



Lay of the Land

The LSTA Journey & ParcelMap BC

Mike Thomson, Surveyor General of BC
BC Expropriation Association Fall Conference
October 27, 2017

Who is the LTSA?

Launched January 20, 2005, the Land Title and Survey Authority of British Columbia (LTSA) is:

- A publicly accountable, statutory corporation
- Independent from government
- Responsible for operating and maintaining BC's land title and survey systems

Who is the LTSA?

- Self funded, not-for-profit entity
- Revenues reinvested in infrastructure and system improvements
- Comprised of two operational divisions:
 - Land Title Division – responsible for the maintaining the register of private property ownership in the province. The land title register.
 - Surveyor General Division – responsible for maintaining the integrity of the province's survey structure

Who is the LTSA?

- Land Title Division manages the land title register of approximately 2M private titles
- Three offices:
 - New Westminster
 - Victoria
 - Kamloops

Who is the LTSA?

The LTSA processes about 4.2 million online transactions annually.

- Approximately 20% of transactions are for the registration of land title interests and approximately 80% are for searches of registered records and issuance of certificates.

Who is the LTSA?

The Surveyor General has three primary responsibilities:

1. The Surveyor General is responsible to ensure the continued high quality and integrity of the province cadastral (legal) survey system.
2. The Surveyor General oversees the preparation and issuance of Crown grant documents at the direction of the province. Crown grants are issued when the Province authorizes a sale of Crown land to an individual or corporation.
3. The Surveyor General oversees the maintenance and dissemination of all official survey plans for parcels surveyed out of Crown land, together with a collection of historic field books and notes compiled by land surveyors at the time certain surveys were completed. The Surveyor General's vault also houses copies of all provincial Crown grants and other historic survey records.

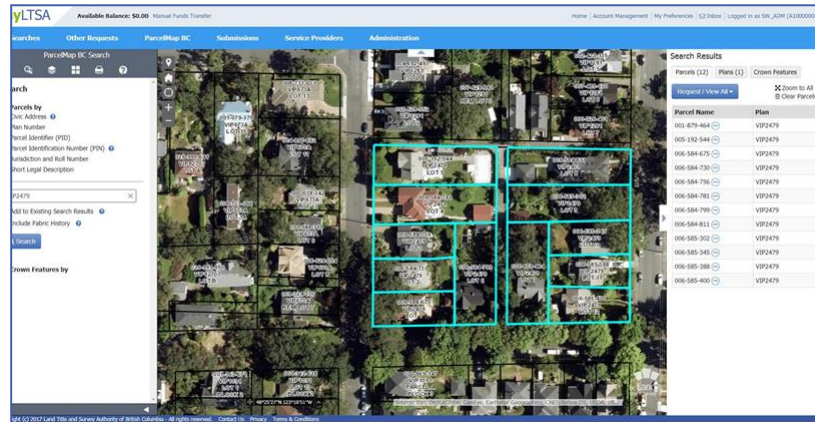
Who is the LTSA?

- The Surveyor General is a commissioned BC land surveyor and works closely with the Association of British Columbia Land Surveyors (ABCLS) in maintaining the cadastral (legal) survey standards.
- These standards are the rules that professional land surveyors must follow when they survey a parcel of land (define legal boundaries)

ParcelMapBC

What is ParcelMap BC?

The *award-winning single, complete, trusted* and *sustainable* visual representation (electronic map) of lands within a given parcel and its relationship to adjacent parcels throughout British Columbia.



It is a key piece of **data infrastructure** that **supports economic and social development** in the province.

ParcelMap BC: Award-Winning Parcel Fabric



Why Did LTSA Develop ParcelMap BC?

Meet demands for an efficient, consistent and accurate means of visually representing land title and survey information using an intuitive electronic map on a province-wide basis

ParcelMap BC: Participating Stakeholders

Integrated Cadastral Information Society

Local Government contributions & member distribution channel



BC Assessment

ParcelMap BC Grant Program to assist local government adoption
(Note: Benefits of Grant Program may not be realized)



BC ASSESSMENT

Province of British Columbia

Source contributions, provincial adoption, Open Government view



Association of BC Land Surveyors

Survey Plan Dataset submissions



Why Did LTSA Develop ParcelMap BC?

Single and Complete

- BC = “islands” of cadastral parcel fabric joined together by spines of highway, river and infrastructure rights-of-ways.
- ParcelMap BC offers:
 - Parcel fabric for all 189 local governments including municipalities and rural areas of all Regional Districts.
 - All surveyed parcels in the provincial Crown land registry and all parcels with active titles in the LTSA’s land title register.

Why Did LTSA Develop ParcelMap BC?

Trusted and Sustainable

- ParcelMap BC offers the closest-to-source authoritative information for maintaining the parcel fabric in BC
 - Survey plans, land title records, Crown land updates.
- Two-day turnaround target for parcel fabric information updates.

ParcelMap BC Benefits

Use actual survey measurements submitted directly from Land Surveyors

Really liking the new improvements, a few of which I recall testing in wireframe! I know I'm a few weeks behind in saying so. Every search I do is faster. Plan preview and misc. notes being one click away is fantastic.

This is truly a world-class system. I feel lucky to be practicing in BC.

Mark R. Mason, BCLS



Providing Professional Services Since 1961

I can honestly and unequivocally say that I am thrilled with ParcelMap BC. It is hands down the best technological improvement that I have seen in my career.

Using ParcelMap BC saves me time on a daily basis and, more importantly, gives me confidence that I can find the records that I need to do my professional duties.

Brent Taylor, BCLS, CLS



POLARIS LAND SURVEYING INC.

ParcelMap BC: How is it Built & Maintained?

Focused on using the best / pedigree sources:

Spatial Representation

Initial Compilation

- Geometry inversed from pre-existing representations (ICF, ICIS & TANTALIS) or COGO from Plan
- 12,000 Cadastral Ties collected plus ~ 35,000 horizontal geodetic control monuments (MASCOT)

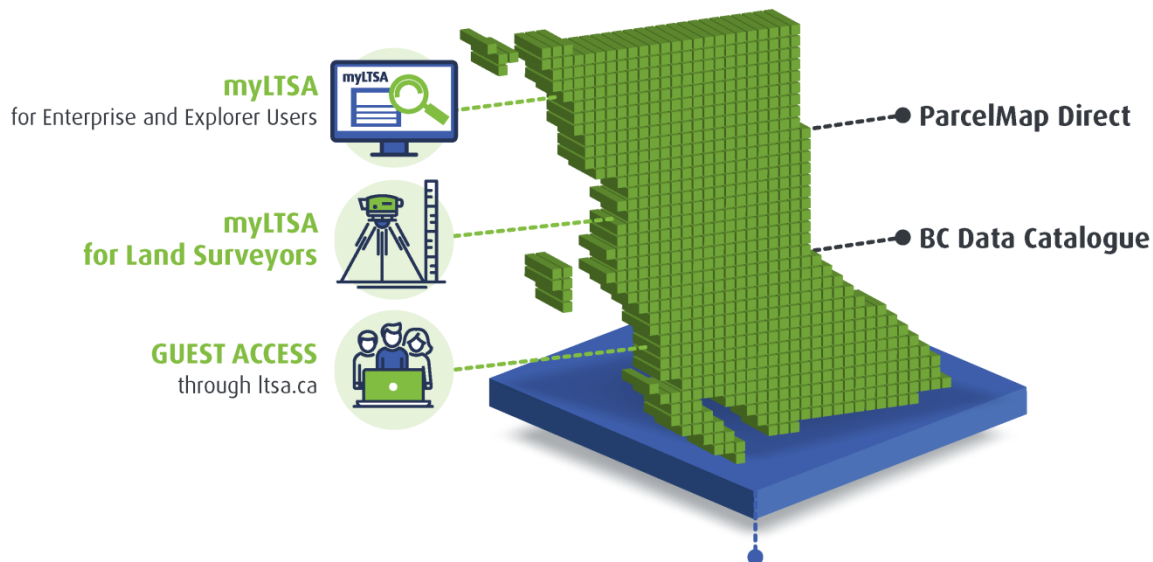
During Operations

- Geometry from [Survey Plan Datasets](#) from land surveyors
- New control with (nearly) every new survey plan dataset
- Capturing Surveyed Interests (ex. Easements, rights of way, Road dedications, etc.)
- Performing Spatial Improvements (LSAs, etc.)

Attribution & Event Triggers

- land title register: for completeness & attribution on titled parcels
- Crown land registry: for completeness & attribution on Crown land parcels

How Can You Access ParcelMap BC?



ParcelMapBC

Core Source of Data to Published Parcel Fabric

Parcel Information Search

- Technology in production July 10, 2016
- **'ParcelMap BC Search for myLTSA Users'** launch announced August 25
- Available myLTSA customers only – no public access through the LTSA's website at this time
- Most common search method for local government staff is through myLTSA Account
- Same general search and locate functions as the ParcelMap BC Search for Land Surveyors service:
 - View the published parcel fabric
 - Search the published parcel fabric using a number of criteria
 - Plan number
 - PID, PIN, JUROL
 - Short Legal Description
 - Area of interest (Geographic search)
 - Civic address
- No civic addresses stored in ParcelMap BC
 - Civic address search facilitated by the 'Civic Address to PID' lookup function made available from embedded interface to DataBC service with support from BCA
- No Download capability
- Surveyor specific information is not displayed (e.g. 'survey extent limits')
- Limited hyperlink functionality
 - Access to land title register information requires a myLTSA account

How Can You Search with ParcelMap BC?

By:
Civic
Address



The screenshot displays the ParcelMap BC Search interface. On the left, the 'Search' panel shows 'Parcels by' with 'Civic Address' selected. The search input field contains '1090 W Georgia St, Vancouver, BC'. Below the input are checkboxes for 'Add to Existing Search Results' and 'Include Fabric History', and a 'Search' button. The 'Crown Features by' section is also visible. The main map area shows a street grid with several parcels highlighted in blue and purple. One parcel is highlighted in green. The right panel shows 'Search Results' with 'Parcels (5)' and 'Plans (3)' tabs. A 'Request / View All' button is present. Below is a table of search results:

Parcel Name
007-262-272
015-306-321
015-306-330
015-574-202
015-574-229

At the bottom of the map, there is a scale bar (49m) and coordinates (49°17'09"N 123°07'17"W). The footer contains copyright information and links for 'Contact Us', 'Privacy', and 'Terms & Conditions'.

How Can You Search with ParcelMap BC?

By:
Plan
Number



The screenshot displays the ParcelMap BC Search interface. On the left, the 'Search' panel is active, showing 'Parcels by' with 'Plan Number' selected. The search input field contains 'EPS371'. Below the input field are checkboxes for 'Add to Existing Search Results' and 'Include Fabric History', and a 'Search' button. The main map area shows a yellow parcel labeled 'Building Strata EPS371' highlighted with a red border. Other parcels are labeled with their plan numbers and lot numbers, such as 'Building Strata EPS697', 'Building Strata VIS6958', 'Building Strata VIS695', 'Building Strata EPS282', '028-238-249 VIS6967 LOT 6', '028-238-231 VIS6967 LOT 5', '028-238-222 VIS6967 LOT 4', '029-643-732 EPP51322 LOT B', '023-124-474 VIP61486 LOT 2', and '029-941-721 EPP51322 LOT A'. The bottom of the map shows a scale bar (100m) and coordinates (48°49'21"N 123°37'15"W). The footer contains copyright information: 'Copyright (c) 2017 Land Title and Survey Authority of British Columbia - All rights reserved. Contact Us Privacy Terms & Conditions'.

Search Results

Parcels (3) Plans (1)

Request / View All

Parcel Name
028-490-886
028-490-908
Building Strata

How Can You Search with ParcelMap BC?

By:
Parcel
Identifier



Land Title PID
or
Crown PIN

ParcelMap BC Search

Search

Parcels by

- ☐ Civic Address
- ☐ Plan Number
- ☒ Parcel Identifier (PID)
- ☐ Parcel Identification Number (PIN)
- ☐ Jurisdiction and Roll Number
- ☐ Short Legal Description

005-572-002

☐ Add to Existing Search Results

☐ Include Fabric History

Search

Crown Features by

Search Results

Parcels (1) Plans (1)

Request / View All

Parcel Name

005-572-002

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How Can You Search with ParcelMap BC?

By:
BC Assessment
Jurisdiction &
Roll Number



The screenshot displays the ParcelMap BC Search interface. On the left, the 'Search' panel is active, showing search criteria under 'Parcels by'. The 'Jurisdiction and Roll Number' option is selected. A search box contains the text '000-000-390-006-54-7626'. Below the search box are checkboxes for 'Add to Existing Search Results' and 'Include Fabric History'. A 'Search' button is at the bottom of the panel. The main map area shows a satellite view with various colored parcels. A parcel with the ID '007-605-951' is highlighted with a red box. On the right, a pop-up window displays the details for this parcel.

007-605-951	
Parcel Details	
Parcel Identifier (PID)	007-605-951
Parcel Identification Number (PIN)	-
Parcel Type	Subdivision
Legal Description	LOT 25 BLOCK F DISTRICT LOT 4753 PLAN 15914
Plan Number	VAP15914
Jurisdiction and Roll Number	390006547626
Regional District	Squamish-Lillooet Regional District
Municipality	Whistler, Resort Municipality of
Owner Type	Private
Last Modified Date	2017-03-29

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, BLOCK J

How Can You Search with ParcelMap BC?

By:
Map



Shape
Or
Click

ParcelMap BC Search

Search by Shape

Choose a shape to draw

☐ Add to Existing Search Results

Clear Shape

Search Results

Parcels (130) Plans (3) Crown Features

Request / View All Zoom to All Clear Parcels/Plans

Parcel Name	Plan
000-577-791	NWP20244
000-896-918	NWP18589
001-798-596	NWP18589
002-235-234	NWP18589
002-347-989	NWP20244
004-153-057	NWP18589
004-800-907	NWP20244
005-789-885	NWP20244
006-120-482	NWP20244
008-709-891	NWP20244
008-709-912	NWP20244
008-709-921	NWP20244
010-417-397	NWP18589
010-417-401	NWP18589
010-417-427	NWP18589
010-417-443	NWP18589
017-344-051	NWP19406
010-491-481	NWP19406
013-568	NWP19406
010-336-893	NWP18059
010-336-907	NWP18059
010-336-931	NWP18059
008-709-885	NWP20244
008-709-912	NWP20244
008-709-921	NWP20244
004-153-057	NWP18589
000-896-918	NWP18589
010-417-397	NWP18589
010-417-427	NWP18589
010-417-443	NWP18589
017-344-051	NWP19406
010-491-481	NWP19406
013-568	NWP19406

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How Can You Access Records with ParcelMap BC?

Titles

**Single
or
Multiple**

ParcelMap BC Search

Search by Shape

Choose a shape to draw

☐ Add to Existing Search Results

Clear Shape

Search Results

Parcels (130) Plans (3) Crown Features

Request / View All

☒ Zoom to All
☐ Clear Parcels/Plans

Parcel Name	Plan
000-577-791	NWP20244
000-896-918	NWP20244
001-798-516	NWP20244
002-235-244	NWP20244
002-347-989	NWP20244
004-153-057	NWP20244
004-800-907	NWP20244
005-789-885	NWP20244
006-120-482	NWP20244
008-709-891	NWP20244
008-709-912	NWP20244
008-709-921	NWP20244
008-709-939	NWP20244
010-417-397	NWP18589
010-417-401	NWP18589
010-417-427	NWP18589
010-417-443	NWP18589
017-344-051	NWP19406
010-491-481	NWP19406
013-568	P19406

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How Can You Access Records with ParcelMap BC?

Survey
Plans

Single
or
Multiple

ParcelMap BC Search

Adjust Map Layers
Click the map layer name to display more layers and layer legends

- ☒ Active Parcels
- ☒ Interest Parcels
- ☐ Parcel Boundaries
- ☒ Parcels By Class
 - Subdivision
 - Absolute Fee Book
 - Building Strata
 - Bare Land Strata
 - Common Ownership
 - Park
 - ☒ Air Space
 - Road
 - Crown Subdivision
 - Primary
 - Part of Primary
- ☐ Parcels By Owner Type
- ☐ Fabric History

Search Results

Parcels (101) Plans (9) Crown Features

[Request All Plans](#)

☒ Zoom to All
☐ Clear Parcels/Plans

Plan	Plan Type
VAS629	-
VAS138	-
VAS1188	-
VAP17664	-
VAP14147	-
VAP1241	-
VAP13597	-
VAP1233	-

VAS138

- [Add All Parcels](#)
- [Preview Plan](#)
- [Request Plan](#)
- [Remove Result](#)

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How Can You Access Records with ParcelMap BC?

Miscellaneous
Notes &
Parcel
Information

Single
or
Multiple

The screenshot displays the ParcelMap BC interface. On the left is a map with various colored parcels. A green arrow points from the text 'Miscellaneous Notes & Parcel Information' to a specific parcel on the map. In the center, a detailed window for parcel 010-436-367 is open, showing fields for 'PARCEL IDENTIFIER (PID)', 'SHORT LEGAL DESCRIPTION', 'TAXATION AUTHORITY', 'FULL LEGAL DESCRIPTION', 'MISCELLANEOUS NOTES', and 'ASSOCIATED PLAN NUMBERS'. On the right, a 'Search Results' panel shows a table of parcels. A green box highlights the 'Request / View All' button. A dropdown menu is open for the first row, showing options: 'View Details', 'Request Title', 'Zoom To', 'Search BC Assessment', and 'Remove Result'.

Parcel Name	Plan
010-436-367	010-436-367
010-466-843	
012-356-956	
012-357-022	
012-357-073	
027-435-679	
028-927-362	EPP22523

ParcelMap BC: a Comprehensive Information Model

ParcelMap BC: a Comprehensive Information Model

Parcels By Owner Type

- Private
- Federal
- Crown Provincial
- Crown Agency
- Municipal
- First Nation
- Mixed Ownership
- None
- Unknown

ParcelMapBC_DataProducts.gdb

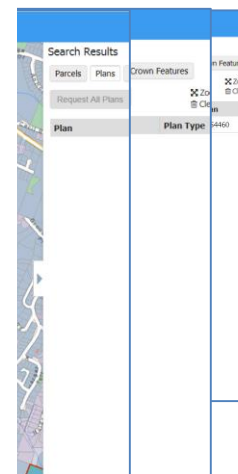
- Parcel_Common_Ownership
- Parcel_Common_Ownership_RealWorldChanges
- Parcel_JUROL_to_PID_Reference
- Parcel_Lines
- Parcel_Points
- Parcel_Polygons
- Parcel_Polygons_RealWorldChanges
- Parcel_Shared_Geometry
- Parcel_Shared_Geometry_RealWorldChanges
- Plans
- Plans_RealWorldChanges
- Spatial_Improvement_Vectors
- Survey_Control_Points

Parcel Points - Estimated Error @95%

- < 20cm
- 20cm - 1m
- 1m - 5m
- > 5m

Survey Control

- GEODETIC, GOOD
- GEODETIC, ANOMALOUS
- GEODETIC, DESTROYED
- SURVEY
- OTHER



ParcelMap BC: Benefits & Opportunities

Single, shared point of reference to drive efficiency

- Increases accuracy & speed of real property transactions
- Supports more informed land-related research, planning & business decisions

Timely Updates

- Published daily with service target of 2 day turnaround (once fully operational)

Authoritative Representation

- Updates from triggers & attribution from land title register and Crown land registry
- Representation updated with datasets from land surveyors based on plan filings

Continual Improvement

- Georeferenced surveys power adjustments and improvements to the parcel fabric
- Change vector output simplifies information alignment

Allows current maintainers to focus on value-add products

- Development Plans: [Surrey adopts Survey Plan Dataset](#) standard
- Cadastral aligned Admin Boundaries & Infrastructure

Thank You - Questions?

More Information Available at:

itsa.ca/ParcelMapBC

Or contact:

ParcelMapBC@itsa.ca