/Inspection – Add the Linear Pavement Marking module and linear data collection to Mobile.
- Mobile Sign Module - Add filtering within mobile device

to turn off certain sign types.

- Traffic Signal Collection - Add the ability to collect traffic signal data.

As *Figure 3* shows, drainage structure lines collection, point pavement marking data collection, linear pavement marking data collection, and a mobile sign module were the highest rated mobile tasks. Based on our resources, point pavement marking data collection will be a part of the 2022 work plan, with other modules and features added as time and budget allow.

Comments and Conclusions

There were thirteen additional comments and suggestions submitted by participants on the final question of the survey. The last question serves as a general input where participants can submit questions, comments, and concerns. User feedback is vital to making sure that Roadsoft is meeting the needs of our users, and we thank everyone who submitted comments and suggestions.

Overall, the survey provides CTT staff important feedback on what customers are interested in seeing from Roadsoft in the future. Once again, we thank everyone who participated in the survey - keep an eye out over the next year as suggestions and enhancements are added to Roadsoft.

Roadsoft Tech Assist Tuesdays

This is a reminder that the CTT transitioned our *Roadsoft on the Road* technical assistance visits from on-site at your agency to online with *Tech Assist Tuesdays*.

Sessions are available on Tuesdays with one hour slots at 9, 10, and 11 a.m.

Visit <https://www.roadsoft.org/articles/roadsoft-tech-assist-tuesdays> to request a *Tech Assist Tuesday* session.

If another day or time would work better, send an email to roadsoft@mtu.edu and we'll find a time that fits your schedule.

Roadsoft® Roundup

2021 RUCUS Roundup

The Center for Technology & Training (CTT) hosted its sixth annual Roadsoft User Conference of the United States (RUCUS) at the Mt. Pleasant Comfort Inn & Suites Hotel and Conference Center in Mount Pleasant, Michigan on December 15, 2021. The RUCUS drew nearly 50 individuals representing road agencies in Michigan and Indiana.

Conference topics included: Using Text Analysis Techniques on Roadsoft Traffic Crash Data; Traffic Signal, Intersection & Sign Modules in Action; Michigan Hour; Michigan TAMC 2021 Michigan Culvert Structure Inspection Guide; and Federal Aid and Non-Federal Aid Data Handling. In addition to these main topics, there were Tips & Tricks sprinkled throughout the day, as well as a deep dive into some of the advanced features of Roadsoft.

Two concurrent training sessions took place at the same venue the day before RUCUS on December 14, 2021. The "Introduction to Roadsoft" hands-on training provided an overview and instruction for new or inexperienced Roadsoft users. The "Roadsoft Pavement Management" hands-on training provided detailed instruction for more experienced Roadsoft users.

Visit the RUCUS 2021 conference page at <https://roadsoft.org/rucus-2021> to view the agenda with links to session presentation slides.



An Introduction to Roadsoft hands-on training was held the day before RUCUS and provided attendees the opportunity to follow along with examples using their own computers.

Upcoming Roadsoft Training

**2022 Roadsoft Special Topics:
Laptop Data Collector
Wednesday, March 2**

<https://ctt.nonprofitsoapbox.com/2022ldc-quickstart-mar>

**2022 Master the RS Data Collection
Cycle for Planning Organizations
Wednesday, March 23**

<https://ctt.nonprofitsoapbox.com/2022rpo-mpo-march>

**2022 Meeting the TAMC Investment
Reporting Requirements
Wednesday, April 6**

<https://ctt.nonprofitsoapbox.com/2022tamcreporting-apr>

**2022 Roadsoft User Group Meeting:
What's New?
Thursday, April 7**

<https://ctt.nonprofitsoapbox.com/2022rs-whats-new>

**2022 Intro to Roadsoft:
Just the Basics 2-Day Webinar
Tuesday, April 19 & Wednesday, April 20**

<https://ctt.nonprofitsoapbox.com/2022intrors-apr>

Agencies that have specific technical support questions or issues, or those that would like personalized training, can send a request to roadsoft@mtu.edu.

Visit <https://ctt.nonprofitsoapbox.com/upcoming-events> to see all upcoming CTT training events.

The CTT Continuing Education policy can be viewed at <https://ctt.mtu.edu/ContinuingEducation>