

**Stage 1 Background Study for German Solar Corporation,
Stafford Line Solar Project,
Part of Lot 6, Concession 4,
and Part of Lot 6, Concession 5,
Southwold Township, Elgin County**

FIT CONTRACT #: F-007063-SPV-402-732



Prepared by

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Archaeological Consulting Licence P052
Project Information Number: P052-0770-2017

THE ARCHAEOLOGISTS INC.

Original Report
Report Dated: April 26, 2017

EXECUTIVE SUMMARY

The Archaeologists Inc. was contracted to conduct a Stage 1 Background Study for German Solar Corporation, Stafford Line Solar Project, Part of Lot 6, Concession 4, and Part of Lot 6, Concession 5, Southwold Township, Elgin County. The subject property is located along a portion of the historic Great Western Rail Road Air Line; the portion of the track that runs from Union Road to Stafford Line (between Stafford Line and Closed Rd. Allowance). The proponent is seeking a REA for the project.

A Stage 1 background study of the subject property was conducted to provide information about the property's geography, history, previous archaeological fieldwork and current land condition in order to evaluate and document in detail the property's archaeological potential and to recommend appropriate strategies for Stage 2 survey.

The Stage 1 background study and property inspection indicates that deep land alterations, due to the previously existing railway line, have severely damaged the integrity of any archaeological resources. It is concluded that the subject area does not retain any archaeological potential and it is recommended that no further archaeological assessment is required.

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PROJECT PERSONNEL

Project Director:	Mr. T. Keith Powers (P52)
Field Director/Archaeologist:	Mr. T. Keith Powers
Property Inspection:	Mr. T. Keith Powers Mrs. Karen Powers
Report Preparation:	Mrs. Susan Dyer Mrs. Karen Powers
Graphics	Mr. T. Keith Powers Mrs. Susan Dyer

INTRODUCTION

The *Ontario Heritage Act*, R.S.O. 1990 c. O.18, requires anyone wishing to carry out archaeological fieldwork in Ontario to have a license from the Ministry of Tourism, Culture & Sport (MTCS). All licensees are to file a report with the MTCS containing details of the fieldwork that has been done for each project. Following standards and guidelines set out by the MTCS is a condition of a licence to conduct archaeological fieldwork in Ontario. *The Archaeologists Inc.* confirms that this report meets ministry report requirements as set out in the *2011 Standards and Guidelines for Consultant Archaeologists*, and is filed in fulfillment of the terms and conditions an archaeological license.

1.0 PROJECT CONTEXT

This section of the report will provide the context for the archaeological fieldwork, including the development, historical and archaeological context.

1.1 Development Context

Section 7.5.6, Standard 1

The Archaeologists Inc. was contracted to conduct a Stage 1 Background Study for German Solar Corporation, Stafford Line Solar Project, Part of Lot 6, Concession 4, and Part of Lot 6, Concession 5, Southwold Township, Elgin County. The subject property is located along a portion of the historic Great Western Rail Road Air Line; the portion of the track that runs from Union Road to Stafford Line (Facility Location between Stafford Line and Closed Rd. Allowance). The proponent is seeking a REA for the project.

The Project will require approval under Ontario Regulation 359/09, as amended – Renewable Energy Approval (REA or Ontario Regulation 359/09) under Section V.0.1 of the Ontario Environmental Protection Act.

Section 7.5.6, Standard 2

There is no additional development-related information relevant to understanding the choice of fieldwork strategy or recommendations made in the report.

Section 7.5.6, Standard 3

Permission to access the study area and conduct all required archaeological fieldwork activities was given by the landowner and their representative.

1.2 Historical Context

Section 7.5.7, Standard 1

The Stage 1 background study of the subject property was conducted in order to document the property archaeological and land use history and present condition. Several

sources were referenced to determine if features or characteristics indicating archaeological potential for pre-contact and post-contact resources exist.

Characteristics indicating archaeological potential include the near-by presence of previously identified archaeological sites, primary and secondary water sources, features indicating past water sources, accessible or inaccessible shoreline, pockets of well-drained sandy soil, distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases, resource areas, (including food or medicinal plants, scarce raw materials, early Euro-Canadian industry), areas of early Euro-Canadian settlement, early historical transportation routes, property listed on a municipal register or designated under the *Ontario Heritage Act* or that is a federal, provincial or municipal historic landmark or site, and property that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations.

Archaeological potential can be determined not to be present for either the entire property or a part of it when the area under consideration has been subject to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources. This is commonly referred to as ‘disturbed’ or ‘disturbance’, and may include: quarrying, major landscaping involving grading below topsoil, building footprints, and sewage and infrastructure development. Archaeological potential is not removed where there is documented potential for deeply buried intact archaeological resources beneath land alterations, or where it cannot be clearly demonstrated through background research and property inspection that there has been complete and intensive disturbance of an area. Where complete disturbance cannot be demonstrated in Stage 1, it will be necessary to undertake Stage 2 assessment.

The background study determined that the following features or characteristics indicate archaeological potential for the subject property:

- The subject area is located along a portion of the historic Great Western Rail Road Air Line.
- There are 3 known archaeological sites within a one-kilometre radius of the subject property.
- The subject property connects to an historic transportation route (i.e. modern day Union Road and Stafford Line).

A review of the land use history of the subject area consisted of the examination of several documentary sources including the 1864 Historical County Map of Southwold and the 1878 Illustrated Historical Atlas, as well as a search of material at the Ontario Archives.

A search of material at the Ontario Archives has revealed the following information regarding the development of Lot 6, Concession 4 and Lot 6, Concession 5 (see Appendix A).

According to the Abstract Index to Deed Titles, the Crown Patent for Lot 6, Concession 4 was granted to Hon. Robert Hamilton in 1799. The patent was for approximately 150 acres in the northeast part of the lot. In 1870, John Plain transferred part of the west ¼ of the lot to the Great Western Railway Company for \$139, and Samuel Baird transferred the south part of the northeast ¼ of the lot to the Great Western Railway Company for \$7. The Crown Patent for Lot 6, Concession 5 was granted to George J. Goodhue in June 1851 (see Appendix A).

The 1864 Map depicts the south half of Lot 6 as ‘Non-Residential’. No structures are illustrated within the lot. Lot 6, Concession 5 belongs to M. Jackson. No structures are illustrated within the lot.

The 1878 Atlas illustrates the western ¼ of the lot belongs to N. McKillop, and the remainder of the lot belongs to Robert Baird. On structure is illustrated on Robert Baird’s portion of the lot, and is located northeast of the subject property area. Lot 6, Concession 5 belongs to William Jackson. No structures are illustrated within the lot.

Section 7.5.7, Standard 2

The subject property is completely disturbed and no Stage 2 assessment is required to confirm this. The report will recommend no additional archaeological assessment is necessary. There is no appropriate strategy based on the Stage 1 background study. To our knowledge there are no other reports containing relevant background information related to this development project.

1.3 Archaeological Context

Section 7.5.8, Standard 1

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (O.A.S.D.), an inventory of the documented archaeological record in Ontario. According to MTCS records there are no known archaeological sites within the subject property however, there are three registered archaeological sites within a one-kilometre radius of the subject property.

TABLE 1: Known Archaeological Sites Within 1-km of the Study Area

Borden #	Site Name	Cultural Affiliation	Site Type	Researcher(s)
AeHi-41		Post-Contact	Homestead	Williamson, 1989
AeHi-39		Post-Contact	Homestead	Williamson, 1989
AeHi-40		Post-Contact	Homestead	Williamson, 1989

Section 7.5.8, Standard 2

The subject property is located along a portion of the historic Great Western Rail Road Air Line; The subject property is located along a portion of the historic Great Western Rail Road Air Line; the portion of the track that runs from Union Road to Stafford Line

(Facility Location between Stafford Line and Closed Rd. Allowance). The project location is an area of previously existing railway corridor, and consists of an embankment of gravel with drainage ditches on either side of the embankment.

The study area lies within the boundary of the Bothwell Sand Plains (Chapman and Putnam 1984:147). These sands cover roughly 700 square miles and were spread thinly over the clay floor. With only roughly three or four feet of sand, water tends to collect above the clay, making for depressions that are moist and somewhat swampy. In some areas, the surface exhibits a series of knolls and swales, while in other sections there are fairly smooth surfaces. This sand plain is cut in two by the Thames River. The Berrien sandy loam is such that, if tile drained, could become valuable for truck crops or canning crops. 65% of the 75% of cropped farmland is being used for corn and soybean. Some natural gas can be found in this area, particularly Mosa Township, and some of the drinking water is tainted with sulphur.

Section 7.5.8, Standard 3

A property inspection was undertaken April 22nd and 23rd, 2017.

Section 7.5.8, Standard 4

No previous archaeological fieldwork has taken place within the limits of the project area. The Archaeologists Inc. is aware of previous archaeological fieldwork carried out adjacent to the property area. An archaeological assessment was conducted adjacent to the subject property by Archaeological Services Inc., during which time Site AeHi-39 was identified. The site was located during a pedestrian survey of the property in 1989. The site is classified as a Post-Contact homestead with an inferred date range of 1850-1900.

Section 7.5.8, Standard 5

We are unaware of previous findings and recommendations relevant to the current stage of work.

Section 7.5.8, Standard 6

There are no unusual physical features that may have affected fieldwork strategy decisions or the identification of artifacts or cultural features.

Section 7.5.8, Standard 7

There is no additional archaeological information that may be relevant to understanding the choice of fieldwork techniques or the recommendations of this report.

2.0 BACKGROUND STUDY

The background study determined that the following features or characteristics indicate archaeological potential for the subject property.

- The subject area is located along a portion of the historic Great Western Rail Road Air Line.
- There are 3 known archaeological sites within a one-kilometre radius of the subject property.
- The subject property connects to an historic transportation route (i.e. modern day Union Road and Stafford Line).

A review of the development map site plan and recent aerial photography, as well as the property inspection, indicates that the subject property exhibits no archaeological potential due to previous deep land alterations. More specifically, the construction of the previously existing railway line indicates disturbance and no archaeological potential.

In summary, the Stage 1 background study indicates that there is no potential for the recovery of pre-contact Aboriginal and post-contact Euro-Canadian archaeological resources within the subject area.

3.0 PROPERTY INSPECTION

A property inspection was conducted on April 22nd and 23rd, 2017 and consisted of a visit to the property to gain first-hand knowledge of its geography, topography, and current condition, and to evaluate and map archaeological potential.

It is a visual inspection only and does not include excavation or collection of archaeological resources. The property inspection was conducted to supplement the recommendation of no archaeological potential based on the aerial photography. The entire property and its periphery was inspected. The inspection consisted of random spot-checking and coverage was sufficient to identify the presence or absence of any features of archaeological potential. The property was inspected when weather conditions permitted good visibility of land features.

The inspection did not identify any features of archaeological potential. All land formations were artificial and disturbed. The development of the subject property precludes any additional assessment and all buildings were documented.

4.0 ANALYSIS AND CONCLUSIONS (Section 7.7.3, Standards 1-2)

Railway footprints and drainage construction related to the previous railway line that existed, indicate that all archaeological potential has been removed through disturbance. The alterations associated with the subject property have severely damaged the integrity of any archaeological resources. There is no documented potential for deeply buried intact archaeological resources. Complete disturbance has taken place within the subject property area.

Section 7.7.3, Standard 1

There are no areas of archaeological potential or features indicating such remaining within the subject property.

Section 7.7.3, Standard 2

The Stage 1 background study determined that there are no areas of archaeological potential within the project area due to previously existing railway footprints and drainage. The previously existing railway line construction, along with the associated drainage required, indicate deep alterations to the subject property.

While we recognize that early transportation routes are indicators of archaeological potential (Section 1.3, Standard 1), we interpret that to incorporate the inhabited areas surrounding the rail corridor, whereas our subject property area only encompasses the rail corridor itself, which has undergone extensive land alteration during its construction. Complete disturbance has taken place within the rail corridor during its construction.

The construction of the railway line first includes removal of surface layers. The ground is then either excavated down or built up to the level where the railway line will lie. Earth sourced from other locations is used to create embankments or retaining walls, and some pre-existing embankments would require improvement. Drainage also need to be created to allow rainwater to flow underneath and aware from the railway, which is usually done by ditching (Borders Railway).

5.0 RECOMMENDATIONS (Section 7.7.4, Standards 1-2)

Section 7.7.4, Standard 1

The report recommends that no part of the property has archaeological potential and that the property does not require further archaeological assessment.

Section 7.7.4, Standard 2 – n/a

6.0 ADVICE ON COMPLIANCE WITH LEGISLATION (Section 7.5.9, Standards 1-2)

Section 7.5.9, Standard 1a

This report is submitted to the Minister of Tourism and Culture as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 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 and Culture, 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.

Section 7.5.9, Standard 1b

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 any 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*.

Section 7.5.9, Standard 1c

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*.

Section 7.5.9, Standard 1d

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.

Section 7.5.9, Standard 2

Not applicable

7.0 BIBLIOGRAPHY AND SOURCES (Section 7.5.10, Standards 1)

Chapman, L.J. and F. Putnam

1984 *The Physiography of Southern Ontario, Ontario Geological Survey Special Volume 2*. Toronto: Government of Ontario, Ministry of Natural Resources.

Heather Maddick and Joan Winearls

1976 *County Maps: Land Ownership Maps of Canada in the 19th Century*.

Ministry of Tourism, Sport and Culture

2011 *Standards and Guidelines for Consultant Archaeologists*.

Websites

archive.bordersrailway.co.uk/archive/how-to-build-a-railway.aspx

<http://digital.library.mcgill.ca/countyatlas/searchmapframes.php>

8.0 IMAGES (Sections 7.5.11, 7.7.5)



Plate 1 Shows pre-existing rail corridor, corresponding disturbance and subject property conditions.

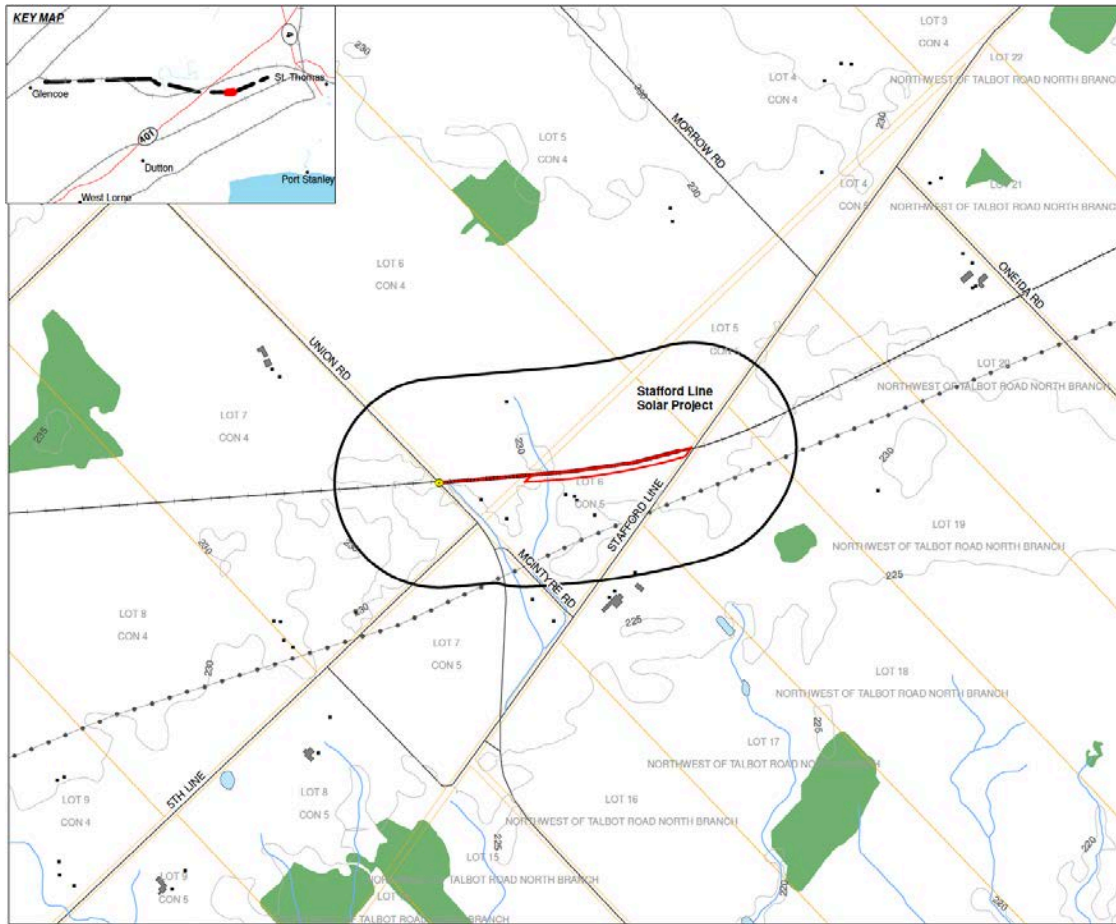


Plate 2 Shows pre-existing rail corridor, corresponding disturbance and subject property conditions.

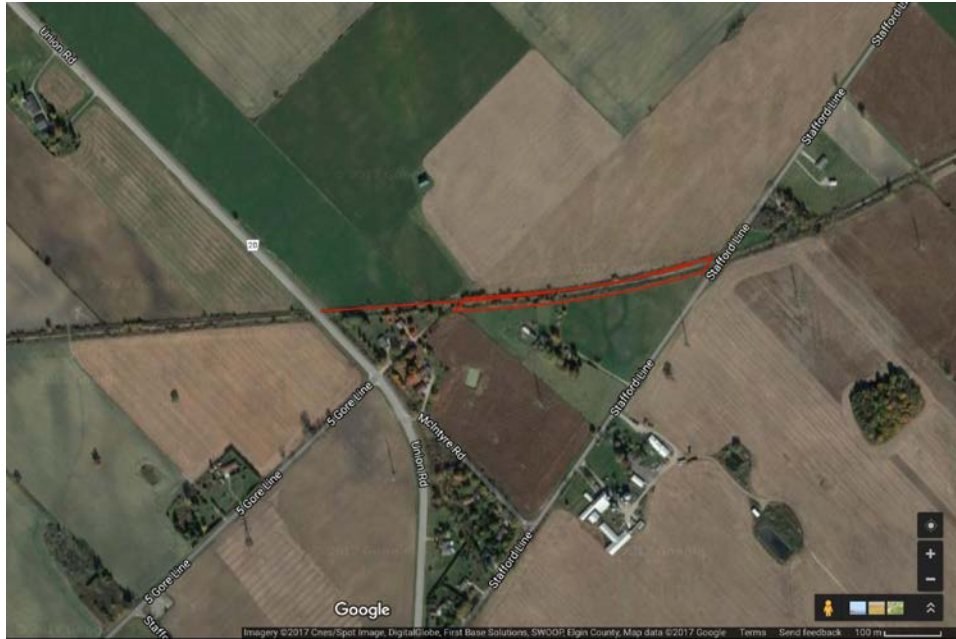


Plate 3 Shows pre-existing rail corridor, corresponding disturbance and subject property conditions.

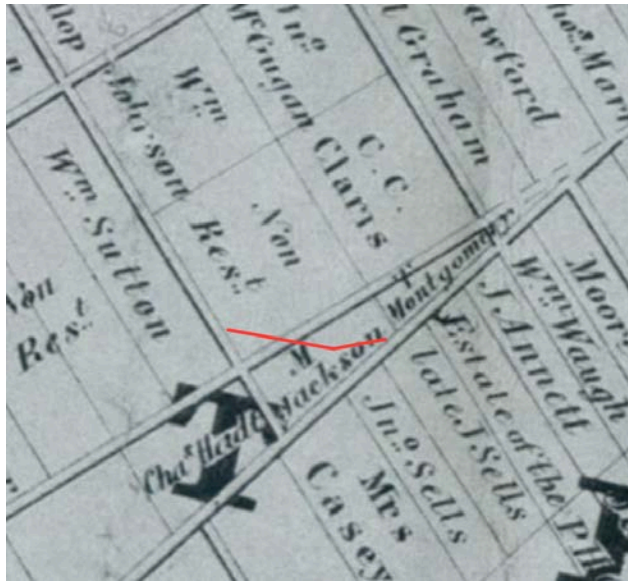
9.0 MAPS



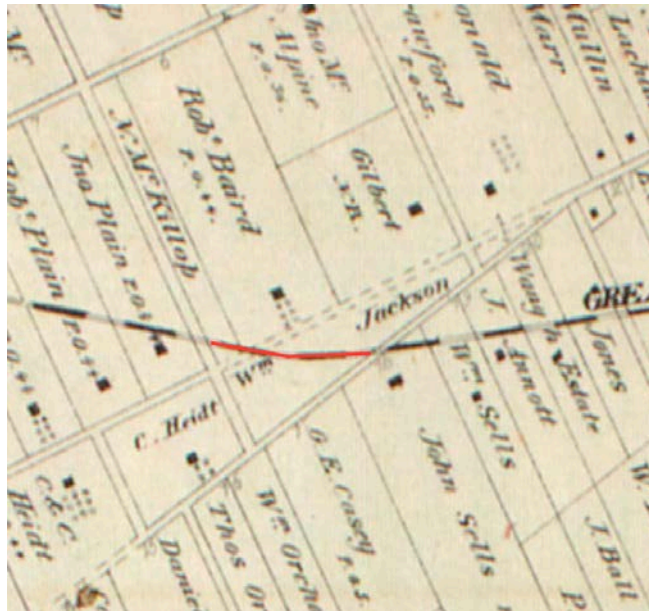
Map 1 General location of subject property.



Map 2 Limits of project site (overlaid in red) on recent Google imagery.

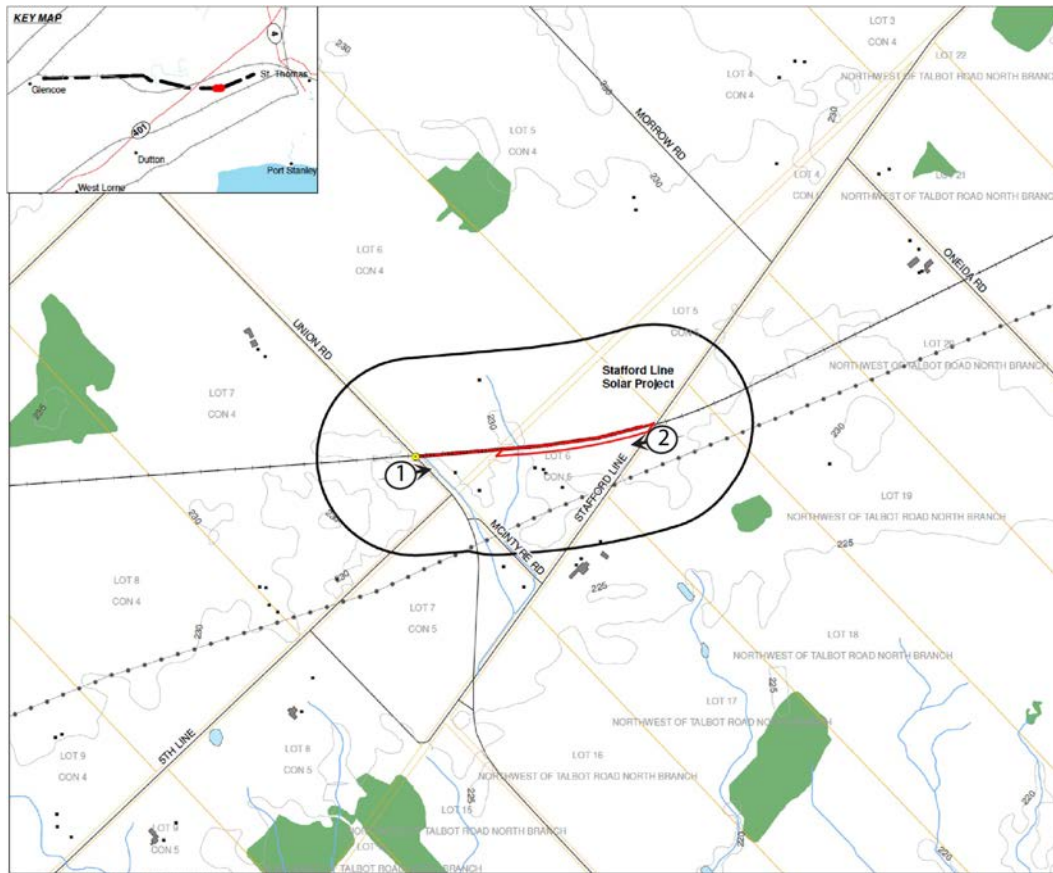


Map 3 Approximate location of subject area overlaid on 1864 Historical Map.



Map 4 Approximate location of subject area on 1878 Illustrated Atlas.

Stage 1 Background Study for German Solar Corporation, Stafford Line Solar Project, Part of Lot 6, Concession 4, and Part of Lot 6, Concession 5, Southwold Township, Elgin County



Map 5 Results of Stage 1 Property Inspection.

APPENDIX A – LAND REGISTRY

LOT 6, CONCESSION 4 – SOUTHWOLD TOWNSHIP, ELGIN COUNTY								
Ins. #	Instrument	Date of Instrument	Registration Date	Grantor	Grantee	Quantity	Consideration Etc.	Land and Remarks
	Patent	8 July 1799		Crown	Hon. Robert Hamilton	Ac. 150		N.E. P. of Lot 6
542	Pro. W.	14 Jan 1809	31 Mar 1824	Hon. Robert Hamilton	William Dickson, Thoms. Dickson & Thomas Clark			All his lands (partially illegible)
4337	Pro. W.	29 Jan 1831	21 Sept 1839	Hon. Thomas Clark	Samuel Street, Robert Grant & James Hamilton et al.			To sell his real estate
4449	(illegible)	12 Jun 1837	30 Dec 1839	James Hamilton	Samuel Street & Robert Grant			(illegible)
7183	Pro. W.	31 July 1839	10 Jan 1845	Samuel Street	Thomas C. Street			All his lands (partially illegible)
744	D.	4 Jan 1853	3 Oct 1853	Thomas C. Street, H. at L. of Samuel Street who was only surviving ? of T. Clark's	John Johnston	Ac. 50		S. 50 ac. Of N-E ¾ of Lot 6
1253	D.	13 Sept 1856	16 Sept 1856	John Johnston	Samuel Baird	Ac. 50		S. 50 ac. Of N-E ¾ of Lot 6
1254	M.	---do---	---do---	Samuel Baird	John Johnston	Ac. 50		S. 50ac. Of N-E ¾ of lot 6
(illegible)	(illegible)	(illegible)	(illegible)	John Johnston	Samuel Baird			Dis. Of No. 1254
SW4209	TRANSFER	1870/10/29		JOHN PLAIN	THE GREAT WESTERN RAILWAY COMPANY		\$139	PT OF E ½ OF LOT 7 AND PT OF W ¼ OF

Stage 1 Background Study for German Solar Corporation, Stafford Line Solar Project, Part of Lot 6, Concession 4, and Part of Lot 6, Concession 5, Southwold Township, Elgin County

								LOT 6, 4 TH CON
SW4211	TRANSFER	1870/10/29		SAMUEL BAIRD	THE GREAT WESTERN RAILWAY COMPANY		\$7	SOUTH PT OF NE ¼ OF LOT 6, 4 TH CON

LOT 6, CONCESSION 5 – SOUTHWOLD TOWNSHIP, ELGIN COUNTY								
Ins. #	Instrument	Date of Instrument	Registration Date	Grantor	Grantee	Quantity	Consideration Etc.	Land and Remarks
	Patent	12 Jun 1851		Crown	George J. Goodhue			(illegible)
667	D	28 Feb 1853	14 Mar 1853	Hon. George J. Goodhue & W.	Matthew Jackson	Ac. 49		Lot 6