

Below is a **comprehensive, step-by-step plan** detailing how to configure categories, sections, and dynamic elements for your real estate investment report generator. It expands on the “**Land vs. Building**” decision and offers an **exhaustive** breakdown of potential **uses, report sections, document upload flows**, and **subsections**. While it still follows the high-level workflow outlined before, it dives deeper into **granular categories** and **section definitions** so you have a clear blueprint to implement.

1. Asset Categories & Use Cases

A. Land

1. Land for Residential

- Houses (Detached, Semi-Detached, Terraced)
- Apartments / Flats
- Student Housing
- Retirement / Sheltered Housing
- Social Housing

2. Land for Commercial

- Office
- Retail
- Warehouse / Industrial
- Hospitality (Hotel, Motel)
- Leisure (Gyms, Cinemas, etc.)
- Care Home

3. Mixed-Use Development

- Any combination of Residential + Commercial uses

4. Land with or without Planning

- If **with planning**: Include an overview of existing consent details.
- If **without planning**: Emphasize potential planning strategies.

Sections: “Site Description,” “Proposed Development” (multiple sub-uses), “Market Analysis (Residential/Commercial/Hotel),” “Planning Requirements,” etc.

B. Existing Building

1. Residential

- Single Home
- HMO (House in Multiple Occupation)
- Block of Flats (Buy-to-Let or Short-Let, or Mixed Tenures)

- Serviced Apartments / Short-Term Let
- 2. **Commercial**
 - Office Block
 - Retail (Shops, Shopping Arcade)
 - Warehouse / Industrial Unit
 - Hospitality (Hotel, B&B)
 - Leisure (Gyms, Restaurants)
 - Care Home
- 3. **Mixed-Use**
 - Retail + Residential Flats upstairs
 - Office + Residential floors
 - Hotel + Retail, etc.
- 4. **Renovation / Conversion Potential**
 - Buy-Refurb-Sell (BRS)
 - Buy-Refurb-Rent (BRR)
 - Develop & Refinance
 - Develop & Sell
 - Add floors / Convert usage (e.g., office → residential, or house → HMO)

Sections: “Building Description,” “Refurbishment / Conversion Plans,” “Short Let Potential,” “HMO Potential,” “Commercial Tenant Strategy,” etc.

2. Exhaustive List of Potential Report Sections

Below is a **master list** of sections. When the user configures the asset type and use cases, the system **generates** a subset of these. The user can **add/remove** as needed.

1. **Cover & Executive Summary**
 1. Title of the report, date, property address, brief overview (useful for any scenario).
 2. Key investment highlights: “High ROI,” “Potential for Growth,” etc.
2. **Table of Contents**
 1. Dynamically generated as sections are added/removed.
3. **Introduction**
 1. Purpose of the report: e.g., “Proposal to develop X,” or “Investment opportunity for Y.”
 2. Key instructions or disclaimers if needed.
4. **Asset Classification**
 1. **Land or Existing Building**
 2. Basic details: freehold/leasehold, with or without planning, current usage, etc.
5. **Site/Building Description**
 1. **Land:** location, boundaries, topography, site area, access roads.

2. **Building:** size (sqft or sqm), floors, layout, construction type, condition, any major features.
6. **Location Analysis**
 1. **Subsections** depending on the intended use:
 - Residential factors (schools, major employers, transport).
 - Hotel/hospitality factors (tourist attractions, business travel).
 - Industrial/warehouse (major roads, distribution hubs).
 - Retail/office (footfall, local demographics, competing spaces).
 2. **API Data:** [/demographics](#), [/crime](#), [/ptal](#) (for London), [/population](#), etc.
7. **Tenure & Title Information**
 1. Title number, freehold/leasehold status, restrictions or easements.
 2. If land: mention any existing leaseholds on site.
 3. **API:** [/title](#), [/uprn](#), [/uprn-title](#), [/freeholds](#)
8. **Planning Status**
 1. Existing planning consents, previous rejections, local authority constraints.
 2. Green belt, conservation area, listed building status, national park, AoNB.
 3. **API:** [/planning](#), [/green-belt](#), [/conservation-area](#), [/listed-buildings](#), [/national-park](#)
9. **Proposed Development / Conversion**
 1. **Land:** Proposed scheme (houses, flats, commercial units). Unit mix.
 2. **Building:** Proposed refurbishment, extension, or change of use.
 3. Subsections for each use type (e.g., “Residential Flats,” “Retail Space,” “Hotel Rooms”).
 4. Summaries of plans, architect sketches (if docs are uploaded).
10. **HMO or Multi-Room Strategy** (If relevant)
 1. Layout for HMO (number of rooms, ensuite/shared bathrooms).
 2. Licensing considerations, council requirements.
 3. **API:** [/national-hmo-register](#), [/rents-hmo](#), [/valuation-hmo](#)
11. **Short-Term Let Potential** (If relevant)
 1. Airbnb or Serviced Apartments demand, local tourism.
 2. Occupancy assumptions, daily/weekly rates, management costs.
 3. **Partial** or entire building usage.
12. **Market Analysis & Comparables**
 1. **Residential:** sales comps, local demand, growth trends.
 2. **Commercial:** rental comps, yields, absorption rates, tenant demand.
 3. **Hotel:** average daily rates (ADR), occupancy, competitor set.
 4. **Industrial:** local rent psf, vacancy.
 5. **API:** [/prices](#), [/prices-per-sqf](#), [/sold-prices](#), [/rents](#), [/valuation-rent](#), [/growth](#), [/demand](#), [/demand-rent](#)
13. **Financial Analysis**
 1. **Acquisition Cost**
 - Purchase price, stamp duty (if in England), LBTT (if in Scotland), etc.
 - **API:** [/stamp-duty-calculator](#)

2. **Refurbishment / Development Costs**
 - Build cost estimates, professional fees, contingency.
 - **API:** [/development-calculator](#), [/rebuild-cost](#), or user-provided quotes.
 3. **Operating Costs**
 - Maintenance, management fees, utilities.
 - For short-let or HMO: cleaning, furniture, licensing fees.
 4. **Financing & Mortgage**
 - Mortgage rates, monthly payments, bridging finance, interest.
 - **API:** [/mortgage-calculator](#), [/mortgage-rates](#)
 5. **GDV (Gross Development Value)**
 - For new build or conversion.
 - **API:** [/development-gdv](#), [/valuation-sale](#)
 6. **Rental Income & Yields**
 - Proposed rent, net yields, potential void periods.
 - **API:** [/valuation-rent](#), [/yields](#), [/rents-hmo](#)
 7. **Profit & ROI**
 - Potential exit strategies: Sell vs. hold.
 - IRR, payback period, or simpler ROI calculations.
 14. **Risk Assessment**
 - Flood risk, environment hazards, compliance issues, competition.
 - **API:** [/flood-risk](#), plus user input for local knowledge.
 - Market fluctuations, interest rate changes, regulatory changes.
 15. **SWOT Analysis (Optional)**
 - Strengths, Weaknesses, Opportunities, Threats (especially for bigger projects).
 16. **Implementation Timeline (Optional)**
 - If it's a development or major refurbishment.
 - Gantt chart or high-level timeline: planning, construction, marketing, exit.
 17. **Conclusion & Recommendation**
 - Summary of viability or investment potential.
 - Suggested next steps ("Proceed to purchase," "Refine planning," "Seek JV partners," "Market for sale").
 18. **Appendices**
 - **Document List:** (Floor plans, area schedules, comps)
 - **Detailed Comps Table**
 - **Title Register / Site Plans**
 - **Legal Documents**
 - **User can choose** which docs to attach or embed.
 19. **Disclaimer & Contact Info**
 - Standard disclaimers about estimates, forward-looking statements, data accuracy.
 - Contact details for the person/agency producing the report.
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3. Document Upload & Extraction Points

Below is a **more granular** breakdown of how each section might **pull** from user-uploaded documents and **OpenAI** text analysis:

1. **Floor Plans / Site Plans**
 - Extract square footage, room breakdown, potential usage areas (for HMO, number of possible bedrooms).
 - Helps fill “Site/Building Description,” “HMO or Multi-Room Strategy,” “Proposed Development.”
 2. **Accommodation Schedule / Rent Schedule**
 - Extract current rents, lease terms, tenant names, unit sizes.
 - Used in “Financial Analysis,” “Market Analysis & Comparables,” “Rent & Yield.”
 3. **Estate Agent Valuation or Brochure**
 - Extract agent’s opinion on sale price, local comps.
 - Cross-check with [/prices](#), [/valuation-sale](#).
 4. **Assorted Residential Sales Comps (pdf, excel)**
 - Summarize address, sale date, sale price, property type, size.
 - Cross-check or combine with [/sold-prices](#) or [/prices-per-sqf](#).
 5. **Commercial Market Reports**
 - For offices, warehouses, etc. (until a dedicated commercial data feed like EGI is integrated).
 - Summaries go into “Commercial Market Analysis,” “Financial Analysis.”
 6. **Photographs**
 - Typically just included as images in the final report or used by an AI vision model to detect property condition (optional advanced feature).
 7. **Technical Surveys / Structural Reports**
 - Could highlight needed refurbishment items, structural constraints → “Refurbishment Costs,” “Risk Assessment.”
 8. **Historic Planning Documents**
 - If the user has a planning decision notice, the system might parse it to identify conditions, constraints → “Planning Status.”
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4. Section Generation Algorithm

1. **User Chooses:** “Land or Existing Building.”
2. **System** asks for potential uses: (Residential Flats, HMO, Retail, etc.).
3. **System** cross-references a **Section Library** (the bullet list above).
 - E.g., If user picks “Land → Residential Flats + Retail,” the system suggests:

- Site Description, Location, Planning, Proposed Development (with sub-sections for Flats + Retail), Market Analysis (Residential + Retail), etc.
 - 4. **User** can remove or add special sections (Short Let, HMO, etc.).
 - 5. **Document Upload** stage allows for extracting data to fill in placeholders:
 - “**Total floor area**”: from floor plan.
 - “**Current monthly rent**”: from rent schedule.
 - “**Proposed budget**”: from refurbishment doc.
 - Conflicts get flagged. User picks which is correct.
 - 6. **System** calls relevant **PropertyData endpoints** based on the chosen sections.
 - 7. **Drafts** each section content, populates numeric data in tables, calls GPT for any needed text summarization.
 - 8. **User** reviews, possibly re-uploads docs or types direct edits.
 - 9. **Finalize** and compile the full document.
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5. Implementation Notes

1. **Section Templates**
 - Each section is stored as a **template** with placeholders (e.g., [TITLE_NUMBER], [RENT_WEEKLY], [COMPS_TABLE]).
 - The system merges data from **OpenAI** extraction + **PropertyData** queries + **User Overrides**.
 2. **AI Summarization**
 - For narratives (e.g., “Explain the location’s key features in plain English”), the system can feed bullet-point data to GPT to produce coherent paragraphs.
 3. **Dynamic Subsections**
 - Some sections are **conditional**: For instance, “HMO or Multi-Room Strategy” only appears if the user selected HMO usage.
 - “Hotel Potential” only appears if the user picks “Hotel” as a potential use.
 4. **Document Embedding / Linking**
 - The user can decide if certain uploaded docs appear as “Appendices” or if they are just references to help the AI fill data.
 - PDF generation can embed or link these attachments.
 5. **Data Refresh**
 - If the user changes a key value mid-report (e.g., “We’ve revised the purchase price from £300k to £320k”), the system should recalc stamp duty, yields, etc., in subsequent sections.
 6. **Audit Trail** (Optional)
 - Keep logs of who changed what data, when, especially relevant if multiple collaborators are editing.
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6. Example Walkthrough: A Detailed Scenario

1. **User** indicates “Land for Mixed-Use (Residential Flats + Retail).”
 2. **System** automatically selects:
 - Cover, TOC, Introduction, Asset Classification (Land), Site Description, Location, Planning Status, Proposed Development (subsections: Flats + Retail), Market Analysis (Residential & Retail), Financial Analysis, Risk, Conclusion, Appendices, etc.
 3. **User** uploads:
 - A site plan PDF labeled “Site_Plan_123MainSt.pdf.”
 - A local agent’s “MixedUseValuation.docx.”
 - A “Resi_Comps.xlsx” with ~5 local comps.
 4. **AI** recognizes:
 - “Site plan indicates 0.5 acres, near main road.”
 - “Agent doc suggests typical rent ~£20/sqft for retail, ~£1,250/month for 2-bed flats.”
 - Comps file has average sale price ~£300 psf for new flats.
 5. **System** calls `/planning`, finds no major applications, so planning is likely needed.
 6. **Financial Analysis** calls `/development-calculator` with user’s input for build cost and square footage.
 - Outputs potential profit margin, suggests a GDV.
 7. **Draft** is created. **Location** section references `/demographics`, `/crime`. **System** writes, “Crime is low, local demographic is mostly families (45% between ages 25–44).”
 8. **User** sees a conflict: the doc says “site area 0.4 acres,” while the site plan text mentions 0.5. The user clarifies it’s 0.45. The system updates.
 9. **Report** is finalized with tables for retail rent & yield, potential flat sales, total ROI.
 10. **Conclusion**: “Mixed use is viable. We anticipate a GDV of £X with a potential margin of Y%.”
 11. **User** downloads a professional PDF.
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Conclusion

This **exhaustive, granular plan** provides a robust blueprint for a real estate investment report generator. By **organizing** modules around **Land** vs. **Building** and **intended usage**, you generate only the **relevant** sections. Each section has **subsections** or **optional expansions** (HMO, short-let, commercial) with **AI-driven** extraction from user documents and **PropertyData API** calls for precise data.

Such a **modular system** maximizes data quality (no “minimizing costs” at the expense of completeness) while ensuring users only see (and pay for) the sections they actually need.