Volume IV, Issue II—Fall 2010



Message from our President

I hope everyone is having a great summer and enjoying time for vacation, family and friends!

We have had a busy summer and I want to thank everyone for their attendance at our Summer Meeting held at the SC State Ports Authority's Wando Welch Terminal Charleston. We had over 50 members and guests in attendance! This meeting included Bryan Webb, PE, PTOE presentations on the Port facilities and operations from the State Ports Authority staff followed by a bus tour of the Wando Welch FLOYD Environmental & Laboratory Services



Terminal. I want to give special thanks to leff Ingham for his help in putting this meeting together and Howard Chapman (CARTA) for providing the buses for the tour.

The date for our annual Scholarship Golf Tournament has been set for September 9th at the Northwood's Country Club in Columbia. All proceeds from this tournament go toward our Scholarship Fund. This tournament is a great opportunity not only to spend time with current SCSITE members but also support our "future" members as well.

We have some great events planned for this fall I would like to encourage each of you to participate and encourage your coworkers and fellow transportation professionals to get involved as well. I hope that you enjoy the rest of your summer and I look forward to seeing you in September at the golf tournament!

Bryan

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2010 Dues are now overdue. Please pay Liz Carpenter ASAP.



SCSITE SCHLORSHIP GOLF TOURNAMENT

Its time to start finalizing your foursome for the Annual SCSITE Scholarship Golf Tournament to be held **Thursday September 9**th **2010**. The tournament will be held at Northwood's Golf Course in Columbia. The Don Turner Championship Jug is up for grabs. We are honored to have SCDOT Deputy Secretary for Engineering John Walsh as our guest speaker this year. The cost will be \$50 per player which includes golf, cookout, snacks & beverages. You can purchase a mulligan and red tee for \$5. The registration form is at the end of this newsletter.

If you don't want to play golf, please join us for the meeting prior to the tournament. The food will be served promptly at 11AM and we will conduct the meeting while we eat so that we can start the golf tournament promptly at NOON. I would recommend getting to Northwood's at between 10:30-10:45 in order to socialize so that we can stay on schedule. Cost for lunch only will be \$10.

CALLING ALL CONSULTANTS: If you would like to sponsor a hole, please let us know right away so that we can ensure that we have your sign ready and that you get some great press in upcoming emails about the tournament. Its only \$150 and it's for a great cause. We had over 35 sponsors last year and we are looking to beat that number this year!



John Walsh, PE



We could still use a couple of volunteers for helping at the course with the check-in table, beverages, etc. Drop me a line if you can help. Remember, golfers of all ability are welcome in this tournament. I look forward to seeing you all soon.

If you would like to play in the golf tournament or sponsor a hole, please contact Mike Ridgeway (803-252-1799, mridgeway@srsengr.com or Jae Mattox at (803-737-1805, mattoxjh@scdot.org).



Fall Meeting & Golf Tournament Thursday, September 9, 2010 Northwood's CC—Columbia, SC 10:45 AM

REGISTRATION FORM

SCSITE SCHOLARSHIP GOLF TOURNAMENT

Thursday, September 9, 2010 - 10:45 am - Northwoods CC, Columbia, SC

Hole Sponsor (course sign & web link)	(@	\$150	=	 _
Individual Golfers(cookout included)	(@	\$50	=	 -
Cookout only	(@	\$10	=	 _
ТОТ	ΑI	LE	inclose	ed	 -
Student rate is \$30 for Golf/Cookout and \$5 for the coo	kοι	ut on	ly.		
Contact:		Fir	m:		
Address:	_	Cit	y, State,	Zip:	
Phone:		Fa	x:		
Email:					
Player #1 (handicap):					 ()
Player #2 (handicap):					 ()
Player #3 (handicap):					 ()
Player #4 (handicap):					 ()

Complete registration and return with payment to:

SCSITE Golf c/o Mike Ridgeway 801 Mohawk Drive West Columbia, SC 29169

mridgeway@srsengr.com 803-252-1799

Makes check payable to SCSITE



www.scs-ite.org



Summer Meeting Held at SPA'S Wando Welch Terminal

The SCITE Summer meeting included a Tour of the South Carolina State Port Authority's (SPA) Wando Welch terminal in Mount Pleasant. Approximately 55 ITE members turned out to tour the Port's facilities.

David Smith, the Chief Engineer, and David Hoffman, the Operations Engineer for the Wando Terminal, gave presentations about the Port facilities, its current operations, and its plans for expansion. We then took a guided bus tour of the facilities, including all dockside and portside operations.

This unique opportunity gave all that attended a new perspective on the shipping and trucking industry and exposed ITE members to a vital element of our transportation system that we typically do not see. Thanks again to those that attended and everyone that helped in planning.









JOIN SCSITE TODAY!!

Membership forms are available on our website at www.scs-ite.org. Please mail forms to Liz Carpenter. Her contact information is at the end of this newsletter.

Dues are \$20.00 yearly.



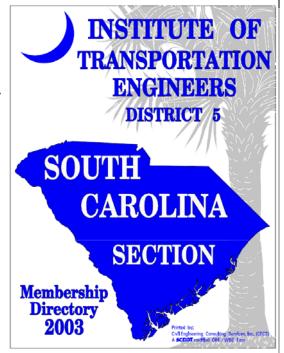
STAND UP AND BE COUNTED!

Now that everyone has filled out their Census forms, we are about to complete our 2010 South Carolina Section ITE Membership Directory.

<u>Paid</u> members should have received an email from our membership chair, Jennifer Bihl, confirming your information and requesting a picture.

If you have not paid your dues it isn't too late, when you submit your dues to Liz, please provide your contact information including address, phone number and email and a picture.

Directories will be out this summer in electronic form.



SCSITE SHIRTS FOR SALE

Please find the order form at the end of this newsletter. Shirts will be available at the Golf Tournament in September.



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Treasurer's Report Liz Carpenter

Checking Account: \$7,081.27 Stafford/Clark Scholarship Fund: \$27,272.78 Rowe Scholarship Fund: \$24,272.78

Our Summer Meeting at the Wando Welch Terminal was a great success. The Member turnout was very successful and we ended up having 13 guest. The lower governmental rate was appreciated from the governmental employees. We also had member dues paid and some of those good looking ITE shirts ordered (should be in just in time for the golf tournament).

We are looking forward to the Golf Tournament which will help us raise money for our Scholarships which help promote ITE and our future professionals!

There are just a handful of you that have not paid your dues, you can bring them to the golf tournament or you can mail them to me.

SCDOT
Attn: Liz Carpenter
955 Park St Rm 502
PO Box 191
Columbia, SC 29202-0191



Liz Carpenter, PE



Legislative Update Gaye Sprague

One of the issues being addressed by the South Carolina Tax Realignment Commission (TRAC) is the state's fuel tax. Preliminary discussions have included raising the fuel tax and making it a hybrid tax--based on both usage and some kind of economic indicator adjustment. Keeping the tax as an excise tax so that it would continue to be dedicated to surface transportation has been noted. Discussions about reducing SCDOT expenses by efforts such as reducing the state-maintained mileage have also taken place. Although the lifting of the cap on vehicle sales taxes has been discussed, it appears that any increase in funds from that tax would be sent to the general fund, not SCDOT. Stay tuned via the state legislature's website: www.scstatehouse.gov and go to Citizens' Interest and then to the Tax Realignment Commission.



Gaye Sprague, PE

Sprague & Sprague consulting engineers





VENDOR DAY 2011

Attention All Signal Systems, Signs & Markings, Safety, Software, and ITS equipment Vendors.....

We are getting geared up and in the planning stages of SCSITE sponsored Vendor Day 2011! Our 1st Vendor Day held in October 2009 was a great Success. Vendor Day 2011 is being planned for this spring. Our guests will include City, State and County Engineers, Technicians, Supervisors and Field crews; Consulting Engineers; and University staff. Along with the Vendor Displays we will have Technical Sessions for pdh accrual and the 1st annual Equipment Rodeo! Keep a look out for more information to come...

Vendor Day 2011 contact:

Liz Carpenter: carpenteeh@scdot.org

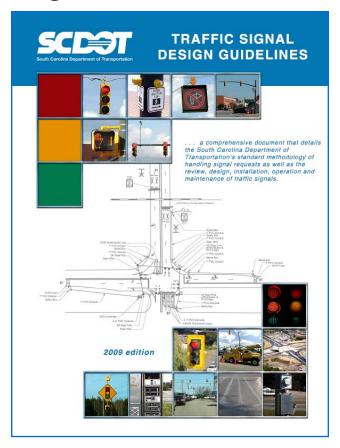


Save the Date: Fall Lunch Meeting in Greenville

SCSITE will hold a Fall Lunch Meeting in Greenville, SC on Thursday, October 28th from 11 am to 1 pm.

Liz Carpenter will present on the updated Signal Design Guidelines and Carol Jones will discuss new funding that has been allotted for Traffic Signals and Systems.

More details to come.



NEWSLETTER ARTICLES WANTED!

Advertise job opportunities, announce new hires / promotions, discuss interesting projects, or tell the section of something interesting you have going on outside of work. Send all articles, questions, or comments to Jae Mattox at mattoxjh@scdot.org.

This newsletter is for the benefit of our section so please do your part to make it a success!



Southern District News

I am honored to serve as your SC Section Representative to the ITE Southern District (5) Board. The District's Spring Executive Board Meeting was held April 11, 2010, in Portsmouth, VA, during the 2010 annual meeting. Both International ITE and District 5 are engaged in an array of initiatives and activities to serve ITE members and to advance our profession. Please let me know if you have any issues or ideas you would like me to bring before the Board for discussion on behalf of SC Section ITE. The next District Board meeting is scheduled for Dec. 5-6, 2010, in Lexington, KY, which is the site for the 2012 annual meeting. Current officers for District 5 ITE are as follows:

2010 District Officers

President: Tim White (VA) Vice-President: Becky White (AL)

Secretary-Treasurer: Martin Bretherton (GA) Past President: Karen Mohammadi (KY) International Director: Bob Stammer (TN) District Administrator: Craig Hanchey (TN)



W. Jeff Davis, PhD, PE The Citadel

News From The District – Please take time to visit the District website at http://www.sdite.org/ The site contains links to District news stories, Spring 2010 District Newsletter, Spring 2010 edition of the "The Chevron" highlighting student accomplishments, and numerous other reports and information. Some particularly noteworthy District news items include:

<u>Section Best Practices</u> – District Administrator Craig Hanchey published a Best Practices report of noteworthy activities occurring at the ITE Section levels that may be of interest to a broader audience. SC ITE's Vendor Day, held in October 2009, was one of six highlighted events. Congratulations to all of the participants and volunteers who helped make this event a success, especially SC ITE Secretary, Liz Carpenter, who served as event Chair and principal organizer.

<u>Leadership Development Seminar</u> – Through the District's Strategic Planning Process, and guidance of Richard Atkins (NC), District 5 has developed an outstanding Leadership Development Seminar predicated on a 14 module series. This seminar is being made available to ITE Sections within the District through two-day workshops. AL, GA and NC Section members have already taken advantage of this engaging and empowering interpersonal resource. Forum and logistics for bringing this to SC are being evaluated. The leadership team heading this initiative includes Richard Atkins (NC), Dr. Dan Turner (AL), Bill Seymour (KY), Brent McKinney (NC) and David Lowe (GA). Interactive modules include the following topics:

- I. Transportation Leadership Overview
- 2. Having a Positive Influence
- 3. Creating s Shared Vision
- 4. Developing and Enabling Leaders
- 5. Creating Positive Change
- 6. Demonstrating Character
- 7. Conducting Effective Meetings
- 8. Developing Relationships with Elected Officials
- 9. Developing Relationships with Peers
- 10. Effective Leader Communications
- 11. Developing Vision and Action Plans
- 12. Identifying and Engaging Stakeholders
- 13. Mentoring Employees
- 14. Evaluating Leadership Effectiveness



<u>District 5 Strategic Plan</u> - The Southern District has an ongoing strategic planning effort. The current plan is called SDITE 2010. The plan is divided into five major areas - Technical Knowledge (Martin Bretherton – GA), Annual Meetings (Cindy Pionke – TN), Workforce Development (Jeff Moore – KY), Leadership Development (Richard Atkinson – NC), and Information, Communications and Outreach (John Van Winkle – TN). More information about these crucially important forward looking activities of the District are available http://www.sdite.org/sdite.asp?Page=2010

<u>District 5 Dues</u> – District membership approved an increase in the annual dues from \$13 to \$20. The increase was approved in on-line voting July 21st.

2011 Annual Meeting – The 2011 Annual Meeting will be hosted by the Deep South Section and will be held April 10-13, 2011, at the Hilton Lafayette in Lafayette, LA. This is in the heart of Cajun Country and will be very enjoyable meeting from a technical, social, cultural and professional development perspective. Let's take another lively delegation from SC ITE and spread the message about all of the great work our Section members are contributing to the transportation engineering profession!

Future SDITE Annual Meetings

- 2011 Lafayette, Louisiana (April 10-13, 2011)2012 Lexington, Kentucky (April 15-18, 2012)
- 2013 Charlotte, North Carolina
- 2014 Georgia2015 Mississippi2016 Tennessee

International News



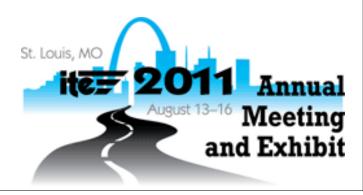


ITE 2011 Technical Conference and Exhibit

April 3–6, 2011 Walt Disney World Swan Lake Buena Vista, Florida, USA

ITE 2011 Annual Meeting and Exhibit

August 13-16, 2011 America's Center St. Louis, Missouri, USA





News Around the State

HEG Engineering Consultants merges with Weston & SampsonRobert L. Horner, PE

The Charleston, South Carolina based engineering firm HEG Engineering Consultants has merged with Weston & Sampson. Located at 672 Marina Drive in Charleston, HEG will become Weston & Sampson's Southeast Regional Head-quarters. Weston & Sampson is a 350+ employee company with offices along the East Coast. Currently listed as number



192 of the top 500 Engineering Design Firms in the U.S. by *Engineering News Record*, Weston & Sampson provides engineering, landscape architecture, architecture, operations and maintenance, and construction services.

"The core values, expertise, drive and determination of HEG made them a perfect fit for Weston & Sampson. This will enable both of our organizations to continue to grow and provide clients with the level of service that they expect and deserve," said Patrick Connelly, Southeastern Regional Manager for Weston & Sampson. As a part of the Weston & Sampson family of companies, HEG will offer additional services, while assuring the same level of client care and practical solutions that clients expect.

Robert L. Horner and Kipling R. Gearhart will continue to serve in the Charleston office as the Regional Manager and Team Leader, respectively, along with the entire staff for operations in the Carolinas. Horner announced "we are very excited to have the opportunity to strategically position our organization to provide engineering services and grow as the economy shows strong signs of entering a recovery. The work done by our state and local leaders as well as the Charleston and Berkeley Chambers continues to make this area an attractive market for businesses. This merger expands our capabilities, allows us to continue to grow by adding several new technical positions over the next few years, and enables us to continue to provide great customer service just with lots more horsepower."

To learn more about Weston & Sampson and HEG visit www.westonandsampson.com and <a href="www.westonands



News Around the State





SC 9 Bridge Replacement over the Broad River Raymond Hamilton

RPM Engineers, Inc. has been awarded the design of a bridge replacement project over the Broad River by the South Carolina Department of Transportation (SCDOT), which consists of replacing four "structurally deficient" bridges along South Carolina Route 9 in the Town of Lockhart in Union and Chester Counties. The bridges carrying SC Route 9 over the Broad River in Union/Chester Counties, and in Union County SC Route 9 over the Broad River Canal (Union County), Canal Rd (S-44-48), and Lockhart Dr (S-44-31) are proposed for replacement. Related roadway improvements will also be completed to accommodate the bridge replacements. The existing

bridges were designed and constructed between 1938

and 1947.

Lockhart is a small town which is historically significant due to its past prominence in the South Carolina Mill industry of the early 1900s. With its close proximity to the current residences and the existing roadway as well as the potential issues bridging the Broad River and the FERC regulated Broad River Canal; it creates a complex project with the potential for major historical and social impacts as the current alignment of SC Route 9 passes through the center of the Lockhart Mill Village Historic District.

The project will include safety improvements to all facilities and will ensure compliance with current state and federal design safety standards; benefits will include better visibility from improved vertical and horizontal geometry, wider lanes, and increased shoulder widths. Improved pedestrian facilities are also going to be included within the proposed design.

The project is currently in the preliminary design stage. There are various alternatives considered to avoid impacting this section 4(f) property. The "no build" alternative is considered neither feasible nor prudent because of the fact that the present bridges are structurally deficient and functionally superseded. There are 5 'build' alternatives that range from a 33 mile closure/detour to an adjacent structure close to existing alignment.





The design phase should be completed in approximately 18-24 months beginning in the spring of 2010. Right-of-Way Acquisition is projected to begin in the spring of 2011 and the project is scheduled to go to construction in the latter half of 2011 with an estimated construction cost of approximately \$17,000,000.





Member News

Congratulations to SCSITE's Newest PEs



Raymond obtained his Bachelors of Science in Civil Engineering from The Citadel in 2005. Raymond has worked in the transportation consulting business since his graduation in 2005 and is currently working in the transportation design division, primarily in roadway design, of RPM Engineers, Inc. in Lexington, SC.

Raymond was an active member in The Citadel's student chapter of ITE and joined SCSITE earlier this year.

Raymond Hamilton, PE



Raymond has been married since September 2008 to his wife Charlotte, who is employed by The Benefit Company and a Benefits Account Manager. Raymond and his wife Charlotte live in Lexington, SC and enjoy spending time with their one year old daughter, Georgia, spending time with family and friends, and attending The Citadel football games in the fall.



Zack obtained his Bachelors of Science in Civil Engineering in 2005 from The Citadel. After graduating Zack worked for SITE-Blauvelt in Lexington, SC where he did roadway design for the next 2 years. In May of 2007 he joined RPM Engineers as a Roadway Design Engineer. He has been a part of several roadway projects throughout the state of South Carolina as well as other projects located throughout the United States.

Zack Haney, PE

Since becoming a member of the student chapter at The Citadel, Zack has been actively involved with ITE. Zack resides in Chapin, SC where he also coaches soccer for Dutch Fork High School and SCUFC. In his free time he enjoys fishing and spending time on Lake Murray.





Tyke obtained his Bachelors of Science in Civil Engineering in 1999 from The Citadel. Tyke worked in the construction field with Baker Concrete from his graduation in 1999 until 2001. From 2001 to 2006, he worked in his family's Ford Dealership and, from 2006 to 2008, worked in site design with Alliance Consulting Engineers. In 2008, he joined the South Carolina Department of Transportation (SCDOT) where he is currently a Program Manager for the Pee Dee Regional Production Group overseeing multiple highway projects in that area.

Tyke Redfearn, PE

Since becoming a member in 2008, Tyke is actively involved with ITE. Married since May 2002, Tyke and his wife Shanna, a social worker with Kershaw Health Medical Center, reside in Camden, SC. They have two children under five years old which does not leave much free time, but when there is free time, Tyke enjoys hunting and water sports.





Tucker obtained his Bachelors of Science in Civil Engineering in 2005 from The Citadel. Tucker worked in the geotechnical consulting business with Foundation and Materials Engineering (F&ME Consultants) from his graduation in 2005 until 2007. In 2007, he joined the South Carolina Department of Transportation (SCDOT) where he is currently a Program Manager for the Lowcountry Regional Production Group overseeing multiple highway projects in the Charleston area.

Tucker Creed, PE



Tucker has been actively involved with ITE since becoming a member in 2001 while attending The Citadel. Tucker has also been married since May 2008 to his wife Mary Beth, who has been a real estate agent with ERA Wilder Realty since June 2005. Tucker and Mary Beth live in Lexington, SC. In his spare time, Tucker enjoys whitewater kayaking, hunting, and fishing. He is looking forward to spending time with other recently licensed Professional Engineers at the second annual Mountain Gnar Weekend.

Member News





Rick Werts Retires

SCDOT's Director of Traffic Engineering Rick Werts retired on June 3, 2010 after 39 years of service. The native of Ninety Six in Greenwood County spent a little over 19 years as TE Director presiding over a number of cutting-edge technological advances. But traffic engineering was rather simple when Werts started fulltime at SCDOT.

Prior to earning his B.S. in Civil Engineering at Clemson University in 1971, he spent summers working in SCDOT's Greenwood Office. He came to Columbia in May of 1971 to begin his career in what was known as the Office of Traffic and Planning. "We had 35 people in that office back then. We basically dealt with signing, pavement markings and traffic signals," said Werts.

Rick joined SCSITE shortly after going full time with SCDOT and became President of the Section in 1983. Since then, he has been actively involved in all section activities.



Rick Werts, PE



In November of 1978, Werts left Headquarters to become the District Traffic Engineer in District 1. He returned to Headquarters as Director of Traffic Engineering in January of 1991. The Office of Traffic and Planning had evolved into Traffic Engineering where 160 people are now employed to work with a much wider variety of operations.

Werts points to the Intelligent Transportation System (ITS) as the single largest advance in technology. "During my time at SCDOT we worked to establish the first traffic cameras on our highways, which led to electronic message signs, speed detection and HAR radios used to provide information for motorists. Then we expanded out of the Columbia area statewide so that we now have the Traffic Management Center (TMC) in Columbia and four regional TMCs. And now the 5-1-1 information phone system is on the way," said Werts.

The SCDOT veteran points out that traffic engineering used to be a "stand-alone" operation. Now it has become an integral part of every project. "Traffic engineering is now part of project development, planning, construction and operation of the facilities when the construction is complete. The technology has led to the creation of new operations like Road Data Services, Pavement Management and Mapping & G-I-S Services," Werts said.

A major responsibility for Traffic Engineering is hurricane evacuation. Werts said the population growth on South Carolina's coast has been so tremendous which presents a daunting challenge to move people safely off the coast. This point was proven in 1999 by Hurricane Floyd. "Floyd changed the thinking," he said.

Hurricane Floyd first pointed itself at Florida and slowly made its way up the Atlantic coast threatening Florida, Georgia and South Carolina, but never made landfall in those states. However, Floridians and Georgians evacuated northward while Floyd was still off its shores.

"For the first time in South Carolina, we had a statewide evacuation of the entire coast while people from Florida and Georgia poured into the state. Reversing lanes on interstate highways was unheard of. Now after a lot of effort over many years, we have a plan to reverse interstates and other key highways. It's a plan I hope will never have to be used," said Werts.

What are the thoughts of a 39-year SCDOT employee as he retires? "It's been a wonderful career for me and we've made tremendous progress along the way, but it's time to move on." The retired Director of Traffic Engineering plans to do some consulting in the future. "I'm excited about the possibility of doing some hands on engineering. You don't do much engineering in management. You mostly handle hot-button issues and planning," Werts said.

Asked what advice he would leave for his successor or anyone in management Werts replied, "You appoint good assistants. Give them the assets that they need to do the job, and then get out of the way."

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Member News

Welcome New Members

Ben Lewis, EIT



Ben Lewis

Ben entered The Citadel in the summer of 2001, following in his brother's footsteps, and obtained a Bachelor of Science degree in Civil and Environmental Engineering in 2005. During school, Ben had desired to work in civil / site development as influenced by senior level class work, however, upon graduation, Ben began his career at Post, Buckley, Schuh, & Jernigan (PBS&J) in Columbia, SC as an Engineer I conducting road design and plan development for SCDOT and multiple municipalities. In November 2007, Ben joined the staff of Florence & Hutcheson, Inc. in Columbia, SC as a roadway design engineer where he is currently employed as a design engineer and project manager for several projects in the Lowcountry, mainly Charleston and Beaufort Counties.

Ben married Elizabeth (Beth) Lewis in June of 2008, the daughter of his mother's good friend, and they were blessed with their first child, Legree L. Lewis in June 2009. Elizabeth is now a stay-at-home mom where they reside in West Columbia, SC. Ben enjoys spending time with his family, reading military history, and woodworking. Ben plans to take to the Professional Engineering exam in October 2010.



Rick Reiff, PE, PTOE



Rick Reiff

Rick Reiff, a former winner of the SCSITE Scholarship Award, has joined Stantec Consulting Services, Inc. in Charleston. He graduated from Clemson University with his Bachelors and Masters of Science degrees in Civil Engineering in 2001 and 2002, and is very excited to return to South Carolina to continue his career with the growing Stantec team!

Prior to joining Stantec, Rick worked for a consulting firm in Florida and has more than seven years of traffic engineering and transportation planning experience. He has been recognized as an expert witness on numerous projects ranging in size from single-intersection safety reviews to large-scale transportation master planning studies, and is a past president of the Southwest Florida ITE Chapter.

Rick and his wife Melinda have been married for five wonderful years, and they along with their two-year old daughter Raegan live in Summerville. He enjoys hacking at golf balls during his free time and heading to the beach on the weekends.

Safety

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The Highway Safety Manual Joe Sturm

The Highway Safety Manual (HSM) is nearing publication and will be released in 2010. This first edition manual is a synthesis of state-of-the-art research that can be referenced and utilized not just during design, but for the entire project development process. It provides a set of tools to predict crash patterns and analyze the safety of a particular roadway or intersection. The creation of the manual is timely because the Federal Highway Administration (FHWA) issued a notice that safety must be considered during each stage of a project, from planning on down to maintenance and operations.

The HSM can be referenced much in the same way that the Highway Capacity Manual (HCM) already is. These two sources, the HSM and HCM, allow the transportation professional to understand and quantify how a highway performs, with regard to safety and capacity respectively. They are excellent tools for analysis but they do not be



Joe Sturm, EIT

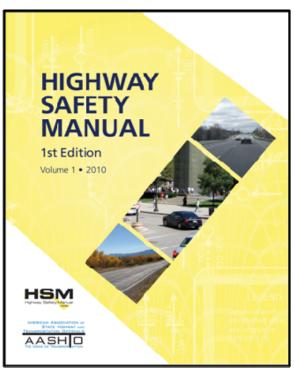


ity respectively. They are excellent tools for analysis, but they do not have standards or best practices like some other transportation engineering sources. The Manual on Uniform Traffic Control Devices (MUTCD) and the AASHTO "Green Book" provide higher level guidance and must still be followed. The HSM does not supersede any other publication that provides a standard or best practice.

The HSM will provide the user with a treasure trove of tools ranging from the role of human factors, the selection of countermeasures, and the diagnosis of problems

to the prioritization of improvement projects, the application of predictive measures, and the use of Crash Modification Factors (CMF). These tools will put us professionals in a driver seat to make better decisions based on roadway safety. As the HSM is transitioned into our work, the users will be able to determine if the hype it has generated is worthy.







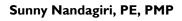
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Project Management

Project Human Resource Management Sunny Nandagiri

Project Human Resource Management includes the processes that organize and manage the project team. The project team is comprised of the people who have assigned roles and responsibilities for completing the project. It is advisable for the team members to be involved in much of project's planning and decision making. This early involvement of team members adds expertise during the planning process and strengthens commitment to the project. The Project Human Resources Management processes include the following:

- Human Resources Planning
- Acquire Project Team
- Develop Project Team
- Manage Project Team





We will discuss these processes in detail

Human Resources Planning: This process includes identifying and documenting project roles, responsibilities, and reporting relationships, as well as creating the staffing management plan. Project roles can be designated for persons or groups. Those persons or groups can be from inside or outside the organization performing the project. The staffing management plan can include how and when project team members will be acquired, the criteria for releasing them from the project, identification of training needs, plans for recognition and rewards, compliance considerations, safety issues, and the impact of the staffing management plan on the organization.

A project organization chart is a key component of the human resources planning. These organization charts can be hierarchical-type, matrix-based responsibility, and text oriented format. These charts can be formal or informal, highly detailed or broadly framed, based on the needs of the project. For example, the project organization chart for a 3,000-person disaster response team will have greater detail than a project organization chart for an internal, ten-person project.

<u>Acquire Project Team:</u> This process includes obtaining the human resources needed to complete the project. The project management team may or may not have control over the team members selected for the project. Some tools and techniques for acquiring the project team include:

- Pre-assignment-where project team members are known in advance
- Negotiation-Staff assignments are negotiated either with other project managers in the organization or other operations managers
- Acquisition-If required services are not available internally, obtaining the resources by hiring outside consultants to perform the work
- Virtual teams-Where groups of people share a common goal with a little or no face-to-face time.

Project Management



<u>Develop Project Team:</u> Improving the competencies and interaction of team members to enhance project performance. Objectives of this important process include:

- Improve skills of team members in order to increase their ability to complete project activities.
- Improve feelings of trust and cohesiveness among team members in order to raise productivity through greater teamwork.

Some important tools and techniques of developing project ream include, developing general management skills (soft skills like empathy, creativity, listening, understanding and others), training specific to the project, team-building activities, establishing ground rules, co-location, and recognition and rewards.

<u>Manage Project Team:</u> Tracking team member performance, providing feedback, resolving issues, and coordinating changes to enhance project performance. The project management team observes team behavior, manages conflict, resolves issues, and appraises team member performance. Managing the project team is often very complex and includes following tools and techniques:

- Observation and conversation
- Project performance appraisals
- Conflict management
- Issue Log

Tips and Pointers for Project Human Resource Management:

- Project Managers should consider including their key staff while preparing the project plan for the projects. This will ensure that the project organization chart is well thought out and reflects the availability and the expertise of the project team.
- A periodic meeting to assess the project staff's availability and project needs should be conducted.
- A finalized detailed project organization chart along with the project schedule should be distributed to all the project
 members at the in caption of the project. This will ensure the commitment and help manage the expectations of the team
 members.
- Cross-training the project team members (especially the field work) provide a greater flexibility for various types of projects and helps in providing adequate project staffing.
- Project staff should be rewarded and recognized for their contribution to the project success. This recognition should be immediate and may not have to include any monetary rewards.
- Managing project team is very complex and typically project manager spends a lot of time here. Projects either succeed
 or fail during this process. A well-thought plan to manage the project team and the members will aid the project manager

Author of this article is a licensed Professional Engineer in Eight States (including South Carolina) and is also a certified "Project Management Professional" (PMP). He is an active member of the South Carolina Section of ITE (SC-ITE) and is currently serving as a Technical Committee chair for the SCSITE. Mr. Nandagiri works for AECOM as their Program Director.

<u>Sources for this Article:</u> *Project Management Institute's* "Project Management Body of Knowledge-Government Extension, Third Edition" (PMBOK), 2006 Edition, and AECOM's PM internal training material.

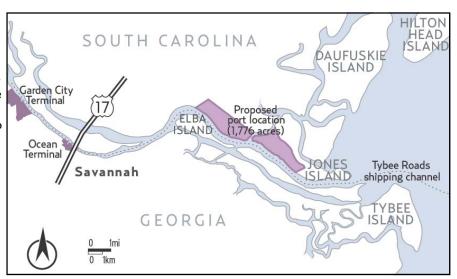


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Transportation Planning

Deeper Harbor Expected to Benefit Both Sides of River Mary Carr Mayle

He may be a landlocked Atlantan, but Jim Balloun has a unique perspective on the economic importance of the Savannah River. As a member of the Georgia Ports Authority board, the retired chairman and CEO of Acuity Brands Inc. embraced last week's news the Savannah Harbor Expansion Project had tentative approval to deepen the river channel to 48 feet. And, as chairman of the Jasper Ocean Terminal joint project office, Balloun is equally enthusiastic about what the news will mean for the proposed new container port on the South Carolina side of the river. "With this new depth, our ability to accept container vessels from the Mid- and Far East will just continue to grow as the combination of Charleston, Savannah and Jasper establishes the Southeast as the gateway to commerce for the major part of America."



With the American Association of Port Authorities projecting container imports to double by 2020, Balloun pointed to another study that indicates demand will exceed the combined capacity of Charleston and the Port of Savannah by 2027, only two years after Jasper is expected to lift its first container. "That's a relatively conservative projection," he said. "And that's assuming we complete all planned expansions now in the works. "We definitely need Jasper," he said.

Balloun's sentiments were echoed by Kim Statler, executive director of the Lowcountry Economic Network & Alliance, a public-private partnership designed to provide comprehensive business development and recruitment services to organizations looking to relocate or expand their business in Beaufort and Jasper counties."The Lowcountry Economic Network & Alliance understands the critical role the Savannah River plays within our regional economy," she said. "Success in Savannah will spur success in Jasper County and the Lowcountry.

A long time coming

While talk of a container port in economically starved Jasper County had been circulating for decades, the proposed project was mired in legal wrangling and border issues until 2007. It was then that Georgia Gov. Sonny Perdue and South Carolina Gov. Mark Sanford came together on Hutchinson Island to symbolically swap ties and sign a memorandum of understanding committing the two states to a joint port endeavor and establishing a bi-state task force responsible for making the new container terminal a reality. Both governors' terms expire at the end of this year.

"Moving forward on this port has been a long time coming for the people of Jasper County, but we think it will be well worth the effort," Sanford said last week. "It's been estimated that a Jasper port would create 8,500 jobs upon opening - and nearly 98,000 jobs throughout the state once it's fully operational. "The administrations of our respective states have recognized that a port in Jasper County would go a long way toward maintaining our states' competitive positions in the global market," Sanford said. "Now that the process has been put in motion by this administration and Gov. Purdue's, we have every reason to believe that the next governors of our respective states - of whatever party - will push forward toward the finish line. Given the economic and competitiveness implications, we fully expect that to happen."

On Sanford's side of the river, that will be either Republican Nikki Haley or Democrat Vincent Sheheen.

"Our state's ports are billion-dollar economic engines, and continuing to improve and modernize them is vital to our economic future," said Haley campaign spokesman Rob Godfrey. "As governor, Nikki will focus on developing all three of our major ports - Charleston, Georgetown and Jasper - because all three meet different economic needs and should be a priority for the next governor."

Sheheen agreed the Jasper site should be a priority but said it was an opportunity the current administration should have pounced on much sooner. "I think there were opportunities missed a number of years ago to try to develop this port with private investment," Sheheen said last week. "I don't think we really recognized the value of Jasper early on." Sheheen emphasized that, as governor, he would continue to work towards making the bi-state Jasper port a reality.



Moving ahead

In 2008, at the urging of the joint task force, both South Carolina and Georgia ports authorities approved an intergovernmental agreement to develop what would become the Jasper Ocean Terminal. The 1,500-acre Jasper County site, which was owned by the Georgia Department of Transportation, was purchased by the two states for \$5,000 an acre. And Moffatt & Nichol, a California -based design engineering firm, was selected to develop feasibility studies, quantify capital needs and perform overall management for the port. Last year, a bi-state compact was drafted and preliminary economic and planning studies conducted. The East Coast's newest container port will feature 10 berths with a turning basin as well as road and rail infrastructure on about 1,000 to 1,100 acres of the 1,500-acre site. When completely built out, the Jasper terminal will have a capacity of 7 million 20-foot containers. In the first of four phases, expected to be complete in 2025, the terminal will have two berths, six to eight ship-toshore cranes, rubber-tire gantry cranes to work the container stacks and a small, two-track intermodal yard. It will be capable of handling 1.2 million to 1.4 million boxes. The project remains on



Earthen dikes built to hold dredge spoils from the Savannah River shipping channel on the north side of the river are some of the highest land elevations in the area. The site shown here is part of Jasper County and is the proposed location for a port facility that may one day be built across from Elba Island. (John Carrington/Savannah Morning News)

schedule for a projected 2025 opening, Moffatt & Nichol consultant David Sanborn told members of the joint project office at its most recent Savannah meeting. "I think we can make 2025, but everything has to fall into place," Sanborn said. Among the thornier issues facing the joint project office is finding an alternative site for the dredge spoils that currently occupy the site of the future port. Although the two states own the land, the U.S. Army Corps of Engineers holds a permanent easement on the property, which it uses to store dredge spoils.

'Not competing with each other'

Two states working together to create a joint port takes leadership, vision and a lot of give and take, Balloun said. But it will be well worth the effort, he said. "Just look at the potential. The synergy between the ports of Los Angeles and Long Beach created a huge economic engine, as did the New York and New Jersey ports," he said. "And it's important to point out that Jasper's competition is not going to be Savannah or Charleston - it's going to be the West Coast and the Northeast," Balloun said. "And what that competition is going to discover is that the Southeast is the new gateway to global commerce."

CREATING JOBS, TAX REVENUE

The Jasper Ocean Terminal could add as many as 1 million jobs and \$9 billion in tax revenue to Georgia and South Carolina by 2040.

State and local taxes generated by ports in Georgia and South Carolina:

- -- In 2009: \$4.1 billion
- -- In 2040 without Jasper port: \$11 billion
- -- In 2040 with Jasper port: \$20 billion

Direct and indirect jobs generated by ports in Georgia and South Carolina:

- -- In 2009: 560,000
- -- In 2040 without Jasper port: 1.4 million
- -- In 2040 with Jasper port: 2.3 million

This article was published in the Savannah Morning News and Savvanahnow.com



College Corner

SCSU ITE Student Chapter News Yuanchang Xie



Yuanchang Xie, PhD SCSU ITE Student Chapter Advisor

The SCSU ITE Student Chapter has been relatively quite during the summer. Most students are either doing internships off campus or working on research projects with faculty in the Master of Science in Transportation (MST) program. Faculty in the MST program recently received several major multi-year research grants from the US Department of Agriculture and US Department of Energy. These research projects will investigate optimal rural transit operations, biomass/biofuels logistics network optimization and simulation, and multimodal hazardous materials transportation issues. Several students will be supported by these projects and base their theses on these research.

The MST program has also received a six-year grant from the US Department of Education. This grant is intended to enhance the MST program in the areas of transportation logistics and alternative transportation fuels. It also provides multiple tuition scholarships and stipends to qualified students pursuing graduate degrees related to transportation at South Carolina State University. With this grant, we have successfully recruited several outstanding students for the fall semester. We are always looking for self-motivated and outstanding students, especially those who have undergraduate degrees from accredited Science, Technology, Engineering and Mathematics programs. Applications and inquiries can be sent directly to Dr. Yuanchang Xie at any time.

We are planning to have more seminars and field trips during the fall semester. For anyone who is interested in giving us a talk or helping us with field trips, please contact Dr. Yuanchang Xie at vxie@scsu.edu. Your support to the SCSU ITE Student Chapter and the MST program is greatly appreciated.



College Corner

Citadel Student Chapter News William J. Davis

Summer is a quiet time of year around The Citadel campus as preparation for the 2010 Fall Semester is underway. Here is a summary of recent ITE student activities and news:

Three students Citadel ITE members, BK Aton, Joe Robertson and Aaron Lee, attended the SC ITE Summer Meeting, June 9 in Mt. Pleasant, which was a tour of the SC State Port Authority's Wando Welch terminal. It was a great opportunity for students to network with SC ITE members and to see first hand, transportation facilities that they learned about in class.



William J. Davis, PE, PhD Citadel ITE Student **Chapter Advisor**



Aaron Lee, Joe Robertson, BK Aton talk with a port authority official about container handling by rubber tire gantry cranes (RTG'S) and toplifters.

- The Citadel was awarded a national community service award, Richard J. Scranton Outstanding Community Service Award by ASCE, due in large part to their ITE/ASCE service learning project on the Isle of Palms Marina Traffic Study. Student's collected data, analyzed traffic flow patterns, developed alternative site layouts and presented findings to the mayor and city council. In winning this prestigious service award, Citadel students were singled out for recognition from among more than 270 ASCE student chapters at colleges and universities across the United States and from 11 countries. More details are available at http://externalaffairs.citadel.edu/ce
- Citadel ITE members, Joe Robertson and BK Aton, have graduated with their BSCE degrees and are now on their way to Clemson University to enter the Transportation Engineering graduate program.
- Cadet Aaron Lee is working on summer research projects including; I.) "Guidelines for Longitudinal Pavement Marking Applications," being conducted via a partnership with Clemson Clemson University, involving a samplebased study of pavement marking retroreflectivity on primary and secondary roads located across SC, and 2.) Multi-Use trail user counts, manual classification counts, (e.g., bikers, walkers, runners, etc.) being conducted in Durham, NC on the American Tobacco Trail.



Students present marina study findings to Mayor, City Council and business leaders during a special public forum.





College Corner

News from the Student Chapter Greg Moore



Nathan Huynh, PhD University of South Carolina ITE Student Chapter Advisor

Many efforts have been put forth this summer in order to build up a plan of collaboration between the student chapters of ITE and ASCE for this coming year. So far, plans are set up for a "Pig Pick'n" sometime in the middle of the this coming Fall Semester. These efforts are being set forth in order for both organizations to be able to benefit from the networking and fundraising opportunities that are available without overloading companies and their valuable time.

The first major event for the student chapter of ITE at USC will be the "New Student Day" held annually in the College of Engineering. This event allows for freshmen, transfer students and all of their parents to come out and meet faculty, department chairs and student organizations one-on-one. Attendance at this event by student organizations is critical for recruitment. It will allow us to meet these new students in one area. There are already great plans set up to gain students' interest in the field of transportation engineering. Specifically, we will have on display a traffic signal, stop sign, GPS, robotic surveyor, scanner and other surveying equipment. These equipments have been graciously made available to us by Carol Jones, Traffic Engineering at SCDOT, and Brian Ison, Preconstruction Surveying at SCDOT.





News from the Clemson Student Chapter Wayne Sarasua and Lee Tupper

After an extremely busy spring, the Clemson Student Chapter has had a few activities this summer. Several students made a visit to the Greenville TMC where the technology used for their traffic management operations were previewed thanks to Dan Campbell at the SCDOT. A group also made it to CUICAR in Greenville where we received a tour of a state-of-the-art lab featuring research sponsored by BMW. We're also slowly gearing up for fall activities which include a welcome social in late August, election of new officers, Adopt-A-River canoe cleanup (which we will team up with another oncampus organization for this year), football traffic control, and planning for our trip to TRB in January. At our summer meeting on Friday, July 30, we had a distinguished speaker come talk to our Chapter. Dr. Robert Awuah-Baffour (picture below) spoke about the many challenges facing higher education in his home country of Ghana and his plan to help in its development. After being on the faculty at 3 different universities in the United States, Dr. Awuah-Baffour is now the Vice-President of the Ghana Telecom University. Dr. Awuah-Baffour, received his Ph.D. in Transportation from Georgia Tech in 1997.



Wayne Sarasua, PhD, PE Clemson University ITE Student Chapter Advisor





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Technology Corner

Utilization of ITS in the Work Zone

Todd Hartnett – Director of Sales for ASTI

There are many reasons to include various types of Intelligent Transportation System devices within a highway construction project. The obvious answers would be to reduce congestion and increase safety within that particular work zone environment. However, when placed in the appropriate locations, the data and video collected within that work zone can be utilized as part of the integrated travel time system already in existence inside the traffic management center.

The crucial component of making a seamless integration is to utilize the same components that the traffic management center is currently utilizing. Often times the project will require the use of portable devices that will provide the supplemental data and video in the areas that permanent ITS either does not exist or is being removed or terminated during the reconstruction process.

It is this moment in time when a SWZ, Smart Work Zone System or AWIS, Automated Work Zone Information System is not only required but crucial in the continuation of information supplied along that particular roadway. It is also at this time that the state department of transportation will reach out to the providers of these systems to provide the need for data/video continuance.

There is one company that has been the leading provider of the Smart Work Zone Systems for the last fifteen years within the United States. ASTI Transportation Systems' has been the leading provider with a range of deployments extending to California and Oregon in the west, Vermont to Florida in the east and Arkansas and Texas in the south. Locally, ASTI has supplied the region with systems in both North and South Carolina with projects on I-95 and I-40. The most recent system is running along I-77 over S-56 in Chester County. The purpose of the project is to provide work zone ITS for the emergency replacement of both northbound and southbound bridges along this stretch of roadway. The interstate traffic will be detoured onto the existing interchange ramps for the duration of the bridge replacements. Through the use of the ASTI system, the state is now able to provide traffic alerts, congestion reduction and traffic mitigation through re-routing all based on the data being collected. Portable queue detection is utilized to accomplish all these tasks within minutes of deployment, thus requiring no permanent ITS installation, trenching or running of pulled conduit.

By the utilization of the same traffic sensors and variable message signs that the state currently uses, ASTI provides a true, seamless integration of temporary ITS. Most importantly, this can be accomplished within a couple days notification of the project requirements.

Through the use of a project webpage, both the administrators of the system and the traveling public have the ability to keep traffic moving in a safe and orderly fashion but they also have the ability to trip plan and travel with less stress through a typically stressful environment.

The end result of a successful portable ITS deployment is not only a considerably safer and more efficient work zone but a compilation of data for forecasting and predictability.



ob Opportunities

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Construction Inspector—HDR, Inc, Charleston, NC

HDR is seeking a Sr. Bridge Inspector and Construction Inspector in Charleston, SC

Read the detailed job description and apply online at

http://www.hdrinc.com



Construction Project Manager/ Site Civil Engineer —Greenville, SC

F&H is seeking a Construction Project Manager, CE&I Project Manager, and Civil Engineer in Greenville

Read the detailed job description and apply online at

http://www.flohut.com/index.php/careers



Civil Application Engineer—Columbia, SC

TPM Application Engineers (AEs) participate in all phases of the sales cycle by working closely with the sales team to demonstrate how Autodesk solutions help customers address issues and achieve business goals. The AEs propose solutions based on their strong industry knowledge, in-depth product knowledge, and business acumen. They thoroughly understand the capabilities of the Autodesk solutions and the business benefits customers can realize by implementing those solutions. A TPM AE functions as a trusted advisor to the customer.

Learn more about this position at the following web address:

http://www.tpm.com/home/careers/650



CE&I Inspectors and Survey Operators—Columbia, SC

Wilbur Smith is seeking a CE&I Inspectors, Survey Party Chiefs, and Survey Instrument Operators in Columbia, SC

Read the detailed job description and apply online at

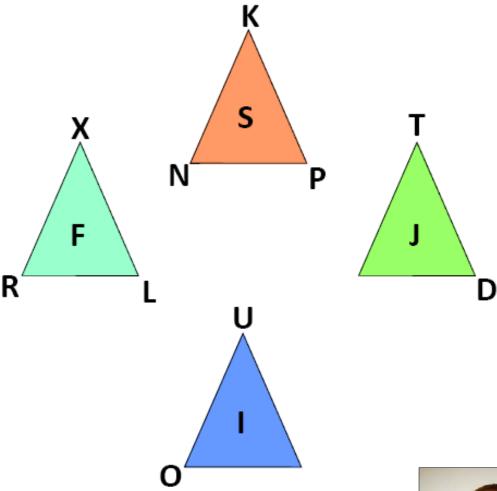
http://www.wilbursmith.com/careers.cfm





Puzzle Mania

Look at these triangles. Can you work out what the missing letters are?



Be the first to answer the questions correctly and you will be recognized in the spring newsletter and receive a \$5 discount at the Fall Meeting. Email your answer to davisas@scdot.org.



Alan S. Davis, EIT





Last Issue's Challenge

Congratulations to Tucker Creed for solving the last edition's challenge.

5	KP	7
X ?		U B
6	OG	8



Tucker Creed, PE



Solution

5	KP	7
X		U C
R	NO P	В
6	OG	8



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About ITE

The Institute of Transportation Engineers is an international educational and scientific association of transportation professionals who are responsible for meeting mobility and safety needs. ITE facilitates the application of technology and scientific principles to research, planning, functional design, implementation, operation, policy development and management for any mode of transportation. Through its products and services, ITE promotes professional development of its members, supports and encourages education, stimulates research, develops public awareness programs and serves as a conduit for the exchange of professional information.

JOIN SCSITE TODAY!!

Membership forms are available on our website. Dues are \$20.00 yearly.

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on the website. Your username is your last name followed by your first initial and your default password is "traffic". Make sure you capitalize the first letter of your last name and first initial to login.

we are on the web at www.scs-ite.org

Newsletter Information

"DRIVER" is the official publication of the South Carolina Section Institute of Transportation Engineers, the professional society for transportation engineers in South Carolina. It is affiliated with Southern District 5 ITE, as well as the International ITE.

Any suggestions on format or content are welcome. News on members, the section, or the profession should be submitted to Jae Mattox at mattoxjh@scdot.org.



2010 T-SHIRT/POLO SHIRT ORDER FORM

TYPE	SIZE/QUANTITY	UNIT COST	TOTAL COST
☐Women's T-Shirt		\$15.00	
☐Women's Polo		\$25.00	
Women's Performance Polo		\$35.00	
☐Men's T-Shirt		\$15.00	
☐Men's Polo		\$25.00	
Men's Performance Polo		\$35.00	
TOTAL AMOUNT DUE			

POLO COLOR COMBINATIONS	T-SHIRT COLOR COMBINATIONS
□White w/red logo	□Red w/white logo
□White w/royal blue logo	☐Gray w/red logo
□Navy w/white logo	
☐Black w/white logo	
☐Red w/blue logo	
Royal blue w/white logo	

<u>PLEASE SPECIFY SIZE</u>-Women's sizes range from S-XL; Men's sizes range from S-3X, an additional \$2 charge applies to Men's 2X-3X sizes

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Payment Enclosed	Pay at SCSITE Fall Meeting



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AVAILABLE COLOR COMBINATIONS W/ EMBROIDERED LOGO

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Royal blue with white logo

Performance Polo Shirts-\$35





Screen-Print T-Shirt

The screen-print t-shirts are red with a white logo, or gray with a red logo. All t-shirts are \$15, and are available in sizes S-3X.