

Forge Property Consultants Ltd

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ENV/PP/P/2015/0181
8th September 2015
Mr P Palmer
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FAO: Matt Wason

Dear Sir

Proposed Development @ Plas Fron, Porthgwan, Cross Lanes, Wrexham
Planning Ref: P/2015/0181

Further to your email / enquiry dated 04/09/2015 including layout plan (Drg. No. PL/PF/600 Rev C – Dated August 2015) and Design & Access Statement in respect of the above, I comment as follows:

In order to construct the new section of highway and carry out the required highway improvements at the above site, you will be required to enter into a s.38 / 278 agreement with the Council.

I understand that you are required to construct the new section of adoptable highway and close up the existing access onto the A525 whilst still maintaining pedestrian access. I understand that you are also required to provide a number of passing places along both the new section of road and the existing section to facilitate the simultaneous passage of vehicles. A new turning head constructed to adoptable standards will also be required towards the end of Porthgwan Lane to the east of the property known as The Lodge.

In order to close up the existing access / section of Porthgwan Lane onto the A525, a Traffic Regulation Order for the prohibition of motor vehicles will need to be implemented. I would recommend that you contact our Traffic Section (contact Darren Green on Tel: 01978 729643) to discuss / arrange.

I understand that the Planning Officer dealing with this application has previously agreed a carriageway width for the new section of road of 5m for the first 10m behind the junction with the A525 Whitchurch Road and a carriageway width of 4.1m beyond this point.

Visibility splays

The proposed new junction accesses onto the A525 Whitchurch Road which is subject to a 40mph speed limit in this location.

Any proposed / existing access in this location would normally be required to provide visibility splays of 2.4 x 120m in both directions measured to the nearside edge of the adjoining highway in accordance with TAN 18. The submitted layout indicates that the required visibility splays can be provided but has not shown the actual visibility splays on the plan. Could you please provide a revised layout plan indicating this detail.

Any proposed / existing access in this location would normally be required to provide adequate forward visibility for vehicles travelling from the north west along the A525 to standing vehicles waiting to turn right into the new junction. A forward visibility splay providing a stopping sight distance of 120m would be required. Although adequate forward visibility appears achievable from the revised access location, this has not been demonstrated correctly on the submitted layout plan. The splay should be shown between two points on the centreline of the Whitchurch bound lane. Could you please provide a revised layout plan indicating this detail.

Highway Layout

The proposed centreline radius of the junction (ie/ first bend off A525) appears to be very tight. The proposed access road will need to provide access to an 11.2m long refuse vehicle to the proposed barn conversions.

In order to demonstrate that the proposed highway alignment can accommodate the movements of such a vehicle, I would recommend that swept path details are submitted of such a vehicle negotiating both bends (in & out) along the new section of carriageway. The horizontal alignment of the first section of the junction is likely to result in conflict of vehicle movements. The section of carriageway just beyond the first bend should be widened to at least 4.8m so a car / refuse vehicle (or tractor) could pass simultaneously. Localised widening on the first bend will be required to accommodate larger vehicles.

Typical vehicle speeds of 20mph are assumed for vehicles negotiating the first bend off the A525. Could you please indicate the provision of a 25m forward visibility splay across this bend on a revised layout plan. Typical vehicle speeds of 25mph are assumed for vehicles negotiating the second bend off the A525. Could you please indicate the provision of a 33m forward visibility splay across this bend on a revised layout plan.

Verge widths of at least 1.5m (not 1.2m) shall be provided each side of the road.

Could you please provide a longitudinal section of the proposed carriageway including a number of cross sections along this length (including embankment detail).

In terms of carriageway construction, I have attached a copy of our minimum construction specification. The proposed material descriptions / thicknesses indicated on the submitted layout plan are incorrect. Please amend this detail.

Proposed Passing Places

The proposed passing places will require a minimum 500mm service strip around their perimeter for maintenance purposes. Could you please provide a revised layout plan indicating this detail.

Proposed Turning Head

The proposed turning head will require a minimum 500mm service strip around its perimeter for maintenance purposes. I would recommend that the kerb radii is increased to 8m. Could you please provide a revised layout plan indicating this detail.

Surface Water Drainage

It would appear that the existing section of highway drains into the stream and is culverted under the A525, eventually draining into the River Dee to the east. However, the condition and capacity of this existing system in order to accommodate the additional highway run-off is not known.

In the first instance, you will be required to investigate whether a SUDS system of surface water drainage is possible in this location eg/ use of soakaways. In order to achieve this, you will need to carry out soil infiltration testing along the route of the proposed carriageway (in accordance with BRE Digest 365). Any proposed highway soakaways would need to be located within new section of carriageway. Soakaway design calculations will need to be submitted to support such a proposal.

If such a system is not possible, you will be required to submit further details demonstrating that the existing ditched system leading to the River Dee has the capacity to deal with any run-off generated from the new section of carriageway.

I would recommend that you contact our Senior Flood Management Officer – Neil Taunt on Tel: 01978 729734 to discuss any potential flooding problems and means of dealing with additional surface water run-off.

It has also been previously raised that the headlights of vehicles on the new road approaching the A525 at night could dazzle or confuse traffic on the A525. Some form of screening should therefore be provided in the vicinity of the junction in order to avoid this potential hazard.

Although the s.38 / 278 details are normally submitted at a later stage, the above detail will be required at this stage in order to determine whether the proposed highway improvements can be achieved.

Section 38 / 278 requirements

Typical s.38 / 278 requirements are as follows:-

A 1/500 scale general layout plan showing:-

- a. The detailed layout of the scheme.
- b. The dimensioned widths of the carriageway and verges with full particulars and dimensions of all radii.
- c. Full details and dimensions of sight lines and visibility splays.
- d. The lines, sizes and gradients of existing and proposed foul and surface water sewers, land drains and water courses together with the location of manholes and road gullies.

- e. The location of cross sections.

A longitudinal section of the carriageway to a scale of 1/500 horizontal and 1/100 vertical indicating existing ground levels and proposed finished carriageway levels. The longitudinal sections shall also show the diameter and gradients of the proposed surface water sewers, the pipe strengths and bedding construction details together with manhole positions and proposed invert levels.

A typical cross section to a scale of not less than 1/50 showing the details of the proposed construction, in accordance with the Highways Authority's requirements of the different types and widths of road.

Cross sections to a scale of 1/100 showing carriageways, verges, cuttings, embankments, cut off drains / ditches, etc. conforming to the requirements of the Highway Authority.

Calculations and/or test results in respect of:-

- a. Surface water drainage / water course run-off and pipe strength/bedding construction types.
- b. Retaining walls and/or embankments.
- c. Carriageway subgrade CBR tests.
- d. Such further calculations as the Highway authority or its Agent may deem to be necessary.

Could you please provide a copy of your proposed layout plan including passing places, turning head etc. to Matthew Phillips (WCBC Planning Officer).

I await the information requested.

Yours faithfully,

Service Manager Environment