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APPENDIX 2: Specific materials for the Plan Area

Introduction

1. Building material is any material which is used for construction purposes. Policies DEV10 (Delivering high quality housing) and DEV20 (Place shaping and the quality of the built environment) of the JLP sets out the expectation that materials should be of high quality, resilient to their context, endure over time and have proper regard to the wider development context.

2. Materials used in the Plan Area should be specified accordingly to have longevity, and be able to weather attractively, particularly as Building Regulations Approved Document C[1] identifies the area as being in a "very severe" weather zone.

3. Whilst materials and building techniques may not always be specified before planning permission is granted, the quality, deliverability and the functions they will be expected to perform should be clarified early in the process.

4. The materials characteristic of the Plan Area are set out below. Across the Plan Area a variety of different materials are used and some are more acceptable in certain areas than others. The local context and the different ways in which materials are used needs to be considered early in the design evolution of proposals.

Render/stucco

5. Render (or stucco) is a traditional construction material used as an external coating for walls. It is applied wet and hardens to a dense solid. It can be given the process of applying cement mixture to external, or sometimes internal walls to achieve a smooth or textured surface.

6. In the PPA severe local weather conditions have led to the dominant use of render or stucco as elevation finish for buildings, particularly on historic buildings. In the TTV render varies according to the construction material and the status of the building. Generally, the higher the status, the smoother and more refined the finish.

7. Traditional colours vary. On vernacular buildings colour only came from whatever was picked up in the limewash from the substrate so earthy off-white colours were the norm. On the town houses of wealthier inhabitants, colour was sometimes used as a status symbol – blue, green and yellow pigments were used for example. This reflection of status is characteristic and should inform colour choices for new development.

8. However, as locally distinctive as render is, there have been problems with render weathering unattractively on many recently completed buildings which

[1] https://www.gov.uk/government/publications/site-preparation-and-resistance-to-contaminates-and-moisture-approved-document-c

have been subject to staining and algae growth, particularly within the PPA. The use of render within the PPA is therefore considered inappropriate on tall buildings and buildings in particularly exposed locations or next to busy roads and will normally be resisted in these circumstances.

9. On low to medium-rise buildings in the PPA, the use of render will only be supported if it is a high quality silicone system, with water and dirt repellence, to avoid problems with staining and algae growth. Render with a textured finish is particularly vulnerable to dirt adherence and should be avoided in the PPA.

Cladding

10. Metal, ceramic and composite/laminate cladding may be supported, subject to agreement of appropriate quality, colour, detailing and finish and in compliance with Building Regulations. On medium-rise and tall buildings and in exposed locations a glossy finish may be sought to minimise dirt adherence.

11. Copper sheet cladding has historically been used to accent buildings of civic or strategic importance and can be obtained pre-patinated to its characteristic blue-green verdigris colour or left to weather to this finish naturally. It must be noted that it may take several decades to weather from its initial bright finish and this may be considered too long a process in some circumstances.

12. Within the PPA, industrial sheet-cladding materials, for example, those that link with ship-building and marine infrastructure, can be supported in appropriate locations, provided they are well detailed and sufficiently robust. A maintenance plan will need to be agreed to ensure they are maintained in good appearance throughout the life of the development.

Weatherboarding

13. Weatherboarding is a form of external cladding and has been used significantly around the PPA's waterfront neighbourhoods because of its connection with the marine context. Its use may also be appropriate in rural areas where it can link to an agricultural/barn aesthetic.

14. Untreated timber shiplap weatherboarding (such as cedar or larch, for example) has often been used on the basis that it requires no chemical preservatives and requires little maintenance, eventually weathering to a silver grey of a similar colour to local stone. However, care needs to be taken in specifying untreated timber weatherboarding, particularly on north-facing elevations, or where it can be difficult for the material to dry out, as this can create a darker appearance than may have been intended. There is also a susceptibility to moss and algae growth. There also needs to be an acceptance that the untreated timber may be considered unsightly by some people before it reaches its weathered state.

15. Painted fibre-cement shiplap weatherboarding has been used successfully on recent developments in PPA waterfront neighbourhoods, including at Devonport

and Millbay. Its use will be supported in similarly appropriate contexts, subject to agreement on colour and detailing.

16. Weatherboarding is considered less appropriate in inland urban situations or in inappropriate historic contexts. It would be discouraged in Plymouth City Centre, for example.

17. UPVC cladding will generally be discouraged because of its poor quality appearance and negative environmental impact.

Stone and brick

18. Historic buildings reflect the geology of the locality and that varies tremendously. Slate is the bedrock across much of the TTV but that is found in many different colours and ranges considerably in quality. The spectrum covers various shades of grey, green, brown and even purple. There are many distinctive local stones including some unusual igneous rocks, from the green schist on the southern coast to the lamprophyres in the northern parishes and the green Hurdwick stone of Tavistock. In any location it is seldom necessary to look far to see what the local materials are and the challenge is then to complement them. The Strategic Stone Study[2] led by Historic England, working with the British Geological Survey is a useful reference point.

19. The PPA's geology in the waterfront areas to the south is predominantly limestone, whilst the areas to the north are mostly slate and shale. Many of the PPA's historic buildings and fortifications are constructed of Plymouth limestone which was quarried locally, sometimes with granite added for plinths and features. The use of Plymouth limestone in building elevations is therefore encouraged, particularly in the south of the area because it is robust, weathers attractively and has a strong connection to place. Local slate is more appropriate in the north of the area.

20. Plymouth's mid-20th Century Beaux-Arts City Centre precinct is characterised by the use of Portland Stone on building elevations. It is important that new development responds to this legacy positively.

21. In the PPA's townscape, the use of brick is the exception rather than the rule. However, it is acknowledged that some brick is present on mostly 20th Century buildings and has been used in some recent development in areas such as Millbay. The use of brick will normally only be supported where it links to a positive existing use of brick in an area.

Slate hanging

Slate hanging is a feature across the TTV and some examples are centuries old. Two notable features of historic slate hanging are that the slates are usually smaller than roofing slates and they are also commonly laid back-to-front so that

[2] https://www.bgs.ac.uk/mineralsuk/buildingStones/StrategicStoneStudy/EH_project.html

the riven edge forms a natural drip. These characteristic details may usefully be adopted in new work as well.

Slate hanging is commonplace on timber framed buildings and is sometimes very decorative, as seen in Dartmouth. Its use on solid walls is normally a response to extreme exposure in order to stop penetrating damp so its use on new build ought to reflect either orientation or construction type. As a locally distinctive feature it has considerable potential for use in retrofitting of external insulation to reduce energy use.

Cob

The use of earth in building is an ancient tradition in Devon and cob buildings are found throughout the TTV area. The amount of cob found is usually inversely proportionate to the easy availability of stone and there are more cob buildings in the north of the area. Earth construction is part of many stone and timber framed buildings in the form of wattle and daub, earth mortars etc. In recent years there has been a revival of interest in this low impact form of construction and in rural locations it will be a welcome approach to sustainable design.

Colour

22. Colour selection methodologies for building elevations should have a strong link to place, local character and geology.

Roofs

23. Roof designs and coverings should respond positively to local character. Traditionally across the Plan Area they have been very simple, either slate or thatch.

24. The production of roofing slate in south Devon traces back to medieval times, but by 1910 had effectively ended due to cheaper Welsh slate arriving by railway. The greatest number of surviving roofs are those with slate from Mill Hill quarry near Tavistock. Whilst colours and quality varied, the prevalent characteristic was a blue grey colour and that will generally be the favoured type, wherever it may be sourced from.

25. In accordance with advice in BS 5534[3] fully metamorphosed slates will be favoured over the lesser items now being imported and nail fixing is preferred to clips unless local conditions justify an exception.

26. Whilst new thatch buildings will usually be welcomed in the TTV area they are a rare proposition and only a few exceptional hamlets or village locations where its use would be essential.

[3] https://shop.bsigroup.com/ProductDetail?pid=000000000030363747

Metal roofing

27. Lead has long been used for roofing works but mostly on high status buildings and is seldom readily visible.

28. Zinc galvanised sheet has had occasional uses since the early 19th century and can be acceptable in some situations dependent on context. It can be an effective choice where a low pitch is needed.

29. The PPA's roof-scape is predominately grey in colour, with slate traditionally used on historic buildings and more recently grey metal cladding (e.g. aluminium or zinc).

30. Corrugated iron has been in widespread use across the TTV area since the mid-19th century. It is closely associated with the mining activities in the Tamar valley where it was often tarred. There are also notable examples of pre-fabricated buildings including chapels and village halls. Its most common use has been through the 20th century either covering or replacing thatch on rural buildings and so it has become an integral part of the local scene. Authentic '3 inch' corrugated is still available and lends itself to many uses for functional buildings, including garages, and on conversion projects. It may occasionally be used as an 'architectural' material as well. If used it is best left 'raw' or coated black.

31. Copper has been used successfully as an accent material on buildings in the PPA from the mid-20th Century onwards, marking the roofs of key buildings such as the Plymouth Guildhall, the Royal Bank of Scotland and the Roland Levinsky Building. Its use as a roof material will be supported in the PPA where it highlights important landmarks, buildings and townscape features and contributes towards way-finding and city legibility.

Living roofs

32. Technological advances make living roofs an attractive option and their use is encouraged wherever appropriate. These are positive in terms of rainwater run-off attenuation, biodiversity and visual amenity, a particularly important consideration where the roof plane is overlooked or visible from key public spaces. Green roofs and living walls can also assist in moderating extreme temperatures and enhancing air quality.

33. Mixed sedum roofs incorporating selected wild flower types should be considered.

34. Where green roofs and walls are proposed, a maintenance plan will be sought, to ensure they are kept in good order throughout the life of the development.

Eaves and verge details

35. The majority of historic buildings have simple eaves details. A large overhang is associated with thatched roofs whereas slate commonly has little overhang with

fascia boards small or absent. Slate clad verges are locally distinctive and require no maintenance.

36. Designers of new developments should demonstrate how locally distinctive detailing such as this has influenced a proposal.

37. For further guidance on development in the historic environment please see Section 6 and APPENDIX 4.

Rainwater goods

38. In historic contexts the traditional materials should be respected, in the TTV area this has traditionally been cast iron and the most common gutter profiles half round or ogee.