



Kalamazoo County Consolidated Dispatch Authority



DATE: August 22, 2024

TO: Finance Committee Members and Board of Directors

FROM: Jeff Troyer
KCCDA Executive Director

SUBJECT: Fiscal Year 2024 Capital Projects Budget Amendment – Revision II

I hereby present to the Finance Committee and Board of Directors for consideration this budget amendment, Revision II, for the 2024 Capital Projects Fund Budget. The proposed amendment reflects updated project costs for completed projects since Revision I, modifications to existing projects since Revision I, and two new projects (one of which was approved by the Board of Directors at the July 11th meeting).

NOTE: Capital projects #1, 4, 5, and 7 are complete. Project #3 – Multi-Factor Authentication and #6 – Back-up Center Improvements are still in process.

EXPENDITURES

- **CAPITAL PROJECT #2 – CAD and Mobile Computing System**
This project's original allocation was \$1,750,000. After evaluating all proposals, administration recommended to stay with KCCDA's current CAD and Mobile vendor Tyler Technologies. Therefore, this revision removes this project allocation reducing the capital equipment line item by \$1,750,000.
- **CAPITAL PROJECT #8 – Security Camera Upgrade**
This project's original allocation was in 2023 but was not completed nor was it included in Revision I of this year's budget. A recommendation was submitted to the Board of Directors at the July 11th meeting requesting authorization for administration to move forward with Trace3's proposal of \$10,918 and the project would be included in Revision II of the Capital Projects Fund budget amendment. This revision increases expenditures by \$10,918.
- **NEW: CAPITAL PROJECT #9 – AI solution for Non-Emergency Call Handling**
Administration has been evaluating AI solutions for non-emergency call handling and quality assurance for several months. After much consideration, the attached memorandum and quote (pages 3 thru 6) is requested for approval. The recommended AI solution will be presented to KCCDA's Technical Advisory Committee on September 4th where we will be seeking that Committee's support for this technology implementation. If approved, the



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project increases expenditures by \$98,000 and will increase annual contractual services moving forward by a similar amount.

CAPITAL PROJECTS FUND SUMMARY

The proposed budget amendment, Revision II, reduces overall expenditures by \$1,641,082. The amendment results in revised Capital Fund expenditures for 2024 totaling \$607,918.

Page 7 is the corresponding line-item budget showing the original adopted budget, net changes resulting from Revision I, the proposed net changes in this amendment (Revision II), and the new revised budget.

I recommend adoption of the proposed fiscal year 2024 Capital Projects Fund Budget Amendment – Revision II.



Kalamazoo County Consolidated Dispatch Authority



TO: Finance Committee, Technical Advisory Committee, and Board of Directors

FROM: Jeff Troyer, Executive Director

DATE: August 21, 2024

SUBJECT: AI Solution for Non-Emergency Call Taking

Administration began exploring different ways to utilize Artificial Intelligence (AI) solutions to reduce the human workload for several months. The primary tasks we focused our efforts on was quality assurance and non-emergency call taking. We quickly learned that off the shelf solutions for quality assurance were still in development and made the decision to prioritize non-emergency call taking since this would have a greater impact on the overall dispatch center operations (call load and reduce call wait times for non-emergency calls).

In KCCDA's research, we only found a handful of vendors with active AI solutions for non-emergency public safety call taking (alphabetical order): Aurelian, AWS Connect, Carbyne (AI-V), Hyper, and Versaterm. In addition, there are plenty of companies that can be contracted to build/develop an AI solution specific to KCCDA non-emergency call taking, but the implementation timeframe and cost for development is significantly greater than solutions already performing this function. For example – discussions were had with Dell and Turnkey AI about developing a solution specific to KCCDA but the budgetary estimate to do this for a 30- or 60-day trial was \$40,000 to \$60,000.

The following are solution vendors evaluated:

Aurelian

This solution utilizes a proprietary and purpose-built system specifically designed for public safety applications. The administrative team demoed this solution on August 14th and the entire team was impressed with the versatility of the call triage and the systems ability to direct callers to appropriate resources and/or gather details about the non-emergency incident and populate the results to dispatch center staff. The incident details are provided either in a portal or direct integration into the computer aided dispatch system.

AWS Connect

The AWS Connect solution is utilized by several different implementation consultant firms for deployment within the 9-1-1 industry. A hallmark condition of this technology leverages AWS Connect as the engine which focuses on self-service, rerouting, or traditional call processing; like Versaterm CallTriage. This concept decreases the overall calls that can be processed by the AI solution and reduces the overall impact on the center and community. Backing Fire LLC implemented an AWS Connect powered solution for Monterey County, CA and reported statistics in line with the above concern, where only 30-37% of calls were able to be processed without human intervention/assistance.

Carbyne

Carbyne's AI-V product is an add-on service to their Universe or APEX call handling solutions. This system was not demoed because implementing either of these solutions would involve significant deployment efforts of a new call handling system and KCCDA has no intentions of transitioning away from our current solution – Vesta. The added complexity and cost associated with deploying this solution is out of our interest.

Hyper

Hyper is a voice AI solution specific to public safety, like Aurelian, but it is unclear if this solution is operating live in a current PSAP environment. The administrative team demoed this solution on August 15th. The system was slow to respond to the caller's answers/statements and did not verify essential information with the caller throughout the triage process.

Versaterm CallTriage

This solution focuses on automating calls through self-service or external transfers resulting in many non-emergency calls getting transferred into the ECC and requiring intervention from a call taker/dispatcher. This approach results in a significant number of low-acuity calls being managed traditionally, which undermines the potential efficiency and effectiveness of an AI solution.

As a result of the comprehensive internal and objective review process, I recommend KCCDA sole source this project to Aurelian. The following are necessary features of Aurelian's solution which are not available from other vendors:

- Aurelian's advanced technology automates a substantial portion, approximately 70-80%, of non-emergency calls without requiring direct interaction between dispatchers and callers. In contrast, other vendors typically achieve only a 20-40% reduction in call volume by rerouting calls when feasible.

- Aurelian's solution not only significantly alleviates dispatcher workload, but also enhances the efficiency and responsiveness of public safety operations. Aurelian accomplishes this by automatically pushing the non-emergency details, including a geo-validated location (when possible) and full transcription of the call, to dispatchers through web portal. Dispatchers can copy/paste info directly into the CAD, and in the rare cases when a call-back is necessary, the dispatcher already has details, so the caller does not have to start over and repeat information that was already provided.
- Aurelian's solution is unique and has capabilities that are currently unmatched in the market including the process for all non-emergent or exempt calls to be processed by the product even if there is no preset configuration for that specific situation. All other stand-alone solutions transfer calls they cannot resolve to the dispatchers with zero call detail info and require the caller to repeat all the information.
- Aurelian provides timely and extensive pre-implementation assistance to ensure that their AI system is configured effectively for the customer's needs. This involves Aurelian ingesting audio of 1,000 to 5,000 of KCCDA's non-emergency calls into its technology, analyzing the calls and necessary pathways, and allowing for localized configuration prior to go-live. This pre-implementation assistance is a significant differentiator for Aurelian, offering a more data-driven and proactive approach to configuring and deploying their AI solution compared to other vendors, who rely on ongoing adjustments based on real-time call handling feedback. This leads to a more seamless and effective implementation, minimizing disruptions and enhancing overall efficiency from the onset.

In 2023, KCCDA received 131,721 non-emergency telephone calls on our general administrative and alarm lines (roughly 50% of all non-emergency calls). If 70 to 80% of those calls can be handled by Aurelian's AI solution, that equates to almost 100,000 calls per year resulting in staff members being able to focus on the emergency calls.

In summary, I am seeking approval for this capital project in the amount of \$98,000 and authorization to sole source this project to Aurelian (quote attached).

QUOTE

Valid until Sep 19, 2024


\$98,000.00

Aurelian

1433 NW 63rd St
B
Seattle, Washington 98107
United States
+1 813-417-4219
max@aurelian.io

QUOTE NUMBER QT-4ECDF971-DRAFT
ISSUE DATE
EXPIRATION DATE Sep 19, 2024

QUOTE FOR
Kalamazoo 911
JTroyer@kccda911.org

DESCRIPTION	QTY	UNIT PRICE	AMOUNT
Aurelian Quote for Aurelian for an estimated 131,000 calls / year	1 	\$98,000.00 / year	\$98,000.00
	Subtotal		\$98,000.00
	Total		\$98,000.00

**Kalamazoo County Dispatch Authority
2024 Capital Project Fund Budget Net Changes - REVISION II**

Capital Projects Fund - Beginning Balance: \$2,500,000

	2024 Original Budget	YTD Transfers	2024 Revision I NET CHANGES	2024 Revision II NET CHANGES	2024 Revised Budget
REVENUE					
699.000 Transfers In	750,000		250,000		1,000,000
TOTAL REVENUE	750,000		250,000	0	1,000,000
EXPENSES					
<i>970 thru 989 Equipment & Capital Outlay</i>					
980.000 Equipment/Software - Capital	2,010,000		(27,500)	(1,641,082)	341,418
980.020 Facility - Capital	280,000		(13,500)	0	266,500
980.030 Land - Capital	0		0	0	0
TOTAL EXPENDITURES	2,290,000		(41,000)	(1,641,082)	607,918

Capital Projects Fund - Ending Balance: \$2,892,082