

4. Schedule

As part of your review with management, you will be required to present a complete, workable Critical Path Schedule (CPM) to plan the work within the guidelines prescribed below. As this is a preconstruction services problem, upper management is equally interested in the activities and your thought processes in the preconstruction phase as in the construction phase. The schedule is to convey your teams plan to fully execute the project from cradle to grave.

The following criteria explain the background information and requirements of the CPM schedule you team will present.

1. General Schedule Criteria:
 - a. Presentation Criteria:
 - i. Format:
 1. At minimum, show Activity ID, Activity Description, Original Duration (OD), Early Start (ES), Early Finish (EF), and Total Float (TF), per activity (see Figure "A" below)
 2. Organize and sort Preconstruction activities grouped together with construction activities following.

Figure A: Schedule Activity Example

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float	FEB
2008 ASC Student Competition						
Design						
01010	Contractor Selection/Notice to	1	14FEB08	14FEB08	0	Contra
Permitting and Entitlements						
01020	MUP Submittal	1	14FEB08	14FEB08	0	MUP S

- ii. Activity Count: 150- 200 activities
 - iii. Provide a sufficient amount of preconstruction and construction activities. Include design, permitting and entitlements, easement negotiations, long lead and construction activities
 - iv. Show the logic between activities
 - v. Clearly show the critical path of the schedule
 - vi. Organize activities so they are easy to read, activities are grouped intuitively and the schedule flows well.
- b. Contractual Criteria
 1. Project Start Date for Preconstruction (Notice to Proceed): February 14, 2009
 2. Preconstruction Period: 7 Months
 3. Project Duration: 19 Months

4. Minimum Milestones to be presented on CPM Schedule:

Contract Award	Permit Submittal (S)
Design Complete	GMP Estimate
Begin Demolition	Parking Structure Complete
Completion of Shoring and Excavation	Structural Steel & Mtl Decks Complete
C of O Inspections	Substantial Completion
Building Enclosure Milestone	Final Completion
5. Assume the following calendar holidays: May 26, 2009, July 04, 2009, September 01, 2009, November 26- 27, 2009, December 25, 2009, January 21, 2010, *June 01, 2010, July 05, 2010*, September 01, 2010, November 25-26, 2010, December 25, 2010, January 01, 2011.

2. Preconstruction Phase Criteria:
 - a) The Architect and consultants will be 75% complete with the Construction Document phase on February 14, 2009.
 - b) The permitting agency will allow phased permitting for shoring and excavation, foundation only, and remaining structure.
 - c) Estimates will be required at the completion of each design phase
3. All other work criteria:
 - a) Original durations for the demolition, excavation, shoring, concrete structure, steel and etc. shall be derived on a (rough) quantitative basis per the "Typical Construction Activity" worksheet and explanation included in the scheduling section of the Supplemental Information. Use the worksheets to calculate durations based upon (rough) quantities that you survey, then divide by a productivity rates that you derive. You may use RS Means or other productivity data resources to help if needed.
 - b) Scheduling of all work should support the assumption made by the Site Logistics Plans drafted in Section 5 below
 - c) Review the plans thoroughly. Ensure that your schedule encompasses as much of the work possible in the limited number of activities you are required to provide.
 - d) Your team may begin construction anytime, provided you have your first permit in hand. You may lag activities as you see fit and are reasonable logic assumptions.
 - e) The last activity in your schedule should be Final Completion.

General comments:

1. Do not resource load or cost load your schedule
2. Preconstruction may overlap construction.
3. When it comes to scheduling, there are not right or wrong answers. Ensure that your team can substantiate and explain all of the assumptions and decisions made in the process of developing your schedule.

Deliverable:

1. *Preconstruction Schedule*