

# PROJECT 3

CONSULTANTS & LOGISTICS INC.

---

## Platform User Guide & Manual

Version 2.0 · Updated April 2026

<b>Company</b>	Project 3 Consultants & Logistics Inc.
<b>Address</b>	#42 Durette Gardens, Gemswick, St Philip, Barbados
<b>Tel</b>	1-246-231-2417
<b>Email</b>	info@p3cl.com

---

### *New features in this version:*

- ✓ Equipment Rates — C.O. Williams pricelist + custom suppliers
- ✓ Project Map — Barbados pin locator (OpenStreetMap, no API key)
- ✓ Archive & Restore Projects — hide without deleting



# Table of Contents

---

1. Platform Overview
2. Logging In & Mobile Installation
3. Dashboard
4. Clients
5. **Projects — including Archive & Restore ★ New in v2.0**
6. Estimates
7. Procurement — 9-Stage Pipeline
8. Material Pricing & AI Search
9. Labour Rates
10. **Equipment Rates ★ New in v2.0**
11. **Project Map ★ New in v2.0**
12. Email & Templates
13. Team Chat (Messaging)
14. Notifications
15. User Management & Roles
16. Settings
17. Sync & Offline
18. Tips, Shortcuts & Troubleshooting

## 1 Platform Overview

The P3CL Project Management Platform (P3CLPM) is a Progressive Web App (PWA) — it runs in the browser and can be installed on any device. Built specifically for Project 3 Consultants & Logistics Inc. and the Caribbean construction, consulting, and procurement market.

Module	Description
Projects	Construction, Consulting, IT & Civil Works projects from start to finish.
Estimates	Line-item estimates with VAT control and branded print/PDF output.
Procurement	9-stage international purchase pipeline from sourcing to delivery in Barbados.
Material Pricing	Editable price library with AI-powered Barbados market lookups.
Labour Rates	Rate card per trade/role — feeds automatically into estimate line items.
Equipment Rates	C.O. Williams pricelist + your own custom supplier equipment. NEW in v2.0
Project Map	Barbados map showing all projects as colour-coded pins. NEW in v2.0
Email	Branded client emails with file attachments from projects and orders.
Team Chat	Internal messaging with file sharing, replies, and real-time delivery.
Archive & Restore	Hide completed/inactive projects without deleting any data.

## 2 Logging In & Mobile Installation

**Default administrator credentials:** Email: mark@p3cl.com · Password: P3CL@2026admin — change on first login.

- 1 Navigate to your Netlify URL (e.g. <https://p3clpm.netlify.app>) in Chrome or Safari.
- 2 Tap **Connect Supabase** at the bottom of the login screen (first time only). Enter your Project URL and anon key, tap Test → Save. Confirm all 13 tables are green.
- 3 Tap **Refresh accounts from cloud** to pull the user list. Required on every new device before logging in.
- 4 Enter your email and password. On first login on a new device, set a local password for that device.

### Installing as a Mobile App

**Android (Chrome):** Tap the three-dot menu → Add to Home screen → Install.

**iPhone / iPad (Safari):** Tap the Share button → Add to Home Screen → Add. Must use Safari.

**Note:** Passwords are stored locally per device for security. They never travel through the cloud. Each new device requires its own password setup.

## 3 Dashboard

The Dashboard is your home screen showing live stats across all active projects and a quick-access grid of recent work.

Stat Card	What it shows
Total Projects	Count of all non-archived projects.
Active	Projects currently in Active status.
Accepted Value	Sum of all accepted estimate totals (BBD).
Pending Estimates	Estimates in Draft or Sent status awaiting client decision.

**Tip:** Archived projects are excluded from all dashboard counts. Use Projects → Status filter → Archived to view them.

## 4 Clients

Clients are the foundation of the platform. Every project, estimate, and procurement order is linked to a client. Add clients before creating projects.

- 1 Add:** Clients → + Add Client → fill in Name (required), Company, Email, Phone, Address → Save.
- 2 Edit:** Click the edit icon on any client card. All fields including address are editable.
- 3 Delete:** The delete button appears only on clients with no projects attached. Clients with active projects cannot be deleted.

**Tip:** Add clients before creating projects — the client dropdown in the New Project modal pulls from this list.

## 5 Projects — Archive & Restore

**Project Types:** Construction / Renovation · Consulting / Professional Services · IT / Tech Projects · Landscaping / Civil Works

### Creating a Project

- 1 Projects → + New Project. Fill in name, type, client, location, and description.
- 2 **Set Location Pin (new in v2.0):** Click the **Set Pin** button next to the location field. A Barbados map opens. Type an address and press **Find**, or drag the pin to the exact spot. Click **Confirm Location**.
- 3 The project opens to its Overview tab with auto-generated milestones for the selected type.

### Project Tabs

Tab	Purpose
Overview	Status, milestones with progress %, financial summary, Email Client, notes.
Tasks	Add tasks with title, assignee, due date, priority. Kanban: To Do / In Progress / Done.
Photos	Upload photos from camera or file. Each photo can be labelled and tagged.
Estimates	All estimates for this project. Create, view, print, change status.
Docs	Upload and store project documents (PDFs, images, any file type up to 5MB).
AI Advisor	AI-powered advisor — status reports, risk analysis, client email drafts.

### Project Status Values

Status	Colour	Meaning
Estimate	Amber	Project in quoting phase. An accepted estimate moves it to Active.
Active	Green	Work is underway.
Paused	Grey	Temporarily on hold.
Completed	Blue	All work finished.
Cancelled	Red	Project cancelled.
Archived	Dark Grey	Hidden from dashboard. Data fully preserved. Restored at any time.

### Archiving & Deleting Projects

The **X** button on each project card opens an **Archive or Delete** dialog.

Action	What it does
Archive	Sets status to Archived. Project disappears from the active dashboard and stat counts but all data —
Restore	Visible only on archived projects. Returns status to Active.

Delete Permanently Removes the project and all related data. Cannot be undone. A warning prompt appears before deleting.

**Tip:** To view archived projects: Projects page → Status filter → Archived. All data is intact and the project can be restored with one click.

## 6 Estimates

**Path:** Projects → Open Project → Estimates tab → + New Estimate

- 1 Add line items:** Enter description, quantity, unit, and unit price. Each row calculates its own total.
- 2 VAT control:** The Totals panel has a VAT checkbox (17.5%). Tick or untick to include or exclude VAT instantly.
- 3 Notes & Terms:** Add internal notes and payment terms. Click Save Notes when done.
- 4 Change status:** Draft → Sent → Accepted → Rejected. Accepted moves the project to Active automatically.
- 5 Print / PDF:** Click Print / PDF to open a branded print view. Use the browser to save as PDF.

**Tip:** Pull saved rates from your Materials & Labour Rates libraries into estimate line items — no need to type common prices twice.

## 7 Procurement — 9-Stage Pipeline

Tracks international purchases through a 9-stage pipeline designed for the Barbados import process.

Stage	Description
1. Sourcing	Identifying suppliers and pricing.
2. Quote Received	Supplier quote obtained.
3. Purchase Approved	Client or manager approval obtained. Requires Manager or Admin role.
4. Order Placed	Purchase order sent to supplier.
5. In Production	Goods being manufactured or prepared.
6. Shipped	Goods on vessel. Enter Bill of Lading, vessel, ETA.
7. Arrived in Barbados	Goods cleared customs and in country.
8. In Warehouse	Goods received at local storage.
9. Delivered	Final delivery to client complete.

**Tip:** Every stage advance prompts you to email the client automatically — saving a separate step.

## 8 Material Pricing & AI Search

**Path:** Sidebar → Material Pricing

Save standard Barbados material prices that feed directly into estimate line items.

### AI Barbados Price Search

Type a plain-English query to get estimated Barbados market prices with supplier suggestions.

**Example queries:** "roofing nails galvanised" · "PVC 4-inch fittings" · "electrical conduit 20mm"

- 1 Type your query and click **Search Barbados Market**.
- 2 Results show item name, brand, supplier name & area, phone, and unit price (BBD).
- 3 Click + **Add to List** on any result to save it to your price library.

**Note:** AI search requires an API key in Settings → AI & Integrations. OpenRouter (sk-or-...) is recommended for Barbados — accepts international cards.

## 9 Labour Rates

**Path:** Sidebar → Labour Rates

Your rate card for labour and professional services, organised by project type. Rates feed automatically into estimate line items.

Category	Example Rates
Construction	General Labour, Mason, Carpenter, Electrician, Plumber, Painter, Site Supervisor
Consulting	Principal Consultant, Senior Consultant, Analyst, Admin Support, Report / Deliverable
IT	Software Developer, IT Project Manager, Infrastructure / Network, Tech Support
Landscaping	Landscape Labourer, Landscape Supervisor, Machinery / Equipment, Irrigation Specialist

**Tip:** Click + Add Rate to add any custom rate. It becomes immediately available in the estimate line-item picker.

# Equipment Rates



**Path:** Sidebar → Equipment Rates

Two sections: the full C.O. Williams Construction pricelist (read-only reference) and your own editable list for any other supplier.

## Section A — C.O. Williams Construction Ltd

Complete read-only rental rate reference (effective November 2021, BBD VAT inclusive). Contact: (246) 435-3770.

Category	Equipment Included
Bulldozers	CAT D9R, D9N, D8T, D6R, D6N, D5N/D5K, D5G/D5M (7 models)
Hydraulic Excavators	50T CAT 350 down to 5T CAT 305 / JCB 65, plus Backhoe JCB 3CX (10 models)
Hydraulic Breakers	Add-on attachment rates for all excavator size classes
Wheel Loaders	CAT 966H, 966 D&F, 950G
Motor Graders	CAT 140M, 140H, 120H (transport included)
Skid Steer	CAT 262/Bobcat 250, CAT 246/236, Swipe & Plainer attachments
Vibratory Compactors	Hamm, Bomag, and CAT compactors (8 models)
Trucks	CAT 725 / Terex, Peterbuilt, tray trucks 3m <sup>3</sup> to 19m <sup>3</sup>
Transporters	50T & 20T Lowboy, Tractor Unit, Hiab, Water Truck, Tar Truck, Flat Bed
Asphalt Pavers	CAT AP555 F, Vogele Super 1300 / Bomag 813 R, Vogele Super 700
Miscellaneous	Wirtgen Plainer W150/W130, Power Curber, Vermeer Trencher, Compressors

Each item shows hourly rate (BBD, VAT inclusive), minimum rental hours, and transport cost. Click + **Use** on any row to open the cost calculator.

## Section B — My Equipment List (Custom Suppliers)

Add equipment from any other supplier — Simpson Motors, local hire companies, or your own fleet.

- 1 Click + **Add Equipment** (top right of the Equipment Rates page).
- 2 Complete the form:

Field	Description
Equipment Name *	Full name, e.g. "CAT 320 Excavator" or "Bobcat S650 Skid Steer".
Category	Free-text — type any category name to group similar items.
Supplier *	Company providing the equipment, e.g. "Simpson Motors".
Hourly Rate (BBD)	Rate per hour, VAT inclusive.

Minimum Rental (hrs)	Minimum billable hours per engagement.
Transport Cost (BBD)	Mobilisation / delivery charge, VAT inclusive. Enter 0 if included.
Notes	Any additional terms, conditions, or specs.

- 3 Click **Add Equipment** to save. The item appears in the table, sorted by supplier.
- 4 To edit click the pencil icon, to remove click X, to use in an estimate click the + icon.

### Equipment Cost Calculator

Both C.O. Williams items and custom items share the same cost calculator. Click + **Use** to open it.

- 1 Enter hours required. The minimum rental is pre-filled automatically.
- 2 Toggle **Include Transport**. The total updates live.
- 3 Edit the description if needed.
- 4 Click **Copy Line Item** to copy the formatted line item to clipboard, ready to paste into an estimate.

**Tip:** Equipment items are stored locally and sync to Supabase when connected. They persist across sessions and all devices.



# Project Map



**Path:** Sidebar → Project Map

An interactive map of Barbados showing all active projects as colour-coded pins. Uses OpenStreetMap and Leaflet.js — no API key, no billing, works offline once tiles are cached.

## Reading the Map

Pin Colour	Project Status
Green	Active — work is underway.
Amber	Estimate — project in quoting phase.
Grey	Paused — temporarily on hold.
Blue	Completed.
Red	Cancelled.

Click any pin to open a popup showing the project name, client, address and an **Open Project** button. When multiple pins are present the map auto-zooms to fit all of them. Projects without a saved pin are listed below the map.

## Setting a Location Pin

Location pins are set when creating or editing a project.

- 1 Open a project → **Edit Project**, or click **+ New Project**.
- 2 In the Location field, type an address or landmark (e.g. "Warrens, St. Michael").
- 3 Click the **Set Pin** button next to the location field. A full Barbados map opens.
- 4 Press **Find** to geocode your typed address. The map centres on the result and drops a pin.
- 5 **Drag the pin** to fine-tune the exact location, or **click anywhere on the map** to move the pin there.
- 6 Click **Confirm Location** to save. The address field updates and coordinates are stored.
- 7 Click **Save** (or Create Project) to persist. The pin appears on the map immediately.

**Note:** The address search uses Nominatim (OpenStreetMap's free geocoder) — no API key required. It works best with specific Barbados landmark names, parish names, or road names. If the search misses, drag the pin manually.

**Tip:** On the project detail page, if a pin is set a "View on map" link appears next to the address. Clicking it takes you straight to the Project Map.

## 2 Email & Templates

Send branded emails to clients directly from the platform via Resend (your configured sending service).

**From a project:** Overview tab → Email Client → select template → edit → Send.

**From procurement:** Open order → Email Client in the header → pre-fills procurement update template.

Template	Used for
Project Update	General status updates to clients on any project.
Estimate Ready	Notify client an estimate is ready for review.
Procurement Update	Auto-filled from procurement stage advances.
Payment Reminder	Overdue invoice follow-up.
Custom	Create your own in Settings → Email Templates.

## 3 Team Chat (Messaging)

**Path:** Sidebar → Team Chat. Internal messaging between all P3CL users — not visible to clients.

Action	How
Send	Type in the compose box and press Enter. Shift+Enter adds a new line.
Reply	Hover a message bubble → Reply.
Attach	Click the paperclip to attach an image or file (max 5MB). Images preview inline.
Edit	Hover your own bubble → pencil icon. Marked "edited" after saving.
Delete	Hover your own bubble → delete icon. Removed from all devices.
Mobile	Touch and hold any bubble to reveal Reply, Edit, and Delete buttons.

**Delivery modes** shown in chat header: Green = Live (WebSocket, ~1 sec). Amber = Polling (every 5 sec). Yellow = Local only (no Supabase).

## 4 Notifications

The bell icon in the topbar shows recent activity. A red dot indicates unread notifications.

Notification	Trigger
Milestone completed	A project milestone was marked done.
Estimate accepted	A client accepted an estimate.
Procurement stage change	An order moved to a new pipeline stage.
Arrived in Barbados	Shipment has cleared customs.
Delivered	Item delivered to client.
New chat message	A team member sent a message in Team Chat.

## 5 User Management & Roles

Only Administrators can access User Management (Sidebar → User Management).

Role	Permissions
Administrator	Full access to all modules, user management, and settings.
Project Manager	Full project and procurement access. Cannot manage users or change settings.
Estimator	Access to estimates, pricing, and rates only.
Field Staff	View projects, update tasks and photos. Read-only on estimates.
Read Only	View all data. Cannot create, edit, or delete anything.

- 1 Click + **Add User**. Fill in full name, email, role, and a temporary password.
- 2 Share the temporary password. On first login the user sets their own device password.
- 3 To reset a password: click the user card → Set Temp Password → share with the user.

## 6 Settings

Setting	Description
Email Settings	Paste Resend API key. Set from address. Click Save → Send Test Email.
AI & Integrations	Paste OpenRouter (sk-or-...) or Anthropic (sk-ant-...) API key.
Cloud Sync	Enter Supabase Project URL and anon key. Click Test (all 13 tables must be green). Click Save.
Email Templates	Select a template chip to edit subject and body. Click + New Template for custom ones.
Notifications	Enable or disable notification types. Browser permission must be granted for push notifications.

## 7 Sync & Offline

All data saves to local device storage (IndexedDB) instantly — no internet required. When Supabase is connected, changes push immediately. Background sync runs every 5 minutes. Failed writes retry every 30 seconds.

Indicator	Meaning
Green	All data synced successfully.
Blue pulsing	Sync in progress.
Amber	Pending writes in queue, will retry shortly.
Red	Error — tap the dot for details and to reconnect.

**Tip:** The Project Map address search and AI pricing search require an internet connection. All other features including Equipment Rates work fully offline.



# Tips, Shortcuts & Troubleshooting

## Shortcuts & Tips

Tip	Detail
Chat: Enter to send	Enter sends. Shift+Enter adds a new line without sending.
Procurement auto-saves	Tracking fields save on tab away — no Save button needed.
Notes auto-save	Order notes save when you click out of the text area.
Estimate as PDF	Open estimate → Print/PDF → browser print dialog → Save as PDF.
Stage email prompt	Every stage advance offers to email the client automatically.
Live search everywhere	Every list view has live search and dropdown filters.
AI project advisor	The AI tab inside any project gives context-aware advice and status reports.
Mobile touch tip	Touch and hold any chat bubble to reveal Reply, Edit, Delete.
Map pin accuracy	After using Find to geocode, drag the pin to fine-tune the exact spot.
Equipment calculator	Click + Use on any equipment item for a live cost breakdown.
View archived projects	Projects page → Status filter → Archived.
Restore archived project	Click X on an archived project card → Restore.

## Troubleshooting

Problem	Solution
"No account found" on login	Tap Refresh accounts from cloud first, then log in.
Sync dot stays red	Tap dot → Setup → re-enter Supabase URL and key → Test → Save.
AI search returns no results	Check API key in Settings → AI & Integrations. Verify internet.
Map pins not showing	Ensure the project was saved with a confirmed location pin via Edit Project.
Address search wrong location	Drag the pin manually. Parish names and landmarks work best in Barbados.
Equipment not saving	Both Equipment Name and Supplier are required fields.
Archived project missing	Projects → Status filter → Archived.
Print/PDF looks wrong	Use Chrome or Edge. Set margins to None and enable Background graphics.
Supabase tables not all green	Re-run SUPABASE_SCHEMA.sql from the deploy ZIP in the Supabase SQL editor.

## CHAPTER 19

# Field Designer

*Complete guide to designing, documenting and sharing field lighting installations — Phases 1, 2 and 3.*

Feature	Phase	Status
Oval field canvas, pole placement, fixture aim	Phase 1	■ Live
Bank wiring, Bill of Quantities, AI review	Phase 2	■ Live
Client portal approval, AI spec doc, version history	Phase 3	■ Live

## 1. Overview

The Field Designer is a purpose-built engineering module within the P3CL Platform. It enables your team to design, document and share field lighting installations from concept through to client approval, generating a live-linked Bill of Quantities automatically from every drawing.

### Key capabilities:

- Scaled oval cricket or multi-sport field canvas with accurate boundary and pitch dimensions
- Drag-and-drop light pole placement with fixture beam cone arrows showing coverage
- Bank wiring — 2 poles per bank, up to 6 banks, colour-coded along the boundary perimeter
- Automatic Bill of Quantities — civil, structural, electrical and control room items
- AI review with Show me and Fix it per recommendation
- AI-generated technical specification document
- Client portal interactive canvas with pan/zoom and formal approval workflow
- Full version history with restore capability

**Note:** Access the Field Designer from the left navigation sidebar under Field Designer, or from the **■ Drawings** tab inside any project screen.

## 2. Getting Started

### Creating a new drawing

1. Click Field Designer in the left navigation sidebar.
2. Click + New Drawing. The Drawing Details form opens.
3. Enter a drawing title (e.g. Codrington College Field Lighting — Design A).
4. Select the project to attach it to, or leave blank and attach later.
5. Search for the field location by address or place name — latitude and longitude fill automatically.
6. Set field dimensions: Length, Width and boundary distances from centre (N, S, E, W).
7. For cricket, set pitch length (20.12m) and pitch width (3.05m).
8. Select the sport type and click Save drawing.

Setting	Default	Description
Length / Width (m)	130	Dimensions of the oval field
Boundary N/S/E/W	65m	Distance from centre to each boundary edge — controls oval shape
Pitch length (m)	20.12	Standard cricket pitch (22 yards)
Pitch width (m)	3.05	Standard cricket pitch (10 feet)

## 3. Elements on the Canvas

Element	Description
■ Light Pole	Primary element. Auto-assigned to banks of 2. Double-click to edit fixture aim angles.
■ Control Room	Houses MDB, MCBs, contactors and remote control device. Place just outside the boundary.
■ Drainage	Marks a drainage point for civil works reference.
■ Utility Line	Marks the utility supply entry point or incoming cable route.
■ Annotation	Free-form label anywhere on the drawing.

### Placing, moving and deleting

1. Click an element button in the toolbar — cursor changes to crosshair.
2. Click on the canvas to place it. On mobile, tap to place.
3. To move: click and drag (or finger drag on touchscreen).
4. To delete an element: right-click and confirm.
5. To delete an entire drawing: click X on the drawing card in the left panel.

### Fixture aim editor

Double-click any pole to open the Fixture Aim editor. Set the aim angle (0°=East, 90°=South, -90°=North) and tilt down angle per fixture. Auto-distribute spreads fixtures evenly around 360°. Aim toward centre is the recommended starting position for boundary poles.

## 4. Lighting and Bank Wiring

Setting	Default	Description
Pole height	40ft (12.2m)	Affects beam throw distance and cable sizing
Lights per pole	6	Number of LED fixtures per pole
Wattage per fixture	1500W	Power rating of each LED fixture


### Bank wiring system

Each bank = exactly 2 poles on one switched circuit. Select the number of banks needed:

Banks	Total poles	Operating modes
2	4	Small field
3	6	Training (A) / Match (A+B) / Full (all)
4	8	Larger field
5	10	Professional / broadcast
6	12	Stadium / multi-sport

**Note:** Tick Show bank wiring to display colour-coded cable routes along the oval boundary. No cables cross the playing surface.

## 5. Bill of Quantities



Click  View BQ in the action bar. The BQ is live-linked to the drawing and recalculates on every save. When the client approves the drawing the BQ locks — quantities cannot change after sign-off.

Section	Items included
Civil Works	Pole foundations, cable trench, conduit, backfill, control room slab and block work
Structural	Hot-dip galvanised poles, base plates, M30 anchor bolt sets, multi-arm brackets
Electrical — Fixtures	LED sports floodlights IP66, LED drivers, mounting hardware, glare shields
Electrical — Cables	Cu XLPE SWA PVC single-core 600/1000V (3 per circuit), earth conductor, glands, lugs
Control Room	125A main MCB, changeover switch, remote device, bank MCBs, contactors, RCDs, SPD, meter

### Fixed specifications in every BQ:

- Main circuit breaker: 125A double pole MCB
- No photocell — controlled by third-party remote device
- Manual changeover switch 125A — Utility / Remote control device
- Third-party remote control device — brand confirmed by client
- One MCB, one 40A contactor and one 63A 30mA RCD per bank

### To print the BQ:

1. Click  View BQ.
2. Click the gold  Print Full BQ button.
3. A3 landscape print window opens — print or save as PDF.

## 6. AI Features

### Setup

1. Go to Settings → AI Assistant.
2. Enter your OpenRouter API key (sk-or-...) from openrouter.ai.
3. Click Save. Key stored locally in your browser only.

### AI Review — Show me and Fix it

Click AI review in the right panel for numbered recommendations. Each has:

- **Show me** — flashes the relevant pole on the canvas
- **Fix it** — applies the change automatically (move pole, adjust wattage or fixture count)

### AI Spec Document

1. Click **AI Spec Doc** in the action bar.
2. AI generates a full technical specification — scope, standards, structural, fixtures, electrical, control system, testing and warranty.
3. A4 print window opens — print or save as PDF.

## 7. Version History

Every save increments the version number and stores a snapshot (last 10 retained).

1. Click **History** in the action bar.
2. View all versions with date, status and pole count.
3. Click **Restore** to roll back to any version.

**Note:** Drawings cannot be restored after client approval and BQ lock. Create a new revision if changes are needed post sign-off.

## 8. Client Portal — Approval Workflow

1. Click **Send to client** in the action bar. Status changes to SENT.
2. Client logs in at portal.p3cl.com → **Drawings** tab → View and Review Drawing.
3. Client reviews the interactive canvas (pan, zoom, pinch on mobile).
4. Client clicks **Approve Drawing** — BQ locks, status changes to APPROVED.
5. Or client clicks **Request Changes** — notes are sent back to your team.
6. Make changes, resend. Repeat until approved.

**Note:** Attaching a drawing to a project: click **Attach to project** in the action bar. The project map pin updates to the field GPS coordinates.