ALAMEDA-CONTRA COSTA TRANSIT DISTRICT

STAFF REPORT

MEETING DATE: 5/10/2023 **Staff Report No.** 23-221

TO: **AC Transit Board of Directors**

FROM: **Michael A. Hursh, General Manager/Chief Executive Officer**

SUBJECT: **Clipper C2 Update**

BRIEFING ITEM

AGENDA PLANNING REQUEST: ☐

RECOMMENDED ACTION(S):

Consider receiving an update on the Next Generation Clipper (C2) Program Implementation.

Staff Contact:
Ahsan Baig, Chief Information Officer

STRATEGIC IMPORTANCE:

Goal - Convenient and Reliable Service
Initiative - Infrastructure Modernization

The Next Generation Clipper program will modernize the Clipper payment system to allow riders to manage their Clipper accounts online, get immediate access to added value on their Clipper accounts, allow for several payment options like contactless payments and mobile flash passes, and give riders the ability to replace the physical Clipper Card with a phone-based mobile application.

BUDGETARY/FISCAL IMPACT:

There is no fiscal impact in receiving this report.

BACKGROUND/RATIONALE:

This staff report provides an update on the project schedule, testing and implementation of the Next Generation Clipper System Project (Next Gen C2). The Metropolitan Transportation Commission (MTC), in conjunction with regional Transit Operators including AC Transit, have been engaged with Cubic Transportation Systems Inc. to move the project forward.

During the past 6 months, staff has completed the following required activities in support of the Next Gen C2 project.

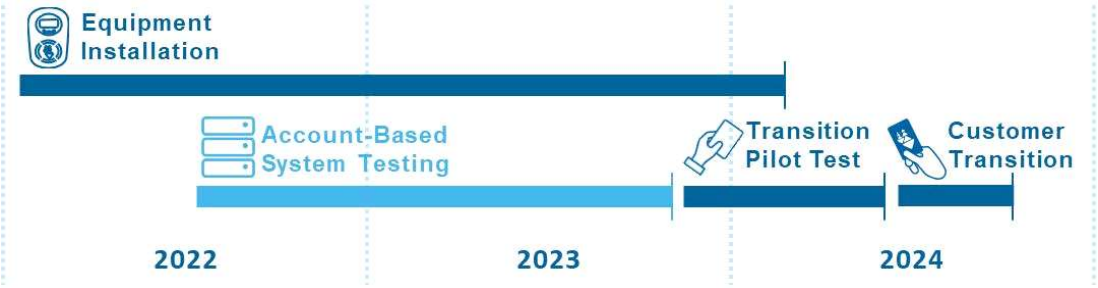
- On-board validator (OBV) installation and integration testing with Clever Devices system
- Reviewed and approved Next Gen C2 Operator Business Rules

- Updated all Clipper stand-alone validators (SAV) on BRT platforms
- Witnessed Next Gen C2 System Demonstration of Business and Fare Rules
- Regularly participated in various project and policy related meetings including monthly project status meetings, Clipper 2 Change Control Board, C2 Executive Board and Clipper Staff Liaison Committee meetings.

Clipper 2 Schedule, System Implementation and Deployment Dates

The Clipper 2 project has begun to implement an account-based business rules and on-board integration system testing phase of the project. The MTC has published an implementation schedule that asserts that all C2 installation work will be completed in the winter of 2024 and the transition for customers from cards-based to accounts-based system will begin in the Summer of 2024. The major components of the effort impacting transit operators include:

1. Clipper Back-Office Systems testing and acceptance
2. New On-Board Validators (OBV) C2 Equipment testing and installation
3. Retail Sales Device testing and installation
4. System Demonstration Testing



The Next Gen C2 Project Plan is now focused on two (2) areas of work; 1) Equipment Installation; and 2) Account-based System Implementation and Testing. The following project tasks are scheduled for completion by the end of July 2023.

1. System Integration Testing (SIT) Document Review
2. Account-Based User Acceptance Testing
3. System Demonstration Testing
4. Review of Account-based Operations and Maintenance Documents

Clipper 2 On-Board Validators (OBV) Installation Testing

For the last 6 months, MTC and AC Transit staff including the two vendors, Cubic and Clever Devices, have been engaged in the software interface development, validation and testing for the two systems CAD/AVL and Clipper 2 to work. Installation and testing of the C2 OBVs was successful because the tests established that fares recorded on board a C2 test vehicle were visible to the Cubic fare system. Testing also revealed the need for 1) the delivery of fare data every 30 seconds to the Clipper central fare system, and 2) Clever system access to both Genfare GFI farebox system (current) and the Clipper 2 (C2) fare system (future).

It is critical for the C1 system to remain operational while the C2 system is its final testing. That approach in turn has resulted in the need for the District's Clever Devices system to have additional data access to the GFI farebox for completion of Clipper OBV testing. Additional software programming by Clever Devices is therefore, now required. That work has been initiated and scheduled to be completed in 2023.

The bus coach installation and testing of C2 devices that support rear door boarding has been completed. The District Maintenance Department working directly with the Clever Devices determined that the rear door C2 devices could be installed but would not be activated until a rear-door boarding policy was established. This decision was also supported by concern for battery life on the C2 device that would not be used until rear-door boarding policy was established.

The Innovation and Technology Department, along with the Finance, and the External Affairs, Marketing & Communications Departments, are tasked with reviewing and commenting on Next Gen C2 system design or testing documents. The comments from AC Transit and other Bay Area transit agencies are then submitted to the MTC to be incorporated into the project's governance.

ADVANTAGES/DISADVANTAGES:

This report apprises the Board about ongoing activities related to the Next Generation Clipper project. There are no disadvantages to receiving the report.

ALTERNATIVES ANALYSIS:

No alternatives were studied during the preparation of this report.

PRIOR RELEVANT BOARD ACTION/POLICIES:

Staff Report 22-606: Clipper 2 Update
Staff Report 22-444: Clipper 2 Amended and Restated MOU with the Metropolitan Transportation Commission
Staff Report 21-158: Recommended Budget FY 22/23
Staff Report 15-194: Amendment Clipper MOU

ATTACHMENTS:

1. Executive Summary Status Report: Clipper 2 Executive Board Meeting, April 24, 2023
2. C2 Schedule Overview - Accelerated Validator Pilot and Installations: March 10, 2023

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