



Planning and Mapping

176 Quarry, Off Bai Bureh Road,
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PaMGIS INFRASTRUCTURE MANAGEMENT PLATFORM

Delivered by PaM (Planning and Mapping)

Managing Critical Infrastructure Through Geospatial Intelligence and Asset Lifecycle Management

Overview

PaM (Planning and Mapping) delivers PaMGIS Infrastructure Management, a GIS-enabled enterprise platform that helps governments, utilities, municipalities, transportation agencies, and infrastructure operators plan, monitor, maintain, and optimize critical infrastructure assets throughout their lifecycle.

PaMGIS combines digital mapping, asset inventory management, condition assessments, maintenance planning, work order management, mobile inspections, and spatial analytics into a single integrated platform. The solution provides organizations with a comprehensive view of infrastructure assets, enabling better planning, reduced maintenance costs, improved service delivery, and enhanced operational resilience.

From roads and bridges to water systems, power networks, public facilities, and telecommunications infrastructure, PaMGIS helps organizations make informed decisions based on accurate geospatial data and real-time asset intelligence.

The Challenge

Infrastructure owners and operators frequently face:

- Incomplete asset inventories
- Aging infrastructure
- Limited visibility into asset conditions
- Reactive maintenance practices
- Fragmented data systems
- High maintenance costs
- Service interruptions and outages
- Difficulty prioritizing investments
- Limited long-term infrastructure planning



These challenges result in increased operational costs, reduced service reliability, and inefficient use of resources.

The PaMGIS Solution

PaMGIS provides a comprehensive Infrastructure Asset Management System that enables organizations to manage infrastructure assets from planning and construction through maintenance, rehabilitation, and replacement.

Infrastructure Asset Registry

- GIS-based asset inventory
- Asset classification and hierarchy
- Asset ownership management
- Asset lifecycle tracking
- Unique asset identification

Digital Infrastructure Mapping

- Roads and transportation networks
- Water distribution systems
- Sewer and drainage networks
- Power transmission and distribution assets
- Telecommunications infrastructure
- Public facilities and buildings

Asset Condition Assessment

- Inspection management
- Condition scoring
- Defect tracking
- Asset health monitoring
- Risk assessment

Maintenance Management

- Preventive maintenance scheduling
- Corrective maintenance tracking
- Work order management
- Resource allocation
- Maintenance history tracking



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Capital Planning & Investment Management

- Infrastructure investment planning
- Rehabilitation prioritization
- Capital improvement programs
- Budget forecasting
- Asset replacement planning

Mobile Field Operations

- Mobile inspections
 - GPS-enabled asset verification
 - Photo documentation
 - Field maintenance reporting
 - Offline data collection
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Key Benefits

- ✓ Improve infrastructure reliability
 - ✓ Reduce maintenance costs
 - ✓ Extend asset lifespan
 - ✓ Improve service delivery
 - ✓ Strengthen investment planning
 - ✓ Increase operational efficiency
 - ✓ Support data-driven decision making
 - ✓ Improve infrastructure resilience
 - ✓ Reduce service disruptions
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Core Platform Features

PaMGIS Infrastructure Dashboard

- Asset Inventory Management
- Maintenance Monitoring
- Infrastructure Mapping



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- Executive Reporting
- Performance Analytics

PaMGIS Mobile Inspection App

- Asset Inspections
- GPS Asset Verification
- Photo Capture
- Field Reporting
- Offline Operations

PaMGIS Spatial Intelligence Engine

- Asset Risk Analysis
- Infrastructure Performance Monitoring
- Predictive Maintenance Analytics
- Investment Prioritization
- Network Analysis

Enterprise GIS Infrastructure

- PostgreSQL/PostGIS
- Cloud or On-Premise Deployment
- Secure Multi-Agency Access
- API Integration Framework
- Enterprise Security Controls

Supported Infrastructure Types

Transportation Infrastructure

- Roads
- Bridges
- Highways
- Rail Networks
- Airports
- Ports

Water Infrastructure

- Water Distribution Networks
- Treatment Facilities
- Storage Reservoirs



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- Pump Stations

Energy Infrastructure

- Power Generation Facilities
- Transmission Lines
- Distribution Networks
- Renewable Energy Assets

Public Facilities

- Schools
- Hospitals
- Government Buildings
- Community Facilities

Telecommunications

- Fiber Networks
- Communication Towers
- Data Centers
- Broadband Infrastructure

Asset Lifecycle Management

Plan

Identify infrastructure needs and investment priorities.

Design & Construct

Track infrastructure projects and asset commissioning.

Operate

Monitor infrastructure performance and service delivery.

Maintain

Manage inspections, maintenance, and repairs.

Rehabilitate

Prioritize upgrades and modernization projects.



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Replace

Support long-term capital investment planning.

Deployment Options

Government Cloud

Secure cloud-hosted deployment managed by PaM.

Utility or Agency Data Center

Installed within existing organizational infrastructure.

Hybrid Deployment

Combines local control with cloud-based scalability and resilience.

Ideal Users

- Ministries of Public Works
 - Transportation Authorities
 - Water Utilities
 - Energy Utilities
 - Municipal Governments
 - Infrastructure Agencies
 - Port Authorities
 - Airport Authorities
 - Telecommunications Providers
 - Development Partners
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Why PaM?

PaM (Planning and Mapping) specializes in geospatial technologies, digital mapping, infrastructure management, asset intelligence, and decision-support systems.

Through PaMGIS, PaM enables organizations to modernize infrastructure operations, improve service delivery, reduce costs, optimize investments, and build resilient infrastructure systems that support economic growth and sustainable development.



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PaM (Planning and Mapping)

Building Smarter Infrastructure Through Spatial Intelligence

PaMGIS Platform Features • Digital Mapping • Land Title Registration • Property Tax Administration • Emergency Response Management • Geospatial Analytics • Smart City Planning • Asset Management

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PaMGIS — Map Assets. Optimize Operations. Strengthen Infrastructure.