

# Did You Know?

Crain’s Chicago Business reported this month that “Superman: Man of Steel” will be filmed in the Chicago area over two or three months starting in August, and production will be centered in the Kendall County town of Plano. Warner Brothers recently hired EEI to provide river depth information for the technical planning of an action scene involving a school bus and the Fox River.

In addition to kicking off new projects and maintaining on-going ones, our members have been presenting at technical conferences on a variety of topical subjects. Here is a list of those presentations and conferences. Contact us if you want more information on a presentation at [info@eeiweb.com](mailto:info@eeiweb.com).

**Northwest Water Planning Alliance: A Fresh Approach to Water Planning**  
Center for Neighborhood Technology  
Peter Wallers, PE, CFM

**The ABC’s & 123’s of an I/I Reduction Plan**  
APWA Fox Valley Branch & UCA Joint Conference  
Jeff Freeman, PE, CFM, LEED AP

**Beyond LEED: A BMP Case Study for the Aurora Police Headquarters**  
ISPE, Salt Creek Chapter  
Bob Walker, PE, LEED AP

**Aurora Police Headquarters-Panel Presentation**  
AIA, Northeast Illinois Chapter  
Bob Walker, PE, LEED AP

**WATERCON 2011 ~ Illinois’ Largest Water and Wastewater Conference & Expo**

- Sustainable Water Works System Planning for a Sustainable City**  
Jeff Freeman, PE, CFM, LEED AP /  
Kyla Jacobson, Water Director, City of Elgin

- The Payback: Capitalizing on Your Water Loss**  
Michele Piotrowski, PE, LEED AP /  
Brad Sanderson, PE

- Nutrient Removal – Performance Optimization – Hampshire WWTF**  
Tim Farrell, PE / Steve Dennison, PE

# Enterprises Trivia Challenge

**Q:** In the classic board game of Monopoly, what is the least likely square to land on?

Send your answer to [eei@eeiweb.com](mailto:eei@eeiweb.com) or fax to **(630) 466-6701** by April 29, 2011 to be entered in a drawing for a \$50 American Express gift card!

## Summer 2010:

**Q:** What do the 4 stars on the Chicago flag represent?

**A:** Fort Dearborn; Chicago Fire; World’s Columbian Exposition (1893); Century of Progress Exposition (1933 World’s Fair)

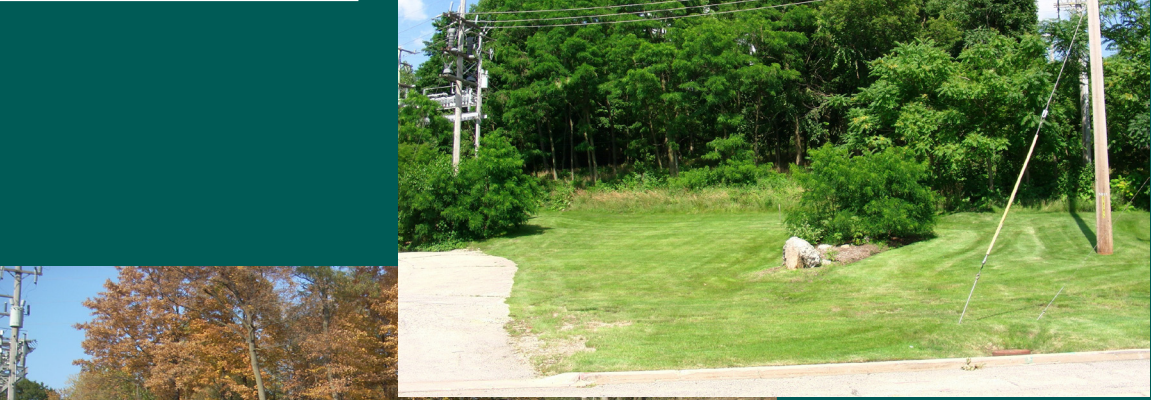


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Selected Site - Before Tie-Back Wall Construction



Selected Site - Near Completion of Tie-Back Wall Construction

# Tie-Back Wall Allows Water Treatment Plant Construction in Last Remaining Open Area

In 2009, the City of St. Charles partnered with EEI to advance a planned Water Treatment Plant (WTP) through design and construction. The new WTP was targeted to maximize the production potential from existing potable water Wells No. 3 and 4 by installing treatment components to provide regulatory compliant water to the Inner Service Area, which was previously receiving treated water via blending with water from the Outer Service Area.

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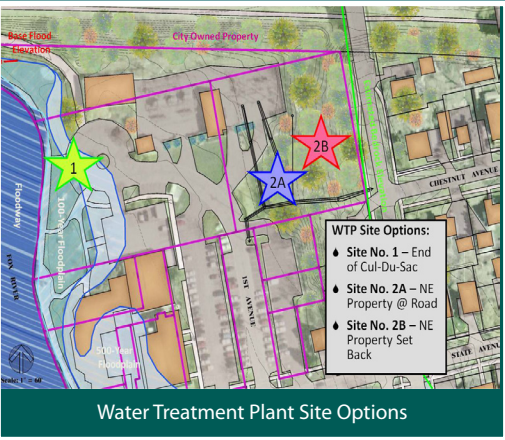
Spring 2011



# Tie-Back Wall Allows Water Treatment Plant Construction in Last Remaining Open Area Cont'd

Wells No. 3 and 4 are tucked into a congested section of the City's downtown Historic Preservation District adjacent to the Fox River. The land uses consist of retail centers, recreational amenities and City service facilities including City Hall, Fire, Police, Electric, to name a few. Only a small portion of this land was available for development, as the other areas had space limitations, floodplain constraints, and would result in the loss of valuable open space along the Fox River. Even so, the selected site had challenges of its own including the terrain and geological conditions given the profile of bedrock that was prevalent in this area.

Constructing a building on a wooded property with more than 40-feet of topographical relief and restrictive property boundaries creates challenges that push the limits of conventional foundation and retaining wall engineering and commands an original, creative solution. Execution of a project of this magnitude requires a team with specialized skills and experience, combining traditional foundation design and construction with specialty expertise in soil mechanics and geo-structural engineering.



EEL teamed with McCleary Engineering to respond to the challenge and identified a Tie-Back Wall as the cost-effective solution to the special needs of this project. A Tie-Back Wall is an advanced retaining wall which uses Soldier Beams in conjunction with Lagging and Grouted Tieback Anchors in the soil around the wall to form an earth retention system. The Tie-Back Wall accounted for soil characteristics, bedrock profile, and WTP process hydraulics; and it was designed to keep all the materials of construction for the wall and the WTP building within the strict property boundaries.

The Tie-Back Wall was constructed between August and October, 2010 by Thatcher Foundations, Inc., serving as a subcontractor to EVS Construction Company. It includes 31 Soldier Beams and 33 Grouted Tieback Anchors, as well as Whalers and Treated Timber Lagging for a complete Tie-Back Wall system. The wall allowed for the ongoing construction and future use of the WTP, which is scheduled for completion in August 2011. The Tie-Back Wall represents the product of combining a unique blend of effective community leadership with ingenuity, know-how and elbow grease that characterize EEL's hallmark approach to developing original project solutions that result in successful project outcomes.

To learn more about this innovative approach to conventional foundation and retaining wall engineering, contact Tim Farrell, Senior Project Manager at (630) 466-6700 or tfarrell@eeiweb.com.



Drilling and Setting of Solider Piles



Tie Back Anchor Construction

## CCDD: Current Regulations Overview

CCDD. Prior to July 30, 2010, many of us didn't know what those four letters stood for. Fast forward 10 months and every engineer, municipality and contractor involved in a construction project resulting in material disposal is all too familiar with the term CCDD.

On July 30, 2010, the IEPA helped pass Public Act 96-1416 into law. Under the new CCDD law, owners and operators of CCDD and uncontaminated soil fill operations (USFO) receiving facilities are subject to new operating requirements. One of the biggest changes resulting from the new CCDD law is that a USFO, which was previously unregulated, is now required to adhere to the following provisions for all uncontaminated soil passing through the gates of their facility:

- Obtain for all soil a certification from the owner of the site of origin (i.e., municipality) that the soil is presumed to be uncontaminated, or certification from a licensed professional engineer (PE) that the soil is uncontaminated. Chemical analysis from an accredited laboratory is generally required to accompany the PE certification.
- Visually screen each load of soil with a device such as photo ionization detector (PID) or another device approved by the IEPA that detects volatile organic compounds and notify IEPA of any rejected load.

The new law also requires CCDD facilities to assess a tipping fee. While the fee is not mandatory for USFO facilities, many are establishing or raising existing fees in order to cover the costs of complying with the new regulations. Between the tipping fees and the cost associated with soil certification/lab analysis, project owners are seeing increased construction costs.

The new CCDD law is currently in the rule making process. The IEPA must file the proposed rules with the Illinois Pollution Control Board not later than July 30, 2011. The rules will become final regulation upon adoption by the Board no later than July 30, 2012.

The comment period for the current draft rules is closed. However, revised draft rules will be released mid to late April with comments from stakeholder groups due May 12, 2011. If you would like to provide comments for consideration, the IEPA advises that individuals work through their respective professional organizations.

Information regarding the CCDD law, specifically a copy of the current draft rules, can be found at <http://www.epa.state.il.us/land/ccdd/index.html>.

For more information contact Julie Morrison, Project Manager at (630) 466-6700 or [jmorrison@eeiweb.com](mailto:jmorrison@eeiweb.com).