

**Cuadrilla Bowland Ltd**  
**Temporary Shale Gas Exploration**  
**Preston New Road, Lancashire**

**Scheme for a Survey of Baseline**  
**Highway Conditions**

LCC Application Ref: LCC/2014/0096 Document Ref: TMP002

Issue | 11 October 2016

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 249771-02

**Ove Arup & Partners Ltd**  
6th Floor 3 Piccadilly Place  
Manchester M1 3BN  
United Kingdom  
[www.arup.com](http://www.arup.com)

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# Document Verification

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# 1 Introduction

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This report presents a scheme for a survey of baseline highway conditions to be undertaken on the A583 Preston New Road, Lancashire. The survey is required in order to satisfy condition 13 of planning permission granted on 6 October 2016 for a proposed Temporary Shale Gas Exploration development off the A583, Preston New Road (permission granted on appeal – Ref no: APP/Q2371/W/15/3134386; Application Ref: LCC/2014/0096). The planning condition is replicated below.

*No part of the development hereby approved shall commence until a scheme for a survey of baseline highway conditions (including the state of the carriageway, verges, from the junction of the A583 / Peel Road to the site entrance has been submitted to and approved in writing by the County Planning Authority. The baseline survey shall thereafter be carried out in accordance with the approved scheme and submitted to and approved in writing by the County Planning Authority and will be used to inform the operation of the Traffic Management Plan or to support the necessary additional highway maintenance as a direct result of the proposal.*

*Surveys of the highways covered by the baseline survey shall be resurveyed at the end of the construction, each of the drilling, hydraulic fracturing and restoration phases. The surveys shall be evidenced based with photographs of any existing areas of wear or damage. Surveys shall be undertaken in conjunction with the County Highways Authority and all documentation and evidence shall be submitted to the County Planning Authority within 7 working days of the survey having been carried out.*

## 2 Survey Area

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The area to be surveyed as required by the planning condition comprises the A583 Preston New Road between Whitehill Road<sup>1</sup> and the proposed site access. This area was based upon an HGV route to the site from Junction 4 of the M55 as per the Traffic Management Plan for the development.

Through consultation with Lancashire County Council, it has been agreed that the Traffic Management Plan shall be predicated on a left-in left-out arrangement for HGVs. On that basis it is considered that the survey study area shall be extended to also cover a route from the site to Junction 3 of the M55 via the A583 and A585.

The initial and extended study areas are illustrated below in Figure 1. As specified in the condition above, the survey areas shall include all carriageway and verges along these lengths of road.

The initial area comprises the A583/Whitehill Road junction from a point 20m north of the junction eastwards along the A583 to a point 20m beyond the site access. The total study area for the initial area is approximately 1.8km in length.

The extended area includes all of the initial area and then extends eastwards along the A583 to the roundabout junction between the A583 and A585. The extended area then extends northwards from this junction along the A585 until a point approximately 20m north of the junction with Bradshaw Lane. The total study area for the extended area is approximately 8.5km in length.

The proposed site access junction is illustrated in drawing PNR-ARP-CH-001 to the rear of this report.

The study areas are limited to the A583 and A585 only. They do not include any of the minor roads that connect to these roads as it is not proposed for site traffic to use these minor roads. The A583 within the study areas is generally a single carriageway with a short section of dualling at the approach to the junction with the A585 (within the extended study area). The A585 within the extended study area is also a single carriageway.

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<sup>1</sup> Although the condition states the junction of A583/Peel Road, Peel Road does not connect directly to the A583. It is connected approximately 20m along Whitehill Road.



## 3 Visual Condition Survey

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It is proposed that a visual condition survey shall be undertaken in order to document the condition of the carriageway and verges in terms of defects including areas of cracking, rutting, potholes and patched reinstatements. The proposed times for these surveys are set out in Section 4. This form of condition survey has been agreed in principle with LCC as being appropriate with regards to the stand of highway to be used by site traffic, the traffic volumes forecast to be generated and the frequency of survey to be undertaken.

### 3.1 Survey Specification

The survey shall be undertaken according to the following specification:

- The survey shall be undertaken using a van with a short bonnet to allow the inspector to view the road in a downwards direction;
- The survey shall be carried out in one direction as a single pass, with the defects being recorded over the full width of the highway;
- The survey shall be carried out using a Data Capture Device (DCD) that has been configured to collect data to the standard method documented within this specification;
- The DCD shall be able to output data in the form of video and digital photographs of the principal defects;
- The photographs shall include a recognisable feature (to indicate scale) and shall additionally provide the general context of the pavement;
- The survey and the photographs shall be referenced an appropriate scheme chainage system and direction of travel; and
- Where possible, the visual surveys shall be completed under dry conditions to ensure that all defects are visible.

### 3.2 Health and Safety

The contractor shall ensure, prior to commencing the works, that:

- All responsibilities regarding Health and Safety have been fulfilled; and
- Any traffic management that is required is in accordance with the requirements of LCC and is agreed in advance with LCC.

### 3.3 Recording of Defects

Any defects identified shall be classified into the following categories:

- Length defects (including edge defects, kerb defects, off-carriageway defects, and longitudinal joint defectiveness)
- Lane length defects (including carriageway major cracking, and rutting);

- Count defects (including transverse cracks, and transverse joint defectiveness); and
- Area defects (including all other defects).

The information to be recorded for each category of defect is as follows:

Table 1 Defect Categories

Defect Category	Data to be Recorded
Length defect	<ul style="list-style-type: none"> <li>- Chainage at which defect starts</li> <li>- Chainage at which defect ends</li> </ul>
Lane length defect	<ul style="list-style-type: none"> <li>- Chainage at which defect starts</li> <li>- Chainage at which defect ends</li> <li>- Number of lanes affected</li> </ul>
Count defects	<ul style="list-style-type: none"> <li>- Chainage at location of crack</li> </ul>
Area defects	<ul style="list-style-type: none"> <li>- Chainage at which defect starts</li> <li>- Lateral extent of defect (full, <math>\frac{3}{4}</math>, <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, single)</li> <li>- Chainage at which defect ends</li> </ul>

### 3.4 Reporting

The contractor shall provide an electronic version of the report to LCC including supporting video and photographic evidence within 7 working days of the survey being completed.

## 4 Survey Dates & Frequency

The survey dates will be confirmed as the operational and construction phase dates are confirmed and programmed. It is therefore only possible to produce an indicative schedule comprising the anticipated number of surveys at this stage.

The main phases of the proposed development that will generate HGV movements are as follows:

- Construction of site access, access road and site;
- Drilling of each of the exploration wells;
- Hydraulic fracturing of each of the exploration wells;
- Initial flow testing of each of the exploration wells;
- Extended flow testing of each of the exploration wells; and
- Decommissioning of each of the wells and the site operational compound;
- Restoration of the site and removal of the access road.

The planning condition requires that a baseline survey is undertaken with resurveys undertaken at the end of the construction of each of the drilling, hydraulic fracturing and restoration phases. Overall it is anticipated that the peak traffic movements associated with the site (including the construction, drilling and hydraulic fracturing) will occur within the first 28 months of the development. After this time, traffic movements associated with the site will be very low, until the decommissioning and restoration stage, which may occur approximately three years after the end of the last hydraulic fracturing stage. On that basis, it is considered that a further re-survey should be undertaken prior to commencement of the restoration stage to identify any defects that may have occurred in the intervening months.

Table 2 Indicative Survey Schedule

Survey	Description
Baseline	Establish baseline prior to commencement of construction
First re-survey	Following completion of the construction of the well pad and access track
Subsequent re-surveys	At the end of each of the drilling and hydraulic fracturing stages
Pre-restoration survey	Prior to commencement of the decommissioning and restoration stage
Final survey	Following completion of restoration

The times and dates of the surveys shall be agreed in advance with LCC and the emergency services in order to minimise disruption to the highway network and other road users.

The survey methodology will be identical for all surveys to allow comparison between surveys.