

Memorandum

ABC CONTRACTORS, INC.

To: Sally Smith, Building Professional
CC:
From: John Jones
Date: July 28, 2003
Re: Issues with Pouring Concrete for the Zoo Tunnel Project

A critical path project delay of 8 days was encountered when pouring concrete for the tunnel. In addition, unexpected cost growth occurred due to the differing site conditions. Here are more details on what has happened:

- The contract specified that we were to provide shop drawings that detailed the specifics of what was to be built. A number of the shop drawings needed to be re-done causing a five-day delay.
- There was a three-day period during which the concrete trucks could not make deliveries due to another one of Building Professional's subcontractors blocking access to the site.
- There were some errors in our revised drawings which led to a bid understatement of 260 cubic yards of concrete and 140 pounds of reinforcing steel. The recorded quantity of concrete for the project totaled 1,200 cubic yards and the recorded reinforcing steel totaled 740 pounds. The recorded installation of concrete required 800 labor hours and 480 concrete truck hours. Our inexperienced crew had some inefficiencies in connection with some of the early pours.
- Because site conditions were different than originally anticipated, a higher-strength concrete mix was necessary, which cost \$60 per cubic yard and a higher-strength steel reinforcement bar was required at \$6 per pound.
- We experienced no labor or equipment rate variances.