DISRUPTION OF WORK
Construction delays or a disruption of work frequently results in lost labor productivity and increased labor/equipment costs. Incomplete or incorrect contract documents, changes in the contract scope of work, failure to clarify requests for information, or delayed approval of project submittals can also lead to work disruptions and productivity impacts.

Often contractors are forced to accelerate construction in order to shorten the construction schedule. The acceleration almost always results in a loss of productivity caused by: overtime/acceleration, worker fatigue, stacking of trades, work out of sequence, site congestion, field v. shop fabrication, etc. Other factors such as availability of skilled labor, weather, labor problems, etc. can also result in work disruption and added labor costs.

We all understand why/how worker productivity is impacted. The challenge is proving it.

LABOR PRODUCTIVITY
To recover the additional costs incurred as a result of loss in productivity due to work disruption, one has to prove that the defendant's action or inaction caused the claimant's labor to be less efficient than planned. The plaintiff has the responsibility to properly quantify the extent of the impact.

One method commonly employed to measure the productivity impact is to simply compare the planned productivity rate to the overall actual productivity rate. An obvious challenge to this approach is the accuracy of the planned production rate and other potential external impacts such as weather.

A more preferable approach to determining the lost productivity is to use the "Measured Mile Method".

MEASURED MILE METHOD
The Measured Mile Method of determining productivity losses involves the comparison of productivity rates for the impacted activities during the disrupted period of time with the productivity rates for identical or substantially similar activities during a period of unaffected performance. It is very important that the activities being compared in the impacted and non-impacted periods are substantially similar with as few differing variables as possible.

The main advantage of the Measured Mile Method is that it is based on the actual performance of the specific work items and does not depend on the claimant's estimated productivity rates for the work items. When performed properly, this technique is very difficult to attack because it is based on actual project records and is not a theoretical computation.
For example, Construction Claims Group was recently retained by a contractor to analyze a dispute on a roadway project that included a significant labor overrun caused by differing site conditions and design changes that interrupted the flow of work. Using the Measured Mile Method we were able to calculate the actual production rate at discrete locations where the work was not impacted and was not impacted. The resultant disparity of the production rates clearly demonstrated the loss of productivity caused by the changed conditions.

On another project, Construction Claims Group was retained by an owner to analyze a contractor claim for changed conditions that allegedly caused significant labor cost overruns. The contractor calculated the alleged damages on a Total Cost basis. Construction Claims Group used the Measured Mile Method to demonstrate the contractor's actual productivity was poor (when compared to the bid) during non-impacted periods of time and that the productivity only worsened by 10% during impacted time periods. As a result, the claim was lowered by 75%.

**CONCLUSION**

The Measured Mile Method is a very reliable approach to calculate productivity impacts. It is widely recognized in courts, is referenced as the favored approach in construction industry reference books, and (if performed correctly) is very difficult to critique.

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