



757-2016B ADDENDUM 7

TRANSIT BUS MAINTENANCE AND REPAIR GARAGE EXPANSION DESIGN – BUILD PROJECT

URGENT

**PLEASE FORWARD THIS DOCUMENT TO
WHOEVER IS IN POSSESSION OF THE
REQUEST FOR PROPOSAL**

ISSUED: May 8, 2017
BY: Kevin Sim
TELEPHONE NO. 204-956-4055

**THIS ADDENDUM SHALL BE INCORPORATED
INTO THE REQUEST FOR PROPOSAL AND
SHALL FORM A PART OF THE CONTRACT
DOCUMENTS**

Template Version: Ar20160708

Please note the following and attached changes, corrections, additions, deletions, information and/or instructions in connection with the Request for Proposal, and be governed accordingly. Failure to acknowledge receipt of this Addendum in Paragraph 9 of Form A: Proposal may render your Proposal non-responsive.

PART C – GENERAL CONDITIONS

- Revise: C7.2.1 to read: Without limiting the generality of C7.2:
- (a) if after performing all due diligence as required in C3.1 Site Investigations, the Contractor observes any substantial difference in the nature of the surface or subsurface conditions at the Site, or the location, nature, quality or quantity of the materials to be removed, from those set out in the Contract; or
 - (b) if the Contractor observes any that the Contract is at variance with any laws, ordinances, rules, regulations or codes of authorities having jurisdiction, or if changes are made to any laws, ordinances, rules, regulations and codes subsequent to the Submission Deadline which require modifications to the Contract;
- the Contractor shall immediately notify the Contract Administrator who shall issue a Change in Work if it is determined to be necessary or appropriate in the circumstances.
- Revise: C8.2 to read: The City shall have the right, for itself, its agents, representatives or other persons, to enter, utilize any portion of the Site or the Work, at any time and for so long a time as the Contract Administrator may require.
- Revise: C9.1 to read: The Contractor shall not remove any significant Plant or Material that he has brought to the Site and which is required to complete the Work without the prior consent of the Contract Administrator until the date of Total Performance.
- Revise: C11.7(a) to read: if the Contract Administrator determines that any Plant is defective, deficient or otherwise not in compliance with the Contract, the Contract Administrator may direct the Contractor to remove such Plant from the Site and promptly replace it with Plant which meets the requirements of the Contract and is fit for the purpose intended;
- Revise: C12.9 to read: The City will approve the progress estimate, or such portion of the progress estimate, which it agrees is properly due and owing to the Contractor. The City will make its best efforts to pay the approved estimate, or portion thereof, within thirty (30) days of approval. The City and the Contractor will work together to resolve any portion of a progress estimate that has not been paid. Upon agreement by the City that the outstanding portion of the progress estimate is properly due and owing to the Contractor the City will approve that remaining portion of the progress estimate and make its best efforts to pay that amount within thirty (30) days of that approval.

Delete C12.14.

Revise: C17.1 to read: The Contractor shall save harmless and indemnify the City against all costs, damages or expenses arising from remiss actions, claims, demands and proceedings, by whomsoever brought, made or taken as a result of acts or omissions of the Contractor, its Subcontractors or their respective, employees or agents in the performance or purported performance of the Work, and more particularly from:

Revise: C17.1(d) to read: failure to pay and obtain a discharge of any claim for lien or trust claim served upon the City in accordance with The Builders' Liens Act (Manitoba);

PART E – SPECIFICATIONS

Revise: E25.4.12(f) to read: Dispensing and Pumping Equipment
(i) Graco (See product sheets).

Revise: E25.4.12(g) to read: Fume Extraction (Fixed Location)
(i) Nederman single exhaust extractor system complete with hose balancer, high temperature hoses, nozzle and motor damper. System shall be interconnected via a ducted system with variable speed fan(s) for energy savings.

Delete: E25.4.12(i).

Revise: E25.6.5(o) to read: Non-freeze Roof Hydrants located for complete coverage of the roof of the garage addition with no hydrant located greater than 100 feet from the perimeter of the roof edge. For the purposes of this requirement, the roof edge shall include the interface of the new addition with the existing building.

Delete: E25.6.9(c).

Revise: E25.6.12(b) to read: Plant compressed air for process air is required to be distributed to satisfy the pressure requirement shown on the Room Data Sheets. Provide a high pressure loop (896 kPa/130 psi) and a low pressure loop (827 kPa/120 psi) as required.

Revise: E25.6.14(e) to read: Tanks and Pumps shall be the same as existing (where possible) in order to retain maintenance continuity. Confirm exact makes, models and sizes on site. Where the manufacturer is obsolete, provide comparable performance criteria to suit the new conditions and refer to E25.4.12 for preferred manufacturers.

Revise: E26.4.7(pp)(i) to read: Two months after the occupancy of the building by the City the Contractor is to infrared scan the entire electrical distribution system supplied and installed by the Contractor up to and including all panelboards.

Revise: E26.4.7(pp)(ii) to read: Contractor to re-scan the entire electrical distribution system supplied and installed by the Contractor up to and including all panelboards two months prior to the completion of the warranty period.

Revise: E26.5.4(e)(iii) to read: Outdoor electrical equipment shall be mounted on a reinforced concrete housekeeping pad or a prefabricated fiberglass base (subject to approval by the City of Winnipeg Electrical Plans Examiner).

Revise: E26.5.5(j)(iii) to read: Megger existing conductors that are being impacted by the equipment replacement. Where existing conductors do not pass megger test or are not acceptable to the Authority Having Jurisdiction, notify the City.

Revise: E26.5.5(j)(vii) to read: Provide a non-revenue power metering system for all new and refurbished main distribution panels (Distribution 1, 2, 3):
(i) Metering system shall be capable of logging information on peak demand and overall power usage for a minimum period of 12 months, as well as communicate with BMS via RS-485, MODBUS, BACNET, LONWORKS.

- (ii) Metering shall be capable of monitoring and communicating the following parameters: RMS sensing, line voltage, phase current, frequency, KW, KVA, KW-hours, KVAR, KVAR hours, power factor, max/minimum values.
- (iii) In addition to the above, meters on the incoming distribution mains shall monitor voltage and current THD.
- (iv) Allow one metering point per incoming main as well as one metering point per sub-feed on each main distribution.

Revise: E26.5.6(b) to read: Main service entrance switchboard to incorporate the incoming wireway section (underground preferred) and a main breaker in a separate compartment complete with an LSIG electronic trip unit.

- Add E26.5.6(g) Provide a non-revenue power metering system for the new main distribution panel at the new addition:
- (i) Metering system shall be capable of logging information on peak demand and overall power usage for a minimum period of 12 months, as well as communicate with BMS via RS-485, MODBUS, BACNET, LONWORKS.
 - (ii) Metering shall be capable of monitoring and communicating the following parameters: RMS sensing, line voltage, phase current, frequency, KW, KVA, KW-hours, KVAR, KVAR hours, power factor, max/minimum values.
 - (iii) In addition to the above, meters on the incoming distribution mains shall monitor voltage and current THD.
 - (iv) Allow one metering point at the incoming main as well as one metering point per sub-feed off the main distribution.

- Revise: E26.5.8(f) to read: Provide a non-revenue power metering system for all new and refurbished main distribution panels (Distribution 1, 2, 3 and the new distribution in the new addition):
- (i) Metering system shall be capable of logging information on peak demand and overall power usage for a minimum period of 12 months, as well as communicate with BMS via RS-485, MODBUS, BACNET, LONWORKS.
 - (ii) Metering shall be capable of monitoring and communicating the following parameters: RMS sensing, line voltage, phase current, frequency, KW, KVA, KW-hours, KVAR, KVAR hours, power factor, max/minimum values.
 - (iii) In addition to the above, meters on the incoming distribution mains shall monitor voltage and current THD.
 - (iv) Allow one metering point per incoming main as well as one metering point per sub-feed on each main distribution.

Add: E26.5.18(f) Replace all existing exit signs within the existing building with Running Man pictograms. Reuse existing circuits. Where practical, the Proponent may re-use existing exit signs. Refer to existing drawings for locations of existing exit signs

- Revise: E26.5.20 to read: Lighting Control
- (a) Supply and install centralized, scalable, addressable lighting control system. System design to conform to ASHRAE Releases 90.1-2010-Part 2.
 - (b) The lighting control system shall consist of a lighting control panel, power supplies, occupancy / vacancy daylight sensors, low voltage on/off and dimmer switches, relay packs, relay panels, auxiliary I/O devices and any supplementary hardware required for a complete and fully functional system.
 - (c) Lighting control system shall be:
 - (i) Addressable, with a minimum of 64 devices per addressable loop.
 - (ii) Distributed: Program functionality shall be stored both on the central controller and end devices. Failure of the central controller shall not impact the system operation.
 - (iii) Scalable: System head-end shall be suitable for expansion to control the remainder of the campus from one main controller.
 - (iv) Complete with a web-based graphical user interface (GUI):

- (v) GUI shall be based on the as-built floor plan CAD drawings.
- (vi) End-user shall be able to check the status of devices and control devices by selecting the devices via the GUI.
- (vii) User interface shall provide a power summary based on the status of lighting loads on the system. Where an actual power draw is not available, the Contractor shall populate the lighting load information for every lighting zone based on lighting fixture manufacturer's data.
- (viii) The interface shall include a summary of devices exhibiting errors.
- (ix) The interface shall include password protection against an unauthorized access.
- (x) Supporting scenes and scheduled operation, with an ability to temporarily interrupt the scheduled operation without the need to re-program the system.
- (xi) Designed to facilitate communication and device troubleshooting.
- (d) Lighting control system shall not require any form of reoccurring licensing fees for either the head-end or the individual devices.
- (e) Remote relay modules and relay packs shall be rated at 20A (min) and match the lighting system voltage.
- (f) Dimming shall be accomplished via a 0-10V signal unless approved otherwise by the Owner.
- (g) Lighting control system shall support digital communications to facilitate the extension of control to include interoperation with building automation system and other intelligent field devices. The interface shall allow for:
 - (i) Status check and control of individual lighting control system devices.
 - (ii) Lighting control schedule override.
 - (iii) Activation of scenes within the lighting control system.
- (h) At a minimum, the interface shall include BACnet and Ethernet communication.
 - (i) BACnet / IP shall follow Annex J of the ASHRAE SSPC135 BACnet standard.
 - (ii) The system shall be listed with BACnet Testing Laboratories Listing (BTL).
 - (iii) The system shall be configured to communicate with the existing Building Automation System (Metasys).
- (i) Lighting control system shall be directly interfaced with the fire alarm system via a fire alarm relay. Interface via BAS is not acceptable. Upon a fire alarm condition, all lights on the system shall come on to 100%.
- (j) Provide lighting control system manual. At a minimum, the manual shall include the following:
 - (i) Plan drawing, indicating location of all the devices and the routing of the respective control wiring.
 - (ii) Cutsheets of all the lighting system devices.
 - (iii) OEM system operations and maintenance manual.
 - (iv) Contact information for technical support.
 - (v) A copy of the final lighting control system configuration on CD or USB media. File on the media shall be labelled with the last modified date.
- (k) Lighting control system training shall, at a minimum, include the following:
 - (i) Three 5-hour training sessions by a factory trained representative. Third training session shall take place 30 days after the Total Completion of the project.
 - (ii) Training outline submitted to the Owner for review five business days prior to the training session.
 - (iii) Training shall be based on the finalized version of the lighting control system Operations and Maintenance manual.
 - (iv) Training shall include the overview of the system architecture, system hardware, system power management, device control and system programming.
 - (v) System programming shall include:
 - i. Device configuration
 - ii. Configuration of interfaces between devices
 - iii. Configuring scenes for groups of devices
 - iv. Configuring schedules for groups of devices

- v. Configuring holiday schedules
 - vi. Adding new devices to the system
 - vii. Removing devices from the system
 - viii. Troubleshooting existing devices
 - ix. Replacing existing devices
- (l) Training shall include a hands-on component, where each Owner representative shall complete a system configuration change based each line item identified in (k)(v) above.
- (m) Upon completion of the training, each Owner representative shall sign off indicating that they have successfully completed all the exercises and are comfortable with overseeing the system.
- (n) The third training session shall concentrate on the optimization of the lighting control system by Owner's representatives under the supervision of the factory trained representative, based on the user feedback over the first 30 days of the facility operation. Update the CD / USB in the Operations and Maintenance manual upon completion of the training.

APPENDICES

Appendix_P1 to P4_R1: Add the following information:

Winnipeg Transit Fault Currents

Brandon Avenue Gate

421 Osborne Street – 2016 annual fire alarm inspection

Replace: Appendix H_R1 with new Appendix_H_R2 Garage Room Data Sheets

CONFIDENTIAL ADDENDUM

Proponents are advised that a Confidential Addendum 7 is available for review and information. Proponents are to comply with the process outlined in E1.4 to access Confidential documents.

QUESTIONS AND ANSWERS

- Q1. Expansion Area Circulation:
1) Transit maintenance garages need smooth and efficient circulation to function safely and efficiently. The sketch included in the RFP package, and the remainder of the documents, do not appear to address the movement of goods and personnel through the addition. As the welding shop, upholstery shop and body shop are all located in an area adjacent to the maintenance bays, some sort of circulation for finished items and repair works needs to connect the spaces. For heavier and bulkier items, carts and forklifts will be needed. Engines and other elements will need to be brought to the buses from stores and other shop areas.
(a) In Confidential Appendix L, there is a comment for the Weld Shop Area racking regarding clearance for forklift access, without specifying the unit. There is also cut sheet information regarding a 2200 lb. capacity straddle type lift truck.
i) Is this the only forklift that would access the Weld Shop Area, and would it only be the rack area?
ii) Pending the above, would it be used throughout the other non-bus "shop" areas, including the renovated treasury areas?
(b) Can the City provide information on make, model and capacity of any other forklifts used, or likely to be used in the new and renovated areas?
(c) Can the city provide information on carts and other equipment used to move items to allow us to design for safe and efficient circulation of materials and personnel? To properly allow for these, please provide make and model number along with plan view dimensions, wheelbase and turn radii.
(d) Does the city have any circulation standards or specific safety requirements that need to be addressed here?
- A1. (a) This forklift is only used in the Weld Shop rack area. Refer to Appendix L R1 Confidential Addendum 6, EQ-107 for Welding Stores forklift, EQ-85 forklift is for the Interior Fit-up only.
(b) Refer to Appendix L R1 issued with Confidential Addendum 6
(c) Refer to Appendix L R1 issued with Confidential Addendum 6
(d) There are no circulation standards. A suggested reference is the New Brunswick OHS recommendation on aisle widths:
- One Way aisle: width of truck plus 60 cm
- Two way aisle: width of truck plus 90 cm
- Pedestrian aisle minimum 3' wide adjacent to vehicle aisle.
- Q2. Section E25.6.9 (c) states that control flow roof drains are not permitted. It is our understanding that the Brandon Ave. storage garage has control flow and would recommend the same is done on 421 Osborne addition to avoid flooding of the surrounding area.
- A2. Refer to the deleted clause E25.6.9(c) in Addendum 7.
- Q3. Specification E17.4.6 requires relocation of the existing vehicular gate on Brandon Avenue.
(a) Is there any information available on the existing vehicular gate?
- A3. Refer to information added to Appendix P1 to P4 R1 issued with Addendum 7.
- Q4. Addendum 4, Appendix H R1
a. A.1-1.1 Typical Service Bay – Mechanical Services – Drain - requires perimeter trench drains for 4 pressure washers, but the Equipment portion requires "One (1) pressure washing system in 60 foot bay NEQ-11." Please clarify.
- The original RDS A1-1.2 Equipment included NEQ-11 in those locations. The revised RDS A11.2 no longer lists this in Equipment, but mentions it in structural. Please confirm:
i. Reference is to 60 foot long bus bays.
ii. Please confirm exactly which bays are to be equipped with pressure washing, the number of pressure washer units required, and their distribution in those bays.
- A4. Please review A.1-1.1 Typical Service Bay – Mechanical Services. The requirement states that four (4) trench drains are required for the pressure washing system. Appendix H R1 moved the pressure washing system to A1-1.1 Typical Service Bay (60')
(ii) Appendix H R1 is clear – One (1) pressure washing system in a 60' Typical Service Bay. Bay allocation and design is the responsibility of the Proponents.

- Q5. Addendum 4, Appendix H R1
- b. A.1-2.1 Weld Shop – Equipment: Welding booths EQ-12-16, and also Plasma cutting Table EQ32. These equipment numbers suggest 5 welding booths and one cutting table. To date, we have observed
- Interconnected series of three steel welding booths, with three exhaust systems each with two branches.
 - One separate booth that appeared to contain a cutting table.
- i. Please confirm the amount/location of the welding booths as it relates to the above.
- A5. The information provided in the RFP is accurate.
- Q6. Specification E 25.4.12 Preferred Manufacturers, (g) Fume Extraction (Fixed Location), (i) “Nederman Exhaust Rail”
- a. Please confirm that this refers to all the bus bays where exhaust is required.
- b. The stated product can only be found as a Nederman 920 system. It has high resistance to flow and would not appear suitable for use with more than one operating bus engine, perhaps two if at reduced speed. It does not appear to be a cost effective solution for use with fixed location exhaust as found on the buses. The existing garage uses a mixture of rails, and fixed ducting, and of load balanced hoses and hose reels. Please confirm which is required:
- i. Individual rails for each bus spot, with a single hose connection.
 - ii. A rail that spans several bus spots, and if so how many bus bays, and the number of hose connections in that length of rail
 - iii. Hose reels or hose hung from load balancers, and specifically which units are required at which bus bay.
- A6. Fume extraction (fixed location) is required at all bus bays. Refer to revised clause E25.4.12(g) issued with Addendum 7 for additional clarification on requirements.
- Q7. Reference E26.5.5 (j) (viii) v. Allow one metering point per existing feed on the main distribution.
- a. Is this a requirement for each sub feeder or just the main feeder.
- A7. Refer to revised clause E26.5.5(j)(iii) issued in Addendum 7.
- Q8. Reference E26.5.8 Sub Distribution
- a. Does this section apply only to the new expansion distribution?
- A8. E26.5.8 applies only to the new expansion.
- Q9. Reference E26.5.8 (e) All electrical panels with carrying capacity of greater 250KVA, electrical panels for lighting, HVAC system, service water heating, elevators and any special equipment or systems more than 20KW must be c/w provision for electrical power monitoring means conforming to National Energy Code of Canada for buildings (NECB).
- a. Is the intent to conform to NECB?
- A9. The intent is to conform to NECB.
- Q10. Reference E26.5.8 (f) (iii) Allow one metering point per feed on the main distribution.
- a. Does this also refer to existing Distribution 1,2 & 3
- A10. Refer to revised clause E26.5.8(f) issued in Addendum 7.
- Q11. Will the City permit stormwater drainage to the Brandon Avenue combined sewer if it is limited to the predevelopment peak flow.
- A11. The City will not permit stormwater drainage to the Brandon Avenue combined sewer. Use internal drainage system on the Transit property.
- Q12. Regarding overhead bus doors used strictly for exit during normal operations, such as at the paint booth bays and at the 60 foot bus service bays, where there will not be any incoming bus traffic.
- a) Are the bollards mentioned in RFP required on the exterior side of these door openings?
- A12. Bollards are required on the exterior and interior of door openings.
- Q13. In Addendum 4, the Equipment section of the RDS A1-1.1, A1-1.2, A1-1.3, A1-2.2, A1-4.1, all refer to Particulate Extraction EQ-09. In Confidential Appendix L, EQ-09 is listed as DC39 Bench Grinder.
- a) Please clarify the above information and the intended requirements of this information.
- A13. Particulate extraction is tagged NEQ-09 in the Appendix H R1 issued in Addendum 4.

Q14. In Addendum 4, sections E24.5.6, 7, 8, 9 are now requiring all the prep and refurbishment booths to “tie into Centralized Vacuum System (E24.5.11)”. E24.5.11 (e) adds “Contractor to confirm suitability of connecting the system and providing drops to the various shop equipment requiring similar dust/particulate extraction systems.”
a) Confirm that the intent is for equipment in the Workshop areas to potentially be connected to the central vacuum system, or is this for other equipment. If so please provide examples of the equipment to be considered.

A14. Some examples of the equipment that require particulate extraction systems include:

Equipment Number	Description	Area
EQ-03	Belt Sander	Sheet Metal
EQ-07	Grinder	Body Shop
EQ-08	Grinder	Body Shop
EQ-10	Spotwelder	Body Shop
EQ-09	Bench Grinder	Weld Shop
EQ-02	Belt Sander	Weld Shop
EQ-12 to EQ-16	Weld Booths	Weld Shop
EQ-32	Plasma Cutting	Weld Shop
SB-01	Sand Blast Cabinet	Weld Shop

As indicated in Addendum 4, Proponents shall determine if a Centralized Vacuum System is suitable to service shop equipment or if individual systems for each piece of equipment is required. The above list shall not be considered to be exhaustive. Proponents shall review Confidential Appendix L R1 for specific equipment requirements.

Q15. Original RFP E25.4.12 Preferred Manufacturers (i) Particulate Extraction System, lists “Global Finishing Excel Workstation”. This does not appear to be applicable for the requirements.
a) Please provide any preferred suppliers for the actual particulate removal equipment intended in sections E24.5, etc.

A15. Refer to revised clause E25.4.12(l) issued in Addendum 7.

Q16. In the original RFP E25.6.5 In addition to Plumbing Fixtures and trim for Standard Washrooms and Change rooms, provide: (o) Roof Hydrants located to a maximum distance of coverage of 100 feet from the perimeter of the roof in all directions.

a) Please confirm the intent of “coverage of 100 feet from the perimeter of the roof in all directions”.

b) Please confirm these are to be manufactured roof hydrants, such as JR Smith 5907 roof hydrants, which also require drainage for their freeze proofing to function

A16. Refer to revised clause E25.6.5(o) issued in Addendum 7.

Q17. It was noted that in the existing garage the bus engine exhaust extraction uses three different systems:

a) Fixed location exhaust hoses.

b) Sliding exhaust track system parallel to the main aisle

c) Sliding exhaust track system approximately perpendicular to the main aisle (i.e. parallel to the bus), and that these are located in between each of those bus bays.

d) “General Question” Please clarify the required layouts of the stated preferred Nederman track systems, as this will have an impact on amounts.

A17. Refer to revised clause E25.4.12(g) issued in Addendum 7 for further clarification.

Q18. The extent of the current building renovation appears to exceed 15% to 20% of the existing building size. The City’s electrical plan review department has previously indicated that renovations of this extent required upgrades to existing life safety systems.

a) Please confirm that detailed design, and installation of the required upgrades to all of the Fire Detection and Alarm System, Emergency Lighting, and Exit Lighting systems in the existing building areas, so as to conform to the currently applicable Codes and Standards, are required as part of this Bid Opportunity.

A18. All existing exit signs within the building will have to be upgraded to the ‘Running Man’ pictogram. Refer to added clause E26.5.18(f) issued in Addendum 7.

- Q19. Original RFP states the following:
“E26.5.23 Public Address System
(a) Provide a centralized public address system throughout the building. The system to be integrated with and controlled by the telephone system.”
i) Please confirm the definition of “throughout the building” for this requirement; is it the new expansion and the renovation only, or does it include all of the other areas in the existing building.
- A19. The new PA system shall be limited to the new addition.
- Q20. Original RFP states the following :
“E26.5.25 Data/Communication Systems
(a) Provide full Wi-Fi coverage throughout entire facility to allow Infodev radio system access for buses.”
i) Please confirm the definition of “coverage throughout the entire facility” for this requirement; is it the new expansion and the renovation only, or does it include all of the other areas in the existing building.
- A20. The WiFi coverage within the Proponent’s scope includes the garage expansion and interior fit-up renovation areas.
- Q21. Should the proponents include building code upgrades to the existing facility as part of this proposal?
- A21. All existing exit signs within the building will have to be upgraded to the ‘Running Man’ pictogram. Refer to added clause E26.5.18(f) issued in Addendum 7.