

MTA - NEW YORK CITY TRANSIT
2 BROADWAY
NEW YORK, NY 10004

DIVISION OF MATERIEL
web.mta.info/nyct/procure/nyctproc.htm
Vreplies@nyct.com

R34211
NOTICE
-OF-
ADDENDUM

ADDENDUM #3

BID OPENING/DUE DATE: 10/18/2016

This addendum contains a CD which will be sent
by overnight mail



New York City Transit

08/11/2016

R34211 ADDENDUM NO. 3

PURCHASE OF 1,025 SUBWAY CARS WITH A BASE ORDER OF 10 OPEN GANGWAY TEST CARS FOR NYCT "B" DIVISION, 75 STATEN ISLAND RAILWAY CARS AND 200 NYCT "B" DIVISION SUBWAY CARS AND AN OPTION FOR 740 ADDITIONAL NYCT "B" DIVISION SUBWAY CARS

CLOSING DATE – October 18, 2016

To Prospective Proposers:

Prospective Proposers are hereby notified of the following changes to the Proposal in the above referenced Request for Proposal (RFP).

This Addendum has been generated in order to respond to questions asked. In order to assist Proposers, Contract pages with tracked changes have been provided. The tracked documents are intended to call the Proposers' attention to where changes have been made to the Contract documents:

- The location for the pre-proposal conference scheduled for Thursday September 8 at 10:00am is 2 Broadway, Board Room 209 on the 20th Floor. Anyone wishing to attend must e-mail marian.murray@nyct.com by August 31, 2016 in order to be registered with security for admittance into the building. Please provide the name of the person attending and their company or organization name.
- Please remove pages 3, 6, 23, and 42 of the existing Overview and replace them with the revised pages 3, 6, 23, and 42 of the Overview attached. (See also the tracked version attached indicating the changes made via this addendum.)
- Please remove the existing TF-1 from Attachment 7 and replace it with the revised TF-1 forms for the R211A, R211S, R211T (Design 1), and R211T (Design 2). (See also the tracked version attached indicating the changes made via this addendum.)

Attached are the following documents providing clarification on inquiries received from Proposers:

- A question and answer sheet.
- An electronic copy of a tracked version of the Technical Specification which reflects the changes from the Technical Specification issued with the Industry Review to the version (Rev 0) issued with the RFP on 07/22/16. (See accompanying CD).
- A Word file of the TF-1 forms. (See accompanying CD).

Please be governed accordingly when submitting proposals for the above referenced Request for Proposals.

Sincerely,

Marian Murray
Assistant Chief Procurement Officer, Procurement

R34211 - OVERVIEW AND PROPOSAL PROCEDURES

- UNITED STATES EMPLOYMENT PLAN WORKSHEET
- UNITED STATES EMPLOYMENT PLAN CERTIFICATION
- SUBCONTRACTOR DATA FORM
- MTA VENDOR CODE OF ETHICS
- PROPOSER'S EXECUTION FORM

- **TECHNICAL SPECIFICATION – Separate Document**

- **APPENDICIES TO TECHNICAL SPECIFICATION – Separate Documents**

2. PERTINENT DATES

- Release date of this RFP is July 22, 2016.
- A pre-proposal conference will be held on September 8, 2016, at 10:00 am at a-2 Broadway, Board Room 209 on the 20th floor. location TBD.
- All inquiries regarding requests for clarification must be received by the Authority by September 15, 2016.
- All proposals are due by 1:00 pm on October 18, 2016 (the "Closing Date").

3. GENERAL INSTRUCTIONS

The Authority considers any information it may have released either orally or in writing prior to the issuance of this RFP to be preliminary in nature and shall not be bound by such information.

Each Proposer should furnish the information required by this RFP. The person signing the proposal must initial all erasures or other changes.

If the proposal is signed by other than the president or general partner of the Proposer, the proposal is to include evidence of the agent's authority.

In general, the Authority seeks proposals under this RFP which are advantageous to the Authority and satisfy its overall needs. In order to afford the Authority the ability to properly evaluate and compare all proposals received, it is essential that each Proposer clearly indicate, with specificity, in what respect its proposal or alternative proposal constitutes an enhancement, a reduction or other change in the **CONTRACT TERMS AND CONDITIONS** and **TECHNICAL SPECIFICATION**, or if the Price Proposal is based upon the RFP without any changes, that such is the case. All affected provisions should be cited and any proposed modifications set forth.

4. ALTERNATIVE PROPOSALS

Each Proposer shall submit a base proposal as called for in this RFP and Proposers are encouraged to submit alternate proposals containing enhancements, reductions, or changes it wishes to offer. An alternate proposed on the assumption of changed technical specifications or contract terms must contain a corresponding alternate Price Proposal. Any alternate proposal must clearly identify the proposed contract or technical change(s)

R34211 - OVERVIEW AND PROPOSAL PROCEDURES

prospective Proposers may telephone the Assistance Chief Procurement Officer at 646-252-6040.

8. PRE-PROPOSAL CONFERENCE

In order to assist Proposers in the preparation of their proposals, a Pre-Proposal Conference will take place at the time and location indicated below:

Date: September 8, 2016
Time: 10:00 am
Place: TBD2 Broadway, Board Room 209, 20th Floor

The Pre-Proposal Conference shall be informal. The Authority's representatives will entertain and respond to oral inquiries at the Pre-Proposal Conference; however, only a written interpretation or correction issued as an Addendum by the Authority shall be binding. Proposers should not rely on any representations, statements, or clarifications not made in this RFP or in a formal addendum.

- A. In the event of a site tour in connection with the RFP, prospective proposers who desire to attend or have a representative attend this site tour shall notify the Procurement Representative by telephoning the above number no later than noon of the working day preceding the day of the tour.
- B. No individuals shall be allowed to enter upon the Authority's property unless they shall agree to comply with all conditions imposed by the Authority in connection therewith, including signing a waiver, on behalf of themselves and the entity(ies) which they represent, of all claims against the Contracting Party and the Authority and any of their agents or employees arising on account of any personal injury (including death) or property damage occurring while on the Project Site or other Authority property, or arising out of their entrance or exit upon such property.

9. RESTRICTIONS ON CONTACT WITH AUTHORITY EMPLOYEES

Prospective Proposers are advised that until the award of any Contract pursuant to this RFP, they are not permitted to contact Authority employees about a matter related to this solicitation unless they have received the permission of the Assistant Chief Procurement Officer.

10. WITHDRAWAL OF PROPOSALS

Proposers may withdraw their proposals from consideration at any time prior to the award of this Contract. Proposers who decide to withdraw their proposals are asked to promptly notify the Authority in writing directed to the Assistant Chief Procurement Officer in order to avoid unnecessary expenditure of resources in reviewing such proposals. The Authority shall have the right to discard or retain for its records all copies of proposals withdrawn from consideration. All proposals shall remain the property of the Authority, whether or not withdrawn. No proposal shall be returned.

R34211 - OVERVIEW AND PROPOSAL PROCEDURES

integration, testing, system assurance, warranty and field support. Describe, in detail, how much of the work force will be available and assigned to successfully complete the proposed work.

- Carbody and car assembly
- Truck and truck assembly
- Coupler system equipment
- Auxiliary electric equipment
- Propulsion system equipment
- Friction braking system equipment
- Door control and operator system
- HVAC system equipment
- Communications, including CCTV
- Information signs equipment
- Lighting system equipment
- Communications Based Train Control (CBTC) integration for carborne systems
- SIR Automatic Train Control (ATC)/Cab Signaling equipment
- Open Gangway.

- B.10 Provide design, manufacturing and assembly workflow and staffing plans for the proposed work, for each Supplier listed in Section 2.9. The workflow shall consider the parallel activities required for the design and manufacture of the OG, SIR, and NYCT Test Trains.
- B.11 What, if any, ongoing or already committed work on other projects are likely to impose workforce, facilities or financial constraints that could adversely impact the proposed work for each Supplier listed in Section B.9? What are their plans to mitigate them?
- B.12 Provide the resumes of the ~~Project~~ Program Manager and other key personnel listed in the organization chart for each Supplier listed in Section B.9.

29.1 Technical Submittals and Questions

General Requirements and Scope

- 29.1.1 Provide a set of preliminary general arrangement drawings for the proposed R211T, R211S, and R211A Car configurations defined in the Technical Specifications, including:
- Exterior elevations of both sides
 - Exterior elevations of both ends
 - Floor plan
 - Reflected ceiling plan
 - Roof plan
 - Interior, longitudinal sections of both sides

R34211 - OVERVIEW AND PROPOSAL PROCEDURES

- 29.23.5 How does the Proposer's Quality Assurance Program compare with that required by the technical specification? Are there any quality requirements which the Proposer does not currently have in place?
- 29.23.6 Have you satisfied ISO 9001: 2008 certification requirements on previous programs, and where?
- 29.23.7 Provide evidence of certifications related to standards applied to rail vehicle supply project execution, software development, and system design and integration such as IRIS, CMMI, or others as applicable.
- 29.23.8 Describe what you consider as critical material and workmanship items that are to be checked during the Pre-Shipment Inspections.

29.24 TESTING PROGRAM

- 29.24.1 Provide a preliminary Master Test and Inspection Plan.
- 29.24.2 What facilities do you have, or have access to, to support static and dynamic testing of the cars and multiple Car consists?
- 29.24.3 What facilities do you have, or have access to, for Car level environmental testing?
- 29.24.4 Where do you plan to perform high speed testing?
- 29.24.5 Describe your approach to support CBTC/ATC testing at the factory level; access to facilities to conduct dynamic testing.
- 29.24.6 Describe your approach to support the parallel testing activities associated with the supply of NYCT, SIR, and OG cars. The approach shall include, but is not limited to qualification testing of similar systems and subsystems, pre-shipment testing of NYCT and SIR cars, and testing and staffing support at SIR and NYCT during prototype and acceptance testing.

29.25 STATEN ISLAND RAILWAY CARS

- 29.25.1 Please provide details on the proposed methodology and safety level for application of ATC initiated penalty brake without modification of R211 friction brake system control hardware.
- 29.25.2 Provide details on the conceptual design to accommodate the need to cutout doors as described in 25.6.1.2 at certain stations.
- ~~29.25.3 Please provide details on the proposed methodology and safety level for application of ATC initiated penalty brake without modification of R211 friction brake system control hardware.~~

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6.0 SIDE DOOR SYSTEM

			<u>Preferred Supplier 1</u>	<u>Alternate Supplier 12</u>	<u>Alternate Supplier 23</u>
1.	Side door <u>Door</u> hangers	Supplier			
		Type			
2.	Side door <u>Door</u> panels	Supplier			
		Material			
3.	Side door <u>Door</u> operators <u>Operators</u> and controls	Supplier			
		Type			
4.	End door <u>Door</u> panels	Supplier			
		Type			

7.0 HEATING, VENTILATING AND AIR CONDITIONING SYSTEM

			<u>Preferred Supplier 1</u>	<u>Alternate Supplier 12</u>	<u>Alternate Supplier 23</u>
1.	HVAC system <u>System</u>	Supplier			
		Type			
2.	Air conditioning system <u>System</u>	Capacity (per car)			
3.	Overhead heating <u>Heating system System</u>	Capacity (per car)			
4.	Floor heating <u>Heating system System</u>	Supplier			
		Type			
		Capacity (per car)			
4.	HVAC Compressor, hermetic	Supplier			
5.	DC-AC Inverter for Compressor Motor	Supplier			
6.	DC-AC Inverter for Evaporator Blower Motor	Supplier			
7.	Floor Heating System	Supplier			
		Type			
		Capacity (per car)			

8.0 LIGHTING SYSTEMS

		<u>Preferred Supplier 1</u>	<u>Alternate Supplier 2</u>	<u>Alternate Supplier 3</u>
1.	Light fixtures (interior)	Supplier _____ Type _____	_____	_____
2.	Light fixtures (exterior)	Supplier _____ Type _____	_____	_____

9.0 AUXILIARY ELECTRIC EQUIPMENT AND DISTRIBUTION

		<u>Preferred Supplier 1</u>	<u>Alternate Supplier 2</u>	<u>Alternate Supplier 3</u>
1.	Third rail Rail <u>current</u> <u>Current collector</u>	Supplier _____ Type _____	_____	_____
2.	Main switch <u>Switch</u> and main fuse	Supplier _____ Type _____	_____	_____
3.	Auxiliary inverters <u>Inverters</u>	Supplier _____ Type _____	_____	_____
4.	Low Voltage power <u>Power supply</u>	Supplier _____ Type _____	_____	_____
5.	Storage battery <u>Battery</u>	Supplier _____ Type _____	_____	_____

10.0 PROPULSION AND BRAKING SYSTEM

		<u>Preferred Supplier</u>	<u>Alternate Supplier 1</u>	<u>Alternate Supplier 2</u>
1.	AC inverter <u>Inverter</u>	Supplier _____	_____	_____
	No. of inverter drives per car	_____	_____	_____
	Type	_____	_____	_____
2.	Traction motor <u>Motor</u>	Supplier _____	_____	_____
	Motor Model No.	_____	_____	_____
	Motor speed, maximum	_____	_____	_____
	Motor rating (1 hour)	_____	_____	_____
3.	Braking resistor <u>Resistor</u>	Supplier _____ Type _____	_____	_____
4.	Power electronics cooling design	_____	_____	_____

5.	Control logic	Supplier	_____	_____	_____
	No. of control logic units per car		_____	_____	_____
6.	Gear units <u>Units</u>	Supplier	_____	_____	_____
		Type	_____	_____	_____
7.	Gear Ratio		_____	_____	_____

11.0 TRUCKS AND SUSPENSION SYSTEM

			<u>Preferred Supplier</u>	<u>Alternate Supplier 1</u>	<u>Alternate Supplier 2</u>
1.	Fabricated Truck frame and bolster (Fabricated)	Supplier	_____	_____	_____
2.	Wheels	Supplier	_____	_____	_____
3.	Axles	Supplier	_____	_____	_____
		Type	_____	_____	_____
4.	Journal bearings <u>Bearings</u>	Supplier	_____	_____	_____
		Type	_____	_____	_____
5.	Primary suspension	Supplier	_____	_____	_____
		Type	_____	_____	_____
6.	Secondary suspension	Supplier	_____	_____	_____
		Type	_____	_____	_____
7.	Leveling Valves	Supplier	_____	_____	_____
		Type	_____	_____	_____

12.0 FRICTION BRAKING AND AIR SUPPLY SYSTEMS

			<u>Preferred Supplier</u>	<u>Alternate Supplier 1</u>	<u>Alternate Supplier 2</u>
1.	Friction brake <u>Brake system</u> <u>System</u>	Supplier	_____	_____	_____
		Type	_____	_____	_____
2.	Parking brake <u>Brake system</u> <u>System</u>	Supplier	_____	_____	_____
		Type	_____	_____	_____
3.	Air supply <u>Supply system</u> <u>System</u>	Supplier	_____	_____	_____
		Type	_____	_____	_____

13.0 COMMUNICATIONS

	<u>Preferred Supplier</u>	<u>Alternate Supplier 1</u>	<u>Alternate Supplier 2</u>
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1.	PA/Intercom system	Supplier	_____	_____	_____
		Type	_____	_____	_____
2.	Train on On-board radioRadio	Supplier	_____	_____	_____
		Type	_____	_____	_____
3.	Exterior Side Destination Signs	Supplier	_____	_____	_____
		Type	_____	_____	_____
4.	Ceiling Interior Information Sign	Supplier	_____	_____	_____
		Type	_____	_____	_____
5.	End Route Sign	Supplier	_____	_____	_____
		Type	_____	_____	_____
6.	Flexible Ceiling Strip Display	Supplier	_____	_____	_____
		Type	_____	_____	_____
7.	Flexible Wall Displays	Supplier	_____	_____	_____
		Type	_____	_____	_____
8.	CCTV Cameras	Supplier	_____	_____	_____
		Type	_____	_____	_____
9.	Network Video Recorder	Supplier	_____	_____	_____
		Type	_____	_____	_____

14.0 TRAIN CONTROL SYSTEM

1.	CBTC Interface management	Supplier	_____	_____	_____
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15.0 CARBODY EQUIPMENT AND INTERIORS

		<u>Preferred Supplier</u>	<u>Alternate Supplier 1</u>	<u>Alternate Supplier 2</u>
1.	Floor Covering	Supplier	_____	_____
		Material	_____	_____
2.	<u>Subflooring</u>	<u>Supplier</u>	_____	_____
		<u>Material</u>	_____	_____
32.	Windows	Supplier	_____	_____
		Type	_____	_____
43.	Seats	Supplier	_____	_____

Type _____

16.0 TRAINLINE & CAR CONTROLS ARCHITECTURE

		<u>Preferred Supplier</u>	<u>Alternate Supplier 1</u>	<u>Alternate Supplier 2</u>
1.	Trainline and network <u>Network controllers</u> <u>Controllers</u>	Supplier _____	_____	_____
		Type _____	_____	_____
2.	Network Switches	Supplier _____	_____	_____
		Type _____	_____	_____

17.0 MONITORING AND DIAGNOSTIC SYSTEM

		<u>Preferred Supplier</u>	<u>Alternate Supplier 1</u>	<u>Alternate Supplier 2</u>
1.	Monitoring and diagnostic <u>Diagnostic system</u> <u>System</u>	Supplier _____	_____	_____
		Type _____	_____	_____
2.	Event recorder <u>Recorder</u>	Supplier _____	_____	_____
		Type _____	_____	_____

18.0 SOFTWARE SYSTEMS

		<u>Preferred Supplier</u>	<u>Alternate Supplier 1</u>	<u>Alternate Supplier 2</u>
1.	For Train and Car Control	Supplier _____	_____	_____
2.	For Propulsion Control	Supplier _____	_____	_____
3.	For Auxiliary Control	Supplier _____	_____	_____
4.	For Doors	Supplier _____	_____	_____
5.	For HVAC	Supplier _____	_____	_____
6.	For Monitoring & Diagnostics System	Supplier _____	_____	_____
7.	For Friction Brake System	Supplier _____	_____	_____
8.	For Overall Software Management	Supplier _____	_____	_____

~~18.1.0~~ SYSTEM ASSURANCE SERVICES RELIABILITY, MAINTAINABILITY, AND SYSTEMS ASSURANCE

		<u>Preferred Supplier</u>	<u>Alternate Supplier 1</u>	<u>Alternate Supplier 2</u>
1.	Reliability requirements	Supplier _____	_____	_____
2.	Maintainability requirements	Supplier _____	_____	_____
3.	Safety requirements	Supplier _____	_____	_____

22.0 IN-SERVICE SYSTEM SUPPORT

		<u>Preferred Supplier</u>	<u>Alternate Supplier 1</u>	<u>Alternate Supplier 2</u>
1.	Training	Supplier		
2.	Manuals, IETM	Supplier		
3.	Part and device identification system	Supplier		
4.	Bench Test Equipment	Supplier		
		Type		

25.0 STATEN ISLAND RAILWAY CARS

1.	ATC/Cab Signaling Equip.	Supplier		
		Type/		
		Model		

26.0 OPEN GANGWAY TEST TRAIN

1.	Open Gangway Unit 1	Supplier		
		Type		
2.	Open Gangway Unit 2	Supplier		
		Type		
3.	Link Bar, Drawbar for Open Gangway Unit 1 & 2	Supplier		
		Type		

FORM TF-1
TECHNICAL SUMMARY FORM
R211A

Proposers Name: _____

2.0 DATA AND DIMENSIONS (AT ZERO WEIGHT, EXCEPT AS SPECIFIED)

1. Car weight as proposed:

AW0	A1 Car _____ lbs.	A2 Car _____ lbs.	B Car _____ lbs.
AW1	A1 Car _____ lbs.	A2 Car _____ lbs.	B Car _____ lbs.
AW2	A1 Car _____ lbs.	A2 Car _____ lbs.	B Car _____ lbs.
AW3	A1 Car _____ lbs.	A2 Car _____ lbs.	B Car _____ lbs.

3.0 CARBODY STRUCTURE

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Carbody Shell	_____	_____	_____

4.0 COUPLERS SYSTEM

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Coupler System	Supplier _____	_____	_____
		Type _____	_____	_____
2.	Link Bar	Supplier _____	_____	_____
		Type _____	_____	_____

5.0 CAB AND CAB CONTROLS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Cab Seat	Supplier _____	_____	_____
		Type _____	_____	_____
2.	Console	Supplier _____	_____	_____
		Type _____	_____	_____
3.	Train Operator Displays	Supplier _____	_____	_____
		Type _____	_____	_____
4.	Master Controller group	Supplier _____	_____	_____
		Type _____	_____	_____

6.0 SIDE DOOR SYSTEM

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Side Door hangers	Supplier _____ Type _____	_____	_____
2.	Side Door panels	Supplier _____ Material _____	_____	_____
3.	Side Door Operators and controls	Supplier _____ Type _____	_____	_____
4.	End Door panels	Supplier _____ Type _____	_____	_____

7.0 HEATING, VENTILATING AND AIR CONDITIONING SYSTEM

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	HVAC System	Supplier _____ Type _____	_____	_____
2.	Air conditioning System	Capacity (per car) _____	_____	_____
3.	Overhead Heating System	Capacity (per car) _____	_____	_____
4.	HVAC Compressor, hermetic	Supplier _____	_____	_____
5.	DC-AC Inverter for Compressor Motor	Supplier _____	_____	_____
6.	DC-AC Inverter for Evaporator Blower Motor	Supplier _____	_____	_____
7.	Floor Heating System	Supplier _____ Type _____ Capacity (per car) _____	_____	_____

8.0 LIGHTING SYSTEMS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Light fixtures (interior)	Supplier _____	_____	_____

	Type	_____	_____	_____
2.	Light fixtures (exterior)	Supplier	_____	_____
	Type	_____	_____	_____

9.0 AUXILIARY ELECTRIC EQUIPMENT AND DISTRIBUTION

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Third Rail Current Collector	Supplier	_____	_____
	Type	_____	_____	_____
2.	Main Switch and main fuse	Supplier	_____	_____
	Type	_____	_____	_____
3.	Auxiliary Inverters	Supplier	_____	_____
	Type	_____	_____	_____
4.	Low Voltage Power Supply	Supplier	_____	_____
	Type	_____	_____	_____
5.	Storage Battery	Supplier	_____	_____
	Type	_____	_____	_____

10.0 PROPULSION SYSTEM

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	AC Inverter	Supplier	_____	_____
	No. of inverter drives per car	_____	_____	_____
	Type	_____	_____	_____
2.	Traction Motor	Supplier	_____	_____
	Motor Model No.	_____	_____	_____
	Motor speed, maximum	_____	_____	_____
	Motor rating (1 hour)	_____	_____	_____
3.	Braking Resistor	Supplier	_____	_____
	Type	_____	_____	_____
4.	Power electronics cooling design	_____	_____	_____
5.	Control logic	Supplier	_____	_____
	No. of control logic units per car	_____	_____	_____
6.	Gear Units	Supplier	_____	_____

	Type	_____	_____	_____
7. Gear Ratio		_____	_____	_____

11.0 TRUCKS AND SUSPENSION SYSTEM

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1. Fabricated truck frame and bolster	Supplier	_____	_____	_____
2. Wheels	Supplier	_____	_____	_____
3. Axles	Supplier	_____	_____	_____
	Type	_____	_____	_____
4. Journal Bearings	Supplier	_____	_____	_____
	Type	_____	_____	_____
5. Primary suspension	Supplier	_____	_____	_____
	Type	_____	_____	_____
6. Secondary suspension	Supplier	_____	_____	_____
	Type	_____	_____	_____
7. Leveling Valves	Supplier	_____	_____	_____
	Type	_____	_____	_____

12.0 FRICTION BRAKING AND AIR SUPPLY SYSTEMS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1. Friction Brake System	Supplier	_____	_____	_____
	Type	_____	_____	_____
2. Parking Brake System	Supplier	_____	_____	_____
	Type	_____	_____	_____
3. Air Supply System	Supplier	_____	_____	_____
	Type	_____	_____	_____

13.0 COMMUNICATIONS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1. PA/Intercom system	Supplier	_____	_____	_____
	Type	_____	_____	_____
2. Train On-board Radio	Supplier	_____	_____	_____
	Type	_____	_____	_____

3.	Exterior Side Destination Signs	Supplier	_____	_____	_____
		Type	_____	_____	_____
4.	Ceiling Interior Information Sign	Supplier	_____	_____	_____
		Type	_____	_____	_____
5.	End Route Sign	Supplier	_____	_____	_____
		Type	_____	_____	_____
6.	Flexible Ceiling Strip Display	Supplier	_____	_____	_____
		Type	_____	_____	_____
7.	Flexible Wall Displays	Supplier	_____	_____	_____
		Type	_____	_____	_____
8.	CCTV Cameras	Supplier	_____	_____	_____
		Type	_____	_____	_____
9.	Network Video Recorder	Supplier	_____	_____	_____
		Type	_____	_____	_____

14.0 TRAIN CONTROL SYSTEM

1.	CBTC Interface management	Supplier	_____	_____	_____
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15.0 CARBODY EQUIPMENT AND INTERIORS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Floor Covering	Supplier	_____	_____
		Material	_____	_____
2.	Subflooring	Supplier	_____	_____
		Material	_____	_____
3.	Windows	Supplier	_____	_____
		Type	_____	_____
4.	Seats	Supplier	_____	_____
		Type	_____	_____

16.0 TRAINLINE & CAR CONTROL ARCHITECTURE

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Trainline and Network Controllers	Supplier _____ Type _____	_____	_____
2.	Network Switches	Supplier _____ Type _____	_____	_____

17.0 MONITORING AND DIAGNOSTICS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Monitoring and Diagnostic System	Supplier _____ Type _____	_____	_____
2.	Event Recorder	Supplier _____ Type _____	_____	_____

18.0 SOFTWARE SYSTEMS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	For Train and Car Control	Supplier _____	_____	_____
2.	For Propulsion Control	Supplier _____	_____	_____
3.	For Auxiliary Control	Supplier _____	_____	_____
4.	For Doors	Supplier _____	_____	_____
5.	For HVAC	Supplier _____	_____	_____
6.	For Monitoring & Diagnostics System	Supplier _____	_____	_____
7.	For Friction Brake System	Supplier _____	_____	_____
8.	For Overall Software Management	Supplier _____	_____	_____

21 RELIABILITY, MAINTAINABILITY, AND SYSTEMS ASSURANCE

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Reliability requirements	Supplier _____	_____	_____
2.	Maintainability requirements	Supplier _____	_____	_____
3.	Safety requirements	Supplier _____	_____	_____

22.0 SYSTEM SUPPORT

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Training	Supplier _____	_____	_____

2.	Manuals, IETM	Supplier	<hr/>	<hr/>	<hr/>
3.	Part and device identification system	Supplier	<hr/>	<hr/>	<hr/>
4.	Bench Test Equipment	Supplier	<hr/>	<hr/>	<hr/>
		Type	<hr/>	<hr/>	<hr/>

FORM TF-1
TECHNICAL SUMMARY FORM
R211S

Proposers Name: _____

2.0 DATA AND DIMENSIONS (AT ZERO WEIGHT, EXCEPT AS SPECIFIED)

1. Car weight as proposed:

AW0	A1 Car _____ lbs.	A2 Car _____ lbs.	B Car _____ lbs.
AW1	A1 Car _____ lbs.	A2 Car _____ lbs.	B Car _____ lbs.
AW2	A1 Car _____ lbs.	A2 Car _____ lbs.	B Car _____ lbs.
AW3	A1 Car _____ lbs.	A2 Car _____ lbs.	B Car _____ lbs.

3.0 CARBODY STRUCTURE

	Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1. Carbody Shell	_____	_____	_____

4.0 COUPLERS SYSTEM

	Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1. Coupler System	Supplier _____	_____	_____
	Type _____	_____	_____
2. Link Bar	Supplier _____	_____	_____
	Type _____	_____	_____

5.0 CAB AND CAB CONTROLS

	Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1. Cab Seat	Supplier _____	_____	_____
	Type _____	_____	_____
2. Console	Supplier _____	_____	_____
	Type _____	_____	_____
3. Train Operator Displays	Supplier _____	_____	_____
	Type _____	_____	_____
4. Master Controller group	Supplier _____	_____	_____
	Type _____	_____	_____

6.0 SIDE DOOR SYSTEM

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Side Door hangers	Supplier _____ Type _____	_____	_____
2.	Side Door panels	Supplier _____ Material _____	_____	_____
3.	Side Door Operators and controls	Supplier _____ Type _____	_____	_____
4.	End Door panels	Supplier _____ Type _____	_____	_____

7.0 HEATING, VENTILATING AND AIR CONDITIONING SYSTEM

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	HVAC System	Supplier _____ Type _____	_____	_____
2.	Air conditioning System	Capacity (per car) _____	_____	_____
3.	Overhead Heating System	Capacity (per car) _____	_____	_____
4.	HVAC Compressor, hermetic	Supplier _____	_____	_____
5.	DC-AC Inverter for Compressor Motor	Supplier _____	_____	_____
6.	DC-AC Inverter for Evaporator Blower Motor	Supplier _____	_____	_____
7.	Floor Heating System	Supplier _____ Type _____ Capacity (per car) _____	_____	_____

8.0 LIGHTING SYSTEMS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Light fixtures (interior)	Supplier _____ Type _____	_____	_____
2.	Light fixtures (exterior)	Supplier _____ Type _____	_____	_____

9.0 AUXILIARY ELECTRIC EQUIPMENT AND DISTRIBUTION

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Third Rail Current Collector	Supplier _____ Type _____	_____ _____	_____ _____
2.	Main Switch and main fuse	Supplier _____ Type _____	_____ _____	_____ _____
3.	Auxiliary Inverters	Supplier _____ Type _____	_____ _____	_____ _____
4.	Low Voltage Power Supply	Supplier _____ Type _____	_____ _____	_____ _____
5.	Storage Battery	Supplier _____ Type _____	_____ _____	_____ _____

10.0 PROPULSION SYSTEM

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	AC Inverter	Supplier _____	_____	_____
	No. of inverter drives per car	_____	_____	_____
	Type	_____	_____	_____
2.	Traction Motor	Supplier _____	_____	_____
	Motor Model No.	_____	_____	_____
	Motor speed, maximum	_____	_____	_____
	Motor rating (1 hour)	_____	_____	_____
3.	Braking Resistor	Supplier _____	_____	_____
	Type	_____	_____	_____
4.	Power electronics cooling design	_____	_____	_____
5.	Control logic	Supplier _____	_____	_____
	No. of control logic units per car	_____	_____	_____
6.	Gear Units	Supplier _____	_____	_____
	Type	_____	_____	_____
7.	Gear Ratio	_____	_____	_____

11.0 TRUCKS AND SUSPENSION SYSTEM

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Fabricated truck frame and bolster	Supplier _____	_____	_____
2.	Wheels	Supplier _____	_____	_____
3.	Axles	Supplier _____	_____	_____
	Type	_____	_____	_____
4.	Journal Bearings	Supplier _____	_____	_____
	Type	_____	_____	_____
5.	Primary suspension	Supplier _____	_____	_____
	Type	_____	_____	_____
6.	Secondary suspension	Supplier _____	_____	_____
	Type	_____	_____	_____
7.	Leveling Valves	Supplier _____	_____	_____
	Type	_____	_____	_____

12.0 FRICTION BRAKING AND AIR SUPPLY SYSTEMS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Friction Brake System	Supplier _____	_____	_____
	Type	_____	_____	_____
2.	Parking Brake System	Supplier _____	_____	_____
	Type	_____	_____	_____
3.	Air Supply System	Supplier _____	_____	_____
	Type	_____	_____	_____

13.0 COMMUNICATIONS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	PA/Intercom system	Supplier _____	_____	_____
	Type	_____	_____	_____
2.	Train on-board radio	Supplier _____	_____	_____
	Type	_____	_____	_____
3.	Exterior Side Destination Signs	Supplier _____	_____	_____
	Type	_____	_____	_____
4.	Ceiling Interior Information Sign	Supplier _____	_____	_____

		Type			
5.	End Route Sign	Supplier			
		Type			
6.	Flexible Ceiling Strip Display	Supplier			
		Type			
7.	Flexible Wall Displays	Supplier			
		Type			
8.	CCTV Cameras	Supplier			
		Type			
9.	Network Video Recorder	Supplier			
		Type			

14.0 TRAIN CONTROL SYSTEM – NOT USED

15.0 CARBODY EQUIPMENT AND INTERIORS

1.	Floor Covering	Supplier			
		Material			
2.	Subflooring				
3.	Windows	Supplier			
		Type			
4.	Seats	Supplier			
		Type			

16.0 TRAINLINE & CAR CONTROL ARCHITECTURE

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Trainline and Network Controllers	Supplier		
		Type		
2.	Network Switches	Supplier		
		Type		

17.0 MONITORING AND DIAGNOSTICS

Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
--------------------	----------------------	----------------------

1.	Monitoring and Diagnostic System	Supplier	_____	_____	_____
		Type	_____	_____	_____
2.	Event Recorder	Supplier	_____	_____	_____
		Type	_____	_____	_____

18.0 SOFTWARE SYSTEMS

			Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	For Train and Car Control	Supplier	_____	_____	_____
2.	For Propulsion Control	Supplier	_____	_____	_____
3.	For Auxiliary Control	Supplier	_____	_____	_____
4.	For Doors	Supplier	_____	_____	_____
5.	For HVAC	Supplier	_____	_____	_____
6.	For Monitoring & Diagnostics System	Supplier	_____	_____	_____
7.	For Friction Brake System	Supplier	_____	_____	_____
8.	For Overall Software Management	Supplier	_____	_____	_____

21.0 RELIABILITY, MAINTAINABILITY, AND SYSTEMS ASSURANCE

			Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Reliability requirements	Supplier	_____	_____	_____
2.	Maintainability requirements	Supplier	_____	_____	_____
3.	Safety requirements	Supplier	_____	_____	_____

22.0 SYSTEM SUPPORT

			Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Training	Supplier	_____	_____	_____
2.	Manuals, IETM	Supplier	_____	_____	_____
3.	Part and device identification system	Supplier	_____	_____	_____
4.	Bench Test Equipment	Supplier	_____	_____	_____
		Type	_____	_____	_____

25.0 STATEN ISLAND RAILWAY CARS

1.	ATC/Cab Signaling Equip.	Supplier	_____	_____	_____
		Type/ Model	_____	_____	_____

FORM TF-1
TECHNICAL SUMMARY FORM
R211T – DESIGN 1

Proposers Name: _____

2.0 DATA AND DIMENSIONS (AT ZERO WEIGHT, EXCEPT AS SPECIFIED)

1. Car weight as proposed:

AW0	A1 Car _____ lbs.	A2 Car _____ lbs.	B Car _____ lbs.
AW1	A1 Car _____ lbs.	A2 Car _____ lbs.	B Car _____ lbs.
AW2	A1 Car _____ lbs.	A2 Car _____ lbs.	B Car _____ lbs.
AW3	A1 Car _____ lbs.	A2 Car _____ lbs.	B Car _____ lbs.

3.0 CARBODY STRUCTURE

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Carbody Shell	_____	_____	_____

4.0 COUPLERS SYSTEM

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Coupler System	Supplier _____	_____	_____
		Type _____	_____	_____

5.0 CAB AND CAB CONTROLS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Cab Seat	Supplier _____	_____	_____
		Type _____	_____	_____
2.	Console	Supplier _____	_____	_____
		Type _____	_____	_____
3.	Train Operator Displays	Supplier _____	_____	_____
		Type _____	_____	_____
4.	Master Controller group	Supplier _____	_____	_____
		Type _____	_____	_____

6.0 SIDE DOOR SYSTEM

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Side Door hangers	Supplier _____ Type _____	_____	_____
2.	Side Door panels	Supplier _____ Material _____	_____	_____
3.	Side Door Operators and controls	Supplier _____ Type _____	_____	_____
4.	End Door panels	Supplier _____ Type _____	_____	_____

7.0 HEATING, VENTILATING AND AIR CONDITIONING SYSTEM

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	HVAC System	Supplier _____ Type _____	_____	_____
2.	Air conditioning System	Capacity (per car) _____	_____	_____
3.	Overhead Heating System	Capacity (per car) _____	_____	_____
4.	HVAC Compressor, hermetic	Supplier _____	_____	_____
5.	DC-AC Inverter for Compressor Motor	Supplier _____	_____	_____
6.	DC-AC Inverter for Evaporator Blower Motor	Supplier _____	_____	_____
7.	Floor Heating System	Supplier _____ Type _____ Capacity (per car) _____	_____	_____

8.0 LIGHTING SYSTEMS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Light fixtures (interior)	Supplier _____ Type _____	_____	_____

2.	Light fixtures (exterior)	Supplier			
		Type			

9.0 AUXILIARY ELECTRIC EQUIPMENT AND DISTRIBUTION

			Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Third Rail Current Collector	Supplier			
		Type			
2.	Main Switch and main fuse	Supplier			
		Type			
3.	Auxiliary Inverters	Supplier			
		Type			
4.	Low Voltage Power Supply	Supplier			
		Type			
5.	Storage Battery	Supplier			
		Type			

10.0 PROPULSION SYSTEM

			Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	AC Inverter	Supplier			
	No. of inverter drives per car				
	Type				
2.	Traction Motor	Supplier			
	Motor Model No.				
	Motor speed, maximum				
	Motor rating (1 hour)				
3.	Braking Resistor	Supplier			
		Type			
4.	Power electronics cooling design				
5.	Control logic	Supplier			
	No. of control logic units per car				
6.	Gear Units	Supplier			
		Type			

7.	Gear Ratio	_____	_____	_____
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11.0 TRUCKS AND SUSPENSION SYSTEM

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Fabricated truck frame and bolster	Supplier _____	_____	_____
2.	Wheels	Supplier _____	_____	_____
3.	Axles	Supplier _____	_____	_____
		Type _____	_____	_____
4.	Journal Bearings	Supplier _____	_____	_____
		Type _____	_____	_____
5.	Primary suspension	Supplier _____	_____	_____
		Type _____	_____	_____
6.	Secondary suspension	Supplier _____	_____	_____
		Type _____	_____	_____
7.	Leveling Valves	Supplier _____	_____	_____
		Type _____	_____	_____

12.0 FRICTION BRAKING AND AIR SUPPLY SYSTEMS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Friction Brake System	Supplier _____	_____	_____
		Type _____	_____	_____
2.	Parking Brake System	Supplier _____	_____	_____
		Type _____	_____	_____
3.	Air Supply System	Supplier _____	_____	_____
		Type _____	_____	_____

13.0 COMMUNICATIONS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	PA/Intercom system	Supplier _____	_____	_____
		Type _____	_____	_____
2.	Train On-board Radio	Supplier _____	_____	_____
		Type _____	_____	_____
3.	Exterior Side Destination Signs	Supplier _____	_____	_____

		Type			
4.	Ceiling Interior Information Sign	Supplier			
		Type			
5.	End Route Sign	Supplier			
		Type			
6.	Flexible Ceiling Strip Display	Supplier			
		Type			
7.	Flexible Wall Displays	Supplier			
		Type			
8.	CCTV Cameras	Supplier			
		Type			
9.	Network Video Recorder	Supplier			
		Type			

14.0 TRAIN CONTROL SYSTEM

1.	CBTC Interface management	Supplier			
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15.0 CARBODY EQUIPMENT AND INTERIORS

1.	Floor Covering	Supplier			
		Material			
2.	Subflooring	Supplier			
		Material			
3.	Windows	Supplier			
		Type			
4.	Seats	Supplier			
		Type			

16.0 TRAINLINE & CAR CONTROL ARCHITECTURE

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Trainline and Network Controllers	Supplier		
		Type		

2.	Network Switches	Supplier	_____	_____	_____
		Type	_____	_____	_____

17.0 MONITORING AND DIAGNOSTICS

			Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Monitoring and Diagnostic System	Supplier	_____	_____	_____
		Type	_____	_____	_____
2.	Event Recorder	Supplier	_____	_____	_____
		Type	_____	_____	_____

18.0 SOFTWARE SYSTEMS

			Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	For Train and Car Control	Supplier	_____	_____	_____
2.	For Propulsion Control	Supplier	_____	_____	_____
3.	For Auxiliary Control	Supplier	_____	_____	_____
4.	For Doors	Supplier	_____	_____	_____
5.	For HVAC	Supplier	_____	_____	_____
6.	For Monitoring & Diagnostics System	Supplier	_____	_____	_____
7.	For Friction Brake System	Supplier	_____	_____	_____
8.	For Overall Software Management	Supplier	_____	_____	_____

21.0 RELIABILITY, MAINTAINABILITY, AND SYSTEMS ASSURANCE

			Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Reliability requirements	Supplier	_____	_____	_____
2.	Maintainability requirements	Supplier	_____	_____	_____
3.	Safety requirements	Supplier	_____	_____	_____

22.0 SYSTEM SUPPORT

			Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Training	Supplier	_____	_____	_____
2.	Manuals, IETM	Supplier	_____	_____	_____
3.	Part and device identification system	Supplier	_____	_____	_____

4.	Bench Test Equipment	Supplier			
		Type			

26.0 OPEN GANGWAY TEST TRAIN – DESIGN 1

1.	Open Gangway Unit 1	Supplier			
		Type			

2.	Link Bar, Drawbar for Open Gangway Unit 1	Supplier			
		Type			

FORM TF-1
TECHNICAL SUMMARY FORM
R211T – DESIGN 2

Proposers Name: _____

2.0 DATA AND DIMENSIONS (AT ZERO WEIGHT, EXCEPT AS SPECIFIED)

1. Car weight as proposed:

AW0	A1 Car _____ lbs.	A2 Car _____ lbs.	B Car _____ lbs.
AW1	A1 Car _____ lbs.	A2 Car _____ lbs.	B Car _____ lbs.
AW2	A1 Car _____ lbs.	A2 Car _____ lbs.	B Car _____ lbs.
AW3	A1 Car _____ lbs.	A2 Car _____ lbs.	B Car _____ lbs.

3.0 CARBODY STRUCTURE

	Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1. Carbody Shell	_____	_____	_____

4.0 COUPLERS SYSTEM

	Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1. Coupler System	Supplier _____	_____	_____
	Type _____	_____	_____

5.0 CAB AND CAB CONTROLS

	Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1. Cab Seat	Supplier _____	_____	_____
	Type _____	_____	_____
2. Console	Supplier _____	_____	_____
	Type _____	_____	_____
3. Train Operator Displays	Supplier _____	_____	_____
	Type _____	_____	_____
4. Master Controller group	Supplier _____	_____	_____
	Type _____	_____	_____

6.0 SIDE DOOR SYSTEM

	Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1. Side Door hangers	Supplier _____	_____	_____

		Type	_____	_____	_____
2.	Side Door panels	Supplier	_____	_____	_____
		Material	_____	_____	_____
3.	Side Door Operators and controls	Supplier	_____	_____	_____
		Type	_____	_____	_____
4.	End Door panels	Supplier	_____	_____	_____
		Type	_____	_____	_____

7.0 HEATING, VENTILATING AND AIR CONDITIONING SYSTEM

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	HVAC System	Supplier	_____	_____
		Type	_____	_____
2.	Air conditioning System	Capacity (per car)	_____	_____
3.	Overhead Heating System	Capacity (per car)	_____	_____
4.	HVAC Compressor, hermetic	Supplier	_____	_____
5.	DC-AC Inverter for Compressor Motor	Supplier	_____	_____
6.	DC-AC Inverter for Evaporator Blower Motor	Supplier	_____	_____
7.	Floor Heating System	Supplier	_____	_____
		Type	_____	_____
		Capacity (per car)	_____	_____

8.0 LIGHTING SYSTEMS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Light fixtures (interior)	Supplier	_____	_____
		Type	_____	_____
2.	Light fixtures (exterior)	Supplier	_____	_____
		Type	_____	_____

9.0 AUXILIARY ELECTRIC EQUIPMENT AND DISTRIBUTION

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Third Rail Current Collector	Supplier _____ Type _____	_____	_____
2.	Main Switch and main fuse	Supplier _____ Type _____	_____	_____
3.	Auxiliary Inverters	Supplier _____ Type _____	_____	_____
4.	Low Voltage Power Supply	Supplier _____ Type _____	_____	_____
5.	Storage Battery	Supplier _____ Type _____	_____	_____

10.0 PROPULSION SYSTEM

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	AC Inverter	Supplier _____	_____	_____
	No. of inverter drives per car	_____	_____	_____
	Type	_____	_____	_____
2.	Traction Motor	Supplier _____	_____	_____
	Motor Model No.	_____	_____	_____
	Motor speed, maximum	_____	_____	_____
	Motor rating (1 hour)	_____	_____	_____
3.	Braking Resistor	Supplier _____	_____	_____
	Type	_____	_____	_____
4.	Power electronics cooling design	_____	_____	_____
5.	Control logic	Supplier _____	_____	_____
	No. of control logic units per car	_____	_____	_____
6.	Gear Units	Supplier _____	_____	_____
	Type	_____	_____	_____
7.	Gear Ratio	_____	_____	_____

11.0 TRUCKS AND SUSPENSION SYSTEM

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Fabricated truck frame and bolster	Supplier _____	_____	_____
2.	Wheels	Supplier _____	_____	_____
3.	Axles	Supplier _____	_____	_____
	Type	_____	_____	_____
4.	Journal Bearings	Supplier _____	_____	_____
	Type	_____	_____	_____
5.	Primary suspension	Supplier _____	_____	_____
	Type	_____	_____	_____
6.	Secondary suspension	Supplier _____	_____	_____
	Type	_____	_____	_____
7.	Leveling Valves	Supplier _____	_____	_____
	Type	_____	_____	_____

12.0 FRICTION BRAKING AND AIR SUPPLY SYSTEMS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Friction Brake System	Supplier _____	_____	_____
	Type	_____	_____	_____
2.	Parking Brake System	Supplier _____	_____	_____
	Type	_____	_____	_____
3.	Air Supply System	Supplier _____	_____	_____
	Type	_____	_____	_____

13.0 COMMUNICATIONS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	PA/Intercom system	Supplier _____	_____	_____
	Type	_____	_____	_____
2.	Train On-board Radio	Supplier _____	_____	_____
	Type	_____	_____	_____
3.	Exterior Side Destination Signs	Supplier _____	_____	_____
	Type	_____	_____	_____

4.	Ceiling Interior Information Sign	Supplier	_____	_____	_____
		Type	_____	_____	_____
5.	End Route Sign	Supplier	_____	_____	_____
		Type	_____	_____	_____
6.	Flexible Ceiling Strip Display	Supplier	_____	_____	_____
		Type	_____	_____	_____
7.	Flexible Wall Displays	Supplier	_____	_____	_____
		Type	_____	_____	_____
8.	CCTV Cameras	Supplier	_____	_____	_____
		Type	_____	_____	_____
9.	Network Video Recorder	Supplier	_____	_____	_____
		Type	_____	_____	_____

14.0 TRAIN CONTROL SYSTEM

1.	CBTC Interface management	Supplier	_____	_____	_____
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15.0 CARBODY EQUIPMENT AND INTERIORS

1.	Floor Covering	Supplier	_____	_____	_____
		Material	_____	_____	_____
2.	Subflooring	Supplier	_____	_____	_____
		Material	_____	_____	_____
3.	Windows	Supplier	_____	_____	_____
		Type	_____	_____	_____
4.	Seats	Supplier	_____	_____	_____
		Type	_____	_____	_____

16.0 TRAINLINE & CAR CONTROL ARCHITECTURE

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Trainline and Network Controllers	Supplier	_____	_____
		Type	_____	_____
2.	Network Switches	Supplier	_____	_____

Type _____

17.0 MONITORING AND DIAGNOSTICS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Monitoring and Diagnostic System	Supplier _____ Type _____	_____	_____
2.	Event Recorder	Supplier _____ Type _____	_____	_____

18.0 SOFTWARE SYSTEMS

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	For Train and Car Control	Supplier _____	_____	_____
2.	For Propulsion Control	Supplier _____	_____	_____
3.	For Auxiliary Control	Supplier _____	_____	_____
4.	For Doors	Supplier _____	_____	_____
5.	For HVAC	Supplier _____	_____	_____
6.	For Monitoring & Diagnostics System	Supplier _____	_____	_____
7.	For Friction Brake System	Supplier _____	_____	_____
8.	For Overall Software Management	Supplier _____	_____	_____

21.0 RELIABILITY, MAINTAINABILITY, AND SYSTEMS ASSURANCE

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Reliability requirements	Supplier _____	_____	_____
2.	Maintainability requirements	Supplier _____	_____	_____
3.	Safety requirements	Supplier _____	_____	_____

22.0 SYSTEM SUPPORT

		Preferred Supplier	Alternate Supplier 1	Alternate Supplier 2
1.	Training	Supplier _____	_____	_____
2.	Manuals, IETM	Supplier _____	_____	_____
3.	Part and device identification system	Supplier _____	_____	_____
4.	Bench Test Equipment	Supplier _____ Type _____	_____	_____

26.0 OPEN GANGWAY TEST TRAIN – DESIGN 2

1.	Open Gangway Unit 2	Supplier	_____	_____	_____
		Type	_____	_____	_____
2.	Link Bar, Drawbar for Open Gangway Unit 2	Supplier	_____	_____	_____
		Type	_____	_____	_____

RFP R34211 ADDENDUM # 3 QUESTIONS

659898

RFP Section Reference	Insert Proposer Question/Comment In this Column	NYCT Answer/Response
Technical Specification (All)	Please provide the differences between the version of the Technical Specification issued with the Industry Review in February 2016 and the version issued with the RFP on 07/22/16.	A CD with a tracked version of the Tech Spec is attached which reflects the changes from the Technical Specification issued with the Industry Review to the version issued with the RFP on 07/22/16 (Rev 0). It is being provided only to facilitate an expeditious review of the Technical Specification by potential proposers. In the case of any discrepancy between the two (2) versions, Rev 0, issued as part of the RFP, shall govern.

**MTA - NEW YORK CITY TRANSIT
2 BROADWAY
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**DIVISION OF MATERIEL
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Vreplies@nyct.com**

**R34211
NOTICE
-OF-
ADDENDUM**

ADDENDUM #2

**REVISED REQUEST FOR
PROPOSALS**



NON-CONSTRUCTION DOCUMENT ORDER FORM

SOLICITATION #: R34211**SOLICITATION TITLE:** R34211 Purchase of 1025 Subway Cars**PRICE OF BID PACKAGE:** \$0 /PER SET

TO REQUEST BID DOCUMENTS FOR THIS PROCUREMENT

FILL OUT ALL THE INFORMATION ON THIS FORM FAX IT BACK TO THE NYCT BID RECEPTION DESK AT (646) 252-6108/6109, OR PICK IT UP IN PERSON OR MAIL YOUR REQUEST TO, THE NYCT BID RECEPTION DESK, 3 STONE STREET, NY, NY, 10004. HOURS ARE 9:00 AM – 4:00 PM, MONDAY – FRIDAY, EXCLUDING HOLIDAYS. VENDORS OBTAINING BID DOCUMENTS IN PERSON FROM 10:00 AM TO 11:00AM AND 1:30PM TO 2:30PM ON DAYS OF BID OPENINGS MAY BE SUBJECT TO DELAYS. ALL DOCUMENT FEES ARE PAYABLE BY VISA, MASTERCARD, AMERICAN EXPRESS, COMPANY CHECK OR BANK CHECK. MAKE CHECK PAYABLE TO NEW YORK CITY TRANSIT. ALL PAYMENTS ARE NON-REFUNDABLE.

VENDORS MUST PRINT ALL OF THE FOLLOWING INFORMATION WHEN REQUESTING BID DOCUMENTS.

COMPANY NAME: _____**ADDRESS:** _____
(PLEASE PROVIDE A STREET ADDRESS A POST OFFICE BOX ADDRESS IS UNACCEPTABLE)**ATTENTION:** _____**TITLE:** _____ **TELEPHONE:** _____**EMAIL ADDRESS:** _____
(PLEASE PRINT)**FAX #:** _____ **NYCT VENDOR #:** _____**TAX ID #EIN:** _____**SOLICITATION #:** R34211**DATE:** _____

PLEASE PROVIDE THE FOLLOWING ORDERING INFORMATION.

COMPANY NAME: _____ **# OF SETS:** _____**CREDIT CARD:** _____ **ACCOUNT #:** _____**EXPIRATION DATE:** _____***OVERNIGHT COURIER:** _____**ACCOUNT #:** _____**NAME:** _____ **SIGNATURE:** _____**NYCT VENDOR #:** _____

*DOCUMENTS WILL BE MAILED US POSTAL SERVICE REGULAR MAIL IF OVERNIGHT COURIER INFORMATION IS NOT PROVIDED.

**MTA - NEW YORK CITY TRANSIT
2 BROADWAY
NEW YORK, NY 10004**

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Vreplies@nyct.com**

**R34211
NOTICE
-OF-
ADDENDUM**

ADDENDUM #1

CURRENT OPENING/DUE DATE: 10/18/16



New York City Transit

08/04/2016

R34211 ADDENDUM NO. 1

PURCHASE OF 1,025 SUBWAY CARS WITH A BASE ORDER OF 10 OPEN GANGWAY TEST CARS FOR NYCT "B" DIVISION, 75 STATEN ISLAND RAILWAY CARS AND 200 NYCT "B" DIVISION SUBWAY CARS AND AN OPTION FOR 740 ADDITIONAL NYCT "B" DIVISION SUBWAY CARS

CLOSING DATE – October 18, 2016

To Prospective Proposers:

Prospective Proposers are hereby notified of the following with respect to the above referenced Request for Proposal (RFP).

This Addendum has been generated for administrative purposes only and does not change in any way the documents issued with the original RFP on 07/22/16.

Please be governed accordingly when submitting proposals for the above referenced Request for Proposals.

Sincerely,

A handwritten signature in cursive script, appearing to read "Marian Murray".

Marian Murray
Assistant Chief Procurement Officer, Procurement