SPM Assets is helping New Zealand's Wellington City Council stay ahead of the times with a five-year project to build BIM models (Building Information Management) for all 2,200 social houses and units. Haydn Read (Manager Strategic Asset Planning at WCC) believes BIM will be a key contributor to their 'digital city' initiative over time. It will allow for evidenced-based decision-making and better portfolio management for future generations.

Social housing forms part of WCC's $0.75 billion property asset portfolio. Through detailed analysis, WCC estimated that their assets were decaying at a rate of $2 million each week. In response, WCC decided to take an interdisciplinary evidence-based approach to inform decision-making and long-term planning. Before they could build BIM models, they needed to start from the beginning with an approach that incorporated:

- A clear understanding of its business needs
- Finding a standard way of describing all assets
- Wider social, cultural, environmental, and economic data and models
- Council demand, capacity, criticality, resilience, and asset condition data and models

WCC applied data science disciplines (e.g. statistical modeling) to this information to forecast the city's long-term asset needs and the financial implications of these future investments.

Using this approach required:

### 1. Metadata Standards to reflect the business needs

WCC adopted the A-Spec metadata specifications as a way to consistently and reliably describe each asset type, i.e. water, roads, open spaces, and buildings.

### 2. Consistent and reasonably complete data

WCC faced a number of initial challenges with the accuracy and completeness of the available data. It was also difficult to view and analyse the entire portfolio because the associated data and information sat in a range of different forms in different locations. In response WCC undertook a targeted data collection survey, which provided the data necessary to support evidence-based decision-making and reporting.

### 3. Asset Management System

WCC then selected the SPM Assets software to collect and process the required asset data. SPM Assets was then configured to mirror the metadata specifications for buildings and open spaces. SPM Assets software also provided the means to systematically collect and process the required asset information. The advanced system reporting then allowed the extraction of key information and the interface with other systems providing an end-to-end building information modelling (BIM) solution.
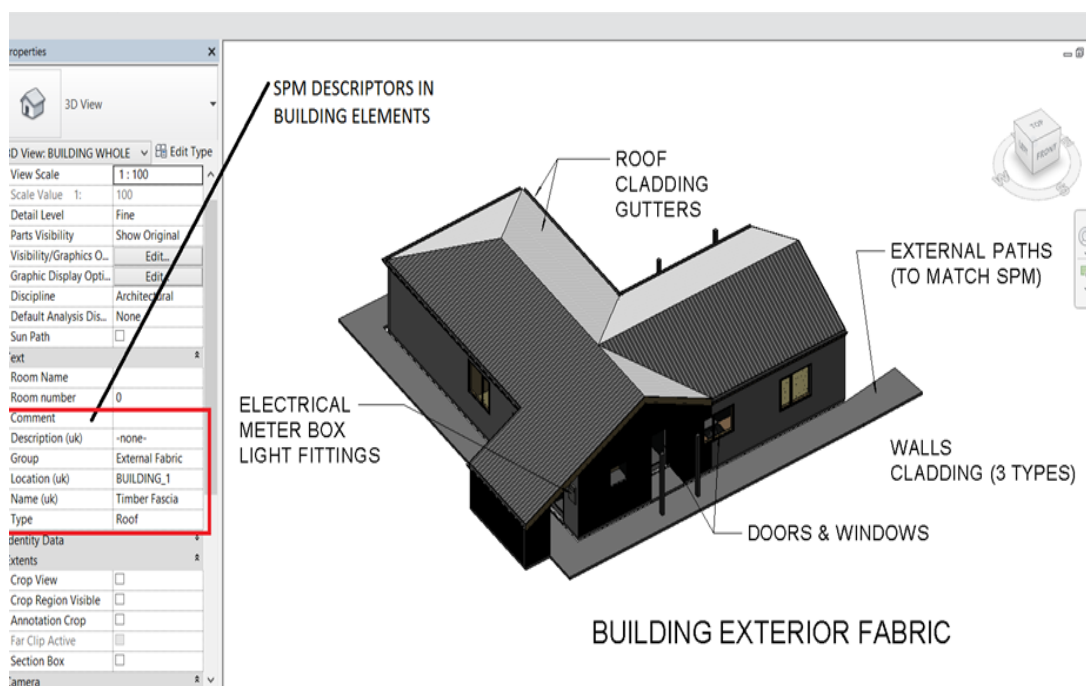
### 4. Analytical Capabilities and data analysis tools

WCC employed advanced asset analytics to develop an understanding of the current asset base and future asset requirements (using statistical language R). This provided the means to use the core SPM Assets data to provide a range of high-end analytical outcomes and asset intelligence.

### What else did SPM Assets provide?

WCC licensed SPM Assets software as the asset management system for all built and green assets. This portfolio consists of approximately $0.75 billion worth of property assets including 2,200 houses and units in their social housing portfolio, numerous recreational facilities (e.g. swimming pools), museums, galleries and parks.

SPM Assets project managed the condition assessment and data collection for the WCC housing property portfolio.



WCC also transferred information from digital models into SPM Assets to further enrich asset data models. This provided an increased level of analysis and planning.

## The Results

WCC is currently developing the analytics to generate efficiency and productivity benefits through a greater ability to prioritise and optimise planned capital renewals and any new investments. WCC has reduced the amount spent on the renewals of their infrastructure by approximately $100m in the 2015/25 Long Term Plan (LTP).

With this new foundation, WCC now has a clear line of sight for 30+ years on delivering an infrastructure plan. It can produce forward works-programs and is aware how its assets are performing (both practically and financially).

## The Future

SPM Assets will complete the surveys for all social housing stock. WCC's five year project is to build BIM for all 2,200 social houses and units. BIM will hold all the information for the building in one place – a key contributor to WCC's 'digital city' initiative. This will allow for evidenced-based decision-making and better portfolio management. It will increase WCC's ability to anticipate and manage whole of life costs and increase asset management practice integration into other Council planning functions.