

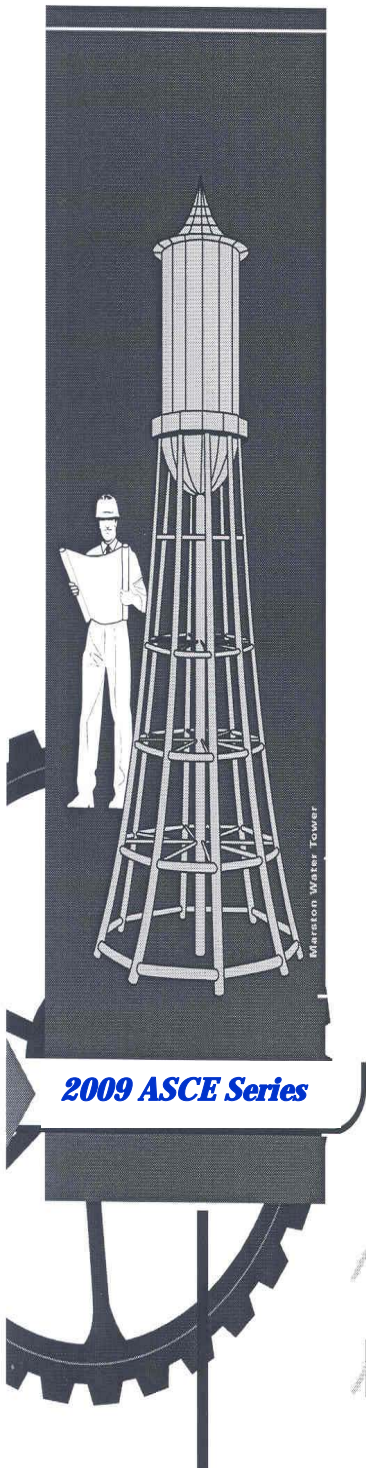


# ASCE/ICEA LAND SURVEYORS CONFERENCE

October 14-15, 2009

Scheman Building, Iowa State University, Ames, Iowa

- Receive an update on the status of the statewide LIDAR project to provide more accurate and accessible statewide topographic data.
- Increase your understanding of how to access the LIDAR data and import into your CADD software for project planning and design.
- Learn more about the QA/QC questions when comparing LIDAR with traditional survey and what future applications are in store for the use of LIDAR.
- Learn more about future application of LIDAR for enhanced project planning and design.
- Increase your knowledge of current construction staking requirements and associated survey tasks with overlays and staking notation.
- Learn more about the flood recovery mapping from the 2008 flood events and how this data can assist you in completing certified elevations for FEMA certificates.
- Review the procedures for the use, certification, and restoration of section corners.
- Learn about the procedures for construction survey (vertical and horizontal) for multi-story building projects.
- Increase your understanding of the legal requirements and implications associated with construction survey, records, and staked vs stake-less procedures.
- Receive an update on the Iowa DOT RTK system – lessons learned and future application protocols.
- Learn more about the procedures for construction survey data collection – vertical and horizontal accuracy, data collection methods, and historical documentation (field books vs digital).
- Learn more about stake-less grading and stake-less paving projects (survey requirements and limitations, TIN protocols, and software compatibility).
- Trying to locate historical survey records? Receive some guidance on where to look, who to ask, and how to work with older records.
- After the 2008 floods, there is a realization that Iowa's flood-plain management protocols need to be improved. Learn more about the future flood-plain mapping initiatives proposed for Iowa.



Iowa Section  
**ASCE** American Society  
of Civil Engineers



**IOWA STATE UNIVERSITY**  
University Extension

**ISU Civil, Construction, and Environmental  
Engineering Extension**



### Purpose and Scope

This annual conference provides information on current practices and new techniques in land surveying for meeting regulatory requirements and a focus on construction survey projects. The availability of more accurate topographic data through the statewide LIDAR project will enhance the project planning and design for both public and private development. New advances in survey equipment/machine integration are providing opportunities for grading and paving control without traditional construction survey staking. While these new tools provide opportunity there are limitations and an associated "learning curve" in applying the technology.

### Who Should Attend

Persons involved in the business of construction survey, county engineering, flood elevation mapping for FEMA certification, and construction grading should attend this conference. The program provides an opportunity to learn how to use the LIDAR data and with examples of project application.

### Sponsors

The conference is sponsored by the Iowa Section of ASCE, the Iowa County Engineers Association, and the Department of Civil, Construction, & Environmental Engineering and Iowa State University Extension.

### Registration

The advance registration fee for the conference is \$200 for ASCE members and \$225 for non-members, prior to October 9, 2009. Registration on-site is \$225 for ASCE members and \$250 for all others on or after October 9. To register, visit [www.cepd.iastate.edu/events](http://www.cepd.iastate.edu/events), or mail a completed registration with payment to the address shown on the registration form. You may also register via fax at (515)294-6223. Your registration includes all program materials, 2 lunches, and all refreshment breaks.

### Change in Plans?

If you cannot attend the conference, you may send a substitute. If you cancel your registration before October 9, 2009, your registration fee will be refunded less a \$15 cancellation fee. No refunds on or after October 9, 2009. Call CEPD at (515) 294-6222 to cancel or arrange for a substitute.

### Directions and Parking

Ames is easily accessed by U.S. Highways 30 and 69, as well as I-35. The Scheman Building is located in the Iowa State Center on the Iowa State University campus. From Interstate 35, take U.S. Highway 30 west into Ames. Take the University Boulevard exit and go north past Jack Trice Stadium. The Scheman Building is located between the Hilton Coliseum and the C.Y. Stephens Auditorium. Free parking is available adjacent to Scheman Building.

### Lodging

Individuals are responsible for their own individual lodging requirements. A list of area motels is included below.

Americinn and Suites	(515) 233-1005
Best Western-University Park	(515) 296-2500
Comfort Inn	(515) 232-0689
Country Inn and Suites	(515) 233-3935
Days Inn	(515) 232-0280
Fairfield Inn	(515) 232-4000
Hilton Garden Inn	(515) 233-8000
Holiday Inn	(515) 268-8808
Gateway Hotel & Conference Center	(800) 367-2637
Grandstay Residential Suites	(800) 388-7829
Hampton Inn	(515) 239-9999
Heartland Inn	(800) 334-3277
Holiday Inn	(515) 268-8808
Holiday Inn Express Hotel	(515) 232-2300
Iowa State Memorial Union	(515) 292-1111
Microtel Inn	(515) 233-4444
Quality Inn at Starlight Village	(800) 903-0009
Super 8 Motel	(800) 800-8000

### Professional Development

This conference has been planned in accordance with the criteria established by ISBELSE for professional development hours (PDHs). A total of 10.00 PDHs are available for the program.

### Emergency Messages

During conference hours, messages may be left by calling the hotel at (515) 334-9000. Messages will be posted near the conference registration area.

### Special Needs

If you need accommodations for a disability or a dietary restriction, call Continuing Education & Professional Development at (515) 294-6222.

### For More Information

For questions about program content, contact Stephen Jones at 350 Town Engineering, ISU, Ames, IA 50011-3232, phone 515-294-3957 (515-450-0311), or e-mail at [sejones@iastate.edu](mailto:sejones@iastate.edu). For registration questions, call Continuing Education & Professional Development at (515) 294-6222 or email [cepd-info@iastate.edu](mailto:cepd-info@iastate.edu).

**ASCE/ICEA Land Surveyors Conference**  
**October 14-15, 2009**

**Wednesday, October 14, 2009**

7:30 - 8:30 AM      **Registration**

**Morning Session**

Presiding: Jeff Hicks, City of Iowa City

8:30 – 9:00

**Topic: State of Iowa LIDAR Project Update**

- What is LIDAR/benefits/source of data
- Scope of Iowa project/status of project
- Distribution of data

**Speaker:** Chris Ensminger, Iowa DNR, Des Moines, IA

9:00 – 10:00

**Topic: Utilization of LIDAR for Project planning and Design**

- Data format/post-processing requirements
- How to access data (where/cost?)
- Data applications
- Real-time example of accessing data and importing into design software (i.e. AutoCad Land Desktop/Map, Microstation, etc)

**Speakers:** Norman Friedrich, P.E., NRCS, West Union, IA and Curt Fopma, NRCS, Newton, IA

10:00 – 10:15

**Refreshment Break**

10:15 – 11:00

**Topics: LIDAR and Traditional Site Survey Data – QA/QC**

**Speaker:** Dan Corbin, Dan Corbin, Inc., Cedar Falls, IA

11:00 – 11:45

**Topic: Future Innovations with LIDAR Technology**

**Speaker:** Gary Brown, P.L.S., C.P., GB Consulting, Cedar Falls, IA

11:45 - 1:00

**Luncheon**

**Afternoon Session**

1:00 - 1:30

**Topic: Legislative Update**

**Speaker:** TBA

1:30 - 2:00

**Topic: Iowa DOT Construction Specs**

- Construction survey update – staking requirements
- Overlays
- Staking notation

**Speaker:** Travis Stewart, P.L.S., Clapsaddle-Garber Associates, Inc., Marshalltown, IA

2:00 – 2:30

**Topic: Use of Flood Recovery Maps for Surveyors**

**Speaker:** Bill Cappucio, Engineer, Flood Plain Program, Iowa DNR, Des Moines, IA

- Protocols and applications
- The new Flood Plain Recovery Maps
- What can the Flood Plain Recovery Maps be used for, what are the applications for land surveyors.
- How to use these maps when someone says “tell me where the flood elevation is on my property.”
- When additional surveying / modeling
- How do the new maps differ from “Flood Prone Maps” and FIRMS?
- Will LIDAR change the new maps?

2:30 – 2:45

**Refreshment Break**

- 2:45 – 3:15      **Topic: Section corners protocols**
- *Use*
  - *Certification*
  - *Restoration on overlay by county/surveyor*
- Speaker:** Lee Gallentine, P.E., P.L.S., Ryken Engineering, Ackley, IA
- 3:15 – 3:45      **Topic: Multi-story building staking and control**
- Speaker:** Dave Ford, Field Coordinator, Ryan Companies US Inc., Minneapolis, MN
- 3:45 – 4:30      **Topic: Legal Aspects of Construction Staking Notes**
- ***Legal aspects - Record of survey - Stake vs stake-less***
- Speaker:** Todd Weidemann, Woods & Aitken, LLP, Omaha, NE.
- 4:30              **Adjourn for the day**

**Thursday, October 15, 2009**

***Presiding: Mark Nahra, P.E., P.L.S.***

- 8:00 – 9:00      **Topic: Iowa DOT RTK Status**
- **Leica Rep – what have we learned?**
  - **Iowa DOT – where do we go from here?**
- Speakers:** Wendy Watson, Leica Geosystems, Inc., Norcross, GA  
Steve Milligan, Iowa DOT Office of Road Design, Ames, IA
- 9:00 – 9:30      **Topic: Construction Survey Data Collection**
- Accuracy needs and Software modeling
  - Data collection methods; Vertical and horizontal accuracy
  - Historical documentation (field books vs digital files?)
- Speaker:** Dan Wiese, Star Equipment Limited, Cedar Rapids, IA
- 9:30 – 9:45      Break
- 9:45 – 10:15     **Topic: Stake-less Grading**
- Survey requirements and Limitations
  - TIN Development and Software compatibility
- Speakers:** Josh Olson, Ziegler Inc., Altoona, IA  
Doug McDonald, P.E., RCE, Iowa DOT, Marshalltown, IA  
Jason Billerbeck, Peterson Contractors Inc., Reinbeck, IA
- 10:15 – 11:00    **Topic: Stake-less Paving**
- Survey requirements and Limitations
  - TIN development
- Speakers:** Lyle Brehm, P.E., Poweshiek/Tama Iowa County Engineer  
Brian Manatt, Manatts Inc., Brooklyn, IA  
Matt Morrison, Leica Machine Control, Grand Rapids, MI
- 11:00 – 11:45    **Topic: Locating survey records (where/how/what)**
- Speaker: TBA**
- 11:45 - 1:00      **Luncheon**
- Program: Future Floodplain Mapping in Iowa**
- Speaker:** Scott Ralston, P.E., Iowa DNR, Des Moines, IA
- 1:00 PM          **Conference Adjourn**

**ASCE/ICEA Land Surveyors Conference**  
October 14-15, 2009 – Scheman Building in Ames

10-2018

**Registration Information:** \*       Mr.    Ms.    Mrs.    Dr.                       Female    Male

First Name _____	Middle Name (Initial) _____	Last Name _____
Company/Affiliation _____	Day Phone _____	
E-mail _____	Fax Number _____	
Mailing Address _____		
City _____	State _____	Zip Code _____
		Iowa County _____

**Conference Registration:**

Conference registration fee includes all program materials, two lunches, and refreshment breaks. Cancel by October 9 to receive a refund less at \$15 processing fee. No refunds after October 9.

	<u>before 10/9</u>	<u>on/after 10/9</u>
ASCE Member - Registration Fee	<input type="checkbox"/> \$200.00	<input type="checkbox"/> \$225.00
Non-member Registration Fee	<input type="checkbox"/> \$225.00	<input type="checkbox"/> \$250.00
Total	\$ _____	\$ _____

I have special dietary needs and/or need accommodations for a disability:

**It's easy to register!**

**On-line:**

[www.cepd.iastate.edu/events](http://www.cepd.iastate.edu/events)  
(Click on ASCE/ICEA Land Surveying)

**Mail:**

Continuing Education &  
Professional Development  
Iowa State University  
102 Scheman Building  
Ames, IA 50011

**Fax: (515) 294-6223**

**Phone: (515) 294-6222**

**Method of Payment:**

**Check (Payable to Iowa State University)**

**Credit Card**     **Visa**     **MasterCard**     **Discover**  
Card Number \_\_\_\_\_ Exp. Date \_\_\_\_/\_\_\_\_  
Cardholder Name \_\_\_\_\_ Signature \_\_\_\_\_

**Purchase Order (Please indicate billing address below, if different from above)**

PO Number \_\_\_\_\_

Send invoice to: Name \_\_\_\_\_

Billing Address \_\_\_\_\_

Telephone/Fax: \_\_\_\_\_

*\* Iowa State University requests this information to pre-register you for a conference. No one outside the university, with the exception of participants in this conference, is routinely provided this information. If you fail to provide the required information, we cannot promise accurate registration.*

*(Reference: Iowa Code, Chapter 22.11; Iowa Fair Information Practices Act)*

**Office Use Only**

**(Only one registration per form – Duplicate for additional registrations)**