

Hamish Visser

Digital Engineer · GIS, CAD, Automation & Digital Delivery

Melbourne, VIC (from Feb 2027) | NZ citizen, full Australian work rights
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PROFILE

Digital Engineer with four years of experience leading GIS, BIM, and spatial data delivery across major UK and ANZ infrastructure projects in rail, highways, energy, and housing. Specialises in developing automated workflows, computational design tools and pipelines that eliminate manual bottlenecks, enforce digital standards, and speed up delivery.

CORE SKILLS

Automation & Scripting

FME, Dynamo, Grasshopper, Power Automate, n8n, AI and LLM integration

BIM & Digital Delivery

Civil 3D, Revit, Navisworks, CDE Management, Information Management, Model federation, Power Apps

GIS & Geospatial

ArcGIS Pro, ArcGIS Enterprise/Web Apps, QGIS, QField, InfraWorks, LiDAR and point cloud processing, drone survey, photogrammetry

Design, 4D & Visualisation

Synchro 4D, Rhino, Fusion 360, Unreal Engine, Blender, Adobe Suite

Data & Web

REST API integration, Google Apps Script & Sheets API, Next.js/Vercel, HTML/CSS, SQL, AI-assisted development

AWARDS

- Digital Construction Team of the Year, London Construction Awards 2025 (Meridian Water).
- VINCI Group Innovation Award 2026, Runner-up in Data and Digital, for the CAD-to-GIS asset delivery workflow.
- VINCI Group Innovation Award 2026, Special Mention in Optimisation, for the automated document compliance workflow.
- Taylor Woodrow Value Award and Best Case Study, 2025.

CERTIFICATIONS

- Information Management Practitioner, Operam Academy (ISO 19650).

EDUCATION

Victoria University of Wellington

Bachelor of Design Innovation, Major in Industrial Design

2018 – 2020 · Dean's List 2020 · A- average

- Summer Research Scholarship (VUW and GNS Science): solo research combining plasma bonding with spatial 3D printing, programming an ABB robotic arm through HAL Robotics and Grasshopper.

PROFESSIONAL EXPERIENCE

Digital Engineer Jan 2025 – Nov 2026

Taylor Woodrow (VINCI Construction)

London, UK · Major multi-disciplinary infrastructure · Innovation Leader

- A511 (Leicester City Council): Led digital delivery on a major highways and bridge temporary-works scheme, processing LiDAR and 2D designs for swept-path and access analysis, cut and fill volumes and generating 3D models for 4D construction sequencing.
- Meridian Water regeneration (Enfield Council): Led GIS asset delivery. Built an FME workflow converting CAD design data into schema-compliant GIS assets that maintained attribution throughout design updates, cutting asset delivery from several weeks to a few hours. VINCI Group Innovation Award Runner-up in Data and Digital.
- Eco Park South (VINCI Facilities): Delivered BIM and asset information handover, embedding KKS asset codes into Revit/IFC models and coordinating a federated Navisworks model across 17 files and two Revit versions, resolving model alignment and coordinate issues ahead of client handover.
- Mexborough carriageway reconstruction: Built an FME pavement quantity tool and reconciled its outputs against the client's figures, producing client-facing quantity reports and a comparison workbook.
- Document compliance: FME workflow auditing the common data environment against 17 standards and cross-referencing delivery plans, flagging 600+ non-compliant documents and 3,000 unmatched codes on the first run. VINCI Special Mention in Optimisation.
- AI constraints reporting: FME and LLM pipeline that queries public GIS data within a site boundary and produces a consultant-grade constraints report, automating an early-stage desk study.
- Drawing QA: FME tool that reads PDF title blocks and validates them against project rules, cutting a 500-drawing manual check to 2.8 seconds.
- Authored the company's ISO 19650-aligned GIS Process Flow standard, defining data governance, an eight-step delivery lifecycle and QA sign-off roles approved by the senior engineering team.
- Led the Digital Engineering team's two-person GIS function, and was appointed TAYWOOD Innovation Leader.

Career Break: Travel & Relocation Apr 2024 – Dec 2024

- Extended travel around Europe, relocating to London.

Digital/Spatial Consultant Aug 2021 – Mar 2024

Aurecon Engineering Consultancy

Wellington, New Zealand · Infrastructure, transport corridors and energy

- Navarre Wind Farm, Western Victoria (around 400 MW, 100+ turbines, AUD 1.1bn): Geospatial lead for access-road alignments, 2D and 3D mapping and the client geoportal, building a semi-automated multi-software design workflow.
- Wairarapa Line level-crossing upgrades (KiwiRail, NZD 350m): Built the project GIS portal and automated production of hundreds of rail-corridor cross-section drawings for a model-first programme.
- Plimmerton Farm (1,044-home, 383 ha subdivision, NZD 117m): Semi-automated the export of 700+ drawing sheets in ArcGIS Pro, delivered a client geoportal and scripted earthworks disposal optimisation.
- Arlington Street social housing (301 homes, NZD 140m): Moved delivery from 2D to 3D by automating 1.5 km of retaining-wall generation in Grasshopper, feeding concrete volumes and embodied-carbon costs into a federated model via Speckle.

SELF-INITIATED TOOLS & AUTOMATION

Built on my own initiative, beyond what any project required.

- Generative/parametric access-road routing: Extended a shortest path algorithm with terrain-grade constraints to find buildable wind-farm road networks across steep terrain.
- Parametric earthworks tool: Real-time 3D cut and fill volumes, stockpiles and ground-investigation surface comparison.
- Parametric cross-section generator: Complete PDF drawing sheets, with title block, legend and scale bar, from any 3D geometry along an alignment.
- Parametric point-cloud floor-plan extraction: Generates plans from scan data with adjustable fidelity between as-built accuracy and idealised design geometry.
- FME to Unreal Engine pipeline: Builds interactive federated worlds from public geospatial data, drone survey, CAD and BIM models in under an hour, with ML aerial classification auto-populating vegetation and vehicles.
- n8n legal disclosure automation: End-to-end Official Information Act workflow using LLM relevance filtering and automated PII redaction with a full audit trail.

OTHER PROJECTS

- Visser & Associates (2026 to present): Website build with a Google Sheets-backed provider directory, Apps Script schedule sync, forms and an admin dashboard.
- X-Frame Group (2024): Product renders, cinematic build animations and in-context office visualisations in Blender.
- 3D printing company (2020 to 2024): Founded and ran a 3D-printed product business end-to-end, covering CAD/CAM design, manufacturing, branding and stock management, with products sold in stores across New Zealand.