

Ormiston Academies Trust
Cowes Enterprise College
Delivering Project Closure



I Introduction

Cowes Enterprise College converted into an academy sponsored by Ormiston Academies Trust in September 2014 as an 11-18 academy with a specialism in business and enterprise.

The building Cowes Enterprise College occupies is a new build secondary academy that opened in autumn 2013 after a troubled and delayed programme, which included the main contractor Pihl UK going into administration.

Upon opening a number of significant issues had not been completed and a range of construction defects identified, which required attention to ensure the academy could remain operational.

A recovery plan had been developed to complete the work in the months after the contractor went into administration and it had been proposed that addressing the outstanding items could cost as much as £10 million.

When the academy became part of Ormiston Academies Trust James Miller Ormiston Director of Estates was asked by the Education Funding Agency to develop a plan to resolve the outstanding issues. The Trust, with specialist advice from EO Consulting and Barker Associates, developed a robust and thorough Business Case which was approved by the Education Funding Agency in March 2015.

The business case secured a total funding provision of £3,965,500 to carry out the necessary repairs and associated works within a twelve-month period.

The areas of work identified in the Business Case, approved by the Secretary of State, for which Ormiston Academies Trust had to ensure completion within a twelve-month period were as follows:

- 01 | Remove all asbestos from the redundant former school buildings and demolish.
- 02 | Ensure students are safe by completing the landscaping of the site and securing the perimeter.
- 03 | Ensure all users can safely occupy the building through addressing fire and accessibility issues.
- 04 | Rectify defects with the roof coverings to ensure that the Academy is watertight thus guaranteeing that the investment is protected from the elements.
- 05 | Treat poor acoustics in the teaching spaces to support outstanding teaching and learning.
- 06 | Survey, test and rectify defects in the mechanical and electrical systems to ensure that performance is as originally designed, provides the required level of compliance and supports the effective operation of the Academy in the short and long term.
- 07 | Ensure that legacy snagging and defects are closed out in line with good practice for projects of this nature.
- 08 | Obtain Building Control completion Certification.

2 Delivering Closure

Clearly, when the funding was agreed in March 2015 on the condition that it was spent wisely in a twelve-month period, Ormiston Academies Trust and the team lead by Jonathan Coyles of EO Consulting and Stuart White of Barker Associates had a big task on their hands.

The priority in March 2015 was to build a team which could deliver closure to the Academy which had by this time been encumbered with a major construction project for over 5 years.

The team drawn together by EO Consulting and Barker Associates to support Ormiston Academies Trust through a competitive procurement process included:

- Zeco Energy
- Seaman Partnership
- Lizard Landscape Design and Ecology
- Miller Rogers
- Nicholson Roofing
- John Peck Construction

The team promptly set to work on 4 distinct packages of work:

- Demolition and Landscaping
- Roofing
- Mechanical & Electrical Infrastructure and Fire Systems
- Snagging, Defects & Accessibility

Effective and robust management and reporting processes were needed to ensure effective delivery of a large project of such a varied, complex and undefined scope within tight budget and time constraints. The principal project team structure implemented was as follows:

Role	Project Team Member
Funded Body Ormiston Academies Trust	James Miller (National Director of Estates)
Local Client Cowes Enterprise College	Richard Marinelli (Business Manager)
Client Director	Jonathan Coyles of EO Consulting
Project Director	Stuart White of Barker Associates
Project Manager	William Bidewell of Barker Associates

Barker Associates also carried out , contract administration, quantity surveying and health and safety functions for the selected works packages.

Regular and effective communication and reporting was managed by the following:

- Formal fortnightly site meetings / visits to inspect progress and quality
- Monthly client review meetings on site
- Weekly conference calls

Formal progress reports were issued monthly providing status updates on programme, key issues, current and projected financial position for individual work packages and the project budget overall. These reports were issued to the principal project team and the EFA as the funding body. A representative from the EFA attended site twice during the construction period.

3 Demolition & Landscaping

3.1 The Challenge

The business case identified that the original school buildings remained in place following the construction of the new academy. Once they had been demolished the key task would be to create a fully landscaped solution to the area previously occupied by the Former Cowes High School and bring the 1990's built Sports Centre Back into use.

The business case also identified the need to address the completion of the parking areas, access roads and paths as well as the installation of secure fencing for safeguarding the Academy site.

3.2 The Solution

The demolition package was issued to a tender panel of selected specialist contractors. Following a full tender review and contractor interview process JPC Demolition Ltd. were awarded the contract.

JPC's Demolition and landscaping team started the works to demolish the existing redundant school buildings in July 2015.

The landscaping works to reinstate the areas left exposed after the demolition was completed in Spring 2016 but only started to be used by the academy in late 2016.

The Sports Centre which had laid abandoned for 3 years was also brought back to life in 2016 and it is now available once more for community use.

4 Roofing Solution

4.1 The Challenge

The proposal was to rectify the roof defects exhibited on the current building to provide a robust, maintenance free, watertight solution for the foreseeable future. If possible during the scope of this undertaking the 25-year warranty is retained as far as is practical.

A key issue with the roof construction centred around the 10 snoods over the light wells which are a distinct architectural feature of the building. Through invasive surveys it was found that the snoods had not been constructed correctly. The insulated metal deck panels forming the sides and main structure of the snoods had been secured with an inappropriate type and number of fixings. The junctions between the panles at intersections were very poorly excuted resulting in significant cold bridging and condensation issues.

The glazing system used was wholly inappropriate and presented a health and safety risk with the possibility of glass units falling through into the academy areas below.

4.2 The Solution

A key requirement was to achieve a 20 year product warranty for the roofing works. This was achieved by utilising a combination of Bauder roofing and Comar glazing products for the snood refurbishment works. The Bauder membrane for the snoods could be sealed to the existing Bauder flat roof covering, thus creating an entire envelope for the roof and snoods via a single supplier.

John Nicholson Roofing, a local Bauder approved specialist, were contracted to complete the works. To identify the key issues and establish a procedural method of working a single snood was stripped and reinstated initially. A defined construction process was then established which was rolled out over the remaining 9 snoods. A 20 year warranty for both the glazing and roof covering was issued on completion

5 Mechanical & Electrical Infrastructure & Fire Systems

5.1 The Challenge

A host of challenges with the Mechanical and Electrical Infrastructure and Fire Alarms were being faced by the academy, a number of which were incurring long-term operational costs. The substantial issues which needed to be resolved included:

- Ensuring the Academy had the LI Fire Alarm system as specified in the design
- Work is required to ensure all boiler room plant installed is performing in line with the manufacturers specification,
- A number of the valves on the system are the incorrectly installed and are not performing to design and as such need to be replaced.
- The BMS and Controls as the systems cannot be managed or controlled
- A substantial investment has been made in renewable energy solutions; however, none of the systems are performing as designed
- The high failure rate of the external lighting bollards. A new product has been identified which will reduce the long-term operational costs and support night-time access for the academy.
- There is no consistency across the electrical infrastructure so a full periodic electrical testing and inspection of the entire new build site is required and rectification made.

5.2 The Solution

Due to the complexity of the problems in Mechanical, Electrical and Fire packages the decision was made to appoint Zeco Energy to support the project team and ensure an integrated solution was developed to address the broad range of problems on the project. As a result of the works the team ensured that:

- the fire protection infrastructure which meets the BS5839 LI Standards:
- there is fire stopping to the riser cupboards has been added
- Connection for all services and systems to the legacy building are complete
- Air Tightness Test completed allowing the SBEM model to be built and building control sign off to be achieved
- All Gas, Electricity and Water from the legacy buildings was removed
- All of the electrical infrastructure has undergone full periodic electrical testing, inspection and certification. This includes all emergency lighting.

- the Biomass boiler and plant room will be re commissioned and faults resolved.
- The BMS system has been recommissioned and is now controlling day to day life in the academy efficiently and effectively

6 Snagging, Defects, & Accessibility

6.1 The Challenge

The operational challenge for the academy was that there were a substantial number of minor snags and defects when the building was handed over which were never resolved after PIHL went into administration. The list being managed by the academy had over 80 items still needed to be resolved when the business case was submitted

6.2 The Solution

The key issues which were resolved as part of the Snagging and Defect work included:

- works to address main folding partition to main assembly hall completed. Wall is now operational for the first time since the school opened.
- all below ground drainage defects have been resolved
- accessibility with works on the central courtyard
- induction loops for the main reception area

7 PHOTO UPDATE | ROOFING PHOTOS



8 PHOTO UPDATE | DEMOLITION AND LANDSCAPING

