

**Statement regarding Fire Safety
of
Proposals submitted for Planning Approval
at
Godbey House, Sea Front, Hayling Island**

This statement has been prepared to accompany the Full Planning Application for the proposed development at the above property.

Project Description:

The proposals are for the erection of a new apartment building, comprising 13 dwellings over 4 storeys. The site will be accessed via the existing site entrance and driveway.

Liaison with Fire Authority:

Subject to the proposals receiving Planning Approval, the detailed proposals will be discussed with the appropriate Fire Authority to agree the required levels of Fire detection, prevention and access for firefighting personnel and equipment.

All means of fire prevention, detection, escape and firefighting will all be in strict accordance with the requirements of Part B of the Building Regulations.

Fire safety measures proposed:

1. The site access allows a Fire Tender to drive into the site, to park less than 10m from the ground floor entrance, and to turn and leave the site in a forward gear.
2. All apartments will be served by a shared stair and lift core. All apartments will be protected from the common stair and lift core by fire-protecting lobbies and fire-resistant doors. The common stair and lift core can be ventilated via its exit door at ground level and windows at each of the upper landing levels.
3. There will be no gas mains pipes within the common stair and lift core; internal finishes and fittings to the stair and lift core will be of limited combustibility and there will be no furniture or soft furnishings within the stair and lift core.
4. All apartments will have mains-powered (with battery back-up), smoke and heat detectors and alarm systems, installed in locations/positions in accordance with Part B of the Building Regulations.
5. All apartments will be fitted with mains-supplied sprinklers.
6. The primary structure of the proposed apartments will be load bearing masonry walls with concrete floors. The two skins of masonry walling and concrete floors will provide a minimum of 60 minutes (and likely to be significantly higher) of fire protection between apartments.
7. Fire stopping barriers will be installed horizontally at each of the upper floor levels and vertically between each apartment; this will prevent any potential spread of fire within the cavity from one apartment to the next.
8. Where shown on the elevations, external cladding will be fixed to the external leaf of the masonry cavity wall; regardless of the performance of the cladding, the masonry wall will provide a minimum of 60 minutes of fire protection to the internal accommodation. The cladding material specified will have limited combustibility; the exact specification of which will be agreed with the Fire Authority and Building Control Authority (or Approved Inspector).

9. To further minimise the possibility of fire spread between the cladding and the external masonry cavity wall, there will be horizontal and vertical fire stopping between the cladding and the masonry wall as noted above.
10. The proposed cladding starts at first floor level, and facing brickwork clads the majority of the ground floor external envelope, thereby reducing the opportunities for wilful arson attack of the proposed cladding.
11. The windows and glazed doors will be constructed with aluminium frames (not UpVC).

Where mechanical or electrical services penetrate fire barrier walls or floors, they will be protected by the installation of passive fire protection measures such as intumescent fire collars, which in the event of a fire will automatically close off that potential route for spread of fire across the fire barrier.

12. Fire doors will be specified to the required level of protections and will be fitted with the required closers, and smoke and/or intumescent barriers fitted.
13. All apartments have either a balcony or roof terrace on the southern façade, accessible by a fire tender or ladders. At four storeys in height, the top most floor is easily within reach of the standard tallest ladders carried by fire service vehicles.

Potential External Cladding materials:

It is hoped that the final choice of external cladding material can be approved following the granting of Full Planning Permission, via a Condition, as is usual for this type and scale of development. However, to provide some level of comfort that the proposed external cladding material will be sufficiently fire resistant, we suggest here some potential materials for consideration, together with details of their performance when tested for fire resistance:



Prodema Prodex Timber Composite Planning

BSA propose Prodema vertical cladding in a staggered pattern to replace the metal cladding on the proposals for Godbey House. Below are the CE Safety Requirements taken from www.prodema.com/en/. The Data sheet refers to European Standard EN 13501-1 classification table which is also included below.

Prodema		TECHNICAL DATA SHEET		Doc.: FTPRODEX	
NATURAL WOOD BEAUTY				Rev.: 011 – Feb 2013	
				Page: 1/1	
MATERIAL:		THICKNESS:		SURFACE FINISH:	
PRODEX		6 – 22 mm		SMOOTH	
TESTS	RESULTS	PROPERTY OR ATTRIBUTE		MEASURE UNIT	STANDARD
5. CE SAFETY REQUIREMENTS					
Reaction to fire	C-s2,d0 ②	Euroclass t ≥ 6 mm		Classification	EN 13501-1
Thermal resistance/Conductivity	0,266	Thermal conductivity (λ)		W/m K	EN 12664
Water vapour permeability	110	Wet cup method		μ	EN 438-7 Part 4.4
	250	Dry cup method			
Resistance to fixings	> 2.000 > 3.000 > 4.000	Screw holding value for t = 6 mm Screw holding value for t = 8 mm Screw holding value for t ≥ 10 mm		N	EN 438-7 Part 4.5
Flexural strength	≥ 80	Longrain		MPa	EN ISO 178
	≥ 80	Crossgrain			
Flexural Modulus	≥ 9.000	Longrain		MPa	EN ISO 178
	≥ 9.000	Crossgrain			
Resistance to climatic shock	≥ 4	Appearance		Rating Index Ds Index Dm	EN 438-2 Part 19
	≥ 0,95	Flexural strength			
	≥ 0,95	Elastic modulus			
Density	≥ 1,35	Density		g/cm³	EN ISO 1.183
Resistance to wet conditions	≤ 5	Moisture absorbed		%	EN 438-2 Part 15
	≥ 4	Appearance			

① Provided that the laminates are stored in the manner and conditions recommended by the manufacturer.

② Class B for North America.

ref: www.prodema.com/downloads/catalogos/ProdEX-TECH-en.pdf [p.11]

Definition	Classification according to European Standard EN 13501-1				
	Construction products			Floorings	
	A1			A1 _g	
non-combustible materials	A2 - s1 d0 A2 - s2 d0 A2 - s3 d0	A2 - s1 d1 A2 - s2 d1 A2 - s3 d1	A2 - s1 d2 A2 - s2 d2 A2 - s3 d2	A2 _g - s1	A2 _g - s2
combustible materials - very limited contribution to fire	B - s1 d0 B - s2 d0 B - s3 d0	B - s1 d1 B - s2 d1 B - s3 d1	B - s1 d2 B - s2 d2 B - s3 d2	B _g - s1	B _g - s2
combustible materials - limited contribution to fire	C - s1 d0 C - s2 d0 C - s3 d0	C - s1 d1 C - s2 d1 C - s3 d1	C - s1 d2 C - s2 d2 C - s3 d2	C _g - s1	C _g - s1
combustible materials - medium contribution to fire	D - s1 d0 D - s2 d0 D - s3 d0	D - s1 d1 D - s2 d1 D - s3 d1	D - s1 d2 D - s2 d2 D - s3 d2	D _g - s1	D _g - s1
combustible materials - highly contribution to fire	E			E _g	
combustible materials - easily flammable	F			F _g	

ref: www.peroni.com/lang_UK/_download/EN_Reaction_to_Fire_Classification.pdf



Prodema ProdexIGN Timber Composite Planning

BSA propose Prodema vertical cladding in a staggered pattern to replace the metal cladding on the proposals for Godbey House. Below are the CE Safety Requirements taken from www.prodema.com/en/. The Data sheet refers to European Standard EN 13501-1 classification table which is also included below.

Prodema NATURAL WOOD BEAUTY		TECHNICAL DATA SHEET		Doc.: FTPRODEXIGN Rev.: 010 – Feb 13 Page: 1/1	
MATERIAL		THICKNESS		SURFACE FINISH:	
PRODEX IGN		6 – 22 mm		SMOOTH	
TESTS	RESULTS	PROPERTY OR ATTRIBUTE		MESURE UNIT	STANDARD
5. CE SAFETY REQUIREMENTS					
Reaction to fire	B-s2,d0 ②	Euroclass t ≥ 6 mm		Classification	EN 13501-1
Thermal resistance/ conductivity	0,220	Thermal conductivity (λ)		W/m K	EN 12664
Water vapour permeability	110 250	Wet cup method Dry cup method		μ	EN 438-7 Part 4.4
Resistance to fixings	> 2.000 > 3.000 > 4.000	Screw holding value for t = 6 mm Screw holding value for t = 8 mm Screw holding value for t ≥ 10 mm		N	EN 438-7 Part 4.5
Flexural strength	≥ 80 ≥ 80	Longrain Crossgrain		MPa	EN ISO 178
Flexural Modulus	≥ 9.000 ≥ 9.000	Longrain Crossgrain		MPa	EN ISO 178
Resistance to climatic shock	≥ 4 ≥ 0,95 ≥ 0,95	Appearance Flexural strength Elastic modulus		Rating Index Ds Index Dm	EN 438-2 Part 19
Density	≥ 1,35	Density		g/cm³	EN ISO 1.183
Resistance to wet conditions	≤ 8 ≥ 4	Moisture absorbed Appearance		% Rating	EN 438-2 Part 15

① Provided that the laminates are stored in the manner and conditions recommended by the manufacturer.

② Class A for North America.

ref: www.prodema.com/downloads/catalogos/ProdEX-TECH-en.pdf [p.12]

Definition	Classification according to European Standard EN 13501-1				
	Construction products			Floorings	
	A1			A1 _s	
non-combustible materials	A2 - s1 d0 A2 - s2 d0 A2 - s3 d0	A2 - s1 d1 A2 - s2 d1 A2 - s3 d1	A2 - s1 d2 A2 - s2 d2 A2 - s3 d2	A2 _s - s1	A2 _s - s2
combustible materials - very limited contribution to fire	B - s1 d0 B - s2 d0 B - s3 d0	B - s1 d1 B - s2 d1 B - s3 d1	B - s1 d2 B - s2 d2 B - s3 d2	B _s - s1	B _s - s2
combustible materials - limited contribution to fire	C - s1 d0 C - s2 d0 C - s3 d0	C - s1 d1 C - s2 d1 C - s3 d1	C - s1 d2 C - s2 d2 C - s3 d2	C _s - s1	C _s - s1
combustible materials - medium contribution to fire	D - s1 d0 D - s2 d0 D - s3 d0	D - s1 d1 D - s2 d1 D - s3 d1	D - s1 d2 D - s2 d2 D - s3 d2	D _s - s1	D _s - s1
combustible materials - highly contribution to fire	E			E _s	
combustible materials - easily flammable	F			F _s	

ref: www.peroni.com/lang_UK/_download/EN_Reaction_to_Fire_Classification.pdf



Prodema *Prodex Fireproof* Timber Composite Planning

BSA propose Prodema vertical cladding in a staggered pattern to replace the metal cladding on the proposals for Godbey House. Below are the CE Safety Requirements taken from www.prodema.com/en/. The Data sheet refers to European Standard EN 13501-1 classification table which is also included below.

Prodema NATURAL WOOD BEAUTY		TECHNICAL DATA SHEET		Doc.: FTPRODEXFIREPROOF Rev.: 01 – Feb 2013 Page: 1/1	
MATERIAL		THICKNESS		SURFACE FINISH:	
PRODEX FIREPROOF		8 – 22 mm		SMOOTH	
TESTS	RESULTS	PROPERTY OR ATTRIBUTE		MEASURE UNIT	STANDARD
5. CE SAFETY REQUIREMENTS					
Reaction to fire	B-s1,d0 ②	Euroclass t ≥ 8 mm		Classification	EN 13.501-1
Thermal resistance/ conductivity	0,281	Thermal conductivity (λ)		W/m K	EN 12664
Water vapour permeability	110 250	Wet cup meted Dry cup method		μ	EN 438-7 Part 4.4
Resistance to fixings	> 3.000 > 4.000	Screw holding value for t = 8 mm Screw holding value for t ≥ 10 mm		N	EN 438-7 Part 4.5
Flexural strength	IV ≥ 80 IV ≥ 80	Longrain Crossgrain		MPa	EN ISO 178
Flexural Modulus	IV ≥ 9.000 IV ≥ 9.000	Longrain Crossgrain		MPa	EN ISO 178
Resistance to climatic shock	≥ 4 ≥ 0,95 ≥ 0,95	Appearance Flexural strength Elastic modulus		Rating Index Ds Index Dm	EN 438-2 Part 19
Density	≥ 1,35	Density		g/cm³	EN ISO 1.183
Resistance to wet conditions	≤ 8 ≥ 4	Moisture absorbed Appearance		% Rating	EN 438-2 Part 15

① Provided that the laminates are stored in the manner and conditions recommended by the manufacturer.

② Does not apply to North America.

ref: www.prodema.com/downloads/catalogos/ProdEX-TECH-en.pdf [p.13]

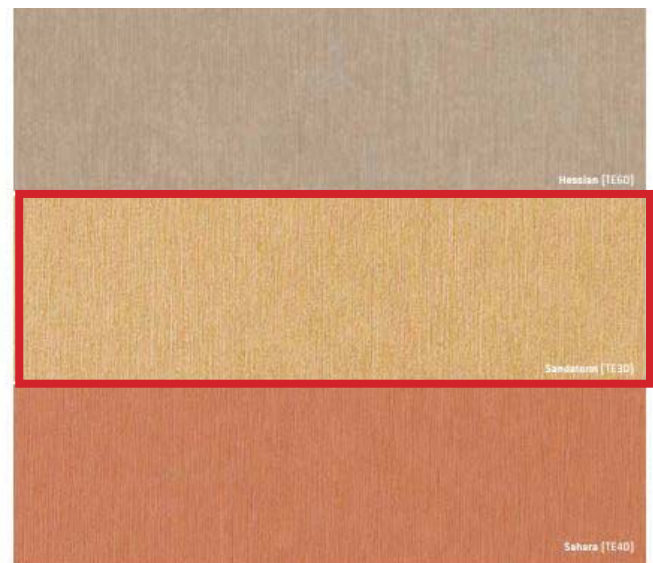
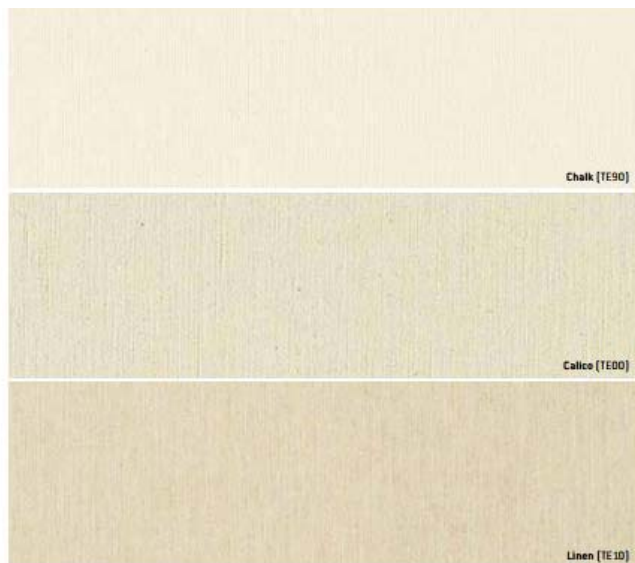
Definition	Classification according to European Standard EN 13501-1				
	Construction products			Floorings	
non-combustible materials	A1			A1 _s	
	A2 - s1 d0 A2 - s2 d0 A2 - s3 d0	A2 - s1 d1 A2 - s2 d1 A2 - s3 d1	A2 - s1 d2 A2 - s2 d2 A2 - s3 d2	A2 _s - s1	A2 _s - s2
	B - s1 d0	B - s1 d1 B - s2 d1 B - s3 d1	B - s1 d2 B - s2 d2 B - s3 d2	B _s - s1	B _s - s2
combustible materials - very limited contribution to fire	B - s2 d0 B - s3 d0	C - s1 d1 C - s2 d1 C - s3 d1	C - s1 d2 C - s2 d2 C - s3 d2	C _s - s1	C _s - s1
combustible materials - limited contribution to fire	C - s1 d0 C - s2 d0 C - s3 d0	D - s1 d1 D - s2 d1 D - s3 d1	D - s1 d2 D - s2 d2 D - s3 d2	D _s - s1	D _s - s1
combustible materials - medium contribution to fire	D - s1 d0 D - s2 d0 D - s3 d0	E	E - d2	E _s	E _s
combustible materials - highly contribution to fire	E	F	F	F _s	F _s
combustible materials - easily flammable	F	F	F	F _s	F _s

ref: www.peroni.com/lang_UK/_download/EN_Reaction_to_Fire_Classification.pdf



Equitone TEXTURA cladding board

“EQUITONE [textura] is a coloured facade panel. The surface has a grainy structure, with doublelayer acrylic coating, fillite filling and a hot-film sealing top-coat (front side) to produce a dirt resistant finish. The rear receives a transparent back-sealing coating.”



Classification

Durability classification	EN12467	Category A
Strength classification	EN12467	Class 4
Fire Reaction	EN13501-1	A2-s1, d0

Cost = approx. £35.22 /m² [2016]

ref: www.marleyeternit.co.uk/~media/Files/Product-Files/Facades/Brochures/EQUITONE-Planning-and-Application-Guide.pdf [p.19]

	Classification according to European Standard EN 13501-1				
Definition	Construction products			Floorings	
non-combustile materials	A1			A1 _f	
	A2 - s1 d0	A2 - s1 d1	A2 - s1 d2	A2 _f - s1	A2 _f - s2
	A2 - s2 d0	A2 - s2 d1	A2 - s2 d2		
	A2 - s3 d0	A2 - s3 d1	A2 - s3 d2		
combustible materials - very limited contribution to fire	B - s1 d0	B - s1 d1	B - s1 d2	B _f - s1	B _f - s2
	B - s2 d0	B - s2 d1	B - s2 d2		
	B - s3 d0	B - s3 d1	B - s3 d2		
combustible materials - limited contribution to fire	C - s1 d0	C - s1 d1	C - s1 d2	C _f - s1	C _f - s1
	C - s2 d0	C - s2 d1	C - s2 d2		
	C - s3 d0	C - s3 d1	C - s3 d2		
combustible materials - medium contribution to fire	D - s1 d0	D - s1 d1	D - s1 d2	D _f - s1	D _f - s1
	D - s2 d0	D - s2 d1	D - s2 d2		
	D - s3 d0	D - s3 d1	D - s3 d2		
combustible materials - highly contribution to fire	E		E - d2		E _f
combustible materials - easily flammable	F			F _f	

ref: www.peroni.com/lang_UK/_download/EN_Reaction_to_Fire_Classification.pdf



Equitone *PICTURA* cladding board

“EQUITONE [pictura] is a coloured facade panel. The surface is smooth, matt, with double layer acrylic coating and a UV hardened PU top-coat (front side) to produce a dirt resistant finish. This finish makes a hard surface, scratch resistant and “anti graffiti” protection for most kinds of vandalism. The rear receives a transparent back-sealing coating.”



Classification

Durability classification	EN12467	Category A
Strength classification	EN12467	Class 4
Fire Reaction	EN13501-1	A2-s1, d0

Cost = approx. £46.99 /m² [2016]

ref: www.marleyeternit.co.uk/~media/Files/Product-Files/Facades/Brochures/EQUITONE-Planning-and-Application-Guide.pdf [p.25]

	Classification according to European Standard EN 13501-1				
Definition	Construction products			Floorings	
non-combustible materials	A1			A1 _f	
	A2 - s1 d0	A2 - s1 d1	A2 - s1 d2	A2 _f - s1	A2 _f - s2
	A2 - s2 d0	A2 - s2 d1	A2 - s2 d2		
	A2 - s3 d0	A2 - s3 d1	A2 - s3 d2		
combustible materials - very limited contribution to fire	B - s1 d0	B - s1 d1	B - s1 d2	B _f - s1	B _f - s2
	B - s2 d0	B - s2 d1	B - s2 d2		
	B - s3 d0	B - s3 d1	B - s3 d2		
combustible materials - limited contribution to fire	C - s1 d0	C - s1 d1	C - s1 d2	C _f - s1	C _f - s1
	C - s2 d0	C - s2 d1	C - s2 d2		
	C - s3 d0	C - s3 d1	C - s3 d2		
combustible materials - medium contribution to fire	D - s1 d0	D - s1 d1	D - s1 d2	D _f - s1	D _f - s1
	D - s2 d0	D - s2 d1	D - s2 d2		
	D - s3 d0	D - s3 d1	D - s3 d2		
combustible materials - highly contribution to fire	E		E - d2		E _f
combustible materials - easily flammable	F			F _f	

ref: www.peroni.com/lang_UK/_download/EN_Reaction_to_Fire_Classification.pdf