



Nanaimo Parcel Fabric Geometry Replacement: MNC Strengthened ParcelMap BC Accuracy with Nanaimo Parcel Update

After ParcelMap BC became fully operational in 2017, it was discovered that the **City of Nanaimo maintained a higher-quality version of its parcel data fabric than the one initially incorporated into ParcelMap BC.** The existing parcel geometry used in the initial build did not reflect the full spatial precision or completeness of the City's authoritative data, creating barriers to adoption by Nanaimo and other users in the region.

To resolve this, the Land Title and Survey Authority of British Columbia (LTSA) initiated the **Nanaimo Geometry Replacement project.** They selected **MNC (Martin Newby Consulting Ltd.)** to lead the data integration and geometry upgrade.



CHALLENGE

The parcel polygon geometry used in the original building of ParcelMap BC did not match the accuracy of the City of Nanaimo's maintained parcel fabric.

KEY LIMITATIONS INCLUDED:

- **Lower spatial precision** than what was available in the City's local cadastre
- Survey dimension details and high-accuracy geometry not **captured in the provincial dataset**
- **Gaps in parcel coverage**, particularly in classes of parcels not included in the original ParcelMap BC compilation

- **Reduced confidence and adoption of ParcelMap BC** by local stakeholders who relied on more accurate municipal data

This mismatch limited the utility of ParcelMap BC for regional users and hindered progress toward the LTSA's broader land data modernization goals.

SOLUTION

MNC was engaged to lead the parcel fabric geometry replacement within the City of Nanaimo, leveraging its expertise in high-accuracy cadastral data management and Esri-based systems.

KEY STEPS IN THE SOLUTION:

DATA INTEGRATION & VALIDATION:

- Replaced the ParcelMap BC parcel geometry for the City of Nanaimo with a recompiled version from the City's source parcel fabric.
- Preserved spatial accuracy and survey precision as captured in local records.

ENHANCED PARCEL COVERAGE:

- Incorporated previously omitted classes of parcels that were not part of the original ParcelMap BC compilation scope.
- Verified completeness and correctness of geometry across all relevant parcel types.

GIS IMPLEMENTATION:

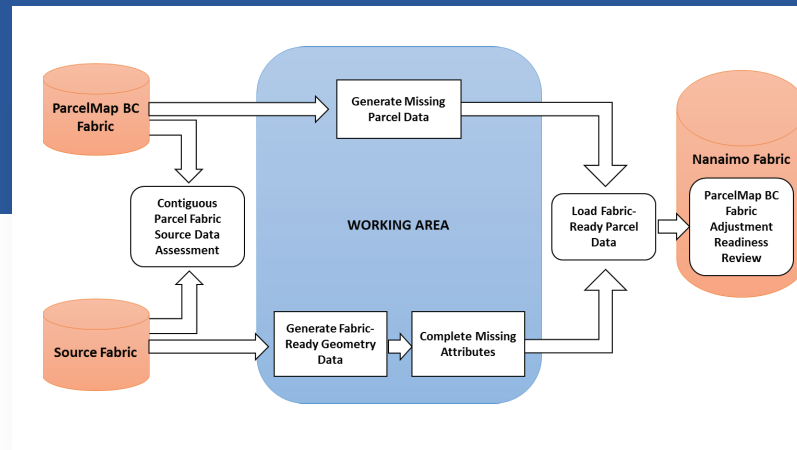
- Used ArcGIS (Esri) technology to execute the integration, ensuring compatibility with the provincial platform.
- Maintained alignment with LTSA's strategic goal of advancing high-quality, reliable parcel data throughout British Columbia.

RESULTS

Replacing the ParcelMap BC's geometry with the City of Nanaimo's authoritative parcel fabric significantly improved data quality and completeness for the region.

KEY BENEFITS INCLUDE:

- Spatial accuracy and survey-based precision are now **reflected in the provincial parcel fabric.**
- **Expanded parcel coverage** includes all relevant parcel types maintained by the city.
- Municipal users have increased confidence in the dataset, encouraging **wider adoption of ParcelMap BC in the region.**



Generalized Workflow

- **The updated parcel data supports the LTSA's objective** of delivering authoritative, high-accuracy land information across British Columbia.

Led by MNC, this project demonstrates a replicable approach for government agencies seeking to integrate high-precision local cadastral data into broader land administration systems, enhancing spatial accuracy, public trust, and informed decision-making.

MNC SERVICES & TECHNOLOGY USED

SERVICE CATEGORIES:

- Parcel Fabric
- Needs and Requirements Analysis
- GIS Strategy and Planning
- Data Model and Database Design
- Data Conversion and Migration

TECHNOLOGY PLATFORM & TOOLS:

- ArcGIS (Esri)
- FME (Safe Software)



CONTACT US TODAY to discuss your geospatial needs.

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ABOUT MNC

The Cadastral and Parcel Mapping Experts



MNC is a trusted leader in cadastral and parcel management with 25+ years of experience delivering GeoAI-ready datasets, modernizing parcel fabrics, and automating GIS workflows. As an Esri Gold and Cornerstone Partner with a Parcel Management Specialty and State and Local Government Specialty, MNC provides scalable advanced GIS, ArcGIS Pro, FME automation, MicroStation, AutoCAD and cloud-ready geospatial systems that improve data quality and support government land administration modernization across Canada, the USA, and the Caribbean.

