Exercise

# Gantt Chart

A change management process in a construction organization was quite elaborate. Before any change was approved to the construction plans, it had to be thoroughly evaluated from a technical perspective to receive an initial approval. If it passed that approval, it was evaluated from a cost and schedule perspective for final approval. The list of all activities and the relationship between them is provided below.

Create a Gantt chart and determine how long the change approval process normally takes. Assume a five day work week and that all duration are given in workdays – no weekends or holidays. You can build this using project management software, or you can do a simple Gantt Chart using a spreadsheet application such as Excel and allowing a column to represent a time interval, such as a day.

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| **#** | **Activity** | **Predecessor** | **Duration** |
| 1 | Receive change request and log into change management system and assign number | none | 1 day |
| 2 | Preliminary review for completeness by Change Board Chair | 1 | 2 days |
| 3 | Review by engineering | 2 | 5 days |
| 4 | Review by purchasing | 2 | 5 days |
| 5 | Review by construction | 2 | 5 days |
| 6 | Review by safety | 2 | 5 days |
| 7 | Review by legal | 2, 4 | 5 days |
| 8 | Review by Project Management | 3, 4, 5, 6, 7 | 3 days |
| 9 | Change Board meeting to make initial approval decision | 3, 4, 5, 6, 7, 8 | 1 day |
| 10 | Create updated drawings and specifications | 9 | 5 days |
| 11 | Place purchase order(s) | 9, 10 | 10 days |
| 12 | Determine reuse options for scrap or obsolete material | 9, 10 | 5 days |
| 13 | Update construction schedule | 10, 11 | 2 days |
| 14 | Calculate total cost and schedule impact | 10, 11, 12, 13 | 3 days |
| 15 | Change Board meeting to make final approval decision | 14 | 1 day |