



U.S. Department  
of Transportation  
**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue SE  
Washington DC 20590

## PIPELINE SAFETY

### 2011 State Damage Prevention Grant

for

Call Before You Dig, Incorporated

Please follow the directions listed below:

1. Review the entire document for completeness.
2. Review and have an authorized signatory sign page 2.
3. Fasten all pages with a paper or binder clip - no staples please as this package will be scanned upon it's arrival at PHMSA.
4. Mail the entire document, including this cover page to the following:

**ATTN: Maria Munoz  
U.S. Department of Transportation  
Pipeline & Hazardous Materials Safety Administration  
Office of Contracts and Procurement (PHA-30)  
1200 New Jersey Avenue, SE Second Floor E22-305  
Washington, D.C. 20590**

#### **FedSTAR Information**

Submission Date: 9/8/2010 10:03:26 AM



Pipeline and Hazardous Materials Safety Administration  
1200 New Jersey Avenue, SE  
Washington DC 20590

## DEPARTMENT OF TRANSPORTATION

### APPLICATION

#### 2011 GRANT PROGRAM IN SUPPORT OF STATE DAMAGE PREVENTION

The Call Before You Dig, Incorporated hereby applies to the Department of Transportation for Federal funds appropriated for the support of State Damage Prevention Programs established under 49 U.S.C. Section 60134 et seq.

The State agency plans to carry out the State Damage Prevention Program, during calendar year 2011, as described in Attachment 1, "Project Abstract/Statement of Objectives". To accomplish the program, the state agency proposes to expend funds as set forth in Attachment 4, "State Damage Prevention Estimated Budget".

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Signature

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Title

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Date

## **Project Abstract/Statement of Objectives**

**Please provide a clear and concise description of the work this grant will fund for calendar year 2011**

This 2011 grant will fund the following:

Our goal with this Grant is to provide software upgrades for use by our State Enforcement Agency and our Stakeholders.

**1. Atom Locate Request Feed - Element 7**

Provide a web based software that will allow our Enforcement Agency complete ticket access to all information in the CBYD database through a RSS Feeder and Reader.

**2. E-Ticket Web Mapping - Element 8**

Users of CBYD's web based E-Ticket Entry will find the electronic locate request application to be more user friendly with the integration of multiple map formats and additional ticket processing tools. The "new" E-Ticket format will virtually mimic the locate request screen used by CBYD customer service representatives at the Center with the exclusion of drawing tools and a ruler for the map.

**3. E-Ticket Entry For Smartphone - Element 8**

Customize the CBYD homepage with a dynamic link for Smartphone users to access an optimized E-Ticket entry application.

**4. Design and Survey Web Application - Element 9**

Utilize the CBYD website to enhance the Best Practices for design and survey. The software will assist design engineers and survey companies in determining potential underground public utility conflicts during pre-construction phases, the following Design and Survey web application addresses these needs via CBYD's website, [www.cbyd.com](http://www.cbyd.com).

## State Damage Prevention Elements

### **ELEMENT 1 - EFFECTIVE COMMUNICATIONS**

"Participation by operators, excavators, and other stakeholders in the development and implementation of methods for establishing and maintaining effective communications between stakeholders from receipt of an excavation notification until successful completion of the excavation, as appropriate."

**Does the proposed project address this element? (Required)** No

**Describe any existing state initiatives that support this element: (Required)**

In Connecticut, excavators are required to provide notice to the central clearinghouse two full working days prior to starting excavation activity. This notification can be done through 1-800-922-4455, 811, or at [www.CBYD.com](http://www.CBYD.com). The central clearinghouse processes the request, and issues a unique ticket number. The information regarding the ticket request is transmitted to the affected utilities through electronic notification. Connecticut utilities are required by law to either mark the facilities in the work area, mark the work area as 'all clear', or call the excavator to notify that the work area is clear.

Excavators are able to use the internet to obtain ticket requests, through the e-ticket application on the website. In the past, the e-ticket application was only able to be used for excavation at a single point address (e.g. 123 Main St.), but the CBYD clearinghouse recently undertook an initiative to expand its use. Through the implementation of a 'dynamic buffer', excavators now have the opportunity to use the e-ticket application for any ticket with a start point and footage in a direction (e.g. starting at 123 Main St and going 750' North). The implementation of this dynamic buffer was completed prior to the 2010 construction season.

Pre-marking the excavation area in white paint is not only a requirement of Connecticut law, it is also an effective means to assist communication as it clearly defines to the locator the area where the excavator intends to dig. The Connecticut Department of Public Utility Control has taken the initiative to enforce this law. Utilities have been asked to keep track of excavators who don't pre-mark their work areas, and submit data to the Department. The Department is then contacting the worst violators, and working to educate them as to the requirements.

**ELEMENT 2 - COMPREHENSIVE STAKEHOLDER SUPPORT**

"A process for fostering and ensuring the support and partnership of stakeholders, including excavators, operators, locators, designers, and local government in all phases of the program."

**Does the proposed project address this element? (Required)** No

**Describe any existing state initiatives that support this element: (Required)**

Connecticut has a well-established program of interaction between operators, excavators and other stakeholders. The 1-call center is run by a non-profit corporation, Call Before You Dig, Inc. (CBYD). CBYD is governed by its Board of Directors. The Board consists of representatives from:

- 3 Gas distribution operators
- 3 Gas transmission operators
- 2 Electric companies
- 4 Water companies
- 1 Telephone company
- 1 Cable television company
- 2 Municipalities
- 1 State Department of Transportation

Associate members of the Board of Directors include:

State Department of Public Safety  
Insurance industry representative  
Utility markout service company  
Utility Contractors Association of Connecticut  
Department of Public Utility Control

Therefore, there is participation by all parties through the Board of Directors of CBYD.

Also, CBYD has a representative who attends the monthly meeting of the Utility Contractors Association of Connecticut. This liaison and interface helps to foster positive communications and understanding of any problems or issues. Constant bi-directional communication is effective in fostering and ensuring support.

**ELEMENT 3 - OPERATOR INTERNAL PERFORMANCE MEASUREMENT**

"A process for reviewing the adequacy of a pipeline operator's internal performance measures regarding persons performing locating services and quality assurance programs."

**Does the proposed project address this element? (Required)** No

**Describe any existing state initiatives that support this element: (Required)**

In Connecticut, all operators are required to report all damages to their facilities. In these reports, the operators report the root cause of the incident which indicates if a markout error led to the incident. The root causes are further broken down to establish if the locator made an error, or if the mismark was caused by bad records. Each month, the Department of Public Utility Control reviews the damage data, looking at the number of markout person error damages for each individual operator and the program as a whole. The data is also tracked on a rolling 12-month total, in order to look for overall trends. Observations on this data are raised to the utilities during Board of Directors meetings.

The Gas Pipeline Safety Unit of the Department of Public Utility Control conducts periodic Operations and Maintenance audits of all gas operators in the State, including both local distribution and gas transmission operators. As part of this audit, the damage prevention program is reviewed, including markout person error damages. All operators are expected to, and do have, quality assurance programs to monitor the performance of personnel performing markouts. In addition, all pipeline operators have training programs for their personnel performing markouts, and this is considered a 'covered task' in their Operator Qualification plans. All personnel performing markouts are required to pass a test before being qualified to locate gas facilities.

**ELEMENT 4 - EFFECTIVE EMPLOYEE TRAINING**

"Participation by operators, excavators, and other stakeholders in the development and implementation of effective employee training programs to ensure that operators, the one call center, the enforcing agency, and the excavators have partnered to design and implement training for the employees of operators, excavators, and locators."

**Does the proposed project address this element? (Required)** No

**Describe any existing state initiatives that support this element: (Required)**

Call Before You Dig holds a monthly training session for excavators, which reviews all laws which govern the program. The Department of Public Utility Control, who has the authority to enforce the laws through civil penalties, has utilized this program to negate civil penalties for first time offenders. Excavators who have a reported violation of failing to call CBYD prior to excavating, and who have no prior history of violations, are given the opportunity to attend the training session in lieu of a civil penalty. Approximately 100 excavators per year attend these training sessions to settle their cases.

Call Before You Dig has partnered with a representative of the DPUC to conduct field training sessions. These training sessions are usually the result of enforcement actions taken against an excavator, and are included in settlement agreements reached between the DPUC and excavators. The content of these training sessions is similar to the monthly sessions, but are conducted on-site at the excavator's location so all of the excavators' employees can attend, and includes training from the DPUC.

The DPUC has formed a partnered with OSHA in conducting joint training sessions. When OSHA is giving a presentation regarding trench safety, a representative from the DPUC is invited to attend to provide training on underground utility damage prevention.

Annually, CBYD sponsors the "Public Utility Expo". The program includes an exhibitor area of construction suppliers, CBYD utility members, state agencies and outdoor demonstrations and exhibits. In addition, training presentations regarding damage prevention are given by organizations such as CBYD, OSHA, utilities, and contractor locating companies.

**ELEMENT 5 - PUBLIC EDUCATION**

"A process for fostering and ensuring active participation by all stakeholders in public education for damage prevention activities."

**Does the proposed project address this element? (Required)** No

**Describe any existing state initiatives that support this element: (Required)**

Public Awareness and Education is a cornerstone of the Connecticut CBYD program. The Public Awareness and Education committee of the CBYD Board of Directors is responsible for coordinating the bulk of the media advertising. A new initiative started in 2009, and continued in 2010, was the utilization of a media consultant to analyze the current advertising programs, and work for continual improvement. The result of this relationship was the production of two new television commercials incorporating the 811 message, and the expansion of airtime on local TV stations. The result was CBYD advertisements appearing daily on the local morning news, and during National Hockey League, NASCAR, and Major League Baseball sporting events.

The Public Awareness and Education committee has taken the initiative to actively participate in many different trade shows of organizations whose members may participate in excavation activities. Shows that have been attended by CBYD are the Connecticut Groundkeepers Association, Connecticut Greenhouse Growers Association, Connecticut Turf Conference and Trade Show, Connecticut Home Show, and the Connecticut Association of Street and Highway Officials.

Several operators have been broadcasting the CBYD message on their own. They have done this through including CBYD messages on their bill stuffers, newspaper advertisements, and television ads. Some operators have put large CBYD advertising logos on their trucks and vans. Most operators have included information and links regarding CBYD on their company's website. Some operators have hired contractors to patrol their distribution areas to monitor excavation projects, and these contractors have been distributing CBYD educational materials to excavators.

An initiative undertaken by the Department of Public Utility Control was the implementation of an educational outreach program to municipalities in the State. A DPUC liaison scheduled training sessions with public works departments of the highest populated cities and towns. The training session reviewed safe excavation practices, as well as the responsibilities of municipalities as underground facility owners. This program, conducted over the winter months, was very well received by the over 30 cities and towns visited.

Finally, with the Grant Funding received from the 2010 PHMSA State Damage Prevention Grant, CBYD is in the process of producing their new Safety Training DVD.



**ELEMENT 6 - DISPUTE RESOLUTION**

"A process for resolving disputes that defines the State authority's role as a partner and facilitator to resolve issues."

**Does the proposed project address this element? (Required)** No

**Describe any existing state initiatives that support this element: (Required)**

Section 16-356 of the General Statutes of the State of Connecticut and section 16-345-9 of the Regulations of Connecticut State Agencies establishes that the Department of Public Utility Control (DPUC) is the authority that can assess civil penalties for violations of the Underground Damage Prevention regulations. The DPUC reviews each violation that is reported, performs investigations, and takes enforcement action as appropriate. Typically, civil penalties are assessed through a settlement agreement process. Violators are asked to meet with the DPUC, and the issues and violations are reviewed with the violator. The violator then can reach terms with the DPUC to settle the case without a hearing. The terms usually include a civil penalty, some form of additional training, and the necessity for the violator to establish procedures to assure future compliance.

### **ELEMENT 7 - ENFORCEMENT**

"Enforcement of State damage prevention laws and regulations for all aspects of the damage prevention process, including public education, and the use of civil penalties for violations assessable by the appropriate State authority."

**Does the proposed project address this element? (Required)** Yes

**Describe any existing state initiatives that support this element: (Required)**

Section 16-356 of the General Statutes of the State of Connecticut and section 16-345-9 of the Regulations of Connecticut State Agencies establishes that the Department of Public Utility Control (DPUC) is the authority that can assess civil penalties for violations of the Underground Damage Prevention regulations. The DPUC reviews each violation that is reported, performs investigations, and takes enforcement action as appropriate. Enforcement actions can be taken against any entity that is in violation, including excavators, operators, the central clearinghouse, and any permit issuing agency.

The regulations provide guidance into whether or not to assess a penalty, and the amount of the penalty. Section 16-345-9(c) requires that the factors that to be considered are the number and nature of past violations, previous enforcement actions taken against the violator, the good faith efforts of the violator to have complied with the statutes and regulations, the plans and procedures to insure compliance with the statutes and regulations in the future, the amount of damage caused to the underground facility, the nature and severity of the violation, the degree of threat to public safety, the degree of public inconvenience, circumstances beyond the control of the violator, and such other factors that are in the public interest.

The majority of civil penalties are assessed through a settlement agreement process, where the violator reaches an agreement with the DPUC to settle the case. In all cases, settlement agreements include provisions for additional training. For small companies, they are required to send representatives to the CBYD clearinghouse for a training session. For larger companies, representatives from CBYD and DPUC provide on-site training. For one large excavator who had a long history of violations and fines, the DPUC hosted a training session, which included comments from DPUC Commissioners, and training from the DPUC, CBYD, a gas distribution company, a water distribution company, and OSHA.

**Describe how the proposed project will enhance or continue implementation of this element: (Required only if proposal addresses this element)**

Atom Locate Request Feed: Provide a web based software that will allow our Enforcement Agency complete access to ticket information available in the CBYD database. This will be accomplished through a RSS Feeder and Reader. It will allow the Agency the availability to search by excavator, addresses, and time frames. This information will be available to the Agency in an office or field environment to conduct proper investigations with current data.

**Estimated budget for this element: (Required only if proposal addresses this element)**

a. Personnel:	\$0.00
b. Fringe Benefits:	\$0.00
c. Travel:	\$3,000.00
d. Equipment:	\$0.00
e. Supplies:	\$0.00
f. Contractual:	\$8,250.00
g. Construction:	\$0.00
h. Other:	\$0.00
<b>i. Total Direct Charges (sum of a through h):</b>	<b>\$11,250.00</b>
j. Indirect Charges:	\$0.00
<b>k. TOTAL (sum of i and j):</b>	<b>\$11,250.00</b>

**Budget Narrative for this element: (Required only if proposal addresses this element)**

The budget cost for this project is for application research and development, programing, software, and installation is, \$8,250 plus \$3,000 for travel.

The \$3,000 travel is a fee will cover the cost of one or all of approved grant requests. Since installation for one or all of the Elements can be completed in one trip, only one \$3,000 travel fee should be added to the total Elements approved contractual cost.

If all Elements are approved, the contractual cost is  $\$54,885 + \$3,000 = \$57,885$  total Grant.

### **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."

**Does the proposed project address this element? (Required)** Yes

**Describe any existing state initiatives that support this element: (Required)**

The Call Before You Dig Central Clearinghouse has taken several initiatives to enhance the technology of the clearinghouse. Several years ago, the clearinghouse changed to a completely GIS based mapping application. This application included the ability to take in exception reports of new streets that were not on the maps (such as new streets being built), and provide that information to the mapping vendor who would research the new street and add it to the base maps. This new mapping process ensured that the GIS base maps were continuously kept up-to-date.

A recent initiative undertaken at the clearinghouse was the installation of a brand new, state of the art computer system. This was a significant upgrade to the clearinghouse, including new workstations, servers, and software. In addition, new servers were installed at the after hours call center in Kentucky, which are configured to provide a real-time back-up of all data at the clearinghouse. This configuration allows for a robust disaster recovery plan, giving the after hours call center the capability to continue the operations with current data in the event of a catastrophic failure at the Connecticut call center.

A very significant technological upgrade to the CBYD clearinghouse was the recent installation of a state of the art telephone system. This new system replaced an aged system, which had limited capabilities and was at the end of its useful life. The new phone system allowed for the full implementation of 811 in the State, as an adequate number of incoming 811 phone lines was established. This project was funded by the 2010 PHMSA State Damage Prevention Grant.

Several Local Distribution Gas companies have installed high pressure gas pipelines over the past five years. The Department of Public Utility Control's Gas Pipeline Safety Unit (GPSU), who has regulatory oversight of the construction and operation of these facilities, worked with the gas companies during the design phase of their projects to design and implement encroachment detection systems. The system consisted of four copper wires buried above the pipeline, with circuitry designed to alarm the control center if the circuit of copper wire is broken. There has already been one instance of an excavation over a 750 psig pipeline, which was being done without a CBYD ticket, being discovered before any damage to the pipeline occurred.

**Describe how the proposed project will enhance or continue implementation of this element: (Required only if proposal addresses this element)**

E-Ticket Web Mapping: Users of CBYD's web based E-Ticket Entry will find the electronic

locate request application to be more user friendly with the integration of multiple map formats and additional ticket processing tools. The "new" E-Ticket format will virtually mimic the locate request screen used by CBYD customer service representatives at the Center with the exclusion of drawing tools and a ruler for the map. Enhancements include:

A drop down box of Connecticut Municipalities

Street lookup as User types street spelling

If desired, click on the Dynamic Buffer option to select a variable buffer size to surround your work area, ensuring all effected utilities are notified.

Displays a map of the location in any of the following formats: Digital Map, Satellite View, Hybrid, and Terrain View.

Zoom/Pan visual mapping capabilities

Automatic street verification

An option to key in lat/long to find work area

E-Ticket Entry for Smartphone: Customize the CBYD homepage with a dynamic link for Smartphone users to access an optimized E-Ticket entry application. This method avoids the development and redundancy of a second website as well as maintenance. The Smartphone application would target the Opera browser on all but Apple iPhones, when Safari would be used. Additionally, a browser detector integrated on CBYD's website would not be required as to ascertain Smartphone versus PC connectivity. Since drawing will not be available on the Smartphone E-Ticket, a native application addressing phone operating systems rather than a Smartphone browser is not warranted.

**Estimated budget for this element: (Required only if proposal addresses this element)**

a. Personnel:	\$0.00
b. Fringe Benefits:	\$0.00
c. Travel:	\$0.00
d. Equipment:	\$0.00
e. Supplies:	\$0.00
f. Contractual:	\$30,740.00
g. Construction:	\$0.00
h. Other:	\$0.00
<b>i. Total Direct Charges (sum of a through h):</b>	<b>\$30,740.00</b>
j. Indirect Charges:	\$0.00
<b>k. TOTAL (sum of i and j):</b>	<b>\$30,740.00</b>

**Budget Narrative for this element: (Required only if proposal addresses this element)**

The budget cost for the software research and development, programing, and installation of the E-Ticket Web Mapping is, \$20,850.00.

The budget cost for the software research and development, programing, and installation of the E-Ticket Entry for Smartphone is, \$9,890.00.

The \$3,000 travel is a fee noted in Element 7 will cover the cost of one or all of approved grant requests. Since installation for one or all of the Elements can be completed in one trip, only one \$3,000 travel fee should be added to the total Elements approved contractual cost. If all Elements are approved, the contractual cost is  $\$54,885 + \$3,000 = \$57,885$  total Grant.

**ELEMENT 9 - DAMAGE PREVENTION PROGRAM REVIEW**

"A process for review and analysis of the effectiveness of each program element, including a means for implementing improvements identified by such program reviews."

**Does the proposed project address this element? (Required)** Yes

**Describe any existing state initiatives that support this element: (Required)**

Connecticut Regulations require that operators report all damages and violations to the Central Clearinghouse. The Central Clearinghouse inputs this information into a database, and submits this data to the Department of Public Utility Control (DPUC). The DPUC performs analysis on this data to identify trends in damage data. This information is regularly shared with the Call Before You Dig (CBYD) Board of Directors in order to provide guidance to different programs. For example, the number of No-Notice damages in one particular county was disproportionate with other similarly-sized counties. This information was shared with the Public Awareness and Education committee, who in turn established an initiative to increase the advertising efforts in that county, including sponsoring 'Excavator Breakfasts'. The result was a significant decrease in the numbers of no-notice damages in that county, which was verified by monitoring the damage statistics.

The Central Clearinghouse hosts monthly training sessions for excavators. The majority of excavators in attendance at these courses are excavators who had a reported violation, and are attending the class to avoid civil penalties. The DPUC and CBYD have partnered in an initiative to collect data from these excavators to better understand the reasons for their violations. All attendees are given an anonymous survey, and asked about the type of company they are, the size of their company, the work that they normally are engaged in, the type of work they were doing when they committed their violation, and why they did not call CBYD prior to performing the excavation activity. The data from these surveys is reviewed by the DPUC and the CBYD Public Awareness and Education Committee, and it provides useful insight as to mis-conceptions and mis-understandings regarding CBYD. This information is used to design advertising and public awareness messages.

**Describe how the proposed project will enhance or continue implementation of this element: (Required only if proposal addresses this element)**

Best Practices, Design and Survey: To assist design engineers and survey companies in determining potential underground public utility conflicts during pre-construction phases, the following Design and Survey web application addresses these needs via CBYD's website, [www.cbyd.com](http://www.cbyd.com). Features associated with this web based application allow the user to: Select this program from a designated tab on CBYD's web homepage.

Utilize a personal password to access the restricted application.

Select the town and address, intersection, or employ the Lat/Long feature to find the work location.

If desired, click on the Dynamic Buffer option to select a variable buffer size to surround your work area, ensuring all effected utilities are notified.

Display a map of the location in any of the following formats: Digital Map, Satellite View, Hybrid, and Terrain View.

Utilize mapping tools such as Zoom in/out, Ruler, and Draw options (Polygon/Polyline) to manipulate the visual map.

Click a "Process" button that populates the utilities at the queried area and a "Print" button to create a hardcopy for record keeping of the project.

Click a link to access a designated Design & Survey information page that displays utility design/survey contact information of participating CBYD members. The list is indexed alphabetically and includes personnel and/or departments, mailing addresses and telephone numbers.

**Estimated budget for this element: (Required only if proposal addresses this element)**

a. Personnel:	\$0.00
b. Fringe Benefits:	\$0.00
c. Travel:	\$0.00
d. Equipment:	\$0.00
e. Supplies:	\$0.00
f. Contractual:	\$15,895.00
g. Construction:	\$0.00
h. Other:	\$0.00
<b>i. Total Direct Charges (sum of a through h):</b>	<b>\$15,895.00</b>
j. Indirect Charges:	\$0.00
<b>k. TOTAL (sum of i and j):</b>	<b>\$15,895.00</b>

**Budget Narrative for this element: (Required only if proposal addresses this element)**

The budget cost for software application research and development, programing, and installation for the design and survey enhancement is, \$15,895.00.

The \$3,000 travel is a fee noted in Element 7 will cover the cost of one or all of approved grant requests. Since installation for one or all of the Elements can be completed in one trip, only one \$3,000 travel fee should be added to the total Elements approved contractual cost. If all Elements are approved, the contractual cost is  $\$54,885 + \$3,000 = \$57,885$  total Grant..



## Legislative/Regulatory Actions

**Provide a description of any legislature or regulatory actions (including legislative/regulatory studies) taken by the State within the past five (5) years pertaining to damage prevention program improvement, even if those actions were not completely successful.**

An initiative was taken by the Department of Public Utility Control (DPUC) to increase the amounts of civil penalties for violations on the Connecticut Damage Prevention laws. It seemed that certain excavators may have been looking at the amounts of civil penalties as a 'cost of doing business'. The maximum civil penalty had been \$10,000 per violation, with a sliding scale of maximum civil penalty amounts based on the amount of property damage (for example, if property damage was less than \$3,000, the maximum civil penalty was \$3,000).

The first step in this initiative was a change to the General Statutes of the State of Connecticut, which are the laws approved by the Legislature. The DPUC championed Public Act 04-43, Senate Bill 144, which increased the maximum civil penalty to \$40,000. The bill also required the DPUC to adopt new regulations regarding civil penalties.

The DPUC opened Docket 04-10-22, to revise section 16-345-9 of the Regulations of Connecticut State Agencies. In this revision, the sliding scale of maximum civil penalties was increased (property damage less than \$3,000, maximum civil penalty of \$12,000, property damage between \$3,000 and \$12,000, maximum civil penalty of \$20,000, and property damage over \$20,000, a maximum civil penalty of \$40,000). In addition, several additional criteria were added to set the maximum civil penalty. If a violation causes personal injury or death, the civil penalty can be up to \$40,000. If an excavator knowingly damages a utility and fails to report the damage to the utility company, the penalty can be up to \$40,000. In addition, the DPUC has the authority to assess a civil penalty of \$40,000 for ANY violation, based upon the degree of threat to public safety and the degree of public inconvenience. These new regulations were adopted and became effective on February 2, 2006.

State Damage Prevention Estimated Budget - Calendar Year 2011

**DIRECT COSTS**

Personnel .....	
Fringe Benefits .....	
Travel .....	\$3,000.00
Equipment .....	
Supplies .....	
Contractual .....	\$54,885.00
Construction .....	
Other .....	
<b>Total Direct .....</b>	<b>\$57,885.00</b>

**INDIRECT COSTS**

Indirect Charges .....	
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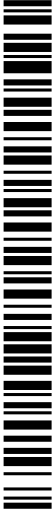
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**TOTAL ESTIMATED COSTS**

**\$57,885.00**

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**State Damage Prevention Application Attachments**




Governor Letter.pdf  
E Ticket Smartphone.pdf  
Atom Locate Request Feed.pdf  
Design and Survey.pdf  
E Ticket Web Mapping.pdf

# Atom Locate Request Feed

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## Overview

Utilities receive notifications of planned excavations from a one call center based on the location of the digging and the location of the buried utilities. If the center determines that the dig location overlaps the area that a particular utility has some buried facilities such as pipes or cables, a printed message is sent via fax or email to alert the affected utility. This note describes the use of an Internet feed to deliver location requests to various categories of users.

An Internet feed is a standardized subscription service that allows access to published chunks of information – in this case, locate requests. Common Web browsers such as Firefox, Internet Explorer, and Safari and email clients such as Microsoft Outlook know how to connect to feeds. The special icon  on the center's Web page lets a user subscribe to a feed containing locate requests from the one call center. Subscribing assigns a password to a user name identified by an email address. The user connects to the feed using the email address and password combination.

Feeds are sometimes called RSS or RSS feeds. RSS stands for "Really Simple Syndication" and was the original feed format. RSS has been joined by Atom, a more flexible format, which has become an Internet standard. Locate request feeds use the Atom format.

Different categories of users have access to feeds containing different information. Locate request feeds fall into the five categories

1. a member of the general public – location and date only
2. a contractor – full information for locate requests made by the contractor,
3. a utility – full information about locate requests where the excavation conflicts with the buried facilities of the utility,
4. one call center staff – full access to all locate request information, or
5. a state agency reviewing locate requests – full access to all information.

Once a user has subscribed to a feed, their web browser or email client will check periodically for updates. They see a list of items with basic information with links that can be followed to more details. The details appear in a web page, where they can see more details of the locate request ticket information or search for other locate requests based on date, time, town, excavator, or other parts of the request.

## Using a Feed

The individual categories of users have different goals and access to details

### Public

The public can see the location of the planned excavations on a map. They can search by date, time, and town name.

### Excavator

An excavator can see the same information as the general public as well as all information on requests submitted by them. They can search on date, time, town, or any field in the contractor information submitted by them.

### Utility

A utility can see the same information as the general public as well as all information relevant in requests where the excavation is within their service area. Because there is no extra cost or effort to include all locates requests in a feed, utilities may use their own screening systems to determine whether conflicts exist between planned excavations and their buried facilities. Because the data that define their buried plant remains in-house, they may use much more detailed or sensitive information to perform the screening than they might be comfortable in delivering to the one call center. Feeds are more secure and precise than the current practice of parsing the text message format because the locate request information is delivered in a standard XML structure.

### Large

Utilities with extensive buried facilities may access all of the information in the individual feed items. They commonly use internal software applications to screen and manage incoming locate requests.

### Medium

Medium size utilities may rely on center screening of locate requests by location or employ their own screening software. Although similar to the automated handling of the large utilities, medium utilities may choose to use off the shelf screening software or services that know how to interpret the structured requests in the feed.

### Small

Smaller utilities may rely on the center screening or use an online service to meet their own more specific requirements. This allows them to use more detailed information about their facilities than they provide to the center without significant extra cost or internal development effort.

### Center

The center can see and search on all fields in the locate request items in the feed.

### Agency Oversight

Oversight agencies generally can see and search on all fields in the locate request items in the feed. Agencies specific to a single industry group may have feeds restricted to those industries if appropriate.

### PRICING

- Application development: \$8,250
- Travel costs: \$3,000



## ASPLUNDH ONE-CALL

2040 WHITNEY AVENUE, HAMDEN, CT 06517 • AREA CODE 203 • TELEPHONE 248-5501

### DESIGN AND SURVEY WEB APPLICATION

To assist design engineers and survey companies in determining potential underground public utility conflicts during pre-construction phases, the following Design and Survey web application addresses these needs via CBYD's website, [www.cbyd.com](http://www.cbyd.com). Features associated with this web based application allow the user to:

- Select this program from a designated tab on CBYD's web homepage.
- Utilize a personal password to access the restricted application.
- Select the town and address, intersection, or employ the Lat/Long feature to find the work location.
- If desired, click on the Dynamic Buffer option to select a variable buffer size to surround your work area, ensuring all effected utilities are notified.
- Display a map of the location in any of the following formats: Digital Map, Satellite View, Hybrid, and Terrain View.
- Utilize mapping tools such as Zoom in/out, Ruler, and Draw options (Polygon/Polyline) to manipulate the visual map.
- Click a "Process" button that populates the utilities at the queried area and a "Print" button to create a hardcopy for record keeping of the project.
- Click a link to access a designated Design & Survey information page that displays utility design/survey contact information of participating CBYD members. The list is indexed alphabetically and includes personnel and/or departments, mailing addresses and telephone numbers.

#### Pricing

- Application development and rollout (one time charge): \$15,895
- Support, maintenance, and server operations: \$89.00 per month

## **ASPLUNDH ONE-CALL**

2040 WHITNEY AVENUE, HAMDEN, CT 06517 • AREA CODE 203 • TELEPHONE 248-5501

### **E-TICKET ENTRY FOR SMARTPHONE**

CBYD homepage customized with a dynamic link for Smartphone users to access an optimized E-Ticket entry application. This method avoids the development and redundancy of a second website as well as maintenance. The Smartphone application would target the Opera browser on all but Apple iPhones, when Safari would be used. Additionally, a browser detector integrated on CBYD's website would not be required as to ascertain Smartphone versus PC connectivity. Since drawing is not available on the E-Ticket, a native application addressing phone operating systems rather than a Smartphone browser is not warranted.

#### **Pricing**

- Development and installation: \$9,890
- Travel costs: \$3,000

## ASPLUNDH ONE-CALL

2040 WHITNEY AVENUE, HAMDEN, CT 06517 • AREA CODE 203 • TELEPHONE 248-5501

### E-TICKET WEB MAPPING

Users of CBYD's web based E-Ticket Entry will find the electronic locate request application to be more user friendly with the integration of multiple map formats and additional ticket processing tools. The "new" E-Ticket format will virtually mimic the locate request screen used by CBYD customer service representatives at the Center with the exclusion of drawing tools and a ruler for the map. Enhancements include:

- A drop down box of Connecticut Municipalities
- Street lookup as User types street spelling
- If desired, click on the Dynamic Buffer option to select a variable buffer size to surround your work area, ensuring all effected utilities are notified.
- Displays a map of the location in any of the following formats: Digital Map, Satellite View, Hybrid, and Terrain View.
- Zoom/Pan visual mapping capabilities
- Automatic street verification
- An option to key in lat/long to find work area

#### Pricing

- Development and installation: \$20,850
- Travel costs: \$3,000





M. JODI RELL  
GOVERNOR

STATE OF CONNECTICUT  
EXECUTIVE CHAMBERS

August 30, 2010

Mr. Warren Osterberg  
U.S. Department of Transportation  
Pipeline and Hazardous Materials Safety Administration (PHMSA)  
ATTN: Office of Contracts and Procurement (PHA-30)  
1200 New Jersey Avenue, SE, Room E22-305  
Washington, DC 20590

**RE: Solicitation number DTPH56-11-SN-0001, 2011 State Damage Prevention Grant**

Dear Mr. Osterberg:

I hereby designate Call Before You Dig, Inc. (CBYD), of 2040 Whitney Avenue, Hamden, CT, a corporation established pursuant to the General Statutes of Connecticut §§ 16-348 under the authority of the Department of Public Utility Control, as the State authority eligible for the "State Damage Prevention Grant" administered by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration. CBYD is integral to the prevention of damage to underground pipeline facilities, and therefore is eligible to receive this grant.

This grant will be used to develop and implement several software upgrades at the CBYD Clearinghouse. These upgrades will significantly improve electronic communication between utilities, excavators, design engineers, and the Department of Public Utility Control.

Sincerely,

A handwritten signature in blue ink that reads "M. Jodi Rell".

M. Jodi Rell  
Governor  
State of Connecticut

**Application for Federal Assistance SF-424**

Version 02

**\* 1. Type of Submission:**

- ☐ Preapplication  
☒ Application  
☐ Changed/Corrected Application

**\* 2. Type of Application:**

- ☒ New  
☐ Continuation  
☐ Revision

**\* If Revision, select appropriate letter(s):**

**\* Other (Specify)**

**\* 3. Date Received:**

09/08/2010

**4. Applicant Identifier:**

**5a. Federal Entity Identifier:**

**\* 5b. Federal Award Identifier:**

**State Use Only:**

**6. Date Received by State:**

**7. State Application Identifier:**

**8. APPLICANT INFORMATION:**

**\* a. Legal Name:** Call Before You Dig, Incorporated

**\* b. Employer/Taxpayer Identification Number (EIN/TIN):**

06-0972151

**\* c. Organizational DUNS:**

109955414

**d. Address:**

**\* Street1:**

2040 Whitney Ave

**Street2:**

**\* City:**

Hamden

**County:**

**\* State:**

CT: Connecticut

**Province:**

**\* Country:**

USA: UNITED STATES

**\* Zip / Postal Code:**

06517-0000

**e. Organizational Unit:**

**Department Name:**

**Division Name:**

**f. Name and contact information of person to be contacted on matters involving this application:**

**Prefix:**

Mr

**\* First Name:**

Dean

**Middle Name:**

**\* Last Name:**

Muratori

**Suffix:**

**Title:**

**Organizational Affiliation:**

**\* Telephone Number:**

860-613-3070

**Fax Number:**

203-248-6448

**\* Email:**

dean\_muratori@cable.comcast.com

**Application for Federal Assistance SF-424**

Version 02

**9. Type of Applicant 1: Select Applicant Type:**

A: State Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

\* Other (specify):

**\* 10. Name of Federal Agency:**

Pipeline & Hazardous Material Safety Administration

**11. Catalog of Federal Domestic Assistance Number:**

20.720

CFDA Title:

State Damage Prevention Program Grants

**\* 12. Funding Opportunity Number:**

DTPH56-11-SN-0001

\* Title:

State Damage Prevention Grants

**13. Competition Identification Number:**

Title:

**14. Areas Affected by Project (Cities, Counties, States, etc.):**

**\* 15. Descriptive Title of Applicant's Project:**

Call Before You Dig, Incorporated State Damage Prevention

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424

Version 02

16. Congressional Districts Of:

\* a. Applicant

3

\* b. Program/Project

5

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:

\* a. Start Date:

01/01/2011

\* b. End Date:

12/31/2011

18. Estimated Funding (\$):

\* a. Federal

57,885.00

\* b. Applicant

0.00

\* c. State

0.00

\* d. Local

0.00

\* e. Other

0.00

\* f. Program Income

0.00

\* g. TOTAL

57,885.00

\* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on

☒ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☐ c. Program is not covered by E.O. 12372.

\* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)

☐ Yes

☒ No

21. \*By signing this application, I certify (1) to the statements contained in the list of certifications\*\* and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances\*\* and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)

☒ \*\* I AGREE

\*\* The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix:

Mr

\* First Name:

Dean

Middle Name:

\* Last Name:

Muratori

Suffix:

\* Title:

President

\* Telephone Number:

860-613-3070

Fax Number:

203-248-6448

\* Email:

dean\_muratori@cable.comcast.com

\* Signature of Authorized Representative:

Dean Muratori

\* Date Signed:

09/08/2010

**Application for Federal Assistance SF-424**

Version 02

**\* Applicant Federal Debt Delinquency Explanation**

The following field should contain an explanation if the Applicant organization is delinquent on any Federal Debt. Maximum number of characters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of space.

# BUDGET INFORMATION - Non-Construction Programs

OMB Approval No. 4040-0006  
Expiration Date 07/30/2010

## SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. State Damage Prevention Program		\$	\$	\$ 57,885.00	\$ 0.00	\$ 57,885.00
2.						
3.						
4.						
5. Totals		\$	\$	\$ 57,885.00	\$	\$ 57,885.00

### SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1) <div style="border: 1px solid black; height: 150px; margin-top: 5px;">SDP</div>	(2) <div style="border: 1px solid black; height: 150px; margin-top: 5px;"></div>	(3) <div style="border: 1px solid black; height: 150px; margin-top: 5px;"></div>	(4) <div style="border: 1px solid black; height: 150px; margin-top: 5px;"></div>	
<b>a. Personnel</b>	\$ <div style="border: 1px solid black; width: 100px; text-align: right;">0.00</div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px;"></div>
<b>b. Fringe Benefits</b>	<div style="border: 1px solid black; width: 100px; text-align: right;">0.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>
<b>c. Travel</b>	<div style="border: 1px solid black; width: 100px; text-align: right;">3,000.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px; text-align: right;">3,000.00</div>
<b>d. Equipment</b>	<div style="border: 1px solid black; width: 100px; text-align: right;">0.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>
<b>e. Supplies</b>	<div style="border: 1px solid black; width: 100px; text-align: right;">0.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>
<b>f. Contractual</b>	<div style="border: 1px solid black; width: 100px; text-align: right;">54,885.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px; text-align: right;">54,885.00</div>
<b>g. Construction</b>	<div style="border: 1px solid black; width: 100px; text-align: right;">0.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>
<b>h. Other</b>	<div style="border: 1px solid black; width: 100px; text-align: right;">0.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>
<b>i. Total Direct Charges (sum of 6a-6h)</b>	<div style="border: 1px solid black; width: 100px; text-align: right;">57,885.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px; text-align: right;">57,885.00</div>
<b>j. Indirect Charges</b>	<div style="border: 1px solid black; width: 100px; text-align: right;">0.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px;"></div>
<b>k. TOTALS (sum of 6i and 6j)</b>	\$ <div style="border: 1px solid black; width: 100px; text-align: right;">57,885.00</div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px; text-align: right;">57,885.00</div>
<b>7. Program Income</b>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px;"></div>

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SECTION C - NON-FEDERAL RESOURCES				
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8. <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
9. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
10. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
11. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
12. TOTAL (sum of lines 8-11)	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
14. Non-Federal	\$ <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
15. TOTAL (sum of lines 13 and 14)	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT				
(a) Grant Program	FUTURE FUNDING PERIODS (YEARS)			
	(b)First	(c) Second	(d) Third	(e) Fourth
16. <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
17. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
18. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
19. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
20. TOTAL (sum of lines 16 - 19)	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges: <input type="text"/>	22. Indirect Charges: <input type="text"/>
23. Remarks: <input type="text"/>	

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## CERTIFICATION REGARDING LOBBYING

### Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

### Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions. Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

#### \* APPLICANT'S ORGANIZATION

Call Before You Dig, Incorporated

#### \* PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE

Prefix: Mr

\* First Name: Dean

Middle Name:

\* Last Name: Muratori

Suffix:

\* Title: President

\* SIGNATURE: Dean Muratori

\* DATE: 09/08/2010