



# LONDON LOW EMISSION CONSTRUCTION PARTNERSHIP

*13<sup>th</sup> January 2015*

SUPPORTED BY  
**MAYOR OF LONDON**



**TRANSPORT  
FOR LONDON**



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**ISLINGTON**



<b>10:30</b>	<b>Welcome</b>	<b>Adam Webber</b>
<b>10.35</b>	<b>Review of previous meetings minutes</b>	<b>David Green</b>
<b>10:45</b>	<b>LLECP Logo design</b>	<b>Daniel Marsh</b>
<b>10:50</b>	<b>Developer Information leaflet</b>	<b>Daniel Marsh</b>
<b>11:00</b>	<b>Developer meetings attended</b>	<b>Daniel Marsh</b>
<b>11:10</b>	<b>Website update</b>	<b>Daniel Marsh</b>
<b>11:25</b>	<b>Local Authority Construction Projects</b>	<b>Daniel Marsh</b>
<b>11:45</b>	<b>Project Plan update</b>	<b>David Green</b>
<b>11:50</b>	<b>Finance/Signing off work</b>	<b>David Green</b>
<b>11:55</b>	<b>Date of next meeting</b>	<b>All</b>
<b>12:00</b>	<b>AOB</b>	<b>All</b>



London Low Emission Construction  
Partnership

# LLECP Logo design



# LONDON LOW EMISSION CONSTRUCTION PARTNERSHIP

## Custom Logo Printed Hi vis Vest

CODE: HVW03newj8



# Rear Yellow



Front1



Rear

# Developer Information leaflet

## Who are the LLECP?

The London Low Emission Construction Partnership (LLECP) is a collaboration between the 'Cleaner Air Boroughs' in central London and King's College London. The project is funded by the Greater London Authority (GLA) and aims to reduce emissions from the construction industry.

## Why the construction industry?

According to the Greater London Authority, an estimated 4,267 deaths in London were attributable to small particles in the air during 2008. The machinery used by the construction industry contributes 10% of the emissions of these particles in London.

Exhaust from construction machinery contributes a similar amount to the emissions of nitrogen dioxide pollution, which is also a health concern. London is in breach of European limit values for this pollutant. Dust, mainly from demolition, also adds to local levels of particle pollution.

From September 2015 the London Mayor will introduce new standards to reduce pollution emissions from the construction industry with tighter standards proposed for the start of the London Ultra Low Emission Zone in 2020.

## Contact us

To find out more about the LLECP and learn how you can actively assess and reduce emissions from your site please contact us at:

[erg-construction@kcl.ac.uk](mailto:erg-construction@kcl.ac.uk)

[@ConstructionDustUK](https://twitter.com/ConstructionDustUK)

[www.londonlowemissionconstructionpartnership.org.uk](http://www.londonlowemissionconstructionpartnership.org.uk)



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CONSTRUCTION PARTNERSHIP





## What will the LLECP do?

The objectives for this project are:

- >> Help the construction industry to understand its impact on local air quality.
- >> Encourage the uptake of best-in-class pollution reduction (abatement) measures.
- >> Improve pollution monitoring and make this data available for construction sites in London.
- >> Help to fund best in class abatement measures at construction sites.
- >> Evaluate the cost effectiveness of pollution abatement techniques.



APPLYING CALCIUM MAGNESIUM ACETATE (CMA) AS A DUST SUPPRESSANT ALONG AN ON-SITE HAULAGE ROUTE

## How will we achieve this?

We aim to achieve the objectives through the following :

- >> Review current emissions abatement to ensure that the latest technology is included in this project.
- >> Launch a dedicated website containing information on the air pollution impacts from the construction industry and the available abatement measures.
- >> Provide a real-time pollution measurement platform on the project website
- >> Work with targeted construction sites to provide advice and guidance on how to apply best-in-class abatement.
- >> Assess the impact of abatement techniques using high quality on-site measurement and specialist data analysis.

**Developer meetings  
attended**

<b>Date attended</b>	<b>Developer name</b>	<b>Description of meeting</b>	<b>Outcomes</b>
9 <sup>th</sup> October 2013	Jamie Eagles Nine Elms Delivery Authority	Construction Logistics and Air Quality on construction sites.	Pre-project launch date but met with several developers involved in the Nine Elms redevelopment to discuss emission reduction
18 <sup>th</sup> February 2014	Shane Lincoln, GVA Second London Wall 5th Floor , 80 Cheapside, London EC2V	VNEB - re-development of Market Towers Option to develop smart phone/tablet applications to improve communication of site issues that impact beyond the site boundary.	App development did not proceed due to short timescales for demolition and new building completion dates which would not allow any design/build time
27 <sup>th</sup> June 2014	Tom Perry, Lend Lease, Heygate Estate	Visit to view and discuss various demolition activities and stock pile formation, additionally to review NRMM used on site and see a mobile crusher unit in operation.	Shown various high dust generating activities across a major demolition site and viewed current mitigation techniques. Discussed how these could be improved.

28 <sup>th</sup> October 2014	Derek Ballard, Hanson Cement, Freight Lane, Camden	Promoting LLECP, site visit and outline of the Camden project in Freight Lane	Hanson Cement are now aware of the measurement and mitigation programme being carried out along Freight Lane
25 <sup>th</sup> November 2014	Ruth Calderwood – City of London	Discuss CoL developer/contractors scheme, best practice awards and setting up a meeting with all approved developers to gain industry feedback on best in practice mitigation.	Hoping to arrange an CoL 'approved' developers meeting to promote the aims of the LLECP
25 <sup>th</sup> November 2014	Hannah Kershaw, Lend Lease	Discuss best in practice mitigation from industry perspective and developer material review, early web design review.  Discussed possible trials to be carried out at LL site in Deptford during 2015 (pre-planning )	

2 <sup>nd</sup> December 2014	Robin Marshall, LaFarge Tarmac, Freight Lane, Camden	Promoting LLECP, site visit and outline of the Camden project in Freight Lane	LaFarge Tarmac are now aware of the measurement and mitigation programme being carried out along Freight Lane as part of the LLECP project
9 <sup>th</sup> December 2014	Brendon Coen, Berkeley Homes – City Forum, 250 City Road, Islington	Promoting LLECP, site visit and outline of the Islington project in City Road	Assessment of site for potential use within the LLECP
7 <sup>th</sup> January 2015	Mike Attfield, Energenics	Envirox use in construction industry	Potential use in reducing BC emissions from NRMM on City Road Forum site.
13 <sup>th</sup> December 2015	Gordon Allison, HS2	Crossrail/Tideway/HS2 Lessons Learnt/London Low Emission Construction Partnership	
14 <sup>th</sup> January 2015	Barry O’Brien, GLA	To discuss NRMM – combined approach to NOx and PM emissions from heavy plant	
14 <sup>th</sup> January 2015	Anna Carver, Talking Edge Studios	Producing short film promoting GLA/MAQF projects	

**London Low Emission Construction  
Partnership  
Website**



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## London Low Emission Construction Partnership

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[Read more...](#)



## Working together to build a cleaner London

### Are you a...



Project manager



Property developer



Local resident



Local authority officer

### How do I find out about...



Health advice for me



School development



Road information



Cycling information



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## What are the health impacts from construction emissions?

Exposure to the pollution emitted in and around construction and demolition sites cause a number of significant health issues. These can range from respiratory illness, shortness of breath and reduced lung function to cardiovascular problems and an increased risk of mortality.

[Read more...](#)



## Working together to build a cleaner London

Are you a...



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Property developer

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Health advice for me



School development





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## What is my legal requirement?

From September 2015 the London Mayor will introduce new standards to reduce pollution emissions from the construction industry with tighter standards proposed for the start of the London Ultra Low Emission Zone in 2020.

[Read more...](#)



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Are you a...



Project manager



Property

How do I find out about...



Health advice for



School



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# Construction Projects

Assessment of the impact of abatement techniques using high quality on-site measurement and specialist data analysis.

[Read more...](#)



## Working together to build a cleaner London

Are you a...

How do I find out about...



Property



Health advice for



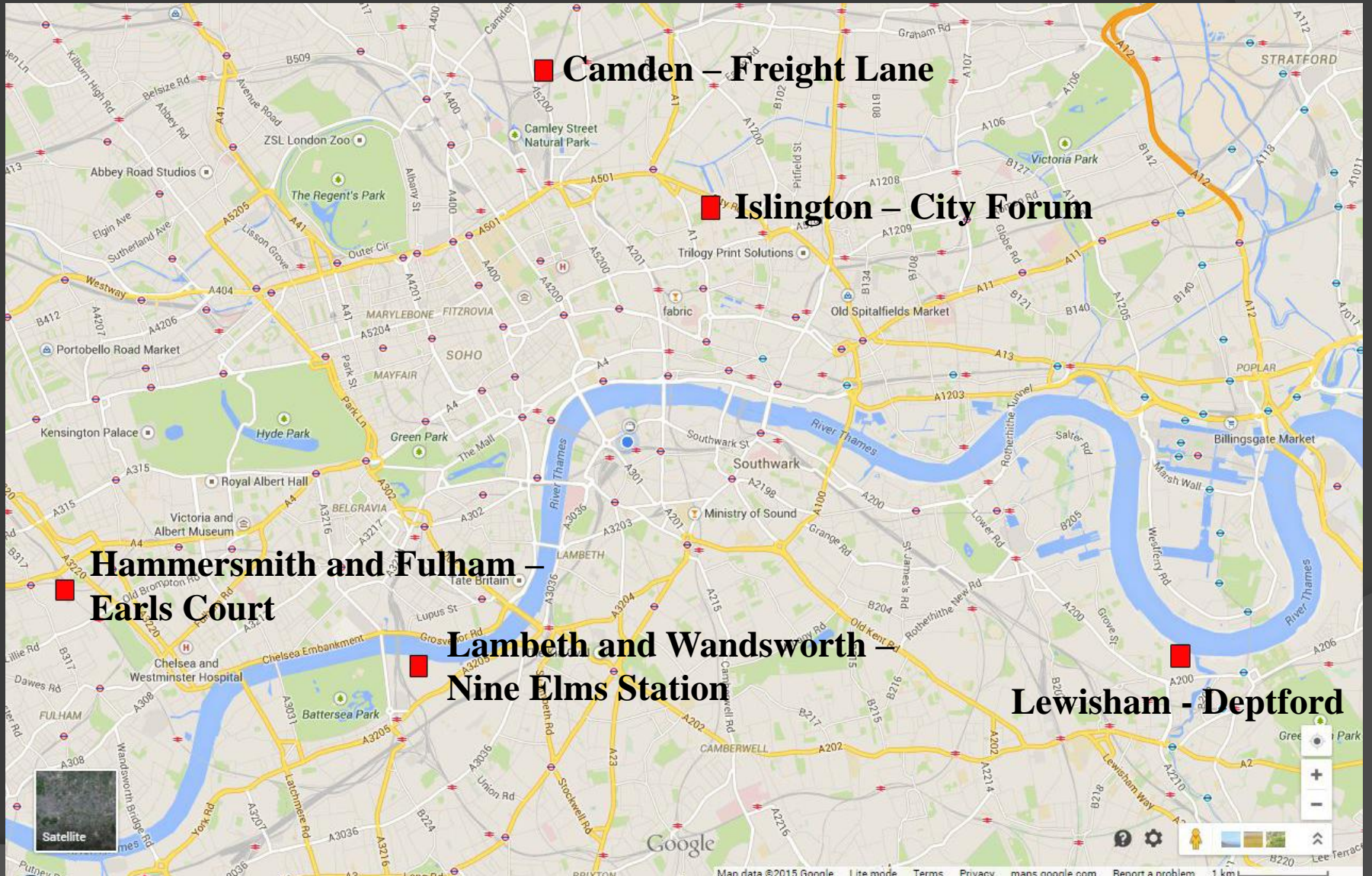
School

# What is required?

- Home page
- About LLECP and its Partners
- Emissions from demolition and construction
- Projects – info, live data feed, web reports (pw protected area?)
- Tools and resources – Best in Practice examples, guidance, documents and reports, equipment, health advice for public
- Contact details

# LA construction projects

# Targeted construction sites



# London Borough of Camden

- Reducing trackout at two Cement Batching Plants
- LaFarge Tarmac and Hansons Cement  
Freight Lane  
off York Way  
Kings Cross  
London  
N1 OAU

# LaFarge Tarmac Cement



# Hansons Cement





# Freight Lane, Camden





# Trial method

- Baseline measurements made using two Osiris instruments on Freight Lane
- Targeted CMA application over an 8 week period (week on/week off)
- 'Back to black' street cleansing using high pressure hoses and road sweeper

# London Borough of Hammersmith and Fulham

- **Earls Court demolition**
- ◉ Keltbray demolition of Earls Court 1 (EC1) and Earls Court 2 (EC2)
- ◉ 22 month controlled demolition phases
- ◉ Involving removal of concrete/steel structures, floor slab and bridge removal
- ◉ Awaiting further details

# London Borough of Islington

- **City Forum**
- Site Location: 250 City Road, London, EC1V 2PU
- Dates: start January 2015 with 14 demolition schedule
- Buildings constructed of brick/steel so mostly 'dismantling' works being carried out

# NRMM BC emission reductions



# Cerium Oxide based fuel additive

achieve up to:

- ⦿ 18% reduction in particulate matter (PM) emissions,
- ⦿ up to 60% smoke reduction
- ⦿ reduce fuel consumption by 5%.
- ⦿ It improves the efficiency of the diesel particulate filter (DPF) by allowing it to burn off the black carbon (soot) at a lower temperature.
- ⦿ The product that we have proposed to trial is called Envirox DPF assist (Envirox E2), further information can be found at:

<http://www.energenics.co.uk/enviroxdpfassist/about/>



The **microAeth** is a self-contained, pocket-sized instrument with flow control, data storage, and battery and makes its analysis by collecting particulates on a replaceable filter strip and utilises the Aethalometer optical absorption technique to determine the mass concentration of Black Carbon in real time.



# London Borough of Lewisham

- **Deptford** based demolition and development of two tower blocks
- Pre-planning access – start mid 2015
- Site is under one developers control, Lend Lease, and they are keen to assist the project
- Possible trialling of new JCB hybrid NRMM for BC reduction with comparison to older NRMM

# London Boroughs of Lambeth and Wandsworth

- ◎ **Nine Elms Station – Northern Line Extension**
- ◎ Dust Management Plan (DMP) supplied with two Osiris already on site.
- ◎ Demolition of existing structures and large amount of earthworks
- ◎ Laing O'Rourke are keen to get involved

Project plan / Finance / Scope of  
works

# Updated Project Plan

Area	Name	May-14	Jun-14	Q2 2014	Q3 2014	Q4 2014	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016
Project Monitoring	Kickoff meeting GLA/TfL											
Project Monitoring	Project Team Meeting											
Project Monitoring	Develop/review communications strategy for stakeholders											
Project Monitoring	Risk Mapping / review											
Measures	Identification and review evidence (ongoing)											
Measures	Prepare / update developer comms material											
Measures	Developer meetings											
Measures	Measurement site identification and installation											
Measures	Data collection and management											
Measures	Equipment maintenance											
Measures	Application Programme - Planning and management											
Measures	Application Programme											
Measures	Evaluation of impact											
Construction Hub	Scoping											
Construction Hub	Content											
Construction Hub	Build and test											
Construction Hub	Launch											

# Key deliverables and invoicing schedule

Deliverables	Q2 2014	Q3 2014	Q4 2014	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016
Attend kickoff / steering committee meetings	X		X		X		X		X
Output communication strategy document	X				X				
Output project risk review document	X				X				
Output evidence review report		X			X			X	
Output developer communications material		X				X			
Attend developer meetings (2-3 per month)	X	X	X	X	X	X	X	X	X
Identify and install measurement sites		X	X						
Collect and disseminate data		X	X	X	X	X	X	X	X
Organise annual Osiris maintenance	X				X				
Design, programme and supervise agreed measures		X	X	X	X	X	X	X	X
Output evaluation of impact report				X					X
Produce design and specification document for web site	X								
Generate and update content for website		X		X		X		X	
Launch Website				X					
<b>Invoice Value</b>	<b>£11,543</b>	<b>£52,891</b>	<b>£52,790</b>	<b>£44,172</b>	<b>£41,531</b>	<b>£44,979</b>	<b>£43,260</b>	<b>£51,854</b>	<b>£56,979</b>

# Q2 2014 Invoice

Q4_2014	Budget		Forecast		Forecast Variance		Budget to Date		Actual to Date		Variance to Date	
Monitoring Staff	£	17,655	£	17,655	£	-	£	17,655	£	17,655	£	-
IT Staff	£	9,573	£	9,573	£	-	£	9,573	£	9,573	£	-
Developer communications materi	£	-	£	-	£	-	£	813	£	350	£	463
Equipment maintenance	£	-	£	-	£	-	£	3,066	£	938	£	2,129
Emissions abatement measures	£	25,563	£	-	-£	25,563	£	51,125	£	-	£	51,125
<b>Total</b>	£	<b>52,790</b>	£	<b>27,227</b>	-£	<b>25,563</b>	£	<b>82,232</b>	£	<b>28,515</b>	£	<b>53,717</b>