



Panels and Profiles Refurbishment Case Study

Barton Business Park, Burton on Trent

Warehouse and distribution units used to be something that developers could build quickly, cheaply and with little regard for energy waste or sustainability. However, as government legislation starts to take hold and clients begin to realise and appreciate the benefits of having energy efficient buildings, the ‘shed’ sector has to up its game to attract tenants.



Refurbishment project details

Architect:	Stephen George Partners
Contractor:	Baggaleys Construction
Cladding contractor:	Barry Collen
Panels and Profiles products:	Trisomet® System (roof), Trimapanel® System (walls)
Colorcoat® products:	Colorcoat HPS200® in Goosewing Grey (roof), Colorcoat Prisma® in Oyster (walls).



“Panels and Profiles products were used because of their ability to assist in obtaining the Part L requirements, because they have a good guarantee, are easy to maintain and are competitively priced”

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With this in mind, Barton Business Park Ltd embarked on the construction of its latest addition, a 13,000 sqm single storey warehouse and industrial space, with 930 sqm of two storey office accommodation and associated service yard and parking facilities.

Architect Stephen George and Partners, who had already worked with the client on the site, has designed the building, which is the largest on the development and also the most energy efficient. John Chia, architectural assistant with Stephen George and Partners, says: “We have designed a low maintenance, economical building for the site. Industrial buildings perform a specific productive function and we believe they should operate as working machines which facilitate the ultimate process which they exist to serve. Therefore, in terms of this distribution warehouse, it is imperative that the mobile elements of the process which interact with the building govern the overall layout and form of the building. Ease of maneuvering and trans-shipment and the safety of workforce and pedestrians combine with the robustness necessary in an industrial environment to overwhelmingly drive the form of the building.

“The client insisted that the building’s fabric; its outer envelope, was guaranteed to last for 25 years. However, the building is also designed and built to meet the reduced carbon emission requirements of the new Part L of the Building Regulations, too.”

Stephen George and Partners specified Panels and Profiles’ Trisomet® System insulated roof panel system and Trimapanel® System insulated wall panel system. The walls consist of some 4600 sqm of 70mm+80mm Trimapanel® System insulated panel in Colorcoat Prisma® Oyster. On the roof, 80 mm Trisomet® System panels in Colorcoat HPS200® Goosewing Grey provided the protective high performance roofing solution.

Panels and Profiles products were used because of their ability to assist in obtaining the Part L requirements, because they have a good guarantee, are easy to maintain and are competitively priced,” say Chia. “The off-site fabrication of the insulated roof panels also cuts down on waste and makes them faster to install.”

The architect met with cladding contractor Barry Collen Ltd numerous times during the design and construction of the project to agree on colours and details. The completed building has achieved an air tightness level of 3 m²/h/m² well below that of the minimum requirement of 10 m²/h/m². This is due to meticulous design detailing and good installation. Dave Bedford of cladding contractor, Barry Collen, says: “Apart from the usual health and safety risks of working on large, tall sheds, our site included a major electricity pylon and cables which were very close to the corner of the building. This required additional precautions for the installers.

“The project is larger than we normally work on but, through good practice and strict supervision of on-site installation techniques, our 12 operatives completed the project to above the required standards in a very short space of time.”

Stephen George and Partners began working on the site in 2004 and it is still involved in feasibilities for neighbouring plots. This project took just over six months to complete, starting on site in May 2006 and finishing in December of the same year. In addition to the building’s sustainable credentials, the site is also reclaimed from previously contaminated industrial land.

“The overhanging eaves and supporting struts look really good,” say Chia. “Our client decided to change all the colours of the cladding panels during the design, but credit to him, it’s worked out really well. Most importantly, the building has been designed and constructed to be energy efficient. This is something that all warehouse buildings will have to incorporate in the future, if they are to attract clients and tenants.”