



# MASS TRANSIT

THE OFFICIAL PUBLICATION OF THE UNIVERSITY OF MASSACHUSETTS AMHERST STUDENT CHAPTER  
OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS

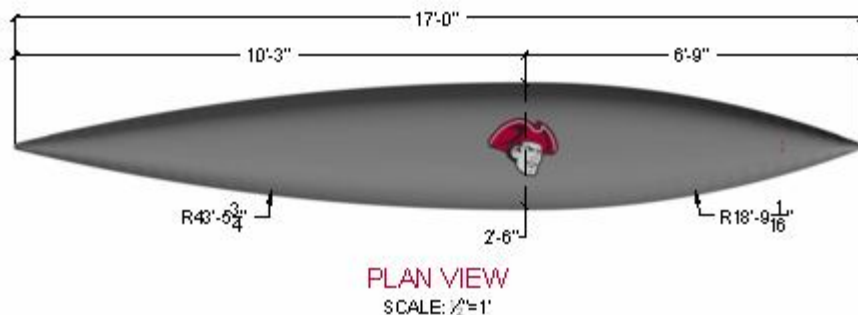
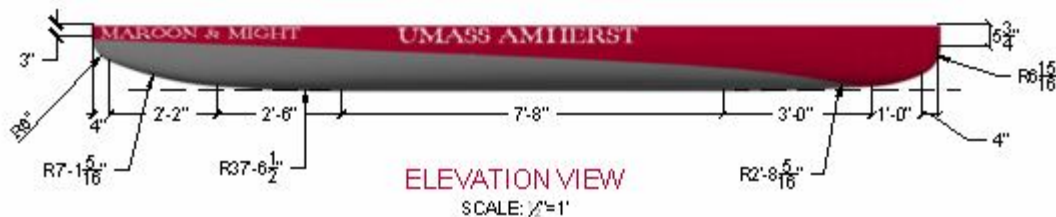
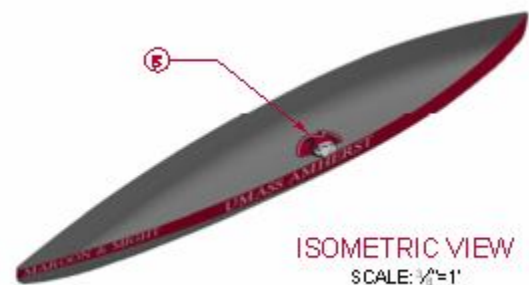
VOLUME 2

APRIL 2007

## “MAROON AND MIGHT”

THE CONCRETE CANOE  
OF THE UMASS AMHERST

ASCE



COMPETING AT  
THE NORTHEAST  
REGIONALS  
APRIL 27<sup>TH</sup> AND  
28<sup>TH</sup>

### UPCOMING EVENTS:

STORY ON PAGE 3

- 4/11/07 APRIL GENERAL MEETING AT 6PM IN MARSTON 132
- 4/24/07 BSCES TECHNICAL LECTURE IN THE CAMPUS CENTER RM. 1009
- 4/27/07 CONCRETE CANOE COMPETITION AT WENTWORTH (DAY 1)
- 4/28/07 CONCRETE CANOE COMPETITION AT WENTWORTH (DAY 2)



**US Army Corps  
of Engineers**®  
New England District

# ASCE GENERAL BODY MEETING

APRIL 11<sup>TH</sup>, 2007 6PM MARSTON 132

FEATURING GUEST SPEAKER:

## Colonel Curtis L. Thalken

COMMANDER AND DISTRICT ENGINEER R



Colonel Curtis L. Thalken is a native of Nebraska. He graduated, with a Bachelor's Degree from the United States Military Academy, at West Point. He received a Masters Degree in Engineering Sciences from the Thayer School of Engineering at Dartmouth College and a Masters Degree in Strategic Studies and International Relations from the U.S. Naval War College.

His military education includes the Engineer Officer Basic and Advanced Courses, Combined Arms and Services Staff College, U.S. Army Command and General Staff College, Joint Forces Staff College and the U.S. Naval War College.

Colonel Thalken began his military career in 1983 as a Platoon Leader and Company Executive Officer, 642d Engineer Company (Combat Support Equipment) and Battalion Maintenance Officer, for the Combat Support Battalion, both at Fort Devens, Massachusetts; Supply Officer (S-4) and Operations Officer (S-3) of the 34th Engineer Combat Battalion (Heavy), Supply Officer (S-4), for the 937th Engineer Group, and Commander 55th Engineer Company (Medium Girder Bridge) all at Fort Riley, Kansas. In 1993, he became an Instructor and then a Course Director in the Department of Civil and Mechanical Engineering, U.S. Military Academy at West Point, New York. From 1996 to 2000 his positions included, Assistant Operations Officer (S-3) and then Operations Officer (S-3) for the 130th Engineer Brigade, Hanau Germany; Contingency Plans Officer at Headquarters USAREUR and 7th Army, and Assistant Corps Engineer, V Corps, both in Heidelberg, Germany. Following that tour, Colonel Thalken became Commander, 92nd Engineer Combat Battalion (Heavy), Fort Stewart, Georgia and deployed the battalion to Afghanistan and surrounding countries from November 2001 until June 2002. He then served as an Experimentation Officer, Joint Concept Development and Experimentation Directorate, Joint Forces Command in Suffolk, Virginia. Colonel Thalken currently serves as the Commander and District Engineer, New England District U.S. Army Corps of Engineers.

Colonel Thalken's awards and decorations include the Bronze Star Medal, Defense Meritorious Service Medal, Meritorious Service Medal (4th OLC), Joint Service Commendation Medal, Army Commendation Medal (2nd OLC), National Defense Service Medal (1 BSS), Global War on Terrorism Expeditionary Medal, Armed Forces Service Medal, Army Service Ribbon, Overseas Service Ribbon, NATO Medal, Parachutist Badge, the Meritorious Unit Citation, and the Army Superior Unit Award.

## CONCRETE CANOE

Led by a dedicated pair of co-captains, this years team looks to regain top spot in the Northeast

When senior co-captains Josh Rubero and Brian Misterka took over as the leaders of this years concrete canoe, they had high hopes for the season. “Our main goal for the season is qualifying for the national competition held in Washington, but on top of that, we wanted to put in place the foundation for successful UMass concrete canoe teams of the future,” says Rubero. The second part of their goal has been achieved thus far, as they have created a canoe mold that can be used for future teams.

As the team heads into the regional competition this month held at the Wentworth Institute of Technology, they have the best chance of qualifying for nationals for the first time since 2004. According to Rubero, “We’re pretty confident with this years canoe, and we have a design report that could potentially tip the scale to our favor. This years team definitely has a great shot at qualifying for the national competition.”

In order to win the regional competition, a team must accrue the highest point total from the combined 4 stat categories. These categories include presentations, the design report, canoe races, and the final product. UMass hasn’t qualified for the nationals since 2004, but through the dedication of captains Josh and Brian, this years team could surprise many contenders.

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**Congratulations to this years Steel Bridge team led  
by Liz Chagnon for competing in the Northeast  
Regional Steel Bridge Competition!**

## TECHNICAL LECTURE

### The History, Geology and Forensic Stability

### Survey of New-Gate Prison and Copper Mine

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The New-Gate Prison and Copper Mine is a public historic site that is operated by the State of Connecticut. The mine was opened in 1705 and later used as a prison between 1773 and 1827. The State purchased the mine and prison in 1968, and the Commission on Culture and Tourism currently operates the site as a historic museum, permitting public access to the mine. For more than 300 years, the mine opening has been stable, spanning approximately 35 feet or more with only occasional timber support posts.

The mine, located in the Triassic Period Shuttle Meadow Formation sedimentary rocks in the Hatford Basin, is sloped parallel to the bedding, which dips about 20° east. The ore content is estimated to be about 2 percent copper with uranium also present.

This presentation will describe the results of a recent stability condition survey of the New-Gate Mine, in East Granby, CT. The presentation will address:

- Discussion of the history of the mine;
  - Discussion of the geology and stability evaluation of the mine: and
  - Assessment of the Condition of In-Service Structural Timbers, Poles and Piles and the impacts of the mine's current use to its future stability. Agents of destruction (decay fungi and insects) were investigated; and Assessment techniques (visual inspection, wood species identification, presence-of preservative testing; visual symptoms of decay, insects, and assessing internal condition by coring with an increment borer and use of torque resistance drill) were implemented.
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**Tuesday April 24, 2007**

UMass Lincoln Campus Center Hotel - Top of Campus, Room 1009 (Amherst Room)

University of Massachusetts at Amherst

5:30 p.m. Registration/Cocktail Hour

6:30 p.m. Dinner

7:00 p.m. Program

Registration Cost: \$30 Members, Private Sector, \$35 Non-Members, Private Sector  
\$20 Members, Public Sector, \$25 Non-Members, Public Sector  
\$15 Students and Seniors

Dinner: A buffet with a selection of Herb Roasted Sirloin, Chicken Fricassee and Pasta Primavera will be offered.

For reservations, please contact: George Costa, at [costace@verizon.net](mailto:costace@verizon.net) or telephone at (413) 755-4595. Checks payable to "WMB-BSCES" and mailed to: COSTA CONSULTING ENGINEERS, INC. • P.O. Box 51493 • Springfield, MA 01151 or presented at the door on the day of the event. No shows will be billed.