

## PART 1 - GENERAL

### 1.1 REFERENCES

- .1 ASTM International
  - .1 ASTM C 700-13, Standard Specification for Vitrified Clay Pipe, Extra Strength, Standard Strength and Perforated.
- .2 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.
- .3 National Fire Protection Association (NFPA)
  - .1 NFPA 91-10, Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids.

### 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 and include product characteristics, performance criteria, physical size, finish and limitations.
  - .3 Shop Drawings:
    - .1 Submit drawings stamped and signed by professional engineer registered or licensed in Province of Newfoundland and Labrador, Canada.
  - .4 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.
      - .2 Submit calculations on end-of-project recycling rates, salvage rates, and landfill rates demonstrating
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1.2 ACTION AND  
INFORMATIONAL  
SUBMITTALS  
(Cont'd)

- .4 Sustainable Design Submittals: (Cont'd)
  - .2 Construction Waste Management: (Cont'd)
    - .2 (Cont'd)  
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 MAINTENANCE  
MATERIAL SUBMITTALS

- .1 Extra Materials:
  - .1 Submit in accordance with Section 01 78 00 - Closeout Submittals.
  - .2 Submit list of manufacturer's recommended spare parts for equipment such as bearings and seals, and addresses of suppliers, together with list of specialized tools necessary for adjusting, repairing or replacing, for placement into operating manual.

1.4 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 off ground, indoors, in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
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| 1.4 DELIVERY,<br>STORAGE AND<br>HANDLING<br>(Cont'd) | .3 | Storage and Handling Requirements: (Cont'd)<br>.2 Store and protect exhaust systems from<br>nicks, scratches, and blemishes.<br>.3 Replace defective or damaged materials<br>with new.   |
|  | .4 | Develop Construction Waste Management Plan<br>related to Work of this Section and in<br>accordance with Section 01 35 21 - LEED<br>Requirements.   |
|  | .5 | Packaging Waste Management: remove for reuse<br>or return of pallets, crates, padding,<br>banding, and packaging materials as specified<br>in Construction Waste Management Plan in<br>accordance with Section 01 74 21 -<br>Construction/Demolition Waste Management and<br>Disposal and Section 01 35 21 - LEED<br>Requirements. |

## PART 2 - PRODUCTS

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|------------------------------|----|---|
| 2.1 DIESEL EXHAUST<br>SYSTEM | .1 | Provide exhaust system for new diesel<br>generator. Exhaust systems shall be complete<br>with all fittings and accessories as required<br>for a complete installation.  |
|                              | .2 | Diesel generator shall be supplied and<br>installed by Electrical Division except as<br>otherwise indicated. Exhaust silencer and<br>flexible exhaust hose shall be supplied by<br>Electrical Division, and installed by this<br>contractor. Coordinate installation with<br>Electrical Division and diesel manufacturer. |
|                              | .3 | Maximum back pressure of the silencer,<br>exhaust flex and piping not to exceed the<br>diesel manufacturer's recommendations.   |
|                              | .4 | Exhaust piping shall be schedule 80 steel<br>ASTM A53 or A106 c/w butt welded fittings.   |
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PART 3 - EXECUTION

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| <u>3.1 INSTALLATION</u>           | .1 | Install in accordance with manufacturer's instructions and as specified.          |
| <u>3.2 DIESEL EXHAUST SYSTEMS</u> | .1 | Installation to be in accordance with manufacturer's recommendations.             |
|                                   | .2 | Coordinate exhaust pipe sizes and connection to diesels with Electrical Division. |
|                                   | .3 | Insulate pipe and muffler with type A-2 insulation.                               |
| <u>3.3 COMMISSIONING</u>          | .1 | After start-up, test and adjust to suit site conditions.                          |