

**2016 State Damage Prevention Program Grants Final Report**  
**CFDA Number: 20.720**

**Award Number:** DTPH5616GSDP12

**Project Title:** *Dig Safely New York State Damage Prevention Grants*

**Date Submitted:** 09/29/2017

**Submitted by:** *Kevin Hopper*

**Specific Objective(s) of the Agreement**

Under this grant agreement, the DSNY will:

- Use the grant for enhancements to the Outreach Software, which will modify the user experience on both the front – and the back-end, giving Dig Safely New York an easier way to measure effectiveness, complete requirement and analyze events, while giving the end-users a better method of registering for events. The enhancements will also allow Dig Safely New York to automate tacking of those professional that attend their events for continuing education credits and for certification on the best practices in safe digging.

**Workscope**

Under the terms of this grant agreement, the Grantee will address the following elements listed in 49 U.S.C. §60134 (b) through the actions it has specified in its Application.

- **Element 8 (Enhancements to Dig Safely New York's IRTTH Outreach Software):** A process for fostering and promoting the use, by all appropriate stakeholders, of improving technologies that may enhance communications, underground pipeline locating capability, and gathering and analyzing information about the accuracy and effectiveness of locating programs.

**Accomplishments for this period (Item 1 under Article IX, Section 9.01 Progress Report: “A comparison of actual accomplishments to the objectives established for the period.”)**

**Project Description**

**Enhancements to Outreach and Educational Tracking Though Software for Dig Safely New, Inc.**

Dig Safely New York prides itself on its educational and outreach efforts. For the past decade, we have been growing, enhancing and increasing our educational efforts. Analysis trends show us that the more excavators we are educating and the more awareness efforts we push out to the general public, location requests into the call center increase, while damages to underground facilities in the field decrease. In 2015, Dig Safely New York trained and educated more than 15,200 excavators. Since 2008, Dig Safely New York, Inc. has been using an outreach software to manage its educational programs and community outreach efforts. The software has allowed Dig Safely New York to input events and activities using customized categories with times, dates, venues,

descriptions, target audiences, attachments for photos and maps, whom is responsible to represent Dig Safely New York at the event/activity, and more. In addition, the software is integrated into Dig Safely New York's Drupal platform website to display upcoming events by event name, date and time, as well as allow people to register for activities. This provides Dig Safely New York with a convenient way to plan for educational and promotional efforts and gives anticipated attendees a confirmation form with a barcode to bring to the event to confirm their attendance. Registered and attended numbers are tracked in the system for analysis.

In May/June 2015, using funds from a 2013 State Damage Prevention Grant, Dig Safely New York rolled out its Certified Excavator Program. After only six months, 17 classes, and 309 excavators certified, this program is becoming a highly coveted four-hour educational course on the best practices of safe digging, setting a new standard for learning the best practices of safe digging. Maintaining and tracking the Certified Excavator Program, however, has had its own set of challenges, proving to be very tedious and cumbersome without an automated system in place. For this reason and to further our mission, and effectiveness and analysis of all our educational and outreach programs, Dig Safely New York would like to propose enhancements to organizational software as a part of our 2016 State Damage Prevention Grant submission.

The enhancements to software will change the user experience on both the front- and back-end, giving Dig Safely New York an easier way to measure effectiveness, complete requirements and analyze events, while giving the end-users a better method of registering for events. The enhancements will also allow Dig Safely New York to automate tracking of those professionals that attend our events for continuing education credits and for certification on the best practices in safe digging.

After submitting the 2016 grant application, Dig Safely New York continued to research cost effective ways to accomplish its goals outlined in the project description. In the middle of building Dig Safely New York's eLearning program, representatives realized that further investments into the new 4IQ software could provide the functionality needs desired and more, building and investing in a sustainable, customizable platform.

4IQ Solutions is Dig Safely New York's education/learning management system that allows the organization to build its own curriculums from the ground up with support and enhanced development; track curriculum from the top down, allowing for progress measurement, engagement, and effectiveness; and, create a visual platform for individualized learning. This tool was implemented in 2016 using a 2015 PHMSA grant. With the ability to utilize the 4IQ program for not only the organization's Certified Excavator Program in Safe Digging Best Practices, but other training programs for excavators, locators, first responders, operators, etc., as well as use the program to build internal employee training courses, the software is and will be an integral asset to the organization moving into the future. As a result, Dig Safely New York representatives reached out to its team at 4IQ solutions to implement new functionality, enhancements, and upgrades to the system to fulfill the project outline in this grant. The company embraced the concepts and began work immediately, with promise to deliver

functionality for activity recording, registration and continuing education credit tracking, and campaign delivery.

The implementation of the events and activities to the system has significantly changed the way a person will register for events with Dig Safely New York and give the organization as well as the specific person the ability to track information by user. This means that anyone will have a Dig Safely New York Learning Profile and can track their registration for events – both promotional and educational, meetings, and even continuing education credits earned. The learning profile permits someone to be self-served, giving them access to their own Dig Safely New York history, and allowing them to print relevant documents, verify attendance, and more.

The 4IQ system will be an ever-evolving software that Dig Safely New York will continue to invest in to ensure the program is delivering the best and most relevant benefits, to gain productivity, to compete in the marketplace, and to increase the value of the software and its utilization. Currently, the software has one more development to go through before the full functionality of the events and activities portion is available. This push is mainly tweaks in the registration portion of the software. In this industry, we have found that between 25% and 30% of our target demographic are without an email address. As a result, we needed to come up with a solution to allow these users to access and utilize the new learning management software, without deterring them from attending events with extra steps like creating an email. Between Dig Safely New York representatives and the 4IQ development team, the solution was comprised on and will allow users to sign up for the system and automatically be placed into events/activities but that person will be locked out of certain areas of the program until they can authenticate or verify themselves. This is the final development being pushed into the system on 9/29/17. Dig Safely New York began beta testing the new areas of the software in August. Thus far, nearly 50 activities have been created in the system and links have been either sent or made public for registration into these activities. Activities range from meetings, where we simply track attendance, to demonstrations, to training classes where a course exam and evaluation exist in the software for the attendee to complete. More than 1,800 certified excavators were also sorted, verified and loaded into the 4IQ system to begin tracking. Online renewal opportunities, degree tracks, and certifications had to be developed and set up in order to function automatically. Now, when someone takes the Dig Safely New York Certified Excavator Program class either in-person or online, they will register through the Dig Safely New York's 4IQ system and be tracked from certification completion through the five year expiration without any manual back-end assistance. Dig Safely New York is also building continuing education credit certifications for those outside credits offered at Dig Safely New York events so that attendees can be self-served by printing out their own certificates, and it too can be auto-tracked.

The upfront investment into the software was necessary as this is a cultural change/shift in the industry. With expected controversy to implementing a technical aspect to interacting with the organization, we knew we needed to make the software as easy and seamless as possible before rollout to minimize frustrations, intimidation and deterred

action. Dig Safely New York has also built out tutorials and FAQs to ease customers into the transition, which we know they will find extremely advantageous over time. These assets can be seen here: <http://www.digsafelynewyork.com/4iQ>.

**Quantifiable Metrics/Measures of Effectiveness (Item 2 under Article IX, Section 9.01 Progress Report: “Where the output of the project can be quantified, a computation of the cost per unit of output.”)**

For this particular project under this grant, it is difficult to provide quantifiable metrics to date. However, upon full utilization of the developed project; we will be able to report on the following:

- Number of individuals that register and become a part of Dig Safely New York’s eLearning platform, giving them access to unique user profiles and history management.
  - The organizations and industries in which these individuals are associated.
- Effectiveness of training and educational opportunities being offered by Dig Safely New York.
- Effectiveness of meetings, community events, and volunteer programs.
- Cost effectiveness of offering online education programs versus in-person opportunities.

**Issues, Problems or Challenges (Item 3 under Article IX, Section 9.01 Progress Report: “The reasons for slippage if established objectives were not met. “)**

There are no issues, problems, or challenge to report.

**Final Financial Status Report**

From a financial perspective, Dig Safely New York has spent \$74,974.42 of the \$75,000 award.

Included in the attachments, you will find the Final Financial Status Report, Standard Form 425 (SF-425), to report the status of funds.

**Requests of the AOR and/or PHMSA**

No actions requested at this time.