

## 14. SUMMARY AND RESIDUAL EFFECTS

### Introduction

- 14.1 This chapter summarises the mitigation measures and residual effects identified in each of the technical assessments included in the ES, which has been prepared to accompany the application for:

*"Full planning application for the demolition of existing building and car park and erection of buildings to provide residential units, a replacement retail foodstore, with additional commercial, business and service space, and a flexible community space, and ancillary plant, access, servicing and car parking, landscaping and associated works"*

- 14.2 The Development has been subject to an iterative design process. As this process progressed measures have been incorporated into the Development in order to avoid, reduce or offset significant environmental effects. Where this has not been possible, further mitigation measures have been proposed and are set out in Table 14.1 below along with the residual effects of the Development following mitigation.

**Table 14.1: Significance Table**

Stage	Effect	Mitigation	Residual Significance
<b>Population and Human Health</b>			
Construction	Effects on Employment	None required	Minor - Moderate Beneficial
Completed Development	Effects on Population and Housing	None required	Minor - Moderate Beneficial
	Effects on Local Expenditure		Minor - Moderate Beneficial
	Effects on Employment		Minor Beneficial
	Effects on GP Provision		Negligible
	Effects on Dentist Provision	Negligible	
	Effects on Wider Human Health	No mitigation required	Minor Beneficial
	Effects on Primary Education	Developer Contributions	Negligible
	Effects on Secondary Education	None required	Negligible
<b>Built Heritage</b>			
Construction	World Heritage Site		
	Royal Botanic Gardens, Kew	Implementation of CEMP	Negligible Neutral
	Conservation Areas		
	All	Implementation of CEMP	Negligible Neutral
	Listed Buildings		
	Grade I: All	Implementation of CEMP	Negligible Neutral
	Grade II*: All		Negligible Neutral

Stage	Effect	Mitigation	Residual Significance	
	Grade II: All (except the following)		Negligible Neutral	
	Coty Factory (Great West Road)		Minor Adverse	
	Former Gillette building, (Great West Road)		Minor Adverse	
	National Westminster Bank, No. 880 Great West Road		Minor Adverse	
	Registered Parks and Gardens			
	All	Implementation of CEMP	Negligible Neutral	
	Locally Listed Buildings			
	All	Implementation of CEMP	Negligible Neutral	
Completed Development	World Heritage Site			
	Royal Botanic Gardens, Kew	Inherent in the Design	Negligible Neutral	
	Conservation Areas			
	All	Inherent in the Design	Negligible Neutral	
	Listed Buildings			
	Grade I			
	Syon House and Syon Park Entrance Lodges and Gates	Inherent in the Design	Moderate Neutral	
	Syon House Conservatory; Boathouse; and 'Flora's Column' Syon Park		Moderate Neutral	
	Osterley House and associated GI buildings		Moderate Neutral	
	Boston Manor House		Negligible Neutral	
	Grade II*			
	Osterley Park 'Roman' Bridge	Inherent in the Design	Negligible Neutral	
	Quaker Meeting House		Minor Neutral	
	Syon Lodge, London Road		Negligible Neutral	
	Grade II			
	All (except the following)	Inherent in the Design	Negligible Neutral	
	Former Coty factory premises (Great West Road)		Minor Neutral	
	Former Gillette building (Great West Road)		Minor Neutral	
	National Westminster Bank, No. 880 Great West Road		Minor Neutral	
	Registered Parks and Gardens			
	All	Inherent in the Design	Negligible Neutral	
	Locally Listed Buildings			
	All (except the following)	Inherent in the Design	Negligible Neutral	
	Green School for Girls (Quakers Lane)	Inherent in the Design	Minor Neutral	
	<b>Townscape and Visual Effects</b>			
		TCA1	Integrated as part of the	Minor to Moderate

Stage	Effect	Mitigation	Residual Significance
		CEMP	Adverse
	TCA2		Minor Adverse
	TCA3		Negligible Neutral
	TCA4		Minor to Moderate Adverse
	TCA5		Minor Adverse
	TCA6		Minor Adverse
	TCA7		Minor Adverse
	RV1		Moderate to Major Adverse
	RV2		Moderate Adverse
	RV3		Minor to Moderate Adverse
	RV4		Moderate Adverse
	RV5		Minor Adverse
	RV6		Minor Adverse
	RV7		Minor Adverse
	RV8		Minor Adverse
	RV9		None
	RV10		Minor Adverse
	RV11		Minor Adverse
	RV12		Minor Adverse
	RV13		Minor to Moderate Adverse
	RV14		Minor to Moderate Adverse
	RV15		Moderate Adverse
	RV16		None
	RV17		Minor Adverse
	RV18		None
	RV19		None
RV20	None		
RV21	None		
RV22	None		
RV23	None		
RV24	Negligible Adverse		
RV25	Moderate Adverse		
RV26	Minor Adverse		
Completed Development	TCA1	Inherent as part of the design	Minor to Moderate Beneficial
	TCA2		Negligible Neutral
	TCA3		None
	TCA4		Minor to Moderate

Stage	Effect	Mitigation	Residual Significance
			Beneficial
	TCA5		Minor Beneficial
	TCA6		Negligible Neutral
	TCA7		Minor Neutral
	RV1		Moderate to Major Beneficial
	RV2		Moderate Beneficial
	RV3		Minor to Moderate Beneficial
	RV4		Moderate Beneficial
	RV5		Minor Beneficial
	RV6		Minor Beneficial
	RV7		None
	RV8		Minor Neutral
	RV9		None
	RV10		None
	RV11		Minor Neutral
	RV12		None
	RV13		Minor Neutral
	RV14		Minor to Moderate Neutral
	RV15		Moderate Neutral
	RV16		None
	RV17		None
	RV18		None
	RV19		None
	RV20		None
	RV21		None
	RV22		None
	RV23		None
	RV24		None
	RV25		Minor Neutral
	RV26		Minor Beneficial
<b>Transport and Access</b>			
Construction	Severance	Implementation of CLP, which details construction programme, routes for Heavy Goods Vehicles (HGV)s; frequency of deliveries and loading/unloading locations	Negligible
	Pedestrian Amenity		Negligible
	Fear and Intimidation		Negligible
	Pedestrian (and cyclist) Delay		Negligible
	Road Safety		Negligible
	Driver Delay		Negligible
Completed Development	Severance	Implementation of Commercial and Residential Travel Plans which set out a long-term strategy for reducing dependence on travel by private car. The objective of the Travel Plans is to reduce private car mileage in favour of more sustainable modes of travel, such as walking, cycling and use of public	Negligible
	Pedestrian Amenity		Negligible
	Fear and Intimidation		Negligible
	Pedestrian (and cyclist) Delay		Negligible
	Road Safety		Negligible

Stage	Effect	Mitigation	Residual Significance
		transport. The plans also contain a commitment to monitoring Site travel patterns and enforcement measures	
	Driver Delay	Highway capacity improvement measures to be secured by legal agreement	Minor Adverse to Minor Beneficial
<b>Noise and Vibration</b>			
Construction	Construction Noise	Best Practicable Means including selection of quietest equipment and methodologies, incorporated in the CEMP	Moderate Adverse
	Construction Vibration	Best Practicable Means including selection of low-vibration plant and methodologies	Negligible
Completed Development	Traffic and aircraft noise affecting the Development	Designed-in mitigation via glazing and façade specification and ventilation	Negligible
	Plant noise emissions	None required	Negligible
	Traffic generated by the Development		Negligible
<b>Air Quality</b>			
Construction	Impact from elevated PM <sub>10</sub> concentrations on human health	Best practice mitigation measures for controlling dust/emissions during construction. Examples include: implementation of a construction logistics plan; ensuring all vehicles and machinery comply with Low Emission Zone and London Non Road Mobile machinery standards; avoid the use of diesel generators and covering, seeding or fencing stockpiles of fine material.	Negligible
	Nuisance from dust deposition	Best practice mitigation measures for controlling dust/emissions during construction. Examples include: use of dust suppression systems; minimising Site runoff of water or mud; fully enclosing Site where possible; maintaining an inspections schedule and monitoring all complaints in a log book.	Negligible
Completed Development	Vehicle emissions from traffic generated as a result of the Development on the local road network	None required	Negligible
	Combustion plant emissions.		Negligible
<b>Daylight, Sunlight, Overshadowing and Solar Glare</b>			
Construction	Daylight and Sunlight to existing adjacent residential properties	None Required	Negligible – 7

Stage	Effect	Mitigation	Residual Significance
			properties Minor Adverse – 6 properties Moderate Adverse – 10 properties Major Adverse – 1 property
	Overshadowing to existing adjacent areas of open space		Negligible
	Solar Glare to surrounding road junctions and train approaches		Negligible to Minor Adverse
Completed Development	Sunlight to existing adjacent residential properties	None Required	Negligible – 5 properties Minor Adverse – 2 properties Moderate Adverse – 0 properties Major Adverse – 1 property
	Daylight to existing adjacent residential properties		Negligible – 7 properties Minor Adverse – 6 properties Moderate Adverse – 10 properties Major Adverse – 1 property
	Overshadowing to existing adjacent areas of open space		Negligible
	Solar Glare to surrounding road junctions and train approaches		Negligible to Minor Adverse
<b>Wind Microclimate</b>			
Construction	No Effect	Copse of evergreen trees 5.5m to 6.5m high in addition to the proposed landscaping and solid balustrade, screens and trees situated on the northern edge of the podium.	Negligible
Completed Development	Thoroughfares	Copse of evergreen trees 5.5m to 6.5m high in addition to the proposed landscaping. Additional mitigation measures required at a later detailed design stage for probe location 59 and 62.	Minor Beneficial to Negligible
	Entrances	Recess entrance by 1.5m or draught lobby to be installed to provide interior to exterior transition. Canopies to the north-west and south-west elevations.	Minor Beneficial to Negligible

Stage	Effect	Mitigation	Residual Significance
	Ground Floor Amenity	Additional mitigation measures required at a later detailed design stage for probe location 45.	Negligible
	Roof Terraces	Balustrade at least 1.1m high and canopies 2m deep.	Negligible
	Podium Level	Solid balustrade 1.5m high, six solid screens 4m high by 1.5m wide and coniferous trees in between at the northern edge of the podium.	Negligible
	Crossings	N/A	Negligible
	Balconies	Additional mitigation measures required at a later detailed design stage for probe location 171.	Negligible
	Bus Stops and Railway Station	Additional mitigation measures required at a later detailed design stage for probe location 66.	Minor Beneficial to Negligible

### Interactive Effects

- 14.3 Regulation 4 (2) states that an ES must include a description of the aspects of the environment likely to be significantly affected by the Development and the interrelationship between these effects. There is no published methodology for determining the significance of interactive or synergistic effects. Combining effects with respect to one environmental discipline with another has to be qualitative and is necessarily based on judgment. Therefore, a matrix system has been used to indicate where such effects would likely occur for the construction and operational phases, highlighting where effects occur to a common receptor. This has been informed by the residual effects of the Development (as identified above in Table 14.1) and are those effects where greater than negligible effects have been identified, where they relate to a common receptor. The findings of this exercise are set out in Table 14.2 below.

**Table 14.2 Interactive Effects**

Effect	Local Population	Built Heritage Environment	Townscape and Visual	Noise and Vibration
<b>Construction Phase</b>				
Views of vehicles and machinery being used during the construction period	*	*	*	
Disruption to users of the local road network	*			*
Demolition and construction dust	*	*		
Demolition and construction noise (plant and machinery)	*	*		*

Effect	Local Population	Built Heritage Environment	Townscape and Visual	Noise and Vibration
Creation of construction employment	*			
<b>Operational Phase</b>				
Views of the Development	*	*	*	
Effects to the Highway network	*			*
New housing and employment opportunities	*			
Operational road and plant emissions	*			*
New Public Realm Creation	*	*		*
Wider human health, local open space and deprivation	*			

\*indicates where an effect may occur.

- 14.4 The proposed demolition and construction works, as set out in Chapter 5, are considered most likely to give rise to potential interactive effects, given the scale of the Development and its urban context. During the demolition and construction phase it is considered that interactions could potentially occur between temporary noise and vibration effects, adverse townscape and visual effects on nearby residential receptors and adverse built heritage effects on nearby Grade II Listed Buildings located on Great West Road. Individually these effects are expected to range from negligible/neutral to moderate to major adverse at worst (as set out in Table 14.1 above). It is therefore considered that the interactive effects during demolition and construction on the surrounding area would also range from negligible/neutral to moderate to major adverse at worst. Any moderate to major adverse effects would be temporary in duration and are likely to be associated only with the peak periods of demolition and construction activity.
- 14.5 Appropriate mitigation during the demolition and construction phase has been identified in the ES as necessary, such as best practice measures to reduce or eliminate potential adverse environmental effects of demolition and construction as far as possible. Furthermore, the Construction Methodology and Phasing Chapter (see Chapter 5) proposes a programme, which will ensure that the Development would be implemented in the most efficient manner. This would include measures to be set out and secured through the implementation of a Construction Environmental Management Plan (CEMP) for the Development (see Chapter 5 for further details). Relevant legislative requirements would also need to be adhered to.
- 14.6 Operational phase effects have been assessed and reported in full within the technical chapters of the ES and the residual effects are summarised in Table 14.1. No significant adverse effects have been predicted during operation, with the exception of

moderate to major adverse effects in terms of daylight and sunlight to some existing adjacent residential properties. There would be no significant adverse interactive effects during the operational phase. The Development will have significant beneficial effects in terms of employment, housing provision and local expenditure during the operational phase, which could interact and lead to significant beneficial effects to the population.