

WEST SUSSEX COUNTY COUNCIL CONSULTATION

TO:	Arun District Council FAO: Simon Davis
FROM:	WSCC - Highways Authority
DATE:	10 June 2020
LOCATION:	Land west of Fontwell Avenue, Eastergate, PO20 3RX
SUBJECT:	BN/50/20/PL Demolition of existing structures onsite & erection of 42 No. dwellings with access, parking, landscaping & associated works. This application is a Departure from the Development Plan.
RECOMMENDATION:	More Information

Summary & Site Context

West Sussex County Council, in its capacity as the Local Highway Authority (LHA), have been consulted on full planning application for development of 42 x residential units (4 x 1-bedroom, 12 x 2-bedroom, 22 x 3-bedroom and 4 x 4-bedroom) on land west of Fontwell Avenue (south of Level Mare Lane).

Fontwell Avenue is the A29, an arterial route linking Fontwell Avenue roundabout and the A27 to the north with Eastergate Square roundabout to the south (which then links on to Eastergate and Barnham to the east and Westergate to the west). Fontwell Avenue is subject to a 40mph speed restriction in this location. The site is bordered by Fontwell Park racing venue to the north, fields to the west, residential development to the east and equestrian use immediately to the south.

The land is currently agricultural (paddocks) with a gated vehicle access from both Fontwell Avenue and to the north from the unclassified Level Mare Lane. Whilst not included as an allocated site within the Barnham and Eastergate Neighbourhood Plan, a further call for housing sites was undertaken in 2019 where the site was marked as "suitable for further consideration".

Whilst located in a semi-rural area with low density development, an outline application for the Fontwell Strategic Allocation for 400 homes was allowed at appeal in July 2017 (policy H SP2c - SD6 of the Arun Local Plan). This development east of Fontwell Avenue will allow an extension of the existing urban area. Furthermore, the Barnham, Eastergate Westergate (BEW) masterplan demonstrates how up to 2300 new homes could be accommodated in the new BEW settlement area (SD5 of the Arun Local Plan). The proposed realignment of A29 will be provided in two phases and could enable access to land that is allocated for development in the adopted Arun Local Plan. Phase 1 of the new road will provide a by-pass of the A29 from south of Eastergate Lane to Barnham Road and phase 2 will provide a new link from Barnham Road to A29 south of Lidsey Bends. The proposed road will help to provide a more reliable connection to Bognor Regis for new and existing traffic and reduce congestion along sections of the existing A29 to be bypassed, especially at the Woodgate level crossing and the War Memorial junction. Thus it can be concluded that there is a precedent for existing and planned residential expansion in the wider area including commitment to provide major infrastructure additions and improvements.

The LHA has reviewed data supplied to WSCC by Sussex Police over a period of the last five years. There have been a few recorded injury accidents on the local road network within 300 metres of the site. However, from an inspection of accident data no incidents were recorded along the site frontage and no incidents were related to any defect with the junction/ road layout.

This application is supported by technical drawings, Design & Access Statement (DaS), Planning Statement, Transport Statement (TS) and a Travel Plan (TP). The LHA require further information and demonstration of the scheme in respect to the design aspects of the proposed access arrangements, as set out in the following report.

Access Arrangements & Internal Layout

Given the nature of the strategic route of Fontwell Avenue and proposed BEW housing coming forward in future years, increased traffic volumes are expected. Pre-application discussion with WSCC and a review of the A29 Realignment Transport Business Case document has confirmed that

increased traffic flows would be at a level where a right hand turn lane junction would be required to access the development. To ensure each through lane will be able to retain a 3.5m width, localised widening works to the A29 would be required (2.3m into the site). This will also ensure the right hand turn lane will be a minimum 3m wide. The site would be served by a 6m wide estate road with 9m radii. A 2m wide footway is to be provided on the southern side of access to connect pedestrians to a crossing point, facilitated by a pedestrian refuge island, dropped kerb and tactile paving. This will enable pedestrians to cross the A29 and link in with existing pedestrian footway on the eastern side of Fontwell Avenue.

It is acknowledged that the Access Design drawing details the proposed highway modifications, including features of the right hand turn lane and slight amendments to southern radius of the Level Mare Lane/ Fontwell Avenue junction. Nonetheless, a full Design Audit of all proposed highway modifications should be provided in order to comprehensively detail each design standard applied and reference to clause this meets within the Design Manual for Roads & Bridges (DMRB). This process will also allow any Departures from Standard (DfS) to be identified.

A full set of tracking diagrams have been provided and these detail that a fire tender, car and refuse collection vehicle can enter, turn within the site and exit to the public highway in a forward gear. These also show that a car and a refuse vehicle can pass one another within the proposed access and that the proposed pedestrian refuge island will not impact upon these manoeuvres. A large refuse collection vehicle is able to negotiate the Wandleys Lane and modified Level Mare Lane junction with realignment of Fontwell Avenue. Various examples of cars accessing parking spaces within different areas of the site have also been provided. Some of these manoeuvres may require a multipoint turn, however the estate road is anticipated to remain privately maintained and a reverse manoeuvre to the publicly maintained highway is not anticipated.

Visibility

The 2018 speed survey data reveals that within vicinity of the site (north of Wandleys Lane) 85th percentile speeds of 41 mph for both north and south-bound were recorded. Vehicular visibility splays of 2.4m by 107.5m in either direction have been demonstrated as achievable from the site access to carriageway edge. The stopping sight distance (SSD) shown is acceptable to the recorded speeds and would require clearing of vegetation within the splay (within red edge of site and publicly maintained highway verge).

With slight alterations to southern radius of Level Mare Lane/ Fontwell Avenue junction it has been demonstrated that visibility of 2.4m by 107.5m in line with 85th percentile speeds can still be achieved.

Pedestrian visibility splays of 1.5m by 107.5m are achievable from the proposed crossing point to Fontwell Avenue.

Stage One Road Safety Audit (RSA)

The Stage One RSA has been carried out on the proposed access arrangements including footway link and pedestrian refuge island. The RSA makes reference to taper of the junction which should be 1:20 and thus a Departure from Standard (DfS) has been applied (given the site constraints, the junction is 1:11). As per comments above a Design Audit should be provided which also identifies any DfS'. The RSA raises eight issues and the Designer Response (DR) addresses these. The issues raised and LHA response to each is summarised below.

3.1.1 – Ponding of surface water may occur, leading to loss of control accidents

No details of carriageway drainage for the widened road have been provided; ponding across carriageway at junctions could occur and lead to loss of control accidents. The auditor recommends that drainage details be provided at RSA Stage 2, or carriageway shaped so the highway drains. The DR and LHA agree with this approach.

3.1.2 – Inappropriate traffic island construction could lead to loss of control collisions

No details of the traffic island have been submitted and thus inappropriate signage and construction could lead to island strikes and loss of control collisions. The auditor recommends that full details of the island are provided at Stage 2 RSA. The DR and LHA agree with this approach.

3.2.1 – Insufficient carriageway space at proposed access and right turn lane may result in head on or side swipe collisions

Insufficient carriageway space could lead to vehicle conflict and the refuge island may impact left turn to Wandleys Lane for larger vehicles. It was recommended that swept path diagrams are provided and the DR states that these have been demonstrated. The LHA agree, as per comments above, that it has been suitably demonstrated that carriageway space is acceptable for anticipated manoeuvres and no further action is required on this point.

3.2.2 – Insufficient visibility at the access could result in collisions/ shunts

The proposed junction follows a left-hand curve and thus forward visibility of traffic entering development could be restricted. Insufficient Stopping Sight Distance (SSD) could lead to collisions/ shunts. The auditor recommended that forward visibility splays are checked to ensure they meet with the design speed. The DR notes the issue but argues that a significant distance of inter-visibility between cars is achievable and the carriageway gradient is relatively flat and thus they do not consider visibility for vehicles travelling along Fontwell Avenue would be restricted. The LHA will provide further comment on this issue when the DR is re-sent in full (see point 3.3.1 below).

3.3.1 – Restricted visibility at the junction with Level Mare Lane could result in collisions/ shunts

The auditor states that with widening on western side of Fontwell Avenue the visibility splay for Level Mare Lane 'does go to the western kerbline' and that an area of carriageway could be hidden and could obscure cyclists etc. The auditor recommends that the visibility splay should extend to the western kerbline. The DR does not appear to have addressed this point however the LHA note that the Level Mare Lane visibility plan does show the splay extending to the western kerbline. It is advised that the DR is updated to address and reflect this.

3.3.2 – Excessive flows on Fontwell Avenue could lead to collisions/ shunts

No information was supplied to the auditor in respect to predicted movements or queuing at the access. Excessive queuing could lead to shunts/collisions. The auditor recommends that PICADY software is used to check capacity of the right turn lane. The DR clarifies that junction capacity modelling has been undertaken and indicates the junction will operate well under capacity with no queuing on Fontwell Avenue or site access road anticipated. The LHA consider this point has been suitably addressed.

3.3.3 – Lack of visibility at approaches to proposed access could lead to shunt collisions

Lack of visibility at approaches to access could result in shunt collisions. The auditor has noted that splays demonstrated pass over non-highway land and that obstructions within the splays could restrict visibility. The auditor recommends that splays should be within the highway or that covenants are arranged to ensure splays are maintained in perpetuity. The DR states that a covenant could be included however a tree strategy has been submitted which shows the splays are achievable with some clearing of trees/vegetation. The LHA concur that a covenant could be sealed in the form of a suitably worded condition attached to any planning permission to ensure the splays are maintained in perpetuity. It is not uncommon to secure splays through condition where these pass through red edged applicant land and public highway and the plans indicate that third party land would not be required to provide the splays.

3.5.1 – Inappropriate speeds could lead to overshoots, shunts or collisions

The auditor states that the existing 40mph speed limit covers the proposed access and that approach speeds may be high. Planned development in the BEW area could result in changes to nature of Fontwell Avenue, as such a 40mph speed limit could lead to inappropriate approach speeds. The auditor recommends that the existing 30mph speed limit is relocated north of the proposed access. The DR states that the proposed junction has been designed in accordance with 85th percentile speeds of 41mph and thus relocation of the 30mph limit is not considered necessary to provide safe and suitable access. The LHA will provide further comment on this issue when the DR is re-sent in full (see point 3.3.1 above).

Car Parking

A total of 96 x car parking spaces are proposed (to include 87 x allocated spaces and 9 x visitor spaces). Garages, driveways, on-street parking and lay-bys will be used with the car ports below plots 12, 16, 23 and 35 to provide 3 x under-croft parking spaces per plot.

Electric vehicle charging points will also be provided and this should be at a rate of 20% of the spaces provided (100% if house with driveway and garage). Specific detail of electric vehicle charging infrastructure can be secured by condition.

Arun District Council Supplementary Planning Document (SPD) sets out levels of parking provision expected depending on site location within the district. The site is in Barnham area and thus 2 x spaces should be provided per 1, 2 and 3-bedroom unit and 3 spaces should be provided per 4+ bedroom unit, a total requirement of 88 x spaces. The 1-bedroom units are provided with 1 x allocated space each thus not meeting the SPD requirement. Nevertheless, considering the total parking provided across site including visitor spaces, no concern would be raised. Also considered is provision of a Travel Plan which aims to encourage uptake of sustainable transport modes and thus the variation below parking demand is considered acceptable with this mitigation measure in place.

Trip Generation and Road Network Capacity

The anticipated number of vehicle trips that will be generated by the development was predicted using TRICs (Trip Rate Information Computer Systems database). Sites with low car ownership have been excluded and suitable parameters applied. The resulting figures indicate that the development is anticipated to result in 23 trips in the AM and 21 trips in the PM peak hours with 200 two-way trips over the 12 hour period. Considering the existing level of traffic on Fontwell Avenue, as demonstrated by the 2018 ATC survey, the additional trips are not anticipated to cause a capacity issue on the local road network.

The distribution of this traffic has been assessed thereby considering any impact on nearby junctions. 2011 census data for the area has been used to identify travel to work destinations. The majority of development trips are expected to travel north from the site 61% with 39% of trips anticipated to travel southbound. The TS states that Appendix K shows these trips diagrammatically, the document appears to be corrupted and should be re-sent so that the diagrams can be clearly seen. This distribution percentage was applied to anticipated trips from the development and resulted in an expected 6 of the AM peak trips and 2 of the PM peak trips travelling southbound and 10 of the AM peak trips and 4 of the PM peak trips travelling northbound. Given the strategic nature of the route and its nearby junctions and also considering the changes proposed as part of the A29 realignment scheme, the LHA concur that the additional trips would not have a detrimental impact to the capacity of local highway network.

Junction capacity modelling was undertaken for the proposed access for five years into the future (2025). This assessment includes growth factors in the A29 Realignment Transport Business Case and committed development in the area (WA/22/15 for land east of Fontwell Avenue, AL/61/13 for land at Nyton Road and Northfield Lane and AL/3/19 for Nyton Nursery). Trip generation and distribution has been taken from the associated Transport Assessments for committed development and tables 3-12 and 3-14 of the A29 Realignment Transport Business Case. The A29 rates factor up to 2023 and thus have been factored up to 2025 using the TEMpro database to factor up the ATC survey data from 2023 to 2025. JUNCTIONS 9 software has been used to model the new junction on scenarios of 'Baseline 2025 plus development' and 'Baseline 2025 plus development plus committed development'. The results of the assessment indicate that the new junction will operate within capacity (with a Ratio to Flow of less than 1). No queuing and minimal delay is expected.

Accessibility

Walking & Cycling

To the north of the site Level Mare Lane is a shared surface rural route which links to A27 to the North West and Fontwell Avenue to the east. Fontwell Avenue is a strategic route linking the A27 to the north with A259 further south and on to the wider strategic network and locations such as Chichester, Southampton and Bognor Regis. There is continuous footway on the eastern side of Fontwell Avenue which connects to Arundel Road to the north and Barnham and Nyton Road to the south. Dropped kerbs and tactile paving feature in key locations to assist onward pedestrian movement to local facilities in Eastergate and Westergate. There is a Public Right of Way (PROW) footpath no. 318 approximately 805m east of the site which provides a link to Barnham Road. Other PROW's in the wider area provide alternative off-road walking routes.

The Chartered Institution of Highways and Transportation's (CIHT) 'Planning for Walking' (April 2015) document identifies that the average length of pedestrian journeys is now 1.37km. Approximately 855m south of the site (10 minute walk) pedestrians can reach the local post office

and convenience store. Other amenities such as local schools and medical centre are also within this walking distance.

A pedestrian access from the northern boundary of the site will link to Level Mare Lane as indicated on the Site Layout plan. Other plans provided such as Block Plan do not make this link clear. The applicant should clarify. Considering the anticipated low traffic flows on Level Mare Lane, a connection for pedestrians without further infrastructure is considered appropriate in this case.

Cycling within the area could be an attractive option for some. Although no cycle lanes are in place the local village environment could make the area conducive to on-street cycling. Improved cycle links are to be provided as part of the BEW development including improved connection for cyclists to Barnham Station. Pedestrian connection into Barnham is also anticipated to be improved as part of the scheme with a continuous footway/cycleway to be provided along the new road. The site is located approximately 1km south of Barnham to Walberton cycle path. A total of 68 x cycle parking spaces will be provided (1 x space per one and two bedroom units and 2 x spaces per three and four bedroom units). Details of this can be secured via condition.

Data provided within the National Travel Survey demonstrates that the average distance per journey by cycle is approximately 4.4km, with the current average length of an employment and leisure cycle trip some 5.2km. Barnham Train Station is 2.7km distant and other amenities such as local schools and medical centre are within a suitable cycling distance. Therefore for local journeys walking or cycling could be a feasible alternative to use of the private car.

Public Transport

The nearest bus stops are on Fontwell Avenue (Level Mare Lane stops), north of the site. Whilst pedestrians could utilise the proposed crossing point south of the site access, the northbound bus stop is located on an area of verge. Nevertheless, pedestrians would also have the option of walking approximately 0.4 mile south of the site to utilise the Collins Close bus stops either side of Fontwell Avenue and both served by footway. Services to Bognor Regis and Yapton are provided from these stops at a frequency of 3-4 services per day Monday-Saturday. The route includes an onward link to Barnham Train Station. The Train Station could be reached by commuters via bicycle (as part of multi-modal commuting) and there are services for bicycle storage. Onward routes include to destinations such as Southampton, London Victoria, Brighton, Portsmouth, Bognor Regis and Littlehampton.

Travel Plan

A draft Travel Plan (TP) has been provided. The TP will aim to promote the use of sustainable modes of transport and reduce reliance on the private car. Section 5 of the TP sets out the modal split of trips using 2011 census data for the area and reveals that 70% of commuter trips are via private vehicle (no passenger). Targets will be set to include a 10% modal shift in travel choice away from single occupancy car trips. A travel survey undertaken by residents after 100% occupation will establish accurate site-specific travel patterns and a TP coordinator will be appointed prior to occupation, to be responsible for the (five year) life span of the TP. Measures to encourage sustainable transport use will include; newsletters, website, travel vouchers, promotion of cycling and walking events, Welcome Pack, public transport information/timetables and promotion of car sharing information. It is also advised that the TP refer to electric vehicle charging provision however this can be included in the final TP, secured via condition.

Conclusion

In summary the LHA require the following further information:

- Design Audit and any associated DfS'
- Re-send Appendix K (trip distribution diagrams)
- Problem 3.3.1 has not been included in the DR - this should be included and re-sent so the LHA can fully review and provide our response under 'Overseeing Organisation'
- Clarify proposed Level Mare Lane pedestrian link

Please ask the applicant for this additional information and re-consult.

Katie Kurek
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