

M42 Junction 6 Development Consent Order Scheme Number TR010027

8.47 Consideration of Alternative Locations for the M42 Junction 6 Main Site Compound

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Consideration of Alternative Locations for the M42 Junction 6 Main Site Compound

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1 Main Site Compound: Consideration of Alternatives

1.1 Background

- 1.1.1 At the Issue Specific Hearing on the draft Development Consent Order (DCO) held on 2 July 2019, the Examining Authority (ExA) requested that Highways England (the Applicant) provide further information on why the location of the main site compound for the M42 Junction 6 scheme ('the Scheme') was chosen and on the alternatives that have been considered.
- 1.1.2 The ExA requested that this additional information be submitted to the Examination by Deadline 4 on 2 September 2019.
- 1.1.3 This document has accordingly been prepared by the Applicant in response to the ExA's request and provides further information on:
- a. the alternative sites for the main site compound identified and appraised during the design-development and environmental assessment of the Scheme;
 - b. the constraints and opportunities associated with each of the identified sites and how these were factored into the design-development and selection process; and
 - c. the reasons for selecting the preferred location for the main site compound, as proposed within the DCO application for the Scheme.
- 1.1.4 The information contained within this document builds on the content of Chapter 4 - Scheme History and Alternatives of Volume 1 of the Environmental Statement [APP-049/Volume 6.1] which provides a summary of the main alternatives considered for the main site compound.

1.2 Main site compound use

- 1.2.1 The Applicant can confirm that the primary function of the main site compound is to provide office buildings and welfare facilities for construction staff during the construction phase of the Scheme.
- 1.2.2 Facilities to be contained within the main site compound will include the following.
- a. Office and administration centre for the scheme with office and welfare units comprising changing and drying rooms, w/c facilities and a canteen.
 - b. Car parking and internal access roads.
 - c. Drop off and pick up points within the compound for bus service to local transport hubs.
 - d. Security units with 24/7 attendance.
 - e. Secure boundary fencing.
 - f. Temporary utility connections for water, power and communications.
Temporary sewage treatment facility to treat foul water prior to discharge.
 - g. Waste segregation areas.
 - h. Construction stores for small tools and equipment.

- i. Areas for the laydown of materials and temporary works equipment.
- j. A secure compound for recovered vehicles.
- k. Bunded areas for the storage of fuels.
- l. Parking area for lorry loader and plant including compressors, lighting towers, Mobile Elevated Work Platforms and pick-up trucks.
- m. A materials testing laboratory.
- n. Areas for the storage of topsoil and subsoil.
- o. An area for the storage of traffic management equipment.
- p. Construction of designated wash out tanks for road sweepers.
- q. Lighting.
- r. Haul road along the northern boundary to provide access to the south abutment of the A45 footbridge.
- s. Ecological mitigation fencing.
- t. Visual/acoustic mitigation fencing.

1.3 Site appraisal methodology

- 1.3.1 The identification and appraisal of potential locations for the main site compound for the Scheme commenced during the development and selection of Scheme options in 2017, with further work carried out in 2018 following the Preferred Route Announcement for the Scheme.
- 1.3.2 To inform the development of the methodology for construction of the Scheme, the appraisal sought to identify the most appropriate location to accommodate the main site compound.
- 1.3.3 A key factor in the identification of potential locations was avoiding areas of land covered by Birmingham Airport's aerodrome safeguarding zone where possible. The aerodrome safeguarding zone comprises a defined take off flight path and climbing surface from the airport, extending in a broadly south-east direction from west of the A45 Clock interchange, crossing the M42 motorway west of Hampton in Arden.
- 1.3.4 Other important factors considered in the appraisal of sites included the following:
 - a. The identification of land parcels of a sufficient size to accommodate the required facilities.
 - b. The ability to secure land for its use as the main site compound.
 - c. Accessibility to and from the identified sites and the local and strategic road networks.
 - d. Suitability of the existing road network, including weight limits and the avoidance of construction traffic through villages.
 - e. Proximity to residential properties.
 - f. Proximity to the alignment of the mainline link road.

- g. Proximity to existing buried and/or overhead utilities infrastructure.
- h. Presence of environmental constraints.

1.4 Identified sites

- 1.4.1 The appraisal identified the following potential sites that were large enough to accommodate the main site compound, the locations of which are illustrated on **Figure 1 in Appendix A**.

Location 1: Land to the south east of Clock Interchange

- 1.4.2 Location 1 comprises a parcel of land to the south east of Clock Interchange.
- 1.4.3 The appraisal of Location 1 identified that this site offered direct access from Catherine-de-Barnes Lane at Clock Interchange and had sufficient space to provide a buffer zone between equipment and activities within the compound and nearby properties.
- 1.4.4 The appraisal also identified that the field systems are located outside of the main obstacle limiting surface (OLS) restrictions within the aerodrome safeguarding zone, which would permit the safe use of equipment of telehandlers and lorry loaders for the unloading and transportation of materials.
- 1.4.5 As the lower field system to the east of this site is adjacent to existing drainage ditches, it was identified that these could be used to facilitate surface water control. It was also identified that existing water, power and communication services are close to the site, which would require minimal work to provide the necessary service feeds to the office building within the compound.
- 1.4.6 Although an aqueduct runs under the site, it was identified that this could be protected with designated plant crossing points during topsoil and subsoil stripping operations. Additionally, an exclusion zone could be defined along the service to prevent excavation during the formation of the compound, and an existing 11kV overhead cable could be diverted underground as part of permanent diversion works.
- 1.4.7 The site is located at the edge of Bickenhill village, near to individual residential properties. A review of the site identified that appropriate visual screening could be used between the properties and the compound.

Location 2: Land to the north east of Junction 6 of the M42 motorway

- 1.4.8 Location 2 comprises a single parcel of land directly north east of M42 Junction 6, adjacent to East Way.
- 1.4.9 The appraisal of Location 2 identified that this site offered good access via East Way and from the A45 westbound carriageway. The presence of overhead electricity transmission cabling and the proximity of the site to properties in the settlement of Middle Bickenhill were viewed as potential constraints; however, it was identified that the number of residents potentially affected by the presence and operation of the compound at this location would be lower than those identified for Location 1.

- 1.4.10 During the identification and appraisal of options, this site was identified as being required for the construction of the proposed High Speed 2 Interchange Station and an associated Automated People Mover.
- 1.4.11 As the Scheme was unable to guarantee that this location would be available for the construction contractor to use during the works, and taking into account the other identified potential constraints, Location 2 was discounted from further consideration.

Location 3: Land within the Birmingham National Exhibition Centre (NEC) car park

- 1.4.12 Location 3 comprises land associated with car parks N8 and N9 of the Birmingham NEC, north of M42 Junction 6.
- 1.4.13 The appraisal of Location 3 recorded that the site has hardstanding areas and offered good connectivity to existing utility services. Additionally, it was noted that when compared to other potential locations, this site was located at a sufficient distance to not give rise to adverse impacts on residential properties.
- 1.4.14 Constraints identified with the site were associated with its connectivity to the strategic road network, distance from the key construction works, and impact on the NEC and events held there. In addition, HS2 Ltd had also identified land within the NEC for construction use. It was noted that this could lead to competing demands for the land during the construction period.
- 1.4.15 In terms of connectivity, it was noted that construction traffic would need to use either the A446 to access Junction 4 of the M6 motorway (which did not offer access to the M42 motorway), or Stonebridge Island on the A45. Although it was identified that construction traffic could use Bickenhill Lane, this would involve interfacing with traffic associated with Birmingham Airport and Birmingham International railway station traffic on a daily basis.
- 1.4.16 Taking into account the above factors, Location 3 was discounted from further consideration.

Location 4: Land adjacent to the B4102 Solihull Road, east of the M42 motorway

- 1.4.17 Location 4 comprises an area of land within a land parcel adjacent to the B4102 Solihull Road ('Solihull Road'), directly east of the M42 motorway.
- 1.4.18 The appraisal of Location 4 identified that this site has good connectivity to telecommunications and water services located in Solihull Road. Notwithstanding this, the appraisal recorded that a new power feed would need to be brought in from an existing transformer pole located to the south of Solihull Road.
- 1.4.19 Although the site is located under the OLS, it was considered that the available space under the OLS at this location would provide adequate clearance for the type of operations that would be undertaken within the compound.
- 1.4.20 Location 4 is approximately 700m west of Hampton in Arden – a distance sufficient to avoid adverse impacts on village residents. The review also identified that two residential properties are located approximately 150m to the south west of the site, which could experience some disruption associated with increases in vehicle movements along Solihull Road.

- 1.4.21 Access to this site for construction traffic would be from Clock Interchange, along Catherine-de-Barnes Lane and Solihull Road. The routing of traffic onto these roads would therefore place an additional burden on the local road network.
- 1.4.22 A further constraint at this site is the presence of overhead high voltage electricity transmission cables, which were identified as being restrictive to options to lift and store materials within the compound.
- 1.4.23 Based on the constraints identified and the implications associated with access to and from the site, Location 4 was discounted from further consideration.

Location 5: Land to the south of the A45, west of M42 Junction 6

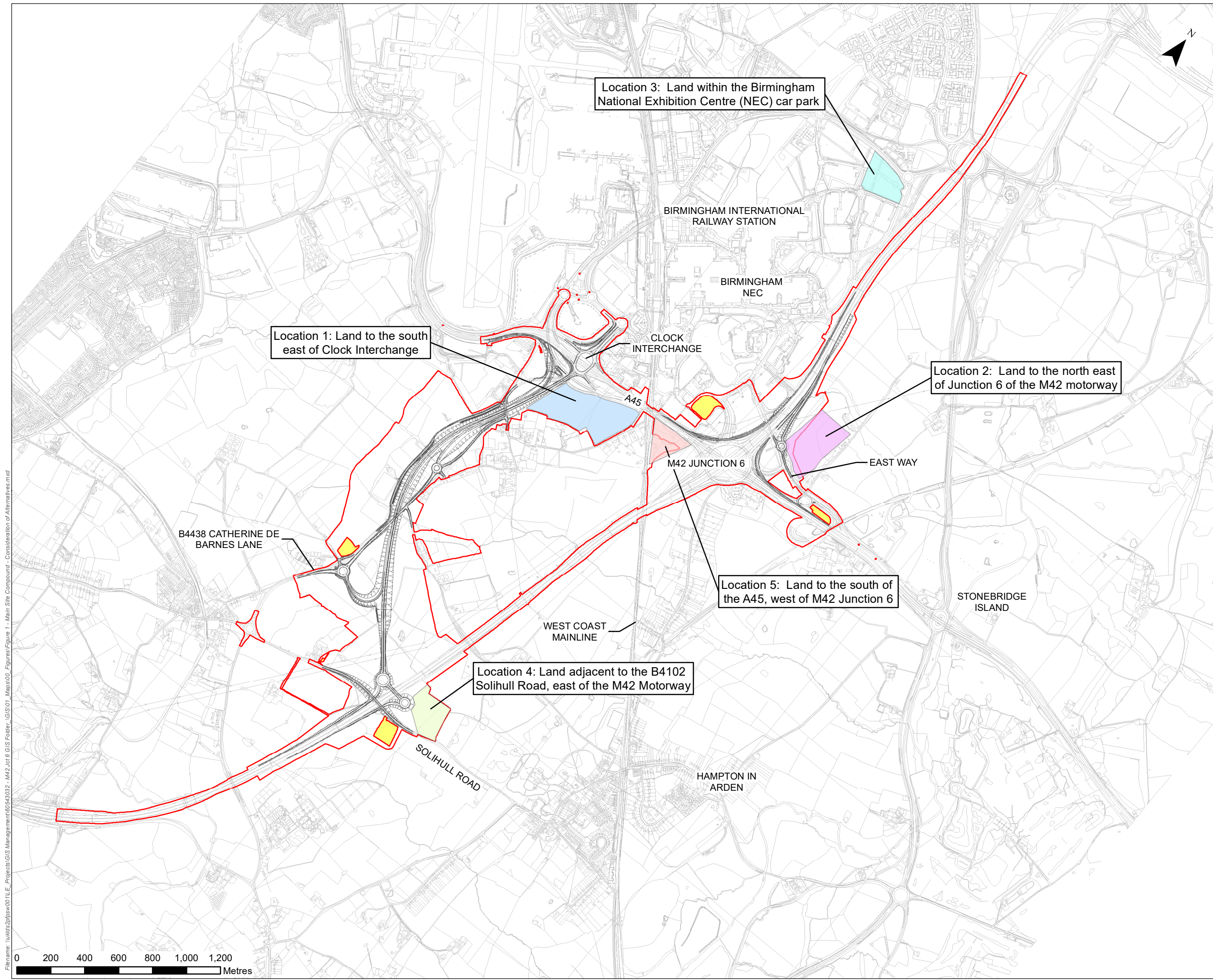
- 1.4.24 Location 5 comprises a triangular parcel of land located between the West Coast Mainline and M42 Junction 6 and is an area that has previously been used to accommodate construction activities associated with the A45 bridge widening works.
- 1.4.25 The appraisal of Location 5 noted that the site offered good connectivity to existing services, and access points could be created onto the A45 through the construction of temporary access roads. Access to the site would, however, be limited to traffic travelling along the designated left turn at M42 Junction 6, with A45 westbound traffic being unable to access the site if travelling from Stonebridge Island.
- 1.4.26 It was identified that the presence of the West Coast Mainline bordering the site's western boundary would constrain lifting operations within this area. A number of existing buildings, one of which is derelict, were also recorded as potentially constraining the available working area within the site.
- 1.4.27 Environmental surveys of the site and its environs undertaken in 2017 identified the potential presence of Great Crested Newt - a European Protected Species - in a pond within the land parcel, located towards the southern boundary of the site.
- 1.4.28 The difficulties in achieving a suitable access road and the ecological constraints noted meant that Location 5 was considered unsuitable to accommodate the main site compound. Accordingly, this site was discounted from further consideration.

1.5 Preferred Location and Design Refinements

- 1.5.1 The appraisal of the alternative sites concluded that Location 1, comprising an area of land to the south east of Clock Interchange, was the most preferable site to accommodate the main site compound for the reasons set out in Section 1.4 above.

Appendix A

Figure 1: Main Site Compound - Consideration of Alternatives



NOTES
 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.

LEGEND

- THE SCHEME
- LIMITS OF LAND TO BE ACQUIRED OR USED PERMANENTLY OR TEMPORARILY (THE ORDER LIMITS)
- LIMITS OF LAND TO BE TEMPORARILY ACQUIRED FOR SIGNAGE INSTALLATION
- LAND NOT INCLUDED WITHIN THE ORDER LIMITS

FIRST ISSUE	BO	AR	29/07/19
Revision Details	By	Check	Date

Purpose of Issue

Client
 Highways England
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 Two Colmore Square
 38 Colmore Circus
 B4 6BN



Development Consent Order Number
TR010027

Project Title
M42 JUNCTION 6 IMPROVEMENT

Drawing Title
FIGURE 1: MAIN SITE COMPOUND - CONSIDERATION OF ALTERNATIVES

Designed	BO	Checked	AR	Approved	Date
Internal Project No	60543032	Suitability			
Scale @ A3	1:20,000	Zone	M42		

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Location	M42_SW_ZZ_ZZ	-DR-DC-	Type Role Number	

Filename: \\hd52p\psw001\LE_Projects\GIS Management\60543032 - M42 Jct 6 GIS Folder - GIS\01 - Maps\00 - Figures\Figure 1 - Main Site Compound - Consideration of Alternatives.mxd

