



## The Arizona Civil Engineer

### Inside This Issue:

|   |    |
|---|----|
| Calendar of Events  | 2  |
| Leadership : Stewardship 2017<br>Annual ASCE/ASHE State<br>Conference | 2  |
| Southern Arizona Branch News<br>and Updates                           | 3  |
| Phoenix Branch News and<br>Updates                                    | 4  |
| University of Arizona News  | 5  |
| 2017-2018 Officer Election  | 5  |
| Phoenix Branch YMF News and<br>Notes                                  | 6  |
| Creating Change ASCE<br>Foundation                                    | 9  |
| Invitation to Join the ASCE<br>Foundation                             | 10 |

*The Arizona Civil Engineer is a  
publication of the Arizona Section  
of ASCE*

Editor  
Meghan Bowen

Technology Director  
Sherry Martin, PE

Information published in the  
newsletter must be consistent with  
ASCE Arizona Board Policy.

### President's Message

*Mark Lamer, PE, MEng, M.ASCE,  
Arizona Section President*



Summer of 2016 was the first time the ASCE Arizona Section board met and produced a strategic plan. At the one-year anniversary of this planning the board met for a two-day meeting this past July to review and provide new direction for this strategic plan. The previous strategic plan emphasized the importance and value of being an ASCE member as well as educating those outside of our profession about the current state of our infrastructure, and after a review we determined that we did okay. I wish I could say we did better and completed everything, we did complete many of our planned initiatives but also failed to execute some as well.

Over the course of our review we maintained the mission and vision while streamlining the goals and initiatives. The board maintained the emphasis on the value of being a member, and importance of infrastructure, and added more emphasis on acting as positive leaders and stewards for our profession. By evaluating the sections needs and direction we have created (draft) strategic plan for the FY 17/18 that I am very excited about because we believe that the coming fiscal year of 17/18 will be very successful. The board expects that this plan will help guide the current members and future officers, minimizing duplicative efforts and increasing section success. The updated draft strategic plan for the Arizona Section is provided on Page 7...



## Calendar of Events

8

Yuma Branch Luncheon

9

Phoenix Branch Luncheon

Southern Arizona Branch  
Luncheon

10

Northern Arizona Branch  
Luncheon

22

PBYMF Monthly Meeting

26

PBYMF AZ Diamondbacks  
Social Event

29

PBYMF Hartford  
Elementary School  
Outreach

09.15.17

## LEADERSHIP : STEWARDSHIP

### Managing and Growing Resources

#### 2017 ANNUAL ASCE/ASHE STATE CONFERENCE

#### REGISTRATION

On behalf of the Conference Planning Committee, we invite you to attend this year's ASCE/ASHE Annual Statewide Conference in Phoenix, Arizona on Friday, September 15, 2017.

This conference provides professional development opportunities, networking and fun—all packed into one day.

The program includes featured speakers in our morning and lunch sessions along with technical and professional sessions throughout the day featuring topics of various disciplines, leadership, and educational subjects. This year's program highlights students and younger member forums through onsite networking, academic challenges, and our student poster contest. The conference includes a social reception at the end of day with complementary drinks and hor d'oeuvres.

**PLEASE VISIT [AZSCE.ORG](http://AZSCE.ORG) FOR MORE INFORMATION.**

You may access the registration and sponsorship forms by using the following links:

[REGISTRATION INFORMATION](#)
[SPONSOR INFORMATION](#)

**REGISTER NOW FOR EARLY BIRD PRICING**  
FOR MORE INFORMATION OR QUESTIONS, PLEASE CONTACT

Fausto Burrue, MPA, PE, CPM  
Conference Committee Lead  
Town of Marana  
Phone: 520.382.2676

Deirdre Brosnihan, PE, M.ASCE  
Conference Committee Co-Lead  
Pima County Flood Control District  
Phone: 520.724.4600

[fburruel@maranaaz.gov](mailto:fburruel@maranaaz.gov)
[deirdre.brosnihan@pima.gov](mailto:deirdre.brosnihan@pima.gov)

## 2017-2018 ASCE Arizona Elections

It's time once again to vote for the upcoming year's Section, Branch, or Younger Member Forum board members.

You will need your ASCE Member ID to vote.

Everyone is to vote for the Section board, and then your respective Branch and Younger Member Forum as applicable.

The DEADLINE to vote is FRIDAY AUGUST 18, 2017. Please vote only once.

[Vote Now](#)

---

### Southern Arizona Branch News and Updates

---

#### August Luncheon: Drone Technology in Engineering and Surveying

---

Date: August 9, 2017

Location: Tucson Hotel City Center

475 N Granada Ave.

Tucson, AZ 85701

Time: 11:30 AM - 1:00 PM

Speaker:  
Mary Darling

Mary will give a general update on drone technology used in Engineering and Surveying.

[RSVP](#)

Registration closes midnight before the event. Please be aware that if you do not register you will be charged \$5.00 extra for being a walk-in.

---

## Phoenix Branch News and Updates

---

### Dream Big

---

The Dream Big film is now showing in Phoenix! Get the word out, and take the time to go see this film and support the future of our profession.

This film will be exclusively showing at the Irene P. Flinn Theater at the Arizona Science Center (<https://azscience.org/theater>) until August of 2018. Current show times are Saturday and Sunday at 9:30 a.m. and 4:30 p.m. In September of 2017, the film we begin showing during weekdays and mid-day times.

Narrated by Academy Award® winner Jeff Bridges, Dream Big: Engineering Our World is a first film of its kind for IMAX® and giant screen theaters that will transform how we think about engineering. From the Great Wall of China and the world's tallest buildings to underwater robots, solar cars and smart sustainable cities, Dream Big celebrates the human ingenuity behind engineering marvels big and small, and shows how engineers push the limits of innovation in unexpected and amazing ways. With its inspiring stories of human grit and aspiration, and extraordinary visuals for the world's largest screens, Dream Big reveals the compassion and creativity that drive engineers to create better lives for people and a more sustainable future for us all. DREAM Big is a MacGillivray Freeman film produced in partnership with American Society of Civil Engineers and presented by Bechtel Corporation.

If you are interested in supporting the Phoenix Branch of ASCE in promoting and advertising this film to students of all ages and places, please contact the Phoenix Branch President ([Frederick.Tack@ghd.com](mailto:Frederick.Tack@ghd.com)).

<http://www.asce.org/dream-big/>

<http://www.dreambigfilm.com/>

---

### August Luncheon: Drones Increasing Engineering Efficiency

---

Date: August 9, 2017

Location: Because-Space for Life

3419 E University Dr., Phoenix, AZ 85034

Time: 11:30 AM to 1:00 PM

Cost: \$25/\$30 for Members/Non-Members by August 6, \$30/\$35 thereafter

Join colleagues and friends August 9th to learn about the \$5.5 billion ADOT 2018-2022 Five Year Transportation Facilities Construction Program. This presentation will provide an overview of the Five-Year Program (highways, airports, transit, and highway support facilities), how the Program is developed, major projects across Arizona, status of funding, and challenges in implementing the Program. As time permits, process improvements recently implemented by ADOT will also be presented.

Speaker:  
Dallas Hammit

Our presenter is Dallas Hammit, PE, the Deputy Director for Transportation/State Engineer at ADOT. Dallas has a Bachelor's Degree in Mechanical Engineering from the University of Wyoming.

Take a break and come enjoy lunch with friends and colleagues! [Register](#) for this great presentation and networking event.

## University of Arizona News

*Kevin E. Lansey, PhD, Professor and Arizona Department Head  
Department of Civil Engineering and Engineering Mechanics*

Greetings from Tucson. In April, I described our initiatives in construction engineering management and architectural engineering. As we approach the beginning of the next academic year, we are beginning several other new activities to provide educational opportunities to Arizona and increase international enrollments.

The first effort is to provide our transportation courses in the evening. These offerings are in support of our new graduate certificate in advanced transportation engineering (ATE) for on-campus and local students. The ATE requires four courses in transportation engineering that can also be counted toward a Master's degree. To begin the ATE, students can enroll as non-degree seeking (NDS) students. The NDS application process can be quickly completed through [Karen Van Winkle](#). The course offerings this fall are:

Traffic Demand Modeling (CE465/CE565) - Monday - 5:00 - 8:00 pm  
Urban Transportation Planning (CE 468/568) - Wednesday - 5:00 - 7:30 pm  
Highway Geometric Design (CE 466/566) - Tuesday and Thursday - 3:30 - 4:45 pm T-Th  
Statistics in Transportation Engineering (CE460/560) - Wednesday - 5:00 - 8:00 pm

We will offer at least two ATE courses every semester. Transportation is the first concentration to expand opportunities for part-time students. We are currently evaluating bringing our geotechnical, structures and engineering mechanics courses on-line.

Our second major initiative is through the UA's Micro-Campus innovation ([microcampus.arizona.edu/](http://microcampus.arizona.edu/)). Micro-Campuses are housed at universities outside of the US and serve as a location for students to pursue dual degrees between the UA and the home institution in areas not offered by their school. Our first program is in conjunction with the American University in Phnom Penh (AUPP). We are replicating our degree program at AUPP. AUPP will be responsible for the majority of the first two years; similar to the community college model. The junior and senior years as well as our engineering science courses will be taught in a flipped classroom models with students viewing UA CEEM developed content prior to attending a class. The in-class portion of the course will be taught in a collaborative learning and focus on classroom material including exercises and problem sets that are also developed by our faculty. The on-the-ground portion of the class will be led by a UA trained co-instructor. Civil engineering labs will also be taught on-site. We will pursue ABET accreditation for the degree and provide opportunities for Tucson and Phnom Penh students to spend time at the other location in semesters abroad. AUPP is our first micro-campus site with a freshman cohort entering this fall. We are currently pursuing other opportunities to expand the model to other countries.

Finally, the beginning of the fall semester means that Homecoming is just around the corner. This year, our Homecoming weekend will be highlighted with an alumni award luncheon to recognize the Distinguished and Young Alumni Award winners on Friday October 27th at the Tucson University Park Hotel (formerly the University Marriott). The Department will then host our 13th annual BBQ in the CE courtyard on Saturday October 28th beginning three hours before the game with Washington State.

*Continued on Page 7*

---

## Phoenix Branch YMF News and Notes

---

*Nicolai Oliden, PE, President*

---

### August Monthly Meeting - Half Moon Location at 5:30

---

This month's meeting will be held Tuesday, August 22nd, at 5:30pm at Half Moon Sports Grill at 2121 E. Highland Avenue (near SR 51 at the Highland Ave/Camelback Rd exit). TYLIN will be presenting on the US60/Bell Rd project that was recently completed. YMF will also be raffling off a gift card for all attendees. Be sure to come out, bring your business cards and enjoy a drink on us. It is a great way to get to know your fellow local engineers and make life long connections that will help immensely during your career.

---

### Hartford Elementary School Outreach

---

We have an opportunity to speak to two 4th grade classrooms on Tuesday, August 29th, about our civil engineering profession. We will have a short presentation followed by a hands-on activity/competition for the students. We could really use 4-6 volunteers for this event. Contact [Nicolai Oliden](#) at to volunteer or ask for more info.

---

### AZ Diamondbacks Social Event

---

This month we will host our social event at the Diamondbacks game! The DBacks will compete against the SF Giants on Saturday, August 26th at 5:10pm. Ticket locations and pricing are still being finalized but will cost around \$25-30 per person (drink and food included). Family members are welcome to join us for this event! Contact [Courtney Anderson](#) at if you are interested. Please reach out to her as soon as possible if you'd like to attend so it will help us reserve the proper quantity of tickets. A link to sign up and purchase your ticket will be posted on our FB page and a separate Phoenix Branch YMF newsletter shortly.

---

### Fall 2017 PE Review Course

---

For members (and non members) who plan on registering for the Fall 2017 PE Exam - YMF offers PE Review courses twice a year. More information about course costs and content provided [here](#). Online registration for Fall 2017 is [here](#).

---

### YMF Mentors Needed for ASU Mentor Program

---

We are launching our second year of the YMF-ASU Mentor Program on August 24th! We are in need of mentors from our group. Last year we had over 30 senior students go through our program as they navigate the journey from college to career. If you are interested in more information please contact [Nicolai Oliden](#).

---

### Upcoming YMF Presentation Topics

---

- Bridges to Prosperity, Discuss recent project in Panama (September)
  - Tempe Streetcar Project, CMAR (Private Consultant on Design Team)
- 

### 2017 YMF Cornhole Tournament

---

More information regarding Tournament registration and sponsorship opportunities can be found [here](#). If you are interested in volunteering on the planning committee contact [Skye Gentile](#).

---

*Continued from Page 3*

It is a great time to bring out the family, visit with your fellow alum, listen to Rudy Jimenez and the Banjo Blaster and enjoy food and drink. Don't forget the Engineer's Breakfast on Friday as well.

As always, the CEEM Department thanks all of our alumni, friends, and the CE and construction industries for their continued support. Bear Down.

---

### **ASCE Arizona Section FY 2017/2018 Draft Strategic Plan**

#### **ASCE Arizona Section Vision:**

ASCE members serving as global leaders to build a better quality of life.

#### **ASCE Arizona Section Mission:**

The American Society of Civil Engineers, Arizona Section, will lead by advancing the profession through membership, involvement, public outreach, and promoting sound public policy.

#### **Goals:**

- Encourage industry and individual participation in ASCE membership and activities
- Advance involvement participation and collaboration in Arizona between industry practitioners serving as technical and ethical leaders
- Facilitate annual outreach to public officials educating public policy makers on infrastructure value
- Act as stewards of ASCE for the Section constituents through awareness, understanding, reporting, and a transfer of knowledge

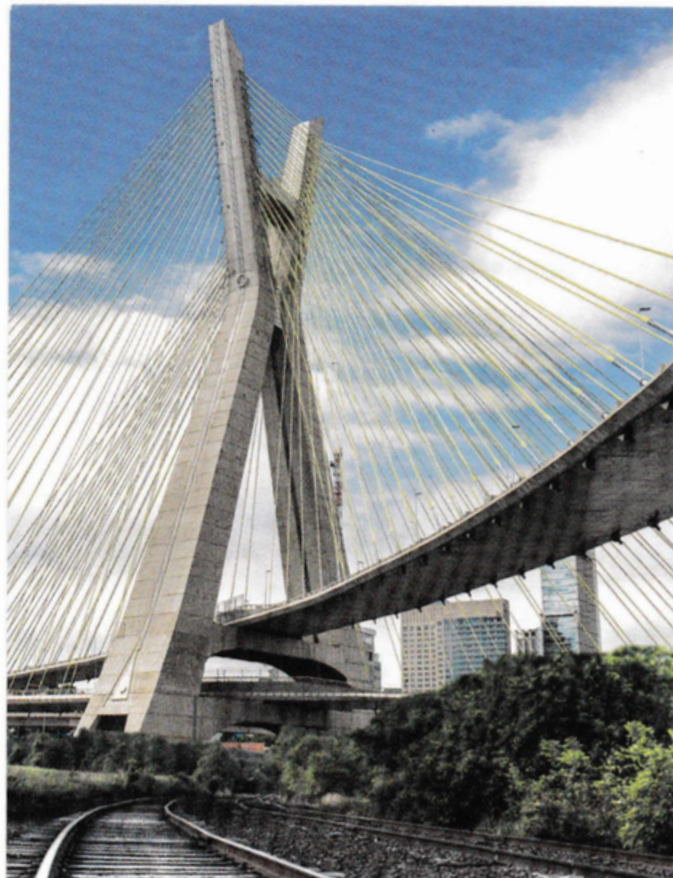
*Continued on Next Page*

*Continued from Previous Page*

**Initiatives:**

1. Increase communication of ASCE membership benefits and opportunities
  - a. Objectives
    - i. Define and provide list of benefits of membership
    - ii. Promote section strategic planning for member engagement
  - b. Facilitators
    - i. Mark Lamer, Fausto Burruel, and Jeff Swan
2. Foster relationships with existing members in the Arizona Section
  - a. Objectives
    - i. Identify and engage Arizona Section Life Members
    - ii. Identify and engage Arizona Section past leadership
    - iii. Arrange section and subsidiary board retreat
  - b. Facilitators
    - i. Mark Lamer, Fausto Burruel, Ted Smithwick, and Jeff Swan
3. Arrange for section members to participate in national, state, and local legislative events
  - a. Objectives
    - i. Promote legislative fly-in event
    - ii. Schedule and arrange state legislative drive-in events
    - iii. Schedule and arrange Arizona regional legislative walk-in events
    - iv. Schedule ASCE to provide Government Relations University and Public Relations University workshops for interested section members
  - b. Facilitator
    - i. Mark Lamer
4. Increase collaboration between section board, subsidiary boards, and past leadership
  - a. Objectives
    - i. Review websites of other sections within ASCE and specifically Region 8 for collaboration ideas
    - ii. Engage past section leadership for lessons learned
  - b. Facilitator
    - i. Ted Smithwick
5. Increase section leadership participation in subsidiary organization events and meetings
  - a. Objectives
    - i. Schedule Section leadership participation in subsidiary activities
    - ii. Executive Board member attends at least one meeting and event of each subsidiaries or committees
  - b. Facilitators
    - i. Mark Lamer, Fausto Burruel, Ted Smithwick, Breanna Connolly, Jeff Swan, and Thomas Nelson

In a nutshell we removed initiatives and objectives that were completed, added new ones where appropriate, and narrowed the list of section goals from five to four goals. Please review the strategic plan and let us know what your thoughts are. The strategic plan is for all of the sections members, if you would like to be involved in any of the items identified in the strategic plan please let myself or one of the other board members know.



**Creating Change**

EVERY FAMILY AND BUSINESS NEEDS INFRASTRUCTURE TO THRIVE.

From the road you travel to work, to the pipes that deliver clean drinking water, to the inland waterways and rails that move goods from coast to coast.

**ASCE** FOUNDATION

WITH YOUR GIFT, WE CAN SUPPORT  
CIVIL ENGINEERS AROUND THE WORLD  
WHO ARE CREATING CHANGE  
TO ENHANCE THEIR LOCAL  
INFRASTRUCTURE.

#### HOW YOUR SUPPORT HELPS

As we raise donations, they are immediately put to work – this year! **Your gift today can help provide \$1.7 million in support** to vital ASCE programs.

The Foundation funds ASCE programs in three strategic areas of Lifelong Learning, Leadership, and Sustainable Infrastructure. Your gift will fund programs including:



#### LIFELONG LEARNING

- History & Heritage
- National Concrete Canoe Competition
- National Student Steel Bridge Competition
- Pre-College Outreach



#### LEADERSHIP

- ASCE Regional Student Conferences
- Diversity Programs
- Emerging Leaders Alliance
- National Engineers Week
- Younger Member Programs



#### SUSTAINABLE INFRASTRUCTURE

- Advocacy Captains Training (Federal & State)
- Disaster Response Fund
- National Report Card on Infrastructure
- State Report Cards
- Sustainability Programs

**ASCE** FOUNDATION

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

## AN OPEN INVITATION TO AZSCE MEMBERSHIP TO SUPPORT THE ASCE FOUNDATION

Recently I was appointed as Region 8 Trustee of the ASCE Foundation, which is the tool that enables all of us to support vital ASCE programs. My first experience in supporting the Foundation was over 15 years ago when I served as the President of AzSCE, and my most recent was at the National Convention in 2015 that I attended as our own Mark Woodson was inducted as President.

The ASCE Foundation provides support for ASCE programs that enhance quality of life, promote our profession, advance technical practices and prepare civil engineers for tomorrow. The three key program areas are: (1) **Lifelong Learning**; (2) **Leadership**; and (3) **Sustainable Infrastructure**.

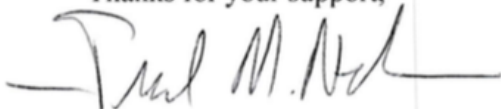
At the top of the list is the "*Dream Big*" Film narrated by Jeff Bridges, which cost about \$15,000,000 to produce, largely funded by Bechtel. It debuted in February 2017 and is currently showing at the Arizona Science Theater IMAX theater in afternoons and Saturdays. I recently watched it with my grandchildren, and found it to be an excellent representation of our wonderful profession.

My Trustee assignment is to promote the Foundation in all nine Region 8 states. To do this, I'm starting with our Arizona membership, and requesting that each of us help in two simple ways: (1) is to **make a personal donation**, which can be as small as \$10 to \$25; and (2) is to **contact a few key ASCE persons** that you know and encourage them to do the same. Although I prefer to contact people face to face, how you do this is up to you, but for this "Open Invitation" I have included an ASCE brochure and a simple spread sheet to assist you in this task.

Should you want additional copies of Foundation document, or if you have any questions you may contact me directly or Jen Ilchishin at the Foundation.

Jennifer Ilchishin, ASCE Foundation  
1801 Alexander Bell Drive, Reston, VA 20191  
(703) 295-6092 or (703) 295-6342, Email: [JIlchishin@asce.org](mailto:JIlchishin@asce.org)

Thanks for your support,



Fred M. Nelson, P.E.  
ASCE Region 8 Foundation Trustee and Governor  
602.285.1720 (Office) and 602.405.4695 (Mobile) and [fmn@gervasioeng.com](mailto:fmn@gervasioeng.com)

| ASCE FOUNDATION CONTACT LIST |      |                     |            |
|------------------------------|------|---------------------|------------|
| No.                          | Name | Contact Information | Contacted? |
| 1                            |      |                     |            |
| 2                            |      |                     |            |
| 3                            |      |                     |            |
| 4                            |      |                     |            |
| 5                            |      |                     |            |
| 6                            |      |                     |            |
| 7                            |      |                     |            |
| 8                            |      |                     |            |
| 9                            |      |                     |            |
| 10                           |      |                     |            |
| 11                           |      |                     |            |
| 12                           |      |                     |            |
| 13                           |      |                     |            |
| 14                           |      |                     |            |
| 15                           |      |                     |            |
| 16                           |      |                     |            |
| 17                           |      |                     |            |
| 18                           |      |                     |            |
| 19                           |      |                     |            |
| 20                           |      |                     |            |
| 21                           |      |                     |            |
| 22                           |      |                     |            |
| 23                           |      |                     |            |
| 24                           |      |                     |            |
| 25                           |      |                     |            |
| 26                           |      |                     |            |
| 27                           |      |                     |            |