

May 24, 2023

Ivan Ramirez, PE  
Director of Construction  
Contra Costa Transportation Authority

**Subject: CT 521: Mokelumne Pedestrian Overcrossing - Budget Update and Amendment Request**

Dear Mr. Ramirez,

This letter is intended to outline a revised budget proposal and to request an amendment to contract CT 521, pertaining to the construction management services we have been providing for the Mokelumne Pedestrian Overcrossing.

The contractor began work on April 14, 2022, and had a projected span of 200 working days, with a targeted completion date of January 31, 2023. However, several unexpected issues have arisen since the project's commencement, resulting in delays. The new projected completion date is now September 30, 2023.

Considering this 8-month extension, we require an amendment to our contract to allow CME to maintain the provision of construction management support services.

## TIME IMPACT ANALYSES (TIA) NO. 1 THRU 3

The contractor experienced three distinct challenges, which were consolidated into a single Time Impact Analysis (TIA). This TIA was subsequently approved by the Authority, leading to an extension of 40 business days to the project's timeline. These challenges are as follows:

- » TIA No. 1 - Garlic Field & Wet Soil
- » TIA No. 2 - Lane Closure System (LCS) Issues
- » TIA No. 3 - Nesting Bird at Bent 5

These complications resulted in a 61-working-day delay to the project's completion. However, the contractor managed to reduce this delay by 21 working days through mitigation efforts. The following table provides an estimate of the daily cost of construction management for the project.

Labor by Hour	Effort by Month	Rate/Hr	Total/Month	Avg/Day
Project Manager	10	\$289.53	\$2,895.30	\$144.77
Resident Engineer	100	\$280.02	\$28,002.00	\$1,400.10
Inspector	160	\$202.16	\$32,345.60	\$1,617.28
Office Engineer	40	\$137.28	\$5,491.20	\$274.56
Schedule Review	20	\$185.00	\$3,700.00	\$185.00
Subtotal -			\$72,434.10	\$3,621.71

Direct Costs	Qty/Month	Unit Price	Total/Month	Avg/Day
Trailer	1	\$750.00	\$750.00	\$37.50

Mileage	20	\$31.44	\$628.80	\$31.44
SWPPP	4	\$325.00	\$1,300.00	\$65.00
Biological Monitoring	1	\$6,370	\$6,370	318.50
Subtotal -			<b>\$9,048.80</b>	<b>\$452.44</b>

Total -			<b>\$81,483.00</b>	<b>\$4,074.15</b>
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*Cost to increase the project by 40 Working Days - **\$162,966.00***

#### **SHEAR KEY/DECK GRADE ISSUES**

In December of 2022, the Resident Engineer discovered conflicts in the design related to the shear keys at Bent 7 and the deck grades. The costs associated to remedy these issues are being tracked.

In February of 2023, the contractor submitted TIA No. 4 indicating that the project would be extended until August 22nd, 2023 as a result of delays caused by the deck grades. Upon further review, the contractor has indicated that the project will be completed on August 28, 2023. This increases the duration of the contract by 102 working days.

*The cost associated with extending the contract thru August 28, 2023 - **\$415,563.30***

#### **ADDITIONAL COSTS RELATED TO CONTRACT EXTENSION AND MISCELLANEOUS**

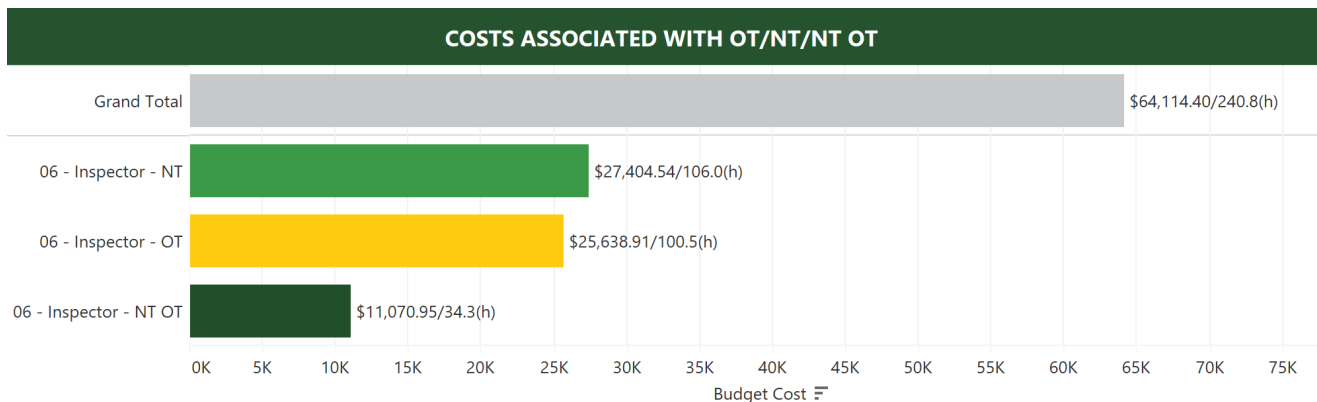
Due to the nature and number of issues encountered on the project, additional support from Tricertus (subconsultant) was required to assist with dispute resolution. Tricertus required approximately 36.5 hours to resolve project disputes and 104.5 hours for additional schedule analysis. These costs are over and above estimates provided for extending contract durations stated in this letter.

*The estimated cost associated with dispute resolution and unforeseen schedule analysis - **\$28,275.00***

Falsework submittals reviews have exceeded reasonable estimates for approval due to the required review our contention, that the submittals should have taken no more than 60 hours per frame. In addition, after the falsework for the Frame 3 design was approved, the contractor submitted an entirely new design for this frame. As of the date of this letter, it is estimated that the reviewer will spend 513 hours reviewing all three frames. This creates differential of 333 hours at a rate of \$234.47/hr.

*The estimated cost associated with unforeseen falsework review effort - **\$78,078.51***

Thru January 31st, 2023, CME has not charged any time associated with overtime (OT), nighttime (NT), or nighttime overtime (NT OT) for this project. Due to the extension of the contract duration, CME began charging for this work in February 2023. Please see the visualization below for an estimate of associated costs.



*The estimated cost associated OT, NT, and NT OT - **\$64,114.40***

Upon assessing the current project situation with Guida Surveying, our subconsultant, it appears that additional surveying beyond our initial estimate is required. This increase is largely due to unexpected survey tasks necessary for addressing issues connected to the deck grades.

*The estimated additional cost associated with survey - **\$20,000***

We have conducted a review of the current project status in collaboration with Twining, our subconsultant. Based on this assessment, we have concluded that additional funds will be required to successfully complete the project. This need arises primarily due to two factors.

Firstly, the pace of import borrow construction by the contractor has been significantly slower than the industry standard, leading to the inspector's extended on-site presence for soil inspection. Secondly, Twining has not accurately estimated the required number of tests and the time allocation for inspections necessary for the project.

In light of these factors, we would like to request an amendment to our contract to accommodate the additional resources needed for the successful completion of the project.

*The estimated additional costs associated with material testing - **\$150,563.55**.*

*Additional costs related to the contract extension and miscellaneous items - **\$341,031.46***

#### SUMMARY OF COST IMPACTS

Description	Amount
Time Impact Analyses No. 1 thru 3	\$162,966.00
Time Impact Analysis No. 4	\$415,563.30
Addition Contract Extension Costs and Misc	\$341,031.46
<b>Total -</b>	<b>\$919,560.76</b>

#### PROJECT BUDGET/WEATHER/AND ESTIMATE TO COMPLETION

The visualization shown in Attachment A - Project Budget, summarizes the amount spent thru February of 2023 and the estimate to complete the project by the end of September 2023. The estimated completion date was extended to the end of September 2023 due to weather impacts. A detailed breakdown of the costs required to complete the work is shown in Attachment B - Costs by Month (After 3/1/23). A summary of the amount spent thru 2/28/23, estimate-to-com-

pletion, and the amount requested for an amendment are shown in the table below:

Description	Amount
Spent thru 2/28/23	\$1,326,078.52
Estimate to Completion	\$930,733
Total	\$2,256,811.52
Current Allocation	\$1,359,780.80
<b>Amount of Amendment Request -</b>	<b>\$897,030.72</b>

Please note, the amount requested is approximately \$20,000 less than the impacts discussed in this letter. As of the date of this letter there have been approximately 40 days that have been impacted by weather conditions. Per Attachment C - Cost Savings, CME has been tracking the hours the contractor has worked vs the hours CME has charged for inspection. As previously stated, CME did not charge for any OT, NT, or NT OT on this project thru January 31, 2023 resulting in approximately \$86,515 in savings to the Authority. In addition, CME has stretched resources to extend the services provided by our subconsultants.

CME requests an amendment in the amount of \$897,030.72 to CT 521 to provide services to PJ 5002: Mokelumne Pedestrian Overcrossing.

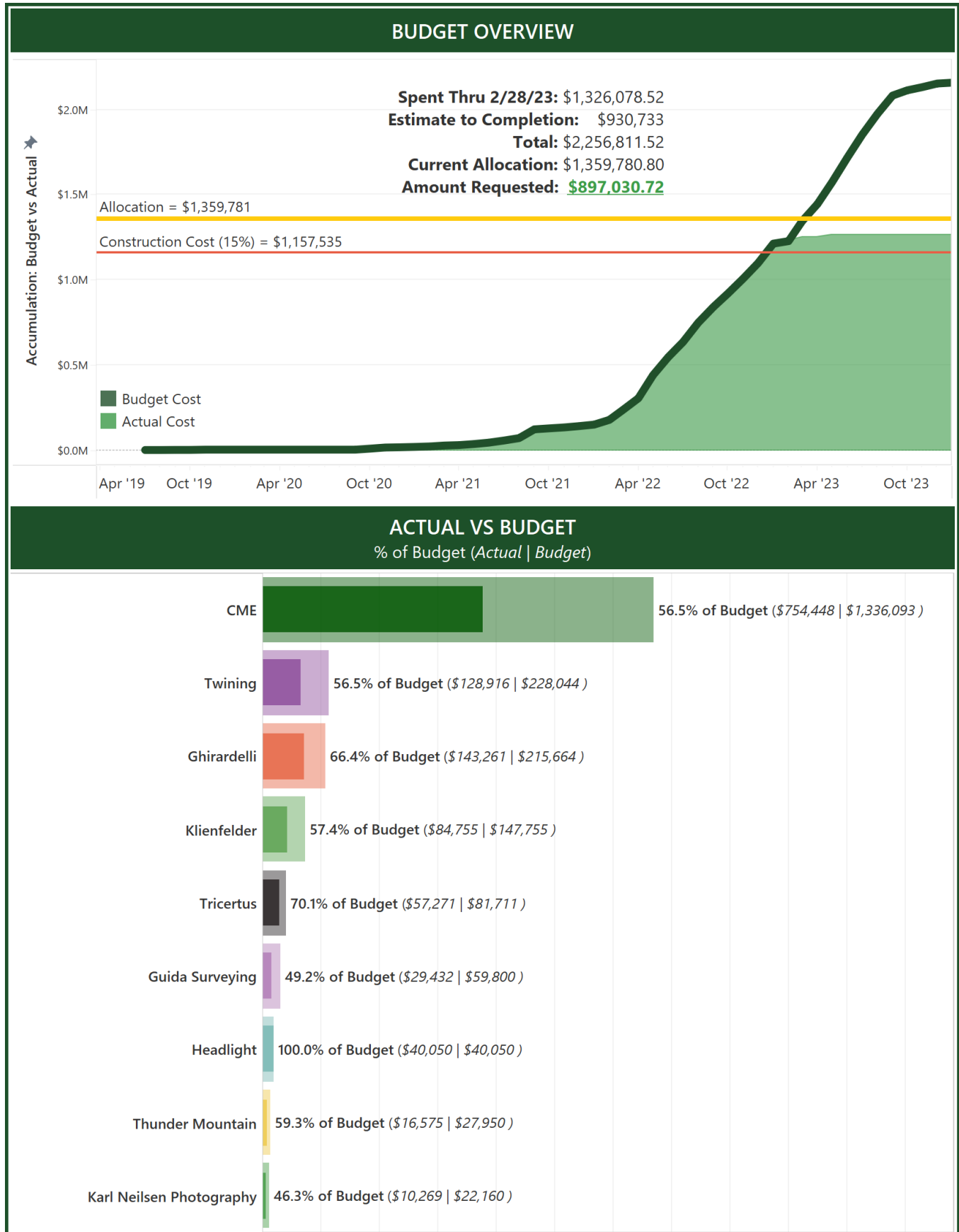
If you have any questions please reach out to me by phone at (925) 788-668 or by email at ccole@cole-mgtandeng.com.

Sincerely,



















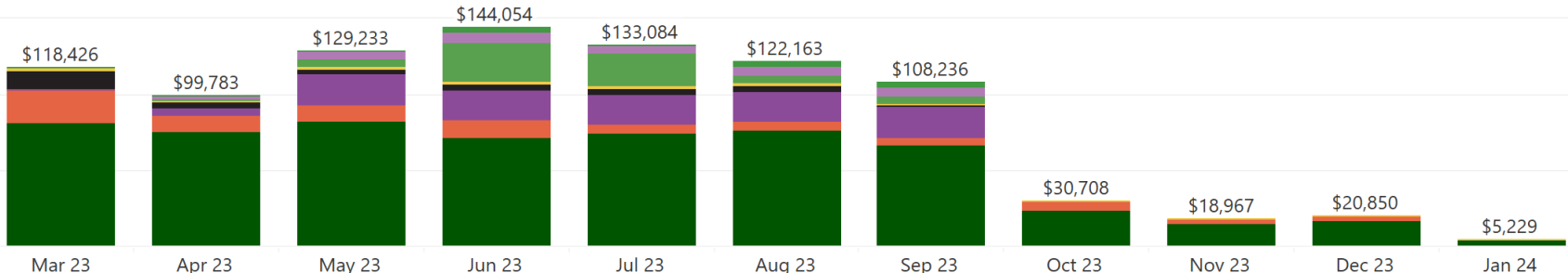
Chris Cole, PE  
Cole Management & Engineering  
2001 Salvio Street, Suite 8  
Concord, CA 94520

# ATTACHMENT A – PROJECT BUDGET



# ATTACHMENT B - COSTS BY MONTH (AFTER 3/1/23)

BUDGET AND EFFORT ESTIMATE														
Company			TOTAL	Mar '23	Apr '23	May '23	Jun '23	Jul '23	Aug '23	Sep '23	Oct '23	Nov '23	Dec '23	Jan '24
CME		Jim Reid	\$258,415 924 hrs	\$34,668 124 hrs	\$27,442 98 hrs	\$28,389 102 hrs	\$28,389 102 hrs	\$34,001 122 hrs	\$34,001 122 hrs	\$28,401 102 hrs	\$16,801 60 hrs	\$11,201 40 hrs	\$11,761 42 hrs	\$3,360 12 hrs
		Christopher Cole	\$264,153 1,139 hrs	\$30,746 135 hrs	\$41,096 176 hrs	\$43,277 190 hrs	\$33,705 150 hrs	\$32,565 142 hrs	\$34,681 150 hrs	\$34,681 150 hrs	\$5,791 20 hrs	\$2,895 10 hrs	\$4,219 15 hrs	\$496 2 hrs
		Michael Ostrom	\$5,795 31 hrs	\$190 1 hrs	\$285 2 hrs	\$1,520 8 hrs	\$950 5 hrs	\$950 5 hrs	\$950 5 hrs	\$950 5 hrs				
		Eric Cordoba	\$41,064 203 hrs	\$13,570 67 hrs	\$4,852 24 hrs	\$6,469 32 hrs	\$6,469 32 hrs	\$4,852 24 hrs	\$4,852 24 hrs					
		ODCs	\$14,915 0 hrs	\$1,379 0 hrs	\$1,536 0 hrs	\$2,000 0 hrs	\$2,000 0 hrs	\$2,000 0 hrs	\$2,000 0 hrs	\$2,000 0 hrs	\$1,000 0 hrs	\$500 0 hrs	\$500 0 hrs	\$0 0 hrs
Ghirardelli		Bonnie Holt	\$54,020 394 hrs	\$9,335 68 hrs	\$4,873 36 hrs	\$5,491 40 hrs	\$5,491 40 hrs	\$5,491 40 hrs	\$5,491 40 hrs	\$5,491 40 hrs	\$5,491 40 hrs	\$2,746 20 hrs	\$2,746 20 hrs	\$1,373 10 hrs
		Scott Buckley	\$31,067 133 hrs	\$13,482 58 hrs	\$5,862 25 hrs	\$5,862 25 hrs	\$5,862 25 hrs							
Guida Surveying		Guida Surveying	\$33,182 0 hrs	\$0 0 hrs	\$2,813 0 hrs	\$6,074 0 hrs	\$6,074 0 hrs	\$6,074 0 hrs	\$6,074 0 hrs	\$6,074 0 hrs				
Karl Neilsen Photography		Karl Neilsen Photography	\$11,891 0 hrs	\$0 0 hrs	\$0 0 hrs	\$0 0 hrs	\$3,964 0 hrs	\$0 0 hrs	\$3,964 0 hrs	\$3,964 0 hrs				
Klienfelder		Klienfelder	\$65,984 0 hrs	\$1,227 0 hrs	\$1,756 0 hrs	\$5,000 0 hrs	\$26,000 0 hrs	\$22,000 0 hrs	\$5,000 0 hrs	\$5,000 0 hrs				
Thunder Mountain		Thunder Mountain Enterprises, Inc.	\$13,975 0 hrs	\$1,625 0 hrs	\$975 0 hrs	\$1,625 0 hrs	\$1,625 0 hrs	\$1,625 0 hrs	\$1,625 0 hrs	\$0 0 hrs	\$1,625 0 hrs	\$1,625 0 hrs	\$1,625 0 hrs	\$0 0 hrs
Tricertus		Chen Hou Lau	\$6,125 25 hrs	\$6,125 25 hrs										
		Ricardo Rodriguez	\$25,808 140 hrs	\$6,013 33 hrs	\$3,145 17 hrs	\$3,700 20 hrs	\$3,700 20 hrs	\$3,700 20 hrs	\$3,700 20 hrs	\$1,850 10 hrs				
		Tricertus - ODCs	\$66 0 hrs	\$66 0 hrs	\$0 0 hrs	\$0 0 hrs	\$0 0 hrs	\$0 0 hrs	\$0 0 hrs	\$0 0 hrs				
Twining		Twining	\$104,275 0 hrs	\$0 0 hrs	\$5,148 0 hrs	\$19,826 0 hrs	\$19,826 0 hrs	\$19,826 0 hrs	\$19,826 0 hrs	\$19,826 0 hrs				
		TOTAL	\$930,733 2,986 hrs	\$118,426 509 hrs	\$99,783 377 hrs	\$129,233 417 hrs	\$144,054 374 hrs	\$133,084 353 hrs	\$122,163 361 hrs	\$108,236 307 hrs	\$30,708 120 hrs	\$18,967 70 hrs	\$20,850 77 hrs	\$5,229 24 hrs

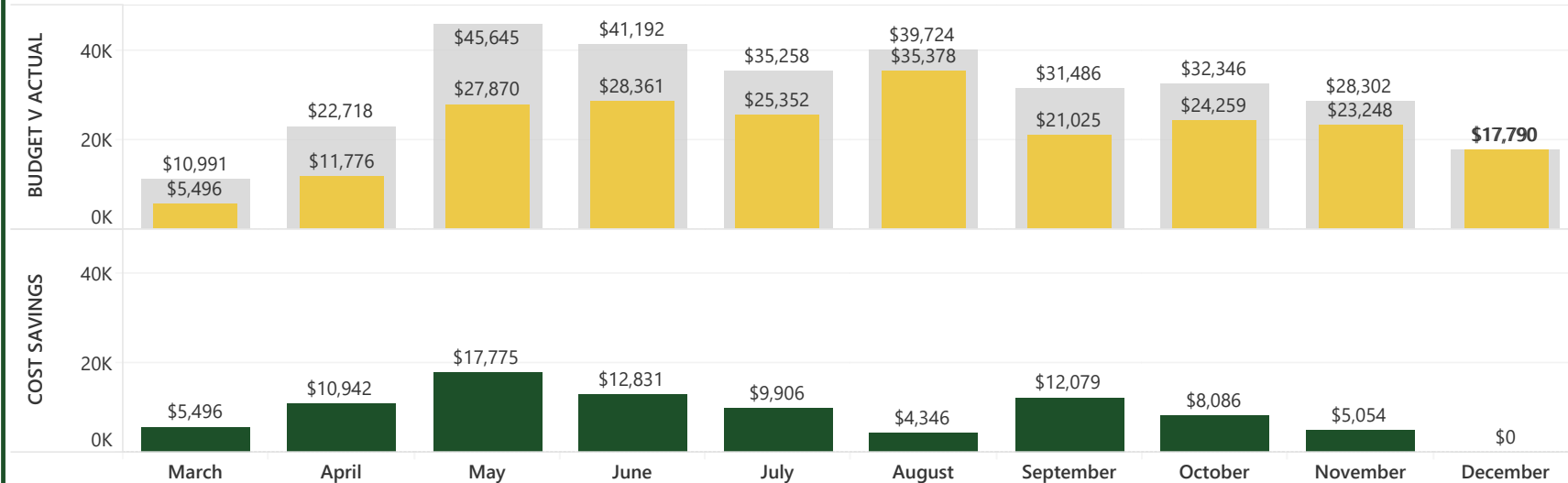
Month	Total Cost
Mar 23	\$118,426
Apr 23	\$99,783
May 23	\$129,233
Jun 23	\$144,054
Jul 23	\$133,084
Aug 23	\$122,163
Sep 23	\$108,236
Oct 23	\$30,708
Nov 23	\$18,967
Dec 23	\$20,850
Jan 24	\$5,229

# ATTACHMENT C - COST SAVINGS

## CONTRACTOR HOURS

BUDGET vs ACTUAL

2022



## COST SAVINGS

	Total	March	April	May	June	July	August	September	October	November	December
Budget	\$308,688	\$10,991	\$22,718	\$45,645	\$41,192	\$35,258	\$39,724	\$31,486	\$32,346	\$28,302	\$17,790
Actual	\$223,790	\$5,496	\$11,776	\$27,870	\$28,361	\$25,352	\$35,378	\$21,025	\$24,259	\$23,248	\$17,790
Cost Savings	\$86,515	\$5,496	\$10,942	\$17,775	\$12,831	\$9,906	\$4,346	\$12,079	\$8,086	\$5,054	\$0

## CONTRACTOR HOURS vs INSPECTION HOURS CHARGED

Type	Grand Total	March	April	May	June	July	August	September	October	November	December
Preconstruction Regular	72.00	56.00	16.00								
Regular	1,300.00		96.00	168.00	152.00	160.00	184.00	152.00	160.00	140.00	88.00
OT	73.25		2.50	28.25	26.50	8.50	5.00	2.50			
Night	37.25			17.75	14.50	1.00	4.00				
Weather Days	80.00							48.00		8.00	24.00
Grand Total	1,562.50	56.00	114.50	214.00	193.00	169.50	193.00	202.50	160.00	148.00	112.00
Inspection	1,115.50	175.00	144.50	142.00	125.00	120.00	115.00	104.00	88.00	72.00	30.00

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