Committee(s)	Dated:
Streets & Walkways Sub - For information Planning & Transportation - For information Policy & Resources - For information	24 November 2017 9 January 2018 18 January 2018
Subject: Major Highway Works for 2018	Public
Report of:	For Information
Director of the Built Environment	
Report author:	
Ian Hughes	

Summary

As predicted in last year's report, the volume of activity taking place in the Square Mile has placed increasing demands on the City's highway network. In particular, the sheer scale of schemes such as Crossrail, the Bank Northern Line upgrade and the Thames Tideway project means that long-term coordination of works is vital to keep the City moving.

In addition, the City currently has the largest volume of building development taking place since 2008, as well as the highest number of utility openings since 2011. The two are undoubtedly connected, and although development activity in particular is traditionally a sign of a thriving Square Mile, it brings with it a need for road and footway space for construction, essential utility connections and additional heavy vehicle traffic.

A great deal of effort goes into ensuring that such activity is coordinated as much as possible, and although this effort is not always visible, the 548 days of disruption saved through collaborative works in the first 10 months of 2017 reflects this proactive approach.

The City has a statutory responsibility to minimise disruption as part of its Network Management Duty, and so officers will continue to work to ensure the co-operation of major project sponsors, utility companies and developers in co-ordinating their works and minimising disruption. The key objectives remain:

- balancing the need to keep projects on track with the need to minimise congestion and limit the impact on traffic and pedestrians (especially vulnerable road users);
- ensuring the needs of the City's wider stakeholders (ie businesses, residents and visitors) are also considered;
- maximising the opportunity to combine works together to minimise their overall impact;
- working with Transport for London and our neighbouring authorities to ensure the needs of the wider transport network are considered.

Key to that effort remains:

- the close level of contact established by officers with individual utilities, developments and projects;
- the ability of officers to find, influence and negotiate innovative solutions to construction problems and programmes with contractors;
- understanding, programming and managing the City's own long-term programme of projects;
- continuing the development of the City's various communication channels through which upcoming activities are publicised.

Recommendation

Members are recommended to receive this report.

Main Report

Background

- 1. The Highways team within the Transportation and Public Realm Division of the Department of the Built Environment (DBE) is tasked with co-ordinating all major activities on the highway, and has officers involved in negotiating, approving and facilitating the extent and timing of:
 - a. All road closures and diversions
 - b. Major building site operations, including mobile crane works
 - c. Special events, including the Lord Mayor's Show
 - d. Street works by utilities
 - e. Major street scene and transportation projects by the City
 - f. Resurfacing & highway repairs by the City's term contractor, JB Riney
 - g. Works by major transport infrastructure providers, such as Crossrail
 - h. Works by TfL on the 'Red Routes', and by the City's neighbouring authorities on the City fringe
 - Large scale deliveries and building removals through the parking 'dispensation' system
 - j. Large film shoots and outside broadcasts
 - k. Parking bay suspensions
- 2. To deliver this function, officers have well-established links with the City's Environmental Health and Highway Structure teams, the emergency services, Transport for London and other key City stakeholders so that information can be shared, co-ordinated and publicised to the general public.
- 3. The demand for room on the City's streets remains high, and officers try to accommodate the needs of applicants and works promoters whenever they can. However, the Highways team seeks to ensure that the needs of the public are not

- forgotten, and that a balance is struck between their needs and those of the works promoters.
- 4. As an example, when considering road closures, the following general approach is adopted:
 - a. no works are allowed that directly conflict with each other;
 - b. no diversions that use the same streets;
 - c. no parallel streets to be affected;
 - d. local access to be maintained as far as possible;
 - e. ideally two 'north / south' and 'east / west' routes through the City to be kept clear of disruption at all times.

Limitations to the Consent Process

- 5. The City exercises its authority to control activity on-street through the issue of scaffold & hoarding licences, permits to dig up the street, traffic orders to allow roads to be closed, approval of Construction Logistics Plans for developments, and the granting of parking dispensations & bay suspensions for lorries to deliver.
- 6. However, the City has to act reasonably in exercising these powers, and its ability to control the pace and detail behind major works has a number of limitations. This can often mean using the City's influence to co-ordinate and manage that activity, rather than relying on its limited regulatory authority. For example:
 - a. The utilities retain wide-ranging statutory powers to excavate the highway, particularly in emergencies.
 - b. A developer can decide when they trigger a planning application, and highway reparation or enhancement works around the site typically need to be delivered in time for the building to be occupied.
 - c. As Strategic Transport Authority, TfL have the authority to implement Mayoral transport policy such as the construction of the cycle super highway on their road network.
 - d. Crossrail, the Bank Northern Line upgrade and Thames Tideway come with bespoke powers enabled by Acts of Parliament that assume primacy of their works over other projects. They disapply many of the City's normal controls, and are deliberately drafted to limit the ability of a local authority to prevent, delay or control those works.
- 7. The City obviously has full control of its own works programme, and these are planned to ensure they only proceed with a full understanding of their scale, timing and impact, avoiding other major projects and activities such as the key special events.

Current Position

- 8. The demand for space on the City's highway network largely comes from four main sources, namely:
 - a. Development activities
 - b. Major infrastructure projects
 - c. Utility works
 - d. City of London works
- Although utilities are traditionally thought to be the main source of disruption to the highway network, the scale of major projects such as the cycle super highway, Crossrail, Bank Northern Line upgrade and Thames Tideway has changed that profile.
- 10. Such projects have certainly had a wide ranging impact in recent years, but the last two years has seen the City enjoy its largest development boom since 2008, and although this is usually to be welcomed as a sign of a healthy City economy, the current concentration of development requires road space for scaffolds, hoardings, lorries and logistics, as well as associated utility connections.
- 11. The table below shows the breakdown of road closure applications by source over the last six years.

Road Closure Application Volumes

Type / Year	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Developments	99	107	101	155	231	175
Utilities	68	52	62	67	89	95
Emergencies	92	69	26	57	68	38
CoL	22	25	40	85	89	78
Other	18	8	3	18	17	51
Total	299	261	232	382	494	437

- 12. Although the last full year saw a reduction in applications for road closures related to buildings and development activity, the continuing surge in this sector has ensured that this remains the largest single cause for roads to be closed. Although most of these applications are for side streets and / or take place at weekends (for activities like crane operations), a significant number are for much longer periods to facilitate day to day construction activity.
- 13. In parallel, the number of road closure applications from utilities has reached a six year high, which is likely to be linked to development activity as most developments require upgraded and diverse supplies from multiple utilities. This is reflected in the number of permit applications received from utilities to excavate the City's highway.

Utility Street Works Permit Applications

Year	2011	2012	2013	2014	2015	2016	2017
Total Permit Applications	4379	3331	3319	3099	3074	3448	3980*

^{*} Projection based on permit application volumes from Jan-Oct 2017.

- 14. As seen in the above table, the volume of utility permit applications is now at its highest level since 2011 (the pre-Olympic moratorium rush), and since none of the major utilities are currently undertaking a major network upgrade, this demonstrates the impact of the development boom is being felt here too. In other words, rather than network upgrades or replacement works, the need for additional power, heating, cooling and telecom requirements for new developments is now driving a considerable part of overall utility workload.
- 15. As in previous years, officers continue to identify opportunities to combine works from different contractors, thereby reducing the need for yet more closures. This resulted in 548 days of disruption saved on the network between January and October this year an exceptionally high number for any highway authority and reflects the pro-active forward looking approach by officers and the level of cooperation by utilities in using round table discussions to draw out medium and long-term works plans.
- 16. Finally, one other trend in road closures is the increase in 'other' closures, which this year included 19 special events and 29 film shoots. Until a relatively recent change in the law, filming was not a legitimate reason for streets to be closed, so that film shoots were managed (often with difficulty) under police powers or short traffic holds. Now film companies can legitimately close streets to better manage their operations, so the number of road closures has increased without necessarily a corresponding increase in filming activity.

Major Works & Schemes for 2018

17. This section of the report looks ahead to the major works expected to take place in the next 12 months, including details of how officers have sought to assess, co-ordinate and influence each project in turn. Summary details can be found in the appendices to this report, including an outline calendar of major works proposed in 2018 and a map of the locations of these various projects.

Development Activities

- 18. Once a developer has a planning consent in place, the City cannot control when a development starts, nor do we have the power to stop a development just because other activities are taking place in the vicinity. In other words, we are unable to set an arbitrary limit on the volume of development taking place in any one area.
- 19. In many ways, redevelopment of the City has historically been seen as an indication of a thriving Square Mile, but given the overall level of on-street activity is noticeably higher, work sites will inevitably overlap in places as they bring a

- need for road space, a reduction in network capacity and additional heavy vehicle traffic to our streets.
- 20. However, those same streets still need to function for residents, businesses and visitors, and be safe for motor vehicles, cyclists and pedestrians. To that end, we have staff dedicated to liaising with building sites to understand their construction needs, to working with the major projects to help manage their impacts, and to co-ordinating activities so that works overlap as little as possible.
- 21. That typically involves making the best use we can of the tools we have at our disposal, including our Considerate Contractor Scheme (which currently has over sixty active building sites as members) and Construction Logistics Plans for sites that are conditioned from the Planning approval process.
- 22. As Members are no doubt aware, the City undertakes the vast majority of public realm work around building developments through its term highway contractor (JB Riney), funded by those developments. The majority of these works are done with little or no network impact, with the focus being minimising the impacts on local businesses and residents. In the coming 12 months, those development-related works include:
 - a. St Alphage Garden for the London Wall Place Development
 - b. Bartholomew Close for Helical
 - c. 100 Bishopsgate
 - d. 100 Minories
 - e. 2-6 Cannon St
- 23. However, some elements of development-related activity, including both construction and subsequent public realm works, do have the potential to impact the road network, and in that context, the key activities where this might be the case for 2018 are briefly summarised as follows:

Bloomberg (Queen Victoria St)

- 24. Works to complete the public realm around this landmark development near Bank junction have largely finished on three of its four frontages, leaving the Queen Victoria St elevation as the final area to complete.
- 25. This will involve the creation of a new diagonal pedestrian crossing facility at the junction of Queen Victoria St / Queen St / Watling St, and will involve a closure of Queen Victoria St westbound from December until September next year. However, with only buses and cycles currently passing through Bank junction, the traffic impact of this closure is expected to be limited.

The London Development (Shoe Lane)

- 26. The public realm works around this major development will also begin before the end of 2017, but will gather pace during 2018 in time for completion in spring 2019. Works are being programmed to fit the timetable for Goldman Sachs' occupation, with the first key element being on Farringdon St between January and May next year.
- 27. These works are being undertaken by the City through our term contractor (JB Riney) by agreement with TfL, who have agreed the City is best placed to undertake all the works around the site, even though Farringdon St is a TfL road.

The works are also being designed to take place within the current site loading bay, keeping traffic capacity on Farringdon St largely unaffected.

100 Liverpool St

- 28. This development by British Land has had a minor impact on the pedestrian flows in and out of Liverpool St railway station, but the upcoming work adjacent to Liverpool St bus station has required TfL to agree to the bus station itself being closed for 12 months from November this year.
- 29. To compensate for this, DBE have agreed for a number of bus stands and stops to be relocated to Finsbury Circus and other nearby streets. However, in order to minimise the impact of this closure on the local bus network, TfL and the City have agreed to keep the major corridors in the vicinity of the bus station open for the duration of the works, including Moorgate, Blomfield St, London Wall and Bishopsgate.

Eastern Cluster

- 30. The greatest concentration of activity in the City remains in the Eastern Cluster, where the number of individual building sites proposed or already underway has now reached 31 (see Appendix 3).
- 31. It is almost inevitable that works for these various developments will overlap, but the City continues to meet these sites together once a month to co-ordinate their respective programmes, and to combine (or separate out) their utility works, crane operations and construction logistics accordingly.
- 32. In the coming year, two sites in particular will have public realm enhancement works that will impact the local street network:
 - a. 10 Fenchurch Ave: These works include returning Fen Court and Billiter St to public use, but the footway works on Fenchurch St itself are extensive and will require a westbound closure for approximately two months, either side of Christmas / New Year.
 - b. Scalpel, Leadenhall St: Works to enhance the public realm around the Scalpel will also require a westbound closure of Leadenhall St, but this will be programmed to commence after Fenchurch St reopens. Currently these works are expected to last around three months.

Major Infrastructure Projects

Crossrail

- 33. Crossrail continues to have a major presence in the Square Mile, but thanks to the close co-operation between the City and the five surface-level construction sites at Moorgate, Liverpool Street, Blomfield Street, Finsbury Circus and Lindsey Street, complaints from the public have remained at a very low level, and Crossrail as a whole has become part of the background activity in the City.
- 34. Moorfields, Moor Place, Finsbury Circus (west arm), Liverpool Street (west), Hayne Street and Charterhouse Square (westbound) all remained closed throughout the last year, and will likely stay closed until the completion of the project. However, with the live stations due to open at the end of next year, focus is now shifting to rolling back these worksites, and constructing the urban realm elements to be delivered around each station entrance.

35. Members may recall that the City has reached an agreement to undertake these urban realm works on behalf of Crossrail, and detailed design and construction planning is now well underway. Core areas around each station will be completed by the December 2018 deadline, but it is important to note that with oversite development activity above and around each of the stations (in particular at Lindsey St and 100 Liverpool St), completion of all the Crossrail-related public realm works will be a long-term process lasting into 2022 as construction areas gradually become available.

Thames Tideway

- 36. The project to connect London's 'super sewer' to the outfall of the River Fleet just west of Blackfriars Bridge is already well underway. A new pedestrian lift connecting the riverside walkway with the bridge level has been opened, and Blackfriars Pier has been relocated to a new permanent position east of Blackfriars Rail Bridge.
- 37. In terms of construction impact, the riverside walkway has now been closed to pedestrians, and the intersection of the cycle superhighway has been revised, with the down ramp from Blackfriars Bridge to the Embankment now closed. Both measures will be in place until the completion of the project in 2021.
- 38. For 2018, local Ward Members are already aware that Tideway are exploring the potential need to divert two large gas mains from their current position within the riverside pipe subway, under Victoria Embankment and the Underground Tube Lines towards Temple Avenue and Tudor St. Tideway and Cadent (formally National Grid Gas) are currently evaluating the need to do this work, caused by potential settlement and risk to this equipment in its current location, but such a diversion represents a considerable engineering challenge and has the potential to cause significant disruption to local stakeholders.
- 39. Although Tideway are yet to approach Members, officers and local residents & businesses with the conclusions from their recent trial holes and scoping exercise, this information is likely to be made available before the end of this year. Nevertheless, should a diversion of the gas network be needed, works of this type are typically programmed for late spring to early autumn when the demands on the gas network are lower.

Bank Northern Line Upgrade

- 40. This project will deliver a new Northern Line tunnel for Bank station by 2022, a new ticket hall in Cannon St, various new subterranean interchanges and lift access from street level direct to the Docklands Light Railway.
- 41. At surface level, the project now has two main worksites, namely Cannon St for the new station entrance and Arthur St, where a shaft has been sunk to create space to tunnel northwards. That tunnelling is about to reach the area under Bank junction itself, and with City officers involved in the overall planning of the project since its inception, both sides continue to meet on a monthly basis to discuss progress.

Cycle Super Highway

42. As Members are no doubt aware, work to construct the Mayor's separated cycle lane corridors, north / south and east / west across London, has largely been completed. However, there are three main locations in the City where TfL are

expected to undertake cycle super highway-related works in the next 12-18 months:

- a. TfL are currently consulting on a scheme to amend the junction of Tower Hill and Trinity Square to facilitate a movement into the Square at any time. If approved, these works are likely to begin in January 2018 and last for six months, with a westbound lane closure on Tower Hill and a full closure of Trinity Square. TfL are also hopeful that once completed, the scheme will add a certain amount of capacity back into the traffic flow along this key east / west corridor.
- b. TfL have also just completed a public consultation on an extension to the north / south cycle super highway, starting in Farringdon Street by Stonecutter Street and heading north towards Kings Cross. Proposals are still subject to detailed design and approval by TfL's Project Board, but if approved, works (with lane closures) are likely to run from February to June 2018 in conjunction with the public realm works for the London Development.
- c. Finally, as Members are well aware, TfL are completing the feasibility study for the changes to the New Bridge St / Tudor St junction, and subject to this being successful and funding being identified, this element of the cycle superhighway could become part of their programme of work next year.
- 43. As with the previous super highway programme, City officers will work closely with TfL colleagues to understand the impact of the construction, monitor & inspect any works on City Corporation streets, and co-ordinate activity on the rest of the network.

Thameslink

44. Tooley St continues to be closed as part of the Thameslink upgrade to London Bridge station, and although this is likely to have placed additional pressure on the London Bridge corridor at the start, such pressures typically decline over time as drivers find more suitable alternative routes. Based on their current programme, the closure is expected to be lifted by May 2018.

Utility Works

- 45. Other than the potential gas main diversion related to Thames Tideway, there are few major set piece works currently being planned by utilities. Of those that may come forward in 2018, the most likely aspects also relate to gas main repairs for Cadent.
- 46. Although Members may recall the significant investment from Cadent (formally National Grid Gas) in recent years to upgrade their medium & low pressure gas main networks from Aldgate to Newgate St, the City is aware that Cadent are finding more significant gas leaks on a more frequent basis, with this year's problems including major leaks in Cannon St, Cheapside, Fenchurch St and Tudor St.
- 47. We are aware that Cadent are coming under pressure from the Health & Safety Executive to resolve these issues, and although they have a five year window to identify funding and complete the works, we understand they are likely to

consider works in Cheapside during the second half of 2018. Firm details have yet to be supplied by Cadent, but any works they propose will be subject to considerable advance planning and publicity, as well as trial holes to prove the extent and duration of their activity.

City of London Works

- 48. Separate to development and Crossrail activity, the vast majority of the City's own planned public realm, road safety and highway maintenance programme is expected to have little impact on the road network. For example, the major enhancement projects at Monument, Artizan St and Aldgate continue without affecting traffic, and the City's major set piece highway maintenance projects, including our resurfacing programme and soon to commence street lighting upgrade, will be sensitively programmed to avoid both traffic congestion and complaints from local stakeholders.
- 49. In terms of major City Corporation projects with the potential to affect major streets in the Square Mile, the Structures team within DBE are planning long-term works to replace and / or repair London Bridge's waterproofing and bearings, and this may fall towards the end of the 2018 window. However, this will be subject to TfL's agreement on network availability and works on other river crossings, albeit full daytime road closures of the bridge are not yet thought necessary.

Communications

- 50. The Highways team continues to strengthen its communications with the public, helping to mitigate the impact of all these works. These channels include:
 - a. Fully refreshed and published Guidance Notes that cover all aspects of building site operations affecting the public highway. These were recently recognised by the Health & Safety Executive as containing some of the most stringent yet effective measures in London.
 - b. 3,650 followers to the Highways Twitter feed (@squarehighways), providing up-to-date information on road closures, special events and road safety initiatives.
 - c. Nearly 1,160 people receive the weekly e-mailed Traffic Management Bulletin, covering major highway works and events for the week ahead.
 - d. Over 46,000 people visited our road closure web pages in the first half of this year.

Corporate & Strategic Implications

- 51. The activity outlined above serves to create a safe, effective and fit-for-purpose environment for the City community to flourish in the long term. Development activity in particular is traditionally seen as a sign of a thriving Square Mile, but it brings with it a need for road and footway space for construction, essential utility connections and additional heavy vehicle traffic.
- 52. The City has its statutory duties to maintain safe highways for the public to enjoy, to regulate activity that takes place on its streets and to co-ordinate that activity to ensure that its impact is minimised. Therefore the focus must continue to be to meet these statutory requirements and to deliver safer streets, but at the same time ensuring the City maintains it competitive edge for business and remains an attractive place to live, work and visit.

Conclusion

- 53. The approach from officers remains to identify the needs of these major projects early, to combine them where possible, and to keep them apart when necessary. This requires officers to:
 - a. establish the dependency between separate projects;
 - b. understand their potential conflicts and impacts, and;
 - engage with project managers at an early stage (and frequently thereafter) to ensure that disruption can be minimised through a combination of regulation, negotiation and influence.
- 54. With projects such as Crossrail, Thames Tideway and Bank Northern Line Upgrade now well underway, co-ordinating works on the City's road network will remain a challenge into the longer term, but officers will continue to work to ensure the co-operation of major project sponsors, utility companies and developers in co-ordinating their works programmes, as well as fitting the City's own activity into that picture.
- 55. The aim will remain to ensure there is a balance between the need to keep projects on track and the need to limit both the direct and cumulative impact they cause on the public at large.

Appendices

- Appendix 1 Major Works Timeline
- Appendix 2 Major Works Map
- Appendix 3 Current and proposed sites in the Eastern Cluster

Ian Hughes

Assistant Director (Highways)

T: 020 7332 1977

E: ian.hughes@cityoflondon.gov.uk

Appendix 1: City of London: Major Works Timeline 2018

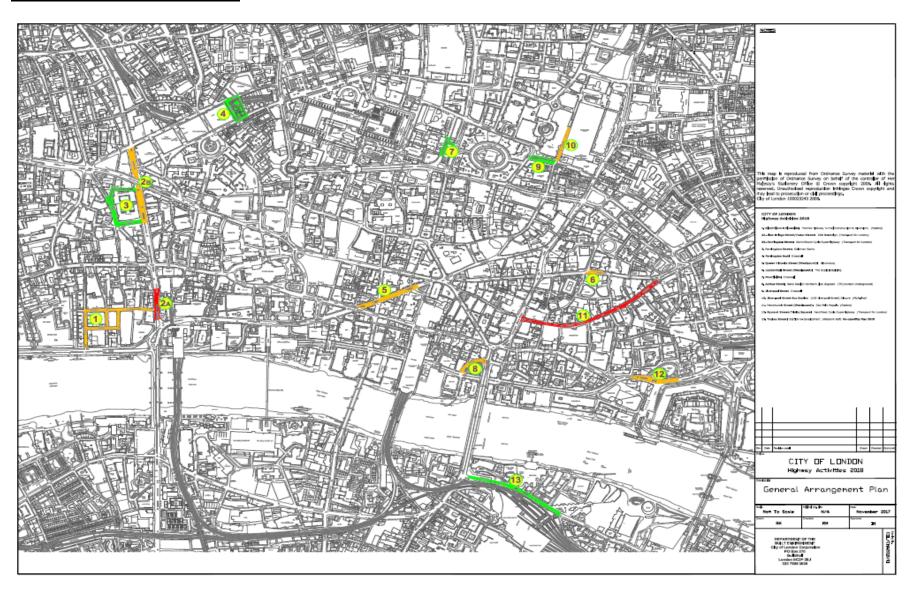
(High, Medium & Low Impact schemes) – Numbers relate to locations in Appx 2

Q1	Jan	Feb	Mar
	11 Fenchurch St W/B (10 Fenchurch Ave) 2B/3 Farringdon St (GS & CSH) 5 Queen Vic St W/B (Bl'mberg) 10 L'pool St Bus Station 12 Byward St/Trinity Sq (CSH)	2B/3 Farringdon St (GS & CSH) 5 Queen Vic St W/B (Bl'mberg) 6 Leadenhall St (Scalpel) 10 L'pool St Bus Station 12 Byward St/Trinity Sq (CSH)	2B/3 Farringdon St (GS & CSH) 5 Queen Vic St W/B (Bl'mberg) 6 Leadenhall St (Scalpel) 10 L'pool St Bus Station 12 Byward St/Trinity Sq (CSH)
Q2	April	May	June
03	2B/3 Farringdon St (GS & CSH) 5 Queen Vic St W/B (Bl'mberg) 6 Leadenhall St (Scalpel) 10 L'pool St Bus Station 12 Byward St/Trinity Sq (CSH) Crossrail – 4 Farringdon East, 7 Moorfields, 9 Liverpool St	2B/3 Farringdon St (GS & CSH) 5 Queen Vic St W/B (Bl'mberg) 10 L'pool St Bus Station 12 Byward St/Trinity Sq (CSH) Crossrail – 4 Farringdon East, 7 Moorfields, 9 Liverpool St (13 Tooley St reopens)	2B/3 Farringdon St (GS & CSH) 5 Queen Vic St W/B (Bl'mberg) 10 L'pool St Bus Station 12 Byward St/Trinity Sq (CSH) Crossrail – 4 Farringdon East, 7 Moorfields, 9 Liverpool St
Q3	July	Aug	Sept
	 5 Queen Vic St W/B (Bl'mberg) 10 L'pool St Bus Station Crossrail – 4 Farringdon East, 7 Moorfields, 9 Liverpool St 	5 Queen Vic St W/B (Bl'mberg) 10 L'pool St Bus Station Crossrail – 4 Farringdon East, 7 Moorfields, 9 Liverpool St	5 Queen Vic St W/B (Bl'mberg) 10 L'pool St Bus Station Crossrail – 4 Farringdon East, 7 Moorfields, 9 Liverpool St
Q4	Oct	Nov	Dec
	10 L'pool St Bus Station Crossrail – 4 Farringdon East, 7 Moorfields, 9 Liverpool St	10 L'pool St Bus Station Crossrail – 4 Farringdon East, 7 Moorfields, 9 Liverpool St	

<u>NB:</u>

8 Arthur St (LUL) & Blackfriars slip closure (Tideway) in place throughout 2018 1 Tudor St Area (Cadent / Gas / Tideway) and 2A New Bridge St (CSH) – To be programmed

Appendix 2: Major Works Map



Appendix 3: Current and proposed sites in the Eastern Cluster

