

## **CE716 – Project Management and Controls**

### **Assignment 5 and Quiz 8**

**Purpose:** To estimate the eligible EOT and damages.

**Weightage:** The assignments will have 15% weightage in your final grades. The Quizzes have 25% weightage in your final grades.

**Maximum Marks for this Assignment:** 20 Marks

**Due date for the Assignment:** 13<sup>th</sup> Nov 2025

**Maximum Marks for this Quiz:** 15 Marks

**Due date for the Quiz:** 6<sup>th</sup> Nov 2025

*You should work on the assignment in pairs*

*You should work on the quiz in groups*

**Deliverable (Quiz):** Presentation on behalf of the Contractor/Client. The presentation should be such that you are able to convince the judge/arbitrator.

**Deliverable (Assignment):** Detailed report showing the steps and results of different methods used to perform delay analysis. Also, provide the relevant baselines/updated schedules. and write your observations and findings on advantages/disadvantages of using one method over another. Which method do you prefer and why?

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**Current Date: 12<sup>th</sup> Nov 2024 (The last update was available to you on 8<sup>th</sup> Nov 2024 in Quiz 7)**

After the last meeting between Client and Contractor, it was decided that the contractor can continue to work on the project. However, they have to guarantee that they will fast track the project and complete the project by 1<sup>st</sup> July 2025. Accordingly, the contractor submitted a revised schedule, and it was duly accepted by the PMC/Client. The same is provided to you.

**Current Date: 1<sup>st</sup> July 2025**

The PMC went to the site on 1<sup>st</sup> July 2025 and found that:

- a) All the Civil Structure work is completed (including brickwork).
- b) Flooring on GF and FF is complete. Flooring on SF is yet to start (Activity 75). Putty Application, Whitewashing, Painting in GF and FF started accordingly after completion of flooring.
- c) The contractor informed that it is expected that project will take another 2 months to complete.

Throughout the construction work in the project schedule was impacted due to several reasons.

- a) There was Inclement Weather on following days. Any concreting, whitewashing, and painting activity could not be conducted on these days. Other activities could be conducted as is.
  - a. October 14 - 16, 22 - 24, 2024
  - b. December 2, 9, 10, 15, 2024
  - c. January 11, 12 2025
  - d. February 6, 12 2025
  - e. April 5<sup>th</sup> 2025

The contractor had informed the PMC of inclement weather. The PMC did not respond to these emails.

- b) The contractor highlighted that the Water Proofing of the Brick work is not needed. PMC and Client agreed and same was dropped from the schedule.
- c) The contractor had ordered Aluminium windows for the entire house. Later, the PMC highlighted that as per drawings UPVC Windows should be installed and not Alumnummum windows. Contractor realised his mistake and ordered for replacement. Because of this Installation of Windows started 10 days late.
- d) The sanitary works were supposed to start on 27<sup>th</sup> May 2025. On 1<sup>st</sup> April 2025, the contractor had send sample designs and sanitary fitting to the family for approval. As per contract they had 15 days for the approval. However, the family members could not finalize the designs till 15<sup>th</sup> May 2025 (read Rachel and Monica had a big fight !!). Due to the delay in approval the sanitary fitting could not be procured on time. The contractor decided to expedite the delivery and paid INR 1 Lakh extra for the same. The sanitary fitting was finally available on site on 1<sup>st</sup> July 2025.

The contractor felt that the delay in the project is not their fault. Thus, they should be given extension of time, compensation for delay, and also the bonus payment for completing the project on time (after EOT is granted by accounting delays not attributable to them). In your capacity as a Contractor (Group 1), prepare your response.

On the other hand, the FRIENDS family is not happy with the Contractors work and attitude, and they believe that they should be paid around 5 Lakh rupees (3 months of rent + inconvenience fee) as compensation for the delay in project completion. In your capacity as PMC (Group 2), prepare your response on behalf of the Client.

What are the relevant clauses in the Contract that you will look for in each case and how do you plan to use them when preparing your response.

*Note - You can ask me for relevant clauses that were there in the contract, I will provide details for them.*

Observation 1: Delay in handover of site by the Friends Family by 7 days.

- *The contractor had mobilized the resources but they were kept idle for first 7 days. (Ask for compensation)*
- *Owner/PMC should have informed before hand or should keep a check on whether contractor has mobilized resources.*

Observation 2: Duration for Plinth beam work needs to be updated.

- Contractor mistake that they didn't think it through
- PMC is partially at fault (depending on clause)
- Should check impact of separating plinth activity.

Observation 3: Ambiguity in reinforcement drawings

- Was highlighted by the **contractor very late**
- There was a delay in answering by PMC/Consultants. (Clause – Notice & expected response time)
- There was No ambiguity in the reinforcement drawings
- Contractor: After clarification from Contractor work started late by 2-3 days (maybe re-mobilization?)

Idle time of Contractor will not be compensated.

Observation 4: Diwali Break (No work)

- Work was stopped by Owner for few days (They were aware of work planned at that time).
- Few workmen would have remained idle on site (contractor can ask for compensation)
- Worker came to the site late

Contractor should be granted for EOT for these holidays.

Idle time of resources should be compensated.

Worker came to the site late – debatable

PMC should estimate:

- a) How much time was saved on the project by contractor
  - a. Mobilization advance
  - b. Excavation
- b) How much time was wasted by the owner

- a. Delay in handing over
  - b. No work during Holidays (Diwali)
- c) How much time was wasted by the contractor
- a. Informing late about reinforcement detailing
  - b. Delay in starting after getting the site??
  - c. Plastering work productivity – Should crash at their own cost
- d) What was the impact of Plinth work done at different time

Savings from waterproofing from brickwall?