## **DRAINAGE**

A flood risk and drainage baseline review has been undertaken to provide an overview of pertinent flooding and drainage matters related to the outline application of the proposed Site for 66 bed care home plus 40 assisted care dwellings, management building, a club house, communal areas, and green spaces.

The prominent surface water feature within the proximity of the application site is an ordinary watercourse which defines the western boundary of the site. This watercourse forms the head of the fluvial system to the Black Bourn which is a tributary of the River Little Ouse. An 8m easement from this watercourse will be required.

The Environment Agency (EA) flood maps show that the majority of the site is located within Flood Zone 1. However, the western boundary of the application site is partially within Flood Zones 2 and Flood Zone 3. The development layout has respected this and as a conservative approach has steered all built development and associated infrastructure outside of Flood Zones 2 and 3, ensuring that the proposed development remains safe from fluvial flood risk.

300mm FREEBOARD): 2,231m² BASIN DEPTH:1m+0.3m FREEBOARD

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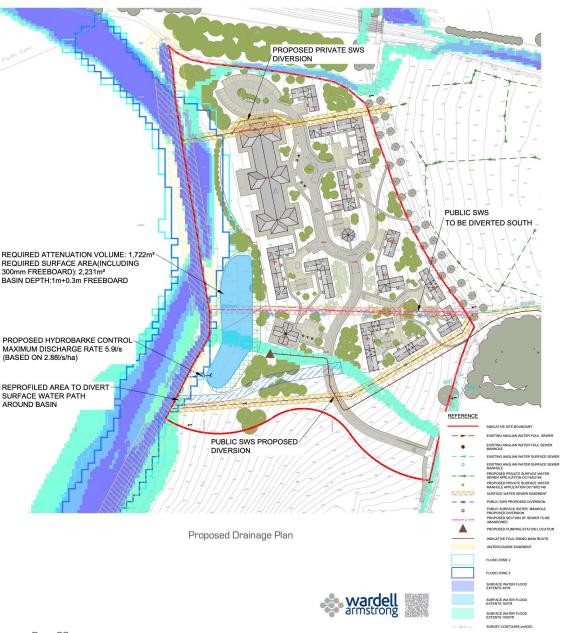
BASIN DEPTH:1m+0.3m FREEBOARD

PROPOSED HYDROBARKE CONTRO MAXIMUM DISCHARGE RATE 5.9//s (BASED ON 2.88//s/ha)

EA mapping identifies the presence of surface water paths encroaching into the western boundary of the site, associated with the existing watercourse. Surface water paths within the site will be addressed and positively managed by the use of SuDS. Surface water path along boundaries will be left undisturbed. The site has not been identified to be at risk of flooding from any other source. Therefore, the flood risk to the development is considered to be low overall.

Infiltration testing at the site was carried out in 2016 and determined that infiltration at the site is not a viable option of water discharge.

Foul flows from the development will discharge to the existing Anglian Water infrastructure. As the site is currently undeveloped, site-specific foul drainage infrastructure will need to be installed to serve the proposed development. Due to the topography of the site, a pumping station and foul rising main will need to be constructed to serve the site.



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### **MOVEMENT AND CONNECTIVITY**

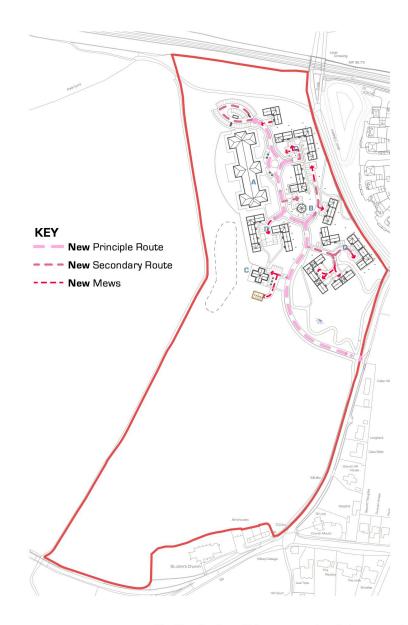
Successful places should be easy for people to get into but also to move around and understand. ... Any residential development should be easy for people to understand and find their way around or being 'legible'.

The scheme features a clear hierarchy of spaces. The access road leads onto secondary roads for each of the clusters which lead to each of the buildings and parking spaces.

The existing vehicular and pedestrian routes have been considered and the development routes integrate well into the existing framework. Extra consideration has been given to the footpath so that all of the site is accessible with a shallow gradient suitable for the elderly residents of the scheme.

Roads geometry and dimensions will limit the speed of cars allowing pedestrians and users to be safe. This 'home zone' is emphasised by soft and hard landscaping.

The operator of the care village will provide a minibus service to drop residents off locally for shopping, social outings, etc..

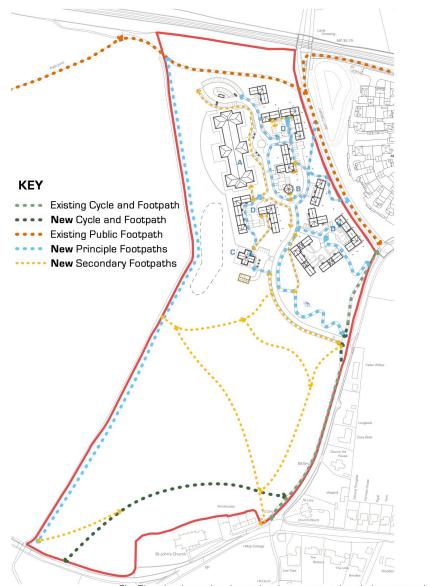


Site Plan showing vehicle movement though the proposed scheme

# PEDESTRIAN MOVEMENT AND CONNECTIVITY

In addition to the vehicular connectivity on site carful consideration has been given to the pedestrian and cycle routes through the site.

The site topography has been considered to ensure all plots ands all the services can be reached by ramps and slops shallower than 1:20 gradient.



Site Plan showing pedestrian and cycle movement though the proposed scheme

### STREETS AND SPACES

The scheme has been designed with the Suffolk Streets Design Guide 2022 in mind with careful consideration being given to balance the hard landscaping with large open spaces and areas of planting.

The desired effect is for the site to feel like a semirural development suitable for its setting on the fringe of the town and surrounding countryside without compromising on the access requirements for the residents.



Extract from Suffolk Streets Design Guide 2022



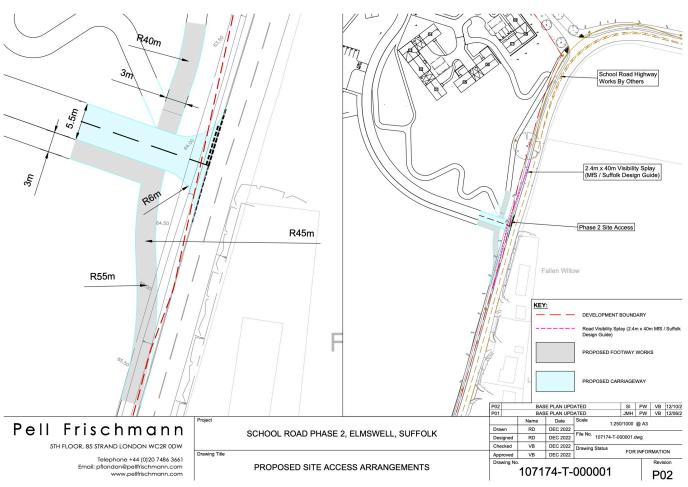
Indicative artistic aerial view of the proposed development

# PEDESTRIAN AND CYCLE ACCESS

Pedestrians and cyclist connectivity has been carefully considered to the site. A pedestrian and cycle only access is proposed to the northeast corner of the site to provide a connection to the centre of Elmswell as illustrated in the figure below. They will also be able to use Parnell Lane which is adopted highway along the eastern boundary of the proposed development. Pedestrians and cyclists arriving from the south will also be able to use the proposed vehicular site access, which will have a separate footway provision.

As part of the residential scheme to the northeast, the provision of a foot / cycle path to the immediate north of St John's Church was discussed and the landowner has agreed to dedicate this land. As shown in the figure below this foot/cycle path would provide a connection to the proposed cycle route through Elmswell and connect into the improvements planned for School Road.

This foot / cycle path is envisaged as a 3m wide shared route.



Proposed Access Plan

#### **VEHICULAR ACCESS**

A single vehicular access to the site is proposed from School Road to the south of the development, which has been designed to avoid an existing tree. This tree will be retained and the access has been located sufficiently far south to avoid the tree falling within the junction's visibility splay.

The proposed vehicle access will tie into the consented highway improvements on School Road as part of the development to the east, which is illustrated for reference on the masterplan.



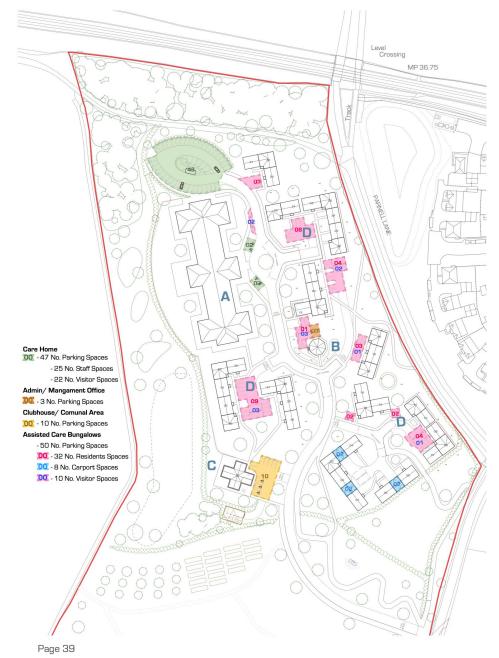
Plan showing Vehicle Tracking through the Proposed Access

#### **CAR PARKING**

Car parking provision is made in accordance with relevant standards to meet the needs of residents whilst creating attractive streets.

Parking has been designed carefully whilst parking capacity remaining flexible.

Car parking for the dwelling will be in carports and a small parking courts with the exception of the care home, which has been given a large parking loop surrounded by landscaping to minimise its impact.



Plan showing parking provisions in the proposed scheme

### **AIR QUALITY**

The RSK Air Quality report supporting the planning application assessed the potential effects of the Proposed Development on local air quality during both the construction phase and the operational phase.

The principal air quality pollutants relevant to this assessment are considered to be nitrogen dioxide (NO2) and particulate matter (PM10 and PM2.5). Local monitoring data do not show any exceedances of the air quality objectives near the site.

An assessment of construction phase impacts was undertaken following the IAQM construction dust guidance. The potential risk of construction phase impacts from dust soiling was predicted as low risk, and on human health was predicted to be low risk.

A qualitative impact assessment of the operational impacts was undertaken with reference to the EPUK-IAQM guidance. There were no exceedances to the relevant screening criteria, and it is expected that there will be no significant impact from the proposed development during the operational phase.

## NOISE

Inacoustic has been commissioned to undertake an assessment of noise with regard to the proposed change of use of the Land off School Road, Elmswell for residential care home purposes included with this application and is based upon environmental noise measurements undertaken at the site.

The suitability of the site for residential care home development has been assessed, based on the measured sound levels. These levels indicate that noise is not a determining factor in the granting of planning permission, with no mitigation measures required to ensure that satisfactory acoustic conditions are met, in accordance with the steering principles of BS8233.

The potential construction effects of the scheme have been considered and a suite of mitigation measures have been suggested, which can be incorporated into a Construction Environmental Management Plan, that will be prepared by the Principal Contractor for the construction of the scheme.

In light of the above, which demonstrates that the site is predicted to meet the requirements of the relevant British Standard and planning guidance, it is considered that noise is not a significant factor at the site and therefore does not present a constraint to the proposed development.