**2014 State Damage Prevention Program Grants Progress Report**

**CFDA Number: 20.720**

**Award Number:** DTPH56-14-G-PPS18

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

**Date Submitted:** *April 27, 2015*

**Submitted by:** *Kevin Hopper*

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

Under this grant agreement, the DSNY will:

Support Public Awareness and Stakeholder Education

Foster and promote the use of improving technologies

**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 5 (Public Education):** A process for fostering and ensuring active participation by all stakeholders in public education for damage prevention activities.

**Element 8 (Technology):** 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.**”)

*[How are you progressing on each of the items/elements provided in the “Specific Objectives” and “Workscope”? Start with an overall description followed by item-by-item or element-by-element detail if possible.]*

**Project 1 Description**

*Introduction of Tableau Software:*

*Over the past seven years, Dig Safely New York, Inc. has implemented several programs to further our mission to prevent damages to underground facilities in NY State. Many of these programs have been supported with software solutions that allow us to collect and measure the effectiveness of our programs. The analysis of this data can difficult, and very time consuming, as the data is stored and reported in several disparate data silos. Additionally some data, such as Dirt damage data can be up to a year old before it is reported making it difficult to get any real time sense of what is happening from a damage prevention perspective within the State. As a result of this, several facility operators have asked if Dig Safely New York could provide damage data and call volume ratios real time. This request prompted Dig Safely New York to investigate how we can better facilitate analysis of these important multiple data sources in one tool that serves to further damage prevention efforts by all stakeholders. The results of the investigation, have led to propose the implementation of Tableau Software as part of our 2014 grant submission. Tableau software will allow Dig Safely New York to combine our multiple data sources, (Call volume and ticket data, damage data (provided real-time from Gas Operators) educational efforts (Irth Solutions i-aware software) along with other pertinent data sources and report on them in a very meaningful way. Tableau will allow Dig Safely New York and its participating stakeholders to quickly visualize data. As an example, the educational efforts in a county vs. damages vs. call volume can easily be brought into one business intelligence solution, giving us the ability to identify both positive and negative trends related to damages and educational efforts in NY. Tableau allows implementing of business dashboards as an indispensable tool that informs with a glance.*

*Tableau dashboard tools provide:*

* *Interactivity: Filtering, highlighting, and other dashboard solutions*
* *The ability to combine multiple data sources*
* *Fast creation by a business user*
* *Easy sharing with support for existing security*
* *Visual analysis best practices*

*Tableau allows non-technical users to create interactive, real-time dashboards. In minutes. Adding filters and drilling down is as simple as a few clicks. Sharing those dashboards on Tableau Server and embedding them into corporate portals or any web page is point-and-click. And visual best practices are baked in, so you can build a great dashboard and communicate effectively across multiple platforms.*

*The goal of this project is to implement Tableau Server allowing Dig Safely New York and our members to combine multiple data sources into one simple easy to communicate solution. The software will then be integrated in or corporate web portal (Drupal Web Integration) for permission based dashboards. The intent of these dashboards will allow members to interact with their data securely and see how they are performing real-time. The Dashboards will provide several insights including but not limited to, damage data per 1000 location requests on a month to date and year to date basis, positive response metrics and educational activities. These dashboards update automatically. Members will also be able to filter educational activities, media campaigns and see correlations between education and outreach on damages within different regions. Tableau will allow us to have this valuable information at our fingertips, furthering our ability to provide concise, informed and effective damage prevention programs.*

*Please review the following resources for a review of Tableau:* [*http://www.tableausoftware.com/products/server*](http://www.tableausoftware.com/products/server)

[*http://www.tableausoftware.com/solutions/data-visualization#video*](http://www.tableausoftware.com/solutions/data-visualization#video)

***Project 1 progress report*** *(as of April 30, 2015):*

*Following the grant award, the Tableau Software and Server was purchased and installed at Dig Safely New York, Inc.’s headquarters in East Syracuse, NY. After the install, the Technical Team underwent one week of training from a Tableau representative. All of Dig Safely New York’s data sources have been linked to the software and tested. Test dashboards are currently being run and tested to ensure accuracy, and interaction capabilities are working properly. Testing will continue as we pull in member utility data. We are on schedule with the deliverables outlined in the grant application.*

***Project 2 Description***

*Development of Underground Utility Training Site*

*New York State damage data suggest that the number one cause of underground utility damage is no longer failing to call before digging, as no call damages continue to be reduced annually. The largest cause of underground facility damage is now unsafe digging practices by the excavator. As a result of this trend, Dig Safely New York is proposing under the scope of project two of this grant submission to develop and install a mock utility training site where safe digging practices can be demonstrated in a controlled environment. In this proposal Dig Safely New York will utilize a portion of our four acre lot to install an underground training site to be utilized for training and product demonstrations such as directional drilling, ground penetration radar, soil pick's etc.*

*The site will be complete with:*

* *10'x12' shed to simulate residence*
* *200ft Joint trench (electric, communication, and gas)*
* *100ft Install of water and sewer build to depth and standards*
* *20ft service trench to shed with (electric secondary to meter box, telephone fiber drop to riser at shed, CATV with riser and demarc box and 2 inch gas service buried @18inches, including riser and meter bracket)*
* *Observation Pit (this will allow visualization of underground install through Plexiglas window)*

*The goal of this project is to further our ability of offer safe digging best practices through comprehensive training and demonstrations. This site will serve as a resource to the various stakeholders in New York, further enhancing their ability to perform safe excavations. Excavators, locators and facility operators will be able to utilize this site to safely and effectively learn best practices. Dig Safely New York, anticipates holding several training demonstrations at this site annually. Elements of this project affect the following elements 1, 4, 5, 8 and 9.*

***Project 2 Progress Report****:*

*Following the grant award, Dig Safely New York has been developing a design for the Underground Utility Training Site. This design was completed in early March, but because of the winter weather, Dig Safely New York has been unable to begin any construction/installation on the site. The project will begin shortly and will still be on target to be completed by September 2015.*

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

* *For both projects under this grant, it is difficult to provide quantifiable metrics however, upon completion of both projects we will be able to report on the following:*

***Tableau Software****:*

*We will be able to provide metrics on the number of member utilities utilizing the Tableau dashboards, as well as analyze the data sources we have in a timely and efficient manner to provide more proactive education and promotional outreach initiatives.*

***Underground Utility Training Site****:*

*We will be able to report on methods of training and education utilizing the new on-site underground training center, as well as the number of people and organizations utilizing the training center. Photos will be made available.*

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

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

**Mid-term Financial Status Report**

*From a financial perspective we have incurred all of the project costs associated with project 1 (Tableau). Conversely we have not spent any dollars associated with project 2 (underground training site). As usual Dig Safely New York will facilitate funding of these projects and seek reimbursement at the completion of both.*

*Included in the attachments, you will find the mid-term Financial Status Report, Standard Form 425 (SF-425), to report the status of funds. In addition I have provided the breakdown of costs for each object class category (Personnel, Fringe Benefits, Travel, Equipment, Supplies, Contractual, Other, and Indirect Charges) in an attached Excel Spreadsheet.*

**Plans for Next Period (Remainder of Grant)**

**Project 1 – Introduction of Tableau Software**

*Dig Safely New York will continue to test dashboards and incoming data sources in Tableau before its roll-out. We will also continue to beta test the software to ensure functionality is on-point after implementation and roll-out. Dig Safely New York will also work with its third-party web developer Face First Creative on implementing a Drupal-web based portal for the Tableau Software.*

**Project 2 – Development of Underground Utility Training Site**

*Dig Safely New York will begin contraction and installation of the Underground Utility Training Center shortly. It is expected to be completed on target by September 2015. Syracuse Utilities has been contracted to do the work.*

*Following the completion of the on-site training center, Dig Safely New York will work on a plan to establish the program and a marketing strategy/plan that can be implemented throughout our service area to bring organizations and classes into the facility.*

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

*No actions requested at this time*