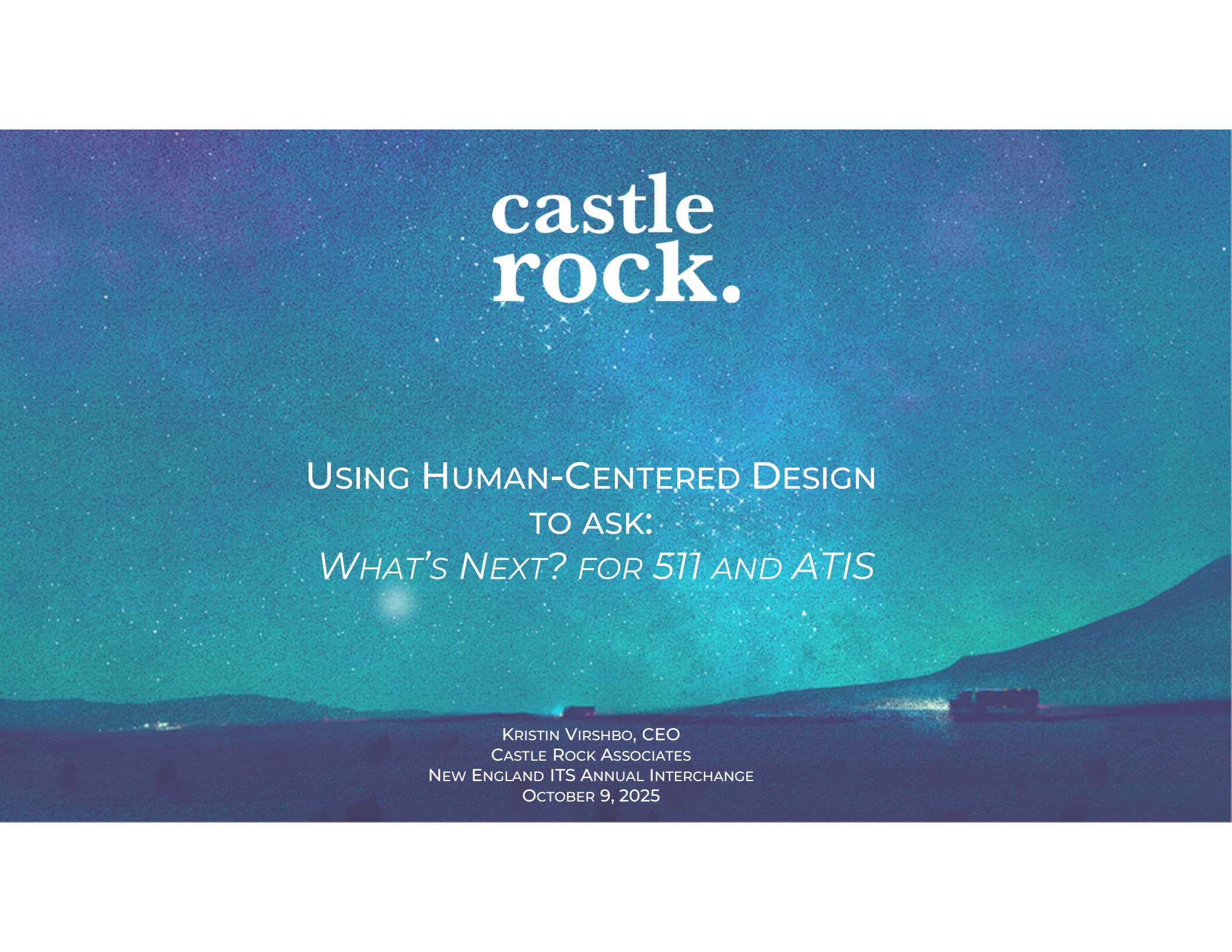




castle rock.

USING HUMAN-CENTERED DESIGN
TO ASK:
WHAT'S NEXT? FOR 511 AND ATIS

KRISTIN VIRSHBO, CEO
CASTLE ROCK ASSOCIATES
NEW ENGLAND ITS ANNUAL INTERCHANGE
OCTOBER 9, 2025

B H A G

Washington Bridge I-195 WB in Providence Info: Click here for details.

Mass511

More Search Options

Search Mass511 (e.g. cameras in Boston)



My Mass511

List View

Help



Statewide Boston Metro

What Are You Looking For?



Incidents



Construction



Cameras



Go Time Boards



My Mass511

I-90

I-95

I-495

Boston

Cape Cod

More

Critical Information



Washington Bridge I-195 WB in Providence Info: Click here for details.

Announcements

Sumner Tunnel (Route 1A South)
October 2024 Weekend Closures

Learn More

Help

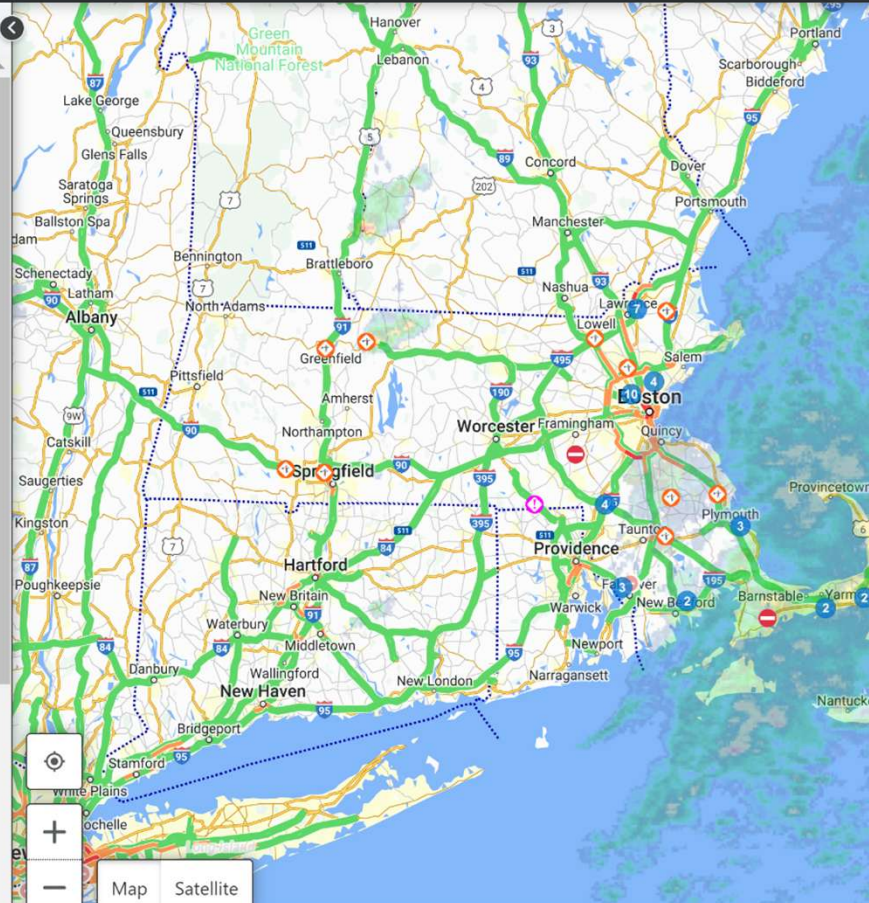
Take a Tour
Website Help
Phone Help
Feedback

More 511

Commercial Vehicles
MassDOT Developers
Data Sources

About

About 511
Privacy Policy
Terms & Conditions
Terminology
Contact Us



Layers

Legend

Select: Default / None

- ☒ Incidents and Closures
- ☒ Construction
- ☐ Future Construction
- ☐ Cameras
- ☐ Go Time Boards
- ☒ Traffic Conditions
- ☒ Reports by Google, Unconfirmed by MassDOT
- ☐ Mile Markers
- ☒ Road Conditions
- ☒ Dry or Wet Pavement
- ☒ Slushy or Snowy Conditions
- ☐ Commercial Vehicles

Set Default Map View



Map

Satellite

Show desktop

castle
rock.

Human-Centered Design



DATA-
CENTERED



HUMAN-
CENTERED

1 - EMPATHIZE

2 - DEFINE

3 - IDEATE

4 - PROTOTYPE

5 - TEST

These stages come from the Design Thinking methodology, popularized by IDEO and the Hasso Plattner Institute of Design at Stanford University (commonly known as the d.school).



Empathy starts with...
listening.



Feedback

The screenshot shows the Mass511 website interface. A feedback form is overlaid on the map. The form has the following text: "Please Provide Your Feedback. We Will Respond Within 24 Hours, On Business Days. If This Is An Emergency Please Call 911." Below this text are three input fields: "Email", "Subject" (with a dropdown arrow), and "Description". At the bottom of the form, it says "This site is protected by reCAPTCHA and the Google [Privacy Policy](#) and [Terms of Service](#) apply." There are "Cancel" and "Save" buttons at the bottom of the form. The background shows a map of Boston with various traffic and incident overlays.

The screenshot shows the 'More Options' menu of the Mass511 mobile app. The menu items are: "My Mass511 Account" (with a sub-item "Login/Register"), "Regional Push Notifications", "Enjoying Mass511? Tap a star to rate it on the App Store." (with five stars and a "Not Now" button), and "Keep Screen On" (with a toggle switch). The app version "v5.7.120" is displayed at the bottom. The background shows a map of Boston.

Theme 1

castle
rock.

"Good service. Not overly friendly for us simpletons."

-IOWA

"It is so clustered I can't see anything."

-MINNESOTA

"Much too complicated. Takes too much time to set up and see options."

-IOWA

"The map is much more user friendly now. ... It's not as cluttered now and I can see at a glance the road situation..."

-COLORADO

"Woefully painful to navigate. Tooooo much info blasts opening screen!"

-NEBRASKA

"Way too complicated! Just give me info on the area where I live."

-MASSACHUSETTS



Mass511

More Search Options

Boston, MA, USA

Clear Search

Statewide

Boston Metro

43 Events Around Boston, MA, USA

Results

EV Charging

Critical Information

STARTS THURSDAY. Fore River Bridge: Drawbridge lift. near Weymouth

STARTS TOMORROW. Fore River Bridge: Drawbridge lift. near Weymouth

Other Information

RT-1A northbound: Roadwork. between Boston and Revere

US 1 southbound: Roadwork. in Revere

STARTS OCTOBER 16. US 1 southbound: Roadwork. in Revere

RT-1A northbound: Road closed. in Revere

Map

Satellite

Search this area

castle

My Mass511

List View

Help

Layers/Legend

Google

A map of the Boston, MA area showing major highways and surrounding towns. The map is overlaid with various traffic event icons: blue circles with a white 'X' for roadwork, red circles with a white 'X' for road closures, and orange circles with a white 'X' for other events. The map includes labels for towns like Boston, Cambridge, Woburn, and Weymouth, as well as highways like I-93, I-95, and I-495. A search bar at the bottom right allows users to search for specific areas. The map is part of the Mass511 website, which provides real-time traffic information.

Prince George's County Travel
+

pgctrip.com

Finish update

Can't link my gmail...
State of Illinois - Ge...
Prototype Links - C...
URLs and 511 Phon...
511x
Status Reports and...
Adobe Acrobat
State of Illinois - Ge...
Disaster Recovery T...

Prince George's

Public Transit
List View
Menu
My PGC Trip

Search

What Are You Looking For?
Quickly find important events and views

Incidents
Cameras
Plows
Transit

View More Layers

Popular Locations
Jump to a specific route or use the Route Planner

I-95
I-495
MD 5
US 50
US 301

Try the new PGC Trip app, now featuring transit!

Download on the App Store
GET IT ON Google Play

Help
PGC Trip Help
Contact Us

Links
About PGCountyDPWT
National Weather Service
For Developers

Map of Prince George's County and surrounding areas (Arlington, Alexandria, etc.) showing transit routes and locations.

Layers
Legend

Theme 2

castle
rock.

"Why is 63 closed near Lafayette between 36 and 263?"

-INDIANA

"The Hwy 61 and 10 intersection is all messed up this morning and your site doesn't show it, very frustrating"

-MINNESOTA

"Is there a layer..that shows what routes are going to be subject to weekend closures?"

-MINNESOTA

"The app didn't even mention the construction on Highway 6"

-COLORADO

"It would be nice to know when the work is expected to be completed, ie Hwy 6 Greenwood to Ashland."

-NEBRASKA

"Why wasn't the construction noted on Mass Pike eastbound on Sunday night?"

-MASSACHUSETTS





UNSAVED WORK ZONE

Expand / Collapse

☒ SEND EMAIL NOTIFICATIONS

CANCEL

SUBMIT FOR REVIEW

EVENT DESCRIPTION

Descriptors *

Select a descriptor

Headline: PAVING OPERATIONS X

LOCATION

Location type

MAJOR ROAD

Route *

MN 100

Start named point

--

Start mile marker *

8.9

End named point

--

End mile marker

8.4

Direction

☐ NB

☒ SB

County

Hennepin

District

METRO WEST

Direction & Affected lanes *

SB: CLOSED

NB: N/A

Location Notes

Add a location note

Is work outside the hours permissible in the [Lane Closure Manual](#)? *

☐ Yes ☒ No

RESTRICTIONS

Does this work zone include size and/or weight restrictions? *

☐ Yes ☒ No

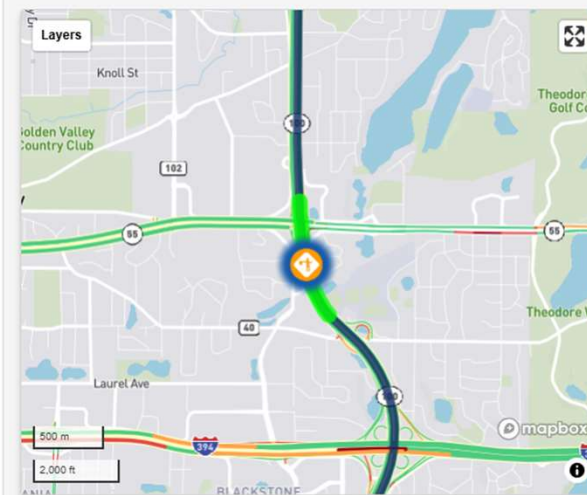
Restrictions

Select a restriction

DETOURS

ADD A DETOUR

0 of 4 detours



Public Preview:

MN 100 southbound: Paving operations.

Between Duluth Street, Golden Valley Road and Glenwood (Golden Valley). Paving operations. Left lane closed in the southbound direction of travel.

Starting tomorrow at 5:46PM CDT until October 7, 2025 at about 5:46PM CDT.

Event Priority
(1 High - 10 Low)

- 5 +

No timeline data.





I-494: Road maintenance operations.

Updated April 5

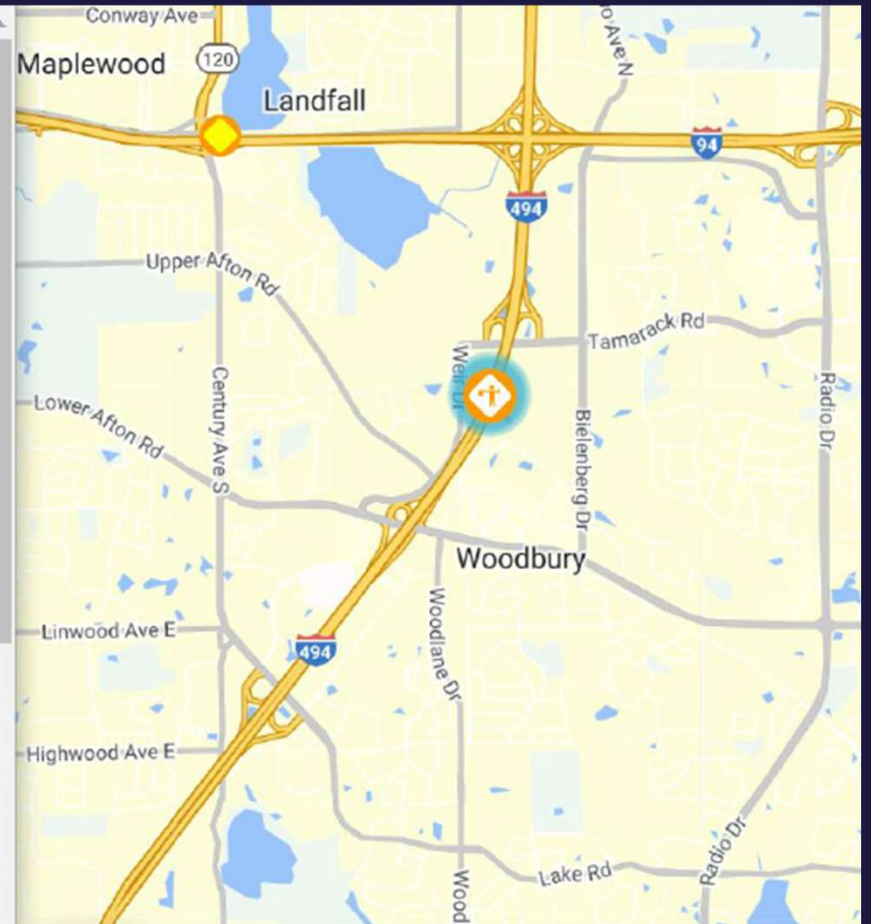
Between Tamarack Road and Exit 59: Valley Creek Road (Woodbury). Road maintenance work is in progress. Work zone is active. 



I-494: I-494 E...



I-494: I-494 E...



Planned integration with MassDOT's Work Zone Manager



RT-16: Roadwork.

Updated Last Monday at 9:36 AM EDT by Massachusetts DOT

Between US 1 and RT-107 (Revere). Look out for roadwork. The roadway is reduced to two lanes. From 7:00PM EDT to 5:00AM EDT on weekdays. Until Friday, at about 5:00AM EDT.



RT-16: Roadwork.

Updated Last Monday at 9:36 AM EDT by Massachusetts DOT

Live work zone verified by smart device ⓘ

Between US 1 and RT-107 (Revere). Look out for roadwork. The roadway is reduced to two lanes. From 7:00PM EDT to 5:00AM EDT on weekdays. Until Friday, at about 5:00AM EDT.



RT-16: Roadwork.

Updated Last Monday at 9:36 AM EDT by Massachusetts DOT

Live work zone and work zone location verified by smart device ⓘ

Between US 1 and RT-107 (Revere). Look out for roadwork. The roadway is reduced to two lanes. From 7:00PM EDT to 5:00AM EDT on weekdays. Until Friday, at about 5:00AM EDT.



RT-16: Roadwork.

Updated Last Monday at 9:36 AM EDT by Massachusetts DOT

Between US 1 and RT-107 (Revere). Look out for roadwork. The roadway is reduced to two lanes. From 7:00PM EDT to 5:00AM EDT on weekdays. Until Friday, at about 5:00AM EDT.



Theme 3

Let's listen together.



"Hi! I was just driving on southbound 77 and just before Exit 5B, there's a pretty big sign that the wind has knocked over, and it's kinda just hanging on by a leg...."

Hi . I am driving on Highway 20 west. So, there is a chair...a garden chair in the middle of the roadway..."

Heading northbound on the bypass on h Highway 5, there looks to be a shelf by mile marker 81 just before Altoona"

Yes, hello. There's a big piece of concrete on the road on Highway 61 in Newport when you come off 494 going west...

While driving south on 35W, and I encountered an Orange barrel that was under the road on Highway 13 before the Renville Parkway. It's just rolling around the roadI just wanted to report that, and I'm not sure how to do that...





Welcome to Iowa 511!
What can I help you with today?



"Report an issue."



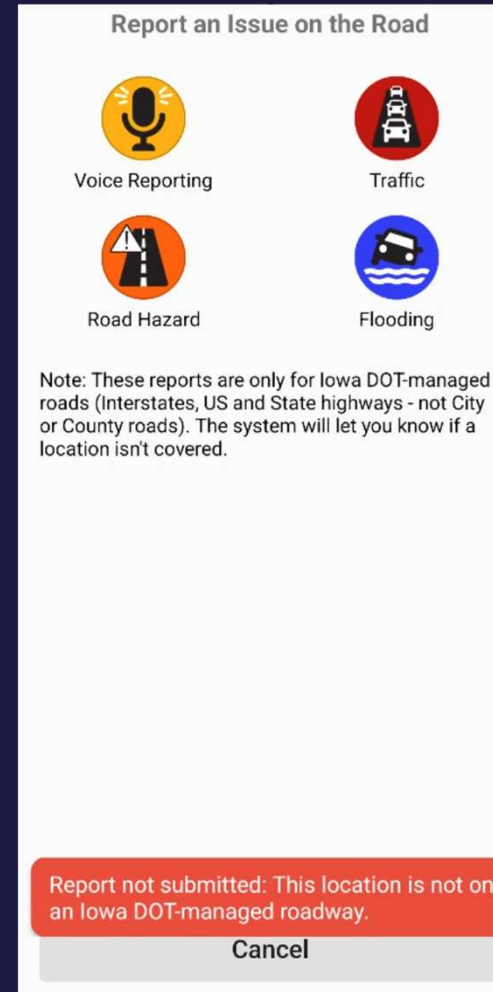
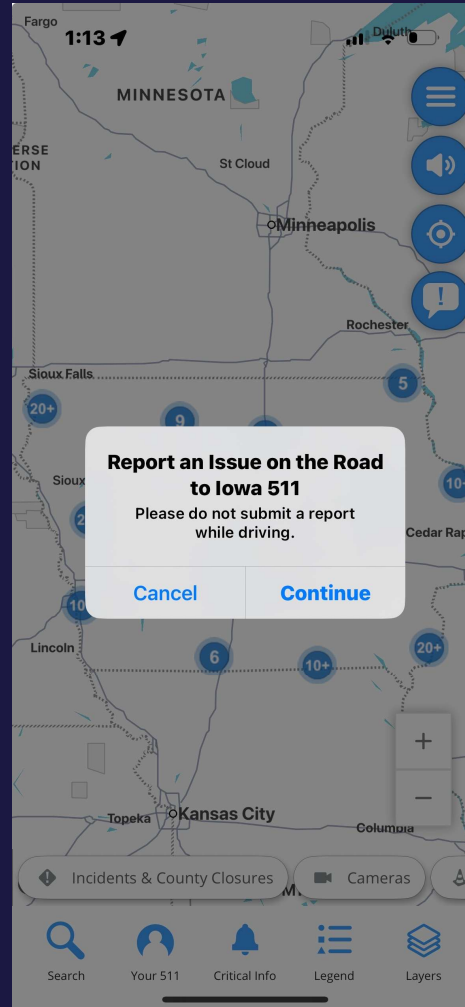
Do you want to report a traffic issue, a road hazard, or flooding?

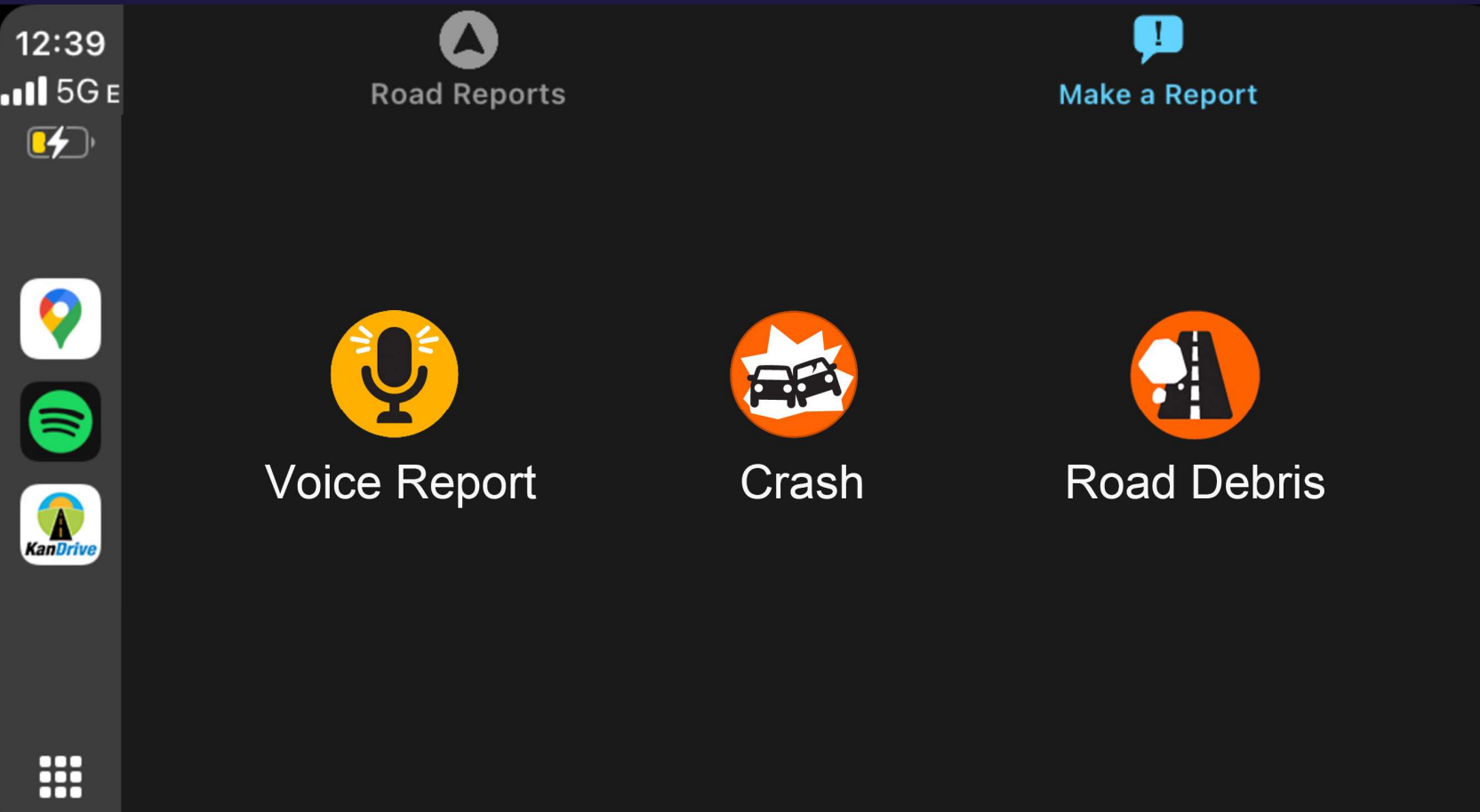


"Traffic issue"



If it looks like an emergency, please hang up and call 911. If it is not an emergency, describe the issue you're seeing such as an object on the road, a stalled vehicle, or standstill traffic. Let us know the exact location, including the highway number, direction, and the nearest exit or mile marker. Start recording when you hear the tone.





Closing thoughts on Human-Centered Design





THANK YOU

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