

What If...

**If We Started Over Today
What Would Construction Look Like**

**Northwest Construction Consumer Council
2001 Annual Conference**

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Life cycle view – owners and constructors develop a total life cycle value proposition for each project based on industry templates and then examine where each contributor brings added value regards of when they are participating actively in the effort. **T**

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Production – construction based on manufacturing principles and automation perspective with value pricing, not man-hour concentration. Manufacturing has redesigned itself in the past decade and much can be learned from what they have done, even at the small contractor scale. A person heavily involved in that effort is now running FIATECH and could be valuable in moving this forward.

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New labor practices – an end to approaches that foster a focus on man-hours with all its tendencies to elongate schedule and perpetuate inefficiency. This is tightly coupled to the first two efforts.

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Virtual halls – every construction worker in the country should have a webpage on a national resource site with them having control over which groups have access to their personal information. Experience, skills, certifications, preferences and references would all be available.

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Processes – fully documented with a national best practice repository that can be used by owners to build the requirement basis for their needs. A national repository of tools and templates would be a powerful motivator and the added opportunity for training in this discipline via the web would enhance the opportunity.

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WBS and Cost codes – build a national template for five major facility sectors using a national WBS and cost code view and get companies to agree that these will be used with a minimum of specialized additions which will be clearly identified. Those with a stake in this include insurance, bonding, banking and owner groups.

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Standards – many current construction and material standards are based on inertia in the industry, not on an aggressive examination of what is possible and what could be better. Too much emphasis of standards bodies is on sustaining the revenue of selling and controlling this information and not on making the industry better. A national initiative to look at the alternatives to major standards should be launched with complete objectivity about alternatives.

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Construction Tools – the use of physical tracking systems to eliminate loss would encourage constructors to equip their people with the very best and encourage innovation in new specialty tools. A national specialty tools tracking database would be especially useful in responding to major emergencies.

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Software Tools – off-the-shelf tools cannot be a source of competitive advantage as others can obtain – so settle on small subset to make sure vendors stay healthy and information is retrievable throughout facility life cycle. This was done in the Japanese chemical industry and the results were stark.

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Handling Tools – We currently handle many large and heavy things in construction in ways that have proven workable, but we have seen little effort to truly improve this area. Much of this comes from adherence to standards built without regard to consequences in handling and assembly. For example, still having an ironworker in a sling trying to wrestle a bolted connection with a bull wrench is archaic. Using a robotic combined lifting clamp with a walking alignment punch and Huck fastener installer would seem possible but lack of such tools is result of no R&D by stakeholders.

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Litigation – develop a national view to construction claims handling. This would include highly standard ways of developing and reporting claims so that a production view to handling could be developed to catch them earlier, handle them better and learn from them more easily.

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Schedule and Estimates – owners lose millions on delays in time to revenue because of deficiencies in these areas. A key aspect of these is that doing them well requires a strong historical database of past efforts from which to build the next effort. Rather than giving this away, we should imagine how we could post project profiles and associated schedules and estimates with all associated assumptions in a national repository to which others could subscribe. It would be anonymous, but could improve the quality of all efforts large and small over time.

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Coordination – A national view to balancing the scarce resources of construction personnel would seem appropriate and getting and keeping such people becomes harder.

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Safety – we tend to look at safety as a reaction to the many assumptions we make about how construction current must work. What have we done to stand back and question every accepted practice in the context of safety with all options open to change.

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Learning – National lessons learned repository with immunity from discoverability. We as an industry can learn a great deal from each other, but this is badly inhibited by the misuse of lessons learned by others against those trying to communicate and improve.

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Alerts – A national alerts posting system should be developed so that any concerns about equipment, methods, materials or participants could be posted in a controlled manner for all industry to use to improve their efforts and avoid unnecessary losses of many kinds.

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These are all very brief discussions about very complex topics and they only scratch the surface. However, there appears to be enough substance in just these few to warrant further discussion and examination. I am ready to work with others to move any of these forward.

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