CONSTRUCTION SEQUENCE & PROGRAMME
1.0 Introduction 7

2.0 Key activities 8
   2.1 Airport related activities
   2.2 Construction of new roads and accesses
   2.3 Earthworks – zone a
   2.4 Earthworks – zone b
   2.5 Adjacent off-site highways
   2.6 Remote off-site highways

3.0 Sequence and Phasing 11
   3.1 Key Restraints governing the Sequence and phasing
   3.2 Other sequencing and phasing issues
   3.3 Phasing summary
   3.4 Phasing detail
   3.4.1 Airport Related Activities
   3.4.2 New Access Roads
   3.4.3 Earthworks to zone a
   3.4.4 Earthworks to zone b
   3.4.5 Adjacent off-site highways
   3.4.6 Remote off-site highways

4.0 Construction Traffic 16
   4.1 Overarching Strategy
   4.2 Zone A
   4.3 Zone B and southern abutment to a45 bridge
   4.4 Zone c and northern abutment to A45 bridge
   4.5 Access to zone d
   4.6 Access to adjacent and off-site highway improvements
   4.7 Routing of Construction Vehicles

5.0 Traffic Management 18
   5.1 Strategy and Phasing
   5.2 Works on or adjacent to existing highways
   5.3 Highway Works not adjacent to existing highways
CONTENTS

6.0 Construction Management 20
   6.1 Overarching Construction Management Plan
   6.2 Addendums to Overarching Construction Management Plan
   6.3 Monitoring and Improvements

7.0 Utilities 22
   7.1 Diversions
   7.2 New Services

8.0 Waste Management and Minimisation 23
   8.1 Objectives 14
   8.2 Overarching Site Waste Management Plan
   8.3 Contract Specific Site Waste Management Plans

Appendix Drawings 24
1.0 Introduction
This report describes the proposed programme of the construction works and key activities that will be undertaken.

The report particularly focuses on the phasing of the works and the management controls that will be implemented. Consideration of potential effects during the construction process and any necessary mitigation is provided in each relevant chapter. The relevant chapters are:

- Chapter 5  Landscape and Visual
- Chapter 6  Ecology and Nature Conservation
- Chapter 7  Geology, Soil and Groundwater
- Chapter 8  Water Resources and Drainage
- Chapter 9  Noise and Vibration
- Chapter 10  Air Quality
- Chapter 11  Heritage
- Chapter 12  Lighting
- Chapter 13  Transportation
2.0 Key Activities

2.1 AIRPORT RELATED ACTIVITIES

The proposed access road to Zone A passes through land occupied and associated with the Airport. To accommodate the new road various buildings are to be relocated to allow demolition to take place. The buildings to be demolished and their proposed new locations are shown on php drawing 3924 024.

The timing and phasing of these works are discussed in more detail in Section 3.

2.2 CONSTRUCTION OF NEW ROADS AND ACCESSES

The key new roads and accesses are (refer to drawing php 3924 041 P2 – Construction Highways Sequence Plan):

- Access to Zone A (Including works to Rowley Road new Roundabout and link to Toll Bar) – Public Road
- Zone B Estate Roads (including link to A45 Bridge) – Public Road
- Jaguar Link Road – Zone C – Public Road
- St Modwen Estate Road – Public Road

The timing and phasing of these works are discussed in more detail in Sections 3.

The access road to Zone A requires the lowering of the road adjacent to the airport runway and will require retaining walls (maximum retained height 2m).

To facilitate the lowering of the road (Bubbenhall Road) it will be necessary to close the road during the construction period (3 months) and a suitable alternative diversion route is available via Stoneleigh Road. However, since Bubbenhall Road will be permanently closed in the final scheme, it will not be re-opened when construction works are finished.

The alignment of the proposed new access road to Zone A passes to the east of Oak Close, further away from the residential properties than the existing road. It is proposed to construct the screening bund adjacent to Road Rise during the construction of the Access Road.
2.3 EARTHWORKS – ZONE A
The timing and phasing of these works are discussed in more detail in Section 3.

The proposed development earthworks volume is approximately 4 million m³. The average excavation on site will be 3m deep, with localised deeper sections to expose all existing materials. The development aim is to use as much of this material on site within the development.

- Approximately 1 million m³ will be placed in a screening bund around the site to help mitigate any noise, light or visual impacts of buildings and operations on site.
- Approximately 3 million m³ of material will be replaced back into the development to form the building plots.
- Approximately 75,000 m³ of unsuitable materials will be required to be taken off site to recycle or to licensed tip.
- Approximately 50,000 m³ of imported soil stabilising materials (lime, pfa, cement mix) will be imported to site.

The duration of the earthworks works is planned to take 3 years due to the volumes involved.

Limiting removal of materials to only those which require taking to a licensed tip or recycling off-site will reduce the amount of HGV vehicle journeys from the site. The earthwork solution proposed aims to be more sustainable than simply dig and dump of all materials. It must be noted that no earthworks operation on site is planned prior to the new development estate road access being built. No construction traffic will go via Baginton or Bubbenhall villages.

2.4 EARTHWORKS – ZONE B

The total volume of excavation for Zone B is 350,000m³ of which 100,000m³ is required as development plot fill and the balance will be accommodated in the approach embankments to the A45 Bridge and the proposed screening bund to Oak Rise.

The timing and phasing of these works are discussed in more detail in Section 3.
2.5 ADJACENT OFF-SITE HIGHWAYS

The key adjacent off-site highways works are (refer to drawing php 3924 041 P2 – Construction Highways Sequence Plan and Lawrence Walker drawing Figure 2 P21):

- Toll Bar Island PI Works – Phase 1A (Highways Agency)
- Developer Funded PI Works – Phase 1B (Highways Agency)
- Bridges and Slip Road (adjacent to A45) (Developer)
- Whitley Junction – Phase 2 (Developer)
- Other Highway Improvements – Phase 3 (Developer)

The timing and phasing of these works are discussed in more detail in Section 3.

2.6 REMOTE OFF-SITE HIGHWAYS

The key remote off-site highways works are (refer to drawing php 3924 041 P2 – Construction Highways Sequence Plan):

- Whitley Roundabout
- Binley Roundabout
- St Martin’s Roundabout
- Stoneleigh Junction

The timing and phasing of these works are discussed in more detail in Section 3. These works will be phased to mitigate the construction impacts on the highway network and local communities including commuters.
3.1 KEY RESTRAINTS GOVERNING THE SEQUENCE AND PHASING

Programme C012/PROG/01 Rev 0 sets out the highways and enabling phases (years 1 to 5). It is anticipated that construction of buildings will commence during the enabling phase; for Zone A this is likely to be in year 3 and for Zone B year 1.

The following key logical restraints constitute the major programme drivers:

- The Highways Agency's Toll Bar Scheme (three year construction programme)
- The provision of suitable construction access
- Ecological limitations
- Geotechnical considerations
- Compliance with legal frameworks
- Material balancing (earthworks)
- Relocation of occupiers from buildings to be demolished
- Utility Diversions and/or Protection
- Funding streams

3.2 OTHER SEQUENCING AND PHASING ISSUES

Other practical restraints may include:

- Build out time
- Planning requirements
- Provision of screening from construction activities
- Resource availability and efficiency
- Sustainable construction
- Other third party imposed restraints
- Statutory imposed restraints
### 3.0 Sequence & Phasing

#### 3.3 PHASING SUMMARY

The current key sequencing and phasing strategy is set out in:

<table>
<thead>
<tr>
<th>Title</th>
<th>Reference</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Earthworks Sequence Plan – Zone A</td>
<td>3924 042 P3</td>
<td>php Architects</td>
</tr>
<tr>
<td>Construction Highways Sequence Plan</td>
<td>3924 041 P2</td>
<td>php Architects</td>
</tr>
<tr>
<td>Indicative Outline Programme</td>
<td>C012/PROG/01 – Rev 0</td>
<td></td>
</tr>
<tr>
<td>Site Access Proposed Improvements Phasing</td>
<td>Figure 2 P21</td>
<td>Lawrence Walker</td>
</tr>
<tr>
<td>Proposed A45 Bridge Traffic Management Plan</td>
<td>NTH/2113/HD/100 rev P1</td>
<td>BWB</td>
</tr>
</tbody>
</table>

The table below sets out an indicative sequence and phasing by construction year:

<table>
<thead>
<tr>
<th>Year</th>
<th>Key Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Demolition and relocation of buildings within Airport</td>
</tr>
<tr>
<td></td>
<td>Construction of access road from Rowley Road to Zone A</td>
</tr>
<tr>
<td></td>
<td>Pre-construction ecological works to Zone A</td>
</tr>
<tr>
<td></td>
<td>HA works to Toll Bar</td>
</tr>
<tr>
<td></td>
<td>Earthworks to Zone B</td>
</tr>
<tr>
<td></td>
<td>Zone B Estate Roads</td>
</tr>
<tr>
<td></td>
<td>Construction of Oak Rise Screening Bund</td>
</tr>
<tr>
<td></td>
<td>Whitley Junction and Roundabout Improvements</td>
</tr>
<tr>
<td></td>
<td>Stoneleigh Junction Improvements</td>
</tr>
<tr>
<td></td>
<td>Building Construction Zone B</td>
</tr>
<tr>
<td>2</td>
<td>HA Works to Toll Bar</td>
</tr>
<tr>
<td></td>
<td>Whitley Junction and Roundabout Improvements</td>
</tr>
<tr>
<td></td>
<td>Jaguar Link Road (to River Sowe)</td>
</tr>
<tr>
<td></td>
<td>St Modwen Estate Road</td>
</tr>
<tr>
<td></td>
<td>Earthworks to Zone A</td>
</tr>
<tr>
<td></td>
<td>Building Construction Zone B</td>
</tr>
<tr>
<td>3</td>
<td>Earthworks Zone A</td>
</tr>
<tr>
<td></td>
<td>HA Works to Toll Bar</td>
</tr>
<tr>
<td></td>
<td>A45 Bridge and River Sowe Bridge</td>
</tr>
<tr>
<td></td>
<td>Building Works Zone A</td>
</tr>
<tr>
<td></td>
<td>Structural Landscaping</td>
</tr>
</tbody>
</table>
The construction year commences one month after receipt of a Planning Permission allowing enabling and highway development to commence.

### 3.4 PHASING DETAIL

#### 3.4.1 AIRPORT RELATED ACTIVITIES

The construction, relocation and demolition of existing building within Zone D will commence on day one to allow the access road to Zone A to be constructed.

#### 3.4.2 NEW ACCESS ROADS

The access road from Rowley Road to Zone A will commence on day one to allow earthworks in Zone A to commence. To facilitate the lowering of the proposed access road to Zone A it will be necessary to close a length of Bubbenhall Road. A suitable alternative diversion route would be Stoneleigh Road. On completion of the access road to Zone A Bubbenhall Road will be permanently closed. During the construction of the access road to Zone A, the landscaped screen mounding east of Oak Close will be constructed with material obtained from Zone B.

The estate roads to and within Zone B will also commence on day one to allow development to commence. The estate roads within Zone B will be utilised to gain access for the construction of the southern abutment to the A45 Bridge.

The Jaguar Link Road will be constructed during year two to afford access for the construction of the A45 Bridge north abutment and the River Sowe Bridge.
The A45 Bridge and River Sowe Bridge will be constructed during year three such that its completion coincides with the completion of the Highway Agency’s Toll Bar Scheme. The construction sequence for the A45 bridge is shown on drawing NTH/2113/HD/100 rev P1, which shows how the A45 bridge can be constructed with minimal impact of the Highway Agency’s Phase 1A and 1B.

The St Modwen’s Estate Road will be constructed after the Developer’s improvements to the Stivichall Roundabout (Festival Island) have been completed.

3.4.3 EARTHWORKS TO ZONE A

The earthworks in Zone A will commence after the access road from Rowley Road has been completed and the initial phase of the enabling ecological works has been completed (translocation of Great Crested Newts). The Phasing of the earthworks will generally be in line with the sequence indicated on the Earthworks Sequence Plan and Programme C012/PROG/01 – Rev 0.

Phase 1 filling of the landscape screen mound will be undertaken as soon as possible after commencement of the earthworks to provide screening to the adjacent properties and alternative habitats and foraging for the relocated of badger setts.

3.4.4 EARTHWORKS TO ZONE B

The earthworks plateaux within Zone B will be constructed concurrently with the estate roads along with the construction of the approach ramps to the A45 Bridge. The landscape screen mound to Oak Close will be constructed with material from Zone B earthworks.
3.4.5 ADJACENT OFF-SITE HIGHWAYS

References to Phasing within Section 3.4.5 refer to the Phases identified on Lawrence Walker drawing Figure 2 P21.

The Toll Bar PI Works – Phase 1A and the Developer Funded PI Works – Phase 1B will be undertaken by the Highways Agency and are expected to commence just before or at the same time as the development works. Highways Agency Phases 1A and 1B are expected to take three years to complete.

The Eastbound Slip road adjacent to the A45 Bridge will be constructed after completion of the Highway Agency’s works.

The Whitley Junction and Roundabout (Phase 2) will be constructed commencing at the beginning of year one.

The Developer Works (Phase 3) will commence after the completion of Phases 1A and 1B.

3.4.6 REMOTE OFF-SITE HIGHWAYS

The Stoneleigh Junction works will be undertaken in year 1.

The Whitley Roundabout works will be undertaken in conjunction with the Whitley Junction during year one.

Alterations to Bindley and St Martin’s Roundabouts will be undertaken after the completion of the Highway Agency Toll Bar Scheme.
4.0 Construction Traffic

4.1 OVERARCHING STRATEGY

Construction traffic can be the cause of nuisance to the local community and other road users. The strategy to mitigate the nuisance will predominantly be targeted at preventing construction traffic from leaving the major road network so local communities and their local highway network is unaffected by construction traffic throughout the life cycle of the construction programme.

4.2 ZONE A

No construction works will commence in Zone A until the new access road has been constructed from Rowley Road to Zone A. The only permitted access will be via Toll Bar Roundabout along Rowley Road to the new roundabout and along the new access road.

4.3 ZONE B AND SOUTHERN ABUTMENT TO A45 BRIDGE

The only permitted access to Zone B will be via Toll Bar Roundabout and Rowley Road to the new roundabout. Access roads within Zone B will be constructed to suit the development programme and layout.

Temporary roads may be required to gain access to the A45 bridge south abutment.

4.4 ZONE C AND NORTHERN ABUTMENT TO A45 BRIDGE

The only permitted access to Zone C will be via the Whitley junction until such time as access it possible from Zone B.

Temporary roads may be required to gain access to the River Sowe Bridge.

4.5 ACCESS TO ZONE D

Access to Zone D will be via the existing Airport accesses.
4.6 ACCESS TO ADJACENT AND OFF-SITE HIGHWAY IMPROVEMENTS

Access to all adjacent and off-site highway improvements will be via the appropriate main road network.

4.7 ROUTING OF CONSTRUCTION VEHICLES

An appropriate routing plan will be prepared for each contract and agreed with the Local Highway Authorities and the Local Planning Authority.

Compliance with the agreed routing plans will be a contractual obligation and will be monitored by the Developer’s Site Wide Project Manager.
5.0 Traffic Management

5.1 STRATEGY AND PHASING

The phasing of all infrastructure works that impact on the highway network will as far as is possible be phased to reduce conflicts and excessive loading on the network.

All traffic management measures will be designed in accordance with Chapter 8 - Traffic Safety Measures and Signs for Road Works and Temporary Situations, and agreed with the appropriate highway authorities and the police.

The Site Wide Project Manager will review at a strategic level the impacts and effects of traffic management on a regular basis and maintain a master programme of highway works. The Site Wide Project Manager will also liaise with the appropriate parties to assess the impact of other systems whose traffic management may have a cumulative impact.

5.2 WORKS ON OR ADJACENT TO EXISTING HIGHWAYS

Works that require traffic management are:

Toll Bar Roundabout and associated works (HA scheme) including Phase 1
Construction of A45 Bridge and Slip Roads
Whitley Junction and Roundabout
New Roundabout and Improvements to Rowley Road
Construction of Site Access Road
Stivichall Roundabout

Bubbenhall Road will require a permanent stopping up order to allow the proposed new Zone A estate road via the Airport to be built online of the existing Bubbenhall Road at the western end of the Airfield. This will separate all public highway traffic on Stoneleigh Lane mixing with the development traffic on the proposed new development estate road.
5.3 HIGHWAY WORKS NOT ADJACENT TO EXISTING HIGHWAYS

Works that require traffic management are:

Binley Roundabout
St Martin’s Roundabout
Stoneleigh Junction

These works will be phased to mitigate any cumulative effects of traffic management on the road network.

The measures set out in Section 6 – Construction Management will ensure, as far as is practical, that the effect of traffic management is mitigated.
An Overarching Construction Management Plan will be prepared and agreed with the Local Planning Authority before any works commence. The Overarching Construction Management Plan (OCMP) documents the systems and controls to be adopted to minimise the effects during the construction of the Coventry and Warwickshire Gateway.

The OCMP will cover the following as a minimum:

1) Introduction
2) Site Management
3) Legal Compliance
4) Location of Site Compound and Facilities
5) Loading and Unloading of Plant and Materials
6) Storage of Plant and Materials
7) Environmental Provision
   a. Traffic Management and Construction Traffic
   b. Air Quality and Dust
   c. Noise and Vibration
   d. Odour
   e. Pollution, Contamination & Water Resources
   f. Plant fuelling arrangements
   g. Ecology and Landscaping
   h. Materials & Waste
   i. Archaeology
8) Emergency Planning & Incident Responses
9) Site Rules
10) Monitoring & Reporting

This OCMP will be adopted by all Contractors and Sub-contractors working on the development to ensure a consistent and coordinated approach to construction management. This OCMP is a "live" document that should be considered as the template for the Principal Contractor to manage the construction process with further updates as appropriate or necessary during the process.
6.2 ADDENDUMS TO OVERARCHING CONSTRUCTION MANAGEMENT PLAN

This OCMP is an overarching framework document for the Development and will be used by each of the individual contracts coming forward. Where necessary, an addendum will be prepared for each contract and submitted to the Local Planning Authority.

6.3 MONITORING AND IMPROVEMENTS

The Developer will appoint a Site Wide Project Manager whose duties will include the monitoring of compliance with the OCMP and its addendums.

The Site Wide Project Manager will seek to achieve continual improvement of the standards of construction.
7.0 Utilities

7.1 DIVERSSIONS

Existing Utility Diversions will be undertaken during each phase of the works as necessary to accommodate the proposed design. Diversionary works will be undertaken without outages other than for short durations during final connections.

Diversionary works will be phased to cause minimum disruption and will be undertaken, where possible, without additional traffic management.

7.2 NEW SERVICES

Severn Trent Water has confirmed that the site’s potable water requirements can be provided from their local water network.

Western Power Distribution has confirmed that the site’s electricity requirements can be provided from the local distribution network.

Nation Grid has confirmed that the site’s gas requirements can be provided from their medium pressure main.

The BT Openreach networks can be extended into the development, with BT’s normal range of services being available. The proposed telecommunication network will provide Superfast Broadband up to 1 gbps to the data hub at the Technology Park. The network will provide Superfast Broadband data services to the villages of Bubbenhall and Baginton up to 24 mbps.
8.1 OBJECTIVES

It is inevitable that waste will be produced during the construction works. Throughout the construction process, all activities will seek to minimise the generation of waste, utilising the waste hierarchy where practicable, to manage waste. The waste hierarchy seeks to reduce waste through elimination, reduction, re-use, recycling through to disposal as the final option. Handling and disposal of waste must be carried out under the ‘Duty of Care’ Regulations and current legislation.

Under the ‘Duty of Care’ Regulations it is the responsibility of all persons on site to dispose of waste in the segregated areas and to report any waste being stored incorrectly or escaping from the work site. In addition all waste not to be reused or recycled should be disposed of to a suitably licensed facility by a suitably licensed contractor.

Waste management procedures will be included in the Site Waste Management Plan which will be agreed with the LPA in advance of the construction works and will include the following topics:

- Identification of the types of waste that may be generated;
- Implementation of re-use and recycling strategies;
- Implementation of waste minimisation strategies;
- Set up of waste disposal facilities;
- Control and management of the disposal of different types of waste;
- Roles and responsibilities;
- Monitoring, reporting and auditing of waste produced on site.

Earthworks/Spoil

The proposed development will seek to minimise the import and export of material, wherever possible and the re-use materials around the site, as suitable engineering material or infill material, will be carried out.

Reduction

A number of potential options are available to complement construction waste reduction including maximising off-site fabrication, efficient design specification of standardised components/materials, implementing a just-in-time delivery system to minimise the volume of goods/materials stored on site and therefore exposed to inclement weather conditions and other site damage sources. Procedures will include:

- Design specification to be considered to ensure the efficient use of materials brought onto site by contractors;
8.0 Waste Management & Minimisation

8.2 OVERARCHING SITE WASTE MANAGEMENT PLAN

An Overarching Site Waste Management Plan will be agreed with the Local Planning Authority before any works commence. The overarching plan will establish the principles and standards for waste management for the whole development.

Compliance with the Overarching Site Waste Management Plan will be a contractual obligation on all contractors working on the development.

8.3 CONTRACT SPECIFIC SITE WASTE MANAGEMENT PLANS

The overarching document sets out the principles and standards to be adopted. Each Principal Contractor will prepare an Addendum Site Waste Management Plan which will set out in detail how the principles and standard of the overarching document will be implemented. The Addendums will also set out contract specific targets.