

Committee(s):	Date(s):
Planning & Transportation Streets and Walkways Sub Committee Policy & Resources	11 November 2014 17 November 2014 11 December 2014
Subject: Major Highway Works for 2015-16	Public
Report of: Director of the Built Environment	For Information
Summary	
<p>The Traffic Management team in the Department of the Built Environment manages the co-ordination of work on the highway in the Square Mile, and looks to balance the needs of work promoters with the disruption they may cause to the public. The team seeks to facilitate such works as much as possible, but at the same time, it looks to ensure the direct impact on stakeholders of individual sets of work, and the cumulative impact on the network as a whole, is minimised.</p> <p>This report provides details of the planning already underway to manage what is likely to be the largest concentration of major transport construction initiatives in the Square Mile for many years, due to begin next year. That concentration includes the works relating to the Mayor's proposed cycle super highway, Thames Water's Thames Tideway Tunnel and Transport for London's Northern Line upgrade project for Bank station, in addition to the on-going works for Crossrail, the City's own project at Aldgate, and other continuing major building developments such as Bloomberg.</p> <p>In summary, officers have sought to influence and direct numerous works programmes in order to co-ordinate these various projects and minimise the direct and cumulative disruption they may cause, and such work will continue throughout next year and beyond.</p> <p>Recommendation(s)</p> <p>Members are recommended to receive this report.</p>	

Main Report

Background

1. The Traffic Management team within the Department of the Built Environment 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:
 - All road closures, including the necessary diversions

- Major building site operations, including mobile crane works
 - Special events, including the Lord Mayor's Show
 - Street works by utilities
 - Major Streetscene and transportation projects by the City
 - Resurfacing and highway repairs by the City's own term contractor, JB Riney
 - Works by major transport infrastructure providers, such as Crossrail
 - Works by TfL on the 'Red Routes' and the City's neighbouring authorities on the City fringe
 - Large scale deliveries and removals through the parking 'dispensation' system
 - Large film shoots and outside broadcasts
 - Parking bay suspensions
2. As part of that process, they have well-established links with the City's Environmental Health team, 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. There will always be consequences of delaying or refusing permission for an activity, whether on a developer, a utility, a customer or a contractor, but the Traffic Management team must also 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. Given the City's intricate street pattern, understanding how to fit together different sets of works can take significant time to master. However, between the officers involved, there is now over 50 years of combined experience in understanding the City's highway network, and how best to safely minimise the direct and cumulative impact of all sorts of highway activities.
 5. As an example, when considering road closures, the following general approach is adopted:
 - no overlapping works or diversions,
 - no parallel streets to be affected,
 - local access to be maintained as much as possible,
 - ideally two north / south and east / west routes through the City to be kept clear of disruption,
 - no more than four major daytime closures in the City at any one time, ideally spread across the Square Mile.
 6. However, the demand for space on the City's highway network will be tested next year due to what is likely to be the largest concentration of major transport construction initiatives in the Square Mile for many years. The

remainder of this report outlines the planning already underway to co-ordinate, manage and minimise the impact these major projects are likely to have.

Major Projects for 2015 & 2016

7. As noted in my other report on this agenda, the volume of street works in the City may not yet match the pre-Olympic period, but the scale of the work is clearly about to increase. Facilitating projects of the scale of Crossrail is a trend that will escalate throughout 2015 as some significant transport infrastructure projects begin next year.
8. The following paragraphs outline what works are already being planned for 2015, and how the Traffic Management team have already influenced (and will continue to influence) those plans. However, critically some of these projects are authorised by bespoke powers enabled by Acts of Parliament, deliberately drafted to limit the ability of a local authority to prevent, delay or control their works. They assume primacy of their works over other projects, and leave officers in the position of having to influence the timing and impact of works without the final authority to control them.
9. Crossrail was the first example of this, and yet their co-operative approach demonstrates that such powers do not necessarily mean that the City cannot achieve a favourable outcome. However, that has been a result of the partnership approach adopted between the City and Crossrail as the delivering authority, and it remains to be seen whether Thames Water (Thames Tideway Tunnel) or TfL / London Underground (Cycle Super Highway / Bank Northern Line Upgrade) will be as responsive as Crossrail to the City's partnership approach.

Crossrail

10. Crossrail continues to have a major presence in the Square Mile, but thanks to the close co-operation between the City and the five major surface-level aspects of the scheme (at Moorgate, Liverpool Street, Blomfield Street, Finsbury Circus and Lindsey Street), complaints from the public remain at a very low level, and its impact has been 'manageable'. The scale of the project may be much larger than a 'normal' set of building sites, but Crossrail has managed to become part of the background activity in the City, despite the fact that in the last year, officers worked to accommodate major closures of Moorgate, South Place, Eldon Street, Blomfield Street and Liverpool Street bus station, as well as St Johns Street and Farringdon Road just outside the City.
11. Crossrail and the City still meet on a weekly basis to plan the project's highway works, and Crossrail recognise that without this level of commitment from the Traffic Management team, the project would be well behind schedule, and would likely have had a far more noticeable and disruptive impact on City life.
12. Crossrail's next major phase of highway works will involve the southbound closure of Moorgate, starting in late November, to accommodate a major escalation in works at the Moorgate worksite. This deliberately comes after Blomfield Street has reopened, and is a repeat of the traffic arrangements

from two years ago. At that time, the same closure was accommodated with little network-wide impact, and although buses will be diverted again, the level of disruption is again expected to be manageable. This closure will be the key set of works in the northern part of the City during 2015, around which all other works will be managed.

Cycle Super Highway

13. At the time of writing, the plans for the construction of the Mayor's cycle super highway remain uncertain as the final design is still subject to TfL's ongoing consultation. However, the likely impact of such a build would be to restrict the north / south and east / west super highway routes to one lane in each direction, critically introducing limits on the capacity of the network at the start of the build phase, rather than at its completion. TfL's wider intervention in managing traffic across the entire network, and whether they can reduce traffic flows overall, will therefore be critical to the level of impact these works will have.
14. Preliminary discussions with TfL would suggest that they are anticipating a build period in the City of around 12 months from May 2015, assuming a final design broadly similar to the currently consultation. In addition to extensive lane closures and contra-flows, several side roads will also have to be temporarily closed, including Puddle Dock, Fish Street Hill, Eastcheap and Trinity Square, and some directional closures of the superhighway route itself may be required.
15. TfL's approach will become clearer as they feed the results of the consultation into a revised design, but critically the City have asked TfL to explain their plan for communicating their build programme to City officers and stakeholders. A significant amount of combined advance planning will be necessary for this to be managed effectively.

Aldgate

16. Members will be fully aware of the City's own programme of works to regenerate and redefine the Aldgate gyratory. In the context of this report, the City have been working with TfL for over a year to integrate the likely impact of the cycle super highway works into the Aldgate construction scheme, including a full scale reprogramming of Aldgate by the City so that the current works in Minories will become the first element to be completed.
17. Minories is now planned to reopen to two-way traffic in May 2015, deliberately programmed (in consultation with TfL) to create additional capacity into the City in parallel to any reduction in capacity caused by the super highway works in Upper Thames Street. In addition, those aspects of the Aldgate project that require further road closures are programmed into 2016 to avoid the likely super highway construction window.
18. TfL have been fully appreciative of the City's approach to early and open joint programming, and have often remarked that the way in which the Aldgate team have interacted with TfL should be seen as an example of best practice. Indeed, the City's certainty of delivery for Aldgate has placed the project in a pre-eminent position, where TfL have accepted that their works must fit around the City's needs for delivering the Aldgate project as much as their own.

Bank Northern Line Upgrade

19. This project will involve the construction of a new Northern Line tunnel for Bank station, a new ticket hall from Cannon Street, various new interchanges underground, and lift access from street level direct to the Docklands Light Railway.
20. At surface level, the project has two main worksites; Cannon Street for the new station entrance and Arthur Street from where TfL will sink a shaft to (and tunnel from) an existing abandoned underground station structure. Given the complexity of the project, this appears a reasonable approach, as it also allows TfL to feed their second site at Cannon Street without lorries having to go through Bank junction. City officers were consulted on the feasibility of this option versus some of the main alternatives, and those discounted options typically had far greater impact on the highway network than using Arthur Street.
21. In the context of this report, the closure of Arthur Street has some localised impacts to premises, but the wider effects are limited to a small number of bus diversions and the beneficial removal of the weight limit at the northern end of London Bridge for HGV traffic. Arthur Street is also a key access point into the City for the London Fire Brigade from their Dowgate station, and so following discussions between the LFB, the City and TfL, an emergency fire access point into the City will be created for them at Suffolk Lane.
22. The major station works are not expected to start until spring 2016, but TfL have indicated that major advance utility diversions will be required in Arthur Street from February 2015 to create room in the highway to sink the construction shaft. In addition, as with Crossrail, tunnelling creates the possibility of vibration and settlement that can cause damage to sewers and utility pipelines, so TfL have identified a number of vulnerable underground assets that will require exposing, relining or replacement before works can begin.
23. So far, those streets that are likely to be affected include Princes Street, Cannon Street and King William Street, all of which are traffic sensitive. However, to minimise disruption and to save the most days in terms of network impact, the Traffic Management team have proposed that TfL incorporate their Cannon Street and Princes Street works with those of the Bloomberg and 27 Poultry developments respectively (see below), leaving King William Street to be programmed separately. Overall, it would appear that these works can be accommodated, provided the Bank project team continue to work closely with the City, as they have so far.

Thames Tideway Tunnel

24. Thames Water's project for London's 'super sewer' will involve a large construction site in the Thames connecting to the outfall of the River Fleet, just west of Blackfriars Bridge. Although major works in this location are not expected to start until 2016, Thames Water have indicated that enabling

works, including utility diversions and the relocation of Blackfriars Pier to the east of Blackfriars Rail bridge, will likely take place from summer 2015.

25. Thames Water are still finalising their plans, and both the riverside walkway and the 'down' slip from Blackfriars Bridge onto the Embankment are likely to be the first elements affected. We are again working with Thames Water to understand the scope and timing of the scheme, but of primary importance is clarification of how the likely site will impact the eventual intersection of the north / south and east / west cycle super highways by TfL.

Development Activities: Utility Connections & Site Activities

26. During 2015, the key planned activities relating to building developments in the City are briefly as follows:
- Power and gas connections to the Bloomberg site are programmed to close Cannon Street eastbound in January and February. As proposed by the Traffic Management team, TfL are now expected to combine their utility upgrade works for Bank station into the same road closure.
 - A major new development will begin before the end of this year at 27 Poultry, but it can only be fed from either Princes Street or Poultry. As a result of Crossrail's southbound closure (and subsequent diversion) of Moorgate from November, Princes Street can also be closed southbound with relatively little additional impact over the same period. This was proposed by the Traffic Management team with the agreement of TfL (London Buses) as the best way to minimise the combined impact and keep both projects on track. In addition, the City has also proposed that TfL's utility upgrade works for Bank station in Princes Street take place within this same closure, thereby facilitating more major activity at no extra disruption.
 - At some point in 2015, a major new power connection will be required for the Angel Court development off Copthall Avenue. No dates or impact assessment have been made available yet by UK Power Networks, but the supply will have to be routed from the nearest substation at Devonshire Square via London Wall.

Streetscene Enhancements

27. The major Streetscene enhancement works planned for late 2014 into 2015 are not particularly significant in terms of the highway network at large, but are briefly as follows:
- Works around the development at 5 Broadgate are currently underway with a westbound closure of Appold Street and Sun Street. This has had little network impact, and works are currently expected to finish in summer next year.
 - The current enhancement works in Silk Street, followed by Moor Lane, are expected to last until around April 2015, but although the works are of obvious importance to residents in the area, the network impact has typically been localised to the Barbican area since Beech Street was reopened last July.

- Ludgate Hill will be closed westbound from mid-November until January 2015 for the key enhancement works around the Ludgate Hill / Old Bailey / Limeburner Lane development. At the same time, it is hoped that the new signalised pedestrian crossing at Ave Maria Lane can also be installed, taking advantage of the one-direction closure.
- Works to enhance Austin Friars have been programmed to last from January to June 2015, but discussions with the owners of Throgmorton Avenue are well advanced to ensure that deliveries to this otherwise dead end can be made from this location rather than from Old Broad Street.

Summary

28. The key approach from officers has been to identify the needs of these major projects early, to combine them where possible, and to keep them apart when they are not. In addition, the Traffic Management team has so far successfully sought to influence and adjust various programmes in order to bring works forward to before May 2015, when TfL's cycle super highway works are expected to begin in the City.
29. This 'adjustment' of other people's programmes is already underway, and was illustrated by the recent closure of Leadenhall Street, which would otherwise have taken place in 2015, and only added to this major concentration of work. More details for next year can be found in the appendices to this report, including an outline calendar of major works proposed in 2015 and a map showing the location of these various projects.
30. As part of this process, the City's own streetscene works will also be planned so that their construction impacts are considered much earlier in the process, and only when they are fitted into the wider programme of works in the City will they move forward.
31. This approach can only work when project promoters, utilities and developers are open and informed about their needs, and plan sufficiently far in advance for the City to help them. The City must continue to encourage this sharing of information, and the Chairman of the Policy & Resources Committee has recently written to the utilities as a first step in encouraging this, particularly given the level of activity the City's streets are expected to accommodate next year.
32. In addition, it is clear that the level of commitment that City officers have made available to support, guide and co-ordinate Crossrail has had significant benefits in terms of minimising the impact of that particular project. However, replicating that commitment next year across at least three more projects of a similar scale will require additional resources, details of which are currently being considered.

Conclusion

33. When projects such as the Cycle Super Highway and Bank Northern Line upgrade are overlaid onto expected development-related activities for 2015,

there would appear to be little room for any additional as-yet unknown activities to be added next year.

34. It is likely that the City's road network will be close to capacity, but officers will continue to work to ensure the co-operation of these major project sponsors, utility companies and developers in co-ordinating their works programmes. 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 (2015)
- Appendix 2 – Major Works Map (2015-16)
- Appendix 3 - Major Works Details (2015-16)

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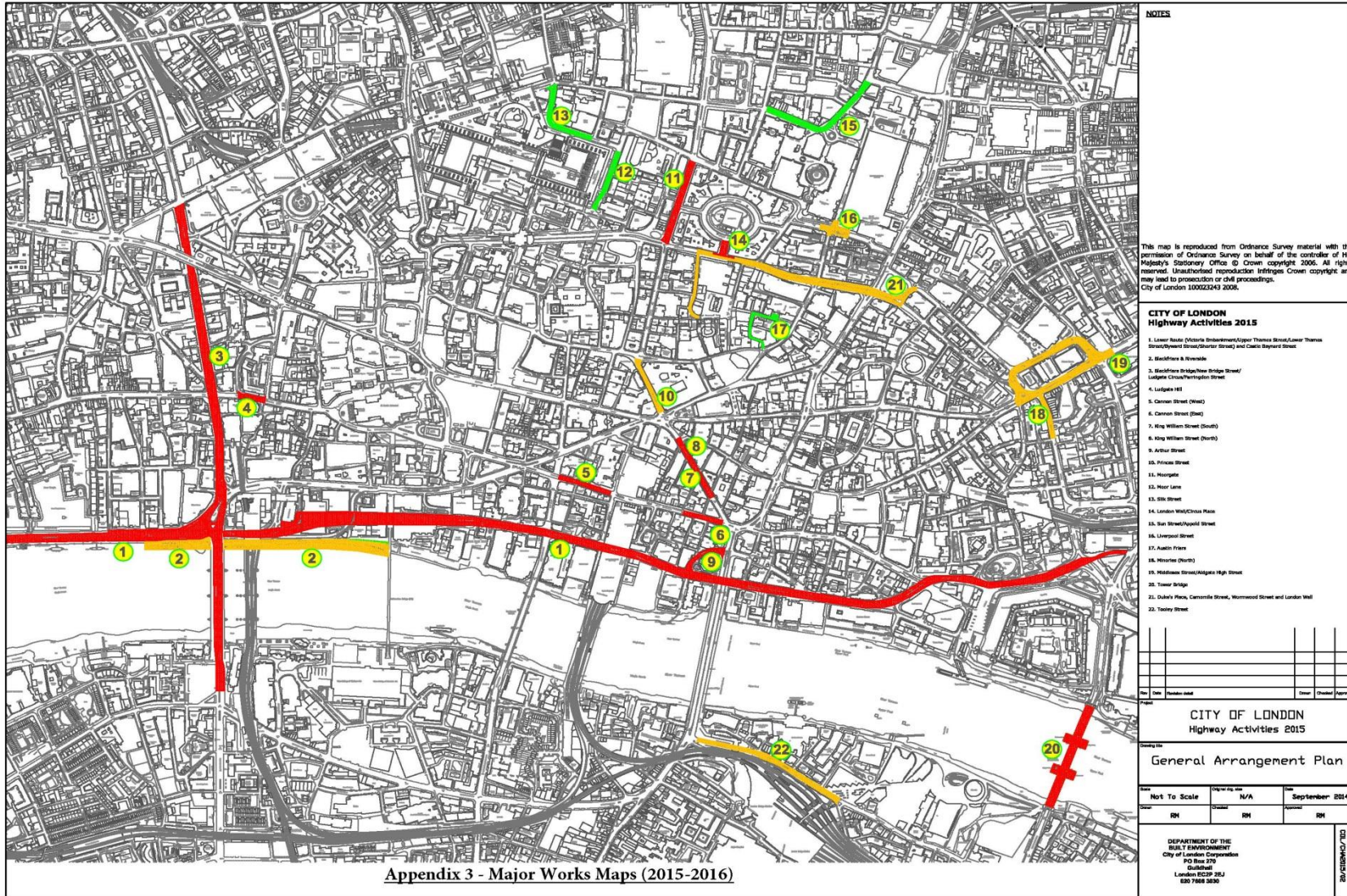
Appendix 1: Major Works Timeline 2015

Q1	<p>January</p> <p>Moorgate / Princes St S/B</p> <p>Cannon St E/B</p> <p>Ludgate Hill W/B</p> <p>Silk St / Moor Lane</p> <p>Minories (Aldgate)</p>	<p>February</p> <p>Moorgate / Princes St S/B</p> <p>Arthur St</p> <p>Cannon St E/B</p> <p>Silk St / Moor Lane</p> <p>Minories (Aldgate)</p>	<p>March</p> <p>Moorgate / Princes St S/B</p> <p>Arthur St</p> <p>King William St N/B</p> <p>Silk St / Moor Lane</p> <p>Minories (Aldgate)</p>
Q2	<p>April</p> <p>Moorgate / Princes St S/B</p> <p>Arthur St</p> <p>King William St N/B</p> <p>Minories (Aldgate)</p>	<p>May</p> <p>Moorgate / Princes St S/B</p> <p>Arthur St</p> <p>King William St N/B</p> <p>Cycle Super Highway</p> <p>Minories (Aldgate)</p>	<p>June</p> <p>Moorgate / Princes St S/B</p> <p>Arthur St</p> <p>Cycle Super Highway</p> <p>Thames Tideway</p> <p>Aldgate Gytratory</p>
Q3	<p>July</p> <p>Moorgate / Princes St S/B</p> <p>Arthur St</p> <p>Cycle Super Highway</p> <p>Thames Tideway</p> <p>Aldgate Gytratory</p>	<p>August</p> <p>Moorgate / Princes St S/B</p> <p>Arthur St</p> <p>Cycle Super Highway</p> <p>Thames Tideway</p> <p>Aldgate Gytratory</p>	<p>September</p> <p>Moorgate / Princes St S/B</p> <p>Arthur St</p> <p>Cycle Super Highway</p> <p>Thames Tideway</p> <p>Aldgate Gytratory</p>
Q4	<p>October</p> <p>Moorgate / Princes St S/B</p> <p>Arthur St</p> <p>Cycle Super Highway</p> <p>Thames Tideway</p> <p>Aldgate Gytratory</p>	<p>November</p> <p>Moorgate / Princes St S/B</p> <p>Arthur St</p> <p>Cycle Super Highway</p> <p>Thames Tideway</p> <p>Aldgate Gytratory</p>	<p>December</p> <p>Liverpool St Bus station</p> <p>Arthur St</p> <p>King William St S/B</p> <p>Cycle Super Highway</p> <p>Thames Tideway</p> <p>Aldgate Gytratory</p>

Key:

- Crossrail (and 27 Poultry development)
- Bank Northern Line Upgrade works (inc utilities to Bloomberg development)
- City Streetscene Enhancement / Transportation schemes
- Thames Water's Thames Tideway Tunnel (Blackfriars Pier)
- TfL's Cycle Super Highway (likely programme, if agreed)

Appendix 2 – Major Works Map 2015-2016



Appendix 3 - Major Works Maps (2015-2016)

Appendix 3: Major Works Details 2015/16

No.	Location	Activity	Contractor	Traffic Mgt	Impact	Start	Finish	Cert.*	Powers
1	Lower Route & Castle Baynard St	East / West cycle super highway	TfL (Conway AECOM)	Lane restrictions & side road closures	High	May 2015	May 2016	High	TfL / CoL TMOs
2	Blackfriars & Riverside	Thames Tideway (pier & utility relocation)	Thames Water	Slip road closure & lane restrictions	Med	Summer / Q3 2015	2021	Med	TWA / LoPS / PLA
3	Blackfriars / New Bridge St / Ludgate Circus Farringdon St	North / south cycle super highway	TfL (CVU)	Lane restrictions & N/B road closure	High	May 2015	May 2016	High	TfL / CoL TMOs
4	Ludgate Hill	Site reparations / s106 / s278	CoL (JB Riney)	Westbound road closure	High	10 Nov 2014	31 Jan 2015	High	CoL TMOs
5	Cannon St (west)	Gas & power connection	UKPN & NGG for Bloomberg	Eastbound road closure	High	5 Jan 2015	1 Mar 2015	High	CoL TMOs
6	Cannon St (east)	Utility replacement / upgrade	LUL (Northern Line upgrade)	Eastbound road closure	High	5 Jan 2015	1 Mar 2015	Med	TWA
7	King William St	Utility replacement / upgrade	LUL (Northern Line upgrade)	Northbound road closure	High	Mar 2015	May 2015	Med	TWA
8	King William St	Utility replacement / upgrade	LUL (Northern Line upgrade)	Southbound road closure	High	Dec 2015	July 2016	Med	TWA
9	Arthur St	Utility replacement & shaft	LUL (Northern Line upgrade)	Road closure	High	25 Jan 2015	2022	High	CoL / TWA
10 *	Princes St	Utility replacement / upgrade	LUL (Northern Line upgrade)	Southbound road closure	Med	May 2015	July 2015	Med	TWA
10 **	Princes St	Site construction deliveries	Sydell Group	Southbound road closure	Med	28 Nov 2014	Nov 2015+	High	CoL TMOs
11	Moorgate	Tunnel & shaft construction	Crossrail	Southbound road closure	High	28 Nov 2014	28 Nov 2015	High	Crossrail Act
12	Moor Lane	Streetscene enhancement	CoL (JB Riney)	Road closures	Low	Feb 2015	March 2015	Low	CoL TMOs

13	Silk St	Streetscene enhancement	CoL (JB Riney)	Road closures	Low	16 Aug 14	31 Jan 2015	High	CoL TMOs
14	London Wall / Circus Place	Gas governor replacement	National Grid Gas	Likely closure of London Wall	High	May 2015	Sept 2015	Low	CoL TMOs
15	Sun St / Appold St	Site reparations / s106 / s278	CoL (JB Riney)	Westbound road closures	Low	26 Aug 2014	June 2015	High	CoL TMOs
16	Liverpool St	Bus station closure	Crossrail	Relocated stands & bus routes	Med	Q4 2015	Q4 2015	Med	Crossrail Act
17	Austin Friars	Streetscene enhancement	CoL (JB Riney)	Loading in Throgmorton St / Old Broad St	Low	5 Jan 2015	5 June 2015	High	CoL TMOs
18	Minories (north)	Transportation project	CoL (JB Riney)	Road closure	Med	28 July 2014	15 May 2015	High	CoL TMOs
19	Middlesex St / Aldgate High St	Transportation project	CoL (JB Riney)	Lane closures / restricted capacity	Med	2015	2016	Med	CoL TMOs
20	Tower Bridge	Structural repair to deck & resurfacing	CoL	Full Inner Ring Road, C.Charge boundary, ped & river closure	High	Q4 2016	Q4 2016	Med	TfL TMOs, PLA
21	Dukes Pl, Camomile St, London Wall	Major power connections	UKPN	Lane and / or road closures	Med	TBC	TBC	Low	CoL TMOs
22	Tooley St	Station redevelopment	Network Rail	Eastbound road closure	Med	Jan 2016	Dec 2017	Med	TfL TMOs
	Old Bailey to Aldersgate St	Major power connections	UKPN	TBC	TBC	TBC	TBC	Low	CoL TMOs

* Cert = Certainty, or how likely the programme is currently expected to be met

Powers

- TMOs = Traffic Management Orders ie normal highway authority powers to close roads
- LoPS = London Permit Scheme ie the normal way in which utilities provide notification of works to the highway authority
- TWA = Transport and Works Act, granting bespoke powers to the works promoter similar to the Crossrail Act
- PLA = Port of London Authority approvals required