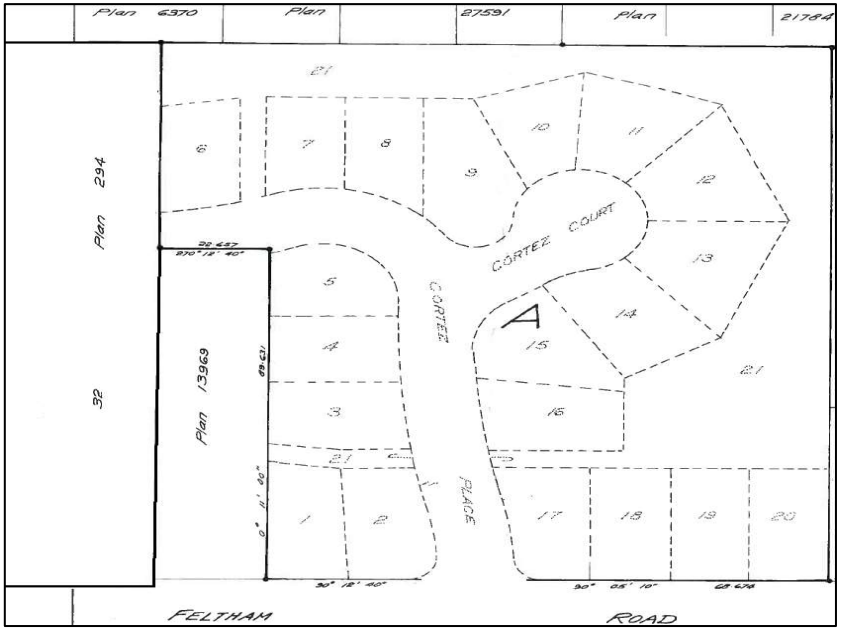
# Fading away: (Agricultural) land use change in Victoria, BC



daniel Brendle-Moczuk

University of Victoria Libraries

**OR**

**An Anti-Fading away technique: Web map(s) to highlight map collection?**

# 20 yards diet: (Remnant) orchards in Victoria, BC

daniel Brendle-Moczuk

University of Victoria Libraries

## Introduction

- **Why?**
  - **last year's project was "unfinished"**
    **and "only" displayed then & now**

- **What? / How?**
  - **show change over time**
  - **highlight map library collection**

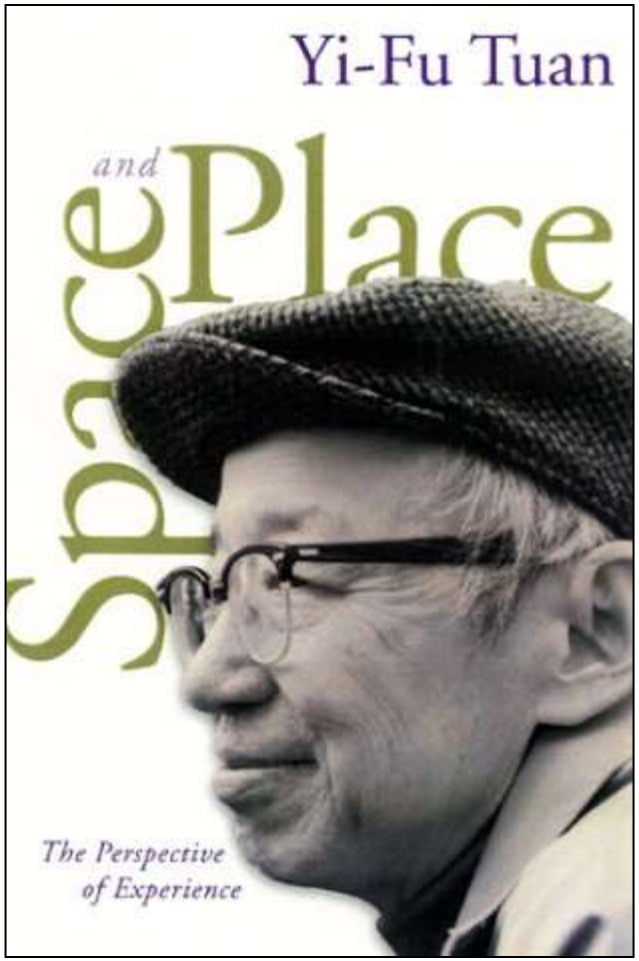
- **Lessons learned**

- **Future?**

## Why?

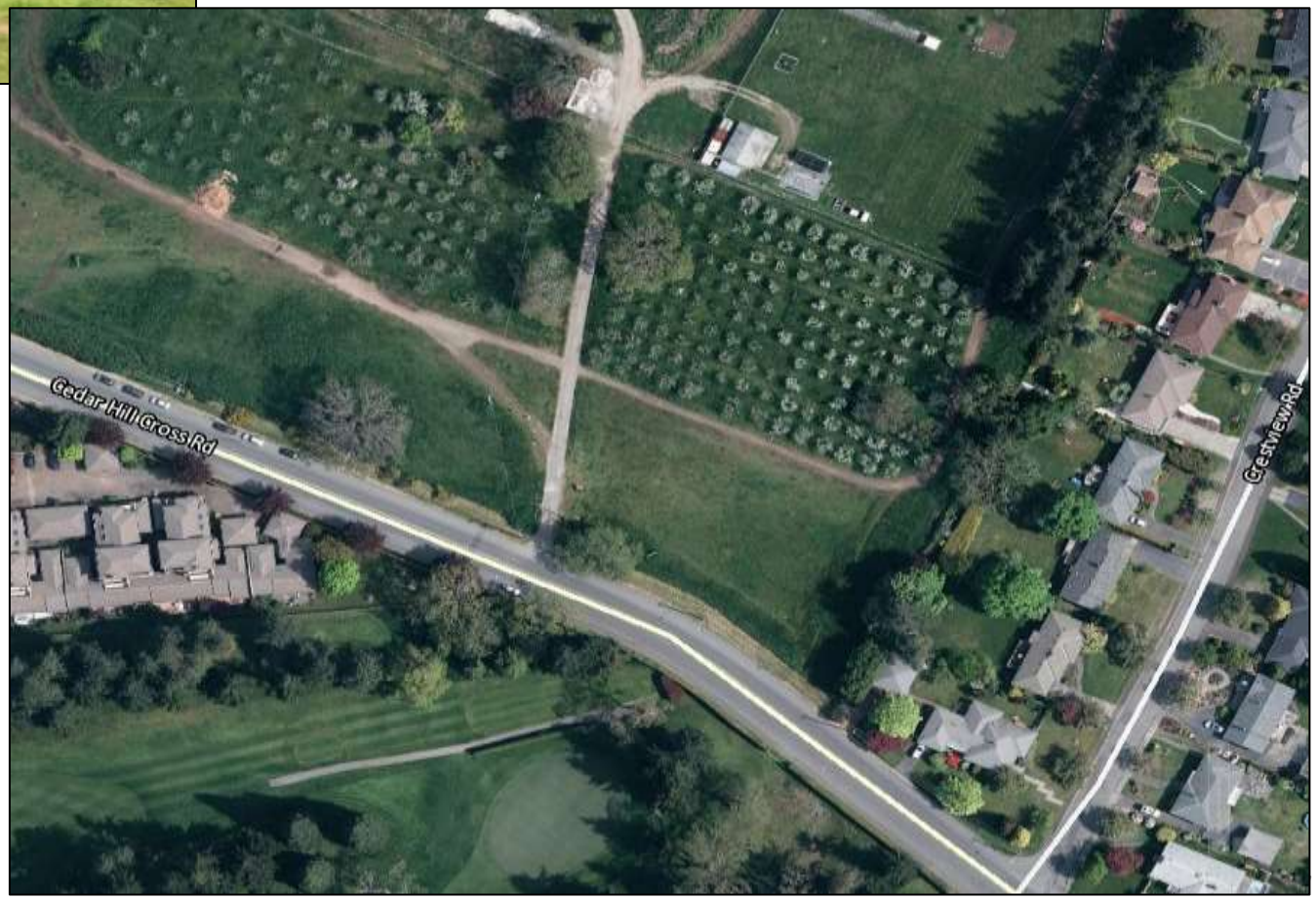
**"To know  a place is also to know the past.**
**Place…is the past and the present..."**

**Yi-Fu Tan, 1975. Place: An Experiential Perspective.**
***Geographical Review* 65(2)**



# Why? Previous presentation/project detailed “only” then (late 1920s) and now

**UVic CJVI lands (dog park)**



## …limitations of using earliest air photos

## UVic CJVI farm land: *BC2042-55*, 1956

# UVic CJVI farm land: *BC5091-266*, 1964

# Why?

- **Change is incremental (usually)**
  - **show change over time**

- **Community / University engagement**

  - **Are paper collections  and websites about the collection enough for promotion?**
- **Web map highlights collection**

- **Land “ownership”**

- **historic urban  geography**
- **provide sense of past**

# How to display change over time

**Touch History YouTube video (1:20 min mark)**

**(Louis-Pascal Rousseau, McNeil Center for Early American Studies, University of Pennsylvania)**

**ahhhh; how do they do that?**

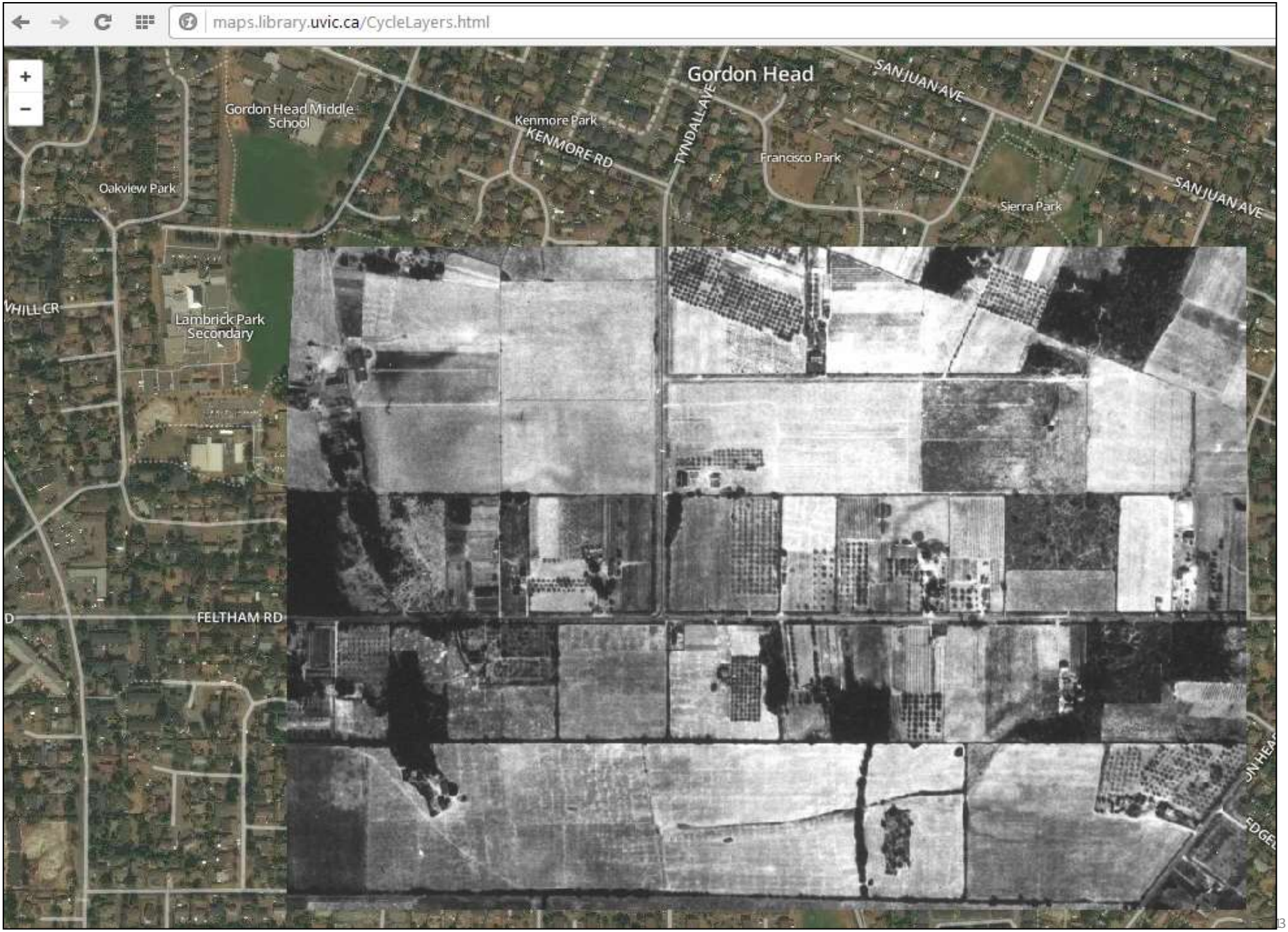
## How to display change over time

- **Can airphotos and maps detail the loss of agricultural land?**
  - **(or any land use change over time?)**

- **What kinds of maps?**
  - **Road / Street (networks)**
  - **Fire Insurance**
  - **Zoning**
  - **Cadastral (property / land title) plans**

**Map Libraries are filled with “change over time”!**

# area in Saanich, Victoria, BC



## BC Cadastral (property / land title) plans

- **Lot**
- **Section**
- **District**
- **etc depending where in the province…**

# Maps and land “ownership”

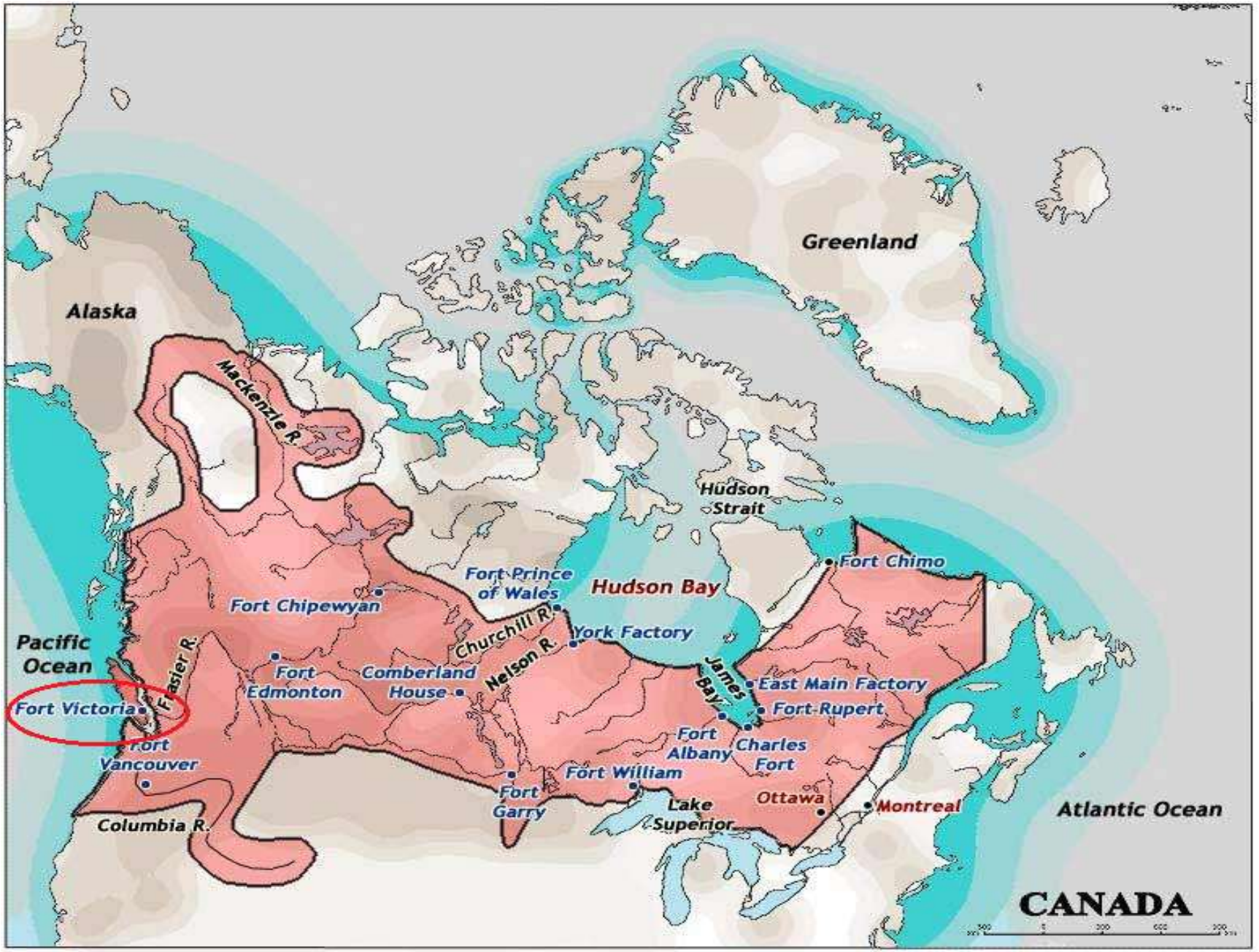
- **Who?**

- **From When to when?**

# First Peoples “Traditional” Lands

**Deborah Reade, Seattle Art Museum**

# Hudson's Bay Company "administered lands"



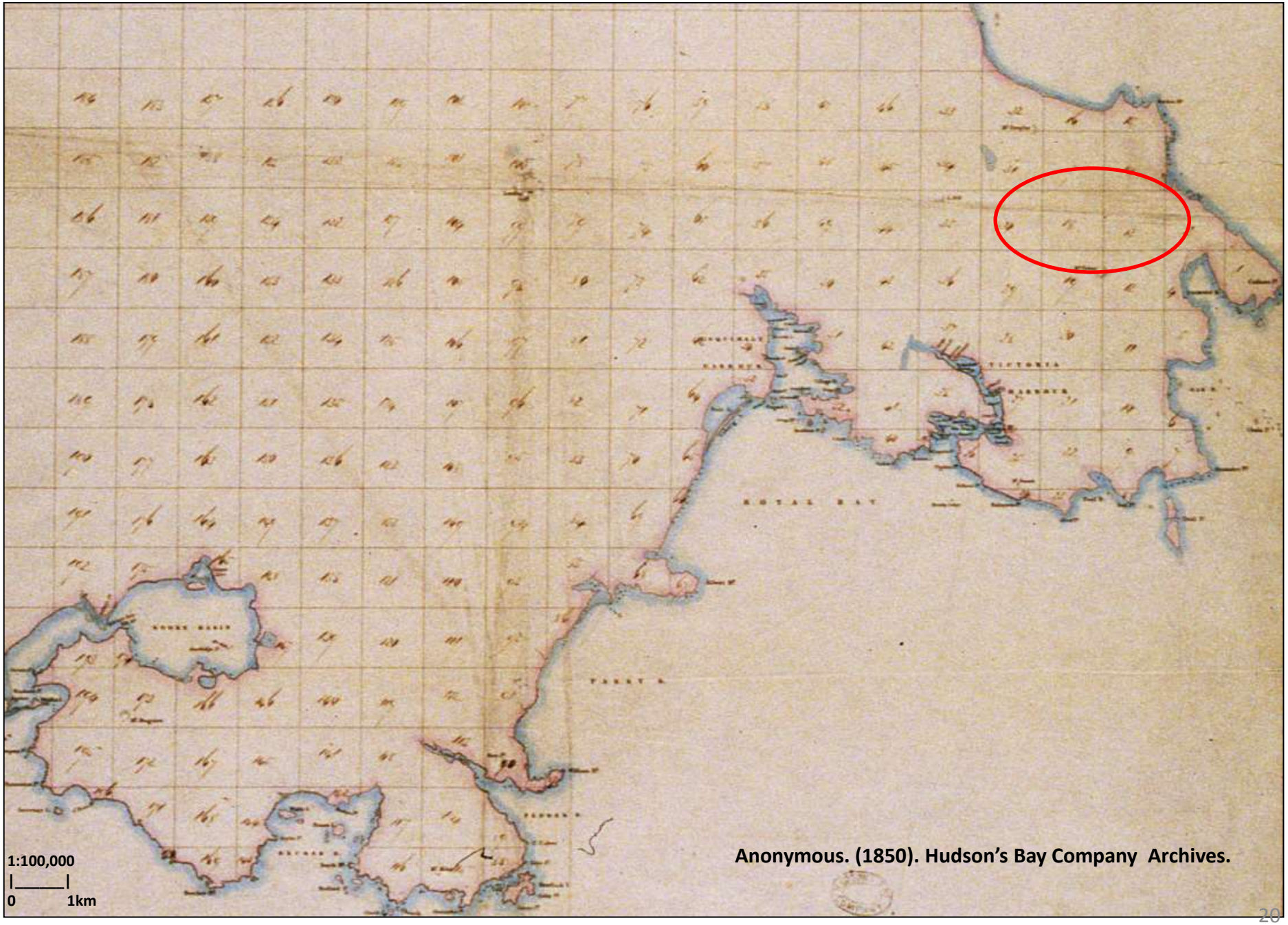
# James Despard Pemberton, 1821 – 1893

**Surveyor: Hudson's Bay Company at Fort Victoria (1851-1859)**

**Surveyor General: Colony of Vancouver Island (1859-1864)**

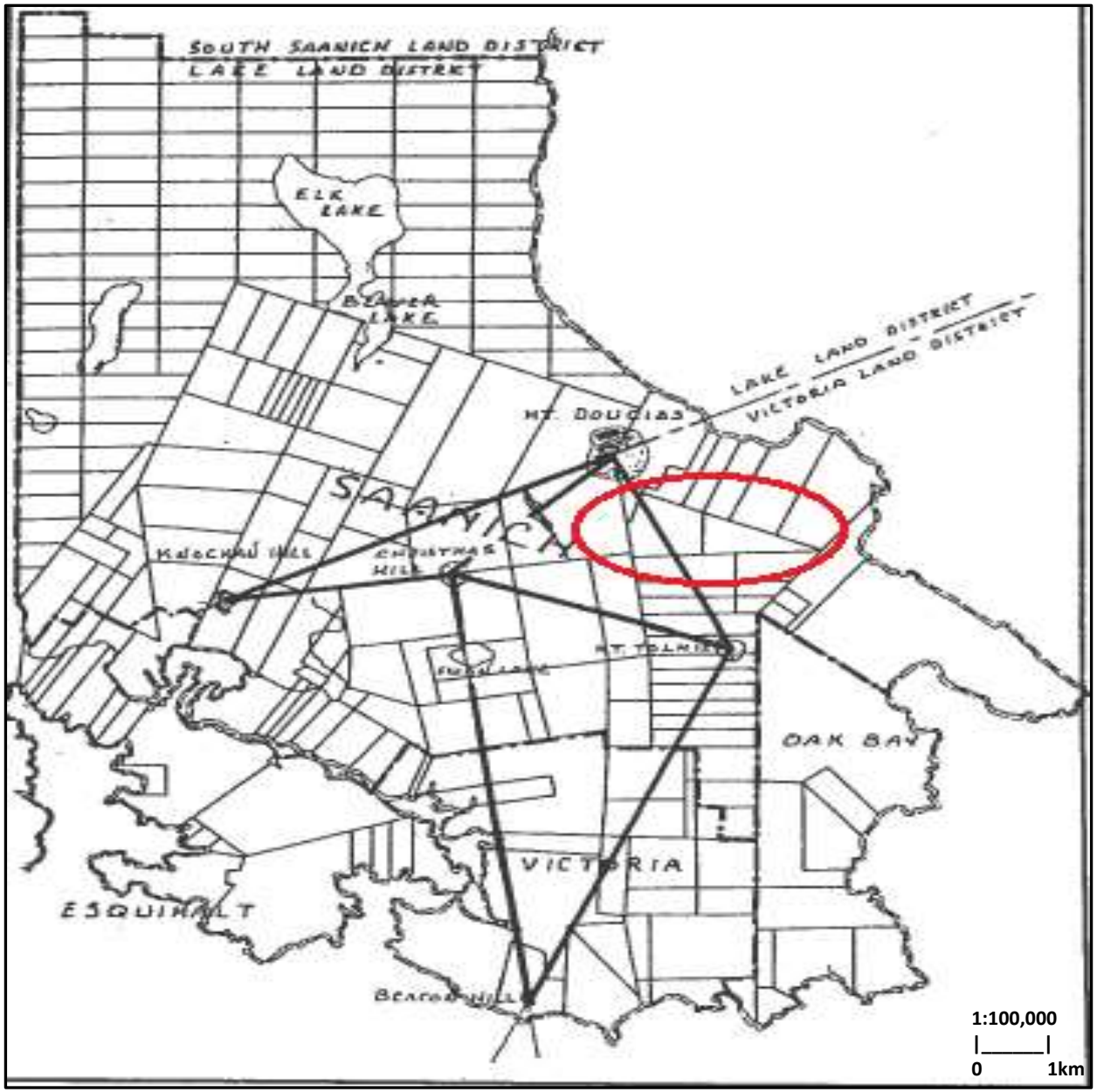
**[part of] South Eastern districts of Vancouver Island, from a trigonometrical survey…(1855)**

# Block / Grid survey for Victoria rejected…



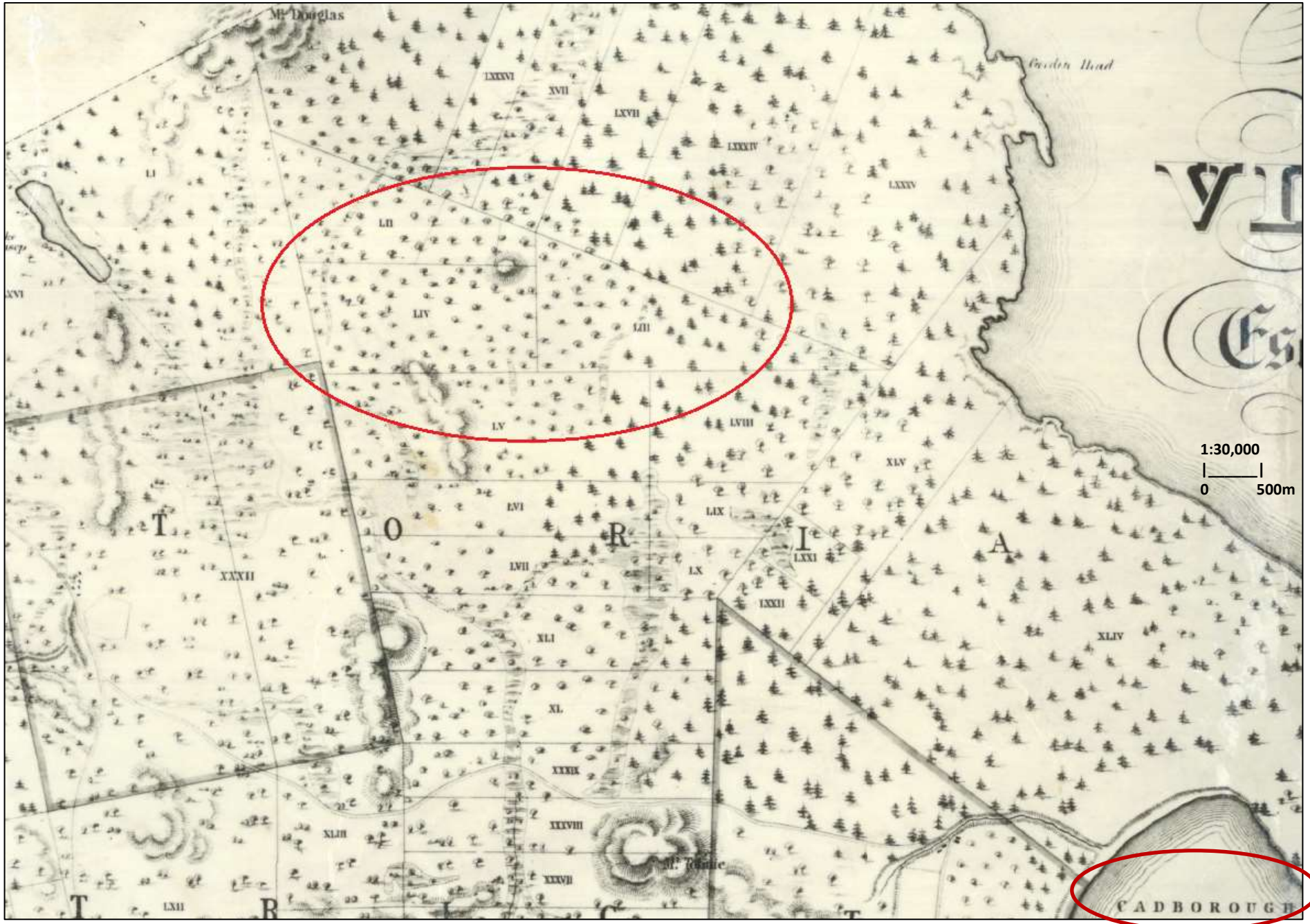

Anonymous. (1850). Hudson's Bay Company Archives.

# [reproduction from] J.D. Pemberton notebook *Trigonometl Memda* c.185?

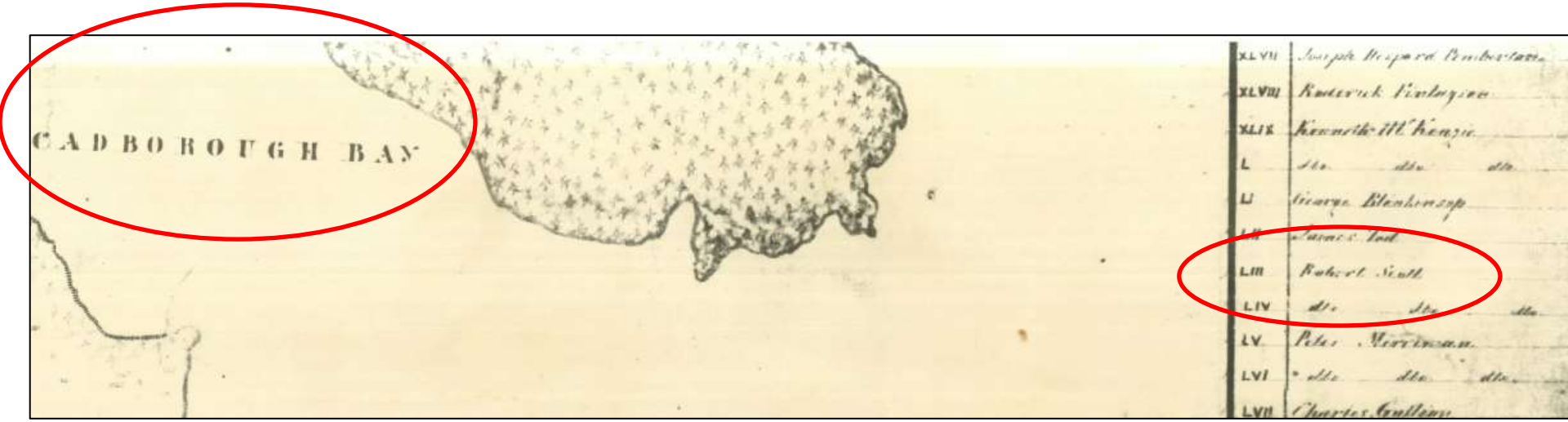



Regan, J.P. (1986). Hudson's Bay Company Lands and Colonial Surveyors on Vancouver Island, 1842-1858. *BC Historial News* 19 (2).

# [part of] Map of Victoria…Districts, Sections LIII & LIV, 1861



# [section of] Victoria Districts Official Map, 1858




| Section | Owner |
|---|---|
| LIII | Robert Scott |
| LIV | |

## Rosemount house, Robert (Bob) Scott, c.189?

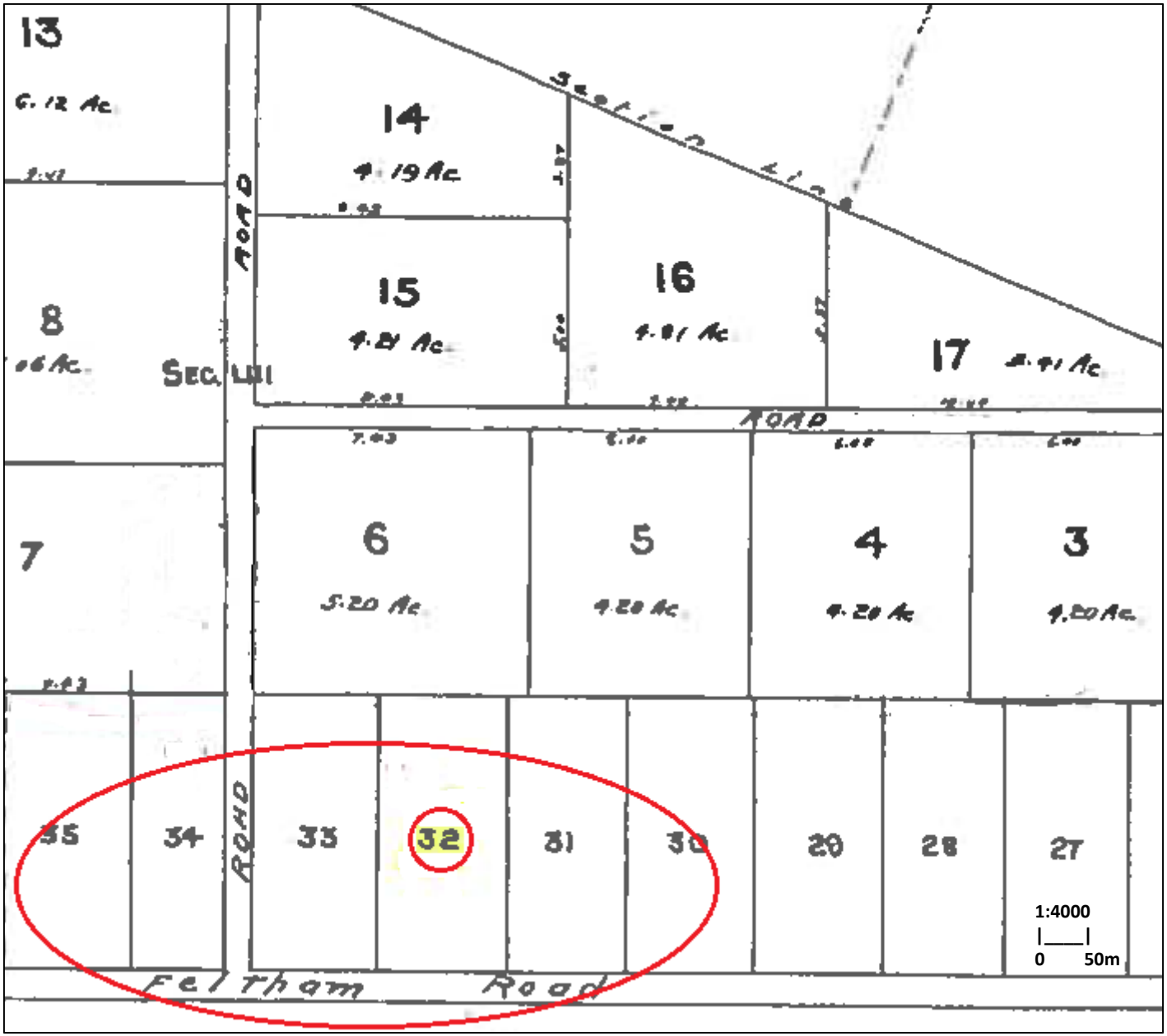
**Saanich Archives # 2011-024-097**

**[part of]** ***Map of the South-eastern Districts of Vancouver Island, B.C. 1880***

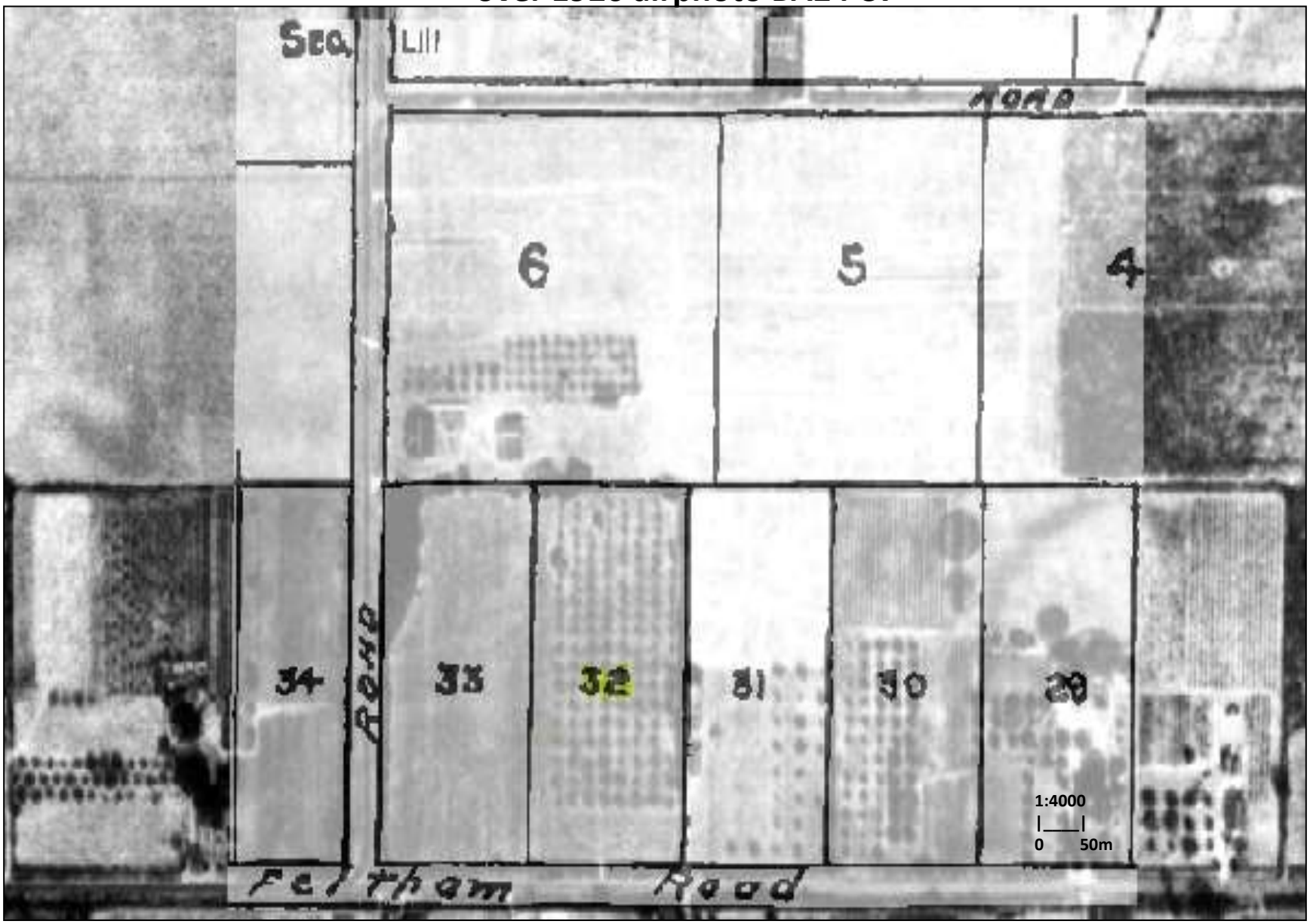
**[part of] *Plan* [294] *showing subdivision of part of section 53* [LIII], 1890**

**Lot 32: 5.7 acres (approx. 4.3 football fields)**
**surrounding area more apparent on next slide…**

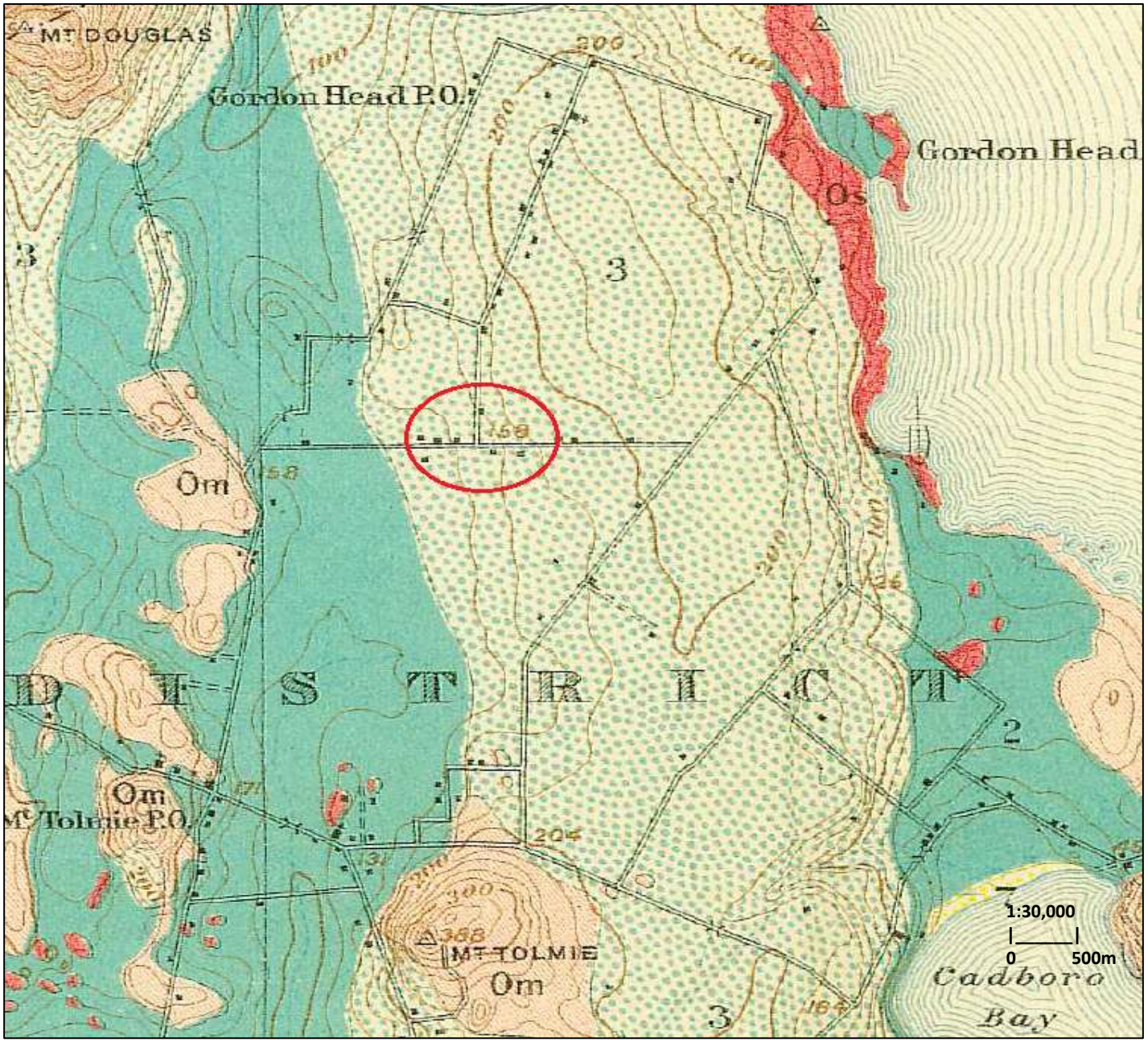
**[part of] *Plan* [868] *showing subdivision of part of Sec.53…, 1907***



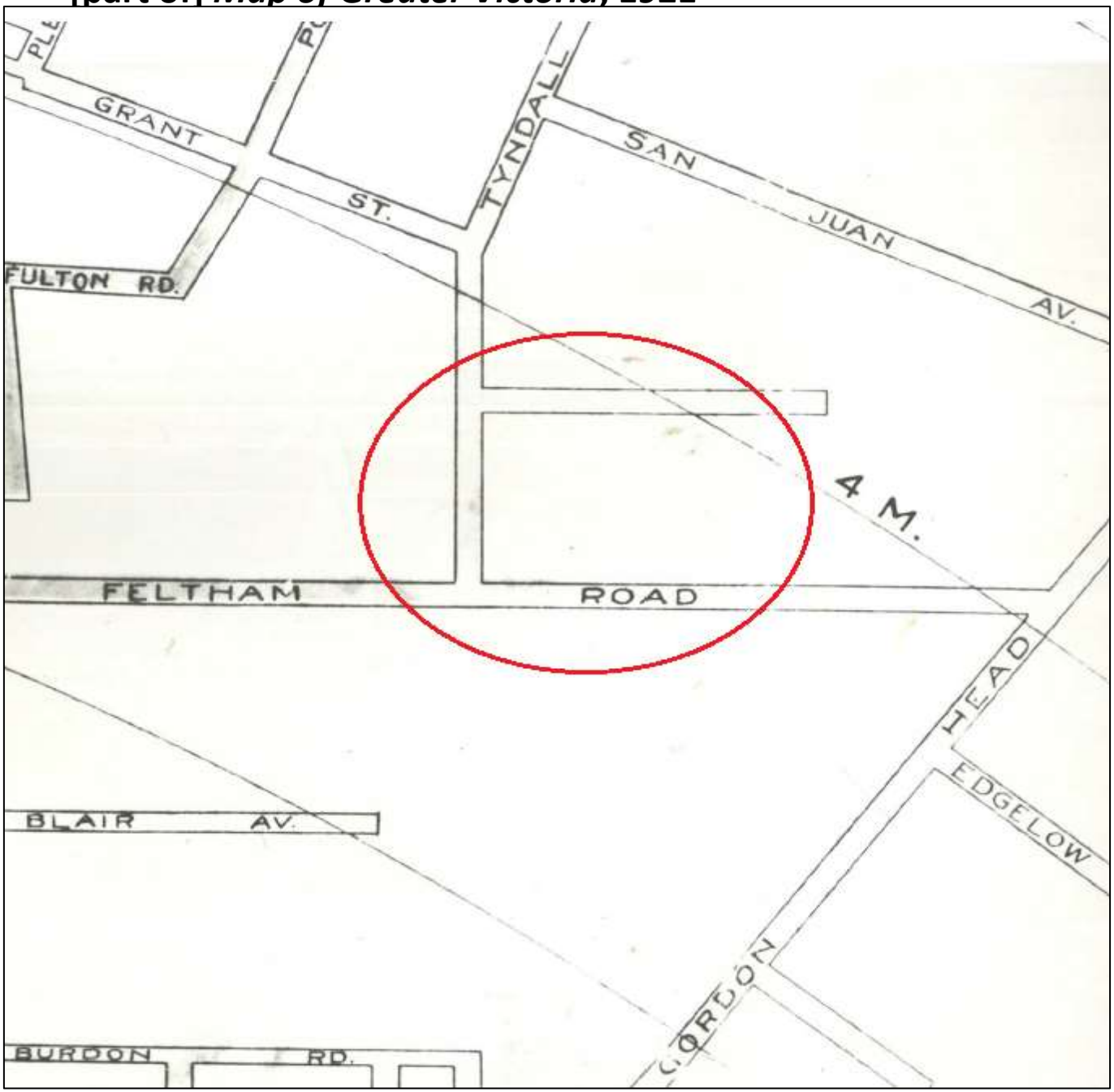
**[part of] *Plan* [868] *showing subdivision of part of Sec.53…,* 1907 over 1926 airphoto BA24-37**



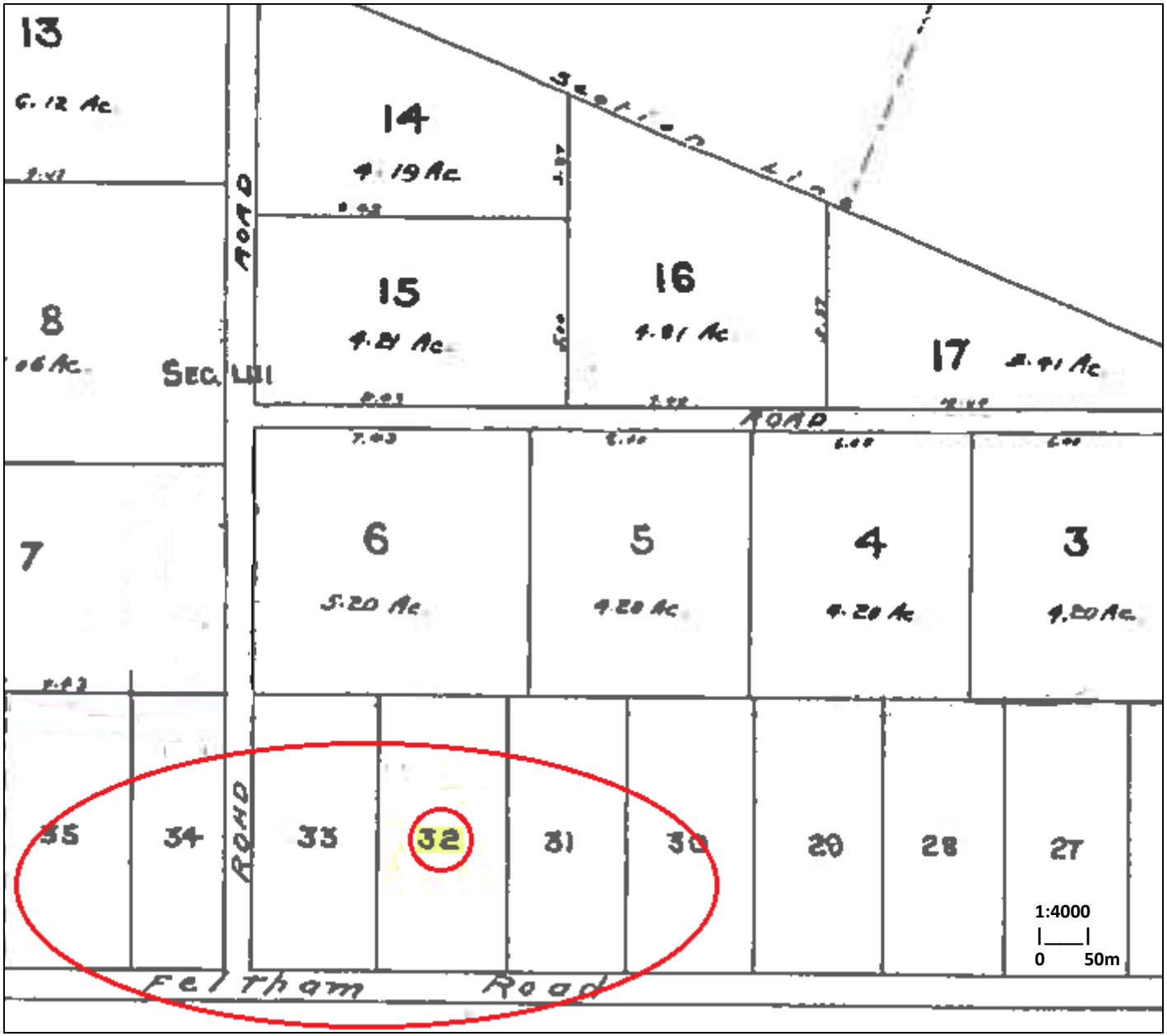
# [part of] Geological Survey of Canada *Map 20A*, 1911



**[part of] *Map of Greater Victoria*, 1921**

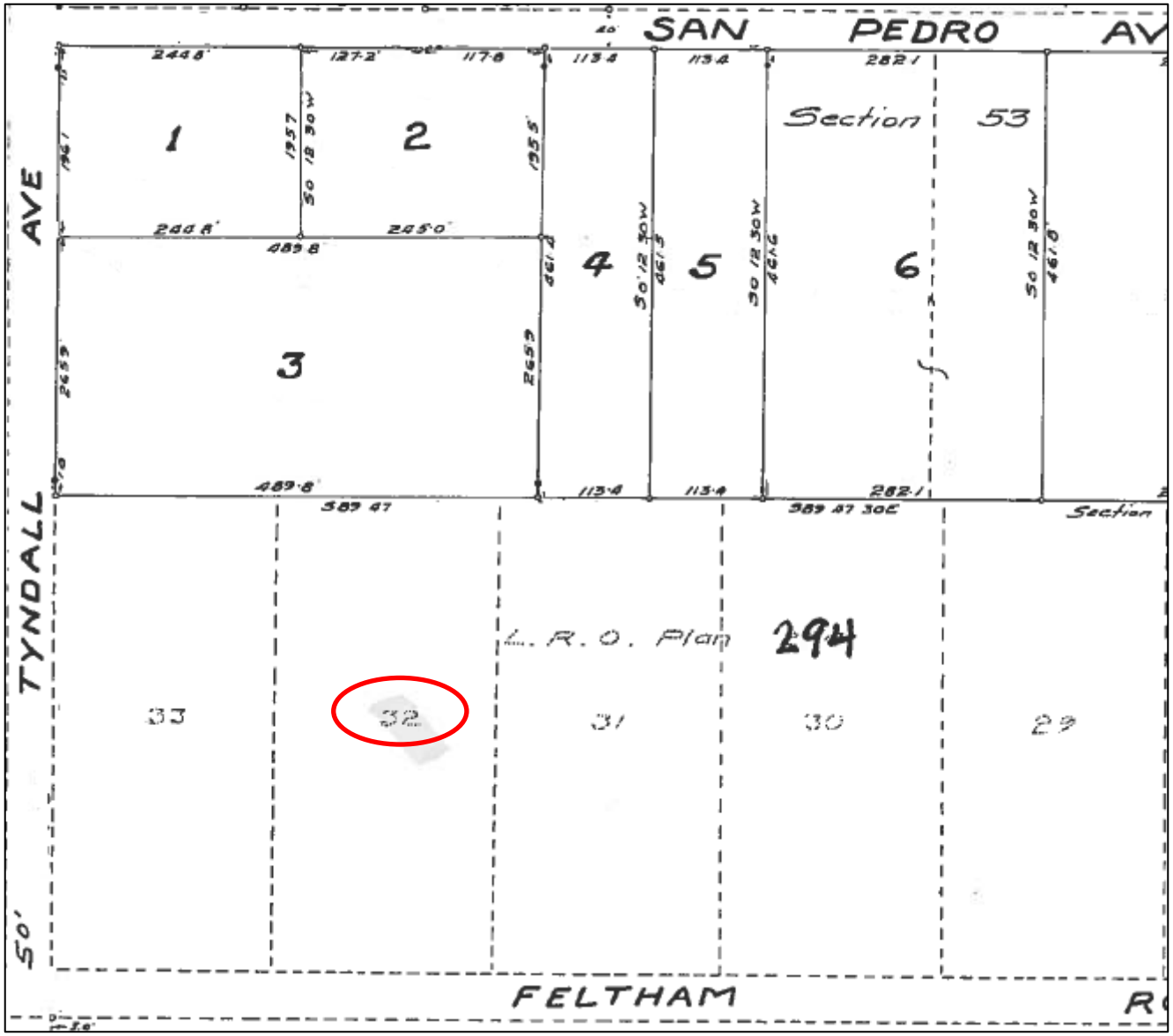


## *Plan* [868] *showing subdivision of part of Sec.53…, 1907*



# [part of] *Plan* [6370] of *subdivision…Section 53…*, 1947

**Lots 5 & 6 north of Lot32**



**Lot 33 west of Lot 32**

**first plan with owner signatures, 1954**

# PLAN Nº 9830

Approved under the "Land Registry Act" this 1st day of March 1954

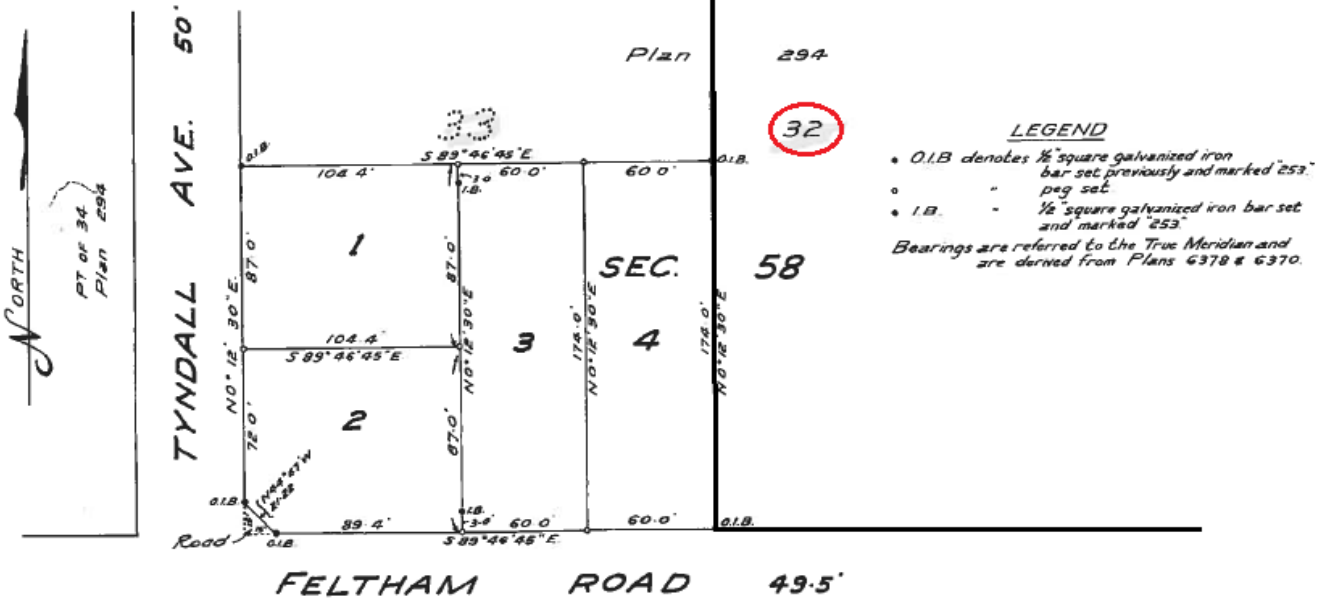
Approving Officer, Saanich Municipality

Deposited in the Land Registry Office at Victoria, B.C. this 22nd day of June 1954

Deputy Registrar

## PLAN
OF SUBDIVISION OF
## PART OF LOT 33, PLAN 294,
SECTION 58, VICTORIA DISTRICT

Scale: 1 inch = 50 feet




LEGEND

- O.I.B denotes ½" square galvanized iron bar set previously and marked "253"
- " - peg set
- I.B. - ½" square galvanized iron bar set and marked "253"

Bearings are referred to the True Meridian and are derived from Plans 6378 & 6370.

Owners [signature] [signature]

Witness: [signature] as to both signatures

I, J.R.C. HEWETT of the City of Victoria, British Columbia Land Surveyor, make oath and say that I was present at and did personally superintend the survey represented by this plan and that the survey and plan are correct. The said survey was completed on the 20th day of February 1954.

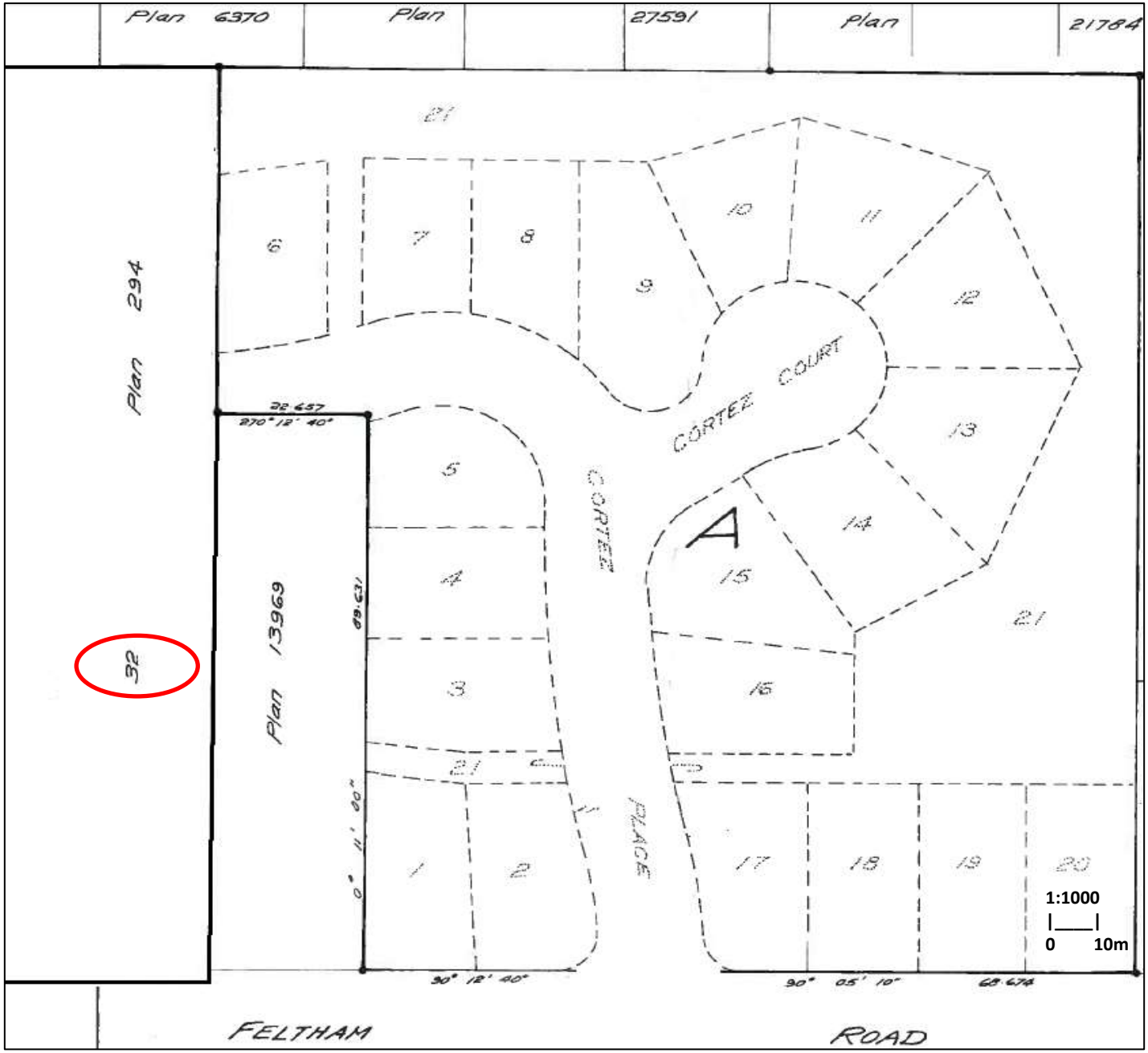
SWORN before me this 22nd day of February 1954 [signature] B.C.L.S.

[signature] A Commissioner for taking affidavits within British Columbia

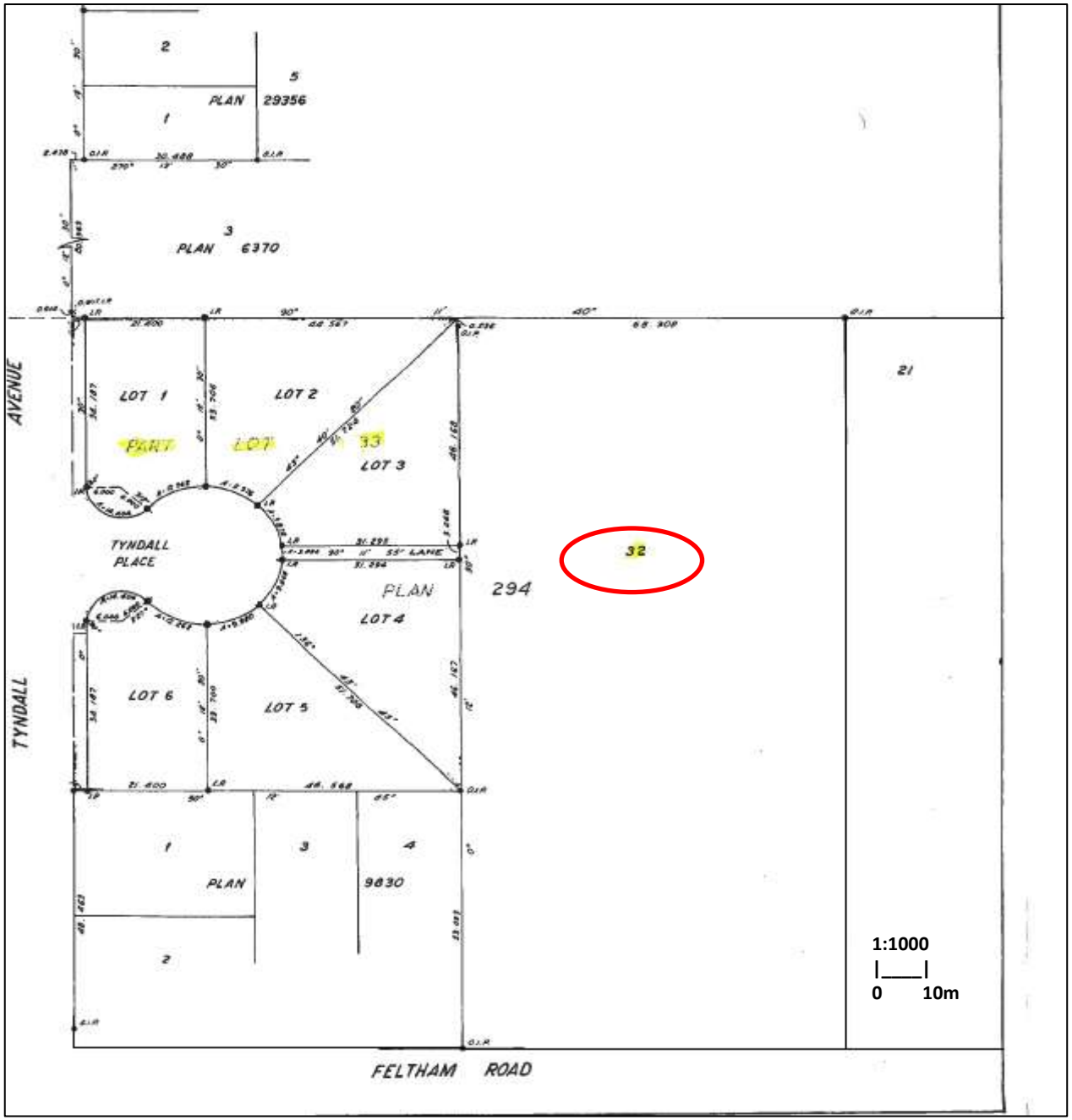
HEWETT & SMYTHIES, B.C. Land Surveyors, Victoria, B.C.

#1097. R.3 F.B. 158/67

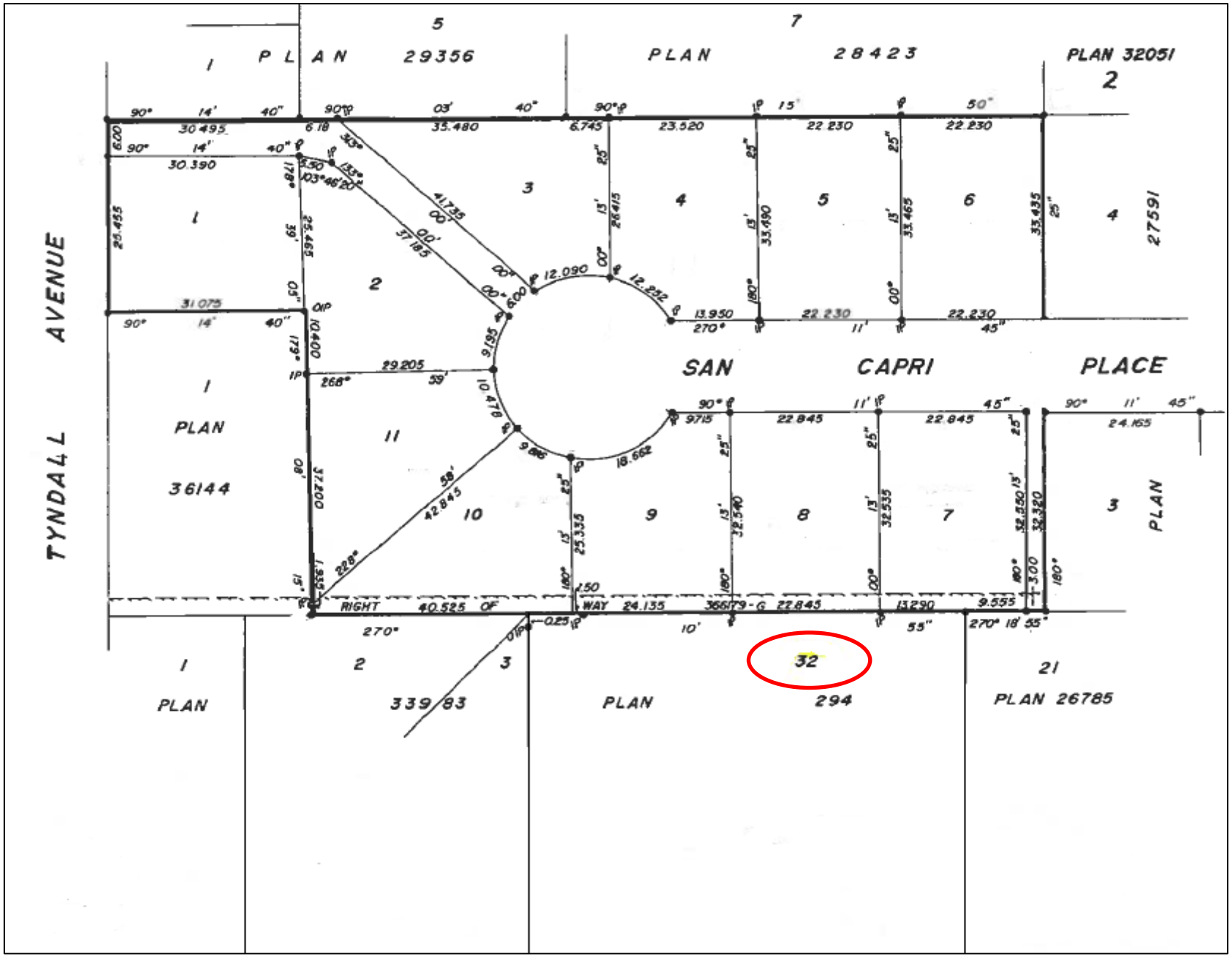
# [part of] *Plan* [26785] of *subdivision of Lot 30, Section 58…, 1973* (east of Lot 32)



# [part of] *Plan* [33983] of *subdivision of remainder of Lot 33, Section 58…*, 1980 (east of Lot 32)



# [part of] *Plan* [37375] of *subdivision of Lot 2 Section 53…*, 1981 (north of Lot 32)



**difficult to follow all the sub-dividing?**

## How to show the change over time from the above previous slides?

- ArcGIS on-line recently started supporting raster files as “tile layers”
- Cartodb supposedly supports rasters
- Click2Map ?
- GeoCommons ?
- MangoMap supposedly supports rasters…
- ScribbleMaps ?
- ZeeMaps ? (also $20 month!)

**BUT….with all of the above….I don’t just want a raster (background) layer**

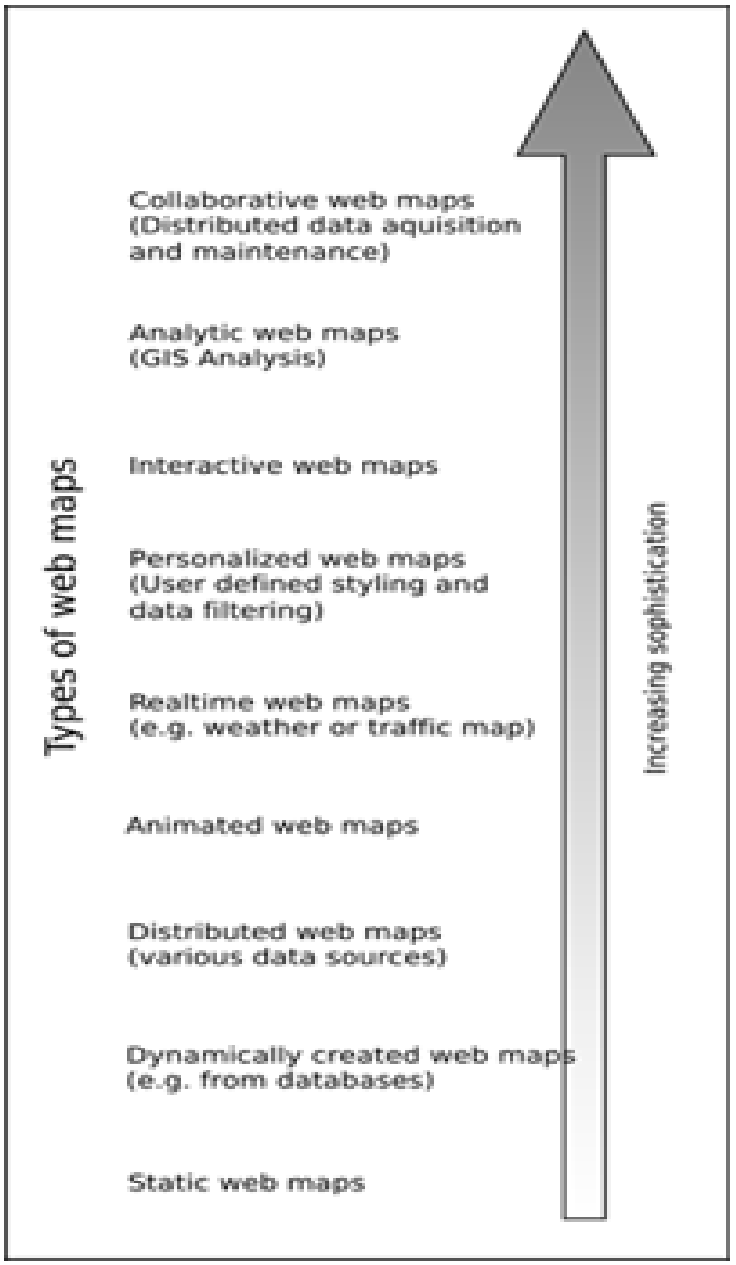
**AND**

**I want users to have some control over what they display**

# WebMaps

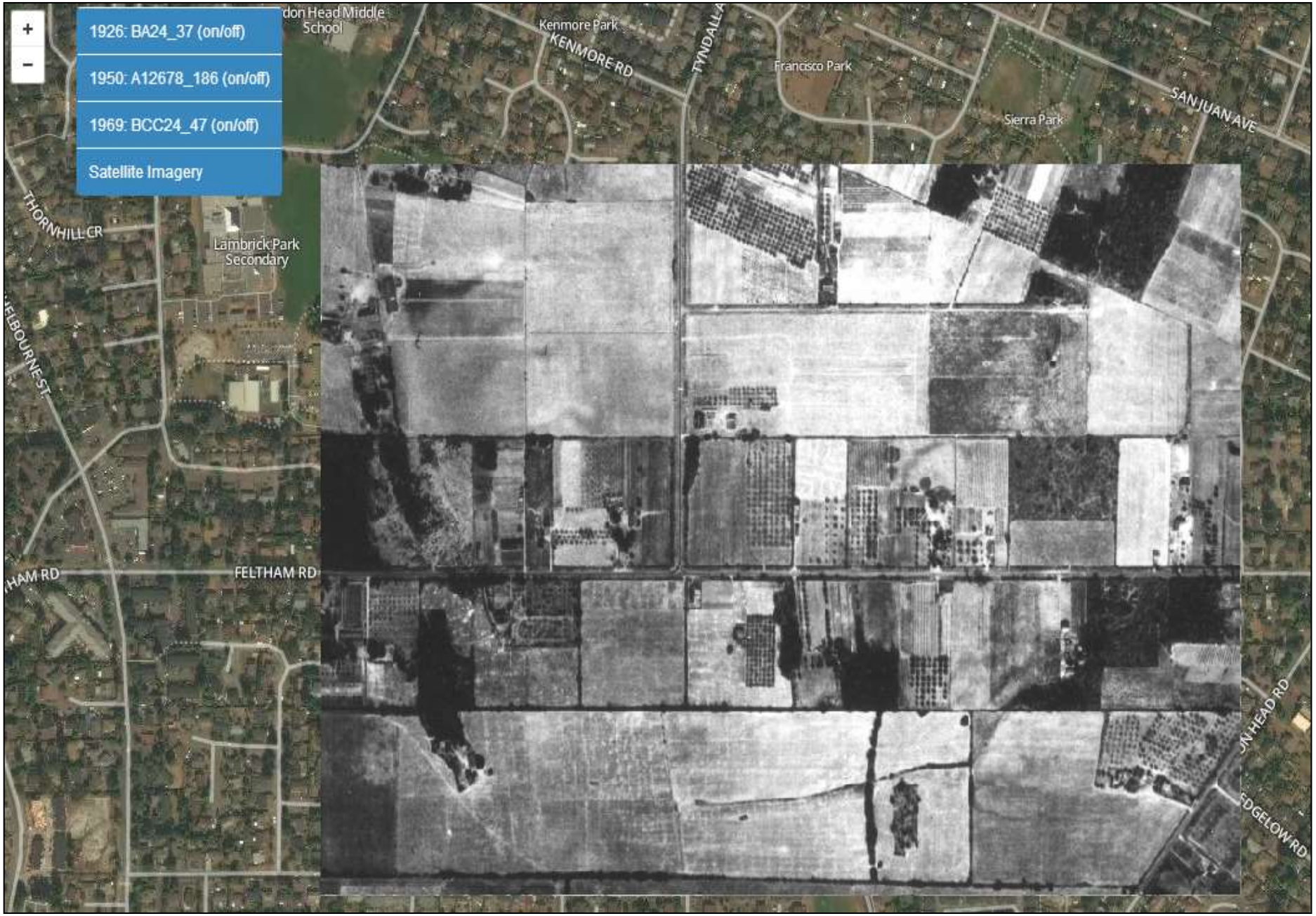
## Types of webmaps

- (static) image (.jpg, .png)
- .pdf with elements to turn off/on
- zoom, pan
- zoom, pan, elements to turn off/on
- download data
- upload data
- some spatial analysis

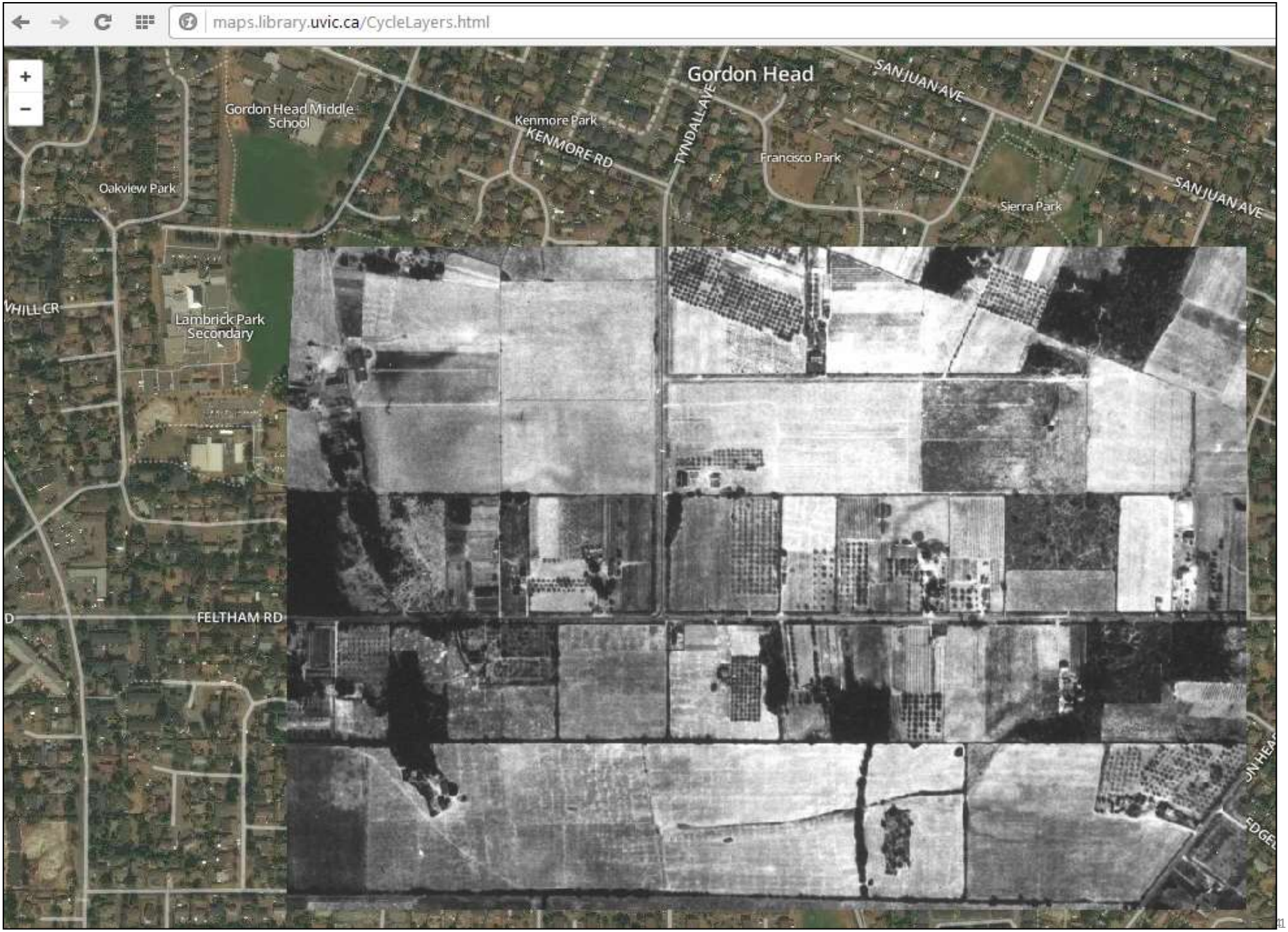



Jan-Menno Kraak *Web Map Classification*, 2001

# How to display? Turn layers on/off?

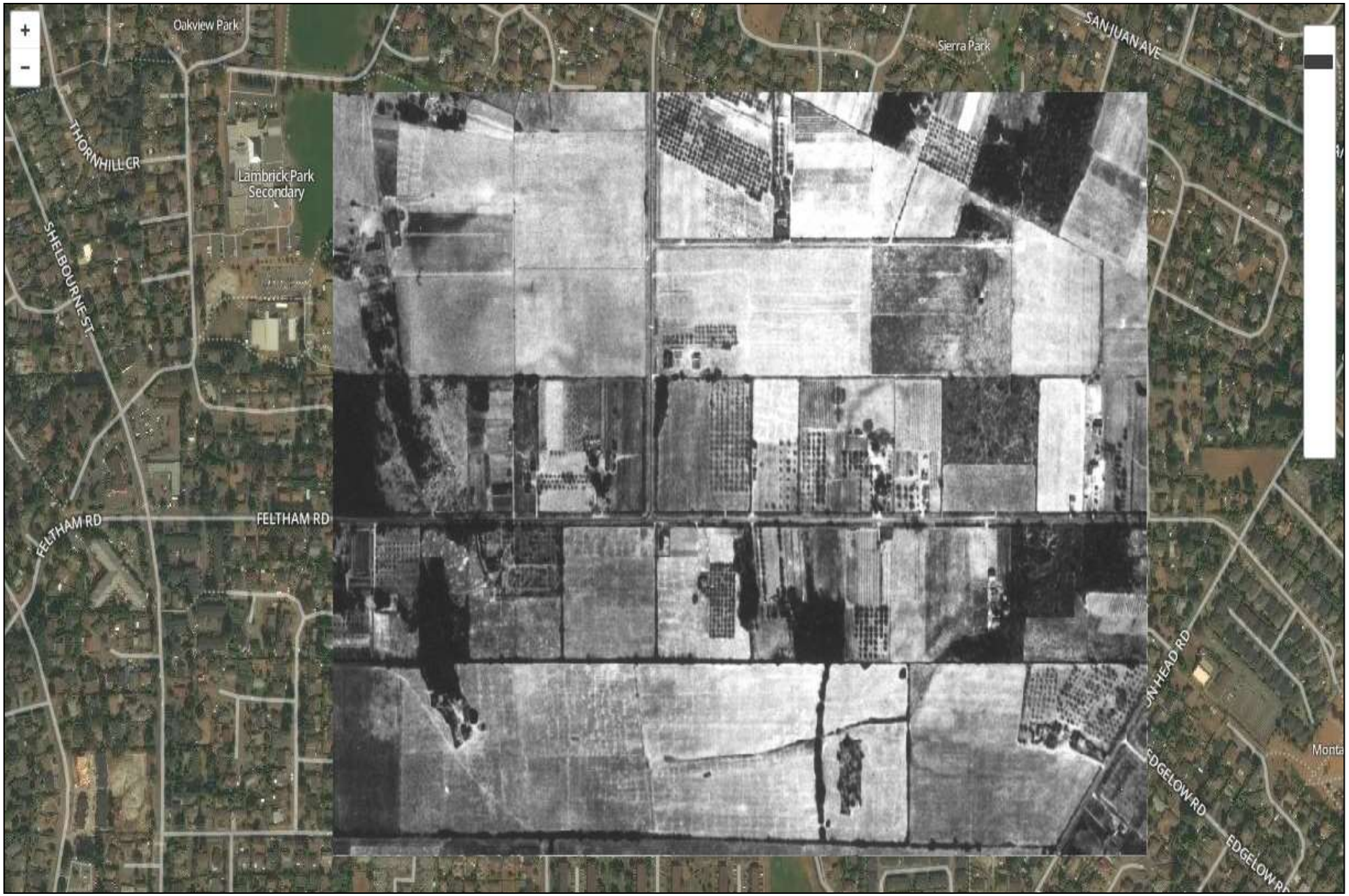


# How to display? [Auto-Cycle Layers]



# http://maps.library.uvic.ca/LandChangeSurveyPlans.html

# http://maps.library.uvic.ca/LandChangeAirPhotos.html



code

MapBox has hundreds of examples with code

```
<html>
<head>
<meta charset=utf-8 />
<title>Opacity control</title>
<meta name='viewport' content='initial-scale=1,maximum-scale=1,user-scalable=no' />
<script src='https://api.tiles.mapbox.com/mapbox.js/v2.0.1/mapbox.js'></script>
<link href='https://api.tiles.mapbox.com/mapbox.js/v2.0.1/mapbox.css' rel='stylesheet' />
<style>
  body { margin:0; padding:0; }
  #map { position:absolute; top:0; bottom:0; width:100%; }
</style>
</head>
<body>

<style>
.ui-opacity {
  background:#FFF;
  position:absolute;
  left:10px;
  top:70px;
  height:200px;
  width:28px;
  border:1px solid rgba(0,0,0,0.4);
  border-radius:3px;
  z-index:1000;
  }
.ui-opacity .handle {
  position:absolute;
  background:#404040;
  left:0;
  top:20px;
  width:26px;
  height:10px;
  border-radius:1px;
  cursor:pointer;
  cursor:ns-resize;
  }
  .ui-opacity .handle:hover {
    background:#303030;
    }
</style>
```

# Why the growth / land change?

**Population:**

**1901: 26,884**

**1911: 43,604**

---

**1921: 63,896**

**1931: 69,733**

**1941: 86,011**

**40.8% increase!**

**1951: 121,712**

**33.8% increase**

**1961: 162, 452**

**1971: 195,845**

**1981: 233, 481**

**1991: 287, 897**

## Why the growth / land change?

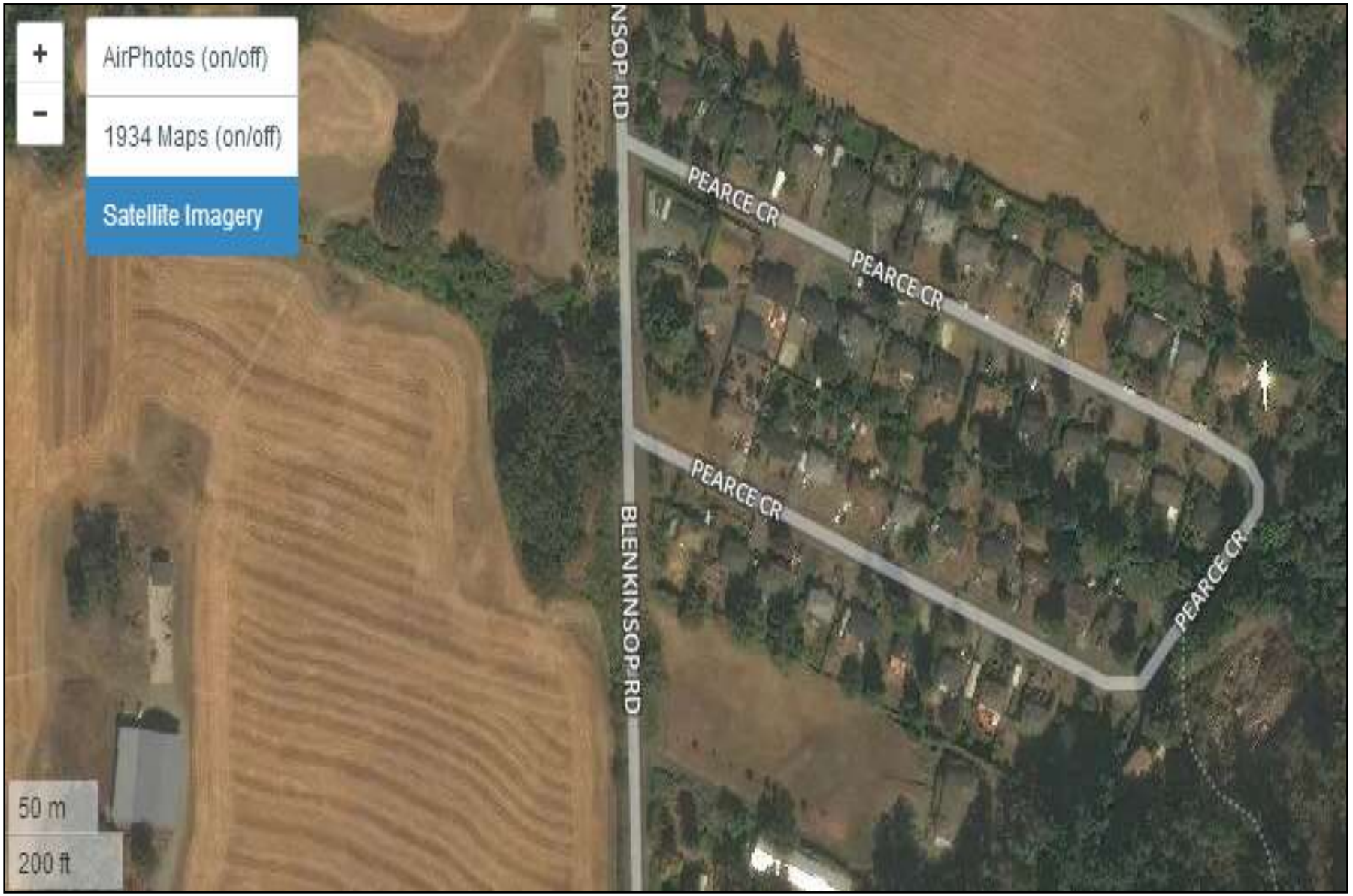
**Zoning: 1924 Oak Bay Zoning by-law**

**1936 Saanich by-law (Lot 32 study area)**

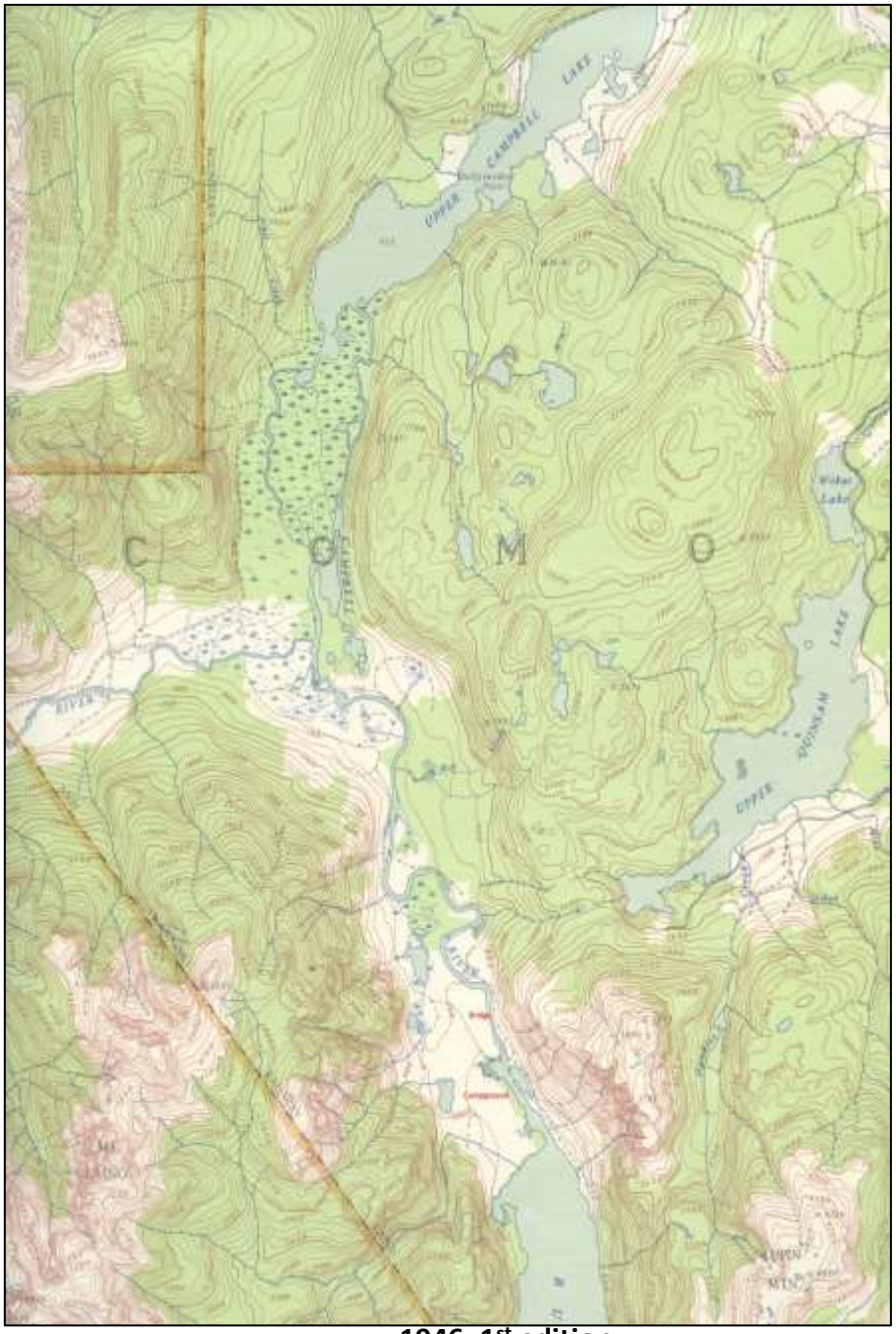
**BC's Agricultural Land Commission was ("only") established between 1972 – 1974 which in turn established Agricultural Reserve Land(s)**

**Pearce Cres. in the midst of agricultural land**

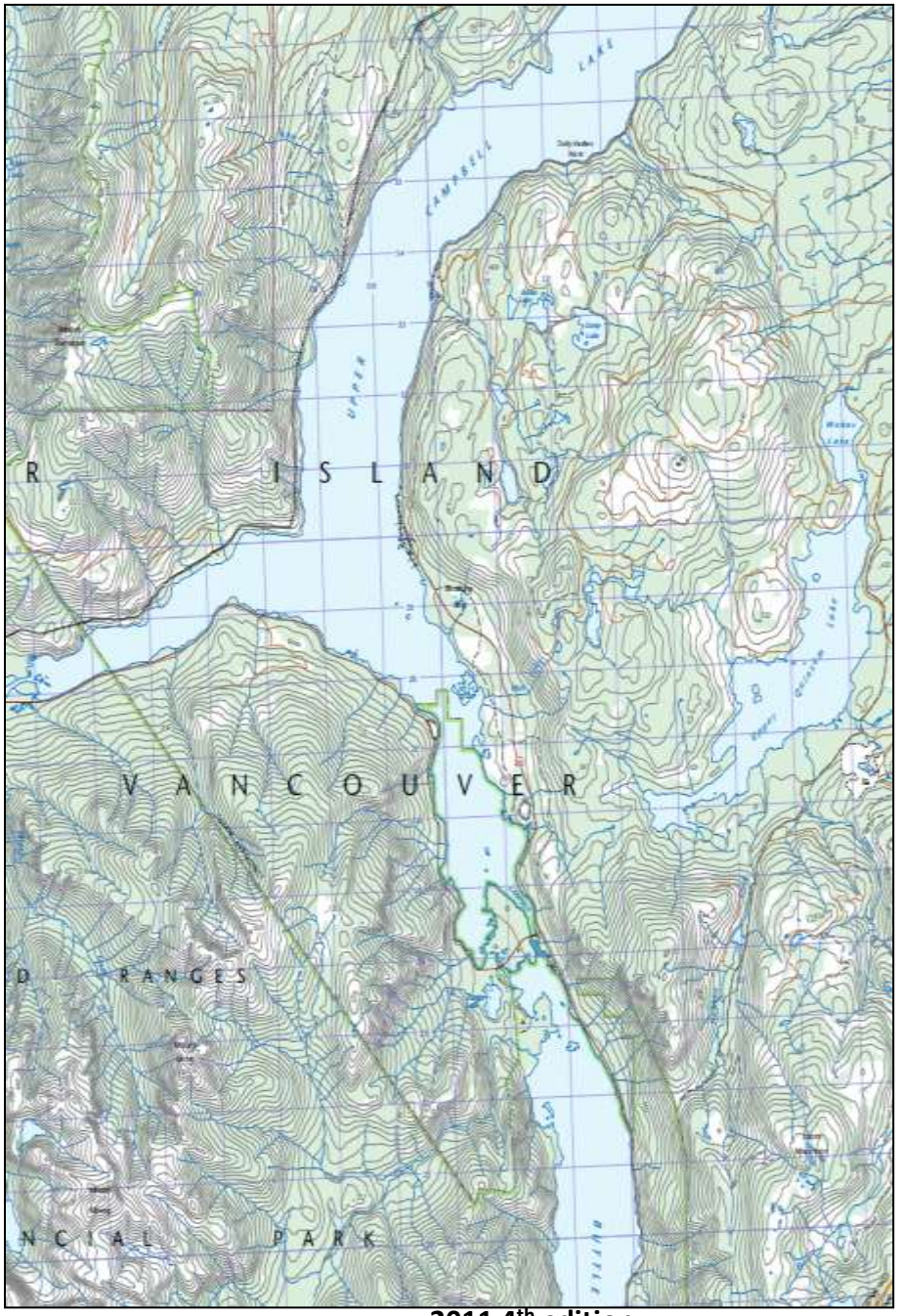
**built in early 1960s before the establishment of the BC ALC in 1972-74**



# (part of sheet) 92F/12: before / after 1952-54 dam construction




1946: 1st edition




2011 4th edition

## Map Libraries are filled with “change over time”!

- **Can web maps highlight our collections?**

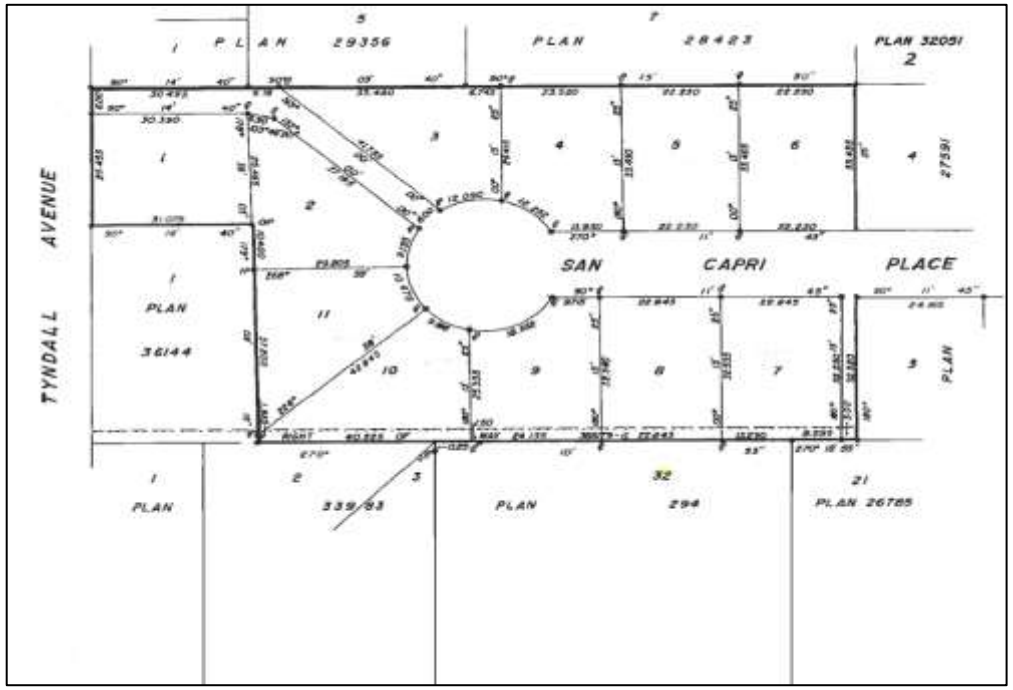
- **Web maps: “hot like chicken s**t”**

# Conclusions…

- **Urban agriculture is a good thing…**

- **Web maps of items in our collections might increase awareness…**

# “Place…is sustained…by the quality of human awareness.”



Yi-Fu Tan, 1975. Place: An Experiential Perspective. *Geographical Review* 65(2)