



Delivering Public Engagement, Skills and Training

Harmondsworth Barn Case Study



Summary

This case study illustrates how to deliver public engagement, skills and training activities in conservation works in progress.

It is intended for those commissioning, planning and delivering conservation projects, such as clients and project teams including architects, building surveyors, quantity surveyors and contractors.

It outlines how these activities where planned, the range of options considered, which activities were selected and why. It goes on to describe how these activities were delivered including costs and the use of contract clauses to build the activities into the main contractors works. It gives an end project review giving practical lessons learned, the wider benefits to the project, and feedback from the project team and those attending events.

Since this project was undertaken in 2014, English Heritage has become two separate organisations. The English Heritage Trust, the new charity who care for the historic sites and properties, and Historic England the government's expert advisory service for the historic environment.

Building on the lessons learned from this project, English Heritage Trust are continuing to deliver these activities in their projects to encourage the public to view conservation projects in progress, include the wider community in their work and to expand the range of opportunities for volunteers.

This case study has been written by Kate Gunthorpe.

Here you can find out more about the range of options for your project and explore more case studies https://HistoricEngland.org.uk/services-skills/training-skills/ heritageskills-cpd/building-skills-and-training-into-conservation-projects/

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Front cover Site manager demonstrates conservation repairs to timber roof structure to construction students.

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Introduction

Before being acquired by English Heritage in 2011, the barn had fallen into disrepair and was on the Heritage at Risk register. The scope of the conservation works included:

- Repairs to the timber frame structure of barn
- Re-roofing (using new handmade clay peg tiles and salvaged tiles from barn and riven oak battens)
- Selective repair and replacement of boarding /cladding
- Reinstatement of the historic eaves overhang

The project was on site from April 2014 to December 2014. The value of the project was around £480,000 under a JCT Intermediate Contract. The cost of the skills and training elements was £2,360 (approximately 0.5% of the project value). The main contractor was Owlsworth LJP. Owlsworth were selected as they submitted the lowest tender of four pre – qualified contractors and achieved the highest price / quality score.

The Grade I listed oak-framed Harmondsworth Barn is an outstanding example of medieval carpentry and contains one of the most intact interiors of its era. Built in 1426 by Winchester College as part of its manor farm at Harmondsworth, it was used mainly to store cereal crops before threshing, it remained in agricultural use until the 1970s. At 58 metres long and 11.4 metres wide, with 13 massive oak trusses holding up the roof, the barn is one of the largest ever known to have been built in the British Isles, and the largest intact medieval timber-framed barn in England. The barn is managed by the Friends of the Great Barn at Harmondsworth.



Figure 2 The barn was dubbed the "Cathedral of Middlesex" by Sir John Betjeman.

1 Planning the Activities

The project was selected to trail incorporating public engagement, skills and training activities for a number of reasons:

- The significance of the medieval carpentry meant the repairs would be of interest to a range of potential audiences including the public, local residents, construction students, National Amenity Societies
- The majority of the works were to be undertaken by the main contractor with few sub-contractors so responsibility for delivering the activities was straight forward
- The critical path was straight forward, minimising any risk of delay from incorporating these activities
- The location of the barn in Harmondsworth village, in Middlesex near Heathrow, meant there were good transport links allowing people on-site to attend events
- It offered an opportunity to further engage with the Friends of the Great Barn at Harmondsworth
- The idea of incorporating public engagement, skills and training was introduced at the pre-tender stage, giving time to plan the activities and include them in the tender documents

The brief for the public engagement, skills and training activities was to:

- 1. Use conservation projects in progress on site to engage with the public
- 2. Provide a range of opportunities to meet skills gaps identified by **research**
- Develop and test 'model clauses' to deliver the activities via the main contractor as part of the contract

The range of activities planned were:

- A full time trainee placement working on site with the main contractor
- On-site Assessment and Training (OSAT) for
 6 members of the project workforce
- Six hard hat tours of the site
- Seven Sunday Open Days offering public access to the works on site

These activities were selected as the best suited to the project because:

- The length of the contract on site and interesting nature of the work offered a good training opportunity for either a roofing or carpentry trainee
- This scale of activities was felt to be reasonable and realistic to deliver with support from the contractor and the Friends



Figure 3 Demonstrating conservation timber repair techniques to visitors.

- The works were constrained by the time scales of working around bats so the activities had to fit within the project programme
- These activities would appeal to the potential target audiences
- There are no facilities on site, no parking for visitors during the project, no toilets, no catering. So shorter events, of say 1-2 hours on site, were more practical to deliver than to full day events.

During the planning stages other activities were considered but rejected including:

 A requirement for the contractor to employ an apprentice would have been difficult in practice as the NVQ construction apprenticeship framework is a minimum of 2 years but the project was only 9 months on site. The Traditional Building Skills Bursary Scheme (TBSBS) offered more flexible placement options of variable length

- Using the site as a venue for a course, such as the 2 day Level 3 Understanding Repair and Maintenance course or Level 3 Energy Efficiency Measures for Older and Traditional Buildings Award, was discounted as these are classroom based. A site with an education room this option could be considered
- Practical / hands on training event for professionals and craftspeople was considered. But the lack of even basic facilities on site, such as WC, went against this. It would be possible to hire in facilities but this would have increased costs
- The options for working with local colleges had to fit within their timetables and term times. This meant the hard hat tours was the most practical option for them

2 Costs and Benefits

This project showed these activities could be low cost. The total cost of delivering the trainee, six hard hat tours and seven Sunday Open Days was £2,360. This included site safety clothing and supporting coach travel for the groups of students.

Feedback from the project team was the range of activities were reasonable in relation to the scale of the project. And as they were included at tender stage, the risk of increased costs is minimised. The only elements which incurred costs for the contractor's time were the Open Day Sundays which were included post tender, at £300 per day. This reflected an additional cost for public liability insurance and rates for weekend working for the site foreman to assist with the Sunday Open days. The Project Manager was very clear that this charge represented excellent value, commenting 'English Heritage got so much more than the £2K that Owlsworth charged'.

There were opportunities for generating income in these activities. Demand for the hard hat tours was very strong. The English Heritage members tours, were charged at £18 per head, generating £432 in total. They sold out on the morning the phone booking opened, showing high demand from this audience and willingness to pay for this offer. The hard hat tours were successful in engaging groups which skills research shows are underrepresented in heritage construction, young people and women. 26% of those on the tours were female, and 50% were young people.

There were wider benefits including:

- Additional publicity from English Heritage and TBSBS social media
- The trainee, Fergus Murphy, was featured in an article in *The Daily Telegraph* by Emma Bridgewater (June 2014)
- Fergus was shortlisted for an Historic England Angels Award 2015 for Best Craftsmanship Employed on a Heritage Rescue



Figure 4 Fergus Murphy completed a work based placement in carpentry during the project.

3 Delivering the Activities

3.1 Trainee placement

Fergus Murphy completed a 12 month carpentry placement with main contractor, Owlsworth, and went on to gain full time employment with them.

An advantage of working with the TBSBS scheme was that all administration, recruitment, organising additional off the job training to gain qualifications and monitoring of the trainee was taken care of by the scheme manager. The trainee, also benefited from the scheme, through induction days, networking with other trainees and additional training opportunities including the Level 3 Award in Understanding Repair and Maintenance and the Specialist Upskilling Programme.

Lessons learned

There was no cost to have a trainee placement. No charge was made by the contractor for hosting and the TBSBS scheme covered all the trainees cost including bursary payments, equipment and additional off the job training. Further info on bursary schemes is available here

- Be aware of lead in times for recruiting a trainee. It will typically take 3 months to select a suitable candidate following a process of agreeing a role description, advertising, shortlisting and interviewing. It may be that a suitable candidate is not found in the first round of advertising. If a second round is required this will again add to the lead in time
- It is unlikely a single project will cover the range of work required to cover all the areas of competency to complete a heritage construction qualification. For example, it can be difficult for carpenters to gain experience of working on staircases. So it was arranged for the trainee to work on other of the main contractor's projects, such as the Tower of London staircase, Hampton Court and several windmill projects which meant he could go on to gain his NVQ Level 3 Diploma in Heritage Skills and Heritage Skills CSCS card



Figure 5 English Heritage Head Curator giving an introduction to members on a hard hat tour.

3.2 On-site assessment and training

It was not possible to deliver the on-site assessment and training for the project workforce, as the appointed contractors had a highly skilled workforce who had already been through this process to gain their qualifications.

3.3 Hard hat tours

A total of 84 visitors went on the six hard hat tours. These were one hour tours for small pre booked groups including construction students from Buckinghamshire College and Building Craft College, the Joint Committee of the National Amenity Societies and English Heritage Members.

The contractor took each group onto the scaffold to explain the works in progress close up.

These tours were straight forward to deliver. A description was drafted at the pre tender stage which was then included in the tender and contract documents. This meant the contractor had a clear brief to work to and could allow for the resources required, such as staffing and insurances, and for health and safety management, such as site inductions prior to each tour.

In this case the support and administration tasks, marketing, bookings, issuing joining instructions, photos and model release forms, feedback forms and evaluation, were undertaken by the client's team. This would be recommended if such support staff are available, leaving the contractor to deliver the parts of the activities which are directly relevant to their skills and expertise in the practical conservation works.

Lessons learned

- The group size at 15 people was too ambitious for a scaffold tour – smaller groups would be better say 12 people maximum
- All tours went over the one hour allocated, so allow more time for these events, say 1½ to 2 hours
- Hard hats, hi-vis vests and site boots must be worn on site so include for the cost of these
- Due to lack of facilities on site no refreshments or toilets were provided. However, there was no negative feedback on this, so lack of visitor facilities shouldn't be seen as a barrier to such events
- The contractor was provided with information on the history and significance of the site and background on the project to help answering questions
- If the contractors have little experience of hosting tours, terminology around 'training & education' can be off-putting so encourage the contractor to talk about 'what they do'
- Consider having a 'dress rehearsal' involving staff or volunteers as 'guinea pigs' to perfect the content and timings. This will also be beneficial for health and safety to test risk assessments and ensure everyone is clear on roles and responsibilities
- The logistics of booking people onto the tours as a group, rather than as individuals is easier as there is a single point of contact, eg via the college, local group, society



Figure 6 Visitors learning about the project from the site manager.

3.4 Sunday Open Days

These required the contractor to open the site and provide a member of staff in attendance, on the third Sunday each month, and were supported by the Friends of the Great Barn at Harmondsworth as volunteers. Visitors were allowed to 'free flow' around the building site within designated areas at ground level (but not on the scaffold). The benefit of this was that it allowed public access inside the barn during the construction phase. Without this the public would have been restricted to viewing at a distance from behind the site fencing.

The contractor undertook the risk assessment. But on-going coordination was required between the Project Manager, the contractor and the Friends via a logistics meeting on the Friday prior to each event. This reviewed which areas would be safe for 'free flow' due to the changing nature of the site, which areas of the roof were stripped, and changes to the scaffold etc., and on practical issues such as footwear required, supervision of children etc. It was important the Friends were clear that control of the construction site is with the contractor and the responsibility is with the contractor in the event of an accident/incident. Therefore, the contractor has final call on all decisions.

Lessons Learned

- The Sunday Open Days were added posttender, planning them into the project from the outset would have meant health and safety management, risk assessments, insurance and communication meetings could be have been addressed in the tender and contract documents
- An information sheet was supplied to help the Friends volunteers explain the project to visitors. This was useful and could be further developed on future projects to include regular updates on the works

- The visitor experience can be enhanced with 'hands on' activities, examining craftsperson's tools, handling samples of timber and tiles, show and tell of things found during the project where really popular. This adds another dimension particularly for the less mobile, older or younger visitors
- Guidance must be provided for volunteers around buildings sites. It is essential they understand the risk assessments, contractor's legal responsibility for the site and that volunteers cannot instruct contractors as there are contractual implications in issuing instructions



Figure 7

Example of the conservation approach to the repairs to the timber boarding.

3.5 Use of contract clauses

The trainee placement, training and hard hat tours were included in the tender and contract documents for the main contractor to deliver. This was done by drafting clauses which included an outline description and quantities of the activities to be delivered, health and safety management, risk assessments, evidence of insurances, gaining co-operation of sub-contractors and steps for monitoring progress.

The 'model clauses' proved straightforward and practical to apply. It is important to describe the activities so the contractor can plan for health and safety and for the resources required and as under construction contracts the contractor is granted exclusive possession of the site and they become responsible for managing health and safety on the site. The site will be handed over to the contractor until the practical completion of the building works, when a handover meeting takes place and possession reverts to the client.

Lessons Learned

- Create a brief for the activities you will include in the project including:
 - What activities will be offered? How many events?
 - Who are the target audiences?
 - Who will deliver the activities and when?
 - What will this cost and what resources are required?
- Plan ahead so activities can be included in the tender documents to ensure:
 - Benefit from potential tenders goodwill at tender stage and get best value for these activities
 - The procurement process is open and transparent, with equal treatment and is proportional

- The tenderers are aware of the requirement and so can plan ahead
- The range of activities should be reasonable in relation to the scale of the project to ensure they are deliverable and to minimise the risk of increased costs. For example, six tours were allowed for over 9 months onsite as this was felt to be reasonable without placing too much of a burden on the contractor
- However, as the tours were included in the contract, variations can be made if required, for example, to increase or decrease the numbers. But this must be done via the Contract Administrator on the project, as any variations to the terms of the contract may increase costs or add extra time to the project
- To make sure the activities delivered as planned, a programme was drafted at the beginning of the project and progress as monitored via a regular agenda item in monthly progress meetings
- Feedback and evaluation helps to ensure the quality of the activities, means approaches can be adjusted in response to positive or negative feedback, used to promote future events and to report back to clients and funders. See feedback from this project below



Figure 8

Joint Committee of National Amenity Societies on a hard hat tour.

4 Feedback

The participant's feedback on the hard hat tours and Sunday Open Days, shows the opportunity to see conservation works in progress and get close up was greatly appreciated. All audiences were interested in the technical aspects and conservation philosophy of the work.

'Wonderful visit, so privileged to see the barn before the roof is completed and covered up'

English Heritage member

'Fabulous tour of the structure. Please do more of the same at other sites'

English Heritage member

'Lovely to see the work going on. Thank goodness the building is being saved' Visitor on Sunday Open Day

For the students and heritage professionals, the expertise of the craftspeople was highly valued and there were benefits of learning from the craftspeople themselves.

'Tour guide knows his stuff' Buckinghamshire UTC student

Information gained ...'I can apply to my assignments' Buckinghamshire UTC student Most interesting was 'All of it – especially debating the conservation issues' Building Craft College student

'The technical aspects of the tour were very well explained – it is always useful to see examples of good practice. It was also very useful to be able to talk about the repair philosophy with the contractors' National Amenity Society caseworker

It is essential to gather feedback form those attending events to measure quality, inform future events and to demonstrate demand. This project showed feedback should be gathered on the day, as it is much harder to gather after the event chasing people up by email. A photo release permission should be included on the feedback form to allow images from the event to be used in future marketing, social media etc.

It was important to gather feedback from the contractor and project team to get their perspective as well.

Owlsworth described the benefits for them as a construction company from hosting trainees as'Unequivocally the opportunity to invest time in potential employees without risk and little financial outlay'. This was proven by the fact that at the end of the placement Owlsworth took on Fergus as a full time employee.



Figure 9 Harmondsworth Barn on completion of the repairs.

Feedback from Jeremy Ashbee, Head Curator Properties, who gave an introduction to the members tours, highlighted the benefits of the contractor leading the tours...

'The success of the tours was largely down to the engaging and professional manner of the contractors and in particular Dominic Barrington– Groves, the site foreman. If English Heritage staff had been doing this on their own, it would not have been so successful as the enthusiasm and expertise of the main contractor was vital.' The Project Manager described the tours as 'a once-in-a-lifetime opportunity to get as close as they did to the roof timbers', and reflected 'I think was I pleasantly surprised by the excitement it created. If we get that sort of reaction, we should be doing this sort of thing ALL THE TIME.'

5 Where to Get Advice

5.1 Further reading

Here you can find out more about the range of options for your project and explore more case studies:

https://HistoricEngland.org.uk/services-skills/ training-skills/heritageskills-cpd/building-skillsand-training-into-conservation-projects/

Links to other websites you may wish to visit:

Heritage at Risk register https://HistoricEngland.org.uk/advice/heritageat-risk/

Harmondsworth Barn http://www.english-heritage.org.uk/visit/places/ harmondsworth-barn/

Historic England skills gap research https://historicengland.org.uk/research/current/ social-and-economic-research/sector-insight/ heritage-labour-market/ On-site Assessment and Training (OSAT) http://www.citb.co.uk/training-courses/ assessment-workshop/on-site-assessment/

Traditional Building Skills Bursary Scheme http://www.buildingbursaries.org.uk/

Level 3 Understanding Repair and Maintenance course

https://www.citb.co.uk/awards/qualificationsand-courses/construction/qualificationsearch/ viewqualification/?q=AWD053

Level 3 Energy Efficiency Measures for Older and Traditional Buildings Award http://www.sqa.org.uk/sqa/69483.html

5.2 Contact Historic England

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