VECTORWORKS®

A NEMETSCHEK COMPANY

VECTORWORKS KUNG FU: TRANSFORM YOUR SITE + URBAN DESIGN WORKFLOWS

Troy Diamond | Technical Support Specialist | RAIA

LEARNING OUTCOMES

- Identify publicly available GIS-based data sources that can be applied to landscape and urban design workflows.
- Convert site and planning data into analysis models.
- Identify and model site adjacent structures.
- Identify potential planning challenges.
- Share the georeferenced model for collaboration with the project team via IFC.

“

Turn tasks that can take weeks,

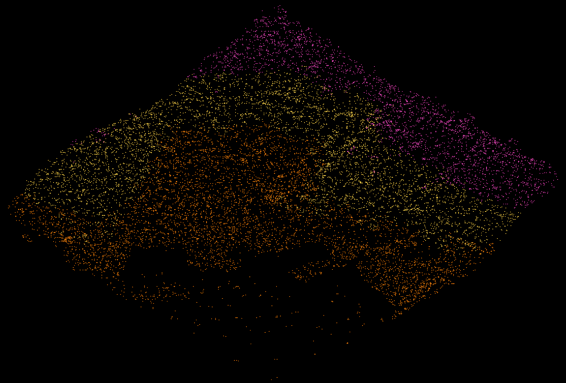
into hours

ARCHITECTURE, LANDSCAPE
+ URBAN DESIGN WORKFLOWS

AERIAL PHOTO +
PLANNING MAPS

GIS TOPOGRAPHY
+ CADASTA

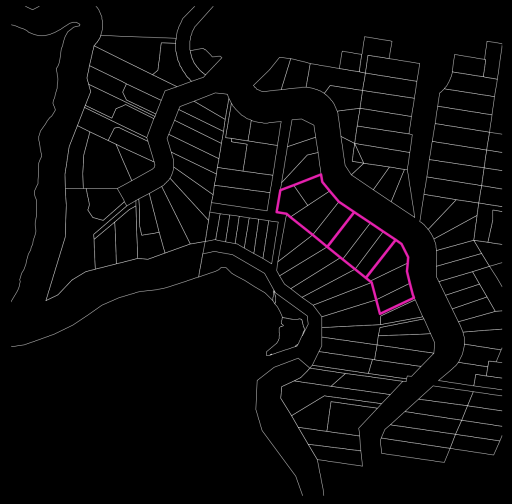
SITE MODEL WITH GIS
AERIAL PHOTO



H.O.B. LIDAR
POINT CLOUD

URBAN DESIGN WORKFLOWS

PLANNING MAPS



SITE DEVELOPMENT OPTIMISATION

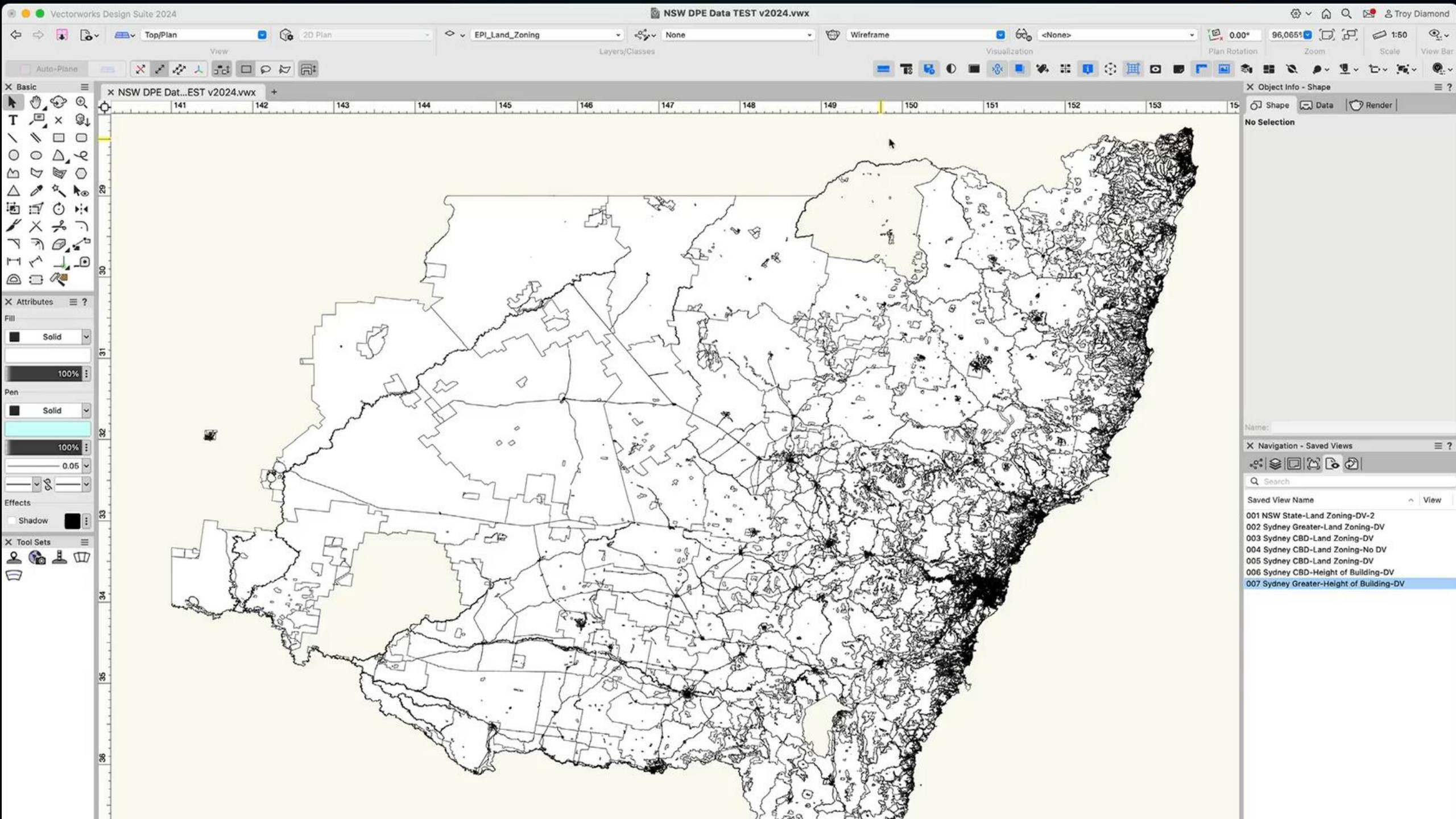
#WS_IF((AREA<2500), CONCAT(ROUNDDOWN (2+1.5*((AREA-1000)/1500), 3), ':1'), '3.5:1')#

DATA TAGS, WORKSHEET FORMULA

SITE AREA: 2013.7M2
H.O.B.: 45M
F.S.R.: 3.013:1
MAX. G.F.A.: 6068.6M2

FLOOR AREA TO SITE AREA RATIOS

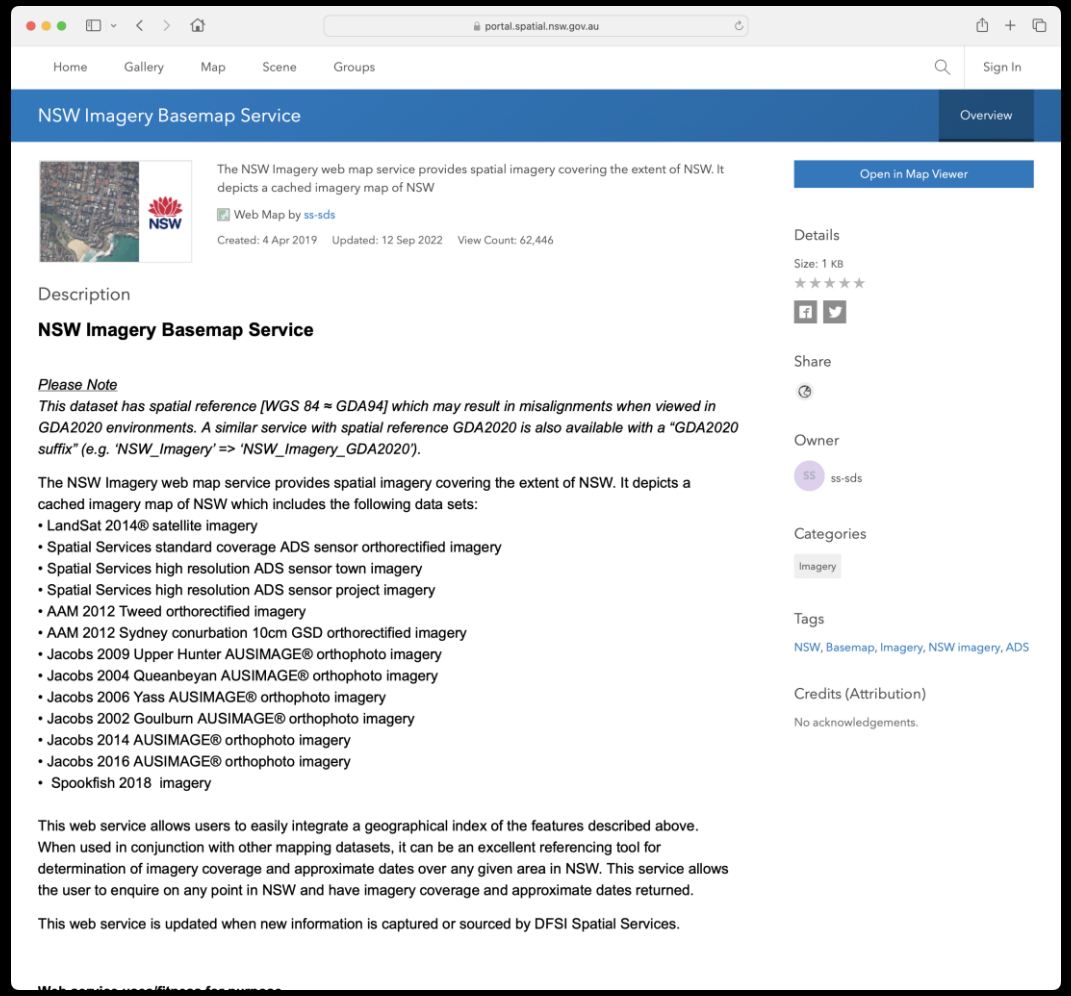
DATA VISUALISATION CONTEXT ANALYSIS


Vectorworks Design Suite 2024
NSW DPE Data TEST v2024.vwx
Troy Diamond
Top/Plan
2D Plan
EPI_Land_Zoning
None
Wireframe
<None>
0.00°
96,065
1:50
View
Layers/Classes
Visualization
Plan Rotation
Zoom
Scale
View Bar
Basic
NSW DPE Dat...EST v2024.vwx
Attributes
Fill
Solid
100%
Pen
Solid
100%
0.05
Effects
Shadow
Tool Sets
Object Info - Shape
Shape
Data
Render
No Selection
Name:
Navigation - Saved Views
Search
Saved View Name
View
001 NSW State-Land Zoning-DV-2
002 Sydney Greater-Land Zoning-DV
003 Sydney CBD-Land Zoning-DV
004 Sydney CBD-Land Zoning-No DV
005 Sydney CBD-Land Zoning-DV
006 Sydney CBD-Height of Building-DV
007 Sydney Greater-Height of Building-DV

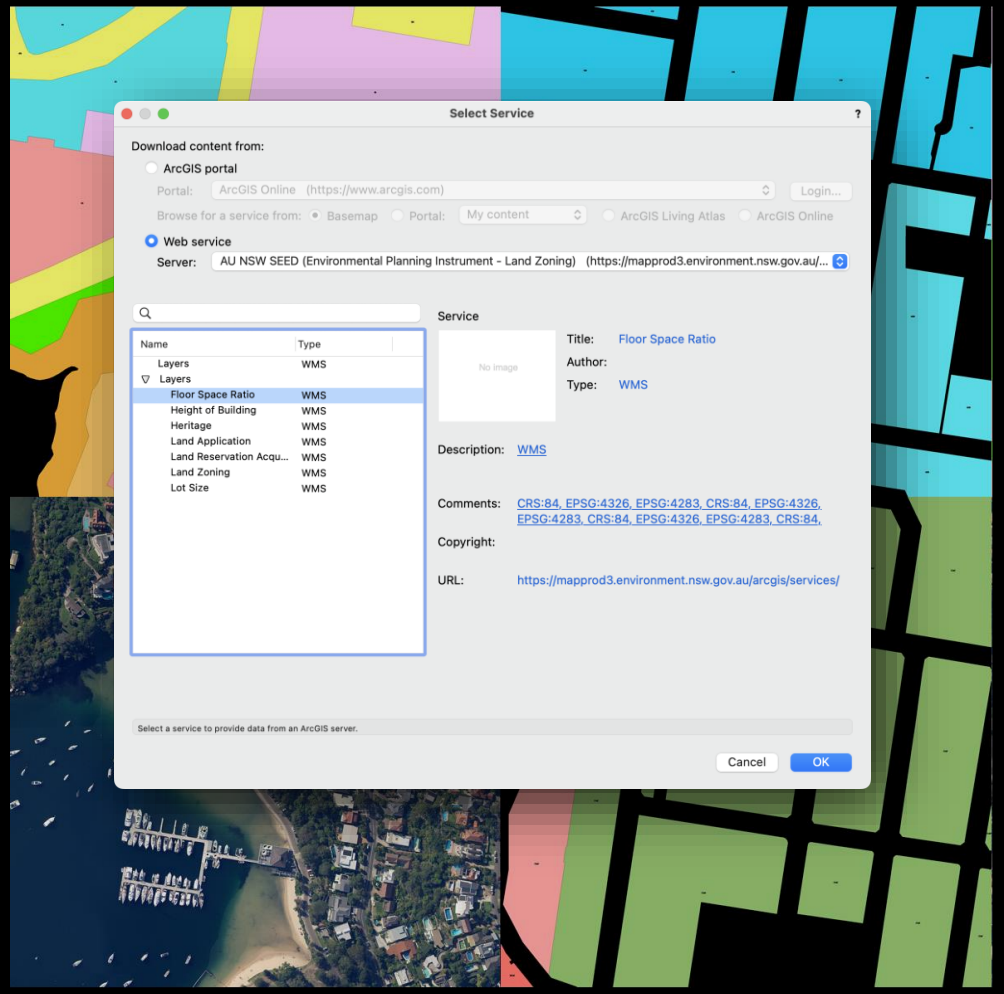
“

Let’s look at how that is
brought together in Vectorworks

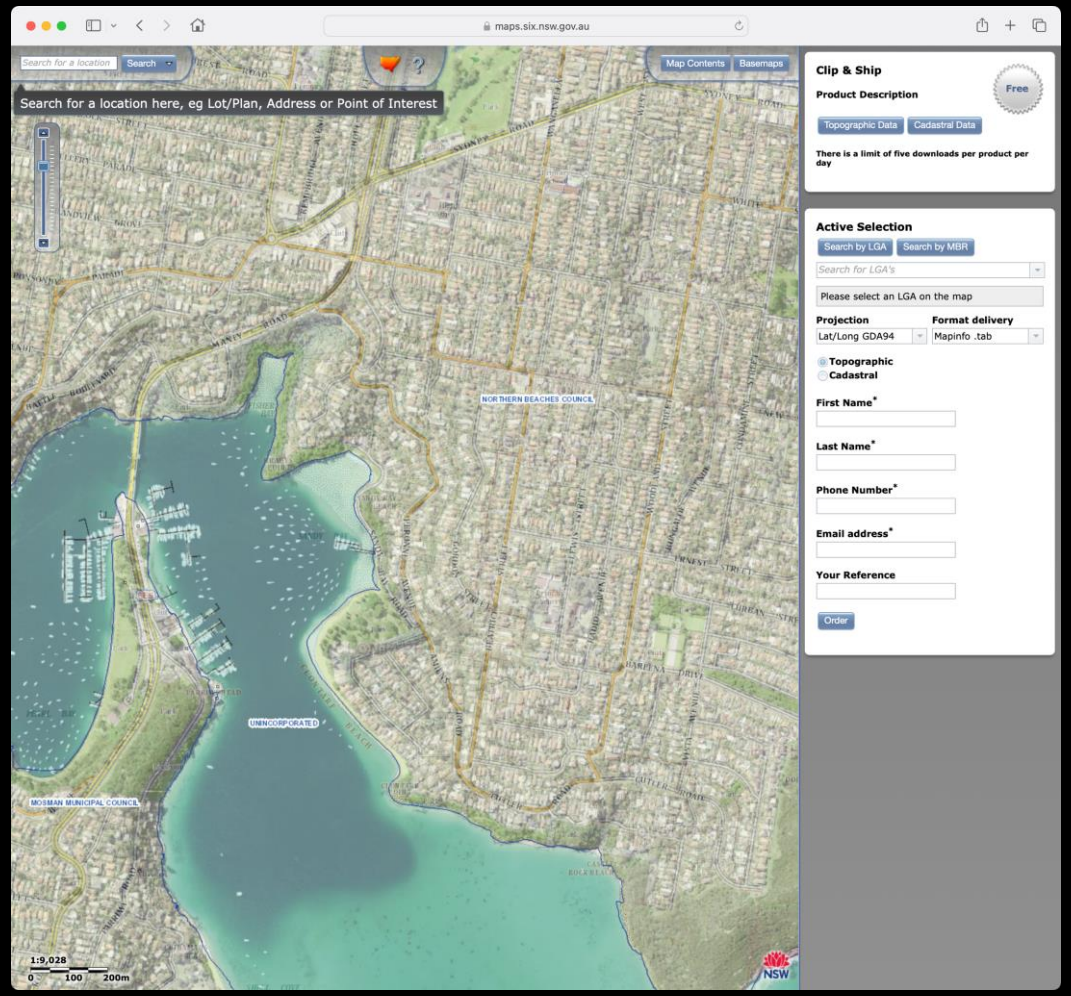
NSW DATA SOURCES



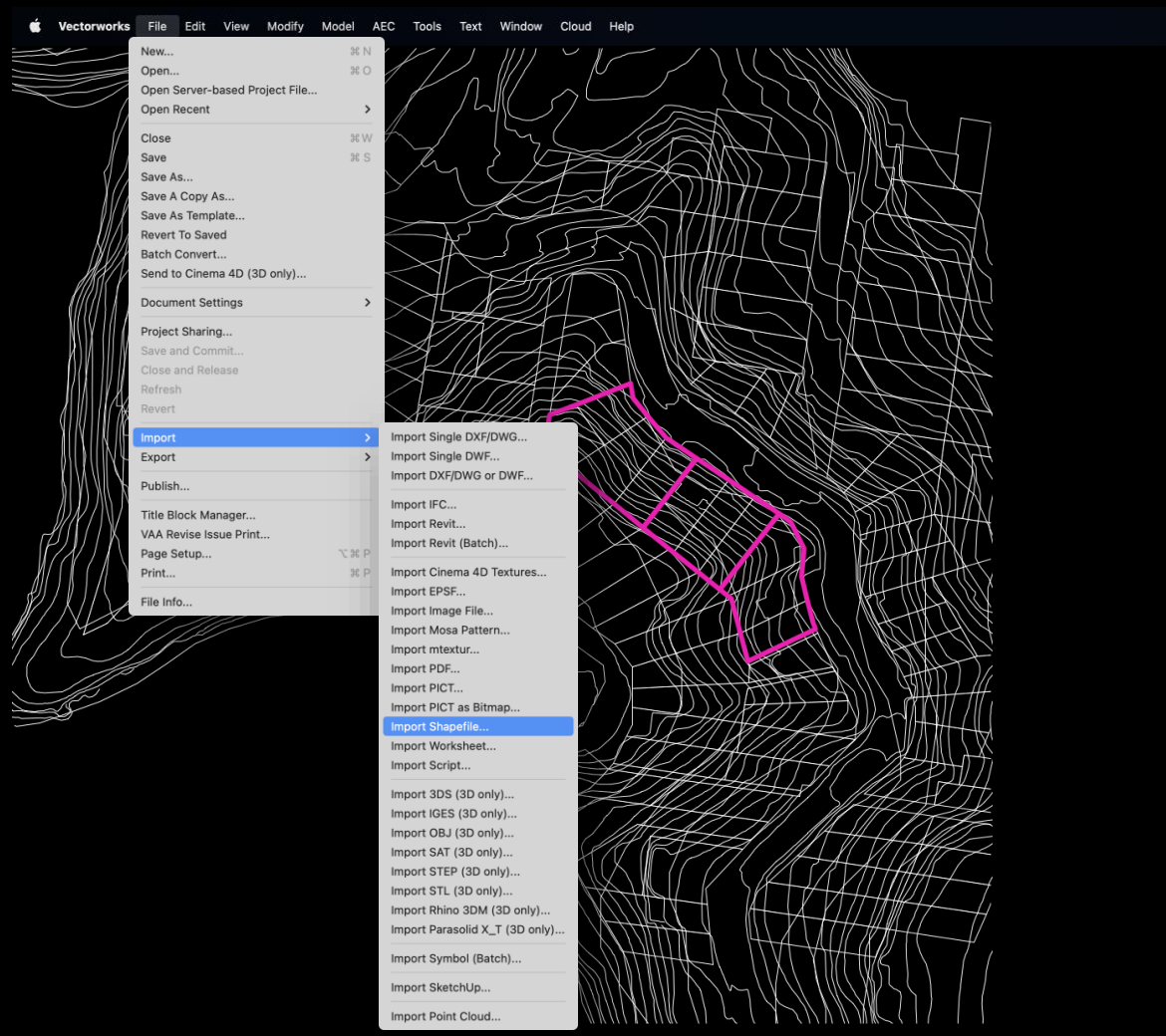
NSW SPATIAL AERIAL + PLANNING SERVICES



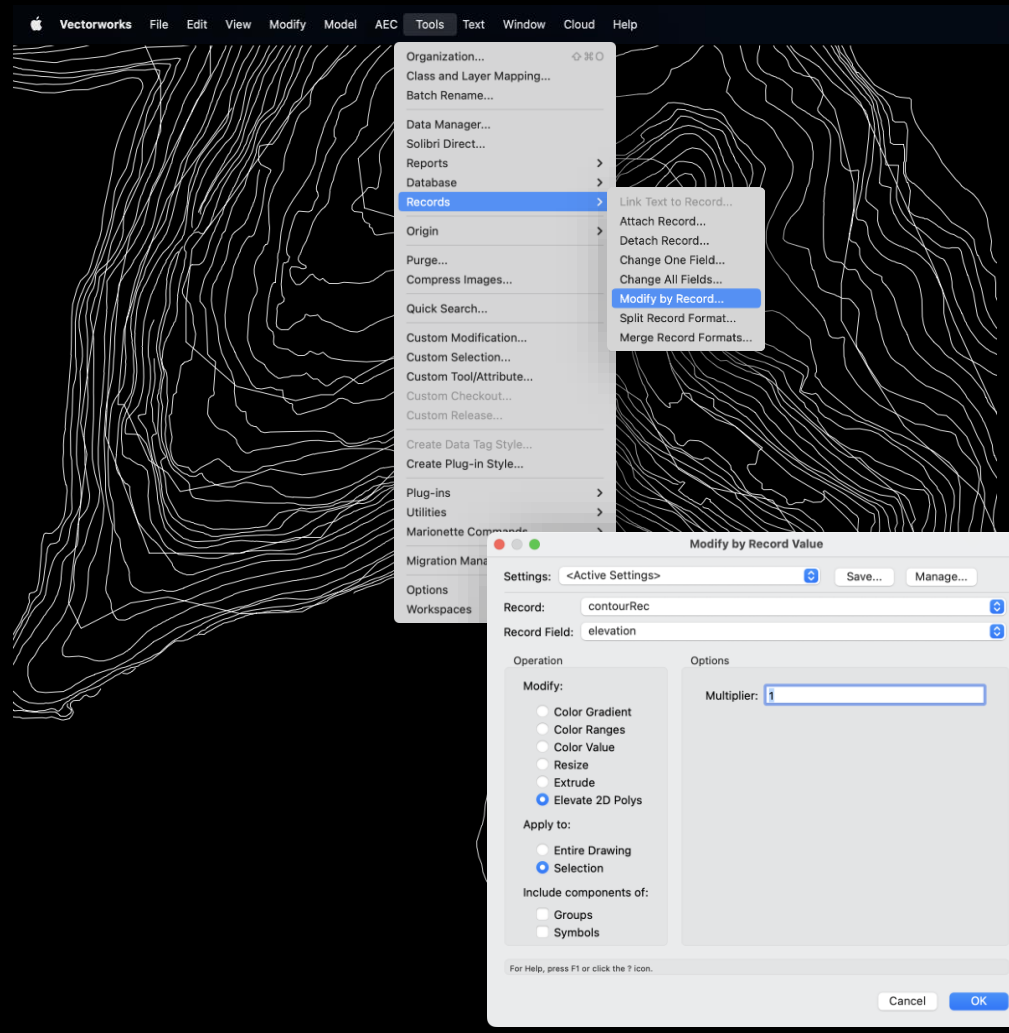
GEOIMAGE TOOL WEB SERVICE LAYERS



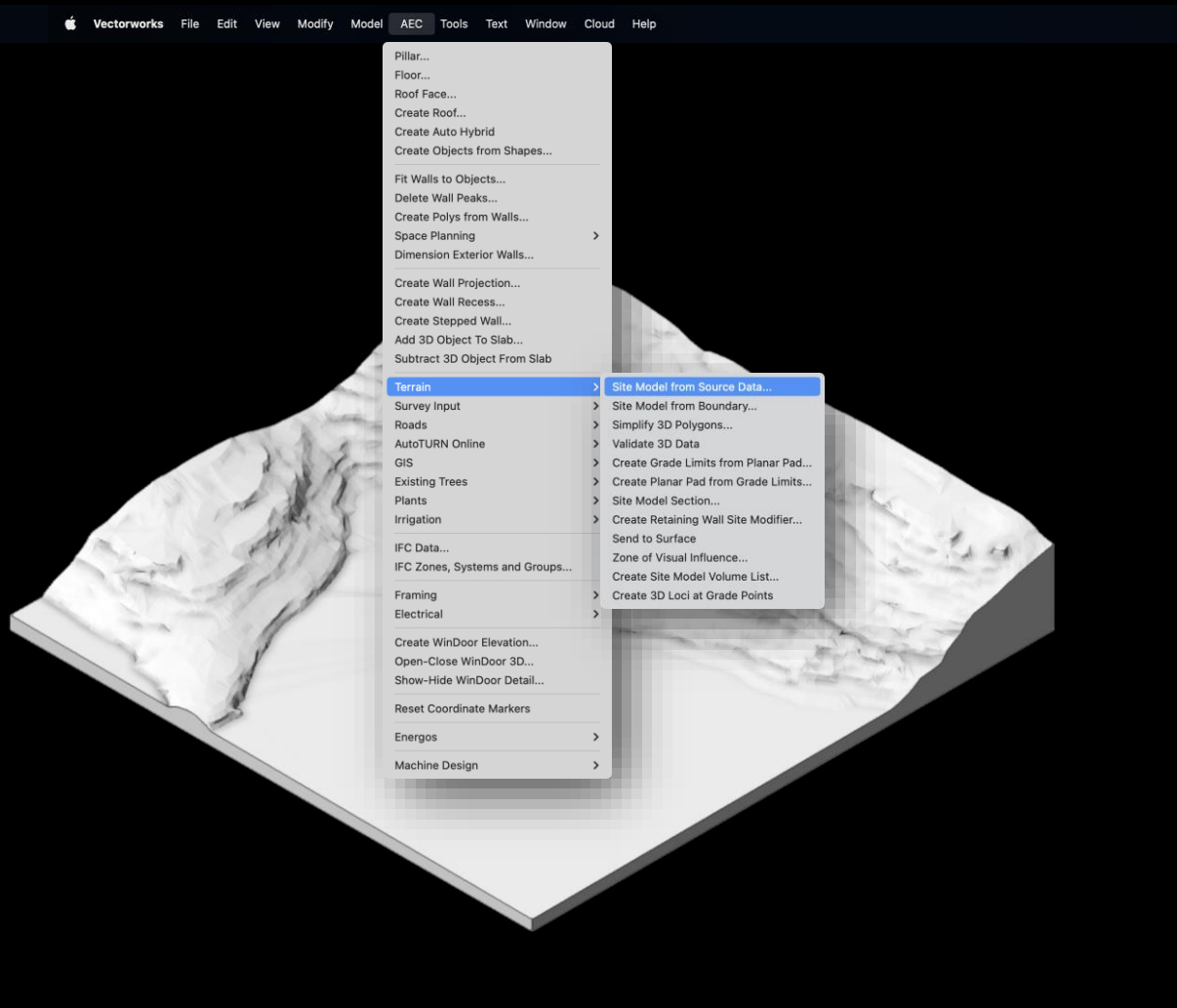
NSW SPATIAL CLIP'N'SHIP SERVICE



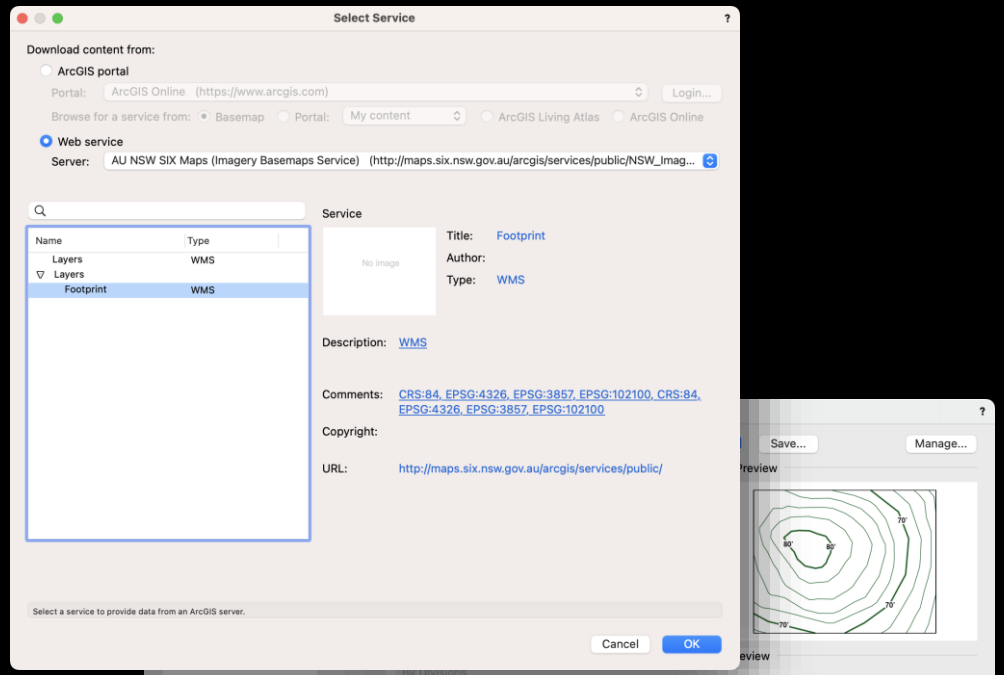
GEOMETRY FROM GIS SHAPEFILES



ELEVATE CONTOUR GEOMETRY

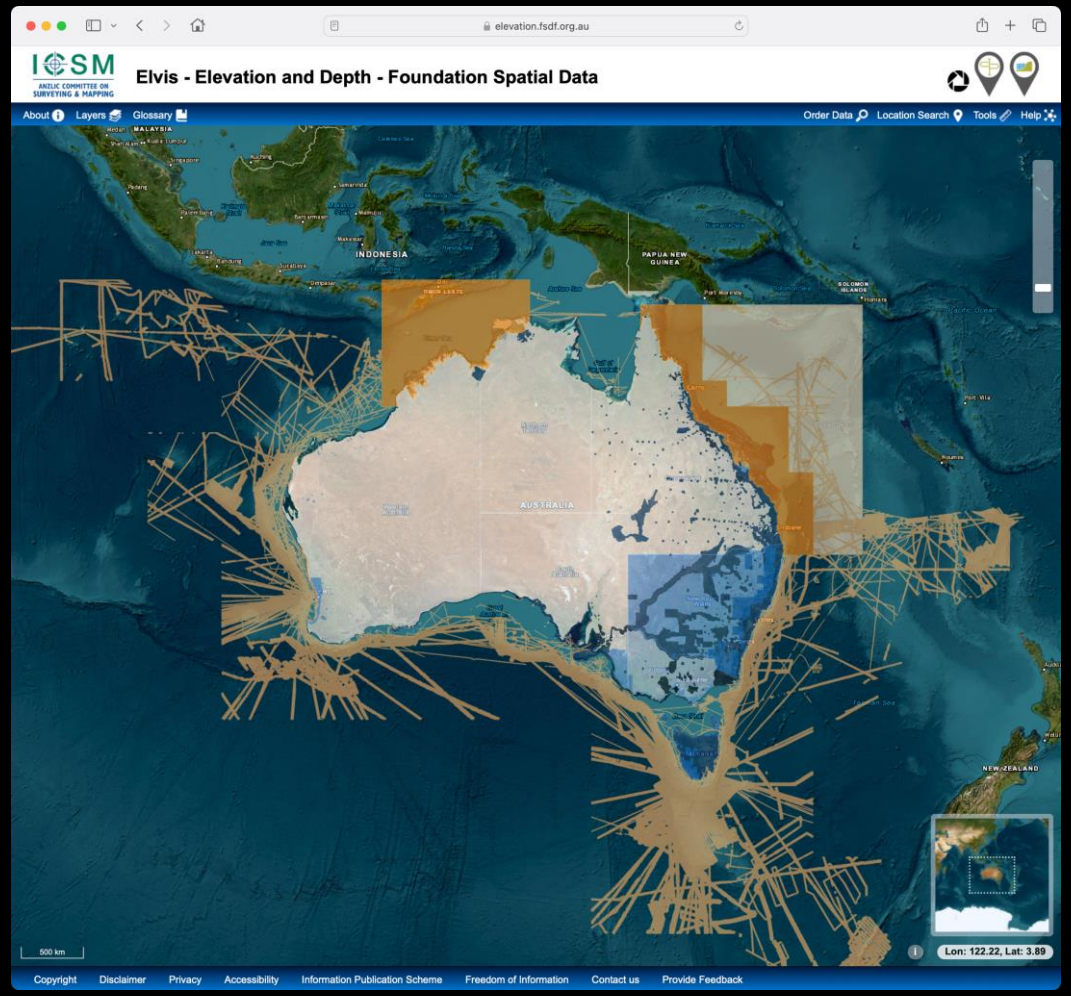


CREATE SITE MODEL FROM SOURCE DATA

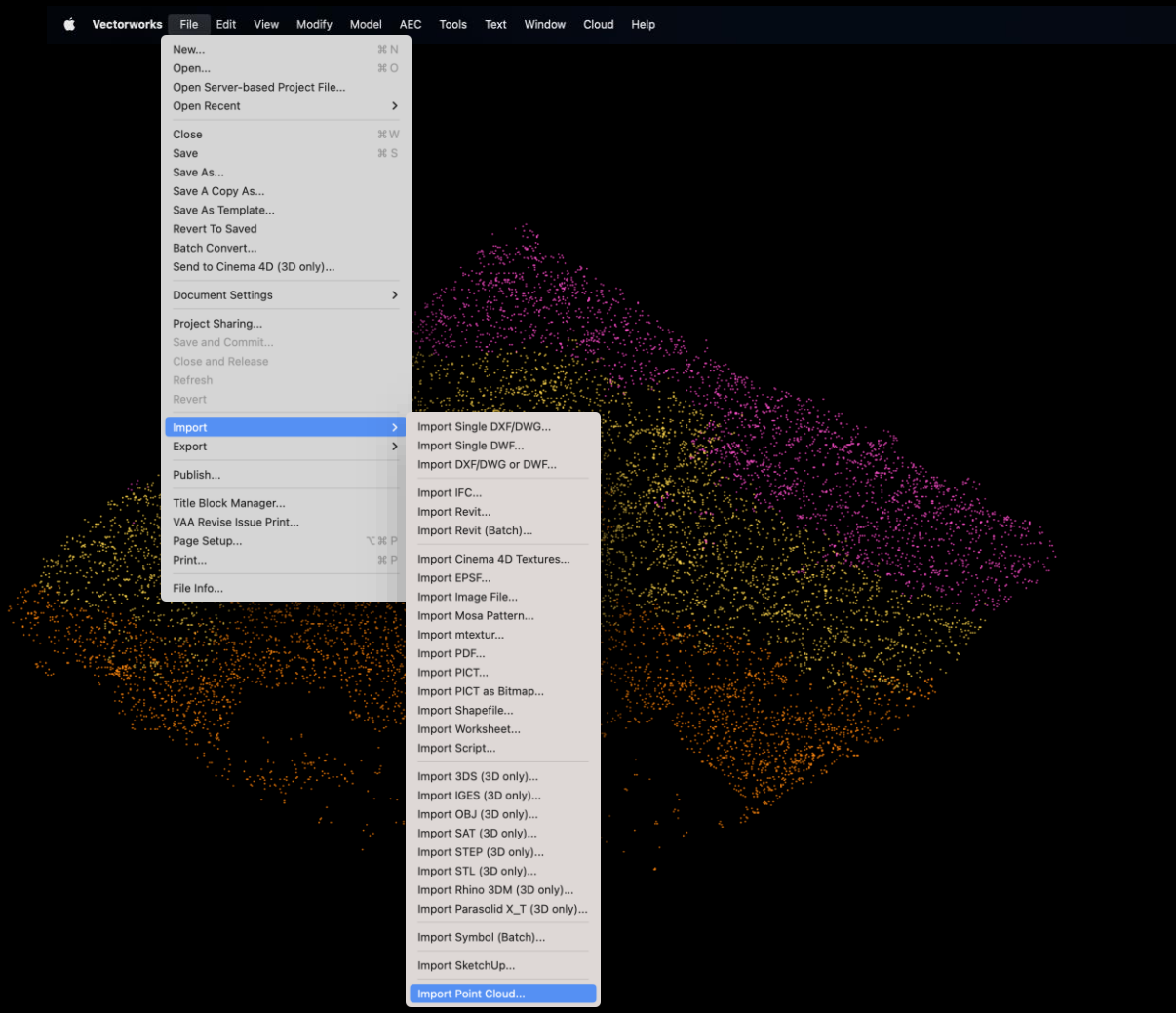


SITE MODEL GEOIMAGE SETTINGS

SITE MODEL WITH GEOIMAGE TEXTURE



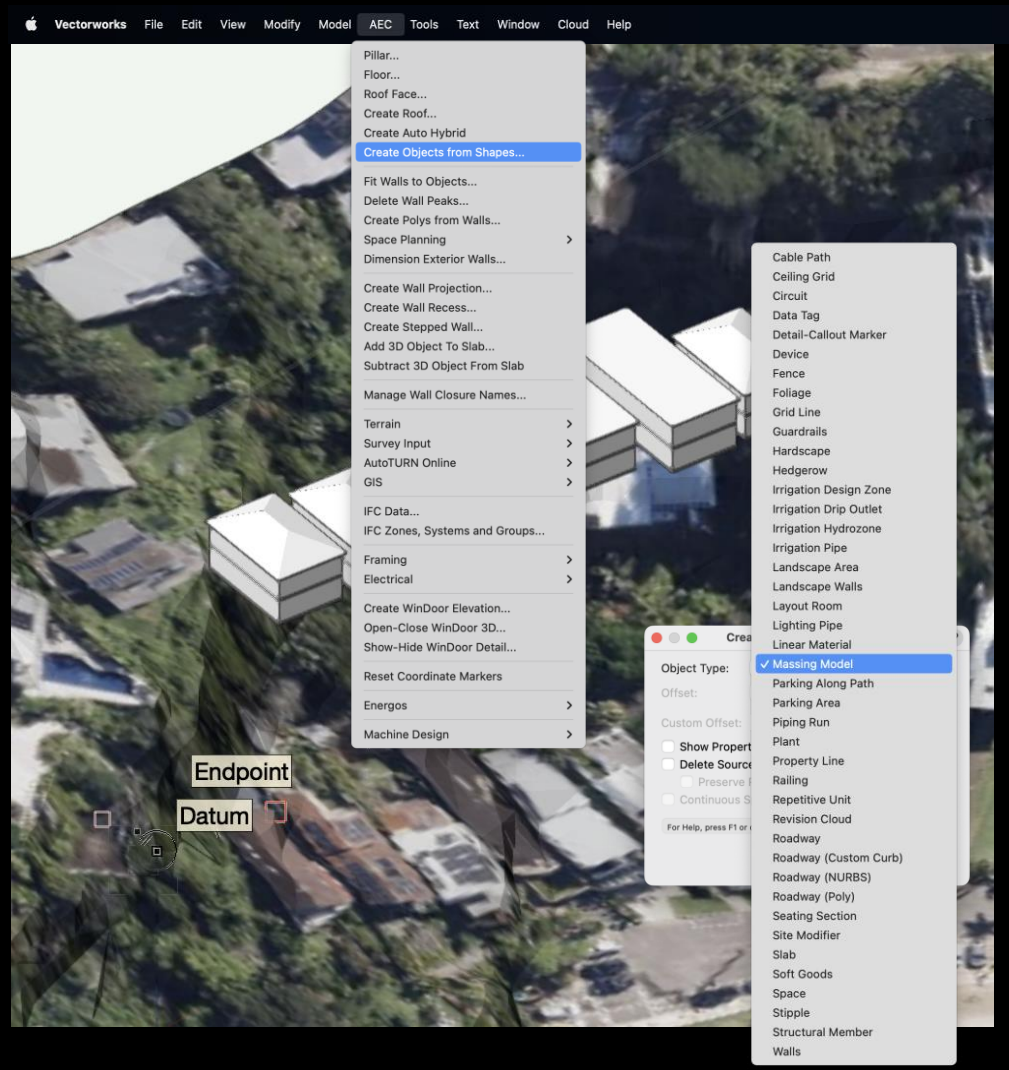
ELVIS ELEVATION DATA



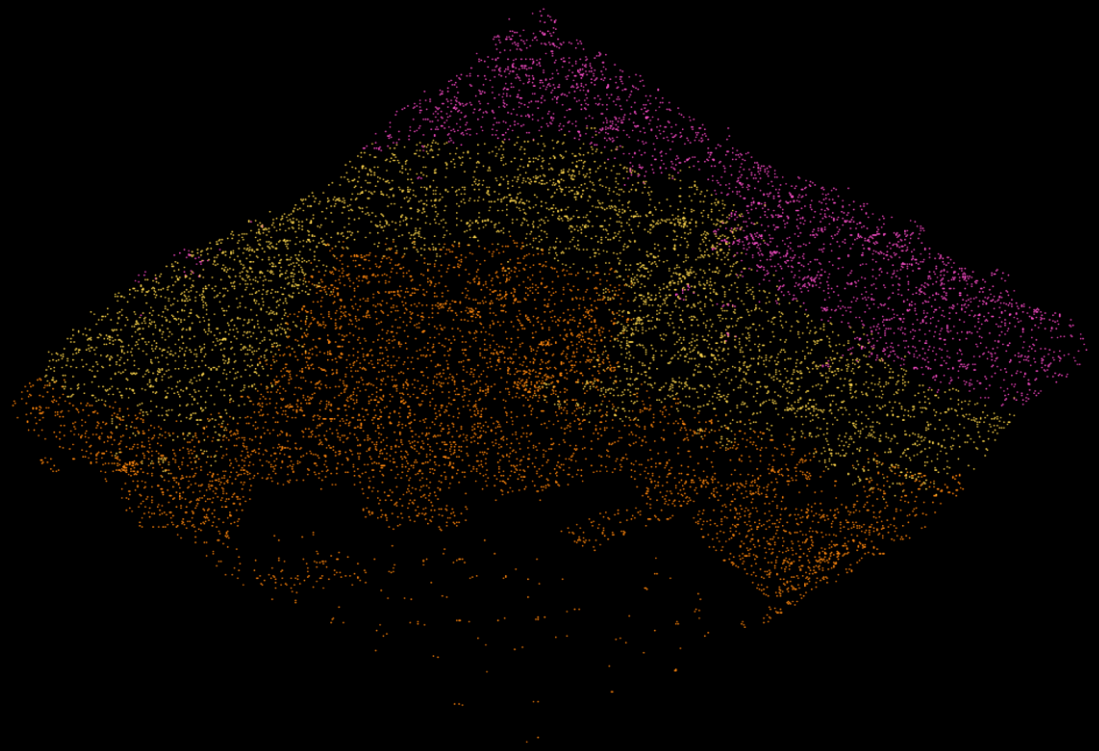
POINT CLOUD SPOT LEVEL CHECK

CONTEXTUAL CONCEPT MODELLING

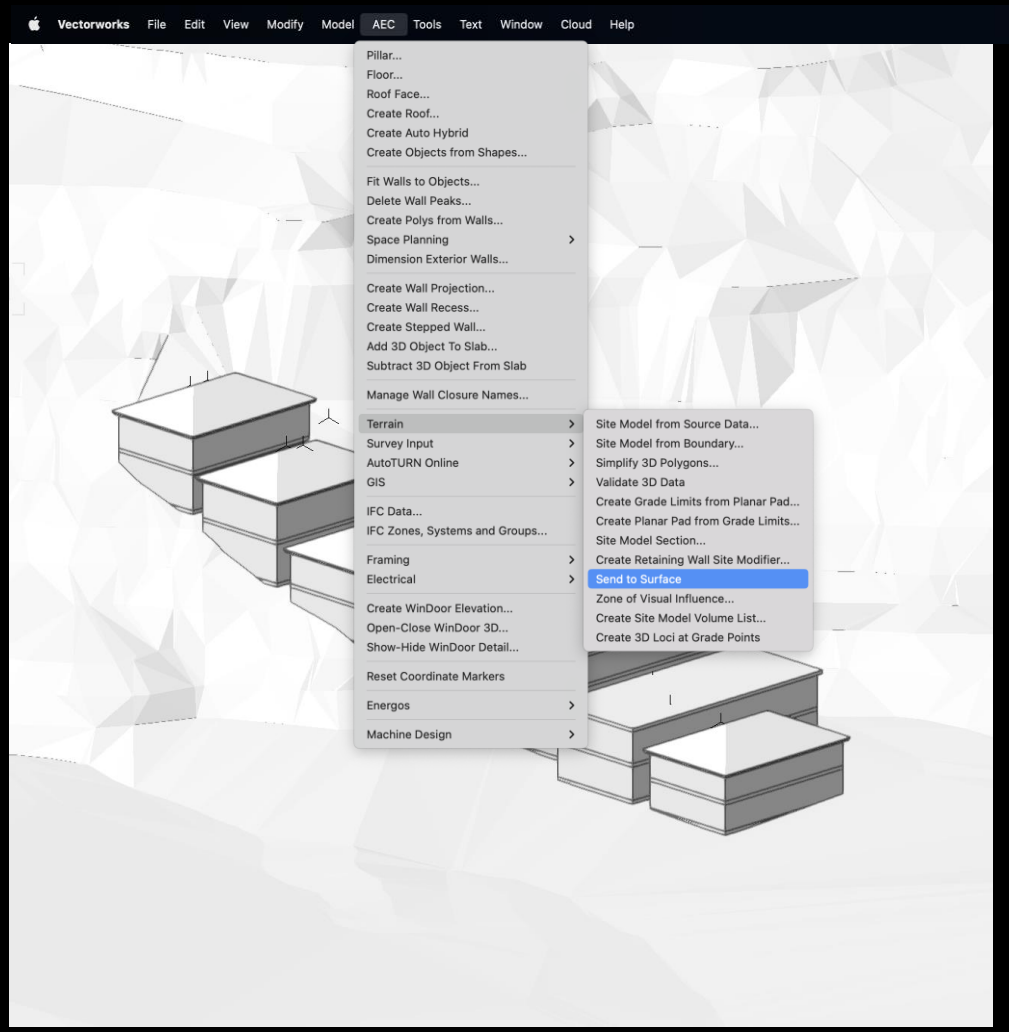
TRACE ADJACENT STRUCTURE OUTLINES



CREATE MASSING MODELS VIA
‘CREATE OBJECTS FROM SHAPES’ COMMAND

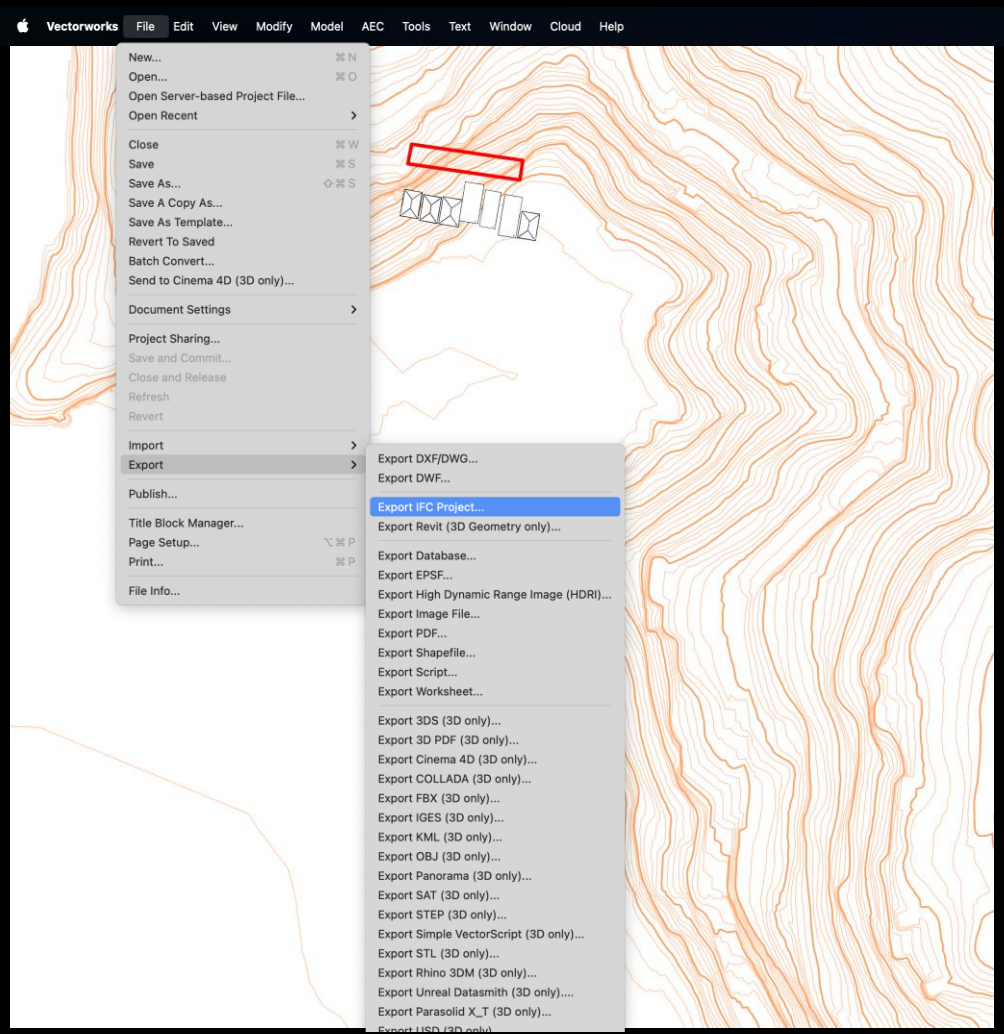


ISOLATE H.O.B. SPOT LEVELS

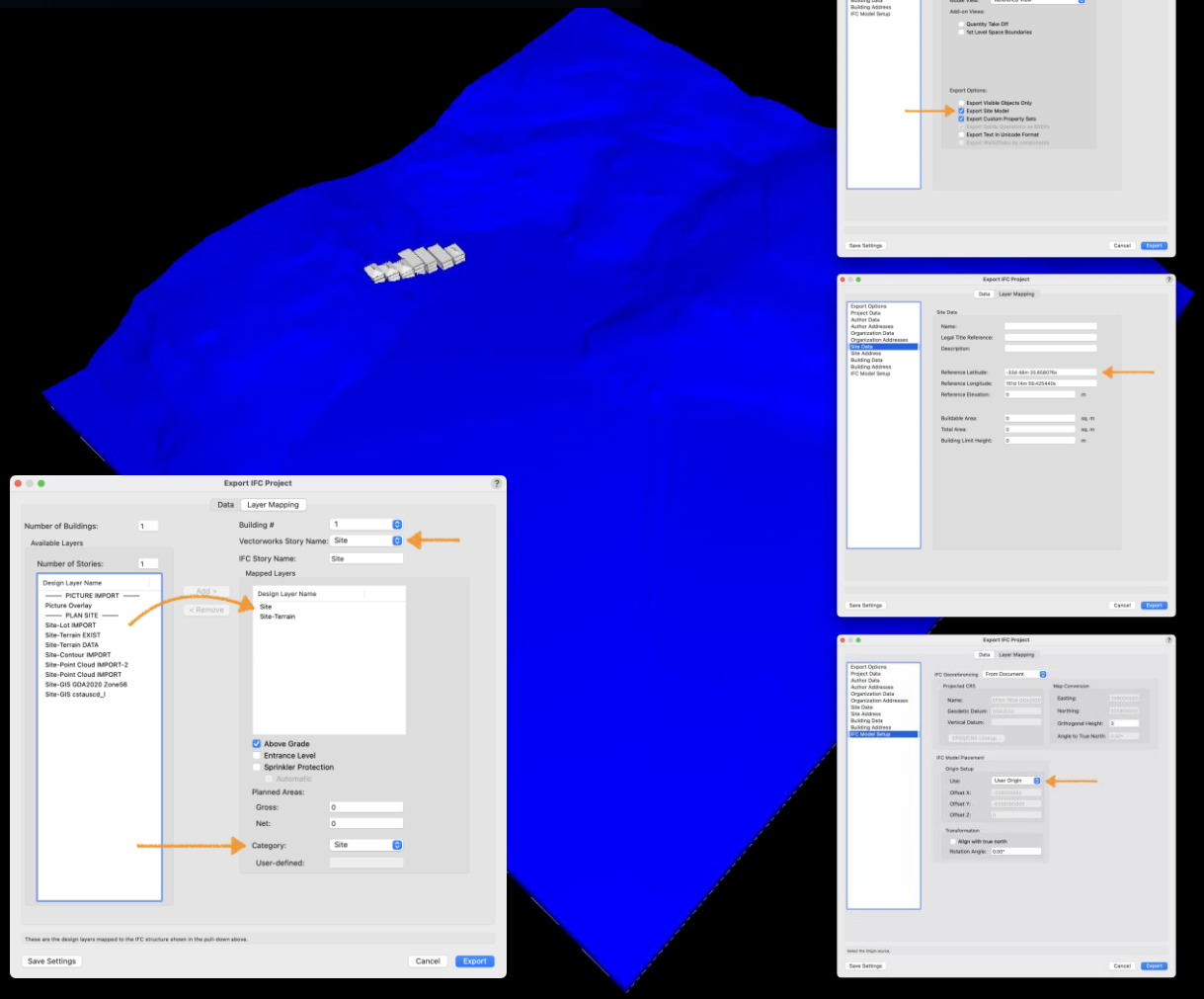


ELEVATE MASSING MODELS

EXPORT IFC MODEL



EXPORT IFC MODEL



EXPORT LAYER MAPPING / SETTINGS

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Reminder: 31st July – Formal CPD webinar

‘AU GIS Workflows Using Publicly Accessible Data’

CONTACT

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