

Meeting Seismic Design Requirements with the new Masonry Design Standard CSA S304-14

Earn .7 Continuing Education Units / 7.0 Professional Development Hours

The Abstract

Post-disaster buildings as defined by the National Building Code of Canada (NBCC) have historically been examples where loadbearing concrete block masonry is used because of its fire resistance, durability, robustness and strength. However, this has gradually diminished over time as other competing materials took advantage of advances in research and changes to building codes, especially the new ductility requirements of the 2005 NBCC. Use of 2004 edition of the masonry structures design standard, CSA S304, proved to be challenging for designers of masonry post-disaster structures trying to meet these new seismic requirements. This course will provide a detailed overview of the new changes to the 2014 edition of the CSA S304, which are viewed as a substantial improvement to the 2004 standard. Design and detailing examples will be presented that illustrate how masonry seismic design has evolved to meet the requirements of the 2015 NBCC and how these changes will once again facilitate loadbearing masonry in *post-disaster* structures. In the new Clause 16 within CSA S304-2014 entitled “*Special provisions for seismic design*” all seismic design provisions are now consolidated, modernized and expanded for ease of reference.

The Content

1. General Overview of Masonry
 - Background to Masonry construction, materials, behaviour and design principles
2. Seismic Design Provisions of the 2014 CSA S304
 - SFRS Categories: Design and Detailing Requirements
 - Unreinforced masonry, conventional construction, moderately ductile squat shear walls, moderately ductile shear walls and ductile shear walls
 - Ductility Verification of Masonry Shear Walls
 - Increasing the ductility of masonry with boundary elements
3. Masonry building design and lateral load distribution

The Instructor

Bennett Banting, Ph.D., P.Eng. is the Masonry Research and Development Engineer at the Canada Masonry Design Centre (CMDc) Mississauga, ON (2012-Present). Bennett completed his Ph.D. at McMaster University in 2013. His thesis was awarded the 2015 Best Doctoral Dissertation Award from The Masonry Society and contributed directly to several major changes to the new seismic design chapter of 2014 CSA S304. He is recipient of the NSERC IPS award (2007-2011), NSERC IRD Post-Doctoral Fellowship (2013-2015), ASCE Journal of Structural Engineering Outstanding Reviewer Award (2016 & 2017) and served as Chair of the Technical Committee for the 13th Canadian Masonry Symposium (2017). Bennett has published over 30 referred journal and conference articles on masonry design and behaviour and oversees industry supported research and education at 15 Universities across Canada.



VENUES

VANCOUVER – September 17, 2018
Sandman Vancouver City Centre
 Pacific-Robson Room
 180 West Georgia Street
 Vancouver, BC V6B 4P4
 604-681-2211

EDMONTON – September 19, 2018
Days Inn Suites West Edmonton
 Linden Rook
 10010-179 A Street
 Edmonton, AB T5S 2T1
 780-444-4440

CALGARY – September 20, 2018
Sandman Calgary City Centre
 Great Room 3
 888 7 Avenue SW
 Calgary, AB T2P 3J3
 403-237-8626

OTTAWA – September 25, 2018
Holiday Inn Ottawa East
 Franklin Room
 1199 Joseph Cyr Street
 Ottawa, ON K1J 7T4
 613-744-1060

TORONTO – September 26, 2018
Sandman Signature Toronto Airport Hotel
 Longbranch A Room
 55 Reading Court
 Toronto, ON M9W 7K7
 416-798-6771

FEES AND REGISTRATION

Please click to register online: <https://secure.csce.ca/product/masonry-csa-304-14/>

7:45 Registration-8:30 Start of Session-10:00 Coffee Break-12:00 Lunch-15:00 Coffee Break-16:30 End of Session

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