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# Elstree to St John's Wood 400 kV Cable Tunnel

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# System Overlay Philosophy

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- ◆ **275 kV system is over 40 years old**
  - ◆ **New build to be at 400 kV**
  - ◆ **Minimise public impact**
  - ◆ **Minimise disruption to existing system during construction**
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# St John's Wood: Aerial Shot

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# Construction Issues: Substations

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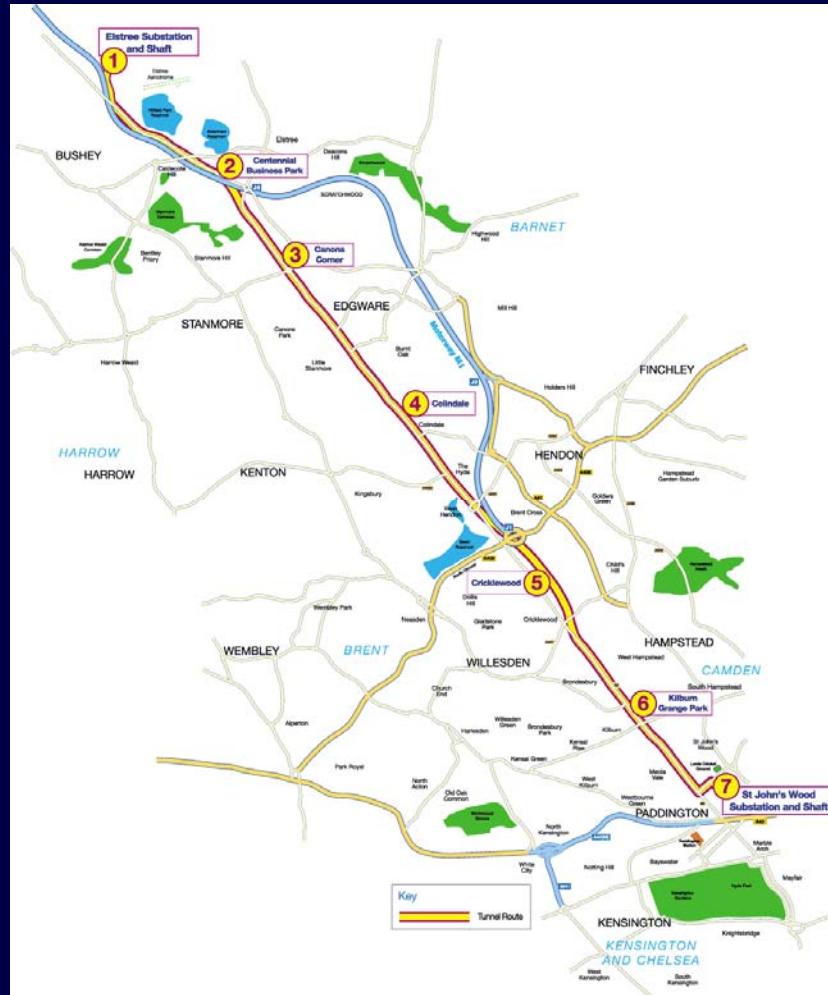
- ◆ **Space**
  - ◆ **Site access**
  - ◆ **Traffic management**
  - ◆ **Site clearance**
  - ◆ **Construction works**
  - ◆ **Impact on local community**
  - ◆ **Architecture**
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# Why Dig a Tunnel?

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- ◆ **Reduced public disruption during construction**
  - ◆ **Reduced programme risk**
  - ◆ **Secure environment for cable**
  - ◆ **Future provision for second circuit**
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# The Tunnel Route



# Technical Details

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- ◆ **400kV XLPE cable circuit**
  - ◆ **2500 mm<sup>2</sup> Copper conductor**
  - ◆ **Forced air cooling**
  - ◆ **DTS monitoring and control**
  - ◆ **PD Couplers installed in accessories**
  - ◆ **Single circuit**
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# The Tunnel

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# Construction Issues: Tunnel Shaft Sites

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- ◆ **Site availability**
  - ◆ **Site access**
  - ◆ **Traffic management**
  - ◆ **Spoil removal**
  - ◆ **Impact on local community**
  - ◆ **Headworks**
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# Kilburn Grange Park: Aerial Shot



# Kilburn Grange Park: Headhouse and New Entrance

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# Consultations and Communications Strategy

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- ◆ **Introductory open meetings**
  - ◆ **Ongoing discussion forums**
  - ◆ **Freephone service**
  - ◆ **Programme updates**
  - ◆ **Adverts**
  - ◆ **Local community support**
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# Project Identity

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**The London Connection**

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# London Infrastructure Project: Summary

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- ◆ **System installed and operating**
  - ◆ **Commissioning test from Elstree**
  - ◆ **PD measurements during test**
  - ◆ **Major consultation exercise**
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