



Scaffolding & Asbestos Removal Case Study

Scaffolding & Asbestos Removal Leonardo Helicopters, Yeovil



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Leonardo Helicopters

Yeovil, Building 188 for Morgan Sindall

Shield Scaffolding and Shield Exeter Asbestos, contracted under Morgan Sindall, have been heavily involved on one of the largest projects undertaken in the Yeovil site history. The initial time-scale of the project was 12 - 15 months and was subsequently extended to approximately 19 months, starting out in June 2018 and with completion in March 2020.

The site at Yeovil dates back more than a century, since the Westland Aircraft Works was established in 1915. The site was built in order to build aircraft to support the First World War effort. The first aircraft built at the Works was a Short 184 seaplane, which left on 1 January 1916, by horse and cart. Today, Leonardo Helicopters is based in Yeovil, with nearly 2,800 employees producing helicopters on site such as the Super Lynx 300, AW159 Wildcat and AW101 Merlin.

The project consisted of 37 individual TG20 designed scaffold zones that covered Building 188. Complex scaffold designs in a large manufacturing building that included strategically placed access haki stairs & material hoists that were pre-planned in order to help the project flow. The purpose of this structure was to gain access to the high level areas and to provide a safety deck and working platform to carry out both asbestos roof removals and replacement whilst working over a live manufacturing environment. The scaffolding was also utilised for the safe removals of the glass skylights containing asbestos insulations throughout the 37 scaffold zones.

Working in a live manufacturing and production environment poses challenges for any construction project. For this particular building, the scaffold structure required was complex and needed frequent assembly and dismantling around live works. A specialist independent designer and engineer were engaged to comply with TG20 legislation and to ensure the structure remained safe for the duration.

The Health & Safety of our teams and client teams is always the highest priority in any project and for this project, communication between the principal contractor, the scaffolding & asbestos teams, project engineers and the management of the production facilities needed to be clear and consistent right at the onset. Daily and weekly meetings were held with the client and representatives from Leonardos to discuss the challenges of the confined work spaces and the knock on effect on live works within the building. Re-routing operatives around barriers, construction of different work zones changing daily and alterations of fire exit routes and access doors were just a few of the challenges the teams faced over the duration of the project.

Weather conditions also played a part especially in the summer months where ambient heat became an issue, particularly for the asbestos removal teams. Cooling units had to be introduced and strategically located to help make the environment safe to work in. Rescue and Recovery Plans were also put together to manage the risk of any emergencies. Regular monthly safety tours were conducted by management with very little observations to report. All in all, Health & Safety measures were implemented to the highest levels.

Once the task specific TG20 designed scaffold structure was assembled, the Shield Asbestos team in Exeter worked within the structure to firstly form partial enclosures prior to the phased controlled removal of the asbestos roof sheets. The highly trained asbestos operatives from the Exeter branch removed the high level glass skylights which included the removal of the licensed asbestos products. All asbestos remedial works were carried out in line with the Control of Asbestos Regulations 2012 (CAR2012), and the Licenced Contractors Guide HSG247. These removals were planned with every detail measured to ensure the manufacturing remained operational. The roof structure was then dismantled and removed by the clients roofing contractor. Throughout the project this was always managed with great success.

By the end of the project, a total of £230k of additional scaffolding works and a total of £112k of additional asbestos removals, not included in the original project scope, were completed.

Overall, both Shield Scaffolding & Exeter Asbestos divisions worked collaboratively and as a unit resulting in a hugely successful project.

The total project value was £2.5million.



Asbestos Operative helping form an enclosure within one of the scaffolding zones.



One of Shield's scaffolders forming an external gangway to aid the re-roofing project.

Client Testimonial

"Both Shield Scaffolding and Shield Asbestos have carried out separate projects on this challenging project at Building 188, Leonardo Helicopters in Yeovil. The project consists of 37 scaffold zones and associated access stairs, material Hoists and complex scaffold designs. The purpose of this structure was to gain access to the high level roof voids providing a safety deck and working platform to carry out the asbestos roof removal and replacement (by others) whilst working over a live manufacturing environment. Shield Asbestos installed partial enclosures to facilitate the roof removal to each scaffold zone and also utilized the scaffolding to form full enclosures. The full enclosures were to facilitate the removal of the glass skylights that contained asbestos ropes and insulation which were removed by Shield Asbestos. All works undertaken by both Shield Scaffolding and Shield Asbestos were completed on time and both divisions worked very well as a unit.

The project started with all tendering contractors walking the site and fully understanding the Leonardo end users requirements within the factory space. The works have been carried out by both trained competent scaffolders and asbestos removers of the Shield teams. Both divisions have had full support from Senior Management within Shield. It was also key to meet the scaffold and asbestos supervisors to building a rapport with the site teams and also to make it very clear of the restrictions imposed by Leonardo Helicopters and Morgan Sindall during this project. This exercise was carried out and it was clear from day one that both divisions had bought into this ethos and subsequently led to the award of the project and did not get awarded solely on cost! Both teams divisions work very well together as a unit which is great to see.

The project execution started well with clear communication between MS and Shield with the support from the Shield management when required. Regular weekly meetings were held and proved useful as the roof project was built on the great British weather and therefore the programme began to slip, however Shield dealt with the challenge of a moving target and maintained regular team attendance which included adapting to the changes and reacting to the client needs as they arose.

Health and safety during the works were to a high standard and considering the heat and other factory conditions the operatives did not give any cause for concern. The wearing of PPE was adhered to throughout the project and often reviewed in hot conditions from within the roof space. The RAM / POW's were also of high standards and reviewed where applicable with the site teams.

As mentioned, the scaffold scheme hinged around 37 scaffolding zones and all requiring a form of design, this was carried out professionally with an independent designer and a checking engineer to comply with legislation and MS. Again, these works were carried out diligently and with professionalism with a good external consultant who understood the need to be thorough. The scaffold designs were also created to facilitate the asbestos removal (glass skylight removals) and had to compile thoughts and considerations to both LHUK and MS to allow the placements of haki staircases and scaffold hoists where possible.

All licensed asbestos removal works have now been completed on time and have been carried out to a very high standard with multiple teams working on multiple enclosures (up to 12 men at times) at times. Shield Asbestos are continuing to carry out works on site and have shown great leadership which includes assisting and adapting to the project programme.

The works have generally gone very well and this is down to Shield employing excellent operatives, supervisors and managers throughout the whole process/project. I will definitely be using Shield Scaffolding & Shield Asbestos again on future projects".

Richard Thorne, Morgan Sindall
Senior Site Manger/Project Manager

Client Testimonial

“For one of the largest project undertaken in the Yeovil sites history. Shield scaffolding has been employed to create a scaffolding working platform to replace the roof and various other associated works for a large manufacturing building. Throughout the project the building is required to function and produce aircraft components without hindrance. This live engineering building has created a very challenging environment for the project works to be completed and especially the creation of a working platform by the scaffolding team.

From the start of the project works the level of communication between the principal contractor, the scaffolding team, project engineers like myself and the management of the production facilities with in the building has been of the highest level. The communication of what the scaffolding team can do to help maintain the production safely and effectively, has been to the highest level. The team have expertly found solutions to difficult problems which have led impressive scaffolding constructions which are effective and to the highest level of safety.

The impressive safety culture of every member of scaffolding team has evident throughout the project, even when facing tight deadlines or varying starting dates of scaffolding zones due to delays in the program.

During the project works Shield Scaffolding have highlighted health and safety observations/issues that they have seen to both the principal contractor and the site engineers. The team have also been very willing to accept observations and develop their working procedures to meet the demands of working in a live production environment. On reflection the scaffolding team have been a deciding factor in the progress of a very difficult project in a challenging environment.

I will have no hesitation in employing the Shield scaffolding team which has worked on this project. I would also recommend the team for future projects for internal projects or projects external of Leonardo helicopters”.

Ashley Grimstead
Leonardo Helicopters Site Project Engineer