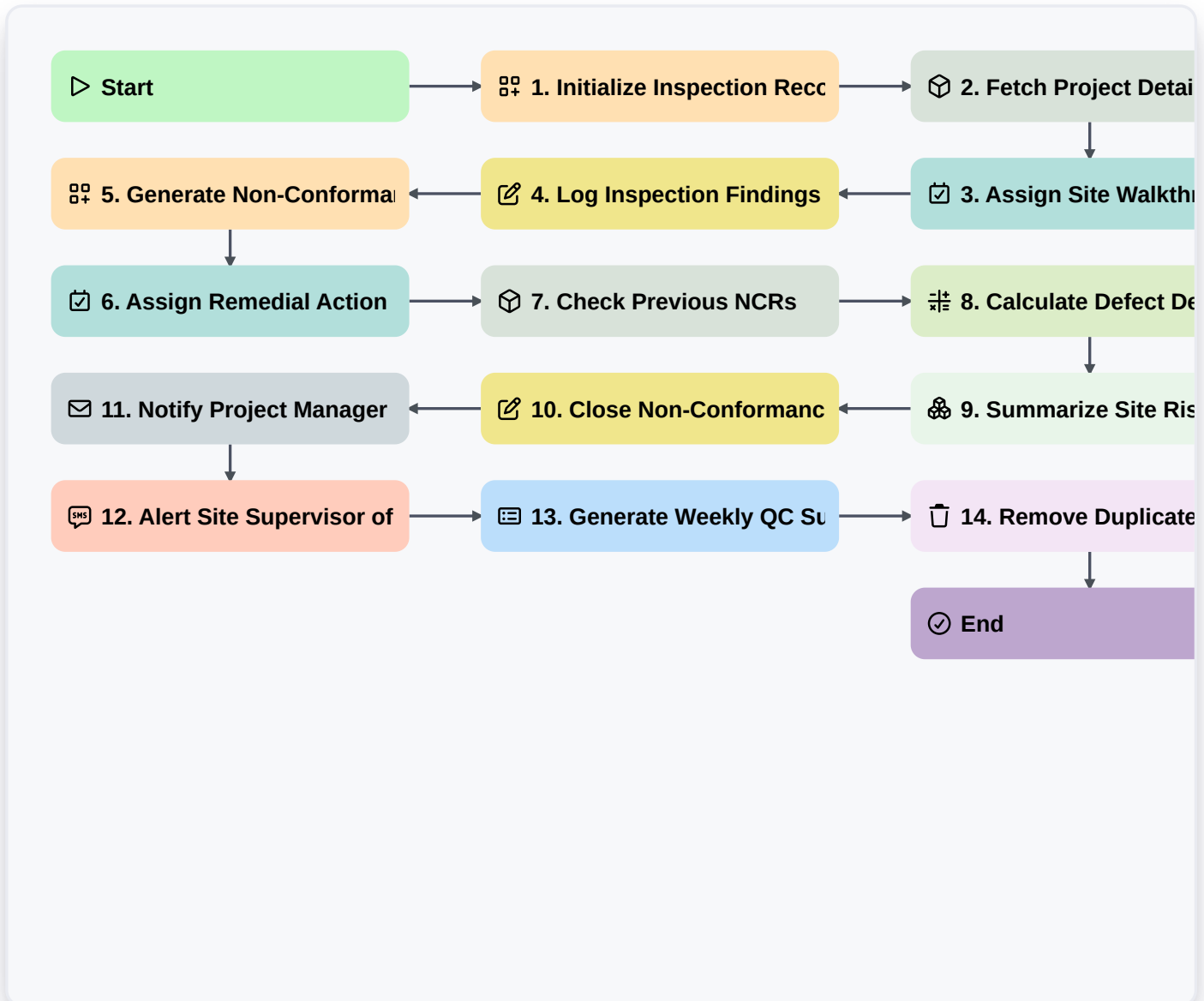


Construction Quality Control And Inspection Workflow



▶ Start

Start of the Workflow/Process.

🗄️ 1. Initialize Inspection Record

Create a new entry in the 'Site Inspection' data model to initiate the QC process.

📦 2. Fetch Project Details

Retrieve project metadata (Location, Project Manager, Deadline) from the 'Projects' data model.

📝 3. Assign Site Walkthrough

Create a task for the Site Engineer to perform the physical inspection based on the inspection record.

📝 4. Log Inspection Findings

Update the 'Site Inspection' entry with notes, photos, and timestamped findings captured during the walkthrough.

🗄️ 5. Generate Non-Conformance Report (NCR)

If a failure is detected, create a new entry in the 'Non-Conformance' data model linked to the inspection.



6. Assign Remedial Action

Create a task for the Subcontractor to address the identified defect/non-conformance.

7. Check Previous NCRs

Retrieve all related entries from the 'Non-Conformance' model for the specific site area to check for recurring issues.

8. Calculate Defect Density

Calculate the ratio of failed inspection items to total inspected items using a formula.

9. Summarize Site Risk Score

Aggregate the 'Severity' scores from all active NCR entries for the current project to determine risk level.

10. Close Non-Conformance

Update the status of the 'Non-Conformance' entry to 'Resolved' once the remedial task is verified.

11. Notify Project Manager of Critical Failure

Send an automated email to the PM when a 'High Severity' defect is logged.

12. Alert Site Supervisor of Safety Breach

Send an SMS alert to the Supervisor if a safety-related non-conformance is identified.

13. Generate Weekly QC Summary

Generate a PDF report aggregating all completed inspections and open NCRs for the weekly stakeholder meeting.

14. Remove Duplicate Inspection Drafts

Cleanup task to delete incorrectly duplicated or abandoned inspection drafts from the data model.

End

End of the Workflow/Process.