



**RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:**

Regional Manager/Real Property
Contracting/PWGSC
Ontario Region, Tendering Office
12th Floor, 4900 Yonge Street
Toronto, Ontario
M2N 6A6
Ontario

**SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

**Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur**

Issuing Office - Bureau de distribution
Regional Manager/Real Property Contracting/PWGSC
Ontario Region, Tendering Office
12th Floor, 4900 Yonge Street
Toronto, Ontario
M2N 6A6
Ontario

Title - Sujet Surveying - TC Lands - Niagara	
Solicitation No. - N° de l'invitation EQ754-191416/A	Amendment No. - N° modif. 001
Client Reference No. - N° de référence du client R.067842.004	Date 2018-10-18
GETS Reference No. - N° de référence de SEAG PW-\$PWL-034-2409	
File No. - N° de dossier PWL-8-41075 (034)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2018-11-07	
Time Zone Fuseau horaire Eastern Daylight Saving Time EDT	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Somaratna, Chinthaka	Buyer Id - Id de l'acheteur pwl034
Telephone No. - N° de téléphone (416) 512-5268 ()	FAX No. - N° de FAX (416) 512-5862
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Transport Canada Lands Niagara Area Ontario	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

Amendment no. 001

This amendment is being raised to include "**Annex A**" **STATEMENT OF WORK**.

ANNEX A

STATEMENT OF WORK

SURVEYING – TRANSPORT CANADA LANDS - NIAGARA SOUTH OF PORT ROBINSON (WELLAND RIVER) TO LAKE ERIE

RESEARCH SURVEY AND TITLE REPORTS DESCRIPTION REFERENCE PLAN SURVEYS

Prepared by:
Public Services and
Procurement Canada
Professional and Technical Services
Geomatics Services
Ontario Region

September 04, 2018

TABLE OF CONTENTS

1 – GENERAL.....	5
1.1 Summary description of work.....	5
1.2 Purpose.....	5
2 - PROJECT PLAN PHASES.....	5 & 6
3 - WORK TO BE PERFORMED AND DELIVERABLES.....	6 - 13
3.1 – PLAN PHASE 1	
East of Welland Canal and West of the Railway and Highway 140, South of Welland River Diversion and North of Ridge Road / Ontario Road.....	6
3.2 - PLAN PHASE 2:	
2 Main Parcels:	
i. West of Welland Canal, South of East Main Street	
ii. East of the Railway, South of Buchner Road and Including Widenings North of Buchner Road and Adjacent to the Railway, North of Ridge Road.....	7
3.3 - PLAN PHASE 3:	
2 Main Parcels:	
i. East of Riverside Drive, North of the Railway, West of Prince Charles Drive South, and South of Registered Plans 59M-135, 59M-199, M-68 and 982	
ii. East of King Street, North of the Railway, and West of Coventry Road.....	8
3.4 - PLAN PHASE 4:	
Townline Tunnel Corridor from Just West of Feeder Road to Miller Road.....	8 - 10
3.5 - PLAN PHASE 5:	
2 Main Parcels:	
i. West of Old Welland Canal, North of Forks Road, East and South of Railway.	
ii. Old Welland Canal, South of the Railway and North of the Road Allowance between Concessions 3 and 4.....	10 & 11
3.6 - PLAN PHASE 6:	
3 Main Parcels:	
i. West of Welland Canal, East of Ramey Avenue and North of Main Street West	
ii. West of Ramey Avenue, South of Christian Stoner Street, North of Main Street West	
iii. South of Main Street West, East of King Street, West of the Railway/Welland Canal Diversion, North of and Including Princess Street.....	11 & 12
3.7 - PLAN PHASE 7:	
South of Lake Road, East of the Welland Canal, and Land within Lake Erie.....	12 & 13
4 - SITE SECURITY AND CONTACTS.....	13
5 - SURVEY AND PLAN REQUIREMENTS.....	13 - 15
6 - RETURNS AND DELIVERY.....	15
7- EXPECTED DELIVERY DATES.....	16 - 21
7.1 - Plan Phase 1 Delivery Schedule.....	16

7.2 - Plan Phase 2 Delivery Schedule.....16 & 17
7.3 - Plan Phase 3 Delivery Schedule.....17 & 18
7.4 - Plan Phase 4 Delivery Schedule.....18
7.5 - Plan Phase 5 Delivery Schedule.....19
7.6 - Plan Phase 6 Delivery Schedule.....19 & 20
7.7 - Plan Phase 7 Delivery Schedule.....20 & 21

8 - FINALIZATION AND DEPOSIT.....21

9 - ENCLOSURE LIST.....21

APPENDICES.....21

**PUBLIC SERVICES AND PROCUREMENT CANADA (PSPC)
STATEMENT OF WORK
SURVEYING – TRANSPORT CANADA LANDS – NIAGARA
SOUTH OF PORT ROBINSON TO LAKE ERIE**

1. GENERAL

1.1 Summary description of work

The Department of Transport Canada (TC) would like to obtain a series of boundary surveys for parcels that are under the custodianship of TC in the Niagara area. The Department of Transport Canada owns lands which are managed by the St. Lawrence Seaway Management Corporation (SLSMC).

This project includes cadastral surveying work required in order to establish the limits of certain TC lands in the Niagara area. These lands include approximately 500 hectares of land area. The lands are located immediately east and west of the working Welland Canal running from the Welland River in Port Robinson to Lake Erie.

More detailed instructions and specifications on the scope of work and deliverables are set out in subsequent sections.

1.2 Purpose

To provide Transport Canada with an up-to-date report on extent and quality of ownership of certain St. Lawrence Seaway managed lands located in the City of Welland and Port Colborne (refer to Enclosure 1 – Sketch to Illustrate Survey Requirement Limits – South Section). The report is to include the results of a search of the local Registry Office records, field surveys and the preparation of Reference Plans of Survey. The survey must also include a limited amount of Topographic information as described in Section 3.

2. PROJECT PLAN PHASES

This project is divided into 7 surveys culminating in Reference Plans.

The objective of each Plan Phase is to prepare draft Reference Plans and Surveyor's written reports and provide the necessary survey documents required for review by the Technical Authority in consultation with Transport Canada (TC) and St. Lawrence Seaway Management Corporation (SLSMC).

PLAN PHASE 1: East of Welland Canal and West of the Railway and Highway 140, South of Welland River Diversion and North of Ridge Road/Ontario Road.

PLAN PHASE 2: 2 Main Parcels:

- i. West of Welland Canal, South of East Main Street
- ii. East of the Railway, South of Buchner Road and Including Widening North of Buchner Road and Adjacent to the Railway, North of Ridge Road

PLAN PHASE 3: 2 Main Parcels:

- i. East of Riverside Drive, North of the Railway, West of Prince Charles Drive South, and South of Registered Plans 59M-135, 59M-199, M-68 and 982
- ii. East of King Street, North of the Railway, and West of Coventry Road

PLAN PHASE 4: Townline Tunnel Corridor from Just West of Feeder Road to Miller Road

PLAN PHASE 5: 2 Main Parcels:

- i. West of Old Welland Canal, North of Forks Road, East and South of Railway.
- ii. Old Welland Canal, South of the Railway and North of the Road Allowance between Concessions 3 and 4.

PLAN PHASE 6: 3 Main Parcels:

- i. West of Welland Canal, East of Ramey Avenue and North of Main Street West

- ii. West of Ramey Avenue, South of Christian Stoner Street, North of Main Street West
- iii. South of Main Street West, East of King Street, West of the Railway/Welland Canal Diversion, North of and Including Princess Street.

PLAN PHASE 7: South of Lake Road, East of the Welland Canal, and Land within Lake Erie.

The work to be carried out and the documents to produce for each of these steps are detailed in the following sections.

3. WORK TO BE PERFORMED AND DELIVERABLES

3.1 PLAN PHASE 1: East of Welland Canal and West of the Railway and Highway 140, South of Welland River Diversion and North of Ridge/Ontario Road.

The following Survey requirements must be read in conjunction with the attached Sketch (Enclosure 1-1) which highlights the area of the St. Lawrence Seaway property covered by Plan Phase 1, which is to be surveyed and reported on:

1. This Plan Phase is comprised of part of PINs 64429-0252(LT), 64428-0451(LT), 64411-0322(LT), and all of PIN 64411-0257(LT). For PIN 64411-0257(LT), the limits of the Part will be defined by the limits of the PIN. For PINs 64429-0252(LT), 64428-0451(LT), and 64411-0322(LT), the north, south and east limits of the Parts will be defined by the limits of the PINs. The west limit for PIN 64429-0252 is defined by the Southerly production of the East limit of PIN 64429-0214(LT). For PINs 64428-0451 and 64411-0322 the west limit is established by setting straight line segments a minimum of 95 m from the east edge of the Welland Canal, southerly to the north limit of the Road Allowance between Concessions 6 and 7. There is an interest in that portion of East Main Street described by PIN 64428-0513(LT) lying between PINs 64428-0451(LT), and 64411-0322(LT) as illustrated on Enclosure 1-1. This will require the creation of a separate Part to facilitate a legal description for this area. Additional parts are required north and south of PIN 64428-0513 for widenings of East Main Street. Establish the limit of the widening north of East Main Street by commencing at the corner of PIN 64428-0513 LT and following the top of bank westerly to the west limit of the survey as per Enclosure 1-1. Establish the limit of the widening south of East Main Street by commencing at the corner of PIN 64411-0213 LT and following the top of bank westerly to the west limit of the survey as per Enclosure 1-1. An additional part is required immediately west of Silverthorn Street for the purpose of an easement. The north limit of the easement is coincident with the south limit of the proposed widening. The south limit is established by offsetting the north limit a distance of 40 metres south as per Enclosure 1-1. Title investigation is required on those portions of PINs 64411-0226(LT) and 64411-0193(LT) lying between PIN 64411-0322(LT) and PIN 64411-0257(LT), in order to confirm ownership in this area of the site.
2. Tie in any physical elements (i.e. drainage ditches, manholes or catch basins) as well as any visible services such as pole lines, Bell boxes, water valves, etc.).
3. Buildings and fences within 5 metres of all established limits must also be located.
4. The electronic computer-aided design and drafting (CAD) file must include a layer containing the plot of the underlying deeds and releases to Her Majesty the Queen and/or St Lawrence Seaway Authority.

3.2 PLAN PHASE 2: 2 Main Parcels: - i. West of Welland Canal, South of East Main Street - ii. East of the Railway, South of Buchner Road and Including Widenings North of Buchner Road and Adjacent to the Railway, North of Ridge Road

The following Survey requirements must be read in conjunction with the attached Sketch (Enclosure 1-2) which highlights the area of the St. Lawrence Seaway property covered by Plan Phase 2, which is to be surveyed and reported on:

- i. West of Welland Canal, South of East Main Street
 1. This Plan Phase is comprised of part of PIN 64411-0322(LT). The north, south and west limits of the Part will be defined by the limits of the PIN. The east limit is established by connecting the south east corner of PIN 64428-0518(LT) in a southerly direction to the bend in PIN 64411-0322(LT) as shown on Enclosure 1-2. There is also an interest in that portion of East Main Street described by PIN 64428-0518(LT) directly adjacent to PIN 64411-0322(LT). This will require the creation of a separate Part to facilitate a legal description for this area. The north, south and east limits of the Part are defined by the limits of the PIN. The west limit is established by the limit as described in the Expropriation, Instrument BB37309.
 2. Tie in any physical elements (i.e. drainage ditches, manholes or catch basins) as well as any visible services such as pole lines, Bell boxes, water valves, etc.).
 3. Buildings and fences within 5 metres of the PIN limits must also be located.
 4. The electronic computer-aided design and drafting (CAD) file must include a layer containing the plot of the underlying deeds and releases to Her Majesty the Queen and/or St Lawrence Seaway Authority.
- ii. East of the Railway, South of Buchner Road and Including Widening North of Buchner Road and Adjacent to the Railway, North of Ridge Road
 1. This Plan Phase will comprise All of PIN 64128-0124(LT), All of PIN 64128-0050(LT), All of PIN 64128-0051(LT), All of PIN 64128-0141(LT), All of PIN 64218-0143(LT), and All of PIN 64128-0144(LT). The limits of the Parts will be defined by the limits of the PINs.
 2. Tie in any physical elements (i.e. drainage ditches, manholes or catch basins) as well as any visible services such as pole lines, Bell boxes, water valves, etc.).
 3. Buildings and fences within 5 metres of the PIN limits must also be located.
 4. The electronic computer-aided design and drafting (CAD) file must include a layer containing the plot of the underlying deeds and releases to Her Majesty the Queen and/or St Lawrence Seaway Authority.

1.3 PLAN PHASE 3: 2 Main Parcels:

- i. East of Riverside Drive, North of the Railway, West of Prince Charles Drive South, and South of Registered Plans 59M-135, 59M-199, M-68 and 982
- ii. East of King Street, North of the Railway, and West of Coventry Road

The following Survey requirements must be read in conjunction with the attached Sketch (Enclosure 1-3) which highlights the area of the St. Lawrence Seaway property covered by Plan Phase 3, which is to be surveyed and reported on:

- i. East of Riverside Drive, North of the Railway, West of Prince Charles Drive South, and South of Registered Plans 59M-135, 59M-199, M-68 and 982

1. This Plan Phase is comprised of All of PIN 64434-0132(LT) and All of PIN 64434-0256(LT). The limits of the Parts will be defined by the limits of the PINs.
 2. Tie in any encroachments and physical elements (i.e. drainage ditches, manholes or catch basins) as well as any visible services such as pole lines, Bell boxes, water valves, etc.).
 3. Buildings and fences within 5 metres of the PIN limits must also be located.
 4. The electronic computer-aided design and drafting (CAD) file must include a layer containing the plot of the underlying deeds and releases to Her Majesty the Queen and/or St Lawrence Seaway Authority.
- ii. East of King Street, North of the Railway, and West of Coventry Road
1. This Plan Phase is comprised of All of PINs 64122-0221(LT) and 64396-0424(LT). The limits of the Parts will be defined by the limits of the PINs.
 2. Tie in any physical elements (i.e. drainage ditches, manholes or catch basins) as well as any visible services such as pole lines, Bell boxes, water valves, etc.).
 3. Buildings and fences within 5 metres of the established limits must be located.
 4. The electronic CAD file must include a layer containing the plot of the underlying deeds and releases to Her Majesty the Queen and/or St Lawrence Seaway Authority.

3.4 PLAN PHASE 4: Townline Tunnel Corridor from Just West of Feeder Road to Miller Road

The following Survey requirements must be read in conjunction with the attached Sketch (Enclosure 1-4) which highlights the area of the St. Lawrence Seaway property covered by Plan Phase 4, which is to be surveyed and reported on:

1. This Plan Phase has been divided into 5 sections:
 - i. West of Feeder Road – This Plan Phase is comprised of All of PIN 64442-0109(LT). The limits of the Part are defined by the limits of the PIN.
 - ii. Feeder Road to Highway 58A – This Plan Phase is comprised of All of PIN 64442-0110(LT). The limits of the Part are defined by the limits of the PIN.
 - iii. Highway 58A to Canal Bank Street – This Plan Phase is comprised of Part of PINs 64454-0073(LT) and 64454-0076(R). The North, West and East limits of the Parts are defined by the limits of the PINs. The South limits are established by connecting from the jog in the south limit of PIN 64454-0073(LT) to the jog in the east limit of PIN 64454-0076(R) as illustrated on Enclosure 1-4. There is an interest in that portion of Canal Bank Street described by PIN 64454-0079(LT) as illustrated on Enclosure 1-4. This will require the creation of a separate Part to facilitate a legal description for this area. The East and West limits of the Part are defined by the limits of the PIN. The North limit of the Part is defined by the South limits of Parts 1, 2 and 3 on Plan 59R-9058. The South limit of the Part is defined by the North limits of Parts 4, 5 and 6 on Plan 59R-9058.

- iv. Canal Bank Street to the Welland Canal – This Plan Phase is comprised of Part of PINs 64454-0083(LT) and 64127-0530(LT). The North, South and West limits of the Parts are defined by the limits of the PINs. The East limit is established by setting straight line segments a minimum of 95 m from the west limit of the Welland Canal, from the bend in the south limit of PIN 64454-0083(LT) in a northerly direction to a point 7 m south of the North limit of Lot 19 Concession 5 Township of Humberstone, then westerly a distance of 141 m +/- to the bend in the limit of PIN 64127-0530(LT), as illustrated on Enclosure 3-4. There is an interest in that portion of Highway 58A described by PIN 64127-0467(LT) as illustrated on Enclosure 1-4. This will require the creation of a separate Part to facilitate a legal description for this area, as per Inst. RO222695 (Highway Plan P-5099-2). Create Parts for the portion of Highway 58A crossing PINs 64127-0530(LT) and 64454-0083(LT), as per Inst. RO222695 (Highway Plan P-5099-2). Tie in the portion of the Railway and Railway Bridge crossing PINs 64127-0530(LT), 64127-0467(LT) and 64454-0083(LT). Tie in the extent of the road and tracks in these areas, including ditches, services and bridge piers, as well as the elevation of the top of the bridge and the tracks running underneath.
- v. Welland Canal to Miller Road – This Plan Phase is comprised of All of the following PINs:
- 64129-0079(LT)
 - 64129-0122(LT)
 - 64129-0106(LT)
 - 64130-0076(LT)
 - 64129-0088(LT)
 - 64129-0108(LT)
 - 64129-0105(LT)

For these PINs, the limits of the Parts are defined by the limits of the PINs.

This Plan Phase is also comprised of Part PINs 64454-0083(LT) and 64127-0530(LT). The North, South and East limits of the Parts are defined by the limits of the PINs on the East side of the Welland Canal. To establish the West limit, connect from the bend in the South limit of PIN 64454-0083(LT) at the East side of the Welland Canal to the bend in the North limit of PIN 64127-0530(LT) at the East side of the Welland Canal, as illustrated on Enclosure 1-4. There is an interest in that portion of Highway 58A described by PINs 64127-0467(LT) and 64129-0082(LT). This will require the creation of separate Parts to facilitate a legal description for this area, as per Inst. RO222695 (Highway Plan P-5099-2). There is an interest in that portion of Highway 140 described by PIN 64129-0036(LT) as illustrated on Enclosure 1-4, requiring the creation of additional Parts. Retrace the limits of Parts 1 and 2, Plan RD-128 lying north of Part 5, Inst. RO222695 (Highway Plan P-5099-2). Tie in Highway 140 and the bridge carrying Highway 140 over the Railway crossing PIN 64130-0076(LT), and where the Railway Bridge crosses PINs 64129-0088(LT), 64129-0106(LT) and 64130-0076(LT). Tie in the extent of the road and tracks in these areas, including ditches, services and bridge piers, as well as the elevation of the top of the bridges and the tracks running underneath.

2. Tie in any physical elements (i.e. drainage ditches, manholes or catch basins) as well as any visible services such as pole lines, Bell boxes, water valves, etc.).
3. Buildings and fences within 5 metres of the established limits must be located.
4. A detailed report as to the reasons PIN 64454-0076(R) has not been converted to LTCQ.
5. The electronic CAD file must include a layer containing the plot of the underlying deeds and releases to Her Majesty the Queen and/or St Lawrence Seaway Authority.

- 3.5 PLAN PHASE 5:** 2 Main Parcels:
- i. West of Old Welland Canal, North of Forks Road, East and South of Railway
 - ii. Old Welland Canal, South of the Railway and North of the Road Allowance between Concessions 3 and 4

The following Survey requirements must be read in conjunction with the attached Sketch (Enclosure 1-5) which highlights the area of the St. Lawrence Seaway property covered by Plan Phase 5, which is to be surveyed and reported on:

- i. West of Old Welland Canal, North of Forks Road, East and South of Railway
 1. This Plan Phase is comprised of All of PIN 64131-0006(LT). The limits of the Part are defined by the limits of the PIN.
 2. Tie in any physical elements (i.e. drainage ditches, manholes or catch basins) as well as any visible services such as pole lines, Bell boxes, water valves, etc.).
 3. Buildings and fences within 5 metres of the established limits must be located.
 4. The electronic CAD file must include a layer containing the plot of the underlying deeds and releases to Her Majesty the Queen and/or St Lawrence Seaway Authority.
- ii. Old Welland Canal, South of the Railway and North of the Road Allowance between Concessions 3 and 4
 1. This Plan Phase is comprised of All of the following PINs:
 - 64454-0077(LT)
 - 64131-0029(LT)
 - 64131-0028(R)
 - 64455-0062(LT)
 - 64132-0055(LT)

For these PINs the limits of the Parts are defined by the limits of the PINs.

2. This Plan Phase is also comprised of Part of PINs 64454-0073(LT) and 64454-0076(R). The East, South and West limits of the Parts are defined by the limits of the PINs. The North limits are established by connecting from the North West corner of PIN 64454-0073(LT) to the jog in the east limit of PIN 64454-0076(R) as illustrated on Enclosure 1-5. There is an interest in the portion of Forks Road described by PIN 64131-0002(LT) as illustrated on Enclosure 1-5. This will require the creation of a separate Part to facilitate a legal description for this area. The North and South limits of the Part are defined by the limits of the PIN. The West limit of the Part is defined by the East limits of Parts 4, 5 and 6 on Plan 59R-9059. The East limit of the Part is defined by the West limit of Parts 1, 2 and 3 on Plan 59R-9059.
3. A detailed report as to the reasons PIN 64454-0076(R) and PIN 64131-0028(R) have not been converted to LTCQ.
4. Tie in any physical elements (i.e. drainage ditches, manholes or catch basins) as well as any visible services such as pole lines, Bell boxes, water valves, etc.).
5. Buildings and fences within 5 metres of the established limits must be located.
6. The electronic CAD file must include a layer containing the plot of the underlying deeds and releases to Her Majesty the Queen and/or St Lawrence Seaway Authority.

3.6 PLAN PHASE 6: 3 Main Parcels:

- i. West of Welland Canal, East of Ramey Avenue and North of Main Street West
- ii. West of Ramey Avenue, South of Christian Stoner Street, North of Main Street West
- iii. South of Main Street West, East of King Street, West of the Railway/Welland Canal Diversion, North of and Including Princess Street

The following Survey requirements must be read in conjunction with the attached Sketch (Enclosure 1-6) which highlights the area of the St. Lawrence Seaway property covered by Plan Phase 6, which is to be surveyed and reported on:

- i. West of Welland Canal, East of Ramey Avenue and North of Main Street West
 1. This Plan Phase is comprised of Part of PIN 64137-0221(LT). The North and West limits of the Part are defined by the limits of the PIN. Set the South West corner of the parcel 44 m more or less from the South West corner of Lot 25, Registered Plan 782 southerly along the East limit of Ramey Avenue to a point where a line, parallel to the North limit is clear of the driveway and **1.5 m (conform with minimum set-back required by municipality)** south of the structure in the rear of the property. Set a distance of 45 m from the South West corner to the South East corner. Establish the rear limit by connecting from the South East corner to the North East corner, as illustrated on Enclosure 1-6. Divide this parcel by setting a second line parallel to the North limit 12 m south of the South West corner of Lot 25. Locate the Hydro Line crossing the south east corner of the newly created parcel. Create a Part **10 m** wide centred on the hydro line. Tie in all fences, structures, tree lines within and adjacent to the Part. Tie in the fence and hydro line to the East of the Part.
 2. Tie in any physical elements (i.e. drainage ditches, manholes or catch basins) as well as any visible services such as pole lines, Bell boxes, water valves, etc.).
 3. Buildings and fences within 5 metres of the established limits must be located.
 4. The electronic CAD file must include a layer containing the plot of the underlying deeds and releases to Her Majesty the Queen and/or St Lawrence Seaway Authority.
- ii. West of Ramey Avenue, South of Christian Stoner Street, North of Main Street West
 1. This Plan Phase is comprised of all of PIN 641374-0175(LT). The limits of the Part are defined by the limits of the PIN.
 2. Tie in any physical elements (i.e. drainage ditches, manholes or catch basins) as well as any visible services such as pole lines, Bell boxes, water valves, etc.).
 3. Buildings and fences within 5 metres of the established limits must be located.
 4. The electronic CAD file must include a layer containing the plot of the underlying deeds and releases to Her Majesty the Queen and/or St Lawrence Seaway Authority.
- iii. South of Main Street West, East of King Street, West of the Railway/Welland Canal Diversion, North of and Including Princess Street
 1. This Plan Phase is comprised of part of PIN 64149-0222(LT), part of PIN 64149-0220(LT) and all of PIN 64149-0191 (LT). For PIN 64149-0191(LT) the limits of the Part are defined by the limits of the PIN. Title investigation is required on PIN 64149-0174(LT) to confirm any federal interest in

this property. Create Parts to describe such interests, if found. PIN 64149-0220(LT) is divided into 2 separate parcels. The North, South and West limits of the Parcels are defined by the limits of the PINs. The East limit of the southerly Parcel is established by connecting the corners of the adjacent PINs as illustrated on Enclosure 1-6. A part is required for the railway that crosses this parcel, the limits of which are established in accordance with plan 59R-11373. To establish the East limit of the northerly Part set straight line segments a distance of 5 m west of the centreline of the hydro line, as illustrated on Enclosure 1-6. For PIN 64149-0222(LT) the North, South and West limits of the Part are defined by the limits of the PIN. The East limit of the northerly Part set straight line segments a distance of 5 m west of the centreline of the hydro line, as illustrated on Enclosure 1-6.

2. Tie in any physical elements (i.e. drainage ditches, manholes or catch basins) as well as any visible services such as pole lines, Bell boxes, water valves, etc.), including the Railway tracks and hydro line along the east limit.
3. Buildings and fences within 5 metres of the established limits must be located.
4. The electronic CAD file must include a layer containing the plot of the underlying deeds and releases to Her Majesty the Queen and/or St Lawrence Seaway Authority.

3.7 PLAN PHASE 7: South of Lake Road, East of the Welland Canal, and Land Within Lake Erie.

The following Survey requirements must be read in conjunction with the attached Sketch (Enclosure 1-7) which highlights the area of the St. Lawrence Seaway property covered by Plan Phase 7, which is to be surveyed and reported on:

- i. South of Lake Road, East of the Welland Canal, and Land Within Lake Erie.
 1. This Plan Phase is comprised of Part of PIN 64457-0128(LT). The North limit and a portion of the East limit of the Part are defined by the limits of the PIN. The North West limit is established by setting a line along the east side of the driveway, approximately 19 m east of the bend in the North PIN limit, making an angle with the north limit of approximately 85°40' as illustrated on Enclosure 1-7. Intersect this line with a line offset 107 m easterly from the edge of the Canal. The remainder of the west limit is established by setting an offset line approximately 110 m easterly from the approximate line of demarcation between the vegetation and the gravel bank of the Canal. The South limit is established by setting an offset line 80 m north of the south edge of the pier, as shown on Enclosure 1-7. The remainder of the East limit is established by following the edge of water of Lake Erie until it intersects with the limit of PIN 64457-0128 (LT). A separate Part will be required to facilitate the creation of an easement for the electrical feed to the CCTV tower. As part of the contract, the contractor will be required to make arrangements to have the electrical line located on the ground. Create a part 3 m wide centred on the electrical line.
 2. Tie in any physical elements (i.e. drainage ditches, manholes or catch basins) as well as any visible services such as pole lines, Bell boxes, water valves, etc.).
 3. Buildings and fences within 5 metres of the established limits must be located.
 4. The electronic CAD file must include a layer containing the plot of the underlying deeds and releases to Her Majesty the Queen and/or St Lawrence Seaway Authority.

4. SITE SECURITY AND CONTACTS

Before going into the field, it will be necessary to contact the Technical Authority who will make the necessary arrangements for site access through the St. Lawrence Seaway Management Corporation.

Main contact:

to be completed at Contract award

5. SURVEY AND PLAN REQUIREMENTS

- 5.1** The draft Reference Plan(s) must be in accordance with the Surveys Act, Surveyors Act, the Registry Act, the Land Titles Act and the Regulations made under them and in accordance with the standards and guidelines of the Association of Ontario Land Surveyors (AOLS), and any additional provisions outlined herein.
- 5.2** The draft Reference Plan(s) must be prepared in digital MicroStation (dgn) or AutoCAD (dwg / dxf) formats and presented in a metric scale. The MicroStation cell library or AutoCAD layer structures will also be supplied with the award of contract in the form of a sample plan and supporting documents. The digital graphics file (either MicroStation or AutoCAD) must be based on the integrated coordinate system shown on the plan. The draft Reference Plan(s) and associated digital file must be provided in a form consistent with and similar to the sample plan.
- 5.3** The plan must contain a key plan illustrating the area in which the property is situated. The Standard Geographic Code (SGC) and Item Number will be supplied by the Technical Authority upon award of Contract and must be shown at the bottom right corner of the plan in the PSPC 'Title Block' (to be provided).

5.4 Drawing Sheets:

Allowable trimmed sheet size and border dimensions are shown in the following table:

DRAWING SHEET SIZE DESIGNATION	TRIMMED SHEET DIMENSIONS (mm) Height x Width	INSIDE BORDER DIMENSIONS (mm) Height x Width
A0	841 x 1189	821 x 1159
A1	594 x 841	574 x 811
A2	420 x 594	400 x 564

Lettering on the plan is not to be less than 2 mm in height. Unless preauthorized by the Technical Authority, plans must be oriented with the long side (width) at the top of the sheet. Plan sizes must conform to the sheet sizes noted above.

5.5 Draft Reference Plan Details:

The survey and plan must be in the form of a draft Reference Plan(s).

The perimeter of the Area of Survey must be monumented where existing boundaries require retracement. Where the perimeter of the Area of Survey is limited by a natural boundary (i.e. water's edge), monumented traverse lines with ties to the water's edge sufficient to detail the location of the

water's edge are required. Where the perimeter of the Area of Survey is limited by a fixed structure, as in the outside face of a canal wall, the fixed structure must be considered the boundary for the purposes of the Plan of Survey.

The survey and plan(s) must also include the location of topographic features as described in the "Work to be performed and Deliverables" and as illustrated on the Survey Requirement Detail sketches **only within the "Areas of Interest" as described** as shown on Enclosure 1-1 to 1-7: Sketch to Illustrate Survey Requirement Area. This would include any visible evidence of underground and overhead services, including hydro, bell, gas and water, or any other features that may be associated with rights arising from possible leases, licences or permits.

5.6 Integration to the 6° UTM NAD83 Canadian Spatial Reference System (CSRS) 2010 epoch Coordinate System

The preparation of these Plans of Survey must be integrated to the 6° UTM NAD83 (CSRS) 2010 epoch Coordinate system in accordance with the Surveyors Act, Ontario Regulation 216/10.

Plan bearings must be grid bearings and plan distances must be ground distances. Where bearings are derived from project integration, integrated points must be selected at sufficient separation to provide accurate bearings. Large projects may require integration of more than two points to comply with AOLS regulations and standards.

The digital graphics file (either MicroStation or AutoCAD) must be based on the integrated coordinate system shown on the plans. The plan must state the particulars of the coordinate system in a form consistent with the required regulations, standards and guidelines.

5.7 Elevations (when required)

When elevations are required as part of the survey, the following elevation note must be shown on the plan:

*"Elevations shown hereon are referenced to the International Great Lakes Datum **or** the Canadian Geodetic Vertical Datum (CGVD) 1928 and are derived from elevation benchmark (describe benchmark) having an elevation of XXX.XX metres as recorded in (describe source of data)." Where another elevation reference is used, a note providing similar information must be used.*

5.8 Unrestricted Use

An unrestricted license to use the plan of survey, surveyor's report, CAD files, field notes and other deliverables is deemed to have been provided by the Contractor to Her Majesty, in Right of Canada as represented by PSPC upon payment to the Contractor of the invoice(s) for the work. This license includes the right to provide copies of the deliverables to any other party.

5.9 General Plan and Field Work requirements

- Use of All-Terrain vehicles will **not** be permitted anywhere on the site.
- Site access must be arranged through the PSPC Project Manager (Technical Authority). PSPC through SLSMC will be coordinating the notification of the current tenants by way of a formal letter. Under no circumstance should a bidder contact the tenants prior to contract award.
- Where the need for topographic details has been requested, unless the need for elevations has been specified, planimetric detail will suffice.
- The accuracy of the topographic details should be limited to +/- 0.05 m for manmade structures, and +/- 0.30 m for natural features.

6. RETURNS AND DELIVERY

6.1 The following materials must be submitted to the PSPC Geomatics Project Manager (Technical Authority) upon completion of the draft Reference Plan(s):

- A pdf copy and 2 paper prints of the signed **draft** Reference Plan(s), along with a copy of the associated digital CAD file. The CAD file is to be geographically referenced and correctly oriented to the geodetic datum required for this project (see section 5.6 Integration). The CAD drawing is to be submitted in grid dimensions. Distances reported on the face of the Plan are to be reported in ground units.
- All pertinent title search material and other related information.
- Photocopies of the field notes of survey (including printouts of data collector measurements).
- COSINE report for each Control Monument used to integrate the field survey measurements with the 6° UTM NAD83 (CSRS) Coordinate system and a report on the closeness of fit of the control survey field work and the existing Horizontal Control Monuments. The report must include all details related to the use of any Real Time Base Station Network services.
- plan closures and an ASCII text file of the adjusted coordinates
- The signed Surveyor's report on issues (title or otherwise) uncovered during the course of the Survey.
- The signed Surveyor's Report shall include the following items:
 - Results of title investigation or research.
 - Issues related to site access.
 - Survey methodology.
 - Issues specific to particular real property interests both on and off the site (easements and/or rights of way) and encroachments.
 - Title or issues requiring further investigation or research which would fall outside of the original Scope of the work required for this project, with recommendations for resolution.
- Digital photographs in support of the Surveyor's Report where permissible by on site Security Personnel are required. All photographs taken are to be numbered and indexed, then referenced on a diagram or sketch showing the direction taken for each photo.

7. EXPECTED DELIVERY DATES

Alternatives to the following schedule will be considered, but will require pre-approval by the PSPC Geomatics Project Manager (Technical Authority). The following delivery schedule will require confirmation by the Technical Authority prior to the commencement of the work:

7.1 Plan Phase 1 Delivery Schedule:

A **first submission** of the signed draft Reference Plan(s) and written report along with other preliminary returns described in Section 3.1 must be provided by the Contractor within 6 weeks from the Contract Award date.

After review of the draft Reference Plan(s) and draft Surveyor's Report on Title, the Technical Authority will provide any comments and/or recommendations regarding the plan(s) and issue instructions to finalize the draft Reference plan(s). These instructions are anticipated to be given approximately 2 weeks following the first submission by the contractor. (Note: the plan is not to be deposited in the registry office at this stage)

A **second submission** of the signed draft Reference Plan(s) described in Section 3.1 must be provided by the Contractor within 2 weeks from issuance of instructions to finalize the first draft reference plan(s).

The Technical Authority will review the second submission of the signed draft Reference Plan(s) in consultation with the Transport Canada (TC) and St. Lawrence Seaway Management Corporation (SLSMC) clients. Following this review, the Technical Authority will provide the Contractor with any comments and/or recommendations regarding the plan(s). If the changes requested are minor in nature (i.e. no further field work and/or research required) the Technical Authority will issue instructions to finalize the draft Reference Plan(s). These instructions are anticipated to be given within 2 weeks to 6 weeks following the second submission by the Contractor for Plan Phase 1. (Note: the plan(s) are not to be deposited in the Registry Office at this stage).

A **third submission** of the signed draft Reference Plan(s) described in Section 3.1 must be provided by the Contractor within 2 weeks from issuance of instructions to finalize the second draft reference plan(s).

The Technical Authority will consult with the TC and SLSMC clients in order to ensure there are no subsequent requirements. Finalization and deposit of the Reference Plan(s) is to occur after this consultation

7.2 Plan Phase 2 Delivery Schedule:

A **first submission** of the signed draft Reference Plan(s) and written report along with other preliminary returns described in Section 3.2 must be provided by the Contractor within 8 weeks from the Contract Award date.

After review of the draft Reference Plan(s) and draft Surveyor's Report on Title, the Technical Authority will provide any comments and/or recommendations regarding the plan(s) and issue instructions to finalize the draft Reference plan(s). These instructions are anticipated to be given approximately 2 weeks following the first submission by the contractor. (Note: the plan is not to be deposited in the registry office at this stage)

A **second submission** of the signed draft Reference Plan(s) described in Section 3.2 must be provided by the Contractor within 2 weeks from issuance of instructions to finalize the first draft reference plan(s).

The Technical Authority will review the second submission of the signed draft Reference Plan(s) in consultation with the Transport Canada (TC) and St. Lawrence Seaway Management Corporation (SLSMC) clients. Following this review, the Technical Authority will provide the Contractor with any comments and/or recommendations regarding the plan(s). If the changes requested are minor in nature (i.e. no further field work and/or research required) the Technical Authority will issue instructions to finalize the draft Reference Plan(s). These instructions are anticipated to be given within 2 weeks to 6 weeks following the second submission by the

Contractor for Plan Phase 2. (Note: the plan(s) are not to be deposited in the Registry Office at this stage).

A **third submission** of the signed draft Reference Plan(s) described in Section 3.2 must be provided by the Contractor within 2 weeks from issuance of instructions to finalize the second draft reference plan(s).

The Technical Authority will consult with the TC and SLSCM clients in order to ensure there are no subsequent requirements. Finalization and deposit of the Reference Plan(s) is to occur after this consultation.

7.3 Plan Phase 3 Delivery Schedule:

A **first submission** of the signed draft Reference Plan(s) and written report along with other preliminary returns described in Section 3.3 must be provided by the Contractor within 10 weeks from the Contract Award date.

After review of the draft Reference Plan(s) and draft Surveyor's Report on Title, the Technical Authority will provide any comments and/or recommendations regarding the plan(s) and issue instructions to finalize the draft Reference plan(s). These instructions are anticipated to be given approximately 2 weeks following the first submission by the contractor. (Note: the plan is not to be deposited in the registry office at this stage)

A **second submission** of the signed draft Reference Plan(s) described in Section 3.3 must be provided by the Contractor within 2 weeks from issuance of instructions to finalize the first draft reference plan(s).

The Technical Authority will review the second submission of the signed draft Reference Plan(s) in consultation with the Transport Canada (TC) and St. Lawrence Seaway Management Corporation (SLSCM) clients. Following this review, the Technical Authority will provide the Contractor with any comments and/or recommendations regarding the plan(s). If the changes requested are minor in nature (i.e. no further field work and/or research required) the Technical Authority will issue instructions to finalize the draft Reference Plan(s). These instructions are anticipated to be given within 2 weeks to 6 weeks following the second submission by the Contractor for Plan Phase 3. (Note: the plan(s) are not to be deposited in the Registry Office at this stage).

A **third submission** of the signed draft Reference Plan(s) described in Section 3.3 must be provided by the Contractor within 2 weeks from issuance of instructions to finalize the second draft reference plan(s).

The Technical Authority will consult with the TC and SLSCM clients in order to ensure there are no subsequent requirements. Finalization and deposit of the Reference Plan(s) is to occur after this consultation.

7.4 Plan Phase 4 Delivery Schedule:

A **first submission** of the signed draft Reference Plan(s) and written report along with other preliminary returns described in Section 3.4 must be provided by the Contractor within 12 weeks from the Contract Award date.

After review of the draft Reference Plan(s) and draft Surveyor's Report on Title, the Technical Authority will provide any comments and/or recommendations regarding the plan(s) and issue instructions to finalize the draft Reference plan(s). These instructions are anticipated to be given approximately 2 weeks following the first submission by the contractor. (Note: the plan is not to be deposited in the registry office at this stage)

A **second submission** of the signed draft Reference Plan(s) described in Section 3.4 must be provided by the Contractor within 2 weeks from issuance of instructions to finalize the first draft reference plan(s).

The Technical Authority will review the second submission of the signed draft Reference Plan(s) in consultation with the Transport Canada (TC) and St. Lawrence Seaway Management Corporation (SLSMC) clients. Following this review, the Technical Authority will provide the Contractor with any comments and/or recommendations regarding the plan(s). If the changes requested are minor in nature (i.e. no further field work and/or research required) the Technical Authority will issue instructions to finalize the draft Reference Plan(s). These instructions are anticipated to be given within 2 weeks to 6 weeks following the second submission by the Contractor for Plan Phase 4. (Note: the plan(s) are not to be deposited in the Registry Office at this stage).

A **third submission** of the signed draft Reference Plan(s) described in Section 3.4 must be provided by the Contractor within 2 weeks from issuance of instructions to finalize the second draft reference plan(s).

The Technical Authority will consult with the TC and SLSMC clients in order to ensure there are no subsequent requirements. Finalization and deposit of the Reference Plan(s) is to occur after this consultation.

7.5 Plan Phase 5 Delivery Schedule:

A **first submission** of the signed draft Reference Plan(s) and written report along with other preliminary returns described in Section 3.5 must be provided by the Contractor within 14 weeks from the Contract Award date.

After review of the draft Reference Plan(s) and draft Surveyor's Report on Title, the Technical Authority will provide any comments and/or recommendations regarding the plan(s) and issue instructions to finalize the draft Reference plan(s). These instructions are anticipated to be given approximately 2 weeks following the first submission by the contractor. (Note: the plan is not to be deposited in the registry office at this stage)

A **second submission** of the signed draft Reference Plan(s) described in Section 3.5 must be provided by the Contractor within 2 weeks from issuance of instructions to finalize the first draft reference plan(s).

The Technical Authority will review the second submission of the signed draft Reference Plan(s) in consultation with the Transport Canada (TC) and St. Lawrence Seaway Management Corporation (SLSMC) clients. Following this review, the Technical Authority will provide the Contractor with any comments and/or recommendations regarding the plan(s). If the changes requested are minor in nature (i.e. no further field work and/or research required) the Technical Authority will issue instructions to finalize the draft Reference Plan(s). These instructions are anticipated to be given within 2 weeks to 6 weeks following the second

submission by the Contractor for Plan Phase 5. (Note: the plan(s) are not to be deposited in the Registry Office at this stage).

A **third submission** of the signed draft Reference Plan(s) described in Section 3.5 must be provided by the Contractor within 2 weeks from issuance of instructions to finalize the second draft reference plan(s).

The Technical Authority will consult with the TC and SLSCM clients in order to ensure there are no subsequent requirements. Finalization and deposit of the Reference Plan(s) is to occur after this consultation.

7.6 Plan Phase 6 Delivery Schedule:

A **first submission** of the signed draft Reference Plan(s) and written report along with other preliminary returns described in Section 3.6 must be provided by the Contractor within 16 weeks from the Contract Award date.

After review of the draft Reference Plan(s) and draft Surveyor's Report on Title, the Technical Authority will provide any comments and/or recommendations regarding the plan(s) and issue instructions to finalize the draft Reference plan(s). These instructions are anticipated to be given approximately 2 weeks following the first submission by the contractor. (Note: the plan is not to be deposited in the registry office at this stage)

A **second submission** of the signed draft Reference Plan(s) described in Section 3.6 must be provided by the Contractor within 2 weeks from issuance of instructions to finalize the first draft reference plan(s).

The Technical Authority will review the second submission of the signed draft Reference Plan(s) in consultation with the Transport Canada (TC) and St. Lawrence Seaway Management Corporation (SLSCM) clients. Following this review, the Technical Authority will provide the Contractor with any comments and/or recommendations regarding the plan(s). If the changes requested are minor in nature (i.e. no further field work and/or research required) the Technical Authority will issue instructions to finalize the draft Reference Plan(s). These instructions are anticipated to be given within 2 weeks to 6 weeks following the second submission by the Contractor for Plan Phase 6. (Note: the plan(s) are not to be deposited in the Registry Office at this stage).

A **third submission** of the signed draft Reference Plan(s) described in Section 3.6 must be provided by the Contractor within 2 weeks from issuance of instructions to finalize the second draft reference plan(s).

The Technical Authority will consult with the TC and SLSCM clients in order to ensure there are no subsequent requirements. Finalization and deposit of the Reference Plan(s) is to occur after this consultation.

7.7 Plan Phase 7 Delivery Schedule:

A **first submission** of the signed draft Reference Plan(s) and written report along with other preliminary returns described in Section 3.7 must be provided by the Contractor within 18 weeks from the Contract Award date.

After review of the draft Reference Plan(s) and draft Surveyor's Report on Title, the Technical Authority will provide any comments and/or recommendations regarding the plan(s) and issue instructions to finalize the draft Reference plan(s). These instructions are anticipated to be given approximately 2 weeks following the first submission by the contractor. (Note: the plan is not to be deposited in the registry office at this stage)

A **second submission** of the signed draft Reference Plan(s) described in Section 3.7 must be provided by the Contractor within 2 weeks from issuance of instructions to finalize the first draft reference plan(s).

The Technical Authority will review the second submission of the signed draft Reference Plan(s) in consultation with the Transport Canada (TC) and St. Lawrence Seaway Management Corporation (SLSMC) clients. Following this review, the Technical Authority will provide the Contractor with any comments and/or recommendations regarding the plan(s). If the changes requested are minor in nature (i.e. no further field work and/or research required) the Technical Authority will issue instructions to finalize the draft Reference Plan(s). These instructions are anticipated to be given within 2 weeks to 6 weeks following the second submission by the Contractor for Plan Phase 7. (Note: the plan(s) are not to be deposited in the Registry Office at this stage).

A **third submission** of the signed draft Reference Plan(s) described in Section 3.7 must be provided by the Contractor within 2 weeks from issuance of instructions to finalize the second draft reference plan(s).

The Technical Authority will consult with the TC and SLSMC clients in order to ensure there are no subsequent requirements. Finalization and deposit of the Reference Plan(s) is to occur after this consultation.

8. FINALIZATION AND DEPOSIT

8.1 The Technical Authority will provide instructions for finalization and deposit of the Reference plans. These instructions are anticipated to be given approximately 2 weeks and no longer than 8 weeks following the completion of the draft plans as described in Sections 7.1 thru 7.7.

8.2 Within 2 weeks of the instructions to deposit provided in Section 8.1, the surveyor must deposit the plan and supply the following:

- 1 paper print and a scanned (monochrome, 300 dpi) digital file (pdf preferred) of the **original** signed and deposited final plan;
- a copy of the digital files in MicroStation or AutoCAD formats;
- photocopies of any research materials and / or field notes of Contractor not provided previously (see Section 6.1);
- an ASCII text file of the final adjusted coordinates if changed from previous.
- A comprehensive report on title issues related to the subject lands that identifies all interests and supporting documentation. The report must also identify issues related to the extent and chain of title that require additional research. The report must also contain recommendations that may be considered in the resolution of issues requiring additional attention.

9. ENCLOSURE LIST

Enclosure 1 – Overall Sketch to Illustrate Survey Requirement Areas

Enclosures 1-1 to 1-7 - Sketches to Illustrate Survey Requirement Areas

Copies of background plans are located in the Appendices.

Please note that copies of any additional associated plans and documents on file with the Technical Authority will be provided to the successful contracting firm at the start of the project. However, it will be the responsibility of the contracting firm to undertake proper research to ensure that they have all of the relevant information required for the completion of the survey.

APPENDICES

Expropriation Instrument BB37309

Plan 59R-9058

Instrument RO222695 (Highway Plan P-5099-2)

Plan RD-128

Plan 59R-9059

Plan 59R-11373