



Headlines

VOLUME 3

ISSUE 14

JANUARY 2004

NEW JOBS

Job #2294 - Computer Networking Services

Client: SK Custom Creations

PM: IMR

Job #2295- SAFECO Field Roof Rehabilitation

Client: Seattle Mariners

PM: TAD

Job #2296- Grand Concourse Bridge

Client: New York City Dept. of Transportation

PM: MSH

Job #2297- Term Agreement for 2004-2005 Biennial Bridge

Client: New York State Thruway Authority

PM: JFP

Job #2298- Rehabilitation of Pennington Avenue Bridge

Client: City of Baltimore

PM:SAR

NEW FIELD OFFICE LOCATION

The field office for the Honeywell Street and Queens Blvd. Bridges has been relocated. The new address and telephone numbers are:

NYCDOT Field Office
66-00 Long Island Expressway
Service Road, Suite 304
Maspeth, NY 11378

Tel: 718.779.7047, 718.779.7092
Fax: 718.779.7134

Feature Story: The Galveston Railway Causeway Lift Bridge (Part 2 of 2) by Jeff Routson

TIPS ON LANDING THE JOB

IDENTIFY A PROJECT EARLY

There is an old adage—if you first learn about a project when it is advertised, then you are wasting your time if you pursue it. The goal should be *“learn about a project, as far in advance as possible, prior to the RFP being issued.”* The earlier you learn about an upcoming project, the better your chances are of winning it. As mentioned in Part 1 of my article, by staying in touch with many resources, we became aware that the USCG intended to widen the Intracoastal Waterway Channel through the causeways, from 109ft to 300ft. In particular, Steve Lowry—formerly with Hardesty & Hanover in the Norfolk, Virginia office, and now with PBS&J in Houston—kept us apprised of the local news developments related to the new highway bridge and the railway causeway. PBS&J was hired by the Texas DOT to complete the environmental documentation for the new highway bridge. Therefore, PBS&J was in a unique position to know what was happening at Galveston at the earliest possible time.

TEAMING

After a project has been chosen by H&H to pursue, it is imperative to quickly develop a team. Early on, assemble the most highly qualified and project appropriate subconsultants for our team, and secure commitments from them that they will be on our team, exclusively.

Steve Lowry was instrumental in helping us assemble our team. Due to the involvement of PBS&J with the adjacent highway bridge, the involvement of Jeff Routson in the design of the existing bridge, and Hardesty & Hanover’s unmatched expertise in vertical-lift bridge engineering, the basic teaming of H&H and PBS&J was obvious. Steve was also invaluable in bringing other key

subconsultants onto our team. He identified firms and individuals with ties to the project site and/or the BNSF. They include: Professional Service Industries, who performed the geotechnical investigation for the highway bridge; Robert Page, who designed the existing railway signal system on the causeway; and Hanson-Wilson, who is highly experienced in track design and on the BNSF's prequalified list.

FACT-FINDING AND INTRODUCTIONS

It is extremely important to learn as much as possible about the project, the client and other stake-holders. It is imperative that data be obtained on the existing or related facility. In this particular case, we were at an advantage—we had a complete set of drawings, specifications and other related documents for the existing bridge. We also had access to the environmental documents for the new highway bridge.

It is always easier for a client to hire consultants familiar to them and with whom they are comfortable, rather than strangers. On numerous occasions, we met with the County Engineer to introduce ourselves, express our interest in the project, and ascertain the County's perspective and their concerns about the project. We met with the County Judge, who is the chief executive of the County. We met with the BNSF project manager. Moreover, since PBS&J was our local agent, PBS&J arranged additional meetings with the County Judge; County Engineer and the other County commissioners; the Director of Public Works for the City of Galveston; the Manager of the Port of Galveston; the Texas SHPO; and others.

In addition to the USCG, the County and the BNSF, there are other key stakeholders



CONGRATULATIONS & ANNOUNCEMENTS

Congratulations to Kristy Ramos (NY), engaged on Christmas Day to John Carter.

Congratulations to Chih-Sheng Aw-Yong, (NY) who passed the Fundamentals of Engineering (FE) exam on October 25, 2003.

Congratulations to the following individuals who recently passed their PE exam.

- Greg Bula (NY)
- Jose Ruiz (NY)
- Rafael DeSoto (NY)
- Bojourka Fuller (VA)
- Doug Neely (MD)

H&H Announces 2 New Partners!

Timothy J. Noles, PE - Florida Office

Glen E. Schetelich, PE - Hoboken Office

2004 PROMOTIONS

Congratulations to the following H&H employees on their recent promotions!

Khaled M. Mahmoud, PhD, PE
PRINCIPAL ASSOCIATE

Bhaskar M. Gusani, PE
ASSOCIATE

David S. Tuckman, PE
ASSOCIATE

Stephen Mikucki, PE
DIRECTOR MECHANICAL
ENGINEERING

John Pizzi, PE
DIRECTOR GEOTECHNICAL
ENGINEERING

Anna Volynskaya
CONTROLLER

A Special Congratulations to Anna by Anthony Coppola

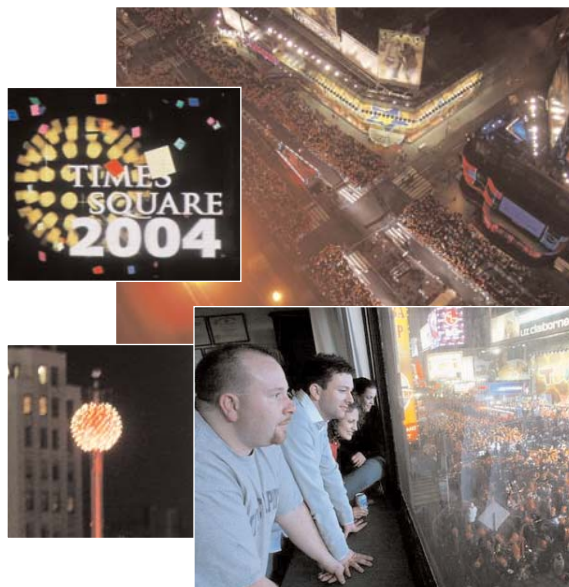
Six years ago, Anna Volynskaya moved to the United States from the former Soviet Union with her husband and son; she came to this country not yet having a job, and not yet speaking the language. Anna hit the ground running, and a year later joined Hardesty & Hanover as a billing clerk on the Accounting staff.

True to her nature, Anna was dedicated to every aspect of her job: she learned the nuances of our industry in general—and our projects in particular—through invoice preparation. Anna went further by analyzing the billing requirements of our clients to establish standards for each; this allowed the department to design an invoice template for new clients, and adapt easily to changing requirements of existing clients. The results of her early efforts, while subtle to most, have a profound impact on our ability to submit and collect invoices quickly and efficiently—approximately ten days below the industry average.

With increased experience came increased responsibility, evidenced by her promotion to Assistant Controller. That position afforded Anna even more exposure within the firm: professionally, she worked on project accounting reporting mechanisms, monitoring the firm's backlog and helping Project Managers control their budgets; personally, she continued to earn her Masters degree in Finance. Anna's aptitude, experience, and sheer commitment made her the obvious candidate for Acting Controller after the department reorganized in April, a position she ably filled. In the last nine months, Anna has managed the firm's finances while continuing to work toward gains in efficiency and playing an integral role in the implementation of Vision.

As of January 1, 2004, Anna will again be promoted—this time assuming the full responsibilities of Controller for Hardesty & Hanover. Working from Clerk to Controller in five years, while learning a new language and culture, earning a Masters degree, and raising a family requires steadfast discipline and unwavering commitment. She is a valuable asset to the firm, and a pleasure to work with. Sincere congratulations go out to Anna on this highly significant accomplishment.

Ring in the New Year Celebrating the Start of 2004 in Times Square



A number of H&H employees once again rang in the New Year in one of the most celebrated and famous parties from around the world! With over 750,000 people estimated to have filled the streets below, employees and guests of 1501 Broadway had a perfect view of the festivities and entertainment, including performances by Cyndi Lauper and chances to win Ben Stein's money!

that include Gulf Coast Water Authority, which has two large-diameter water mains on the causeway, and CenterPoint Energy, which has two, high-voltage power lines running along the causeway. We met with representatives from both agencies to introduce ourselves, obtain any information we could and express our dedication to addressing their needs and desires as much as possible in our design efforts.

STATEMENT OF QUALIFICATIONS

Too often, the team's goal while preparing an SOQ, i.e., proposal, is to become short-listed. The goal must always be *"convince the client that the H&H Team is the best qualified team to perform the work!"* If our SOQ is ranked anywhere other than 1st, then the odds of H&H ultimately winning the project are greatly reduced.

The SOQ must propose staff members that are most suited to the project--considering not only technical ability, but also availability. Moreover, most clients want to know who will be designated task leaders on their project.

Always address the engineering approach and/or proposed concept(s) in preparation of an SOQ. For the Galveston project, we considered alternatives for alignment and structure type over a year ago. We made time available to evaluate those alternatives, identify the pros and cons, and develop concept drawings. Our preparation not only provided useful information included in the SOQ, but equally as important, forced us to become deeply familiar with various aspects of the project. This familiarity is invaluable as the time approaches to prepare the SOQ and make an oral presentation.

The SOQ must be well organized, concise, and written using proper grammar and spelling. If a lack of quality control is apparent in an SOQ that will probably be the overall message the client remembers--quality would be lacking in the execution of the project as well. The final document needs to be checked and rechecked for spelling and punctuation errors, as well as for wording that does not clearly convey the intent of the author. The SOQ must specifically address each item that is requested in the solicitation.

INTERVIEW

Preparation is the key to a winning interview. Although most of the team's efforts have been expended by this point, it is unlikely that the interview materials (PowerPoint, boards, etc.) have been prepared. Typically, during the interview several key points must be addressed: include the team members (firms and individuals) and what they bring to the project; demonstrate an understanding of the major tasks and how they may impact the overall project; state the key con-

cept(s); and cite the schedule and budget.

Our team started with an outline for the presentation. It was reviewed by key team members and edited multiple times. After the outline was deemed acceptable, we prepared a draft for the PowerPoint presentation, which was subsequently turned over to Dan Beldowicz who then fashioned it for us to ultimately refine. After Dan worked his magic, the team continued to add, delete and re-sequence slides to make it the best presentation possible. This editing continued through the last rehearsal. The presentation included many relevant photos--those of the specific project site along with some of similar projects.

The interview should highlight expertise and experience that our team can bring to the project that other teams cannot. In this case, our vast experience at the site was the winning edge. H&H's designated project manager was the project manager and lead structural engineer for the design of the existing bascule. Two of our sub-

consultants have been involved with the adjacent highway bridge and will perform the same functions for the railway project as they did for the highway bridge. It was evident that our team brought more innovation to the project than the other teams, and it was not innovation for the sake of innovation, but to offer a more cost-effective project approach to the client.

For this presentation, we made extensive use of renderings, largely by Keith Griesing and

Dave Tuckman. In addition to the customary rendering of the proposed bridge, renderings were made of several areas to assist us in clarifying the issues we were verbally depicting. These renderings were a very important part of our presentation. We have an excellent ability to develop renderings. The challenge in the future will be to decide on how best to make use of this ability. It is also important to begin the rendering process early. Where it is appropriate, it may also be desirable to include renderings in the SOQ.

After the preparation is complete, the presenters should have a rehearsal, preferably for others who are not active participants and not deeply involved with the SOQ. This is important for a number of reasons. Presenters are so familiar with the points they are making that they have a tendency to presume that the points will also be clearly understood by the listeners. And that is not always true. A mock audience will help identify the points that need clarification. The presenters' timing needs to be monitored since most interviews have time limitations. Bugs need to be identified and worked out because, most often, they are not obvious until the presentation is rehearsed. If the Team has properly prepared up to this point, the interview itself should flow smoothly.



Galveston Bridge Rendering

The intent of this series is to explain the Technical Illustration (TI) process so illustrations can be produced that meet our desired expectations and clearly communicate our ideas. Typical concerns for our consideration include budget and deadlines within the department, and the quality and effectiveness of the media itself. The previous *Headlines* article on Technical Illustration served as an introduction to the craft, as an explanation for the necessity of this media in today's corporate world, and as an orientation to the variety of Technical Illustration options available. Today's article serves as a guide for the TI process, and lists the information needed to produce illustrations.

The TI process constitutes a small percentage in the project's overall design process, but it is an important component. The TI process can begin during any stage of the project's design process. The level of effort required to produce an illustration varies, depending upon the stage in which it is produced. For example, producing illustrations during the concept stage of a project requires more interaction with project team members than producing illustrations once the final design of a project is complete. Illustrations developed "early on" offer assistance in the development of a concept, where those developed after the design is completed portray the engineered solution. Regardless of when illustrations are produced, the TI process seems to follow the same routine—information gathering, model development, scene creation, pre-final rendering and final rendering.

Gathering Information for an illustration can be as detailed or abstract as conditions permit. An illustration can be produced from either verbal instructions or sketches just as easily as it can be produced from a final set of plans. At this stage, all of the available information about a project's composition should be discussed among the team members. Items to be covered are the specific ideas to be communicated, the purpose of the illustration, camera orientation, color scheme, architectural elements and any other specific needs.

Developing the Model begins when there is enough information available to produce any element of the model. For example, the piers and fascia girders of a bridge may be ready to model even when the profile and baseline are still in question. When the model is complete, a preliminary rendering is produced for review and approval.

Creating the Scene is the stage of the illustration process in which the camera orientation is determined, along with lighting and solar position. The materials and colors for the project are obtained from libraries or created. Additional elements necessary to complete the scene are added—sky, water, plants, automobiles, ships, etc.

The **Pre-Final Rendering** is a low-resolution image developed for review. This stage allows for the verification of colors, materials, lighting, solar position, camera orientation, image cropping and other elements that make up the scene.

The **Final Rendering** is produced after the comments from the preliminary review are incorporated. This stage includes post-production touch-up work, such as adding a watercolor effect, inserting the Hardesty & Hanover logo, or placing an existing inset photo on the rendering. The illustration will receive one last quality control review before it is delivered in the desired media format.

Understanding the type of information required to produce an illustration, is essential to ensure that the finished product meets the needs and expectations of the project team. Items that should be considered are the project details, the type of illustration and media format.

Project Details include plans, elevation and engineering information used to depict the project; however, in many cases these items are not available at the time an illustration is produced. The minimal amount of information needed to produce an illustration includes the baseline, profile, roadway cross section, pier locations, pier types, special girder types, color scheme and material types. Prior to creating the model, additional items for consideration are the architectural features of the project and the use

of existing images in the illustration; specifically, if the illustration is going to be a photo modification.

The **Type of Illustration** that is selected affects the creation of the model. In the previous article, each type of illustration was introduced—renderings, photograph modification, architectural collage and animation. Determining the type desired prior to starting the TI process ensures the proper model, lighting, materials and environment are used. In addition, this will ensure an appropriate amount of time is allocated for creating the illustration itself.

The **Media format** is the final product of the TI process. Determining the best media format for a project depends on how the illustration itself will be used. Will the illustration be used as a PowerPoint slide, a prop, a leave-behind or a website graphic? Available types of format include digital images, large-format printing, color printer media and photographic media. While renderings, photograph modifications and architectural collages can be displayed as digital images or printed media, an animation can only be viewed in a video format. Video formats comprise computer media, online/streaming media, videotape and DVD.

In the next issue of *HE&H Headlines*, delivery methods will be presented, techniques explained, and future uses of Technical Illustrations, included.

DEFINITIONS:

Scene - the collection of all individual parts that make up a rendering or animation.

Resolution - describes the quality of an image in dots per inch (DPI) or number of pixels. Low resolution denotes a low quality image and high resolution denotes a high quality image.

Solar Position - in 3D scene creation, the position of the sun is calculated from the global geographic location of the project, time and date. This can also be used to perform solar studies in relation to a project.

Existing Inset Photo - often a smaller existing image of the project site is placed on an image to provide a before and after effect.

New Hires

Welcome to H&H

MELANIE SOTO-MEDINA

STRUCTURAL ENGINEER

LI Office

10/20/03

Melanie graduated from Drexel University in PA in June '03 and worked briefly for CSA Group in Philly (4 months) when she decided to relocate to Long Island. Melanie spends her spare time with her two kids - Ricardo and Aurelia.

RAPHAEL CROWLEY

INTERN

CT Office

1/5/2004

No bio available.

KEVIN CROWLEY

INTERN

NY Office

1/1/2004

Kevin is a newly hired intern currently in his 2nd year at Stevens Institute of Technology. He is a double-major in Electrical Engineering and Computer Engineering. Kevin grew up in Milford, CT and now resides in Hoboken, NJ for the duration of his schooling. This is his first technical job, and he is very excited to be working and learning at H&H.

Marketing Minute: H&H's 2004 Calendar

John Zuccerella

I would like to take this opportunity to thank everyone who was involved in the development of this year's H&H Calendar. Your efforts have been well received by our clients! As most of you may or may not know, the theme for this year's calendar was based on projects H&H designed or has significant long-term work on. We were faced with the challenge of finding twelve existing images in our files that represent our firm, and ones that were not used in last year's calendar. I believe that given the limited number of images currently in-house, Kate's design was not only artistic, but also functional.



Next year, the calendar theme will encompass all of the services that H&H offers, and will hopefully represent each of our offices fully. This marketing approach will allow us to select from a newer, more diverse portfolio of photos, and ensure that each office will be included.

This month's marketing minute serves as an invitation to each H&H office to provide a list of regional projects that should be considered for the 2005 calendar, though we are well in advance of producing next year's calendar, an ongoing list through the year will be extremely valuable. Please forward to Kate Mazejka your suggestions along with accompanying project photos if available (high resolution digital images or *original* photographic hard copies only). Should a notable project need to be photographed, please contact me. I will contact our photographer and coordinate a photo shoot.

Thanks again for your comments and have a great 2004!



EVENTS

Feb. 9-11, 2004

Fourth National Seismic Conference and Workshop on Bridges and Highways

for more information visit:

<http://gulliver.trb.org/trb/meeting>

MAIL-ORDER PRESCRIPTION SERVICE

Starting January 1, 2004, employees using the mail-order service to fill prescriptions will be charged only two co-payments for each three-month (90-day) supply of medication - a savings of 33%!

Here's how you can take advantage of this service. You should:

1. Ask your physician for a prescription that covers a three-month supply along with three refills. Make sure the physician gets approval from Empire for medications subject to prior authorization (PAR) or quantity limitations (QL). PAR and QL drugs are marked on the Pocket Formulary also available on line.
2. Visit www.empireblue.com and click on the "Member" tab.
3. Click on "Member Library" at the top of the page, then click on "Forms and Documents" in the drop down menu.
4. Scroll down to "prescription Drug Mail-Order Form" and print the form. (this form will also be available in Lotus Notes under Downloads - Forms).
5. Include the appropriate co-payment. You can pay by credit card or check. Make checks payable to AdvanceRx.com. If you have questions about co-payment amounts call the number on the back of your Empire ID card.
6. Use an envelope to mail the completed order form, prescriptions and payment to: AdvanceRx.com, P.O. Box 961066, Forth Worth, TX 76161-0066



SNOWFLAKE COMPETITION

1ST PLACE
Jason Kanable

Snowglobe with naturally grown snowflake form and motorized fan that blows snowflakes around



2ND PLACE
Ambar Moeljadi

Snowflake mobile that spins around center coil



3RD PLACE
Robyn Eisensmith's son Jake

Rotating snowflake made of K-nex components and string



H&H HEADLINES

We're always looking for your input to the H&H internal newsletter. Both your ideas for improvement as well as comments on previous editions of Headlines are helpful as we plan the months ahead. Please contact Kate in the Marketing Department if you would like to submit an article for a future issue, or offer your suggestions for possible topics or projects to highlight. As always, your feedback is appreciated!

H&H Holiday Parties Florida Office

The 2003 Florida Office Holiday Party was held at Tim and Michelle Noles' home on Saturday, December 20th. The evening began at 7:00 pm with delicious cocktails made by Michelle.

Dinner consisted of potatoes, grilled vegetables, salad and skirt steak, which was cooked to perfection by Tim.

Because of the unusually cool temperatures outside, the dinner tables were moved inside which created an even more intimate and warm setting. On behalf of the Florida Office, we send our thanks to the Noles for providing yet another holiday party to remember.



H&H Holiday Parties NY Office

The 2003 Annual Holiday Party was well-attended, and we trust, well-received. Over 200 people turned out for the event at Trattoria Dopo Teatro. Those present enjoyed a full Italian dinner buffet and tasty cheesecake dessert as festive holiday music played in the background. We are all eagerly anticipating what next year's Social Activities Committee will plan for the New York area staff!! (Side Note: those wishing to serve on the Social Activities Committee should contact George Koss).

The in-house family and friends Holiday get-together was also a wonderful success, with many employees contributing to fun and games for the kids and snacks for all. A special thanks goes out to Santa for making an appearance and wishing all the kiddies a very Merry Christmas!

