

Design, Access and Noise Statement

For

**Change of use to form 2no 2 bed and 1no 1 bed apartments
first and second floors**

at

29 Market Place, Middleton

On Behalf of

Mr M Moghami



The following Design and Access Statement has been written to meet the requirements of the Government Guidance on changes to the development control system which became effective from the 10th August 2006.

The Statement should be read in conjunction with all other information that forms the Planning Application for the proposed office building.

This Design and Access Statement accompanies the full planning application for the demolition of the unsuitable single storey metal clad storage building at the entrance to the industrial site and its replacement with a new building containing light industrial area, office and welfare facilities. There is also a warehouse extension elsewhere on the site. The new buildings will enhance facilities for the staff at the site.

An appraisal of the context is followed by an explanation of how the proposed building and change of use relates to this, followed by how the design principles and concepts in relation to the amount, layout, scale, landscaping and appearance relate to the development. The proposed access arrangements are also considered to ensure inclusive access for all

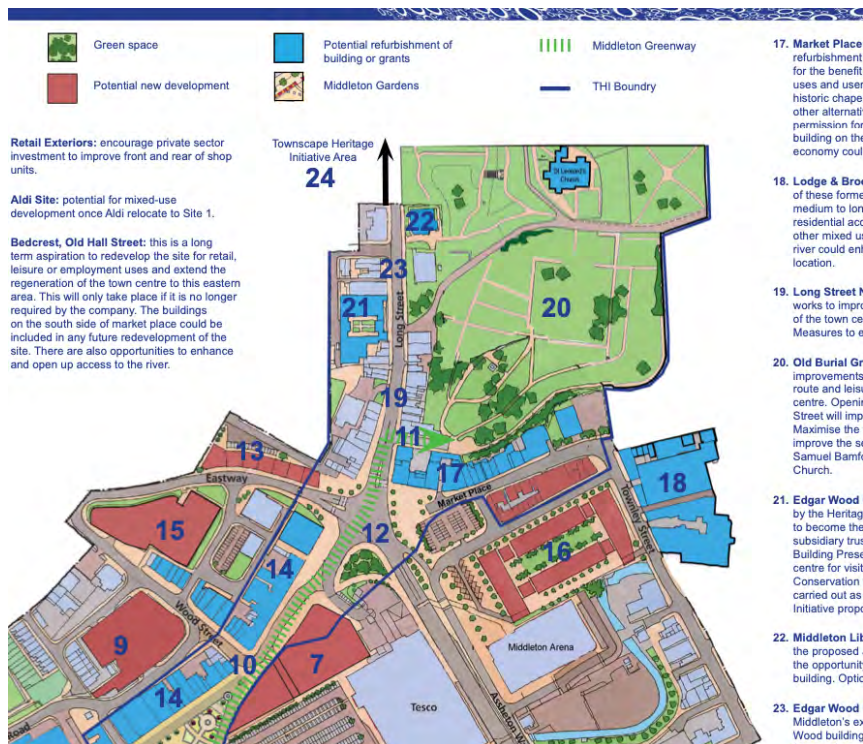
Application Site

The application site is located centrally to Middleton Town Centre. The main road is Market Place. The building and the immediate surrounding area is made up of commercial properties, characterised by large terraces rising to 3 storeys, set within a tight streetscene. It can be noted that the properties in the area have little or no frontage or rear amenity spaces. The use of the building is previously that of industrial and thus, reflects the historical commercial nature of the immediate surrounding area.

This site is highlighted in the Middleton town centre renewal plan as a site that has 'potential for refurbishment and grants' (Blue 17).

It states:-

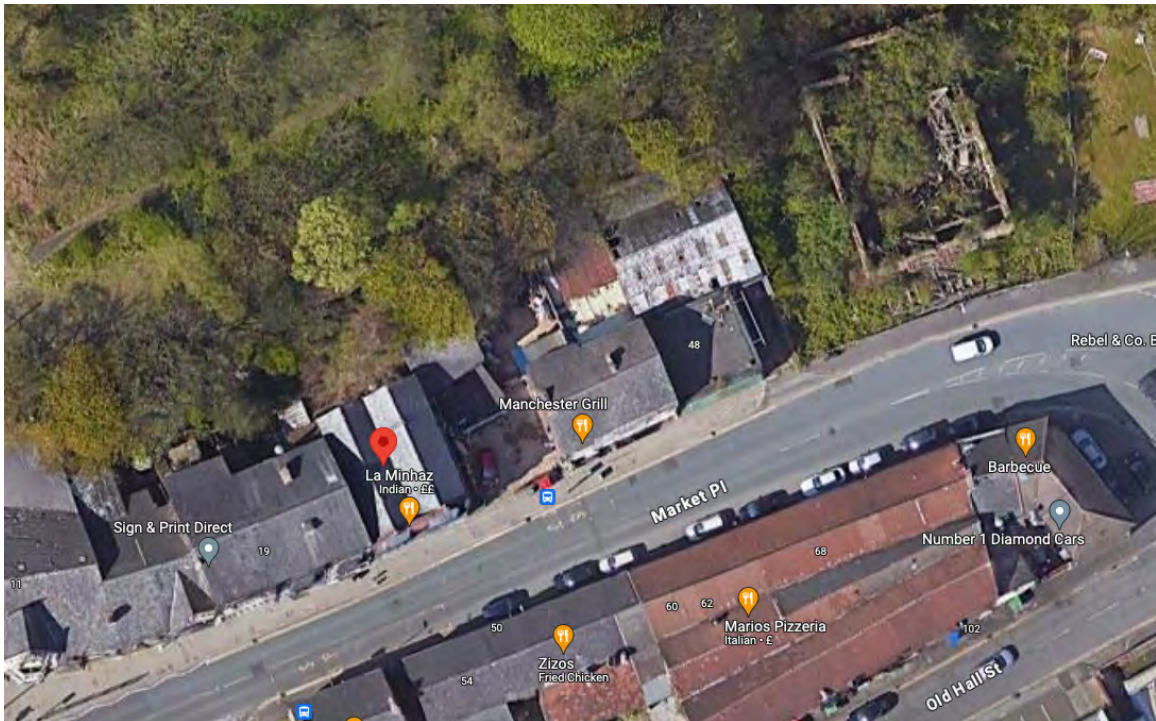
Market Place and Providence Chapel: refurbishment of properties on Market Place for the benefit of existing and potential new uses and users. Conversion of the fine historic chapel building for residential or other alternative uses. There is a planning permission for residential including a new building on the adjacent site. The night time economy could be developed in this area.



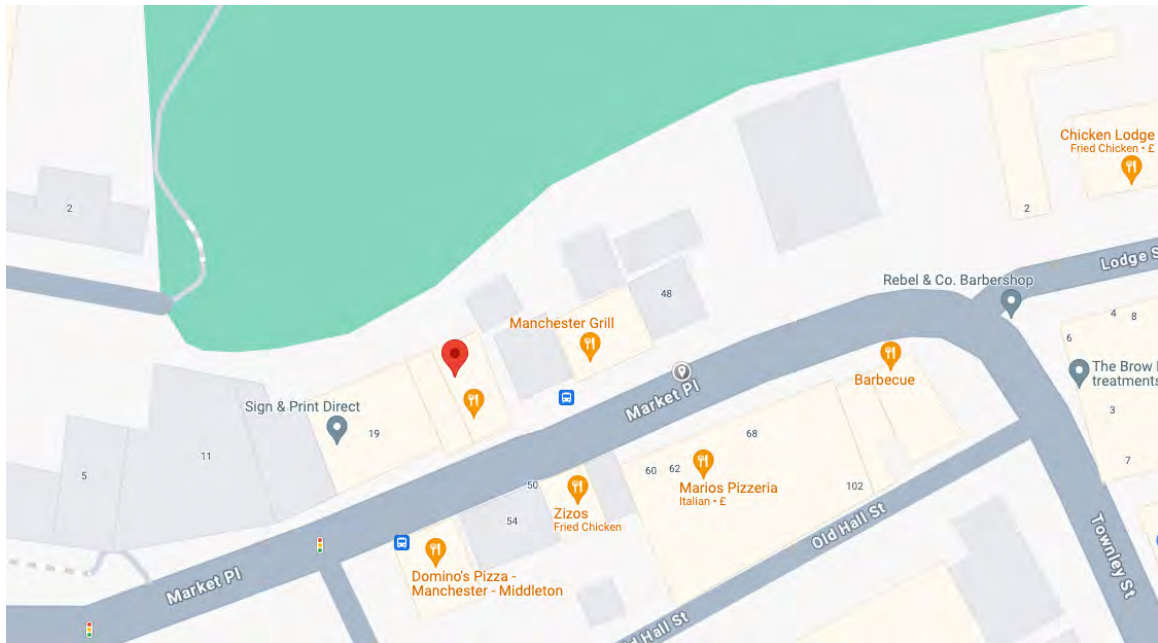
The building takes the form of a three storey, concrete framed building, infilled with brickwork and render. It is a terraced property, located in a street frontage with a mix of commercial shops and financial institutions.

The site is situated in a predominantly commercial area, interweaved with residential apartments and the like, at first floor. The local area consists of a variety of small business and drinking / eating establishments.

The property is of brick render construction with a slate roof. The property is spread over 3 floors (ground, first and second) with access to the property via main entrance from Market Place. The ground floor units are self-contained, accessed from the main road.



Aerial photograph of site



Location Plan Extract NTS

Planning History

Upon checking Rochdale planning dept. history of the site, an application was made to change the use of the property from Light industrial to Restaurant / hot food takeaway (planning ref: 99/D36136). It is assumed that this refers to the ground floor make-up of the building.

Planning – Application Summary

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99/D36136 | Change Of Use Of Retail/ Light Industrial Premises To Restaurant And Hot Food Take-Away. | 27-31, Market Place, Middleton, Manchester, M24 6AE

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Summary [Further Information](#) [Important Dates](#)

Reference	99/D36136
Application Validated	Thu 21 Jan 1999
Address	27-31, Market Place, Middleton, Manchester, M24 6AE
Proposal	Change Of Use Of Retail/ Light Industrial Premises To Restaurant And Hot Food Take-Away.
Status	Decided
Decision	Grant subject to conditions
Decision Issued Date	Sun 21 Mar 1999
Appeal Status	Unknown
Appeal Decision	Not Available

There are 0 cases associated with this application.

There are 0 properties associated with this application.

Design Considerations

The building is currently unused as light industrial / office over the upper floors.

The proposal is for a change of use of the first and second floors from B1 to form 3no self-contained apartments. The rear which will be landscaped to provide secure amenity space for the residents

The existing layout of the building suggests that it was previously used as light industrial to the ground floor with associated offices and welfare facilities at first and second floors.

Given the location of the proposed, there will be no contamination at upper levels

The current space is no longer used, and the area is too big for the current owners of the building for its use at ground floor. They are to utilise the ground floor only. This will also allow for any future expansion, due to the floor space available on these levels. Given its use, the owners feel its impractical to provide all-inclusive access over the upper floors.

On approval, this will help to supply a high demand for domestic rentals in the thriving community of Middleton and surrounding areas. By increasing residential units close to the town centre, increases footfall and thus, a knock-on effect for the requirement of services in and around the town centre business infrastructure.

The existing building layout at ground floor, will allow a separate self-contained entrance to the apartments, taken off the main frontage. The upper floor will be remodelled and internal renovated to modern standards whilst, retaining the external features of the building.

The area to the north, is currently un-used. This will be fenced, gated and a bin storage area will be created for both the ground floor use and the residential units. There is no parking onsite given its prominent location in the high street.

The infill plastic panels and glazing will be removed and rebuilt in masonry to match the rest of the building. The window fenestration will mirror the existing building.

Similarly, the rear elevation has been amended by introducing a new window at first floor level.

Access

Horizontal

The building will provide full wheel chair access with level threshold access.

Vertical Access

The staircases will be building regulation compliant for residential use.

Refuse

Refuse storage will be provided within the unit for both general and recyclable waste. Recycling bins will be provided inline with LA guidelines.

The proposal landscaped the area to the rear to provide green space and to provide a secure yard. The bin stores are to be located behind steel gates the existing drive section of the site. The bins would then be brought to back of footpath on market Place for collection by the refuse department.

Previous application advises that the highway department had concern with the location of the bin store and its accessibility for collection. The bin store has been relocated to the recess drive section to the east of the site

Parking

There are no parking spaces allocated directly on the site. This is due to its location close to the town centre.

Previous application advises that the highway department has no cause for concern

Public transport

Due to the site location on trunk roads, the proposed site is easily accessible by public transport.

Cycling

Currently, the scheme does not accommodate for off storage for cycles. The client proposes to install separate secure timber sheds for each apartment. This will allow for secure bike storage to eliminate the use of car journeys.

Privacy

Due to the site location and building orientation, there are no privacy issues associated with the application.

To minimise any possible implications to the neighbours, construction will be carried out to the satisfaction of the local authority building control inspectors and will be sound tested to ensure sound leakage is reduced to a minimum.

Traffic

Given the existing approved use and its opening times, it is anticipated that footfall will be substantially higher during peak travel periods i.e. morning, lunch time and early evening than the proposed use.

However, as you will note, the property is located in the town Centre with access to buses and trins services, thus reducing the need for private cars.

Previous application advises that the highway department has no cause for concern

Flood Risk

upon checking the government data for the site, the site is located in a very low risk for flooding the site a low risk for issues with surface water.

All dwellings are located to first and second floors.

Surface water and foul water will be connected to the existing system. As part of the proposal, the drainage will be cleaned and maintained (it currently is overgrown and damaged).

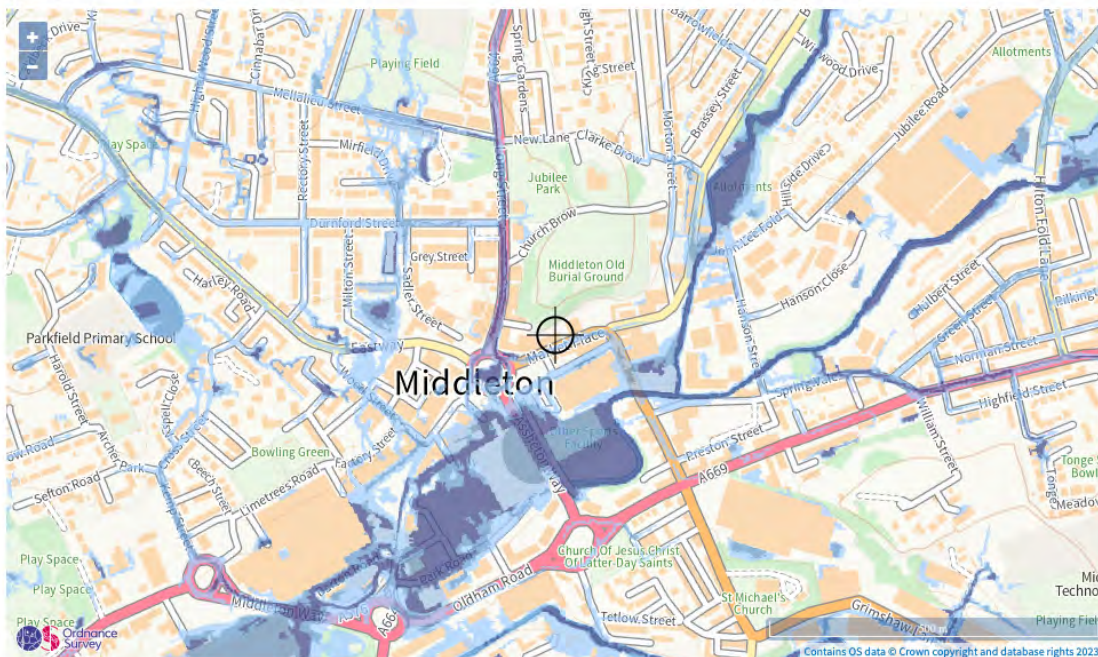
Select the type of flood risk information you're interested in. The map will then update.

Flood risk

Extent of flooding

Location

Enter a place or postcode



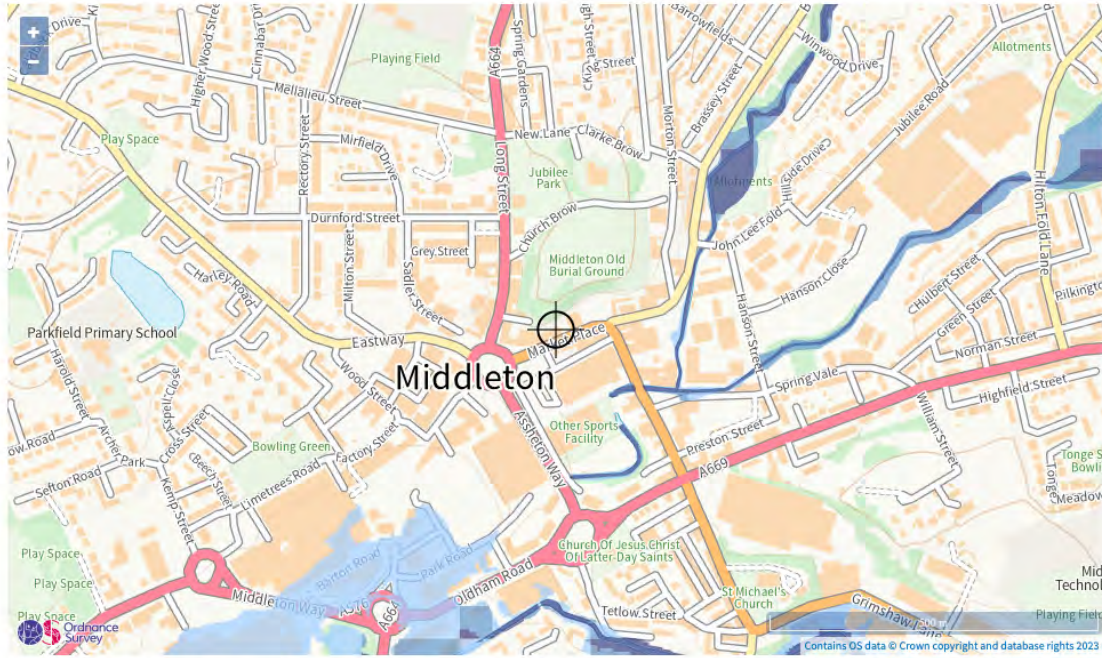
Extent of flooding from surface water

Flood risk

Extent of flooding

Location

Enter a place or postcode



Extent of flooding from rivers or the sea

● High ● Medium ● Low ● Very low ● Location you selected

Noise

Noise Assessment Criteria

In BS 8233: 2014 (Sound Insulation and Noise Reduction in Building, Ref.4) design criteria is provided for noise levels inside buildings : summarised these are :

Bedrooms : $L_{Aeq} = 30$ dBA

Lounge : $L_{Aeq} = 35$ dBA

The above 30 dBA level is acceptable as avoiding sleep disturbance.

Road Noise

Average-sized cars will account for most of the traffic noise. Even in areas where the percentage of heavy vehicles is more than usual, the noise of normal cars will still dominate, as they tend to travel at faster speeds.

Cars produce two types of noise: propulsion noise and tyre noise. Under 34 mph, propulsion noise is the main issue, and over that speed, the sound of the tyres on the road becomes the main cause of noise pollution. However, due to advancing engine technologies, tyre noise from new vehicles can become an issue at just over 12 mph.

- The legal noise limit for a car exhaust in the UK is 82dB.
- The average car produces 62dB driving at 30 mph.
- At 50 mph, a car produces noise emissions of ~70dB

Trucks are disproportionately responsible due not only to their size, but the height of their diesel stack. This can be a particular problem on smaller backstreets where the truck is likely to accelerate and decelerate, and where body rattle is more audible. In areas where trucks make frequent deliveries, the reversing siren is yet another pain point that will need to be factored into any soundproofing solution.

- Drop-sided trucks produce noise in the range 40-50 Hz mostly due to exhaust noise.
- HGVs have two frequency peaks: 63 Hz and 630 Hz, due to exhaust and body rattle.

Noise from motorbikes can be especially intrusive. There are restrictions on the maximum noise levels for a motorbike, yet these vary depending on when the bike was first used, meaning that you can often hear bikes producing noise of over 80dB – and mostly in the low and mid-low range that can be tricky to combat.

- Cruiser bikes (i.e. Harley Davidson) produce noise that tends to lie predominantly in the 100-400 Hz range. 84.8dB L_{max}

- Mopeds and scooters tend to dominate the 1000-2000 Hz range, with a broad range from 200-5000 Hz. 62.3dB Lmax
- Sports bikes tend to have a fairly flat spectrum in the 125-8000 Hz range. 78.3dBLmax

The design of the new structure / upgrade of the existing elements has to be designed for the worst case scenario. The upgrades will achieve the attenuation that must be offered in order to achieve the required internal levels as above.

It is generally accepted that an open window will achieve an attenuation of 15 dBA to the external noise – however it has been suggested that this figure is too high and is more likely to be in the region of 10 dBA – as a compromise a figure of 12 dBA has been used for the attenuation of an open window.

The requirements specified in the following report should be regarded as the minimum.

Also relevant are the World Health Organisation (WHO) Guidelines for Community Noise – these identify that sleep may be disturbed by short term noise events and the level associated with this is 45 dB L_{Amax} inside the bedroom – this relates to 60 dB L_{Amax} external to the bedroom.

Discussion

Utilising BS8233 for Standard road noise for the report, the standard for this site is:-

Traffic max DBA – 66

Utilising BS4142 for Standard for commercial sound for the report, the standard for this site is:-

Entertainment DBA - 77

If it is assumed that the structure of the proposed properties is based on the requirement to attenuate the highest level of sound for traffic and entertaining areas and this could occur after 23.00 hrs (though it is understood that the finishing time is strictly enforced) then the noise level at the facades of the proposed properties could be LA Max = 77 catering for the 'worst case situation'.

During the night time the LA max needs to be attenuated by $77 - 45 = 32$ dBA.

The above required attenuations can be achieved by using – for example – IGU's of 10mm / 6 to 20mm / 6 mm which have – with reference to the data sheet at the end of the report – a quoted $R_w + C_{tr} = 32$ dB and an $R_w = 35$ dB.

With respect to the ventilation of the habitable rooms these are usually regarded as the bedrooms, lounges, dining kitchens and kitchens but only if they are dining kitchens.

The type of ventilation fitted will depend also upon the number of air changes per hour that are required by Building Regulations – this is beyond the scope of this report – however suppliers of suitable acoustically treated ventilation systems can be found on the following web sites;

www.passivent.com

These supply vents that fit into the window header and can be acoustically treated or:

www.vents.com

supply core vents that are wall mounted.

Both these types of vent will be suitable acoustically provided that they meet the minimum attenuation requirements

Or any ventilation unit having a quoted $D_{n,ew}$ in excess of 22 dB.

The above specification caters for the 'worst case situation' for the highest noise level with respect to BS 8233 : 2014.

It is anticipated that the glazing will be two different specifications – acoustic to front elevation and traditional double glazed units to the rear. It is important that they are fitted into the correct windows.

It is important that the windows are correctly fitted into the wall – gaps and holes around the frames must be kept to a minimum and those that occur must be fully sealed with a high density sealer – on no account must light weight expanding foams be used.

In general the construction of the building must be undertaken with great care as even small gaps will reduce the attenuation provided by the structure and even if a complete wall, which may have an attenuation of 50 dBA has a hole in it equivalent to 1/1000 of the wall area the effective attenuation of the wall is limited to a maximum of 30 dBA.

When the windows are open the only important consideration is the area of the opening: if it is 10% of the total area the noise attenuation will be of the order of 12 dBA regardless of the construction of the remaining 90% of the wall.

With regard to the roof, it is a pitched tiled roof with an under ceiling and mineral fibre insulation then an attenuation of the order of 45 dBA should be achieved.

The attenuations required will be easily met with the proposed construction of the external walls .

The external noise can also be further reduced by introducing an acoustic door at the front entrance. This could be achieved by means of a 54mm thick timber fire door (1 hour fire rated) which has a quoted attenuation of $R_w = 35$ dB.

If required this door can have a 900mm x 175mm vision panel of 7mm fire resistant glass.

It is very important that both these doors are fully sealed onto their respective frames around the whole perimeter of the door.

External Walls

The building requires maximum noise protection from the elevation fronting Market Place. The existing external walls are sand and cement render on suspected 215mm thick solid brickwork.

As part of the upgrade of the facility for building regulations, the existing walls are to be upgraded for both sound and heat loss, by creating a cavity wall with a timber inner leaf. This will be a 50mm clear cavity, inner leaf formed from 75x50 tsw studding.

The void in between studs will be filled with 70mm "Rockwool sound slab"
(<https://p-cdn.rockwool.com/syssiteassets/rw-uk/downloads/datasheets/sound-insulation-slab.pdf?f=20230915153115>).

The top layer will be 12.5mm plasterboard and skim, reducing the wall to 45db

The floors and walls between the apartments are to be upgraded inline with the current building regulations at time of construction

External Areas

These are governed by the requirements of The World Health Organisation which briefly states that the noise level in private amenity areas should not exceed 55 dBA for serious annoyance or 50 dBA for moderate annoyance.

Using external levels at 77dBA max, this is in excess of the levels required by the WHO.

Therefore to the boundary of the proposed residential development there needs to be an acoustic screen constructed - according to BS 5228 : Part1 : 2009 Section F.2.2.2.1 Section C an attenuation to the noise from this source of the order of 5 to 10 dBA expected –an attenuation of 10 dBA is assumed – if this is the case then the noise level at the residential properties could be of the order of 60 dBA.

The building provides the main source of acoustic attenuation to the amenity area. To the north east and west boundaries, the screen must be of solid construction and be at least 2.0m high and have a mass of 15 kg / sq m – for a timber fence then there must be no gaps between the fence and the support posts or the ground.

It is worth noting that BS 8233 : 2014 states that the main criteria to be considered are the internal levels in the various rooms – and as can be seen from the above if the glazing / ventilation specified is installed then these will be met

Therefore the external levels in 'private amenity areas' whilst obviously desirable are possible not the main criteria and as additional acoustic screening has been

recommended to be included then it is likely that the above is the best that can be practically achieved.

Conclusion

- It is clear that the site suits residential due to its prime location., however the large space on the upper floor levels and it lack desirability, the current use does not fit the audience that would occupy this type of accommodation (lack of lifts, access, parking and the like for offices). By replacing this with three self-contained flats, it would increase the occupancy of the building.
- The proposal accepts and welcomes the responsibility of ownership of a building in the Middleton Town Centre Plan and is highlighted as a potential for refurbishment.
- Indeed it is suggested that the most important factor is to preserve this building is to find an appropriate use that will ensure it is fully used. This would stop the building from deteriorating quickly.
- The proposal identifies wasted space and the proposal allows for reuse of an existing building.
- The proposed designed has very little alterations to the exterior and thus minimal impact on the town centre area. Indeed, it will revitalise the streetscene. The erection of the new second floor, together with the mirror of the fenestration unifies the building.
- The development of the upper floors will allow the remaining ground floor to be brought back into use
- The existing walls to the south (front elevation) are to be increased in specification to achieve noise reduction as outlined above
- The proposed walls are to be built to satisfy the current building regulations at the time of construction
- The glazing / ventilation recommended above will result in internal levels within the proposed residential properties that comply with the requirements of BS 8233 : 2014.
- It is recommended that an acoustic barrier is constructed on the boundary of the proposed properties to a height of 2.0m.

APPENDIX

List of Drawings in support of the application

- | | |
|--------|---------------------------------------|
| 817-01 | Location Plan / Existing Layout |
| 817-02 | Existing Layout / Existing Elevations |
| 817-03 | Proposed Layout |
| 817-04 | Proposed Layout / elevations |
| 817-05 | Proposed Site Layout |

Photographs

Acoustic Glazing

Acoustic Door









