



## 32-2007 ADDENDUM 2

### SUPPLY, DELIVERY AND INSTALLATION OF ARCHIVE SPACE SHELVING FOR 311 ROSS AVENUE 3<sup>RD</sup> FLOOR.

#### **URGENT**

**PLEASE FORWARD THIS DOCUMENT TO  
WHOEVER IS IN POSSESSION OF THE BID  
OPPORTUNITY**

ISSUED: Rachel Eccles  
BY: February 20, 2007  
TELEPHONE NO. (204) 986-2451

**THIS ADDENDUM SHALL BE INCORPORATED  
INTO THE BID OPPORTUNITY AND SHALL  
FORM A PART OF THE CONTRACT  
DOCUMENTS**

Template Version: A20060821

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**Please note the following and attached changes, corrections, additions, deletions, information and/or instructions in connection with the Bid Opportunity, and be governed accordingly. Failure to acknowledge receipt of this Addendum in Paragraph 8 of Form A: Bid may render your Bid non-responsive.**

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#### **PART B – BIDDING PROCEDURES**

Revise B2.1 to read: The Submission Deadline is 4:00 p.m. Winnipeg time, February 26, 2007

Revise B6.3 to read: Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least **three (3)** Business Days prior to the Submission Deadline.

Revised B6.6 to read: The Contract Administrator will provide a response in writing, at least one (1) Business Day prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.

#### **PART E – SPECIFICATIONS**

Revise: E1.4 to read: The following Drawings are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
<b>A1R1</b>	STORAGE SHELVING LAYOUT

Add E1.5: Existing floor is finished hardwood.

Revise E2.2.1 (c) to read: 10-15% oversized cartons & artwork

the **artwork** collection consists of 76 Oil-paintings, the largest of these being 2 **framed paintings** measuring 112"x74" and approximately 100 pieces of framed artwork **that are of smaller dimensions.**

Replace E2.3:

**SHELVING FOR BOXED MATERIALS - GENERAL FEATURES:**

- (a) shelving material shall be fabricated of steel, and powder coated or baked enamel;
  - (i) shelving shall be 18 gauge steel or less;
  - (ii) shelving reinforcements shall be 16 gauge or less;
  - (iii) shelving support shall be 14 gauge steel or less;
- (b) shelving shall be fixed, and have canopy tops;
- (c) connecting shelve uprights shall be open and 18 gauge steel or less;
- (d) end shelve uprights shall be closed and 18 gauge steel or less;
- (e) no shelf dividers are required;
- (f) shelving must be adjustable in 1½" centers, so that Archive staff may control the shelf height for differing box heights. If submitted is less or greater, please note and explain.
- (g) shelving box weld flanges are preferable to broken flanges
- (h) shelving Height shall be:
  - (i) minimum 3" between bottom shelf and floor
  - (ii) minimum 12" between canopy tops and lighting fixtures;
  - (iii) minimum 18" between canopy tops and sprinkler heads;
- (i) shelving shall not hold more than 2 boxes deep and 2 boxes high (no back stops or center stops are required between 2-deep shelving);
- (j) shelving shall be light toned (if possible). Contractor shall provide color charts;
- (k) **fixed shelving units shall not be bolted to the floor. Alternate support shall be used, which shall be satisfactory to the Contract Administrator. The bidder will detail the means of support offered.**
- (l) **All shelving units must be level and plumb.**

Replace E2.4

**SHELVING FOR NON-BOXED MATERIALS:**

- (a) shall be a mobile **mechanical assisted** art-rack panel system that allows for individual storage of framed art.
- (b) **mobile system shall be furnished and installed only by those firms engaged in the manufacture of this type of equipment for the last ten years.**
- (c) **the Contractor shall be responsible to verify all measurements and be satisfied that conditions are suitable to product, for compliance with installation requirements, tolerances and other conditions affecting performance of mobile units. Installation to proceed only after unsatisfactory conditions are corrected.**
- (d) **as necessary, contractor shall provide shop, floor plan, erection drawings and Manufacturer's installation instructions prior to installation.**
- (e) **units must be installed with factory trained supervision in accordance with manufacturer's written instructions**
- (f) **Contractor shall provide one training session for Archives and Public Works, within 1 week of total performance.**

**Add E2.4.1**

**General features:**

- (a) mobile system shall be an integrated assembly of independent mobile ranges. Each range shall consist of rigidly attached panel sections and have suitable end panels. The system shall be level and have flush flooring.
- (b) all gaps between floors, which shall be filled with fast setting grout to form lid base.
- (c) must be no drifting or rolling of stopped carriages.
- (d) must be no play or looseness between drive wheels and wheel axle.
- (e) bumpers shall be a minimum of 1" thick and located in each aisle. distance of aisles between carriages will vary and some carriages will require thicker bumpers to prevent damage to stored artwork that extends beyond the carriage width.
- (f) height of units with panels attached to carriages shall not exceed 92". If anti-tip mechanism is required, please note and explain.

**Add E2.4.2**

**Rail:**

- (a) shall be located and positioned in accordance with Manufacturer's instructions, levelled and grouted allowing for a minimum of 0.5" of grout under rail from the high spot on the floor. Void between rail and floor must be completely filled with non-shrink grout. Shimming of rails is not acceptable in whole for support of rail.
- (b) shall have a minimum width of 2.375" and must extend completely under all stationary ranges.
- (c) connection joints shall demonstrate vertical and horizontal continuity and gradually transfer the concentrated wheel load to and from adjoining rail sections.
- (d) must be level and shall not exceed .0625" maximum variation from true level within any module and .0625" maximum variation between adjacent rails perpendicular to rail direction
- (e) guide rail shall be minimum 0.8" high and made of solid steel. Running rail shall be minimum 0.5" high and made of solid steel. Each section of rail shall be a minimum of 118" with shorter length used only to terminate each individual rail assembly.
- (f) the end of each rail shall be connected by twin stainless steel dowels pinned between the rail splice. The splice shall be designed for the most severe operating conditions.
- (g) connection joints shall demonstrate vertical and horizontal continuity and gradually transfer concentrated wheel load to and from adjoining wheel sections.
- (h) grout shall be used to reduce rail deflection, maintain alignment and eliminate separation. Grout that is used must be ready-mixed high strength controlled expansive grout with superior dynamic load stability, which when mixed with water hardens rapidly to form a solid foundation for the mobile storage system. Grout shall be non-corrosive, non-metallic and non-shrink; and after curing, shall have a minimum strength of 8,000 pounds per square inch.

**Add E2.4.3**

**Decking and Ramp:**

- (a) deck shall be constructed of ¾” plywood, one side good with no open gaps between flooring and rail.
- (b) ramp must be constructed or manufactured from steel and cover the full length of the system. The ramp’s slope is not to exceed 1¼” over 18’ of length.

**Add E2.4.4**

**Carriages – Minimum of 750 lbs/linear foot:**

- (c) carriages shall be low profile design with a 4” maximum frame height. All carriages shall be welded steel construction. Load shall not cause distortion in any manner.
- (d) fixed carriages must be anchored to the continuous rails located beneath the fixed carriages to a completely homogenous system.
- (e) carriages shall be straight and square and carriage splices shall be bolted types designed to maintain unit alignment. There must be no slippage, drag or windup in any splice or welded joints. Fasteners used to connect any carriage splice joint shall be vibration-proof.
- (f) carriage construction must allow panels to be securely anchored to each carriage with vibration-proof fasteners. No recessed carriages.
- (g) bumpers shall be rubber and mounted to the carriage face on each side to provide cushioned stop for all carriages without damage or displacement of stored material or to the carriages.
- (h) standard carriage lengths shall be from 3’ to 24’ and manufactured to exact specifications for depth and length.

**Add E2.4.5**

**Wheels:**

- (a) each carriage must have a minimum of two wheels per rail and wheels must be the same size.
- (b) dynamic load rating on wheel bearings shall be a minimum 3,300 pounds per wheel.
- (c) wheels shall be a minimum of 3.6” effective diameter, precision machined and constructed of cast iron for smooth operation and provide for the appropriate load rating for each carriage. Two guide wheels are required for each guide rail. A minimum of two guide rails are required per carriage and a minimum of four guide wheels shall be incorporated into each carriage.

**Add E2.4.6**

**Guidance System:**

- (a) shall provide gapless wheel guidance system using barrier free matching convex rail and concave wheel assemblies.
- (b) drive shaft shall be solid steel and minimum of 0.75”. Drive shaft shall be a non-load bearing member of the drive train.
- (c) drive shaft system shall transmit power near the centre of the carriage for even distribution of power throughout the carriage. Drive systems that apply power at one end and accumulate “wind-up” along the length of the base are not acceptable.
- (d) drive system must drive all wheels on one side of carriage.

Add E2.4.7

**Drive Housing:**

- (a) covering the drive housing shall be end panels that are of low pressure laminate and extend to the full height of storage panels and the full width of the carriage with finished face and sides. Panels shall be constructed and mounted by the Manufacture's standard method and attached with concealed fasteners. Contractor shall provide colour charts for end panels.

Add E2.4.8

**System Operation:**

- (a) safety requirements include protection for operation and for stored media. Entire system shall be designed to eliminate any possibility for damage to be caused to any properly stored items.
- (b) operator handles shall be available in a three-spoke design, with push-pull button to fix carriage in place.
- (c) gearing requirements. Reduction drive units must be available at the following ratios:

Effort	Ratio	Travel per Revolution
1 lb	1:2000	6.2"
1 lb	1:4000	4.7"
1 lb	1:6000	3.6"
1 lb	1:9000	2.7"
1 lb	1:11000	2.1"

Add E2.4.9

**Powder Coat Paint:**

- (a) all exposed surfaces shall be painted with powder coat paint with textured finish. Paint finish must be 100% non-emissive and contain no formaldehyde, methanol or other solvents. Contractor shall provide colour chart.

Add E2.4.10

**Installation:**

- (a) Contractor shall fully grout rails and permanently attach panel units to carriages.
- (b) Contractor shall install system to comply with final layout drawings, in strict compliance with Manufacture's printed instructions. Units must be positioned so that they are level and plumb at proper location.
- (c) Contactor shall adjust components to provide smoothly operating, visually acceptable installation.

Add E2.4.11

**Art rack panels:**

- (a) storage panels are to be provided for sixteen double mobile units. Panels are to be a minimum of 78" in height and not to exceed 85" in height. Panels shall consist of three and four foot long modules to provide panel lengths in one foot increments of length as standard. Leaves shall be 18 and 24 inches high to provide panel heights in 6 inch increments as standard.
- (b) panels shall consist of 18 gauge metal leaves perforated with 1/4" holes on 1" centres to accept standard pegboard hooks or similar hardware for suspending artwork on the panel.
- (c) panel surface is to be free of braces, gussets, or other obstructions in or around the storage area so that art can be stored at any location on the panel and allow for storage of framed artwork measuring up to 115" x 75". Surface is to slope back slightly to keep art in place when mobiles are moved. Space is to be provided between back to back surfaces so that the hooks will not damage art on back side of panels.

- (d) **Pegboard hooks or similar hardware are to be provided (minimum 2 hooks per panel) and must have no sharp bends or ends that could damage stored art and be designed so that hooks fit tightly and artwork is held securely in place on the panel when mobile units are in operation. Hooks shall allow for storage of artwork hung with picture wire and for storage of framed artwork hung by moveable ring fasteners attached to frames. Hooks shall not come loose or fall off when artwork is removed from the panel. Hooks for artwork hung with wire to be 9 gauge, 2" wide and 2 1/8" tall.**
  
- (e) **Panel design shall be welded "A" frame with 18 gauge "T" post uprights. "T" posts are welded to a series of channels to form "A" frame. Panels shall be painted colour to match carriages.**