International Experts in Claims Analysis, Dispute Resolution, and Project Management for Process, Oil & Gas, Pipeline, Power, Industrial, Infrastructure, and Building Construction Projects

LONG INTERNATIONAL

Schedule Delay Analysis Services

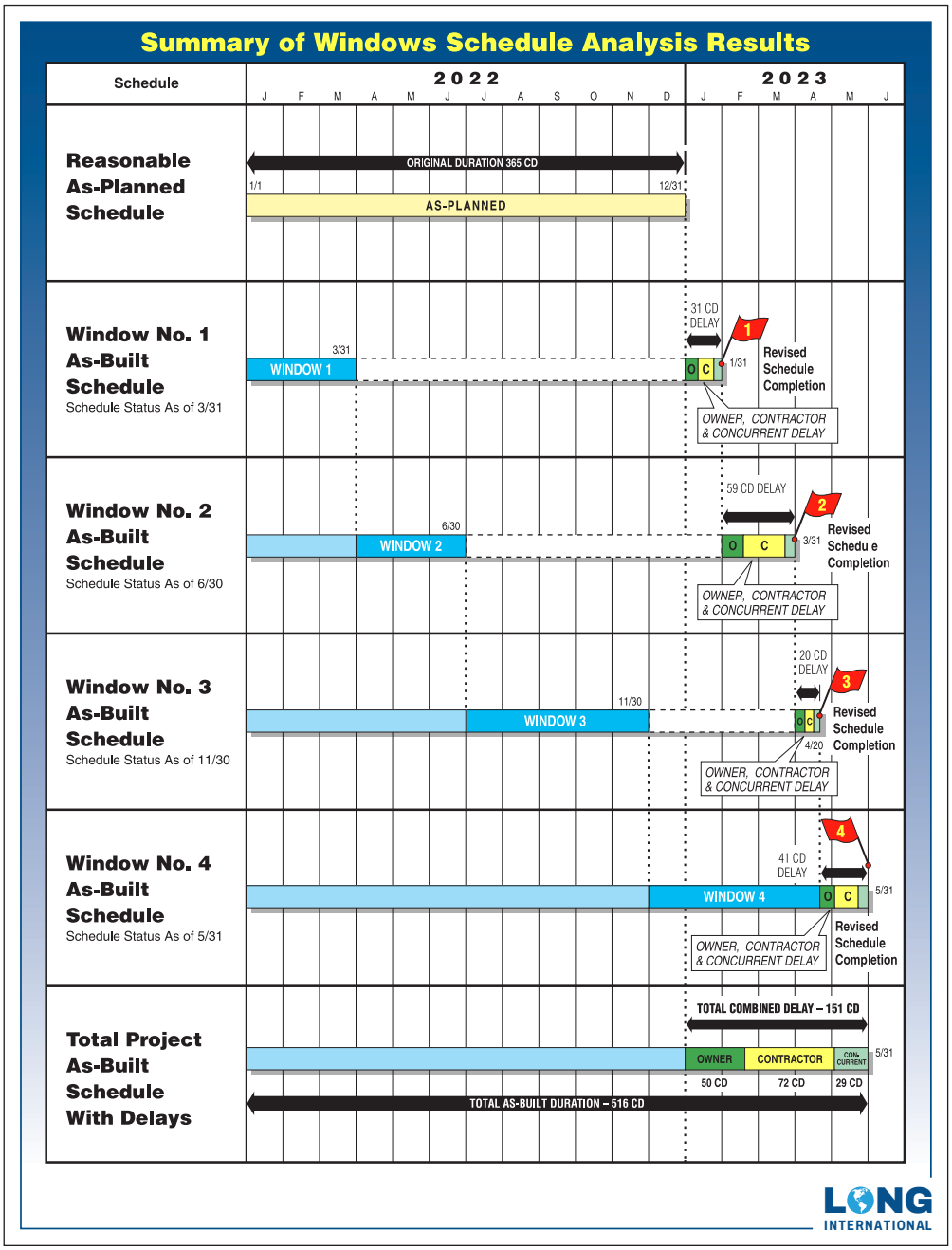
OVERVIEW

Long International's contemporaneous and retrospective schedule delay analyses typically focus on comparing as-planned, updated, and as-built project schedules to identify and quantify delays to a project's critical and near-critical paths. Schedule delays may include either variances in activity duration or variances in the planned and actual relationship lag durations between predecessor and successor activities. We also analyze concurrent delays to properly understand owners' and contractors' liability for delay and impact damages.

Common Schedule-Related Issues

- Time extensions
- Compensable delay
- Acceleration
- Changes to the critical path
- Ownership of float
- Pacing delays
- Concurrent delay
- Misrepresentation of progress

We examine the dynamic nature of the critical path with a "windows/period" analysis and evaluate issues of float ownership, pacing delays, and misrepresentation of progress in contemporaneous project documents. After we have quantified all critical and near-critical path activity delays, we determine the origins and causes of each delay. This process often involves organization and analysis of extensive project documentation to establish cause-effect relationships for each party's actions or inactions and the resulting delays. With input from legal counsel, we then apportion responsibility for each delay to the contractor, the owner, a third party, or force majeure or other excusable delays that the contract defines. By performing these schedule analyses, our schedule delay experts can provide supportable opinions with respect to time extensions, compensable delay, and acceleration.



Schedule Delay Analysis Methodology

- Retrospective (as-built) analysis vs. prospective (as-planned) analysis
- Contemporaneous windows/period analysis to address dynamic critical path
- Time impact analysis, also referred to as update impact analysis
- As-built but-for/collapsed as-built analysis
- Verification and correction of schedule integrity
- Identification of activity duration delays
- Identification of activity relationship lag delays
- Analysis of delay issues
- Allocation of delay responsibility
- Determination of appropriate time extensions
- Analysis of concurrent delays
- Calculation of liquidated and actual damages
- Calculation of compensable delay damages
- Quantification of acceleration and potential basis for allocation of loss of productivity responsibility

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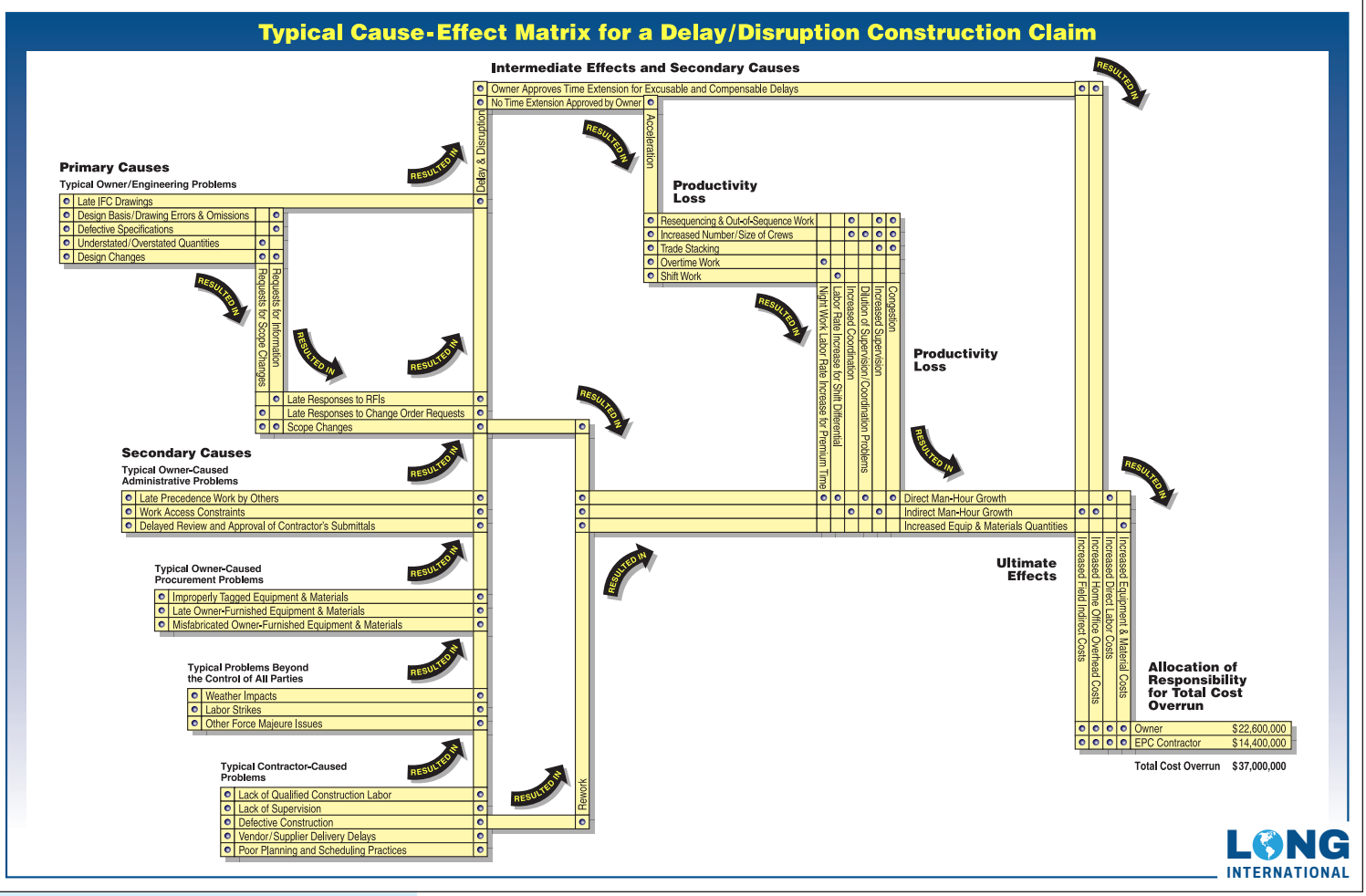

Cause-Effect Matrix

Proving causation in a cumulative impact claim typically requires detailed and complete contemporaneous project documentation. A cause-effect matrix depicts the cause-and-effect linkages in a claim. As multiple causes and their resultant effects are added, the matrix can become complex for a highly impacted project. Primary and secondary causes, including owner and contractor-caused problems, are shown to have multiple and duplicative effects, resulting in delays and cost overruns that need allocation to the respective parties. Long International's evaluation of contemporaneous project schedules aids in understanding how a contractor may have adjusted its work sequences because of problems it experienced.

Schedule Assurance Services

Many project schedules are poorly prepared and require extensive rebaselining during project execution to become useful project management tools to properly measure progress, determine the effect of changes in scope, and forecast the completion of contractual milestones and overall project completion dates. Poorly prepared schedules do not provide reliable tools to: 1) measure responsibility for delays that occur during project execution, 2) quantify appropriate time extensions, or 3) assess the need for acceleration to mitigate delays. To rectify these common problems with project schedules, Long International provides schedule assurance services to ensure quick identification and correction of schedule deficiencies.

Schedule Quality Considerations

- Is contractual scope of work included?
- Are schedule metrics within standard industry practice norms?
- Is schedule logic reasonable?
- Are critical and near-critical activity paths reasonable?
- Do schedule updates incorporate change orders?

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