



Pictometry Feature Mapping

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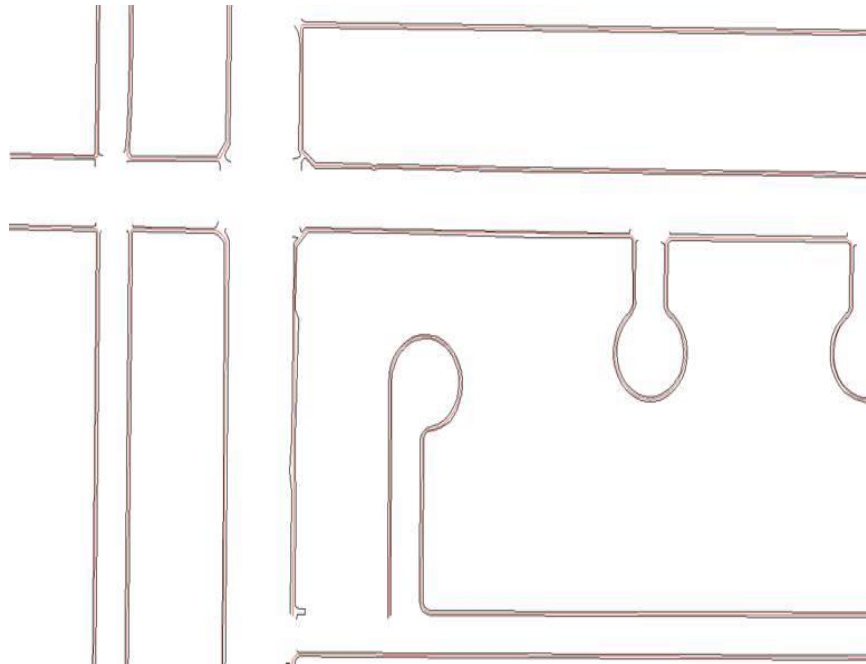


2D + Digitization Solutions

Thom S. Salter, CP, PSM

VP, Mapping and Photogrammetry

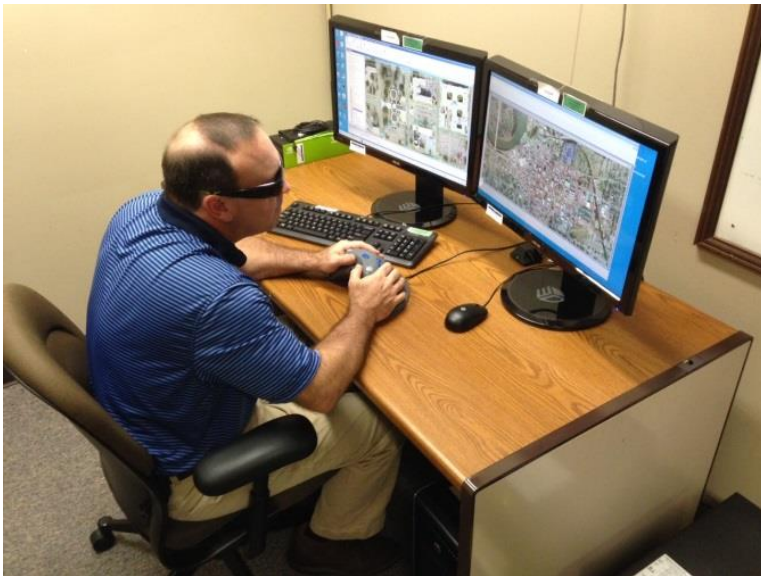
- Pictometry International Corp.
- 15 Years of Professional Experience
- Sensor Calibration, AT
- Orthogonal and Oblique Imagery, LiDAR



3D Stereo Mapping/ Planimetric Compilation

George Jones, Sales Manager, ISC

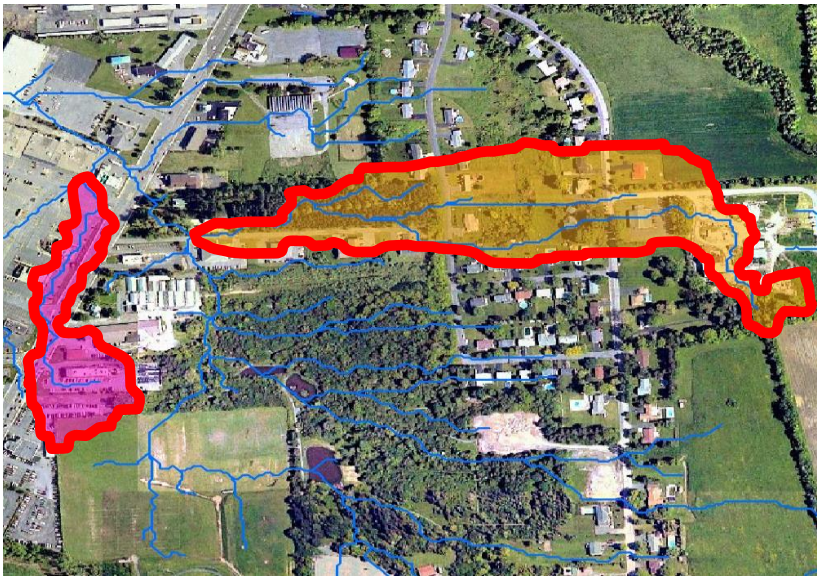
- Intergraph Services Company (ISC), Team Member
- 20 Years of Production Success
- Geospatial vector data capture – 2D or 3D
- Geospatial data services



Topographic Data Products

Benjamin Houston, P.E., PMP, GISP

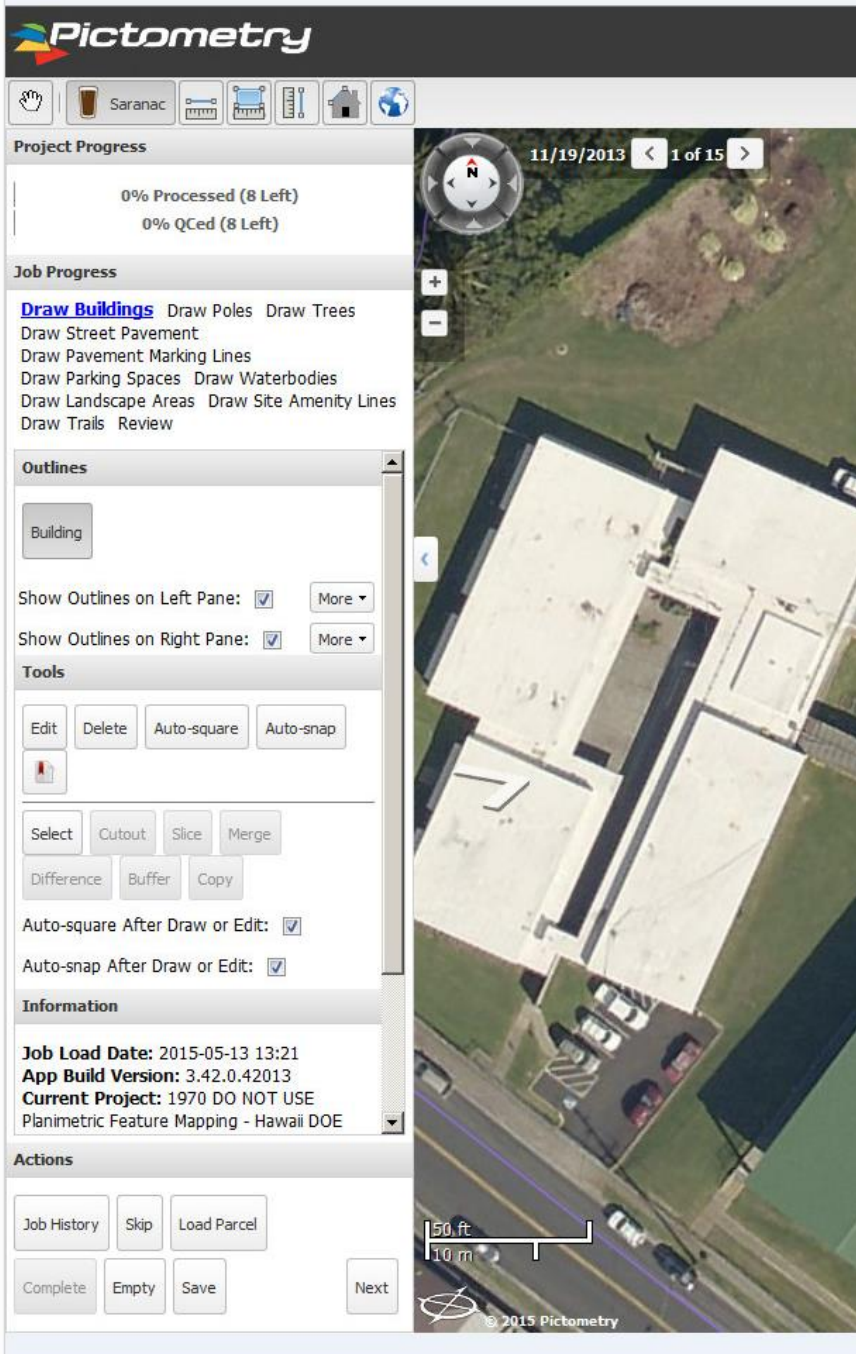
- GroundPoint Technologies, Team Member
- 20 years of Topographic Engineering
- Elevation Models, Contours, Derived Products
- Hydrography, Storm Water, Impervious, High Resolution Land Cover



Pictometry Feature Mapping Environment

- 'Internal' Deployment
- Built on Pictometry Connect Technology
 - Web based application allowing techs to digitize features from anywhere in the world
- Compare multiple libraries and views





Mapping Environment

- Custom designed environment to support use of oblique imagery during digitization on orthogonal imagery
 - Permits more thorough analysis
 - See heights and sides of features
 - Superior accuracy
- Workflow management!
 - Full dual-pass review
 - Built in feedback mechanism



Project Progress
0% Processed (255 Left)
0% QCed (255 Left)

Job Progress
[Feature Outlines](#) Feature Points
Crossing Points Review

Outlines
Building Nonbuilding Deck Gathering

Show Outlines on Left Pane: More ▾
Show Outlines on Right Pane: More ▾

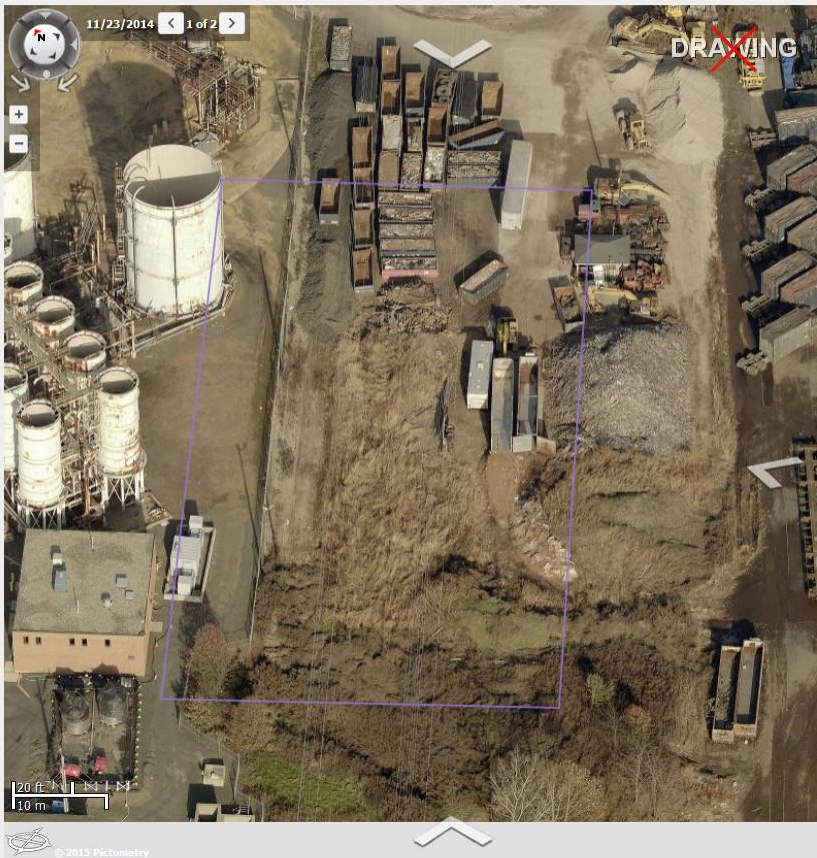
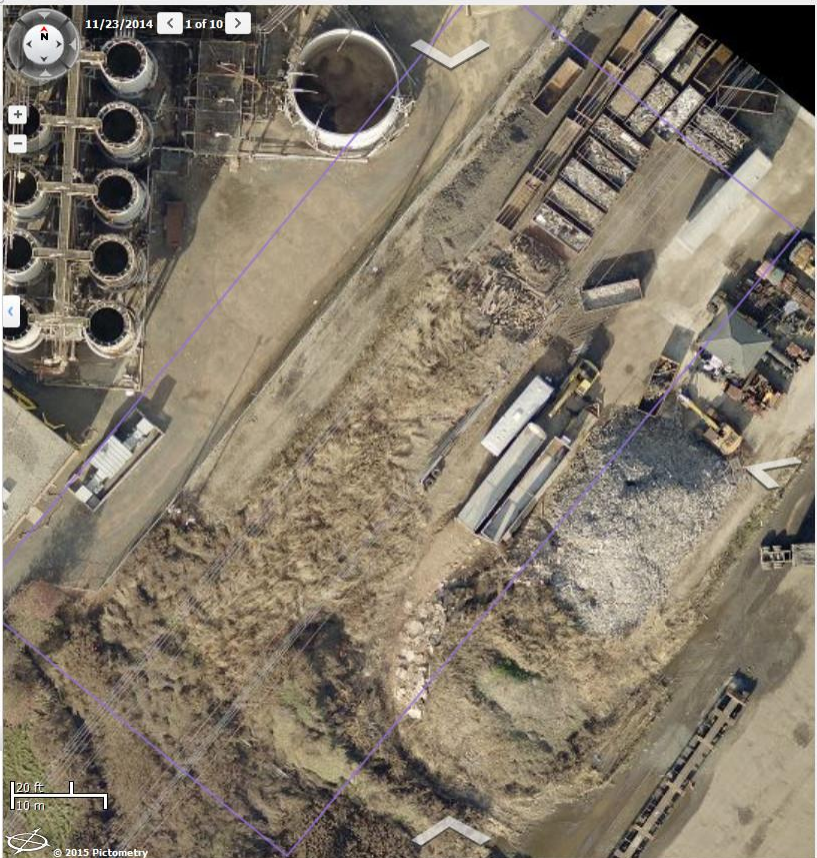
Tools
Edit Delete Auto-square Auto-snap

Select Cutout Slice Merge
Difference Buffer Copy

Auto-square After Draw or Edit:
Auto-snap After Draw or Edit:

Information
Job Load Date: 2015-05-13 13:08
App Build Version: 3.42.0.42013
Current Project: ON HOLD - TFM - NJPSEG
2015 Sample
Current Job Id: 41418245
QC Fail Count: 0
QC Markup Count: 0

Actions
Job History Skip Load Parcel
Complete Empty Save Next



Project Progress
0% Processed (25 Left)
0% QCed (25 Left)

Job Progress
[Draw Features](#) Attribution Review

Outlines
Building Sidewalks Pavement Curbs
Pole

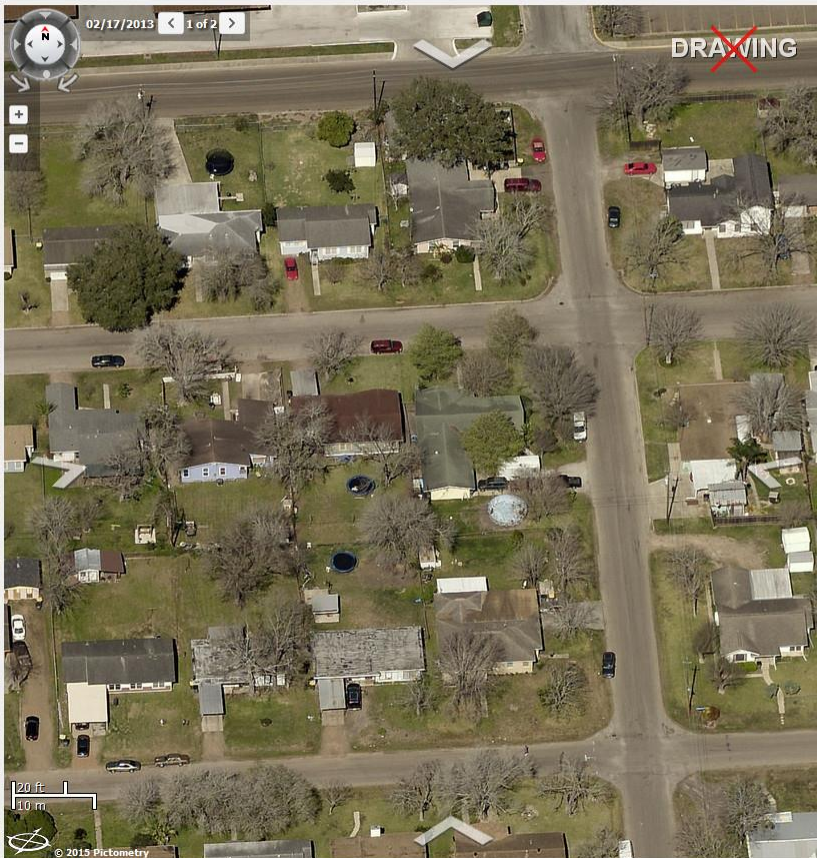
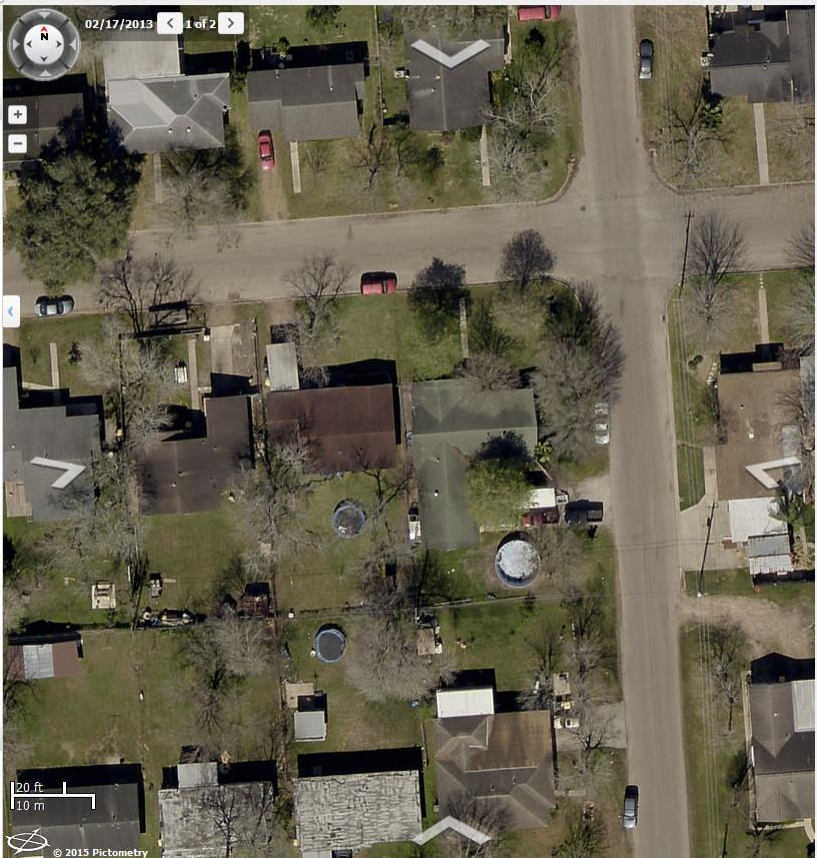
Show Outlines on Left Pane: More
Show Outlines on Right Pane: More

Tools
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Select Cutout Slice Merge
Difference Buffer Copy

Auto-square After Draw or Edit:
Auto-snap After Draw or Edit:

Information
Job Load Date: 2015-05-13 13:23
App Build Version: 3.42.0.42013
Current Project: John D's Group ONLY -
Planimetric Feature Mapping - City of Victoria
TEST
Current Job Id: 39346254
QC Fail Count: 0

Actions
Job History Skip Load Parcel
Complete Empty Save Next



Project Progress
0% Processed (8 Left)
0% Qced (8 Left)

Job Progress
Draw Buildings Draw Poles Draw Trees
Draw Street Pavement
Draw Pavement Marking Lines
Draw Parking Spaces Draw Waterbodies
Draw Landscape Areas Draw Site Amenity Lines
Draw Trails Review

Outlines
Building

Show Outlines on Left Pane: More ▾
Show Outlines on Right Pane: More ▾

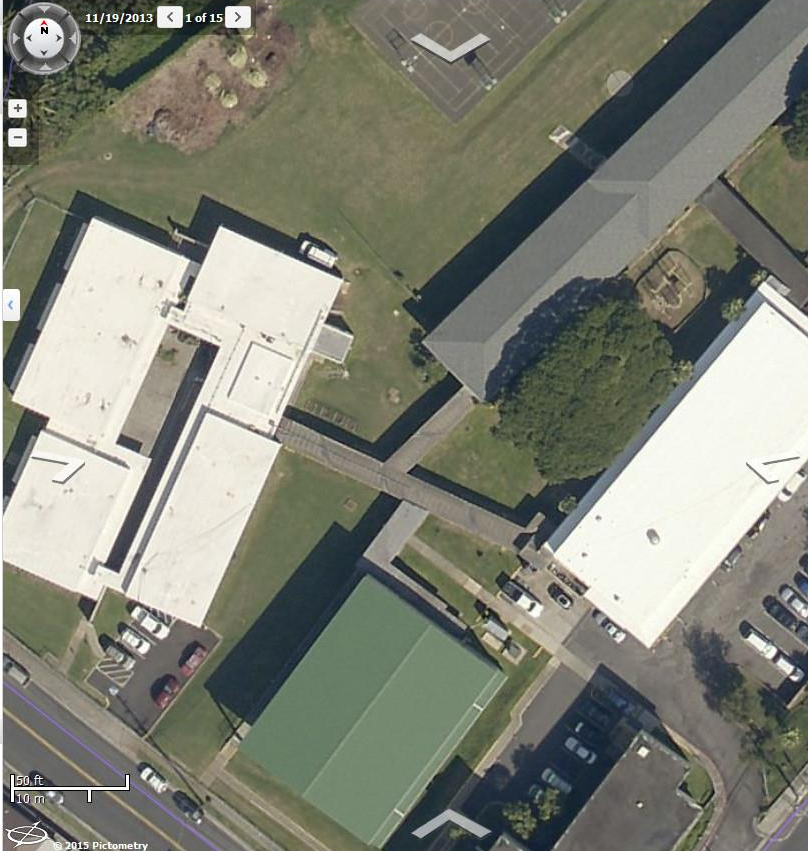
Tools
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Select Cutout Slice Merge
Difference Buffer Copy

Auto-square After Draw or Edit:
Auto-snap After Draw or Edit:

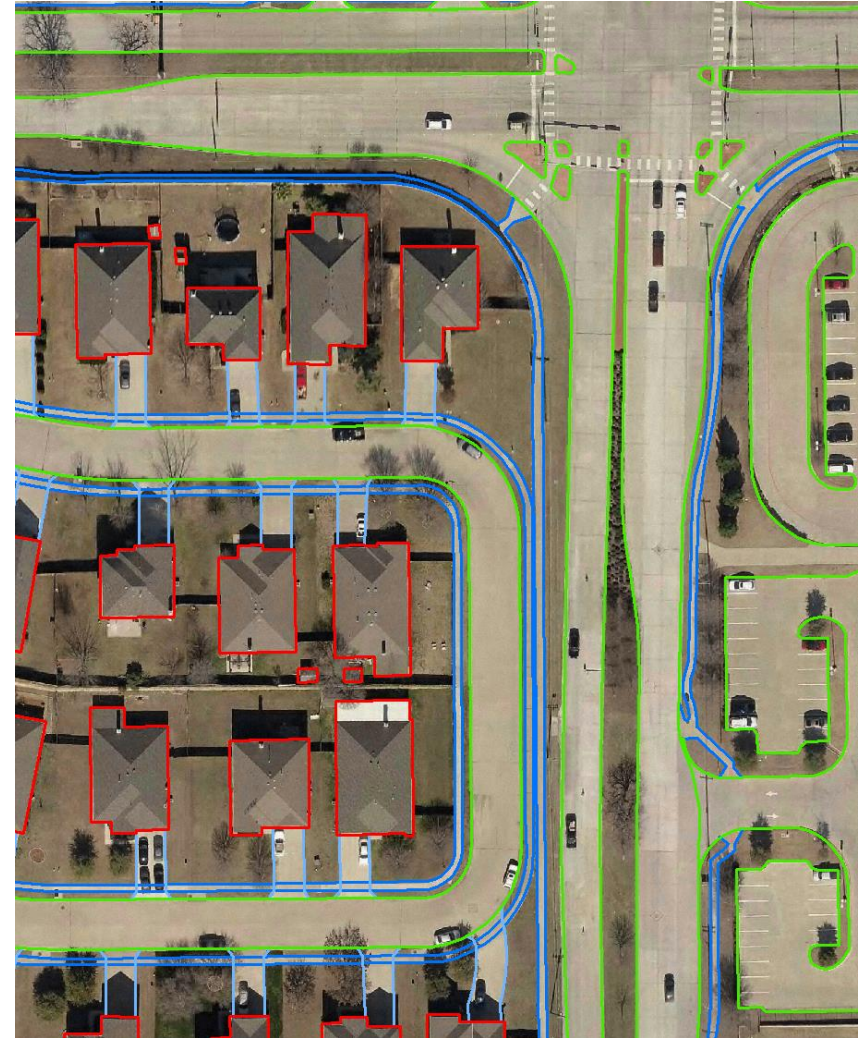
Information
Job Load Date: 2015-05-13 13:21
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Current Project: 1970 DO NOT USE
Planimetric Feature Mapping - Hawaii DOE

Actions
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Complete Empty Save Next



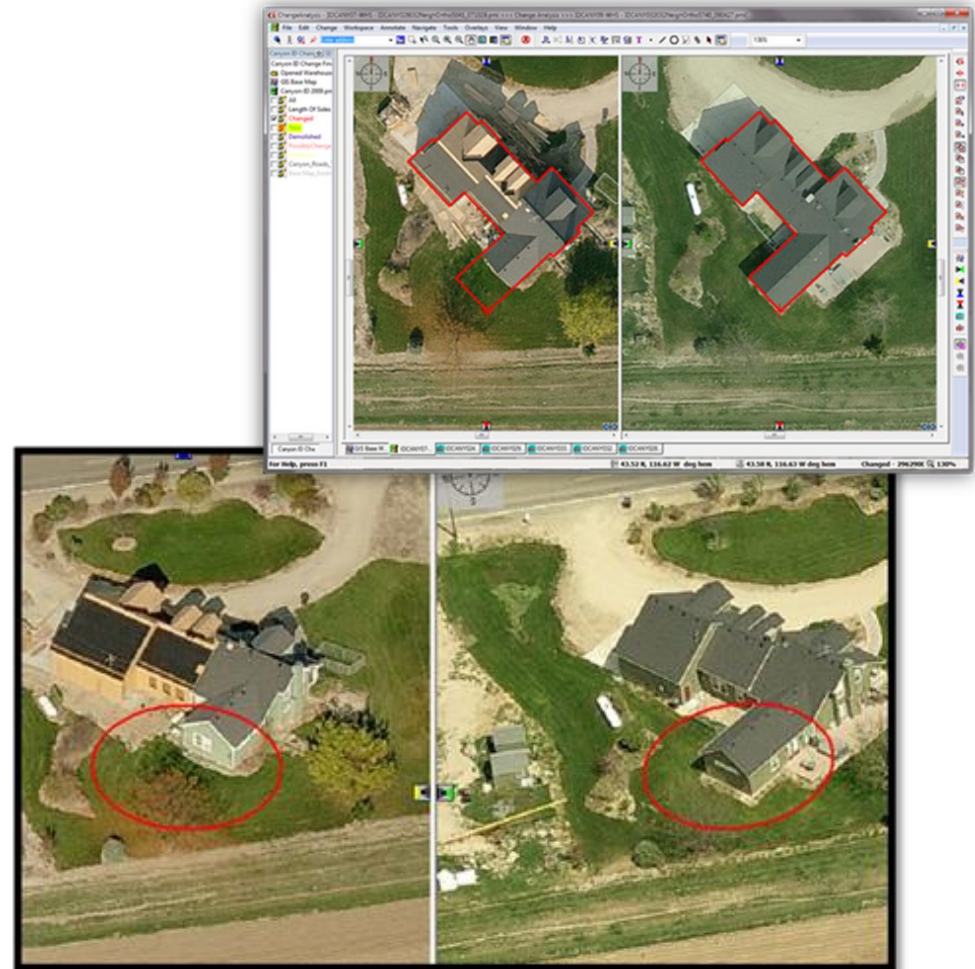
Example Offerings

- 2-D Planimetrics
 - Height attribution
- ChangeFinder: Building Outline Digitization plus Change Detection
- Impervious Surface Mapping



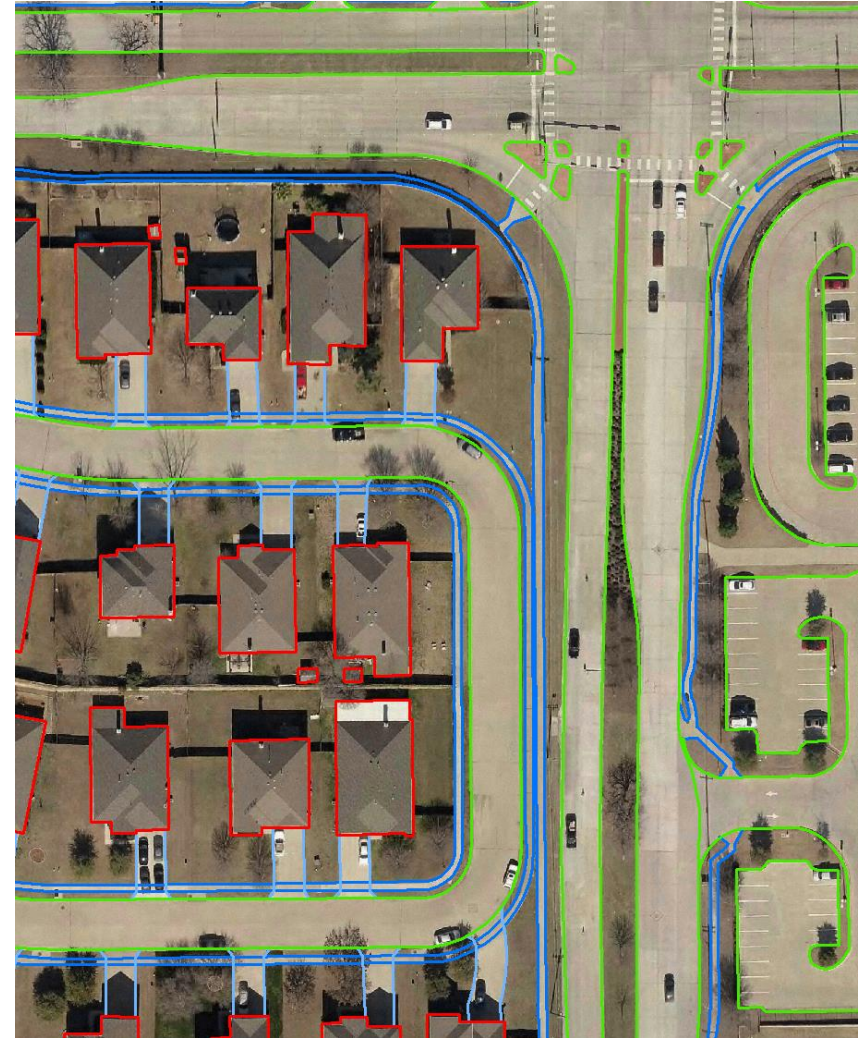
Pictometry ChangeFinder

- Dynamic Workflow
 - Full QC
 - Every parcel/outline reviewed by two technicians
- Inspection from full 360 degrees
 - Digitization on orthos
 - Obliques integrated for reference and ambiguity resolution!
- Connect Assessment



Example Offerings

- Feature Point Mapping
 - Ideal for Asset Management and Inventory Projects
 - Pools, Hydrants, etc.
 - Anything you can see!
- High Consequence Area (HCA) Mapping
- Post-processing: Data Integration Services

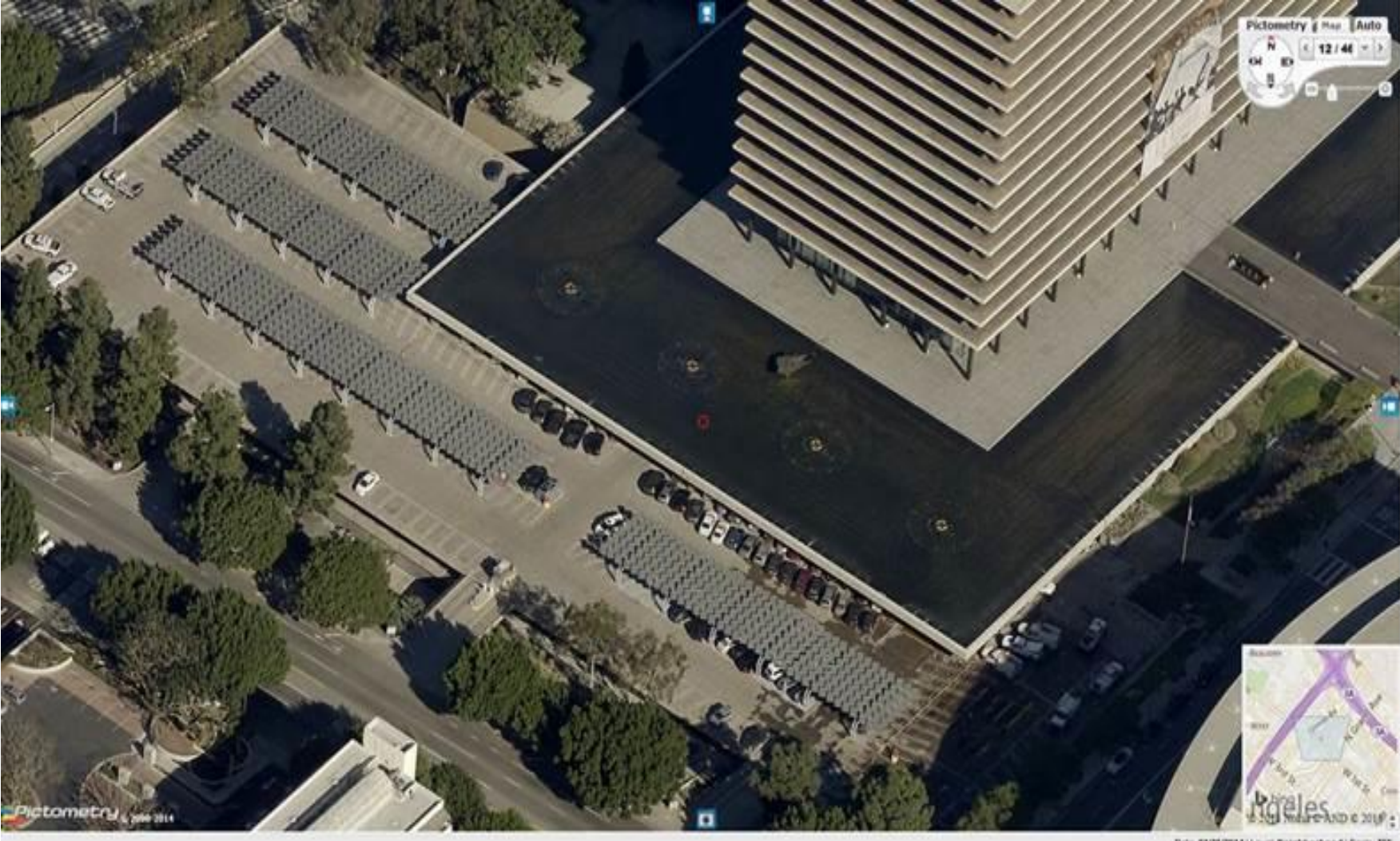


High Consequence Area (HCA) Mapping

- Oil and Gas Pipelines
- Identification of:
 - 4-story + structures
 - High occupancy locations (HOL)
 - Dwellings/Business Occupation
- Conflict detection:
 - Attribution based on parcel data, previous projects, etc.



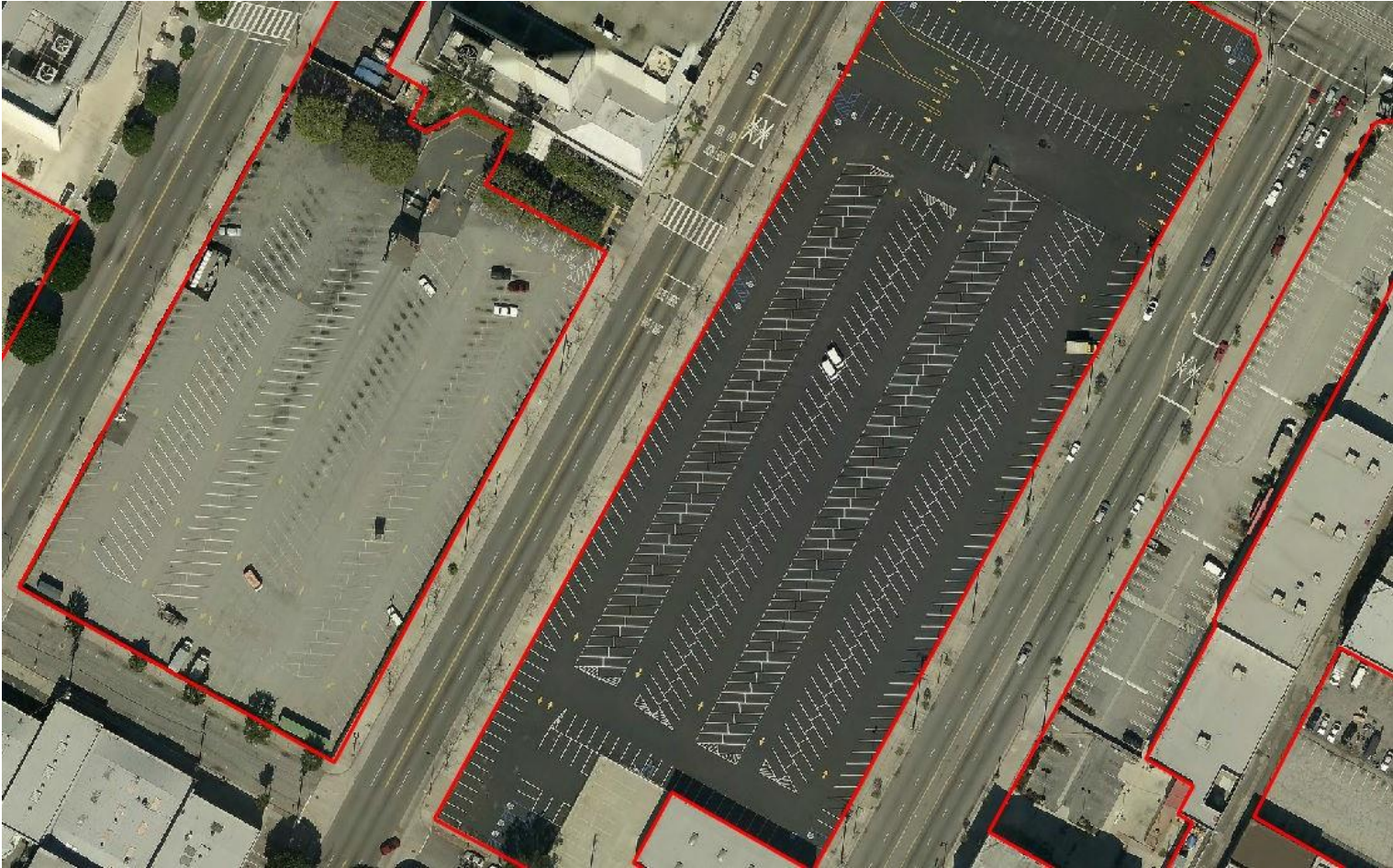
Feature Mapping (2D)



LA County Solar Feasibility Study



Feature Mapping (2D)



Scope: Map parking lots across 190,947 commercial parcels throughout LA County, draw polygons for all ground level, paved parking lots.



LARIAC

Optional Feature Mapping Solutions

INTERGRAPH SERVICES COMPANY (ISC)

Pictometry

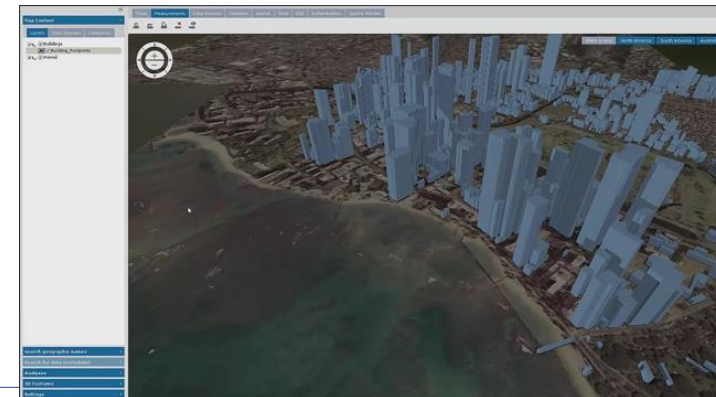
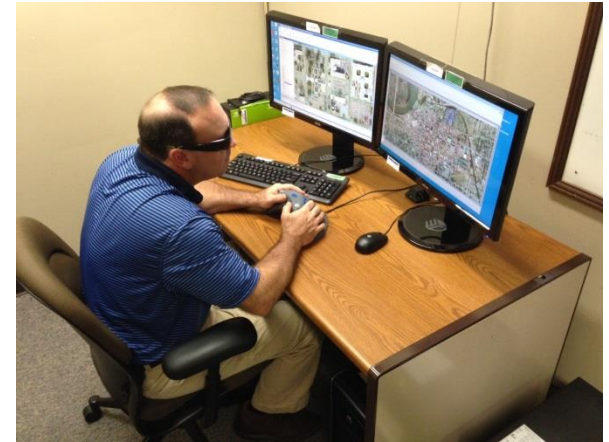
- Feature extraction
- Image analysis
- Data Conflation/Integration
- Database design and development
- * Photogrammetric Services
- * GIS implementation
- * Cartography
- * Map and chart production



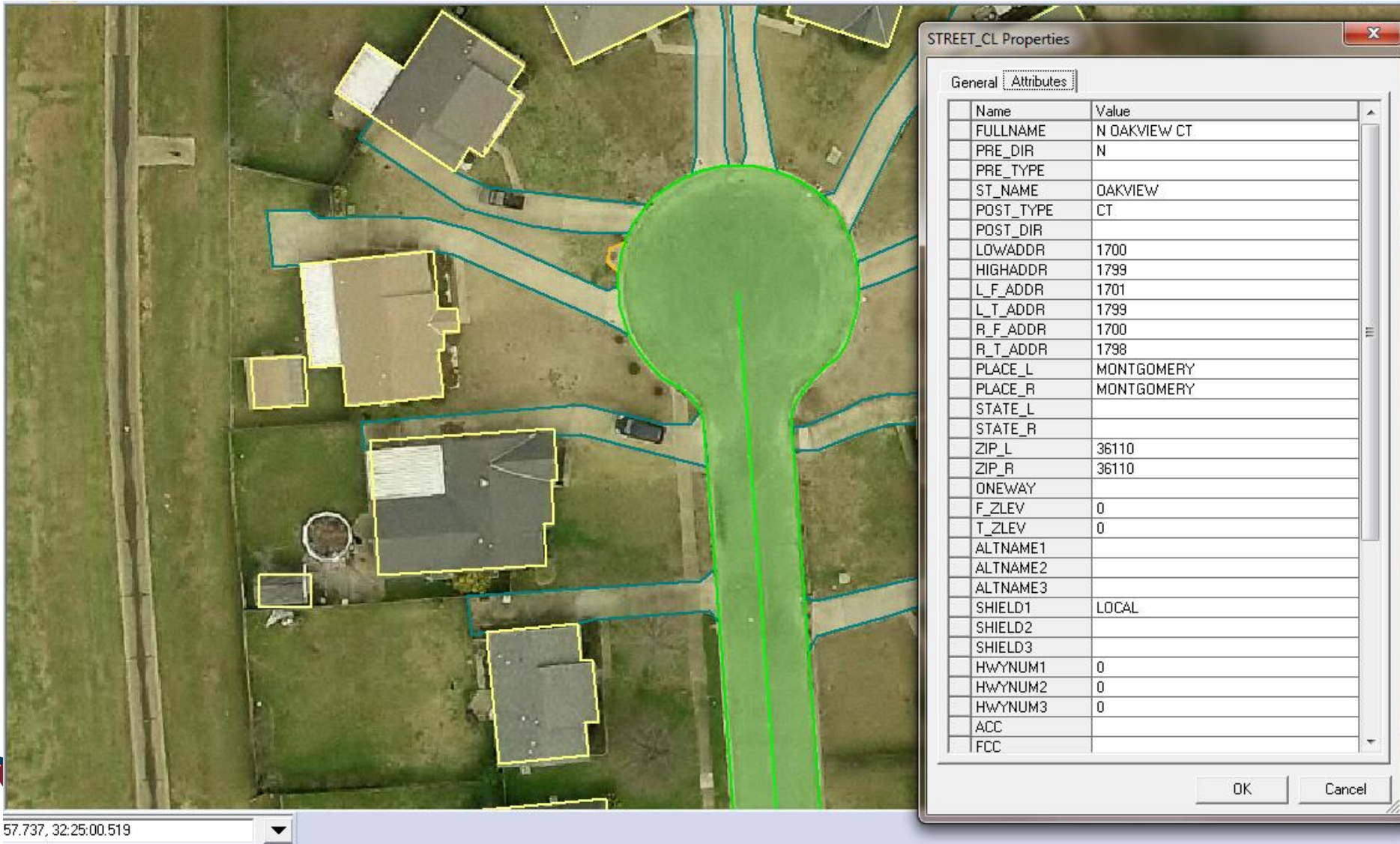
Hardware

State-of-the-Art Hardware

- 47 Stereo Workstations
- 118 Workstations
- 44 Laptops
- 30 Servers
- 2 Large Format Scanners
- 3 HP Large Format Color Plotters



Extraction of Features from Pictometry Orthos

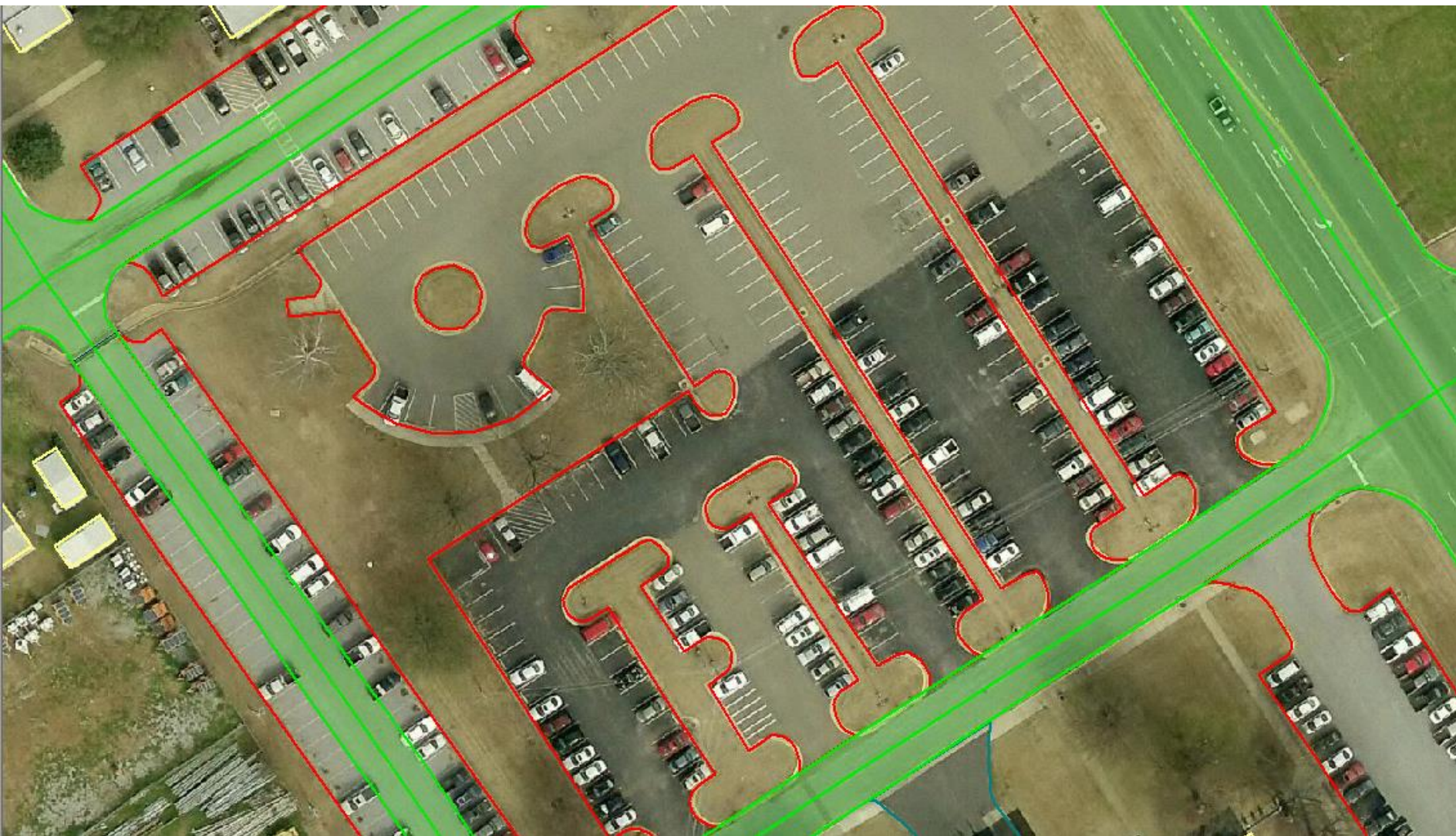


The image displays an aerial orthophoto of a residential neighborhood. A central road is highlighted in green, indicating it is the selected feature. Other roads and building footprints are outlined in yellow and cyan. A dialog box titled 'STREET_CL Properties' is open on the right, showing a table of attributes for the selected street.

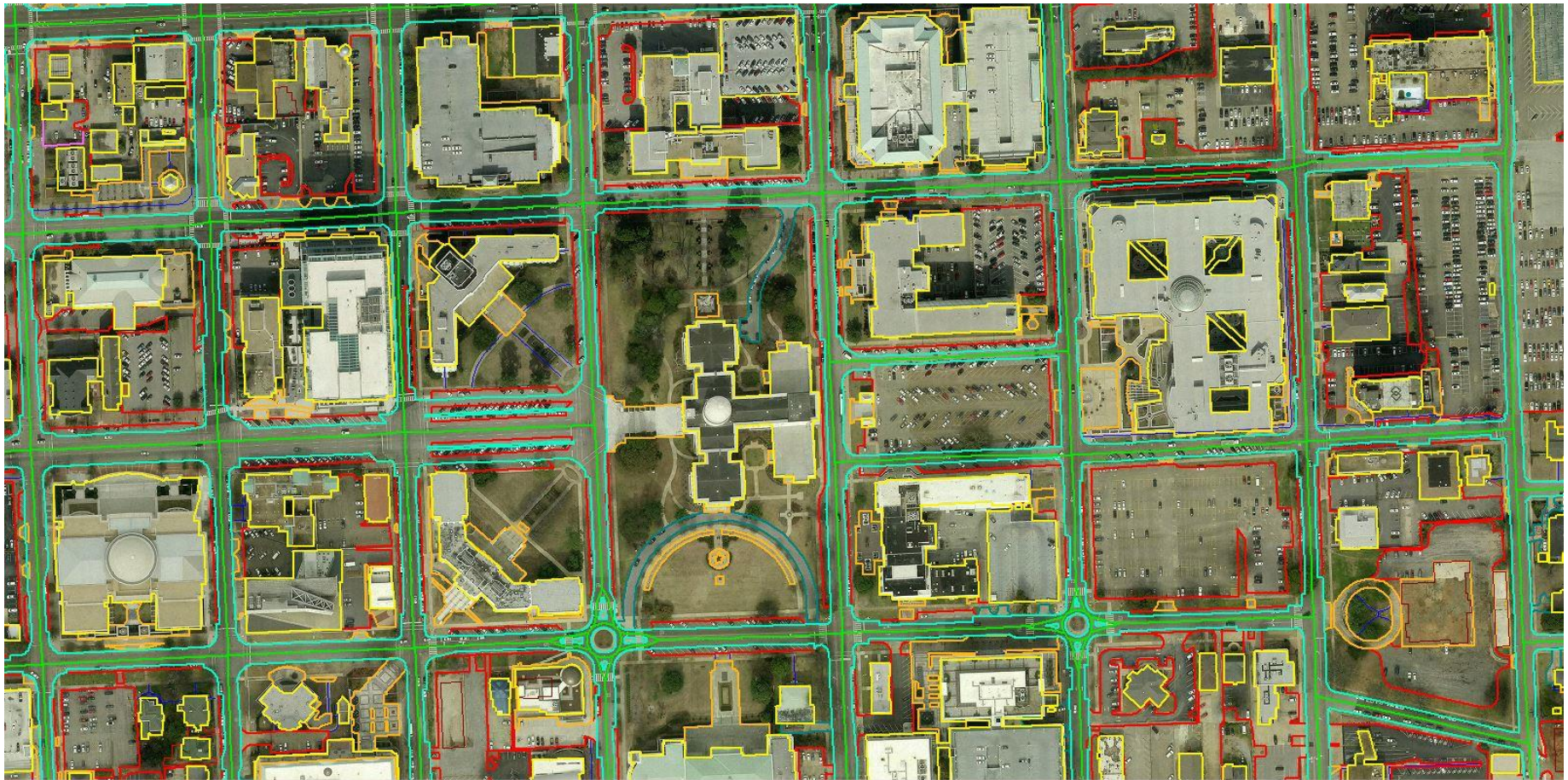
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PRE_DIR	N
PRE_TYPE	
ST_NAME	OAKVIEW
POST_TYPE	CT
POST_DIR	
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HIGHADDR	1799
L_F_ADDR	1701
L_T_ADDR	1799
R_F_ADDR	1700
R_T_ADDR	1798
PLACE_L	MONTGOMERY
PLACE_R	MONTGOMERY
STATE_L	
STATE_R	
ZIP_L	36110
ZIP_R	36110
ONEWAY	
F_ZLEV	0
T_ZLEV	0
ALTNAME1	
ALTNAME2	
ALTNAME3	
SHIELD1	LOCAL
SHIELD2	
SHIELD3	
HWYNUM1	0
HWYNUM2	0
HWYNUM3	0
ACC	
FCC	

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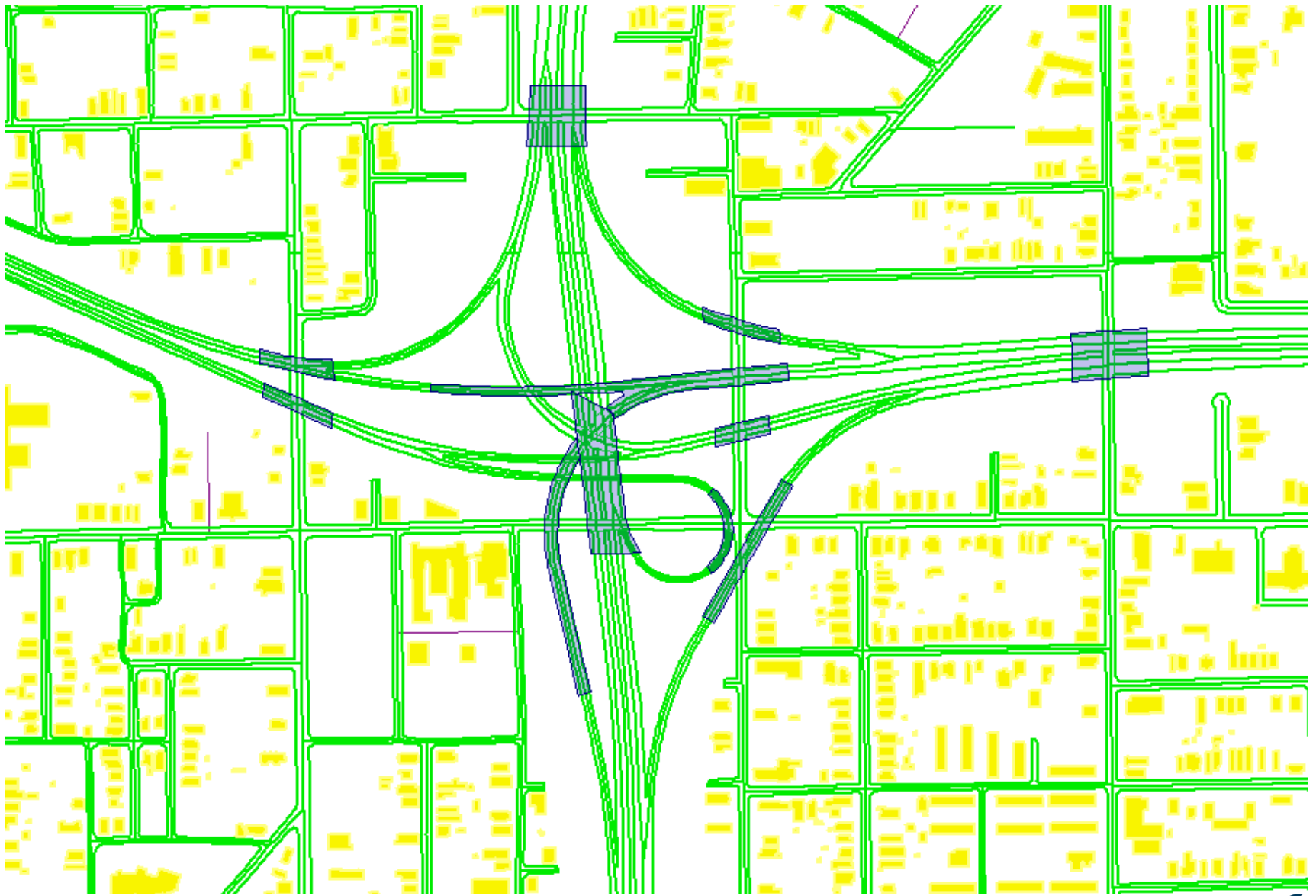
Impervious Surface



Impervious Surface Capture



Transportation and Buildings



Why 3D Data (Stereo Capture)

To support decision processes through better visualization

3D GIS...

- Is a requirement to generate 3D rendered models
- Provides more accurate and in-depth analysis of existing infrastructure
- Accommodates enhanced visualization for future projects (Urban planning, then presentation to local leaders, and finally to the public)
- Insures superior data for collaboration between stakeholders
- Provides better visualization for first responders and EMA
- Noise propagation analysis
- Is a requirement for flooding and plume movement simulations

Example Customer uses for 3D Data

3 Dimensional Spatial relationship to other features

Feature Elevation/Heights

Monotonicity

Storm drain elevations

Line of sight analysis

Vertical obstruction analysis

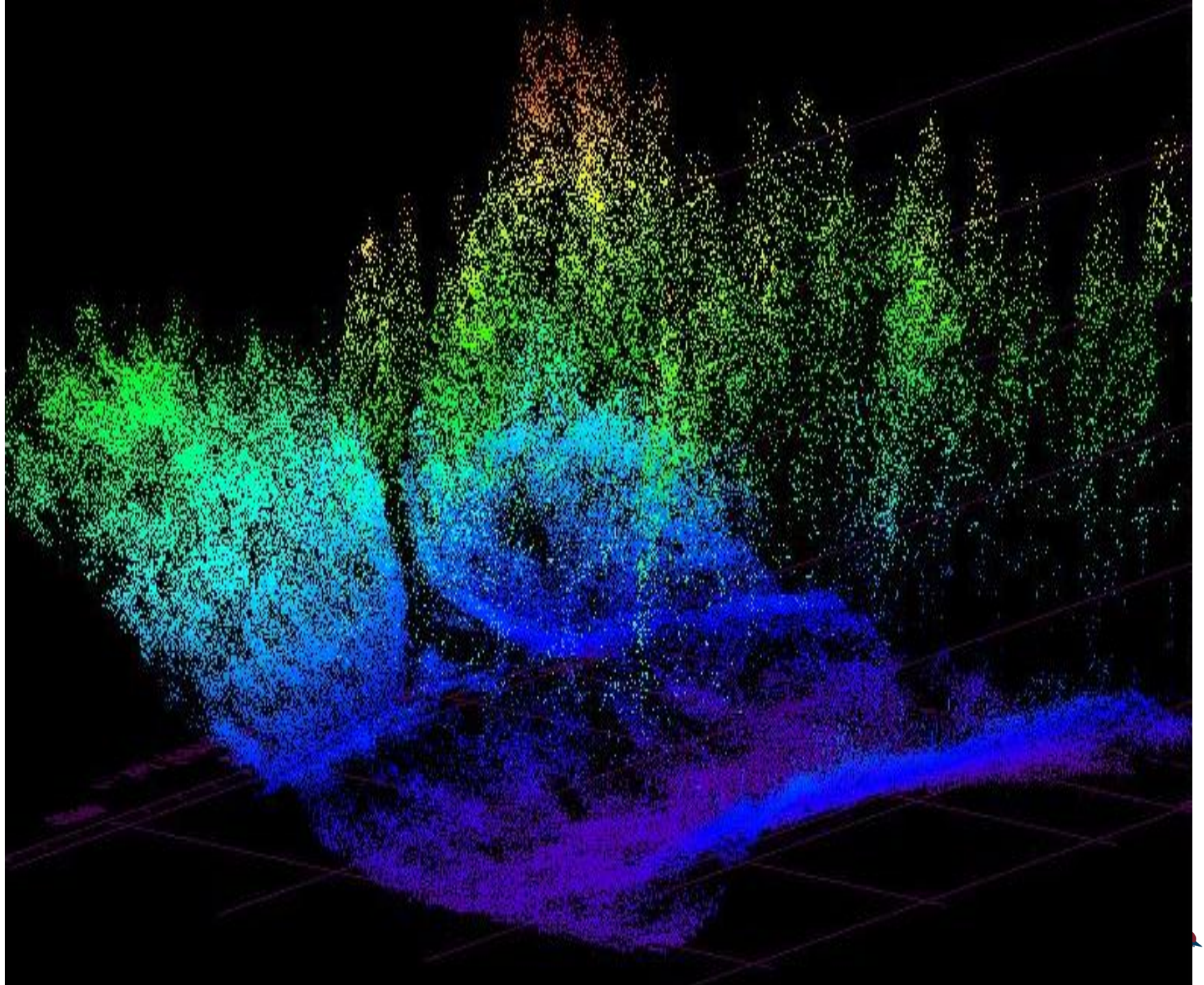
3-Dimensional Analysis through perspective display

Discernment of elevation detail – (example: retaining wall and ramps)



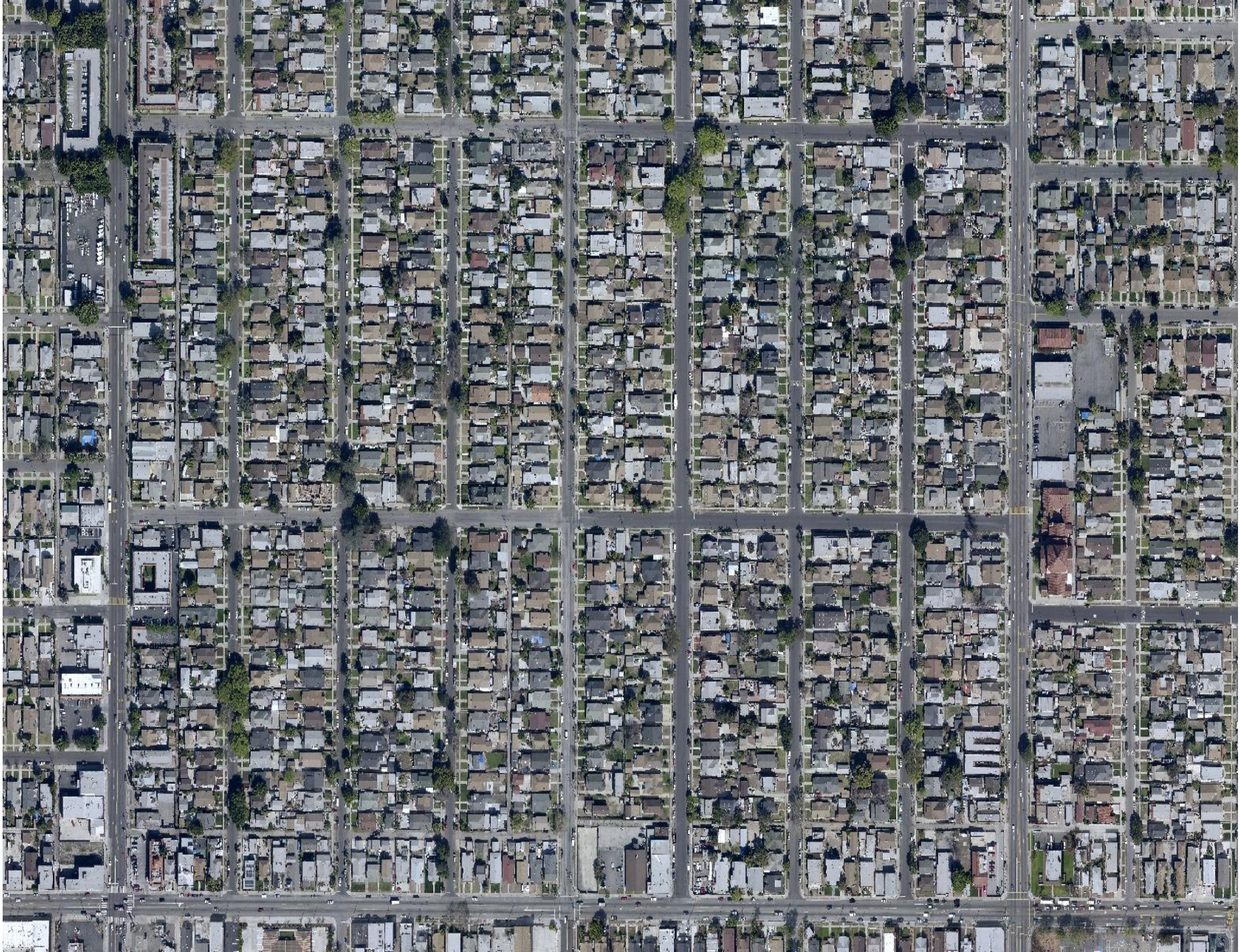
LARIAC

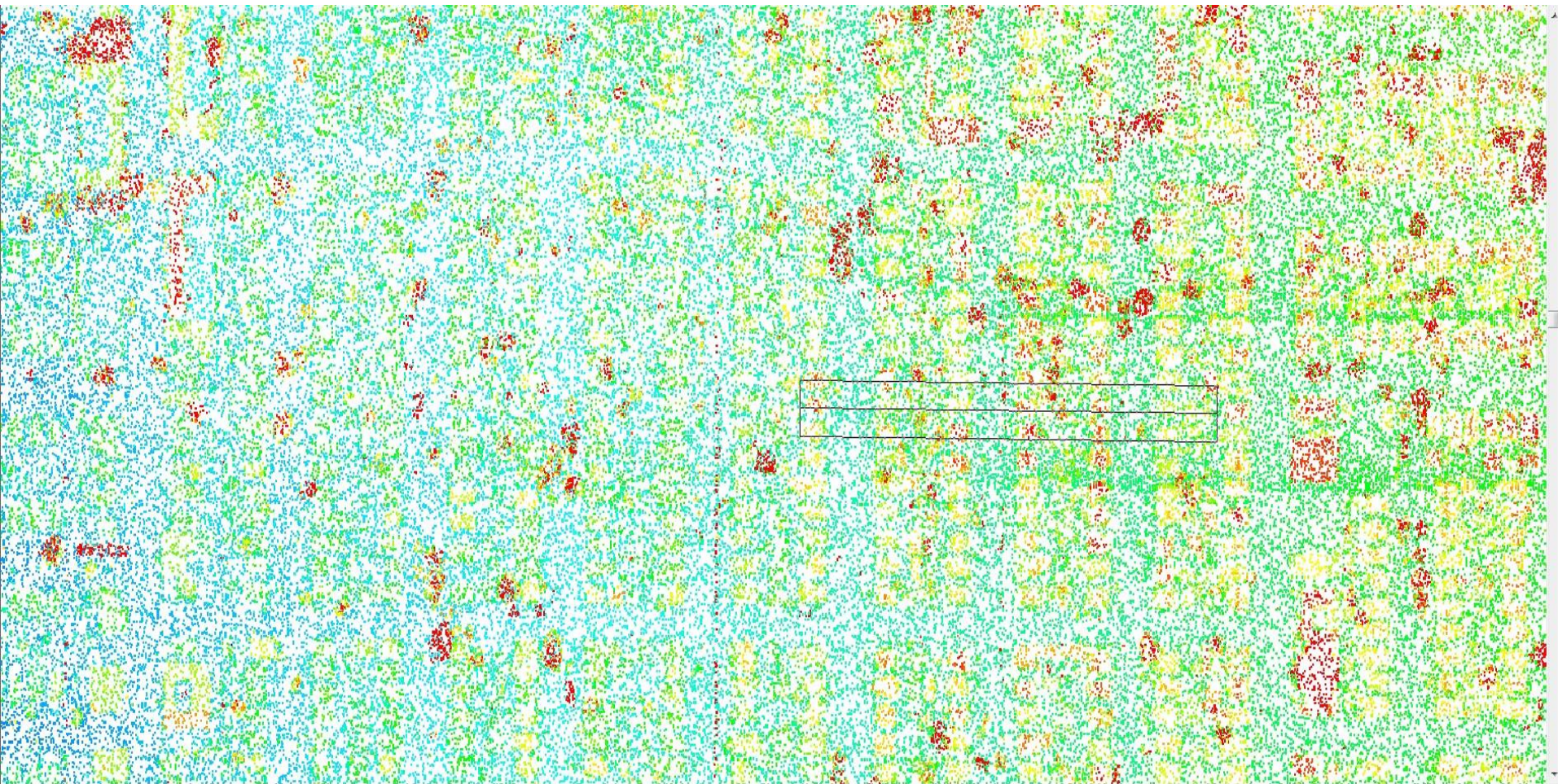
LiDAR & Optional Terrain Mapping Solutions



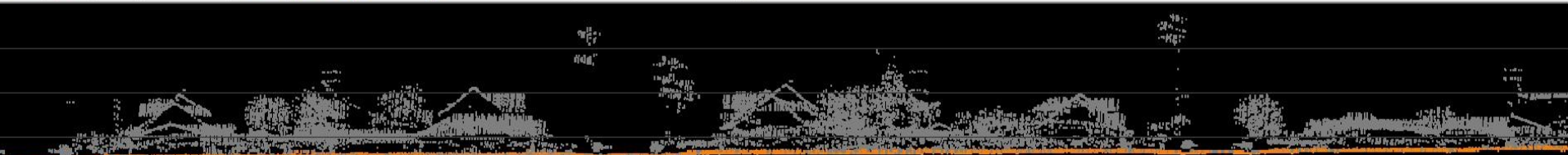
3ft cell resolution

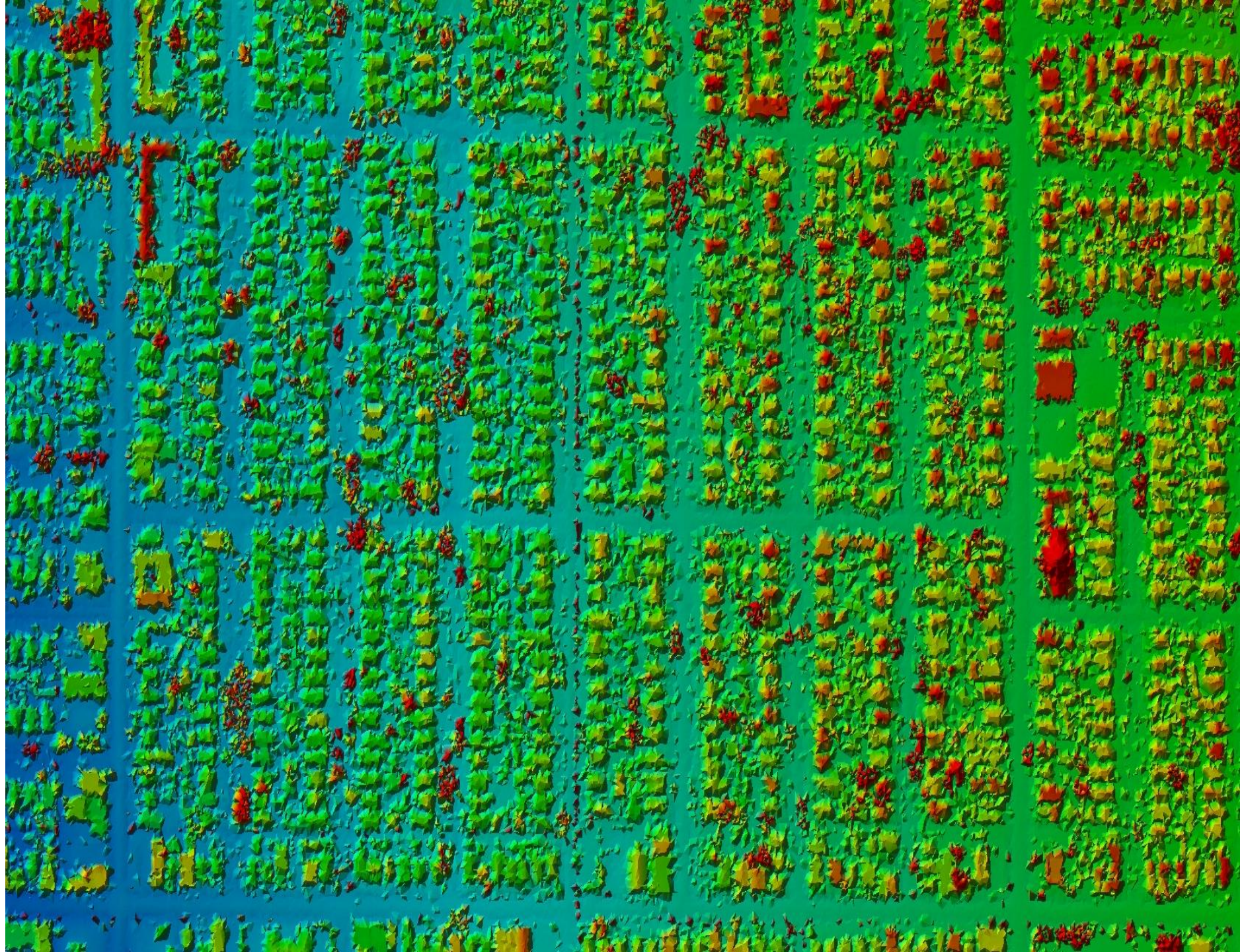


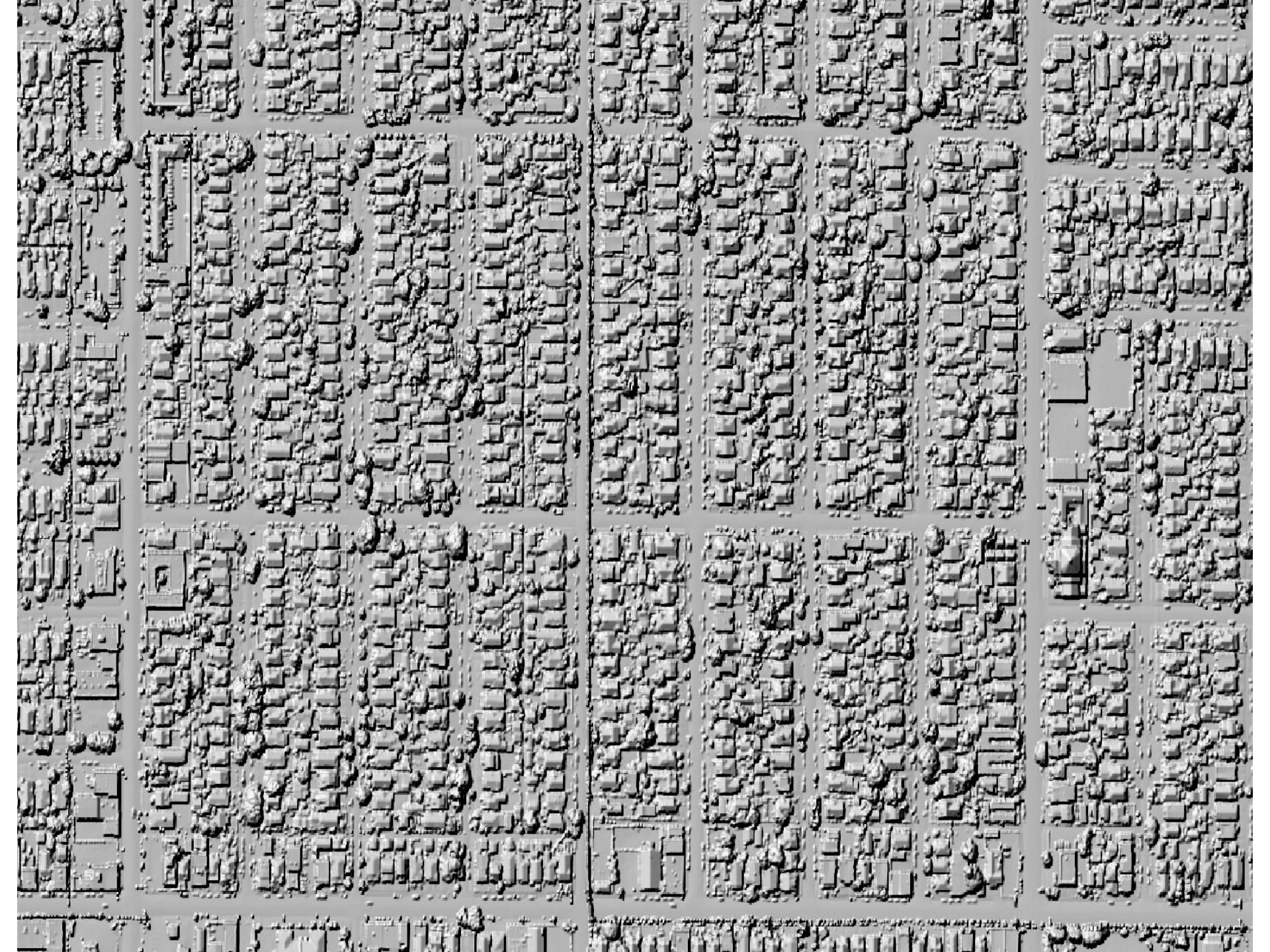




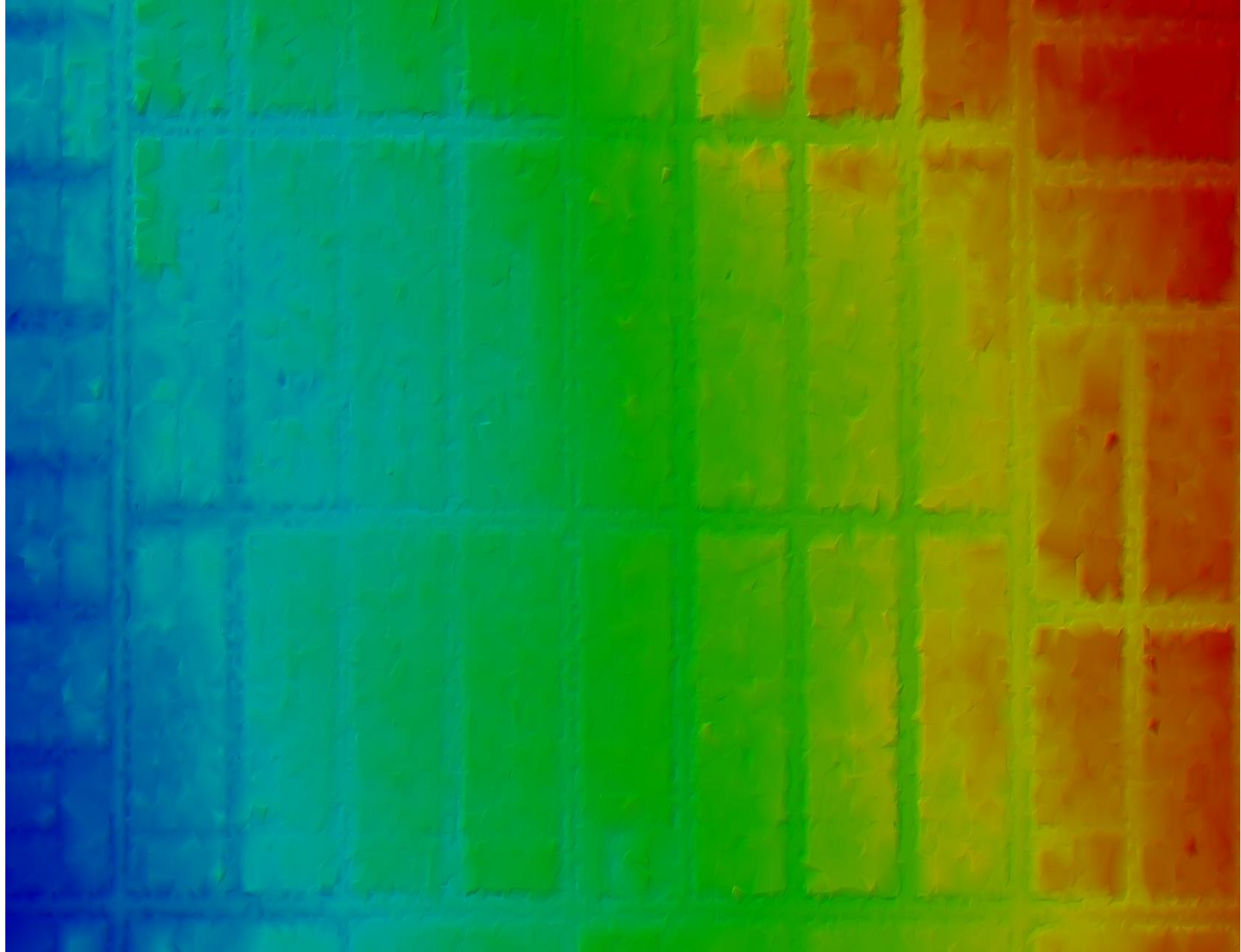
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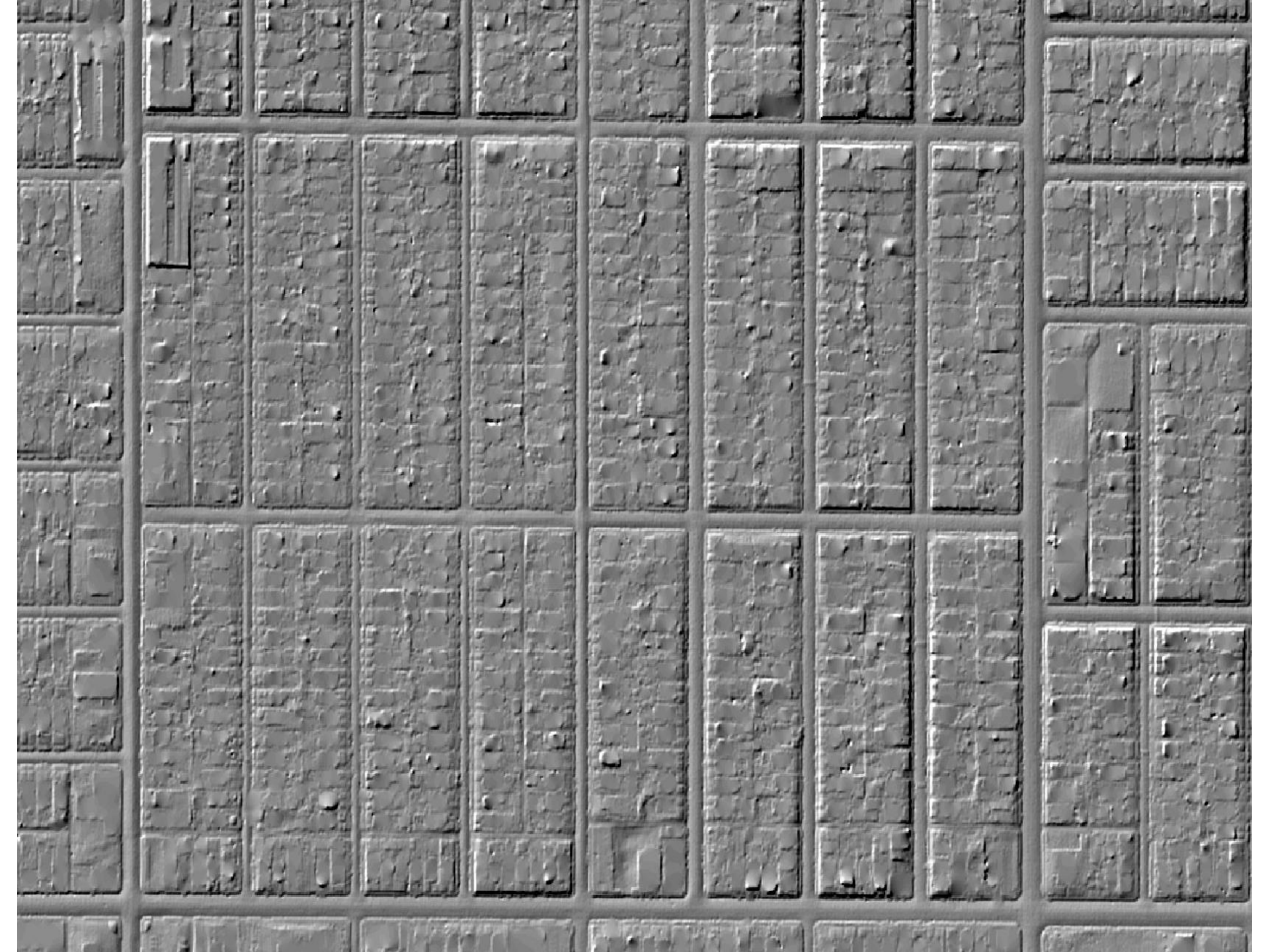


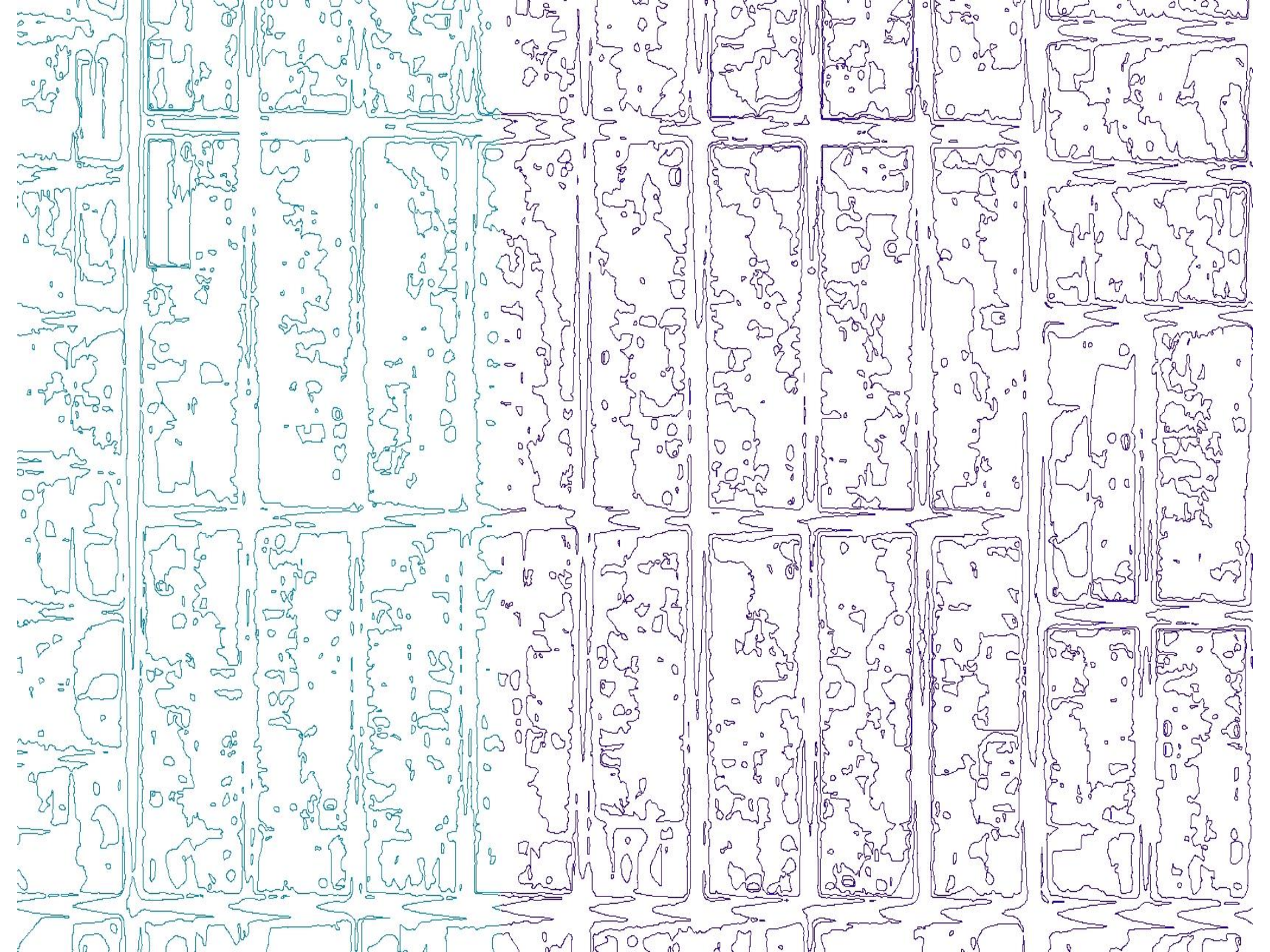


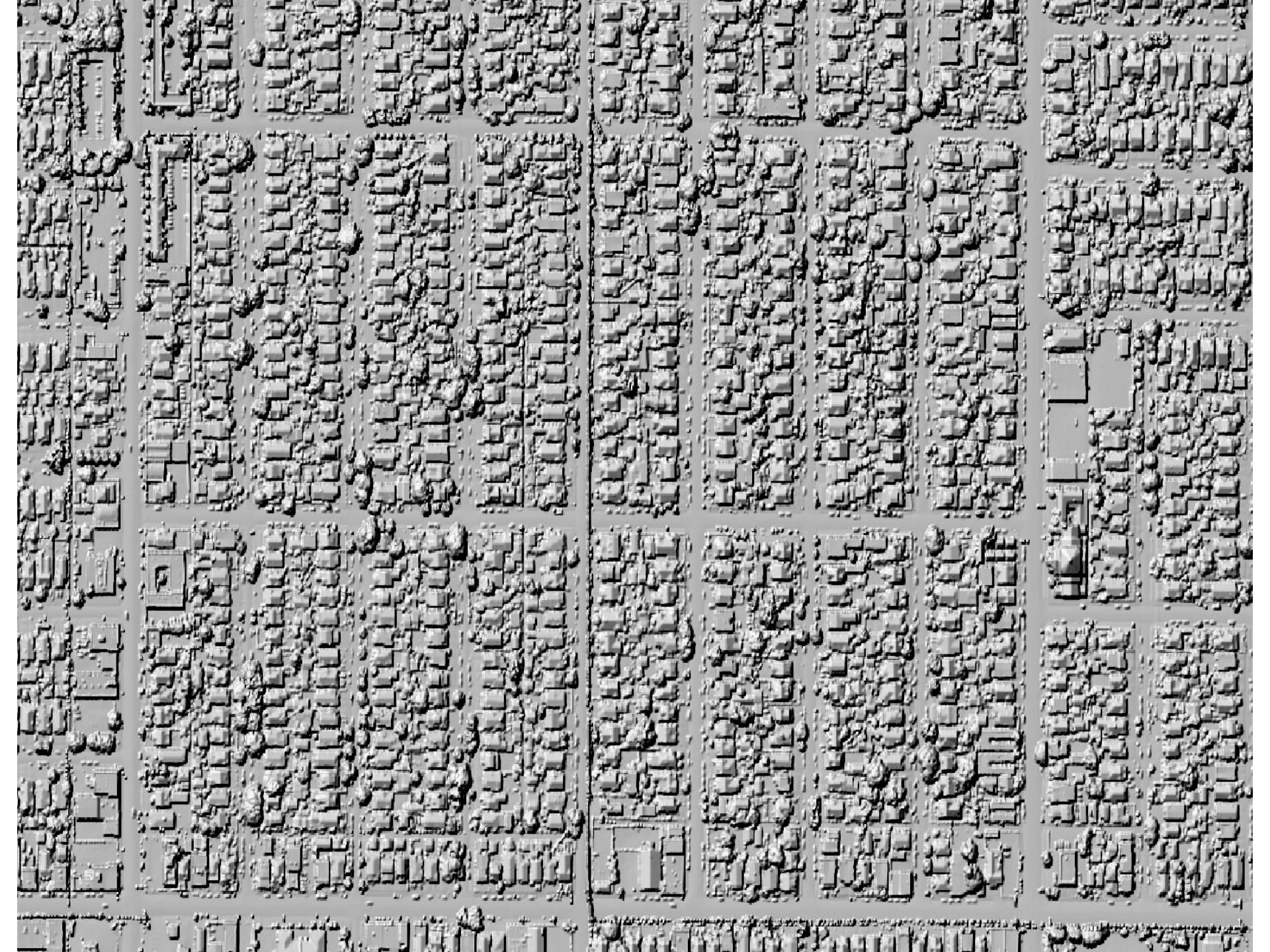








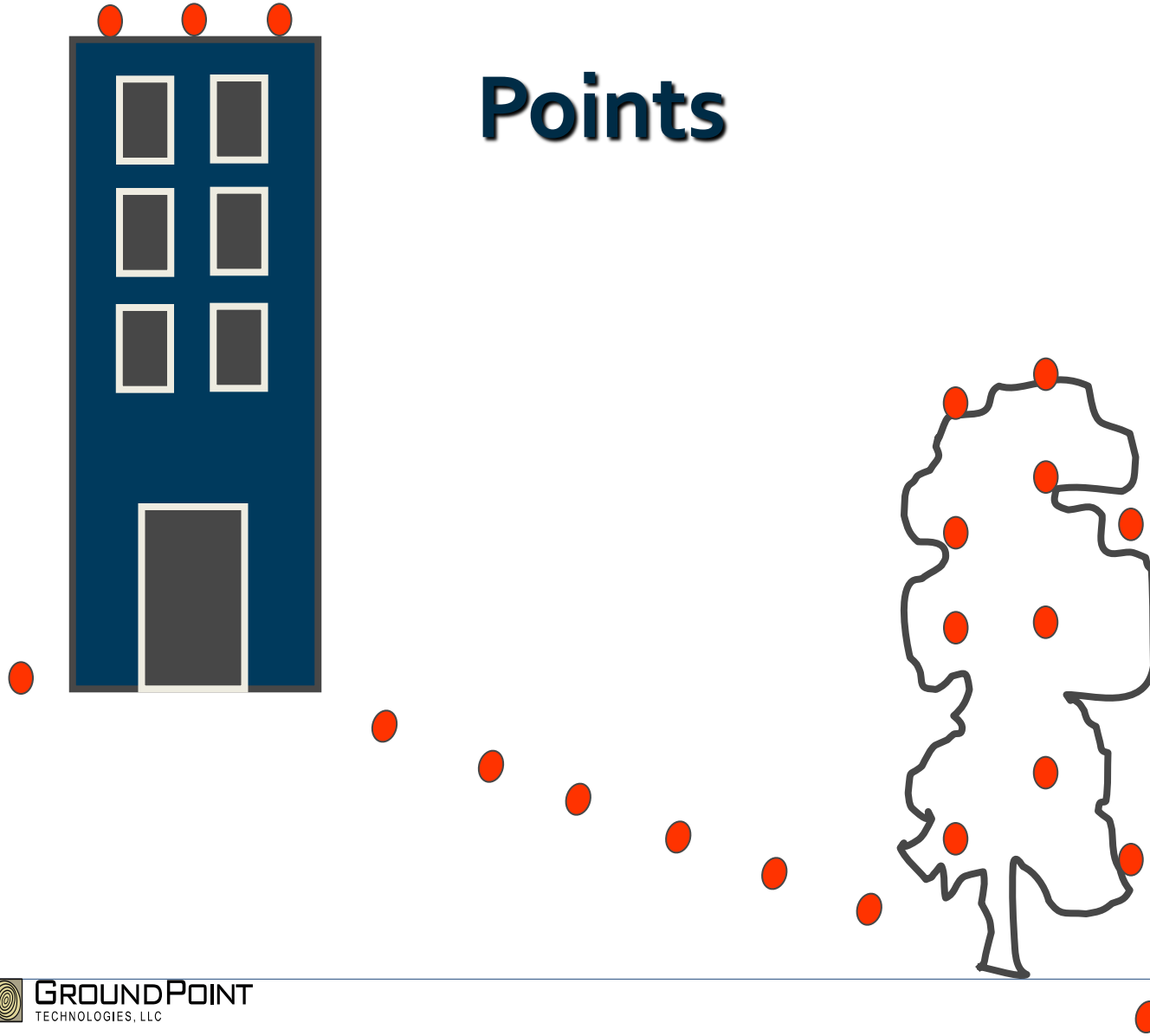






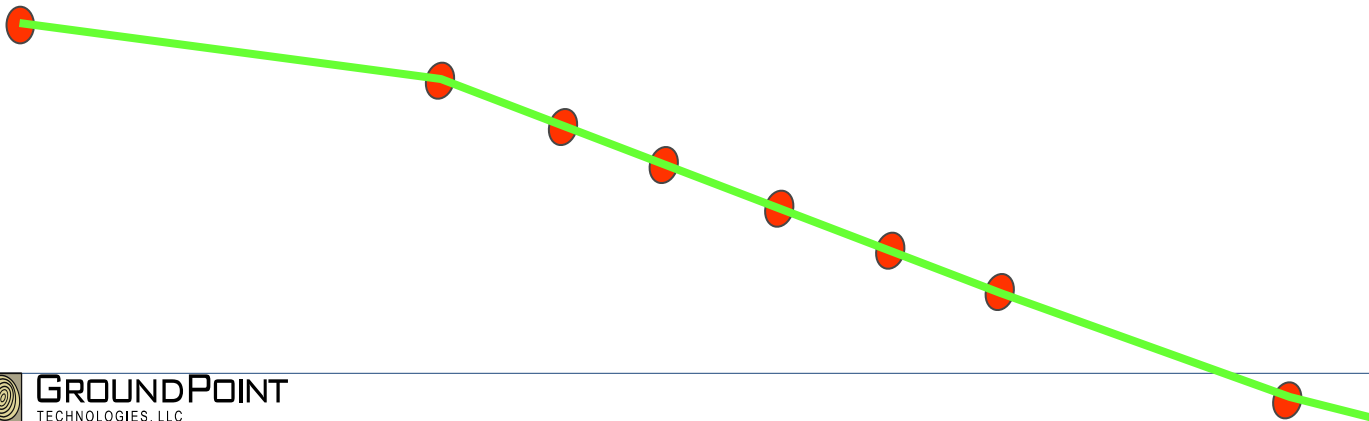
Extracting Information

Points

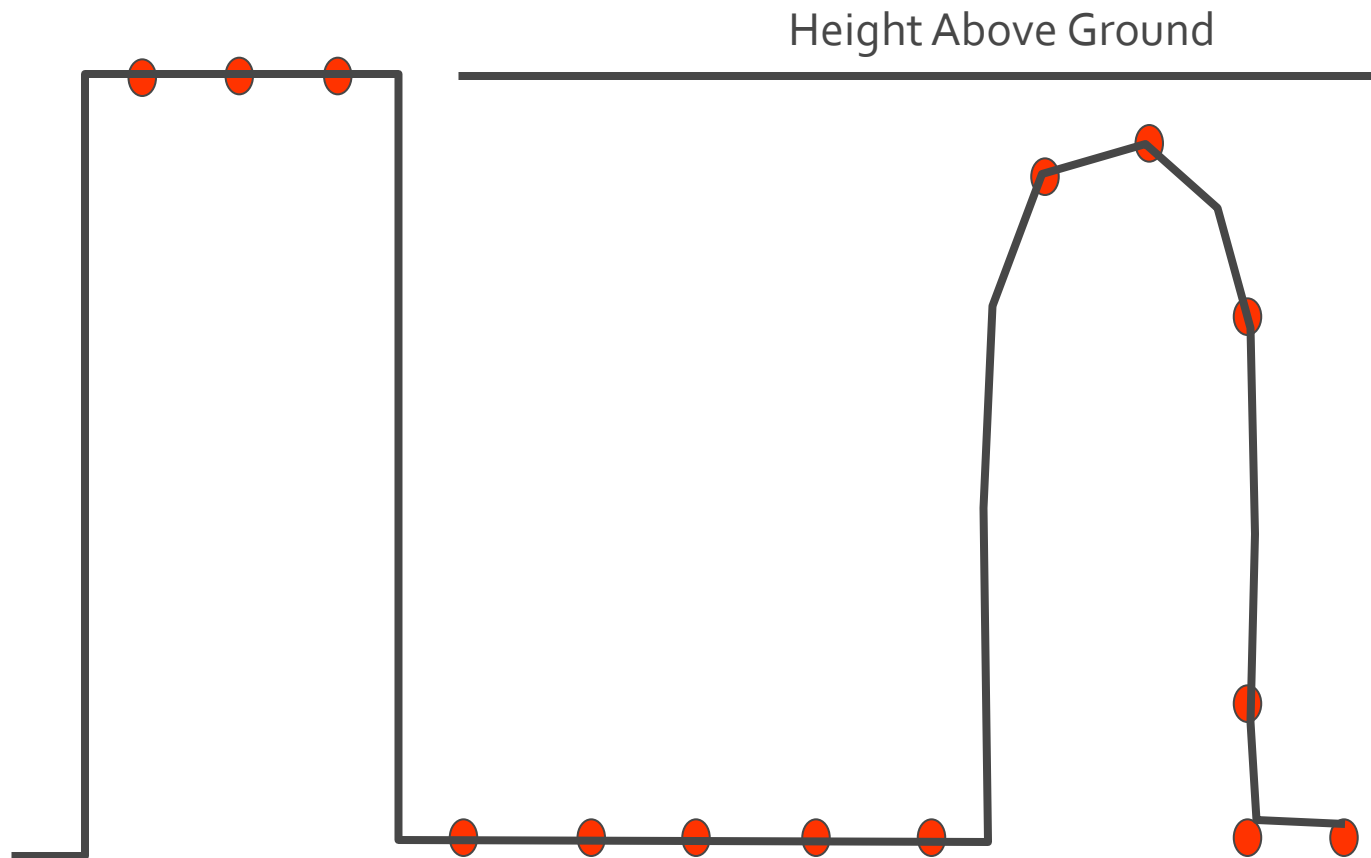


Extracting Information

DEM

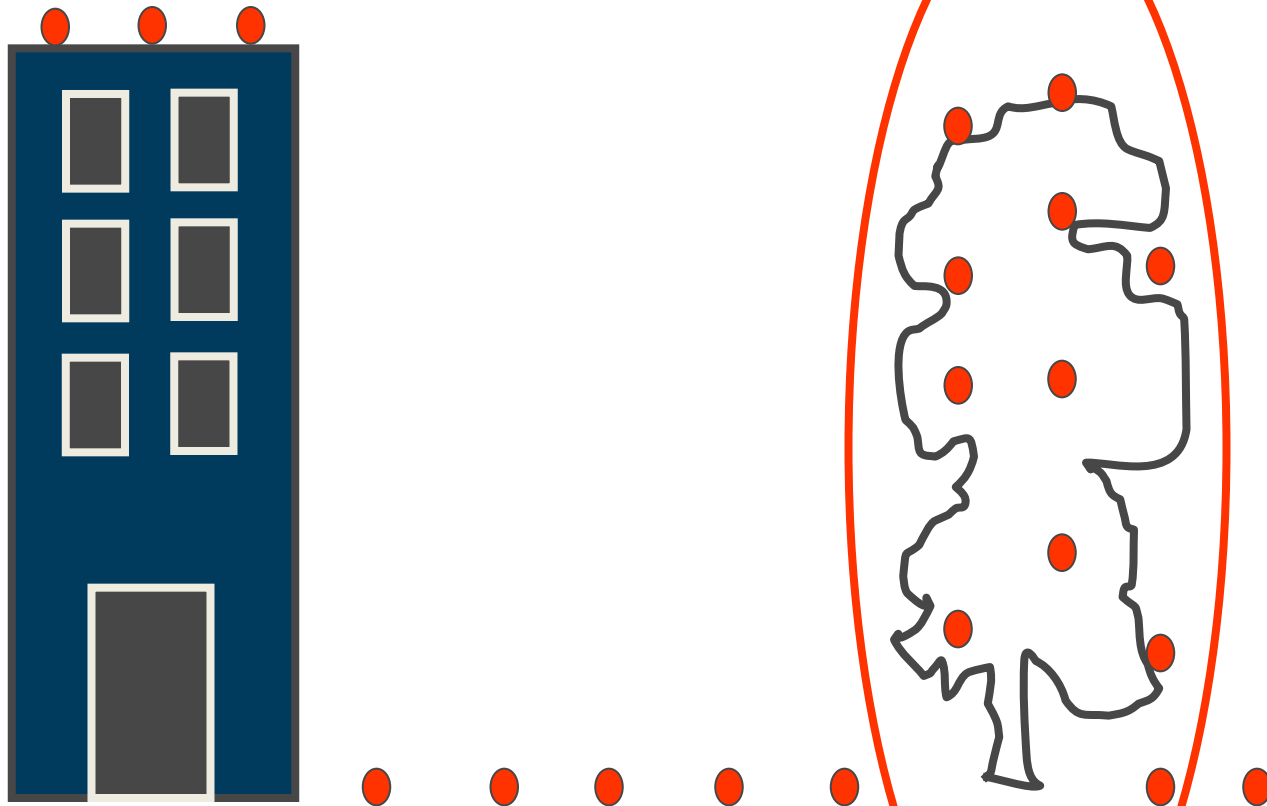


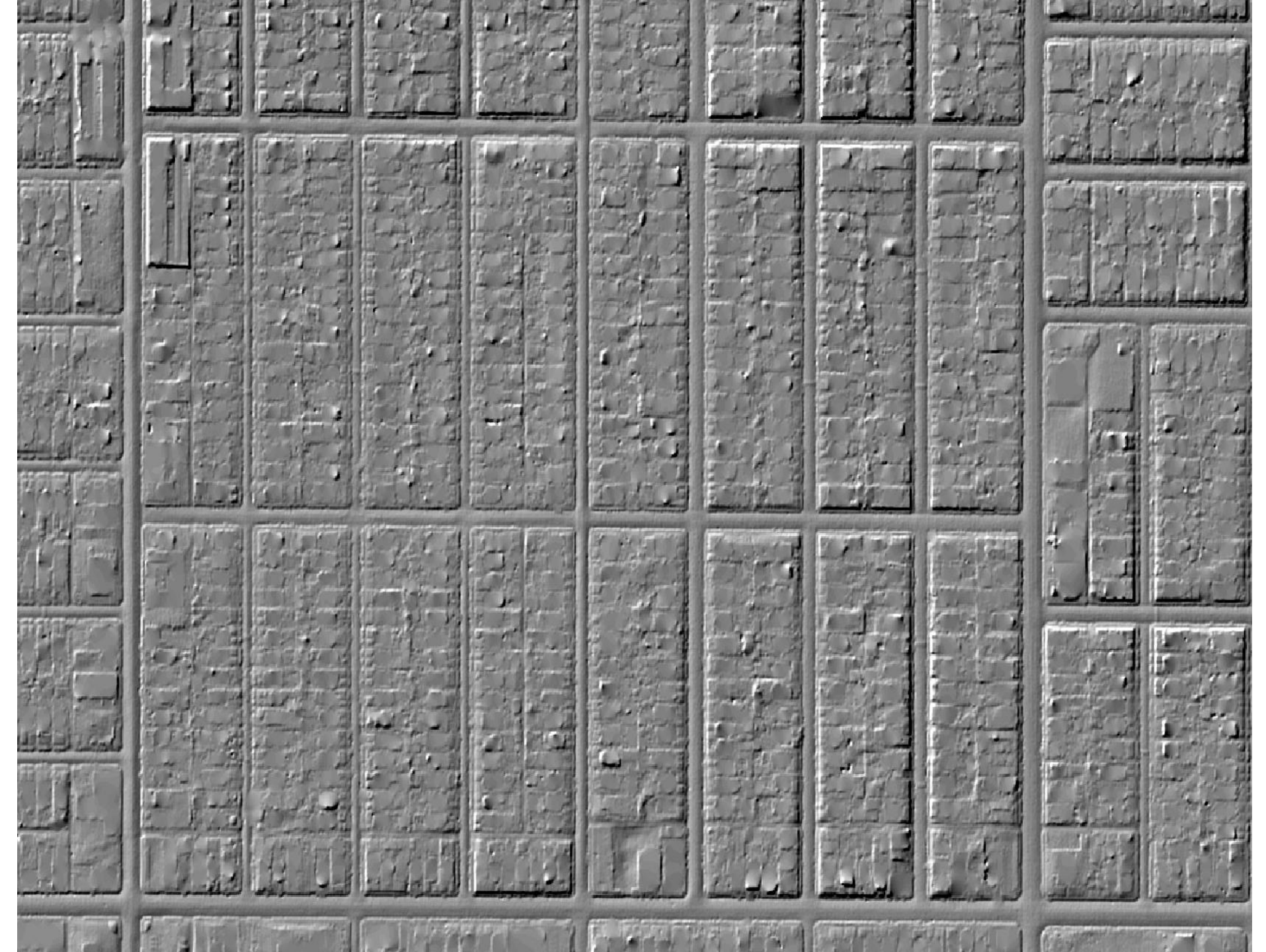
Extracting Information nDSM



Extracting Information

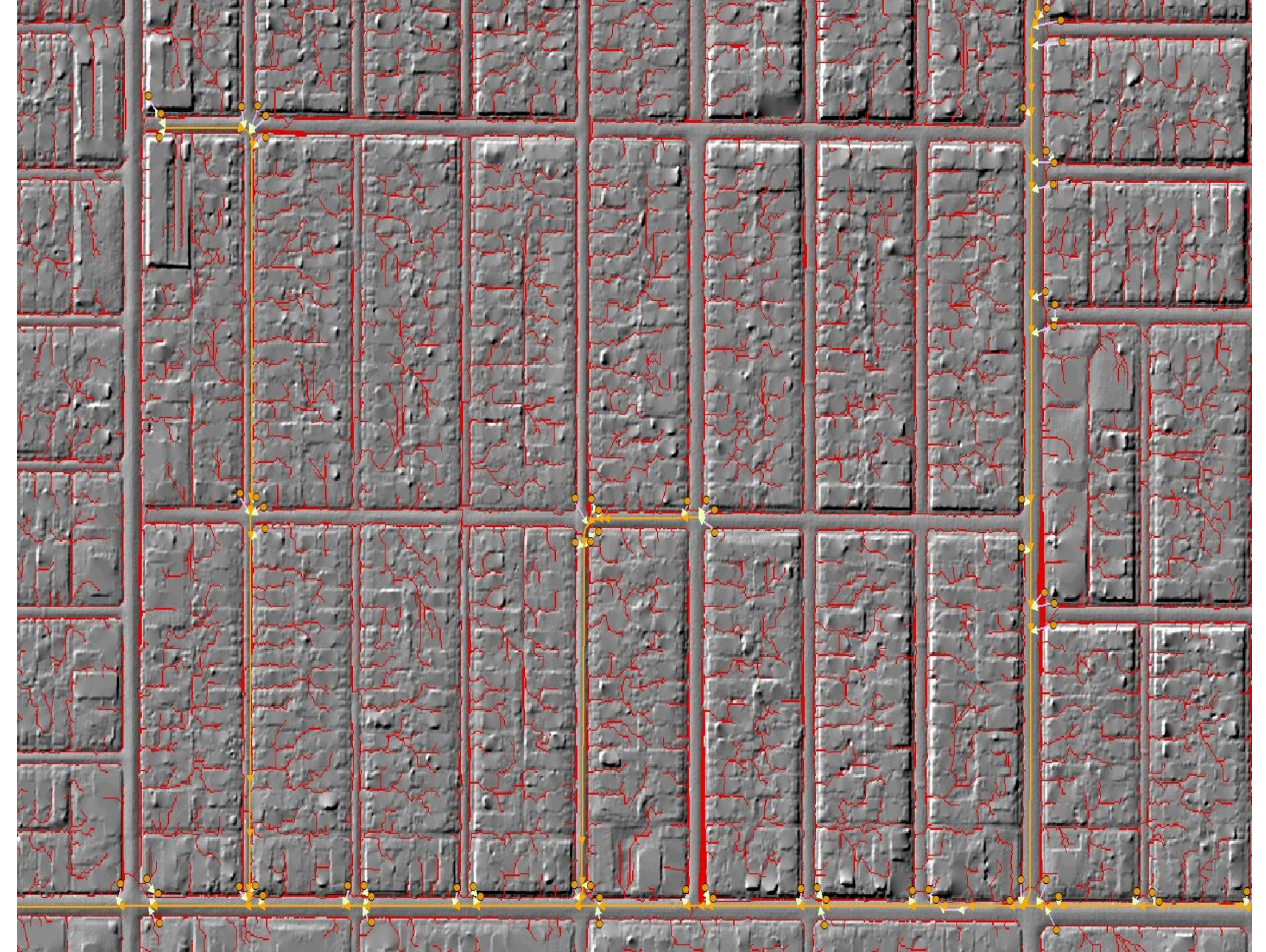
Multiple Returns

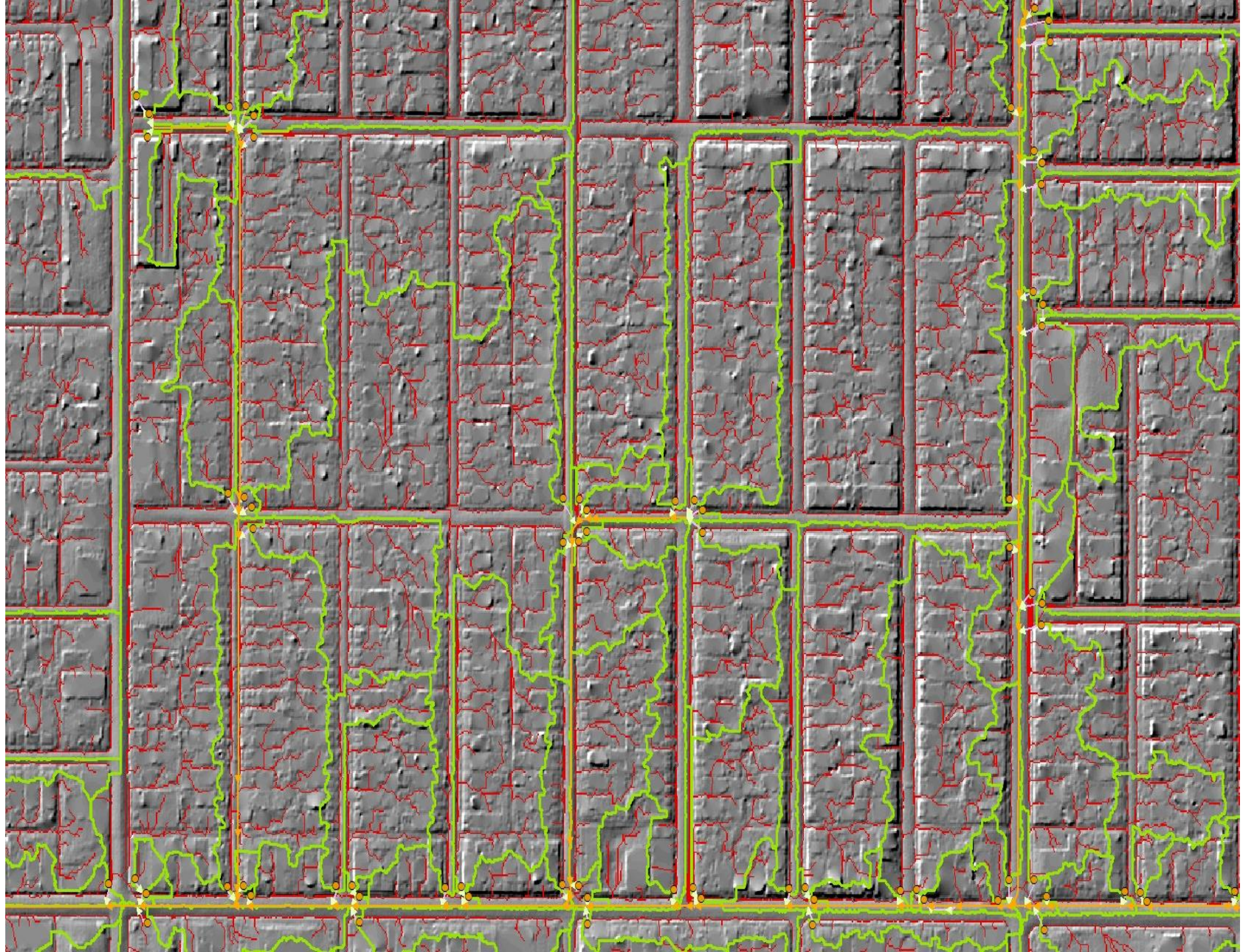


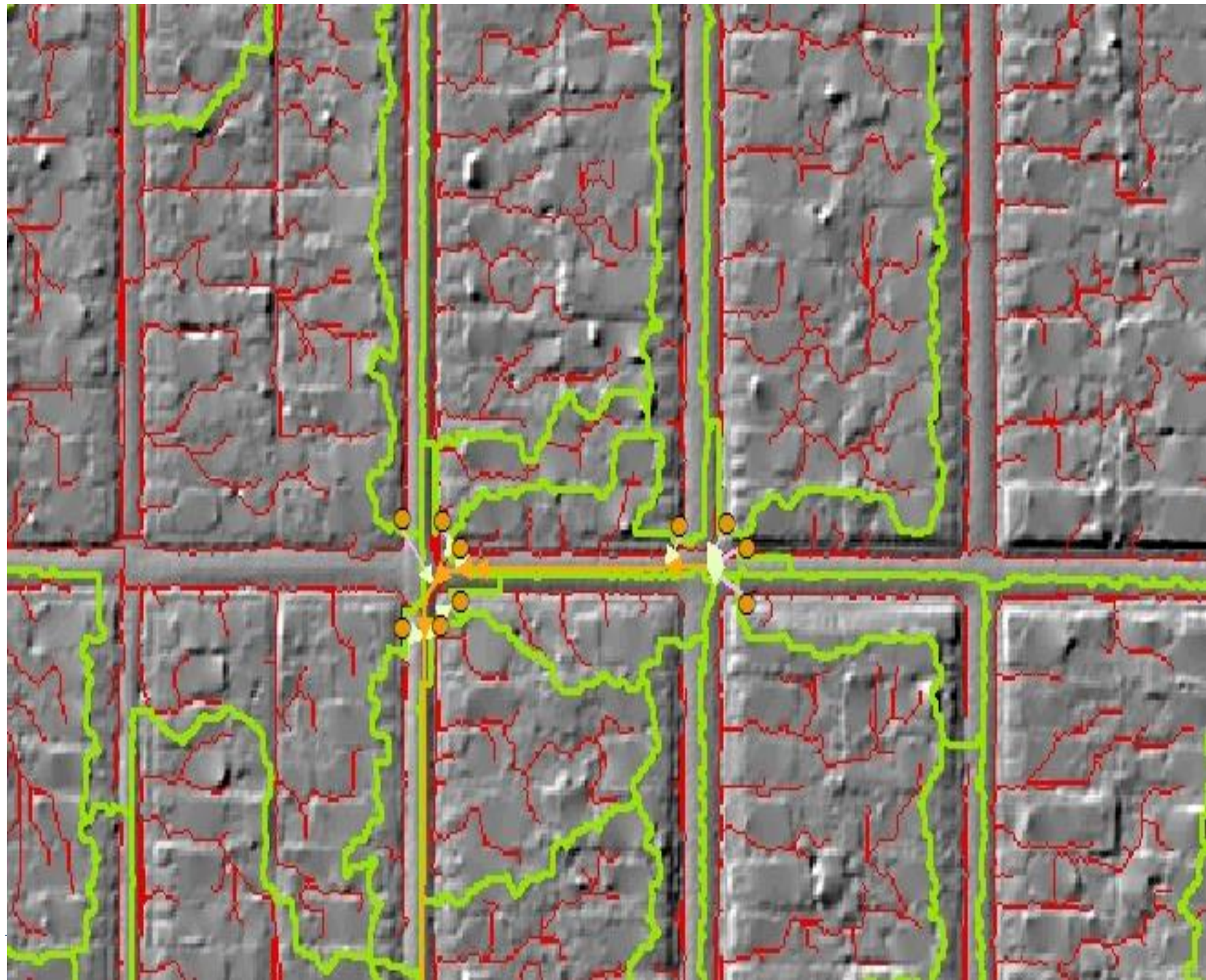


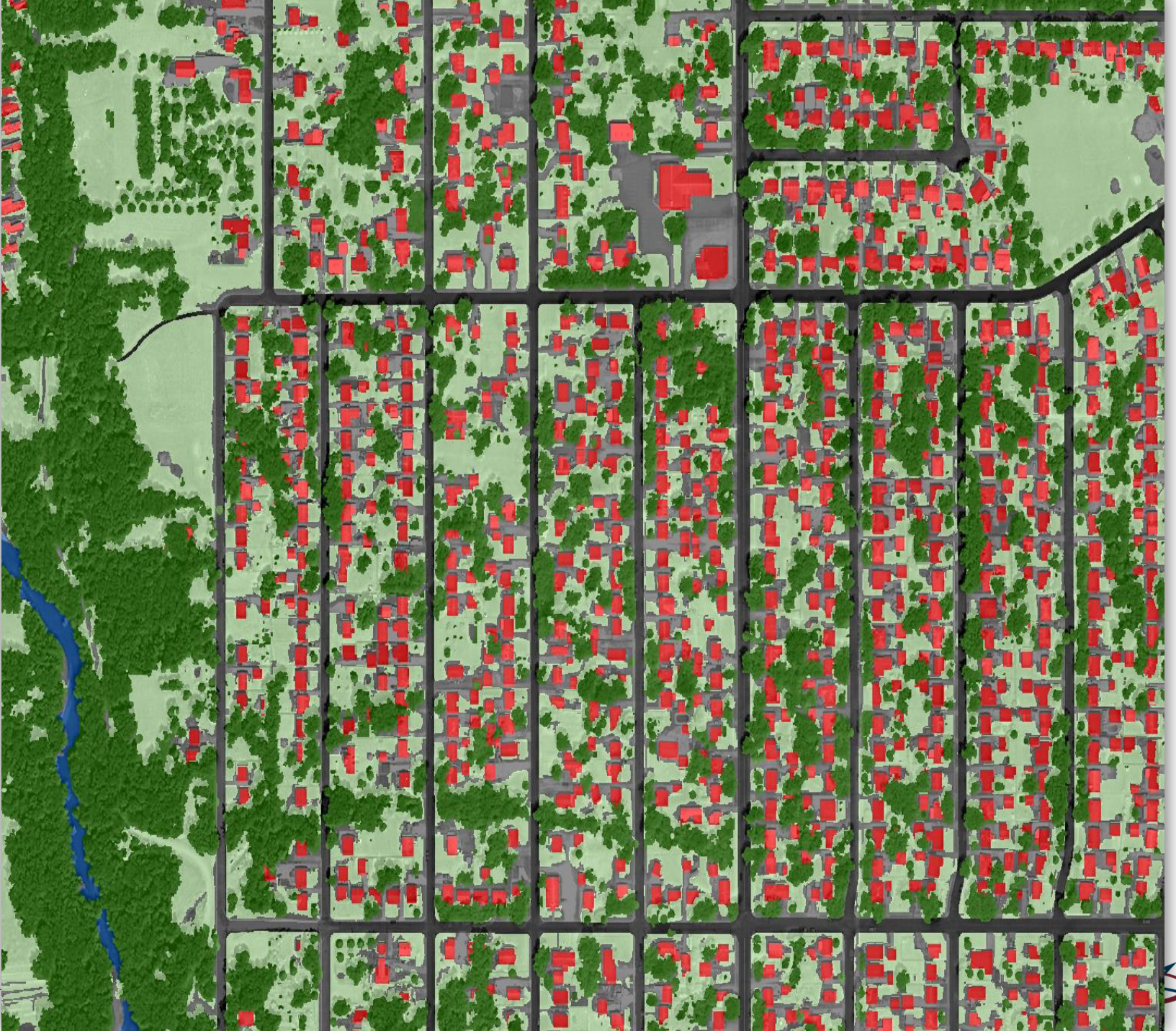


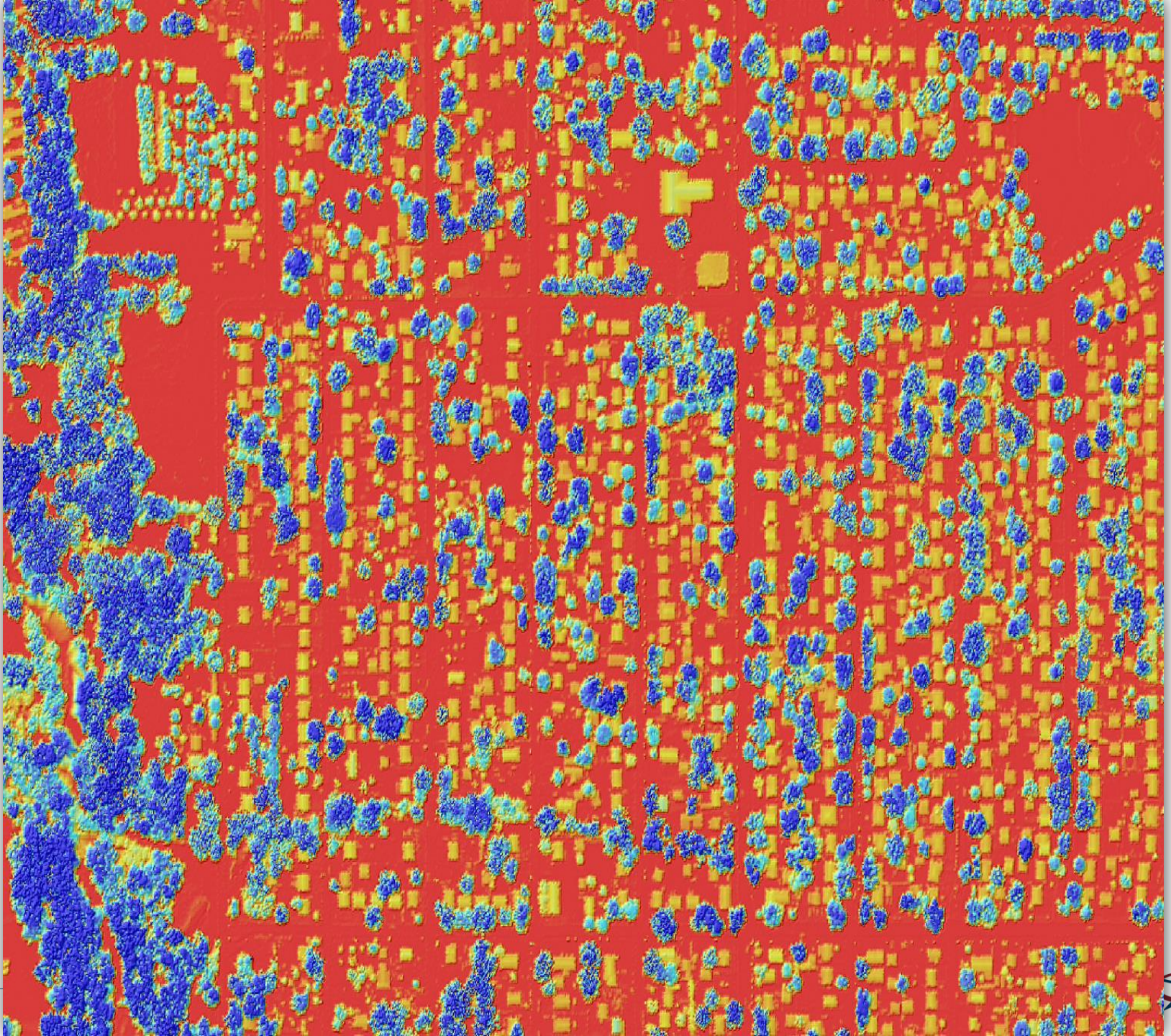


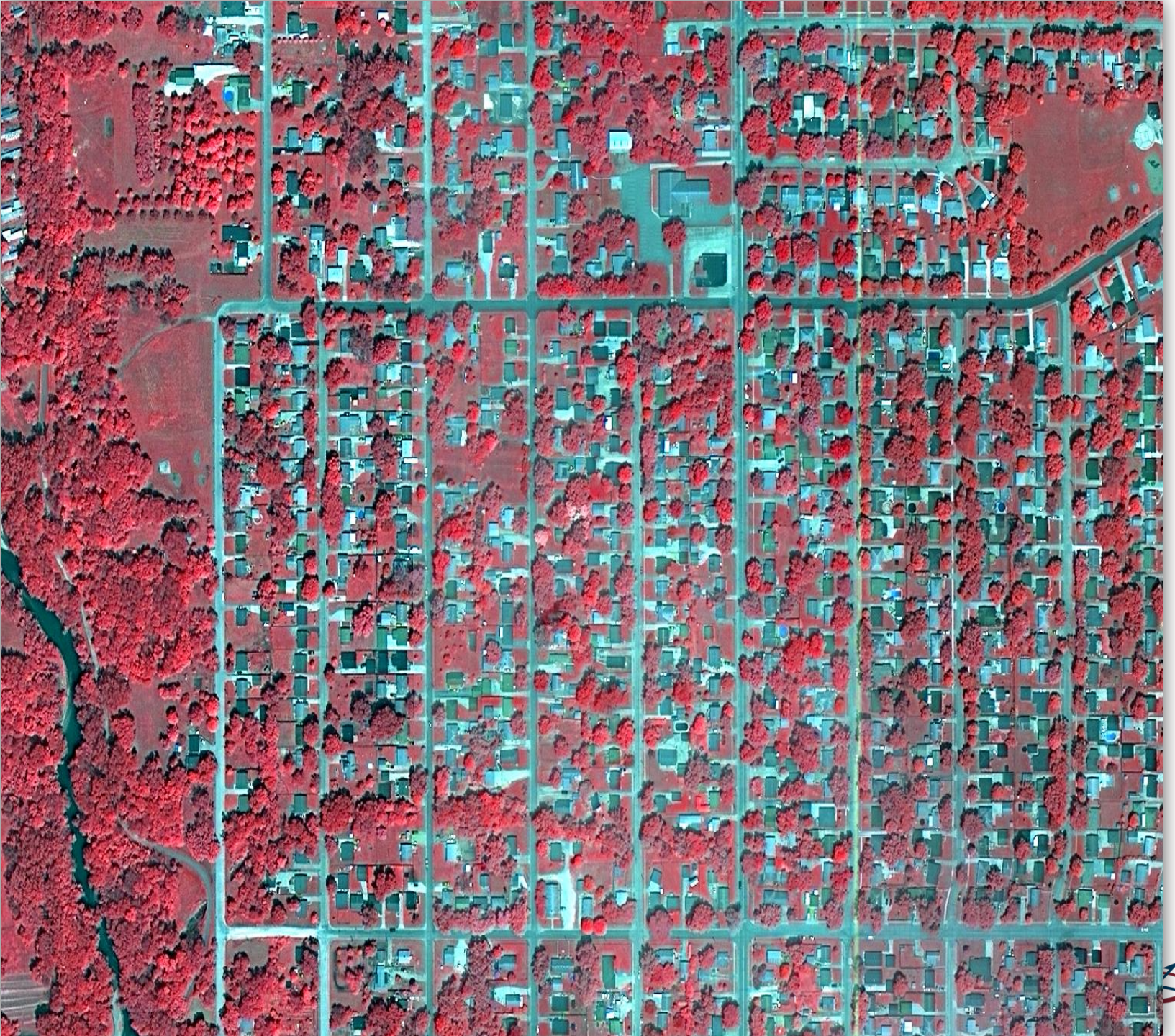


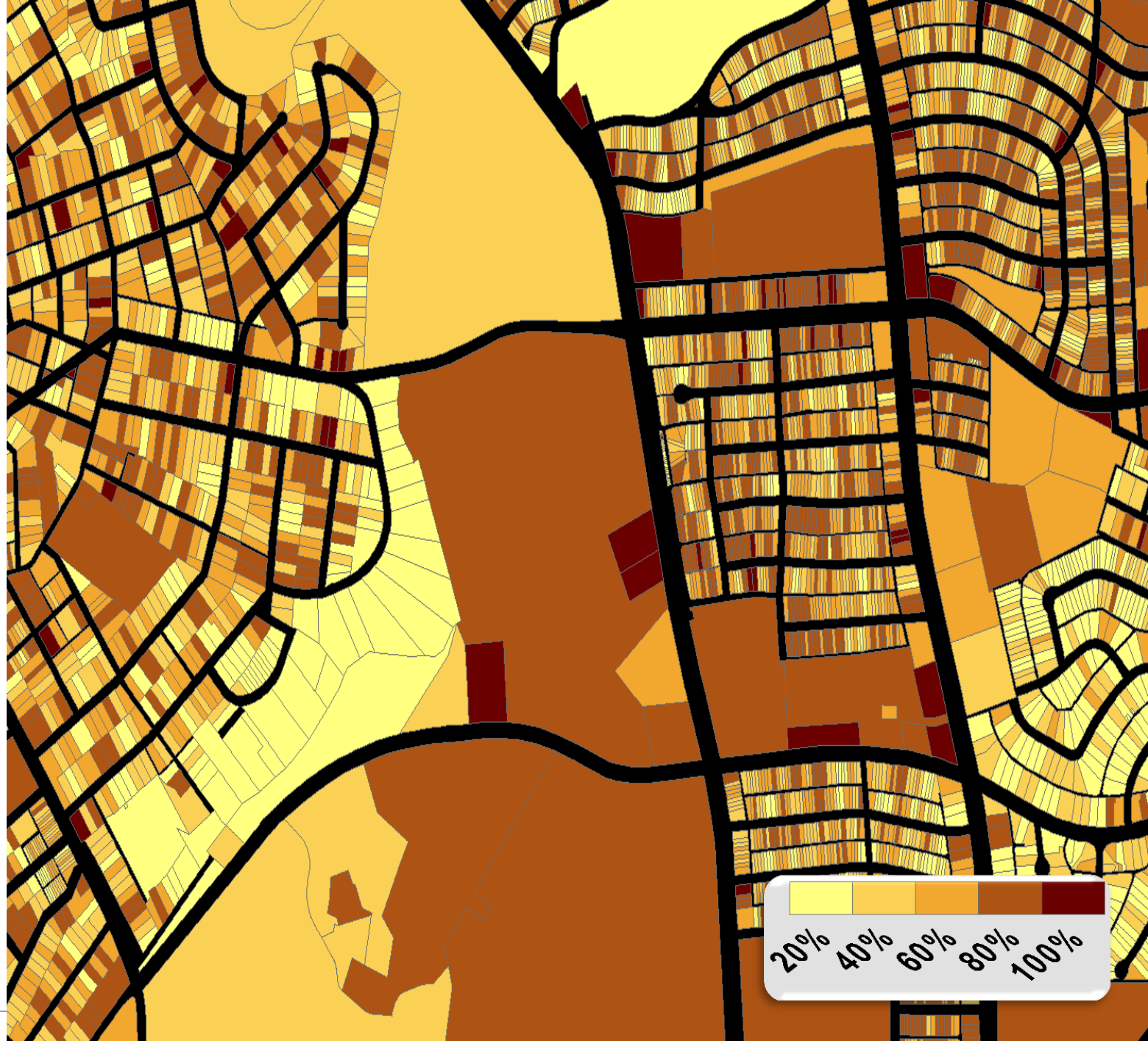






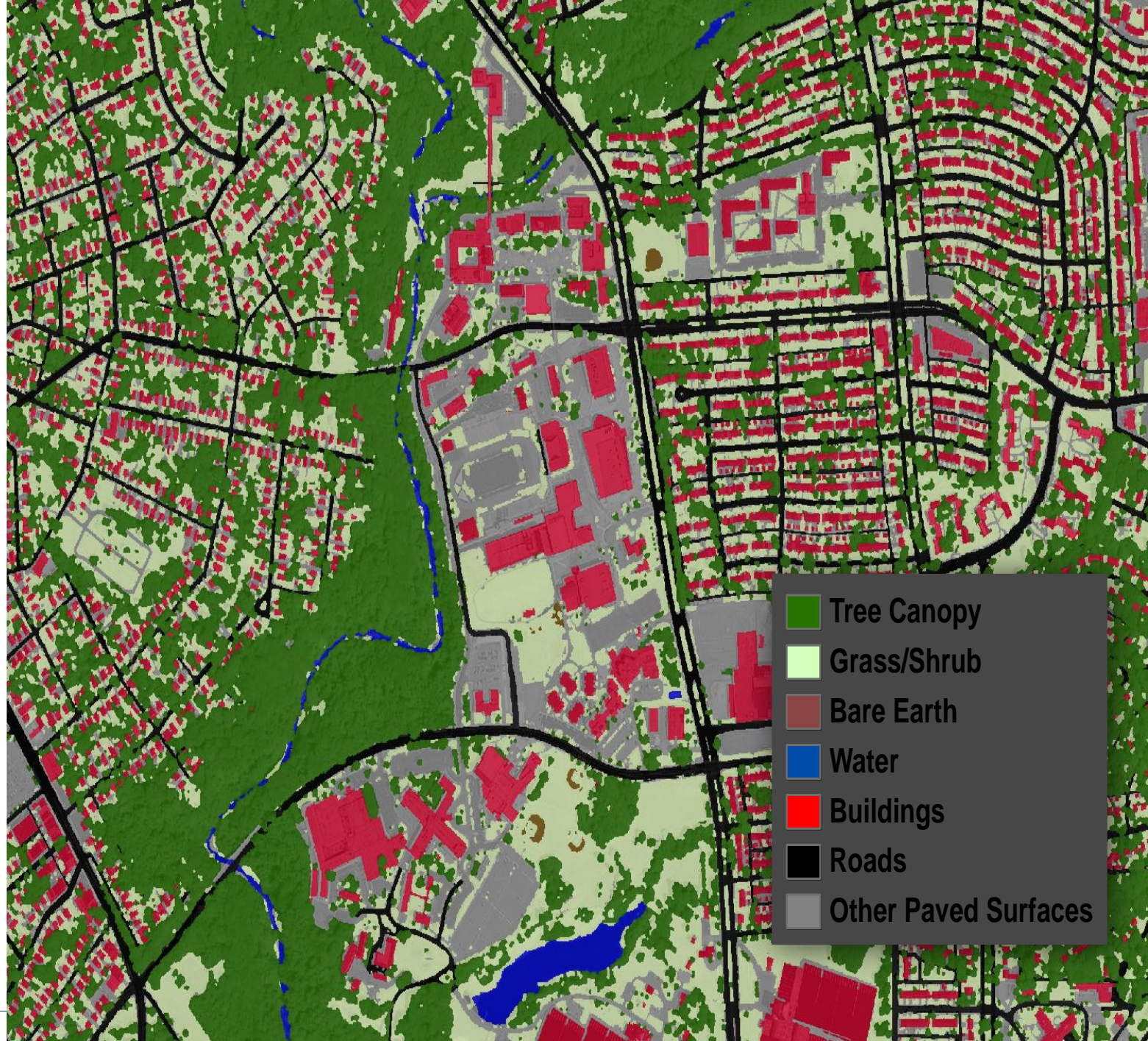
















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