AIPCS Phase 2 Feature Design Brief

# Feature 2: Site Photo Gallery with Geo-tagging

Overview:  
Allows site engineers to upload photos directly from their mobile devices. Each photo is auto-tagged with GPS coordinates and timestamp.  
  
Use Case:  
- Daily progress photos  
- Incident documentation  
- Remote visual verification  
  
UI Elements:  
- Upload Photo button on mobile dashboard  
- Gallery tab on each project  
- Filters: Date, user, tags, location  
  
Technical Notes:  
- Use HTML5 geolocation API  
- Store metadata in photo table (lat, long, timestamp, project\_id, user\_id)

# Feature 3: Interactive Project Map (GIS Integration)

Overview:  
Projects are displayed on a live map (OpenStreetMap or Google Maps API), showing geographic spread and status.  
  
Use Case:  
- National map overview for management  
- Drill into a project from the map  
- Color-coded status markers (Ongoing, Delayed, Completed)  
  
UI Elements:  
- "Map View" tab on dashboard  
- Project markers with tooltips and quick links  
  
Technical Notes:  
- Use Leaflet.js for map rendering  
- Backend stores GPS coordinates per project

# Feature 4: Daily Site Diary

Overview:  
Field teams submit a structured daily log per project.  
  
Log Fields:  
- Weather  
- Labor count  
- Work completed  
- Equipment used  
- Issues/Delays  
- Photos (optional)  
  
UI Elements:  
- Diary Entry form on mobile  
- View past logs (calendar/list)  
- Exportable diary logs  
  
Technical Notes:  
- Form autosaves offline if no connection  
- Syncs when reconnected

# Feature 7: Procurement & Inventory Integration

Overview:  
Track material requests, deliveries, and inventory usage per project.  
  
Workflow:  
- PM submits material request linked to BOQ  
- Procurement team approves and dispatches  
- Site logs receipt and consumption  
  
UI Elements:  
- Procurement tab with 3 views: Requests, Deliveries, Inventory  
- Delivery receipts + site confirmations  
  
Technical Notes:  
- Join tables: material\_requests, material\_deliveries, site\_stock  
- Role-based access (PM, procurement, site storekeeper)