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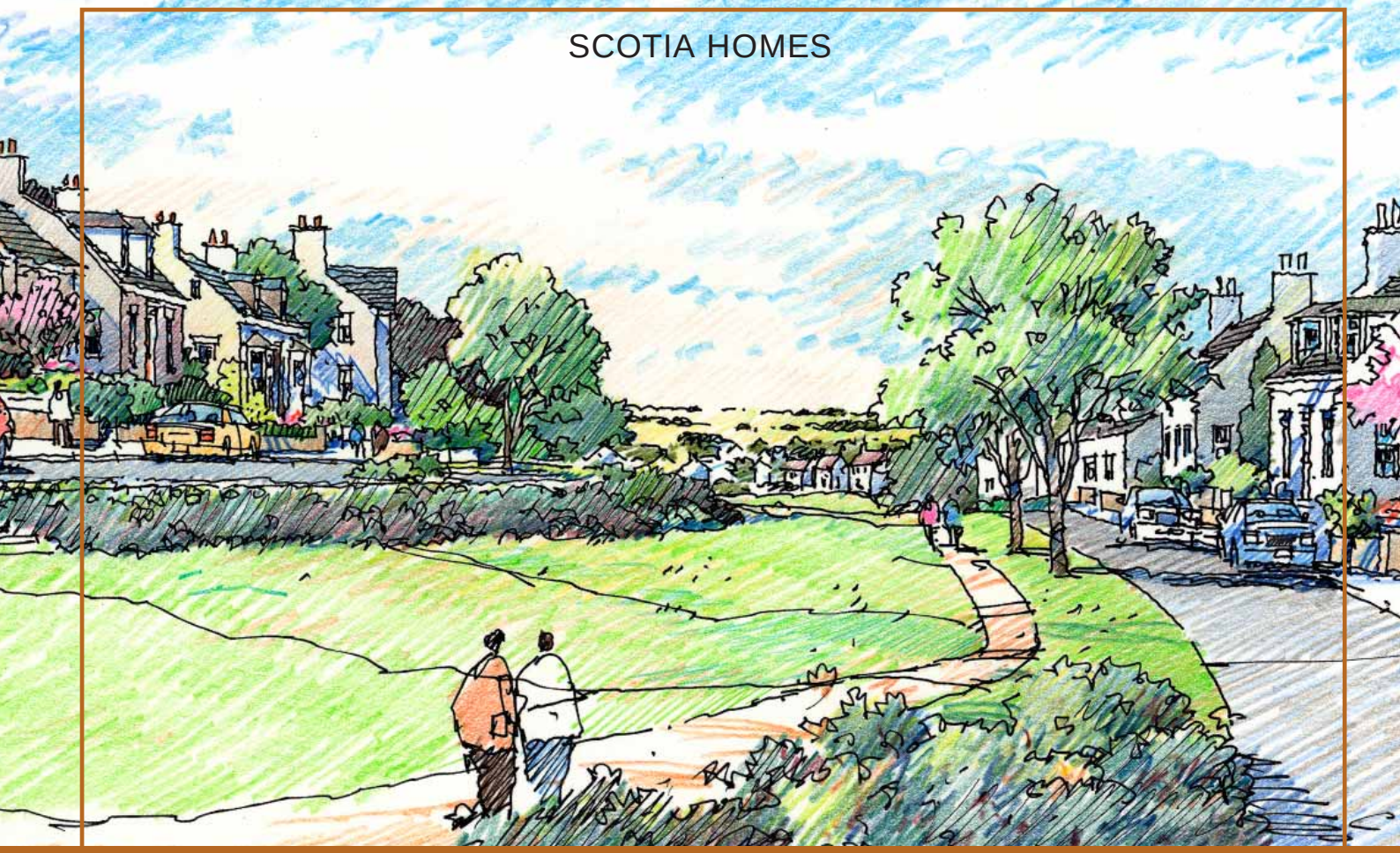

A DEVELOPMENT FRAMEWORK FOR DUBFORD

urban design associates

Michael Gilmour Associates

The Dubford Development Framework was produced prior to the adoption of the Aberdeen Local Development Plan 2017, however its content remains valid and the document is still relevant in informing decision making. As part of the publication of the Local Development Plan 2017, an appraisal of the document has been undertaken and, as part of this process, policy references within the document have been reviewed and updated.

Any queries concerning the text of the document should be directed to Planning and Sustainable Development (0300 200292 or pi@aberdeencity.gov.uk) for clarification.

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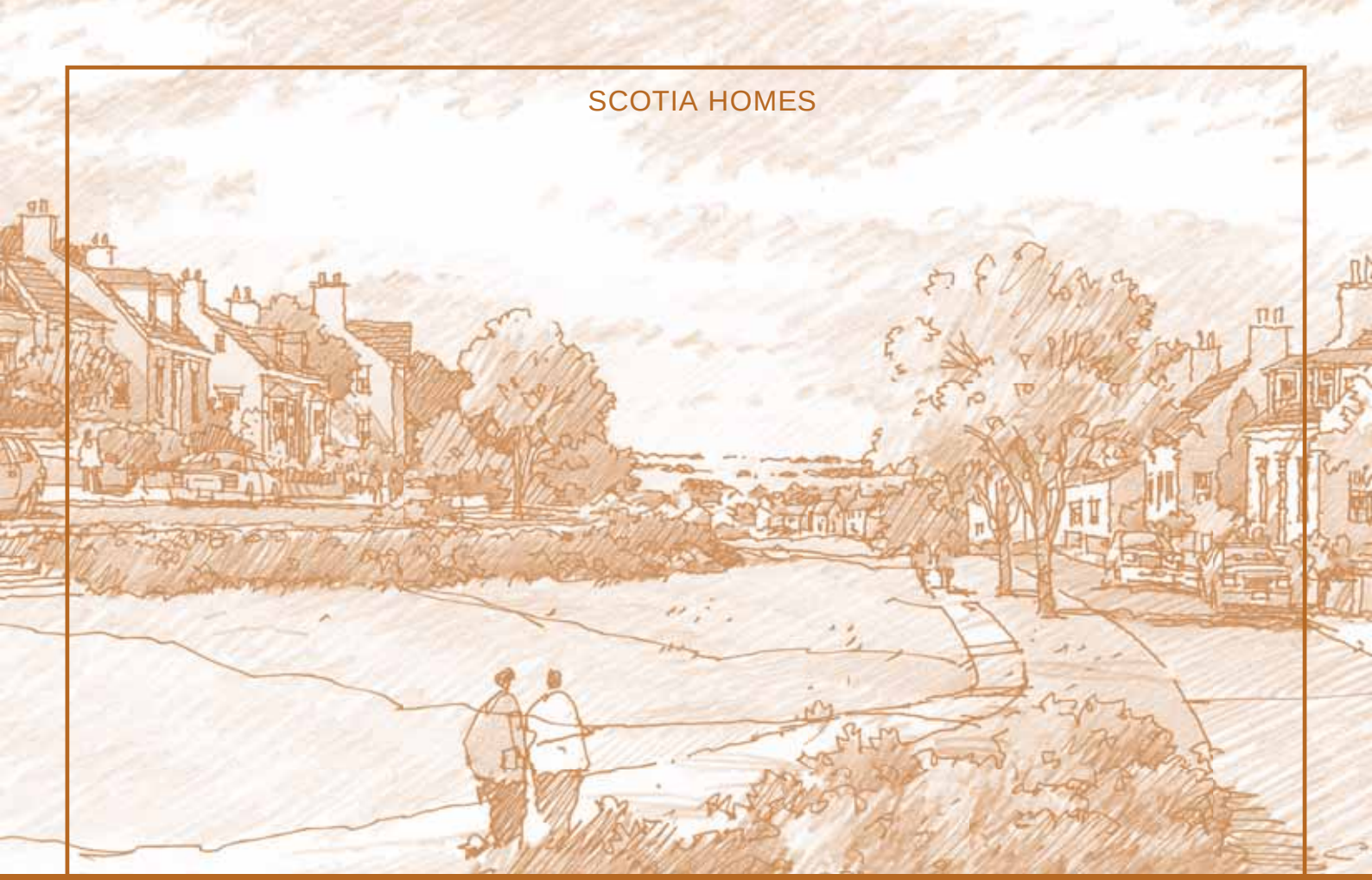

A DEVELOPMENT FRAMEWORK FOR DUBFORD

urban design associates

Michael Gilmour Associates

january 2012

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section 1: the masterplanning process

introduction

Figure 1.1 View from Dubford Farm

This Development Framework has been prepared by Urban Design Associates (UDA) and Michael Gilmour Associates (MGA) on behalf of the Design Team and Scotia Homes, in consultation with Aberdeen City Council. The Design Team consists of:

- UDA – Architects and Urban Designers
- La Quatra Bonci Associates -- Landscape Architects
- Michael Gilmour Associates – Architects and Project Managers
- Cameron & Ross – Civil and Structural Engineers
- WSP - Transportation
- Northern Ecological Services – Ecological Consultants
- David Wilson Associates – Landscape and Visual Impact Consultants
- TBC – Noise Consultants

Contact details of all consultants/stakeholders involved in the master-planning process are set out in Appendix 01

Figure 1.2 Portrait of Existing Conditions. The site (indicated in red) is on the outskirts of the Bridge of Don, a large neighbourhood located above the River Don on the north edge of Aberdeen.

Figure 1.3 Public Process. Bridge of Don Community Council members evaluate the needs of the area.

purpose of the development framework

This site is allocated in the Aberdeen Local Development Plan (ALDP) as OP10 for residential development of up to 550 homes. A Development Framework is required for the site in accordance with the ALDP "Masterplan Zones".

The purpose of this Development Framework is to provide planning and design guidance for the future development of the Dubford site, encompassing aspects of layout, existing buildings, context and local policies. Setting out a baseline, or two dimensional spatial framework, for the way in which large areas that may be in multiple ownerships, are to be developed. This will involve -

- appraising local context;
- reviewing whatever policy, guidance and regulations apply;
- conceiving a vision for the place;
- determining feasibility;
- establishing planning and design principles; and
- agreement on the development process

In the preparation of this document 'The Aberdeen Masterplanning Process: a guide for developers' has been closely followed. For additional information, please refer to;

- http://www.aberdeencity.gov.uk/planning_environment/planning/planning_sustainable_development/pla_planningbriefs.asp
- http://www.aberdeencity.gov.uk/nmsruntime/saveasdialog.asp?lID=21100&sID=2991

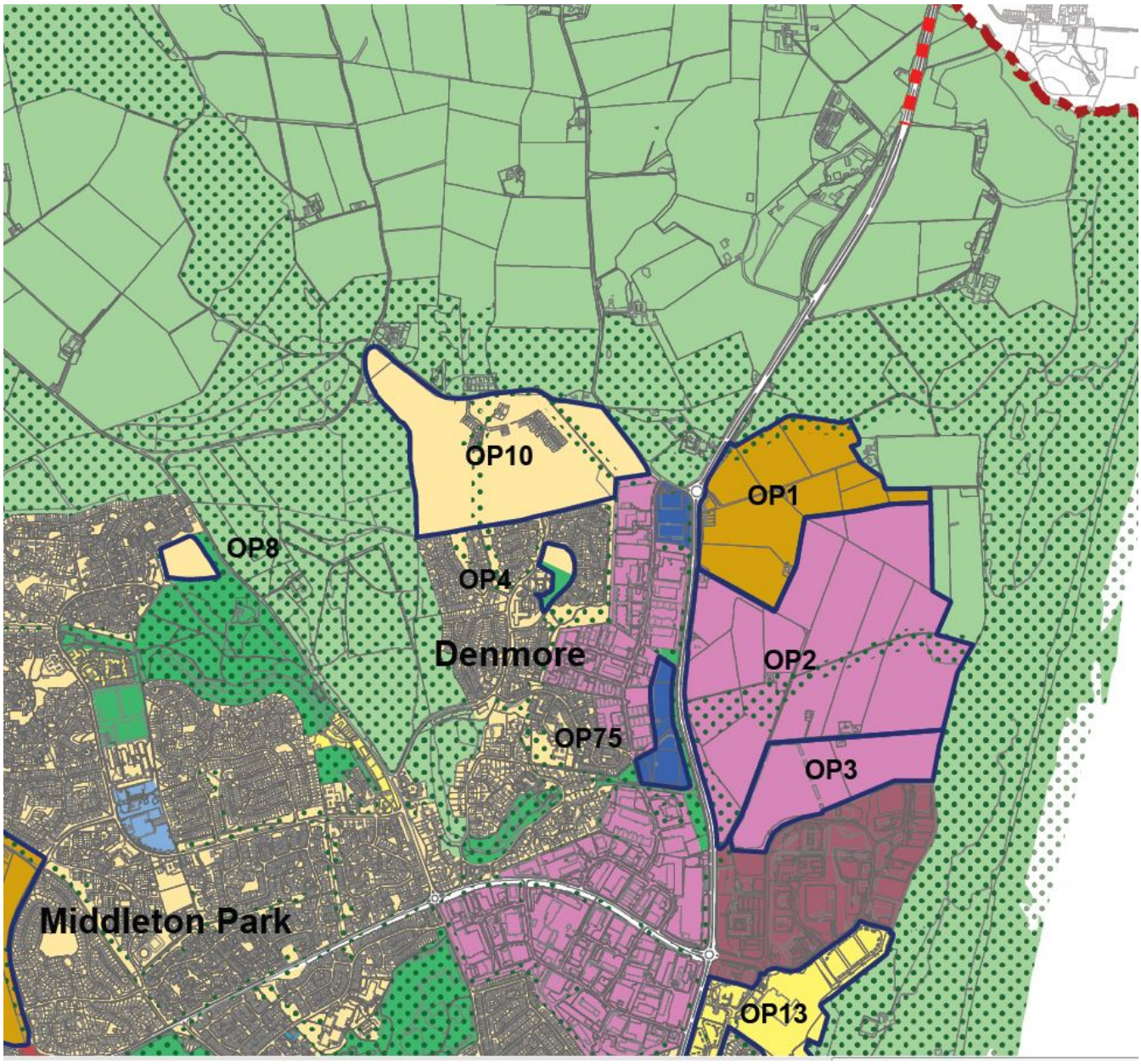


Figure 1.4 Extract from Aberdeen Local Development Plan

National Policy

The Development Framework will follow National Planning Framework 3 (NPF3) (2014). The Vision set out in NPF3 is for a Scotland which is:

- a successful, sustainable place.
- a low carbon place
- a natural, resilient place
- a connected place

National planning policies of relevance to this site, and to be followed in the design proposals for the site, are set out in Scottish Planning Policy. Best practice is set out in Planning Advice Notes.

Aberdeen City and Shire Strategic Development Plan

The Vision set within the Aberdeen City and Shire Strategic Development Plan is for Aberdeen City and Shire to be "an even more attractive, prosperous and sustainable European city region and an excellent place to live, visit and do business." It will be recognised for:

» enterprise and inventiveness;

» the unique quality of environment; and,

» high quality of life.

The Plan aims to increase the population of the city, specifically promoting the constrction of 21,000 homes on Greenfield homes in Aberdeen CIty up to 2035. The development of the Dubford site will help in achieving this taregt.

For sites in the Strategic Growth Areas which are more than one hectare, the SDP requires development to generally have no less than 30 dwellings per hectare. Development proposals for Dubford will comply with this policy.

Aberdeen Local Development Plan (ALDP)

The ALDP supports the aims and objectives of the Strategic Development Plan. Its objective is to set out a spatial framework to meet city development needs over the next 10-20 years and promoting sustainable growth of the city over this period. The Plan refers to Scottish Government Planning Policies and specifically Designing Places and Designing Streets.

The ALDP identifies desired directions for growth throughout the city and identifies a number of Masterplan Zones. Policy H4 - Housing Mix requires a Masterplan to be prepared for developments larger than 50 dwellings. Masterplanning of large sites such as Dubford will be required to ensure that individual development in specific areas are co-ordinated and holistically address infrastructure requirements.

Energetica Supplementary Guidance

Energetica has three principle aims:

- create a new generation energy community stretching north from Aberdeen's Bridge of Don area to Peterhead and west to the airport.
- create a renowned, world-class destination that will attract innovative energy businesses and highly skilled people
- feature high quality housing and leisure facilities in an outstanding natural environment based on low carbon principles

Its Supplementary Guidance sets out 6 criteria on issues such as sustainable development; low energy use through design and innovation; place making and high quality landscaping.

Response to Policy Context

The Development Framework sets out a masterplan for over 600 houses and a commercial centre to provide local services and opportunities for local employment and businesses to be created. Section 03 shows how this is to be achieved through the adoption of best practice in Urban Design and place making with reference to Scottish Government policy, including "Desigining Streets". The proposed development will also contribute to the aim and objectives set out in NPF3 and the Aberdeen City and Shire Strategic Development Plan.

The proposals indicate a development of more than 550 residential units set out in the ALDP but are to be fully in compliance with its policies, particularly net development density and provision of open space requirements and best practice in Urban Design. Additional infrastructure and developer requirements will be necessary if future development phases go above the ALDP allocated units.

As set out above the proposals contained in the Development Framework meets the 6 criteria of Energetica SG.

The Development framework for Dubford aims to set out the vision for the site to create a high density, mixed-use, and mixed tenure sustainable urban community. The development will recognise the existing context of development patterns and integrate with existing infrastructure and open space networks. The development will seek to create a sense of place leaning on the traditional local vernacular of the North East of Scotland to inform the urban space and streetscapes created.

It will aim to produce a layout that takes best advantage of passive solar gain through appropriate orientation of houses. The buildings will be well insulated in accordance with current building regulations, incorporating renewable energy provisions where appropriate.

development process

This Framework provides an outline of the considerations required in the development of the site. Prior to the formal submission of detailed planning application for any part of the site, further consultations will be required between the applicant, stakeholders, the local community and Aberdeen City Council. A Proposal of Application Notice and EIA screening opinion for the site have been submitted to ACC. The screening opinion has confirmed that the following reports will require to form part of any formal planning application.

1 Planning Statement
2 Pre -application Consultation Report as
3 Design and Access Statement
4 Landscape and Visual Impact Assessment
5 Ecological Impact Assessment
6 Archaeological / Cultural Impact Assessment
7 Flood Risk Assessment
8 Drainage Impact Assessment
9 Water Infrastructure Assessment
10 Access / Transportation Assessment
11 Air Quality Impact Assessment
12 Sustainability Impact Assessment
13 Noise Impact assessment
14 Contamination Site Investigation and Risk Assessment
15 Education Impact Assessment
16 Retail Impact Assessment

It is envisaged that an application for planning permission in principle will be submitted for the entire area, subject to the agreement of Landowners covered by the development framework. This would establish the principles for the detailed development of the site, which could then be implemented through the submission of applications for detailed planning permission and reserved matters.
A detailed Planning application for phase 1, 2 and 3 will be submitted by Scotia Homes at the same time as the Planning in Principle Application. A processing agreement will be entered into between the Applicant and Aberdeen City Council. An outline programme to accompany the processing agreement and setting out the timetable for delivery of the project is contained in Appendix 2.

community engagement

Community Engagement plays a critical part of the planning process. Consultation and engagement with the community and stakeholders ensures that a balanced approach to development is achieved, taking into account the views of all concerned.

Through the preparation of the Aberdeen Local Development Plan, various community and consultation events have taken place in determining preferred sites for the allocation of future development. The Dubford site has also been the specific subject to a number of consultation events carried out by Scotia Homes, dating back to June 2009. The pages that follow describe the full details of these events and the outcomes.

Prior to the formal submission of any planning application further public consultation events will require to be held. As required under current planning policy, a formal public event will be advertised and take place prior to the submission of a formal planning application. In support of a Planning Application a Consultation Report will be prepared and submitted, documenting the discussions that have taken place at public engagement events and how these have been addressed in the final proposals.

consultation

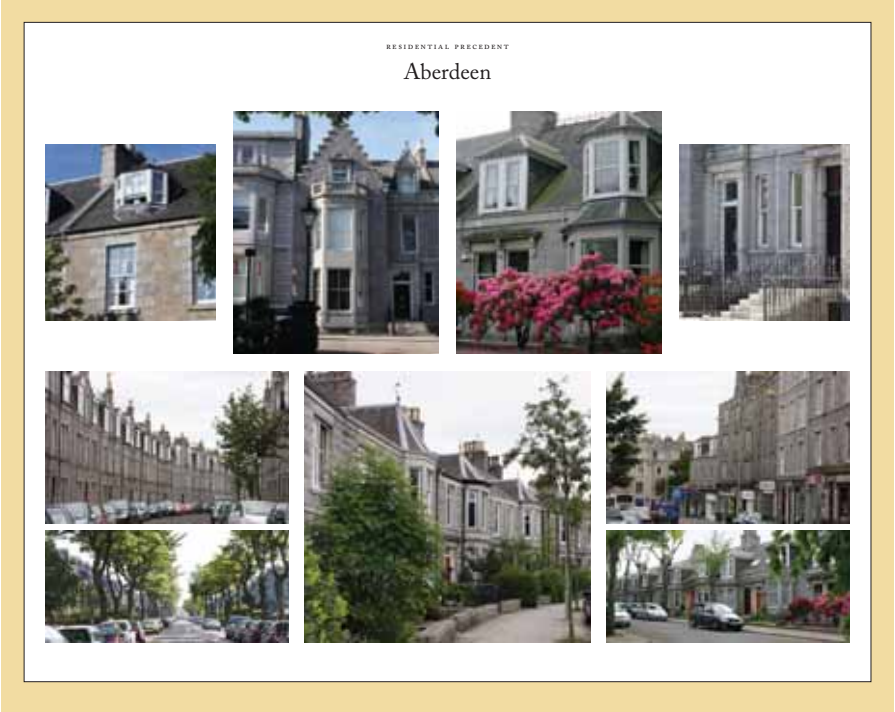
Figure 1.5 Bridge of Don residents discussed their community's present strengths and weaknesses, and offered visions for its future.

Figure 1.6 Participants provided their input on the immediate area.

Consultation on this project has taken place from June 2009. The chart to the right illustrates the various points of consultation. The pages that follow describe each event in greater detail.

The UDA team held initial meetings in June 2009 with members of the Community Council and Aberdeen City Council to collect data and discuss the key issues in preparation for a September workshop. Base maps and preliminary analyses of the physical conditions in the area were prepared along with diagrams (called UDA X-rays) of key attributes. Each diagram depicts one aspect of the city's built form: commercial uses including offi ces, retail shops and hotels; industrial uses; and residential uses. Isolating each use allows the design team to understand the challenges of each particular site, and also informs the design process. Precedent imagery was also compiled in order to guide the design.

The 2009 workshop began with focus group meetings and an evening community meeting. The design team developed a series of concepts and suggestions for the future development of the area and for the site in response to the issues raised. A public open house was held to informally review ideas in progress, and finally, a community meeting on the closing day briefed participants on plan recommendations and asked them to evaluate the ideas and concepts that developed through the week. Those comments were compiled and will be used to further develop the concepts through detailed planning.



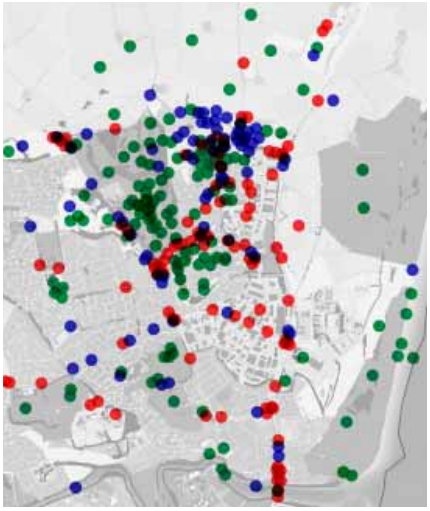
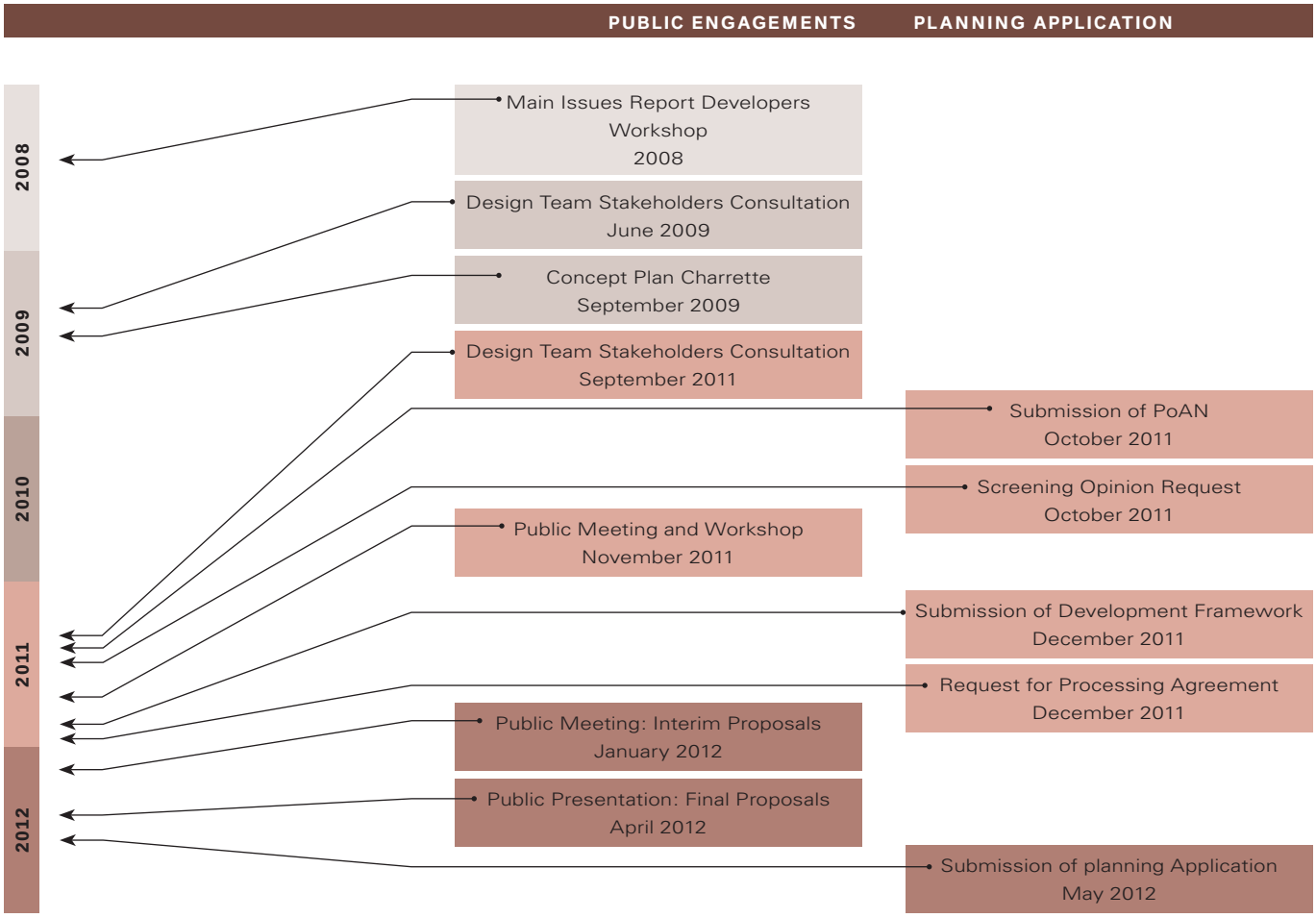


Figure 1.7 Residents provide input throughout the participatory public process.



EVENT: ALDP DEVELOPMENT OPTIONS – BRIDGE OF DON OPEN EVENING

Date: 02 June 2009

Attendees:

» 45 people attended including Community Council, Grampian Police, and Energetica representatives, and members of the public.

Points Raised – Summary of Response:

» General Bridge of Don comments
  › Roads are at capacity and traffic concerns.
  › Third Don should be in place before development.
  › Should avoid piecemeal development and developers should work together to deliver facilities at the same time.
  › Developer contributions could fund improvements to play facilities.
  › Education, school capacity and catchment area concerns.

» Dubford Site specific comments
  › The North of the area is the most sensible part of Aberdeen to expand to attract residents currently commuting to work in the North.
  › Major concerns regarding educational needs and school estate issues.
  › There has been a view that the new housing may not be approved which contradicts the information given in the Structure Plan.

EVENT: ALDP: CONCEPT PLAN CHARRETTE (SEE PAGE THAT FOLLOWS)

Duration: September 2009

EVENT: ALDP: MAIN ISSUES REPORT CONSULTATION

Duration: 16 October – 11 December 2009

Points Raised – Summary of Response:

» Bridge of Don CC highlighted some concerns about these proposals but agreed that they are worthy of consideration. Two individuals supported site 2/01. Tor Eccose supports site 2/05 as did two individuals while one opposes it. Tarmac Building Products support site 2/19 as do two individuals. SEPA raised some issues which need to be addressed.

» Supporting Comments: The site would be masterplanned to create a new mixed use / mixed tenure, marketable neighbourhood. The site would contribute to the Energetica initiative, and deliver required housing, community and employment uses. The site has no contamination issues and is not dependent on new major infrastructure. Interests of existing residents in the vicinity should be taken into consideration.

» Objections: Improved infrastructure and bus services would be needed before development can take place. There are drainage issues on this site. Bridge of Don Academy has capacity but are the buildings suitable?

Outcomes:

» The development framework continued to be evaluated to ensure that it meets all 6 of the Energetica criteria.

EVENT: ALDP: PROPOSED PLAN CONSULTATION

Duration: 24 September – 17 December 2010

Points Raised – Summary of Response: 7 representations

» Summary of representations: 4 expressed wish for no houses to be built in this area, infrastructure not in place to support the development and there needs to be more balanced community and building more houses will not achieve this. One objected to the allocation of this site unless the issue of flood risk is highlighted as potential constraint. Two representations of support were received.

Modifications sought by those representing:

» A flood risk assessment will be required to accompany any future development proposals for this site.

» Any masterplan should take account of the existing water features within the site, the pressures which apply to these features and should direct developers to look for opportunities to protect and improve the water environment.

» OP25 should be designated as Green Space Network or Green Belt.

» No approval for development until the infrastructure/facilities are in place to accommodate development.

Summary of response by planning authority:

» The Structure Plan sets new housing allowances and a review of the green belt boundaries. The site emerged as desirable as the site is well related to the existing settlement area and can be accommodated in terms or landscape and transport. Scottish Government are committed to building the AWPR and 3rd Don Crossing. Transport infrastructure requirements are detailed in the Action Programme and the Developer Contributions Manual, and used in the delivery of development sites. It will be incumbent on the developer to mitigate any net detriment impact on the transport network.

» Requirement for a flood risk assessment is accepted. The inclusion regarding existing water features is accepted, and related to the Action Programme.

Outcomes:

» A flood risk assessment will be done as part of the detailed planning application process.

EVENT: ALDP: CONCEPT PLAN CHARRETTE

Date: September 2009

During this workshop people were asked to provide their input regarding existing conditions. Using neighbourhood maps, they placed three green dots on the best places, three red dots on the worst areas, and three blue dots on the places most in need of improvement. Their responses along with physical analysis formed the basis for the original master plan concept

A summary of the input is listed below:

What do you like best and where are the best places?

» Open Space

» Community Environment

» Existing Amenities

» Views

What do you like least and where are the worst places?

» Neighbourhood roads used as alternate routes or rat runs; compounded by truck traffic s

» Bottlenecks at bridge and other junctions: such as Scots-town and B997

» Poor bus service (not enough routes and expensive)

» Lack of community centre, parks, local shops

» Proximity of industrial uses to housing

» Bridge of Don is too dense

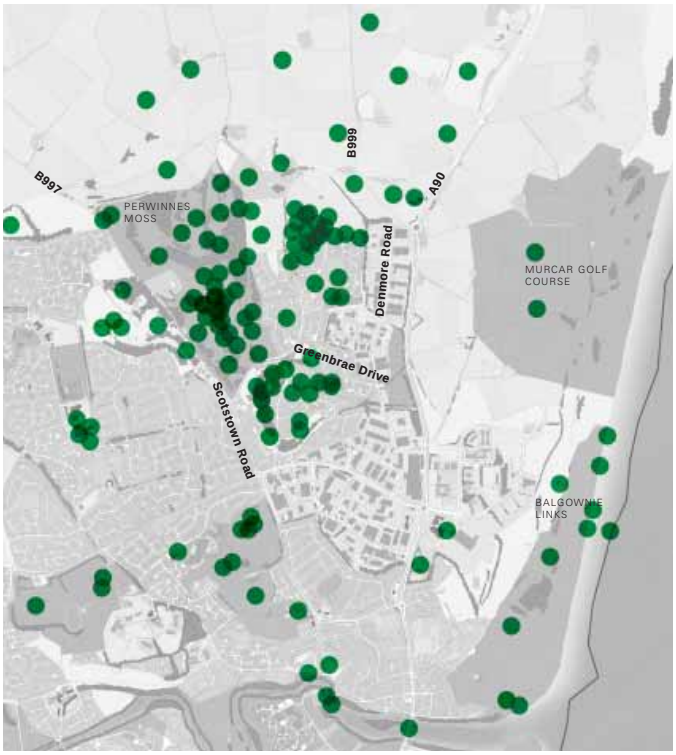


Figure 1.9 Participants at the public meeting placed green dots on their favourite places.

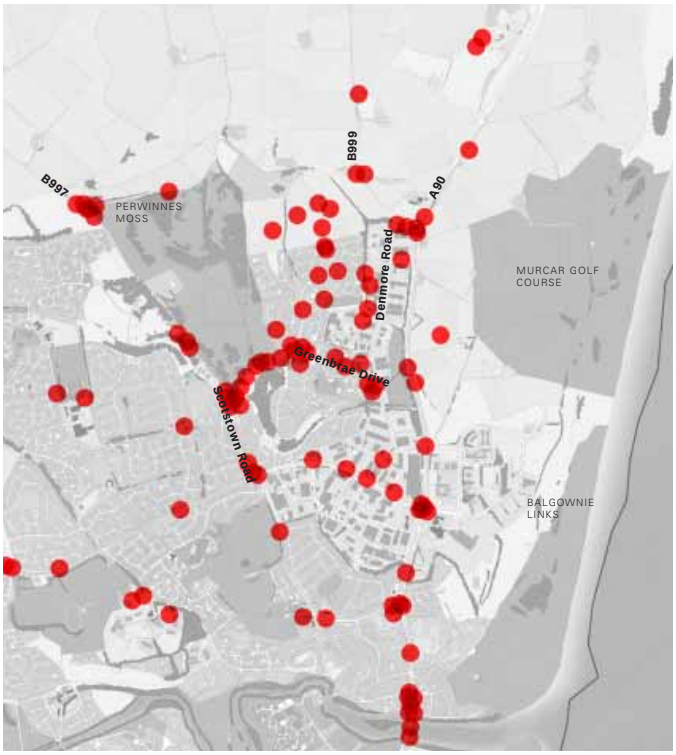


Figure 1.8 Participants at the public meeting placed red dots to signify problem areas.

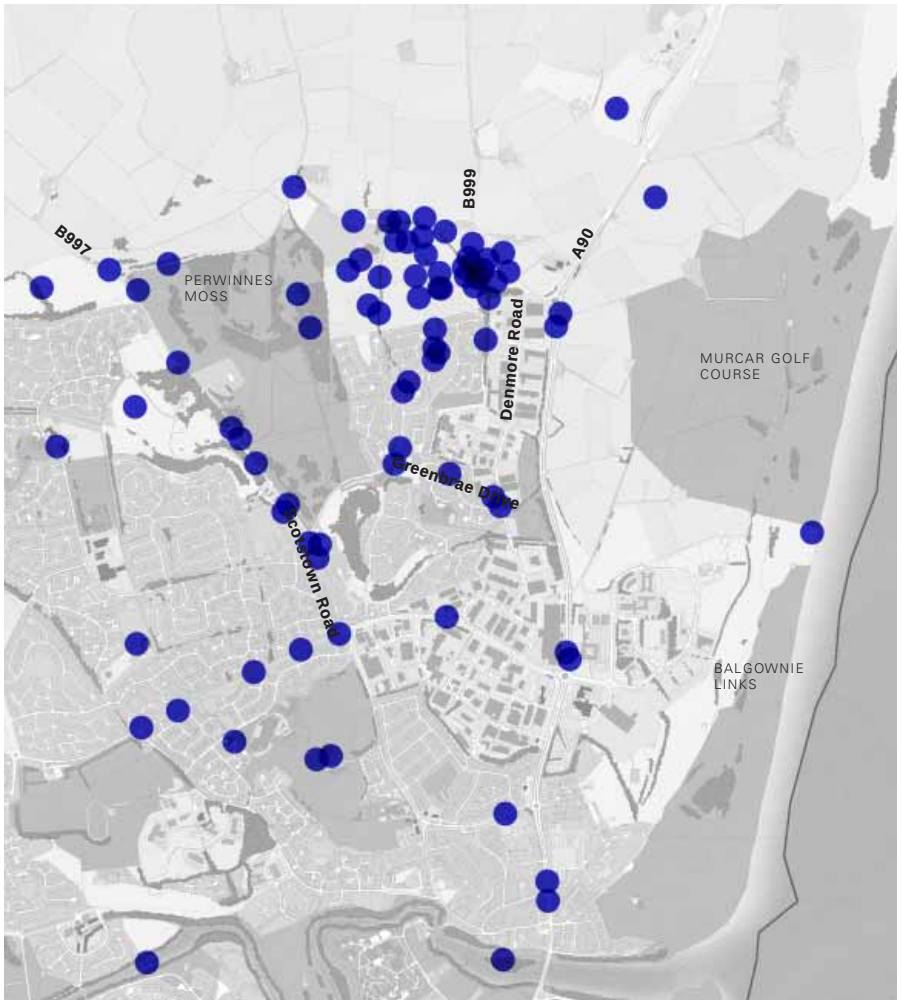


Figure 1.10 Participants at the public meeting placed blue dots to signify opportunities and visions.

Figure 1.11 Example of a nicely landscaped neighborhood street

Figure 1.12 Residents noted a desire for more local shops

What is your vision for the future and where is improvement needed?

Traffic

- » Stop the rat runs
- » Improve bus timetable and routes
- » Allow Dubford Road connection for buses only
- » Build a new park and ride further north of the Murcar roundabout
- » Build a third Don crossing
- » Improve the current bridge
- » Western Peripheral Road is a must
- » Traffic calming along Dubford Road, and at other busy junctions
- » Add cycle and pedestrian routes to employment and leisure areas
- » More local shops: small market, grocery, pharmacy, post office, cafe, deli
- » Provide good mix of housing types
- » Encourage developers to work together on a combined planning approach
- » Improved open space: a square, community centre, larger children's play areas
- » More parking for public parks and nature preserves
- » Improved pedestrian access between Dubford neighbourhood and the Perwinnes Moss
- » Reasonable green buffer against existing Dubford neighbourhood

consultation

Throughout the visioning workshop, the design team solicited input from the community during daily focus group meetings, open houses, and public sessions. Information gathered and discussed in these meetings guided the development of design principles and the evolution of program elements. As the design team created initial concepts, public feedback continued to influence the direction of the design.

At the conclusion of the workshop, the design team presented to the community the concept plan. The various addresses within the plan were presented and described in detail. Illustrations showing the relationship of the proposed development to adjacent homes were displayed and discussed, as well as images of architectural character and proposed building types. Those who attended the meeting gathered in small groups at tables with copies of the concept plan and were asked a series of questions about the design:

- What do you like about the plan?
- What do you dislike about the plan?
- What are the most important priorities for action?

In addition to completing written lists answering these questions, participants used green, red and blue dots to indicate their answers visually. The following pages summarise the input gathered from those participants.

What do you like best?

Transit Recommendations:

» A new Park and Ride Facility at the Murcar Junction

» Mixed-use, transit-oriented development

» Emphasis on public transport and improving buses

Framework of Public Open Space:

» Extending a continuous open space system into and through all future development areas

» Path system connecting to the beach, Dyce, and surrounding natural areas

» Preservation of natural features, protected tree areas, the Moss, stone dykes, and the streambeds

» Water features including drainage ways, marsh, and streambeds

» Large open space with views

» Wildlife corridor maintained

» Village green and play areas

» Views from existing houses have been protected, especially the level change

Framework of Streets and Lanes:

» Link to existing Dubford

» Lanes for residential parking access

Houses and Buildings:

» Studio and gallery space at The Steading

» Shops, café, and conveniences

» Community hall

» Architectural character and image of the houses and buildings

» Cottages for the elderly

» Overall plan form and layout

Figure 1.13 Community members appreciated the mixed use centre with renovated steading for small shops, as well as the retention of significant open space both within and along the edge of development.

What do you dislike about the design?

Site Plan:

» Too densely populated

» One area looks a little congested while the hillside seems isolated

» Bike crossings are lacking across the A90

Public Open Space:

» Buffer is too small

Roads, Streets, and Lanes:

» Lack of improvements to Sheilhill Road

» Access along B997-B999 not viable without major improvements: too many intersections

» Too many junctions onto B997

» Scotstown Road is dangerous

» Bus connection would be ok when development complete

Amenities:

» Concern that shops are not viable and will be vacant

» Shops can attract loiterers

» Steadings concept may not be commercially viable

» Lack of school

» Do not want industry within the development

Houses and Buildings:

» Architectural character not local: red roofs are more from Fife

» Bungalows should not be age restricted

Figure 1.14 (Above) Vehicular connection to Dubford Road was viewed with concern.
Figure 1.15 (Below) Some participants were concerned that shops built without first securing tenants remain vacant and become blight.

Most important places to start:

Transit Recommendations:

» Improvements to reduce congestion as development proceeds

» New Park and Ride at Murcar, and mixed-use transit-oriented development

» Improved Bus Service

» Third Crossing and Western Peripheral Route

Public Open Space:

» Continuous, permanent, fingers of green to guide future development, with pathways, stream beds, green ways, and wildlife corridors

» Wider buffer zone between existing housing and the site

» Enough room for drainage

» More space for allotments

» Link green area between the shops to the south

Roads, Streets, and Lanes:

» Improve local junctions: B999 and B997, Dyce Road, Scotstown Road

» Consider also: noise screening, tree lighting, zebra crossings

» Increase parking for the shops

» Provide bicycle parking

Amenities

» School, community centre and hall

» Doctors, dentists, nursery, etc.

» Build a pub and a shop

Buildings and Houses

» Follow local architectural tradition: replace red tile with slate

» Bigger house types with larger rooms and wider gardens

Figure 1.16 (Above) A green corridor along the existing houses preserves views and wildlife patterns.
Figure 1.17 (Below) Small shops require parking in proximity.

EVENT: ALDP: MODELLING WORKSHOP

Duration: 14-17 November 2011

Meetings held:

- Focus groups conducted with Energetica, First Bus, and various Aberdeen City departments including Environmental and Roads
- Open House on November 15th
- Various meetings with the Community Council

Points Raised – Summary of Response:

- Residents continue to be concerned about traffic congestion in the Bridge of Don and feel that there have minimal improvements that could justify additional development
- Concern that schools have limited capacity and cannot handle additional students. Request that the city undergo a study to better understand capacity.
- Meetings with Environmental revealed a desire to enhance the greenway along the existing path through the site

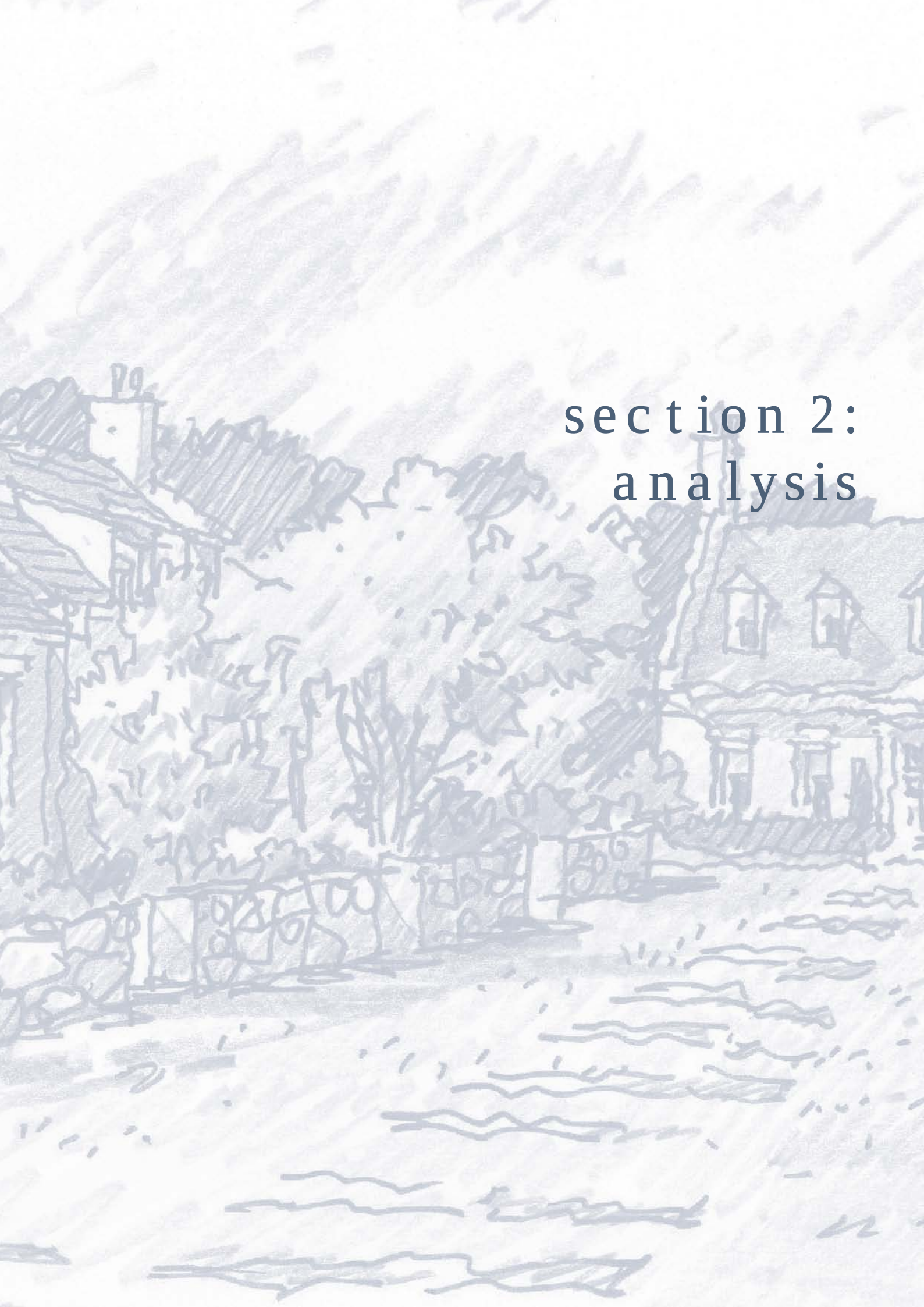
Modifications sought by those representing:

- Request that the connection to Dubford Road only allow buses in order to prevent cut through traffic in the neighbourhood

Outcomes:

- A flood risk assessment will be completed to ensure minimal impact on the land and watercourses
- It was agreed that the connection to Dubford Road will only permit access for buses and pedestrian only. Scotia will look into methods to ensure that access will be limited to any other vehicles.
- Sight lines along Sheilhill Road were studied and two preferred access points were selected
- Studies by traffic engineers determined a vehicular entrance at the existing Steading is not recommended
- Design team met with First Bus in order to discuss improved access and service through this area and the desired route

Figure 1.18 Photos from the November consultation and modelling workshop



section 2: analysis

Figure 2.1 Existing lawn pathway

Figure 2.2 Views to the sea from the site

Figure 2.3 The existing farm buildings on site

The design team studied city-wide land use patterns in order to better understand the site at Dubford. These diagrams (open space, transport and development patterns) each revealed certain issues which have a direct impact on planning the site.

Open Space

A remarkable system of open space around Aberdeen includes the Don River valley, a series of protected woodlands and mosses with a diverse range of species and a variety of habitats, the beach, golf courses, community and neighbourhood parks, and paths. Recently, the City of Aberdeen has completed its Open Space Audit and has ranked the Perwinnes Moss high in the Openspace Quality Scores. This unique habitat should be protected and continued into the Dubford site through the use of designated greenways promoting a variety of habitats and ecological systems.

This open space system is almost but not quite continuous. Many streambeds have been interrupted or culverted in developed areas. For example, the burn which runs east-west across the site was originally open all the way to the Sea and provided water power to the mill at Mundurno. Stone walls and dykes lining greenways have fallen into disrepair while passive open space has been considerably reduced in size over recent years due to road construction and development. In a recent city-wide study, this area was considered to be lacking in viable open space that could be used by residents for passive or active recreation. The pastoral heritage of the area, characterised by rolling fields and scattered farms, remains only partially intact. It has been replaced in numerous places by industrial uses that have crept into the area.

The City has also envisioned a system of paths that connect through the City and to the sea. The Core Paths diagram, illustrated below, locates a number of connecting paths in green. Opportunities exist for a future link from the site (shown in red), to the Core Paths system (green).

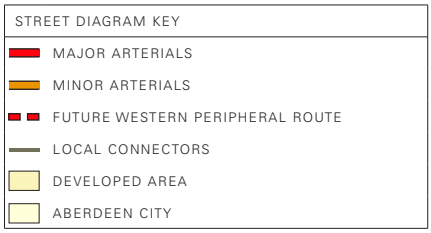
Figure 2.4 Core paths are shown in a solid line, while a dotted line indicates an aspirational paths across the A90 to the sea. The Transport Assessment (TA) will include a detailed accessibility appraisal that highlights all pedestrian and cycle access locations. Additionally, the TA will include connections to planned facilities to the southeast of the site as proposed by the Greenbrae Cycle Project.

Transport

The configuration of roads in the Bridge of Don is insufficient to handle current traffic volumes. The transport network is constrained by the form of crossings over the River Don, both of which are accessed by single routes from the North. Therefore, all North/South trips must pass through these two points, causing major congestion. By contrast, there are four crossings over the River Dee and each of those has multiple access points.

Additionally, there is only one East-West route in the Bridge of Don area, the A90 Parkway, which is understood to currently operate close to its capacity.

Figure 2.5 Primary Street Network of Aberdeen City



Two major projects have been debated for some time and appear to be close to resolution:

» Aberdeen Western Peripheral Route: Designed to divert heavy goods vehicles as well as strategic North-South traffic away from the A90.

» Third Don Crossing: Located halfway between the two existing crossings, the addition of this bridge, would result in a reduction of traffic in the Bridge of Don area.

There have also been discussions about improving the efficiency of public transportation serving through-town traffic.

Figure 2.6 Proposed traffic alleviation alternatives

Figure 2.7 X-ray illustrating building coverage in the city of Aberdeen

Development Patterns

Development patterns in the Bridge of Don are single-use and car-dependent. The segregated pattern makes it nearly impossible to avoid travelling by car. Compared to Aberdeen's older neighbourhoods, which offer a mix of commercial services and employment centres within walking distance, later additions to the City, like the Bridge of Don, force residents to use their cars to get to necessary services.

The diagrams to the right illustrate the existing land use patterns at the city-wide scale. The Aberdeen City and Shire Strategic Development Plan requires the Council to review the boundaries of the greenbelt as part of the process of preparing the proposed Aberdeen Local Development Plan process.

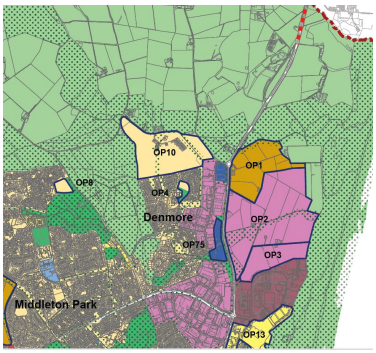


Figure 2.9 ALDP Proposals Map extract for Bridge of Don

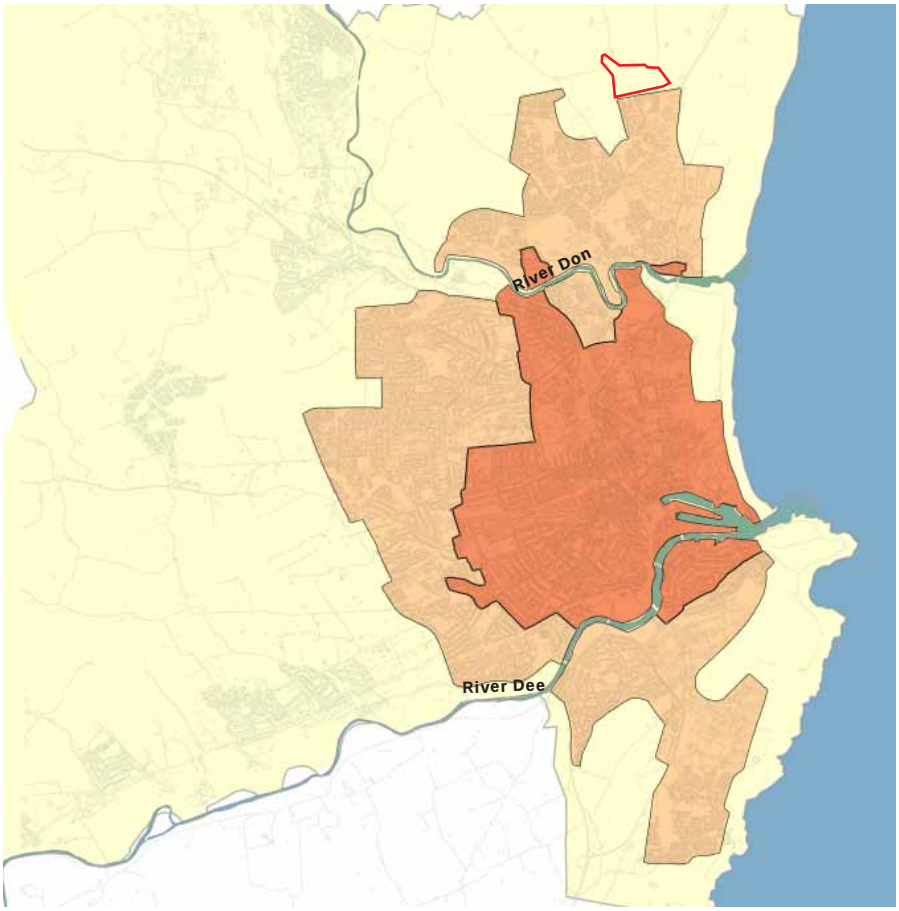


Figure 2.8 Historic Growth Patterns of Aberdeen's core population

HISTORIC EVOLUTION KEY
PRE-WAR DEVELOPMENT
POST-WAR DEVELOPMENT
ABERDEEN CITY

Figure 2.10 Existing residential development takes the form of contiguous neighbourhoods in the core, between the rivers, but dissolves to disassociated clumps beyond.

Figure 2.11 A major commercial district thrives in the City Centre. Though most neighbourhoods have very small neighbourhood centres, the River Don is lined with large, discontinuous commercial areas.

Figure 2.12 Existing industrial uses in Aberdeen City typically occupy land along the waterfront, as does the large industrial park which separates most of the Bridge of Don community from the beach.

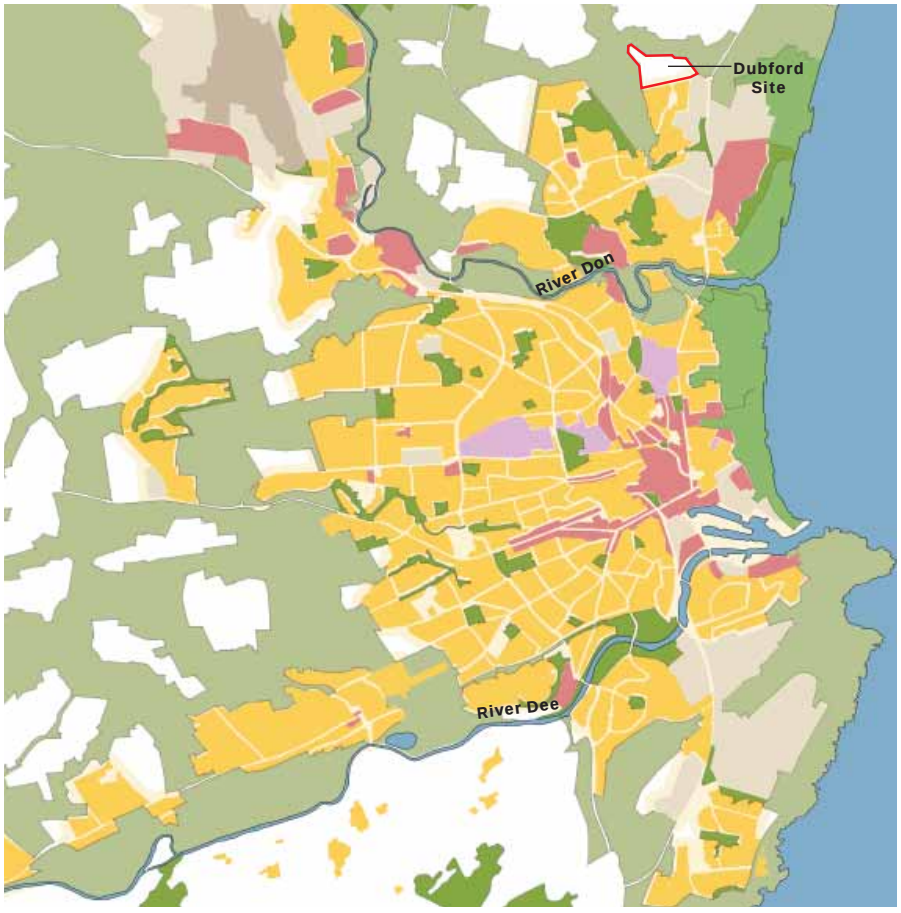


Figure 2.13 The existing Development Patterns of Aberdeen City illustrate the consistent dispersion of uses in the centre and more random patterns beyond the Rivers Don and Dee.

EXISTING LAND USE KEY

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- INSTITUTIONAL
- PUBLIC PARK
- GOLF COURSE
- OPEN SPACE

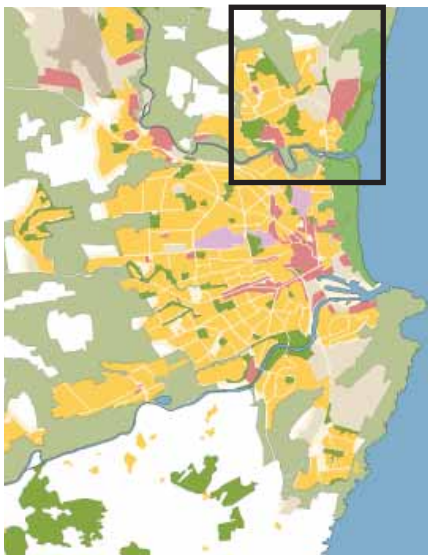


Figure 2.14 Existing Development Patterns of Aberdeen City, locating the Bridge of Don (inset)

Development Patterns

After exploring relevant city-wide patterns, the team looked in further detail at the issues facing the Bridge of Don neighbourhood. The diagrams reveal a segregated land use pattern in which large areas contain only one land use. These patterns help explain some of the frustrations felt by residents and public officials, such as the lack of services within walking distance, the disconnected and incomplete open space system, the isolation of neighbourhoods, the intrusion on neighbourhoods from the noise of the industrial area, and the way in which the industrial area blocks access between the community and the beach.

Figure 2.15 Portrait of Existing Conditions

Figure 2.16 Office, service, and retail uses are provided in varying quantities and forms. Offices are isolated into "campuses". Neighbourhood commercial uses are dispersed, yet not easily accessible from most residential fabric.

Figure 2.17 A dense industrial zone separates residential neighbourhoods from the beach and park spaces to the east.

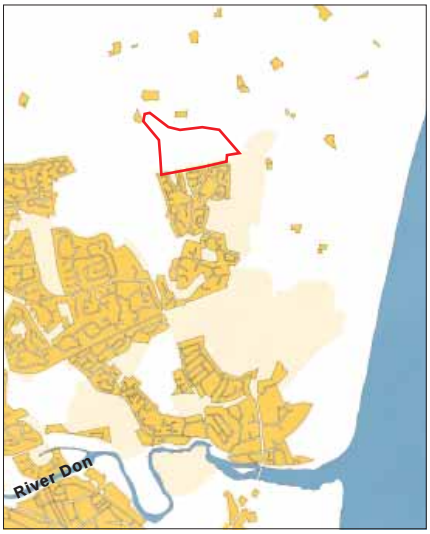


Figure 2.18 Residential blocks, while somewhat continuous close to the river, tend to break apart to the north. This reflects the pattern of pockets of singular land use. The result is significant gaps in the neighbourhood fabric.

Figure 2.19 The Composite Land Use X-Ray highlights the distinct separation of land uses within the Bridge of Don area.

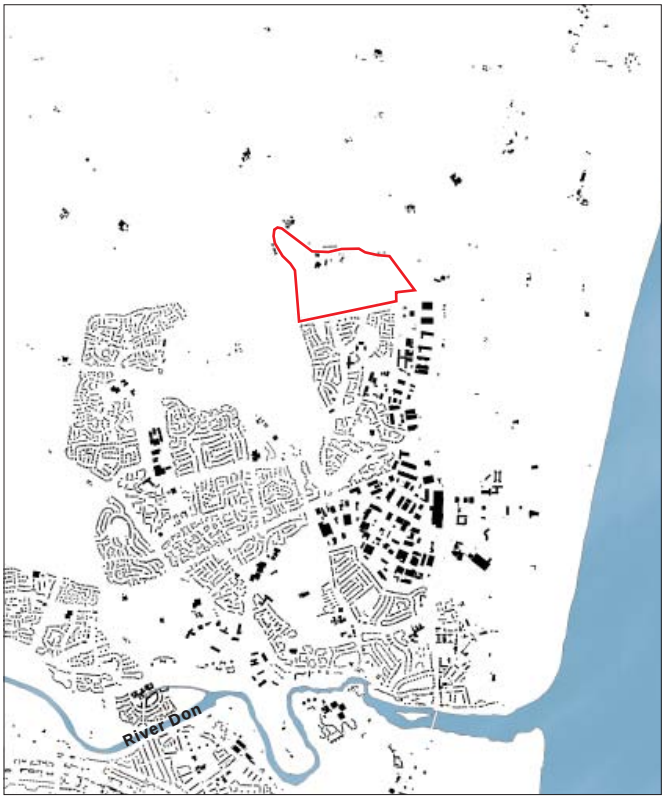


Figure 2.20 The Building Pattern X-ray illustrates all buildings in black. Concentrated clusters of large buildings indicate the commercial and industrial areas, in contrast to the smaller scale buildings in residential areas. The immediate adjacency of these incompatible uses and building scale speaks to the complaints of residents about being too close to too much industry.

Figure 2.21 Potential Park and Ride sites

Transport

Due to the form of the existing road network, both North-South and East-West movements currently have few options, and the majority of local junctions and connecting roads experience congestion in the peak hours of network operation.

To make matters worse, the local road system is also poorly con-nected, providing few options for residents. Local roads serve single developments and tend to take the form of cul-de-sacs with a single entry from the adjacent road network. This confi guration gives resi-dents no choice but to use the main roads even for short distance trips. Local traffi c therefore mixes with through-traffi c, further adding to the congestion resulting in it being diffi cult to travel to and from the local area in the morning and evening peak hours of network operation.

There is also a serious concern that this pattern encourages increasing numbers of drivers to use local streets as “rat-runs”. Therefore, at the local scale, the following issues should be addressed:

- Limited Bus Service
- Operation of the Local Road Network in terms of safety: It is understood that the B997 / Scotstown Road and Denmore Road / Greenbrae junctions experience issues in terms of safety.
- Limited Connections to the East and West
- Limited Vehicle Accesses to Neighbourhoods: There is only one way in and out of neighbourhoods, does not result in an efficient road network.

An integral part of this study will be to propose a series of incremental transport solutions that can be used in combination, in order to manage the impact of the proposed development as the phased development is implemented.

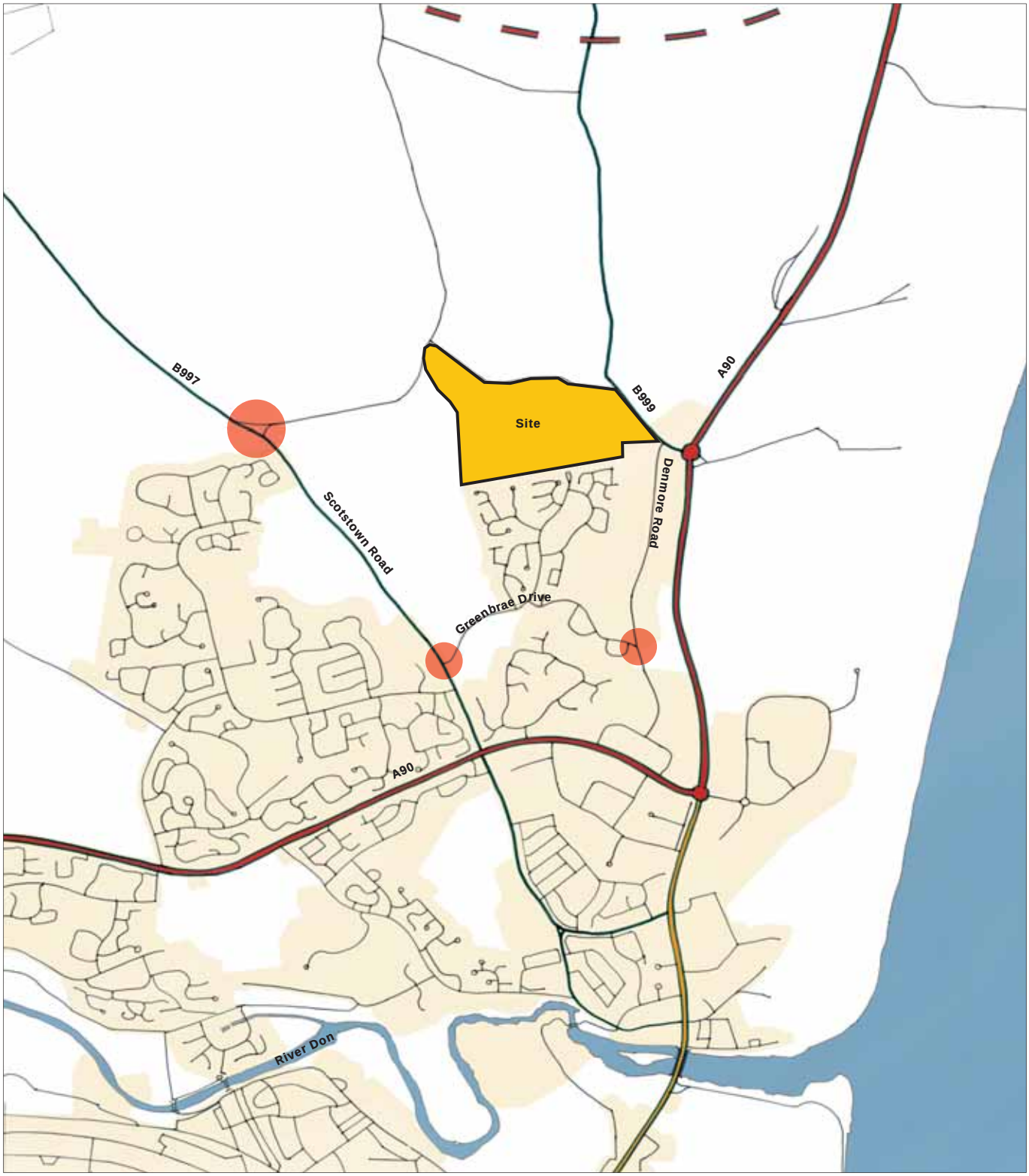


Figure 2.22 Analysis of streets and arterial connections within the Bridge of Don

Figure 2.23 Existing stone walls on site

Figure 2.24 Existing steading and protected woodlands

Open Space and Environment

One of the most celebrated features of the Bridge of Don neighbourhoods is its connection to open space and views of the gorgeous Scottish landscape. It is possible to maintain these characteristics when considering development by "reading the land". This includes understanding the way in which the site relates to the Core Path system, wild life corridors, Scotstown Moor/Perwinnes Moss, existing streambeds and dykes, and its topography. In particular, Perwinnes Moss has several statutory designations which further reinforce the need to protect this asset from the impacts of future development. The diagrams to the right isolate site elements in order inform the site layout.

Figure 2.44 Slope Analysis Diagram

The slopes diagram categorizes three conditions: 0–5% slopes in white (ideal land for development), 5%–10% slopes in yellow (terrain that can be built on but is more difficult and forces the buildings to solve the change in topography), and 10% and greater slopes in orange (slopes to be preserved as part of the open space system, so as not to create additional erosion problems or to hinder existing drainage patterns.) A quick inventory of these slopes informs us that a significant portion of the site is too steep to develop and should ideally be kept as open space.

Figure 2.25 Natural Features and Open Space. The existing open space pattern is rendered with several shades of green to differentiate between the nature preserves and moss, the existing patchwork of rolling fields, public parks and residual or leftover open space. Institutions and civic spaces appear in purple on the diagram and are often adjacent to open spaces. The sea defines the eastern edge of the city.

Figure 2.45 Significant Structures, Protected Woodlands, and Waterways

The existing stone walls, dykes, and the steading (A), are elements that reflect the pastoral heritage of the area, and when restored, will provide a rich amenity for the community. An overgrown pathway that begins at the steading extends into the neighbourhood to the south, and could provide for north- south pedestrian linkages. The burns on site (indicated in blue) have been partially culverted, but could be restored, and a significant marsh area at the lowest elevation is ideally situated as an extension of the wildlife corridor.

Figure 2.46 View Diagram

Many important views should be preserved or captured, when framing the development framework. These views include: the view from Perwinness Moss (A), from the greens in the existing Dubford neighbourhood (B, C), and from the steading (D).

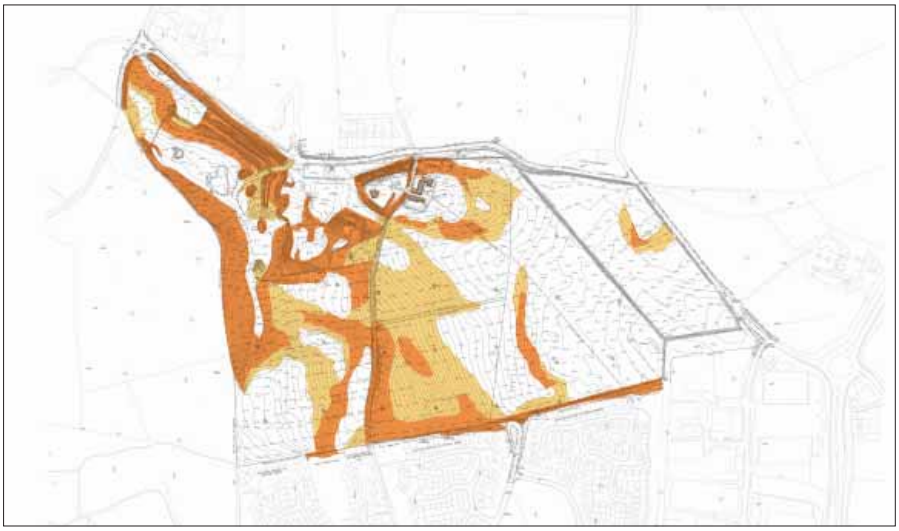


Figure 2.26 Slope analysis diagram

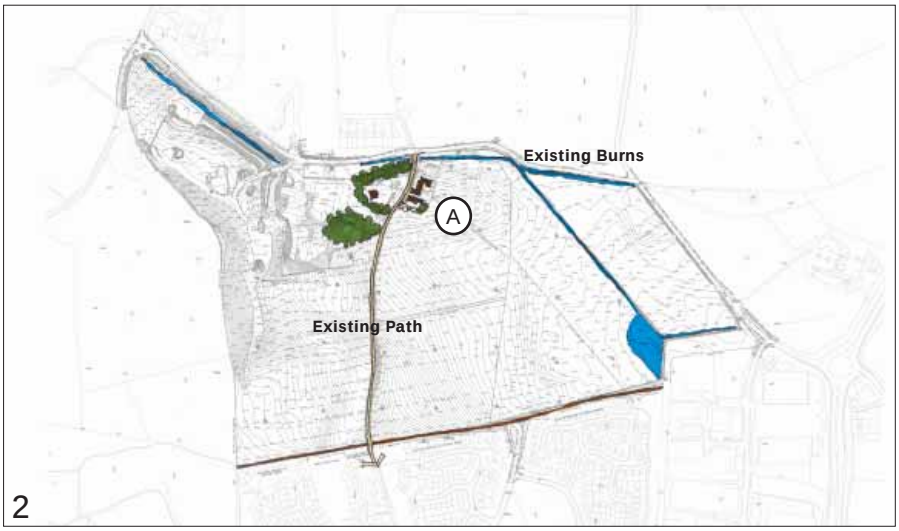


Figure 2.27 Structures, woodlands, and waterways diagram

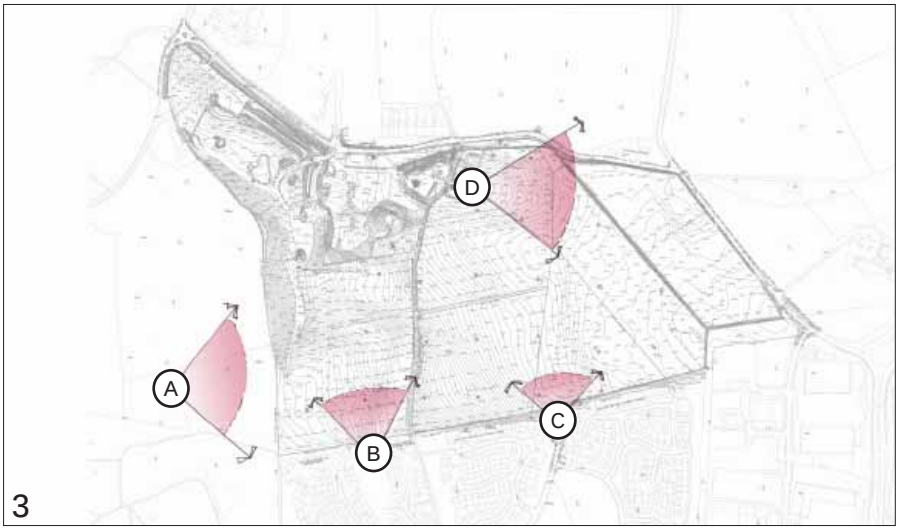


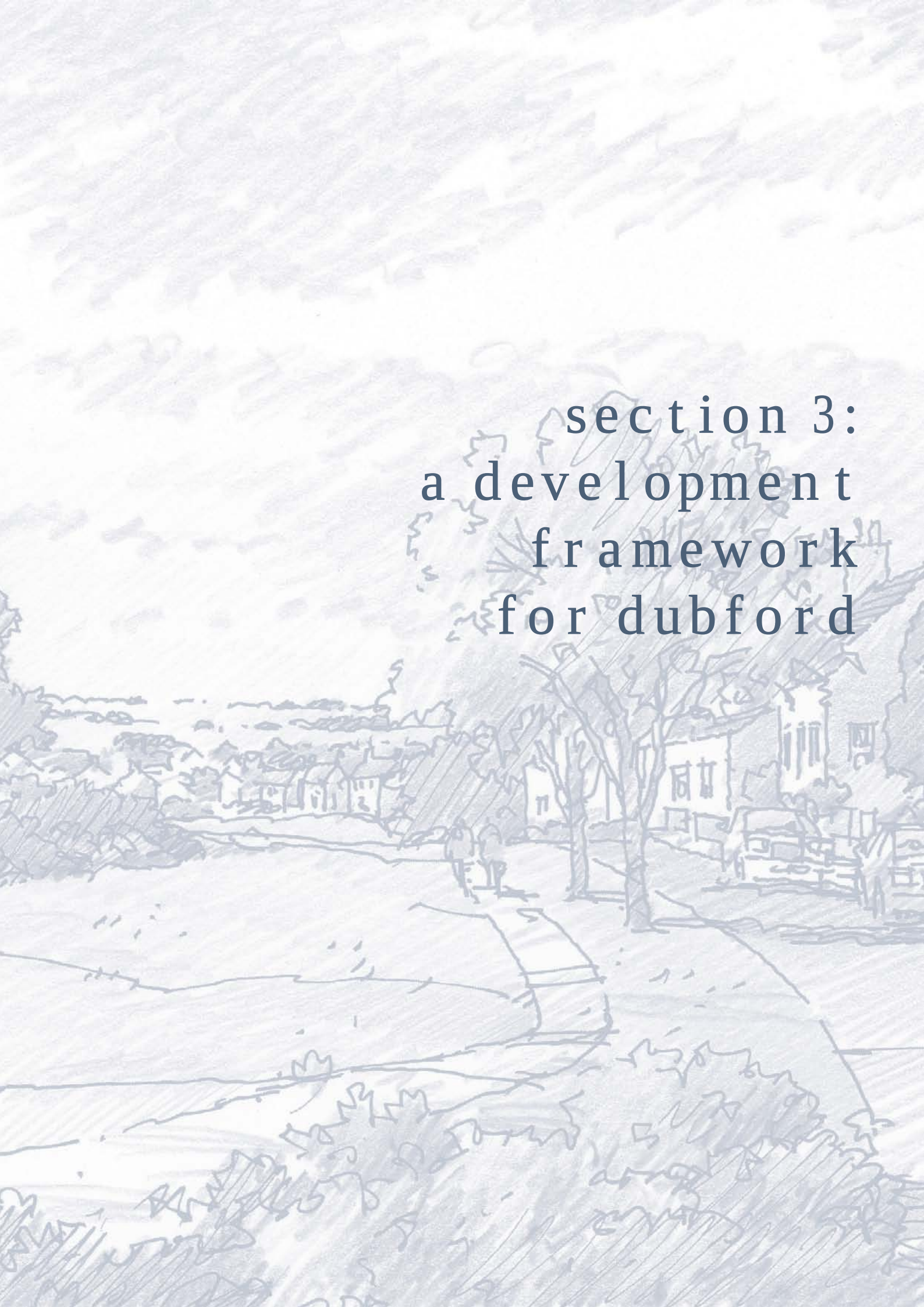
Figure 2.28 View corridor diagram

principles for planning

The physical analysis along with feedback from the various stakeholder groups led the team to define a series of design principles. These principles become the criteria upon which to test future planning concepts.

PLANNING ISSUE	PRINCIPLE
» Regional Open Space Network	Create a continuous, permanent framework of public open space and natural features to control development and provide amenities.
» Natural Features	Enhance and preserve existing natural features to provide buffers, parks, play areas, cycle routes, and a village green.
» Transportation	Provide a menu of improvements to increase capacity of the transportation system in pace with development.
» Housing	Build a community with a full range of dwelling types.
» Mixed-Use	Provide appropriate shopping, services, and employment uses with each phase of development.

ACTION ITEMS	
» Identify streams, burns, woodlands, mosses, existing open space, and paths » Extend existing open space across future development areas » Connect to Core Path system and to other amenities in the area	» Create view corridors and buffers for existing development » Restore dykes, walls, stream beds and other natural and historic features » Create "fingers of green" throughout the development
» Manage stormwater by restoring burns, creating dedicated waterways, and wetlands » Restore Wildlife Corridor to Nature Preserve through the site » Create usable park space that is in close proximity and easily accessible for residents » Preserve cultural landscape: stone walls and dykes, native planting, orchards, major tree stands	» Create play areas for younger children, open fields for general use » Maintain pedestrian connections in all directions to nearby fields, preserves, the River Don, beach, and loch to the north » Provide for allotment gardens » Use slopes to provide terraces, overlooks, and view corridor
» Western Peripheral Route » Third Don Crossing » Public transit improvements » Road and bridge improvements	» Connected street system » Mixed-use development patterns » Walking and cycling routes » Improved bus service
» Houses with gardens » Terrace houses » Cottages » Live-work units » Mixed-use buildings	
» Small, local scale shops » Small, affordable office space » Support services for small businesses » Live-work units	» Full range of services: electrician, plumber, curtains, etc. » Build on local character and legacy » Create places that attract desirable businesses



section 3: a development framework for dubford

an approach to planning

By creating a continuous framework of open space that respects and preserves significant natural features, it is possible to create development that lives in harmony with the landscape. This notion, in concert with a connected network of streets results in a pedestrian friendly environment that enhances the viability of communities.

The diagram to the right illustrates the potential of open space within the Bridge of Don. A northern section of green, encompassing farms and their associated fields, extends to the Perwinnes Moss. It radiates into the neighbourhood in the form of public parks and view corridors that should be enhanced and extended through pedestrian linkages to the River Don. The open space framework captures the existing steading and connects it through a greenway to the adjacent Dubford neighbourhood. Greenways following existing features provide additional fingers of green throughout the new neighbourhood.

Figure 3.1 Potential Regional Open Space Framework. Following an approach of "Green Fingers" could result in an extension of the wildlife corridor from the Perwinnes Moss to the coast, east-west and north-south pedestrian linkages across the Bridge of Don neighbourhood, and better park spaces for both active and passive uses.

Transport Issues

Certain proposals for providing increased capacity to the Bridge of Don are large-scale undertakings that will require time to implement. These include the Aberdeen Western Peripheral Route (AWPR) and the third crossing over the River Don. In the meantime, the area remains congested and the road network insufficient, making life difficult for local residents. The secondary effects of these issues, such as speeding and rat-running through residential neighbourhoods, further compound the problems. We suggest the following initiatives and strategies to improve the operation of the road network within the Bridge of Don:

- The Aberdeen Western Peripheral Route to reduce through-traffic
- The Third Don Crossing to relieve bottle-necking at the existing bridges and provide alternative route into Aberdeen
- Improving bus lanes and bus service
- Adding key connections to street network to improve local interconnectivity
- Encouraging mixed use development patterns
- Expanding network of pedestrian and cycle paths to reduce car use

To support the planning application for the development site, a Transport Assessment (TA) is being prepared. When completed, it will include a detailed analysis of vehicular, pedestrian, cycle, and transit access and connections. The TA will propose suitable measures to target existing transport issues as well as measures to mitigate the impact of the proposed development on the existing local road network. In addition, the TA will provide a Safe Routes to Schools assessment for all primary and secondary schools located within walking distance of the site and explore options for extending bus service into the site.

Development Patterns

Between an open space network, the pattern of development should be organized into walkable communities possessing a full range of uses within a five minute walk or five minute cycle ride. Neighbourhood centres, providing services and retail to respond to daily needs, are easily accessible to all residents. A sample of this approach is illustrated in the diagram below.

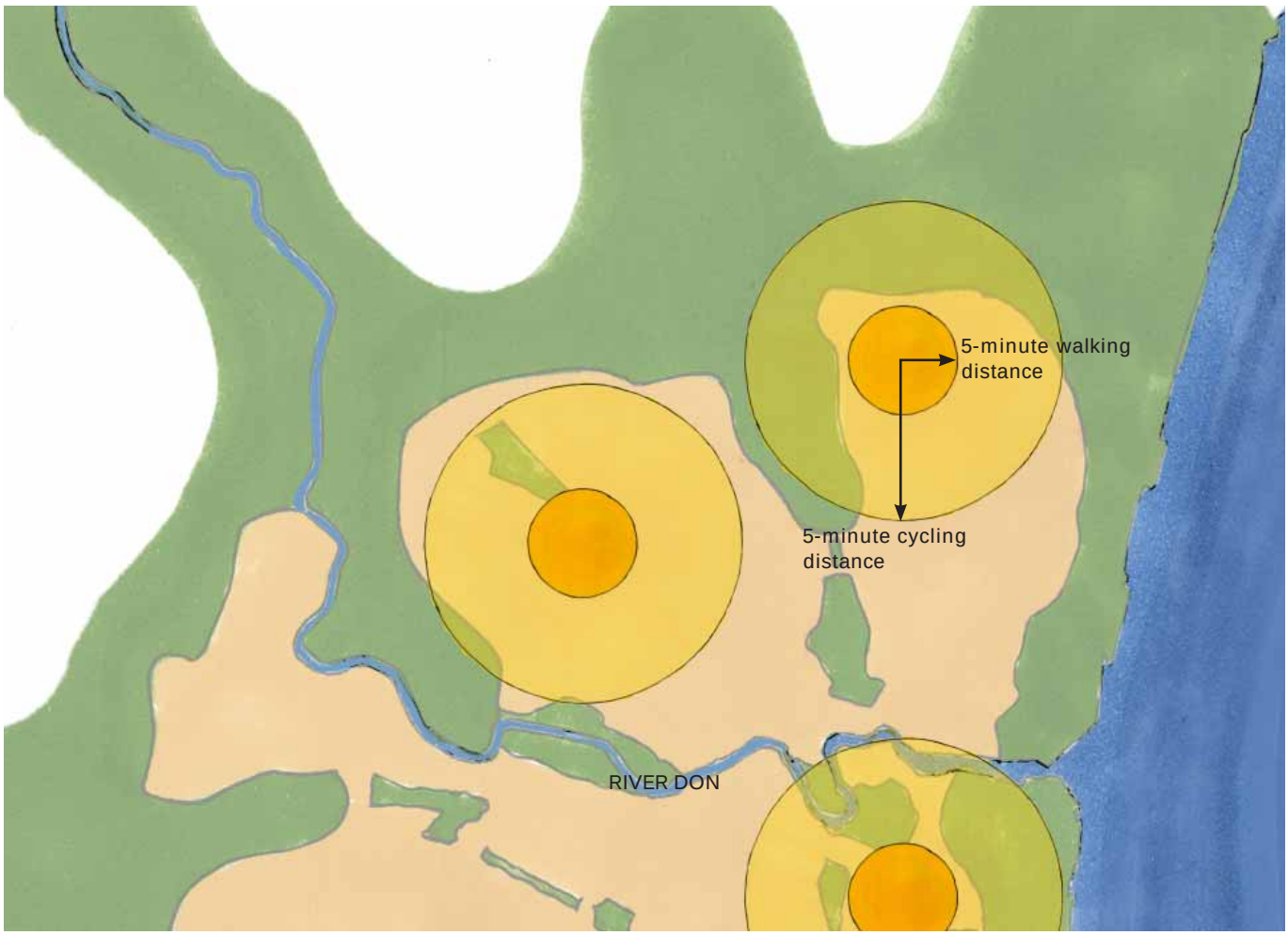


Figure 3.2 Potential approach of mixed use nodes between an open space system. Five minute walking and cycling radii can help guide the establishment and development of mixed-use centres between fingers of green.

Planning and Design Approach

The design of new communities in Aberdeen should respond to site constraints, identify and complete key connections, and provide an appropriate mix of land and building uses. This method of development seeks to more meaningfully connect new communities to existing neighbourhoods while also providing a broader palette of services to residents. The previous pattern of segregated land uses is therefore reversed, leading to a more sustainable form of development.

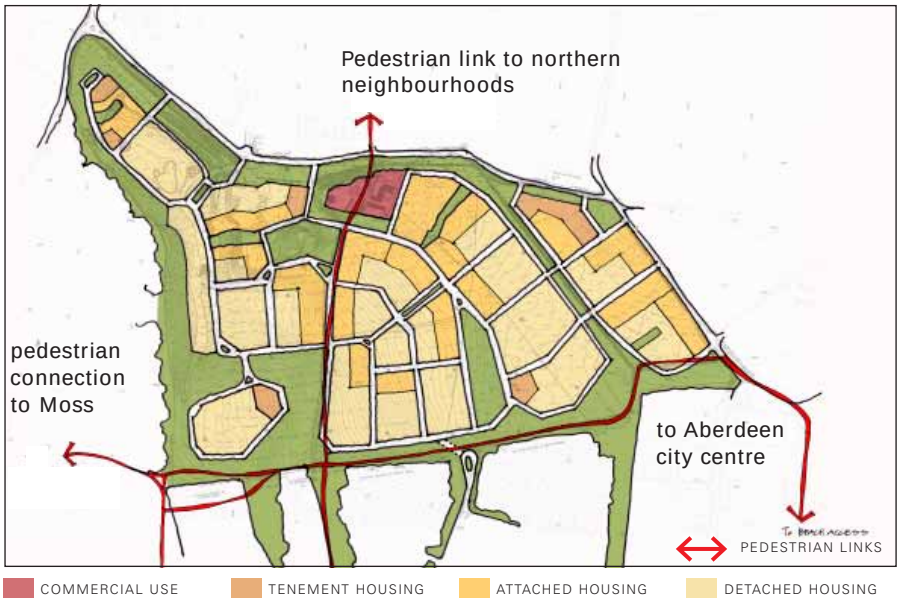
Figure 3.3 Portrait of Existing Conditions at Dubford and in the surrounding neighbourhoods

1. Responding to the Land

Once the site constraints are identified, an open space framework is revealed. Natural features, waterways, and steep slopes are maintained, accentuated, and formalized into a connected network of parks and open space accessible by foot and cycle paths.

2. Connecting Communities

After identifying developable land, key connections to the existing fabric should be identified and strengthened. Pedestrian and cycle paths as well as public transit are integral to connecting communities. The street network should create efficient blocks that provide adequate parking and servicing, and support a range of uses.



3. Building Variety

Communities tend to be more self-sustaining over time when a variety of services are provided in close proximity to housing. Also, a variety of building types should be accommodated in order to attract a diverse population. These may include shopping, recreation amenities, and civic facilities, along with a mix of housing types that can adapt to market needs.

Figure 3.4 Proposed perspective of linear park lined by new housing

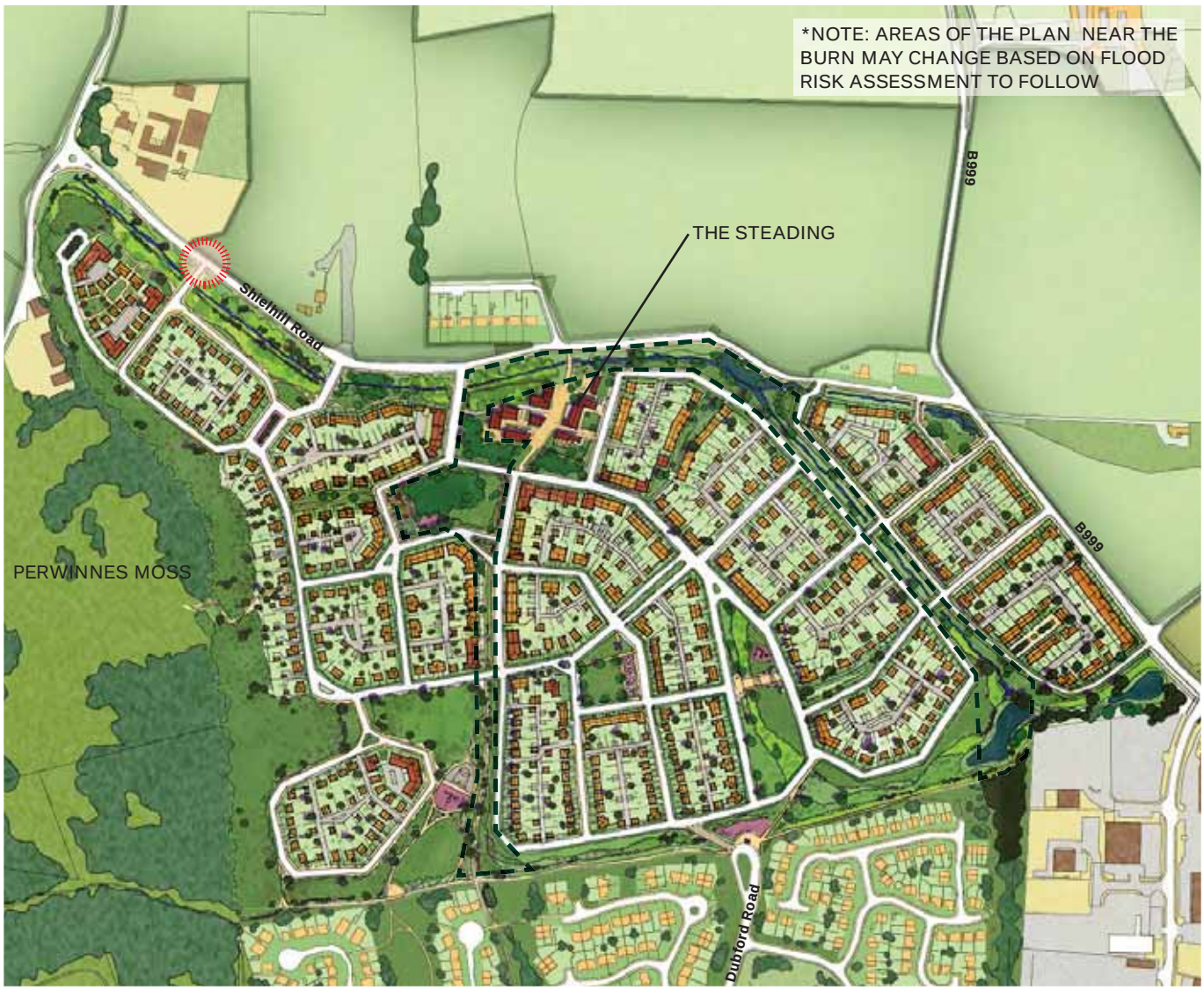


Figure 3.5 Development Framework
The plan that developed during the workshop responds to specific topographic conditions, drainage features, key pedestrian connections, and vehicular links.

Figure 3.6 Analysis of watersheds

Figure 3.7 Analysis of formal and informal path connections

The first step of design interpreted the site analysis and catalogued significant natural features into a site-responsive open space system that preserved the pastoral image and enhanced the existing landscape amenities. It also provides for future core path pedestrian linkages. The diagrams to the left illustrate how this site-responsive open space framework incorporates drainage patterns, connections, and desired extensions of segmented wildlife corridors.

The development framework is designed in response to this open space framework. The plan integrates passive stormwater management techniques by restoring burns, creating dedicated waterways, and enhancing wetlands. The existing wild life corridor connects to the Nature Preserve along the green buffer between the two neighbourhoods. This green buffer along the Moss protects it from erosion or destruction and extends the preserve into the site. The same is true for the buffer along the existing Dubford neighbourhood.

The pastoral landscape is preserved by rehabilitating the existing steading, retaining stone walls and dykes, adding sweeps of native planting, maintaining view to rolling open fields, and protecting tree stands. By preserving the dyke and path and creating additional buffers along the edge, views are protected, pedestrian and wildlife corridors are established, and drainage patterns can continue uninterrupted.

Finally, pedestrian connections are established in all directions to

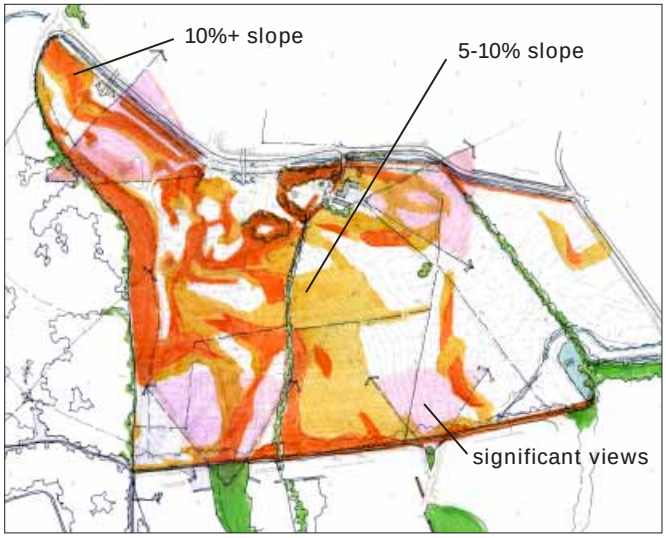


Figure 3.8 Constraints diagram. When these waterways and connections are overlaid onto the slopes, a site constraints diagram is created. This constraints diagram then provides the pattern for the open space framework to the right.

Figure 3.9 Open Space Framework. Slopes, waterways, paths, dykes, and other natural features are maintained and enhanced, preserving the most desirable landscape features of the site. Additionally, areas central to the site are captured in green space and allow for the establishment of neighbourhood and address parks.

lead to nearby fi elds, preserves, the River Don, the beach, and the loch to the north.

The open spaces within the development framework create usable park space for future residents and meet the open space development provisions set by the ALDP by providing the following:

- Play areas for younger children are housed within the green network and are often adjacent to open fields for general use by community members.
- A space for community allotments is envisioned next to a central green.
- The rehabilitated steading sits within its protected woodlands providing a plaza for community functions and gatherings.
- Existing slopes captured provide terraces, overlooks, and view corridors along parks within the site while providing continuous wildlife and habitat corridors. These corridors also provide opportunities for walking paths and environmental education.

Figure 3.10 Illustrative Open Space Plan. The open space framework plan incorporates significant features of the landscape and forms a continuous green network that provides the structure within which the master plan will develop. By inclusion in this network, ecologically sensitive features are preserved and protected from future construction on the site. Additionally, the pastoral character of the area is reflected in the preservation of the Steading, walls, tree stands, and fields.

Figure 3.11 The enlarged plan features a terraced park, which incorporates and preserves portions of the existing steep slope and acts as a green buffer between the existing neighbourhoods and the proposed blocks. West of the terraced park, a small neighbourhood park with gardens and garden features provides an intimate address for the surrounding units.

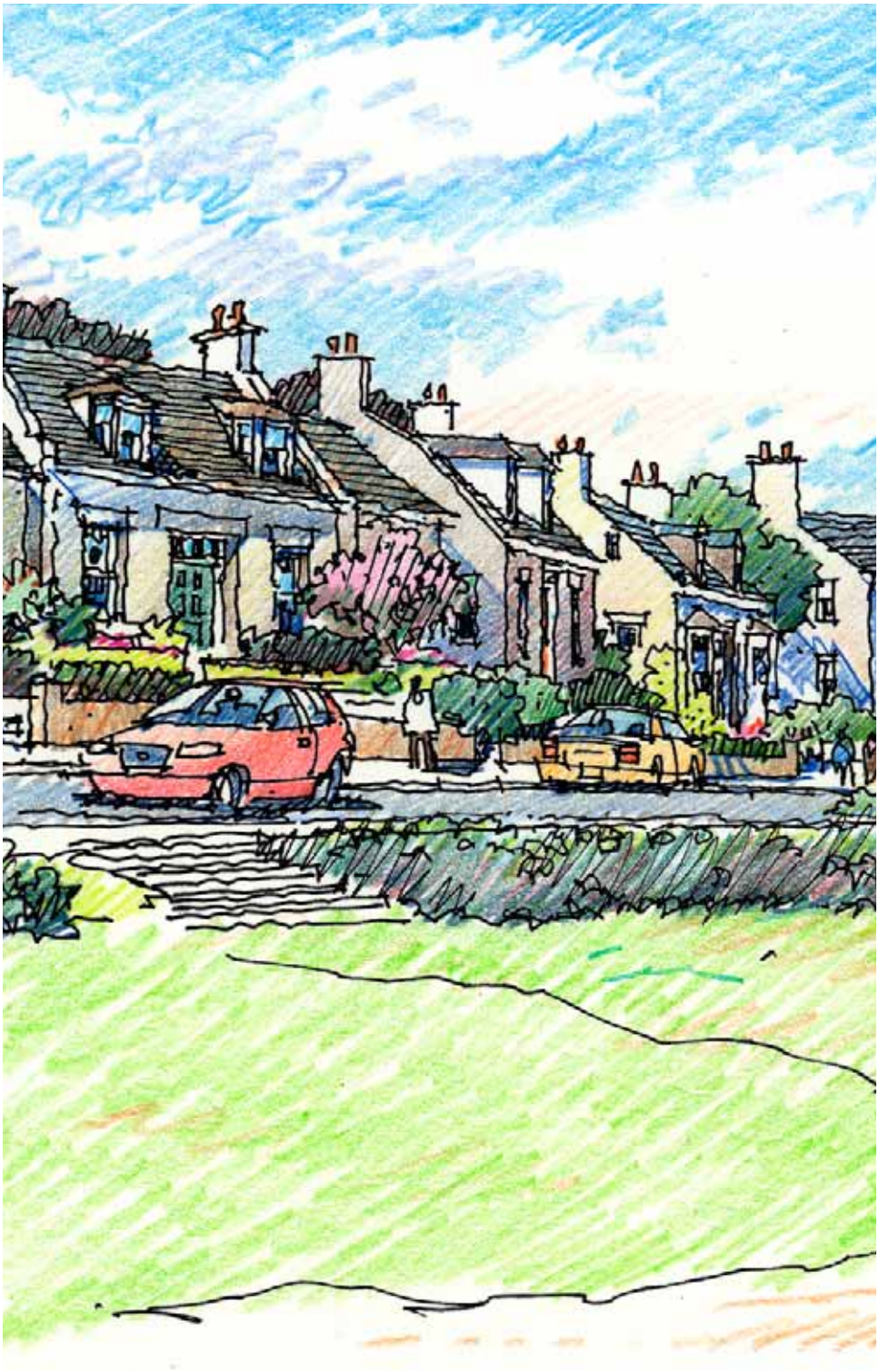


Figure 3.12 Diagram of developable land, defined by the remaining parcels between preserved open space

The proposed framework of streets is coordinated with the framework of public open space. It provides options for moving within the development and several points of access from the major road network.
Entrances to the site are located along the B997. If coordinated with the adjacent parcel, there would be access from B999 as well.
The pattern of streets creates efficient blocks that can be developed with varying uses. The blocks are subdivided into plots of varying dimensions in order to be able to accommodate different types of buildings and uses. The blocks have internal lanes to provide access to back gardens, parking, and services. The fronts of the plots face the streets and public open spaces in the plan.
There are several alternatives for the way this development might connect with the adjacent Dubford neighbourhood, though the method preferred by residents was a connection at Dubford Road limited to buses. This would increase the efficiency of the bus routes and therefore increase the possibility of improved bus service by adding to the customer base. In this scenario, vehicular access would be prohibited through the use of electric bollards, or some form of barrier system. Pedestrian and cycle connections would not be inhibited in any way.

Figure 3.13 Bus connection with pedestrian and cycle access provided

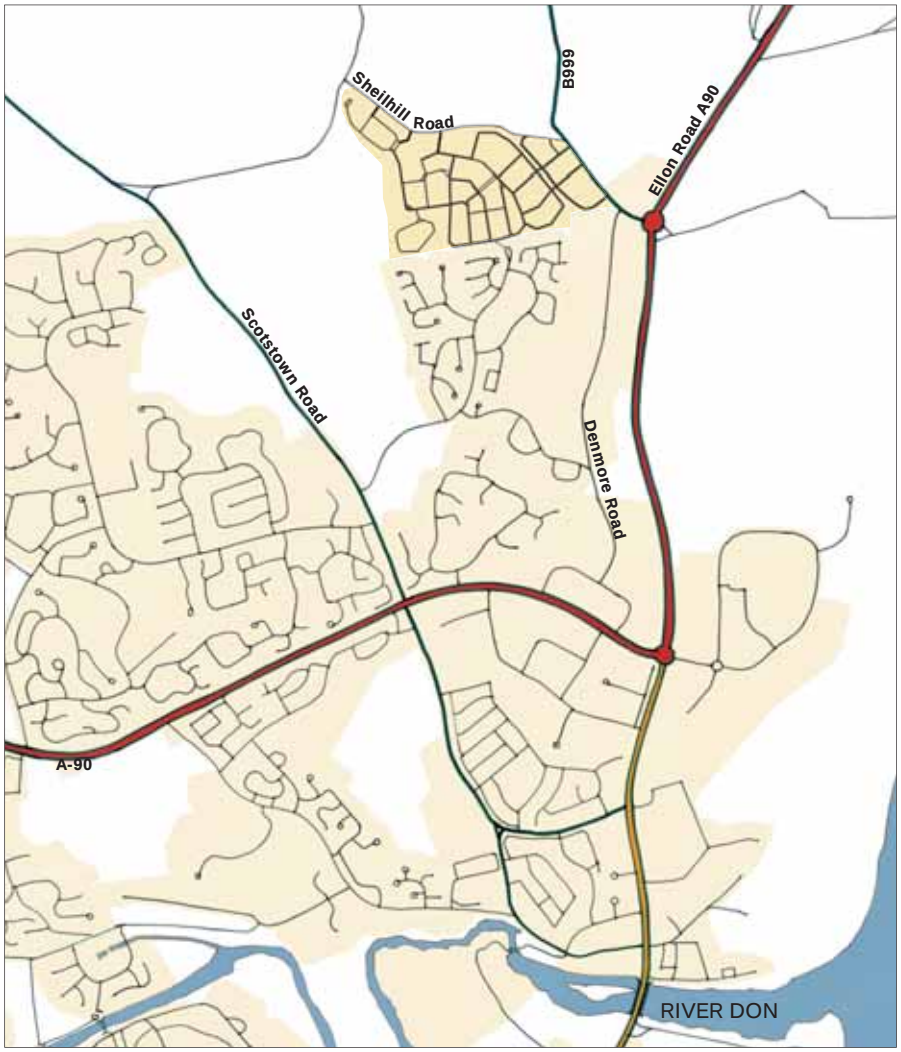


Figure 3.14 Proposed Streets X-Ray of the new development in context with the Bridge of Don street framework

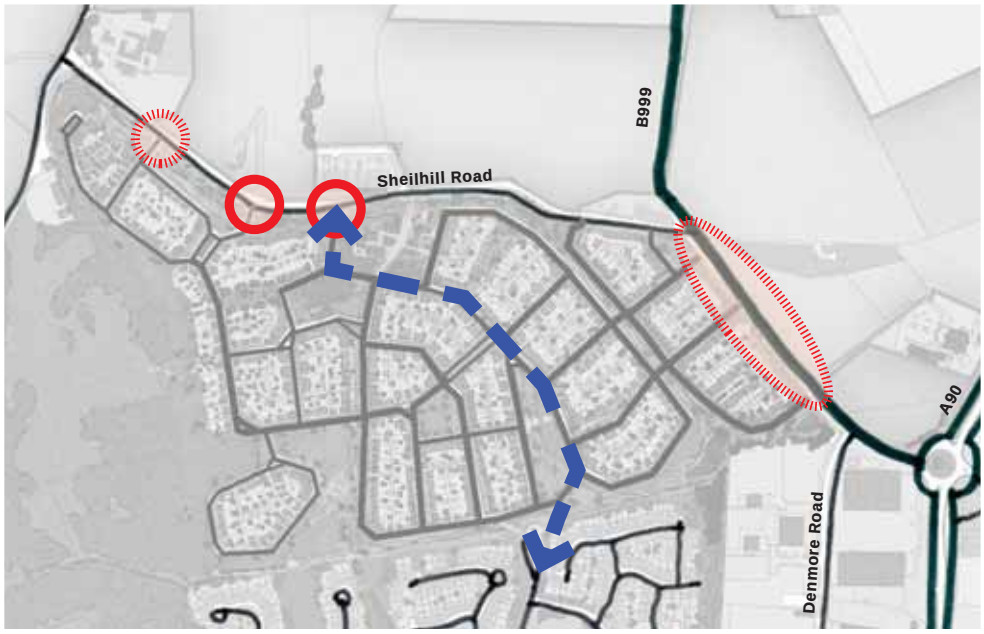


Figure 3.15 Proposed network of streets, highlighting the primary car and bus connections

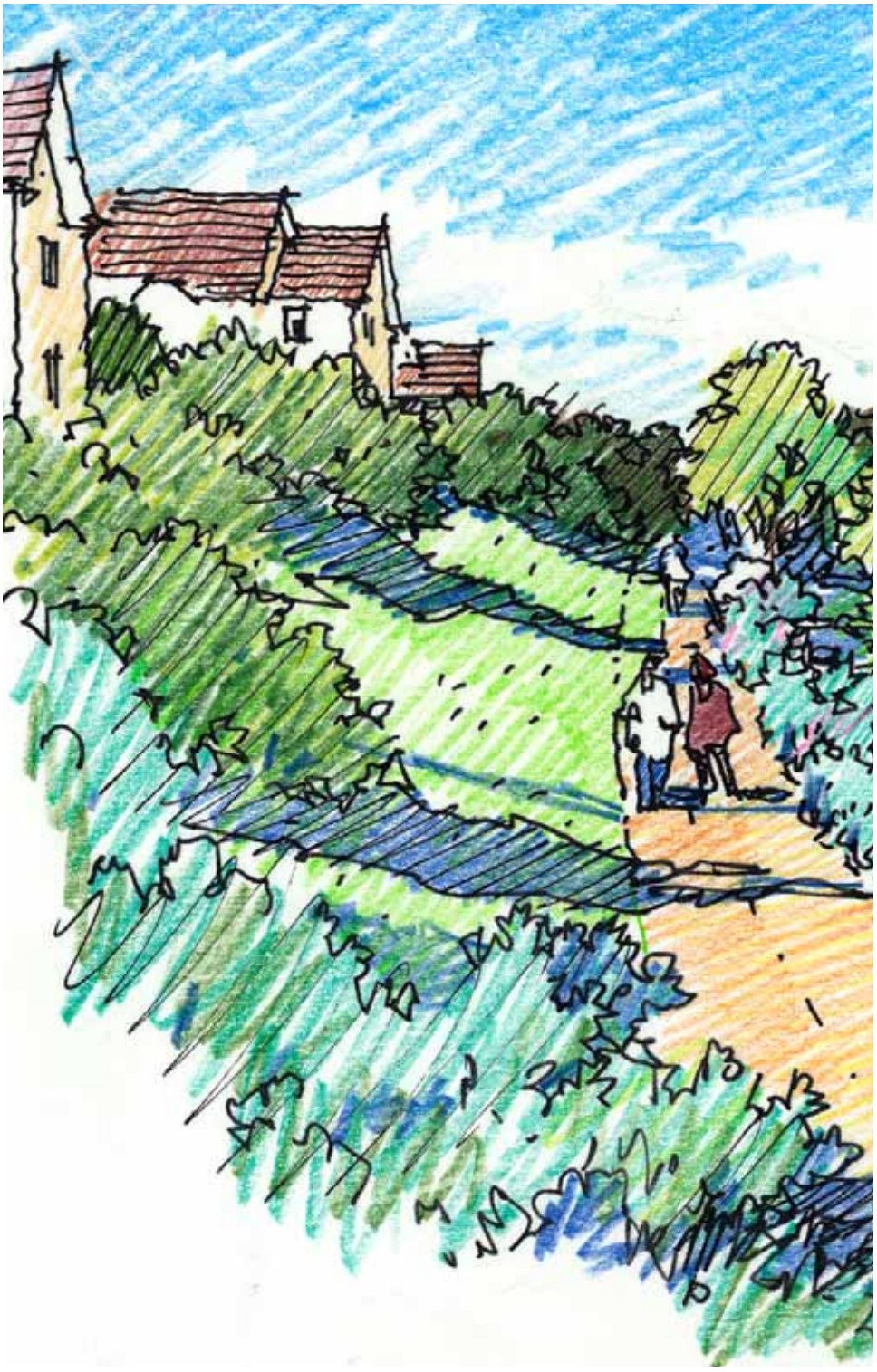
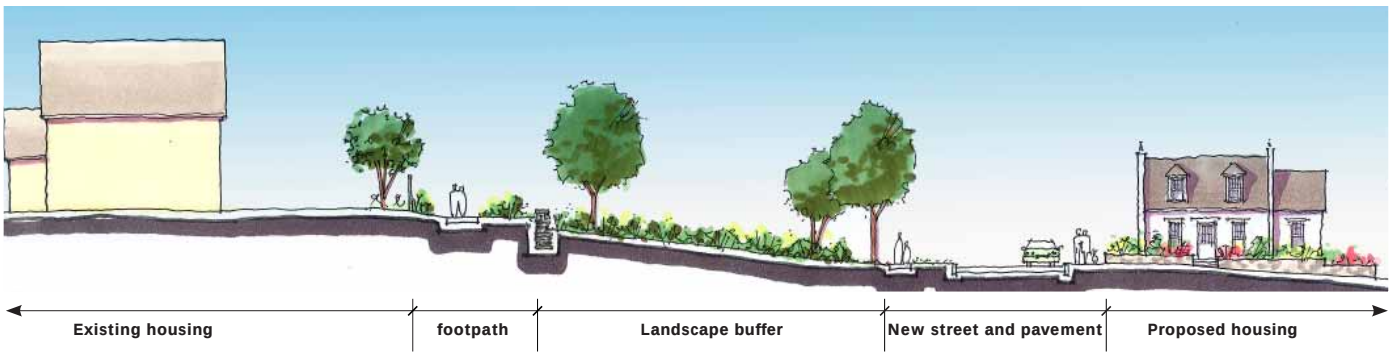


Figure 3.16 Key Connections. The proposed plan incorporates a system of open space, pedestrian and cycle paths, linking the new community to adjacent neighbourhoods and to the greater Bridge of Don.



Relationship of existing and proposed development

Figure 3.18 The steading (at top) is rehabilitated and enhanced by adding new buildings (shown in detail plan, above).

It is important to provide amenities with each phase of development. All too often, the shops are developed after the houses, and there is rarely a sufficient market for them. A strategy is needed to put the shops in early and use them as part of the marketing appeal of the development. Furthermore, the process identified a need for employment uses and services. Therefore, the recommended approach is "targeted marketing" in which the developer identifies desirable shop keepers in advance. The design is then developed to serve those uses and can take place early in the development. The steadings on the property provide the opportunity to create a unique retail environment. Discussions are underway to test the market for a restaurant, coffee shop, and arts related complex.

New retail buildings are illustrated adjacent to the existing steading in an effort to create a small commercial cluster that refl ects the pastoral character of the site. There is also the potential for a series of mixed-use buildings around the central square. These can have shops, offices, and some social amenities on the ground floor. Other potential uses in the square include a civic building or nursery.

Figure 3.17 Diagram of building types

COMMERCIAL USE TENEMENT HOUSING ATTACHED HOUSING DETACHED HOUSING

PRECEDENT PHOTOS DEPICTING THE DIVERSITY OF BUILDING USES AND TYPES FOUND IN TRADITIONAL TOWN FABRIC

Figure 3.19 Mixed-Use

Figure 3.20 Mixed-Use

Figure 3.21 Attached

Figure 3.23 Terrace

Figure 3.22 Detached House

Figure 3.25 Cottage

Figure 3.24 Terrace

Figure 3.26 Mixed-Use

A CONTEMPORARY APPROACH TO BUILDING

- » Establish special addresses with unique character
- » Design key buildings around the Steading in a more contemporary manner with an agrarian flair
- » Explore opportunities for special elements on conservatories and rear facades
- » Design garages as interesting episodes at key locations
- » Design storefronts to create variety along the street
- » Employ a modern approach to landscape and streetscape

Building Types

The Aberdeen Local Development Plan calls for creating mixed use communities and urban villages rather than single use development projects. Therefore the building types must accommodate both housing and a mix of potential ground floor uses.

Additionally, housing types should vary to offer a range of sizes, which provides both market flexibility and enriches the streetscape. There is a need for a range of house types, including detached houses with gardens, semi-detached houses, small cottages, and flats. The unit types are distributed consistently throughout the site, yet there is a larger concentration of flats near the Steading where a small mixed-use centre is likely to develop. The architecture will blend local traditions with a contemporary approach in key places in order to ensure a vibrant yet harmonious neighbourhood fabric. Those key elements are described in more detail in the box to the left.

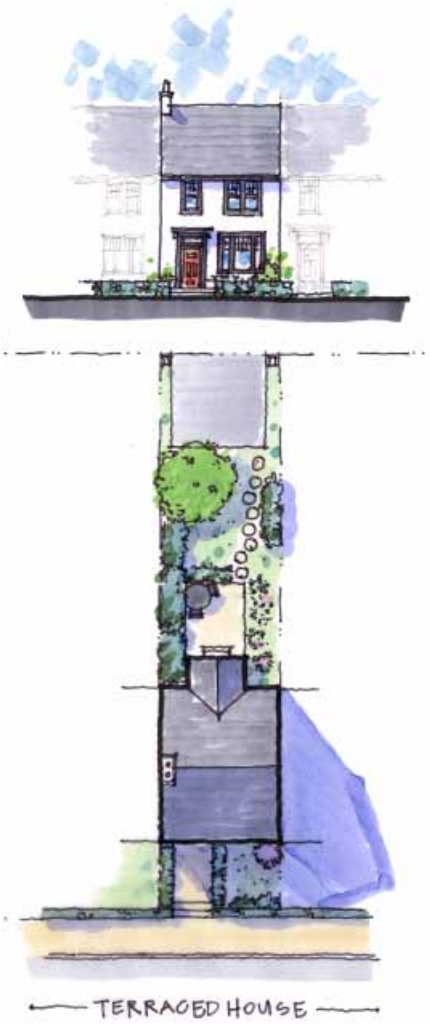


Figure 3.27 Example of a street elevation with a mix of housing types

building variety

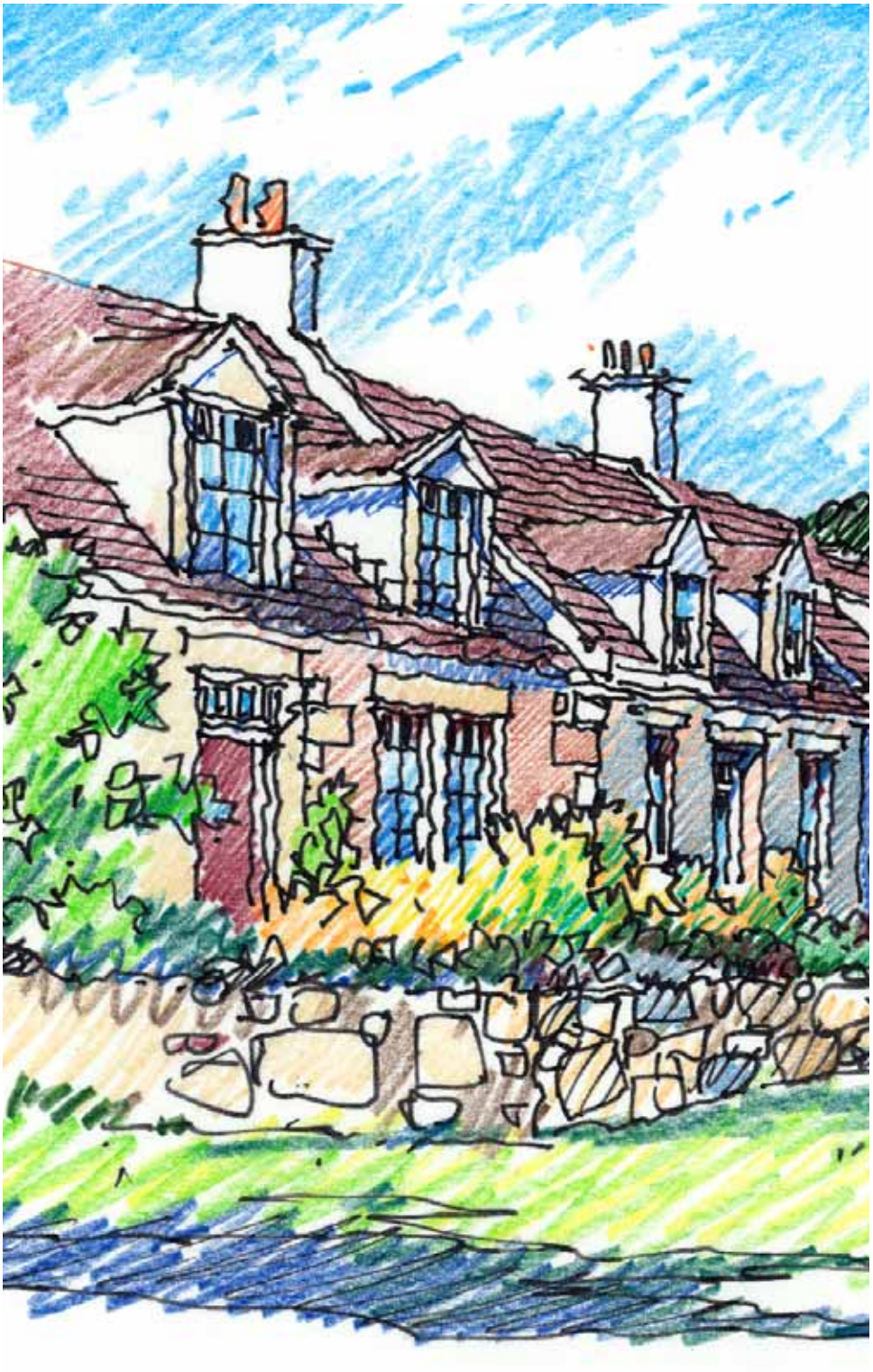


Figure 3.28 Building Variety.
The mix of building types included in the plan helps to create a variety of pedestrian experiences, streetscapes, and green spaces, like this intimate mews.

Figure 3.29 The enlarged plan illustrates the revitalized steading and associated plaza space for farmers markets and community events. Adjacent to the steading is the community centre with its attached allotments and preserved tree stands.

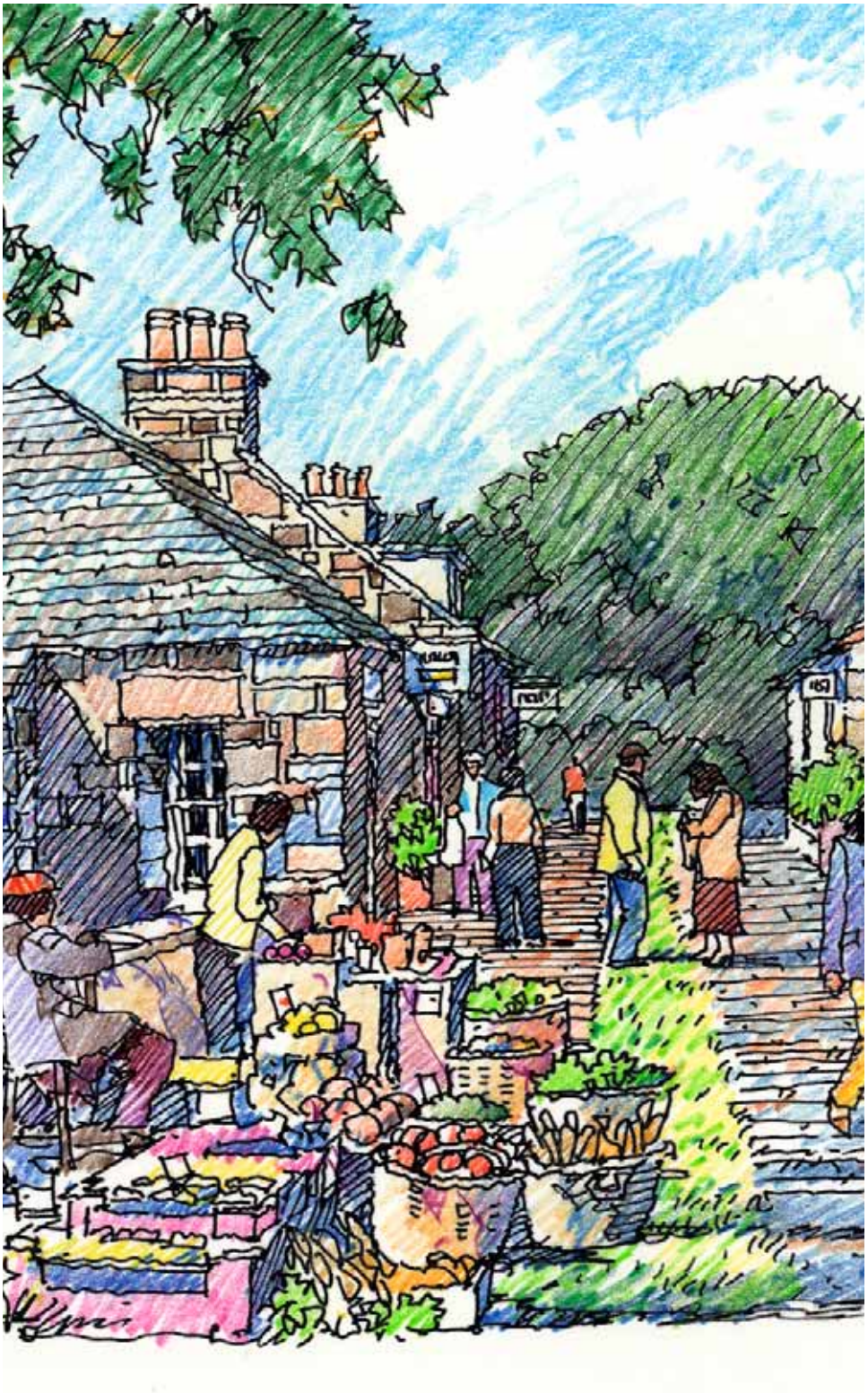


Figure 3.30 A Mix of Uses. The currently vacant steading offers a unique opportunity to attract a diverse variety of small retailers and commercial uses, which would be located a short walk or bike ride away from anywhere in the new community.