

Public Works and Government Services Canada	Saskatoon, SK, AAFC, Saskatoon Research and Development Centre, Chiller Replacement, Laboratory Wing	Addendum No. 3 Page 1 of 1
Project No.: R.110563		August 16, 2021

The following changes to the tender documents are effective immediately and will form part of the contract documents:

1.1 PART 1 – PERTAINING TO DRAWINGS

- A. Clarification – Drawing M01
Fan Coil Unit Schedule
Revise Note 2 to state: c/w programmable thermostat
- B. Clarification – Drawing M07
Add Note to Details 1 and 2: Clad ductwork transition and silencer with 0.5 mm smooth aluminum jacket.

1.2 PART 2 – PERTAINING TO SPECIFICATIONS

- A. Add specification section 23 33 00 – Air Duct Accessories.
- B. Specification section 23 82 19 – Fan Coil Units
Delete clause 2.1.7.2.

1.3 PART 3 – QUESTIONS

- A. Question 3: Please confirm the fan coil unit supplier to provide the silencer elbow and supply grille as per note 2 on the schedule. This is not a standard accessory provided with a fan coil. Can I recommend it to be supplied by the installing contractor which would be more traditional and help in fan coil unit competitive bidding?

Answer 3: It is the Contractor's responsibility to supply and provide the elbow silencer and supply air grille. This choice of supplier may include, but not be limited to the supplier of fan coil units or independent equipment suppliers.

END OF ADDENDUM NO. 3

AIR DUCT ACCESSORIES

1. GENERAL

1.1 Reference Standards

- .1 Sheet Metal and Air Conditioning Contractors' National Association (SMACNA)
 - .1 SMACNA - HVAC Duct Construction Standards - Metal and Flexible
- .2 American Society for Testing Materials (ASTM)
 - .1 ASTM E477 - Standard Test Method for Measuring Acoustical and Airflow Performance of Duct Liner Materials and Prefabricated Silencers

1.2 Action and Informational Submittals

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets that include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Product data to include:
 - .1 Capacity.
 - .2 Throw and terminal velocity.
 - .3 Noise criteria.
 - .4 Pressure drop.
 - .5 Neck velocity.

1.3 Delivery, Storage And Handling

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.

AIR DUCT ACCESSORIES

2. PRODUCTS

2.1 System Description

.1 Performance Requirements:

- .1 Catalogued or published ratings for manufactured items: obtained from tests carried out by manufacturer or those ordered by manufacturer from independent testing agency signifying adherence to codes and standards.

2.2 Supply Grilles

- .1 Aluminum, 25 mm border, double deflection with airfoil shape, horizontal face and vertical rear bars. Finish: white. Size: 400 mm x 400 mm.

2.3 Rectangular Elbow Silencers

.1 General

- .1 Silencer inlet and outlet connection dimensions must be equal to the duct sizes shown on the drawings.
- .2 Silencers shall be of the size, configuration, capacity and acoustic performance as scheduled.

.2 Construction

- .1 Outer Casing: 1.2 mm G90 galvanized outer casing, satin coated.
- .2 Internal Liner: 0.7 mm G90 galvanized internal liner. Liner shall be perforated steel and shall be acoustically transparent.
- .3 Baffle Fill: Inorganic glass fiber acoustic material fill. Glass fiber packed under 5% compression to eliminate voids due to settling.
- .4 Acoustical splitter/baffles shall be internally radiused and aerodynamically designed for efficient turning of the air.

.3 Acoustic Attenuation

- .1 The elbow silencer acoustic attenuation performance must meet the following as a minimum:

Item:	Insertion Loss (dB) by Frequency Band (Hz):							
	63	125	250	500	1000	2000	4000	8000
Attenuation	13	18	29	34	32	25	26	17

AIR DUCT ACCESSORIES

3. EXECUTION

3.1 Examination

- .1 Verification of Conditions: verify that building locations and conditions are acceptable for unit installation in accordance with manufacturer's written instructions.
 - .1 Visually inspect all affected building locations.
 - .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
 - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

3.2 Installation

- .1 Install in accordance with manufacturers instructions.
- .2 Ensure duct silencers are installed with airflow arrows in direction of airflow.
- .3 Airtight construction shall be achieved by use of a duct-sealing compound.

3.3 Cleaning

- .1 Progress Cleaning: clean in accordance with Section 01 74 00 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00 - Cleaning.

END OF SECTION