



## Early Completion Schedules

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In this article, we will explore the sometimes controversial subject of early completion schedules, their advantages and disadvantages and discuss how delays are treated in the context of projects with early completion schedules.



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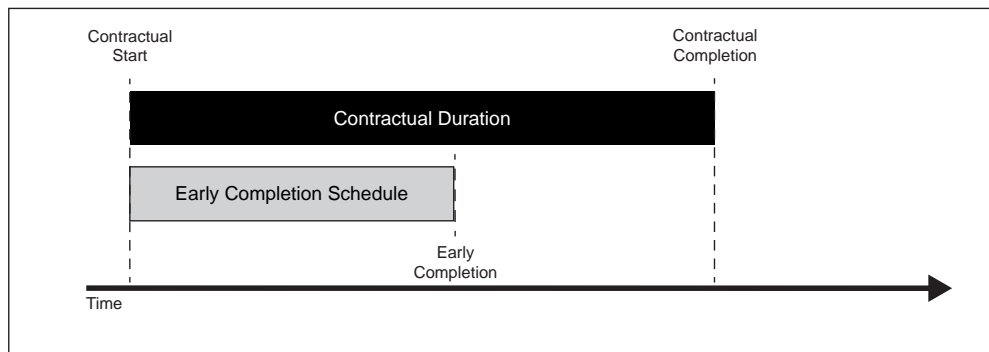
### What Are Early Completion Schedules?

Most construction contracts are tendered, bid and awarded based on a contractual completion date, where contractors are asked to start work upon the receipt of a Notice to Proceed from owners and are required to complete the work on a given date. Some tender documents include a high-level schedule, others include a list of interim milestone dates.

In addition to the above, some tender documents require that contractors submit a detailed Critical Path Method ("CPM") schedule along with their bid. In any case, most tender documents require that contractors submit a detailed CPM schedule after contract award showing how they intend to meet the contractual completion date and/or the interim milestone dates, if any.

An interesting question arises when contractors prepare and submit schedules to owners either during the bid stage (as a bid schedule) and/or after contract award (as a detailed CPM schedule), with a completion date earlier than the contractual completion

date. In other words, contractors indicate that they will complete the project in less time than stipulated in the contract. This is called an early completion schedule and is graphically illustrated in Figure A.



**Figure A** - Early Completion Schedule

While these early completion schedules may assist contractors in shortening the project duration, thereby reducing both site and head office overhead costs, early completion schedules have the potential to both benefit and, at the same time, create issues for owners.

## Why Do Contractors Prepare Early Completion Schedules?

Contractors may decide to prepare an early completion schedule for many reasons.

- In some contracts, owners and their design professionals do not necessarily perform a thorough pre-bid analysis for the project, such as producing a check estimate (to evaluate a budgetary envelope) or producing a summary schedule (to evaluate the duration of the project). As such, the contractual completion date specified in the tender documents may not be representative of the time realistically required to complete the project. In certain cases, an experienced contractor may recognize opportunities to deliver the project in a shorter duration than specified in the contract.
- Alternatively, the contractual duration may be reasonable, but contractors may choose to rely on optimistic productivity rates to deliver the project in a shorter duration than specified in the contract.

In both of the above cases, contractors can use early completion schedules to reduce direct costs as well as overhead costs, ultimately reducing the bid price.

Finally, contractors may have submitted their bids based on the contractual completion date specified in the tender documents. After contract award, contractors produce a baseline schedule showing early completion. The early completion schedule therefore creates a schedule contingency, which can be used by contractors if and when needed. There may be many reasons for this. Contractors may create a buffer for potential delays by providing an early completion schedule to their subcontractors and suppliers. Less frequently, contractors may be presenting an early completion schedule in an attempt to presumably better position themselves for an eventual claim.

## Advantages and Disadvantages of Early Completion Schedules for Contractors

### Advantages

Early completion schedules provide an opportunity for contractors to benefit from accelerated payments. They also allow contractors to free up resources for other projects more quickly, thereby generating more revenues. Furthermore, an early completion date also reduces contractors' time-related costs such as equipment, overhead and supervision. Contractors may also prepare early completion schedules to avoid known adverse conditions, such as inclement weather and peak labour demands, among other things.

### Disadvantages

While contractors may benefit from early completion schedules, they are not without risks. To the extent that contractors' early completion schedules are accepted by owners, this becomes the new contractual completion date and contractors will need to respect this date to which they have committed. An early completion schedule not only reduces the owner's float, but also reduces the contractor's own float. In other words, the overall project float is reduced. This may become an issue for contractors should they incur inexcusable delays (i.e.: contractor-caused delays).

## Advantages and Disadvantages of Early Completion Schedules for Owners

### Advantages

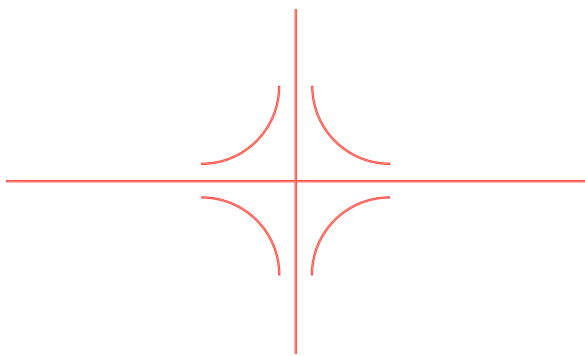
In cases where early completion schedules were developed during the bid stage of a project, owners may benefit from the early completion date in the form of a reduced bid price.

Furthermore, an early completion date would result in owners being able to occupy and/or operate their facilities earlier, in some cases providing owners with an earlier revenue stream.

### Disadvantages

Although owners may benefit from the early completion of their facilities, they may also incur significant economic disadvantages. Owners' cash flows may be impacted by accelerated payments to contractors, in turn accelerating the interest expenses. In addition, owners may not be prepared to assume maintenance responsibilities earlier than required for what would remain an empty facility, or a project that cannot be used before the contractual completion date.

In certain cases, early completion schedules are prepared to better position contractors to submit delay claims. In these cases, contractors neither had a plan to attain the productivity rates required to achieve the early completion, nor did they reduce the bid price to reflect the savings due to the shorter project duration. As previously discussed, such situations may make it easier for contractors to claim for delays and recover additional costs.



## Contractors – How to Prepare Realistic Early Completion Schedules

The most important consideration for contractors when presenting early completion schedules is that they must be realistic and achievable. To that end, the schedules presented by contractors must:

- Present realistic durations for schedule activities based on realistic productivity rates, weather conditions, learning curves, etc.
- Present realistic durations for owner activities by accurately presenting the required dates for permits and access, design transmittals, shop drawing approvals or delivery of owner supplied materials, etc.
- Incorporate realistic procurement times for owner supplied material and equipment deliveries, etc.
- Include realistic durations for activities, such as start-up or commissioning, as well as for transfer of care and custody of the facility to the owner, including allowing reasonable time for correcting deficiencies or performing punch list activities.
- Ensure that logic ties included in the schedule do not result in an unrealistic overall duration.
- Show a logical critical path which accurately reflects the critical activities.

By presenting realistic and well-thought-out early completion schedules, contractors are more likely to get owners to buy into the assumptions included in the schedule. Once a mutually agreed upon and accepted early completion schedule is established, if owner-caused delays occur, contractors will be able to demonstrate the impact of these delays on the early completion date. Realistic and well-thought-out early completion schedules will also help contractors avoid committing to early completion dates that they cannot deliver on.

## Owners – How to Deal with Early Completion Schedules

Owners need to be attentive when reviewing and approving early completion schedules presented by contractors. The following are some considerations for owners in order to avoid the pitfalls of unrealistic early completion schedules presented by contractors. We note that all of the following considerations are good practice for any project, even in situations where early completion schedules are not involved.

### Prepare a Pre-Bid Schedule

Owners are encouraged to prepare a realistic and well-thought-out pre-bid schedule, similar to a check estimate, in order to gain more insight into what a realistic duration would be for their project. This pre-bid schedule may put owners in a better position to recognize unrealistic early completion schedules prepared by contractors.

Depending on the project, it may be beneficial for owners to include interim milestone dates in the contract, thereby ensuring that key dates are met and that a logical construction sequence is followed.

### Prepare Clear Contract Language

Owners are encouraged to address how early completion schedules will be treated in the contract documents. The contract language may include provisions for the acceptance and/or refusal of early completion schedules.

If owners are willing to accept early completion schedules, the contract language should allow the contractual completion date to be revised to align with the completion date included in the early completion schedule, upon owner approval. This ensures that both owners and contractors are relying on the same schedule and are working towards a common goal, the early completion date. Such contract language brings clarity to contractual disputes by establishing the point from which liquidated damages and delay damages would be calculated should there be delays to the new project completion date.

### Prepare Clear Scheduling Specifications

Owners are encouraged to establish clear specifications and/or provisions related to the schedule and schedule activities. To that extent, the contractual constraints stipulated elsewhere in the contract should be incorporated into the schedule. These constraints may include the turnaround time for review and approval of contractor submittals and shop drawings, as well as the time required to secure permits and to perform other third-party interventions.

Owners should clearly define the commissioning process as well as the parties responsible for this work. This is to ensure that contractors allow sufficient time to perform the “end of project” activities. In that vein, owners should also clearly define the activities that lead to or are required for project completion.

In addition, such contract language could deter contractors from submitting frivolous early completion schedules, since they will be held to the early completion dates that they proposed.

### Review and Evaluate Contractors' Schedules

In order to avoid an unrealistic early completion schedule becoming the approved baseline schedule, owners should apply proper project management principles. To that end, owners should use resources knowledgeable in the fundamentals of critical path scheduling. This will allow owner teams to perform detailed and practical reviews of contractor schedules, including early completion schedules. When reviewing contractors' schedules, owner teams should verify that:

- Realistic durations are presented for all schedule activities, including owner activities, procurement, start-up or commissioning, transfer of care and custody of the facility and correction of deficiencies/punch list activities.
- Logic ties included in the schedule are reasonable and do not result in an unrealistic overall duration.
- Schedules present a logical critical path which accurately reflects the critical activities.

Owners should ensure that the contract language clearly specifies their expectations with respect to the schedule updates. In this regard, contractors' schedule updates and associated narratives should clearly articulate the modifications made to the schedule in order for the evaluator to more effectively monitor the progress of the work and the schedule updates.

## What Happens when Early Completion Schedules Are Not Approved by Owners?

On every project, there are contractual consequences if the project is not completed by the contractual completion date. Early completion schedules add another layer of complexity when delays occur.

In cases where owners have accepted early completion schedules, the contractual completion date should be revised to align with the completion date included in the early completion schedule. This clarifies the point from which liquidated damages and delay damages would be calculated should there be delays to the new project completion date.

However, a dilemma emerges in cases where the parties failed to agree to the early completion schedule and/or the contractual completion date was not revised to align with the completion date included in the early completion schedule.

Three possible scenarios which could occur when delays impact the early completion date are discussed below.

### Early Completion Date is Delayed but Does Not Extend Past the Contractual Completion Date

Figure B illustrates two scenarios where there are delays to the early completion schedule; however, despite these delays, the completion date does not extend past the contractual completion date.

In the first scenario, the early completion date is delayed; however, the project is completed in advance of the contractual completion date.

Similar to the first scenario, in the second scenario, the early completion date is delayed; however, the project is completed on the contractual completion date.

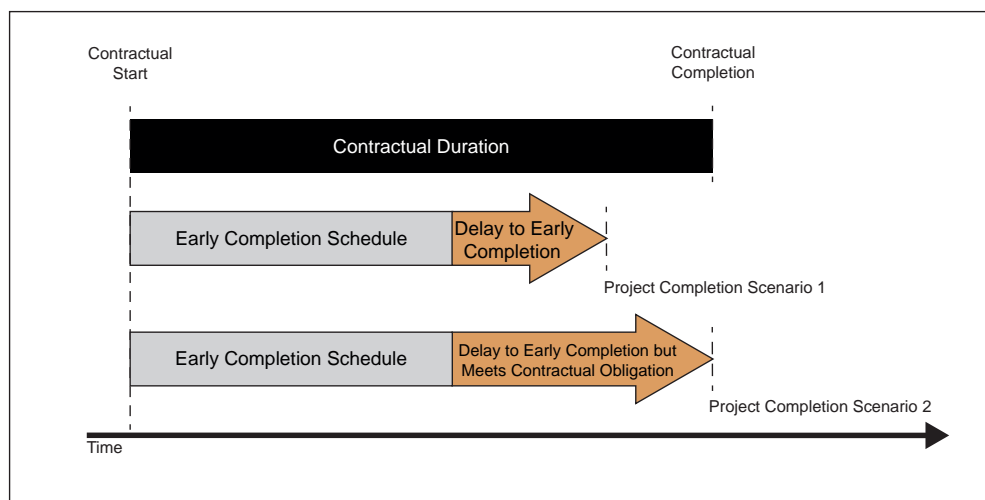


Figure B - Project Completion Achieved on or before Contractual Completion

In both scenarios, to the extent that owners are responsible for delays preventing contractors from achieving the early completion date, contractors may attempt to claim for delay damages. The fact that there is little to no float in an early completion schedule may be used by contractors to more easily demonstrate owner-caused delays and their impacts. Nevertheless, to be successful, contractors will have to demonstrate the reasonableness of the early completion schedule.

On the other hand, to the extent that owners have not approved the early completion schedule, they would not be entitled to apply liquidated damages or claim for actual delay damages for contractor-caused delays.

### Early Completion Date is Delayed Beyond the Contractual Completion Date

In the third scenario illustrated in Figure C, the early completion date is delayed beyond the contractual completion date.

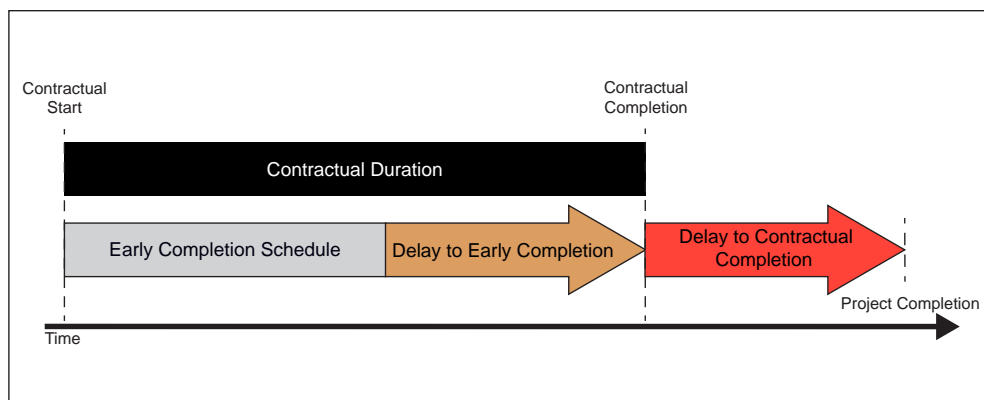


Figure C - Project Completion Achieved after Contractual Completion

In this scenario, in the event of owner-caused delays to the early completion date, contractors may attempt to claim for delay damages for the entire delay period, from the early completion date to the project completion date (the periods shown by the gold and red arrows in Figure C).

Once again, contractors will have to demonstrate the reasonableness of the early completion schedule to claim for delays incurred prior to the contractual completion date (period shown by the gold arrow in Figure C).

On the other hand, to the extent that owners have not approved the early completion schedule, they would only be entitled to apply liquidated damages or claim for actual delay

damages for contractor-caused delays for the period extending beyond the contractual completion date (period shown by the red arrow in Figure C).

***“Early completion schedules add another layer of complexity when delays occur.”***

## Conclusion

In conclusion, early completion schedules have inherent advantages and disadvantages for both contractors and owners. That said, they may present issues in cases where there are delays to the early completion date.

For contractors, early completion schedules present an opportunity to generate revenues and free up resources for their other projects more quickly, as well as reducing time-related costs. Similarly, early completion schedules may present an opportunity for owners to occupy and/or operate their facilities earlier, in some cases providing them with an earlier revenue stream. Moreover, owners may benefit from reduced bid prices in cases where early completion schedules were developed during the bid stage.

There are many reasons why contractors may decide to prepare an early completion schedule. It is important for the parties to come to an understanding as to whether the early completion schedule is accepted by the owner. To the extent that a contractor's early completion schedule is accepted by the owner, this becomes the new contractual completion date which will need to be respected by the parties. This is precisely why it is important that both contractors and owners ensure that early completion schedules are realistic and achievable.

Early completion schedules effectively reduce the overall project float. As such, these schedules may present an issue for contractors should the project incur inexcusable delays. Similarly, such schedules may present an issue for owners should the project incur owner-caused delays.

The situation becomes more complex in cases where the parties do not come to an agreement and the early completion schedule is not accepted by owners. The lack of agreement between the parties is fertile ground for disputes to arise regarding the starting point from which delays should be measured, which ultimately extends to the quantification of damages.

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