

## **PART 1 - GENERAL**

### **1.1 PRECEDENCE**

- .1 For Federal Government projects, Division 1 Sections take precedence over technical specification sections in other Divisions of this Project Manual.

### **1.2 ADMINISTRATION**

- .1 This project is Phase 1 of a multiphase project. The Departmental Representative intends to apply for LEED® Canada NC 2009 Silver certification for Phase 3 of this project. LEED® is a rating system for new and existing buildings based on sustainable design principles. This Section includes general requirements and procedures for compliance with certain Canada Green Building Council's (CaGBC) LEED prerequisites and credits needed for the future Phase 3 of the Project to obtain LEED Silver certification:
  - .1 Other LEED prerequisites and credits needed to obtain LEED certification are dependent on material selections and may not be specifically identified as LEED requirements.
  - .2 Additional LEED prerequisites and credits needed to obtain indicated LEED certification are dependent on design and other aspects of the Project that are not identified in this Section.
- .2 No single manufacturer, supplier, fabricator or Subcontractor can fulfill total requirements for LEED Certification for the project; the Departmental Representative will assemble LEED information submitted for Phase 1 of the Project that will support LEED Requirements under Phase 3 and prepare required letters, calculations, and spreadsheets for submitting to Canada Green Building Council; LEED Certification requires cooperation and diligence of all project participants for a successful application and acceptance for LEED certification.
- .3 The list of targeted LEED credits is indicated in Schedule A of this section.

### **1.3 RELATED SECTIONS**

- .1 Section 01 33 00 - Submittal Procedures.
  - .2 Section 02 81 01 - Hazardous Materials.
  - .3 Section 01 47 15 - Sustainable Requirements: Construction.
  - .4 Section 01 74 21 - Construction / Demolition Waste Management and Disposal.
  - .5 Section 31 22 13 - Rough Grading.
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- .6 Section 31 23 33.01 - Excavating, Trenching and Backfilling.
- .7 Section 32 93 10 - Trees, Shrubs and Ground Cover Planting.

#### **1.4 REFERENCES**

- .1 Canada Green Building Council (CaGBC): LEED Green Building Rating System For New Construction and Major Renovations. LEED Canada NC 2009.
- .2 United States Environmental Protection Agency 2003 General Construction Permit.
- .3 United States Federal Trade Commission: 16 CFR 260.7 Trade Commission Guidelines for the Use of Environmental Marketing Claims.

#### **1.5 DEFINITIONS**

- .1 LEED - Leadership in Energy and Environmental Design.

#### **1.6 SUBMITTALS**

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
  - .2 Submit shop drawings and product data in accordance with Section 01 33 00 - Submittal Procedures.
  - .3 Submit additional LEED submittal requirements included in other sections in accordance with Section 01 33 00 - Submittal Procedures.
    - .1 When submitted items are duplicated to those submitted to comply with other requirements, submit duplicate copies as separate submittals for compliance with indicated LEED requirements.
  - .4 Submit Project Materials and Cost Data: provide statement for total cost of work in division 32 (Sections 32.10.00 Paving, 32.30.00 Site Improvements, and 32.90.00 Planting).
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- .5 LEED Documentation Submittals:
    - .1 Sustainable Sites Prerequisite SSp1 Construction Activity Pollution Prevention. Develop an erosion and sedimentation control drawing and/or a written erosion and sedimentation control plan with specifications that detail the erosion and sedimentation control best management practices used on the project site and the responsible parties for implementation. Over the course of site work activities, document implementation of the erosion and sedimentation control plan through date-stamped photos, inspection logs or reports, descriptions of corrective action in response to problems, etc. Complete Schedule C, this Section, on a regular basis, and before and after each forecasted rainfall of 10mm or greater, and submit copies as requested by Departmental Representative.
  
  - .6 The Contractor will be responsible for filling out and signing the following LEED® declarations as part of the LEED certification submission:
    - .1 Sustainable Sites Prerequisite 1 - Construction Activity Pollution Prevention.
  
  - .7 LEED® Construction Coordinator
    - .1 Designate an individual to be responsible for all aspects of LEED® coordination during construction to oversee material selection and sourcing, and waste tracking. The LEED® Construction Coordinator shall be responsible for:
      - .1 Coordinating, with the party responsible for implementation of Erosion and Sedimentation Control Plan, the collection of submission information including either:
        - .1 Date-stamped photos showing measures implemented and corrective action taken spread out over the site-work period. Inspections must occur once a month at a minimum OR,
        - .2 A declaration that periodic inspections took place and a summary report including sample dates, inspection frequency, and descriptions of corrective action taken.
      - .2 Preparing an itemized list of all materials that will be used in Divisions 31 and 32 (CSI MasterFormat 2004).
      - .3 Coordinating with the trades to select products and materials that meet the requirements specified herein.
      - .4 Providing product and material documentation submittals as detailed herein prior to the ordering of the product or material.
      - .5 Providing final material costs (excluding labour and equipment) for all products and materials that are included as part of the work covered by CSI MasterFormat 2004 Divisions 31 and 32 if deemed necessary by the Departmental Representative.
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- .6 Reporting products and material selection progress to the Departmental Representative.
- .7 Collection of waste tracking forms as outlined in Section 01 74 21 - Construction & Demolition Waste Management, and reporting waste diversion status to the Departmental Representative.
- .2 The LEED® Construction Coordinator is to be regularly on-site during construction.
- .8 LEED® kick-off meeting
  - .1 Prior to mobilization on-site, the LEED® Construction Coordinator shall hold a kick-off meeting with the Departmental Representative to review the product and material selection requirements. Include a review of:
    - .1 Product and material selection objectives.
    - .2 Product and material required documentation submittals.
    - .3 Product and material itemized costs (excluding labour and equipment).

## **1.7 MEETINGS**

- .1 A LEED Meeting is to be held at the completion of Phase 1 to review LEED requirements and submittals. LEED Meetings to be held every quarter for duration of projects, or more frequently as necessary.

## **PART 2 – PRODUCTS**

Not applicable

## **PART 3 - EXECUTION**

### **3.1 EROSION AND SEDIMENTATION CONTROL**

- .1 Create and implement a project-specific erosion and sedimentation control plan that meets the requirements of LEED Canada NC 2009 for all new construction activities associated with the project. The plan must incorporate practices such as phasing, seeding, grading, mulching, filter socks, stabilized site entrances, preservation of existing vegetation, and other best management practices (BMPs) to control erosion and sedimentation in runoff from the entire project site during construction. The plan must list the BMPs employed and describe how they accomplish the following objectives.
    - .1 Prevent loss of soil during construction by storm water runoff and/or wind erosion including protecting topsoil by stockpiling for reuse.
    - .2 Prevent sedimentation of storm sewer or receiving streams.
    - .3 Prevent polluting the air with dust and particulate matter.
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- .2 The erosion and sedimentation control plan must describe how the project team will do the following:
  - .1 Preserve vegetation and mark clearing limits.
  - .2 Establish and delineate construction access.
  - .3 Control flow rates.
  - .4 Install sediment controls.
  - .5 Stabilize soils.
  - .6 Protect slopes.
  - .7 Protect drain inlets.
  - .8 Stabilize channels and outlets.
  - .9 Control pollutants.
  - .10 Control dewatering.
  - .11 Maintain the BMPs.
  - .12 Manage the erosion and sedimentation control plan.

**Schedule A- Targeted LEED credits**

8		5		15		Possible Points: 28	
Y	?	N					
<input checked="" type="checkbox"/>			Prereq 1	Construction Activity Pollution Prevention			
<input checked="" type="checkbox"/>			Credit 1	Site Selection	1		
		<input checked="" type="checkbox"/>	Credit 2	Development Density and Community Connectivity	5		
		<input checked="" type="checkbox"/>	Credit 3	Brownfield Redevelopment	1		
		<input checked="" type="checkbox"/>	Credit 4.1	Alternative Transportation—Public Transportation Access	6		
		<input checked="" type="checkbox"/>	Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Room	2		
		<input checked="" type="checkbox"/>	Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	3		
		<input checked="" type="checkbox"/>	Credit 4.4	Alternative Transportation—Parking Capacity	2		
		<input checked="" type="checkbox"/>	Credit 5.1	Site Development—Protect or Restore Habitat	1		
		<input checked="" type="checkbox"/>	Credit 5.2	Site Development—Maximize Open Space	1		
		<input checked="" type="checkbox"/>	Credit 6.1	Stormwater Design—Quantity Control	1		
		<input checked="" type="checkbox"/>	Credit 6.2	Stormwater Design—Quality Control	1		
		<input checked="" type="checkbox"/>	Credit 7.1	Heat Island Effect—Non-roof	1		
		<input checked="" type="checkbox"/>	Credit 7.2	Heat Island Effect—Roof	1		
		<input checked="" type="checkbox"/>	Credit 8	Light Pollution Reduction	1		
		<input checked="" type="checkbox"/>	Credit 9	Tenant Design and Construction Guidelines	1		
<b>Water Efficiency Possible Points: 10</b>							
<input checked="" type="checkbox"/>			Prereq 1	Water Use Reduction—20% Reduction			
			Credit 1	Water Efficient Landscaping	2 to 4		
			Credit 2	Innovative Wastewater Technologies	2		
			Credit 3	Water Use Reduction	2 to 4		
<b>Energy and Atmosphere Possible Points: 37</b>							
<input checked="" type="checkbox"/>			Prereq 1	Fundamental Commissioning of Building Energy Systems			
<input checked="" type="checkbox"/>			Prereq 2	Minimum Energy Performance			
<input checked="" type="checkbox"/>			Prereq 3	Fundamental Refrigerant Management			
			Credit 1	Optimize Energy Performance	3 to 21		
			Credit 2	On-Site Renewable Energy	4		
			Credit 3	Enhanced Commissioning	2		
			Credit 4	Enhanced Refrigerant Management	2		
			Credit 5.1	Measurement and Verification—Base Building	3		
			Credit 5.2	Measurement and Verification—Tenant Submetering	3		
			Credit 6	Green Power	2		
<b>Materials and Resources Possible Points: 13</b>							
<input checked="" type="checkbox"/>			Prereq 1	Storage and Collection of Recyclables			
			Credit 1	Building Reuse—Maintain Existing Walls, Floors, and Roof	1 to 5		
			Credit 2	Construction Waste Management	1 to 2		
			Credit 3	Materials Reuse	1		
			Credit 4	Recycled Content	1 to 2		
			Credit 5	Regional Materials	1 to 2		
			Credit 6	Certified Wood	1		
<b>Indoor Environmental Quality Possible Points: 12</b>							
<input checked="" type="checkbox"/>			Prereq 1	Minimum Indoor Air Quality Performance			
<input checked="" type="checkbox"/>			Prereq 2	Environmental Tobacco Smoke (ETS) Control			
			Credit 1	Outdoor Air Delivery Monitoring	1		
			Credit 2	Increased Ventilation	1		
			Credit 3	Construction IAQ Management Plan—During Construction	1		
			Credit 4.1	Low-Emitting Materials—Adhesives and Sealants	1		
			Credit 4.2	Low-Emitting Materials—Paints and Coatings	1		
			Credit 4.3	Low-Emitting Materials—Flooring Systems	1		
			Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Product	1		
			Credit 5	Indoor Chemical and Pollutant Source Control	1		
			Credit 6	Controllability of Systems—Thermal Comfort	1		
			Credit 7	Thermal Comfort—Design	1		
			Credit 8.1	Daylight and Views—Daylight	1		
			Credit 8.2	Daylight and Views—Views	1		
<b>Innovation and Design Process Possible Points: 6</b>							
			Credit 1.1	Innovation in Design: Specific Title	1		
			Credit 1.2	Innovation in Design: Specific Title	1		
			Credit 1.3	Innovation in Design: Specific Title	1		
			Credit 1.4	Innovation in Design: Specific Title	1		
			Credit 1.5	Innovation in Design: Specific Title	1		
			Credit 2	LEED Accredited Professional	1		
<b>Regional Priority Credits Possible Points: 4</b>							
			Credit 1.1	Regional Priority: Specific Credit	1		
			Credit 1.2	Regional Priority: Specific Credit	1		
			Credit 1.3	Regional Priority: Specific Credit	1		
			Credit 1.4	Regional Priority: Specific Credit	1		
8		5		15		<b>Total Possible Points: 110</b>	
Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110							

Project Name: Southside Base CCG Reconstruction

Date: January 15, 2014

**Schedule C – Site Maintenance and Inspection Report: Erosion and Sedimentation Controls**

**Site Maintenance and Inspection Report**  
 Erosion and Sedimentation Controls

<b>Project</b>	<b>Southside Base CCG Reconstruction</b>		
Inspector's Name		Date and time of Inspection	
Phase of Work		Current weather	
Precipitation since previous inspection (mm)		Forecast	

**Maintenance of Erosion and Sedimentation Controls**

<b>Control Structure</b>	<b>Observation</b>	<b>Maintenance required?</b>	<b>Action Required</b>	<b>Action Complete Date</b>
Silt Fence	Silt at 1/3 height of fence? _ Yes _ No Properly Secured? _ Yes _ No Washout/Overtopping? _ Yes _ No	_Yes _ No _Yes _ No _Yes _ No		
General Comments:				