



Epping Forest District Council
Epping

Tim Jones
Connect Plus

M25: An overview

6 Sept 2010

Agenda

Contract Structure

M25 - now and then

Essex Interface

Scope and Challenges

The 30 Year View



Contract Structure



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Introduction

- Contract Award in uncertain financial markets
- Contract performance with uncertain government funding
- Meeting demand and planning for growth
- Journey time reliability
- Stakeholder engagement

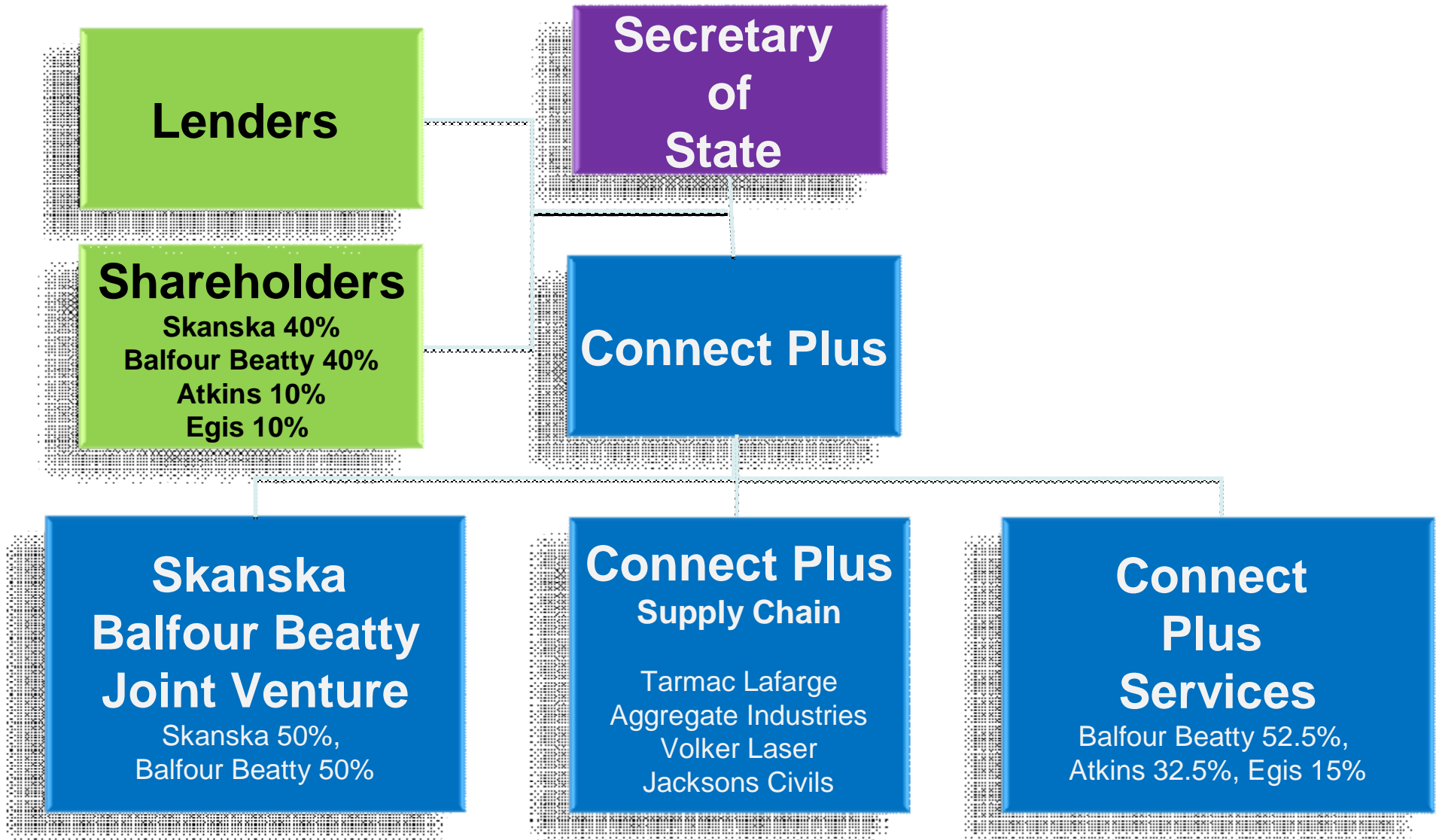


The Key Ingredients to Success

- Importance of variant proposals
- HA evaluated quality under five broad headings – delivery, resources, processes, behaviours / values and pricing methodology – harmony across all 5 critically important
- Price was key – best value essential
- Connect Plus – not just a group of secondees from different shareholders
- Strong supply chain
- Advanced Works Agreement enabled immediate start on Financial Close



Stakeholder Expectations Lenders & Shareholders



Partners - Connect Plus consists of:-

	Skanska	Balfour Beatty	Egis	Atkins
Investment	40%	40%	10%	10%
Construction	50%	50%	-	-
Maintenance	-	52.5%	15%	32.5%

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Key Dates

- 'Preferred bidder' status : July 2008
- Financial Close : May 2009
- Start widening Works : May 2009
- Service Commencement Date : September 2009
- IUS Completion : 8 July 2012
- LUS Start : Autumn 2012
- Refinancing : Spring 2016
- Contract Completion : September 2039



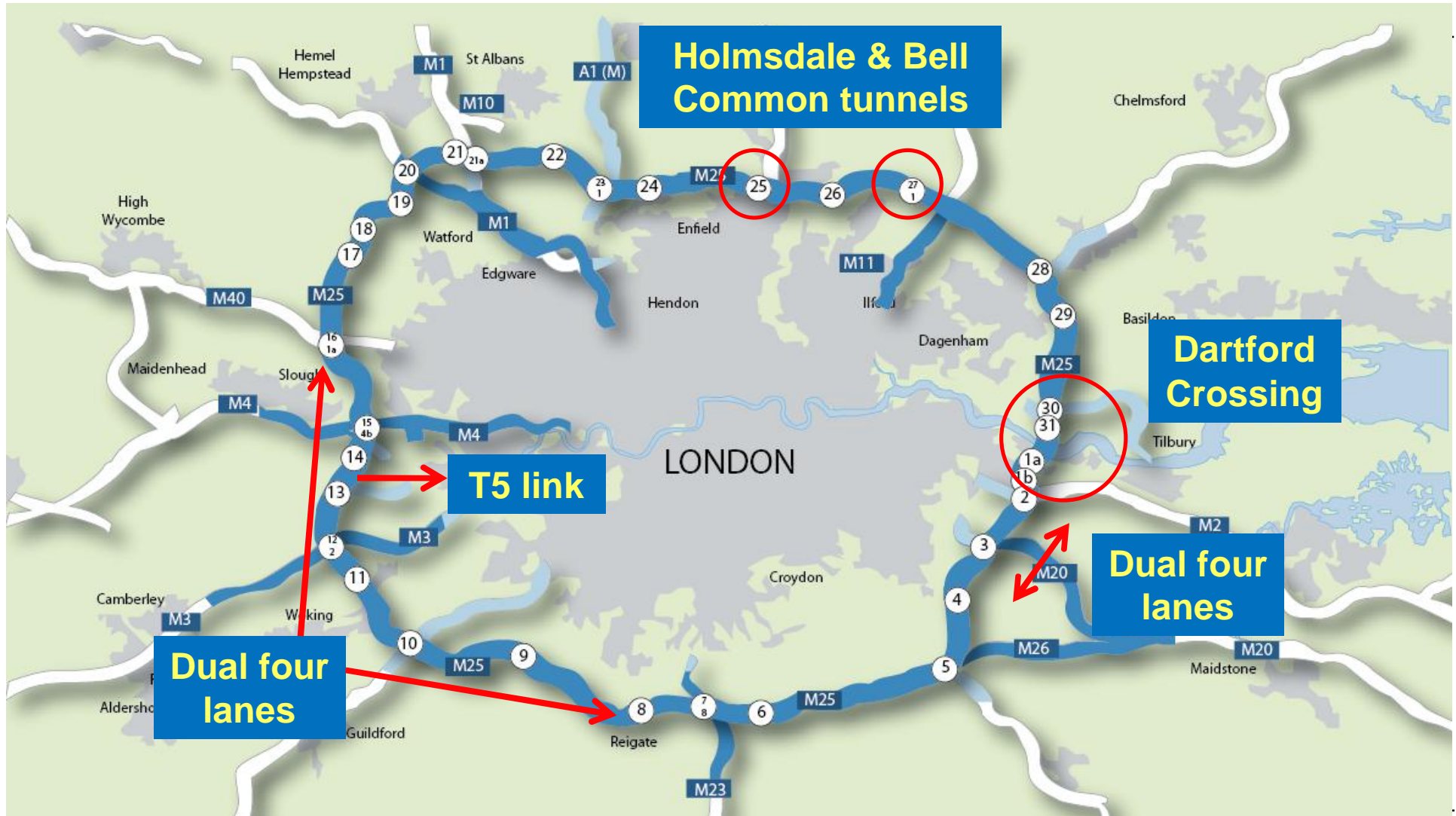
M25 – now and then



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The M25: Current Configuration



Construction Works: Section 1



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Construction Works: Section 4



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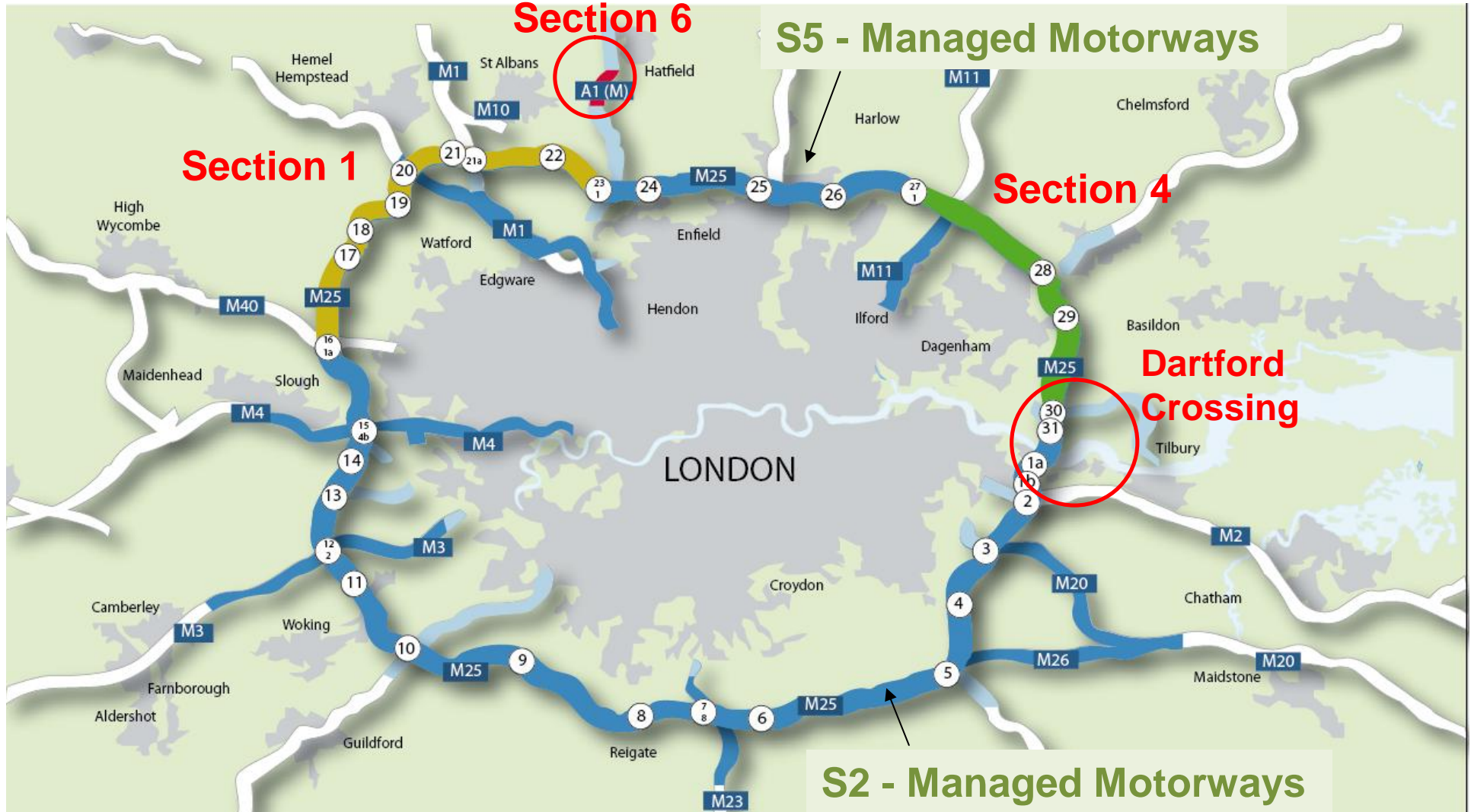
Construction Works: **Section 6** – Hatfield Tunnel Refurbishment



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Construction: Overview with Future upgrades



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Essex Interface



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The M25 & Essex



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What we have done...

- Fourth lane on the anti clockwise and clockwise carriageway complete including emergency access routes; retaining wall; drainage; lighting columns and permanent fencing
- 11 gantries installed and comms being commissioned
- Into phase 4 traffic running on hard shoulder, lane 1 and 2 during central reserve works
- Planted 21,5067 shrubs and trees clockwise, approx 23,000 to be planted on anti clockwise
- 4a works were complete in July 2010



Programme

4b Programme

- advanced works for 5 weeks over winter made back time
- 24hr/7days a week working in central reserve
- vegetation clearance
- newt and reptile mitigation
- works at bridges, cctv, drainage
- construction of Upminster Bund ongoing
- sheet piling

4c Programme

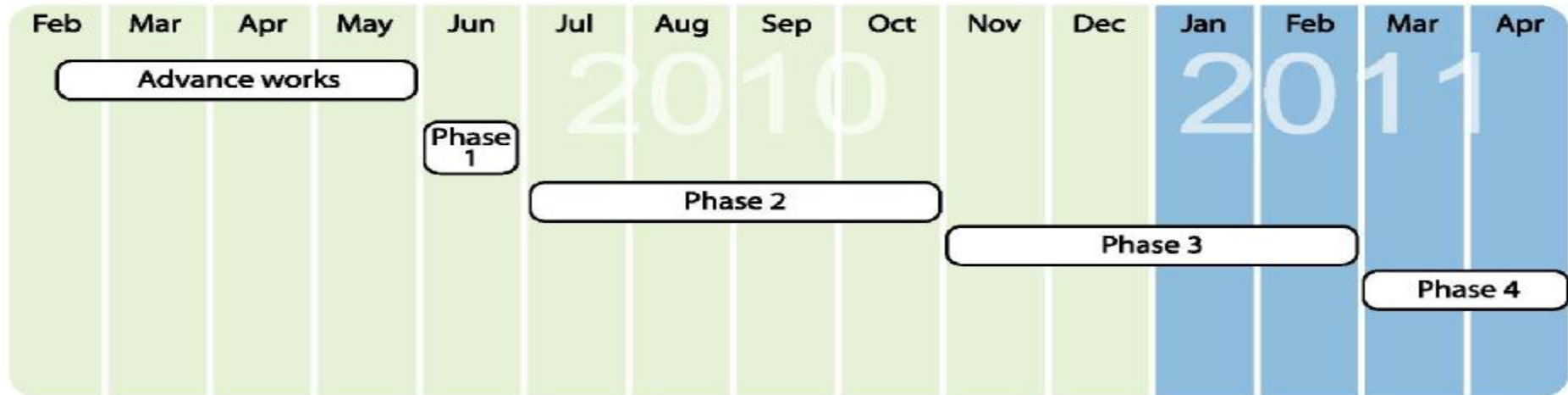
- site investigations



Update

Health and Safety

- the project has now completed 1,637,825 safe hours worked – zero reportable accidents





Upminster Bund under construction. This bund will finally be 4m above the carriageway and is to protect the residents of Cranham from the M25.



Lifting in a gantry



Progress picture (May 2010)



Students from Sawyers Hall College on a one day visit / site tour. Students requirements were matched to Senior managers and they received interactive presentations from health and safety, Structure Team Leader, Jim Mc Nicholas (Construction Manager) and Calvin Blacker (Design). Students studying new course Construction the Built Environment. The ICE are also keen on us working with students of course to encourage them into the industry.



Group of operatives who were given a free breakfast in recognition of the project reaching 1.5m safe hours worked, 350 took up the breakfast.

Land

- work closely with local land owners and Councils
- looking at turning attenuation tanks to Ponds
- consideration given to move from hard walls into gentle slopes if feasible
- wherever possible ensure we construct in sympathy with the surrounding environment



Traffic Management

- 4a and 4c three lanes in contraflow
- 4b narrow lanes non contraflow
- 50mph speed limit
- Barrier for all permanent works areas
- All site drivers receive driver training
- VMS at works exits
- Automated lane closure implemented
- TRL monitoring flows



Dartford Crossing



Bridge

- 137m long cable-stayed
- Over 150,000 vehicles per day use the crossing
- £70m per year revenue



Tunnels

- 1963 - West-bound constructed
- 1980 - Eastbound constructed



Key Issues

- Charging order 1 Apr 03
- Dangerous Goods 2004/S4/EC
- EU Regulations tunnel improvements include equipment, signage & emergency exits





Scope and Challenges



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The scope and challenges of the contract - Connect Plus

Connect Plus – the SPV

- Robust SPV – HA facing – strong governance
- Lifecycle management - £1bn over 30 years
- Leverage innovation and efficiencies

- Maintain governance
- Managing 16 banks + EIB
- Leading on technical innovation
- Delivering a robust energy strategy
- Management of key sub-contracts and lifecycle contractors
- Managing the Payment Mechanism



The scope and challenges of the contract - Construction



Key Facts

- £1m per day spend
- 2.5 x intensity of M1 Junctions 6a – 10
- 700 staff & designers
- 1,000 site staff
- 2m hours worked without a RIDDOR

Construction

- 67km of road widening in 38 months
- Refurbishment of 2 x 1km bores at Hatfield

Key Risks

- Maintain programme
- Secure key departures – physical constraints
- Build in programme contingency within TM rules
- Balancing works and traffic congestion

M1 Junction 6a – 10 widening



M1 Junction 6a – 10 widening



Section 4 Jct 27 to 30 overview



M25 - S4 widening



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M25 - S4 widening



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Retained Infrastructure Proposal

Retained:

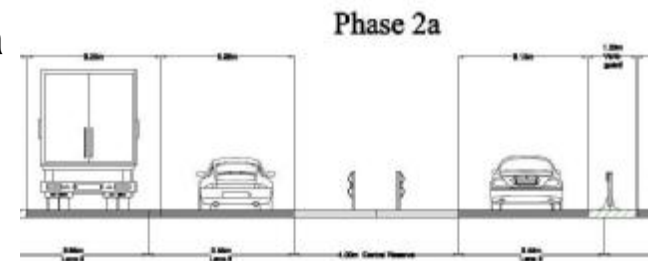
- Existing Central Reserve paving
- Existing drainage
- New VCB

- Existing VCB and pier protection
- Existing Central Reserve paving
- Existing drainage



Construction Programme

- Restrained by Traffic Management rules
 - Max 12km sections / Divides each section into 3
 - Using contra-flow only one verge can be worked at a time
 - Average of 5 months per 12km section of verge
 - Average of 4 months per 12km section of Central Reserve
 - Some overlapping and non contra-flow to hit 39 months overall
- Programme Robustness / End Date Certainty:
 - Rationalize TM rules
 - Approve Departures to best use space & reduce disruption and time
- Scope for offline working from adjacent land under review



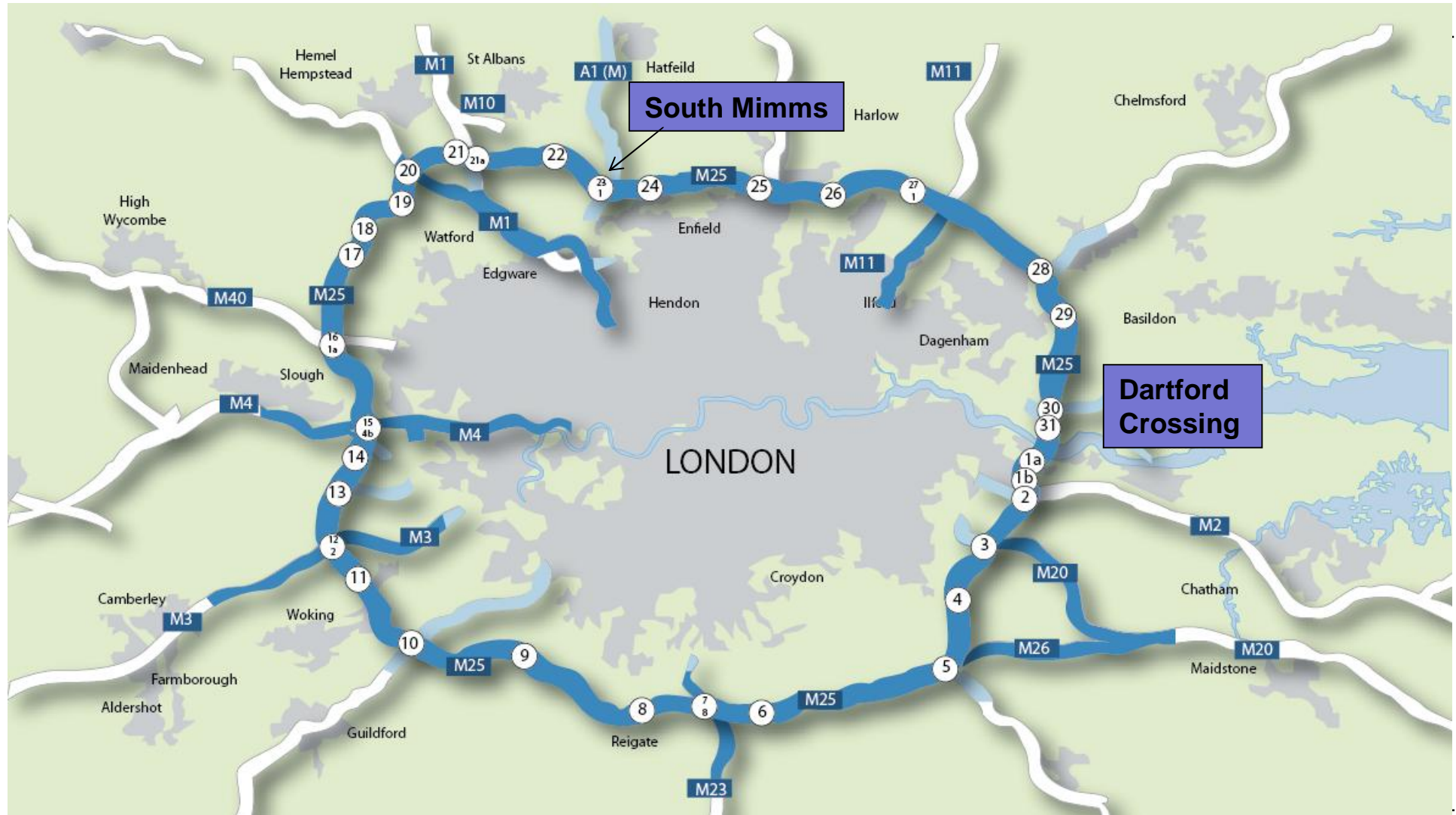


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Operations and Maintenance: Overview

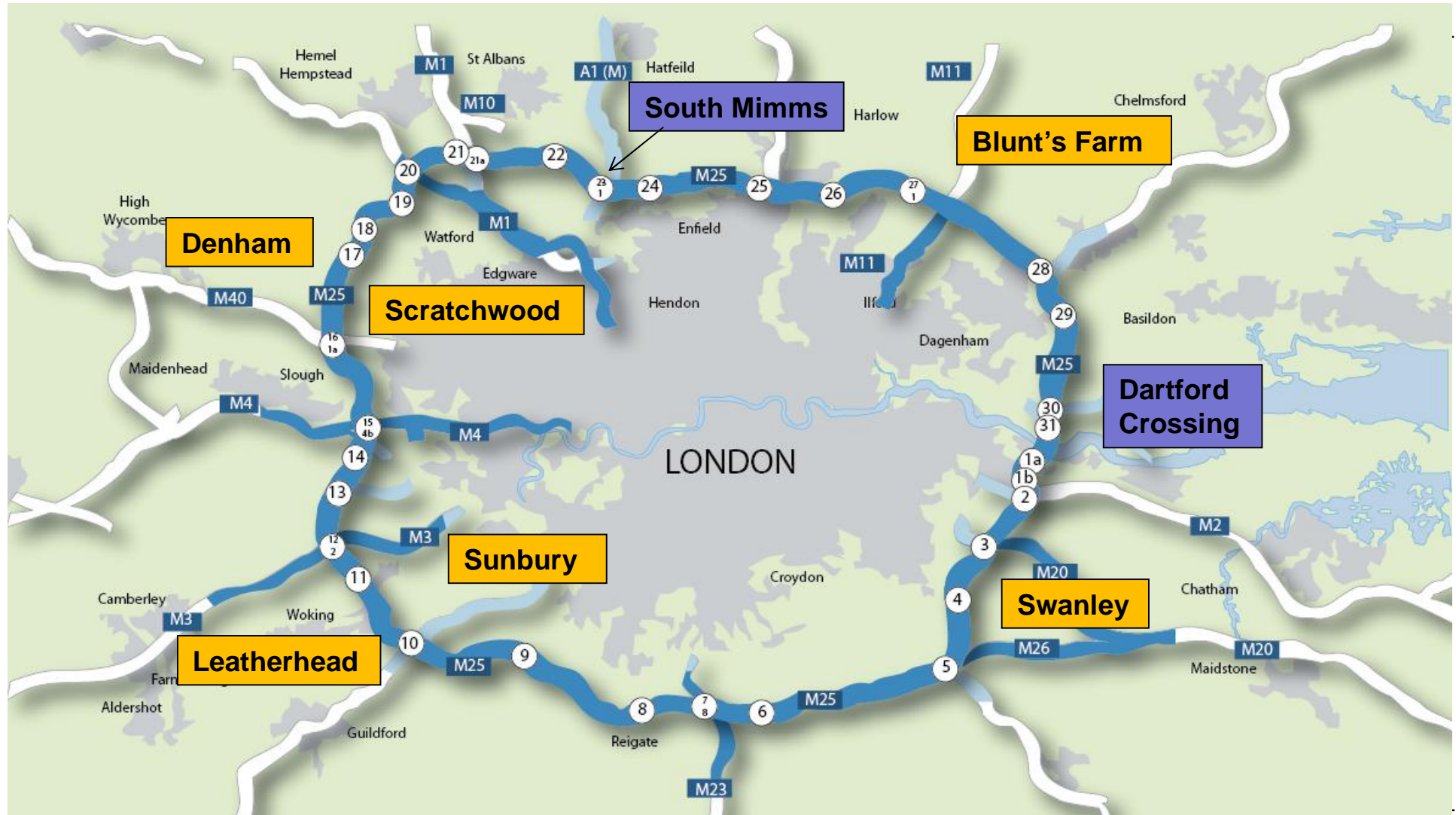


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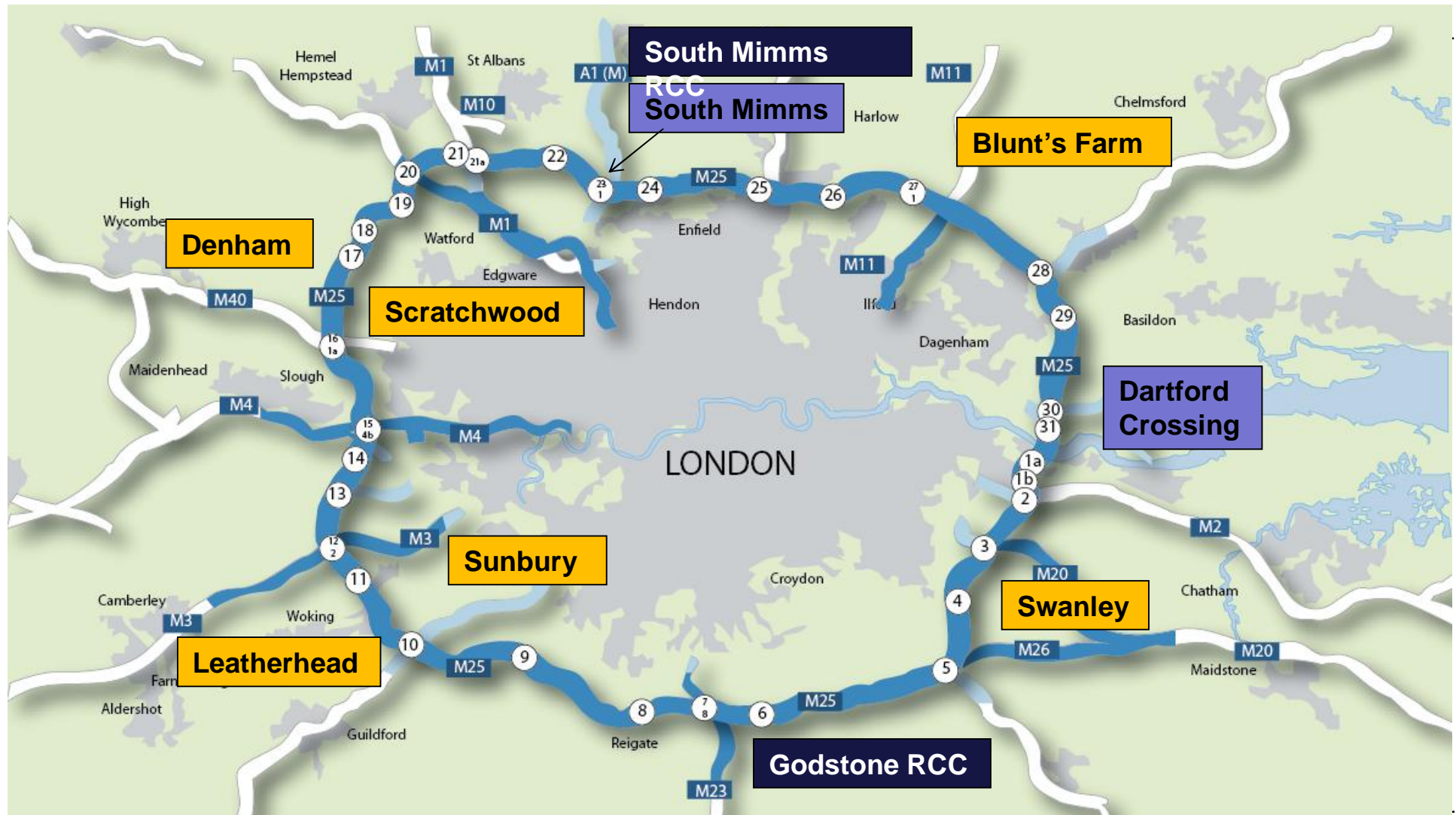
Operations and Maintenance: Overview



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Operations and Maintenance: Overview



The scope and challenges of the contract - Operations and Maintenance



- Key Challenges**
- Support DBFO Co in asset management
 - £250m lifecycle renewals
 - Meeting over 160 KPIs
 - Meeting Payment Mechanism
 - Integrating 6 cultures

- Key Facts**
- £50m annual contract
 - 650 staff / 7 depots including Dartford
 - 2 control centres (CPS) interfacing with HA RCCs
 - Operation and Maintenance
 - 440km network
 - 5 tunnels and QEII bridge



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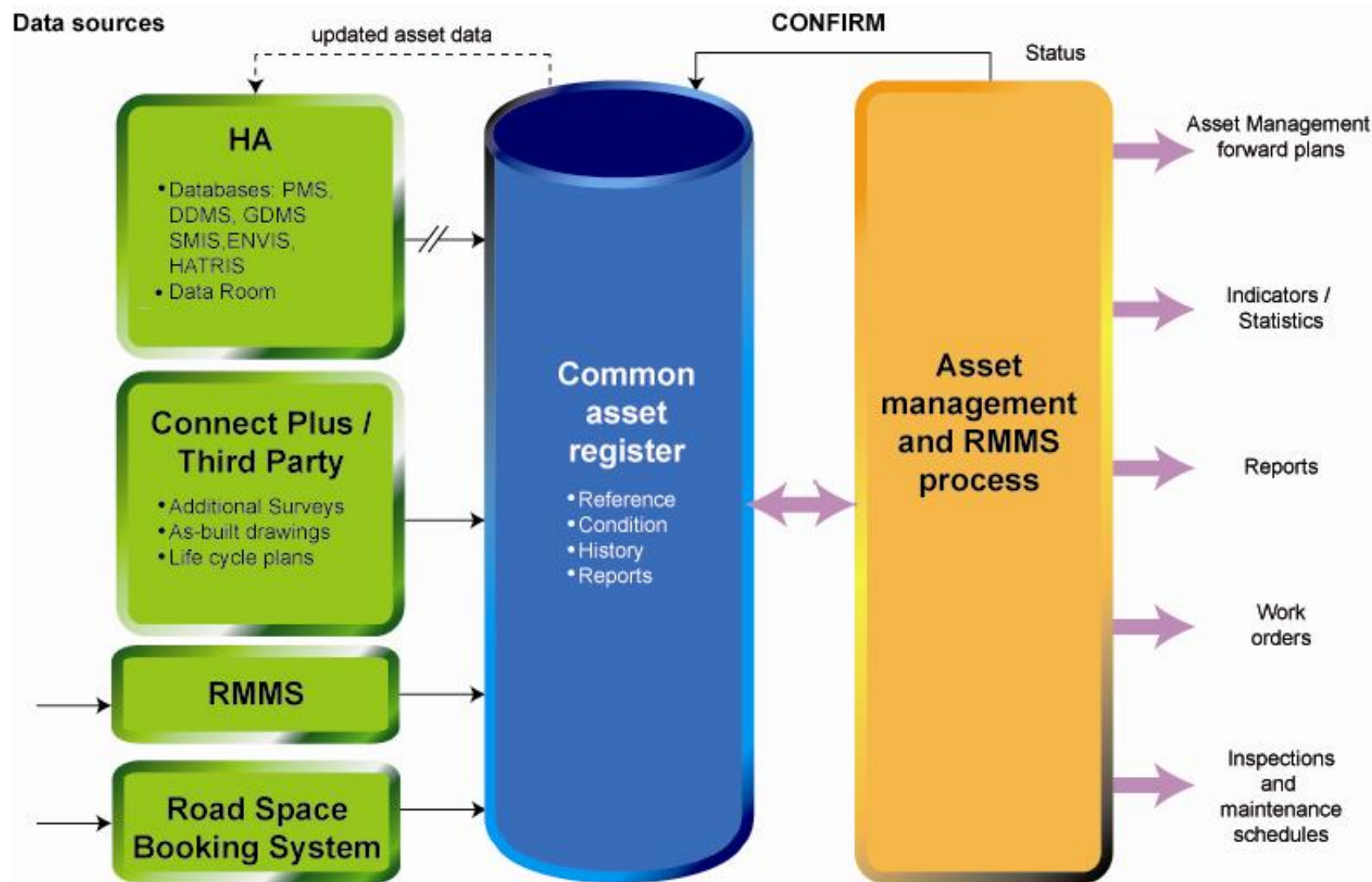
The 30 Year View



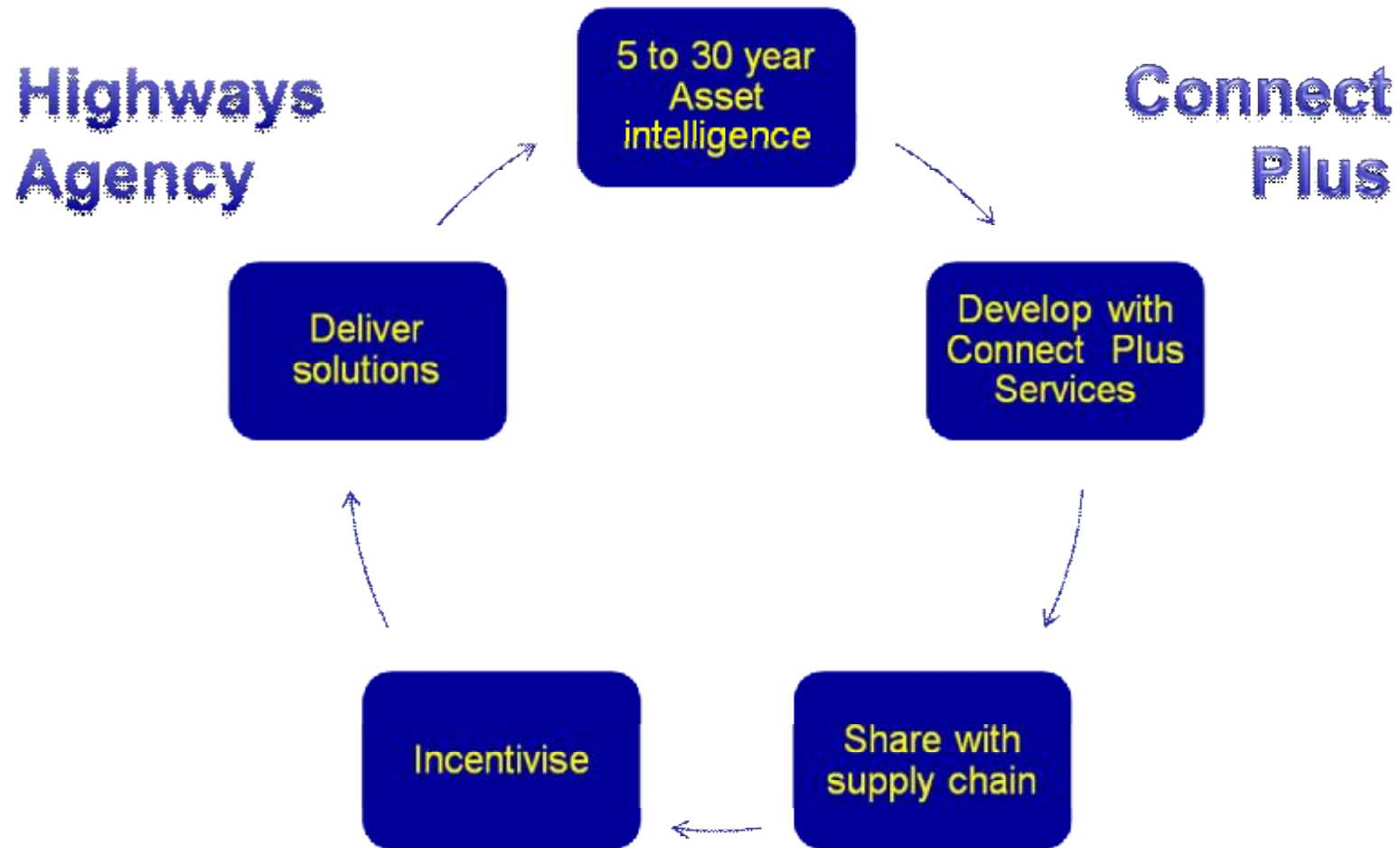
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Asset intelligence: source and systems



Innovation and the Supply Chain



Signposts to the future...

- Integrated new build with O&M of existing assets into one integrated DBFO
- Consistency of approach and service over 30 years (not 6x 5 year term contracts)
- Whole life cost focus and effective risk transfer to give best value
- Innovation and systems led, e.g. predictive software supporting asset renewals
- Able to cope with future challenges:
 - Carbon
 - Energy
 - Decreasing reliance on unsustainable materials





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M25: An overview

6 Sept 2010

Notes following meeting

From: Liz Truckle
Sent: 08 September 2010 13:19
To: 'James.Richardson@sbbjv.co.uk'
Cc: 'Louise.Morgan@sbbjv.co.uk'; Tim Hinch; Filippa St Aubin D'Ancey
Subject: presentations to Essex - Epping Forest District Council (6 Sept) by Tim Jones
James

I had a successful meeting / presentation with the members of the Overview and Scrutiny Committee on Monday 6 September at Epping Forest. These are a few of the issues that were raised, as part of the presentation, which I believe Liz has sent through to you.

- Members applauded us for the progress we have been making
- Dartford was high on the agenda, as you can imagine, particularly congestion through Essex. Dartford is a moving target at the moment, with regard two initiatives emerging from the DfT regarding free flow tolling and relieving the daily charge in the event of severe congestion. Mike Putnam and Andrew McNaughton are meeting Graham Dalton tomorrow (Thurs) to explore ways to address Dartford going forward.
- Members were concerned about planning for the growth of traffic in the next 20 to 30 years and were concerned that the LUS (in whatever form) would go back at least 5 years.
- A number of comments were raised about J27 including noisy surfacing, imposing gantries and the over bright level of lighting in the area.
- They were concerned with the positioning of the Blunts Farm Depot and I reassured them that Connect Plus is concerned about its long term viability and that we were looking at alternative sites

I understand you are presenting on my behalf at the EEHBLG at Enfield tomorrow evening. Firstly thank you for doing this – and secondly, if you wanted to talk about any of the above issues, please call me on my mobile on the basis of the above comments, I suspect you won't have a hard time!

Kind regards

Liz Truckle