



Green Cross for Safety® Awards 2023 Finalist | Innovation

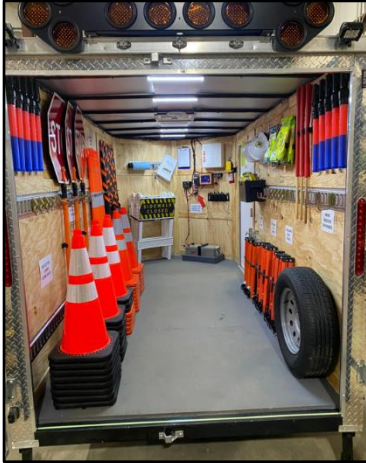
Clayton County Water Authority

M.I.T.C.H™

Highway work zones are hazardous environments for motorists and construction workers. In 2021, an estimated 105,000 crashes and 42,000 injuries occurred in work zones according to National Highway Traffic Safety Administration (NHTSA) statistical models. On the night of Jan. 14, 2022, a Clayton County Water Authority (CCWA) employee was severely injured by a motorist in a work zone during a water main repair. Upon review of the incident, CCWA's safety committee recognized the need to provide a mobile hub with supplemental lighting and all the necessary safety devices for setting up a traffic control zone in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).

M.I.T.C.H™, CCWA's Mobile, Illuminated, Traffic Control Hub, was designed to provide increased visibility and an advanced warning of the work zone. Visibility is the key to gaining the attention of approaching motorists and alerting them of the hazards ahead. MITCH is a 6'x12' fully-enclosed trailer equipped with internal and external LED lighting, flashing strobes, retroreflective graphics and an LED arrow board. These components work in conjunction to provide the greatest amount of visibility while also notifying drivers of the appropriate lane of travel with the arrow board.





Gathering and deploying all the necessary devices and specialized equipment for setting up the work zone takes a considerable amount of time and resources. Utility repair crews must be able to respond to emergencies rapidly to eliminate hazardous conditions for the public. MITCH has streamlined CCWA operations by providing everything required within a centralized location. MITCH's interior has been stocked with a host of traffic control devices. Portable speed bumps, traffic cones, cone bar delineators, Stop/Slow paddles, all required signage, sign bases, LED batons, two-way radios, high-visibility apparel and hard hats are all readily available and conveniently laid out.

MITCH was also designed with every possible hazard in mind that workers may face while accessing traffic control devices. Clutter leads to slips, trips and falls. To that end, the interior was designed to provide a secure storage location for all traffic control devices and safety gear. The floor was coated with a slip-resistant coating, and entry/exit step locations were marked with phosphorescent grip tape. Sharp edges and pinch points have also been guarded.

CCWA is constantly looking for responsible ways to decrease its environmental footprint, and utilizing renewable energy sources is a great way to do that. All of MITCH's accessories are 100% powered by solar energy, recently termed "photovoltaic" energy. The charging and energy storage systems were designed to provide power to all devices simultaneously for just under 18 hours without receiving a charge from the sun. This ensures MITCH will not lose power during jobs lasting throughout the night.

MITCH has been highly effective and successful since first being deployed in November 2022, and resulted in:

- Reduced response time from up to 1.5 hours to under 30 minutes
- Increased productivity by eliminating the need to track down devices
- Increased fuel savings by eliminating unnecessary trips to gather devices
- Increased awareness within the work zone by motorists
- Increased visibility for workers within the work zone
- Increased CCWA's professional image to the public

MITCH has been well received by multiple organizations within the utility industry as well as manufacturers and suppliers of safety products. MITCH was presented during the Georgia Public Risk Management Association's 1st quarter conference in McDonough, Georgia, and several attending organizational representatives requested the design plans. Other organizations that have expressed interest in building their own traffic control trailer based on MITCH's design include Henry County Water Authority, City of South Fulton, City of Lawrenceville, Cobb County and ER Snell Contractor, Inc.

Also, Safety Products Inc. visited CCWA headquarters to demonstrate their traffic control trailer, and they were extremely impressed when they had the opportunity to fully explore MITCH. The sales representative, Stephanie Ware, requested the design plans for her own use and to share

with others. MITCH was also featured in *The Georgia Operator*, the official journal of the Georgia Association of Water Professionals, Volume 60, No. 3 – Summer 2023.

The Clayton County Water Authority has approved the development of a second MITCH due to the effectiveness and success of the first unit. CCWA plans to continue developing innovations in safety to protect its employees and the public. It will continue to share its innovations in safety with other organizations to help achieve the shared goal of “Vision Zero.”



Henry County Water Authority MITCH Tour



City of South Fulton MITCH Tour