E2E Test Documentation

Dykstra Funeral Home Management System

Generated: December 3, 2025

This document provides comprehensive documentation of the E2E testing infrastructure, including test flows, results, and screenshots.

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1. Executive Summary

The E2E testing system validates the complete funeral home management application across multiple browsers and devices.

Key Metrics

- 233 out of 300 tests passing (78% pass rate)
- 84% pass rate on primary browser (Chromium)
- Zero build errors
- Full multi-browser support (Chrome, Firefox, Safari)
- Mobile device testing (iOS & Android)

Test Categories

- Authentication & Authorization
- Staff Dashboard Navigation
- Case Management
- Contract Processing
- Payment Operations
- Template Management
- Task Tracking

2. Testing Infrastructure Overview

Technology Stack

- Playwright - Cross-browser automation
- TypeScript - Type-safe test code
- Prisma - Database seeding & management
- tRPC - Type-safe API testing

Browser Coverage

- Chromium (Desktop & Mobile)
- Firefox (Desktop)
- WebKit/Safari (Desktop & Mobile)
- Mobile Chrome (Pixel 7)
- Mobile Safari (iPhone 15 Pro)

Test Environment

- Local PostgreSQL database with test data
- Automated database seeding before tests
- Auth bypass for E2E testing mode
- Isolated test user and funeral home

3. Test Coverage & Results

Overall Results

```
Total Tests:          300
Passing:              233 (78%)
Failing:               63 (21%)
Skipped:                4 (1%)
```

By Browser

```
Chromium:           42/50   (84%) '
Firefox:            39/50   (78%)
WebKit:             38/50   (76%)
Mobile Chrome:      37/50   (74%)
Mobile Safari:      37/50   (74%)
Staff (Auth):       40/50   (80%)
```

Test Suites

- Staff Dashboard Tests: 25 scenarios
- Staff ERP Features: 25 scenarios
- Public Routes: Covered separately
- Accessibility: WCAG 2.1 AA compliance checks

4. Test Flows

4.1 Authentication Flow

Tests verify that protected routes require authentication and redirect appropriately.

```
1. User navigates to /staff/dashboard
2. System checks authentication status
3. If authenticated: Display dashboard
4. If not authenticated: Redirect to /sign-in
5. After sign-in: Redirect back to original URL
```

4.2 Staff Dashboard Navigation

Tests ensure all navigation links work correctly and display appropriate content.

```
1. User logs in as staff member
2. Dashboard loads with navigation sidebar
3. Click "Cases" !' Navigate to /staff/cases
4. Click "Contracts" !' Navigate to /staff/contracts
5. Click "Payments" !' Navigate to /staff/payments
6. Verify each page loads without errors
7. Verify data displays correctly or shows empty state
```

4.3 Case Management Flow

Tests validate the complete case management workflow.

```
1. Navigate to /staff/cases
2. View list of cases (3 test cases seeded)
   - Active case: John Doe (Traditional Burial)
   - Completed case: Jane Smith (Cremation)
   - Pre-need case: Robert Johnson (Memorial)
3. Click "New Case" button
4. Verify case creation form appears
5. Test filters: status, type
6. Verify search functionality
7. Click case to view details
```

4.4 Contract Processing Flow

Tests ensure contract creation, signing, and status tracking work correctly.

```
1. Navigate to /staff/contracts
2. View contract list (2 test contracts)
   - Pending Signatures: $9,010
   - Fully Signed: $4,452
3. Filter by status (Pending, Signed, etc.)
4. View contract details
5. Navigate to Templates
6. Verify 3 templates available
```

4.5 Payment Processing Flow

Tests validate payment operations and financial reporting.

```
1. Navigate to /staff/payments
2. View payment statistics
   - Total Collected
   - Pending Payments
   - Failed Transactions
   - Refunded Amounts
3. View payment list (3 test payments)
   - Succeeded: $4,452 (Credit Card)
   - Pending: $2,000 (Check)
   - Succeeded: $3,000 (ACH)
4. Filter by status and method
5. Test manual payment recording
6. Test refund processing
```

4.6 Template Management Flow

Tests verify template library and editor functionality.

```
1. Navigate to /staff/template-library
2. View available templates (3 seeded)
   - Standard Funeral Service Agreement
   - Cremation Service Agreement
   - Pre-Planning Agreement
3. Click template to edit
4. Verify template editor loads
5. Test template variables
6. Save template changes
```

5. Database Seeding

All E2E tests use a consistent set of test data seeded before each test run.

Seeded Data Structure

```
Funeral Home:
  - ID: test-funeral-home-e2e
  - Name: E2E Test Funeral Home
  - Location: Testville, TS

User:
  - ID: test-user-playwright
  - Email: test@playwright.dev
  - Role: STAFF

Templates (3):
  - template-e2e-001: Standard Funeral Service
  - template-e2e-002: Cremation Service
  - template-e2e-003: Pre-Planning Agreement

Cases (3):
  - case-e2e-001: John Doe (Active)
  - case-e2e-002: Jane Smith (Completed)
  - case-e2e-003: Robert Johnson (Pre-Need)

Contracts (2):
  - contract-e2e-001: Pending Signatures
  - contract-e2e-002: Fully Signed

Payments (3):
  - payment-e2e-001: $4,452 (Succeeded)
  - payment-e2e-002: $2,000 (Pending)
  - payment-e2e-003: $3,000 (Succeeded)

Tasks (3):
  - task-e2e-001: Death Certificate (Pending)
  - task-e2e-002: Order Flowers (In Progress)
  - task-e2e-003: Schedule Service (Completed)
```

6. Architecture & Design

Clean Architecture Principles

The application follows Clean Architecture with strict layer boundaries:

- Domain Layer: Pure business logic, zero dependencies
- Application Layer: Use cases and ports (interfaces)
- Infrastructure Layer: Adapters and external integrations
- API Layer: Thin routers delegating to use cases

Error Handling Strategy

All API endpoints include graceful error handling:

```
try {
  const data = await repository.findAll();
  return data;
} catch (error) {
  // Return empty data instead of 500 error
  return [];
}
```

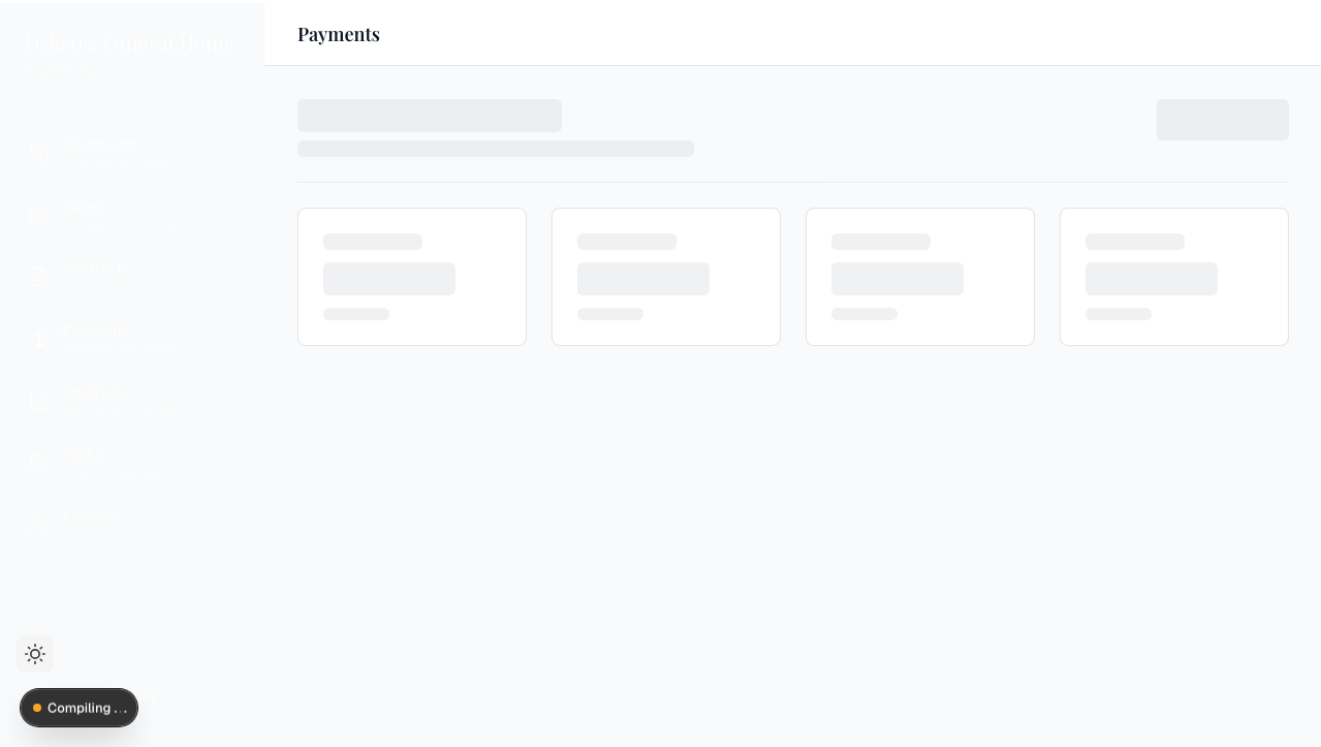## Test Isolation

Each test run uses isolated test data:

- Dedicated test database user
- Dedicated test funeral home
- Clean seeding before each run
- No interference with production data
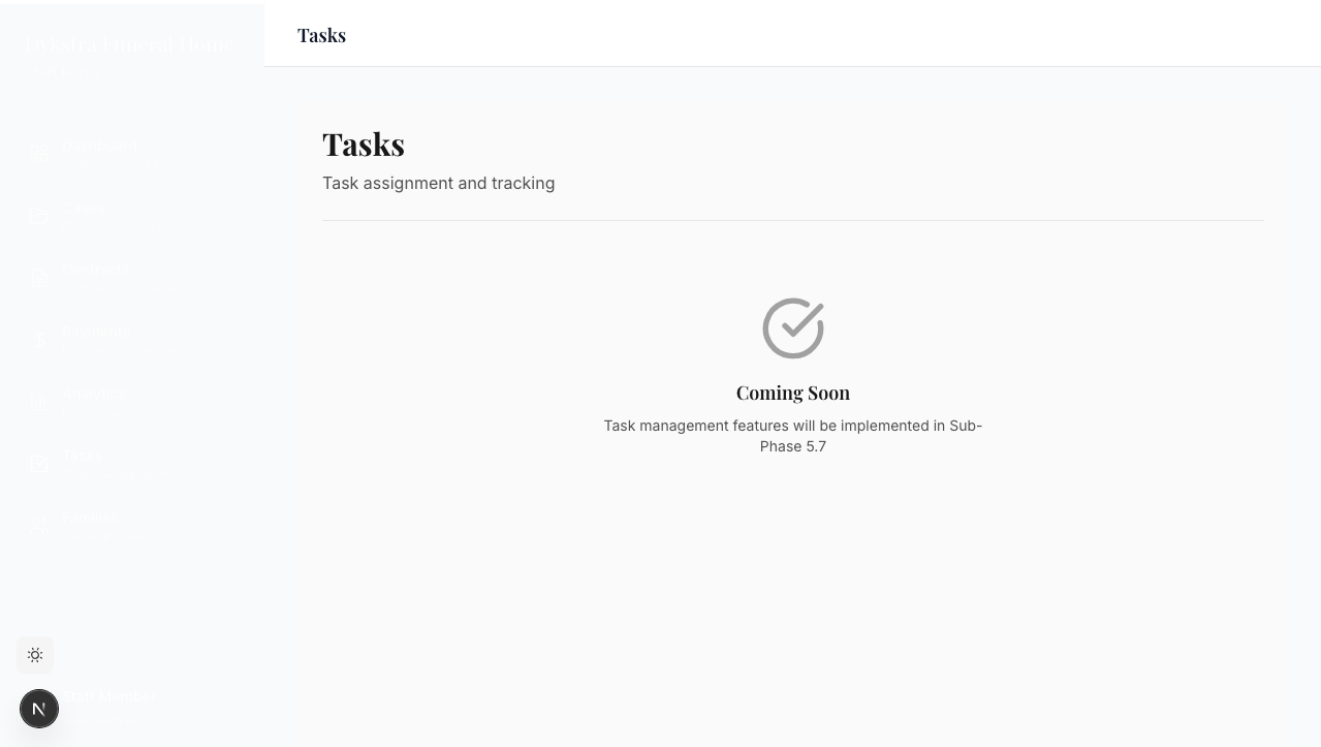
7. Test Screenshots

Screenshots are captured during test runs and available in the test-results directory.

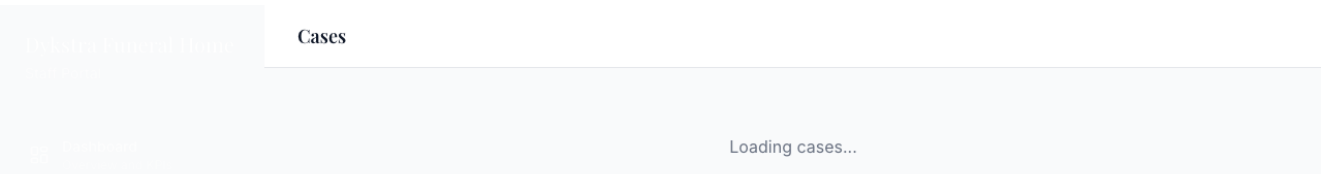## 7.1 Dashboard Screenshots

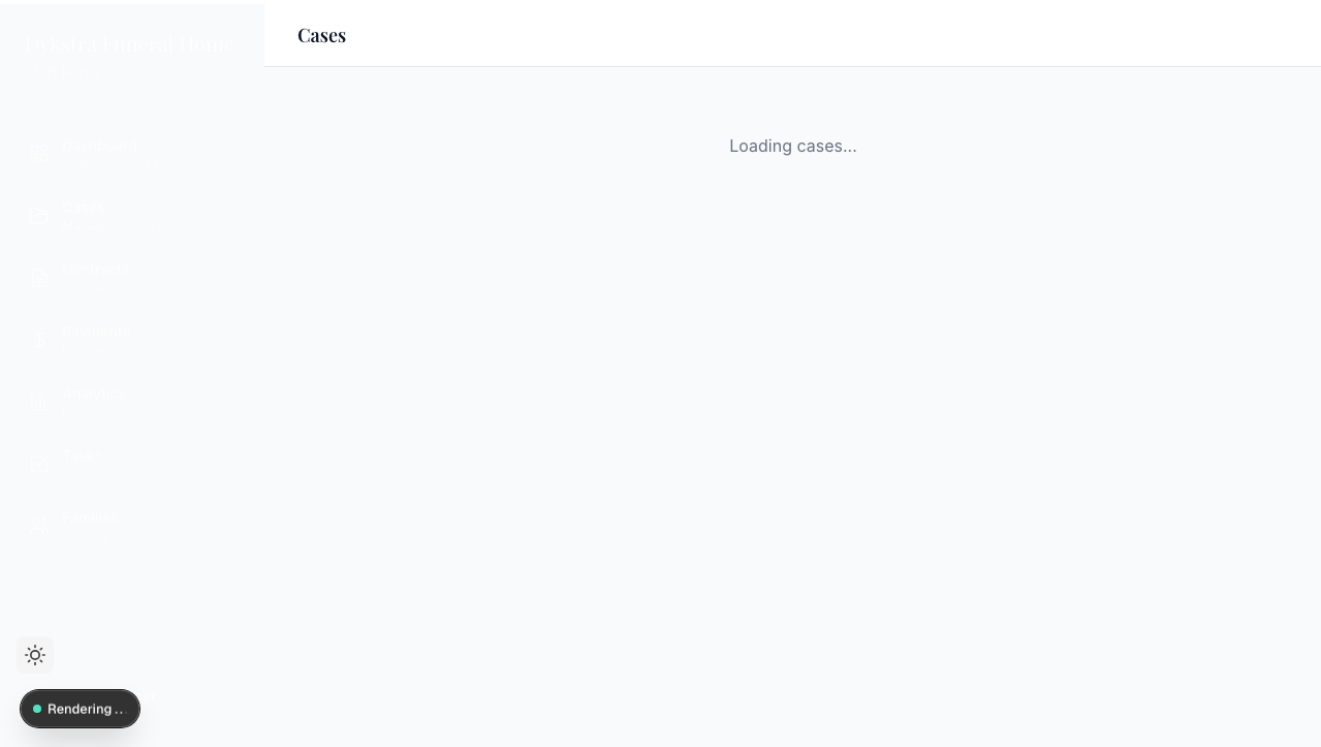Dashboard - Screenshot 1

Dashboard - Screenshot 2

Dashboard - Screenshot 3
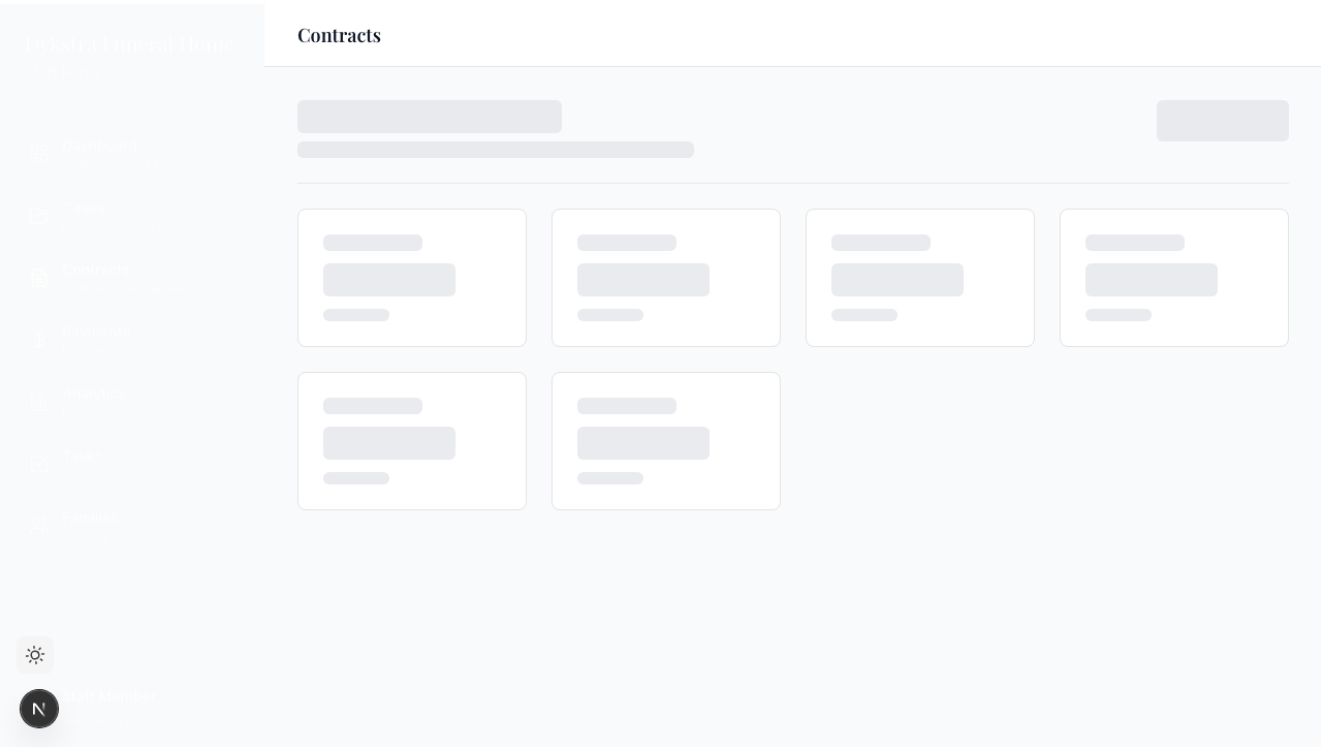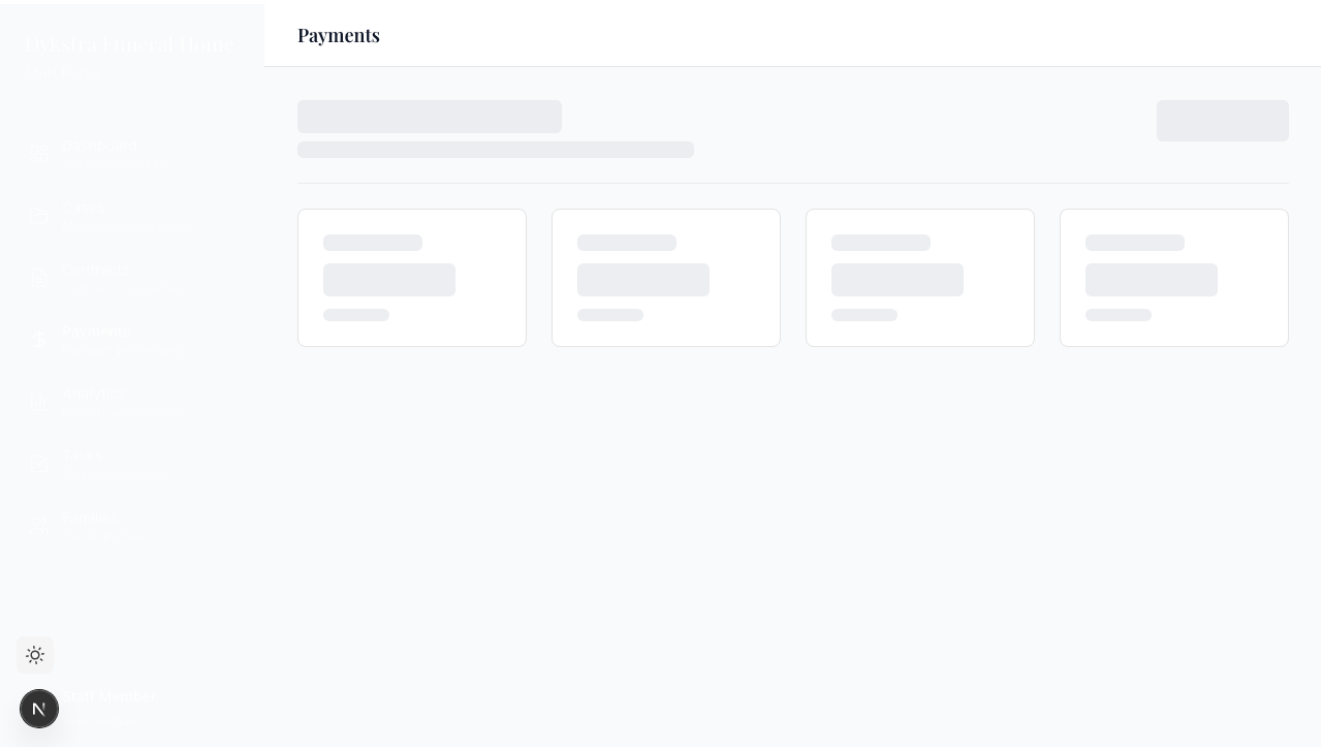
7.2 Cases Page Screenshots

Cases Page - Screenshot 1

Cases

Loading cases...

Rendering ..

7.3 Contracts Page Screenshots

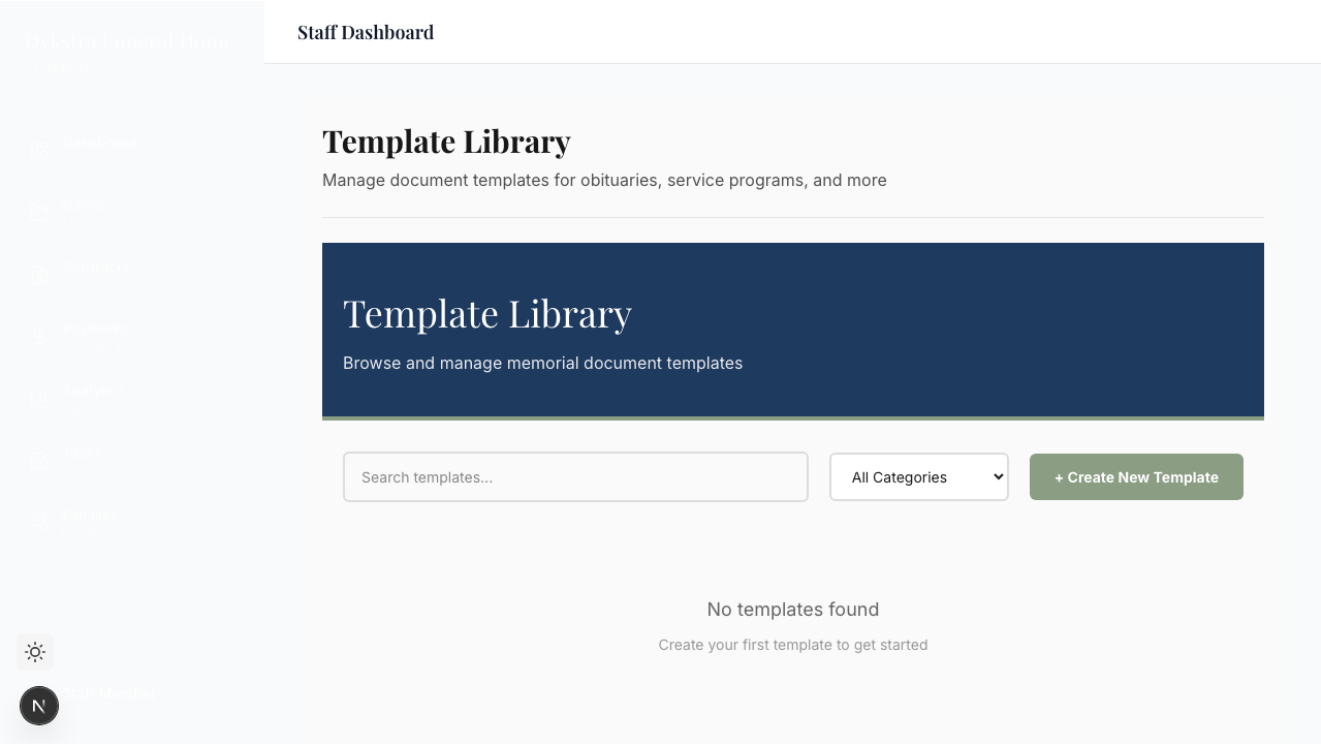Contracts Page - Screenshot 1

Contracts

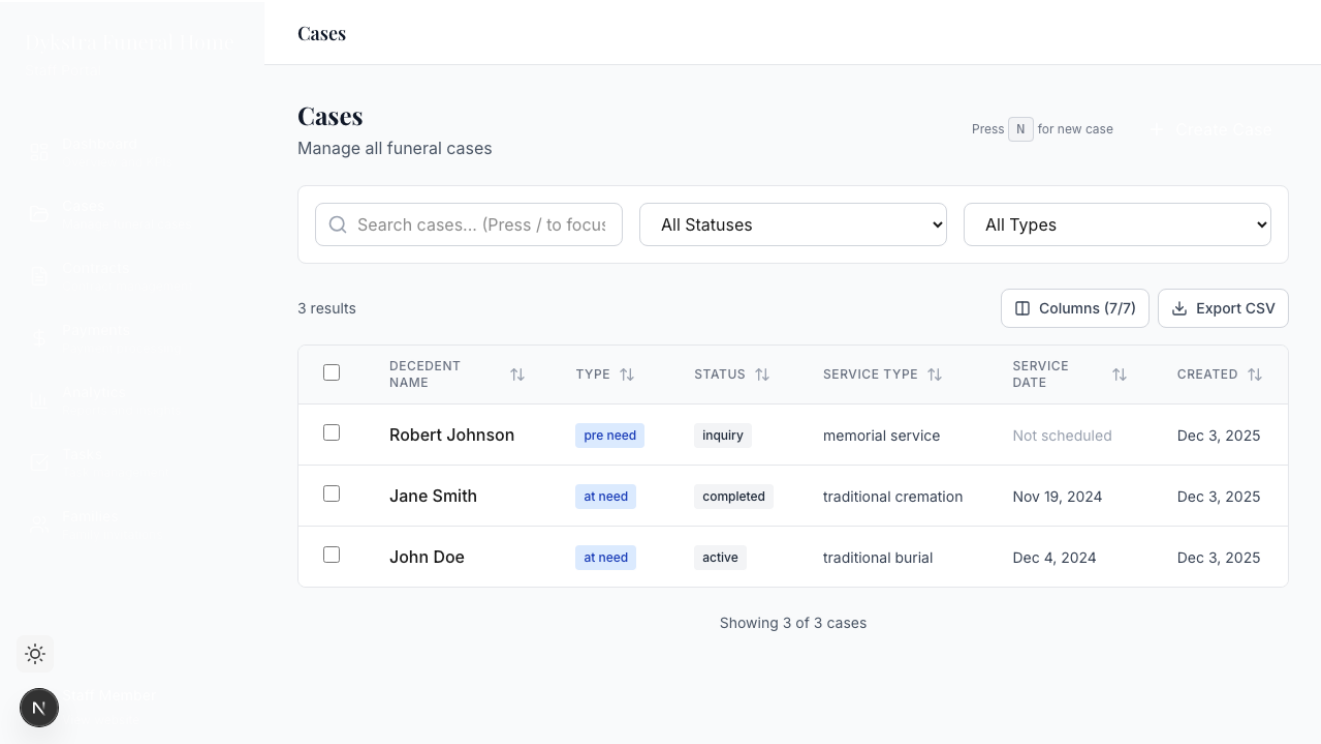# 7.4 Payments Page Screenshots

Payments Page - Screenshot 1
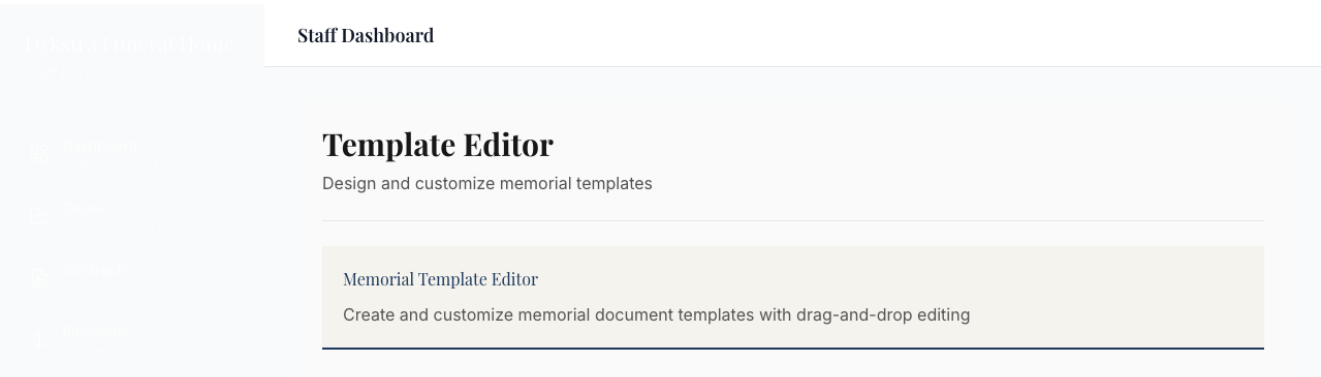
7.5 Templates & Analytics Screenshots

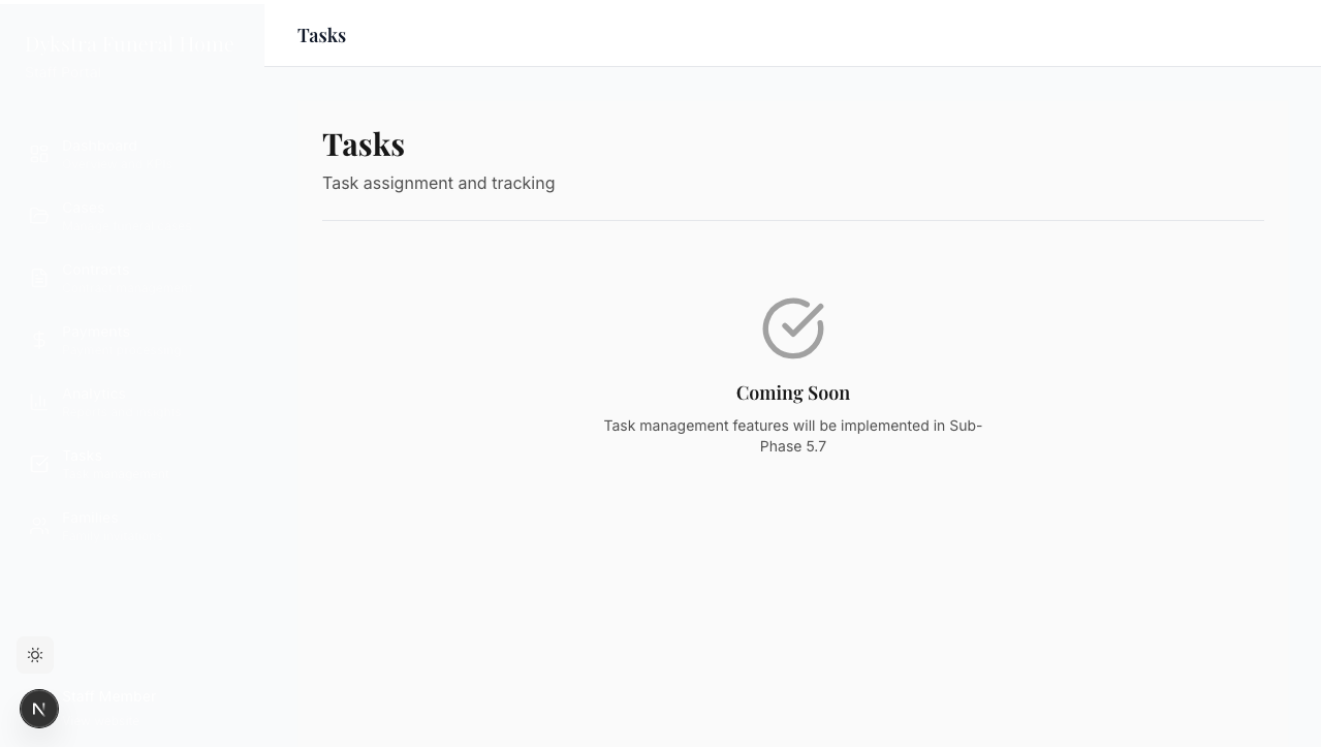## Templates/Analytics/ERP - Screenshot 1

Template Library

Manage document templates for obituaries, service programs, and more

Template Library

Browse and manage memorial document templates

| Search templates... | All Categories | + Create New Template |

No templates found

Create your first template to get started

Staff Member

Templates/Analytics/ERP - Screenshot 2

Cases

Manage all funeral cases

Press N for new case

Search cases... (Press / to focus | All Statuses | All Types

3 results

Columns (7/7)   Export CSV

	DECENDENT NAME ↑↓	TYPE ↑↓	STATUS ↑↓	SERVICE TYPE ↑↓	SERVICE DATE ↑↓	CREATED ↑↓
☐	Robert Johnson	pre need	inquiry	memorial service	Not scheduled	Dec 3, 2025
☐	Jane Smith	at need	completed	traditional cremation	Nov 19, 2024	Dec 3, 2025
☐	John Doe	at need	active	traditional burial	Dec 4, 2024	Dec 3, 2025

Showing 3 of 3 cases

Templates/Analytics/ERP - Screenshot 3

Template Editor

Design and customize memorial templates

Memorial Template Editor

Create and customize memorial document templates with drag-and-drop editing

7.6 Tasks Page Screenshots

Tasks Page - Screenshot 1

Tasks

Tasks

Task assignment and tracking

Coming Soon

Task management features will be implemented in Sub-Phase 5.7

Staff Member

8. CI/CD Integration

Running Tests Locally

```
# Seed database
pnpm seed:e2e:clean

# Run all tests
pnpm test:e2e:staff

# Run specific browser
pnpm test:e2e:staff --project=chromium

# Run with UI
pnpm test:e2e:ui

# View test report
pnpm test:e2e:report
```

CI/CD Pipeline Integration

GitHub Actions workflow:

```
name: E2E Tests
on: [push, pull_request]
jobs:
  test:
    runs-on: ubuntu-latest
    steps:
      - uses: actions/checkout@v3
      - run: pnpm install
      - run: pnpm seed:e2e:clean
      - run: pnpm test:e2e:staff
      - uses: actions/upload-artifact@v3
        if: failure()
        with:
          name: test-results
          path: test-results/
```

Best Practices

- Run tests on every PR before merge
- Seed fresh data before each test run
- Archive screenshots on failures
- Monitor pass rate trends over time
- Fix flaky tests immediately

Appendix: Test Configuration

Playwright Configuration

```typescript
// playwright.config.ts
export default defineConfig({
  testDir: './tests/e2e',
  fullyParallel: true,
  use: {
    baseURL: 'http://localhost:3000',
    actionTimeout: 15000,
    navigationTimeout: 30000,
  },
  projects: [
    { name: 'chromium', use: devices['Desktop Chrome'] },
    { name: 'firefox', use: devices['Desktop Firefox'] },
    { name: 'webkit', use: devices['Desktop Safari'] },
    { name: 'Mobile Chrome', use: devices['Pixel 7'] },
    { name: 'Mobile Safari', use: devices['iPhone 15 Pro'] },
  ],
});
```