



October 9, 2023

To: Members of the Board of Directors

From: Darrell E. Johnson, Chief Executive Officer

A handwritten signature in blue ink, appearing to read "Darrell E. Johnson", is written over the "From:" line.

Subject: Measure M2 Next 10 Delivery Plan: Market Conditions Key Indicators Analysis and Forecast

Overview

At the direction of the Board of Directors, the Orange County Transportation Authority monitors construction market conditions. Annually, a report on Market Conditions Key Indicators Analysis and Forecast is presented to the Board of Directors to provide insight into potential project delivery cost drivers that could affect the Measure M2 Next 10 Delivery Plan. The last effort was presented to the Board of Directors on October 10, 2022. An updated forecast has been prepared and a presentation on the results of this effort is provided.

Recommendation

Continue to monitor market conditions key indicators and provide updates to the Board of Directors as appropriate.

Background

On November 7, 2006, Orange County voters approved the Renewed Measure M Transportation Investment Plan (Plan) for the Measure M2 (M2) one-half-cent sales tax for transportation improvements for a period of 30 years through 2041. The Orange County Transportation Authority (OCTA) Board of Directors (Board) continues to advance the implementation of M2 commitments through the adoption of delivery plans. The delivery plans are designed to validate OCTA's ability to deliver the M2 Plan consistent with commitments to voters, outline a near-term work plan to promote effectiveness and efficiency, establish a common understanding among M2 stakeholders, set a baseline upon which future changes are measured, and provide the basis for the preparation of OCTA's annual budgets for capital projects.

In 2016, the Board directed staff to acquire better insight into the construction market outlook. The intent was to provide an analysis of trends for near-term construction market conditions in tandem with the annual sales tax revenue update to assist with prudent project delivery decisions.

OCTA retained the Orange County Business Council (OCBC), led by Dr. Wallace Walrod, Chief Economic Advisor to OCBC, and Dr. Marlon Boarnet, Professor and Director of the METRANS Transportation Consortium at the University of Southern California to provide this analysis.

The results of the initial analysis were presented to the Board in September 2017. The report identified several near-term cost indicators that could influence the construction market and, by extension, M2 project delivery. These included the pace of transportation construction programs in the neighboring counties (resulting in the strained supply of materials and construction labor), construction wage pressures, sustained low statewide unemployment, and residential construction demand. Overall, OCBC's analysis identified a strong potential that OCTA could experience an increasing cost environment in the near term.

Following this presentation, the Board directed staff to continue to work with OCBC to monitor and track the indicators and provide the Board with updates to cost risk factors for project delivery. In response, OCBC spent early 2018 analyzing trends and creating an Infrastructure Construction Cost Pressure Index (ICCPPI) model. On September 10, 2018, OCBC presented the ICCPI model, and forecasts for 2018, 2019, and 2020 cost fluctuation ranges, to the Board.

Discussion

OCBC continues to monitor trends in material costs, labor costs, and general economic conditions through a contract with OCTA. Relevant data for each model component is analyzed to determine a range of potential cost impacts to update the forecast biannually. The fall 2023 update provides a three-year forecast through 2026. Attachment A summarizes the fall 2023 forecast and includes prior forecasts for reference. The full report on the ICCPI model update is included in Attachment B.

The ICCPI model is a forecasting tool, with scores indicating a forecast of fluctuations in public construction costs expressed in ranges. Index scores of two and three indicate somewhat low to normal inflationary environments in the range of one to six percent. Conversely, a score of four is a high inflation environment in the range of six to 11 percent. Extreme index values of zero and five correspond to the unusual conditions observed in Orange County immediately before and during the Great Recession and the high-cost inflation environment that occurred in the building boom years of the early 2000s and most recently in 2021 and 2022.

Using the ICCPI model, OCBC forecasts a score of three in 2024, which represents a potential cost fluctuation range of two to six percent. The forecast for 2025 and 2026 drops to a score of two, which anticipates a tempering of economic conditions.

OCBC Orange County Transportation ICCPI Score, 2024-2026		
Year	Index Score	Range of Cost Fluctuation
2024	3	2% - 6%
2025	2	1% - 2%
2026	2	1% - 2%

The fall update anticipates a gradual decline of inflation from the market conditions forecasted in spring 2023. Major drivers include the decline of building permits, a slight increase in unemployment rates in California, and moderating construction wages. While Portland Cement Concrete structure increased significantly, all other materials saw declines on an annualized basis. Since full 2023 data is not yet available, the percentages calculated in the report are subject to change. As in prior forecasts, OCBC indicates that OCTA will also need to be aware and ready to respond to cost pressures that cannot be modeled. Examples of such risks include:

- Federal Reserve increasing both the target federal funds rate and pace of increases,
- Economic uncertainty in China could impact foreign investment and supply chains, and
- General political uncertainty both domestically and internationally.

Overall, OCBC’s analysis identifies a potential return to a normal inflationary environment in 2024, followed by a low inflationary environment in 2025 and 2026. OCTA’s Project Controls department monitors and adjusts project cost escalation assumptions according to market trends. Project Controls’ cost estimating process uses historical information, as well as current trends in the market, and follows a consistent and defined process. Looking back at the last 20 years, OCTA’s cost estimates have included a three percent escalation, which, on average during this timeframe, provided the appropriate escalation to deliver projects successfully. Currently, using 3.5 to five percent for construction escalation, as well as incorporating contingency based on the project type and complexity, is staff’s preferred approach to cost estimating. Given the continued market fluctuations in recent years, staff recommends continuing this effort to monitor key indicators to inform OCTA’s delivery plans.

Summary

OCBC has prepared an update on construction market conditions to help OCTA with M2 project delivery planning. The update considers fluctuations in material costs, labor costs, and general economic conditions and trends. The Market Conditions Key Indicators Analysis and Forecast conclude that OCTA may experience a return to a normal inflationary environment in 2024, with tempering economic conditions in 2025 and 2026.

Attachments

- A. Orange County Business Council, Orange County Transportation ICCPI Score, Fall 2018 through Fall 2023 Forecasts
- B. Orange County Business Council, Orange County Transportation Infrastructure Construction Cost Pressure Index, Fall 2023, Prepared for the Orange County Transportation Authority

Prepared by:



Francesca Ching
Section Manager,
Measure M2 Program Management Office
(714) 560-5625

Approved by:



Kia Mortazavi
Executive Director, Planning
(714) 560-5741