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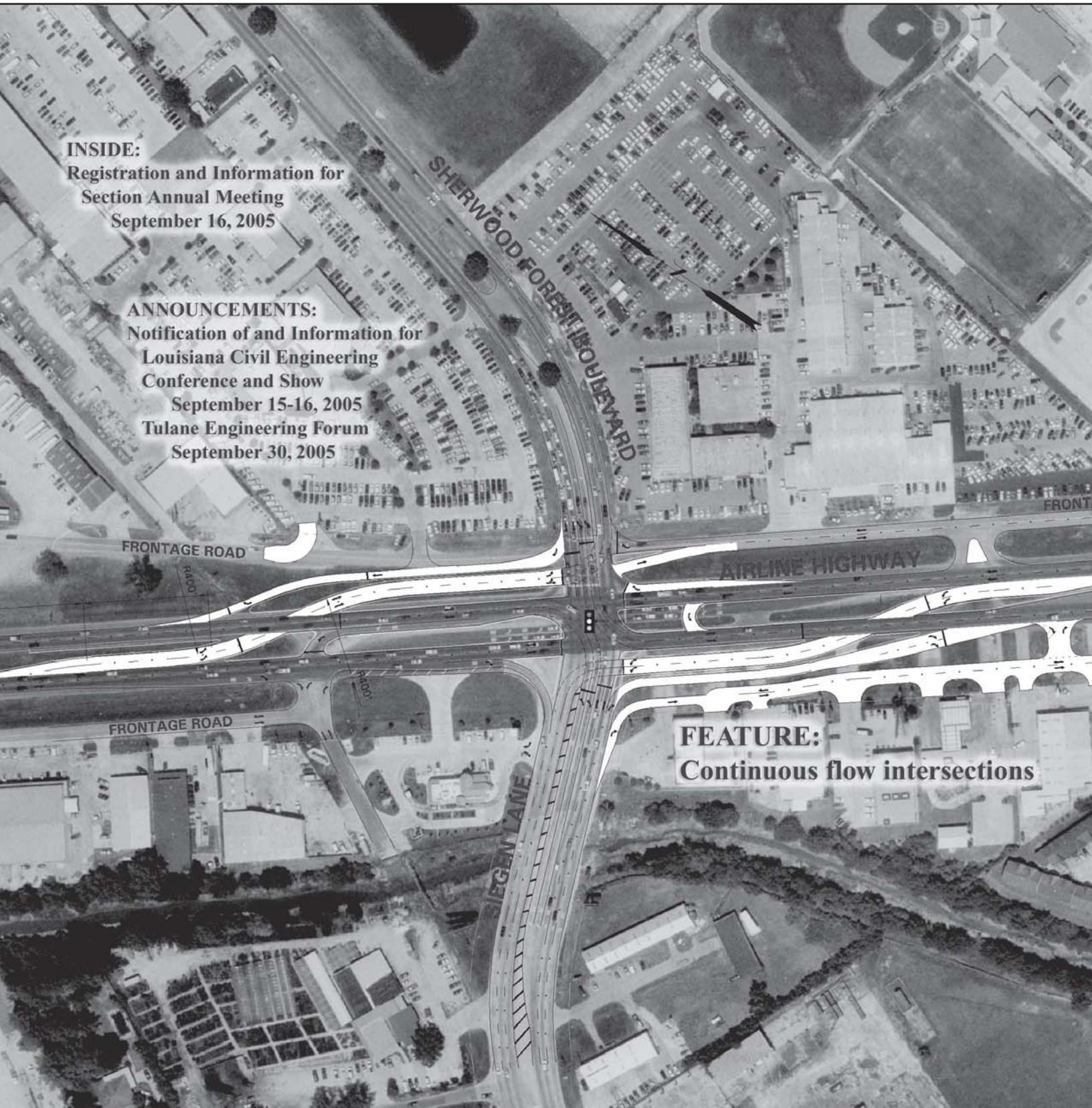

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President's Message

Norma Jean Mattei, PE

Leadership (and management)

Undergraduate engineering students are not required to take business courses in management. As for leadership, most people hold to the adage "Leaders are born, not made." Yet, as civil engineers, many of us will ultimately find ourselves in positions within our organizations that require one or both of these skill sets. After some thought, I decided to write about *leadership,* and, to a lesser extent, *management,* as the focus of the final President's Message of my term. You may say "Hey, wait a minute! Aren't managers and leaders really the same thing?" In researching the topic for this article, I found that there have been recent changes in the way business in general looks at management and leadership.

Let's think about that. A manager's goals arise out of necessities rather than desires. Managers excel in defusing conflict between individuals by placating all sides. They must maintain a balanced budget, keep teams on schedule, and ensure that an organization's day-to-day business gets done. Leaders, on the other hand, adopt personal, active attitudes towards goals. Leadership is the accomplishment of a goal through the inspiration and direction of fellow workers. Successful leadership in part stems from the leader's understanding of the individual goals of fellow workers and the ability to relate those individual goals to the goal of the group.

When asked to define the ideal leader, most people will emphasize traits such as intelligence, toughness, determination and vision. These are the qualities traditionally associated with leadership, but recent studies indicate that there are other personal qualities that can be attributed to outstanding leaders. Psychologist Daniel Goleman coined the term *emotional intelligence* in 1995. The main components of emotional intelligence are

- self-awareness
- self-regulation
- motivation
- empathy and
- social skill.

Although these skills may sound unbusinesslike, in his study of 200 large companies, Goleman found that truly effective leaders are distinguished by having a high degree of emotional intelligence. He also found that emotional intelligence can be learned.

Can management and leadership skills be taught? Obviously it is thought that management skills can — look at the growing number of graduates with a master's degree in engineering management. How about the skills needed to be a good leader? Is it an innate ability — something one is born with? I don't think so. As a child I was very shy, hiding behind my mother's skirt. Even as a college student, although I was active in several student organizations, I avoided taking the position of president. I didn't like the responsibility that position carried, and I hated public speaking. At that time, just having to stand up in front of a group and state my name made my heart pound and my palms sweat. Flash forward to the present. I do quite a lot of speaking in front of groups of various sizes. I now even enjoy it. And I have taken on several leadership roles in various organizations, including serving as President of the Section. I personally have found that leadership is something that you can grow into.

Small and mid-size engineering firms are usually run by engineers. But it seems that the larger the organization, the less likely it will have an engineer at its helm. Even the Louisiana DOTD seldom has an engineer in charge. Is this something that our profession should be concerned with? Surely there are civil engineers out there who have the right stuff to lead engineering organizations. Then should leadership be taught to civil engineering students — integrating it into the curriculum along with everything else that a future CE needs to hit the ground running in his or her career?

. . . I personally have found that leadership is something that you can grow into. . .

So how do you become a better manager or leader? You can get a degree in engineering management. There are even some engineering and business graduate programs that emphasize leadership and entrepreneurship. Author Daisy Wademan always assumed that successful managers/leaders received sage advice from a wise, effective mentor that would carry them through the rest of their career. The advice, she imagined, was direct, deliberate, and handed down like Grandpa's watch from one generation of managers to the next. So Wademan asked several chief executives of various companies about their personal nugget of wisdom that got them to the top of their organization. She was surprised that much of the CEO's advice came as happenstance or in a nonbusiness environment, and often took decades of experience to sink in.

I'll include two concluding tidbits of business wisdom here. Neither of the two advisees are engineers, but I think their advice is applicable to any manager or leader.

The first piece of advice comes from Shelly Lazarus, CEO of the advertising agency Ogilvy and Mather. Her advice stems from an incident — actually it was something she overheard — that occurred very early in her career at a time when she had been working for Ogilvy about two years.

> I was sitting in my boss's office preparing for a very important meeting. One hour before the meeting, the planner on the account arrived at the doorway looking absolutely panicked. The computer had gone down, she said, and she couldn't get the numbers out for the plan that we were supposed to be presenting. Now, in those days, you couldn't just turn the computer off and then reboot. When the computer was down, it was down. The planner, almost hysterical, proceeded to run in circles, which I have never seen anyone actually do before or since. She had her head in her hands and kept saying, "What am I going to do? What am I going to do?" We watched her going around and around in this sort of frenzy. Then, at a certain point, my boss — a man named Charlie Fredericks — got up, stood in her path, grabbed her by the shoulders, stopped her, and nearly shouted, "What are they going to do to you? Take your children away?"

Lazarus says that, as a CEO, she has had many *Charlie Fredericks* moments, where she is forced to stop, apply real perspective, and then help the people around her do the same. *Good leaders keep things in perspective.*

The second piece of advice comes from Daniel Vasella, MD, CEO of the pharmaceutical company Novartis. Again, it is not in stereotypical advice form — an aphorism or a platitude — but as an incident that effectively drove home a point.

> The incident occurred during my medical residency. Every morning our hospital began with a short meeting. We physicians coming on duty were briefed about what had happened with our patients overnight and we heard about the new patients. The meeting was conducted in a highly disciplined manner; my boss disliked it profoundly when people came in late. In fact, being tardy was unacceptable. One winter morning, however, the weather was horrible, and the roads were covered with ice and snow. As I drove to work, I realized I hadn't left in enough time. Arriving about 15-20 minutes late, I was embarrassed and began apologiz-

(Continued on Page 20)

This is the layout plan for a continuous flow intersection, the subject of the feature article in this issue. It serves as a figure in the article and it shows the layout for the construction at the intersection of Airline Highway at Siegen Lane/Sherwood Forest Boulevard in Baton Rouge. It features a 2-leg CFI along Airline Highway.

Continuous flow intersections

By Michael G. Bruce, PE and Lauren T. Picou, EI

Michael G. Bruce

Lauren T. Picou

In 2002, our firm, ABMB, was studying improvements to route US 61 through Natchez, Mississippi for the Mississippi Department of Transportation. During a progress meeting, an engineer with MDOT proposed that a new intersection treatment concept be considered as an alternative. He had learned about it in a presentation during a recent Institute of Traffic Engineers meeting he attended. The concept of *continuous flow intersection* (CFI) was intriguing, and it led to the firm contacting Francisco Mier, the gentleman who made the presentation during the ITE meeting, to request additional information.

After our firm's top designers had the opportunity to evaluate the concept in more detail from the information received and give it due consideration, we concluded that the CFI was not a viable concept. This finding was communicated to the MDOT. However, contrary to this finding the firm was directed to retain Mier's services to further study the CFI concept through its application to at least one location along route US 61 that may be appropriate. Two months later, we realized the potential of the CFI and ABMB executed an exclusive agreement with Mier to market the CFI in the United States.

Like ABMB's engineers, the reaction of most other engineers based on a cursory review of the CFI concept is a strong reluctance to accept such an unconventional solution to everyday intersection problems. This defines the challenge that has been faced since 2002 in gaining any widespread acceptance of the CFI in the market. Public officials are particularly not motivated to expend tax dollars on what would appear to be an unproven concept. Additionally, previous research on unconventional intersections has typically lumped the study of the CFI together with 4 or 5 others that are clearly not as effective in reducing congestion and are not as appealing to driver intuition. In the halo of such uncertain general results, the CFI has been usually given a pleasant reception followed by, "Come back after you have built a bunch of them."

The good news is that some in the industry have begun to appreciate the amazing potential of the CFI. As a result, they are now moving forward with CFI studies, designs and construction.

Problem

Chances are that you have been stuck in heavy traffic recently or you have had to maneuver your way through a congested intersection. Experience indicates that long-term chronic traffic congestion from such problems can

- erode our communities
- disrupt our infrastructure
- lower our quality of life and
- even threaten our health.

For instance, according to a recent study, being stuck in traffic can increase a person's risk of having a heart attack.

Traffic congestion is a problem that plagues many at-grade intersections today. In most cases, this congestion is caused by the continuing growth in traffic volume and aggravated by the turning movements at intersections, and this congestion tends to worsen over time despite the traditional remedies applied. Constructing conventional turn lanes and adding storage capacity, and improving signalization for at-grade intersections may temporarily relieve congestion. However, sooner or later increased capacity will be needed, and the right-of-way required for these conventional improvements will not be available. For many such situations, a grade-separated interchange appears to be the ultimate yet costly solution.

There is, however the CFI — an alternative that is increasingly gaining recognition for its ability to relieve congested intersections without the adjacent property impacts of additional right of way required and financial burdens that accompany the construction of a grade-separated interchange. The CFI is an at-grade intersection that when carefully designed provides traffic volume capacity comparable to that of a grade-separated interchange and at a fraction of the cost. The CFI design has been demonstrated to offer dramatic, long-term capacity improvements compared to the conventional at-grade intersection.

Concept

The design of the CFI centers on the concept of removing the left-turn conflict from the *main* intersection. This is accomplished by providing a *CFI leg* with a separate signalized *crossover* intersection — an exclusive left-turn movement — for the left-turning traffic to cross in conflict with the oncoming through traffic. This crossover intersection is located several hundred feet before the main intersection.

The left-turning traffic at the crossover intersection crosses the opposing through traffic lanes while the through traffic is stopped. It continues down the CFI leg approaching the main intersection. This allows the left-turning traffic continuing on the CFI leg to move continuously and simultaneously with the through traffic at the main intersection. The opposing through traffic is therefore no longer stopped exclusively to accommodate the left-turn movements. The net result is that this eliminates a signal phase and effectively increases the traffic capacity through the main intersection.

The signals at the crossover intersection and the main intersection are operated by the same controller and designed to provide smooth traffic flow. With the proper coordination of these signals, the through traffic departing the main intersection will receive a green light downstream as it approaches the crossover intersection signal. Simultaneously, the stored left-turning vehicles released by the signal at the crossover intersection and continuing on the CFI leg will receive a green light as they approach the main intersection. The signals for an efficiently designed CFI configuration will operate most effectively at a lower cycle length than that needed for the conventional at-grade intersection.

There are 3 steps that can describe the maneuvers of a vehicle negotiating a left turn through a CFI intersection.

Step 1. The vehicle enters the left-turn vehicle storage bay as shown in Figure 1 and stops in

Michael G. Bruce, PE, earned his BS degree in civil engineering from Louisiana State University in 1978. He is a licensed engineer in Louisiana, Alabama and Ohio. Bruce has over 27 years of experience in private practice. In 1985 he joined with partners to found ABMB Engineers, Incorporated. As a principal of the firm he manages and participates in the design, and the development of plans, specifications and estimates for traffic, highway, bridge and general civil engineering projects.

Lauren T. Picou, EI, earned her BS degree in civil engineering from Louisiana State University in 2002. She is a certified engineer intern in Louisiana. Since graduation, Picou has been employed by ABMB Engineers, Inc. in its traffic engineering department working on a range of projects including traffic impact studies, signal design and traffic modeling. She is a member of the Institute of Transportation Engineers.

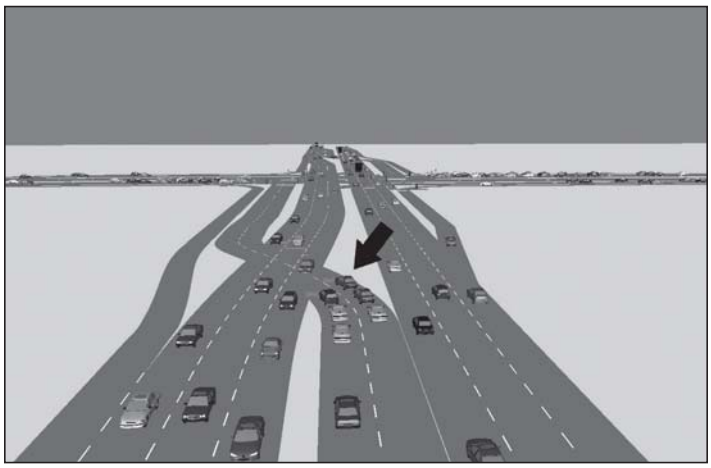

Figure 1. Traffic is stored in a queue for the left turn movement on the CFI leg. It is held at the crossover intersection (see arrow) while allowing the opposing through traffic to pass at the main intersection.

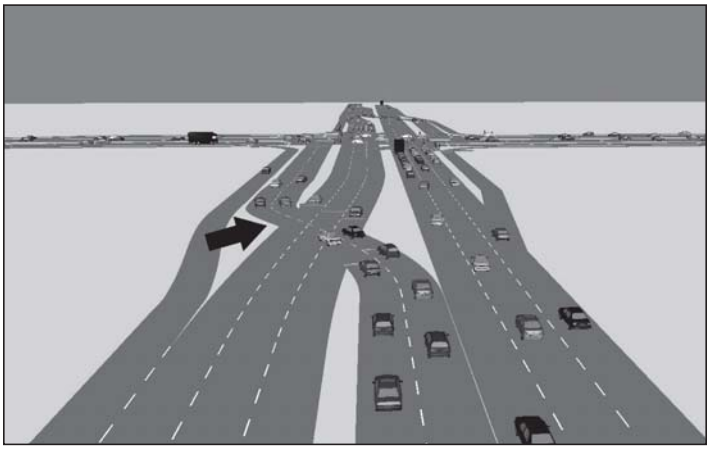

Figure 2. The traffic stored in the queue for the left turn movement on the CFI leg is released from the crossover intersection. It crosses the opposing through traffic lanes and continues on the CFI leg (see arrow) toward the main intersection. Simultaneously, the opposing through traffic at the crossover intersection and at the main intersection is held.

the queue for the left-turn signal's red light located at the crossover intersection indicated by the arrow and located several hundred feet before the main intersection. Overhead signing directs the left-turning vehicles to queue at this left-turn signal on this portion of the CFI leg.

Step 2. The vehicle queue receives the green light and the vehicle in this queue crosses the opposing through traffic lanes as shown in Figure 2. The vehicle proceeds on the CFI leg indicated by the arrow and approaches the main intersection. Note that the opposing through traffic is on the right and the channelized right-turning traffic is on the left of the CFI leg.

Step 3. As the vehicle proceeds in the vehicle queue on the CFI leg as shown in Figure 3 and approaches the main intersection indicated by the arrow the main intersection receives a green light allowing the vehicle queue to turn left without stopping. During this same time period, the opposing left-turn and through movements are taking place. The opposing through traffic does not conflict with the simultaneous left-turn movement at the main intersection because left-turn movement is occurring to its right. This is because the left turn movement turns away from the opposing through traffic rather than into the opposing through traffic as would be provided by the conventional intersection.

Research/studies

Driver adaptation

Although the roadway geometry for the CFI is a different experience from conventional intersections, the maneuvers required are intuitive and easily adapted to by drivers. Most drivers do not realize that they are in this unconventional intersection. In the paper *Human Factors Study of the Continuous Flow Intersection...*, it is concluded that

> ...about 80% of the first-time users of the intersection expressed positive comments about the design. After about a week of use, 100% of the daily drivers sampled expressed positive comments about the design. The intersection is easily negotiated by drivers who are initially unfamiliar with the design and that, after a short learning curve, nearly all drivers are familiar and comfortable with the intersection.

Performance

The Federal Highway Administration recently published a paper documenting the analytical results of a CFI performance study using VISSIM — a proprietary traffic and transit simulation modeling software package developed by PTV America, Inc. The analysis compared the CFI with conventional intersections given the same traffic volume and number of approach lanes. Based on the results, it was concluded that the CFI

> ...consistently outperforms the conventional intersection even at low traffic volumes. The reduction in the number of phases on approaches having (CFI) geometries results in tremendous vehicular delay savings as well as considerable increase in the capacity of the intersection.

A variety of CFI configurations were tested through a range of vehicle volumes. The study included 4-leg, 2-leg, and T-intersection CFI applications. A summary of the results follows:

- Percent reduction in average intersection delay
  - 48% to 85% for a 4-leg CFI
  - 58% to 71% for a 2-leg CFI
  - 19% to 90% for a T-intersection
- Percent reduction in the average number of stops
  - 15% to 30% for under-saturated traffic flow
  - 85% to 95% for saturated traffic flow
- Percent reduction in average intersection queue length
  - 62% to 88% for a 4-leg CFI
  - 66% to 88% for a 2-leg CFI
  - 34% to 82% for a T-intersection

Effectiveness

In the paper *Design and Operation Performance of Crossover Displaced Left-Turn (XDL) Intersections,* it is stated that heavy traffic flows on all approaches and movements often create very congested situ-

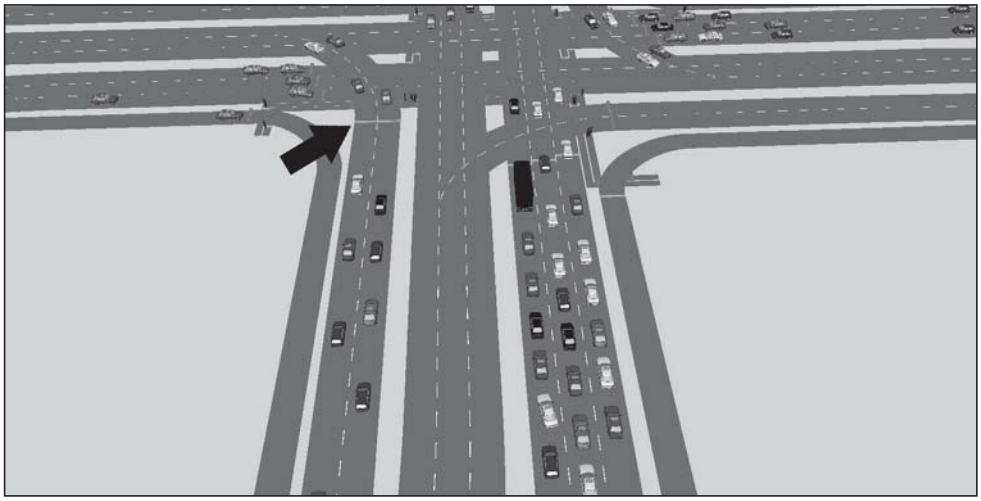

Figure 3. As the traffic in the queue for the left turn movement on the CFI leg approaches the main intersection, it is released so it may turn left without stopping. Simultaneously, the opposing through traffic is released from the main intersection, then the crossover intersection releases the opposing through traffic as it approaches from the main intersection.

ations resulting in poor level of service and over-saturation. The major side effects are pollution, increased stress levels and economic losses in terms of wasted time, to state a few. Researchers, primarily attempting to reduce congestion, delay, and crashes, have suggested several innovative traffic intersection designs. The most significant influence is reducing the number of phases within a signal cycle.

Access

A potential drawback to the CFI is that it can reduce the ease of access to abutting properties near the main intersection. Access for the properties adjacent to a CFI leg may be restricted to the channelized right-turn lane. However, with the inherent flexibility of the CFI, access issues can be effectively addressed in most circumstances. In many cases, the approaches with the CFI legs are chosen based on the access requirements. Where the right-of-way is available, a frontage road can solve the access requirements. It should be noted that good access management practices dictate restricted access near congested or high capacity intersections. This CFI *drawback* may combine with good access management practices to be used as a tool to promote appropriate access restrictions.

Comparison

In the paper *Travel Time Comparisons Between Seven Unconventional Arterial Intersection Designs,* unconventional intersections are compared to their conventional counterparts. It is suggested that "The continuous flow intersection always had the highest move-to-total-time-ratio of all the other designs, keeping the traffic moving as its name implies." It is also suggested that "The continuous flow intersection probably needs the smallest right-of-way of all the unconventional designs." The 7 designs that were studied are the

- quadrant roadway intersection
- median U-turn
- superstreet median
- bowtie
- jughandle
- split intersection and
- continuous flow intersection.

A true benefit of the CFI concept is that it is highly adaptable to the particular site conditions of an intersection. A CFI leg can be placed on any or all approaches dependent on

- right-of-way availability
- access restrictions and
- volume/capacity requirements.

Today

The poignant questions concerning the extent of the implementation of the CFI application that is not consistent with its performance and effectiveness compared with conventional intersections are

- If the CFI is so great, why is it not being used at every congested intersection in the country?
- What is taking so long for the CFI to catch on?

The answer is that many are hesitant to take a chance on a concept that has not been widely tested and proven in the United States, especially when tax dollars are at stake. Since the CFI concept is new, and there are so few built in the United States, the general reaction is, "It sounds like a great idea, but let's test it somewhere else."

The CFI has made headway among traffic engineers who are confronted by limited budgets and willing to consider innovative ways that may be effective and efficient in solving intersection congestion. In Mexico, more than 50 existing CFI applications have proven their value in service over the last decade. They have reduced intersection delay and are well accepted by motorists. In the United States, a prototype was built in 1996 at Dowling College in New York, followed by a full-scale project in Maryland at the junction of state route MD228 and MD210

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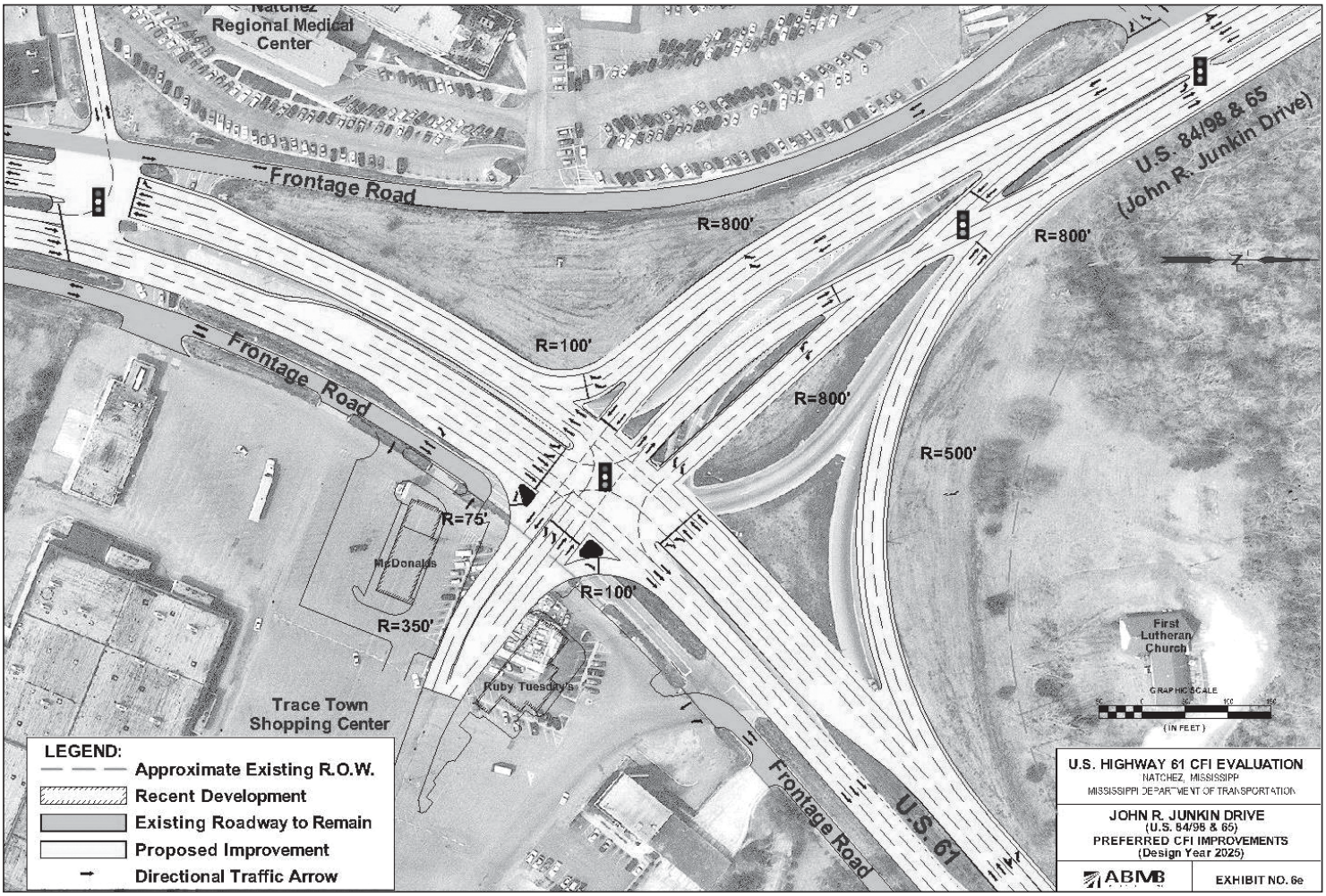

Figure 4. The layout plan for the construction at the intersection of US 61 and Junkin Drive that is part of the CFI project on the US 61 corridor in Natchez, Mississippi. It features a one-leg CFI to accommodate the large volume of left turn movements from Junkin Drive onto US 61.

News from the Branches

SHREVEPORT

By Kurt M. Nixon, PE, President

Rain did not hamper the golf tournament this year as it did during the past couple of tournaments. As a matter of fact, it turned out to be a beautiful day on a splendid course. In short, it was a lot of fun even for a hacker like me. The winners of this year's tournament, Russell Engineering, were newcomers to the Branch golf tournament and obviously represented themselves well.

As in past years the proceeds from the golf tournament allow the Branch to support two scholarships for Louisiana Tech civil engineering students. So on behalf of the Branch, I wish to thank all who sponsored and participated in this year's tournament making it a success. Finally, congratulations to Ashley T. Sears, EI, for a terrific job coordinating this outstanding event.

Our April membership meeting however was not nearly as successful. We had decided to try something a little different by holding the meeting in Ruston on the Louisiana Tech University campus. Our intent was to provide an opportunity for our members in the eastern part of the Branch to have a convenient meeting location and a PDH class a little closer to home and also allow the Branch to connect with the Tech ASCE Student Chapter. Not one member from the Monroe and Ruston area came to the meeting outside of two Tech professors — one of whom made the presentation. The other professor was a past Tech Student Chapter faculty adviser.

The Ruston meeting, however, had a bright side because the handful of Branch members who made the trip over from Shreveport had a great time discussing hypothetical ethical situations with the many students who attended. Thanks to Kristen Jerome, a Tech civil engineering student, for her help in coordinating the room reservations and the catering. Finally, thanks to all the students who attended for helping us eat all the food, giving us some good ideas for future activities between the branch and the Tech ASCE Student Chapter, and making a fun meeting out of what would have been a disappointing one.

Our Younger Member coordinator and Vice President, Elba Hamilton has also recently been working closely with Section Younger Member Committee chair in planning a calendar contest. This should be an outstanding opportunity for the ASCE to connect with some younger engineers and future engineers while putting out a nice product to represent those companies supporting this project. I want to encourage all to support and get involved with this project.

If you have any interesting news you would like to share with the Branch membership, ideas or request for meeting topics, or you are interested in publishing an article in the newsletter, please email me at kurt@coyleengineering-bossier.com. I hope you have a great summer and look forward to seeing everyone for the next Branch membership meeting to be scheduled on the 3rd Thursday in September.

ACADIANA

By Kimberly D. Landry, EI, President

With activities winding down for our usual summer break, the Branch opted to veer away from tradition and host a special June branch membership meeting and luncheon. Although the meeting was originally scheduled to elect the 2005-2006 Branch Board of Directors, it provided a unique opportunity for those branch members in attendance to commemorate the exceptional service and contributions of some of our colleagues to the Branch community.

Specifically, during the June Branch membership meeting, the Past Presidents of the Branch were acknowledged and honored for their service to the ASCE and the Branch. During this same meeting, the Branch celebrated the distinguished career of Robert S. Wang, PE, a Professor in the Civil Engineering Department at the University of Louisiana at Lafayette on the event of his recent retirement. These current and former Branch members have had a tremendous impact on our civil engineering community through their leadership and service to the profession. A listing of the Past Presidents of the Branch is provided on its website at www.asceacadiana.net/about_asce.htm.

The Acadiana Branch Board of Directors for the 2005-2006 administrative year will be:

- Dax A. Douet, PE, President: C.H. Fenstermaker & Associates
- M. Jamal Khattak, PE, President-Elect: University of Louisiana at Lafayette
- Joseph P. Kolwe, Jr., EI, Vice President: Civil And Structural Engineers (CASE), Inc.
- Clint S. McDowell, PE, Treasurer: SITE Engineering, Inc.
- Joshua P. Stutes, PE, Secretary: Sellers and Associates, Inc.
- Kimberly D. Landry, EI, Past President: Lafayette Consolidated Government

On behalf of the Branch, I would like to welcome aboard our new officer, Joshua Stutes, and to extend congratulations and appreciation to our Board members for their dedication and accomplishments during this administrative year. I would also like to wish the incoming Board members every success in the new term. Branch activities will resume with installation of the Board for the 2005-2006 administrative year at the September Branch membership meeting and luncheon later this year.

Have a great summer!

BATON ROUGE

By André M. Rodrigue, PE, President

My term serving as your President is coming to an end. As I write this message, the slate of official nominees that will stand for election for next Board of Directors are being prepared for your consideration. Tommy Roberts, President-Elect, will succeed to the office of President for the 2005-2006 term.

Those of you who attended the last membership meeting know what a treat it was to have Claudia Alums discuss her experience with her 2 Glasgow Middle School students, Delong Ming and Neal Woo, at the National MATHCOUNTS competition in Detroit, Michigan. This was the 19th trip to national competition for Alums. She has literally produced a dynasty of MATHCOUNTS competitors over the past 2 decades. Her students won state competition in Louisiana to qualify for nationals.

The Louisiana team consisted of Ming and Woo and 2 students from Caddo Magnet. They participated in the initial round of testing in national competition where the top 12 finishers were invited to participate in the countdown round. Woo ranked 9th and entered the competition. To add to the suspense, it was televised on ESPN2. Alums brought a copy of the video for all to see. Woo stayed in the competition to the final and managed to fall behind by 2 questions, but demonstrating resilience, he answered the next 4 questions correctly to claim 1st place.

Our PDH opportunity for this meeting was a presentation titled *Crisis Management* by John C. Pine, Chair of the Department of Geology and Anthropology and Director of Disaster Science Management at LSU. His presentation focused on the crisis opportunity for which all South Louisiana residents are familiar — the hurricane. The Gulf coast from Vermilion Bay to Mobile with New Orleans located in the middle is the busiest area of major storm activity in the U.S. Since 1937 more than a million acres of coastal marsh lands have been lost resulting in substantially reduced storm protection.

In conjunction with the LSU Hurricane Center, a category 3 hurricane was simulated to

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NEW ORLEANS

By Deborah Ducote Keller, PE, President

As my presidency draws to a close, I would like to thank the dedicated officers and committee chairs in the Branch who worked together to provide a continuous year of programs and activities for our nearly 600 Branch members. Attendance during the Branch general membership meetings and luncheons has continued to exceed our expectations.

The April general membership meeting held at the Southern Yacht Club featured noted author Buddy Stall sharing his knowledge about the local history of the City's development. The May meeting at Vooddo Bar-B-Que brought in Robert Esenwein, Vice President for environmental planning with Turner, Collie, Braden Engineers, to share the lessons learned in coastal wetlands restoration at Galveston Bay. However, the highlight of the year was the annual Branch awards luncheon attended by over 100 members and guests. The luncheon and awards ceremonies were held in the famous Commander's Palace Restaurant. The resumes and/or citations concerning the Branch members who were acknowledged for attaining the grade of Life Member and presented with Branch awards are covered in the article in this issue titled "New Orleans Branch 2005 Awards."

Christopher L. Sanchez, EI, Chair of the 2005 Louisiana Civil Engineering Conference and Show, is hard at work with the various Conference committees planning this annual Branch event. This work is being done in cooperation with the co-sponsoring organization, the Louisiana Chapter of the American Concrete Institute. The notification and technical program for this Conference scheduled for September 15-16, 2005 in Kenner at the Pontchartrain Center can be found in this issue.

The Conference has become so successful that the Branch and the Louisiana Chapter of the ACI have formally adopted a separate governance structure for the Conference planning and host organization. The new board for the Conference consists of 3 appointees from each organization to provide continuity in leadership and ensure the future of this important professional development program. The Branch appointed

- Gustave S. "Gus" Cantrell, PE
- Frank C. McCaskell, PE and
- Timothy M. Ruppert, PE

as its representatives on the board for the Conference. The Louisiana Chapter of the ACI has yet to make its appointments.

The election of Branch officers took place at the May Branch membership meeting and luncheon where the following slate of officers was elected:

- William H. Sewell, Jr., PE, President
- Christopher L. Sanchez, EI, President-Elect
- Ronald L. Schumann, PE, Vice President
- Nathan Junius, EI, Treasurer
- Benjamin M. "Ben" Cody, PE, Secretary
- Mohammad Tavassoli, PE, Director and
- Jonathan G. McDowell, PE, Director.

Installation of these Branch officers and the beginning of the 2005-2006 administrative year will be in conjunction with the installation of the Section officers scheduled to be held during the Section Annual Meeting and awards banquet that will be hosted by the Branch in New Orleans on September 16. See the information and registration concerning the Section Annual Meeting and banquet in this issue.

For current information on all Branch activities, as well as contact information, please visit www.asceno.org

New Orleans Branch 2005 Awards

Life Membership

Every year the ASCE advances its members who qualify to the membership grade of Life Member and it issues certificates to those members commemorating the event. The criterion to qualify to advance to the grade of Life Member is when the sum of the age of the member in years and the number of years as a dues paying member of the ASCE reaches 95. Life Members are exempt from paying national dues.

The Life Member certificates were presented in March during the Section Annual Spring Meeting awards banquet in Lafayette. This year's recipients from the Branch are J. Alvin Badeaux, Jr., Arthur A. DeFraites, Jr., Morris R. Heinzen, Donald F. Songenfrei, Leonce P. Wagusepack, Jr., and Thomas R. Wartelle.

J. Alvin Badeaux, Jr., PE

Badeaux received his BS in civil engineering from the University of Louisiana at Lafayette in 1963 and his MS in engineering mechanics from Rensselaer Polytechnic Institute of Troy, New York in 1965. He began his career in the aerospace industry doing structural design for the Boeing Company on the Saturn Booster and for Pratt & Whitney Aircraft on components of the Apollo spacecraft and the Lunar Excursion Module. Badeaux then entered the consulting engineering field and worked 3 years for Fromherz Engineers in New Orleans before opening his own firm in Thibodaux. He is the founder and Vice President of Badeaux Engineers, Inc., a structural and civil engineering firm that over the past 35 years has completed 3000 different projects for over 250 different clients.

In addition to his membership in the ASCE and several other engineering/technical societies, Badeaux has served as a member of the Board of Direction of the Louisiana Engineering Society and President of the Louisiana Chapter of the American Concrete Institute. He is a licensed engineer in 11 states. Badeaux and his wife, Judy, have 4 children, 2 of whom chose engineering as their profession.

Arthur A. DeFraites, Jr., PE

DeFraites received his BS and MS from Tulane University in 1953 and 1958, respectively. He is a licensed engineer and professional land surveyor in Louisiana and in Mississippi.

DeFraites is the President of Gulf South Engineering in Houma that provides engineering, architectural, land surveying, and planning services primarily in the public works arena. He served on active duty in the U.S. Navy for 3 years. DeFraites has served as Chair of the Professional Engineers in Private Practice Division of the National Society of Professional Engineers, and Chair of the Committee on Federal Acquisitions of Architectural and Engineering Services. He currently serves on the Board of Advisors for the Tulane School of Engineering. DeFraites and his wife, Mary Helen, have 5 children.

Morris R. Heinzen

Heinzen has been an ASCE member in the surveying and mapping division since he graduated from South Dakota State University in Brookings with a BS in civil engineering in 1963. After a very short stint with the South Dakota Highway Department in 1963, he began his current career with the U.S. Naval Oceanographic Office in 1963 as a civil engineer. He served as a physical scientist working in the field of hydrographic surveying, in nautical charting, and in geographic information system (GIS) analysis. After working for about 10 years, Heinzen returned to graduate school at Cornell University in Ithaca, NY, in 1972 earning his MS in geodetic and photogrammetric engineering in 1978 when his thesis, *Hydrographic Surveys: Geodetic Control Criteria*, was accepted.

As its Treasurer, Heinzen remains an active member of the American Association for Geodetic Surveying — a member organization of the American Congress on Surveying and Mapping. He received offshore hydrographic certification #32 and inshore hydrographic certification #41 from the ACSM in 1986. He became a member of the ACSM hydrographic certification board in 1988 and served as both a member and secretary of that board until 2004.

Morris continues his professional career that spans over 40 years with the Naval Oceanographic Office in hydrography and bathymetry. During his career he has conducted and participated in hydrographic surveys for nautical charting purposes along the coasts of Egypt, Greece, Korea, Panama, Philippines, Taiwan, Hawaii, and along the coasts of the United States and its territories. Morris has conducted surveys in the approaches to both the

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Panama and the Suez canals. He has been involved in the joint projects worked by NAVOCEANO, National Geospatial-Intelligence Agency, and the NOAA National Geophysical Data Center.

Donald F. Sorgenfrei, PE

Sorgenfrei graduated with a BS in civil engineering from LSU in 1964. After 2 years as an officer in the U.S. Army that included duty in Vietnam, he started his engineering career with a local engineering firm but shortly thereafter accepted employment with Modjeski and Masters, starting as a designer. Sorgenfrei has spent the last 37 years in the construction and inspection of bridges. Over the years he has been involved with the construction of 7 movable railroad bridges replacing existing movable spans. Sorgenfrei has been involved in the inspection of bridges for all Class 1 railroads and many short lines, and for a number of state departments of transportation. He routinely responds to bridge emergencies resulting from accidents and disasters, some of which involved the following bridges:

- Sunshine Skyway Bridge — Tampa Bay
- Bayou Canot Bridge — Mobile-Amtrak
- Huey P. Long — New Orleans
- 4 bascule bridges — Port of New Orleans
- I-40 Arkansas River Bridge and
- Loma Prieta Earthquake bridge damage — Monterey, CA.

At present Sorgenfrei is Senior Vice President of Modjeski and Masters and Director of the firm's field functions.

Leonce P. Waguespack, Jr., PE

Waguespack received his BS from LSU in 1963. He immediately began employment with the Louisiana DOTD and was involved with the I-10 Bridge over the Industrial Canal. In 1964, Waguespack began employment as an Assistant Engineer in the Engineering Department of New Orleans Public Service, Inc., now Entergy New Orleans, Inc. He held many titles at Entergy and worked for many of its subsidiaries including Louisiana Power and Light Company, Entergy New Orleans Inc., and Entergy Gulf States Inc. He specialized in the design and planning of gas distribution and transmission pipeline systems. Waguespack retired from Entergy Services Inc. in November 2004 after nearly 40 years of service and he is enjoying retirement with his wife Linda. Waguespack served as President of the New Orleans Branch and as President of the Section.

Thomas R. Wartelle, PE

Wartelle received a BS in civil engineering from the University of Louisiana at Lafayette in 1961. He is a licensed engineer in Louisiana and Texas.

Wartelle spent his entire career in the oil and gas industry, predominantly in structural engineering of deepwater offshore facilities. He has managed projects in the Gulf of Mexico, the North Sea, and the Middle East, of which the most notable facilities were the Texaco Cyprus "D" platform — the second largest tripod type platform in the Gulf of Mexico, and the Chevron Genesis development project — a new deepwater technology that resulted in substantial cost savings. Wartelle has managed multi-disciplinary, worldwide staffs of over 750 employees. After 34 years with various components of McDermott, he joined Petro-Marine engineering. Currently Wartelle is the manager of structural engineering at Casbarian Engineering Associates LLC.

Outreach Award for Community Service — *Norma Jean Mattei, PE*

The Section established the Outreach Award a few years ago. To date no nominees for the Section Award have been submitted. This award is given for outreach work done through the ASCE as well as with area schools and the community.

Mattei has chaired the Branch Outreach Committee since its inception 6 years ago. In 2000, she coordinated an annual outreach event for children during the New Orleans Jazz and Heritage Festival. The event began in its first year as a LEGO building activity in the children's area that evolved into Box City, where the children act as engineers designing the model structures out of cardboard boxes that are needed to turn an 8' by 16' street layout into the City of New Orleans. The model structures are placed in the city according to building permit rules. The participating children receive an ASCE doubloon once their construction is complete. This event is always a big hit in the children's area and it is a lot of fun for the children and the volunteers alike.

Each semester, Mattei volunteers to speak to students in area middle schools and high schools about civil engineering as a career choice. Some of these schools include

- Ursuline Academy
- Archbishop Chapelle High School
- St. Catherine of Sienna and
- St. Christopher.

She is also active each semester doing a lab demo for the UNO College of Engineering Career Days — Aware Days — where local middle school and high school students come to the UNO campus to find out more about civil engineering. Also, Mattei serves as the UNO faculty advisor to Tau Beta Pi honorary fraternity and to the Society of Women Engineers student chapter.

Mattei has been a judge each year for the New Orleans Science and Engineering Fair, and sporadically judges for other science fairs including the National Association of Women in Construction's construction contests and the local high school science fairs.

She served as President of the Branch when the ASCE radio commercial for WWNO was developed. Mattei was also on the Branch planning and development committee for the Channel 15 TV commercial for ASCE. Both commercials promoted public awareness of civil engineering.

Mattei is also the assistant leader of Brownie Troop 188.

Outstanding Young Civil Engineer Award — *Stephen C. Bourg, PE*

Since 1995, the Branch has annually recognized an Outstanding Young Civil Engineer. The

Norma Jean Mattei receives commemorative plaque for the Branch Outreach Award for Community Service from President Keller.

Stephen Bourg receives commemorative plaque for the Branch Outstanding Young Civil Engineer Award from President Keller.

Mark Gonski receives commemorative plaque for the Branch Outstanding Government Civil Engineer Award from President Keller.

Don Makofsky receives commemorative plaque for the Branch Outstanding Civil Engineer Award from President Keller.

Bill Conway receives commemorative plaque for the Branch Lifetime Achievement Award from President Keller.

Walter Blessey receives commemorative plaque for his induction into the Section Wall of Fame from President Keller.

recipient must be 35 years of age or younger, a member of the Section, and a certified engineering intern or licensed engineer. The candidates are evaluated on their involvement in the ASCE, service to the advancement of civil engineering, service to the community outside of the field of engineering, technological accomplishment, and other evidence of merit or character.

Bourg received his BS in civil engineering from the UNO in 1994 and he is a licensed engineer in Louisiana. After graduation, Bourg joined URS Corporation where his career has focused on the analysis and design of hydraulic concrete structures such as large pump stations, locks, and water retaining and flood protection structures. Currently he is a project manager in the URS Metairie office.

Currently, Bourg serves as the project manager for the Houma navigation canal lock and floodgate project. He is responsible for the ongoing design of this $135 million project that consists of feasibility reports, preliminary engineering, and plans and specifications for the entire lock complex that consists of a 110' x 800' lock and an adjacent 200' floodgate. Other recent projects include the Dwyer Road, Elmwood, and Whitney-Barataria pumping stations.

While attending the UNO, Bourg served as a member on 2 concrete canoe teams, one of which he also served as its chair. As the chair, he oversaw the design and construction of the competition canoe with which the UNO ASCE Student Chapter won the regional concrete canoe competition and placed in the top five in the national competition both years Bourg participated.

Bourg has served on the planning committee for the Branch-sponsored Louisiana Civil Engineering Conference and Show since 1998. For the past 5 years he has chaired the registration for both the Conference and the Section Annual Meeting that includes an awards banquet and the installation of officers.

Bourg has also been active in the Louisiana Chapter of the American Concrete Institute for the past 7 years. He has served as the past chair of its student activities committee and he is currently serving as the chair of its education committee.

Outstanding Government Civil Engineer Award — *Mark H. Gonski, PE*

Since 1995, the Branch has annually recognized an Outstanding Government Civil Engineer. The recipient must be an employee of a federal, state, or local government agency, a member of the Section, and a licensed engineer. The candidates are evaluated on their involvement in the ASCE, service to the advancement of civil engineering, service to the community outside of the field of engineering, technological accomplishment, and other evidence of merit or character.

Gonski received his BS in civil engineering from the New Jersey Institute of Technology in 1978 and his MS in civil engineering from Tulane in 1991. He is a licensed engineer in Louisiana. Upon graduation from college, Gonski joined the Peace Corps and spent three years in Thailand working with the Royal Thai Irrigation Department designing and constructing local irrigation projects.

In 1982, he joined the U.S. Army Corps of Engineers in the Structures Branch and now has over 20 years experience with the Corps. Gonski is the lead designer and technical manager of the Harvey Sector Gate project, the first float-in structure designed by a Corps district. He is also the lead designer and technical manager for the IHNC lock replacement project, which consists of a 110' x 1200' lock, the relocation of two major bridges, channel excavation, a flood protection realignment, hazardous waste clean-up, demolition work, and neighborhood mitigation. The current estimated construction cost of this project is $700 million. Gonski is also in charge of the inspection and repair of all steel structures within the New Orleans District.

Gonski is a member of the Corps' innovative navigation program that continually develops more economical methods of design and construction for the nation's waterways. This year, he became the first regional structural specialist for the Mississippi Valley Division. In this capacity, Gonski serves as a technical advisor for 6 Corps districts providing design guidance for navigation, flood control, pump, and drainage structures.

Gonski is a member of the Branch Structures Committee and served as its Chair in 2004. Gonski is also an active member of the American Welding Society, and he is a certified weld inspector.

Outstanding Civil Engineer Award — *Donald C. Makofsky, PE*

Since 1995, the Branch has annually recognized an Outstanding Civil Engineer. The recipient must be a member of the Section, and a licensed engineer. The candidates are evaluated on their involvement in the ASCE, service to the advancement of civil engineering, service to the community outside of the field of engineering, technological accomplishment, and other evidence of merit or character.

Makofsy received a BS and an MS in civil engineering from Tulane University in 1963 and 1968, respectively. He is a licensed engineer in Louisiana, Florida, Texas, Mississippi, and 6 other states.

Makofsy is the President of Morphy Makofsy, Inc. His expertise is in structural and foundation design for all types of buildings, bridges, piers, wharves, and roads. Makofsy provided all the structural and foundation design required for refurbishing the historic structures that now house the National D-Day Museum. Other recent projects include

- the Erato Street Cruise terminal
- Harrah's
- East Jefferson Hospital
- Loyola parking garages
- Hollywood Casino — Shreveport and
- Regional Airport — Shreveport.

He is a member of the American Concrete Institute, Consulting Engineers Council of Louisiana, Louisiana Engineering Society, The Prestressed Concrete Institute, and the Society of Tulane Engineers, and of the Board of Standards and Appeals for the City of New Orleans. Makofsky is a frequent contributor to the Junior Olympics, Volunteers of America, City Park, Audubon Institute, Society of Tulane Engineers, and Loyola University.

Makofsky has been a strong supporter of the ASCE members on the engineering staff of

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Morphy Makofsky. He encourages their participation in the ASCE as beneficial not only to their professional development, but also as a way to contribute to the mission of the ASCE. He has also been a guest speaker at many ASCE events.

Lifetime Achievement Award — *William B. Conway, PE*

Since 1995, the Branch has annually recognized the Lifetime Achievement Award. The recipient must be 55 years of age or older, a Fellow or Life Member, a member of the Section and a licensed engineer. The candidates are evaluated on their lifetime involvement in the ASCE, lifetime achievement in civil engineering, technological accomplishment, character, and integrity.

Conway received a BA from Dartmouth College in 1952 and a MS in Civil Engineering from the Thayer School of Engineering, Dartmouth College in 1954. He is a licensed engineer in Louisiana, Alabama, Alaska, Arizona, Arkansas, Florida, Georgia, Maryland, Michigan, Mississippi, New Mexico, New York, Ohio, Pennsylvania, Tennessee, and Texas.

Conway began his career with Metcalf and Eddy and soon thereafter he joined the faculty at the Thayer School of Engineering, Dartmouth College as a civil engineering instructor. He then joined Raymond Pile Co. as a field superintendent followed by a year in the Navy Construction Battalions. In 1957, Conway joined Modjeski and Masters as a junior engineer and in 1961 he was appointed engineer-in-charge of the firm's New Orleans office. Conway quickly rose through the ranks and today he is Chairman and CEO of Modjeski and Masters.

Conway has 48 years of experience encompassing virtually all aspects of bridge analysis, design, construction and retrofit. The New Orleans office, under his direction, has carried out the design of numerous interstate highway interchanges, viaducts, and overpasses. Conway has been the principal-in-charge of 8 Mississippi River bridge crossings, including the second span of the Crescent City Connection and most recently the widening of the Huey P. Long bridge. He has also been the principal-in-charge of the seismic retrofit of the San Mateo-Hayward bridge crossing San Francisco Bay and the vessel collision vulnerability assessment of bridges on the lower Mississippi River.

Conway's technical specialties include design of deep-water caisson foundations, design of long span truss, girder, and cable-stayed supported spans, retrofit and strengthening of steel structures, and the management of design teams for major projects.

Conway is a frequent speaker to many engineering and community organizations. In 2001, he gave the annual David Hunter Memorial Lecture sponsored by the Branch Structures Committee. Later that year, Conway was chosen to give the Catherine and Henry Boh Lecture in Civil Engineering for the Tulane Engineering Forum.

Conway is a Fellow and Life Member of the ASCE and served as the New Orleans Branch president in 1972. He is a regular speaker during the monthly Branch meetings and for the Louisiana Civil Engineering Conference and Show. Conway also regularly presents lectures to student groups at Tulane and UNO as part of the engineering classes and the ASCE student chapter meetings.

He is a Member of the Advisory Board for both Tulane School of Engineering and the UNO Civil Engineering Department. In addition, Conway is a member of the American Concrete Institute, American Institute for Steel Construction, Prestressed Concrete Institute and the International Bridge, Tunnel, and Turnpike Association, and a Fellow of the International Association for Bridge and Structural Engineering.

Inductee to the Louisiana Section Wall of Fame — *Walter E. Blessey, PE*

In 2002, in conjunction with ASCE's 150th anniversary, the Louisiana Section established the Wall of Fame. The Wall is located in the Louisiana Engineering Center in Baton Rouge, where ASCE rents office space. Each branch in the Section is allowed one inductee each year. However, no one has been inducted to date.

An inductee must be a Fellow or Life Member who has made significant contributions to the engineering profession, supported and promoted the ASCE and civil engineering, and has shown technological competence, high character, and integrity. Also needed are 3 letters of recommendation from licensed engineers.

Blessey received his BS and MS in civil engineering from Tulane University in 1940 and 1943, respectively. During his college years he was also a pitcher on the Green Wave baseball team. He is a licensed engineer and land surveyor in Louisiana.

Blessey began his career with the United Gas Pipeline Company in 1940. Within a year, he was a part-time, visiting instructor at Tulane and in 1942 he joined the faculty as an assistant professor. In 1945, Uncle Sam called and Blessey was commissioned in the Seabees. He returned to Tulane in 1946 and in 1959, he became Chair of the Civil Engineering Department — a position he held until he retired in 1984.

Concurrent with his teaching career and after his retirement from Tulane until 1997, Blessey also worked as a consulting engineer specializing

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— Calendar of Events —

September 15 - 16, 2005	**Louisiana Civil Engineering Conference and Show, Kenner. For more information visit New Orleans Branch website.**
September 16, 2005	**Annual Meeting of Louisiana Section, New Orleans. For more information visit New Orleans Branch website.**
September 22 - 23, 2005	**ASCE Seminar * on Water Hammer in Transmission and Distribution Systems, Dallas, Texas.**
September 29 - 30, 2005	**ASCE Seminar * on Finite Elements, Memphis, Tennessee.**
September 30, 2005	**6th Annual Tulane Engineering Forum: "Engineering in a coastal environment," New Orleans. For more information visit the Tulane College of Engineering website: www.eng.tulane.edu.**
November 3-4, 2005	**ASCE Seminar * on Structural Condition Assessment, New Orleans.**
November 3-4, 2005	**ASCE Seminar * on Residential Land Development Practices, Dallas, Texas.**
November 3-4, 2005	**ASCE Seminar * on Structural Design of Industrial Facilities, Atlanta, Georgia.**
November 6-10, 2005	**American Concrete Institute International Fall Convention, New Orleans. For information or to register call ACI at (504) 581-1000 or visit www.concrete.org.**
November 10-11, 2005	**ASCE Seminar * on Financial Management for the Professional Engineer, Atlanta, Georgia.**
November 10-11, 2005	**ASCE Seminar * on Pumping Systems Design, Dallas, Texas.**
December 5-6, 2005	**ASCE Seminar * on Wetlands and 404 Permitting, Galveston, Texas.**
December 15-16, 2005	**ASCE Seminar * on Structural Renovation of Buildings, Houston, Texas.**

***For more information, call ASCE toll free at (800)548-2723 or visit the ASCE web page www.asce.org.**

Jasmine Galjour wins scholaship

By E.R. DesOrmeaux, PE

Jasmine R. Galjour, a junior civil engineering student who attends the University of Louisiana at Lafayette, is one of the 7 recipients of the nationally prestigious Samuel Fletcher Tapman Scholarship Award. This scholarship is given annually by the ASCE to as many as 12 outstanding students who are enrolled in an accredited engineering school and who are members of their ASCE student chapter and Student Members of the ASCE. Selection is based on the applicant's justification, educational plan, academic performance, class standing, leadership and financial need. In response to the news Jasmine observed,

I am humbled and indeed fortunate in receiving the Samuel Fletcher Tapman Scholarship Award. There are so many good students in civil engineering in the U.S. and I feel privileged to be counted in their ranks. My thanks go to all members of the ASCE. It is through your support of ASCE that scholarships such as this assist students in pursuing their academic goals.

Jasmine is also the recipient of the 2005-2006 Tau Beta Pi Records Scholarship and the 2002 Wayne P. Wallace freshman scholarship, established in 1978 by E. R. and Dianne DesOrmeaux. Wallace served as head of the Department of Civil Engineering, and Dean of the College of Engineering at the University.

Jasmine Galjour

The daughter of Mr. and Mrs. Joseph Galjour, Jasmine graduated from Ponchatoula High School in 2002 and entered the University of Louisiana at Lafayette as a freshman in the fall of 2002. In addition to maintaining a current 3.968 grade point average, Jasmine is a part-time employee of Lafayette Utilities System, in the Civil Engineering Section, where she works an average of 15 hours a week.

Jasmine has been an active member in numerous student organizations. Currently she is the Secretary of the ASCE student chapter, President of Tau Beta Pi, President of the Louisiana Engineering Society student chapter, Secretary of Chi Epsilon, and serves the Student Government Association as President of the College of Engineering. In 2003, Jasmine was the President of the Society of Women Engineers student chapter and elected to the University Student Senate. She is a member of the Gamma Beta Phi, Phi Kappa Phi and Phi Eta Sigma honor societies.

Jasmine's warm and caring personality is demonstrated by her volunteer work assisting learning impaired students by taking notes for them in class, and assisting in supervising students at the Faith House domestic shelter. In a recent interview, her academic advisor, Xiaoduan Sun, PE, stated, "Jasmine is one of the finest young ladies and one of the best students I have had in my engineering career." After graduation, Jasmine expects to continue with graduate studies leading to a doctoral degree in either structural or environmental engineering, and she hopes to one day become an engineering professor.

SOUTHERN UNIVERSITY

By Kevin Cowan, Jr.

Southern University became an official Link of the Order of the Engineer as a result of a special project of the Chapter to establish the link. This effort was spearheaded by the Vice President of the Chapter, Danielle Cooks.

There were 6 inductees who participated in the first ring ceremony held April 27, 2005. They were senior engineering students David Bailey, Shannon Chambers, Kevin Cowan, Jr. and Andrea Payton and practitioners Nicole Harris and Bryan Joseph. During the ceremony, the inductees accepted the Obligation of the Engineer by pledging to uphold the integrity of the engineering profession, to use their skills to serve humanity and to conduct their business according to the highest ethical standards.

Yvette P. Weatherton, PE presented the Obligation and the stainless steel rings that are worn on the fifth finger of the writing hand as a reminder to the inductees of their obligations to society and a symbol to the public identifying the individuals as engineers. The Order of the

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Order of the Engineer inductees are (from left) senior students David Bailey, Shannon Chambers, Kevin Cowan, Jr. and Andrea Payton, and practitioners Nicole Harris and Bryan Joseph.

LSU

The Chapter representing the Deep South Region participated in the 14th Annual National Steel Bridge Competition held May 27-28, 2005 in Orlando, Florida. There were 44 steel bridge competition teams that participated in this event hosted by the University of Central Florida ASCE Student Chapter resulting in 692 students, faculty and guests in attendance. The Chapter's steel bridge team had a very respectable 3rd place finish. The University of California, Davis and the University of Florida student chapters finished first and second respectively.

2005 Louisiana Section Annual Meeting
Announcement and Registration Information
September 16, 2005
New Orleans Country Club • New Orleans, Louisiana

During the Section Annual Meeting honors and awards will be presented to outstanding Section members, and the officers of the Section and the New Orleans Branch will be installed to serve for the 2005-2006 administrative year. This is in conjunction with a banquet to which all Section members and their guests are invited to attend.

This gala event hosted by the New Orleans Branch marks the celebration of an ending and a beginning of the Section's administrative years. This year's event will be in the facilities of the beautiful New Orleans Country Club beginning at 6:00 pm with a social hour followed at 7:00 pm with dinner. Entertainment will be provided by the music of the Joe Simon Jazz Combo. Semi-formal attire is required.

Reservations are required and must be made by contacting Chris Humphreys at chris.humphreys@psiusa.com or (504)733-9411. A check covering the cost of this reservation for the Section member and the indicated guest(s) at $45.00 per person must be made out to the order of the *ASCE New Orleans Branch*, mailed to

Chris Humphreys
724 Central Avenue
Jefferson, Louisiana 70121

and received by September 9, 2005.

Social Hour:
Open bar before dinner

Dinner:
DePennautier Chardonnay/Cabernet Sauvignon/Ice tea with dinner
Turtle soup au sherry
Warm bread and butter

Choice of Entrees:

Carved Angus beef Chateaubriand with marchands de vin and Bearnaise	or	Trout meuniere with Brabant potatoes and broiled tomato with creamed spinach

Desert:
Freshly brewed coffee with dessert
Pecan ball
Vanilla ice cream rolled with pecans and topped with chocolate sauce

Louisiana Civil Engineering Conference and Show
September 15 - 16, 2005

Pontchartrain Center
Kenner, Louisiana

Complete Information On-Line at:

www.asceno.org

- Speaker Program
- Registration
- Exhibitor Opportunities
- Sign up for email updates

Sponsored by:

ASCE

American Society of Civil Engineers
New Orleans Branch

american concrete institute
Louisiana Chapter

2005 Louisiana Civil Engineering Conference and Show
Technical Sessions Program

	Thursday, September 15, 2005 - Morning Session		
	Room # 1	Room # 2	Room # 3
Moderator	TBA	TBA	TBA
8:30 - 8:55 9:00 - 9:25	***Thoughts on Using Wetland and Sediment Management to Slow Coastal Errosion*** Dominic Izzo, PE DMJM Harris, Inc. Houston, Texas	***Army Corps of Engineers in Iraq*** Major Murray Starkel US Army Corps of Engineers New Orleans District New Orleans, Louisiana	***CG Railway Elaine Street Ferry Terminal*** Charles W. Nelson, PE President and Chairman Waldemar S. Nelson and Company New Orleans, Louisiana
9:30 - 9:55 10:00 - 1025	***Increasing Hurricane Protection in Southeast Louisiana*** Alfred C. Naomi, PE Senior Project Manager US Army Corps of Engineers New Orleans District New Orleans, Louisiana	***Capital and Maintenance Programs for the City of New Orleans Department of Public Works*** John H. Shires, PE, Director Department of Public Works City of New Orleans New Orleans, Louisiana	***Overview of Subsidance Processes*** Lawrence W. (Larry) Gilbert, PE Gore Engineering, Inc. New Orleans, Louisiana
10:30 - 10:55	**Morning Break**		
11:00 - 11:25 11:30 - 11:55	***Update on Louisiana's Coastal Restoration Efforts*** Patrick W. Forbes, PE Engineer and Technical Asst. Governor's Office of Coastal Activities Baton Rouge, Louisiana	***The Airport of the Future*** William A. Fife, PE Corporate Vice President / Director of Aviation DMJM Harris, Inc. New York City, New York	***Building Consensus and Managing Conflict in High-Profile Projects*** Robert Shearer, JD, Professor Jeanne Maes, Professor University of South Alabama Mobile, Alabama
12:00 - 1:25	**Lunch**		
	Thursday, September 15, 2005 - Afternoon Session		
	Room # 1	Room # 2	Room # 3
Moderator	TBA	TBA	TBA
1:30 - 1:55 2:00 - 2:25	***Coastwide Reference Monitoring System An Essential Tool of Louisiana Coastal Restoration Efforts*** Menon Mohan, Program Manager Coastal Division Studies Shaw Coastal, Inc. Houma, Louisiana	***Progress in the Louisiana TIMED Program*** T. Wayne Aymond, PE Design/Build Project Manager Louisiana TIMED Managers Baton Rouge, Louisiana	***Ethics*** Norma Jean Mattei, PE Associate Professor University of New Orleans New Orleans, Louisiana
2:30 - 2:55 3:00 - 3:25	***Use of Wetlands for Nutrient Assimilation in Secondary Effluent and Diverted River Waters*** John Day, Professor Louisiana State University Comite Resources, Inc. Baton Rouge, Louisiana	***Louisiana DOTD MSEE Wall Projects Design, Construction and Quality Control*** Timothy W. Nickel Louisiana DOTD Baton Rouge, Louisiana	***Slabs on Ground*** Robert B. Anderson, PE Robert B. Anderson Consulting Engineers New Orleans, Louisiana
3:30 - 3:55	**Afternoon Break**		
4:00 - 4:25 4:30 - 4:55	***NASA Remote Sensing Technology: Moving from Research of Operations in a Coastal Ecosystem*** Marco J. Giardino, Senior Scientist New Business Development Office NASA - Stennis Space Center Bay St. Louis, Mississippi	***Louisiana DOTD Uses of Drilled Shafts Case Studies and Current Practices*** Kim Martindale Garlington, PE Louisiana DOTD Baton Rouge, Louisiana	***Rise Above the Flood with Raised Floors*** Catherine Marx Kaake, Director Engineered and Framing Markets Southern Forest Products Association Kenner, Louisiana
5:00 - 7:00	**Icebreaker** Snacks and drinks are served in the Exhibit hall, Room MR - 2 & 3		

2005 Louisiana Civil Engineering Conference and Show
Technical Sessions Program (Continued)

	Friday, September 16, 2005 - Morning Session		
	Room # 1	Room # 2	Room # 3
Moderator	TBA	TBA	TBA
8:30 - 8:55 9:00 - 9:25	***Membranes*** ***The Future of Water Treatment*** Phil O. Nelson, PE Principal Engineer Montgomery Watson Harza Metairie, Louisiana	**Charles W. "Buzz" Hair, III** **Memorial Presentation** ***Interesting Observations*** ***from 36 Years and 10 months with*** ***the Corps of Engineers*** William W. Carver, PE US Army Corps of Engineers New Orleans District New Orleans, Louisiana	***Smart Concrete*** ***Sensor Studded Concrete Delivers Speed,*** ***Quality Control and Quality Assurance*** Richard Sallee Vice President and Founder Engius, LLC Stillwater, Oklahoma
9:30 - 9:55 10:00 - 1025	***Design of a Composite Fender Pile*** Kyle Jones, PE Deputy Director of Port Development Port of New Orleans New Orleans, Louisiana	***Preserving the Integrity of Mississippi*** ***River Levees in the New Orleans District*** Mark L. Woodward, PE, Engineer US Army Corps of Engineers New Orleans District New Orleans, Louisiana	***Temperature Control in*** ***Large Concrete Placements*** ***An Introduction to Mass Concrete*** John Gajda, PE, Principal Engineer CTL Group Skokie, Illinois
10:30 - 10:55	**Morning Break**		
11:00 - 11:25 11:30 - 11:55	***Florida Avenue Railroad Bridge*** William B. (Bill) Conway, PE Chairman Modjeski and Masters, Inc. New Orleans, Louisiana	***Analytical Methods for the Design of*** ***Sheetpile Cofferdams*** Richard J. (Rich) Varuso, PE US Army Corps of Engineers New Orleans District New Orleans, Louisiana	***St. Tammany Parish*** ***Watershed Management Plan*** Jean M. Thibodeaux, PE Director of Engineering St. Tammany Parish Covington, Louisiana Donald E. Barbe, PE, Professor Chair, Department of Civil Engineering University of New Orleans New Orleans, Louisiana
12:00 - 1:55	**Lunch**		
	Friday, September 16, 2005 - Afternoon Session		
	Room # 1	Room # 2	Room # 3
Moderator	TBA	TBA	TBA
2:00 - 2:25 2:30 - 2:55	***Total Precast Building Systems*** S. Dixon Cole Director of Engineering Louisiana Concrete Products Baton Rouge, Louisiana	***Case History of a Successful*** ***Sheetpile Cofferdam in Soft Soils*** ***Harvey Canal Floodgate Installation*** Edward A. (Ed) Scheuemann, PE Boh Brothers Construction Company New Orleans, Louisiana	***Leading a Project Team*** Patty Huntley PSMJ Resources, Inc. Fort Collins, Colorado
3:00 - 3:25 3:30 - 3:55	***Recent Case Law Decisions*** ***Affecting Design Professionals*** ***and How They Affect You*** Richard King, Esquire Attorney Galloway, Johnson, Tompkins, Burr and Smith New Orleans, Louisiana	***Case Histories of*** ***Sheetpile Cofferdam Failures*** Gordon P. Boutwell, Jr., PE Soil Testing Engineers, Inc. New Orleans, Louisiana	***Time Management*** Patty Huntley PSMJ Resources, Inc. Fort Collins, Colorado
	Afternoon Break		
6:00 - 10:00	**Louisiana Section Annual Meeting and Banquet** New Orleans Country Club		

Note: Although the above seminar presentations have been confirmed, late changes may occur.
Please visit our website at www.asceno.org for the latest program information and online registration.

(Continued from Page 12)

in structural and foundation design. The list of projects on which Blessey worked is lengthy, some of which are the

- North Galvez overpass
- Canal Boulevard underpass
- Kaiser aluminum plant
- double-arched cafeteria building in Angola
- West Jefferson General Hospital
- Clearview Shopping Center and
- General American tank storage docks in Goodhope.

Blessey is also well known for his research and publications predominately concerning foundation design. A sampling of these are

- "High Capacity Long Steel Piles" for the American Iron and Steel Institute — a test pile program on long high strength steel piles
- "Selecting the Best Pile Foundation" for *World Construction*
- "Updating Existing Urban Systems to the 21st Century" and
- "New Orleans Grows on Deep Piles" for *Civil Engineering* magazine.

Internationally, Blessey led a 6-week tour of Central and South American major cities lecturing on prestressed and precast concrete. He also did a 2-week lecture series in Cali, Columbia on the latest concepts in structural design. At the invitation of the Australia Institute of Engineers, he did a 4-week tour of major Australian cities, lecturing on the latest U.S. developments in structural and foundation design. Blessey led a 3-week tour of civil engineers through the major cities of China, lecturing on U.S. design advancements. This culminated with a nationally televised one-on-one interview with the Vice Premier of China, Wang Zheng.

Blessey is a member of the Tulane Emeritus Club Board of Governors serving as Chair in 2001-2002. He is also a member of Sigma Xi, Omicron Delta Kappa, Chi Epsilon, and Tau Beta Pi honorary fraternities; and the Advisory Committee on Specifications for the American Institute of Steel Construction. He was a member of the Dean's Advisory Committee to the Governor and the Domed Stadium Commission, advising on the design and construction of the Louisiana Superdome.

With the ASCE, Blessey served as the President of the Section, President of the District 14 Council and the District 14 Director. In 1978, he became the first Section member to serve as the President of the national ASCE. He is a Fellow and Life Member.

Other awards that Blessey has received are Louisiana Engineering Society's James M. Todd Technological Accomplishments Medal, Outstanding Alumnus of the College of Engineering at Tulane University, the first Lifetime Achievement Award recipient of the Branch, and a Special Citation Award from the Board of Directors of the AISC.

In 2002, the Civil Engineering building at Tulane University was rededicated as Walter Blessey Hall. Blessey did not donate millions of dollars to buy this name. During the centennial of the Tulane School of Engineering, his Tulane colleagues and former students began a fund in his name for the building's renovations. Over 350 former students from 38 states contributed to the fund and once renovation was completed, the rededication took place. This is a testimony to the level of respect that many share for Blessey.

Tomas L. Jackson, PE, from DMJM Harris, Ralph W. Junius, Jr., PE, from Linfield, Hunter & Junius, and Frank C. "Chuck" Fromherz, PE, from Fromherz Engineering wrote the three letters of recommendation for Blessey's inductee nomination package. They are all Blessey's former students and are at the top of their respective firms. Jackson also served as President of the Section and as the Secton's only other President of the ASCE national organization. Junius and Fromherz have served as Branch President. Here are some of the things that they said:

> Walter is an educator and practitioner who gave his students a theoretical as well as a practical education in civil engineering. Walter pushed his students into leadership by teaching as well as by his own example. He served not only as a mentor to me but also set very high goals to challenge me in my own career and to also become a National President of the ASCE. — Tom Jackson

> My experience as his student and his influence on me is such that to this day I cannot envision a better way to introduce an engineering student to civil engineering than to be taught by Mr. Blessey. I still have and secretly cherish both my steel and concrete building tracings drawn under Mr. Blessey's tutelage. I still use his methodologies in the design of waterfront structures. In my own personal experience, Mr. Blessey was a pioneer in developing analytical procedures for designing foundations using long piles. I still have and use my US Steel design pamphlet authored by Mr. Blessey. Of course, everyone knows that Mr. Blessey was the first national ASCE President from Louisiana, and to this day the only other is former outstanding student, Tom Jackson. — Ralph Junius

> As Chairman of the Department of Civil Engineering, Mr. Blessey contributed significantly to the profession by training a generation of Tulane civil engineers. He always had a close rapport with his students and we students enjoyed the fact that after 15 or 20 minutes of class he would launch into his "war stories" for the remainder of the period. These stories were his experiences in solving various challenges that he had undertaken. It was several years after graduation that I realized that the crux of his class was not the theory but the war stories. The relating of these practical experiences was designed to instill a sense of engineering judgment and to get his students to begin to think like an engineer.
>
> Blessey has always demonstrated brilliant technical competence coupled with high character and integrity. He taught that an engineer's first duty is to protect the public and that is both ethical and expected that an engineer decline an engagement before participating with a client who would want something contrary to this duty. — Chuck Fromherz

President's Medal — *Christopher L. Sanchez, EI*

In 2004-2005, Sanchez served the Branch with such distinction and dedicated service that he received the President's Medal from Deborah D. Keller, PE. Sanchez was elected by the membership to serve in the office of Branch Vice President. However, when the elected Branch Treasurer was given a work assignment out of New Orleans, Sanchez volunteered to continue his former duties as Branch Treasurer additionally serving as acting Treasurer from September 2004 thru May 2005. His office as Branch Vice President included serving as the Chair of the Louisiana Civil Engineering Conference and Show — a major event that is the Branch's primary revenue source for funding its activities. During this time, Sanchez also retained his duties as the Branch liaison with the University of New Orleans ASCE Student Chapter. He also volunteered to serve on the Branch website committee as it undertook a major initiative to reconfigure the website.

Chris Sanchez receives commemorative plaque for the Branch President's Medal from President Keller.

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Engineer was established in 1970 in the United States to foster a spirit of pride, individual integrity and responsibility in the engineering profession, to bridge the gap between training and practice and to present to the public a visible symbol identifying the engineer.

For more information visit www.order-of-the-engineer.org/history.htm.

The Southern University Link plans to hold another ceremony during the fall semester this year. Future ceremonies following this are planned to be held annually during the spring semester. For more information regarding the Southern University Link please contact Danielle Cooks at daniellecooks@engr.subr.edu

Highlights of the April Membership meeting

It was noted that there is no wall space in the Louisiana Engineering Center available to place a plaque commemorating the Section's Wall of Fame award honorees. It was suggested that the Section make a "suitable place" on its future website to permanently commemorate the honorees.

The Distinguished Senior Civil Engineering Student Awards for each student chapter in the section were announced and from among them the recipient of the Section's Outstanding Senior Civil Engineering Student Award was reported by the Student Awards and Activities Committee. The recipients are

- Jeanne C. Arceneaux, Louisiana Tech University
- Eric J. Dallimore, University of New Orleans
- Bart D. Grasso, Tulane University
- Shannon Chambers, Southern University
- Clayton R. Cormier, McNeese State University
- Justin Peltier, University of Louisiana at Lafayette and
- Anna Wheeler, Louisiana State University.

Jeanne C. Arceneaux was selected for the Section's Outstanding Senior Civil Engineering Student Award.

The Section's Nominating Committee presented its slate of nominees to stand for election for the offices on the Section Board of Directors for the 2005-2006 administrative year. The nominees were

- Timothy M. Ruppert, PE, President-Elect
- E. Raymond DesOrmeaux, PE, Vice President
- Ali M. Mustapha, PE, Secretary-Treasurer

Kim M. Garlington, PE, who is currently President-Elect will succeed to the office of President of the Section. There were no nominations made from the floor. The nominations were closed and the nominees were elected unanimously by acclamation.

It was reported that the firm Crystal Tech has been retained to host the Section website, and Gator-T has been retained to design and maintain the website. The new website will be immediately updated by Gator-T and it will include the information and links to related sites that were provided on the previous website, and it should be up and running in the near future.

Highlights of the May Board of Directors meeting

The implementation of the Section's website has been delayed because of an unexpected delay in transferring the domain name from the current host Network Solutions to Crystal Tech, the same host that is used by the Acadiana Branch. Apparently identity theft issues have caused expanded security measures that require that the individual who originally established the account with Network Solutions and not the organization being represented — the Section — to provide adequate identity with the instructions to transfer the domain name to a new host company. Gator-T has already completed the design of the new website and once the transfer of the domain name is made from Network Solutions to Crystal Tech the redesigned website will become immediately available.

Though the address change to mail the Section's quarterly bank statement to the address of the new officers has been accepted, interim access to the Section's account is denied. Identity theft issues have apparently affected direct access to the Section's bank account via Internet and telephone denying access to the current officers of the Section. This was heretofore not a problem. Measures have been initiated to correct the problem and maintain the authorized use of the full range of bank services to the Section's current officers so that they may adequately monitor the Section's bank accounts.

There was an extensive discussion about a proposal that the Section cover the cost of the dues of the Student Members in the ASCE student chapters in the section. The reason for the proposal is that students often desire to belong to several student organizations on campus where the total annual dues can be as much as $100 or more. On some but not all campuses this can be a significant deterrent to some students to take full advantage of all of the opportunities they may desire in the student organizations available. Also, history indicates that the most important source of new members into the ASCE are the Student Members who transfer their membership to the Associate Member grade after graduation. This is recognized as an important component to the growth of the Section. There was also concern expressed that paying 100% of the dues for a Student Member may devalue their membership in the ASCE on the principle that if it costs nothing it is worth nothing.

The discovery in the previous billing cycle that Life Members in the Section were not given the option on the invoice to make a voluntary contribution to the Section has been addressed. Arrangements have been made to provide for the line item on the invoice for Section members in all membership grades to make a voluntary contribution to the Section. The voluntary contribution to the Section will be a line item on the next invoice of all Section members for their Section and national dues.

It was proposed that a plaque to commemorate the distinguished civil engineering senior students be purchased for each civil engineering department hosting a student chapter in the Section. The proposed plaques would be delivered to each of the respective civil engineering departments to be hung in an appropriate place on campus. Each plaque would accommodate as many as 36 engraved nameplates. An engraved nameplate for each distinguished civil engineering senior student would be delivered individually by the Section to the Faculty Advisor or other designated person to be installed on the student chapter's plaque.

A recent request of the Section to fund an individual student's planned activity raised significant concern. While the vote was to provide the funds requested, it was nearly divided evenly between those voting with apparently strong convictions for and against funding the proposal. A great concern was that by honoring such a request it would more than likely stimulate more requests in the future to the extent that it would be difficult for the Section to say no until it becomes too expensive to say yes. Since honoring such requests would deplete the section's surplus funds that are annually prorated and distributed to the branches, the Board developed and approved the policy to refer all unbudgeted, individual student requests for funds to the branch of the origin for its consideration.

The Board acted to extend an invitation to the ASCE national to hold its 2007 Zone II Leadership Conference in New Orleans for which the Section agrees to provide the specified hosting requirements. While there are substantial costs involved in hosting this Conference, it is believed that the total cost of individual travel for the Section leadership would be more to either of the other proposed host sites being considered — Atlanta and Nashville. Having the Conference in New Orleans would provide the additional opportunity for other leaders in the Section to conveniently attend the Conference at their own nominal expense. This offers the opportunity to the largest number of Section leaders to gain the important experience and perspective provided by the leadership conferences. It is considered important because of the potential benefits to the Section and its members through the improved quality of service provided by its better trained leadership.

The continuing decline in advertisement and listing revenues in *The Louisiana Civil Engineer,* the Section's journal, over the last few years has finally reached a point where the receipts are being exceeding by the publishing costs. It was noted that due to improvements in publishing technology the cost of publishing the journal has remained relatively flat since the advertising and listing rates were established 13 years ago. For this reason, it is believed that the revenue shortfall being experienced is due entirely to the loss in the number of advertisements and listings and this is due to a general failure to maintain an aggressive, continuous effort to solicit new

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- Career Benchmarks -

Section members **Robert L. Ardelean,** PE, **Susanne Dawson,** PE, **Jennifer A. Gemar,** PE recently earned their civil and/or environmental engineering license in Louisiana. If you are in contact with any of them, please offer them your congratulations on their accomplishment.

Louisiana residents, **Glenn M. Gremillion,** PE, **Gonzalo J. Otero,** PE recently earned their civil and/or environmental engineering license in Louisiana and are not members of the ASCE. A copy of this issue of the journal is sent to them as an informal introduction to the Section. If they wish to join and/or find out more about the ASCE, they are hereby encouraged to visit the ASCE national website, http://www.asce.org. If you are in contact with any of these engineers, please consider formally introducing them to the Section by inviting them to attend a branch meeting as your guest.

Ryan J. Fuselier, PE, PLS, has been hired as Engineering Project Manager for the Engineering Division of C.H. Fenstermaker & Associates, Inc. A civil engineer, Fuselier brings to this position extensive experience in drainage impact analysis, sewer and water design, subdivisions, roads and bridges, and land surveying. This experience in road and land development project work, and extensive knowledge of mobile video applications in the area of telemedicine and security in conjunction with an entrepreneurial background are assets that make him well qualified. Fuselier currently is Vice President of the Louisiana Society of Professional Land Surveyors. He was the owner and founder of Fuselier & Associates, Inc., an engineering and land surveying company in Eunice. Fuselier is the co-founder of Wireless Fusion that develops, constructs and implements products and technologies in the area of low bandwidth video, biometrics and telemedicine with an emphasis on wireless connectivity.

Lee W. Forbes, PE, has been hired as Senior Engineer of the Engineering Division of C.H. Fenstermaker & Associates, Inc. Forbes earned his BS in petroleum engineering and his MS in civil engineering from Louisiana State University and he is a licensed engineer in Louisiana, Arkansas, Texas and North Carolina. Forbes has a broad background in both civil and environmental consulting with over 18 years experience in design, project management, and regulatory compliance. Relying on his experience in the various capacities as lead designer, project engineer, project manager and engineering manager applied to water resources specialization in watershed planning, stream and riparian restoration, municipal solid waste management and bioremediation, Forbes will focus on the firm's water resources engineering and watershed planning projects.

Jessica S. Cornay, PE, an Engineer Intern with C.H. Fenstermaker & Associates, Inc. since 2000 when she graduated from the University of Louisiana at Lafayette with a BS in civil engineering recently became a licensed engineer in Louisiana. As a project designer her areas of expertise include project management, design and layout of roadways, storm water detention/retention facilities, municipal facilities and preparation of cost estimates, and contract documents. Cornay earned her BS in political science from the University of Louisiana at Lafayette in 1997.

Editor's note: There are three disciplines that are licensed by the Louisiana Professional Engineering and Land Surveying Board and that may be considered closely related to civil engineering. They are the environmental, structural and architectural engineering disciplines. As of January 2005, the active engineering licenses conferred by the Board were approximately 6128 in civil, 746 in environmental, 51 in structural and 1 in architectural.

Ryan J. Fuselier

Lee W. Forbes

Jessica S. Cornay

(Continued from page 4)

ing as I sat down in the conference room. But my boss interrupted me. "On a day like today," he responded, "only stupid people are on time."

Vasella says that that one remark has had a deep, lasting impact on him. It made him realize that sometimes you have to be willing to change your own rules, even when they seem set in stone. *Good leaders are flexible, when necessary.*

From Wademan's observations and the experiences of Lazarus and Vasella, one may conclude that management and leadership skills appear to be somewhat anecdotal, evolving and subject to the individual's experience in the corporate culture. From this, I think one may further conclude that the future engineer manager or leader would, like the MBA, greatly benefit from a foundation — content, awareness and guidance — provided by formal management and leadership training. This foundation would provide the student a more acute awareness and a clearer perspective of management and leadership on which to consciously and effectively build the unique personal traits that are needed to be the viable choice for leading engineering organizations large and small.

Section business

It has been an eventful year. The Section Annual Spring Meeting and Conference, hosted by the Acadiana Branch and held in Lafayette, was very well attended. The Louisiana Civil Engineering Conference and Show, a joint event sponsored by the New Orleans Branch and the Louisiana Chapter of American Concrete Institute, was again very successful. The reorganization of our District 14 and District 10 into the new Region 5 is ongoing and ahead of schedule. And a committee has been organized to begin work on a *report card* for Louisiana's infrastructure, which can be a tool for use by government agencies in targeting funding of repair/refurbishment of the state infrastructure in most need.

I would now like to take some time and thank the Section officers and Board for all of their hard work this past year. They are the leaders of our profession. It has been my great pleasure to work with them and to serve you as Section President this past year.

Tulane ENGINEERING Forum 2005

The Tulane Engineering Forum 2005 is scheduled for September 30, 2005 from 8:30 am to 5:00 pm and will be housed in the New Orleans Hilton Riverside. This one-day event — the 6th annual Tulane Engineering Forum sponsored by the Tulane School of Engineering — includes a program of 4 concurrent sessions. The Forum, with the theme *Engineering in a Coastal Environment,* will feature sessions on the subjects of hurricane effects infrastructure, environmental, energy, aerospace, coastal erosion, security, petrochemical and shipping providing an opportunity for participants to earn 7 professional development hours including 1 hour in ethics. An early registration discount is available through August 21, 2005. For more information and registration visit the Tulane School of Engineering website: www.eng.tulane.edu

- Observation -

Government service:

The Minnesota Department of Transportation assistant commissioner, Dick Stehr, says that efforts to retain engineers include a career-development program but that state restrictions prevent the Department from offering raises or creating career advancement positions. For this reason, the Department cannot compete with the compensation offered engineers in private industry. However, engineers who have left the Department give a variety of other reasons for leaving government service. They include low morale, lack of responsibility and commensurate authority to do the work, lack of opportunity to advance and lack of performance-based rewards. (*Minneapolis Star Tribune* - 7/8/02) This should not be surprising considering that the Department has an engineers union. Union and government pay scales and policies traditionally reward and protect incumbents based principally on their tenure, and not their performance, experience or competence. When pay scales and policies assiduously encourage mediocrity, it is substantially achieved by typically driving away excellent people and the commensurate excellence they bring to an organization. The problems described by the engineers who left the Department appear symptomatic of leadership — or the lack thereof— founded on such mediocrity. Interestingly, it is suggested that the Department could do more in *other* ways to retain talented engineers.

Been there. Knew that. What's new? Amen! - Editor

— net surfing—

ASCE national organization:
http://www.asce.org

Note: Most ASCE-related pages can also be addressed through links at this website. All section and branch officers are listed at:
http://www.asce.org/gsd/localofficers

ASCE Acadiana Branch:
http://www.asceacadiana.net

ASCE Baton Rouge Branch:
http://branches.asce.org/batonrouge/index.htm

ASCE New Orleans Branch:
http://www.asceno.org

Louisiana Tech ASCE Student Chapter:
http://www.latech.edu/tech/orgs/asce/

UNO ASCE Student Chapter:
http://www.uno/~engr/asce/asce.html

ULL ASCE Student Chapter:
http://www.engr.usl.edu/cive

Tulane ASCE Student Chapter:
http://www.tulane.edu/~asce

LSU ASCE Student Chapter:
http://www.ce.lsu.edu/~asce

ASCE Louisiana Section:
http://www.lasce.com

Louisiana Engineering Society:
http://www.les-state.org

Louisiana Professional Engineering and Land Surveying Board:
http://www.lapels.com

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advertising and listing accounts. On this basis, there would appear to be little justification for raising the advertising and listing rates other than to support this failure and doing so may appear to be unfair to those with current advertisements and listings in the journal. A substantial effort is therefore being mounted to solicit new advertisements and listings. The Publications Committee Chair plans to solicit new service and supplier advertisements and professional listings from a large address list that has been compiled and is still growing. It was recommended that the addresses of the potential new advertisers and listings be sorted by branch and provided to the branch presidents who are members of the Publications Committee. They and the branch leadership will be asked to directly solicit those who they know through personal and professional connections.

The Younger Member Committee is planning a fund raiser via the sale of a 2006 pictorial calendar featuring photographs of civil engineering works in Louisiana. The origin of the photographs will be the winners of a photography contest open to high school and college students. There was concern expressed that the time interval for the contest may not be sufficient — excluding the summer months — to achieve the desired participation and to have the calendars available for sale as planned during the Louisiana Civil Engineering Conference and Show in early September 2005. To allow more time for student participation — during the fall semester — it was suggested that orders be taken for the calendar during the Conference and that orders be solicited in the August and November issues of the Section journal. This would allow the production and delivery of the calendars to be scheduled for late November. The proposal and budget for the project has yet to be delivered by the Younger Members Committee to the Board for its review and consideration for approval so that the funds budgeted for the Committee can be released. To expedite the Committee's project, an exhibit booth was offered on the floor of the exhibit hall of the Louisiana Civil Engineering Conference and Show where it can solicit orders and possibly display some of the early photographic entries to the contest.

The previous news and disappointment that there is no wall space available in the Louisiana Engineering Center for displaying a proposed Section plaque containing the nameplates of the Section's Wall of Fame honorees was discussed. It was decided to try to make another last direct appeal for the space to display the proposed plaque in the Center.

There was concern expressed about the quality of the contents of some technical programs offered during branch membership meetings and section-wide conferences. There have been "technical" programs presented that are considered by some little more than a sales pitch made by vendor sales representatives that are not able to offer technical information about the application of their products. It raised the question whether there is sufficient educational value in such presentations to offer a PDH to those in attendance. Some indicated that they screen vendor presentations and presenters to reasonably be assured that there is adequate technical content in their presentations and that sales-related information is nominal.

There was also concern expressed that there appeared to be too little effort made to encourage and solicit fellow ASCE members and other civil engineers working on projects in the branch and Section community to present their work as a meeting program or conference technical session. It was observed that some branches would be hard pressed to fill all of the membership meetings scheduled annually with such technical programs. It was observed that the 4 branches could cooperatively identify and exchange information about engineering presentations that are of acceptable technical quality.

Picture perfect photo contest

By Yvette P. Weatherton, PE

The Younger Member Committee officers of the Section, and including the Section Chair and the chairs for the Baton Rouge, New Orleans and Shreveport branches are together sponsoring a statewide photography contest.

- Geoffrey, L. Wilson, EI, Baton Rouge
- Jonathan P. Hobbs, EI, New Orleans
- Elba U. Hamilton, EI, Shreveport
- Yvette P. Weatherton, Section

This is part of the Committee's public outreach campaign intended to raise public awareness and promote a better understanding of the civil engineering profession, and attract students into seriously considering civil engineering as an exciting and challenging career choice.

High school and college students in Louisiana are encouraged to submit amateur photos that depict positive images of civil engineering works throughout Louisiana. They may include new civil engineered facilities under construction and those in service such as the Louisiana Superdome in New Orleans, the Lake Pontchartrain Causeway, the Horace Wilkinson Bridge/New Mississippi River Bridge in Baton Rouge.

It is anticipated that there will be 12 winning photographs selected and the photographer of each will receive a $100 award as well as having their photographs published in a full color calendar among civil engineers throughout the state. It is intended that the calendar will be sold to civil engineers with the hope that the student chapters and YMC activities will benefit from any profits accrued. For additional contest information and guidelines, please visit http://www.subr.edu/asce. The entry deadline to participate in the contest is October 15, 2005.

Attention

- retired civil engineers and
- professional photographers.

We may be seeking someone just like you to consider being a contest judge. Judges are being solicited at this time. Corporate sponsors are also being sought to fund the prizes and defray printing costs for the calendar. Sponsorships will be acknowledged by 2" x 5" advertisements (approximate dimensions) on the pages of the calendar with the photographs. The cost will be

- $175 for 1 advertisement and
- $350 for 2 advertisements appearing either on the same page or on different pages.

Anyone interested in participating may apply directly using the forms provided. Those having questions about participating in any of these opportunities please feel free to contact your branch YMC chair or Yvette P. Weatherton, PE, your Section YMC Chair by email at weatherton@engr.subr.edu.

Sponsorship Request Form: Each sponsorship will have an advertisement placed at the bottom of a calendar page.

Company _____ **Contact Person** _____

Address _____ **Suite** _____ **City, State, Zip** _____

Email Address _____ **Telephone** _____

Level of Sponsorship (Each ad is approximately 2" × 5")

____	One advertisement	$175.00
____	Two advertisements on the same calendar page	$350.00
____	Two advertisements on different calendar pages	$350.00

Enclose your advertisement layout(s) with a check payable to ASCE Louisiana Section – YMC for the appropriate amount. Mail to Yvette P. Weatherton, PE, Southern University Department of Civil and Environmental Engineering, Post Office Box 9969, Baton Rouge, Louisiana 70813. Sponsorships must be received by the September 30, 2005 deadline.

Judge Interest Form: Each judge will receive a CD by mail in October 2005 containing contest entries.

Name _____

Address _____ **Suite** _____ **City, State, Zip** _____

Email Address _____ **Telephone** _____

Are you a (check one): ___ Retired civil engineer? ___ Professional photographer?

Please return by facsimile to Elba Hamilton, EI, (318) 425-4622 by the September 30, 2005 deadline.

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determine effects of its tidal surge on southeast Louisiana. The simulated hurricane took a path up the Mississippi River, through New Orleans and into Slidell. This is considered the ultimate disaster situation for the geography of the New Orleans region. As you may know, most of New Orleans is below sea level. The Mississippi River and Lake Pontchartrain surround the city causing the city to act as a sump constantly being protected with levees and massive pumps.

The model produced an 18-foot tidal surge that rushed up the Mississippi River. However, it was not this surge moving up from the River's mouth that poses the greatest threat to New Orleans. The Mississippi River Gulf Outlet canal, a short navigable channel connecting the Mississippi River to Lake Borgne, facilitates the passage of large ships to the Gulf of Mexico via its shorter path. The canal provides the first opportunity for the tidal surge to enter New Orleans resulting in the complete inundation of the 9th Ward and Lakefront Airport as it makes its way through the city.

Shortly thereafter, the surge reaches Lake Pontchartrain causing severe flooding north and west of the city and on the north lake shore. The 14' to 17' storm surge would continue upriver, past Baton Rouge. The immediate impact of the flooding is apparent but it would also leave most areas in its aftermath without power, food, water, medicine or transportation for weeks, if not months.

Pine revealed that the lesson learned from this simulation is how to mitigate or prevent a crisis. A *crisis* occurs when an organization fails to prepare, adapt or plan to respond to emergencies or uncertain events — a deviation from the expected. Planning is required to manage a crisis and it involves assigning and then managing the risks. Pine concluded that we should designate a disaster recovery system and incorporate pre-event functions of risk management, safety management and contingency planning into everyday business plans.

Editor's Journal

By James C. Porter

Intellectual Entrepreneurship

The Intellectual Entrepreneurship Program at the University of Texas at Austin was founded in 1996 in its Office of Graduate Studies by Richard A. Cherwitz who was then Associate Dean of Graduate Studies and who is now the Director of Intellectual Entrepreneurship. The goal of this program is to produce *citizen-scholars.* Focusing on academic and professional writing, technology, consulting, ethics, entrepreneurship, advanced teaching methods, and academic and professional internship, the Program offers cross-disciplinary programs that allow the graduate students in the portfolio of participating graduate programs it serves to supplement their discipline-specific education. This is done, for example, through collaboration between students in highly theoretical disciplines and those in applied fields of study.

The premise of Intellectual Entrepreneurship is that intellect is not exclusive to the university and entrepreneurship is not exclusive to business but mutually an innate part of both. In a deeper sense, entrepreneurship is considered a *process* of cultural innovation and an *attitude* for engaging the world by which creation of material wealth is but one motive/outcome — measure of success. Intellectual entrepreneurs take risks, seize opportunities, discover/create knowledge, innovate, collaborate, and solve problems in any venue such as business, government or education.

The citizen-scholar is more than a researcher contributing to a specialized, disciplinary knowledge. Through *academic engagement* the citizen-scholar also takes to heart the *ethical obligation* to contribute to society — discovering and putting to work knowledge that makes a social difference. Citizen-scholars own and are accountable for their education simultaneously using their intellectual assets as a means to expand their specialized, disciplinary knowledge and as a lever for social good.

The university academic culture is founded on disciplinary contribution through the proliferation of specialized, disciplinary knowledge that is valued most when it is derived from original thought and independent discovery. This culture devalues teamwork involving multi-institutional, cross-disciplinary and collaborative investigation. It is urgent and important that this devaluation as a cultural obstacle to intellectual entrepreneurship be addressed to more effectively harness the vast intellectual assets of the university. Intellectual entrepreneurship is in a much broader context comparable to applied research in which implementation is an integral part.

It is time to reflect on what it will take to fashion genuine synergy between universities and their community partners to facilitate the expansion of specialized, disciplinary knowledge and lever it for social good — intellectual entrepreneurship. The Intellectual Entrepreneurship Program appears to be both a means and a catalyst for this change. For more about Intellectual Entrepreneurship visit www.utexas.edu.

It is alleged that certificate programs, internships and professional development courses intended to supplement the discipline-specific education will not solve the larger structural problem addressed by an intellectual entrepreneurship program. They fail to address the fundamental question — How is knowledge optimally organized, integrated and put to work?

If this allegation is valid and the ultimate goal of the ASCE *body of knowledge* for the proposed *master's or equivalent* civil engineering education is to essentially produce a citizen-scholar, it would suggest that its academic baggage outside of the discipline-specific subjects may have not one but two serious flaws. First, civil engineering professors typically are not competent or experienced in other than discipline-specific subjects and second, the other than discipline-specific subjects will not effectively address the significant entrepreneurial issues even if taught competently. If true, this may lead one to conclude that the existing civil engineering graduate curricula — master's and doctorate — should be one of the largest customers in the portfolio of an intellectual entrepreneurship program where it is available. This would appear to leave the ASCE BOK and MOE as a very poor quality second choice, and by comparison, a relatively ineffectual, stand-alone academic chimera.

Plan stamping

The recent headway reported in the National Society of Professional Engineers' *Engineering Times* concerning plan stamping rules reignited the heartburn they give me as a professional engineer. I have in the past and feel compelled to continue to express just how ridiculous I believe these rules are in their current incarnation. I believe that the plan stamping rules misrepresent a legitimate and important regulatory obligation of the engineering profession concerning primary public health and safety issues and convert it into a blatant attempt to copyright protect the plans of the owners of established engineering offices. I further believe that the motive — conscious or unconscious — of these owners who write or control the writing of these rules for the rest of the profession is to protect their business interests to the detriment of their competitors through the rule-making process. Coming from our leadership, I believe the nature of these rules places the entire engineering profession in moral turpitude.

These rules would appear to be a correlation of some of the elements in codes of ethics that inspired a federal antitrust suit brought against the ASCE and the National Society of Professional Engineers and others by the U.S. Department of Justice in the early 1970s. Both societies, after losing an appeal to the U.S. Supreme Court, are under a consent decree to strike their offending antitrust-violating *ethics* rules and not implement new ones. The plan stamping rules written by the same interest group appear to support the same antitrust issues, but also they appear — I would guess — to raise the issue of a state government's right to violate federal antitrust law. The state licensing boards are not under the consent decree and thereby create a new rules-making playground for the same players to engage in their same malignant activity.

The part of these prescriptive rules that I believe are so offensive is that the engineer must have active, real-time participation in the supervision and control of the plan development process. I accept that this would be an imperative in the large and/or unique project that breaks new ground relative to the experience of those involved in the technology and/or where the risk of failure is otherwise significant enough that a team effort is important in ferreting out any potential problems from several perspectives and solving the problems discovered.

Conventional projects like metal building and residential/apartment frame construction on concrete slab foundations that occur with some regularity ordinarily require little or no engineering team effort. This is particularly true when performed in the established consulting engineering office where comparable plans are on file that are close to what is required, and there are many experienced structural detailers familiar with the nearly standard details used. The role of the experienced structural detailer is then to *independently* advance drawings as close to final plans as it is possible based on experience and the drawings in the firm's archives. The role of the experienced engineer is to take these nearly completed plans and completely review them and then supervise any revisions that may be necessary to reasonably assure that they are engineered, complete, constructable, meet the applicable code requirements, and conform to general health and safety standards.

While this relatively routine process would appear to be practical and appropriate for routine standard plans and work in an established engineering office and easily meet the engineer's public health and safety obligations, it is specifically contrary to the plan stamping rules. However, these rules are not written to apply to engineers in established engineering offices. And as a matter of practicality, they are not. They are written to apply to individual engineers who, with a low overhead, are in some areas of work effective competitors of the owners of established engineering offices — those who are

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Greenlight for engineering systems

What appeared eventually to be a fad technology taught in the civil engineering curriculum in the 1960s and 1970s was *engineering systems.* Engineering systems involved the application of various optimization procedures or techniques that are applied to mathematical models. There mathematical models describe the characteristic performance spectrum of various engineering subsystems that together interact with each other and make up a larger system. The optimum interaction of these subsystems with each other when used together as part of a larger system was of particular interest. Individually and independently each subsystem has an optimum operating solution. The optimization algorithm is used to find the *global optimum* solution for the mathematical model of the larger system in which various subsystems are incorporated and interact. The particular optimization algorithm selected would depend on the characteristic performance spectrum and interaction of various engineering subsystems being considered. The global optimum solution for the larger system will most probably occur where none of the subsystems would necessarily be operated at its *local optimum* but at some other point in their individual characteristic performance spectrum to produce the global optimum of the larger system.

For me, the engineering systems concept had a substantial appeal technologically and professionally. I was actually involved in a research and development project that made use of engineering systems principles in a practical application that clearly demonstrated its promise. As quickly as engineering systems rose to prominence in the civil engineering curriculum, it eventually disappeared. I was later informed by one of its proponents that the problem it solved was not a significant issue in the one-time funding building structures. Given the technological options, it appeared the most that the application of engineering systems could improve *initial* costs was typically in the 2 percent range.

The financing decisions that determined the success of a building project — build or no build — at the time centered around what was quick and dirty in terms of getting a project completed and in service — making money — as quickly as possible. Buildings were typically financed and constructed by investors/promoters out to make a quick buck with no intention of long-term ownership nor sense of stewardship for the environment. Therefore, long-term issues such as energy efficiency, durability and ongoing operations and maintenance associated with *service life* costs and subsystem selection were completely subordinated or ignored in deference to the initial cost to finance a project. This driving force as I remember having it explained could easily tolerate an approximately 5 percent increase in the initial cost over what may be the optimum making the application of engineering systems moot.

The energy crisis in the 1970s influenced what appeared to be a temporary interest in the long-term economics of energy efficiency in the construction of buildings. Though some of the innovations that were developed to improve energy efficiency during this time and the lessons learned may have been generally retained, continued interest in energy efficiency and new developments appear to have quickly faded into the background once high energy costs became less of a factor. Similar to the historical interest in only the economics of the initial costs — it appears that interest in service life costs was driven purely by the business motives to satisfy the economic conditions of the moment. It appeared that if the motive of pure economic interest in building construction was the driving force, stewardship of the environment would always be trumped by the availability of relatively inexpensive energy. In this environment, the 2 percent improvement in the initial costs achieved by the optimum solution provided by the engineering systems approach does not make it an ongoing viable technology.

A series of feature articles in a special section of the October 2004 issue of *CE News* clearly brought engineering systems to mind when it was noted that *green* buildings cost no more than 2 percent of a standard building and it was stated

> Sustainability often is referred to as living in a way that allows optimization of economic, environmental and social aspects — or the triple bottom line. The challenge becomes one of coming up with ways to systematize the concept.

It was pointed out that the $3 trillion a year construction industry was grounded in an era of a different ethic and founded on a sense of unlimited abundance that discounted waste and promoted growth and consumption as its underlying values. Protecting and sustaining life were not measured in terms of monetary worth. All of this appears to be rapidly changing.

A new ethic of *green* value is founded in construction using high-quality building products with the least environmental impact and seeking the highest level of occupant health. The World Green Building Council has near 5,000 members in 10 nations. The 5-year-old *green* building rating system of the U.S. Green Building Council (*Established 1993*) — *Leadership in Energy and Environmental Design* (LEED) *New Construction* — is a standard for new construction that is now being used in 5 percent of the new construction and used as a method to review, measure and document s*ustainability* of buildings. The LEED standards for existing buildings, commercial interiors and others are in various stages of development and implementation. *Green* building ordinances based on LEED are being adopted by dozens municipalities in the U.S. with incentives for both public and private projects. LEED has been adopted nationwide by the General Services Administration. More than 6,000 building professionals have taken and passed a LEED Accredited Professional exam, and it is becoming more common for professional *green* services to be offered by firms and mandated by owners.

Driven by environmentalists and engineers alike, the *green* movement and sustainable development continue to gain momentum in the building industry. The application of engineering systems may have a place in this environment that is becoming more ethics-based rather than purely economics-based. However, there are long-term economic benefits that can accrue to the succes-

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exclusively or at least largely represented on the state licensing boards and in the NCEES.

The typical victim of a complaint in Louisiana is an easy mark — the individual engineer who has few resources to defend himself. The source of the complaints are typically their *aggrieved* competitors — owners of established engineering and architectural firms. Thereby, the rules are selectively applied to the individual engineer exercising the same appropriate practice of carefully reviewing independently prepared conventional engineering documents just as the engineer employees do in the established engineering office.

I contend that how, when and where such engineering documents are prepared is not a relevant public health and safety issue. It is only relevant that the sealed engineering documents for a particular project have been reviewed and revised by the engineer as may be necessary for the application for which they are intended. Contrary to the reason for the very existence of the state licensing boards and the NCEES, some of their licensees are inappropriately and unfairly judged on conformance to an arbitrary, *prescriptive* rule by which they are not necessarily held to the underlying *principle* in practice relative to public health and safety.

I believe that plan stamping should be governed by well-founded, briefly stated principles requiring professional judgment and interpretation considering the specific conditions of the proposed project. It should not be governed by the complex series of convoluted, prescriptive rules advocated by the NSPE, and the NCEES, and that are used in Louisiana and in any state where licensing boards may blindly implement copycat rules.

We engineers do like to think of ourselves as professionals, don't we? It is because it reflects a need for intelligence, ethics and a recognizance normally expected of a professional in the exercise of good judgment. The need for prescriptive rules — in general — are indicative of the regulation of simple matters executed by simple people of which engineering and engineers in my opinion are not. From this, I can only conclude that the NCEES and its member state licensing boards insult and degrade the entire engineering profession that they are entrusted to regulate. It is through their effrontery and for no other reason than a petty, not-so-hidden agenda to inappropriately protect the practice of a better represented segment of the profession among them from the legitimate practice of others.

Freedom

Participation in the workplace, as does citizenship in a free society, requires that the employee sacrifice unbridled freedom to accommodate others. In the workplace, there is tangible compensation for this sacrifice. This is an oversimplification but it appears reasonably correct. It explains a clear expectation of the command and control function in the organization that is reinforced by stated obligations and tangible compensation. The imposition of limits on the freedom of a member of an organization is *voluntarily* accepted by the member through being free to cease employment... Quit! Hell! Another common tactic beyond the scope of this discussion is for members to join forces and conspire to extort concessions from the employer.

As a glue to hold an organization together in an effective and competitive way, stated obligations and compensation to limit freedom and reinforce command and control do count for as much as wartime military organizations demonstrate. Even in the wartime military, it is only a foundation on which much must be built to improve effectiveness. This is even more true in peacetime.

I believe that the key to *superior* effectiveness is found in the spiritual nature of the human being that is driven by something other than the tangibles of command, control and compensation. Just as the regimen of resting and eating well, and exercising regularly is not necessary to sustain life but important to the quality and length of life, so are active and positive relationships at home, work and across the breadth of one's life important to effectiveness. They are needed to build a healthy spiritual base on which meaning and quality is given to life in the first place. I believe that *feelings* of love, joy, serenity, patriotism and esprit de corps are examples of the outward evidence of spiritual development.

Members of an organization with superior effectiveness are most likely nurtured and bound to it spiritually through its culture. An organization cannot be all things to all people; however, it should strive to be an empowering, significant other — intimately connected — to its members. This is done through conscious recruitment, cultivation and retention efforts that seek to form spiritual bonds through matching the values of the members and the culture of the organization. The spiritual bonds sought transform members from begrudging *servants* responding to the command and control of others to faithful and industrious *actors* responding independently and correctly to conditions through intimate understanding. They are thereby *free* to act in the best interest of the organization and their own best interest that effectively merge toward one and the same through growing, mutual, spiritual bonds.

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sive owners of a facility over its service life that are realized through the initial capital investment justified through environmental ethics. The investor/promoter may actually recover this larger initial investment through a higher sale price offered for the value perceived by buyers that appreciate and account for lower operating and maintenance costs. If the design and construction environment driven by *green* ethics is sustained in the long-term as opposed to its volatility when driven by pure economics, the 2 percent improvement to the optimum initial costs and as much as 15 percent improvement in the service life costs refined by the engineering systems approach may result in engineering systems becoming the viable, supporting technology it once appeared to promise.

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located approximately 15 miles south of Washington, D.C. This intersection received the prestigious *Francis B. Francois Award* for Innovation from the American Association of State Highway and Transportation Officials.

> We have been overwhelmingly happy with how it has run, and the flow has minimized backups that were pretty significant prior to making this move,

said David Buck, a spokesman for the Maryland State Highway Administration.

Selected projects

ABMB has presented the CFI concept to the transportation officials in several states and has conducted numerous studies for potential applications. The following are short descriptions of the firm's experience with some of the CFI applications currently under consideration:

Airline Highway Corridor Study Baton Rouge

A 5-mile corridor along Airline Highway from Florida Boulevard to Old Jefferson Highway was analyzed as part of this study. The corridor consists of 4 travel lanes and it includes 13 signalized intersections. The study tested the potential benefits of implementing a two-leg CFI application on the Airline Highway approaches at 4 key locations considering the current year traffic (2004) and the 20-year projected traffic.

The near optimum signal cycle length selected for the CFI configuration was 90 seconds — much lower than the current 150-second cycle length at the conventional intersections. The cycle lengths and split times for the adjacent 9 intersections remaining in the corridor were lowered to 90 seconds to enhance progression. The results of the analysis were compared to the existing configuration and a proposed plan to widen Airline Highway to 6 lanes over a length of 3 miles in the corridor. The results indicated that while there is substantial benefit obtained with the 6-lane widening option, there is a greater benefit obtained with the CFI option in terms of reduced travel time in the corridor and average intersection delay. In addition, the cost of constructing the CFIs was much less than the 6-lane widening option.

As a result, one of the intersections, Airline Highway at Siegen Lane/Sherwood Forest Boulevard was selected as a pilot project to demonstrate the benefits of the CFI by relieving its heavy congestion and delay. The CFI proposed at this location and shown on the cover page of this issue consists of two CFI legs on Airline Highway with a geometric configuration that is based on the right-of-way restrictions. This intersection is one of the most congested intersections in Baton Rouge with the heaviest congestion occurring when traffic volume is the highest during the afternoon peak hour. The average peak hour intersection delay at this location is currently near 4 minutes. The CFI improvements are estimated to dramatically reduce the peak hour intersection delay to about 30 seconds, and result in less congestion and shorter queue lengths. This pilot project is currently under construction and scheduled to be completed by January 2006.

US 61 Natchez, Mississippi

This US 61 corridor study was launched to determine the roadway improvements necessary to meet current and future traffic demand at two intersections — US 61 at Junkin Drive and US 61 at Devereux Drive — along with 7 other intersection/interchange locations on US 61. An analysis using the CFI application was completed at these 2 intersections for the interim year (2005) and the design year (2025). Several alternative configurations were studied to determine the preferred CFI solution at both locations. The results of the VISSIM models for the preferred CFI solution revealed it would improve traffic operations when compared with the conventional alternative considered.

The preferred CFI alternative recommended for the Junkin Drive intersection shown in Figure 4 is a one-leg CFI design to accommodate a projected heavy left-turn movement on Junkin Drive. Other conventional improvements studied consisted of an undesirable 3-lane left-turn movement on Junkin Drive to provide the capacity for the heavy left-turn traffic volume. It resulted in only marginally acceptable levels of service. The CFI alternative can be constructed within the existing right-of-way, and it allows full access to an adjacent shopping center, improves access to an adjacent medical center entrance and offers a substantial intersection delay reduction. This CFI application is currently in the final design phase.

At the Devereux Drive intersection, it is recommended that a southbound flyover be constructed on US 61. While improved traffic operations would be provided by the CFI application, the route continuity provided by the southbound flyover was considered the primary need.

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MD 140 Corridor Study Westminster, Maryland

In this study, a 3-mile corridor was analyzed along state route MD140 for the existing conditions and the design year (2025) conditions. The corridor consists of 6 signalized and 2 unsignalized at-grade intersections. Currently, the state route MD140 corridor experiences heavy congestion particularly during the afternoon peak hour. The corridor was analyzed using VISSIM software and tested considering conventional at-grade intersection improvements — more turn lanes and through lanes — interchange improvements, and CFI improvements. The CFI improvements were applied to 3 of the intersections. Results indicated that using the 2025 design-year traffic volumes, both the conventional at-grade intersection improvements and the interchange improvements would experience traffic breakdown. Only the CFI improvements provided enough capacity to maintain an acceptable level of service at the intersections studied.

Summary

ABMB has participated in every step of the process to consider the CFI, from the initial modeling using VISSIM software, to the final design plans. Each CFI application studied has been a unique situation where the design is varied to meet the site-specific needs. Signal timing and the geometry must work closely together to reasonably ensure that the traffic operates efficiently in each signal phase and that no vehicle will be stopped in the intersection for 2 or more red light conditions. The number of lanes, the signal cycle length and split times are determined based on traffic volume, right-of-way and access issues. In addition, signals at adjacent intersections are analyzed to determine any impacts. In most cases, the proposed CFI configuration will work best with a cycle length lower than that in the current intersection operation. Signal cycle lengths at the adjacent lower volume intersections are often lowered to match that of the proposed CFI improvement to improve progression. This typically results in the better operation of these adjacent intersections because their cycle length is set to the longer cycle length needs of the existing conventional high volume intersection proposed for the CFI improvement.

The result expected of a CFI operation is the smoother, more continuous flow of the traffic. The following benefits of the CFI are considerable:

It is economical. The CFI alternate costs less than roadway widening or the grade-separated interchange.

It is safe. While an overpass may obstruct the line of sight, the CFI provides a clear line of sight. At a CFI constructed in Maryland, studies show that no accidents have been attributed to drivers unfamiliar with — or confused by — its configuration to date.

It can be constructed faster. Compared to a grade-separated interchange, a CFI takes less time to build and requires less utility relocation. In many cases, travel lanes can remain open during construction.

It saves motorists time. Because the CFI lets more cars pass through an intersection on the green light, drivers spend less time stuck in traffic. According to ABMB studies, the CFI design typically reduces intersection delay by 50 percent or more compared to the conventional at-grade intersection designs.

It provides more capacity. The CFI can handle far more traffic volume than the conventional at-grade intersection. The CFI requires only slightly more right-of-way than the conventional at-grade intersection, and substantially less right-of-way than the grade-separated interchange.

It is easily adapted to by drivers. Even though the CFI may be unfamiliar to drivers at first, they adapt to it easily and quickly becoming familiar and comfortable with it.

It is flexible. The CFI can be installed in one-, two-, three-, and four-leg configurations.

It is environmentally friendly. The CFI is environmentally friendly because it reduces congestion and pollution.

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