



Indiana Civil Engineer

Indiana Section Names 2005 Annual Awards

Civil Engineer of the Year:

Ward W. Martin



Ward W. Martin, Indiana Civil Engineer of the Year. Shown receiving plaque at the Indiana Section Annual Meeting in South Bend on March 23, 2005 from Marvin Obermeyer, (left) Indiana Section President, and Michael Wenning, Awards Chairman.

Story on Page 2

CE Project of the Year:

I-70 Relocation
at Indy Airport



2005 Indiana Civil Engineering Project of the Year: I-70 "Fast Track" Interstate relocation project at the Indianapolis International Airport. Parsons Brinckerhoff Quade & Douglas was the lead design firm on the \$170 million relocation and lowering of 4.5 miles of interstate highway.

Story on Page 4



2005 Merit Award Project: Bowen Large Scale Research Lab Purdue University

Force Design, Inc. of Columbus, IN was the lead design firm on this state-of-the-art civil engineering large scale, near full-scale research and testing laboratory at Purdue University in West Lafayette IN. For full information and photos, see our section's website: <http://sections.asce.org/indiana/>

Story and Photos in the Next Issue of the ICE !!

Indiana Civil Engineer of the Year: Ward W. Martin



Ward W. Martin, 2005 Indiana Civil Engineer of the Year. Shown receiving plaque at the Indiana Section Annual Meeting in South Bend on March 23, 2005 from Marvin Obermeyer, (left) Indiana Section President, and Michael Wenning, Awards Chairman.

Ward W. Martin, a native of Minneapolis, Minnesota, graduated with honors from South High School in Omaha, Nebraska in January, 1948. Following attendance at the University of Omaha and service in the US Air Force as a Cartographic Specialist, Ward received his Bachelor of Science Degree in Civil Engineering from Iowa State University in December, 1954.

Following graduation he was employed by the Wisconsin Highway Commission and attended the engineering graduate training program and also had experience in field supervision and inspection. Following this, he was employed by the City of

of the Portland Cement Association in northwest Indiana. During this period he had the responsibility of promoting and technical assistance in the use of concrete and concrete products through contacts with public officials, owners and the design profession.

For seven years Ward was employed as a Sales Engineer by the Hydraulic Press Brick Company, Haydite Division, Brooklyn, Indiana. He sold "Haydite" lightweight aggregate to producers of concrete block and ready mix concrete in northern Indiana and southern Michigan. During this time, he assisted these customers in mix design,

production problems at their plants, and during construction of projects utilizing lightweight concrete.

Prior to his retirement in 1997 Ward was employed for 20 years as a Sales Engineer by Calumet Flexicore Corp. – Federal Cement Products of Hammond, Indiana. He sold precast concrete products: roof decks, prestressed hollowcore "Flexicore" floor and roof units, wall and structural components. Special responsibilities included the establishment of a previously nonexistent marketing and promotional effort for Federal Cement Products Division roof deck units. This activity was conducted in a territory covering the eastern two-thirds of the United States.

Ward has been a member of ASCE continuously since his college days and is currently listed as a Life Member. He has been active in the Indiana Section for many years with duties including serving as Secretary of the section for two years in 1968 and 1969, President of the Northwest Branch from 1979 to 1982 and as President of the Indiana Section for the 1981-1982 year. He has been a District 9 Delegate for over 20 years and presently serves as Newsletter Editor and Webmaster for the Indiana Section. He is currently listed as a Life Member of the NSPE and ISPE, serving the latter as President of the Dunes Chapter for the 1962-1963 year. Prior to retirement, Ward was a Registered Professional Engineer in the States of Indiana and Wisconsin.

Ward and Nancy now live in Mishawaka, Indiana; have 3 children, 7 grandchildren and 1 great-grandchild. They are members of the Granger Presbyterian Church.



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Section President's Message

by **Marvin Obermeyer**

Continuing Education: Required in Indiana ?

Is Continuing Education required in Indiana? Currently not, however, it may be someday. The Indiana Board of Professional Engineers is considering the option.

The State Board of Registration for Professional Engineers had a meeting 5/12/05. A number of us practitioners were in attendance. Continuing Education for the Professional Engineers of Indiana was the subject of discussion. At the meeting the Board listened to the opinions from the engineers in attendance. The Board ended the meeting by summarizing that they were going to review the option and make a decision whether or not to require continuing education.

ASCE's View

The ASCE Website regarding Continuing Education has the following paragraph:

Canon 7 in ASCE's Code of Ethics states "Engineers shall continue their professional development throughout their careers, and shall provide opportunities for the professional development of those engineers under their supervision." It further reads "Engineers should keep current in their specialty fields by engaging in professional practice, participating in



continuing education courses, reading in the technical literature, and attending professional meetings and seminars."

Whether you like it or not, Continuing Education is becoming a requirement in many states. According to my sources there are 29 States that require

continuing education in the United States. This number seems to be going up, as many of you already know, if you are currently registered in a state that currently requires continuing education.

Question and Answer

I have assembled some commonly asked questions with answers to help clear up some of the confusion on this matter:

Q) What is a PDH?

A) **PDH** - A contact hour (nominal) of instruction or presentation. The common denominator for other units of credit.

Q) What is a CEU?

A) **CEU** - Unit of credit customarily used for continuing education courses. One continuing education unit equals 10 hours of class in an approved continuing education course.

ASCE American Society
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Q) How many states require Continuing Education currently?

A) According to my sources, there are 29 currently requiring continuing education.

Q) If I am currently registered in a state that requires continuing education, how do I maintain my registration?

A) Most states will simply allow you to collect your documentation from the meetings and seminars in a file in your office. You may be audited for the file, at which time you produce the file with documentation of the PDH's.

Q) I am busy, how do I obtain my PDH's without expensive seminars or expending a lot of time?

A) There are a number of options here such as ASCE meetings, ASCE Professional Development Days, Various other organization meetings, websites like ASCE.org, and PDHcenter.com.

Q) What do these websites offer?

A) Simply put, these and other websites provide online continuing education. They provide the education, tests, and tracking of PDH's.

Q) If PDH's are required by the state of Indiana, How many would be required?

A) At this time the Board is reviewing an amount of 15 PDH's per year.

Summary

As many of you know, Continuing Education is a commitment we all have made as Professional Engineers. If this would be required, there would certainly be a learning curve but after talking to a number of engineers who have been required to fulfill this obligation, the obligation does not appear to be more than a small exercise in book-keeping. Continuing education does round out your existing education and make you a more complete and effective professional.

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2005 Indiana Civil Engineering Project of the Year: I-70 "Fast Track"

Relocation & Lowering of I-70 at the Indianapolis International Airport



2005 Indiana Civil Engineering Project of the Year: I-70 "Fast Track" relocation at Indianapolis International Airport. One of three curvilinear, prestressed, post-tensioned bridges on the job. Design chosen to reduce overall life cycle cost, lower maintenance, shallower depth and a more aesthetically pleasing shape.

the Indianapolis International Airport. Increasing the airport's capacity would mean significant changes to the highway. The mainline would have to be lowered to provide sufficient clearance for aircraft and allow for taxiways in the future to serve a potential third runway south of the mainline. New interchanges would be needed to

improve cargo and passenger access to and from the airport. But most importantly, it would have to be moved as the existing alignment crossed land that would better be used for airport-related facilities.

Today, with construction complete, I-70 has been moved, freeing 300 acres of land for development adjacent to the main runway. It has been lowered by 30 feet. The airport interchange now in place will one day be the primary access point to the midfield terminal, and the Six Points Road

interchange provides access to a booming concentration of industrial and commercial development adjacent to the airport.

A snapshot of the I-70 Fast Track project:

- 4.5 miles of interstate mainline realignment and depression
- Collector-distributor roads and 5 bridges spanning the mainline
- Two new highway interchanges
- Airport "gateway" interchange featuring special aesthetic treatments and three post-tensioned bridges
- Six Points Road interchange and seven bridges that feature flexibility for future interchange expansion
- Six Points Road widening to 4-lane divided roadway for two miles
- Two miles of 96-inch storm sewer trunkline and 5 stormwater management ponds
- Environmental considerations such as creek relocation, endangered species, and complex erosion and sediment control guidelines

PROJECT COST

Parsons Brinckerhoff Quade & Douglas, Inc. was the lead designer for this \$170-million relocation and lowering of 4.5 miles of interstate and the construction of two new interchanges.

See **PROJECT OF THE YEAR** - Page 5



PROJECT LOCATION

The project is located along I-70 from I-465 to west of Six Points Road on the west side of Indianapolis. It is designed to serve as the entrance to the IAA's proposed Midfield Terminal.

PROJECT DESCRIPTION

Background

When the I-70 Fast Track project was conceived, the interstate highway abutted

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Project of the Year:

(Continued from Page 4)

NAME/ADDRESS OF OWNER

Indiana Department of Transportation
Indianapolis, IN
Walt Land, Innovative Projects Section

NAME/ADDRESS OF ENGINEER

Parsons Brinckerhoff Quade & Douglas,
Inc., Indianapolis, IN

ROLE OF SUBCONSULTANTS

Subconsultants and their roles:

- R.W. Armstrong – Bridge and civil design support
- Edwards and Kelcey – Signing, lighting, and intelligent transportation system (ITS) design
- Aerofinity – Environmental issues
- CMID – CADD and civil design
- TBE Group – Subsurface utility engineering (SUE) and utility coordination
- PSI – Geotechnical services

NAME/ADDRESS OF CONTRACTOR

Walsh Construction – Contract 1, 2, 3
Weddle Bros. – Contract 4
Berns Construction – Contract 5,7
American Contractors – Contract 6

Unique Characteristics of the Project

Innovative contract packaging, a design approach centered around constructability, application of gravity storm system to drain a 30' cut, the use of cast-in-place post-tensioned technology with slender columns: these are just a few of the innovations that we introduced to deliver



Indiana Civil Engineering Project of the Year, winner at the Indiana Section Annual Meeting in South Bend on March 23, 2005. Left to Right: Michael Wenning, Awards Co-Chair; Steve Fleming, Parsons Brinckerhoff, Inc.; Marvin Obermeyer, President, Indiana Section

the I-70 Fast Track on time and within budget.

Contract Packaging

PB's innovative Continuous Design/Construction Interface (CD/CI) was used for the first time in Indiana on the I-70 Fast Track. In this approach, construction resources are included on the design team. For I-70, the approach allowed us to deliver as quickly as a design/build project, but INDOT retained ownership, the designer maintained independence, project aesthetics were guaranteed and bids on the final drawings were very competitive. CD/CI led to the development of a unique contracting strategy that reduced contractors' risks and, subsequently, saved INDOT money. This strategy included:

- An early grading contract to excavate the depressed section of I-70, build embankments for the interchanges, construct major storm drainage elements, and relocate existing utilities.

- A critical bridge contract to construct those bridges that would impact the interstate mainline construction schedule.

- Three separate paving contracts to maximize off-line pavement construction operations and minimize disruption to existing traffic on I-70.

The separation of the contracts by task yielded two major benefits. First, it allowed for a tighter design-to-construction schedule. For example, we were able to release the grading contract earlier since it did not require the completed design of all roadway features. Second,

separating the contracts allowed contractors to streamline their efforts and lower their bids significantly. For example, the winning bid price for moving 3 million yards of dirt was \$3 per yard compared to a more typical price of \$9 per yard.

Post-tension Structures

The most visible aspect of the I-70 Fast Track project is the new airport interchange. The interchange includes three sleek, curvilinear bridges. The bridges feature a post-tensioned design that is an efficient means of reducing the cost of a structure. Less maintenance is needed on this type of structure, reducing overall life cycle costs. In addition, post-tensioned members are shallower in depth and allow a more aesthetically pleasing shape.

Gravity Flow Drainage

A primary issue for the project was drainage of the 30' depressed section. A determination was made early in the project

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District 9 Director's Report

by Garland P. Rose, Jr.



2005 has been a very active and productive time for the membership across District 9. Starting on January 14, the Board of Direction approved an amendment to the Society's Rules of Policy and Procedure to incorporate a revision to the percentage of the section allotment. Specifically, the formula was increased from three and one-half percent to seven percent as an amount not to exceed, based on the Society's membership dues collected as of September 30 of the preceding fiscal year. This higher percentage is a ceiling. The actual amount of allotment will be developed in the budgeting process and approved by the Board.

A week later, leaders from section-branches, student chapter leaders, and younger member councils met in Orlando. We were well represented. The exchange between section-branch and student chapter leaders was very productive, focusing on ways to improve communication, mentoring, and participation. The networking between leaders at all levels was very rewarding.

Other excellent programs were an Order of the Engineer Ceremony conducted by the Memphis Branch and the Indiana Section Annual Meeting held at the University of Notre Dame. Each event was well organized and attended.

Region 4's new Region Formation Team (RFT), comprised of a representative from each of the region's eight sections, met in Nashville last February and again in Charlotte in April to develop new bylaws and rules of policy and procedure. These documents are being sent

to the Section Presidents for review and comment, then to National for their review and comment. Once all comments are received and adjustments made, the bylaws will be forwarded to the Board for approval in October 2005. I am very pleased with the spirit of cooperation and friendship exhibited in the RFT meetings.

At the April 14-15, 2005, meeting in Tysons Corner, Virginia, the Board of Direction accepted the FY2004 audit and approved a business plan for the Building Security Council to implement a certification program of buildings with respect to their security, similar to the LEED point system. This program is being researched to see if revenue can be produced for the Society.

The report from Executive Director Pat Natale highlighted that membership in the Society is at 134,000. The Society has provided major press releases and received media coverage for the 2005 Report Card on Infrastructure. Past President Pat Galloway was included in an article for *Time Magazine*, and the concrete

canoe competition was featured in *Reader's Digest*.

As President Bill Henry says, "It's great to be a Civil Engineer!"

I wish everyone a great summer and hope you enjoy a wonderful, safe vacation with family and friends. I continue to thank you for the opportunity to represent such a fine group of the membership as you. If you wish to contact me, my e-mail address is gprose@bwsc.net and my office telephone number is 615-252-4401. Again, best wishes for a happy summer.

Sincerely,

Garland Rose



2005 ASCE Membership Drive

Members can participate in the 2005 campaign in two ways: they can submit colleagues' names and e-mail addresses at www.ASCEDrive.org. ASCE will send the potential members an e-mail notification of their nomination with a link to the Membership Drive Web site, where they can get complete details on ASCE membership and complete a membership application online. Members can also participate by asking colleagues to join ASCE. Either way, potential members can include their recruiter's name in the "sponsor" section of their membership application to give sponsorship credit.

The new 2005 Membership Drive brochure is now available. To order a copy, e-mail drive@asce.org or call (800) (800) 548-ASCE (2723) or Doris Lewis at (703) 295-6226.

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Region 4 Transition Report

by **Michael H. Wenning**

Official Nominee as last District 9 Director
Indiana Section's Rep. on the Transition Team

ASCE is opening a new page in its upper and middle management. Hopefully these changes will improve the connection between the national organization and the membership. We will dissolve our current District 9 and merge with the current District 6 to form Region 4. This will include Indiana, Kentucky, Tennessee, Arkansas, the Carolinas and the Virginias. I have the privilege of being Indiana's representative on the Regional Formation Team (RFT) that is producing the rules and bylaws for this new organization.



by creating a Regional Assembly. At this time it is proposed that each Section will have representation based on the number of Branches it has. The purpose of the Assembly will be to provide immediate communications from the Branch to the Director level, expose more of the

membership to the Regional level, populate committees to serve the entire Region and develop future leadership for the entire organization.

The rules and bylaws will be reviewed by national this summer and the RFT will address any comments by the end of July. The bylaws will then be placed on the national Board's agenda for this fall. The first slate of Governors will be appointed by the RFT this fall and the first Region 4 Director will be elected next summer.

How does this affect you? ASCE is always looking for members willing to step up and serve the engineering community. There are a number of new positions waiting to be filled. Please contact your Section president and say you are interested. As one who has been involved in ASCE for many years I can promise you will get back more than you give.

Each of the geographic Regions will have a Director that will serve a 3 year term on the national board of direction. Each Region will also have a number of Governors to advise the Director and to serve as liaison with the Sections, Branches and Schools. Region 4 has elected to have 8 elected Governors, one for each Section, and one appointed Governor. The Governors will also serve 3 year terms.

Since District 9 operated so well as a council with membership based on the number of members in each section, we have decided to carry this philosophy on

Events Calendar

Indiana Section

Annual Meeting:

Spring, 2006 - Indianapolis, IN

Section Board Meetings:

June 18, 2005 - Indianapolis, IN

19th Civil Engr. Prof. Dev. Sem.

November 3, 2005 - Purdue University, West Lafayette, IN

District 9 Council:

October 21 & 22, 2005 - Little Rock, AR

National ASCE:

Annual Conventions & CExpo:

October 2005 - Los Angeles, CA
October 2006 - Chicago, IL

ASCE Conferences

Watershed Management 2005

July 19-22, 2005 - Williamsburg, VA

Pipelines, 2005

August 21-24, 2005 - Houston, TX

Geo Congress 2006

February 26-March 1, 2006 - Atlanta, GA

Structures Congress 2006

May 18-21, 2006 - St. Louis, MO

ASCE Seminars:

Structural Design of Industrial Facilities
July 7-8, 2005 - Cincinnati, OH

Stream Stabilization and Restoration

August 24-26-05 - Chicago, IL

For more information, check the "Lifelong Learning" page on the Indiana Section's website:

<http://sections.asce.org/indiana>
Or check with ASCE's website:
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2005 Annual Meeting Report

by **Theresa Harrison**

Vice President, Indiana Section ASCE

Chair of 2005 Annual Meeting



Thanks to all the tremendous support and help of the North Central Branch and the Notre Dame Student Chapter with the organization and planning of the Indiana Section Annual Meeting, we experienced a superb turnout for the high quality technical sessions, vendor exhibits, awards luncheon and Order of the Engineer ceremony!

The Indiana Section of ASCE owes a huge round of thanks to each and every one of our employers for their sustained, and often silent, support of the Section's endeavors. While several firms are able to provide financial assistance via sponsorships and exhibits, many help all they are able to by supporting their employees' attendance and participation at the various events; all deserve our grateful thanks. The following firms supported the meeting this year with exhibits:

Advanced Pavement Technology
American Timber Bridge
Bio Management Services, Inc.
Blood Hound, Inc.
GeoPier Foundation Company
Hydro Conduit Division
 – Rinker Materials

Independent
Concrete Pipe Co.
Indiana Ready Mix
Concrete
Association
Midwest Mole, Inc.
Old Castle

The Reinforced Earth Company
Rubber Asphalt Solutions
Sterling Systems
Thermo-Scan Inspections

The following consulting firms helped by underwriting the refreshment costs for breaks and reception:

Crawford, Murphy & Tilly
DLZ Indiana, LLC
Lawson-Fisher Associates P.C.

The midday highlight of the meeting was certainly the luncheon where Ward W. Martin, P.E. was recognized as Indiana's Outstanding Civil Engineer of the Year, the I-70 Fast Track Relocation of I-70 at the Indianapolis International Airport (Parsons Brinckerhoff Quade and Douglas, Inc., project engineers) received the Indiana Outstanding Civil Engineering Project of the Year Award and Purdue University's Bowen Research Lab received the 2005 Project Merit Award. Selected Student Chapter members, from each

university, also received leadership awards. Thank you, Mike Wenning and Mike Deer for all your work in co-chairing and organizing the many awards.

With much work and organization on Brad Bobich's part the annual Student Design Presentation Competition was held throughout the day, resulting in the University of Notre Dame team winning. The day was capped off by the initiation of 21 new members to the "Order of the Engineer", the door prize drawings and a tasty and festive reception.

All in all, the annual meeting was deemed to be a tremendous success by all those in attendance...thank you!

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News From The Branches

METROPOLITAN INDIANAPOLIS BRANCH

Report by: Eduardo Calderin
Metro Branch President

Growing & Growing !!

Hello everybody.

The metro branch regular meetings attendance keeps growing. On March we had 178 people attending our lunch meeting featuring INDOT Commissioner Mr. Thomas Sharp. On April we had 86 people for the Rose Hulman senior presentations with the majority of the attendees being junior and senior students. Even though the weather did not cooperate, we still had 198 people attending our lunch meeting at the Indianapolis Motor Speedway in May.

Also, the Metro Branch has created the Transportation and Development Institute (T&DI) and the Architectural Engineering Institutes (AEI) and is currently working on the formation of the Construction Institute. Greg Rominger of Burgess & Niple, Inc. and Ken Beache of Shrewsbury & Associates will be leading these institutes respectively.

I would like to thank Lenny Noens, one of our Branch Directors and Louis Feagan Chair of the Environmental & Water Resource Institute (EWRI) for helping the Metro Branch with the formation of a scholarship program.

Finally, I would like to thank the Metro Branch Board of Directors for their hard work and dedication, the companies for their support, and the people who attend our meetings. We want you to know that we do appreciate it.

NORTH CENTRAL BRANCH

Report by: Mark Foster
North Central Branch President

The North Central Branch has many members to thank in making this year's meetings and events a success. We would like to recap the highlights of our past year and thank those volunteers for their time and efforts.

The St. Joseph County Public Library's 13th annual Science Alive! event was captivating, as always, for our community's children. The North Central Branch was excited to participate in introducing our community's youth of all ages to the rewarding profession of Civil Engineering. It was held on February 5, 2005 throughout the Main Library in South Bend. We would like to thank the many volunteers for their efforts and especially Jared Huss for organizing the event.

The North Central Branch celebrated National Engineers Week 2005 with a grand revival program at the Century Center on February 19, 2005. ASCE joined nine other engineering societies to hear Mr. Jim Armour, President of the AM General Corporation, give an insightful presentation on the history and development of the Hummer. We would like to express a very special thanks to Mr. Armour and his staff for their generosity and for bringing several full-size Hummers and engine displays to the Century Center for all to see. We would also like to thank Mr. Jim Koontz and the Steering committee for planning the momentous celebration. The Earthquake Engineering Research Institute Student Chapter at The University of Notre Dame invited the North

Central Branch to join them in meeting with one of the world's foremost structural engineers of our time. Mr. Leslie Robertson was on campus this past year to speak to the students, faculty and area professionals about many of the world renowned projects he and his staff have designed. Thank you to the staff of E.E.R.I. and Wilasa Vichit-Vadakan, a Professor in the Department of Civil Engineering and Geological Sciences at Notre Dame, for the chance to talk with Mr. Robertson.

We think the Indiana Section ASCE meeting held on March 23, 2005 was definitely worth the drive. Although it was a little longer for some, we are sure that all agree it was a well planned, well attended and very enlightening event. The Department of Civil Engineering and Geological Sciences at The University of Notre Dame hosted the event and made the speakers, vendors and practicing engineers across the State feel welcomed. We have many volunteers of the North Central Branch and the Notre Dame Student Chapter led by our Section Vice-President, Theresa Harrison, to thank for their many hours of planning.

The North Central Branch has endeavored to bring area professionals together and to help inform them of new technologies available, local projects of interest and different ways to support our age old and ever evolving profession. It has once again been an exciting year for our field and we would like to thank our members for their support and dedication. We would also like to thank our past President, David Koppana, for his enthusiasm and dedication in steering our Branch through the past year. We welcome Jason Durr, who has volunteered to be our Secretary/Treasurer, as we look ahead with enthusiasm to begin planning the approaching year's events.

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Student Chapter Activities

UNIVERSITY OF NOTRE DAME

Report by: Joe Payne

Outgoing Student Chapter President

This year stands out as quite a notable year for the Notre Dame ASCE chapter. Most importantly, we were honored enough to co-host the Indiana Section ASCE Annual Meeting in March, which co-hosted a variety of speakers and events. The team representing Notre Dame in the Student Competition came away as the winner of the student design competition.

Additionally, our campus was lucky enough to be visited by Leslie E. Robertson, perhaps one of the most recognized structural engineer in the world.

On top of all of this aforementioned excitement, the student chapter made great strides the previous year and competed in the Great Lakes Regional Concrete Canoe and Steel Bridge Competitions for the first time in more than a quarter of a century. Though the undergraduates made a valiant attempt with the concrete canoe last year, the lack of experience held them back from competing on the rough waters in Milwaukee. However, the conditions at sea were more favorable in Chicago this year, as their boat Thunderstruck not only floated, but completed all of the races and made it back to South Bend in one piece. Though this triumph may seem trivial to many, this was quite a victory for many of the graduating seniors who put endless work hours into the construction of the canoe.

In addition to the canoe competition, another hard-working group of students became the inaugural group to compete in the steel bridge portion of the regional competition. This group performed exceptionally well and finished the overall competition in third place.

These seniors currently graduating leave behind a legacy of ambition and success, which will be hard to follow for the classes to come. They have passed on the torch of ASCE leadership to John Roche, Leonidas Stellakis, Kristen Pio and Brenna Mannion who will act as president, vice president, treasurer, and secretary, respectively, for the upcoming academic year. They have high hopes to accomplish equal or greater greatness as those who preceded them.

PURDUE UNIVERSITY

Report by: Alison Stevens

Student Chapter Editor

The Purdue University ASCE student chapter started the year with a very successful callout with about 150 students in attendance.

We had two meetings with guest speakers during the semester. Bruce Patterson from Kiewit Construction gave a presentation on the Tacoma Narrows Bridge. Marvin Obermeyer, President of the Indiana Section ASCE, who is a Technical Service Engineer with Buzzi Unicem USA, Inc., also came to speak to us about all we ever wanted to know about concrete.

On the lighter side of things we had a social event in which members came to a night of bowling and snacks. It gave students a chance to relax and have fun. We also played in the Institute of Industrial Engineers annual flag football tournament.

In March, Purdue was represented by 8 students and our faculty advisor at the Indiana Section Annual Meeting at Notre Dame. One of our senior design teams presented their project and others accepted Outstanding Student Awards.

Earlier in March, we hosted our annual Bridge Bust competition at the local mall. High school students built balsa wood bridges and entered them into the competition. We loaded the bridges until failure. This event allowed us to reach out to the community and spread interest in civil engineering.

Other outreach programs which we participated in were NEXT and Envision. NEXT is an event for high school seniors who are coming to Purdue. We gave a presentation on Civil Engineering, hoping to pique interest. Envision was a large festival which allowed for the advertisement of all different types of engineering. We put our concrete canoe on display and built marshmallow and toothpick structures with the children who walked by.

We most recently sent 30 students to compete in the ASCE regional competition in Chicago, IL. We entered in the concrete canoe, steel bridge, concrete bat, environmental, and balsa wood tower competitions. Despite of all the hard work and dedication the participants put in, we were unfortunately unable to place in any of the competitions.

It has been a very successful semester for the Purdue University ASCE student chapter, and we hope next year will be even more so.

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**ROSE-HULMAN
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TECHNOLOGY**

Report by Michael Krantz

Student Chapter Secretary

The Cecil T. Lobo Chapter at Rose-Hulman Institute of Technology has continued to be very involved this spring. We have held several service activities, gone on three field trips, and continued our monthly meetings and cookouts.

We have just completed one wheel chair ramp and are making plans to build a second in the fall. Our chapter again participated in the Campus Beautification Drive here at Rose where we helped place some concrete sidewalks and footers for artwork our campus is going to add. We just held our annual Habitat for Humanity golf tournament on Saturday, May 21. All proceeds from the tournament will be donated to the Wabash Valley Habitat for Humanity. We have also helped judge a local high school's science fair, and we are nearing completion of a project which involved structural assessment of the Marshall Arch for the town of Marshall, IN.

The three field trips we have had include visiting the Highway 641 Bypass construction site here in Terre Haute, Coreslab in Indianapolis, and Cheetah building products. For this past Regional Conference in Chicago, IL, we competed in four of the competitions: technical presentation, concrete bat, environmental, and balsa wood tower.

These are a few of the activities in which we have been involved this spring and we are looking forward to the coming fall.

Our chapter would also like to thank all of the graduating seniors for all they have contributed to our chapter and wish them luck after graduation.

**TRI-STATE
UNIVERSITY**

Report by Jennifer Sharkey

Student Chapter Vice President

It has been an exciting and adventurous year for the ASCE Student Chapter at Tri-State University. The year got off to a great start with a good turnout for our annual fall cook-out at which we recruited at least 7 new members. Our membership has continued to increase throughout the year.

The concrete canoe had a great start by getting the mix designs completed early, leaving ample time for creating the mold and placing the concrete. This year's theme for the canoe was more of a dedication, honoring one of our supporting professors, Professor Al Guilford, who will be retiring this semester. As for the canoe competition, we experienced a few hardships, but still managed to have a lot of fun. We have many new ideas for next year's canoe. Plans are already underway to improve and possibly redesign our current canoe mold to become more competitive.

In March we had our annual Spring Banquet at which we were honored to have the ASCE Indiana State Section President, Mr. Marvin Obermeyer, as our speaker. Mr. Obermeyer gave an inspiring presentation about the benefits of belonging to ASCE and the challenges we will face after graduation. The large group of students who attended also enjoyed meeting some professional engineers from the area who shared with us their experiences and advice.

As the school year is coming to an end, the time has approached for finals, and everyone is preparing for exams. As for our ASCE Student Chapter, we are anticipating that next year will be another good year with several speakers already tentatively scheduled, as well as some new ideas for the concrete canoe project.

Project of the Year:

(Continued from Page 5)

process to utilize gravity flow versus pumps, resulting in the design of a two-mile-long 96-inch trunkline pipe, which outfalls through a series of stormwater management ponds. Because of proximity to the airport, the ponds had to be designed to dry within 24 hours of a 10-year rain event to minimize water fowl in the area.

Embankment Placement during the winter months

Technical methods developed as a part of the I-70 project have also been implemented in other projects in the region. For example, to allow grading activities to progress during winter when the ground is typically frozen, lime was mixed with the earthwork material to warm and dry the embankments prior to compaction. Construction continued through most of the winter, keeping the project on schedule. 2.9 million CY of material were moved between October 2002 and June 2003 to allow adequate paving duration.

Complexity

Few roadway construction projects are as complex as the I-70 Fast Track project. The project included diverse features such as post-tensioned bridges, the detailed design of two new interchanges, miles of large-diameter storm sewers, massive grading efforts, and difficult utility relocations, such as a hot tap for a 54" force main.

For construction, the project was segmented in a way to streamline the construction effort, but it required intricate planning for multiple contractors to work together. Throughout the project construction, as many as four prime contractors and multiple subcontractors and utility companies were working on the site simultaneously.

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