

Introduction.

Welcome to this Community Consultation.

This exhibition is intended to inform you about a proposed planning application for a development incorporating residential and commercial uses at 1-5 Baltic Street, Leith, Edinburgh.

The exhibition is part of a formal pre-application process and the primary purpose is to seek your views on the proposed development. You are invited to leave comments on the comments sheets provided or to speak directly to representatives from the client design team, who are here today to answer your questions.

Following the exhibition, once we have received comments from the community and the community council, a detailed planning application will be submitted. When a planning application is submitted, the surrounding community will be notified by the City of Edinburgh Council and provided with the opportunity to submit formal comments to the Council at that time.

Key Points

- Former Baltic Street Gasworks.
- Recent use as industrial / commercial premises.
- Site contains a number of buildings connected with the now defunct coal and gas industry.
- Opportunity to bring a mix of residential and employment uses to the site.
- High quality development with contemporary architecture to set precedent for surrounding development.
- Ground contamination is potentially a significant issue.

Site Location.



Background.

Sundial Properties is a family-owned, Edinburgh-based property development company, with a track record stretching back for over 40 years. In that period we have established a first class reputation with both purchasers and property market professionals for imaginative and sympathetic developments within a broad range of historically important buildings.

We believe that most people would prefer to live in buildings which sit comfortably within their environment, whether they be historic or new. We therefore look to enhance, rather than obscure, the history of sites which we develop.

Track Record.

Over the past 10 years the company has developed over 80 listed buildings within Edinburgh and Leith, and has developed or is developing a total of over 680,000 sq ft. of property.

We are particularly proud of our work in Leith, including the redevelopment of the former Leith Academy (completed in 2016), the former Leith Hospital (completed in 2002), and a former warehouse at 95 Constitution Street (completed in 2001).

Whilst many of our developments have been of Georgian buildings within the City centre, we have also developed buildings such as the strikingly modern 23 Ravelston Terrace (completed in 2012). The common factor between all of our developments is an entirely bespoke approach to the specific context of the building or site.

We believe that the former Edinburgh and Leith Gasworks provides a uniquely exciting opportunity to celebrate and breathe new life into an important part of Leith's industrial heritage.



Our development of the former Leith Academy was completed in 2016 and combined the complete refurbishment of the Edwardian school building with the creation of 53 apartments.



Former Leith Hospital
Conversion completed in 2002



23 Ravelston Terrace – a striking contemporary development of 61 apartments completed in 2012.



Design is married with context, be it historic...



...or contemporary

the history of coal and gas.

The origins of coal gas.

Gas was first produced from coal in 1792 by William Murdoch, a native of Cumnock in Ayrshire who at the time was working for Boulton & Watt in England. He initially produced enough gas to light a single room at his house in Redruth in Cornwall, and by 1798 he had installed an experimental gas lighting system in the Boulton & Watt works in Birmingham.

Within a few years, Boulton & Watt were selling entire gas lighting systems to cotton mills, where the combination of lighting by candles and oil from the cotton had led to many fires.

The idea of a public gas supply came from a German, Frederick Albrecht Winzer, who in 1812 formed the Chartered Gas Light and Coke Company in London. By 1815, London was home to 26 miles of gas pipe and in 1817 the first Scottish public gas supply was established in Glasgow, with Edinburgh following a year later.



A print by Thomas Rowlandson recording the introduction of gas lights to London in 1809. A well informed gentleman observes;

“The coals being steam'd produces tar or paint for the outside of houses - the smoke passing thro' water is deprived of substance and burns as you see.”

Coal gas in Edinburgh.

The first gas was distributed to people in Edinburgh in 1818 by the Edinburgh Gas Light Company when the gas works on New Street was established in the city just off the Canongate. The Leith Gas Light Company was later formed in 1823, with construction on the gas works site on Baltic Street, Leith, starting in circa 1835 (petitions for the construction of the original gasometer house was submitted to the Leith Dean of Guild in 1829).

Leith had grown to a burgh by 1833, not being merged with Edinburgh until 1920, and the gas works was therefore built to meet the increasing demand for gas for the growing population.

At the time of its construction, the gas works was located along the coast of the Firth of Forth just to the east of the mouth of the Water of Leith. A branch of the Edinburgh and Dalkeith Railway was built in circa 1835 to the north of the site, in the small area of land between the site and the coast. The construction of the railway line was essential for the operation of the gas works as it required large amounts of coal to be brought into the site, which at the time was only possible via railway.

Development of the industry.

The development of gas lighting in the nineteenth century had a dramatic impact on the domestic and working lives of the people of Britain. Gas lighting was a far more efficient and economic form of lighting than oil lighting that preceded it. Subsequently gas was used for other purposes such as cooking and heating.

By 1826 almost every city and large town in Britain had a gas works, primarily for lighting the streets. In these towns, public buildings, shops and larger houses generally had gas lighting but it was not until the last quarter of the nineteenth century that most working people could afford to light their homes with gas.

London's Reform Club was the first kitchen to install gas cookers in 1841, however the use of gas for cooking was slow to gain acceptance. Gas cookers were amongst the modern innovations on display at the Great Exhibition of 1851 which increased their popularity amongst wealthier households. The invention of the oven thermostat in 1923 revolutionised domestic cookery and further popularised the gas cooker.

Coal remained the preferred method of heating homes well into the twentieth century. By 1905, the introduction of ceramic radiant fires made gas heating an option for many homes and improvements in the 1950s led to convector fires.

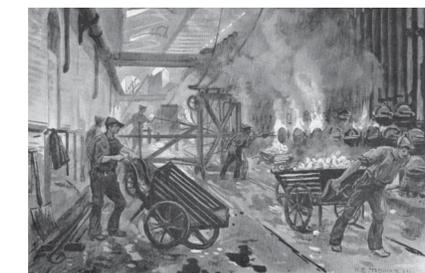
The gas industry in Britain was nationalised in 1948 and then privatised in 1986. Natural gas replaced coal gas in the 1960s and 70s.

Working conditions.

Working in the gas industry was hard and often dangerous. The retorts had to be filled or 'charged' with coal by hand which was tough, back-breaking work. Although larger gas works introduced mechanical charging and vertical or inclined retorts from the late -nineteenth century, hand charging continued at smaller gas works until the 1960s.

The waste products produced by the gas industry such as coal tar, foul lime and spent oxide contaminated the sites of former gas works. Public concern about the level of pollution and the quality of the gas culminated in a raft of legislation which sought to regulate the financial accountability and environmental impact of Victorian gas companies.

A strike at the Leith Gasworks by 156 men was widely reported in 1888. The strike was called after a wage rise for the retort men was not extended to the yard and street labourers, who were reported to work a 56 hour week.



Conditions in a retort house were stiflingly hot and could be dangerous.

the buildings and processes.

Location.

Early gas works needed a supply of coal and a means of transporting away waste products. The first phase of construction of the Leith Gas Works took place in circa 1835-40, coinciding with the arrival of the railway line built directly adjacent to the site to the north, satisfying the need to transport large quantities of coal into the and take by-products of the gas production as well as other materials away.

A further factor would have been its proximity to sea level. Gas is lighter than air and rises with altitude, so it was necessary to site gas works at the lowest point in an area.



The process.

The basic process for making gas from coal used in the early 19th century remained essentially unchanged right through until the last coal gas works closed in the 1970s.

1. Coal in a closed tube called a retort was heated in a furnace. The gasses given off – mainly hydrogen and carbon monoxide – passed through a water trap (“hydraulic main”)
2. The gases were then cooled in a condenser, where tar and some other liquids were removed.
3. The gas then passed through a purifier to remove sulphur compounds and other impurities.
4. The gas was then either used or stored in a gas holder. Later in the 19th century, steam driven exhausters were introduced to pump the gas through the gas works and into the mains system.



Retort House

Coal stores.

Wet coal impaired the efficiency of the gas production process so it was usual to store it in a covered shed. A substantial proportion of the Baltic Street site was devoted to such stores. William Broughton King's treatise on coal gas of 1878 recommended that a stock equivalent to six week's consumption should be maintained. It is notable that the proportion of the site devoted to coal storage increased as the efficiency of the process improved, and the demand for gas grew. Conversely, the amount of gas storage on the site fell as production became more responsive and as pressure could be maintained by mechanical exhausters.



Baltic Street Coal Stores

Retort houses.

Retort houses generally had ventilated roofs with raised sections, although these were often replaced if the building was adapted for later use.

The earliest retort house building on Baltic Street were those located in the North East corner of the site. As the scale of production grew part of the western gas holder building was put into use as a retort house.

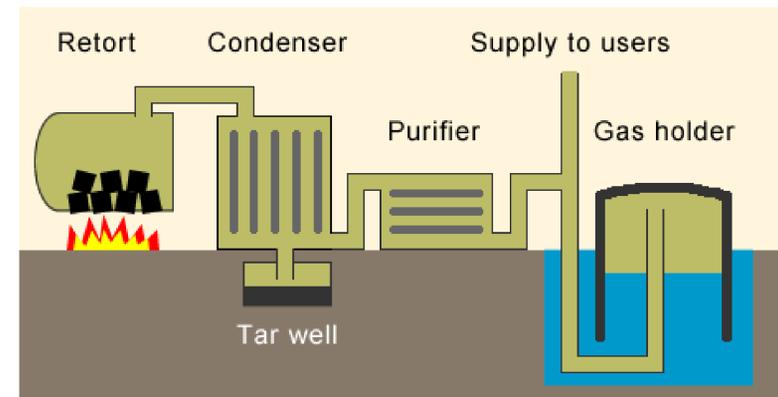
Purifier buildings.

Generally smaller than the retort house and located alongside it, this building housed the equipment and (often) the chemicals used in the purification process.

Gas holders.

Closed cylindrical vessels have been used for the storage of gas almost from the birth of the industry. Gas holders were made of wrought iron (later steel), supported above a tank of water by the pressure of the gas within. Early examples were usually sited underground but by the mid-nineteenth century, telescopic gas holders, which became a familiar feature of the urban landscape, were in use.

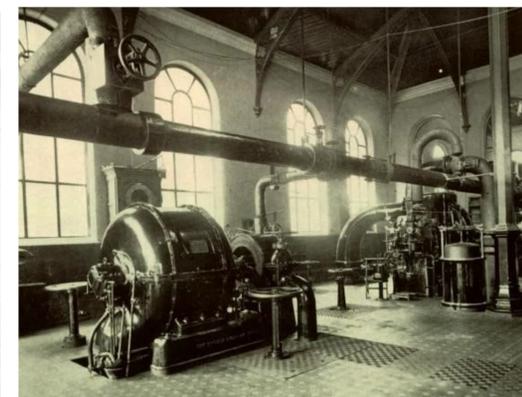
The gas holders at Baltic Street were all contained within tall stone buildings.



Process



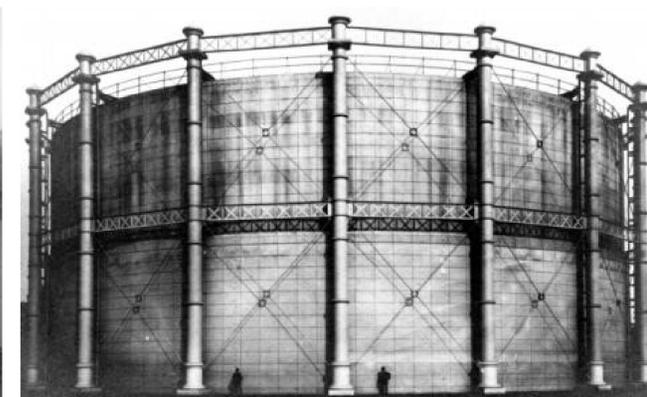
Condensor



Exhauster

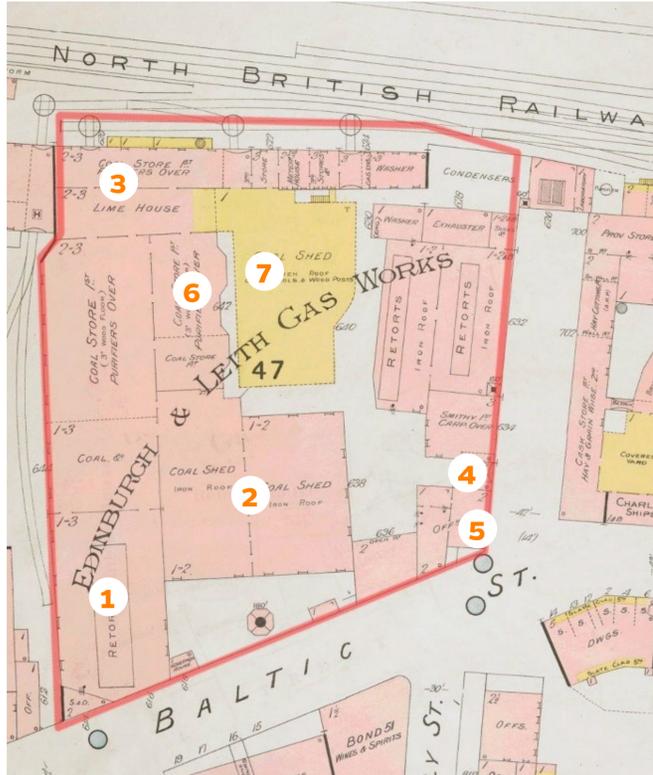


Purifier



Gas Holder

the buildings - historic images



1892 Insurance Plans shows site at its peak.



1. Western Gas Holder

Originally built to contain gasholders, but later converted to provide space for additional retorts, coal storage and purification facilities. Severely truncated in 1980 to form base of industrial "shed".



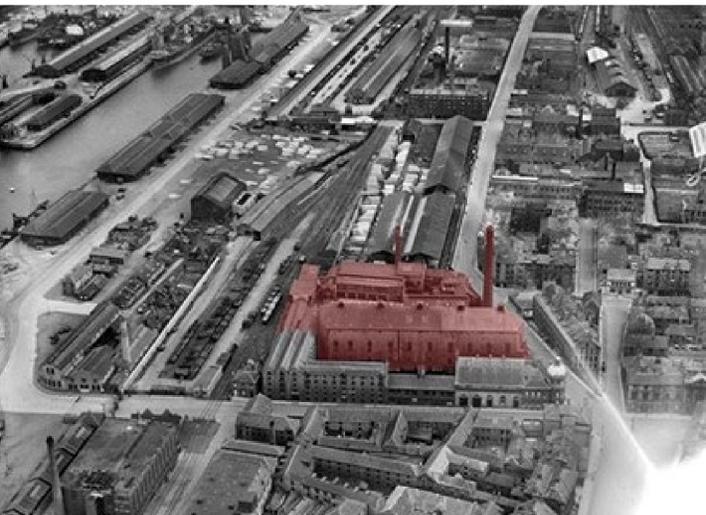
2. Coal Stores

Later 19th C twin coal stores. The left-hand building was demolished in 1980, the right hand remains.



3. Purifying Building

Interior of now derelict purifying building in 1975. Much altered whilst in use as timber yard in circa 1919 (including new floors and doorways).



Aerial view of site from the west during occupation as a timber yard.



4. Eastern Boundary

Buildings to eastern boundary in 1975, including (from left to right), office, original gasholder (later converted to workshop) and original retort house.



5. Later Offices

Board room, fitted out during use as a timber yard.



6. Demolished Gas Holder Building

Now demolished gas holder house, with elevated timber lime house and purifying building to rear.



7. Timber Yard

Central yard with later timber store on site of former coal shed.

existing site condition

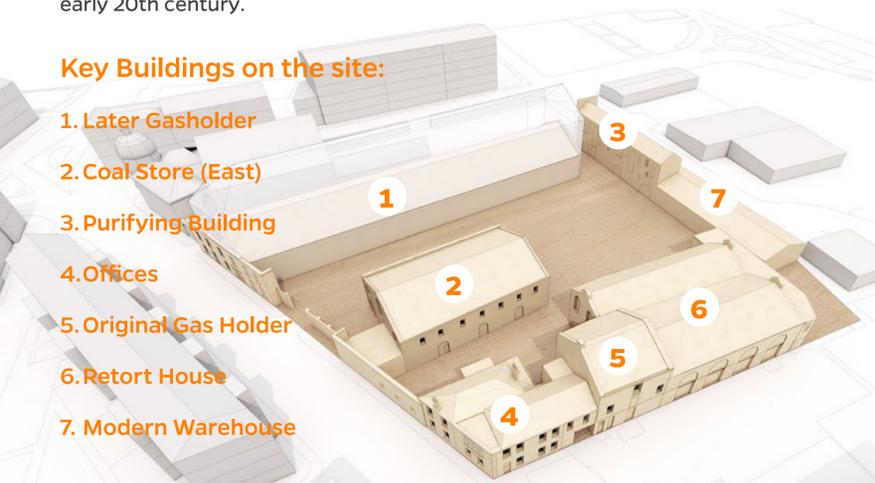
Site layout.



Located within the Leith conservation area, the site extends to approximately 0.8 hectares and contains a number of buildings that remain as a legacy of the site's former industrial past. These buildings are in varying states, having been adapted for other uses since the gas works closed in the early 20th century.

Key Buildings on the site:

- 1. Later Gas Holder
- 2. Coal Store (East)
- 3. Purifying Building
- 4. Offices
- 5. Original Gas Holder
- 6. Retort House
- 7. Modern Warehouse



Building condition.

1. Later Gasholder (Truncated)



Key Points;

- Building severely truncated from its original 5 Storey height & form.
- Structurally sound - roof not original.
- Redevelopment options limited.

2. Coal Store (East)



Key Points;

- Later addition to site
- Structurally sound.
- Redevelopment cost vs return??

3. Purifying Building



Key Points;

- Heritage relevance but substantially altered.
- Dilapidated condition - poor roof, vegetation growth in walls, damp.
- Economically difficult to redevelop thanks to elongated shape and irregular location of openings to southern facade.

4. Offices



Key Points;

- Lesser historic significance - largely post-dates gas industry use.
- Some interesting internal features remain.
- Important visual contribution / corner feature on approach to Old Leith.

5. Original Gas Holder



Key Points;

- One of the earliest buildings on the site.
- Structurally sound.
- Strong links to industrial past

6. Retort House



Key Points;

- One of the earliest and least altered buildings on the site.
- Structurally sound.
- Strong links to industrial past
- Tin roof a modern replacement.

7. Modern Warehouse



Key Points;

- Recent addition.
- Low quality warehouse building - no historic or architectural significance.
- Asbestos Roof

planning context

Local Development Plan.

EDINBURGH LOCAL DEVELOPMENT PLAN (2016)

The Edinburgh Local Development Plan (2016) allocates the Site within the Leith Waterfront Development Area (EW1b). The LDP describes this as an area of commercial and housing-led mixed use development sites. It is considered that a mixture of commercial and housing led development will be acceptable on the site.

The City of Edinburgh Council have development principles which guide any future development in this area. The principles state that any proposed housing development will be expected to be designed to mitigate any significant adverse impacts to residential amenity from existing or new general industrial development.

LISTED BUILDINGS AND CONSERVATION AREA

The Site is located within the Leith Conservation Area. The proposed redevelopment involves the demolition of a number of buildings on site, which includes the remains of the western gasholder building, the purifying building and the coal store. The original retort house, gas holder and offices on the eastern boundary are proposed to be retained, along with the original gasometer façade to Baltic Street. It is the intention of the applicant to carefully consider the retention of the listed buildings in order to retain and enhance these listed buildings on site, and bring them into a modern commercial use.

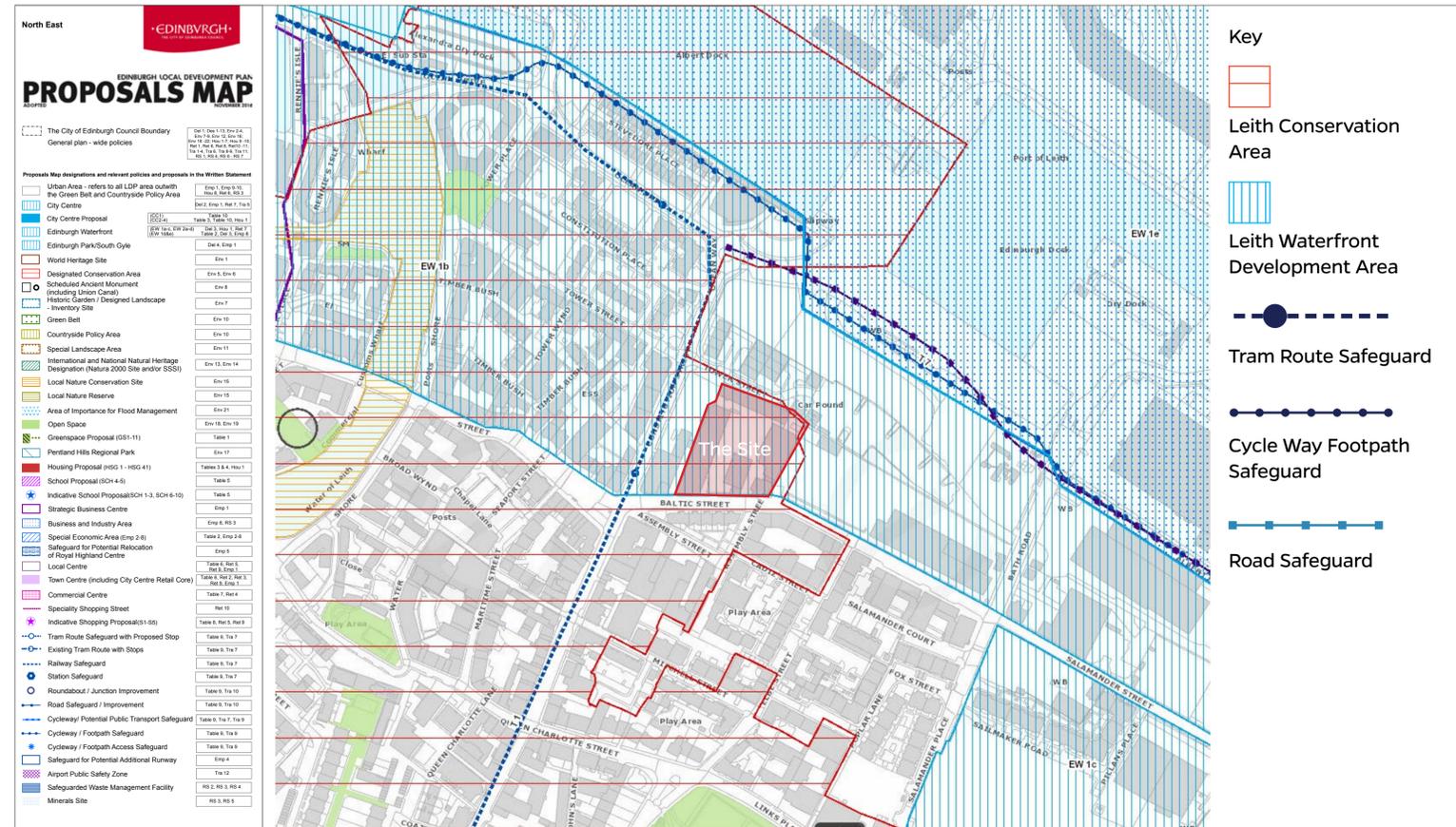
PLANNING CONSIDERATIONS

Applications will be sought for detailed planning permission, conservation area consent and listed building consent. As part of this application process there will be a number of important planning considerations with respect to the site, and these will be assessed carefully during the preparation of the planning application and discussed with the City of Edinburgh Council officials during the course of the planning application. A number of these are listed below:

Cultural Heritage – Conservation and Listed Building Requirements

- **Connectivity – Permeability** through the site will be an important consideration, as well as links to the surrounding area and neighbouring sites.
- **Archaeology – Preservation** of the site's industrial heritage will be a key archaeological consideration
- **Transport – a Transport Statement** will be submitted with the planning application submission will assess the impact of the development on the local road network with respect to vehicle, cycle and pedestrian routes.
- **Air Quality – An Air Quality Assessment** will be prepared along with the planning application submission.
- **Noise – There are a number of potential noise sources** within the vicinity of the site and acoustic survey will be prepared to support the application.

These are just an examples of some of the main considerations for the development of the Site. We are interested to hear your views on this and be informed of any matters you consider require further consideration.



The development will take note of the relevant planning guidance and advice notes as issued by the City of Edinburgh Council and the Scottish Government.



planning context: future

Current proposals.

A major factor on development in this area is the proposed tram line extension. Currently, this is proposed as extending down Leith Walk and on to Constitution Street, passing within metres of the proposed site at Baltic Street.

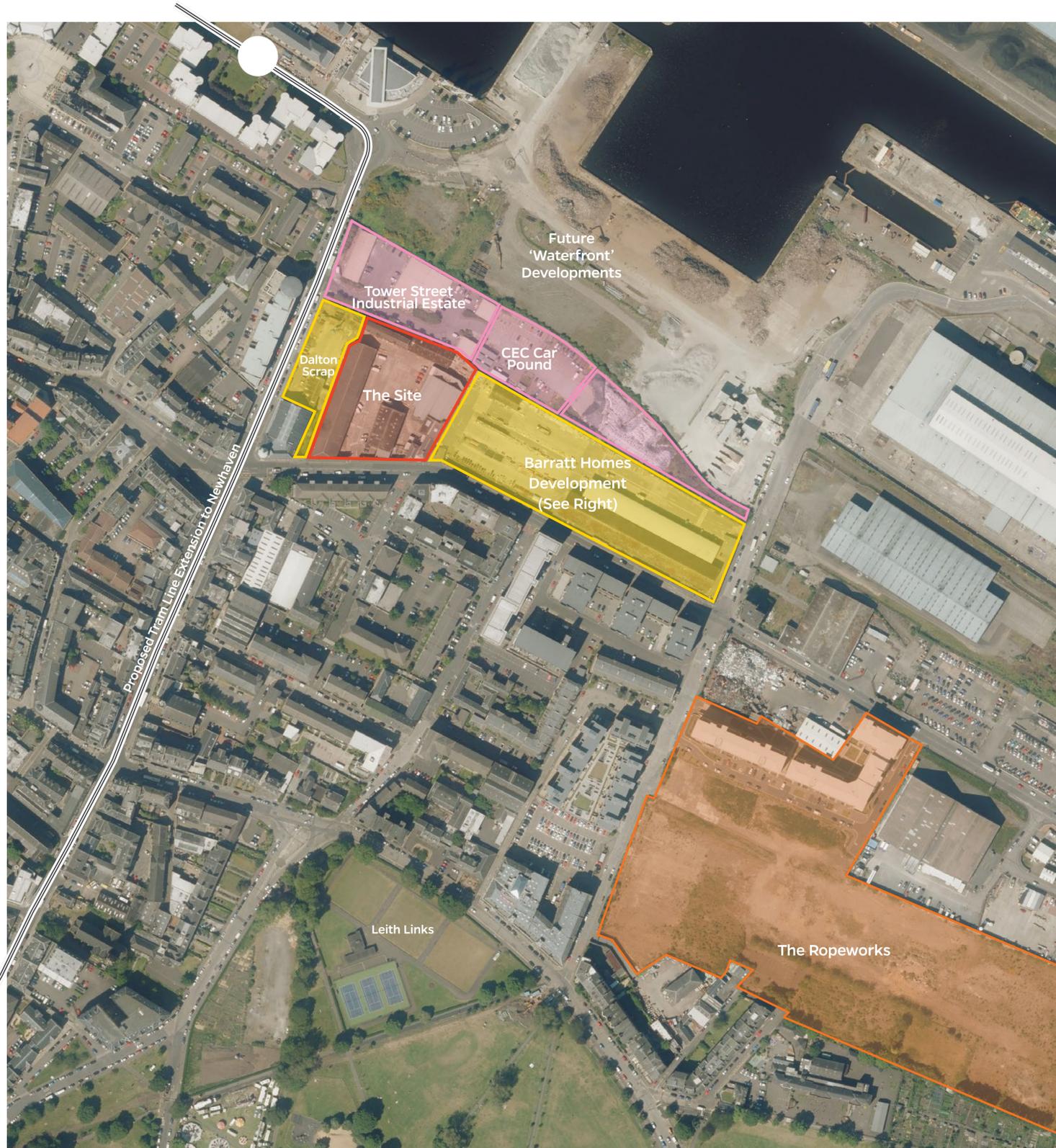
This will provide a major boost to development in the area, further increasing the desirability and accessibility of living here.

With the continuing regeneration of the Leith area and the waterfront, there are a number of new developments in the pipeline. It may be some years before development to the waterfront north of the site commences, however there has recently been a Planning Application (Ref 18/08206/FUL) for the site to the east of the Baltic Street site. Currently awaiting assessment, the development is for Barratt homes and provides;

- 212 residential units (including 53 affordable).
- 114 parking spaces (54%).

Details regarding this proposal (designed by EMA Architects) are shown on this board.

Another major residential development is under phased construction nearby on Salamander Place. Named 'The Ropeworks' (Ref 16/03356/PPP), this provides approximately 667 units across a variety of tenures.



Proposed Barratt Homes Development ©EMA Architects



West Elevation facing to proposed Baltic Street Development.

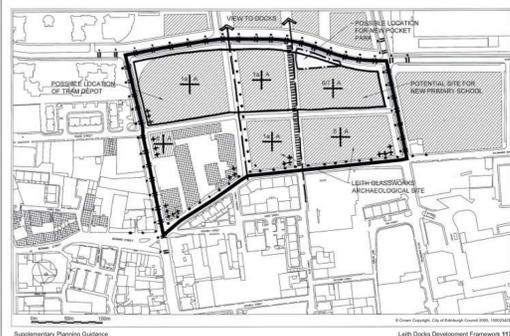


The Ropeworks ©CDA Architects / Teague Developments



Extract from the 'Leith Docks Development Framework, 2006

Figure 2.13



Overview.

The site presents a number of challenges which make it far less straightforward to develop than the large newbuild developments taking place elsewhere in Leith. We believe that the only way to meet these challenges is to understand the history of the site, to identify its key characteristics, and create a bespoke development which preserves the best of these characteristics.

GROUND CONTAMINATION

Former gasworks sites present substantial problems with ground contamination. The nature of the processes involved in the production of coal gas created a number of noxious by products which can persist in the soil. A number of such potential hazards are listed below:

Coal Tar may be found in the ground around buildings, condensers, scrubbers/washers, tar wells/tanks and the pipes connecting these. Coal tar may also be found in the base of tar tanks and gasholders. A number of potential components of coal tar are of concern, including

- PAH
- Phenolic compounds (e.g. phenol, cresol, xylene etc)
- Benzene, toluene, ethyl benzene and xylene (BTEX) compounds
- Aromatic and aliphatic petroleum hydrocarbons
- Oxygen, nitrogen and sulphur heterocyclic compounds, e.g. carbazole, dibenzofuran, azobenzene, carbon disulphide
- Inorganic components, ammonium, cyanide and sulphur-based compounds

Ammoniacal Liquors were removed in the hydraulic main, foul main and condensers and also produced by spraying the gas with water in the washers and scrubbers.

Blue Billy, Foul Lime and Spent Oxide were all wastes of the gas purification process which would remove sulphur, cyanide and organic sulphur compounds from the gas. Blue Billy was the waste produced from reacting the gas with wet lime; foul lime was the waste produced from reacting the gas with hydrated lime; and spent oxide was the waste produced from reacting the gas with iron ore.

Clearly it is essential to address such contamination before developing a former gasworks, but undertaking such work is expensive, even more so when in close proximity (or within) historic buildings which must be retained. The cost of such removal must be borne by the developer. If the cost of treatment to allow development is too high the only option is to leave the site untouched with the contamination still present.



Photos of existing site

Historic Buildings.

All of the current buildings on the site (with the exception of the offices in the South East corner of the site) were designed for industrial processes. It is not, therefore, straightforward to convert them to uses which involve occupation by people. Some have few windows or other external openings, some are very narrow in plan and some very deep.

Our historic analysis of the site has shown that it has evolved constantly over its period of occupation and the buildings have been substantially altered, sometimes in brutal fashion. Notably:

- The western gas holder building was split then severely reduced in height.
- The north west purifying building had a new floor inserted and new openings made to convert it into a stable.
- The western portion of the later coals stores was demolished, and an intermediate floor inserted and then removed.
- Roofs have been replaced in utilitarian fashion, windows blocked and other openings created

A further challenge is the need to protect the setting of the adjacent Category A listed Corn Exchange

Answering the Challenges.

Clearly it is only possible to develop the site, and produce the new housing and jobs it would provide, if an approved scheme is financially viable. Within the challenging constraints of the site our strategy is as follows:

- Where possible avoid site disturbance to minimise the need to remove contaminated material from site (relying instead upon encapsulation or on-site treatment).
- Concentrate on the preservation and reuse of the most important and characteristic buildings.
- Design a bespoke development which responds to the specific opportunities and challenges of the site.

Such a strategy would allow the preservation and reuse of the most important buildings on the site, and create a development which strongly reflected the historic nature of the site.



Photos of existing site

Assigning significance and prioritising retention

Understanding the site.

As part of our approach, we are undertaking a detailed historic analysis of the site to inform our development proposals. The buildings at 1-5 Baltic Street are listed as a group, not as individual structures. Their significance is not in their individual architectural merit (although the Eastern façade has undoubted merits), but in their relationship to a once important, but now defunct industry.



Historic significance.

The key significance of buildings on the site is their relationship to a once important, but now defunct industry. Early buildings related to this industry are the most rare, so in historic terms, the earliest buildings on the site are the most significant. The little altered original Retort House and the original Gas Holder building are therefore the most significant buildings on the site. Both are largely in the form shown in a print from 1837 – shortly after the gas works was established – and their retention should therefore be prioritised.



Legibility.

Because the significance of the buildings on the site is implicitly connected to their legibility as part of the coal gas industry, their importance can be compromised if their legibility has been lessened by later alterations.

The purifying building is a case in point. Whilst relatively early, its original form was substantially compromised by alterations which took place in 1919 during the site's occupation as a timber yard. Its original use is therefore largely obscured.

Similarly, the brutal reduction of the later gas holder building in 1980 almost entirely destroyed the legibility of its original function.



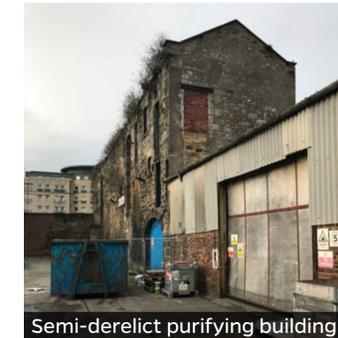
Condition & useability

In addition to historic significance, the condition of a building and the financial and practical viability of its conversion must be taken into account when designing a scheme.

By way of example, the Purifying building does not lend itself to conversion because of its narrow form, its irregular fenestration and its very poor condition.

The later gas holder building does not lend itself to conversion because of its almost complete lack of useable windows, despite being in sound condition.

Conversely, the historically less significant Edwardian office is in relatively good condition and straightforward to convert to modern use and so should be reused if possible.



Conclusions.

All of these factors must be borne in mind when designing a scheme which provides a valuable new use for the site.

It is notable that the buildings with the greatest historic significance, legibility, architectural value and ease of conversion are concentrated along the eastern boundary. They also present the best opportunity to enable public appreciation of the history and industrial architecture of the site.



Opportunity.

This page shows some precedent images which help to explain the developer's desired approach to the redevelopment of the Baltic Street Site.

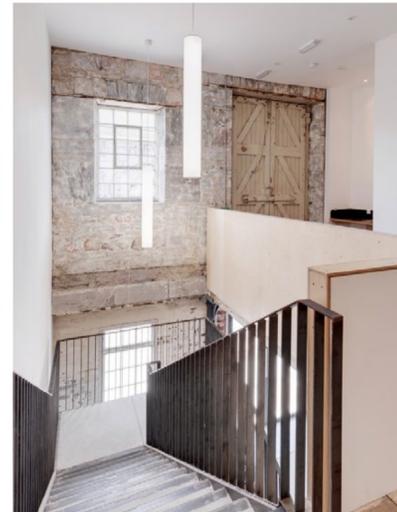
This includes new build & refurbishment of existing buildings for residential, commercial work units within the warehouse and the general landscaping approach for the site.



Commercial units within the refurbished warehouse will create attractive workshops that could be occupied by a variety of uses.



The new build residential elements will be constructed of high quality brick.



Retained and refurbished historic buildings will be complemented with sympathetic modern interventions.



The site will be landscaped to provide attractive routes into and through it, whilst a large courtyard area and smaller 'pocket' parks will provide quiet areas with soft landscaping.



Design approach.

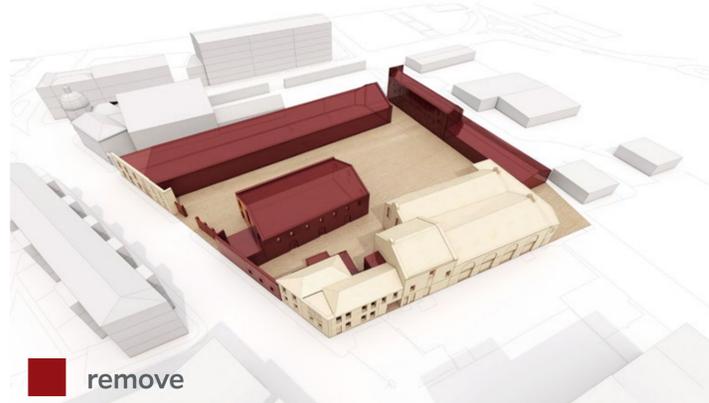
The approach taken by the design team is simple: to refurbish and reuse some of the historic buildings, prioritising those which are most characteristic and those which are most capable of valuable reuse. Specifically, the intention is;

- to create a mixed use development of the site which provides both residential accommodation and permanent employment opportunities.
- to create a development which respects and enhances the historic environment, and is firmly “of its place”.
- to design new buildings which respond to the industrial heritage of the site and are built with a long life in mind.
- to create a largely pedestrianised development with extensive open landscaped areas.
- to encourage cycling and other sustainable forms of transport.

1: Proposed removals



The adjacent diagrams shows the proposed removal of buildings that will be otherwise uneconomic to retain.



remove

2: Re-use



The adjacent diagrams shows the most historically significant and unaltered buildings proposed to be retained and re-used.

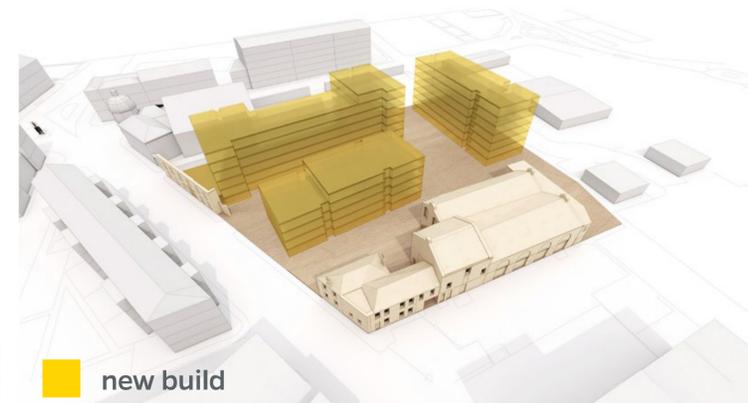


existing retained

3: New build



The adjacent diagrams shows the proposed new build elements of the site that will replace the removed buildings.



new build

4: Complete the site



proposed site layout



3D Visualisation showing indicative massing



3D Visualisation showing indicative massing

proposed site layout

Level 00 floor plan.



KEY

- Residential Facilities / Retail Unit
- Studio
- 1 Bed Apartment
- 2 Bed Apartment
- 3 Bed Apartment
- Commercial

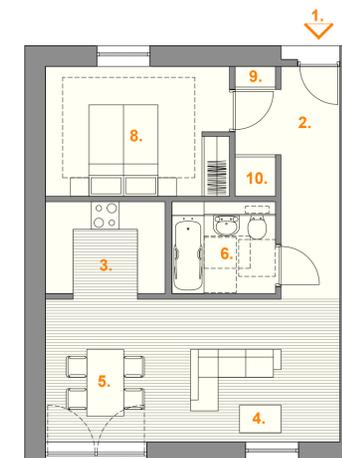
KEY

1. Residential Facilities / Retail Unit
2. Residential Parking
3. Landscaped Courtyard
4. Lift
5. Escape Stair
6. Bike/Bin Store
7. Accessible Parking
8. Access to upper Gallery
9. Pend

Proposed apartment types.



1 bed (type 1)



1 bed (type 2)

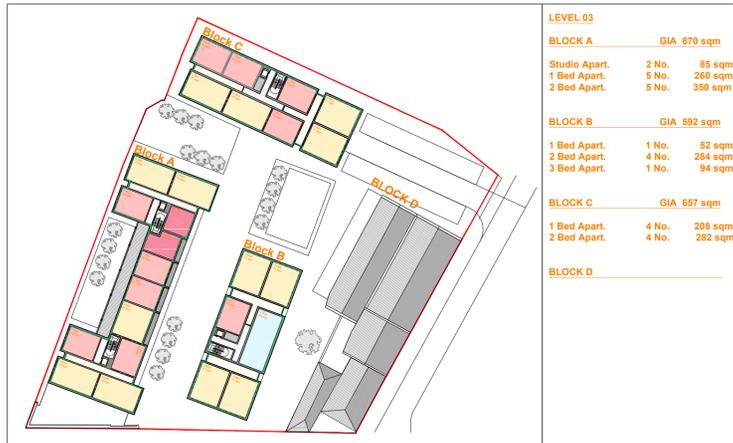


2 bed

- Key**
1. Entrance
 2. Lobby
 3. Kitchen
 4. Living
 5. Dining
 6. Bathroom
 7. En-suite bathroom
 8. Bedroom
 9. Store
 10. Utility

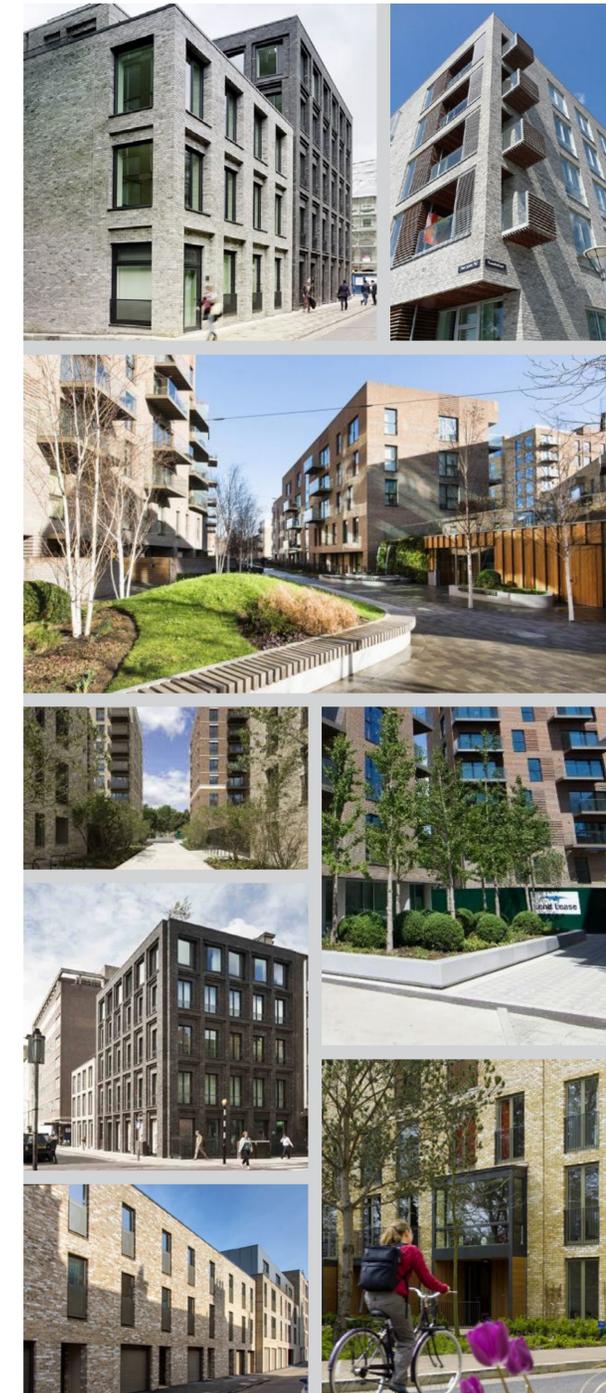


accommodation



BLOCK A	GIA 5,701 sqm
Residential Facilities	316 sqm
Studio Apart.	12 No. 510 sqm
1 Bed Apart.	30 No. 1,560 sqm
2 Bed Apart.	29 No. 2,030 sqm
3 Bed Apart.	2 No. 176 sqm
TOTAL	73 No. 4,276 sqm
BLOCK B	GIA 2,775 sqm
1 Bed Apart.	4 No. 208 sqm
2 Bed Apart.	18 No. 1,278 sqm
3 Bed Apart.	5 No. 470 sqm
TOTAL	27 No. 1,956 sqm
BLOCK C	GIA 4,599 sqm
1 Bed Apart.	27 No. 1,404 sqm
2 Bed Apart.	28 No. 1,974 sqm
TOTAL	55 No. 3,378 sqm
BLOCK D	GIA 2,134 sqm
Commercial	3 No. 659 sqm
1 Bed Apart.	5 No. 271 sqm
2 Bed Apart.	8 No. 669 sqm
3 Bed Apart.	1 No. 93 sqm
TOTAL	14 No. 1,033 sqm

TOTAL ACCOMMODATION	
Total GIA	15,209sqm
Residential Facilities	316 sqm
Commercial Units	3 No. 659 sqm
Studio Apartments	12 No. 510 sqm
1 Bed Apartments	68 No. 3,443 sqm
2 Bed Apartments	63 No. 5,951 sqm
3 Bed Apartments	8 No. 739 sqm
Apartments	169 No. 10,643 sqm
Parking	25 Spaces



precedent

next steps.



Thank you for attending this Community Consultation.
Please fill in a comments form or email william@sundialproperties.co.uk

baltic street redevelopment

sundial properties