

Issue 9

November 2014



LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

# The CBR Newsletter

## Dear Colleagues,

*This newsletter provides an update on the School's major campus redevelopment project; the Centre Buildings Redevelopment Project*

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## Estates Division

# Centre Buildings Redevelopment Newsletter

## Minimising the impact of disruption from demolition and construction

Demolition and building works are by their nature disruptive. Delivering the new CBR building is bound to have an impact on staff and students, especially given the tight LSE campus. The Estates Division has considerable experience of managing similar projects including the New Academic Building, 32 Lincolns Inn Fields and, most recently, the Saw Swee Hock Student Centre.

We have already started to consider the impact of the noise of demolition and construction on neighbouring buildings.

This newsletter sets out:

- What we have been doing to identify the potential noise impact of the work.
- How noise is measured and monitored
- What we intend to do to mitigate the impacts of noise
- The proposals for how construction traffic will access the CBR site
- Proposals for minimising the impact of works especially during demolition

## Surveys and Actions

In order to assess the impact of demolition and construction, we have undertaken the following surveys and actions:

- Completed an acoustic report and baseline technical noise assessment modelling the potential impacts of demolition and construction noise on adjacent LSE and third party buildings and proposing solutions to mitigate against the potential impact
- Surveyed all the windows in buildings that may require noise mitigation measures as they are located near the development
- Carried out analysis of the options for construction traffic getting to and from the site
- Assessed how disruption from demolition can be minimised, especially for St Clements occupants

**These will be added to as we continue to make every effort to minimise disruption to the School.**

*Yours sincerely*

Director of Capital Development



**Estates Division**  
Capital Development

## What is noise?

Sound is what we hear—noise is unwanted sound. The difference between sound and noise depends on the listener and the circumstances. The picture in **Image 1** shows the sound scale in decibel (abbreviated "dB") relative to common sounds.

## What is the Decibel range adopted for the CBR noise assessment?

The criteria adopted for the technical assessment of potential noise impacts of CBR are set out in the table below. If the technical assessment identified a potential impact over the range then a possible noise problem could arise. See Table 1.

Type of room use	Internal Range in Decibels
Private offices	35 – 45 dB
Open plan offices	40 – 45 dB
Library	40 – 50 dB
Cafeteria	50 – 55 dB
External Threshold	75 dB

**Table 1**

## Does different glazing make a difference?

The type of window will make a great deal of difference to the impact of noise (assuming it is kept shut) This is why we have surveyed all windows in all rooms which might be effected by the CBR works. Estimates of noise reductions for different types of windows are in Table 2 below

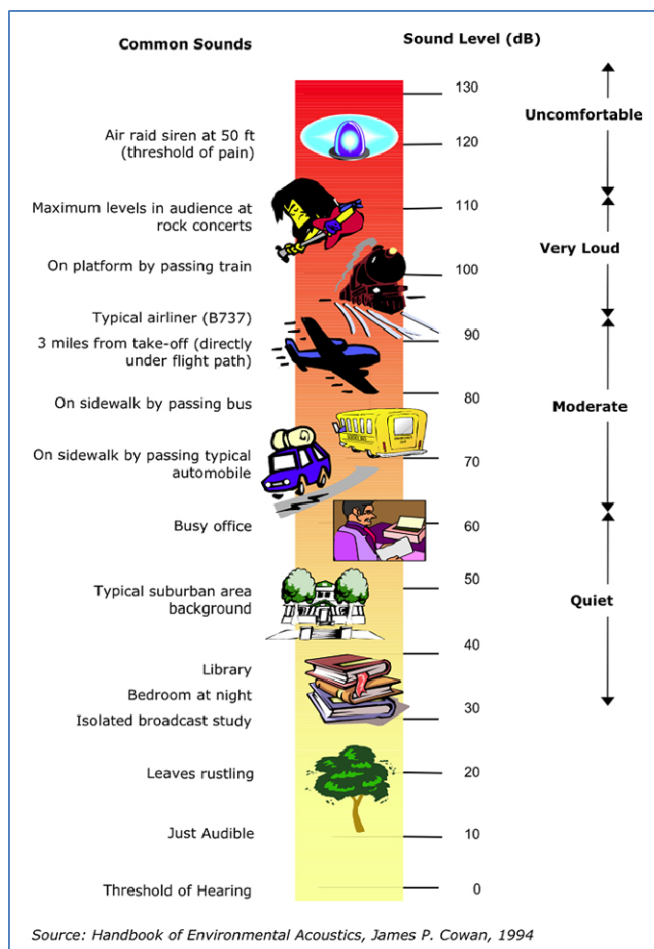
Type of window	Estimated sound reduction in Decibels against external noise
Single glazed	up to 20 dB
Double glazed	up to 30 dB.
Single glazed with additional secondary glazing	up to 35 dB

**Table 2**

## What are the survey findings and next steps?

The acoustic modelling report determined the likely noise levels at the facades of all the surrounding buildings taking into account the type of windows in each room and using the decibel ranges set out in Table 1 above. The report made recommendations for relevant mitigation proposals in rooms where the anticipated noise problems could occur. The proposals have recently been priced so that an order can be placed with Vinci, the School's term contractor, to install secondary glazing prior to the start of demolition works in 2015.

A programme of works will be issued shortly setting out exactly where works will be undertaken and the implications for occupiers. Individual notifications will be sent to those effected by the works.



**Image:1**

## How will construction traffic get to the site?

Estates are only too aware that in order to demolish the existing buildings and build the new building there will be disruption at the heart of the campus. A detailed construction logistical study has been undertaken looking at the options for access to and egress from the site. These included consideration of using Houghton Street (HS), or St Clements Lane or Clare Market. (CM). All the routes have various pro's and con's but the route that is considered to cause the least disruption after a detailed analysis of the site is via Clare Market. St Clements lane was discounted as it was too narrow.



Image 2

Image 2 shows the blue line of construction traffic into the site and the green line shows its egress.

Image 3 shows a simple analysis of the Pro's and Con's for Clare Market and Houghton Street for construction traffic (St Clements Lane having been already discounted). The analysis was presented to Estates Strategy Committee in November 2014 and the Clare Market approach was ratified as the "Best Worst Option".

SITE LOGISTIC CONSTRAINTS ANALYSIS	C M	H S
Pedestrian safety (Staff/ public / student)	Yellow	Yellow
Physical adjacency of buildings for access	Green	Red
Commercial considerations (Wrights, etc.)	Yellow	Red
Student experience	Yellow	Yellow
Impact on access to adjacent properties	Green	Yellow
Impact on strategic road network TfL	Green	Red
Impact on Barclays bikes	Green	Red
Structural impact on adjacent properties	Green	Red
Attractiveness of logistic strategy to prospective contractors	Green	Yellow
Impact on design / components and factory site fabrication—(affects project price)	Green	Red

Image :3 Site Access Analysis

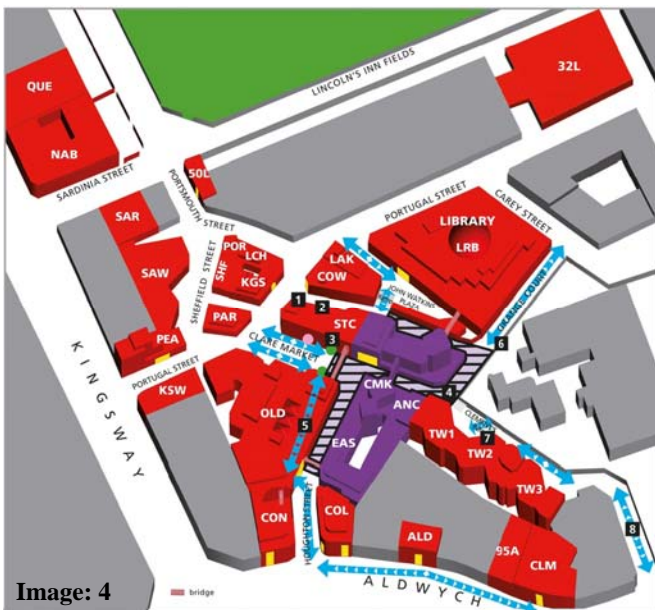


Image 4

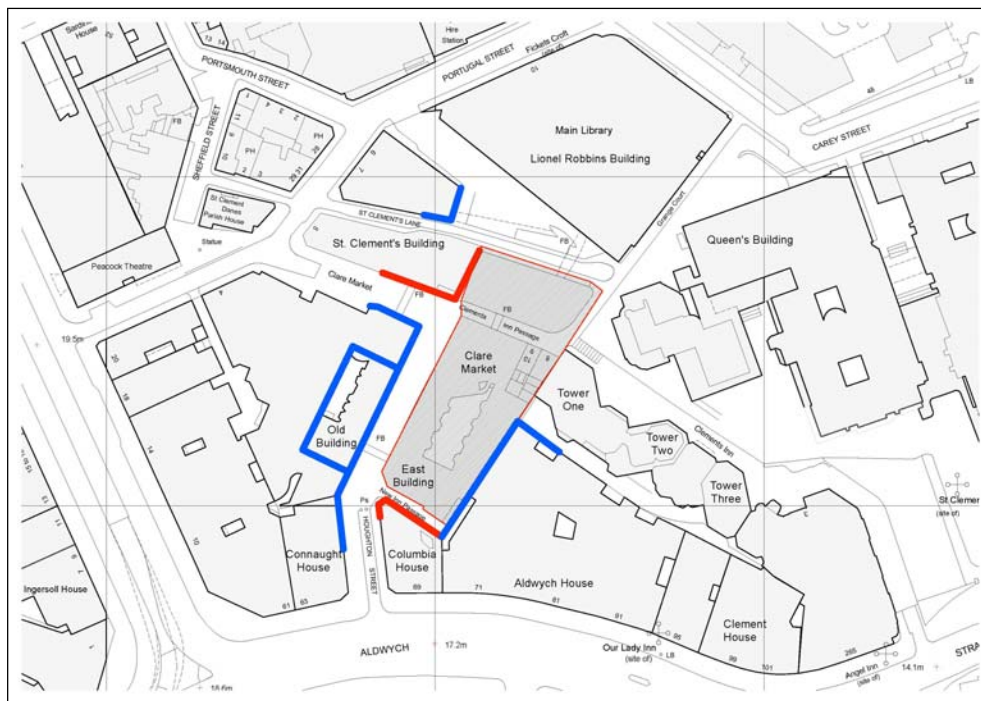
## What about pedestrians?

In order to provide access for construction vehicles and at the same time ensure the area is safe for pedestrians there will be changes to routes through the School's estate. These will be carefully managed to limit disruption whilst maintaining safety at all times.

Image 4 shows the site area hatched in purple and the blue dotted line shows the alternative pedestrian circulation routes around the restricted construction site area. These will vary as the project develops but show the worst case during demolition. Access via Grange Court will be restricted for a short period while that end of the building is developed.

## What is being done to limit the impact of demolition and construction?

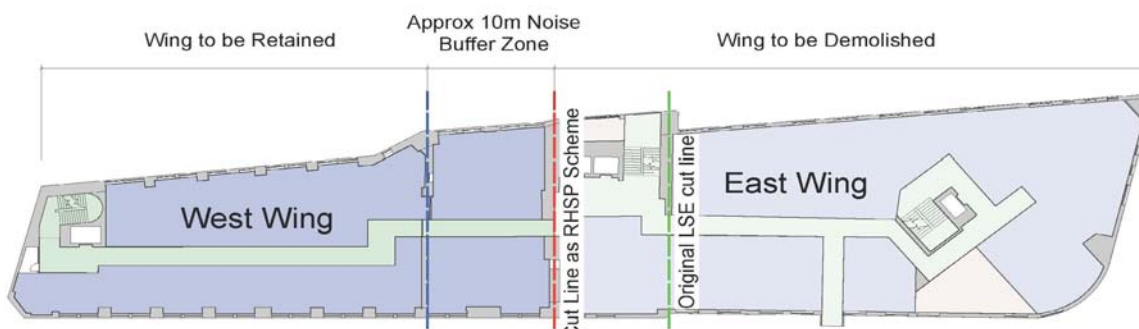
As outlined on page 2, a detailed acoustic study has been undertaken which identified the areas most affected by the works as being those illustrated in red in **Image 5** where mitigation measures are required and suggested that further measures could be undertaken in those areas highlighted in blue.



**Image :5**

There are various technical and practical measures which make a big difference to the impact of construction noise and we will be ensuring these, and the most modern machinery, are used by our contractors, especially at St Clements. The measures include:

- Contractors will be required to use the School's quieter periods (vacations) for their most disruptive activities, this will be contractual condition
- The type of saws and drills used; diamond drills and saws are quieter than impact tools
- Using machines which hydraulically 'nibble' away at the building fabric instead of impact tools
- Installing secondary glazing to those adjacent buildings impacted by the works (see **Image 5**)
- Creating a minimum of a 10 metre acoustic buffer zone in St Clements west during the noisiest phase of demolition works (see **Image 6**).
- Using acoustic 'quilts' on party walls to provide insulation from noise and the weather
- Cutting St Clements East from the West as early and as speedily as possible
- "Work from Home" period arranged for St Clements West occupants during the initial 6-8 week most intense noise period
- Attractive visual screening to the construction site



**Image: 6 St Clements Building**

## How long will demolition take ?

The bar chart in **Image 7** shows the demolition phase in green taking approximately 35 weeks i.e. approximately 9 Months. There will also be pre-demolition works to the buildings once they are empty.

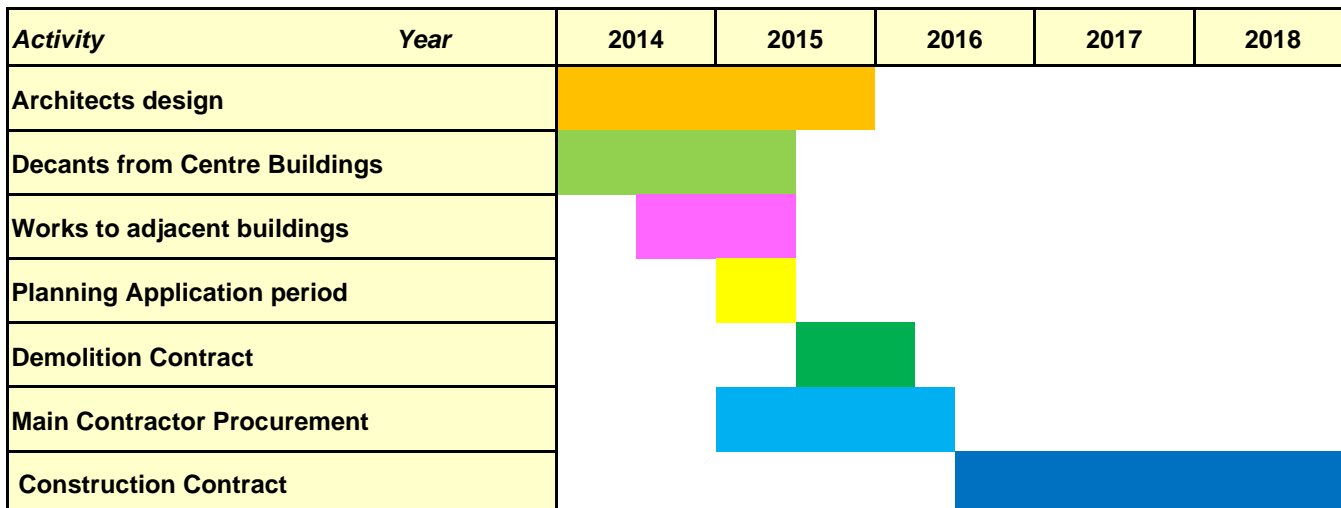


Image :7

There are several stages to the demolition works which will have differing impacts on the School. These are summarised in the table below.

Activity	Noise Impact	Comment on noise	Approximate
Soft Strip of the existing buildings	low	Within background levels (i.e. within 75dB)	April/May 2015
Site Set up	low to moderate	Within background levels	2-3 weeks, June 2015
Demolish old Three Tuns to form turning zone for construction traffic	low to moderate	Within background levels	6-8 weeks, July 2015
Cut St Clements East and the building core from the West side	high	Exceeds background levels	6-8 weeks, July 2015
Demolish St Clements East and remainder of CBR buildings from roof	moderate	Within background levels	circa 20 weeks
Site Clearance	moderate	Within background levels	circa 4 weeks
Piling/ New works	moderate	Within background levels	Feb/March 2016

Image :8

## What are the next steps ?

A further detailed newsletter will shortly be issued to those departments and services located directly adjacent to the construction area. A meeting will be convened for all the occupants of St Clements to fully brief staff and users of the building of the implications of the works.

We will also be arranging individual meetings with the affected departments to run through the details and answer any specific questions or concerns.

This will be an ongoing communications process over the coming months as further and more detailed information becomes available on the works with affected departments and the Students' Union. This will include: features in the Beaver, Staff and Student News, a project Twitter account and project web site regularly updated with the latest information.

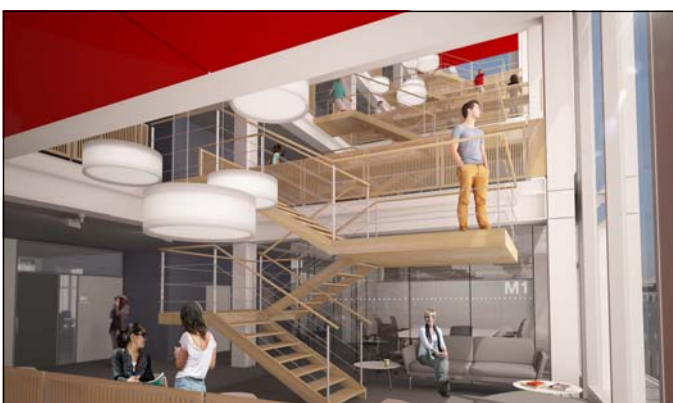
## Will there be noise and disruption?

Yes, all building works are by their very nature noisy and disruptive but with careful management this can be minimised. The Estates Division understand the issues and we are employing consultants and contractors who are experienced in working in inner city sites such as the LSE. Buildings are continuously redeveloped in London. The challenge is to limit the impact on the daily business of the School

## Will it be worth it?

We believe so. LSE Council has recently given its approval to the project and we are preparing the planning application. The existing buildings underperform both in use and sustainability and are not commensurate with the standard of facilities expected by a world class institution as the LSE.

These recent images from architects RSH+P illustrate the quality of new buildings and public spaces we expect to achieve as a result of this project.



If you require further information please email [estates.centrebldings@lse.ac.uk](mailto:estates.centrebldings@lse.ac.uk) or contact Sarah Beck, Principal Project Manager [s.h.beck@lse.ac.uk](mailto:s.h.beck@lse.ac.uk) Tel. 020 7106 1150