



ASCE-SEI CODSBS Meeting – Summary Report
Tuesday, March 31, 2009
Hyatt Regency Hotel, Phoenix, AZ

Chairman Carter called the meeting to order at 8:30 a.m.

Present:

Charlie Carter	Lou Geschwindner	Bob McNamara
Reidar Bjorhovde	Larry Griffis	Tom Murray
Peter Cheever	John Gross	Clint Rex
Bob Disque	Socrates Ioannides	Jim Rongoe
Mike Engestrom	Larry Kloiber	Bill Thornton
Tom Ferrell	Larry Muir	Emile Troup
		Nabih Youssef

Guests:

Susan Burmeister – Cagley & Associates	David McKinnon – Canadian Institute of Steel Construction
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Absent:

Bill Baker	Jim Fisher	Jim Malley
Finley Charney	Ron Johnson	

Resigned:

Bobby Marstellar	
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The Agenda that was circulated prior to the meeting was amended to include a review of the proposed Chapter N to the AISC Specification; a Column question from Bob Disque; recommendation regarding performance-based design by Nabih Youssef; and an update on NIST activities by John Gross.

Introductions were made in light of the guests in attendance.

The Summary Report of the April 1, 2008 Meeting in Nashville, TN was approved.

The Agenda was amended and approved.

Item 1 - Article for Modern Steel Construction

Larry Muir reported that he had submitted a paper to the AISC Engineering Journal based on a 2008 NASCC presentation he and Emile Troup had made. Larry has not heard back from AISC about its publication. Chairman Carter indicated that the paper is likely under review. He will check with Keith Grubb, who is the current editor.



Action – Charlie Carter to check with Keith Grubb on the status of Muir/Troup Article for Journal.

Item 2 Communicating Connection Design

The work has been incorporated into Appendix D of the AISC Bracing Connections Design Guide by Larry Muir and Bill Thornton. In order to publicize the methodology, articles should be submitted to Structure Magazine and Modern Steel Construction. Larry Griffis suggested eliminating Case B of Method 2 (+/- single value). Bill Thornton agreed.

There was also discussion about how to communicate diaphragm force. AISC TC-5 has been looking at this.

Action – March 31, 2009

1. Larry Griffis will forward comments to Bill Thornton.
2. Bill Thornton will update document and circulate to Committee for review and comments.
3. Larry Griffis and Susan Burmeister will collaborate on communicating diaphragm force methods.
4. Larry Muir and Bill Thornton will prepare summary article for Structure Magazine.
5. Charlie Carter will have an AISC staff member prepare a summary article for Modern Steel Construction.

Action – April 1, 2008

1. Charlie Carter will ask the AISC IT Committee to help develop a mechanism for information transfer in software programs, perhaps with a post-processor created following the design recommendations.

Item 3 – Structure Magazine Article by Muir and Thornton.

It was determined that these articles were published November 2006 and Feb 2007.

Action – Close item. Remove from future Agenda.

Item 4 – 50 KSI Material

Lou Geschwindner conducted an informal survey of fabricators and suppliers for angles, plates and channels, and found mixed response to the idea. The AISC Marketing Committee had a negative response. Other comments were:

- Reidar Bjorhovde noted that all tested connections which form the basis for ductility, rotation, etc. used A36 material.
- Larry Kloiber noted detail material is usually bought from service centers; grade 50 is usually ordered from mills.
- Tom Murray noted coupon samples for A36-tested material averaged 45 ksi over the past 5 years. (Editorial Note: In Mike Englehardt's 2009 NASCC presentation, he quoted the value of 54 ksi.)



- Tom Ferrell noted that since rupture controls many connection designs, the delta was only 58 to 65, not 36 to 50.
- Dave McKinnon noted that Canada currently uses 350W material for connections, but they would like to use A992.
- Chairman Carter requested a sub-committee to study the subject.
- 50KSI Subcommittee - Larry Kloiber and Mike Engestrom – CoChairs; Reidar Bjorhovde

Action – Subcommittee to review and make recommendations regarding the steps AISC should take, if any, to make 50 ksi material the standard for connections.

Item 5 – Standard Connections Project

Tom Ferrell will write the description of each table, including how to use it and the assumptions that are used in creating the tables. An AISC staffer and Charlie Carter will finalize the tables for publication in an Article. The Article will present the tables as a means to facilitate the communication of acceptable connection details from the Structural Engineer to the fabricator, as well as to facilitate the review process. The article will also be explicit that other details with calculations are permitted.

Action – Charlie Carter will have completed article for next meeting.

Item 6 – R = 3

Peter Cheever reported that one article will be published in a future issue of the AISC Engineering Journal.

The R=3 session, moderated by Charlie Carter and Eric Hines, is set for the Austin Structures Congress in May 2009, with papers by Carter, Hines, Cheever, Tremblay, Fahnestack, Muir and Hajjar.

An R=3 Symposium was held in Chicago on November 7, 2008. A copy of the minutes was distributed to Committee members. The meeting minutes are going to be distributed to member attendees.

Pete Cheever reported that the knowledge base and interest of the gathered group was certainly flattering to those who have worked on this project since Larry Griffis introduced it +/- 5 years ago. He mentioned two items which stuck out from the meeting:

- 1) Ron Hamburger and several others might be more comfortable with R = 3 for Seismic Design Categories A & B, but were not sure about C.
- 2) Jim Malley down-played the emphasis on “Reserve Systems” within steel buildings as being part of the original R = 3 factor.

A procedure to act upon the questions portion of the minutes is under review.

A follow-up symposium is planned by AISC.

Action - Charlie Carter will issue Symposium Minutes to participants for comment and follow-up with another Symposium.



Item 7 – U. Washington Braced Frame Tests

Peter Cheever reported about two former LeMessurier engineers who are working with Professor Roeder at U. Washington on gusset plate testing and full-scale two-story frame testing in Japan. The tests are very encouraging for braced frames. A slide presentation is posted on the CODSBS Committee website.

Action - No action required. This can be removed from future agenda.

Item 8 – ATC-63

The 90% Draft of ATC-63 was discussed in sessions sponsored by ATC on August 9, 2008 in San Francisco and August 8, 2008 in Chicago. Nabih Youssef and Jim Malley attended in San Francisco; Pete Cheever, Finley Charney and Charlie Carter attended in Chicago.

Charlie Carter reported that a few participants from other industries challenged the proposed methodology for evaluating R-factors for new systems because the speakers said they would not use it for existing systems. It would discourage innovating new systems, since they would be expensive to get tested and peer-reviewed. Pete Cheever expressed disappointment about having spent time to attend the review and submit comments, but had not heard a response or update on the status. It may be that the project ran out of funding and is awaiting new funding.

Action - No action required. This item can stay on the Agenda to monitor issuing the 100% documents.

Item 9 – Wind Drift Survey

Finley Charney is on sabbatical and could not report on the survey conducted in 2007. Bob McNamara expressed concern about recent developments on Wind Tunnel technology, including load combinations in their reports. Bob also wondered how other engineers handle wind loadings for temporary conditions during construction where dead loads may not include veneer or for buildings with hat trusses. It was reported that the Chicago Building Survey Data can be found on the Notre Dame Hazmat Laboratory website.

Chairman Carter suggested a task force be formed to study recent developments on wind loads on steel structures.

Volunteers: Bob McNamara (Chairman), Bill Baker, Finley Charney, Socrates Ioannides, Jim Fisher

Action - Task force to meet, correspond, research and provide a summary of information at the next meeting regarding current practices with wind loads on steel structures.

Future goals would be article(s) summarizing same.

Item 10 – ASCE/SEI Website

Pete Cheever reported that many ASCE Committees post their memberships and meeting minutes on the ASCE/SEI website. It could improve the visibility of this Committee.



Larry Muir pointed out it might be useful for posting information and articles.

Following discussion, it was agreed to set up a site at least for the Roster and Minutes. The Committee web page, hosted by Lou Geschwindner at PSU, will remain separate so that draft information and background documents can be maintained privately.

Action - Pete Cheever will set up and maintain ASCE/SEI website for roster and minutes. No minutes will be posted unless approved by the Committee.

Item 11 - New Members

Susan Burmeister of Cagley and Associates was in attendance. Pending her continued interest, she will be considered for membership. Chairman Carter requested other nominations. It was noted that NASCC is a good place to network/look for good candidates.

Action - All Committee Members will forward nominations for new members to Charlie Carter before the next meeting.

Item 12 – New Topics

The Committee survey of 19 potential new topics resulted in 16 members responding, and every topic received at least one vote. (Spreadsheet attached.) The top three vote-getters were:

- Reducing the number of load combinations (8 votes)
- Progressive collapse resistance (10 votes)
- Simplifying seismic design requirements (10 votes)

Chairman Carter suggested focusing on the top three vote-getters at this meeting.

Item 12a – Reducing the Number of Load Combinations

Question: - What would we like to see done?

Load combinations are the same for concrete and steel. ASCE 7-010 will take the basic 7 down to 6. Also, ASCE 7-10 will include an envelope approach versus directional approach for wind load.

Following discussion, it was determined that the topic needed better definition. Chairman Carter suggested that a task group study the topic and propose a definition of the intent and resultant task(s) and goals for the Committee.

Volunteers: Jim Fisher (Chairman), Jim Rongoe, John Gross

Action – Review the topic; reduce the number of load combinations; and prepare a definition with tasks which may be useful to steel building designers.



Item 12b – Progressive Collapse

There was discussion about NYC connection requirements - Axial Capacity – Shear Capacity.

Larry Griffis reported that IBC 2005 requires a nominal Axial Capacity = design shear strength, evaluated independently of any other loads. This was also the NCSEA recommendation to IBC.

Lou Geschwindner reported that most standard connections in the AISC Manual already will meet this criterion. Kurt Gustafson is giving a presentation on this topic at NASCC. It applies to certain building heights and classification as “Integrity Reinforcement”.

AISC is about to publish a Design Guide on blast and progressive collapse resistance by Ramon Gilsanz and a number of other co-authors, including Ron Hamburger.

Since there was a lot of interest in this topic, Chairman Carter requested that a task force study which issues related to steel design would warrant further discussion, research and/or publication.

Volunteers: Ron Johnson (Chairman), Susan Burmeister, Larry Muir

Action – Review alternative seismic design practices in U.S. and abroad. Prepare recommendations for discussion at the next meeting. Invite Jon Heinz of ATC to the next meeting.

Item 12c – Simplifying Seismic Design

Following an initial reaction of resignation regarding anything being done to simplify procedures and prescriptive requirements, Chairman Carter suggested starting off as if nothing existed – a clean slate – and asked what would we want the Seismic Provisions to look like.

There was discussion about the displacement method used in New Zealand and similar EuroCode requirements. There was discussion about performance-based design. There was discussion about the activities of ATC-58, which has substantial funding.

Following discussion, Chairman Carter suggested that a task force study alternative seismic design methodologies and report back to the Committee at the next meeting. It was also suggested that we invite Jon Heinz of ATC, who is familiar with the ATC-63 and ATC-58 Projects to the next meeting.

Volunteers – Nabih Youssef (Chairman), Bob McNamara, Larry Griffis

Item 13 – AISC Update

Charlie Carter reported the following:

- 2,650 people pre-registered for NASCC, about 10% less than in 2008.
- Awards –
 - T.R. Higgins Award Don White
 - Kimbrough Award Larry Griffis



- Code of Standard Practice
 - Balloting 14 items and expecting to complete the document this year for a new 1020 version.
 - Public Review – Summer 2009
 - Section 3.1.2, Delegated Connection Design, will be discussed in plenary session at NASCC.
- The Specification Committees
 - 2nd to last ballot – due April 17th.
 - New Specification in 2010
 - New Manual for Fall, 2011.

New Design Guide 23 on Constructability by Dave Ruby is now in print.

Staffing:

- Bo Bowswell is leaving AISC to return to Birmingham.
- AISC is looking for a replacement for him.
- Charlie Carter will defend his Ph.D dissertation in one month.

Item 14 – Chapter N

Quality Control Standards for structural steel have been proposed as Chapter N of the AISC Specification. These will be referenced from IBC Chapters 17 + 22. Emile Troup serves on the task committee charged with writing this Chapter.

Larry Griffis suggests that language should reinforce that these are the minimum requirements to be supplemented by the project specifications.

In California, about $\frac{3}{4}$ of the building inspectors will only allow IBC-Certified fabricators and not necessarily AISC-certified.

Larry Kloiber expressed concern about the proposed provisions and asked all members of the Committee to review and comment.

Action - All Committee Members will review Chapter N and forward comments to Charlie Carter and Emile Troup.

Item 15 – DisQue Column Question --1/8" Wall HSS Sections

Are they structural steel? Should they be in column load tables? An inexperienced engineer or automated software could pick the member size, but it may not be serviceable or connectable. Tom Murray pointed out that every M shape has a web less than 1/8".

Following discussion, Socrates Ioannides moved that the Committee should suggest to ASIC that “1/8” walled HSS sections” be removed from the column load tables.

Seconded by Larry Muir.



Voted: 9 in favor; 3 opposed; 2 abstained.

Action – Chairman Carter will pass along recommendations of the Committee to AISC.

Item 16 – NIST Update

John Gross reported progress on a new NIST testing facility for fire. They are very hopeful that stimulus funds will be channeled to allow for construction. John distributed a CD to each committee member containing the document on NIST Best Practices for Fire Resistance and Design. Workshops are going to be held around the country. John suggests that the Committee be progressive with advancing performance-based design over prescriptive requirements.

Item 17 – New Book

Nabih Youssef was reading a new book titled “Performance-Based Plastic Design: Earthquake-Resistant Steel Structures” by Subhash C. Goel, Shih-Ho Chao. He encouraged all Committee Members to read it. <http://www.bookmarki.com/Performance-Based-Plastic-Design-p/9781580017145.htm>

Item 18 – Next Meeting

The next Committee Meeting will be held on **Friday, October 9, 2009, in Los Angeles, CA**, hosted by Nabih Youssef

Meeting adjourned at 4:45 p.m.

Submitted by,

Peter J. Cheever
Secretary