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For and on behalf of Oshwal Association of the UK

Details pursuant to Condition 1, 2, 3 and 5 of a Full Application, reference 6/2016/0995/FULL and Listed Building Consent reference 6/2016/0347/LB, dated 6 April 2016 for an Erection of a single Storey Rear Extension and Internal Alterations at Oshwal Centre Coopers Lane Road Northaw Potters Bar EN6 4DG.



8 May 2018

Prepared by:

Naba Bati

Checked by:

Paolo Lancerotto

Saloria Architects Ltd

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Saloria Architects disclaims any responsibility to the client and others in respect of matters outside the scope of this report. This report has been prepared with reasonable skill, care and diligence.

1.0 Introduction

Saloria Architects has been engaged by the applicant, Oshwal Association in the UK to prepare the following Assessment which includes the details pursuant to Condition 1, 2, 3 and 5 of a Full Application, reference 6/2016/0995/FULL and Listed Building Consent reference 6/2016/0347/LB, dated 6 April 2016 and approved on the 5 July 2017 for an Erection of single storey rear extension and internal alterations at Oshwal Centre Coopers Lane Road Northaw Potters Bar EN6 4DG.

2.0 Description

- 2.1 Condition 1 No development shall take place until samples of the materials to be used in the construction of the external surfaces of the building hereby granted have been submitted to and approved in writing by the Local Planning Authority. The development shall be implemented using the approved materials and subsequently, the approved materials shall not be changed.
- 2.2 Condition 2 Details of any new windows, roof lights, link glazing and doors hereby approved must be submitted to and approved in writing by the Local Planning Authority prior to commencement of the works. The details submitted must include 1:20 scale elevations; 1:2 scale sections (doors and windows only); an annotated plan showing the location of each proposed item; brochure details (roof lights only); as well as appropriately scaled movement joint details between the glazed link and the existing house. The larger scale details must include part of the surrounding fabric. Subsequently, the approved materials shall not be changed.
- 2.3 Condition 3 No development shall commence until 1:5 scale details of the eaves, parapets, verges, abutments and chimney stack have been submitted to and approved in writing by the Local Planning Authority. The detailed mouldings should be modelled on classical details found in the historic parts of the house or based on C18th or C19th pattern books. Subsequently the details shall be implemented and shall not be changed.
- 2.4 Condition 5 All visible rainwater goods must be made of cast- iron, in accordance with details, which have been submitted to and approved in writing by the Local Planning Authority before any development commences. Subsequently, the development shall not be implemented and retained other than in accordance with the approved details.

Details pursuant to conditions 3.0

3.1 Introduction

3.1.1 The proposal seeks to respond to condition 1,2,3 and 5.

The intention is to show that they could be discharged before the commencement of the works.

3.2 Condition 1

- 3.2.1 The roof material for the proposed rear extension shall be slate from SSQ Del Carmen in Ultra Grade.
- 3.2.2 The external doors for the proposed rear extension shall be bespoke design in timber to match the design of the existing windows.
- 3.2.3 The windows for the proposed rear extension shall be bespoke design in timber to match the design of the existing windows.
- 3.2.4 All visible rainwater goods on the exterior of the proposed rear extension shall be cast iron in Apex Heritage from APEX.
- 3.2.5 The rooflights for the proposed rear extension shall be conservation roof windows from VELUX.
- 3.2.6 The link glazing proposed for the rear extension shall be from GLAZING VISION.
- 3.2.7 The render for the proposed rear extension shall be traditional external rendering specification by MIKE WYE & ASSOCIATES LTD (see Appendix B).
- 3.2.8 The following drawing No.6842-38-P0 and drawing No.6842-39-P0 will include the materials.
- 3.2.9 The materials listed above and shown below can be provided in samples upon request.

Material Samples:



Roof Slates; Del Carmen in Ultra Grade - SSQ



Bespoke design for doors and windows to match the existing windows (Sample for the outlook of the material).



Cast iron Rainwater goods; Apex Heritage in black - APEX



Conservation Roof Windows - VELUX

3.3 Condition 2

3.3.1 The proposal seeks to respond to condition 2.

The intention is to show that it could be discharged before the commencement of the works. The following drawing No.6842-40-P0 and drawing No.6842-41-P0 will include the details required.

- 3.3.2 Details of new windows, roof lights, link glazing and doors shall be found in drawing No.6842-40-P0 and No.6842-41-P0.
- 3.3.3 1:20 scale elevations will be found in drawing No.6842-38-P0 and No.6842-39-P0.
- 3.3.4 1:2 scale details (doors and Windows only) will be found in drawing No.6842-41-P0.

3.4 Condition 3

3.4.1 The proposal seeks to respond to condition 3.

The intention is to show that it could be discharged before the commencement of the works.

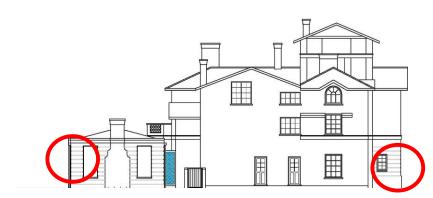
- 3.4.2 Details of the eaves, parapets, verges, abutments and chimney stacks (scale 1:5) are shown drawing No. 6842-40-P0
- 3.4.3 The following photos show the rustication detail used on the proposed extension which is modelled on the classical details found in the historic main front elevation of the house.



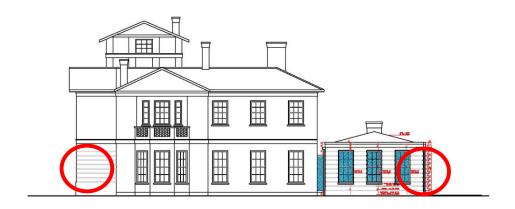
Detail of the rustication on the front elevation



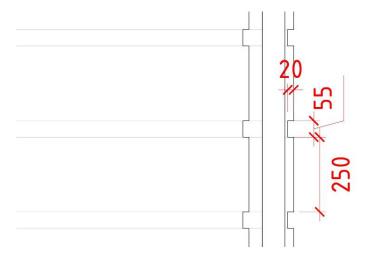
Front elevation (south)



Left Side elevation (west)



Left Side elevation (east)



Detail of the rustication and its dimension as surveyed on the front elevation

3.4.4 The following photo show the detail of the eaves on the main front elevation of the house.



Detail cornice on the front elevation which has been used on the eaves of the extension (see drawing 6842-40-P0)

3.5 Condition 5

3.5.1 The proposal seeks to respond to condition 5.

The intention is to show that it could be discharged before the commencement of the works.

- 3.5.2 Details of all visible rainwater goods shall be found in drawing No. 6842-38-P0 and drawing No. 6842-39-P0.
- 3.5.3 all rainwater goods are cast- iron colour black as reported in point 3.2.4.



Details of the existing cast – iron pipes

Appendix A – Rooflights Brochure								
Appendix A - Roomights Broom	iure							

VELUX conservation roof windows

For traditional buildings



When planning dictates that a window of traditional external appearance is required, conservation roof windows should be considered. All of our conservation roof windows have the same technical features of a VELUX roof window but in a traditional black conservation style.

- Conservation packages include:
- · Roof windows with laminated glazing as standard for safety.
- · Recessed flashings available for a more streamlined external appearance.
- · Insulation collar and underfelt collar provided for a weathertight and energy efficient installation.
- or top-hung. · Black external profiles and glazing bar.
- · Recessed installation for slate and tiled roofs.
- . Top-hung roof windows listed below are suitable for emergency escape.
- . Other sizes and glazing options available contact us for further information.

Conservation roof windows

Conservatio	n roof windows	п					
External frame siz	e (nominal w x h) cm	55×98	55×118	66×118	78×118	78 x 140	134 x 98
Code	Description	CK04	СК06	FK06	MK06	MK08	UK04
Centre-pivot wh	ite painted						
GGL SD5N2 U-value 1.3 W/m²K	GGL 2570 roof window + EDN recessed flashing for slate up to 8mm thick (min 20" roof pitch)	£438	£455	£495	£558	E601	£726
GGL SD5P2 U-value 1.3 W/m²K	GGL 2570 roof window + EDP flashing for plain tiles up to 14mm thick (min 25° roof pitch)	£400	£416	£453	£514	£554	€673
GGL SD5W2 U-value 1.3 W/m²K	GGL 2570 roof window + EDW flashing for tiles up to 120mm in profile (min 15° roof pitch)	£400	£416	£453	£514	£554	€673
GGL SD5J2 U-value 1.3 W/m ² K	${\tt GGL2570roofwindow+EDJrecessedflashingfortilesupto90mminprofile(min20^{\circ}roofpitch)}$	£438	£455	£495	£558	£601	£726
	nainted. For roof pitches of 55°-75°, please specify special springs when orde						
GPL SD5N2 U-value 1.3 W/m ² K	${\sf GPL2570roofwindow+EDNrecessedflashingforstateupto8mmthick(min20^{\circ}roofpitch)}$	F-1	¥	(40)	2	£725	23
GPL SD5P2 U-value 1.3 W/m²K	GPL 2570 roof window + EDP flashing for plain tiles up to 14mm thick (min 25° roof pitch)	-	9	90	÷	£678	-
GPL SD5W2 U-value 1.3 W/m²K	GPL 2570 roof window + EDW flashing for tiles up to 120mm in profile (min 15° roof pitch)		Ţ.	3.6%		£678	*
GPL SD5J2 U-value 1.3 W/m²K	GPL 2570 roof window + EDJ recessed flashing for tiles up to 90mm in profile (min 20" roof pitch)	-	4	345	4	£725	¥4.

- All roof windows have a delivery time of 2 days.
- ▶ Delivery time is in working days from receipt of orders placed before 4pm (UK) and 3pm (NI).

VELUX roof windows

Optional glazing bars for standard VELUX roof windows



The requirements from conservation officers throughout the country differ and the black finish featured within our conservation roof window packages may not be required in your area.

Consult your local conservation officer and find out if you can create a traditional appearance by adding a glazing bar to a standard VELUX roof window with grey exterior. This will allow you to take advantage of all roof window styles and sizes available (except triple glazed roof windows).

Grey glazing bars are also available for standard VELUX roof windows

Recessed flashing



As well as the addition of a glazing bar, your local conservation officer may request that your roof window be installed deeper into the roof than can be achieved with a standard installation. To do this you should select a recessed flashing kit, which will provide a sleek, streamlined finish as less of the roof window protrudes above the roofline. Recessed flashings are also available with insulation and underfelt collars and are recommended for optimum energy efficiency.

Our full range of recessed flashings are available as part of our conservation roof window packages and help you comply with local conservation requirements.

To create your grey conservation package:

- · Select your preferred VELUX roof window. This includes white painted, white polyurethane, pine and all operating methods (pages 20-25).
- . Choose a flashing kit suitable for your specific roof pitch and roofing material a recessed flashing kit is recommended (pages 50-51).
- . Use VELUX installation products for optimum energy efficiency (pages 48-49).
- · Add one or more conservation glazing bars in the corresponding size to your roof windows.

Grey glazing bar to match grey exterior (nearest RAL 7043) finish of standard VELUX roof windows.

We recommend the use of two glazing bars for our wider roof windows such as SK06, UK04 and UK08.

	-							111111				
	55×78	55 + 98	78×98	134 x 98	55 x 118	66 x 118	78 x 118	114×118	78×140	94×140	134 x 140	94 × 160
Optional glazing bars for standard windows	СК02	СКО4	МКО4	UK04	СКО6	FK06	MK06	SK06	мко8	PK08	UK08	PK10
▶ 2 glazing bars for UK04, SK06 & UK08	ZGA WK02 0024 £20	ZGA	WK04 (0024	1	ZGA WK £	(06 0024 24	4	ZGA	WK08 £26	0024	ZGA WK10 0024 £28

- ▶ Glazing bars are not available for -66 and -62 triple glazing variants.
- Prices above are for 1 glazing bar only.
- All glazing bars have a delivery time of 2 days.
- Delivery time is in working days from receipt of orders placed before 4pm (UK) and 3pm (NI),

Appendix B- Mike Wye & Associates Ltd Report on Renders								

MIKE WYE & Associates Ltd

Traditional & Ecological Building Products Specialists in Cob & Stone Repair Conservation Repair Consultants Practical Skills Training Courses

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Buckland Filleigh
Beaworthy
Devon EX21 5RN

Office 01409-281644 Fax 01409-281669

VAT number 631 4670 54

May 18th, 2017

Mr Tushar Shah Oshwal Association of the UK Oshwal Centre Coopers Lane Road Northaw Hertfordshire, EN6 4DG

Tel: 020 8451 7833 email: p.lancerotto@saloria.co.uk

Our ref: C1705OshwalHouse

Oshwal House

Dear Mr Shah,

Further to my visit, I have included my report on my findings for Oshwal House.

As you know, we specialise in the repair of traditional cob and stone buildings. We produce all our own lime mortars, lime plasters and limewash using the finest quality Buxton quicklime and hence have total control over the quality of lime mortars and limewash used for rebuilding, rendering, plastering, pointing and limewashing. We rebuild and repair cob, stone and brick walls with these traditional materials and have a dedicated team tackling a variety of projects from entire rebuilds and barn conversions to specialised polished plaster finishes such as Venetian marble plaster and Moroccan tadelakt. Please visit our website for comprehensive information about our projects and products.

Prior to this century building techniques were very different to those practised today. Traditional buildings benefit in a number of ways from using lime putty based renders and plasters as opposed to hard impervious cement-rich renders and modern gypsum plasters;

- their porosity allows the structure to breathe rather than trap moisture
- their elasticity helps to accommodate general movement, reducing cracking
- their self-healing nature reduces cracking problem
- stone masonry pointed with lime mortar allows moisture to evaporate from the joints, rather than the masonry, reducing frost and salt crystallisation damage
- a limewash finish protects the render whilst allowing moisture to evaporate rather than become trapped behind a modern acrylic or impermeable skin

Technical Report

Oshwal House is a detached building dating back as early as early 1839. Formerly known as The Hook House it is a tuscan style villa, painted stucco and slate roof. The building has had a number of extensions over the years to the rear. The building sits on gently sloping ground from South to North and West to East.

The external elevations are generally a mixture of older renders which are lime based, newer lime renders and cement-rich renders, often patch repaired. Some areas of render have ashlar lines and some are a trowelled finish but all are decorated with a non breathable modern acrylic paint.

There are a number of hairline cracks and more substantial cracks in the render, with evidence that the render has lost its bond to the substrate in areas. The cracks can allow rain to ingress into the substrate and this can raise moisture levels in the adjacent areas which have effectively sealed surfaces. With any moisture ingress these external surfaces effectively act like a plastic bag around the building, increasing the risk of condensation on inner surfaces and interstitial condensation within the walls and pushing any rising moisture in a solid wall construction both inwards and upwards.

There was no evidence of any structural movement indicated by any major external or internal cracking, although the balcony renders on the East elevation looks to be unsafe and should be made safe as soon as possible.

If the external renders are removed in order to replace them with more breathable lime renders and mineral paints its possible that the underlying stone/brick walls may well be shown to be in need of some structural repairs and any timber lintels over doors and windows will tend to rot a little quicker if moisture is concentrated in them.

The main problem is that any areas of cracking that are apparent in the older renders, any piecemeal approach is impracticable. Its not good practice to have different types of render and paint on the same elevation as moisture would be trapped behind the junctions and there would be a propensity to cracking there due to differential movement. In addition the aesthetic appearance would be harmed as the newly rendered lime plasters and mineral paints would contrast with the existing. The same issue applies where an adjoining elevation can be seen of course. Contrary to what many would think, there would be no structural risks in removing the renders to all of the elevations and re-rendering at the same time. This is common practice so that the renders can be as continuous as possible without junctions at corners and it removes the risk that removing renders at different times can involve damage to any existing renders due to vibration or structural rebuilds that are required.

Of course, where the existing renders are of a thickness and composition that they may be load bearing in any given location then an appropriate risk analysis should be undertaken to ensure that any render removal is undertaken as safely and with as little risk of structural damage as possible.

Penetrating rain will generally occur where there is either a specific defect in the external envelope eg cracked render, poor leadwork, failing rainwater goods, defective pointing in bare stone or brickwork etc or where the amount of water that the wall receives in a prolonged wet spell is greater than the capacity of the wall to absorb it. It can manifest itself a little distance away from an actual defect depending on the thickness of the walls and the nature of the substrate.

In the case of Oshwal House the existing renders and paints will tend to reduce rain ingress if intact but once cracks open up the rain can/has entered the substrate and become trapped.

Internally, and especially in the main entrance there were signs of efflorescence, though some walls may be plastered in gypsum based plasters which are more vulnerable to moisture than lime plasters. The signs of dampness were in correlation to the cracked renders externally, faulty guttering and any ill fitting windows or doors.

Recommendations & Methodology.

The main questions to each elevation are:

- 1. How urgent are the render repairs in terms of the existing cracking and hollowness and the propensity for rain ingress?
- 2. How detrimental are the existing renders/paints to the walls?
- 3. Can elevations be undertaken individually as a whole or as piecemeal repairs. Will best practice and aesthetics require a more comprehensive approach, depending on budgets etc?

South Elevation (Front)

The front elevation has a mix of historical lime renders – Stucco, Ashlar lines, trowelled finish and more recent lime renders with possible cement rich piecemeal repairs. The areas of Stucco have delaminated considerably with water ingress through cracks in the renders. There is also cracking between old and new renders where differential movement has occurred. These cracks have also suffered from water ingress and frost damage delaminating the renders from the wall. The trade off is whether to apply new renders or to keep the historical renders in situe where they are sound, repairing any cracks and maintaining for years to come at considerable cost, causing further and substantial substrate damage due to the dampness trapped behind the renders. Ultimately, the renders have been coated over the years with limewash and more recently non breathable acrylic paint. To piecemeal repair the renders on this elevation will only cause further degradation of the substrate to this building. My recommendation, not just for the health and longevity of the building but to improve aesthetics would be to completely remove the old and more recent renders on this elevation, repair any issues in the substrate caused by moisture ingress and replace with a traditional lime putty render with added pozzolans.

West Elevation

The West elevation will almost certainly see the worst of the wet weather that we are increasingly seeing in today's climate. The rear aspect of this elevation is an extension to the original building constructed of brick and is mostly unrendered. The areas that are rendered are lime based renders and show evidence of water ingress in cracks over vunerable areas such as between the bottom of windows positioned above window lintels below.

As above, this elevation has been painted over the years with a non breathable acrylic paint which is detrimental to the health of the building and trapping any moisture behind the renders. My recommendation, would be to remove the renders and apply a seamless render to the rest of the building. The painted brickwork can either have the non breathable paint removed which may cause considerable damage to the brickwork or rendered to create a seamless render around the whole building.

North Elevation

The North elevation has a mix of historical lime renders on the mainhouse, more recent lime renders on the extension to the North West and cementitious renders to the 1950's lean to. There is a number of areas that have high levels of moisture trapped behind the non breathable renders with substantial delamination occurring. Again, this elevation is suffering from water ingress that cannot escape from behind the non breathable paints that have been applied over the years. My recommendation would be to remove the renders and apply a seamless lime putty render and breathable paint along with the other elevations.

East Elevation

Typically, due to not seeing the worst of the British wet weather the east elevation seems to be in the best condition. The plinth at the bottom of the elevation is showing signs of water ingress and frost damage as is the balcony above. The renders are in relatively good condition with minor hairline cracks that need repairing immediately. The issue is that the same non breathable paint has been applied to this elevation over the years and the renders are no longer breathable being detrimental to the substrate of the building. My recommendation would be in order to create a seamless render over the whole of the building and of course for aesthetic reasons, is to remove the renders and apply a lime putty render and breathable paint.

Summary

It is extremely difficult to sometimes weigh up which is more important. The historical renders of a building or the health of the building that the renders are there to essentially protect. Had a maintenance program been in place over the history of the building with the correct paint applied there would be every justification to just carry out essential repairs. However, in my opinion the renders and the paint are now contributing to the degradation of the building and would justify being removed and reinstated. Removal of just the paint would prove as costly as a new render and would more than likely weaken or damage the old render to beyond repair.

I've set out below the specifications for replacing the external render for each of the main elevations

Option 1. Traditional external lime rendering specification for the work is :

- 1. remove the existing render removal and waste disposal
- 2. apply a harled coat of Secil Consolidation mortar to get a key to the wall
- 3. apply sufficient scratch coats of haired lime render to achieve a suitable surface
- 4. apply a float coat of unhaired lime render to achieve the contours of the walls required. This can be left as a relatively smooth floated/sponged finish

Lime putty mortars for plastering and rendering are based on mixtures of our own mature lime putty with a coarse sand. Harling coats are made to a wetter consistency to allow hand harling on the wall. All external coats apart from the harled coat typically have a pozzolan added. This is a calcined clay used to accelerate the set whilst carbonation of the lime proceeds more slowly over the months and years.

Backing coats of lime render have added horse hair. Apart from the harling coat which is usually ready in 1-2 days, the subsequent coats of lime plaster or render take at least a week between coats to cure sufficiently for the next coat to be applied.

Option 2. EcoCORK external lime rendering specification for the work is:

- 1. remove the existing render removal and waste disposal
- 2. apply a harled coat of Secil Consolidation mortar to get a key to the wall
- 3. apply a doubled up scratch coat of Secil ecoCORK with an embedded glass fibre mesh.
- 4. apply a float coat of Secil ecoCORK
- 5. apply a finishing coat of Secil finish mortar which is a sponge float finish

The harling coat is typically ready to render onto after 1-2 days.

The scratch coat of Secil ecoCORK will take 3-5 days to cure before applying the ecoCORK float coat. This is left to cure for a few days before the finishing render coat is applied. Ideally the final render coat is left to cure for several days before being painted.

External Paint

Either limewash or a mineral silicate paint can be used. Limewash typically needs four coats to cover but is a very cheap paint. Mineral silicate paints cost more but only need three coats. They offer a similar appearance to limewash, are only slightly less porous but considerably more water repellent and so more protective. Silicate paints typically last longer when applied to a suitable substrate. This can be important for elevations that are difficult to decorate without the expense of scaffolding. A silicate paint, although matt, would match more closely the appearance

of any retained paints as they don't mottle as much as limewash due to their greater water repellency.

Chemical Analysis

Chemical analysis of the renders is not required in my opinion unless the Conservation Officer particularly wants further analysis. The existing renders are lime renders of different periods, some applied well and more recent renders applied poorly.

Planning etc

The proposed works will require appropriate planning and listed building consents from the local council, from whom advice should be sought in advance of any work commencing and any necessary approvals given in writing.

I hope this covers everything but if I've missed something or require any questions answering, please do contact me at your convenience.

Yours sincerely

Mark Rees

Conservation Team Manager

DEBI Awards – Sustainable and Overall Winners 2016

Build It Awards – Best Builders Merchants for Self Builders - Winner 2016

Rural Business Awards – Manufacturing Winner 2016

Federation of Small Businesses 2007 Business Champion Award Winner – Manufacturing

Peace of Mind

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As well as our enviable reputation, Mike Wye & Associates Ltd are also members of two Government certified schemes for the building industry:

<u>Constructionline</u> - membership shows that we have met the requisite standards for Customer Service and hold appropriate levels of insurance for Construction Work

Acclaim - membership shows that we have met the requisite standards for Health & Safety

Appendix C - Drawings

