



AGENDA

Executive Committee Meeting

Committee Members

Steve Jones, Chairman
Andrew Do, Vice Chairman
Laurie Davies
Michael Hennessey
Mark A. Murphy
Tim Shaw

Orange County Transportation Authority
Headquarters
Conference Room 07
550 South Main Street
Orange, California

Monday, November 2, 2020 at 9:00 a.m.

Any person with a disability who requires a modification or accommodation in order to participate in this meeting should contact the OCTA Clerk of the Board, telephone (714) 560-5676, no less than two (2) business days prior to this meeting to enable OCTA to make reasonable arrangements to assure accessibility to this meeting.

Agenda descriptions are intended to give members of the public a general summary of items of business to be transacted or discussed. The posting of the recommended actions does not indicate what action will be taken. The Committee may take any action which it deems to be appropriate on the agenda item and is not limited in any way by the notice of the recommended action.

All documents relative to the items referenced in this agenda are available for public inspection at www.octa.net or through the Clerk of the Board's office at the OCTA Headquarters, 600 South Main Street, Orange, California.

Guidance for Public Access to the Board of Directors/Committee Meeting

On March 12, 2020 and March 18, 2020, Governor Gavin Newsom enacted Executive Orders N-2-20 and N-29-20 authorizing a local legislative body to hold public meetings via teleconferencing and make public meetings accessible telephonically or electronically to all members of the public to promote social distancing due to the state and local State of Emergency resulting from the threat of Novel Coronavirus (COVID-19).

In accordance with Executive Order N-29-20, and in order to ensure the safety of the Orange County Transportation Authority (OCTA) Board of Directors (Board) and staff and for the purposes of limiting the risk of COVID-19, in person public participation at public meetings of the OCTA will not be allowed during the time period covered by the above referenced Executive Orders.

Instead, members of the public can listen to AUDIO live streaming of the Board and Committee meetings by clicking the below link:

<http://www.octa.net/About-OCTA/Who-We-Are/Board-of-Directors/Live-and-Archived-Audio/>



Guidance for Public Access to the Board of Directors/Committee Meeting (Continued)

Public comments may be submitted for the upcoming Board and Committee meetings by emailing them to boardofdirectors@octa.net.

If you wish to comment on a specific agenda Item, please identify the Item number in your email. All public comments that are timely received will be part of the public record and distributed to the Board. Public comments will be made available to the public upon request.

In order to ensure that staff has the ability to provide comments to the Board Members in a timely manner, please submit your public comments **30 minutes prior to the start time of the Board and Committee meeting date.**



Call to Order

Roll Call

Pledge of Allegiance

Chairman Jones

1. Public Comments

Special Calendar

There are no Special Calendar matters.

Consent Calendar (Items 2 and 3)

All items on the Consent Calendar are to be approved in one motion unless a Committee Member or a member of the public requests separate action or discussion on a specific item.

2. Approval of Minutes

Approve the minutes of the Executive Committee meeting of October 5, 2020.

3. Orange County Transportation Authority Code of Conduct

Karen DeCrescenzo/Maggie McJilton

Overview

As required by the Federal Transit Administration and organizational best practices, the Orange County Transportation Authority maintains a written code of conduct to provide direction to officers, employees, agents, and members of the Board of Directors on appropriate and professional behavior in the conduct of Orange County Transportation Authority business.

Recommendation

Receive and file as an information item.



Regular Calendar

**4. Capital Programs Division - First Quarter Fiscal Year 2020-21
Capital Action Plan Performance Metrics**

James G. Beil

Overview

Staff has prepared a quarterly progress report on capital project delivery for the period of July 2020 through September 2020, for review by the Orange County Transportation Authority Board of Directors. This report highlights the Capital Action Plan for project delivery, which is used as a performance metric to assess delivery progress on highway, transit, and rail projects.

Recommendation

Receive and file as an information item.

**5. Measure M2 Next 10 Delivery Plan: Market Conditions Key Indicators
Analysis and Forecast**
Francesca Ching/Kia Mortazavi

Overview

At the request 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. An updated forecast has been prepared. A presentation on the results of this effort is provided.

Recommendation

Continue to monitor market conditions key indicators and their effects on the Next 10 Delivery Plan and provide updates to the Board of Directors as appropriate.



Discussion Items

- 6. Chief Executive Officer's Report**
- 7. Committee Members' Reports**
- 8. Closed Session**

There are no Closed Session items scheduled.

- 9. Adjournment**

The next regularly scheduled meeting of this Committee will be held at **9:00 a.m. on Monday, December 7, 2020**, at the Orange County Transportation Authority Headquarters, Conference Room 07, 550 South Main Street, Orange, California.



MINUTES

Executive Committee Meeting

Committee Members Present

Steve Jones, Chairman

Via teleconference:

Andrew Do, Vice Chairman

Laurie Davies

Michael Hennessey

Mark A. Murphy

Tim Shaw

Staff Present

Darrell E. Johnson, Chief Executive Officer (CEO)

Jennifer L. Bergener, Deputy CEO

Laurena Weinert, Clerk of the Board

Martha Ochoa, Assistant Clerk of the Board

James Donich, General Counsel (teleconference)

Committee Members Absent

None

Call to Order

The October 5, 2020 regular meeting of the Executive Committee (Committee) was called to order by Chairman Jones at 9:00 a.m.

Roll Call

The Clerk of the Board conducted an attendance Roll Call and announced there was quorum of the Committee.

Pledge of Allegiance

Director Shaw led in the Pledge of Allegiance.

1. Public Comments

There were no public comments.

Special Calendar

There were no Special Calendar matters.



Consent Calendar (Items 2 and 3)

2. Approval of Minutes

A motion was made by Director M. Murphy, seconded by Director Davies, and following a roll call vote, declared passed 5-0, to approve the minutes of the Executive Committee meeting of August 3, 2020.

Director Hennessey was not present to vote on this item.

3. Agreement for Security System Service and Maintenance

A motion was made by Director M. Murphy, seconded by Director Davies, and following a roll call vote, declared passed 5-0, to:

- A. Approve the selection of Climatec LLC as the firm to provide service and maintenance of the Orange County Transportation Authority's security system.
- B. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-0-2341 between the Orange County Transportation Authority and Climatec LLC, in the amount of \$537,600, for a five-year term, to provide service and maintenance of the Orange County Transportation Authority's security system.

Director Hennessey was not present to vote on this item.

Regular Calendar

4. Measure M2 Senior Mobility Program Temporary Guideline Exceptions

Kia Mortazavi, Executive Director of Planning, introduced Francesca Ching, Section Manager, Measure M2 (M2) Program Management Office, who participated via teleconference. Mr. Mortazavi provided background and highlighted the reasons for the temporary guideline exceptions to the M2 Senior Mobility Program (SMP).

A discussion ensued regarding the following:

- Director Hennessey noted there needs to be flexibility with the M2 SMP.
- Director Shaw asked James Donich, OCTA's General Counsel, about the legalities and does the Board of Directors (Board) have authority to grant the temporary exception to the M2 SMP guidelines.
- Mr. Donich responded that the Board has full authority for the recommended actions, as well as provided other comments.



4. (Continued)

A motion was made by Director Hennessey, seconded by Director M. Murphy, and following a roll call vote, declared passed 6-0, to:

- A. Approve a temporary exception of the Senior Mobility Program guideline requirements related to service guidelines and service plan amendments, allowing agencies to use funds to provide the delivery of meals to seniors who had previously used city-provided transportation to travel to nutrition programs, from March 4, 2020 until Governor Newsom lifts the State of Emergency.
- B. Approve a temporary exception to the Senior Mobility Program guideline requirement related to funding distribution to suspend and hold allocations in reserve for agencies with suspended services until the State of Emergency is lifted or transportation services resume, whichever happens first.

Discussion Items

5. Orange County Coronavirus Travel Trends

Darrell E. Johnson, Chief Executive Officer (CEO), provided opening comments and introduced Kurt Brotcke, Director of Planning, who presented the PowerPoint as follows:

- Orange County (OC) Coronavirus Travel Impacts;
- Unemployment: A Key Driver of Travel Changes;
- Job Losses: Not Evenly Distributed;
- Google Maps: Most Activities Down in OC With Some Exceptions;
- Orange County Transportation Authority (OCTA) Survey: Some Activities Up, Others Down;
- Results: Total Travel is Down (Person-Trips; All Modes);
- OC Freeways: Demand/Delay Down But Trending Upward;
- OC Freeways: Delay Shifting In Time (Delay In Hours);
- OC Freeways: Delay Increases Exponentially As Traffic Grows;
- OC Work-From-Home: Five-Fold+ Increase;
- Work-From-Home: Likely To Continue But Lessen;
- Summary; and
- Next Steps.



5. (Continued)

A discussion ensued as follows:

- Director Shaw referenced Slide 12 of the PowerPoint and inquired if people will continue to work-from-home, what is projected, what is the usage of arterials and freeway system, and usage of apps.
- OCTA polled only employees working from home and the managers or decision makers were not polled. OCTA cannot speculate on the future of work-from-home and will continue to monitor.
- Due to the uncertainty with the data, OCTA does not know how people shifted from arterials to the freeway system and vice versa, and how in the future, work-from-home, might impact the arterials, freeway system, and overall travel.
- OCTA believes that people will optimize their travel between the arterials and freeway system by using an app.
- Director M. Murphy referenced Slide 9 of the PowerPoint and inquired about the significant difference between June and July “delay shifting in time.”
- The delay shifting in time difference between June and July is because weekend travel was excluded, and people took vacations and traveled on the weekend. In addition, including the months of August and September would provide OCTA more data.
- Mr. Johnson, CEO, stated that OCTA is capturing the data that could be used to make decisions going forward.

No action was taken on this information item.

6. Chief Executive Officer's Report

Mr. Johnson, CEO, reported the following:

- South Orange County Multimodal Transportation Study:
 - OCTA is conducting this study that will consider transportation needs in south OC.
 - This study will identify improvements for all modes of transportation through 2045.
 - OCTA will host a virtual public webinar for this study tomorrow from 5:30 p.m. to 6:30 p.m.
 - To learn more, take the online survey, or attend the webinar visit octa.net/SouthOCStudy.



MINUTES

Executive Committee Meeting

6. (Continued)

- Freeway Bus Rapid Transit (BRT) Study:
 - Earlier this year, in partnership with the California Department of Transportation, OCTA initiated a Freeway BRT – Concept Study to develop a conceptual plan for two freeway BRT routes:
 - One on the Interstate 5 from the Fullerton Park and Ride to the Laguna Niguel/Mission Viejo Metrolink Station.
 - One on the State Route 55 from the Santa Ana Regional Transportation Center to Hoag Hospital in Newport Beach.
 - Freeway BRT service leverages existing and planned high-occupancy vehicle lanes on freeways and is designed to augment transit service along major arterials.
 - OCTA will host a virtual public webinar on Wednesday, October 14th from 5:30 p.m. to 6:30 p.m.
 - People can register for this webinar, take the online survey, and get more information at octa.net/freewayBRT.

7. Committee Members' Report

There were no Committee Members' reports.

8. Closed Session

There were no Closed Session items scheduled.

9. Adjournment

The Executive Committee meeting adjourned at 9:30 a.m.

The next regularly scheduled meeting of this Committee will be held at **9:00 a.m. on Monday, November 2, 2020**, at the OCTA Headquarters, 550 South Main Street, Conference Room 07, Orange, California.

ATTEST

Laurena Weinert
Clerk of the Board

Steve Jones
Chairman



November 2, 2020

To: Executive Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: Orange County Transportation Authority Code of Conduct

Overview

As required by the Federal Transit Administration and organizational best practices, the Orange County Transportation Authority maintains a written code of conduct to provide direction to officers, employees, agents, and members of the Board of Directors on appropriate and professional behavior in the conduct of Orange County Transportation Authority business.

Recommendation

Receive and file as an information item.

Background

The Federal Transit Administration (FTA) requires that all funding recipients maintain a written code of conduct, or standards of conduct, that will govern the actions of its officers, employees, board members, or agents engaged in the award or administration of sub-agreements, leases, third-party contracts, or other arrangements supported with federal assistance. The Orange County Transportation Authority (OCTA) last updated and adopted the Code of Conduct Policy on November 16, 2018.

Discussion

The OCTA Code of Conduct Policy (Attachment A) requires that employees, agents, and members of the Board of Directors exercise the highest level of ethical behavior in the conduct of OCTA business. It includes expectations that these parties comply with the law, as well as with the letter and spirit of the Code of Conduct.

Consistent with FTA requirements and codes of conduct adopted by other public agencies, the OCTA Code of Conduct prohibits both real and apparent personal

conflicts of interest and includes procedures for identifying and preventing such conflicts. As a means of promoting a strong ethical culture at OCTA, the Code of Conduct also includes reiterations of existing OCTA policies or federal and state laws prohibiting discrimination, retaliation, sexual harassment, and other inappropriate behavior.

The section of the Code of Conduct related to gifts is a required element of a written code of conduct as provided in OCTA's Master Agreement with the FTA. The rules prohibit OCTA employees, agents, and members of the Board of Directors from accepting any gifts, gratuities, favors, or anything of monetary value from contractors, subcontractors, bidders, or proposers on federally funded OCTA contracts. On non-federally funded contracts, gifts totaling less than \$500 from other sources would be permitted as long as designated employees, as defined in OCTA's Conflict of Interest Policy, report the gifts on their annual Statements of Economic Interests (Form 700) in accordance with state law. This gift limit is updated biennially, and the Code of Conduct presented herewith has been updated to reflect changes made and effective as of 2020.

Changes to 2020 Code of Conduct Policy are summarized below:

1. Section V-B was revised to mirror changes to state law as it relates to protected classes, and verbiage was added to indicate that any form of workplace harassment will not be tolerated;
2. Section V-F was revised to mirror changes to Title 2 of California Code of Regulations Section 18940.2 as it relates to gifts;
3. Section V-I was added to address employee obligations to cooperate with control activities;
4. Section V-J was revised to correct a department title;
5. Section V-L added a link to the Ethics Hotline website; and
6. Section VIII added the Workplace Harassment & Discrimination Prevention Policy as a related document.

The Code of Conduct is provided to employees on their date of hire and biennially thereafter, with acknowledgement of receipt required.

Summary

The OCTA Code of Conduct was developed to provide direction to OCTA employees, agents, and the Board of Directors on matters related to behavior while conducting OCTA business.

Attachment

A. Orange County Transportation Authority Code of Conduct Policy - Redlined

Prepared by:



Karen DeCrescenzo
Human Resources Manager
714-560-5547

Approved by:



Maggie McJilton
Executive Director, Human Resources
and Organizational Development
714-560-5824



Human Resources and Organizational Development

Chief Executive Officer

CODE OF CONDUCT POLICY

Policy#: HROD-BOD-101.00CONDUCT

Origination Date: 07/13/2009

Revised Date: 11/16/2018

I. PURPOSE

The purpose of this policy is to provide the guidelines and expectations to all Orange County Transportation Authority (OCTA) employees regarding the conduct that is expected both at and away from work. OCTA is a public agency that shall conduct its business with integrity in an honest and ethical manner. Any attempt to evade or circumvent any requirements of this policy or of any rules or laws applicable to OCTA and its employees is improper.

II. ORGANIZATIONAL UNITS AFFECTED

This policy applies to all OCTA employees. For purposes of the Code of Conduct, OCTA employees shall mean and include employees, members of the Board of Directors, and agents of OCTA. OCTA employees shall comply with the letter and spirit of this policy and the law.

The Human Resources Department shall be responsible for the administration of this policy and maintenance of employee acknowledgements of receipt.

III. POLICY

- A. OCTA employees shall conduct OCTA's business in compliance with the law, regulations, OCTA policies, and good judgment based on OCTA's values and goals. OCTA employees shall avoid speech or behavior that is likely to create an appearance of impropriety.
- B. It is up to each OCTA employee to maintain a professional, safe, and productive work environment. OCTA employees shall treat each other professionally and with courtesy at all times. Differences of opinion on work issues should be expressed in a constructive manner that promotes sharing ideas and effective teamwork to resolve problems to meet the challenges of OCTA.

IV. DEFINITIONS

Not applicable

V. PROCEDURE

A. Non-discrimination

No person shall be discriminated against in employment because of race, color, creed, religion, sex, gender (including pregnancy, childbirth, breastfeeding) gender identity, gender expression, genetic information, ancestry, age, national origin, marital status, sexual orientation, military and veteran status, physical or mental

Human Resources and Organizational Development CODE OF CONDUCT POLICY

Policy#: HROD-BOD-101.00CONDUCT

Origination Date: 07/13/2009

Revised Date: 11/16/2018

disability, or any other status protected by applicable federal or state statutes, except where a bona fide occupational qualification applies.

B. Workplace Harassment

1. No OCTA employee or person associated with OCTA shall engage in sexual harassment. Sexual harassment includes any sexual advances or requests for sexual favors which are unwelcome or where submission to or rejection of such conduct is used as the basis for employment or business decisions. Sexual harassment also includes verbal, visual, and/or physical conduct of a sexual nature, which creates an intimidating, hostile, or offensive working environment.
2. No OCTA employee or person associated with OCTA shall engage in harassment based on race, color, religion, creed, ~~religion~~, ancestry, sex, ~~gender~~ (including pregnancy, childbirth, and breastfeeding and medical conditions related to pregnancy, childbirth, and breastfeeding), gender, gender identity, gender expression, sexual orientation, marital status, medical condition, genetic information, ~~ancestry, age, national origin, marital status, sexual orientation~~, military and veteran status, age, physical or mental disability, national origin, transgender, or any other legally protected status ~~protected by applicable as established by~~ federal or state law/statutes. Harassment includes verbal, visual, and/or physical conduct. Such conduct constitutes harassment when the submission to the conduct is made an explicit or implicit condition of employment, submission to or rejection of the conduct used as the basis for an employment decision, or the harassment interferes with an employee's work performance, or creates an intimidating hostile or offensive work environment. Workplace harassment, discrimination, abusive conduct, or retaliation will not be tolerated whether by OCTA employees, vendors of OCTA, customers, or other third parties.

C. Relationships With Contractors

OCTA business shall be conducted in a manner above reproach, with impartiality, and without bias. Particularly in relationships with contractors and potential contractors, OCTA employees must avoid any actual or appearance of conflict of interest or impropriety.

D. Use of OCTA Assets

OCTA employees shall not use any OCTA assets for personal gain or for any purpose other than OCTA business. Subject to the restrictions in this section and if permitted by the employee's supervisor, some occasional and limited personal use is allowed so long as it does not interfere with the performance of the employee's duties and does not result in any additional expense to OCTA. However, OCTA telephones, computers, e-mail, or internet access shall not be used for e-mail chain letters, for religious or political advocacy, for excessive personal communications, for personal financial gain, to seek outside employment, for any purpose that could reasonably be viewed as abusive, harassing, hostile, or intimidating to OCTA customers or employees, to access entertainment or sexually explicit sites, or for any use otherwise prohibited by

Human Resources and Organizational Development CODE OF CONDUCT POLICY

Policy#: HROD-BOD-101.00CONDUCT

Origination Date: 07/13/2009

Revised Date: 11/16/2018

law. OCTA reserves the right to monitor and review all records of usage by OCTA employees of any OCTA assets. No use of OCTA telephones, computers, e-mail or internet access, or any use of any other OCTA asset shall be private to the employee, and no OCTA employee shall be given any basis for an expectation of privacy in any such use.

E. Confidential Information

OCTA employees shall maintain the confidentiality of any confidential information related to contracts, construction, procurement, litigation strategy, personnel files, employee medical information, or other proprietary information to which they have access through their employment with OCTA. Such confidentiality shall be maintained during and after employment with OCTA. OCTA employees shall not use confidential information for any purpose other than in the performance of their job for the benefit of OCTA. Confidential information shall only be disclosed to authorized persons.

F. Gifts

1. OCTA employees or immediate family members shall neither solicit nor accept gifts, gratuities, favors, or anything of monetary value, except unsolicited items of nominal intrinsic value from any OCTA contractor, subcontractor, bidder, or proposer for an OCTA contract which is federally-funded. A bidder/proposer is a party which has submitted a bid or proposal for an active procurement which has not been awarded or otherwise concluded.
2. Designated OCTA employees may not accept gifts totaling more than ~~\$500~~^{\$470} pursuant to Title 2 of California Code of Regulations Section 18940.2, or over the amounts allowed pursuant to Government Code Sections 89502 and 89503 as adjusted biennially in a calendar year from a single source other than one identified in paragraph 1 above.
3. For purposes of this code, a gift shall have the meaning it is defined to have in the California Political Reform Act (Act) and the regulations issued pursuant to the Act.

G. Conflicts of Interest

1. A conflict of interest, or at least an appearance of impropriety, exists when the interests, investments, outside employment or personal enterprises of the employee or a member of his or her immediate family could compromise the employee's duty of loyalty, or otherwise conflict with or appear to conflict with his or her job performance, objectivity, impartiality, or ability to make fair business decisions in the best interest of OCTA. A conflict of interest may arise in any situation in which an OCTA employee is in a position where he or she could use his or her contacts or position in the agency to advance the private business or financial interests of the employee or his or her immediate family, whether or not at the expense of OCTA. An OCTA employee may also have a conflict of interest if called upon to make a decision concerning a person or entity that the employee worked for during the previous 12 months.

Human Resources and Organizational Development CODE OF CONDUCT POLICY

Policy#: HROD-BOD-101.00CONDUCT

Origination Date: 07/13/2009

Revised Date: 11/16/2018

2. An OCTA employee who has a conflict of interest shall not participate in the making of any decision or contract in which the employee has a financial interest.
3. Any OCTA employee with such conflict of interest must disqualify himself or herself from making, participating in the making, or in any way attempting to use his or her official position to influence OCTA's decision in which he or she knows, or has reason to know, that he or she has a financial interest. An OCTA employee should also disqualify himself or herself from participating in an OCTA decision where the employee does not have a disqualifying financial interest, but where the making of the decision will have some other significant effect on the employee, or a member of his or her immediate family.
4. Any OCTA employee who may have a conflict of interest as described in paragraphs 1 or 2 relative to a prospective contractor, subcontractor, bidder or contract, or any other OCTA decision or issue, must advise his or her supervisor of the possible conflict of interest at the earliest possible time.
5. Upon request, the General Counsel shall advise an OCTA employee and his or her supervisor regarding whether it is appropriate for an OCTA employee to participate in a decision involving a possible conflict of interest.

H. Incompatible Activities

No OCTA employee shall engage in any outside activity that is inconsistent, incompatible, or that interferes with his or her ability to efficiently and effectively carry out his or her OCTA duties. Incompatible activities include, but are not limited to, any of the following:

1. The use for private gain or advantage of the employee's OCTA time, facilities, equipment or supplies, or the badge or uniform, prestige or influence of the employee's OCTA employment.
2. Receipt or acceptance by the employee of any money or other consideration from anyone other than OCTA for the performance of an act which the employee, if not performing such act, would be required or expected to render in the regular course or hours of OCTA employment or as part of the employee's duties.
3. Time demands from outside activities that would interfere with the ability of the OCTA employee to devote his or her full work time, attention, and efforts to his or her OCTA duties.

I. Override of Controls

Control activities, such as authorization, documentation, reconciliation, security, and separation of duties are designed to ensure the integrity of financial and accounting information, promote accountability, and prevent fraud. All OCTA employees are responsible for knowledge of, and compliance with, OCTA policies and procedures that outline control activities and requirements. No OCTA employee shall engage in activities resulting in an override of controls outlined in OCTA policies and procedures.

Human Resources and Organizational Development CODE OF CONDUCT POLICY

Policy#: HROD-BOD-101.00CONDUCT

Origination Date: 07/13/2009

Revised Date: 11/16/2018

I.J. Duty to Report

Each OCTA employee is obligated to report to his or her supervisor, the Internal Auditor, Human Resources ~~Labor and Employee Relations~~ staff, the Chief Executive Officer, or the General Counsel any facts made known to the employee which show that an OCTA contractor or OCTA employee has engaged in business practices regarding an OCTA matter which appears to be unethical, or which ~~may violate~~ s this OCTA policy, or ~~any~~ applicable state or federal law.

J.K. Whistleblower Protection

OCTA is committed to fair treatment of all its employees and recognizes its responsibility under state and federal law to protect from punishment and harassment any person who reports a potential ethics issue, whether or not the allegation is found to have merit. The report may be made anonymously. OCTA shall not take any act nor threaten any action against any OCTA employee as a reprisal for making a report under state or federal whistleblower laws, unless the report was made, or the information was disclosed with the knowledge that it was false or with willful disregard for its truth or falsity.

K.L. Ethics Hotline

OCTA shall maintain a telephone Ethics Hotline ~~number~~ for any employee, vendor, or member of the public to anonymously report any suspected fraud, waste, abuse, and illegal or unethical behavior. The report shall be confidential. Reports to the Ethics Hotline will be administered by Internal Audit for review and investigation by the appropriate department. For information on the options for filing a report through the Ethics Hotline, go to <http://octa.net/About-OCTA/Who-We-Are/Internal-Audit/Fraud-Hotline/> or call The Ethics Hotline phone number is 877-315-9918.

L.M. Product Endorsement and Participation in Case Studies

1. Employees, in their capacity as an OCTA employee, shall not endorse a product, service or company or comment upon that product, service or company if it is the intent of the solicitor of the endorsement, or of the vendor or manufacturer of that product or service, to use such comments for purposes of advertisement, marketing or sales, without prior consent of the CEO or designee. OCTA Board members, in their capacity as an OCTA Board member, are discouraged from endorsing a product, service or company for purposes of advertisement, marketing or sales.
2. Employees, in their capacity as an OCTA employee, are not prohibited from responding to inquiries regarding the effectiveness of products or services used by OCTA unless the employee is aware that it is the inquirer's intention to use those comments for purposes of advertisement, marketing or sales.
3. Employees, in their capacity as an OCTA employee, shall not participate in a case study of products or services for advertisement, marketing or sales purposes by any person or organization outside of OCTA, without the consent of their Executive Director.

Human Resources and Organizational Development CODE OF CONDUCT POLICY

Policy#: HROD-BOD-101.00CONDUCT

Origination Date: 07/13/2009

Revised Date: 11/16/2018

M. Duty to Cooperate

OCTA employees, in their capacity as an OCTA employee, shall cooperate fully with judicial bodies and courts, and with workplace investigative personnel; appear before them upon request; and answer all questions truthfully, concerning their conduct in office or the performance of their official duties or matters within their knowledge pertaining to the property or affairs of OCTA.

VI. EXCEPTIONS

- A.** The provisions of Government Code Section 87406.3 shall apply with equal force and effect to each individual who is appointed as a public member of the OCTA Board of Directors, the same as members of the Board of Directors who are elected officials.
- B.** This means that a public member of the Board of Directors shall not, for a period of one year after leaving that office, act as an agent or attorney for or otherwise represent for compensation any other person by communicating with an OCTA employee if the communication is made for the purpose of influencing administrative or legislative action, or proceeding involving the issuance, amendment, awarding, or revocation of a permit, license, grant or contract, or the sale or purchase of goods or property.

VII. PROVISIONS AND CONDITIONS

- A.** All OCTA employees have a responsibility to conduct OCTA's business in compliance with this policy. The General Counsel shall investigate alleged violations of this policy. In the event the General Counsel determines that a violation has occurred, the General Counsel's finding shall be reported to the Chief Executive Officer who shall take such action, which may include notification to the Board of Directors, as is appropriate under the circumstances. Any violation of a provision of this policy which is based upon a state or federal law may also be enforced by any appropriate enforcement agency.
- B.** A violation of this policy by an OCTA employee may result in the imposition of discipline, up to and including dismissal. The appropriate discipline will be determined by the employee's supervisor in consultation with the division executive director of the organization unit in which the employee works and the Executive Director of Human Resources and Organizational Development. The discipline imposed will depend upon the severity of the violation and may be progressive unless the violation is determined to be so serious as to warrant more severe action initially. The imposition of discipline by OCTA for a violation of this policy, when such violation is also a violation of state or federal law, shall not affect the ability of any appropriate prosecutorial agency to seek the imposition of any penalty allowed by law for such violation.
- C.** Acknowledgement of Receipt of Code of Conduct – New OCTA employees will receive a copy of this policy upon commencement of employment and will sign an acknowledgement of receipt. Thereafter, all employees will receive a copy of this policy once every two (2) years, and they will be required to sign an acknowledgement of receipt.

**Human Resources and Organizational Development
CODE OF CONDUCT POLICY**

Policy#: HROD-BOD-101.00CONDUCT

Origination Date: 07/13/2009

Revised Date: 11/16/2018

VIII. RELATED DOCUMENTS

Code of Conduct Policy Acknowledgement Form


[Workplace Harassment & Discrimination Prevention Policy](#)

END OF POLICY



November 2, 2020

To: Executive Committee

From: Darrell E. Johnson, Chief Executive Officer 

Subject: Capital Programs Division - First Quarter Fiscal Year 2020-21
Capital Action Plan Performance Metrics

Overview

Staff has prepared a quarterly progress report on capital project delivery for the period of July 2020 through September 2021 for review by the Orange County Transportation Authority Board of Directors. This report highlights the Capital Action Plan for project delivery, which is used as a performance metric to assess delivery progress on highway, transit, and rail projects.

Recommendation

Receive and file as an information item.

Background

The Orange County Transportation Authority (OCTA) delivers highway, transit, rail, and facility projects from the beginning of the environmental approval phase through construction completion. Project delivery milestones are planned carefully with consideration of project scope, costs, schedule, and assessment of risks. The milestones reflected in the Capital Action Plan (CAP) are OCTA's planned and budgeted major project delivery commitments.

This report is a quarterly progress report on the CAP performance metrics, which are a snapshot of the planned CAP project delivery milestones in the budgeted fiscal year (FY).

Discussion

OCTA's objective is to deliver projects on schedule and within the approved project budget. Key project cost and schedule commitments are captured in the CAP, which is regularly updated with project status and any new projects (Attachment A). The CAP is categorized into four key project groupings of freeway projects, railroad grade separation projects, and rail and station projects. Schedule milestones are used as performance indicators of progress in project delivery. The CAP performance metrics report provides a FY snapshot of the milestones targeted for delivery in the budgeted FY and provide transparency and performance measurement of capital project delivery.

The CAP project costs represent the total cost across all phases of project delivery, including support costs, and right-of-way (ROW) and construction capital costs. Baseline costs, if established, are shown in comparison to either the actual or forecast cost. Baseline costs may be shown as to-be-determined (TBD) if project scoping studies and estimates have not been developed or approved and may be updated as delivery progresses, and milestones are achieved. Projects identified in the Orange County local transportation sales tax Measure M2 (M2) are identified with the corresponding M2 project letter. The CAP status update is also included in the M2 Quarterly Report.

The CAP summarizes the very complex capital project critical path delivery schedules into eight key milestones.

Begin Environmental	The date work on the environmental clearance, project report, or preliminary engineering phase begins.
Complete Environmental	The date environmental clearance and project approval is achieved.
Begin Design	The date final design work begins, or the date when a design-build contract begins.
Complete Design	The date final design work is 100 percent complete and approved.
Construction Ready	The date contract bid documents are ready for advertisement, including certification of ROW, all agreements executed, and contract constraints cleared.

Advertise for Construction	The date a construction contract is advertised for bids.
Award Contract	The date the construction contract is awarded.
Construction Complete	The date all construction work is completed, and the project is open to public use.

These delivery milestones reflect progression across the project delivery phases shown below.



Project schedules reflect planned baseline milestone dates in comparison to forecast or actual milestone dates. Milestone dates may be shown as TBD if project scoping or approval documents have not been finalized and approved, or if the delivery schedule has not been negotiated with a partnering agency or consultant implementing the specific phase of a project. Planned milestone dates can be revised to reflect new dates from approved baseline schedule changes. Project schedules are reviewed monthly, and milestone achievements and updated forecast dates are included to reflect project delivery status.

CAP milestones achieved in the first quarter of FY 2020-21 include:

Freeway Projects

- The award contract milestone for construction of the Interstate 5 (I-5) widening between Alicia Parkway and El Toro Road was achieved. On September 23, 2020, the California Department of Transportation awarded the contract to Guy F. Atkinson Construction. This project is the northernmost of three segments of I-5 widening between State Route 73 and El Toro Road.

The following CAP milestones missed the planned delivery through the first quarter of FY 2020-21:

The planned complete design, construction ready, advertise construction milestones for the Anaheim Canyon Metrolink Station expansion were not achieved in the first quarter due to ROW acquisition delays. However, these three milestones were achieved in the second quarter, and the project was

advertised for construction bids, at risk, while negotiations for temporary construction access from the one remaining private property interest on the east side of the station is being finalized. The planned construction bid submittal and opening date may be adjusted to accommodate securing the remaining construction access rights.

Recap of FY 2020-21 Performance Metrics and CAP Updates

The performance metrics snapshot provided at the beginning of FY 2020-21 reflected 15 planned major project delivery milestones to be accomplished, four of which were planned in the first quarter. The CAP and performance metrics have been updated to reflect both the milestones achieved and missed through the first quarter of FY 2020-21 (Attachment B). One of the four milestones (25 percent) planned through the first quarter of the FY was achieved. The three milestones missed are attributable to the Anaheim Canyon Metrolink Station project ROW delay.

CAP updates and FY 2020-21 Risks

There are schedule updates and cost risks on the State Route 55 (SR-55) widening from Interstate 405 to I-5. The construction ready milestone planned for delivery in the fourth quarter has been revised to the first quarter of FY 2021-22 (September 2021) due to extremely complex ROW appraisals and negotiations involving four to five impacted properties. Should negotiations fail to result in agreements for the ROW needs, the working schedules consider potential eminent domain actions through the court to gain ROW early possession. Court schedules also may be backlogged due to the coronavirus pandemic, which may impact the early possession of ROW and further delay the construction phase. The forecast project cost is increasing to approximately \$503 million, which includes increases in the final engineer's estimate of construction costs, increased support cost, and an increase in forecast ROW costs to account for risks in condemnation settlements. These costs are still being assessed and will be included in the planned M2 Next 10 Delivery Plan Update and capital programming adjustments brought to the OCTA Board of Directors.

The Placentia Metrolink Station construction ready, advertise construction, and award contract milestones planned in the second and third quarter will not be met. Approvals needed to construct the project remain dependent on finalization of the Metrolink/Burlington Northern Santa Fe Railway (BNSF) shared-use agreement, which allows for Metrolink operations on the BNSF rail corridor. Revised target milestones for construction ready, advertise construction, and award contract milestones have not been forecast due to the pending Metrolink/BNSF negotiations.

Recent highway project construction bids still indicate a favorable market with a high number of bidders and very competitive bids priced below the engineer's estimated cost of bid items. Project cost estimates consider historical information, current trends in the market, and recent bid results at the state and regional level.

Summary

Capital project delivery continues to progress and is reflected in the CAP. The planned FY 2020-21 performance metrics created from forecast project schedules will be used as a general project delivery performance indicator throughout the FY. Staff will continue to manage project costs and schedules across all project phases to meet project delivery commitments and report quarterly.

Attachments

- A. Capital Action Plan, Status Through September 2020
- B. Capital Programs Division, Fiscal Year 2020-21 Performance Metrics Through September 2020

Prepared by:

















James G. Beil, P.E.
Executive Director, Capital Programs
(714) 560-5646

Capital Action Plan

Status Through September 2020
















Updated: October 24, 2020

Capital Projects	Cost Baseline/Forecast	Schedule Plan/Forecast							
		Begin Environmental	Complete Environmental	Begin Design	Complete Design	Construction Ready	Advertise Construction	Award Contract	Complete Construction
	(millions)								
Freeway Projects:									
I-5, Avenida Pico to San Diego County	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	TBD	Apr-21	Dec-23	TBD	TBD	TBD	TBD	TBD	TBD
 I-5, Pico to Vista Hermosa	\$113.0	Jun-09	Dec-11	Jun-11	Oct-13	Feb-14	Oct-14	Dec-14	Aug-18
Project C	\$83.5	Jun-09	Oct-11	Jun-11	Oct-13	May-14	Sep-14	Dec-14	Aug-18
 I-5, Vista Hermosa to Pacific Coast Highway	\$75.6	Jun-09	Dec-11	Jun-11	Feb-13	Jun-13	Oct-13	Dec-13	Mar-17
Project C	\$75.4	Jun-09	Oct-11	Jun-11	May-13	Aug-13	Feb-14	Jun-14	Jul-17
 I-5, Pacific Coast Highway to San Juan Creek Road	\$70.7	Jun-09	Dec-11	Jun-11	Jan-13	May-13	Aug-13	Oct-13	Sep-16
Project C	\$74.3	Jun-09	Oct-11	Jun-11	Jan-13	Apr-13	Aug-13	Dec-13	Jul-18
 I-5, I-5/Ortega Interchange	\$90.9	Sep-05	Jun-09	Jan-09	Nov-11	Mar-12	Jun-12	Aug-12	Sep-15
Project D	\$79.8	Sep-05	Jun-09	Jan-09	Dec-11	Apr-12	Jun-12	Aug-12	Jan-16
 I-5, I-5/Ortega Interchange (Landscape)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Project D	N/A	N/A	N/A	Jan-14	Oct-14	Feb-15	Aug-15	Sep-15	Sep-16
 I-5, SR-73 to Oso Parkway	\$151.9	Sep-11	Jun-14	Mar-15	Jan-18	May-18	Aug-18	Dec-18	Apr-25
Project C & D	\$195.8	Oct-11	May-14	Mar-15	Aug-18	May-19	Aug-19	Dec-19	Apr-25
 I-5, Oso Parkway to Alicia Parkway	\$196.2	Sep-11	Jun-14	Nov-14	Jun-17	Dec-17	Feb-18	Jun-18	Nov-23
Project C & D	\$203.1	Oct-11	May-14	Nov-14	Dec-17	Jun-18	Nov-18	Mar-19	Nov-23
 I-5, Alicia Parkway to El Toro Road	\$133.6	Sep-11	Jun-14	Mar-15	Jun-18	Dec-18	Jan-19	May-19	Oct-24
Project C	\$165.9	Oct-11	May-14	Mar-15	May-19	Apr-20	May-20	Sep-20	Oct-24
 I-5, SR-73 to El Toro Road (Landscape)	TBD	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD
Project C	\$12.4	N/A	N/A	Jul-22	Mar-24	Jul-24	Sep-24	Nov-24	Jun-26
 I-5, I-5/El Toro Road Interchange	TBD	Apr-17	Nov-19	TBD	TBD	TBD	TBD	TBD	TBD
Project D Cost/Schedule Risk	TBD	Apr-17	Oct-21	TBD	TBD	TBD	TBD	TBD	TBD
 I-5, I-405 to Yale Avenue	\$230.5	May-14	Aug-18	TBD	TBD	TBD	TBD	TBD	TBD
Project B	\$230.5	May-14	Jan-20	Sep-21	Jun-24	Dec-24	Apr-25	Jul-25	Jan-29
 I-5, Yale Avenue to SR-55	\$200.4	May-14	Aug-18	TBD	TBD	TBD	TBD	TBD	TBD
Project B	\$200.4	May-14	Jan-20	Apr-21	Dec-23	Jun-24	Oct-24	Feb-25	Aug-28
 I-5, SR-55 to SR-57	\$38.1	Jul-11	Jun-13	Jun-15	Mar-17	Jul-17	Sep-17	Dec-17	Apr-21
Project A	\$39.7	Jun-11	Apr-15	Jun-15	Jun-17	Dec-17	Mar-18	Nov-18	Dec-20
 SR-55, I-405 to I-5	\$410.9	Feb-11	Nov-13	Sep-17	Apr-20	Dec-20	Apr-21	Jul-21	Aug-25
Project F Cost/Schedule Risk	\$503.0	May-11	Aug-17	Sep-17	Apr-20	Sep-21	Dec-21	Apr-22	Apr-26

Capital Action Plan

Status Through September 2020












Updated: October 24, 2020

Capital Projects	Cost Baseline/Forecast (millions)	Schedule Plan/Forecast							
		Begin Environmental	Complete Environmental	Begin Design	Complete Design	Construction Ready	Advertise Construction	Award Contract	Complete Construction
 SR-55, I-5 to SR-91 Project F	TBD TBD	Dec-16 Dec-16	Jan-20 Mar-20	TBD TBD	TBD TBD	TBD TBD	TBD TBD	TBD TBD	TBD TBD
 SR-57 Northbound (NB), Orangewood Avenue to Katella Avenue Project G	TBD TBD	Apr-16 Apr-16	Dec-18 Mar-19	TBD TBD	TBD TBD	TBD TBD	TBD TBD	TBD TBD	TBD TBD
 SR-57 (NB), Katella Avenue to Lincoln Avenue Project G	\$78.7 \$38.0	Apr-08 Apr-08	Jul-09 Nov-09	Jul-08 Aug-08	Nov-10 Dec-10	Mar-11 Apr-11	May-11 Jul-11	Aug-11 Oct-11	Sep-14 Apr-15
 SR-57 (NB), Katella Avenue to Lincoln Avenue (Landscape) Project G	N/A N/A	N/A N/A	N/A N/A	N/A May-09	N/A Jul-10	N/A Jun-17	N/A Jul-17	N/A Sep-17	N/A Jun-18
 SR-57 (NB), Orangethorpe Avenue to Yorba Linda Boulevard Project G	\$80.2 \$52.3	Aug-05 Aug-05	Dec-07 Dec-07	Feb-08 Feb-08	Dec-09 Jul-09	Apr-10 Dec-09	Jun-10 May-10	Oct-10 Oct-10	May-14 Nov-14
 SR-57 (NB), Yorba Linda Boulevard to Lambert Road Project G	\$79.3 \$54.1	Aug-05 Aug-05	Dec-07 Dec-07	Feb-08 Feb-08	Dec-09 Jul-09	Apr-10 Mar-10	Jun-10 May-10	Oct-10 Oct-10	Sep-14 May-14
 SR-57 (NB), Orangethorpe Avenue to Lambert Road (Landscape) Project G	N/A N/A	N/A N/A	N/A N/A	N/A Oct-14	N/A Aug-17	N/A Dec-17	N/A Jan-18	N/A Feb-18	N/A Apr-19
 SR-57 (NB), Lambert Road to Tonner Canyon Project G	TBD TBD	TBD Jul-23	TBD Mar-26	TBD TBD	TBD TBD	TBD TBD	TBD TBD	TBD TBD	TBD TBD
 SR-91 Westbound (WB), I-5 to SR-57 Project H	\$78.1 \$59.2	Jul-07 Jul-07	Apr-10 Jun-10	Oct-09 Mar-10	Feb-12 Apr-12	Jul-12 Aug-12	Aug-12 Oct-12	Nov-12 Jan-13	Apr-16 Jun-16
 SR-91 Westbound (WB), I-5 to SR-57 (Landscape) Project H	N/A N/A	N/A N/A	N/A N/A	N/A Nov-14	N/A Aug-16	N/A Dec-16	N/A Feb-17	N/A Mar-17	N/A Nov-17
 SR-91, SR-55 to Lakeview Avenue (Segment 1) Project I	\$100.9 \$100.9	Jan-15 Jan-15	Oct-18 Jun-20	Mar-20 Mar-20	Jan-23 Jan-23	Aug-23 Aug-23	Oct-23 Oct-23	Feb-24 Feb-24	Sep-27 Sep-27
 SR-91, La Palma Avenue to SR-55 (Segment 2) Project I	\$208.4 \$208.4	Jan-15 Jan-15	Oct-18 Jun-20	Jun-20 Jun-20	Jul-23 Jul-23	Feb-24 Feb-24	Mar-24 Mar-24	Jul-24 Jul-24	Mar-28 Mar-28
 SR-91, Acacia Street to La Palma Avenue (Segment 3) Project I	\$116.2 \$116.2	Jan-15 Jan-15	Oct-18 Jun-20	TBD Nov-20	TBD Sep-23	TBD Apr-24	TBD Jun-24	TBD Sep-24	TBD May-28
 SR-91 (WB), Tustin Interchange to SR-55 Project I	\$49.9 \$42.5	Jul-08 Jul-08	Jul-11 May-11	Jul-11 Jun-11	Mar-13 Feb-13	Jul-13 Apr-13	Aug-13 Jun-13	Oct-13 Oct-13	Jul-16 Jul-16
 SR-91, SR-55 to SR-241 Project J	\$128.4 \$79.7	Jul-07 Jul-07	Jul-09 Apr-09	Jun-09 Apr-09	Jan-11 Aug-10	Apr-11 Dec-10	Jun-11 Feb-11	Sep-11 May-11	Dec-12 Mar-13

Capital Action Plan

Status Through September 2020










Updated: October 24, 2020

Capital Projects	Cost Baseline/Forecast	Schedule Plan/Forecast							
		Begin Environmental	Complete Environmental	Begin Design	Complete Design	Construction Ready	Advertise Construction	Award Contract	Complete Construction
	(millions)								
 SR-91, SR-55 to SR-241 (Landscape) Project J	N/A N/A	N/A N/A	N/A N/A	N/A May-12	N/A Feb-13	N/A Apr-13	N/A Jul-13	N/A Oct-13	N/A Feb-15
 SR-91 EB, SR-241 to SR-71Project J	\$104.5 \$57.8	Mar-05 Mar-05	Dec-07 Dec-07	Jul-07 Jul-07	Dec-08 Dec-08	Mar-09 May-09	May-09 Jun-09	Jul-09 Aug-09	Nov-10 Jan-11
91 Express Lanes to SR-241 Toll Connector	TBD TBD	N/A Nov-13	N/A Jan-20	N/A Jun-16	N/A Dec-21	N/A Jun-22	N/A Jul-22	N/A Nov-22	N/A Jun-25
 I-405, I-5 to SR-55 Project L	TBD TBD	Dec-14 Dec-14	Jul-18 Aug-18	TBD TBD	TBD TBD	TBD TBD	TBD TBD	TBD TBD	TBD TBD
 I-405, SR-55 to I-605 (Design-Build) Project K	\$1,900.0 \$1,900.0	Mar-09 Mar-09	Mar-13 May-15	Mar-14 Mar-14	Nov-15 Nov-15	Feb-16 Feb-16	Mar-16 Mar-16	Nov-16 Nov-16	May-23 May-23
I-405/SR-22 HOV Connector	\$195.9 \$120.8	N/A N/A	N/A N/A	Sep-07 Sep-07	Sep-09 Jun-09	Mar-10 Sep-09	May-10 Feb-10	Aug-10 Jun-10	Aug-14 Mar-15
I-405/I-605 HOV Connector	\$260.4 \$172.6	N/A N/A	N/A N/A	Sep-07 Sep-07	Sep-09 Sep-09	Mar-10 Feb-10	May-10 May-10	Oct-10 Oct-10	Jan-15 Mar-15
I-405/SR-22/I-605 HOV Connector (Landscape)	N/A N/A	N/A N/A	N/A N/A	N/A Jun-08	N/A May-09	N/A Feb-16	N/A May-16	N/A Jul-16	N/A Feb-18
 I-605, I-605/Katella Interchange Project M	\$29.0 \$29.0	Aug-16 Aug-16	Nov-18 Oct-18	TBD Dec-20	TBD Sep-22	TBD Jan-23	TBD Mar-23	TBD Jun-23	TBD Feb-25
Grade Separation Projects:									
 Sand Canyon Avenue Railroad Grade Separation Project R	\$55.6 \$61.9	N/A N/A	Sep-03 Sep-03	Jan-04 Jan-04	Jul-10 Jul-10	Jul-10 Jul-10	Oct-10 Oct-10	Feb-11 Feb-11	May-14 Jan-16
 Raymond Avenue Railroad Grade Separation Project O	\$77.2 \$126.2	Feb-09 Feb-09	Nov-09 Nov-09	Mar-10 Mar-10	Aug-12 Dec-12	Nov-12 Jul-13	Feb-13 Oct-13	May-13 Feb-14	Aug-18 May-18
 State College Boulevard Railroad Grade Separation (Fullerton) Project O	\$73.6 \$99.6	Dec-08 Dec-08	Jan-11 Apr-11	Jul-06 Jul-06	Aug-12 Feb-13	Nov-12 May-13	Feb-13 Sep-13	May-13 Feb-14	May-18 Mar-18
 Placentia Avenue Railroad Grade Separation Project O	\$78.2 \$64.5	Jan-01 Jan-01	May-01 May-01	Jan-09 Jan-09	Mar-10 Jun-10	May-10 Jan-11	Mar-11 Mar-11	Jun-11 Jul-11	Nov-14 Dec-14
 Kraemer Boulevard Railroad Grade Separation Project O	\$70.4 \$63.8	Jan-01 Jan-01	Sep-09 Sep-09	Jan-09 Feb-09	Jul-10 Jul-10	Jul-10 Jan-11	Apr-11 Jun-11	Aug-11 Sep-11	Oct-14 Dec-14
 Orangethorpe Avenue Railroad Grade Separation Project O	\$117.4 \$105.9	Jan-01 Jan-01	Sep-09 Sep-09	Feb-09 Feb-09	Dec-11 Oct-11	Dec-11 Apr-12	Feb-12 Sep-12	May-12 Jan-13	Sep-16 Oct-16

Capital Action Plan

Status Through September 2020

Updated: October 24, 2020

Capital Projects	Cost Baseline/Forecast (millions)	Schedule Plan/Forecast							
		Begin Environmental	Complete Environmental	Begin Design	Complete Design	Construction Ready	Advertise Construction	Award Contract	Complete Construction
 Tustin Avenue/Rose Drive Railroad Grade Separation Project O	\$103.0 \$96.6	Jan-01 Jan-01	Sep-09 Sep-09	Feb-09 Feb-09	Dec-11 Jul-11	Mar-12 Jun-12	May-12 Oct-12	Aug-12 Feb-13	May-16 Oct-16
 Lakeview Avenue Railroad Grade Separation Project O	\$70.2 \$110.7	Jan-01 Jan-01	Sep-09 Sep-09	Feb-09 Feb-09	Oct-11 Jan-13	Oct-12 Apr-13	Feb-13 Sep-13	May-13 Nov-13	Mar-17 Jun-17
 17th Street Railroad Grade Separation Project R	TBD TBD	Oct-14 Oct-14	Jun-16 Nov-17	TBD TBD	TBD TBD	TBD TBD	TBD TBD	TBD TBD	TBD TBD
Rail and Station Projects:									
 Rail-Highway Grade Crossing Safety Enhancement Project R	\$94.4 \$90.4	Jan-08 Jan-08	Oct-08 Oct-08	Jan-08 Jan-08	Sep-08 Sep-08	Sep-08 Sep-08	Sep-08 Sep-08	Aug-09 Aug-09	Dec-11 Dec-11
 San Clemente Beach Trail Safety Enhancements Project R	\$6.0 \$5.0	Sep-10 Sep-10	Jul-11 Jul-11	Feb-12 Feb-12	Apr-12 Jun-12	Apr-12 Jun-12	Jul-12 Oct-12	Oct-12 May-13	Jan-14 Mar-14
San Juan Capistrano Passing Siding	\$25.3 \$36.4	Aug-11 Aug-11	Jan-13 Mar-14	Mar-15 Mar-15	May-16 Aug-18	May-16 Aug-18	Aug-16 Aug-18	Dec-16 Mar-19	Feb-21 Feb-21
 OC Streetcar Project S	\$424.4 \$424.4	Aug-09 Aug-09	Mar-12 Mar-15	Feb-16 Feb-16	Sep-17 Nov-17	Oct-17 Dec-17	Dec-17 Dec-17	Aug-18 Sep-18	Dec-21 Oct-22
 Placentia Metrolink Station and Parking Structure Project R	\$34.8 \$40.1	Jan-03 Jan-03	May-07 May-07	Oct-08 Oct-08	Jan-11 Feb-11	TBD Jan-21	TBD Jan-21	TBD May-21	TBD Dec-22
 Orange County Maintenance Facility Project R	TBD TBD	Apr-20 Apr-20	Apr-22 Apr-22	TBD TBD	TBD TBD	TBD TBD	TBD TBD	TBD TBD	TBD TBD
Anaheim Canyon Station	\$27.9 \$29.9	Jan-16 Jan-16	Dec-16 Jun-17	Mar-19 Mar-18	May-19 Oct-20	May-19 Oct-20	Jul-19 Oct-20	Nov-19 Jan-21	Mar-21 Aug-22
Orange Station Parking Expansion	\$33.2 \$30.9	Dec-09 Dec-09	Dec-12 May-16	Nov-10 Nov-10	Apr-13 Apr-16	Jul-16 Jul-16	Jul-16 Jul-16	Nov-16 Jun-17	Feb-19 Feb-19
Fullerton Transportation Center - Elevator Upgrades	\$3.5 \$4.2	N/A N/A	N/A N/A	Jan-12 Jan-12	Dec-13 Dec-13	Dec-13 Dec-13	Jun-14 Aug-14	Sep-14 Apr-15	Mar-17 May-19
Laguna Niguel/Mission Viejo Station ADA Ramps	\$3.5 \$5.0	Jul-13 Jul-13	Jan-14 Feb-14	Jul-13 Jul-13	Aug-14 Jul-15	Aug-14 Jul-15	Sep-14 Jul-15	Jan-15 Oct-15	Apr-17 Sep-17
 Anaheim Regional Transportation Intermodal Center Project R & T	\$227.4 \$232.2	Apr-09 Apr-09	Feb-11 Feb-12	Jun-09 Jun-09	Feb-12 May-12	Feb-12 May-12	May-12 May-12	Jul-12 Sep-12	Nov-14 Dec-14

Capital Action Plan

Status Through September 2020

Updated: October 24, 2020

Capital Projects	Cost	Schedule							
	Baseline/Forecast	Plan/Forecast							
	(millions)	Begin Environmental	Complete Environmental	Begin Design	Complete Design	Construction Ready	Advertise Construction	Award Contract	Complete Construction

Note: Costs associated with landscape projects are included in respective freeway projects.

Grey = Milestone achieved

Green = Forecast milestone meets or exceeds plan

Yellow = Forecast milestone is one to three months later than plan

Red = Forecast milestone is over three months later than plan

Begin Environmental: The date work on the environmental clearance, project report, or preliminary engineering phase begins.

Complete Environmental: The date environmental clearance and project approval is achieved.

Begin Design: The date final design work begins, or the date when a design-build contract begins.

Complete Design: The date final design work is 100 percent complete and approved.

Construction Ready: The date contract bid documents are ready for advertisement, including certification of right-of-way, all agreements executed, contract constraints are cleared.

Advertise for Construction: The date a construction contract is both funded and advertised for bids.

Award Contract: The date the construction contract is awarded.

Construction Complete: The date all construction work is completed and the project is open to public use.

Acronyms

I-5 - Santa Ana Freeway (Interstate 5)

SR-73 - San Joaquin Freeway (State Route 73)

SR-55 - Costa Mesa Freeway (State Route 55)

SR-57 - Orange Freeway (State Route 57)

SR-71 - Corona Freeway (State Route 71)

SR-91 - Riverside Freeway (State Route 91)

SR-22 - Garden Grove Freeway (State Route 22)

I-405 - San Diego Freeway (Interstate 405)

SR-241 - Foothill/Eastern Transportation Corridor (State Route 241)

I-605 - San Gabriel River Freeway (Interstate 605)

ADA - Americans with Disabilities Act

EB - Eastbound

HOV - High-occupancy Vehicle

NB - Northbound

SB - Southbound

TBD - To-be-determined

WB - Westbound

Capital Programs Division

Fiscal Year 2020-21 Performance Metrics Through September 2020

Begin Environmental

Project Description	FY 21 Qtr 1		FY 21 Qtr 2		FY 21 Qtr 3		FY 21 Qtr 4		FY 21 Fcst
	Fcst	Actual	Fcst	Actual	Fcst	Actual	Fcst	Actual	
I-5, Avenida Pico to San Diego County Line							X		
Total Forecast/Actual	0	0	0	0	0	0	1	0	1

Complete Environmental

Project Description	FY 21 Qtr 1		FY 21 Qtr 2		FY 21 Qtr 3		FY 21 Qtr 4		FY 21 Fcst
	Fcst	Actual	Fcst	Actual	Fcst	Actual	Fcst	Actual	
No "Complete Environmental" milestones scheduled for FY 2020-21									
Total Forecast/Actual	0	0	0	0	0	0	0	0	0

Begin Design

Project Description	FY 21 Qtr 1		FY 21 Qtr 2		FY 21 Qtr 3		FY 21 Qtr 4		FY 21 Fcst
	Fcst	Actual	Fcst	Actual	Fcst	Actual	Fcst	Actual	
SR-91, Acacia Street to La Palma Avenue			X						
I-605/Katella Avenue Interchange			X						
I-5, Yale Avenue to SR-55							X		
Total Forecast/Actual	0	0	2	0	0	0	1	0	3

Complete Design

Project Description	FY 21 Qtr 1		FY 21 Qtr 2		FY 21 Qtr 3		FY 21 Qtr 4		FY 21 Fcst
	Fcst	Actual	Fcst	Actual	Fcst	Actual	Fcst	Actual	
Anaheim Canyon Metrolink Station	X								
Total Forecast/Actual	1	0	0	0	0	0	0	0	1


Construction Ready

Project Description	FY 21 Qtr 1		FY 21 Qtr 2		FY 21 Qtr 3		FY 21 Qtr 4		FY 21 Fcst
	Fcst	Actual	Fcst	Actual	Fcst	Actual	Fcst	Actual	
Anaheim Canyon Metrolink Station	X								
Placentia Metrolink Station and Parking Structure					X				
SR-55, I-405 to I-5							X		
Total Forecast/Actual	1	0	0	0	1	0	1	0	3

Advertise Construction

Project Description	FY 21 Qtr 1		FY 21 Qtr 2		FY 21 Qtr 3		FY 21 Qtr 4		FY 21 Fcst
	Fcst	Actual	Fcst	Actual	Fcst	Actual	Fcst	Actual	
Anaheim Canyon Metrolink Station	X								
Placentia Metrolink Station and Parking Structure					X				
Total Forecast/Actual	1	0	0	0	1	0	0	0	2

Award Contract

Project Description	FY 21 Qtr 1		FY 21 Qtr 2		FY 21 Qtr 3		FY 21 Qtr 4		FY 21 Fcst
	Fcst	Actual	Fcst	Actual	Fcst	Actual	Fcst	Actual	
I-5, Alicia Parkway to El Toro Road	X								
Anaheim Canyon Metrolink Station			X						
Placentia Metrolink Station and Parking Structure							X		
Total Forecast/Actual	1	1	1	0	0	0	1	0	3

Capital Programs Division

Fiscal Year 2020-21 Performance Metrics Through September 2020

Complete Construction

Project Description	FY 21 Qtr 1		FY 21 Qtr 2		FY 21 Qtr 3		FY 21 Qtr 4		FY 21 Fcst
	Fcst	Actual	Fcst	Actual	Fcst	Actual	Fcst	Actual	
San Juan Capistrano Passing Siding					X				
I-5, SR-55 to SR-57							X		
Total Forecast/Actual	0	0	0	0	1	0	1	0	2

Totals	4	1	3	0	3	0	5	0	15
--------	---	---	---	---	---	---	---	---	----

Begin Environmental: The date work on the environmental clearance, project report, or preliminary engineering phase begins.

Complete Environmental: The date environmental clearance and project approval is achieved.

Begin Design: The date final design work begins or the date when a design-build contract begins.

Complete Design: The date final design work is 100 percent complete and approved.

Construction Ready: The date contract bid documents are ready for advertisement, right-of-way certified, all agreements executed, and contract constraints are cleared.

Advertise for Construction: The date a construction contract is both funded and advertised for bids.

Award Contract: The date the construction contract is awarded.

Construction Complete: The date all construction work is completed and the project is open to public use.

Acronyms

I-5 - Santa Ana Freeway (Interstate 5)

SR-55 - Costa Mesa Freeway (State Route 55)

SR-91 - Riverside Freeway (State Route 91)

I-605 - San Gabriel River Freeway (Interstate 605)

I-405 - San Diego Freeway (Interstate 405)

Fcst - Forecast

FY - Fiscal Year

Qtr - Quarter

X = milestone forecast in quarter





November 2, 2020

To: Executive Committee

From: Darrell E. Johnson, Chief Executive Officer

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

Overview

At the request 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. An updated forecast has been prepared. A presentation on the results of this effort is provided.

Recommendation

Continue to monitor market conditions key indicators and their effects on the Next 10 Delivery Plan and provide updates to the Board of Directors as appropriate.

Background

On November 7, 2006, Orange County voters approved the renewal of Measure M (M2), the one-half cent sales tax for transportation improvements. The Orange County Transportation Authority (OCTA) Board of Directors (Board) continues to advance the implementation of M2 commitments by adopting a series of delivery plans. The delivery plans are designed to validate the ability to implement all projects and programs through 2041 as promised to the voters. The delivery plans consider the cost and timing of the transportation improvements, fluctuations in sales tax revenue projections, access to external revenue, and the use of bonding when necessary.

In 2016, the Board directed staff to acquire better insight into the construction market outlook. The intent was to provide insight into near-term construction market conditions in tandem with the revenue outlook 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 Chair of the Department of Urban Planning and Spatial Analysis at the University of Southern California.

The results of the initial analysis were presented to the Board in September 2017. The analysis identified several near-term cost indicators that could influence the construction market and, by extension, the M2 project delivery. These included: the pace of transportation construction programs in the neighboring counties (resulting in the strained supply of materials and workers), construction wage pressures, sustained low statewide unemployment, and residential construction demand. Overall, OCBC's analysis identified a strong potential that during the Next 10 delivery years, OCTA could experience an increasing cost environment.

Following the 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 on project delivery. In response, OCBC spent early 2018 analyzing trends and creating an Infrastructure Construction Cost Index (ICCI) model. On September 10, 2018, OCBC presented their ICCI model and their forecast for 2018, 2019, and 2020 cost fluctuation range to the Board.

Discussion

OCBC continues to analyze trends in material costs, labor costs, and general economic conditions and trends. Relevant data for each model component is analyzed to determine a range of potential cost impacts. The fall 2020 update provides a three-year forecast through 2023 and is summarized in Attachment A. The attachment also lists the forecasts from prior years for reference and shows how well the forecasts have held up. The full report on the ICCI model update is included as Attachment B.

The ICCI model is designed to be a forecasting tool, with scores indicating public construction forecast cost fluctuations. Index scores of two and three indicate somewhat normal inflationary environments. A value of four is a high inflation environment. A value of one is a low inflation/deflationary environment. Values of zero and five correspond to the extreme 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.

Using the ICCI model, OCBC estimates a score of one in 2021 and 2022, and a score of three in 2023. An ICCI score of one represents a potential range of cost fluctuation of negative two to one percent, and a score of three represents a potential cost increase range of two percent to six percent.

OCBC Orange County Transportation ICCI Score, 2021-2023		
Year	Index Score	Range of Cost Fluctuation
2021	1	-2% to 1%
2022	1	-2% to 1%
2023	3	2% to 6%

The update points to tempering market conditions compared to the spring 2020 forecast as cost pressures have slowed in the most recent data available. For example, a change from a low unemployment economy to that of a high unemployment economy due to the coronavirus (COVID-19) pandemic has lowered the risk for higher labor costs. In addition, building permits in California have slowed down, and building material costs have stabilized. As in prior forecasts and especially with COVID-19, OCBC indicates that OCTA will also need to be aware and ready to respond to cost pressures that cannot be modeled. Examples of such forces include:

- Tariffs and associated effects on the cost of materials from the nation's changing trade policy;
- Regulatory requirements and changes that create additional hurdles during the bidding process; and
- Future potential economic shutdowns related to COVID-19 spread.

Overall, OCBC's analysis identifies a potential that during 2021 and 2022, OCTA is likely to experience a low inflation cost environment followed by a more normal inflationary environment in 2023. OCTA is well-positioned to take advantage of the low inflation cost environment, as the M2 State Route 55 Widening Project between Interstate 405 and Interstate 5 and will be seeking construction bids within this timeframe.

Summary

OCTA has prepared an update on construction market conditions to help 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 concludes that OCTA may experience a tempering cost environment in 2021 and 2022, with potential cost increase ranging from two to six percent in 2023.

Attachments

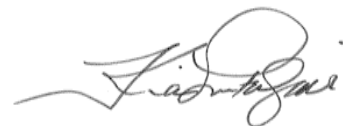
- A. Orange County Business Council, Orange County Transportation Infrastructure Construction Cost Index Score, Fall 2018 through Fall 2020 Forecasts
- B. Orange County Business Council, Orange County Transportation Infrastructure Construction Cost Pressure Index, Fall 2020, Prepared for the Orange County Transportation Authority

Prepared by:



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

Approved by:



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

**Orange County Business Council
Orange County Transportation Infrastructure Construction
Cost Index Score
Fall 2018 through Fall 2020 Forecasts**

Fall 2018

OCBC Orange County Transportation ICCI Score, 2018-2020		
Year	Index	Cost Increase Range (annual)
2018	4	6% - 11%
2019	3	2% - 6%
2020	3	2% - 6%

Spring 2019

OCBC Orange County Transportation ICCI Score, 2019-2021		
Year	Index	Cost Increase Range (annual)
2019	4	6% - 11%
2020	3	2% - 6%
2021	3	2% - 6%

Fall 2019

OCBC Orange County Transportation ICCI Score, 2020-2022		
Year	Index	Cost Increase Range (annual)
2020	3	2% - 6%
2021	3	2% - 6%
2022	3	2% - 6%

Spring 2020

OCBC Orange County Transportation ICCI Score, 2020-2022		
Year	Index	Cost Increase Range (annual)
2020	3	2% - 6%
2021	2	1% - 2%
2022	2	1% - 2%

Fall 2020

OCBC Orange County Transportation ICCI Score, 2021-2023		
Year	Index	Cost Increase Range (annual)
2021	1	-2% - 1%
2022	1	-2% - 1%
2023	3	2% - 6%

Orange County Business Council
Orange County Transportation Infrastructure Construction Cost Pressure Index
Fall 2020
Prepared for the Orange County Transportation Authority

OCBC Research Team

Dr. Wallace Walrod – Chief Economic Advisor, Orange County Business Council.

Dr. Marlon Boarnet – Professor and Chair, Department of Urban Planning and Spatial Analysis, University of Southern California.

Benjamin Palmer – Research Associate, Orange County Business Council.

Background and Purpose

As a supplementary examination to the Next 10: Market Conditions Forecast and Risk Analysis study delivered by Orange County Business Council (OCBC) in September 2017, the Orange County Transportation Authority (OCTA) Board of Directors (Board) requested further study and exploration of potential cost fluctuations beyond existing cost analysis from the California Department of Transportation's (Caltrans) Construction Cost Index (CCI) and internal OCTA analysis. The OCTA Board requested an ongoing analysis of construction cost factors, with periodic updates. In response, the OCBC team developed the Orange County Transportation Infrastructure Construction Cost Pressure Index, which is updated every six months.

To develop the cost pressure index, the OCBC team analyzed annual trends in material costs, labor costs and general economic conditions to determine a range of potential cost increases with a time horizon that is typically three years into the future. The index updates begin by collecting relevant market data and indicators and then performing data analytics on to assess current cost pressure and forecast future cost pressure. In doing so, and providing these findings to the OCTA's Board, more accurate budgets can be determined reducing the potential risk of cost pressure and project delivery slowdowns due to financial constraints. This memo describes the September 2020 update, with annual cost pressure index forecasts to 2023.

Findings and Discussion

OCBC has updated the Orange County Transportation Infrastructure Construction Cost Pressure Index forecast for the remainder of 2020 and for 2021, 2022 and 2023. Results, and a comparison to the previous February 2020 forecasts, are shown below.

Year	Index	Cost Increase Range (annual)	Index (Feb. 2020) with annual cost increase range
2020	0	-17% to -2%	3 (2% to 6%)
2021	1	-2% to 1%	2 (1% to 2%)
2022	1	-2% to 1%	2 (1% to 2%)
2023	3	2% to 6%	not estimated

Orange County Business Council
Orange County Transportation Infrastructure Construction Cost Pressure Index
Fall 2020
Prepared for the Orange County Transportation Authority

The cost pressure index value for 2020 has dropped precipitously, from a 3 (2% to 6% annual cost increases) in February to a 0 (a deflationary cost environment, -2% to -17% annual cost changes) in the current update. Note that an index of zero corresponds to the most extreme deflationary time periods observed in the infrastructure construction environment in California in the past 30 years. For the balance of 2020, the cost pressure index predicts a deflationary environment. Following that, the index rises to a 1 for the next two years (annual cost changes from -2% to 1%) and then recovers to a more normal value of 3 (2% to 6% annual cost increases) in 2023.

The key model inputs for this update are being driven by the 2nd quarter (Q2) of 2020. Key data items, including the unemployment rate in California and the cost of infrastructure building materials, are based on the most recent data which compares Q2 2020 with Q2 2019. Those data reflect the pandemic-related recession during Q2 but do not reflect any economic recovery after June 2020.

All key index values, but especially California's unemployment rate and building materials cost values, dropped on an annualized basis based on changes from Q2 2019 to Q2 2020. Orange County construction wage data post-pandemic are not yet available – the most recent wage data are for the 1st quarter (Q1) of 2020.

The cost pressure index model shows clear declining cost pressure, with a predicted deflationary cost environment for the balance of 2020. Note the quadrupling of the California unemployment rate (Table 1), which is based on changes in Q2 of 2020. Moving forward, the unemployment rate in the state could decline as the economy recovers. The model is built to be robust to large movements in the input data, but we recommend continued monitoring to assess the effect of future changes in the economic environment. If the Q2 2020 data which are currently driving the model improve as the economy reopens, the construction cost environment may continue to change.

The key structural change in the past six months is the shift from a low unemployment to a high unemployment economy. Housing production continues to slow statewide. Materials costs, as of Q2 2020, were down (see the appendix.) The key question is whether the unemployment rate changes will persist and how economic factors will translate into construction wages.

Overall, the model suggests the county is currently in, on average, a deflationary environment for infrastructure costs, with a near-zero inflation environment forecast for 2021 and 2022, with modest deflation possible in those years. There is no sign of upward cost pressure as of the most recent data. Given the rapid changes in economic conditions, frequent updates to the model are recommended.

Orange County Business Council
Orange County Transportation Infrastructure Construction Cost Pressure Index
Fall 2020
Prepared for the Orange County Transportation Authority

Recent Data Trends

Table 1 shows the values for 2016 through 2019 and the 2020 values based on projections from quarterly data. The construction wage data for 2020 are based on projections from the 1st quarter of 2020, with other 2020 values are based on Q2 2020 data. Building permitting in California is slowing and the unemployment rate quadrupled on an annual basis from Q2 2019 to Q2 2020. Building materials costs have fallen for all tracked materials with the exception of Portland Cement Concrete (pavement).

Table 1: Infrastructure Cost Correlates, Annual Percentage Changes, 2016-2020

Year	California Building Permits	% change year-on-year	California Unemployment Rate	% change year-on-year	OC Construction Labor Costs (average annual wage)	% change year-on-year
2016	102,350	4.2%	5.5%	-11.6%	\$67,179	3.8%
2017	114,780	12.1%	4.8%	-12.9%	\$71,474	6.4%
2018	113,502	-1.1%	4.2%	-12.1%	\$74,669	4.5%
2019	109,904	-3.2%	4.0%	-4.8%	\$77,289	4.5%
2020*	84,707	-23%	16.6%	315%	\$80,743 **	3.7%

* 2020 values projected from year-on-year changes in quarterly data, Q2 of 2019 to Q2 of 2020.

** Based on Q1 2020 data.

The Caltrans Construction Cost Index (CCI) dropped 25% from Q1 to Q2 of 2020 – a large decline but not unprecedented. The Caltrans CCI dropped by 20% quarter to quarter in Q2 2014, Q2 2015, and Q4 2019.

Forecasting Method

OCBC used a series of regression analyses and forward-looking projections to create the Infrastructure Construction Cost Pressure Index. This Index provides a ranking from 0 to 5, with each rank corresponding to a range of percent changes in overall construction costs. Table 2 below highlights each Index ranking and the proposed range of cost fluctuations which have been provided on a low, midpoint, and high scale.

Orange County Business Council
Orange County Transportation Infrastructure Construction Cost Pressure Index
Fall 2020
Prepared for the Orange County Transportation Authority

Table 2: OCBC OC Transportation Infrastructure Construction Cost Pressure Index Score Ranking

Implied Range of Construction Cost Change

Index Score	Low	Midpoint	High
0	-17%	-9.5%	-2%
1	-2%	-0.5%	1%
2	1%	1.5%	2%
3	2%	4%	6%
4	6%	8.5%	11%
5	11%	25.5%	40%

These ranges are built to be forecasting tools, with scores indicating public construction forecast cost increase. Values of 2 and 3 indicate somewhat normal inflationary environments. A value of 4 is a high inflation environment. A value of 1 is a low inflation/deflationary environment. Values of 0 and 5 correspond to the most extreme conditions observed in Orange County over the past three decades, and hence the ranges for those values are wide due to the unusual nature of the highly deflationary environment that occurred immediately prior to and during the Great Recession and the high cost inflation environment that occurred in the building boom years of the early 2000s.

Methodology

To determine the Transportation Infrastructure Construction Cost Pressure Index, the OCBC team started by aggregating several datasets, measures, and indicators on an annual basis as far back as 1972. Among others, these measures included the Caltrans CCI, state-level building permits and unemployment rates, material costs, and construction labor costs.

The OCBC team examined how the various measures and indicators of construction costs varied with changes in (1) building permitting activity, (2) unemployment rates, (3) materials costs, (4) labor costs, and recent past trends in construction inflation. Using statistical analyses, the research team has built a forecasting model that projects forward cost increases and predicted cost increases are grouped into the categorical ranges shown above.

Orange County Business Council
Orange County Transportation Infrastructure Construction Cost Pressure Index
Fall 2020
Prepared for the Orange County Transportation Authority

Appendix: Changes in Infrastructure Materials Costs 2016-2020 (all values are percent year-on-year changes)

Year	Aggregate	PPC Pavement	PCC Structure	Steel Structure	Steel Bar
2016	9.4%	8.5%	7.6%	26.3%	35%
2017	24.2%	106.8%	26.9%	-51.0%	-21%
2018	18.9%	25.9%	17.2%	-58.8%	9.4%
2019	4.6%	-11%	-4.2%	0.8%	53.4%
2020*	-15.9%	58.8%	-24.5%	-51.9%	-75.2%

* 2020 values projected from year-on-year changes in quarterly data, Q2 2019 to Q2 2020.

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

Orange County Transportation Infrastructure Construction Cost Pressure Index, Fall 2020

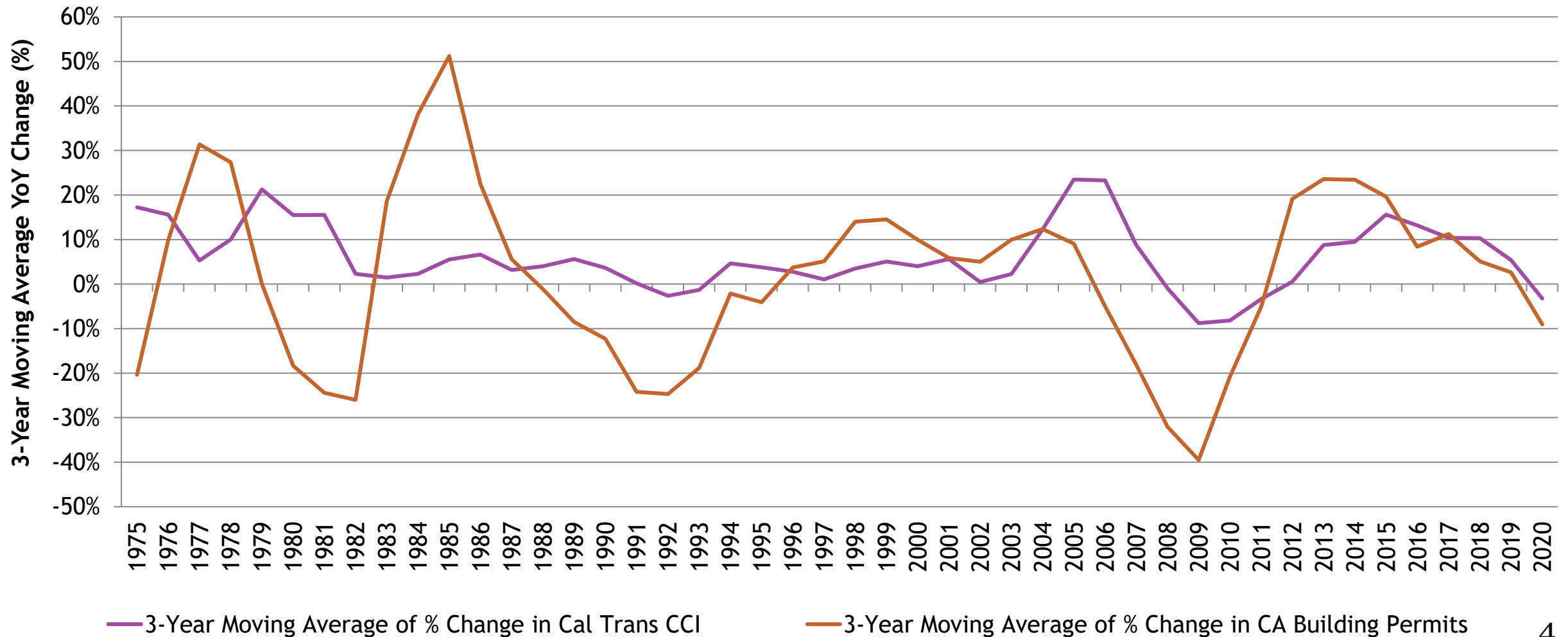
Orange County Business Council

September 2020

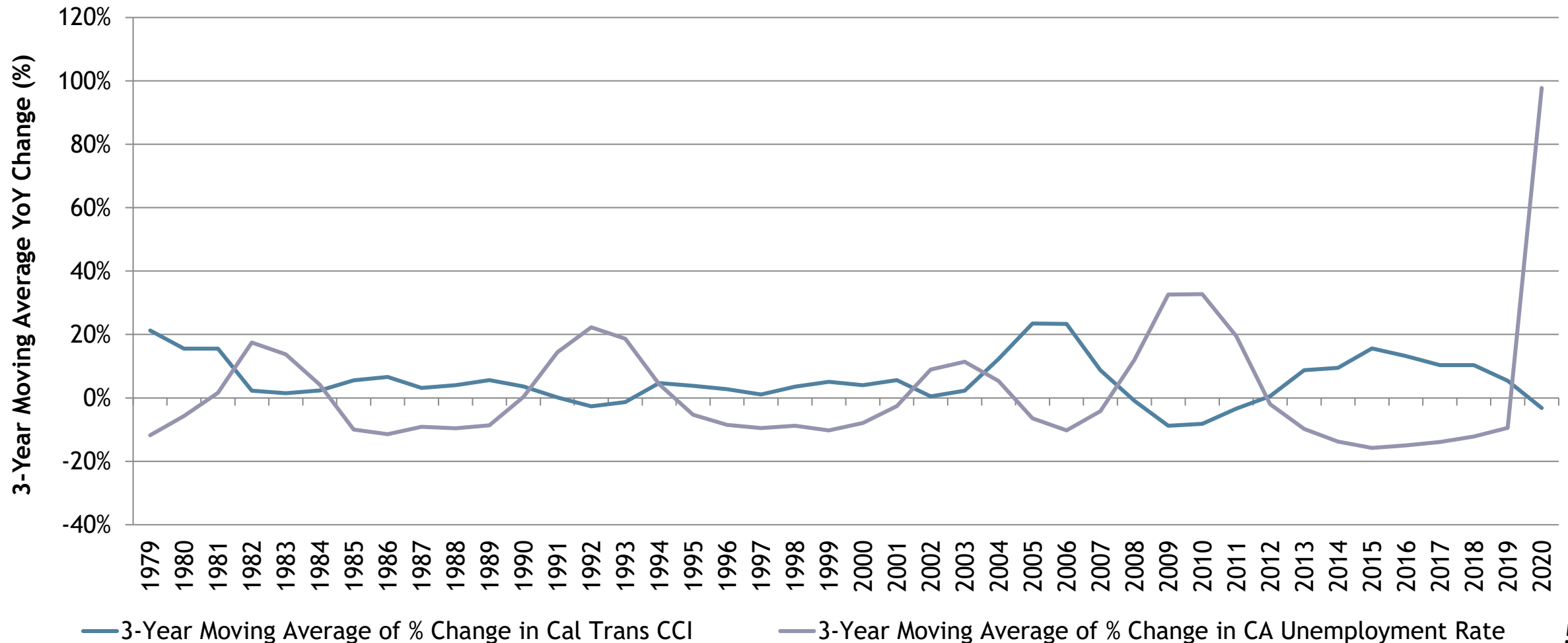
Orange County Transportation Infrastructure Construction Cost Pressure Index Model Components

- Economic Trends - State-level building permits and unemployment rate (Census and California Employment Development Department (EDD));
- Material Costs - Construction Aggregate, PCC Pavement, PCC Structural Concrete, Structural Steel and Bar Steel (Caltrans).
- Labor Costs - Localized construction wages of NAICS defined sectors provided by Bureau of Labor Statistics (BLS).
- Economic Conditions - Tight economy in 2002-2005 and slack economy in 2007-2011.

3-Year Moving Average of Year-Over-Year Percent Change in Caltrans CCI and Building Permits



3-Year Moving Average of Year-Over-Year Percent Change in Caltrans CCI and CA Unemployment Rates



Forecast and Range of Orange County Transportation Infrastructure Cost Increases by Index Value

- 2020 - Forecasted Index Value: 0
- 2021 - Forecasted Index Value: 1
- 2022 - Forecasted Index Value: 1
- 2023 - Forecasted Index Value: 3

Range of Cost Fluctuations by Index Score			
Index	Low	Medium	High
0	-17%	-9.5%	-2%
1	-2%	-0.5%	1%
2	1%	1.5%	2%
3	2%	4%	6%
4	6%	8.5%	11%
5	11%	25.5%	40%

Cost Pressures Have Shifted, Both Structurally and Due to COVID-19

- Statewide building permit issuance continues to decline;
- California unemployment rate quadrupled in Q2 2020 relative to Q2 2019 (4% to 16.6%);
- Increasing, yet uncertain Orange County construction labor costs; and
- Building material costs have nearly all declined.

Year-over-Year Changes in California Building Permits, California Unemployment Rate and Orange County Construction Labor Costs, 2016-2019

Year	California Building Permits	% change year-on-year	California Unemployment Rate	% change year-on-year	OC Construction Labor Costs (avg. annual wage)	% change year-on-year
2016	102,350	4.2%	5.5%	-11.6%	\$67,179	3.8%
2017	114,780	12.1%	4.8%	-12.9%	\$71,474	6.4%
2018	113,502	-1.1%	4.2%	-12.1%	\$74,669	4.5%
2019	109,904	-3.2%	4.0%	-4.8%	\$77,289	4.5%
2020*	84,707	-23%	16.6%	315%	\$80,743 **	3.7%

* 2020 values projected from year-on-year changes in quarterly data, 2nd quarter 2019 to 2nd quarter 2020.

** Based on 1st quarter 2020 data.

OCBC Infrastructure Construction Cost Forecast

- Systematic Risks - currently experiencing large fluctuations due to COVID-19
 - Construction/building environment
 - State's economy influencing demand and cost
 - Direct measures of labor and materials cost

OCBC OC Transportation Infrastructure Construction Cost Index Score, 2020-2023		
Year	Index Score	Range of Cost Fluctuation
2020	0	-17% to 2%
2021	1	-2% to 1%
2022	1	-2% to 1%
2023	3	2% to 6%

- Idiosyncratic Risks - not predictable and therefore not in model
 - Tariffs and associated effects on cost of materials, from changing trade policy
 - Regulatory requirements/changes creating additional hurdles to the bidding process
 - Future potential economic shutdowns related to COVID-19 spread/second wave

Questions