GENERAL OFFICE BUILDING ,
EBBW VALE
REFURBISHMENT & EXTENSION

DESIGN & ACCESS STATEMENT
December 2008

STRIDE TREGLOWN JOB NO.	7680
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CONTENTS

DESIGN TEAM

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CIVIL/STRUCTURAL ENGINEER	Halcrow Yolles
M&E CONSULTANT	Halcrow Yolles
PLANNING CONSULTANT	Savills (L&P) Limited
URBAN DESIGNERS	ABA Consultants

DESIGN TEAM EXPERIENCE WITH LISTED BUILDINGS

The design team has benefited greatly from the input of Stride treglown's conservation surveying team, led by John Franklin MSc; MRICS. John has over 30 years experience as a building surveyor working with architects and other consultants, local authorities and government departments, commercial and other clients. His work has involved all building surveying duties from actual surveying, refurbishment, planned maintenance and defect investigation in respect of most building types as well as conservation of historic buildings. He has a Masters Degree in the conservation of historic buildings.

The team has also been greatly supported by the advice of John Edwards, MA,DipBldgCons,CEnv,FRICS,FCIOB, IHBC. John is UK Director of TKB Southgate Associates; a specialist multi disciplined heritage practice. A Chartered Building Surveyor with historic building experience stretching over 25 years. He holds a masters degree in Architectural Conservation and is RICS Accredited in Building Conservation. He initiated and led Wales's biggest conservation project at Cardiff Castle. He is a tutor on the post graduate programme on the historic environment at Reading University and is co-author of the RICS Conservation Guidance Note.

It has been invaluable to have the input of William Filmer Sankey and the ABA conservation team that compiled the original Conservation Management Plan.

DESIGN PROCESS

The scheme has been discussed at every stage with CADW, and has been through Design Commission for Wales review. This was particularly helpful in moving forward the facade treatments and the form of the secondary entrance.

OUTLINE OF PROJECT AND DESIGN BRIEF

Introduction

This project is a part of The Works regeneration scheme of the former steelworks site, Ebbw Vale. It proposes the re-development and extension of the existing Grade II* listed General Office building.

The proposal has been built around a number of briefing inputs: The Works Masterplan Design and Access Statement (June 2007) Design Codes submitted as part of the Outline Planning Application for the complete former steelworks project (Feb 2007)

- The Works Sustainable Energy Strategy (June 2007)
- Design Brief Development Area 1A General Offices (2008)
- Project Brief from the Business Case by Locum Consulting (2008)
- Detailed Design Briefs from Gwent Record offices and other future users (2008)
- Conservation Management Plan for the General Offices (September 2006)
- Welsh Office Circular 61/96

Design Brief

The design brief sets out the urban design framework for development area 1A General Offices. It follows the principles laid out in the design codes of the urban redevelopment of Ebbw Vale. The aim of the brief is to restore the Grade II* listed General Office Building as a landmark in the Urban Centre Character Area, acting as a gateway feature when entering the site via the Peripheral Distributor Road (PDR) and Terminus Station. The proposal will enhance the character and appearance of the building and its surroundings with the proposed extension.

Key Principles of design brief

The Design Brief identifies the following urban design principles for the site:

- Safe and easy access for cyclists and pedestrians
- Legible entrances that open onto Steelworks Road and Station Square
- Preservation and/ or enhancement of the historic character of the building both internally and externally
- High quality extension(s) that respects the scale of the existing building enhances its character by using materials and building methods which are as high in quality as those used in the existing building.
- Extension(s) that enhances the character and vitality of the surrounding streets and public spaces through high quality design and potential spill-out areas
- High quality hard and soft landscaping that enhances the public realm around the building and its setting
- Retention of key views of the building from both within and outside the masterplan, particularly to the clock tower on the southern elevation
- Provision of spaces within the building and/ or extension(s) that are adaptable and can accommodate future change

Additionally: Any extension to the building should occur at the rear and at the northern end of the building in order to provide a greater sense of enclosure in Station Square and positive frontages to Main Street Offices and Station Square.

Business case and Project Brief

It has long been the intention in the Blaenau Gwent community to restore the General Office to beneficial, sustainable use. Since 2003 a great deal of work has gone into laying the foundations for a business case that will enable this aspiration to be realised.
To outline the vision of the client, define potential uses and management and budgetary objectives, a business case report was developed by Locum Consulting (March 2008). Essentially, the aim of the General Office building project is to bring the building back into use as cost effectively and efficiently as possible, following the Masterplan's proposed uses for mixed-use arts, education and leisure.

Outline project requirements from the business case
The Locum business case report (March 2008) identified a varied mix of uses for the existing building comprising:

- The relocated Gwent Records Office (GRO)
- A 'Genealogy Experience' providing interactive facilities for people to research genealogy, family history and their heritage
- A 'Visitor welcome hub', providing tourist information facilities for visitors.
- A lively and inviting cafe facility
- Office accommodation for The Works' project team.

In addition, A 'Steelworks Exhibition' element, incorporating and displaying items collected by the Ebbw Vale Archive Trust.

Detailed Design Brief

The detailed Design Brief of each user group describes the -

Functional and spatial requirements
Spatial relationships
Environmental Requirements
Security level requirements

In addition, the clients aspirations are to achieve a BREEAM 'Excellent' rating to promote sustainability and make this project an exemplar in the regeneration of Ebbw Vale.

To elaborate on the specific requirements of the uses of the development -
GRO brief -
Highly secure archive store extension of approximately 1500 sq. m. complying with BS5454 standards for document storage.
To include offices for Gwent Records in the proposal based on their associated requirements.

'The Genealogy experience' brief -
Large Exhibition spaces with creative use of information technology
Staff Room
Reception with security measures

The Steelworks Archive Trust collection will also be included in the proposed archive storage extension.

SITE CONTEXT
Ebbw Vale Development

Existing Site Location

The site is located in the valley of Ebbw Vale to the south-east of Ebbw Vale Town Centre. The existing site is in dilapidated condition and has not been in use since Corus vacated the site in 2002. To the north and south of the site is vacant land (demolished sporting and community facilities buildings). Adjoining the existing plot to the east is the Ebbw River in a culvert stretch as shown.

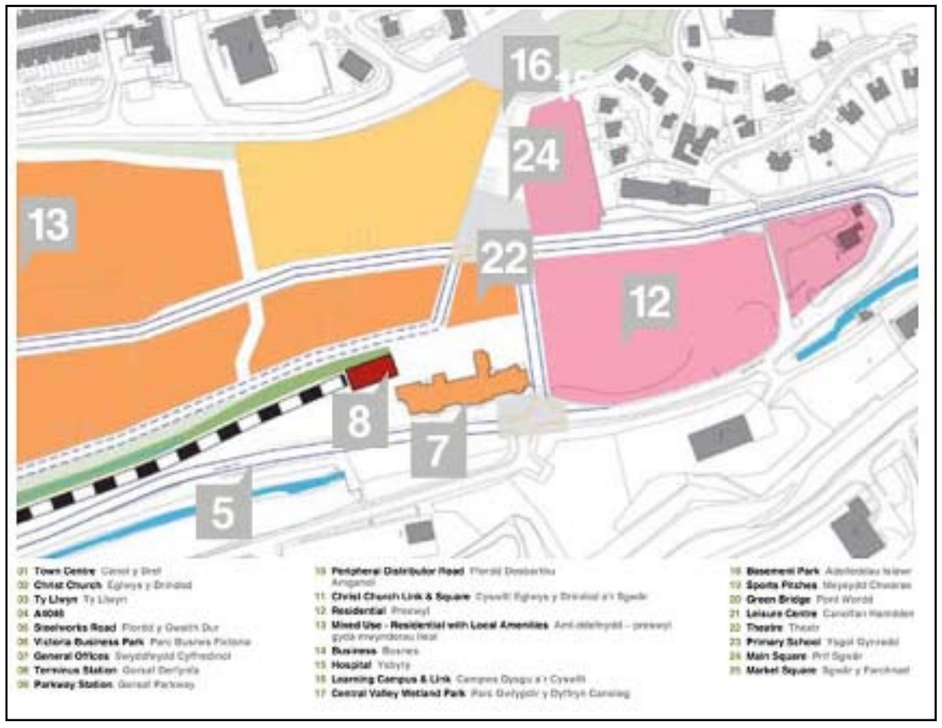
Historical Context

The site has been associated with the iron and steel industry since production began in the 1780s. Several railway connections developed, helping to modernise the works and Ebbw Vale became a prosperous town doubling the population in a span of 13 years. Steel production started in 1913 and the General Office Building was commissioned to reflect the prosperity of the business. Following an industrial depression in the first and second world wars, the town and business prospered after it was taken over by Richard Thomas and Co. in 1935. In 1967, British steel was nationalised and then privatised in 1988. In 1999 it merged with the Dutch firm Koninklijke Hoogovens to form Corus. The company suffered losses and closed down in 2002. Following demolition of the Corus plant buildings, the General Office building is the most significant remnant of 220 years of industrial production.

Urban Regeneration Context

The site is part of Phase 1 of the proposed redevelopment of Ebbw Vale. In the regeneration proposal, a new railway station to the south will link the site to the Welsh rail infrastructure. The site is 0.91 hectares and roughly triangular in shape.

It will be bounded by Main Street Offices to the north. To the east, the site will be partly bounded by General Offices Gateway Square and the Peripheral Distributor Road (PDR). General Offices Gateway Square will mark the entrance into The Works from the east and will provide a setting to the Grade II* listed General Office building. To the west, the site will be bounded by a service lane and a theatre.



SITE INVESTIGATION

1.1 CONTAMINATED LAND

The six trial pits excavated in the area of the proposed Gwent Record Office extension do not contain significant concentrations of contamination in terms of risk to human health. The concentrations have been compared to thresholds protective of commercial development and no exceedances were found with the exception of the sample from trial pit POTP06 where the concentration of lead was recorded at 6500mg/kg in a sample from 0.7m depth. Given that the site is to remain developed with impermeable cover to the underlying made ground it is considered that this concentration does not pose a significant risk given that the critical exposure pathway for lead is direct contact. The pH of most soil samples is high at >9 and consequently any areas left with soil should have clean soil cover. It is likely that any areas left uncovered would need soil in any event to provide a suitable growing medium.

Radon
The site is classified as one where consideration should be given to Radon protection measures.

1.2 FLOOD RISK

A flood risk assessment has been prepared by Halcrow Yolles identifying and analysing the site associated with the re-development of the General Offices and the Proposed Extension building. The analysis has shown that the development satisfies all of the 'Acceptability rules' stipulated in TAN15. For details of the analysis, refer to the Flood Risk assessment report by Halcrow Yolles (September 2008)

PLANNING POLICY

National and Local Policies

The key planning policies from the relevant national, regional and local guidance are examined in further detail within the Planning Supporting Statement, which accompanies this statement. The main documents and policies governing the proposed re-development of the existing buildings and new extensions are listed below -

National

- Planning Policy Wales (2002) Chapters 2, 6;
- Ministerial Interim Planning Policy Statement 01/2008 Good Design;
- Technical Advice Note 8: Renewable Energy (2005)
- Technical Advice Note 12 (Design) (2002);
- Consultation Draft on limited changes to Technical Advice Note 12 (Design) (2008);
- Technical Advice Note 15: Development and Flood Risk (2004)
- Technical Advice Note 18: Transport (2007)
- Technical Advice Note 20: The Welsh Language (2001)
- Welsh Office Circular 61/96
- Welsh Office Circular 01/98
- People, Places, Futures: The Wales Spatial Plan (2004)
- Creating Sustainable Places – Sustaining a Prosperous Wales (2005)

Regional

- Strategic Planning Guidance for South East Wales (2001)

Local

The relevant policies of Blaenau Gwent Unitary Development Plan (adopted 2006) include :

- EN2 - Strategic Environment Policy;
- EN4 - Buildings of Historic or Architectural Interest;
- EN5 - Town and Village Character and Built Design;
- EN6 - Design Quality and Visual Amenity
- EN8 - Listed Building
- EN20 - Provision for open space
- E2 – Energy Efficient Development
- D1 - Design
- D18 - Facilities for People with Disabilities T4 – Highways Considerations in New Development
- T5 – Public Transport
- T7 – Pedestrian Safety
- T8 – New Developments and Pedestrian Routes
- T9 – Cycle Route Development
- T10 - Car Parking
- PU2 – Waste Water Management
- PU 4 – Surface Water Run-Off
- PU6 – Development and Flood Risk

SITE DESIGN
Site proposals - Boundaries and Adjacencies

Key principles of Design Brief

- ***Safe and easy access for cyclists and pedestrians***
- ***Legible entrances that open onto Steelworks Road and Station Square***
- ***Preservation and/ or enhancement of the historic character of the building both internally and externally***
- ***High quality extension(s) that respects the scale of the existing building enhances its character by using materials and building methods which are as high in quality as those used in the existing building.***
- ***Extension(s) that enhances the character and vitality of the surrounding streets and public spaces through high quality design and potential spill-out areas***
- ***High quality hard and soft landscaping that enhances the public realm around the building and its setting***
- ***Retention of key views of the building from both within and outside the masterplan, particularly to the clock tower on the southern elevation***
- ***Provision of spaces within the building and/ or extension(s) that are adaptable and can accommodate future change***

Adjacent Uses

Development area 1A is established in the Work Phasing Plan Rev.A approved July 2008.
The existing General Office building is located to the south east of Ebbw Vale town centre, occupying a strategic position adjoining the proposed Station Square. The site is bounded by Main Street Offices to the north, the main access route into The Works. To the east, the principal facade of the General Office building faces onto the main north-south Peripheral Distributor Road (currently Steelworks Road) passing in front of the east of the building. The future railway terminus to the south (Phase 2, 2010-2012) and the new theatre to the west (development area 1E) form the boundaries to Station Square, a smaller public Space than main Square, but nonetheless an important focal point for people arriving in Ebbw Vale by rail and car.

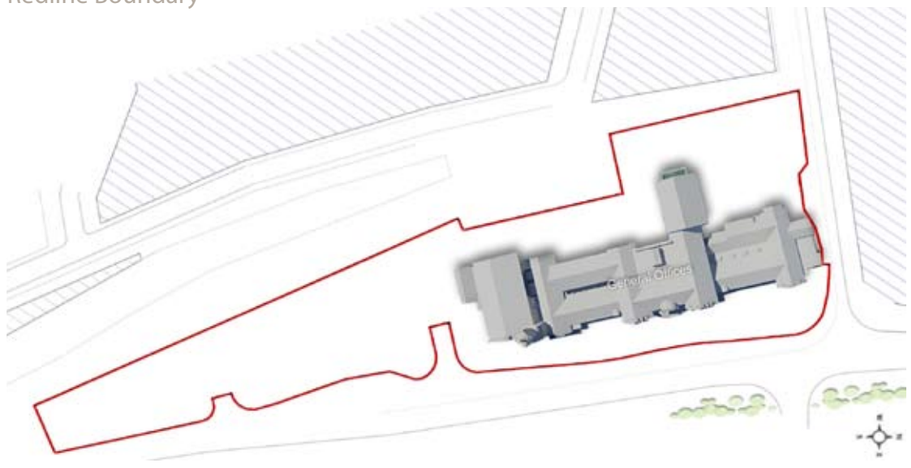
Size and shape

The site is approximately 0.91 hectares in area. The location of the General Office building subdivides the site roughly into two parts. The triangular tapered part will comprise the car and coach parking.

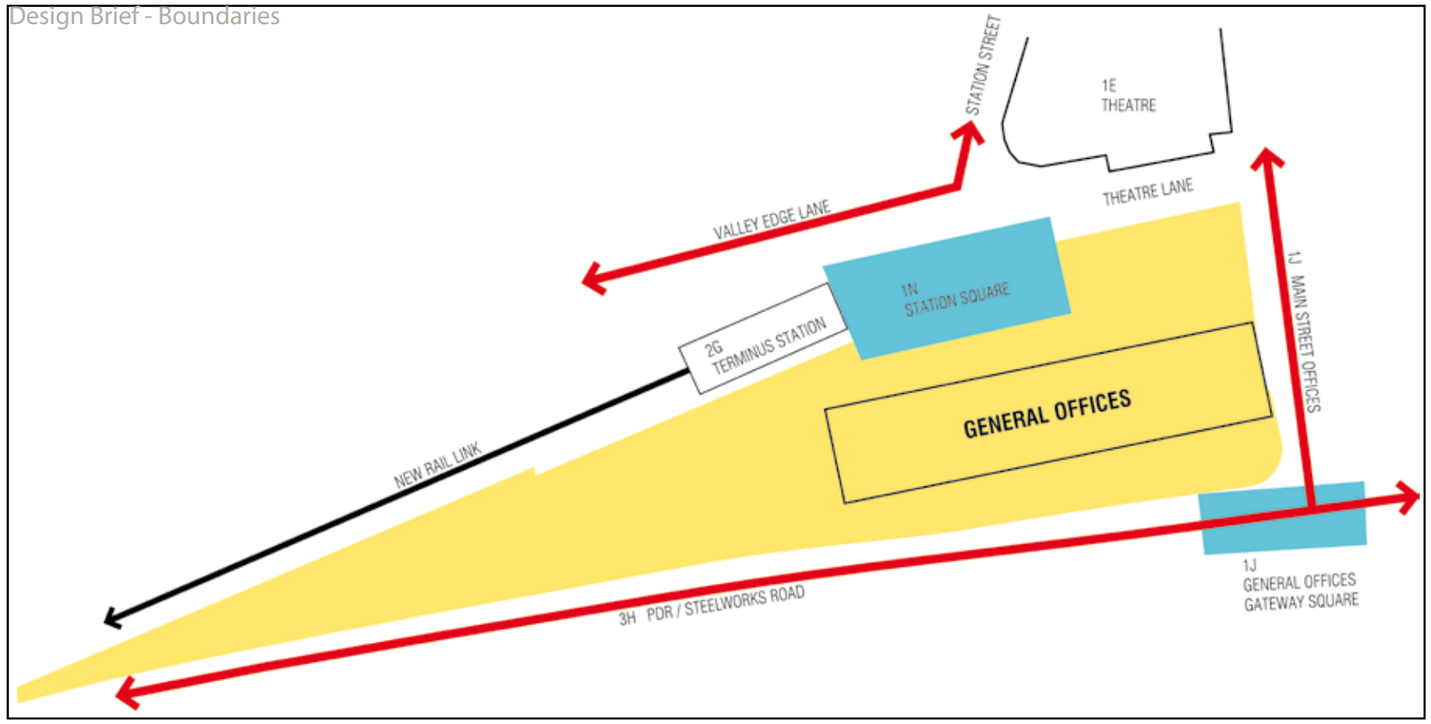
Levels

The highest level of the site is to the north and it gradually slopes to the tapered edge to the south. The level of the proposed extension will be maintained the same as the General Office building floor level to minimise flood risk.

Redline Boundary



Design Brief - Boundaries



Proposed Design - Boundaries

SITE DESIGN
Site Access Strategy

The urban design strategy follows the principles outlined in the brief to enhance the character of the proposed development facilitating public use. It is developed in accordance with the travel plan for Phase 1 of the Masterplan.

Key principles of design brief

- ***Safe and easy access for cyclists and pedestrians***
- ***Legible entrances that open onto Steelworks Road and Station Square***

Site Access, Servicing & Circulation

Public access to and around the site for service and circulation is relatively straightforward, and conforms to the requirements for sustainable transport set out in the masterplan and sustainable energy strategy.

RAIL
The proposed Terminus Station is less than two minutes' walk away from the proposed entrance extension to the General Office building connecting Ebbw Vale to other cities of Wales.

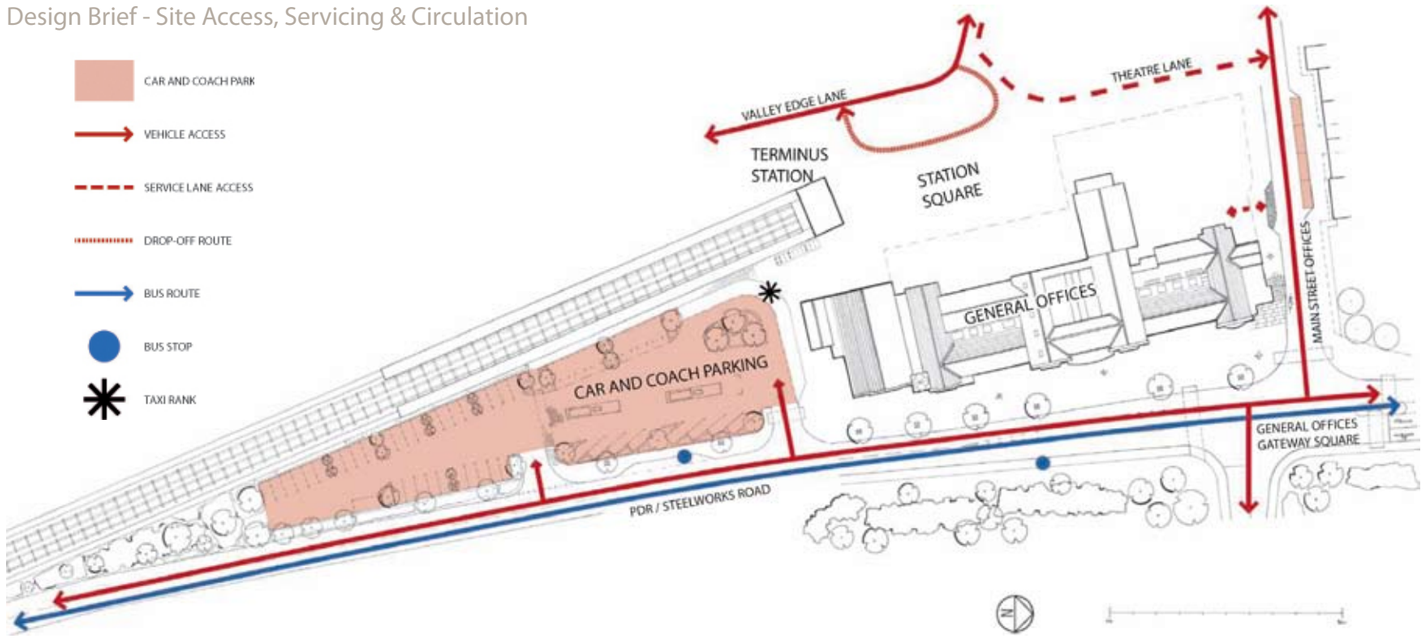
BUS
New bus routes proposed along Steelworks Road will connect the site to the town centre and Station Square.

VEHICULAR
Primary vehicular access to the public car park will be via the Peripheral Distributor Road to the east of the site.

The carpark follows the South Wales Parking Guidelines 1993 and Addendum 2001. It is located south of the General Office building and has been designed with an intention to integrate various parking requirements. 41 car parking spaces are provided for visitors (max 50 specified in design brief), 6 disabled car-park spaces (min 5% of total provision) and parking for 2 coaches. It is divided by tree planting into 4 groups of not greater than 8 spaces. The carpark will be well-lit with security measures.

A taxi drop off point will be provided to the south of the General Office building. In addition, a waiting space for four taxis will be provided.

Design Brief - Site Access, Servicing & Circulation



Proposed Design -Site Access, Servicing & Circulation

SITE DESIGN
Site Access Strategy

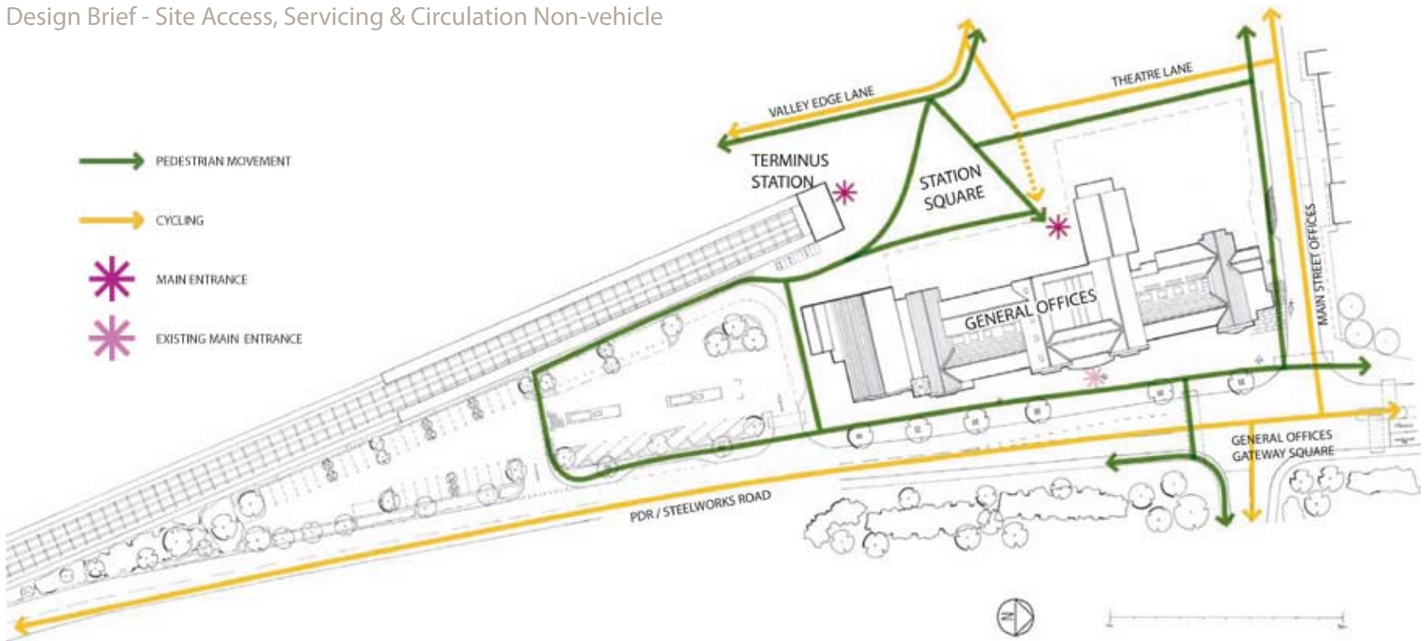
SERVICING
Primary service access to the north end of the site (primarily to document handling and bin stores of the Record Office) will be from Main Street Offices.

Refuse collection and deliveries for the southern end of the building will be handled from the main car park entrance. (See refuse strategy for additional information).

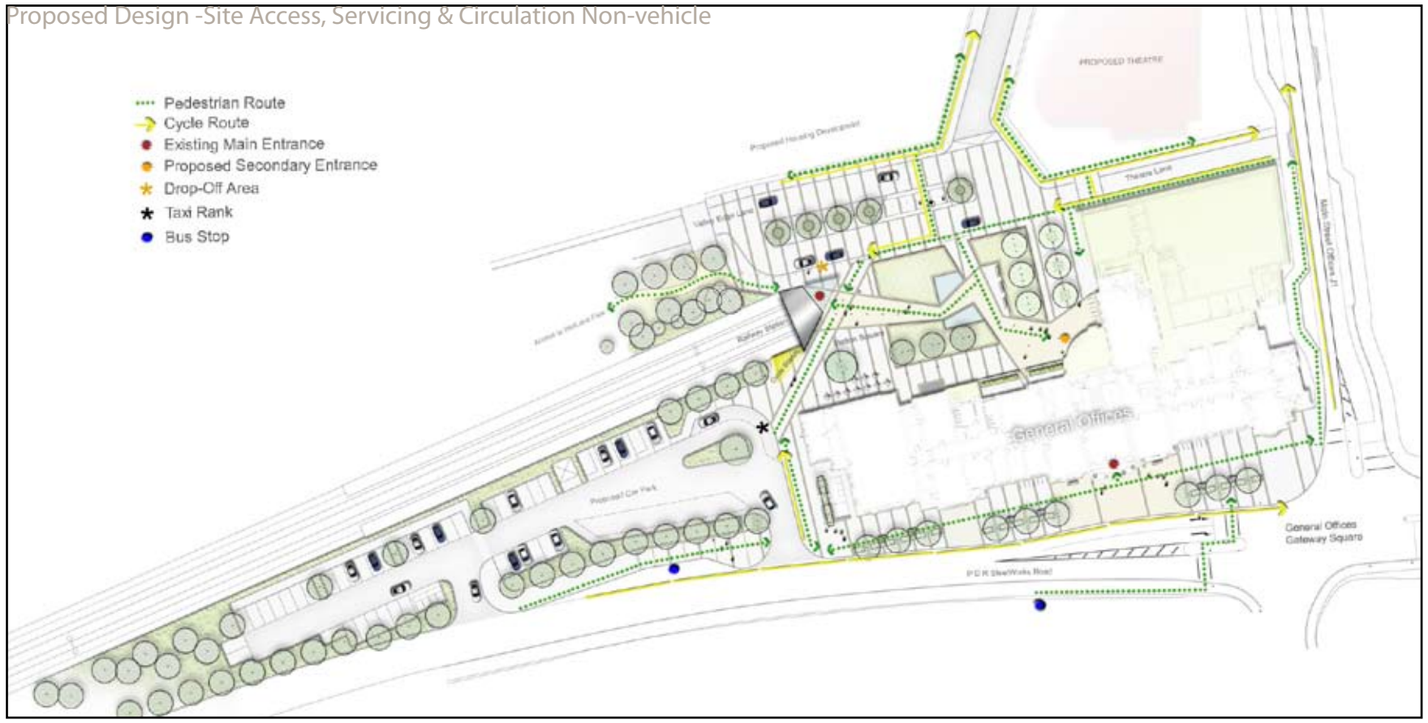
PEDESTRIAN ACCESS
The main pedestrian access to the site will be from the west of the General Office Station Square. A new level access pedestrian entrance is provided. There will be a clearly defined pedestrian walkway along the perimeter of the General Office building and the extension. The public realm from Steelworks Road to the General Office building will be retained and improved to extend up to the new PDR.

CYCLES
Secure cycle parking will be provided near Terminus station in compliance with Design Code Appendix D

Design Brief - Site Access, Servicing & Circulation Non-vehicle



Proposed Design -Site Access, Servicing & Circulation Non-vehicle



SITE DESIGN
Enclosure, Frontage & Edge Conditions

Key principles of Design Brief

- ***Legible entrances that open onto Steelworks Road and station square.***

Boundaries and Edge Conditions

A temporary fenced boundary secures the site and separates it from the rail corridor to prevent unauthorised access.

Tree planters screen the views to the rail corridor on the west and the carpark from the PDR on the east. These screens will also soften the landscape of the carpark and entrance into the General Office Building.

Landscape seamlessly integrates Station Square into the entrance of the General Office Building. Pathways at the edge of the site are clearly defined using hard and soft landscaping.(Refer to landscape strategy).

Enclosure

Tree planting defines the site boundary along the PDR and creates a sense of enclosure to the public domain fronting the General Office building whilst also enabling clear sight lines to and from the PDR.

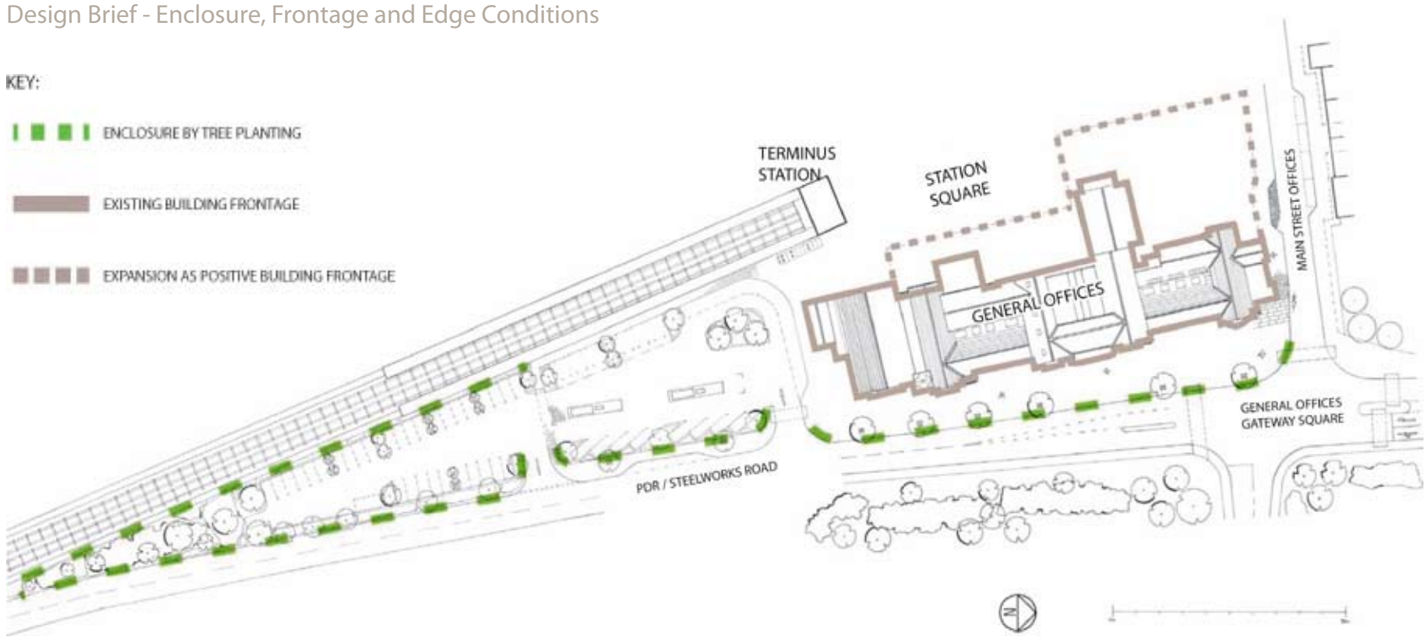
The proposed extension location and footprint is defined by the surrounding context and the southern extent of the extension forms a definitive edge enclosing the north of the station square. The location of the extension to the north of the site allows clear sightlines to the terminus station. Overshadowing is minimised, as the public square receives sunlight from the south and west for a major part of the day. To the north and west, the entension bounds the edge of the pedestrian realm thus creating a positive frontage by enclosing the adjoining streets.

Frontage

The existing frontage to the General Office & facades will be repaired and cleaned to enable attractive views from the surrounding public realm.

The new entrance extension to station square connects the public square to the existing General Office, creating a positive frontage to the public realm.

Design Brief - Enclosure, Frontage and Edge Conditions



Proposed Design - Enclosure Frontage and Edge Conditions

SITE DESIGN
Views

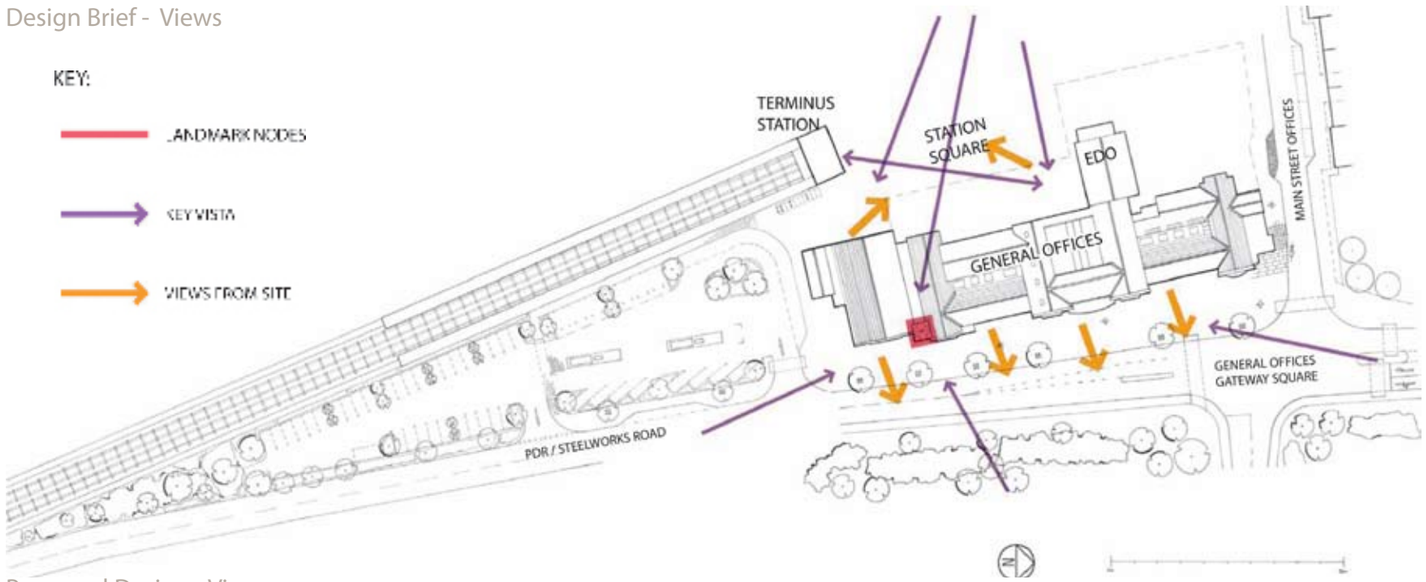
Key principles of Design Brief:

- ***Retention of key views of the building from both within and outside the masterplan, particularly to the clock tower on the southern elevation.***

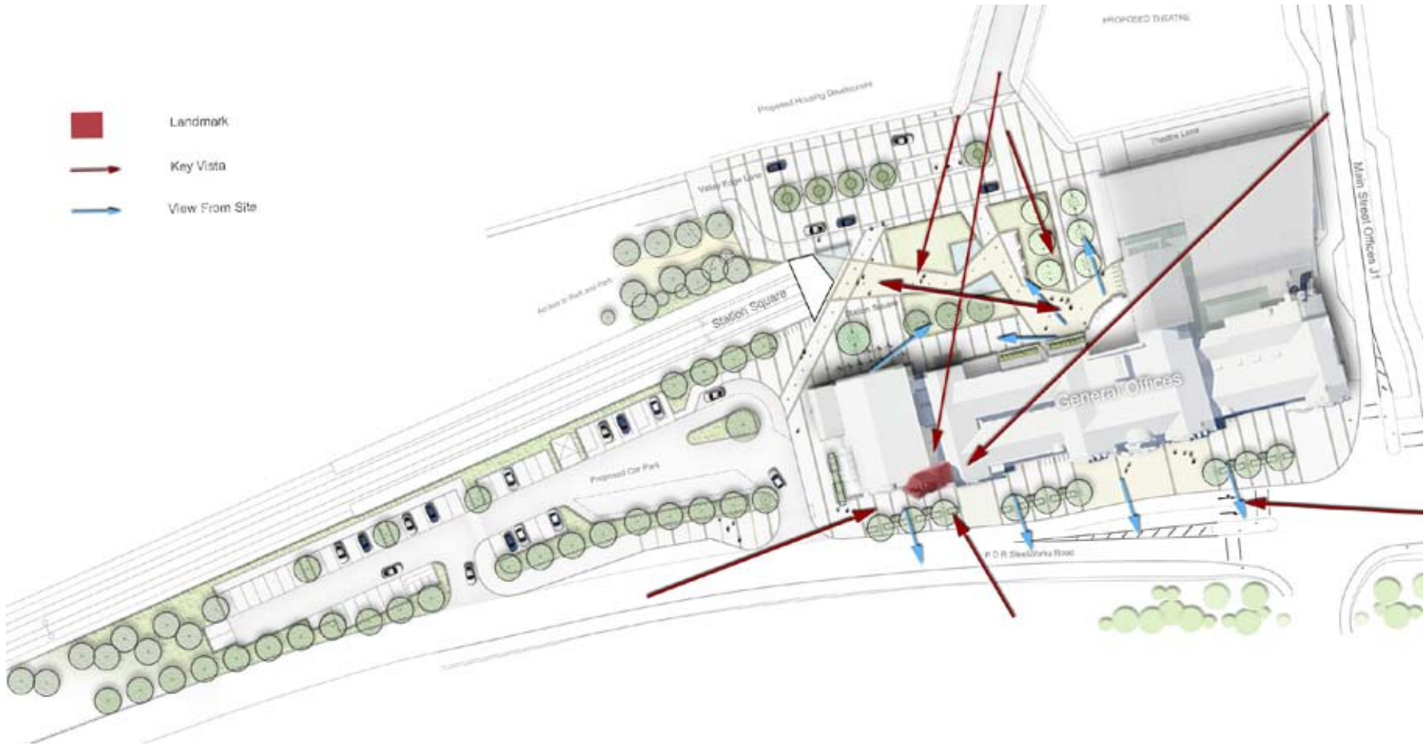
Views

The Conservation Management Plan underlines the importance of the views to the original clock tower. Although the proposed extension is larger than the current single storey building, the principal sightlines are from the Peripheral Distributor Road to the east and Station Square to the west. The visual impact of the General Office building as it approaches from north and south along steelworks road is unaltered by the proposals.

Design Brief - Views



Proposed Design - Views



ARCHITECTURAL DESIGN PHILOSOPHY
Architectural Principles

Key principles of Design Brief

- ***Extension(s) that enhances the character and vitality of the surrounding streets and public spaces through high quality design and potential spill-out areas***

Overview

The starting point for a modern addition to a listed building such as the General Office is general principle no.9 of Welsh Offices Circular 61/96: *Modern extensions should not dominate the existing building in either scale, material or situation. Successful extensions require the application of an intimate knowledge of the building.*

The guiding principles that underpin the design can be summarised as follows:

- Ensure the form and architectural language of the existing General Office building is clearly legible and distinct from any proposed new building;
- Ensure that any connections made to the existing fabric are minimal and reversible.
- Ensure that the material palette of any new additions are sympathetic to the language of the General Office building, without being slavish or derivative.

The basic architectural strategy has been developed as follows:

- Create a new building for Gwent Records in line with the guiding principles above;
- Create an improved backdrop to Station Square, by introducing:
  - new interventions on the west of the building to make an attractive, accessible entrance;
  - new elements of screening on the west façade;
  - active frontage (to the conservationist studios) as part of the new Gwent Records complex.
- Form a new lobby on the south elevation to provide an accessible entrance to the former accounts hall;
- Make such minimal interventions as are necessary to bring the General Office building into beneficial use;
- Otherwise preserve the existing fabric and return to an acceptable standard for occupation.

Perspective View of Proposed Extension

ARCHITECTURAL DESIGN PHILOSOPHY
Activities and Uses

Key principles of Design Brief

- ***An accessible, welcoming, inclusive, user-friendly and safe centre of learning, leisure and culture for all age groups.***

The aim of the present proposals is to put forward a coherent design infrastructure that enables the General Office building complex to take on a sustainable life over the coming years.
Central to this has been the need to establish a series of uses that give a sound business underpinning to the maintenance of a building infrastructure.
The business plan and concomitant detailed briefs resulted in the following spatial requirements:

Gwent Record Office
- Archive storage
- Search room
- Conservation areas
- Administration and office space
- Document processing

Steelworks archive trust
Genealogy experience
Office accommodation
Public educational spaces

In addition, a number of shared public entrance, reception, exhibition and support facilities were envisaged.

It was clear from the outset of the project that the structural and environmental control demands of a modern archive compliant with BS 5454 (relating to document storage) would be impossible to meet within the General Office building without substantially altering its fabric. It was therefore decided that the approximately 1300 sq.m of archive required by Gwent Records would be housed in its entirety outside the existing building. The majority of the new extension is taken up with document storage and document processing. In order to bring active frontage to Station Square, the studios of the conservationist have been placed on the open corner of the extension, fronting the public square. In keeping with similar modern records offices, the public will be invited to see at first hand the specialist processes of document restoration that are carried out by the conservation team.

The ground floor of the former Engineering Drawing Office was chosen as the search room for the new archive, as it was adjacent the main public entrance, but also provided an easy link for staff to the archive store behind.
The remaining functions of the records office are generally administrative, and it was felt appropriate to locate them in the former administrative wing of the General Office building.

The public collection of the Steelworks Archive is to be housed in the Chairman's room and board room.

The other wing of the ground floor, to the south of the main entrance hall, has been given over to an interactive public exhibition on ancestry, known as 'the genealogy experience'.

Conceptual Public & Private Areas Allocation

ARCHITECTURAL DESIGN PHILOSOPHY
Form

Key principles of Design Brief:

- ***Extension(s) that enhances the character and vitality of the surrounding streets and public spaces through high quality design and potential spill-out areas***
- ***Preservation and/ or enhancement of the historic character of the building both internally and externally***

Form

The footprint of the Gwent Records extension broadly follows the red line boundary of Development Plot 1A. Although it equates to almost half the existing General Office ground floor area (927 sq.m. for proposed extension against 1877sq.m of existing), the new build is confined to a small section of the overall 1A development plot. The extension takes its massing from the context of the surrounding original listed structure (the engineering drawing office to the south and the north wing of the General Office building to the east. Sitting between the right angle formed by these two structures, the new building bridges the difference in scale between the two. It is a two-storey structure that broadly matches the floor heights of the adjacent Engineering Drawing Office, and the new parapet line lies well below the EDO eaves line. The roof sweeps down to match the eaves line of the single storey north wing of the General Office building.

ARCHITECTURAL DESIGN PHILOSOPHY
Form & Materials

Key principles of Design Brief:

- ***High quality extension(s) that respects the scale of the existing building enhances its character by using materials and building methods which are as high in quality as those used in the existing building.***

Form

The new build elements do not physically abut the General Office building. The space between the archive store and the existing building is a buffer zone for primary circulation which consists of a lightweight glazed canopy. At one end of this circulation is the goods entrance to the record office, adjacent to the current board room. At the other is an entrance onto Station Square between the vaults of the engineering drawing office, and the new conservation studio. The only impingement of new structure directly onto existing fabric is where the flashing to this glazing is chased into a horizontal mortar joint, or abuts vertically using a flexible expansion joint.

This philosophy has also been followed with the new western entrance from Station Square, in which glazing elements abut the existing south-facing wall of the Engineering Drawing office.

Materials

The new-build elements are deliberately in contrast to the masonry and ashlar of the existing building. They are proposed to reflect the modern equivalent of the highest quality building materials used in the original building almost a century ago.

The archive store is conceived as a swept form in light aluminium rainscreen panels enclosing the upper floors. This sits on a storey-high ground floor 'plinth' composed of deep red corten steel rainscreen cladding. This material is a link both to the industrial heritage of the site and the warm red colour of the General Office building brickwork.

The security and environmental stability requirements of the archive store preclude large areas of glazing and public entrances, yet it was felt important to bring life and warmth to the elevations. It is therefore proposed that the upper facades to the north and south will be made up of a rainscreen with applied metal letters in relief, forming a bas reielf of words and phrases related to the history of the steelworks. These designs are to be progressed with the resident artist attached to The Works project.

Given that the roof will be overlooked by the valleys and to improve the environmental performance of the extension, a green roof is proposed. All service equipment for the extension is included in the plant room within the structure.

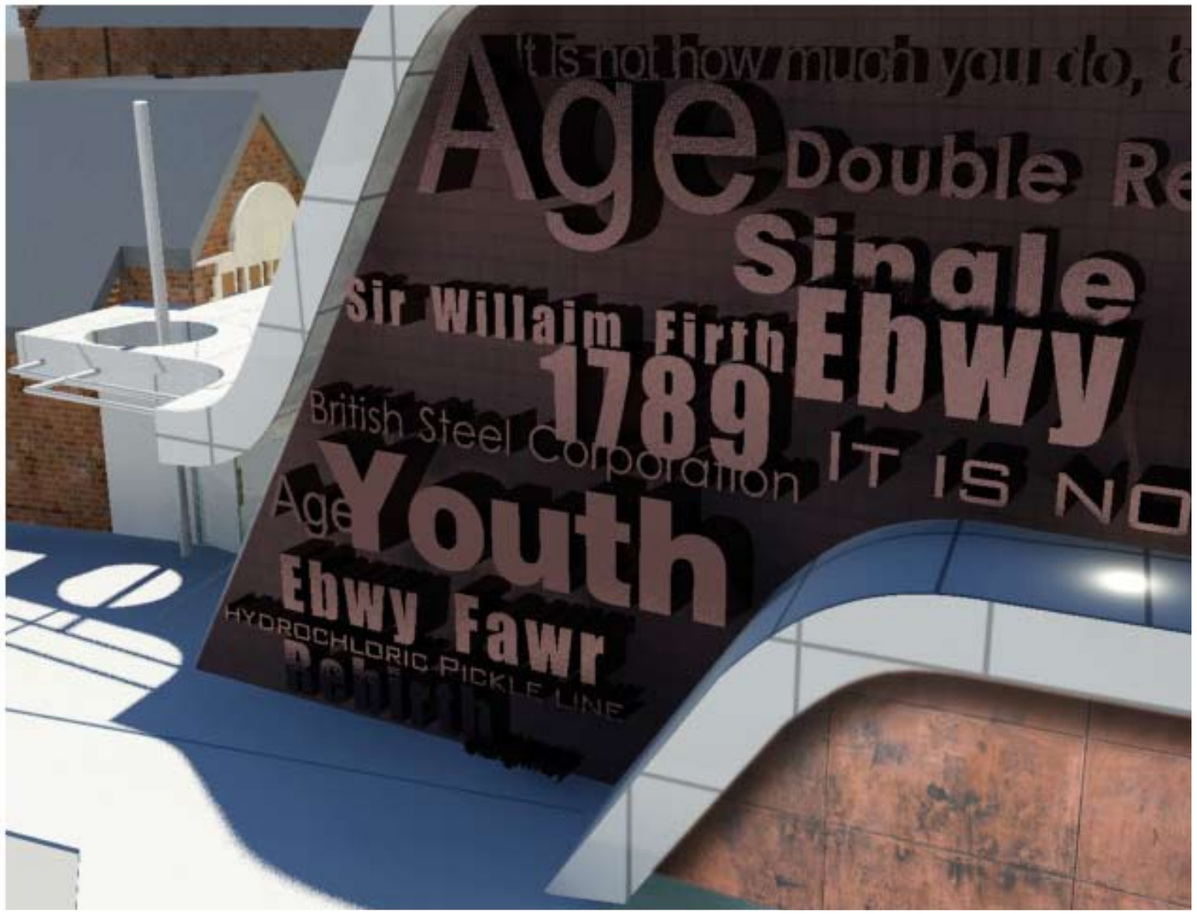
ARCHITECTURAL DESIGN PHILOSOPHY
Existing General Office connection with the Proposed Extension

Proposed Extension

Connection Canopy

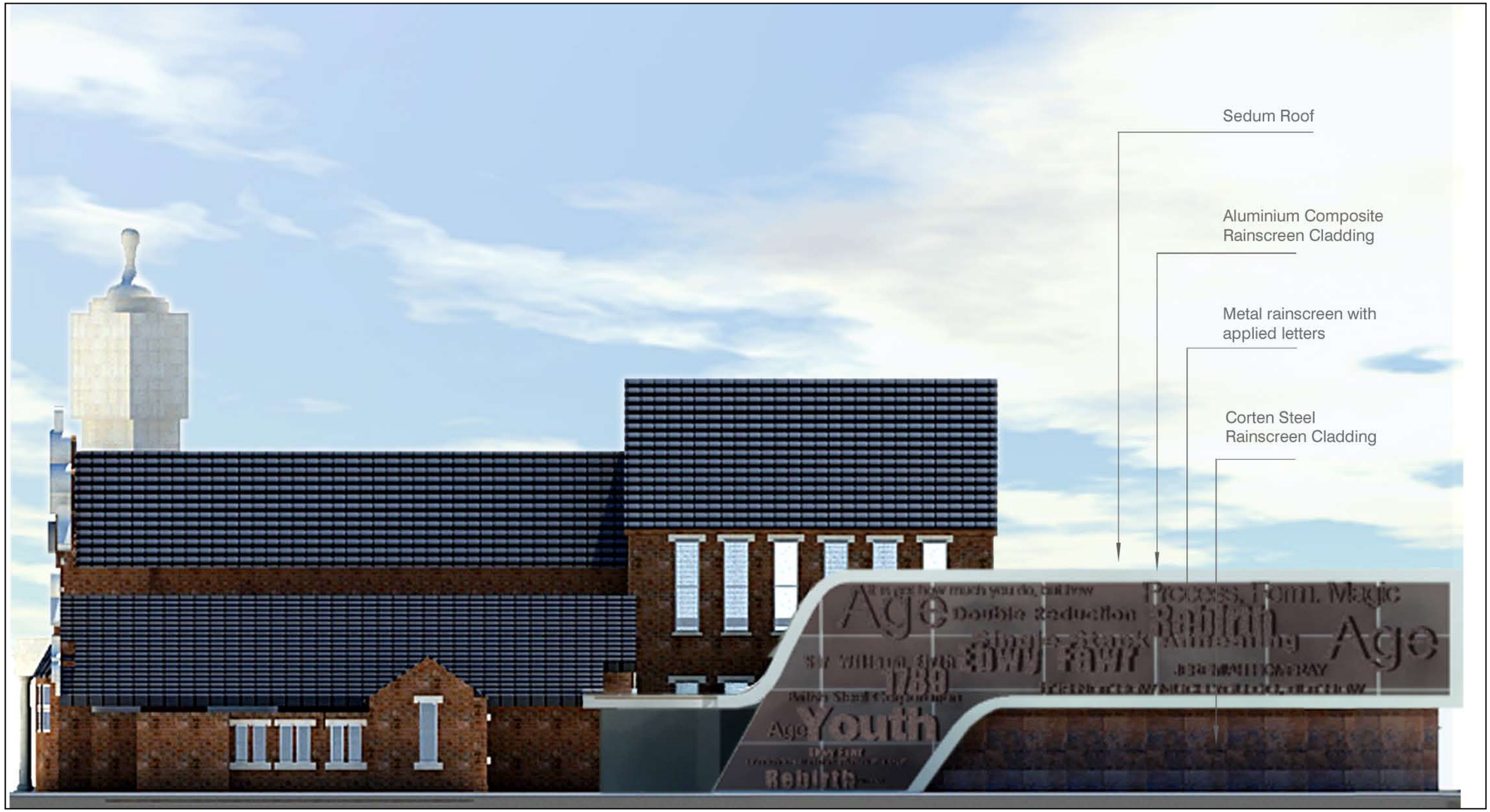
Existing General Office Building

View of connection on the Southern Facade



View of connection on Northern facade

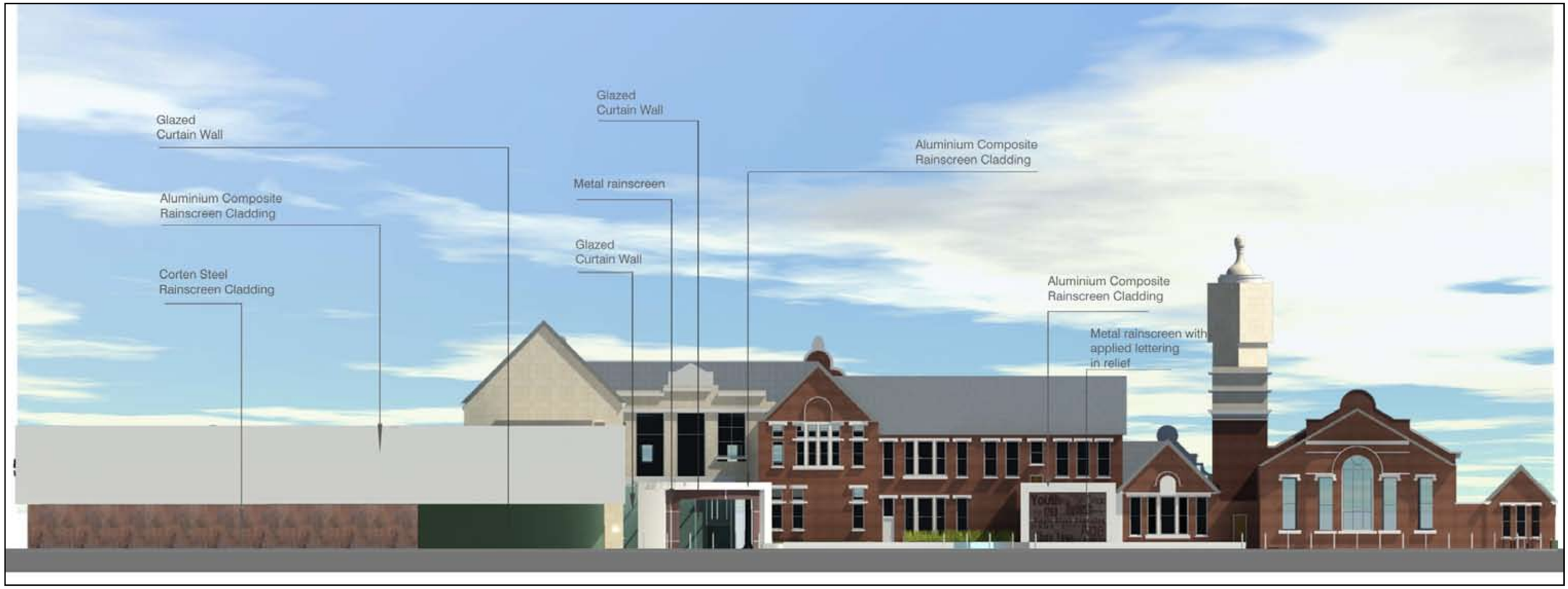
ARCHITECTURAL DESIGN PHILOSOPHY
North Elevation



ARCHITECTURAL DESIGN PHILOSOPHY
South Elevation

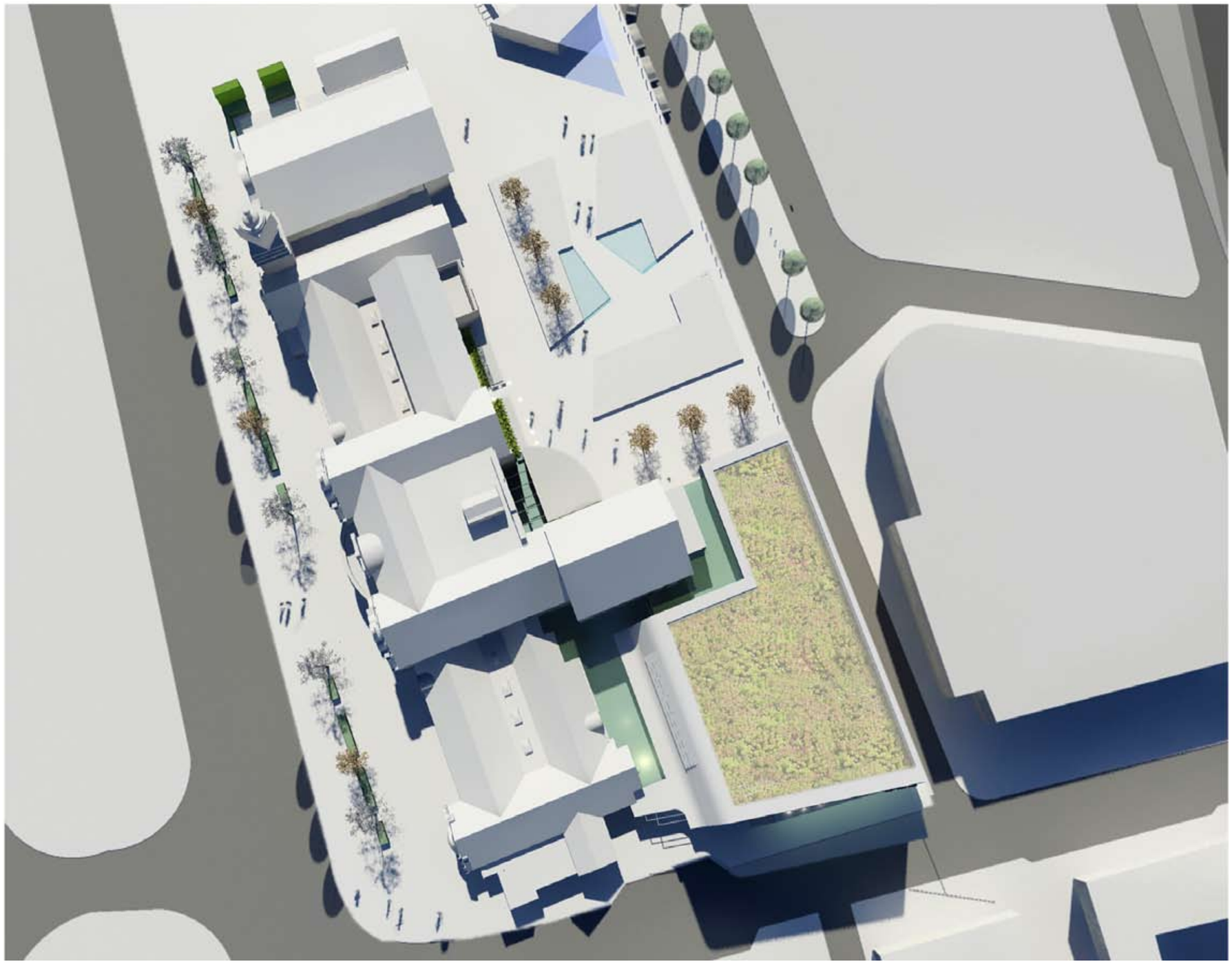
ARCHITECTURAL DESIGN PHILOSOPHY
East Elevation

ARCHITECTURAL DESIGN PHILOSOPHY
West Elevation



ARCHITECTURAL DESIGN PHILOSOPHY
Perspective View

ARCHITECTURAL DESIGN PHILOSOPHY
Aerial View



DESIGN STRATEGY
Access statement

This statement aims to highlight details of access facilities for disabled people, divergence from the approved documents, approach towards inclusive design, key issues and sources of advice and guidance used.

Introduction

The access and inclusivity strategy is based on the Inclusivity Audit commissioned by Blaenau Gwent CBC.

The audit identifies five strategic issues:

- Logistics – the mobility needs of people with physical, dexterity, stamina and visual impairments.
- Legibility – the way-finding needs of people with visual and cognitive impairments.
- Clarity – the environmental needs of people with visual, hearing and cognitive impairments.
- Calmness – with regards the characteristics of particular "time-out" places or spaces within an environment (beneficial to people who are in stressful circumstances or who have a particular cognitive impairment leading to stress).
- Ergonomics – with regards to people's interactions with the environment (such as when people are carrying out detail tasks and are seeking to maintain a health posture) each with differing dexterity, size, ability or impairment.

It makes particular reference to the following general design considerations that need to be followed when considering access and inclusivity. These relate to Environment, Signage, Finishes, Lighting and Furniture:

1.1. A legible and clear environment will be provided - by attending to:

- Architectural clarity and "language" – by following good architectural design principles.
- A good acoustic environment conducive to a calm environment – with particular reference to Building Bulletin 93 wherever possible.
- Spatial clarity and detail clarity enhanced by tonal and colour contrast - with reference to the RNIB, University of Reading Research and Dulux "Colour and Contrast" CD.

1.2. Signage & wayfinding clarity (both visually and cognitively):

- With "arrival", directory, maps, directions and "connection" information inside and outside the building.
- Combined with the enhancement of locations, routes and junctions by use of "place-making" (décor and/or artistic events / "markers")
- With reference to the Sign Design Guide and NHS Estates document "Wayfinding"

1.3. Finishes that are (as far as possible):

- Non-reflective,
- Contribute to wayfinding, spatial and detail clarity
- And are non-slip or trip - in the case of floors - yet give rise to ease of movement.

1.4. Lighting that consists of:

- Good natural lighting levels and controls.
- Good background artificial lighting inside and outside the building (with particular attention to avoidance of glare and veiling reflections)
- Access to task lighting (to provide greater control over local lighting levels)

1.5. Furniture and fittings that consists of:

- Variety, flexibility or adaptability where necessary, with particular attention in specialist teaching areas, which are normally characterised by fixed furniture and fittings.
- Scope to accommodate auxiliary aids.

Specific Issues

ARRIVAL/ DEPARTURE, APPROACH, ENTRY AND RECEPTION

- Off-site issues:

Drop-off points
Signage on public highways from key transport nodes

Approach and Externals: (primary external circulation and environment):

The audit recognises the challenge of creating a level access at the existing main (stepped) east entrance: "The existing East entrance would seem to present difficulties in terms of achieving a satisfactory architectural solution for a level entrance, and therefore the use of an alternative new entrance via the West side of the building would seem to be a wise move".
Currently, the appeal of the east entrance as a principal arrival point is limited by the fact that the public space in front is somewhat restricted. This will, however, become more generous after the phase 3 works to the PDR. This notwithstanding, the General Offices will also certainly require a new entrance from Station Square. We propose that the main entrance for general visitors remains via the east, which has the great benefit of bringing visitors past the impressive principal façade of the General Offices. On the opposite side of the building, we are proposing a new second entrance pavillion to define the public entry into the building on the western façade of the GO. This structure will house the tourist information centre and will be an extension of the main entrance hall westwards. Thus visitors arriving via Station Square will be brought into the heart of the new GO complex, just as those entering by the east door will be drawn through to the square behind. A level entrance will be provided by gently grading the finish of Station Square up to the ground floor level around the entrance pavilion.

The points relating to resting places, tactile routes, clear wayfinding, avoidance of unnecessary obstructions and low walls and external lighting have been taken on board by the landscape designers.

Entrances and exits

Principal east entrance: Solutions for creating a level entrance at the principal east entrance have been carefully considered. The convex radial plan form of the entrance steps presents a particular challenge when considering ramps, and adjusting the external levels would mean not only a significance impairment of the stepped entrance feature but difficulties in terms of blocking the low-level grilles supplying natural ventilation to the undercroft of the ground floor. The 'reasonable alternative' of the alternative west entrance has therefore been adopted. The internal lobby doors will be replaced with new automated doors, and clear tonal contrast to nosings will be provided. It is unlikely that tactile corduroy paving to the top of external steps will be possible without significant damage to the existing stonework. Alternatives such as studs will be explored. A free-standing handrail for the east entrance steps was not considered essential in light of the new alternative access that the project is providing.

CIRCULATION WITHIN THE BUILDING

Access to the south of the building:
There has been some debate about the extent to which the café (room G28) at the south of the building might function as a standalone entity, particularly 'out of hours', and consideration has been given to opening up existing entrances to the south and west for public access. Latterly it has been decided that access will be primarily via the corridor linking the café to the principal entrance to the General Office building. This means that the level access provided by the new west entrance will be sufficient. However, a new entrance porch and steps are proposed at the southern entrance to improve access to the new bin store area. A new internal ramp will be built to make good the difference in levels between the café and the adjacent kitchen.

Reception area
Inclusive design considerations as outlined in section 8.4 of the audit, will be adhered to.

Internal horizontal circulation
Good lighting, contrast, signage and way-finding will apply throughout. Tactile way-finding maps will be considered at strategic locations around the building.

Corridors:
The audit found that "On the whole….corridors and general circulation to be conducive to ease of movement around the existing building".

As suggested by the audit, the up-stand steps to the rear of the proposed Foyer and Tourism space and in a small lobby adjacent to the proposed Genealogy 4 room will be removed.

Doors:
The audit concluded that the majority of internal doors had a clear width of greater than 800mm and therefore exceeded the recommended minimum clear width for doors. There are a few narrower doors and these mainly related to doors that could either be permanently held back or removed, or for which alternative routes could be achieved.

The exception to the generally wide doors is the existing walk-in safe doors, of which there are several located around the building: These do provide 800mm clear but only when they are in the fully open 180 degree position. Furthermore they are very stiff and heavy. In addition there are gates located on the inner side of these openings.
The intended purpose of most of these rooms is ancillary/ storage spaces.
We suspect that an historic fabric point of view there would be significant reluctance to remove these doors.
The proposal is to follow the suggestion of the audit and secure all safe doors and gates in the fully open position and if gates cannot be opened to 180 degrees, that they be taken of their hinges and secured on the wall just inside the room near their original position. Should doors be required on these former safe openings, door jambs will be located on the inner face of the wall to these openings, so that the resultant doors are as wide as they can be and

constricted by the existing steel jamb opening which would otherwise result in these doors being narrow.

Many doors are operated by door knobs as opposed to levers or pull handles/ push plates. However, the majority of the door knobs are elliptical and whilst not offering operation to individuals not able to grasp ironmongery, nevertheless offer greater grip than spherical / circular door knobs.

Wherever possible doors will be held open on electromagnetically held devices and closers will have a maximum pull resistance of 30N when activated.
Doors that need to be closed will have swing free closers, that activate when a fire alarm goes but when they nevertheless activate have a maximum pull resistance of 30N.
The doors onto the Main Lobby, First Floor Landing, Search Room, Lecture Hall and internal doors leading through to the café in the existing building will be automatically functioning.

Stairs and Steps:

The existing principal stairs:
Are between ground and first floor within the existing building. They have risers of 170 mm and a goings of 270 mm and tread depth of 320mm, which would be consistent with current standards. The audit considers that while the first central flight is relatively long, “the basic stair configuration might not be considered overly challenging”, except that there are no handrails other than vastly “oversized” stone balustrades, which other than providing some manual support, would not offer continuous support that can be easily held onto. It is considered reasonable that the proposed lift is a reasonable alternative for someone with ambulant mobility impairment who would have otherwise have need of a handrail to the stairs.

Stair to second floor
The existing timber stair has risers of 220 mm and goings of 230 mm and tread depth of 260 mm, which would be considered steep for this type of building and is significantly steeper than the recommendations given under the Approved Document to Part M of the Building Regulations given the space constraints.
It is proposed to replace with a new staircase that more nearly conforms to the Approved Document. It is likely that the room at second floor level will be used, at least intermittently, as office space. As such, it is noted that there is no lift access to this level.
However, as the audit notes, whilst a lift serving this ideal it is worth recognizing that access to all locations needn’t always be absolutely necessary, providing that there are:
either no unique spaces:

- for which alternative venues cannot be arranged;
- or these spaces are used for workspaces used by those in employment:
- for which alternative office accommodation can be found for those for whom access would be unachievable and
- from which someone working in such space can be contacted by phone in order to meet in a more accessible space.

Access to rooms F8, F9, F10.
There are particular issues related to access and escape to and from these spaces, as highlighted in the audit. These are caused by two split levels. The first of these is a short flight of steps connecting a corridor that serves three offices. It has risers of 210mm, goings of 220mm and tread depths of 240mm, but the bottom riser is 230mm and therefore unequal to the rest. The flight does not appear to be part of the original fabric of the building and would appear to have been installed late a relatively late period.
The second flight is longer and connects the lower corridor to a fire escape at the top of an external steel fire escape. It has risers of 180mm and the goings of 260mm, which are close to current standards.
The first of these flights will be replaced with a new flight built to the Approved Document to Part M of the Building Regulations. The egress via the internal part of the fire escape will be optimized by nosings that are clearly identified by tonal contrast and handrails will be provided to assist people with ambulant mobility impairment.
The external fire escape is being replaced and built to the Approved Document to Part M of the Building Regulations with non-slip treads.
The audit suggests the possibility of a platform lift being placed alongside. This does not mean a stair lift but a platform lift, separate to the stair flight, but serving the same levels. However we would observe that means of escape would be problematic in that:

- The platform lift is unlikely to be an appropriate means of escape, unless it had an interrupted power supply and could be certified for escape purposes.
- There is no space for a refuge to the top of the fire escape at the other end of the floor plate, unless the floor were extended out above the existing internal stairs and out via an existing window opening reformed to accept a fire escape

In view of the above, and in accordance with the access audit, the recommendation is that these spaces might best be used for workspaces used by those in employment:

- for which alternative office accommodation can be found for those for whom access would be unachievable and
- from which someone working in such space can be contacted by phone in order to meet in a more accessible space.

Stairs to basements
The basement under the principal entrance hall is to used for plant, “for which reasonable levels of physical agility and visual acuity are often core competency requirements expected of maintenance workers”. No change is proposed to the existing stairs, therefore, beyond improvement of the tonal contrast of the nosings.

New extension to the building to house the Gwent Record Archive:
Stairs will be built to the Approved Document to Part M of the Building Regulations.
Refuges will be provided at each landing, clear for circulation routes.

The existing fire escape route is to be maintained from the first floor Lecture Hall. The door width to be increased

Lifts
A goods lift is proposed for the use of staff of the Record Office. This lift will access all three floors of the archive, although it should be noted that the first floor level of the proposed archive does not match that of the Engineering Drawing office of the existing building adjacent, making it unviable to use this lift for vertical access in the General Office building.

A new platform lift is therefore proposed for general users of the General Office building, housed in a central location near the principal staircase, at a point where the corridor widens.

FACILITIES

WC Facilities

The existing WC facilities at the north end of the building will be retained and modified, to provide an access WC. These spaces are considered of special historic importance, and as such it is not proposed to make changes such as removal of urinals, or removal of steps to the urinals. Alternative provision for ambulant user functionality is made in a relatively centrally located new suite of male and female WCs on the ground floor. These incorporate ambulant access cubicles. A separate access WC is proposed as part of this suite.

Exhibition and display spaces
Displays and exhibit design will follow the recommendations set out in BS 8300 for people with differing needs in terms of ergonomics, sight and hearing.

Lecture hall
The interior fit-out will follow clauses 4.5 to 4.16 of the Approved Document to the 2004 edition of Part M of the Building Regulations - with fixed hearing enhancement facilities and scope to accommodate wheelchair users in seating layouts.

Office and administration spaces
Inclusive design considerations outlined in the audit will be adhered to. These relate principally to the interior fit-out of office spaces and the ergonomic considerations of furniture; manoeuvring space for wheelchairs; good task and background lighting levels; tonal contrast to fixtures and furniture.

Kitchen areas
Inclusive design considerations relating to worktop heights and layouts, as outlined in the audit, will be adhered to.

EGRESS

All ironmongery whether on final escape doors or internal doors will be reviewed in terms of ease of operation by people with visual, dexterity, mobility and cognitive impairment.
Automated doors will swing freely if the power fails or return to an open position or open-able state (if sliding) - to facilitate ease of emergency egress.
All fire doors with closers activated by the fire alarm will have consequential opening forces kept to a minimum.

Refuges will be provided on the first floor level: within the lecture theatre, and at the landing of the principal stair. This is in accordance with recommendations of the fire consultant. The refuges will comply with the Approved Document to Part M of the Building Regulations. An assessment will be made as to the suitability of installing wall-mounted ‘evac-chairs’.

An evacuation strategy will be a subject for the Stage 4 Access (Occupancy) Statement and for addressing the client’s duty to produce a fire risk assessment. This should be devised by the client before the building is occupied and in accordance with EHRC information, must not be solely reliant on the attendance of the fire brigade.

DESIGN STRATEGY
Energy Use and Sustainability

Introduction

1.1 The proposed refurbishment of the existing General Offices and construction of the new extension to house an archive storage facility will be designed with sustainability as a central concept. Energy performance across the site will be optimised and materials, construction, water consumption and all sustainability related issues will be implemented using best practice where feasible. Both phases will be assessed under BREEAM schemes.

1.2 The new build phase of the development (Gwent Records Office Archive) is subject to energy targets as set out in the Sustainable Energy Strategy (ESD June 2007) and must improve on building regulation carbon emissions by 25%; 15% from energy efficiency measures, 10% from Low and Zero Carbon Technologies (LZCTs). The existing General Offices building is not subject to a target due to it's listed status.

1.3 This technical note summarises some of the key sustainable features that are to be included based on current design proposals.

General Offices

2.1 Energy
- Naturally ventilated/mixed mode solution
- Double glazing to replace existing single glaze sash windows
- High efficiency plant
- Heat recovery
- Reduced infiltration rates
- Improved insulation (u-values)
- Solar water heating
- High efficiency lighting
- Sophisticated controls (occupancy, daylight etc)
- Sub-metering
- Biomass/CHP district heating

Measure	Predicted*
Energy Efficiency	35.4%
Low and Zero Carbon Technologies	38.1%
Total	73.5%

*Measured against predicted existing building energy consumption

2.2 Other measures
- Separation of existing combined foul and storm water system
- Rainwater recycling
- Reuse of materials
- Subject to a new BREEAM scheme
- Low water consumption appliances

Gwent Record Office

3.1 Energy
- Large thermal mass
- High efficiency plant
- Heat recovery
- Best practice u-values
- No glazing to archive storage
- High efficiency lighting
- Sophisticated controls (occupancy, daylight etc)
- Sub-metering

Measure	Target	Predicted
Energy Efficiency	15%	27.8%
Low and Zero Carbon Technologies	10%	25.9%
Total	25%	53.7%

3.2 Other
- Sedum roof
- Rainwater recycling
- BREEAM Excellent
- Predominantly A-rated materials (Green Guide to Specification)
- Low water consumption appliances

Biomass/CHP District Heating System

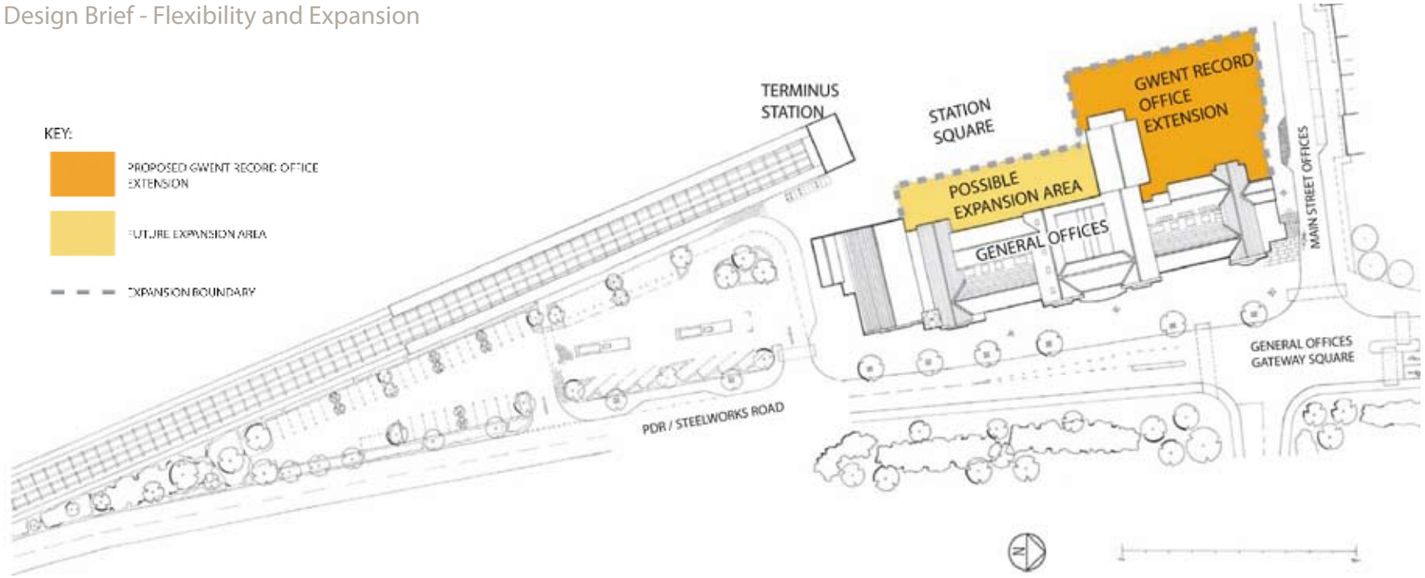
4.1 The district heating system referenced above refers to the proposed works centralised system. Due to phasing issues this is not due for completion until 2 years after commissioning of the General Offices and Records Office. In the interim a temporary gas boiler has been proposed to provide heating to the building.

For a detailed performance and analysis of the General Office Building, refer to General Offices Energy Statement Sept. 2008 by Halcrow Yolles

DESIGN PHILOSOPHY
Flexibility and Expansion

The design brief establishes potential for future expansion along the west facade. Although the functional brief can be accommodated within the development proposals set out in this application, future expansion should not be ruled out.

Design Brief - Flexibility and Expansion



Proposed Design - Flexibility and Expansion

DESIGN STRATEGY
Secured By Design

Public Access

The extension houses the archive collection of five councils in south wales and as such is subject to high security requirements. These are largely covered by the dictates of BS5454.

Care has been taken to secure the premises - firstly in layout by separating the public and private activity within the building.

Access to the public is controlled by defining and limiting main entrances into the General Office building. Principal entrances into the main entrance hall are from the east and west i.e. the existing portico and new tourist information centre respectively. Secondary entrances are provided into the Cafe and Exhibition spaces for independent use at varying hours of the week.
Access into the archive store extension is limited through the secure corridor, access door and lift. Both the General Office building and Extension act as independent buildings with the only means of access between the two blocks through the covered corridor.

Natural Surveillance

The design eliminates as far as possible recesses, blind corners and hiding spaces within the site and around its boundaries. The four elevations are all subject to natural overlooking as they are fronted directly by roads on two sides and a landscaped public square & pedestrian walkway on the others. No physical obstruction hinders or hides the facades.

Formal Surveillance

There will be a CCTV system covering the perimeter and the carpark.

Lighting

Site-wide lighting is designed to cover all ground floor areas and landscape. Street lighting is to highways standards.

Landscaping

Landscaping has been designed to ensure that clear sight lines are maintained. It does not create hiding places for intruders and does not impede natural surveillance.

Carparking

The design is to be progressed using the ‘secured car-parks ‘ principles where possible.

Cycle Storage

Secure storage for bicycles will be provided

Building Shell

The cantilevered projections at first floor level will be designed to limit climbing onto the proposed extension block.

Windows

There are no ground floor windows to the proposed archive store extension.
Windows to the existing General Office building will be lockable.

DESIGN STRATEGY
Refuse Collection

The strategy complies with the Urban masterplan and outline planning application strategy of servicing and circulation for service access.

A bin store is located near the Loading bay at the northern entrance. It will be lockable and will hold confidential waste mainly from the Modern Records division of Gwent Record Office.

Access for collection of waste by a 3 axle Refuse Collection Vehicle (RCV) will be from a layby on Main Street Offices.

The Building & Extension have been broadly categorised into two types of uses for estimating refuse storage capacity required i.e. General offices and premises serving food. The recommended storage capacities for commercial developments of these types are as shown below -

Type of Development	Total Storage Capacity
General Offices	2500 Litres per 1000m2 gross floor space
Premises Serving Food	500 Litres per 20 Dining Spaces or 100 meals served*

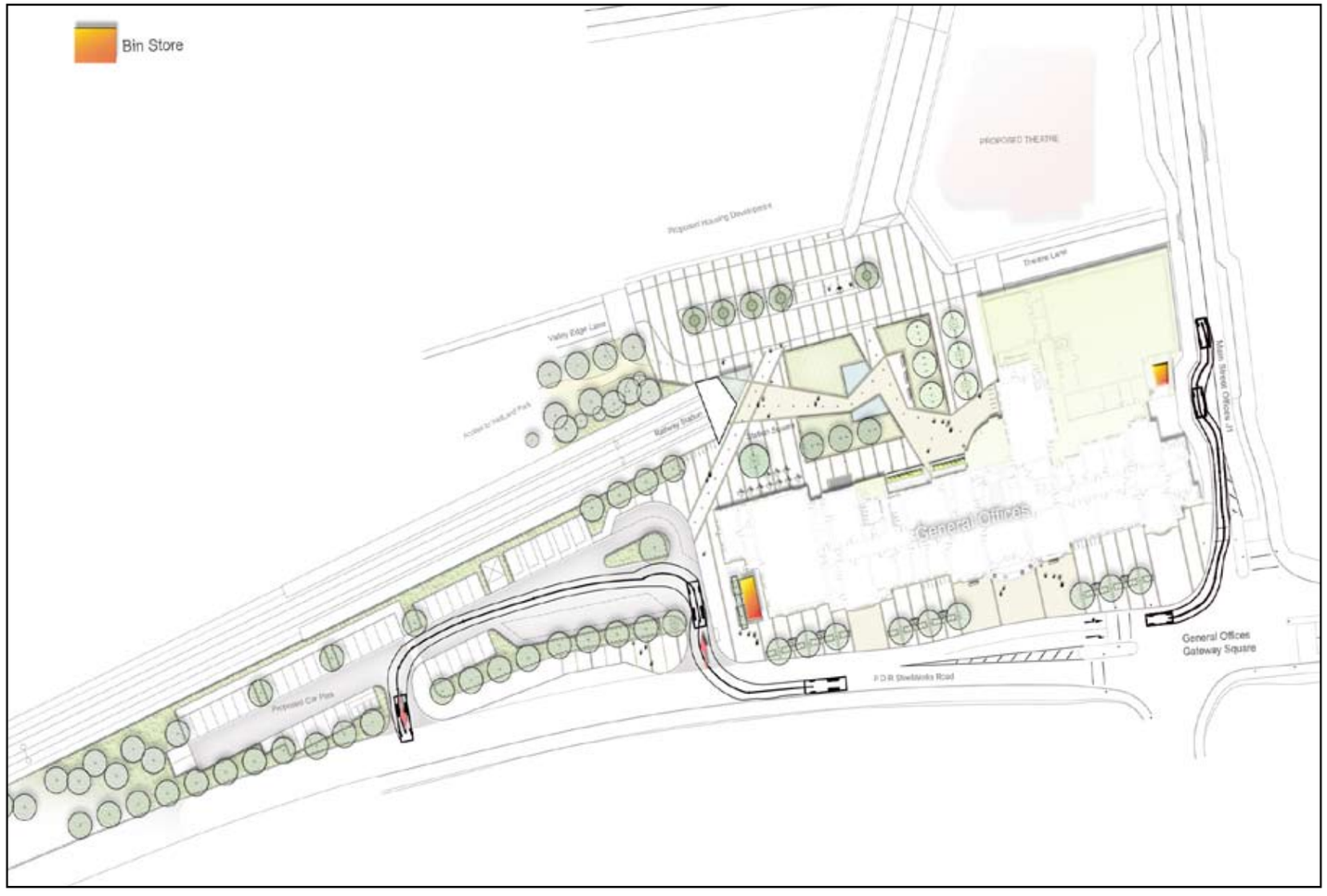
* certain food outlets such as fast food restaurants and takeaways will produce substantially more waste

** the volume of waste depends to a large extent on the type of hotel and facilities offered

These recommendations include 50% allocation for waste recycling. Separate provisions will be made for food waste.

The bin capacity for Offices is estimated on the basis of the total area of office use in the building which is @1300m2. Based on the recommended capacties for offices of 2500 litres per 1000m2 area, for 1300m2 area, a total of 3250 litres of refuse storage is required. Using a standard 1100 litre bin to service these requirements 3 bins will be provided. An extra bin will be provided for recycling secure waste.

To estimate the bin storage requirement of the Cafe based on the number of dining spaces for premises serving food, the maximum occupancy factor for the Cafe/Exhibition area is considered which is 171. Based on the recommended storage capacities of 500 litres per 20 dining spaces, 171 dining spaces would require 4275 litres of refuse storage capacity is required. Using a standard 1100 litre bin 4 bins will be provided to meet the required capacity.



On collection days, the management company will collect the bins from the individual core using an electric haulage vehicle. The bins will be presented to a central collection point at the vehicle entrance.

Initial concepts respond to the conservation management plan and policies.

Conservation Strategy

The strategy for retention and re-use of the existing building has been driven by the Conservation Management Plan (2006), which identified levels of significance of existing structure.

This drove the following decisions:

- Retain the Engineering Drawing Office
- Alter no part of the original 1913 exterior along steelworks road
- Remove the modern toilet block to the west and the modern extension to the Drawing office to the northwest
- Additions proposed will enhance the external and internal fabric of the existing GO building.
- Repair and reinstate the exterior facade and the interior to preserve the character of the existing General Office Building.
- Retain the existing basement toilet block and boiler room and preserve for potential future use.
- Minimise impact on the existing fabric of the General Office building Block.
- To preserve the condition of the existing building,

A detailed description of the conservation and revival strategy and its compliance with the CMP and policies is elaborated in the Heritage Impact Assessment.

NORTH

General Offices / Station Square

Legend

1. General Offices
2. New archive - store / exhibition area
3. New terminus station building
4. Drop off area
5. Station car park
6. Taxi - rank
7. Cycle parking provision
8. Cafe breakout space
9. Water feature/ pool
10. Raised lawn
11. Potential canopy to new terminus station building
12. Access to Central Valley Wetland Park
13. Natural stone paving
14. Exposed aggregate paving
15. Street furniture
16. Sub station
17. Bring facility / public recycling
18. Native shrub and hedge planting Beech (Fagus sylvatica)
19. London Plane (Platanus x hispanica) Semi mature
20. Cherry (Prunus 'Sunset Boulevard') Semi mature
21. Fastigiate Beech (Fagus sylvatica 'Dawyck') Semi mature
22. Handkerchief tree (Davidia involucrata) Semi mature
23. Tree Species adajcent The Steel Works Road: Lime (Tilia cordata 'Greenspire') Semi mature
24. Screen pleached trees; Lime (Tilia cordata 'Greenspire')

Planning application boundary refer to Halcrow & Savills submitted documentation

LANDSCAPE
Elevations

Landscape front elevation to General Offices

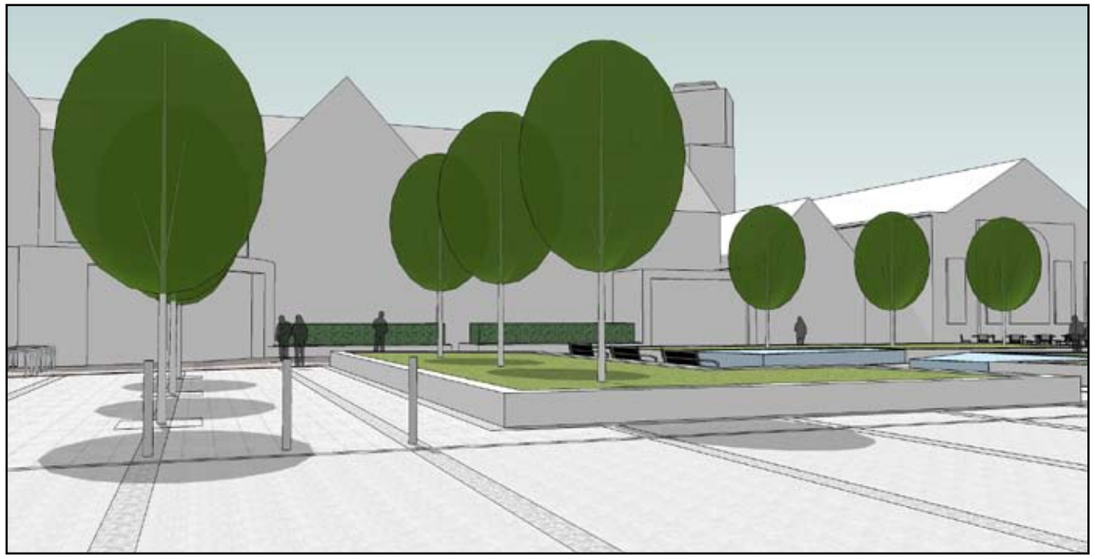
Landscape rear elevation through Station Square

LANDSCAPE
Sections

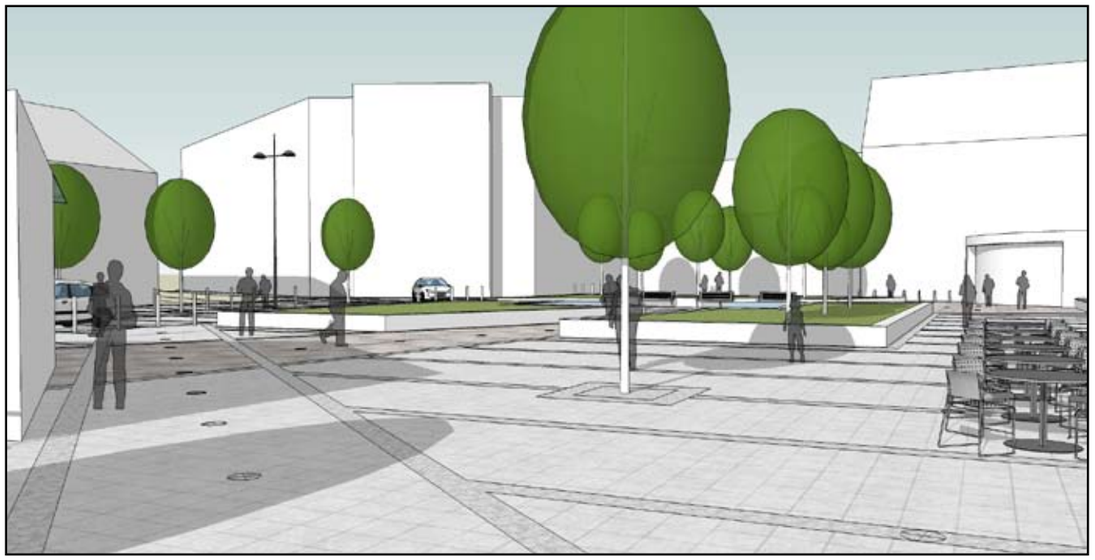
Landscape section A - A’

Landscape section B - B’

LANDSCAPE
Views

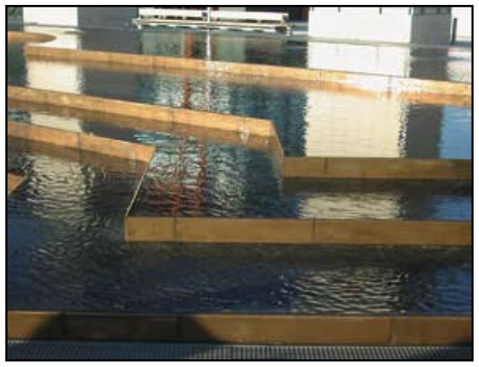


LANDSCAPE
Views



Landscape Visualisation of Station Square

LANDSCAPE
Design Imagery



LANDSCAPE
Materials Pallette

Hard landscaping

Natural Stone Type 1

Sizes: 300 x 600
Finish: Buff, diamond sawn
Location: Key pedestrian routes and main entrance to public building
Notes: Hazard paving, cobbles & channels to be natural stone
Supply Notes: UK Source
Manufacturer has ISO 14001 Social Responsibility Policy

Natural Stone Type 2

Sizes: 100 x 300mm/100 x 100mm

Finish: Flamed finish

Location: Banding, paving & edging detail

Supply Notes: UK Source
Manufacturer has ISO 14001
Social Responsibility Policy
Supplier part of ETI - Ethical Trading Initiative

Exposed Aggregate Paving

Sizes: 400 x 400 x 65mm

Finish: Silver grey, fine grain textured

Location: General paving to public realm

Supply Notes: UK source (Wales)

All exposed aggregate products outlined to be 30% recycled material. Composition includes local aggregates to reduces product miles

Exposed Aggregate Setts

Sizes: 100 x 200mm

Finish: Silver grey, fine grain textured

Location: Shared surfaces / Vehicular

Supply Notes: UK source (Wales)

NOTE All paving materials and construction to allow for light vehicular overrun adjacent to buildings

Exposed Aggregate Kerbs

Sizes: 255 x 205mm

Finish: Silver grey, fine grain textured

Location: Shared surfaces / Vehicular

Supply Notes: UK source (Wales)

Raised walls / structures

Sizes: Varies

Finish: Flamed finish
Natural stone Type 2 to facing & coping of raised walls; lawns and water features

Supply Notes: UK Source
Manufacturer has ISO 14001
Social Responsibility Policy
Supplier part of ETI - Ethical Trading Initiative

N.B. The paving materials are dependent on available local and sustainable sources which may be used as a substitution

Street furniture

Ambient Lighting

Finish: Stainless steel

Fixing: Fixed into ground or onto walls where appropriate

Location: Columns & wall lights; site wide

Illuminated bollards; site wide
Uplighters; under trees

Also refer to lighting strategy documentation

Tree Grilles

Size: 1200x1200mm

Finish: Stainless steel

Fixing: Fixed into ground

Location: To all trees located within hard landscaping

Litter Bins & Bollards

Size:70L
Litter bins: 1150mm above ground
Bollards: 140mm diameter x 1100mm above ground

Finish: Stainless steel

Fixing: Fixed into ground

Mechanical bollards & barriers to match

Cycle Stands

Maximum blocks of 5 (double sided)

Finish: Stainless steel

Fixing: Fixed into ground

Seating

Finish: Stainless steel, slatted, finish TBC

Fixing: Fixed into ground

Signage

Finish: Stainless steel

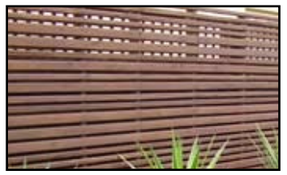
Fixing: Fixed into ground

Demarcation

Finish: Stainless steel

Fixing: Fixed into ground

Stainless steel studs / road studs to General Offices car park and Station Square



Timber Screen

Location: Car park boundary

Supply Notes: FSC timber
Local material to be used where possible

Water Feature

Reflective/ mirror pools with natural stone Type 2 facing to top and wall sections

Sizes: Varies

Finish: Polished
The depth of water will be approximately 10-15mm, water will flow subtly over the edge to drain into a concealed slot drain (to water specialist details)

Soft Landscaping

Trees

Primary Species to station square: London Plane (Platanus x hispanica) Semi mature

Secondary Species: Cherry (Prunus 'Sunset Boulevard') Semi mature

Tree species to General Ofiices frontage: Fastigiate Beech (Fagus sylvatica 'Dawyck') Semi mature

Feature tree species: Handkerchief tree (Davidia involucrata) Semi mature

Tree Species adajcent The Steel Works Road: Lime (Tilia cordata 'Greenspire') Semi mature

Supply Notes:
UK provenance
Semi-mature specimen to station square and General Offices with underground guying backfilled with engineered tree soils

Shrub & Hedge Planting

Location: frontage to General Offices, Car park and site boundary

Single native species used as hedging and groundcover, species selected for its formal character, seasonal colour & interest

Species: Fagus sylvatica (Beech)

Turf

Location: All grassed areas on site

Supply Notes: Turf used for immediate effect Lush quality grass sward to all areas

Tree protection

If relevant, protective fencing shall be erected in accordance with BS5837 type figure 4 before site clearance starts.

Site clearance

The site shall be cleared of rubbish and debris. If relevant, shrubs and smaller trees shall be cut down and grubbed up. Larger trees shall be felled as close to the ground as possible and stumps removed.

Before beginning general excavation or filling, any topsoil shall be excavated from areas where there will be regrading, buildings and pavings. It shall be removed to an average depth of 200mm and kept separate from any excavated subsoil. Areas beneath any trees to be retained shall not be disturbed. If relevant, temporary heaps of top soil shall not be stored more than 1.5m high and will be kept weed free until it is required.

Subsoil

Materials arising from the excavations or imported to make up deficiencies shall be used as subsoil provided they are a suitable growing medium under topsoil for planting and grass works. It shall not be compacted, waterlogged or contaminated with building materials or chemicals. It shall be ripped and cultivated to loosen and decompact. The subsoil shall be graded to form smooth flowing contours. There shall be 750mm of subsoil under trees and shrubs with 500mm under grass.

Topsoil

Quality topsoil of a light loam texture, stone free of neutral pH shall be imported to make any deficiencies. It will have sufficient nutrients to sustain healthy plant growth. It shall be to BS 3882 Premium grade for ornamental areas and semi mature trees, general-purpose grade for boundary planting. Depth of topsoil shall be:

• Grass Areas: 150mm
• Shrub Areas: 450mm

• Tree pits size: Advanced nursery stock:diameter: 1500 depth 900mm
• Semi-mature: diameter: 2100 depth 900mm

Grass works

Ornamental areas (which include all raised lawns) of grass within the development of the Station Square shall be turfed with a purpose grown high quality sward. Lawns shall be maintained to ensure a healthy sward cut regularly to give a neat and tidy appearance.

Exterior Planting

Topsoil shall be levelled and cultivated prior to planting and shall be suitable for maintaining healthy growth. Soil conditioners, ameliorants and fertilisers shall be added to the topsoil as required for the plants specified.

Subject to programme, all plant material shall be contract grown for at least 2 years in advance and reserved for the project.

Material shall be undamaged, sturdy, healthy and vigorous, of good shape and without elongated shoots. It shall be grown in a suitable environment and hardened off. It shall be free from pests, diseases, discoloration, weeds and physiological disorders. Budded of grafted plants shall be bottom worked. All plants shall have balanced root and branch systems, healthy fibrous root system and condition in accordance with the relevant part of the National Plant Specification and exhibit a high degree of juvenile extension growth appropriate for the species. All plant material shall be regularly pruned, according to species, to ensure vigorous and healthy growth. All container grown trees and shrubs shall have been grown in the container at least one full growing season prior to delivery and show substantial new root growth within the full volume of the container. They must show no signs of being pot-bound or waterlogged.

Principal trees for the main square will be semi mature 45cm girth, specimen trees adjacent the Steel Works Road and those located within the raised shared surface shall be semi mature 45cm girth 5m tall. Trees in the car park will be 25 cm girth. Specimen trees to general planting adjacent the proposed car park will be a minimum of 18cm - 25girth.

Trees in paving shall have a tree grille with frame and be planted in an urban tree soil mix. All trees shall have an irrigation tube and appropriate drainage to the pit. Trees shall be supported with staking where located within shrubs and guying appropriate to the species and the size where located in grass and paving.

All planting shall be native stock comprising of a single species to provide a uniform and simplistic design to the scheme. Planting stock will be appropriate in size to create effective ground cover at time of implementation.

All planting shall be protected from damage by pedestrians. Any plants damaged, dead or dying shall be replaced at the next available planting season. All areas of planting shall be maintained to promote healthy growth and to appear neat and tidy at all times.

Maintenance

All soft landscape areas will be maintained for 2 years following practical completion (subject to estate management procedures).

Hard landscape generally

The hard landscaping will be based on the selection outlined in the approved The Works – Ebbw Vale Design Code. There shall be a hierarchy of paving materials generally with natural stone material situated at key entrances to buildings and key pedestrian desire lines whilst high quality exposed aggregate paving is located to other areas of the square. Interlocking exposed aggregate block paving will be predominately used for the raised shared vehicular surface. Allowance is to be made for all inspection chambers covers to be recessed arranged to accommodate the direction of paving. Where access is required for elevated mobile platforms to carry out maintenance work to the General Offices/ Extension/Station Building, the paving construction to allow for overun

Main Entrance to the General Offices & Station

These areas shall be treated with natural stone paving flags. The material shall extend along the main pedestrian routes within the square providing a clearly defined desire line. The stone shall be mortar bedded and laid in coursed pattern aligned on the principal entrance. Expansion joints shall be included to allow for movement.

Any steps or ramps will be a material equivalent to that prescribed locally with integrated nosing. Hazard paving will be of natural stone to match local flags and units.

Feature paving

Natural stone sets will be used for detailing and edging generally, and will offer textural and linear demarcation. Feature banding will consist of natural stone sets laid as a soldier course between natural stone and high quality exposed aggregate paving.

Natural stone feature banding will be used to break up large areas of paving aligned perpendicular to key features of the General Offices facade.

Peripheral areas

Paving to all pedestrian areas / public realm adjacent the natural stone paving will consist of high quality exposed aggregate paving slabs.

Raised shared surface

High quality exposed aggregate block paving to match the paving within the main square will be used for the shared surface/vehicular circulation. Interlocking exposed aggregate blocks will be used at vehicular overrun with the sub base construction to engineers detail and specification. Interlocking exposed aggregate blocks will be laid flexibly (unless otherwise specified) in a 90 degree herringbone pattern to engineer's specification. Granite feature banding will be used to break up large areas of the block paving as a continuation of the adjacent pedestrian area. A section of the shared surface (to the avenue tree planting) will be raised; exposed aggregate kerbs to match the block paving will be used.

Exposed aggregate kerbs to match paving slabs and interlocking block paving will be used throughout the square and shared surface.

Drainage

Drainage will consist of surface water channels in natural stone to match flags and/or stainless steel slot drainage. Laying and falls should minimise cuts and too many changes in direction of gradient.

Car park

Car park shall be surfaced in bitumen macadam, with car park spaces as high quality exposed aggregate block paving in accordance with the engineer's specification.

Maintenance

All areas of paving shall be maintained regularly, kept free of litter, snow and fallen leaves. The paving shall be cleaned at regular intervals to remove stains and joints re-sanded where necessary.

LANDSCAPE
Specifications

Street furniture

The street furniture shall be a co-ordinated range. It shall be robust, capable of withstanding the wear and tear expected in a busy public realm area.

Seating shall be stainless steel benches with back and arm rests. The seats shall be root fixed. Litter bins shall match the seating and shall have integral ashtrays. These elements shall be located at key locations within the square and at entrances to buildings.

Handrails and guardrails are to be high quality stainless steel and to match the street furniture.

Stainless steel bollards and illuminated bollards shall be used to restrict traffic from pedestrian areas. The bollards shall be root fixed.

Stainless steel cycle stands shall be located around the entrances to the terminus station building but located not to obtrude principal façades and pedestrian desire lines.

Ambient lighting

Ambient lighting to the square will be based on the selection outlined in the approved The Works – Ebbw Vale Design Code. A co-ordinated range to complement the street furniture and illuminate specimen trees and features within the square.

Raised structures

All walls to the raised lawns and water feature will be constructed with a natural stone tile facing and coping will be granite with an integrated low key skate stopper feature.

Water features

The water feature is centrally located within the square. The features shall comprise of two raised mirror reflective pools. The depth of water will be approximately 10-15mm (to water specialists details and specification), a pumped water circulation system will allow the water to flow subtly over the edge to drain into a concealed slot drain or similar. The feature will have water and electricity supply installed with an automatic top up system and overflow. The feature shall be water proofed, by the use of Glass reinforced plastic or waterproof concrete.

Large polished natural stone sections/ tiles to match the sets, raised structures and banding will be used as a decorative finish to the top and walled sections of the water feature.

Localised lighting to the public realm adjacent will illuminate the walled sections of the water feature.

Maintenance

All elements of the hard landscape will be maintained. Paving will be kept free of leaves, litter and falling snow and at frequent intervals. The paving will be cleaned to remove stains and joints re-sanded where necessary. The water feature will receive regular maintenance.

Soft landscape areas will be maintained at regular intervals with amenity and ornamental grass mown to retain a neat appearance. Good horticultural practice of pruning, required tree works, application of fertilisers and herbicides, re-mulching, securing of tree ties and refirming stock. In addition the replacement of defective and stolen stock will be included in the maintenance contract.

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