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TELEPHONE: (510) 593-3169 TELEFAX: (510) 643-8919 E-MAIL:Bill@IbbsConsulting.com DEPARTMENT OF CIVIL & ENVIRONMENTAL ENGINEERING 213 MCLAUGHLIN HALL BERKELEY, CALIFORNIA 94720-1712

#### Dr. William Ibbs Curriculum Vita

William Ibbs is professor and group leader of the Construction Management program in the civil engineering department at the University of California at Berkeley. He has taught undergraduate and graduate courses in construction management since 1981, specializing in project cost estimating, cost control, and scheduling. His teaching and research have received numerous awards at the national level.

Dr. Ibbs's research has investigated the subject of project change and its impact on cost and schedule for large projects. That work has led to a series of quantitative models that correlate the cost and schedule consequences of large amounts of project change. These models have been derived from empirical study of over 2,000 large capital construction projects including Boston's Big Dig, and Johannesburg's Guatrain and Copenhagen's Comet systems. Over the past thirty years this research has been sponsored by dozens of companies (General Motors, Bechtel) and government agencies (US Army Corps of Engineers, National Science Foundation). This research has resulted in doctoral degrees for thirty of his students, some of whom are now college professors and leading industry executives.

In addition to his academic career Professor Ibbs is an active consultant, chairing The Ibbs Consulting Group. He has served as an expert witness and project neutral, qualifying to testify in federal and state courts, and international arbitration. That research work has led to a vibrant consulting practice on matters involving project change and its impact on project cost, schedule, and success.

Dr. Ibbs and his company have worked on some of the biggest, most complex projects in the world including Boston's Big Dig, refineries, chemical plants, hospitals, process plants, transit systems, and powerplants. Clients include various large, global private sector and public entities throughout the US, Africa, Asia, Europe, the Middle East, and South America. He has also testified before the California senate on the High-Speed Rail and Bay Bridge projects.

Prior to his academic career, Dr. Ibbs worked in industry as a project engineer and project manager on heavy-civil, commercial and industrial construction projects.

In light of his standing Professor Ibbs was selected by his peers and the American Society of Civil Engineers to chair a committee that is establishing International Standards for Identifying, Quantifying, and Proving Loss of Productivity Claims. Professor Ibbs earned B.S. and M.S. degrees from Carnegie Mellon University and a Ph.D.

from U.C. Berkeley, all in civil engineering with a construction management emphasis. He has minors in accounting and finance.

# DR. WILLIAM IBBS EMPLOYMENT HISTORY

Professor, University of California at Berkeley, 1987 to present. Graduate and undergraduate teaching, and research for the Construction Management Program.

Professor, University of Illinois, 1981 to 1987. Graduate and undergraduate teaching, and research for the Construction Management Program.

Scott-Buttner Construction Co., 1977 to 1979. Project Engineer and Estimator

Kaiser-Permanente Medical Care Program, 1975 to 1977. Design Manager

GAI Consultants, 1974 to 1975. Project Engineer

# DR. WILLIAM IBBS PROFESSIONAL SERVICE ACTIVITIES

- 1. Chair, ASCE Loss of Productivity Standards Definition Committee
- 2. Chair, ASCE Project Controls Committee
- 3. Research Director, Project Management Institute
- 4. Associate Editor, ASCE Legal Affairs and Dispute Resolution Journal.
- 5. Editor, ASCE Construction Engineering and Management Journal.
- 6. Adjunct Professor of Civil Engineering, MIT.
- 7. Adjunct Professor, University of Wisconsin
- 8. Various guest lectures in Indonesia, Japan, Kuwait, Saudi Arabia, South Korea, United Arab Emirates, United Kingdom

### DR. WILLIAM IBBS PUBLICATIONS IN LAST TEN YEARS

**1.** Ibbs, C.W. and L.D. Nguyen, "Analysis of Delay Damages for Site Overhead," Cost Engineering, March 2008, 50(3), 30-33.

- **2.** Nguyen, L.D. and C.W. Ibbs, "FLORA: New Forensic Schedule Analysis Technique," Journal of Construction Engineering and Management, July 2008, 134(7), 483-491, doi: 10.1061/(ASCE)0733-9364(2008)134:7(483).
- **3.** Ibbs, C.W. and G. McEniry, "Evaluating the Cumulative Impact of Changes on Labor Productivity an Evolving Discussion," Cost Engineering, December 2008, 50(12), 23-29.
- **4.** Young, H.K., Y.Y. Chih and C.W. Ibbs, "Towards a Comprehensive Understanding of Public Partnership (PPP) for Infrastructure Development," California Management Review, 2009, 51(2), pp. 51-78.
- **5.** Ibbs, C. W. and M. Liu, "An Improved Methodology for Selecting Similar Working Days for Measured Mile Analysis," International Journal of Project Management, 2011, 29(6), 773-780, doi: 10.1016/j.ijproman.2010.07.006.
- **6.** Chih, Y.Y. and W. Ibbs, "Choosing a Project Delivery System in a Multi-Project Environment," Construction Law International Journal, March 2010, 5(1), 7-10.
- **7.** Nguyen, L.D. and C.W. Ibbs, "Case Law and Variations in Cumulative Impact Productivity Claims," Journal of Construction Engineering and Management, August 2010, 136(8), 826-833, doi: 10.1061/(ASCE)CO.1943-7862.0000193.
- Nguyen, L.D., J. Kneppers, B. G. de Soto and C.W. Ibbs, "Analysis of Adverse Weather for Excusable Delays," Journal of Construction Engineering and Management, December 2010, 136(12), 1258-1267, doi: 10.1061/(ASCE)CO.1943 7862.0000242.
- **9.** Chang, A. S., F.Y. Shen and C.W. Ibbs, "Design and Construction Coordination Problems and Planning For Design-Build Projects New Users," Canadian Journal of Civil Engineering, December 2010, 37(12), 1525-1534, doi: 10.1139/L10-090.
- **10.** Ibbs, C.W., L. D. Nguyen and L. Simonian, "Concurrent Delays and Apportionment of Damages," Journal of Construction Engineering and Management, February 2011, 137(2), 119-126, doi: 10.1061/(ASCE)CO.1943-7862.0000259.
- **11.** Liu, M., G. Ballard and C.W. Ibbs, "Work Flow Variation and Labor Productivity: Case Study," Journal of Management in Engineering, October 2011, 27(4), 236-242. http://ascelibrary.org/doi/abs/10.1061/%28ASCE%29ME.1943-5479.0000056
- **12.** Ibbs, C.W. and L. Nguyen, "Cases and Board Decisions on Cumulative Impact Claims," The Construction Lawyer, 2011, 31(4), 32-41. https://drive.google.com/file/d/0B1kZy323Hs8odE42Snc5U0JxcGs/edit?usp=sharing

**13.** Ibbs, C.W. and C. Chen, "Discussion of 'Why Are Loss of Labor Efficiency Damages So Difficult to Recover?' by H. Randolph Thomas," Journal of Legal Affairs and Dispute Resolution in Engineering and Construction, November 2011, 3(4), 182-183. https://drive.google.com/file/d/0B1kZy323Hs8oS256SEZQNE1TYXc/edit?usp=sharing

- **14.** Ibbs, C.W. and L. Nguyen, "Using the Classical Measured Mile Approach and Variants to Quantify Cumulative Impact Claims," The Construction Lawyer, 2012, 32(1), 18-24. http://ascelibrary.org/doi/abs/10.1061/%28ASCE%29LA.1943-4170.0000071
- **15.** Ibbs, C.W., "Measured Mile Principles," Journal of Legal Affairs & Dispute Resolution in Engineering & Construction, 4(2), May 2012, 31-39 http://ascelibrary.org/doi/abs/10.1061/%28ASCE%29LA.1943-4170.0000089
- **16.** Ibbs, C.W., "Construction Change: Likelihood, Severity and Impact on Productivity," Journal of Legal Affairs and Dispute Resolution in Engineering and Construction, 4(3), August 2012, 67-73 http://ascelibrary.org/doi/abs/10.1061/%28ASCE%29LA.1943-4170.0000087
- **17.** Ibbs, C.W., A. Bascoul, and L.D. Nguyen, "Modified Total Cost Principles for Cumulative Impact Claims," Construction Lawyer, December 2012, 26-38 https://drive.google.com/file/d/0B1kZy323Hs8oU3Zfc25oTUpidU0/edit?usp=sharing
- **18.** Ibbs, C.W. and P. Stynchcomb "The Reality Behind the Theory of Loss of Labor Productivity," American Bar Association Construction Forum, Naples FL, February 1, 2013
- **19.** Ibbs, William and Pirouzan Razavi, "Foreseeability in Construction," Journal of Legal Affairs and Dispute Resolution. 6(4), November 2014.
- **20.** Ibbs, William, Benjamin Baker, and Fiona Burkhardt, "Process Model for Identifying and Computing Allowable Home Office Overhead Cost Claims, Journal of Legal Affairs and Dispute Resolution. 7(3), August 2015, 1-10.
- **21.** Ibbs, William and Chao Chen, "Proactive Project Change-Prediction Tool", Journal of Legal Affairs and Dispute Resolution. 7(4), November 2015.
- **22.** William Ibbs and Paul Stynchcomb, "Impact on Labor Productivity from Claims and Change Orders," Chapter in Construction Contract Claims, Changes, and Dispute Resolution. Paul Levin, editor. ASCE Press, 2016.
- **23.** Paul Stynchcomb and William Ibbs, Change Orders, Productivity, Overtime: A Prime for the Construction Industry. Mechanical Contractors Association of America, 2016.

- **24.** Benjamin Davis and William Ibbs, Guidelines for Recovering Home Office Overhead Costs with Emphasis on the Eichleay Formula, Journal of Legal Affairs and Dispute Resolution. July 8, 2016.
- **25.** William Ibbs and Josh Chittick, "Practical Ways to Identify Measured Miles," Journal of Legal Affairs and Dispute Resolution. 9(1), February 2017. http://dx.doi.org/10.1061/(ASCE)LA.1943-4170.0000199
- **26.** William Ibbs and Xiaodan Sun, "Use of MCAA Method in Loss of Productivity Claims," Journal of Legal Affairs and Dispute Resolution. 8(4), November 2016.
- **27.** William Ibbs and Xiaodan Sun, "Weather's Impact on Construction Labor Productivity," Journal of Legal Affairs and Dispute Resolution. 9(2), May 2017. http://ascelibrary.org/doi/10.1061/%28ASCE%29LA.1943-4170.0000212#sthash.J21jch17.dpuf
- **28.** William Ibbs, Mark Berry, and Xiaodan Sun, "Visualizing Skipped and Out-of-Sequence Work" Journal of Legal Affairs and Dispute Resolution. 9(4), November 2017. https://doi.org/10.1061/(ASCE)LA.1943-4170.0000240
- **29.** Halligan, David, William Ibbs, Kenneth Gibbs, Lee Ellen Bell, and James Zack, "Loss of Productivity The Advantages, Pitfalls and Challenges of Developing and Implementing Recommended Standards." Construction Superconference. Las Vegas, December 2017.