



*Eastern New York Chapter*  
of the  
**ASSOCIATION FOR  
BRIDGE CONSTRUCTION AND DESIGN**

**NEWSLETTER**

**FEBRUARY 2004**

**VOLUME 10**

**NO. 2**

***PRESIDENT'S MESSAGE***

I'd like to wish our members a Happy New Year and thank everyone who participated in putting together a great fall program. With three dinner meetings and the Local Bridge Conference on our schedule it certainly was a busy start to our program year. Our November dinner meeting featuring three NYSDOT presentations attracted nearly 80 people and confirmed our belief that quality presentations will be well attended.

Our 2004 calendar of events started with the annual Future City Competition, which was held at the RPI Student Union on January 10<sup>th</sup>. Twelve schools competed this year and the Eastern New York Chapter of ABCD once again sponsored a first and second prize cash award for the "Best Design and Construction of a Bridge in a Future City Model." Thanks again to our member firms that donated a wide variety of prizes for the top two teams. My thanks as well to representatives from ABCD including Dan Rogers, Erik Thorkildsen, Laura Konieczny, and Megan Allaire who took the time to judge the model bridges.

On Thursday, February 19<sup>th</sup>, ABCD will be sponsoring four presentations in conjunction with the Capital District's celebration of National Engineer's Week. Members looking for interesting opportunities for continuing education please note that CPC credits will be available for the ABCD morning sessions - so sign up today. ABCD will also be supporting the model bridge competition and our members are encouraged to stop by and lend a hand with the judging or just talk to the students about your experiences with bridges.

We are currently planning a mid-March training seminar as well as a mid-April breakfast meeting. Details for these two meetings should be available shortly and will be posted on the website ([www.abcdeny.org](http://www.abcdeny.org)). If you haven't submitted your Education Committee Survey to Jim Stevens, please do so at your earliest convenience. The survey form is available on our website under "Forms and Surveys." Our May dinner meeting will be held at the Century House in Latham on May 11, featuring Dr. Ettouney, who will present a program titled "Progressive Failure of Bridges". The last event of the 2003-2004 program year will be our annual meeting of the members on Friday, June 11<sup>th</sup>. Since this year will mark the tenth anniversary of the Eastern New York Chapter of ABCD, the Board of Directors, in conjunction with the History Committee, will be preparing a commemorative display to be unveiled at Annual Meeting of the General Membership. We will also be presenting the Annual Bridge Award at this meeting so don't forget to send your nominations to Dave Santos no later than May 14<sup>th</sup>.

As a reminder, this year will be the last program year (2003-2004) that there will be a blanket mailing of the newsletter to the membership. All newsletters are now posted on our website and e-mail reminders will be sent when the latest newsletter is available. Next year we will only send hard copies to members without access to the Internet or e-mail. We are still planning to conduct our annual elections via a website ballot this year if possible. Details for the annual elections will be posted on the website. Please send your comments for improvements to the website to our Webmaster at [megan.allaire@earthtech.com](mailto:megan.allaire@earthtech.com) so we can make the site more useful and informative.

I look forward to seeing you all at upcoming chapter meetings and events.

Regards,

*Thomas Casano*

# Herrick Street over Amtrak Railroad Tracks

City of Rensselaer, Rensselaer County

## *Owner*

Capital District Transportation Authority

## *Designer*

Architect: Stracher, Roth, Gilmore Architects

Engineer: Ryan-Biggs Associates, P.C.

## *Contractor*

James H. Maloy, Inc.

## *Precast Supplier*

J.P. Carrara & Sons, Inc.

## *Construction Cost*

Approximately \$4,500,000

This project consisted of an 80 m long bridge and 128 m long approach road to improve traffic flow to the new Albany-Rensselaer Train Station from an access road on the other side of five railroad tracks. The project was completed in 2002.

The approach rises more than 7.5 m to provide clearance over the railroad. Segmental retaining walls were used to fit the embankment within the limited right-of-way. A precast, three-sided tunnel through the approach accommodated an existing roadway across the right-of-way. Both lightweight and normal-weight fill were used in the embankment to ensure uniform settlement of the underlying 18 m of compressible clay and miscellaneous fills.

The bridge substructures consists of a reinforced concrete cantilever abutment and four multicolumn piers. The two piers located within the station platforms include crash walls and integral supports for the platform decks. Inset cast stone and brick were used on the substructures to blend the bridge with the architecture of the adjacent train station.

Adjacent 685 mm deep, prestressed concrete box beams with spans ranging from 14 m to 21 m compose the superstructure. These shallow beams provide at least 6.7 m clearance over the railroad tracks. "Texas"-style concrete barriers satisfied railroad requirements for a concrete barrier without the heavy appearance of a solid barrier along the sidewalk.

*Louis Hutter, Ryan-Biggs Associates*



## Future City Competition – January 10<sup>th</sup>, 2004

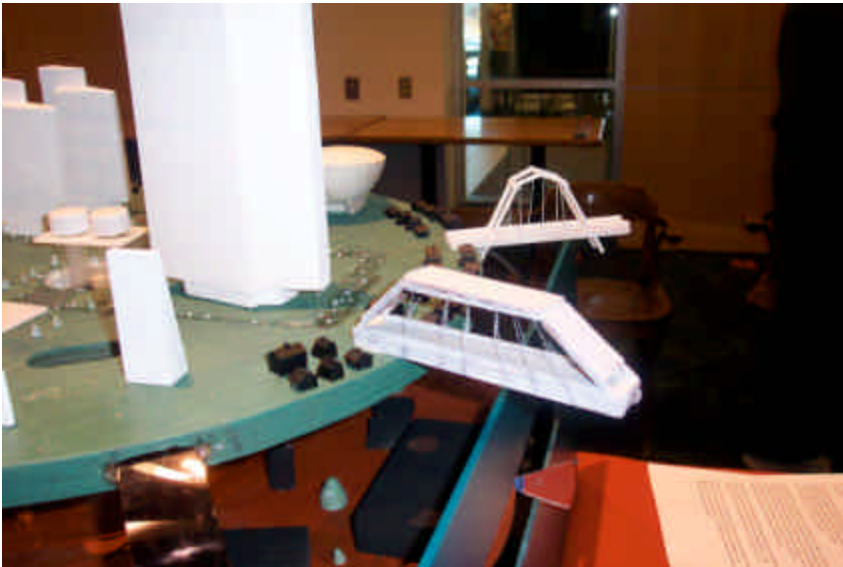
The National Engineers Week Future City Competition™ each year invites middle school students nationwide to create cities of tomorrow. The competition encourages interest in math, science and engineering through hands-on applications. This year's challenge includes improving the lives of senior citizens using plastics.

The Albany/Capital District regional competition was held on January 10th at the RPI Student Union. First place winners will join teams from 35 other regions for an all-expense-paid trip to national finals in Washington, D.C., during National Engineers Week, February 22-28, 2004. Grand prize is a trip to U.S. Space Camp in Huntsville, Alabama.

2004 marked the third year of the *Future City Competition* in the Capital District and the 12th year nationally. The children worked hard from September to January, planning, designing and constructing their future cities. They also wrote essays about their cities' design and engineering features, and made presentations to a team of judges at the RPI Student Union on January 10th.

Overall the competition was a huge success thanks to the many volunteers, mentors, teachers and sponsors who donated their time, money and teaching/mentoring skills. This year ABCD presented two prizes for "Outstanding Design and Construction of a Bridge in a Future City Model." First place consisted of a \$50 monetary award presented to the winning school and a duffel bag of engineering/construction related prizes for the students and their teacher. Second place included a similar giveaway along with a \$25 award to offset the cost of the materials used in their future city model.

Although many teams had notable bridges, W.K. Doyle Middle School stood-out with an impressive truss bridge made with wooden craft sticks, and won the first place prize.



Second place was awarded to Maple Hill Middle School, whose model featured two unique cable-supported bridges.

*Megan Allaire, Earthtech*

*Editors Note:* We are seeking engineering stories for this publication. Special thanks to Jordi Parisian and Maggie for putting this newsletter together.



## 2003 - 2004 BRIDGE AWARD PROGRAM

The Eastern New York Chapter of the Association for Bridge Construction and Design proudly announces its 2004 Bridge Award. The Association's Board of Directors has established this award as a way to recognize and honor the people responsible for designing and constructing outstanding bridge projects. By way of this announcement the Board is soliciting nominations for bridge projects that exemplify the best our industry has to offer. The Board will evaluate all nominations and select a winner. The project selected will be announced at our Annual Meeting of the General Membership in June. The meeting will include a short presentation on the winning project and the presentation of awards to the project's owner, designer and contractor.

The Board of Directors hereby solicits nominations from the membership for the following award :

### **New or rehabilitated structure in eastern New York opened in calendar year 2003.**

(Please note: It is highly recommended that all submissions be submitted electronically in a pdf format. If this is not possible, mailed submissions will be accepted).

Please include the following information with your nomination:

1. A written description of the project. This description should state the reason for the project's nomination and include location, feature carried, feature crossed, the name of the owner, the designer, the general contractor, the EIC, key suppliers (steel, precast, etc.) and key subcontractors (if applicable). Be sure to include information on any unique aspects of the project such as the use of innovative design or construction techniques or materials. The written description should be no longer than one page.
2. Two or more representing photographs.

Nominations should be received no later than May 14th, 2004. If you have any questions, please call Dave Santos at 518-664-9855. Please send your nominations to the address listed below.

dsantos@dacollins.com

or

Dave Santos

D.A. Collins Construction Co., Inc.

P.O. Box 191

Mechanicville, NY 12118

## ABCD Profile Questions

John Brizzell is the Deputy Executive Director and Chief Engineer of the NYS Thruway Authority:

1. From what University did you acquire your engineering degree?

A. I have an Associates' Degree from Hudson Valley Community College, and a Bachelors' Degree from Rensselaer Polytechnic Institute. In addition, I have taken postgraduate courses in Technical, Management and Public Administration fields at various universities (RPI, Cornell, SUNY Albany and Indiana).

2. How long have you worked for your current employer?

A. I have been with the New York State Thruway Authority nearly four years. Prior to that, I completed nearly 27 years with NYS DOT in a variety of Construction, Design and Management positions.

3. Any memorable bridge projects over your career that you would like to mention?

A. The 'big bridge' project in my personal background is an assignment as EIC on the Hullett Street (or Cotton Factory Hollow) bridge over I-890 in Schenectady County. Currently, the oversight of the Tappan Zee corridor study is a huge and exciting project.

What I consider more significant are the innovations and improvements to bridge design, construction and performance with which I have been associated. This includes the earliest use of precast box culverts (on I-88), use of precast deck panels in bridge rehabilitation (Niska-Isle Bridge and 126<sup>th</sup> Street Bridge), and adoption of "Inverset" superstructures on NYS bridges. Improvements made through the "Bridge Deck" task force include stiffer superstructures, HP concrete, and a focus on construction practices.

4. What influenced you to become a bridge engineer?

A. I don't consider myself so much a 'bridge' engineer as a 'transportation' engineer. And, bridges are a major component in our transportation system. I was drawn to transportation engineering through a desire to build and improve the physical world in which we live. My early objective was to be involved with projects from concept to completion of construction. This has been accomplished many times over.



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*John Brizzell interview, continued:*

5. What do you see as the biggest change in bridge engineering over the last ten years?

A. The biggest change in recent years has been the expanded use of prefabricated components. These have helped to contain the cost of construction and reduced the impacts of construction on the traveling public.

6. How about the next ten?

A. We need to address issues of vulnerability in our structures, as they are components of a larger transportation system. This may involve considering redundancy of systems in much the same manner that we have addressed redundancy on structural components. I also expect there will be a continued application of new and innovative materials expanding our limits and adding to our 'tool chest' of solutions. And, in an already congested environment, we will need to continue to develop innovative products and methods to reduce the impact of bridgework on our customers.

7. Any special hobbies/interests outside of bridge engineering?

A. As mentioned above, my career has been in the broader field of transportation engineering and management. In that context, I am interested in integration and application of various specialties of engineering practice to provide reliable, quality service to our transportation customers.

Outside of work, I have always placed the highest priority on my family. I have been, and continue to be involved in community service (34 years as an active Volunteer Fireman). And, I enjoy participating in "low impact" sports like golf and bowling.

*Thomas Cascino and Scott Davis*

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## Replacement of Middle Line Road over Kayaderosseras Creek Town of Milton, Saratoga County



**Owner:** Saratoga County  
**Designer:** Prime Consultant: Ryan-Biggs Associates  
Subconsultant: The LA Group, PC

**Contractor:** Harrison & Burrowes Bridge Constructors, Inc.

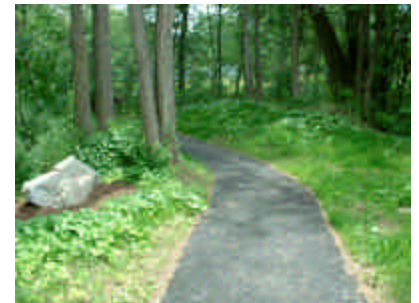
**Precast Supplier:** J.P. Carrara & Sons, Inc.

**Construction Cost:** \$900,000

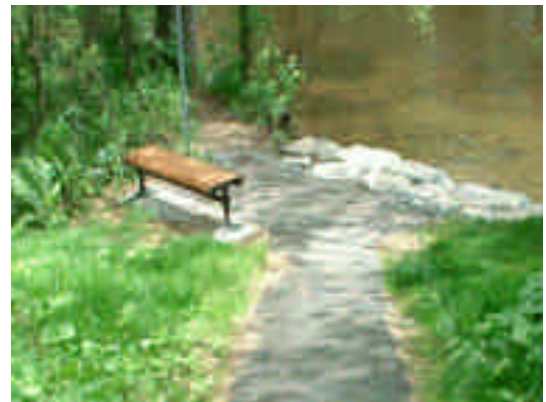
This project involved the complete replacement of an existing two-span bridge with a single-span bridge on the same alignment. The work was completed in 2002.

The superstructure has a span length of 26.2 meters and consists of nine 990 mm-deep prestressed concrete box beams with a 150 mm thick composite concrete bridge deck. The superstructure is supported on concrete abutments founded on 610 mm diameter drilled shafts; exposed surfaces of the abutments were constructed with concrete formliners. At the request of the NYS Department of Environmental Conservation, riprap stream deflectors were installed upstream of the bridge to channelize the Kayaderosseras Creek during periods of low flow, aiding fish propagation by reducing siltation at the bridge.

An entire parcel of land was acquired to improve both the geometry of the roadway intersection and sight distances immediately north of the bridge. An abandoned house was removed and



replaced with a small park with nine parking spaces. An ADA-compliant trail was constructed from the parking area to a small landing at the edge of the water downstream of the bridge, affording recreationalists easy



access to one of the best trout streams in the Capital District.

*Mark Kanonik, Ryan-Biggs Associates*



[www.abcdeny.org](http://www.abcdeny.org)

## 2003-2004 Key Contacts

### Board of Directors

<b>Name</b>	<b>Position</b>	<b>Representing</b>	<b>Phone</b>	<b>email</b>
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Mark Olstad	Treasurer	Consultant	453-3957	<a href="mailto:molstad@cha-llp.com">molstad@cha-llp.com</a>
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David Wan	Board Member	Supplier	767-2269 x205	<a href="mailto:david.wan@oldcastleprecast.com">david.wan@oldcastleprecast.com</a>

### Committee Chairs

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Program	Robert Canham	272-6266 x341	<a href="mailto:rcanham@ryanbiggs.com">rcanham@ryanbiggs.com</a>
Membership	John Walsh	792-5864	<a href="mailto:jwalsh@dacollins.com">jwalsh@dacollins.com</a>
Nominating	Todd Brewer	438-3976	<a href="mailto:jbrewer@cserv.net">jbrewer@cserv.net</a>
Newsletter	Scott Davis	453-4764	<a href="mailto:sdavis@cha-llp.com">sdavis@cha-llp.com</a>
Education	Jim Stevens	453-9431 x225	<a href="mailto:j_stevens@gpinet.com">j_stevens@gpinet.com</a>
Public Relations	Dominick Izzo	294-9964	<a href="mailto:dominick.izzo@lancasterdevelopment.com">dominick.izzo@lancasterdevelopment.com</a>
History	Frank Naret	485-1386	<a href="mailto:fnaret@dot.state.ny.us">fnaret@dot.state.ny.us</a>



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