

Engineerings

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September 2001 Volume 77 Number 1

PES And New President Look Ahead To A New Year

by George F. Monaghan, Jr., P.E.;
President, Providence Engineering Society

As summer days grow shorter and evenings grow cooler, it is time to look ahead to a new PES program year. During last June's Annual Meeting held at Quidnessett Country Club, the PES Board of Trustees swore in its 2001-2002 Board of Directors. I, as President, and on behalf of the new Board of Directors, would like to thank the Trustees for their vote of confidence and for the opportunity to provide leadership to continue PES into the next year.

The Board would like to take this opportunity to thank Bob Bolton for the contribution of his time and efforts over the past years as he advanced through the PES ranks. His term as President saw advancements in our accounting and budgeting processes, and his insight in business management has set the mode for PES considerations in the years to come. The PES Board looks forward to his continued participation as a Trustee as we implement many of his ideas.

I would also like to thank all of our PES members, affiliate members, corporate sponsors, and advertisers for their support of the organization during the past years. The Providence Engineering Society will be celebrating its 108th anniversary this year, and I would ask all of you to renew your commitment to PES and to consider playing a more active role in your organization as we endeavor to serve you during the next important year.

To our PES members, with Roy Bouvier's help, we will continue publishing Engineerings, including the infamous Larry's Corner, a nationally recognized column. As has been customary, we will host our three annual meetings, including our successful PES Banquet in recognition of National Engineer's Week. This year we will also be offering electronic mailings and notices rather than the traditional US Postal Service mailings for those of you who would prefer this option.

To our PES affiliate organizations, we are looking forward to developing new partnering strategies that will make us work more efficiently and cost-effectively, thereby reducing your cost while improving our value to the professional community. We intend to do this partly by continued use of electronic communications and undertaking a new membership campaign drive to bring in younger members, many of whom are affiliate members, into the PES ranks as full and, hopefully, lifelong PES members. This will

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**Make Your
Reservations
Today For The
PES Affiliates Dinner
Meeting To Be Held
Tuesday,
October 16, 2001
At The Pawtucket
Country Club.
Call 434-2332...**

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Calendar of Events

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<p><i>For up-to-date event information, go to the PES Online Calendar, accessible through the PES Website at www.provengsociety.com.</i></p> <p>AFFILIATES, PLEASE NOTE: Be sure to forward your event information to the PES Office at proveng@netzero.net for posting.</p>			
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Affiliate members each receive a monthly copy of "Engineering" and are urged to submit events and/or articles for publication prior to the 10th of each month.

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Providence Engineering Society Announces 2002 College Scholarship Award Eligibility

The Executive Board of the Providence Engineering Society (P.E.S.) is once again pleased to announce the availability of at least one **College Scholarship Award** in the amount of **\$1,000** for the 2002-2003 academic school year.

Eligible scholarship award candidates must be (1) a member or a descendant of a living member of the P.E.S., or a member or a descendant of a living member of an affiliate organization of the P.E.S.; and (2) a student enrolled in an accredited Engineering or approved Technical and/or Engineering-related Program leading to a Bachelor of Science degree. All student applicants must have completed at least two full academic semesters at the time of application.

If you know of any individual who may be qualified for the scholarship award for the 2002-2003 academic year, please contact the P.E.S. office (401-434-2332) to request a scholarship application form. The application must be accompanied by a complete academic transcript through Spring 2001. Applications without the required transcripts will not be accepted. The Fall 2001 grades shall be forwarded to the P.E.S. office for record purposes as soon as they become available to the student applicant. The filing deadline is December 31, 2001.

If you have any questions regarding the eligibility of a prospective student for this scholarship award, please contact Robert Anderson at (508) 543-1700 during the daytime hours.

Larry's Corner

by *L. Robert Smith F.ASCE*
Past President, Providence Engineering Society

Would You Throw In The Kitchen Sink, Too?



From time to time we will get requests related to jobs our firm has done in the past. As those of you who have ever received correspondence from Waterman Engineering Co may have noted, our letter head states, "Our Second Century". The firm was founded, part time, sometime prior to 1878. We know this because we have uncovered plans by Waterman Engineering Co, in at least two town halls, going back to that date. The full time firm was started in 1894 on what we believe to have been the first of June. Regardless of which date you consider, there is well over a hundred years of firm history. All though that is a great help in doing our business, it is not without some downside.

The largest downside comes from people questioning what was done in, say, 1916. Invariably the phone would ring and someone wants to know why the plan they found in the town hall doesn't show their property line going all the way to the water. Good question. I wasn't here at that time. I have no idea. If they want us to look into it, we would have to charge a fee for our time. Total outrage. I was trying to get paid for something we had already done. I patiently explained that we had done the work over eighty years before. We would have to read through the deeds, look at our record pouch, and perhaps visit the town hall. This we would do for a fee. We were not going to do the work as a throw in on a job that was done the year my mother was born. We were told we would hear from their lawyer. Fine with me. They actually had a lawyer stupid enough to call me. He thought that he could instill a fear factor in me. He said that he could not determine why the property did not run all the way to the water. The neighbors lot did. He believed that my firm had made a mistake and that he would hate to sue us at this late date. I should mention that after the original call, I had looked in our field books and records. Apparently there was a two foot reserve strip around the lake which had previously been the property of a mill. They used the pond as an impoundment reservoir and drew down the water every day to power the mill wheel. Now if the lawyer had been nice, I would have also been nice and told him. He wasn't nice, so I told him to do his worst. If he wanted us to look into it, there would be a charge. Otherwise he could go search the title and get the answer as part of his preparation to sue us. I mentioned that the client for whom we did the work obviously had no problem with the survey. They went so far as to record it. If they had had a problem with it, they would not have done that. He asked what we wanted to look into this further and we were told to go ahead and do it. We said, "Fine. Send us a retainer." Never heard from him again.

Another lawyer called. We had done an administrative subdivision, about four years before. The client for whom we did the work combined three lots and part of an abandoned street into two lots. Both lots were subsequently sold off by reference to the

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lot number on the recorded administrative subdivision plan. One of the lots was now being resold. This lawyer was hired for the title work and she preferred to use metes and bounds descriptions. She called to ask us to send it to her. I again said we would be glad to do it, but again for a fee. She thought we should have done it originally. Well, everyone is entitled to their opinion. However, as the property had been sold and the original buyer had received a clear title, I thought it was all set. She felt we owed it to our original client. Did I mention that we had done the original work for a limited partnership of which I was one of the partners? I explained that the client was perfectly happy with our work and that I believed that one of the partners was an attorney (also true). If the original client didn't order and pay for it, then we weren't providing it. She asked for the name of the lawyer, she wanted to call him. I recommended that she read the notary signature on the deed. Not only was the original lawyer a partner, he was a friend. I also knew that his signature was indecipherable. Ultimately she called back and in a much more apologetic tone requested that we provide the description and she would pay the bill. Okay.

A client had us do a subdivision of land abutting his house. The remainder parcel of the subdivision was shown as to be combined to his lot. Not a problem. After the subdivision was recorded, the town merged the original lot with the remainder parcel. So far so good. He recently decided to refinance his house to take advantage of the lower rates. The bank contacted the title attorney who had done the original title on his original lot. He gave them a price to update the title. Now a lot of people don't realize this, but when a lawyer researches a title, they go all the way back to the last time the property was sold. He went in and checked it for liens and transfers. Finding none, he re-issued his title policy. Someone at the bank noticed the fact that the area shown on the plat map was larger than the area in the title report. Considerably larger! The lawyer called us and questioned how this had happened. We explained the subdivision and how the remainder piece was shown as to be combined with the other lot. The assessor had simply merged them. This meant the title attorney was going to have to go back and redo the title. He couldn't charge them again, so he had a better idea. We should do a minor subdivision and break off the parcel that was added. He could then use his title report for the original piece. The client wouldn't encumber the new piece with a mortgage. He felt we had done our client a disservice by allowing them to be combined. We explained that the client had wanted to do that. Besides, the piece did not have enough frontage to be a legal lot. It was either combine it with his lot or leave it with the abutting lot created in the subdivision. The client wanted it. Not to be deterred, the attorney thought that we should do an administrative subdivision and deed it to the lot next door. I again told him that our client wanted it as protection for his property and had no interest in subdividing his lot. We recommended that he just go back and search the rest of the title. Well that was a MAJOR problem. He was going to Las Vegas and wasn't going to have the time to do it. I hung up and called the client. The client told me that he had never wanted to use this bum, in the first place. He was the bank's recommended lawyer and he used him initially because it would make things go more smoothly. The bank had shipped it back to the same "bum". He would get someone else if the guy couldn't do it before he went to Vegas. The client called later that day. The title attorney called him and told him there was a cloud on the title of the piece that was merged in with his lot. The client asked what kind of a title problem there could be, seeing the parcel for the entire plat had been cleared. The title attorney told him that he had bought the land at tax sale. The client told him that he knew that and had the rights

to redeem properly extinguished. There was a clear title. The title attorney told him that neither he, the client, nor I were being very co-operative. He couldn't understand why I couldn't just do an administrative subdivision, based on the survey information we already had. By the time he returned, it could be all approved and his title report would be good. "What was the big deal?" The client blew up. He wasn't going to spend the money to deed off the property that he didn't want to sell or give away. He told the lawyer that he was going to hire another title attorney and as far as he was concerned, this guy hadn't done anything for him. He hired a new title attorney and we gave them a copy of our records. They had a clear title on the property, with one exception. The first attorney had filed a lien on the property, just before he left for Vegas. Apparently he had time to do something. The lien was for his unpaid bill. They had to escrow the amount before the refinancing could happen. The client was not a happy camper. He filed a complaint with the State Disciplinary Council for Lawyers. When the lawyer responded, his defense was that he believed the engineer had misadvised the client and in fact might have been overstepping his bounds and perhaps practicing law. I was asked to give an account of our actions, by the client, to submit to the Disciplinary Council. I stated that the lawyer had overstepped his bounds by trying to practice surveying and engineering as a way out of having to redo the title. Ultimately the lawyer released the lien to have the complaint dropped. Interestingly, the Disciplinary Council decided not to drop their investigation. These things take on a life of their own. I am sure I will be blamed, by the first title attorney, for not throwing in a free administrative subdivision to make his life easier.

Engineers, Fabricators Turn To EDI To Cut Project Costs & Time

Chicago, IL – August 6, 2001 – A new tool from the steel industry has the potential to cut weeks off a typical project's design and construction time. Software programmers are beginning to incorporate the CIMsteel Integration Standard, or CIS/2 for short, into design, detailing and fabrication packages.

CIS/2 is a set of standards that allows a wide variety of design and construction software to seamlessly communicate with each other. CIS/2, which is endorsed by AISC, goes far beyond the current methodology of using .dxf or other CAD formats to transfer information. Instead, software translators incorporating CIS/2 will also include such information as load information, end member reactions, and connection types. Utilization of the CIS/2 protocols will also allow a single model to be carried through the entire project—from design to detailing to fabrication and erection. "AISC has endorsed the CIS/2 protocol and is working closely with software developers to facilitate the development and implementation of translators into their software," explained Lou Gurthet, president of AISC.

Steel has always been advantageous on fast-track projects because of its fast erection time. The drawback, however, was the typical four-to-six-week lead time on obtaining steel. Because of the single model approach using CIS/2, though, fabricators can develop fast and accurate material take-offs to get steel orders in earlier.

This same single model approach also is beneficial once a project is underway. It's not uncommon for a general contractor to consider substantial changes after work has already begun—but to also want to know the time and cost impact of these changes before approving them. Because the CIS/2 protocols allow a single model to be carried through the entire project, it is now a quick process to modify the model and evaluate the impact of the proposed change.

"Standardizing and using EDI will *streamline existing work processes, allowing owners to receive more value for their construction dollar,*" said Mark Holland, P.E., Chief Engineer with Paxton & Vierling Steel Co. in Omaha and Co-Chairman of the AISC EDI Review Team.

Currently, many of the leading software vendors are working to incorporate CIS/2. Working translators are now available from early adopters Ram International (RAM Steel), Design Data (SDS/2), Tekla (XSteel), Fabtrol, and CSC (3D+). In addition, beta translators are expected soon from Intergraph (Frameworks), CSI (SAP 2000 and ETABS), GTStrudl, and Bentley (Triforma).

Already, use of the beta translators have paid dividends for such companies as AISC-member SteelFab, Inc. "We are working on a bid in which we received a model from RAM," explained Susan Navy, a detailing team leader. "[The CIS/2 translators] saved approximately four days in estimating the material cost by putting the model in Xsteel

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improve our effectiveness and reduce affiliate dues assessment to your organization. We will increase your access to our web site at provengsociety.org by incorporating current affiliate society organization data such as Directors' names, contact information, program schedules, and links to local and national organization websites. We look forward to your help in implementing these goals.

To our PES corporate sponsors and advertisers, we will strive to heighten visibility by providing internet links through our web site and our soon-to-be, also e-published [Engineering](#). In this way, we hope to broaden our corporate sponsor and advertiser base.

Please mark in your calendars that on Tuesday, October 16, 2001, we will be having our 2001 PES Annual Affiliate's Meeting at the Pawtucket Country Club. The speaking program is currently being determined and will be noted in the October edition of [Engineering](#).

In closing, I wish to invite all of the Presidents of our affiliate organizations to our monthly Board meetings. As affiliate member Presidents, you are entitled to attend these meetings, and your input would be most welcomed as we proceed into the next PES year.

We look forward to seeing you all in October at the Pawtucket Country Club for the Annual Affiliates meeting.

Thank You.

George F. Monaghan, Jr., P.E.

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and then [importing] into Fabtrol."

Mark Mosher, managing partner of both AISC member AmFab Inc. and dtls Inc., reports even greater success. "[EDI] takes several individually good tools and makes them even better," Mosher explains. The CIS/2 protocol is more encompassing than previous translators for the steel industry and therefore allows information to be passed from the design and analysis phase all the way through to detailing, fabrication and the production of a bill of materials.

Earlier this year, Mosher selected an 85,000 sq. ft., braced steel frame building as a trial project. The design and analysis of the new Casino of the Sun in Tucson was completed—using RAM International's RAM Steel V7 software—on March 7, 2001, with erection beginning on March 22, 2001. Using CIS/2 translators, Mosher imported the model into Design Data's SDS/2 V6.2 detailing software package and was able to detail and finish the first sequence (50%) of fabrication in just 19 days. The CIS/2 translators eliminated the need to re-input data into SDS/2 from paper drawings. In fact, paper drawings were generated only for column details. All of the information remained in electronic format and was translated directly between the two software packages.

Without EDI, Mosher estimates it would have taken an additional four weeks to complete. In addition, EDI helped reduce detailing errors by providing an accurate transfer of member sizes and locations. In turn, the hours normally required for detailing and checking for errors was greatly reduced. Cost savings continued throughout the project since erection could begin sooner and occupancy could occur earlier. AmFab was the design-build fabricator on the project and dtls was the detailing firm. Structural engineer on the project was Chavez/Grieves Consulting Engineers in Albuquerque.

"AISC encourages all designers, detailers and fabricators to contact the vendors of their software to inquire when translators will be available," explained Jim Todd, Director of Information Technology at AISC. "The time-savings promised by the incorporation of the CIS/2 protocols makes it critical that all vendors make these translators available as soon as possible. And it's vital that software vendors understand this urgency and receive requests from users for these features."

For more information on CIS/2, visit AISC's website at www.aisc.org/edi.html or contact software vendors directly at:

CSC (UK) Ltd. www.cscworld.com

FabTrol www.fabtrol.com

Ram International www.ramint.com

Design Data www.sds2.com

Tekla www.xsteel.com

L. Robert Smith, P.E. to Chair Exams for Professional Engineers Committee for the National Council of Examiners for Engineers and Surveyors

L. Robert "Larry" Smith, P.E. president of Waterman Engineering Company and a member of the Rhode Island Board of Registration for Professional Engineers has been appointed to chair NCEES's Exams for Professional Engineers committee. This is a two year appointment. Larry has served as vice-chair of the committee for the past two years. The committee is charged with the responsibility of overseeing the preparation, production, scoring and grading of all the national P.E. and E.I.T. examinations offered by NCEES. The major role of the committee is setting the policy and guidelines to determine the format and question type for the exams. During Larry's term of service, on the committee, they have changed the format from a choice exam of essay type questions to a no-choice exam format consisting of multiple-choice type format.

Professional Directory

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