

# ACDC Portal goes live

New Zealand's Wellington City Council was the first to go live with the new ACDC Portal for its 3 Waters Project.

Wellington City Council (WCC) identified Open Spatial's 'As Constructed Design Certification' (ACDC) product as the platform of choice to validate and load as-constructed submittals according to council's attribution standards 'A-SPEC' for the 3 Waters Project. The ACDC Portal added the ability for external parties to validate submittals online.

Complementing the internal ACDC deployment, the ACDC Portal went live in March 2015. The online portal enables third-party developers to easily upload, validate and supply pre-checked asset information to WCC. Drawings can now be remotely validated for compliance to council's standard, via the web and 24x7, prior to submitting to council. Any deviations from the standard including naming, attribute, spatial and topological issues are highlighted with error markers and annotations in the drawing, and returned to the developer for correction and re-submission.

Councils and utilities have the problem of getting the right 'as constructed' information into their corporate systems, at the right quality and completeness, and without having to recapture the data. In order to ensure the success of the as-constructed process, it is important to take the development community of consultants and surveyors along with them in this process. It is not good enough to just solve only the council's and utility's problem.

The ACDC Portal automatically validates submittals for completeness and correctness within defined or acceptable tolerances, and also checks whether data is on the correct layers and that nodes are correctly snapped on lines, as per the documented A-SPEC standards. Additional checks include verifying drawings are submitted in the correct geographical location, rather than at (0,0), and in the correct dimensions and that asset attributes are entered and valid.

Once passed, the 'validated' drawing is submitted in a machine-readable format to WCC from the ACDC portal (or direct from the developer), as the process requires.

WCC can then focus on compliance to its engineering standards, with the confidence that data is complete, correct and in a unified format. In the final step, conversion of the asset information in the submittal is automated by ACDC to populate both the GIS with spatial and related attributes, and asset

management system (AMS) with selected attribution. Title block or 'common block' information, like contractor's name, date, project number and title, are automatically assigned to each and every asset, but only captured once.

ACDC and the ACDC portal deliver significant process improvements to the WCC workflows.

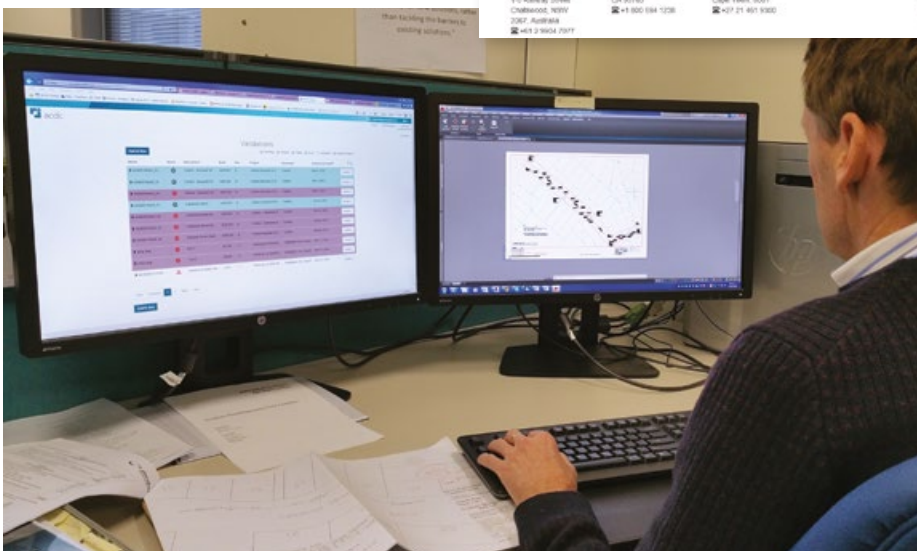
The system enables submittals to be validated prior to acceptance, avoids altogether the need to re-capture or double-enter digital data from one system to another that would otherwise be necessitated if drawings were submitted in pdf or paper format. In addition, qualified staff are alleviated of manual entry tasks to perform more valuable analysis tasks.

Fully documented and automated checking against standards ensures immediate confidence in the data provided by industry and surety of the new data being loaded into WCC's corporate systems with a commensurate



Left: The ACDC portal splash screen at [www.asconstructed.com](http://www.asconstructed.com).

Below: Uploading an as-con submission via the ACDC Portal.



reduction in risk associated with poor data quality. Providing a fully documented template gives developers a mechanism to supply the as-constructed data in a way that is similar to their existing processes. The ACDC Portal ([www.asconstructed.com](http://www.asconstructed.com)) gives the third-party developer or engineering surveyor the ability to pre-validate their submission. This ensures the council and utility receives valid information and eliminates unnecessary rejection of the as-constructed drawing. Both parties will save time and gain efficiency in the process (i.e. eliminating re-work), and the refunding of developer deposits may be expedited.

By providing a solution with pre-defined standards, WCC can have confidence their intent and requirements from the development community are clearly relayed through an easily understood and widely supported drawing format and template. Conforming templates created using ACDC are provided by WCC to developer third-parties. Developers can use entry level Autodesk AutoCAD LT (e.g. a landscaping firm) or full version AutoCAD (e.g. a full engineering or surveying practice) to capture the assets.

### Wellington City Council's choice

WCC chose to use the A-SPEC standards. A-SPEC started as an initiative to develop a standardised approach for the recording of asset information in collaboration with industry. In Australia, that has become a standard for third-party developers to adhere to when delivering as-built information of gifted assets to a new owner.

The A-SPEC standards specify an agreed international standard framework to describe asset information, which

councils, utilities, authorities and other asset owners can use to populate their GIS and AMS.

A-SPEC was an obvious choice for WCC back in January 2012 as it had a full suite of attribution standards that council required (six asset groups: water, wastewater, stormwater, roads, buildings, and open space, and was being used by many councils, and more recently, by water utilities.

Open Spatial released ACDC in January 2014, helping WCC configure templates to the A-SPEC standard that defined the content and quality of as constructed information they required. WCC now provides its third-party development community with templates, for use within their current design and recording environments, that ensure a consistent structure for the efficient creation and receipt of data. WCC also provides online training tutorials.

ACDC manages the newly submitted data, validating it for completeness and correctness according to A-SPEC standards, then transforming it into WCC's geospatial and asset management.

### It works

Haydn Read, manager of the strategic asset management and planning group at WCC remarked: "ACDC provides us with the 'missing piece in the puzzle' enabling us to connect directly with industry with minimal disruption to current workflows. As-con drawings from the third-party developers and our internal capital works team, are validated against our A-SPEC standards. Once passed, the attributes and spatial data are automatically incorporated into our AMS and GIS.

"That said, I believe the true benefit lies beyond, with the automatic population of the next generation of sophisticated asset analytics solutions and with what they achieve – the benefits will be substantial."

Johan Nel, technical director at Open Spatial, added: "ACDC provides a comprehensive solution to enable WCC's use of the A-SPEC data structure and business rules, within its current environment. Together with our online ACDC Portal, the system gives industry certainty, without the huge investment typically required when changing business processes." ■