CAPITAL METROPOLITAN TRANSPORTATION AUTHORITY

AUSTIN, TEXAS

CONTRACT MODIFICATION

1. CONTRACT NO:	2. CONTRACT MODIFICATION NO.:	3. EFFECTIVE DATE	4. CONTRACTOR NAME:
137666	46	OF C.M. See Block 10	Herzog Transit Services, Inc.

5. AGREEMENT TO MODIFY CONTRACT:

The parties hereto agree to modify the Contract identified in Block 1, above, as described in Block 10, below, pursuant to the terms and conditions of the Contract. Except as modified herein, all other provisions of the Contract (including, but not limited to, price, delivery, and completion date) remain unchanged.

6. AMOUNT OF THIS CONTRACT MODIFICATION: **$304,985.60** **INCREASE**

PRIOR TOTAL PRICE: **$ 134,775,154.77**

NEW TOTAL PRICE: **$ 135,080,140.37**

7. TERM OR PERIOD OF PERFORMANCE: **NO CHANGE**

PRIOR: **September 30, 2022**

NEW: **September 30, 2022**

8. CONTRACTOR'S EXECUTION:

Name & Title: C. Scott Perry, President (Print or type)

Signature: C Scott Perry

Date Executed: 10 / 1 / 2021

9. CONTRACTING OFFICER'S EXECUTION:

Name: **Muhammad Abdullah, C.P.M., Chief Contracting Officer** (Print or type)

Signature: E-SIGNED by Muhammad Abdullah on 2021-10-05 09:44:46 AKDT

Date Executed: October 05, 2021 2021

10. DESCRIPTION OF CONTRACT MODIFICATION:

This modification is in accordance with EXHIBIT E-Revised-9, Contractual Terms and Conditions, Section 14, entitled CHANGES, to be made a part hereof for all pertinent purposes:

1) Refer to the Capital Metro's Scope of Work (SOW) dated July 23, 2021, attached hereto and incorporated herein for all pertinent purposes.
2) Refer to Herzog's proposal dated September 7, 2021, attached hereto and incorporated herein for all pertinent purposes.

Capital Metro hereby accepts Herzog's price proposal for additional services necessary to support the requirements for PTC operation and maintenance based on the above-referenced SOW and Herzog's proposal attached hereto in the total not-to-exceed amount of [redacted] This modification allows for the reimbursement of the cost of spare parts on a pure pass-through basis with a 2.5% mark-up.

Spare Parts Reimbursement: Herzog shall submit invoices to Capital Metro for reimbursement of spare parts following delivery and Herzog's acceptance of the parts. The invoices shall be complete in representing pure pass-through actual costs and shall include all supporting documentation such as copies of the Bills of Lading and of the supplier invoices. Capital Metro will pay Herzog upon receipt and approval of the spare parts along with the complete invoice which shall be included in Herzog's monthly invoice for commuter rail services. Herzog ensures that parts will be inventoried properly and that steps will be taken to store the received parts in a safe and secure manner.

[redacted]

This modification may be executed in multiple originals, and an executed facsimile shall have the same force and effect as an original document.

[END OF MODIFICATION #46]

The remainder of Exhibit A – Pricing Schedule has been redacted.

For further information regarding Exhibit A, you may:

- Reach out to the Contractor directly via the Contractor contact details provided on the cover page of this contract.

OR

- Submit a public information request directly to PIR@capmetro.org.

For more information regarding the Public Information Act and submitting public information requests, follow this link to our website: https://www.capmetro.org/legal/

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METRO

POSITIVE TRAIN CONTROL (PTC) OPERATIONS & MAINTENANCE SERVICE SCOPE OF WORK

COMMUTER RAIL – OPERATIONS, DISPATCH & MAINTENANCE CONTRACT No. 137666

1. BACKGROUND

(a) Capital Metropolitan Transportation Authority ("Capital Metro" or "the Authority") is a public agency responsible for providing mass transit service within the City of Austin and the surrounding communities of Leander, Lago Vista, Jonestown, Manor, San Leanna, and Point Venture, as well as the unincorporated area of Travis County within Commissioner Precinct 2 and the Anderson Mill area of Williamson County. Capital Metro services include bus, rail, ride-share programs, special events services, and special transit services for the mobility impaired.

(b) Capital Metro is required by Federal Legislation, the Rail Safety Improvement Act (RSIA) of 2008, and the corresponding implementing rules promulgated by the Federal Railroad Administration (FRA) (i.e., Title 9 Code of Federal Regulation Part 236, Subpart I) to install and have operational an interoperable Positive Train Control System (PTC) by December 31st, 2020. PTC is a collision avoidance system that shall provide a first warning to train operators, through use of "integrated cab signal controls, communications, and an information system" that will intervene to stop a train before a collision or other hazardous train movement can occur. PTC refers to technology that can prevent train-to-train collisions, over-speed derailments, and casualties or injuries to roadway workers operating within their limits of authority, resulting from an unauthorized incursion by a train. The Capital Metro PTC Implementation Project will install an FRA "Type" approval PTC solution, referred to as Enhanced Automatic Train Control (E-ATC) overlaid on the CTC system. E-ATC is an automatic train control system where the train speeds and train spacing are automatically controlled using cab signal track codes which are enforced by the On-Board Computer (OBC) in the vehicle. Enforced stop codes can also be generated by the Train Dispatcher (or automatically) from the control office for work block protection or when notified about a potential unsafe situation such as a crossing warning system malfunction. Overall freight and commuter rail operation safety will be improved with the implementation of PTC (E-ATC).

2. PROJECT DESCRIPTION & LOCATION

Capital Metro Railroad's (CMTA) PTC System is implemented on the passenger alignment and is committed to meeting the requirement of 49 CFR 236 Subpart I. The passenger alignment runs the length of the Central Subdivision from Mile Post (MP) 55.17 DT, Downtown Station, to MP 87.46, Control Point (CP) Bill, and from station MP 56.68, CP Austin Junction to station MP 55.77, CP Valley. The Method of Operation is Centralized Train Control (CTC), with the exception of the track between MP 55.38 DT and MP 55.17 DT, which is Yard Limits. The Method of Operation on that segment of track may in the future be upgraded to CTC, following the completion of the Downtown Station Improvement Project. Between station MP 70.23, CP Abbott and station MP 73.45, CP Robinson, the current Method of Operation on Main Track 1

(MT1) is Yard Limits. The current Method of Operation on Main Track 2 (MT2) is CTC. PTC will only be installed on MT2 between MP 70.23 and MP 73.45, and CMTA passenger trains will continue to operate only on MT2.

The East Subdivision between station MP 55.77, CP Valley, and the End of Main Track at MP 27.2, the Method of Operation is Track Warrant Control (TWC). The Giddings Industrial Lead begins at MP 27.2 and extends to MP 0; it is designated FRA Exempted Track. The Method of Operation on the West Subdivision between station MP 87.46, CP Bill, and station MP 120.00, Sudduth, is TWC.

The Method of Operations on the West Subdivision between station MP 120.00 and MP 122.50 is Yard Limits. The West Subdivision between MP 122.50 and MP 154.10, Llano, is the Llano Industrial Lead. The Marble Falls Industrial Lead extends from station MP 0.0, Fairland, to station MP 6.2, Marble Falls. The Scobee Industrial Lead extends from the Llano Industrial Lead at MP 127.70 for 3.2 miles to the end of track. The Llano, Marble Falls, and Scobee Industrial Leads are designated Federal Railroad Administration (FRA) excepted track. The Wilkie Wye Industrial Lead extends from MP 114.9 for 68 miles to the end of track.

PTC will not be deployed outside of the passenger alignment. Traffic outside the passenger alignment is only used by Tenant Railroads, Austin Western Railroad (AWRR) and the Austin and Texas Central Railroad (ATCX). The tenant traffic does not transport any Poisonous by Inhalation Hazard (PIH) loads, nor does it exceed the threshold level of five million gross tons (MGT). All CMTA, AWRR, and ATCX trains are dispatched using the CMTA dispatching system.

All leading locomotives for the Tenant Railroads must be E-ATC equipped to enter the PTC territory. The maximum speed for equipped CMTA passenger trains on the passenger alignment is 60 MPH. The maximum speed for freight railroad operations on the passenger alignment will be medium speed (40 MPH).

3. GENERAL REQUIREMENTS - SCOPE OF WORK

3.1. CMTA is requesting a service change as per section 25.4 in conformance with the terms and conditions of Herzog Commuter Rail – Operations, Dispatch & Maintenance Contract No. 137666. The additional services required to support the requirements for operation and maintenance for the fully implemented and approved E-ATC PTC system are as follows:

3.1.1. Perform a field inspection and provide to CMTA within 30 days of Notice to Proceed (NTP), a report that includes any defects, issues, or observation.

3.1.2. Within 30 days of NTP, establish a PTC Operation and Maintenance program plan. The program plan shall at a minimum include a catalog of all Operations and Maintenance Manuals - to be provided by CMTA, relevant documents specified in CMTA's PTCDP and PTCSP in accordance with 49 CFR §236.1039, CMTA's configuration management plan, PTC training plans which should include up-to-date training records, and plans for complying with FRA operational restrictions under 49

U.S.C. §236.567 and/or 236.1029 for enroute failures.

3.1.3. Per 49 CFR §236.586 and 587, perform the PTC Departure Test procedure on every PTC equipped train prior to its departure from the maintenance facility, once every 24 hours. Document the result of every Departure test using the PTC departure test forms developed by CMTA and a copy shall be deposited in CMTA's approved document database system, SharePoint.

3.1.4. Perform departure test verification, and No Code Proceed (NCP) counter number verification prior to each train entering PTC-equipped territory. This information shall be reported to the Dispatcher who shall then record the information on the Dispatcher's Rail Incident Report. The Contractor shall make sure no PTC-equipped train enters the main without passing its departure test.

3.1.5. Document enroute failures such as PTC brake enforcements and other PTC anomalies on the PTC Incident Report at the end of each Train Operator's shift.

3.1.6. Following any initialization or departure test failure, unusual events, incidents involving PTC, or if CMTA's PTC Signal Manager makes a request, perform DMU UCII equipment log download, Teloc event log download or ElectrologIXS event log download. These downloads shall be provided to CMTA within 24 hours of an event or incident.

3.1.7. In accordance with 49 CFR §236.1039, Contractor shall have all PTC manuals made readily available to persons required to perform tasks, and for inspection by FRA, and FRA-certified state inspection.

3.1.8. Be responsible for carrying out the following test which shall be performed in accordance with the Original Equipment Manufacturers recommendation. They are:

i. Daily Departure Test for Onboard Equipment

The Contractor shall perform this test daily on all commuter cars before entering PTC territory, in accordance with 49 CFR §236.587. Results shall be posted in the train cab, filed in the office, and uploaded to CMTA document database or as required. This test shall be performed through the onboard Engineering Display Unit (EDU), no test equipment is required.

ii. Periodic Test for UCII Onboard equipment

The Contractor shall perform the following test every 90 days per the UCII Service Manual, as required by 49 CFR §236.588. It includes the following:

- Visual Inspection
- System Isolation Test
- System Voltage Test

- No Code Proceed Counter (NCP) Operations
- Cutout Operation
- Locate System Ground
- Wheel Diameter Calibration
- Set Date and Time
- Cab Signal Pickup Test
- Time to Penalty (TTP) Verification and Audible Alares (Speed Generator)

The Contractor shall utilize a cab signal generator and test loop for these tests and shall utilize the test form in section 3 of the UCII Service Manual.

3.1.9. Provide periodic refresher training and evaluation at the following intervals for its PTC personnel, as follows:

i. Dispatcher – 1 year

ii. Train Operator – 3 years

iii. Signal Personnel – 3 years

iv. Mechanical Personnel – 3 years

v. First Line Supervisor – 3 years

3.1.10. Assist CMTA with PTC related investigation and provide an annual PTC State of Good Repair/Observational report.

3.1.11. Maintain the PTC network, including associated networking hardware, software, and configurations. This includes troubleshooting, hardware replacements, network security, and network monitoring.

3.1.12. Work with CMTA personnel to assist in the support of PTC functionality contained within the dispatch system software (i.e., "PTC Back Office"). This assistance shall include reporting PTC Back Office issues to CMTA personnel, tracking of PTC Back Office anomalies, and collaborating with CMTA and its vendor to ensure anomalies are rectified in a timely manner.

3.1.13. CMTA will provide an initial spare parts inventory. Thereafter the Contractor is responsible for purchasing spare parts and ensuring there is sufficient quantity of spare parts on hand to meet availability requirements. CMTA reserves the right to purchase back PTC spare parts, if desired, at the purchase price entered into the asset

management system at the end of the contract term.

4. CMTA RESPONSIBILITIES

4.1. Provide Herzog with all available applicable PTC documentations which shall include PTC manuals, vendor item lists, training documents, configuration management plans, PTCSP, PTCDP, etc., for inclusion into the PTC Operation and Maintenance Program plan

4.2. Provide Herzog with an initial spart parts inventory.

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4.4. Perform yearly audit and regular inspection of PTC capital Spares, and wayside asset.

5. DELIVERABLES

5.1. The Contractor shall submit all reports and documents requested by Capital Metro via SharePoint Document system.

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METRO

POSITIVE TRAIN CONTROL (PTC) OPERATIONS & MAINTENANCE SERVICE SCOPE OF WORK

COMMUTER RAIL – OPERATIONS, DISPATCH & MAINTENANCE
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1. BACKGROUND

(a) Capital Metropolitan Transportation Authority ("Capital Metro" or "the Authority") is a public agency responsible for providing mass transit service within the City of Austin and the surrounding communities of Leander, Lago Vista, Jonestown, Manor, San Leanna, and Point Venture, as well as the unincorporated area of Travis County within Commissioner Precinct 2 and the Anderson Mill area of Williamson County. Capital Metro services include bus, rail, ride-share programs, special events services, and special transit services for the mobility impaired.

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3.1.8. Be responsible for carrying out the following test which shall be performed in accordance with the Original Equipment Manufacturers recommendation. They are:

i. Daily Departure Test for Onboard Equipment

The Contractor shall perform this test daily on all commuter cars before entering PTC territory, in accordance with 49 CFR §236.587. Results shall be posted in the train cab, filed in the office, and uploaded to CMTA document database or as required. This test shall be performed through the onboard Engineering Display Unit (EDU), no test equipment is required.

ii. Periodic Test for UCII Onboard equipment

The Contractor shall perform the following test every 90 days per the UCII Service Manual, as required by 49 CFR §236.588. It includes the following:

- Visual Inspection
- System Isolation Test
- System Voltage Test

- No Code Proceed Counter (NCP) Operations
- Cutout Operation
- Locate System Ground
- Wheel Diameter Calibration
- Set Date and Time
- Cab Signal Pickup Test
- Time to Penalty (TTP) Verification and Audible Alares (Speed Generator)

The Contractor shall utilize a cab signal generator and test loop for these tests and shall utilize the test form in section 3 of the UCII Service Manual.

3.1.9. Provide periodic refresher training and evaluation at the following intervals for its PTC personnel, as follows:

i. Dispatcher – 1 year

ii. Train Operator – 3 years

iii. Signal Personnel – 3 years

iv. Mechanical Personnel – 3 years

v. First Line Supervisor – 3 years

3.1.10. Assist CMTA with PTC related investigation and provide an annual PTC State of Good Repair/Observational report.

3.1.11. Maintain the PTC network, including associated networking hardware, software, and configurations. This includes troubleshooting, hardware replacements, network security, and network monitoring.

3.1.12. Work with CMTA personnel to assist in the support of PTC functionality contained within the dispatch system software (i.e., "PTC Back Office"). This assistance shall include reporting PTC Back Office issues to CMTA personnel, tracking of PTC Back Office anomalies, and collaborating with CMTA and its vendor to ensure anomalies are rectified in a timely manner.

3.1.13. CMTA will provide an initial spare parts inventory. Thereafter the Contractor is responsible for purchasing spare parts and ensuring there is sufficient quantity of spare parts on hand to meet availability requirements. CMTA reserves the right to purchase back PTC spare parts, if desired, at the purchase price entered into the asset

management system at the end of the contract term.

4. CMTA RESPONSIBILITIES

4.1. Provide Herzog with all available applicable PTC documentations which shall include PTC manuals, vendor item lists, training documents, configuration management plans, PTCSP, PTCDP, etc., for inclusion into the PTC Operation and Maintenance Program plan

4.2. Provide Herzog with an initial spart parts inventory.

4.3. Manage warranty and support items through the end of the warranty period with the Modern Railway Systems and RailComm.

4.4. Perform yearly audit and regular inspection of PTC capital Spares, and wayside asset.

5. DELIVERABLES

5.1. The Contractor shall submit all reports and documents requested by Capital Metro via SharePoint Document system.