Brighton 3Ts
Hospital Liaison Group
Construction Logistics
7th February 2011

Steve Chudley
Laing O’Rourke
Summary of HLG 06/12/10

• Summary of logistics strategy presented
• Contiguous pile wall
• Consolidation centre
• Construction traffic access routes
• Update of site access layout
• Update of vehicle movements
• Summary of environmental plan
Update of Logistics

• Work in progress
• Site investigation complete
• Pre demolition audit ongoing
• Further discussions held with Brighton & Hove City Council
• Vehicle movement planning further detailed (including time of loading a tipper lorry)
• Migratory workforce review
Site investigation

- Site works complete
- Generally good quality chalk, some contaminants in one sample location
- Initial analysis undertaken, exact soil classification to follow
- Final destination of spoil yet to be confirmed
- Pile design is ongoing – principles previously presented are being developed
Pre demolition audit

- Audit ongoing
- Variety of buildings, ages and construction type (1828 to 2007)
- Typical materials to be re-cycled
  a) Masonry brick walls
  b) Concrete (foundations, columns, floors)
  c) Metal – steelwork (within foundations and floor slabs),
  d) Services – Copper pipes, metal trunking, copper wiring
  e) Internal finishes – to waste recycling centre
  f) Timber – separated/to waste recycling centre
- Initial assessment c.90% down to 60% dependent on building
- Hazardous material to licensed landfill (mainly Asbestos)
- Heathrow T2A 99.14% by weight diverted from landfill
Vehicle movements

- With most restricted access through the excavation phase circa 10-12 vehicles can be located along the haul road within the site.
- General loading time for 1 lorry c. 6-10 minutes.
- With three machines loading, overall loading time c. 30-40 minutes.
- Lorries will then remove spoil from site and travel to final location.
- Maximum 4, more typically 3 visits from the lorries per day.
- Other deliveries will be arranged around the spoil lorries.
Access into site – Stage 1
Local labour/migratory workforce

- Engage with local suppliers/businesses via a local business forum to allow local companies to register interest in working with Laing O’Rourke
- In conjunction with the local business forum, Laing O’Rourke will then develop their supply chain in the local area
- Labour attending site will come from a mixture of
  a) Locally sourced labour
  b) Daily travel from London – on other projects discussions with bus companies have provided additional buses from the station
  c) Local rent of houses
  d) Use of local guesthouses
- “Crew” buses for subcontractors to minimise individual car journeys included within the sub-contracts
Construction traffic update

• Route into Brighton may be adjusted following further meeting with B & HCC
• Traffic studies on all potential routes highlight overall percentage increase in traffic is not greater than 2.5% (based on peak value of 80 vehicles per day all HGV)
• Analysis of the Aquarium roundabout undertaken. Summary table below

<table>
<thead>
<tr>
<th></th>
<th>Increase in Queue Length (number of vehicles)</th>
<th>Increase in Delay (seconds per vehicle)</th>
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</thead>
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<td>A23 Old Steine</td>
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<td>Grand Junction Road</td>
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Thank you

• Any Questions?
Vehicle movements – Stage 1 & 2
Vehicle movements – Type of Vehicles
Demolition/Excavation/Waste removal

Tipper - Max. weight c. 26 Tonnes
Local buses - c. 22 Tonnes

• Stage 1
  a) Peak – 65 per day
  b) Overall duration – 47 Months
  c) Average – 33 per day

• Stage 2
  a) Peak – 20 per day
  b) Overall duration – 36 Months
  c) Average – 11 per day
Vehicle movements – Type of Vehicles
Concrete and Reinforcement Lorries

Similar size to Tipper.
Concrete max. laden weight c. 22 Tonnes

• Stage 1
  a) Peak – 20 per day
  b) Overall duration – 23 months
  c) Average – 14 per day

• Stage 2
  a) Peak – 10 per day for 1 month, generally 6 per day
  b) Overall duration – 23 months
  c) Average – 3 per day
Vehicle movements – Type of vehicles
Superstructure/precast

Maximum 40 Tonnes
Exact weight will be governed by design

• Stage 1
  a) Peak – 25 per day
  b) Overall duration – 21 months
  c) Average – 17 per day

• Stage 2
  a) Peak – 15 per day for 2 months
  b) Overall duration – 10 months
  c) Average – 10 per day
Vehicle movements – Type of vehicles
Fit out/Others
Will vary from articulated lorry to small transit van

- Stage 1
  a) Peak – 25 per day
  b) Overall duration – 28 months
  c) Average – 22 per day

- Stage 2
  a) Peak – 15 per day
  b) Overall duration – 19 months
  c) Average – 11 per day
Environmental Plan

• Initial draft plan produced
• Laing O’Rourke early signatory to WRAP’s Construction Commitments: Halving Waste to Landfill by 2012
• Targets for waste/water usage/CO2 emissions
  a) Waste 4.7t/100m²
  b) Water usage 9.2m³/100k
  c) CO2 995kg/100k
• Design for Manufacture and Assembly will assist with meeting all the above targets
Timeline

• Stage 1
  a) Commence – Early 2012
  b) Complete – Late 2015

• Decant and decommission Barry Building site
  a) Early 2016 to Mid 2016

• Stage 2
  a) Commence – Mid 2016
  b) Complete – Early 2019

• Decant and decommission Sussex Cancer Centre
  a) Early 2019 to Early 2020

• Stage 3
  a) Commence – Early 2020
  b) Complete – Late 2020
One Hyde Park