

# Jargon Buster

## Disclaimer

*This jargon buster is intended as an overall guide for people wishing to further understand the design and planning issues that may affect their intended residential development. It should not be used as a source for statutory definitions as it does not constitute a comprehensive listing.*

**Architectural/Building Design:** Refers to the broadly based architectural, engineering and technical applications to the design of buildings. All building projects require the services of a building designer, typically an architect on all but the simplest of projects. Smaller, less complicated projects often do not require architectural services, and the design of such buildings is often undertaken by building designers, draftspersons, interior designers (for interior fit-outs or renovations), or even construction contractors. Larger, more complex building projects require the services of many professionals trained in specialist disciplines, usually coordinated by an architect.

**Architectural Designer / Building Designer:** In many places, building codes and legislation of professions allow persons to design single family residential buildings and in some cases light commercial buildings without an architectural licence. As such, a 'Building Designer' is a common, general term used for people that offer building design services. Anyone may use the title of 'Building Designer' in the broadest sense. In most cases, Building Designers are trained as architectural technologists, designers or draftspersons. Many building designers are known as "residential" or "home designers" since many focus solely on residential design and re-modelling.

**Building Regulations:** The Building Regulations are made under powers provided in the Building Act 1984, and apply in England and Wales. The current edition of the regulations is 'The Building Regulations 2000' (as amended) and the majority of building projects are required to comply with them. They exist to ensure the health and safety of people in and around all types of buildings (i.e. domestic, commercial and industrial). They also provide for energy conservation and access to and use of buildings.

**Client:** The person or group that 'owns' the building. The client initiates the project, employs the design and construction teams and finds the resources to make it a reality. The client is sometimes referred to as the 'employer', 'champion' or 'manager'. The executive client is the name sometimes given to the most senior person in the client organisation. The lead client is the name of the senior person on the client project team.

**Client representative:** An agent employed by the client to act on their behalf with limited powers – sometimes also acts as project manager.

**Construction costs:** Costs of the construction only, excluding items such as land acquisition and legal costs, financing costs, professional fees and VAT.

**Construction management:** A form of procurement where the client uses separate contracts to employ:

- A construction manager to manage all processes on site
- Consultants
- Specialist contractors/builders

**Contract:** A legal agreement defining relationships between a client and a provider of services or products. Standard forms of contract are provided by several organisations, e.g. Association of Consultant Architects, Institute of Civil Engineers, and Joint Contracts Tribunal PACE: Property Advisors to the Civil Estate.

**Contract administrator:** Also called the 'supervising officer', the person – usually an architect, designer, project manager, surveyor or engineer, who manages the contract for the client. The contract administrator is named in the client's contract with the builder and is responsible for instructing the builder on the client's behalf.

**Contractor:** The industry term for a builder. The contractor's role and title depends on the procurement route used:

- Main contractor – the organisation employed by client to construct the project.



- Management contractor – the contractor who employs and manages the construction team, including the specialist contractors.
- Subcontractors – employed by the main contractors to carry out particular aspects of the construction, e.g. electrician.
- Specialist subcontractors – contractors in specialised fields likely to do detailed design of the work for which they are responsible, e.g. foundations and air conditioning ductwork.

**Design:** A plan, or to plan. This refers to the organisation or composition of a work; the skilled arrangement of its parts. An effective design is one in which the elements of art and principles of design have been combined to achieve an overall sense of unity, also the production of attractive and well-crafted functional objects. Subcategories of the design arts include: architecture, fashion design, furniture design, graphic design, industrial design, interior design, landscape architecture, set design, textile design and web design.

**Designer:** May have one of many design roles – engineering, landscape, etc. The term is often used to describe the person who designs the building overall.

**Design Team:** The team responsible for designing the building. This covers a range of professions including architects, landscape architects, engineers and property and costs specialists.

**Defects liability period:** A period, usually 12 months, during which the contractor must remedy faults that appear in a building as a result of construction processes (such as cracking of plaster as it dries out).

**Detail Brief:** A document describing the ‘problem’ for which a design provides the ‘answer’, the demand that the advisers, designers and building contractors must supply.

**Development:** In the built environment the term ‘development’ has several meanings:

- The process of moving a project from feasibility to design
- The actual process of building
- The extent or type of building on a site, as expressed in ‘over-development’

**Domestic Subcontractor:** A subcontractor employed directly by the main building contractor. The contract administrator has the right to approve these in standard forms of contract.

**Elevation:** A drawing to an accurate scale of any one face of a building or room, viewed as if standing in front of it, with perspective eliminated.

**Employer:** The term used in standard building contracts to refer to the client.

**Employers requirements:** The client’s brief – often an outline brief.

**Enabling works:** Building works required before the start of the main construction project, such as constructing a site entrance or demolishing an existing building.

**Energy efficiency:** The quest to reduce the amount of fuel required to heat, cool, light and run a building, compared to standard consumption.

**Engineer:** see Services Engineer, Structural engineer.

**Estate agents:** Agents skilled in finding and gauging the value of sites and buildings in a wider marketplace. Can help locate suitable buildings or sites and give opinion on the value of the finished project. At completion can provide valuations for insurance purposes.

**Facilities Manager (FM):** The person or team responsible for managing the operation of the finished building. Although they may not be present during the planning stages, the manageability and maintainability of the final building still need to be considered.

**Final account:** The adjusted contract sum, calculated once the project has been completed, which takes account of all changes to the original tender documents.

**Handover:** The moment at which responsibility for the completed building, including insurance and management, is passed from the contractor to the client. A full check is needed to ensure that everything promised under the contract has been fulfilled.

**HVAC:** This is shorthand for heating, ventilating, and air conditioning. Air conditioning controls temperature, cleanliness and humidity of the air. Mechanical ‘air handling’ or natural ventilation may be used.



**Inclusive design:** Design that caters fully for all needs and as a minimum meets the requirements of the Disability Discrimination Act (DDA) 1995.

**Integrated process:** Collaborative techniques to unite the client, designers and builders with the aim of increasing efficiency and harmonising processes. Joint decision between separate groups about the integration of IT systems or software is an example. In construction projects this refers to a variety of design and build approaches where design benefits from early input by the contractor.

**Integrated team, Integrated supply team (IST):** The designer, contractor and client work together from the start to achieve the agreed objectives of the project.

**Interior designer:** A specialist trained in design for fit out, responsible for the functional and aesthetic design of internal spaces and the choice of materials and furnishings.

**Invitation to tender:** See Tender process.

**Isometric:** A three-dimensional geometrical drawing in which the plan is distorted but verticals remain vertical and to scale. Gives a more realistic 'view' than an axonometric but with more distortion of relative sizes.

**Landscape architect:** Specialist in landscape design, construction and horticulture. May be needed for significant external spaces – whether planted or not.

**Latent defects:** These are building defects that appear after completion. They are covered by Limitation Acts, which state a time limit after which claims cannot be brought for errors in the design and construction. If, during this period, the client can prove that the design or construction team is responsible for any defect, they will normally be liable for losses suffered by the client as a result.

**Legibility:** The ease of understanding a building and knowing how to find one's way around and use it.

**Life time costs, Life cycle costs:** see Whole life costs.

**Liquidated and ascertained damages (Lads):** A realistic estimate of the losses that the client believes will ensue as a result of delay in completing the project. This estimate is included in the contract as a sum of money per week for which the contractor will be liable if the project runs over time. Damages cannot be claimed from the contractor for delays beyond their control.

**Layout:** The way buildings, routes and open spaces are placed or laid out on the ground in relation to each other.

**Legibility:** A legible area is one with a strong sense of local identity. Locations, streets, open spaces and places that have a clear image and are easy to understand. For example, a location that is easy to find your way around.

**Lump-sum contract:** A contract for a fixed sum including all costs associated with the construction. Should only be calculated on a finalised and fully-detailed design.

**Manageability:** The ease of managing a building over its lifetime. Manageability is directly tied to design that considers the everyday operation of the building.

**Management contracting:** A procurement method where a contractor is chosen at an early stage and acts in a management capacity before construction starts. Often this contractor only manages the building works carried out by other subcontractors. Also known as 'fast-track' procurement because the contractor can start site works as soon as there is sufficient information, leaving the design team to prepare the rest of the design information.

**M&E:** Mechanical and electrical services include power and data supply, lighting, air conditioning, humidity control, plumbing and drainage. M&E are designed and specified by services engineers.

**Nominated subcontractor:** A specialist subcontractor chosen by the client and nominated using special provisions in the contract, who must be used by the contractor.

**Novation:** Transfer of contractual rights and obligations from one contracting party to another. A design team and their work are often 'novated' by the client to a design and build organisation although this is often not a true novation. The process aims to achieve continuity in design, but often presents many legal and practical difficulties and should not be undertaken without specialist legal advice.



**Orientation:** The planning of a building in relation to its surroundings, usually described in terms of its compass setting, e.g. south-facing garden, north-south orientation.

**Outline brief:** An initial description of the client goals and requirements, which forms the basis for feasibility studies and decisions about the project. Sometimes described as a strategic brief or a statement of needs or requirements.

**Outline planning permission/consent:** Outline permission can be sought for a building before detailed designs have been proposed based on an outline scheme. Normally full planning permission is sought after discussion to determine the likely acceptability of the project. See Planning permission below.

**Out-turn costs:** The total or projected cost of a project including land acquisition, construction and fitting out costs, professional fees, contingencies, disruption and financing costs, VAT and inflation. The total sum the budget must cover.

**Party Wall etc. Act 1996:** An Act to make provision in respect of party walls, and excavation and construction in proximity to certain buildings or structures; and for connected purposes.

**Plan:** The horizontal arrangement of things in an area, or a drawing, diagram, or map, shown as if seen from above, and made to scale. In architecture, such a drawing or diagram of the parts of a building — either it's a floor plan, a roof plan, or it's a horizontal cross-section of a building at some other level. A site plan represents an environment within which architectural or artistic designs may be located, setting out the design in context.

**Planning permission:** Permission that must be obtained from the local authority before construction starts on most projects. It controls the proposed use, how much of the site is covered, the size of the building, site access, external landscape and parking and conformity with existing local plans. If permission is not granted, an appeal may be heard by a public enquiry and determined by a planning inspector. The Secretary of State for the Environment makes the final decision.

**Planning supervisor:** Under the CDM (Construction Design and Management) regulations, the client is required to appoint a planning supervisor to check that health and safety are taken into account throughout the project and to co-ordinate the production of the health and safety file. Relevant information is provided to the contractor and the health and safety file is handed to the client at completion.

**Practical completion:** A certificate is generally issued by the architect, certifying satisfactory completion of the construction. It normally allows the contractor to invoice the client for all but a small portion of the contract sum. The outstanding portion is called the Retention.

**Preliminaries (Prelims):** Preliminary clauses in a cost document or tender that set out general conditions that may have cost implications. Clauses typically cover standards, sites access, hours of working, etc. The word also refers to the cost of the contractor maintaining a site presence, i.e. the cost of renting temporary buildings, insurance, etc.

**Prime contractor:** A design and build contractor with a supply chain of reliable suppliers of quality products. The key suppliers in the supply chain can be integrated into the design process. The prime contractor co-ordinates and manages all activities throughout the design.

**Professional Indemnity Insurance (PI):** The insurance that some professionals must have to protect them against alleged negligent behaviour that causes losses to the client, often due to defects to the building, delays to the programme or injury.

**Professional institutions:** Most of the professions involved in construction have institutions to which they may belong.

**Project brief:** Statement of the requirements for the project.

**Project cost management:** This includes resource planning to develop a programmed requirement for people, equipment, materials and time. Cost estimating and cost control is needed to ensure that changes do not invalidate the cost plan.

**Project delivery team:** Designers and contractors and all other specialists working to design and deliver the building to meet the client's brief.



**Project integration management:** The process whereby alternative objectives or methods are considered and their benefits and problems are traded off against each other with a view to getting the optimum result, often as a result of an Option appraisal.

**Project manager:** A specialist given day-to-day management of the building team, co-ordinating timetables and maintaining appropriate communication channels. The client's project manager safeguards the client's interest at all times, ensuring that the project is completed within budget, on time and to the right level of quality. The project delivery team will have its own project manager.

**Project team, project delivery team:** The entire team, including both design and construction, and any specialists who are working to design and deliver the project for the client.

**Quality based selection (QBS):** Selection of service and products on the basis of appropriate quality, not of lowest cost.

**Quantity surveyor (QS):** A specialist in all aspects of the costs of construction, providing information on the likely cost of a project at every stage including cash flow. The QS can also advise on the form of contract, procurement routes, suitable contractors, inflationary allowances and the need to make contingencies in the cost model.

**Retention:** A percentage of the construction cost, usually between 2% and 5% that is retained during construction and for a period following hand-over. This obliges the contractor to rectify small construction defects that appear as the building is used.

**Revenue cost:** Revenue cost covers the costs of using and running a building, including rent, rates, insurance, utilities, maintenance and staff costs. A grant is sometimes available to cover these costs.

**RIBA stages:** Building projects exist in 5 distinct stages defined by RIBA, these are further subdivided into 11 sub stages, each of which is given a letter from A-L. The main stages are Preparation (sub stages A and B), Design (C, D and E), Pre-Construction (F, G and H), Construction (J and K), and Use (L). RIBA building stages are used by architects, engineers and contractors to plan the building project.

**Risk assessment/Risk management:** Identification and analysis of, and response to, potential project risks. The process of addressing risks needs to be documented to demonstrate that reasonable risks have been considered and reduced or eliminated where possible.

**Schedule of rates:** Contractors commonly provide tender prices as a 'schedule of rates' where particular building tasks are costed at a standard rate per metre or square metre, e.g. laying floor tiles. The schedule is usually included as part of the contract and may also be used with the Bill of Quantities.

**Section:** The vertical layout of a building taking a vertical slice and showing everything through which the cut passes.

**Section 106 agreements:** Agreements whereby planning permission is granted subject to the developer/client fulfilling certain conditions, e.g. local road improvements.

**Services engineer:** Sometimes called an environmental engineer. Specialists in the design of M&E (see above) systems, air handling, energy conservation, lighting, drainage, acoustics, fire, etc. Although many engineers focus on a single field, large engineering firms cover the range of services required by complex projects. For smaller, less complex projects, the Designer or Architect's team may provide the services engineer.

**Shell and Core:** Description of a building completed only to the stage where the outer shell and the core (boilers and other building equipment, and vertical circulation stairs and lifts) plus, in some cases, ceiling and floor finishes, basic lighting and services are provided. This allows the client to subdivide the space and finish it to specific requirements (e.g. for a tenant).

**Signing off:** A process of formally recording the client's approval of briefing statements or design proposals.

**Snagging:** The process of identifying and fixing defects prior to project completion. The responsibility for remedying these normally lies primarily with the contractor. The project timetable should always allow time for snagging before move-in. However, some items, such as air handling systems, can only be fully tested after running through all seasons of the year.



**Specialist subcontractor:** An organisation employed to handle a specialised aspect of the building, such as ductwork or foundations and which usually has a role in designing, supplying and fixing the elements in which it specialises.

**Specification:** The technical description used to set the standards of materials, workmanship and type of construction.

**Strategic brief:** See Outline brief.

**Structural engineer:** Engineer specialising in the design of building structures. Decisions about the type of structure are integral to the design and should be taken with the architect. The engineer is responsible for ensuring that the structure has the appropriate strength and flexibility.

**Supply chain:** This is made up of all the parties responsible for delivering a specific product or service. There may be a number of specialised supply chains and the members of each should be accustomed to working together as a fully linked chain.

**Supply chain integration:** Involvement of the product and service suppliers, sometimes including manufacturers, in the design process, using their expertise to improve the design as it develops.

**Surveyor:** A surveyor measures and maps out various aspects of land and buildings, for example in relation to dimensions, costs and construction.

**Sustainable design:** Sustainable design (also referred to as 'green design' or 'eco-design') is the art of designing physical objects and the built environment to comply with the principles of economic, social, and ecological sustainability. It ranges from the microcosm of designing small objects for everyday use, through to the macrocosm of designing buildings, cities, and the earth's physical surface. It is a growing trend within the fields of architecture, landscape architecture, urban design, urban planning, engineering, graphic design, industrial design, interior design and fashion design. The needed aim of sustainable design is to produce places, products and services in a way that reduces use of non-renewable resources, minimises environmental impact, and relates people with the natural environment.

**Sustainable materials:** Resources that will not be exhausted. For example, timber from renewable forests is sustainable, while that from slow-growing tropical hardwoods is not. Sustainability is a concept that good design is expected to incorporate, reducing waste, promoting whole life value and a healthy environment

**Tender process:** This is the process of inviting organisations to submit a proposal, with costs, to carry out a piece of work. It covers the preliminary invitation to tender, formal invitation to tender and the actual form of tender.

**Turnkey:** A procurement method related to Design and Build where the client takes the minimum number of decisions and the contractor handles the design, construction and fit.

**Users:** All the people who will use the building, including the client organisation, tenants, customers, clients and visitors.

**Value management/Value engineering:** A formalised approach to managing a project through its whole life and that seeks best value for money. Multi-disciplinary workshops can be organised to determine whether better value solutions are possible within the constraints of the brief and the project.

**Valuer:** See Estate agents.

**Variation:** A statement of the costs associated with changes to the contracted works.

**Vision statement:** A simple statement of main objectives, needed for early consensus to be able to start the feasibility and budget checks and as a constant reference point throughout the project. The vision develops alongside a 'statement of need' and design quality needs to be part of it.

**Whole life costs:** The full cost of all the parts that go to make up a building, including initial capital costs, replacement costs, and maintenance and repair costs. Sometimes referred to as life cycle costs.

**Whole life value:** Value of an asset when its whole life costs are taken into account. Sustainability is an important aspect of whole life value.

**Working drawings:** The detailed drawings showing how the different parts of the building are joined together; used by construction teams on site or when preparing off site assembly of parts.



## PLANNING & DEVELOPMENT

**Accessibility:** The ability of people to move around an area and reach places and facilities, including elderly and disabled people, those with young children and those encumbered with luggage or shopping.

**Area Action Plan:** A type of Development Plan Document focused upon a specific location or an area subject to conservation or significant change (for example major regeneration).

**Area Based Initiatives (ABI):** Regeneration activities that focus on particular geographical areas. See [www.rcu.gov.uk/abi/](http://www.rcu.gov.uk/abi/)

**Area of Outstanding Natural Beauty (AONB):** An area with statutory national landscape designation, the primary purpose of which is to conserve and enhance natural beauty. Together with National Parks, AONB represent the nation's finest landscapes. AONB are designated by the Countryside Agency.

**Appeal:** The process whereby a planning applicant can challenge an adverse decision, including a refusal of permission. Appeals can also be made against the failure of the planning authority to issue a decision within a given time, against conditions attached to permission, against the issue of an enforcement notice and against refusals of listed building and conservation area consent. In England and Wales, appeals are processed by the Planning Inspectorate.

**BREEAM:** Building Research Establishment Environmental Assessment Mechanism. A method for assessing the environmental sustainability of a building.

**Brownfield Land and Sites:** Previously developed land which is or was occupied by a permanent structure, including the curtilage of the developed land and any associated fixed surface infrastructure.

**Change of Use:** A change in the way that land or buildings are used (see Use Classes Order). Planning permission is usually necessary in order to change from one 'use class' to another.

**Character:** A term relating to Conservation Areas or Listed Buildings, but also to the appearance of any rural or urban location in terms of its landscape or the layout of streets

**Code for Sustainable Homes:** A National Standard for sustainable design and construction of new homes launched in December 2006.

**Conditions (or 'planning condition'):** Requirements attached to a planning permission to limit, control or direct the manner in which a development is carried out.

**Conservation Area:** Areas of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance.

**Conservation Area Character Appraisal:** A published document defining the special architectural or historic interest that warranted the area being designated.

**Design Code:** A document providing guidance on how development can be carried out in accordance with good design practice often produced by a local authority with a view to retaining local distinctiveness.

**Design Statement:** A design statement can be made at a pre-planning application stage by a developer, indicating the design principles upon which a proposal is to be based. It may also be submitted in support of a planning application.

**Design Guide:** A document providing guidance on how development can be carried out in accordance with good design practice often produced by a local authority with a view to retaining local distinctiveness.

**Detailed Application / Full application:** A planning application seeking full permission for a development proposal, with no matters reserved for later planning approval.

**Enforcement Notice:** A notice served by a local planning authority setting out the remedial action necessary to put right work or correct an activity that appears to have been undertaken without planning permission.

**Flood plain:** Generally low-lying areas adjacent to a watercourse, tidal lengths of a river or the sea, where water flows in times of flood or would flow but for the presence of flood defences.

**Flood Risk Assessment:** An assessment of the likelihood of flooding in a particular area so that development needs and mitigation measures can be carefully considered.



**Green Belt:** Not to be confused with the term 'greenfield'. A designation for land around certain cities and large built-up areas, that aims to keep this land permanently open or largely undeveloped. Green belts are defined in a local planning authority's development plan. The purpose of the green belt is to:

- Check the unrestricted sprawl of large built up areas
- Prevent neighbouring towns from merging
- Safeguard the countryside from encroachment
- Preserve the setting and special character of historic towns
- Assist urban regeneration by encouraging the recycling of derelict and other urban land

**Green Building:** 'Green' building and sustainable design refers to the class of construction/design that involves energy-efficient practices, environmentally friendly materials, and practices that reduce negative impacts on the environment. Typical features of green building and sustainable design include energy conservation, water conservation, adaptive building reuse, and recycling of construction waste.

**Greenfield Land:** or Site Land (or a defined site) usually farmland, that has not previously been developed.

**Habitable rooms:** Any room used or intended to be used for sleeping, cooking, living or eating purposes. Enclosed spaces such as bath or toilet facilities, service rooms, corridors, laundries, hallways, utility rooms or similar spaces are excluded from this definition.

**Listed Building:** A building of special architectural or historic interest. Listed buildings are graded I, II\* or II with grade I being the highest. Listing includes the interior as well as the exterior of the building and any buildings or permanent structures (e.g. wells within its curtilage). English Heritage is responsible for designating buildings for listing in England. Listed Building Consent is required for the demolition, in whole or in part of a listed building, or for any works of alteration or extension that would affect the character of the building.

**Listed Building Enforcement Notice:** A notice issued by a local planning authority, if work is carried out on a Listed Building without consent and requiring that the building be brought back to its former state or other remedial works.

**Outline application:** A general application for planning permission to establish that a development is acceptable in principle, subject to subsequent approval of detailed matters. Does not apply to changes of use.

**Over-development:** An amount of development (for example, the quantity of buildings or intensity of use) that is excessive in terms of demands on infrastructure and services, or impact on local amenity and character.

**Overlooking:** A term used to describe the effect when a development or building affords an outlook over adjoining land or property, often causing loss of privacy.

**Overshadowing:** The effect of a development or building on the amount of natural light presently enjoyed by a neighbouring property, resulting in a shadow being cast over that neighbouring property.

**Permitted Development (or Permitted Development Rights):** Permission to carry out certain limited forms of development without the need to make an application to a local planning authority, as granted under the terms of the Town and Country Planning (General Permitted Development) Order.

**Planning Condition:** Condition attached to a planning permission.

**Planning Policy Guidance (PPG):** Issued by central government setting out its national land use policies for England on different areas of planning. These are gradually being replaced by Planning Policy Statements.

**Previously Developed Land (PDL) or 'Brownfield' land:** Previously developed land is that which is or was occupied by a permanent structure (excluding agricultural or forestry buildings), and associated fixed-surface infrastructure. The definition covers the curtilage of the development. Planning Policy Guidance Note 3 (Housing) has a detailed definition.

**Supplementary Planning Guidance (SPG):** Supplementary Planning Guidance may cover a range of issues, both thematic and site specific and provide further detail of policies and proposals in a development plan.

**Topography:** A description (or visual representation on a map) of the shape of the land, for example, contours or changes in the height of land above sea level.





Architectural and Interior Design

**Tree Preservation Order (TPO):** A mechanism for securing the preservation of single or groups of trees of acknowledged amenity value. A tree subject to a tree preservation order may not normally be topped, lopped or felled without the consent of the local planning authority.

**Zero-carbon Home:** Over a year, the net carbon emissions from all energy use in the home are zero. This includes energy use from cooking, washing and electronic entertainment appliances as well as space heating, cooling, ventilation, lighting and hot water.

#### SOURCES:

Creating Excellent Buildings. A Guide for Clients. CABE 2003 [www.cabe.org.uk](http://www.cabe.org.uk)

Planning Portal Glossary: [www.planningportal.gov.uk](http://www.planningportal.gov.uk)

[architecturecentre.net/docs/content/jargon\\_buster02-1.docx](http://architecturecentre.net/docs/content/jargon_buster02-1.docx)

[http://en.wikipedia.org/wiki/Building\\_design](http://en.wikipedia.org/wiki/Building_design)

