KINGSTON SOLAR LP

ORIGINAL REPORT
STAGE 2 PROPERTY ASSESSMENT
ACCESS ROADS / COLLECTOR LINES:
PARCEL 1-2, 3, 4, 21 & 22
SOL-LUCE KINGSTON SOLAR PV ENERGY PROJECT
ERNESTOWN AND KINGSTON TOWNSHIPS,
FRONTENAC, LENNOX AND ADDINGTON COUNTIES,
ONTARIO

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REV.	DATE	DETAILS OR PURPOSE OF REVISION	PREPARED	CHECKED	APPROVED
0	07/05/12	Final Report issued to MTCS			

EXECUTIVE SUMMARY

AMEC Environment & Infrastructure, a division of AMEC Americas Limited ("AMEC") was retained by Kingston Solar LP (the "CLIENT") to conduct a Stage 2 property assessment of selected parcels within the Sol-luce Kingston Solar PV Energy Project (the "PROJECT"). The CLIENT intends to design and construct a 100 MWac solar power development in Eastern Ontario near Kingston. The output of the solar project will be collected and connected to an electrical substation capable of transforming the power from distribution voltage to a transmission voltage of 230 kV. The proposed development is known as the PROJECT for the purpose of this report.

In April 2012, the CLIENT finalized the development plan. This study focuses on the access roads / collector lines associated with the PROJECT and constitutes 5 areas, associated with 6 parcels of vacant land (Parcel 1-2, Parcel 3, Parcel 4, Parcel 21 and Parcel 22) for solar development, comprising 1.24 hectares ("Development Area", refer to Development Plan provided in Supplementary Documentation). Due to the narrow width of these corridors, AMEC, in communication with the Ministry of Tourism, Culture and Sport ("MTCS"), extended the area to be assessed to allow some buffer; the overall study area comprises 2.03 hectares ("Study Area"). The study area is legally described as Part of Lots 2-3 and Part of Lot 5, Concession VI in Kingston Township, County of Frontenac and Part of 39, Concession IV in Ernestown Township, County of Lennox and Addington[1]. The legal description for each parcel can be found in Section 1.1 of this report. These parcels are owned by private individuals (the "OWNER") and consist of vacant undeveloped properties and an existing roadway right-of-way.

The Stage 2 property assessment was carried out under Ontario Professional Licence to Conduct Archaeological Fieldwork No. P141 held by Dr. Shaun Austin of AMEC. The project information was acknowledged by MTCS on 30 April 2012 with the approval of PIF# P141-169-2012. Permission to enter the lands for a property inspection was granted to AMEC on 25 April 2012. The Stage 2 property assessment was conducted from 01 May 2012 to 02 May 2012 with a field crew of 2 personnel under the direction of Mr. Jason Seguin (P354). Weather conditions varied from cool and overcast to cool and partly cloudy. These conditions did not impede the assessment in any way.

Stage 2 assessment confirmed that the study area included areas of intact archaeological potential, which were assessed by means of pedestrian survey or test pitting, as appropriate, at 5 m intervals. Intensive testing was not warranted along the existing right-of-way within Parcel 1-2 as this corridor had been thoroughly disturbed and archaeological potential removed.

Overall, no cultural heritage artifacts or deposits were encountered during this assessment and therefore the study area may be considered free of any further archaeological concern.

[1] Please note that Kingston Township has been amalgamated into the City of Kingston and the Township of South Frontenac, in the County of Frontenac. Ernestown Township has been amalgamated into Loyalist Township, County of Lennox and Addington.

Based on the results of the Stage 2 assessment of the 5 areas (6 parcels of land) for the proposed Access Roads / Collector Lines for the Sol-luce Kingston Solar PV Energy Project it is recommended that:

- The areas corresponding to Access Roads / Collector Lines within Parcels 1-2, 3, 4, 21 and 22 may be considered free of any further archaeological concern.

The above recommendation is subject to Ministry of Tourism, Culture and Sport's approval, and it is an offence to alter any archaeological site without Ministry of Tourism, Culture and Sport's concurrence.

No grading or other activities that may result in the destruction or disturbance of an archaeological site are permitted until notice of Ministry of Tourism, Culture and Sport's approval has been received.

These recommendations are subject to the conditions found in Sections 5.0 and 6.0.

PROJECT PERSONNEL

Project Director:	Barbara Slim, M.A. (P348) and Dr. Shaun Austin, Ph.D. (P141)
Field Directors:	Jason Seguin, M.A. (P354)
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1.0 PROJECT CONTEXT

1.1 Development Context

AMEC Environment & Infrastructure, a division of AMEC Americas Limited ("AMEC") was retained by Kingston Solar LP (the "CLIENT") to conduct a Stage 2 property assessment of selected parcels within the Sol-luce Kingston Solar PV Energy Project (the "PROJECT"). The CLIENT intends to design and construct a 100 MWac solar power development in Eastern Ontario near Kingston. The output of the solar project will be collected and connected to an electrical substation capable of transforming the power from distribution voltage to a transmission voltage of 230 kV. The proposed development is known as the PROJECT for the purpose of this report.

In April 2012, the CLIENT finalized the development plan. This study focuses on the access roads / collector lines associated with the PROJECT and constitutes 5 areas, associated with 6 parcels of vacant land for solar development, comprising 1.24 hectares ("Development Area", refer to Development Plan provided in Supplementary Documentation). Due to the narrow width of these corridors, AMEC, in communication with MTCS, extended the area to be assessed to allow some buffer; the overall study area comprises 2.03 hectares (Figures 1 to 3) ("Study Area"). Figure 4 illustrates the Access Road / Collector Line development area vs. the assessed areas. A Stage 2 property assessment was conducted of the following5 areas (corresponding to 6 parcels): Parcel 1-2, Parcel 3, Parcel 4, Parcel 21 and Parcel 22. These parcels are owned by private individuals (the "OWNER") and consist of vacant, undeveloped properties and an existing roadway right-of-way.

The following table provides the legal descriptions and hectarage associated with the selected parcels.

Table 1: Access Road/Conduit Areas.

Parcel	Legal Description	Development Area	Study Area
1-2	Part of Lots 2-3, Concession 6, Western Addition, Kingston; As in FR319482 Lying North of Forced Road (Aka Rock Rd); S/T Debts in FR319482; Kingston (PIN 361340008) and Part 1, 13R11037 T/W FR750411; Kingston (PIN 361340025).	0.13 hectares (Figure 4A) • Access Road: 6.3 m x 200 m; and, • Collector Line: 3 m x 200 m and 8 m x 30 m.	0.36 hectares (Figure 4A) • Access Road: 6.3 m x 200 m; and, • Collector Line: 10 m x 200 m and 10 m x 31 m.
3	Part of Lot 3, Concession 6, Western Addition, Kingston; As in FR334814 EXCEPT FR334813; Kingston (PIN 361340027).	0.008 hectares (Figure 4B) • Access Road/ Collector Line: 12 m x 69 m	0.1 hectares (Figure 4B) • Access Road/ Collector Line: 15 m x 69 m;

Table 1: Access Road/Conduit Areas.			
Parcel	**Legal Description**	**Development Area**	**Study Area**
4	Part of Lot 5, Concession 6, Western Addition, Kingston; As in FR458081, S/T FR458081; Kingston (PIN 361340031).	0.95 hectares (Figure 4B) • Access Road/ Collector Line: 15 m x 614 m	0.95 hectares (Figure 4B) • Access Road/ Collector Line: 15 m x 614 m
21	Part of Lot 39, Concession 4, Ernestown Part 1, 2 and 3 29R7698; S/T LA26055 As Amended By PL478; S/T LA86443; Loyalist (PIN 451220229)	0.013 hectares (Figure 4C) • Access Road/ Collector Line: 12 m x 113 m	0.44 hectares (Figure 4C) • Access Road/ Collector Line: 15 m x 614 m
22	Part Lot 38, Concession 4, Ernestown As In LA101545 (Parcel # 2) Except Part 2 29R5702; S/T LA26168 As Amended By PL478; S/T LA85936; Loyalist (PIN 451220231)	0.135 hectares (Figure 4C) • Access Road/ Collector Line: irregular shape	0.18 hectares (Figure 4C) • Access Road/ Collector Line: irregular shape

The Stage 2 property assessment was carried out under Ontario Professional Licence to Conduct Archaeological Fieldwork No. P141 held by Dr. Shaun Austin of AMEC. The project information was acknowledged by the Ministry of Tourism, Culture and Sport ("MTCS") on 30 April 2012 with the approval of PIF# P141-169-2012. Permission to enter the lands for a property inspection was granted to AMEC on 25 April 2012. The Stage 2 property assessment was conducted from 01 May 2012 to 02 May 2012 with a crew of 2 personnel under the direction of Mr. Jason Seguin (P354). Weather conditions varied from cool and overcast to cool and partly cloudy. These conditions did not impede the assessment in any way (for detailed weather conditions, see Table 6 in Section 2.2).

This report presents the results of the Stage 2 property assessment and makes pertinent recommendations.

1.1.1 Scope of Work

This Stage 2 assessment was carried out in accordance with the Terms of Reference provided in AMEC proposal / work agreement dated 14 February 2012. This Stage 2 property assessment was conducted in accordance with the Technical Standards defined in the *Standards and Guidelines for Consultant Archaeologists, 2011,* set out by MTCS, and with the Ontario Heritage Act, R.S.O. 1990, c. 0.18.

The scope of work for this study consisted of the following tasks:

- Stage 2 on-site evaluation of archaeological potential;
- Pedestrian survey (conducted at 5 m intervals) of all ploughable lands;
- Test pit survey (conducted at 5 m intervals) of all un-ploughable lands with archaeological potential;
- Mapping, photographing and other relevant graphics;
- Artifact processing and analysis, where applicable; and,
- Report preparation.

1.2 History of Archaeological Investigations

A Stage 1 archaeological assessment for the Primary Study Area of the Sol-luce Kingston Solar PV Energy Project was completed by AMEC in 2011 in a combined Stage 1 and 2 report (AMEC 2011a, PIF No. P348-001-2011 and P141-160-2011). This assessment included a background study of the parcels assessed herein. In addition to the Stage 1 background study, AMEC completed a Stage 2 property assessment of 22 parcels of land in the Fall of 2011 (AMEC 2011a, PIF No. P348-001-2011 and P141-160-2011). Furthermore, in December 2011, AMEC completed a Stage 2 property assessment of 5 additional parcels of land (AMEC 2011b, PIF No. P141-166-2011). The current assessment areas are in close proximity to the parcels previously subjected to Stage 2 assessment (AMEC 2011a and AMEC 2011b).

1.3 Historical Context

Based on a review of the Stage 1 and 2 archaeology report (AMEC 2011a), the study area was first settled in the late 1700s (AMEC 2011a: 8). Kingston (located to the southeast of the study area) was first settled in 1673 with the construction of the Fort Frontenac trading post (ASI 2010: Appendix C). The first survey of the Upper St. Lawrence was started in 1783 (MacRow 1982: 472). Kingston Township was nine miles deep and spread six miles along the waterfront. The boundaries originally did not join with Ernestown Township and a pie-shaped piece of land (identified as the Western Addition / Western Division) was added to Kingston Township so that Ernestown and Kingston Townships could be joined to facilitate road building (MacRow 1982: 472).

Ernestown Township was first settled in 1784 with the arrival of United Empire Loyalist refugees from the American Revolutionary War, in particular former soldiers known as Jessup's Loyal Rangers and their families (Turner 1993: 11). Similarly, this area of Kingston Township was settled between 1783 and 1814 (Nuttall 1982: 48). Sir John

Johnson, commanding officer of the King's Royal Regiment of New York, was in charge of the overall loyalist settlement in this area (Turner 1993: 42). A second wave of immigration occurred following the War of 1812 when emigrants from Great Britain were encouraged to populate the province. Between 1820 and 1860, English, Scots, and Irish immigrant families arrived (Turner 1993: 19). Settlement consisted of dispersed family farms distributed along concessions and lots. Its focus was on the expansion and intensification of agricultural pursuits (Nuttall 1982: 48). Furthermore, two settlements developed in this area: the village of Glenvale and the small settlement of Sharpton (AMEC 2011a: 35).

The later part of the nineteenth century was characterized by rural de-population (Turner 1993:19; Osborne 1982: 81). This decrease was based on four main factors: 1) emigration to cities in search of employment opportunities; 2) the shift towards commercially oriented mixed farming in the rest of Ontario, which was not feasible here due to the low quality of the soils; 3) the opening of the Grand Trunk Railway in 1856, creating a competitive farming market, and, 4) the increasing settlement opportunities in western Canada. In spite of these challenges, the regional economy continued to be dominated by agriculture (Turner 1993: 134).

The Stage 1 and 2 report prepared by AMEC (2011a) conducted a review of historical plans from 1797 until 1878. The following tables are excerpts from this report and provide a summary of features observed in these historical maps within the 5 parcels assessed for this study.

The *1797 Plan of the Township of Kingston* was examined in an effort to determine the potential for historic archaeological sites within the primary study area (Figure 5), which at the time consisted of various parcels with identified patents. Ownership names are provided in this plan; however, no further historical features are illustrated. The following table provides a summary of ownership identified within the 5 parcels currently under review:

Table 2: Ownership names illustrated in the *1797 Plan of the Township of Kingston.*

Parcel	Lot	Concession	Township	Name(s) on Patent
1-2	2-3	6 W. Division	Kingston	o Clergy (Lot 2); and, Henry Robinson (Lot 3)
3	3	6 W. Division	Kingston	o Henry Robinson
4	5	6 W. Division	Kingston	o John Moon and wife
21	39	IV	Ernestown	*Not Illustrated*
22	38	IV	Ernestown	*Not Illustrated*

In addition, the *1860 Map of United Counties of Frontenac, Lennox and Addington Canada West* (Walling 1860) (Figure 6) was examined by AMEC (2011a) during the Stage 1 background study. The following table provides a summary of ownership and features identified within the 5 areas currently requiring a Stage 2 assessment:

Table 3: Residents and Historical Features illustrated in the *1860 Map of United Counties of Frontenac, Lennox and Addington Canada West.*

Parcel	Lot	Concession	Township	Resident(s)/ Owner(s)	Historical Feature (s)
1-2	2-3	VI W. Division	Kingston	W. Moon (S½ of Lot 2) and H. Robinson (S½ of Lot 3)	The following features were observed within the parcel corresponding to the study area: o A creek and pond transects the western portion of the study area. It should be noted that a residential dwelling is illustrated on the southern portion of this parcel (south of the study area) and roadways are illustrated on the southern and eastern portions of the parcel (to the south and east of the study area). These features are not located within the study area.
3	3	VI W. Division	Kingston	H. Robinson (S ½)	Although roadways (south and east of the study area) and a creek are illustrated within this parcel (north of the study area), no historical features are illustrated within the study area under review.

Table 3: Residents and Historical Features illustrated in the *1860 Map of United Counties of Frontenac, Lennox and Addington Canada West.*

Parcel	Lot	Concession	Township	Resident(s)/ Owner(s)	Historical Feature (s)
4	5	VI W. Division	Kingston	J. Moon (S ½)	Although a roadways (south of the study area) and two residential dwellings are illustrated within this parcel (adjacent to the west of the study area and to the northwest of the study area), no historical features are illustrated within the study area under review.
21	Pt. 39	IV	Ernestown	D. Lee (NE pt) and W. Harvey (NW pt)	The following features were observed within the parcel corresponding to the study area: o A residential dwelling is located on the northern portion of the study area. It should be noted that although residential dwellings are illustrated on the northern portion of this parcel (east and west of the study area) and a roadway is illustrated on the northern portion of the parcel (to the north of the study area), these features are not located within the study area.
22	Pt. 38	IV	Ernestown	J. Lee (NE pt)	Although residential dwellings and a roadway are illustrated on the northern portion of this parcel, no historical features are illustrated within the study area under review.

Furthermore, the *1878 Illustrated Historical Atlas of the Counties of Frontenac, Lennox and Addington* (Meacham & Co. 1878) (Figure 7) was examined by AMEC in 2011a. This map shows some slight changes in settlement from the 1860 map. The following table provides a summary of ownership and features identified within the 5 areas currently under review:

Table 4: Residents and Historical Features illustrated in the *1878 Illustrated Historical Atlas of the Counties of Frontenac, Lennox and Addington.*

Parcel	Lot	Concession	Township	Resident(s)/ Owner(s)	Historical Feature (s)
1-2	2-3	6 W. Division	Kingston	Tim Fraser (SW ½ of Lot 2) and George Duggan (E ½ of Lot 3)	The following features were observed within the parcel corresponding to the study area: o A creek transects this portion of the study area. It should be noted that residential dwellings are illustrated on the southern and central portions of this parcel (south of the study area) and roadways are illustrated on the southern and eastern portions of the parcel (to the south and east of the study area). These features are not located within the study area.
3	3	6 W. Division	Kingston	Henry Robinson (W ½)	The following features were observed within the parcel corresponding to the study area: o A roadway transects this portion of the study area. It should be noted that a residential dwelling is illustrated on the western portion of this parcel (north of the study area) and a roadway is illustrated on the southern portion of this parcel (south of the study area). These features are not located within the study area.
4	5	6 W. Division	Kingston	Estate of J. Moon (E ½)	Although residential dwellings are illustrated on the south-western and central portions of this parcel

Table 4: Residents and Historical Features illustrated in the *1878 Illustrated Historical Atlas of the Counties of Frontenac, Lennox and Addington.*

Parcel	Lot	Concession	Township	Resident(s)/ Owner(s)	Historical Feature (s)
					(west and northwest of the study area) and a roadway is illustrated on the southern portion of this parcel (south of the study area), no historical features are illustrated within the study area.
21	Pt. 39	IV	Ernestown	D. Lee (NW pt), Geo Lee Sen (E pt)	Although residential dwellings are illustrated on the north-eastern portion of this parcel (east of the study area) and on the north-western portion of this parcel (west of the study area) and roadways are illustrated on the northern portion of this parcel and transecting the northern portion of the parcel (north and west of the study area respectively), no historical features are illustrated within the study area.
22	Pt. 38	IV	Ernestown	John Lee (E Central pt)	Although residential dwellings and a roadway are illustrated on the northern portion of this parcel (north of the study area), no historical features are illustrated within the study area under review.

1.4 Archaeological Context

Based on a review of the Stage 1 & 2 archaeological assessment report prepared by AMEC (2011a), six archaeological sites have been registered within a two-kilometre radius of the study area. The following table provides a summary of these sites:

Table 5: Registered Archaeological Sites within a 2km Radius

Borden Number	Site Name	Cultural Affiliation	Site Type	Researcher & Date
BbGd-48	-	Euro-Canadian (mid-nineteenth-century to early/mid-twentieth century)	Homestead	S. Austin & B. Slim (2011a)
BbGd-49	-	Euro-Canadian (mid-nineteenth-century to early/mid-twentieth century)	Homestead	S. Austin & B. Slim (2011a)
BbGd-50	-	Euro-Canadian (mid-nineteenth-century to early/mid-twentieth century)	Homestead / Blacksmith Shop	S. Austin, B. Slim & J. Seguin (2011a)
BbGd-51	-	Euro-Canadian (mid-nineteenth-century to early/mid-twentieth century)	Domestic scatter	S. Austin & B. Slim (2011a)
BbGd-52	-	Euro-Canadian (mid-nineteenth-century to early/mid-twentieth century)	Homestead	S. Austin & J. Seguin (2011a)
BbGd-53	-	Aboriginal (Early Woodland)	Isolated Findspot	S. Austin & B. Slim (2011a)

In addition, as noted in the Stage 1 background research (AMEC 2011a), the Master Plan of Archaeological Resources for the City of Kingston (ASI 2010: Figure 1) identified three precontact archaeological sites over a kilometre to the southeast of the study area. Further information with respect to these archaeological sites was not available.

1.4.1 Environmental Context

The study area is underlain by a bed of limestone (Napanee Plain) carved by glaciers in the last ice age into flat-to-undulating terrain (Turner 1993: 14). Various creeks transect the township, providing rich stratified clay loam deposits. Glenvale Creek is located to

the east of the study area, whereas Odessa Lake is located to the north/northwest. (Figures 3, 8 and 9). Due to the limestone plain and the above-mentioned depression, agriculture in this area was historically found to be difficult. The region is characterized by an uneven patchwork of fertile farms interspersed with sections of marginal plots. In some areas, heavy clays require drainage before they can be cultivated, whereas in other locations there is no soil cover, only exposed limestone (Osborne 1982: 81).

This study area is situated within the Napanee Plain physiographic region of Ontario (Chapman and Putnam 1984: 113; Figure 8). The Napanee Plain, which contains limestone of the Gull River and Bobcaygeon Formations, is a counterpart of the smaller Carden Plain (Chapman and Putnam 1984: 186). The soil is only a few inches deep over much of the region (Chapman and Putnam, 1984: 186) and consists of six soil types: Farmington Loam, Lindsay Clay Loam, Lyons Loam-Shallow Phase, Guerin Loam, Guerin Loam-Shallow Phase, and Bondhead Loam (Figure 9).

The characteristic forest in this area is made up of sugar maple, white elm, silver and red maple, white cedar, basswood, beech and bur oak trees. White pine, hemlock, balsam fir, hawthorne, hickory, black ash and white spruce are also prevalent (Chapman and Putnam 1984: 187). Ground cover plants include Canada blue grass, mullein, blueweed and ground juniper.

The Napanee Plain is among the earliest areas of Upper Canada to be occupied and settled historically (Chapman and Putnam 1984: 187). The City of Kingston, located to the southeast, exerted considerable influence over the study area; however, small pioneer outposts located within this region also provided important supplies. One of these outposts was Odessa, located to the southwest of the study area. This general area was used as agricultural land, the majority of which remained in cultivation until the 1960s.

1.5 Overview of Project Context and Previous Recommendations

As mentioned above, the Stage 1 and 2 archaeological assessment report (AMEC 2011a) identified that the 5 areas currently under review exhibit archaeological potential. This conclusion is based on three main factors, including: proximity to water and historic settlement and transportation routes, as well as the presence of previously identified archaeological sites within a two-kilometre radius.

The Stage 1 & 2 report conducted in the Fall of 2011 recommended Stage 2 property assessment if these 5 areas were to be impacted by development. The fieldwork strategies employed in this report coincide with AMEC's (2011a) Stage 1 recommendations.

2.0 STAGE 2 PROPERTY ASSESSMENT

2.1 Introduction

A Stage 2 property assessment was conducted within the 5 areas selected for the proposed Access Roads/Collector Lines for the Sol-luce Kingston Solar PV Energy Project.

2.2 Field Methods and Weather Conditions

The Stage 2 property assessment consisted of an on-site evaluation of no or low archaeological potential as described in the *Standards and Guidelines for Consultant Archaeologists, 2011* (pg. 28), a pedestrian survey at 5-m intervals of ploughed and weather land and *a* test pit survey at 5-m intervals of all unploughable areas deemed to have archaeological potential (Figures 9-Key Map, 9A to 9C). The Stage 1 background research for the study area (P1-2, P3, P4, P21 and P22) had been completed by AMEC in 2011 (AMEC 2011a).

Table 6 describes the crew and weather conditions encountered during the completion of the Stage 2 property assessment. The weather did not impede in the assessment in any way.

Table 6: Weather Conditions and Crew, Stage 2 Property Inspection of Access Roads/Collector Lines

Date	Weather	Crew Initials
05/01/2012	Cool (7 °C) and Overcast	J.S. and J.S.
05/02/2012	Cool (8°C) Cloudy with Sunny Breaks	J.S. and J.S.

The following table provides a description of the existing conditions observed and their significance with reference to the determination of archaeological potential and assessment methods. All Figures referenced below are provided in Appendix A and all photographs described below are provided in Appendix B.

Table 7: Archaeological Potential and Assessment Methods for Access Roads/Collector Lines			
Parcel	**Current Conditions**	**Archaeological Potential**	**Recommended Assessment Methods**
1-2	Parcel 1-2 consisted of a mixture of agricultural land, a woodlot, a shrub area, a grass covered access road and a gravel covered roadway (Figure 10A, Photographs 1 and 2). Shrub areas consist of areas of grass with a few trees or shrubs.	Based on the conditions observed, Parcel 1-2 was identified as having mixed potential as follows: • The following areas contained no archaeological potential: an existing gravel roadway (Figure 10A, Photograph 1); and, • The following areas exhibited archaeological potential: a shrub area, a grass covered access road, a woodlot and an agricultural field (Figure 10A, Photograph 2).	A Stage 2 property assessment is recommended for all portions of the parcel with the exception of the disturbed area described herein (gravel roadway). The area of development that exhibited archaeological potential within the agricultural field consisted of a narrow corridor (8 m in width by 30 m length). After conversations with MTCS on 30 April 2012, it was determined that this area could be assessed by means of a test-pit survey conducted at 5 m intervals and that the study area should be expanded to 10 m width (Figure 4A and 10A). The remainder of the study area exhibiting archaeological potential consisted of unploughable land. Thus, the Stage 2 assessment of this Parcel should include: • A test pit survey conducted at 5 m intervals for areas of archaeological potential.
3	Parcel 3 consisted of shrub areas with alvar-like soils (Figure 10B, Photographs 3 and 4). Alvar soils are defined as thin soils (<15 cm) over limestone bedrock.	Based on the conditions observed, Parcel 3 was identified as having archaeological potential.	A Stage 2 property assessment is recommended for all portions of the parcel. The area of development consist a corridor measuring 12 m in width). After conversations with MTCS on 30 April 2012, it was determined that the study area should be expanded to 15 m width (Figure 4B and 10B). The Stage 2 assessment of this Parcel should include: • A test pit survey conducted at 5 m intervals.
4	Parcel 4 consisted of a mixture of agricultural land (hay field), scrub and treed	Based on the conditions observed, Parcel 4 was identified as having archaeological potential.	A Stage 2 property assessment is recommended for all portions of the parcel.

Table 7: Archaeological Potential and Assessment Methods for Access Roads/Collector Lines			
Parcel	**Current Conditions**	**Archaeological Potential**	**Recommended Assessment Methods**
	areas and pasture land with high rock content (Figure 10B, Photographs 5-8). Scrub areas consist of areas that are heavily brushed, thorned and weeded.		The area of development consists of a corridor (15 m in width), as such a buffer was not required. The Stage 2 assessment of this Parcel should include (Figure 10B): • A test pit survey conducted at 5 m intervals within the scrub and treed areas and the pasture land with high rock content; and, • A pedestrian survey conducted at 5 m intervals of the agricultural field.
21	Parcel 21 consisted of a mixture of scrub and treed areas and a manicured lawn (Figure 10C, Photographs 9 and 10).	Based on the conditions observed, Parcel 21 was identified as having archaeological potential.	A Stage 2 property assessment is recommended for all portions of the parcel. The area of development consist a corridor measuring 12 m in width). After conversations with MTCS on 30 April 2012, it was determined that the study area should be expanded to 15 m width (Figure 4C and 10C). The Stage 2 assessment of this Parcel should include: • A test pit survey conducted at 5 m intervals.
22	Parcel 22 consisted of a mixture of scrub and treed areas and a manicured lawn (Figure 10C, Photographs 11 and 12).	Based on the conditions observed, Parcel 22 was identified as having archaeological potential.	A Stage 2 property assessment is recommended for all portions of the parcel (Figure 10C). The Stage 2 assessment of this Parcel should include: • A test pit survey conducted at 5 m intervals.

Stage 2 pedestrian survey was conducted on all ploughable agricultural land. The land was prepared by being ploughed using a mouldboard plough to the depth of previous ploughing. All furrows were disked after ploughing to break down the soils further. At least 80% of the ploughed ground surface was visible after ploughing had been completed. The fields were allowed to weather through several light rains to improve surface visibility. The pedestrian survey was conducted at survey transects of 5 m. In the event that archaeological resources had been found, the survey transects would have been decreased to 1-m intervals for a minimum 30-m radius around the find(s) or until the full extent of the surface material had been delineated. In general practice, all formal artifact types and diagnostic categories are collected, including diagnostic ceramic sherds. Enough artifacts are left in place to relocate the site in the event that further work is deemed necessary. Cultural artifacts encountered during pedestrian survey are collected and bagged according to provenience. The locations of surface finds are recorded by means of Global Positioning System ("GPS") waypoints. GPS coordinates for each artifact are recorded using a Garmin™ GPSMAP 62s GPS set to the North American Datum 83 ("NAD 83") with a minimum accuracy of plus or minus three metres.

Stage 2 shovel test pits were placed throughout unploughable areas of archaeological potential, including areas with high rock content and/or alvar soils. All test pits were a minimum of 30 cm in diameter and dug to a minimum of 5 cm into the subsoil or until bedrock was encountered. Soil fills were screened through 6-millimetre ("mm") mesh screens in order to facilitate artifact recovery. Test pit profiles were also examined for cultural deposits prior to being backfilled. In the event that cultural materials had been encountered, the first step would have been to continue along the survey grid to determine whether immediately succeeding test pits also contained archaeological resources. If not, then to return to the positive test pit and dig eight additional test-pits around it at a radial distance of 2.5 m. This would have been followed by the excavation of a 1 x 1 m unit over the first positive test pit. Cultural artifacts encountered are collected and bagged according to provenience. The location of any positive test pit is recorded by means of GPS waypoint. GPS coordinates for each artifact is recorded using a Garmin™ GPSMAP 62s GPS set to the NAD 83 with a minimum accuracy of plus or minus three metres.

2.3 Stage 2 Results

Table 8 provides detailed observations of terrain by parcel, as well as the assessment strategies that were used in each context and the testing results. All Figures referenced below are provided in Appendix A and all photographs described below are provided in Appendix B.

Table 8: Stage 2 Investigations of Selected Lands for Solar Farm				
Parcel	**Current Conditions**	**Assessment Methods**	**Soil Conditions**	**Findings**
1-2	Parcel 1-2 was considered to have mixed potential and consisted of a mixture of agricultural land, a woodlot, a shrub area, a grass covered access road and a gravel covered roadway (Figure 10A).	The Stage 2 property assessment for Parcel 1-2 was conducted as follows: • A test pit survey was conducted at 5 m intervals in areas of archaeological potential using the methods described in Section 2.2 (Figure 11A, Photographs 13-16).	Soils within this parcel consisted of a dark brown (10 YR 3/3) sandy loam; brownish yellow (10YR 6/8) subsoil was encountered approximately 25 to 30 cm in depth.	Archaeological materials were not recovered and no archaeological sites were identified during this assessment.
3	Parcel 3 was considered to have archaeological potential and consisted of shrub areas with alvar-like soils (Figure 10B).	The Stage 2 property assessment for Parcel 3 was conducted as follows: • A test pit survey was conducted at 5 m intervals in all areas using the methods described in Section 2.2 (Figure 11B, Photographs 17 and 18).	Soils in this parcel consisted of a dark brown (10 YR 3/3) sandy loam with pebbles; yellowish brown (10 YR 5/6) subsoil or bedrock was encountered at 8 to 30 cm in depth. Exposed bedrock (where alvar-like soils are present) was encountered within this Parcel.	Archaeological materials were not recovered and no archaeological sites were identified during this assessment.
4	Parcel 4 was considered to have archaeological potential and consisted of a mixture of agricultural land (hay field), scrub and treed areas and pasture land with high rock content (Figure 10B).	The Stage 2 property assessment for Parcel 4 was conducted as follows: • All agricultural land was ploughed using a mouldboard plough to the depth of previous ploughing. All furrows were disked after ploughing. The fields were allowed to weather through several light rains. During the pedestrian survey, at least 85% of the ploughed ground surface was visible. The pedestrian survey was conducted at 5 m intervals using the	Soils in this parcel consisted of a medium brown (10 YR 5/3) wet clay loam; light brownish gray (10 YR 6/2) subsoil or bedrock was encountered at 20 to 25 cm in depth. Similarly, the ploughzone was encountered at 20 cm in depth. Exposed bedrock (where	Archaeological materials were not recovered and no archaeological sites were identified during this assessment.

Table 8: Stage 2 Investigations of Selected Lands for Solar Farm				
Parcel	**Current Conditions**	**Assessment Methods**	**Soil Conditions**	**Findings**
		methods described in Section 2.2 (Figure 10B, Photographs 19 and 20); and, • A test pit survey was conducted at 5 m intervals in all unploughable land using the methods described in Section 2.2 (Figure 10B, Photographs 21, 22 and 23).	alvar-like soils are present) was encountered on the southern portion of the study area.	
21	Parcel 21 was considered to have archaeological potential and consisted of a mixture of scrub and treed areas and a manicured lawn (Figure 10C).	The Stage 2 property assessment for Parcel 21 was conducted as follows: • A test pit survey was conducted at 5 m intervals in all areas using the methods described in Section 2.2 (Figure 11C, Photographs 24 to 26).	Soils within this parcel consisted of a dark brown (10YR 3/23) clay loam; light yellowish brown (10YR 6/4) subsoil was encountered at approximately 15 to 30 cm in depth.	Archaeological materials were not recovered and no archaeological sites were identified during this assessment.
22	Parcel 22 was considered to have archaeological potential and consisted of a mixture of scrub and treed areas and a manicured lawn (Figure 10C).	The Stage 2 property assessment for Parcel 22 was conducted as follows: • A test pit survey was conducted at 5 m intervals in all areas using the methods described in Section 2.2 (Figure 11C, Photographs 27 to 29).	Soils within this parcel consisted of a dark brown (10YR 3/23) clay loam; light yellowish brown (10YR 6/4) subsoil was encountered at approximately 20 cm in depth.	Archaeological materials were not recovered and no archaeological sites were identified during this assessment.

3.0 RECORD OF FINDS

The following table provides the inventory of documentary records accumulated as part of this assessment:

Table 9: Inventory of Documentary Record

Study Area	Map and Photo(s)	Field Notes
2.03 hectares, Part of Lots 2-3 and Part of Lot 5, Concession VI in Kingston Township, County of Frontenac and Part of 39, Concession IV in Ernestown Township, County of Lennox and Addington	5 field maps, 29 Stage 2 photographs	Stage 2 Survey Form, Photo Log, Field notes

4.0 ANALYSIS AND CONCLUSIONS

Stage 2 assessment confirmed that the study area included areas of intact archaeological potential, which were assessed by means of pedestrian survey or test pitting, as appropriate, at 5 m intervals. Intensive testing was not warranted along the existing right-of-way within Parcel 1-2 as this corridor had been thoroughly disturbed and archaeological potential removed. No cultural heritage artifacts or deposits were encountered during this assessment and therefore the study area may be considered free of any further archaeological concern.

5.0 RECOMMENDATIONS

Based on the results of the Stage 2 assessment of the 5 areas (6 parcels of land) for the proposed Access Roads / Collector Lines for the Sol-luce Kingston Solar PV Energy Project it is recommended that:

- The areas corresponding to Access Roads / Collector Lines within Parcels 1-2, 3, 4, 21 and 22 may be considered free of any further archaeological concern.

The above recommendation is subject to Ministry of Tourism, Culture and Sport's approval, and it is an offence to alter any archaeological site without Ministry of Tourism, Culture and Sport's concurrence.

No grading or other activities that may result in the destruction or disturbance of an archaeological site are permitted until notice of Ministry of Tourism, Culture and Sport's approval has been received.

6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, RSO 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sport, a letter will be issued by the Ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove an artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act.* The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.

The *Cemeteries Act,* R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological license.

The documentation related to this archaeological assessment will be curated by AMEC until such time that arrangements for their ultimate transfer to Her Majesty the Queen in right of Ontario, or other public institution, can be made to the satisfaction of the project owner(s), the Ontario MTCS, and any other legitimate interest groups.

7.0 ASSESSOR QUALIFICATIONS

This report was prepared and reviewed by the undersigned, employees of AMEC Environment & Infrastructure, a division of AMEC Americas Limited. AMEC is one of North America's leading engineering firms, with more than 50 years of experience in the earth and environmental consulting industry. The qualifications of the assessors involved in the preparation of this report are provided in Appendix C.

8.0 CLOSURE

This report was prepared for the exclusive use of Kingston Solar LP and is intended to provide a Stage 2 property assessment of the 5 Parcels selected for solar development. The project is legally described as Part of Lots 2-3 and Part of Lot 5, Concession VI in Kingston Township, County of Frontenac and Part of 39, Concession IV in Ernestown Township, County of Lennox and Addington.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of the third party. Should additional parties require reliance on this report, written authorization from AMEC will be required. With respect to third parties, AMEC has no liability or responsibility for losses of any kind whatsoever, including direct or consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

The report is based on data and information collected during the Stage 1 background study of the property conducted by AMEC (2011a). It is based solely on the conditions of the property encountered at the time of the Stage 2 property assessment conducted on 01 and 02 May 2012, supplemented by a review of historical information and data obtained by AMEC as described in this report. Except as otherwise maybe specified, AMEC disclaims any obligation to update this report for events taking place, or with respect to information that becomes available to AMEC after the time during which AMEC conducted the archaeological assessment.

In evaluating the property, AMEC has relied in good faith on information provided by other individuals noted in this report. AMEC has assumed that the information provided is factual and accurate. In addition, the findings in this report are based, to a large degree, upon information provided by the current owner/occupant. AMEC accepts no responsibility for any deficiency, misstatement or inaccuracy contained in this report as a result of omissions, misinterpretations or fraudulent acts of persons interviewed or contacted.

AMEC makes no other representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation and change. Such interpretations and regulatory changes should be reviewed with legal counsel.

This report is also subject to the further Standard Limitations contained in Appendix D.

We trust that the information presented in this report meets your current requirements. Should you have any questions, or concerns, please do not hesitate to contact the undersigned.

Respectfully Submitted,

AMEC Environment & Infrastructure,
a Division of AMEC Americas Limited

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2011b Stage 2 Property Assessment: Parcel 14A, 21, 22, 23 & 24, *Sol-luce Kingston Solar PV Energy Project, Ernestown and Kingston Townships, Frontenac, Lennox and Addington Counties, Ontario, prepared by AMEC Earth & Infrastructure (P141-166-2011),* Report on file with the Ministry of Tourism, Culture and Sport.

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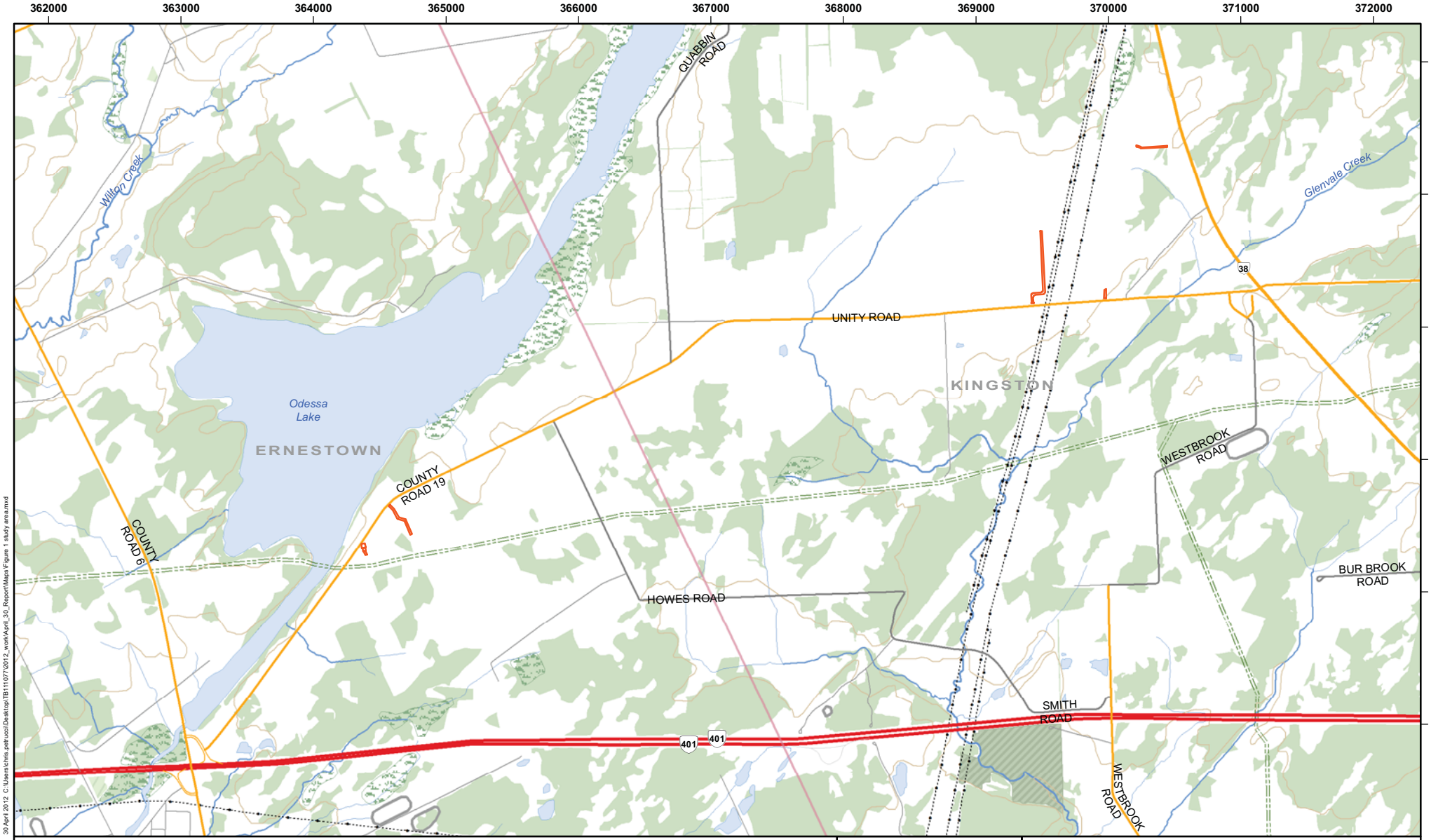
APPENDIX A

MAPS



30 April 2012 C:\Users\chris.petrucci\Desktop\TB111077\2012_work\April_30_Report\Maps\Figure 1 study area.mxd

LEGEND

- Study Area
- Railway
- Transmission Line
- U.G. Pipeline
- Race Track
- Lower Tier Municipalities
- Waterbody
- Golf Course
- Park / Sportsfield
- Wetlands
- Woodland Area

NOTES:

Datum: NAD83
Projection: UTM Zone 18N

0 1 2 3 4 Kilometres

N W E S

KINGSTON SOLAR LP

amec

SOL-LUCE KINGSTON
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Location of Study Area

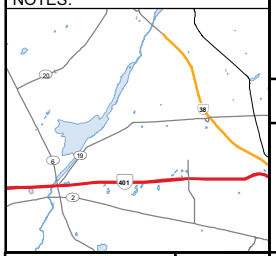
PROJECT N°: TB111077	**FIGURE: 1**
SCALE: 1:40,000	DATE: May 2012

30 April 2012 C:\Users\chris.petrucci\Desktop\TB111077\2012_work\April_30_Report\Maps\Figure 2 Aerial Photograph.mxd

LEGEND

- Study Area
- Railway
- Transmission Line
- U.G. Pipeline

NOTES:



Datum: NAD83
Projection: UTM Zone 18N

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KINGSTON SOLAR LP

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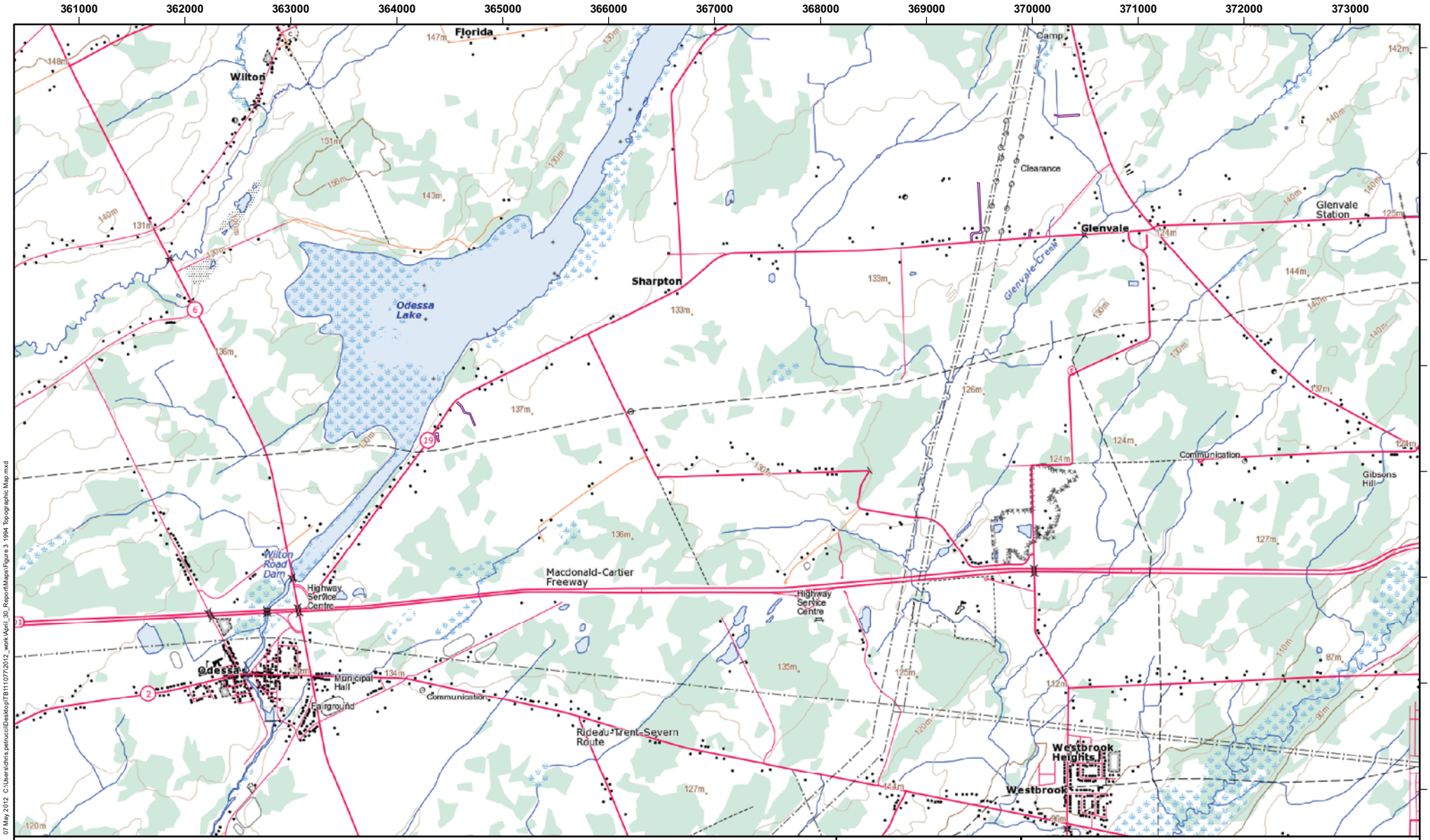
SOL-LUCE KINGSTON
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Aerial Photograph showing Location of Study Area

PROJECT N^{o}: TB111077	**FIGURE: 2**
SCALE: 1:40,000	DATE: May 2012



LEGEND

Study Area

NOTES:

Datum: NAD83
Projection: UTM Zone 18N

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KINGSTON SOLAR LP

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SOL-LUCE KINGSTON
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

1994 Topographic Map showing Location of Study Area

PROJECT N°: TB111077	**FIGURE: 3**
SCALE: 1:50,000	DATE: May 2012

07 May 2012 C:\Users\chris.pettrocit\Desktop\TB111077\2012_work\April_30_Report\Maps\Figure_4Key.mxd

LEGEND

- Areas Previously Assessed (AMEC 2011a P141-160-2011; AMEC 2011b P141-166-2011)
- Access Road/ Collector Line Development Plan
- Study Area with Buffer, as Requested by MTCS

NOTES:

Datum: NAD83
Projection: UTM Zone 18N

0 500 1,000 1,500 2,000 2,500 Meters

N W E S

KINGSTON SOLAR LP

amec

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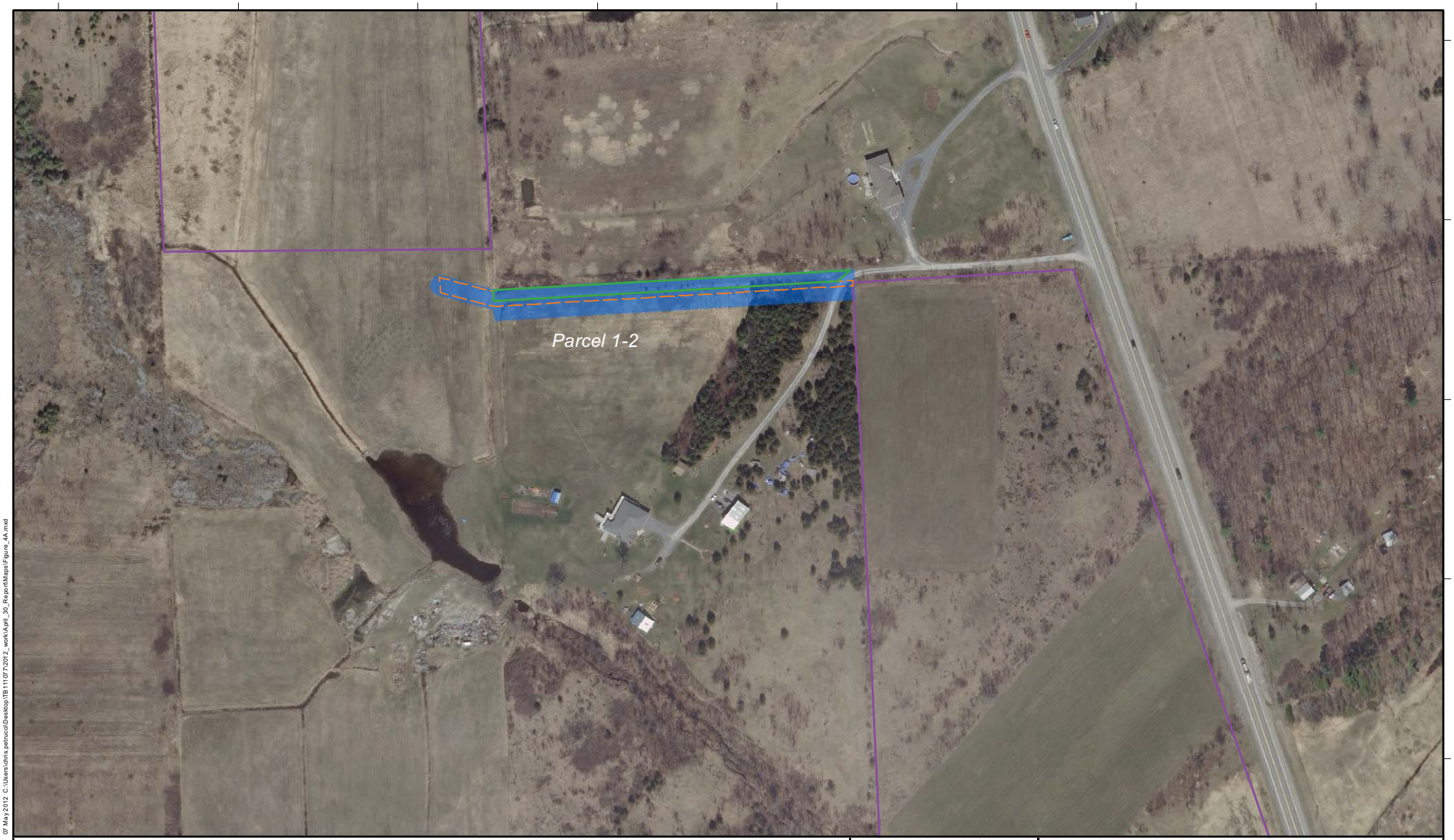
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Location of Proposed Access Roads/ Collector Lines and Study Area

PROJECT Nº: TB111077	**FIGURE: 4-Key**
SCALE: 1:25,000	DATE: May 2012



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LEGEND

- Areas Previously Assessed (AMEC 2011a P141-160-2011; AMEC 2011b P141-166-2011)
- Collector Line (3 Metre and 8 Metre Width)
- Access Road
- Study Area with Buffer, as Requested by MTCS

0 60 120 180 240 300 Meters

NOTES:

Datum: NAD83
Projection: UTM Zone 18N

N W E S

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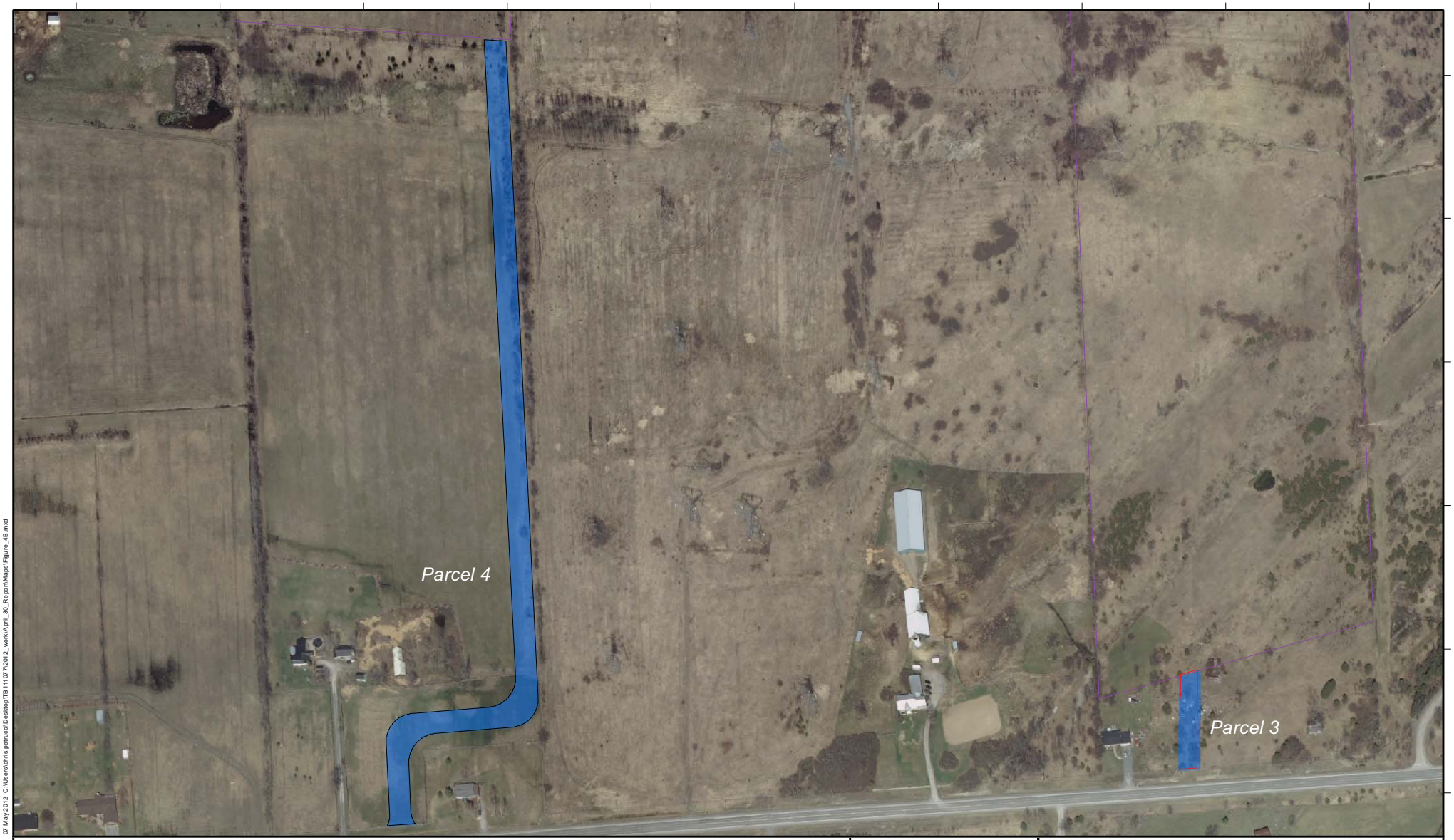
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Location of Proposed Access Roads/ Collector Lines and Study Area

PROJECT Nº: TB111077	**FIGURE: 4 A**
SCALE: 1:3,000	DATE: May 2012

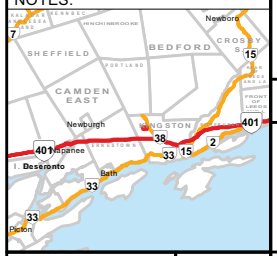


07 May 2012 C:\Users\chris.pettrocit\Desktop\TB 111077\2012_work\April_30_Report\Maps\Figure_4B.mxd

LEGEND

- Areas Previously Assessed (AMEC 2011a P141-160-2011; AMEC 2011b P141-166-2011)
- Collector Line/ Access Road (15 Metre Width)
- Collector Line/ Access Road (12 Metre Width)
- Study Area with Buffer, as Requested by MTCS

NOTES:



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Meters

KINGSTON SOLAR LP

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STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Location of Proposed Access Roads/ Collector Lines and Study Area

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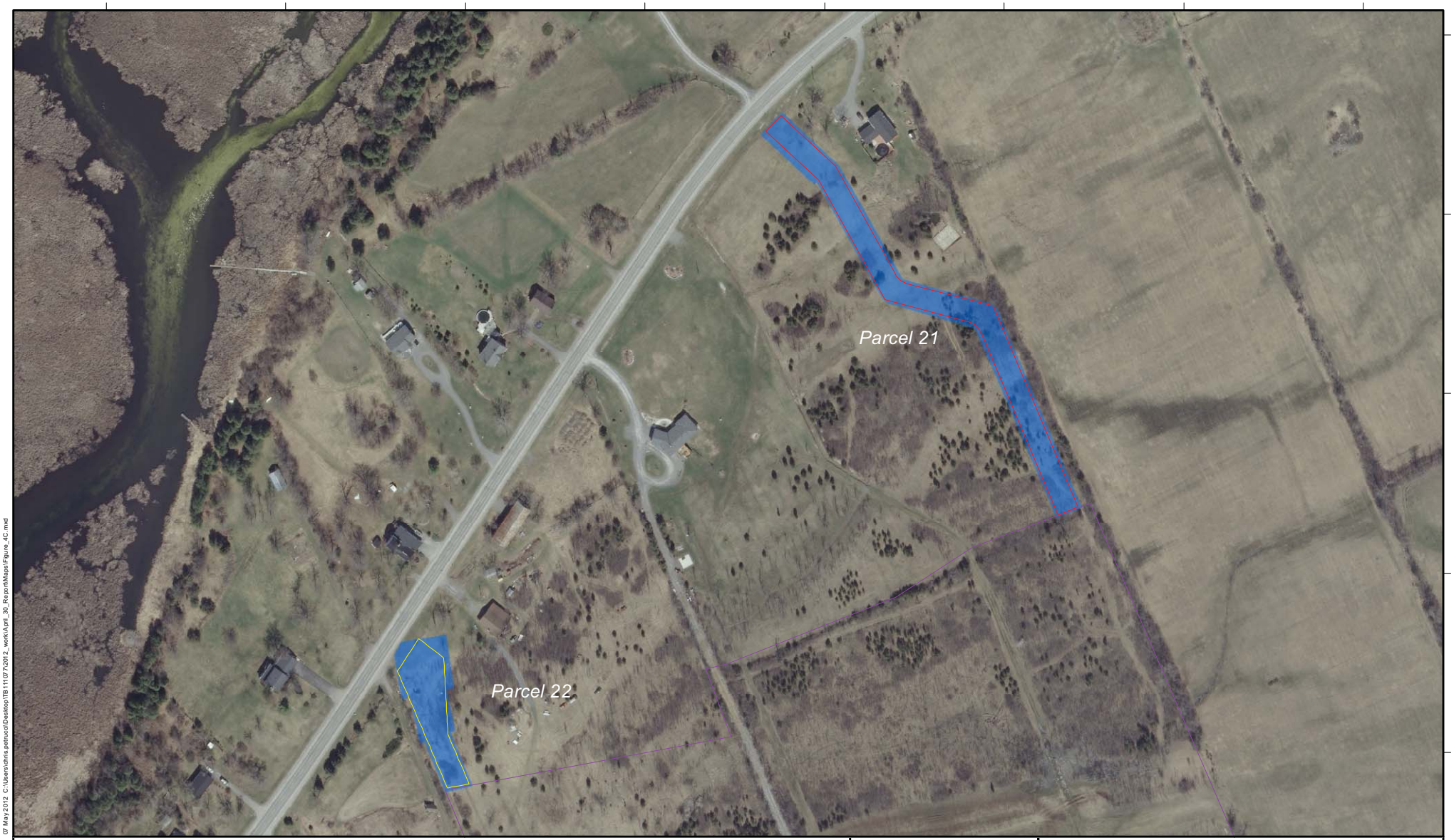

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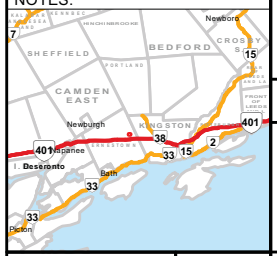
LEGEND

- Areas Previously Assessed (AMEC 2011a P141-160-2011; AMEC 2011b P141-166-2011)
- Access Road/ Collector Line (12 Metre Width)
- Access Road/ Collector Line (Irregular Shape)
- Study Area with Buffer, as Requested by MTCS

NOTES:



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N W E S

KINGSTON SOLAR LP

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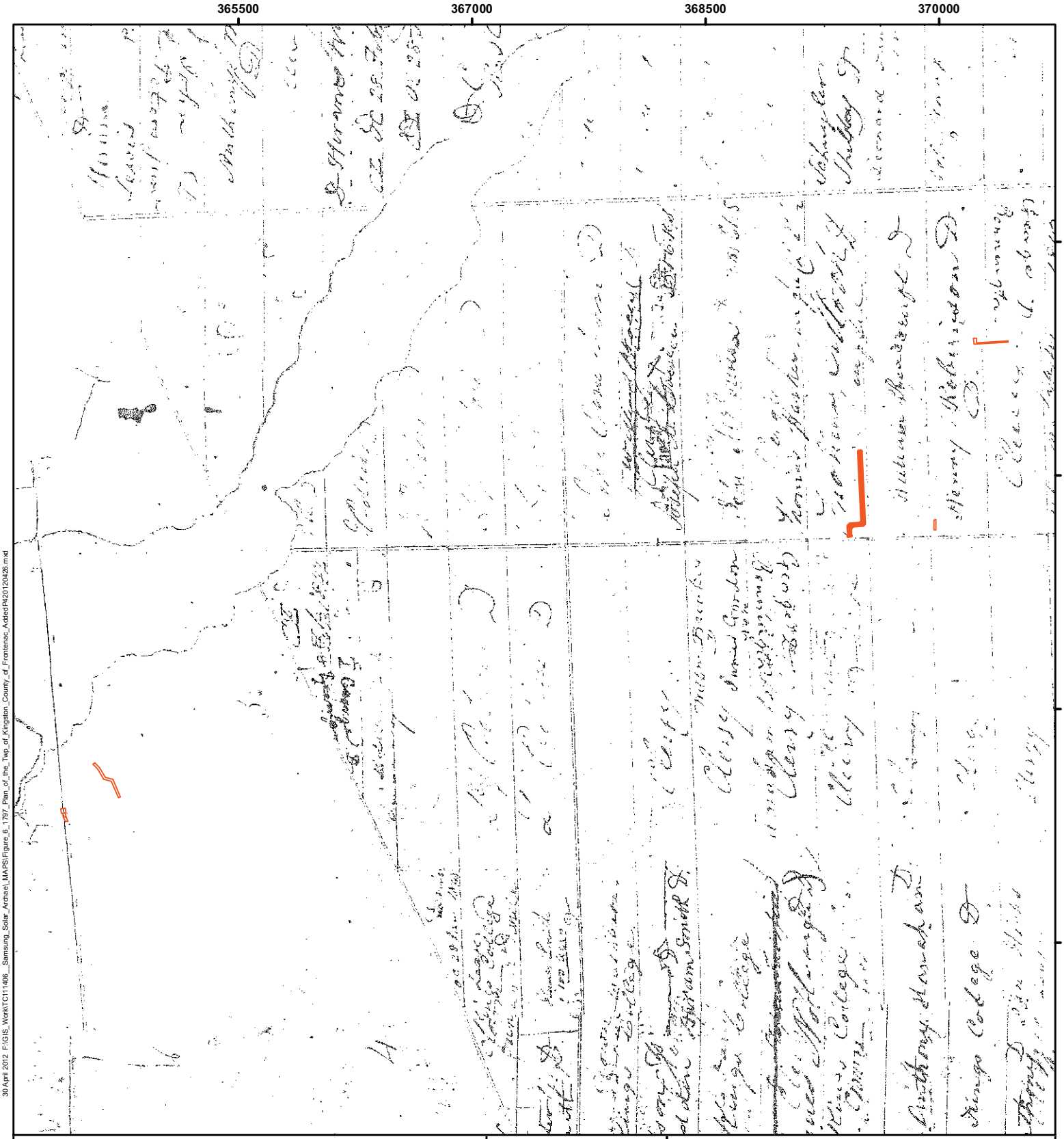
SOL-LUCE KINGSTON
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Location of Proposed Access Roads/ Collector Lines and Study Area

PROJECT Nº: TB111077	**FIGURE: 4 C**
SCALE: 1:3,000	DATE: May 2012



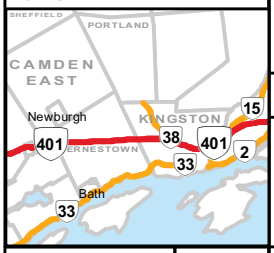
30 April 2012 F:\GIS_Work\TC111406__Samsung_Solar_Archael_MAPS\Figure_6_1797_Plan_of_the_Twp_of_Kingston_County_of_Frontenac_Added\P420120428.mxd

LEGEND

Study Area

Source: Aitken, A., 1797.
Best available image quality is shown.

NOTES:



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Projection: UTM Zone 18N

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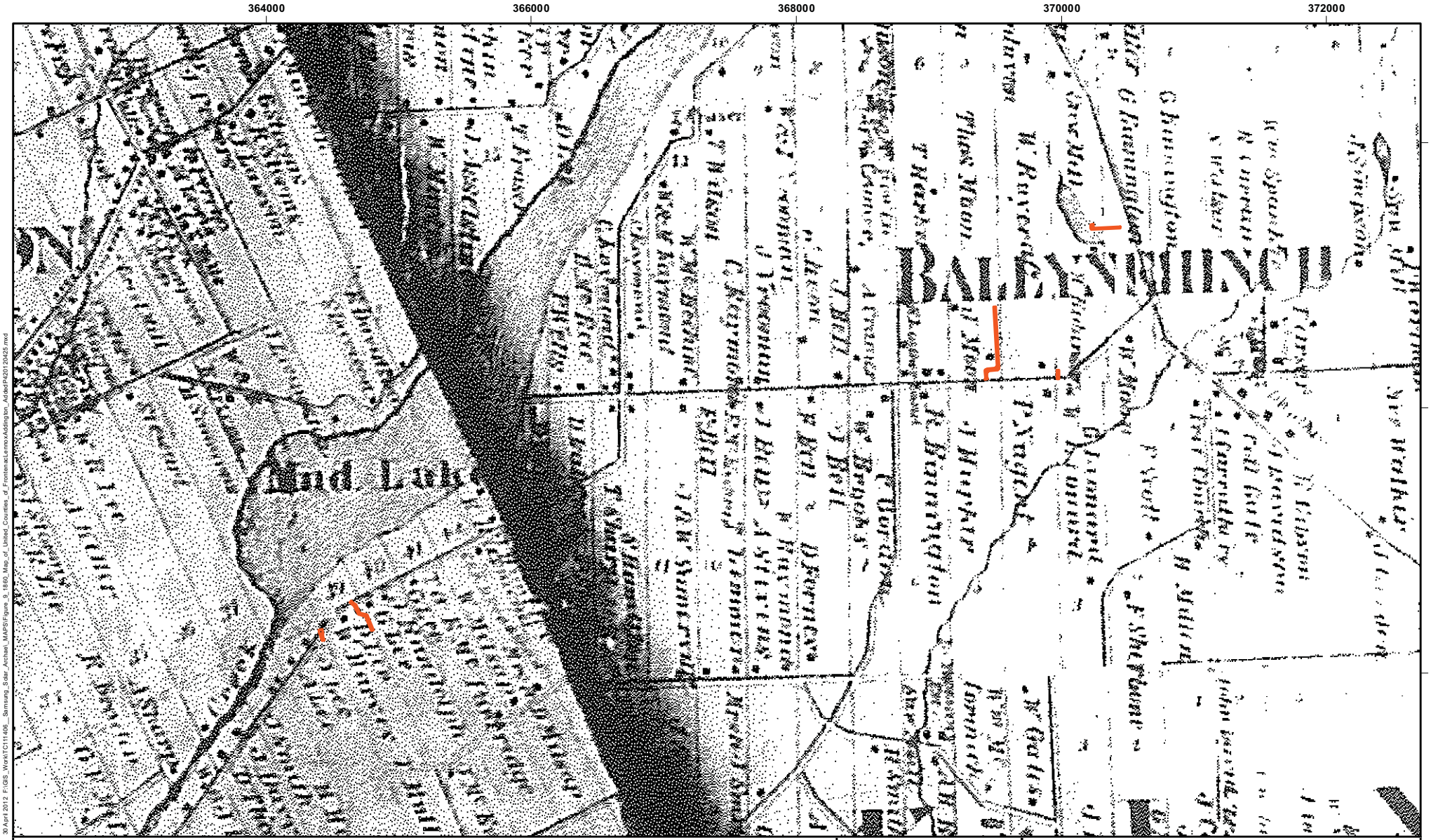
KINGSTON SOLAR LP

amec

SOL-LUCE KINGSTON
STAGE 1 & 2 ARCHAEOLOGICAL ASSESSMENT

1797 Plan of the Township of Kingston in the County of Frontenac showing Location of Study Area

PROJECT N°: TB111077	**FIGURE: 5**
SCALE: 1:33,184	DATE: May 2012



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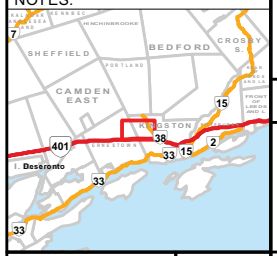
LEGEND

Study Area

Source: Walling, H.F., 1860.
Best available image quality is shown.

NOTES:



Datum: NAD83
Projection: UTM Zone 18N

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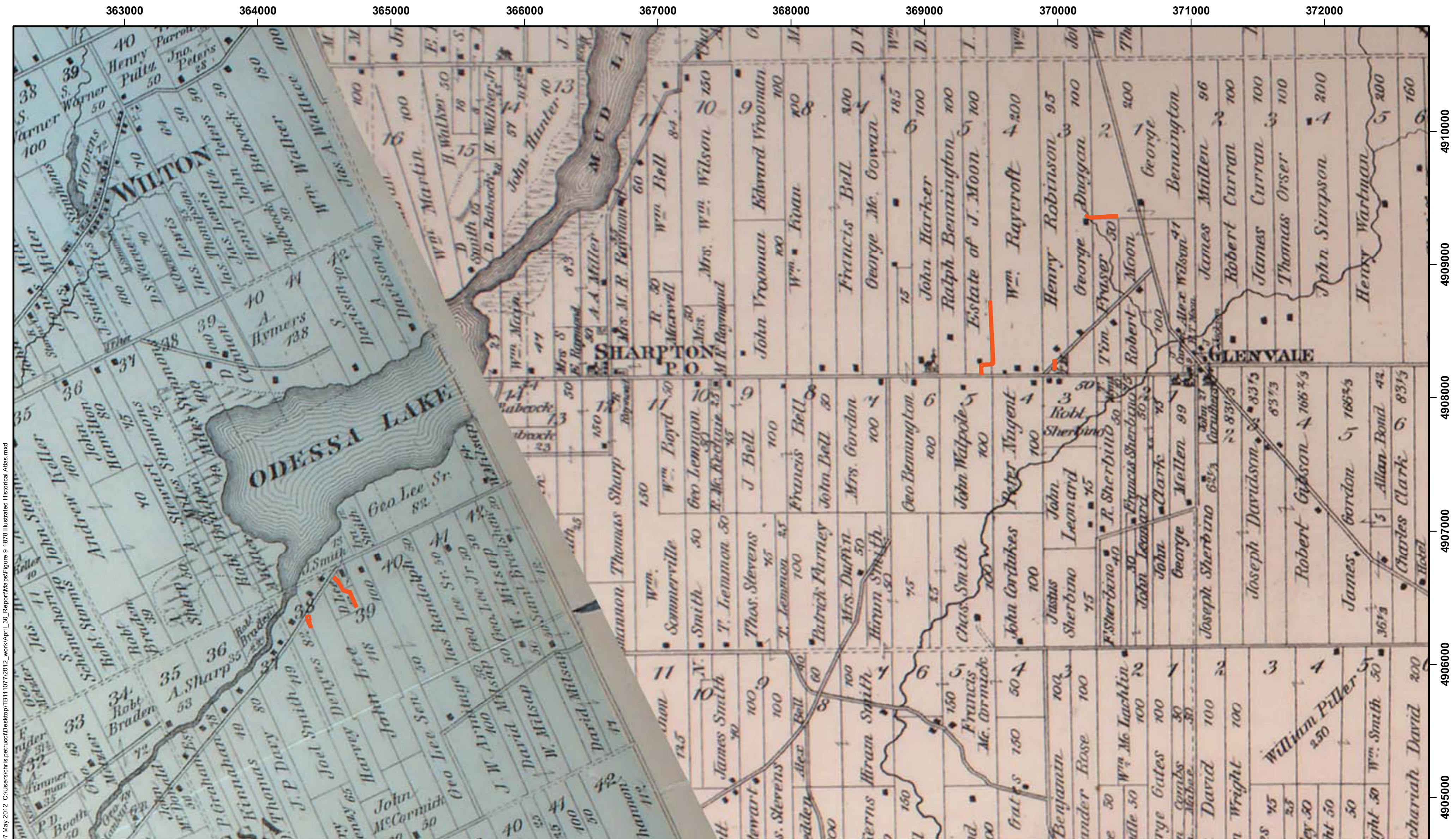
KINGSTON SOLAR LP

amec

SOL-LUCE KINGSTON
STAGE 1 & 2 ARCHAEOLOGICAL ASSESSMENT

1860 Map of United Counties of Frontenac, Lennox & Addington, showing Location of Study Area

PROJECT N^{O}: TC111406	**FIGURE: 6**
SCALE: 1:40,000	DATE: May 2012

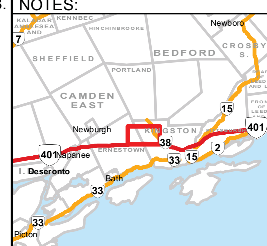


Source: Meacham & Co., 1878.

LEGEND

Study Area

NOTES:



Datum: NAD83
Projection: UTM Zone 18N

N S E W

0 1 2 3 4 5 Kilometres

KINGSTON SOLAR LP

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SOL-LUCE KINGSTON
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

1878 Illustrated Historical Atlas of the Counties of Frontenac, Lennox & Addington showing Location of Study Area

PROJECT N°: TB111077

FIGURE: 7

SCALE: 1:40,000

DATE: May 2012

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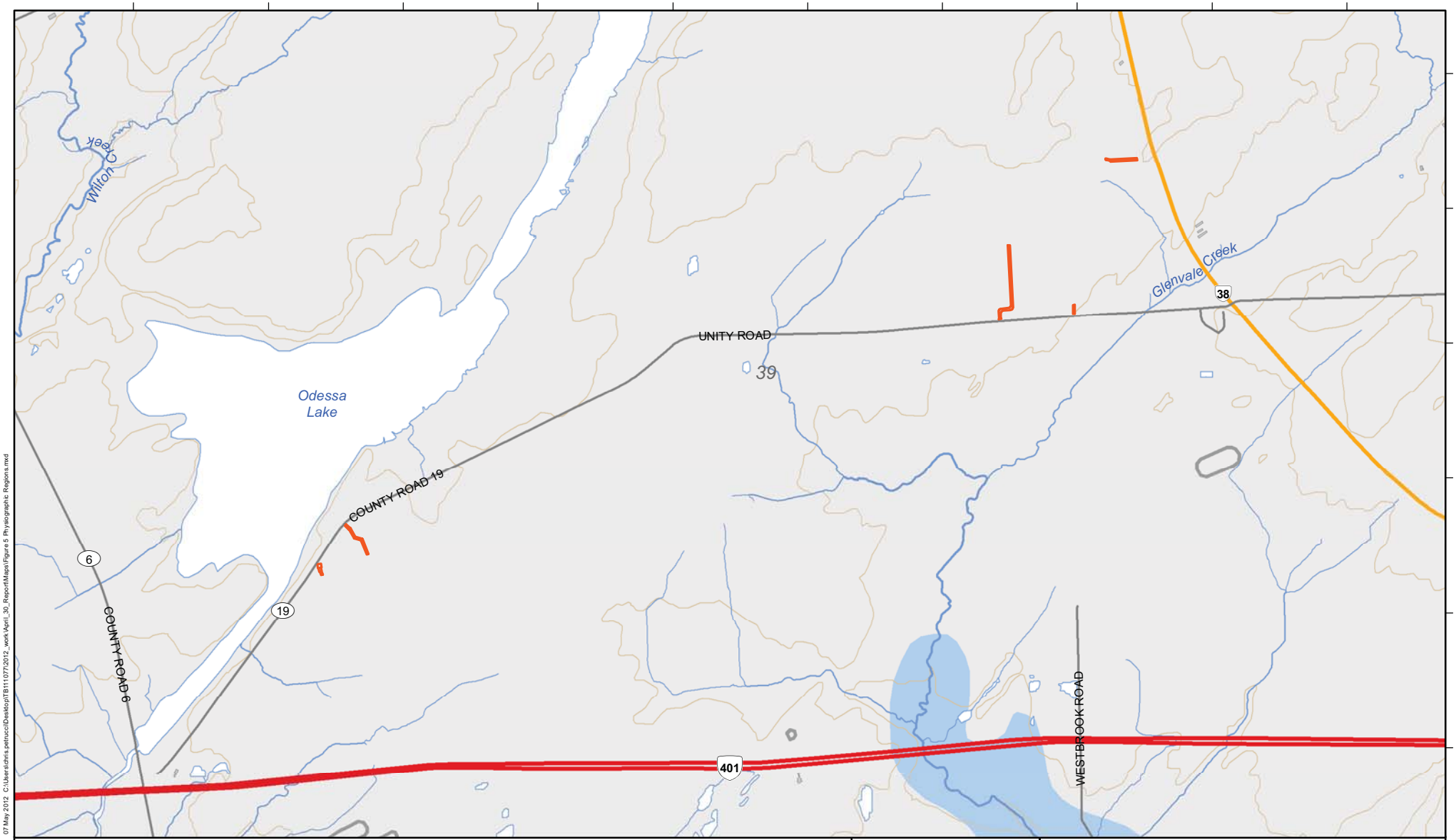

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LEGEND

- Study Area
- Freeway
- Expressway / Highway
- Arterial Road

Physiographic Region

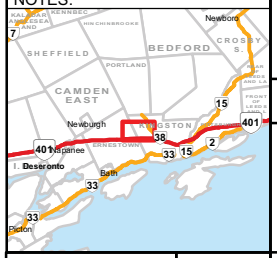
- 38, Dummer Moraines
- 39, Napanee Plain
- 53, Algonquin Highlands

Physiographic Unit

- 1: Escarpments
- 2: Till Moraines
- 3: Spillways
- 5: Till Plains (Undrumlinized)
- 6: Till Plains (Drumlinized)
- 4: Kame Moraines
- 7: Drumlins
- 8: Bevelled Till Plains
- 9: Limestone Plains
- 10: Shale Plains
- 11: Sand Plains
- 12: Clay Plains
- 13: Eskers
- 14: Beaches
- 15: Shallow Till And Rock Ridges
- 16: Bare Rock Ridges And Shallow Till
- 17: Peat And Muck

*Note: Not all regions shown in legend, appear on map

NOTES:



Datum: NAD83
Projection: UTM Zone 18N

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0 1 2 3 4 Kilometres

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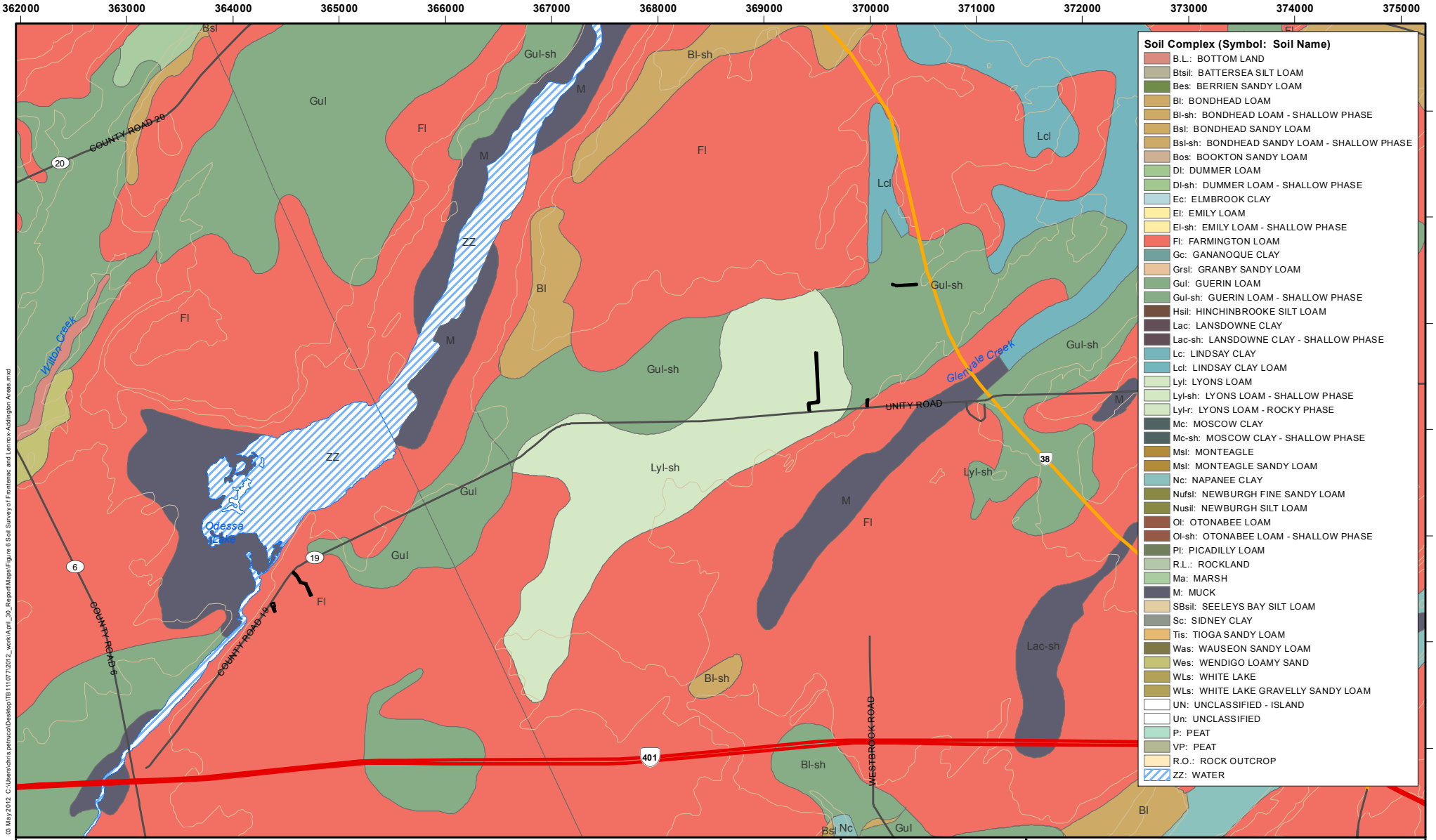
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Map of Physiographic Regions showing Location of Study Area

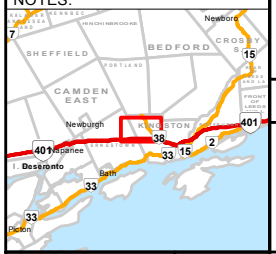
PROJECT N°: TB111077	**FIGURE: 8**
SCALE: 1:40,000	DATE: May 2012



LEGEND

- Study Area
- Freeway
- Expressway / Highway
- Arterial Road

NOTES:



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Projection: UTM Zone 18N

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STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Soil Survey of Frontenac and Lennox-Addington Counties showing Location of Study Area

PROJECT Nº: TB111077	**FIGURE: 9**
SCALE: 1:50,000	DATE: May 2012

03 May 2012 C:\Users\chris.petrucci\Desktop\TB 111077\2012_work\April_30_Report\Maps\Figure 8 Soil Survey of Frontenac and Lennox-Addington Areas.mxd

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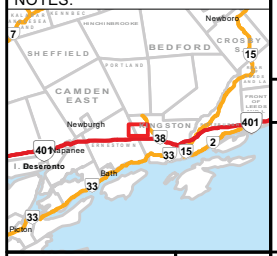
LEGEND

- Areas Previously Assessed (AMEC 2011a P141-160-2011; AMEC 2011b P141-166-2011)
- Study Area

NOTES:



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STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Archaeological Potential, Stage 2 Assessment Methods and Photograph Location of Study Area

PROJECT Nº: TB111077	**FIGURE: 10-Key**
SCALE: 1:25,000	DATE: May 2012

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LEGEND

Areas of No Archeaological Potential

- Extensively Disturbed Terrain - Roadway

Areas of Archaeological Potential - Test Pittable Land

- Agricultural Field: Narrow (Less than 8 m Wide Collector Line; 10 m Wide Study Area) Linear Survey Corridor Located Adjacent to Existing Access Road
- Grass Covered Access Road
- Shrub Area
- Woodlot

- Areas Previously Assessed (AMEC 2011a P141-160-2011; AMEC 2011b P141-166-2011)
- # Photograph Locations and Directions

NOTES:

Datum: NAD83
Projection: UTM Zone 18N

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STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Archaeological Potential, Stage 2 Assessment Methods and Photograph Location of Study Areas

PROJECT Nº: TB111077	**FIGURE: 10 A**
SCALE: 1:2,250	DATE: May 2012

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LEGEND

- Areas Previously Assessed (AMEC 2011a P141-160-2011; AMEC 2011b P141-166-2011)

Areas of Archaeological Potential - Ploughable Land

- Agricultural Field

Areas of Archaeological Potential - Test Pittable Land

- Scrub and Treed Area
- Pasture Land with High Rock Content
- Shrub Area with Alvar-Like Soils
- Photograph Locations and Directions

0 75 150 225 300 375 Meters

NOTES:

Datum: NAD83
Projection: UTM Zone 18N

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STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Archaeological Potential, Stage 2 Assessment Methods and Photograph Location of Study Areas

PROJECT Nº: TB111077	**FIGURE: 10 B**
SCALE: 1:3,700	DATE: May 2012

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LEGEND

Areas Previously Assessed
(AMEC 2011a P141-160-2011; AMEC 2011b P141-166-2011)

Archaeological Potential - Test Pittable Land

Manicured Lawn

Scrub and Treed Areas

Photograph Locations and Directions

0 50 100 150 200 250 Meters

NOTES:

Datum: NAD83
Projection: UTM Zone 18N

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STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Archaeological Potential, Study Area Assessment Methods and Photograph Location of Study Areas

PROJECT Nº: TB111077	**FIGURE: 10 C**
SCALE: 1:2,500	DATE: May 2012

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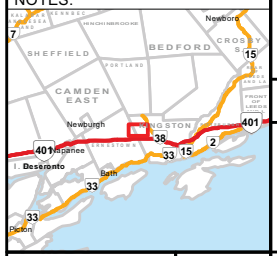
LEGEND

- Areas Previously Assessed (AMEC 2011a P141-160-2011; AMEC 2011b P141-166-2011)
- Study Area

NOTES:



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STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Stage 2 Archaeological Assessment Fieldwork and Photograph Locations of Study Area

PROJECT No: TB111077	**FIGURE: 11 Key**
SCALE: 1:25,000	DATE: May 2012

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LEGEND

Areas Previously Assessed
(AMEC 2011a P141-160-2011; AMEC 2011b P141-166-2011)

Areas of No Archeaological Potential

Extensively Disturbed Terrain

Areas of Archaeological Potential

Test Pitted at 5 Metre Intervals

Photograph Locations and Directions

0 40 80 120 160 200 Meters

NOTES:

Datum: NAD83
Projection: UTM Zone 18N

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STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Stage 2 Archaeological Assessment Fieldwork and Photograph Locations of Study Area

PROJECT Nº: TB111077	**FIGURE: 11 A**
SCALE: 1:2,250	DATE: May 2012

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LEGEND

Areas Previously Assessed
(AMEC 2011a P141-160-2011; AMEC 2011b P141-166-2011)

Areas of Archaeological Potential

- Pedestrian Survey - 5 Metre Intervals
- Test Pitted at 5 Metre Intervals
- Photograph Locations and Directions

0 75 150 225 300 375 Meters

NOTES:

Datum: NAD83
Projection: UTM Zone 18N

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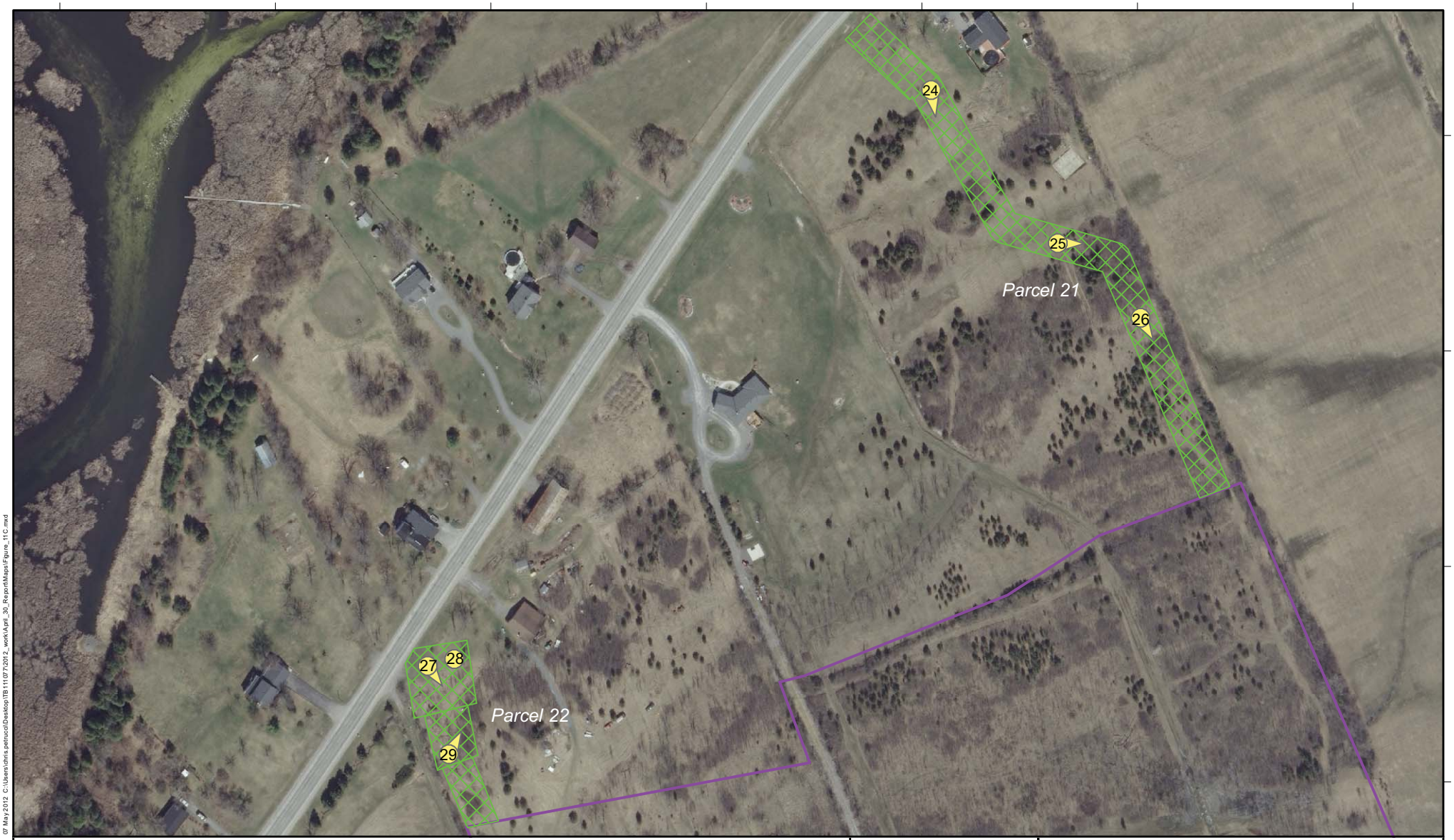
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Stage 2 Archaeological Assessment Fieldwork and Photograph Locations of Study Area

PROJECT Nº: TB111077	**FIGURE: 11 B**
SCALE: 1:3,700	DATE: May 2012



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LEGEND

Areas Previously Assessed
(AMEC 2011a P141-160-2011; AMEC 2011b P141-166-2011)

Areas of Archaeological Potential

Test Pitted at 5 Metre Intervals

Photograph Locations and Directions

0 50 100 150 200 250 Meters

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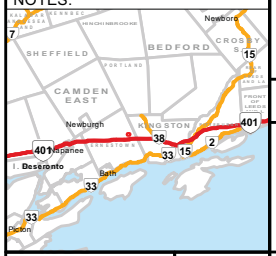

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SOL-LUCE KINGSTON
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Stage 2 Archaeological Assessment Fieldwork and Photograph Locations of Study Area

PROJECT Nº: TB111077	**FIGURE: 11 C**
SCALE: 1:2,500	DATE: May 2012

APPENDIX B

IMAGES

APPENDIX B - PHOTOGRAPHIC RECORD

PROJECT NO. TB111077.5000
PROJECT Stage 2 Property Assessment: Access Roads / Collector Lines
LOCATION Sol-luce Kingston Solar PV Energy Project

Photograph 1: View of gravel covered roadway within Parcel 1-2, facing southwest.

Photograph 2: View of grass-covered access road, shrub area with treed land and woodlot within Parcel 1-2, facing east.

Photograph 3: View of shrub area with alvar-like soils within Parcel 3, facing, north.

Photograph 4: View of alvar-like conditions (note bedrock protruding to surface) within Parcel 3, facing west.

Photograph 5: View of scrub area within Parcel 4, facing north.

Photograph 6: View of ploughed agricultural field located within Parcel 4, facing north.

APPENDIX B - PHOTOGRAPHIC RECORD

PROJECT NO. TB111077.5000
PROJECT Stage 2 Property Assessment: Access Roads / Collector Lines
LOCATION Sol-luce Kingston Solar PV Energy Project

Photograph 7: View of pasture land with high rock content located within Parcel 4, facing west.

Photograph 8: View of scrub land located within Parcel 4, facing south.

Photograph 9: View of manicured lawn located within Parcel 21, facing south.

Photograph 10: View of scrub and treed land located within Parcel 21, facing southeast.

Photograph 11: View of manicured lawn located within Parcel 22, facing southeast.

Photograph 12: View of scrub and treed land located within Parcel 22, facing south.

APPENDIX B - PHOTOGRAPHIC RECORD

PROJECT NO. TB111077.5000
PROJECT Stage 2 Property Assessment: Access Roads / Collector Lines
LOCATION Sol-luce Kingston Solar PV Energy Project

Photograph 13: AMEC archaeologist conducting test-pitting program in woodlot within Parcel 1-2, facing west.

Photograph 14: View of test pit (30 cm deep) advanced in woodlot within Parcel 1-2.

Photograph 15: View of AMEC conducting test-pitting program in shrub area within Parcel 1-2, facing east.

Photograph 16: View of test-pitting program in grass covered access road within Parcel 1-2, facing east.

Photograph 17: View of AMEC archaeologist conducting test-pitting program in Parcel 3, facing north.

Photograph 18: View of AMEC archaeologist conducting test-pitting program in scrub areas in Parcel 3, facing east.

APPENDIX B - PHOTOGRAPHIC RECORD

PROJECT NO. TB111077.5000
PROJECT Stage 2 Property Assessment: Access Roads / Collector Lines
LOCATION Sol-luce Kingston Solar PV Energy Project

Photograph 19: View of AMEC archaeologist conducting a pedestrian survey in Parcel 4, facing south.

Photograph 20: View of AMEC archaeologist conducting a pedestrian survey in Parcel 4, facing north.

Photograph 21: View of test-pitting in pasture land (with high rock content) within Parcel 4, facing northwest.

Photograph 22: View of test-pitting in pasture land (with high rock content) within Parcel 4, facing east.

Photograph 23: View of AMEC archaeologist conducting test-pitting in scrub area within Parcel 4, facing northeast.

Photograph 24: View of AMEC conducting test-pitting program in manicured lawn within Parcel 21, facing south.

APPENDIX B - PHOTOGRAPHIC RECORD

PROJECT NO. TB111077.5000
PROJECT Stage 2 Property Assessment: Access Roads / Collector Lines
LOCATION Sol-lace Kingston Solar PV Energy Project

Photograph 25: View of AMEC conducting test-pitting program in scrub area within Parcel 21, facing east.

Photograph 26: View of AMEC conducting test-pitting program within scrub area within Parcel 21, facing southeast.

Photograph 27: View of AMEC conducting test-pitting program in manicured lawn within Parcel 22, facing southeast.

Photograph 28: View test-pit advanced in manicured lawn within Parcel 22.

Photograph 29: View of AMEC conducting test-pitting program in scrub area within Parcel 22, facing northeast**.**

APPENDIX C

QUALIFICATIONS OF THE ASSESSORS

ASSESSOR QUALIFICATIONS

Dr. Shaun Austin, Ph.D. – Senior Archaeologist

Dr. Austin is the Group Leader of AMEC's archaeology group and is based in the AMEC Hamilton Office. He has been working in Canadian Archaeology since 1976 and has over 23 years of archaeological consulting experience in Southern Ontario. He is a dedicated cultural heritage consultant with repeated success guiding archaeological projects through to completion to the satisfaction of the development proponent, the cultural heritage community and all other stakeholder groups. Dr. Austin currently holds a professional archaeology license (License P141) issued by the Ontario Ministry of Tourism and Culture and is a member of the Association of Professional Archaeologists.

Barbara Slim, M.A. – Intermediate Archaeologist

Ms. Slim is an archaeologist with over 8 years of experience in the archaeology industry. Ms Slim has been involved in numerous Stage 1 – 4 Archaeological Assessments within southern Ontario for federal, provincial and municipal government agencies and private developers. These have been conducted in support of Environmental Assessments, municipal infrastructure projects and other developments. Ms. Slim has been engaged in historical and archaeological background searches, field surveys, excavations, analysis of cultural artifacts, laboratory work and reporting. Ms. Slim's education and work experience have provided her with an extensive knowledge base, consisting of theoretical and practical experience in cultural resource management in Canada and Central America. Ms. Slim holds a Master's Degree in Anthropology from Trent University and an Honours Bachelors Degree in Environmental Studies and Anthropology from Trent University. Ms. Slim currently holds a professional licence (Licence P348) issued by the Ontario Ministry of Tourism and Culture.

Jason Seguin, M.A. - Intermediate Archaeologist

Mr. Seguin is an archaeologist with a combination of 8 years experience in the archaeological industry. In the archaeological field Mr. Seguin as conducted stage 1 to 4 archaeological assessments including background searches, field surveys, archaeological excavations, analysis of cultural artifacts, laboratory work and reporting. Mr. Seguin has also been involved in various aspects of project management and supervision as well as being an archaeological laboratory director. Mr. Seguin has developed research and communication skills through editing field reports, teaching university level students in both lecture and seminar environments, as well as preparing and presenting presentations at academic conferences. Mr. Seguin's education and work experience have provided him with an extensive knowledge base, consisting of theoretical and practical experience in cultural resource management in Canada and Central America, as well as curatorial, archival and museum management experience. Mr. Seguin holds a Master's Degree in Anthropology from Trent University, a Bachelors of Art Honours degree in Anthropology from Trent University, and a Post-Graduate Certificate in Museum Management and Curatorship from Sir Sandford Fleming College. Mr. Seguin currently holds a professional archaeology license (License P354) issued by the Ontario Ministry of Tourism and Culture.

Tara Jenkins, M.A. - Intermediate Archaeologist

Ms. Jenkins has over 11 years experience working in cultural resource management (CRM). She has obtained her M.A. from McMaster University and holds a professional archaeology license (License P357) issued by the Ministry of Tourism and Culture. Ms. Jenkins has been accountable for managing CRM activities as part of an archaeological team. She has acquired valuable hands-on archaeological expertise in the field conducting Stage 1 to 4 archaeological assessments, ultimately holding the position of field director. Ms. Jenkins has over seven years experience in laboratory analysis, analyzing both early Euro-Canadian and pre-contact Aboriginal artifacts. She has designed archaeological field forms and artifact management systems, including computer-based cataloguing systems. Her solid oral and written communication skills have been demonstrated by her responsibility as author of final field reports for all stages of excavation for the Ministry of Tourism and Culture. In addition, she has published archaeological and archival based articles and chapters in peer-reviewed and other recognized archaeological journals and books. She has substantial experience in archival research related to the investigation of the land-use history of properties. Ms. Jenkins has taught at the university level in lecture and seminar environments, as well as preparing and presenting presentations for academic conferences. Through these experiences, Ms. Jenkins has developed skills to aid in the formation and direction of museum archaeology programs for students of all ages. In addition, Ms. Jenkins has been an active participant in the involved engagement with a stakeholder group during archaeological investigations, such as with First Nations. Ms. Jenkins's education and work experience has provided her with an extensive knowledge base, consisting of theoretical and practical experience in cultural resource management specific to southern Ontario.

Jeff Stott, B.A. – Archaeologist

Mr. Stott has worked as a consultant archaeologist since May 2011. He has worked predominantly as a field archaeologist on various projects in north eastern British Columbia and southern Ontario. Some of these projects include oil and gas, hydroelectric, solar and wind farm investigations. He has helped to supervise archaeological fieldwork in both Ontario and British Columbia and has helped to write numerous reports including Archaeological Impact Assessments, Archaeological Permit Reports, and Archaeological Assessment Information Forms. He currently has a Bachelor of Arts degree in Anthropology from Laurentian University and a post graduate certificate in Environmental Monitoring and Impact Assessment from Cambrian College.

APPENDIX D

LIMITATIONS

LIMITATIONS

1. The work performed in the preparation of this report and the conclusions presented are subject to the following:
   (a) The Standard Terms and Conditions which form a part of our Professional Services Contract;
   (b) The Scope of Services;
   (c) Time and Budgetary limitations as described in our Contract; and,
   (d) The Limitations stated herein.
2. No other warranties or representations, either expressed or implied, are made as to the professional services provided under the terms of our Contract, or the conclusions presented.
3. The conclusions presented in this report were based, in part, on visual observations of the Study Area. Our conclusions cannot and are not extended to include those portions of the Study Area which were not reasonably available, in AMEC's opinion, for direct observation.
4. The potential for archaeological resources, and any actual archaeological resources encountered, at the Study Area were assessed, within the limitations set out above, having due regard for applicable heritage regulations as of the date of the inspection.
5. Services including test-pitting was performed. AMEC's work, including test-pitting, was conducted in a professional manner and in accordance with the Ministry of Tourism, Culture, and Sport's (MTCS) guidelines (the Guidelines). It is possible that unforeseen and undiscovered archaeological resources which cannot be discovered by way of surveys conducted in accordance with the Guidelines may be present at the Study Area between areas test-pitted.
6. The utilization of AMEC's services during the implementation of any further archaeological work recommended will allow AMEC to observe compliance with the conclusions and recommendations contained in the report. AMEC's involvement will also allow for changes to be made as necessary to suit field conditions as they are encountered.
7. This report is for the sole use of the parties to whom it is addressed unless expressly stated otherwise in the report or contract. Any use which any third party makes of the report, in whole or in part, or any reliance thereon, or decisions made based on any information of conclusions in the report, is the sole responsibility of such third party. AMEC accepts no responsibility whatsoever for damages or loss of any nature or kind suffered by any such third party as a result of actions taken or not taken or decisions made in reliance on the report or anything set out therein.
8. This report is not to be given over to any third-party other than a governmental entity, for any purpose whatsoever without the written permission of AMEC, which shall not be unreasonably withheld.