



For Office Use Only			
Reference Number	Payment Received	Date (yyyy/mm/dd)	Initials
	\$		

Application Summary

Applicant Name (Legal name of individual or organization as evidenced by legal documents)

Northland Power Solar Long Lake LP

Project Name (Project identifier to be used as a reference in correspondence)

Long Lake Solar Project

Project Description Summary (This summary should reflect the description in the documents upon which consultation has been completed and if it does not the difference should be highlighted)

Northland proposes to construct a storage building at the facility.

Supplemental Application Information (Provide any other information that might be relevant to your application)

Note: This form has been save-enabled. you can save a copy of this form that includes any information you have entered.

Additional instructions and information on how to complete the application form can be found in the accompanying "Guide for Completing the Renewable Energy Approval Application".

Section 1 – Applicant Information**1.1 – Applicant Information (Owner of works/facility)**

Applicant Name (Legal name of individual or organization as evidenced by legal documents) Northland Power Solar Long Lake GP	Business Identification Number 191204528
Business Name (The name under which the entity is operating or trading, also referred to as trade name)	<input checked="" type="checkbox"/> Same as Applicant Name

Applicant Type

<input type="checkbox"/> Corporation	<input type="checkbox"/> Federal Government	<input type="checkbox"/> Individual	<input type="checkbox"/> Municipal Government
<input checked="" type="checkbox"/> Partnership	<input type="checkbox"/> Provincial Government	<input type="checkbox"/> Sole Proprietor	
<input type="checkbox"/> Other (describe):			

North American Industry Classification System (NAICS) Code

221119

Business Activity Description (A description of the business endeavour, this may include products sold, services provided or machinery/equipment used, etc.)

Long Lake is a 10MW solar farm**1.2 – Applicant Physical Address****Civic Address**

Unit Number	Street Number 30	Street Name (Include type and direction) St. Clair Avenue West, 12th Fl	Province ON – Ontario	Postal Code M4V 3A1
City/Town Toronto				

Survey Address (Not required if the Civic Address is provided)

Lot/Part	Concession/Reference Plan	Municipality/Unorganized Township
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County/District	Province/State	Country	Postal Code
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Telephone Number (incl. area code) 416 288-1103	ext.	Fax Number (incl. area code)	Mobile Number (incl. area code) 416 889-6351
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Email Address

jon.arkell@northlandpower.com**1.3 – Applicant Mailing Address** Same as Applicant Physical Address**Civic Address**

Unit Number	Street Number	Street Name (Include type and direction)	PO Box
City/Town/Municipality/Unorganized Township			Province/State
Country			Postal Code
Delivery Designator	Delivery Identifier	Postal Station	

1.4 – Statement of Applicant**I, the undersigned hereby declare that, to the best of my knowledge:**

- The information contained herein is complete and accurate in every way and I am aware of the penalties against providing false information as per s.184(2) of the *Environmental Protection Act*;
- I understand that by submitting this form, I am guaranteeing the completeness and accuracy of all the information provided on this form and included in the draft reports. Failure to submit the correct information will result in an incomplete application being returned;
- The Project Technical Information Contact identified below is authorized to act on my behalf for the purpose of obtaining approval under section 47.3 of the EPA for the Project identified herein.

Name of Signing Authority (Please print) (Last name, first name)

Jim Mulvale

Title

Sr. Director, EH&S

Telephone Number (incl. area code) 647 288-1273	ext.	Fax Number (incl. area code) 416 962-6266	Mobile Number (incl. area code) 416 662-1437
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Email Address

jim.mulvale@northlandpower.ca

Signature

Date (yyyy/mm/dd)

2011/07/23

Section 2 – Project Information

2.1 – Application Type

New Renewable Energy Approval

Amendment to existing Renewable Energy Approval
Provide existing Renewable Energy Approval Number

Application Initiated by

- Applicant
- Environmental Approvals Branch/Environmental Approvals Access and Service Integration Branch
- Provincial Officer Order (attach copy)
- Other (describe):

Relevant pre-submission rules subject to/elected (please select one of the following)

Notice of Proposal to Engage and if applicable, Notice of First Public Meeting, distributed on or before December 31, 2010.	<input type="checkbox"/> 2010 Rules <input type="checkbox"/> Elect into one or more 2011 Rules <input type="checkbox"/> Elect into Current Rules	If "Elect into one or more 2011 Rules", please specify which rules
Notice of Proposal to Engage and Notice of First Public Meeting (or if public meeting not required, drafts of the documents identified in paragraphs 1 and 2 of subsection 18(2) of the Regulation) distributed after December 31, 2010 and on or before July 1, 2012.	<input type="checkbox"/> 2011 Rules <input type="checkbox"/> Elect into Current Rules	
Notice of Proposal to Engage or Notice of First Public Meeting distributed after July 1, 2012.	<input type="checkbox"/> Current Rules	

Current Environmental Compliance Approvals (please attach a separate list if more space is required)

Environmental Compliance Approval Number 8430-9AEQ6M	Date of Issue (yyyy/mm/dd) 2013/08/29
Environmental Compliance Approval Number 8430-9AEQ6M	Date of Issue (yyyy/mm/dd) 2014/10/23
Environmental Compliance Approval Number	Date of Issue (yyyy/mm/dd)
Environmental Compliance Approval Number	Date of Issue (yyyy/mm/dd)

Current Permit(s) to Take Water (please attach a separate list if more space is required)

Permit Number	Date of Issue (yyyy/mm/dd)
Permit Number	Date of Issue (yyyy/mm/dd)
Permit Number	Date of Issue (yyyy/mm/dd)
Permit Number	Date of Issue (yyyy/mm/dd)

Project Schedule

Estimated date for start of construction/installation (yyyy/mm/dd) Upon approval REA amendment	Estimated date for start of operation (yyyy/mm/dd) 3 months following REA amendment approval
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2.2 – Statement of Project Technical Information Contact

The Project Technical Information Contact is the same as the Applicant (Identified in Section 1);

I, the undersigned hereby declare that, to the best of my knowledge:

- The information contained herein and the information submitted in support of this application (electronically and in hard copy) is complete and accurate in every way and I am aware of the penalties against providing false information as per s 184(2) of the *Environmental Protection Act*.
- I understand that by submitting this form, I am guaranteeing the completeness and accuracy of this form and the draft documents. Failure to submit the correct information will result in the application being returned as incomplete.
- That the information contained in the electronically submitted application form is the same as the information submitted in the hard copy submission.
- I have used the most recent application form (as obtained from the 'Renewable Energy Approvals' section of the Ministry of the Environment and Climate Change website at <http://www.ontario.ca/environment-and-energy/renewable-energy-approvals> or from the Environmental Approvals Access and Service Integration Branch at 1 800 461-6290).

Name of Project Technical Information Contact (Please print) (Last name, first name)

Jon Arkell

Company

Northland Power

Telephone Number (incl. area code)

647 288-1103

ext

Fax Number (incl. area code)

416 962-6266


Mobile Number (incl. area code)

416 889-6351

Email Address

jon.arkell@northlandpower.ca

Signature (hard copy submission **MUST** be signed)



Date (yyyy/mm/dd)

2019/07/23

Address

The Project Technical Information Contact Address is the same as the Applicant (Identified in Section 1)

Unit Number

Street Number

30

Street Name (Include type and direction)

St. Clair Avenue W, 12th Floor

PO Box

City/Town/Municipality/Unorganized Township

Toronto

Province/State

ON

Country

Canada

Postal Code

M4V 3A1

Delivery Designator

Delivery Identifier

Postal Station

2.3 – Other Approvals for Facility (Please attach a separate list if more space is required)

A separate list is attached

List all other environmental approvals/permits applied for related to this project or received in relation to this project

Approval Number

Approval Date (yyyy/mm/dd)

Approval Number

Approval Date (yyyy/mm/dd)

Approval Number

Approval Date (yyyy/mm/dd)

Approval Number

Approval Date (yyyy/mm/dd)

Ontario Power Authority Reference (i.e. FIT) Number (if applicable)

2.4 – Type of Renewable Energy Generation Facility (Select all that apply)

Wind

Class 2

Class 3

Class 4

Class 5

Other

Biofuel

Biogas

Other (if other please describe)

Anaerobic Digestion

Class 1

Class 2

Class 3

Solar Photovoltaic

Class 3

Thermal Treatment

Class 1

Class 2

Class 3

2.5 – Generation of Electricity

Total Maximum Name Plate Capacity

10

MW (1 MW = 1000 kW / 1 kW = 0.001 MW)

Total Expected Generation Capacity

10

MW (1 MW = 1000 kW / 1 kW = 0.001 MW)

Days and Hours of Operation

24/7 (sunlight hours)

Section 3 – Site Information

3.1 – Project Location (The site/location where project will be located)

The Project Location is the same as the Applicant's Address (Identified in Section 1)

Civic Address

Unit Number	Street Number	Street Name (Include type and direction)	Province	Postal Code
City/Town				

Survey Address (Not required if the Civic Address is provided)

Lot/Part	Concession/Reference Plan	Municipality/Unorganized Township	Postal Code
Part Lots 2 and 3	8	Township of Calder	P0L 1C0
County/District	Province/State	Country	
Cochrane district	ON	Canada	

Non Address Information (where the project spans many locations or a large rural area, specify how the project area relates to the address provided)

The Project is located on ~123 ha of land on a property associated with the above address. UTM below is the facility's main transformer location.

Geo Reference (Southwest corner of property)

Map Datum	Zone	Accuracy Estimate
NAD83	15	+/- 10m
Geo Referencing Method	UTM Easting	UTM Northing
GIS mapping	479583.5	5443554.4

3.2 – Municipal or Local Authority Information (List all municipal or board authorities where the project is located. Attach a separate list if more space is necessary.)

Local Municipality (include each Single Tier or Lower Tier in which the project location is situated) / Unorganized Township

Name of Municipality/Unorganized Township

Unorganized Township of Calder

Address

Unit Number	Street Number	Street Name (Include type and direction)	PO Box
		N/A	
City/Town			Postal Code

Telephone Number (incl. area code)	Fax Number (incl. area code)	Mobile Number (incl. area code)

Email Address

Clerk

Last Name	First Name	Middle Initial
N/A		
Telephone Number (incl. area code)	Email Address	

Is the project location situated in one or more Upper Tier Municipality? (i.e., county, regional or district municipality)

Yes No

Is the project location situated in a Local Roads area?

Yes No

Is the project location in a Local Service Board area?

Yes No

3.3 – Site Information (Information about the site/location where project will be located)

Site Name

MOE District Office

Long Lake Solar Project

Timmins District Office

Is any portion of the Project location on federally owned land or a reserve?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is any portion of the Project location on Crown Land?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the Project location that is the subject of this application owned by the Applicant? If "no", please attach the owner's name, address and a signed letter granting consent for the installation and operation of the facilities.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the Applicant the operating authority of the facility that is the subject of this application? If "no", please attach the operating authority name, address and phone number.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the Project location in the area of the Niagara Escarpment Plan?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the Project location in the area subject to the Oak Ridges Moraine Conservation Plan?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the Project location in the Protected Countryside as shown in Schedule 1 to the Greenbelt Belt Plan?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the Project location in the Lake Simcoe Watershed as defined in the <i>Lake Simcoe Protection Act, 2008</i> ?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the Project location in the Central Pickering Development Planning Area as shown in Schedule 1 to the Central Pickering Development Plan?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Has an Archaeological Report (s. 22) been prepared as part of the complete submission?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Has a Heritage Report (s 23) been prepared as part of the complete submission?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Has an Environmental Impact Study Report (s.38, s. 41 or s. 43) been prepared as part of the complete submission?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Has a Water Assessment Report or supplementary reporting on any additional mitigation (s.39, s. 40, s.44 s. 45) been prepared as part of the complete submission?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Does the Project require any authorizations under the <i>Endangered Species Act, 2007</i> ?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
If "yes" have they been obtained from the Ministry of Natural Resources?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Section 4 – Supporting Documents

4.1 – Supporting Documentation and Technical Requirements

This is a list of all supporting information to this application and is subject to the FIPPA and EBR.

Mandatory	Attachment	Attached	Reference	Confidential*
Yes	Proof of Legal Name of Applicant.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Always Mandatory	<input type="checkbox"/>
Yes	A map that identifies the project location	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Always Mandatory	<input type="checkbox"/>
	Name, Address and Phone Number of the Operating Authority.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Mandatory if applicant not operating authority.	<input type="checkbox"/>
	Name, Address and consent of land/site owner for the installation/construction and operation of the facility.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Mandatory if applicant not landowner	<input type="checkbox"/>
Yes	Project Description Report.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Mandatory	<input type="checkbox"/>
Yes	Design and Operations Report.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Mandatory for all but Class 2 Wind Facility.	<input type="checkbox"/>
Yes	Decommissioning Plan Report.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Mandatory for all but Class 2 Wind Facility.	<input type="checkbox"/>
Yes	Construction Plan Report.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Mandatory for all but Class 2 Wind Facility.	<input type="checkbox"/>
Yes	Consultation Report.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Mandatory for all but Class 2 Wind Facility.	<input type="checkbox"/>
	Development Permit under the <i>Niagara Escarpment Planning and Development Act</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Mandatory where permit required by NEC.	<input type="checkbox"/>
Yes	A copy of this application has been sent to the Ministry local district office(s).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Always Mandatory	<input type="checkbox"/>
	Report(s) that sets out a description of and rationale for the proposed change or alteration.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Mandatory for Amendment to REA applications.	<input type="checkbox"/>
	Document(s) required under Part IV the Regulation to be submitted as part of the application (list below).	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/>
	Document(s) required for the purposes of obtaining an exemption from a provision of Part V of the Regulation (list below).	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/>

Other Information Submitted in Support of the Application for the issue of a new, or amendment to an existing, Renewable Energy Approval, including any document that is required under Part IV of the Regulation and/or for the purposes of obtaining an exemption from a provision of Part V of the Regulation

Title	Reference	Confidential*
All documents submitted with original application.		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>

Are you attaching an additional list of documents? Yes No

If there is not enough space to list all of the attached documents included in this application package, please include an additional listing of these attachments.

*Note: The collection of personal information in this application is necessary to administer the Ministry's approvals program, which is authorized pursuant to the *Environmental Protection Act*. The personal information collected in this application will be used to administer the program, including for the purposes of the Ministry's compliance and enforcement activities under the aforementioned acts, and for the purposes of making information in respect of the Renewable Energy Approval available to the public with the exception of payment information. Questions about the collection of the information can be directed to a Client Service Representative, Environmental Approvals Access and Service Integration Branch, 135 St. Clair Avenue West, 1st Floor, Toronto Ontario M4V 1P5. Telephone outside Toronto 1 800 461-6280 or in Toronto 416 314-8001 or Fax 416 314-8452.



Project Modification Document

Long Lake Solar Project

July 22, 2019

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1.0 Introduction

The Long Lake Solar Project (“the Project”) was developed in 2013 by Northland Power Inc. on behalf of Northland Power Solar Long Lake G.P. (“Northland”) under Renewable Energy Approval Number 8430-9AEQ6M on August 29, 2013, as amended October 23, 2014.

Since beginning commercial operation, a need for a storage building has been identified that was not contemplated during the development of the project. Heavy snow accumulation on the solar panels during the winter has significant negative impact on the facility’s production levels and as a result Northland has utilized mechanical snow removal equipment at the Project site to mitigate further impacts to performance. Northland is proposing to construct a steel storage building to house this snow removal equipment. The building is to be of steel construction with a concrete slab base and will be located in a previously disturbed area of the site in close proximity to the existing maintenance building. This report summarizes the proposed changes to the project that necessitate an amendment of the REA. This includes the rationale for the change and will identify amendments to be made to the REA’s supporting documents if necessary.

2.0 Proposed Project Change

Appendix A contains a site plan drawing indicating the approximate location of the proposed storage building.

2.1 Change

Installation of a storage building at the Project site. The building is to be of steel construction with a concrete slab base and have a footprint of 7.3 m x 13.7 m and a height of 4.9 m. A manufacturer's brochure depicting the general design of the building is provided in *Appendix B*.

The building may be equipped with a propane heater, but no air conditioning or ventilation ducts are to be installed. Construction will occur in a previously disturbed area near the existing maintenance building.

2.2 Rational for Change

A storage building is required to house snow removal equipment.

2.3 Addition Environmental Risks and Mitigation

The building may be equipped with a propane heater, but no air conditioning or ventilation ducts are to be installed. Construction will occur in a previously disturbed area near the existing maintenance building. Construction will require some minor grading to prepare the gravel base for the building and will occur over the course of approximately 1 week using heavy equipment once the amended REA is obtained.

3.0 Summary of Revisions to REA Supporting Documents

This section addresses amendments to the supporting documents submitted with the REA application necessitated by the changes proposed in this document.

3.1 Construction Plan Report

Page	Section	Original Text	Amended Text
11	2.3.2.1	Foundation construction for electrical equipment, substation, and oil containment basin comprises of excavation and removal of in situ material, placement of granular material, formwork, reinforcing steel,	Foundation construction for electrical equipment, substation, storage building , and oil containment basin comprises of excavation and removal of in situ material, placement of granular material, formwork, reinforcing

		grounding and placement of concrete.	steel, grounding and placement of concrete.
12	2.3.2.7	Not applicable – New Section	Storage Building A storage building may be installed at the Project site to house maintenance equipment. The building will have approximate footprint of 7.3 m x 13.7 m and a height of 4.9 m and will be of steel construction with a concrete slab floor.

3.2 Design and Operation Report

Page	Section	Original Text	Amended Text
11	2.3.2.1	Foundation construction for electrical equipment, substation, and oil containment basin comprises of excavation and removal of in situ material, placement of granular material, formwork, reinforcing steel, grounding and placement of concrete.	Foundation construction for electrical equipment, substation, storage building , and oil containment basin comprises of excavation and removal of in situ material, placement of granular material, formwork, reinforcing steel, grounding and placement of concrete.

3.4 Decommissioning Report

No material changes.

3.5 Heritage Assessment Report

No material changes

3.6 Project Description Report

7	3.2.1.4	Foundation construction for electrical equipment, substation, and oil containment basin comprises of excavation and removal of in situ material, placement of granular material,	Foundation construction for electrical equipment, substation, storage building , and oil containment basin comprises of excavation and removal of in situ material, placement of granular

		formwork, reinforcing steel, grounding and placement of concrete.	material, formwork, reinforcing steel, grounding and placement of concrete.
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3.7 Protected Properties Assessment

No material changes.

3.8 Water Assessment Report

No material changes.

3.9 Natural Heritage Assessment and Environmental Impact Study

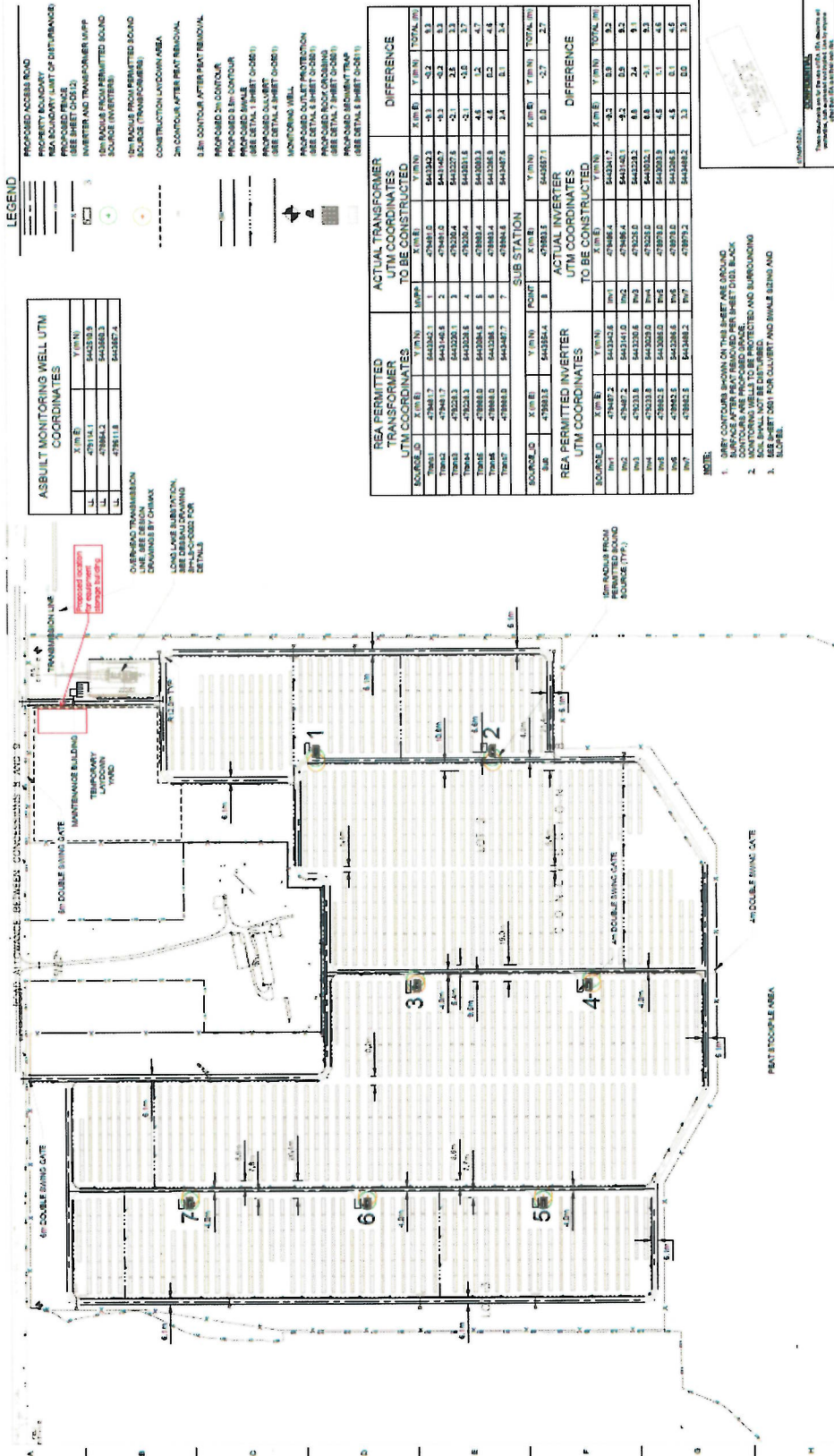
No material changes.

3.10 Noise Assessment Study Report

No material changes. No noise emitting equipment will be installed or moved as a result of the changes proposed in the document.

Appendix A

Site Plan



ASBUILT MONITORING WELL UTM COORDINATES

S/L	X (M E)	Y (M N)
1	479141.1	544318.9
2	479141.2	544318.3
3	479111.8	54387.4

- LEGEND**
- PROPOSED ACCESS ROAD
 - PROPERTY BOUNDARY
 - PROPOSED PERMITS OF DISTURBANCE
 - PROPOSED FENCE
 - PROPOSED LUMP
 - INVERTER AND TRANSFORMER LUMP
 - 5M RADIUS FROM PERMITTED SOUND SOURCE (INVERTER)
 - 5M RADIUS FROM PERMITTED SOUND SOURCE (TRANSFORMER)
 - CONSTRUCTION LAYDOWN AREA
 - 2M CONTOUR AFTER PEAT REMOVAL
 - 3M CONTOUR AFTER PEAT REMOVAL
 - PROPOSED 2M CONTOUR
 - PROPOSED 3M CONTOUR
 - PROPOSED SHALE
 - PROPOSED SLOTTED DRAIN
 - PROPOSED OUTLET
 - MONITORING WELL
 - PROPOSED OUTLET PROTECTION
 - PROPOSED MOUND TRAP
 - PROPOSED MOUND TRAP

OVERHEAD TRANSMISSION LINE

S/L	X (M E)	Y (M N)
1	479141.1	544318.9
2	479141.2	544318.3
3	479111.8	54387.4

LONG LINE SUBSTATION, OVERHEAD TRANSMISSION LINE, AND SHALE DETAILS SEE SHEET 110-01-022

REACTOR TRANSFORMER UTM COORDINATES TO BE CONSTRUCTED

SOURCE ID	X (M E)	Y (M N)	POINT	X (M E)	Y (M N)	DIFFERENCE
TR001	479141.1	544318.9	1	479141.2	544318.3	-0.1
TR002	479141.2	544318.3	2	479141.1	544318.9	-0.1
TR003	479141.2	544318.3	3	479141.1	544318.9	-0.1
TR004	479141.2	544318.3	4	479141.1	544318.9	-0.1
TR005	479141.2	544318.3	5	479141.1	544318.9	-0.1
TR006	479141.2	544318.3	6	479141.1	544318.9	-0.1
TR007	479141.2	544318.3	7	479141.1	544318.9	-0.1
TR008	479141.2	544318.3	8	479141.1	544318.9	-0.1

ACTUAL INVERTER UTM COORDINATES TO BE CONSTRUCTED

SOURCE ID	X (M E)	Y (M N)	POINT	X (M E)	Y (M N)	DIFFERENCE
IN001	479141.1	544318.9	1	479141.2	544318.3	-0.1
IN002	479141.2	544318.3	2	479141.1	544318.9	-0.1
IN003	479141.2	544318.3	3	479141.1	544318.9	-0.1
IN004	479141.2	544318.3	4	479141.1	544318.9	-0.1
IN005	479141.2	544318.3	5	479141.1	544318.9	-0.1
IN006	479141.2	544318.3	6	479141.1	544318.9	-0.1
IN007	479141.2	544318.3	7	479141.1	544318.9	-0.1
IN008	479141.2	544318.3	8	479141.1	544318.9	-0.1

NOTES:

- DATE CONTOURS SHOWN ON THIS SHEET ARE GROUND SURFACE AFTER PEAT REMOVAL PER SHEET 110-01-022.
- MONITORING WELLS TO BE PROTECTED AND SURROUNDING SOIL SHALL NOT BE DISTURBED.
- MONITORING WELLS TO BE PROTECTED AND SURROUNDING SOIL SHALL NOT BE DISTURBED.

<p>Stantec Stantec Consulting Ltd. 100 King Street West Toronto, ON M5X 1C4</p>	<p>Scale: AS SHOWN</p> <p>Drawn by: M. BERGHAUPT</p> <p>Approved by: P. FRIGLER</p> <p>Date: 2014-09-22</p>	<p>Northland Power SOLAR PLANT CIVIL CONSTRUCTION DRAWINGS CIVIL SITE AND GRADING PLAN</p>	<p>The:</p> <p>Long Lake SOLAR PLANT CIVIL CONSTRUCTION DRAWINGS CIVIL SITE AND GRADING PLAN</p>	<p>WSP Parsons Brinckerhoff Sole Project</p>	<p>Project: Northland Power SOLAR PLANT CIVIL CONSTRUCTION DRAWINGS CIVIL SITE AND GRADING PLAN</p> <p>Sheet: 40066-003 Sheet of 01</p> <p>Drawn: LL-SF-CHD101 AS-2</p>
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Appendix B

Manufacturer's Brochure



**NORSTEEL
BUILDINGS**

***EasyBuild* Steel Building**



1-866-822-4022

1405 Denison Street, Markham, Ontario L3R 5V2



Introducing Norsteel's **EasyBuild**

The one true
**Do-it-Yourself
Metal Building
Solution**

Welcome to Norsteel! This brochure is designed to introduce you to our new **EasyBuild** Steel Building from "the ground up". Starting with the framing of the building, we will take you through the walls, trim, and up to the roof. You will gain an understanding of the unique benefits that our **EasyBuild** system will provide: **Affordability**, and it's Do-it-Yourself construction; all without sacrificing on durability, strength and quality. You will also be able to view our **EasyBuild** throughout the publication, in a variety of colour options.

Call Norsteel today. We are your Metal Building Solution.

- Introduction 2
- Framing 3
- Framing Diagram 4-5
- Sidewalls..... 6
- Roof..... 7
- Trim..... 8
- Affordability** 9
- DIY..... 10
- Warranties 11
- Colors 11

EasyBuild FRAMING SYSTEM

Our buildings have a hot-dip galvanized steel frame. All primary and secondary framing members are zinc coated and outperform interior paint primers used by other manufacturers.

Our zinc galvanizing process prevents rust and ensures a long life-cycle of performance.

Our buildings are designed with a patented easy bolt-together connection technology, which complements a sturdy bracing system.

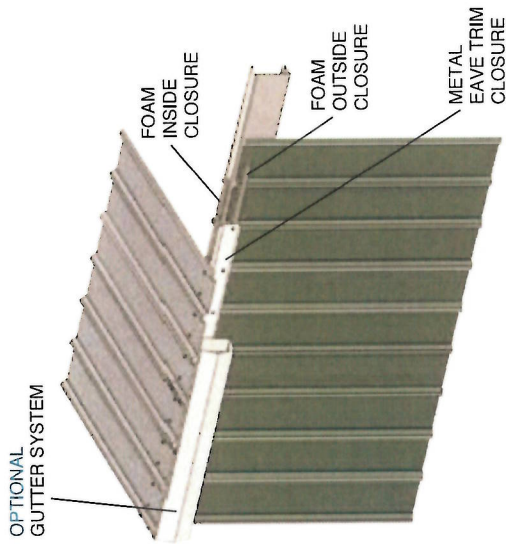
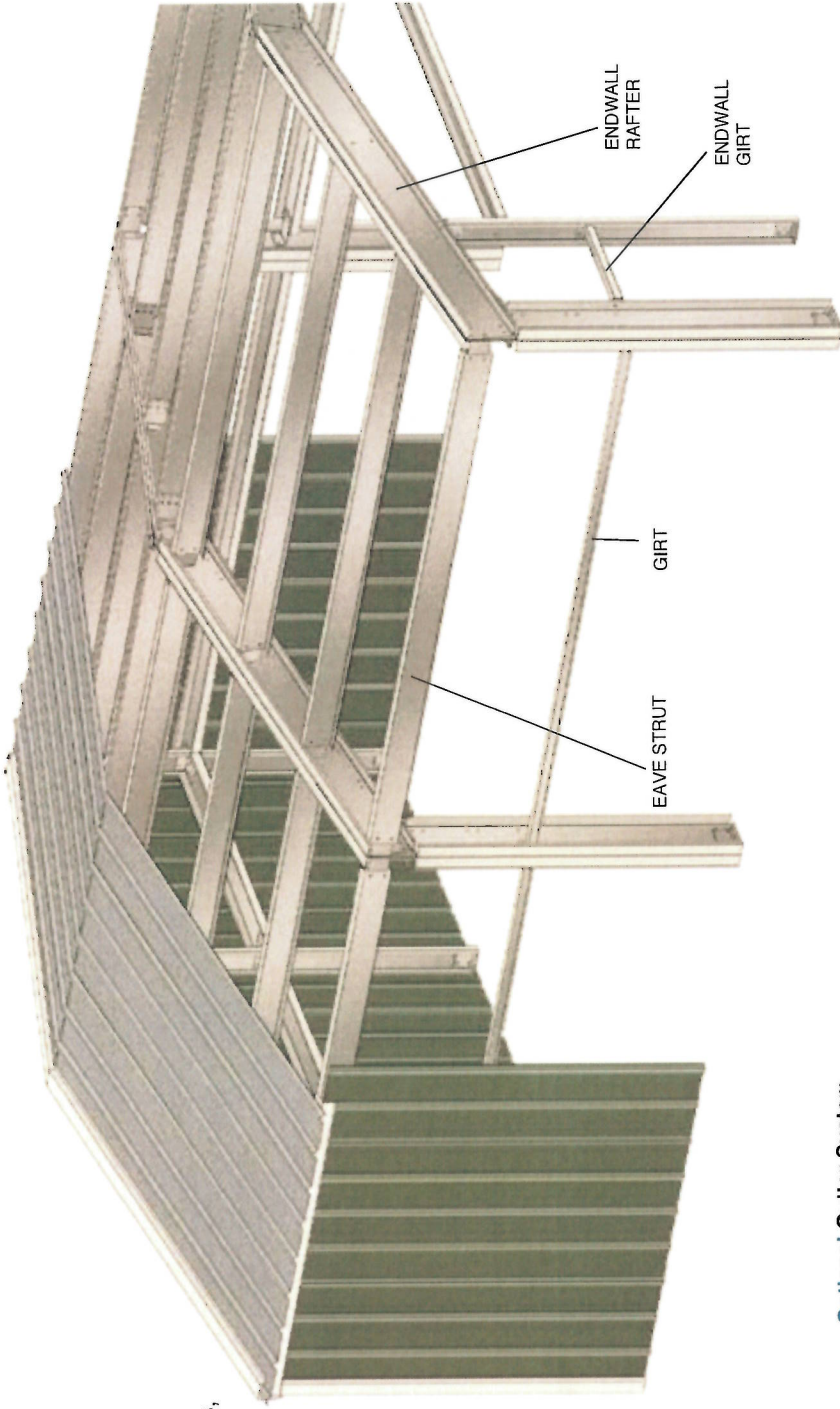


The EasyBuild

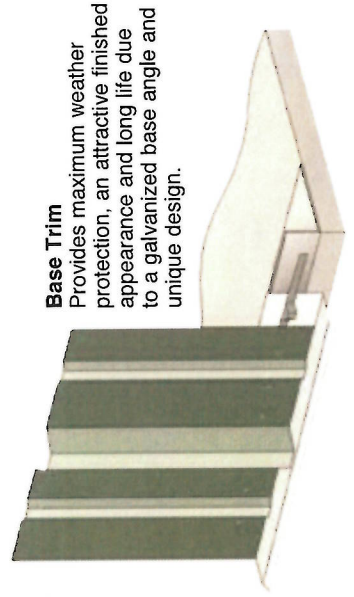
COMPONENTS

Our **EasyBuild** comes with a 25-year, 6 month limited warranty on AZ55 Galvalume® roof panels, a limited lifetime warranty on stainless steel capped roof fasteners and a 40-year limited warranty from the paint manufacturer on the siliconized polyester coloured coating on sidewall panels and trim.

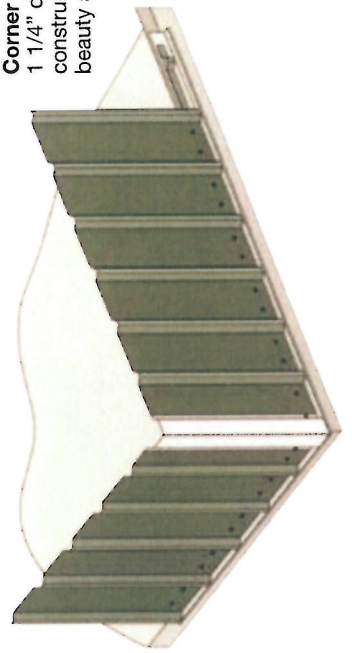
Galvanized secondary framing and extended weather-tight PBR roof panels are standard on all our **EasyBuild** steel buildings.



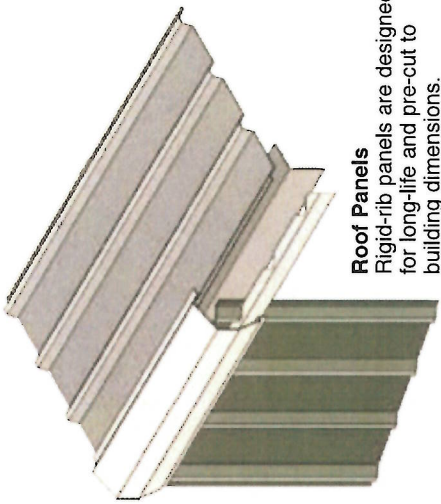
Optional Gutter System
Contour design efficiently controls drainage from rain and snow.



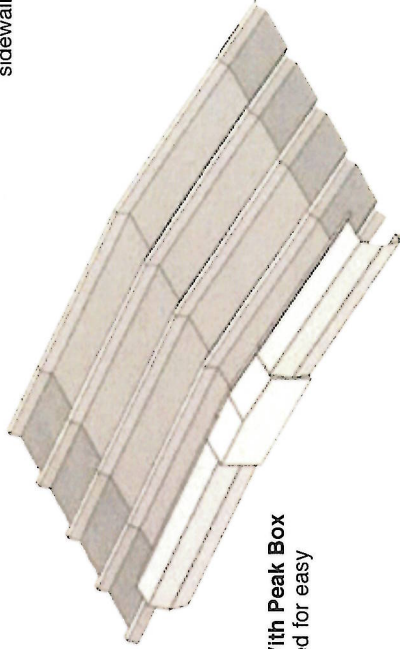
Base Trim
Provides maximum weather protection, an attractive finished appearance and long life due to a galvanized base angle and unique design.



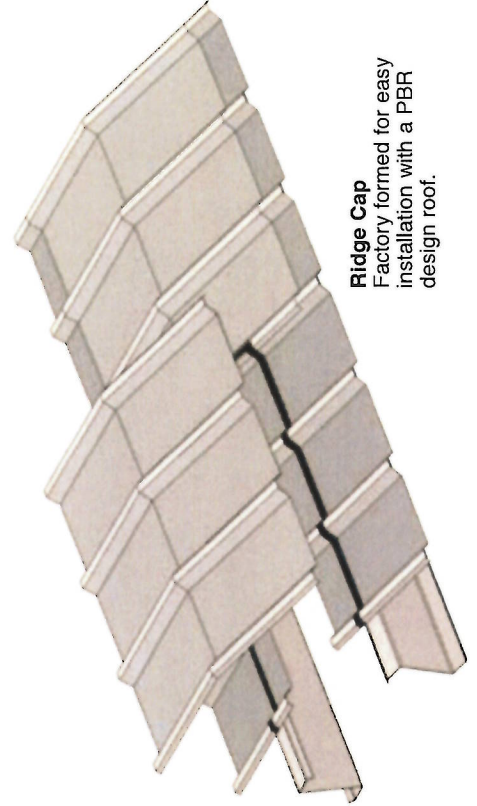
Corner Trim
1 1/4" deep rigid-rib design construction results in beauty and strength.



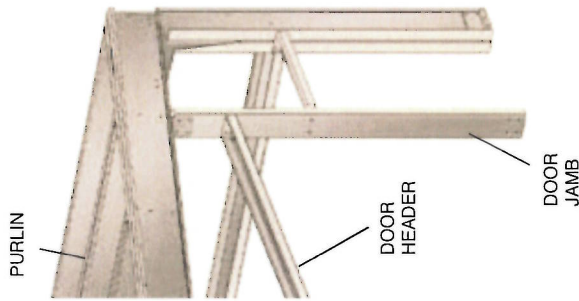
Roof Panels
Rigid-rib panels are designed for long-life and pre-cut to building dimensions.



Ridge Cap With Peak Box
Factory formed for easy installation.



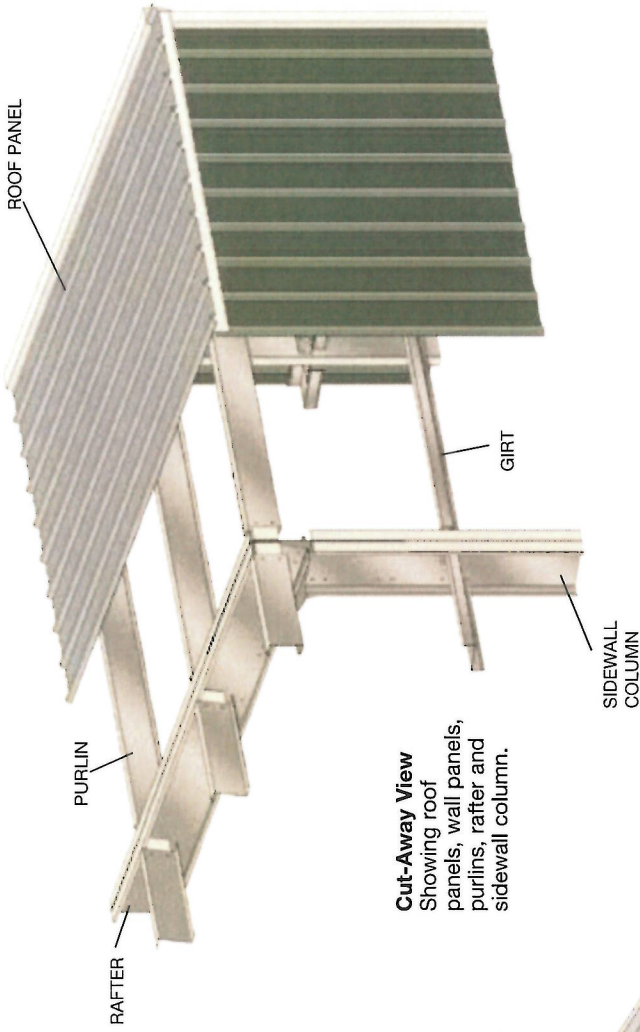
Ridge Cap
Factory formed for easy installation with a PBR design roof.



PURLIN

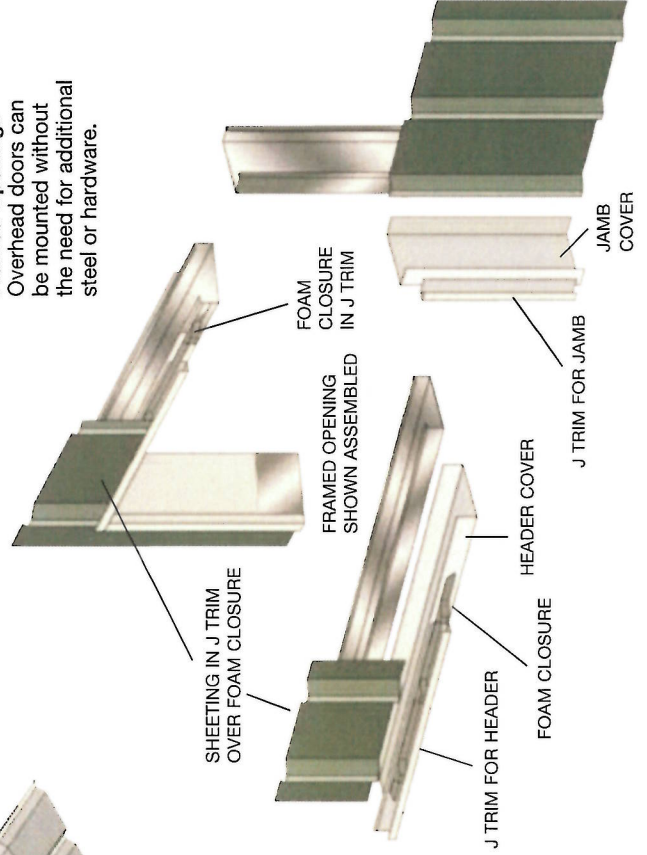
DOOR
HEADER

DOOR
JAMB



Cut-Away View
Showing roof panels, wall panels, purlins, rafter and sidewall column.

Framed Openings
Overhead doors can be mounted without the need for additional steel or hardware.





Our PBR sidewall panels come in twelve popular colors with a 40-year limited warranty against chipping, cracking, flaking or peeling. The paint has a siliconized polyester finish with a substrate galvanized coating beneath the paint providing further protection against rust.

The sidewall panels are continuous from floor to eave and meet or exceed required wind loads. These panels are 26-gauge as standard. Optional accessories are also

available and include: translucent wall panels, service doors, fixed or operable wall louvers, and framed openings for windows and garage doors.

All sidewall panels utilize screws that come assembled with neoprene washers. The washers eliminate the potential for rust by preventing damage to the sheeting, such as cracking paint due to overtightened screws. The heads of the screws are painted to match the colour of the sheeting. They will not rust, tarnish or turn black.

EasyBuild SIDEWALL PANELS



EasyBuild ROOF PANELS

AZ55 Galvalume® is an aluminum/zinc coating, which protects the roof sheeting against rust. It requires no maintenance or painting to retain its original luster and is comprised of 55% aluminum, 44% zinc and 1% silicone.

The AZ55 roof panels have a high aluminum content providing superior protection against rust and backed by a 25-year, 6 month limited rust-through perforation warranty.

In addition, the self-drilling roof fasteners are stainless steel capped and come fully assembled with a self-sealing neoprene washer for a weather-tight seal and a limited lifetime rust warranty.

Our roof panels are 26-gauge high-tensile steel with a corrugation depth of 1-1/4". The Purlin Bearing Rib (PBR) roof system provides a full overlap, which means our buildings are weather-tight, even under extreme conditions.



EasyBuild

TRIM PACKAGE

J trim and base trim are included with your building to provide a finished appearance as well as added protection against leaks and the possibility of rodent and insect infestation.

Foam closures further ensure against leaks at the door openings.

Jamb and header covers for use around door openings complete the trim package.

Trim and cover material are supplied at no additional charge and enhance the functionality and beauty of your building. Trim is available in four complementary colors.



AFFORDABLE EasyBuild

Our pre-engineered steel buildings are designed and manufactured by industry experts who focus on value, strength, durability and easy construction for the first-time builder.

Our durable clear span structures provide years of

maintenance-free service at a price that is thousands of dollars below alternative methods of construction.

Our buildings are ideal for garages, workshops, storage facilities, commercial applications and a variety of light industrial uses.



DO-IT-YOURSELF **EasyBuild**

In place of heavy welded beams, our buildings use light-weight high performance, bolt-together components that do not require a crane, heavy equipment or special tools to construct.

You can erect your building in as few as 3 days with the help of family and friends, saving the unnecessary expense of hiring contractors or renting special tools.

Warranties

We stand behind our product with a full array of warranties. The company confidently offers warranties for several reasons.

The design of each of our steel buildings meets or exceeds IBC requirements, Canadian building codes, individual provincial codes and CSA-A660 standards. Industry experts pay very careful attention to local codes, including wind and snow loads. This ultimately provides added value to the customer in a maintenance-free product designed to last a lifetime.

High quality materials coupled with skilled craftsmanship reflect excellence built into every steel building. The use of stainless steel capped fasteners, a superior precision paint coating along with galvanized girts and purlins keep these steel buildings looking like new for decades.

- 40-Year Limited Paint Warranty
- 30-Year Limited Chalking and Paint Color Change Warranty
- Stainless Steel Capped Fasteners with a Lifetime Warranty
- 25-Year, 6 Month Limited Rust-Through Perforation Warranty on AZ55 Galvalume® Roof Panels

EasyBuild COLOUR SELECTION

Our buildings are precision coated with Valspar paints, a leading producer of paint, finishes and synthetic resins for industrial applications.

** Printed colors are matched as closely as possible.*

WALL PANEL COLOURS



TRIM COLOURS

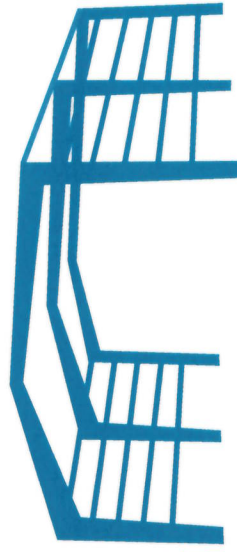


ROOF PANEL COLOURS



1-866-822-4022

Make a Norsteel Building, YOUR Steel Building



NORSTEEL BUILDINGS

Norsteel Buildings 1405 Denison Street, Markham, Ontario, L3R 5V2 Canada

Telephone **905.477.0057**

Fax **905.477.0029**

Website **www.norsteel.com**

Toll-Free **1.866.822.4022**

Toll-Free Fax **1.866.279.9797**

Email **info@norsteel.com**