

Final flight report

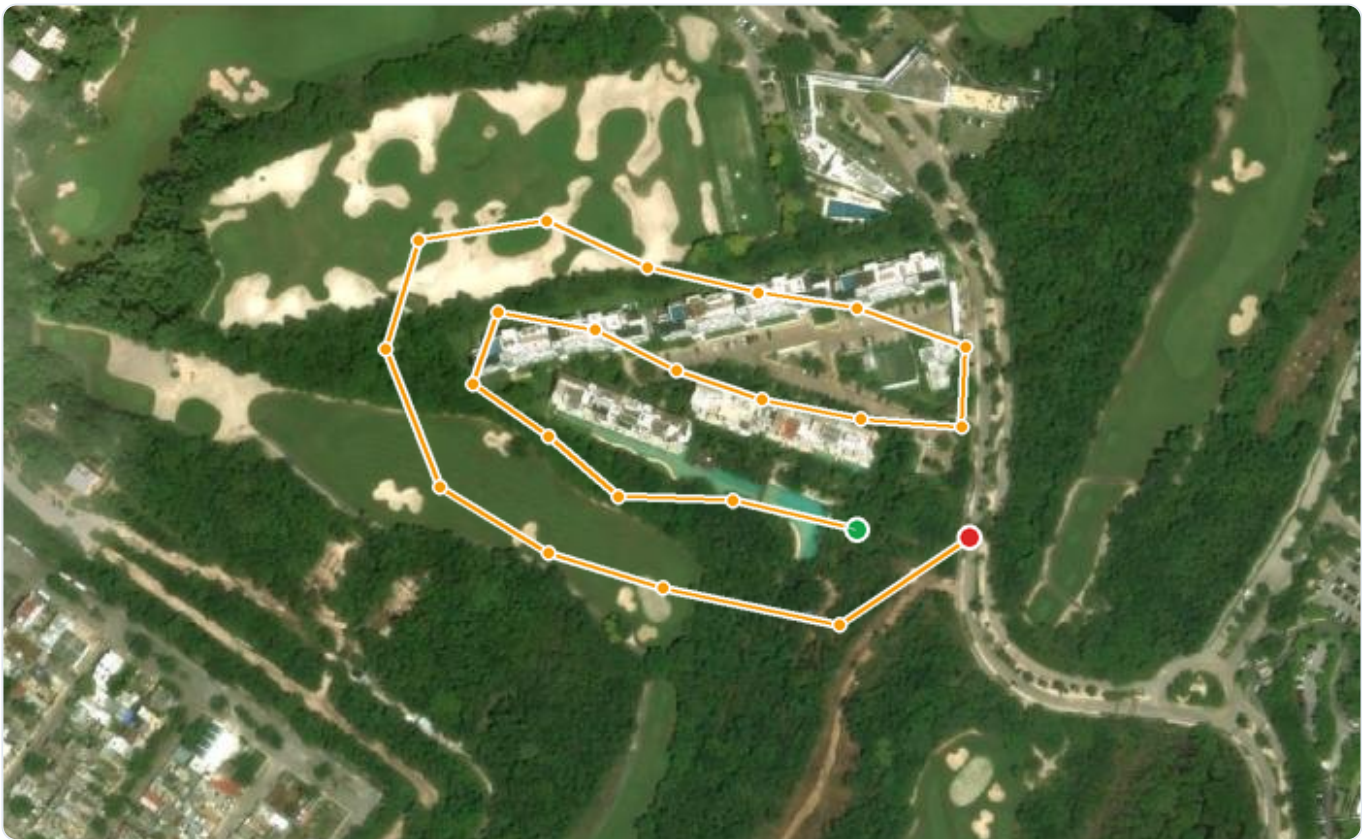
Cartographie aérienne (générique) — 2026-06-28

DATE 2026-06-28	MISSION TYPE Aerial mapping (generic)	DRONE Mini 5 Pro
BATTERIES Mini 5 Pro B3	DURATION 15 min	DISTANCE 6.7 km
MAX ALTITUDE 102 m	SOURCE DJI log import	CLIENT REQUEST Corasol · info@federico.pro

Request context

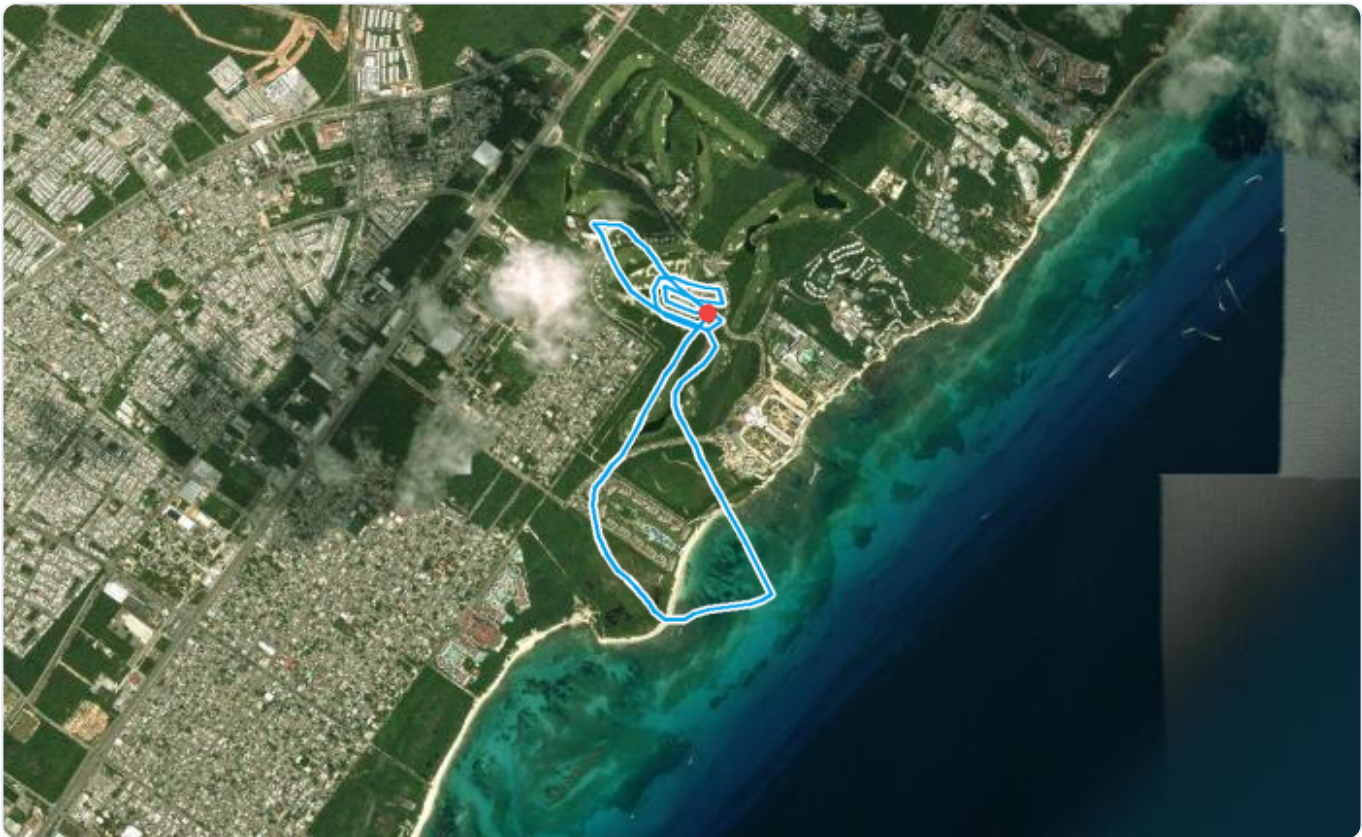
Area (AOI) : 0 ha

Mission area — satellite view



Planned route (KMZ flight-plan waypoints, amber path — green start, red end) over the context view — imagery © Esri, Maxar, Earthstar Geographics. The actually flown track appears in its dedicated section.

Actual flight path



GPS track of the flight (drone telemetry) over satellite imagery — start in green, end in red.

Flight quality

DURATION 15 min	AREA COVERED 113.48 ha	DISTANCE FLOWN 6.71 km
MAX ALTITUDE 102 m	MAX SPEED 18.8 m/s	GNSS SATELLITES (AVERAGE) 34 (min 25)

Data extracted from drone telemetry. A high satellite count supports the georeferencing quality of the captures.

Mission summary (AI)

This mission successfully mapped a total area of 7.77 hectares with a ground sampling distance (GSD) of 5 cm, enabling a detailed visual analysis of the terrain and assets. Based on 21 source images, a comprehensive suite of deliverables was produced, including a high-resolution orthomosaic, a digital elevation model (DEM), 3D mesh, and specialized vegetation and slope indices. These tools provide a precise digital twin of the site, facilitating accurate measurements, land topography analysis, and environmental monitoring. While the data provides a solid operational overview, some areas exhibit a lower overlap rate and internal precision levels that may require nuanced interpretation.

Technical & quality sheet

Characteristics measured on the georeferenced deliverables.

GROUND SAMPLING DISTANCE (GSD) 5 cm/px	AREA COVERED 7.77 ha (75%)
COORDINATE SYSTEM WGS 84 / UTM zone 16N · EPSG:32616	ORTHO DIMENSIONS 9677 × 7272 px · 70.4 Mpx
CENTER 20.66149, -87.04601	SOURCE PHOTOS 21

Reconstruction quality : 21 source photos · 12 693 3D points · reprojection error 1.4 px

Geometric accuracy

RTK/PPK flight — estimated absolute accuracy 5-10 cm (1-2× GSD rule, no ground control point).

Deliverables inventory

File	Type	GSD	CRS	Size
Rapport technique du calcul (PDF)	pdf	—	—	9.7 Mo
Indice de verdure (QGIS / DataTerra)	ortho	5 cm	EPSG:32616	92.3 Mo
Pente en ° (solaire / terrain — QGIS / DataTerra)	ortho	5 cm	EPSG:32616	268.4 Mo
Rapport auto A3 (PDF)	pdf	—	—	48.6 Mo
Recouvrement : nb d'images par zone (qualité — DataTerra)	ortho	2 m	EPSG:32616	4 Ko
admin.workbenchUi.flightDossierPdf — 12/07/2026	pdf	—	—	—
Courbes de niveau (QGIS)	other	—	EPSG:32616	20.2 Mo
Élévation float mètres (QGIS / DataTerra)	dem	5 cm	EPSG:32616	102.6 Mo
Terrain nu, sans bâti/végétation (QGIS / DataTerra)	dem	5 cm	EPSG:32616	146.9 Mo
Hauteurs sur-sol : bâti + arbres en m (QGIS / DataTerra)	dem	5 cm	EPSG:32616	170.7 Mo
Nuage de points (CloudCompare)	pointcloud	—	—	11.5 Mo
Mesh 3D texturé (viewer 3D / Blender)	tiles3d	—	—	124.5 Mo
Relief ombré (QGIS)	ortho	5 cm	EPSG:32616	67.1 Mo
Orientation/azimut 0-360° (solaire — QGIS / DataTerra)	ortho	5 cm	EPSG:32616	90.2 Mo

Specifications computed automatically from the output files (GDAL/rasterio).

Full-resolution source files are available in your client portal.

Georeferencing

i Internal accuracy (drone GPS) — not ground-verified

Declared method : **Standard GPS** · processed without GCP

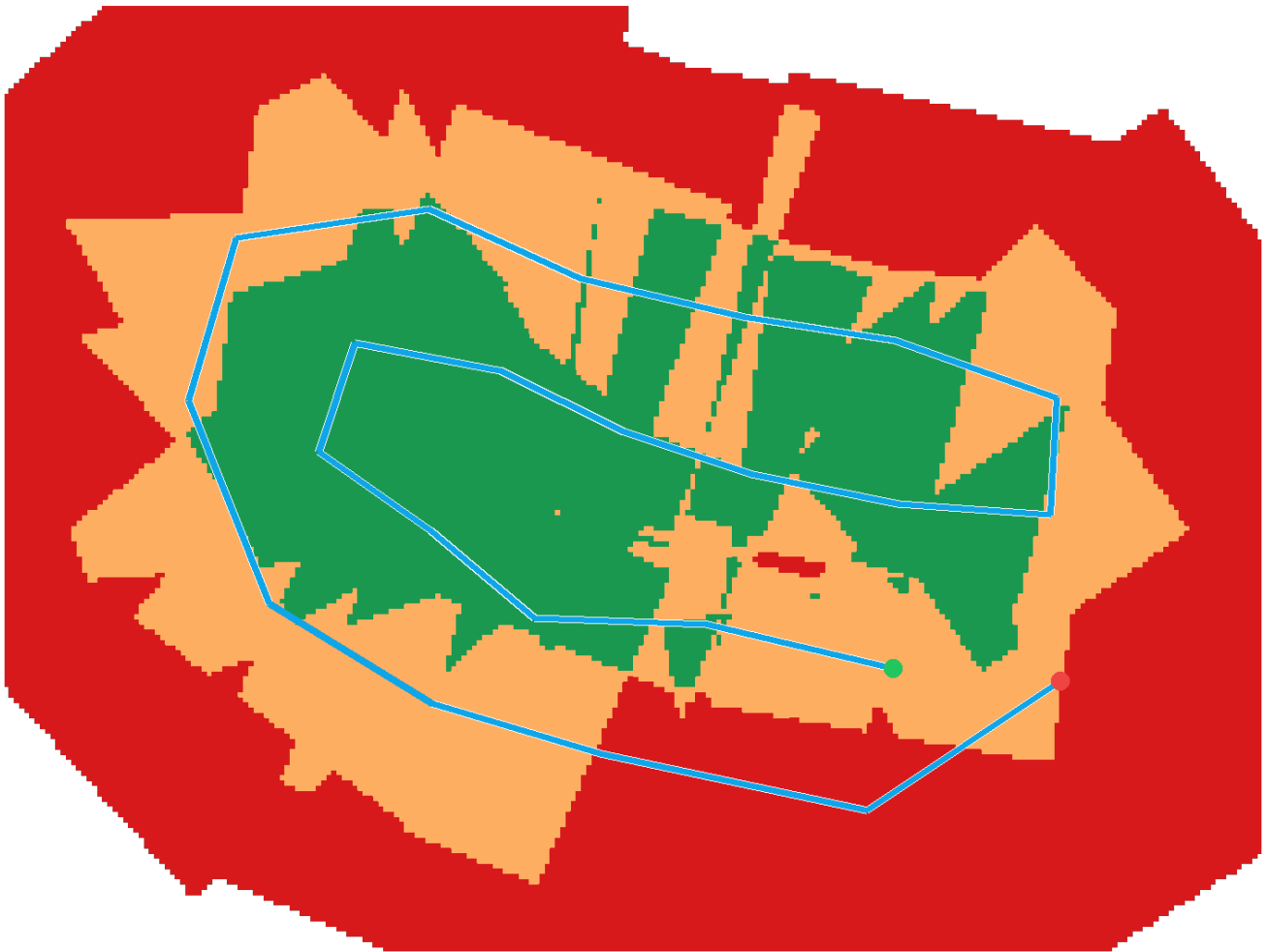
Quality control

⚠ Acceptable quality — attention points

Check		Value	Threshold
Photos calibrées		21/21	100 %
Reconstruction en un seul bloc		1	1
Erreur de reprojection		1.4 px	< 2 px
⚠	Précision horizontale (CE90, interne)	11.2 cm	≤ 7 cm (3×GSD)
⚠	Précision verticale (LE90, interne)	22.3 cm	≤ 11 cm (5×GSD)
⚠	Zone vue par ≥3 images	62 %	≥ 80 %
i	Points de contrôle au sol	aucun	précisions = internes (RTK/PPK ou GCP pour de l'absolu)

seuils indicatifs (contrôle qualité photogrammétrique) ; précisions relatives au GSD photos (2.25 cm/px)

Overlap (coverage quality)



— drone flight path (blue) · start green, end red

■ ≤2 images ■ 3-4 ■ ≥5 images

MAX IMAGES PER AREA

9

AREA SEEN BY ≥3 IMAGES

62.4 %

AREA SEEN BY ≥5 IMAGES

26.7 %

62.4% of the area is seen by ≥3 images; red zones (≤2 images) should be considered indicative.

Orthophoto (color)

GROUND SAMPLING DISTANCE (GSD)

5 cm/px

AREA COVERED

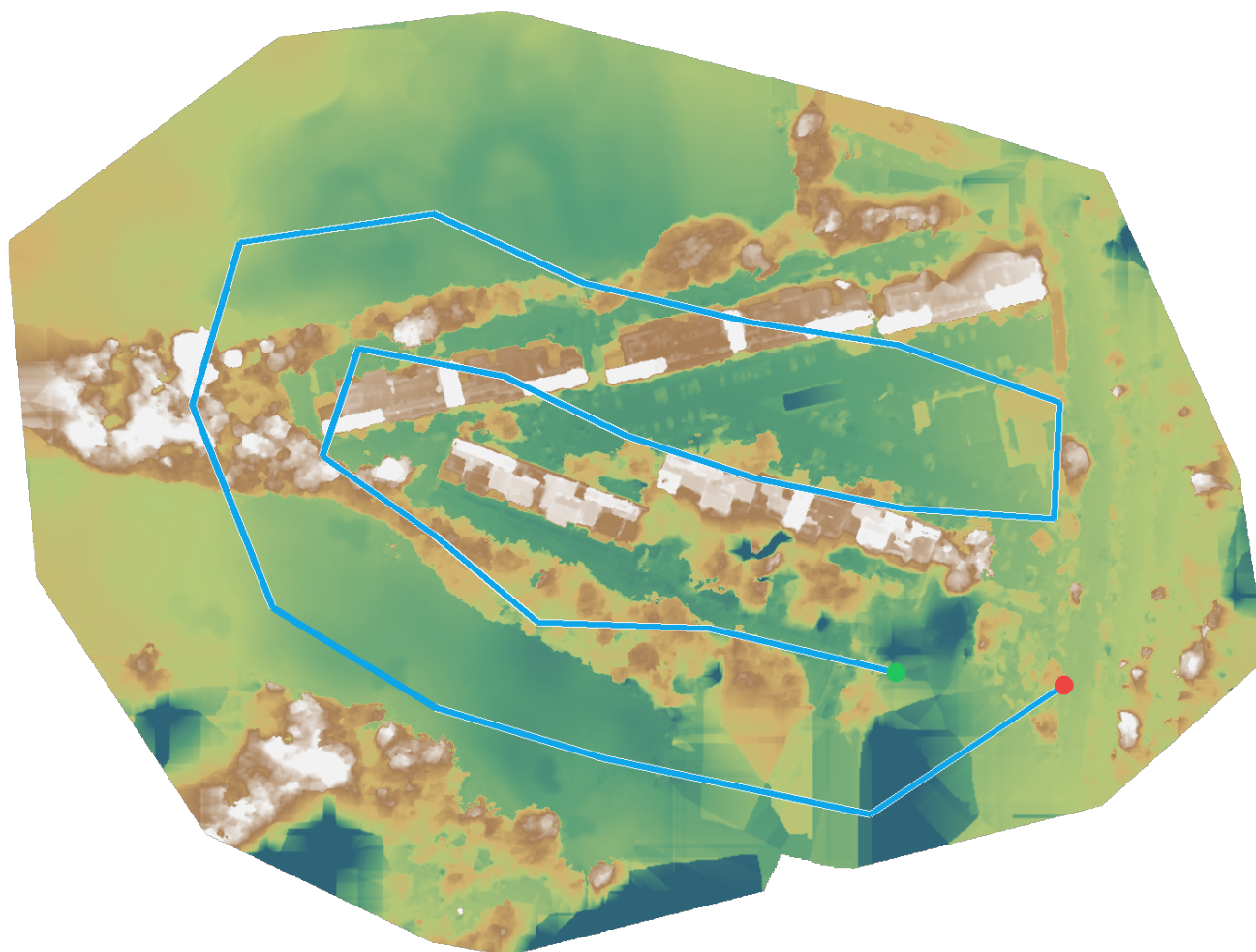
7.8 ha

EXTENT (W × H)

483.8 × 363.5 m

Orthophoto at 5 cm/px covering 7.8 ha.

Relief / elevation



— drone flight path (blue) · start green, end red

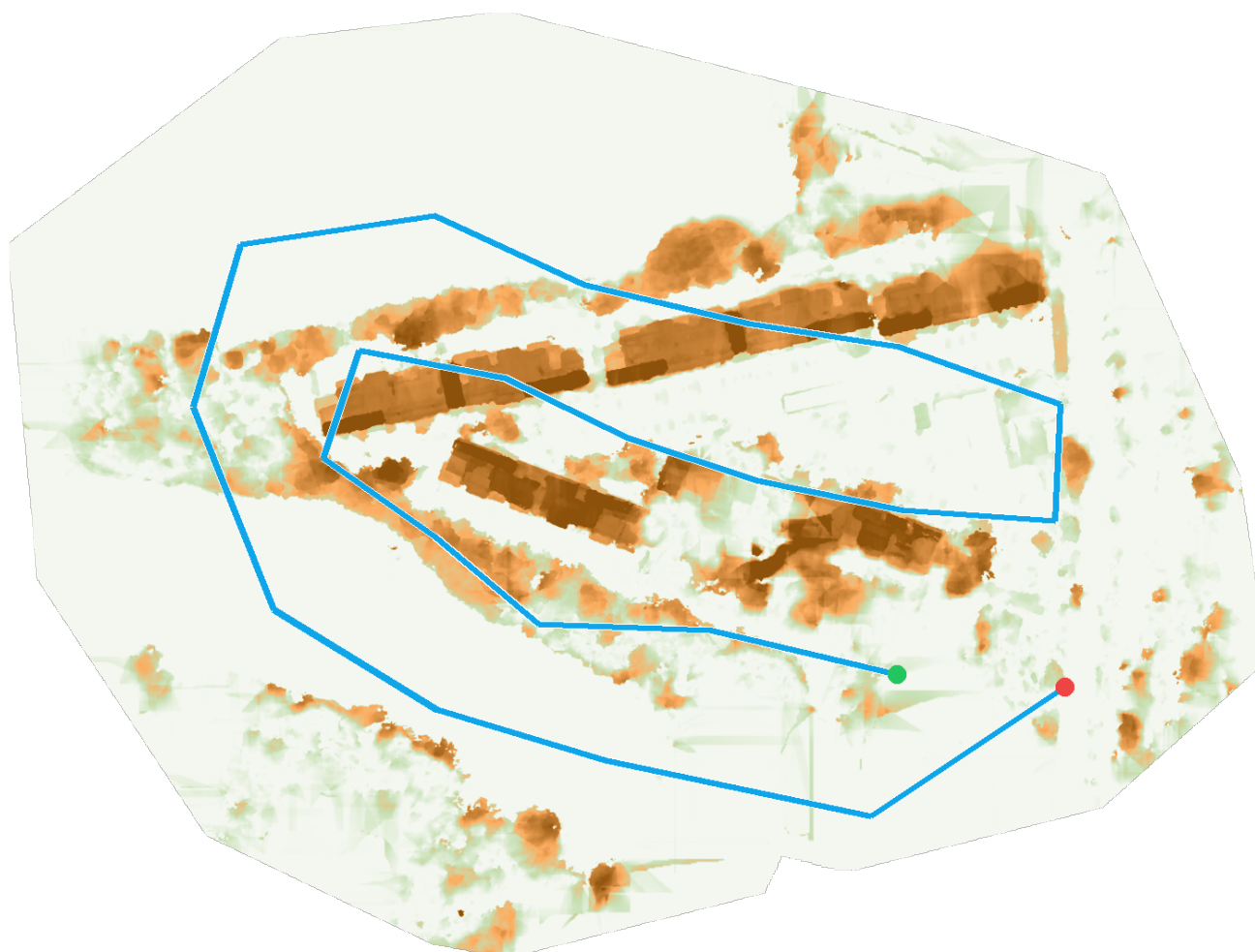


SITE ELEVATION RANGE

29.7 m

Elevation range of 29.7 m over 7.8 ha — moderately rolling terrain.

Heights (buildings / vegetation)



— drone flight path (blue) · start green, end red



MAXIMUM HEIGHT

18.8 m

MEAN ABOVE-GROUND HEIGHT

8.1 m

ABOVE-GROUND AREA (>2 M)

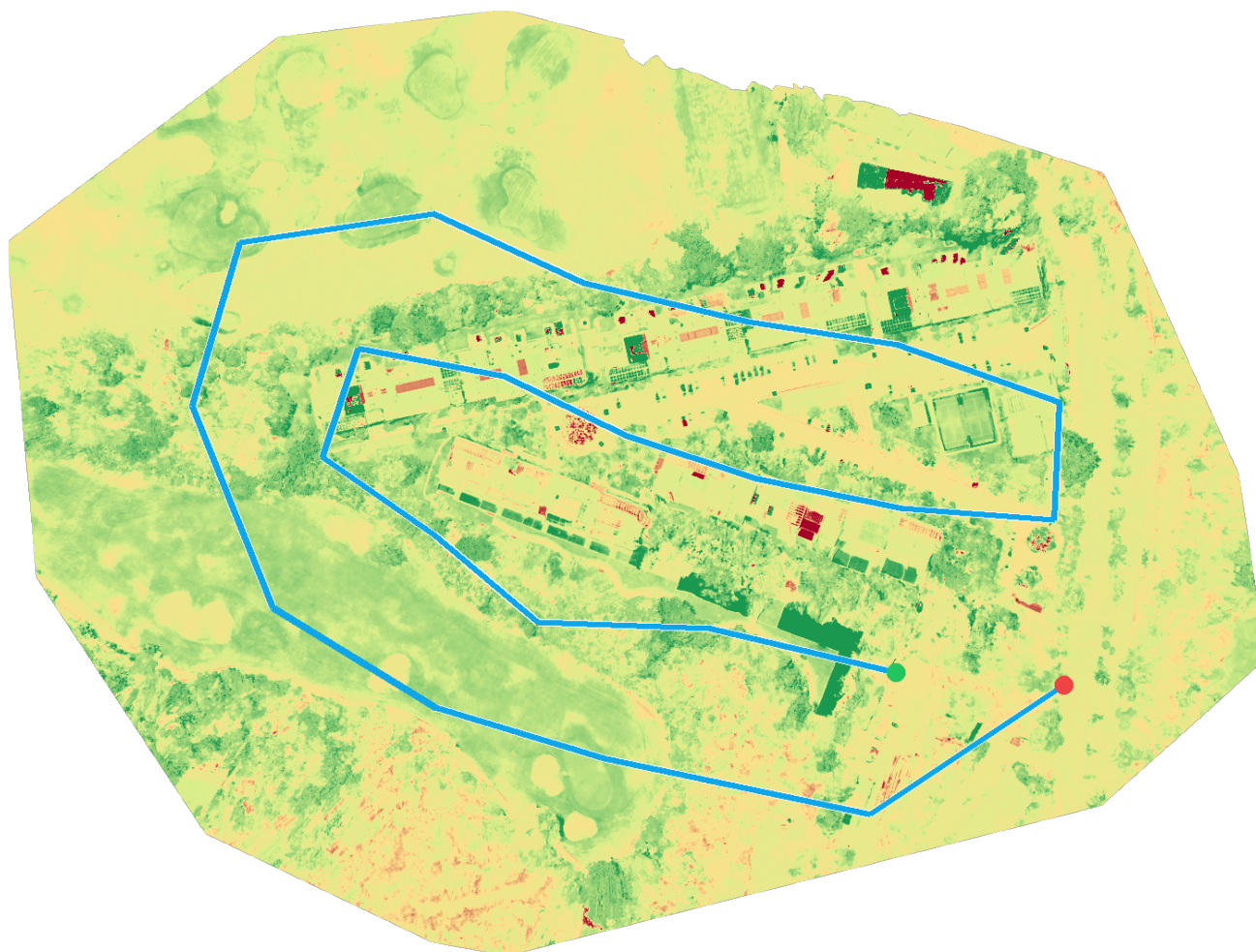
24.5 % · 3.23 ha

Maximum height 18.8 m; 24.5% of the area (3.23 ha) carries buildings or vegetation above 2 m.

hauteur au-dessus du terrain nu (DSM-DTM) : bâti + végétation ; sur-sol = >2 m ; max = percentile 99.9 (robuste aux artefacts)

· vol nadir (nacelle 90°) : les faces verticales ne sont pas observées — hauteurs de bâti et pentes de toiture sont indicatives (bords adoucis, façades interpolées) ; un vol orbital/oblique complémentaire les affinerait

Vegetation



— drone flight path (blue) · start green, end red



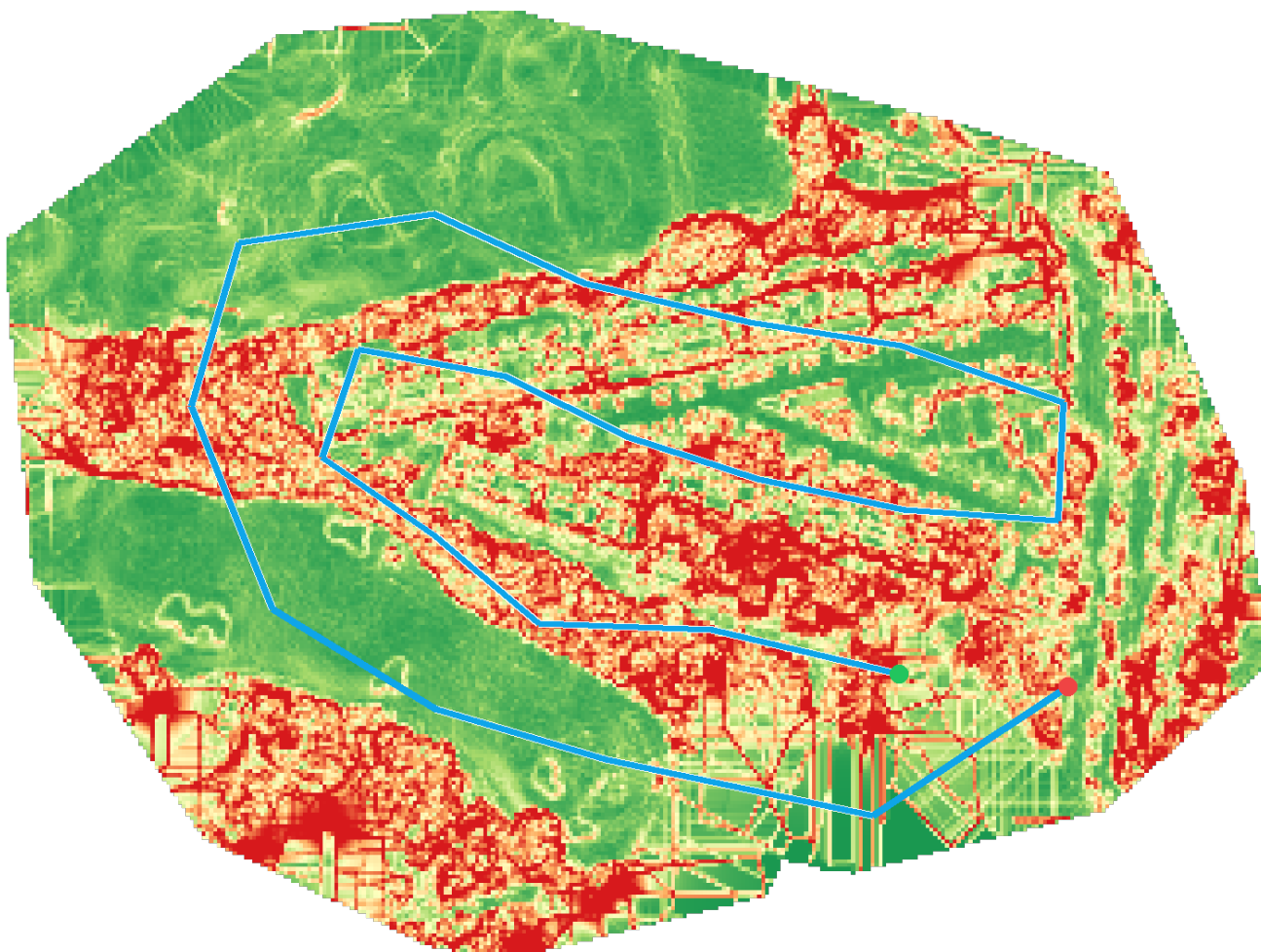
VEGETATION COVER
42.7 %

VEGETATED AREA
5.62 ha

MEDIAN VARI
0.026

42.7% vegetation cover (5.62 ha), median VARI 0.026.

Slope (solar potential)



— drone flight path (blue) · start green, end red



MEDIAN SLOPE

9.7°

MEAN SLOPE

19.8°

SOLAR-FAVORABLE AREA

17.8 %

Median slope 9.7° (mean 19.8°) — 17.8% suitable for solar.

vol nadir (nacelle 90°) : les faces verticales ne sont pas observées — hauteurs de bâti et pentes de toiture sont indicatives (bords adoucis, façades interpolées) ; un vol orbital/oblique complémentaire les affinerait

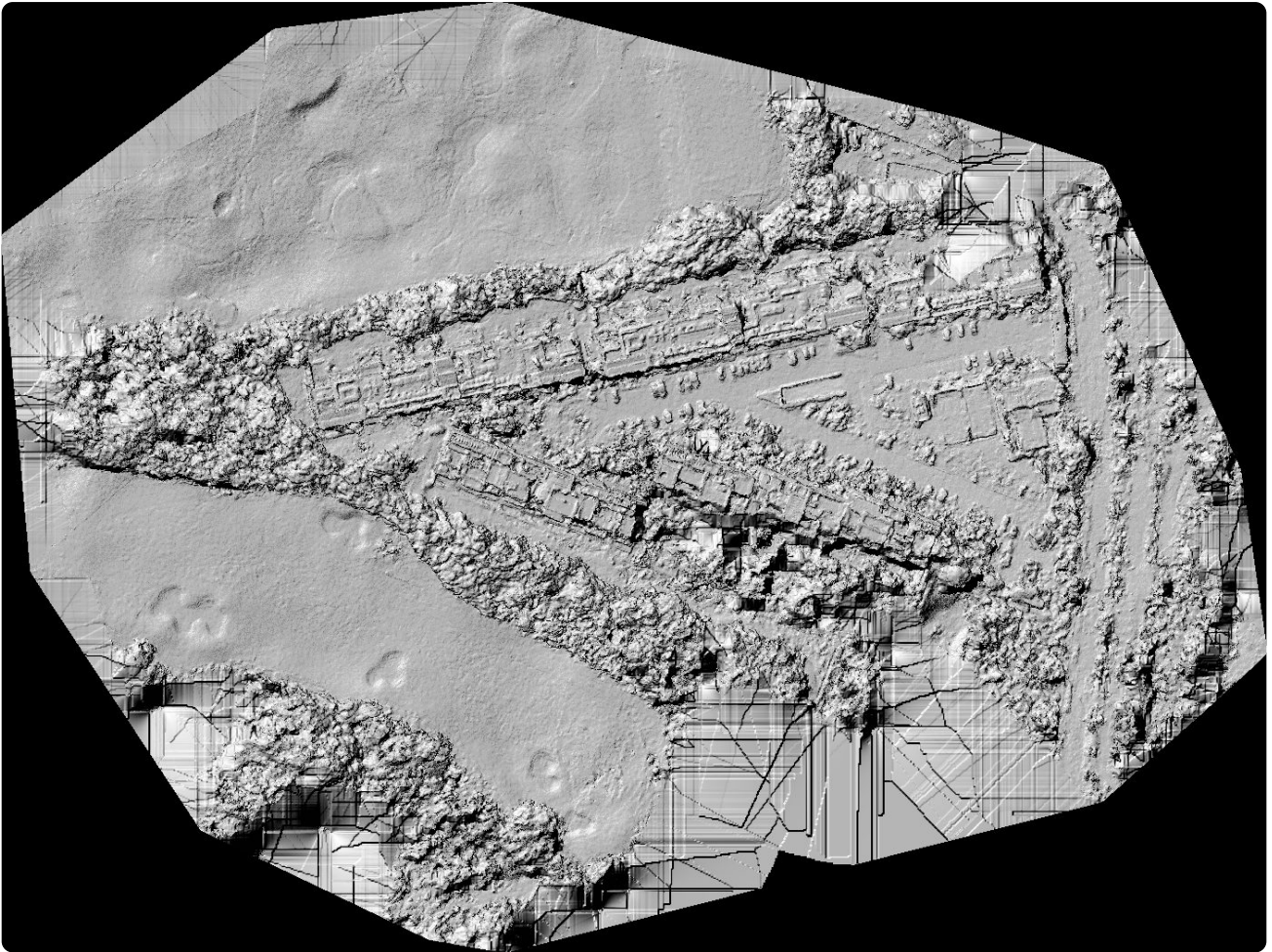
This image shows a document page that is extremely noisy and low-resolution. The background is a dense, chaotic pattern of red, green, and blue pixels. A blue line is drawn across the page, forming a large, irregular shape that appears to be a placeholder or a boundary. The overall quality is very poor, making any text or graphics on the page impossible to discern.

North East South West

14.3 %

% du site ; orientation évaluée sur les pentes $\geq 10^\circ$ uniquement (fiable) · vol nadir (nacelle 90°) : les faces verticales ne sont pas observées — hauteurs de bâti et pentes de toiture sont indicatives (bords adoucis, façades interpolées) ; un vol orbital/oblique complémentaire les affinerait

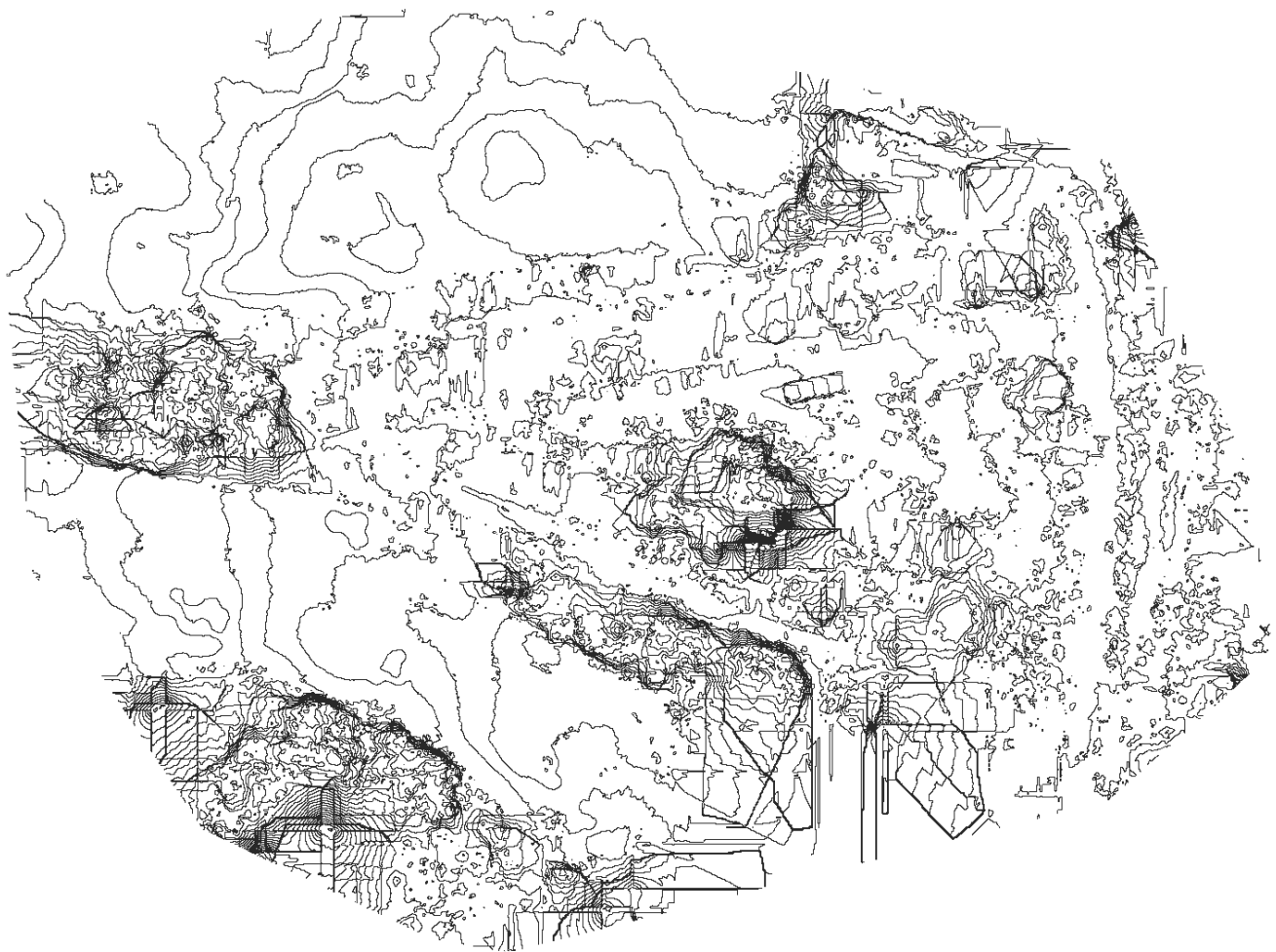
Hillshade (relief)



— drone flight path (blue) · start green, end red

Hillshade of the relief — highlights terrain shapes and eases the reading of the other maps.

Contour lines



— drone flight path (blue) · start green, end red

CONTOUR LINES

2891

CONTOUR INTERVAL

1 m

2891 contour lines at 1 m intervals.

Notes: min/max robustes (p0.1–p99.9) ; affichage_min/max_m = bornes p2–p98 pour la rampe de couleur (évite le rendu bicolore) ; datum relatif, utiliser le dénivelé · mesuré sur l'emprise du VARI, seuil VARI>0.05 · pente du DSM (bâti+végétation inclus, pas seulement les toits) · positions réelles des prises de vue (≠ plan de vol KMZ)

Recommendations

- Utilize the slope and azimuth models to optimize solar exposure or drainage planning.
- Integrate the orthomosaic and DEM into a Geographic Information System (GIS) for long-term asset management.
- Compare the current vegetation index with future flights to monitor growth or stress patterns over time.
- Implement Ground Control Points (GCPs) for future missions to achieve absolute georeferencing precision.

Operational context (flight plan)

Flight plan verdict (indicative) : Vigilance

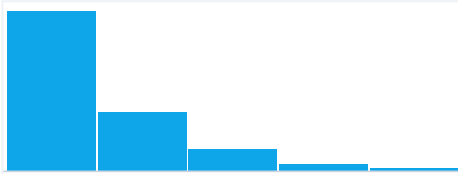
Weather window : 05:00 → 07:00 (ok)

Airspace : 0 zone(s) overhead · 1 zone(s) nearby (5 km)

Annex A — Photogrammetric processing report

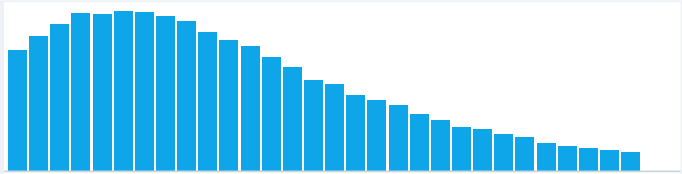
PROCESSING	
Software	OpenDroneMap
Acquisition	28/06/2026 at 13:49:43
Processing time	32 min
Area covered	7.77 ha
Mean GSD (photos)	2.25 cm/px
RECONSTRUCTION	
Connected components	1
Calibrated photos	21 / 21
3D points	12 693
2D observations	32 411
Mean track length	2.55
Reconstructed features (med.)	1317
ACCURACY	
Reprojection error	1.4 px
Horizontal accuracy (CE90)	11.25 cm
Vertical accuracy (LE90)	22.35 cm
GPS horiz. accuracy (CE90)	91.16 cm
Ground control points (GCP)	none (RTK flight)
CAMERA CALIBRATION	
Model	v2 dji fc9313 8192 6144 brown 0.6666
Focal (norm.)	0.6371
k1 · k2 · k3	0.0365 · -0.0841 · 0.046
p1 · p2	-0.0006 · 0.0003

Track length (photos per point)



2

Reprojection error distribution

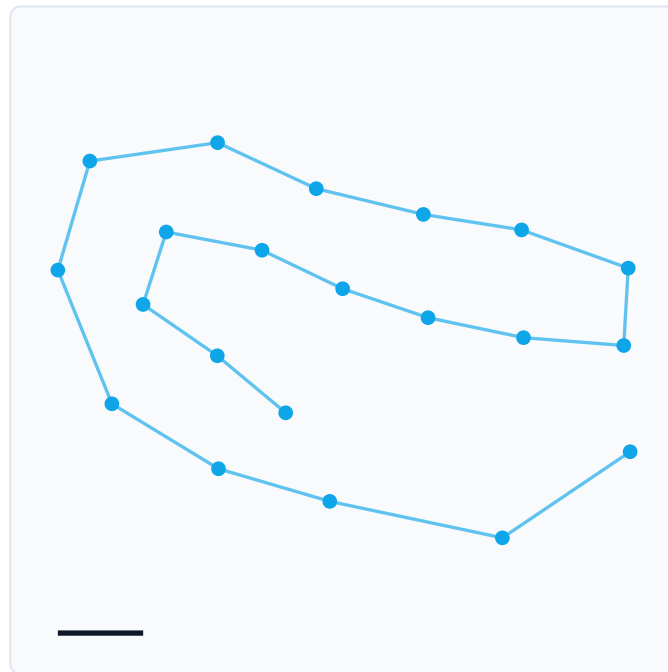


80.0 px

3.9 px

Camera positions (top view)

Path of the photo captures reconstructed by photogrammetry.



Reconstructed camera positions, connected in capture order — north up · bar = 50 m

Disclaimer. The observations and recommendations in this report are produced by automated (AI) analysis and are indicative only. They describe what is visible in the images and do not constitute a technical survey, an engineering diagnosis, or legal advice. The drone operator validates and completes these observations.