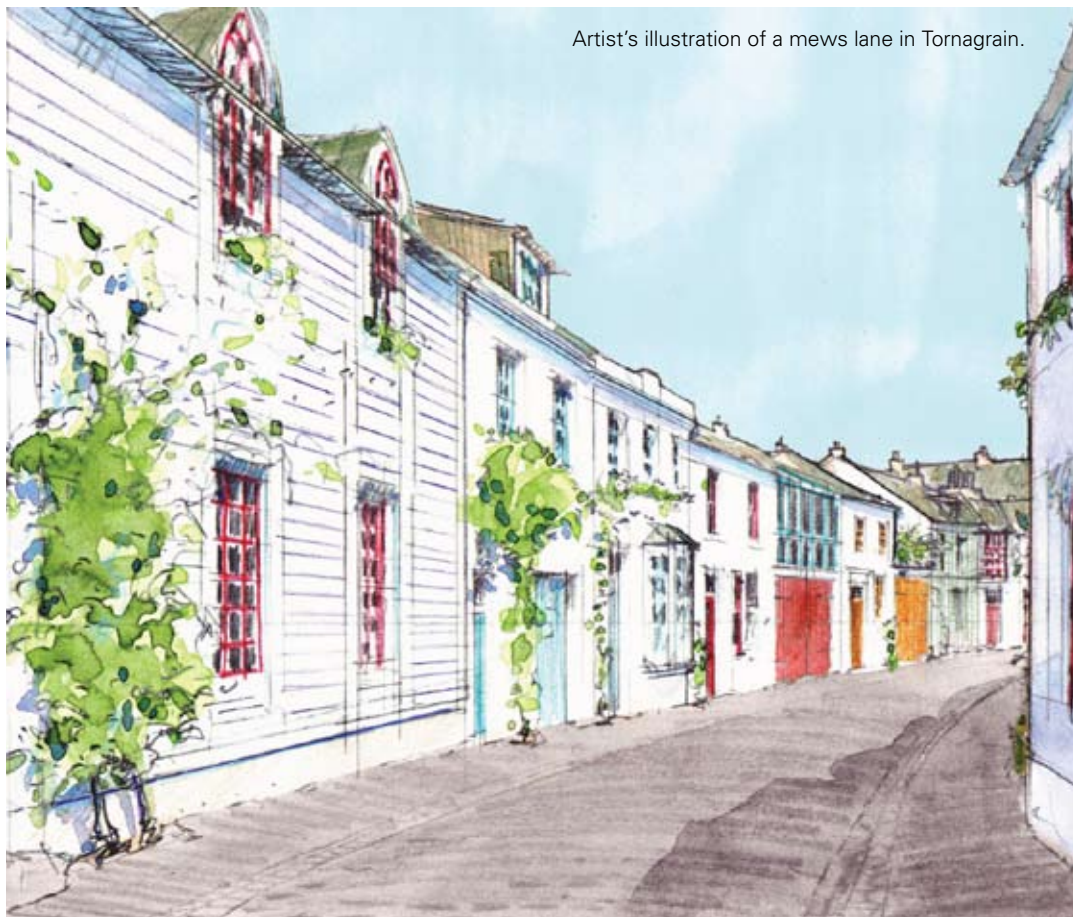


# Tornagrain

A Planned Town for the Highlands

Stage 2 Exhibition

March 2008



Artist's illustration of a mews lane in Tornagrain.

## Contents

Planning Update	Page 2
Assessment and Mitigation – Summary	Page 3
Masterplan – 2007 and Now	Page 4
Town Centre	Page 5
Schools	Page 6
Badgers, Wetland and Mid Coul Burn	Page 7
Current Masterplan	Page 8
Energy Strategy	Page 9
Design Code	Page 10
Phasing	Page 11
Next Steps	Page 12

Welcome to the second of three Exhibitions, leading up to the submission of an outline planning application for Tornagrain later this year. We look forward to continuing this important process of public engagement on the work completed to-date and our plans for the next stages.

The Exhibition in November 2007 provided information on the planning application process, the accompanying Environmental Impact Assessment, (EIA) and the issues arising from the baseline studies. The first Exhibition was reproduced as a brochure, which is available at this event or online at [www.tornagrain-newtown.co.uk](http://www.tornagrain-newtown.co.uk).

Since the November Exhibition, we have been working with the project team in considering the impact of the masterplan on the issues that emerged from the baseline studies.

Changes have therefore now been made to the masterplan to resolve these issues. The Exhibition will illustrate the outcome of this work and the proposed masterplan. We

have also commenced preparation of the Design Code, which will provide the framework of regulation to ensure the fundamental aspects of the masterplan are properly implemented.

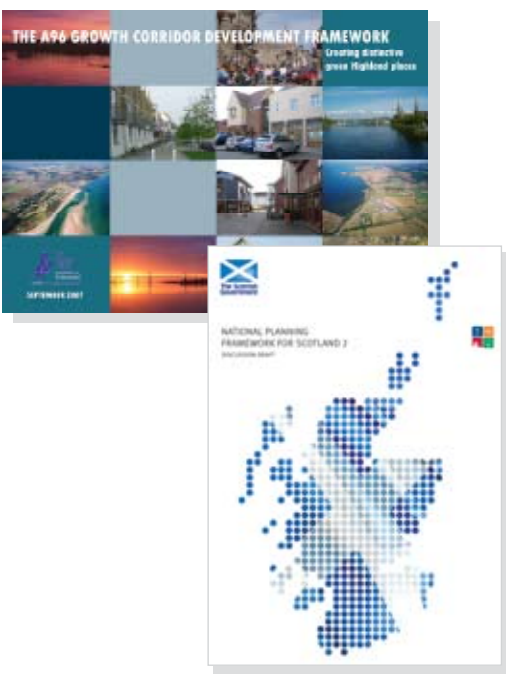
This exhibition has also been reproduced as a brochure for you to review at your leisure. We invite you to use the prepaid reply forms within the brochures or let us know your views at the Exhibition. We were delighted by the attendance in November and hope that this event will be similarly well attended.

I would now encourage you to study the information and if you have any questions, please do not hesitate to ask any of the team in attendance.

John Doune – Moray Estates

# Planning Update

The background planning policy context has continued to develop since the last Tornagrain Exhibition. January saw The Highland Council's public launch of the 'A96 Growth Corridor Development Framework' and the publication of the Scottish Government's Discussion Draft National Planning Framework 2 both of which identify Tornagrain. In addition, the Council has also responded to the request for an Environmental Impact Assessment (EIA) 'Screening and Scoping Opinion' by formally outlining their requirements for the assessment process.



Extract from the A96 Growth Corridor Development Framework, produced by The Highland Council in September 2007

The National Planning Framework (NPF) sets out the Scottish Government's strategic development priorities and provides a guide for spatial development up to 2030. The first NPF was published in 2004 and runs until 2009. The Government is now consulting on its replacement.

The NPF 2 states at para 272:

*“the A96 corridor as the main focus of growth in the Inner Moray Firth. The Highland Council's A96 Corridor Development Framework includes proposals designed to accommodate and additional 30,000 people in the area over the next 35 years. These include the creation of a new settlement at Tornagrain,”*

The reference to the A96 Framework and Tornagrain indicates a strategic importance to the Scottish Government's development aspirations and spatial priorities, recognising the planned and coordinated approach to growth that is being taken both to the A96 Corridor and Tornagrain itself.

The A96 Growth Corridor Development Framework was publicly launched by The Highland Council early in the New Year. Although the content of the Framework has not changed from that

which was approved in September 2007, the launch signals a commitment to planned long term growth in the Inner Moray Firth area. The Framework is now being fed into the production of the new Highland Development Plan.

In January, The Highland Council also provide a EIA Screening and Scoping Opinion for Tornagrain. The purpose of a Scoping Opinion is to outline the requirements of an EIA. It is put together following consultation with all the statutory authorities and agencies. The Tornagrain Scoping Opinion was informed by consultation responses from:

- Scottish Environmental Protection Agency
- Transport Scotland
- Scottish Natural Heritage (SNH)
- Scottish Water
- Scottish Ministers
- Health and Safety Executive
- Historic Scotland
- THC Archaeologist
- THC TEC Services (Area Roads and Community Works Manager)

Having received the Scoping Opinion, the project team is now preparing the EIA in line with the consultation responses and recommendations made by the various consultees identified above.

# Assessment and Mitigation Summary

Since February 2007, when the masterplan was published in the post Charrette paper, the design process has continued with DPZ required to respond to the various issues that have emerged from the initial EIA studies.

The table below provides a brief summary of the main issues raised by consultants and how they have been addressed through the design process. The following boards illustrate these changes on both the 2007 and the current masterplan.

Topic	Issue	Comment from baseline analysis	Response
<b>1 Ecology</b>	Badgers	Location of setts and foraging territories	Creation of additional foraging territory to the south of the town. Creation of green routes from the central park to southern town edge.
<b>2 Ecology</b>	Wetland	Area to south of Hillhead Farm contains a rising spring and wetland habitat	Development proposals amended to preserve wetland area.
<b>3 Ecology / Landscape</b>	Existing trees	Some mature trees were affected by the proposal	Plan amended to preserve mature trees – e.g. along Mid Coul burn.
<b>4 Geology / Hydrology</b>	Mid Coul Burn	Plan shows realignment although burn already canalised	Plan amended to keep burn on existing alignment with riparian zone protected
<b>5 Geology / Hydrology</b>	Topography	Town centre has impacted on Mid Coul burn and surrounding area	Plan amended to respond more sensitively to existing topography
<b>6 Geology / Hydrology</b>	Topography	Existing topography in Tornagrain Wood	Plan amended to better suit topography
<b>7 Geology / Hydrology</b>	Topography	Re-aligned Croy Road impacting on topographical features	Current Croy Road alignment retained to minimise impact
<b>8 Built Heritage</b>	Mid Coul Farm	Loss of traditional buildings	Plan amended to allow retention of buildings
<b>9 Built Heritage</b>	Hillhead Farm	Setting of buildings significantly changed	Plan amended to improve setting
<b>10 Socio-economic</b>	Schools	Schools shown between neighbourhoods rather than in centre	Plan amended to put primary schools in neighbourhood centres
<b>11 Socio-economic</b>	Schools	Three planned primary schools larger than The Highland Council guidelines	Re-design to provide 4 smaller primary schools
<b>12 Socio-economic</b>	Petty Church	Access to church poor	Plan amended to expand access to Petty Church

# Masterplan 2007 and Now



# Town Centre



## Town Centre

The original masterplan illustrated a town centre framed at the east end by the secondary school and at the west end by a widened market place incorporating the junction of the Croy Road and the high street. These features were connected by a high street. The original plan had a significant impact on the wooded gully and the Mid Coul Burn adjacent to Mid Coul farm together with the traditional buildings at Mid Coul Farm. The town designers also felt that the relationship of the town centre with

IABP and the junction of the high street and the Croy Road could be improved.

The result is a redesigned square at the west end of the high street just to the south of the previous market place. This allows for a more sensitive design treatment of the Mid Coul Burn, the mature trees in the Mid Coul area and the stone buildings at Mid Coul.

The junction of the Croy Road and the high street has been realigned to enhance this important intersection and

the sense of 'arrival' in the square. The extension of retail and commercial space along a slightly realigned street north from the square to IABP is designed to enhance the links between the two areas.

The high street remains framed at its east end by the secondary school.

Car parking is located to the rear of the main high street buildings to allow convenient access to the high street and square for shoppers without impacting on the appearance of the street.



# Schools



## Schools

The original masterplan shows three primary schools located between neighbourhoods to maximise the number of children able to walk to them. However, we were interested in exploring the setting of schools in the centre of neighbourhoods to bring vital activity to those neighbourhoods on a daily basis.

Discussions with The Highland Council over primary school size led us to increase the number of primary schools to four and reduce the pupil capacity of each. This made placing schools in the centre of neighbourhoods more straightforward.

Having now located the schools in the neighbourhood centres we believe they will bring vitality, at least one important

civic building to the heart of each community – important given the dual uses often performed by modern schools – and be within a short walk of the vast majority of residents.

We have also explored with The Highland Council the physical size of the schools on the ground and are now comfortable that the school complexes will more than adequately fulfil needs.



# Badgers, Wetland and Mid Coul Burn



## Badgers

Through the various ecology survey work, an active sett was identified within the woodland / scrub which will form the larger central park in Tornagrain. Whilst the parkland will form good habitat for badgers it was important to retain the ability of the badgers in that sett to access foraging territory which will be enhanced to the south of the town adjacent to Ashgrove and Cullaird. The design team has therefore created green corridors sufficient to provide this linkage. The road network has also been adjusted to minimise the number of streets that would bisect the continuous green link between the sett and the southern town edge. Where road removal has not been possible badger tunnels will be provided and are shown on the plan.

## Wetland

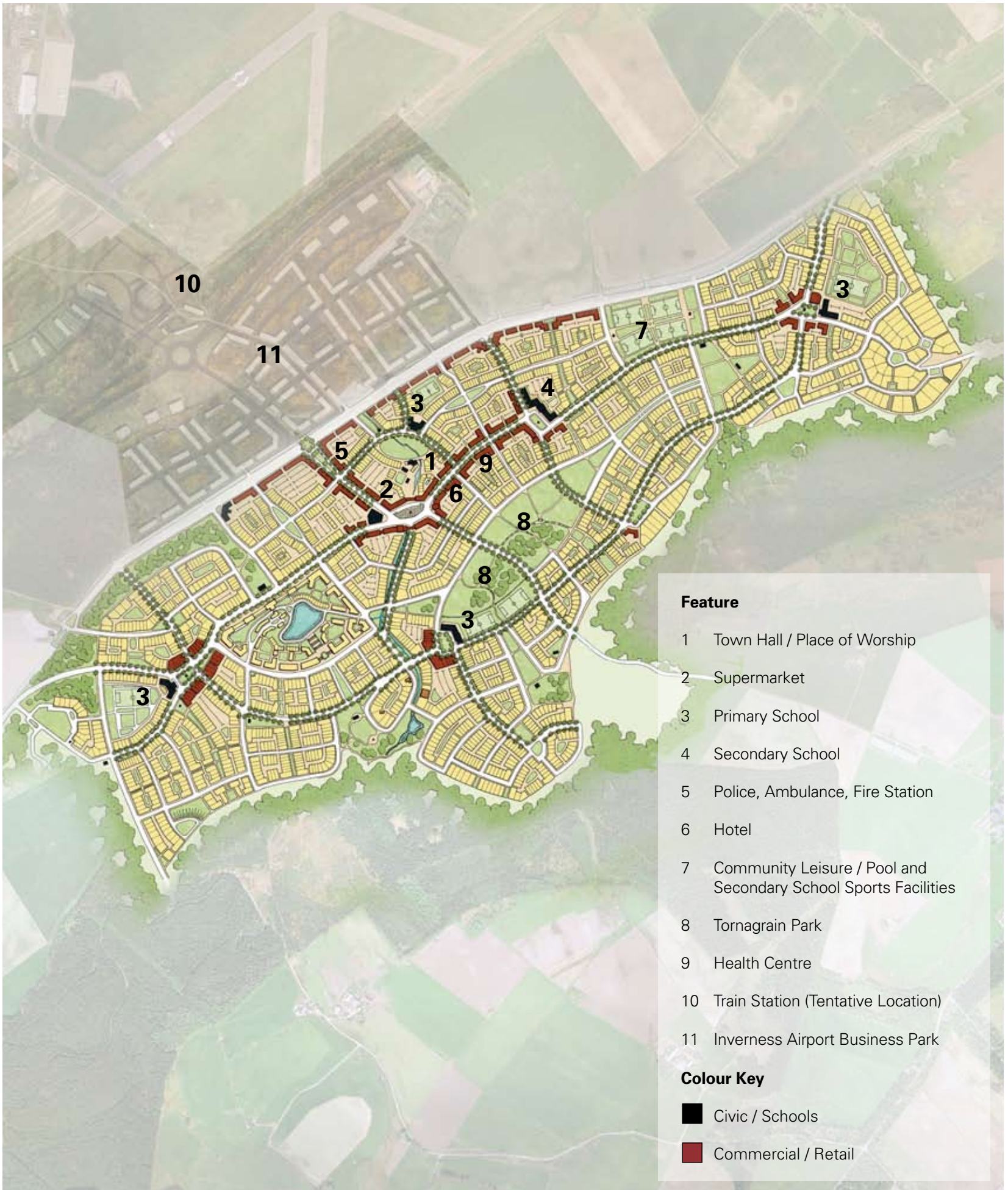
Although the vast majority of the Tornagrain site is farmland there are a couple of areas of wetland identified as worthy of retention from the EIA baseline studies. The main area is found to the south west of the Hillhead Farm complex. This area is an attractive small wetland basin, largely hidden by scrub, which the Mid Coul Burn passes through. The original masterplan showed this area as developed. The design team has now redesigned the area, removing the development and providing a setting for the area which will enhance its landscape value and minimise impact from nearby development.

## Mid Coul Burn

The Mid Coul Burn running from Hillhead Farm to Mid Coul Farm has already been canalised to improve drainage of the surrounding farmland. Despite this, Scottish Natural Heritage (SNH) wish to see this burn retained on its current alignment, crossed only when absolutely necessary and with enhancements to the immediate habitat. The original masterplan saw the burn realigned and culverted for a significant length. The design team has now addressed this issue by re-working the plan of the town in this area to retain the current burn alignment, minimise crossings and protect the immediate habitat. Although modest in size, the burn will form an attractive environmental feature through the town.



# Current Masterplan



# Energy Strategy

One area of work that has advanced significantly since the November Exhibition is the development of an energy strategy for Tornagrain.

In response to concerns over climate change and other resource issues, requirements regarding the energy efficiency and supply status of developments such as Tornagrain are evolving quickly.

The Scottish Government have announced that they will consult on a Climate Change Bill that will seek to cut carbon emissions by 80% by 2050. Given that 40% of Scotland's CO2 emissions come from energy used to heat and light buildings, this is likely to have a significant impact on the approach taken to design and development.

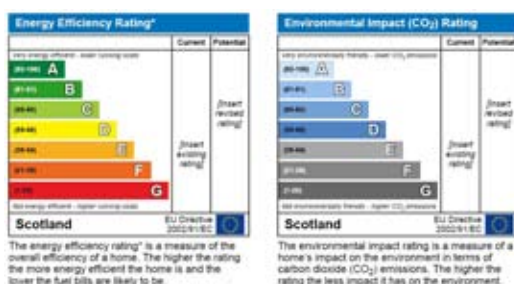
The Sullivan report has recommended to the Scottish Government that by 2016 new buildings should be Net Zero Carbon and by 2030 Total-Life Zero Carbon.

The term "net zero carbon buildings" is used to describe buildings where water heating, light and ventilation are included.

total life zero carbon buildings..... the building should be responsible for net zero carbon emissions over its entire life including construction, (the embodied energy of building materials), use, maintenance and, finally, demolition.

Definitions from the Sullivan Report 2007

Buildings constructed at Tornagrain are also likely to require an Energy Performance Certificate, (EPC). This will require an energy efficiency rating and an environmental impact rating, which will look at a home's impact in terms of CO2 emissions.



The need to deliver zero carbon homes for the vast majority of Tornagrain clearly has an impact on our energy strategy – both for electricity consumption and heat and light.

Our energy advisors, Fulcrum Consulting, have been working hard to create a model which effectively calculates the energy requirements for Tornagrain and also seeks to analyse this in the context of surrounding large scale commercial activities and proposed developments such as the Airport, Norbord and the proposals for Inverness Airport Business Park (IABP).

Fulcrum are now reviewing the technologies open to Tornagrain to supply energy as efficiently as possible, having regard to the low carbon targets. This means examining electricity generation on site to reduce transmission inefficiencies,

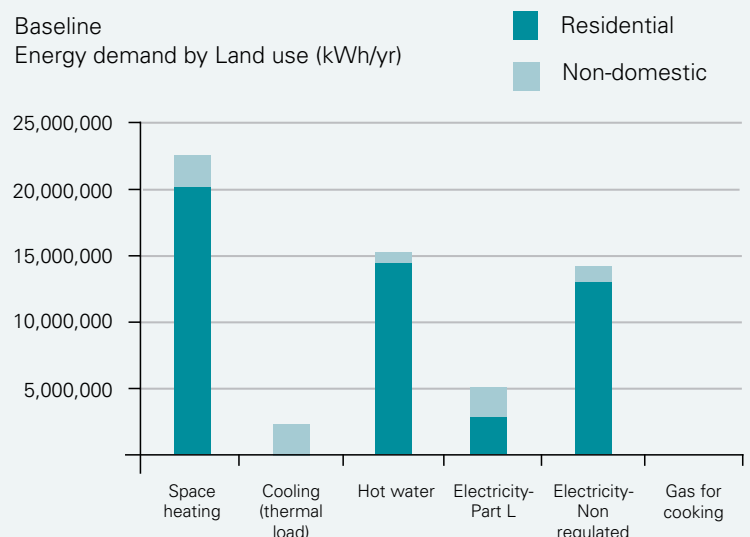
minimising energy usage and achieving synergies from meeting the energy requirements of adjacent developments in the area.

The main options that are currently being examined are:-

- Biomass Heating plant only - from individual properties to communal neighbourhood systems.
- Biomass Combined Heat and Power, (CHP), used to provide the required hot water load and power utilising wood waste and timber processing waste in the area.
- Micro generation and heat technologies such as Solar Thermal, photovoltaics and ground source / air source heat pumps.

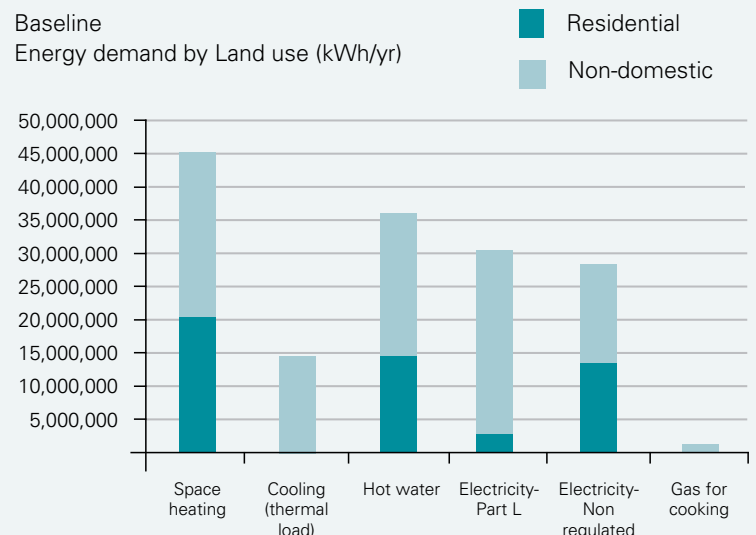
Baseline energy use – Tornagrain only

Baseline Energy demand by Land use (kWh/yr)



Baseline energy use – Tornagrain and adjacent commercial developments

Baseline Energy demand by Land use (kWh/yr)



# Design Code

Moray Estates wish to ensure that the vision for Tornagrain is properly executed. It is therefore important that whatever mechanism is put in place has clarity yet balances control with the need for some adaptability in order that it may endure over time. We intend to achieve this by using a Design Code.

## What is a design code?

A Design Code is essentially a set of regulations that are used to enable, encourage or qualify the implementation of development over time. The Code must therefore be followed by any designer, builder or developer that wishes to play a part in implementing the town. This should result in a cohesive and coherent development where quality and implementation can be controlled.

## What does the code do?

The Code regulates the implementation of certain aspects of the town plan, such as:-

- The street layout
- The character and size of streets
- The relationship of buildings to the street and each other
- The nature and location of public and civic space
- Building materials and, on occasion, architectural style
- The use of buildings

## How does the code work?

The Tornagrain Design Code will be based on the theory of the Transect. This theory, developed in this context by DPZ, provides a framework for describing the different conditions found in towns and cities on a continuum from rural to urban.

A Code is produced, which contains the regulations and guidance that apply in each Transect zone. The Transect allows regulations and guidance to be produced, which is appropriate for zones within the town without being specific to each and every address.

For instance, a road or street appropriate on the edge of town would be different to one in the centre of town. The same applies to building height and types.

## Who will implement the code?

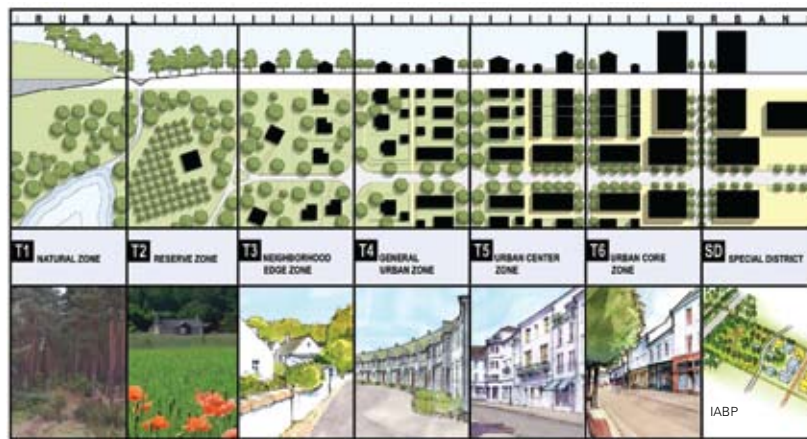
Design Codes are not new – Edinburgh’s New Town had them. However, the way in which they need to be enforced has changed. Previously, this would have been through the feudal system. This is no longer possible. Instead, we are examining both how the planning, and the legal system can be used to control the implementation of the Code.

The Code will provide a form of regulation in different ways. Firstly, it will control the actions of the developer, and secondly, it will ensure that homeowners thereafter abide by the Code by not altering their properties contrary to it.

## Who is producing the code?

The Estate has a coding team led by DPZ but with UK representation, producing the Code. This issue of coding has been one of particular interest to Andres Duany of DPZ over many years, and his experience will therefore be invaluable.

A public coding event in Inverness is planned for April 2008 to help develop an understanding locally of the role codes can play. This will be led by Andres Duany.



The Transect showing the transition from nature to the town/city. We have illustrated this where relevant with images from the Tornagrain Charrette

Regulating Plan illustrating the location of the Transect Zones



# Phasing

Tornagrain is a long term development project. We expect, consistent with the A96 Growth Corridor Framework Strategy, that the town will take over 30 years to reach completion.

In considering our phasing strategy, we have 4 main objectives:

- Creating a sense of place from the outset for new residents.
- Seek to build on existing infrastructure whilst at the same time ensuring necessary improvements are delivered when required.
- To demonstrate that Tornagrain is going to be different from other developments.
- To minimise impact from construction activities on existing new residents at Tornagrain.

Although the actual rate of growth at Tornagrain will be influenced by demand, our

assumption is that it will be broadly consistent with The Highland Council's A96 Growth Corridor Framework Strategy.

So far, three main phasing proposals have been considered.

The illustrations we have outlined here are designed to be general expressions of these phasing options. The actual pattern of growth in practice will be more complex. For instance, delivery of phases, issues such as timing of schools and other infrastructure can require some phasing adjustment.

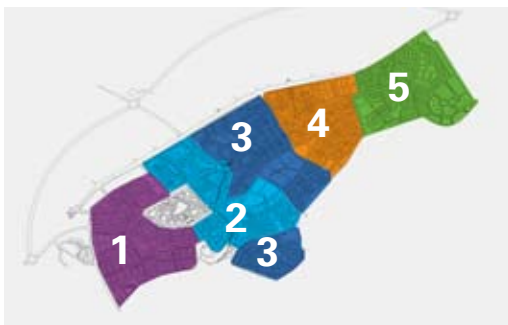
We have also isolated the quarry as a phase in itself. This area presents both opportunities and challenges. Its delivery can be timed when these issues are resolved.

Our preference at present is to follow option 3. We believe this presents the best option for creation of a distinctive and attractive place from the start, and provides for early commencement of the town centre.

We are, however, interested in your views.

Period	2011-16	2016-21	2021-26	2026-31	2031-36	2036-41	
Homes	350	500	750	900	950	1000	4500

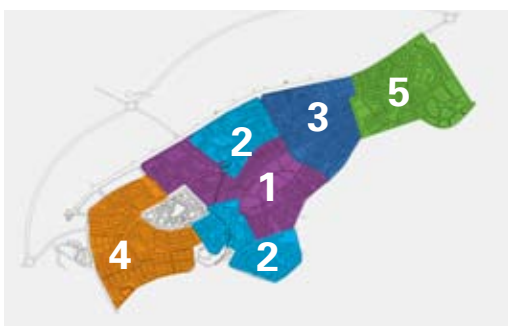
The A96 Growth Corridor Development Framework: The Highland Council 2007



## Option 1 – Western Neighbourhood

Phase 1 would be focused on the western neighbourhood adjacent to the existing settlement of Tornagrain. Growth would then move east towards the town centre, finishing with the eastern neighbourhood. This approach had the advantage of creating a discreet neighbourhood with some facilities as soon as possible, gives

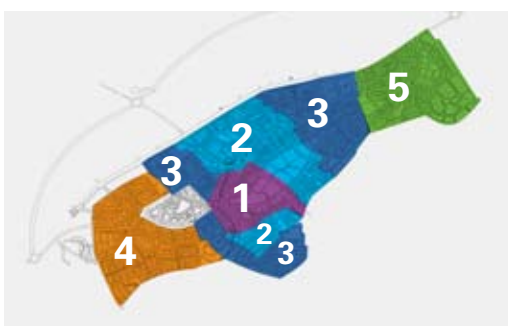
early certainty to residents at Tornagrain and is in a sheltered and discreet part of the site. However, the site does not have good existing road access, is some distance from the proposed town centre, which could delay its implementation and requires early relocation of the Inverness–Aberdeen gas pipeline.



## Option 2 – The Central Slice

Phase 1 would consist of a cross section of the plan through the centre incorporating a part of the future High Street, the central park and a cross section of housing types and neighbourhood characters. Growth would then move both west and east. This proposal had the advantage of better road access via the existing A96 roundabout, proximity to

IABP and the proposed rail halt, would allow a diverse offering of house and neighbourhood options and could provide for an early impetus to the town centre. However, such a proposal also poses challenges, particularly in creating a successful town centre very early in the project. The “slice” approach, whilst a bold statement of intent, might make the creation of a sense of place at an early stage difficult.



## Option 3 – The Central Southern Neighbourhood

This option would see the southern neighbourhood completed as phase 1, with expansion to augment this, to take in the town centre and then complete the west and east neighbourhoods of the town. By focusing on a discreet neighbourhood, the opportunities to create an early sense of place and an attractive place to live from the start are enhanced. The neighbourhood

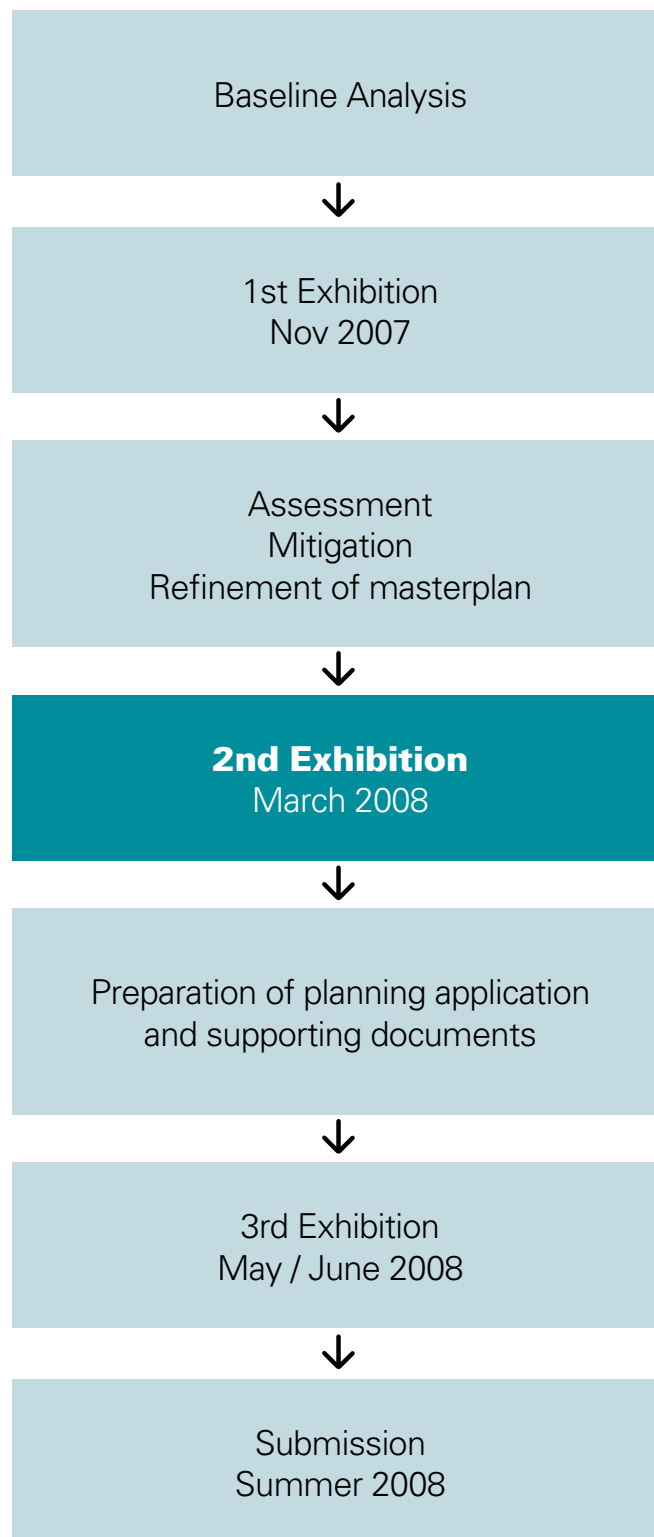
centre and primary school would provide a focus for the initial development. Early work on the central park and impetus for the town centre are additional benefits.

There are some challenges with the site. Road access via an upgraded Croy Road can use the new A96 roundabout, connecting to the Business Park and rail halt. In addition, this option is likely to require early relocation of the Inverness–Aberdeen gas pipeline.

# Next Steps

Thank you for taking the time to visit this exhibition and we hope you have found it informative. Please take a copy of the brochure and provide any comments you feel appropriate, either by depositing the pre-paid reply slip in the suggestions box or by sending it back to us later.

Work on the preparation of the planning application continues and the project team are now developing the various technical reports necessary to support the submission. Our intention is to have a final exhibition later in spring with the planning application scheduled to be ready for submission during summer 2008.



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