



# AERIAL MAPPING OF HIGHWAYS & ROAD ASSETS SERVICES

# About Phans4:

**Phans4 consulting** is an inspection and testing agency employs qualified personnel who specialize in inspecting and testing civil equipment, Our experts are well qualified in relevant fields with international approved certifications to perform tests and inspections. They undergo continuous training to stay updated on the latest inspection techniques, testing methods, and regulatory requirements, **Familiarity with Regulations and Codes.** They all have experience working in relevant industries such as manufacturing, oil and gas, petrochemicals, power generation, or any other field involving civil equipment.



## AERIAL MAPPING OF HIGHWAYS & ROAD ASSETS SERVICES

Phans4 Consulting is a trusted provider of aerial mapping services for highways and road assets. Our specialized aerial mapping solutions utilize cutting-edge technologies (LIDAR, Thermal Imaging, Drone) to capture high-resolution aerial imagery and obtain accurate geospatial data. With a team of experienced professionals, we help transportation agencies and organizations improve asset management, planning, and decision-making processes.

### **Our Services:**

#### **AERIAL IMAGERY ACQUISITION:**

- Utilize unmanned aerial vehicles (UAVs) equipped with high-resolution cameras to capture detailed aerial imagery of highways and road assets.
- Collect imagery covering extensive areas, including road corridors, intersections, bridges, and adjacent infrastructure.



#### **ORTHOPHOTO GENERATION:**

- Process captured aerial imagery to produce high-quality orthophotos, which are georeferenced and distortion-free images.
- Create accurate base maps that can be used for asset inventory, mapping, and project planning purposes.

## **DIGITAL SURFACE MODELING:**

- Generate precise digital surface models (DSMs) from aerial imagery data.
- Create 3D representations of the terrain and infrastructure, including highways, road assets, surrounding topography, and vegetation.



## **DIGITAL ELEVATION MODELING:**

- Produce digital elevation models (DEMs) to accurately represent the elevation and topography of the road network.
- Assist in assessing slopes, gradients, and profiles for engineering and design purposes.

## **ASSET MAPPING & INVENTORY:**

- Utilize aerial imagery and remote sensing techniques to map and inventory road assets such as signage, culverts, guardrails, and bridges.
- Georeference assets, enabling their spatial visualization and efficient asset management.



## **GIS INTEGRATION:**

- Integrate aerial mapping data with geographic information systems (GIS) to establish comprehensive asset databases.
- Enable efficient data management, query, analysis, and visualization of road assets within GIS platforms.



## **CHANGE DETECTION ANALYSIS:**

- Conduct change detection analysis to identify and monitor any changes that have occurred over time regarding road infrastructure.
- Detect road damage, encroachments, or new developments that may require maintenance or further assessment.

## **REPORTING & DOCUMENTATION:**

- Generate detailed reports and documentation, including orthophotos, DSMs, DEMs, and asset inventories.
- Provide clear and concise summaries of aerial mapping findings to support asset management, planning, and decision-making processes.



## **WHY CHOOSE PHANS4 CONSULTING:**

- **Expertise in aerial mapping services for highways and road assets.**
- **Highly skilled professionals with extensive experience in remote sensing and geospatial technologies.**
- **Utilization of cutting-edge UAV and imaging technologies for accurate and high-resolution data acquisition.**
- **Commitment to data accuracy, quality, and adherence to industry standards.**
- **Customized solutions tailored to meet the specific requirements of each project.**
- **Trusted partner for enhancing asset management processes, planning, and infrastructure development.**

**Phans4 Consulting is dedicated to providing reliable and accurate aerial mapping services for highways and road assets. Contact us for all your aerial mapping needs, and let us help you visualize and manage your road network efficiently to make informed decisions and optimize asset performance.**

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