ATTACHMENT A: Project Modification Request (PMR) FORM

The purpose of this PMR form is to initiate the Project modification process and provide the District with information necessary to evaluate the Project modification request.

Regional Program	☑Infrastructure Program Project ☐Scientific Studies Program ☐Technical Resources Program
Project/Study Name	MacArthur Lake Rehabilitation Project
Project/Study Lead	City of Los Angeles, Sanitation and Environment (LASAN)
Watershed Area(s)	Central Santa Monica Bay
Current Project Phase	Design
Approved Stormwater Investment Plan Fiscal Year	FY20-21
Transfer Agreement ID (e.g., 2020RPULAR52)	2020RPCSMB04

Has Transfer Agreement or most recent Addendum been executed (i.e., signed by the project lead and the District)? ☐ Yes ☑ No

What type(s) of modification request?

☑ like-for-like modifications
☑ functionally equivalent BMP modifications
☐ modifications to Project or Study components that were not material to the WASC, ROC, or Board's decision to include the Project or Study in the SIP
☐ minor modifications to the budget or schedule of intermediate tasks where the total Funded Activity amount and Funded Activity completion date is unchanged
☐ change in primary or secondary objective
☐ change in Project benefits
☐ change in methodology (e.g., infiltration instead of diversion to sanitary sewer)
☐ decrease in BMP capacity
☐ change in Project or Study location
☐ change in capture area where benefits claimed are diminished or where there is a change in the municipalities that are receiving benefits
☐ updated engineering analysis resulting in a reduction of benefits claimed
☑ increase in Construction Cost or Life Cycle Cost greater than 10%
☑ increase or reallocation of annual funding distribution
☑ change in Funded Activity completion date
☑ other, please describe:

Increased project cost sharing.

Impact on scope or benefits?

☐ Improved
☐ Diminished
☑ Neither
☐ Not Sure

Description of the proposed modification(s) and the reason(s) why the modification(s) is/are being proposed.

LASAN and its design consultants, have concluded the Pre-Design for the MacArthur Lake Rehabilitation Project (Project). The conceptual design included in the Feasibility Study served as the basis for the three (3) alternatives that are presented and evaluated in the Project Definition Report (PDR).The final recommended alternative in the PDR is based on an understanding of the project and its impact on the community, operations staff, existing infrastructure, regulations, and the surrounding environment. The now titled MacArthur Lake Stormwater Capture Project consists of various key components to maximize water quality and water supply benefits while providing community benefits. The updated elements and the drivers for their adjustments are described in Appendix A.
Since the execution of the Transfer Agreement (TA), the total project and construction costs have increased due to high cost escalation and economic inflation over the past few years. The Covid-19 Pandemic has been a major factor contributing to both material and labor shortages, which resulted in high escalation and inflation. The City of Los Angeles Bureau of Engineering (BOE) released a report in July 2022 with suggested inflation rates for project estimates. In August of 2023, BOE released an updated report with a revised inflation rate. Both of the rates are included as appendices for reference. Please see these attached letter detailing the modifications that were presented and approved by the CSMB WASC on November 7, 2023, before the PMR process was established.
The modifications previously accepted by the WASC included changes to Section A-3 Estimated Reasonable Total Activity Cost, Section A-10 Work Schedule and Completion Date Modifications, and Cost Share Modification of Exhibit A - Scope of Work of the TA.

If applicable, list previously approved funding allocations/disbursements and revised funding request:

Note, if some or all of a previously Funded Activity cannot be completed as a result of the proposed modification, please include a description and indicate the amount of unused funds. Any unused funds should be reallocated and accounted for in your revised funding request.

Fiscal Year	Approved Funding Allocations	Revised Funding Request	Description/Phase *If applicable, include description of unused funds*
FY 20-21	$2,000,000	$2,000,000	Approved funding received
FY 21-22	$2,000,000	$2,000,000	Approved funding received
FY 22-23	$9,397,900	$9,397,900	Approved but not yet received; addendum #2 pending CEQA
FY 23-24	$4,697,900	$4,697,900	Approved but not yet received; addendum #3 pending CEQA
FY 24-25	$1,947,918	$5,947,918	Requesting an additional $4M
Future Funding	$0	$7,000,000	Requesting additional funding for FY25/26 ($4M); FY26/27 ($3M)
TOTAL	$20,043,718	$31,043,718	Refer to table 1 in Appendix A for details

A: SCWP Approved Total Funding Allocations	$20,043,718
B: Revised SCWP Anticipated Total Funding Request	$31,043,718
C: Difference between B and A	$11,000,000

If applicable, description of difference in SCWP Anticipated Total Funding Request. As a reminder, annual funding is at the discretion of the WASC, ROC, and ultimately the Board of Supervisors.

Beside requesting additional funding from SCWP, LASAN has been actively pursuing various options to fill the funding gap. These include leveraging the City's Measure W Municipal Funds, securing funding from Proposition K ($550K) to be used for park improvement purposes, and applying for both State and Federal Grants. A Letter of Intent (LOI) was submitted to a NOAA grant, but the Project was not selected. LASAN also submitted an application on 11/20/2023 requesting $16.9M from California Natural Resources Agency Urban Greening Grant. Decisions regarding the grant award are pending.

Brief description of Supporting Documentation provided.

Appendix A - MacArthur Project Modification Request (PMR) Details
Appendix B - Project Benefit Comparison
Appendix C - Quarter 4 (Q4) Fiscal Year (FY) 22-23 Quarterly Report Modification Letter
Appendices D and E - BOE Inflation Rate Letters

I certify the information and supporting documentation provided is accurate and true.	☑ YES
I understand this is a request and it is under the WASC's discretion to consider requested modifications.	☑ YES

Name Michael Scaduto, P.E., ENV SP Organization City of Los Angeles, LASAN

Signature Michael Scaduto Digitally signed by Michael Scaduto Date: 2023.11.30 07:29:00-08'00' Date 11/30/2023

FOR DISTRICT USE ONLY

Proposed Modifications to Projects or Studies:

	Status	Date
Modified Project or Study is **consistent** with the Project or Study included in the current fiscal year's SIP and proposed modifications were **approved** by the District.	☐ YES	
Modified Project or Study is **NOT consistent** with the Project or Study included in the current fiscal year's SIP. **If yes, select all that apply**:	☒ YES	12/13/23
PMR was received **after** October 31 of a fiscal year and the PMR will be considered for approval during the preparation of **subsequent** SIP for the fiscal year after the next	☐ YES	-
For Infrastructure Program Projects, modified Project was sent to **Scoring Committee**. If yes, revised score:	☐ YES	
Project or Study **abandoned** the proposed modifications	☐ YES	
Projector or Study was **withdrawn** from consideration by the WASC and shall issue repayment of unspent funds	☐ YES	
Proposed modifications were **recommended for approval** in the SIP	☐ YES ☐ NO	

Proposed Modifications to Project Concepts:

	Status	Date
Proposed modifications were deemed **consistent** with the Project concept that was approved by the WASC, ROC and Board for inclusion in the SIP and can be addressed within the existing budget. District will proceed to incorporate the proposed modification into the Feasibility Study immediately.	☐ YES	
Proposed modifications were deemed significant enough to result in a **significantly different** Project concept from the one approved by the WASC, ROC and Board for inclusion in the SIP. **If yes, select one:**	☐ YES	
District to **discontinue** work on the Feasibility Study, return unused funds to be programmed in the SIP for the next fiscal year, and advise the proponent to submit the modified Project concept during the Call for Projects for a future fiscal year.	☐ YES	-
District to **abandon** the proposed modifications and proceed with the Project concept included in the SIP.	☐ YES	-

Appendix A: MacArthur Project Modification Request (PMR) Details

What type(s) of modification request?

Like for like modifications:

Diversion & Pretreatment – **RELOCATED DOWNSTREAM ON SAME DRAIN**. The original diversion was located at the intersection of Wilshire Blvd and Alvarado St and consisted of a 181.4-acre drainage area. The existing inverts and lake elevation prohibited gravity diversion while placing project elements within the travel lanes requiring interruptions during all maintenance events. The diversion was shifted downstream along the same storm drain network to Lake St immediately south of 7th St to a more easily accessible area for maintenance and the installation of a wet well for pumping. This increased the diverted drainage area to 200 acres. In addition to the shift in location and the requirement for pumping, the peak diversion rate was analyzed and adjusted to 12.6 cfs. This diversion ensures that 80% of the 85th percentile design storm volume is continued to be captured and treated. A similar pretreatment system is proposed that provides for 100% trash capture and remains unchanged.

Treatment Filter – **INCREASED IN CAPACITY**. The original concept included adding a 900 gallon per minute (gpm) (2.0 cfs) treatment filter to help improve the water quality entering the lake. The updated concept proposes increasing the treatment filter rate to 1,800 gpm (4.0 cfs) to provide added pollutant removal of fines and metals prior to discharge into the lake.

Overall water quality performance – The original water quality metric provided within the transfer agreement identifies a 100% zinc removal and 100% trash removal. The project maintains the 100% trash removal by ensuring a seal above the 100-year hydraulic grade line thus capturing all trash that is diverted to the system. Through the combination of the pretreatment, filter, and lake settling, the zinc pollutant loading is anticipated to be 84%. While a goal of 100% zinc reduction is ideal, engineering realities show that no system will ever truly be 100% unless capable of diverting the entirety of the existing drain into the treatment system, which is infeasible and impractical. Knowing that redirecting the existing drain into the park would not be feasible, the project sought to maintain a robust pollutant removal performance that would be consistent with what was originally envisioned. While there is a slight decrease, the project remains within the same bands of scoring, consistent with the original project intent.

Overall water supply performance – The original water supply metric provided within the transfer agreement identifies 129.5 ac-ft/yr. Though more water is anticipated to be treated through the filtration system during an event, the larger drainage area and the continued use of the lake for storage prior to discharge to the sanitary sewer is anticipated to yield an average annual water supply volume of 88.4 ac-ft/yr. This water also offsets the potable water use presently needed to fill the lake.

Functionally equivalent BMP modifications:

Water Feature/Terrace Garden – **SHIFTED LOCATION**. The original concept included a treatment wetland on the eastern banks of the lake that would provide treatment to the inflows. The constructed wetlands were shifted to the western banks of the lake to a lesser used space and built into the hillside in a terraced fashion to promote continual circulation, aeration, and filtration through root and soil medias. Due to the stepped nature of the adjusted feature, the treatment was renamed a terrace garden, but the function is the same as the original envisioned constructed wetland.

Storage – The original 24-hr storm capacity was identified as 13.1 ac-ft consisting of several 45 feet deep vertical cisterns that would be located within the driving lanes of Alvarado Dr. and lake storage. These cistern depths would pose maintenance issue as they exceed the 25-foot depth limit of the City Vactor trucks. Additionally, the heavy traffic along Alvarado combined with the required regular maintenance of the pre-treatment system necessitated moving the diversion, pretreatment, and storage, as outlined above. In addition, with the heavy presence of existing underground utilities and substructures, it would be very costly to implement the proposed cisterns. Given these constraints and the shift in the diversion, an alternative solution for the storage system was required and the most cost-efficient method identified as the use of the lake for primary storage. The updated design has an inflow 24-hour storm capacity of 23.8 ac-ft. The inflow is directed through the 4 cfs treatment filter and then discharged to the lake for up to 5 ac-ft thus providing 100% removal of trash and zinc for this fraction of the flow. Any flows greater than 4 cfs are returned to the existing storm drain having had an estimated 100% of the trash, 80% of the sediment, and 50% of the metals removed. Through long-term simulation modeling looking at 20-years of storm data, this system is expected to remove 100% of trash and 83% of zinc on an average annual basis.

Lake Recirculation Treatment – The original concept assumed that the existing 600 gpm (1.3 cfs) water circulation system would treat the water through a combination of a sand filter and UV. It should be noted that the 600 gpm filter is not presently operational and the original concept did not include scope nor budget to bring the system online. The present effort has incorporated the rehabilitation of the water circulation system that will bring the sand filter and UV treatment systems online and provide additional treatment of the lake water that is circulated through the terraced garden.

Landscape features – The original concept incorporated elements north of Wilshire and increased the tree canopy by 33 trees with an added 4,300 square feet of vegetation. Per conversations with the City Recreation and Park Department (RAP), a smaller overall project footprint that kept many of the existing uses intact was desired and the project shifted focus to the south of Wilshire and the western portion of the park where it had lower utilization. The terraced garden accounts for 10,450 square feet of new vegetation within the site and a total of 20 trees are incorporated into the project limits.

Increase in Construction Cost or Life Cycle Cost greater than 10%

Since the original cost estimate, the design has been modified to include a pump station, additional treatment filters, and associated piping to ensure treatment of the whole drainage area while maintaining an 80% target of pollutant reduction. Additionally, construction costs have increased due to escalation and inflation which was attributed by supply chain shortages in both labor and materials.

Phase	Approved	Modified
Project Management	$740,000	$200,000
Pre-Design	$600,000	$1,614,730
Design	$4,260,000	$1,470,079
EIR Consultant	$0	$912,147
Bid and Award	$517,900	$146,000
Construction	$13,575,818	$31,091,000
Construction Management	$350,000	$1,659,762
Post Construction	$0	$150,000
Optimization	$0	$150,000
Audit Fee	$0	$200,000
Total Project Cost	**$20,043,718**	**$37,593,718**

Increase or reallocation of annual funding distribution:

Change of total Regional funding request (from $20,043,718 to $31,043,718)

Table 1. Approved SCW Program contribution and additional request

Cash Flow	FY 20/21	FY 21/22	FY 22/23	FY 23/24	FY 24/25	FY 25/26	FY26/27	TOTAL
Approved	$2,000,000	$2,000,000	$9,397,900	$4,697,900	$1,947,918	$0	$0	$20,043,718
Additional Request	$0	$0	$0	$0	$4,000,000	$4,000,000	$3,000,000	$11,000,000
Total Regional Funding	$2,000,000	$2,000,000	$9,397,900	$4,697,900	$5,947,918	$4,000,000	$3,000,000	$31,043,718

Change in Funded Activity completion date:

The original concept was deemed infeasible due to the excessive inverts of the vertical system and the necessary regular traffic interruptions caused by routine maintenance. Additionally, the Recreation and Park Department of the City desired elements be installed on the west side of the park in lieu of the conceptualized east side. This required a re-envisioning of the concept to maintain the water quality, water supply, and community benefits identified. A new modeling analysis and Project Definition Report were generated to ensure a project that was maintainable and acceptable to the various City departments.

Phase	Approved Start Date	Approved End Date	Start Date Modification	End Date Modification
Pre-Design	01/01/21	12/31/21	02/15/21	08/31/22
Design	01/01/22	03/31/23	05/09/23	10/01/24
Bid and Award	01/01/23	09/30/23	10/02/24	05/01/25
Construction	07/01/23	03/31/25	05/02/25	11/01/26
Post Construction	04/01/25	06/30/25	11/02/26	11/01/27
O&M	04/01/25	06/30/75	11/02/27	11/02/77

Other – Increased project cost sharing.

As reported in previous quarterly reports to date, the City has been leveraging funding from Municipal Funds in support of the project delivery. LASAN has incurred cost share expenditures for the City of Los Angeles, Department of Public Works charges for project administration and implementation, design review, community engagement and outreach, environmental review, and construction management. The estimated City staff cost to support the Project is $5.35M. In addition, the City has budgeted $550,000 in FY24/25 to go towards delivery expenditures for the Project. These investments reflect the City's commitment to leveraging and maximizing benefits delivered in the Regional Program. A summary of the leverage fund to offset the Project's cost increase is provided below

Funding Info	**FY 23/24 (Secured)**	**FY 24/25 (Proposed)**	**FY 25/26 (Proposed)**	**FY 26/27 (Proposed)**	**TOTAL**
Prop K	$550,000	$0	$0	$0	$550,000
Municipal Funding	$0	$600,000	$5,200,000	$200,000	$6,000,000

Appendix B: MacArthur Lake Rehabilitation Project Benefit Comparison

SCWP Metric	Description of Changes
A. Water Quality Benefits	The overall zinc pollutant removal for the project slightly decreased but remains above the 80% target of the SCWP. Trash removal will remain at 100%. The Project encountered two new pieces of information during the pre-design that necessitated an alternative that could meet the original goals of the initial feasibility study; 1) cistern depths exceeded maintenance equipment, and 2) regular maintenance access requiring lane closures within Alvarado would not be acceptable. Additionally, the original water quality metric provided within the transfer agreement identifies a 100% zinc removal and 100% trash removal. The storage volume shifted from the vertical cisterns to the lake while still providing an elevated level of treatment through pretreatment and a treatment filter prior to discharging to the lake. The Project maintains the 100% trash removal by ensuring a seal above the 100-year hydraulic grade line thus capturing all trash that is diverted to the system. Through the combination of the pretreatment, filter, and lake settling, the zinc pollutant loading is anticipated to be 83%. The project sought to maintain a robust pollutant removal performance that would be consistent with what was originally envisioned.
B. Water Supply Benefits	The modeled annual water supply through lake potable offset and sanitary sewer discharge to Hyperion is decreased from 129.5 to 88.4 ac-ft/yr due to the decreased storage volume and increased filtration rate.
C. Community Investment Benefits	The updated project has maintained the 6 identified community investment benefits.
D. Nature-Based Solutions	The same nature-based solutions including terraced gardens with native plantings and new trees will be provided.
E. Leveraging Funds	The City of Los Angeles leveraged Municipal Funds for staff charges in support of project delivery. The estimated City staff cost to support the project is $5.35M. In addition, the City is also contributing leverage funding, $6.55M to offset the project cost increase. These investments reflect the City's commitment to leveraging and maximizing benefits delivered in the Regional Program.
E. Community Support	The community support for the project remains the same.

CITY OF LOS ANGELES
CALIFORNIA

KAREN BASS
MAYOR

1149 SOUTH BROADWAY, 9TH FLOOR
LOS ANGELES, CA 90015
TEL: (213) 485-2210
FAX: (213) 485-2979
WWW.LACITYSAN.ORG

August 14, 2023

ELECTRONIC SUBMITTAL (safecleanwaterla@dpw.lacounty.gov)

DPW-Safe, Clean Water LA
Attn: Safe Clean Water Program Team

REQUEST FOR MODIFICATIONS TO SCOPE OF WORK - EXHIBIT A, SECTIONS A-3 AND A-10 OF AGREEMENT NO. 2020RPCSMB04 FOR THE MACARTHUR LAKE REHABILITATION PROJECT

The City of Los Angeles Bureau of Sanitation and Environment (LASAN), as the Project Developer, is requesting to make modifications to the Scope of Work – Exhibit A, Sections A-3, and A-10 of Agreement No. 2020RPCSMB04 for the MacArthur Lake Rehabilitation Project (Project) for Quarter 4 (Q4) Fiscal Year (FY) 22-23 Quarterly Report.

As described in the original application and transfer agreement, the Project is a stormwater quality improvement project located at and adjacent to MacArthur Park in the City of Los Angeles (2230 W. 6th Street). It would divert a portion of storm water flows from the existing underground storm drain system, treat the water, and discharge it into MacArthur Lake for storage or return it to the storm drain system. The Project will provide community benefits to the Westlake neighborhood, a disadvantaged community in Council District 1, through landscaping and land use improvements to preserve and enhance the utility of the park, a Los Angeles Historic Cultural Monument.

The Project aims to improve water quality in the Ballona Creek watershed to better achieve compliance with regulatory standards and provide tangible community benefits, such as treating stormwater runoff, partially offsetting potable water use, and providing educational features. The Project would achieve these aims by capturing, treating, and reusing stormwater. The proposed Project would also enhance MacArthur Park by increasing educational opportunities as well as adding to the park's passive recreational amenities. The estimated Project cost at the time the Project was submitted for Measure W Regional Program funding was $20 million dollars, which was awarded in Round 1, Measure W Regional Program Funds.

The Transfer Agreement for this Project was executed by the District on August 6, 2021. Since that execution, LASAN has concluded the pre-design phase with the following tasks. Prepared a Project Definition Report to assess up to three (3) distinct alternatives for the Project. Prepared a Basis of Design Report (BDR) for the preferred alternative selected. Conducted several community outreach and engagement activities. And began the preparation for the documentation in compliance with the California Environmental Quality Act (CEQA). The design phase is now ongoing as of May 2023.

Based on these recent efforts, a summary of the requested modifications is provided below.

Scope of Work Section	**Section Breakdown**				
(A-3) Estimated Reasonable Total Activity Cost	**Phase**	**Approved**		**Modification**	
	Project Management & On-Site Enforcement	$740,000		$0	
	Pre-Design	$600,000		$2,316,525	
	Design	$4,260,000		$1,680,431	
	Admin/Bid and Award	$517,900		$146,000	
	Construction	$13,575,818		$31,091,000	
	Construction Management	$350,000		$1,020,000	
	Total Project Cost	**$20,043,718**		**$36,253,956**	
(A-10) Reporting Module Schedule	**Phase**	**Approved Start Date**	**Approved End Date**	**Start Date Modification**	**End Date Modification**
	Pre-Design:	01/01/21	12/31/21	**02/15/21**	**08/31/22**
	Design:	01/01/22	03/31/23	**05/09/23**	**10/01/24**
	Bid and Award:	01/01/23	09/30/23	**10/02/24**	**05/01/25**
	Construction:	07/01/23	03/31/25	**05/02/25**	**11/01/26**
	Post Construction/ Optimization:	04/01/25	06/30/25	**11/02/26**	**11/01/27**
	O&M:	04/01/25	06/30/75	**11/02/27**	**11/02/77**

In addition, in the FY22/23 Q4 reports, LASAN is outlining a technical Scope Modification under the "Cost Share Modifications" category. As reported in previous quarterly reports to date, the City has been leveraging funding from Municipal Funds for staff charges in support of project delivery. City of Los Angeles Public Works staff charges relate to planning, design, and construction (i.e. project administration, design review, outreach, environmental review, and construction management). The City has also obtained funding from Prop K for park improvements during Construction in the amount of $550,000. These investments reflect the City's commitment to leveraging and maximizing benefits delivered in the Regional Program. A summary of the leverage fund amounts for this Project is provided below.

	Timeframe	Approved	Modification
Leveraging Funds for the Project	From Project Approval Through FY22/23 Q3	$0	$93,640.66
	FY22/23 Q4	$0	$42,684.69
	Estimate for the Future Through Project Completion	$0	$5,213,500.00
	Total Estimated Through Project Completion	**$0**	**$5,349,825.35**

With this letter, LASAN is notifying the Safe, Clean Water Program of the Project's modifications, which would be part of the Project's Quarterly Report for FY22/23 Q4 in the Safe Clean Water Module. If you have any questions, please contact the City's Measure W Program general email address at san.safecleanwater@lacity.org.

Sincerely,

Michael Scaduto
Digitally signed by Michael Scaduto
Date: 2023.08.11 07:52:42-07'00'

Michael Scaduto, P.E., ENV SP
Principal Engineer
Safe Clean Water Implementation Division
LA Sanitation and Environment

cc:
Julie Allen, LASAN
Susie Santilena, LASAN
Sean Phan, LASAN
Ida Meisami-Fard, LASAN

GEN. FORM 160 (Rev. 6-80)

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

Agenda Item No. 9

Date: 7/28/22

To: Municipal Facilities Committee

From: Deborah Weintraub, AIA, LEEDAP
Chief Deputy City Engineer

Deborah Weintraub
Electronically Signed by Deborah Weintraub on 07/12/2022 12:53:31 PM

Subject: **FUNDING FOR CONSTRUCTION COST INFLATION**

Recommendations:

1. That the Bureau of Engineering (BOE) work with the office of the City Administrative Officer to develop a funding strategy for projects that are either in construction and/or starting construction in Fiscal Year 2022-23 due to construction cost inflation, and;
2. Reassess market conditions in January 2023 to adjust this strategy accordingly.

Introduction:

The BOE is submitting this report in order to alert our City Hall colleagues of significant price increases we are experiencing in construction cost bids. The construction cost increases have a variety of causes and are extraordinary. In order to deliver committed capital projects to the City residents, the funding allocations for construction projects may need to be augmented.

Background:

Non-residential building inflation between 2011 and 2020 on a national basis was on average 3.7% annually (Zarenski, 2021[1]), and 2.4% in California (California Department of General Services). While the pandemic initially decreased construction activity in 2020, in 2021 there was a large increase in demand for construction materials. Unfortunately, this demand was met with serious supply chain challenges, and this resulted in a reduction in the availability of construction materials and higher construction costs.

Between January 2020 to July 2021, prices of all materials and services for new construction performed by contractors has gone up 26.3% on a national average (AGC, August 2021[2]), and 13% in California (California Department of General Services, 2022). The California Department of General Services also reported that new construction costs in California went up 15.22% from June 2021 to June 2022.

Through 2022, prices for construction materials have continued their ascent and in addition, skilled labor has become even more scarce than previous years. Construction project starts are also being delayed to account for supply chain challenges and labor shortages, and the

[1] Zarenski is a nationally recognized construction economics analyst, author, educator and presenter. Website: https://edzarenski.com/ . Article: https://edzarenski.com/2022/02/11/construction-inflation-2022/

[2] AGC is an organization of qualified construction contractors and industry related companies dedicated to skill, integrity and responsibility. Website: https://www.agc.org/

time delays and the uncertainty in product pricing are also resulting in higher bids (Engineering News Record, 2021). Contractors are transferring these risks to the Owner at the time of bidding.

Forecast:

Market analysis is showing the construction cost escalation rate in Los Angeles is currently 7.99% per year (Rider Levett Bucknall (RLB), 2022[3]), however, RLB is using 8.04% per year in their cost estimate calculations, and HNTB[4] is using 15%.

Below is a summary of some of the other market forces impacting construction costs. As of February 2022, diesel fuel, steel mill products, lumber, plywood, copper, brass, aluminum, plastic, gypsum, concrete, pavement, and roofing have all gone up drastically and forecasts are predicting that prices through 2022 will exceed peak prices of 2021 (Engineering News Record, 2022[5]). Interest rates are set to continue to rise, and the Russia-Ukraine war creates a lot of uncertainty and has market impacts. Supply chain and labor issues continue to cause a backlog of orders and an inventory shortage, indicating a supply-demand imbalance that will result in higher-priced goods and services. The anticipated pace of inflation is not likely to decelerate until 2023, with manufacturers potentially beginning to catch up to demand in late 2022, potentially with supply chains largely unclogged by late-2023 (CBRE, 2022[6]).

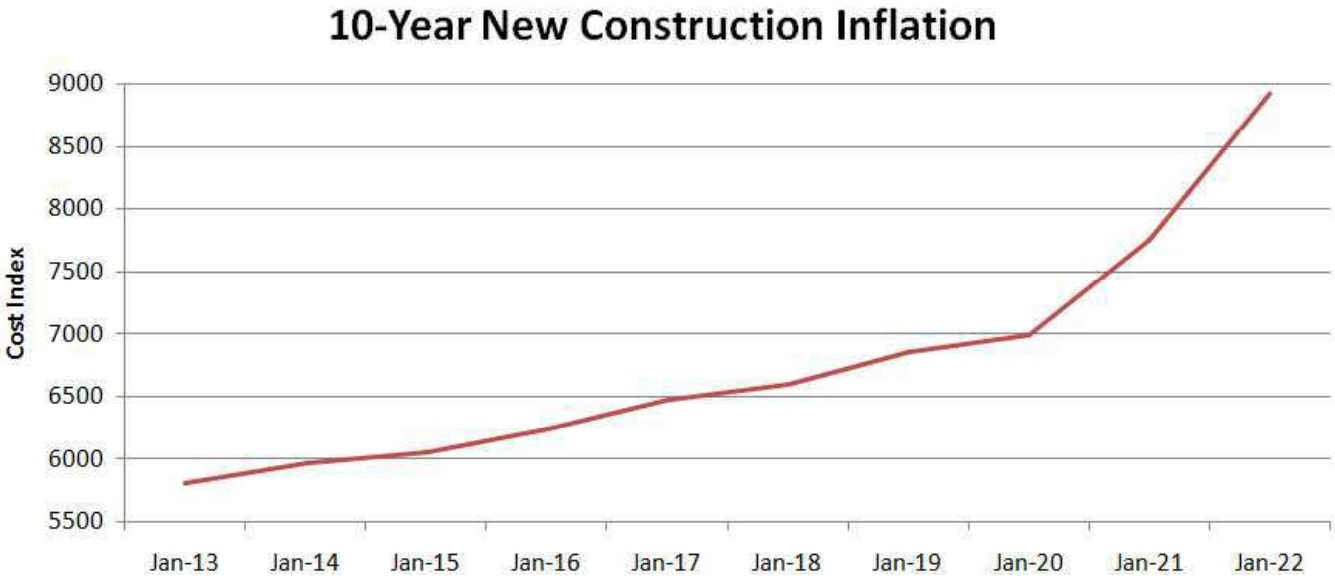
[3] RLB is a global cost consultant partner and a nationally recognized project management and advisory firm. Website: https://www.rlb.com/americas/. Article: https://s31756.pcdn.co/americas/wp-content/uploads/sites/4/2022/03/City-Market-Insight-LOS-ANGELES-Q1-2022.pdf

[4] HNTB is a national engineering consulting company, with a strong presence in Southern California. Website: https://www.hntb.com/

[5] Engineering News Record is a national magazine that covers the engineering and construction industry. Website: https://www.enr.com/

[6] CBRE is the world's largest commercial real estate services & investment company. Website: https://www.cbre.com/about-us . Article: https://www.cbre.com/en/insights/reports/2022-fm-cost-trends-report .

Data Analysis:



***New Construction Inflation has gone up 54% in the past 10 years**

Source: Department of General Services California Construction Cost Index (CCCI), 2022
Information graphed by the Bureau of Engineering, June 2022
"The California Construction Cost index is developed based upon Building Cost Index (BCI) cost indices average for San Francisco and Los Angeles ONLY as produced by Engineering News Record (ENR) and reported in the second issue each month" (DGS).

BOE Bid Results:

In the past couple of years, there has been a wide range of cost changes with a general trend of higher than average cost increases. For example, BOE looked at price escalation data from City bids from 2021 to 2022 for two key construction scopes used on our projects that are typically bid on a unit price basis; concrete sidewalk/driveway and concrete pavement. In the past year the average unit cost of concrete sidewalk/driveway and concrete pavement increased by 79% and 21% respectively. We also found that there was a high variation on the cost changes in AC pavement.

In addition, we looked at 20 Municipal Facility project bids between 2017 to the present. These projects are typically bid on a lump sum basis. Our analysis was to look at the variance between the low bid and City Engineer's Estimate on a project-by-project basis. The average in the variance between the low bid price as compared to the City Engineer Estimate from 2017 through 2021 was that the low bid averaged 5.9% higher than the City Engineer's estimate. In 2022 this number increased dramatically to the low bids averaging 40.68% higher than the City Engineer's Estimate.

BOE Actions:

BOE is in the process of developing a draft cost inflation clause for City construction contracts, which would establish the mechanism for cost adjustments during construction for demonstrated inflationary cost increases and decreases. BOE intends to vet the proposed language with the local construction industry and with our City partners. This will help offset the perceived need by contractors to price risk into their bids.

Additionally, BOE is in the process of revising the suggested inflation rates for project budgeting. Since 2014, BOE suggested using 5% as the inflation rate for all new construction. The below chart is BOE's suggested inflation rates to use for future estimates:

Date	Annual Rate
July 1, 2022 - June 30, 2023	15%
July 1, 2023 - June 30, 2024	12%
July 1, 2024 - June 30, 2025	9%
July 1, 2025 - June 30, 2026	8%
July 1, 2026 - June 30, 2027	8%

The potential recession may cause changes in these inflation rates. Therefore, it is recommended to re-assess these rates in six months.

RL/MA:tt

Box\CMD\Administration\Municipal Facilities Meeting Minutes\MFC Report Construction Inflation

cc: Mary Hodge, Deputy Mayor
Aura Garcia, Board of Public Works
Teresa Villegas, Board of Public Works
Mike Davis, Board of Public Works
Vahid Khorsand, Board of Public Works
Susana Reyes, Board of Public Works.
Gary Lee Moore, Bureau of Engineering
Ted Allen, Bureau of Engineering
Alfred Mata, Bureau of Engineering
Julie Sauter, Bureau of Engineering
Jose Fuentes, Bureau of Engineering
Richard Louie, Bureau of Engineering

FORM GEN. 160 (Rev. 11-02)

CITY OF LOS ANGELES
INTERDEPARTMENTAL CORRESPONDENCE

Agenda Item No. 3

Date: August 21, 2023

To: Municipal Facilities Committee

From: Ted Allen, City Engineer
Bureau of Engineering

Subject: **FUNDING FOR CONSTRUCTION COST INFLATION UPDATE**

The Bureau of Engineering (BOE) is submitting this report to follow up on the Report presented at the July 2022 meeting which alerted our City Hall colleagues to significant price increases being experienced in construction cost bids. The construction cost increases have a variety of causes and remain higher than historic norms for the last decade, but have started to decline from recent highs. In order to deliver committed capital projects to the City residents, the funding allocations for construction projects may need to be augmented.

In the July 2022 report, BOE released the following chart for suggested inflation rates to use for future estimates:

Inflation rates per July 2022 Report	
Period	Construction Cost Inflation Annual Rate (%)
July 1, 2022 - June 30, 2023	15
July 1, 2023 - June 30, 2024	12
July 1, 2024 - June 30, 2025	9
July 1, 2025 - June 30, 2026	8
July 1, 2026 - June 30, 2027	8

Based on current market conditions, we recommend the chart be updated to the following:

Inflation Rates per July 2023 Report	
Period	Construction Cost Inflation Annual Rate (%)
July 1, 2022 - June 30, 2023	15
July 1, 2023 - June 30, 2024	8
July 1, 2024 - June 30, 2025	7
July 1, 2025 - June 30, 2026	6
July 1, 2026 - June 30, 2027	5

It should be noted that inflation for different construction types may vary. The proposed inflation rates assume that cost estimates being completed now are starting with unit costs that have accounted for the large inflationary pressures seen previously. Otherwise, additional adjustments should be made as needed to account for prior inflation to the point in time that the unit costs were established.

TA/DW/RL/MA/:tt:eg

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cc: Randall Winston, Office of the Mayor
Aura Garcia, Board of Public Works
Teresa Villegas, Board of Public Works
Mike Davis, Board of Public Works
Vahid Khorsand, Board of Public Works
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