ROWETT NORTH

MASTERPLAN

OCTOBER 2015

Henry Boot DEVELOPMENTS

ABERDEEN CITY COUNCIL

EXECUTIVE SUMMARY

The Rowett North Masterplan has been prepared to guide the future redevelopment of the site of the former Rowett Research Institute in Bucksburn, Aberdeen.

The Masterplan has developed and evolved through detailed site analysis and in response to extensive consultation. The overall design concept is centred on the new Aberdeen Exhibition and Conference Centre (AECC) building, as well as providing sites for complementary uses. The Masterplan establishes how these can be fully integrated into the development location and surrounding landscape, creating a unique sense of place and identity for the site and wider community with the design of the new AECC at its heart.

A key feature of the Masterplan is the creation of an extensive public parkland which connects existing and future communities to the site. The parkland is intended to be an attractive environment for people to access and to serve as a living environment for wildlife and landscape.

The Masterplan incorporates a number of areas of differing landscape character offering a diverse range of experiences for visitors to the site, providing a legible hierarchy of formal and informal spaces across the public realm. These character areas create a setting for the individual buildings and ensure that the architecture is fully integrated into the overall landscape design.

A central public square is proposed at the heart of the Masterplan which will provide a high quality public realm environment and create a key focal point and gathering place surrounded by the AECC, hotels/restaurants and commercial buildings.

Sustainability is a major driver for the Masterplan. It is recognised that many of the possibilities for sustainability benefits are unique to this site and this Masterplan area offers the potential to deliver an exemplar sustainable development.

The Masterplan seeks to deliver buildings that are legible in form and massing, that create visual interest with transparent and active frontages. Clear guidance on how each character area should be developed is detailed with the key aspiration of functionality being combined with sustainability and design quality to create a development which will not only achieve a successful redevelopment of the Rowett site but will strengthen Aberdeen's profile for business and leisure.

OP-19 is the former site of the Rowett Institute and was identified as the new location for the AECC. The Rowett North Development Framework was produced and adopted as Interim Planning Advice prior to the adoption of the Aberdeen Local Development Plan 2017, with a recomendation to become Supplementary Guidance after the adoption of the 2017 Plan.
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 (03000 200292 or pi@aberdeencity.gov.uk) for clarification.

CONTENTS

Status	Revision	Date of Revision	Checked By	Authorised By
Planning	S	20.10.2015	SM	JM

GLOSSARY

ACC	Aberdeen City Council
AD	Anaerobic Digestion
A&DS	Architecture & Design Scotland
AECC	Aberdeen Exhibition and Conference Centre
AIA	Aberdeen International Airport
ALR	Airport Link Road
AOD	Above Ordnance Datum
AQMA	Air Quality Management Area
AREG	Aberdeen Renewable Energy Group
AWPR	Aberdeen Western Peripheral Route
BREEAM	Building Research Establishment Environmental Assessment Methodology
CCHP	Combined Cooling Heat and Power
CCS	Carbon Capture and Storage
CIBSE	Charted Institution of Building Services Engineers
CHP	Combined Heat and Power
DCSDP	Design & Construction Sustainable Development Plan
DEFRA	Department for Environment, Food and Rural Affairs
EIA	Environmental Impact Assessment
EPC	Energy Performance Certificate
ES	Environmental Statement
FIT	Feed in Tariff
FTE	Full Time Equivalent
FSC	Forest Stewardship Council
GVA	Gross Value Added
HBD	Henry Boot Developments
HSE	Health and Safety Executive
IC	Internal Combustion
IEEM	Institute of Ecology and Environmental Management
KPI's	Key Performance Indicators
LBAP	Local Biodiversity Action Plan
LDP	Local Development Plan
LTS	Local Transport Strategy
LZC	Low or Zero Carbon
MCFC's	Molten Carbonate Fuel Cells
NTS	National Transport Strategy
NATS	National Air Traffic Control Services
OE	Offshore Europe
PAC	Pre-Application Consultation
PI's	Performance Indicators
PP	Planning Permission
PPC	Pollution Prevention and Control
PPIP	Planning Permission in Principle
PPS	Planning Policy Statement
RHI	Renewable Heat Incentive
RN SSI	Rowett North Strategic Sustainability Indicator
RTS	Regional Transport Strategy
SDP	Strategic Development Plan
SE	Scottish Enterprise
SEPA	Scottish Environment Protection Agency
SI	Spark Ignition
SIP	Sustainability Implementation Plan
SNH	Scottish Natural Heritage
SPG	Supplementary Planning Guidance
SPP	Scottish Planning Policy
SRUC	Scotland's Rural College
SUDS	Sustainable Urban Drainage Systems

Section 1
Introduction

1.1 Purpose

The purpose of this Masterplan is to guide the future redevelopment of this site with new buildings of appropriate use and high quality architecture within an exceptional landscape plan with connections to its surroundings.

The Masterplan is submitted to Aberdeen City Council (ACC) in order that it will be adopted as Supplementary Planning Guidance (SPG).

The Masterplan has been the subject of discussions and consultation with the Council, other relevant bodies and the public. The preparation of the Masterplan has followed the approach set out in 'The Aberdeen Masterplanning Process – A Guide for Developers'.

1.2 The Team

To ensure that the potential of the site is fully realised, Henry Boot Developments have employed a multi-disciplinary Project Team to create a Masterplan that focuses on the site capacity, design quality, viability and deliverability from the outset.

Developer	Henry Boot Developments
Architect/ Masterplanner	SasanBell / Keppie Design
Landscape Architect & Ecology	Brindley Associates
Planning Consultant	GVA James Barr / Zander Planning
Project Manager	Turner & Townsend
Transport Consultant	Mott MacDonald
M&E Services Engineer	DSSR
Civil & Structural Engineer	ARUP
Sustainability Consultant	hurleypalmerflatt
Acoustic Consultant	Sandy Brown Associates
Archaeological Consultant	URS
Community Engagement Consultant	Streets UK
Communication Consultant	Perceptive Communicators
Cost Consultant	Turner & Townsend / Richard Boothroyd & Associates

above Overview of Proposed Site

Section 2
Brief & Vision

Aberdeen City Council and Henry Boot Developments share a quality place-making vision to create a new Exhibition and Conference Centre that strengthens Aberdeen's international profile for business and leisure. A distinctive new building will offer the best of facilities within a landscape setting that will set a high quality redevelopment agenda for the wider site.

2.1 Brief & Opportunity

Aberdeen City Council require a contemporary new Exhibition and Conference Centre capable of hosting major exhibition events and concerts. The new facility will position Aberdeen as a venue of choice for major exhibitions and artists, enabling Aberdeen to be recognised as an integral part of the national and international circuit.

Rowett North is considered to be an ideal location to accommodate a building of this calibre and to create around it a distinctive, meaningful and sustainable place for business, leisure and recreational uses complimenting the new AECC and wider context.

The Brief set by Aberdeen City Council for the new Exhibition and Conference Centre is intrinsically linked to the wider vision for the site and, as the central key design feature, will be a major influence on the wider site and Masterplan.

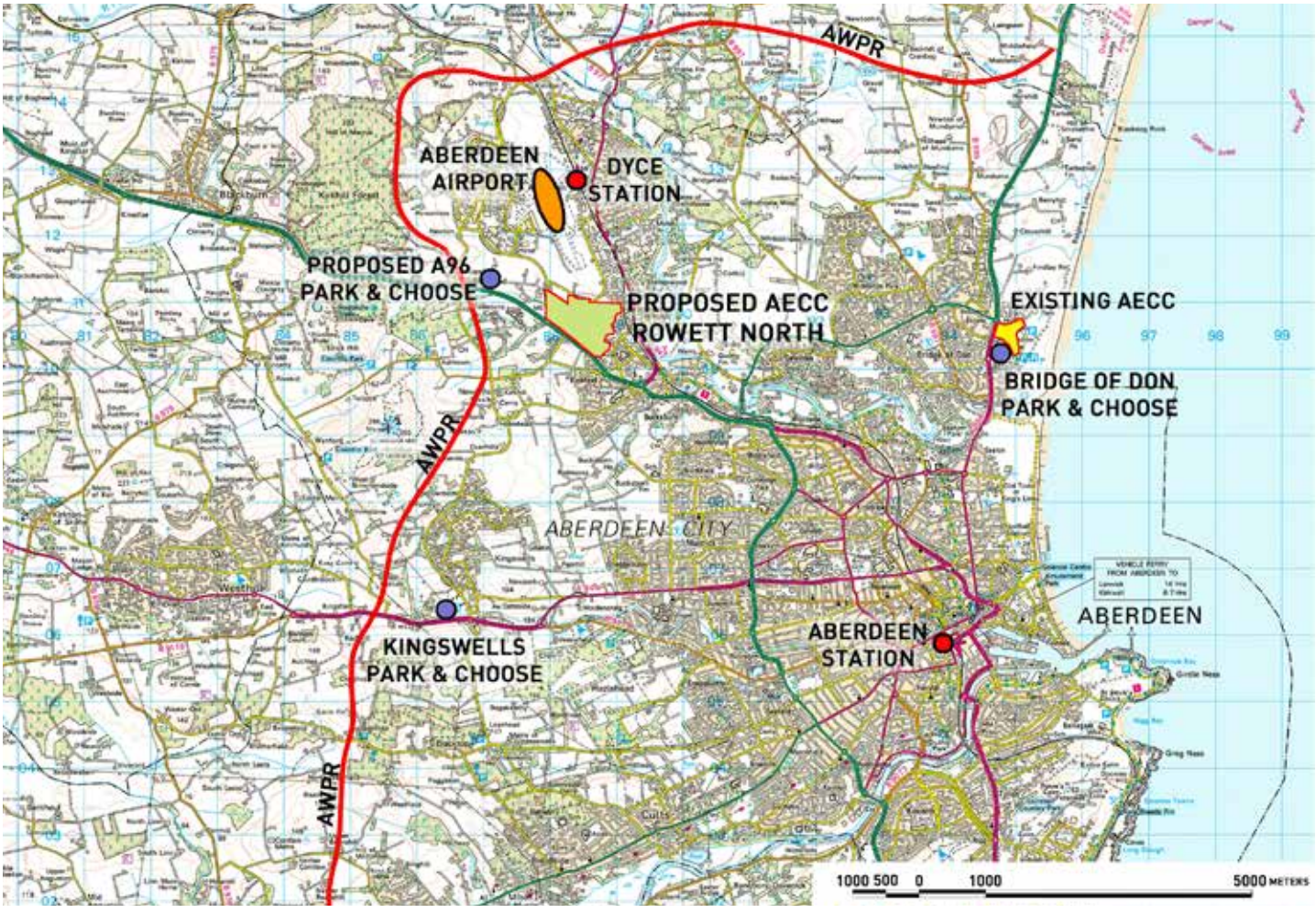
It is intended that the Masterplan will deliver buildings and spaces of high design quality with a focus on environmental credentials. The Masterplan proposes a range of uses which are complementary to the AECC including hotels, offices, leisure and recreation uses.

An Energy Centre, including an Anaerobic Digestion plant, is proposed to meet Aberdeen City Council's vision statement for the development to be one of the most sustainable venues of its type in the UK.

The site also falls within the "Energetica Framework" area supported by Aberdeen City Council. In this area development is expected to make a contribution to the quality of life, environmental performance and economic development targets.

Aberdeen City Council and Henry Boot Developments fully embrace the opportunity within the Rowett North Masterplan to deliver a vision which will create a unique place with the following key characteristics:

- An attractive place that is welcoming, safe and pleasant with a unique sense of place and identity
- A highly connected place throughout
- A place with distinctive character areas shaped and integrated into the proposed landscaped form
- A place with a contemporary new events facility together with complementary employment and leisure uses
- A place with an open parkland edge with full community access connectivity
- A place that is resource and energy efficient and highly sustainable throughout
- A 76,250sqm Exhibition and Conference Centre Venue
- A 14,600sqm 4-Star Hotel



above Location Plan

Note: AWPR = Aberdeen Western Peripheral Route

2.2 Economic Justification

Economic and Cultural Advantages

Currently, the existing AECC is facing increased competition to attract major UK and European events and conferences. The AECC Arena is nearly 30 years old and requires significant investment to address the existing site constraints and to meet international conference organisers' requirements for hotel accommodation adjacent to the conference facility.

In April 2012 Aberdeen City Council (ACC) agreed that the existing AECC required significant investment in order to fulfil aspirations to provide a world class exhibition and conference centre.

In 2013, Ipsos, an independent market research company, was commissioned by AECC Ltd to carry out research into the indirect economic impact AECC contributes to the North-East of Scotland (estimated at £140m). The initial findings identified much larger economic impact from the AECC than previously estimated within the 2012/13 Annual Report, with not only £140m per annum generated on average and the Society of Petroleum Engineers' Offshore Europe (OE) Exhibition held every two years generating a direct economic impact in addition of approx £54m.

The provision of a new facility will be a major infrastructure project for Scotland and showcase Aberdeen as a global energy destination for business and leisure tourism. An independent Scottish Enterprise appraisal (Table E1.3) has confirmed that a new Aberdeen Exhibition and Conference Centre will deliver the following high level SMART (Specific, Measurable, Achievable, Realistic and Time scaled) objectives:

1. Deliver 4.5m additional visitors and £113m net additional spend by 2025, through a destination marketing approach.
2. Elevate Aberdeen into the top 5 of global competitor energy cities for conferences and exhibitions by 2020.
3. Deliver £63m net additional Gross Value Added (GVA) and 352 net additional Full Time Equivalents (FTEs) by year 10.
4. Retain and develop energy events, such as Offshore Europe (OE), post 2019
5. Contribute £11m towards the £150-£200m current year Scottish Enterprise (SE) target of planned capital investment by supported companies.

The new AECC will:-

- Provide four times the current exhibition space
- Increase the seated entertainment arena from 4,750 to 12,500
- Secure an additional 31,000 business tourists to Scotland
- Lead to an additional £11m of visitor spend per annum

Tourism Destination Development

Through ACSEF (Aberdeen City & Shire Economic Future), ACC is working with public sector stakeholders and industry in Aberdeen City and Aberdeenshire to develop a coordinated strategic approach to grow the business and leisure tourism markets for the area. Developing the tourism offer in the Aberdeen region in a planned way through destination development and marketing (particularly in relation to selling the business tourism proposition) will ensure that the impacts of new investments are fully realised. This is further evidenced by the OE event organiser, Reed International who state that any reduction in the venue size or quality would increase the risk of other venues, out-with Scotland, being considered for future events post 2019 with a potential loss of £54M GVA to the Scottish economy. Losing OE would be a significant blow to the international reputation of Aberdeen and the wider region. The existing conference venue is not able to accommodate the growing demand for industry conferences and last year turned away 72 events.

Energy - Oil and Gas

The development of a new venue is considered a priority for investment as it will directly contribute to the delivery of the Scottish Oil & Gas Strategy by retaining and growing Aberdeen's role as a showcase for the global oil & gas industry, which will reinforce the city's profile as the European oil & gas capital. The new venue will also enhance Aberdeen City region's attractiveness to talent, a crucial competitiveness factor for the oil & gas industry, by boosting the area's quality of life through a significantly enhanced entertainment, leisure and cultural offering. Aberdeen City and Shire Economic Future (ACSEF) has highlighted that, in order to attract and retain skills, talent and business in the North East, early investment in place making infrastructure, tourism, cultural and leisure facilities are needed. The new AECC also has strong support from Energetica stakeholders, who recognise that investment in business tourism will bring further growth opportunities to the area.

2.2 ECONOMIC JUSTIFICATION

Table 2.2.1: Economic Impact Assessment (EIA) Summary by Scottish Enterprise

	Over 5 years (cumulative – 2018/19 to 2022/23)	Over 10 years (cumulative – 2018/19 to 2027/28)
Gross visitor numbers to new AECC	2.8m	5.7m
Additional visitors to new AECC (factoring deadweight and competitiveness decline)	2.1m (0.3m business visitors)	4.5m (0.9m business visitors)
Gross additional visitor spend (factoring deadweight and competitiveness decline)	£193.5m	£471.4m
Net additional visitor spend (factoring deadweight, competitiveness decline, displacement and 30% optimism bias)	£40.8m (£30.7 associated with business visitors)	£112.6m (£91.4m associated with business visitors)

Deadweight = outputs that would have occurred in the absence of the project (e.g. number of visitors and associated spend achieved by the existing AECC)

Competitiveness decline = annual loss of outputs as a result of reduced competitiveness due to current site restraints and the age of the facility (30 years) which will become obsolete over time

Displacement = the proportion of project outputs (in this case visitor spend) accounted for by reduced outputs elsewhere in Scotland, e.g. through competition with other Scottish venues.

Quantifiable Impacts

Accepting the caveats noted in the table above, the relocation of the AECC to purpose built premises in the Aberdeen International Airport Development Zone and associated net additional visitor spend has the potential to produce the following economic impacts over a ten year period assuming an optimism bias scenario of 30%:

- Net additional visitor spend of £113 million
- Peak net employment in a given year of 352 FTE person years (e.g. an Offshore Europe year). In addition, a further 850 gross FTE employment years supported at the peak of construction spend in 2017.
- Net cumulative GVA (PV) of £63 million, with a further gross cumulative GVA (PV) of £111 million created during the construction phase.

Identification and Evaluation of Key Impacts

This section identifies the likely socioeconomic impacts resulting from the proposed development during both the initial construction phase and once operational.

Construction Employment

The proposed development will be constructed over a 13-year period. The first three phases will be completed by 2019 and will cost £333 million. The office and leisure elements are planned to be developed over a 10-year period once the new AECC and hotels are operational. It is assumed that the capital cost of the offices and leisure component of the development will be approximately £167 million bringing total capital expenditure to £500 million.

The bullets below provide a summary of the expected gross construction impacts:

- Supporting £111 million gross GVA (PV) (direct, indirect and induced).
- Using the figures above, total employment created for the first three phases will be £333million / £185,106 (turnover per employee) = 1799 person years to construct the development.
- 600 jobs lasting for three years; and
- £34.8 million of gross GVA each year: £104 million over the three year construction period.

The fourth phase of construction occurs over a longer 10-year timeframe and therefore annual construction impacts are significantly less with an assumed 90 construction jobs supported in each year of development and annual GVA impact of £5.2 million. This brings the total GVA impact of the development to £156 million.

The annual GVA of construction activity in Aberdeen averages out at £341.7 million per annum over the past five years. Therefore, an annual increase of £34.5 million equates to 10.1%, representing a positive impact on the construction market.

2.2 ECONOMIC JUSTIFICATION

Operational Employment

Direct on-site employment will be generated through the new AECC, hotels, Energy Centre, offices and leisure space.

The employment impacts for Phases 1-3 have been taken from economic analysis undertaken by Scottish Enterprise into the potential impacts of the AECC. Impacts for Phase 4 have been calculated using the Homes and Communities Agency's (HCA) 'Employment Densities, a Full Guide' allowances of 12sqm per FTE for general offices and 65sqm per FTE for the leisure accommodation.

Net Employment (Year10)

Phases 1-3 New AECC, hotels and Energy Centre.

The GVA of the Tourism sector in Scotland is £3.2 billion annually with Aberdeen having a 8.6% share of this market which equates to an annual GVA of £275 million. This suggests that the annual additional £8.45 million to GVA as a result of the first three phases of development would have a beneficial impact of minor significance by enhancing economic output by 3%.

Visitor Spend

The AECC operating company has undertaken analysis of existing and projected visitor numbers and the economic impact of visitor spend. This estimates that visitor numbers will increase from 184,300 in 2014 to 603,000 in 2022. These assumptions have been validated by external parties who have undertaken due diligence on the AECC business plan.

Scottish Enterprise has undertaken an Economic Impact Assessment which predicts that the increase in delegates will amount to 5.7 million over a 10 year period. This will produce an additional £471.4milion of additional gross visitor spend will be accrued over a 10 year period. This equates to a net spend of £112.6 million.

The Aberdeen City and Shire Tourism Partnership Strategy estimates that Tourism is worth £340 million annually to the City and Region. Therefore the additional annual gross expenditure generated by the new AECC equates to 14% of this market giving a moderate net positive impact in this sector.

Wider Socio Economic Impacts

The employment, economic and financial impacts are enhanced through wider strategic impacts associated with strengthening the perception of the area as a place to live, work, visit and invest. The wider impacts will be measured through a variety of mechanisms.

Conference and Exhibition Centre – will improve and widen the range and choice of cultural and entertainment events that can take place in Aberdeen. It will provide a 'state of the art' facility that will attract more major artists to the venue making it an integral part of the recognised national and international touring circuit. AECC will monitor customer perception and feedback as part of its ongoing business operations.

Informal recreation – provision of land for informal recreation is included within the proposals based on a clear framework of open space, recreational areas and the wider Green Network. This includes walking and cycling routes with full public access that are linked to the wider networks. Use of this element of the facility will be monitored through ongoing communication with the local community.

In addition, as outlined in Appendix C, the development's sustainability framework will ensure protocols are established in relation to securing targeted training and employment opportunities and supply chain opportunities for small and medium enterprises (SMEs) and social enterprises. A schools and further education engagement programme is also proposed. This will enable curriculum materials to be prepared covering various aspects of the development including the more innovative elements such as the energy centre. This supports the priority of encouraging young people to take up STEM subjects (Science, Technology, Engineering and Maths) and in supporting the provision of skills that are critical to the City's future economy. Targets will be set in relation to this activity.

2.3 The Vision

The Masterplan vision is to provide an innovative development which encourages architecture, landscape design and an appropriate mix of uses to enhance the area. In doing so, the key aim is to create a vibrant and contemporary destination for entertainment, tourism, commerce and leisure.

A key part of this vision is to develop the site using the principles of environmental sustainability which will set an example for future development within the region and beyond.

By creating an inviting, culturally-focused, mixed use facility within a parkland setting, Rowett North will be viewed as a community asset and an important new public place in Aberdeen.

This Masterplan will set the standard for the regeneration of the Rowett North site and the delivery of a level of sustainability and design quality that will be fundamental to strengthening Aberdeen's international profile for business and leisure.

"The Masterplan sets a standard for a vibrant, contemporary centre for entertainment, commerce and leisure set within a contemporary parkland providing ample recreation space and creating strong links between the surrounding communities."

above Aerial view of Central Square looking South

above Aerial view of Subterranean looking South-East

Section 3
The Site

SECTION 3
THE SITE
3.1 SITE DESCRIPTION & CONSTRAINTS

3.1.1 Site Location
During the bid process, an extensive city wide search looking for sites with excellent transport links, close to the city and with a brownfield context was undertaken. The Rowett was identified as a highly suitable location meeting these criteria.

The site extends to approximately 154 acres in total and is located 6 miles West of Aberdeen City Centre. The site is bounded to the North by Wellheads Drive and to the South by the A96. To the East are the residential areas of Stoneyburn and Bankhead, and Dyce Drive sits to the West.

The Masterplan falls within the catchment area of Dyce, Stoneywood, Bucksburn & Newhills Communities. The terminal building for Aberdeen International Airport is situated approximately 1 mile to the North of the site.

3.1.2 Site Ownership & History
The site is owned by the University of Aberdeen and is under contract to Henry Boot Developments. For the last 90 years it has been the home of the Rowett Research Institute, however they will complete their relocation to a new state-of- the-art building on the Foresterhill campus during 2016, thereby creating the opportunity for significant redevelopment and regeneration.

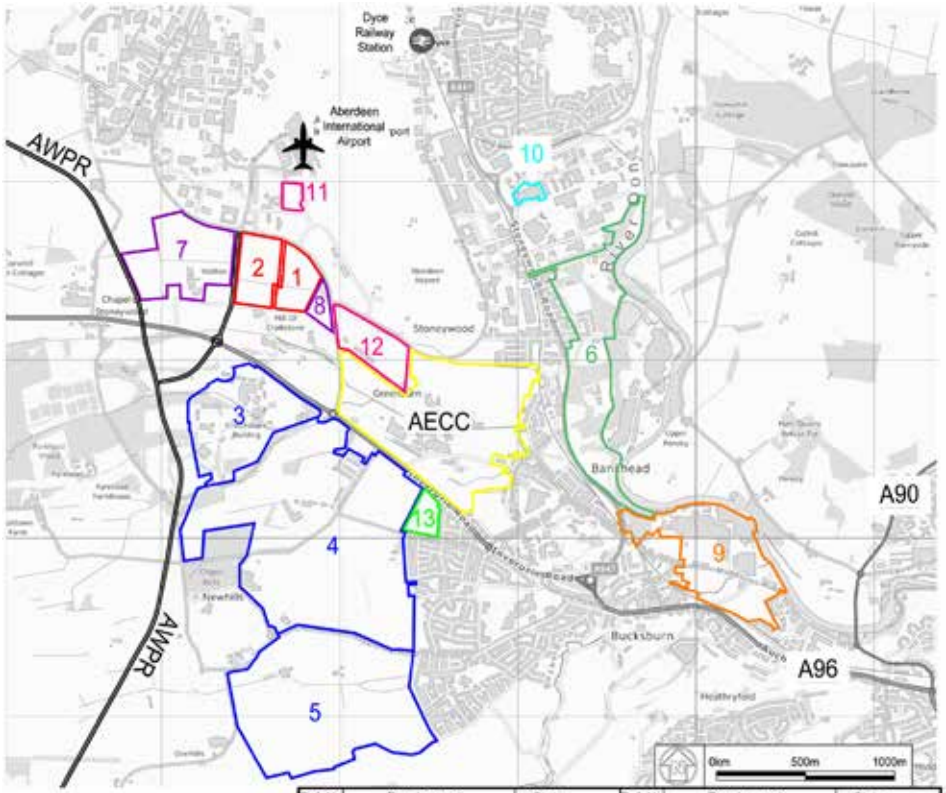
The majority of the site has remained undeveloped and used as agricultural land since 1869. Ordnance Survery maps show that a smithy and some gravel pits were located in the Southern area of the site between 1869 and 1938. The Rowett Institute was constructed in the central area of the site between 1920 and 1955. There have been a number of significant changes to the configuration of these buildings since 1955.

The former Rowett Research Institute comprises of a series of research, academic and agricultural buildings extending to approximately 25,000 square metres (270,000 square feet) with the remaining sections of the site being predominantly laid to agricultural use.

3.1.3 Development Context
The site is located in an area of Aberdeen that is undergoing significant development resulting in a fundamental change to the character of the area going forward.

Through site allocations in the Local Development Plan approximately 4,400 houses and several million square feet of commercial business space are being developed on neighbouring, previously greenfield sites (refer to Development Context Diagram opposite).

above Aerial View from West



above Development Context Diagram

Ref. No	Development	Status
1	Aberdeen International Business Park (Phase 1)	Application Approved.
2	Aberdeen International Business Park (Phase 2)	Application Pending.
3	Newhills Development (Craibstone South)	Application Pending.
4	Newhills Development (Rowett South)	Application Pending for Ph 1 allocation of 1700 units.
5	Newhills Development (Greenferns Landward)	No Application.
6	Stoneywood Estate	Application Approved.
7	D2 Business Park (Phase 1)	Application Approved.

Ref. No	Development	Status
8	D2 Business Park (Phase 2)	Application Approved.
9	Former Davidsons Mill Redevelopment	Application Approved.
10	Former BP Headquarters Office Redevelopment (Plot C)	Application Approved.
11	ABZ Business Park, Plot A/B, Dyce Drive	Application Approved.
12	ABZ Business Park (Phase 2)	Unconfirmed.
13	Persimmon Housing	Application Approved.

Key
AECC Site Boundary

3.1.4 Site Overview

A detailed site analysis was carried out including landform, potential constraints and neighbouring future development. The key site characteristics are listed below:

Topography

- Undulating site with steep embankments along Western and Southern boundaries
- The site is crossed by several watercourses
- There are several field boundaries and wooded areas within the Masterplan area

Land use

- Mix of uses – former educational/ agricultural, offices & residential
- Site identified in the local plan for employment and for the new AECC in the proposed Local Development Plan 2016
- The planning context is set out in Appendix A

Connectivity

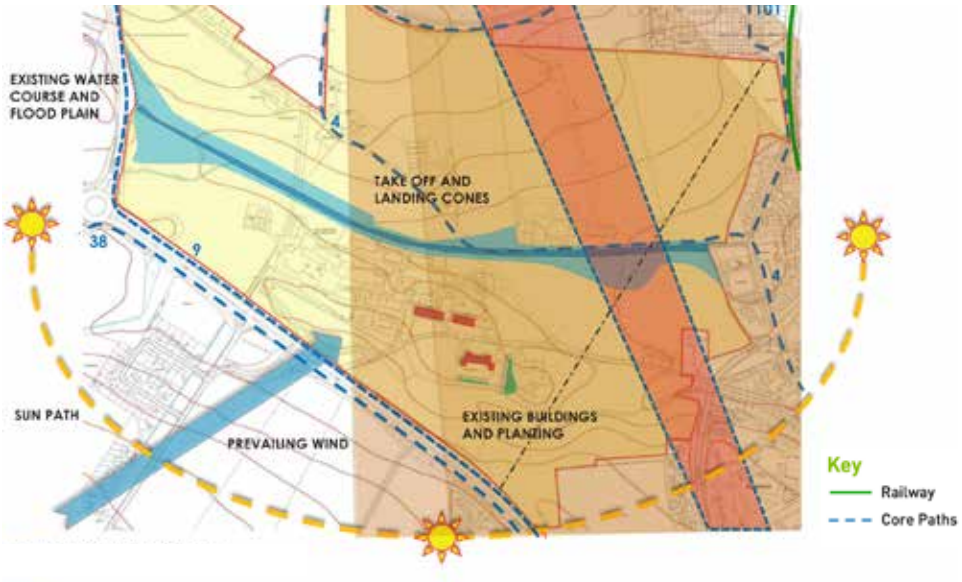
- Direct pedestrian connections from the surrounding road network and residential area to the East of the site, as well as via the underpass to the South of the site. The core path network runs through the site, which will be retained and enhanced as part of the development proposals
- High level of existing cycle route connectivity with shared use cycle facilities and associated infrastructure surrounding the site on the A96, Dyce Drive and Wellheads Drive
- High level of accessibility for public transport with bus stops located on the A96, Dyce Drive and Wellheads Drive, as well as in the neighbouring residential area situated to the East of the site
- Close proximity to Aberdeen International Airport and within 2km of Dyce Railway Station
- Direct connection to the A96, which is a key desire line connecting the site to the town centre and the North of Scotland
- Well positioned to benefit from the proposed new Aberdeen Western Peripheral Route (AWPR) when it comes on stream in 2018

Character

- There are a number of existing buildings on site. A selection of these are illustrated in the photographs opposite
- 2/ 3 storey traditional buildings, industrial/ agricultural sheds and low volume residential
- None of the buildings are listed by Historic Environment Scotland for social or architectural merit

Constraints

- Flight Cones for aircraft take-off and landing determine maximum building heights and renewable development potential (Landing Zone)
- Public Safety Zone
- Low lying area of site identified as an area at risk of flooding by SEPA



above Site Appraisal Diagram

above Blaxter Building

above Strathcona House

above The Reid Library

above Boyd Orr Building

above Human Nutrition Unit

3.1.5 Site Identity

The site is undulating in nature, but generally slopes from North to South. Steep embankments exist along the boundary of Dyce Drive and the A96 Inverurie Road.

The site is bounded to the North by Wellheads Drive and Brimmond View; to the South by the A96; to the East by the rear gardens of Waterton Road and Greenburn Drive; and to the West by Dyce Drive.

The Green Burn, Gough Burn, Forrit Burn, East Craibstone Burn, Corsehill Burn and East Burn run through or close to the site.

There are a number of areas of mature mixed conifer and broadleaf woodland on the site, both semi-natural and planted. Field boundaries within the site are bounded by a mixture of timber post and wire fences, stone dykes, trees and shrubs.

There are a number of buildings within the boundaries of the site ranging from 3 storey traditional granite and sandstone buildings, built c1920, to more modern 1960s modular exposed concrete framed extensions and single storey agricultural buildings.

Strathcona House (1) was originally constructed in 1929. The property comprises a detached three storey building constructed from red sandstone walls with a pitched and slated roof over. It was used for a combination of uses including a lecture theatre, dining hall and residential accommodation.

The Boyd Orr building (2) is semi-detached and three storeys in height having been constructed in 1922. The walls are of a traditional granite design whilst the roof over is pitched and clad with asbestos. It was used for a combination of office and laboratory uses.

The Reid Library (3) is semi-detached and of two storey height. It was constructed in 1938 from a traditional pointed granite design whilst the roof over is pitched and clad with slate. It was used largely as offices.

Wardenhill House (4) sits in a tree-lined and enclosed position on the fringe of the core campus area. It comprises a detached dwelling house constructed in 1925 from a traditional granite design with a pitched and slated roof over.

The existing housing to the North East and East of the site comprise a range of single, 1½ and 1¾ storey properties. These houses were built in the 1960's and comprise terraced and semi-detached properties. There are proposals for a new community (Newhills) to the South of the site.

The Aberdeen International Airport Public Safety Zone applies to an area of the site. Guidance on the types of development permitted in Airport Public Safety Zones is provided in the Scottish Executive Circular 8/2002.

above Existing Site Plan

1 Strathcona House

2 Boyd Orr Building

3 The Reid Library

4 Wardenhill House

3.2.1 Connection & Movement

The site has a high level of connectivity to existing sustainable transport features, including the core path network that runs through the site, shared use footways/cycleways on surrounding roads, as well as to other related features such as at-grade pedestrian crossings, toucan crossings and an underpass on the A96, which will be improved to better facilitate pedestrian and cycle movements. This is further discussed in Section 4.

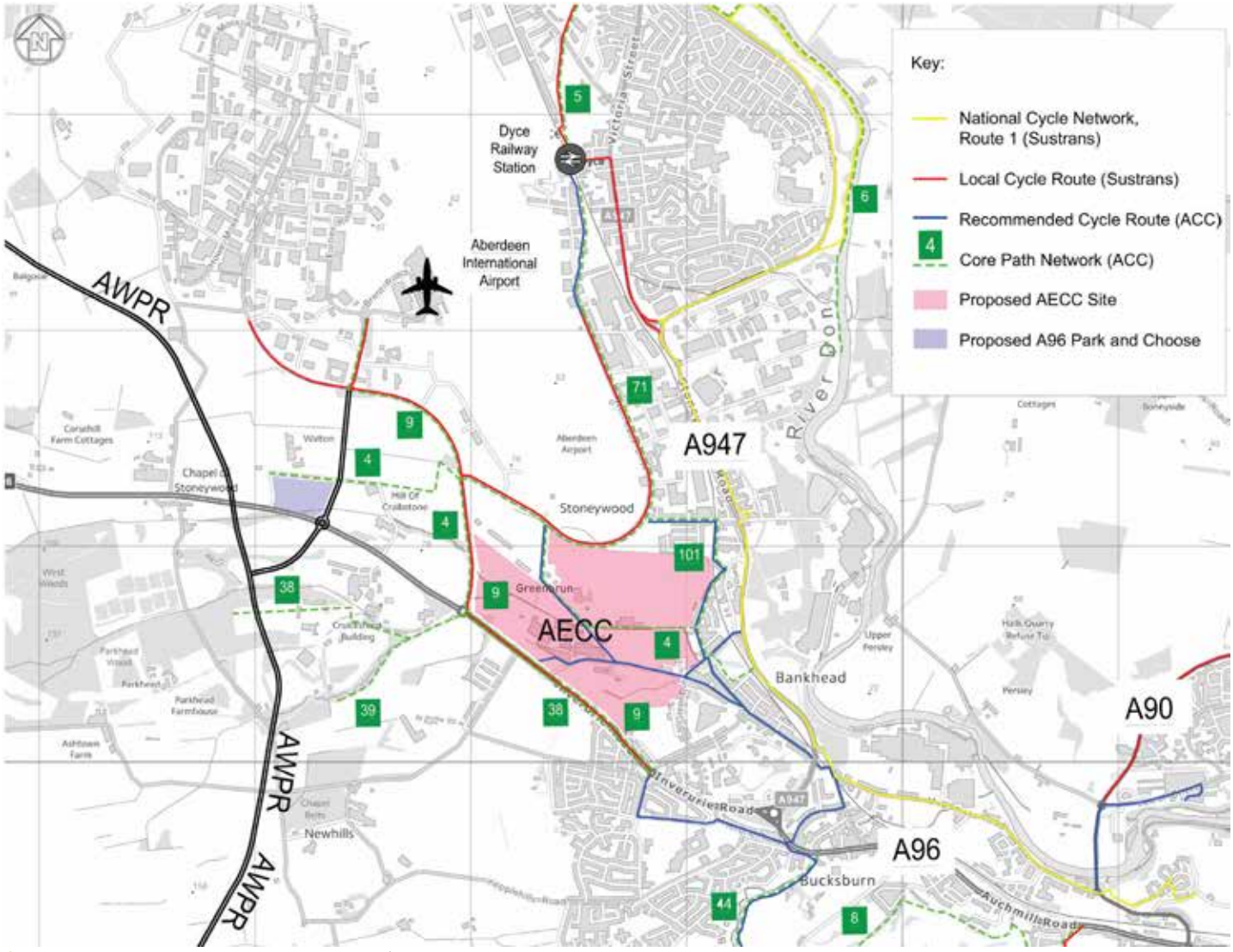
The site is bounded to the South by the A96 trunk road to Inverurie. This is a dual carriageway and one of the major radial routes for vehicular traffic travelling between Aberdeen City Centre, Aberdeenshire and beyond, and will connect onto the proposed Aberdeen Western Peripheral Route (AWPR) approximately 1km away. Connecting to the A96 is Dyce Drive which feeds the Airport and the Dyce commercial area.

The site is presently accessed via Greenburn Road from Bankhead, with an additional left in / left out onto the A96. A further (gated) access exists via Market Street to the North of the site via Wellheads Drive. To the South West corner of the site there is access to an underpass below the A96 (also gated), which terminates at Forrit Brae. A private farm access is available to the East from Waterton Road.

For details of existing bus links refer to Section 4.5.3 Existing Site Connectivity.

above Present A96 Access

above Approach to Underpass



above Context Connection & Movement Diagram Surrounding Site

3.2.2 Ground Conditions

Preliminary Ground Investigation

A preliminary ground investigation at the site was carried out between 23rd of June 2014 and 31st of July, during which 22 trial pits, 2 trial trenches, 10 hand dug trial pits, 10 cable percussive boreholes to rockhead or refusal and 5 rotary continuations were undertaken at the site. In addition to these, rotary coring of superficial deposits was undertaken at 5 locations. Ground water and ground gas monitoring was undertaken over a 4 week period.

Superficial Deposits

The review of the preliminary information indicates that the ground conditions at the site generally comprise topsoil (typically 0.1 to 0.5m thick) overlying granular natural deposits (proven to depths of 9.5m below ground level), which are typically described as "medium dense silty gravelly sand". In a number of boreholes undertaken in the centre and East of the site very stiff (locally described as soft or firm) glacial till was encountered below the granular deposits.

Some alluvium was encountered adjacent to the watercourses, however the extent of the alluvium was found to be relatively minor and is likely localised to the vicinity of watercourses.

Made ground was encountered within the Rowett Institute compound next to the piggery and poultry buildings and in areas where made ground was previously indicated on historical maps. The proven depth of made ground encountered ranged between 0.4 and 2.6m. However, the thickness of made ground at two locations was not proven at 3.0 and 3.4m (TP14 and TP20, both South of the institute compound). Therefore, the made ground thickness in these localities will be greater.

Bedrock

Granite bedrock was proven at depths of between 7.7 and 21.1 metres below ground level. The upper horizon of the granite was found to be heavily weathered, sometimes not recovered, or recovered as sand or gravel.

Groundwater

The groundwater levels monitored so far indicate a shallow groundwater table (between approximately 0.6 and 2.6m below ground level).

Artesian water was encountered in the granite bedrock in a number of the exploratory holes where rotary drilling was undertaken. This would require to be taken into account for any piling design and operations.

Potential for Contamination

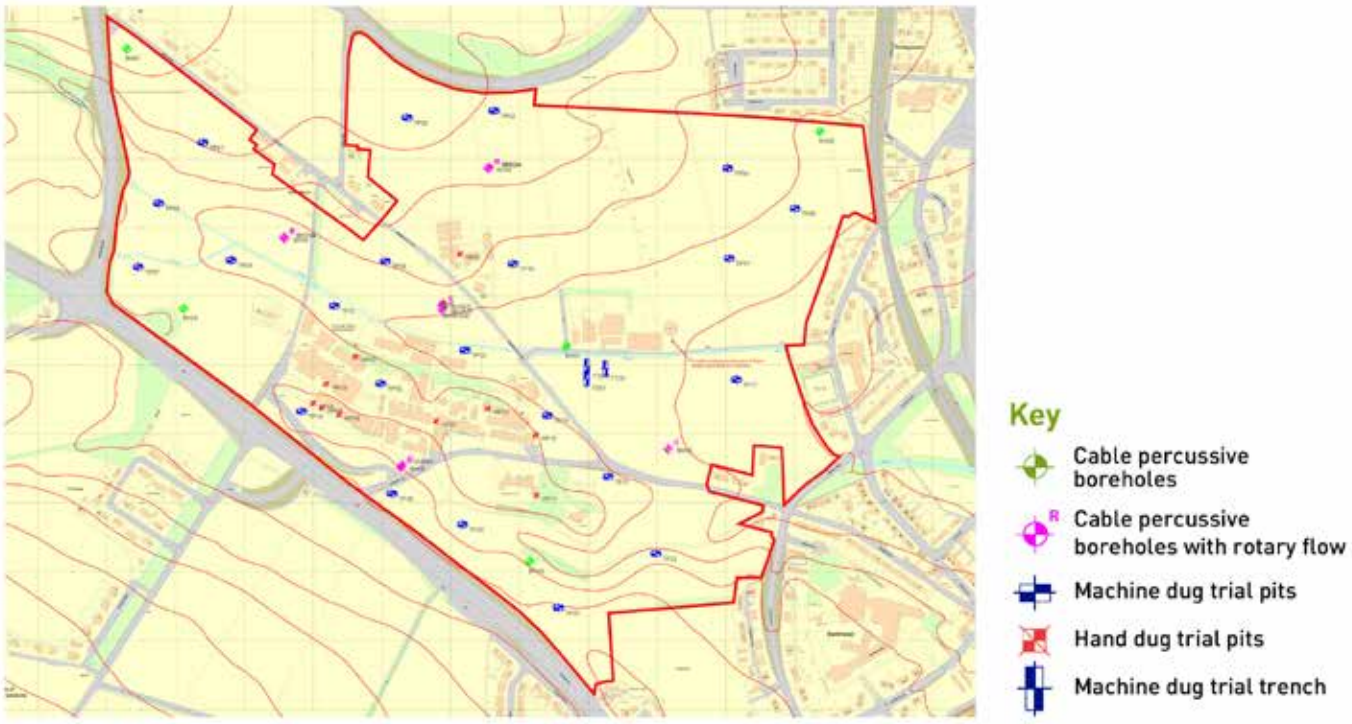
As part of the preliminary ground investigation, soil and groundwater samples were obtained and tested to establish the presence of contamination.

Soil and groundwater samples have been collected, tested and assessed to determine if contaminants present at the site may pose a risk to human health, the water environment or the wider environment.

The findings of the initial ground investigation generally indicate low levels of contamination to be present across the site, both within the soils and groundwater. The recorded levels of contamination were generally consistent with the very limited visual or olfactory evidence of contamination noted during the investigation.

The site is, however, a very large size and various potential point sources of contamination have been present, such as tanks, substations, storage, areas of waste, infilled features and specific research activities at the Institute. If identified, these will be remediated as required to the appropriate environmental standards.

The buildings will be protected from naturally occurring radon gas emanating from the granite bedrock using a simple gas protection membrane.



above 2014 Ground Investigation Exploratory Hole Location Plan

3.2.3 Ecology & Habitat

A number of ecological surveys, informed by scoping with statutory consultees, were undertaken between March and October 2014 by a team of appropriately qualified ecologists. All ecological field work was undertaken within appropriate survey windows, as recommended by the Chartered Institute of Ecology and Environmental Management (CIEEM).

Following this review, habitats on site are considered to be of local value or less. There is only one statutory designated site, the Donmouth Local Nature Reserve (LNR), which is hydrologically connected via the tributary to the River Don that runs through the site, but operational impacts upon this site are considered to be negligible.

A number of detailed surveys for protected and other species of interest have been undertaken including: bats, otters, water vole, badger, breeding birds, reptiles, and invasive plant species. Protected species use of the site is limited although otters are using (but not breeding) along the Green Burn and a number of buildings contain bat roosts. Scottish Natural Heritage (SNH) licence applications will be made for works affecting these species and protection works, appropriate habitat creation and ongoing monitoring as appropriate will be undertaken to ensure that effects upon them are minimised.

Due to the potential nesting bird habitat it is recommended that works take place outside the nesting season (usually March-September inclusive). Existing trees will require to be removed to accommodate the proposed development.

All relevant habitat and protected species surveys undertaken are detailed within the Environmental Statement (ES).

The desk study identified several Local Biodiversity Action Plan (LBAP) butterflies and moths that are likely to be present on site or that could be actively encouraged. Opportunities to support these species will be provided through planting of meadows containing species such as ribwort plantain (Plantago lanceolata) and clover (Trifolium species). The species mixes proposed along the burn corridor will also provide opportunities for invertebrate species such as bees, hoverflies and beetles. These areas are proposed for the West and East burn corridors, furthest away from the Airport.

The design of the proposed water course will include the provision of a heterogenous habitat with pools, riffles and glides to increase habitat suitability and provide opportunities for a range of taxa including plants and aquatic invertebrates.

The semi-natural woodland around Strathcona House is to be removed, although it can still act as a source of local native semi-natural woodland plants for the proposed wooded corridor along the diverted water course. The woodland will act as a source of seeds and ground flora species are to be transplanted. This will be supplemented by a woodland seed mix to encourage a semi-natural ground flora that is in keeping with the local area in order to create a biodiverse riparian corridor.

A planting regime will be implemented to restore tree cover within the site, where new trees will be planted over 4m apart so that the density of woody plants does not provide adequate nesting opportunities for birds. Native trees such as silver birch (Betula pendula), white willow (Salix alba), alder (Alnus glutinosa) and aspen (Populus tremula) will be planted adjacent to the burn. Wych elm, an LBAP species, will also be incorporated into the planting scheme.

No evidence of badger or water vole were found within the proposed site boundary during these surveys, and any use of the site or existing mammal holes by badgers is only a theoretical possibility with no positive field evidence to identify presence. The requirement for pre-construction check surveys to verify the continued absence of these species is standard ES mitigation where potentially suitable habitat exists. An Otter Protection Plan is also identified as a mitigation measure within the ES.

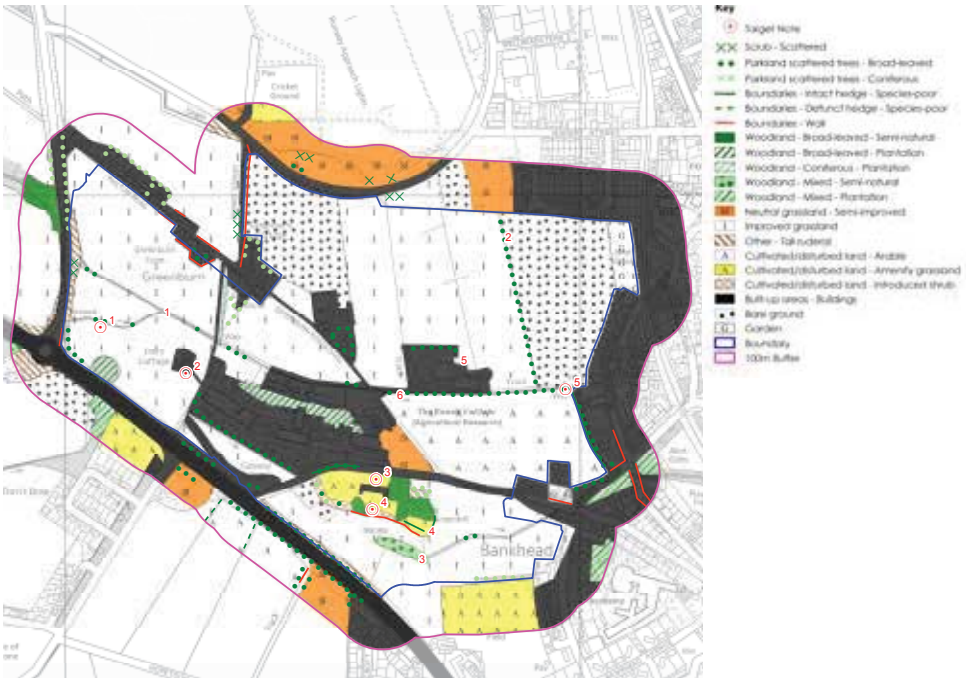
Further information on all of the above, including cumulative impacts of all developments within the area, are detailed within the Environmental Statement.

Copies of the Environmental Statement can be viewed at

Aberdeen City Council
Planning and Sustainable Development
Business Hub 4
Marischal College
Broad Street
ABERDEEN
AB10 1AB

or online at http://www.aberdeencity.gov.uk/planning_environment/planning_and_environment.asp

using Planning Application reference numbers 151390 and 150826.



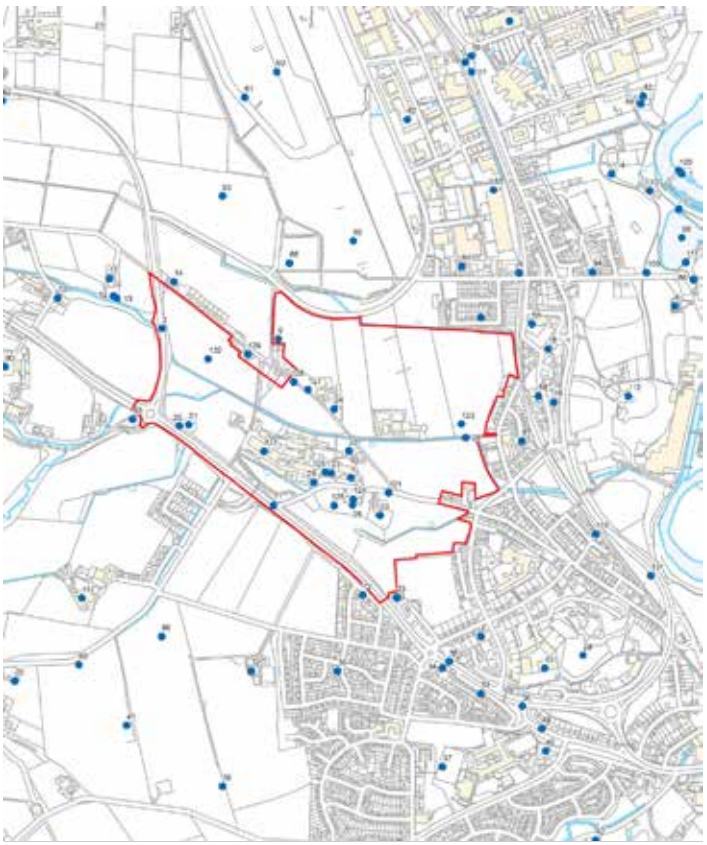
above Phase 1 Habitat Survey

3.2.4 Heritage & Archaeology

A review of Aberdeen Council Sites and Monuments Records and the National Monuments Records of Scotland has been undertaken. It has been determined that 112 Cultural Heritage Assets exist within the study area. The archaeological assets range in date from the prehistoric to modern periods and comprise find spots, evidence for small-scale gravel and sand extraction, and post-medieval and modern structures/buildings. There are a variety of designated assets in the study area comprising churches, a school, farm buildings and houses. There are two scheduled monuments that are milestones of the Aberdeenshire Canal which reflect the importance of this area as a communications route. These currently sit out-with the application site, situated to the East of the site boundary on Stoneywood Terrace, and South-East of the site boundary at Muggiemoss Road.

Within the site boundary are 22 non-designated assets which include a number of buildings of the Rowett Institute. Geophysical survey in the farmland surrounding the Institute complex has recently detected buried features of archaeological interest, including undated linear features that also appear to form enclosures to the North of the site. Close to the Green Burn the in-filled channel of an earlier alignment of the burn was found which may be the leat for the mill dam that is located at the East of the site and which fed the 19th century Mill of Waterton. It is possible that alluvium associated with the watercourse may mask other features of archaeological interest. An archaeological evaluation will be undertaken, targeted on geophysical anomalies as well as blank areas. Where buried archaeological remains are identified, and these will be impacted by the scheme, these will be mitigated by suitable archaeological excavation and recording in advance of construction to preserve the archaeological remains by record.

Prehistoric cist burials that were investigated in the 19th century within Bankhead /Waterton, but which are poorly located may have been discovered within the site, although there are no visible traces of any features associated with these burials.



above Heritage & Archaeology Study Exert

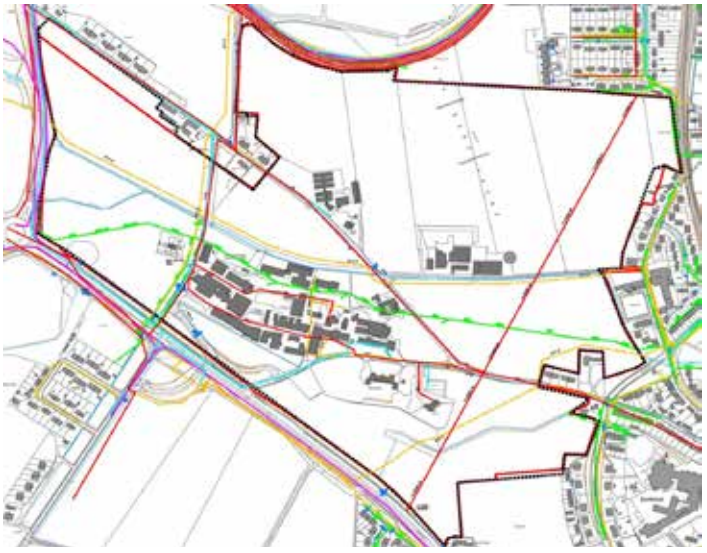
3.2.5 Existing Utilities

The adjacent diagram shows the existing utilities on the site. The majority of existing utilities feed buildings currently and therefore can be made safe and removed at the time of the relevant demolition works.

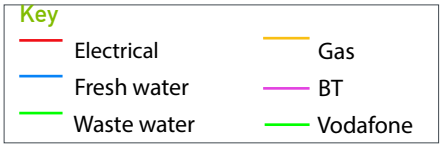
There are however a number of utilities which require to be maintained in operation and diverted.

The most significant of these are;

- An 11 kV overhead line traversing the East of the site. Allowances have been made for diverting this around the perimeter of the site
- Large intermediate pressure gas mains traversing the site, at the South East of the site and at the West of the site. Allowances have been made to divert these to the perimeter of the site and combine as appropriate
- A large water main traversing the site; allowances have been made to divert this to the perimeter of the site



above Existing Utilities Diagram



3.2.6 Flooding & Drainage

Key to the development of the site is the rationalisation of the existing water courses that run through it. There has been a history of flooding in the Greenburn area and the proposals put forward with the redevelopment of the Rowett Institute aim to reduce the risk of flooding downstream by providing sufficient attenuation to the upstream surface water flows.

Drainage

A primary foul drain from the Airport area runs directly through the Rowett Institute, and also several water mains feed through the Rowett estate. All this original infrastructure will be combined into new drains and water mains servicing the Masterplan and maintaining continuity through the site.

The Green Burn, Gough Burn, Forrit Burn, East Craibstone Burn, Corsehill Burn and East Burn run through or close to the site.

The development proposals include realignment of the Green Burn and the rationalisation of large portions of Gough Burn and East Craibstone burn into this new channel. The overall impact of this is predicted to be positive as the new channel has been designed to replicate a natural, unmodified burn appropriate for the local environment.

The historic modifications made to all three impacted burns led Scottish Environment Protection Agency (SEPA) to conclude that 'it is likely the current morphological conditions of the watercourses involved is not good'. As a result, despite the associated loss of overall channel network length, SEPA consider the proposed channel re-routing to comply with the overall objectives of the Water Framework Directive, as it serves as an opportunity to significantly improve the water environment.

SEPA were clear that a condition of approval is that the new channel has both a natural appearance and functions as much as possible as a natural system. A hydrogeomorphological survey has been undertaken to assess baseline conditions and inform the design for the new channel. It outlines design plans and construction techniques which should ensure the new channel replicates appropriate morphology and natural processes.

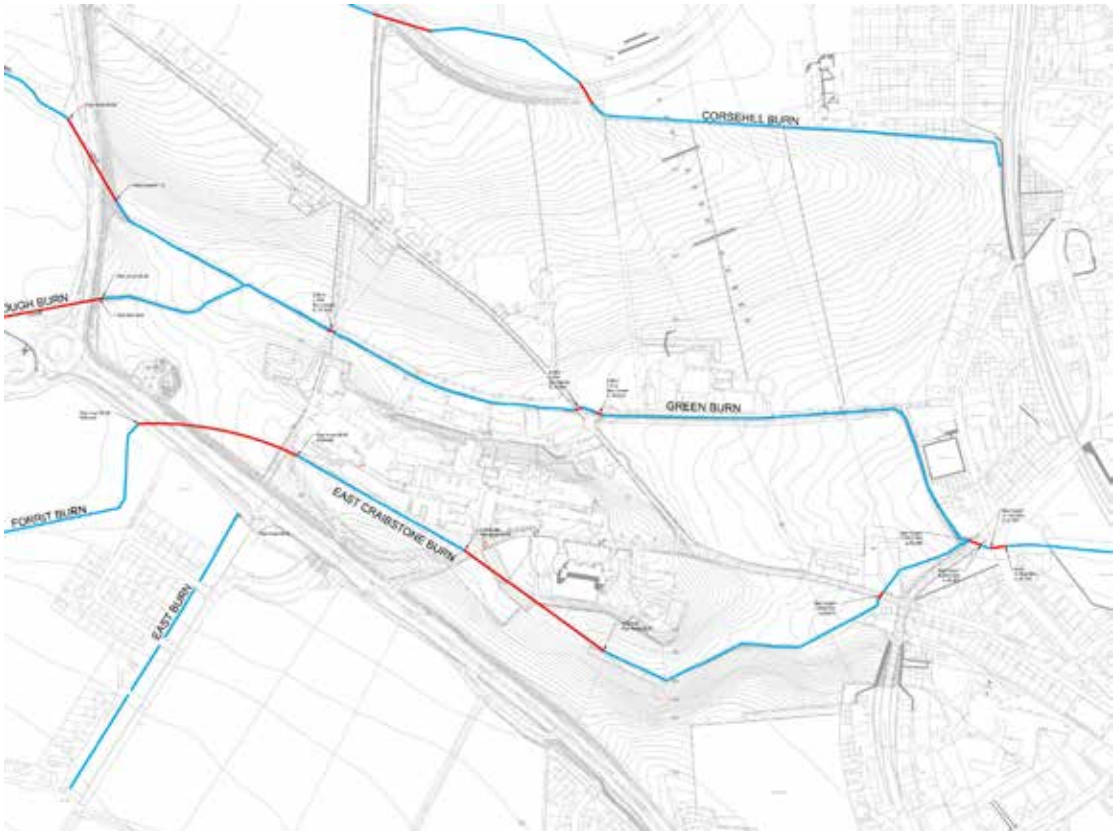
Naturalistic channel and bank morphology will be complemented by appropriate planting of the riparian zone and surrounding area to ensure lateral connectivity and ecosystem function, whilst still providing an effective buffer strip.

Flood Risk

A Flood Risk Assessment has been undertaken and the development will have no negative impacts of flooding. Demolition and construction works will be phased to ensure there is no overall loss of in-channel capacity and, although there will be a shift in land use, the development incorporates sustainable urban drainage (SUDS) techniques which will ensure run off is not greater than that from an equivalent green field site.

The existing private combined sewer will be removed from the site as the existing buildings are demolished. The existing public combined sewer will be diverted around the proposed new arena, following the route of the proposed access roads within the site.

A new foul sewage network will be installed to serve the proposed development. This will connect to the diverted combined sewer at various points throughout the site.



above Existing Watercourse Drawing

3.2.7 Aberdeen International Airport & National Air Traffic Services (NATS)

Detailed analysis of building height restrictions has been undertaken and plotted in conjunction with the radar, air traffic control and aerodrome safety guidelines.

Consideration has also been given to the proposed future expansion of the main runway at Aberdeen International Airport and its potential impact on the proposed development.

above Diagram Illustrating Proposed Runway Extension and it's Relationship to the Site

3.2.8 Noise

The Rowett site is on the outskirts of Aberdeen, to the South of Aberdeen International Airport. The site is directly under the flight path to and from the main runway at Aberdeen International Airport and aircraft noise from both fixed wing aircraft and helicopters is a significant source affecting the entire site.

Road traffic noise from main roads also affects the site, primarily from the A96 Aberdeen to Inverness Road, together with other local roads. The nearest noise sensitive areas are the residential properties that are situated to the South, East and West of the site.

The Existing Noise Environment

A detailed site noise survey has been undertaken.

The noise climate at the site is dominated by aircraft movements. The maximum noise levels due to aircraft are routinely in the range L_{AFmax} 75-80 dB, however there are regular occurrences of noise levels in the range L_{AFmax} 80-90 dB, and on occasion the noise level can exceed L_{AFmax} 90 dB.

The noise level due to the A96 road is currently L_{Aeq}, 10min 75 dB at 10 metres. This is quite consistent throughout the day and does not reduce significantly in the evening.

Airport activities largely cease late at night and overnight, and the background noise across the site becomes quite low. The background noise is typically in the range L_{A90} 45-50 dB during the daytime, reducing to L_{A90} 35-40 dB in the early and late evening. The background noise reached a minimum of around L_{A90} 30 dB during the middle of the night at the weekend.

The external envelopes of all the proposed buildings on the site will need to provide sufficient sound insulation to reduce external noise to appropriate internal noise levels. This will include mechanically ventilating the buildings so that windows do not need to be opened to provide ventilation routes. The external envelope of the main AECC building has to reduce the break-in of external noise and reduce noise break-out from events (primarily amplified music type events) to reduce the risk of disturbance at nearby residential dwellings, hotels, offices, and other noise sensitive buildings. The development introduces new roads to the area, however because of the existing high levels of noise across the site the impact from new road traffic noise is likely to be low, and it will remain a secondary factor to aircraft noise. Sources of noise of an industrial nature and building services plant noise egress from buildings will be designed so that it does not adversely affect any noise sensitive areas.

3.2.9 Air Quality

Sources of air pollution in the vicinity of the site will mainly be road vehicles. Additionally, if community heating such as Combined Heat and Power (CHP) or biomass boilers are planned these will have an air quality impact.

The main road in the area is the A96. This road is already part of an Air Quality Management Area (AQMA) designated in 2008 for exceedences of the annual mean objective for NO_2. This AQMA starts to the South West of the site and has the potential to be impacted by any increase in traffic as a result of the site.

The nearest background diffusion tube to the development site recorded an annual mean NO_2 concentration of 12.9µg/m^3 in 2013, which is well below the relevant air quality objective.

The Department for Envorinment, Food and Rural Affairs (DEFRA) background maps which are produced for each 1x1km OS grid square for each local authority area, predict that in 2014 concentrations at the development site will be as follows:

- 10µg/m3 for NO_2
- 13µg/m3 for PM10
- 8µg/m3 for PM2.5.

All of these figures are below the air quality objectives and it is therefore considered unlikely that the development will cause exceedences of the relevant annual mean objectives.

3.2.10 Environmental Impact

All relevant environmental considerations, including cumulative impacts of other committed development, have been fully considered within the Environmental Statements (ES) lodged with both the PP and PPIP applications.

Copies of the Environmental Statement can be viewed online or at Aberdeen City Council, as noted under Section 3.2.3.

Section 4
Masterplan Evolution

4.1.1 Masterplan Concept

The Masterplan has evolved as a result of detailed site analysis and extensive consultation. Details of the consultations undertaken are included in Appendix B.

The overall design concept ensures that the proposed new AECC building and its complementary land uses are fully integrated into the development location and surrounding landscape, creating a unique sense of place and identity for the site and wider community, with the bold and innovative design of the new AECC at its heart.

The topography of the site has influenced the concept and geometry of the Masterplan. During the design process a concept of "ripples in the landscape" was developed and embraced as an innovative way to address the project requirement to design a large scale events centre within an undulating landscape.

This design theme has also been applied to the proposed AECC building, creating a central key design feature which the Masterplan builds from. This influences the architectural and landscape design theme of the wider site and acts as an organising geometry for the entire development.

The Masterplan incorporates a number of areas of differing landscape character in order to offer a diverse range of experiences for visitors to the AECC, and to provide a legible hierarchy of formal and informal spaces across the public realm. These character areas create a setting for the individual buildings and ensure that the architecture is fully integrated into the overall landscape design.

Central to the Masterplan is the signature character area, the Central Square. This will act as a key social gathering place, animated by the AECC Building, and the proposed Hotels that envelop it.

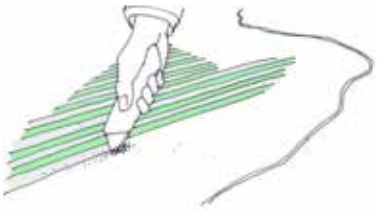
This well proportioned open space will incorporate high quality green space, hardscape, street furniture, feature lighting and will also provide an opportunity for public art. Hotel Cafes, Restaurants and Bar areas will have the opportunity to break-out into this generous South West facing setting which will experience a comfortable and enclosed micro-climate, particularly in the Summer months.

As a result of creating this more intimate central meeting space, along with the significant increase in the gross internal area of the building since Stage 1, and the layout changes to maximise operational flexibility of the AECC, the building footprint has increased at the location of the three exhibition halls. At an early stage of the Masterplan evolution, it also became clear that the originally intended re-use of Stathcona House as a complimentary hospitality venue to the AECC was not viable and therefore, to accommodate the improvements to the Masterplan, it is proposed that this building is no longer retained.

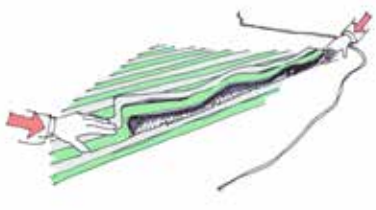
As this alters the scheme from that which was presented to the public in the first rounds of consultation, with Strathcona House no longer playing a significant role in the Masterplan design, a further Public Consultation event was held to highlight this proposed change to the community held on March 26-28th 2015. Appendix E provides further detail of the developments that have taken place which have led to this decision, including exploration and testing of alternative options as part of that process.

The sustainability principles for the Masterplan have been established acknowledging Aberdeen City Council's vision statement for the AECC to be one of the most sustainable venues of its type in the UK. The new AECC building will be assessed under the BRE Environmental Assessment method, (BREEAM) and has an overall target of Excellent.

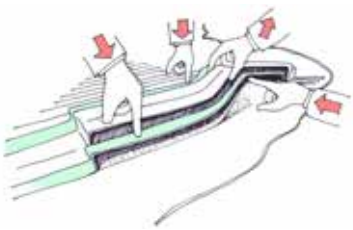
above Illustrative Concept Imagery



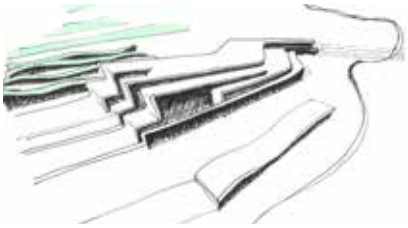
1 Slicing up the landscape



2 Creating the ripples



3 Manipulating the volume



4 Building integrated into landscape

above The sliced ripple theme of the AECC building concept has informed a clear directional geometry within the ripples in the landscape theme. Taking a reference from the surrounding agricultural landscape, the ordered nature of a ploughed field has become the analogy along which the Masterplan landscape geometry is built.

SECTION 4

MASTERPLAN EVOLUTION

4.1 MASTERPLAN CONCEPT

Rowett North Masterplan

The concept for the landscape Masterplan has been derived from the idea of 'Ripples in the Landscape'. The lines and the undulations which are evident through the existing local landscape character have been interpreted and used to inform the design for the various landscapes throughout the scheme. This roots the landscape Masterplan into the local place, both conceptually, and through the physical design of key landscape elements and key public spaces.

4.2.1 Land Use & Zoning

The site is organised into a series of development plots as indicated below:

A1 AECC development, including one hotel, Subterranean space and public Central Square
A2 AECC surface car park
A3 Potential overspill surface car park and recreation space

B Commercial development plots
Mixed use site capable of accommodating large footprint Class 4 office space and Class 11 leisure.

C Commercial development plots
Mixed use site capable of accommodating medium scale Class 4 office space and Class 11 leisure.

D Commercial development plots
Mixed use sites capable of accommodating campus style Class 4 office space and Class 11 leisure.

E Energy Centre & Anaerobic Digestion Plant

H Hotel plots
Site capable of accommodating 2 Class 7 hotels providing between 300 to 400 guestrooms.

Car parking will be provided in each development plot in accordance with the maximum current standards.

above Land Use & Zoning Diagram

4.2.2 Primary Frontages & Views

Key building lines and key frontages within the development will define public spaces and routes.

A strong building line and edge planting defines the main 'urban' gateway approach to the development and the civic spaces.

Key buildings and end buildings are used to terminate a street or highlight a change in direction.

An example of this is where the proposed building lines create a 'Key Vista'.

The precise location of these key buildings is important in creating successful spaces and how these buildings and avenues are experienced in motion for the visitor.

above Image Illustrating Key Views and Frontages

4.2.3 Heights & Massing

Below is a summary of height restrictions due to proximity of Aberdeen International Airport and the associated flight paths.
Note: This application has been assessed and safeguarded against the potential future expansion of the Southern runway.
Maximum building heights above ordnance datum (AOD) that are acceptable to the Airport are as follows:

B1: 90.3m AOD
B2: 84.1m AOD
B3: 82.6m AOD
B4: 83.1m AOD

C1: 80.5m AOD
C2: 75.5 - 78.5m AOD
C3: 76.5m AOD
C4: 78.4m AOD
C5: 78.4m AOD

D1: 67.7m AOD
D2: 67.2m AOD
D3: 69.9m AOD
D4: 69.4m AOD
D5: 66.2m AOD

H2: 78.0m AOD
H3: 76.0m AOD

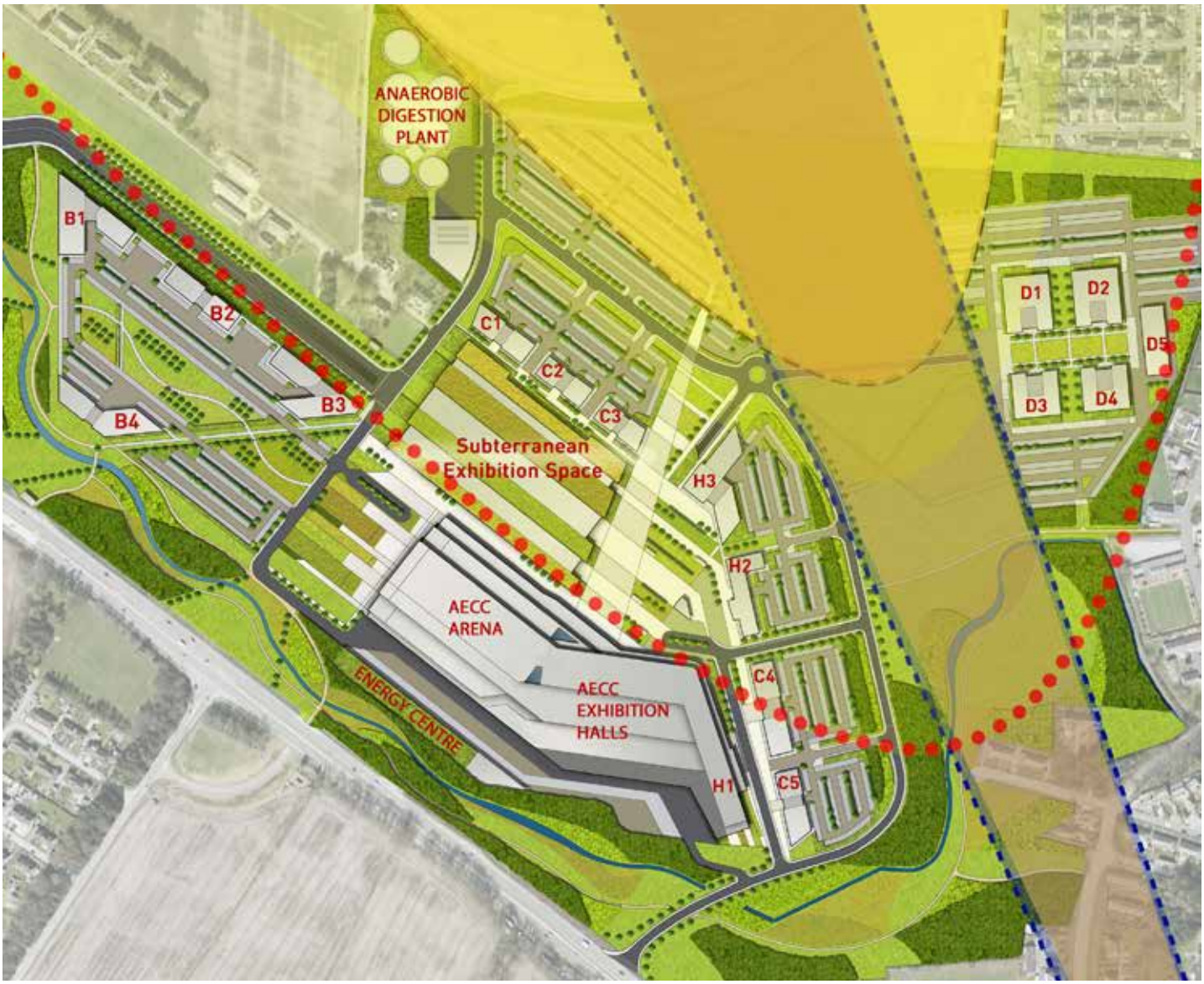
AECC
Arena: 90.8m AOD (Note: at the North East corner of the Arena the maximum height permissible is 89.0m AOD)
Halls: 81.8m AOD (Note: a small infringement has been accepted by the Airport)
H1: 81.8m AOD (Note: a small infringement has been accepted by the Airport)

Subterranean: 70.6m AOD

Energy Centre: 68.5m AOD
Energy Centre Flue: 75.5m AOD

AD Plant: 71.0 - 81.0m AOD
AD Tanks: 78.0m AOD

Note: For proposed ground levels and building heights refer to Section 5 – Constraints.



above Diagram Illustrating Height Restrictions Across Site

4.3.1 Requirements & Guidance

The landscape strategy for the site is to create a series of formal, informal and semi-formal landscapes which form a logical network of open spaces and movement corridors through and around the development. The strategy takes cognisance of the landscape characteristics in the wider setting in order to integrate the development in the underlying landscape patterns. This has been achieved while adhering to the spatial and technical constraints inherent in the nature of the Masterplan.

Each open space within the Masterplan has been designed to form a series of character areas with a legible hierarchy of subspaces.

The landscape strategy will consider planting in relation to native species enhancing diverse habitats and the benefits of natural green space.

4.3.2 Green Space Network

The Rowett North development takes into consideration the existing Green Space Network and seeks to deliver a new green network provision through a linear Burn Parkland to the South of the site. The development of a comprehensive path network throughout the parkland and wider site will ensure that the Green Space Network is not adversely affected by the Rowett North development, but is enhanced.

The design for the Burn Parkland provides an enhanced green network connection to the wider 'Core' network. The Burn Parkland proposals enhance the existing 'Linkage' sections of the network which run through the Masterplan area. This improvement is achieved through the rationalisation and creation of an open Burn water way, replacing the existing partially culverted, water courses which currently run through the site and thus creating an enhanced supporting landscape corridor. The proposals for the Burn Parkland achieve improved access to, and through, the Green Network with new paths, benches, and lighting (where necessary) to meet both the local authority standards and requirements.

The proposed development has ensured proper open space provision and adequate Green Space Network throughout the provision of a new river corridor, which will provide an extensive linear park. This will make a significant contribution to the green network and biodiversity of the site.

4.3.3 Hierarchy of Spaces

The landscape strategy incorporates a number of different landscape character types in order to offer a range of spatial experiences and to provide a legible series of formal and informal spaces across the public realm. The landscape treatments include:

- Structured woodlands, informal grasslands and footpath/cycleway routes associated with the relocated Burn Parkland
- Open spaces that provide opportunities for informal and formal recreational uses set within a parkland framework
- Dynamic shared surface hard landscape areas relating to building frontages, hotels and key routes between the AECC and main surface car parking areas
- Useable open spaces in the commercial and business areas
- Green roof to the Subterranean space
- High quality amenity landscapes to the commercial areas
- Formal tree lined Gateway avenue to key approach
- Nodes and small scale spaces relating to and providing detail within the larger areas of the site

The proposed landscape strategy will promote planting to maximise visual interest and spatial experiences throughout the new development, within the constraints of Airport Authority guidance and advice for planting in close proximity to Airports. The tree species have been selected to maximise visual interest and shall be as varied as possible within these constraints.

It is proposed that SUDS green infrastructure will also be utilised to contribute to surface water management/storm water attenuation to reduce run-off.

above Open Space Provision Diagram

4.4.1 Introduction

Sustainability is a major driver for the Rowett North Masterplan. It is recognised that many of the possibilities for sustainability benefits are unique to this site and this Masterplan area offers the potential to deliver an exemplar sustainable development.

The AECC itself is a key element of the business structure needed to promote Aberdeen as a World Energy City and the Energy Capital of Europe. As the anchor development in the Masterplan, sustainable design is fundamental to the design philosophy (note: the AECC building will be constructed to achieve BREEAM Excellent and an EPC A rating). This is reflected in Aberdeen City Council's vision statement for the AECC as embodied in these three key elements:

- "… one of the most sustainable venues of its type in the UK"
- "…a high standard comparable to competing venues..."
- "…positive impression of Aberdeen as Europe's Energy Capital…"

The sustainability principles for the Masterplan are based on that vision. The aim is to make this an exemplar sustainable development.

4.4.2 Sustainability Principles

The following sustainability principles have been adopted for the Masterplan:

Environmental Sustainability

The proposed development will present significant environmental challenges and opportunities. A key principle is to go beyond the applicable statutory minimum performance standards wherever possible. An Energy Strategy (Appendix C) has been produced to deliver an innovative low emission solution. This is designed to reduce dependence on fossil fuels and is in modular form to utilise a variety of tested and innovative renewable technologies.

Additional principles to be adopted include:

- Minimising energy consumption in design, construction and operation
- Reduce the embodied carbon content of construction materials
- Minimising the operational carbon foot print of the development
- Adapt to climate change, ensuring
- Prevention of pollution in design, construction and use
- Resilience of building and infrastructure networks to extreme weather events
- Sustainable urban drainage to take account of climate change
- Use life cycle environmental impact assessment where appropriate
- Promote sustainable procurement
- Efficiently manage waste in construction and operation, eliminate waste to landfill
- Mange water resources
- Enhance ecology and encouraging habitats and wildlife

Social sustainability

A development on this scale will provide employment opportunities in both construction and operation. It also provides opportunity to do much more for individuals, the local community and wider society. A key principle is to seek opportunities to enhance the way in which the development and operation of Rowett North contributes (directly and indirectly) to the health, well-being and quality of life in its widest sense.

Additional principles to be adopted include:

- Enhancing health and well being through access to open spaces
- Creation of healthy and safe work places (in construction and operation)
- Systematically enhance the skills/training of the construction workforce
- Justify and promote project within the local community, securing maximum local community and social benefit
- Coordinate with other construction activities in the vicinity to minimise disruption during construction and operation
- Supporting public services, social economy and community structure
- Supporting the construction and energy sectors through seeking links with academia, education and peer groups to promote knowledge transfer

Economic Sustainability

The proposed development is anticipated to bring significant economic benefits to both Aberdeen City and the wider Aberdeenshire area, supporting wider economic growth of the region.

The proposal will result in direct employment benefits and will also provide indirect employment and economic benefits through the supply of goods and services to the improved AECC facility and throughout the new development.

A key principle of the strategy is to seek to generate long-term and economically sustainable returns for all economic stakeholders in the Rowett North Development.

These will include: Aberdeen City; the development partners; contractors; those who work on the site and those in the supply chain.

Additional principles to be adopted include:

- Demonstrate innovation in the pursuit of sustainable development
- Maximise job creation opportunities
- Minimise displacement of jobs
- Payment of living wage to suppliers and sub-contractors
- Support local business
- Secure best value, give consideration not only to capital but consider implications on revenue costs and benefits obtained
- Delivery of development to programme and budget
- Fair-return for contractors, subcontractors and suppliers

Operational Social Sustainability Impacts

It is anticipated that 600 construction jobs will be supported in each of the 3 years initial construction phase, with the fourth phase of construction occurring over a longer 10-year timeframe with 90 annual construction jobs. Direct on-site employment will be generated through the new AECC, hotels, the Energy Centre, offices and leisure space. A total of 550 operational jobs could be created as a result of the initial development, with a further 3,000 net jobs being accommodated over the duration of the development.

Visitor numbers to the new AECC will increase by approximately 230% from 184,300 in 2014 to 603,000 in 2022, with a predicted contribution of £109million in annual visitor spend. The employment, economic and financial impacts are enhanced through wider strategic impacts associated with strengthening the perception of the area as a place to live, work, visit and invest.

The wider social sustainability impacts will be measured through the development's sustainability framework, ensuring protocols are established in relation to securing targeted training and employment opportunities and supply chain opportunities for small and medium enterprises (SMEs) and social enterprises.

A schools and further education engagement programme is also proposed. This will enable curriculum materials to be prepared covering various aspects of the development, including the more innovative elements such as the Energy Centre.

This supports the priority of encouraging young people to take up STEM subjects (Science, Technology, Engineering and Maths) and in supporting the provision of skills that are critical to the City's future economy.

Energetica

The development is at the Southern end of the Energetica Corridor and the Energetica principles are also adopted into the Masterplan. The Energetica Statement is included in Appendix D, however in summary the principles are:

- Innovation and experimentation will be employed in the pursuit of the highest levels of sustainable development
- Energy performance is to be both exemplary and innovative
- Buildings are to be future-proof through flexibility in design
- Layout and design of buildings will promote the creation of social hubs and civic spaces
- Open spaces are to be accessible to promote aspiration for active lifestyles
- High quality landscaping is to be used which contributes to a unified sense of place

4.4.3 Masterplan Sustainability Strategy

Each development will be required to produce a project specific: "design and construction sustainable development plan". (DCSDP). This will be based on the suite of Masterplan objectives and targets based on key sustainability principles. Table C1 within Appendix C lists these principles and identifies performance targets associated with each.

A Rowett North Sustainability Design Guide will be issued prior to the wider commercial development being undertaken. This guide provides developers with a mandatory framework for the preparation of the DCSDP for each element of the development. It also provides mandatory clauses on monitoring and verification processes to be used.

The DCSDP is intended to be specific to the development while ensuring a consistent approach across the Masterplan.

It is intended that the DCSDP will include requirements on the developers, designers, contractors and subcontractors as well as the other stakeholders.

The DCSDP provides an efficient mechanism to:

- Engage with the stakeholder and design and delivery teams on sustainable development within the context of the Masterplan sustainability principles and objectives
- Challenge those involved to explore and exceed what may be achievable through collaboration, recognising cost and other applicable constraints
- Encourage pursuit of innovation and experimentation
- Verify delivery of these opportunities by providing the mechanism for recording, monitoring and auditing

One major advantage of this approach is that it allows a number of 'soft' or aspirational targets to be adopted, since they are supported by a defined monitoring and verification process in the DCSDP.

Each DCSDP will be a live document throughout the project and will be continuously reviewed and updated through the detailed design phase to construction and post occupancy evaluation. This will provide both the Planning Authority and stakeholders with a high degree of assurance that the relevant opportunities and impacts have been properly examined and meet the Masterplan strategy.

At completion of construction of each project within the Masterplan a sustainability statement will be produced documenting the achievement of that project against the Strategic Sustainability Indicators and the Social Sustainability Action Plan. As part of the handover documentation the report will also detail a post occupancy sustainability plan, carrying into the use phase appropriate elements of the sustainability framework.

This approach is intended to deliver an integrated focus on sustainable development.

The DCSP combines key environmental indicators across the whole of the Masterplan with project specific environmental and social sustainability action plans.

Through this strategy for Rowett North, the aim is to deliver an exemplar sustainable development with a strong focus on delivering cumulative benefits across the Masterplan and strong societal benefits in construction and use.

4.4.4 Key Performance Indicators

A set of ten strategic sustainability performance indicators for the Masterplan have been identified. These are shown in Table C1 in Appendix C. The measurement & calculation methods to be used are detailed in the Rowett North Sustainability Design Guide.

These strategic indicators cover the key principles to be adopted.

4.4.5 Energy Strategy

The Energy Strategy for the Masterplan is "Lean", "Clean" and "Green" . This prioritises demand reduction technologies, energy efficiency, and the adoption of "clean" technology (low lifecycle emissions and low lifecycle environmental impacts) before the adoption of renewable technology.

An on-site Energy Centre will supply the "Clean" and "Green" electricity and thermal energy.

Energy Centre Concept

Given the nature of the operational profile of an exhibition and conference venue, the most sustainable solution is to develop a separate Energy Centre. This will meet the energy demands of the AECC itself and the remainder of the Masterplan development (with scope for expansion for off-site demand).

The Energy Centre is also to be designed as an on-site demonstration facility providing a showcase for Aberdeen as not only an oil and gas leader but as a centre of excellence for the global energy industry.

The Energy Centre is a modular combined cooling, heat and power plant (CCHP) feeding a private wire electricity supply and a district heating and cooling loop. The district heating loop will feed the whole Masterplan area with spur connections for future expansion off-site. Due to the size of the pipes required, the cooling loop will be restricted to the core of the development while heating will extend to the whole development.

Developments within the Masterplan area will be required to connect to the Masterplan utility supplies where commercially viable to do so.

Further detail on the proposed energy centre is included in Appendix C and it is envisaged that the energy solution will include an on-site Anaerobic Digestion plant (AD). The AD plant will co-digest food and biodegradable wastes, purpose grown silage crops and agricultural wastes to provide a renewable biogas for the CCHP Energy Centre.

4.5.1 Access Strategy

The AECC Transport Access Strategy has been guided by sustainable development principles, duly focusing upon providing safe access for pedestrians, cyclists and users of public transport, thus reducing negative impact upon the environment from operations.

The Access Strategy promotes use of existing sustainable transport facilities, such as shared use cycle/pedestrian paths and crossings as well as the core path network. Existing cycle, pedestrian and public transport facilities are shown on the movement and connectivity diagram contained in Section 3.2.1.

The Access Strategy for the site is based on the following key principles:

- Direct and short routes for pedestrians and cyclists within the site linking parking areas with entrances to the AECC and emerging business parks, as well as the residential areas to the East of the site
- Convenient routes for public transport through the site with stops located in close proximity to the entrance of the new AECC, as well as good linkages to the Airport, the City Centre and Dyce Railway Station
- Direct access for taxis accessing the site from the Airport and the City Centre
- Internal circulation is aimed at benefitting alternative modes through the provision of high quality routes and crossings, whilst creating an efficient, streamlined road network to cope with demand at peak times
- AECC servicing vehicles will access the site from Dyce Drive and proceed directly to the servicing area behind the AECC building (towards the A96); this will ensure their impact on the site is minimised, particularly on the most predominant pedestrian routes
- Facilities to enable charging of electric vehicles will be provided across the site

The Access Strategy focuses on a main access from Dyce Drive supported by a secondary access on the A96, plus an access from Wellheads Drive. Whilst initial assessments have been carried out at those three junctions, more detailed modelling will continue once the base traffic flows surrounding the site are known. These are presently being established via the ongoing Dyce Area Modelling work that has been commissioned by ACC.

4.5.2 Operational Assessment

Operational assessment of several development scenarios has been undertaken, including Phase 1, different levels of development in Phase 2, and varying distribution of development across the site. This has informed the Masterplanning process and the level of proposed development content. The aspiration is for there to be 'no net detriment' to the surrounding road network.

To this end, implementation of potentially significant mitigation will be required, such as enhancements to public transport (both to services and infrastructure), the application of travel planning initiatives and traffic management measures, including works at nearby road junctions and links. How such mitigation will be delivered (either by the developer or through financial contributions) will be dependent on the nature of mitigation and further discussions with the Council.

A key aim of this ongoing ACC led initiative is to minimise disruption to the network during upgrading works by limiting the frequency and time to undertake the works.

Whilst 'no net detriment' to the road network may be achieved for the development scenarios considered, it is recognised that the proposed development will nonetheless increase traffic levels and that peak events may require additional temporary traffic management measures.

Operational assessment has included consideration of safe and efficient deliveries to the site. In addition, assessment of parking requirements has been carried out to take account of general vehicle, disabled and cycling parking needs, and to ensure compliance with Aberdeen City Council standards.

4.5.3 Existing Site Connectivity

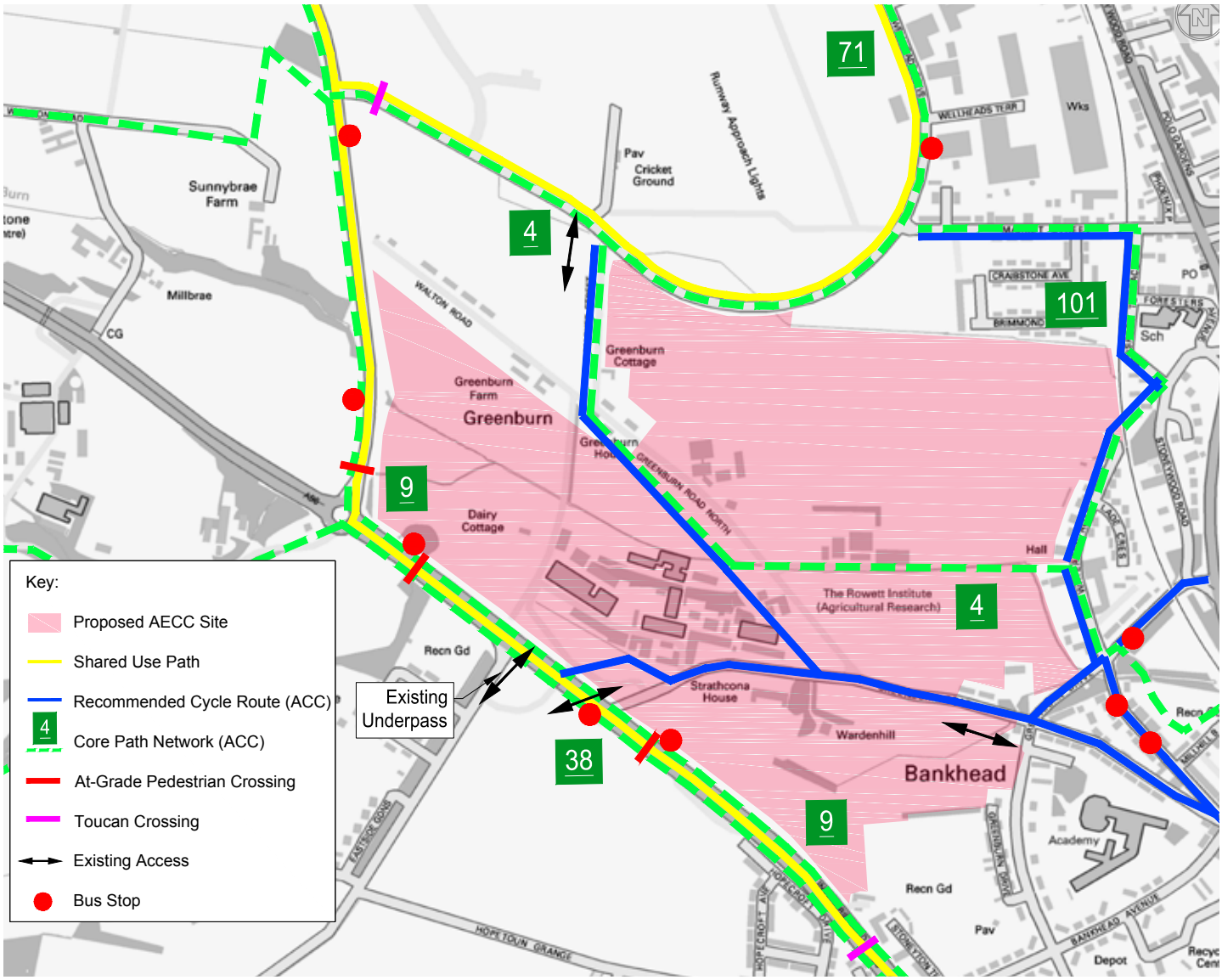
Existing walking and cycling facilities, including core paths, are shown on the movement and connections diagram in Section 3.2.1, whilst proposed walking and cycling facilities are shown on the diagram below. The core path network currently runs through the site, which will be retained and enhanced as part of the proposed development.

Bus stops are currently located on roads around the periphery of the site, including on the A96, Dyce Drive and Wellheads Drive. In addition, bus stops are also located on residential streets situated immediately East of the site. The location of existing bus stops is shown on the diagram below, which illustrates existing nearby sustainable transport facilities.

Existing public transport services have been reviewed and provision to the City, the Airport, train station and within nearby residential areas is considered reasonable; however, opportunity exists for possible service enhancements by increasing frequencies. Stagecoach and First Aberdeen are the main operators in this area which run the following services:

- Stagecoach services 10/37/37A/N37 (Aberdeen to Inverurie) run every 20 minutes during the day from Aberdeen Station along the A96 past the site
- First Aberdeen service 27 is the Airport service which runs roughly every half hour and takes a slightly longer route from Aberdeen Station along the A96 to Aberdeen International Airport
- Further to the above, there are the following additional local services: 10B, 17, 17A, 18, 80, 220, 420, 777, X10, X20

Initial discussions with public transport providers and ACC were held with regards to service improvements. Further detail on this is contained in Section 4.5.5.



above Existing Core Path & Cycle Routes Diagram

4.5.4 Proposed Walking & Cycling Strategy

In accordance with 'Designing Streets' and the Society for Chief Officers of Transport in Scotland (SCOTS) National Roads Development Guide, a user hierarchy will be applied to the design process with pedestrians at the top followed by cyclist, public transport and other motor traffic.

This means that the needs of pedestrians will be considered first when considering the design of any road layout and it is the intention for all proposed pedestrian facilities to be Equality Act 2010 compliant.

Pedestrian and cycle links will be provided to the residential areas of Bankhead to the East of the site and Newhills area where the Local Plan allocation is for 4,400 dwellings, schools, etc. to the South via the existing underpass.

The access to the underpass will be enhanced to improve the pedestrian and cycle environment and to provide a high quality link to the South West of the A96.

As the underpass will be closed to vehicles and will only serve non-motorised users, the safety of pedestrians and cyclists will be improved.

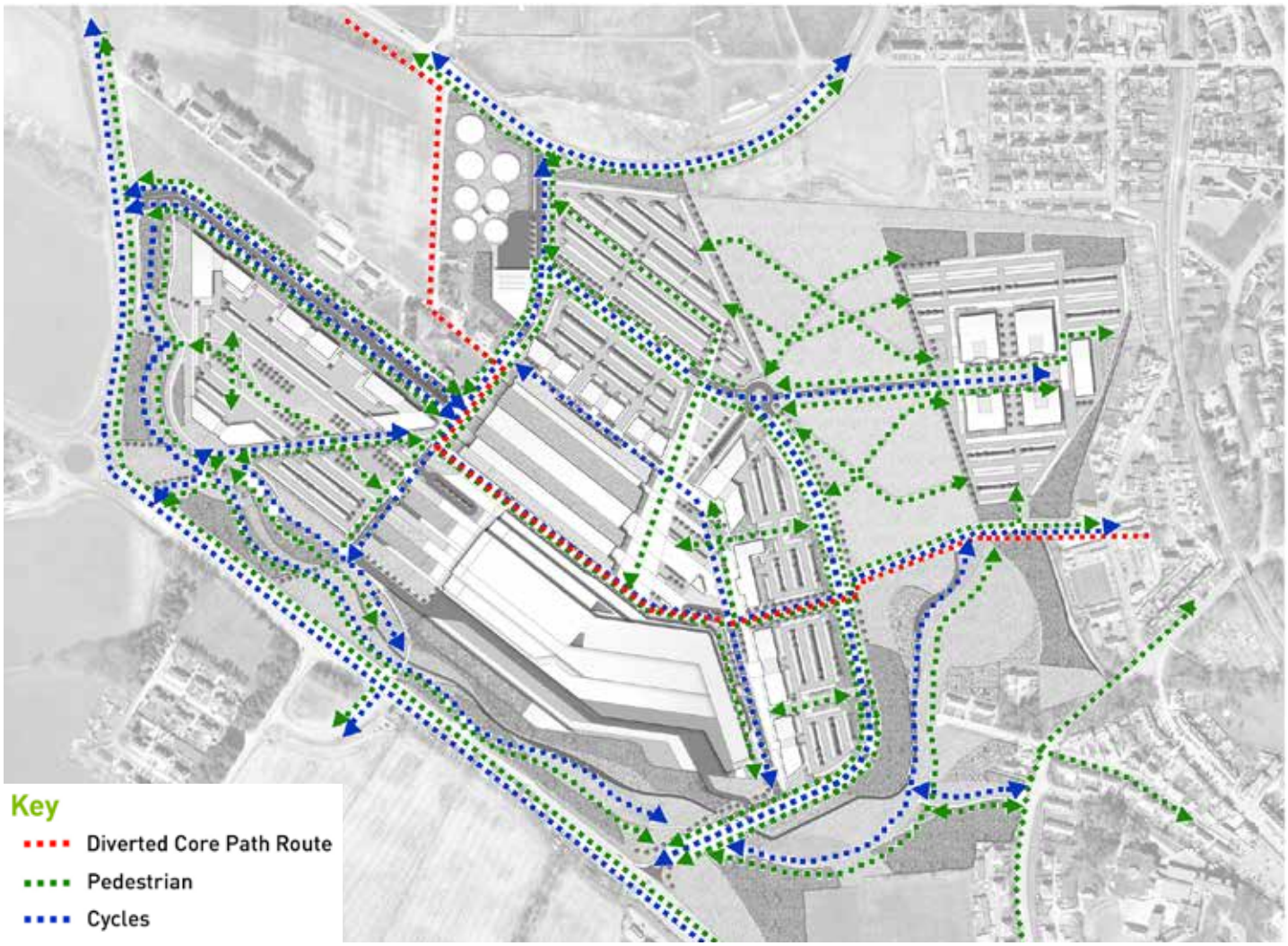
Consideration will be given to an improved pedestrian crossing on Dyce Drive in the vicinity of the A96/Dyce Drive junction, however this will be dependent on the outcome of strategic modelling commissioned by ACC and the nature of any upgrades to this junction that may result as an outcome of this exercise.

Routes will be provided linking to the AECC and office developments on site. Internal links will be provided to facilitate connection with the existing shared footpath/cycleway along the A96 and to nearby bus stops along the A96, Dyce Drive and in Bankhead to the East of the site.

Cycle links will also be provided to Wellheads Drive to link with both the Airport and Dyce Station, as well as to employment and residential areas in Stoneywood and Dyce as part of the AECC delivery.

Cycle links within the site will be appropriately signed providing directions to key destinations.

In addition, secure cycle parking will be provided across the site (in accordance with ACC cycle parking standards), which will also be identified by appropriate signage.



above Proposed Walking/ Cycling Route Diagram

4.5.5 Proposed Public Transport Strategy

In order to achieve best practice in sustainable design, construction and operation, it is recognised that public transport connectivity is an important factor. In this respect, consideration has been given to how buses would access the site to enhance the quality of public transport provision, including shorter walking routes to AECC and other proposed development for bus users and high quality stops.

Airport to City Centre: for services from the Airport to the City Centre, the road through the site provides an ideal route for buses with minimal interruption. Buses would enter the site via the Wellheads Drive access and exit via the left out arrangement onto the A96. Bus stops have been indicated to facilitate direct access to the AECC and other proposed development, as well as to allow easy and safe crossing of the road for bus passengers.

City Centre to Airport: It is intended to provide a signalised bus gate at the proposed new access on the A96, which will facilitate right turning movements for buses travelling between the City Centre and the Airport, thus creating an equally high quality route as is the case in the opposite direction. Bus stops should be located in the same positions as in the opposite direction, where possible, for easy way-finding.

Airport to Airport: The possible access/egress arrangements for this route would be in via Wellheads Drive and out via the proposed Dyce Drive junction. Alternatively, the reverse of this would also be possible, with buses entering the site via Dyce Drive and exiting via Wellheads Drive.

Dyce Station to Dyce Station: buses would access and egress the site via the Wellheads Drive access junction and leave via the Dyce Drive access junction coming from Dyce Station. In the other direction, they could access via the Dyce Drive access junction and leave the site via the Wellheads Drive junction.

Potential bus routes through the site and bus stop locations are shown on the proposed public transport route diagram below. The main drop off point for event buses will be on the internal access road situated close to the main building entrance.

Discussion with bus operators and Aberdeen City Council has been initiated to establish the willingness of operators to enter the site. Whilst further discussion will be required, provision of public transport within the site will be dependent on commercial viability and availability of funding to support required service level. For a bus service to become self-funding, it would need to serve the AECC, commercial development plots within the site and potentially other new development in the surrounding area. The timing/phasing relating to provision of public transport within the site is a matter that will be further discussed between the developer, public transport operators and Aberdeen City Council.

The public transport opportunities will be further enhanced by Park and Choose. The 2013 / 2032 NESTRANS Regional Transport Strategy Refresh dated January 2014 contains two further Park and Choose sites in addition to the three existing ones. One of the committed sites lies immediately to the West of the proposed AECC site adjacent to the A96 and the proposed Airport Link Road. It is expected that particularly for peak events, in line with present practice, this new park and ride site would be available for use by users of the AECC.

It should be noted that the Park and Choose will only be used 'out of hours' by general traffic, in order to avoid conflict with commuters using the facility.

In addition, 25 coach parking spaces will be accommodated within the proposed AECC site. An area of the Park and Choose site could also be used for a further 25 coach parking spaces, if required in evenings or at weekends. These however could alternatively be provided at an off-site location.

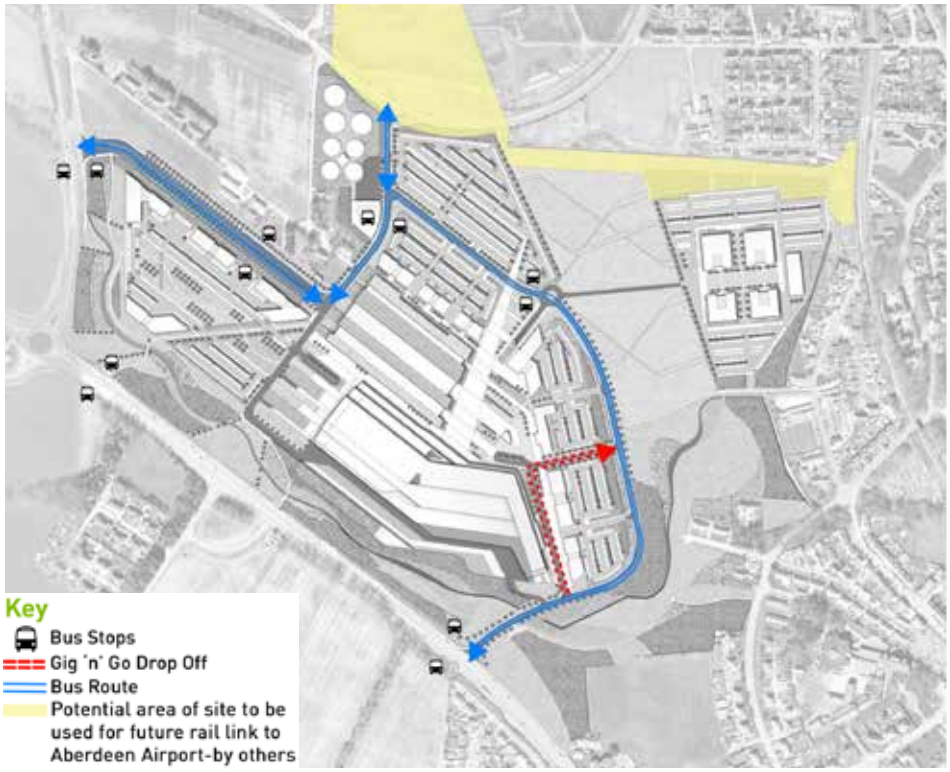
Bus accessibility has been considered as part of proposed roads infrastructure. A bus gate will be provided at the proposed A96 access to allow buses travelling from the city to turn right into the site, and a bus gate will also be provided at the North end of the site at Wellheads Drive, which will facilitate access to the site for buses and taxis only.

A potential area of the Masterplan site has also been identified for a future rail link to Aberdeen International Airport – by others.

Transport Assessment and Travel Plan

The Transport Assessment will address off-site strategy and all proposed vehicular traffic strategy. The Travel Plan will be referenced in the Transport Assessment that will be submitted in support of the detailed Planning Application for AECC.

A framework Travel Plan will be included within the Transport Assessment. It is assumed that the Travel Plan will be conditioned and that a full Travel Plan will be developed and submitted post-Planning.



above Proposed Public Transport Diagram

4.5.6 Off Site Works

Offsite works will be required at all three proposed access points.

A new signalised junction will provide the main vehicular access from Dyce Drive, which will be situated between the Dyce Drive / A96 junction and the Dyce Drive / Wellheads Drive junction.

A second access and egress junction will be provided on the A96 in the form of a left in/ left out with signalised bus gate and pedestrian crossing across the A96, which will be located North West of the existing residential access point.

A further access will be provided onto Wellheads Drive in the form of a new signalised junction. This will allow buses and taxis to enter the proposed site via Wellheads Drive, and will allow all traffic to exit from this location. It is envisaged that this arrangement will minimise rat running traffic through the site.

All three new junctions providing access to the site will be the subject of detailed assessment within the Transport Assessment. The outcomes of the ACC Dyce Area Transport Study form the basis for the assessments. The study considers the wider reaching mitigation in the Dyce area for all planned development. At its heart is an area-wide Paramics model which takes into consideration the planned network improvements including the Aberdeen Western Peripheral Route (AWPR) and Airport Link Road (ALR).

4.5.7 Proposed Vehicular Traffic Strategy

Access for cars, vans and heavy goods vehicles is via Dyce Drive, the A96 and Wellheads Drive.

The Dyce Drive access will be a signalised junction allowing all movements. Given the amount of traffic on the existing road network (and future growth of existing flows) combined with the high level of proposed development flows, a sizeable junction at this location is likely to be required. Furthermore, initial results from the area-wide modelling show that it is ACC's intention for this junction to also serve development to the West of Dyce Drive with the proposal forming a 4-arm junction.

The junction with the A96 will take the form of a left in/ left out priority arrangement with signalised bus gate for right turning traffic, whilst the Wellheads Drive junction will be signalised. Buses and taxis will be able to enter the site at Wellheads Drive, providing easy access to and from the Airport, whilst general traffic will be able to exit from this location.

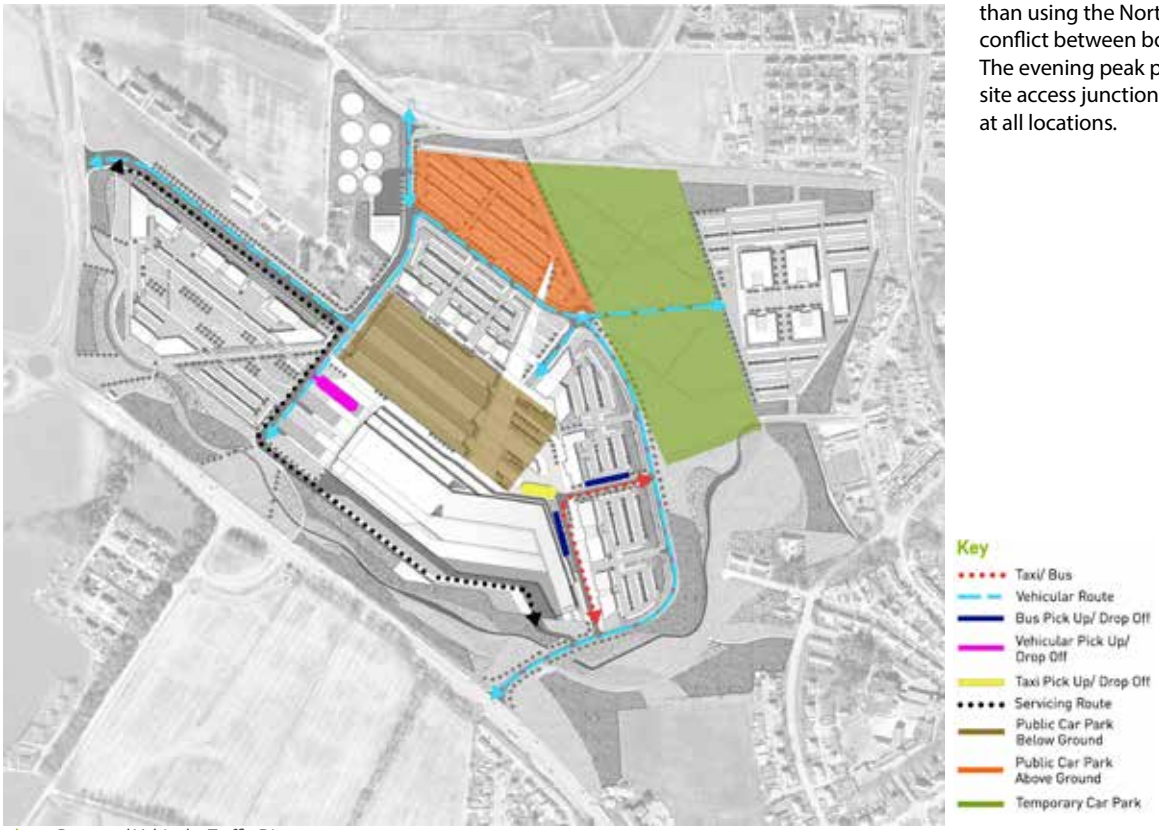
All three new access junctions will be the subject of detailed assessment within the Transport Assessment, which will also consider the operation of key junctions within the site.

A total of 2250 car parking spaces will be provided for AECC and the hotel adjacent to the AECC. Maximum parking standards have been applied in line with operator expectations. Car parking for the buildings within the respective zones "Gateway", "Linear", "Boulevard" and "Campus", as well as the remaining hotels, will be provided within their own curtilage and will comply with current parking standards.

Consideration will be given to potential impacts arising as a result of visitors to AECC development parking in nearby residential areas such as Bankhead. Controlled Parking Zones may be considered to address any potential overspill. This will be further considered within the Transport Assessment.

Vehicle drop off will be located within drop off areas situated to the East and West of the main AECC building.

Given the integral nature of the site it is not possible to have complete separation between business and AECC traffic, however this can be managed to a certain extent. For example, in the morning peak period AECC traffic could be directed to the Subterranean parking area rather than using the North Car Park, thus minimising conflict between both users during this period. The evening peak period is not as critical, as the site access junctions facilitate egress for all traffic at all locations.

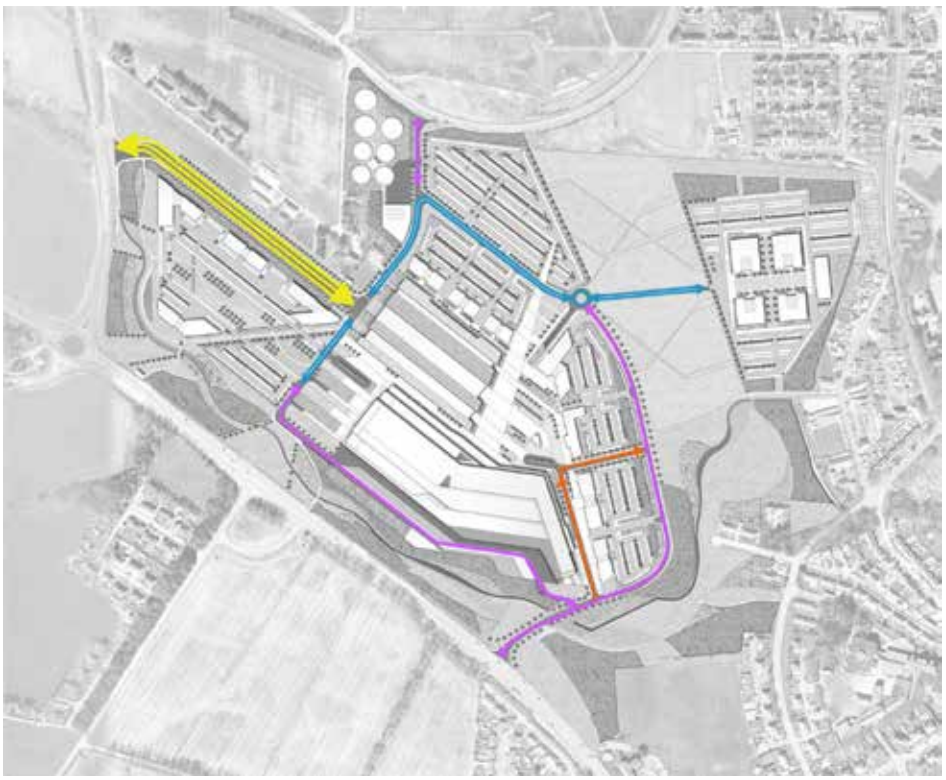


above Proposed Vehicular Traffic Diagram

4.6.1 Street Hierarchy

Rowett North will have a clear hierarchy of streets and spaces. There will be a main arrival 'Gateway', followed by a primary access route and secondary access streets. The design of these streets will keep speeds low.

These clearly defined street types combine to provide good legibility to the development and are a critical part of creating an identity and sense of place.



above Location of Street Types

above Aerial view of Subterranean looking South-East

4.6 STREET HIERARCHY

Main Gateway

above Main Gateway Indicative Image

- The Main Gateway will include high canopy clear stem trees planted within the landscape verge
- Each carriageway will be a minimum of 6m wide with a 3m wide combined pedestrian and cycle path to either side
- Road lighting will be located on the footway/cycleway edge of the landscape verge
- The Gateway will be designed to incorporate bus routes and bus stops
- Provision of a priority crossing point, or raised/coloured surfacing where it meets the primary street as a key arrival point
- The public spaces will be paved in appropriate materials
- Woodland planting will provide a setting to the adjacent commercial development plots

Primary Streets

above Primary Street Indicative Image

- The carriageway to be a minimum of 9m wide, providing a central lane to permit right hand turning with a 2m walkway on one side and a 3m footway/ cycleway on the other
- Provision of a priority crossing point, such as raised/coloured surfacing where the Primary Street interfaces with the pedestrian crossing
- Road lighting will be located on the footway/cycleway edge of the verge

4.6 STREET HIERARCHY

Secondary Street

above Secondary Street Indicative Image

- Grass verges and planted profiled banks to reference a grand landscape tradition appropriate to the scale of the buildings and the surrounding landscape character
- The carriageway width will be a minimum of 6m wide with a 3m wide combined pedestrian and cycle path on one side and 2m footpath on the other
- Road lighting will be located on the footway/cycleway edge of the landscape verge
- Provision of a priority crossing point, such as raised/coloured surfacing where the Secondary Street merges with the Inner Street

Inner Street

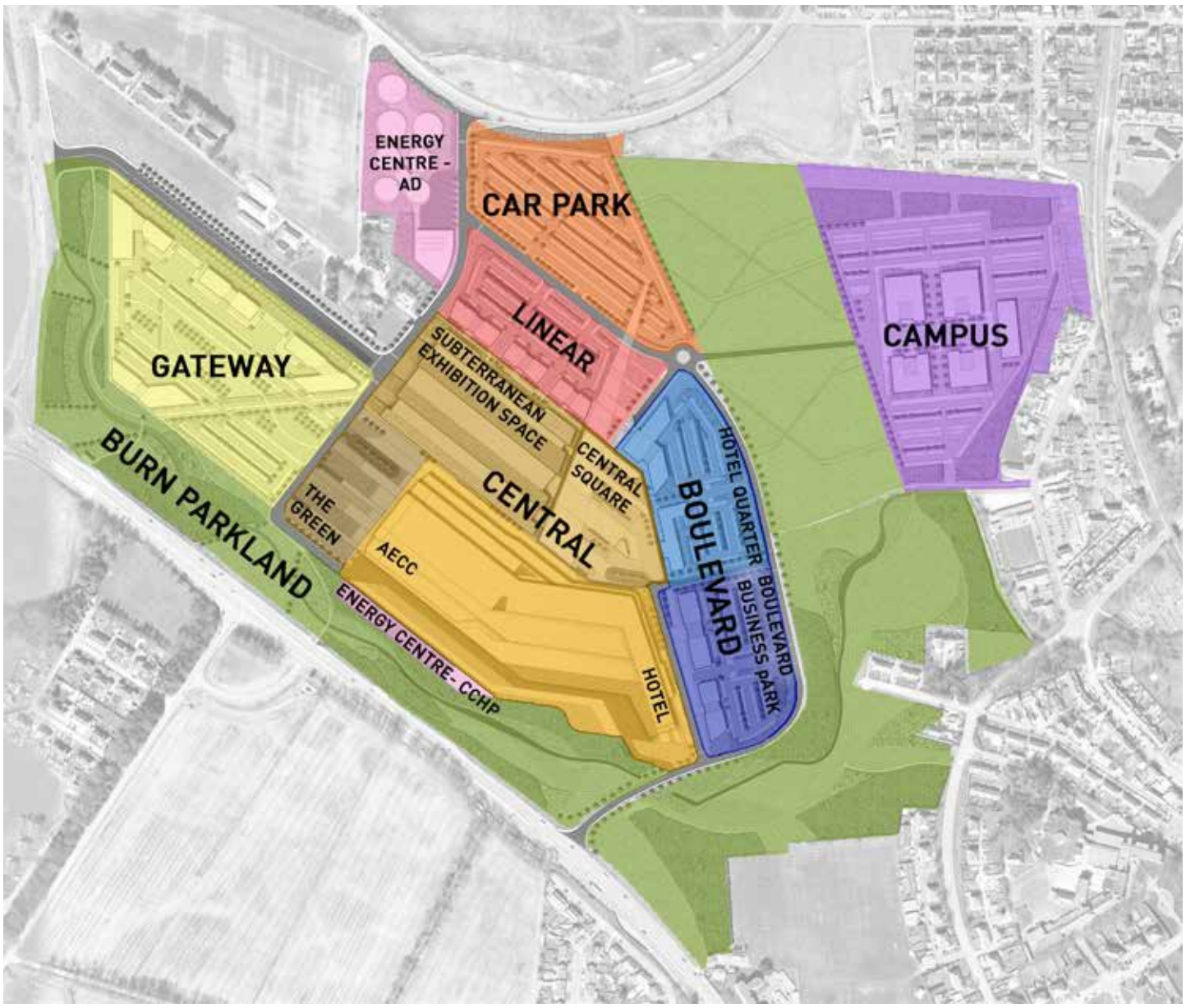
above Inner Street Indicative Image

- The carriageway to be a minimum of 6m wide shared surface with a 2m walkway on one side and a 3m footway/cycleway on the other. The Street will be one way and facilitate drop off on the left hand side whilst leaving the right hand lane for passing vehicles
- Street lighting will be located within the footway or mounted on the hotel buildings in order to reduce street clutter
- The street will function as a drop off point and main arrival area for the hotels on one side of the street and the streetscape design will respond accordingly.

Section 5
Area Characteristics

SECTION 5
AREA CHARACTERISTICS

5.1 DEFINING AREA CHARACTERISTICS



above Area Characteristics Diagram

5.1.1 Defining Area Characteristics

A number of character areas have been developed within the overall Masterplan and in each it is proposed that the developments are set in a landscape setting which both enhances the buildings and provides a high quality of amenity. These areas will each have distinct character while allowing flexibility of use within each zone.

The new AECC forms the majority of the built frontage to the A96 with the rest of the site being split into distinct development areas:

- Central
- Burn Parkland
- Gateway
- Linear
- Boulevard
- Campus
- Energy Centre
- Car Park

5.2.1 Lighting

The aim is to implement a lighting Masterplan that seamlessly links various buildings and public spaces, to create a visually stimulating night time environment.

The lighting scheme will highlight specific nodal points and key architectural facades which will help with wayfinding and assist in designing out crime and create inspiring and harmonious social spaces.



5.2.2 Security

Strong boundary treatments and definition of private and public space will inhibit intruders from unlawfully accessing the buildings.

The landscape design should be considered with regard to the issue of surveillance. Trees should allow views below the canopies.

There should be good standards of lighting across the development including around entrances and within the parking areas. This will allow the areas at all times to be perceived as safe for all users.

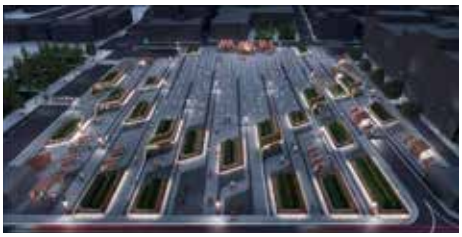
The development is large and designing out crime on this scale is complex and needs careful consideration at different levels. The design of access to buildings, pedestrian routes, and definition of public and private spaces has the potential to create environments that:

- Promote a sense of ownership
- Have good natural surveillance
- Have a clear definition of routes
- Avoid potential dead unoccupied trouble spots
- Include good physical protection measures
- Promote activities in public spaces
- Establish a good management and maintenance strategy







above Indicative Lighting Strategy Imagery

5.2.3 Upgrade of Underpass

The existing underpass has been identified for potential future upgrade.

Access to the underpass will be enhanced to improve the pedestrian and cycle environment and to provide a high quality link to the South West of the A96.

Opportunities for feature lighting and public art will also be considered – by others.

above Existing Underpass

above Indicative Feature Lighting and Public Art Imagery

5.3 CENTRAL

The nature, key characteristics and specific design requirements for the AECC, 4 Star Hotel, Central Square, Subterranean Space and The Green are addressed in this section.

5.3.1 Key Characteristics

The New AECC will be visible from all approaches. The building creates a unique landmark of highly contemporary architecture. It provides accessibility and transparency through interconnecting linkages and a network of internal spaces which access more intimate areas.

5.3.2 Constraints

A number of key constraints have influenced the development of proposals for this character area:

- Proximity to Aberdeen International Airport and the associated flight paths; as a result AECC ridge heights are restricted to a maximum of 21.3m to the East and 30.3m to the West, above finished ground level of 60.5m
- Re-routing of the Green Burn
- Topography in relation to the original alignment of the Green Burn

5.3.3 Movement/ Connection

This character area lies at the heart of the Masterplan.

The main approach is via a tree lined access road through the Gateway from Dyce Drive. This approach frames the dynamic form of the AECC creating a strong sense of arrival. A secondary route from the A96 leads to a dramatic sequence of architectural events. Both routes provide access to the Subterranean Space, at-grade car park and vehicle drop off areas. Coach and taxi stances will be located on the Inner Street, this road will be 6m wide and will permit drop-off/ pick-up on the left hand lane while the right hand lane allows free movement of traffic.

Pedestrian routes and crossing points will reflect desire lines, helping to establish key routes into and through the heart of the development, increasing permeability and overcoming the barriers created by busy roads.

The Central Square will be a busy and attractive place, used as a backdrop for informal activities, a meeting place for friends, a stage for special events, a place for trade and debate, and a place to relax and observe the world around. The heart of the new AECC will have a distinctive, people-centred environment.

above Central Location Diagram

above Central Movement & Connection Diagram

5.3.4 General Requirements

This Central zone is the key character area within the scheme and it will incorporate the AECC and main Central Square, enclosed by the 3 proposed hotels, as well as the Subterranean building to the West. The hotels will be arranged to the East of the Square, enclosing the area and providing animation and visual interest in the form of Restaurants, Cafes, Bars and other leisure uses.

The Central Square will comprise of a range of very high quality hard and softscape materials, as well as an opportunity for public art. It will also have the potential for outdoor events and will generally be the main focal point of the development, with the unique backdrop of the new AECC building.

Vital to this area will be the execution of the building design for all elements, and this requires to be of the highest quality with a consistent style and palette of material.

With the exception of taxi drop–off to the East, this space is intended to be a pedestrian friendly car-free area, with a high degree of visual amenity and a comfortable micro climate.

The new AECC has been designed to provide a range of flexible spaces comprising a multi-purpose space that provides maximum flexibility to host a large range of exhibition, entertainment and sporting events, a multipurpose exhibition hall and a full range of conference facilities.

A continuous internal concourse connects all public functions creating the possibility to use the building for simultaneous performances or events. This route becomes a journey on which there are merchandise units, bars and food & beverage units activating the ground floor concourse. This animated frontage will be viewed from the Central Square through the main facade and dramatic main entrance which will have a high degree of transparency.

The Conference Centre and Arena will have their own dedicated entrances and will be able to operate independently.

Integrated within the design of the AECC is a 200 guestroom 4 star hotel with a maximum development height of 81.8m AOD. The hotel has 200 car parking spaces located in the Subterranean space. The hotel will have animated frontages onto The Boulevard with ground and first floor bars, restaurants, conference and spa facilities.

The Subterranean space, which sits partially under The Central Square has a dual-function. This space functions as a car park and is accessed by two ramps capable of accommodating service vehicles. However, when required it provides additional exhibition space for major events, connected to the main building. In addition it has direct access onto the Central Square and external concourse.

The roof of this space provides a dynamic backdrop visible from the AECC, Linear Business Park and various vantage points from the surrounding road network and will incorporate a green roof that will flow and integrate with the feature landscaping of the Central Square.

To the West of the AECC lies The Green. This area will be simple, robust and open in character, with soft landscaped linear fingers extruding from the folds within the gable of the AECC. These green fingers will permeate into the Gateway, binding in harmony the two character areas of the Masterplan. This space will be level in nature to accommodate temporary exhibition space with direct access to the Arena.

A large servicing area is provided at the rear of the AECC providing space for articulated vehicles, touring coaches and staff car parking. The service yard is screened by the Energy Centre and structure planting, set within the landscape of the Burn Parkland.

The ecological benefits associated with the Subterranean green roof are predominantly associated with the habitat creation for insects, bees and butterflies. Unfortunately birds will require to be discouraged due to the proximity to the flight path and in order to meet with the Aberdeen International Airport (AIA) guidelines on safety.

A total of 2,250 car parking spaces will be provided for the AECC; 1,200 spaces in the Subterranean space and a further 1,000 spaces at grade set into the landscape at the North of the site. There is also provision made for additional temporary car parking spaces located in the Public Safety Zone.

The AECC building will be constructed to achieve BREEAM Excellent and an EPC A rating.

above Central Building Zone Diagram

5.3.5 Architectural Character/ Requirements

The ripples in the landscape theme has strongly influenced the geometry of the AECC building design where the ripples have been interpreted as a sliced up landscape which breaks up and covers the large volume of the building.

- Main entrances to buildings should be clearly expressed.
- The palette of colours is largely monochromatic with dark panels and constrasting coloured feature ribbons accentuating the folds of the roof.
- Roofs will be flat or minimum pitch. The integration of the AECC Building and the 4 star hotel will be seamless and will read as a unified whole.






above Indicative Imagery of Roof & Façade Cladding

above Indicative Imagery of Capped Curtain wall system. Full height glazing to main concourse.

above Indicative Imagery of lighting to AECC Building

above AECC Typical Section- As indicated in plan under Section 5.3.1.

5.3.6 Landscape Character/ Requirements

Specific landscape requirements for this character area are noted below:

- Robust, low maintenance and timeless design will be a key component of the public realm works to the outer concourse and main Central Square. A co-ordinated but limited palette of durable surface materials will provide a strong setting for development. It will also help to provide a strong image and sense of identity to the Central Square which creates a unified overall appearance and character whilst distinguishing specific areas within it through variations in the overall palette.
- The frontages of the hotels and offices will be fully integrated with the open spaces of the Central Square, the inner street and drop off area, in order to define the public realm. On their opposite elevations these plots will be detailed to relate to the more informal landscapes of the Burn Parkland.
- Pedestrian links between the buildings will allow a transition of landscape character and allow for changes in the scale of the public realm. These secondary spaces will allow a high degree of permeability across the public realm. They will link the hotels, offices and parkland areas and frame views to and from the square and surrounding green spaces.
- The Central Square will be a simple and flexible space at the heart of the development.
- The Central Square will, through the use of a simple palette of trees, hedge and grass, create a setting for street life and exhibition activities.
- Specific planting in the Central character area would include plants from the following palette:
    - Tilia cordata 'Streetwise' (Lime 'Streetwise')
    - Carpinus betulus (Common Hornbeam)
    - Corylus colurna (Turkish Hazel)
    - Taxus baccata (Common Yew)

Note: Non-native Turkish Hazel (Corylus colurna) is proposed because of its specific qualities as a specimen, high canopy tree, with regular conical form within the more ornamental landscape framework.

above Indicative Image of Central Area

above Indicative Imagery of Public Realm & Tree Species

above Indicative Image of Central Area

The nature, key characteristics and specific design requirements for the Burn Parkland are addressed in this section.

5.4.1 Key Characteristics

Burn Parkland

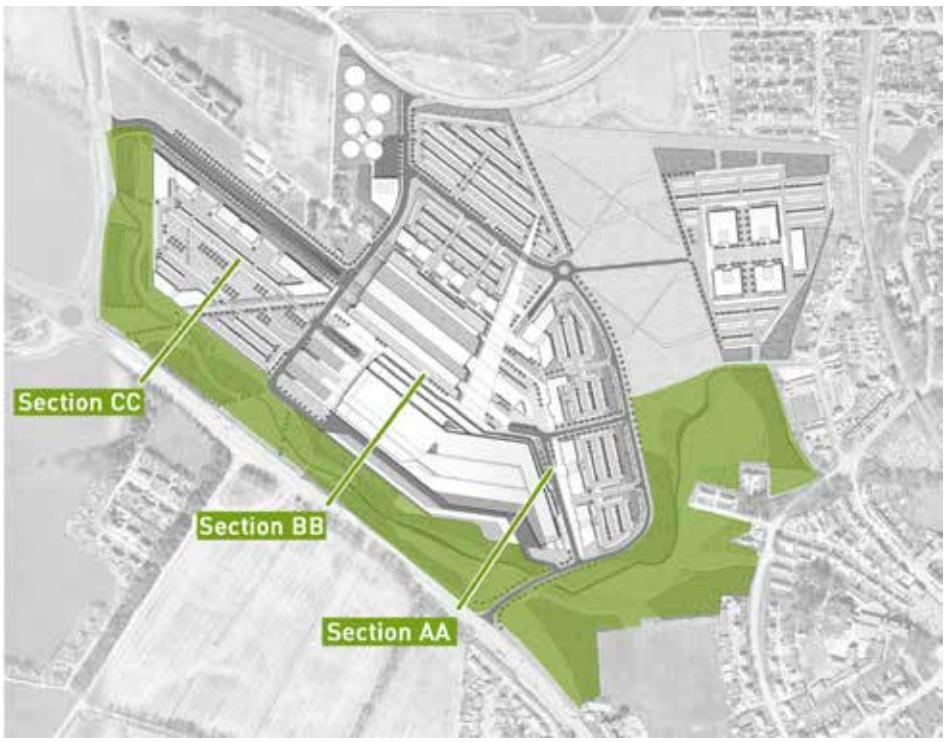
This completely new landscape will include the relocation and de-culverting of existing watercourses to provide a new and improved burn that will de-risk flooding. The new burn will run from the West end of the site, adjacent to the A96, before wrapping around the East part of the site and finally flowing North East to connect into the existing watercourse at the Eastern boundary of the site. This new watercourse provides an opportunity to create a parkland setting which will provide the perfect foil for a landmark building. As well as providing opportunities for biodiversity enhancement, the park will provide opportunities for passive and active recreation that will be accessible to the new development and surrounding neighbourhoods.

The proposed Burn Parkland represents a significant new area of open space that will connect to other spaces within the Greenspace Network. This will make a significant contribution to greening the urban area.

The planting of approximately 30,000 new trees and shrubs within the Burn Parkland will significantly contribute to Aberdeen's Greenspace Network. This tree planting together with the new Burn Corridor will provide a contribution to both climate adaptation and mitigation. Furthermore the provision of open space areas and increased pedestrian and cycle route connectivity (over 7km of routes throughout the development) will provide users with improved personal health benefits.

The informal areas of landscape on the site around the realigned Burn Parkland have been developed as a series of open grasslands and wooded landscapes to provide opportunities for passive recreation such as walking, cycling, contemplation and informal play.

Key vistas are enhanced and views of buildings are framed by the use of mounding and new planting. The spaces have been designed to be semi-natural in character with a 'parkland' aesthetic appropriate to the area's function as part of the wider Greenspace Network. The Burn Parkland will also provide a landscape structure that can be used by the local community.



above Burn Parkland Location

above Indicative Imagery of Burn Parkland

5.4.2 Constraints

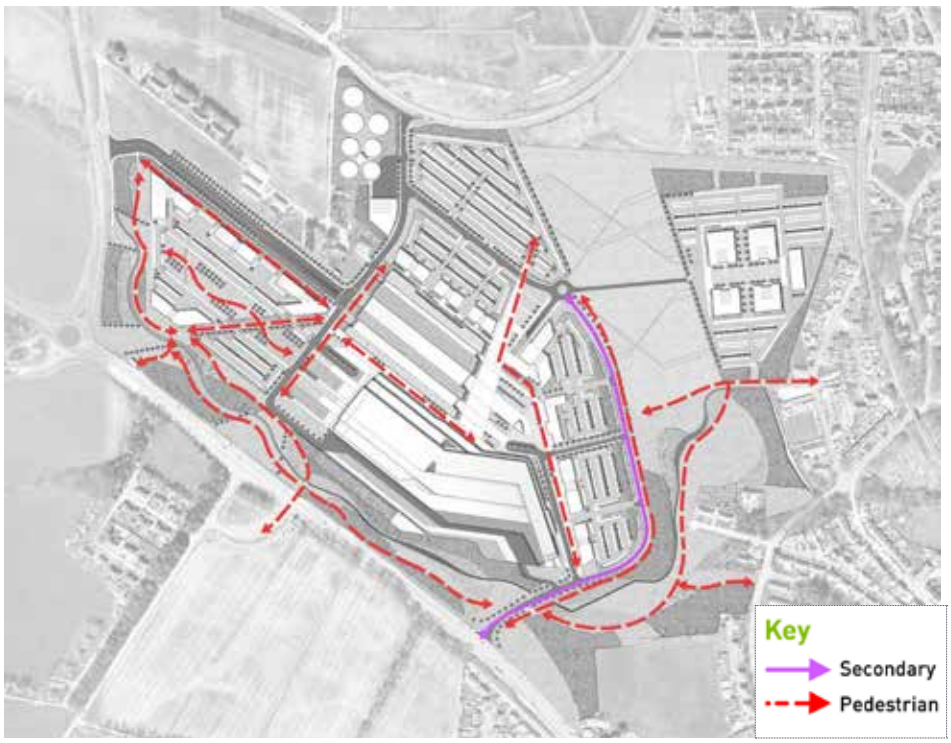
A number of key constraints have influenced the development of proposals for the Burn Parkland:

- Selection of an appropriate planting palette given its proximity to Aberdeen International Airport
- Use of earth mounding to minimise removal of material offsite
- Manipulation of levels along the Burn Parkland to ensure a manageable and natural flow of water
- Proximity to Aberdeen International Airport and the associated flight paths; as a result Energy Centre flues are restricted to a maximum height of 15m

5.4.3 Movement/ Connection

The footpaths and cycle ways along the Burn Parkland will link the new parkland with the wider AECC site, existing residential areas to the East, and proposed new housing development to the South. Multiple links are made with the more formal areas of the site to create a permeable development accessible to walkers and cyclists.

The pedestrian links within the Burn Parkland will connect to Core Paths 4 and 9, thereby providing access to the wider Core Path Network.



above Burn Parkland Movement & Connection Diagram

5.4.4 General Requirements

The general requirements for this character area are noted below.

- A parkland that will provide an attractive back drop for the new buildings
- Areas for informal passive & active recreation
- Informal footpath routes that maintain a more rural character
- Earth mounding to provide screening & create visual interest
- Mainly indigenous planting to enhance the local biodiversity
- Bridges over the new burn at key points along route to provide an accessible public resource
- Resting and viewing points along the routes
- Clear and legible signage & interpretation

5.4.5 Architectural Character/ Requirements

Energy Centre

The energy requirements for the new AECC will be met by the new Energy Centre CCHP Building. This will be screened by structure planting within the Burn Parkland.

above Indicative Burn Parkland Zone

5.4.6 Landscape Character/ Requirements

Specific landscape requirements for this character area are noted below.

- 2m wide whin dust footpaths will be used for pedestrian routes throughout the new park.
- A 3m wide whin dust route will be provided along the length from East to West linking with existing residential areas and the proposed housing development to the South.
- Short lit sections of 3m wide tarmac routes will be provided to link the AECC with the existing residential area in the East and the proposed new development to the South of the A96. Re-cycled granite from the existing buildings shall be used at key footpath connections, ramps and steps to create paving features.
- Screening for the energy centre will reduce the visual impact of the service yard when viewed from the A96.
- Earth mounding will be used to create visual interest along the route on either side of the new footpaths.
- Bridges crossing the Burn Parkland will be located at several points along the length of the burn to provide a variety of circular walks. The bridges will be designed to be in keeping with the 'parkland' character.
- Access to the burn for maintenance shall be provided at key points along the length.
- The Burn Corridor will be detailed to provide a constant water flow, to control flooding and provide an attractive semi natural feature.
- Wetland wildflower mixes on the lower slopes and dry embankment wildflower grassland mixes on the upper slopes of the Burn Parkland will be used to enhance biodiversity.
- Planting will be locally appropriate species selected from an approved limited palette suitable for use close to the Airport.
- The Burn Parkland shall be designed to provide areas of semi natural habitat which will be managed to discourage wildfowl and flocking birds.
- Benches will be provided at key resting points along the route. The design of the benches will be in keeping with the parkland aesthetic.
- To increase biodiversity, it is proposed that Common Alder (Alnus glutinosa) is used within the Burn Parkland woodland mix, on the lower slopes adjacent to the burn.

Areas of new habitat have been incorporated in the Masterplan including extensive new woodland, scrub and wildflower areas primarily aligned along a re-routed and de-culverted Green Burn. The water course engineering for the new Burn Parkland should include the provision of a diverse aquatic habitat with pools, riffles and glides to increase habitat suitability for otters, whilst woodland and scrub edges will provide feeding opportunities for bat species. The aquatic, wildflower and woodland habitats will also support a range of taxa including plants and aquatic invertebrates.

Several LBAP butterflies and moths use the site and sensitive planting regimes are recommended (eg Wych Elm) focusing on the Burn Parkland to provide suitable habitats for the various life stages of these.

Suitable habitat for bats will be considered as part of the wider landscape strategy.

Otter mitigation will also be considered in the design of the realigned burn, for example, shelves to facilitate mammal passage or boulder piles to create otter couches.

Planting along the Burn Corridor will include native species of local provenance, however the planting mix will be designed to comply with the strict requirements of planting adjacent to the Airport.

Lighting within these green spaces will generally be avoided. There are however identified routes that access the development from adjacent residential areas which require short sections of lit pathway. Where lighting is required along these routes, it will be designed to result in minimal disturbance to bats (and aircraft), and necessary only for the purposes of safety and security.

SUDS will be designed to comply with all current best practice guidance in order to minimise any impacts of discharge on the burn system.

All furniture including seating and way marking will be designed and constructed of materials that are robust and attractive with the use of recycled natural stone from existing buildings wherever possible.

A waymarked footpath/cycle network connects the new development with surrounding existing residential development.

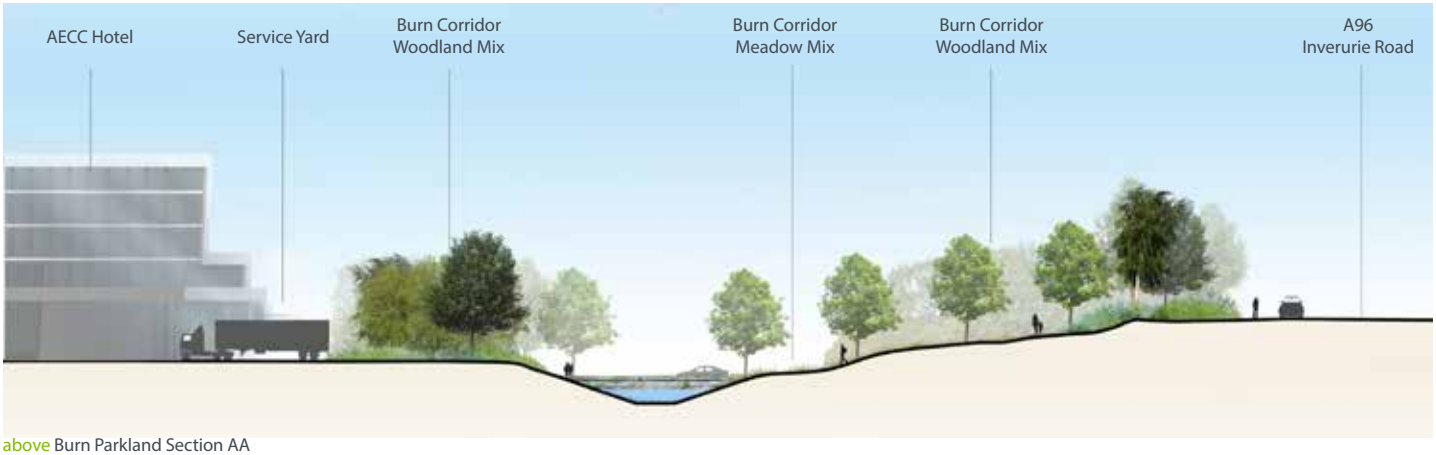
Informal paths will be constructed using local crushed stone, some of which may come from existing buildings which are being demolished.

above Indicative Images of Parkland Recreational Use

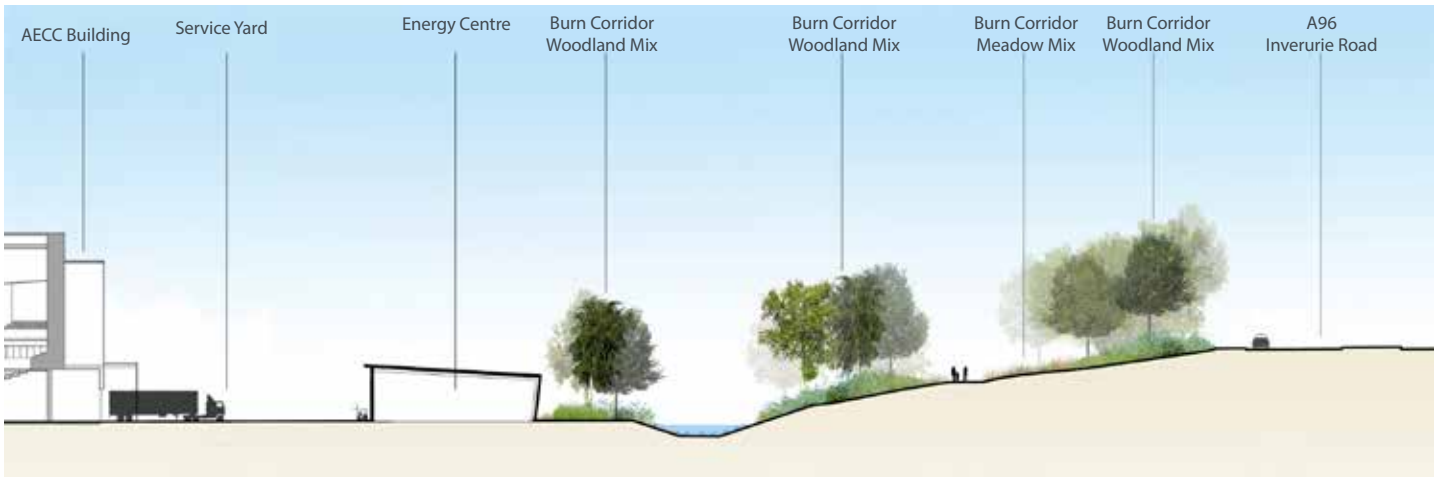
above Indicative Image of Woodland Walk

5.4 BURN PARKLAND

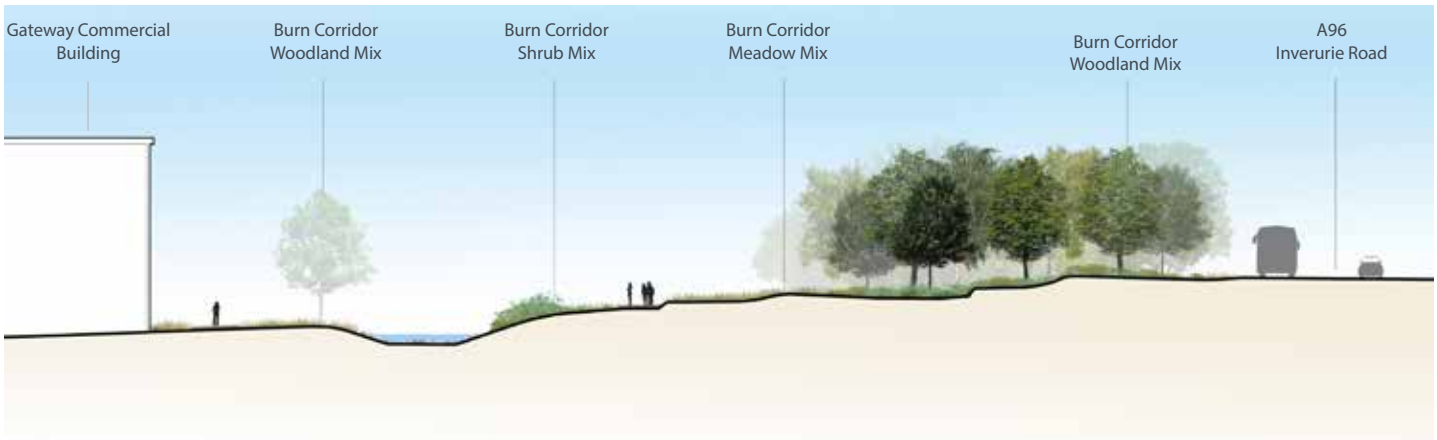
The following sections are indicated in plan under Section 5.4.1.



above Burn Parkland Section AA



above Burn Parkland Section BB



above Burn Parkland Section CC

5.5 GATEWAY

The nature, key characteristics and specific design requirements for the Gateway Area are addressed in this section.

5.5.1 Key Characteristics

This prominent location has been earmarked for large scale medium rise Class 4 offices which have the potential to attract leading corporate companies. This Gateway site is also suitable for large scale Class 11 leisure uses.

It is proposed that all buildings are arranged around the perimeter of this site fronting key approaches from the main Gateway corridor to the North, Dyce Drive to the West and the A96 from the South.

Each Building will have an identifiable demise area and will benefit from a central linear landscaped park which provides amenity to all buildings, as well as providing the necessary permeability to the overall development via the footpath network.

Buildings will be a range of 4 or 5 storeys with a high quality of elevational treatment commensurate with a headquarter office. Buildings have been carefully positioned to maintain key views and vistas and have also been arranged to animate the arrival experience for the visitor along the main entrance Gateway corridor.

The buildings will define the streetscape to this area, and a mix of formal hard and soft landscaping areas will ensure a meaningful relationship between elements of this zone and the wider context.

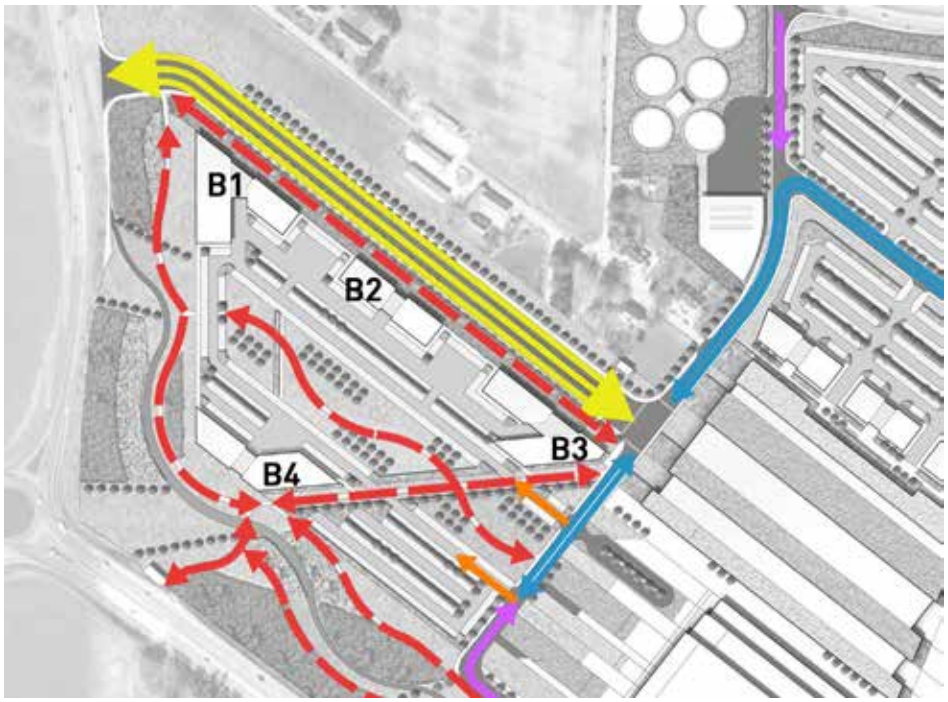
The car parking to Gateway will be a combination of at-grade and undercroft parking and will be located within the landscaped courtyard.

5.5.2 Constraints

A number of key constraints have influenced the development of proposals for this character area:

- Proximity to Aberdeen International Airport & the associated flight paths; as a result ridge heights are restricted to a maximum of:
- 26.3m above finished ground level of 64.0m for Plot B1
- 22.1m above finished ground level of 62.0m for Plot B2
- 22.1m above finished ground level of 60.5m for Plot B3
- 22.1m above finished ground level of 61.0m for Plot B4
- Re-routing of the Green Burn, Gough Burn and Bucks Burn
- Known and anticipated works to the Highways

above Gateway Location Diagram



above Gateway Movement & Connection Diagram

5.5.3 Movement/ Connection

This character area lies to the South of the main spine road which accesses the site.

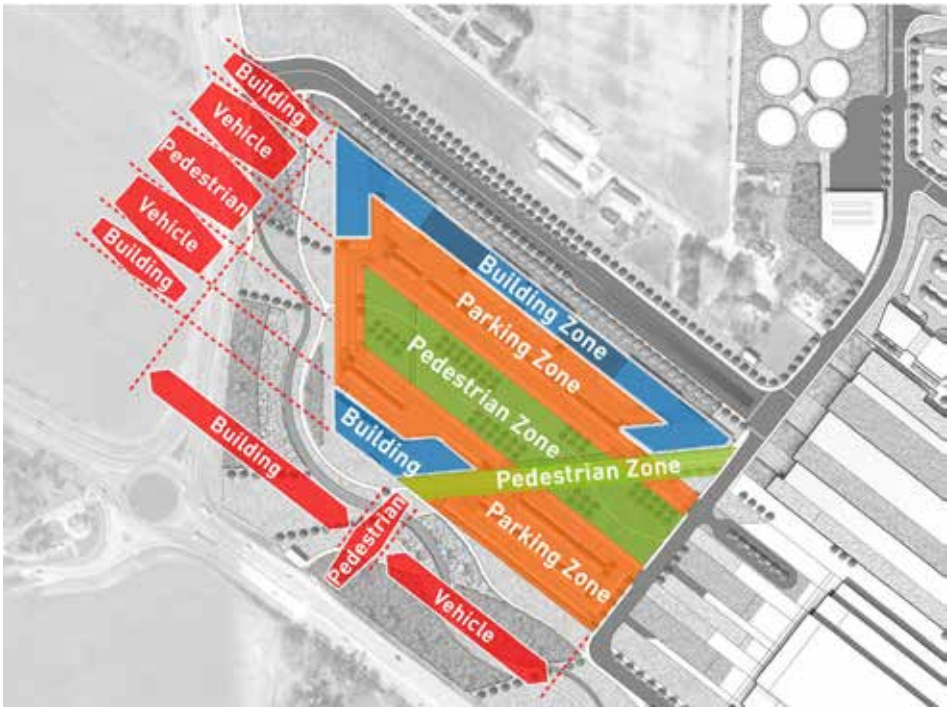
This main Gateway arrival road is proposed as a grand tree lined avenue incorporating bus, cycle, pedestrian, taxi and private car vehicle movements.

The Commercial buildings will be accessed via the primary access road to the East of the area with the inner access roads meshing with the green fingers of soft landscaping permeating from The Green. Appropriate shared surface and road calming measures will be provided where the key pedestrian paths cross the access roads.

5.5.4 General Requirements

The general requirements for this character area are noted below.

- Commercial buildings within this character area should provide and define a frontage along the Gateway corridor
- Car parking should not be located between the buildings and the main vehicular routes into and around the site. Consideration should be given to the arrival experience into buildings.
- Where landform allows, the use of slopes to help conceal car parking should be investigated.



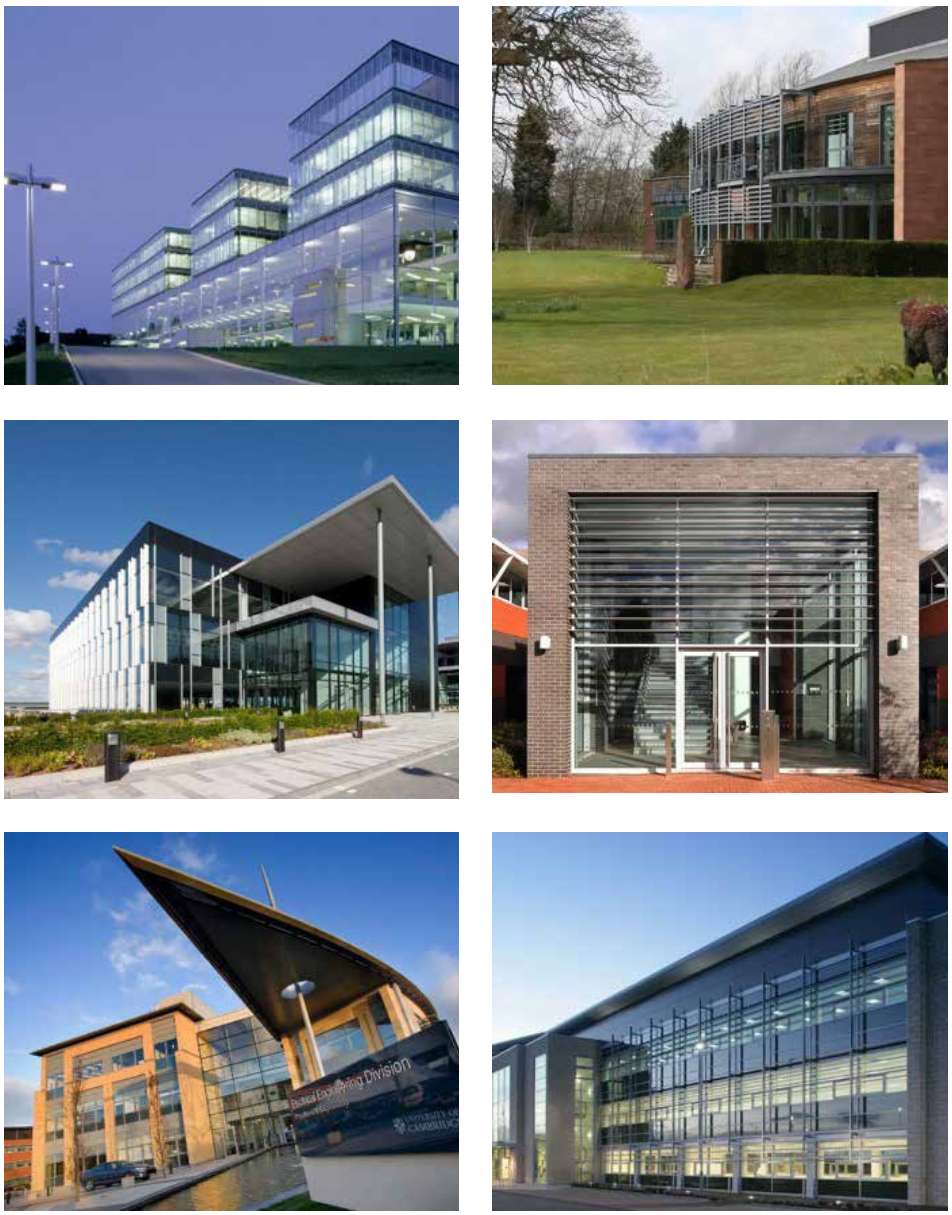
above Indicative Gateway Building Zone Diagram

above Indicative Imagery of Gateway

5.5.5 Architectural Character/ Requirements

Specific architectural requirements for this character area are noted below.

- Design quality should be consistent and appropriate to the function of the buildings
- Main entrances to buildings should be clearly expressed.
- Where "key buildings" to assist wayfinding are indicated on the development parameters plan, the design of these buildings should create a focal point at the end of these vistas
- Providing the scale, form and height of the buildings is controlled a degree of flexibility in terms of elevational treatment and materials is acceptable.
- The palette of colours should be based on preferred building materials: brick, metal cladding, natural timber and glass. Large areas of bright cladding to be minimised
- For individual offices the gables will be typically up to 18m wide elements to ensure site wide consistency, if developed as a Headquarters building a large format footprint with central daylight cores would be appropriate. The leisure use is envisaged to be focused within this character area
- All floors to comprise in region of 45% glass / 55% solid
- Southern elevation of buildings shaded by tree planting and horizontal solar shading where appropriate, vertical solar shading may be applied on the East and West facing facades
- Roofs will be flat or minimum pitch.



above Indicative Imagery

above Gateway Typical Section

As indicated in plan under Section 5.5.1.

5.5.6 Landscape Character/ Requirements

- It is intended that the commercial buildings at the main Gateway area will be framed by the structural woodland along the Burn Parkland, views into this zone will be framed by woodland areas and tree lined avenues.
- The North boundary of the Gateway area will be framed and reinforced by the formal avenue. A green corridor bisects the Gateway area and provides pedestrian linkage to the Central area of the Masterplan. The avenue and open space will create a strong framework to inform the future development of this character area.
- Specific planting in the Gateway character area would include plants from the following palette:
  - Tilia cordata 'Streetwise' (Lime 'Streetwise')
  - Carpinus betulus (Common Hornbeam)
  - Ligustrum ovalifolium (Privet)
  - Taxus baccata (Common Yew)
  - Pachysandra terminalis (Japanese Spurge)
  - Hedera helix 'hibernica' (Irish Ivy)
  - Pinus mugo 'Mops' (Dwarf Mountain Pine 'Mops')
  - Alnus incana (grey alder)
  - Larix decidua (European larch)
  - Betula pendula (silver birch)

above Indicative Imagery of Public Realm & Tree Species

5.6 LINEAR

The nature, key characteristics and specific design requirements for the Linear area are addressed in this section.

5.6.1 Key Characteristics

This area is designated for a Linear Class 4 office park, with a series of medium sized buildings suitable for businesses who perhaps don't require the prominence of the Gateway business park. This area will also be suitable for Class 11 leisure uses.

Buildings will be typically 3 storeys in height with a linear floor plate and will address the Subterranean building and Green Corridor to the South. Access and drop off will be arranged from the North via a landscaped parking area adjacent to the internal road network.

Buildings will be of the highest quality and, where possible, will relate to the aesthetics and palette of the AECC and Subterranean design.

It is intended that these buildings will provide an urban frontage to the primary street to the North of this area. Furthermore these pavilions in conjunction with H2 and H3 form an enclosure, an urban edge to the Central Area and reinforce the NW/SE orientation of the AECC and wider Masterplan.

The commercial buildings will define the streetscape and be linked by a mix of formal hard and soft landscaping areas. The buildings will also screen the car parking areas to the North from public view.

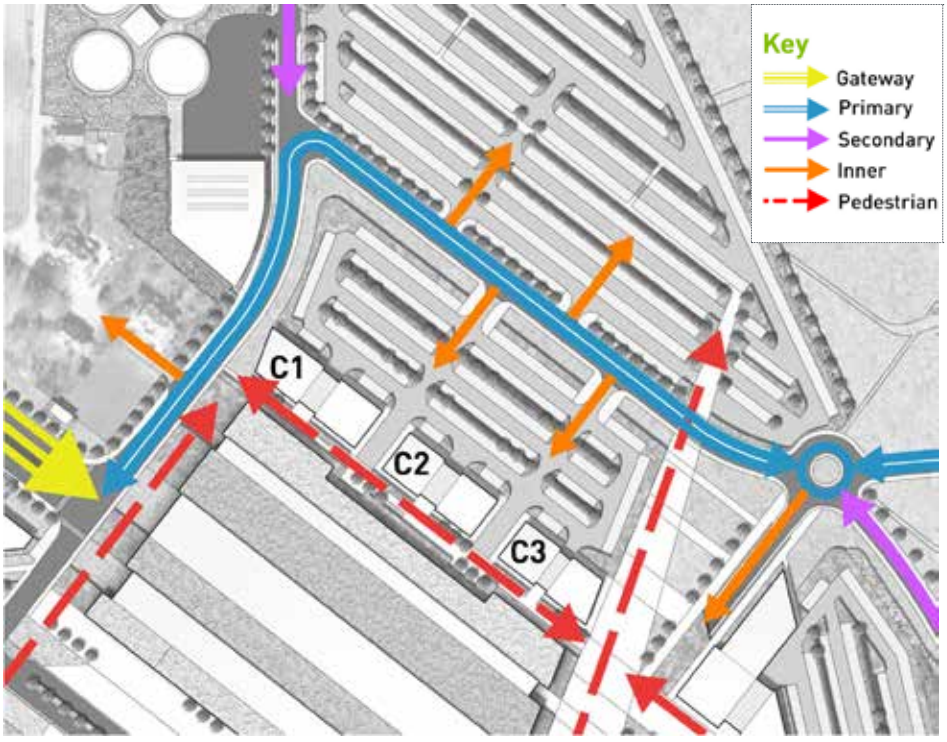
The formal landscaping to the main access road within the Gateway will change within this area to a more informal planting regime along the Primary Streets leading into the commercial office space.

5.6.2 Constraints

A number of key constraints have influenced the development of proposals for this character area:

- Proximity to Aberdeen International Airport & the associated flight paths; as a result ridge heights are restricted to a maximum of:
- 16.0m above finished ground level of 64.5m for Plot C1
- 13.0-16.0m above finished ground level of 62.5m for Plot C2
- 16.0m above finished ground level of 60.5m for Plot C3

above Linear Location Diagram



above Linear Movement & Connection Diagram

5.6.3 Movement/ Connection

This character area lies between the Primary Street and Central area and incorporates the main pedestrian route from the surface car park to the North through to the new AECC – the 'Entrance Axis'.

The Primary Street will incorporate bus, cycle, pedestrian, taxi and private car vehicle movements incorporating a central lane to permit right hand turning.

5.6.4 General Requirements

The general requirements for this character area are noted below.

- Commercial buildings within this character area should provide and define a frontage to the primary road and approach to the North and the Green Corridor to the North of the Central area
- Car parking should be located to the North of buildings. Consideration should be given to the arrival experience into buildings
- High quality landscape treatments should be utilised along the Primary Street and
- Green Corridor to create structure and define edges of the future commercial plots
- Each plot should include a proportion of attractive, high quality landscaped areas which provide a setting for the buildings

above Indicative Linear Building Zone Diagram

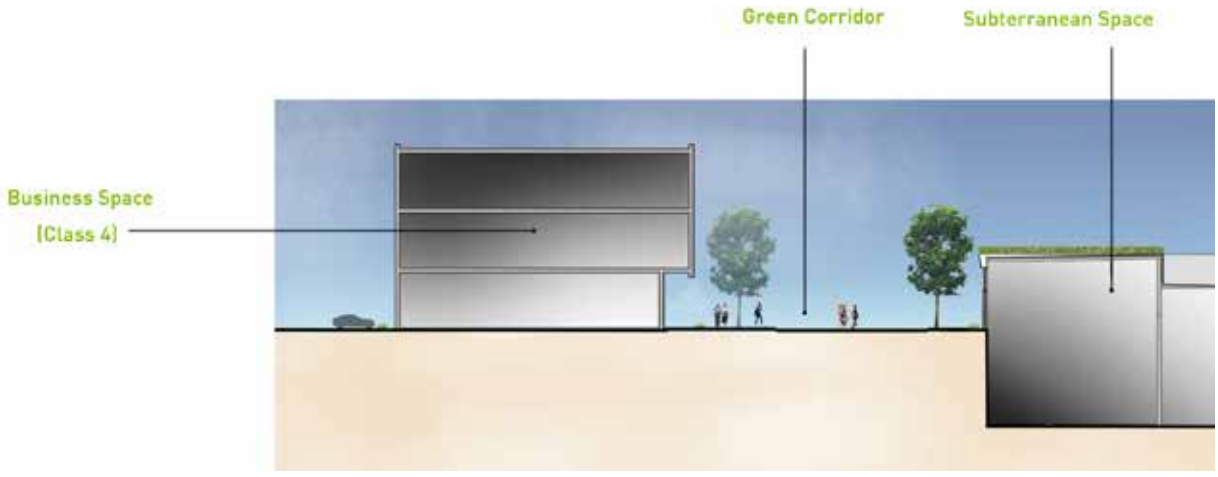
above Indicative Imagery of Linear Zone

5.6.5 Architectural Character/ Requirements

Specific architectural requirements for this character area are noted below.

- Design quality should be consistent and appropriate to the function of the buildings
- Main entrances to buildings should be clearly expressed
- Where "key buildings" to assist wayfinding are indicated on the development parameters plan, the design of these buildings should create a focal point at the end of these vistas
- Providing the scale, form and height of the buildings is controlled a degree of flexibility in terms of elevational treatment and materials is acceptable
- The palette of colours should be based on preferred building materials of brick, metal cladding, natural timber and glass. Large areas of bright cladding to be minimised. Materials will be appropriate/ complimentary/ high quality/ low maintenance
- Gables will be typically up to 18m wide elements to ensure site wide consistency
- All floors to comprise in region of 45% glass / 55% solid
- Building frontage to the Green Corridor to be set back approx 18m from the Subterranean Space
- If required, Southern elevation of buildings shaded by tree planting and horizontal solar shading, vertical solar shading may be applied on the East and West facing facades
- Roofs will be flat or minimum pitch.

above Indicative Imagery



above Typical Linear Section
As indicated in plan under Section 5.61.

5.6.6 Landscape Character/ Requirements

Specific landscape requirements for this character area are noted below.

- The tree lined avenue and open space will create a strong framework to inform development of the Linear area. The Primary Street will be lined with trees and set within a broad landscape zone. Specific planting in the Linear character area would include plants from the following palette:
  - Carpinus betulus (Common Hornbeam)
  - Corylus colurna (Turkish Hazel)
  - Ligustrum ovalifolium 'Aureum' (Golden Privet)
  - Lonicera nitida 'Maigrün' (Box Honeysuckle 'Maigrün')
  - Pinus mugo 'Mops' (Dwarf Mountain Pine 'Mops')
  - Taxus baccata (Common Yew)
- All planting will be in accordance with Aberdeen International Airport (AIA) Authority Guidelines.
- A range of high quality hard and soft landscape materials will be used along the pedestrian green corridor, which will clearly define the edge of the commercial zone.
- Each building will be set within a landscape which will provide useable and attractive breakout spaces.
- The new public realm will be legible, linking all areas together, both visually and physically, for ease of circulation.
- Robust materials and low maintenance design will be a key component of the public realm works. Materials will provide variety and visual interest through texture, tone and pattern. A co-ordinated, but limited, palette of durable surface materials will provide a strong setting for development.
- Hedge planting will be used to provide a continuous defensible barrier to separate the AECC car parking from the commercial building plots.
- Feature lighting will be used as vertical elements within the space, adding to the sense of celebration for key events.
- Street furniture will be specified and designed to minimise clutter and create a unique sense of place.






above Indicative Imagery of Public Realm & Tree Species

5.7 BOULEVARD

The nature, key characteristics and specific design requirements for the Boulevard Business Park and Hotel Quarter are addressed in this section

5.7.1 Key Characteristics

It is intended that the two Class 7 hotel buildings within Hotel Quarter will provide an animated frontage onto the main public Central Square. The Hotels will be arranged to the East of the Square, enclosing the area and providing animation and visual interest in the form of Restaurants, Cafes, Bars and other leisure uses.

The Central Square will comprise of a range of very high quality hard and softscape materials as well as an opportunity for public art. The square will also have the potential for outdoor events and will generally be the focal point of the development with the unique backdrop of the new AECC Building.

Building heights are largely dictated by the Airport height restrictions with hotels typically 5 storeys in height. Vital to this area will be the execution of the building design for all elements, and this requires to be of the highest quality with a consistent style and palette of material.

With the exception of taxi drop–off the East, this space is intended to be a pedestrian friendly car free area with a high degree of visual amenity and a comfortable micro climate.

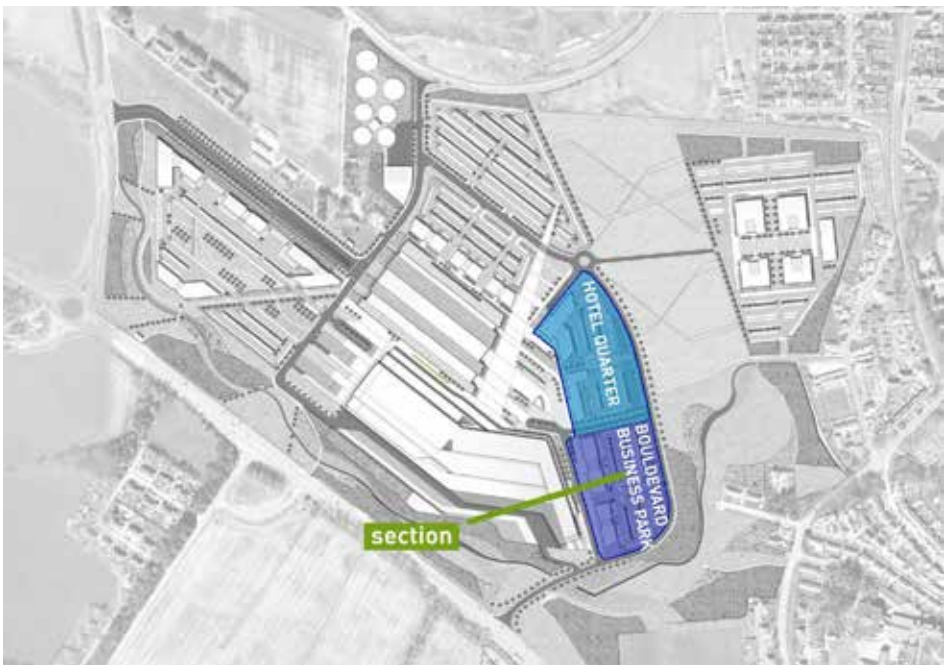
The buildings within this area will also screen the temporary car parking areas to the East from the Central Square and main public concourse spaces associated with the new AECC, and will be screened from the outer loop road with earth mounding and shrub/tree planting.

The commercial buildings within the Boulevard Business Park will provide a frontage along the Inner Street (The Boulevard), creating a more intimate space with the AECC 4 star hotel opposite.

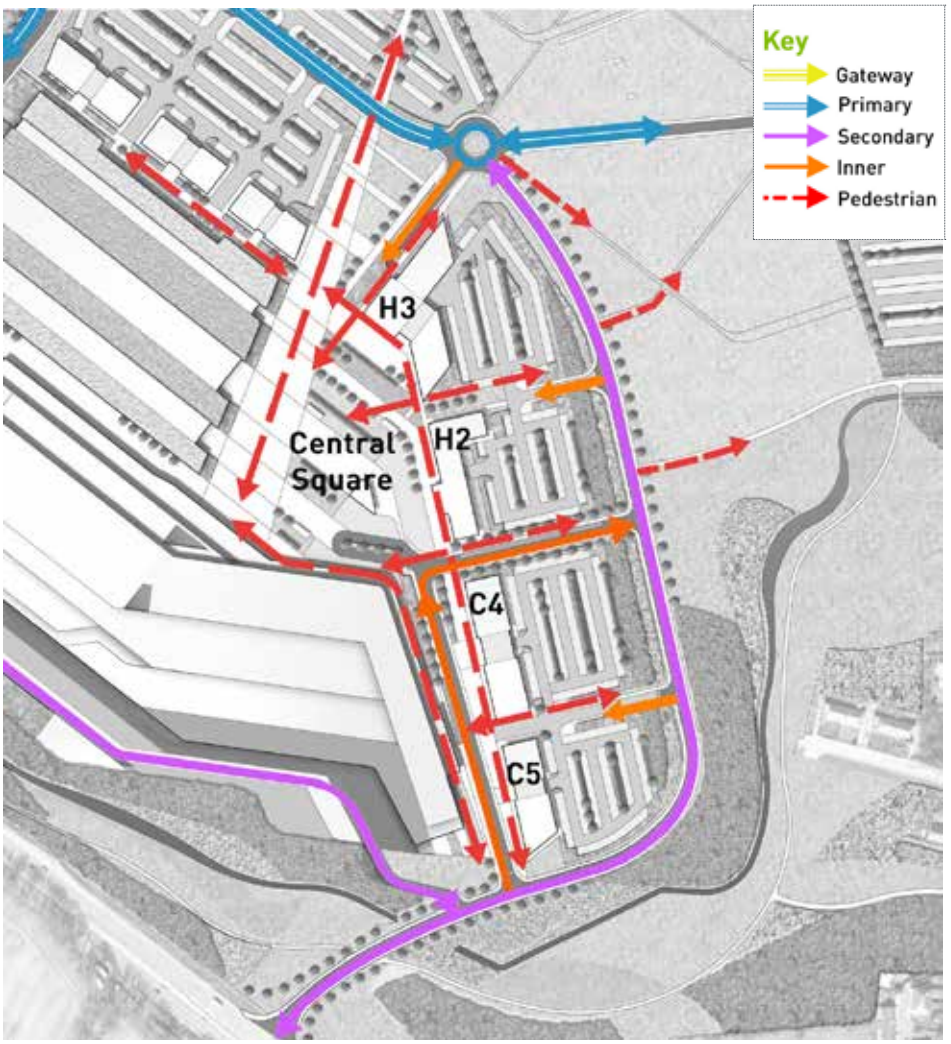
5.7.2 Constraints

A number of key constraints have influenced the development of proposals for this character area:

- Proximity to Aberdeen International Airport & the associated flight paths; as a result ridge heights are restricted to a maximum of:
- 17.9m above finished ground level of 60.5m for Plots C4 & C5
- 17.5m above finished ground level of 60.5m for Plot H2
- 15.5m above finished ground level of 60.5m for Plot H3



above Boulevard Location Diagram



above Boulevard Movement & Connection Diagram

5.7.3 Movement/ Connection

This character area sits adjacent to the main public Central Square and AECC hotel, and is bounded by the Inner Street and Secondary Street. It also incorporates a main pedestrian route (the 'Entrance Axis'), which leads visitors from the North car park area to the main entrance of the new AECC.

The site is fully integrated to the other development plots via a matrix of pedestrian walkways.

The building plots are accessed from the Secondary Street which is designed to accommodate cycle, pedestrian, coaches, taxi, private car and service vehicle movements.

5.7.4 General Requirements

The general requirements for this character area are noted below.

- Hotel buildings within this character area should define a strong frontage along the main public Central Square
- Car parking should be located to the East of buildings. Consideration should be given to the arrival experience into buildings
- Where landform allows the use of slopes to help conceal car parking this should be investigated
- High quality landscaping will be installed as part of the Central Square works to create structure and define edges of future plots
- Each plot should include a proportion of attractive, high quality landscaped areas which provide a setting for the buildings
- The hotel buildings should target BREEAM Excellent and an EPC A rating, subject to brand requirements

above Indicative Boulevard Building Zone Diagram

above Indicative Image of Boulevard

5.7.5 Architectural Character/ Requirements

Specific architectural requirements for this character area are noted below.

- Design quality should be consistent and appropriate to the function of the buildings
- Main entrances to buildings should be clearly expressed
- To asssit wayfinding, where "key buildings" are indicated on the development parameters plan, the design of these buildings should create a focal point at the end of these vistas
- Providing the scale, form and height of the buildings is controlled a degree of flexibility in terms of elevational treatment and materials is acceptable.
- The palette of colours should be based on preferred building materials: brick, metal cladding, natural timber and glass. Large areas of bright cladding to be minimised
- Gables will be typically up to 18m wide elements to ensure site wide consistency
- All floors to comprise in region of 45% glass / 55% solid
- Where required, Southern elevation of buildings shaded by tree planting and horizontal solar shading, vertical solar shading may be applied on the East and West facing facades
- Roofs will be flat or minimum pitch.




above Indicative Imagery

above Typical Boulevard Section

As indicated in plan under Section 5.7.1.

5.7.6 Landscape Character/ Requirements

Specific landscape requirements for this character area are noted below.

- The landscape character in this area will create a strong framework to support both the development of the Hotels and the main pedestrian paths network. The landscape treatments will be both formal and semi-formal with a combination of trees, hedges and a simple palette of amenity shrubs and ground cover planting.
- Street trees will define the main pedestrian routes, helping to guide people through the spaces and will also offer a sense of human scale and enclosure.
- Amenity shrub planting and formal hedges will soften the general aesthetic whilst visually integrating the car parking areas.
- The landscape treatments will be robust, but varied, and will provide the backdrop to the core activities within each respective area.
- Formal and semi-formal pocket park areas will provide for more intimate use of natural outdoor spaces for hotel and office workers.
- The car park areas will be integrated into the landscape and screened along the Eastern edge.
- Blocks of semi-natural trees and shrubs will form a strong edge along the adjacent road.
- Spaces will be well lit with a simple combination of contemporary street furniture.
- The interface between the Boulevard Business Park and the AECC will be designed to form a simple, high quality streetscape with street trees and co-ordinated street furniture.

Specific planting in the Boulevard character area would include plants from the following palette:

- Tilia cordata 'Streetwise' (Lime 'Streetwise')
- Carpinus betulus (Common Hornbeam) Ligustrum ovalifolium (Privet)
- Taxus baccata (Common Yew)
- Pachysandra terminalis (Japanese spurge)
- Hedera helix 'hibernica' (Irish Ivy)
- Pinus mugo 'Mops' (Dwarf Mountain Pine 'Mops')

Structure planting to slopes will include:

- Alnus incana (grey alder)
- Larix decidua (European larch)
- Ulmus 'New Horizon'
- Betula pendula (silver birch)
- Salix viminalis (common osier)
- Salix purpurea (purple willow)
- Salix daphnoides (violet willow)

above Indicative Imagery of Public Realm & Tree Species

5.8 CAMPUS

The nature, key characteristics and specific design requirements for the Campus area are addressed in this section.

5.8.1 Key Characteristics

The Campus development will comprise of a mix of Class 4 office and Class 11 leisure uses.

Due to its remoteness from the overall scheme, the Campus has been arranged as a cluster of buildings orientated to a central landscaped park. Building entrances will be arranged to address this park as well as drop-off, and pedestrians will be encouraged to utilise this amenity via the core footpath network.

Buildings will be typically large scale footprints ranging from 2 to 3 storeys in height, and the key vista from the junction of Dyce Drive and the A96 has been used to organise the geometry of this character area.

Long distance views are terminated with a key building, which will highlight the main approach to the Campus Zone and enhance the character and legibility of the area.

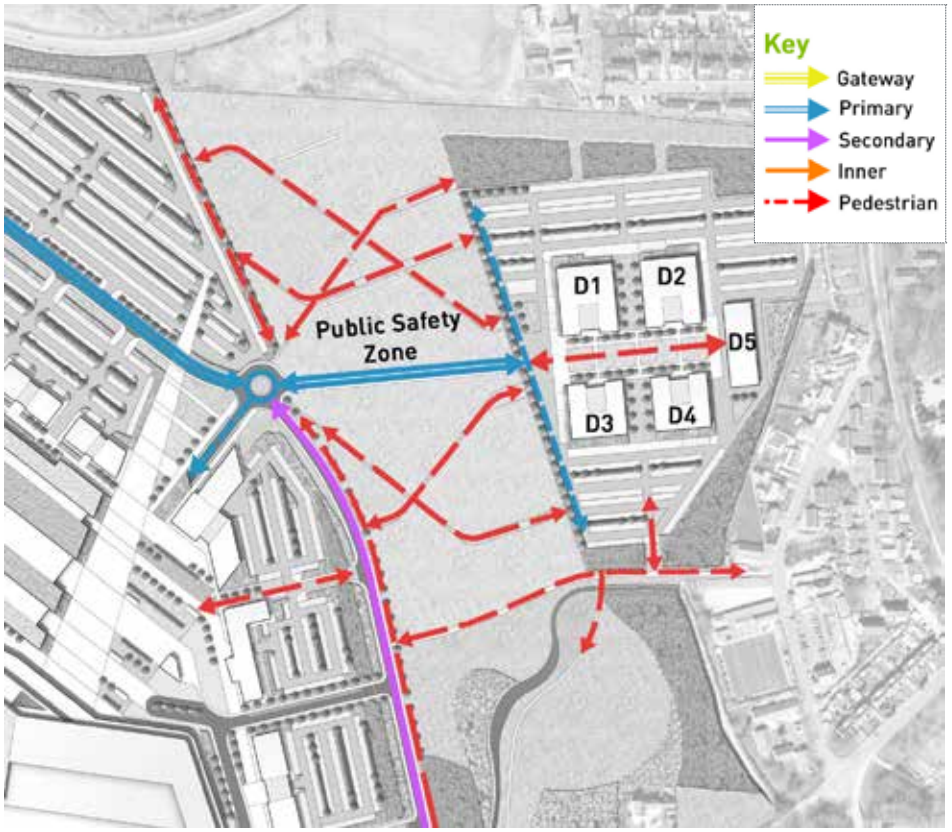
These pavilion buildings will define the streetscape and a mix of formal hard and soft landscaping areas will ensure a meaningful relationship between elements of this zone.

above Campus Location Diagram

5.8.2 Constraints

A number of key constraints have influenced the development of proposals for this character area:

- Proximity to Aberdeen International Airport & the associated flight paths; as a result ridge heights are restricted to a maximum of:
- 13.7m above finished ground level of 54.0m for Plot D1
- 13.7 m above finished ground level of 53.5m for Plot D2
- 17.9m above finished ground level of 52.0m for Plot D3
- 17.9m above finished ground level of 51.5m for Plot D4
- 13.7m above finished ground level of 52.5m for Plot D5
- Public Safety Zone
- Retention of allotments following feedback during public consultation
- Retaining a zone to facilitate a potential future rail link to Aberdeen International Airport



above Campus Movement & Connection Diagram

5.8.3 Movement/ Connection

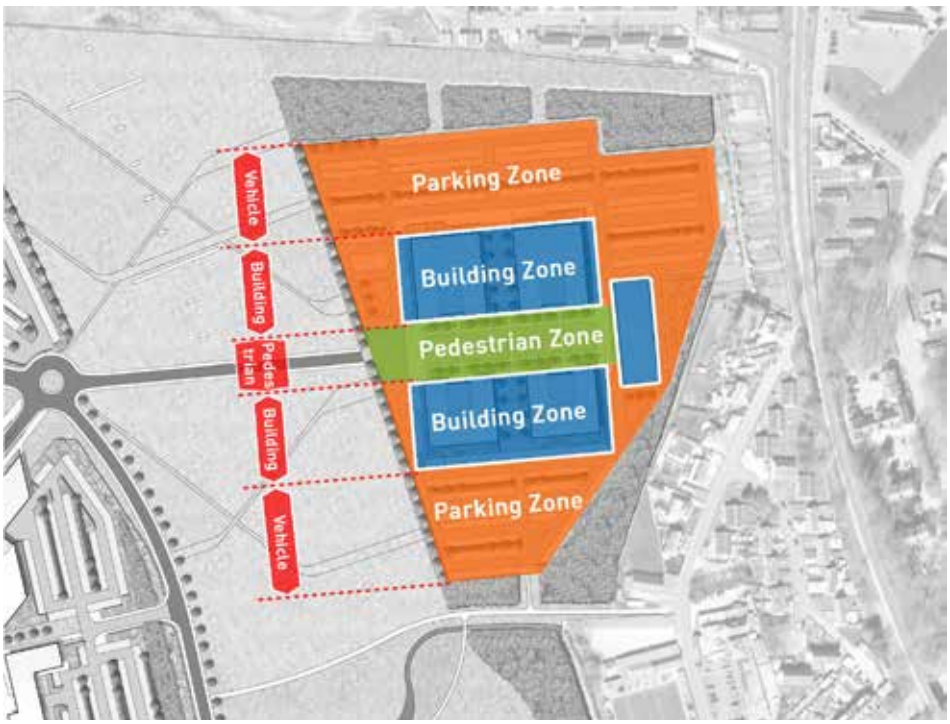
This character area is separated from the remainder of the development by the location of the flight path and public safety zone.

The site is accessed from a Secondary Street which connects to the individual building plots and provides access into the car parking areas.

5.8.4 General Requirements

The general requirements for this character area are noted below.

- Commercial buildings within this character area should relate to the central green space
- Car parking should be located to the rear or side of buildings. Consideration should be given to the arrival experience into buildings
- There will be a matrix of pedestrian routes from the Campus Zone crossing the public safety zone arriving a key nodal points leading towards the AECC and other commercial uses
- Where landform allows the use of slopes to help conceal car parking should be investigated
- Each plot should include a proportion of attractive, high quality landscaped areas which provide a setting for the buildings. Adjoining residential dwellings have a close proximity to potential development within the site and will be effectively screened from development by landscaping
- The existing Public Right of Way will be enhanced and incorporated into the overall movement framework for the site



above Indicative Campus Building Zone Diagram

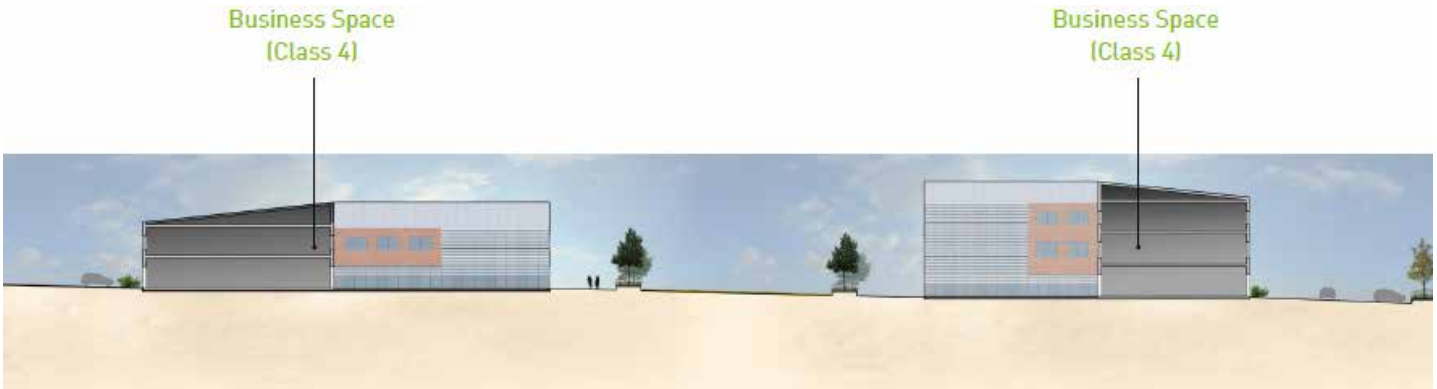
above Indicative Image of Campus

5.8.5 Architectural Character/ Requirements

Specific architectural requirements for this character area are noted below.

- Design quality should be consistent and appropriate to the function of the buildings
- Buildings should be designed to position their main frontages to address the Plaza and the secondary Street and the main entrance should address the Plaza.
- Main entrances to buildings should be clearly expressed
- To assist wayfinding, where "key buildings" are indicated on the development parameters plan, the design of these buildings should create a focal point at the end of these vistas.
- Providing the scale, form and height of the buildings is controlled a degree of flexibility in terms of elevational treatment and materials is acceptable.
- The buildings within this area should reflect a more naturalistic environment through the introduction of timber and a natural colour palette
- All floors to comprise in region of 45% glass / 55% solid
- If required, horizontal solar shading may be applied on South, East and West facing facades
- Roofs will be flat or minimum pitch

above Indicative Imagery



above Typical Campus Section
As indicated in plan under Section 5.8.1.

5.8.6 Landscape Character/ Requirements

Specific landscape requirements for this character area are noted below.

- The footpaths and cycleways will link the Burn Parkland with the adjacent residential areas. Multiple links are made with the more formal areas of the site to create a permeable development which is accessible to walkers and cyclists and which provides informal recreational opportunities in a semi-natural environment.
- The Eastern areas of the Burn Parkland, closer to the existing residential areas of Dyce have been developed as a more formal 'parkland', providing a landscape structure for open spaces that can be used by the community for informal recreation and games.
- It is intended that the Campus, lying to the East of the runway approach will have a more parkland character than the other commercial areas. It is intended that the buildings will relate to a central green space which will be axial to the approach road and that the view created along the approach and through the plot will be terminated by a key building.
- Footpath links will be created between the Campus and the main AECC site across the runway approach.

Specific planting in the Campus character area would include plants from the following palette:

- Acer campestre 'Streetwise' (Field Maple 'Streetwise')
- Carpinus betulus (Common Hornbeam)
- Pyrus calleryana 'Chanticleer' (Flowering Pear 'Chanticleer')
- Ligustrum ovalifolium (Privet)
- Taxus baccata (Common Yew)
- Pachysandra terminalis (Japanese Spurge)
- Hedera helix 'hibernica' (Irish Ivy)
- Pinus mugo 'Mops' (Dwarf Mountain Pine 'Mops')

Structure planting would include:

- Alnus incana (grey alder)
- Larix decidua (European larch)
- Ulmus 'New Horizon'
- Betula pendula (silver birch)
- Salix viminalis (common osier)
- Salix purpurea (purple willow)
- Salix daphnoides (violet willow)








above Indicative Imagery of Public Realm & Tree Species

5.9 ENERGY CENTRE

The nature, key characteristics and specific design requirements for the Energy Centre and Anaerobic Digestion Plant are addressed in this section

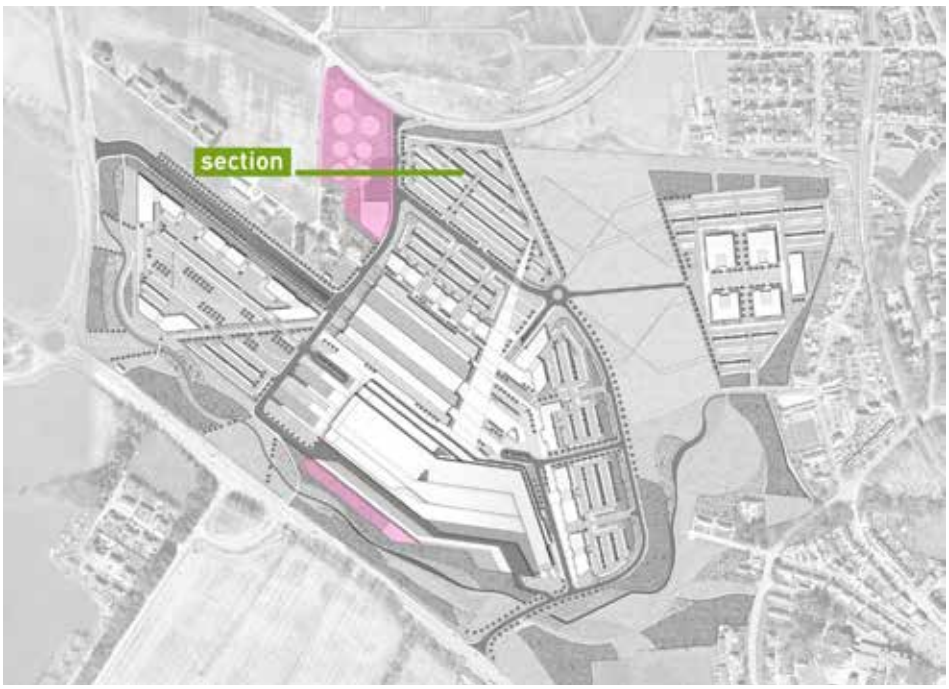
5.9.1 Key Characteristics

The Energy Centre uses local renewable resources and advanced technologies to produce an energy eco-system. Local crops and Aberdeen's green and food waste streams will provide resource efficient energy for the AECC building, and potentially the wider area.

The gas produced from waste in the Anaerobic Digestion (AD) plant will be fed into the combined cooling, heat and power (CCHP) plant located to the South of the AECC building to provide local heating, cooling and power.

It is intended that the Industrial building within this character area will provide a frontage along the Secondary Street which leads to Wellheads Road.

It is intended that the AD Storage Tanks will be recessed into the ground and landscaped to reduce the visual impact.



above Energy Centre & AD Plant Location Diagram

5.9.2 Constraints

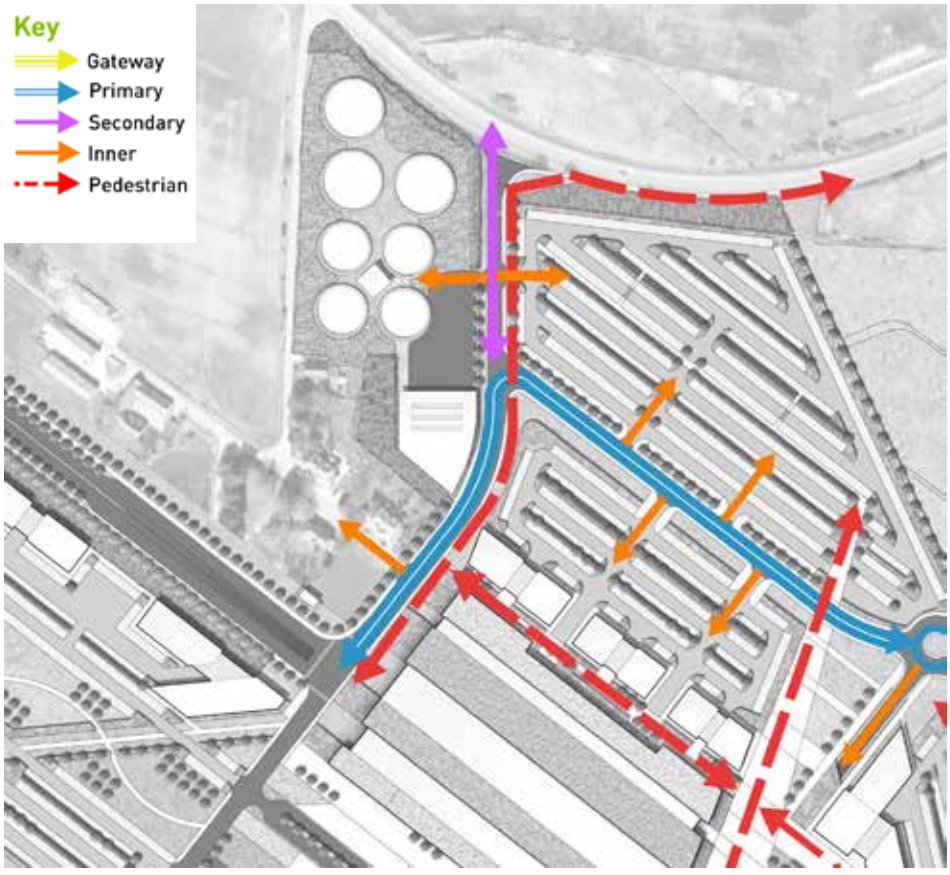
A number of key constraints have influenced the development of proposals for this character area:

- Proximity to Aberdeen International Airport & the associated flight paths; as a result ridge heights are restricted to a maximum of:
- 5.0m – 15.0m above finished ground level of 66.0m for the AD Plant
- 12.0m above finished ground level of 66.0m for the AD Tanks
- Topography

5.9.3 Movement/ Connection

Access will be via the Secondary Street to the East. There will be no public access to this area.

It is anticipated that approximately 7-11 lorries will visit the site per day, outwith peak traffic times.



above AD Plant Movement & Connection Diagram

5.9.4 General Requirements

The general requirements for this character area are noted below.

Anaerobic Digestion Plant

- Buildings within this character area should provide a frontage along the Secondary Street and will be set back between 2 and 4m from the edge of the development plot
- Service yards and car parking should be located behind or to the side of buildings, to avoid large hard standing areas fronting the secondary street. Perimeter fencing / walls will be integrated with landscape planting
- The Anaerobic Digestion facility will comprise a number of digestion tanks and a service building. The principle of utilising landform to at least partially conceal these structures has been established.

above Indicative AD Plant Building Zone Diagram

5.9.5 Architectural Character/ Requirements

Specific architectural requirements for this character area are noted below:

- Ridge heights will not exceed the maximum restrictions advised by the Airport
- Service yards and car parking should be located behind or to the side of buildings, to avoid large hard standing areas fronting the plots. Perimeter walling / fencing will be integrated with landscape planting
- Main entrances to buildings should be clearly expressed
- The palette of colours and materials should be consistent with those used elsewhere within the Central zone of the Masterplan

above Indicative Imagery of AD Plant

above Indicative AD Plant Section
As indicated in plan under Section 5.9.1.

5.9.6 Landscape Character/ Requirements

Specific landscape requirements for this character area are noted below.

- The landscape character in this area will provide a clear structure within which the infrastructure associated with the Energy Centre can be assimilated into the wider landscape context
- Sensitive and sympathetic use of the existing contours will allow the Energy Centre to be integrated into the local landscape with the aim of reducing any negative visual impacts
- Block planting using locally typical tree and shrub species will further reduce any residual visual impacts of the proposed infrastructure
- Specific planting in this character area would include plants from the following palette:
  - Alnus incana (grey alder)
  - Larix decidua (European larch)
  - Ulmus 'New Horizon'
  - Betula pendula (silver birch)
  - Salix viminalis (common osier)
  - Salix purpurea (purple willow)
  - Salix daphnoides (violet willow)
- Specific lighting requirements will be subject to liaison with ACC street lighting department through detailed design.






above Indicative Imagery of Public Realm & Tree Species

The nature, key characteristics and specific design requirements for the Car Park are addressed in this section.

5.10.1 Key Characteristics

The North Car Park is dedicated to the AECC and will provide 1000 car spaces.

5.10.2 Constraints

A number of key constraints have influenced the development of proposals for this character area:

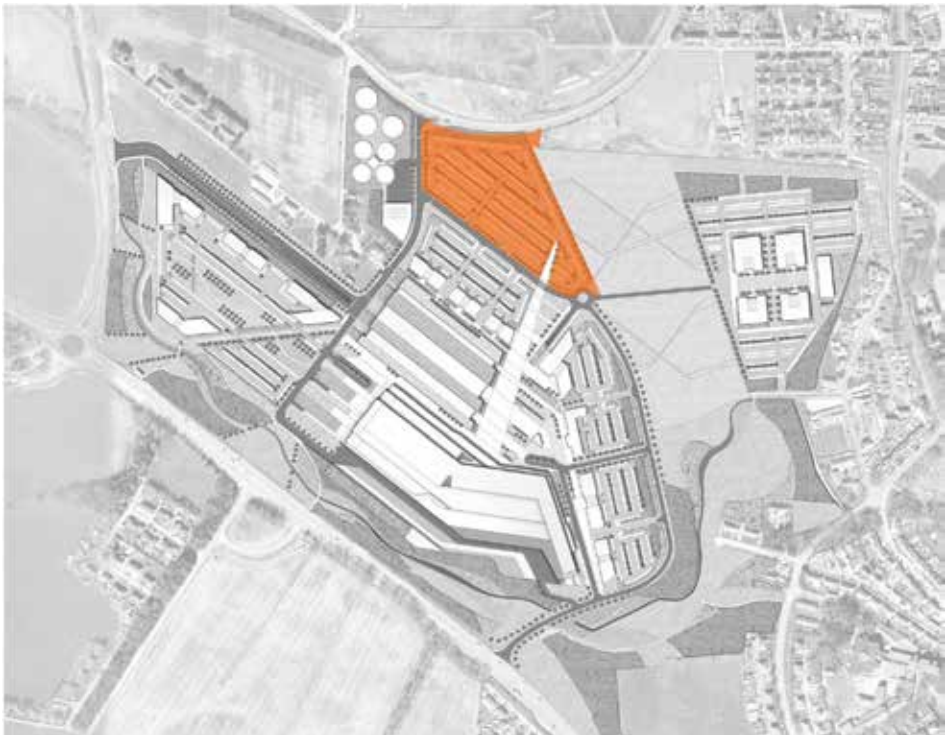
- Proximity to Aberdeen International Airport & the associated flight paths
- Topography

5.10.3 Movement/ Connection

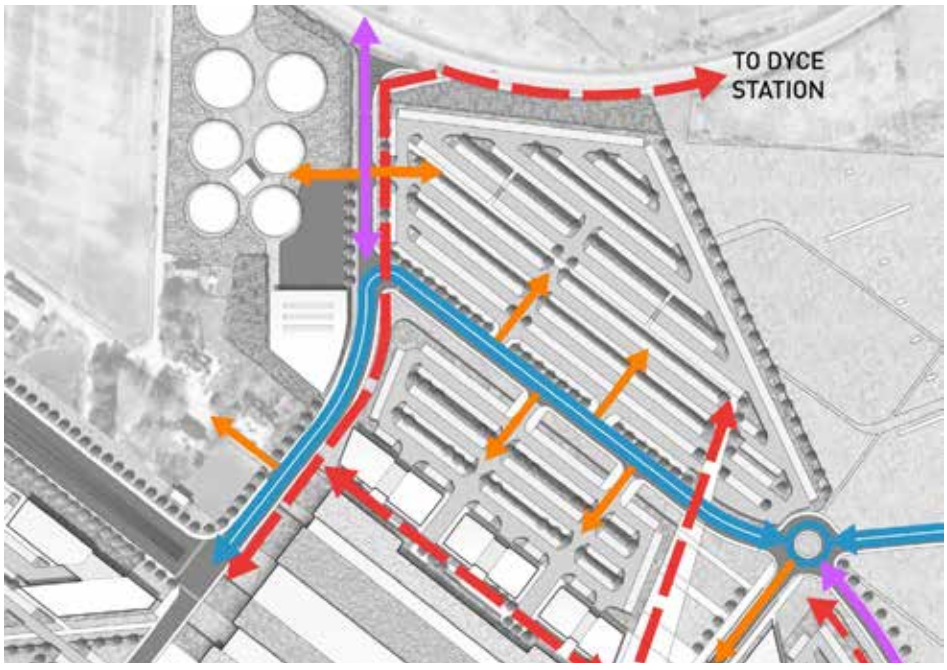
Access to the surface level Car Park is via the Primary Street to the South, between this area and the Linear area. This route will incorporate bus, cycle, pedestrian, taxi and private car vehicle movements, providing a central lane to permit right hand turning.

Access will also be via the Secondary Street to the West.

The Car Park incorporates a main pedestrian route "The Entrance Axis" through the Linear area and main Central Square that leads to the main entrance of the new AECC.



above Car Park Location Diagram



above Car Park Movement & Connection Diagram

5.10.4 Landscape Character/ Requirements

Specific landscape requirements for this character area are noted below.

- The design of the landscape character in this area will provide a clear structure within which the parking zone can be incorporated sensitively into the existing site context, whilst achieving a high quality visitor experience.
- Sensitive and sympathetic use of the existing contours will allow the car park to be integrated into the local topography with the aim of reducing any negative visual impacts of parked vehicles. Formal trees, hedges and amenity landscape will be used to further integrate the parking zone to improve visual amenity while achieving the primary uses & functions.
- A clear path network will be reinforced using formal tree and hedge planting to increase the legibility of the space and guide visitors to the key destinations.
- The area will include low-key street lighting to maximise the sense of safety for people using the car park during darkness.
- Permeable surfaces will be employed wherever possible to reduce the potentially utilitarian visual character of car parking and to allow sustainable water drainage.
- Changes in levels will be accommodated sensitively within the landscape framework in order to improve the visitor's experience.
- The overspill car park zones will be reserved for exceptional temporary use only.
- Structural tree planting will be used to define primary routes along key boundaries within the character area
- Planting in the Car Park character area would include the following:
    - Carpinus betulus (Common Hornbeam)
    - Tilia cordata 'Streetwise' (Lime 'Streetwise')
    - Pyrus calleryana 'Chanticleer' (Flowering Pear 'Chanticleer')
    - Pachysandra terminalis (Japanese Spurge)
    - Hedera helix 'hibernica' (Irish Ivy)
    - Pinus mugo 'Mops' (Dwarf Mountain Pine 'Mops')

above Indicative Imagery of North Parking Zone

above Indicative Imagery of Overspill Parking Zone

above Indicative Car Park Zone Diagram

Section 6
Phasing & Delivery

SECTION 6

PHASING & DELIVERY

6.1 PHASING & PROGRAMME

6.1.1 Phasing

The phasing of the AECC project has been developed based on the most appropriate sequencing of works. It is proposed that an enabling works package should be undertaken to allow for an early site start on the project. This will assist with the overall programming of the works.

6.1.2 Programme

It is anticipated that physical development will commence on the site early 2016, and proceed in the following sequence:

Phase	Element	Details
Phase 1 Early 2016 - Mid 2017	Enabling Works Package	This will likely include demolitions, site clearance, utility diversions, earth works and creation of the new burn parkland.
Phase 2 Mid 2016 – End 2018	AECC & Hotel 1 & Energy Centre & AD Plant	This will likely include the AECC and associated car parking along with Hotel 1 and the Energy Centre.
Phase 3 Early 2017 – End 2018	Hotel 2 & 3	This will likely include Hotel 2 and Hotel 3.
Phase 4 Early 2019 – Mid 2028	60,000m^2 Office Development & 6,000m^2 Leisure Development	This will likely include the development of 60,000m^2 of offices and 6,000m^2 of leisure.

6.2.1 Delivery of Phase 1

Utility Infrastructure

The majority of the existing infrastructure will be removed as part of the site clearance. There will be a combination of diversions and disconnections/removals to be carried out and this will be one of the first activities of the enabling works. New utilities will be run throughout the site as required within specified zones, likely to follow the road network. This will provide the necessary capacity to build-out the entire site. This will commence as part of the enabling works and be concluded during subsequent phases.

Demolitions, Earthworks & Realigning Green Burn

There are currently circa 25,000m2 of existing buildings on site. These are all due to be demolished. There will be a need to undertake a full asbestos survey of the buildings and remove and dispose of all asbestos in line with Health and Safety Executive (HSE) requirements. Any other contaminated areas will also be addressed accordingly.

The buildings to be demolished are mostly unlisted granite buildings and one sandstone building. Where possible, stone from these existing buildings will be re-used in the proposed development, to be utilised in landscape/urban realm features.

The current topography of the site means that there are substantial earthworks required. The Green Burn currently meanders through the middle of the site and this requires to be diverted to the South of the site, adjacent to the A96. This will involve relocating circa 500,000m3 of material around the site. It is intended that there will be no offsite removal of this cut material and will therefore be required to be utilised as fill around the site.

Roads

With the proposed redevelopment of the site there is new road infrastructure required throughout the site. The enabling works will provide the key routes throughout the site, and likely include the new junction at Dyce Drive, Wellheads Drive and also onto the A96. The roads will allow access to the various development sites, however each development will be responsible for their own minor roads network. A construction traffic management plan will be developed to make sure that the construction traffic for each development plot is suitably separated and controlled to minimise impact on the roads network.

Landscaping & Burn Parkland

As part of the project there is a substantial amount of landscaping located around the area of the realigned Green Burn, as well as other pockets of landscaping throughout the site. This landscaping will commence during the enabling works and will be phased along with each building development. At completion of Phase 1, the landscaping to the Burn Parkland will stand alone as a significant piece of infrastructure.

above Phase 1: Enabling Works

above Phase 2: AECC/ Hotel 1/ Energy Centre / AD Plant

6.2.2 Delivery of Phase 2

AECC & Hotel 1

The AECC building will be the main development on the site. This building includes an integrated hotel. This phase will include the construction of the Subterranean Car Park, North Car Park associated with the AECC, the overspill parking and associated landscaping.

Energy Centre & AD Plant

The Energy Centre and AD Plant will produce energy for both the AECC and adjacent buildings, depending on capacity required. It will also produce heating and cooling. The completion of this element will be vital for the successful completion of the AECC building itself.

6.2.3 Delivery of Phase 3

Hotel Developments

There are two hotels planned in addition to the integrated hotel which forms part of the AECC building. It is currently anticipated that these will be delivered alongside the AECC building and complete at the same time.

above Phase 3: Hotels 2 & 3

6.2.4 Delivery of Phase 4

Commercial Development

Included as part of the Masterplan is 60,000m^2 of commercial building space and 6,000m^2 of leisure space. The delivery of these elements will be market driven. It is anticipated that the enabling works will provide platform levels for each of these sites.

above Phase 4: Office & Leisure Development

Section 7
Masterplan Summary

SECTION 7

MASTERPLAN SUMMARY

7.1 MASTERPLAN LAYOUT

Rowett North Masterplan

The concept for the landscape Masterplan has been derived from the idea of 'Ripples in the Landscape'. The lines and the undulations which are evident through the existing local landscape character have been interpreted and used to inform the design for the various landscapes throughout the scheme. This roots the landscape Masterplan into the local place, both conceptually, and through the physical design of key landscape elements and key public spaces.

SECTION 7
MASTERPLAN SUMMARY
7.1 MASTERPLAN LAYOUT

above Indicative Imagery of Rowett North Masterplan

SECTION 7
MASTERPLAN SUMMARY
7.1 MASTERPLAN LAYOUT

above Indicative Imagery of Rowett North Masterplan

Appendix A
Planning Context

APPENDIX A

PLANNING CONTEXT

A1 POLICY & GUIDANCE

A1.1 Scottish Planning Policy

Scottish Planning Policy (SPP) sets out the Governments Policy on Land Use and Planning.

The Scottish Government's central purpose is to focus government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth. The SPP promotes consistency in the application of policy across Scotland whilst allowing sufficient flexibility to reflect local circumstances.

It directly relates to:

- the preparation of development plans;
- the design of development, from initial concept through to delivery; and
- the determination of planning applications and appeals

Planning's central purpose is to create better places. 'Placemaking' is a creative, collaborative process that includes design, development, renewal or regeneration of our urban or rural built environments. The aim is to provide sustainable, well-designed places and homes which meet people's needs

SPP requires planning to take every opportunity to create high quality places by taking a design-led approach. This means taking a holistic approach that responds to and enhances the existing place while balancing the costs and benefits of potential opportunities over the long term.

Planning should support development that is designed to a high-quality, demonstrating the six qualities of successful place:

- Distinctive
- Safe and Pleasant
- Welcoming
- Adaptable
- Resource Efficient
- Easy to Move Around and Beyond

The planning system should promote business and industrial development that increases economic activity while safeguarding and enhancing the natural and built environments as national assets.

A1.2 Aberdeen City & Shire Strategic Development Plan

The Aberdeen City and Shire Strategic Development Plan (SDP) adopted in April 2014 sets out the strategic context for land use planning in the area.

The SDP contains a number of key development themes which includes Economic Growth and Sustainable Development and Climate Change.

A1.3 Economic Growth

One of the objectives of the SDP is to provide opportunities which encourage economic development and create new employment in a range of areas that are both appropriate for and attractive to the needs of different industries, while at the same time improving the essential strategic infrastructure to allow the economy to grow over the long term.

A1.4 Sustainable Development & Climate Change

Another objective of the SDP is to take the lead in encouraging sustainable development by:

- reducing the amount of carbon dioxide released into the air
- adapting to the effects of climate change
- limiting the amount of non-renewable resources it uses.

In this regard the SDP seeks to promote energy efficiency in new development. All new development must be designed and built to use resources more efficiently and be located where they have as little an effect on the environment as possible. The SDP also wishes to increase the supply of heat and power from renewable resources and reduce emissions.

Commentary

The proposed Exhibition and Conference Centre and complementary Class 4 office and hotel developments are consistent with the objectives of the SDP and SPP as it promotes economic development and employment in an appropriate location. The production of the Masterplan underlines taking forward a Local Development Plan allocation, the quality place making agenda and supports Development Management by clarifying and front-loading planning matters.

The proposal will directly lead to new employment opportunities either within the Exhibition and Conference Centre, hotels or Class 4 offices, but will also seek to assist in promoting economic development in the City and Shire by providing a significant Conference and Exhibition Centre that will assist the economy of the area to grow. As a result the proposal has the potential to support and foster new well connected employment opportunities.

The new Exhibition and Conference Centre will be designed to be energy efficient. The development includes an energy centre will can be developed over time to incorporate different energy generating technologies. These will be utilised to power the new AECC but can also be extended to the proposed Class 4 offices and hotels and also to the wider area to include the Airport and proposed housing.

A2.1 Aberdeen Local Development Plan 2012

Aberdeen City Council adopted the Local Development Plan on 29 February 2012. The site is located within Opportunity Site 28 (OP28) as being suitable for employment uses.

The LDP identifies potential constraints as it relates to Green Network (Policy NE1), flooding (Policy NE6) and the Airport Public Safety Zone. In addition to these policies consideration will be given to all policy within the LDP relevant to the proposed development.

A2.2 Aberdeen Local Development Plan 2017

The Aberdeen Local Development Plan 2017 identifies OP-19 Rowett North as a Specialist Employment Area for development of Aberdeen Exibition and Conference Centre and Complimentary Employment Uses.

Policy B2 relates to specialist employment areas and confirms that the proposed new Aberdeen Exhibition and Conference Centre site at Dyce is reserved for exhibition centre purposes and uses that support and are compatible with the exhibition centre.

Commentary
*The proposed Exhibition and Conference Centre at this location is being promoted as it is consistent with the wider objectives of the adopted **ALDP 2017** as it related to employment.*

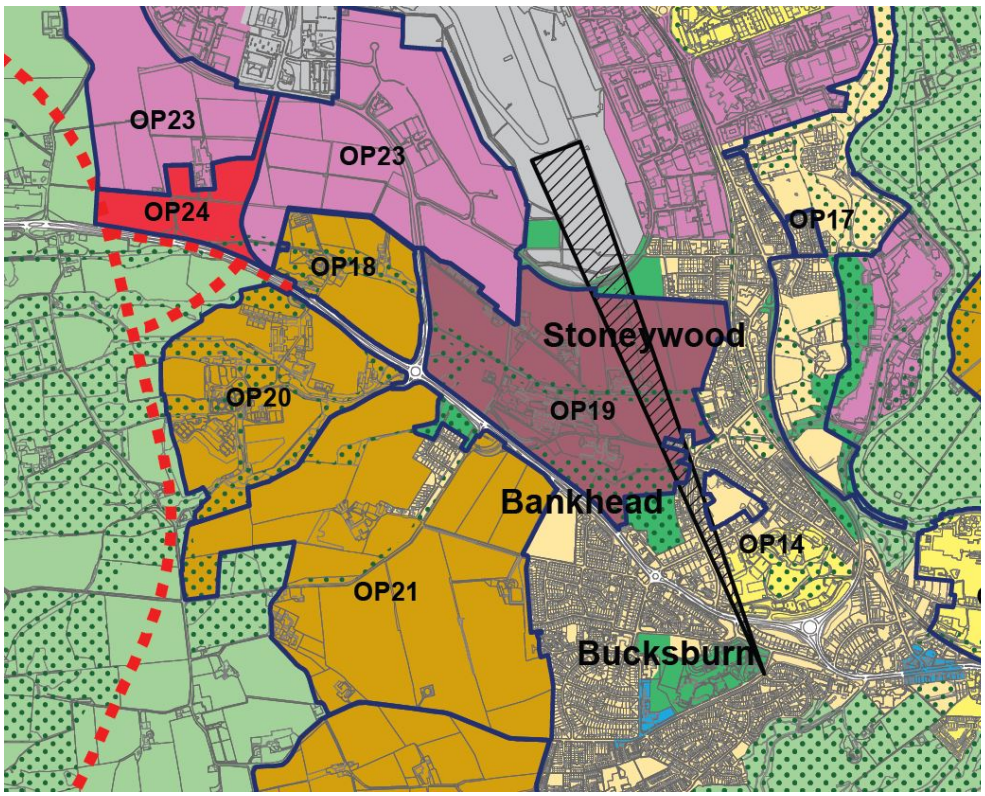
Whilst the proposal will directly lead to new employment opportunities either within the Exhibition and Conference Centre, hotels or Class 4 offices, the proposal as a whole will seek to assist in promoting economic development in the City and Shire by providing a significantly improved conference and exhibition centre that will assist the economy of the area to grow. The proposal has the potential to support and foster new employment opportunities.

*The overall development also includes a significant level of Class 4 office development as a key component of the development. This is entirely consistent with the **ALDP 2017** plan policy.*

*The **ALDP 2017** also contains a number of policies that will be considered as part of the planning application process relating to flooding, green space, air quality and heritage but have influenced design process in preparing the Masterplan.*

Specifically the proposal will involve the demolition of a number of granite buildings. In this regard the granite will be recycled and used within the development. The proposal will also involve the loss of existing trees on the site. The proposals however will address this through an extensive landscaping strategy for the site.

The ALDP 2017 identifies the site at Rowett North as the new location for the Aberdeen Conferecne and Exhibition Cerntre allocation in the Proposed LDP also allows for complementary employment uses. The proposals are therefore in full accordance with the Proposed LDP which is now a significant material consideration.



above Aberdeen Local Development Plan Extract

APPENDIX A
PLANNING CONTEXT
A3 STRATEGIC FRAMEWORK

A3.1 Strategic Context

Spatial Strategy

The Local Development Plan is the land use planning vision for Aberdeen. It shows which land is being allocated to meet the City's development needs to 2026 and beyond and it sets out the planning policies that will assist to promote the growth of Aberdeen over this period.

The spatial strategy explains the overall view of where development should go and the principles behind that. It identifies development sites and the scale of development expected on each site. It also sets out what developers need to do when designing and delivering development, emphasising the need for Masterplans, drawn up with local community involvement, for all the major sites.

Redevelopment of previously used sites is expected to make a significant contribution to the overall sustainability aims of the Local Plan. The strategy accepts the city needs to expand beyond its existing developed edges to maintain and enhance employment and housing opportunities, to retain our young people and to attract others to invest and live here. In particular the strategy seeks to deliver a mixture of house types and employment opportunities to encourage a balanced population structure, which underpin Aberdeen's role at the core of the city region.

Aberdeen will accommodate around half of the new housing and employment land needed to meet the strategic needs of the North East over the next 20 years. This will reinforce the city's important role as a regional centre which makes a significant contribution to the wider Scottish economy. The planned expansion around existing suburban communities is, therefore, essential and provides opportunities for exciting new ways of delivering development guided by detailed Masterplans prepared in consultation with local communities.

Directions of Growth

In determining the best locations for development the Local Development Plan established a number of 'Directions for Growth' giving careful and detailed consideration to environmental, topographical and accessibility issues. This sets out a choice of development locations in different parts of the city with development largely contained within the Aberdeen Western Peripheral Route.

Masterplan Areas

In setting out the directions of growth the development plan identified a number of strategic development areas where Development Frameworks and Masterplans would be required to guide the nature and design of future development within the Strategic context and spatial strategy.

The North Rowett site lies within the Newhills Expansion and Dyce Drive Masterplan zone.

Within this zone substantial land allocations have been made in the Dyce/ Bucksburn A96 corridor close to Aberdeen International Airport, which is one of the gateways to the Energetica corridor. The LDP confirms that the new exhibition and conference centre will be built at OP19 Rowett North, to replace the current facility at Bridge of Don.

The local developments are outlined in the table below.

Sites	Local Development Plan Period		
	Existing to 2016	Phase 1 2017 – 2026	Phase 2 2027 – 2035
OP17 Stoneywood	500 homes		
OP18 Craibstone North and Walton Farm	1.5 Ha employment		18.5 Ha employment or higher education and research
OP19 Rowett North	34.5 Ha employment		
OP20 Craibstone South	750 homes	250 homes	
OP21 Rowett South	1,000 homes	700 homes	240 homes
OP22 Greenferns Landward	750 homes	250 homes	500 homes
OP25 Woodside	300 homes		
Housing Total	3,300 homes	1,200 homes	740 homes
Employment Land Total		36Ha	18.5Ha

Actions :

- The Masterplan has now been prepared for the proposed Aberdeen Exhibition and Conference Centre at OP19.
- Combined Development Framework for OP20, OP21 and OP22 was approved by the Council in 2014 and is subject to ratification by Scottish Government.
- Masterplans for OP20 and OP21 have been submitted to ACC as part of the PPiP applications for these sites.
- The 1.5 ha of employment land at OP18 relates to Walton Farm and the rest of the site is identified for employment development or a higher education and research institute suitable for the relocation of Scotland's Rural College (SRUC), Craibstone.
- Masterplan for OP25 Woodside (Persley Den) has been prepared.
- Masterplan and planning consent in place at OP17 Stoneywood.

A3.2 Strategic Transport Context

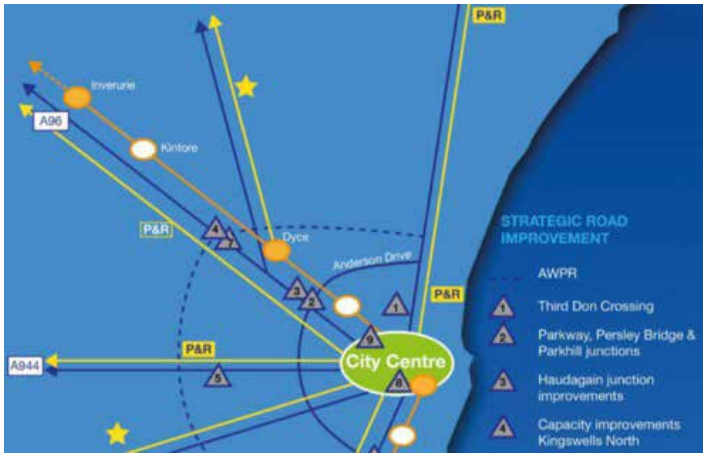
It is recognised that good transport connections are essential to the economic prosperity of Aberdeen and the quality of life of people living and working in the city. Aberdeen faces many transport challenges. As Scotland's third largest city, with a population of around 225,000, and the regional centre for the North East of Scotland, a significant number of movements take place to, from and within the city every day. The buoyant oil industry has brought affluence to the North East, meaning that car ownership and usage is high. This has led to significant congestion and unreliable journey times on many of our key corridors and air quality levels which exceed both EU and national targets.

The strategy seeks to address the link between land use and transport and to ensure that both existing and future communities have access to a comprehensive and effective transport network.

The LDP takes cognisance of the Aberdeen Local Transport Strategy (LTS), the Nestrans Regional Transport Strategy (RTS) and the National Transport Strategy (NTS).

The LTS sets out the Council's vision for transport in Aberdeen which is to develop 'A sustainable transport system that is fit for the 21st Century, accessible to all, supports a vibrant economy and minimises the impact on our environment'. This will be achieved through: increasing modal share for public sustainable and active travel (walking, cycling and public transport use); improving journey time reliability for all modes; improving road safety; improving air quality and the environment; and improving accessibility for all.

The AWPR will provide benefits to the Newhills and Dyce Drive area with a junction proposed at the A96. A Park and Ride site and a new access road into the Dyce Drive area will also be completed during the lifetime of this Plan. The proximity of housing and employment land allocations provides the opportunity for people to live close to places of work.



above 2013/2032 NESTRANS Regional Transport Strategy Diagram

above Transport Scotland AWPR Route Diagram

APPENDIX A
PLANNING CONTEXT
A4 PLANNING PROCESS

A4.1 Guidance Documents

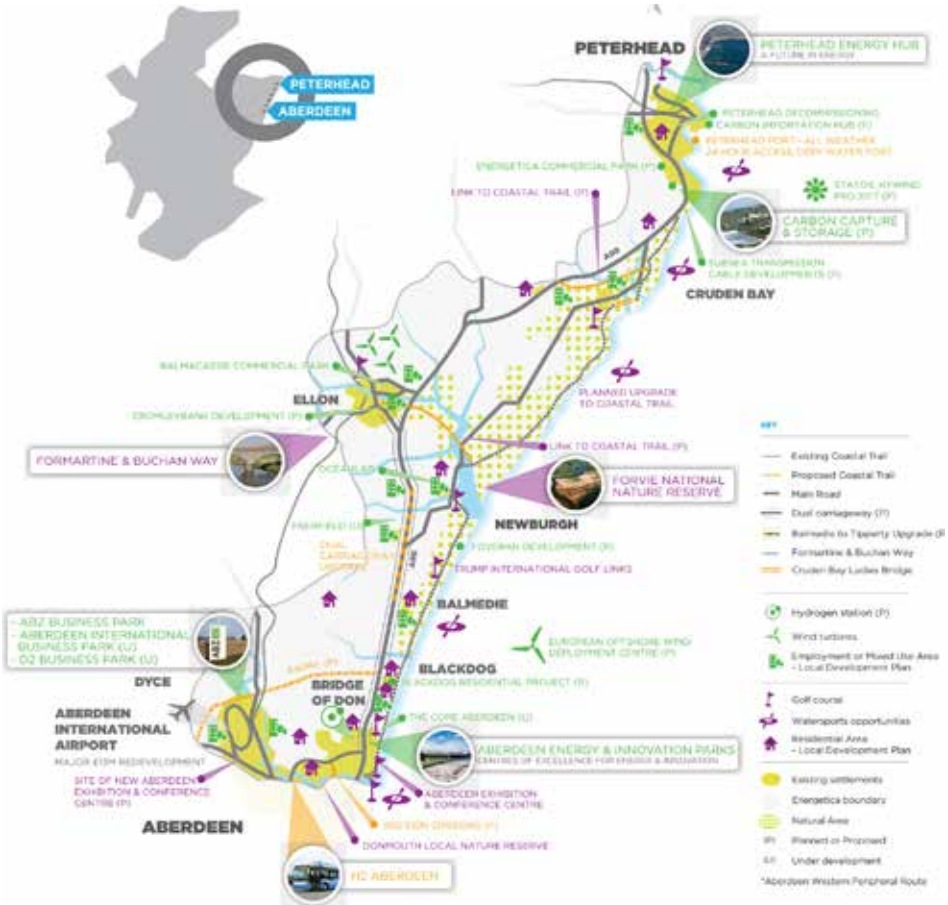
This Masterplan has been prepared regarding guidance from a wide variety of sources. At a national level, the revised Scottish Planning Policy, published in June 2014, sets out the overarching aims of Scottish Planning Policy.

In addition to Scottish Planning Policy, consideration has been given to the guidance contained within a number of specific Policy Documents, Circulars and Planning Advice Notes (PoANs). These documents include:

- Planning Advice Note 3/2010 – Community Engagement;
- Planning Advice Note 83 – Masterplanning;
- Creating Places;
- National Planning Framework 3.

The site also falls within the "Energetica Framework" area supported by Aberdeen City Council. In this area development is expected to make a contribution to the quality of life, environmental performance and economic development targets. The three principle aims of Energetica are to:

- 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.



above Aberdeen Energetica Framework Diagram

A4.2 Applications

The proposed development will represent a major development and Proposal of Application Notices were lodged accordingly on 14 April 2014. Planning applications have now been lodged as follows:

- An Application for Planning Permission in Principle (PPIP) - In respect of an application for Demolition of existing buildings, erection of exhibition and conference centre, energy centre, hotels, offices, restaurants/class 3/public house/ leisure and associated access, landscaping, engineering works and car parking.
- An Application for Planning Permission (PP) in respect of an application for Demolition of existing buildings, erection of exhibition and conference centre with hotel and energy centre and associated access, landscaping, engineering works and car parking.

A Consultation Strategy submitted with the Proposal of Application Notices set out the extent of public consultation and engagement to be undertaken in the preparation of this Masterplan and applications for Planning Permission in Principle (PPIP) and Planning Permission (PP) which will flow from the Masterplan preparation process. A summary of the consultation exercise is detailed in Appendix B.

A4.3 Planning Strategy & Masterplan Process

The Aberdeen Masterplanning Process: A Guide for Developers has been prepared as Supplementary Guidance by Aberdeen City Council as a guide for developers for the delivery of sustainable places. It has been followed by Henry Boot and their team to respond to four key issues for the City Council:

- Context
- Identity
- Connection
- Communication and engagement

The aim is to demonstrate through the Masterplan process and design development, that an understanding of these issues has been achieved. These key issues have also informed the structure and format of this Masterplan document which follows the content of other adopted Supplementary Guidance documents.

Appendix B
Consultation

APPENDIX B

CONSULTATION

B1 CONSULTATION PROCESS

B1.1 Aberdeen City Council & Technical Consultation

The Project Team has engaged with relevant parties and stakeholders to address key issues in the evolution of the Masterplan and a series of technical meetings have been held with Council departments to identify and address key issues. This engagement provided a forum for issues to be highlighted and an appropriate scope and approach to be discussed with key Design Team members. Subsequent specific technical meetings were undertaken by the relevant consultants to establish the required detailed design.

B1.2 Architecture & Design Scotland Consultation

A series of workshop reviews took place with the Design Review Panel of Architecture & Design Scotland (A&DS) between January 2014 and June 2015. The main focus of these discussions was as follows:

Workshop 01: 28th January 2014

- Masterplan proposals and relationship to wider context
- The built form
- Sustainability

Workshop 02: 31st July 2014

- Development of wider site Masterplan concept and brief
- Handling of proposed open space, public realm, parking and servicing
- Detailed design development of AECC building
- Sustainable infrastructure
- Phasing and delivery

Workshop 03: 24th March 2015

- Vision/concept
- Inter-relationship between landscape and buildings
- Central Square / Subterranean Space
- Relationship to wider context, connectivity and amenity
- Wayfinding, routes and public space
- Strathcona House
- Development of AECC building

Workshop 04: 11th June 2015

- Masterplan Appraisal
- Inter-relationship between landscape and buildings
- Strathcona House, landscape amenity & connectivity to adjacent communities
- Wayfinding, routes and vistas
- Central Square, Subterranean Space and public art
- Energy Strategy
- AECC building appraisal
- Main building form/external appearance
- Main building relationship to Subterranean Space

B1.3 Pre-consultation Meetings

Initial pre application consultation commenced in February 2014 and this was followed up in March 2014 when meetings with Aberdeen City Council Councillors, local Community Councils and representatives from key organisations took place.

The purpose of these meetings was to explain the background to the proposed new AECC at Bucksburn and the redevelopment of the existing site and also to seek comment on the community consultation process.

B1.4 Consultation Strategy

After the pre consultation meetings a final Consultation Strategy was submitted to Aberdeen City Council with the Proposal of Application Notice on 14th April 2014. This marked the commencement of wider consultation, which ran for a full year ending on 10th April 2015.

The agreed Consultation Strategy explained the scope and the scale of the proposed consultation. All consultees had the opportunity to comment on and influence proposals at various stages. There were three phases of consultation:

- May 2014 where views were sought on concepts and principles.
- September 2014 where views were sought on more detailed proposals for the Masterplan and the exterior and interior of the AECC building.
- March 2015 where final designs for the Masterplan, exterior and interior of the AECC were consulted on.

B1.5 Community Consultation & Engagement Process

The development is classified as a major development in the Scottish Government's development hierarchy and therefore requires Pre-Application Consultation (PAC) to be undertaken with both the planning authority and the community. The Planning etc. (Scotland) Act 2006 and the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2011, set out the statutory requirements for pre-application consultation.

The consultation for the Rowett North Masterplan and the Planning Permission in Principle (PPIP) and Planning Permission (PP) applications was undertaken at the same time as the consultation for the Masterplan and PPIP application for the site at Bridge of Don. Consultees were given the option of commenting on either site or both sites.

The consultation was undertaken in such a way as to ensure that both Aberdeen City Council's (ACC) communications and engagement requirements in relation to Masterplan submissions, PPIP & PP applications and national requirements have been met.

B1.6 Community Council Meetings

A pre-consultation meeting was held with representatives of Bucksburn & Newhills, Stoneywood & Dyce and Bridge of Don Community Councils in March 2014. As part of the wider consultation exercise undertaken in May and September, 2014 and March 2015, all Community Councils in Aberdeen were written to advising of the exhibition dates. In addition, the local community Councils of Bucksburn & Newhills, Stoneywood & Dyce and Bridge of Don were offered meetings. Only Bridge of Don took up the offer of a meeting. All local Community Councils sent representatives to the consultation exhibitions.

Part of the consultation programme included hosting drop in exhibitions in May and September 2014 and March 2015 where members of the public, business community, neighbours and other interested parties were invited to view and comment on proposals. The September events included feedback explaining how comments made in May had shaped proposals. The final pre-application consultation exhibitions in March 2015 fed back the results of the September consultation exhibitions and explained final design changes that are proposed as part of the planning applications.

B2.1 May 2014 Events Summary

The first public consultation events were held on:

- Thursday 29th May 2014, 12pm- 8pm at the Jesmond Centre, Bridge of Don
- Friday 30th May 2014, 12-8pm at the Beacon Centre, Bucksburn
- Saturday 31st May 2014, 12pm- 5pm at the Art Gallery

The May exhibitions were widely publicised using the following methods:-

- Advertisements were placed in the Press and Journal and the Citizen w/c 19th May
- Letters were issued to 250 individuals and organisations
- Posters advertising the events were displayed in local libraries, shops and community centres
- A postcard invite was delivered to approximately 20,000 households within the catchments of the existing and proposed AECC sites
- Various press releases and media coverage such as radio and television

Representatives from the Project Team were in attendance at the exhibitions to provide information and discuss the emerging ideas for the future of the site.

Following on from this two unmanned exhibitions took place at Marischal College Reception from 2nd June 2014 to 13th June and AECC Main Concourse from 14th June 2014 to 27th June 2014. Over 1,000 people attended the various events and were given the opportunity to submit comments.

The development website www.aeccevolves.com was set up to allow 24/7 access to the proposals and current information as well as enable comments to be submitted via an online form. A closing date for initial comments of 27th June 2014 was set.

left Public Consultation Boards May 2014

B2.2 May 2014 Consultee Responses

Approximately 150 responses were returned in total at the first consultation events, via the reply paid postal method and through the website. The consultation provided a positive response and a summary of the comments are as follows:

Bucksburn Masterplan & PPIP Application	Yes	No	Not Sure
Do you agree with the range of uses shown in the evolving Masterplan for Bucksburn?	70%	14%	16%
Should the Masterplan at Bucksburn include public open space available for cycling/ walking and recreational purposes?	85%	5%	10%
Are there other uses that should be considered as part of the Bucksburn Masterplan?	37%	16%	47%
Are there other issues or opportunities about the Bucksburn site you'd like to raise?	58%	30%	12%
Bucksburn PP Application - AECC Designs	**Yes**	**No**	**Not Sure**
Are you supportive of the evolving design for the new AECC building?	72%	9%	19%
Do you consider the proposed scale of the new AECC building to be acceptable?	69%	16%	15%
What facilities should a new AECC have?	see table below		

There is strong support for the evolving Masterplan at Bucksburn and designs for the new AECC, with 70% of respondents agreeing with the proposed range of uses at Bucksburn and 72% being positive about the evolving design of the new AECC building. Consultees were also given the opportunity to add further comments. The table below summarises the range of comments and views that were expressed and the percentages relate to the percentage of total respondents that have raised that particular issue. Responses to the concerns raised and comments made are provided on page 92.

Bucksburn Comments Summary	
Transport improvements essential	38%
New railway station/ public transport improvements	22%
Sports facility/ community space	18%
Enhance green space/ ongoing public access	6%
Easy disabled access/ drop off points	4%
Demolish fewer buildings	3%
This isn't value for taxpayer	3%
Concern about AECC users parking on residential streets	1%
More retail & leisure	1%
Allotments	1%
Concern about air safety	1%
Public art	1%
Sound proofing concerns	1%
Total percentage	100%
What facilities should a new AECC have?	railway station, basketball arena & indoor keep fit, good clear entrance for cars, large enough to be able to attract a range of acts/ sports/ exhibitions, easy drop off facilities, hotels/ restaurants/ bars/ ample parking/ easy access, flexibility, car shows, level floor access/ trucks to venue/ crew facility room, leisure facilities, larger disabled toilets with hoist, city & Airport links, cinema/ community facilities, consider site as a potential new park for this end of town, children's play park, serious sound proofing, public accessibility to grounds & other areas for recreational use.

B3.1 September 2014 Events Summary

The second round of consultation events were held on:

- Thursday 11th September 2014, 12pm-8pm at the Jesmond Centre, Bridge of Don
- Friday 12th September 2014, 12-8pm at the Beacon Centre, Bucksburn
- Saturday 13th September 2014, 12pm-5pm at Aberdeen Art Gallery

The exhibitions were widely publicised using the following methods:-

- Advertisements were placed in the Press and Journal and Citizen w/c 1st September
- Letters were issued to 320 individuals and organisations
- Posters advertising the events were displayed in local libraries, shops, community centres and health centres
- A postcard invite was delivered to approximately 20,000 residents within the Bucksburn and Bridge of Don catchments
- Various press releases and media coverage such as radio and television articles

Representatives from the project team were in attendance to provide information and explain how feedback from the May exhibitions had influenced the evolution of the Masterplan and the proposals included in the PPIP and PP applications. Exhibition boards summarised the proposals and the May feedback. Brochures containing a summary of the boards were also available.

Approximately 600 people attended the exhibitions over the 3 days. Questionnaires seeking feedback on the updated proposals were available to either complete at the exhibitions or take away and return in a reply paid envelope.

An unmanned exhibition was also held at Marischal College reception until 26th September. Attendees were also made aware of the development website www.aeccevolves.com The website was updated and contained a set of the September consultation boards as well as an online comments form. A closing date for initial comments of 27th September 2014 was set.

left Public Consultation Boards September 2014

B3.2 September 2014 Consultee Responses

As a response to initial comments, the Masterplan has evolved to contain a distinctive parkland and landscaped spaces which will be publicly accessible. The parkland will provide a range of green spaces: from the more rural burn parkland woodland foot and cycle paths to traditional park spaces suitable for informal sports and play. This allows Henry Boot Developments to respond to consultee requests for greenspace and sports/play areas. Although there were some requests to retain more of the existing buildings – this has not proved possible due to the site development constraints. However, design proposals will ensure the re-use of granite and other recyclable materials within the new development.

Public feedback also focused on a need for ease of access for families and the disabled. This has been addressed by creating drop off points close to the entrance of the AECC building.

Traffic and transport have been key issues throughout the consultation period. Requests that a new train halt be considered have been passed to Aberdeen City Council to consider as part of the future infrastructure requirements for the area. Henry Boot Developments has been unable to consult on final roads proposals as the Council is currently undertaking a strategic review of roads for the wider Dyce area.

The tables below summarise the feedback received from the September events and demonstrate an ongoing high level of support for both the Masterplan and also the building design for the AECC. Progress with design development meant that views could be sought on the Masterplan detail and on matters such as the sustainable energy proposals for the site.

Bucksburn Masterplan & PPIP Application	Yes	No	Not Sure
Do you agree with the range of uses shown in the Bucksburn Masterplan?	76%	14%	10%
Would you make use of the parkland that is proposed?	60%	19%	21%
Other comments?	Better public park required & roads improvements. Sports facilities should be included. Access to Walton Road needs to be thought out & planned - will there be a walkway to bus stops?		
Bucksburn PP Application - AECC Designs	**Yes**	**No**	**Not Sure**
Are you supportive of the design for the new AECC building?	72%	18%	10%
Are you supportive of the AD/ CCHP proposal?	86%	7%	7%
Are you supportive of the design of the parkland & landscape?	79%	7%	14%
Other comments made by Consultees on the questionnaire	Train station needed, retention of Strathcona good, energy proposals great, can existing houses get gas supply. quicker it starts the better.		

Many of the comments made at the September exhibitions echoed comments made in May and are summarised in the table below. Responses to the concerns raised and comments made are provided on page 92.

Bucksburn Comments Summary	
Positive Comments	23%
Specific comments about a railway station	14%
Transport Improvements required	11%
Specific local parking and access issues	11%
Negative comments about design of building	11%
Comments about proposed parkland	9%
Concern about demolition of buildings	9%
Comments about sustainable energy	7%
Ensure electric vehicle parking	3%
Health concerns about construction projects	2%
Total percentage	100%

Of the total of 65 written responses, 76% were supportive of the proposed Masterplan and 27 people chose to make additional written comments. The table opposite summarises the breakdown of the additional 27 comments. 23% of which were exclusively positive whilst others were a mixture of positive comments for example about the parkland, a possible railway station and the sustainability of the development and negative e.g. concern about traffic and proposed demolitions.

B4.1 March 2015 Events Summary

The third and final public consultation events were held on Friday 27th and Saturday 28th March 2015 in the Upper Mall of the Bon Accord Centre. The decision was made to host the exhibitions in a city centre venue as previous city centre venues had attracted a higher footfall. The exhibitions were widely publicised using the following methods:

- Advertisements were placed in the Press and Journal and the Citizen w/c 16th March
- Letters were issued to 320 individuals and organisations
- Posters advertising the events were displayed in local libraries, shops and community centres
- An e-invite was issued to 4,000 recipients on the AECC database
- A postcard invite was delivered to approximately 24,000 households within the catchments of the existing and proposed AECC sites
- Various press releases and media coverage
- Representatives from the Project Team were in attendance at the exhibitions to provide information and discuss the emerging ideas for the future of the site.

Following on from this, an unmanned exhibition took place at Marischal College Reception from 31st March 2015 to 10th April and a specific event was held for the existing key customers of the AECC - 160 of whom were invited. Over 2,250 people attended the various events and were given the opportunity to submit comments.

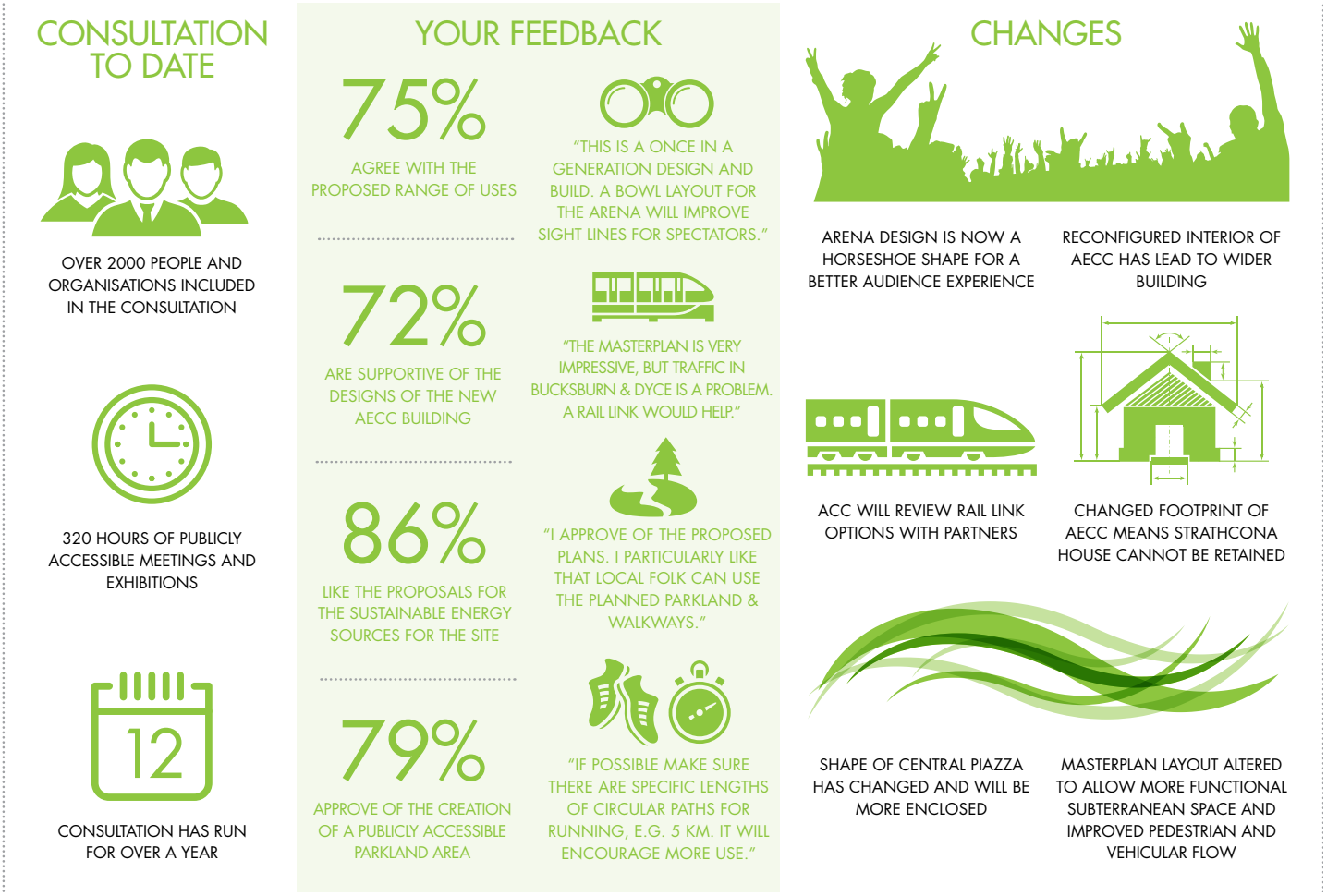
The development website www.aeccevolves.com was set up to allow 24/7 access and current information as well as enable comments to be submitted via an online form. A final closing date for comments of 10th April 2015 was set.

left Public Consultation March 2015

B4.2 March 2015 Consultee Responses

The purpose of these exhibitions was to provide feedback to consultees on final changes proposed to the Masterplan and designs and to explain how previous comments from the public and design input from experienced arena operators had been considered. The arena operators strongly recommended that the arena design should be a horseshoe format to ensure maximum visibility. This was a point that had also been raised at the March exhibition where consulteees had expressed a preference for an arena layout that improved sight lines.

The reconfiguration of the arena has led to a wider building and this, combined with a requirement for a wider service yard, means that the AECC building and service yard is now encroaching on Strathcona House. This point, and other design changes are summarised in the infographic below and were fully explained to consultees at the September consultation exhibitions.



327 written responses have been submitted in relation to this third and final round of consultation. This brings total written responses over the course of the year to approximately 500 received from just over 4,000 participants.

As this was the third set of exhibitions, attendees were asked less questions and given the opportunity to comment generally. Responses are as follows:

Question	Yes	No	Not Sure
Do you support the proposals for Bucksburn?	67%	21%	12%

B4 CONSULTATION EVENT MARCH 2015

The focus of comments made can be summarised as follows:-

Issue	Percentage
Road/traffic concerns/would like to see a new station	39%
Positive comments about design of building and parkland	22%
Financial comments/upgrade existing AECC	14%
Positive about economic benefits	11%
Supportive of Strathcona House being demolished	7%
Disappointed Strathcona is proposed for demolition	3%
Negative comments about design	2%
Positive about sustainability	2%
Total percentage	100%

Of the total of 327 written responses received in March 2015, 67% were supportive of the proposed Masterplan and 254 people chose to make additional written comments. The table opposite summarises the breakdown of the additional 254 comments which were a mixture of positive comments for example about the building design and parkland, economic benefits and the sustainability of the development and negative e.g. concern about traffic and funding.

27 out of the 245 additional comments related to Strathcona House. Where people chose to specifically comment on Strathcona House 7% were supportive of the proposals to demolish and 3% objected.

As with previous exhibitions, the main concern is in relation to the provision of adequate roads infrastructure and provision of public transport.

The second most popular set of comments relate to the proposed design of the new AECC building and the creation of a public parkland setting. Comments include:

"Design is impeccable and every aspect of the impact has been looked at. Can't wait to see finished product."

"Building spectacular."

"I believe the proposals work very well, interesting public spaces. I support the new changes as proposed for the removal of the [Strathcona] House."

"Exciting proposals which deserve full support."

The next most popular comment was in relation to the financial aspects of the project and questioning whether the existing AECC should be replaced. These points are not pertinent in relation to the planning process.

Many consultees are keen to see a new, larger exhibition and conference facility and recognise the economic benefits this will bring.

"If it grows the economic of the city then I am up for it."

" It is about time we had a better venue to attract bigger artists. Please do nothing on the cheap to save money as it is about time we upped our game to make us proud of our city."

The proposed demolition of Strathcona House was a change from previous consultations and so the project team wanted to clearly inform the public of this change. Accordingly, when team members were talking to consultees, they explained the rationale for the proposed demolition and invited consultees to comment on this matter. Only 27 consultees chose to comment specifically on the proposed demolition of Strathcona House: 19 of which were supportive of the rationale for demolition and 8 who opposed demolition. With less than 3% of written consultation responses raising the proposed demolition of Strathcona House as a concern, the Design Team has concluded that it is not a major issue of public concern. Comments made include:

"Wonderful and much needed facility. One issue which stands out in terms of design is the retention or otherwise of Strathcona House - my preference would be its removal as it's of limited architectural merit."

"Removal of Strathcona House is justifiable. Design looks efficient & well considered."

"Good to see plans and have someone explain proposals. Seems sensible for Strathcona to go."

"Would like Strathcona House to be retained."

"Destroying beautiful traditional buildings at the Rowett is disgraceful."

Remaining comments were positive about the sustainability proposals of the development. There was also some criticism of the design of the new AECC building. Responses to the concerns raised and comments made are provided on page 92.

In total, over 4,000 people have attended the consultation events held over the past year with 542 written responses being received.

APPENDIX B
CONSULTATION
B5 RESPONSE TO CONSULTEE COMMENTS

B5.1 Response to Comments/ Design Development

Following on from all rounds of consultation, consultee feedback was considered by the Design Team and in some areas the proposals were revised accordingly. For other areas, the consultation response reconfirmed the approach adopted. Specific responses are summarised below to a number of the key issues raised.

Transport Improvements

Volume of traffic and accessibility to the site was the main concern raised at all stages of the consultation. The full opening of the new AECC should occur following delivery of the AWPR and other associated improvements such as the third Don Crossing. This will free up some capacity on the network and the proposals will require to demonstrate that there will be no net detriment to the road network as a result of the redevelopment. Henry Boot Developments (HBD) is currently participating in a detailed traffic assessment that is being sponsored by Aberdeen City Council to alleviate traffic issues in the wider Dyce/Bucksburn areas.

At this stage, no final traffic solutions have been prepared but is intended that the traffic solution will alleviate traffic issues in the area in both the short and medium term.

New railway station/ public transport improvements

At previous exhibitions, consultees had commented on the potential for a rail link at the Bucksburn site. In the final round of consultation, Aberdeen City Council asked Henry Boot Developments to show an area of land reserved for a potential rail spur and this received a positive response. It was explained to consultees that any rail improvements are not part of HBD's planning application and will be the responsibility of Aberdeen City Council and its partners to progress.

Enhance Greenspace/ allow public access

The Masterplan proposals will enhance the quality of the greenspace and ensure that the site is publicly accessible. The Masterplan designs envisage the creation of a parkland setting following the re-routed burns.

Demolish Fewer Buildings

A small number of consultees registered concern that all existing buildings within the application area will be demolished. None of the buildings to be demolished are considered to be of significant architectural importance. As explained in detail in this document, their removal is required to accommodate the scale of the new AECC building in the optimum position on site. The buildings to be demolished are mostly unlisted granite buildings and one sandstone building. Where possible, stone from these existing buildings will be re-used in the proposed development, to be utilised in landscape/urban realm features.

Sports facilities/ community space

Consultees felt that the overall Masterplan has the potential to provide sporting and recreational facilities/community space. It is Henry Boot Developments' intention that the wider site should be landscaped to include provision of space accessible by the public for recreation including walkways and cyclepaths.

Easy disabled access/drop off points

Both disabled and family/children's access has been carefully considered and incorporated into the final design.

Sound Proofing

This is a key issue: both to keep sound "in" the building and prevent background noise from the outside penetrating the arena. A specialist acoustician has been appointed to the design team to ensure optimum soundproofing and a Noise statement will be prepared as part of the Environmental Impact Assessment (EIA) for the AECC planning application.

Not value for the taxpayer

The proposal is seeking to deliver a new conference and exhibition facility for the City that will contribute to new economic and cultural activity in the future.

Local Parking and Access Issues

Immediate neighbours have some specific issues in relation to access and parking management. The applicant is committed to ongoing discussion with these parties to try and alleviate any concerns.

Sustainable Energy Proposals

The energy proposals received very positive feedback.

Electric Vehicle Parking

Facilities to enable charging of electric vehicles will be provided across the site.

Appendix C
Sustainability

APPENDIX C
SUSTAINABILITY

C1.1 Introduction

The overall sustainability principles are articulated in Section 4.4 of the main document. In this Appendix the key policies and other drivers that have guided the development of these principles are briefly reviewed, together with further detail on the proposed sustainability framework.

Within this Appendix the structure of the Masterplan sustainability framework is presented in three sections:

C1.2 Sustainability Policy and other relevant drivers: This section of the Appendix highlights the main policy and drivers.

C1.3 Sustainability Implementation Strategy: This section provides a summary of the Masterplan wide strategic key performance indicators. These will apply to every development within the Masterplan. Some developments such as the AECC building will also have commitment to a specified BREEAM standard and the Strategic Key performance indicators are compatible with the main BREEAM sections. It is intended that each development will have its own Sustainability Implementation Plan (termed a Design and Construction Sustainable Development Plan). The contents of this plan are briefly described in Section C1.3.

C1.4 Energy and Carbon Strategy: The Masterplan energy strategy is described together with an overview of the Energy Centre concept. Further details are provided in the Masterplan Sustainability Statement, where the sustainability issues surrounding use of co-digested food waste with purpose grown crops are examined.

C1.2 Sustainability Policy & Other Relevant Drivers

Sustainable development is a core principle underpinning Planning.

Planning Policy Statement (PPS) 1: Delivering Sustainable Development.

PPS1 is based on the four aims for sustainable development as set out by the Government in its 1999 sustainable development strategy:

- Social progress which recognises the needs of everyone;
- Effective protection of the environment;
- The prudent use of natural resources;
- The maintenance of high and stable levels of economic growth and employment.

Although the UK strategy has been updated, those four aims remain relevant at the Masterplan level.

"Securing the Future" the revised UK Sustainable Development Strategy

The updated strategy contains, among other elements, a new integrated vision with stronger international and societal dimensions. It defines five principles aimed at a more integrated approach from government and with a more explicit focus on environmental limits, in particular "one planet living."

There are four agreed priorities – sustainable consumption and production, climate change – mitigation and adaptation, natural resource protection and sustainable communities.

A Low Carbon Building Standards Strategy for Scotland

Published in 2007, The Sullivan Report - 'A Low Carbon Building Standards Strategy for Scotland' set out recommendations to drive forward standards and innovation. The Report made recommendations across a wide range of topics, including on the delivery of very low carbon buildings through building regulations, in support of Climate Change objectives.

Scotland's Zero Waste Plan

Scotland's Zero Waste Plan sets out the Scottish Government's vision for a zero waste society. This vision describes a Scotland where all waste is seen as a resource; Waste is minimised; valuable resources are not disposed of in landfills, and most waste is sorted, leaving only limited amounts to be treated.

Scotland's Zero Waste Plan encourages local authorities and the resource management sector to establish good practice commitments and work together to create consistent waste management services, benefiting businesses and the public.

Climate Change (Scotland) Act 2009

Part 1 of the Act, creates the statutory framework for greenhouse gas emissions reductions in Scotland by setting an interim 42 per cent reduction target for 2020, with the power for this to be varied based on expert advice, and an 80 per cent reduction target for 2050. To help ensure the delivery of these targets, this part of the Act also requires that the Scottish Ministers set annual targets, in secondary legislation, for Scottish emissions from 2010 to 2050.

Scotland's Climate Change Declaration

All 32 Scottish Local Authorities have signed the declaration and pledge to ensure that greenhouse gas reduction and climate change adaptation measures are clearly incorporated into our new and existing strategies, plans and programmes.

Aberdeen City Council - Sustainable Building Standards for Council controlled buildings and developments

The purpose of this document is to present the Sustainable Building Standards ("the standards") for Council controlled buildings and developments in Aberdeen. The standards are intended to ensure that all Council developments in the City meet sustainable development principles early in the development and design process.

The objective is to deliver high quality sustainable infrastructure that will address social inequalities, promote economic growth and protect the environment. The standards support the City's regeneration needs along with other continuing developments within the City. The Sustainable Building Standards only affect Council buildings and developments and do not apply to private developments within the City. However we have adopted these standards into the suite of objectives and targets presented below. The standards raise many key factors that are relevant to Rowett North and the AECC such as water, energy, resource use, waste management, climate, place-making, community, ecology, transport and movement. It gives set standards for each criteria to comply with and guidance of how to do so.

Aberdeen City Council: Alternative Energy Strategy for Council Owned Public Buildings

Aberdeen City Council Alternative Energy Strategy for Council Owned Public Buildings recognises the potential value of installing renewable technologies in the City to meet carbon reduction targets, while the Aberdeen City and Shire Structure Plan (2009): sets targets for the city region's electricity needs to be met from renewable sources by 2020 and for all new builds to be "carbon neutral" by 2016. The proposals for Rowett North Masterplan include an Energy Centre which includes a variety of LZC energy technologies which will directly contribute to acheiving Aberdeen's targets for the city region's electricity needs to be met from renewable sources by 2020 and for all new builds to be "carbon neutral" by 2016.

Energetica

Energetica is a 25 year vision to create an exemplar low carbon, sustainable development corridor that will attract energy organisations and individuals to a natural and built coastal environment. Energetica covers a 30 mile stretch that extends from Peterhead, South to Bridge of Don and West to Aberdeen International Airport. It includes part of the Rowett North site.

The Energetica principles are summarised in Section 4.4.2 and a separate Energetica compliance statement has been produced (see Appendix D).

A Hydrogen Economy for Aberdeen City Region

Aberdeen has also launched a 2020 Strategy Framework – A Hydrogen Economy for Aberdeen City Region, which seeks to position Aberdeen as a world-class energy hub leading a low carbon economy and at the forefront of hydrogen technology in Europe. To achieve this vision for 2020 Aberdeen City region will need to;

- Develop hydrogen refuelling infrastructure.
- Expand production and distribution of renewable hydrogen.
- Seek partnerships that can lead to greater purchasing volumes of hydrogen vehicles, thereby bringing down costs.
- Explore the roll-out of other tried and tested or innovative hydrogen uses, such as Combined Heat and Power, stationary power and injection to the gas grid.
- Encourage the development of the hydrogen economy's supply chain, seeking opportunities for the region's existing energy expertise to diversify and benefit from this growing industry.
- Understand the necessary skills located in the region already, as well as any gaps or skills shortages.
- Support the take-up of hydrogen technologies by the public, businesses and government agencies through communication of high profile demonstration projects, education and research.
- Contribute to and collaborate on policy development at all levels of government, including identifying finance mechanisms.
- Work with the EU and other partners to become a centre of excellence for hydrogen and fuel cell technologies.

Aberdeen Renewable Energy Group (AREG)

AREG are an active group in the region promoting the take up of renewables in the region. AREG have identified significant resources in forestry and farming for bio-fuels.

AREG are at the cutting edge of the UK race to build a credible and sustainable energy footprint. The Energy Centre will contain a variety of energy technologies and will articulate with wider initiatives in the region including AREG.

C1.3 Sustainability Implementation Strategy

Based on the policy and other drivers noted above, a series of principles have been articulated (Section 4.4.2). Using these principles a set of 10 key strategic Key Performance Indicators (KPIs) have been identified. These are presented in table C1.

These indicators are applicable Masterplan wide and each development should target the defined performance criteria as a minimum.

Each development will also be required to produce a project specific: "design and construction sustainable development plan". (DCSDP)

To assist in the production of this plan, a suite of objectives and targets have been defined. These are non mandatory, but are intended to provide a framework for their DCSDP.

The DCSDP is intended to be specific to the development while ensuring a consistent approach across the Masterplan.

A Rowett North Sustainability Design Guide will be issued. This guide provides developers with a framework for the preparation of the DCSDP sustainability implementation plan.

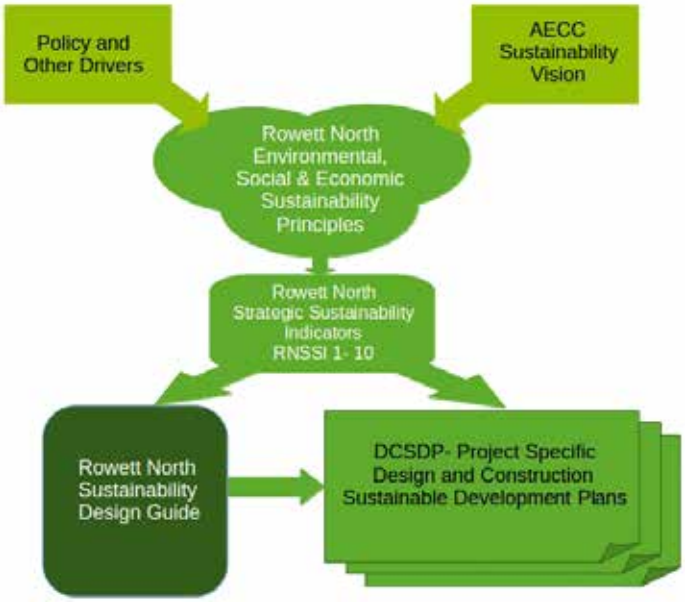
The Rowett North Sustainability Design Guide will include:

- A template for the site specific Design and Construction Sustainable Development Plan (DCSD).
- Guidance on the KPI's and objectives and targets
- Specification for connecting to the Energy Centre
- Guidance on calculating embodied carbon and recycled content
- Requirements on Site Waste management Plan
- Requirements for Biodiversity and Access to open spaces
- Requirements on Sustainable Procurement
- Guidance on policies on fair treatment on sub-contractors, anti-discrimination, payment of living wage, etc
- Guidance on what is required for RNSSI 10 the Social Sustainability Action Plan.
- Any other environmental/ social compliance issues necessary to demonstrate adherence to the principles laid out herein.
- Monitoring, reporting and verification requirements

This approach is intended to deliver a more integrated focus on sustainable development, going beyond the mainly environmental focus of BREEAM (BRE Environmental Assessment Method) and other building rating systems. The strategy for Rowett North seeks to deliver an exemplar sustainable development with a stronger focus on delivering cumulative benefits and stronger societal benefits.

Cumulative Benefits

Most current efforts at delivering sustainability in construction projects are piecemeal. They tend to concentrate on one single issue, e.g. zero-carbon buildings or recycling, without addressing the other aspects of sustainability, such as social inclusion, accessibility or wider aspects of economic development.



APPENDIX C
SUSTAINABILITY

Table C1

Topic	Performance Criterion	Performance Targets	Notes
RNSSI1: Energy	Energy Demand Reduction	Achieve 75% reduction in regulated energy use against 2007 baseline. (Equivalent to 8 points on BREEAM 2014 New construction Ene1). Achieve 50% reduction in peak demand over business as usual.	This is required to prioritise demand-side reduction, rather than carbon performance as this is handled by the energy centre.
RNSSI2: Carbon	Renewable Energy provision	Achieve 50% reduction in regulated energy use against 2007 baseline.	Overall Masterplan target. AECC is targeted at zero operational carbon.
RNSS3: Water	Potable Water Efficiency	Achieve 50% reduction in regulated energy use against 2007 baseline.	Overall Masterplan target.
RNSSI4: Wastewater	Sustainable Urban Drainage	100% of development covered by sustainable urban drainage	Sustainable Urban Drainage (SUDS) to include climate change adaptation.
RNSSI5: Materials	Recycled materials and Embodied Carbon	Achieve 40% recycled material content (by mass) or 40% reduction in embodied carbon relative to baseline.	To encourage lifecycle thinking in material selection.
RNSSI6: Waste	Zero Waste	Achieve zero construction waste and zero operational waste to landfill.	Reflects zero waste Scotland.
RNSSI7: Biodiversity and access	Protect existing biodiversity, increase ecological value and access to nature	Biodiversity and Access Action Plan	Plan to adopt Energetica principles access to nature, active lifecycles and high quality landscaping.
RNSSI8: Sustainable Procurement	Sustainable Procurement Plan	50% of goods and services (by value) from Local or Sustainable sources	To address economic and social principles and secure best returns to local economy.
RNSSI9: Innovation	Demonstrate Innovation in Design and Delivery	Achieve exemplar level of performance	Energetica principle and to meet overall aims of the development.
RNSSI10: Social Sustainability	Achieve high level of social sustainability	Social Sustainability Action Plan	Required to provide a mechanism to secure action on social sustainability principles.

Notes on the RN SSI's

RNSSI1: Energy

An annual demand reduction target has been selected as a KPI (rather than a carbon emissions target) because the site will have an Energy Centre and it is important that building design seeks to minimise energy demand, in line with the energy strategy : Lean, Clean, Green.

The overall target has been set by Climate Change (Scotland) Act 2009 with an interim 42% reduction target for 2020, annual targets, in secondary legislation, for Scottish emissions from 2010 to 2050.

On sites where there are distributed energy solutions, the carbon content of energy is the responsibility of the energy centre operator. The KPI target is therefore to design the buildings to minimise regulated (and to some extent unregulated) energy demand.

The target reduction has been set at a level which approximates to around 8 points on BREEAM 201 4 New construction Ene1 and EPC 'B' rating.

This is intended as a back-stop. Developments will be encouraged to achieve the equivalent of EPC A ratings and take measures that would give the innovation points. The calculation of energy efficiency will take into account the relative coefficient of performance of the heating and cooling supplied by the energy centre.

A second component to the KPI has been introduced which is aimed at reducing peak demand and will be measured against business as usual levels. Measures to achieve this will include be load shedding, and SMART metering / SMART grid technology.

RNSSI2: Carbon

The carbon target is relative to the whole site and is provided for reference. As noted above the carbon intensity of the energy supplied will be the responsibility of the energy operator. At present the proposal is for an on-site Anaerobic Digestion plant, and a power generation building with on-site electrolysers. The aim is to minimise the quantity of renewable energy exported back to the grid by better matching supply and demand. For technical reasons the target has been set at a 50% to exceed the 42% by 2020 set by Climate Change Scotland. However this target is more ambitious in that it uses the 2007 baseline in accordance with building Regulations.

RNSS3: Water

The water KPI has been selected to correspond to the level necessary for achieving a 2 point score in BREEAM New Construction 2014 using the Wat 01 calculator. This is a modest target but will encourage use of low water use fittings across the development.

RNSSI4: Sustainable Urban Drainage

This has been selected as a mandatory KPI target, for adaptation to climate change risk and also because the site is substantially a green field site. The objective is not to increase the stress on either surface water systems or drainage systems whilst taking cognisance of the adjacent Airport.

RNSSI5: Materials

The KPI target on materials has been set to encourage developers to consider a "one planet living" approach. The 40% by mass will be achieved by consideration of the main structural and mass elements (steel, cement, aggregates). These materials account for a large proportion of the environmental impact of the construction industry and preference for use of recycled materials or low embodied carbon materials will make a large contribution to reducing the whole life carbon footprint of the development.

RNSSI6: Waste

A zero waste to landfill target has been selected for both construction and operation. This is in accordance with the zero waste Scotland objectives. On a development of this scale both measures should be capable of being achieved by all parties. The KPI will be measured in terms of avoidable wastes. So for example controlled wastes that are mandated for landfill would be excluded from the target (for example asbestos containing materials).

RNSSI7: Biodiversity and access

This KPI requires each development to prepare an acceptable biodiversity and access plan. This will be required to articulate with the landscape strategy for the development, and recognise the issues associated with the proximity of the Airport.

The plan will also be required to identify specific measures against the Energetica principles:

- layout and design of buildings will promote the creation of social hubs, and civic spaces
- open space are to be accessible to promote aspiration for active lifestyles.

RNSSI8: Sustainable Procurement

Each development will be required to source at least 50% by value from local or sustainable sources. A Sustainable procurement plan will identify the strategy for each individual project. This plan will cover goods and services, so for example, in the case of main contractors it might include requirements on particular products such as Forest Stewardship Council (FSC) timbers, or establishing the environmental and social credentials of sub-contractors. It may also contain provisions for a living wage or for positive discrimination for particular disadvantaged groups. Verification against the plan will be required to ensure that the KPI can be measured.

RNSSI9: Innovation

This is a key Energetica principle.

The KPI will be met by achieving any of the innovation credits within a BREEAM New Construction assessment or by winning peer reviewed awards for innovation in any form. The KPI is for all projects to achieve at least one measure of innovation.

RNSSI10: Social Sustainability

This KPI requires each development to produce an acceptable Social Sustainability action plan. The scope and extent of the plan will be proportional to the size of the project. Achievement against the plan will be monitored and verified. Among the measures that will be considered for inclusion are noted in table C2 on the next page.

Table C2 Social Sustainability

Top Level Indicators
Graduates recruited
Apprentice starts
Apprentice completions
Jobs advertised through local employment vehicles
N/SVQ starts for subcontractors
N/SVQ completions for subcontractors
Training Plans for subcontractors
Supervisor training for subcontractors
Leadership & Management training for subcontractors
Advanced Health & Safety training for subcontractors
Underpinning Measures
Education Provider Agreements
Supply Chain Briefings
Individual Skills Profile
Business Skills Diagnosis Support & Advice for subcontractors
Further Education Engagement
16-19 years work placement
Summer placements - FE Construction Diploma levels 1 and 2
Existing apprentices
Site visits - Further Education
Higher Education Engagement
HE work placement
HE Paid Work Placements – Under/ Graduates
Day release - professional trainees
Scholarship Programme support
Site visits - Higher Education
HEI Industry interaction
Research opportunity
Promoting the Sector
Ambassadors training - Professional
Ambassadors training - Craft
Professional Development
Basic Skills for new recruits
Pre-employment courses
Taster days for under-represented groups
ESOL

Schools Engagement
14-16 Years work placement
Schools Activities (resource days)
Curriculum Support Events
Site Visits - Schools
Support for Businesses
Companies involved in local employment and training projects
Subcontractors with an equality policy and action plan
Work-Based Recorders identified
Trainers identified (NTO)
Assessors trained (registered)
IiP
Support for Existing Workers
Basic Skills for existing workers
Diversity training for existing workers
H&S Tests leading to competence cards for Contractor's team
N/SVQ Starts for Main Contractor employees
N/SVQ Completions for Main Contractor employees
H&S Tests leading to competence cards for subcontractors
Short courses for subcontractors team
Accredited training for subcontractors team
Supervisor Training for Main Contractor's team
Leadership & Management training for Main Contractor's team
Advanced Health & Safety Training for Main Contractor's team
Short courses for Main Contractor's team
Accredited training for Main Contractor's team
Professional membership - CIOB / ICE / RICS
No of CPD sessions

The approach here is different in that a wider view is taken in a way that solutions to one issue contribute to solving others and the benefits of each solution reinforce one another and multiply.

The set of mandatory KPI's are underpinned by a defined set of measures arranged as sustainability objectives and targets. This is a balance score card approach where performance over a wide range of hard and softer targets can be systematically evaluated.

The creation of the Masterplan sustainability strategy allows aspects of social, economic and environmental sustainability to interact so that the cumulative benefits are greater than those that would be provided by smaller projects and a focus on individual 'green' features. Our strategy for the Masterplan is to have the development as a focus for a sustainable community (in its widest sense) in the North East and support the drive to a more sustainable Scotland.

Sustainable Community

Although not a residential scheme, the AECC and Rowett North will be at the heart of a number of wider communities. It is intended that these are recognised and action is taken to maximise the benefits to those communities. Among the communities to be considered are:

- Local communities affected by the development.
- Community of workers who will find employment in construction and operation of the development.
- The wider communities in Aberdeen, Aberdeenshire, Scotland and the world who will use the facilities the AECC offers.
- Sector interests in the Renewable Energy Sector and Sustainable Construction.
- Academic and Business communities who will be able to make a contribution to the development.
- Special interest groups, such as AREG.

The economic and social benefits of the AECC are fundamental to the case for its construction. The sustainability strategy is therefore concerned with a lot more than meeting energy and carbon standards and mitigating other negative environmental impacts of the development. The strategy is aimed at maximising the benefits to the economy, the environment and communities of stakeholders as described above.

Appendix 1 of the Masterplan Sustainability Statement illustrates additional elements applicable at the individual project level. These include requirements on water efficiency, construction and use waste management, biodiversity, socially responsible procurement and an Indicative Social Sustainability Action Plan.

C1.4 Energy & Carbon Strategy

The energy strategy for the Masterplan is "Lean", "Clean" and "Green". This prioritises demand reduction technologies, energy efficiency, and the adoption of "clean" technology (low lifecycle emissions and low lifecycle environmental impacts) before the adoption of renewable technology.

An on-site Energy Centre will supply the "Clean" and "Green" electricity and thermal energy.

Energy Centre Concept

The Energy Centre concept is for a modular combined cooling, heat and power plant (CCHP) feeding a private wire electricity supply and a district heating and cooling loop. The districted heating loop will feed the whole Masterplan area with spur connections for future expansion off-site.

Due to the size of the pipes required, the cooling loop will be restricted to the core of the development while heating will extend to the whole development.

Developments within the Masterplan area will be required to connect to the Masterplan utility supplies where commercially viable to do so.

The operation profile for an Exhibition and Conference Centre is for a high demand for energy when large events are being staged, followed by period of relatively low activity. The new facility will be attempting to make more use of the facility, but the underlying nature of peak to quiescent demand will remain. This profile does not suit the intermittent nature of some renewables. In addition, the primary demand is for electricity with smaller amounts of heating and cooling.

The most sustainable solution is therefore to develop a separate Energy Centre feeding the whole of Rowett North. This approach is typical of other campus developments and is a proven method of achieving higher utilisation of primary energy, compared with centralised grid plant or with single building solutions. The aggregated demand profile is smoother, while the local generation plant can be connected as combined heat and power.

The Energy Centre is also designed as a showcase for Aberdeen City and Aberdeenshire as a centre of excellence for the renewable sector.

The Energy Centre is designed as a modular plant to address the change in seasonal demand and provide flexibility for expansion.

It is intended that the Energy Centre will comprise two principle components.

1. An on-site Anaerobic Digestion (AD) plant, which takes in Aberdeen City food wastes, agricultural wastes and purpose grown crops. This produces a renewable biogas, which is upgraded and cleaned to a biomethane, (equivalent to natural gas). The gas output from the AD plant will be injected into the main gas grid and will also feed the on-site power generation building.
2. The power generation building will utilise various technologies to produce power, heat and cooling to the AECC and to the remainder of the buildings on the Masterplan site.

A reference design has been developed that will meet the energy demand for electricity and heat and cooling across the site. In this it is recognised that at some times of the day and seasons the Energy Centre will provide more electricity and heat than required and at others the peak site demand will be met by a combination of the Energy Centre and the grid electricity and gas. Additional peak smoothing is provided by heat and chilled water stores within the Energy Centre.

As the individual building designs develop the plant mix within the Energy Centre will evolve, with the aim of minimising primary energy demand.

Plant selection will be an iterative process as building designs are finalised.

The size of the CHP will be optimized based on the base thermal load profile before renewable systems for export of electricity have been considered for the site.

Additional modules can be added at a later date to provide additional energy into the district heating network for the wider area.

At present it is envisaged that Combined Heat and Power will be generated using spark ignition (SI) gas engines coupled to alternators and heat recovery boilers.

Static hydrogen fuel cells will also be used a CHP units.

The SI gas engines and Hydrogen fuel cells are both capable of running off bio-methane and mains grid gas. Local CHP allows waste heat from the generators to be utilised in the buildings.

Biomethane from the AD plant will be reformed to hydrogen within the fuel cells and excess hydrogen produced for transport. Surplus electrical power (generated at night) will be used on site to generate surplus high grade hydrogen for sale to industry/ transport through an on-site electrolyser.

The hydrogen fuel cells will be sized to provide the annual electricity demand from the AECC, and these will run on biomethane from the AD plant. The fuel cells are located in the power generation building to maximise heat recovery.

Both the hydrogen fuel cells and SI CHP units will be modular and capable of running on either grid gas or biomethane to provide flexibility and resilience.

Absorption chillers are used to utilise excess heat in the summer to produce chilled water for air conditioning.

Thermal energy stores will be used to balance the daily variation in heat and cooling demand. These collect heat and cold thermal energy at periods of low site demand and make it available for peak demand. This allows the CHP units to operate continuously.

Gas from biofuel sources also allows energy storage. This will be by gas storage on site and by utilising gas clean up and injection to the gas grid.

Anaerobic Digestion

The on-site AD plant will be primarily fuelled using Aberdeen City food waste co-digested with purpose grown biocrops (silage, whole crop wheat etc). The plant will contain its own CHP unit for providing heat and power to operate the plant and gas up-grade equipment. (Upgrading biogas from the digestor to pure biomethane.).

AD technology is well established in the UK at farm scale (operating on energy crops and farm residues), at merchant food waste disposal facilities and within waste water treatment facilities.

AD Plant Logistics

A particular challenge for Rowett North is to separate out the parts of the operation so that the clean odour free operations are conducted on-site with off-site support for the fuel preparation and transport. Loading the plant will entail taking prepared waste materials and energy crops from offsite to the sealed on-site reception hall for loading into the AD plant. This is done via feed hoppers in the reception building. Internally solid material will be dropped into a reception pit, while liquid material will be delivered by tanker.

Delivery of feedstock will be from either tankers, or bulk haulage lorries. Digestate will be removed by tanker as organic fertiliser and returned to the farms. All feedstocks will be stored and handled in a controlled environment. There will be no open air storage at the AECC site.

Carbon Capture and Storage (CCS)

As noted above the AD process produces a methane /CO_2 mixture. This gas can be combusted directly, however at the proposed facility we will be installing gas separation equipment to produce methane (for grid injection). The gas separation equipment will also produce a CO_2 stream. This may be vented to atmosphere as the bio-gas is derived from biomass. Biomass is a renewable energy source and part of the natural carbon cycle as it serves as a carbon sink during its growth. Venting CO_2 from this source results in an approx net zero emission of CO_2, for bio-methane although there is a small component of carbon emissions associated with fossil fuel use in harvesting, processing, and transport of the material.

Upgrading of bio-gas to biomethane involves separating out the CO_2, water vapour and trace contaminants. It is then a relatively simple step to capture the CO_2 for storage or use. The net effect of this is that atmospheric CO_2 is sequestrated within the fuel crop and this CO_2 then becomes available for capture.

This implies that the overall emissions from the Energy Centre could be negative, as the absolute amount of CO_2 in the atmosphere would be reduced. At present carbon capture and storage is at demonstration phase and the carbon price remains low, within EU carbon Emission Trading Scheme. As facilities for CO_2 storage are developed then CCS will become an viable option. We estimate that carbon capture on this gas upgrade facility will be able to produce more than 8700 tonnes per annum of carbon dioxide per annum.

Appendix D
Energetica Compliance Statement

APPENDIX D
ENERGETICA COMPLIANCE STATEMENT

D1.1 Energetica Framework Area

The supplementary guidance issued for the Aberdeen Local development plan.

The supplementary guidance states that:

"Within this framework area, development must make a contribution to the quality of life, environmental performance and economic development targets. This contribution will result in the transformation of the Energetica corridor into a high class lifestyle, leisure and, ultimately, a global business location. The aim is to create a technology lifestyle community with innovative transport links showcasing the latest low carbon technologies."

The North end of the Rowett North Masterplan site lies within the defined framework area, while the boundary lies slightly to the North of A96. The boundary appears to lie along the path of Greenburn Rd.

While all development in the Energetica Corridor is subject to the policies and strategies of the relevant constituent authority, in order to achieve this vision the following supplementary guidance also applies in the Energetica Framework area. The supplementary guidance states that development will be approved in the Energetica Framework area, subject to other policies, if:

1. It is demonstrated, through a range of mixes and uses, and design of structures, that innovation and experimentation have been employed in the pursuit of the highest levels of economic, social, and environmental sustainability
2. It is demonstrated that the energy performance has been carefully considered in the design process to result in buildings and layouts which have exemplary energy performance or introduce innovation in this regard
3. Buildings demonstrate future-proofing through flexibility in their design to allow for easy extension or conversion to other uses over the full life-span of the building
4. It is demonstrated that the layout and design of buildings promotes the creation of social hubs, civic spaces, streets as places, and active frontages within developments
5. It is demonstrated that the implementation of open space requirements emphasise the aspiration for active lifestyles within the corridor
6. There is a commitment to the provision of high quality landscaping which contributes to a unified sense of place within the framework area.

In order to demonstrate compliance with this supplementary guidance policy this Energetica compliance statement is included.

D1.2 Point 1: Innovation & Experimentation

It is demonstrated, through a range of mixes and uses, and design of structures, that innovation and experimentation have been employed in the pursuit of the high levels of economic, social, and environmental sustainability;

We have taken a holistic view of sustainability issues in the widest sense, integrating sustainable design principles into all aspects of the Masterplanning and design development process, from community consultation through concept and to detailed development block principles.

This commitment to sustainability is embedded throughout the Design and Access Statement which is also being submitted in support of the application for Planning Permission in Principle and within the energy strategy for the Masterplan and AECC.

The AECC Masterplan and AECC design has included sustainability as a major concern from its inception. We recognise that many of the possibilities for sustainability benefits will be unique to this site and this development offers the potential to deliver a world class renewable demonstration resource centre. We have introduced 10 Strategic Key Performance Indicators (Appendix C) that will apply across the Masterplan. The sustainability strategy for Rowett North seeks to deliver an exemplar sustainable development with a strong focus on delivering innovative solutions.

A range of renewable energy technologies have been selected to demonstrate innovation and the development will provide a platform for future energy developments.

The Energy Centre will access government incentives (Renewable Heat Incentive (RHI) and Feed in Tariff (FIT)) which will secure the plant for at least 20 years. Use of Hydrogen fuels cells, Electrolysers, Gas injection and carbon capture are particularly innovative features of the proposed development. This offers the region an opportunity to become the first Exhibition Centre in the world to have an AD plant incorporating these features.

Social sustainability is enhanced by a systematic approach requiring all development to produce an acceptable Social Sustainability action plan based on a series of defined measures (Appendix C table C2) . The scope and extent of the plan will be proportional to the size of the project. Achievement against the plan will be monitored and verified.

D1.3 Point 2: Energy Performance.

It is demonstrated that the energy performance has been carefully considered in the design process to result in buildings and layouts which have exemplary energy performance or introduce innovation in this regard.

Energy performance has been very carefully planned. The Energy Strategy is "Lean", "Clean" and "Green". This prioritises demand reduction technologies, energy efficiency, and the adoption of "clean" technology (low lifecycle emissions and low lifecycle environmental impacts) before the adoption of renewable technology.

An on-site Energy Centre will supply the "Clean" and "Green" electricity and thermal energy.

Energy Centre Concept

The Energy Centre concept is for a modular combined cooling, heat and power plant (CCHP) feeding a private wire electricity supply and a district heating and cooling loop. The district heating loop will feed the whole Masterplan area with spur connections for future expansion off-site.

The use of gas injection and on site CHP is particularly energy efficient as all the renewable energy generated is made available to consumers through the gas network and through the district heating network. This is an innovative solution in comparison to AD CHP plants where sometimes high levels of heat rejection are used or the heat is used in low grade uses simply to allow the sites to maximise the electrical energy generated.

Energy & Carbon Strategic Key Performance Indicators.

RNSSI1: Energy	Energy Demand Reduction	Achieve 75% reduction in regulated energy use against 2007 baseline. (Equivalent to 8 points on BREEAM 2014 New construction Ene1). Achieve 50% reduction in peak demand over business as usual.	This is required to prioritise demand-side reduction, rather than carbon performance as this is handled by the energy centre. Peak demand target to be based on dynamic simulation.

On sites where there are distributed energy solutions the carbon content of energy is the responsibility of the Energy Centre operator. The KPI target is therefore to design the buildings to minimise regulated (and to some extent unregulated) energy demand. The target reduction has been set at a level which approximates to around 8 points on BREEAM 2014 New construction Ene1 and EPC 'B' rating. This is intended as a minimum target while developments will be encouraged to achieve the equivalent of EPC A ratings and take measures that would give the innovation points. The calculation of energy efficiency will take into account the relative coefficient of performance of the heating and cooling supplied by the energy centre.

Note: The emissions target is set by the Climate Change (Scotland) Act 2009.

A second component to the KPI has been introduced which is aimed at reducing peak demand and will be measured against business as usual levels. Measures to achieve this will include be load shedding, and SMART metering/ SMART grid technology.

RNSSI2: Carbon	Renewable Energy provision	Achieve 50% reduction in regulated energy use against 2007 baseline.	Overall Masterplan target. AECC is targeted at zero operational carbon.

The carbon target is relative to the whole site and is provided for reference. As noted above the carbon intensity of the energy supplied will be the responsibility of the energy operator. At present the proposal is for an on-site Anaerobic Digestion plant, and a power generation building with on-site electrolysers. The aim is to minimise the quantity of renewable energy exported back to the grid by better matching supply and demand. For technical reasons the target has been set at a 50% to exceed the 42% by 2020 set by Climate Change Scotland. However this target is more ambitious in that it uses the 2007 baseline in accordance with building Regulations.

D1.4 Point 3: Future Proofing

Buildings demonstrate future-proofing through flexibility in their design to allow for easy extension or conversion to other uses over the full life-span of the building.

The new Aberdeen Exhibition and Conference Centre (AECC) has been designed to provide a range of flexible spaces within a total floor area of 76,250 sq.m. gross internal area.

The buildings adaptability will allow Aberdeen and AECC to host a wider programme of larger national and international events, as well as attracting world-class entertainment acts. The varying activities and occupancy levels require a flexible design which can easily be operated to meet the challenging requirements of a diverse event schedule.

The arena layout is a contemporary and innovative multi-purpose space. This provides maximum flexibility to host a large range of exhibition, entertainment and sporting events. Retractable seating units will be provided to optimise seating arrangements and flexibility for individual events.

The Conference Centre and Arena will have their own dedicated entrances and will be able to operate independently.

The Subterranean space below the main Central Square has a dual-function. This space functions as a car park and is accessed by two ramps capable of accommodating service vehicles. However, when required it provides additional exhibition space for major events, connected to the main building and has direct access onto the Central Square and external concourse.

A large servicing area is provided at the rear of the Arena providing space for articulated vehicles, touring coaches and staff car parking.

For the Energy Centre, the major components of the plant are skid mounted and can be removed from site, for up-grading or decommsioning. As part of the Pollution Prevention and Control (PPC) license application to SEPA, a site restoration plan will be prepared. The AD and Energy Sites are relatively straight forward to decommission. The major items of plant (gas purification and CHP unit) are skid mounted and can be removed from site, while the concrete digestate vessels will be emptied, dismantled and removed from site. There are no contamination causing materials held on site or formed during the operational period.

D1.5 Point 4: Layout & Design

It is demonstrated that the layout and design of buildings promotes the creation of social hubs, civic spaces, streets as places, and active frontages within developments.

The quality and character of the streets and will be established through a network of building frontages which are animated and active.

It is important that the built fabric is capable of accommodating a mix of uses and adapting to changes of use over time. This prolongs the lifespan of the building making the development more sustainable.

The use of a palette of high quality materials will establish the character and identity of the development, in terms of both the public realm of streets and opens spaces and the built form of buildings and structures.

D1.6 Point 5: Implementation of Open Spaces

It is demonstrated that the implementation of open space requirements emphasise the aspiration for active lifestyles within the corridor.

The landscape design response for the AECC has been to create a landscape parkland setting for the proposed buildings together with a series of interlinking and connecting landscapes and path corridors. These are designed to connect to the existing wider paths network and local surrounding places, allowing the new landscape to be used by both local people and visitors to the area, for leisure and recreation as well as other functional day to day journeys.

The design of the Burn Parkland to the South of the AECC building specifically provides a key route through the Masterplan site and has been designed specifically for use as an area for leisure and recreation and thereby meeting the aspiration for active lifestyles within the Masterplan area.

The landscape Masterplan design recognises and responds to the need to create landscapes, paths and connections which are accessible, inclusive and which feel safe and secure, thereby encouraging as many people as possible to make full use of all of the outdoor spaces within the AECC Masterplan area.

D1.7 Point 6: High Quality Landscaping

There is a commitment to the provision of high quality landscaping which contributes to a unified sense of place within the framework area.

The landscape Masterplan design for the AECC recognises the nature of the challenge which is primarily to create an appropriate setting for a unique building type, size and function, within the Energetica framework area.

The landscape Masterplan is also required to provide a unified framework of interconnecting high quality landscapes which provide a setting for a mixed use campus of buildings and pavilions.

A high quality landscape design response has been used to achieve a unique sense of place while also, through the use of locally indigenous plant species and locally typical landforms, connecting back into the local surrounding landscape context.

Through the above design approach, the landscape Masterplan demonstrates a clear contribution to creating a unified sense of place within the Energetica framework area.

Appendix E
Strathcona House

E1.1 Design Evolution and Impact of Constraints on Strathcona House

This Appendix highlights the relationship of Strathcona House in the design development of the Masterplan and the AECC and concludes that Strathcona House cannot be retained if the redevelopment of the site for the AECC is to be viable. This section outlines the impact of the evolving brief on the development of the design, and how the physical constraints of the site have resulted in a design solution where retaining Strathcona House is not possible without compromising the Client's brief. Section 2.2 provides the economic context that highlights the importance of the briefed AECC building and key associated uses being delivered.

The diagrams and analysis within this explanatory Appendix illustrate the major constraints that Strathcona House imposes on the AECC and wider Masterplan.

During the initial development of the Masterplan at Bid Stage, the design brief was such that the overall footprint of the proposal for the AECC was significantly smaller than what is now required by the operator.

The initial design brief was for the provision of a single flexible exhibition hall of 15,000 sqm and a conference suite that contained a fixed auditorium, along with supporting food and beverage provision. The overall size of the facility at the time of the bid was approximately 34,000 sqm (excluding the Subterranean space) and this arrangement is illustrated within Diagram 01 below.

The layout within the bid concept also contained a very large internal concourse leading from the front door of the new facility in the Plaza at the North to the South side of the building, which was to accommodate the food and beverage provision. At the Bid Stage, Strathcona House was to be retained and reused as part of the redevelopment concept. It was suggested that Strathcona House may be able to be utilised for a specific leisure use that was complementary to the aims of the conference centre.

Following Henry Boot Ltd's selection as the preferred bidder, the design brief continued to evolve to meet the Client's needs and resulted in a number of subsequent changes to the content and layout of the new facility. During Stage 1 design, the brief was changed to reduce the size of the main exhibition hall to 11,000 sqm, along with the removal of the fixed auditorium and the introduction of two adjacent halls, each of 2,000 sqm (Diagram 02). This resulted in the reconfiguration of the concourse and food and beverage offering in line with the change in functions.

During Stage 1 of the design process the potential use of Strathcona House was also considered and the proposal made that it could possibly be converted to offer a function space which would work in harmony with the hospitality functions of the AECC and particularly "black tie" events. The design for the AECC was developed to indicate the use of Strathcona House as an arrival point for "black tie" events, allowing delegates to enter the AECC Halls for banqueting events at this point from the South.

As Stage 2 design developed in detail, this concept was tested further with input from the operator and it became apparent that having two public entrances to the halls placed considerable restriction on their function, due to the cross over with servicing requirements. It also meant that if a banqueting event was taking place in one hall, there would be a restriction on loadings/deliveries to the other halls, resulting in the loss of operational flexibility. Creating an arrival concourse and bar at this South entrance of the building to serve "black tie"' events also meant there was space being created which had a limited function and which could not easily be utilised for other uses simultaneously within the adjacent halls, such as an exhibition or conference.

The layout and use of the main exhibition hall was also a key focus during Stage 2. The business plan established it was fundamental that the main exhibition hall functioned primarily as an arena. To improve the functionality, a change to the proportions was therefore instructed, to reduce the main hall/arena to 9,000 sqm and introduce an additional 2,000 sqm hall (Diagram 03).

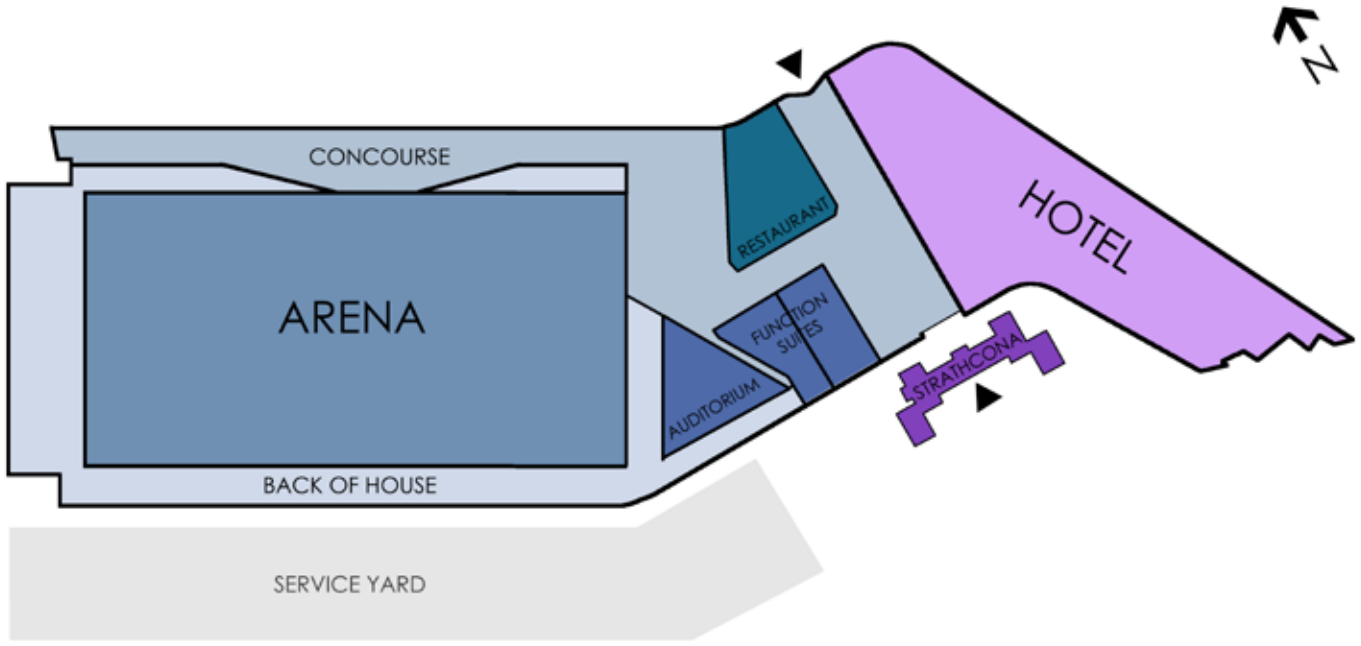


Diagram 01 Bid Stage Design
Original Concept - Single Large Multi Purpose Hall & Auditorium

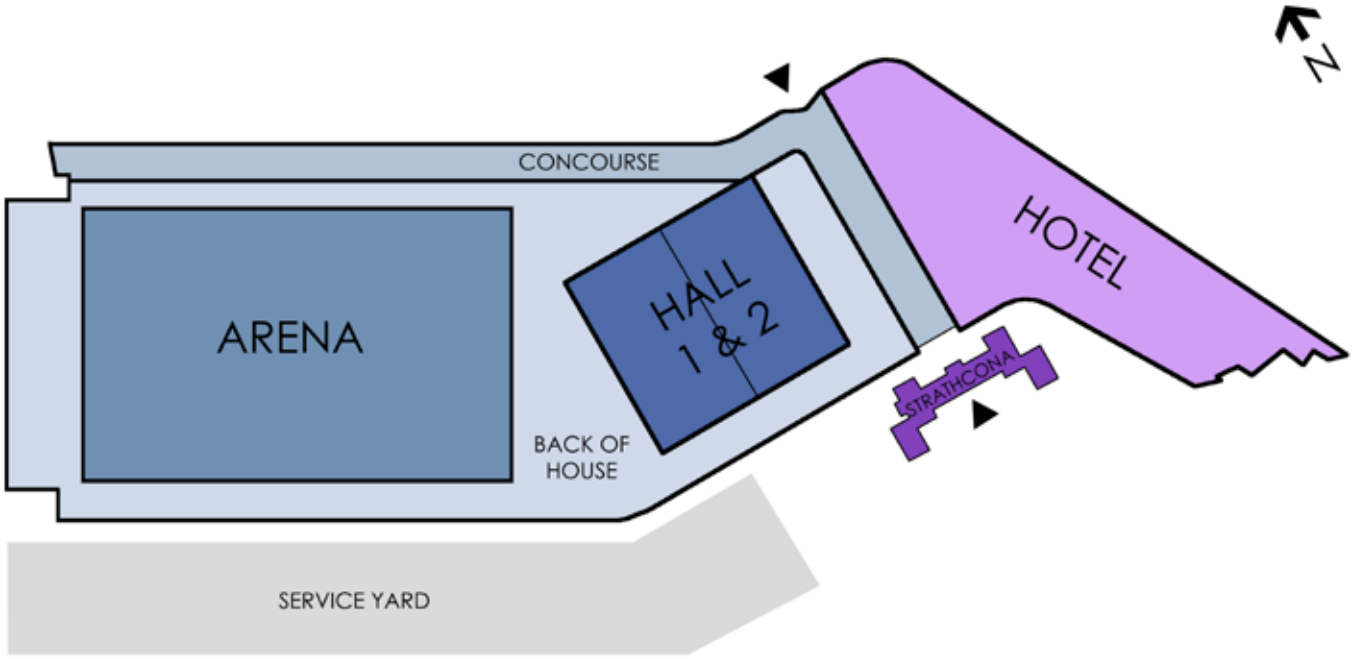


Diagram 02 Stage 1 Design
Removal of Auditorium and Introduction of Halls 1 and 2

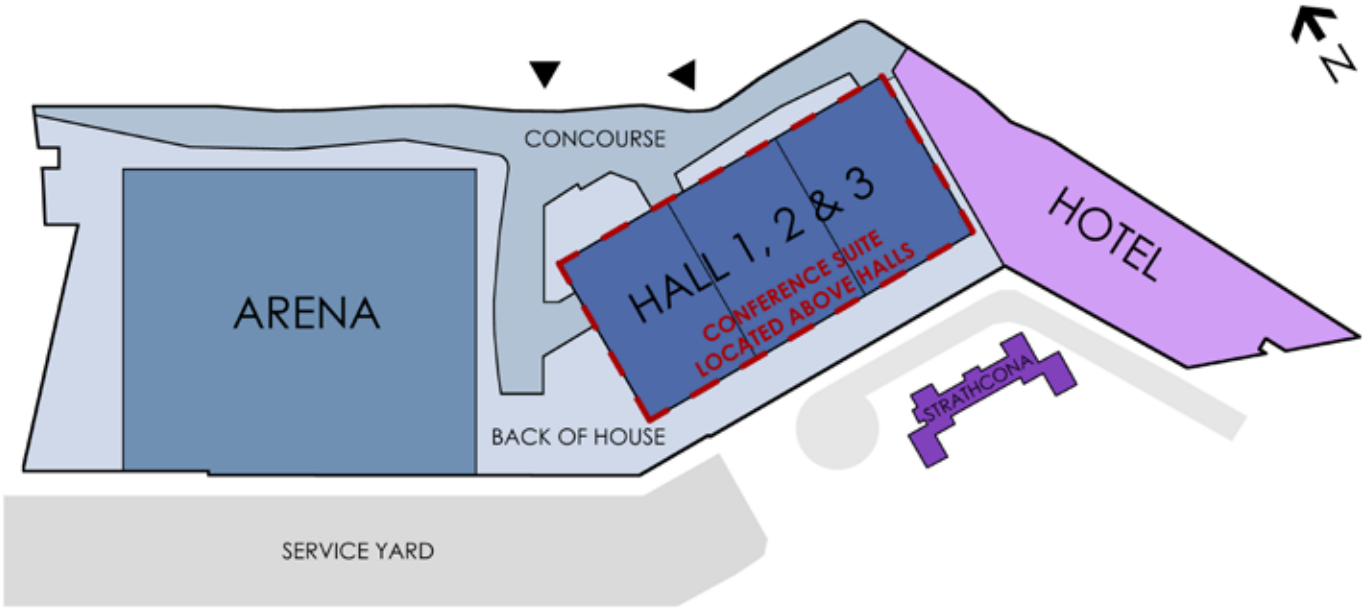


Diagram 03 Stage 2 Design
Reduction to Main Hall and Addition of Hall 3, Removal of Public Entry from Rear.

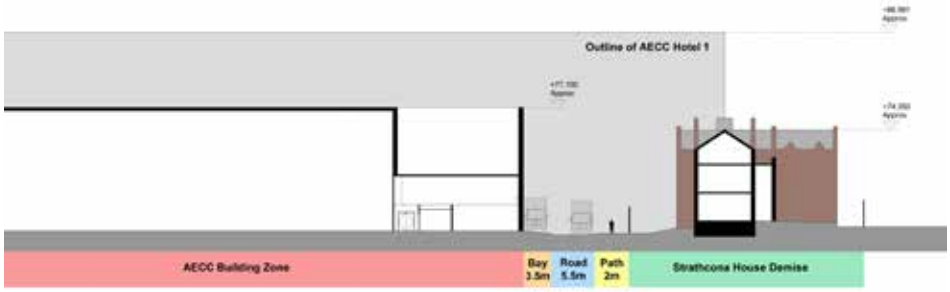
APPENDIX E
STRATHCONA HOUSE

This change in brief from 2 halls to 3 also impacted on the ability to provide a "black tie" arrival space to the South. As a result of these restrictions, the "black tie" entrance was moved to the front of the AECC building. The design team also included vehicular access to the rear of the 3 halls created, to allow service access, though the nature of the operators requirements were not fully defined at this stage.

During this stage, in development of the business plan, the operator had also explored potential options for the use of Strathcona House but unfortunately was unable to identify a use or operator that would attract a sufficient level of income to make it a viable option.

At the start of Stage 3, the change in hall sizes instructed at the end of Stage 2 was developed, reviewed and tested further, with input from the operator. It was established, through detailed analysis, that the 3.5m service/loading area allowed for between the rear of the AECC and Strathcona House was insufficient for the AECC's operational requirements for three flexible halls (Refer to Diagram 04). This analysis consisted of testing the geometric adequacy of the vehicular infrastructure with Autotrack swept path simulation software, utilising design vehicle specifications as defined in the Freight Transport Association Ltd 'Designing for Deliveries' guidelines.

In examining the AECC's operations in greater detail, and with reference to The Health and Safety Executive 'A Guide to Workplace Transport Safety' HSG136 (3rd Edition) 2014, the size of the service area has had to increase substantially to facilitate safe access and egress for servicing and loading to the Exhibition Halls and Hotel (Refer to Diagram 05). A precedent study was carried out of service zones that are required at the rear of some of the UK's leading exhibition and conference venues, such as Excel London, NEC Birmingham and SECC Glasgow. These examples demonstrated the large turning circles and segregated personnel walkways that are required for the safe manoeuvring and operation of the substantial number of HGV movements required for a facility such as the AECC.



Stage 2 Concept Design Loading/Service Zone – Insufficient space

Loading/Service Zone required following swept path analysis

Diagram 04 Loading / Service Zone Analysis

The layout in stage 2 was very much a concept, an untested design, typical of that stage of design development. With the decision to move the black tie entrance to the North of the AECC and prior to the delivery and loading zones for the Halls being fully developed, an outline plan was established for deliveries within the restricted space available which relied upon lorries being offloaded from the side.

Upon developing the servicing strategy further with input from the operator, it became apparent that flexibility to allow rear loading was required and with Autotrack swept path simulation, it became apparent that the servicing/loading areas required to be substantially increased.

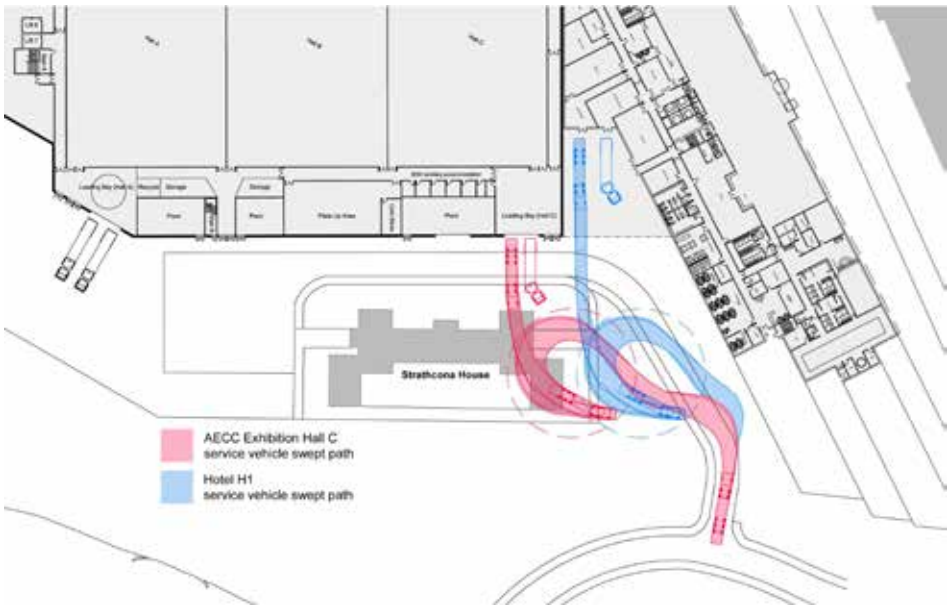


Diagram 05 Swept Path Analysis of Stage 2 Service Zone

Autotrack swept path simulation analysis utilising design vehicle specifications as defined in the Freight Transport Association Ltd 'Designing for Deliveries' guidelines.

APPENDIX E
STRATHCONA HOUSE

With Strathcona House no longer forming part of the AECC operational brief, if retained, there would also be a requirement for Strathcona House to have it's own dedicated parking, loading and delivery area, which would require to be separated and secured from the operations of the AECC and Hotel 1.

Whilst some screening may be able to be achieved between the service yard and the House, there would still be some visibility and certainly noise associated with the service yard which could limit the potential functions that Strathcona House may be utilised for.

Another significant change to the brief during Stage 3 was the shape of the Subterranean space, which was simplified to form a more regular rectangular layout in response to the main exhibitors operational requirements.

In addition, 20% of the Subterranean space (which was previously located under the AECC arena at Stage 2) was relocated outwith the AECC footprint, in order to remove the loading restrictions on the arena.

These improvements in the operation of the facility resulted in the AECC having to move Southwards to accommodate the new Subterranean layout, as moving Northwards was not possible (due to the constraints noted in Diagrams 07-09).

The final change made during this stage was for the overall building footprint of the new facility to increase in depth, pushing it further South to facilitate the separation of the Conference Suite and Exhibition Halls. This change was necessary to improve operational efficiency, as when located above the halls, the conference suite would not be able to be used simultaneously, placing limitation on bookings.

Diagram 06 below illustrates the current Stage 3/Planning building design incorporating all of these requirements.

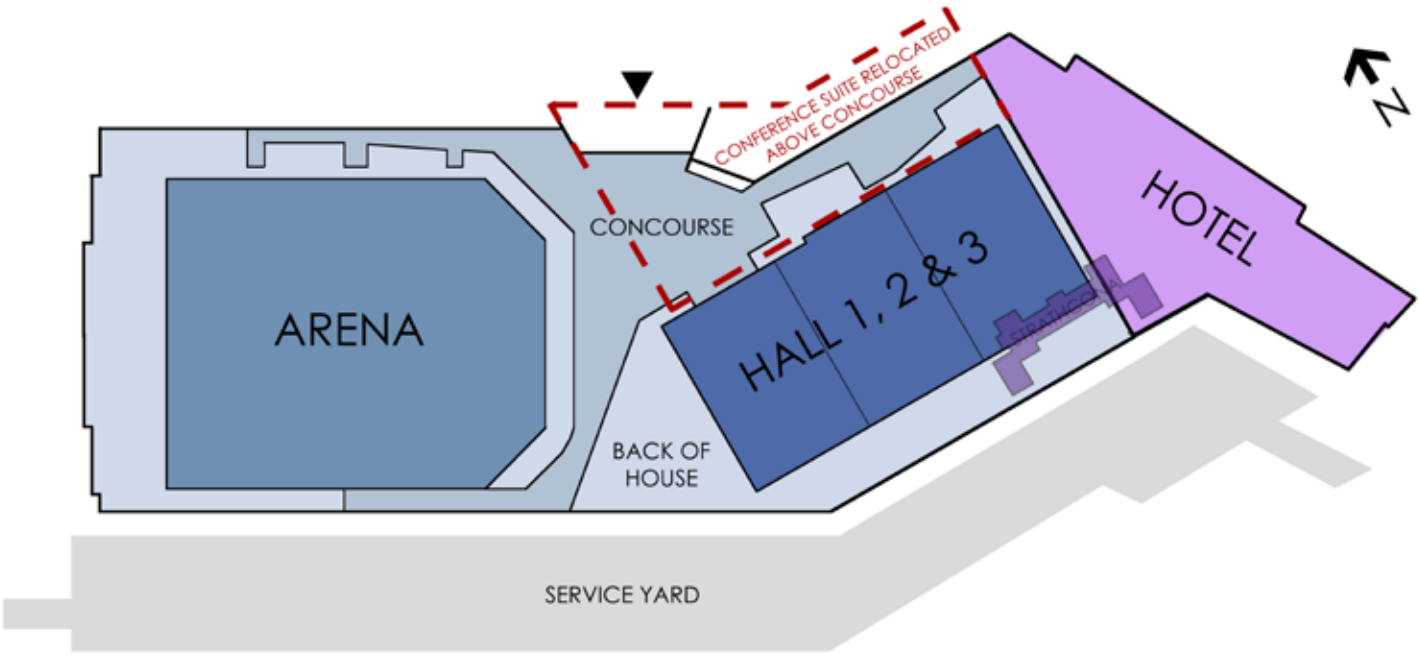


Diagram 06 Current Stage 3/Planning Design
Service Depth Increased, Building Widened and Moved South to Prevent Infringement/Clash with Reconfigured Subterranean Space

APPENDIX E
STRATHCONA HOUSE

To facilitate the increased depth of the building, the Subterranean space and the service yard requirements, the proposed building has had to move South from its position at Bid Stage. If Strathcona House was to be retained, the AECC building and the rest of the Masterplan would have to move North, North-East, North-West or West. The design team explored each of these options before electing to move the building South, with a variety of consequences resulting from each option.

Diagrams 07-10 illustrate the various impacts and constraints, they key one being that a move of the AECC in any of these directions would result in the height of the building encroaching into the protected flight cones from Aberdeen International Airport.

Following the analysis of all options, it was clear that the current AECC design (shown in Diagram 06 and Diagram 10), can only be achieved by removing Strathcona House. It is not possible to move the new facility to a different position on the site that would allow the retention of Strathcona House. The following summary points describe the reasoning and logic why this has not been possible;

- There is not enough space to accommodate the new facility between Strathcona House and the A96 trunk road so, if Strathcona House is not removed, the AECC and the rest of the Masterplan would have to either move North, North-East North-West or West to meet the space required for safe and secure service/loading along with the changes to the design brief. In order to safely service the new facility a zone would have to be created between the AECC and Strathcona house of approximately 75m.
- The buildings cannot be moved in a North-Easterly or Northerly direction as a result of the Airport's protected flight cones. We have liaised with AIA throughout the design process to ensure that the proposals were designed within the accepted safe limits for air traffic. Any movement of the Masterplan in either of these directions would compromise the protected space.
- If moved in a Northerly direction this would have a significant impact on the heights of buildings within the Linear Business Park and Hotel 3 along with associated car parking requirements. It would require the height of the AECC Arena to reduce which would mean it could not function as an Arena and the design brief would not be met. This would mean that the Linear Business Park & Hotel H3 storey heights and floor space would have to reduce, impacting on Commercial viability of development. Reducing the height of these buildings from 3 to 2 storeys was explored however this would result in inefficient floor plates in buildings of a height and scale inappropriate to the Central Square and the wider Masterplan (see Diagram 07).
- If moved in a North-Easterly direction, the East end of the main AECC building and the adjacent hotel, along with the commercial units and the two hotels on the Boulevard, would all encroach into the Airport's protected area requiring their heights to be reduced (see Diagram 08).
- The AECC building cannot be elongated to allow it to move North-West, as this would push the Conference Centre and Hotel 1 into the Airport Height Restriction Zone (see Diagram 09).
- If the AECC was moved in a Westerly or North Westerly direction, it would not be possible to satisfy the development brief which requires a 10,000m2 expansion space for Offshore Europe. Expansion space in the Central Square/Plaza is not possible due to the loading restrictions on the Subterranean roof and it would not be a viable option from the exhibition organiser's perspective, making access and egress around the exhibition more challenging.
- The above changes would also result in insufficient space for the required car parking numbers for AECC, Linear Business Park and Hotel H3. The 2250 car parking spaces in the AECC brief and the 1 space per 30sqm for Offices and 1 space per room for the hotel, in accordance with the parking standards for Aberdeen contained in the Local Development Plan Supplementary Guidance: Transport and Accessibility, would not be achievable, thereby impacting on the commercial viability of the overall project.
- The Gateway site (which is to be retained in the ownership of the University of Aberdeen) is not within the area that is under contract for delivery of the new AECC building. This cannot be included within the AECC proposals and a move to the North-West or West of the site would also breech this boundary.

Summarising the above, in order to satisfy the Design Brief presented by Aberdeen City Council, whilst complying with the development restrictions presented at the Rowett site, the conclusion has been reached that Strathcona House cannot be retained. Diagram 10 shows the current proposals with the removal of Strathcona House.

APPENDIX E
STRATHCONA HOUSE

Diagram 07
AECC Building moved approx 75m North
Service Zone increased to meet requirements

Impact on Masterplan:
- Offshore Europe Expansion Space reduced by approx 25%
- Subterranean Exhibition Space reduced in size by approx 15% due to clash with site boundary line
- Carparking zones reduced
- Insufficient space for carparking numbers required to meet standards
- AECC Building moved into Restricted Zone
- Linear Business Park buildings moved into Restricted Zone
- Height of Linear Business Park buildings reduced
- Hotel H2 and H3 moved into Restricted Zone and building height reduced

Note: Yellow banding shown within diagram is representative of the progressively greater restriction that the Airport 'Restricted Zone' places on building height.

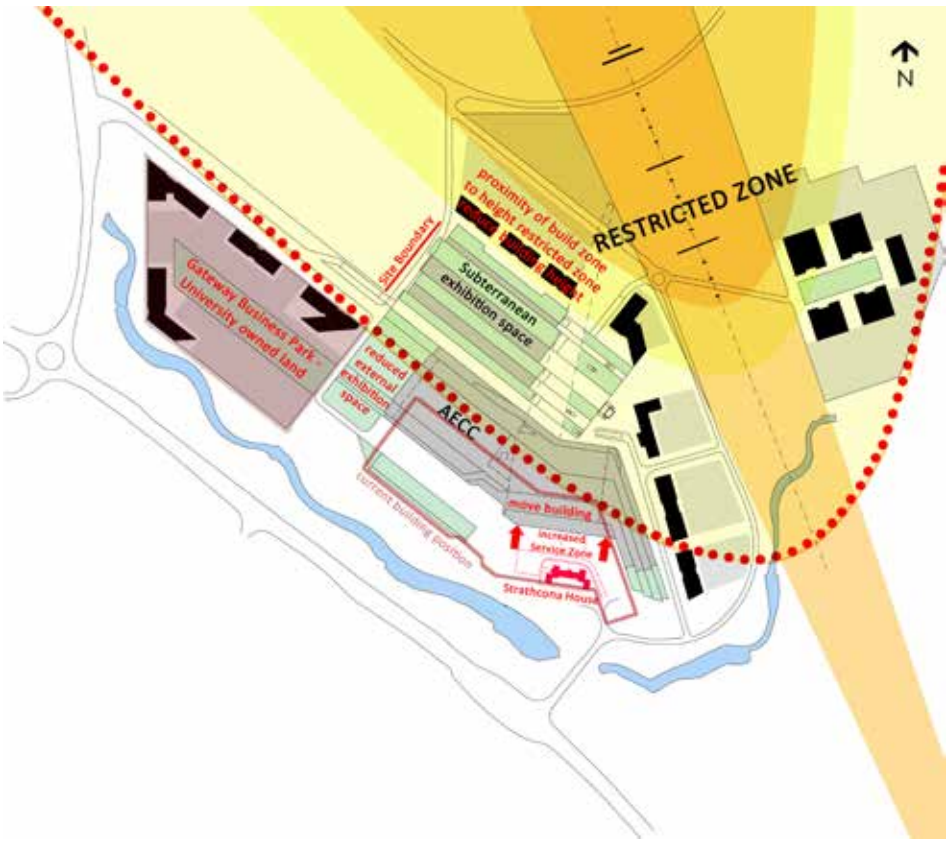


Diagram 07 Move AECC Building North

Diagram 08
AECC Building moved approx 80m North-East
Service Zone increased to meet requirements

Impact on Masterplan:
- Carparking zones reduced
- Insufficient space for carparking numbers required to meet standards
- AECC Building moved into Restricted Zone
- Linear Business Park buildings moved into Restricted Zone
- Height of Linear Business Park buildings reduced
- Hotel H2 and H3 moved into Restricted Zone and building height reduced

Note: Yellow banding shown within diagram is representative of the progressively greater restriction that the Airport 'Restricted Zone' places on building height.

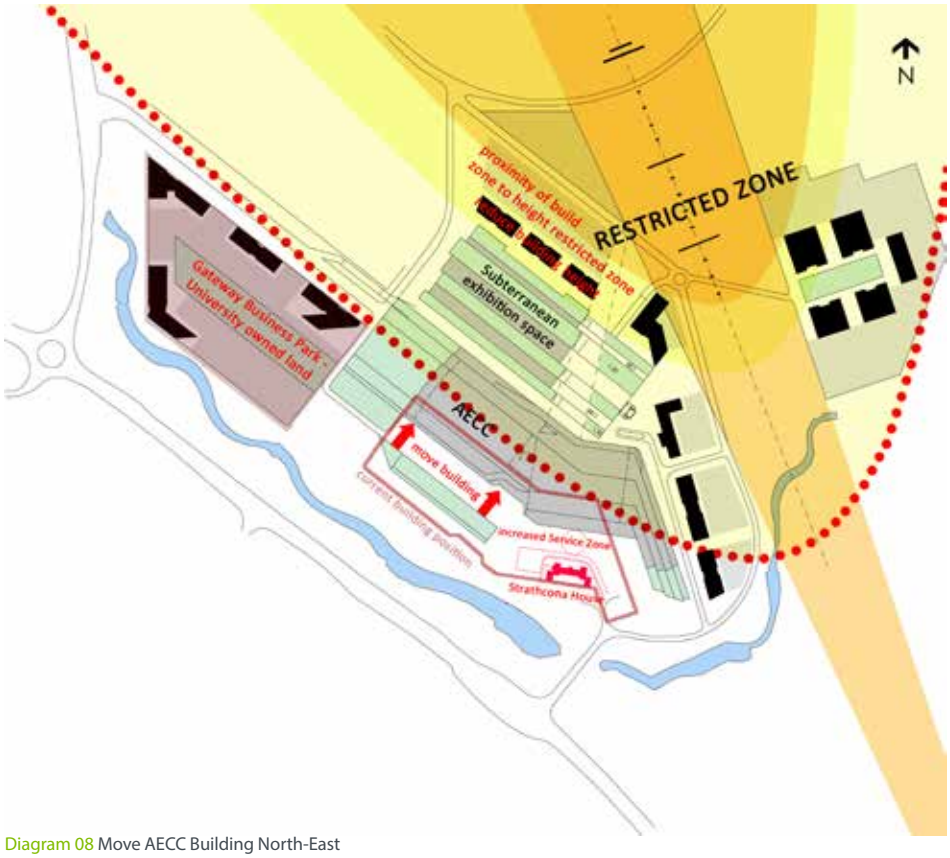


Diagram 08 Move AECC Building North-East

Diagram 09
AECC Building moved approx 120m North-West
Service Zone increased to meet requirements

Impact on Masterplan:

- Building form elongated – design concept lost
- Offshore Europe Expansion Space lost
- Carparking zones reduced
- Insufficient space for carparking numbers required to meet standards
- AECC Building moved into Restricted Zone
- Linear Business Park buildings moved into Restricted Zone
- Height of Linear Business Park buildings reduced
- Hotel H2 and H3 moved into Restricted Zone and building height reduced

Note: Yellow banding shown within diagrams is representative of the progressively greater restriction that the Airport 'Restricted Zone' places on building height.

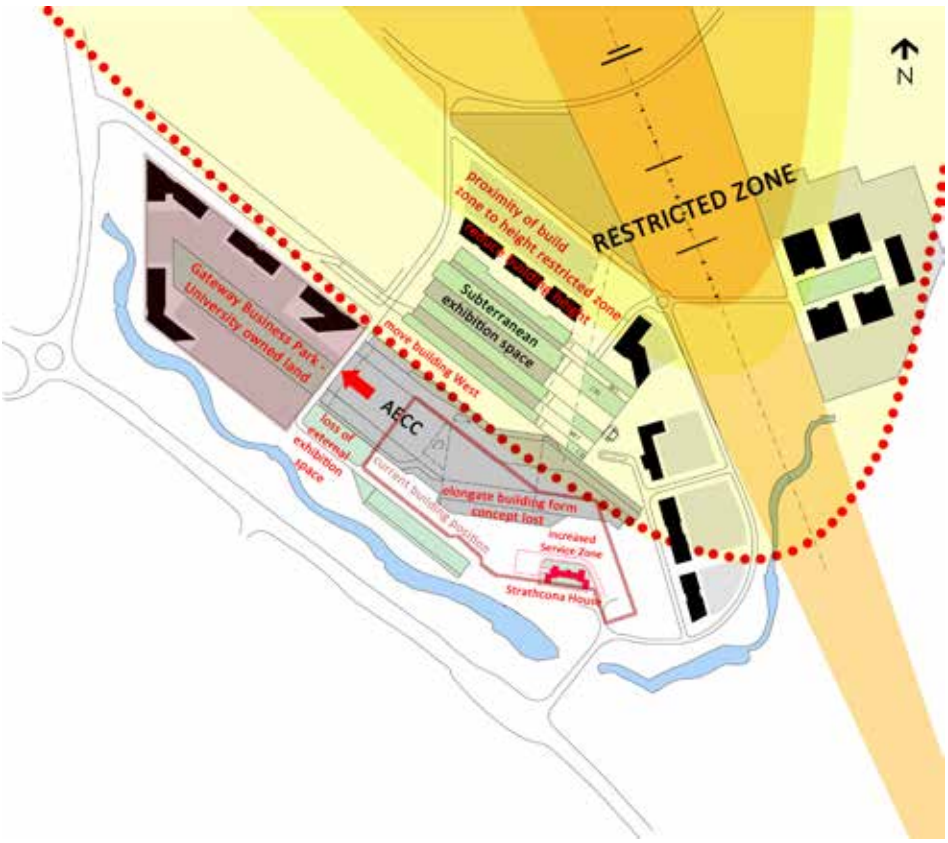


Diagram 09 Move AECC Building North-West

Diagram 10
Despite numerous design options retaining Strathcona House being explored and tested, this Appendix concludes that there is no viable option without removing Strathcona House.

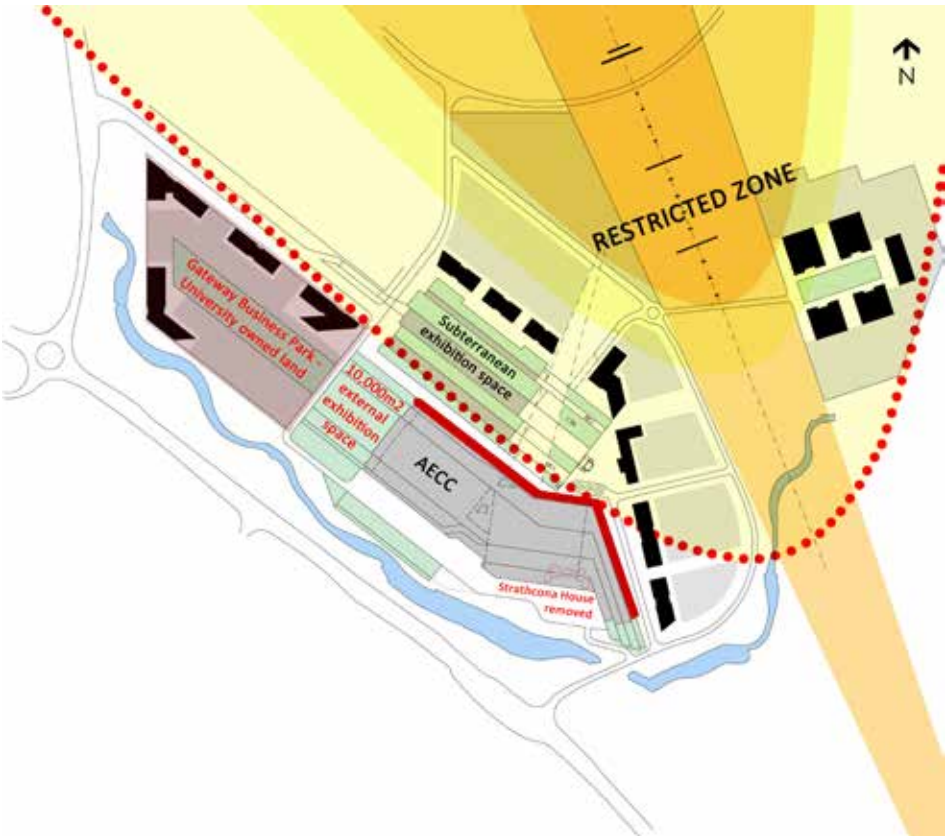


Diagram 10 Stage 3 Developed Design - Strathcona House Removed

E1.2 Conclusion

The preceding paragraphs set out and explain the physical and technical reasons as to why the demolition of Strathcona House is now required as part of the development proposal and Masterplan. Strathcona House is not a Listed Building and does not lie within a Conservation Area. As a result there is no heritage or conservation laws or policies in place that preclude the building from being demolished.

The Aberdeen Local Development Plan seeks to encourage the retention of granite buildings even if not listed or in a conservation area through Policy D4. Strathcona House is however constructed from sandstone and therefore this policy does not apply. As a consequence there are no planning laws or policies that require the retention of Strathcona House.

It is acknowledged that Historic Environment Scotland have undertaken a listing review of the building and have advised that the building may be suitable for listing at Category C. However, Historic Environment Scotland have chosen not to progress further with the evaluation of the building and any potential listing. The Scottish Historic Environment Policy 2011 (SHEP) sets out criteria for considering applications for the demolition of Listed Buildings. There is however no criteria for the consideration of unlisted buildings or indeed unlisted buildings that may have the potential to be listed.

The policy set out in SHEP requires planning authorities to only approve such applications where they are satisfied that:

a. the building is not of special interest; or
b. the building is incapable of repair; or
c. the demolition of the building is essential to delivering significant benefits to economic growth or the wider community; or
d. the repair of the building is not economically viable and that it has been marketed at a price reflecting its location and condition to potential restoring purchasers for a reasonable period.

The consideration of the demolition of Strathcona House against the above policy is not required as it represents a higher policy assessment that is deemed necessary by the unlisted nature of the building. However it should be noted that only one of the above criteria needs to be met to fulfil the policy requirements.

In this regard, the criteria would be met where the 'demolition of the building is essential to delivering significant benefits to economic growth or the wider community'.

In conclusion, the physical constraints of the site have meant that, as the AECC has evolved to meet the brief and business case requirements, the building has had to move South within the Masterplan (due to the constraints noted in Section E1.1).

Despite numerous design options retaining Strathcona House being explored and tested, there is no viable option without removing Strathcona House.

It is evident that the development of the new AECC will deliver significant benefits to economic growth and that the demolition of Strathcona House (as set out in the preceding paragraphs) is necessary to facilitate this development.

The economic case is clear as set out in Section 2.2. This demonstrates the significant benefits the proposed AECC will deliver. In that context, the above policy test for the demolition of a listed building would be met. It therefore follows that there is sufficient justification on economic grounds for the demolition of the unlisted Strathcona House.