

<b>Bid Opportunity 839-2012</b>	<b>BRRMF L&amp;YW AND PILOT BIOSOLIDS COMPOSTING</b>	<b>Page 1 of 3</b>
<b>REVISION 0</b>	<b>SECTION 10140 SIGNAGE</b>	

**PART 1. GENERAL**

1.01 SUMMARY

- A. Section Includes:
  - 1. Supply and Installation of Signage

1.02 SUBMITTALS

- A. Action Submittals:
  - 1. Shop Drawings:
    - a. Drawings showing layouts, actual letter sizes and styles, and Project-specific mounting details.
    - b. Manufacturer's literature showing letter sizes and styles, sign materials, and standard mounting details.
- B. Information Submittals:
  - 1. Operations and Maintenance Data: As specified in Section 01430.

1.03 QUALIFICATIONS

- A. Signage Supplier: Regularly engaged in the supply and production of signage with a minimum of 5 years' previous experience with similar products.

1.04 SCOPE

- A. Provide all materials, tools, and labor to complete signage installation as shown on the Drawings and as specified.

**PART 2. PRODUCTS**

2.01 SIGNS

- A. Plastic Signs (Type A):
  - 1. Exterior: Laminated plastic subsurface image type, 3/16 inch thick with high-gloss finish.
  - 2. Interior: Plastic, 1/8 inch thick with nondirectional matte finish and engraved letters.
  - 3. Rounded corners.
- B. Metal Signs (Type B):
  - 1. Material: Baked enamel finished 20-gauge (minimum) steel or 18-gauge (minimum) aluminum signs.

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- C. Traffic Signs (Type C):
  - 1. Painted aluminum reflectorized signs, standard design meeting requirements of City of Winnipeg, Manitoba Infrastructure and Transportation and Transport Canada.

## 2.02 ANCILLARY MATERIALS

- A. Fasteners: Stainless steel screws or bolts of appropriate sizes.
- B. Wood Posts: Preservative treated 4 by 4 wood, Rough Carpentry.
- C. Pipe Posts: 2-1/2-inch galvanized steel pipe meeting ASTM A53, Type S, Grade B.

## PART 3. EXECUTION

### 3.01 L&YW COMPOSTING

- A. Windrow Signage
  - 1. Number of signs will be based on the type of windrow turner selected. AS an example, for a 24x8 Scarab, there will be 53 windrows which will require 106 signs.
  - 2. Signs shall be labeled "Windrow Bay" with a batch number beneath as follows:
    - a. "1A", "2A", "3A"... "53A"
    - b. "1B", "2B", "3B"... "53B"
  - 3. Number of windrow signs to be confirmed after windrow turner equipment purchase.
  - 4. Standard City colour scheme.
  - 5. Font size:
    - a. "Windrow Bay" - 50 mm
    - b. Number - 150 mm
  - 6. Mount on 3.0 to 3.5 metre metal post with movable weighted base.
  - 7. Locate at the north and south boundaries of the L&YW pad.
- B. Curing Pile Signage
  - 1. Signs shall be labeled "Curing Pile" with a batch number beneath as follows:
    - a. "1", "2", "3", "4", "5"
  - 2. Standard City colour scheme.
  - 3. Font size:
    - a. "Curing Pile" - 50 mm
    - b. Number - 150 mm
  - 4. Mount on 3.0 to 3.5 metre metal post with movable weighted base.
  - 5. Locate along eastern edge of Biosolids Curing Area as directed by Contract Administrator.
- C. Extra Stockpile Signage

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1. Signs would be labeled "Pile" with a batch number beneath as follows:
  - a. "1", "2", "3"...."12"
2. Standard City colour scheme.
3. Font size:
  - a. "Pile" - 50 mm
  - b. Number - 150 mm
4. Mount on 2.0 to 2.5 metre metal post with movable weighted base.
5. Locate at the north and south boundaries of the L&YW pad.

### 3.02 INSTALLATION OF SIGNS

#### A. General:

1. The layout and placement of the signs will be verified in the field with the Contract Administrator.
2. The signs shall be installed according to manufacturer's instructions.
3. Replace any damaged signs as directed by the Contract Administrator at no extra cost.

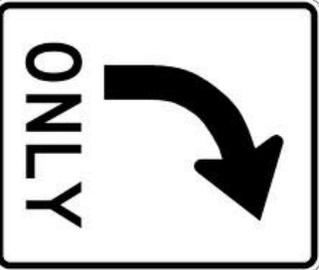
### 3.03 SUPPLEMENTS

- #### D. The supplement listed below, following "End of Section," is a part of this Specification.
1. Sign Schedule: A tabulation of characteristics and mounting information for each sign on the Project. Provide items as scheduled.

**END OF SECTION**

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**SECTION 10140-01  
SIGNAGE SCHEDULE 1**

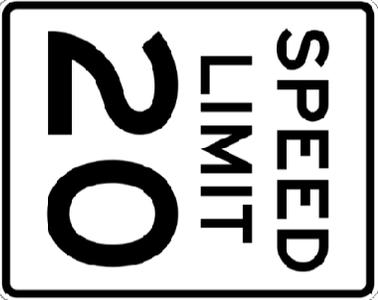
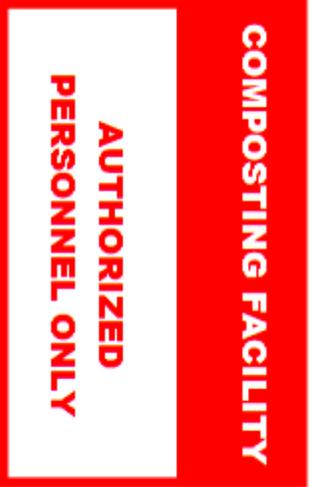
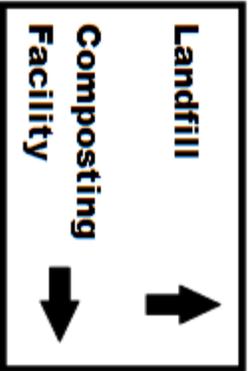
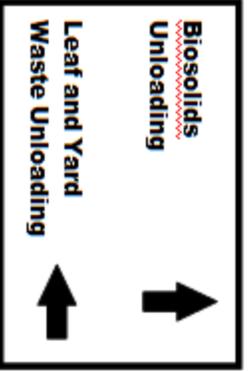
No.	Type	Message	Example
1	Fixed	Stop	
2	Fixed	One Way, Do Not Enter	
3	Fixed	Right Turn Only	 <p data-bbox="499 906 520 1140"><small>Signage from the Manual of Traffic Signs and Symbols, published by the Transportation Research Board of the National Academy of Sciences, Washington, DC, 1985.</small></p>

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**BRRMF L&YW AND PILOT  
BIOSOLIDS COMPOSTING**

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**SECTION 10140-01  
SIGNAGE SCHEDULE 1**

4	Fixed	Speed Limit	
5	Fixed	No Unauthorized Access	
6	Fixed	Facility Direction (Note: to match BRRMF font/colour standard)	
7	Moveable	Unloading Area (Note: to match BRRMF font/colour standard)	

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<b>SIGN SCHEDULE</b>											
<b>Sign</b>											
<b>Description</b>	<b>Type</b>	<b>Number Required</b>	<b>Size</b>		<b>Color</b>	<b>Mounting</b>		<b>Lettering</b>			
			<b>Width</b>	<b>Height</b>		<b>Method</b>	<b>Height to Top</b>	<b>Height</b>	<b>Style</b>	<b>Color</b>	<b>Message</b>
Stop	C	2	Standard	Standard	Standard	Fixed	Standard	Standard	Standard	Standard	STOP
One Way Do Not Enter	C	1	Standard	Standard	Standard	Fixed	Standard	Standard	Standard	Standard	ONE WAY
											DO NOT ENTER
Right Turn Only	C	1	Standard	Standard	Standard	Fixed	Standard	Standard	Standard	Standard	"right arrow"
											ONLY
Speed Limit	C	1	Standard	Standard	Standard	Fixed	Standard	Standard	Standard	Standard	SPEED LIMIT
											20
No Unauthorized Access	B	2	1.5m	1.0m	City Standard	Fixed	2.0 to 2.5 m	75 to 150 mm	City Standard	City Standard	See supplement 01
Facility Direction	B	1	1.5m	1.0m	City Standard	Fixed	2.0 to 2.5 m	75 to 150 mm	City Standard	City Standard	see supplement 01
Unloading Area	B	1	1.5m	1.0m	City Standard	Movable	2.0 to 2.5 m	75 to 150 mm	City Standard	City Standard	see supplement 01

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<b>SIGN SCHEDULE</b>											
<b>Sign</b>											
<b>Description</b>	<b>Type</b>	<b>Number Required</b>	<b>Size</b>		<b>Color</b>	<b>Mounting</b>		<b>Lettering</b>			
			<b>Width</b>	<b>Height</b>		<b>Method</b>	<b>Height to Top</b>	<b>Height</b>	<b>Style</b>	<b>Color</b>	<b>Message</b>
Windrow Bay	B	see spec section 3.01	0.5m	0.5m	City Standard	Movable	3.0 to 3.5 m	50 to 150 mm	City Standard	City Standard	see spec section 3.01 A
Curing Piles	B	5	0.5m	0.5m	City Standard	Movable	3.0 to 3.5 m	50 to 150 mm	City Standard	City Standard	see spec section 3.01 B
Extras	B	12	0.5m	0.5m	City Standard	Movable	2.0 to 2.5 m	50 to 150 mm	City Standard	City Standard	see spec section 3.01 C

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<b>REVISION 0</b>	<b>SECTION 10200 LOUVERS</b>	

**PART 1. GENERAL**

1.01 SUMMARY

- A. Comply with Division 1, General Requirements.

1.02 REFERENCES

- A. Comply with the latest edition of the following statutes codes and standards and all amendments thereto.
  1. AMCA 511 Certified Ratings Program For Air Control Devices.
  2. ASTM B209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
  3. ASTM B221 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
  4. ASTM D1187 Standard Specification for Asphalt-Base Emulsions for Use as Protective Coatings for Metal.
  5. CAN/CGSB-19.24 Multicomponent, Chemical-Curing Sealing Compound.
  6. CSA W47.1 Certification of Companies for Fusion Welding of Steel Structures.
  7. CSA W59 Welded Steel Construction (Metal Arc Welding).

1.03 DESIGN REQUIREMENTS

- A. Design louver members and their connections for applicable loads established by the NBC for the locality.
- B. Design to limit deflection to L/175 of clear span under wind loads for building locality as per National Building Code of Canada, Division B, Appendix C, Climatic and Seismic Information for Building Design in Canada.
- C. Design for pressure and suction of wind as calculated in accordance with NBC hourly wind pressure one in 30. Gust effect factor: Minimum 2.5.
- D. Design for expansion and contraction of materials as required.
- E. Performance Requirements: AMCA 511 certified rating for water penetration and air performance, tested with mill finish and using 0.28 millilitre as the point of beginning water penetration.

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1.04 SUBMITTALS

- A. Shop drawings: Submit shop drawings for louvers. Include large scale details of members and materials, anchorage devices where required, reinforcement, fasteners, dimensions, thicknesses, description of materials, metal finishing specifications, data substantiating structural characteristics of louvers, and other pertinent information.

1.05 WARRANTY

- A. Submit a two-year warranty for the Work of this Section against defects in materials and workmanship. Warrant that louver Work is structurally sound and free from distortion; that aluminum finishes will not develop excessive fading or non-uniformity of colour, and will not crack, peel or otherwise corrode.

**PART 2. PRODUCTS**

2.01 MANUFACTURERS

- A. Acceptable manufacturers:
1. C-S Group Ltd.
  2. E.H. Price Ltd.
  3. McGill Architectural Products.
- B. Louver design and performance characteristics are based on products manufactured by C-S Group Ltd. Louvers by other acceptable manufactures are acceptable provided they meet the design requirements of the specified louvers.

2.02 MATERIALS

- A. Aluminum:
1. Aluminum Extrusions: ASTM B221, Alloy AA6063-T5.
  2. Aluminum Sheet: ASTM B209, Alloy 1100-H14, anodizing quality.
- B. Isolation Paint: ASTM D1187.
- C. Butyl Tape: Tremco 440 tape by Tremco Mfg. Co., Weatherban Ribbon Sealer by 3M Inc.
- D. Bird Screen: 16 mm mesh, 1.27 mm thick expanded and flattened aluminum secured within 1.40 mm thick extruded aluminum frames. Frames to have mitered corners and

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corner locks.

- E. Fastenings: Stainless steel.
- F. Sealant: CAN/CGSB 19.24, Dymeric 240/240FC, by Tremco (Canada) Ltd., multi-component polyurethane.
- G. Cleaning Material: Xylol, Methyl-ethyl-ketone, Toluol or as recommended by sealant manufacturer.

### 2.03 FABRICATION

- A. Fabricate louvers of extruded alloy aluminum, complete with necessary accessories, reinforcement, flashings and fixing devices.
- B. Fabricate extruded aluminum angles, channels and reinforcement as required to frame and support the louver elements.
- C. Fabricate louvers with no intermediate mullions visible on the building exterior; finished appearance of continuous blades housed in a rectangular frame.
- D. Fabricate frames with weep holes at maximum 600 mm o.c. and positioned to direct water to building exterior.
- E. Fabricate frames with allowance for expansion at jambs and at maximum 6000 mm o.c.
- F. Louvers: Fixed horizontal drainable fixed louver Model A4097 by C-S Group.
  - 1. Frame 101.6 mm deep, minimum 2.06 mm thick.
  - 2. Continuous 38 mm by 38 mm fixing angle at jambs and head.
  - 3. Stainless steel fasteners.
  - 4. Minimum free area: 50.4 percent for nominal 1220 mm by 1220 mm louver.

### 2.04 FINISH

- A. Anodized Finish: Anodic oxide treatment, Aluminum Association designation C22A41, Clear Architectural Class I, 18 microns.

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**PART 3. EXECUTION**

3.01 INSTALLATION

- A. Submit templates and instructions where fastenings or anchors have to be built in under the Work of other Sections. Verify dimensions on Site before preparing drawings or proceeding with shop Work.
- B. Fasten louver to supporting structure plumb, level, true and secure, and in accordance with louver manufacturer's instructions. Make allowances for deflection of building structure and adjacent building components to prevent damage.

**END OF SECTION**

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<b>REVISION 0</b>	<b>SECTION 10520 PORTABLE FIRE AND SAFETY EQUIPMENT</b>	

**PART 1. GENERAL**

1.01 REFERENCES

- A. Comply with the latest edition of the following statutes codes and standards and all amendments thereto.
  - 1. National Fire Protection Association (NFPA):
    - a. No. 10, Standard for Portable Fire Extinguishers.
  - 2. Occupational Health and Safety Act.
  - 3. Underwriters Laboratories of Canada Inc. (ULC):
    - a. CAN/ULC S508, Standard for the Rating and Fire Testing of Fire Extinguishers

1.02 SUBMITTALS

- A. Action Submittals: Manufacturer's product data for each item including sizes, ratings, ULC listings, or other certifications, and mounting information.

**PART 2. PRODUCTS**

2.01 MULTI PURPOSE DRY CHEMICAL EXTINGUISHERS

- A. Stored pressure rechargeable type with hose and shut off nozzle, ULC labelled for A, B and C class protection. Size 4.5 kg.

2.02 IDENTIFICATION

- A. Identify extinguishers in accordance with recommendations of CAN/ULC S508.
- B. Attach tag or label to extinguishers, indicating month and year of installation. Provide space for service dates.

2.03 ACCESSORIES

- A. Fasteners: Furnish necessary screws, bolts, brackets, and other fastenings of suitable type and size to secure items of fire and safety equipment in position.
- B. Brackets: For all hand extinguishers not located in cabinets, furnish heavy-duty brackets with clip-together strap for wall mounting.

**PART 3. EXECUTION**

3.01 INSTALLATION - PORTABLE FIRE EXTINGUISHERS

- A. Provide at locations shown on drawings.
- B. Mount hangers securely in position, following manufacturer's recommendations.
- C. Top of Extinguisher: No more than 1370 mm above floor.

**END OF SECTION**

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**PART 1. GENERAL**

1.01 SUMMARY

- A. Comply with Division 1, General Requirements.

1.02 SCOPE OF WORK

- A. Supply and installation of loading dock bumpers.

1.03 SYSTEM DESCRIPTION

- A. Design for expansion and contraction of materials as required.

1.04 REFERENCES

- A. Comply with the latest edition of the following statutes codes and standards and all amendments thereto.
  1. ASTM A167 Standard Specification for Stainless and Heat Resisting Chromium - Nickel Steel Plate, Sheet, and Strip
  2. ASTM D1187 Standard Specification for Asphalt-Base Emulsions for Use as Protective Coatings for Metal
  3. CSA G40.21 General Requirements for Rolled or Welded Structural Quality Steel
  4. CSA W59 Welded Steel Construction (Metal Arc Welding)

1.05 SUBMITTALS

- A. Submit Shop Drawings:
  1. Indicate and describe in detail items of this Section.
  2. Include large-scale details of members and materials, anchorage devices where required, dimensions, thicknesses, description of materials, metal finishing specifications, and other pertinent information.
  3. Submit manufacturer's installation instructions.

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## **PART 2. PRODUCTS**

### **2.01 MATERIALS**

- A. Steel: CSA G40.21 Medium grade steel.
- B. Welding Materials: CSA W59.
- C. Zinc Rich Primer: Minimum 97 percent pure electrolytic zinc in dry film coating.
- D. Stainless Steel: ASTM A167 Type 302 alloy, No. 4 finish.
- E. Isolation Coating: ASTM D1187

### **2.02 MANUFACTURED UNITS**

- A. Loading Dock Bumpers: Laminated rubber, 140 mm thick x 250 mm high x 900 mm wide, complete with appropriate fasteners, by Blue Giant or Serco Ltd. Quantity – 2.

### **2.03 FABRICATION**

- A. Fabricate accessories true, square, rigid, free from distortion and from defects detrimental to appearance and performance.
- B. Form surfaces flat without distortion. Maintain flat surfaces without scratches or dents.
- C. Hot-dip galvanize ferrous metal anchors and fastening devices to CSA G164.
- D. Shop assemble components and package complete with anchors and fittings.
- E. Deliver inserts and rough-in frames to job Site at appropriate time for building-in. Submit templates or rough-in measurements as required.

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### **PART 3. EXECUTION**

#### **3.01 EXAMINATION**

- A. Examine surfaces to which Work is to be anchored or connected and job conditions.
- B. Report unsatisfactory conditions likely to prevent or prejudice proper installation of Work.
- C. Commence Work after unsatisfactory conditions are corrected.

#### **3.02 INSTALLATION**

- A. Provide units to manufacturers installation instructions.
- B. Back-paint metal surfaces in contact with dissimilar metals, masonry or concrete with 1.0 mm thick bituminous coating. Install items where indicated, securely fastened to the structure. Install items square, plumb and free from distortion.

**END OF SECTION**