Final Project Report

ABC-FLX-20-01

ABC ASSESSMENT CENTRE

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Project Summary



Outline

In summary, The ABC Assessment Centre's Bricklayer Training Programme was responsible for upskilling 658 individual college students enrolled on bricklaying courses up and down the UK between 1st December 2020 and 30th September 2023, with the total number of FE training interventions being 3,567.

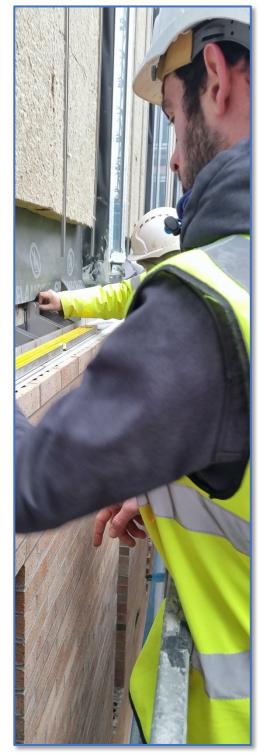
In a commercial (onsite) environment, 681 experienced workers attended an ABC Assessment Centre short course over the three years of the project, with the total number of interventions being 753.

In order to make the above possible, The ABC Assessment Centre used funding granted through the present CITB commission to achieve the following:

- Produce training presentations and materials for 16 areas of modern masonry training
- Scope and appoint a Project Manager
- Identify and recruit Experienced Brickwork Trainers
- Create a <u>website</u>, e-Learning modules and "How to" Training Videos
- Engage with FE Colleges, assign Brickwork
 Trainers and coordinate delivery
- Engage with product suppliers to deliver training materials and ancillary items
- Devise and implement a Comms Plan to promote the short courses
- Run Training Standardisation Meetings and provide relevant CPD for Brickwork Trainers on modern masonry skills
- Run Train-the-Trainer days for upskilling college department staff

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Why Was the Project Required by Industry?

Back in 2019, the UK bricklaying sector had an employment figure of approx. 71,000 bricklayers. At that time, CITB identified that demand for skilled labour severely outweighed this figure and an average annual recruitment of 1,600 more bricklayers was needed to satisfy demand. Subsequently, housebuilders determined that an extra 2,500 bricklayers were needed to build 10,000 more homes per year, according to HBF.

In addition to this, competence requirements for bricklaying subcontractors and specialist building product installation contractors were getting greater and greater, with Tier 1 contractors mandating demonstrable competence-based training as a pre-requisite for performing modern masonry tasks on their sites.

Changing legislation in the wake of the Grenfell Tower tragedy in 2017 and a rise in high profile system failures – particularly related to cavity wall construction, firestopping, insulation and masonry support angle systems on high-rise projects – made the industry identify and put measures in place to respond to the skills gap across the entire construction supply chain.

Simply put, there was a culture of installer operatives 'learning as they went' or, at the very least, failing to undertake any robust or accredited training for systems that hold up the façade of a building (e.g., masonry support, windposts, wall ties). Add to this a lack of awareness from a quality assurance perspective, and you had the 'perfect storm' for not reaching minimum quality thresholds and potentially endangering building occupants and the general public.

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ABC Skills Review

In light of this, The Association of Brickwork Contractors conducted a review of emerging skills gaps within its member employers. At the time of this review, it was clear that employer influence on training standards was severely lacking, and The ABC – as the trade association for brickwork – needed to introduce a more employer-led training market to support bricklayers and their future within the construction industry.

Off the back of this was born the idea of delivering employerled short duration training through The ABC Assessment Centre by co-writing the bricklaying short course standards in collaboration with ABC member employers.

Success in this would give employers – through their site operatives – the UKAS accredited training they needed to remain compliant in the face of ever-tightening competence requirements, as well as the ability to demonstrate this fact at tender and when undergoing QA audits.



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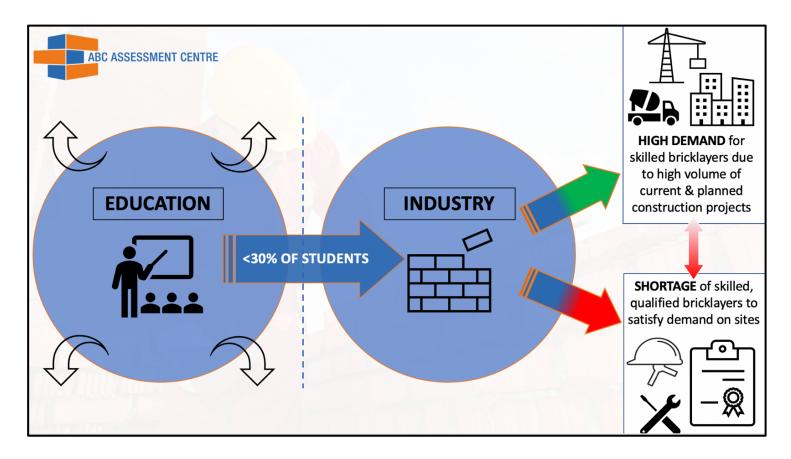


Training in FE

Although the foundations of the project were related to sitebased upskilling, it was always a priority to embed these modern masonry skills in colleges in the form of the present Bricklayer Training Programme, so that the skills training not only benefitted the operatives of today but also the next generation of bricklayers.

Therefore, The Association of Brickwork Contractors looked to colleges for records of students enrolled on full-time bricklaying courses. On average, 3,400 students per year were completing a L2 diploma in bricklaying, but only 25% of these students actually entered into the construction industry. Our immediate reaction was "What happened to the other 75%?" and "What made them so un-employable?".

It was clear an intervention was needed to help stop the 'sieve effect' of losing talented bricklayers before they make the transition into industry, as shown by the image below:



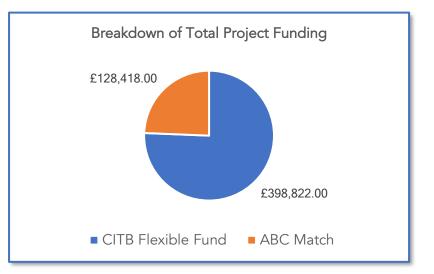
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Project Performance Review



Budget & Funding Sources

The CITB Flexible Fund accounted for £398,822 (75.64%) of the total project budget of £527,270, with The ABC Assessment Centre match being £128,418 (24.36%) over the lifetime of the project, as the following pie chart shows:



It must be noted that there was a variation in July 2023, which saw the total CITB award increased by £66,000 from the original contract award, which allowed us to continue delivery in colleges under funding and also participate in further data collection activities.

This quarterly funding structure was instrumental in us being able to meet – and exceed – the aims and objectives stipulated at the outset of the project, as I'll move on to outline now.



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Project Performance Review

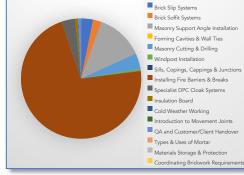


Aims & Objectives

The quantifiable aims and outputs for the present CITB commission vs actual project performance is shown in the following table, as documented in the Quarterly Monitoring Report spreadsheet:

Project Outputs	Project Target	Project Actuals	Variance
1) Number of Short Duration Bricklaying Courses	16	16	0
 Experienced Workers: Total learning interventions delivered 	480	734	+254
 Experienced Workers: Unique interventions delivered 	250	681	+431
 FE Learners: Total learning interventions delivered 	480	3,567	+3,087
5) FE Learners: Unique interventions delivered	250	658	+408
6) Number of expert Brickwork Trainers recruited	9	9	0
 Number of FE colleges engaged and committed to include bricklaying course in curriculum 	25	15	-10
8) Number of employers engaged with project	23	39	+16

Breakdown of Total Interventions Delivered





Project Results

As you can see above, the project either met or exceeded the targets and expected outputs in all but 1 of the 8 output criteria established at the start of the project.

Experienced Workers

Commercially, the early adopters were ABC member employers, who embraced the concept of accredited training for their operatives; especially since this simply did not exist for competencies such as *Installing Fire Barriers & Breaks* and *Masonry Support Angle Installation*, for instance.

At the close of the Flexible Funded Bricklayer Training Programme, these two courses were the most significant contributors to onsite upskilling, with the former accounting for 72% of all delivery and the latter making up 13% of all training done to this group of learners.



amendments - for use in England

The importance of compliance in response to changing legislation has been a massive driver in the growth of the short duration training courses, of which *Installing Fire Barriers & Breaks* and *Masonry Support Angle Installation* have been some of the most dynamically changing over the last few years.

For instance, the high-profile Grenfell Tower fire incident in 2017 and subsequent Hackitt Inquiry prompted large scale changes in the field of passive fire protection within concealed cavities; both for new builds and legacy work.

In terms of overarching legislation, significant amendments have been made to the Government's statutory guidance on Fire Safety: Approved Document B, meaning building design and specification have undergone a massive overhaul.

However, these changes don't just affect design teams and building architects. Since Royal Assent was granted for the Building Safety Act in 2022, the safety and performance of all buildings (in particular HRB) has been in the spotlight more than ever before and will be overseen and enforced by the Building Safety Regulator.

Part of the BRS's remit is to ensure organisations – both principal contractors and trade sub-contractors alike – have the organisational capability to carry out the tasks they're contracted to undertake, meaning demonstrable competence frameworks are being mandated like never before.

This means that any brickwork sub-contractor who takes on the firestopping package not only needs to be third-party approved by FIRAS/IFCC, but installers and their supervisors must either have UKAS-accredited competence-based training or an NVQ in passive fire protection.



Building Safety Act 2022





Therefore, a large part of the demand for the *Installing Fire Barriers & Breaks* training course has arisen simply because it is the only such accredited training delivered on site that guarantees this compliance. Without it, sub-contractors cannot evidence meeting the competence threshold for the task and risk hold-ups due to insistence from the main contractor that this work cannot go ahead.

After all, the role of the main contractor with regards to liability is also changing. The introduction of the 'golden thread' as part of the Building Safety Act in 2023 puts more onus on the MC to trace important information relating to the processes, competence and building safety of a project.

Therefore, for the first time, the culture of 'kicking the can' down the supply chain in terms of liability is beginning to change. There is a feeling amongst specialist brickwork contractors that, previously, the main contractor has deferred expertise – and, consequently, the associated liability – down to the brickies; so the golden thread should represent a refreshing top-down approach to competence that is mandated by the MC/client from the outset.

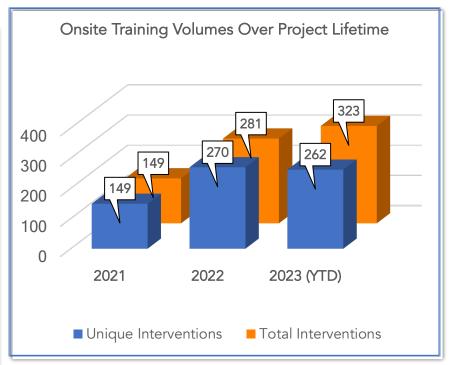
Add to this the fact that manufacturers have created and brought to market new and innovative PFP solutions (each requiring specialist knowledge and competence-based installer training) and insurance companies have moved away from including firestopping and cladding in Professional Indemnity policies, and you find there is even more demand for this upskilling – both from an operational and organisational perspective.

In the case of MSA training, no consolidated short course standard to accredit competence existed until The ABC Assessment Centre created *Masonry Support Angle Installation* (in fact, this is also true of the NVQ upskilling route, which is now possible via the L2 Brickwork Technician).

For years, site labourers receiving inadequate and unrobust on-the-job training have been installing these support systems, which are ultimately responsible for the structural integrity of the entire façade. Therefore, for all the reasons mentioned above, it's clear to see why there has been, and will increasingly be, great demand for this training.



In terms of the evolution of training over time, there has been a clear increase in training volumes from year to year. As you see from the graph below, the year-on-year increase in total interventions from 2021 to 2022 was 189%, with a 115% from 2022 to the end of Q3 2023:



The trend in the graph above has come about thanks to several factors.

The first is that feedback from onsite courses has been very positive and the quality of the training has been consistently high. When surveyed, 56% of Experienced Workers strongly agreed the courses had a positive impact on their site work, 100% responded that their expectations had either been exceeded or met, 74% rated the courses "Excellent", and the overall satisfaction rating was 4.7/5:







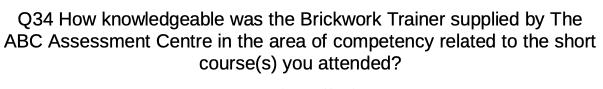
To explain the above statistics in more detail, it's important to understand why Experienced Workers felt that the courses represented such a positive contribution to their site work.

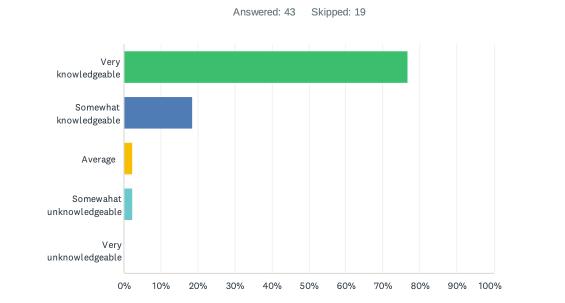
In discussion with brickwork contractors, one of the massive draws of the training is the fact the CITB accreditation is a tangible record of competence-based training for areas of skill that have not had this associated with them to date ie. this is not something they can get elsewhere.

From the perspective of supervisors and managers, this means being able to providing Main Contractors with more than just evidence of having attended toolbox talks or CPDs led by product manufacturers.

Therefore, supervisors/managers taking the courses see the training as a contribution to Quality Assurance practices, gaining confidence from the fact that the workmanship of the operatives working under them is verified by a third party.

Of course, this is only possible if the Trainer is very knowledgeable in the area of training, which over 76% of Experienced Worker respondents agreed with:







Hence, one of the reasons for the positive feedback has been the situations where The ABC Assessment Centre's Trainers have suggested interventions for the site work.

For instance, there have been occasions where our Trainers have urged subbies to get a resolution in writing for issues surrounding product/component specification, compression of cavity barriers, suitability, quantity and penetration of fixings, fitting certain systems to different types of substrate, etc.

Add to this the fact that having a trained workforce is advantageous when tendering for new work (including specific install and ancillary packages), as well as furthering good relationships and working in tandem with Main Contractors.

With workmanship liability – including its repercussions for insurance purposes and as a defence against future claims made against the contractor – and defining a 'competent person' such hot topics in light of the Building Safety Act; this group had predominantly organisational reasons for responding that the courses had a positive impact on their site work and for rating the courses highly in the survey.







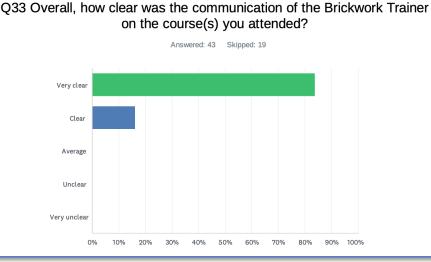
For the installer operatives themselves, the value came from knowledge acquired and skills gained from adhering to best practice installation.

When you consider that, as I mentioned above, no homologated standard for installing masonry support, brick soffit systems or windposts (to name but a few examples) existed before the CITB short duration standard, training was an ad hoc 'learn-as-you-go' process and the process was pyramidical or 'top-down' by nature.

This means that installers were taught how to perform a given task from someone in the team (usually a supervisor or manager who wasn't carrying out the install day-to-day anyway), often in a time sensitive environment and without a competence threshold for the practical element of the task.

In this way, I don't consider 'sharing participant knowledge on site' to be a benchmark of success, as this is effectively how it has always been and easily leads to the 'Chinese whispers' method of diluting training which the industry has seen for decades and which we are trying to eradicate through the Bricklayer Training Programme.

Rather, the survey respondents' reasons for the training courses having had a positive impact on their site work is related to the comprehensive nature of the training and the fact that each operative receives a clearly communicated message that is relatable and relevant, delivered in a way they can understand and can then apply to their own site work:



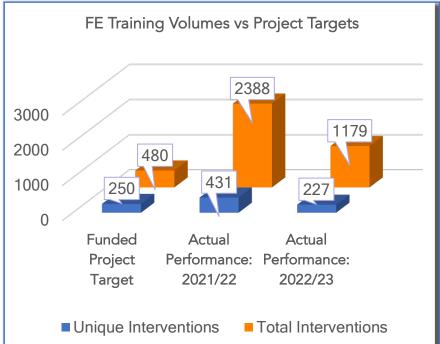




FE Learners

This group of learners was of particular importance to the success of the funded project, with the Key Performance Indicators being number of training interventions delivered and number of UK colleges engaged with the project and committed to partnering with The ABC Assessment Centre.





As you see from the graph, the rhythm of training in Year 1 of the project was extremely significant, meaning we ultimately surpassed the project targets for both unique and total interventions after Term 1 of the 2021/22 academic year.

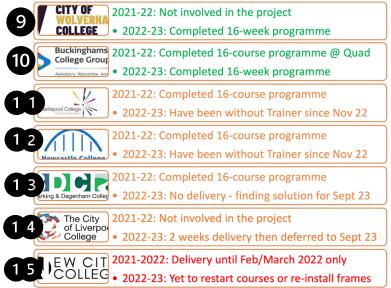
Although a source of great achievement to have been able to upskill 431 individuals through our short courses, the issue surrounding maintaining this volume of training within the constraints of the funding was a lesson learned from this period; hence why the numbers for Y2 are considerably lower, despite actively delivering at a higher number of FE Colleges.

Indeed, the above figures represent delivery at 11 colleges in Y1 and 12 colleges in Y2 of the project (15 unique FE Centres over the lifetime of the project, as per the performance summary table above), with Y2 colleges being limited to 1 cohort of 10 learners for the 16-week programme.



To summarise engagement with the 15 different colleges, see below a traffic light system to show more visually which colleges remained constant throughout the project and, for reasons I'll explain below, which were unable to support delivery at various times over the past 2 years.







As far as FE is concerned, there are lots of positives that can be drawn from the value added by the current project, as well as plenty of lessons to be learned.

Added Value

Firstly, on the subject of added value through the project, there are several examples in the FE space of where the programme has enhanced the overall training offer in colleges.

Several colleges have included our scheme of works as part of their Ofsted inspection evidence; using the courses as evidence of their commitment to engaging with industry, providing CPD for construction department staff and offering modern methods of construction to their students.

The programme has also been a point of reference for curriculum planning at Bucks College Group, where a mixture of L1 and L2 diploma students have taken part in the programme over its two-year duration. This was also the college that trialled the Knowledge Quad in collaboration with Morgan Sindall, which succeeded at bringing the courses to a site-based hub.



The successes of the Knowledge Quad were measured in terms of strong engagement and consistent attendance on a day that was optional for the students to come in. In fact, the tutor commented that more students turned up for the Knowledge Quad sessions with The ABC Assessment Centre on a Friday than turned up for their practical college workshop sessions on a Monday.

Outside of this, two of the cohorts were spotted as having outstanding talent and taken on as improver bricklayers/apprentices by ABC member employers.

This identification of employment opportunities is not unique to Bucks College Group, though. ABC members, through recommendations and tutelage from our Brickwork Trainers, have worked closely with students at East Kent College, Barking & Dagenham College, New City College, Bedford College, Reaseheath College, City of Liverpool College, Warrington & Vale College and Leeds College of Building.

At East Kent College, the ABC training frames have been relocated to simulate a bungalow build-up, offering students from other trades (dry lining, plastering, carpentry/joinery, etc) the chance to utilise the potential of the rigs as a training tool.

Lessons Learned

To address the fact that there was a variance of 10 colleges UKwide committed to delivering the courses, the graph on the previous page evidences the fact that we prioritised KPI 1 (number of learners upskilled) over KPI 2 (number of colleges); essentially front-ending volumes of training and, consequently, the assignation of funding.

Another challenge through the project was staffing – both recruiting Brickwork Trainers initially (and retaining them) and the changing landscape of department staff at the colleges.

From The ABC Assessment Centre's experience of recruitment for a Brickwork Trainer role, one of the greatest challenges was to entice quality trainers to come 'off the tools' at a time when market rates for quality bricklayers, supervisors and construction managers were extremely high.





Consequently, we had to re-think our recruitment and how to retain talent once we found it. Experienced Trainers were in a position to command extremely competitive rates and wanted the guarantee of several days' work per week. Hence, in order to manage expectations and also reach project targets from a recruitment perspective, we found a financial compromise and had to offer an additional cohort (equating to an extra day per week) to each Trainer's timetable in Y1.

Fortunately, we have been able to overcome this hurdle by offering further upskilling opportunities and have retained a core group of Trainers.

Sadly, we lost 2 Trainers to the promise of full-time work at colleges and a further 2 to industry, however we are very proud to have been able to produce the project deliverables with the team we had.

Another consequence of the above was to limit upscaling and onboarding of new colleges in new geographies in Y2. This is a clear lesson learned and is reflected in the thrust of the Homebuilding Commission being to cover Wales, Scotland and the Southwest of England. At the time of writing, we are recruiting for trainers in said areas and optimistic about by the end of the current academic year.









Case Study

The FE Bricklayer Training Programme succeeded in identifying talent and providing employment opportunities for young bricklayers on full-time diploma courses.

One such example of exceptional talent was Jamie Cremin, who attended Bucks College Group, Aylesbury, and was part of the cohort that trialled the Knowledge Quad through Morgan Sindall at Kingsbrook Secondary School.

Jamie (left) showed great promise throughout the ABC programme and our Brickwork Trainer facilitated Jamie being taken on by Lesterose – one of the largest specialist masonry contractors in the country – as an improver bricklayer.

Jamie, who also won a college award in recognition of his craft ability, has since worked on large-scale construction projects in central London and has even gained CITB accreditation for short duration training in *Installing Fire Barriers & Breaks* through The ABC Assessment Centre as a site operative.

We are very proud of producing success stories like Jamie, with this aspect of linking ABC Member Employers up with potential improver/apprentice bricklayers from partner colleges being a particular focus for the upcoming Homebuilding Commission.

Testimonials

"Excellent range of programs offered for both learners and staff. A key part of our training schedule."

"Great training using the very latest products being used on site."

"Seamless service. Smoothly delivered course and a huge benefit to the delegates."

"The trainer was first class and the ABC are a dream to work with."

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How Could the Training Programme Be Improved?

Based on data collection survey responses alone, the following is what employers and stakeholders in the FE space who answered "Yes" to the question, "Are there any competencies you feel should be added to the short course training programme delivered by The ABC Assessment Centre?" had to say:

Q37 If you answered "Yes" above, what modern masonry techniques do you feel should be added to the short course programme?

	Answered: 5 Skipped: 57	
#	RESPONSES	DATE
1	Non combustible cavity trays and maybe even standard cavity trays	7/18/2023 7:27 AM
2	Installing insulation & channel against SFS	7/17/2023 2:24 PM
3	i think these should focus on non combustible material and installation	7/17/2023 8:00 AM
4	Technician course	7/11/2023 7:37 PM
5	The entire selection of new techniques in brickwork could be reviewed going forward	7/11/2023 4:28 PM

Q25 If you answered "Yes" above, what modern masonry techniques do you feel should be added to the short course programme?

Answered: 4 Skipped: 58

#	RESPONSES	DATE
1	A bit more on brick panels , soffits on the practical side	7/16/2023 5:19 PM
2	Brickwork technician	7/11/2023 5:50 PM
3	There could be so many more, too many to list.	7/11/2023 4:07 PM
4	Employment opportunities	7/11/2023 10:23 AM

This feedback, as well as verbal and written feedback from the delivery of site-based courses, is a great first port of call to gauge what possible improvements are required and to enact the recommendations made by the respective stakeholders.

From the above, we have listened and made a number of changes to course content, our training frames, and created a new qualification standard for the industry.

P11.3: Final Project Report Recommendations/Next Steps



Implementation of Recommendations

The ABC Assessment Centre is in a very privileged position to be able to implement the above improvements to the Bricklayer Training Programme, with the below being a summary of those made in response to ongoing feedback:

\circ $\;$ Thorough Revision of Course Content $\;$

- Including adding more information re. non-combustible cavity tray systems in Specialist DPC Cloak Systems course, as well as additions to Brick Slip Systems, Bonding, Taping & Positioning Insulation Board, Forming Cavities & Correct Installation of Wall Ties, Installing Windposts, Installing Fire Barriers & Breaks, Masonry Support Angle Installation, Masonry Cutting & Drilling and Quality Assurance & Customer/Client Handover
- Videos and interactive resources will be used more widely to enrich training delivery

Additions to Training Frames

 Several improvements including providing more wall ties, a greater provision of panelised brick slip products, foil-faced insulation, full length masonry support bracket shims, working with new providers to produce new SFS panels to train on insulation + channel tie systems and mechanical fix cavity barriers, concrete lintels with/without channel to train on drilling into masonry and fitting MSA systems

• Heavier Focus on Train-the-Trainer

- To ensure sustainability, the Homebuilding Commission will feature more train-the-trainer sessions in colleges, especially in years 2 and 3 of the project
- CPD / upskilling sessions will be run at one or more ABCAC training hubs to trainers not yet linked to the Programme
- ABCAC confident to reach target of 40 Brickwork Tutors to receive train-the-trainer upskilling

• Employer Engagement

 Recommendation to strengthen links to ABC employers and provide more work experience will be enacted throughout the lifecycle of the upcoming commission



P11.3: Final Project Report Recommendations/Next Steps



As well as the above, we also received feedback from our Trainers regarding the smooth running of the training within colleges.

Specifically, many colleges have between 15 and 30 full-time students in any given Level 2 diploma group, with enrolment growing year on year in a lot of these centres. The current structure funds delivery of either a) delivery of all 16 short courses to the maximum ABCAC cohort size of 10 students (usually packaged as an 'enrichment programme', often for those who are exempt from English & Maths); or b) dividing all FT students up into groups and reducing the number of different courses delivered over a 16-week period.

We strongly feel that as many of the enrolled students should have access to as many of our courses as possible; hence why we applied for a superior sum of funding through the latest Homebuilding Commission that would give 2 ABCAC training cohorts (up to 20 students) per college access to the benefits of the Programme.

Thanks to the continued support of all key stakeholders, we look forward to growing and expanding the remit of our delivery – including in new geographical locations – and taking all the next steps necessary to improve our offering and continue adding value through quality training.



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Acknowledgements



Thank You!

The ABC Assessment Centre would like to take this opportunity to thank all the key stakeholders involved in the success of this project; from product and material supplier partners to the FE partner colleges, the CITB and everyone who has supported and promoted the Centre's vision from day 1.

Some of these core supplier and manufacture partners were the following:

