

MIAMI-DADE COUNTY  
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS (DTPW)

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ADDENDUM NO. 2  
September 13, 2023

PROJECT: Metrorail Public Address System Replacement

RPQ No: TP-0000008807  
MCC 7360 Plan - CICC 7360-0/08

BID DUE DATE: September 20, 2023; 02:00 P.M.

FROM: Miami-Dade County DTPW  
Capital Improvements Division  
111 NW First Street, 14<sup>th</sup> Floor  
Miami, FL 33128  
305.375.2930

TO: Prospective Bidders and Interested Parties

This Addendum forms part of the project solicitation documents and will be incorporated into the Contract Documents, as applicable. Insofar as the Original Contract Documents, Drawings and Specifications are inconsistent, this Addendum shall govern. Please acknowledge receipt of this Addendum, at the time of bid submittal to Miami-Dade County, in the space provided on the "Acknowledgement of Addenda Form" provided with the project solicitation documents. Failure to acknowledge receipt of all addenda may be cause for disqualification.

**CHANGES TO SPECIFICATIONS:**

- A. As to the "Special Provision" – Appendix A; – Summary of Work, 8.1.2. Material List, Inside Table, Column titled: "Station Acoustic Drivers/Speakers."
  - a. Ignored: Klipsch, Model AW-650 Black.
  - b. And replace with: Klipsch, Model CA-650T (See attached Specifications at the end of this document.)

**CHANGES TO CONTRACTING REQUIREMENTS:**

- A. As to the "Quality Assurance Plan" – Table of Contents; Point No.5. Purchasing, & Point No.6. Product Identification and Traceability.
  - a. Statement: Subject Project is funded with Miami-Dade County Funds. Any provisions referring to Federal Requirements do not apply to this project. However, the subject project will still need to meet with requirements referred to Buy American. Moreover, prospect bidders must ensure to comply with the National Defense Authorization Act for Fiscal Year 2023 ("FY2023 NDAA"). Section 5949 of FY2023 NDAA ("Section 5949") which prohibit the use of products that have electronic parts, products, or services that includes covered semiconductor products or services from certain Chinese companies.

Miami-Dade County has passed Resolution# 220398, which supports the National Defense Authorization Act (NDAA). Any equipment provided must comply with the restrictions as provided in the NDAA.

**END OF ADDENDUM NO. 2**

MIAMI-DADE COUNTY  
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS (DTPW)

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ADDENDUM NO. 2  
September 13, 2023



Alfredo E. Muñoz, P.E.  
Chief, Capital Improvements Division  
Department of Transportation and Public Works (DTPW)

AM:mm

cc: Katherine Fernandez, DTPW	Marco Movilla, DTPW	Laurie Johnson, ISD
Colin Armorer, DTPW	Fletcher Winston, DTPW	Harry Francillon, DTPW
Eric Perez, ISD	Project File	Clerk of the Board

**METRORAIL PUBLIC ADDRESS  
SYSTEM REPLACEMENT**

**RPQ NO. TP-0000008807**

**ADDENDUM NO.2**

**SPECIAL PROVISIONS**

**ATTACHMENTS**

**CHANGES SPECIFICATIONS  
TO:**

**KLIPSCH - MODEL CA-650T**

# 6.5" Two-Way All-Purpose Loudspeaker



# CA-650T

Inside or out, the 70-volt Klipsch CA-650T compact, full-range loudspeaker delivers superior sound from a durable and flexible package. Perfect for foreground or background distributed sound applications in residential, commercial or recreational environments, this model provides big time sound and worry-free performances.

Building on the success of our popular CA-6T model, the new CA-650T version features enhanced cosmetics, added mounting flexibility and even better performance.

For efficiency and reliability, the CA-650T has been re-voiced and employs a high-power, extended range low frequency driver. It features a 6.5-inch IMG cone woofer and 1-inch titanium dome tweeter coupled to a square-mouth 90-degree by 90-degree Tractrix® Horn, which allows the speaker to be mounted horizontally or vertically without affecting the coverage pattern.

Available in black or white, this speaker has a durable UV-resistant all-weather enclosure that includes an internal multi-tap transformer with expanded range and a switchable direct 8-ohm bypass. The tap settings for the CA-650T at 70V are 60W, 30W, 15W, 7.5W and 3.7W. The added 3.7W tap setting offers further placement flexibility. The settings for 100V are 60W, 30W, 15W and 7.5W.

The included heavy gauge zinc C-bracket provides added mounting strength. It attaches to the enclosure's integral "center-of-gravity balanced" threaded studs that are positioned inside the speaker and to the oversized knobs, ensuring positive position-lock. Connections are provided via four-position barrier strips. This allows an installer to use two connectors for inputs and two for pass-throughs, making it easier to daisy chain.

The CA-650T's updated grille design stays securely fastened and incorporates a new paint formulation for increased weather resistance and years of maintenance-free protection regardless of the climate or environment. The speaker's improved input cup allows for easier drainage and the added 3/8"-16 threaded insert for use with optional mounts offers better placement flexibility.

- 90° x 90° Tractrix Horn tweeter for clean, clear highs
- Very high sensitivity and power handling
- Built-in 60-watt, 70V/100V multi-tap transformer with 8-ohm bypass
- Supplied with C-style mounting bracket and stainless steel hardware
- Paintable UV-resistant ABS enclosure with rustproof aluminum grille

## SPECIFICATIONS

FREQUENCY RESPONSE <sup>1</sup>	69-20kHz ± 4dB
POWER HANDLING <sup>2</sup>	85W (19V)
MAX CONTINUOUS OUTPUT <sup>3</sup>	111dB
SENSITIVITY (2.83V/1M) <sup>4</sup>	95dB
HORIZONTAL COVERAGE	80° ± 40 1.4kHz-20kHz
VERTICAL COVERAGE	90° ± 30 1.4kHz-18kHz
DI	7 ± 2.5dB 1Hz-20kHz
Q	5
NOMINAL IMPEDANCE	8 ohms (4.1ohm min @15kHz)
CROSSOVER	1.9kHz with 12dB/Octave high-pass 12dB/Octave low-pass
TRANSDUCERS	One K-1182-A 6.5" woofer with IMG Cone One K-150-A 1" titanium diaphragm compression driver
ENCLOSURE TUNING	Vented System via front firing ports
ENCLOSURE MATERIAL	All-weather ABS plastic, paintable
INPUT CONNECTORS	4 position terminal strip
TRANSFORMER TAPS	70V: 60W, 30W, 15W, 7.5W, 3.75W 100V: 60W, 30W, 15W, 7.5W Through Position: 8 ohms
HEIGHT	9.5" (24.13cm)
WIDTH	15.2" (38.56cm)
DEPTH	10.875" (27.62cm)
WEIGHT	13 lbs. (5.9kg)

<sup>1</sup> 3M, half space anechoic

<sup>2</sup> AES standard, continuous pink noise 50Hz-10Hz, 6dB peaks

<sup>3</sup> Calculated at 1M at power handling power input

<sup>4</sup> SPL at 1M, half-space anechoic with 2.83V input

www.klipsch.com  
1-800-KLIPSCH





MIAMI-DADE TRANSIT  
METRORAIL PA-VMS PROJECT  
APPENDIX A - SUMMARY OF WORK



**8.1.2 MATERIALS LIST**

The equipment make and model required shall be the same for each Metrorail Station unless otherwise determined. The Equipment is presented in Table 1 below. Approved equals may be substituted for any or all of the equipment listed in Table #1.

	Paging Amplifiers	Network Signal Processor	Station Acoustic Drivers/Speakers	16 Channel Active Audio Monitor Panel	Communications Room Acoustic Drivers/Speakers	Ambient Noise Sensing Microphones	Communications Room Microphones	Speaker Wire/Cable
Make	Crown	BSS Harmon	Klipsch	AtlasIED	Klipsch	AKG	SHURE	Belden
Model	DCi-4-1250N	Soundweb LONDON BLU-806DA	AW-650 Black <b>REPLACE WITH CA-650T</b>	MVXA-2016	AW-525 Black	PZM11LL WR	Model 514B U	1311A 1SL1000 Multi-Conductor
Quantity	As needed to meet Zone coverage and speech Intelligibility requirements at each station	As needed to support required number of Ambient Noise Microphones	Quantity shall be determined by Acoustic Modeling results	1	2 – Each wired to one Amplifier’s channels 1 and 2 respectively	As needed to meet the requirements of 8.1.3.22	1 – Wired for a Balanced input on the DSP	As needed
Software	Audio Architect	Sound Architect	N/A	N/A	N/A	N/A	N/A	N/A

**TABLE #1**

**NOTE: ALL ACOUSTIC DRIVERS SHALL BE SET TO THE MAXIMUM POWER TAP SETTING PRIOR TO INSTALLATION FOR USE WITH A 100 VOLT DISTRIBUTION SYSTEM**

**8.1.3 PAGING SYSTEM REQUIREMENTS**

1. Paging Amplifiers shall provide 70/100 Volt line outputs.

MIAMI-DADE TRANSIT  
METRORAIL PA-VMS PROJECT  
APPENDIX A - SUMMARY OF WORK

ACOUSTIC DRIVER / SPEAKERS

FREQUENCY RESPONSE <sup>1</sup>	69-20kHz ± 4dB
POWER HANDLING <sup>2</sup>	85W (19V)
MAX CONTINUOUS OUTPUT <sup>3</sup>	111dB
SENSITIVITY (2.83V/1M) <sup>4</sup>	95dB
HORIZONTAL COVERAGE	80° ± 40 1.4kHz-20kHz
VERTICAL COVERAGE	90° ± 30 1.4kHz-18kHz
DI	7 ± 2.5dB 1Hz-20kHz
Q	5
NOMINAL IMPEDANCE	8 ohms (4.1ohm min @15kHz)
CROSSOVER	1.9kHz with 12dB/Octave high-pass 12dB/Octave low-pass
TRANSDUCERS	<ul style="list-style-type: none"> <li>• One K-1182-A 6.5" woofer with IMG Cone</li> <li>• One K-150-A 1" titanium diaphragm compression driver</li> </ul>
ENCLOSURE TUNING	Vented System via front firing ports
ENCLOSURE MATERIAL	All-weather ABS plastic, paintable
INPUT CONNECTORS	4 position terminal strip
TRANSFORMER TAPS	70V: 60W, 30W, 15W, 7.5W, 3.75W 100V: 60W, 30W, 15W, 7.5W Through Position: 8 ohms
HEIGHT	9.5" (24.13cm)
WIDTH	15.2" (38.56cm)
DEPTH	10.875" (27.62cm)
WEIGHT	13 lbs. (5.9kg)

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<sup>3</sup> Calculated at 1M at power handling power input

<sup>4</sup> SPL at 1M, half-space anechoic with 2.83V input

The Acoustic Drivers shall be Klipsch Model CA-650T in Black or approved equal.

**METRORAIL PUBLIC ADDRESS  
SYSTEM REPLACEMENT**

**RPQ NO. TP-0000008807**

**ADDENDUM NO.2**

**QUALITY ASSURANCE  
CONTROL**

**ATTACHMENTS  
(For Informational Purpose  
Only)**

# PROJECT QUALITY ASSURANCE PLAN

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## 5. Purchasing (If applicable)

**Note: If the purchasing process does not apply, you may put “N/A” in this section**

Procedures shall be established and maintained to ensure that purchased services or products conform to specified technical requirements. Purchasing requirements apply to all Contractors and Suppliers.

### **Receiving Inspection**

The receiving inspection of all materials will be performed by the Contractor’s QA/QC staff at their facility in accordance with approved Contractor’s QAP. The Contractor’s QAP shall provide methods to control and ensure that all materials received are properly inspected. Any nonconforming materials shall be identified.

### **Approved Supplier List**

The Contractor shall develop and maintain an approved Supplier list available for review and approval.

### **Contractor input:**

*In this section, document the purchasing process and how all products are received, inspected and maintained.*

***Important Note: The Contractor must comply to all Buy America requirements if the Project is Federally Funded. This section shall also identify the verification and control of purchased materials to ensure that these requirements are met.***



# PROJECT QUALITY ASSURANCE PLAN

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## 6. Product Identification and Traceability (If applicable)

**Note: If the product identification and traceability process does not apply, you may put “N/A” in this section.**

The purpose of product identification and traceability is to ensure the control of materials, parts, components, equipment, and products, and the identification and traceability of these materials to prevent the use of incorrect or defective items. They also ensure that only correct and acceptable items are used or installed. These requirements apply to all materials, parts, components, equipment, and products, including partially fabricated or assembled components, produced for incorporation into the project.

### **Identification**

All materials, supplies, and components that are intended for use in this Project shall be identified from the time of initial fabrication, or receipt, up to and including installation or end use. Items shall be identified by positive markings and/or certifications. They shall be segregated and/or stored with identification data to ensure control and proper identification as applicable.

Item identification methods include use of physical markings. If physical markings are either impractical or insufficient, other appropriate means of identification such as physical separation, container labels, barcodes or tags shall be employed.

### **Traceability**

Item identification methods ensure that traceability is established and maintained in a manner that allows an item to be traced to applicable drawings, specifications, or other documents during all stages of production, delivery, and installation or end use.

### **Contractor input:**

*In this section, document how materials, components, equipment, and products will be identified:*

***Important Note: The Contractor must comply to all Buy America requirements if the Project is Federally Funded. This section shall also identify the verification and control of purchased materials to ensure that these requirements are met.***