



Lean Construction Institute

Building Knowledge in Design and Construction

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Historical context

The way we manage work rests on a set of ideas. The dominant ideas operating today are based on the Critical Path Method. This approach came into the construction industry in about 1958. Prior to that it had been used to manage contracts in large procurement programs. John Fondahl's report first published in 1958 and updated in 1961 is one marker. He describes the approach extending managing of contracts to activities to tasks, warns that the model does not represent the complexity of projects where resources are shared, and is concerned that the tool find its primary use in forensic examination of project histories. (Fondahl, J.M. (1961). A Non-computer Approach to the Critical Path Method for the Construction Industry. Technical Report No. 9. Stanford, CA: Stanford University.)

Engineers, estimators, accountants and lawyers loved the simple obvious application of logic and the focus on activities. The tool improved the ability to manage duration but not cost. Costs could be recorded by activity and progress compared to budget. Control of cost, the actual ability to improve them was another matter. An industry wide focus on productivity improvement developed leading to productivity improvement programs. Glenn and Greg met on the Chocolate Bayou project where Glenn was the coordinator of the Super Bee program and Greg a consultant on construction operations.

Glenn's investigation into planning led to the Last Planner and this made apparent an essential failure of current practice, unpredictable workflow; and its underlying flaw, optimizing the piece not the project. The connection to lean came through saying "no" rather than putting unready tasks on the weekly work plan. Lean Construction was on its way once they realized that work moves in projects because of the administrative act of making an assignment as opposed to moving in manufacture because of the way the line is designed. Development began with improving coordination – the first opportunity. Once workflow could be brought under control the world of production system design opened. And finally the IFOA/IPD made it possible the ability to move money across boundaries and align interests.