

**Optima designs, manufactures and installs beautiful glass partitions and doors for some of the world's most iconic buildings.**

**On a 3.2 acre site in the middle of the City of London, the Foster + Partners designed Bloomberg European Headquarters is an exemplar of sustainable development, rated the world's most sustainable office.**

For such an innovative and sophisticated building and one that brings people together to promote collaboration and communication, Optima has worked closely with the architect and client to enable their visionary workplace to be achieved.

The striking new Bloomberg building is home to 4100 employees, based in two, eight-storey buildings which are joined by two link bridges spanning a pedestrian arcade. The North Building is dominated by a spiralling and monumental 210 metre bronze-clad ramp, which is a key feature of the cathedral-like atrium and is designed to encourage movement of people and sharing of information and ideas.

Central to the layout of the interior spaces is a powerful design which enables people to collaborate effectively. Every design decision, no matter how small, reflects the project team's shared vision of a 'workplace of the future.'







**Our Bloomberg journey began in 2013 when we collaborated with architect Foster + Partners and main contractor Sir Robert McAlpine to design and develop brand new, bespoke partitioning systems for Bloomberg's iconic new Headquarters.**

With no previous working relationship with Foster + Partners, it was critical for us to gain their trust early on in the process, giving them confidence in both our products and our ability to deliver such a high profile and bespoke project. We soon entered into a Pre-Construction Service Agreement, building a series of trial mock-ups for the project team to review. This was fundamental to the success of the project, particularly given its bespoke nature.

Following a review of the initial mock-ups, Optima's design team worked closely with Foster + Partners, and with input from the entire project team, evolved the design to create three specific room types for levels 1-8 of the North Building – scheduling rooms, open meeting rooms and enclosed meeting rooms. Our Design Manager, Gerard Milliken, explained: *"Foster + Partners' proposal was a unique design and these room types had to sit comfortably within the overall floor plan."*



**Foster + Partners' scheme was unique and complex. Almost every element of the project was bespoke, requiring us to design and manufacture many new extrusions and systems.**

Our extensive scope of works incorporated a number of highly bespoke packages, including freestanding scheduling rooms, open and enclosed meeting rooms, media rooms and interview pods within the North Building, and a number of training rooms within the South Building.

Phil Douce, Optima's Senior Project Manager, explained: *"This was a highly complex and challenging project with an extensive scope of works. The distinctive design called for a number of new extrusions and precision of installation was critical. Careful coordination with other trades and services was also a key contributing factor to our success."*





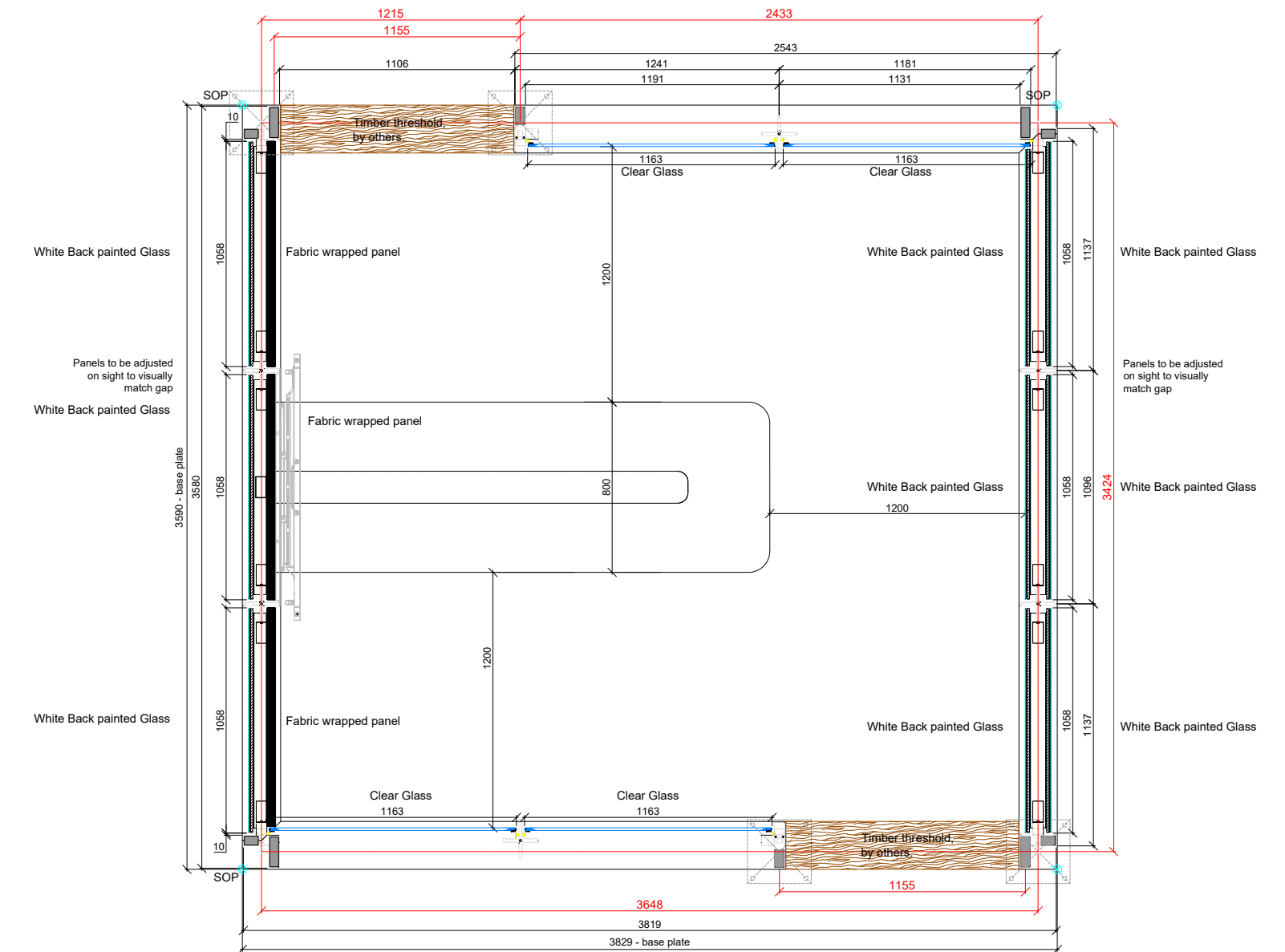


## Leading on from an initial period of design development, we collaborated with Foster + Partners to design and manufacture additional new and bespoke systems for the scheduling rooms.

A full-size mock-up of a scheduling room was then built at our head office in High Wycombe and was viewed by the project team. The scheduling rooms needed to be flexible and the design therefore incorporated back painted glass and fabric wrapped panels. To encourage efficient use of time, they feature standing-only furniture for 8 or 12 people, with full audio-visual technology.

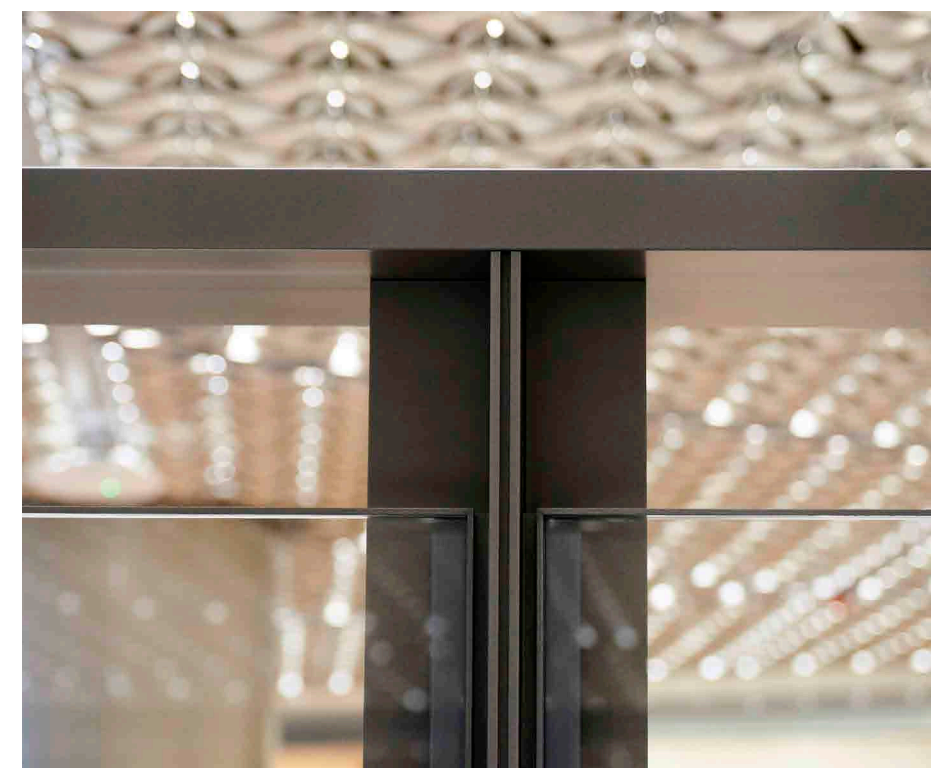


Refer to the back page and see a pod in Augmented Reality!



1 Scheduling Room Type 1, 215mm Deep Head





**Thirty four of these distinctive standalone pods are located across the office floors and are designed to be sound absorbing and easy to erect and take down.**

Built off-the-floor, the freestanding rooms feature interchangeable back painted glass and fabric wrapped panels with a 150mm gap at the top and bottom, secured to a bespoke aluminium framework which is over 300mm wide.

It was critical that these complex components were extruded and machined with precision to avoid any distortion which would prevent the sections from fitting accurately together. Anti-slip stainless steel base plates complete the design of these visually stunning rooms.




## The open meeting rooms are a series of connected rooms designed for seated meetings.

Optima designed the open meeting rooms to share the same perimeter framework as the scheduling rooms. However, with no mullions and no visible gap at the top or bottom, these meeting rooms have their own unique identity. The crosswalls feature a bespoke pre-fabricated Monobloc hung panel system along with fabric or glass panels for a fully flexible solution.

Foster + Partners' vision for Bloomberg's new European Headquarters undoubtedly pushed the boundaries of design. For such an innovative and unique workplace, it was imperative that the highest possible levels of quality were achieved on site. Optima didn't fail to deliver, as Mark Taylor, Project Director at Sir Robert McAlpine, confirmed: *"Optima accomplished an exceptional level of quality. They took the project from concept to completion with professionalism and flexibility."*

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**"Optima accomplished an exceptional level of quality."**

Mark Taylor, Project Director  
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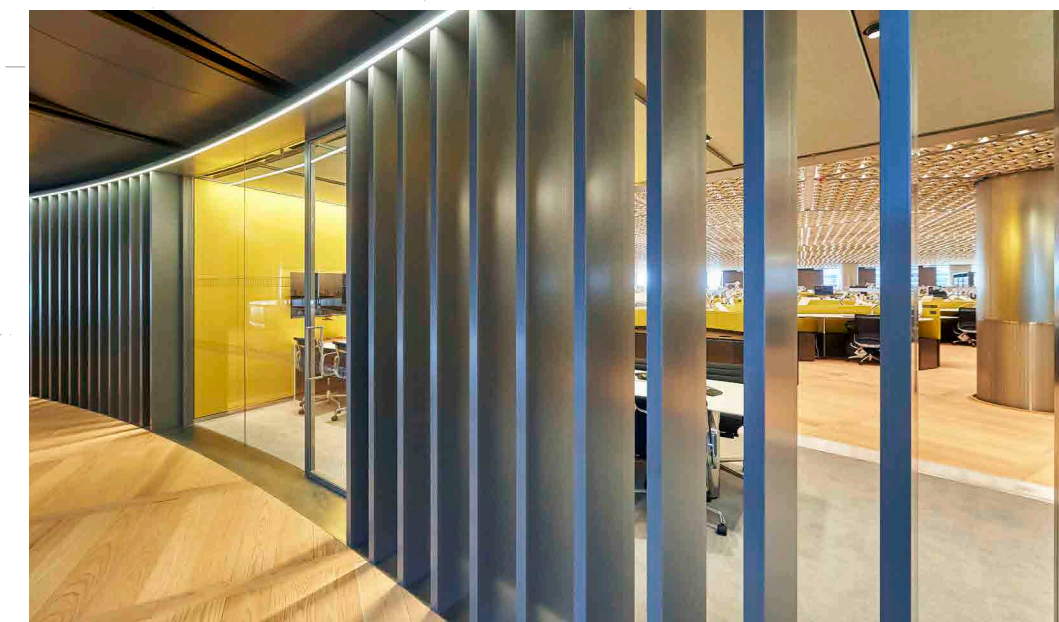
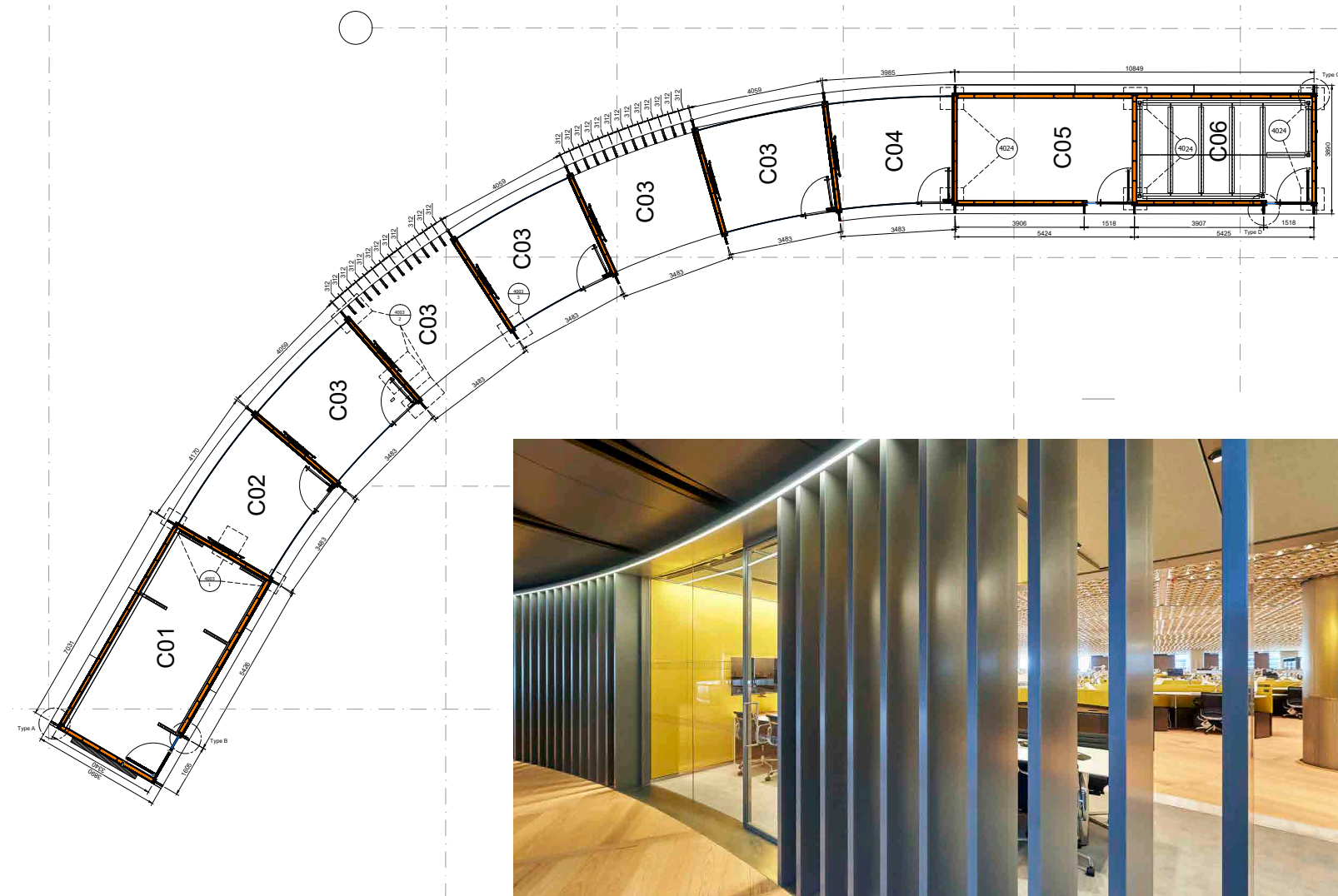




**A series of enclosed rooms are located on levels 1, 6, 8, and on the link bridges. They feature full height drywall partitions, as well as a mix of full height curved and straight glass partitions.**

Optima's Kinetic sliding glass doors and elegant pivoting glass doors complete the design of these striking meeting rooms. The architect's intricate design called for the glass fronts of the curved enclosed meeting rooms on levels 6 and 8 to follow in places the curve of the glass balustrades that circled the central atrium. This was no mean feat as the radius of each glass panel differed; there were seven different radiuses alone on level 8.

An additional challenge was the tight tolerance on the curved glass – typically just a few millimetres – so Optima's design skill and precision on site were of paramount importance. The runs of enclosed meeting rooms are interspersed with break out spaces which are enclosed on one side only. Those on level 6 feature distinctive aluminium fins on the atrium side and an open elevation on the office side.





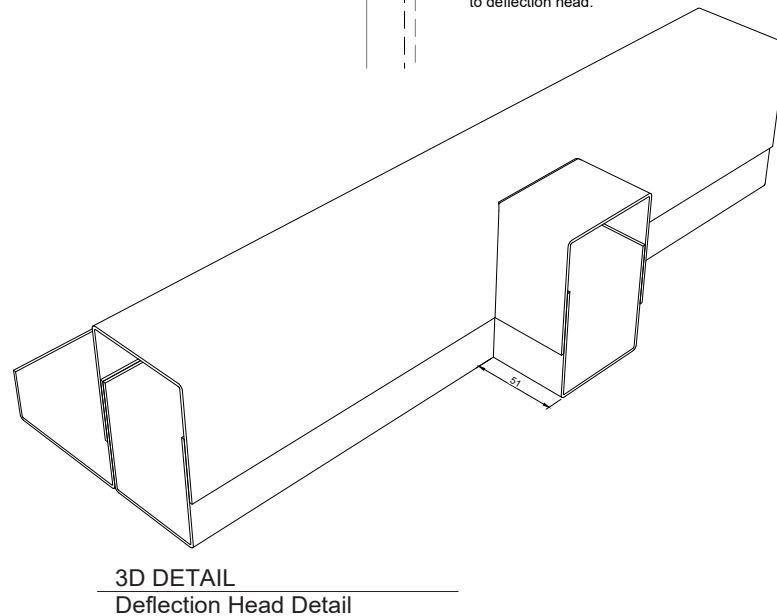
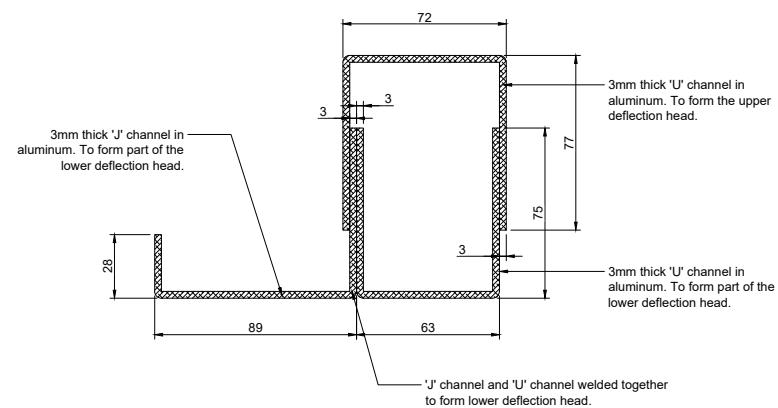
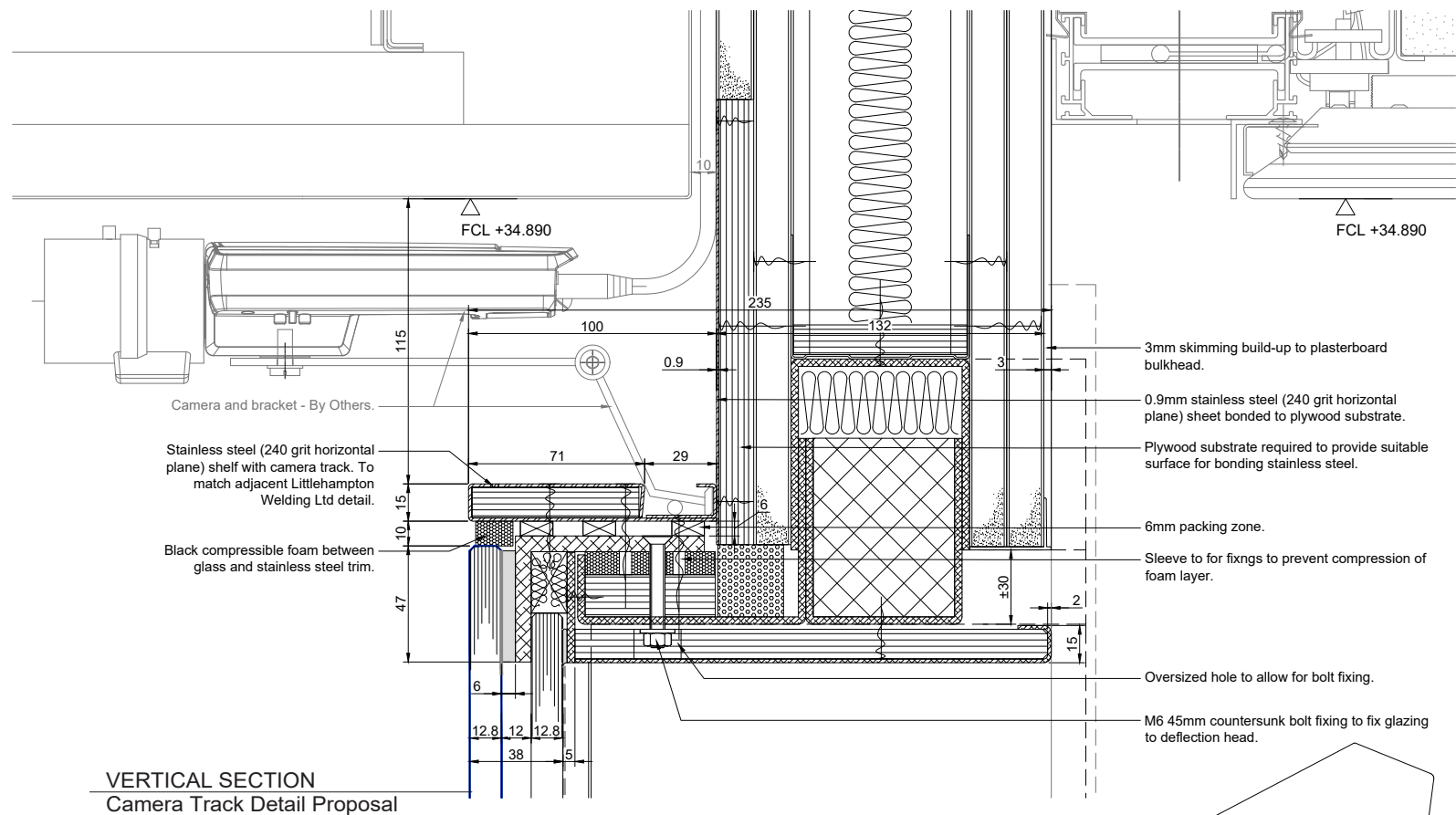
**The design of the enclosed meeting rooms features a completely bespoke aluminium head detail which had to look beautiful, be structurally sound and meet the stringent performance requirements.**

Not only did the bespoke head detail need to accommodate +/-38mm deflection, it also had to meet specific acoustic and smoke requirements. This presented many design, fabrication and installation challenges, particularly given the large section sizes and the number of services that had to be worked around.

These challenges were heightened in the enclosed rooms on the bridge which linked the two buildings, because each building, and the bridge itself, were independently moving, and our partitions had to accommodate both vertical and lateral deflection, and meet fire and acoustic requirements.







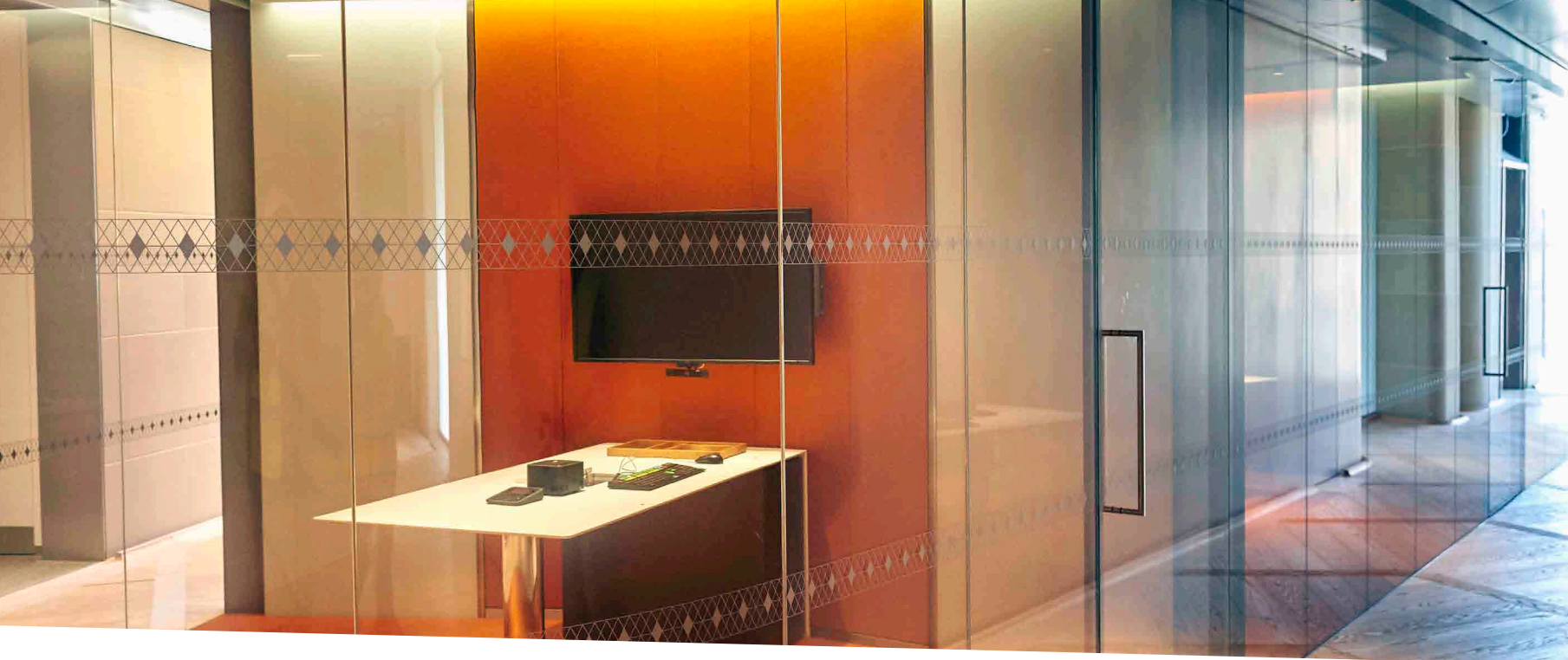
**For the media production area on level 5, the flush bonded glazed partitions required a bulkhead detail that incorporated a bespoke deflection channel.**

As this was an area on show to cameras, we collaborated with Foster + Partners to develop a bespoke head detail and door interface that was concealed, but maintained structural stability. We were also required to install angled curved glass around the television studio.

Kevin O'Sullivan, Optima's Senior Project Manager, said; *"Quality control was key, as was coordination. We needed to work out the right products and create samples. For example, we incorporated neutral tint film and innovative anti-reflective coatings on the glass in the media area. This was also coordinated with lighting specialists to achieve the desired aesthetics. The anti-reflective glass offered complete transparency, dramatically reducing reflections."* We worked closely with a Bloomberg television specialist to develop an outstanding design that is now the backdrop to the daily filming.

In addition, bespoke high performance acoustic mullions were designed and developed, along with bespoke acoustic timber framed windows which needed to achieve an incredible Rw70dB. Optima's previous experience of installing such specialist screens, and our reputation within the industry as leaders in the field of glass partition acoustic performance, gave the project team complete confidence that we could meet the stringent performance requirements.



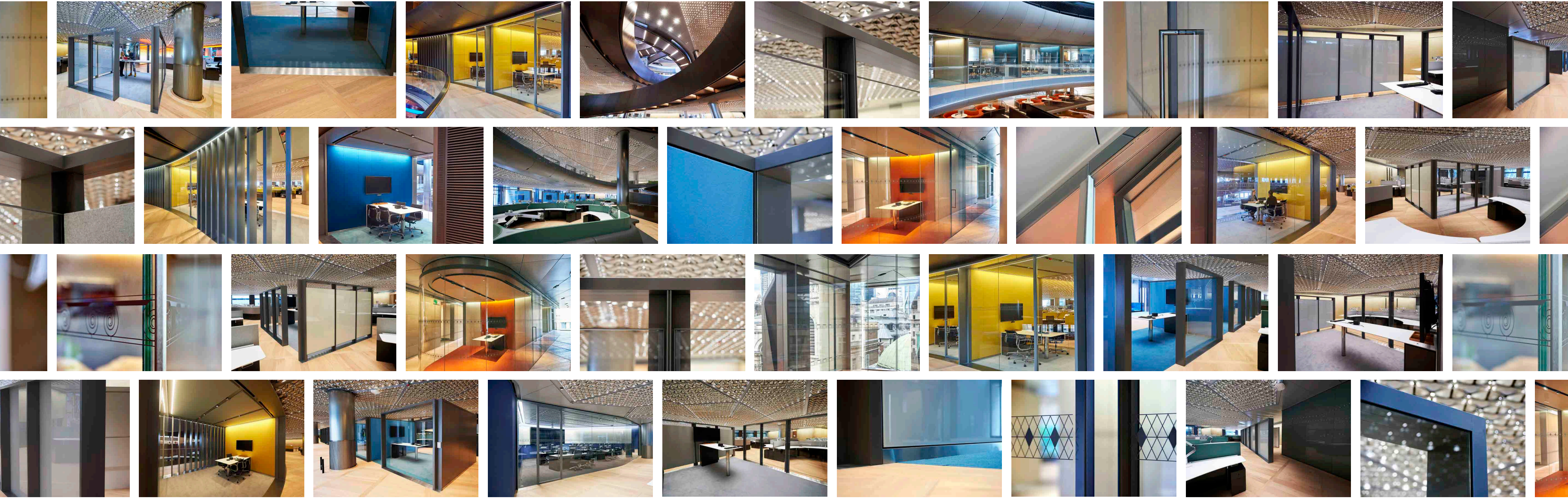


**A further challenge was the creation of the distinctive and stylish interview pods.**

There were very few straight lines within the design. With little tolerance on curved glass and multiple radiuses to work to, precision on site was critical. It was important to maintain

the performance of the products whilst upholding the visual language of the design. Bespoke single glazing was installed here, with cross wall acoustic mullions and a concealed shelf detail, along with a bespoke, concealed, flush double glazed door. Within the interview pods, a combination of writable back painted glass and fabric panels help to create a practical and flexible work space.



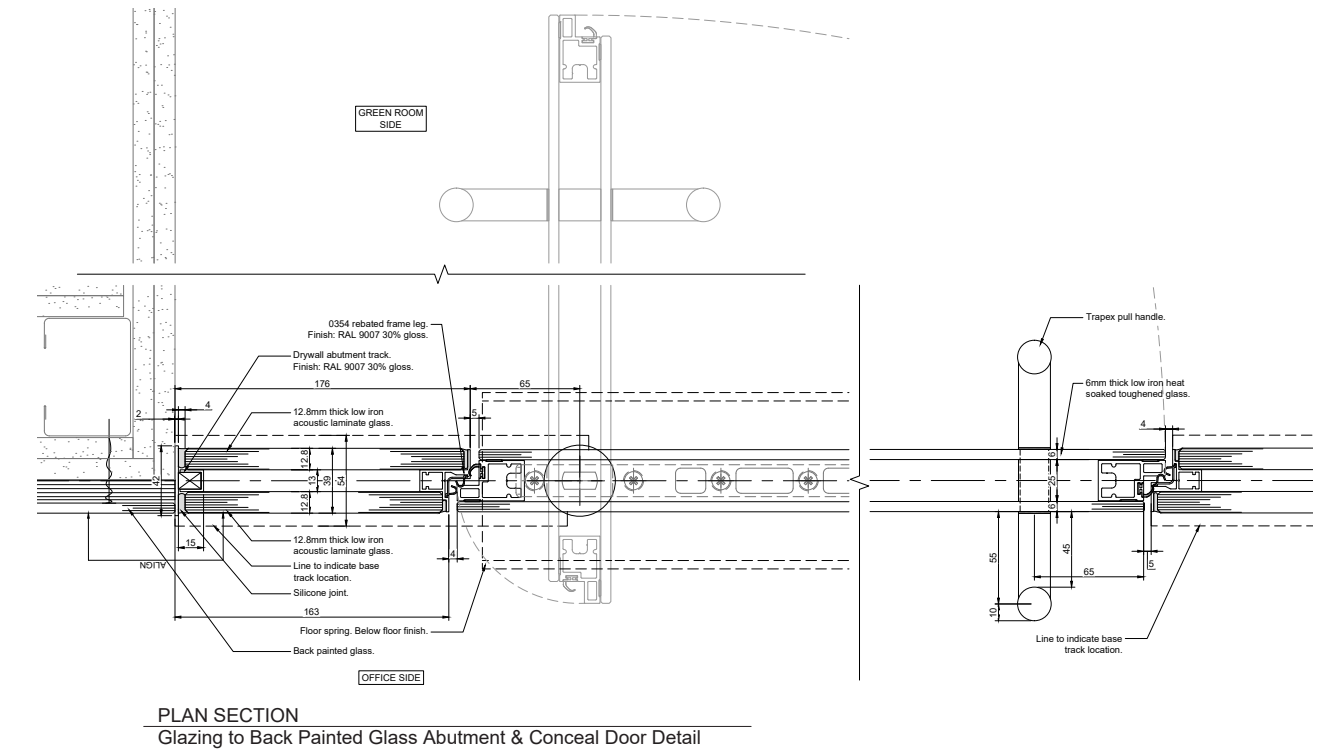
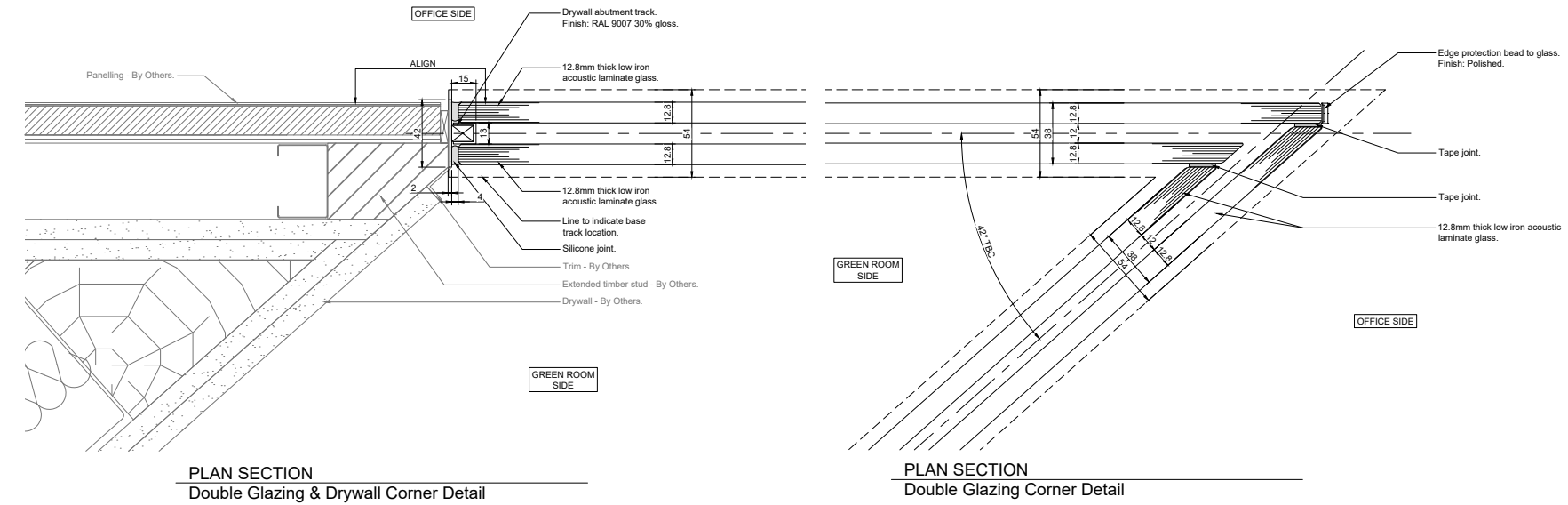




## The bespoke and complex nature of the design continues within Bloomberg's Green Room.

Here, a recessed head and base detail to the double glazed partition was required, along with a stunning bespoke, flush pivoting glass door, incorporating a specially designed door head detail.

Perhaps the most challenging aspect though was the acute angle to the corner of the room – a stunning feature. Low iron glass, along with Optima's discreet Nebula™ dry joints between the glass panels, further enhances the visual impact of this impressive room.

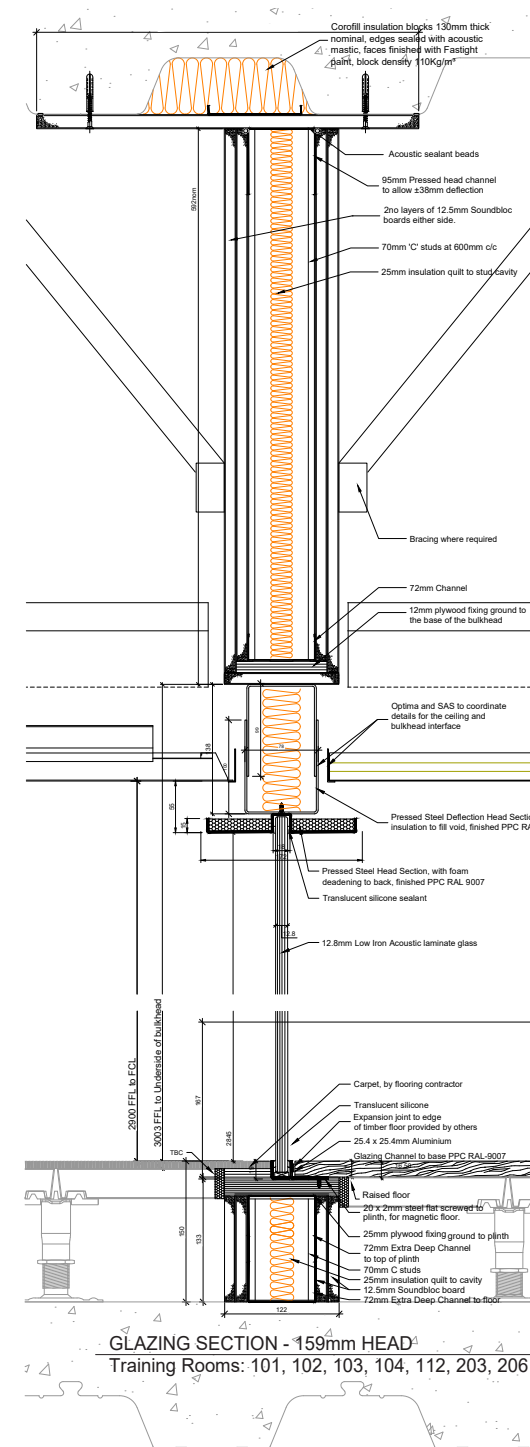




**Whilst the majority of Optima's scope of works centred upon the North Building, we also installed a number of flexible training rooms within the South Building.**

These highly functional rooms feature drywall crosswalls with fabric panels and back painted glass. The fronts of the training rooms are a combination of straight and curved single glazing, with a bespoke metal framework. Elegant framed pivoting glass doors complete the unique and striking design.

Due to the function of these rooms, acoustics were critical and the design takes full account of both sound reverberation and reduction. The fabric wall panelling reduces acoustic reverberation in these highly occupied spaces, whilst the glazed fronts and drywall crosswalls deal with sound reduction.







**“Optima has proven to be one of the most adaptable trade contractors on site.”**

Clare Hartley-Marjoram, Engineer and Package Manager at Sir Robert McAlpine

**Optima’s extensive scope of works included a series of freestanding, back painted glass screens which are used as privacy screens to conceal the cloakroom areas.**

The installation of these screens required careful coordination with the joinery company which provided the panels within the cloakrooms.

Reflecting upon the success of the project, Clare Hartley-Marjoram, Engineer and Package Manager at Sir Robert McAlpine, said: *“Optima has proven to be one of the most adaptable trade contractors on site. Its designs have been developed very efficiently, culminating in a clean product which is entirely bespoke.”*



## Sustainability was high on the Bloomberg agenda; in fact the new Bloomberg European Headquarters is rated the world's most sustainable office.

Upon completion, the building achieved an 'Outstanding' rating against the BREEAM sustainability assessment method, with a score of 98.5%. This is the highest design stage score ever achieved by any major office development. In order to satisfy Bloomberg's requirements, Optima adhered to a number of contractual and planning environmental specifications. The major challenge was to support the Bloomberg team in pursuing the following environmental standards:

- BREEAM for Offices – **Outstanding** rating
- LEED – **GOLD** rating
- Bloomberg Sustainability Objectives and Targets: all timber must be FSC certified with full chain of custody

To contribute towards the achievement of these ratings, Optima provided information in four main categories on a monthly basis; namely materials, timber, re-using or recycling and energy. Implementing best practice in these areas was essential in order to make a significant contribution towards the project's environmental targets.



“Optima have been brilliant with their reports both in time and in contents.”

Stefanie Lopez, Sustainability Advisor and Package Manager at Sir Robert McAlpine

At pre-construction stage, it was crucial to identify the challenge that materials such as glass, aluminium and timber might face. Optima influenced the decision-making process during important aspects of the life cycle operations, such as design and procurement.

Monitoring quantities of products to install on a monthly basis, reporting on product costs, as well as ensuring that most of Optima's products and materials were procured from responsible sourcing certified suppliers represented a great challenge, but one that we successfully managed and won. This led to incredibly positive feedback from Sir Robert McAlpine. As Stefanie Lopez, Sir Robert McAlpine's Sustainability Advisor and Package Manager, said: *“Thank you for everything. Optima have been brilliant with their reports both in time and in contents. It definitely makes our lives easier.”*



## The bespoke nature of this fit out generated many design challenges, but these were overcome due to the close and trusting relationship that we built with Foster + Partners.

This relationship, along with our relentless determination to find practical solutions that met or even exceeded the design brief, were key to the project's success. Gerard Milliken, Design Manager at Optima, said: *"Despite the complexities of the project, Optima was able to bring Foster + Partners' dream alive, taking a sketch on paper and making it physically happen."*

Matt Cranie, Optima's Pre-Contracts Design Manager, added: *"We worked very closely with the team at Foster + Partners, gained their trust and developed a very good relationship with them. It was an incredible journey and I feel immensely proud to have been involved in such an iconic project."*

This was a project that required a huge team effort. A large amount of structures and services had to be worked around and coordinated with on site, hundreds of manufacturing details were produced, and many new systems and details were developed in the process. Our design and manufacturing expertise, combined with our meticulous planning, outstanding quality and delivery on site were fundamental to the success of the project. We are immensely proud of what we have achieved at Bloomberg's new European Headquarters. This unique and innovative 'workplace of the future' bears testament to the skill, dedication, and commitment of the Optima teams who worked tirelessly to ensure the success of the project.






## The collaboration between Optima and the entire project team worked so well because of the shared vision and commitment of everyone involved.

Upon project completion, Rob Judd, Optima Group Director, said: *“When we founded this company back in 1986, the thought that we would one day be able to take on a project of this size and complexity was beyond my wildest dreams. Seeing the finished job, the world class products, and the exceptional level of quality that has been achieved, has been the pinnacle of my career.”*

The end result is an inspirational and vibrant working environment. As Simona Bencini, Partner at Foster + Partners, proudly reflected: *“The Optima team achieved the impossible, working tirelessly to realise our vision.”* Optima has played its part in the creation of an exceptional workplace in this landmark, iconic building in the City of London. It not only brings to life the unique and ambitious design of one of the world’s leading architectural practices, but is also an honest reflection of Michael Bloomberg’s vision of creating a ‘transparent’ and ‘egalitarian’ workspace.



**“The Optima team achieved the impossible, working tirelessly to realise our vision.”**

Simona Bencini, Partner  
at Foster + Partners



**“Everyone at Optima who has been involved in this phenomenal project should be incredibly proud. We have gone way beyond the normal requirements to satisfy Foster + Partners’ brilliant and ambitious design, persevering even when faced with the toughest challenges.”**

Rob Judd, Optima Group Director