

Extension of Table 6.5 (part) of E12/1 as requested by the Panel on Day 233 (page 14E)

| Proposal         | BASIC COSTS* (£ million)       |       |       |                   |               |               |   |               |               |
|------------------|--------------------------------|-------|-------|-------------------|---------------|---------------|---|---------------|---------------|
|                  | As given in Table 6.5 of E12/1 |       |       | As given in B.540 |               |               | Including additional items requested by Panel |               |               |
|                  | Property                       | Works | Total | Property          | Works         | Total         | Property                                      | Works         | Total         |
| <b>Ringway 1</b> | 144                            | 336   | 480   | 139 (180.7)       | 319 (398.7)   | 458 (579.4)   | 136 (176.8)                                   | 352 (440)     | 488 (616.8)   |
| <b>Ringway 2</b> | 85                             | 334   | 419   | 86.5 (112.4)      | 338.5 (423.1) | 425 (535.5)   | 91.5 (118.9)                                  | 361 (451.3)   | 452.5 (570.2) |
| <b>Ringway 3</b> | 26                             | 180   | 206   | 36 (46.8)         | 189.5 (236.9) | 225.5 (283.7) | 36 (46.8)                                     | 189.5 (236.9) | 225.5 (283.7) |
| <b>Radials</b>   | 55                             | 236   | 291   | 59.5 (77.4)       | 259 (323.8)   | 318.5 (401.2) | 81.5 (106)                                    | 344.5 (430.6) | 425 (536.6)   |
| <b>Total</b>     | 310                            | 1086  | 1396  | 321 (417.3)       | 1106 (1382.5) | 1427 (1799.8) | 345 (448.5)                                   | 1247 (1558.8) | 1592 (2007.3) |

\* At 1970 prices; March 1972 prices in brackets (derived by means of factors given in B.540).

**B 540 AUGMENTED**  
**As Requested by The Panel on Day 232**  
**Table 1 – Cost of Primary Network (Part One – GLC Schemes)**

| Route Description <sup>(1)</sup>                      | No. of lanes on which estimate is based* <sup>(2)</sup> | Cost (£ million) within Highways Act limits |                      |                                 |
|---|---|---|----------------------|---------------------------------|
|   |   | Property <sup>(3)</sup>                     | Works <sup>(4)</sup> | Total basic cost <sup>(5)</sup> |
| <b>RINGWAY ONE</b>                                    |   |   |                      |                                 |
| West Cross/North Cross Westway to Finchley Road       | Dual 4  | 21.0  | 58.0                 | 79.0                            |
| North Cross Finchley Road to Dalston                  | Dual 4  | 25.0  | 68.0                 | 93.0                            |
| North Cross Dalston to Hackney Wick                   | Dual 4  | 17.0  | 24.0                 | 41.0                            |
| South Cross Kidbrooke to St Johns                     | Dual 4  | 7.0   | 28.0                 | 35.0                            |
| South Cross St Johns to Clapham                       | Dual 4  | 42.0  | 94.0                 | 136.0                           |
| West Cross Clapham to Chelsea Basin                   | Dual 4  | 4.0   | 17.0                 | 21.0                            |
| West Cross Chelsea Basin to Holland Park Avenue       | Dual 4  | 23.0  | 30.0                 | 53.0                            |
| <b>Total Ringway One</b>                              |   | <b>139.0</b>                                | <b>319.0</b>         | <b>458.0</b>                    |
| <b>RINGWAY TWO (South)</b>                            |   |   |                      |                                 |
| A13 to Thamesmead                                     | Dual 4  | 4.0   | 34.0                 | 38.0                            |
| Thamesmead to Falconwood                              | Dual 4  | 5.0   | 22.0                 | 27.0                            |
| Falconwood to Verdant Lane                            | Dual 3 and dual 4                                       | 4.0   | 39.0                 | 43.0                            |
| Verdant Lane to Norbury (A23)                         | Dual 4  | 17.0  | 63.0                 | 80.0                            |
| A23 to M23 } M23 Northern Terminal                    | Dual 4  | 5.0   | 10.0                 | 15.0                            |
| M23 to A24 }  | Dual 4  | 5.0   | 6.0                  | 11.0                            |
| Colliers Wood High St (A24) to Wandsworth Interchange | Dual 4  | 11.0  | 6.0                  | 57.0                            |
| Wandsworth Interchange to Beauchamp Terrace           | Dual 4  | 7.0   | 12.0                 | 19.0                            |
| Beauchamp Terrace to Chiswick Area (notional cost)    | Dual 3 and dual 4                                       | 5.0   | 10.0                 | 15.0                            |
| <b>Total Ringway Two (South)</b>                      |   | <b>63.0</b>                                 | <b>242.0</b>         | <b>305.0</b>                    |
| <b>RADIALS</b>  |   |   |                      |                                 |
| Link Road Clapham to Wandsworth                       | Dual 4  | 5.0   | 17.0                 | 22.0                            |
| A40 Link, Willesden to A40                            | Dual 2  | 4.0   | 19.0                 | 23.0                            |
| M1 Extension, M1 to North Cross Route                 | Dual 3  | 7.0   | 17.0                 | 24.0                            |
| Sidcup Road Link, Kidbrooke to Mottingham             | Dual 3  | 1.0   | 10.0                 | 11.0                            |
| A20(M), Mottingham to Greenwich/Bexley boundary       | Dual 3  | 2.0   | 18.0                 | 20.0                            |
| M23 Extension, Ringway 2 to Ringway 1                 | Dual 2  | 10.0  | 30.0                 | 40.0                            |
| <b>Total Radials (GLC)</b>                            |   | <b>29.0</b>                                 | <b>111.0</b>         | <b>140.0</b>                    |
| Dover Radial Route and Link to BTSA                   | Dual 3  | 4.0   | 19.0                 | 23.0                            |

|   |                   |               |              |               |
|---|-------------------|---------------|--------------|---------------|
| Parkway E, Ringway 1 to New Addington   | Dual 3 and dual 4 | 12.0          | 55.0         | 67.0          |
| <b>TOTAL – GLC PROPOSALS</b><br>(Excluding Dover Radial Route, Parkway E and any allowance for the Chiswick Interchange)        |                   | <b>231.0</b>  | <b>672.0</b> | <b>903.0</b>  |
| <b>TOTAL – GLC PROPOSALS</b><br>(Including Dover Radial Route and Parkway E, but excluding additional items requested by panel) |                   | <b>247.0</b>  | <b>746.0</b> | <b>993.0</b>  |
| <i>Additional items requested by Panel on Day 232</i>   |                   |               |              |               |
| <b>RINGWAY ONE</b>  |                   |               |              |               |
| Additional cost of deep bored tunnel at Blackheath  |                   | Saving of 3.0 | 25.0         | 22.0          |
| Additional cost of cut and cover at Camberwell Grove  |                   | -             | 1.0          | 1.0           |
| Additional cost of cut and cover at Ruskin Park   |                   | -             | 2.5          | 2.5           |
| Additional cost of cut and cover at Wandsworth Road   |                   | -             | 2.0          | 2.0           |
| Additional cost of cut and cover at Northampton Park  |                   | -             | 2.5          | 2.5           |
| <b>RINGWAY TWO (SOUTH)</b>  |                   |               |              |               |
| Additional cost of cut and cover at Chiswick  |                   | -             | 2.5          | 2.5           |
| Chiswick Interchange  |                   | 5.0           | 20.0         | 25.0          |
| <b>RADIALS</b>  |                   |               |              |               |
| A3/A4/A13/A40   |                   | 1.0           | 1.5          | 2.5           |
| A316 Hope and Anchor – Hogarth Corner   |                   | 5.0           | 10.0         | 15.0          |
| <b>TOTAL – GLC PROPOSALS</b><br>(Including all additional items requested by Panel)   |                   | <b>255.0</b>  | <b>813.0</b> | <b>1068.0</b> |

**Table 1 – Cost of Primary Network (Part Two – DoE Schemes and Total)**

| Route Description <sup>(1)</sup> | No. of lanes on which estimate is based* <sup>(2)</sup> | Cost (£ million) within Highways Act limits |                      |                                 |
|----------------------------------|---|---|----------------------|---------------------------------|
|                                  |   | Property <sup>(3)</sup>                     | Works <sup>(4)</sup> | Total basic cost <sup>(5)</sup> |
| <b>RINGWAY TWO (NORTH)</b>       |   |   |                      |                                 |
| M4 to M1                         | Dual 3  | 7.5   | 23.5                 | 31.0                            |
| M1 to M11                        | Dual 3  | 11.0  | 43.5                 | 54.5                            |
| M11 to A13                       | Dual 4  | 5.0   | 29.5                 | 34.5                            |
| <b>Total Ringway Two (North)</b> |   | 23.5  | 96.5                 | 120.0                           |
| <b>RINGWAY THREE</b>             |   |   |                      |                                 |
| North (M4 to A13)                | Dual 3  | 11.5  | 90.5                 | 102.0                           |
| South (A2 to M4)                 | Dual 3  | 24.5  | 99.0                 | 123.5                           |

|   |                   |                |                |                    |
|---|-------------------|----------------|----------------|--------------------|
| <b>Total Ringway Three</b>  |                   | 36.0           | 189.5          | 225.5              |
| <b>RADIALS</b>  |                   |                |                |                    |
| A1 to M1  | Dual 3            | Nil            | 1.5            | 1.5                |
| M1 Extension to A406  | Dual 3            | 6.5            | 11.0           | 17.5               |
| M11 GLC Boundary to A12   | Dual 3            | 2.0            | 9.5            | 11.5               |
| M11 A406 to Ringway 1   | Dual 3            | 9.0            | 41.0           | 50.0               |
| M12   | Dual 3 and dual 4 | 1.0            | 14.0           | 15.0               |
| A127  | Dual 3            | Nil            | 0.5            | 0.5                |
| A13   | Dual 2 and dual 3 | 1.0            | 4.0            | 5.0                |
| A10   |                   |                |                | No major proposals |
| A20   | Dual 3            | 1.0            | 10.5           | 11.5               |
| A2  |                   |                |                | No major proposals |
| M23 Hooley to Mmitcham (excluding N Terminal)   | Dual 4            | 4.5            | 17.0           | 21.5               |
| A3  | Dual 3            | 2.0            | 7.0            | 9.0                |
| M4/A4   | Dual 2 and dual 3 | 0.5            | 4.5            | 5.0                |
| A40   | Dual 3            | 3.0            | 27.5           | 30.5               |
| <b>Total Radials (DoE)</b>  |                   | 30.5           | 148.0          | 178.5              |
| <b>TOTAL – DoE PROPOSALS</b><br>(Excluding M23 Northern Terminal included in Ringway 2 South costs above) |                   | 90.0           | 434.0          | 524.0              |
| <b>TOTAL – GLC PROPOSALS</b> (brought forward)  |                   | 255.0          | 813.0          | 1068.0             |
| <b>TOTAL – GLC and DoE</b><br>(Including Dover Radial, Parkway E and other items requested by panel)      |                   | 345.0          | 1247.0         | 1592.0             |
| <b>Allowance for inflation (July 1970 – March 1972)</b>   |                   | (30%)<br>103.5 | (25%)<br>311.0 | 415.3              |
| <b>TOTAL AT MARCH 1972 PRICES</b>   |                   | <b>448.5</b>   | <b>1558.8</b>  | <b>2007.3</b>      |

**Table 2 – Rehousing and Other Costs (Part One – GLC Schemes)**

| Route Description                                  | Cost (£ million)           |             |  |           |           | Total |
|--|----------------------------|-------------|--|-----------|-----------|-------|
|  | Within Highways Act limits |             | Additional costs arising from enhanced environmental standards |           |           |       |
|  | Rehousing                  | Overheads   | Excluding rehousing  | Rehousing | Overheads |       |
| <b>RINGWAY ONE</b>                                 |                            |             |  |           |           |       |
| West Cross/North Cross Westway to Finchley Road    | 10.9                       |             | 0.8  | 0.3       |           | 175.2 |
| North Cross Finchley Road to Dalston               | 14.8                       | 5% of basic | 1.6  | 0.7       |           |       |
| North Cross Dalston to Hackney Wick                | 6.4                        | cost        | 1.5  | 0.6       | 5% of     |       |
| South Cross Kidbrooke to St Johns                  | 1.7                        | (Column 5)  | 0.7  | 0.3       | Column 4  |       |
| South Cross St Johns to Clapham                    | 12.7                       | of table 1  | 3.8  | 1.3       |           |       |
| West Cross Clapham to Chelsea Basin                | 1.6                        |             | 0.4  | 0.1       |           |       |
| West Cross Chelsea Basin to Holland Park Avenue    | 7.0                        |             | 3.2  | 1.6       |           |       |
| <b>Total Ringway One</b>                           | 55.1                       | 22.9        | 12.0   | 4.9       | 0.6       |       |
| <b>RINGWAY TWO (SOUTH)</b>                         |                            |             |  |           |           |       |
| A13 to Thamesmead                                  | Nil                        |             | Nil  | Nil       |           | 175.2 |
| Thamesmead to Falconwood                           | 0.4                        |             | 0.8  | 0.2       |           |       |
| Falconwood to Verdant Lane                         | 0.5                        | 5% of basic | 6.7  | 1.8       |           |       |
| Verdant Lane to Norbury (A23)                      | 4.0                        | cost        |  |           | 5% of     |       |
| A23 to M23 } M23 Northern Terminal                 | 2.1                        | (Column 5)  | 0.2  | Nil       | Column 4  |       |
| M23 to A24 }                                       | 2.1                        | of table 1  | 0.3  | 0.1       |           |       |
| A24 to Wandsworth Interchange                      | 3.2                        |             | 1.1  | 0.5       |           |       |
| Wandsworth Interchange to Beauchamp Terrace        | 1.9                        |             | 0.2  | 0.1       |           |       |
| Beauchamp Terrace to Chiswick Area (notional cost) | 1.9                        |             | 0.7  | 0.5       |           |       |
| <b>Total Ringway Two (South)</b>                   | 16.1                       | 15.3        | 10.0   | 3.2       | 0.5       |       |
| <b>RADIALS</b>                                     |                            |             |  |           |           |       |
| Link Road, Clapham to Wandsworth                   | 4.2                        |             | 0.8  | 0.5       |           | 175.2 |
| A40 Link, Willesden to A40                         | 1.6                        | 5% of basic | 0.6  | 0.2       |           |       |
| M1 extension, M1 to North Cross Route              | 3.6                        | cost        | 0.2  | Nil       | 5% of     |       |
| Sidcup Road link Kidbrooke to Mottingham           | 0.1                        | (Column 5)  | 0.2  | 0.1       | Column 4  |       |
| A20(M) Mottingham to Greenwich/Bexley Boundary     | 0.3                        | of table 1  | 0.4  | 0.1       |           |       |
| M23 Extension, Ringway 2 to Ringway 4              | 2.7                        |             | 0.7  | 0.2       |           |       |
| <b>Total Radials (GLC)</b>                         | 12.5                       | 7.0         | 2.9  | 1.1       | 0.1       |       |
| Dover Radial Route and link to BTSA                | 0.5                        | 5% of basic | 0.1  | Nil       | 5% of     |       |

|   |      |      |      |      |          |        |
|---|------|------|------|------|----------|--------|
| Parkway E, Ringway 1 to New Addington   | 2.8  | cost | 2.3  | 0.7  | Column 4 |        |
| <b>Total GLC Proposals</b> (including Dover Radial Route and Parkway E, but excluding additional items requested by Panel)          | 87.0 | 49.7 | 27.3 | 9.9  | 1.3      |        |
| <b>ADDITIONAL ITEMS REQUESTED BY PANEL</b>  |      |      |      |      |          |        |
| <b>Ringway One</b>  |      |      |      |      |          |        |
| Additional cost deep bored tunnel at Blackheath   | -0.6 |      | -0.2 |      |          |        |
| Additional cost cut and cover Camberwell Grove  |      |      |      |      |          |        |
| Additional cost cut and cover Ruskin Park   |      |      |      |      |          |        |
| Additional cost cut and cover Wandsworth Road   |      |      |      |      |          |        |
| Additional cost cut and cover Northampton Park  |      |      |      |      |          |        |
| <b>Ringway Two (South)</b>  |      |      |      |      |          |        |
| Additional Cost Chiswick  |      |      |      |      |          |        |
| Additional Cost Chiswick Interchange  | 1.3  |      |      |      |          |        |
| <b>Radials</b>  |      |      |      |      |          |        |
| A3, A4, A13, A40  | 0.1  |      |      |      |          |        |
| A316  | 0.7  |      |      |      |          |        |
| <b>Total GLC Proposals</b> at July 1970 prices<br>(including Dover Radial Route, Parkway E and additional items requested by panel) | 88.5 | 53.5 | 28.1 | 10.2 | 1.34     | 181.64 |

**Table 2 – Rehousing and Other Costs (Part Two DoE Schemes and Total)**

| Route Description                | Cost (£ million)           |                  |  |           |                | Total |
|----------------------------------|----------------------------|------------------|--|-----------|----------------|-------|
|                                  | Within Highways Act limits |                  | Additional costs arising from enhanced environmental standards |           |                |       |
|                                  | Rehousing                  | Overheads        | Excluding rehousing  | Rehousing | Overheads      |       |
| <b>RINGWAY TWO (NORTH)</b>       |                            |                  |  |           |                |       |
| M4 to M1                         | Not available              | 5% of basic cost | -  | -         | 5% of Column 4 |       |
| M1 to M11                        |                            | (Column 5)       | -  | -         |                |       |
| M11 to A13                       |                            | of table 1       | 0.5  | Nil       |                |       |
| <b>Total Ringway Two (North)</b> |                            | 6.0              | -  | -         |                | 47.3  |
| <b>RINGWAY THREE</b>             |                            |                  |  |           |                |       |
| North (M4 to A13)                | Not available              | 5% of basic cost | -  | -         | 5% of Column 4 |       |
| South (A2 to M4)                 |                            |                  | -  | -         |                |       |
| <b>Total Ringway Three</b>       |                            | 11.3             | -  | -         | -              |       |

| <b>RADIALS</b>   |               |  |       |       |                |         |  |
|--|---------------|--|-------|-------|----------------|---------|--|
| A1 to M1   |               |  | -     | Nil   |                |         |  |
| M1 extension to A406   |               |  | 0.4   | Nil   |                |         |  |
| M11 GLC Boundary to A12  |               |  | 0.3   |       |                |         |  |
| M11 A406 to Ringway 1  |               |  | -     | Nil   |                |         |  |
| M12  |               |  | 0.4   |       |                |         |  |
| A127   | Not available | 5% of basic cost (Column 5) of table 1 | -     |       | 5% of Column 4 |         |  |
| A13  |               |  | -     |       |                |         |  |
| A10  |               |  | -     |       |                |         |  |
| A20  |               |  | -     |       |                |         |  |
| A2   |               |  | -     |       |                |         |  |
| M23 Hooley to Mitcham (excl. Northern Terminal)  |               |  | 1.2   | Nil   |                |         |  |
| A3   |               |  | -     |       |                |         |  |
| M4/A4  |               |  | -     |       |                |         |  |
| A40  |               |  | -     |       |                |         |  |
| <b>Total Radials (DoE)</b>   |               | 8.9                                    |       |       |                |         |  |
| <b>Total DoE Proposals</b> (excluding M23 Northern Terminal included in Ringway 2 (South) costs above) | 2.7           | 26.2                                   | 14.7* | 3.0** | 0.7            |         |  |
| <b>Total GLC Proposals</b> (brought forward at 1970 prices)  | 88.5          | 53.5                                   | 28.1  | 10.2  | 1.34           | 181.64  |  |
| <b>Total GLC and DoE</b> (at 1970 prices)  | 91.2          | 79.7                                   | 42.8  | 13.2  | 2.04           | 228.94  |  |
| <b>Allowance for inflation</b> (July 1970 – March 1972)  | 10.5          | 20.7                                   | 12.0  | 1.5   | 0.7            | 45.4    |  |
| <b>Total at 1972 prices</b>  | 101.7         | 100.4                                  | 54.8  | 14.7  | 2.74           | 274.34  |  |
| <b>Total brought forward from Table 1</b> (at 1972 prices)   |               |  |       |       |                | 2007.30 |  |
| <b>TOTAL</b>   |               |  |       |       |                | 2281.64 |  |

\* This is calculated as follows:

|                                      |               |
|--------------------------------------|---------------|
| Total of column 4                    | 2.8 M         |
| 2.8% capital cost of balance (424 M) | 11.9 M        |
| <b>TOTAL</b>                         | <b>14.7 M</b> |

\*\* 0.7\* of £424 M

**Table 3 – Lengths of Cut and Cover Construction on Primary Network (GLC Sections Only)**

| <b>Route</b> | <b>Section</b>            | <b>Location</b>               | <b>Length<br/>(feet)</b> | <b>Difference<br/>between cost of<br/>C&amp;C and cost of<br/>retained cut<br/>(£M)</b> | <b>Remarks</b>   |
|--------------|---------------------------|-------------------------------|--------------------------|---|--|
| Ringway 1    | Kidbrooke – St Johns      | Blackheath area               | 1850                     | 5.6   | Several lengths of cut and cover construction are included in the safeguarded scheme. These all fall within the limits of the section that would be replaced by the proposed deep-bored tunnel, the cost of which is not included in Table 1.  |
| Ringway 1    | St Johns - Clapham        | Wandsworth Road               | 600                      | 2.0   | Para 5.1 (page 8) or B.490 explains that the vertical alignment of Ringway 1 in the vicinity of the primary/secondary interchange with the Queenstown Road area is still under consideration. When approval was given to the adjoining Westbury Street housing site it was agreed that any route between the site and the railway would be in cut and cover. |
| Ringway 1    | Finchley Road - Dalston   | Belsize Park                  | 3660                     | 10.0  | About 65% would be fully covered; the remainder would be partially covered by louvers.   |
| Ringway 1    | Finchley Road - Dalston   | Adj. Highbury Corner          | 700                      | 1.1   |  |
| Ringway 2    | Thamesmead - Falconwood   | Rockliffe Gardens             | 640                      | 1.7   | This would also be desirable for engineering reasons.  |
| Ringway 2    | Falconwood – Verdant Lane | Eltham Warren golf course     | 800                      | 1.7   |  |
| Ringway 2    | Falconwood – Verdant Lane | Footscray playing field       | 1020                     | 2.2   |  |
| Ringway 2    | Falconwood – Verdant Lane | Royal Blackheath golf course  | 1840                     | 3.8   |  |
| Ringway 2    | Verdant Lane – Norbury    | Whitefoot Lane playing fields | 1400                     | 3.7   |  |
| Ringway 2    | Verdant Lane –            | Sedgehill Sch.                | 1050                     | 2.8   | This would also be desirable for engineering reasons.  |



|  |                            |                     |      |      |  |
|--|----------------------------|---------------------|------|------|--|
|  | Norbury                    | playing fields      |      |      |  |
| Ringway 2                                    | Wandsworth –<br>Chiswick   | See remarks         | 1200 | 2.5  | The possibility of cut and cover has been discussed at the inquiry in relation to the assumed line following the railway through the Grove Park area in Chiswick, but no line has been formally agreed and therefore no details are available. |
| <b>Additional Details requested by Panel</b> |                            |                     |      |      |  |
| Ringway 1                                    | St Johns – Clapham         | Camberwell<br>Grove | 395  | 1.0  |  |
| Ringway 1                                    | St Johns – Clapham         | Ruskin Park         | 980  | 2.5  |  |
| Ringway 1                                    | Finchley Road –<br>Dalston | Northampton<br>Park | 950  | 2.5  |  |
| <b>TOTAL</b>                                 |                            |                     |      | 43.1 |  |

Note: items “Ringway 1 St Johns to Clapham” and “Ringway 2 Wandsworth to Chiswick” are very broad estimates provided at the request of the panel.