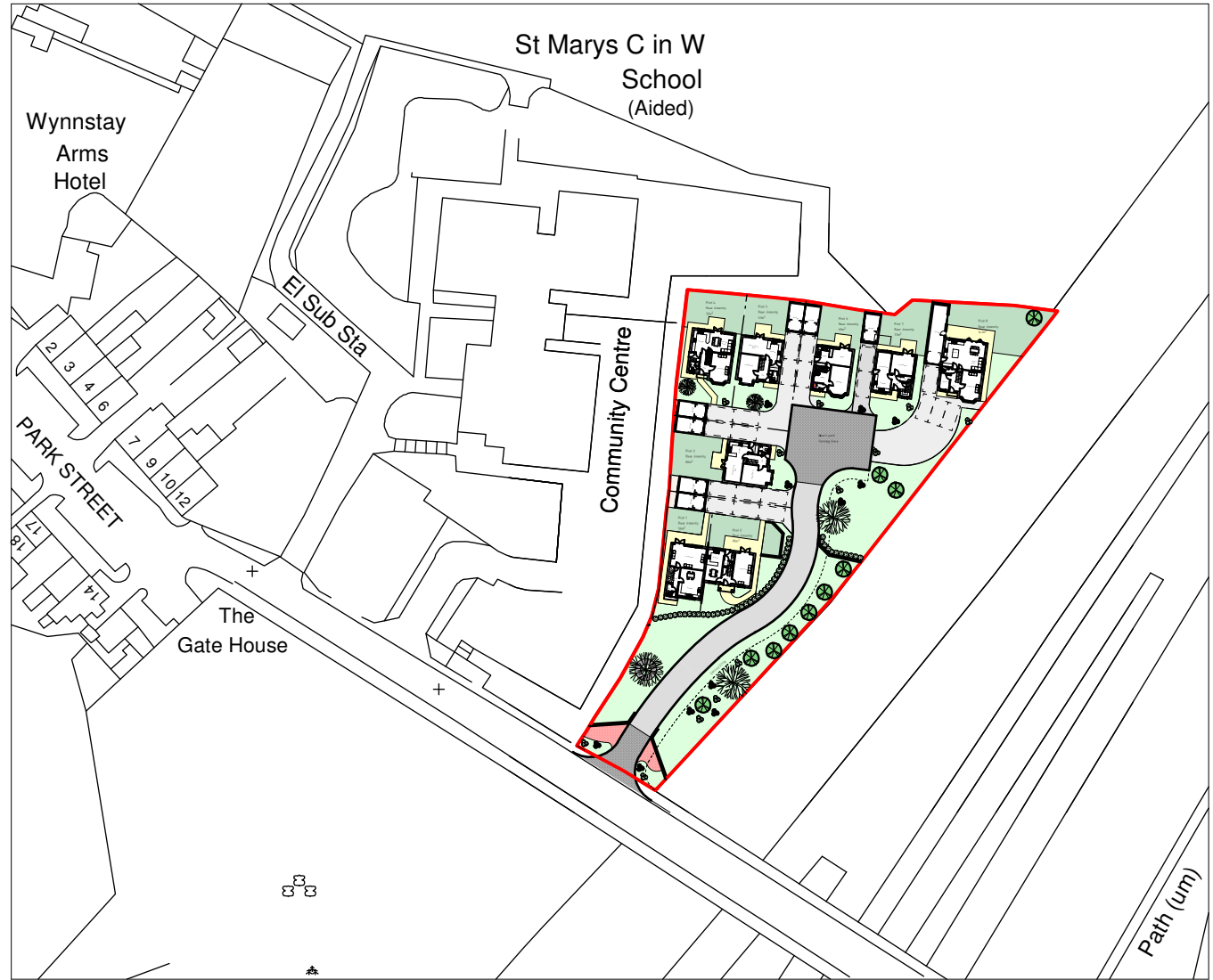


[illegible]

ACOUSTIC SCREENING

The location of the acoustic screening is illustrated on the Site plan 1:200

The construction of 2m high brickwork/masonry wall will provide attenuation to the rear amenity spaces of Plot 1 & 2 as detailed within the acoustic report.

Building an acoustic barrier along the Eastern boundary and to the North of Plot 8 having a mass of 15 kg / sq m and a height of 2500mm will result in noise levels within the WHO Guidelines.

The noise levels on various plots will have to be controlled by the building of acoustic fences / barriers these are available commercially one such supplier being www.jacksons-fencing.co.uk.

The barrier could take the form of a small earth bund for part of the overall height of the barrier and then an acoustic fence on top

There must be no holes or gaps in the screen: this is particularly important at the base of the screen between it and the ground: there must also be no gaps between the screen and the posts: ideally slotted posts should be used to reduce the likelihood of this happening.

The posts etc can be of any suitable construction that will support the fence with the wind loading etc

The important thing acoustically is that there are NO gaps at all along the edges of the wooded panels at the side and the bottom and that there are NO gaps between the individual wooden slats that the fence is constructed from.

The actual fence posts to be wooden posts .The actual fence boards and cover strips need to be about 25mm and be tight fitted with no gaps between the joints , hence the cover strip on the back. The top of the fence will just need to be weather stripped.

ACOUSTIC CALCULATIONS

Between the hours 07.00 - 23.00 the required attenuation is $60 - 35 = 25$ dBA
Between the hours 23.00 and 07.00 the required attenuation is $53 - 30 = 23$ dBA - from previous measurements
The LA max is required to be attenuated by $65 - 45 = 20$ dBA from previous measurements

WINDOWS / GLAZING

All windows are to comprise sealed double glazed units set within good quality white uPVC frames. Sealed double glazed units are to achieve a minimum U-value of 1.5 W/m²K. Glazing configuration to be 1/6 to 20mm/12mm IGUs that has a 1565mm R_g (Ctr of 2584). Opening areas of windows are to be equal to at least 5% of enclosed floor area with part of the opening set at 1750mm above floor level. Provide background ventilation to head frame members by means of 8000mm² controllable trickle ventilators set in head frame member of windows or locking mechanism that provides adequate background ventilation. Acoustic performance of ventilation system (trickle ventilators) should be a minimum of D_{nw,e} (Ctr = 24 dB. Windows to bedrooms at First floor level are to have opening lights of at least 0.33m² with a minimum clear opening of 750mm high x 450mm wide. Window cills to be positioned to ensure that cill level is within 100mm of floor level. Window IGUs positioned within 800mm of First Floor level to have removable gassing filled Glazing in critical locations such as within 800mm of floor level to windows, within 1500mm of floor level to doors, and windows adjacent to doors is to consist of laminated toughened safety glass in accordance with BS 6206 and permanently marked.

MECHANICAL VENTILATION

Provide mechanical ventilation to kitchen, en-suite and bathroom by means of Vent Axia or similar wall/ceiling mounted electrically operated fans extracting directly to external air to the following requirements:

Bathroom & en-suite - fans to extract at a rate of 15 litres per second, (type of fan to be in line extractor confirmed adequate by manufacturer) to be operated in conjunction with light switch with a 15 minute over run facility
Door to en-suite to be undercut by 10mm to allow adequate ventilation.
Kitchen - cooker hood to extract at a rate of 30 litres per second.
Vents to be covered with weather proof grilles at points of discharge to external air.

Acoustic performance of mechanical ventilation systems should be a minimum of $D_{n,ew} + C_{tr} = 24$ dB.

Project: Proposed residential development at Willow Cottage, Ruabon, Wrexham. LL14 6LE.	
Title: Planning: Site & Location Plan	Scale: (A1) 1:200 & 1:1250
Drawn By: D.J.Edwards	Date: Sept 2020
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Site Plan 1:200