

Northampton College

Advanced Construction Engineering Centre (ACE Centre)

Post Project Review

August 2021

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APPENDIX A – Completion Photographs

1.0 Introduction

This document has been prepared to provide a post project review for the Advanced Centre of Engineering (ACE Centre) located at Northampton College, Booth Lane Campus.

2.0 Background Details

2.1 Project Name

ACE Centre, Northampton College

2.2 Lead Organisation

Northampton College

2.3 Project Partners

SEMLEP provided the College with part of the funding to assist with the project.

2.4 Project lead details

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3.0 Project Details

3.1 Project overview and brief description of its specific objectives

In 2017, following extensive consultation with employer partners, Northampton College submitted a capital application to address an identified skills need and provision gap in construction and engineering related provision. To address this long-standing deficit (which was worsening at the time of capital application submission in late 2017), the College proposed the creation of specialist learning facilities in a new purpose-built facility located at the College's Booth Lane campus in Northampton.

A new build facility was required as the College, whilst occupying a 21st Century purpose-built campus, has seen significant growth in learner numbers since the campus completion in 2012 which has resulted in above-sector-norm space utilisation. In addition, the College did not possess the specialist construction and engineering facilities required for this new area of provision.

The overarching objective of the project was to address local and regional skills shortages in a flexible, industry standard facility, located at the main Northampton Campus where ACE Centre learners could also benefit from the wider College facilities that were developed during the preceding 5 years in a £100M redevelopment of the estate.

The project secured support from a number of construction and engineering partners along with other key external stakeholders such as Northamptonshire County Council and Northampton Borough Council. Twelve separate letters of support for the project concept were secured in support of the SEMLEP capital application.

In addition to addressing local and regional skills shortages first identified in the 2011 National Employer Skills Survey (NESS), (which concluded that that Northamptonshire had the highest levels of hard-to-fill and skills shortage vacancies and the highest proportion of its workforce with a skills gap), the project also sought to support the wider national skills shortages in the labour market as evidenced by the 2016 Farmer Report (The Farmer Review of the UK Construction Labour Model, Modernise or Die, October 2016), which concluded that short term considerations of profitability negatively impacted long term investment, innovation and productivity in the construction industry. The College has been able to harness its expertise in Engineering, Electrical Installation, Motor Vehicle Maintenance and ICT to develop a centre that brings together Engineering training with Construction training to meet the new sector demands identified by the Farmer Report.

3.2 Investment Pillars most relevant to the project

Pillar 1: Growing Businesses	
Pillar 2: Growing People	✓
Pillar 3: Growing Places	

The capital submission was strategically aligned to Pillar 2 of the SEMLEP SEP (Strategic Economic Plan). The project has addressed this key investment pillar through the creation of a new dedicated training facility to help improve workforce skills gaps, as originally indicated in the SEMLEP Capital Application.

3.3 Overview of the project timetable

The project was delivered within the original programme parameters. After a competitive tender process, the College contracted with the successful contractor (Kier Construction). The project commenced in July 2018 and completed in July 2019. The new facility was operational for the start of the 2019-2020 academic year, all as originally anticipated in the SEMLEP Capital Application.

3.4 Project Deliverables

The project delivered the following specialist workshop accommodation:

1 x Carpentry

1 x Wet Trades

1 x Heavy Plant

1 x Decorating and Interior Design

1 x Gas/ Plumbing

1 x Electrical Workshop

In addition the facility provides the following support and ancillary spaces:

1 x Staff Room

5 x Stores

WCs, Circulation and Plant Room

4.0 Strategic Fit

4.1 Strategic objectives the project delivered

The project delivered the following key pillars;

Pillar 1: Growing Businesses	
Objective 1: To be the commercialisation core of the Growth Corridor for innovation in high performance technology sectors.	
Objective 2: To attract increased private sector investment growing jobs by 10% by 2025.	
Objective 3: To increase trading activity between our companies and global markets	
Pillar 2: Growing People	
Objective 4: To deliver an employer led approach to skills attainment	✓
Objective 5: To make a wide variety of skills pathways available including 170,000 apprenticeships by 2025/26.	✓
Objective 6: To provide opportunities for up-skilling, re-skilling and re-engagement of people in work	✓
Pillar 3: Growing Places	
Objective 7: to deliver sufficient new homes – with 130,000 planned in the decade to 2025/6 to meet the needs of our growing population.	✓
Objective 8: To deliver the infrastructure needed to achieve our full growth potential including East West rail and the Expressway and much improved broadband and wireless connections.	✓

4.2 The strategic importance of the project across the South-East Midlands

The project was fully aligned with the strategic requirements of the South-East Midlands by seeking to support the following key issues:

- The SEMLEP Skills Strategy "Growing People, Building a Talent Pipeline", September 2017 identified Construction as a Key Sector with Growth and/or High Replacement Need. It identified that Skilled Trades were predicted to have the highest replacement demand of 3,500 reflecting the ageing profile of craft/tradespeople.
- The Northamptonshire Enterprise Partnership, Construction Skills Strategy and Action Plan (November 2015 and subsequently revised February 2016 identified annual shortages between the supply of Apprentices and demand for Skilled Trades people of 169 per year.
- The Northamptonshire Enterprise Partnership, Construction Skills Strategy and Action Plan also identified the following issues affecting the sector:
 - An ageing workforce
 - (Lack of) awareness and preconceived ideas of the opportunities
 - Relevant and appropriate pathways and provision
 - Low quality applicants
 - Education leavers that are not work ready
 - Digital

The project has assisted in addressing these regional skills objectives through the expansion of specialist construction and engineering provision which would not have existed without the development of the ACE Centre.

4.3 Alternative Options analysis undertaken for the project

As part of the development of the capital project an options appraisal was undertaken to identify the most appropriate solution for delivery of the new specialist provision. Consideration was given to the potential for adapting the existing accommodation. This review identified that the only other potential option was the reconfiguration of the Cherry Building, however this was discounted due to low floor to ceiling heights which would not enable the delivery of specialist and flexible workshop accommodation that is required for construction and engineering related provision. The conclusion of the Options Analysis was that a purpose-built facility was the only viable option for supporting the delivery of the provision.

4.4 Project Outputs

A comparison of the project outputs detailed within the 2017 capital application and the current position in August 2021 is detailed in the table below:

	Overall Target	Achieved to date	18/19	19/20	20/21	21/22
1. <i>New Jobs**</i>	32	30	12	22	30	32
2. Indirect jobs	50	73*	73	45	8	9
3. New teaching space	1,058m ²	1,058m ²	0	1,058m ²	achieved	achieved
4. Individuals in training running total	659	845	93	515	845	736
5. Of which No of new Individuals in training pa	288	423*	93	422	445*	368 achieved
6. Apprentices running total	170	40*	8	16	51*	30

In relation to the indirect jobs created, the overall target has been significantly exceeded. Whilst the majority of these were during the construction phase (via the Kier Construction supply chain). The College understand via its supply chain that some indirect roles have been retained as a result of the ongoing supply requirements of the facility.

Whilst the individuals in training target of 659 has been achieved and significantly exceeded (cumulative total to date 845) this comprises individuals on Full Time Courses at Levels 1 -3. The target for Apprentices has not been achieved and it is assessed that the ability to do so, will be adversely affected over the medium term due to the impact of the COVID-19 Pandemic.

It is assessed that the project has exceeded the outputs approved within the capital application. The demand for courses has been greater than anticipated which has resulted in the need for further accommodation to be created to accommodate this demand. The College has now erected a marquee (180m²) to provide additional wet trade capacity and is currently planning the development of a 306m² extension to replace the temporary marquee structure.

Note: In terms of the numbers by academic year these will include all learners studying a relevant programme in that academic year. The total number comprises all learners who have utilised the facility.

4.5 Additional Outputs

The following additional outputs have been achieved:

- The development of End Point Assessment Centres for Electrical, Painting & Decorating and Motor Vehicle.
- Creation of an additional plumbing, carpentry and painting and decorating workshops (Cherry & Oak Buildings for ancillary elements of course provision) to cater for increased demand for Levels 1 and 2.

5.0 Investment Profile & Spend

5.1 Total Project Investment

Original (application)	Actual
£4,120,000*	£4,324,385

*Land and employer support removed

The project was completed within the original budget set. This included the following elements of works: -

- Construction costs
- Professional fees & Surveys
- Direct orders
- Specialist equipment
- Move costs
- IT
- VAT

When the original application was submitted, the allowance for the direct orders allowed for all specialist equipment and fit out of the building. When the project developed a number of direct orders were instructed through the main contract (construction cost).

5.2 Stipulate the revenue/capital breakdown

100% Capital

6.0 Value for Money

6.1 How the project offers value for money

	Actual	Capital Application
SEMLEP Grant	£2,250,000	£2,250,000
Construction Cost	£2,387,500	N/A
Total Project Cost	£4,324,385	£4,120,000*
Construction cost per m2	£1,825	N/A
Total Project cost per m2	£3,306	£3,150

*College contribution in kind (Land Value £0.5M) removed to enable like for like comparison to be undertaken.

The total project outturn budget is marginally higher (4.7%) than anticipated at Capital Application stage (+£204,385). This cost was borne by the College with the SEMLEP capital funding unchanged and the overall scope of the project unamended. The increase in cost was directly attributable to inflation in the construction market.

7.0 Jobs and Growth Creation

7.1 Outputs delivered by the project

As detailed in Sections 4.4 and 4.5, the project has significantly exceed the outputs detailed in the original capital application. As a result the College has had to install a temporary marquee of 180m² to accommodate additional demand for wet trade provision. This is a temporary solution and work is currently in progress to deliver an additional 306m² of teaching space for wet trade and concrete technology provision. This additional demand is directly attributable to the development of the ACE Centre and would not have been realised without the project. Some existing office accommodation has also been repurposed for carpentry / joinery and painting and decorating, to accommodate additional demand for these courses. Once the expansion projects are fully realised an additional 487m² of specialist space will have been created which represents 37% of the overall total area of the original ACE Centre.

8.0 Project Plan and Deliverability

8.1 Project timescales

Item	Original	Actual
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Project commencement	July 2018	July 2018
Planning approval	August 2018	August 2018
Appointment of contractor	November 2018	October 2018
Start on site	November 2018	November 2018
Project completion	July 2019	August 2019
Project Operational	September 2019	September 2019

8.2 Delivering the project on time and to budget

To ensure that the project was delivered on time and to budget a Design & Build (D&B) procurement route was selected. This allowed engagement with the contractor to happen a lot quicker and they could then feed into the design and buildability. This also allowed for risks to be passed from the College to the contractor who was better placed to manage them.

Working with the contractor, cost certainty was delivered before works started on site which meant the College could be certain of value for money as work packages were reviewed on an open book basis with the College's cost managers. The project was delivered fully in accordance with the original project programme.

8.3 Was your project reliant on any other projects before going ahead

The project was not reliant on any other projects completing prior to its commencement.

8.4 Is your project reliant on any other project happening after completion to deliver the expected jobs

No, the project was stand alone and did not rely on any projects happening after completion to deliver jobs.

8.5 Please detail project management arrangements used for your project

It was proposed to run the project the same way with the same processes as three projects previously completed by Northampton College at Booth Lane, Lower Mounts and the Daventry Campus. All of these were completed below or on budget and ahead of schedule. The project team that assisted the College to successfully deliver the ACE Centre was as below:-

Project Manager	Northampton College
Employers Agent	Fusion Project Management
Quantity Surveyor	Fusion Project Management

Architect (pre-contract)	Robinson Architecture
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APPENDIX A
COMPLETION PHOTOGRAPHS



