

## **Awad S. Hanna, Ph.D., P.E.**

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Dr. Hanna is the principal author and investigator of the cumulative impact and schedule compression studies. He is a professor and chair of construction Engineering and management program at the University of Wisconsin-Madison, Department of Civil and Environmental Engineering, holding M.S. and Ph.D. Degrees from Penn State University. He is a registered professional engineer in the U.S. and Canada and has been an active construction practitioner, educator, and researcher for over 30 years. Dr. Hanna has taught more than 300 successful seminars and workshops in more than 35 states on topics such as change order impact, project scheduling, estimating, labor productivity, and construction delay claims. He has been involved with construction management and dispute resolution on a wide variety of engineering, consulting, and construction projects worldwide.

### **Instructor**

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## “The Effects Of Schedule Compression On Labor Productivity” Seminar

Sheet Metal and Mechanical contractors confronted with the need to compress a construction schedule face the potential for extreme difficulties. One of the more difficult problems associated with planned schedule compression is the associated delays, disruptions, and partial work suspensions that are commonly concurrent which leads to unplanned compression. Planned and unplanned schedule compression can be thought of as a reduction from the normal experienced time or optimal time for the type and size project being considered.

SMACNA proudly presents a new educational offering, the “The Effect of Schedule Compression on Labor Productivity” seminar. This program will present quantitative methods to calculate the effect overtime, overmanning and second shift on labor productivity for sheet metal contractors.

### WHO SHOULD ATTEND?

Vice-presidents, senior project managers, department heads, project engineers, controllers, and anyone else who wants to learn successful tips for the prompt recovery of change order costs would benefit from the seminar.

### WHY NOW?

The New Horizon Foundation, the research arm of SMACNA, recently completed two significant landmark studies on the impact of change orders and schedule compression on labor productivity. These studies are based on extensive data collection on these subjects for sheet metal construction projects.

### WHAT WILL YOU LEARN?

- Types of Schedule Compression/Acceleration (Mandated acceleration and Constructive Acceleration)
- The Economic Impact of Acceleration
- Recoverable acceleration costs, including labor, Materials, overhead including extended or unabsorbed, and impact cost.
- Methods of pricing acceleration
- Methods of quantifying the impact of schedule acceleration
- The New Horizon Foundation study including the impact of overtime, overmanning and second shift
- The “factor (cause and effect) approach
- Demonstration of the use of impact charts and software
- Strategies for minimizing the economic consequences of Schedule Acceleration
- Examples and case studies

### WHO IS THE PRESENTER?

**Dr. Awad S. Hanna, Ph.D., P.E.** Dr. Hanna is the principal author and investigator of the cumulative impact and schedule compression studies. He is a professor and chair of construction engineering and management program at the University of Wisconsin-Madison, Department of Civil and Environmental Engineering, holding M. S. and Ph.D. degrees from Penn State University. He is a registered professional engineer in the U.S. and Canada and has been an active construction practitioner, educator, and researcher for over 30 years. Dr. Hanna has taught more than 300 successful seminars and workshops in more than 35 states on topics such as change order impact, project scheduling, estimating, labor productivity, and construction delay claims. He has been involved with construction management and dispute resolution on a wide variety of engineering, consulting, and construction projects, worldwide.



For more information or to schedule a course, call or fax Dr. Hanna directly at (608) 263-8903, or fax him at (608) 246-0614. Dr. Hanna's e-mail address is: hanna@engr.wisc.edu. You may also contact SMACNA at (703) 803-2980.

