



Crossrail 2 Programme Board

26 August 2016

11.00 – 13.30

Boardroom 14th floor, Windsor House
42 – 50 Victoria Street, London
SW1H 0TL

Item Title

- | | | |
|----|--|------------------------------|
| 1. | <div></div> | Not Relevant to request [NR] |
| 2. | <div></div> | |
| 3. | Case Scheme Option | |
| 4. | Sub Panels update | |
| 5. | Draft Scheme Objectives and strategic alternatives | |
| 6. | <div></div> | |
| 7. | <div></div> | [NR] |
| 8. | <div></div> | |

Future meeting dates

27 September 2016
26 October 2016
23 November 2016
14 December 2016
25 January 2017
21 February 2017
23 March 2017

Crossrail 2 Case scheme option

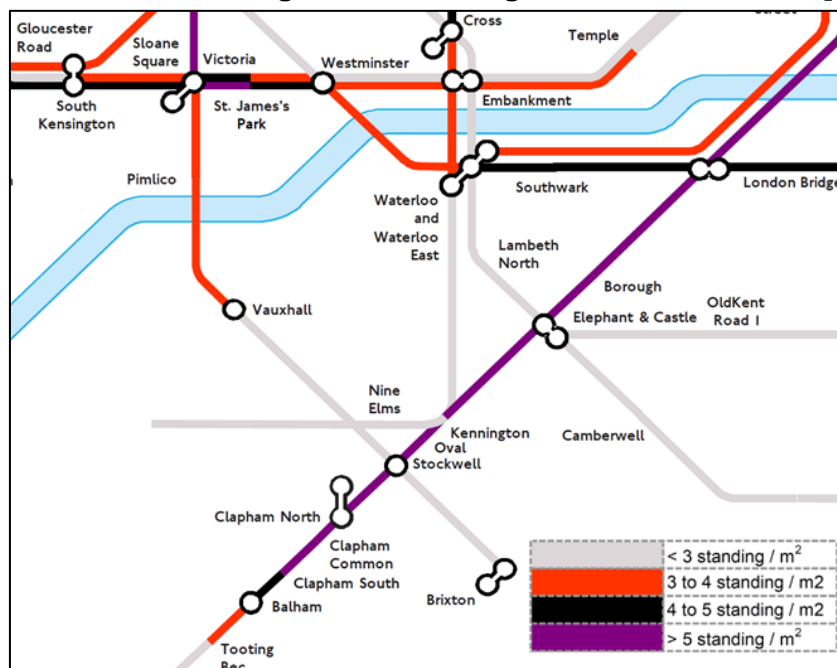
Key Issue 3: A station at Balham or Tooting Broadway - the evidence

Version 1.0, August 2016

Context and purpose of document

- i. The Northern Line is already close to being used to its maximal extent between Morden and Kennington. The most crowded section anywhere of the London Underground is the northbound section, south of Stockwell, in the weekday morning peak. The Clapham stations regularly suffer 'station control' (temporary closure) during the morning peaks.

Figure i: London Underground Crowding, 2031, no Crossrail 2 [extract]



- ii. The Northern Line currently operates 24tph. The proposed upgrade ('NLU2') will deliver 30 trains per hour on the Morden branch by the early 2020s. 36 trains per hour is the maximum possible within the constraints of the stations, track and tunnel. This requires the line to be split into two distinct sets of services via Bank and Charing Cross ('full separation'). Although 'full separation' remains part of TfL's longer term plans, it is unfunded, and modelling shows it to be insufficient to address the challenges that further growth on this corridor create.
- iii. At surface level, the main road above the Northern Line (the A24) is a heavily congested corridor. Highway solutions do not offer a viable alternative capacity solution. Providing relief to this section of the London Underground is therefore a key Crossrail 2 objective.

- iv. The Crossrail 2 scheme safeguarded by the Government in March 2015 contained provision for a new station at Tooting Broadway and interchange with the Northern Line. Subsequent design development work alerted the project team to very challenging ground conditions which would make it difficult and costly to build a station at Tooting Broadway.
- v. As a result, the 2015 Crossrail 2 consultation sought views on a station at Balham as an alternative location to Tooting Broadway. The 'central case' scheme as submitted to the National Infrastructure Commission included a station at Balham rather than Tooting. However, Tooting Broadway has received much stronger support (including from the LB Wandsworth - the local authority) and Balham has faced local opposition, in part owing to the requirement with this option for a ventilation shaft on Wandsworth Common.
- vi. Further to the 2015 consultation and in light of the construction challenges at Tooting Broadway, ground investigations were carried out and four different options for constructing a station at Tooting Broadway have been examined.

12 (4)(d)

Contents

- Section 1 explains the headline findings from the appraisal
- Section 2
- Section 3 provides a summary multi-criteria appraisal of the options

12 (4)(d)

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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12 (4)(d)

[REDACTED]

12 (4)(d)

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[NR]

[REDACTED]

4 Appraising Station Costs and Benefits

4.1 [REDACTED]

[NR]

[REDACTED]

4.2 [REDACTED]

4.3 These stations have been subject to further testing, including variable demand and a multi-criteria assessment. We concluded that the removal of a station between Wimbledon and Clapham (Balham or Tooting Broadway) would lead to a significant reduction in the effectiveness of the scheme, caused in large part by no longer relieving the Northern Line. [REDACTED]

- [REDACTED]

[NR]

- [REDACTED]

- [REDACTED]

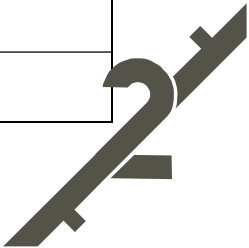
4.4 [REDACTED]

[NR]

4.5 [REDACTED]

[NR]

| | |
|------------|------------|
| [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] |
| | [REDACTED] |
| | [REDACTED] |
| | [REDACTED] |



5.3 [REDACTED]

5.3.1 [REDACTED]

[NR]

5.3.2 [REDACTED]

5.4 [REDACTED]

5.4.1 [REDACTED]

[NR]

[REDACTED]

[NR]

5.5 Transformational alternatives

5.5.1 The workshop proposed three broad concepts for transformational alternatives:

- a. [REDACTED];
- b. [REDACTED]
- c. An eastern alignment with a portal at Tooting and an alignment towards the City.

[NR]





Crossrail 2 Programme Board

23 November 2016

15.30 – 17.30

Boardroom 14th floor, Windsor House
42 – 50 Victoria Street, London
SW1H 0TL

| Item | Title | Time |
|------|---|---------|
| | 1. [REDACTED] | |
| [NR] | 2. [REDACTED] | 5 mins |
| | 3. [REDACTED] | 5 mins |
| | 4. Update on SOBC submission: Strategic case and options assessment | 30 mins |
| | 5. [REDACTED] | 15 mins |
| | 6. [REDACTED] | 10 mins |
| | 7. [REDACTED] | 10 mins |
| [NR] | 8. [REDACTED] | 10 mins |
| | 9. [REDACTED] | 5mins |

Next meeting:

14 December 2016

Do Minimum Scenarios

[REDACTED]
[REDACTED] from across TfL, Network Rail, and the Department for Transport. They are the:

- a. [REDACTED]
[REDACTED]
[REDACTED]
- b. [REDACTED]
[REDACTED]
[REDACTED].
- c. [REDACTED]
[REDACTED]
[REDACTED].

[NR]

Crossrail 2 Case Scheme Option (CSO)

2.123 The Crossrail 2 scheme being appraised differs from the Central Case scheme presented in the 2015 business case. It has evolved in response to further design development work, the 2015 public consultation, and challenges made by the National Infrastructure Commission (NIC), and Government. Crossrail 2 has evolved over a number of years in response to the challenges and opportunities identified in London, a chart illustrating this is set out in [Appendix x](#).

- d. **Crossrail 2 CSO:** The Crossrail 2 scheme that has been costed and appraised as part of the 2017 Strategic Outline Business Case. [REDACTED]
[REDACTED]
[REDACTED]. These key decisions were the subject of detailed analysis presented to Government and the Crossrail 2 Programme Board in Autumn 2016. The evidence supporting these decisions is summarised in the Options Assessment Report, which is a supporting document to the Strategic Case.

[NR]

Appendix A How this SOBC submission responds to the NIC's March 2016 recommendations

| National Infrastructure Commission Recommendation, March 2016 | How does this business case deal with the issue ? |
|---|---|
| [NR] [REDACTED] | [REDACTED] |
| [NR] [REDACTED] | [REDACTED] |
| [REDACTED] | <p>> [REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> |
| <p>Recommendation 4: In developing the business case, it is crucial that TfL and DfT identify clear proposals to maximise its benefits and increase deliverability. The costs of Crossrail 2 are high and therefore every opportunity should be taken to improve its affordability.</p> <p>12 (4)(d)</p> | <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>> This business case assesses and presents the findings Crossrail 2 'Case Scheme Option', which is different from the Central Case scheme presented in the 2015 business case. [REDACTED], [REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>> These key decisions were the subject of detailed analysis presented to Government and the Crossrail 2 Programme Board in Autumn 2016.</p> <p>> The evidence supporting these decisions is summarised in the Options Assessment Report, which is a supporting document to the Strategic Case.</p> |
| [NR] [REDACTED] | [REDACTED] |
| [NR] [REDACTED] | [REDACTED] |
| [NR] [REDACTED] | [REDACTED] |

These two options were presented for public consultation in 2013, with the Regional scheme receiving particularly strong support

4.29

[NR]

Summary

4.30

4.31

[NR]

4.32

4.33 In central and inner London, stations were proposed

and

Tooting Broadway (a key interchange providing relief to the Northern line).

5.17

[NR]

5.18 As summarised in the Crossrail 2 Comprehensive Route Options Report (2015), the route options under assessment at this stage were as follows:

[NR]

Route Changes:

12 (4)(d)

[NR]

[NR]

The route variant analysis led to a number of proposed changes to the scheme

5.23 Following this tranche of optioneering, a number of changes were made to the scheme. These are stated below:

- Balham station was taken forward as the preferred station between Clapham Junction and Wimbledon. Despite the initial poorer performance, further engineering study concluded Tooting Broadway to represent significant difficulties and additional cost. Whilst the transport and social benefits would be reduced by serving Balham, the change was considered to be marginal overall, particularly given the larger construction impact at Tooting.

[NR]

- [REDACTED]

- [REDACTED]

[NR]

- [REDACTED]

Other options relevant to the scheme's business case also continued to be considered during 2015

5.24 Three additional variants were considered within this tranche of optioneering work. These are stated below:

- [REDACTED]

[NR]

- Interchange enhancement tests were undertaken at the following;

[NR]

- [REDACTED]
- Tooting Broadway (with the Northern line)
- [REDACTED]

[NR]

- [REDACTED]

5.25 These tests were not run through the MCAF at this stage. [REDACTED]

[REDACTED]

[NR]

- [REDACTED]
- [REDACTED]
- [REDACTED]

Strategic Outline Business Case (SOBC)

The analysis work conducted in 2015 informed the initial SOBC submitted to government, laying out the scheme's benefits

5.26 The results of the route variant analysis in 2015 were used to provide inputs to an SOBC submission to Government in the summer of 2015. This included forecasts with Crossrail 2 for 2031 and 2041 in comparison with a Do Minimum scenario. A wide range of TfL modelling tools were used in this analysis (as outlined in the Crossrail 2 Forecasting Report July 2015).

[REDACTED]

- [REDACTED]

[NR]

- [REDACTED]
- [REDACTED]

[REDACTED]

[NR]

5.31 There was a strong response to the consultation, with 20,917 responses from individuals and stakeholders. Particularly relevant responses included:

[NR]

- [REDACTED]
- 913 supporting the principle of Balham over Tooting Broadway, whilst 8,709 presented issues and concerns.

[NR]

5.32 The response to these consultation comments is discussed in Chapter 6.

[NR]

[REDACTED]

[NR]

[REDACTED]

6.7 The Crossrail 2 assumptions were also revised with three main changes to the alignment:

[NR]

- [REDACTED]
- Align the route via Balham rather than Tooting Broadway; and
- [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[NR]

[REDACTED]

[REDACTED]

[NR]

[REDACTED]

[NR]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[NR]

[REDACTED]

[REDACTED]

[REDACTED]

12 (4)(d)

[REDACTED]

7.8 The Crossrail 2 scheme safeguarded by the Government in March 2015 contained provision for a new station at Tooting Broadway and interchange with the

Northern Line. Subsequent design development work alerted the project team to very challenging ground conditions which would make it difficult and costly to build a station at Tooting Broadway.

7.9 As a result, the 2015 Crossrail 2 consultation sought views on a station at Balham as an alternative location to Tooting Broadway. Tooting Broadway received much stronger support (including from the LB Wandsworth - the local authority) while Balham faced local opposition, in part owing to the requirement with this option for a ventilation shaft on Wandsworth Common.

7.10

12 (4)(d)

[NR]

[REDACTED]

[REDACTED]

[REDACTED]

[NR]

[REDACTED]

[REDACTED]

[REDACTED]

12 (4)(d)

[REDACTED]

7.21

12 (4)(d)

[REDACTED]

7.22

12 (4)(d)

7.23

12 (4)(d)

7.24

12 (4)(d)

[NR]

[NR]

Conclusion – The resultant scheme is the scheme that is tested within this 2017 SOBC – the Crossrail 2 Case Scheme Option (CSO)

7.28 Following the above assessments and detailed optioneering exercises, the preferred alignment was agreed by the Programme Board in summer 2016.

[NR]

The Board also agreed

12 (4)(d)

disbenefits of a phased delivery were accepted by the Board and the decision was made to proceed with delivery in a single phase.

[NR]

3. Capital costs and risks

This chapter provides an overview and breakdown of the forecast capital costs in respect of the 'Case Scheme Option' (CSO), drawing on a more comprehensive [Cost and Risk Report]. It also sets out a possible approach to the management of construction risks, [which is covered in more detail in the Commercial Case].

Summary of the Case Scheme Option

The CSO was endorsed by the sponsors following a recommendation made by the Crossrail 2 Programme Board in August 2016. The CSO includes a number of scope changes relative to the 2015 SOBC scheme which will be subject to public consultation following the SOBC. In addition, designs have been further developed.

The main scope changes since the 2015 SOBC are:

Figure [4]: Key changes between 2015 SOBC and 2016 SOBC project scope

| | 2015 SOBC | 2016 SOBC CSO |
|-----------|------------|---------------|
| [NR] | [REDACTED] | [REDACTED] |
| 12 (4)(d) | [REDACTED] | [REDACTED] |
| [NR] | [REDACTED] | [REDACTED] |
| [NR] | [REDACTED] | [REDACTED] |
| | [REDACTED] | [REDACTED] |

Crossrail 2

TfL Restricted

- [REDACTED]
- [REDACTED]

12 (4)(d)

Outside the COS (i.e. the ‘on-network’ stations), land and property receipts have

[NR]

Key assumptions and risks

| | | |
|------------|------------|------------|
| [REDACTED] | | [NR] |
| | | |
| [REDACTED] | [REDACTED] | [REDACTED] |
| | [REDACTED] | [REDACTED] |
| | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] |
| | [REDACTED] | [REDACTED] |
| | [REDACTED] | [REDACTED] |
| | [REDACTED] | [REDACTED] |
| | [REDACTED] | [REDACTED] |
| | [REDACTED] | [REDACTED] |
| | [REDACTED] | [REDACTED] |
| | [REDACTED] | [REDACTED] |



Crossrail 2 Programme Board

25 January 2017 Board

11.45 – 13.45

Briefing note for Fiona & David prior to Board

[NR]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[NR]

- [REDACTED]
- [REDACTED]
[REDACTED]
[REDACTED]
- [REDACTED]
[REDACTED]
[REDACTED]

[NR]

| | |
|--------------------------|---|
| Case scheme option | The Crossrail 2 option costed and appraised as part of this Strategic Outline Business Case. [REDACTED] [REDACTED] [REDACTED] [REDACTED] |
| [REDACTED] [REDACTED] | [REDACTED] [REDACTED] [REDACTED] |
| [REDACTED] [REDACTED] | [REDACTED] [REDACTED] |
| [REDACTED] | [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] |
| [REDACTED] | [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] |

[NR]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
- [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[NR]

[REDACTED]

Development of the Regional Scheme

5.11 Further analysis and consultation in 2014 identified some efficiencies and opportunities to improve the Regional scheme. This assessment process coupled with public consultation resulted in the Crossrail 2 scheme being identified as a potential solution in 2014.

5.12 Detailed route variant analysis in 2015 assessed a wide range of potential alternatives. Aspects of the route variant analysis that were taken forward included

[REDACTED]
[REDACTED]; and introducing options to serve [REDACTED] and Balham (rather than Tooting).

[REDACTED]

[NR]

[REDACTED]

[NR]

Delivery Phase Scope

2.13 The scope of Crossrail 2 has evolved in response to the maturing Business Case, stakeholder engagement and consultation between 2014 and 2016.

2.14 The scope was refined further in 2016 in response to the NIC's report and the Government's response as well as further design feasibility work by both TfL and Network Rail.

2.15 The scope of the transport scheme underpinning the update of the SOBC is described as the Case Scheme Option. In broad terms the scope comprises:

- [NR]

12 (4)(d)

[NR]

| | | | |
|---|---|--|---|
| | <div>████████████████████</div> <div>████████████████████████████</div> <div>██████████████████</div> | <div>████████</div> <div>██████████████</div> <div>██████████████</div> <div>████</div> | |
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| <div>LB</div> <div>Wandsworth</div> | <div>The Wandsworth Core Strategy supports Crossrail 2 and its route through key regeneration areas including Clapham Junction and Tooting Broadway.</div> | <div>Local Plan: Employment and industrial room review: July 2018</div> <div>Wandsworth local plan: adopted March 2016</div> | <div>Wandsworth Local Plan: Core Strategy (March 2016)</div> |
| <div>██████</div> | <div>██████████████████████████████</div> <div>██████████████████████████████</div> <div>██████████████████████████████</div> <div>██████████████████████████████</div> <div>██████████████████████████████</div> <div>██████████████████████████████</div> <div>██████████████████████████████</div> <div>██████████████</div> | <div>██████████████</div> <div>██████████████</div> <div>████████</div> <div>██████████████████</div> <div>██████████</div> | <div>██████████████</div> <div>██████████████████</div> <div>██████████████████████████████</div> |
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Crossrail 2 Programme Board

22 February 2017

14.00 – 17.00

District Room, 7th floor
55 Broadway, London, SW1H 0BD

| Item | Title |
|------|-------|
|------|-------|

| | | |
|---|------------|------|
| ■ | [REDACTED] | [NR] |
|---|------------|------|

| | | |
|---|------------|--|
| ■ | [REDACTED] | |
|---|------------|--|

3. Progress and financial update
4. Update on Strategic Alternatives
5. Endorse full SOBC for submission to BICC
6. AOB

Next meeting: 30 March 2017

Delivery Phase Scope

3.13 The scope of Crossrail 2 has evolved in response to the maturing Business Case, stakeholder engagement and consultation between 2013 and 2016.

3.14 The scope was refined further in 2016 in response to the NIC's report and the Government's response as well as further design feasibility work by both TfL and Network Rail.

3.15 The scope of the transport scheme underpinning the update of the SOBC is described as the Case Scheme Option. In broad terms the scope comprises:

- [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED];
 - 9 New major underground stations enabling interchange with existing public transport at:
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
- [NR]
- [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
- [NR]

[NR]

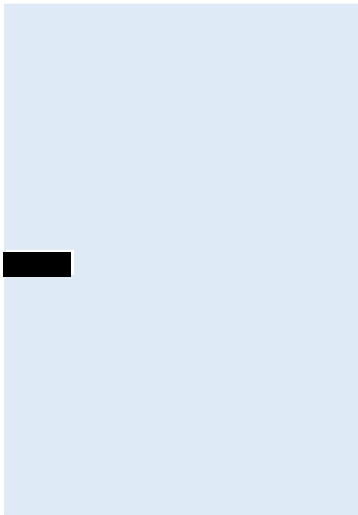
12 (4)(d)

[NR]

[NR]

[NR]

[REDACTED]



[REDACTED]

12 (4)(d)

[REDACTED]

[REDACTED]

[REDACTED]

[NR]

[REDACTED]

- [REDACTED]

- [REDACTED]

[NR]

[REDACTED]

12 (4)(d)

[REDACTED]

[REDACTED]

[REDACTED]

[NR]

[REDACTED]

[REDACTED]

CONFIDENTIAL - NOT FOR FORWARD CIRCULATION

1.12 Since the 2015 SOBC and 2016 NIC submission, the scheme has been revised and value-engineered. The resulting 'Case Scheme Option' (CSO) was endorsed by the Crossrail 2 Programme Board in August 2016 for the purpose of this SOBC. (The separate Options Assessment Report summarises the variants assessed as part of this process.) The following changes have been made which impact costs:

■ [REDACTED]
[REDACTED] 12 (4)(d)

■ [REDACTED]
[REDACTED]

[NR]

■ [REDACTED]
[REDACTED]
[REDACTED]

■ [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]

[NR]

[REDACTED]

| [REDACTED] | [REDACTED] | | [REDACTED] | | [REDACTED] |
|------------|------------|------------|------------|------------|------------|
| | [REDACTED] | | [REDACTED] | | |
| [REDACTED] | | [REDACTED] | | [REDACTED] | [REDACTED] |
| [REDACTED] | | [REDACTED] | | [REDACTED] | [REDACTED] |
| [REDACTED] | | [REDACTED] | | [REDACTED] | [REDACTED] |

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[NR]

[REDACTED]
[REDACTED]

[NR]

[REDACTED]

- [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
- [REDACTED]
[REDACTED]
[REDACTED]

Summary of the Crossrail 2 Case Scheme Option

- 3.3 The CSO was endorsed as the central scheme for the purposes of the SOBC following a recommendation made by the Crossrail 2 Programme Board in August 2016. In addition to designs being further developed where appropriate, the CSO includes a number of scope changes relative to the 2015 SOBC and 2016 NIC submission, which will be subject to public consultation following the SOBC being approved:

Figure 15: Key changes between 2015 SOBC, 2016 NIC submission and 2017 SOBC project scope

| | 2015 SOBC and 2016 NIC | 2017 SOBC CSO |
|----------------------|--------------------------|--------------------------|
| [REDACTED] | [REDACTED] [REDACTED] | [REDACTED] [REDACTED] |
| [REDACTED] 12 (4)(d) | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] |

[NR]

- 3.4 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

CONFIDENTIAL - NOT FOR FORWARD CIRCULATION

[NR]

[REDACTED]

[REDACTED]

[NR]

[REDACTED]

4.27

12 (4)(d)

[NR]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Crossrail 2 List of Features

02 December 2016

Adjustments

[illegible]

Crossrail 2 Programme Board
30 June 2017

13.00 – 15.00

TfL Offices, 14th floor Boardroom, Windsor House

| Item | Title | |
|---|---|------|
|  |  | |
|  |  | |
|  |  | [NR] |
|  |  | |
| 5. | Phasing & staging update | |
|  |  | |
|  |  | |
|  |  | |
|  |  | |

Next meeting: 27 July 2017

DRAM Taskforce

3.3 [REDACTED]

[NR]

3.4 [REDACTED]

3.5 [REDACTED]

12 (4)(d)

This analysis is expected to be discussed by the Taskforce in early July.

[REDACTED]

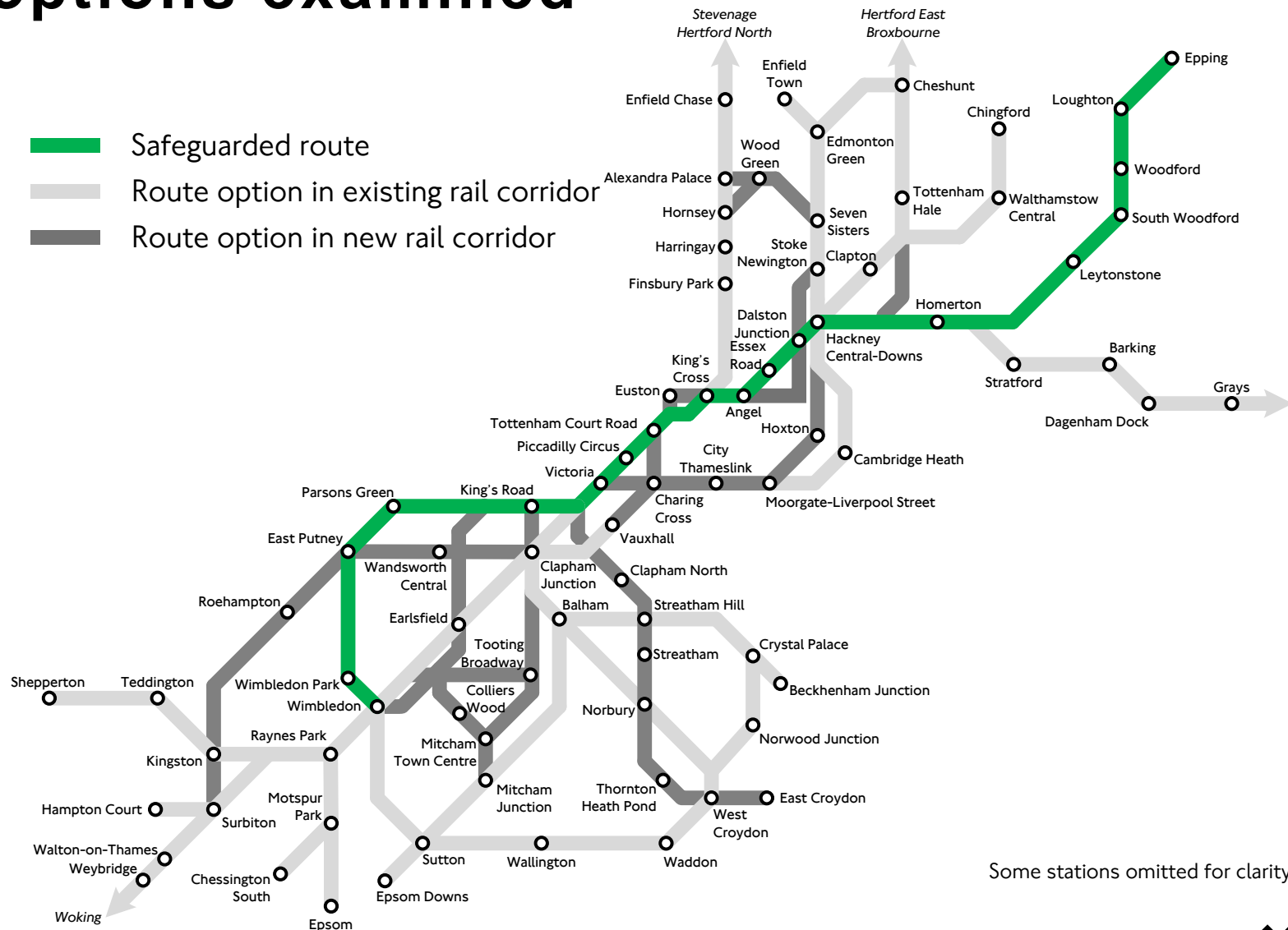
3.6 [REDACTED]

[NR]

4 [REDACTED]

4.1 [REDACTED]

2012 – 2014: A 'long list' of Crossrail 2 options examined





[Crossrail 2 factsheets and leaflets](#)

[NR]

General factsheets

[REDACTED]

Central core of route

[REDACTED]

[Factsheet S12B: Tooting and Balham clarification information](#) (to be read in conjunction with Factsheet S12)

[REDACTED]

[REDACTED]

- [REDACTED]
 - [REDACTED]
 - [REDACTED]
- [REDACTED]
- [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

2.3.7 2015 Route Variant Work and Outline Business Case

In 2015 further optioneering was undertaken on the safeguarded route to confirm the Crossrail 2 examining further route options. The work examined:

- Analysis of potential route variations such as to serve Balham rather than Tooting Broadway;
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

These are outlined in chapter 4.

⁹ Steer Davies Gleave, (2014) *Crossrail 2 Consultation Report*

[NR]

Id.

[NR]

13

3.5.1 Option A: Metro Option

[NR]

[REDACTED]

The Metro option (Figure 3.4) identified shared most of its core route with the 2008 safeguarded alignment, but was extended at its northern and southern ends, [REDACTED]

[NR]

[REDACTED] The route was initially developed between Clapham Junction and Alexandra Palace, but the additional benefits of serving Tooting Broadway and Wimbledon were recognised and the route was extended southwards.

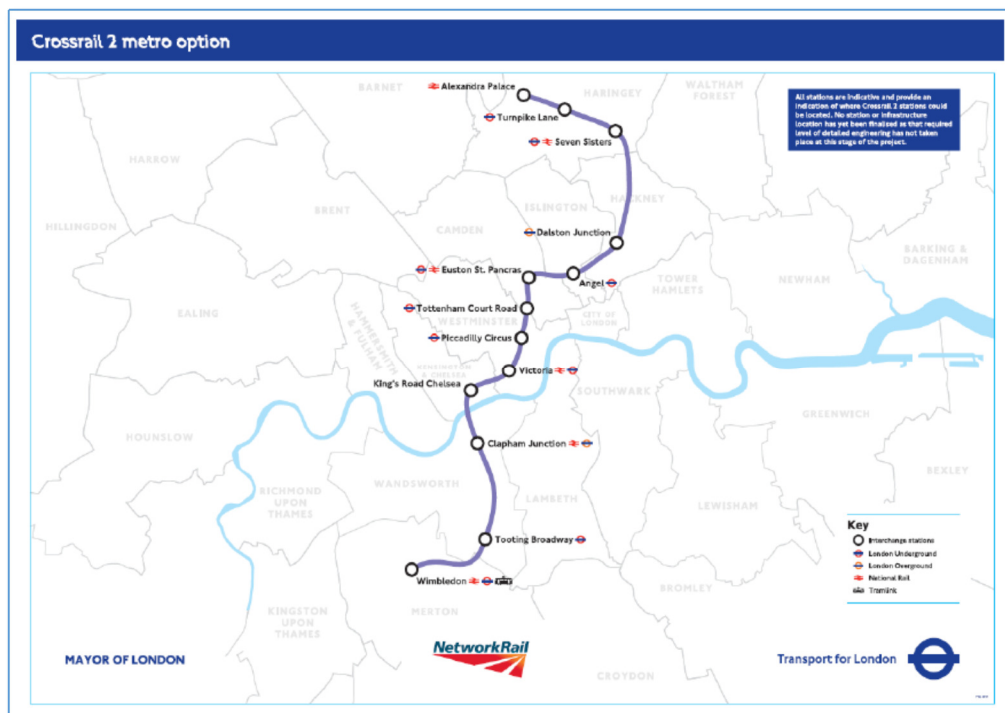


Figure 3.4: 2011 Option A- Metro Scheme

[REDACTED]

[NR]

[NR]

[NR]

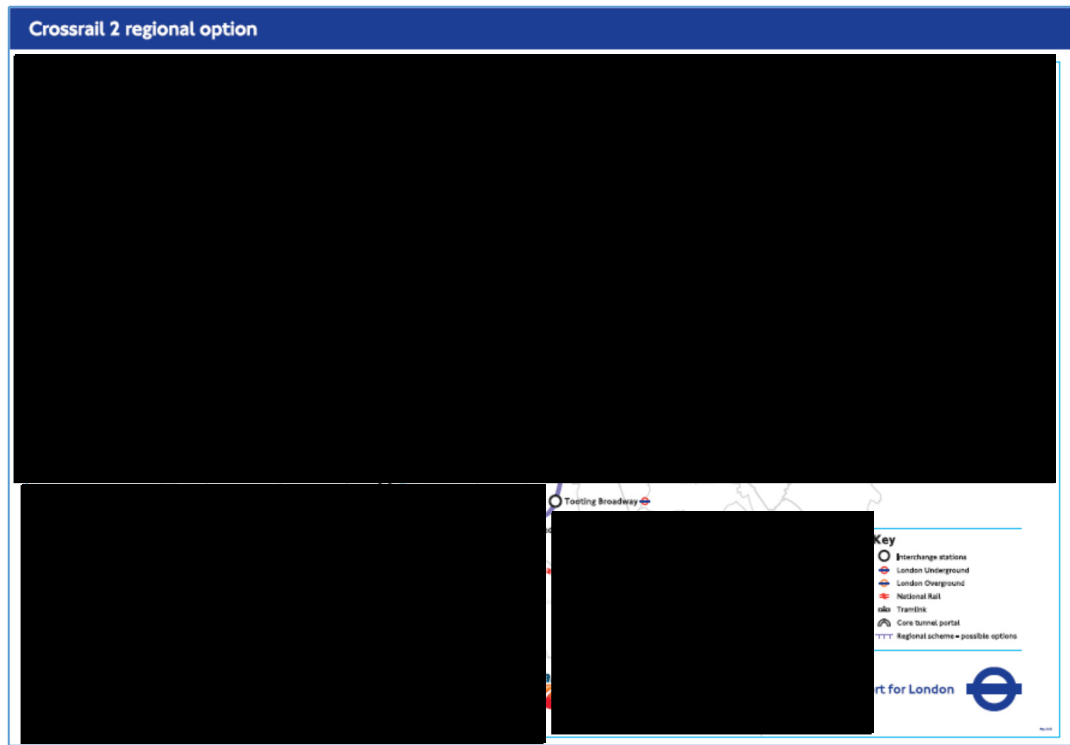


Figure 3.5: 2011: Option B- Regional Scheme

The Regional option follows largely the same central corridor as the Metro option but would connect to existing national rail lines to the north and south west of London. The southern end of the route could potentially connect the existing SWML slow lines to a new underground station at Wimbledon. The twin bore tunnels would then proceed on a new alignment through stations at Tooting Broadway, [REDACTED]

[NR]

[REDACTED]

3.5.3 Option C - The Safeguarded Route

The safeguarded route that was protected in 1991 and 2008 had proposed to take over part of the Central line. [REDACTED]

[REDACTED]

[REDACTED] It was also proposed that the route safeguarded in 1991 and 2008 would take over the District line from Parsons Green to Wimbledon. This was found to relieve some crowding on this stretch of the line but does not address the more significant crowding challenges on National Rail lines from Wimbledon or the Northern line from Tooting Broadway.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

4.4 Route Variants

In developing the business case for the Crossrail 2 scheme a series of 'Route Variants' tests have been undertaken. The 2015 optioneering has examined variations around the main scheme (see figure 4.3) including

- Changes of stations served
- Changes of route;
- Changes to the service operation, including branches served

The 'Route Variants' examined include:

- [REDACTED]
- [REDACTED]
[REDACTED]
[REDACTED]
- [NR] [REDACTED]
[REDACTED]
[REDACTED]
- [REDACTED]
[REDACTED]
- **Route Changes**
- [REDACTED]
[REDACTED]
[REDACTED]
- [NR] [REDACTED]
- Balham- This assumed Crossrail 2 is routed via Balham rather than Tooting Broadway providing interchange with the Northern Line and network rail services at Balham
- [REDACTED]
[REDACTED]
- [REDACTED]
[REDACTED]
[REDACTED]
- **Station Enhancement-**
- [REDACTED]
[REDACTED]
[REDACTED]
- [REDACTED]
- [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
- [NR] [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
- [REDACTED]
[REDACTED]
[REDACTED]

[NR]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

A Multi Criteria Appraisal Framework (MCAF) has been used to compare the results of these variations against the Crossrail 2 Regional Scheme. The MCAF draws upon the various workstreams undertaken by TfL in 2015. Model runs using Railplan were undertaken to provide comparative indicators of network performance. Full details of the MCAF are provided in the Comprehensive Route Options report¹². A summary of the findings is given below

[NR]

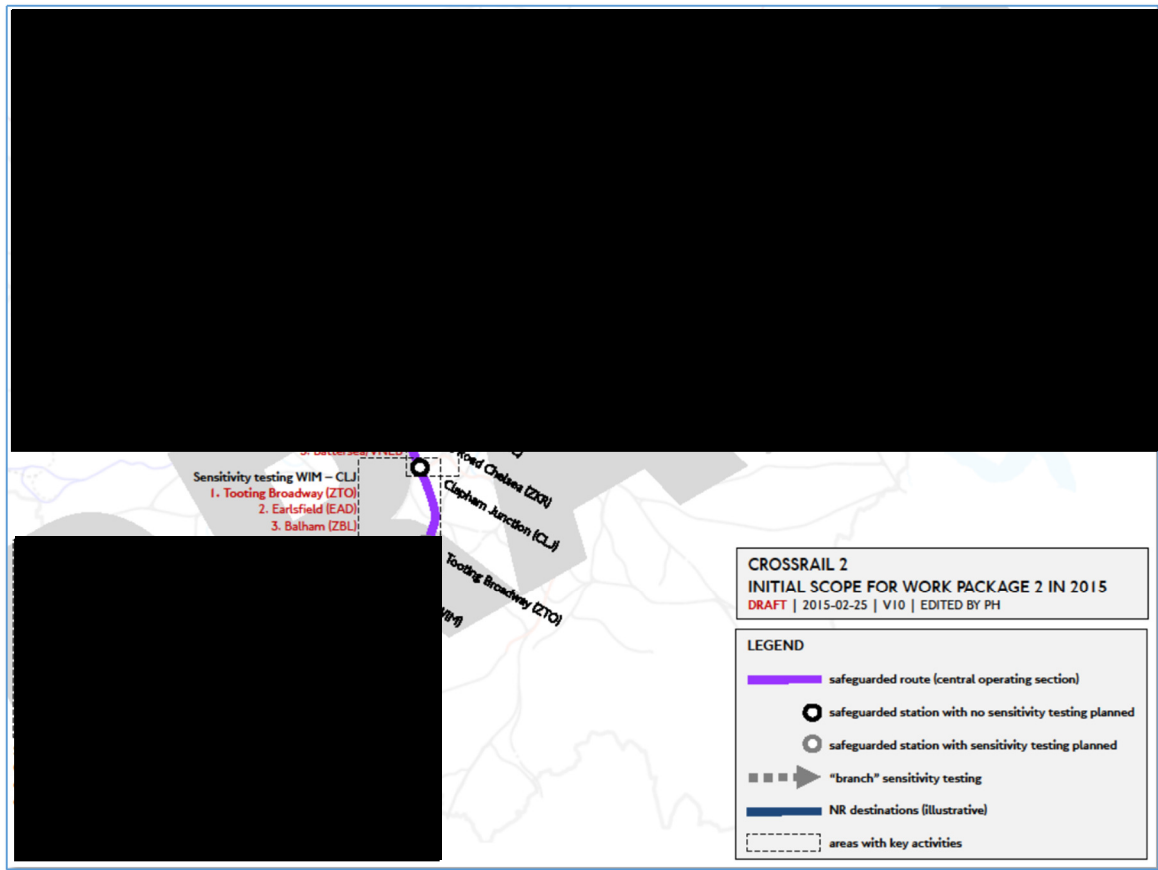


Figure 4.3: Route Variant Tests

¹² CAST (2015) Comprehensive Route Options Report

Safeguarding update

Crossrail 2 Programme Board 5 October 2017



Safeguarding Options and risks

[NR]

| | Option | Risks |
|---|--|--|
| ■ | <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[NR]</p> | <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> |
| ■ | <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[NR]</p> | <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> |
| 3 | <p>Stand-alone safeguarding consultation in January 2018 (limited to LPAs) ahead of a route-wide consultation that reflects the CSO scheme option.</p> | <p>Helps safeguard the scheme but risk of criticism - decisions being made ahead of proper consideration / route wide consultation - reputational risk and trust issues for TfL / Network Rail, DfT and Crossrail2 arising from significant changes [REDACTED]</p> <p>[REDACTED] 12 (4)(d)</p> |
| ■ | <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[NR]</p> | <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> |
| ■ | <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[NR]</p> | <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> |

Paul Robinson

From: Claire Hamilton
Sent: 27 October 2017 14:34
To: 'Mayoral Correspondence'; 'Kinnear Sarah'; [REDACTED]
Cc: TT Correspondence; [REDACTED]
Subject: RE: URGENT: VIP Draft Request MGLA161017-0518 [REDACTED] - Re-draft request

Copying to [REDACTED]s directly – might be best for Sarah and [REDACTED] to discuss what can be included?

From: Mayoral Correspondence [mailto:SMBMayoralCorrespond@tfl.gov.uk]
Sent: 27 October 2017 14:29
To: Kinnear Sarah <[REDACTED]@tfl.gov.uk>; [REDACTED]@tfl.gov.uk>; Claire Hamilton <[REDACTED]@london.gov.uk>
Cc: TT Correspondence <TTCorrespondence@london.gov.uk>
Subject: RE: URGENT: VIP Draft Request MGLA161017-0518 [REDACTED] - Re-draft request

Thanks Sarah

Claire – please see Sarah's email below, please let us know how you want to take this forward?

Thanks

[REDACTED]

From: Kinnear Sarah
Sent: 27 October 2017 14:12
To: Mayoral Correspondence; [REDACTED]
Subject: RE: URGENT: VIP Draft Request MGLA161017-0518 [REDACTED] - Re-draft request

Hi [REDACTED]

This is fine with me.

I notice there are a number of questions. Its not possible for us to include any answers to these in the letter. We are not sharing any of our plans or proposals with the public at the moment and cannot do so until we have some kind of announcement of support from the SoS. I would be happy to arrange a briefing for the transport team in GLA if they want us to talk through this with them but this would have to be a private briefing for their info/understanding only and not for sharing with [REDACTED] (or others!).

It is also not possible for us to say when we will go to consultation. Again, we are dependent on the SoS making a decision/announcement.

Thanks

SK

From: Mayoral Correspondence
Sent: 26 October 2017 14:44
To: [REDACTED]
Cc: Kinnear Sarah
Subject: URGENT: VIP Draft Request MGLA161017-0518 [REDACTED] - Re-draft request
Importance: High

Hi Clare

Please see the changes from City Hall in the draft to [REDACTED] – can you please confirm if you are happy with these?

Thanks

[REDACTED]

From: TT Correspondence [<mailto:TTCorrespondence@london.gov.uk>]
Sent: 26 October 2017 14:02
To: Mayoral Correspondence
Subject: FW: VIP Draft Request MGLA161017-0518 [REDACTED] - Re-draft request

Afternoon

There are a few comments from Transport Team in the attached.

Appreciate if you can confirm you are happy with the tracked changes.

Also, just to let you know that we've been asked to respond to a petition on Change.org about Tooting Market (https://www.change.org/p/tooting-market-management-save-tooting-market-don-t-allow-crossrail-2-to-compulsory-purchase-any-of-tooting-market?source_location=topic_page) so that will be coming your way shortly.

Many thanks

[REDACTED]

From: Mayoral Correspondence [<mailto:SMBMayoralCorrespond@tfl.gov.uk>]
Sent: 24 October 2017 11:28
To: TT Correspondence <TTCorrespondence@london.gov.uk>
Subject: FW: VIP Draft Request MGLA161017-0518 [REDACTED]

Please see suggested response.

From: [REDACTED] [@london.gov.uk](mailto:[REDACTED]@london.gov.uk)
Sent: 16 October 2017 11:02
To: Mayoral Correspondence
Subject: VIP Draft Request MGLA161017-0518 [REDACTED]

Hi [REDACTED]

For Val's signature please.

Thanks

[REDACTED]

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Paul Robinson

From: Mayoral Correspondence <SMBMayoralCorrespond@tfl.gov.uk>
Sent: 02 November 2017 17:17
To: TT Correspondence
Subject: FW: MGLA200917-7885 Change.org petition Save Tooting Market
Attachments: Case Summary.pdf; Memo Text.htm; Notepad.txt; MGLA200917-7885 Change.org petition Save Tooting Market.doc

Please see suggested response.

From: [REDACTED]@london.gov.uk]
Sent: 30 October 2017 10:25
To: Mayoral Correspondence
Subject: MGLA200917-7885 Change.org petition Save Tooting Market

Hi [REDACTED]

Petition to respond to please.

Thanks

[REDACTED]

#LondonIsOpen

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In Text

Dear Friends of Tooting Market,

After meeting with the Cross Rail 2 Team at Transport for London (TfL) on September 15th 2016, the Tooting Market owner and market manager had been advised by TfL that the current proposal for the Cross Rail 2 ventilation shaft at Tooting Broadway would require the compulsory purchase for at least 65% of Tooting Market. The current design would force the closure of Tooting Market as the remaining approx. 35% would not be feasible to operate as a market.

Further, once the works would be completed, the land where the market was positioned, would be sold off to developers for a new commercial/residential scheme.

Any such proposal for bringing Cross Rail 2 to Tooting Broadway would mean the end of an historic nearly century old Tooting Market, which hosts over 60 unique businesses and over 100 staff, as well as playing a major role in the local community for events, pop ups, charities, cinema nights and much more.

Therefore, we at Tooting Market, are asking the Mayor of London (Sadiq Khan), the Secretary for Transport (Chris Grayling) & the Head of Cross Rail 2 (Michele Dix), to ensure that any proposal to bring Cross Rail 2 to Tooting Broadway, will guarantee the safeguarding for all of Tooting Market in it's entirety, even if it means to move the station to another site.

Please help us #SaveTootingMarket by signing the petition and sharing it with others.

Thank you.

Tooting Market Management

This petition will be delivered to:
Mayor of London

Sadiq Khan

Dear Friends of Tooting Market,

After meeting with the Cross Rail 2 Team at Transport for London (TFL) on September 15th 2016, the Tooting Market owner and market manager had been advised by TFL that the current proposal for the Cross Rail 2 ventilation shaft at Tooting Broadway would require the compulsory purchase for at least 65% of Tooting Market. The current design would force the closure of Tooting Market as the remaining approx. 35% would not be feasible to operate as a market.

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Please help us #SaveTootingMarket by signing the petition and sharing it with others.

Thank you.

Tooting Market Management

This petition will be delivered to:
Mayor of London

Sadiq Khan

20 Sep 2017 11:45 [REDACTED]
To discuss with MPO and [REDACTED] weekly

09 Oct 2017 10:11 [REDACTED]
<http://bit.ly/2fVNG2a>

19 Oct 2017 12:07 [REDACTED]
has written in previously, political elements to petition, advised by [REDACTED] not to respond

Change.org petition – Change.org petition Save
Tooting Market

MGLA200917-7885

Dear Petitioner

Thank you for the petition submitted on the change.org website setting out your concerns about the potential impacts on Tooting Market, should a Crossrail 2 station serve Tooting Broadway instead of Balham.

As a local resident and your former MP for Tooting, I recognise that Tooting Market is an important hub, providing employment for small business owners as well as community facilities in the town centre.

It is important to note that at this point, no final decisions have been made on whether Crossrail 2 comes to Balham or Tooting Broadway. However, while the decision is yet to be made, a station at Tooting Broadway has long been a part of plans for Crossrail 2; it would provide substantial additional capacity and congestion relief to the existing Northern line station and services. It would also support regeneration, growth and development of the local area, and improve access to St George's Hospital.

Since 2015, extensive work has been done to look at how a station could be built at Tooting Broadway. As a result, Transport for London (TfL) now has a better understanding of how it would manage the difficult ground conditions in the area and the construction method (i.e ground freezing) that it would use in order to construct the station safely. As you are aware, this technique means that larger worksites would be required than was previously anticipated.

When considering the construction of a station at Tooting Broadway, one of the worksites TfL has considered includes potentially using an area towards the rear of Tooting Market. This area amounts to less than half of the overall market space. Over the last few months, TfL has been assessing a number of alternative worksites to see if the potential impact on the market could be avoided or further minimised.

However, there are a number of constraints including the need for a station to interchange with the Northern line; for worksites to be located close to the tunnel alignment; and to maintain traffic flow on Tooting High Street.

TfL's approach would also be to avoid both listed buildings and residential properties where possible, an approach taken in other schemes such as Crossrail 1. The area around Tooting Broadway is densely populated, with a number of residential properties and listed buildings. At this stage, all alternative station alignments have been shown to have significantly greater impact on residential properties – i.e local people's homes.

I have asked TfL to continue assessing options that could reduce the impact on the market, and to keep you informed on the progress and outcomes of this work. I also remain committed to consulting on revised proposals for the railway at the earliest possible time and encourage those with an interest in Tooting Market to have their say on TfL's proposals by participating in the formal public consultation process.

Yours sincerely

Public Liaison Officer
Greater London Authority

Change.org petition text:

Title of petition:

Link to petition:

Petition to

- **Mayor of London, Sadiq Khan**

Text:

Dear Friends of Tooting Market,

After meeting with the Cross Rail 2 Team at Transport for London (TFL) on September 15th 2016, the Tooting Market owner and market manager had been advised by TFL that the current proposal for the Cross Rail 2 ventilation shaft at Tooting Broadway would require the compulsory purchase for at least 65% of Tooting Market. The current design would force the closure of Tooting Market as the remaining approx. 35% would not be feasible to operate as a market.

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Therefore, we at Tooting Market, are asking the Mayor of London (Sadiq Khan), the Secretary for Transport (Chris Grayling) & the Head of Cross Rail 2 (Michele Dix), to ensure that any proposal to bring Cross Rail 2 to Tooting Broadway, will guarantee the safeguarding for all of Tooting Market in it's entirety, even if it means to move the station to another site.

Please help us #SaveTootingMarket by signing the petition and sharing it with others.

Thank you.

Tooting Market Management

ADVICE NOTES

| | |
|--|--|
| Drafted By: XXXX Or (delete either option as appropriate) Drafted by: XXXX obo XXXX (enter name of team or officer) | Clare Bradley |
| Organisation / Team: | Crossrail 2 |
| Cleared by (Line Manager): This includes approval of text used in ' as appropriate ' section - <i>commending their work e.g. relevance/importance/value to community/City/society xxxxx</i> | Michele Dix |
| *Cleared by (Sarah Gibson - Government Relations Manager): *NB: If correspondence to a Government/Shadow Minister, Council Leader, Council Chief Executive or Borough Mayor it must be cleared by Sarah Gibson (Government Relations Manager) before going up to the Mayor's Office. Email draft to her at [REDACTED]@london.gov.uk and confirm clearance in box opposite | XXXX (enter date draft cleared). Leave blank if not applicable. |
| Telephone Extension: | XXXX |
| Draft to be cleared by (Policy Advisor/Director): | XXXX |

Background/Comments:

If correspondence is urgent:

Provide reason(s) for urgency and specify if correspondence needs to be sent out by a certain date (if different to Write On 20-day deadline).