THE CORPORATION OF THE TOWN OF AMHERSTBURG

BY-LAW NO. 2011-14

A by-law to authorize the signing of an Amended and Restated Development Agreement.

WHEREAS 1681351 ONTARIO INC. and HELIOS PROJECT IV LIMITED PARTNERSHIP, by its general partner, HELIOS PROJECT IV INC. have proposed the development of property at 191 Concession 3 North for purposes of solar energy facilities;

AND WHEREAS the Council of the Town of Amherstburg and owners of the said property have agreed to the terms and conditions of a Development Agreement in the form annexed hereto;

NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE TOWN OF AMHERSTBURG HEREBY ENACTS AS FOLLOWS:

- 1. That the Mayor and Clerk be and they are hereby authorized to execute the original and copies of a Development Agreement in the form annexed hereto and affix the Corporate Seal thereto.
- 2. Any other By-laws inconsistent with this By-law are hereby repealed.
- 3. This By-law shall come into force and effect on the date of final passage hereof.

Read a first, second and third time and finally passed this 24th day of January, 2011.

Vayne Hurst

Clerk- Brenda M(Percy

The applicant(s) hereby applies to the Land Registrar.

| Properties | | | |
|-------------|--|------|--|
| PIN | 01543 - 0164 LT | | |
| Description | PT N1/4 LT 1 CON 3 ANDERDON; PT SW PT OF LT 1 CON 3 ANDERDON; PT SE1/4 LT 2 CON 3 ANDERDON; PT SW1/4 LT 2 CON 3 ANDERDON; SE PT OF LT 1 CON 3 BEING PTS 1 TO 3 12R14374 ANDERDON TOWN OF AMHERSTBURG | | |
| Address | 191 CONCESSION 3 NORTH AMHERSTBURG | | |
| | | | |

Consideration

Consideration \$0.00

Applicant(s)

The notice is based on or affects a valid and existing estate, right, interest or equity in land

.

 Name
 THE CORPORATION OF THE TOWN OF AMHERSTBURG

 Address for Service
 271 Sandwich St. S,

 Amherstburg, On
 N9V 2A5

I, LORY BRATT, AMCT, PLANNING COORDINATOR, have the authority to bind the corporation. This document is not authorized under Power of Attorney by this party.

| Party To(s) | | Capacity | Share |
|--|--|---|--------------------------|
| Name | 1681351 ONTARIO INC. | · · · | |
| Address for Service | Box 517 4955 Walker Rd. Windsor,ON N9A 6M6 | | |
| l, Loris Collavino,, hav | e the authority to bind the corporation | | |
| This document is bein | g authorized by a municipal corporation Lo | ry Bratt, AMCT, Planning Coordinator. | |
| This document is not a | authorized under Power of Attorney by this | party. | |
| | | | * |
| Statements | | | $\omega \in \mathcal{H}$ |
| This notice is pursuan | to Section 71 of the Land Titles Act. | | |
| This notice may be de notice relates is delete | | tered instrument, CE363717 registered on 2009 | /01/21 to which this |
| Schedule: See Sched | ules | | |
| This document relates | to registration no.(s)CE363717; CE447655 | 5 | |
| | | | |
| | | | |

Signed By

Armando Felice Antonio DeLuca 500-251 Goyeau Street Windsor N9A 6V2 acting for Applicant(s) Signed 2011 02 11 Tel 519-258-0615 N9A 6V2 Fax 5192586833 I have the authority to sign and register the document on behalf of the Applicant(s). Submitted By

MOUSSEAU DELUCA MCPHERSON PRINCE

500-251 Goyeau Street Windsor N9A 6V2 2011 02 11

| Tel | 519-258-0615 |
|-----|--------------|
| Fax | 5192586833 |

LRO # 12 Notice

The applicant(s) hereby applies to the Land Registrar.

yyyy mm dd Page 2 of 73

| Fees/Taxes/Payment | | |
|----------------------------|---------|--|
| Statutory Registration Fee | \$60.00 | |
| Total Paid | \$60.00 | |

File Number

| Applicant Client File Number : | 24873 |
|--------------------------------|-------|
| Party To Client File Number : | 24873 |

TOWN OF AMHERSTBURG

AMENDED AND RESTATED DEVELOPMENT AGREEMENT

BETWEEN:

1681351 ONTARIO INC.

-AND-

THE CORPORATION OF THE TOWN OF AMHERSTBURG

-AND-

HELIOS PROJECT IV LIMITED PARTNERSHIP, by its general partner, HELIOS PROJECT IV INC.

AMENDED AND RESTATED DEVELOPMENT AGREEMENT

THIS AGREEMENT made in triplicate this 24th day of January, 2011.

BETWEEN:

1681351 ONTARIO INC. Hereinafter called the "**Owner**"

OF THE FIRST PART;

– and –

THE CORPORATION OF THE TOWN OF AMHERSTBURG Hereinafter called the "Corporation"

OF THE SECOND PART;

– and –

HELIOS PROJECT IV LIMITED PARTNERSHIP, by its general partner, HELIOS PROJECT IV INC. Hereinafter called the "Tenant"

OF THE THIRD PART;

WHEREAS the Corporation and the Owner entered into a Development Agreement dated December 15, 2008 (the "Original Development Agreement") in respect of the development of the lands described in Schedule "A" attached hereto (the "Lands"), and the Corporation, the Owner and Helios Solar Star A-2 Company, as general partner of Helios Solar Star A-2, L.P. ("Helios A-2"), in its capacity as tenant of the Lands under a lease dated October 27, 2007, Notice of which has been registered as Instrument No. CE447655 (such lease as amended and assigned, the "Lease"), entered into an Amending Agreement dated September 28, 2009 to amend the Original Development Agreement (the "Amending Agreement");

AND WHEREAS pursuant to an agreement dated February 1, 2010, Helios A-2 assigned its rights and interests under the Lease to the Tenant, and pursuant to a notice to the Corporation dated April 20, 2010, the Tenant advised the Corporation that as a result of such assignment the Tenant was a Successor Tenant as such term is defined in the Amending Agreement;

AND WHEREAS the Owner warrants that as of the date hereof it is the registered owner of the Lands and the Tenant warrants that as of the date hereof it is the tenant of the Lands;

AND WHEREAS the Corporation, the Owner and the Tenant wish to amend and restate the Original Development Agreement and the Amending Agreement as set out herein, to provide for the development of the Lands for one or more solar energy facilities in accordance with the Site Plan attached hereto as Schedule "B" and hereinafter referred to as the "**Site Plan**";

AND WHEREAS in this Agreement each of the terms, "Owner" and "Tenant" includes an individual, an association, a partnership or corporation and, wherever the singular is used herein, it shall be construed as including the plural;

NOW THEREFORE THIS AGREEMENT WITNESSETH that in consideration of other good and valuable consideration and the sum of FIVE (\$5.00) DOLLARS of lawful money of Canada, now paid by each of the parties hereto to each of the other parties hereto, (the receipt of which is hereby acknowledged), the parties hereby covenant and agree as follows: 1.

The following Schedules, which are identified by the signatures of the parties to this Agreement, and which are attached hereto, are hereby made a part of this Agreement as fully and to all intents and purposes as though recited in full herein:

| SCHEDULE "A" | - Legal description of the Lands |
|---|--|
| SCHEDULE "B" ("B-1" to "B-5") SCHEDULE "B-1" SCHEDULE "B-2" SCHEDULE "B-3" | Site Plan Drawings Overall Site Plan (Drawing C101) General Notes (Drawing C111) Abbreviations and Legend (Drawing C112) |
| SCHEDULE "B-4" SCHEDULE "B-5" SCHEDULE "B-6" SCHEDULE "B-7" | C112) - Demolition Plan (Drawing C131) - Existing Conditions (Drawing C121) - Overall Layout Plan (Drawing C301) - Traffic Control and Signage Details (Drawing C801) |
| SCHEDULE "C" ("C-1" to "C-3") SCHEDULE "C-1" SCHEDULE "C-2" SCHEDULE "C-3" | - Landscape Plan Drawings - Field Planting Plan (Drawing C701) - Landscape Plan (Drawing C702) - Landscape Details (Drawing C711) |
| SCHEDULE "D" ("D-1" to "D-4") SCHEDULE "D-1" SCHEDULE "D-2" | Site Details Typical Site Details (Drawing C901) Typical Array Assembly (Drawing S252) |
| SCHEDULE "D-3" | S352) - PCS Shelter - Site Layout and |
| SCHEDULE "D-4" | Miscellaneous Details (Drawing S401) - PCS Shelter - Plan and Exterior Elevations (Drawing S403) |
| SCHEDULE "E" | - Typical Table Plans and Elevation (Drawing S351) |
| SCHEDULE "F" | - Intentionally deleted |
| SCHEDULE "G" ("G-1" to "G-2") SCHEDULE "G-1" SCHEDULE "G-2" | Fence Details Typical Fence Details (Drawing C902) Monument and Fence Plan (Drawing C241) |
| SCHEDULE "H" ("H-1" to "H-4") SCHEDULE "H-1" | Grading, Drainage and Erosion Control Grading and Drainage Plan (Drawing C311) |
| SCHEDULE "H-2" SCHEDULE "H-3" | Drainage Schedules (Drawing C312) Typical Erosion & Sediment Control Drawing C903) |
| SCHEDULE "H-4" | - Erosion and Sediment Control Plan (Drawing C231) |
| SCHEDULE "I" | - Stormwater Management Report |

- 2. Schedule "A" hereto describes the Lands affected by this Agreement.
- 3. Schedule "B" hereto shows:
 - a) Site boundary
 - b) Location of solar arrays
 - c) Location of landscape berm
 - d) Existing site conditions
 - e) Location of fence

- f) Location of access roads
- g) Location of PCS shelters and PVCS/PVIS equipment
- 4. Schedule "C" hereto shows:
 - (a) Landscape Plan and Details
- 5. Schedule "D" hereto shows:
 - (a) Typical site details
 - (b) PCS shelter details
- 6. Schedule "E" hereto shows:
 - (a) Typical Table Plans and Elevation
- 7. Schedule "G" hereto shows:
 - (a) Typical Fence Details
- 8. Schedule "H" hereto shows:
 - (a) Grading, Drainage and Erosion Control
- 9. Schedule "I" hereto shows:
 - (a) Stormwater Management Report
- 10. Hydro One Approvals

The Owner shall be responsible for consulting with and obtaining any necessary approvals from Hydro One regarding any matters that relate to services provided by Hydro One. Further the Owner shall be responsible for any costs associated with the reconstruction, relocation or changes to the hydro system resulting from the development described herein.

11. Ministry of Environment and Conservation Authority Approvals

The Owner shall be responsible for consulting with and obtaining any required approval from the Ministry of the Environment and the Essex Region Conservation Authority.

12. Construction and Truck Routes

The Owner agrees to be responsible for the construction of all perimeter granular base roads prior to the installation of the solar panels on the site. The haul route for Site "C" during the entire construction of this development shall use County Road 10 and Concession 3 North. The Owner shall adhere to load restrictions in effect at the time of construction for both County and municipal roads.

Construction will take place on a daily basis between the hours of 7:30 a.m. and 4:30 p.m., Monday to Friday.

The Owner shall ensure that trucks and equipment leaving the site are not laden with dirt, mud or debris. The Owner shall keep the highway surfaces clean of any debris and upon notice from the Corporation, the Owner shall immediately clean any debris off the highway. Failure of the Owner to respond will result in the Corporation arranging for the cleaning and invoicing the Owner which expense may also be recovered as municipal taxes with respect to the subject property. If any municipal services or highway surfaces of the Corporation are damaged during the development, such damage shall be repaired or replaced by the Owner to the satisfaction of the Corporation. Failure of the Owner to repair or replace such damage will result in the Corporation arranging for the repair and/or replacement and invoicing the Owner which expense may also be recovered as municipal taxes with respect to the subject property.

13. Snow Removal

Snow removal from the access roads and within the site, if required, shall be the responsibility of the Owner.

14. Driveway Accesses

All new accesses and/or improvement to existing accesses shall be in consultation with and in accordance with the requirements of the Corporation's Director of Engineering and Infrastructure and Drainage Superintendent and shall be installed at the expense of the Owner. A new access over a Municipal Drain requires a report prepared by a drainage engineer under the Drainage Act. The Corporation may allow a letter of recommendation for any new access over a municipal drain from a drainage engineer with the new culvert being incorporated into the drain when a future report is required.

15. Stormwater Management

The development of the site requires special measures to deal with stormwater management as follows:

- (a) The Owner shall undertake a site grading plan and a stormwater management analysis as indicated in Schedule "I" to the satisfaction of the Corporation and the Essex Region Conservation Authority.
- (b) The Owner shall install stormwater management measures as approved by the Corporation and the Essex Region Conservation Authority as part of the development of this site, to the satisfaction of the Corporation and the Essex Region Conservation Authority.
- (c) The Owner shall obtain the necessary permits and/or clearance prior to construction activities and/or site alterations.
- (d) The Owner shall conduct regular inspections once every two weeks and after each sizable storm event of all sediment and erosion control measures recommended in the approved stormwater management plan during the construction of improvements for the solar energy facilities.
- (e) The Owner shall maintain an inspection log which shall be made available for review by the Corporation and the Essex Region Conservation Authority, upon request. The log shall state the name of the inspector, date of the inspection and rectification or replacement measures which were taken to maintain the sediment and erosion control measures. Inspections shall continue until development of the site is complete and approved by the Corporation.
- (f) The Owner acknowledges that this site is affected by both roadside ditches and municipal drains. Roadside ditch maintenance is performed from the road and will not affect this development. Municipal drainage maintenance is performed from the private property side of the drain with the spoils being spread over the adjacent lands. Therefore, a twenty (20ft) foot wide corridor must remain on the private property side of the drain clear of fences, trees and shrubs. Alternatively, the Corporation will allow for a letter of understanding drafted by an engineer, approved by the Owner and acceptable to the

Corporation, providing that maintenance work will be performed from the road side of the drain (in this case the Owen Bondy Drain) and the spoils trucked away, with the associated trucking costs for the particular length of drain adjacent to the development assessed to the Owner. This letter of understanding will be utilized for maintenance works until such time as a new drainage report is required. This site is affected by the Owen Bondy Drain located on the east side of the 3rd Concession North and the Darragh Drain located on the South Side of Site "C".

16. Garbage and Refuse

Any garbage or refuse that is stored outside shall be stored in a noncombustible container and maintained so that garbage or refuse does not blow or fall out of the container.

17. Lighting

Any and all lighting shall be installed and maintained in accordance with the standards set out in the Town's Development Manual so as to not, in the opinion of the Corporation interfere with the use or enjoyment of adjacent properties or with the safe flow of traffic on abutting or adjacent streets.

In addition to the requirement of full cut-off (directional lighting), the type, amount and intensity of lighting will also be a consideration in consultation with the Corporation to prevent undue light pollution.

18. Landscaping

- (a) The Owner shall landscape and maintain in plants and ground cover acceptable to the Corporation those lands so indicated on Schedule "C-1" to "C-4" inclusive.
- (b) The Owner agrees that the site will be inspected on an annual basis and any deficiencies as determined by the Corporation will require immediate correction in accordance with the approved site plan.
- (c) The Owner agrees that where there are deficiencies or loss due to natural causes or management related issues in those areas which provide a visual buffer for neighbouring residences those deficiencies or losses will be corrected to the satisfaction of the Corporation in accordance with the approved Schedules. Failure of the Owner to correct the deficiency or loss will result in the Corporation arranging for the replacement and invoicing the Owner which expense may also be recovered on the municipal taxes of the subject property.
- (d) The Owner agrees that those lands located on this site, but outside of the solar arrays and related equipment, and in particular south of the Darragh Drain, shall continue to be planted with ground cover in accordance with the approved Landscape plans (unless otherwise agreed to by the Corporation) and kept in an orderly fashion.

19. Fencing

The Owner agrees to construct a fence on those lands indicated on Schedule "B" in accordance with the fence detail forming part of Schedule "G". The Owner agrees that the site will be inspected on an annual basis and any deficiencies as determined by the Corporation will require immediate correction in accordance with the approved site plan.

20. Geo-Technical

The Owner and Corporation acknowledge correspondence dated April 11, 2007 from James D. Rodger, P. Eng. with Golder Associates Ltd. regarding a geo-technical investigation which results indicated that the sub-surface soil conditions appear appropriate to support the development of the type proposed for this site.

21. Start Up of the Solar Energy Facilities

- (a) The Owner shall notify the Corporation at least one week prior to the proposed start up date of the solar energy facilities in order to arrange for a site inspection system to be conducted.
- (b) The Owner shall not start up the solar energy facilities on the site before the applicable provisions of this Agreement are complied with.
- (c) The Owner shall ensure that the applicable approvals and regulations of Hydro One and all other governing authorities are adhered to.
- (d) The Owner shall ensure that Hydro One will monitor the site's connection point to the electricity system and will be able to identify any major electrical problems associated with the solar energy facilities, disconnecting them from the grid if necessary.

22. Driveways

All driveways for emergency vehicles shall:

- (a) be connected with a public thoroughfare;
- (b) be designed and constructed to support expected loads imposed by firefighting equipment;
- (c) have a clear width of 3 meters at all times;
- (d) have an overhead clearance of not less than 4.5 meters
- (e) have a change in gradient of not more than 1 in 12.5 over a minimum distance of 15.2 meters; and
- (f) have approved signs displayed to indicate the emergency route.
- 23. Certification by Architect or Professional Engineer

If the Ontario Building Code requires that an architect or professional engineer or both shall be responsible for the field review of any new building or extension provided for in this Agreement, the Owner shall not occupy or use or permit to be occupied or used any said new building or extension until after an architect or professional engineer has given to the Corporation a letter addressed to the Corporation and signed by him certifying that all services on or in the said lands, required for this development or redevelopment, newly installed by the Owner in connection with this development or redevelopment and not contained within a building, have been installed and completed in a manner satisfactory to the architect or professional engineer.

24. Corporation's Right to Enter

The Corporation through its servants, officers, and agents, including its building inspector, plumbing inspector, fire chief, public works head and municipal engineer may from time to time and at any time and upon reasonable notice to the Owner enter on the premises of the owner to inspect:

- (a) the progress of development;
- (b) the state of maintenance as provided for by this Agreement.

25. Stop Work Orders

In the event of any servant, officer or agent of the Corporation determining upon inspection that the development is not proceeding in strict accordance with the plans and specifications filed, such servant, officer or agent shall forthwith place a notice requiring all work to be stopped upon the premises and forward a copy by registered mail to the Owner to the address set out below in this Agreement, and the Owner shall forthwith correct the deficiency or deviation.

26. Notices of Non-Compliance

In the event of any servant, officer or agent of the Corporation, upon inspection, being of the opinion that the state of maintenance of works on the site is not in accordance with the requirements of this Agreement, such servant, officer or agent shall forthwith forward notice of such opinion to the Owner by registered mail to the address set out below in this Agreement, and the owner shall forthwith correct the deficiency to the standard required hereby.

27. Failure to Obey Stop Work Order

In the event that the Owner should fail to obey a stop work order issued under Section 25 hereof, the Owner recognizes the right of the Corporation to apply to the Court for a restraining order.

28. Correction of Deficiencies by Owner

Subject to the rights of the Owner under statute and at law, in the event that the Owner should fail to correct a deviation or deficiency after notice is given pursuant to Section 26, the Corporation, after two (2) weeks notice given to the Owner by registered mail to the address set out below in this Agreement, may correct the deviation or deficiency to the standard hereby required, the expense of which shall be paid out of security provided hereunder, and if such security is insufficient to cover such costs, to be forthwith paid by the Owner on demand by the Corporation, failing which such costs may be recovered as municipal taxes with respect to the subject property.

29. Decommissioning and Indemnification

(A) Definition

The term "decommissioning" when used in this Agreement means the process of removing the solar energy facilities, including all appliances and appurtenances thereto, from the Lands and restoring the surface of the Lands as close as possible to their former condition and use, and the term "decommission" shall have a similar meaning. For greater certainty, the terms "decommissioning" and "decommission" when used herein do not include any remediation obligations related to any hazardous substances that have migrated on to the Lands or are otherwise unrelated to the Owner's occupation or use of the Lands, and the Corporation acknowledges and agrees that the Owner shall have no such remediation obligations.

(B) Indemnification

The Owner shall at all times indemnify and save the Corporation harmless from and against any claims, demands, losses, costs, charges, expenses, actions and other proceedings (including those in connection with workplace safety and insurance compensation or any similar or successor arrangement) made, brought against, suffered by, imposed on or incurred by the Corporation in respect of any failure by the Owner to fulfill any of its obligations under this Agreement, including but not limited to the costs associated with decommissioning the Lands incurred by or on behalf of the Corporation, as a result of any loss, damage or injury (including injury resulting in death) to any person or property (including, but not limited to, employees, contractors, agents and property of the Corporation) directly arising out of, resulting from or sustained by reason of the Owner's occupation, use or decommissioning of the Lands, or any operation in connection therewith or any fixtures or chattels thereon, but excluding those caused by the acts, omissions and negligence of the Corporation and those for whom the Corporation is or was responsible.

(C) Corporation's Responsibility

The Corporation shall not under any circumstances be responsible for or be required to decommission the Lands or to incur any costs associated therewith. The Corporation may, in its sole discretion, undertake, in whole or in part, the decommissioning and incur the costs associated therewith, and shall collect those costs as set out herein, which costs shall remain the responsibility of the Owner.

(D) Decommissioning Events

In the event that any of the following events have occurred or in the reasonable opinion of the Corporation are likely to occur, whereby the Owner:

- (i) is dissolved;
- (ii) makes an assignment, arrangement or composition with or for the benefit of its creditors;
- (iii) institutes or is subject to a proceeding in bankruptcy or insolvency, or seeks any relief affecting creditor's rights;
- (iv) has a resolution passed for its winding up or its liquidation;
- (v) seeks or becomes subject to the appointment of an administrator, provisional liquidator, conservator, receiver, trustee, custodian or other official for it or for all or substantially all of its assets by reason of its insolvency;
- (vi) has a secured creditor take possession of all or substantially all its assets or has a distress, execution, attachment, sequestration or other legal process levied, enforced or sued on or against all or substantially all its assets;
- (vii) fails to post or maintain such security as may be required by Section 37 of this Agreement; or
- (viii) obtains possession of the Lands due to:
 - (a) permitted overholding by the Tenant,
 - (b) surrender of the whole of the Lease, or
 - (c) lawful termination of the Lease prior to expiry of its term,

then, subject to the provisions of Section 29E of this Agreement, the Owner shall commence decommissioning the Lands forthwith, and shall complete decommissioning within a reasonable period of time.

(E) Decommissioning Notice

The Corporation hereby irrevocably covenants and agrees that, notwithstanding Section 29D of this Agreement, in the event that any of the events listed in Section 29D has occurred or, in the reasonable opinion of the Corporation is likely to occur (each, a "**Decommissioning Event**"), the Owner shall not be required to commence decommissioning unless:

(a) The Corporation has delivered to:

- (i) the Owner;
- (ii) the Tenant (or any successor or assign of the Tenant from time to time who has delivered to the Corporation written notice at the address of the Corporation as set out in this Agreement that it is a successor or assign of the Tenant (each, a "Successor Tenant"); and
- (iii) any lender, mortgagee, chargee or other secured party to the Tenant (or any Successor Tenant) with a mortgage, charge or other security interest from time to time registered against title to the Tenant's (or any Successor Tenant's) leasehold interest in the Lands who has delivered to the Corporation written notice at the address of the Corporation as set out in this Agreement that it is a mortgagee, charge or secured party of the Tenant (or any Successor Tenant) (each such person, a "Mortgagee"),

notice in writing advising that a Decommissioning Event has occurred or is likely to occur and specifying which Decommissioning Event has occurred or is likely to occur (a "**Decommissioning Notice**"); and

(b)

(i)

- if the Decommissioning Event specified in the Decommissioning Notice is one of the events listed in Section 29D(a), (b), (c), (d) or (e), and the Owner, Tenant, a Successor Tenant or a Mortgagee does not deliver a notice in writing to the Corporation at the address of the Corporation as set out in this Agreement within 60 days after the date of receipt of the Decommissioning Notice advising the Corporation that it (or a successor, assign or nominee of it) will:
 - (A) continue to develop, construct and operate or assume responsibility for developing, constructing and operating the solar energy facilities on the Lands in accordance with the provisions of this Agreement; and
 - (B) enter into an agreement in favour of the Corporation assuming the obligations of the Owner under this Agreement (an "Assumption Agreement") or enter into a new development agreement on the same terms and conditions as are contained in this Agreement (a "Replacement Development Agreement"); or
- (ii) if the Decommissioning Event is the event listed in Section 29D(g) of this Agreement, and the Owner, the Tenant, a Successor Tenant or a Mortgagee does not deliver a notice in writing to the Corporation at the address of the Corporation as set out in this Agreement within 60 days after the date of receipt of the Decommissioning Notice advising the Corporation that it

will post the security required by the Corporation and within thirty (30) days thereafter such security is not posted.

For greater certainty, if the Corporation has delivered the Decommissioning Notice pursuant to the provisions of Section 29E(a) of this Agreement and none of the Owner, the Tenant, a Successor Tenant or a Mortgagee has delivered one of the notices described in Section 29E(b) of this Agreement within 60 days after the date of receipt of the Decommissioning Notice, then, but not otherwise, the Owner shall commence decommissioning the Lands forthwith after said 60 day period, and shall complete decommissioning within a reasonable period of time.

(F) Default in Decommissioning

In the event that the Owner fails to commence or to complete decommissioning of the Lands as required by this Agreement, the Corporation may take such steps as are necessary to decommission the Lands, as required herein. The Owner shall be responsible for the costs of the decommissioning incurred by or on behalf of the Corporation. The Owner agrees that the cost of the decommissioning incurred by or on behalf of the Corporation shall be deemed to be municipal taxes, and shall be a charge upon the Lands, premises, fixtures and chattels that are or were located on those Lands and premises in the same manner as municipal taxes. Further, the cost of decommissioning shall be collectible and shall have the same priority as municipal taxes. The Owner shall give notice to all secured creditors of the rights of the Corporation hereunder.

(G) Decommissioning Plans

The Owner shall, upon completion of construction and every five (5) years thereafter. submit a decommissioning plan for the Lands (a "Decommissioning Plan") for the Corporation's review. Such request shall not be made more than once every five (5) years during the term of this Agreement. A Decommissioning Plan shall set out the estimated cost as of the date of the Decommissioning Plan of decommissioning the Lands (the "Cost of Decommissioning"), which Cost of Decommissioning shall include, without limitation, the cost of recovering, removing, recycling and/or re-selling the solar energy facilities, including buildings and other structures, then located on the Lands and required pursuant to the terms hereof to be removed from the Lands upon a Decommissioning Event, and the estimated value, either as recycled materials or on re-sale, of such solar energy facilities "Value of the Facilities"). The Corporation may submit (the а Decommissioning Plan to independent peer review for verification of the Cost of Decommissioning and the Value of the Facilities as set out therein.

(H) Security for Decommissioning

In the event that a Decommissioning Plan indicates that the Cost of Decommissioning (as verified by independent peer review by the Corporation) exceeds the Value of the Facilities (as verified by independent peer review by the Corporation), then the Owner shall deliver to the Corporation financial security, in the form of a certified cheque or irrevocable, self-renewing letter of credit, in such amount as may be required by the Corporation, not to exceed the difference between the Cost of Decommissioning and the Value of the Facilities as so verified (the "Net Decommissioning Cost"). In the event that subsequent Decommissioning Plan indicates that the any Net Decommissioning Cost has increased or decreased, the financial security shall be adjusted accordingly. In such event, the Corporation shall release to the Owner the financial security then held by the Corporation upon delivery by the Owner to the Corporation of replacement financial security in the amount of the Net Decommissioning Cost as so adjusted.

(I) Responsibility

In addition to any other provisions of this Agreement, this Section 29 shall inure to the benefit of and be binding upon the Parties hereto and their respective, heirs, executors, administrators, successors, assigns, secured parties, affiliates, related corporations, provisional liquidators, conservators, receivers, trustees, custodians or other similar officials.

(J) Entry upon the Lands

In the event that the Corporation deems it necessary to perform any decommissioning of the Lands, the Owner hereby grants the Corporation, its employees, agents and contractors, an irrevocable licence to enter upon the Lands and to perform such acts as may be necessary in the opinion of the Corporation to perform any and all acts of decommissioning deemed necessary by the Corporation, without further notice to the Owner.

(K) Completion of Decommissioning

Upon completion of decommissioning by the Owner, the Owner shall obtain a report from an independent consultant verifying that the decommissioning has been completed in accordance with the requirements of this Agreement (the "Decommissioning Report") and such Decommissioning Report shall be provided to the Corporation.

30. Operation of Facility by the Tenant

- (a) The Corporation hereby confirms its understanding that the solar energy facilities to be developed, constructed and operated on the Lands will be developed, constructed and operated by the Tenant, pursuant to the terms of the Lease. The Corporation hereby irrevocably covenants and agrees not to amend this Agreement in any material respect or in any manner which would adversely affect the operations of the Tenant on and from the Lands without the prior written consent of the Tenant.
- (b) In the event that the Tenant, a Successor Tenant, a Mortgagee (or any successor, assign or nominee thereof) (each, a "Transferor") enters into an Assumption Agreement or a Replacement Development Agreement, the Transferor will be entitled to assign, transfer or otherwise dispose of its right, title and interest in and to this Agreement or the Replacement Development Agreement, as the case may be, without the consent of the Corporation, but on notice in writing to the Corporation (the "Transfer Notice") at the address of the Corporation as set out in this Agreement delivered at least 30 days prior to the date on which such assignment, transfer or other disposition is to be completed (the "Transfer Date") and identifying the assignee, transferee or other acquirer (each a "Transferee"), and provided that a Transfer Notice has been given, the Transferor will be released on the Transfer Date from all of its obligations under this Agreement or the Replacement Development Agreement, as the case may be, provided that the Transferee assumes the obligations of the Transferor under the Development Agreement or the Replacement Development Agreement, as the case may be.
- (c) The parties hereby acknowledge that the Corporation, the Owner, the Tenant, a Successor Tenant or a Mortgagee may register this Agreement or notice thereof against title to the Lands.
- (d) The Corporation hereby confirms and irrevocably agrees that this Agreement may be relied upon by, and enures to the benefit of, the Owner, the Tenant, any successor Tenant or any Mortgagee who delivers notice in writing to the Corporation at the address for the

Corporation set out in this Agreement and agrees that the Corporation will execute and deliver such documents, assurances and agreements as any one or more of such persons may reasonably require to further effect the agreements by the Corporation hereunder.

31. Change or Amendment to this Agreement

In the event of an Owner wishing to change at any time any of the buildings, structures or facilities described in the plans annexed or referred to in Section 3 hereof, it shall make application to Council of the Corporation for approval and shall not proceed with such change until approval is given by Council, or in default by the Ontario Municipal Board under the procedure set out in Section 41 of the *Planning Act*, R.S.O. 1990.

32. No Rights Obtained against Corporation

This Agreement and the provisions thereof do not give the Owner or any other person acquiring any interest in the Lands any rights against the Corporation with respect to the failure of the Owner to perform or fully perform any of its obligations under this Agreement or any negligence of the Owner in its performance of the said obligations.

33. Commencement of Construction

In the event that no construction on the Lands has commenced before June 30, 2011, the Corporation may, at its option, on one month's notice to the Owner, declare this Agreement to be subject to re-negotiation, whereupon the Owner agrees that it will not undertake any construction on the Lands until this Agreement has been re-negotiated.

34. Maintenance of Facilities by Owner

All facilities and matters required by this Agreement shall be provided and maintained by the Owner at its sole risk and expense in accordance with the standards determined by the Corporation and in default thereof and without limiting other remedies available to the Corporation, the provisions of Section 446 of the Municipal Act shall apply.

35. Agreement Binds Lands

It is specifically acknowledged and agreed that the burden of this Agreement shall run with the Lands. In this Agreement, "Owner" shall include any Owner of the Lands from time to time.

36. Enurement

This Agreement, including all its covenants, provisos, conditions and schedules shall enure to the benefit of and be binding upon the Parties hereto and their respective heirs, executors, administrators, successors and assigns.

37. Financial Securities

The Owner shall deliver to the Corporation a financial guarantee (certified cheque or irrevocable letter of credit – self renewing without burden of proof) for 50% of the value of on-site improvements required to be constructed under this Agreement (exclusive of the value of the solar energy facilities and other buildings and structures on the Lands) in addition to financial security in the amount of 100% of the value of all off-site works required to be constructed under this Agreement. The Owner's engineer and landscape architect shall provide a certified estimate of the value of such on-site and off-site work for consideration and approval by the Corporation's Director of Engineering and Infrastructure. Once the Corporation has inspected and approved the construction/installation/planting of such on-site and off-site works, the said financial guarantee and financial security shall be returned,

without interest, by the Corporation to the Owner, save and except for an amount equal to 15% of the value of such on-site and off-site improvements, which amount shall be retained by the Corporation for a period of one year following completion of construction of such works as security for the maintenance of such works by the Owner, and which amount shall be returned, without interest, by the Corporation to the Owner upon the approval by the Corporation of the construction/installation/planting of the said works at the end of such one year period

38. Due Authorization by Corporation

The Corporation hereby represents that the Corporation has the necessary power, authority and capacity to enter into this Agreement and to perform its obligations under this Agreement on the terms and subject to the conditions set out herein, and that the execution and delivery of this Agreement and performance by the Corporation of its obligations hereunder have been duly authorized by all requisite corporate and other proceedings on the part of the Corporation.

39. Notice

Any notice, direction, certificate, consent, determination or other communication required or permitted to be given or made under this Agreement shall be in writing and shall be effectively given and made if (i) delivered personally, (ii) sent by registered mail, or (iii) sent by electronic mail or other similar means of electronic communication, in each case to the applicable address set out below:

(a) if to the Owner, to:

1681351 Ontario Inc. P.O. Box 517 4955 Walker Road Windsor, ON N9A 6M6 Attention: Loris Collavino Facsimile: (519) 737-6464

(b) if to the Corporation, to:

The Corporation of the Town of Amherstburg 271 Sandwich Street South Amherstburg, ON N9V 2A5 Attention: Planning Coordinator Facsimile: (519) 736-9859

(c) if to the Tenant, to:

Helios Project IV Limited Partnership 600 King Street West, Suite 200 Toronto, ON M5V 1M3 Attention: Winston Bennett Facsimile: 1-866-509-0365

Any such communication so given or made shall be deemed to have been given or made and to have been received on the day of delivery if delivered, or on the day of sending by electronic or other means of recorded electronic communication, provided that such day in either event is a day other than a Saturday, Sunday or statutory holiday in the Province of Ontario (a "Business Day") and the communication is so delivered or sent before 4:30 p.m. EST on such day. Any such communication sent by registered mail shall be deemed to have been given and made and to have been received on the third Business Day following the mailing thereof; provided however that no such communication shall be mailed during any actual or apprehended disruption

of postal service. Otherwise, such communication shall be deemed to have been given and made and to have been received on the next following Business Day. Any such communication given or made in any other manner shall be deemed to have been given or made and to have been received only upon actual receipt.

Any party may from time to time change its address under this Section 39 by notice to the other parties given in the manner provided by this Section 39.

40. Counterparts

This Agreement may be signed in counterparts, including counterparts by facsimile, each of which shall be deemed an original and all of which when taken together shall constitute one instrument.

41. Governing Law

This Agreement shall be governed by and interpreted and enforced in accordance with the laws of the Province of Ontario and the federal laws of Canada applicable therein.

42. Agreement Supersedes Prior Agreements

This Agreement supersedes any other agreements related to the development of the Lands, whether written or oral, that may have been made or entered into between the Corporation and the Owner and/or the Tenant or any predecessor in interest to the Tenant under the Lease, including the Original Development Agreement and the Amending Agreement. This Agreement and the Schedules attached hereto constitute the entire agreement between the Corporation and either of the other parties with respect to the development of the Lands, and there are no other agreements between the Corporation and either of the other parties with respect to the development of the Lands, as set forth herein and therein.

IN WITNESS WHEREOF the parties have executed this Agreement.

| 1681351 ONTARIO INC. |
|---|
| Per: Name: LUAID OLLAVINO Title: PREDIDENT |
| Per: Name: Title: |
| I/We have the authority to bind the Corporation |
| THE CORPORATION OF THE TOWN OF |
| Per: <u>Mayor Wayne Hurst</u> |
| Per: Marcy Clerk- Brenda M. Pergy |

We have the authority to bind the Corporation

HELIOS PROJECT IV LIMITED PARTNERSHIP, by its general partner, HELIOS PROJECT IV INC.

Per: Name: Winston Be Title: VICE RESIDENT en

Per:

Name: Title:

I/We have the authority to bind the Corporation

SCHEDULE "A"

Legal Description of the Lands

PIN 01543-0164 (LT) being part of Lots 1 and 2 Concession 3 Anderdon designated as Parts 1 to 3 on Plan 12R-14374, Town of Amherstburg, County of Essex

1681351 ONTARIO INC.

Per: Name: Title:

Per:

Name: Title:

I/We have the authority to bind the Corporation

ORIS

PREJIDENS

LArino

THE CORPORATION OF THE TOWN OF AMHERSBURG

Per: 4 Mayor-Wayne Hurst Per: Clerk- Brenda M. Percy

We have the authority to bind the Corporation

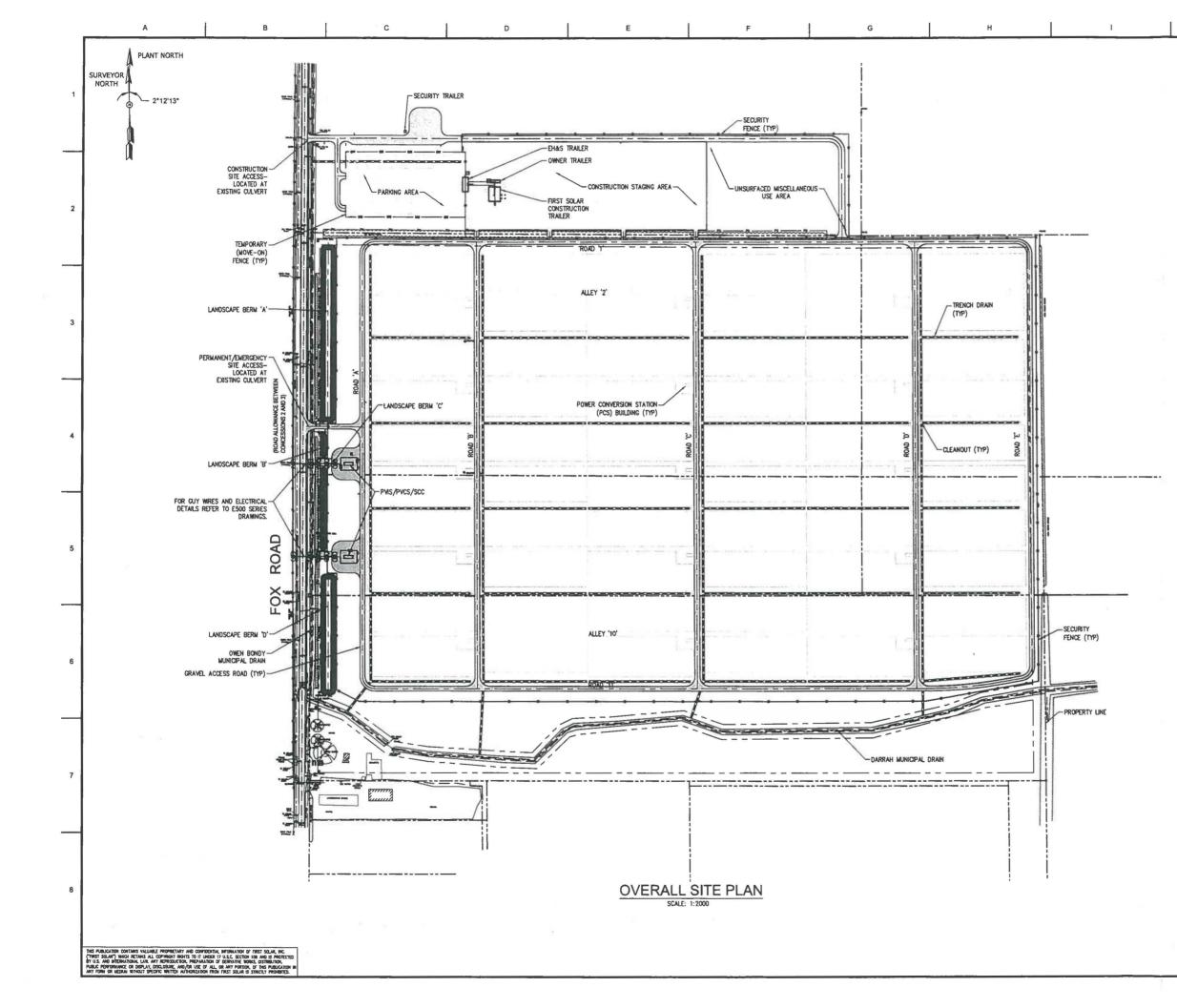
HELIOS PROJECT IV LIMITED PARTNERSHIP, by its general partner, HELIOS PROJECT IV INC.

Per: Name: Wins an Title: VICE PRESIDENT

Per:

Name: Title:

I/We have the authority to bind the Corporation



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- 1. FOR GENERAL NOTES, SEE DWG C111.
- 2. FOR LEGEND AND ABBREVIATIONS, SEE OWG C112.
- 3. FOR SITE HORIZONTAL AND VERTICAL CONTROL MONUMENTS, SEE OWG. C241.

SCHEDULE "B-1" TO BY-LAW 2011-14

1681351 ONTARIO INC.

Per:

Name: PRESIDENT Title:

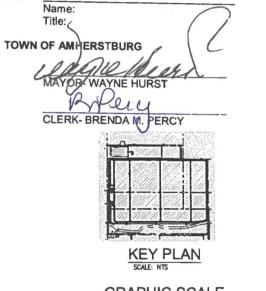
Per:

Name: Title:

HELIOS PROJECT IV LIMITED PARTNERSHIP, by its general partner, HELIOS PROJECT IV INC. Per: Autom partner Name: Auros BENNET

Title: VICE PRESIDENT

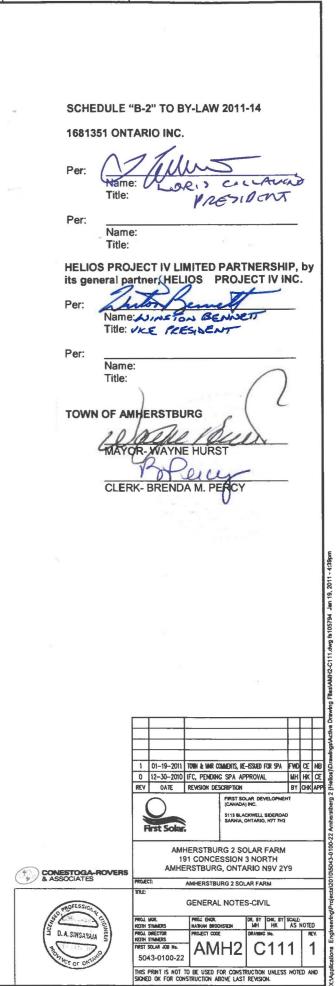
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GRAPHIC SCALE



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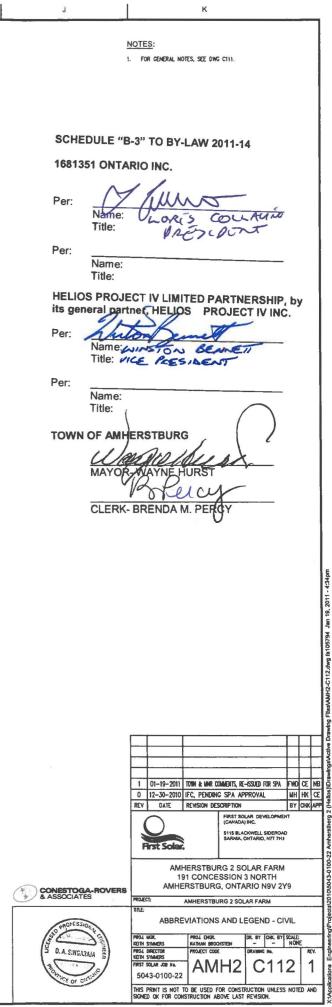


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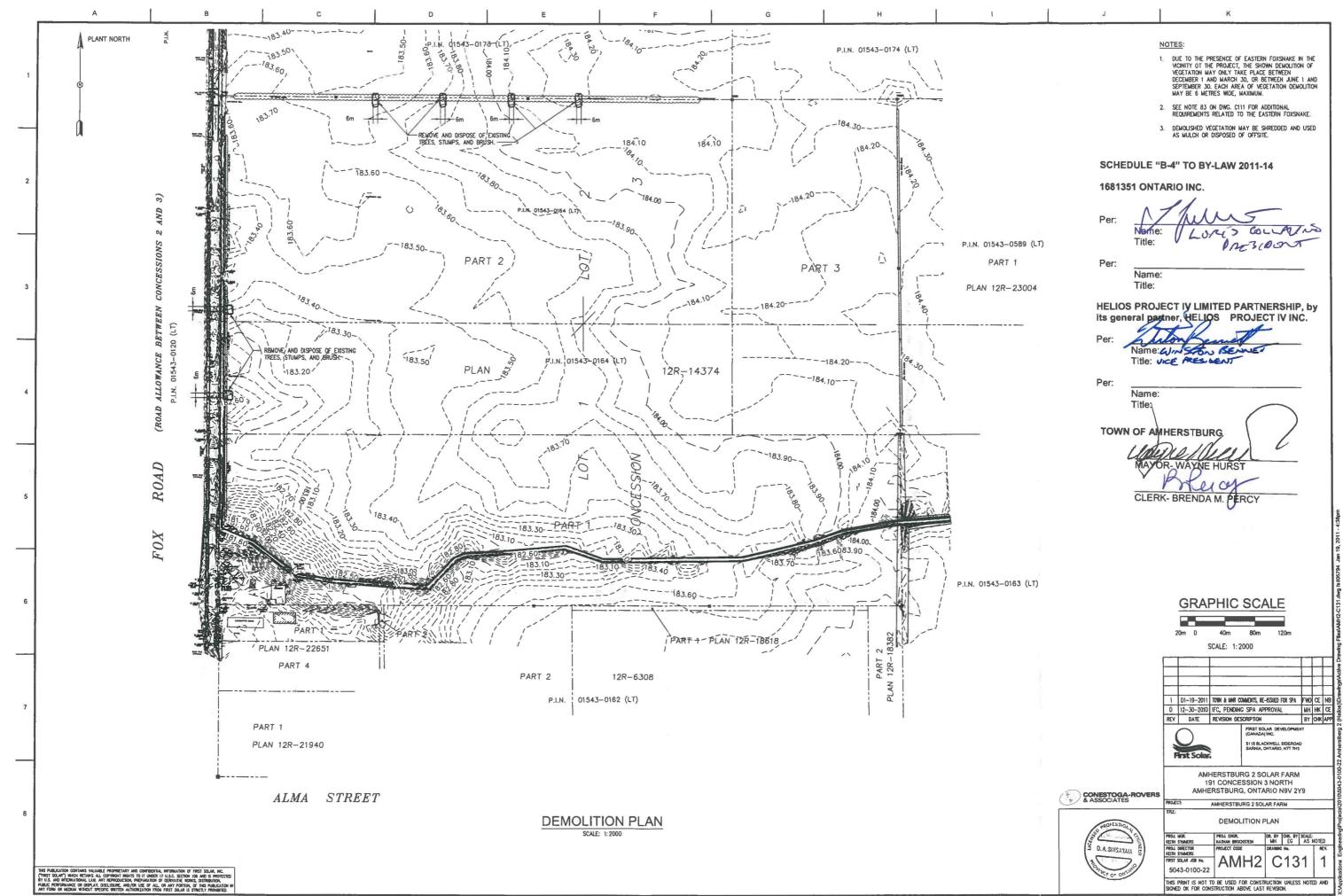
COPYRIGHT @ 2010 FIRST SOLAR, INC. ALL RIGHTS RESERVED

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| SIL STEEL SW SNITCH T TELEPHONE TB TERMINAL BLOCK TBP TEMPERARY TBARAY TH TOP OF WALL TW TOP OF WALL TW TOP OF WALL TW VERTY IN FRED VERT VERTICAL W WATT(S) W/ WITH W WEATHERPROOF XFWR TRANSFORMER | | SST | STAINLESS STEEL STATION | | | | | | | | | | | | | | |
| 8 Y T T ELEPHONE TB T ELEPHONE TB T ELEPHONE TB T F T F T F T F T F T F T F T F T F | | STL. | STEEL | | | | | | | | | | | | | | |
| THAC THOC TW TOP KMLL TPP THPICAL VF VERTY IN FELD WF VERTI VERTICAL W WATT(S) W/ WITH WP WEARTHORPROOF XFNR TRANSFORMER | | T TB | TELEPHONE TERMINAL BLOCK | | | | | | | | | | | | | | |
| 8 VF VERY IN RELD VERT VERTICAL W NATT(S) W/ NITH WP MEATHERPROOF XFINR TRANSFORMER | | THK | THICK | | | | | | | | | | | | | | |
| B VERT VERTICAL W WATT(S) W/ WITH WP WEATHERPROOF XFWR TRANSFORMER | ٥ | TYP VIF | typical Verify in Field | | | | | | | | | | | | | | |
| NP WEATHERPROOF XFWR TRANSFORMER | D | e w | WATT(S) | | | | | | | | | | | | | | |
| THES PARLICATION CONTAINS VALUARE PROPARTIANT MID CONFIDENTIAL INFORMATION OF FRET SOLAR, INC. | | WP | WEATHERPROOF | | | | | | | | | | | | | | |
| | | THIS FUELICATION CONTAINS VI | NUABLE PROPRETARY AND CON | IODITIAL INFORMATION OF FU | IRST SOLAR, INC | | | | | | | | | | | | |

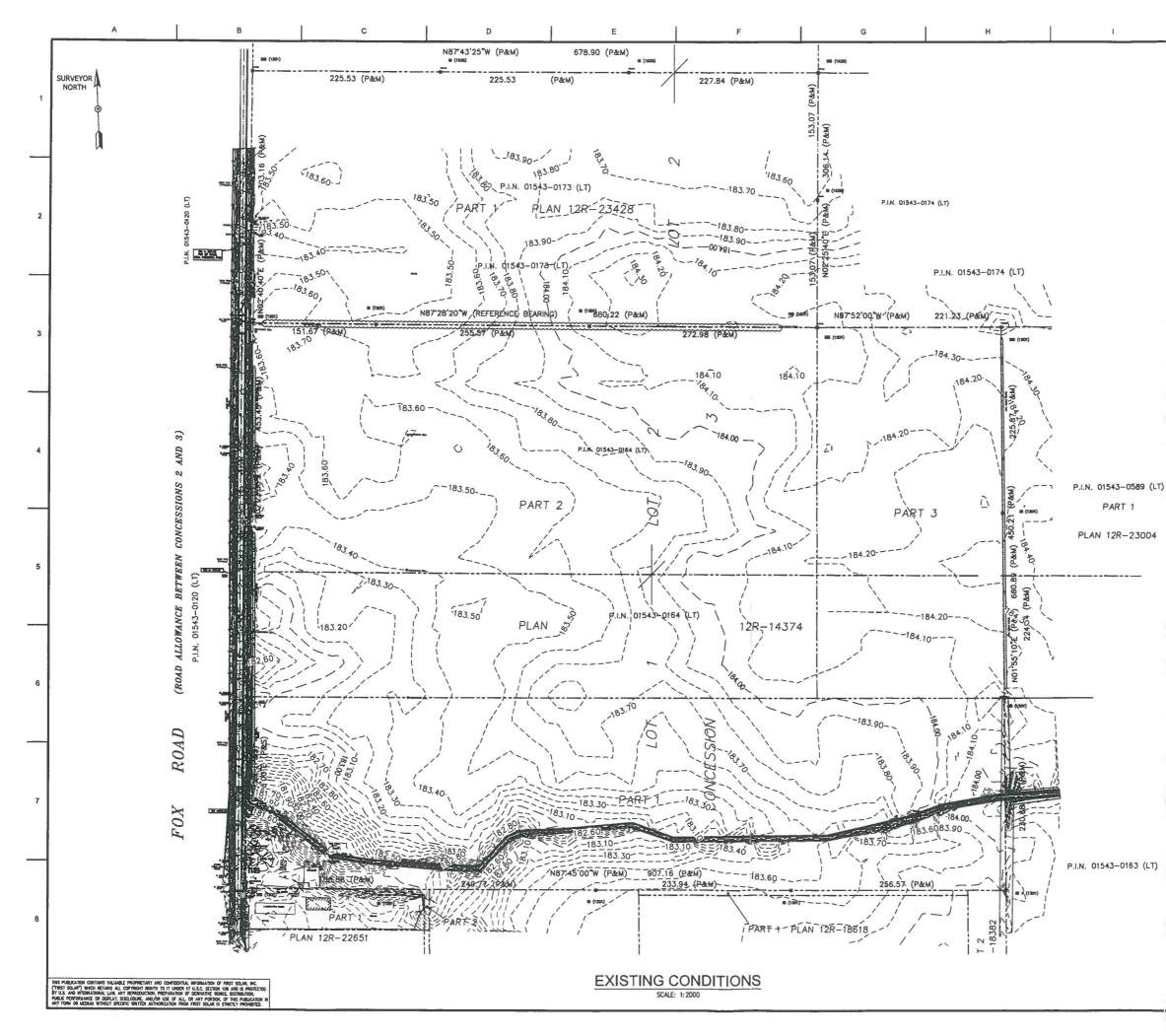


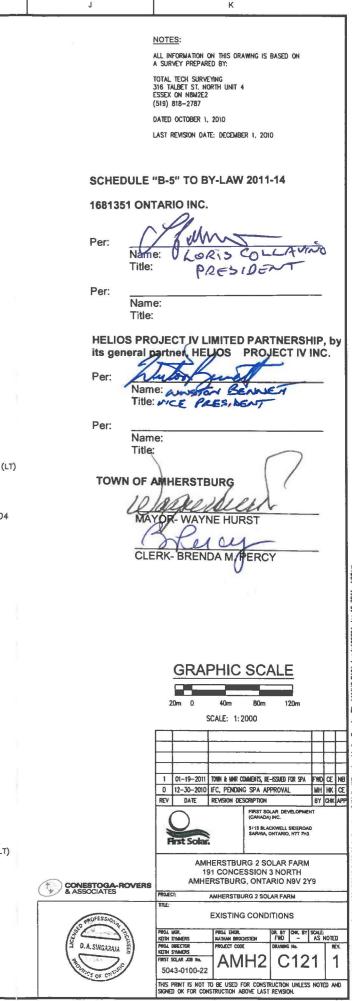
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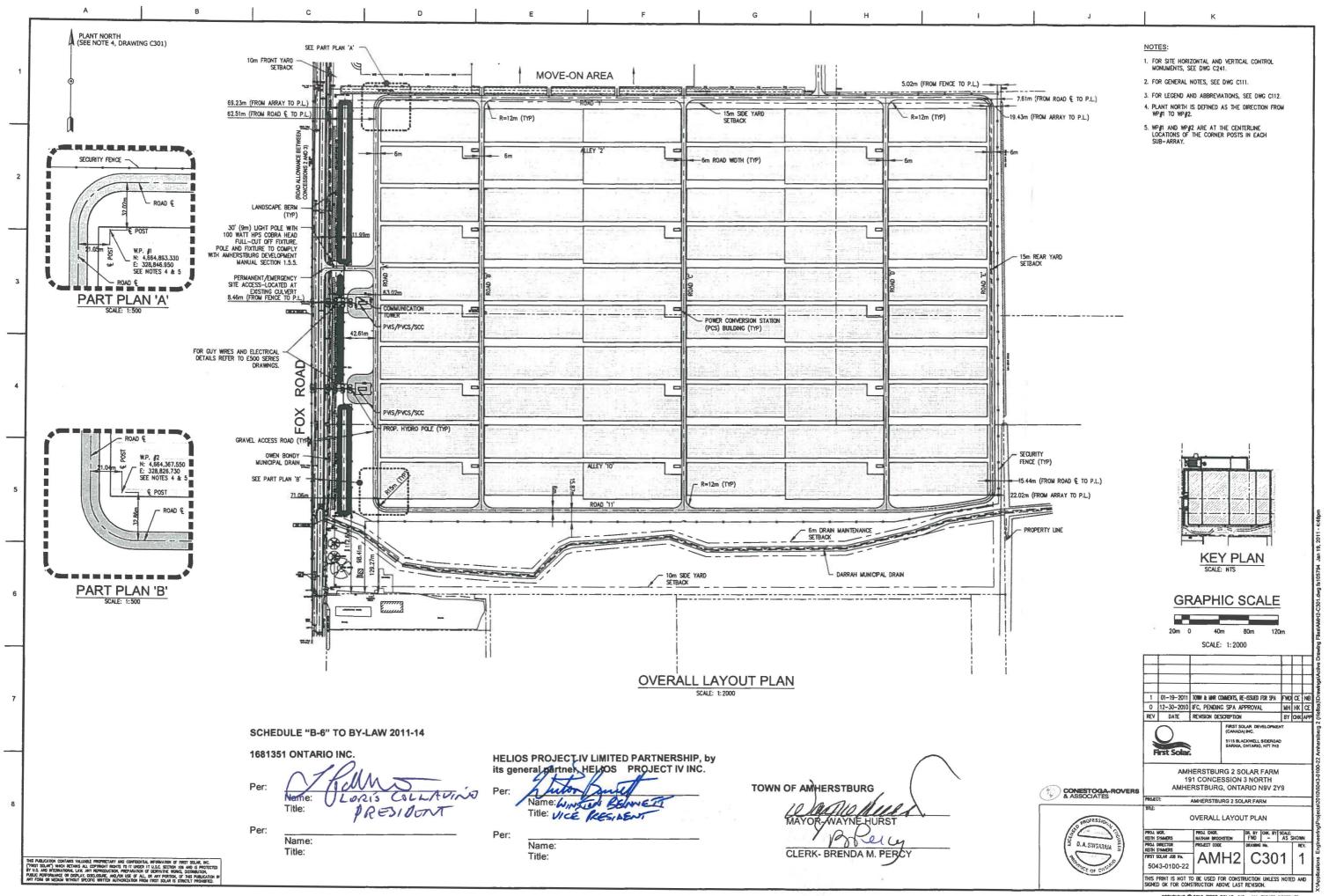


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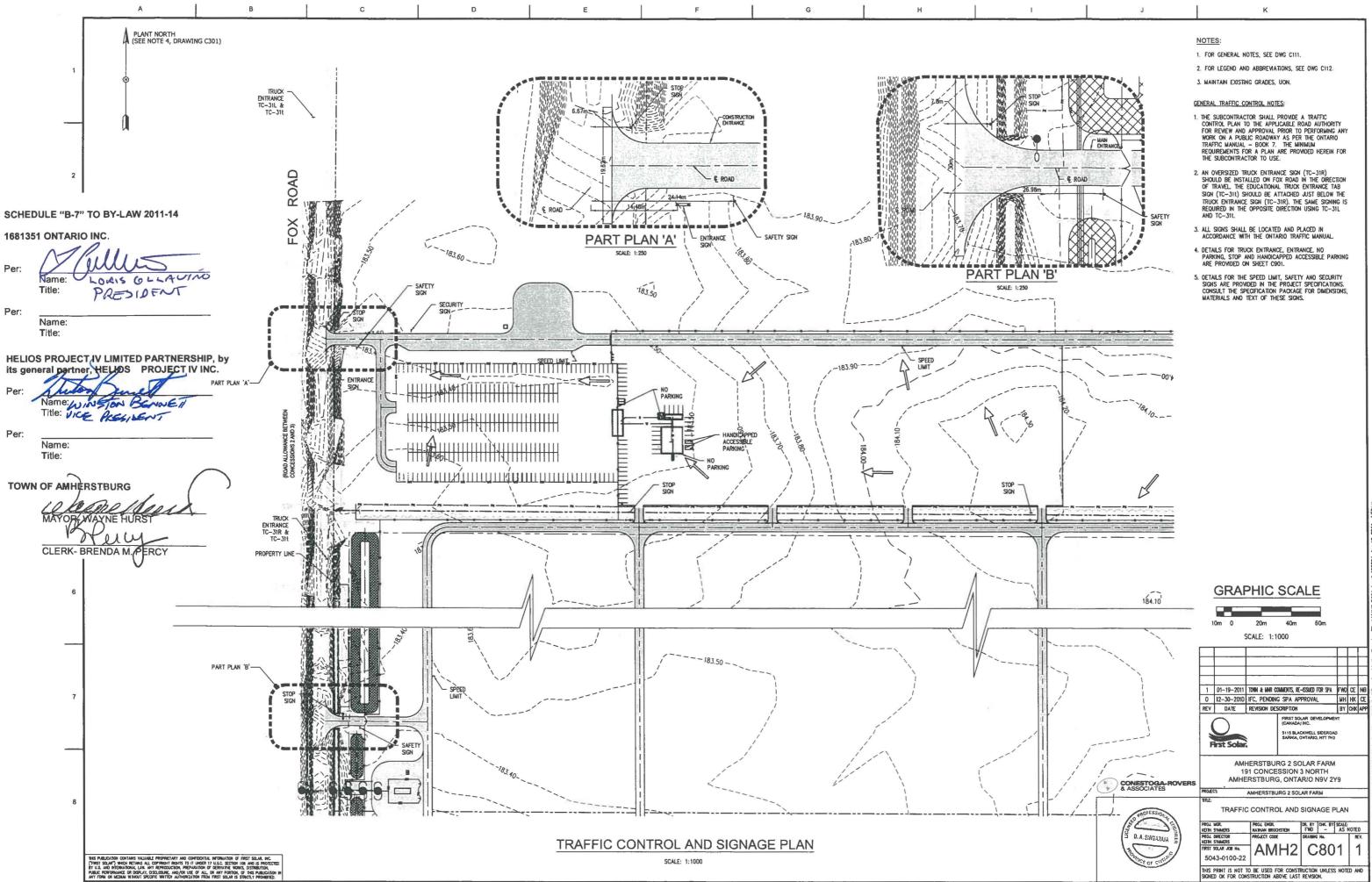




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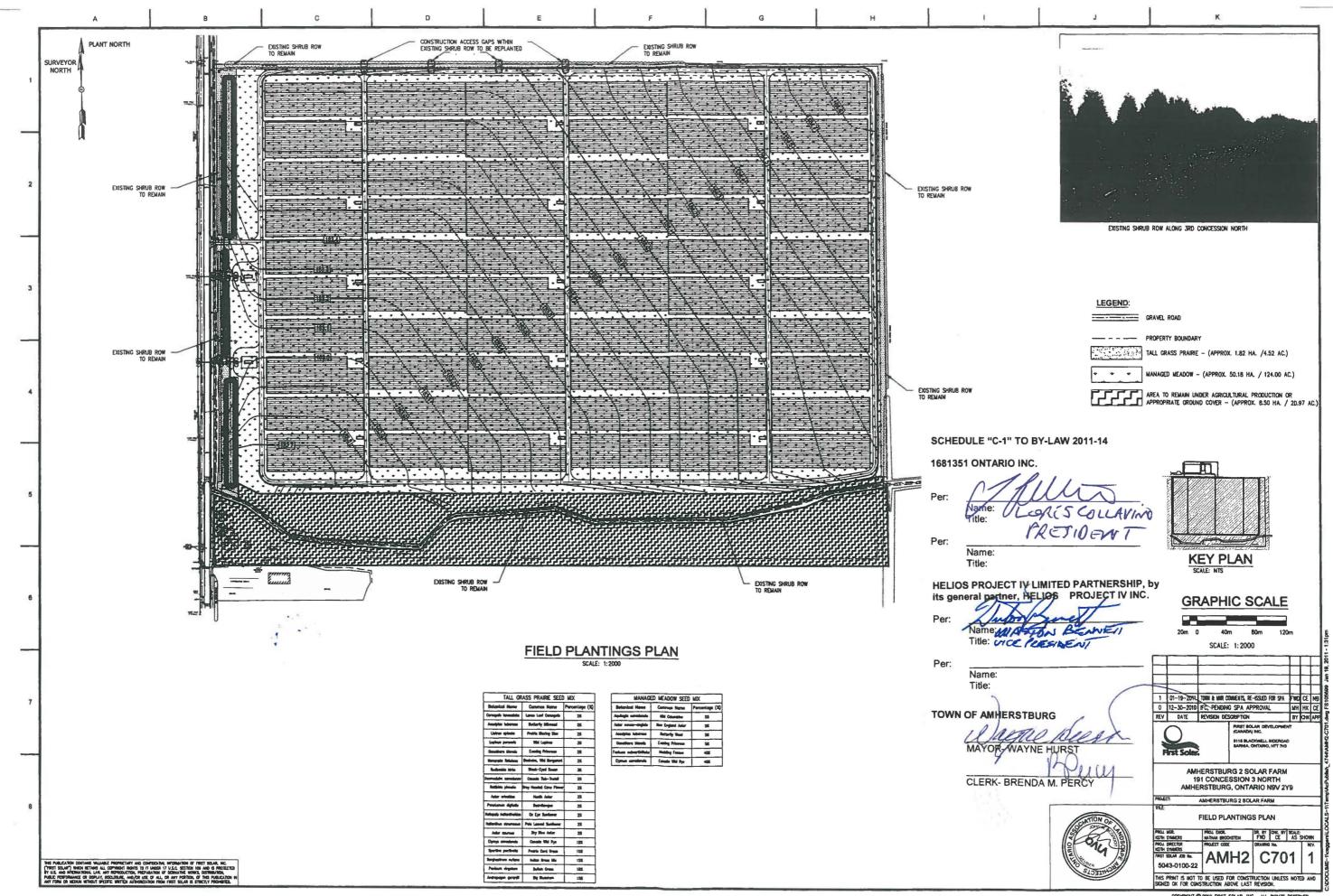
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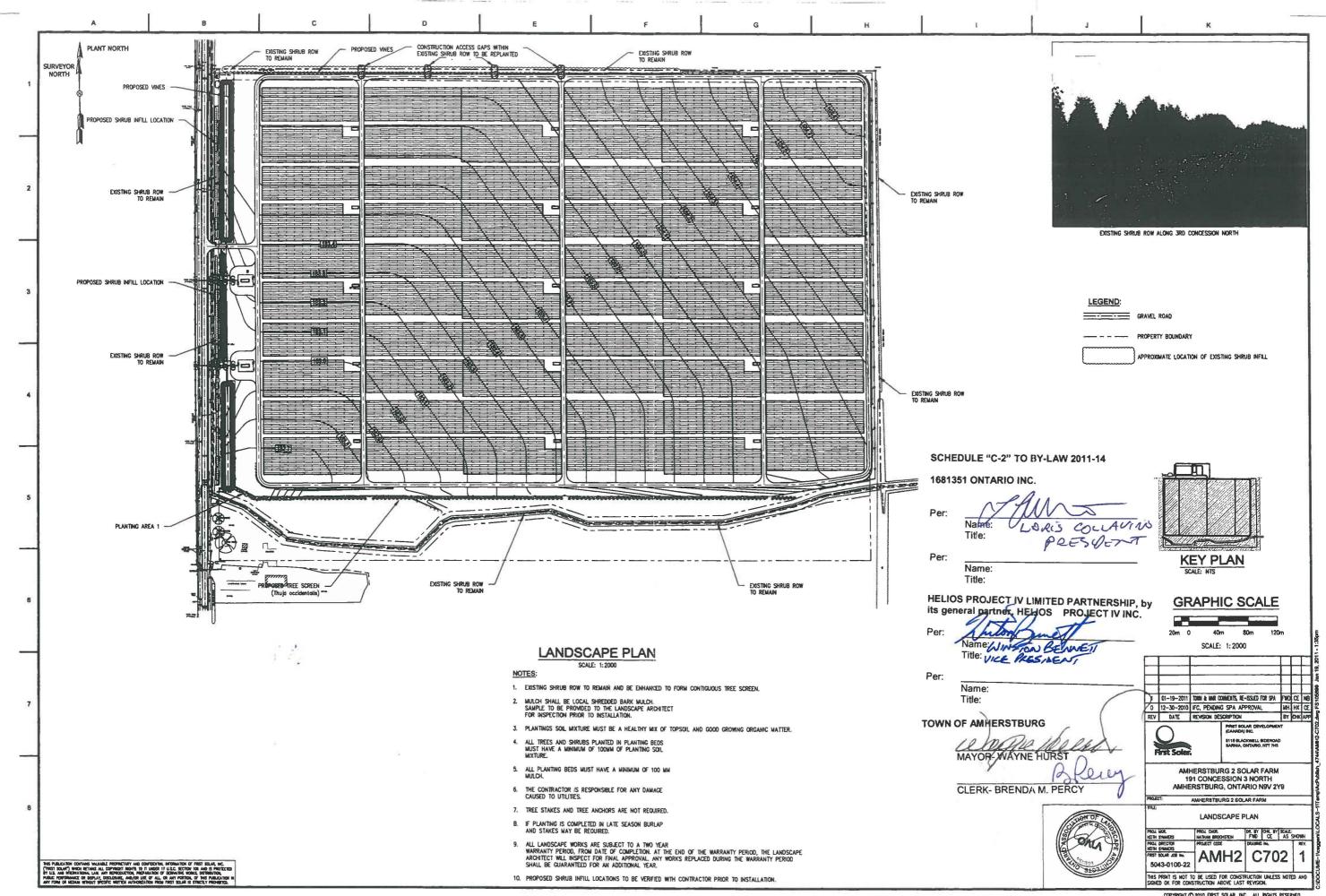




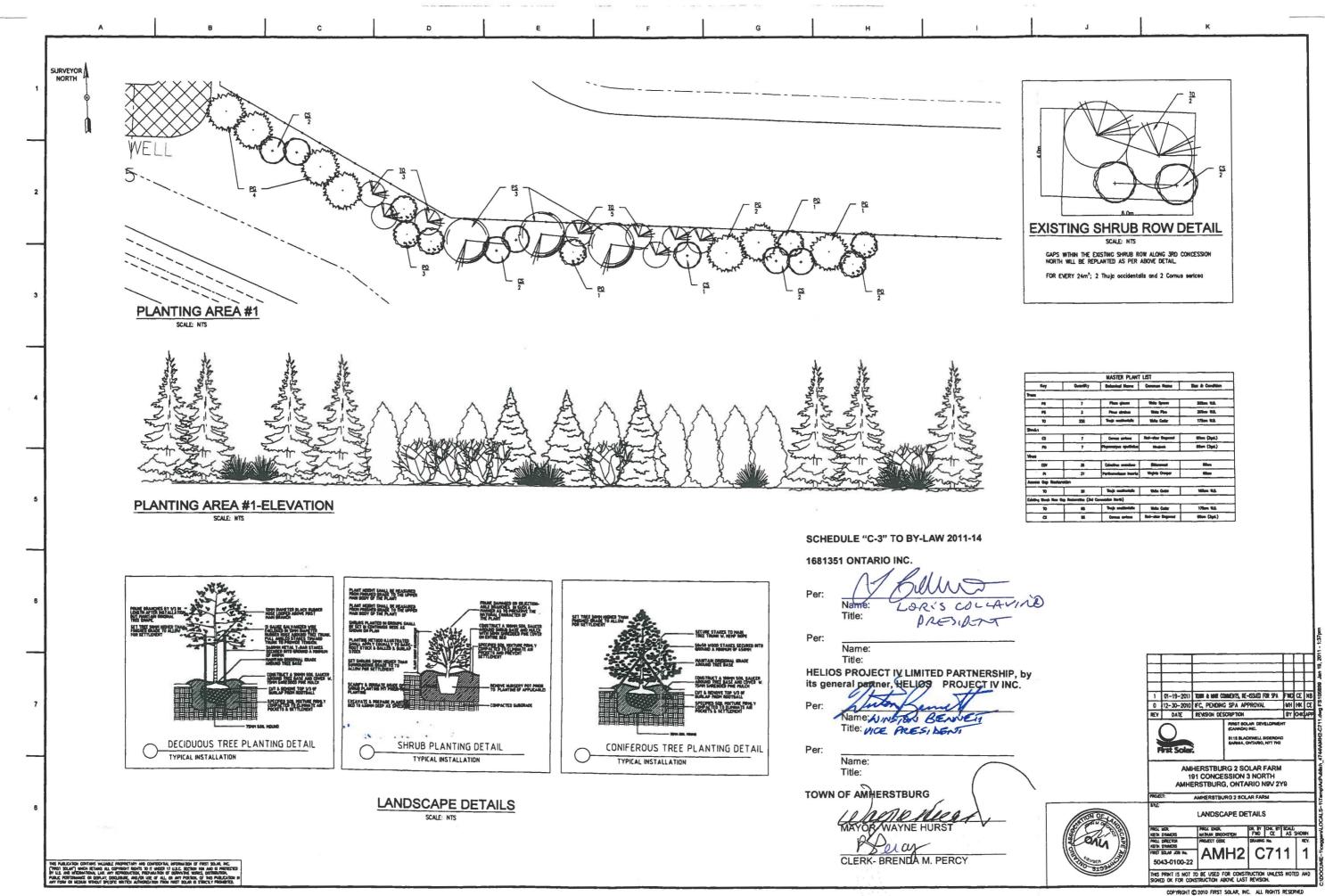
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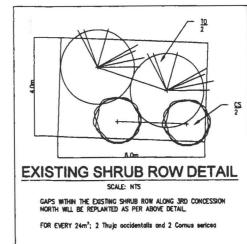


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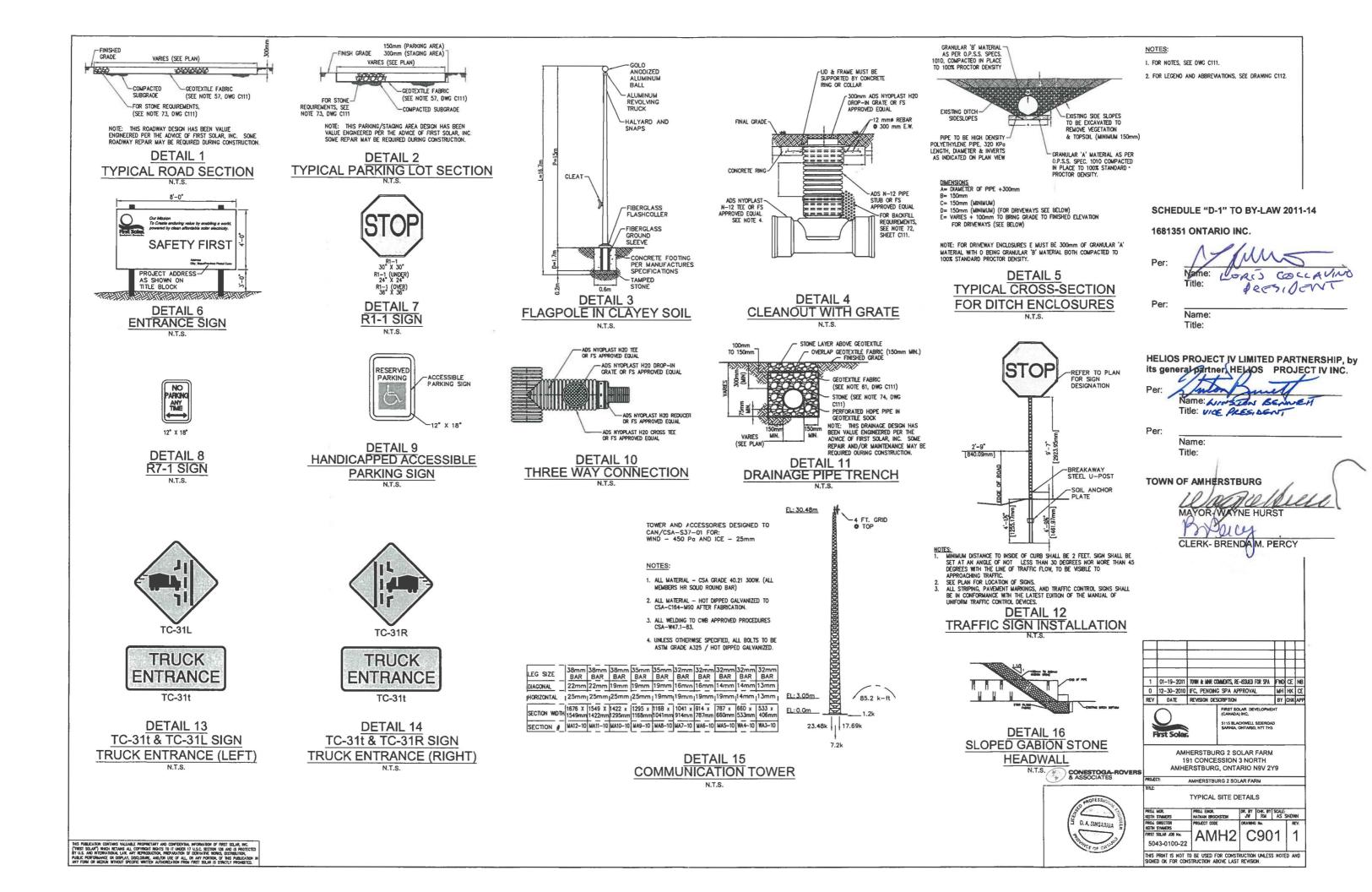


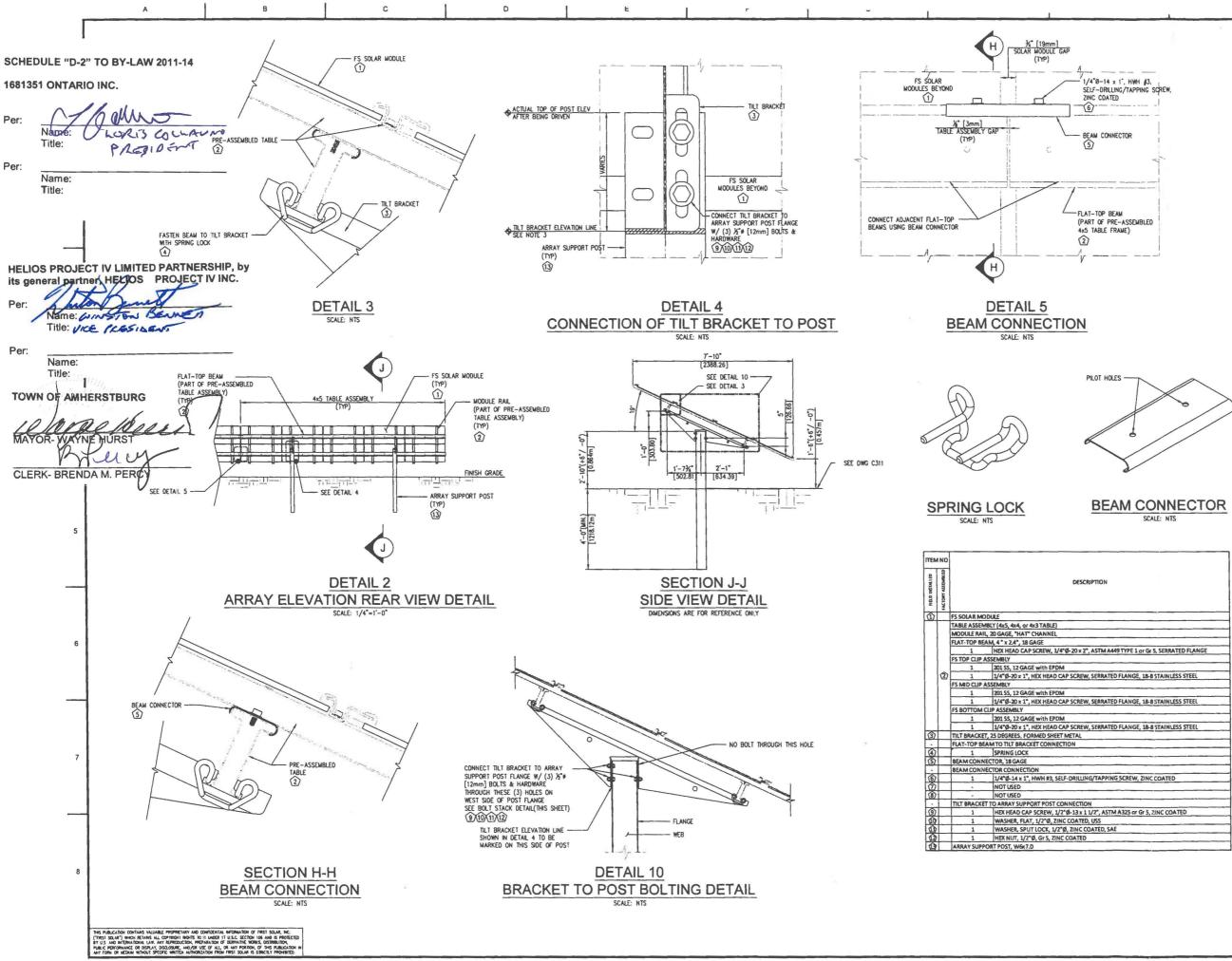
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| | | MASTER PLANT | LIST | |
|-------------------|------------------------|---|------------------|-----------------|
| Key | Quantity | Botanius Hame | Common Name | Sigs & Candidan |
| ingen . | | | | |
| M | 1 | Plana gianas | Web Space | 200m V.S. |
| - | 3 | Pres drakes | Webs Plan | 20m 118. |
| 10 | 230 | Their contracts | Wide Caler | 175an W.B. |
| Bendin . | | | | |
| 6 | 1 | Correct services | Rei-eler Segund | Stam (Syst.) |
| 10 | 7 | Property in the local division of the local | Hindant | Stium (3gst.) |
| dives | | | | |
| C34 | 3 | Calastras exercises | - | ðilum - |
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| Calify Book Res 1 | top Restoration (3rd - | Communica Hardh.) | | |
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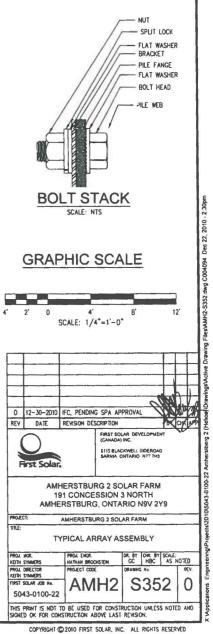


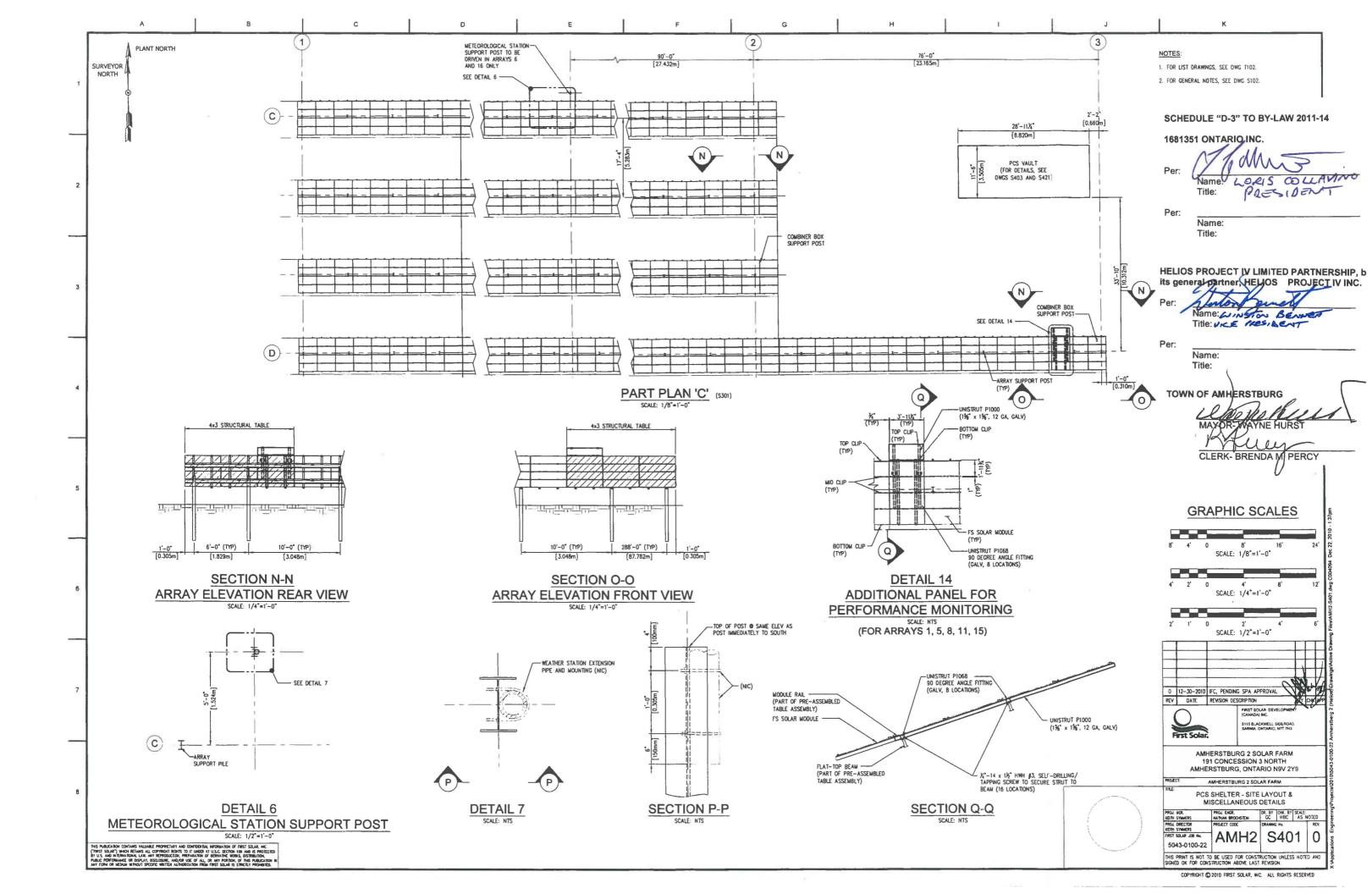
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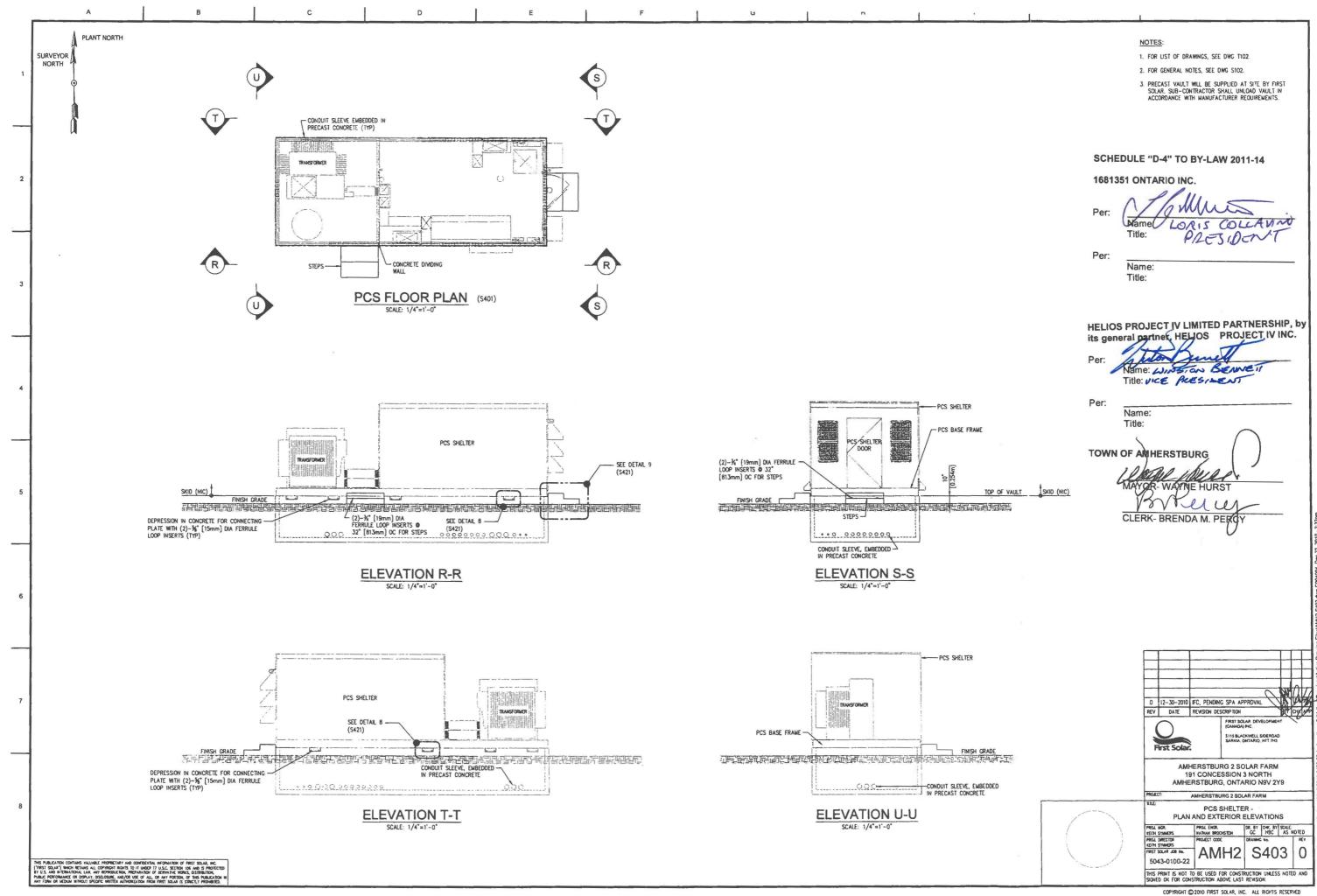
- 1. FOR GENERAL NOTES, SEE DWG S102
- 2 FOR POST INFORMATION, SEE DWG S319
- COMPONENT ASSEMBLY BELOW ARE PROVIDED FOR A TYPICAL POST, BRACKET AND BEAM ASSEMBLY.
- 4. ALL HARDWARE ASSEMBLY SHALL BE ARRANGED AS FOLLOWS:
- 4.1. TILT BRACKET TO ARRAY SUPPORT POST

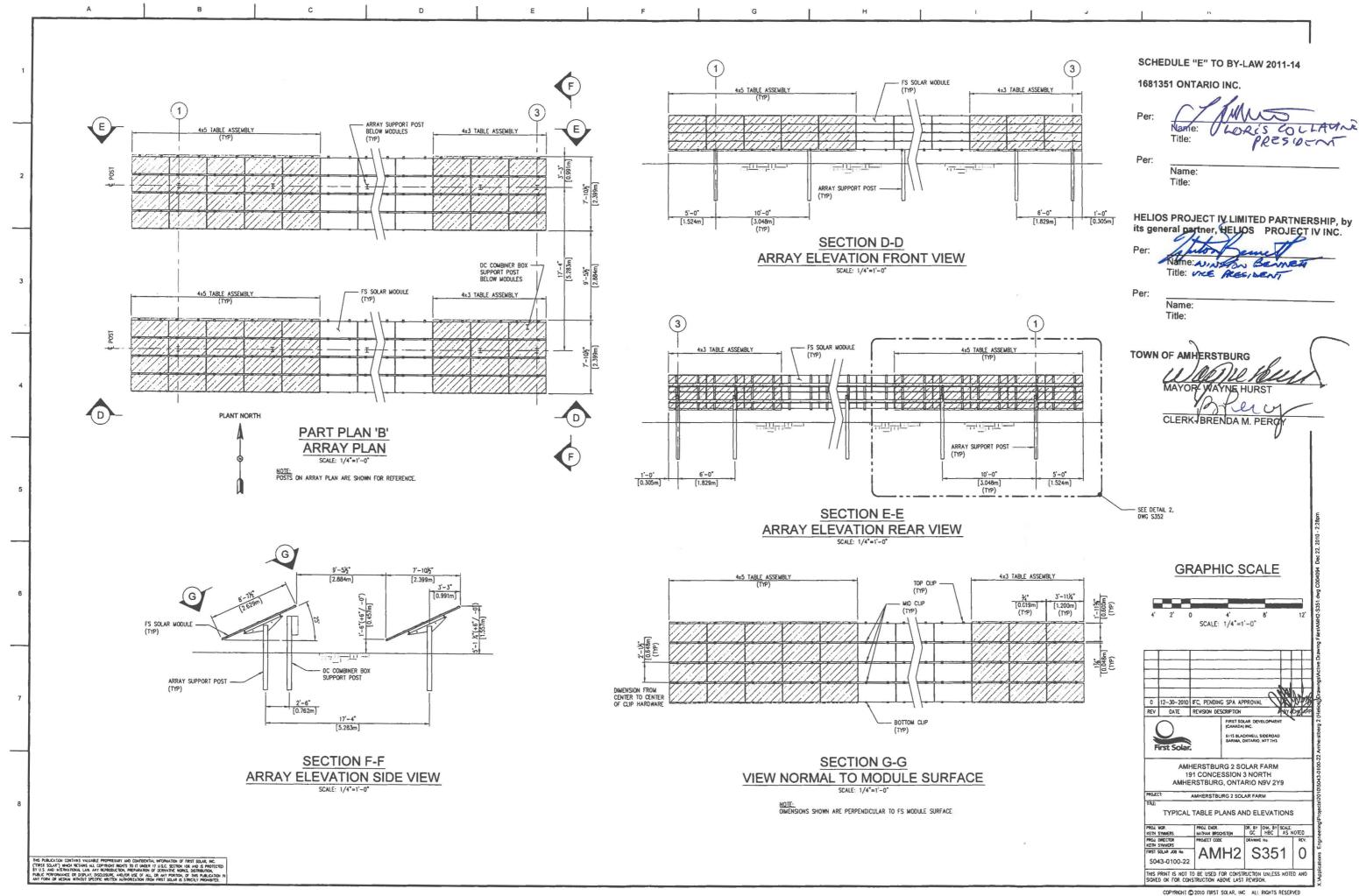
 - がり[13mm] HEX NUT Gr 5 ZINC COATED 光り[13mm] SPUT-LOCK WASHER ZINC COATED, SAE 光り [13mm] FLAT WASHER, ZINC COATED, USS TILT BRACKET

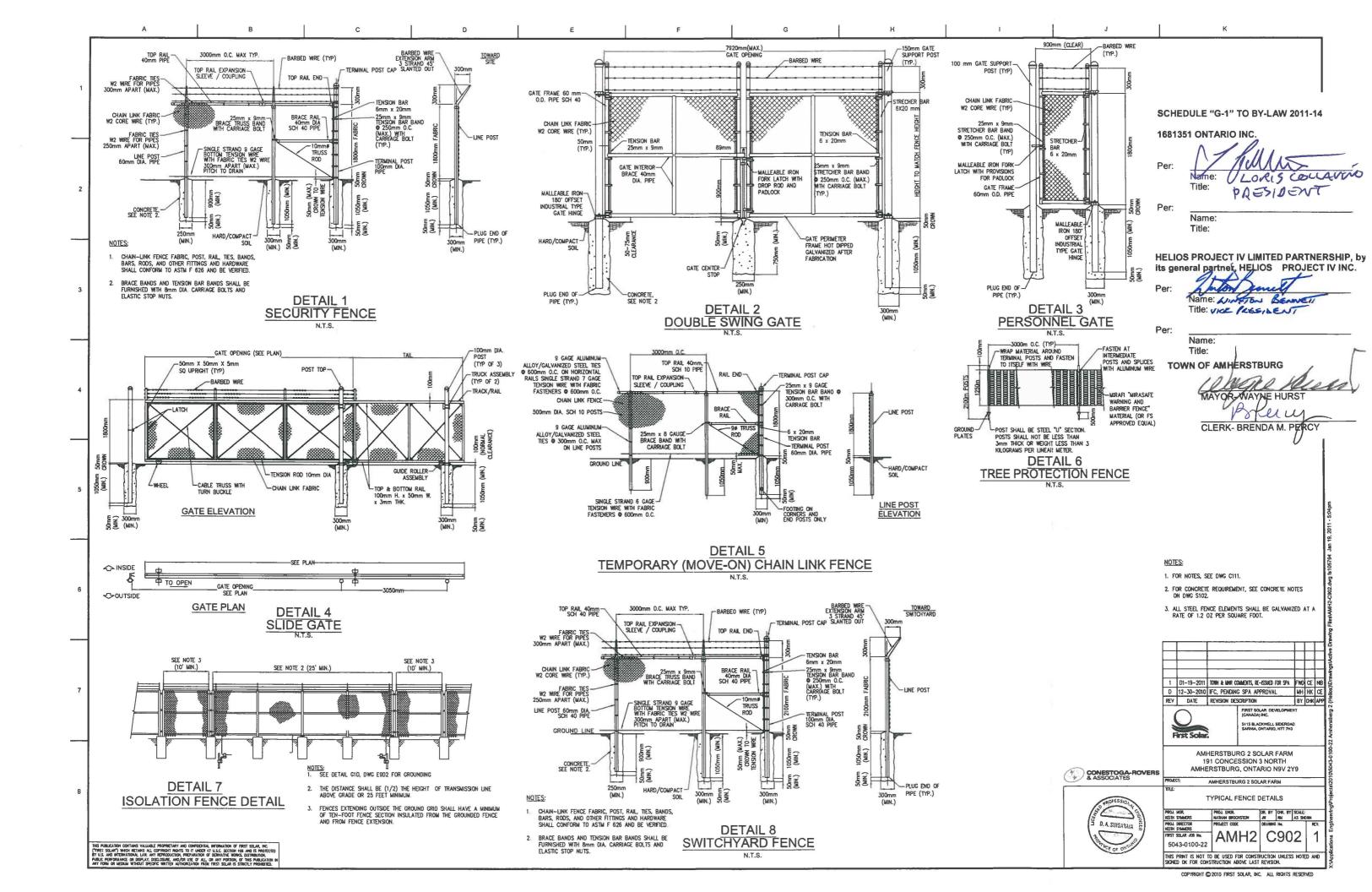
 - ARRAY SUPPORT POST FLANGE
 - 5 -13 x 1-2 [13mm # x 25mm] HEX HEAD CAP SCREW. ASTM A325, OR Gr 5 ZINC COATED
- 4.2. FLAT-TOP BEAM TO TILT BRACKET SPRING LOCK
- 4.3. BEAM CONNECTOR
- X*#-14 x 1" [6mm # x 25mm] HW H#3, SELF-DRILLING/TAPPING SCREW, ZINC COATED BEAM CONNECTOR FLAT-TOP BEAM
- 5. FOR TOUCH-UP GALVANIZING, SEE NOTE 78, DWG S102.
- 6. FOR TOLERANCES, SEE DWG S102.
- 7. FOR BOLTING REQUIREMENTS, SEE DWG S102.
- AFTER INSTALLATION OF POSTS, SUB-CONTRACTOR SHALL PROVIDE A AFTER INSTALLATION OF FOSTS 300-CONTINUES AND ADDRESS TO A STALLATION AND A THE NORTH FLANGE OF EACH ARRAY SUPPORT POST WHICH SHOWS THE ELEVATION FOR SETTING THE TILT BRACKET. ETCHING THE LINE WITH A SHARP OBJECT IS NOT PERMITTED. TOLERANCE FOR THIS ELEVATION SHALL BE ±2mm. FOR ELEVATIONS OF THE TILT BRACKET ELEVATION LINE, SEE DWG S232.

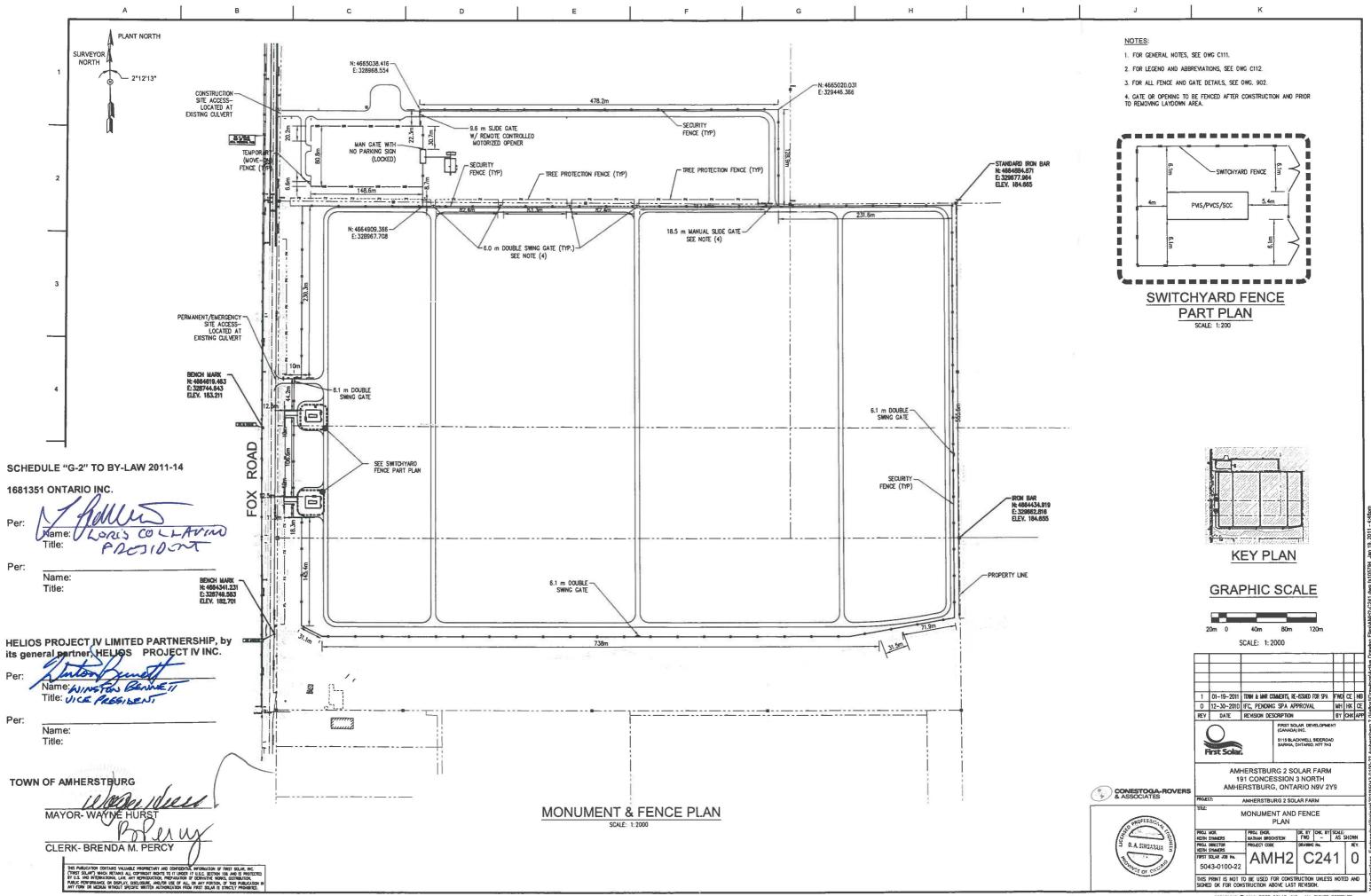




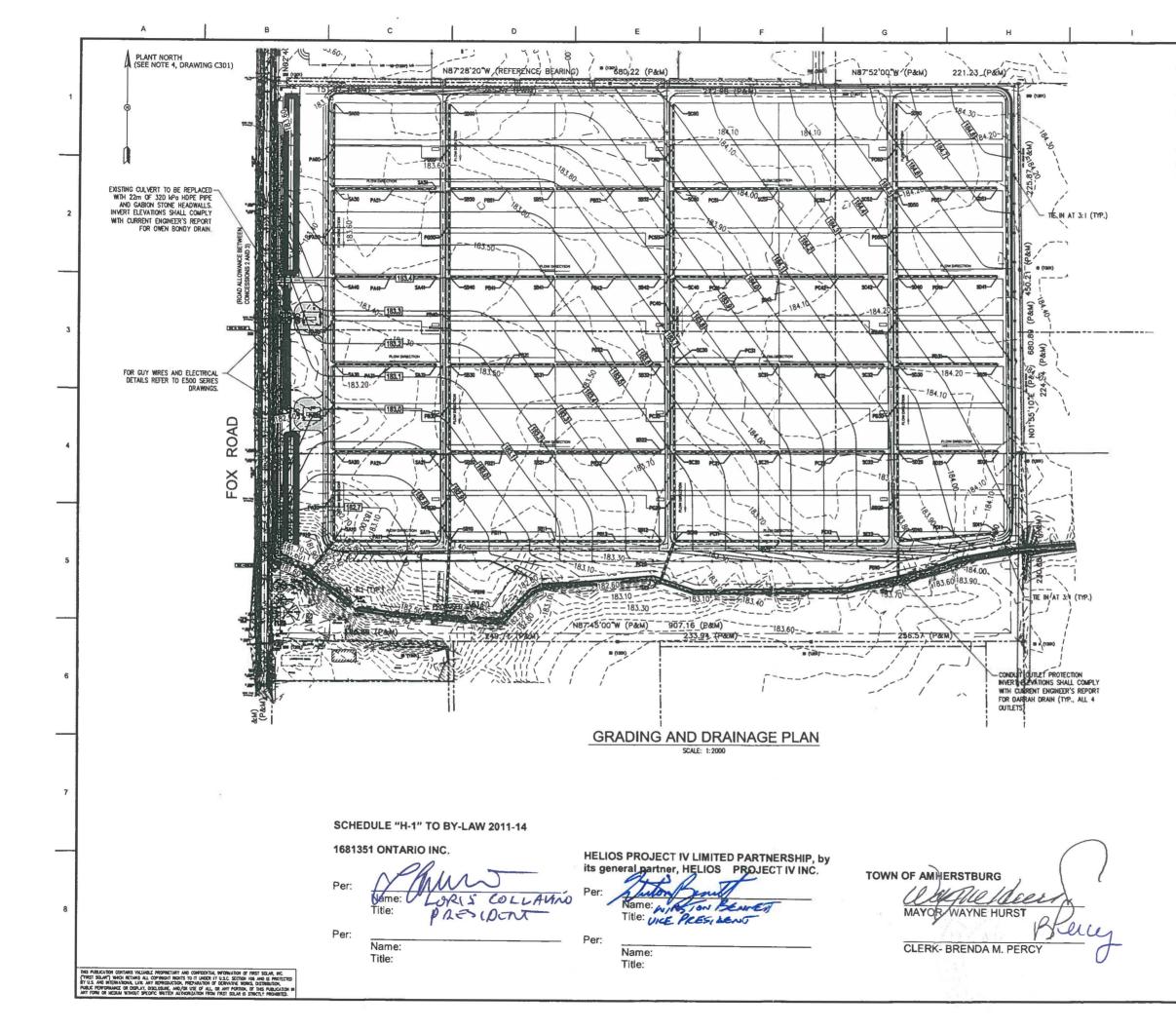








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NOTES:

1. FOR GENERAL NOTES, SEE DWG C111.

2. FOR LEGEND AND ABBREVIATIONS, SEE DWG C112.

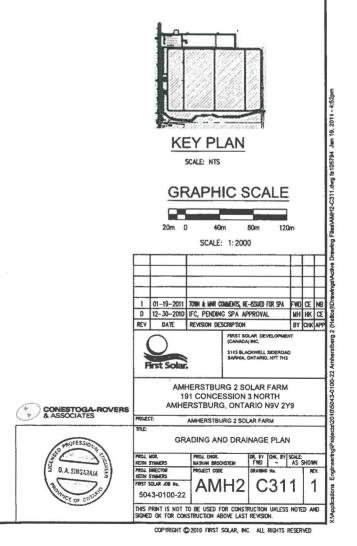
3. FOR DRAIN AND CLEANOUT INFORMATION (SLOPE, LENGTH, COVER, INVERTS, ETC.) SEE DWG. C312.

4. PIPE LENGTHS ARE ESTIMATED. THE SUB-CONTRACTOR SHALL FIELD VERIFY THE CORRECT LENGTH.

5. FOR SITE HORIZONTAL AND VERTICAL CONTROL MONUMENTS, SEE DWG. C241.

6. GRADING TOLERANCE SHALL BE PLUS OR MINUS 50mm.

7. TOWN OF AMHERSTBURG DRAINAGE SUPERINTENDANT SHALL BE NOTIFIED IN WRITING AT LEAST ONE WEEK PRIOR TO CULVERT REPLACEMENT OR PLACEMENT OF CONDUIT OUTLET PROTECTION.



| - | | A | В | 1 | с | | D | | E | | F | | G | | н | |
|------------|------|--------------|------------------------------------|------------|-----------------|---------|--------------|--------------|-------------------------------|--------------|----------------------|--------|---------------|---------------|---------------|------------------|
| | | | | | | | | | | | | | | | | |
| | | | | STORMWATE | R PIPE SCHEDU | LE | | | STORMWATER STRUCTURE SCHEDULE | | | | | | | |
| - 1 | LINE | PIPE # | TYPE | SIZE (mm) | LINE LENGTH (m) | SLOPE % | COVER UP (m) | COVER DN (m) | LINE | STRUCTURE # | TYPE | GRADE | INVERT IN (A) | INVERT IN (B) | INVERT IN (C) | INVERT OUT |
| · 1 | | PA10 | PERFORATED HOPE | 300 | 47 | 0.20 | 1.21 | 0.50 | | SA1 | OUTFALL | 181.80 | N/A | N/A | N/A | 181.00 |
| | | PA11 | PERFORATEO HOPE | 250 | 125 | 0.20 | 1.13 | 1.21 | | SA10 | CLEAN-OUT WITH GRATE | 182.60 | 181.14 | N/A | N/A | 181.09 |
| | | PA20 | PERFORATEO HDPE | 300 | 110 | 0.20 | 1.26 | 1.21 | | \$A11 | CLEAN-OUT WITH GRATE | 182.77 | N/A | N/A | N/A | 181.39 |
| 1 | | PA21 PA30 | PERFORATED HDPE | 250 300 | 125 | 0.20 | 1.06 | 1.26 | | SA20 | CLEAN-OUT WITH GRATE | 182.87 | 181.36 | 181.31 | N/A | 181.31 |
| | A | PA30 | PERFORATED HDPE | 250 | 107 | 0.20 | 1.05 | 1.26 | | SA21 | CLEAN-OUT WITH GRATE | 182.92 | N/A | N/A | N/A | 181.61 |
| | | PA40 | PERFORATED HDPE | 300 | 107 | 0.20 | 1.36 | 1.31 | A | SA30 | CLEAN-OUT WITH GRATE | 183.14 | 181.58 | 181.53 | N/A | 181.53 |
| | | PA41 | PERFORATED HDPE | 250 | 125 | 0.20 | 1.11 | 1.36 | | SA31 SA40 | CLEAN-OUT WITH GRATE | 183.14 | N/A | N/A 181.74 | N/A N/A | 181.83 181.74 |
| | | PA50 | PERFORATED HDPE | 300 | 107 | 0.20 | 1.41 | 1.36 | | SA40 SA41 | CLEAN-OUT WITH GRATE | 183.40 | 181.79 N/A | 181.74 N/A | N/A N/A | 181.74 |
| | | PA51 | PERFORATED HOPE | 250 | 125 | 0.20 | 1.16 | 1.41 | | SA50 | CLEAN-OUT WITH GRATE | 183.40 | 182.01 | 182.01 | N/A | 181.96 |
| | | PA60 | PERFORATED HOPE | 250 | 104 | 0.20 | 1.44 | 1,41 | | SA51 | CLEAN-OUT WITH GRATE | 183.67 | N/A | N/A | N/A | 182.53 |
| | | PB10 | PERFORATEO HOPE | 300 | 92 | 0.20 | 0.72 | 0.50 | | SA60 | CLEAN-OUT WITH GRATE | 183.90 | N/A | N/A | N/A | 182.14 |
| 2 | | PB11 | PERFORATED HOPE | 250 | 128 | 0.20 | 0.72 | 0.30 | | | VILLE VILLE | 100.00 | | 1 | | |
| | | PB12 | PERFORATEO HOPE | 250 | 128 | 0.20 | 0.81 | 0.75 | | SB1 | OUTFALL | 182.40 | N/A | N/A | N/A | 181.60 |
| | | PB20 | PERFORATEO HDPE | 300 | 110 | 0.20 | 0.65 | 0.72 | | SB10 | CLEAN-OUT WITH GRATE | 182.80 | 181.83 | 181.78 | N/A | 181.78 |
| Í | | PB21 | PERFORATED HDPE | 250 | 128 | 0.20 | 0.65 | 0.65 | | \$B11 | CLEAN-OUT WITH GRATE | 183.09 | 182.09 | N/A | N/A | 182.09 |
| _ I | | PB22 PB30 | PERFORATED HDPE | 250 300 | 128 | 0.20 | 0.66 | 0.65 | | SB12 | CLEAN-OUT WITH GRATE | 183.41 | N/A | N/A | N/A | 182.35 |
| | | PB30 PB31 | PERFORATED HDPE | 250 | 107 | 0.20 | 0.62 | 0.65 | | \$B20 | CLEAN-OUT WITH GRATE | 182.95 | 182.05 | 182.00 | N/A | 182.00 |
| | В | PB32 | PERFORATED HDPE | 250 | 128 | 0.20 | 0.60 | 0.62 | | SB21 | CLEAN-OUT WITH GRATE | 183.21 | 182.31 | N/A | N/A | 182.31 |
| _ I | | PB40 | PERFORATED HDPE | 300 | 120 | 0.20 | 0.67 | 0.62 | | S822 | CLEAN-OUT WITH GRATE | 183.48 | N/A | N/A | N/A | 182.57 |
| | | PB41 | PERFORATED HOPE | 250 | 128 | 0.20 | 0.53 | 0.67 | | SB30 | CLEAN-OUT WITH GRATE | 183.14 | 182.27 | 182.22 | N/A | 182.22 |
| - 1 | | PB42 | PERFORATED HDPE | 250 | 128 | 0.20 | 0.54 | 0.53 | В | SB31 | CLEAN-OUT WITH GRATE | 183.37 | 182.53 | N/A | N/A | 182.53 |
| | | PB50 | PERFORATED HDPE | 300 | 107 | 0.20 | 0.72 | 0.67 | | SB32 | CLEAN-OUT WITH GRATE | 183.63 | N/A | N/A | N/A | 182.78 |
| 3 | | PB51 | PERFORATED HDPE | 250 | 128 | 0.20 | 0.49 | 0.72 | | S840 | CLEAN-OUT WITH GRATE | 183.40 | 182.48 | 182.43 | N/A | 182.43 |
| | | PB52 PB60 | PERFORATED HDPE | 250 250 | 128 | 0.20 | 0.48 | 0.49 | | SB41 | CLEAN-OUT WITH GRATE | 183.52 | 182.74 | N/A | N/A | 182.74 |
| | | Pbou | PERFORATED HOPE | 230 | 110 | 0.20 | 0.73 | 0.72 | | SB42 | CLEAN-OUT WITH GRATE | 183.78 | N/A | N/A | N/A | 183.00 |
| | | PC10 | PERFORATED HOPE | 300 | 52 | 0.20 | 0.85 | 0.60 | | SB50 | CLEAN-OUT WITH GRATE | 183.67 | 182.70 | 182.70 | N/A | 182.65 |
| | | PC11 | PERFORATED HOPE | 250 | 128 | 0.20 | 0.91 | 0.85 | | SB51 SB52 | CLEAN-OUT WITH GRATE | 183.69 | 182.95 | N/A | N/A N/A | 182.95 |
| | | PC12 | PERFORATED HDPE | 250 | 128 | 0.20 | 0.96 | 0.91 | | 5852 S860 | CLEAN-OUT WITH GRATE | 183.94 | N/A | N/A | N/A N/A | 182.92 |
| | | PC20 | PERFORATED HDPE | 300 | 110 | 0.20 | 0.69 | 0.85 | | 3600 | CLEAN-OUT WITH GRATE | 183.90 | N/A | II/A | N/A | 102.92 |
| | ļ | PC21 | PERFORATED HOPE | 250 | 128 | 0.20 | 0.69 | 0.69 | | SC1 | OUTFALL | 183.10 | N/A | N/A | N/A | 182.20 |
| | | PC22 PC30 | PERFORATED HOPE | 250 300 | 128 | 0.20 | 0.74 | 0.69 | | SC10 | CLEAN-OUT WITH GRATE | 183.45 | 182.35 | 182.30 | N/A | 182.30 |
| - 1 | | PC30 | PERFORATED HOPE | 250 | 107 | 0.20 | 0.62 | 0.69 | | \$C11 | CLEAN-OUT WITH GRATE | 183.77 | 182.61 | N/A | N/A | 182.61 |
| | c | PC32 | PERFORATED HOPE | 250 | 128 | 0.20 | 0.63 | 0.63 | | \$C12 | CLEAN-OUT WITH GRATE | 184.08 | N/A | N/A | N/A | 182.87 |
| | Í | PC40 . | PERFORATED HOPE | 300 | 107 | 0.20 | 0.56 | 0.62 | | \$C20 | CLEAN-OUT WITH GRATE | 183.51 | 182.57 | 182.52 | N/A | 182.52 |
| 1 | | PC41 | PERFORATED HOPE | 250 | 128 | 0.20 | 0.56 | 0.56 | | \$C21 | CLEAN-OUT WITH GRATE | 183.77 | 182.83 | N/A | N/A | 182.83 |
| | | PC42 | PERFORATED HOPE | 250 | 128 | 0.20 | 0.58 | 0.56 | | SC22 | CLEAN-OUT WITH GRATE | 184.08 | N/A | N/A | N/A | 183.04 |
| | 1 | PC50 PC51 | PERFORATED HOPE | 300 250 | 107 | 0.20 | 0.50 | 0.56 | | \$C30 | CLEAN-OUT WITH GRATE | 183.66 | 182.79 | 182.74 | N/A | 182.74 |
| | | PC51 PC52 | PERFORATED HDPE PERFORATED HDPE | 250 | 128 | 0.20 | 0.51 | 0.50 | c | SC31 | CLEAN-OUT WITH GRATE | 183.92 | 183.04 | N/A | N/A | 183.04 |
| | | PC80 | PERFORATED HOPE | 250 | 120 | 0.20 | 0.51 | 0.50 | | \$C32 | CLEAN-OUT WITH GRATE | 184.18 | N/A | N/A | N/A | 183.30 |
| | | | | | | 0.20 | | | | SC40 | CLEAN-OUT WITH GRATE | 183.81 | 183.00 | 182.95 | N/A | 182.95 |
| | | PD10 | PERFORATED HDPE | 300 | 43 | 0.20 | 0.92 | 0.90 | | \$C41 | CLEAN-OUT WITH GRATE | 184.07 | 183.26 | N/A | N/A | 183.26 |
| | | PD11 | PERFORATED HDPE | 250 | 122 | 0.20 | 0.80 | 0.92 | | SC42 | CLEAN-OUT WITH GRATE | 184.34 | N/A | N/A | N/A | 183.51 |
| | | PD20 | PERFORATED HOPE | 300 | 110 | 0.20 | 0.70 | 0.92 | | SC50 | CLEAN-OUT WITH GRATE | 183.97 | 183.22 | 183.22 | N/A | 183.17 |
| | | PD21 PD30 | PERFORATED HOPE PERFORATED HOPE | 250 | 122 | 0.20 | 0.67 | 0.70 | | SC51 SC52 | CLEAN-OUT WITH GRATE | 184.23 | 183.47 | N/A | N/A N/A | 183.47 |
| I. | D | PD30 | PERFORATED HOPE | 250 | 110 | 0.20 | 0.60 | 0.60 | | SC60 | CLEAN-OUT WITH GRATE | 184.49 | N/A N/A | N/A N/A | N/A N/A | 183.42 |
| 5 | 1 5 | PD40 | PERFORATED HDPE | 300 | 110 | 0.20 | 0.54 | 0.60 | | 3000 | ULEAN-OUT WITH GRATE | 184.10 | N | n/A | I 1/A | 103.92 |
| | | PD41 | PERFORATED HDPE | 250 | 122 | 0.20 | 0.53 | 0.54 | | SD1 | OUTFALL | 184.00 | N/A | N/A | N/A | 182.80 |
| | | PD50 | PERFORATED HDPE | 300 | 110 | 0.20 | 0.48 | 0.54 | | SD10 | CLEAN-OUT WITH GRATE | 184.11 | 182.94 | 182.89 | N/A | 182.89 |
| | | PD51 | PERFORATED HDPE | 250 | 122 | 0.20 | 0.48 | 0.48 | | SD11 | CLEAN-OUT WITH GRATE | 184.23 | N/A | N/A | N/A | 183.18 |
| | | PD60 | PERFORATED HDPE | 250 | 104 | 0.20 | 0.40 | 0.48 | 1 1 | SD20 | CLEAN-OUT WITH GRATE | 184.11 | 183.16 | 183.11 | N/A | 183.11 |
| | | | | | | | | | | SD21 | CLEAN-OUT WITH GRATE | 184.32 | N/A | N/A | N/A | 183.40 |
| | | | | | | | | | _ | SD30 | CLEAN-OUT WITH GRATE | 184.22 | 183.37 | 183.32 | N/A | 183.32 |
| | | | | | | | | | D | SD31 | CLEAN-OUT WITH GRATE | 184.49 | N/A | N/A | N/A | 183.61 |
| 1 | | | | | | | | | | 0010 | | 101.00 | 100.00 | 100.00 | 41/4 | 107.57 |

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THIS PUBLICATION CONTINUE VIELWARE PROPHETANT WID COMPRISTING, INFORMATION OF PRIST SCUAR, INC. ("YNIST SKUAP") INFON IRTURNA ALL COPINIONT ROLTS TO IT UNCEN IT VIELS, SECTION TO AND IS MORETER IT US, AND RETORNAUL LAIR, MIT INFONCTION, IMPROVATION OF COMPANIES DIRECT, DESAUDOR PUBLIC PROFUNIACE, OR IGPULI, DEDICUSINE, MANDRING IT COM INT FORTION, OF THIS RUBLICATOR INT FORM ON ADDRESS INFORMATION OF UNIT ANTIPOLITIES INTO THIS THORAGE TO AND INT FORM ON ADDRESS INFORMATION FOR INT POLITICAL STRUCT, THEOREMENT.

CLEAN-OUT WITH GRATE 184.37

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CLEAN-OUT WITH GRATE 184.77 CLEAN-OUT WITH GRATE 184.66

SD40

SD41

SD50

SD51

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N/A

183.79

N/A

N/A

183.53 N/A 183.79

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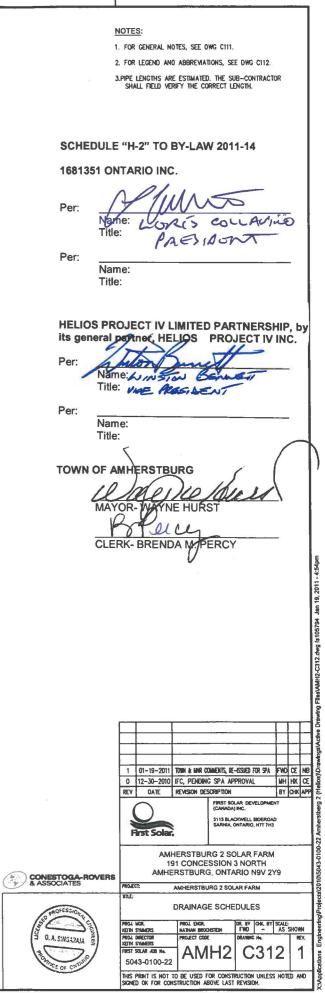
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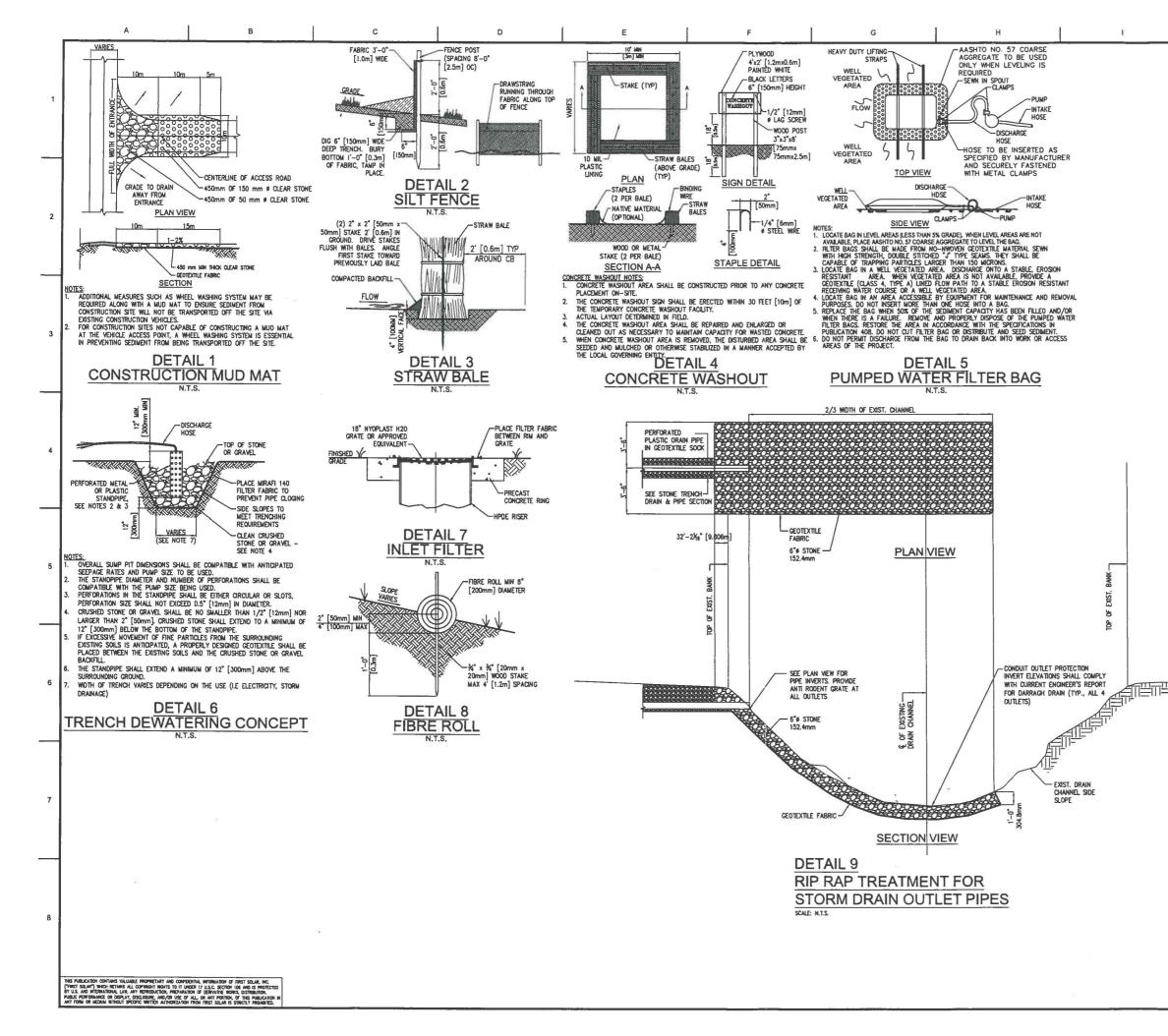
183.83

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184.04

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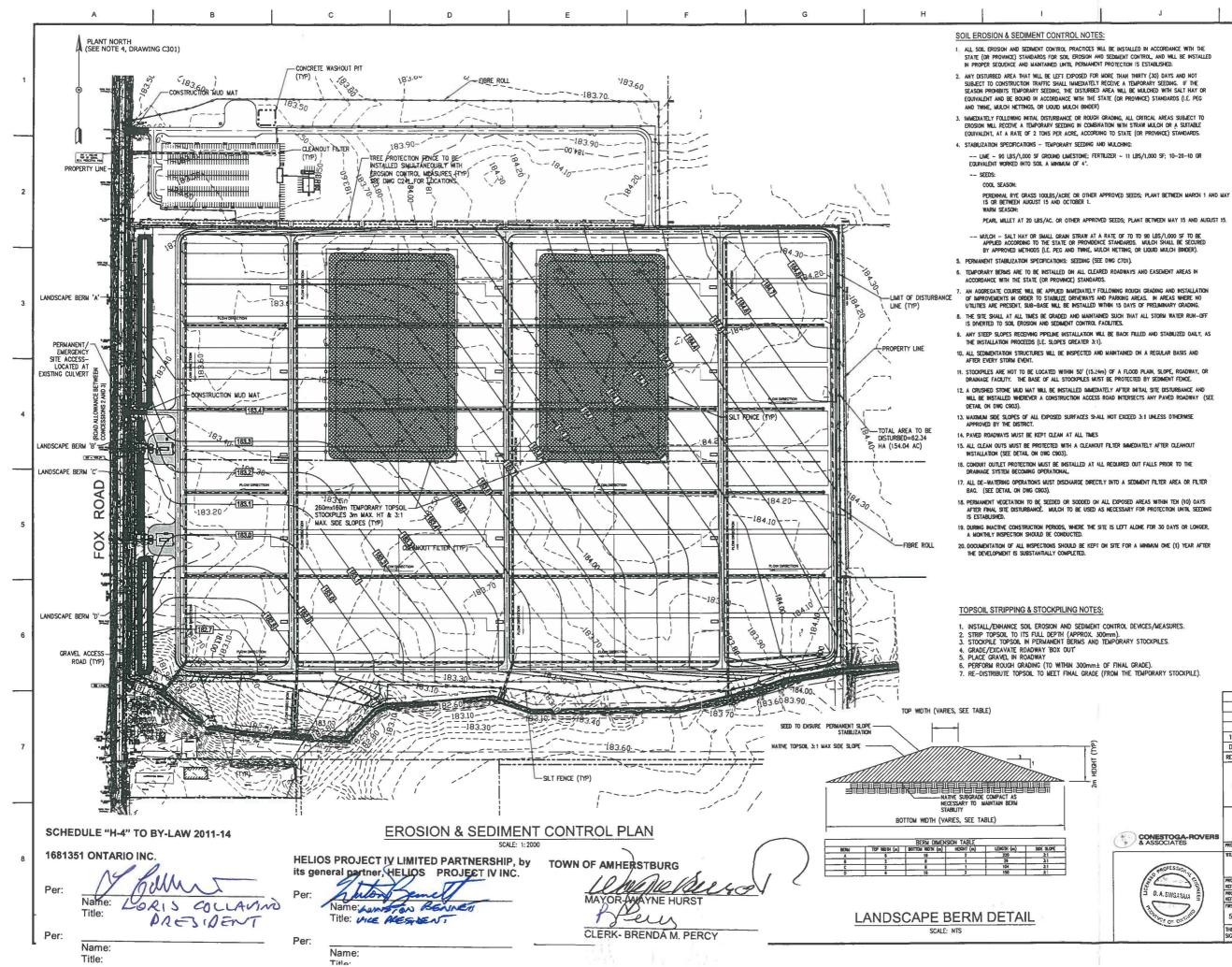
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|----------|--|--|---|--|------------------|-----------------|
| | | NOTES: | | | | |
| | | 1. FOR NOTES, 5 2. FOR LEGENO | AND ABBREVIATIONS, | SEE ORAWING | CI12 | |
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| | SCHEDULE "H-3" | TO BY-LA | W 2011-14 | | | |
| | 1681351 ONTARIO | INC. | | | | |
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| | D. A. SINGARAJA | PROJ. MOR. KEITH SYMMERS | PROL ENGR. NATIHANI BROCHSTEIN | TAILS | SCALE: AS SHO |)WN |
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| | 3 mile of cutting | | TO BE USED FOR CONST INSTRUCTION ABOVE LAS | RUCTION UNLESS | NOTED | AND |
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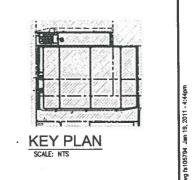
K

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NOTES:

- 1. FOR GENERAL NOTES, SEE DWG C111.
- 2. FOR LEGEND AND ABBREVIATIONS, SEE DWG C112.
- 3. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AS PART OF MOVE-ON WORK.
- 4. ALL INSTALLED EROSION CONTROL MEASURES ALL INSTALLED ENGLIDE ENGLIDE ENGLIDE ENGLIDE ENGLIDE SHALL BE MAINTAINED BY SUB-CONTRACTOR FOR THE DURATION OF THE PROJECT AND REMOVED AFTER COMPLETION OF THE PROJECT AND FINAL SITE STABILIZATION
- 5. FOR ALL EROSION AND SEDIMENT CONTROL DETAILS, SEE DWG. C903.







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STORMWATER MANAGEMENT PLAN AMHERSTBURG 2 SOLAR FARM

191 CONCESSION ROAD 3 NORTH (FOX ROAD), AMHERSTBURG, ONTARIO

Prepared For: First Solar Development (Canada) Inc SCHEDULE "I" TO BY-LAW 2011-14

1681351 ONTARIO INC.

Name: Title:

Per: COLLANNO Name: LORIS Title: PRESIDENT

Per:

HELIOS PROJECT IV LIMITED PARTNERSHIP, by its general partner, NELIOS PROJECT IV INC.

Per: ame: Title: UNE IRESIDENT

Per:

Name: Title: TOWN OF AM ERSTBUR MA CLERK- BRENDA M. PERC

Prepared by: Conestoga-Rovers & Associates

651 Colby Drive Waterloo, Ontario Canada N2V 1C2

Office: (519) 884-0510 Fax: (519) 884-0525

web: http://www.CRAworld.com

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NOVEMBER 2010 Ref. no. 073209 (1)

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1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) has prepared the following stormwater management plan (SWM Plan) for a proposed 61.6 hectare (ha) 15 MegaWatt (MW) photovoltaic or solar power plant located at 191 Concession 3 North in the Town of Amherstburg, Ontario (Site). The developed portion of the Site is bounded to the south by Darrah Drain, to the west by Concession Road 3 North (Fox Road) followed by the Owen Bondy Drain, and to the north and east by agricultural lands. The Site is surrounded by agricultural lands to the north, east, and south and by industrial lands to the west. Alma Street is located further to the south. Figure 1 presents the Site location information. This SWM Plan was developed with reference to standards provided by the Ministry of the Environment.

The purpose of this study is to assess the quantity and quality control requirements for the proposed development. These requirements were assessed in terms of the Ministry of the Environment (MOE) criteria as per the Stormwater Management Planning and Design Manual (March 2003) for water quality and water quantity control. The impacts of the proposed conditions on the downstream receiving drain are assessed and a proposed stormwater management methodology is presented.

In preparation of this report, CRA reviewed Site specific survey information representing existing conditions, geotechnical reports, previous studies, assessed available satellite imagery, conducted Site visits, and communicated with the Town of Amherstburg and the Essex Region Conservation Authority (ERCA).

2.0 BACKGROUND

The purpose of the project is to generate electricity using photovoltaic solar panels as a renewable energy source by collecting and converting the energy from the sun into electricity. The proposed development Site area will consist of a series of solar panel arrays, photovoltaic combiner switchgear, and access roads. Presently the Site is utilized for agriculture.

CRA has conducted preliminary discussions with both the ERCA and with the Town of Amherstburg regarding specific design requirements for the Site. It is understood that Darrah Drain and the roadside ditch (Owen Bondy Drain) along Fox Road are municipal drains and therefore fall under the requirements of the Municipal Drainage Act. CRA has contacted ERCA regarding the limits of the regulated area and any specific requirements relating to work within the regulated area. At the time of writing of this report specific information regarding requirements of the Municipal Drainage Act and the Conservation Authorities Act has not been received. However, the drainage design and this stormwater management plan are anticipated to address the requirements of these acts.

Further discussion on drainage is provided in subsequent sections of this report.

3.0 EXISTING CONDITIONS

A topographic survey of the Site area was conducted on behalf of First Solar in October 2010 (as shown on attached Drawing C121). A Site visit was conducted by CRA on November 19, 2010. The Site has a very shallow grade and, in general, surface water drains overland to the south and west to surrounding Municipal Drains as shown on Figure 2. The overall average slope to the south and west is approximately 0.3 percent.

The Site area is approximately 61.6 hectares (ha). Based on CRA's Site visit and a review of available plans, there are no major off-Site contributing drainage areas that drain onto the Site. The existing vegetative cover consists of cultivated agricultural land with row crops for the majority of the Site and wild grasses and shrubs along the perimeter of the Site. At the time of CRA's Site visit, the fields consisted of primarily bare soil with minimal residual vegetation after cultivation. Darrah Drain is surrounded by shrubs, wild grasses and some trees. Wild grasses and shrubs can be found along the eastside of Owen Bondy Drain. Due to the very shallow grade on-Site and the uncertainty of the locations of sub-surface tile drains, sub-catchment delineations were estimated based on the best available information. The survey provided to CRA by First Solar was used for sub-catchment delineation.

There are two existing corrugated metal pipe (CMP) culverts (approximately 900 millimetres [mm] in diameter) along Darrah Drain within the property limits and two existing CMP culverts (approximately 600 mm in diameter) across the Owen Bondy Drain along the Fox Road frontage. There was approximately 100 to 200 mm of water in the culverts on Darrah Drain at the time of the Site inspection with minimal active flow. The culverts along the Owen Bondy Drain were dry at the time of the Site inspection. Darrah Drain and the Owen Bondy Drain confluence at the southwest corner of the Site and cross beneath Fox Road via a concrete box culvert. Darrah Drain ultimately discharges to Big Creek, therefore the Site lays within the Big Creek watershed.

The Site was delineated into three sub-catchments to determine off-Site discharge characteristics as shown on Figure 2. The northern portion of the Site (sub-catchment 100) drains overland to the Owen Bondy drainage ditch on the east side of Concession Road 3 North (Fox Road). Sub-catchment 101 drains overland to the Owen Bondy Drain and via tile drains to Darrah Drain. The runoff from sub-catchment 102 drains via tile drains and overland to the Darrah Drain located to the south of the Site.

In general, several penetrations of the tile drain of varying sizes were observed into the Darrah Drain along the southern edge of the Site; however, no penetrations were

3

observed into the Owen Bondy Drain along Fox Road. The exposed portions of the tile drains consisted of Corrugated Metal Pipes (CMP) and Polyethylene (PE). The exact location and sizes of tile drains have not been verified in preparation of this report.

Site soils consist of approximately 200 mm to 380 mm of clayey topsoil underlain by silty clay till (Golder Associates, 2008). In general, groundwater is encountered over 5 m below grade (Golder Associates, 2008).

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4.0 PROPOSED CONDITIONS

Proposed conditions includes a series of fixed angle photovoltaic arrays over vegetative ground cover, photovoltaic combiner switchgear shelters, gravel access roads, and gravel parking areas as shown on Drawing C311. The majority of the Site is proposed to be utilized for solar panels underlain with vegetative ground cover. Proposed grades on-Site are very shallow (approximately 0.25 percent in general) and similar to existing conditions. Sub-catchment delineations were estimated based on the proposed grading plan provided to CRA by First Solar as shown on Figure 3.

The northern portion of the Site (sub-catchment 200) consists of the Phase I (or Move-On) areas consisting of gravel cover parking and staging areas as shown on Drawing C211. This area will retain existing grades and drains west overland to the Owen Bondy Drain, a drainage ditch on the east side of Concession Road 3 North (Fox Road). The primary construction period Site entrance will be to this area via an existing entrance from Fox Road. The existing culvert crossing for the entrance across the Owen Bondy Drain will be maintained.

Drainage within the photovoltaic array (Phase II) areas is proposed to be via overland flow and subdrains ultimately to Darrah Drain and is designated as sub-catchment 201 as shown on Figure 3. The proposed grading and drainage plan for Phase II is shown on Drawing C311. This drawing presents the layout of the subdrain system with pipe sizes, slopes and inverts specified On Drawing C312. The subdrain system's primary function is to provide drainage during the construction period; therefore, fairly shallow slopes were utilized and shallow bury depths were utilized. The subdrain system has cleanouts located at each starting run and at all pipe intersections. Outlets into Darrah Drain will be constructed with rip rap protection and rodent grates.

The photovoltaic arrays are typically installed with the lowest portion of the panels a minimum of 600 mm above grade with short grass land cover as depicted on attached Figure 4 which presents a photograph of a typical installation. Therefore, the runoff from the arrays will drain onto vegetated surfaces and sheet flow consistent with existing conditions.

All areas of the Site, with the exception of access roads and gravel parking lots, will be covered with topsoil and vegetated.

Comparison of the proposed conditions peak flows to existing conditions peak flows reveals that there is a decrease in peak flows for the 25 mm through the 100-year storm. It should be noted that in conducting the modelling effort, a simplistic hydrologic model

was created assuming overland flow. This assumption was made as it is expected that during intense storm events, such as the synthetic 3 hour duration storm events modelled, the majority of the runoff will be directed overland to the outlet. The decrease in peak flow is largely due to the change in the vegetation type from row crops during existing conditions to a fully vegetated area during proposed conditions. It is expected that with row cropping conditions, the fields would have consisted of minimum vegetation for approximately 50 percent of the year. However, under proposed conditions the vegetative cover is selected to include a low maintenance seed mix which will not be mowed resulting in permanent vegetative cover throughout the year.

There are no detrimental water quality impacts anticipated for this Site under proposed conditions. It is expected that there will be an improvement in long term water quality discharged from the Site, as the proposed use consists of minimal Site disturbance and a fully vegetated Site.

5.0 HYDROLOGIC MODELLING

The urban stormwater model MIDUSS 4.72 was used to calculate the surface runoff resulting from the 25 mm and 4 hour duration MOE water quality storm, 2-year, 5-year, 10-year, 25-year, 50-year, and 100-year return period with a 3-hour Chicago rainfall distribution. The storm parameters used for the hydrologic modelling were developed from precipitation data provided by the Atmospheric Environment Service (AES) for the Harrow CDA meteorological station which is closest to the Site. A summary of the distribution parameters used in the modelling is provided in Table 1.

Other model input parameters, including sub-catchment areas, overland flow lengths, Soil Conservation Service (SCS) runoff Curve Numbers (CN), percent imperviousness, Manning's roughness coefficients, and initial abstraction were entered into the model based on the review of available data and standard engineering practice.

Figure 2 and Figure 3 illustrate existing and proposed conditions at the Site and the delineated sub-catchment areas. The hydrologic model input parameters for existing and proposed conditions are summarized in Tables 2 and 3, respectively. A summary of runoff peak flows and discharge volumes calculated using the hydrologic model is provided in Tables 4 and 5. Output from the model for existing and proposed conditions is provided in Appendices A and B, respectively.

6.0 EROSION AND SEDIMENT CONTROL PLAN

The purpose of erosion and sediment controls is to minimize the potential release of pollutants, and specifically sediments, directly or indirectly into downstream receiving waters. To achieve this objective, erosion and sediment controls will be utilized during construction as presented on Drawing C231. Erosion and sediment controls to be implemented during construction activities will include, as a minimum, minimizing Site disturbance, stabilized construction entrances, silt fence, fibre rolls, straw check dams, inlet filters, gravel access roads, and implementation of vegetative cover. A row of perimeter silt fencing or fibre rolls will be placed around the work Site to eliminate migration of sediment during construction. All disturbed areas will be vegetated with approved non-invasive native species of grasses. The seed mix will be designed to include low maintenance mixes with shade tolerance and low heights for utilization under the photovoltaic arrays.

Additional controls may be necessary during construction to prevent discharge of sediment-laden runoff from the Site. These additional controls may include, but not be limited to, additional silt fence, rock rip-rap channel linings, geotextile erosion control matting, rock check dams, straw bale check dams, temporary vegetation, and filter media.

All erosion and sediment control measures will be implemented prior to and during land disturbing activities and will be maintained throughout the duration of construction until the Site is fully stabilized with the establishment of vegetation.

7.0 MONITORING PLAN

It is proposed that during construction activities, visual monitoring be conducted bi-weekly and within 24 hours of any rainfall event of 12 mm or more. During the construction period, monitoring shall consist of visual observation for the effectiveness of the sediment and erosion controls and sediment migration off-Site. These sediment control measures shall be inspected to ensure that they have been properly installed and continue to function as designed. The controls shall be maintained and accumulated sediments removed once their capture capacity has been decreased by one-third. The outlets shall also be inspected for signs of sediment migration off-Site. In the event that sediments have migrated off-Site, additional sediment controls shall be implemented as necessary to ensure that no additional sediment escapes from the Site and any sediment that has migrated off-Site shall be removed.

Construction inspections shall be conducted until such time as the photovoltaic or solar panels and associated construction activities are completed and the vegetation has established itself to a density equivalent to 70 percent of the background native vegetation density. It is anticipated that the plantings will require one growing season to fully grow in. The monitoring program conducted during construction and the grow-in period shall consist of visual inspections and a written log.

9

8.0 CONCLUSION AND RECOMMENDATIONS

The stormwater management measures proposed for the Amherstburg Solar 2 photovolaic power plant were designed to mitigate the impacts of development on surface waters. The proposed measures include the following:

- Implementing a construction period sediment and erosion control plan
- Maintaining and enhancing subsurface drainage with the installation of subdrains
- Providing connections to the Municipal Drain with rodent protection
- Providing vegetative cover for the majority of the Site through all seasons

These measures are designed to reduce the impacts associated with this project from a surface water quantity and quality perspective, while allowing for the safe use of the site as a photovoltaic power generation facility.

We kindly request approval for the construction and operation of the stormwater management features at this facility, based on the information provided in this report.

9.0 **REFERENCES**

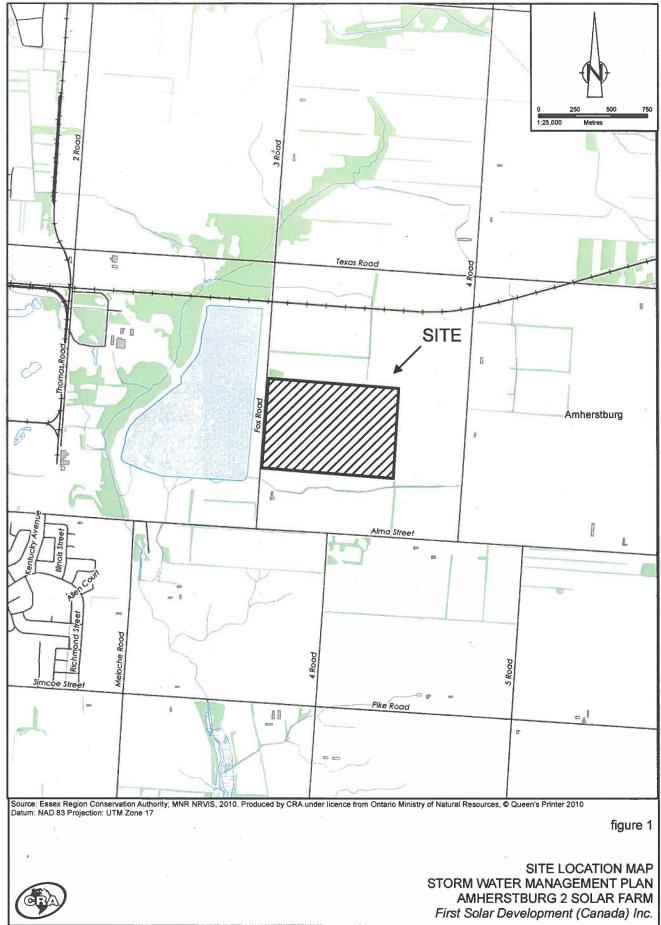
Golder Associates, 2008. Final Report, Geotechnical Investigation Three Development Sites, SunPower Corporation, Systems, Town of Amherstburg, Ontario.

All of Which is Respectfully Submitted, CONESTOGA-ROVERS & ASSOCIATES

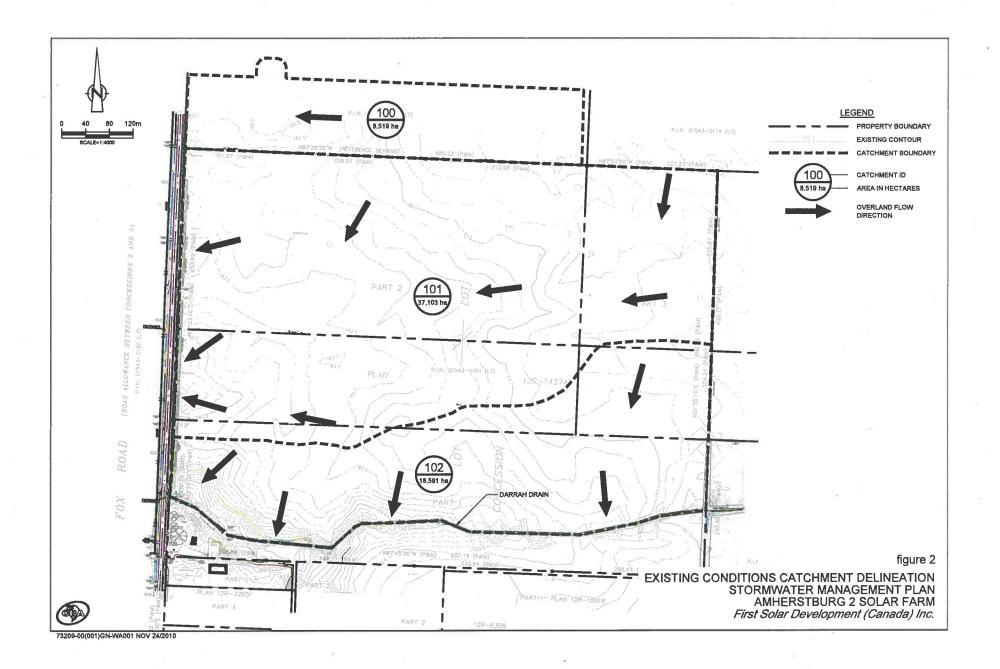


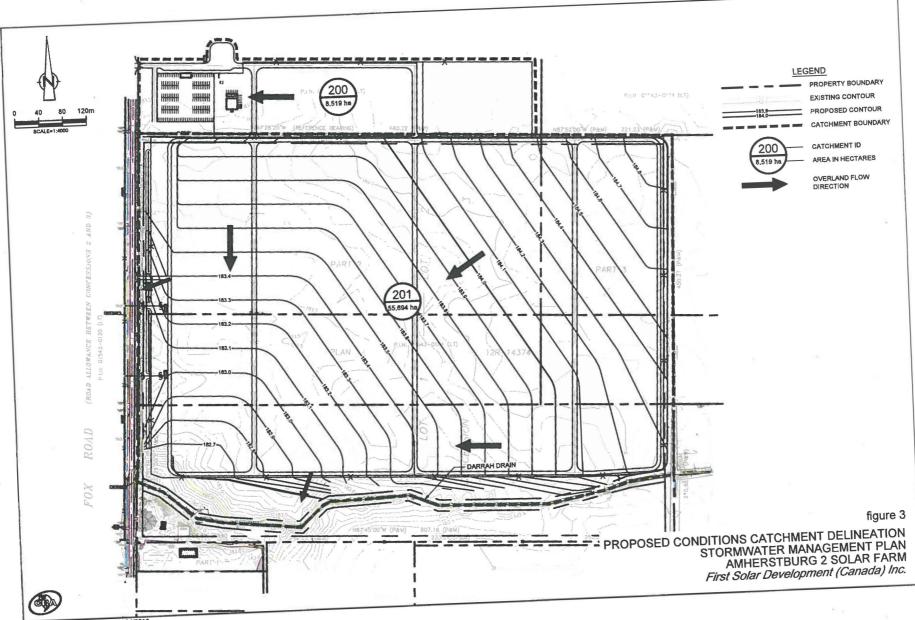
Dilan Singaraja, P. Eng.

Sukhmani Bola, B.Eng. FOR



073209-00(REP001)GIS-WA002 November 25, 2010









SOURCE: WWW.FIRSTSOLAR.COM

figure 4

TYPICAL PHOTOVOLTAIC PANEL INSTALLATION PHOTOGRAPH STORMWATER MANAGEMENT PLAN AMHERSTBURG 2 SOLAR FARM First Solar Development (Canada) Inc.



73209-00(001)GN-WA003 NOV 25/2010

DESIGN STORMS STORMWATER MANAGEMENT PLAN 191 CONCESSION 3 NORTH, AMHERSTBURG, ONTARIO First Solar Development (Canada) Inc.

Design Storms

| Return Period | Rainfall Depth ² | Duration | | |
|--------------------|-----------------------------|---------------|--|--|
| | <i>(mm)</i> | (<i>hr</i>) | | |
| 25 mm ¹ | 25.0 | 4 | | |
| 2-Year | 32.4 | 3 | | |
| 5-Year | 47.7 | 3 | | |
| 10-Year | 57.9 | 3 | | |
| 25-Year | 70.7 | 3 | | |
| 50-Year | 80.2 | 3 | | |
| 100-Year | 89.7 | 3 | | |

Notes:

1. The 25 mm storm is the Ministry of the Environment (MOE) Quality Storm.

2.

Harrow CDA, Ontario (6133360). Rainfall Intensity Duration Frequency Values. 2003. Atmospheric Environment Service. Environment Canada.

EXISTING CONDITIONS SUBCATCHMENT PARAMETERS STORMWATER MANAGEMENT PLAN 191 CONCESSION 3 NORTH, AMHERSTBURG, ONTARIO First Solar Development (Canada) Inc.

| Subcatchment | Area | Flow Length | Slope | % Impervious | Soil Group | CN ¹ | | Initial Abstraction ² (mm) | | Manning's N | |
|--------------|--------|-------------|-------|--------------|------------|-----------------|------------|---------------------------------------|------------|-------------|------------|
| | (ha) | (111) | (%) | (%) | | Pervious | Impervious | Pervious | Impervious | Pervious | Impervious |
| 100 | 8.519 | 206 | 0.156 | 0 | CD | 87 | 98 | 3.795 | 0.518 | 0.035 | 0.011 |
| 101 | 37.103 | 828 | 0.157 | 0 | CD | 87 | 98 | 3.795 | 0.518 | 0.035 | 0.011 |
| 102 | 18.591 | 184 | 0.652 | 0 | CD | 87 | 98 | 3.795 | 0.518 | 0.035 | 0.011 |

Total 64.2

Notes:

1. Soil Conservation Service (SCS) Curve Number.

2. 0.1*((25400/CN)-254)

Page 1 of 1

PROPOSED CONDITIONS SUBCATCHMENT PARAMETERS STORMWATER MANAGEMENT PLAN 191 CONCESSION 3 NORTH, AMHERSTBURG, ONTARIO First Solar Development (Canada) Inc.

| Subcatchment | Area | Flow Length | Slope | % Impervious | Soil Group | CN ¹ | | Initial Abstraction ² (mm) | | Manning's N | |
|--------------|--------|-------------|-------|--------------|------------|-----------------|------------|---------------------------------------|------------|-------------|------------|
| | (ha) | (111) | (%) | (%) | | Pervious | Impervious | Pervions | Impervious | Pervious | Impervious |
| 200 | 8.519 | 206 | 0.156 | 0 | CD | 89 | 98 | 3.102 | 0.518 | 0.029 | 0.011 |
| 201 | 55.694 | 978 | 0.257 | 0 | CD | 75 | 98 | 8.371 | 0.518 | 0.035 | 0.011 |

Total 64.2

Notes:

1. Soil Conservation Service (SCS) Curve Number.

2. 0.1*((25400/CN)-254)

3. CN for subcatchment 201 is a weighted average of 95% meadow and 5% gravel cover types

4. CN for subcatchment 200 is a weighted average of 70% gravel and 30% dirt cover types

PEAK FLOWS SUMMARY STORMWATER MANAGEMENT PLAN 191 CONCESSION 3 NORTH, AMHERSTBURG, ONTARIO First Solar Development (Canada) Inc.

Existing Conditions

| Catchment ID | 25 mm | 2-Year | 5-Year | 10-Year | 25-Year | 50-Year | 100-Year |
|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | (m ³ /s) |
| 100 | 0.112 | 0.256 | 0.617 | 0.935 | 1.376 | 1.702 | 2.085 |
| 101 | 0.234 | 0.549 | 1.334 | 2.016 | 3.041 | 3.864 | 4.775 |
| 102 | 0.352 | 0.833 | 1.937 | 2.764 | 3.978 | 4.984 | 6.005 |
| Total Runoff | 0.524 | 1.223 | 2.907 | 4.422 | 6.540 | 8.179 | 9.830 |

Proposed Conditions

| Catchment ID | 25 mm | 2-Year | 5-Year | 10-Year | 25-Year | 50-Year | 100-Year |
|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------------|---------------------|
| | (m ³ /s) | (m^{3}/s) | (m ³ /s) |
| | | | | | | | |
| 200 | 0.158 | 0.344 | 0.789 | 1.129 | 1.627 | 2.019 | 2.416 |
| 201 | 0.076 | 0.246 | 0.844 | 1.465 | 2.420 | 3.300 | 4.245 |
| Total Runoff | 0.174 | 0.418 | 1.088 | 1.734 | 2.715 | 3.671 | 4.839 |

SUMMARY OF VOLUMES STORMWATER MANAGEMENT PLAN 191 CONCESSION 3 NORTH, AMHERSTBURG, ONTARIO First Solar Development (Canada) lnc.

Existing Conditions

| Catchment ID | 25 mm | 2-Year | 5-Year | 10-Year | 25-Year | 50-Year | 100-Year |
|---------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | (m ³) |
| | | | | | | | |
| 100 | 647 | 1041 | 2004 | 2706 | 3632 | 4343 | 5067 |
| 101 | 2819 | 4534 | 8726 | 11785 | 15822 | 18921 | 22088 |
| 102 | 1412 | 2271 | 4369 | 5901 | 7920 | 9478 | 11053 |
| Total Volume Runoff | 4879 | 7846 | 15100 | 20392 | 27374 | 32742 | 38208 |
| | | | | | | | |

Proposed Conditions

| Catchment ID | 25 mm | 2-Year | 5-Year | 10-Year | 25-Year | 50-Year | 100-Year |
|---------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | (m ³) |
| | | | | | | | |
| 200 | 766 | 1198 | 2228 | 2966 | 3925 | 4662 | 5404 |
| 201 | 1520 | 2935 | 6944 | 10177 | 14711 | 18345 | 22171 |
| | 1010 - 01 | | | 1 D 400 | | | 3 |
| Total Volume Runoff | 2286 | 4132 | 9173 | 13143 | 18637 | 23007 | 27575 |
| | l | | | | | | |

APPENDIX A

MODEL OUTPUT FILES FOR EXISTING CONDITIONS

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             971
                     5.000
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      Licensee: Conestoga-Rovers & Associates Limited
35
      COMMENT
     6
           line(s) of comment
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      * Existing Conditions - Amherstburg 2 Solar Farm
      * GV
      * November 2010
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     1
           25MD 001.HYT
    12
                              is Filename
27
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         1
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       .011
               Manning "n"
     98.000
               SCS Curve No or C
       .100
               Ia/S Coefficient
       .518
             Initial Abstraction
14
      START
     1
          1=Zero; 2=Define
      CATCHMENT
4
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               ID No.6 99999
      8.519
               Area in hectares
    206.000
               Length (PERV) metres
               Gradient (%)
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               Per cent Impervious
       .000
    206.000
               Length (IMPERV)
       .000
               %Imp. with Zero Dpth
               Option 1=SCS CN/C; 2=Horton; 3=Green-Ampt; 4=Repeat
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       .035
               Manning "n"
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       .100
               Ia/S Coefficient
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               Initial Abstraction
          1
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                      .000
                                 .000
                                           .000 c.m/s
             .304
                       .000
                                 .304
                                         C perv/imperv/total
15
      ADD RUNOFF
                                 .000
             .112
                       .112
                                           .000 c.m/s
27
      HYDROGRAPH DISPLAY
         is # of Hyeto/Hydrograph chosen
     4
      Volume = .6474271E+03 c.m
      CATCHMENT
4
               ID No.6 99999
    101.000
     37.103
               Area in hectares
    828.000
               Length (PERV) metres
       .157
               Gradient (%)
       .000
               Per cent Impervious
    828.000
               Length (IMPERV)
```

073209(1)

.000 %Imp. with Zero Dpth Option 1=SCS CN/C; 2=Horton; 3=Green-Ampt; 4=Repeat 1 Manning "n" .035 87.000 SCS Curve No or C .100 Ia/S Coefficient 3.795 Initial Abstraction 1 Option 1=Trianglr; 2=Rectanglr; 3=SWM HYD; 4=Lin. Reserv .234 .112 .000 .000 c.m/s .304 .000 .304 C perv/imperv/total 15 ADD RUNOFF .234 .301 .000 .000 c.m/s 27 HYDROGRAPH DISPLAY 4 is # of Hyeto/Hydrograph chosen Volume = .2819404E+04 c.m CATCHMENT 4 102.000 ID No.6 99999 18.591 Area in hectares 184.000 Length (PERV) metres .652 Gradient (%) .000 Per cent Impervious 184.000 Length (IMPERV) .000 %Imp. with Zero Dpth Option 1=SCS CN/C; 2=Horton; 3=Green-Ampt; 4=Repeat 1 .035 Manning "n" 87.000 SCS Curve No or C .100 Ia/S Coefficient 3.795 Initial Abstraction 1 Option 1=Trianglr; 2=Rectanglr; 3=SWM HYD; 4=Lin. Reserv .352 .301 .000 .000 c.m/s .304 .000 .304 C perv/imperv/total 15 ADD RUNOFF .352 .000 .000 c.m/s .524 27 HYDROGRAPH DISPLAY is # of Hyeto/Hydrograph chosen 4 Volume = .1412154E+04 c.m 20 MANUAL

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                                  are MAXDT MAXHYD & DTMIN values
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35
      COMMENT
           line(s) of comment
     6
      * Project #73209-00 - First Solar
      * Existing Conditions - Amherstburg 2 Solar Farm
      * GV
      * November 2010
      23
      FILE RAINFALL
           1=READ: 2=WRITE
     1
           ST2CS100.HYT
                               is Filename
    12
27
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       is # of Hyeto/Hydrograph chosen
     1
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3
      IMPERVIOUS
          1
               Option 1=SCS CN/C; 2=Horton; 3=Green-Ampt; 4=Repeat
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     98.000
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               Length (PERV) metres
               Gradient (%)
       .156
               Per cent Impervious
       .000
    206.000
               Length (IMPERV)
       .000
                %Imp. with Zero Dpth
          1
               Option 1=SCS CN/C; 2=Horton; 3=Green-Ampt; 4=Repeat
       .035
               Manning "n"
     87.000
               SCS Curve No or C
             Ia/S Coefficient
       .100
      3.795
               Initial Abstraction
               Option 1=Trianglr; 2=Rectanglr; 3=SWM HYD; 4=Lin. Reserv
          1
            2.085
                       .000
                                  .000
                                            .000 c.m/s
             .663
                       .000
                                  .663
                                          C perv/imperv/total
15
      ADD RUNOFF
            2.085
                      2.085
                                  .000
                                            .000 c.m/s
27
      HYDROGRAPH DISPLAY
           is # of Hyeto/Hydrograph chosen
     4
      Volume = .5067001E+04 c.m
      CATCHMENT
4
               ID No.ó 99999
    101.000
     37.103
               Area in hectares
    828.000
               Length (PERV) metres
               Gradient (%)
       .157
            Per cent Impervious
       .000
    828.000
               Length (IMPERV)
```

```
.000
                 %Imp. with Zero Dpth
                 Option 1=SCS CN/C; 2=Horton; 3=Green-Ampt; 4=Repeat
          1
        .035
                 Manning "n"
      87.000
                 SCS Curve No or C
        .100
                 Ia/S Coefficient
       3.795
                 Initial Abstraction
           1
                 Option 1=Trianglr; 2=Rectanglr; 3=SWM HYD; 4=Lin. Reserv
                                    .000
                                               .000 c.m/s
             4.775
                        2.085
                         .000
                                     .664
                                              C perv/imperv/total
              .664
       ADD RUNOFF
15
                        5.787
             4.775
                                     .000
                                                .000 c.m/s
27
       HYDROGRAPH DISPLAY
            is # of Hveto/Hvdrograph chosen
      4
                  .2208809E+05 c.m
       Volume =
       CATCHMENT
 4
     102.000
                 ID No.6 99999
     18.591
                 Area in hectares
     184.000
                 Length (PERV) metres
        .652
                 Gradient (%)
                 Per cent Impervious
        .000
                 Length (IMPERV)
     184.000
        .000
                 %Imp. with Zero Dpth
                 Option 1=SCS CN/C; 2=Horton; 3=Green-Ampt; 4=Repeat
          1
        .035
                 Manning "n"
      87.000
                 SCS Curve No or C
        .100
                 Ia/S Coefficient
       3.795
                 Initial Abstraction
                 Option 1=Trianglr; 2=Rectanglr; 3=SWM HYD; 4=Lin. Reserv
           1
                        5.787
             6.005
                                     .000
                                               .000 c.m/s
              .663
                         .000
                                     .663
                                              C perv/imperv/total
15
       ADD RUNOFF
             6.005
                        9.830
                                     .000
                                                .000 c.m/s
27
       HYDROGRAPH DISPLAY
            is # of Hyeto/Hydrograph chosen
      4
       Volume = .1105305E+05 c.m
20
       MANUAL
```

APPENDIX B

MODEL OUTPUT FILES FOR PROPOSED CONDITIONS

```
Output File (4.7) 3209 25m.PST opened 2010-11-24
                                                      8:48
      Units used are defined by G =
                                     9.810
          48
              971
                      5.000
                                 are MAXDT MAXHYD & DTMIN values
      Licensee: Conestoga-Rovers & Associates Limited
35
      COMMENT
     6
        line(s) of comment
      ******************
      * Project #73209-00 - First Solar
      * Proposed Conditions - Amherstburg 2 Solar Farm
      * GV
      * November 2010
      23
      FILE RAINFALL
     1
         1=READ: 2=WRITE
           25MD 001.HYT
                              is Filename
    12
27
      HYDROGRAPH DISPLAY
     1
         is # of Hyeto/Hydrograph chosen
      Depth = .250000E+02 \text{ mm}
      IMPERVIOUS
3
               Option 1=SCS CN/C; 2=Horton; 3=Green-Ampt; 4=Repeat
         1
       .011
               Manning "n"
     98.000
               SCS Curve No or C
       .100
               Ia/S Coefficient
       .518
               Initial Abstraction
14
      START
     1
          1=Zero; 2=Define
      CATCHMENT
4
    200.000 ID No.ó 99999
      8.519
               Area in hectares
    206.000
               Length (PERV) metres
               Gradient (%)
       .156
       .000
               Per cent Impervious
    206.000
               Length (IMPERV)
       .000
               %Imp. with Zero Dpth
         1
               Option 1=SCS CN/C; 2=Horton; 3=Green-Ampt; 4=Repeat
       .029
               Manning "n"
     89.000
               SCS Curve No or C
       .100
               Ia/S Coefficient
      3.102
               Initial Abstraction
          1
               Option 1=Trianglr; 2=Rectanglr; 3=SWM HYD; 4=Lin. Reserv
                       .000
                                  .000
                                            .000 c.m/s
             .158
                                          C perv/imperv/total
             .360
                       .000
                                  .360
15
      ADD RUNOFF
             .158
                       .158
                                  .000
                                            .000 c.m/s
27
      HYDROGRAPH DISPLAY
           is # of Hyeto/Hydrograph chosen
     4
      Volume = .7659152E+03 c.m
      CATCHMENT
4
    201.000
              ID No.6 99999
     55.694
               Area in hectares
    978.000
               Length (PERV) metres
       .257
               Gradient (%)
       .000
               Per cent Impervious
    978.000
               Length (IMPERV)
```

```
073209(1)
```

| | .000 | %Imp. w | ith Zero Dpt | ch | | |
|----|-----------------------------------|----------|--------------|-----------|-------------------------------|---|
| | 1 | Option | 1=SCS CN/C; | 2=Horton; | ; 3=Green-Ampt; 4=Repeat | |
| | .035 | Manning | "n" | | | |
| | 75.000 | SCS Cur | ve No or C | | | |
| | .100 | Ia/S Co | efficient | | | |
| | 8.371 | Initial | Abstraction | n | | |
| | 1 | Option | 1=Trianglr; | 2=Rectang | glr; 3=SWM HYD; 4=Lin. Reserv | 7 |
| | . 0 | 76 | | .000 | .000 c.m/s | |
| | .1 | 09 | .000 | .109 | C perv/imperv/total | |
| 15 | ADD RUNOF | F | | | | |
| | . 0 | 76 | .174 | .000 | .000 c.m/s | |
| 27 | HYDROGRAP | H DISPLA | Y | | | |
| | 4 is # of Hyeto/Hydrograph chosen | | | | | |
| | Volume = | .15202 | 94E+04 c.m | | | |
| 20 | MANUAL | | | | | |

```
Output File (4.7) 3209 100.PST opened 2010-11-24 9:10
      Units used are defined by G =
                                    9.810
          36
              978
                      5.000
                                are MAXDT MAXHYD & DTMIN values
      Licensee: Conestoga-Rovers & Associates Limited
35
      COMMENT
     6
          line(s) of comment
      ******
      * Project #73209-00 - First Solar
      * Proposed Conditions - Amherstburg 2 Solar Farm
      * GV
      * November 2010
      23
      FILE RAINFALL
     1
          1=READ: 2=WRITE
           ST2CS100.HYT
                              is Filename
    12
27
      HYDROGRAPH DISPLAY
     1
          is # of Hyeto/Hydrograph chosen
      Depth = .8969974E+02 \text{ mm}
3
      IMPERVIOUS
               Option 1=SCS CN/C; 2=Horton; 3=Green-Ampt; 4=Repeat
         1
               Manning "n"
       .011
               SCS Curve No or C
     98.000
       .100
               Ia/S Coefficient
       .518
               Initial Abstraction
14
      START
     1
          1=Zero; 2=Define
4
      CATCHMENT
    200.000 ID No.ó 99999
      8.519
               Area in hectares
    206.000
               Length (PERV) metres
       .156
               Gradient (%)
       .000
               Per cent Impervious
    206.000
               Length (IMPERV)
       .000
               %Imp. with Zero Dpth
         1
               Option 1=SCS CN/C; 2=Horton; 3=Green-Ampt; 4=Repeat
       .029
               Manning "n"
     89.000
               SCS Curve No or C
       .100
               Ia/S Coefficient
      3.102
               Initial Abstraction
               Option 1=Trianglr; 2=Rectanglr; 3=SWM HYD; 4=Lin. Reserv
          1
                                           .000 c.m/s
                       .000
                                 .000
            2.416
             .707
                       .000
                                 .707
                                         C perv/imperv/total
15
      ADD RUNOFF
            2.416
                      2.416
                                 .000
                                           .000 c.m/s
27
      HYDROGRAPH DISPLAY
     4
           is # of Hyeto/Hydrograph chosen
      Volume = .5403529E+04 c.m
      CATCHMENT
4
    201.000
               ID No.ó 99999
     55.694
               Area in hectares
    978.000
               Length (PERV) metres
       .257
               Gradient (%)
       .000
               Per cent Impervious
    978.000
               Length (IMPERV)
```

| | .000 | %Imp. with Zero Dpt | th | | |
|----|-----------|---------------------|-----------|-----------------|---------------|
| | 1 | Option 1=SCS CN/C; | 2=Horton; | 3=Green-Ampt; | 4=Repeat |
| | .035 | Manning "n" | | _ | - |
| | 75.000 | SCS Curve No or C | | | |
| | .100 | Ia/S Coefficient | | | |
| | 8.371 | Initial Abstraction | n | | |
| | 1 | Option 1=Trianglr; | 2=Rectang | lr; 3=SWM HYD; | 4=Lin. Reserv |
| | 4.2 | 245 2.416 | .000 | .000 c.m/s | |
| | .4 | .000 | .444 | C perv/imperv/t | total |
| 15 | ADD RUNOF | 'F | | | |
| | 4.2 | 4.839 | .000 | .000 c.m/s | |
| 27 | | PH DISPLAY | .9. | | |
| | 4 is # | f f Hyeto/Hydrograp | h chosen | | |
| | Volume = | 2217114E+05 c.m | | | |
| 20 | MANUAL | | | | |