

64th Annual Highway Geology Symposium

(HGS 2013)

**North Conway, New Hampshire, USA
9-12 September 2013**

ISBN: 978-1-62993-261-3

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2013) by the Highway Geology Symposium
All rights reserved.

Printed by Curran Associates, Inc. (2013)

For permission requests, please contact the Highway Geology Symposium
at the address below.

Highway Geology Symposium
C/O FR Glass
100 Wolfe Cove Rd
Asheville, NC 28804

Phone: (828) 252-2260
Fax: (828) 299-1273

frgeol@aol.com

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

64th ANNUAL HIGHWAY GEOLOGY SYMPOSIUM

Tuesday, September 10th, 2013

1. 8:30 AM - 8:50 AM
Squeezing Between Cuts – The Route 128/I95 Add-A-Lane Project, Dedham/Westwood, Massachusetts
Blaisdell, Snow3
2. 8:50 AM – 9:10 AM
Fort Ann, New York Rockfall and Emergency Repair Contract
Hadjin, Balmer48
3. 9:10 AM – 9:30 AM
Idaho Transportation Department (IDT): Emergency Rockfall Assessment, US-95, Riggins, ID, December 2012
Gates, Bannan, Schick63
4. 9:30 AM – 9:50 AM
Case Studies on Rockfall Mitigation and Rock Slope Stabilization in California, Tennessee, Virginia, and Vermont
Beard, Birchmier, Barrett.....77
5. 10:20 AM – 10:40 AM
Slope Failure Investigation and Remediation using Geosynthetic Reinforced Earth atop Poor Foundation Soils
Janora, Logan93
6. 10:40 AM – 11:00 AM
A Bump in the Road – Remediation of the SR 87 Landslide
Gardner ;
7. 11:00 AM – 11:20 AM
Surface kinematics of the Ferguson rock slide revealed by repeat lidar and GPS measurements, Highway 140, California
Collins, Reid, LaHusen335
8. 11:20 AM – 11:40 AM
Remediation of an Active Landslide within a Prehistoric Landslide – SR 2065 Thompson Run Road, Monroeville, Pennsylvania
Chechak, Heinzl349

Tuesday, September 10th, 2013 (continued)

9.	11:40 AM – 12:00 PM <i>Rope Access for Geotechnical Work</i> Duffy.....	366
10.	1:00 PM – 1:20 PM <i>Rock Slope Protection and Rock Mechanics</i> Bigger, Fischer, Fischer	378
11.	1:20 PM – 1:40 PM <i>Testing Rockfall Post Foundations in Colorado</i> Arndt, Ortiz, Group.....	38;
12.	1:40 PM – 2:00 PM <i>Development of a Modular Brake Element for use in Modern Rock Fall Catchment Fences</i> Fulde, Muller.....	3: 7
13.	2:00 PM – 2:20 PM <i>ONR 24810 – A Comprehensive guideline for building better Rockfall Protection Structures</i> Stelzer, Bichler.....	425
14.	2:20 PM – 2:40 PM <i>Proof Testing of Cable Anchors in Rockfall Protection Systems</i> Ingram	43;
15.	3:00 PM – 3:20 PM <i>Rockfall Barrier Behavior on Multiple Impact Events</i> Brunet, Giacchetti, Grimod.....	442
16.	3:20 PM – 3:40 PM <i>Use of Rating Systems in the Design of New Slopes</i> Anderson, DeMarco	45:
17.	3:40 PM – 4:00 PM <i>The Engineering Geologist and Transportation</i> Stzuro	478

Thursday, September 12th, 2013

18.	7:40 AM – 8:00 AM <i>New Design Software for Rockfall Simple Drapery Systems</i> Brunet, Giacchetti, Grimond.....	487
19.	8:00 AM – 8:20 AM <i>Maud Farm Road Investigation</i> Nevels	4: 5
20.	8:20 AM – 8:40 AM <i>Emergency Slope Stabilization, Catskill Creek Bridge, New York State Thruway, Catskill New York</i> Smerakanicz, Denniston, Vierling	525
21.	8:40 AM - 9:00 AM <i>PDA and Pile Restrike; A better Understanding of Pile Resistances</i> Halverson, Jones	544
22.	9:00 AM - 9:20 AM <i>Cooperative Geotechnical Data Designs to build on liquefiable Sands and Compressible Clays in Salem, Massachusetts</i> Woodward, Fuselier	554
23.	9:20 AM - 9:40 AM <i>Cellular Geosynthetics in Highway Applications</i> Horvath	56:
24.	9:40 AM – 10:00 AM <i>Corridor management: Capturing Geotechnical Impacts on Highway System Performance</i> Rivers, Anderson.....	58:
25.	10:15 AM – 10:35 AM <i>Four Times the Effort: Blue River Bridge Replacement Project</i> Henthorne.....	5: 7
26.	10:35 AM – 10:55 AM <i>Enhanced Geotechnical Site Investigation of Presumpscot Clay by Cone Penetration Testing</i> Maynard, Krusinski, Peterson.....	5; 7
27.	10:55 AM – 11:15 AM <i>Digital Terrain Modeling Techniques for a Better Subsurface Soil Layers Representation</i> Mabrich	5; 8

Thursday, September 12th, 2013 (continued)

28. 11:15 AM – 11:35 AM
On-Line Geotechnical Database Considerations and Data Sharing
Aguilar626
29. 11:35 AM – 11:55 AM
Validation of Interferometric Synthetic Aperture Radar as a tool for Identification for Geohazards and At-Risk Transportation Infrastructure
Bruckno, Vaccari, Hoppe, Stuechli, Niemann, Campbell0637
30. 11:55 AM – 12:15 PM
Use of Multi-Electrode Electrical Resistivity to Define the Depth of Landslide and the use of Isolated Tie-Back Plates to Stabilize the Landslide on Steep Terrain.
Neely, Clark0.656
31. 12:15 PM – 12:35 PM
“Large”-Scale Seismic Reflection for Infrastructure Projects – Not Just for Oil and Gas Anymore
Shawver, Douglas0672