

Hampton Waterworks

Design & Access Statement December 2023

LOM architecture and design



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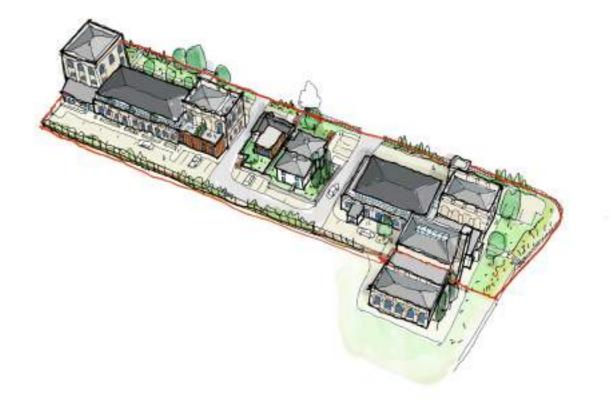
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00 Introduction

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The project aims to create a unique gateway for Hampton, bringing new life to the existing Waterworks site & creating a high quality place to live & work full of historic character and heritage value.



Karslake building

Storehouse

Cottages

Ruston & Ward building

Retain and convert the Grade II listed Waterworks buildings to a high quality that enhances their architectural qualities and significance.

Create 36 new homes and 306m² B1 commercial space.

Minimise heritage interventions whilst providing adequate space to create a viable development.

Design refined through numerous iterations following liaison with LPA, HE and public consultation.

Design is currently being developed in response to feedback from Historic England and LPA Conservation officer.

Project team

Waterfall Planning Ltd Developer

LOM Architecture & Design Architecture

RPS Group Planning & Heritage

Hydrock Engineering - Civils, Structural, MEP

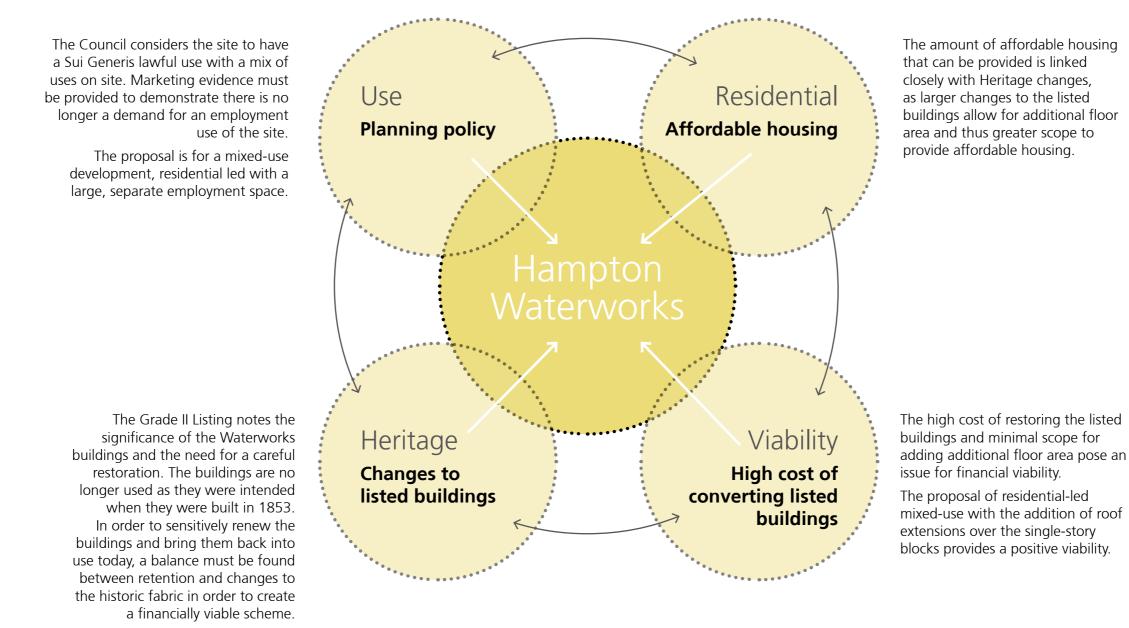
Markides Associates Transport

Martin Campbell & Co Marketing agent

Polity Communications

U.L.L. Property Viability

Stace Quantity Surveyor Creating a viable development which can bring these significant buildings back to life will require the planning authority to take a balanced view of benefits v necessary adaptation of heritage buildings.



This scheme has benefitted from a significant design development process through the previous application and is now building upon current feedback from PreApplication meeting with LPA, DRP and public consultation.

Current programme to submission

- PreApplication meeting #1 May'22
- DRP June '22
- Public consultation June'22
- PreApplication meeting #2 Nov'22
- Submission Nov'23



01 Existing site & heritage

Existing Site location

The Waterworks site is located in Hampton in the London Borough of Richmond upon Thames. Hampton Village is a leafy suburban area to west of London on the north bank of the River Thames.

The Hampton Water Treatment Works, operated by Thames Water, lies to the south and east of the site. Residential areas of typically terraced housing border the site to the north while the small business area of Hampton Village and the high street lies to the northeast.

Hampton train station is a 6 minute walk from the site.

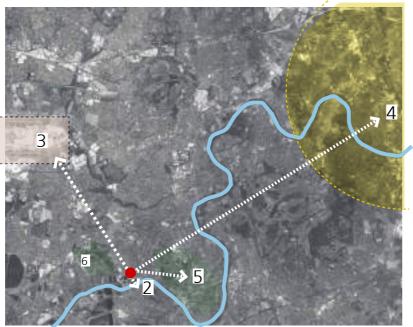
Key

Site access

- 1. Site
- 2. River Thames
- 3. Heathrow
- 4. Central London
- 5. Hampton Court Park
- 6. Kempton Park Racecourse
- 7. Hampton Village Green
- 8. Hampton Rail station
- 9. Hampton Sailing Club
- 10. Thames Waterworks
- 11. Hampton Library
- 12. Ruston & Ward building
- 13. Karslake building
- 14. Morelands waterworks building currently in use
- 15. Residential houses
- 16. Disused vehicle access off of Upper Sunbury Rd
- 17. Pedestrian access to site



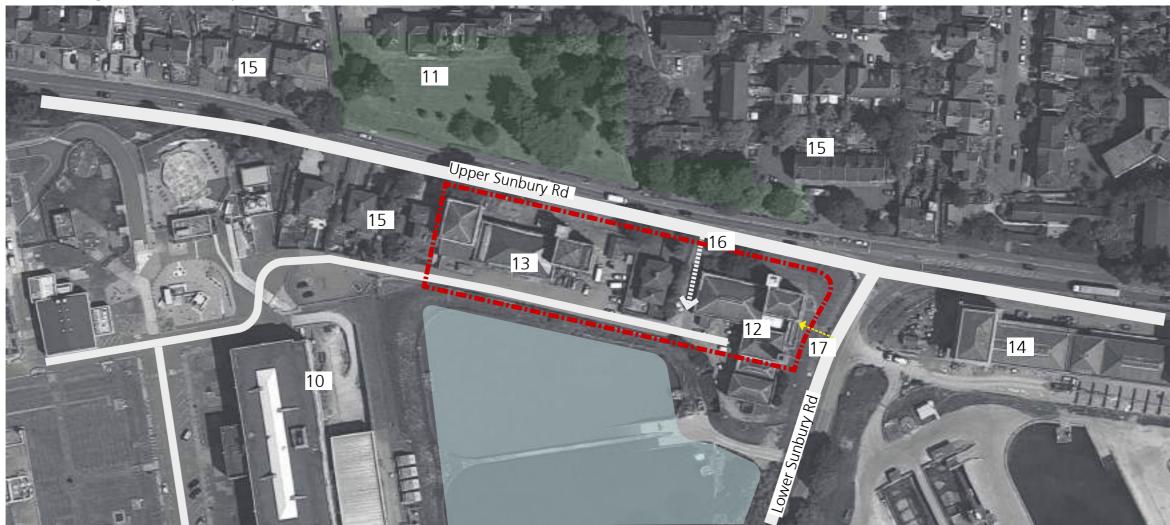
London context map



Surrounding site context map

Hampton Village context map





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Existing **Context**

The site is viewed close up along Upper Sunbury Rd and from a distance along Lower Sunbury Rd. The intersection of Upper and Lower Sunbury Roads provide as key iconic image of the Waterworks buildings. The site is looked at from above at the Library on a hill at the north side of Upper Sunbury Rd.





View to sw at intersection Upper & Lower Sunbury Rd

View to the east along Upper Sunbury Rd

2



Long view to north from Lower Sunbury Rd





View above the site from Hampton Library

Existing Site plan & access

The existing access to the site is through the Thames Water owned Treatment Works, with two vehicle access points off of Upper Sunbury Road currently closed off and unused.

Key

Vehicle movement - major road Vehicle movement - Thames Water service vehicles

Vehicle access - currently closed
 Pedestrian access, locked gate existing

Key

- 1. Karslake building
- 2. Ruston & Ward building
- 3. Residential houses
- 4. Outside site boundary to be retained by Thames Water
- 5. Existing vehicle entry
- 6. Thames Water reservoirs
- 7. Road to Thames Water buildings



Existing **Analysis**

This unique site sits in between the fine residential fabric of Hampton and the larger scale Thames Water treatment works.

There are many opportunities to bring it back to life along with some critical challenges to overcome.

The site is bounded by Upper and Lower Sunbury Roads along the north and east edges, with residential houses to the west and a large open space from the reservoirs and Thames River to the south.

Opportunities

- (+) Sufficient distance from surrounding buildings - no overlooking or overshadowing
- (+) Neglected site soft and hard landscape
- (+) Residential surroundings to north & west(+) Heritage buildings provide industrial character

Constraints

- (-) Constrained vehicle entry point to site
- (-) Constrained site access for vehicle parking & manoeuvring
- (-) Vehicle access to be maintained for Thames Water access
- (-) Busy road & intersection / vehicle traffic noise
- (-) Extensive work required to upgrade existing buildings
- (-) Heritage listing requires additional work for reuse of buildings

Key

- 1. Karslake building
- 2. Ruston & Ward building
- 3. Cottages
- 4. Storehouse
- 5. Residential houses
- 6. Area to be retained by Thames Water
- 7. Existing vehicle entry, currently not in use
- 8. Thames Water reservoirs
- 9. Access road to Thames Water buildings



Grade 2 Listed buildings (-) Heritage listing requires extensive work for reuse (+) Heritage provides industrial character



Site edges (-) Upper Sunbury Rd is busy & intersection with Lower Sunbury Rd / vehicle traffic noise



Site landscape (+) Neglected site hard and soft landscaping



Surroundings (+) Open space with extensive south facing views towards water reservoirs



Access Access (-) Constrained vehicle entry points to site anoeuvring





(-) Constrained site for vehicle parking &



Surroundings (+) Sufficient distance from surrounding buildings - no overlooking or overshadowing

Existing **History**

The Hampton Waterworks, monumental mid-Victorian gault brick pumping houses, are a local landmark at the entrance to Hampton Village. Planning should 'conserve heritage assets in a manner appropriate to their significance so they can be enjoyed for their contribution to the quality of life of this and future generations.' (National Policy Planning Framework principle)

- The modern-day waterworks, enginehouses, filter beds and reservoirs that today dominate the western end of Hampton came as a result of the Metropolis Water Act of 1852.
- Hampton Waterworks were designed and built in 1853-55 by Joseph Quick, an engineer specialising in water supply.
- The turn of the 19th c. saw the labourintensive coal-fired pumping engines, housed within the engine pump houses, replaced by diesel engines and the large chimneys were thus made redundant.
- Buildings listed in 1968.
- In 1973 the buildings passed from the Metropolitan Water Board to the Thames Valley Water Authority. Under the stewardship of the large utility providers there was little pressure to develop the vast buildings and they remained largely unaltered since removal of the engines, bar a few small offices formed within the buildings.
- Victorian engine pump houses were decommissioned and closed down in the late-twentieth century.
- Thames Water sold the site in 2017.
- Buildings currently empty, 2019.



An illustration of Hampton Waterworks showing the engine pump houses owned by the Southwark & Vauxhall, the Grand Junction, and the West Middlesex water companies, published in Illustrated London News in 1855 (UCLA School of Public Health, 2008)

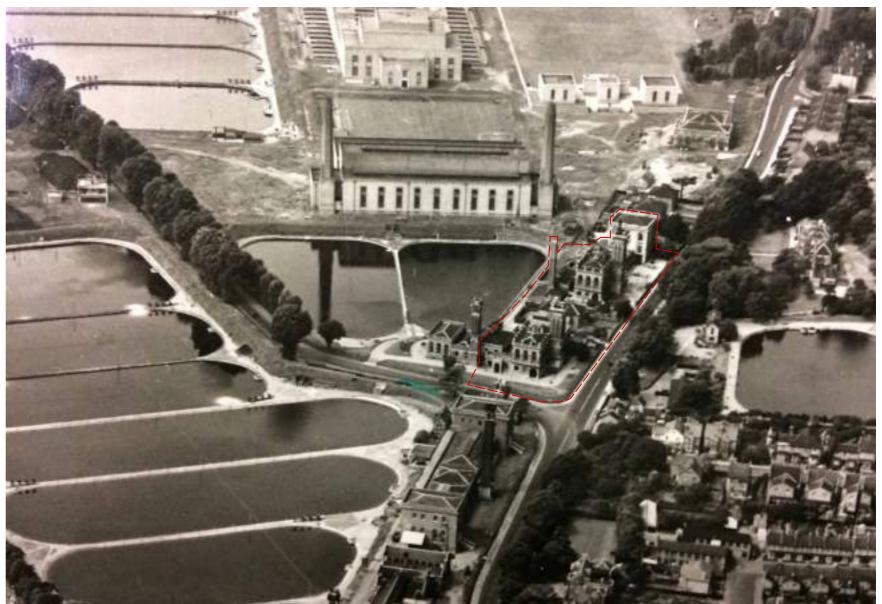


An illustration of Hampton Waterworks in 1855 after completion of the first phase of building showing the engine pump houses owned by the Southwark & Vauxhall, the Grand Junction, and the West Middlesex water companies

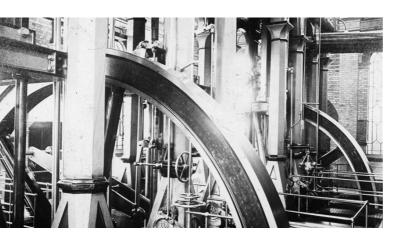
Internal spaces built for large scale engines

The internal pump houses were constructed specifically as large, tall volumes to house extensive pumping equipment

http://morelands-riverdale.com/history/ http://www.ourhampton.org.uk/

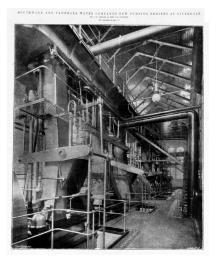


An aerial photo of Hampton Waterworks taken in July 1950 showing the engine pump station before the demolition of their chimneys and Karslake Building's large nineteenth century rear extension (Richmond upon Thames Local Studies Library and Archive, 1950)



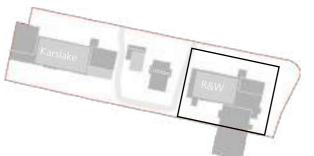


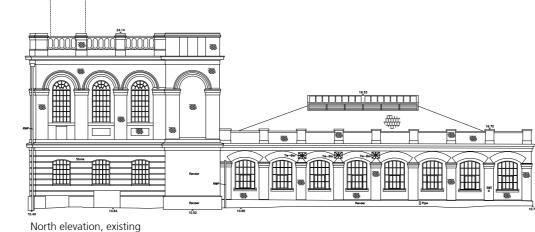
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Existing Ruston & Ward

The Ruston & Ward building sits prominently along the junction of Upper and Lower Sunbury Roads. It consists of an Italianate engine pump house at the NE corner, a single storey block on the west edge, and a double height workshop space on the south edge.





External photographs

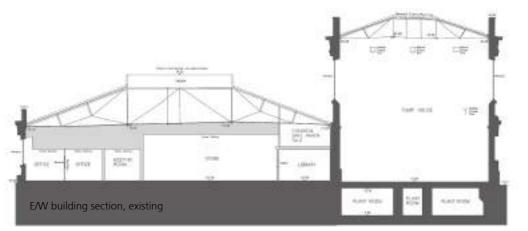
Outline of Brick Chimney (In background)



Large pump house on the northeast corner







Internal photographs







20th century alterations to the interior of Ruston&Ward building



Pedestrian entry off of Lower Sunbury Rd



Southern service yard



Disused vehicle entry off of Upper Sunbury Rd



A majority of the existing windows are not original, they are more modern replacements



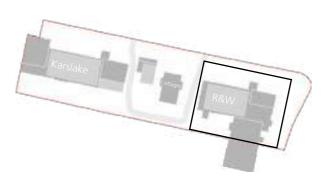
Interior of the single storey block, previously used as office space Interior of the pump house with its expansive single volume

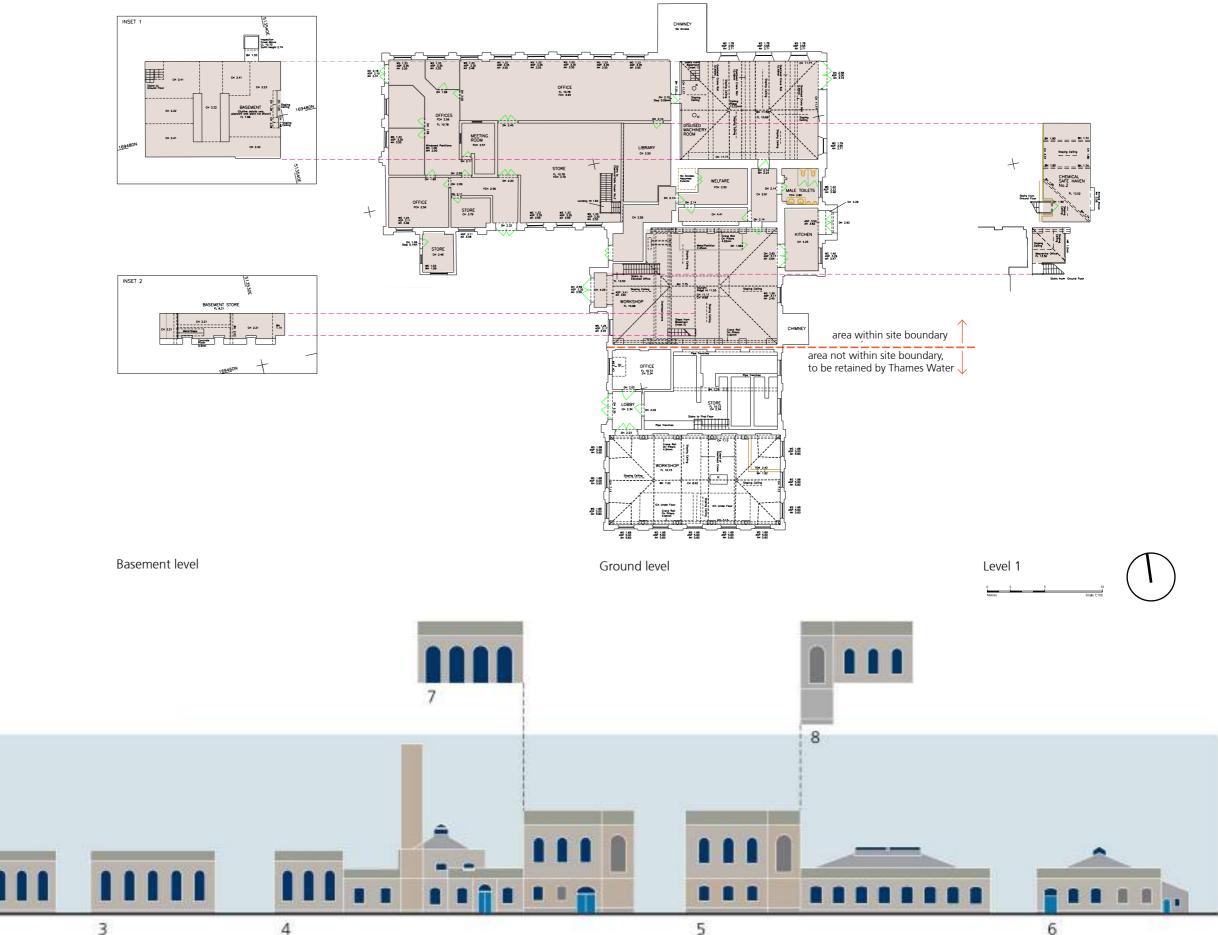


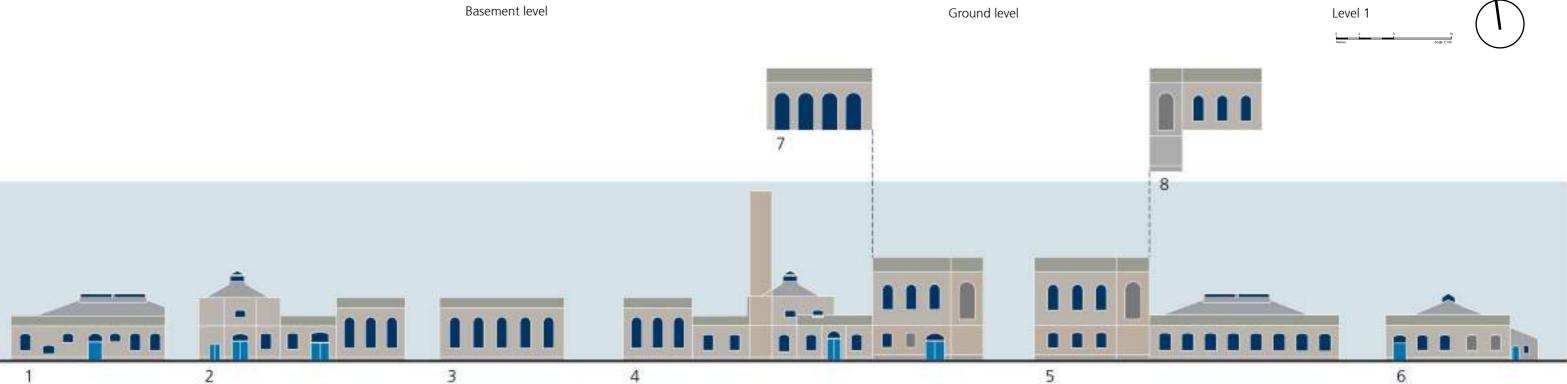
Ceramic glazed tiles to the window reveals of the pump house

Existing Ruston & Ward

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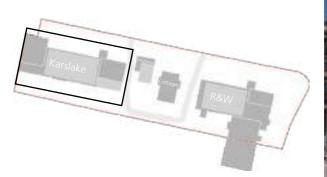


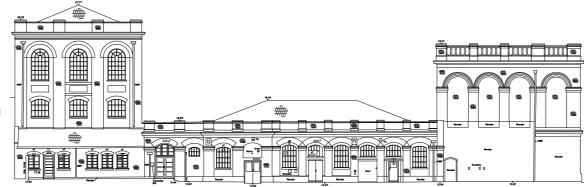




Existing Karslake

The Karslake building, known as The Beam and Store Buildings in its listing, is located at the western end of the site. The eastern pump house and central block are similar to those at Ruston & Ward. The western block, known as 'The Beam' and built later in 1881 contains many original architectural features.





South elevation, existing

External photographs



An area at the SE corner of the building, where a previous extension has since been demolished in 1977



Southern facade of the single storey central block



Southern view to the western block with the single storey lean-to extention at the front





View from the western block, looking over the slate roof of the central single storey block



Southern view of the small Storehouse building, with Karslake to the left



Internal photographs



Top level 3 of the western block, 'The Beam,' with a large steel gantry crane and steel trusses



Top level 3 of the western block with original, round-headed windows



Top level 3 of the western block, 'The Beam,' with a large steel gantry crane at the right





The western pump house is completely derelict and significantly deteriorating



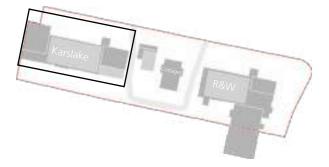
Tuscan order steel columns hold up the second floor's large steel beams in The Beam



The central block has been subdivided with concrete block and aluminium partitions in the late-twentieth century

Existing Karslake

The Karslake building, known as The Beam and Store Buildings in its listing, is located at the western end of the site. The eastern pump house and central block are similar to those at Ruston & Ward. The western block, known as 'The Beam' and built later in 1881, contains many original architectural features.

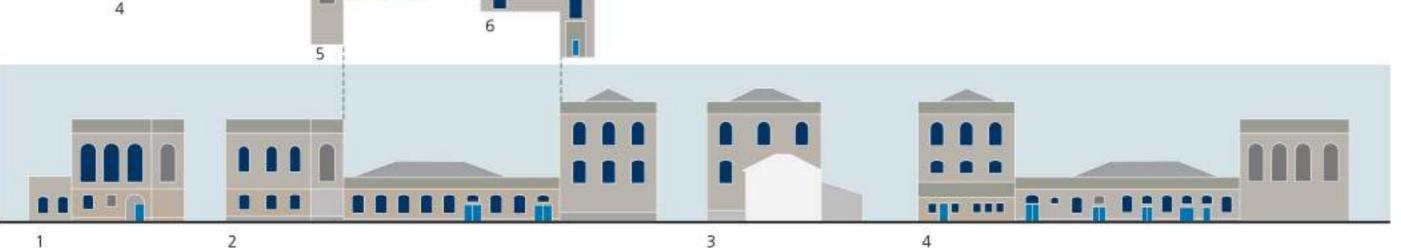


2 street

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3





1

Existing **Deterioration**

Significant investment will be required to restore and bring these historic buildings back into beneficial use.

Poor modern additions

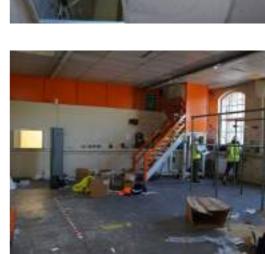
A number of poor quality twentieth century additions have been made throughout the buildings. The proposal looks to strip these intrusions away and restore the buildings.



The building interiors are basic with some attractice historic details to be uncovered and expressed.







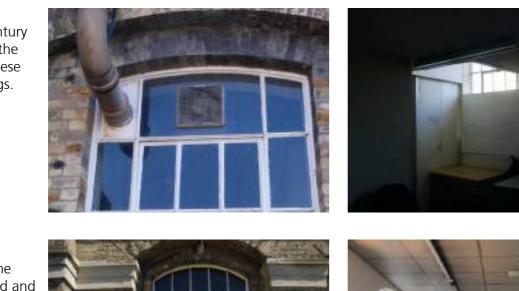
Deterioration of historical fabric

The buildings are no longer occupied, and some areas have significant internal deterioration - this will continue to worsen the longer they remain empty.











Existing Victorian industrial details

The existing buildings are considered to have a high architectural and historical value. Their large multistory spaces, complex roof structures and industrial lifting equipment require careful consideration and specialised design solutions in order to not only retain but also enhance the buildings' unique features for the next century.



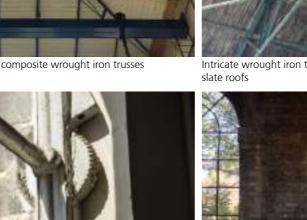
Decorative stair treads



Interior of the western pump house of Karslake building



Large steel beams & composite wrought iron trusses



Original window opening mechanism



Intricate wrought iron truss work holds up the timber and



The Beam's second storey with cast-iron round-headed windows



Tuscan order steel columns hold up the second floor's large steel beams in The Beam, Karslake



Rail tracks are still visible within some on the cobblestone paving



Large steel gantry crane at the top of the western pump house



White and green Victorian glazed ceramic tiles can be found in good condition - to be retained and cleaned



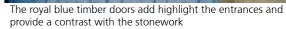
Western pump house in Karslake retains the most original features



Existing cobblestones within the landscape - to be retained as part of the landscape proposal

Ornamental cast iron railing surrounds part of the site





Western pump house in Karslake retains the most original features



Dog-tooth detailing set within the walls

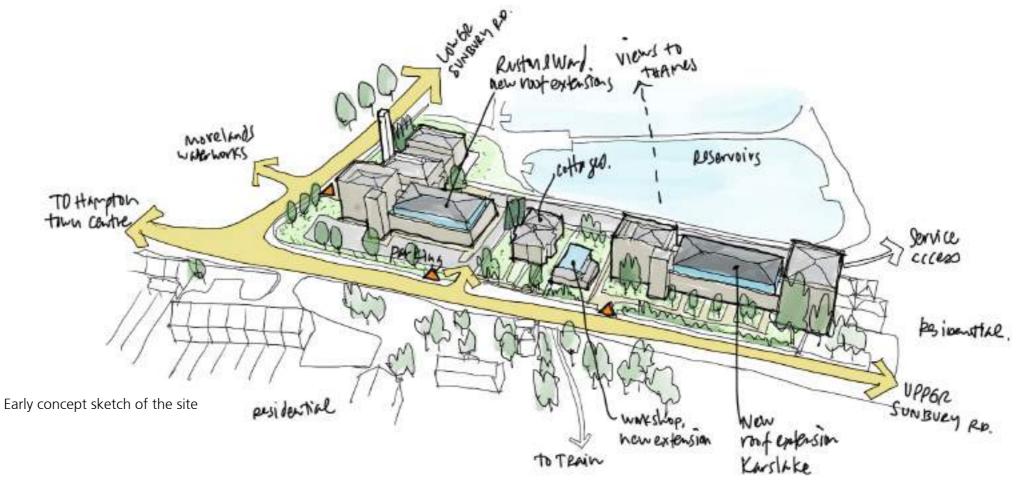
02 Design approach

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In designing a response to the site and historic buildings we aimed to resolve the following questions...

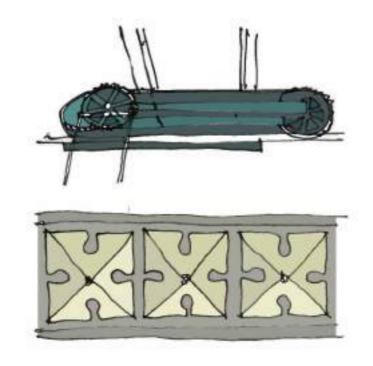
- How can the Victorian industrial heritage be retained and expressed? 1.
- What is the best viable future use for the site and heritage buildings? 2.
- 3. How should the contemporary interventions be treated?
- What is the right balance between viable development and a sensitive listed building conversion? 4.
- How can the design enhance the setting of the listed structures? 5.



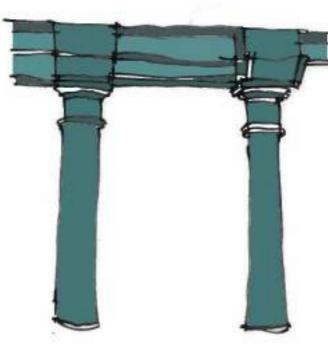
Design approach **Heritage details**

Heritage details How can the Victorian industrial heritage be retained and enhanced?

Retain and highlight the industrial Victoria details found throughout the existing Waterworks buildings in the proposed design. These unique features create distinctive spaces that link to the past.

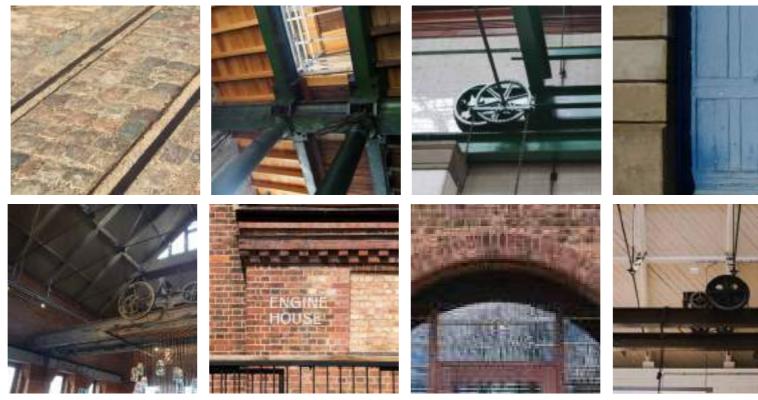


VICTORIAN INPUSTERIAL DETAILS



Existing heritage details within the site; all are to be retained, restored and /or upgraded within the proposal

Reference project, Walthamstow Wetlands : A recent conversion and renewal of listed Waterworks buildings in London, with high quality design that restored heritage elements



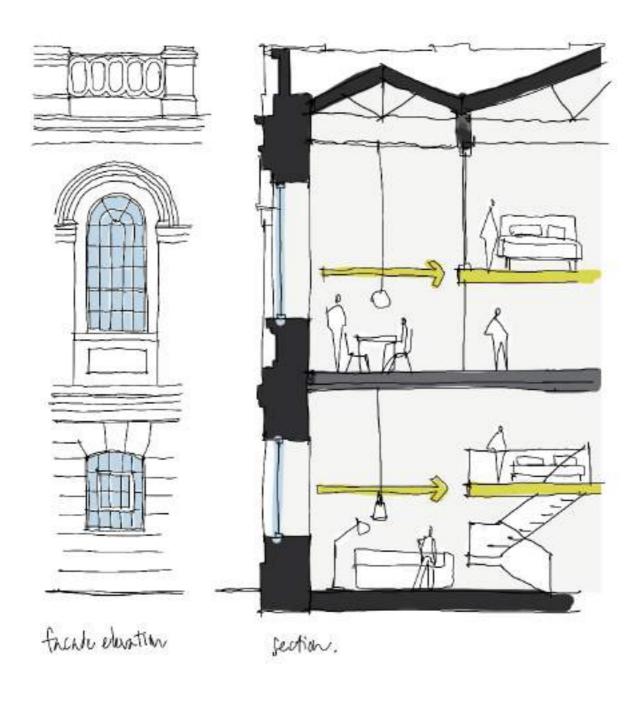






${\rm Design} \ {\rm approach} \ {\rm Interventions}$

Incorporating double height spaces and mezzanines within the individual residential units allows the majority of large existing window fenestration to remain uninterrupted by floor sections.



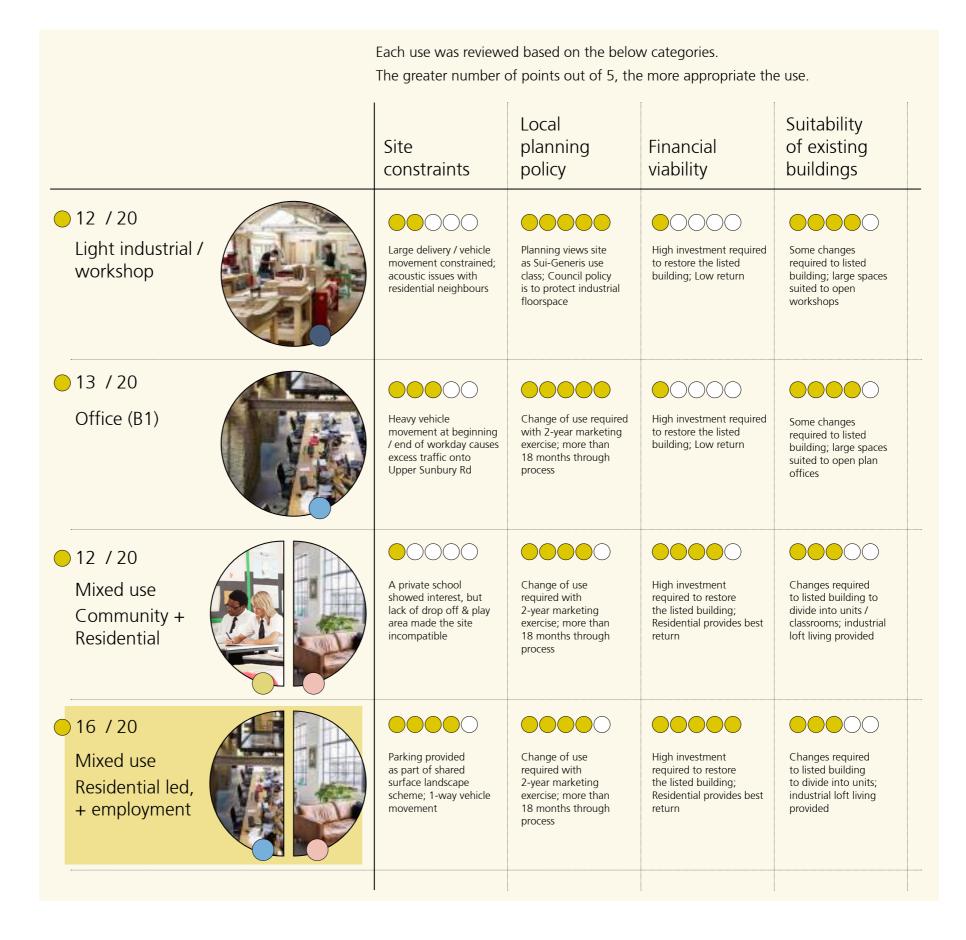
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The proposal looks to preserve the majority of large glazing with double height spaces alongside the existing windows and mezzanine levels pulled back internally from the facade.

Loft spaces within converted industrial buildings, incorporating mezzanine levels with large glazing.

Design approach **Future use**

In order to support the restoration of the heritage buildings in the appropriate quality it has become evident that a residential led scheme will provide the optimum viability to bring the buildings back into long term use and support the provision of some affordable residential provision.



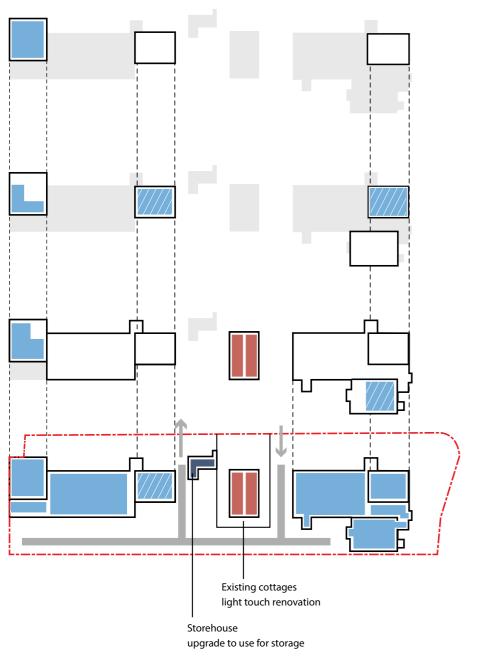
Design approach Future use

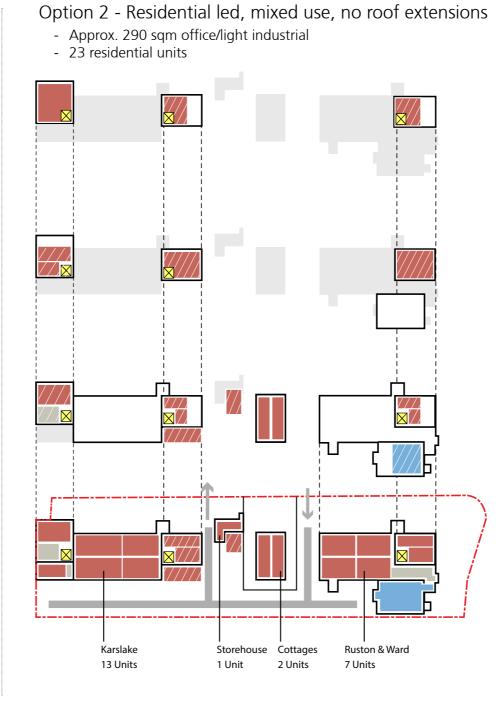
Future use

Various use options were explored in combination with planning policy in order to determine the optimum use mix for the site. A mixed-use proposal with commercial and residential uses established the best balance and was considered commercially viable.

Option 1 - Employment

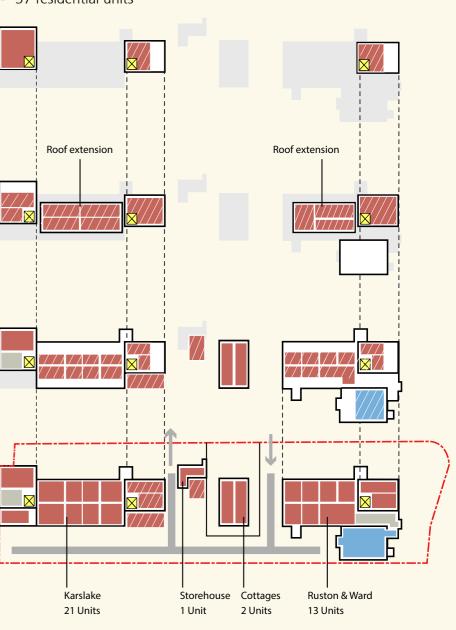
- Approx. 2,130 sqm office/light industrial + 2 residential houses
- Mezzanine levels added to pump house volumes

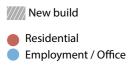




Proposed

- 37 residential units





Option 3 - Residential led, mixed use, with roof extensions - Approx. 306 sqm office/light industrial

03 Summary of proposal

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Proposal Aerial overview

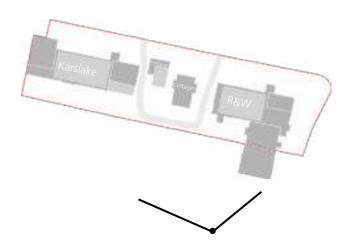
The proposal reconnects the Waterworks buildings with Hampton village, bringing life back to a historic and prominent site that is currently derelict and empty.

A one-way vehicular system, quality landscaping with shared-surface permeable paving and contemporary extensions are all integrated neatly with the site and heritage buildings.

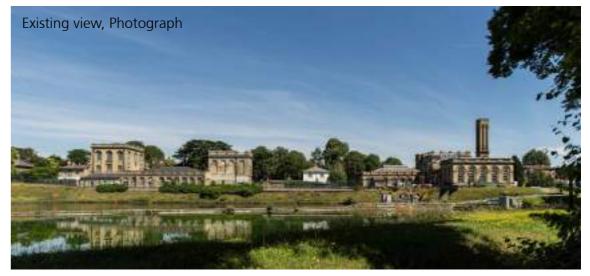




Proposed view, Artist rendering



The view from Lower Sunbury Road takes in the full Waterworks site from a distance across the reservoirs. The new corten additions contrast with the lightcoloured stone and brickwork. Glazed roof extensions sit modestly above the single-storey blocks on both Karslake (left) and Ruston & Ward (right) buildings referencing the oroginal pitched slate roofs.

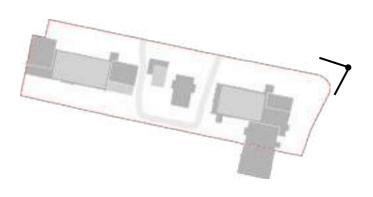


Proposal **Key view**

Looking west from Lower and Upper Sunbury Rd junction



Proposed view, Artist rendering



Cleaning and restoring the brick and adding in new green landscaping revitalise this key view of the site at the intersection of Upper and Lower Sunbury roads,

The pedestrian entrance welcomes people into the Workshop office space. The new extensions are barely visible in the background. Existing view, Photograph

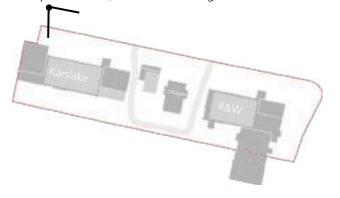




Proposal **Key view** Looking east from Upper Sunbury Rd



Proposed view, Artist rendering

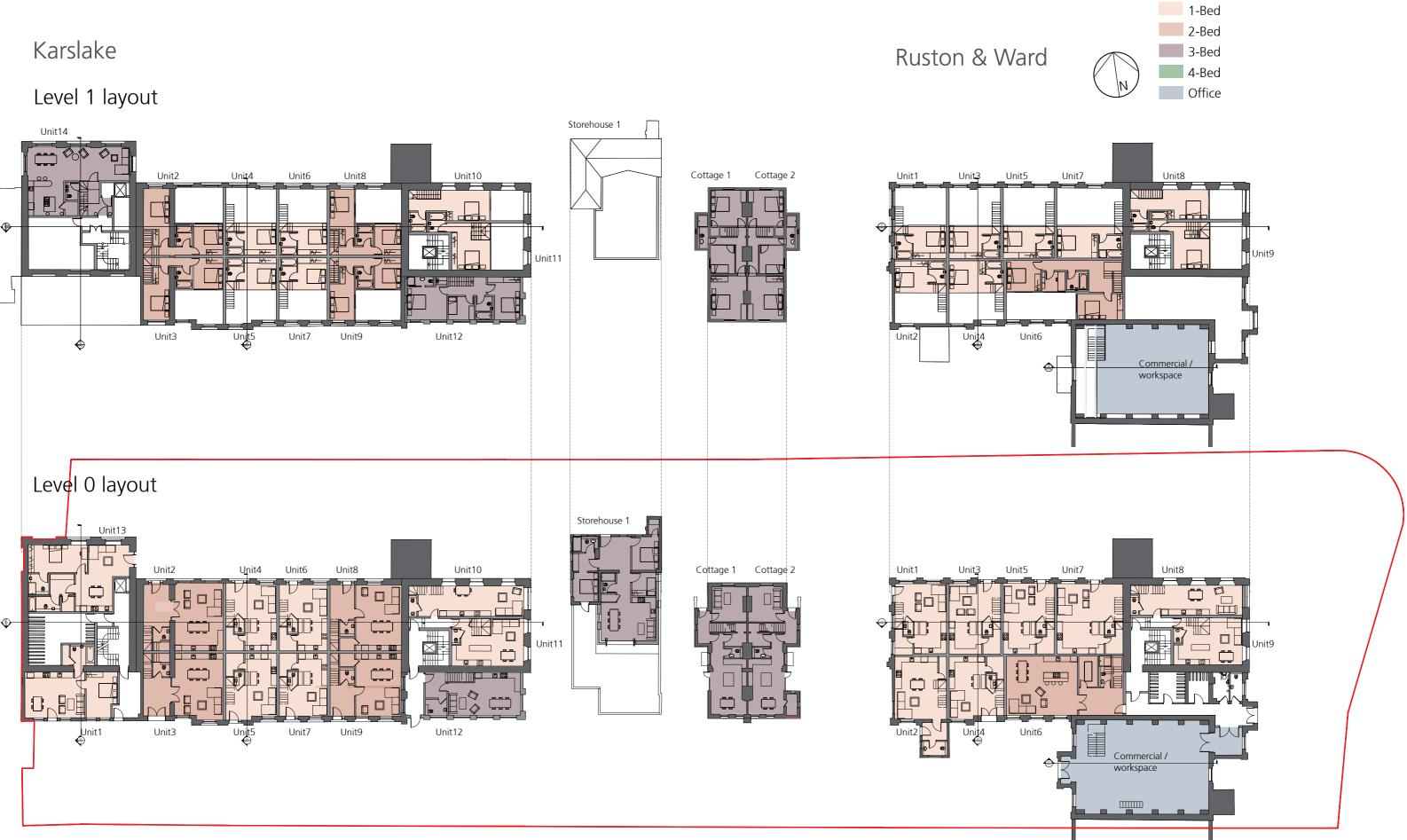


Looking east, the Waterworks buildings line the right-hand side of Upper Sunbury Rd, with the Karslake building in the foreground with new planting, restored facade and the contemporary glazed roof extension sits neatly between the two prominent engine houses.





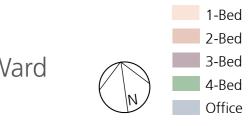
Proposal Floor plans L0 & L1

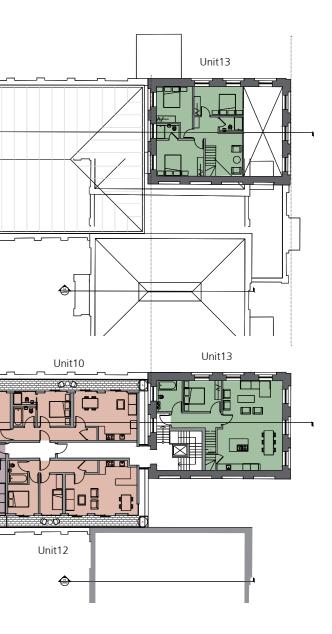


Proposal Floor plans L2, L3 & L4



Unit11

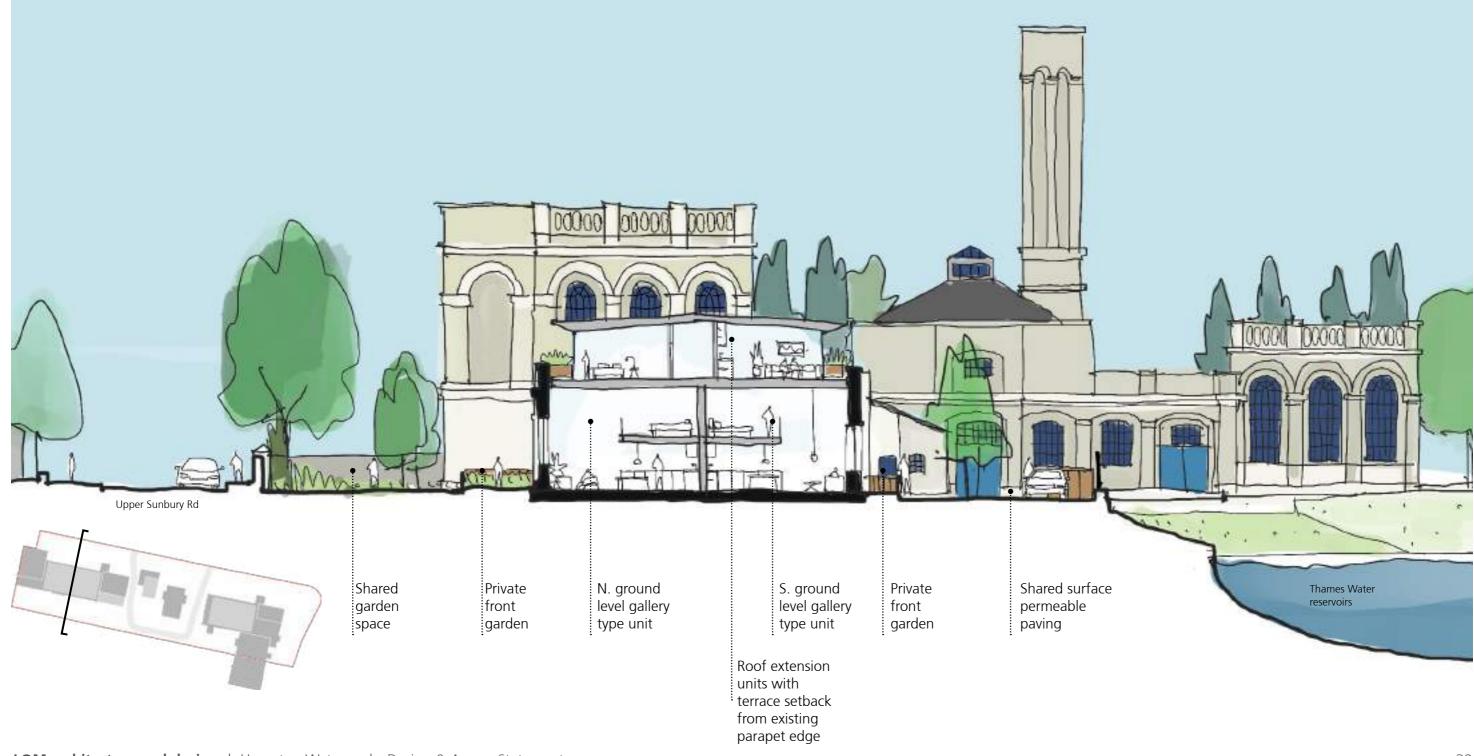




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Proposal Site section

The development is in keeping with the scale and form of the existing buildings, incorporating a small number of new extensions within the site. The site section illustrates the form of the new roof extension over the single storey block, providing gallery type units at ground level with light weight, new build units above at roof level.



Proposal Site elevation & section

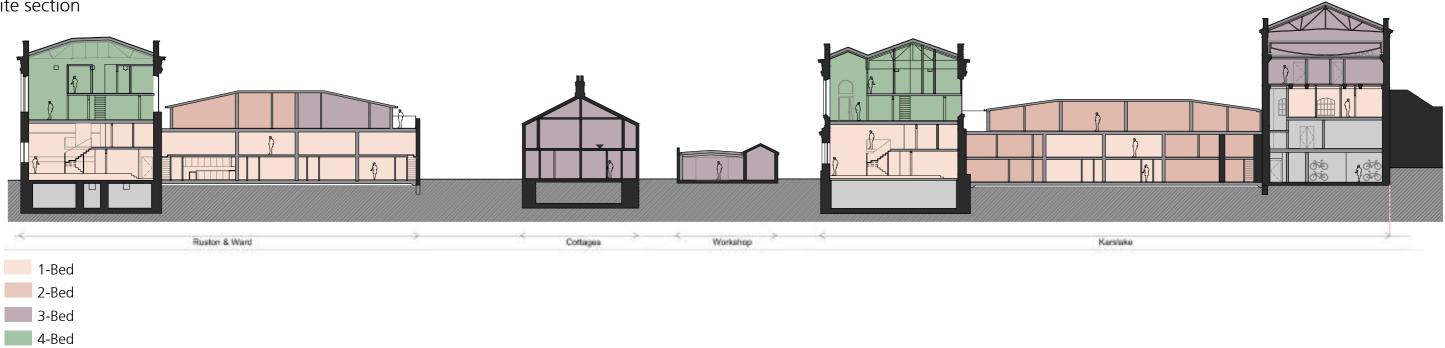
From Upper Sunbury Road, the proposal retains and restores the existing envelope of the Waterworks buildings, with sensitive contemporary extensions visible over both single story blocks.

Street elevation



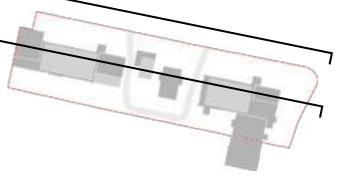
The Cite

Site section



Street elevation

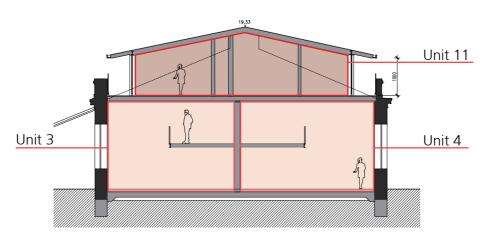
Site section



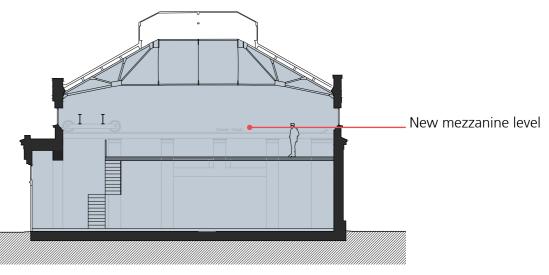
Proposal **Sections**

These section drawings illustrate how a 'new' building is carefully inserted into the walls of existing heritage structure, retaining the industrial features and exposing them to create unique internal spaces.

3

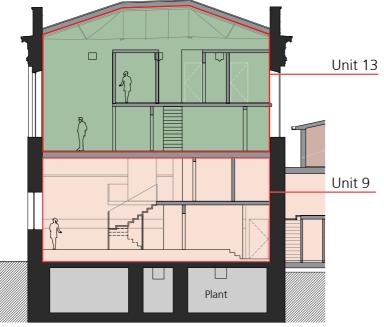




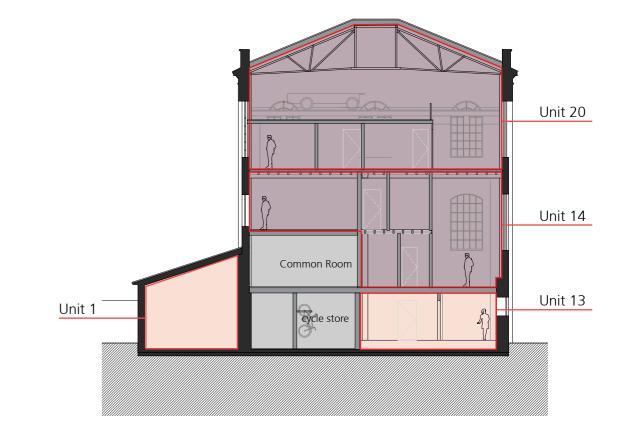


Section 2 Ruston & Ward workshop

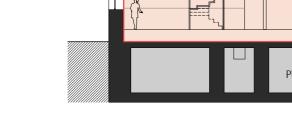




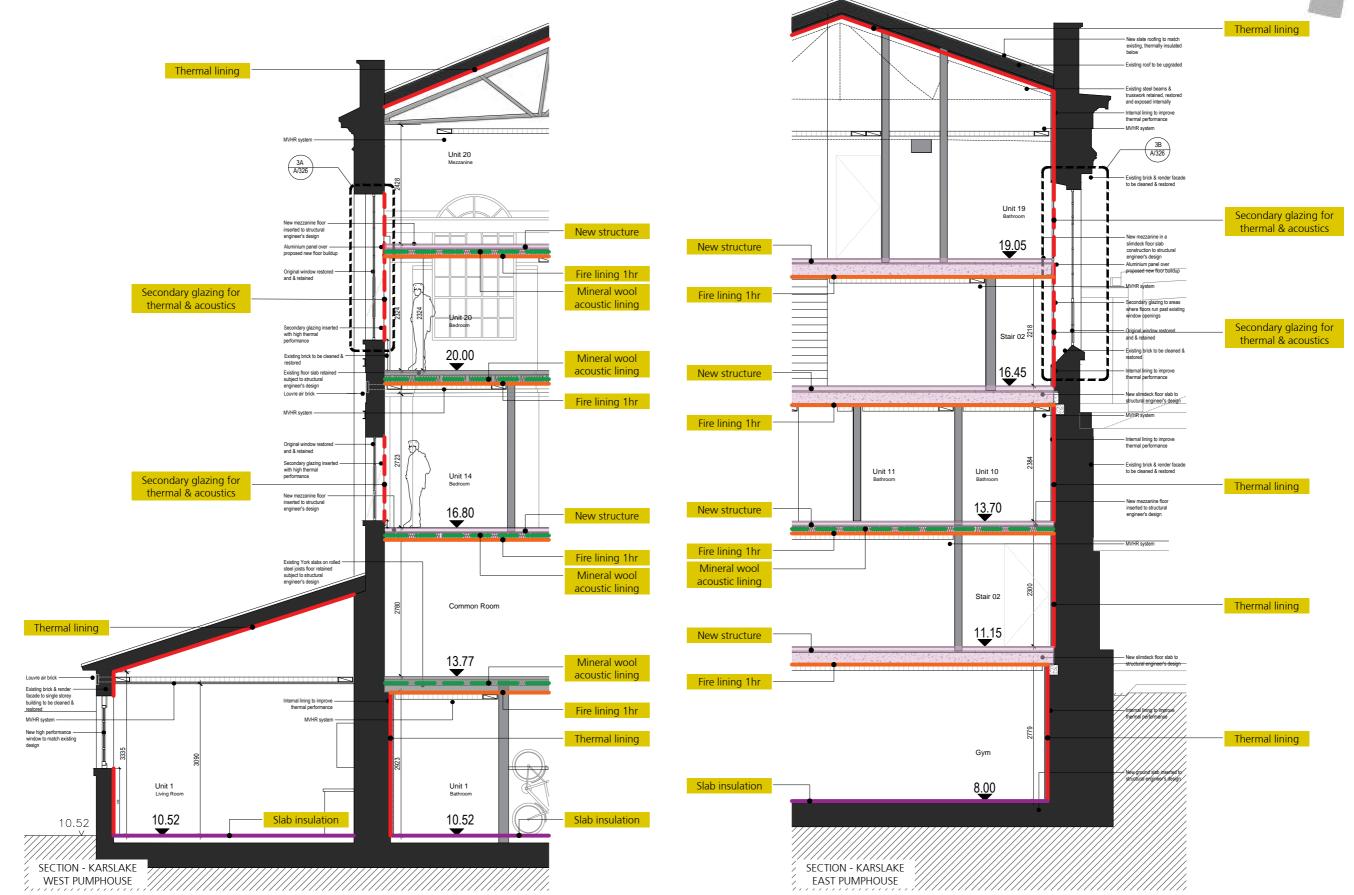




Section 4 Karslake western pump house

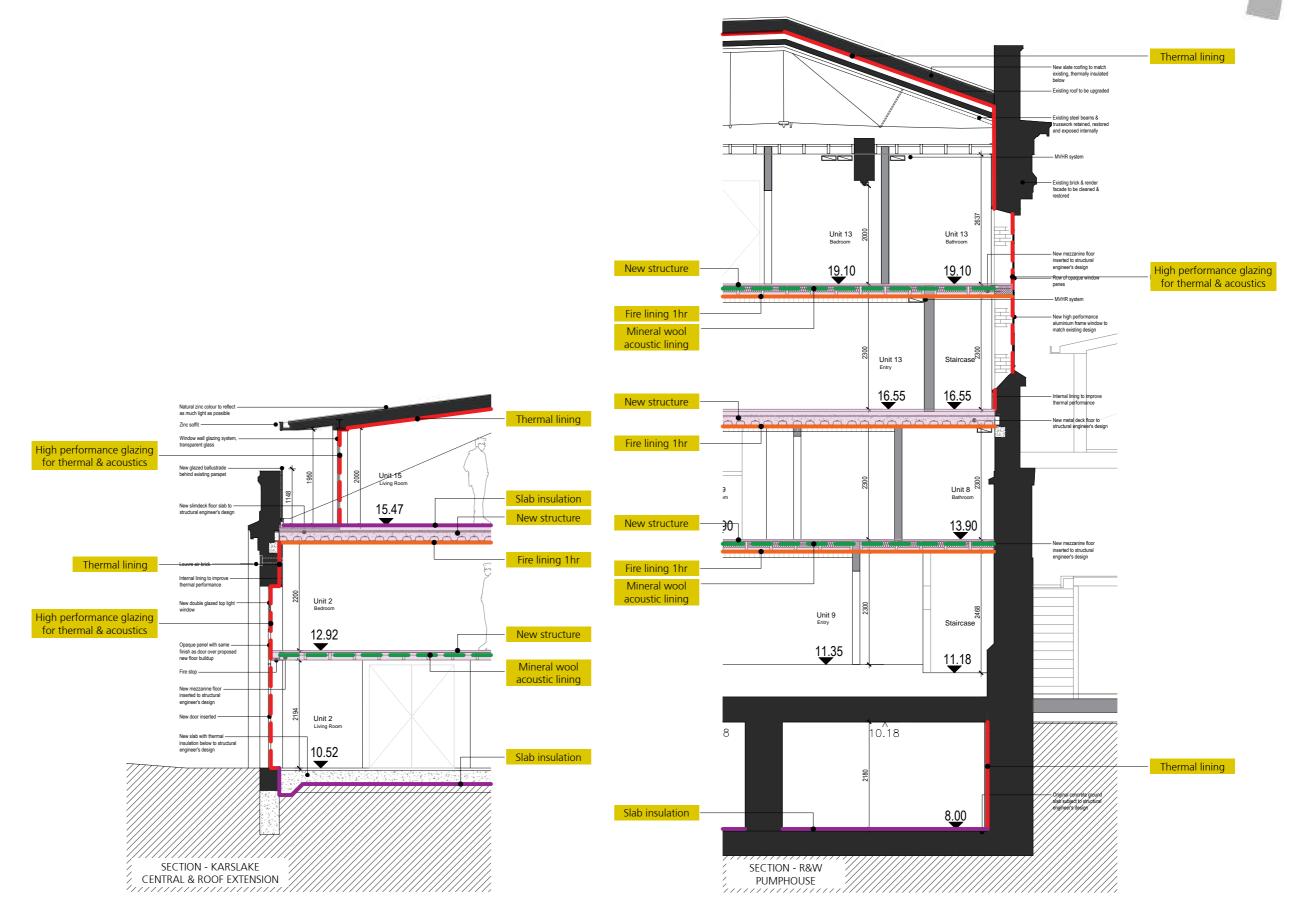


Proposal Fabric strategy



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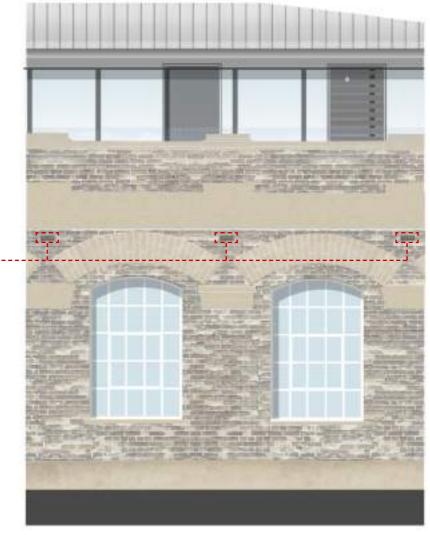
Proposal Fabric strategy



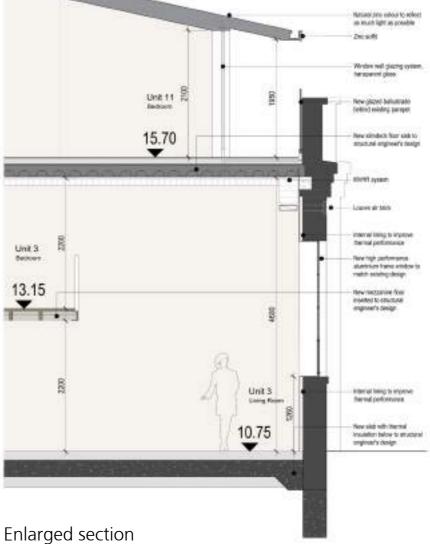
Proposal Ventilation strategy

The ventilation strategy allows for mechanical ventilation system (MVHR) required to ensure the thermal comfort of apartments are met. Intake and exhaust louvre air bricks are positioned within the brickwork façade; an example heritage cast iron air brick is shown supplied in bare metal and oiled.





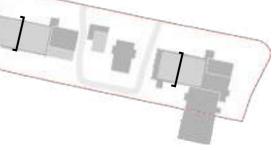




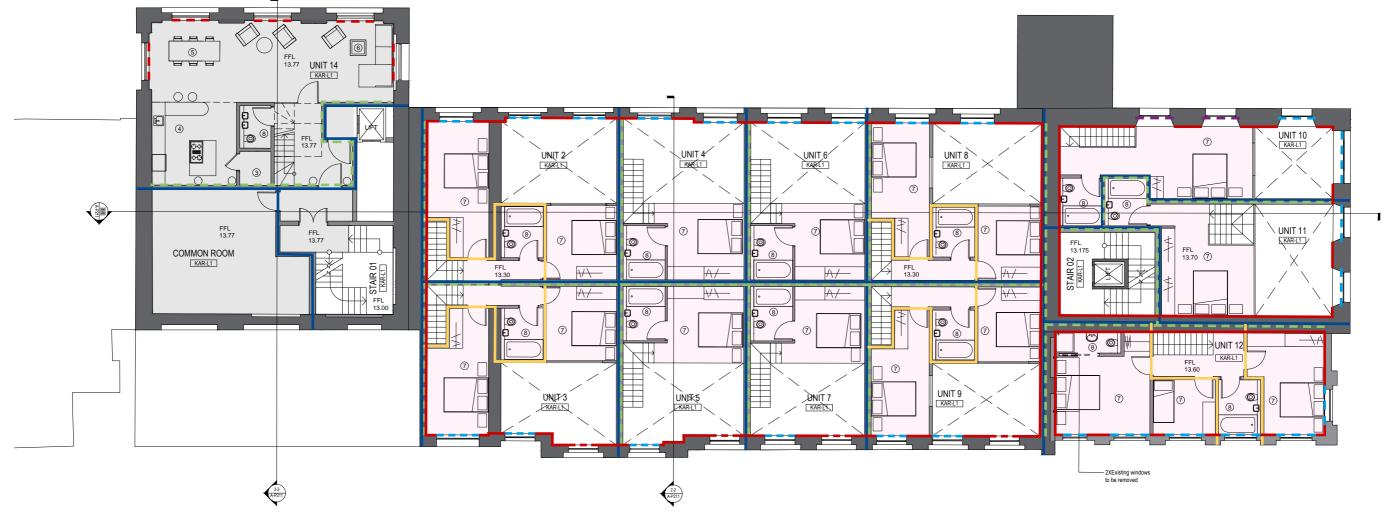
Louvre air brick

Enlarged elevation Single story block with roof extension

Enlarged section Single story block with roof extension



Proposal Fabric strategy

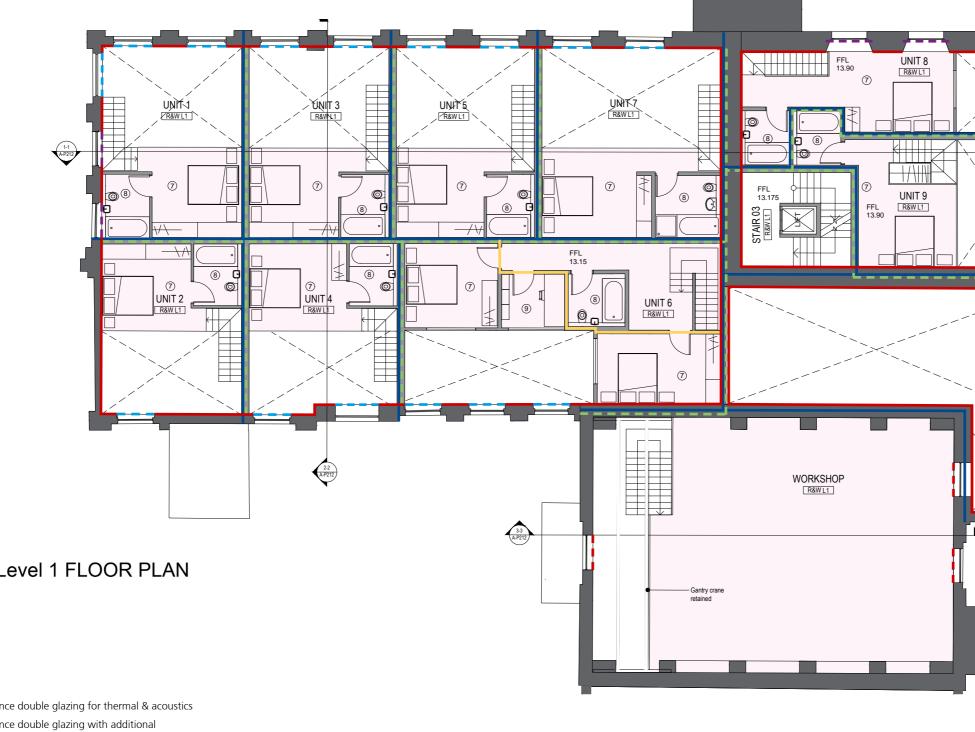


KARSLAKE - Level 1 FLOOR PLAN

Fire lining 1hr
Fire lining O Ehr
Fire lining 0.5hr
Acoustic lining
Thermal lining
New high performance double glazing for thermal & acoustics
 New high performance double glazing with additional secondary glazing for thermal & acoustics
 Repaired original window with additional internal secondary glazing for thermal & acoustics
Existing floor
New floor

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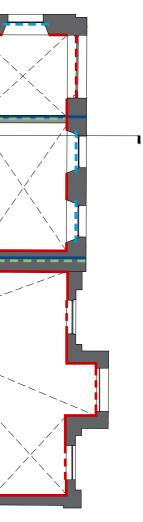
Proposal Fabric strategy



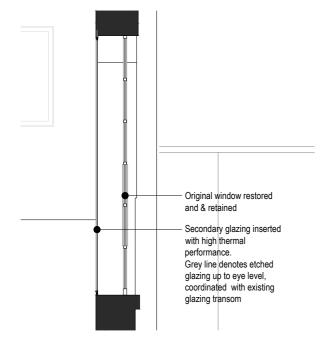
Ruston & Ward - Level 1 FLOOR PLAN

Fire lining 1hr
 Fire lining 0.5hr
 Acoustic lining
 Thermal lining
 New high performance double glazing for thermal & acoustics
 New high performance double glazing with additional secondary glazing for thermal & acoustics
 Repaired original window with additional internal secondary glazing for thermal & acoustics
Existing floor
New floor

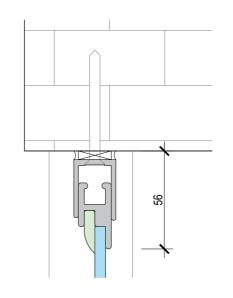
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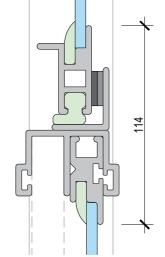


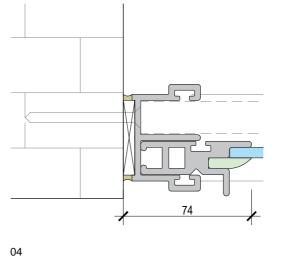
Proposal Secondary Glazing Strategy

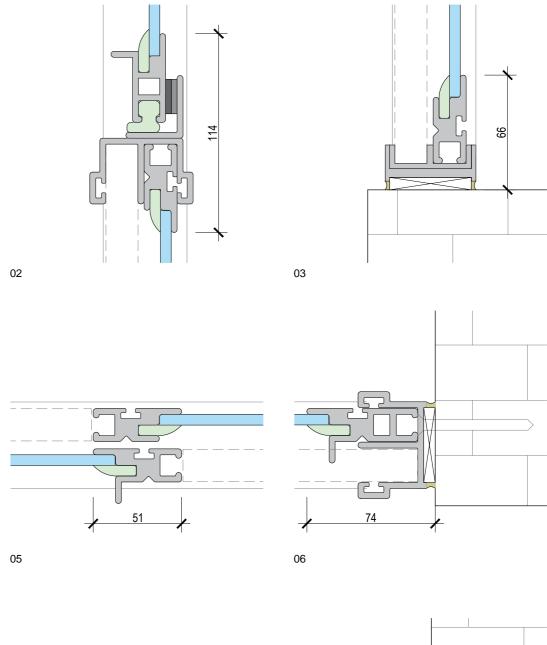


PROPOSED WEST PUMPHOUSE - WINDOW CONDITION TYPE 06

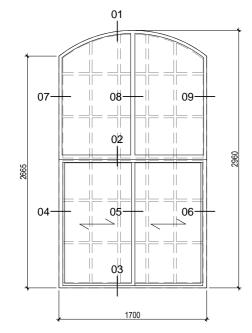






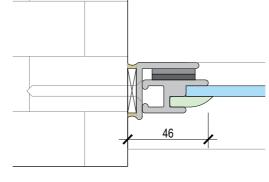


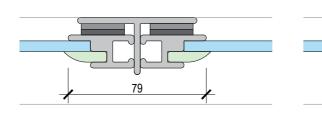
09



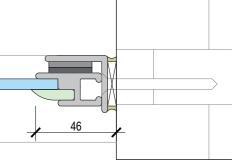
PROPOSED SECONDARY GLAZING OF TYPE 06 1A

01

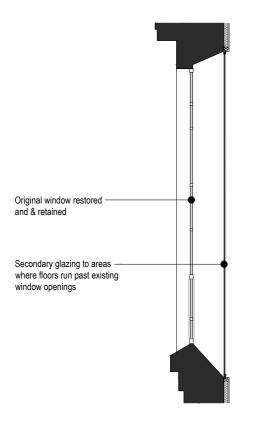




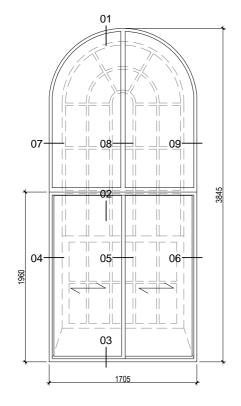
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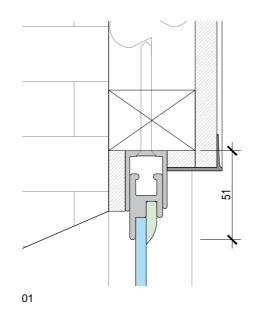
Proposal Secondary Glazing Strategy

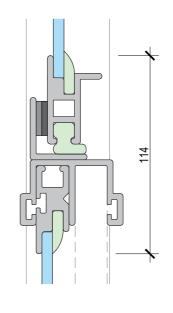


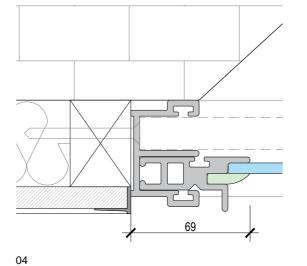
PROPOSED EAST PUMPHOUSE - WINDOW CONDITION TYPE 06 1

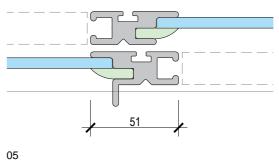


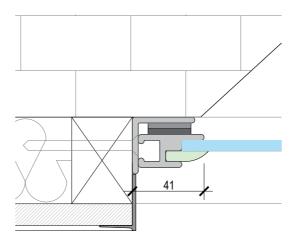
PROPOSED SECONDARY GLAZING OF TYPE 06 1B

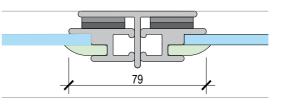








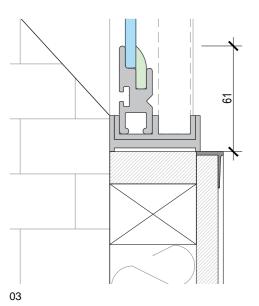


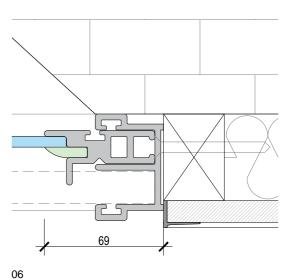


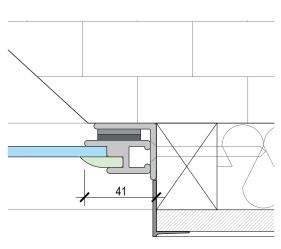
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08

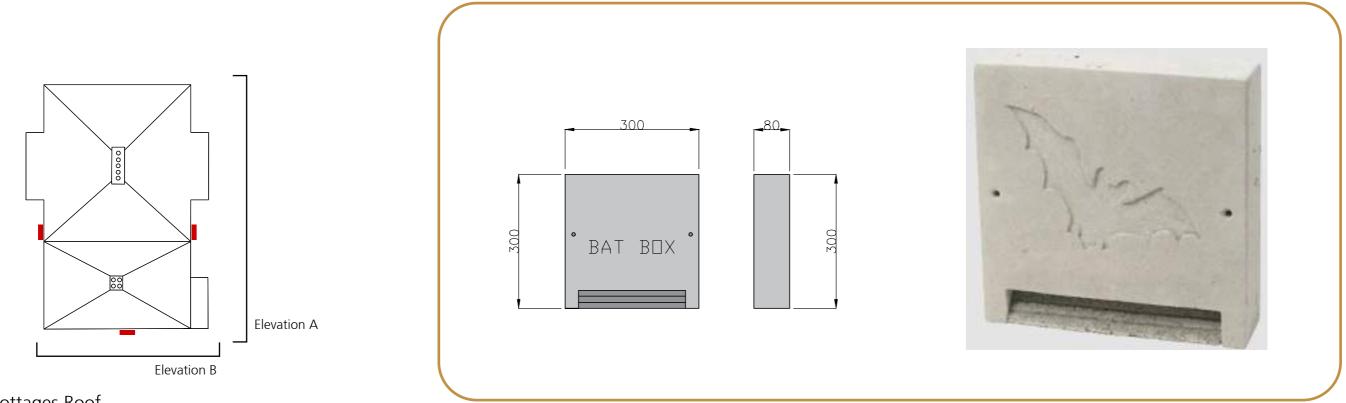
02







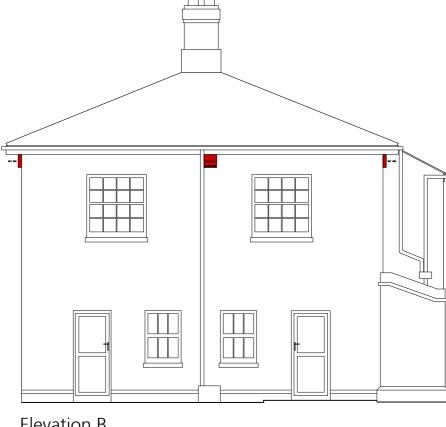
Proposal **Bat Box**



Cottages Roof

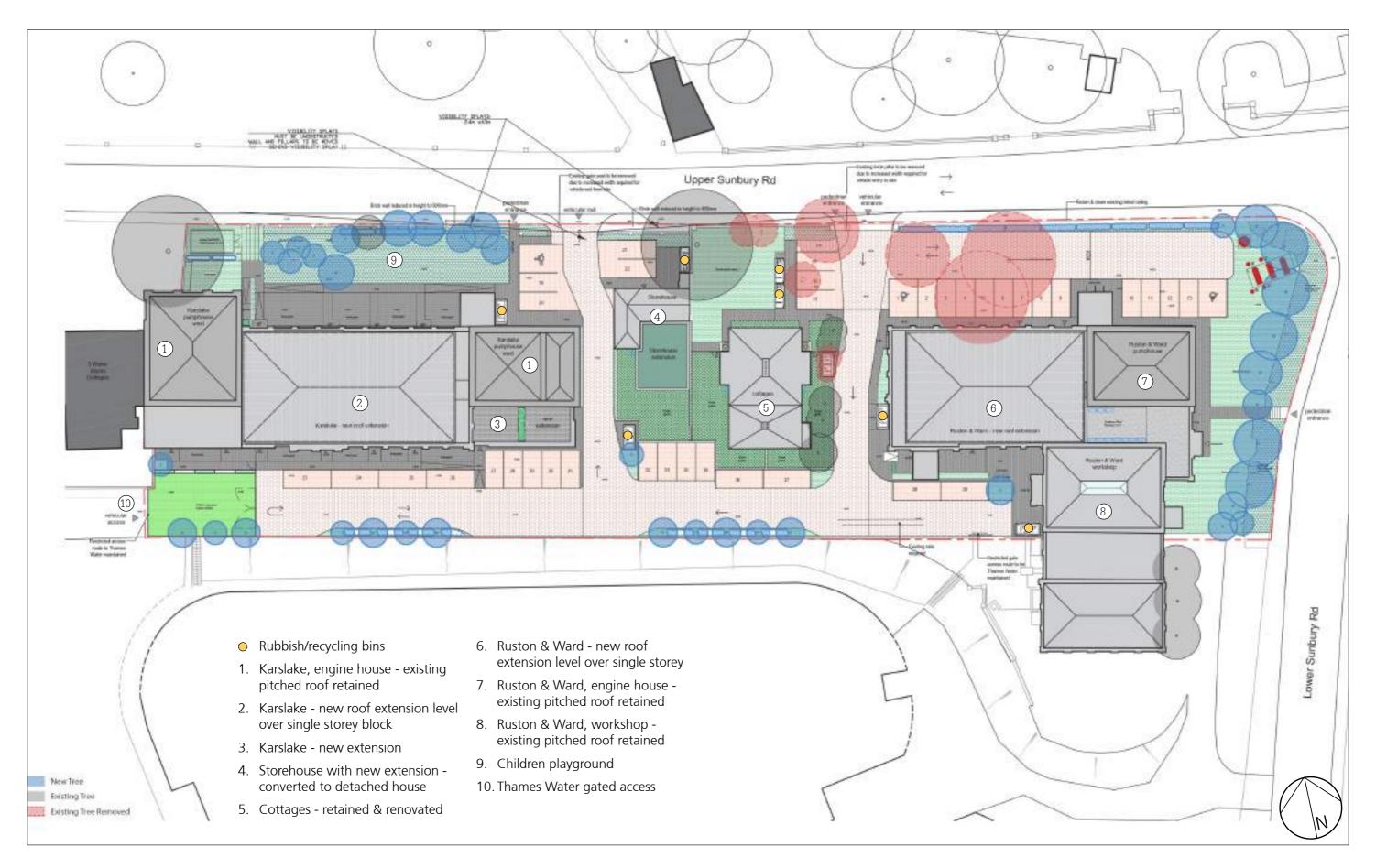


Elevation A



Elevation B

Proposal Site plan



04 Interior Spaces for living & working

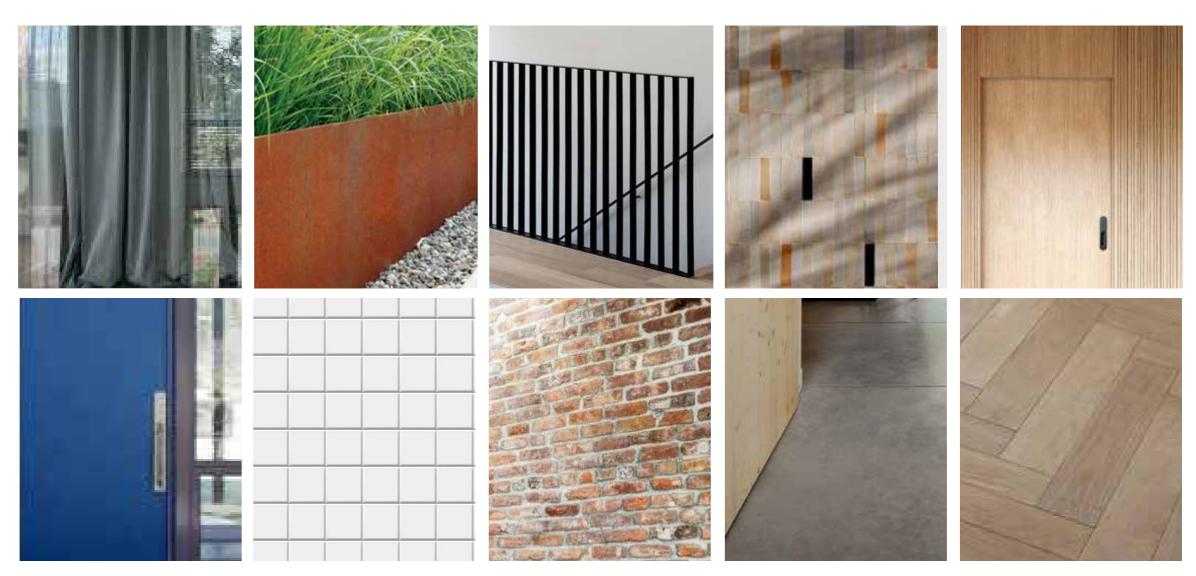
Living & working **Design approach**

Contemporary industrial interiors

The industrial character is highlighted internally, creating unique loft-style residential units with great natural light for today's open-plan living style.

A natural and modern internal material palette is used that takes reference from the industrial buildings.









Living & working **Gallery + roof extension**

The single level blocks are treated in the same way for both Karslake and Ruston & Ward buildings. Individual residential units are given direct access from external front gardens and paths into a double-high living space which retains the full height of the existing glazing unobstructed. The open space tucks the kitchen, WC and storage to the back of the space, with a new mezzanine bedroom and bathroom level above.

A new light-weight rooftop extension above provides additional residential units with linear terraces in the setback from the existing parapet.

Shared surface paving

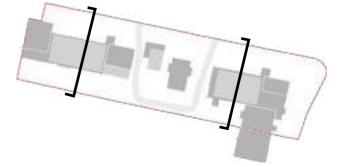
New structural w nserted within existi heritage faca

Ground le facing resident Roof extension, SE facing residential unit

Ground level, NV facing residential uni

Front gard

Roof extension, NW facing residential unit



New light-weight glass roof extension; set back from existing parapet edge with low-profile zinc roof

Roof terrace with usable space for planting and outdoor dining

Existing Victorian brick wall and large window retained, cleaned and restored

New mezzanine level is inserted, set back from the existing glazing; with the bedrooms located above the kitchen

High quality, natural landscaping

ligh planting to softer and visually separate om Upper Sunbury Rc

Upper Sunbury Rd

Living & working **Gallery flat**

The gallery ground level units are designed to efficiently use a double height space within the existing buildings, creating a feeling a being larger than they are. Generous amounts of natural light filter in through the large heritage windows. The bedroom set upstairs on the mezzanine is separate, but visually connected in loft living. Built in storage is integrated under the stairs.



Galleny flat.

Living & working Roof extension flat

Rooftop living provides expansive views within the roof extensions. Floor to ceiling glazing lines one wall of each room, opening out onto a usable terrace tucked in between the set-back from the heritage parapet.



Routhop Living. Hampton Waterwarks.