

Abstract

Construction sustainability relates to three main factors: economic, environmental, and social. Under the economic impact, the project should be built within the stipulated cost. One of the reasons to investigate the bidding pattern of contractor is to make sure that the contractor will complete the project within the stipulated budget. If the contractor had balanced bid, there is higher possibility of completing the project within budget and on time. If the bid is not balanced, then the contractor might not finish the project on estimated budget. The majority of public road projects are bid based on unit price. Bidders use one of three methods to get maximum profit from their bid: front end loading, individual rate loading, and back end loading. Each method has unique advantages. There are various methods that owners use to detect whether the bids are unbalanced. Using historical data from 264 bids of 70 road projects undertaken by the Clark County Department of Public Works in southern Nevada from 1992 through 2008, this study determines whether unbalanced bidding was present. The total value of construction is equivalent to \$364 million when converted into a June 2011 base cost. The study determines the most frequently used items of road construction, and analyzes the bid data of these items to determine whether the unbalanced bidding existed. The analysis shows that bidders of public road projects were bidding the projects based on front end loading thus the unbalanced bidding is challenging the Economic Sustainability.

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