

Engineering Bulletin

05 April 2020

Facilities Engineering Assurance

FEA-009

Amendment Notice: Removal of LEED Mandatory Daylighting Credits

This bulletin applies to and amends the following document:

GO Design Requirements Manual (DRM), GO-DRM-STD-2017 Revision 3, dated February 2020

This Bulletin updates existing DRM (Feb. 2020) requirements for LEED mandatory daylighting credits.

The revised standard provides flexibility in project implementation to pursue the daylight credits where there are strategies to do so that aren't in conflict with other Metrolinx requirements and priorities.

The removal of these LEED mandatory daylighting credits offers savings on capital, operation and maintenance costs as the mitigation methods imposed by LEED per the existing standard could result in the need for manual blinds or low-sun shading devices.

Amendments to the DRM are provided in the following attachment:

Revisions to GO DRM Feb. 2020 - Removal of LEED Mandatory Daylighting Credits.

On MyLinx, the Bulletin is located on the Go Manual page.

The Bulletin is also available for external users to download via the Metrolinx public download site (http://www.gosite.ca/engineering_public/).

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Attachment:

Revisions to GO DRM Feb. 2020- Removal of LEED Mandatory Daylighting Credits

Figure 30: Conceptual Interior Elevator Cab Application (Diagram only)

8 Heavy Rail

For Heavy Rail, the reference should be made to the GO Transit Track Standards, and GO Transit Track Standard Plans.

9 Information technology; Telecommunication & Systems

For all IT Telecommunication and Systems requirements refer to the I&IT Standard Telecommunication and Systems document.

10 Appendix A – LEED Mandatory Credits

10.1 How to Use the GO LEED Mandatory Credit Checklist

Mandatory credits have been established for each building type to ensure that credits that are important to GO Transit's goals of energy efficiency and reduced operating and maintenance costs are targeted, integrated into the design early and achieved.

Designers are to incorporate LEED certification and the GO Transit Mandatory credits into each project's scope of work. For projects pursuing certification under LEED v.4, Gold certification is preferred, Silver certification is the minimum requirement and shall follow LEED v.4 mandatory credit tables. Projects that qualify for LEED 2009 shall attain LEED Gold certification and follow LEED 2009 mandatory credit tables. LEED has five key areas under which credits are obtained. These are:

- Sustainable Sites;
- · Water Efficiency;
- Energy & Atmosphere;
- · Materials & Resources and
- Indoor Environmental Quality.

Each area has Prerequisites that the project must achieve in order to consider going for LEED certification, these are non-negotiable. There is also an Innovation & Design section where innovative systems not accounted for elsewhere, exemplary performance and operational procedures can be considered for a credit. Each credit is worth anywhere from one to nineteen points, the number of points obtained determines the LEED rating achieved.

In order to achieve LEED Gold certification, anywhere between sixty (60) and seventy nine (79) points must be granted by the Canadian Green Building Council (CaGBC). It is recommended that sixty five points are targeted on each project pursuing Gold certification since the CaGBC is the final arbiter on which points are granted, so some points may be lost.

The GO LEED credit checklists that follow indicate the Prerequisites and GO Transit Mandatory credits

which must be targeted and achieved. There are additional columns indicating optional points for consideration from which the shortfall can be made, credits that are not to be pursued are also identified in the checklist.

10.2 LEED v.4 Mandatory Credits

Table 60: Appendix A – LEED v.4 Mandatory Credits for GO Stations

	Mandatory	Optional	Not to be Pursued	Project Totals (pre-certification estimates): 110 Points Certified: 40-49 points Silver: 50-59 points Gold: 60-79 points	Available Points
3	7 39 5	3 51	20	Platinum: 80 points and above	110
	0	1	0	INTEGRATIVE PROCESS (IP)	1
	0	1	0	Integrative Process	1

0	14	2	LOCATION AND TRANSPORTATION (LT)	16
0	0	16	LEED for Neighborhood Development Location	16
0	1	0	Sensitive Land Protection	1
0	2	0	High-Priority Site	2
0	5	0	Surrounding Density and Diverse Uses	5
0	5	0	Access to Quality Transit	5
0	0	1	Bicycle Facilities	1
0	0	1	Reduced Parking Footprint	1
0	1	0	Green Vehicles	1

1	9	0	SUSTAINABLE SITES (SS)	10
PREREQUISITE		ITE	Construction Activity Pollution Prevention	

0	1	0	Site Assessment	1
0	2	0	Site Development - Protect or Restore Habitat	2
0	1	0	Open Space	1
0	3	0	Rainwater Management	3
0	2	0	Heat Island Reduction	2
1*	0	0	Light Pollution Reduction	1

6	3	2	WATER EFFICIENCY (WE)	11
PREREQUISITE			Outdoor Water Use Reduction	
PREREQUISITE			Indoor Water Use Reduction	
PREREQUISITE			Building-Level Water Metering	
2	0	0	Outdoor Water Use Reduction	2
3	3	0	Indoor Water Use Reduction	6
0	0	2	Cooling Tower Water Use	2
1	0	0	Water Metering	1

 $^{^{\}star}$ Recognition that in some situations this is not applicable. If credit not targeted, consultant to demonstrate why it cannot be achieved.

15	8	10	ENERGY & ATMOSPHERE (EA)	33
PREREQUISITE		ITE	Fundamental Commissioning and Verification	
PREREQUISITE		ITE	Minimum Energy Performance	
PREREQUISITE			Building Level Metering	
PREREQUISITE			Fundamental Refrigerant Management	
6	0	0	Enhanced Commissioning	6
7	3	8	Optimize Energy Performance	18

1	0	0	Advanced Energy Metering	1
0	0	2	Demand Response	2
0	3	0	Renewable Energy Production	3
1	0	0	Enhanced Refrigerant Management	1
0	2	0	Green Power and Carbon Offsets	2

5	3	5	MATERIALS & RESOURCES (MR)	13
PREREQUISITE			Storage & Collection of Recyclables	
PREREQUISITE			Construction and Demolition Waste Management Planning	
0	3	2	Building Life-Cycle Impact Reduction	5
1	0	1	Building Product Disclosure and Optimization - Environmental Product Declarations	2
1	0	1	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
1	0	1	Building Product Disclosure and Optimization - Material Ingredients	2
2	0	0	Construction and Demolition Waste Management	2

6	<u></u> 8	9 7	1	INDOOR ENVIRONMENTAL QUALITY (EQ)	16
	PRE	REQUIS	SITE	Minimum Indoor Air Quality Performance	
	PRE	REQUIS	SITE	Environmental Tobacco Smoke (ETS) Control	
	0	2	0	Enhanced Indoor Air Quality Strategies	2
	2	1	0	Low-Emitting Materials	3
	1	0	0	Construction IAQ Management Plan	1
	0	2	0	Indoor Air Quality Assessment	2

1	0	0	Thermal Comfort	1
2	0	0	Interior Lighting	2
20) <mark>9</mark> 2	1	Daylight	3
0	1	0	Quality Views	1
0	1	0	Acoustic Performance	1

4	2	0	INNOVATION (IN)	6
3	2	0	Innovation	5
1	0	0	LEED Accredited Professional	1

0	4	0	REGIONAL PRIORITY (RP)	4
0	4	0	Regional Priority Credit	4

Table 61: Appendix A – LEED v.4 Mandatory Credits for GO Maintenance Facilities

Mandatory	Optional	Not to be Pursued	Project Totals (pre-certification estimates): 110 Points Certified: 40-49 points Silver: 50-59 points Gold: 60-79 points Platinum: 80 points and above	Available Points
38	61	11		110
0	1	0	INTEGRATIVE PROCESS (IP)	1
0	1	0	Integrative Process	1

1	15	0	LOCATION AND TRANSPORTATION (LT)	16
0	0	16	LEED for Neighborhood Development Location	16
0	1	0	Sensitive Land Protection	1
0	2	0	High-Priority Site	2

0	5	0	Surrounding Density and Diverse Uses	5
0	5	0	Access to Quality Transit	5
0	1	0	Bicycle Facilities	1
0	1	0	Reduced Parking Footprint	1
1	0	0	Green Vehicles	1

2	8	0	SUSTAINABLE SITES (SS)	10
PRE	PREREQUISITE		Construction Activity Pollution Prevention	
0	0 1 0		Site Assessment	1
0	2	0	Site Development - Protect or Restore Habitat	2
1	0	0	Open Space	1
0	3	0	Rainwater Management	3
0	2	0	Heat Island Reduction	2
1	0	0	Light Pollution Reduction	1

5	6	0	WATER EFFICIENCY (WE)	11
PRE	PREREQUISITE		Outdoor Water Use Reduction	
PRE	REQUI	SITE	Indoor Water Use Reduction	
PRE	PREREQUISITE		Building-Level Water Metering	
2	0	0	Outdoor Water Use Reduction	2
2	4	0	Indoor Water Use Reduction	6
0	2	0	Cooling Tower Water Use	2
1	0	0	Water Metering	1

15	15	3	ENERGY & ATMOSPHERE (EA)	33
PREREQUISITE			Fundamental Commissioning and Verification	
PRE	REQUI	SITE	Minimum Energy Performance	
PRE	REQUI	SITE	Building Level Metering	
PRE	REQUI	SITE	Fundamental Refrigerant Management	
6	0 0		Enhanced Commissioning	6
7	8	3	Optimize Energy Performance	18
1	0	0	Advanced Energy Metering	1
0	2	0	Demand Response	2
0	3	0	Renewable Energy Production	3
1	0	0	Enhanced Refrigerant Management	1
0	2	0	Green Power and Carbon Offsets	2

5	3	5	MATERIALS & RESOURCES (MR)	13
PRE	PREREQUISITE		Storage & Collection of Recyclables	
PRE	PREREQUISITE		Construction and Demolition Waste Management Planning	
0	3	2	Building Life-Cycle Impact Reduction	5
1	0	1	Building Product Disclosure and Optimization - Environmental Product Declarations	2
1	0	1	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
1	0	1	Building Product Disclosure and Optimization - Material Ingredients	2
2	0	0	Construction and Demolition Waste Management	2

6	7	3	INDOOR ENVIRONMENTAL QUALITY (EQ)	16
PREREQUISITE		SITE	Minimum Indoor Air Quality Performance	
PRE	REQUI	SITE	Environmental Tobacco Smoke (ETS) Control	
0	2	0	Enhanced Indoor Air Quality Strategies	2
2	1	0	Low-Emitting Materials	3
1	0	0	Construction IAQ Management Plan	1
0	2	0	Indoor Air Quality Assessment	2
1	0	0	Thermal Comfort	1
1	1	0	Interior Lighting	2
1	0	2	Daylight	3
0	0	1	Quality Views	1
0	1	0	Acoustic Performance	1
	•			
4	2	0	INNOVATION (IN)	6
3	2	0	Innovation	5
1	0	0	LEED Accredited Professional	1
0	4	0	REGIONAL PRIORITY (RP)	4
0	4	0	Regional Priority Credit	4