



# BEYOND OUR COSMOS

**Session: GIS Application and Data Integration**

**Presented by: Mark Laudon - GIS Analyst, City of Surrey**



Fraser River  
Parson's Channel  
North Arm  
Annacis Channel  
Annieville Channel  
Mud Bay  
Boundary Bay  
Semiahmoo Bay

# OUTLINE

Background

Vision

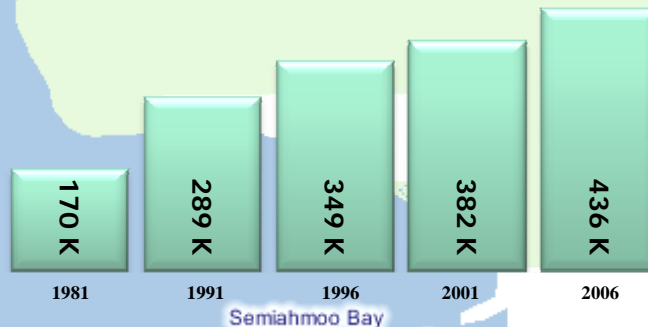
COSMOS Integration – To Date

COSMOS Integration – The Future

Questions

# BACKGROUND

- Rapidly growing city (pop >400k)
- Increased population = increased data to maintain and share
- Over 90 internal information systems, over 60 specialized apps
- COSMOS launched 2004 internally, 2005 public



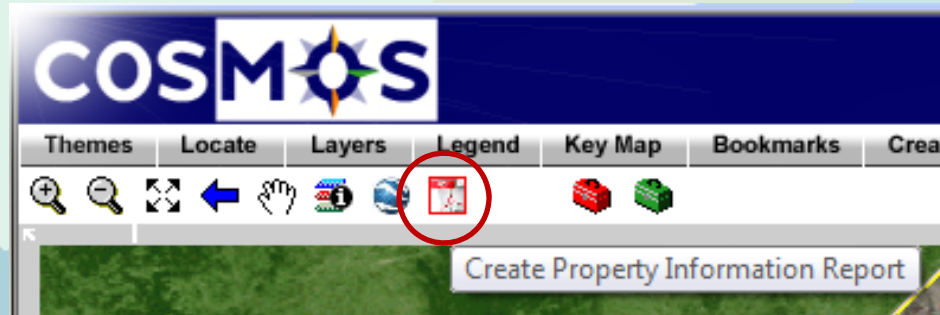


# OUR VISION

- Provide data/application integration to:
  - increase the City's level of service to its residents and business community
  - to streamline internal City business processes
- Leverage web based information delivery solutions = COSMOS

# TEMPEST

- Tempest - property management software for municipalities
- COSMOS Property Report



**Street Address**

Street Address: 2063 INDIAN FORT DR

**Owner Information**

Owner Name: [REDACTED]

Mailing Address: 2063

**Property Details**

PID: 025-773-224

Property Number: 215665

Folio: 5183-90006-1

Lot: A

Legal: LT A SEC 18 TWP 1 PL BCP7918 NWD

Plan Number: BCP7918

Lot Size: 1.869 ACRES

**Assessment Details**

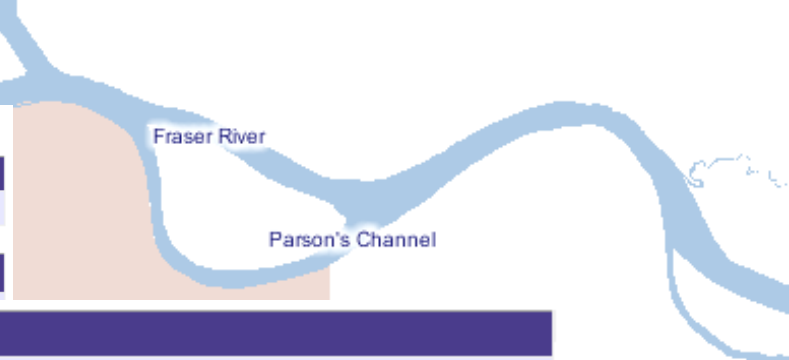
Year	Gross Land	Gross Improvements	Gross Assessment
2004	\$1,666,000.00	\$755,000.00	\$2421000
2005	\$1,943,000.00	\$780,000.00	\$2723000
2006	\$2,313,000.00	\$1,231,000.00	\$3544000
2007	\$2,591,000.00	\$1,249,000.00	\$3840000

**Utility Details**

Service	Start Date	End Date
ANNUAL SEWER - RESIDENTIAL REGULAR	01/Jan/2004	
ANNUAL WATER	01/Jan/2004	
ANNUAL GARBAGE - REGULAR	01/Jan/2004	31-Dec-2004
GARBAGE - REGULAR	01/Jan/2005	

**Legal Plan**

BCP07918



For more detailed property information, click [here](#) to access the City of Surrey's Property Taxation Online Inquiry.

# AMANDA

- Amanda - automating government enterprises by tracking jurisdiction's activities relating to Property and People

## ▣ Amanda Info

CENTURY:	20
YEAR:	07
FOLDER_NUMBER:	07-0212-00
FOLDER_TYPE:	PR
STATUS_CODE:	11
STATUS_DESC:	Concluded
INDATE:	2007-07-31 00:00:00.0
FINALDATE:	
FOLDER_DESCRIPTION:	Development Variance Permit to vary maximum height requirement for a four (4) storey mixed-use building.
PLANNER:	AGA
PLANNING_AREA:	South
PROPERTYRSN:	44723
ADDRESS:	2958 King George Hwy
ROLLNUMBER:	5224120020
PID:	011-355-913
EXISTING_ZONE:	R-F, R-S
EXISTING_OCP_DESIGNATION:	URB
PROPOSED_TOTAL_UNITS:	
PROPOSED_TOTAL_DEV_AREA:	
PROPOSED_ZONING_DES_RZ:	RT-1
PROPOSED_ZONING_DES_SD:	
NUMBER_EXISTING_LOTS:	
NUMBER_PROPOSED_LOTS:	
PROPOSED OCP DESIGNATION:	

# PURCHASE SPATIAL DATA

## •Geocortex Data Distributor/SAFE Software's Spatial Direct

### Data Distributor

This wizard will guide you through the process of extracting spatial data. First, indicate how you will choose the features to extract.

#### Extract Method:

- Spatial Area of Interest
- Attribute Query
- Entire Layer(s)
- Existing Selected Set

Cancel

< Back

- Municipal Right of Ways
- Poles
- Road Centrelines
- Road Edges
- Road Width Labels
- Sanitary Casings and Sleeves
- Sanitary Catchments

#### Projection

Projection: NAD83 UTM; Zone 10 North

#### Feature Layer Format

Format: ESRI Shape

Cancel

< Back

Next >



# PURCHASE SPATIAL DATA

## •Class Software's Point of Sale

[View Cart](#)

<b>Information</b>	<b>Payment from credit card</b>
<b>Customer Name:</b> ACME Engineering Ltd.	<b>Credit Type:</b> Visa Card
<b>Address Line 1:</b> 14245 - 56th Ave	<b>Card Number:</b> 123456789123
Address Line 2 (optional):	<b>Expiry Date:</b> 01 / 2027
<b>City:</b> Vancouver	
<b>Province:</b> BC	<b>Item Charges</b>
<b>Postal Code:</b> V2V5X4	SubTotal : \$9.09
Contact Person (optional): Joe Engineer, PEng.	Tax : \$1.18
<b>Contact Phone Number:</b> 604-555-1212	<b>Total( Price Includes Tax): \$10.27</b>
<b>Item Charges</b>	
<b>Total( Price Includes Tax):</b>	

[Complete Transaction](#)

*chase.*

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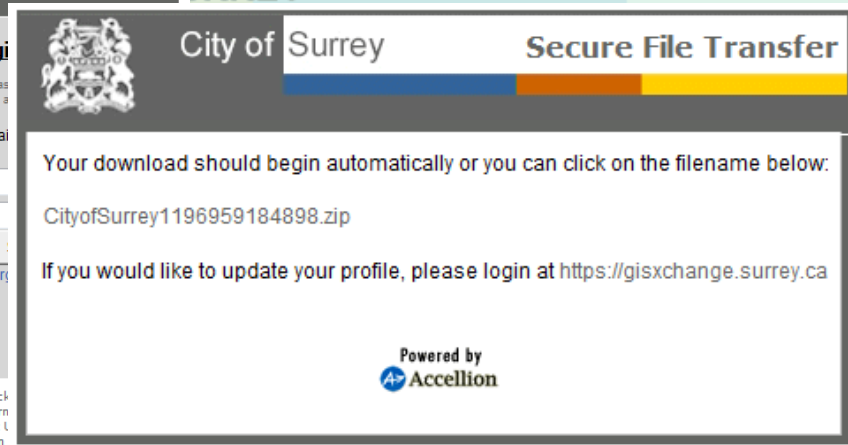
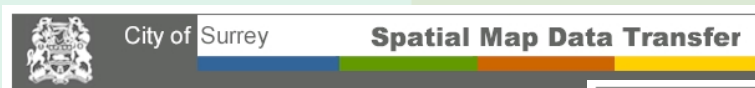
Boundary Bay

Semiahmoo Bay



# PURCHASE SPATIAL DATA

## •Accellion Courier– File Downloads



Boundary Bay

Semiahmoo Bay

# DTS

- Drawing Tracking System
- Engineering and Legal Drawings

- Select a layer
- Select a layer
- As-Built Drawings**
- Legal Plan Boundaries (all)
- Posting Plans
- Municipal Right of Ways
- Road Bridge Drawing Boundaries
- Lighting Drawing Boundaries



## As-Built Hotlink Results

- Category: Drainage
- Category: Sanitary
- Category: Water
- Category: All Feature Classes
- Feature Class: All Documents

2 items found, displaying all items.

Drawing No.	AsBuilt Date	Location
SS-034-583	1991-06-01	94A ave (156 st - 157 st)
<a href="#">S-034-146</a>	1991-06-01	94A ave from 156 st to 157 st

2 items found, displaying all items.

Legal Plan Number

76658

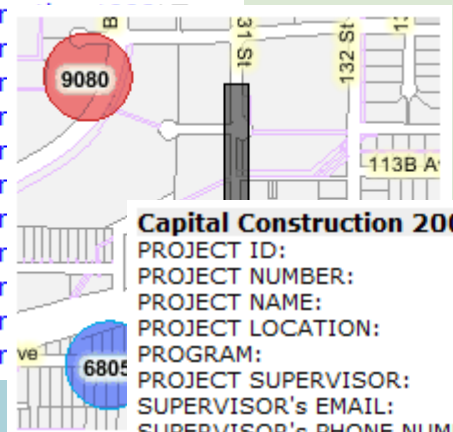
Link to Legal Plan Document

[Click here to view the Legal Plan](#)

# PTS

## •Project Tracking System

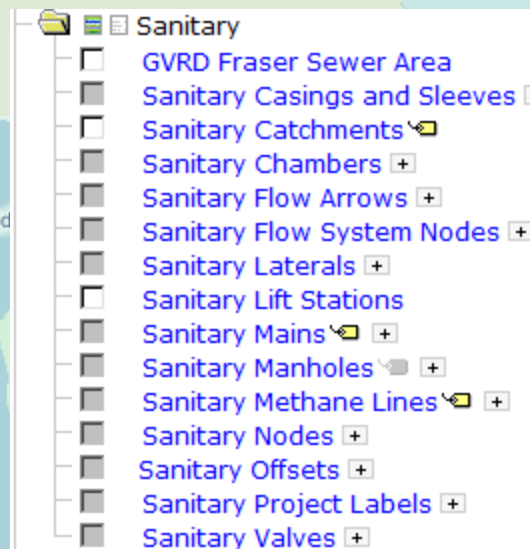
- Capital Construction
  - Capital Construction 1997
  - Capital Constr
  - Capital Constr
  - Capital Constr
  - Capital Constr
  - Capital Constr
  - Capital Constr
  - Capital Constr
  - Capital Constr
  - Capital Constr
  - Capital Constr
  - Capital Constr
  - Capital Constr



Capital Construction 2007	
PROJECT ID:	9080
PROJECT NUMBER:	4703-6090-00
PROJECT NAME:	Review & Upgrade Electrical Controls - Vacuum Pump Stations
PROJECT LOCATION:	Bridgeview and Southwestminster
PROGRAM:	Sewer - Operation & Maintenance
PROJECT SUPERVISOR:	Robert Lee
SUPERVISOR's EMAIL:	RALee@surrey.ca
SUPERVISOR's PHONE NUMBER:	(604)591-4528
BUDGET YEAR:	2007
PROJECT_SUBTYPE:	Sewer

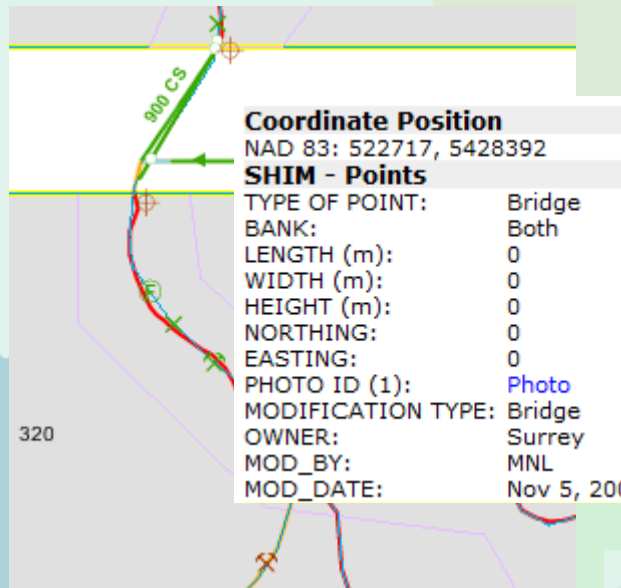
# CITYWORKS

- Critical data fields (costs, work order dates, condition, warranty) transferred from Cityworks database to spatial data



# IMAGE LINKS

## • Sensitive Habitat Inventory and Mapping Imagery



Boundary Bay

Semiahmoo Bay



# IMAGE LINKS

North Arm

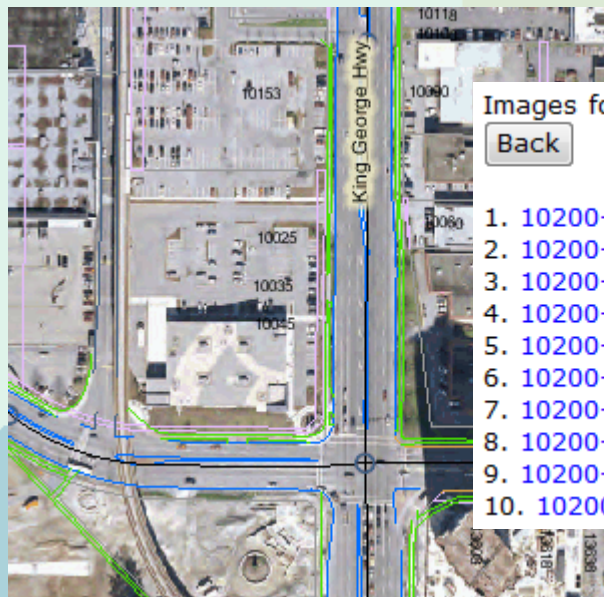
Fraser River

Parson's Channel

Annacis Channel

Annieville Channel

## •272 Traffic Signs



Boundary Bay

Semiahmoo Bay

# DRIVING DIRECTIONS

## •Driving directions via Google Maps™



Google Maps interface showing driving directions from 4700 Kingsway, Burnaby, BC to 49.15198514808458, -122.7639644.

Start address e.g., "SFO" 4700 kingsway, Burnaby, BC → End address e.g., "94526" 49.15198514808458, -122.7639644

Search Results My Maps

Directions: Drive There - Take Public Transit

Avoid highways [Get reverse directions](#)

**From:** 4700 Kingsway, Burnaby, BC, Canada [Edit](#)

**Drive:** 26.4 km – about 30 mins

1. Head southeast on Kingsway toward Sussex Ave 0.4 km
2. Turn left at Nelson Ave 0.4 km
3. Turn right at Dover St 0.4 km
4. Turn left at Royal Oak Ave 1.1 km
5. Turn right at Deer Lake Pkwy 1.1 km
6. Slight right at Deer Lake PI 0.4 km
7. Turn right at Canada Way 0.5 km

Map Satellite Terrain

Map data ©2017 NAVTEQ™



# BEYOND OUR COSMOS

- Extend COSMOS beyond initial scope
- Possible future integration points include:
  - SCADA – Water, etc.
  - 3d Lidar Models
  - Permitting Systems/POSSE
  - Expanded Property Report
  - Real Time Tracking
  - Street View

# BEYOND OUR COSMOS

Questions?