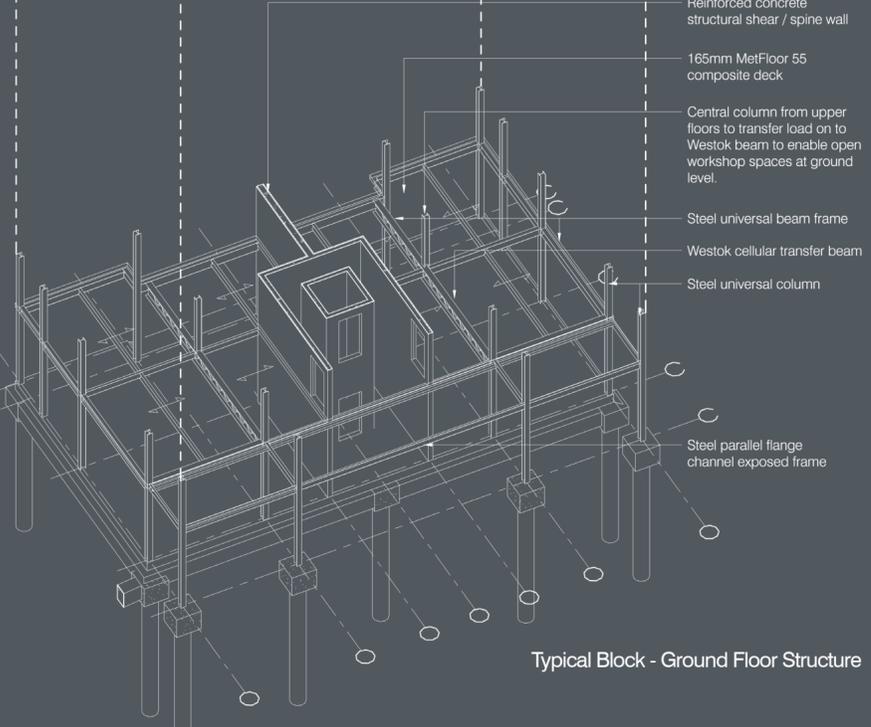
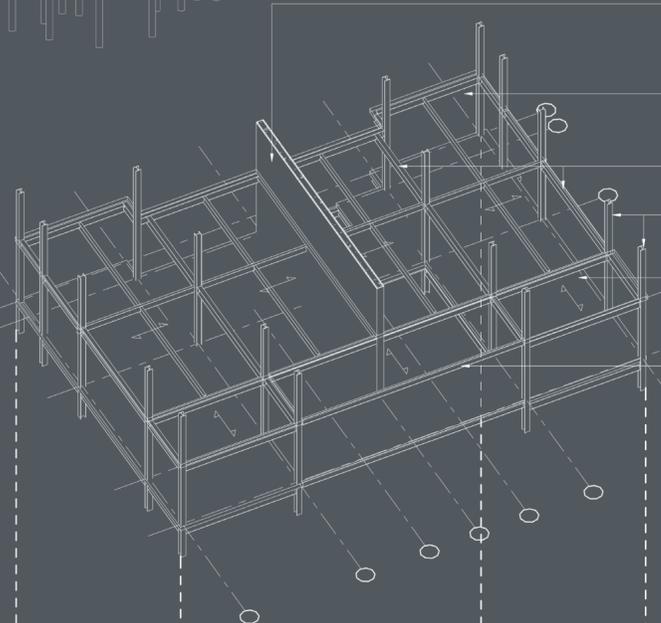


Typical Block - Upper Floor Structure

- Reinforced concrete structural shear / spine wall
- 165mm MetFloor 55 composite deck
- Steel universal beam frame
- Steel universal column
- 130mm MetFloor 55 composite deck to balconies
- Steel parallel flange channel exposed frame

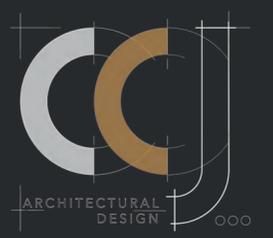


Typical Block - Ground Floor Structure

- Reinforced concrete structural shear / spine wall
- 165mm MetFloor 55 composite deck
- Central column from upper floors to transfer load on to Westok beam to enable open workshop spaces at ground level.
- Steel universal beam frame
- Westok cellular transfer beam
- Steel universal column
- Steel parallel flange channel exposed frame

THE SPIT FRIARS POINT

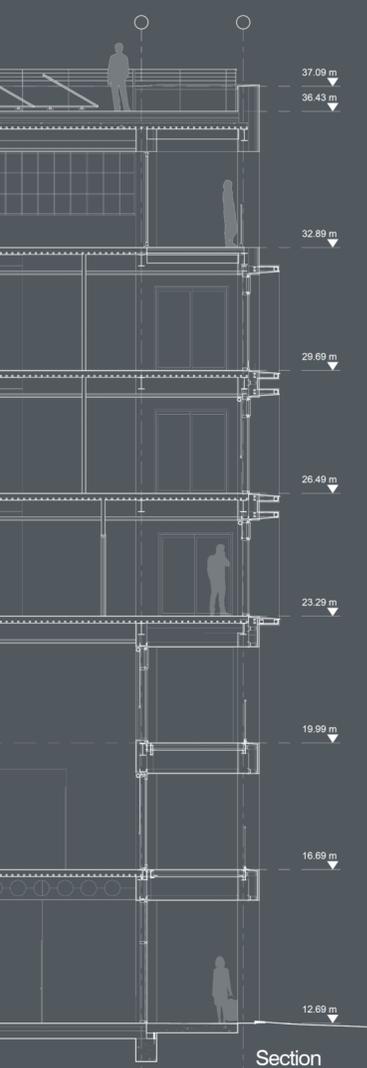
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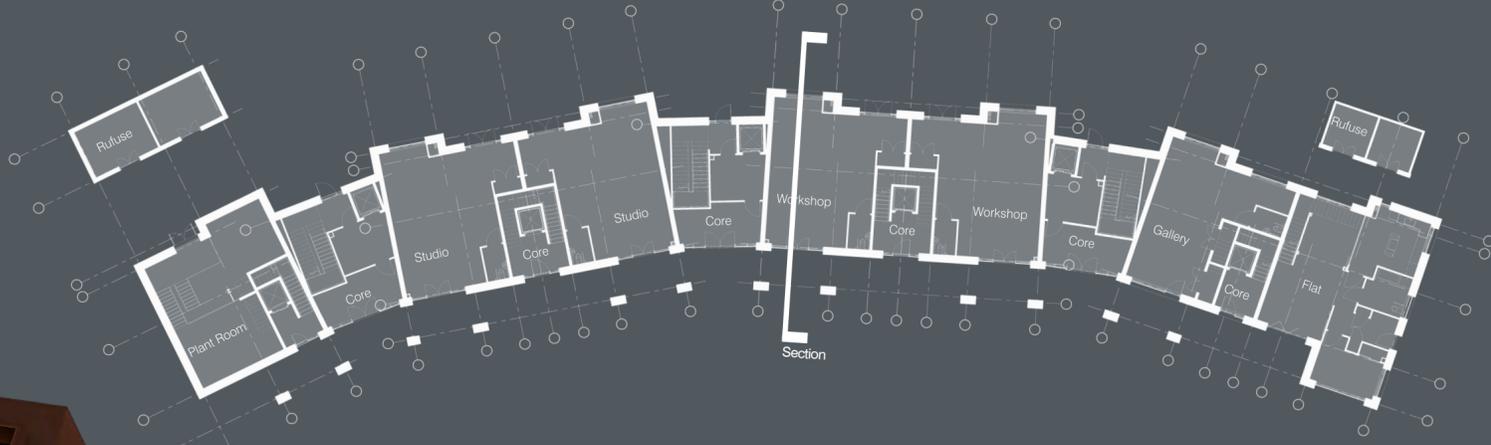
'The Spit' is a 7-storey mixed-use scheme consisting of high-end apartments, offices and work units, to be sited on a prominent coastal site on a headland in the coastal town of Barry, South Wales.

The scheme incorporates flexible, open plan workshops/studios and a gallery on the ground floor with direct access from external circulation spaces with a limited amount of parking available; these spaces have been designed to allow maximum internal layout flexibility to allow multiple uses and adaptability. The first floor of the proposed building provides several small Class A 'style' office spaces, with a mix of single storey and two storey spaces, extending in to the second floor. Whilst not strictly Class A due to the proposed buildings rural location, the scheme provides office spaces with modern, high quality finishes and state of the art energy efficient systems to create a comfortable indoor environment for the building occupiers. The remaining upper floors of the building are owner-occupier residential flats, with a 60/40 split of single-storey 1 Bedroom/2 person units and two-storey 2 Bedroom/4 person units respectively. The flats are spacious with high-end fixtures and finishes. Communal roof garden spaces have been provided for exclusive use of the building's residential occupiers; these spaces provide residents with a sheltered food preparation and cooking facilities, and seating areas, all to a high quality finish.

The building comprises of 3.5 typical blocks, that are adjoined by 3 main cores that run the full height of the building. Each block is generally symmetrical in design with alternating external balconies on the front elevation. Overall building heights vary across the main elevation of the building, with a maximum parapet height of 25m above the lowest ground floor level. The building employs a steel structural frame on a piled reinforced concrete foundation with ground beams with a reinforced concrete ground floor and composite deck intermediate floors. A reinforced concrete shear / spine party wall runs the full height of the building through the centreline of each block. This shear wall is integrated into the steel frame and provides structural integrity to the building along with inherent fire and acoustic properties horizontally between building occupancies; the density of concrete allows for an overall thinner party wall build up when compared with a lightweight steel framing option. Details of the structural frame are illustrated adjacent.

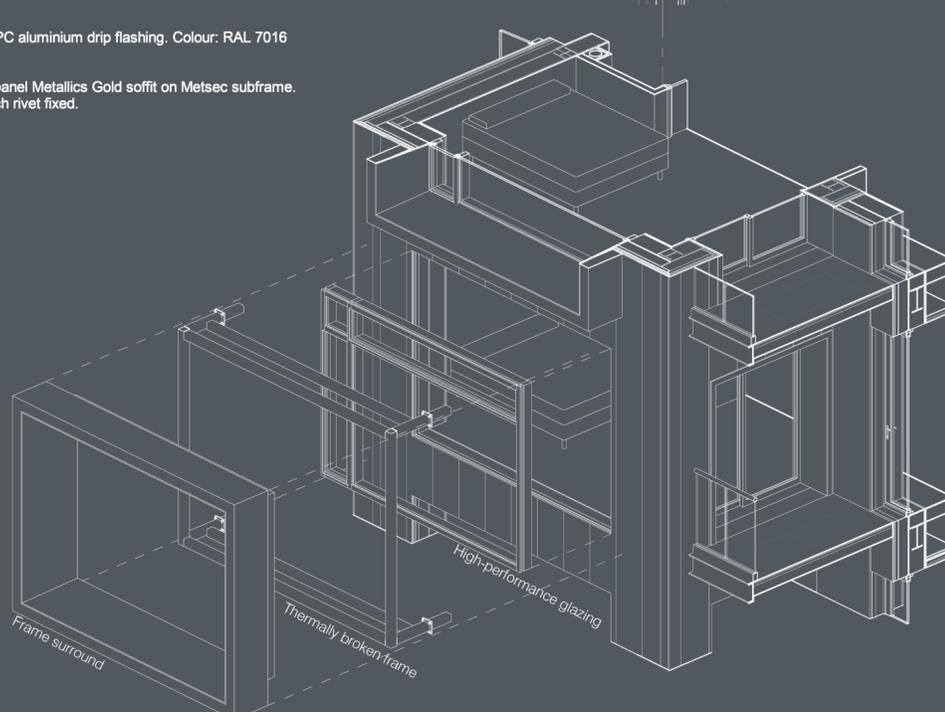
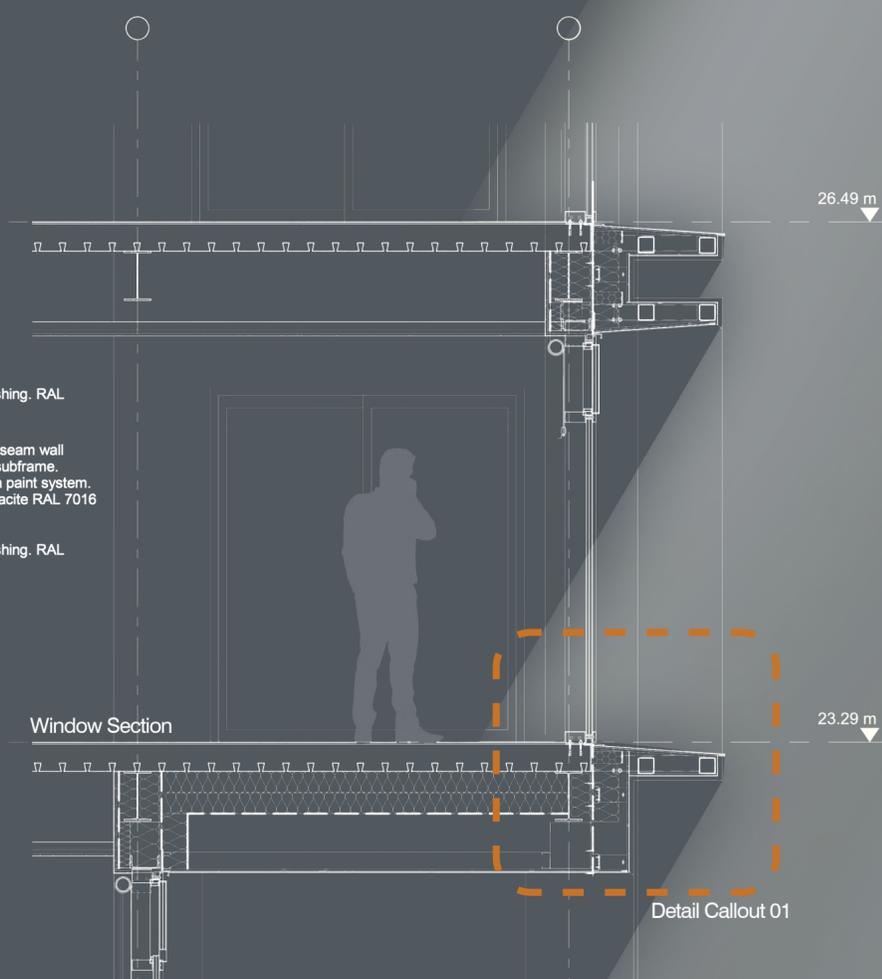
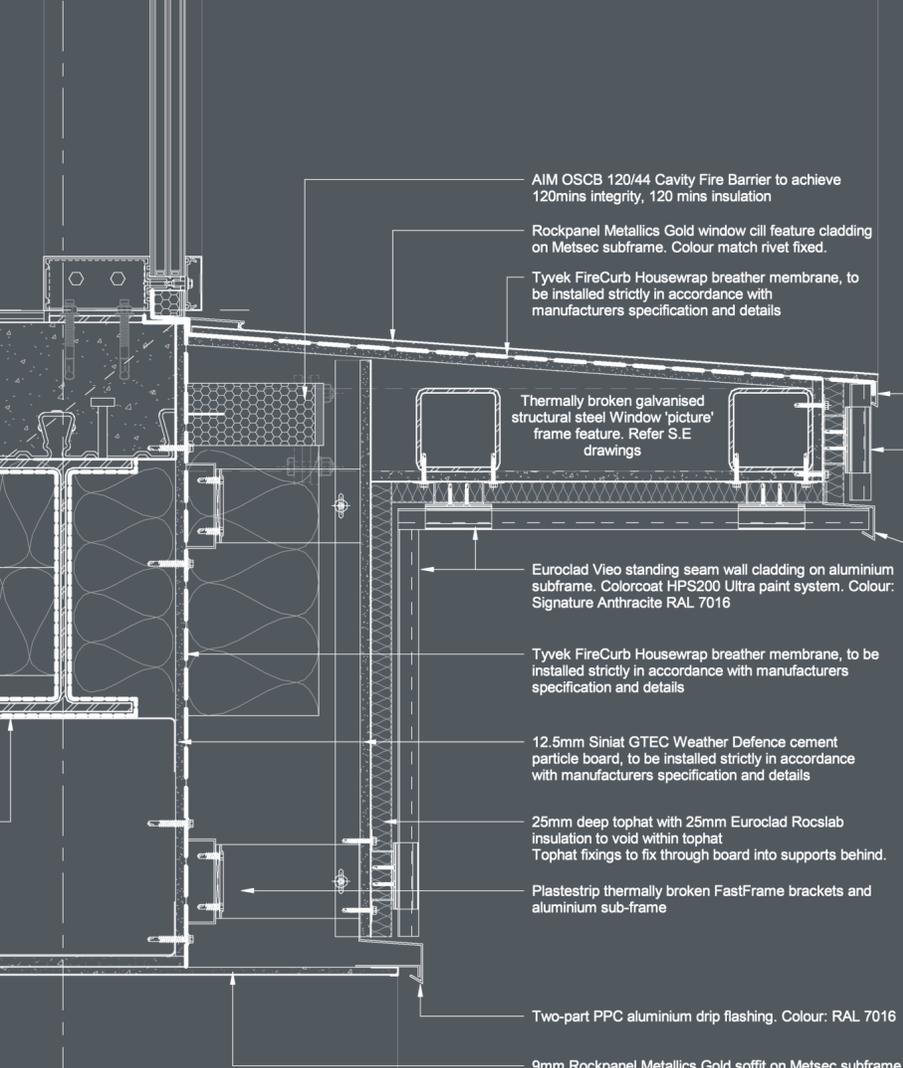


Section



Ground Floor General Arrangement





With no natural overshadowing opportunities available on the site, one approach to dealing with the potential for overheating due to solar gain is to introduce strategic shading to windows. This has been achieved in the guise of a projecting window frame surround. The surround will act as an overhang that will provide much needed shading to the southwest facing windows from the high summer sun, whilst still allowing for the lower winter sun to enter the building providing controlled solar gain opportunities during the colder months.

The frame surround will be clad with the same standing seam wall cladding to an integrated aesthetic with internal faces of the surround finished in gold Rockpanel Metallics cladding panel, this will help to maintain an element of natural, diffuse indirect light entering the building through refraction, whilst controlling the levels of direct light transmission. The 9mm Rockpanel is an A2 rated rainscreen cladding panel that is produced from compressed natural basalt, satisfying Building Regulations and the project brief.

The frame will be supported on a secondary steel thermally broken square hollow section frame. The thermal break will be achieved through the use of a Farrat TBK Structural Thermal Break that will be placed within the thermal insulation zone of the external wall fabric.

