



# **Massachusetts Bay Transportation Authority**

## **MBTA Construction Contract No. Z90CN01: AFC 2.0 Site Installation for Transit On-Call**

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MBTA Board of Directors

May 26, 2022

David Perry, Director – System Installation, Fare Transformation

# Overview

- Today's Board action will provide approval for the installation of new Fare Transformation fare collection equipment including station and streetscape fare vending machines, readers on platforms, and Charlie readers on fare gates.



Station Fare Vending Machine



Streetscape Fare Vending Machine



Reader on the Platform



# Fare Transformation

## Charlie system

The devices to be installed by this site installation contractor are elements of the new Charlie system.

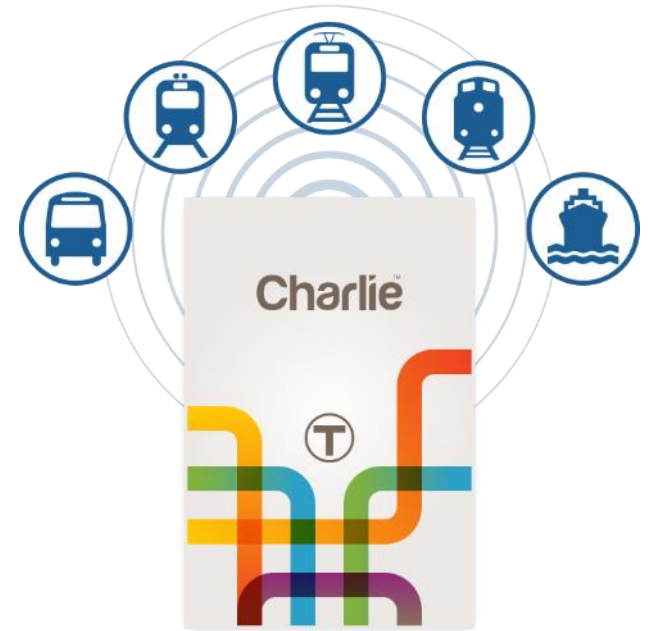
## Systems Integrator

The Systems Integrator / Cubic Transportation Systems is responsible for:

- Creating, implementing, and maintaining the ‘back office’
- Developing and implementing apps for mobile devices
- Developing and manufacturing the devices to be used as part of the Charlie system
- Installing devices on board buses and Green Line vehicles
- Operations & Maintenance for an initial 10-year term

## Site Installation Contractor

The site installation contractor (under this request) will install devices at gated stations, surface light rail stations, busways, ferry terminals, and bus stops (as applicable)



# Request of the Board

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## VOTED:

To authorize the General Manager, or his designee, to award and execute MBTA Construction Contract No. Z90CN01: AFC 2.0 Site Installation for Transit On-Call with McDonald Electrical Corporation, in a form approved by the General Counsel, in the amount of \$24,809,909.56.

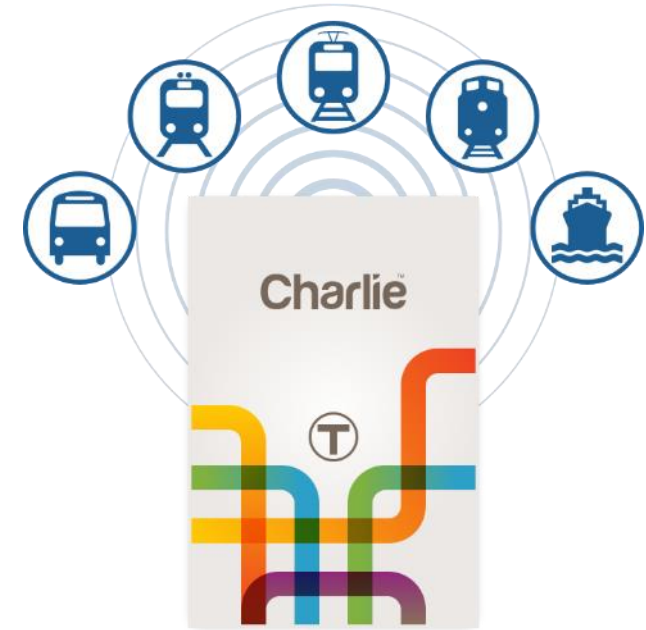


# Appendix

## Project Scope Details



# Project Benefits – Fare Transformation



- **Better customer experience**  
Making paying for transit easier and more convenient
- **Focus on core operations**  
Removing cash from on board buses, Green Line trains, and Commuter Rail by supporting more options for customers to pay before they board
- **Support for the future MBTA**  
Enabling future flexibility for fare policy innovation and integrations with other transit services and modes of transport
- **Equal access**  
Offering expanded language support and accessibility improvements for seniors and people with disabilities
- **Improved revenue control**  
Delivering fully reconciled, auditable and accurate revenue deposits and reports and controlling fare evasion
- **Upgraded assets**  
Replacing worn equipment and improving system uptime and performance under performance-based contract



# Project Benefits – Fare Transformation



- **New tap targets** supporting all media
- Phased approach allows for **managed transition**



- **Cashless vehicles** speeds up boarding
- All-door boarding
- Taps on platform for Commuter and Mattapan Line



- Tap on for all modes, including **ferry**
- Supports **customer service**
- Enables **fare verification**



- Station fare vending and streetscape fare vending machines at stations and bus stops
- All machines **accept cash** and accommodate a range of **accessibility** needs



- **Distributed, accessible and diverse retail locations**
- Sales network availability reported to MBTA



- Self-service **online account management**
- Employers benefits management portal
- **Works on all devices**



- **Support from live agents**
- **24/7 automated phone system** for self-service
- Account management and product purchase



- **Easy to use mobile app**
- Convenient top up via all sales channels
- **Virtual Fare Card** for customers in corporate/reduced fare programs



# Site Installation for Transit On-Call

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Under the Fare Transformation Program, work is divided between the Systems Integrator and the Site Installation On-Call Contractors

- System Integrator responsible for:
  - Overall system architecture
  - Design and manufacturing of devices
  - System functionality, including back office and software systems
- Site Installation for Transit On-Call contractor responsible for:
  - Installation of readers on fare gates
  - Fare vending machine installation at gated stations, surface light rail stations, busways, ferry terminals, and bus stops (as applicable)
  - Installation of readers on the platform at select locations including Mattapan Line
- Future Site Installation for Commuter Rail On-Call contractor responsible for:
  - Installation of readers on the platform at Commuter Rail stations
  - Installation of fare vending machines at Commuter Rail stations





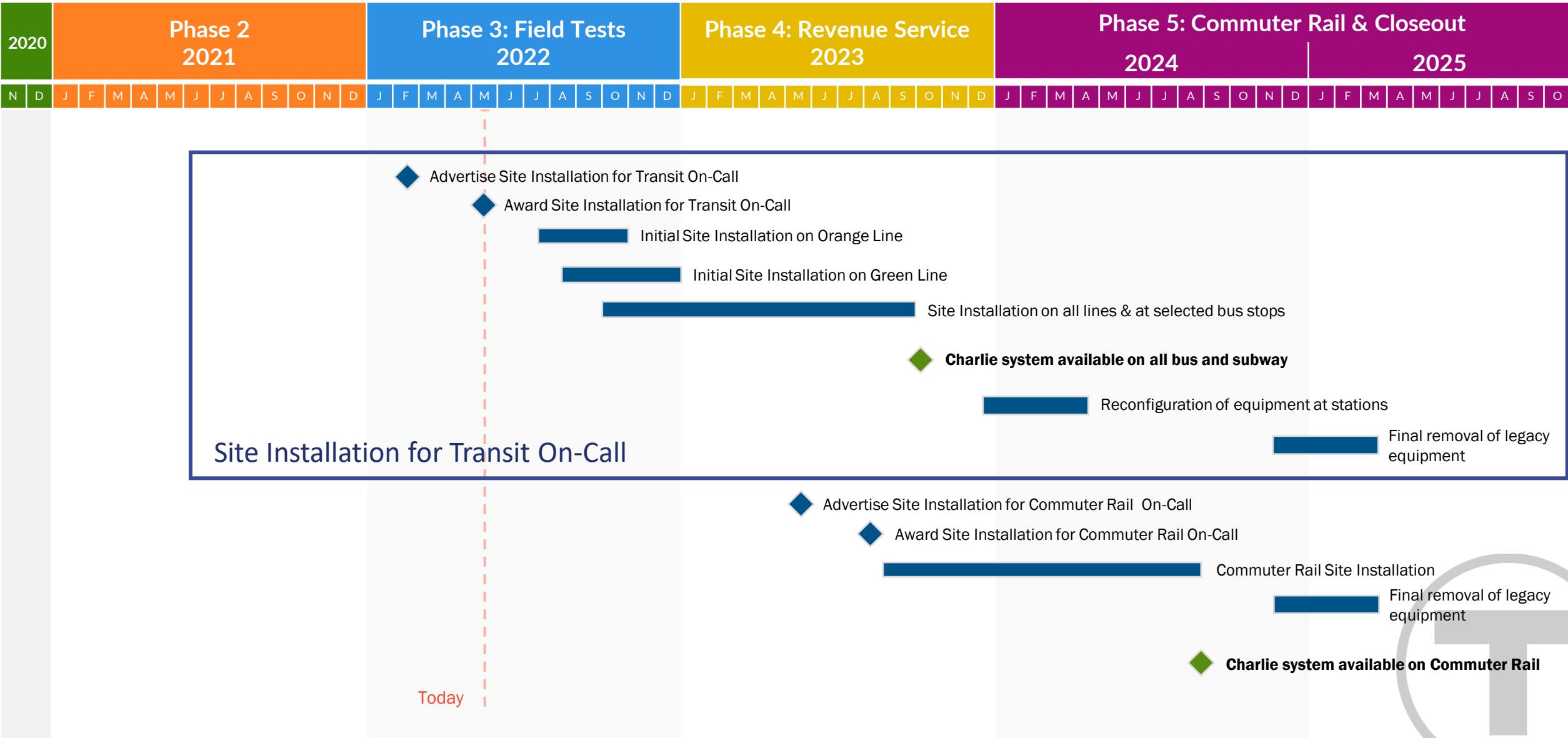
# Operational Impacts During Construction

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- Minimal disruption to passengers
  - No lobby closures
  - Fare gate closures planned to minimize disruption (no entrances or exits closed during operational hours)
  - Construction will take advantage of ‘piggy-backing’ on any planned station closures or diversions
- Streetscape fare vending machines at bus stops are solar-powered with cellular communications
  - No large excavations and electrical or communications cable installations required at bus stops
  - Minimal disruption to bus stops during installation



# Site Installation Schedule Summary



# Construction Procurement

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- Project advertised on March 03, 2022
- Engineer's Estimate was \$19,056,853
- Bid opening on May 05, 2022
- 2 Bids were received

**\$ 24,809,909.56**      **McDonald Electrical Corporation**

**\$ 45,665,391.00**      **Dagle Electrical Construction Corp.**

A bid analysis has been completed and ***McDonald Electrical Corporation*** is the recommended low responsible bidder.

