Introduction to Contract Planning

- Fundamental and challenging activity in the management and execution of construction projects.
- Involves the choice of technology, definition of work tasks, estimation of the required resources and duration for individual tasks.
- Identification of any interactions among different work tasks.
- Basis for developing the budget and schedule for the work.
Contract Planning – Three stages

- Contract Evaluation
- Construction Planning
- Co-ordination and Scheduling
Contract Evaluation

- Priced bill of quantities.
- Tender construction schedule.
- Method statements.
- Organization chart.
- Drawings.
- Specifications.
- Conditions of contract.
- External Quotations.
Construction Planning

- Generation of required activities.
- Analysis of the implications of the activities.
- Most complex projects require consideration of both cost and scheduling over time.
- Integration of schedule and budget information is a major concern.
- Decision on technology and method.
- Task scheduling
- Identifying Precedence Relations.
- Co-ordination and scheduling.
Planning, Scheduling and Control of Projects

- Planning, scheduling and control are three basic functions in Project Management.
- Planning phase – identification of tasks or activities.
- Scheduling phase – placing the activities in the time order in which they have to be performed.
- Control phase – review of the schedules and plans in the light of actual performance.
- Critical Path Method (CPM) is a useful technique to carry out the above three functions.
Prerequisites for the use of CPM

- Breakdown the project into independent activities.
- Determining an order of precedence for the activities.
- Portraying the activities in the form of a network that reveals the predecessor and successor relationships between them.
- Allocating the necessary resources and to estimate the activity durations.
- Analyzing the network based on the logical dependencies.
Prerequisites for the use of CPM

- Determining the best overall program for the project considering time, resource and other important constraints.
Critical Path Method

- Most widely used scheduling technique.
- This method calculates the minimum completion time for a project along with the possible start and finish times for the project activities.
- Critical path represents the set or sequence of predecessor/successor activities that will take the longest time to complete.
Thank You