

# The Conduit

Volume 12, Issue 1  
January & February 2015

## NEWS & VIEWS OF ELECTRICAL INSTALLATIONS, INC.



### EI IMPLEMENTS eSUB CONSTRUCTION MANAGEMENT SOFTWARE

EI has moved into the digital age with a new cloud-based software program for all phases of construction and service management. The software was put in place after much research by Jim, Cory and Jimmy. The purpose of this software is to provide timely updates for all phases of our projects. eSub standardizes procedures so that data relating to site events, labor activities, material costs, workforce information and more can be fully accessed in real-time. Some advantages of the software are:

- ◆ Project managers can create daily logs which track labor progress
- ◆ Purchase information, both in the field and at our three locations, is stored for easy access (including receipt of materials at our home office)
- ◆ Plans, specs, and submittal status will be available for remote access by field personnel

Not only does this allow information to be shared amongst our offices but by all members of our company regardless of their location. In addition, we plan to implement the time card feature in the near future in order to facilitate timesheet submission. eSub gives us the tools to streamline all of our work efforts, manage our time and purchases more effectively and, therefore, increase profitability.

Access is simple. If you have not already logged into eSUB, please call the office for log-in instructions. Not all jobs have been added, as we began with the larger 2014 projects and are moving forward with all projects from that point. The best way to learn eSUB is to take a bit of time to familiarize yourself with the site. If you have any questions, feel free to call the office or Jim or Jimmy directly. Please also let us know if you have any suggestions as to how we can adapt the program to better suit our needs. We have the administrative capability to add/alter fields as necessary

As capable as the software is, we cannot have 100% accuracy and the desired results without 100% participation. We are excited about the possibilities for the future as we move toward existing in real-time in all facets of construction from bidding to job close-out.

We apologize for the delay in circulating this edition of the Conduit. Happy Birthday to all those who celebrated in January!



# EMPLOYEE SPOTLIGHT



- 1/13 Wayne Wickens
- 1/18 Cory Glines
- 1/18 Christian Brosious
- 2/1 Ben Fritz
- 2/4 Tom Therrien
- 2/19 Sandra Ringelstein
- 2/19 Bryan Payne
- 2/23 Mitchell Leary



## Anniversaries

- Tom Therrien 18 years
- Mike Leary 16 years
- Christian Brosious 3 years
- Rick Milliken 1 year

### IN THE SPIRIT OF THE SEASON

Though we consider 2014 to have been a year of many challenges, we always know that there are countless others who are facing far greater challenges. For this reason, we remain committed to continuing Electrical Installations' tradition of sharing our success with those less fortunate. Prior to Christmas, EI donated over \$23,000 to 18 different outreach-centered charities including The Salvation Army, St. Vincent de Paul, Cash-N-Cans, Habitat for Humanity, Community Caregivers, Twin Rivers Interfaith Food Pantry, Meals on Wheels, David's House, New Horizons, NH Food Bank, Dana Farber/Jimmy Fund and others. Please know that you who enable our success have also touched the lives of many who are in need.

**Important  
DATE!**

Our company-wide meeting will be held on April 10. Watch for details in the March/April issue of the Conduit.

Number of hours worked without a "Lost Time" Injury

**196,338**

### Charlie's Quality Corner

#### Networking

Fiber optic and Ethernet networks are rapidly becoming the norm for all the systems we are dealing with. A strong knowledge of the best practices and methods is critical to our success in this field. Just a couple of major points:

Cat 5 ethernet is the older standard and is still appropriate for most of our current systems. Cat 6 ethernet is the new standard. Generally, Cat 6 has larger conductors and tighter twisting on the pairs. The main difference is network speed as Cat 6 allows for 5 or 6 times faster networks. Both standards allow for a maximum length of about 100 meters.

Fiber optic can be single mode or multi mode and again speed and bandwidth are the main differences. Single mode is a much smaller fiber and is capable of transmitting data over much longer distances. Extreme care must be used when handling these fibers as they are actually glass and are easily damaged.

### Factoid of the Month



Punxsutawney Phil has been predicting how long winter will last since 1887 in both the US and Canada.

This day, also known as Groundhog Day, has ties to a Celtic tradition that says if a hibernating animal casts a shadow on February 2, winter will last another six weeks. If no shadow is seen, legend says spring would come early.



Happy Groundhog Day!

**Please make sure all job trailers and containers are free from snow and ice**



Don't forget...all EI vehicles are due for inspection during the month of March!



# The Conduit

Volume 12, Issue 2  
March & April 2015

## NEWS & VIEWS OF ELECTRICAL INSTALLATIONS, INC.



### FEATURED PROJECT

#### WASTEWATER TREATMENT FACILITY PHASE 2 AND COMPOST FACILITY UPGRADE

#### MERRIMACK, NH

Last June, Electrical Installations, Inc. began work on this extensive upgrade project, working as a subcontractor to Methuen Construction, Inc. We are in the process of completing the entire electrical scope of work as well as all instrumentation and controls. Engineered by Wright Pierce, this ambitious project involves installation of a new clarifier mechanism, various pumps, new hybrid aeration blowers, dechlorination system, and plant water system as well as numerous modifications and upgrades of existing systems and equipment. All work is to be performed while maintaining plant flow and treatment processes. Our scope of work includes new control systems for the Compost Facility, upgrade of the existing WWTF SCADA system with new fiber optic and Ethernet networking, lighting systems in the Headworks Building and Compost Facility, and new effluent pump VFD's and controls.

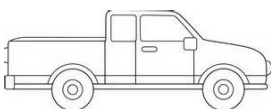


Merrimack WWTF Supervisor Leo Gaudette reviews details of the plant's SCADA and Control System with Mac Richardswon and treatment plant operators visiting from Lewiston, ME.

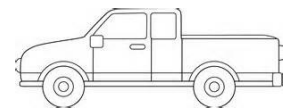
This project is made more interesting and challenging because of new technology to be implemented which will replace the facility's current low efficiency aeration blowers. Several years ago the existing Sludge Belt Thickener was replaced with a new, state-of-the-art Rotary Filter Press. EI utilized the controls and programming on that project to successfully complete a similar installation at the Berlin, NH wastewater treatment facility. This leading edge technology is of great interest to many municipalities with aging and/or under-sized treatment facilities. Consequently, plant personnel from our long-time customer, Lewiston-Auburn Water Pollution Authority, recently visited the Merrimack project to better ascertain how they might benefit from the new technology advances incorporated into this project. EI representatives on site were quite pleased at the positive feedback shared between two valued customers.



This project has progressed smoothly and efficiently and is on target for scheduled completion by year-end thanks to the efforts of Project Manager Chuck Fritz working with Craig Sharpe and Zack Fritz, assisted by Jesse Chaloux, Dennis Lloyd, Sam Kelley-Vail and Bryan Payne. Thanks also to Matt Blood and Casey Damon for meeting the control panel requirements and deadlines of this project.



**MARCH IS TRUCK INSPECTION MONTH**





# EMPLOYEE SPOTLIGHT

- 3/10 Eva Fritz
- 4/24 Rick Milliken
- 4/30 Brian Chevrette



## Anniversaries

- Matt Blood 11 Years
- Tom Brosious 11 Years
- Dennis Lloyd 6 Years
- Jared Leary 5 Years
- Zack Fritz 5 Years



### 6<sup>th</sup> Annual New England Pond Hockey Classic

Electrical Installations, Inc. is proud to have sponsored the inaugural appearance of the “New Hampshire Brew’ns” in the New England Pond Hockey Classic. Teams travel from around the country to participate in this 3-day event which hosts 250 hockey teams on 24 rinks on Lake Winnepesaukee. Congratulations to Fritz brothers Jimmy and Andy as well as Justin Montelin (Androscroggin Electric), Keeler Lapham, Pete Hoffman, Trevor Sonovick, and Dan Roy who braved the most frigid of weather to compete in four hockey games. Competing together for the first time, their teamwork increased with each game, not quite to the championship level, but watch out for next year!



### UPCOMING PROJECTS

- Auburn, MA WTP—Bay State Regional Contractors, Inc.
- Bellows Falls, VT WTP —J.P. Sicard, Inc.
- Marlboro, MA WTP —Winston Builders Corp.
- Merrimack, NH Pump Station—Pennichuck East Utility
- Nashua, NH WWTP—Penta Corp.
- York, ME WWTP—Apex Construction, Inc.
- West Warwick, RI WWTF —Daniel O’Connell’s Sons, Inc.

### ANNUAL EMPLOYEE MEETING

FRIDAY, April 10, 2015

9:00 AM—2:00 PM

Ridgewood Country Club

Moultonboro, NH

### Factoid of the Month



March 20 is the first day of spring. It is also called the vernal equinox. “Vernal” is Latin for spring, and “equinox” is Latin for “equal night.”

Number of hours worked without a "Lost Time" Injury

207,724





# The Conduit

Volume 12, Issue 3

May & June 2015

## NEWS & VIEWS OF ELECTRICAL INSTALLATIONS, INC.

### EMPLOYEE MEETING 2015



On April 10, Electrical Installations' employees gathered at Ridgewood Country Club for a day-long Team Meeting beginning, of course, with matters of safety. Safety Director, Rick Frame, introduced our 2015 Joint Loss Management Committee employee representatives Jimmy Fritz and Rick Milliken and discussed safety observations at EI job sites in the past year. 49

safety inspections were completed with noticeable improvement in Tool Talk completions, tool inspections and overall improvement in the appearance of our job sites. Rick also spoke briefly on E-Safety Online, a web-based safety compliance training resource. We will be introducing web-based safety courses required for all field employees for OSHA compliance training. More information will be forthcoming.

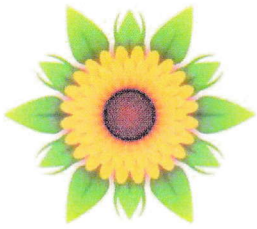
We were fortunate to have representatives from Milwaukee Tools on hand to present information on the latest tools of the trade and their tool trade-in program. Representatives from NorthEast Electrical Distributors also spoke regarding their new website. All are invited to log on, check it out, and questions are welcomed. As always, time, availability and pricing are important factors when ordering so please consider all these elements when selecting a vendor. There will be additional information on this topic in upcoming emails and discussions.

Considerable time was devoted to E-Sub, our newly-implemented construction management software, with an overview, training topics, and plenty of time for Q & A. We are extremely optimistic as to the potential benefits of this new software once everyone is fully trained.

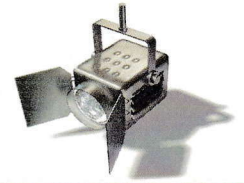
Our afternoon began with our annual "State of the Company" presentation discussing a well-positioned, financially strong company with a solid future. Affordable health insurance was identified as one of our biggest challenges in the near future.

We are proud to have honored the following team members with milestone service awards: Cory Glines for 10 years of dedicated service and Jimmy Fritz, Zack Fritz and Jared Leary for 5 years of dedicated service. Congratulations gentlemen! As always, the EI team thoroughly enjoyed our time together.





# EMPLOYEE SPOTLIGHT

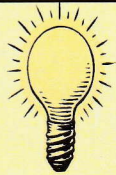


6/20 Jesse Chaloux



## Anniversaries

Cory Glines	10 Years
Rick Frame	9 Years
Eva Fritz	9 Years
Casey Damon	8 Years
Michele Near	8 Years
Sam Kelley-Vail	3 Years
Ben Fritz	2 Years



### Factoid of the Month

The first day of summer is called the summer solstice.



The term solstice is Latin for

sun stand still. The sun is higher in the sky throughout the day, and its rays beam on the Earth at a more direct angle, causing the hotter temperatures we associate with summer. The last day of summer is September 20. The first day of autumn begins on September 21. So enjoy the summer solstice while it lasts!



### NH HANDS-FREE LAW

Please be aware that as of July 1, 2015, NH drivers will not be allowed to use handheld cell phones or any electronic devices. In addition to barring adult drivers from holding their cell phones and talking, drivers under the age of 18 will be barred from all mobile phone use. Fines range from \$100 to \$500. Look for an upcoming payroll insert with further details.

### Charlie's Quality Corner

#### FIBER OPTIC CABLE INSTALLATION

When we or others install fiber optic cable on our behalf, we should always make sure that when it is pulled in and installed the installer uses the central kevlar string as a pulling agent.

Pulling the cable using the outer jacket will cause stress on the fiber strands which are extremely fragile and the main cause of failure overtime.

Number of hours worked  
without a "Lost Time" Injury  
**217,950**





## NEWS & VIEWS OF ELECTRICAL INSTALLATIONS, INC.

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### VOLUNTEER HIGHLIGHT

## Helping with Little Things is a Big Deal During Cancer Treatment



Three months after Todd Keyser died of cancer in 2012, family members, friends

and colleagues at Electrical Installations Inc. and Penta Corporation held a golf tournament to keep his memory alive and help his young family.

Today, the Todd Keyser Golf Classic in Moultonborough, born because of Todd's passion for the sport, also helps cancer patients deal with daily hardships that can become major hassles during treatment.

Todd died at age 38, after a nearly two-year battle with colorectal cancer. Treatment included countless 110-mile

roundtrips from Moultonborough to Concord Hospital Payson Center for Cancer Care.

Expenses, including co-pays, medications, equipment and gas mounted up. Todd's wife, Laura, even traded her car for one with better mileage. Like many patients undergoing intense treatment, Todd could not work, and with Laura driving him to and from treatment, her own work hours were limited, so money was tight.

"The gas going down there every day became a real expense, a headache," Laura said.

About a year into treatment, the Keyzers learned of Payson Center's Lend Me a Hand Fund, which provides patients in need with support for out-of-pocket

expenses such as gas or grocery cards.

In 2014, the tournament founder, Electrical Installations Inc., a subcontractor for Todd's employer, Penta Corporation, proposed sending some proceeds to cancer research. Laura suggested the Lend Me a Hand Fund instead.

"I said I'd rather be helping other families going through the same struggles we did," she said.

Now, tournament proceeds are divided between college funds for the Keyzers' children – Nolan, Landan and Adisyn – and Payson Center's Lend Me a Hand Fund.

"It makes me feel good and I think Todd would be honored," Laura said. ●



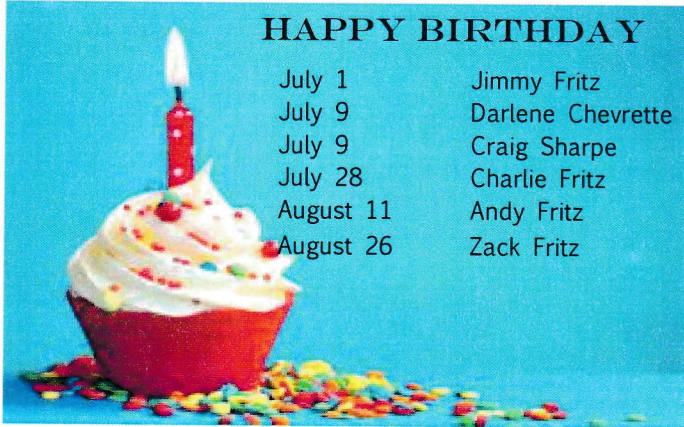




# EMPLOYEE SPOTLIGHT



**HAPPY BIRTHDAY**



July 1	Jimmy Fritz
July 9	Darlene Chevrette
July 9	Craig Sharpe
July 28	Charlie Fritz
August 11	Andy Fritz
August 26	Zack Fritz

**Anniversaries**

Brian Chevrette	19 Years
Darlene Chevrette	19 Years
Neil Davis	19 Years
Jimmy Fritz	5 Years
Jesse Chaloux	1 Year

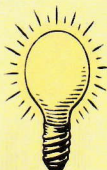

**WELCOME NEW EMPLOYEE**

**DEREK DUTTON** is our newest electrician apprentice and is currently working with Rick Milliken at our Dover project. Derek lives with his family in Tilton and attends LRCC where he is enrolled in the Electrical Power and Control Technology Program. Derek enjoys long boarding, hiking, and hockey in his free time.

**UPCOMING PROJECTS**

Durham, NH WWTP – Apex Construction, Inc.  
 Falmouth, MA 3 Projects – Fall River Electric  
 Lebanon, NH WTP – Kingsbury Companies, LLC  
 Middlebury, MA WPCF – FKC Co, Ltd.  
 Middleborough, MA WPCF – Methuen Construction Co, Inc.  
 Portland, ME Pump Station – T Buck Construction, Inc.

**Factoid of the Month**





August is National Golf Month. The first game of golf was played in Scotland in 1357, although the first recorded game wasn't played until 1457. In 2016 after an absence of 112 years, golf will return as a featured sport at the Olympic Games in Rio de Janeiro, Brazil.


Number of hours worked without a "Lost Time" Injury

**229,492**

**4TH ANNUAL TDK GOLF CLASSIC**



As reported in our front page article, Electrical Installations' involvement in the annual TDK Golf Tournaments has resulted in sizeable donations to particularly meaningful causes. On June 12<sup>th</sup>, 126 golfers enjoyed perfect weather and course conditions during the 4<sup>th</sup> Annual TDK Golf Classic at Ridgewood Country Club. Once again, we were inspired by the efforts and generosity of so many in our industry as vendors, contractors and community members came together for a special day of remembrance and fundraising. This tournament was made especially memorable by the intense tie-breaker required to determine the winners. After playing 4 tie-breaker holes, the team of Cory Glines, Matt Blood, Jimmy Fritz, and Andy Fritz took home the trophy once again! Many thanks to all who volunteered their time and worked so hard to make this event such a great success.





# The Conduit

Volume 12, Issue 5

September & October 2015

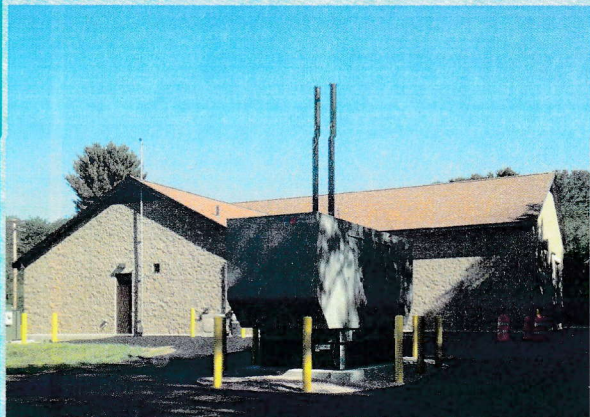
## NEWS & VIEWS OF ELECTRICAL INSTALLATIONS, INC.

### BELLINGHAM

*Massachusetts*  
Established 1719

### WATER TREATMENT FACILITIES UPGRADES

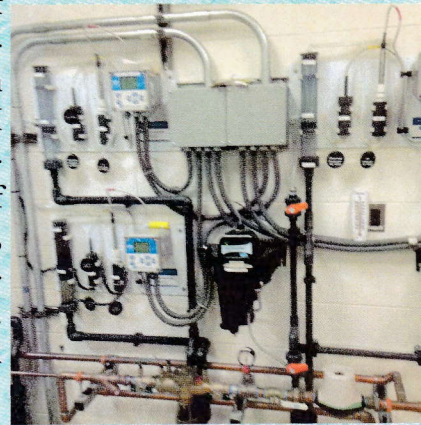
### BELLINGHAM, MA



Electrical Installations is nearing completion of this upgrade to the existing Hartford Avenue Water Treatment Plant and the new Wrentham Road Water Treatment Plant. These two plants will take all of the water sources in the town of Bellingham, MA and treat them for Iron and Manganese removal. The project includes new chemical feed additions at both plants as well as new filters by Hungerford and Terry. Electrical Installations has been servicing the town of Bellingham since the year 2000 and completed many updates and improvements to their existing SCADA system.

Electrical Installations has been working on this project as a sub-contractor to Waterline Industries, and we have supplied all of the instrumentation and control panels for both plants. We are still in the process of changing over two more of the existing well sites to be sent over to the treatment plants. This project has involved all EI employees in the Westport office, Kim Souza handled

the submittals, Jared Leary has done most of the graphics screens for the SCADA computers and startup, Mitchell Leary has been involved with putting together the O & M Manuals and startup, and Mike Leary over-all project management and integration of the system. Also, our Panel Shop crew, Matt Blood and Casey Damon, manufactured 15 control panels for this project. Thanks to all who contributed to successful completion of this 17-month project.



## HAPPY HALLOWEEN

Number of hours worked  
without a "Lost Time" Injury

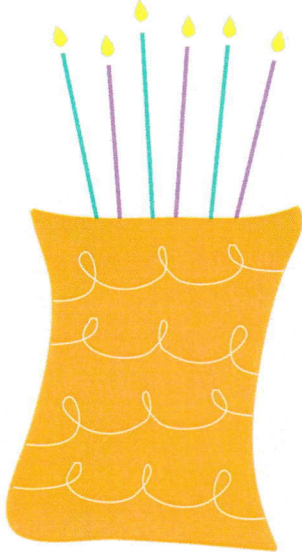
# 240,474





# EMPLOYEE SPOTLIGHT

## HAPPY BIRTHDAY

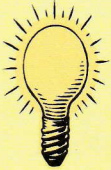


- 9/9 Chuck Fritz
- 9/14 Casey Damon
- 9/15 Matt Blood
- 9/17 Jim Fritz
- 9/20 Jared Leary
- 10/10 Rick Frame
- 10/17 Michele Near
- 10/28 Darlene Fritz

## Anniversaries

- |                |          |
|----------------|----------|
| Jim Fritz      | 28 Years |
| Chuck Fritz    | 28 Years |
| Charlie Fritz  | 28 Years |
| Darlene Fritz  | 28 Years |
| Bryan Payne    | 9 Years  |
| Kim Souza      | 7 Years  |
| Mitchell Leary | 2 Years  |

### Factoid of the Month



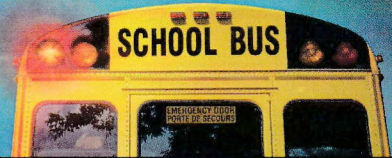
The first day of autumn this year, or the autumnal equinox, will be September 23.

On this day, the number of hours of daylight and darkness are equal because the sun is aligned with the center of the earth between the north and south of the planet.



**A child's life is flashing before your eyes.**

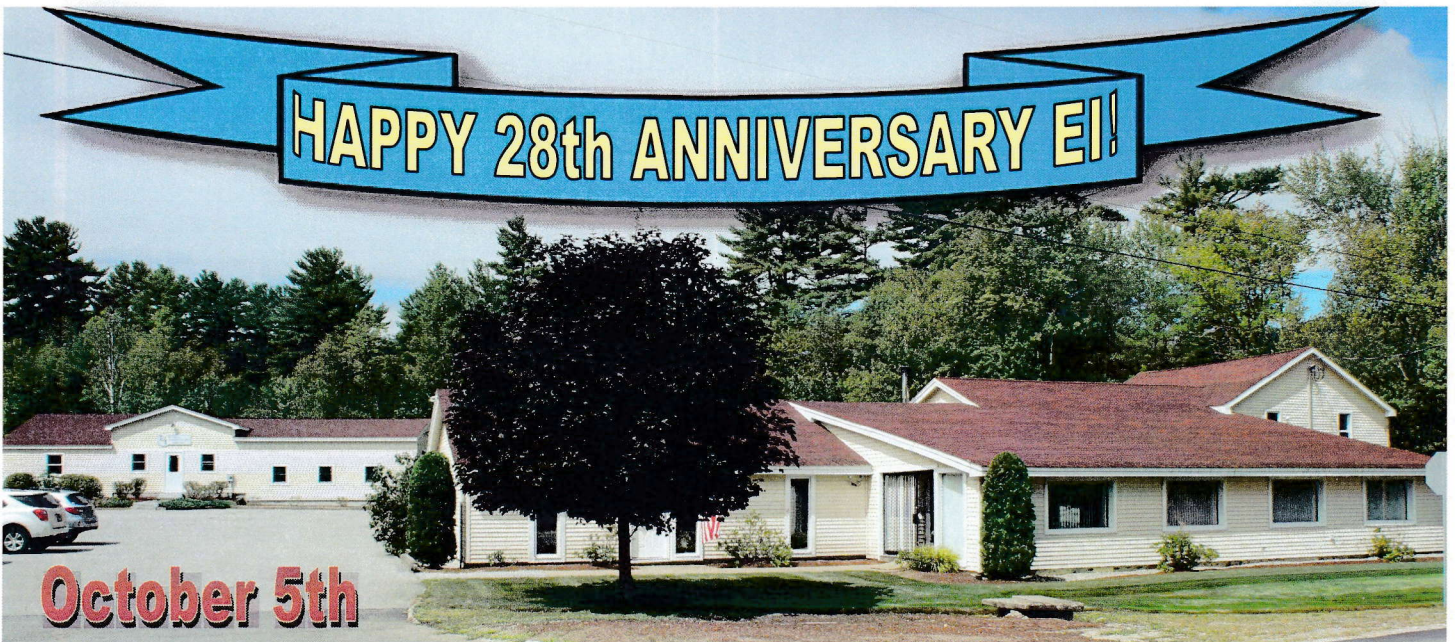
Flashing red means stop!



Alberta

# HAPPY 28th ANNIVERSARY EI!

## October 5th





Happy  
Thanksgiving

# The Conduit

Volume 12, Issue 6  
November & December 2015

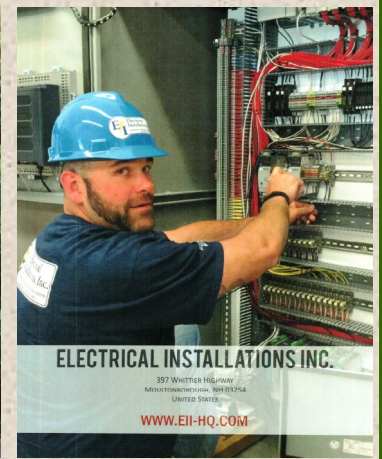
## NEWS & VIEWS OF ELECTRICAL INSTALLATIONS, INC.

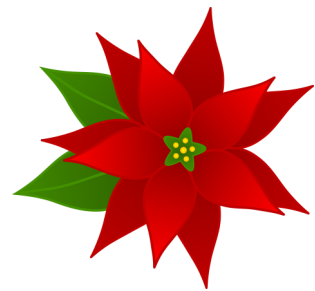
### US BUILDER'S REVIEW FEATURES ELECTRICAL INSTALLATIONS

Electrical Installations Inc. is honored to have been included as a premier feature in the Fall 2015 Edition of *US Builders Review*. Under the subtitle "turnkey automated electrical solutions since 1987", EI's background, and niche within the water and wastewater treatment industry, is adeptly described.

The 4-page article describes EI's inception as an industrial electrical contractor and eventual evolution into the high-tech field of automation within the water and wastewater treatment industry. The publication accurately credits EI's "strong team" for the company's success and longevity. "While the company continues to integrate innovative technology with quality service, Electrical Installations Inc. will continue to be a leader in water and wastewater automated systems," states *US Builders Review*. A digital version of the article can be viewed at <http://bit.ly/1G0Rrg1>. EI also received a custom digital brochure which is a magazine-format version of our article which will be a valuable marketing tool. Links to both the article and the brochure will be posted on EI's website.

Special thanks to our friends at Apex Construction, The Rowley Agency, and AutomaTech who placed ads, including congratulatory messages, which accompanied EI's feature article.





# EMPLOYEE SPOTLIGHT

**HAPPY BIRTHDAY**

11/2	Mike Leary
11/9	Neil Davis
11/14	Tom Brosious
11/26	Sam Kelley-Vail
12/20	Kim Souza



## Anniversaries

Sandra Ringelstein 17 Years

Craig Sharpe 6 Years

### Upcoming Projects

Bucksport, ME WWTP—Apex Construction, Inc.  
 Lewiston, ME WWTP—Penta Corp.  
 Lowell, MA WTP—Waterline Industries Corp.  
 Newmarket, NH WWTF—Apex Construction, Inc.  
 North Berwick, ME Pump Station—  
 North Berwick Sanitary District  
 Wilton, ME WWTP—Penta Corp.

**EI CHRISTMAS PARTY**  
 Saturday, December 12, 2015  
 6:00 PM—9:00 PM  
 Lemon Grass  
 64 Whittier Hwy  
 (Route 25)  
 Moultonboro, NH  
 RSVP 603-253-4525



### Charlie's Quality Corner

Tech Tips - Connections

99% of all power, control and instrumentation problems can be traced back to loose or improper connections. We sometimes see critical processes interrupted by poorly made connections. Some considerations are:

- The preferred method for terminating power cables is to use compression connectors. Always use a crimper listed for use with the connector and apply the properly rated cable to connector. Check the temperature rise of the connector to match or exceed the rating of the equipment.
- Be sure to strip enough insulation off control and instrumentation cable. Torque terminal strips to manufacturer's spec's.
- Avoid "bird caging" when terminating finely stranded control wires.
- Be sure to insulate splices and connections with listed insulating materials which meet or exceed the conductor insulation and temperature ratings.
- Allow for insulating over sharp edges and for vibration.
- When connecting instrumentation and control wiring to terminal blocks, strip conductors to the proper length to avoid tightening on to the conductor not the insulation.

Number of hours worked without a "Lost Time" Injury **249,651**

### Factoid of the Month



California, Oregon, Michigan, Washington, Wisconsin, Pennsylvania and North Carolina are the top Christmas tree producing states. The best selling trees are scotch pine, douglas fir, noble fir, fraser fir, Virginia pine, balsam fir and white pine.

