



Dust Management Plan

Western Gateway, Junction 3, Wrexham

Contract Number: xxxx

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1	Gemma Fenn – Draft for planning		09/04/2015
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Introduction

Project Background

Wrexham County Borough Council (WCBC) (the Client) is proposing to construct a new road to access the planned 'Western Gateway' development plateaus, here after referred to as 'the Project'.

The Project comprises a single lane carriageway, 7.3m wide and 250m in length, junction and roundabout. The Project also includes a combined walking and cycling route, associated landscaping and drainage. The general arrangement is shown in Figure 1.

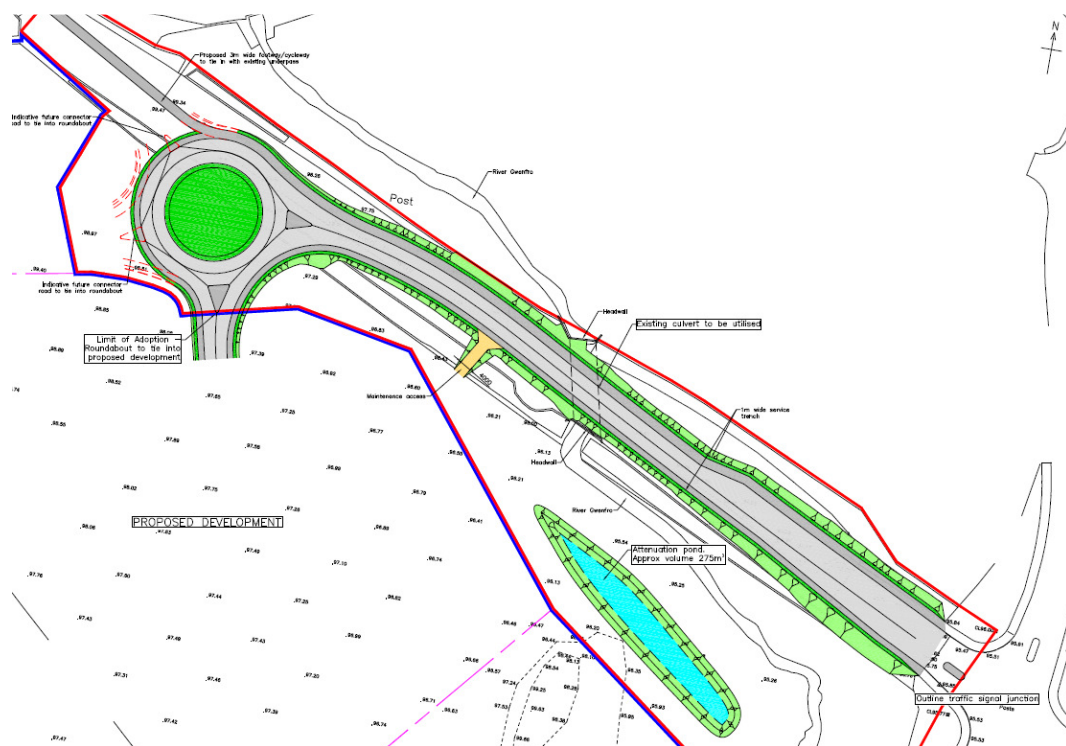


Figure 1: Wrexham Technology Park (Phase 3) Western Gateway access road general arrangement

The construction of the Project will commence in mid April 2015.

Site Description

The Project is located approximately 1.5 km west of Wrexham town centre. The planning application boundary is approximately 2.3 ha in area, here after referred to as 'the Site'.

The Project location and Site boundary is shown on Drawing No. 334454-MS-001.

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The new road will tie into an existing junction (traffic signalled controlled junction completed in 2013) to the east. This was constructed as part of the new and realigned Croesnewydd Road scheme (Wrexham Technology Park Phase 2). The Project is approximately aligned east-west along an existing dismantled mineral railway, the former Croesnewydd Triangle to Gatewen railway line. The road will generally be constructed on a low embankment (i.e. 1m to 3m in height).

The River Gwenfro bisects the Site, the river flows in a southeasterly direction through the centre of the Site.

To the north the Site is bounded by brownfield plots and recent development associated with the Wrexham Technology Park. Much of this recent development comprises small commercial/office premises.

To the east the Site is bounded by Croesnewydd Road, beyond which are the grounds and buildings of Maelor General Hospital.

To the south the Site is bounded by grassland and the proposed development plateaus associated with the Western Gateway scheme. This area is designated for new commercial and residential development. The exiting residential development at Pentre Bach is located beyond this to the south. It is likely that access to new residential development as part of the Western Gateway development will be gained via the existing Pentre Bach access road (Pendinas).

Dust Sources

Dust emitted from site can cause severe nuisance to surrounding residents, businesses and facilities. In its simplest form it can cause additional cleaning work and reduce resident's quality of life but in its most severe form it can have acute effects on people health especially those suffering with respiratory conditions such as asthma. Dust can also carry contaminants which has great impacts on health.

Dust can also have an impact on the ecology of the area blanketing vegetation preventing it from transpiring and reducing food sources for animals and invertebrates.

Sources

Risks:

- Dust emitted from earthworks operations
- Dust emitted from vehicle movements
- Dust emitted from cutting operations
- Dust emitted from materials handling.

Material Handling

- Bulk cement and bentonite shall be delivered by tanker and stored in silos.
- Appropriate measures shall be taken when replenishing silos to avoid accidental spillage, including the use of audible and visual alarm systems.
- The mixing of large quantities of concrete or bentonite slurries shall take place in enclosed shielded areas.
- Fine, dry materials shall be stored within buildings or with adequate protection from the wind and dampened, shrouded or screened in dry weather.

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- Silos and stockpiles shall be positioned as far as is reasonably practicable away from residential areas, places of public access or other sensitive receptors.
- Stockpiles shall be maintained with shallow slopes to prevent slippages and shall be seeded where appropriate to prevent wind blown dust.
- In handling areas, bowsers, sprinklers, spray mist systems and screens, shall be used to prevent dust.

Vehicles & Plant Movement

- Haul roads shall be dampened down in dry weather conditions, using water from grey sources where possible.
- General site traffic shall be restricted to watered or paved roads.
- All vehicles and plant on site shall be fully serviced and maintained.
- No vehicle on site shall be permitted that emits black smoke.
- No machinery shall be left running when not in use.
- Site speed limits shall be enforced and speeds limits on haul roads shall be reduced in dry weather to reduce dust generation, chicanes can be introduced on haul roads to achieve this.

Control of Site Operations

- Equipment likely to generate excessive quantities of dust shall be enclosed, shielded, fitted with dust extractors, filters and scrubbers.
- Drop heights shall be kept to a minimum during the movement of materials.
- Where appropriate spray mist systems, windbreaks, netting screens or semi-permeable fencing shall be used to reduce dust emissions.
- Where necessary, water sprays shall be employed to control dust generated during construction of earthworks and during piling operations.
- Long-term stockpiles shall be planted or sealed as appropriate.
- If equipment which produces excessive dust (concrete cutting and scabbling) does not have suppression equipment fitted, a water mist shall be used to damp down dust.
- Spraying of paints and chemicals shall only be carried out in wind free conditions.

Monitoring

A daily visual check for dust arising will be undertaken and mitigation introduced as required.

Notes from the check will be kept in the site diary, the site diary will also monitor weather conditions. Forward planning will ensure that the relevant equipment is held on site.

A weekly environmental inspection and monthly environmental audit will also be undertaken by the site environmental co-ordinator. These will also monitor dust arising.

Details of these audits will be kept in the site environmental file.

Further Monitoring

Any complaints about dust will be held in the site environmental file, the output of these complaints will be discussed at progress meetings. If dust continues to be a problem then further more details monitoring will be undertaken in the form of;

Dust deposit gauges.

These are simple, but accurate methods to measure nuisance dust. Dust is collected onto a horizontally mounted capture container, or in the case of a Directional Dust Gauge, into four vertical tubes aligned in different directions. The dust collected can also be analysed to determine its composition.

If mud on the road is an issue which cannot be managed by the use of a road sweeper then a discussion will be held with the Local Planning Authority about the use of a wheel wash.