

# REQUIREMENT ANALYSIS

## Customer Journey Map

Date	18 Feb 2026
Team ID	LTVIP2026TMIDS81723
Project Name	Civil Engineering Insight Studio
Maximum Marks	4 Marks

### Visual Summary of the Journey

This map follows the "**Entice, Enter, Engage, Exit, Extend**" framework found in your project template. It highlights how the **Civil Engineering Insight Studio** transforms a tedious, error-prone manual process into a structured, AI-driven workflow that provides engineers with "peace of mind" and technically accurate data.

Phase	1. ENTICE	2. ENTER	3. ENGAGE	4. EXIT	5. EXTEND
Goal	Recognize the need for digital site auditing.	Seamlessly set up and authenticate the app.	Capture site images and receive AI insights.	Review structural data and finalize the report.	Share findings with stakeholders for action.
Steps	Identifying delays in manual rebar counting.	Launching Streamlit web app; entering API keys.	Photographing structural skeletons and uploading.	Verifying AI-detected material lists and progress.	Emailing technical Markdown reports to the team.
People	Site Engineer, Project Manager	User (Engineer)	User, Construction Workers	QA Lead, Site Supervisor	Senior Stakeholders, Clients
Places	Remote Site Office	Site Perimeter / Field	Active Construction Zone	Site Office / Laptop	Corporate Headquarters
Things	Project Schedule,	Smartphone,	Mobile Camera,	Markdown Document	Cloud Storage,

Phase	1. ENTICE	2. ENTER	3. ENGAGE	4. EXIT	5. EXTEND
	Manual Logbook	Gemini API Key	Web Interface	, Data Table	Email Dashboard
Feelings	Frustrated by manual labor speed.	Focused on setting up the tool correctly.	Impressed by real-time AI identification.	Relieved to have a digital audit record.	Confident in data-backed decision making.
Pain Points	High risk of human error in counting.	Potential connectivity issues at remote sites.	Low-light conditions affecting photo quality.	Need for manual cross-check of complex data.	Formatting report for different stakeholder types.
Opportunities	Integration: Link with BIM software.	Security: Enable biometric app login.	Hardware: Use drone-based imagery.	Feature: Add GPS coordinates to photos.	Analytics: Compare site progress over months.

