



**SHEERWATER ACCESS  
IMPROVEMENTS  
MONUMENT WAY, WOKING**

**AIR QUALITY STATEMENT**

**MARCH 2012**



**the journey is the reward**

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<b>Project Code:</b>	WBCSHEERWATER.9
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<b>Position:</b>	Associate Environmental Consultant
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for the purpose of Local Air Quality Management.

## **1. INTRODUCTION**

- 1.1 Mayer Brown has been commissioned by Woking Borough Council (WBC) to undertake a qualitative review the air quality implications associated with the proposed Sheerwater Link Road.
- 1.2 The road is proposed to link industrial premises in the west of Woking to those in the east, thereby aiding in the development of these areas and improving the residential environments of Eve Road and Arnold Road.
- 1.3 The proposed development site is situated in the north-west of Woking and is primarily a residential area, incorporating a number of busy signalised, junctions and one way roads. The regional location of the proposed development site is illustrated in Figure 1: Site Location in Relation to Regional Highway Network.
- 1.4 The site itself is a highly urbanised environment, incorporating one of the main routes into Woking, Monument Road and one of the main commercial routes through Woking, Monument Way West, Eve Road, Arnold Road and Albert Drive. The existing site layout can be seen in Figure 2.
- 1.5 The submission is to extend Monument Way east along the back of the Eve Road properties in order to link it with Albert Drive. In this way, through traffic can be removed from Eve Road and traffic flows on Arnold Road can be reduced. The proposed site layout can be seen in Figure 3.
- 1.6 The principles of this qualitative review have been discussed with the Environmental Health officers of WBC.

## 2. AIR QUALITY STATEMENT

- 2.1 All Local Authorities have a duty under the Environment Act to review and assess the air quality within their boundaries as part of a system of Local Air Quality Management (LAQM).
- 2.2 The UK Air Quality Strategy for England, Scotland, Wales and Northern Ireland<sup>1</sup> sets national health-based standards and objectives for key air pollutants. Pollutant standards relate to ambient pollutant concentrations in air, set on the basis of medical and scientific evidence of how each pollutant affects human health. Pollutant objectives are the future dates by which each standard is to be achieved, taking into account economic considerations, practical and technical feasibility. The Air Quality regulations relevant to this assessment are set out below:

Pollutant	Air Quality Objective		Date to be Achieved by
	Concentration	Measured As	
Nitrogen Dioxide (NO <sub>2</sub> )	200 µg/m <sup>3</sup> not to be exceeded more than 18 times a year	1 hour mean	31.12.05
	40 µg/m <sup>3</sup>	Annual Mean	31.12.05

**Table 1. Nitrogen dioxide Objectives Included in the Air Quality Regulations 2000 for the purpose of Local Air Quality Management.**

- 2.3 The Air Quality Strategy is subject to regular review. In February 2003, the Government published the Air Quality Strategy Addendum<sup>2</sup> and in July 2007 an updated Air Quality Strategy<sup>3</sup> was published. The updated 2007 strategy does not remove any of the objectives set out in the previous strategy and its addendum.

<sup>1</sup> Department for Environment, Food and Rural Affairs (2000) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland. HMSO, London.

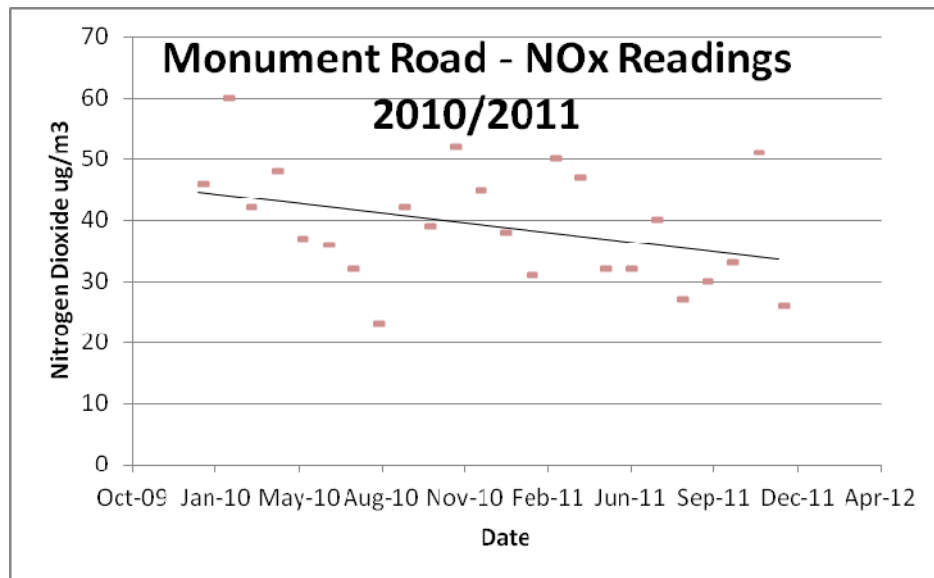
<sup>2</sup> Department for Environment, Food and Rural Affairs (2003) The Air Quality Strategy Addendum. HMSO, London.

<sup>3</sup> Department for Environment, Food and Rural Affairs (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland. HMSO, London.

- 2.4 Woking have been undertaking review and assessments in the Borough for the last 10 years and monitor NO<sub>x</sub> levels at a number of locations across the Borough including Monument Road.
- 2.5 The latest progress report was produced in 2011<sup>4</sup> and this states that no exceedences of the UK air quality objectives have been identified for nine of the ten statutory pollutants, namely sulphur dioxide (SO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter <10µm in diameter (PM<sub>10</sub>), particulate matter <2.5µm in diameter (PM<sub>2.5</sub>), Polyaromatic Hydrocarbons (PAHs), Benzene, 1,3-Butadiene, carbon monoxide (CO) and Lead.
- 2.6 However, the site on Monument Road has recorded a value above the annual mean objective. This is the first time an exceedence has been recorded in this location and it is believed to potentially be the result of poor meteorological conditions. A minimum of 6-months further monitoring will therefore be undertaken at this location to confirm whether an exceedence is occurring. If concentrations greater than 40 µg/m<sup>3</sup> continue to be recorded, then this location will be assessed within a Detailed Assessment.
- 2.7 Mayer Brown have been advised however that works to the signals on Monument have subsequently improved the flows of traffic at this location. This has been investigated via the latest diffusion tube results provided by WBC Environmental Heath.
- 2.8 The latest data for 2010/2011 has been plotted and a simple linear regression has been applied, see below.

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<sup>4</sup> Woking Borough Council (2011) 2011 Air Quality Progress Report for Woking Borough Council. AECOM Ltd.



- 2.9 It should be noted that this is a simple linear regression of the raw data and it does not take account of the seasonal variations in diffusion tube readings. However, it does provide an indication that NOx levels at Monument Road are decreasing.
- 2.10 Further, the proposed traffic improvements to Monument Road are intended to improve traffic flow<sup>5,6</sup>, preventing stop/start traffic and idling engines. As such, it is believed that this will lead to further improvements in the air quality conditions in the local environment.

<sup>5</sup> Mayer Brown Ltd (2011) Sheerwater Access Improvements. Highways Design Report. MBL. Woking.

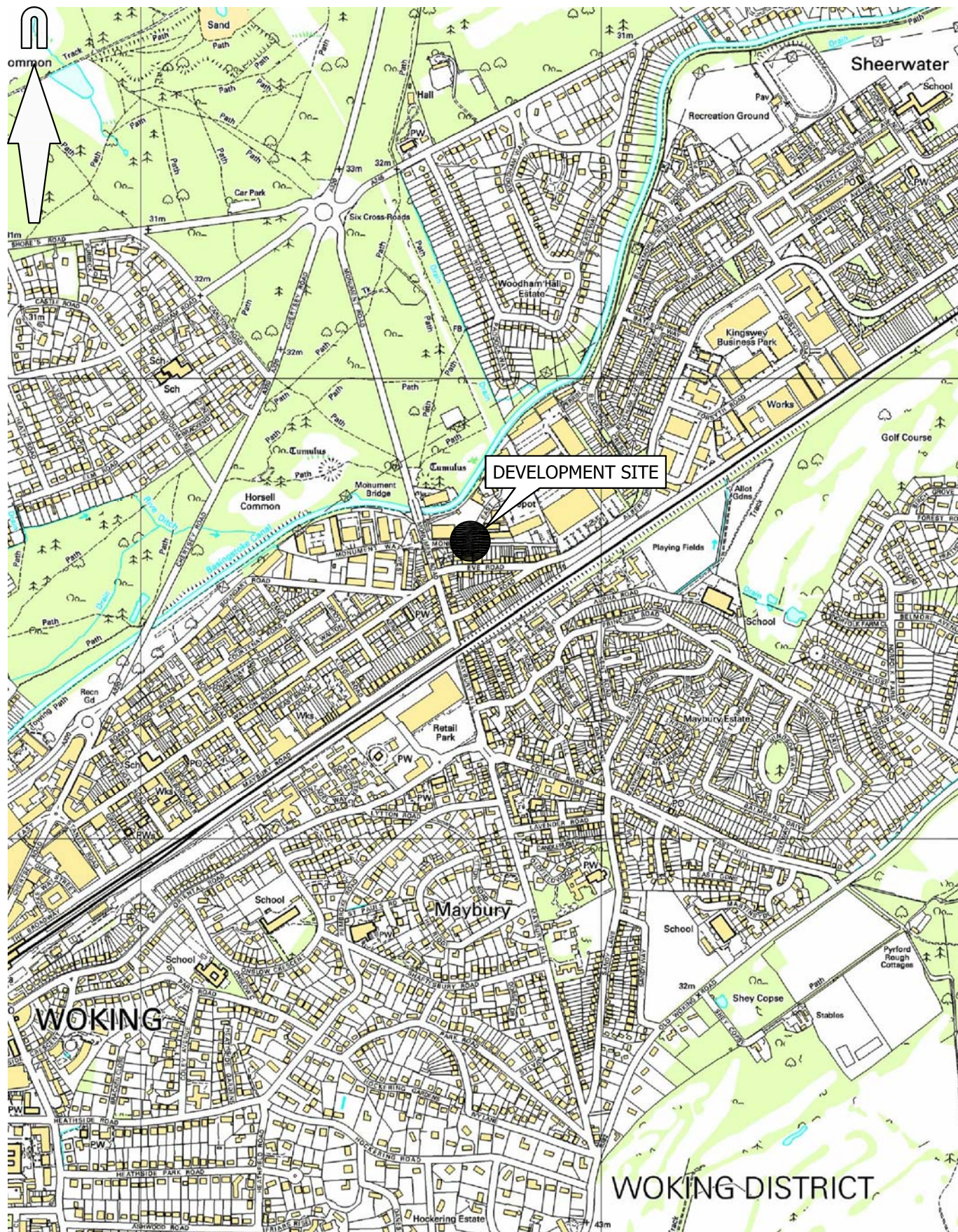
<sup>6</sup> Mayer Brown Ltd (2012) Sheerwater Access Improvements, Highways Design Report Addendum. MBL. Woking



### **3. SUMMARY**

- 3.1 In summary, indications are that air quality conditions at Monument Road are improving and this will continue to be monitored as part of the Local Air Quality Management Process.
- 3.2 The traffic assessment undertaken for the Link Road demonstrates that the proposals will improve traffic flows in this area and therefore it can be assumed that air quality conditions should continue to improve as part of the proposals.





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## SITE IN RELATION TO REGIONAL HIGHWAY NETWORK

Scale NTS@A4

FIGURE 1





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WOKING BOROUGH COUNCIL

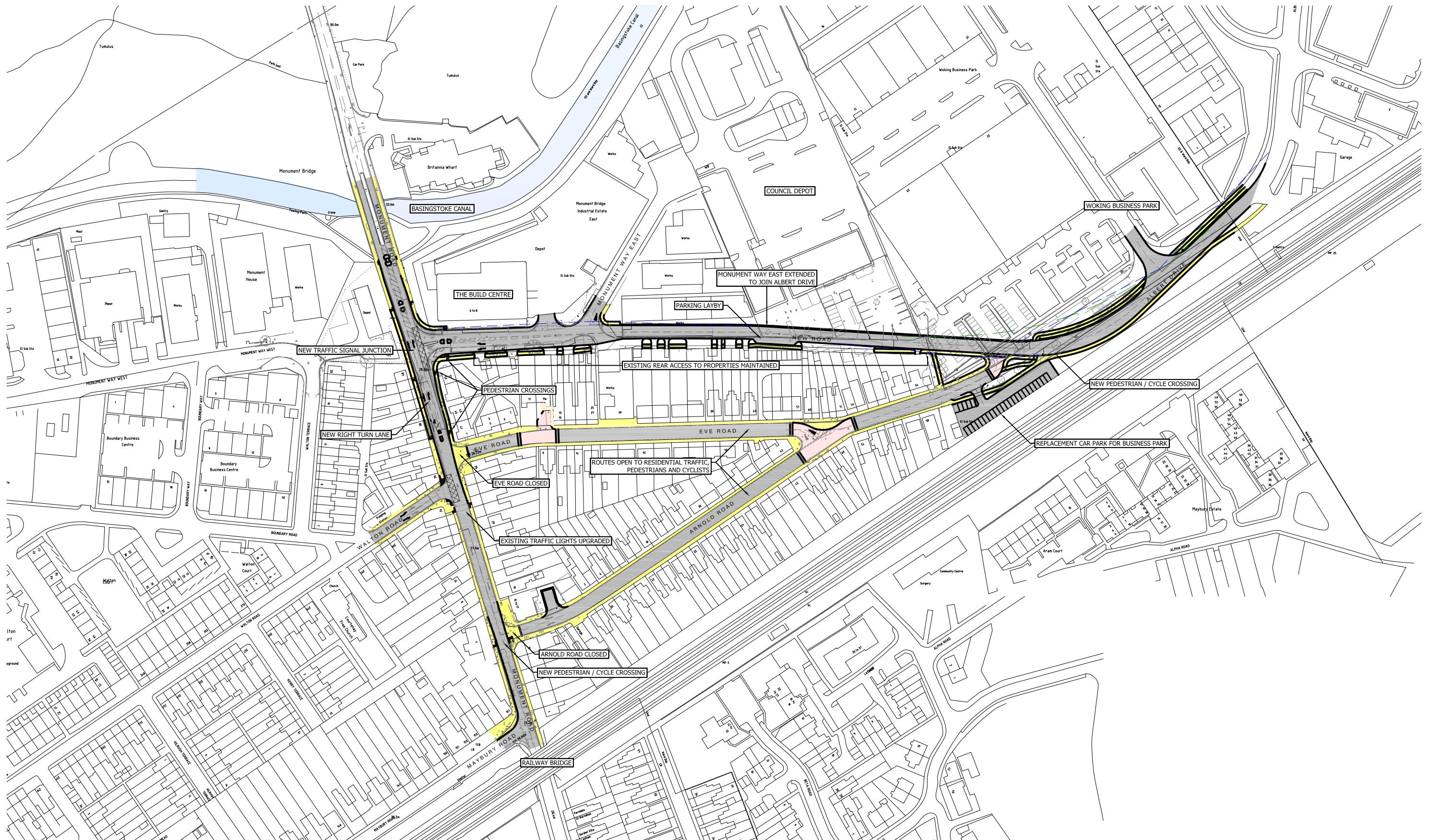
project  
SHEERWATER LINK ROAD

title  
EXISTING SITE LAYOUT

scale	NTS@A3	drawn by	PW	checked by	AH
date	FEBRUARY 2012	cad file	Figures 1-4.DWG		
drawing number					rev.

FIGURE 2





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client  
**WOKING BOROUGH COUNCIL**

project  
**SHEERWATER LINK ROAD**

title  
**PROPOSED SITE LAYOUT**

scale	1:2000@A3	drawn by	PW	checked by	AH
date	FEBRUARY 2012	cad file	Figures 1-4.DWG		
drawing number					rev.

**FIGURE 3**