5. Making Things Happen: Is the scheme viable, and what does the Council need to do?

An important part of the commission was to assess the viability of the original idea of an urban village, and the extent to which eco-town standards could be achieved without the scheme becoming unviable. From the start we have therefore taken advice from King Sturge (now Jones Lang LaSalle or JLL) on potential market demand, and have adapted the masterplan and supporting codes to make the scheme work in financial as well as environmental and social terms. In this final section we consider first viability in terms of the conclusions regarding potential revenue, development costs, risks and sensitivity, phasing, land assembly, public realm works, the Code for Sustainable Homes, and the ski slope and related hotel proposal. We then deal with the challenges of implementation, joint venture functions, and other partnerships, before ending on the next steps to be taken.

5.1 Viability

The proposed Summerhouse Village is located on the southern side of Yeovil between the town centre and Yeovil Country Park. Yeovil is located in South Somerset, 115 miles south-west of London, 40 miles south of Bristol and 30 miles east of Taunton.

Summerhouse Village comprises a collection of distinct sites which are proposed to form a new mixed use urban village which will lift the image of the town. The sites are predominantly used as surface level car parks, car showrooms and infill land.

A masterplan and associated documentation have been prepared by the Matrix Partnership which sets out a series of principles, layout and proposed accommodation. In particular this sets the conceptual tone of the scheme, and aspirations in terms of quality of environment and sustainability. The masterplan includes a mix of uses which include residential, office, retail, hotel and community space. In addition the masterplan proposes a series of green spaces, environmental enhancements and road improvements. The rationale is further explained in section three.

The Council are keen to see development of the site to regenerate the area however recognise that the cost of infrastructure, complex of land ownerships and physical constraints make the development of the site potentially unviable.

This section has therefore been commissioned to determine whether the development could proceed and if there is a viability gap the extent of that gap and how it may be bridged.

5.1.1 Methodology

A residual based market appraisal technique has been utilised. This models the total cost of the development including building costs, professional fees, and finance as it is incurred over the course of the development and takes it away from the income which is received by the developer from sale of buildings and rent.

This technique can then be used to either work back to a land cost (and is often used by developers to calculate what they may feasibly pay for a site) or will work back to a profit taking account of land as a cost. If the cost of development exceeds the income the developer will receive from a site then development is unviable. A positive land value will not automatically mean that a development may proceed since the developer has to consider what they have actually paid for the land or what sum will need to be paid to buy the land. Equally a positive profit will not automatically mean a feasible development since a developer has to accept a level of risk and thus will require a minimum level of profit to proceed. It is true that development may be undertaken for reasons other than financial profit however some allowance for the risks involved is inevitable and few organisations have the funds to develop land without securing funding from a third party.

In this case we have undertaken our residual modelling to work back to a profit from the development. We have based our residual assessment on the following main components:

Value:
- Market housing
- Commercial uses
- Affordable housing
- Parking revenue

Cost:
- Construction of buildings
- Public realm works – bridges, road junctions, street enhancements, landscaping.
- Section 106 payments or Community Infrastructure Levy (CIL)
- Land
- Replacement car parking provision
- Fees and finance

Viability assessment takes a snapshot of a single moment in time based upon the information available at the time it is carried out. During the course of design or development a number of components can change which will impact on viability.

Sensitivity analyses calculate the effect of a variation of one or two inputs and the effect they will have on the appraisal calculation.

5.1.2 Assumptions

During the course of our assessment we have made a series of assumptions based upon our experience and market knowledge, in addition some assumptions have been informed through discussion with South Somerset District Council. In particular these include the requirement to replace all 394 parking spaces at the site and the level of CIL. Our assessment is based upon the accommodation schedule and masterplan documentation prepared by Matrix Partnership.

Our assessment of revenue is determined from market transactions in Yeovil and elsewhere in Somerset where appropriate over the last one to two years. The residential market is currently in a fairly steady state although there is significant volatility on an individual level between transactions. Revenue from residential accommodation varies from £85,000 for a studio apartment up to £275,000 for the best 4 bedroom houses. We have assumed that higher values may be secured from the apartments at the northern end of the site through a specialist retirement specification which may be integrated with a health use in the adjoining block. We have adopted proportions of market value or build cost to provide a crude estimate of affordable housing values. Calculation of affordable housing values is a specialist piece of work which takes account of unrestricted market values, local wage information and number of bedrooms. We have not included any allowance for ground rents which may be secured on residential apartments. These represent a relatively small proportion of revenue and the figures we have adopted seek to avoid overstating the potential revenue which may be secured. In practice some developers may be prepared to speculate on achieving a higher revenue.

We are not qualified to provide an assessment of construction or infrastructure costs and hence we have provided broad budget figures based upon Building Cost Information Service (BCIS) indices and our experience of schemes elsewhere. Based upon currently available cost estimates and tenders. BCIS tender prices tend to be based upon build contracts for affordable housing and hence tend to be elevated above those carried by many mainstream developers; they also tend to be based on a higher specification. Currently most affordable housing is constructed to Code 3 and hence the BCIS tender mean is fairly reflective of this code level. We have been provided with data prepared by Devon Sustainable Building Initiative which suggests around a 15% increase in build cost would be incurred to reach Code 5 based on current pricing structures.

In terms of the residential accommodation we have assumed that the specification would be in line with other residential schemes in Yeovil. We have adopted build costs equating to £950 sq m for houses and £1,050 sq m for apartments.

We note that there is an aspiration to include a series of eco-features including district heating, combined heat and power (CHP), high levels of insulation and passive heating. We note that many of these features can add significantly to cost although some may be subsidised and others if sufficient in scale can be self-supporting. In particular we would highlight the cost associated with establishing easements across third party land and highways to enable a district heating system to be established. The cost of incorporating eco-features will inevitably fall as they become more commonplace although this may be eclipsed by build cost inflation. There is an additional cost in complying with a particular code level and we have assumed that this would not be required. We have assumed that the level of build cost we have adopted is sufficient to incorporate some eco-features whilst others will be supported by grants or self-financing.

In undertaking our assessment we have taken account of South Somerset District Council (SSDC) planning policy and in particular policies relating to affordable housing mix and percentage. We note that SSDC does not currently have a CIL in place although it does intend to create one. The CIL is a new levy that local authorities can choose to charge on new developments in their area. The money can be used to support development by funding infrastructure that the Council, local community and neighbourhoods want. In this case the CIL rate is unknown and hence we have made an allowance for contributions on a per unit basis of £5,000 per residential unit. CIL is not intended to be charged on affordable housing and so depending on the level of CIL our assumptions may actually overestimate this cost.

We note that some aspects of the public realm works which form part of the proposed scheme may be supported by CIL due to the wider benefits they bring to the community. In this way contributions from other schemes in Yeovil may actually subsidise the development of this scheme although this is a decision for the council. Our appraisal assumes that the scheme will not be supported by CIL funding from other schemes.

One of the most significant issues affecting the development of these sites is the effect on car parking and how it may be replaced. Our discussions with the Council indicate that the 394 spaces to be lost should be replaced in some form. We understand that South Somerset has undertaken some work to determine where this may be replaced. We note that there are broadly three physical solutions, firstly acquisition of land elsewhere to provide surface level parking, secondly creating a below ground solution on this site or elsewhere (undercroft) and lastly creating an above ground deck solution such as a multi-storey car park on this site or elsewhere. The most practical solution would be a deck and various novel ideas have been suggested however for the purposes of this appraisal we have assumed a cost of £5,910,000 equating to around £15,000 per space in line with instructions.

One of the aspirations of this development is that residents should incur an annual charge for parking which we assume would be by way of permit with appropriate review mechanisms. We have assumed an annual charge of £500 would be charged for the 135 spaces which we have capitalised at an appropriate rate. Broadly speaking, annual parking charges in market towns range from £250 to £1,000 per space and we have adopted £500 as a reasonable level.
We have assumed that the Town Council Ski Slope land is sufficient to accommodate a sixty bedroom hotel and that the hotel operator would acquire the site in a serviced condition with the road and bridge infrastructure in place. In the absence of the road/bridging infrastructure works we do not believe any operator would consider this site and we would recommend that discussions with operators are undertaken at an early stage to determine the feasibility of this proposal.

We have taken account of land which will need to be acquired in order to deliver the masterplan; this broadly includes the Box Factory (which is currently on the market), the Vauxhall Garage, and the ownerships to the north of the Stars Lane car park (conservatory showroom and others). We also note the requirement for inclusion of the ski slope which is owned by Yeovil Town Council. The town Council form part of the development group their return may be derived from the profits from the scheme, alternatively a land allowance may be included within the appraisal. For the purposes of this appraisal we have assumed that the Town Council would form part of the development group.

We have also taken into account market supply and demand factors relevant to Yeovil. We have assumed sales of residential units at roughly 1-2 per month and that pre-lets are secured on the commercial accommodation prior to construction. This is broadly conservative as many housebuilders seek to sell around 1-2 units per week although in the current market this is only occurring on a few schemes.
In order to keep the number of variables to a minimum the following key inputs have been used to facilitate preparation of the appraisal:

- Finance costs @ 6%
- Development contingency @ 5%
- Professional design and management fees @ 12%
- Sales marketing, agency and legal fees @ 3.5%

We have adopted a series of broad assumptions and fully anticipate that these will change during the course of development to adapt to the changing market, cost estimates, design or constraints. This assessment should be considered as a “high level” assessment at this stage. There are numerous risks in terms of value and cost and it is inevitable that there will be increases and decreases in the various components as further site information becomes available and the design is developed or value engineered. We do recommend that a more detailed assessment of the costs and values are undertaken during the value engineering stage.

5.1.3 Results

It is almost inevitable in the current climate that development in this location will be extremely difficult to make viable given the various constraints and suppressed market. It is clear that based upon the broad assumptions we have adopted that development of the proposed scheme is not viable. Broadly the total development cost we have adopted equate to around £32,400,000 the main components break down as follows (rounded figures):

Total cost	£32,400,000
Basic Construction	£15,400,000
Land acquisition (including fees)	£3,000,000
Professional design/management fees	£2,000,000
Abnormals and S106/CIL	£8,900,000
Contingency, disposal fees & finance	£3,100,000

You will note in particular the level of abnormal cost at £8.9 million which is particularly high, almost £6 million of which relates to re-provision of parking in the town.
Our appraisals work back to a profit figure which is expressed as a percentage of the Gross Development Value (GDV). In the current market most mainstream developers seek a return equating to around 20% of GDV although lower levels may be accepted if risks are perceived to be low, similarly higher levels may be required if risks are perceived to be high. It is also possible that organisations which share the aspirations of the council may be prepared to accept a lower level of profit than a commercial developer although this may be balanced by reduced buying power/economies of scale.
We have undertaken sensitivity analyses which demonstrate the effect of an increase/decrease in construction costs and residential revenue as follows:

Sensitivity analysis:

	-20%	-10%	0	+10%	+20%
Build costs	£1,870,000 (6.68%)	(£300,000) (-0.99%)	(£2,490,000) (-7.70%)	(£4,680,000) (-13.55%)	(£6,870,000) (-18.70%)
Residential revenue	(£8,400,000) (-25.48%)	(£5,450,000) (-16.68%)	(£2,490,000) (-7.70%)	£470,000 (1.47%)	£3,380,000 (10.65%)

NB the profit is expressed as a percentage on cost

The aspiration to create an urban village which improves Yeovil impacts both on the density of development (hence revenue) and the cost. In the absence of grant funding the council and/or developer will have to take some difficult decisions to ensure delivery is assured.

Viability can be improved by increasing revenue, reducing cost or reducing risk. Manipulation of revenue may include taking steps such as reducing the area of commercial components, reducing affordable housing, altering tenure splits or altering density. Manipulation of cost may include taking steps such as reducing specification, public realm or monetary section 106 contributions/CIL. The level of risk and return will determine a developer's willingness to get involved in a scheme and the level of profit they are willing to accept. Generally, the greater the level of risk associated with the development the higher the level of return which will be required. Risks can be reduced if pre-lets/sales of commercial space are secured, unknown costs/risks are quantified or through sharing risks (partnership). Risk will also impact on cost of finance.

In order to provide an illustration of how viability can be improved we have undertaken a series of appraisals which manipulate a single variable, in this case the level of affordable housing. This is regularly undertaken by developers in negotiating with local authorities and in reality a number of components may be manipulated in order to generate the most favourable/acceptable solution.

Impact of affordable housing provision:

Affordable housing %	Profit	Profit on GDV %
35%	-£2,490,000	-8.34%
20%	-£1,640,000	-5.10%
15%	-£3,893	-0.01%
10%	£498,000	1.52%
0%	£1,950,000	5.70%

This demonstrates a significant improvement in viability can be generated from reducing affordable housing although this would be insufficient to generate a viable scheme. The scheme is insufficient in scale to carry the level of cost which the council is anticipating particularly the requirement to replace all of the parking spaces which are currently provided on the car parks.

The viability of development will vary across the scheme. Clearly some parts of the proposed scheme are easier to develop than others, for example the car park fronting Addlewell Lane on the western side of the scheme would seem to be a relatively early win as it is small (potentially less essential for parking) and is entirely owned by SSDC. Other parts of the proposed scheme are more heavily burdened, for example the Town Council owned ski slope requires access across third party land (Vauxhall garage) and has significant cost burdens associated with the access (cut and fill, retaining walls, bridge) in order to allow it to be developed for the proposed hotel, in addition the Stars Lane car park is burdened with the requirement for re-provision of parking.

There is always an issue with development in phases as to which elements should be burdened with which costs and uses. In order to generate a real step change in this area of Yeovil it will inevitably be necessary that some elements may not achieve the necessary return when considered in isolation. We would certainly recommend that early phases are developed on land which is less significantly burdened however this is likely to be partly determined by land assembly and detailed costs.

5.1.4 Conclusion and Recommendations

The nature of the proposed Summerhouse Village coupled with the aspirations of the various interest groups makes generating a viable development extremely difficult and significant compromises will need to be made to deliver a viable scheme. It will be important to determine priorities for the scheme against which further testing of development viability can be undertaken. We have adopted levels of cost and value which we believe are reasonable having regard to the various aspirations and our instructions from SSDC however on this basis the scheme is entirely undeliverable due to the requirement to deliver 100% replacement car parking.

Risks As stated previously there are numerous risks associated with this development and this assessment should be treated as a "high level" assessment at this stage. The figures adopted will inevitably change as further site information becomes available, individual engineering solutions are costed and land assembly progresses.

We would recommend the preparation of a risk register; this will be a vital tool to focus the design on the areas of greatest risk. In particular we would highlight land assembly, the marketability of the housing mix, the cost of achieving buildings in line with higher code levels and the extent of public realm works as particular areas which require further attention.

Next steps The Council will inevitably have to make some difficult decisions as to what they wish to prioritise and how to reduce the cost burden on this site. The first step will need to be delivery of an alternative parking solution which will not burden this site.
It is unlikely that the council would act as developer directly due to the various cost and resource implications involved. At this stage we would normally undertake some soft market testing with developers to test their appetite for the opportunity to develop the site. We would particularly seek to assess their perception of risk and identify any areas which they believe have been inadequately considered.

It will be essential to determine the most effective delivery structure having regard to risk, cost and control. This is the subject of a separate report however we would anticipate some type of partnership structure which would seek to utilise the skills and resources of a developer or developers whilst ensuring the council retains control of the proposed scheme.

We would certainly recommend early engagement with the commercial elements of the scheme particularly the hotel and whether that is deliverable on the ski slope. An early understanding of the demand from commercial operators will help inform final design and reduce risk.

There are a number of land ownerships which are not under the control of the council these include the various car dealerships, the Box Factory and ownerships at the northern end of Stars lane. It will be essential that land assembly discussions are entered into at an early stage in order to gain control of the proposed scheme and avoid the creation of ransom situations.
We have not undertaken a full assessment of land ownership titles and associated covenants and this will be critical to ensuring that the development is not "tripped up" at a more advanced stage. We would recommend that legal advice is obtained to investigate the titles and land ownerships. Whilst the resource implications of compulsory purchase are significant this option

should not be ruled out as an essential tool to enable regeneration.

We would recommend that quantity surveyors/engineers are engaged to test the feasibility of the proposed design from a cost point of view (this may be something which is delivered within the partnership structure and forms a later stage of appraisal). This is likely to lead to a period of "value engineering" whereby aspects of the design and specification may be modified to accommodate constraints and aspirations.

Finally this process should result in a detailed design, structured phasing proposal and full planning application or series of planning applications.

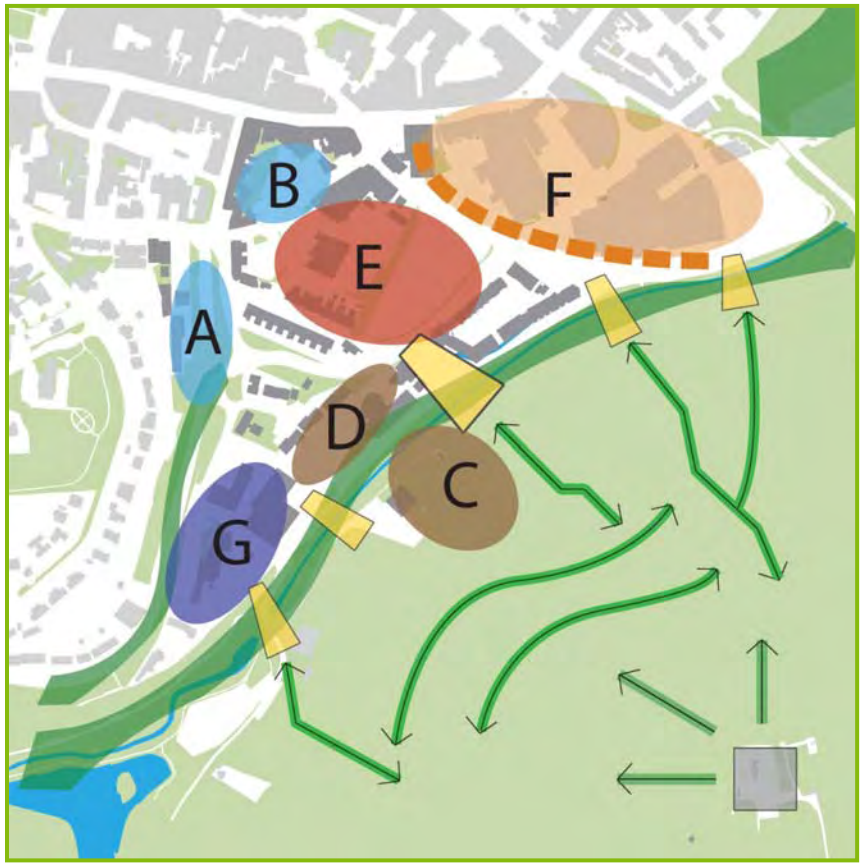
Confidentiality and Publication Finally, and in accordance with our normal practise we confirm that the Report is confidential to the party to whom it is addressed for the specific purpose to which it refers. This report does not constitute a formal valuation and should not be used for loan security purposes.

No responsibility whatsoever is accepted to any third party and neither the whole of the Report, nor any part, nor references thereto, may be published in any document, statement or circular, nor in any communication with third parties without our prior written approval of the form and context in which it will appear.

5.2 Implementation

JLL's work has revealed a number of national constraints which the Council can do nothing to influence, and which are affecting all large sites outside Central London. These include the general problem of affordability, or ratio of prices to incomes, banks reluctance to lend on speculative development, and the limited number of developers or house builders with strong enough balance sheets to take major risks There are also local constraints which the Council can influence through the role that it plays, and its willingness to be flexible in terms of the benefits that it requires, while upholding quality standards.

The next wave of regeneration therefore depends on innovative forms of partnership in which the private sector accepts longer term returns, and the public sector shares in the rewards for putting in land that it owns, as is common on the Continent.[26] Ways have to be found of kick-starting schemes that would otherwise stall if put to the market, and providing an income to ensure timely delivery, without incurring excessive transaction or bidding costs. This calls for some form of joint venture or public or private partnership, as a number of Councils are starting to do, with both Bournemouth and Croydon being among the leaders.



A: Addlewell Lane Housing infill site
B: South Street Housing infill site
C: Ski slope site redevelopment: leisure/hotel
D: New waterfront edge housing and promenade
E: Village heart: reconnects the Country Park & Brook to the Centre
F: Long term redevelopment of 'big box' typology Stars Lane street edge
G: Long term comprehensive regeneration to Renault/ Honda and The Gateway

[26] *Beyond Eco-towns: the economic issues, Nicholas Falk, www.urbed.co.uk*

5.2.1 Delivery options

An assessment of the three main options of early land disposal, a local asset backed vehicle, and a contractual development vehicle favoured the local asset backed vehicle option (LABV). Though this requires going through the European Union's OJEU procurement process, and advertising the opportunity widely, it provides greater flexibility, and is more robust, because the local authority puts in land, and the development partner puts in money and expertise. The agreement could be structured so that the Council receives back a serviced site for affordable housing as part of its reward.

5.2.2 Management functions

The joint venture partnership would fulfil a number of functions, which could apply to both Yeovil town centre, and developments in other parts of the district, if required:

- Land assembly
- Planning and quality control
- Infrastructure provision
- Management of public space
- Disposal of serviced parcels and/or procurement of contractors
- Communications and marketing
- Financial and risk management.

A dedicated development manager would be appointed, reporting to a board that brought the main interests together.

5.2.3 Other partnerships

The joint venture with a master developer would work closely with other partnerships set up to achieve the goals set out in the Yeovil Vision, and examined in this report. These include a transport partnership to secure a shift in behaviour, and an energy partnership to provide the utilities needed for the urban village and future urban extension. There could also be merit in setting up some form of community or development trust, as recommended for both urban villages and also for eco-towns.

5.2.4 Conclusions and next steps

While an exciting masterplan has evolved which should achieve the main objectives, there are major barriers to be overcome before the desired physical and social transformation can be achieved. There will always be risks and choices to be made, and this report is simply one further step along a journey. The next steps, which are to decide whether to proceed or give up, require action on five main fronts:

1. Finding alternative spaces for town centre parking, preferably at a distance from the town centre, such as at the Yeo Leisure Park.

2. Deciding about the affordable home requirements, and the idea of the Council seeing these as part of the reward from a successful scheme.

3. Clarifying the costs of the infrastructure works, and specifically the link with the Country Park and proposed hotel.

4. Deciding on the environmental sustainability targets and best route for achieving them.

5. Communicating with both the wider public and other stakeholders so there is no confusion over the Council's role as land owner and its position as planning authority, and some of the detailed design issues can be resolved with inputs from the community who will be living with the scheme.

Appendix A: Street Types and Character Guidance

The masterplan sees the creation of a hierarchy of five different types of streets to serve the urban village and to ensure the village is well connected into the surrounding street network.

Each street type is illustrated and annotated to provide design coding guidance to inform future detail planning applications and infrastructure works.

Street Type 1: Summer House Terrace Boulevard

Summer House Terrace will be transformed into a boulevard along the length shown in the reference plan with pedestrian crossings as shown, street tree planting, new surface materials and wide pavements (up to 4m). Reducing the road carriageway width in the area where Summer House Terrace approaches Stars Lane from the southwest including remodelling of junctions to reduce splays and introduce crossings. Its importance as the main route will be reinforced by consistent design treatment of the street itself and the buildings which line it.

Standards for boulevard redesign of Summer House Terrace are to be used as the basis for further detailed design in conjunction with Somerset County Council and specifications are to be compliant with DfT Manual for Streets (1 and 2).

Figure 1 - Reference plan of Street Type 1

Figure 2 - Illustrative guidance

Proposed Standards - Street Type 1: Summer House Terrace Boulevard

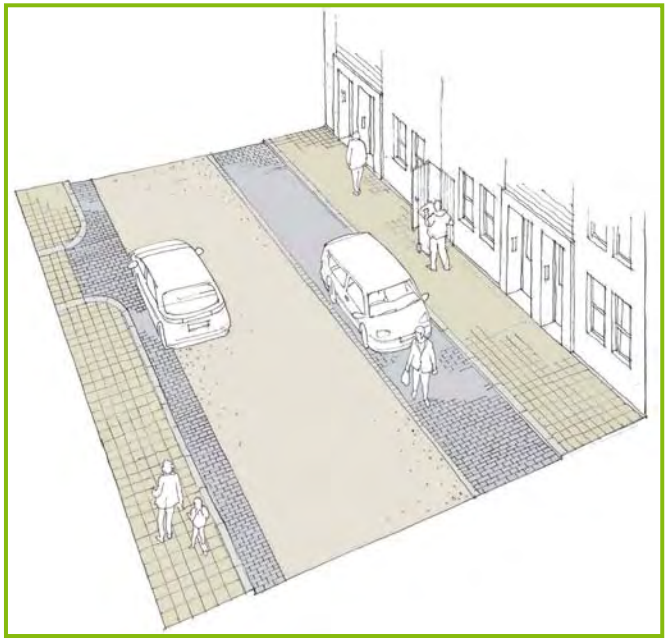
Criteria	Design Standard
General Characteristics	
Speed limit	
Traffic calming measures	Traffic signals at junction, raised uncontrolled crossings
Shared surface	Part – at raised table linking to new waterfront square
Minimium building-to-building width (m)	15 metres (to area of new development opposite ZeroC scheme)
Active frontage	Part - ground floor retail uses on corners per masterplan
Pedestrian crossings	Perpendicular pelican crossings min 3m width at traffic signal controlled junction at Stars Lane. Skewed, raised, uncontrolled crossing at connection to waterfront square on diagonal
Utilities	In footway each side. Drainage below carriageway
Street Design and Building Setback	
Carriageway width (m)	County Council to confirm
Traffic lanes (m)	County Council to confirm
Bus lanes (m)	None, integrated traffic lane
Cycle lanes (m)	Integrated with carriageway – no dedicated lane
Pavement width (m)	4m width to pavements along south side. 2.5-3.5m along northern side
Lay-bys	No parking along Summer House Terrace. Provision for bus lay-by
Privacy strip width (m)	Varies: 2.0m to housing opposite ZeroC along northern side of SHT. 1m to housing west of the diagonal route (0m at corners)
Plot boundary treatment	Low railing with landscape behind to housing with 2m privacy strip. Elsewhere hard half meter infill with small setts
Junction spacing	New junction to Dodham lake min Xm from Stars Lane
Junction sightlines	County Council to confirm
Min junction radii	County Council to confirm
Threshold treatment	Turnings into side roads defined by raised uncontrolled crossings
Pavement surfacing	300x300 precast concrete paviors to match elsewhere
Kerbing	250mm width, granite. Standard 100mm kerb height
Pull-out strip	N/A
Carriageway surfacing	Standard black macadam
Pedestrian crossings	Tumbled block paviors or street type 5 material (diagonal)
Street trees	New medium-large trees to be used throughout. Planting to be no closer than 1.2m of kerb and spaced 12m apart subject to services
Privacy strip landscape	Low/medium shrub planting behind low rail
Building height	Generally 3 storeys. Ground floor 1.5 storey equivalent height to allow for future conversion to retail/commercial use. 4 storey accents at corners

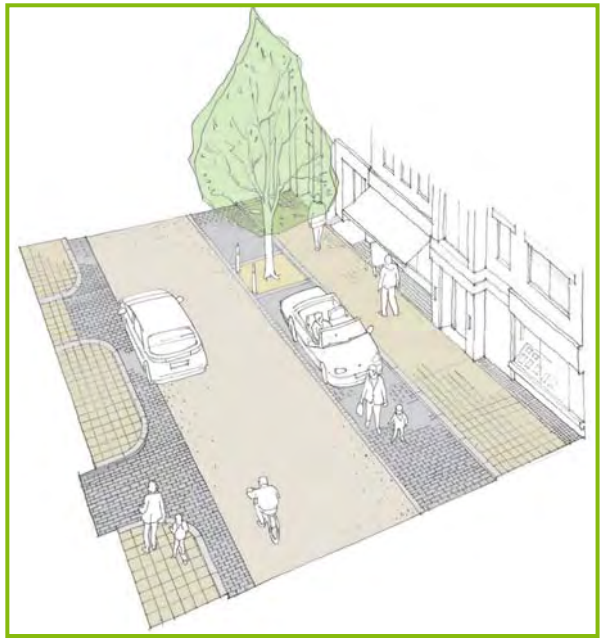
Street Type 2: Stars Lane and South Street Secondary Routes

These secondary streets serve to connect the town centre to more strategic routes such as Summer House Terrace and to provide access local development such as that proposed on the Stars Lane car park. Pedestrians, cycles and vehicles will be able to use these streets. The street will be designed to minimise through-traffic. Buildings will accommodate a mixture of retail, offices and community uses in addition to upper floor apartments, and hence a pavement with space for short term parking is provided.

Stars Lane will be transformed into a high quality street of 'high street' character, between the junction with Summer House Terrace and South Street, thus connecting up with the Yeo Leisure Park and the old Foundry. Pedestrian crossing is encouraged throughout through visual reduction of carriageway by use of a block/sett margin, street tree planting, new surface materials and quality pavements. Reducing the road carriageway width in the area where Stars Lane approaches Summer House Terrace from the north including remodelling of this junction to reduce splays and introduce pedestrian crossings. On-street parking is accommodated to on one side only.

Standards are to be used as the basis for further detailed design in conjunction with Somerset County Council and specifications are to be compliant with DfT Manual for Streets (1 and 2).





Figures 4 and 5
Illustrative guidance

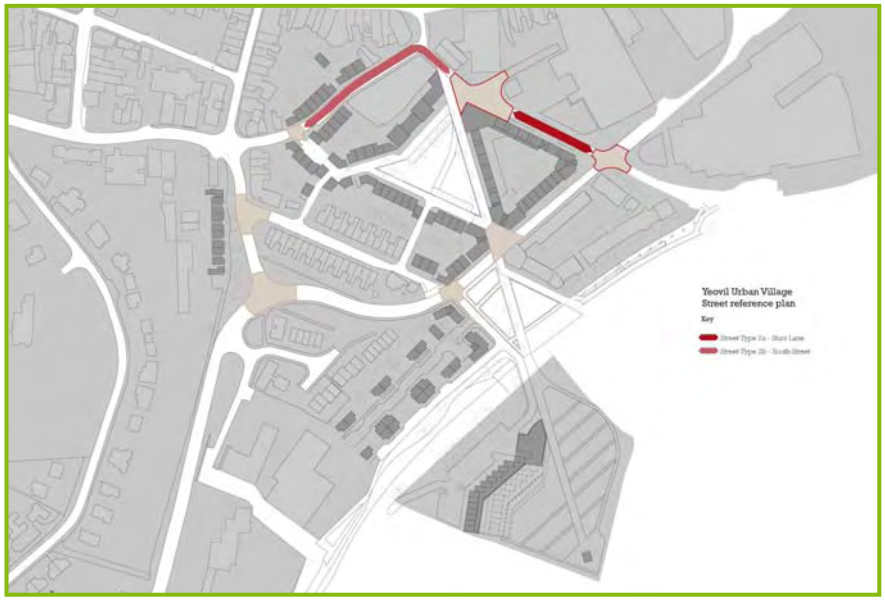


Figure 3 - Reference plan of Street Type 2

Proposed Standards - Street Type 2a, b: Stars Lane and South Street Secondary Routes

Criteria	Design Standard
General Characteristics	
Speed limit	20mph
Traffic calming measures	Traffic signals at junction with Summer House Terrace (SHT), raised uncontrolled crossings
Shared surface	No
Minimium building-to-building width (m)	N/A
Active frontage	Ground floor retail uses on Stars Lane
Pedestrian crossings	Perpendicular pelican crossings min 3m width at traffic signal controlled junction at Stars Lane/SHT Raised uncontrolled crossings at northern end of Stars Lane
Utilities	In footway each side. Drainage below carriageway.
Street Design and Building Setback	
Carriageway width (m)	County Council to confirm
Traffic lanes (m)	County Council to confirm
Bus lanes (m)	None
Cycle lanes (m)	Integrated with carriageway – no dedicated lane
Pavement width (m)	2.5 (Stars Lane). Width varies to South Street (min 1.8)
Lay-bys	Parking bay dimension 6.0m x 1.8m. Pull out strip medium granite setts
Privacy strip width (m)	Building to back-edge of pavement. Varying edge of 0-1m wide edge of small granite setts
Plot boundary treatment	Hard – urban edge
Junction spacing	New junction to homezone area min Xm from South Street / Bond Street junction
Junction sightlines	County Council to confirm
Min junction radii	County Council to confirm
Threshold treatment	Turnings into side roads either a) continuous setts at road level or b) setts rising to pavement level, paving slabs continue through or c) broad band of setts with street type 3 material beyond
Pavement surfacing	300x300 precast concrete paviors to match elsewhere
Kerbing	150mm width, granite. Height 25mm.
Pull-out strip	Medium granite setts (contains drainage grilles)
Carriageway surfacing	High content Portland stone or similar pale aggregate asphalt. To one side broad tumbled concrete paviors 750mm
Parking zone	Pre-cast, tumbled, concrete paviors. Flush with carriageway level, 25mm below pavement level
Pedestrian crossings	N/A
Street trees	New medium trees to be used along Stars Lane (no planting to South Street). Planting to be no closer than 1.2m of kerb and spaced 13.5m apart subject to services
Privacy strip landscape	None

Street Type 3: Residential Streets to Village Green

Street type 3 is to be applied throughout the residential area at the proposed village green. These streets are to be designated and designed as Home Zones, with signage at entry points along South Street and Addlewell Lane.

Local Authorities have powers to designate roads as Home Zones in section 268 of the Transport Act 2000. The legal procedure for creating a Home Zone is set out in Quiet Lanes and Home Zones (England) Regulations 2006 and guidance is provided in Department for Transport Circular 02/2006.

The street designs include street trees, planting, parking and areas of community use and play. A shared surface approach will be applied, with minimal demarcation (e.g. inset flush blocks/setts) between pedestrian and vehicle tracking. Utilities located underground outside of vehicle tracking areas. Surface material will be a Portland stone aggregate asphalt.

Standards are to be used as the basis for further detailed design in conjunction with Somerset County Council and specifications are to be compliant with DfT Manual for Streets (1 and 2).

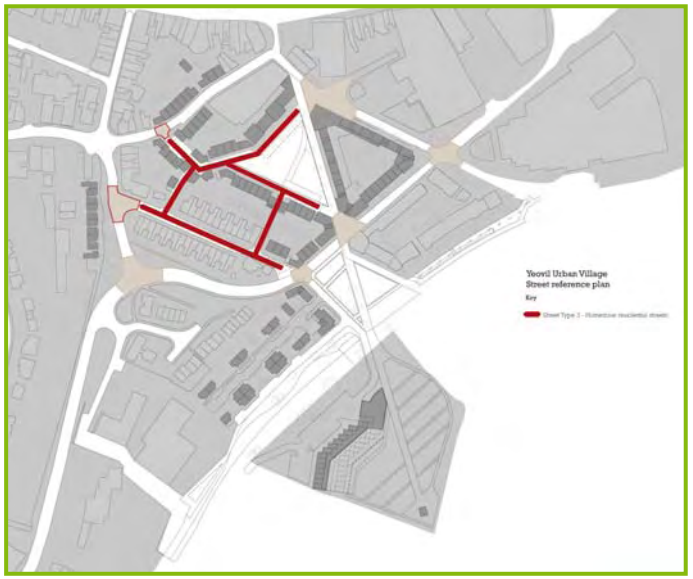


Figure 6 - Reference plan of Street Type 3

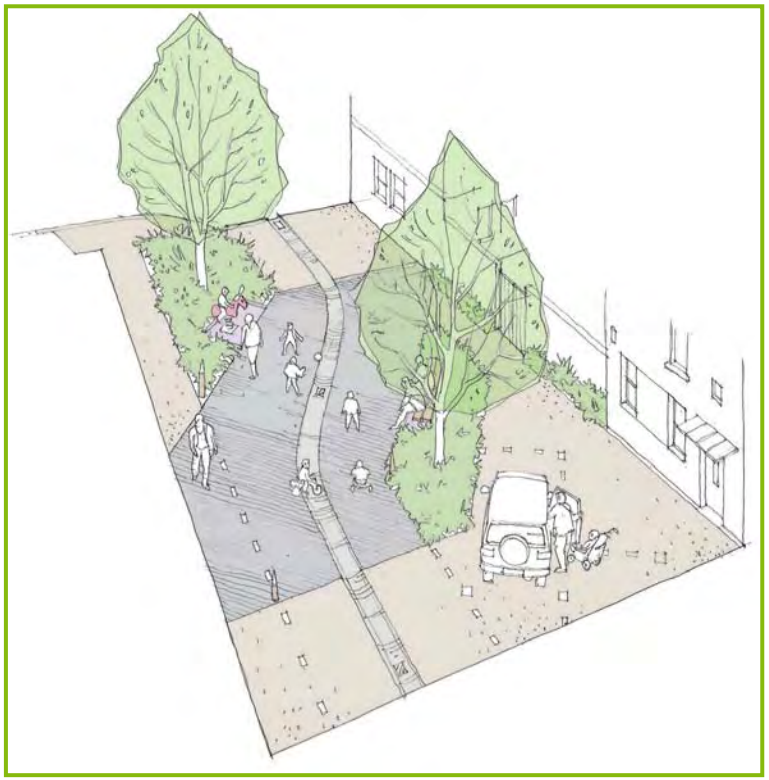


Figure 7 - Illustrative guidance

Proposed Standards - Street Type 3: Residential Streets to Village Green

Criteria	Design Standard
General Characteristics	
Design approach/ designation	Home Zone
Speed limit	20mph
Traffic calming measures	Short road lengths, shared surface, varied building line, intermittent on street parking, trees / planting
Shared surface	Throughout
Minimium building-to-building width (m)	Varies throughout to achieve home zone character, however min to be 8 metres
Active frontage	Ground floor community/health/café uses to new building along the southern edge of the Club and fronting the new village green
Pedestrian crossings	Incorporated throughout as shared surface
Utilities	Underground and outside of vehicle tracking areas.
Street Design and Building Setback	
Carriageway width (m)	N/A (min 4.1m vehicle tracking)
Traffic lanes (m)	N/A (min 4.1m vehicle tracking)
Bus lanes (m)	None
Cycle lanes (m)	Integrated with shared surface
Pavement width (m)	N/A
Lay-bys	N/A
Privacy strip width (m)	Varies but generally no more than 1m to achieve close rel. of house to street to achieve Home Zone design and character
Plot boundary treatment	Soft edge, low rail, shrub planting
Junction spacing	N/A
Junction sightlines	County Council to confirm
Min junction radii	N/A
Threshold treatment	No specific demarcation – shared surface throughout
Pavement surfacing	Shared surface as above
Kerbing	N/A
Pull-out strip	N/A
Home Zone surfacing	Portland stone or similar pale aggregate in tarmac
Parking zone	As above. Use pre-cast, tumbled, medium setts to demarcate bays
Pedestrian crossings	N/A
Street trees	Small / medium deciduous street trees
Privacy strip landscape	Low shrub planting behind low rail/wall

Street Type 4: Dodham Lake Residential Streets

The streets that comprise Street Type 4 are located in Character Area 2 along the new Dodham Lake waterfront, including the access street off Summer House Terrace. These streets will be designed as Home Zones to encourage pedestrian / cycle/ play / recreational activity and to minimise car movement. The street parallel to the Dodham Lake-edge street will also provide access to The Gateway church and café as shown on the masterplan.

Dodham Brook will be transformed into a new 'Dodham Lake' offering a much greater waterfront experience and promenade. This area will encourage healthy living through greater provision of outdoor activity including an attractive Country Park pedestrian and cycle route.

A new junction with Summer House Terrace will provide access to the area and serve as the link to an improved Summer House Hill recreational park. Streets will be designed as shared surfaces including trees, planting, play and seating with well designed on street car parking.

Standards are to be used as the basis for further detailed design in conjunction with Somerset County Council and specifications are to be compliant with DfT Manual for Streets (1 and 2).

Figure 8 - Reference plan of Street Type 4

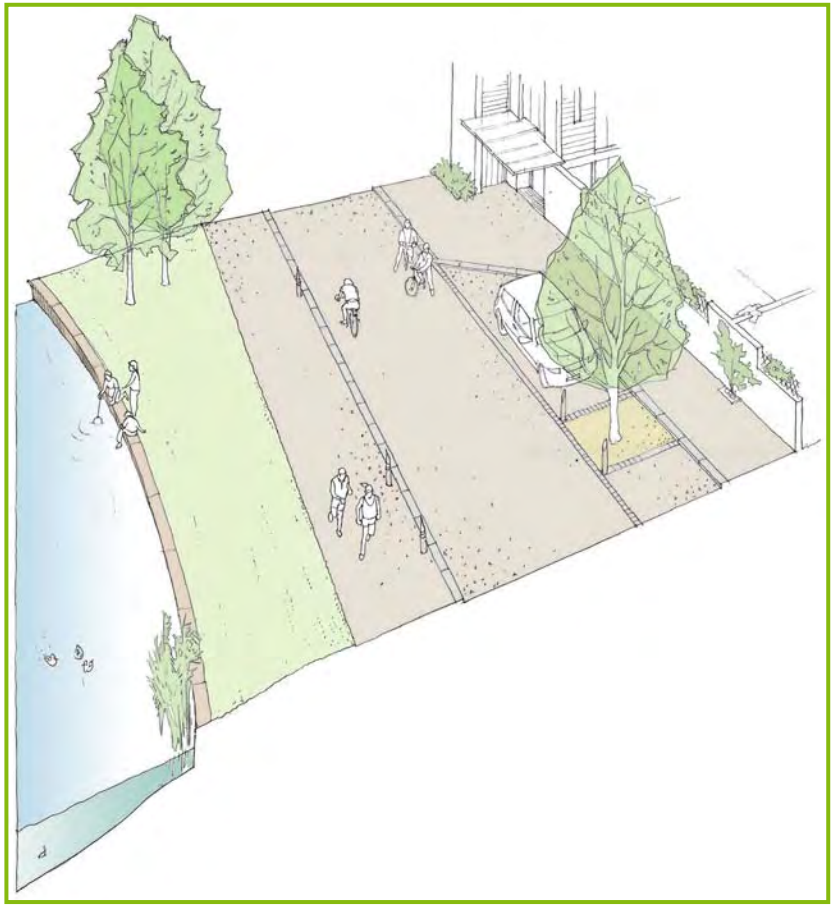


Figure 9 - Illustrative guidance

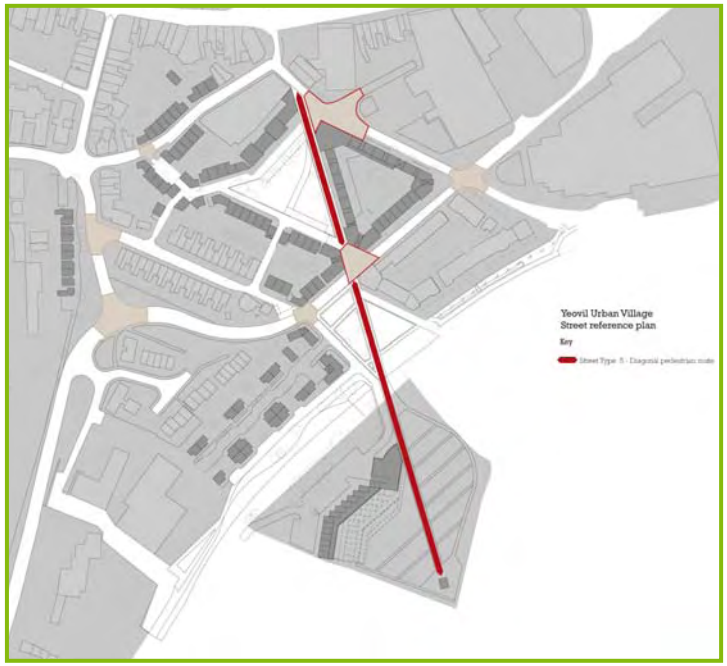
Proposed Standards - Street Type 4: Dodham Lake Residential Streets

Criteria	Design Standard
General Characteristics	
Design approach/ designation	Home Zone
Speed limit	20mph
Traffic calming measures	Short road lengths, shared surface, varied building line, intermittent on street parking
Shared surface	Throughout
Minimium building-to-building width (m)	13 metres
Active frontage	Residential uses to this area. Potential for future conversion of ground floor apartment buildings fronting the new waterfront square
Pedestrian crossings	Raised, uncontrolled crossing at new junction with Summer House Terrace. Elsewhere crossings are incorporated throughout as shared surface
Utilities	Underground and outside of vehicle tracking areas
Street Design and Building Setback	
Carriageway width (m)	N/A (min 4.1m vehicle tracking)
Traffic lanes (m)	N/A (min 4.1m vehicle tracking)
Bus lanes (m)	None
Cycle lanes (m)	Integrated with shared surface
Pavement width (m)	Country Park promenade additional 2.5m pavement on south side. Occasional lighting bollards.
Lay-bys	Parking bay dimension 6.0m x 1.8m. Medium setts define bays.
Privacy strip width (m)	Varies. 1.8m or x.xm
Plot boundary treatment	2m garden wall of material similar to house wall with lower trellis sections with climbers
Junction spacing	County Council to confirm
Junction sightlines	County Council to confirm
Min junction radii	County Council to confirm
Threshold treatment	No specific demarcation – shared surface throughout.
Pavement surfacing	Bredon gravel or similar
Kerbing	300m wide granite
Pull-out strip	N/A
Carriageway surfacing	Portland stone or similar pale aggregate in tarmac
Parking zone	As above. Use pre-cast, tumbled, medium setts to demarcate bays
Pedestrian crossings	N/A
Street trees	Medium deciduous street trees
Privacy strip landscape	Garden wall/fence with low narrow planted shrub

Street Type 5: Diagonal Pedestrian Route (emergency vehicle access only)

Street Type 5 is a new strategic route that is fundamental to the structure of the masterplan. As such it forms the 'spine' connecting the town centre to the enhanced Dodham Brook, Country Park/Summer House Hill and the proposed leisure development and associated gardens on the redeveloped ski slope.

The new route will be, principally, a pedestrian path that also provides for cycle movement and emergency vehicular access (for the properties fronting the eastern edge of the new village green). The route will be designed as a high quality, fully accessible recreational and strategic link. Level changes of circa 6.4m between the town centre (+37.9 at intersection with Stars Lane) and Summer House Terrace (+31.5) are accommodated along the length of this part of the route (some 115m), resulting in an even and easily walkable gradient of 1:18. Some re-grading of the upper part of the route is required where it intersects with the existing embankment. The route will connect into raised crossings at Stars Lane and Summer House Terrace. At Stars Lane the surface material of the diagonal route will carry across the street to emphasise pedestrian priority movement and reinforce the importance of the route. A raised crossing will also facilitate the diagonal route across Summer House terrace to the new waterfront square and brook bridge crossing.



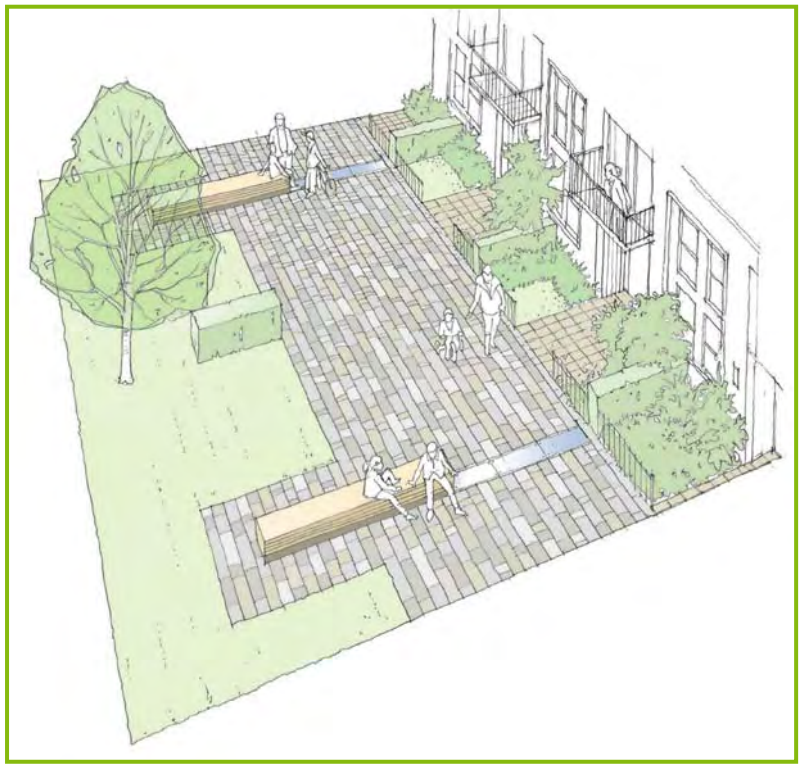


Figure 10 above - Reference plan of Street Type 5
Figure 11 right - Illustrative guidance

The use of high quality hard surfaces (eg natural stone blocks) is envisaged however this route will require a bespoke landscape design scheme that integrates tree planting, new surface materials, seating, lighting, soft landscape planting and so on beyond the scope of this study. A landscape design competition could be considered as the mechanism to procure this street type.

Adjacent buildings accommodate predominantly residential use with provision for ground floor retail at the northern end of the route (intersection with Stars Lane) and southern end (intersection with Summer House Terrace).

Standards are to be used as the basis for further detailed design in conjunction with Somerset County Council and specifications are to be compliant with DfT Manual for Streets (1 and 2).

Proposed Standards - Street Type 5: Diagonal Pedestrian Route

Criteria	Design Standard
General Characteristics	
Speed limit	N/A
Traffic calming measures	N/A
Shared surface	Integrated pedestrian and cycle routes
Minimium building-to-building width (m)	N/A
Active frontage	Ground floor community/health/café uses to new building along the southern edge of the Club and fronting the new village green
Pedestrian crossings	At intersection with Summer House Terrace – raised, uncontrolled
Utilities	In footway incl drainage
Street Design and Building Setback	
Cycle lanes (m)	Integrated
Pavement width (m)	5m
Privacy strip width (m)	2m
Plot boundary treatment	Railings with generous shrub planting
Pavement surfacing	Bespoke hard surface. Designed to reduce cycle speed.
Pull-out strip	N/A
Pedestrian crossings	N/A
Street trees	Incorporated as planting to the village green park
Seating	Long (3-4m) benches made of natural material (stone / wood) orientated perpendicular to pedestrian route to maximise views to the south and projecting out into the route to limit cycle speeds – see plan
Privacy strip landscape	Low/medium shrub planting behind low rail/wall
Lighting	Bespoke lighting associated with diagonal route

Open Spaces and Character Guidance

The masterplan sees the creation of a four new principal open spaces. It is important that each has a distinct but complementary role. These four spaces are indentified to the right and their character and qualities are described below. Each is illustrated and annotated to provide design coding guidance to inform future detail planning applications.

Public open space acts as a focus for the community and contributes to the character of the neighbourhood. This ranges from quiet and leafy, to bold and exciting, and relates to the urban quarter, land uses, and other elements of the surrounding context. This section establishes basic parameters for the landscape design of public spaces, based on the network set out in the masterplan.

Figure 12 Public open space 1: Village Green Reference Plan

Figure 13 Public open space 2: Dodham Waterfront Urban Square and Meadow Reference Plan

Figure 14 Public open space 3: Dodham Lake Promenade Reference Plan

Figure 15 Public open space 4: Summer House Gardens Reference Plan

Public Open Space 1: Village Green (POS1)

The village green is a new open space located within the character area 1 – the urban village heart. As such it forms the focus for the area and acts as both a quality green space for the town centre as well as outdoor amenity/play space for residents of the new urban village. Design of this area is described below.

Character	Dynamic triangular green space with split levels to address existing topography. Space orientation and design emphasises views to south and access along diagonal to Dodham Brook and Summer House Hill. Predominantly soft landscaping for passive relaxation, aimed at both town centre users and local residents.
Key features	Changes in level exploit valley Brook and Hill views. Combination of play areas and passive recreation. Mainly grassed space, perimeter tree planting and informal play. Potential for art/sculpture. Contains key diagonal pedestrian spine along eastern edge.
Play components	Local Playable Space within the green, potentially at the lower of the two split levels. Equipment uses a language of natural materials such as wood and rope. Grassed open space available for running around, as well as landscaped areas.
Trees	Formal street trees around and a variety of existing/ new feature trees within.
Lighting	Not an over lit space given proximity of adjacent housing. Columns around perimeter of triangle simple and elegant. Use of lighting bollards and up-lighting along diagonal route to eastern edge.
Other street furniture	Opportunities for bespoke solution – common language for the urban village area. Seating at upper of split levels to maximise views out across valley to Summer House Hill. Public art features, possibly interactive.

Public Open Space 2: Dodham Waterfront Urban Square and Meadow (POS2)

Character	Largest formal waterfront open space along Dodham Brook of both urban and wild meadow character. Sculptural, exciting quality containing a variety of activities. Waterfront invites active usage - busy and lively space; the focus of the link to Summer House Hill, intersection of routes. Flexible space allows alternative activities including part of an outdoor sports circuit.
Key features	Combination of wild meadow planting and high use hard surfaces with attention to paving detail. Potential for sculptural ground works and art/sculpture. Contains key diagonal pedestrian spine through centre. Meadow areas dished for storm water retention.
Play components	Sport equipped with focus on circuit activity linked to the Country Park. Grassed open space along southern edge available for general sport/exercising as well as landscaped areas.
Trees	Primarily indigenous species reflecting waterside location (such as willow) strengthen wildlife habitats along the Brook. Smaller species in meadow planted areas.
Lighting	Bollard or ground inset lighting. Opportunities for colour. Lighting incorporated into stone edge seating.
Other street furniture	Potential timber bridge (with handrails) extends across Dodham Brook and into Summer House Hill. Wide stone edges to meadow planted areas provide continuous informal seating. Generally bespoke urban village design language.

Public Open Space 3: Dodham Lake Promenade (POS3)

Character	New lake edge promenade. Landscaped terraced design to connect with water edge but maintain flood capacity. Space designed as sinuous, fluid area orientated towards waterfront. Adjacent residential uses face onto and animate the space.
Key features	New weir to retain Brook into a small linear lake with accessible northern edge. Combination of hard surfaces (permeable resign bonded gravel) with grassed areas for general recreational use and sport/exercise. Ample seating to maximise lake edge viewing.
Play components	Doorstep playable space with informal play equipment.
Trees	Indigenous species reflecting waterside location (such as willow) strengthen wildlife habitats along the Book.
Lighting	Simple and elegant columns. Opportunities for bespoke design. Lighting bollards alongside lake front.
Other street furniture	Generally bespoke urban village design language to furniture. Generous seating, potentially used playfully such as single chairs. Sculptural public art features.

Public Open Space 4: Summer House Gardens (POS4)

Character	Terraced gardens (including food production for hotel / kitchen gardens) integrated into Summer House Hill. Organised around key diagonal route to town centre. Designed as formal setting to the proposed hotel/leisure facility.
Key features	Combination of wild meadow planting, formal shrub/flower beds, orchard and kitchen gardens. Quality pedestrian routes throughout, potentially in zig-zag formation up the hill. Possible new folly/community structure to terminate diagonal and view, with otential for sculptural groundworks and art/sculpture. Contains key diagonal pedestrian spine.
Play components	Recreational/leisure use.
Trees	Possible orchard theme
Lighting	Not an over lit space given sensitivity / proximity to wildlife habitats. Use of lighting bollards and low level lighting inset in diagonal route.
Other street furniture	Natural materials – stone/wood to create edges to paths, seating, retaining structures etc. Generally bespoke urban village design language for diagonal route.

Appendix B: Accommodation and Parking Schedule

Gross areas - residential

Area ref	Area ref number	Notes	Gross Footprint (m2)	Height (storeys)	Total Gross Floorspace (m2)	Proposed Uses: Residential Only	Mixed Use: Resi	Mixed Use: Commercial	Mixed Use Commercial	Health	Hotel	Houses: 4 bed	Houses: 3 bed	Maisonette: 3 Bed	Apartments: 2 bed duplex	Apartments: 2 bed flat	Apartments: 1 bed flat	Apartments: Studio	Parking - demand: Houses/ Maisonettes	Parking - demand: Flats	Parking - demand: Studio	Parking - demand: Total required	Actual Spaces	Difference	Hotel Parking
												120	85	90	53.85	80.5	58.65	42	1	0.5	0				
A		Addlewell Lane	426	3	1278	1278						10							10	0		10	10	0	
B	1	Area along northern edge of South Street	273	3	683	683						1	6						7	0		7	11	-4	
B	2		130	3	390	390						3							3	0		3		3	
B	3		27	3	68	68							1						1	0		1		1	
C		60 Bed hotel	2150	1 to 2	3140						3140									0		0		0	70
D	1	Oodham Lakeside	706	3	2117	2117						17							17	0		17	21	-4	
D	2	A range of 3 and 2	312	3	883	883										3	6	3	0	5.5	0	6		6	
E	1	Village Heart - NW corner block	252	3	630	630						6							6	0		6	93	-87	
E	2	Houses fronting South Street on southern edge	251	3	628	628							6						6	0		6		6	
E	3	Houses in Homezone adjacent to health centre	283	3	708	708						1	5						6	0		6		6	
E	4	Health at Ground, resi above Club edge	360	3	1080		720			360						8	2		0	5		5		5	
E	5	Retail at Ground with office above	128	3	384				384										0	0		0		0	
E	6	Corner dev facing Chicago. Commercial at ground with resi above	266	4	1064		798	266								6			0	3		3		3	
E	7	Dev along Stars Lane. Commercial at ground with resi above	315	3	945		630	315							4	2			0	18		18		18	
E	8	Dev on junction Stars Lane/ SHT. Commercial at ground with resi above	192	3	576		384	192								4			0	2		2		2	
E	9	Houses fronting SHT	277	3	831	831						7							7	0		7		7	
E	10	Dev at corner of diagonal with SHT	215	4	860		645	215								6			0	3		3		3	
E	11	Resi village green east side and along diagonal	326	4	1141	1141								6			6		6	3		9		9	
E	12	Lane & west side of green	464	3	1160							2	9						11	0		11		11	
E	13	Houses fronting Mill Lane & village green	503	3	1258	1258						1	11						12	0		12		12	
E	14	diagonal with SHT west side	205	3	615	615										6			0	3		3		3	
Totals			8061		20436	11227	3177	988	384	360	3140	48	38	6	4	35	16	3	92	42.5	0	134	135	-1	70

Note: Areas F and G are not included in the schedule

Summary		Ratio
Houses	92	61%
Flats	58	39%
Total Dwellings	150	100%