Innovations Showcase

TMA Flagger

Description

The TMA Flagger uses a boat-trailer style TMA that is modified to become an AFAD allowing clearer direction to motorists by incorporating three color variable message boards, an automated stop/slow paddle and a flashing red/yellow signal. Its primary focus is to get flaggers off the road and out of traffic. Two flaggers were killed in Missouri in 2016. An innovation like this could have prevented those fatalities.

Benefit

This innovation improves safety in all types of work zones by providing better direction to motorists, while protecting the work areas with a TMA. It also eliminates the need for a flagger on the ground. It simplifies work since it's flexible enough to fit on all HD fleet vehicles. It saves time setting up a work zone and moving from work zone to work zone. It saves money by increasing productivity in unfavorable weather conditions. It has the clear potential to save a flagger's life.

Materials and Labor

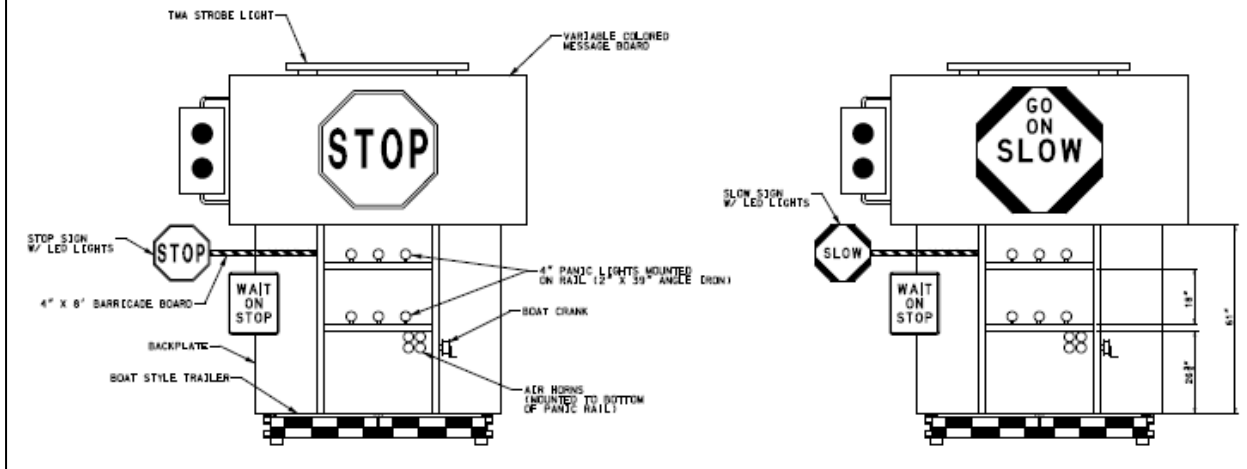40 hours of staff time with $15,000 - $20,000 in materials. Diagrams are shown on back page.

For More Information Contact:

Travis Teter at Travis.Teter@modot.mo.gov or (660) 563-3066. Alternate contacts: David Eppright, Russell Fisher and Chris Zurn

Additional photos or videos can be seen by accessing the Innovations Challenge SharePoint page at: http://sharepoint/systemdelivery/TP/Documents/InnovationsChallenge.aspx.

TMA FLAGGER ASSEMBLY

TMA STROBE LIGHT
VARIABLE COLORED MESSAGE BOARD
STOP
GO ON SLOW
STOP SIGN W/ LED LIGHTS
SLOW SIGN W/ LED LIGHTS
4" X 8' BARRICADE BOARD
WAIT ON STOP
4" PANIC LIGHTS MOUNTED ON RAIL (2" X 36" ANGLE IRON)
BOAT CRANK
BACKPLATE
BOAT STYLE TRAILER
AIR HORNS (MOUNTED TO BOTTOM OF PANIC RAIL)

Protective Vehicle/TMA Flagger Operation
(Workers on Foot Move with Operation)

Draft Copy

ROAD WORK AHEAD

ONE LANE ROAD AHEAD

FRONT OF TRUCK (Work Zone Traffic)

Rear Truck (Approaching Traffic)
(BACK OF TRUCK)

Red/Amber Lights
STOP/SLOW Sign
Light Bar
STOP
60 FT BACK
STOP Condition
GO ON SLOW
SLOW Condition
6 - Emergency Alert Lights
6-Feet (min.)
10 - feet
WAIT ON STOP
R1-7

Pilot Car

(1)

STOP

1 MILE MAX.

BE PREPARED TO STOP

ONE LANE ROAD AHEAD

ROAD WORK AHEAD

L

Notes:

STOP/SLOW paddle will be minimum 24 inches and may be LED. The STOP/SLOW paddle shall be a minimum of 6-feet above the pavement.

STOP/SLOW paddle shall be enhanced with an 8-12 inch RED and AMBER lights.

CMS Board will be full matrix capable to provide a lighted STOP sign and provide message to travelers.

The front of trucks may have an arrow or channelizers/arrows to provide direction to on coming traffic.

Continue the use of Light Bar, Emergency Alert Light and Audible Alert systems.

Have alarm system to alert drivers passing when should be stopped. If they continue a vehicle horn will be used to alert workers.

Both vehicles have a radio to communicate with each other.

Camera on the CMS board to see oncoming vehicles.

Since the truck blocks the lane no gate arm is required.

Pilot Car will be used on these operations.

Protective Vehicle/TMA Flagger shall be within 1 mile from the BE PREPARED TO STOP sign.

(1) The Protective Vehicle/TMA Flagger is positioned a minimum of 150-feet upstream of the work area or at the point of vertical or horizontal curves which restrict sight distance.

At night, flagger stations shall be illuminated. Minimum required intensity for flagging operation activity is 0.6 foot-candles.