

7 Design Guidance: Case Studies

Bringing it all together

7.1 The following six case studies demonstrate how the process of understanding local character; appraising the site and its setting; and the generation of a design concept, are integrated into a design solution.

7.2 Each case study is illustrated by annotated maps⁽²⁴⁾, with supporting text which adopt the following step by step approach:

1. Context Appraisal
2. Site Appraisal
3. Design Concept (taking into account placemaking and sustainability principles)
4. Indicative Design

7.3 A key to the notation symbols used on these maps is included at the end of this document.

7.4 The Indicative Design demonstrates how the above considerations could be developed into a specific design layout. It is stressed that the design is a solution, not necessarily the only solution to the issues raised. The design is shown solely in plan form to avoid being unnecessarily prescriptive about elevational design.

7.5 When referring in the case studies to a residential or commercial use for a new building or the number of units that could be accommodated within it, this would not necessarily preclude an alternative use or level of occupation. For example, Case Study 1 refers to a replacement building but it could comprise flats or a single dwelling and most of the design principles will be applicable to either scenario. Other policies and guidance on the management of development will inform the appropriate use of a building in a given context.

The Case Studies

CS1: Replacement Residential Building

CS2: Residential Plot Subdivision

CS3: Infill Residential Development

CS4: Land rear of Shopping Parade

CS5: Town Centre Mixed Use

CS6: Edge of Town Centre Mixed Use Site

7.6 The case studies listed above have been selected for inclusion as some of them are common development scenarios in Elmbridge, which continue to come forward. Others present more challenging sites and schemes that reflect the need to make more efficient use of land in urban locations, such as land to the rear of shopping parades (see text box below).

Shopping parades are a feature of many town and village centres throughout most of Elmbridge. They date from every period and style from the late 19th Century to the mid 20th Century. These parades offer a wide choice of mainly independent shops, services and food outlets, and often provide flats at first and second floor level. However, in some cases the backland areas, which can be quite constricted, have become rundown or unfit for their service function. Therefore they can offer opportunities for redevelopment, particularly in view of their sustainable, urban locations. Due to considerable site constraints, design and layout must be carefully planned. Case Study 4 has been included here specifically to illustrate some of the factors to be taken into account and offers an indicative solution.

24 The maps are diagrammatic representations of an amalgam of the built environments of Elmbridge and do not represent any particular settlement or site.

Case Study 1: Replacement Residential Building

Context Appraisal

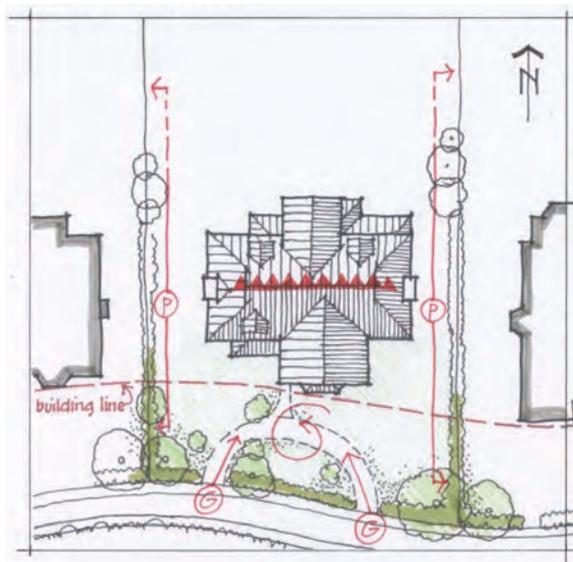


7.7 The site is located in a well established spacious suburban area.

7.8 The road on which the site is situated is gently winding, lined predominantly by tall hedges interspersed by mature trees. The individual plots are between 0.1 and 0.2ha, occupied by older style large detached houses. The generous spacing between each house maintains the spacious, 'leafy' character of the street. Some of these houses have been converted to apartments or replaced by larger footprint buildings.

7.9 Whilst the original houses reflect a variety of forms albeit on a common theme, the established building line is a particular characteristic of the area.

Site Appraisal



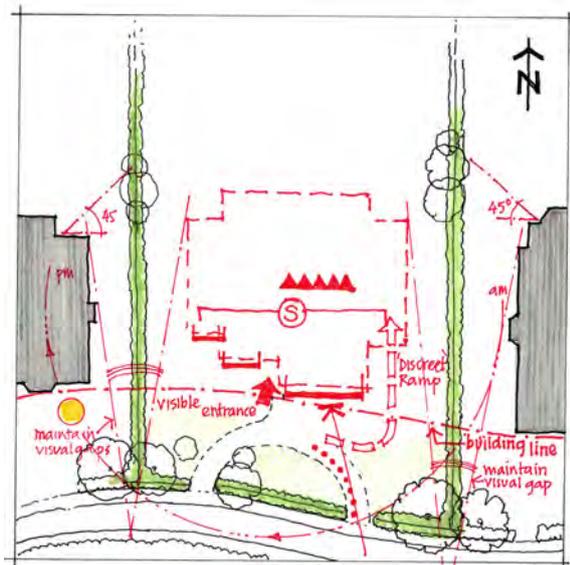
7.10 The site is occupied by a large two storey house with rooms in the roof. A central entrance wing, topped by a substantial gable, projects forward from the main elevation. The space between the building and the side boundaries ranges between 6 and 7 metres.

7.11 A semi elliptical gravel driveway forms the access to the house and high hedges form most of the side and front boundaries.

7.12 The front elevation faces due south, but the space between buildings allows sunlight onto the side elevations. The remainder of this site which is almost level, consists of spacious lawns with clumps of ornamental trees.

7.13 The original building is constructed of soft red brick, supplemented by 'half timbering' on the gables and tile hanging on the first floor of the projecting wing. Whilst it has architectural merit, it is not considered to be a heritage asset. It is considered that replacement by a high quality new development would be appropriate.

Design Concept

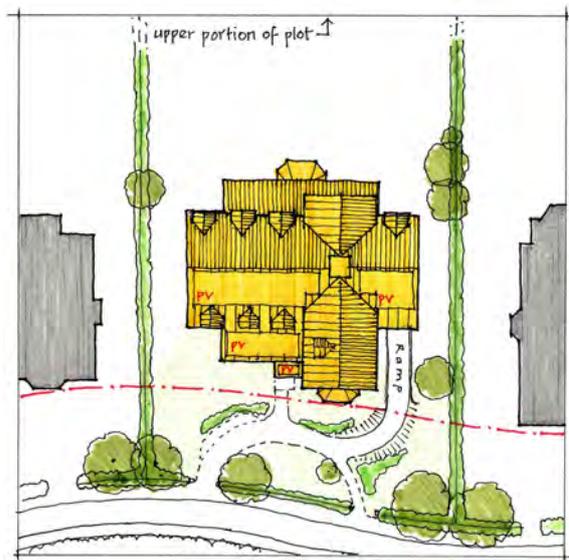


7.14 The footprint of the building and its envelope will largely determine its overall capacity. The established building line of the street should be maintained. The building should respect the existing 6 metre separation to side boundaries and the general spacing in the street. The rear projection of the building should not infringe the 45° rule, and the distance to the rear boundary should be 15 metres or more for larger buildings.

7.15 The built form of the development should reflect the informality of plan shape and massing which is the predominant character of this streetscape. Adequate and convenient provision should be made for bicycle and refuse/recycling storage.

7.16 The open, landscaped character of the streetscape should be maintained and rear gardens free from vehicular intrusion. Therefore, parking could be accommodated within a basement area (for a larger flatted development), taking care to site the ramp to minimise impact on neighbours, or sensitively within the frontage for a development requiring fewer car parking spaces.

Indicative Design



7.17 The sketch plan demonstrates how the appraisal of site and context, plus the application of principles of placemaking and sustainability in the design concept, can be incorporated into a design scheme.

7.18 The building is located within the parameters of the footprint and height envelope of two storeys with rooms in the roof. The openness of the front garden is maintained and the characteristic density of frontage hedge is retained. The surface to the driveway is permeable, with 'soft' edges.

7.19 In this instance, residents' parking is located within a basement level, with space for visitor parking adjacent to the driveway. A ramp is located well away from the landscaped boundary to the side.

7.20 The roofscape is enlivened by a variety of related forms including dormers and gables. The south facing roof pitches provide substantial areas for photovoltaic panels.

Case Study 2: Residential Plot Subdivision

Context Appraisal

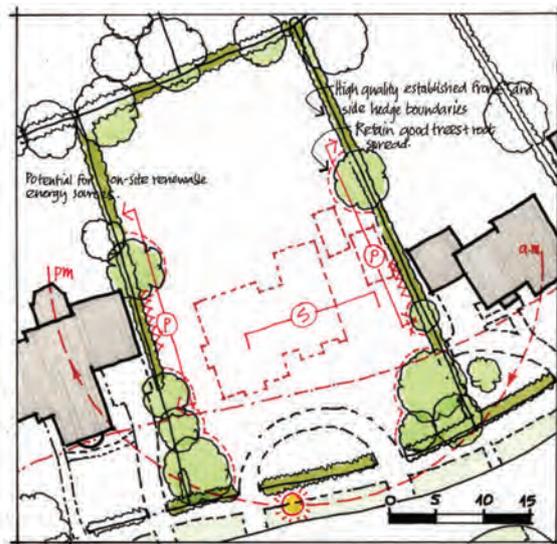


7.21 The site is located in a well established and spacious suburban setting of winding roads, with verges framed by high hedges and mature trees. Large detached houses, mainly dating from the 1920s to 1950s, are set well back from the front boundaries and glimpsed through protective gateways.

7.22 The spacing between the houses allows views of the trees to the rear of each property, reinforcing the spacious and green character of the area. Plot sizes and areas vary to some extent.

7.23 Garages are generally located to the sides of houses, set back, allowing views to the trees on the side and rear boundaries.

Site Appraisal



7.24 The site was formerly occupied by an inter-war house and the proposal is to replace it with two houses. The boundary planting of hedges and mature trees is attractive and in good condition. The semicircular driveway establishes two entry points to the subdivided plot, without alteration to the hedge frontage.

7.25 The garages of adjacent properties are located close to the side boundaries, which suggests that these are the areas where the footprint of new development could be carefully located near the boundary in places. The consistent building line along the road contributes to the character of the area and should influence the layout of the development.

7.26 The orientation of the site is suitable for the installation of photovoltaic panels. Indeed, the size of the site also lends itself to ground source heat pump technology (although this is not always economic). Wood chip boilers (and related storage) or air sourced heat pumps may be appropriate alternatives. (See the sustainability design guidance at section 5)

Design Concept

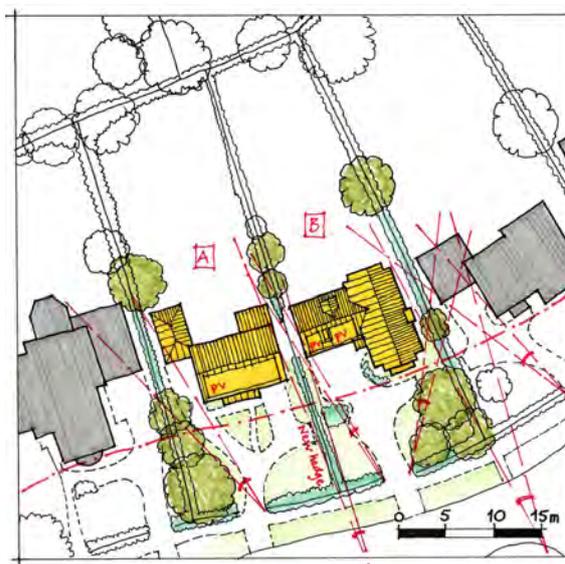


7.27 The plot would be divided to retain the characteristic access pattern and footprint of the area. Each house should not be identical; reflecting the variety of in the road.

7.28 Garages should be recessed to ensure they do not dominate and are generally used to maintain visual space between the proposed houses and their neighbours, allowing views of trees in the rear garden. Their roofs should either be pitched to maintain the characteristic roofline or have a sedum layer, appropriate in this semi woodland setting. The boundary between the plots should be designed as a 'green element' with hedge and tree planting established at the outset.

7.29 The houses could be of a contemporary design which reflects aspects of the character of the context. Some form of pitched roof is considered appropriate, which also ensures the integration of photovoltaic panels, to facilitate grey water recycling and to provide storage accommodation (See the sustainability design guidance at section 5 for further information).

Indicative Scheme



7.30 There are a number of possible footprint permutations and this scheme proposes two houses with similar floor areas and characteristic garden sizes.

7.31 Plot 'A' on the west side, has its long axis aligned east-west. This building could incorporate photovoltaics on its southerly facing roof. Its entrance is located in the centre of its façade; its freestanding garage with green roof, recessed to the left. Plot 'B' consists of a building with its long axis oriented north-south, creating a dominant gable and a well articulated relationship between the two houses. The original building line is maintained and respected. The front gable wing would be designed to avoid overshadowing the adjacent house. The double garage wing to Plot 'B' is recessed and is appropriate for installing photovoltaic panels.

7.32 Driveways utilise existing entry points adapted from the original driveway, paved with a porous finish and landscaped to ensure the open, green frontage is retained.

Case Study 3: Infill Residential Development

Context Appraisal



7.33 The site lies about 500 metres from a town centre. To the north-west late Victorian semi-detached villas front a small triangular green lined with mature street trees. The side elevation of a Victorian church frames the green to the west. It terminates the view on approach to the town centre and its spire and interesting roofline are minor local landmarks. This green and the enclosing buildings form an attractive sense of place. The road runs towards the town centre at this point, and the last few shops and commercial premises of the centre (2 and 3 storey) are shown on the south side of the street.

7.34 Further east, the townscape is dominated by inter-war semi detached houses, two storey with hipped roofs, set back from the back edge of the pavement behind hedges. To the east of the site some large Victorian houses face the main road. On the south west of the site there is a small network of streets characterised by Victorian artisan terraces and semi detached villas.

Site Appraisal



7.35 The site, approximately 0.25 hectares, lies on the south side of the main road. It was formerly occupied by a large commercial building (indicated by the broken line on the map). The site gently slopes to the west, and has a low retaining wall on its eastern boundary. The site has extensive tree screen planting on its eastern and southern boundaries (deciduous trees, some 50 years old).

7.36 The boundary on the western side is comprised of the unsightly flank wall of commercial premises, exposed when this building was constructed, and a Victorian brick wall to the rear of the terrace. The front boundary is open, with a low brick wall with grass behind, and an access way on the eastern boundary.

Design Concept



7.37 The site frontage should maintain street continuity, reinstating the established building line. The site entrance is located towards the centre of the frontage. The near central site entrance ensures at least two terraces.

7.38 The view into the development is terminated by a terrace, creating an attractive sense of place. The housing group is mainly oriented east-west, for the best utilisation of the site area and optimal orientation for PV panels. The layout allows for adequate private gardens and privacy.

7.39 Parking could be grouped to minimise visual impact and create space around the periphery, avoiding intrusion on neighbouring properties. Existing trees should be supplemented by new planting to soften the impact of parked cars. A toddlers' play area could be located in a sheltered, sunny, south facing corner and be enclosed by walls and trees but overlooked by properties to the north and south.

Indicative Scheme



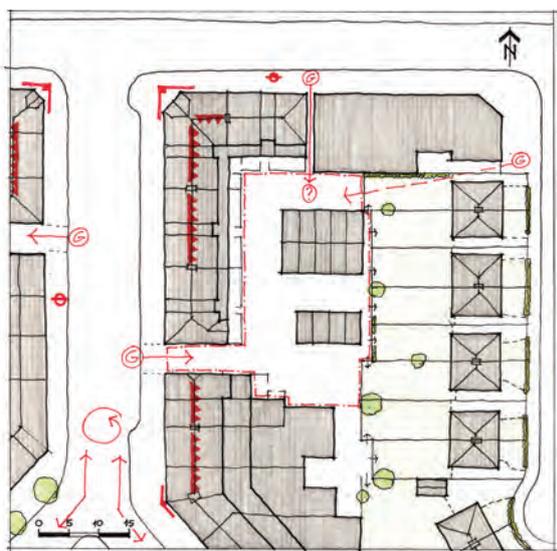
7.40 The choice of housing units reflects the variety and spacing of buildings related to their plots, including a larger apartment block (units 1-6) and a short terrace (units 8-10) making efficient use of the street frontage. The entrance roadway is designed informally. First floor oriel windows overlook the space.

7.41 The central space is a shared surface of semi porous material. Trees are planted here to reinforce its informality. The dotted line indicates that large vehicles can turn easily. A toddlers' play area is located in a sunny area framed by walls and overlooked by various units.

7.42 The scheme has a higher density appropriate to its edge of town centre location yet has a spacious character due to the layout of gardens and landscaped parking areas. Garden sizes and separation distances are appropriate for the character of the area and the size of buildings. The buildings and roof design are oriented in a southerly direction for PV panels.

Case Study 4: Land to Rear of Shopping Parade

Context Appraisal

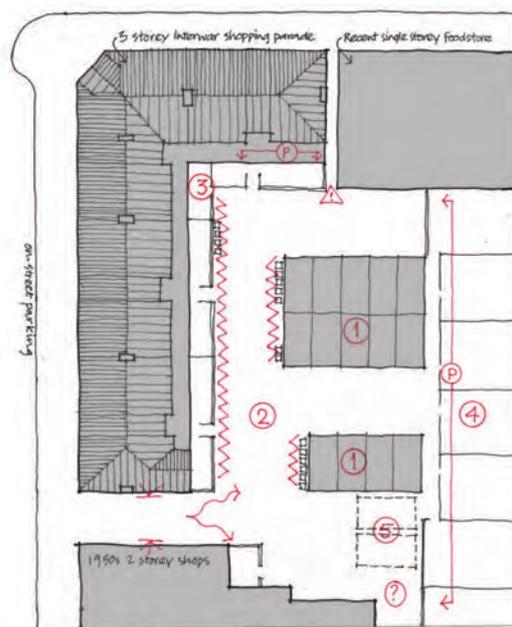


7.43 The site is located to the rear of a shopping parade in a busy High Street, which forms the frontage of the parade. The spur road leads to a railway station. To the north is lined mainly with inter-war housing and some retail and commercial outlets. To the east is a quiet residential cul de sac of inter-war semi detached houses with long gardens backing onto the site.

7.44 The south side of the site comprises a rather cramped service access way to the shops fronting the station approach. The immediate area lacks green spaces, except for the private gardens of the houses to the east.

7.45 All the shops are in three storey buildings with the first and second floors being flats. The shop to the north east is a single storey food store. The shopping parade and its neighbouring parades were built in the 1930s in the neo-Georgian style. Brickwork is relatively plain but embellished by quoins and decorative panels.

Site Appraisal

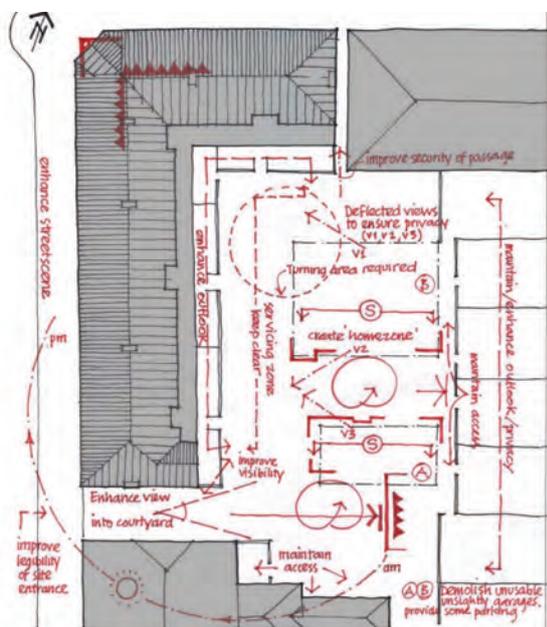


7.46 Figures refer to those on the Site Appraisal plan.

1. Single storey garage blocks. Precast concrete wall panels and corrugated asbestos roofs. Inadequate width for convenient parking. Most underused or storerooms.
2. Concrete road surface in poor condition. Some areas unmade.
3. Rear areas to shops. Poor condition screen walls. Inadequate provision for recycling bins.
4. Rear gardens to 1930s semi detached houses plus rear access pathway, accessed from the back land area.
5. Informal van parking area

In general the area is unattractive and slightly insecure. It has inadequate space for vehicle servicing and turning.

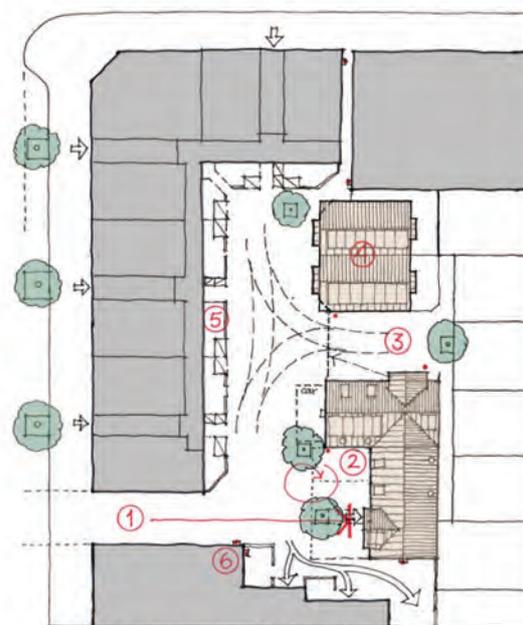
Design Concept



7.47 The area is poorly defined and neglected. New development should aim to transform it into a pleasant yet functional 'place' for those who work and live there. The first impression of this proposed 'mews' area should reflect this aim and convey that this place is 'owned' by its residents. Thus one of the proposed buildings is aligned to terminate the view from the entrance. The existing garages should be demolished as they are too narrow and in poor condition. This cleared area would be the site for further residential buildings, all facing north–south across a yard.

7.48 This alignment would reduce the corridor effect of this site and reduce any direct overlooking between dwellings. It would create a 'homezone' area which is set at right angles to the service area, defining its different function, and provide a more attractive and less overbearing outlook from the houses/gardens to the east of the site, with more attractive access to their rear garden gates. The views from the new houses would be carefully 'deflected' by the design and location of the windows. The servicing zone behind the shops would be clearly defined and include a turning area. New walls to the rear yards of the existing flats and shops could incorporate storage.

Indicative Design



7.49 Figures refer to Indicative Layout plan above.

1. Main view into the area is terminated by the gable window of a 'mews' apartment and a tree, (attractive sense of place). Indication this is an 'owned' and overlooked place.
2. Two mews flats, two storeys high with rooms in the roof, set at right angles.
3. Due to the limited separation distance between the two buildings, they could not face each other and share a central courtyard space which acts as a turning arm for large vehicles plus cycle storage.
4. This building could accommodate a pair of maisonettes with undercroft parking. The dwellings should have controlled outlook to the rear ensuring privacy. South facing roofs provide opportunities for solar energy generation.
5. Rear yards to shops, rebuilt, with bin and cycle stores integrated with 2 metre high walls.
6. High level wall mounted lights at various points, indicated by red dots.