Condition 21: Light Enhancing Materials

Prior to the commencement of the above ground superstructure works details of the light enhancing materials (i.e. white glazed bricks or similar) to be incorporated as part of the development to ensure acceptable daylight levels at 52-54 Mount Pleasant Hostel are achieved have been submitted to and approved in writing by the local Planning Authority. The development shall be carried out in accordance with the details thereby approved and permanently maintained thereafter.

Condition 21: Light Enhancing Materials

Modelling of the daylight and sunlight has shown that there would be improvement to the hostel rooms by applying a surface treatment of light reflectance value of 70% (see figure 1).

At the time the computer model assumed a glazed brick finish for testing purposes, however the reality of the existing wall to be faced would deem that adhering glazed bricks would be innappropriate and would encroach onto the adjoining neighbors land.

A white paint application would achieve a potential light reflectance value of 85%, greater than what white bricks would achieve, and would be more suitable to be applied to the existing brickwork wall, this would achieve the desired result of enhancing daylight into the hostels whilst preserving the character and features of the existing building where cladding over would not.



South Elevation

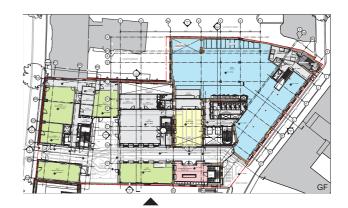
This initial test looks at accurately taking into account the reflected light from the existing wall opposite the windows and how that could be enhanced if the proposed development was faced with white glazed bricks or similar with a reflective value of 70% as set out in the guidance. Please note that we have tested the whole scheme as having a reflectance value of 70%. For this initial test we have not enhanced the quality or brightness of the paving in the alley way and we have only used a standard overcast sky. Therefore, the values we have calculated would be increased again should a light floor be installed and when the sky is bright and especially when the sun is shining.

The results of this initial analysis show that if the proposed scheme is faced with white glazed bricks or similar the impact on the actual daylight levels in the hostel room is very substantially improved. The results and images shown on page 6-9 of the Internal Daylight Report contained in Appendix 05 show that at lower ground level all rooms will experience an improvement in the existing ADF values, as do all the rooms at ground floor level as well.

Figure 1: Extract from GIA Daylight/Sunlight Report 12th May 2016



View of the Hostel windows south of the site. Existing brickwork facade to be white painted on the south facade to achieve greater than 70% LRV



Key Plan: South Elevation

Condition 21: Light Enhancing Materials



SPECIFICATION FOR THE APPLICATION OF KEIM SOLDALIT-ME ONTO BRICKWORK SURFACES

SUMMARY

This proposal report has been produced by Keim Mineral Paints in order to give advice on the application of Keim products. This report has been produced site unseen and is based upon information provided by the specifier.

Please note that our comprehensive support service includes on-site surveys, production of dedicated project proposals, colour and applications advice, this can be arranged by contacting Keim Mineral Paints.

2. PRE-TREATMENT

All loose, flaking and unstable material must be identified and then thoroughly removed using stiff brushes and broad bladed scrapers to get back to a sound edge; these edges should then be feathered in. Ensure that any paint materials left remaining and the underlying substrate is sound and adhering well. Any gloss or shiny surfaces should be thoroughly flatted down using sand or emery paper to create a good key.

All surfaces must be thoroughly washed down with clean cold water to remove all surface dirt and dust.

Any cracks or where there is a need to equalise the surface should be filled using Keim Spachtel, a ready to use silicate mineral filler, brush or trowel applied to a pre-wetted surface and dressed back to the required level.

Any suspect mortar jointing should be raked out and re-instated where necessary. Any newly repaired areas must be allowed to dry out for a minimum period of 15 days prior to the application of Keim Mineral Paints.

All mould and fungal growth must be thoroughly removed by pressure washing and a stiff brush (steam cleaning where possible). Once the prepared surfaces have dried, they should be uniformly soaked with undiluted KEIM Algicid-Plus by brush or flood coating (do not spray). Subsequent washing down is not necessary. Once the product has been allowed to act for at least 24 hours, KEIM coating systems can be applied onto the cleaned surface.

When all surfaces are clean, sound, wind dry, dust free and free from all surface contaminants, decoration using Keim Mineral Paints may proceed.

3. DECORATION

We would advocate a two coat Keim Soldalit-ME system, applied undiluted by brush, roller or airless spray with a minimum period of 12 hours between coats.

Typical consumption rates for a brick surface would be as follows:

Keim Algicid

KEIM MINERAL PAINTS ITD

0.2 It per square metre

Keim Spachtel

10 kg per square metre for 5mm thick repair

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Donnington Wood, Telford www.keimpair

Tel. 01952 231250 Fax. 01952 231251 www.keimpaints.co.uk sales@keimpaints.co.uk Registered No. 2343394 VAT Reg. No. GB523 4388 50



Keim Soldalit-ME 0.6 kg per square metre for 2 coats

Please note that these consumption rates are offered for guideline purposes only and should more accurate measures be required then site trials must be conducted. We would be pleased to provide samples in order for contractors to verify consumption rates and/or colour choice.

4. COST CONSIDERATIONS

2022 UK Costs are as follows:

Keim Algicid	£11.75/
Keim Spachtel	£5.60/k
Keim Soldalit-ME White	£18.35/
Keim Soldalit-ME Group 1	£18.80/
Keim Soldalit-ME Group 2	£21.75/
Keim Soldalit-ME Group 3	£25.30/

Please note that these prices are exclusive of VAT. Delivery is charged at £19.00, excluding VAT per invoice to one named site. Delivery is normally within 7-10 working days from receipt of order. When ordering please round up to the nearest 5lt or 5kg.

SCOPE OF ADVICE

The key to optimum performance with Keim products is preparation prior to decoration. Please ensure that all recommendations in the General Considerations Section are followed.

For previously painted surfaces where stripping and removal of unstable surfaces is recommended it should be noted that once stripped there is the potential for impurities such as salts and staining to emerge as the surface dries.

Site unseen specifications are issued using general guidelines for pre-treatment and preparation. Please note that our comprehensive support service includes free of charge on-site surveys, production of dedicated project proposals, colour and applications advice. If this is required, please contact Keim Mineral Paints.

Consumption rates given are typical consumption rates for the surfaces described. Samples can be provided free of charge in order to verify consumption rates.

6. GENERAL

General points to be borne in mind when using Keim Mineral Paints are:

In order for Keim Mineral paint to achieve its permanent bond with the surface it is essential that the following recommendations are followed.

Pre-treatment -

- all areas to be decorated should be free from all surface contaminants, sound, dry and dust free
- all loose, flaking and unstable material must be identified and then thoroughly removed using stiff
 brushes and broad bladed scrapers to get back to a sound edge; these edges should then be
 feathered in

Proposed paint specification Proposed paint specification

Condition 21: Light Enhancing Materials



- ensure that any paint materials left remaining and the underlying substrate is sound and adhering
 well
- caution should be taken with the removal of any pre 1960's coatings as they may contain lead
- any gloss or shiny surfaces should be thoroughly flatted down using sand or emery paper to create a good key
- if the surfaces are being chemically stripped ensure that they are thoroughly washed down of all residue
 prior to decoration. Due to the potential for an osmotic drawing reaction, which can bring contaminants
 to the surface, we do not recommend the use of poultice based strippers if the surfaces are to be
 redecorated
- any powdery or chalking surfaces will require treatment prior to decoration contact Keim to ascertain the appropriate product
- use only Keim recommended fillers and sealers. Acrylic, resin and gypsum based fillers particularly
 are not recommended for use with mineral paints

Material Application -

- always maintain a wet edge and work materials out well
- all materials must be thoroughly mixed beforehand, and periodically during decoration, using a
 mechanical mixer. We do not recommend intermixing packs, however if this is necessary ensure
 that products are thoroughly mixed beforehand to ensure even pigment dispersion, prior to mixing
- \bullet $\,$ materials must not be applied at temperatures below 5°C nor those in excess of 30°C $\,$
- materials must not be applied if it is raining or if there is an immediate likelihood of rain
- Keim Mineral Paints should be applied onto wind dry surfaces where the moisture content on or near the surface (to a depth of 5mm approximately) should be no greater than 18% by volume.
 For on-site purposes a moisture meter may be used to give a qualitative reading – if the reading is in the green zone decoration may proceed
- on newly rendered surfaces we would suggest that a period of at least 15 days (30 days for lime render) is allowed following rendering, prior to the application of Keim paints
- mineral paints are manufactured using natural components and as such can appear to dry out
 unevenly. This is the way in which they dry, once fully dried any unevenness will disappear. Do
 not over-roll or touch up the paint during the drying process as this may inadvertently create
 patching once dry
- mineral paints will lighten as they dry, with a corresponding increase in opacity
- if airless spraying, please contact Keim for details of the appropriate nozzle sizes and optimum mesh and filter types

Housekeeping -

- all adjoining surfaces must be protected during decoration, any splashes/unwanted paint removed immediately, before it is able to completely dry and bond to the surface
- any splashes or spillage should be removed immediately using water particular note needs to be taken of this in respect of Keim on glass, as it has a slight etching effect if allowed to dry hard
- clean all brushes and tools immediately in water (some ancillary products containing solvents may require white spirit or turpentine, if in doubt please consult the relevant product technical data sheet)
- always store materials upright and secure. Protect from extremes of temperature and store in frostfree conditions

General -

• when ordering reference to the project should be made, to ensure that in the event of re-ordering a colour match can be supplied



- to avoid confusion, the recommendations within this specification should be followed where there
 are any minor differences between this document and the standard advice on packaging and
 technical data sheets
- Keim Mineral Paints Ltd operates a policy of 'sale and no return' on all goods supplied in good faith

Proposed paint specification Proposed paint specification