Dear Members and Friends,

It is once again time for our annual golf tournament fundraiser. This will be our 20th tournament, which will be held at the Serenoa Golf Club on May 20th. Historically, this tournament has been our biggest fundraiser of the year. If you have not yet had an opportunity to support the branch with this event, sponsorship opportunities are still available.

Members and friends should keep in mind that planning efforts are under way for a new fundraising event which will take place in the late fall or early winter. The event will be focused on bringing together engineers with other members of the local community to further the cause of ASCE. We are looking for committee members, including a chairperson, who would like to help pioneer this new venture. If you would like to be a part of the committee, please let me know or email us at asce.suncoast@gmail.com.

Cheers,

Norman Robertson, P.E., PMP
EDUCATION CORNER

The education corner seeks to provide valuable information to our members related to continuing education, opportunities for PDH credits, and information related to upcoming PE exams.

EXAM REGISTRATION:

For those planning on taking the PE exam on October 27, 2017, the initial application must have been received by FBPE by May 12, 2017. Final supporting documentation and re-exam applications must be received by FBPE by June 16, 2017. For more information, please visit: https://fbpe.org/licensure/application-process/.

PRACTICE PROBLEM:

1.) A rectangular gate has a frictionless hinge as shown. Determine the magnitude of the force F per meter of width with a closed gate. Assume fluid density of 1200 kg/m³.

A.) 42 kN  
B.) 0 kN  
C.) 60 kN  
D.) 36 kN

The answer to the question can be found on page 10.

If you would like to make an announcement in the Education Corner or if you would like to submit an exam-type question for inclusion in a future edition, please email announce@asce.org.

Joke of the Month

What optimists believe: “The glass is half full.”

What pessimists believe: “The glass is half empty.”

What Engineers believe: “The glass is twice the size it needs to be.”

If you have a joke you would like to share please send it to asce.suncoast@gmail.com

ANNOUNCEMENTS

ASCE SUNCOAST BRANCH MONTHLY LUNCHEON

WHEN: Thursday, May 18, 2017
Check-in begins at 11:40 AM
WHERE: Der Dutchman
RSVP: http://ascesuncoast.weebly.com/monthly-meetings.html
TOPIC: Dona Bay, Phase 1 Watershed Restoration Program
2017 SunCoast Branch Project of the Year

GUEST SPEAKER: MOLLY WILLIAMS, P.E., M.ASCE

Molly Williams, P.E., holds a Bachelor of Science in Civil and Environmental Engineering from the University of Cincinnati and has practiced engineering in Sarasota County since 1998. She started her career in Florida building Sarasota County’s ICPR stormwater models, moved on to administering the County’s Sidewalk Program and transitioned into designing stormwater management systems for transportation corridors.

Since August 2013, Molly has served as Sarasota County’s Stormwater Utility Manager overseeing 76 staff members tasked with the Stormwater Planning Program including NPDES, CRS, FEMA Map Modernization and Risk Mapping; Stormwater Development Review, Flood Protection, Watershed Modeling and model maintenance; Water Quality Planning and public outreach; maintenance of Sarasota County’s existing stormwater management system; and the technical and management support for the Stormwater Capital Improvement Projects team.

20TH ANNUAL CHARITY GOLF TOURNAMENT

This year’s golf tournament will be held on May 20th at Serenoa Golf Club. Sponsorship opportunities are still available. If you would like to participate in the tournament, please submit the registration form that is included in this newsletter, or download the form at http://ascesuncoast.weebly.com/golf-tournament.html. Please see page 6 for more details about the tournament!
2017 ENGINEERING ENCOUNTERS (FORMERLY WEST POINT BRIDGE DESIGN CONTEST)

In order to provide middle and high school students with a realistic and engaging introduction to engineering, ASCE conducts Engineering Encounters (fka West Point Bridge Design Contest) every year. 

Engineering Encounters is a quality engineering outreach program that inspires, attracts, and develops the STEM talent essential for meeting the Nation’s current and future challenges.

This year, middle and high school teams from across the state are participating in the qualifying rounds of the contest. The qualifying rounds will end on May 23, 2017.

Six finalists from each division of the qualifying round will be invited to compete in the Branch Finals on May 27, 2017. ASCE SunCoast Branch will award up to $800 in cash prizes to the winners.

The winners from each division will compete in the State Finals on July 21, 2017 in Orlando during the Florida Section Annual Conference.

If you would like to know more about the contest, please contact:

Amjid Hussain, P.E., PTOE
ASCE SunCoast Branch Outreach Committee Chair
Please see the flyer on page 5 for more information.

BE A SPONSOR!

We are continuing to change our look to provide you more value. If you or your company is interested in sponsoring your local ASCE Suncoast Branch Newsletter, please contact any of the Executive Board Members.

- Quarter Page—$250 / 6mo.
- Business Card—$150 / 6mo.
- Any Event Sponsorship of $500 or more / Year
Registration is now open for the section conference in Orlando. Please visit http://www.fla-asce.org/ for details or to register as July approaches, and plan ahead if you would like to attend.

Program details are being finalized and will include a broad range of topics in Structures, Geotechnical, Transportation, Land Development, Environmental, Water Resources, Utilities and Professional Development.

ASCE 2017 NATIONAL CONVENTION

This year’s national convention is taking place in New Orleans from October 8-11. Please visit http://www.asceconvention.org/ to register or for more information.

Registration (and hotel booking) opens May 31, 2017!

SUNCOAST ENGINEERING CALENDAR

Don’t forget to check the Suncoast Area’s shared Engineering Calendar. Groups including ASCE, APWA, AWWA, FES, and FWEA update events and meetings in one place. Please visit this link.
2017 ENGINEERING ENCOUNTERS formerly THE West Point Bridge Design Contest
http://engineeringencounters.org/

Qualifying Round – Ending 12:00 p.m. on May 23, 2017
Students can register for the Engineering Encounters Bridge Design Contest by logging on to http://bridgecontest.org/enter/register/ using the following Contest Codes:

High School Division: ASCH

Middle School Division: ASCB

Final Local Round – May 27, 2017
- Top Six finalists from each division of the Qualifying Round will be invited to compete in the final round at TBD.
- Prizes for each division are as follows:

  1st Place - $200*
  2nd Place - $125*
  3rd Place - $75*

Final State Round – July 21, 2017
- 1st Place finishers from each division of the Final Local Round will be invited to compete at the ASCE FL Section Annual Conference at Orland Marriott World Center.

Prizes for each division are as follows:

  1st Place - $1000*
  2nd Place - $300*
  3rd Place - $200*

*Prizes subject to change based on sponsorship

For more information visit: http://ascesuncoast.weebly.com/west-point-bridge.html or contact:

Amjhid Hussain, P.E., PTOE
Sarasota County Public Works
PHONE: (941) 861-0750
E-MAIL: ahussain@scgov.net
MAY 20TH, 2017
ASCE 20TH ANNUAL CHARITY GOLF TOURNAMENT

ASCE SUNCOAST BRANCH 20TH ANNUAL CHARITY GOLF TOURNAMENT

ENJOY A COMPLETE PROGRAM OF SPECIAL EVENTS, 18 HOLES OF GOLF (INCLUDING CART), BREAKFAST, BARBEQUE LUNCH, DOOR PRIZES, AN EXCITING AWARDS BANQUET, AND MUCH MORE...

On-Course Contests:
• Four person scramble
• Putting challenge on the practice green
• Two longest drive contests (Men’s and Women’s)
• Closest to the pin challenge
• And the Hole-in-One Shootout

SPONSORSHIP OPPORTUNITIES AVAILABLE!!

DATE:
SATURDAY, MAY 20, 2017

LOCATION:
SERENOA GOLF CLUB
6733 SERENDA DR.
SARASOTA, FL 34241
PH: (941) 925-2755

TIME:
REGISTRATION: 7:00 AM
SHOTGUN START: 8:00 AM

HELP SUPPORT ASCE SUNCOAST BRANCH’S SCHOLARSHIP FUND

CONTACT INFORMATION:
MADELINE KENDER
Madeline.Kender@kimley-horn.com

KURTIS PELTO, P.E.
Kurtis.Pelto@kimley-horn.com

NORM ROBERTSON, P.E.
Norman.Robertson@atkinsglobal.com
(941) 451-9979
# REGISTRATION FORM

**ASCE - SCHOLARSHIP GOLF SCRAMBLE**

**May 20, 2017  Location: Serenoa Golf Club**

**Company Name:**

**Mailing Address:**

**Contact Name:**

(if different from company name)

Please indicate your level of participation by placing an X next to your choice(s):

<table>
<thead>
<tr>
<th>Sponsorship</th>
<th>Yes (X)</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. COMMANDER IN CHIEF (Logo Golf Balls w/ One</td>
<td></td>
<td>$1,000.00</td>
</tr>
<tr>
<td>Foursome, tee &amp; green sponsor)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. ADMIRAL (Two Foursomes w/ tee &amp; green sponsor)</td>
<td></td>
<td>$800.00</td>
</tr>
<tr>
<td>3. CAPTAIN (One Foursome w/ tee &amp; green sponsor)</td>
<td></td>
<td>$520.00</td>
</tr>
<tr>
<td>4. COMMANDER (Foursome w/ tee or green sponsor)</td>
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<td>$420.00</td>
</tr>
<tr>
<td>5. LIEUTENANT (foursome)</td>
<td></td>
<td>$320.00</td>
</tr>
<tr>
<td>6. CHIEF (Individual Player)</td>
<td></td>
<td>$80.00</td>
</tr>
<tr>
<td>7. SAILING FLAGS (HOLE SIGN SPONSOR)</td>
<td></td>
<td>$125.00</td>
</tr>
<tr>
<td>8. CANTINE (BEVERAGE CART SPONSOR)</td>
<td></td>
<td>$500.00</td>
</tr>
<tr>
<td>9. RIBBONS (PLAQUE SPONSOR)</td>
<td></td>
<td>$300.00</td>
</tr>
</tbody>
</table>

Total Amount: $0.00

*Any total registration of $500 or more will have their company logo included in the monthly ASCE newsletter. Make checks payable to the ASCE Suncoast Branch*

Please fill in the names of your four players and one mailing and e-mail address:

<table>
<thead>
<tr>
<th>NAMES</th>
<th>CONTACT PERSON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Name:</td>
</tr>
<tr>
<td></td>
<td>Address:</td>
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<tr>
<td></td>
<td>City, State ZIP:</td>
</tr>
<tr>
<td></td>
<td>Telephone #:</td>
</tr>
<tr>
<td></td>
<td>E-Mail Address:</td>
</tr>
</tbody>
</table>

If you have more than one team, use a separate form for each.

Please Send via E-Mail Attachment to:

- **Norman Robertson, P.E., PMP**  
  E-Mail Address: Norman.Robertson@atkinsglobal.com  
  Phone: 941-451-6676

- **Marquis Bing, E.I.**  
  E-Mail Address: mbing@scgov.net  
  Phone 941-861-0766

Send payment to:

**Marquis Bing, E.I.**  
1001 Sarasota Center Blvd.  
Sarasota, FL 34240  
Thank you for your support  
Suncoast Branch
A 142-inch diameter tunnel to accommodate a 90-inch diameter PVC-lined reinforced concrete pipe sanitary sewer in the upstream portion of the Joint Outfall “C” Unit 1 Relief Trunk Sewer in Los Angeles County, California was required because the existing 72-inch diameter JO “C” Unit 1 Trunk Sewer has become hydraulically overloaded.

The tunneling project is the second and final phase of construction of the entire relief sewer. The first phase was completed in 2010. Phase II consists of construction of approximately 7,600 feet of 90-inch diameter PVC-lined, double-ring rubber gasketed reinforced concrete pipe (RGRCP) sewer. The project included construction of appurtenant structures, and the relocation of a ten-inch jet fuel line and seven oil and gasoline lines that interfere with construction of the trunk sewer and structures. Approximately 5,400 feet of RGRCP was installed in one direction, while 2,200 feet will be installed in the opposite direction from the tunneling pit.

Thompson Pipe Group in Rialto, California supplied the pipe for the project. Thompson Pipe Group has manufacturing processes in California, Texas, and Louisiana. Thompson Pipe Group produces reinforced concrete pipe and structures, reinforced polymer concrete pipe and structures, Meyer polymer concrete pipe, and FLOWTITE® FRP Pipe. Thompson Pipe Group wet cast eight- and 12-foot long RGRCP joints to accommodate the 35 to 40 foot depths, and horizontal and vertical curves inside the tunnel. All pipe joints are specially designed class 3500 D with double gasketed joints. The pipe with this joint design will be hydrostatically tested as the pieces are installed.

Since the entire sewer is designed as a siphon and the bottom section is completely submerged, only sections above the low flow level that would be exposed to sewer gases were lined 270 degrees along the circumference with PVC T-lock liner to prevent corrosion. A precast channel insert placed within a rectangular cast in place junction structure will be used for the live connections between the new run of 90-inch diameter relief sewer and the existing 72-inch diameter sanitary sewer.

Constructing a tunnel and installing the RGRCP sewer inside was necessary due to the depth of the sewer, several oil lines directly above the sewer alignment, multiple railroad crossings, and oil storage tanks in adjacent oil refineries along the sewer alignment. There was limited work area for open trench construction due to container truck traffic from Port of Los Angeles and Long Beach and only a narrow corridor due to the
parallel existing 72-inch sewer and 66-inch storm drain. The Sanitation Districts of Los Angeles County\(^3\), owner and designer of the pipeline, prefers lined concrete sewers for diameters greater than 42-inch based on the success experienced with this material in large diameter sanitary sewer systems. A rigid alternative (vitrified clay pipe), is typically specified for diameters less than 42-inches. Rosann Paracuelles, P.E., Senior Engineer with the Sewer Design Section, County Sanitation Districts of Los Angeles County was Project Engineer.

According to Jeremy Juarez, project manager for the General Contractor, W.A. Rasic Construction\(^4\) hired contractor Golden State Boring and Pipe Jacking Inc. of Chino California. W.A. Rasic had to address the challenges of limited space near the pit for pipe storage, live oil and jet fuel lines that had to be relocated, inclement weather, difficult soil conditions, rail crossings of the alignment, and the anticipated utilities, and services in the same alignments as the tunnel. The tunnel itself had two vertical curves and three horizontal curves to avoid oil storage tanks and the edges of a closed landfill. The vertical bends were required to accommodate the up-leg and down-leg portions of the siphon. The contractor used a rail system to excavate spoil from the tunnel face and will install pipe within the tunnel with a special rail machine to push the pipe joints together. Some of the soil that was contaminated, thus classifying the tunnel as "gassy" and requiring that all tunnel equipment be "permissible".

The Joint Outfall “C” Unit 1 Relief Trunk Sewer has a 100-year design life. The concrete pipe supplied to the sanitary trunk sewer has a service life that is expected to exceed the 100-year design based on the engineered strength of the sewer and the partially-lined RGRCP joints.

LINKS
1. Joint Outfall “C” Unit 1 Relief Trunk Sewer
2. Thompson Pipe Group
3. The Sanitation Districts of Los Angeles County
4. W.A. Rasic Construction
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2016-2017

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