

PART 1 - GENERAL

- 1.1 REFERENCES
- .1 Canada Green Building Council (CaGBC)
 - .1 LEED Canada 2009 for Design and Construction, LEED Canada 2009 for Design and Construction Leadership in Energy and Environmental Design Green Building Rating System Reference Guide.
 - .2 Sheet Metal and Air Conditioning Contractors' National Association (SMACNA)
 - .3 Society of Automotive Engineers (SAE)
- 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 for louvers, intakes and vents and include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Indicate following:
 - .1 Pressure drop.
 - .2 Face area.
 - .3 Free area.
 - .4 Dimensions
 - .3 Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.
 - .4 Test Reports: submit certified data from independent laboratory substantiating acoustic and aerodynamic performance to ASTM E 90.
 - .5 Sustainable Design Submittals:
 - .1 LEED Canada submittals: in accordance with Section 01 35 21 - LEED Requirements.
 - .2 Construction Waste Management:
 - .1 Submit project Waste Management Plan highlighting recycling and salvage requirements.
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1.2 ACTION AND
INFORMATIONAL
SUBMITTALS
(Cont'd)

- .5 Sustainable Design Submittals: (Cont'd)
 - .2 Construction Waste Management: (Cont'd)
 - .2 Submit calculations on end-of-project recycling rates, salvage rates, and landfill rates demonstrating that 75% of construction wastes were recycled or salvaged.
 - .3 Recycled Content:
 - .1 Submit listing of recycled content products used, including details of required percentages or recycled content materials and products, showing their costs and percentages of post-consumer and post-industrial content, and total cost of materials for project.
 - .4 Regional Materials: submit evidence that project incorporates required percentage 30% of regional materials and products, showing their cost, distance from project to furthest site of extraction or manufacture, and total cost of materials for project.

1.3 DELIVERY,
STORAGE AND
HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and 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 indoors in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect louvers, intakes and vents from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.
 - .4 Develop Construction Waste Management Plan related to Work of this Section and in accordance with Section 01 35 21 - LEED Requirements.
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1.3 DELIVERY, STORAGE AND HANDLING (Cont'd)	.5 Packaging Waste Management: remove for reuse or return of pallets, crates, padding, banding, and packaging materials as specified in Construction Waste Management Plan in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal and Section 01 35 21 - LEED Requirements.
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PART 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 GRAVITY ROOF OUTSIDE AIR INTAKES AND RELIEF VENTS	.1 Factory manufactured galvanized steel hinged at curb line. .1 Complete with integral birdscreen of 2.7 mm diameter ss wire. .2 Vertical backdraft dampers on 4 faces. .3 Maximum throat velocity: 3.3 m/s intake. .4 Maximum loss through unit: 15 Pa exhaust static pressure. .5 Maximum velocity through damper area: 1.5 m/s. .6 Shape: as per drawings. .2 Birdscreens: .1 Complete with integral birdscreen of 2.7 mm diameter ss wire. Use 12 mm mesh on exhaust 19 mm mesh on intake.
2.3 FIXED LOUVRES - ALUMINUM	.1 Construction: welded with exposed joints ground flush and smooth. .2 Material: extruded and anodized aluminum alloy 6063-T5. .3 Blade: drainable stormproof pattern with centre watershed in blade, reinforcing bosses and maximum blade length of 1500 mm.

- 2.3 FIXED LOUVRES - .4 Frame, head, sill and jamb: 150 mm deep one
ALUMINUM piece extruded aluminum, minimum 3 mm thick
(Cont'd) with approved caulking slot, integral to unit.
- .5 Mullions: at 1500 mm maximum centres.
- .6 Fastenings: stainless steel SAE-194-8F with
SAE-194-SFB nuts and resilient neoprene
washers between aluminum and head of bolt, or
between nut, ss washer and aluminum body.
- .7 Screen: 12 mm exhaust 19 mm intake mesh, 2 mm
diameter wire aluminum birdscreen on inside
face of louvres in formed U-frame.
- .8 Finish: factory applied premium polymer
finish for all louvres. Colour: to
Departmental Representative's approval at shop
drawing review. Submit colour chips and
samples with shop drawings for colour
selector. Finish shall be rated for 25 years
with minimum warranty of 5 years.

PART 3 - EXECUTION

- 3.1 EXAMINATION .1 Verification of Conditions: verify that
conditions of substrate previously installed
under other Sections or Contracts are
acceptable for louvres, intakes and vents
installation in accordance with manufacturer's
written instructions.
- .1 Visually inspect substrate in presence
of Departmental Representative.
- .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 In accordance with manufacturer's and SMACNA
recommendations.
- .2 Reinforce and brace as indicated.

- 3.2 INSTALLATION .3 Anchor securely into opening. Seal with
(Cont'd) caulking to ensure weather tightness.
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- 3.3 CLEANING .1 Progress Cleaning: clean in accordance with
Section 01 74 11 - 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 11
- Cleaning.
- .3 Waste Management: separate waste materials
for reuse and recycling in accordance with
Section 01 74 21 - Construction/Demolition
Waste Management and Disposal and Section
01 35 21 - LEED Requirements.
.1 Remove recycling containers and bins
from site and dispose of materials at
appropriate facility.