

UNIVERSITY OF OXFORD
CASTLE MILL GRADUATE ACCOMMODATION

Planning application reference 11/02881/FUL

Environmental Statement*

Non Technical Summary

October 2014



*This Environmental Statement has been prepared voluntarily by the University of Oxford, and is submitted to Oxford City Council, to replicate the requirements of the Town & Country Planning (Environmental Impact Assessment) Regulations 2011, as far as possible given that the assessment is retrospective. It will be subject to public consultation and will be considered by Oxford City Council in its future decisions in relation to the development.



Port Meadow

I. Introduction

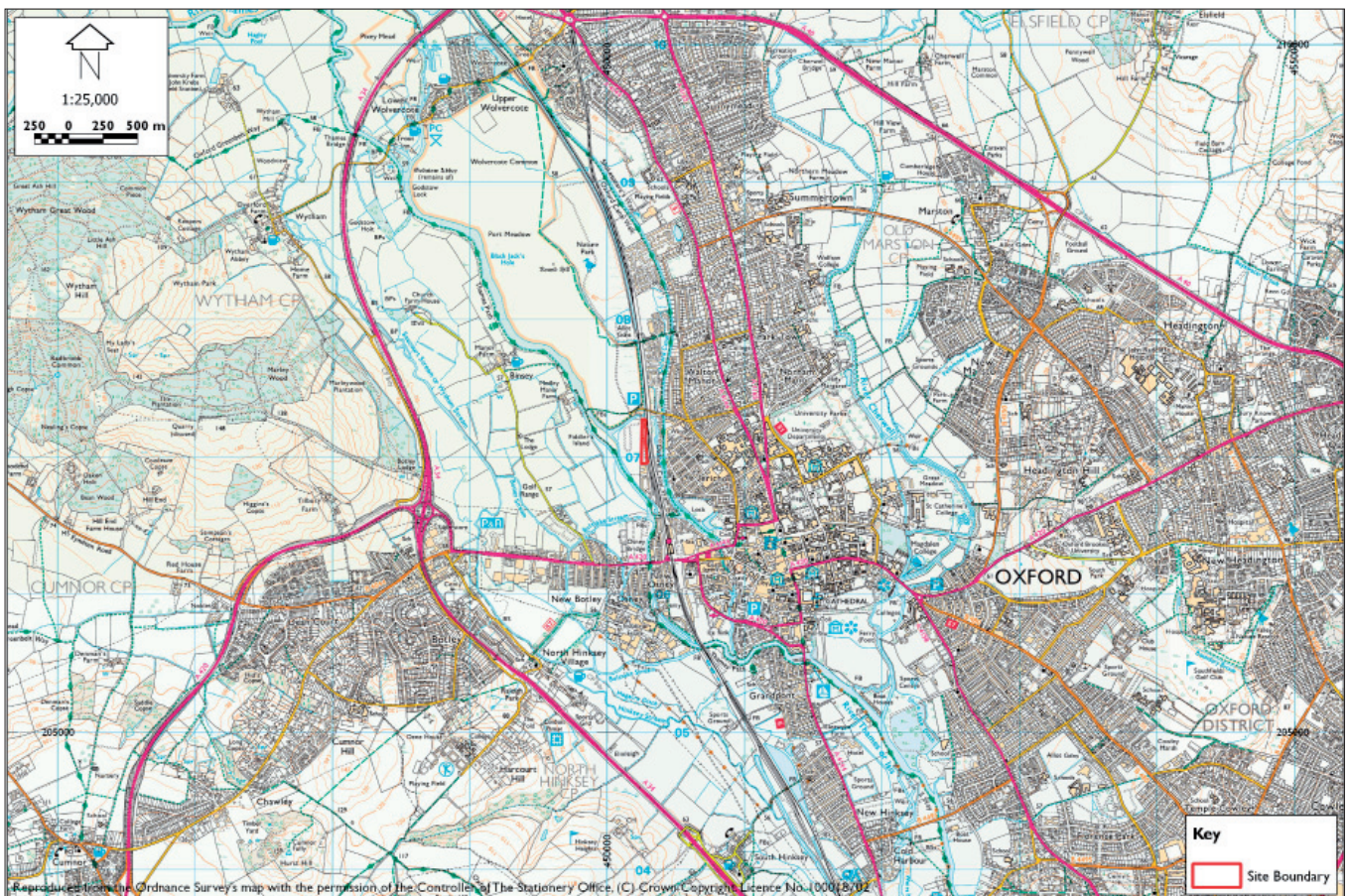
Planning permission was granted in February 2012 for the development of graduate student residential accommodation at Castle Mill on former railway land on Roger Dudman Way, Oxford, in the form of study rooms and flats in 8 blocks on 4 and 5 levels.

An Environmental Statement ('ES') for the Castle Mill development has now been submitted voluntarily on behalf of the University of Oxford to Oxford City Council to replicate the requirements of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 as far as possible, given that the planning permission has already been granted, the site has been developed in full, and the assessment is retrospective. This is the non-technical summary of the ES.

Oxford City Council as local planning authority decided in November 2011 and October 2013 that the development was not likely to have significant effects on the environment and so did not require EIA. However, after an Oxford City Council resolution in February 2013, the University offered to prepare a full Environmental Statement, by letter in July 2013, and repeated this commitment during the hearing into CPRE Oxfordshire's unsuccessful judicial review. The ES sets out the findings made by the applicant's project team. It describes the development, the alternatives that were considered, and sets out the effects of the development on the environment, as well as the measures that have been considered and are proposed to mitigate such effects.

The ES has been prepared by Nicholas Pearson Associates and others in the EIA team (including JPPC Chartered Town Planners, Nicholas Pearson Partnership, Orme Architecture, Ecoconsult, Frankhams, Gair Consulting, Cole Jarman, and Mayer Brown) on behalf of the University of Oxford. The ES comprises the main text, Appendices and Figures, and this Non-Technical Summary.

The ES will be publicised by the University and subject to public consultation, by Oxford City Council. The public, statutory consultees (Environment Agency, Natural England, Oxfordshire County Council, and English Heritage) and local non-statutory organisations will be consulted on the ES by Oxford City Council. Oxford City Council will collate responses, and will consider the ES together with the consultation responses in its further decisions on the planning application, including whether to discharge the outstanding planning conditions.



Site Location Plan

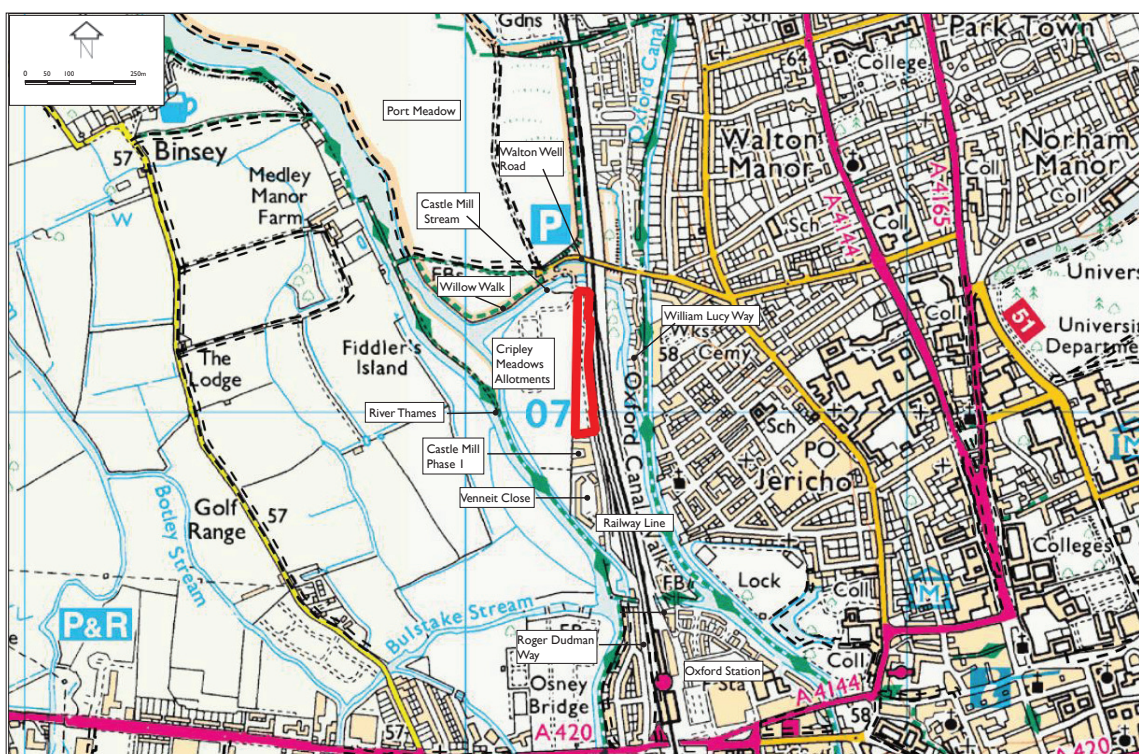
2. Site and Surrounding Area



Aerial photograph (pre-development)

Immediately prior to the development of the site for student graduate accommodation, the site mostly comprised semi-improved grassland, areas of scrub and a number of semi-mature trees and a paved footpath or track. Subsoil arising from the adjacent Castle Mill Phase I development had also been spread across the site. The site appeared undeveloped but had been used in the past as railway sidings and partly for allotments.

The site is adjoined to the west by the Cripsey Meadows allotments, to the east by the main Oxford to Birmingham railway line and sidings, to the south by the Phase I Castle Mill graduate accommodation, and to the north by the Castle Mill Stream, a tributary of the Thames. A footbridge provides access to the public car park at the end of Walton Well Road, beyond which lies Port Meadow, with Wolvercote Common beyond, and the residential area



Site and surrounding areas

of Jericho to the east. Port Meadow is also public access and grazing land (with rights granted to the Freemen of Oxford by King Alfred in the 10th century), still used for horses and cattle. Port Meadow is of historic importance, contains prehistoric archaeology and is a designated Scheduled Monument. Port Meadow, with Wolvercote Common, is designated as a Site of Special Scientific Interest and forms part of the Oxford Meadows Special Area of Conservation. Port Meadow is open access land and an important recreational asset. A National Trail, the Thames Path, runs along the eastern bank of the river to the west of the site, and is accessed from the south. The network of public rights of way and access land provide extensive opportunities for public recreational access to the countryside in this area. Roger Dudman Way extends southwards to join Botley Road (A420) providing the only vehicular access to the site. The site itself is not within a Conservation Area but is close to the designated Conservation Areas of Central Oxford, North Oxford Suburbs, Jericho, Osney Town, and Binsey. The environs of the Site include a number of listed buildings (including St Barnabas church (grade I)). Although the site is not within the Green Belt, it adjoins Port Meadow, the Cripsey Meadow allotments and other areas of the undeveloped floodplain, which are all within the Oxford Green Belt.

3. Scope, Methodology and Consultation

The scope of the EIA for the Phase 2 graduate accommodation development was defined by the EIA team taking account of:

- the requirements of the EIA Regulations;
- professional judgment and considerations of good practice;
- the previous work undertaken for the planning application;
- previous consultation responses on the planning application;
- work undertaken in accordance with planning conditions;
- a 'Scoping letter' in October 2013 (which discussed the proposed scope of the ES) and responses from consultees; and
- further consultations (both meetings and correspondence) with Oxford City Council and consultees (including with English Heritage, Environment Agency, Natural England, CPRE Oxfordshire, Save Port Meadow Group, Oxfordshire Architectural and Historical Society, William Lucy Way Residents Association, Oxford Preservation Trust, Oxford Civic Society, the Freemen of Oxford, and Cripsey Meadows Allotment Association).

The ES considers the environmental impact issues raised by consultees. The ES includes specialist assessments of the following potential significant effects on the environment:

- landscape and visual;
- historic environment;
- ecology;
- geo-environment (ground conditions and land contamination);
- flood risk, drainage and water quality;
- traffic and transport;
- air quality;
- noise;
- socio-economic.

Reports on overshadowing, and energy generation and use (which addresses carbon emissions) are also included in the ES.

The ES has been prepared in accordance with the requirements of the EIA Regulations as far as possible given that the assessment is retrospective. Difficulties have arisen where an absence of survey data before the development took place means that certain information is not available (including pre-development views and landscape character, settings of heritage assets, and noise levels off-site), but much information has been taken from available sources.

The potential for cumulative effects to arise with other developments planned or ongoing in the vicinity of the site has been considered in the ES, including in relation to Network Rail's planned electrification of the main railway line adjacent to the site, and their East-West Rail project, as well as the development of the Blavatnik School of Government building and the Westgate Centre scheme.

4. Description of the Development

The development of 312 units of post-graduate accommodation in the form of study rooms and flats in 8 blocks on 4 and 5 levels, with pedestrian and cycle access, 360 covered cycle bays, parking spaces for disabled drivers, laundries and a communal energy centre, was proposed in a full planning application submitted to Oxford City Council on behalf of the University of Oxford in November 2011 (planning application ref 11/02881).

Planning permission was granted subject to 22 conditions, a number of which required the submission of additional details related to the development proposals. A number of these conditions still remain to be discharged by the City Council including those in relation to land contamination, badgers, noise and landscaping, although Council officers have previously recommended that the submissions be approved and conditions discharged. A legal agreement signed when permission was granted also provided funding for local infrastructure, and off-site tree planting along the Castle Mill Stream.

As noted in 'Alternatives' below, a full planning permission already existed at the site from 2002, but could not be implemented without a new application due to changes to Building Regulations and construction techniques. A number of constraints and design influences informed the 2011 application including the need to relocate the badger sett, and to consider noise, energy, access, site levels, views through the site, and fire access.

The development comprises 208 single study/bedrooms arranged around shared amenity space/kitchens, 90 one-bed graduate flats and 14 two-bed graduate flats, with a total of 326 bedrooms in the development. Ancillary facilities include a central common room, a combined heat and power energy centre, covered cycle storage and service/maintenance/refuse storage areas. The development is laid out as a series of eight linked blocks separated by shared facilities such as cycle storage, bin stores and laundries, together with landscaped external spaces. Six of the blocks are designed as pairs connected by 'gatehouses' leading to shared foyers. The common room is accommodated in a freestanding building. Two blocks, at the northern end and in the centre of the site, are four storeys high, whilst the six other blocks are 5 storeys, with three-storey gatehouses. The blocks are accessed from their eastern side, and the taller blocks have lift access to all floors. The ridgelines of the tallest blocks are 17m above ground level.

Access is provided by a c3.7m wide service road along the eastern boundary of the site. This is shared by the existing pedestrian/cycle route and provides access for service and emergency vehicles, for student pick-up/collection at the beginning/end of term and provides access to the 3 disabled parking spaces. A pedestrian/cycle link is provided northwards to the Walton Well Road car park and Port Meadow via an existing bridge over the Castle Mill Stream.

Construction of the development occurred between late July 2012 and September 2013. The graduate accommodation was opened to students in late September 2013 and has been occupied since then.

A number of matters have been subject to detailed discussions between the University the City Council and others since the completion of the development, including landscape mitigation, noise reflection, roof materials, light spill, badgers accessing the allotments, and contamination monitoring. Since the granting of planning permission, blinds have been installed, in order to reduce light spill from windows.



Sketch concept showing the proposed elevational treatment and tree planting on the western boundary

As a result of the assessment of the environmental effects of the development, additional measures have been identified and considered in order to mitigate the environmental effects, in particular in relation to landscape and visual effects and effects on the historic environment. The Design Mitigation Strategy (DMS) in ES Appendix 7.2 has identified six measures comprising:

1. elevational changes to the facades of the buildings;
2. tree planting in the badger run along the west boundary of the site;
3. introduction of a structural, planted boundary screen to increase the 'green' screening between the buildings and Port Meadow;
4. removal of some buildings entirely.
5. modifications to the form of the roofscape of the buildings, including to reduce height.
6. reduction in the height of various buildings through the removal of a floor.

The DMS considers combinations of different measures to assess how best to mitigate the effects of development, comprising:

- Option 1: Building façade treatment (design mitigation measure 1) and tree planting along western boundary of the site in the Badger run (measure 2);
- Option 2: Building façade treatment (design mitigation measure 1), tree planting (measure 2) and modification of roof forms to hip and low level roofs (measure 5);
- Option 3: Building façade treatment (design mitigation measure 1), tree planting (measure 2), removal of a floor from six buildings and replacement of all roofs with low level roofs (measure 6). A total of 33 student residence units (38 bedrooms) would be removed.

The University has reviewed the implications of the options in the DMS, and proposes to undertake design mitigation measures 1 and 2 as included in Option 1 set out in the Design Mitigation Strategy.

Following consideration of the ES by Oxford City Council, details of changes to the elevational treatments to the buildings suggested in option 1 in the Design Mitigation Strategy will be submitted in a new planning application at a later date. This would also include for all necessary pre-application consultation. Full details of the tree planting suggested in the Design Mitigation Strategy will be submitted to the City Council.



Sketch montage demonstrating the effect of the proposed elevational treatment and tree planting on the view from Port Meadow

5. Alternatives

The alternative development options considered by the University for the site have been examined in the ES, including:

- Building out the original planning permission ('reserved matters application' ref. 02/00989/RES, approved by the City Council in 2002) over the remaining undeveloped part of the Castle Mill site, after a first phase had been developed to the south. The original permission differed from the current development scheme as it included 85 fewer accommodation units, was lower in height with three and four storey buildings, and located the buildings differently on site with a large open area (drainage feature) in the centre.
- Variations on the original planning permission;
- New designs, one of which was the option chosen by the University to take forward in a new planning application.

The University did not consider leaving the site undeveloped, as that would not help it meet its identified need for student accommodation to comply with the requirements of local planning policy.

The previous planning permission would have been constrained by the requirement to relocate a Badger sett and provide a run along the western side of the site, and by the requirements of Building Regulations and modern design standards, so that it could no longer provide the same number of units. During pre-application discussions with the City Council, the University was advised that there were no particular limits to building height on the site and no likely planning objections to a 5-storey scheme. After carrying out pre-application consultation the University decided to progress the development of a new scheme through to a planning application, which received permission in 2012.



View from footpath, Port Meadow (pre-development)



6. Planning Policy

An assessment of the planning history and planning policy background has been undertaken in relation to the development. The key policy documents examined include:

- the National Planning Policy Framework (NPPF) (2012) and the accompanying Planning Guidance (NPPG; 2014);
- the Oxford Core Strategy (adopted March 2011);
- the Oxford Sites and Housing Plan (adopted February 2013);
- saved policies of the Oxford Local Plan 2001-2016 (adopted November 2005);
- a number of Supplementary Planning Documents; and
- other documents from the Housing and Communities Agency and English Heritage and on the role of higher education in the Oxford economy.

At the time the planning application was determined in 2012, the site was allocated in the Oxford Local Plan for the development of student housing in policy DS22. It remained allocated in the Sites and Housing Plan (policy SP26). The site also had the benefit of an outline planning permission in 2000 for student housing. The reserved matters application was approved in 2002 and implemented as the Castle Mill 'Phase 1' development to the south of the site.

To the south of Castle Mill Phase 1 along Roger Dudman Way, three and four storey student accommodation was permitted in 2000 (Venneit Close) and 2004 (land to the south), and a planning application for 9 student rooms near Fiddlers Island was recently refused on appeal.

A planning policy evaluation has examined the merits of the development against the policy framework. Some of the main considerations included:

- the development is in line with the current and previous local planning policy allocation for student housing development on the site;
- the development is supported by policies that encourage provision of purpose-built student accommodation, to help meet housing need and allow the Universities to continue their active roles in the economy;
- the development has assisted in meeting local planning policy objectives (currently Core Strategy policy CS25) that seeks to limit the number of University students living in the community to 3000 or less (and imposes restrictions on University academic developments until this figure is reached); and this policy objective has been given great weight in planning decisions;
- the development accords with policies promoting the efficient use of land for development, the re-use of brownfield land, and the remediation of contaminated land, to take pressure away from greenfield sites;
- in light of assessments elsewhere in the ES, the development generally accords with policies relating to flood risks, watercourses, biodiversity and protected species, energy conservation, noise, air quality, natural resources impact, sustainable transport and limiting car use;
- in light of assessments elsewhere in the ES, the development has had adverse effects on the landscape character and views, and the setting and significance of heritage assets, and so does not currently comply with local planning policies relating to these aspects, and further mitigation is required;
- mitigation measures considered in the Design Mitigation Strategy options 1-3 would reduce the landscape and heritage impacts of the development to varying degrees;
- the reduction in height of a floor of most buildings as suggested in Option 3 would have undesirable planning impacts, including from the loss of 33 graduate accommodation units and the displacement of such students back into the community.

The planning policy evaluation concludes that whilst it is finely balanced, the public benefits of the mitigated development (with Design Mitigation Option 1) would justify the harm assessed in relation to historic landscape character and views of Oxford. This is due to the great weight to be given to the need to remove students from privately rented housing in an area where there is a very significant need for housing and limited areas to achieve new supply; the allocation of the site for student accommodation; and the impact on the University and Oxford's economy if the University does not meet the minimum target for students living outside provided accommodation. It concludes that this is a wholly exceptional case where the public benefits of the development would provide exceptional reasons which would justify the degree of harm assessed in relation to the heritage, landscape character and views of Oxford.



Castle Mill, Phase 2 (left) and Phase 1 (right)

7. Landscape and Visual Impacts

A Landscape and Visual Impact Assessment (LVIA) of the development has been undertaken. It defines the landscape character and visual amenity of the site and setting of what existed before the development was undertaken, and assesses the actual effects of the development upon the (pre-development) landscape character and visual amenity. It considers proposed design mitigation measures to address significant landscape and visual effects, and assesses the development with the mitigation works in terms of its residual landscape and visual effects.

The landscape character study area encompasses that which is physically and directly affected by the development, and that which is indirectly affected, namely the surrounding landscape/cityscape setting. The study area for the visual assessment comprises the area defined by the zone of theoretical visibility (ZTV) – that is, the area within which there may potentially be views to the Site/development. This area encapsulates the railway corridor and urban edge to the east, and including from a number of buildings further within the City; from Port Meadow to the northwest and from parts of the River Thames corridor; from the hillside of Wytham Wood; from the residential area of Botley and environs to the south west; and from the hillside of Boars Hill and the environs of South Hinksey to the south. There are a number of published reports and character studies which address landscape and visual issues and which, together with the above landscape planning references, are used to help inform the assessment, and contribute to an understanding of the cityscape and landscape of and around Oxford, and key characteristics of the same.

For the purposes of this assessment, a finer grain of landscape character appraisal is required in order to understand the pre-development Site and its immediate and local environs (the character of which may be influenced indirectly by development on the Site), and to gain an appreciation of ‘sense of place’, that distinctive individuality that defines a particular area. Nine local landscape character areas, the landscape receptors, are defined and described in the ES.

The visual context of the pre-development site was predominately a local one, it being a level area of former railway line sidings usage with no significant vertical built form, and limited mature vegetation. The main appreciation of the Site would have been gained by those traversing it along the public footpath/cycleway, from the train, and from the external local environs. The visual appraisal of what would likely have been seen of the Site and its setting by visual receptors prior to what is now the current development is described from 33 representative viewpoints.

The components of the built development which influence the landscape and visual context and are pertinent to the assessment include form, height, layout, finishes and colour (buildings and external realm), and the overall aggregated appearance of the same.



View from Walton Well Bridge (pre-development)



The effects arising from the development are considered in relation to landscape character, and visual context and visual amenity, as existed pre development.

The defining distinctive landscape and visual characteristics of the Site and its setting, pre development, derived from the baseline conditions, are described, and the effects of the development on the landscape and visual receptors, during construction and operational phases, are assessed in the ES in chapter 7. The assessment determines that, in a considerable number of cases, the sensitivity of various landscape and visual receptors is judged to be moderate or high, the magnitude of effect is judged to be medium or high, and the level of effect is considered to be moderate or substantial adverse.

A Design Mitigation study has been carried out to identify what practical measures can be taken to reduce the adverse landscape and visual effects that have been identified. Using the findings of the DMS, ES Appendix 7.2, the development was assessed again in terms of its mitigated landscape and visual effects. Three Options are assessed (see 'Description of the Development' section 4 above):

It is judged that the mitigation measures proposed result in the following effects:

- Option 1 measures result in a reduction in the level of effect of a limited number of landscape and visual impacts from substantial adverse to moderate adverse.
- Option 2 measures result in a reduction in the level of effect of the majority of landscape and visual impacts from substantial adverse to moderate adverse.
- Option 3 measures result in a reduction in the level of effect of the majority of landscape and visual impacts from substantial adverse to slight to moderate adverse, and to slight adverse when vegetation is in leaf.



View from Medley Footbridge (pre-development)

8. Historic Environment

An assessment has been carried out of the effects of the development on the historic environment. The historic environment includes all aspects of the environment, both material and immaterial, resulting from the interaction between people and places through time. The physical components of the historic environment are heritage assets, each of which has its own individual evidential, historic, aesthetic and communal value. The setting of a heritage asset can contribute or undermine its heritage values.

In order to understand the impact of the development on the historic environment, the local designated and undesignated heritage assets were identified using historic mapping, images, published sources and the local Historic Environment Records. Following a site survey, 25 assets were identified that were considered to be affected by the development. The heritage values, setting and impact of the development was then assessed for each of the short-listed assets.

Prior to the development, the land formed part of Cripsey Meadow bordered by Castle Mill Stream, Fiddler's Island streams and the railway. Castle Mill Stream originally powered the medieval corn mill below Oxford Castle (now demolished). By the early 1900s, the site was part railway sidings and part allotments used by the residents of Jericho. The development has no direct physical effects on any heritage asset; this appraisal assesses the impacts on the setting of 25 identified heritage assets. The development has a 'high adverse' impact on four heritage assets of high heritage value, namely:

- St. Barnabas church, a grade I listed building;
- Port Meadow, a scheduled monument and registered common;
- the river Thames and towpath; and
- the Oxford skyline.

Although the Skyline is composed from the collective high-level components of the city's Conservation Areas, for the purposes of this assessment, it is treated as an individual heritage asset because of its special role in the city's cultural heritage.

Mitigation measures designed to address some of these impacts have beneficial effects, but it is considered that the 'high adverse' impacts on the high heritage value sites can only be reduced to 'medium adverse' by the reduction in height of all the buildings under the option 3 mitigation measures set out in the Design Mitigation Strategy.

9. Ecology

A Phase I habitat survey and desk study allowed key ecological receptors to be identified. Field surveys were planned to establish the ecological value of these receptors to assess the impact of the proposed development. This concluded that there were protected species on the site (including badger, slow-worm and nesting birds) which may be affected but that the habitats on the application site were of neighbourhood value, the impact of the development could be mitigated within the proposal and there was scope to provide ecological enhancements. A further survey of the Castle Mill Stream planting area, and an inspection of the new Badger sett and run, were undertaken in 2014. There has been no adverse ecological impact on areas of designated ecological importance including the nearby Port Meadow (part of the Port Meadow with Wolvercote Common and Green Site of Special Scientific Interest (SSSI), part of the Oxford Meadows Special Area of Conservation) or other nearby sites of local ecological importance. Specifically in relation to badgers, the loss of an annex and subsidiary sett was mitigated by creating a new sett in the northern part of the site and a badger run alongside the western edge of the development, in accordance with a Natural England badger licence. Badgers have used the new sett and run and there is evidence that there is intermittent use as was the case with the setts on the site prior to development.

The tree planting undertaken along the Castle Mill Stream has been reviewed and will over time shade the bank and marginal vegetation along the stream. To prevent any further ecological impacts on habitats of the Castle Mill Stream, no additional trees or shrubs are proposed to be planted along the stream bank.

The Design Mitigation Strategy proposes additional tree planting in the badger run. The run is 2m wide which is sufficiently wide to allow the tree planting proposed without affecting its use by badgers.

The development including the mitigation and enhancement measures (i) had regard for relevant legislation and current planning guidance; (ii) contributes to achieving the objectives of the planning policies relating to biodiversity; and (iii) assists in conserving local biodiversity.

10. Geo Environment

Before its development, the site was considered as a 'greenfield' site as it has been undeveloped for over 5 years, although it had been used as railway sidings over 30 years ago. During the initial site investigations in 2011, it was quickly identified that the site suffered from historic contamination due to it being a former railway siding. A regime of testing was undertaken to identify and quantify the volume of contamination and the contamination was classified as significant. Upon receipt of these test results, a Generic Risk Assessment of the contamination was undertaken, which included a potential remediation strategy.

The proposal for remediating the contamination was agreed with the Environment Agency. During construction, the contamination was remediated by importing clean soil and sealing the contaminated soil in a structural raft foundation beneath the clean soil. The contaminated soil was evenly distributed instead of in discrete hotspots. The original proposal of importing clean topsoil for landscaped areas was adopted as agreed with the Environment Agency. Both forms of remediation ensured that the contamination linkages were broken, which meant that there was no longer a risk from the source of the pollution.

During the construction project there was a diesel spill on site, which created additional contamination in the form of free product and excessive vapour. This contamination was physically removed from site wherever practically possible and remediation measures undertaken to reduce the residual levels to acceptable World Health Organisation (WHO) guidance levels for drinking water. The University signed up to a testing regime for both groundwater and vapour in a unilateral undertaking to Oxford City Council. The regime was also agreed with the Environment Agency. This ensures that the levels remain within the acceptable limits. Testing of groundwater samples (taken from wells in the badger run on site and adjacent allotments), is being undertaken for a range of hydrocarbon compounds for 18 months from November 2013 to May 2015. Since monitoring started, monitoring for contaminants in groundwater at the allotments has not shown any exceedance of WHO drinking water guidelines or significantly increase in hydrocarbon contamination. Monitoring of groundwater in one of the boreholes on site detected levels of one type of total petroleum hydrocarbons (aromatic fraction >C21-C35) above WHO drinking water guidelines in November and December 2013, but results in 2014 to date show that levels have reduced significantly and below the guidelines. The badger run boreholes were not used for drinking, so there was no risk to public health. Monitoring for diesel vapours indoors at the site was undertaken for 12 months until August 2014, and none of the readings taken exceeded published threshold levels of concern.

In order to mitigate the potential leaching of contaminants through the surface water infiltrating the soil, a closed attenuation sustainable drainage scheme (SUDS) system was installed which collected and discharged the surface water directly into the Castle Mill Stream. This was agreed with the Environment Agency and given consent. This system therefore removed the potential contamination linkage and mitigated further contamination. Following all of the remediation and mitigation measures that have been completed, the requirements of the NPPF have been met. The site is now suitable for its new use and there is no risk of significant harm to the end users from the residual contamination. As a result of the mitigation there is no impact on the natural environment, and in fact there is an improvement to the overall quality of the soil. Following all of the mitigation measures with respect to the soil remediation, the site cannot be classified as contaminated land under Part 2A of the Environment Protection Act 1990 as the soil has been suitably remediated in a method approved by the Environment Agency.

As a result of the completed mitigation measures, the risk of any significant harm from contamination on site has been significantly reduced as both the sources of contamination and the contamination linkages have been removed. Thus the residual effects cannot be considered to be material in the planning process.

To facilitate the tree planting proposed in the badger run, as proposed in the Design Mitigation Strategy (Appendix 7.2) further ground disturbance would be required. Full specialist analysis and testing would be undertaken in advance in order to ascertain and avoid any risk to human health and the environment from any exposure of contaminants.



1911 six inch Ordnance Survey Map

11. Water Environment

The impact of the development on flood risk and drainage has been assessed. A Flood Risk Assessment and drainage plans, statement and a strategy were submitted with the planning application, were approved by or agreed with Oxford City Council and the Environment Agency, and are included in the ES.

This site is bounded by the Castle Mill Stream and is close to the rivers Thames and Isis. It is situated in a Flood Zone 1, with a low probability of flooding (annual probability of flooding 0.1%), although surrounded by Flood Zones 2 and 3, depending on the existing ground levels, and is located in a zone which is highly susceptible to flooding from groundwater. The lowest ground floor level for the development was proposed not lower than 58.40m, to ensure that all of the site remained above the 1 in 100 year flood level and thus retained the flood zone 1 status so as not to interfere with the existing flood pattern. Before development the surface run-off percolated into the permeable ground or discharged on to the adjacent land.

During construction, a concrete retaining wall was built between the site and the allotments which enabled all permanent works to be constructed within Flood Zone 1. No flood risk or hydrological effects were reported during the construction period. During the construction there was a diesel spill on site, for which the contaminated groundwater was removed from site and a groundwater monitoring regime was agreed with the Environment Agency and Oxford City Council. Although the local groundwater was contaminated by this diesel spill, this contamination did not migrate to the nearby river courses (see Geo Environment section above).

The water quality of the nearby watercourses has not been adversely affected by the development. Previously the surface water percolated through the contaminated ground and eventually entered the water course with only natural treatment. Following the development, it is not possible for any surface water to follow the same pathway. A SUDS attenuation method has been adopted, so that all surface water runoff from the site, from roofs and access roads, is collected and stored in underground tanks and treated through selected granular fill material beneath permeable paving or percolates through the remaining permeable areas which have been remediated. This then discharges into the Castle Mill Stream at a controlled runoff rate through a valved outlet. As a result of the development, the surrounding areas are less likely to suffer from groundwater flooding as more of the surface run-off will be directed into the river. There is also less likelihood for any historic contamination migrating from the site into the adjoining sites due to both the remediation and the control of the surface water run-off.



View from Thames Path, (pre-development)



12. Transport

The transport effects of the development have been assessed, including through a detailed highways report. Along its southern section, Roger Dudman Way serves primarily Network Rail property associated with Oxford railway station. North of the river crossing, Roger Dudman Way serves a day nursery, Venneit Close and the Castle Mill Phase 1 graduate accommodation, and is wide enough to allow two cars to pass each other. Beyond the day nursery Roger Dudman Way is a single way working road with passing places, and serves a limited number of car parking spaces for Venneit Close and Castle Mill Phase 1. The Castle Mill Phase 2 development is accessed by a new c.3.7m wide carriageway on the eastern side, with passing places for service vehicles. This also serves as a cycle path and footpath, and allows cycle and pedestrian access, although not vehicles, to Walton Well Road and its public car park to the north, as well as Cripsey Meadow allotments, Port Meadow and the Jericho area.

Roger Dudman Way meets Botley Road (A420) at a standard priority junction, where Botley Road is subject to a 20mph speed limit.

A traffic survey of cycles, motor cycles, and all types of motor vehicles was undertaken over 12 full days in September and October 2013, including during the arrival of students with their belongings at the start of term, one of the busiest periods for traffic flows associated with the development. This demonstrated a minimal increase of traffic on the local network.

During construction, HGV and light traffic was managed by the contractors and a Construction Management and Construction Travel Plans approved by the City Council. No complaints were received by the site foreman relating to traffic.

The development restricts car use to a low level, as the University operates strict controls through its tenancy agreements for occupants which excludes residents from keeping a car in Oxford. On-site parking is limited to 3 disabled bays, with spaces for maintenance vehicles and a drop off area for students provided through a temporary permit system. The development has 360 cycle parking spaces on site, with good connections to wider networks and the Thames Path (National Trail). Oxford railway station and local bus services lie within a short walk of the site (circa 8 minutes) giving access to a broad network of public transport services. The site therefore offers significant potential for travel by alternative modes to the car. The survey and assessment found that the development does not have any adverse transport impacts.

The mitigation options considered in the Design Mitigation Strategy would all generate construction traffic, which would need to be managed to avoid impacts on local pedestrians, cyclists and road users along Roger Dudman Way, including the residents of Venneit Close and users of the nursery.

13. Air Quality

An air quality assessment of the development has been undertaken. Potential air quality impacts associated with the development include the following:

- the impact of dust generated by activities at the site during construction;
- the impact of emissions from additional vehicle movements associated with the development on airborne concentrations of oxides of nitrogen (NO_x) and particulate matter (as PM₁₀ and PM_{2.5}), the primary pollutants arising from road traffic;
- emissions from diesel trains passing along the railway track and using the sidings which adjoin the development to the east, (i.e. impacts on new residents living in the development); and
- emissions from the on-site generating units for the provision of electricity, heat and hot water.

Mitigation measures for reducing dust emissions were adopted during construction (e.g. wheel-wash, water bowsers, and road sweepers). There was a lack of complaints relating to dust annoyance arising from on-site activities, so it is concluded that the impact of the site on dust annoyance would have been low.

As a student residence, operational traffic is expected to be extremely low due to parking being limited. Construction vehicles may have influenced air quality along the principal routes, notably Botley Road and Roger Dudman Way. However, given local background pollutant concentrations and the number of vehicle movements along these routes, the impact on air quality is considered to have been low.

The impact of moving and stationary locomotives on the occupants of the development has been initially assessed and screened out of detailed assessment, as they did not fall within local air quality management (LAQM) criteria as being of significance with respect to the number of locomotives, background air quality or the proximity to outdoor receptors. This is in agreement with Oxford City Council's most recent LAQM updating and screening assessment.

Information provided by the flue design company confirms that the flue for the energy centre is in compliance with all statutory requirements and, in particular, the Clean Air Act Memorandum. Combined with the relatively good air quality for the area surrounding the development site, it is considered that the additional contribution of the energy centre emissions does not have a detrimental impact on local air quality.

Therefore, it is concluded that the development did not have a significant impact on air quality during construction. Occupation of the development does not have an impact on local air quality and the occupants of the development are not affected by local sources of air pollutants (e.g. the energy centre, road vehicles or train movements).

14. Noise

The effects of noise in relation to the development have been assessed. As a residential scheme, there is limited potential for the generation of noise which could impact upon existing residential properties in the area, however the following issues have been considered:

- effect of noise from the railway on occupants of the development;
- impact of noise from mechanical services plant;
- noise from road traffic from the development;
- reflection of railway noise off the new building facades.

Existing levels of railway noise on the site were quantified and suitable internal design levels were agreed with the local Environmental Health Officer. The design of the buildings has taken into account the existing noise climate and suitable forms of construction developed to mitigate external noise to the agreed internal levels. The internal levels have subsequently been confirmed as being achieved, by a post-construction internal noise survey.

Suitable noise criteria were developed based on a pre-construction noise survey of the site, in order to mitigate against any excessive levels of noise from services plant to existing residential properties in the area.

The development generates very limited road traffic, the majority of residents accessing the scheme by bicycles or on foot. Measurements of typical daytime ambient noise levels have been undertaken at residential properties adjacent to Roger Dudman Way, the only access road to the site. An assessment of typical levels of vehicle noise generated by the additional vehicles using Roger Dudman Way to access the site has indicated either no noise impact or a minor impact only as a result of the limited additional traffic.

The potential for noise from the operational railway to be reflected back towards the existing residential flats to the east of the site at William Lucy Way has been modelled. The modelling exercise and assessment has concluded that there is a minor noise impact of up to 1 dB(A) for through trains and up to 1 dB(A) for static idling trains as a result of reflection off the façade of the buildings. It would not normally be deemed appropriate or necessary to introduce mitigation to try and reduce the noise impact where it is limited to 1 dB(A) only. A new noise survey has also been carried out, which indicates that noise levels were 4 dB(A) higher than the survey by Chiltern Railways in 2009; however caution should be exercised when trying to directly compare the surveys, as in any 24 hour period there may be variations in train movements which will influence the noise generated by the railway from day to day, and the 2009 survey was also affected by rain and used some supplemented data so does not represent a true record. Modelling also shows that there is also no significant difference between the previous planning permission granted in 2002 and for which the principle of development upon the site was established, and the current development scheme, both of which would generate a minor noise impact only.

Network Rail's electrification of the main line and the East-West Rail project are likely to influence noise levels in this area when those projects are implemented in future.

15. Socio Economic Effects

An assessment has been undertaken of the impact of the University on the Oxford economy, the social and economic effects of the development of the Castle Mill Phase 2 graduate accommodation development, and of the implications of the mitigation options that have been considered.

The University of Oxford is world renowned as a centre of academic excellence, is one of Oxford's largest employers, and has had a transformative role in the history and development of the city since medieval times. As a key element in Oxford's international prestige the University attracts significant investment in research and knowledge-based developments. A key challenge for the University is the need to retain graduate talent, and this is affected by the affordability and availability of housing. The growth of the University has led to pressures on ordinary housing stock in the city. Oxford's housing market is under significant pressure in any case, and the city relies on neighbouring areas to provide housing for its workforce, leading to commuting by car from surrounding towns. Local planning policy since 1991 has sought to cap the number of students living in non-University controlled accommodation in the city, to reduce the economic pressures on ordinary housing and the social effects of students living out in the community. Current Oxford Core Strategy policy seeks to limit the number of University students living in the community to 3000 or less (and has been under pressure from the community to reduce this) by imposing restrictions on University academic developments until this figure is reached, which can affect the University's ability to modernise, expand and compete internationally with other institutions. The University is therefore under pressure to maximise the development of good and affordable student accommodation on its landholding for its students (include post-graduate students) in order to retain graduates and meet the City Council's planning policy requirements.

The development of Castle Mill Phase 2 has provided 312 student accommodation units, and led to beneficial social and economic effects by removing over 300 students from the housing market in the city, reducing housing pressures in Oxford. It has also helped the University to comply with the planning policy limit for the number of its students living in open market accommodation, which at the time the planning application was determined in 2012, was at or about the limit of 3000. Without compliance, the University's ability to occupy new academic and research developments would be adversely affected.

The social and economic implications of the three mitigation options considered in the Design Mitigation Strategy have been reviewed. All three would impose substantial financial costs on the University as shown in the following table:

Cost	Option 1	Option 2	Option 3
Costs of physical works	£6,000,000	£11,000,000	£12,000,000
Loss of rent during works	£0 (see note 1)	£2,500,000	£2,500,000
Loss of rent over the lifetime of the building (estimated at a further 25 years) (see note 2)	£0	£0	£8,000,000 (see note 3)
Costs of the physical works to provide the accommodation elsewhere (see note 4)	£0	£0	£7,500,000
Total	£6,000,000	£13,500,000	£30,000,000

Notes:

- 1) The University has information that suggests students can remain in occupation during the works to carry out Option 1.
- 2) The buildings have been designed for a minimum of 60 years, but would be expected to require major upgrades and investment after approximately 25 years, which has been assumed to be the buildings' lifetime.
- 3) The assumed rent amount does not include any figures for increasing rent in line with inflation and assumes 100% occupancy of the affected units.
- 4) The figure here reflects the build cost only. It does not include the need to acquire a new site which is suitable for development for student housing.

All these figures are preliminary and subject to further investigation and development. These are substantial costs which would divert the University's resources and mean that investment in other projects would not occur or would be delayed. Options 2 and 3 would involve temporary displacement of students into alternative accommodation during building works. Option 3 would also involve the permanent loss of 33 units (38 bedrooms) on the top floor of the development, which comprise mainly 1 and 2 bedroom flats for small families and older students. The loss of this accommodation would not help the University comply with the City Council's 3000 student limit, and force those students to find accommodation elsewhere in the city, with consequent adverse social and economic impacts.

Photomontages Spring 2014



Existing Viewpoint Port Meadow, Spring (Enlarged)



Photomontage of proposed scheme, Spring (Enlarged) Option 1



Photomontage of proposed scheme, Spring (Enlarged) Option 2



Photomontage of proposed scheme, Spring (Enlarged) Option 3

Photomontages Summer 2014



Existing Viewpoint Port Meadow, Summer (Enlarged)



Photomontage of proposed scheme, Summer (Enlarged) Option 1



Photomontage of proposed scheme, Summer (Enlarged) Option 2



Photomontage of proposed scheme, Summer (Enlarged) Option 3

Further Information



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1888 View painted by James Aumonier (1832-1911) looking southeast between poplars on the western towpath of the River Thames towards the city.

Further information

Members of the public may inspect copies of the Environmental Statement (planning reference no. 11/02881/FUL), from 30 October 2014 during normal office hours until 19 December 2014 at:

- the offices of Oxford City Council, 109-113 St Aldate's, Oxford OX1 1DS,
- public libraries at Summertown, Botley and Oxford Central Library (where exhibition boards and the Non-technical Summary will also be available).

The ES will also be available on the Council's website – www.oxford.gov.uk/

Copies of the Environmental Statement may be obtained from:

Adam Boyden, Nicholas Pearson Associates, 30 Brock Street, Bath BA1 2LN

Tel: 01225 445548

Email: adam.boyden@npaconsult.co.uk

Copies of the ES on CD, and the Non-Technical Summary brochure, are available free of charge. A charge of £150.00 will be made for a full hard copy of the whole ES including figures and appendices.

Any person wishing to make representations about the Environmental Statement should submit these in writing to:

Head of City Development, Planning Control and Conservation,
Oxford City Council, St Aldate's Chambers, 109-113 St Aldate's, Oxford OX1 1DS, or by email to planning@oxford.gov.uk (noting ref. 11/02881/FUL) before 20 December 2014