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Friday 18th April , 2014 T&T House

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Permit Type:DA - SPA - Carry out Building Work, DA - SPA - Material Change of Use Description of
New House in a Demolition Control Precinct Local Character Significance
33 Bulimba St Bulimba Qld 4171
Lot 2 on Registered Plan 180630
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New House in a Demolition Control Precinct Local Character Significance
33 Bulimba St Bulimba Qld 4171
Lot 2 on Registered Plan 180630
A003756195

MWA Response to Council 'Further Issues' Letter, 3rd April 2014

ISSUE 1(a) - Pitch of Roof

REVIEW OF COUNCIL LITERATURE

Reference in BDNP Amended 2 July 2012

2.12 Buildings are sited and designed to respond to the subtropical climate, be adaptable, and maximise energy efficiency through lightweight construction, traditional roof forms, wide eaves, sunhoods and balconies.

5.1 Assessment Guidance - an explanation of traditional building character

Building form and scale

The predominant traditional building form of pre–1946 housing is a solid core with attached or integrated verandahs raised above the ground on timber supports. Enclosed areas under houses generally maintain the street appearance of lightweight supports to upper floors and reflect the layout of upper floor verandahs. Roof forms are medium pitched pyramids, hips or gables. This style is often referred to generically as the Queensland vernacular. Other traditional building forms also exist, exhibiting overseas architectural influences on Brisbane's residential design. These building forms occurred primarily during the interwar period. These styles include, but are not limited to, Art Deco, Spanish Mission, Californian, Bungalow and Georgian. Non–residential buildings also contribute to the overall traditional building form and character of the District and have a historical and cultural connection to the local community, such buildings include the Balmoral and Hawthorne cinemas, churches, ferry terminals, schools and shops. Commercial character buildings along Riding Road are timber framed and clad with corrugated metal sheet, gabled roofs and footpath awnings, with some sites incorporating a low-set timber residence. The aesthetic styles and construction techniques exhibited by these buildings are indicative of non–residential buildings constructed pre–1946.

Materials and details

The character of the Bulimba District is influenced by elements such as eaves, sunhoods, verandahs, lattice screens and batten panels that cast shadows and provide three–dimensional effects. Character is also derived from the relatively limited range of materials available at the time of construction. This provided a unifying theme of painted timber walls and corrugated steel roofing. These lightweight external elements reduce building bulk and create a transition with the external landscape. They make an appropriate response to the local climatic conditions of strong sun and high rainfall. Whilst 'timber and tin' are the predominant materials of the older suburbs, the presence of other distinctive building forms, such as Spanish Mission, and their variety of materials highlights the overseas influence of residential design in the Bulimba District. These housing styles also form part of the District's traditional building character, and are usually rendered on the exterior and have a base material of fibro, masonry or concrete with a tile or tin roof.

It is not clear the purpose or legal significance of these terms. Moreover, there is little understanding of the technical and functional issues that underpin these building typologies. It is rather a statement based on how things appear.

A1.1 Buildings use traditional materials consistent with those most commonly used in pre-1946 housing in the DCP, where traditional materials are most likely timber walls and tin roofing.

A1.2 The design of new residential buildings should reflect, but is not required to replicate, the character elements of existing pre-1946 houses in the streetscape, including: roof forms, external walls, building core, verandahs, external openings, decorative detailing.

CONTEXT OF RESPONSE

Initially MWA provided a response to these Council's design criteria as part of the SoE as submitted with the proposal. This is reiterated at the Appendix to this correspondence, for clarity. In summary, MWA recognise that a Character House for the Bulimba Area, in terms of the Queenslander vernacular, is formed by a rational and pragmatic approach to materials and labour, responds directly to its sub tropical environment in terms of shade and air flow, has a range of scales in the articulation of various elements, from large beams and joists, to smaller filigree elements such as battens or lightweight infill for architectural expression.

MWA are of the view that on a first principles basis, the same process of review of materials, labour and environmental factors will output a character house, and also note the substantial variety of built form within the immediate area of the project site, which includes Queenslanders, but also older, more substantial masonry structures (such as Bulimba House), a range of post-war structures constructed mainly in brick veneer, and more recently, contemporary design homes.

The house on the opposite, western side of the street is an example of a code compliant house; it is a neighbourly home but is not an artefact of design or culture. There is no experimentation or development of the Queensland vernacular. This demonstrates the BNDP is an adequate form of control for speculative construction projects, however the clients for this Project are aspirational for the design outcome and committed to design quality. It is worth a site visit to consider these issues.

Architects have long been responsible for driving innovation in design, and improving the way in which our built structures, relate to our way of living. The BCC City Plan has been drafted to allow for such performance driven assessment, such that diversity in design, innovation and the quality of our built environment improves. Performance assessment, where it is used, must rely on rigorous analysis, on a first principles basis, in order to prove that the design meets performance requirements and provides an equivalent result, as would a scheme or proposition that otherwise complies with the written word of the relevant Code or Statute.

An example of this would be that, for the house on the opposite side of the Street, this appears to be a code compliant House, that does very little to improve the character of the streetscape. In fact, it works to diminish the integrity of the Queenslander house by being something of a replica that does not include or identify the key elements of a Queenslander or pre-war house. Certainly, for major renovations of existing Character housing, the Code requirements will provide for the protection of these existing structures. But in the case of the design proposal for 33 Bulimba Street, there is no existing house on the site.

House design in South East Queensland has, as a consequence of work by many local noteworthy architects, such as Gabriel Poole, Lyndsay and Kerry Clare, Elizabeth Watson Brown, Shame Thompson, Timothy Hill, and more recently James Russell, Stuart Vokes and other emergent practices, has provided an improving platform for local Queenslanders to enjoy their natural environment and way of life. It is this celebration of place, weather and environment, that has allowed us to more fully embrace our cultural circumstance, which of itself is a strong predictor of personal satisfaction and higher levels of mental health.

The idea that, for character areas, the enforced replication of a particular style of house, is often debated between heritage specialists, architects and planners. It is generally agreed that replication is not favourable. However, the role of the local Council as Arbiter of what is a 'character' house, is still debated. Council clearly have a responsibility to manage impacts of developments, site to site for local residents, such that the rights of all inhabitants of an area are preserved. With respect to character housing, the issue would be whether the value of the character area is enhanced or diminished by the proposed design. MWA have put a substantial amount of thought into what is essential about a Queensland character house, and this rationale is expressed in the originally submitted SoE (included again below for reference).

One key point of difference between the proposal for 33 Bulimba Street, and a pre-war home, is the use of a concrete structure in lieu of timber. There are many benefits to the occupants that arise from this approach, such as improved thermal mass, reducing reliance on air conditioning and providing a more comfortable internal environment, improved longevity of structure, enhancing the expected lifespan of the building by a factor of at least 5, improved clear spans which drive openness and permeability of the buildings internal spaces and envelope. MWA also believe that concrete is a uniquely grounded response to site, as the concrete frame is of itself, made of earth, and is grounded heavily into the earth rather than floating above it. This play of lightness and monumentality reflects our history since settlement and the architect Glenn Murcutt discusses this idea in detail.

It is interesting to note that through the advertising period, in late 2013, there were no objections received from any residents at all to the proposal, despite the project being advertised in accordance with the Code Notifiable Provisions. So in fact, the local residents, who adjoin this site, and who would be effected by the character of the design, appear to appreciate the design and believe it is a positive result for their locality. Certainly, Trent and Traci have, since lodgement of the proposal and public notification of the architectural drawings, both received compliments regarding the design from local residents. The design proposal is supported by the local community.

MWA also note that there appear to be several other projects in the immediately surrounding area, that are of a contemporary nature, and a range of design proposals are now under construction. The range of approaches is interesting, there are a wide range of roof forms, including expressed parapets, flat roofs, skillion roofs and a variety of other forms. A common factor for all of these roofs is that at eye height 1500mm above street level and from the street, no plane of the roof is visible. What is visible however are eaves, parapets, barge cappings, gutter profiles against fascias. Eaves have a particular variety of being either large or small overhang, with either lined or expressed soffits.

DISTRICT VIEWS OF ROOFS

We appreciate the beautiful character rooflines that can be seen in certain parts of the city where pre-war housing remains with a level of presence, for example views across gullies and ravines in Paddington or Highgate Hill. Seeing a hillside of red, rusted roofing, on stilts with weatherboards, lit by the afternoon sun, is a lovely view and is a memorable and iconic part of Brisbane's urban experience.

Bulimba as a place is riverside and as such, is not subjected to the same changes in level as these other hillside suburbs. Bulimba's relative flatness reduces the opportunity for those cross-gully views, revealing the composition of houses on the opposite side. There is a long range view such as while descending from Wynnum Road and into Riding Road. From this vantage, the full diversity of roof types is visible across the suburb of Bulimba. Roofs in Bulimba are therefore typically seen from the local street, rather than long district views. This is certainly the case for Bulimba Street.

ROOF TYPES IN BULIMBA

As we have discussed there are a range of roof types in the area. We have walked a range of streets adjacent the project site to establish which roof pitches are visible from the street. The complete photographic survey provided at the Appendix 1. The house to the immediate South of the project Site is a good example of a character house with typical roof forms and pitches, and an image is shown below for discussion.



What we can see in this image is a flat, fascia board (marked below as red), and the quad gutter overhanging the fascia board (marked below in green).



From this we deduced that for the range of roof types that are present in the area, from the streetscape there is no available view to the roof sheeting no matter what the pitch of the roof, so only how the roof was visible from its leading edge, and in fact the underside of the outer roof if there is a verandah or external space.

ROOF PITCH ANALYSIS

The BCC Letter 03 April 2014, identifies the proposed roof pitch as being 'insufficient to be evident in the normal street view'. We note that the BNDP does not reference this requirement. We understand this requirement therefore to be an interpretation by BCC of the requirements of the Character Code.

We note that for the project site, it is located on the high side of the street, and the block slopes upward away from the street. The below analysis takes a cross section, perpendicular to the centre of the western façade of the Project, and through Bulimba Street. The roadwidth has been measured and incorporated to the analysis.

Analysis below shows the actual road width for Bulimba Street and shows the resulting minimum roof pitch required to see the roof when the house is viewed from the opposite side of the street as the project site, of 17 degrees to horizontal. The height of this roof is 1.8 metres above the height of the topmost floor.



The below diagram shows the resulting minimum roof pitch required when to see the roof when the house is viewed from the same side of the street as the project site, being in excess of 40 degrees to horizontal. The height of this roof is 3.6 metres above the ceiling level of the topmost floor. This analysis also ignores the horizontal spandrel which if incorporated to the analysis would further increase the required roof pitch. This height is seen as unreasonable so analysis of viewlines to the roof is assumed as being excluded from the near side of the street.



Macintosh HD:Users:Matt:Desktop:20110421_sorted:Architecture:BD:BD Projects:Projects:130212b_T&T House:authorities:response:140414_response.doc Page 6 of 66 The below diagram shows the resulting minimum roof pitch required when the viewpoint is assumed as the midpoint of the roadway in front of the project site, being approximately 30 degrees to horizontal. This view angle accounts for the horizontal concrete spandrel. The height of this roof is 2.6 metres above the ceiling level of the topmost floor.



From this analysis we believe an adequate interpretation of the BCC requirement to 'make visible the roof' would require a minimum of 17 degrees roof pitch, however this is visible from only the far side of the street. Views to the building from the centreline of the street are excluded as pedestrians are confined to footpaths on either the near or opposite side of the street.

BUILDING HEIGHT ANALYSIS

It is noted that the House Code P2/A2 restricts effective height of buildings to 8.5 metres. It is noted in the Statement of Environmental Effects, that the proposed residence is generally in compliance with this eight restriction except for a small part of the house as is located in the south west corner of the site. The approximate zone of exceedance is shown in the diagram below, in yellow. The South West corner of the house is proposed as three storeys, with the remainder of the house proposed as 2 stories. Only a part of the proposed 3-storey component is between 8.5 metres and 9.5 metres in height, while the remainder of the house is below the required 8.5 metre height limit.



At this location of the house, it is proposed that the building is Three Stories. This allows the car parking to be located off street, and below the house. This is advantageous for the streetscape as there is no carport proposed, and the car park structure does not dominate from the street view. Through the design of the house it also allows for the expression of a deep interstitial zone (discussed in following sections as a character feature and shown in image below in green), between the outer parapet of the garage structure, and allows the blade of the lower roof to float over the garage and interstitial zone. This effect of floating elements and deep reveals to the frontage of the building, greatly diminishes the mass impact of the building to the street.



The Diagram shows the required floor to floor heights for this zone of the building zone. As can be seen from this Diagram, the proposed floor to floor heights are already quite tight. 2800 is an acceptable minimum ceiling height for internal bedroom spaces for a large executive residence as is the Proposal.



The below excerpt from the Site Survey at 33 Bulimba Street identifies the RL at approximately 6 metres set back from the Bulimba Street Frontage as approximately equivalent to the RL15.75 contour plan highlighted in yellow. The level highlighted by the green circle below, shows the lowest point on the site as RL15.08.



Macintosh HD:Users:Matt:Desktop:20110421_sorted:Architecture:BD:BD Projects:Projects:130212b_T&T House:authorities:response:140414_response.doc Page 9 of 66 We are aware that there is no existing stormwater main in the street, therefore all stormwater drainage away from the site to the Council main is via the roadway. Therefore all drainage from the proposal must be from the site and in to the gutter. To avoid reliance on mechanical pumping, and allowing for a degree of fall from the nearest point of the building to the street, we would need to be at a minimum level for the basement of RL15.28. Accordingly we have proposed the basement level at what would be the lowest workable level, to avoid mechanical pumping systems, as at RL15.35. We are also mindful that we do not want to excavate below the level of the site to the south as this would present a problem of water ingress in a storm event and contrary to the direction of the overland flow in the locality. Working up from this level and using the minimum clearances outlined above, we identify the maximum height of the proposal at the outer edge of the house, being the horizontal spandrel referenced earlier, as at RL 24.75.

We have identified earlier that using minimum clearances through this zone, the height requirement of this southwest part of the Proposal requires an effective height of 9.4 metres at its outer edge above the proposed lowest basement level. There is limited opportunity to reduce the overall height of the building in this corner without locating the carport to the street, or pushing the building further back into the site, which would reduce the amenity and size of the rear yard. It is noted that it is very favourable to residents adjoining the project site at the rear, that all are thankful of the prospect of having a green space available at the rear of the proposal, rather than built up areas.

BUILDING HEIGHTS & SHADOW ANALYSIS

As per BCC Correspondence 3rd April 2014, MWA note Council's requirement that 'should alterations to the roof pitch of the roof result in the height of the proposal exceeding the levels detailed on the revised plans, shadow diagrams will be required to demonstrate compliance with P2 and P3 of the House Code'.

Requirements of P2 and P3 of the House Code are provided below for reference:

P2. Building height must not create overbearing development for dwellings and open space on neighbouring properties. Building height must be consistent with houses prevailing in the immediate area.

MWA note that as per the land survey for the site at 33 Bulimba Street, Bulimba, as submitted with the application, roof heights to buildings to immediate south and north of the project site is as follows:

- Eave south 20.34, roof peak 21.54
- Eave north 21.94, roof peak 23.45

We note analysis provided above which provides as follows:

Height of outer edge of proposal: at RL 24.75, being less than 9.5 metres above ground level and generally less than 8-5 metres above ground level.

We note the proposed roof height of the originally submitted design, is approximately in accordance with adjoining roof heights and consistent with building heights in the area. Therefore (setting aside discussion of roof pitch), compliance with intent of P2 is achieved by the originally submitted proposal.

Following amendment of the design arising from BCC Letter 10th January 2014, the height of roof as per amended DA Submission drawings was increased to RL25.5 to allow for a peaked roof.



7 Degree Pitch Option Including Adjoining Buildings showing Predominant Roof Heights as per Survey

If we rely on a 17 degree pitch of roof, the design will result in an effective roof height of an additional 1.8 metres or at RL 26.55.



17 Degree Pitch Option Including Adjoining Buildings showing Predominant Roof Heights as per Survey

If we rely on a 30 degree pitch of roof, the design will result in an effective roof height of an additional 2.6 metres or at RL 27.35.



30 Degree Pitch Option Including Adjoining Buildings showing Predominant Roof Heights as per Survey

As a designer I note from the streetscape views above, that the larger the roof is, the less the building 'frame' appears to float, and the object that is the house appears to become heavier. We very much like the idea of 'lightness' as is typified by Queenslanders and have deliberately chosen to convey this sense of lightness using the concrete frame. Glenn Murcutt has spoken at length as to the value of 'lightness' through his discourse on critical regionalism as initially espoused by Kenneth Frampton. Glenn has taken the methodology of thinking underpinned by critical regionalism and derived the idea of 'lightness' as being important to the metaphorical and literal way our built structures engage with the landscape. I personally believe this is an extension of our roots as early settlers, relying on local materials and essentially not being able to create3 enough 'mass' to avoid that sense of temporality inherent to early settler structures. As a consequence our buildings were light both in the literal sense and this translated to our mental frame of reference, in using buildings to articulate our relationship with our new, unfamiliar landscape. This process has become more deliberate over time. For me the truly interesting thing about this project is the way in which the building becomes grounded, by utilising the concrete frame, but also as is referenced earlier, the way in which the concrete frame is lightened, so there is the apparentness of permanence, but the metaphor of lightness. This seems to better reflect our current cultural sensitivity and attitude to the Australian landscape, we are more familiar and comfortable now with it than we have been in the past. I also think this is a reasonable progression for Australian architecture on the whole for the reasons of social development and an improved connection to 'place'.

Matthew Williams, Architect for T&T House

From the above sectional analysis, we know that a roof of pitch less than 30 degrees is not visible from the Street. Therefore it is not necessary to consider the 17 degree roof pitch as it is effectively the same when viewed from the street. A peaked roof may only be seen to be complying with BCC's requirement when it is no less than 30 degrees in pitch.

BUILDING BULK

We note P2 of the House Code, in that the significantly increased effective building height may constitute overbearing development for the streetscape.

P3. Building heights over 8.5 metres above ground level are consistent with and repeated in the form of surrounding development. Any additional part of the building above ground level must not result in impacts on other dwellings or open space in terms of:

- Loss of amenity from overshadowing
- Loss of amenity from access to sunlight and daylight
- Loss of views or outlook

Provided below is analysis of shadow impacts on south adjoining neighbour, for 10am and 2pm on 21st March, 21st September and 30th June. As can be seen from the shadow analysis, there is no difference to impact of the roof on the adjoining neighbour at any of the roof heights under discussion; this is due to the fact that the gable roof design returns the roof height to the same effective height along the south edge of the roof for each option.





21 MARCH 2PM

21 JUNE 2PM

21 SEPTEMBER 2PM



7 Degree Pitch Shadow Analysis, Including Adjoining Buildings showing Predominant Setout and Roof Heights as per Survey



21 MARCH 10AM

21 JUNE 10AM

21 SEPTEMBER 10AM





30 Degree Pitch Shadow Analysis, Including Adjoining Buildings showing Predominant Setout and Roof Heights as per Survey

From this analysis, we can see that there is no difference in terms of amenity impacts for daylight between the 7 degree roof pitch and the 30 degree roof pitch option.

CHARACTER OF BULIMBA STREET STREETSCAPE

We note that for Bulimba Street, between the nearest street corners of Oxford Street, and Brisbane Street, while there are some very good examples of character houses on this street, there is a broad mix of residential typologies. Near the Brisbane Street corner, there is a large, flat roofed residential building, and moving toward Oxford Street to the South, 3 post war houses in the Queenslander vernacular, then the Project Site, then a pre war Queenslander of good quality, then a post war timber home, a modern home with flat roof, 3 post war timber houses, a modern character replica concrete rendered house, and then a shop built to boundary.

A street montage built using google street view images is supplied below for reference. There is an equivalent level of variance in terms of street character on the opposite of Bulimba Street. We note that the Google Street view camera is in the order of height 3.0 metres, mounted on top of the google street view capture vehicle.









Macintosh HD:Users:Matt:Desktop:20110421_sorted:Architecture:BD:BD Projects:Projects:130212b_T&T House:authorities:response:140414_response.doc Page 15 of 66 The survey of more surrounding streets, as provided more completely in Appendix 1, shows that for contemporary houses (some currently under construction), there are a range of roof types. Some of these roof types are highlighted below for discussion. A map is also supplied of the area, for reference. It can be seen that streets referenced by the Photos, are all in the immediate vicinity of the project site.

121 Bulimba Street



34 Birkall Street



35 Birkalla Street



42 Birkalla Street



53 Duke Street (under construction)



14 Duke Street (date of approval?)



Cnr Henderson and Banya St (date of approval?)



59 McConnell Street (date of approval?)



61 McConnell Street (date of approval?)



25 Princess Street



32 Princess Street (date of approval?)



40 Princess Street



There are a range of particularly good character homes, as well as a range of other designs. Some of the more contemporary designs provide a wide range of interpretations as to acceptable roof profiles but none are visible from the street.

ROOF PITCH ASSEMBLY

Typically Queenslander houses are roof pitches 12 - 25 degrees. Roof pitches in excess of this amount were seen as wasteful of material as there was no requirement to make the roof steeper than that; roofs even in heavy rainfall drained quickly at that pitch, as would have been required by the temperate storms that are a part of this region's micro ecology.

This method of construction, of dealing with heavy rainfall, using raw materials hewn from local, manual trades with limited machinery, and estimations of strength formed by anecdote and experience, became particular to the regional housing forms of sub temperate environments. For this reason, there are similar building typologies in temperate climates such as Papua New Guinea and parts of Asia such as Sumatra, Indonesia, or the Pacific and Polynesia.

Builders would also have been keenly aware of the weight of water, and with no way to calculate the flow rate or intensity and depth of rain effectively covering the roof before it can be drained, coupled with their considerations of occupant safety to estimating the ultimate structural strength of various building elements (particularly roof battens which tend to be the slightest structural members of a timber framed house), all most likely hand cut and again without any tests available as to their real strength, their estimates would have been naturally conservative.

Additionally, the workmanship for various roofs under construction was not so easy to control, with many variances in structural tolerances inducing zones that were difficult to finish true, or that even roof sheets had their own variability in terms of flatness. Perhaps they were stacked incorrectly on the transporting vehicle and arrived at the worksite slightly distorted. Whatever the case, roofers, indeed all of the building trades, dealt with much greater tolerances than we do today.

These days, with advanced engineering able to produce virtually perfectly flat sheets, advanced fixing and rolling methods, appropriately designed and complementary roof flashing systems, improved quality standards and management, improved delivery and materials handling on site, as well as computer assisted design and fabrication, and testing of material samples and designs, framed roofs can be set at pitches as low as 1 degree. In fact, for the wide majority of commercial construction not utilising peaked roof forms, roof pitches are within 3 to 5 degrees, unless there is some other design led factor, and this adequately services the large rain events we do in fact have here in south eastern Queensland. So technology in a sense has removed the requirement for steeply pitching roofs, or at least provided us with functional alternatives.

Contemporary roof pitches are now as a consequence of modern construction techniques set at a minimum of 1 degree, however more reasonably as at 2 or 3 degrees. Truss roofs remain most effective when set at a minimum 15 degrees of pitch, due to this angle being the most structurally effective and cost effective shape for the truss supporting the roof. A roof pitch at minimum 30 degrees would be seen as unnecessary and wasteful by contemporary builders, structural engineers, roof sheet fabricators and hydraulics engineers, given that it exceeds effective minimum fall required for roof drainage, exceed minimum pitch for a workable structure (although this statement only relates to roofs constructed from lightweight trusses; framed roofs can reduce in pitch to 1 degree or even be built flat if membranes are used. A roof pitch at 30 degrees represents unnecessary cost of construction to the owner to achieve technical requirements.

SUMMARY OF MWA RESPONSE TO ISSUE 1: HEIGHT OF PITCHED ROOF FORM

The brief for the project is a striking, minimalist and contemporary residence. A vernacular, pyramidal roof form is not appropriate for this type of house. The BNDP appears to have been adopted 2nd July 2014. The BDNP provides limited technical guidance in terms of roof pitches, stating only that The design of new residential buildings should reflect, but is not required to replicate, the character elements of existing pre-1946 houses in the streetscape, and that roof forms are medium pitched pyramids, hips or gables. The Council letter of 03 April 2014 requires visibility of the pitched roof to the streetscape. This requirement is not expressed in the BNDP and is not reasonably interpreted from the existing streetscape character. Views to character roofs typically look up to roofs, making visible the fascia and gutter, however the roof sheet is not visible from the street without the use of very high roof pitches. MWA acknowledge that at the time of construction of pre-war houses, steep roof pitches were a requirement of construction but today, this is not a requirement. MWA note the variety of roof types in the immediate area but also note that the BNDP has only recently been amended to include reference to peaked roof forms. Roof forms in the area are noted as visible only from below in nearly all instances of the Survey area. Requiring that roofs be steeply pitched is encouraging replication of the vernacular which at BNDP A1.2 is discouraged. There is no change to impact to neighbours under House Code P3 for any roof pitch considered in this document, however that it is not likely that a roof which meets the requirement to be visible from the street', will meet the objectives of P2 of the House Code. BNDP P1 requires that the design compliments the traditional building character of the area, which under performance assessment provisions of the BCC City Plan has been achieved by both the originally submitted and amended design.

OTHER CHARACTER ELEMENTS

MWA note that aside from issues relating to roof pitch, a range of complementary techniques have been utilised to 'contextualise' the proposal to its surroundings. These are detailed below for reference. It is noted from a survey of new development in the area, that this design proposal in fact provides a better quality of reference to vernacular housing and successfully interprets these elements to a contemporary and localised design response.

The House to the immediate south of the Project Site is seen as a quality exemplar of the pre-1946, Queenslander Vernacular. MWA have, in making many site visits to 33 Bulimba Street, had many chances to consider this typology as the design of the proposal has been developed. This focus on working in to the existing context appears to exceed the level of attention to detail and character cues referenced by other contemporary designs in the area. In fact, MWA believe the house design offers a unique interpretation of the character values of the local area to a contemporary queensland home, as well as integrating the approaches of some of south east Queensland's more notable design projects, including Donovan Hill's C-House and D-House. As such the design proposition expands on current critical discourse of the Queensland Vernacular and while being embedded to its essential logic, offers an opportunity to innovate on our lifestyles and relationship with our local environment as is moderated by our housing typologies.

A range of such character cues as are provided by this House, and utilised in the Design proposition to achieve the intent of the BNDP are discussed below.

Vertical infill battens, that are at a constant setout one to the next, of about 50% solid to void ratio, and extend continuously from the bottom rail to the top rail where they occur;





Horizontal plinth, formed by a protrusion of the side edge of the timber floorboards (marked in red), the fascia board strapped to the end section of the floor joists (marked in yellow), but recessed to the floorboards, and in this case a visual break to the infill battens below the external verandah;





Solid core with interstitial zone (shown in blue below) to street, expressed in this case by open verandah space, surrounded by balustrade and covered by lightweight roof.





Alignment of vertical structure (oversized studs) in the external wall of the solid core, this rhythm of structure being expressed at the outer edge in terms of posts holding up the overhanging roof (shown below in yellow), and expressed within the core walls of the house (shown below in red), which together help to define the interstitial space between the outside and the inside of the character house,





Structural Infill Elements

Aperture of Fenestration

Additionally the Client is willing to consider amendment to the proposed colouration of external materials, particularly the timber selection, if this is seen as achieving a more contextualised outcome. An example of this alternative palette and colour finish is shown on the page following.



RESPONSE TO ISSUES RAISED IN COUNCIL LETTER 'FURTHER ISSUES' ISSUED 3RD APRIL 2014

ISSUE 1(b) Removal of concrete strip.

The model view supplied is in error and roof and gutter do in fact cover this concrete beam so that the gutter line will be visible from the street. This concrete strip is a concrete beam supporting the roof and as such is difficult to delete. The concrete beam reflects the use of the flat fascia, and we have deliberately utilised an eaves gutter overhanging to this beam to reflect the appearance of pre-1946 character housing from the street.

PROVIDE UPDATED VIEWS SHOWING CORRECTED CONFIGURATION

MWA believe with this correction the design meets the requirements of the BNDP as well as relate to the character cues of the local area.

ISSUE 2 - Removal of dry stone wall cladding.

Section 5.1 of the BNDP references to lightweight structure, timber and tin, render on FC, masonry or concrete as acceptable walling materials. Masonry has been selected by the Client as an acceptable alternative to the Dry Stone Walling oringinally proposed and it is noted that this is an acceptable cladding material as per the BNDP.



Image showing Reclaimed Masonry in lieu of Dry Stone Wall to Garage Structure

MWA note that dry stone walling is used on a range of local, historic structures including Bulimba House, built from locally produced sandstone. Stone as such has strong ties to local heritage elements, aside from pre-1946 houses.

ISSUE 3 - External openings not considered in proportion to windows on Pre-1946 houses in the BDNP area.

The Council letter of 03 April 2014 states that because *large expanses of glass are not doors to active balconies, they should be reduced in size and proportion to meet the requirements of the BDNP*.

The Council Information Request, dated 10 January 2014, on this same issue, with reference to the design as originally submitted, that the design be amended to provide '*more decorative detailing including an open balustrade, sun breaker screens to the west (street) facing balconies*'.

While a range of timber batten elements were included to the original design, this approach has been enhanced such that the density of the battening is increased but the effective size of the batten is decreased. This allows for the screen to read as more 'solid' to the street, without greatly diminishing views available from inside the residence. As such, these screens, in appearing more solid, can be reads as part of the solid / void pattern formed to the streetfront of the house. Large expanses of glass are proposed to be further screened with light filigree elements such as timber battens. These timber battens are set out in a rhythm of solid / void which reflects adjoining character housing. This reflects the proposed amendment as per BCC correspondence 10 January 2014 . This screening configured in this manner provides an equivalent response to the requirements of the BNDP, in that the rhythm of solid and void in the batten screen proposed to the street elevation, is of the same order as the rhythm of solid / void for the outer skin of a traditional Queenslander character house.

This is a reasonably common architectural approach to the contextualization of contemporary architectural design, in that the relevant solid / void ratio and rhythm is held relatively constant between the pre-existing and the proposed. The way in which the amended proposal incorporates this rhythm of solid/void, in terms of the range of architectural expressions available (via mass/void, screening, planar elements or some other method), is variable, but also that so long as this rhythm is held constant, it is usually supported that a relationship can be inferred between the proposed and the existing.

As is discussed in a preceding section of this Report,

Alignment of vertical structure (oversized studs) in the external wall of the solid core, this rhythm of structure being expressed at the outer edge in terms of posts holding up the overhanging roof (shown below in yellow), and expressed within the core walls of the house (shown below in red), which together help to define the interstitial space between the outside and the inside of the character house,





There is also a relationship in terms of the central aperture, it is located in a common location and is expressed by vertical plinths that reflect the traditional queenslander entry threshold.

There are no trafficable balconies proposed as part of the design so Balustrades are not required by the functional plan. We believe that the amendments to the screen design satisfy the intent of the BNDP to articulate a contextual relationship between the proposed and the existing without needing to replicate or mimic character elements directly such as balustrades.

The relationship of solid / void as established by the screening devices to the streetfront elevation, is more apparent when the alternative colouration of the building is considered (the darkey grey tint glass contrasts to lighter colour timber).





ISSUE 4

Compliance with P3 / A3.1 is achieved as the proposed building setback from the street is within 20% of the predominant building line of other buildings in the street, as well as complying with the QDC required front setback of 6 metres. This amended drawing is included with the issue of this Report.

The plan below shows the relationship of the proposed resident to the adjacent residences. The proposed setback at 6 metres is more than the house on either side. The setback is measured to the forwardmost element of the design proposal (being the lower level blade edge, and the front face of the garage structure.



CONCLUSION

We believe the design meets relevant BCC City Plan requirements including further amendments described above and including:

- Amendment of dry stone wall to masonry;
- Inclusion of batten screens to reflect vernacular of solid/void of character housing;
- Roof design includes guttering and plinth elements that reflect the view of traditional character houses in the Street; and
- A range of other contextualising strategies.

We note the proposal is a good design outcome for Bulimba as well as represents an advance of the idea of a contemporary, contextual Queensland home, in keeping with efforts by other esteemed contemporary architects. We note the provision of a range of subtle character cues to tie the proposal to its context, that interpret these character cues to contemporary building systems and technologies, and that the design as it stands can be supported as meeting the intent and proscription of the BNDP and the broader City Plan.

While visibility of the roof from the street is an interesting idea in principle it is expensive to construct, creates undue mass to the building, diminishes the design concept away from a more contextualised design by mimicry and replication. Such a steep roof pitch as would be required to be seen from the street, is unusual. From our analysis we note that there is no difference in shadowing effects between the various roof pitches considered by this Report. We note from detailed photographic surveys of surrounding streets (Birkalla, Bulimba, Duke, Henderson, McConnell and Princess), there are no roofs for new or character houses visible from these streets. There are ranges of new build projects in the area whose roofs are not visible from the street. For roof pitches less than 30 degrees, the presence or absence of a peaked roof is not able to be determined from the Street. A roof pitch of 30 degrees or more is required to be seen from the street. Roofs of this pitch are unusual both for character and contemporary houses, for reasons of construction, function, and economy. A roof pitch of 30 degrees greatly exceeds heights of adjoining roofs in the area, and becomes very bulky and heavy for the design. This bulk and mass is a likely non-compliance under P2 of the House Code.

Finally we note the satisfaction of local residents to the design proposal, as well their encouragement to realise the proposal in built form.

Finally we note the intention of the Clients Trent and Traci Young to make a positive and lasting contribution to the built environment of Bulimba and Brisbane and recommend that the proposal be supported.

Yours Faithfully

Matthew Williams

APPENDIX 1

DESIGN RESPONSE AS PER SUBMITTED SoE

The essential nature of a Queenslander House is derived from a unique combination of vital characteristics relevant to construction methods, availability of materials and affordability factors at the time.

The workability of timber versus other less ductile materials suited the approach of contemporary trades, who worked 'hands on', actively cutting and fitting the materials on site as they built the house. The linear lengths of timber suited the requirements of transport and delivery. Timber at the time was in relative abundance with local stock available in relatively close proximity to working sites. As such it was relatively low cost and could arrive at the site in relatively short time.

The vernacular style of the house also derived as a response to its natural environment; it became open and transparent, allowing through breezes, sitting above floods and adapting to sloping sites.

The sub tropical climate of Queensland allows for relative comfort almost year round without any thermal or mechanical control. In colder states, the preference would be for walling of higher thermal mass, in order to more effectively maintain heat generated by gas or wood burners within the home. In Queensland however there was usually no need to heat the house so there was no need to retain this heat.

Additionally through the hotter months it was beneficial to quickly displace heat gathered inside the house; cross ventilation and shade being the key strategies here. In fact there is a progression in the design of contemporary Queenslanders as the housing type adapted to its environment that saw it evolve in form and more clearly articulate itself in relationship to its indigenous climate.

The stump base, allowed the house to get off the ground, and pass breezes under, ensuring that any heat trapped below had its best chance for escape. These stumps also allowed the building to adjust simply and quickly to its sloping site; Brisbane is a town of hills and valleys.

The evolution of the house type saw it realize its own unique form rather than its more derivative roots in colder climates. So at once the Queenslander developed as an output of local workmanship techniques, inherent workability of the materials and its sub tropical environment, and in so doing it formed its own identity and purpose.

Perhaps this is why Queenslanders are valued and respected today; they are at once comfortable places to live and are emblematic of our identity, as well as being a part of our living memory. As a typology it has achieved an integrity of form and identity that is at once simple and practical and tied to the everyday requirements of the construction and environment, but in becoming unique in the way it met these tangible characteristics became transcendent in the way which reflects our connection with place. It is this authenticity of purpose, its intractability with its time and place that carry with it its essential meaning as we dwell within its forms today, convey to us a sense of connection and identity that is unique to our place in the world. Its openness and honesty of construction might also convey to us in a practice sense what it is we like about ourselves.

The author David Malouf perhaps described this best:

'Its spaces determined early habits of living, of mapping the world, as well as my first sensory responses, of the way that living, as we did, in weatherboard houses on high stumps creates a certain kind of consciousness'

'they have about them the improvised air of tree houses. Airy, open, often with no doors between the rooms, they are on easy terms with breezes, with the thick foliage they break into at window level, with the lives of possums and flying foxes . . . living in them, for the most part, is like living in a reorganized forest. . . '

The design proposal forming part of this Application attempts to respond in the same honest and straightforward way, that the Queensland Vernacular Housing did to its context, workmanship and environment, in order to contextualize the house but find its own unique form and relevance.

It relies on the same questions of performance and practicality, unique to its time of design and construction. In being honest about its origins, it is hoped that the design will achieve the same timelessness of outcome, in that it is not derivative of any stylistic approach which will date and change as tastes shift, it is not trying to be trendy or edgy, or compete with other designs for attention, it provides an honest, simple statement about what it is and how it works, that relates well with its neighbours and provides a friendly and approachable elevation to the street.

It attempts to imply the same 'ethics' at work within the process of design and construction of the Queenslander, and in this sense it hopes to find a similar connection with its place and with the people who inhabit and visit it.

THE OPPORTUNITY

The Project Site at 33 Bulimba Street, Bulimba is unique in that it currently does not have any structure facing the street. It is, effectively, table rasa, a 'clean slate'. The Owners intend to construct a House that is at once sympathetic to its surroundings and contextual, but innovative and interesting. The owners have expressed a desire to provide a 'modest' frontage, one that does not seek to grab attention but to be calm, peaceful and elegant.

In so doing, this site, vacant at its street front for many years, now has the opportunity to reintegrate itself to the street. It is a unique opportunity to test what defines a modern Queenslander: if we apply the same rules of environmental performance, longevity and durability, materiality and workmanship, cost effectiveness and rational thinking, what is the design result.

As a team we have worked hard to understand what are the essential characteristics of a Queenslander, and understand these not so much as the visual output of the process, but of the process itself. For example, the verticality of the tongue and groove boarding used to clad many Queenslanders was an outcome of the interaction of speed of workmanship and cost effectiveness, as much as it is a lovely design outcome. External timber cross bracing arose from the fact that a typical Queenslander only had a single layer, and this was usually set at the back of the studs for ease of installation. In fact, it was this attention by the Builder to the pragmatics of construction, that gave the Queenslander its unique form and appearance.

DESIGN PROCESS

As above, we have worked from a first principle basis, with great attention to materiality, workmanship and environmental performance, to develop the architectural language. We have attempted to understand why the Queenslander evolved as a typology. Rather than replicating its style, we have attempted to let the design of the house evolve organically as a response to these same original conditions and constraints.

The conditions that drove the development of the Queenslander as a typology are still evident today, however the way in which we respond to these influences differs. This is due to our changing perception of and engagement with the landscape and local ecology, evolution of technology in mechanical systems of heating and cooling, an improved understanding of the role of thermal mass, combined with an improved understanding of passive design, advancement in building materials and construction techniques and builder's workmanship, structural performance and engineering capability, and changes in lifestyle and the way in which we engage with and interact with one another.

The sense of 'social' of a house has evolved; today, we reach out and embrace the landscape, we include each other in our lives, we socialize and interact, we set stages for this interaction in our homes and in our minds.

There is something lovely about having an open and honest tradition in building and design; it carries through to our own sense of ethic, or perhaps is created from it. Perhaps it is the dynamic interaction of the two, were one reinforces the other, that allows us to enjoy peacefulness and amicability with our neighbours and our friends, very much the backbone of Queensland culture.

We have also embraced our natural environment; rather than it being a strange, postcolonial experience, we now see it as a wonderful, natural setting in which to enjoy a quality, outdoors lifestyle. We actively encourage the outside in, integrate our lifestyles with the outside, and are desirous of a seamless integration of spaces outside and within. This great joy of opening up a home such that it can become a part of its landscape, is one of the unique and wonderful opportunities of our local environment.

This opening up and integrating with the outside has also led us to feel more connected with it, and in feeling more connected, also feeling more grounded.