

MOBILE BARRIERS FOR WORK ZONE PROTECTION

by R.G. Pickard

Photos courtesy of North Texas Tollway Authority

Mobile Barriers, LLC, of Denver, Colo., was formed in 2007 to manufacture and sell the Mobile Barriers Trailer (MBT-1), which is a crash-resistant, rigid wall trailer towed by standard semi-tractors. It is designed to help improve safety by eliminating work zone incursions by traffic and providing protection for highway workers, as well as providing maintenance support lighting and reducing the number of vehicles and equipment needed at a work site.

The MBT-1 Mobile Barriers Trailer is the first mobile barrier crash-tested according to both NCHRP350 and new MASH-08 requirements and accepted by the Federal Highway Administration for use on the National Highway System.

The Mobile Barriers Trailer attaches to an ordinary semi-tractor and has both a crash-resistant rear and a rigid wall facing passing traffic, and can provide anywhere from 42 feet to over 100 feet of barrier-protected work area. The Trailer is designed to allow simple inspection, easy repairs and modular replacements after being impacted by traffic. The MBT-1's basic configuration is 62 feet long with two bidirectional platforms, a steerable caboose, and LED DoT lighting and beacons. Configuration may be shorter or longer through the use of up to three 20-foot wall sections.

The MBT-1 is still a new product, with only five currently in use in the U.S., but the North Texas Tollway Authority (NTTA) is already using the first MBT-1 Mobile Barriers Trailer in Texas to protect workers doing routine maintenance and construction work. The NTTA is responsible for planning, construction, maintenance and operation of tollways in Collin, Dallas, Denton, and Tarrant counties.

A lot of highway maintenance done by NTTA consists of small jobs such as patching pavement, painting highway markings, replacing guardrails, installing signage, and blocking entrance or exit ramps when necessary. These jobs usually take anywhere from a few minutes to a few hours, and the short length of time for each job makes the MBT-1 mobile barrier the best choice for work zone protection.

The NTTA's MBT-1 Mobile Barriers Trailer is painted to match the reflectivity required by the new Worker Visibility Rule (23 CFR 634), which now requires the use of ANSI Class 2 or Class 3 high-visibility safety apparel by all workers who are exposed to traffic or to construction equipment while working within the rights-of-way of federal-aid highways. According to the Federal Highway Administration's Manual on Uniform Traffic Control Devices, any state or federal highway falls into the category of a federal-aid highway, as well as any other roadway projects that received federal aid.

NTTA Infrastructure Engineer Eric Hemphill says, "It's important to provide positive protection for workers, especially when drivers are constantly distracted and not paying attention to highway construction and maintenance crews. The Mobile Barriers Trailer meets federal requirements for

worker protection and can be moved quickly and easily, whenever and wherever temporary protection is needed. It's cheap insurance." ■



Workers are kept safe while repairing a barrier in the protected work zone provided by the North Texas Tollway Authority's MBT-1 Mobile Barriers Trailer.



LED DoT lighting is built into the MBT-1 Mobile Barriers Trailer, providing a safe work environment at night.



The MBT-1 Mobile Barriers Trailer provides a well lit work area as well as a source of electrical power for the temporary highway maintenance job site while completely blocking any traffic hazard from the road.



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