



UPR/MIT/TU Professional Development Program
Transportation Technology Transfer Center
University of Puerto Rico at Mayagüez
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Executive Summary

IMPROVEMENTS AND STREAMLINING OF THE SCHEDULING PROCEDURES USED IN THE TREN URBANO CONSTRUCTION CONTRACTS

by

Yeleina I. Santiago Acevedo
e-mail: yisasantiago@hotmail.com
Civil Engineering Department
University of Puerto Rico at Mayagüez

and

Wirt García Toucet
e-mail: wirt@hotmail.com
Civil Engineering Department
University of Puerto Rico at Mayagüez

Advisor

Dr. Antonio González
e-mail: antonio@rmce02.upr.clu.edu

Executive Summary

The main objective of this research is to study and understand the actual scheduling procedures utilized in the Tren Urbano contracts, so that it can be improved. The final output of this project will be a set of recommendations on improvement of this important management procedure for its application in future Tren Urbano construction phases.

The specific objectives of this research project are:

- To identify and understand the process of scheduling utilized in the Tren Urbano project. The Centro Médico contract will be used as a case of study.
- To identify the advantages and disadvantages of the present scheduling procedures.
- To evaluate the possible modifications to the process being used or develop new alternatives based on industry standards.
- To recommend the use of the best process for its application on future Tren Urbano phases or other infrastructure projects.

At this moment of our research, we continue the literature review and the study of specific documents like the contracts and submittals. Through interviews and review of the contract documents, a number of problems have been identified with the scheduling processes. The problems identified so far are:

- Some contractors are not used the requirements of the Tren Urbano design-build contracts

- Detailed CPM schedule
- Submittal list
- Submittal schedule
- Schedule of values
- Quality program plan
- Construction security program plan updates
- Payment schedule
- Remedial actual plan

There are seven different contracts in the Tren Urbano project and there are different contractors associated with each one. There is not a standard forms so the contractors can follow or just fill out. This lack of standards results in the TU Project Control Office receiving many different formats for the same document. This situation affects the TU Project Control Office in the process of developing their reports, because many documents are incomplete or misplaced by the secretarial staff. One of our recommendations will be to try to develop a standard form for each of the documents required in the contracts.

The TU contracts follows the Work Breakdown Structure (WBS) format which classifies the different tasks of the contracts in levels. The WBS is be the basis for organizing all work under the contract, and is used to structure the Detailed CPM Schedule, Submittal Schedule, and Schedule of Values and others cost control systems. It's very important to determine, for a given project, what is the information required for each one of the offices involved in it and at what level is needed. For each project, people need to plan the

- Contractors do not follow the contract specifications
- Inefficient communication within the departments of the TU organization
- Insufficient personnel training
- Contracts do not provide standard forms and submittals

The TU management needs to know the status of the project construction on time in order to make decisions related to:

- Project budget control
- Time control
- Progress payments

The TU Project Control office provides the information needed by the TU manager. They have to develop a monthly document called the Contract Status Update in which they present to the management how is the progress status of the project up to that point. Many times this document does not include the information needed because its development depends on the contractors documentation submittals. These are often submitted both late and incomplete. Some people say that the delays are due to the specific of the contracts stipulations, but others indicate that this is caused by being very lenient with the contractors. A review of the TU design-build contract shows that the contractors are required to submit a large amount of documents. If a comparison is established between TU contracts and standard contracts in the industry, there are more rigorous contracts than the ones used in the Tren Urbano project.

The documents that the contractors have to submit include the following:

communication process and review it periodically to ensure that the strategies planned are implemented.