WELCOME

Best Practices for Managing Construction Delay and Interference Claims

Kenneth A. Slavens
314.345.6419
Topics to be covered

- Delay
- Acceleration
- Disruption
Delay – Impact on Project Participants

- For the contractor
  - Adjustments in time
  - Adjustment in costs

- For the owner
  - Loss of use
  - Liquidated damages
Escalation – Impact on Project Participants

- More resources need to complete the project on schedule
  - Completion date need not be delayed
  - Increased cost attributable to performing work at a date later than planned
  - Impact of changes in sequence can cause escalation in costs
Disruption – Effect on Project

- Potential impact of extra work:
  - Disruption in the planned sequence of the work
  - Extend the work into inclement weather
  - Impact productivity of the trades
Delay – Why talk about it?

- For the contractor
  - May need additional time
  - May consume additional resources
- For the owner
  - Project not delivered when promised (loss of use)
  - Not generating revenue
  - Entitlement to Actual or Liquidated Damages
Delay – Entitlement to Additional Time

- Contractor's entitlement to additional time to complete:
  - If the delay is excusable
  - Potentially can recover increased costs as well
Delays – If an excusable delay

- For the contractor, an excusable delay will:
  - Justify time extensions
  - Preclude termination of the contract for the delay
  - Preclude recovery of actual or liquidated damage
Delay – Is the delay excusable?

- Read the Contract: frequently defines “excusable” delays

- Examples common in contracts or if the contract is silent
  - Owner or architect delays
  - Acts of God / Unforeseeable Events
  - Strikes
  - Owner Supplied materials
Delays – What if the delay was foreseeability?

- Some circumstances, even if the cause of the delay is an otherwise “excusable” event, it may not be excused.

- If the event is "known or knowable," i.e.: contractor knows that there is an impending strike when the contract is signed.
Delay – Impact of foreseeability on an otherwise excusable delay

- *Dicon, Inc. v. Marben Corp.*
  - Contractor knew the owner would be late delivering plans and specs
  - Cannot rely on this owner delay for extra time
Delay – Foundation Underlying an Excusable Delay

- Implied term of every contract: Neither party will do anything to prevent performance by the other party or permit an act that will hinder or delay performance.

- Owner prevents or hinders the contractor's performance: excusable.

- Changes in the work at the direction of the Owner, for example, may cause an excusable delay.
Delay – Liquidated Damages

- Generally enforceable

- May need to show that the calculation of damages from late completion is impossible or very difficult to estimate at time of execution of the contract

- Amount is a reasonable forecast of the harm of late completion
Delay – Liquidated Damages and the Public Project

- For public works contracts a reasonable approximate is not necessary

- Public body needs to only show unexcused late completion
Delay – Liquidated Damages

- Liquidated Damage are the owner’s sole recovery for late completion.

- Even if the actual damages exceed the liquidated damage amount - as long as not “unreasonably disproportionate” to actual damages.
Delay – Notice of Delay

- Read the contract
  - Frequently required by the contract
  - When in doubt – give the notice even if the contract is unclear

- Failure to give the notice can bar an extension for an otherwise excusable delay.
  - See: *Southwest Engineering Co. v. Reorganized School District R-9*
Delay – It's Excusable, but is it compensable?

- May be excusable, but does not equate to compensable (more money)
- Excusable delay will entitle a contractor to more time
- Must be compensable to be entitled to more money
Delay – What is compensable?

- Compensable: damages are recoverable from the party that "caused" the delay
- Neither party caused the delay: neither is entitled to recover from the other
Delay – Compensable Delay

- Examples of events for which the owner may have liability:
  - Work suspensions
  - Interferences
  - Hindrances
  - Design Defects
  - Differing site conditions
Protection from Delay Damages: No Damage for Delay Clauses

- “No Damage for Delay” clauses – theoretically Protect the owner from all delays

- Downside: contractor may build additional funds into the bid to account for the risk and drive up the cost (you may end up paying for an event that never happens)

- Generally enforceable on private projects
Protection from Delay Damages: 
No Damage for Delay Clauses

- For public projects:
  - Many states have statutes invalidating these clauses on public works projects
  - Void in Missouri: Section 34.058, RSMo 2000
Delay – What Damages can be Recovered

- Reasonably foreseeable damages caused by a compensable delay are recoverable
  - Increased labor
  - Equipment
  - Office overhead
  - General conditions
  - Interest
Delay – What Damages can be Recovered

- Owner Damages:
  - Loss of use of the project
  - Loss of revenue which would have been generated
  - Liquidated Damages
Delay Damages – Overriding Principal to Damage Recovery

- Increased costs are recoverable
  - if the costs would not have been incurred,
  - but for the delay
Delay – Proving Damages

- Methods of proving damages
  - Total Cost Method
  - Modified Total Cost Method
  - Jury Verdict Method
Delay Damages – Total Cost

- Total Cost Method is highly disfavored
  - Viewed with caution
  - Considered a last resort
- Underlying premise of Total Cost Method
  - Contractor’s compensable damages are the difference between the costs expected at the outset (the contractor’s estimate) and the actual costs
- Assumes the only reason for the delay is the owner-caused delay
Delay Damages – Total Cost

- Assumes the project would have occurred exactly as expected, but for the excusable delay

- Assumes:
  - Original estimate of the contractor was accurate
  - All increased costs were caused by the other party
Delay Damages – Total Cost

- To have the Total Cost Method accepted, must show:
  - Impossible to estimate actual damages with a reasonable degree of certainty
  - The estimate was accurate
  - Actual cost of performing the work was reasonable
  - No other causes for increased costs aside from the compensable delay
  - Contractor used a reasonable accounting system to accumulate job costs
Delay Damages – Total Cost

- Fundamental Concept of Total Cost Recovery: the contractor cannot share any of the liability for the delays
- Concept is virtually impossible to prove
Delay Damages – Modified Total Cost

- Avoids inflexibility of Total Cost Method

- Allows flexibility – particularly two main elements
  - Accuracy of the estimate
    - Can address inaccuracies
    - Can address mistakes
  - Actual Costs incurred: remove those costs not the responsibility of the Owner
Delay Damages – Jury Verdict Method

- Different spin on the Total Cost Method
- Need to establish:
  - Contractor is damaged
  - Defendant is responsible
- Must prove damages "beyond speculation"
  - Allows the “jury” to make a fair and reasonable approximation of the contractor’s damages
- No Missouri case has accepted this method
Delay Damages – Schedule Analysis

- Generally accepted – more reliable than the Total Cost Method, Modified Total Cost, or Jury Verdict

- Use General Conditions Approach
  - Specifically identify the effect of the delay on each element of increased cost
  - Quantify
    - The delay
    - The increased costs
Common Components of Delay Damages

- Most commonly associated with a delay claim
  - General conditions (direct overhead)
  - Office overhead (indirect overhead)
  - Equipment Costs
  - Productivity Losses
  - Additional Interest
Delay Damages – General Conditions / Direct Overhead

- Common elements
  - Project managers and project administrators
  - Utilities
  - Project Trailer or Office
  - Security
  - Equipment

- Generally can show a direct connection between increased project time and increased costs
Delay Damages - Extended Home Office Overhead / Indirect Overhead

- Often called “indirect overhead” or “general and administrative costs”

- Damages claimed in this area are often attacked
  - They are often thought of as “soft” damages
  - They vary greatly depending on the accounting methods
    - No generally accepted protocol for what is included in home office overhead
Delay Damages – Extended Home Office Overhead / Indirect Overhead

- Most of the home office overhead is time driven
  - If a project is extended beyond the reasonable projection, home office costs are also extended

- Not absorbed by the project

- Costs incurred benefit all of the contractor’s projects
Delay Damages – Extended Home Office Overhead / Indirect Overhead

- Virtually impossible to directly allocate overhead costs to a specific delay period
- Fraught with accounting difficulties
- Multiple jobs with varying start dates and completion dates makes it almost impossible
Delay Damages – Extended Home Office Overhead / Indirect Overhead

- Recovery is based on the argument that there should be recovery because the delay precluded other projects from being able to absorb the overhead

- Need to prove:
  - Other work is available and the contractor would have been able to obtain that work; or
  - The contractor tried to obtain that work to absorb the overhead
Delay Damages – Extended Home Office Overhead / Indirect Overhead

- *Eichleay* allocates home office overhead on a ratio
  - Delayed project’s billings to the firm’s total contract billings
  - During the period of the performance of the delayed project

- Total overhead amount for the period of the delayed project is divided by the number of actual contract days to determine daily rate
  - Multiply the number of days of delay by the daily overhead rate
Delay Damages – Home Office Overhead / Indirect Overhead

- Use of *Eichleay*: still “estimates” the overhead

- Fails to consider:
  - Inefficient management
  - Timing of the delay on the overhead levels
  - Impact of other work during the project’s delay
Delay Damages – Recovery of Equipment Costs

- Idle or under-utilized equipment
- Consider
  - Ownership costs
    - Maintenance
    - Repair
    - Storage
    - Depreciation
- Rental Rates
Delay Damages – Interest

- Review the contract
  - May have circumstances when you can recover
  - May have the rate for interest

- Refer to the statute if no contract provision
  - Section 408.020 RSMo 2000
  - Interest at 9%
    - If liquidated
    - Liquidated: amount can be determined by mathematical computation
Delay Damages – Interest

- Interest generally does not begin to accrue until there is a demand for payment

- Make your liquidated claim as soon as possible to trigger the interest
Delays – Problems caused by Concurrent or Joint Cause

- General proposition: no liability for the other party’s delays unless
  - Caused by the party
  - Caused by circumstances under the party’s control

- Contractual clauses can change this allocation of risk
Delay – Early Completion

- Even if the contractor finishes earlier than the contractual completion date
- Can still claim a delay if the party can show the project would have finished earlier than it did but for the compensable delay
Impact, Escalation, and Acceleration

- Conduct of others may hinder productivity - even if finished on time

- May cause:
  - Out of sequence work
  - Stacking of trades
  - Congestion
  - Shift work
  - Access issues
Impact, Escalation, and Acceleration

- Escalation: increased cost attributable to performing the work at a later date than planned
- Acceleration: process of adding resources to the project to complete on schedule
Disruption

- Generally associated with change orders
- Ripple effect impacts the project aside from the direct costs associated with the change
- Contractors will often try to preserve the indirect impact from the changes
- Absent the preservation, the Owner may well have a valid defense to subsequent claims
  - The Change Order is “accord and satisfaction”
  - Relieves the Owner from responsibility for the ripple effect
Delays and Interference Claims

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Best Practices for Managing Construction Delay and Interference Claims

Prepared and Presented by:
Quackenbush & Associates

April 23, 2014
A step by step presentation of a contemporaneous schedule analysis performed during the project.

(Resolving delays as they occur)
A RESTAURANT RENOVATION

1. NTP & Complete Interior Demolition
2. Wall & Soffit Framing Dining Area
3. Sawcut Concrete Slab Install Gas & Plumbing Patch Concrete
4. Kitchen Wall Framing
5. Drywall In Dining Area
6. Electrical Rough-In Dining Area
7. Kitchen Rough In Electrical
8. Kitchen Drywall
9. Painting Dining Area
10. Dining Area Décor & Woodwork
11. Dining Area Carpet
12. Set, Hook-Up & Test All Kitchen Equipment
13. Final Trimout - Project Complete
14. Light Fixtures & Electrical Terminations
15. Dining Area Scrub & Paint
16. Drywall In Kitchen
17. Floor & Wall Tile In Kitchen
18. Laminate Panels In Kitchen
19. Dining Area Scrub & Paint
20. Set, Hook-Up & Test All Kitchen Equipment
21. Final Trimout - Project Complete

Floor & Wall Tile In Kitchen
Laminate Panels In Kitchen
Sawcut Concrete Slab - Install Gas & Plumbing Patch Concrete
Kitchen Wall Framing
Electrical Rough-In Dining Area
Drywall In Dining Area
Kitchen Rough In Electrical
Kitchen Drywall
Painting Dining Area
Light Fixtures & Electrical Terminations
Dining Area Scrub & Paint
Dining Area Carpet
Set, Hook-Up & Test All Kitchen Equipment
Final Trimout - Project Complete

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CONTEMPORANEOUS TECHNIQUE

A RESTAURANT RENOVATION

IMPACT #1 - ADD 2ND DEEP FRYER

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UPDATE A - END OF DAY 10

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CONTEMPORANEOUS TECHNIQUE

IMPACT #2 - FIND AND MOBILIZE NEW ELECTRICAL SUBCONTRACTOR

Project Completion
Extended by 1 DAY = Total Delays to Date -4

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Was Impact #2 – Electrical Subcontractor Replacement paced?

What other options did contractor have?
   1. Pay premium to start ASAP.
   2. Hire on time and materials basis.

What if contractor mis-judges the amount of pacing time available?

Is it still pacing?
## Concomitant Schedule Analysis

**Restaurant Renovation**

**Quackenbush & Associates, Inc.**

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**Summary of Delays (If Impact #2 Was Paced)**

Owner Responsible (Impact #1 & #3)

Contractor Responsible (Impact #2)

**Summary of Delays (If Impact #2 Was Not Paced)**

Owner Responsible (Impact #3)

Contractor Responsible (Last Day Impact #2)

Concurrent (Impact #1 & First 3 Days of Impact #2)
# Contemporaneous Schedule Analysis

**Restaurant Renovation**

**Quackenbush & Associates, Inc.**

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Concurrent (Impact #1 & First 3 Days of Impact #2)
CONTEMPORANEOUS TECHNIQUE

IMPACT #3 CITY REQUIRES ELECTRICAL IMPROVEMENTS

Project Completion Extended by -3 Days
Project Delay to Date = -7

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## Concomitant Schedule Analysis

### Restaurant Renovation

**Quackenbush & Associates, Inc.**

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- **Concurrent (Impact #1 & First 3 Days of Impact #2)**

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## CONTEMPORANEOUS SCHEDULE ANALYSIS
### RESTAURANT RENOVATION
#### QUACKENBUSH & ASSOCIATES, INC.

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CONTEMPORANEOUS TECHNIQUE

UPDATE D END OF DAY 40

Project Completion Date - Unchanged
Delays to Date - 7

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Summary of Delays (If Impact #2 Was Paced)

Owner Responsible (Impact #1 & #3)
Contractor Responsible (Impact #2)

Summary of Delays (If Impact #2 Was Not Paced)

Owner Responsible (Impact #3)
Contractor Responsible (Last Day Impact #2)
Concurrent (Impact #1 & First 3 Days of Impact #2)
CONTEMPORANEOUS TECHNIQUE

UPDATE E END OF DAY 51

Project Completion Date - Unchanged
Delays to Date - 7

Update E End of Day 51
## CONTEMPORANEOUS SCHEDULE ANALYSIS
### RESTAURANT RENOVATION
### QUACKENBUSH & ASSOCIATES, INC.

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**Summary of Delays (If Impact #2 Was Paced)**
- Owner Responsible (Impact #1 & #3) = -6 Compensable Days
- Contractor Responsible (Impact #2) = -1 Non-Compensable Days

**Summary of Delays (If Impact #2 Was Not Paced)**
- Owner Responsible (Impact #3) = -3 Compensable Days
- Contractor Responsible (Last Day Impact #2) = -1 Non-Compensable Days
- Concurrent (Impact #1 & First 3 Days of Impact #2) = -3 Excusable/Non-Compensable Days

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THE BUT-FOR LEGAL CONCEPT

You can only claim damages (money and/or time) for delays that would not have been experienced “but-for” the delay in question.

– Basis of concurrent delay theory
– If you would have finished the project at the same time – even if delay in question had not occurred – then you have a concurrent delay.

(Maybe! – Must Consider Pacing!)
“BUT-FOR” SCHEDULE ANALYSIS

(If it makes sense in evaluating concurrent delays – why doesn’t it make sense in schedule analysis?)
PIT BULL MOVES IN NEXT DOOR

- Pit Bulls can jump 3’ wall.
- Pit Bulls cannot jump 6’ wall.
- Owner directs contractor to build wall 6’ high instead of 3’ high.
- Contractor says – ok – but it will cost more and take 2 weeks longer.
- Owner OK’s added work
AS-BUILT SCHEDULE

NTP

BUILD FIRST 3' WALL → BUILD SECOND 3' WALL

INSTALL YARD LIGHTING

PROJECT COMPLETION
BUILD FIRST 3' WALL

BUILD SECOND 3' WALL

INSTALL YARD LIGHTING

PROJECT COMPLETION

NTP

COLLAPSED AS-BUILT
BUT-FOR AS-BUILT
COLLAPSED AS-BUILT ANALYSIS

RESTAURANT RENOVATION - AS-PLANNED SCHEDULE

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Note: this work was paced to known project delays.

Note: this work took longer than planned.

Note: this work was performed faster than planned.

As-Built Critical Path

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When would project have been completed if owner delays had not occurred?

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If contractor delays had not occurred when would the project have finished?

COLLAPSE CONTRACTOR DELAYS

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COLLAPSED AS-BUILT ANALYSIS

If contractor delays had not occurred when would the project have finished?

COLLAPSE CONTRACTOR DELAYS - RECALCULATE CRITICAL PATH
## COLLAPSED AS-BUILT SCHEDULE ANALYSIS
### RESTAURANT RENOVATION
#### QUACKENBUSH & ASSOCIATES, INC.

<table>
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<tr>
<th>STEP</th>
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**Summary of Delays:**
- Owner Responsible 0
- Contractor Responsible 2
- Concurrent Responsible 5
Concurrency Criteria

- Two or More Delays in Same Time Frame
- Both Delays Must be on Critical Path
  - Both Must Control the Project Completion Date
  - But – For The Other Delay

- Both Delays Must be Completely Independent
  - Physically
  - Managerially (No Pacing)
CONCURRENT DELAYS
MEETING AT DENNY’S
SCENARIO #1

Bill and Dan agree to have a business meeting at Denny’s the next morning at 7:00AM.
Both Bill and Dan leave their home with enough time to arrive at Denny’s by 7:00 AM.
Bill decides to stop at the dry cleaners on the way, which consumes 10 minutes.
Dan has a flat tire and it takes him 15 minutes to change the tire.
Bill arrives at Denny’s at 7:10 AM and is relieved to see that Dan has not yet arrived.
Dan arrives at 7:15AM.
Bill says “Boy, Dan you are 15 minutes late. I have been waiting here a long time. You really need to be more responsible.”

WHO DELAYED THIS BREAKFAST MEETING AND BY HOW MANY MINUTES?

Answer: Dan and Bill jointly delayed the meeting by 10 minutes, Dan delayed the meeting an additional 5 minutes. Reason: Both Bill and Dan were required at the meeting or it could not occur, thus they were both on the critical path, and both individuals acted independently. (Neither party knew the other was running late.)
Thus a 10 minute Concurrent Delay.
CONCURRENT DELAYS
MEETING AT DENNY’S
SCENARIO #2

Bill and Dan agree to have a business meeting at Denny’s the next morning at 7:00AM.
Both Bill and Dan leave home with enough time to arrive at Denny’s by 7:00 AM.
Bill has dry-cleaning to drop off but decides he better do that later so he can be on time to the meeting.
Dan gets a flat tire and he immediately calls Bill on his cell phone to tell him he will be 15 minutes late. Bill decides he now has the time to drop the dry cleaning off and arrives at Denny’s at 7:10 AM. Dan arrives at 7:15 AM.

WHO DELAYED THIS BREAKFAST MEETING AND BY HOW MANY MINUTES?

Answer: Dan delayed the meeting by 15 minutes. Bill did not delay the meeting at all. No Concurrent Delay Reason: Both Bill and Dan were required at the meeting, thus they were both on the critical path, but both individuals did not act independently. (Bill modified his planned approach based on information provided by Dan.) THIS IS COMMONLY CALLED PACING. Bill adjusted his activities based on Dan’s delay.
QUESTIONS?

THANK YOU

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