

APPENDIX 6:
COUNCIL'S URBAN DESIGN
CONSULTANT REPORT

UD1

**BEFORE THE HEARINGS PANEL
FOR THE DUNEDIN CITY COUNCIL**

IN THE MATTER of the Resource
Management Act 1991

AND

IN THE MATTER of Proposed Hotel
Moray Place

**EVIDENCE OF GARTH JAMES FALCONER
ON BEHALF OF DUNEDIN CITY COUNCIL**

4 July 2017

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1. INTRODUCTION

- 1.1 My full name is Garth James Falconer. I am a director and have been employed by Reset Urban Design since 2008.
- 1.2 My qualifications include Bachelor of Arts from Auckland University, Postgraduate Diploma in Landscape Architecture from Lincoln University and a Masters of Arts in Urban Design from Oxford Brookes University, UK. I am Fellow of the New Zealand Institute of Landscape Architects and have been a member of the Auckland and Queenstown Urban Design Panels. I have over 28 years practise experience with a wide range of projects across New Zealand. I am also the author of the book "Living in Paradox: a history of urban design in New Zealand across kainga, towns and cities" (2015).
- 1.3 I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and that I agree to comply with it. I confirm that I have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this evidence is within my area of expertise except where I state that I am relying on the evidence of another person.

2. SCOPE

- 2.1 I have been engaged by Dunedin City Council and this evidence sets out the independent expert urban design review of the proposal to develop a 17 level, five-star hotel in Moray Place, central Dunedin.
- 2.2 My evidence is provided in response to the following evidence filed on behalf of various submitters:
 - (a) Architects Statement Thom Craig Architects, 4 April 2017
 - (b) Review of Urban Design and Visual Assessment by David Compton-Moen, 31 March 2017
 - (c) Review of the relevant District Plans;
 - (d) Consideration of issues raised by submitters
 - (e) Further information supplied by the submitter in response to a Section 92 request (4 July 2017).

3. APPROACH

- 3.1 This is a significant development proposal for the central city which crosses a number of urban design areas, not least of which is that it greatly exceeds current central city height controls.
- 3.2 To assess the proposal, I have visited the site with the consultant planner working for Dunedin City Council and have reviewed the developers submitted plans and reports as well as the public submissions.
- 3.3 I understand that the applicant has engaged with Council planners with a series of pre-application meetings, has lodged an application for Resource Consent for the proposal and has further provided information that has been requested by Council in a Section 92 request.
- 3.4 My approach will refer to the Dunedin City District Plan and recognising that under the Operative Plan the site forms part of the TH03 Townscape Precinct and borders the TH02 Octagon Townscape Precinct (which contains a number of scheduled buildings). Under the Proposed District Plan, the underlying townscape precinct is removed, however the Octagon Heritage Precinct is retained (this changes from a townscape to heritage precinct). Currently urban design matters are largely contained within Chapter 13 of the Operative Plan entitled 'Townscape'. The chapter is a substantial section of 49 pages and the introduction outlines that "Townscape is concerned with the quality of the urban environment" (page 13.1) and the definition goes on to note the intact character of the central city, "the development that has since taken place has generally retained and enhanced the values of the Victorian/Edwardian period, cumulatively giving Dunedin a unique and coherent townscape character"(page 13.2)
- 3.5 The Townscape chapter also recognises that the city is always changing and that a proposed development can add to the enhancement of the townscape and amenity of the central city area. This is noted in Issue 13.1.5 "New development can contribute positively to the quality of the townscape. Development in some locations is needed to maintain the standard of the built environment.

Development, if appropriately designed, can positively contribute to the townscape character”(page 13.4)

- 3.6 The following evidence addresses all the material that has formed part of the application as notified and review of relevant submissions, which I have based my assessment on.

4. THE PROPOSAL

- 4.1 The applicant's proposal is for a 17 level building (13 level from the uphill side) to be constructed on a sloping vacant car park site of 3,668m² behind the central Octagon on the northern ring of Moray Place.
- 4.2 The proposed building is to be built to the edge of Moray Place with a vehicle access lane either side. The building is a distinctive design based on a pinwheel layout with three towers around a central service core. The building is proposed to be largely sheaved in glass.
- 4.3 The proposed building will be at its highest 60.334m high plus a 4.5m high lift well. The bottom three levels contain service and parking, level four and 5 housing the reception with meeting rooms above.
- 4.4 Levels 6 to 12 contain 210 hotel visitor accommodation bedrooms. There are private apartments on levels 13, 14, and 15 with private penthouses and additional apartments on level 16 and a lift building on level 17. The total GFA is 20,352m².
- 4.5 As notified at lodgement, information by the applicant consisted of an architect's statement, a set of concept drawings and a series of visualisations. In response to Section 92 requests the applicant has supplied additional information including an urban design and visual assessment.

5. REVIEW OF THE BUILDING FORM

- 5.1 A one page statement and a package of 26 drawings have been supplied by the applicants designer Thom Craig Architects. The drawing package is at concept level and consists of three perspectives, a context and site plan, a series of floor plans, elevations and two sections. Several sheets which outline the earthworks and topography

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are provided which are helpful to understanding the response to the steep site.

- 5.2 The one page architects statement is very brief and avoids any mention or design rationale on the height of the building.
- 5.3 The supplied Urban Design report (26 pages) from David Compton-Moen (DCM) (attached as Appendix 20 to the Application) notes that the proposal is approximately 64m tall and that this is much higher than the permitted maximum 11m height limit for this site. It notes that there is already existing context in the central city of a number of tall buildings: between 30 to 42m (noting the top of the cathedrals spire is 50m). This section of the assessment dealing with height is again relatively brief and proposes that the scale of difference in height even with these taller buildings is not significant.
- 5.4 In the Dunedin City District Plan chapter 9 Rule 9.5.2 states that the maximum height any structure is 11m.
- 5.5 Whether the top of the St Pauls Cathedral spires at 50m has set something of a historical benchmark for a low rise central city, has not been made explicit in the District Plan. The fact that the Proposed 2GP proposes a maximum height of 16 metres (or maximum of four storeys) defines, I believe, a clear sensitivity to height limits in the central city.
- 5.6 Concluding that the height of the proposal is “not totally out of context” the DCM report puts more emphasis on the proposal filling a current gap in the urban fabric and providing an active built edge to Moray Place.
- 5.7 I agree that it is not unreasonable to expect taller buildings in the central city and there has been precedence in recent years for larger buildings (eg Burns House and Forsyth Barr are both 10 storeys and within 200m of the site). However, the visual assessment contained within the DCM report also concludes that visually the building only partially interrupts uphill vantage points and has overall less than minor effects. Having considered the level of information supporting the application and public submissions, and the analysis provided within the DCM report, I struggle to agree with this conclusion and will discuss the visual effects further in the following sections of this evidence.
- 5.8 The architects statement does outline how the design of the proposed building is a very three dimensional form based on “the 120 degree ‘pinwheel’ layout of the three radial residential towers shielding its

central lift core”¹. Each tower has a tapering form which creates a vertical orientation. Though not mentioned in the statement I believe that the cumulative effect of three towers together does create a broad building form.

- 5.9 The legibility of the building’s form is strong, enhanced with the base of the building comprising of a very solid mass, the double height public reception level on levels four and five features a large scale ‘tartan’ like series of crossed beams and the roof top is capped with circular ring.
- 5.10 These features seem to articulate the form of the building and fit well with Chapter 13 of the Operative Plan that “Buildings incorporate design elements and skyline features such as a cornice, parapet, pediments, finials or equivalent features which provide visual interest at the top of the buildings” (page 13.22).
- 5.11 The architects statement does note that the cladding is proposed to be a ‘lightly tinted green glass curtain wall’ and lit at night the building ‘delivers an iconic botanic image.... an electric thistle’². I note, however, that the Applicant’s urban design assessment recommends that this tinting is removed as a form of mitigation, which I will touch upon separately under section 8 to this evidence.
- 5.12 In terms of the character of the proposal responding to the surrounding architectural context, the architect believes that “the stylistic richness of Dunedin’s Edwardian and Victorian past is captured in the geometrical play of the buildings surface where the ‘fine grain’ detailing offered by past revival styles (Gothic/Baroque/Georgian) is presented in a new contemporary architectural language”³. I broadly agree with this statement that buildings should be of their time, taking cues off the surrounding context and not necessarily trying to replicate. I recognise that there is an issue of association with glass clad buildings with poor examples from the late twentieth century and that these can be potentially monolithic and anonymous. However, I believe the proposed design avoids these issues with its dramatic modulation of the facades and its pinwheel like form.
- 5.13 The urban design assessment of the proposal by DCM does not include the design of the site car park, the public podium level or the building itself.

¹ Architects statement Dunedin Moray Place Hotel, 3 Feb 2017, p1

² Ibid p1

³ Ibid p1

- 5.14 Overall the building design does appear to me to be a strongly three dimensional response, has a distinctive form and consists of quality materials, the entry is legible and the top of the building is capped with a ring. The garden planters on the facades and the night lighting will be additional positive features to the building.
- 5.15 However, at concept level with a building of this scale and complexity there will be always be a number of questions and clarifications that are required to have a thorough understanding of the proposal.
- 5.16 The major change to the drawing package since lodgement and in response to the request for further information appears to be the treatment of the street edge on Moray Place and Filleul Street where a series of three retail shops are shown (named as a coffee, magazines bookshop and a pharmacy and as detailed on Pages 5 and 10 attached as Appendix 7 to the Application). This appears to be a laudable response to a concern for an active edge in contrast to a large wall (as still seen in image no 7 of anticipated views). I note, however, referring to the drawings (pg 11 and 12, level 1 and 2) that there does not appear to be sufficient room for these stores (with the area for coffee comprising a maximum width of 2.8 metre, then narrowing down to 2 metres width for the bicycle storage area). One store may be possible though there would be access problems to the uphill section with the rising ground. As a consequence of this concern, the Applicant has supplied a revised drawing (dated 27/06/2017) which shows an altered layout for level 1 which I believe allows for a feasible retail space.
- 5.17 Information relating to the features identified on the 'public podium' on level 4 is also lacking. There are a number of public items noted on this double height level such as: large sculpture, water feature, lobby restaurant, playspace, gardens etc. This level appears to be full of facilities and could create a strong public place within the proposal. As noted above, these features should be set out in more detail in a supporting landscaping response.
- 5.18 The elevations of the proposed hotel (page 19 attached as Appendix 7 to the Application and the perspective page 3) show the building topped with a circular band or ring. The actual width of the band is difficult to scale off the sections and perspectives but appears to be approximately 1.2m in width and is an architectural element that completes the skyline profile, partially concealing the 4.5m high lift building. The concern is that this circular ring could be used for

signage, as there are no proposals shown for the naming of the hotel. I suggest that this area be specifically exempted for signage to mitigate further visual effects (to fit with Rules 13.9.19 Signs will not detract from the character and architectural quality of buildings and townscapes, p13.49)

- 5.19 Apart from the noted concerns regarding height, the proposed building does provide an active built edge to Moray Place. The development will have presence, with a contemporary design with high quality materials and could well be seen as the architect describes it: as an “exciting and desirable” addition to the central city.

6. REVIEW OF CONTEXTURAL ANALYSIS

- 6.1 The architects package includes a context plan, however, this is no more than a location plan. It would have been advantageous for the applicant to have supplied a context plan that described the surrounding neighbourhood in terms of land use, built scale and streetscape, and an analysis of the fit of the proposal into the neighbourhood.
- 6.2 In the architects package there is just one cross section that shows the proposal in relation to the adjacent Kingsgate Hotel (page 20). A series of cross sections incorporating the south side of Moray Place and Filleul Street would have been helpful to better understand the relationship with the neighbouring properties.
- 6.3 The DCM report briefly touches on the built form defining the distinctive street layout of central Dunedin, though notes the surrounding context as mixed and varied. The report states “the proposal is viewed as part of the central city and will help to consolidate the Octagon as the central focal point for the city, both in terms of its physical mass but also in terms of its function and the number of people that will potentially use the building” (p12)
- 6.4 I believe that this is a major consideration. Plan wise central Dunedin has a very strong street layout of a grid meeting the circular ‘octagon’ shape. This is a Classical layout which creates a formally structured and consistent arrangement. I note also that Moray Place is an intimate element of this distinctive central city plan and is named after the original crescent in the Georgian styled new town of Edinburgh which

was the inspiration for the original layout of central Dunedin by the surveyor Charles Kettle.

- 6.5 In addition, the public space qualities of the Octagon are further outlined in Chapter 13 (Townscape) of the Operative Plan “The character of the Octagon is described by its shape, its sunny and pleasant microclimate, the activities which occur within it and the buildings on its periphery, by the general scale of the buildings which prescribe its edge, by the texture and quality of the paving and by the appropriateness of the street furniture”. P13.19. It also follows that any encroachment either visually or shading of the Octagon is to be avoided.
- 6.6 The proposal is located on Moray Place which forms the outer ring of the central Octagon, which is essentially a crescent. On the opposite side of the crescent to the proposal is a continuous built edge containing the important institutions of the Public Library and the Town Hall. Though the bulk of this quadrant of the crescent is unbuilt vacant space contained between the 5 level building on the corner of Filleul Street and the 6 level Kingsgate Hotel to the east.
- 6.7 One of the key issues is the relationship between the scale of this development, and the more sensitive heritage buildings situated across Moray Place from the proposed building location, which form part of the TH02 Octagon Townscape Precinct (and under the 2GP Octagon Heritage Precinct).
- 6.8 The front facades of St Pauls Cathedral and the Municipal Chambers buildings are at the frontage the Octagon to the south. The Town Hall fronts Moray Place, but the form of the building reads as the rear of the larger complex of which it is part. The compatibility of the proposal with the character and scale of the central city is increased due to these buildings being oriented towards the Octagon rather than Moray Place. (Policy 13.3.4 Protect and enhance the heritage and townscape values of the precincts page13.10). The form and relationship of the Town Hall to Moray Place and the elevated entry to the Public Library contribute to a back of house feel and are generally lacking in activity.
- 6.9 On the western side of the site is an abrupt change from commercial zoning to residential zoning. The buildings on this western flank are largely 1 to 3 storey residential homes though some have been converted into light commercial and offices (eg dentists, architects

- offices and a creche). The land further to the west of the site also rises steeply and the residential properties enjoy extensive views to the east.
- 6.10 Overall, I believe that the north western side of Moray Place is the failed section of the Octagonal central city and it lacks the built form and activity of the other quadrants. As the current land use of the site is a surface car park, I can agree with the DCM report that this is one of the lowest form of development and can only be seen as temporary use awaiting redevelopment.
- 6.11 The proposed building will positively reinforce the crescent, fill in the gap and provide substantial activity to complete the urban design of the outer ring.
- 6.12 However, the height of the proposal will create both visual effects and those of shading which I will deal with in subsequent sections

7. REVIEW OF SITE ANALYSIS

- 7.1 The Site Plan provided by the architect has several regular features noted but is not comprehensive nor does it contain any analysis.
- 7.2 I understand that the site is currently owned by Dunedin City Council, has been vacant for approximately 30 years and is presently used as a car park.
- 7.3 The DCM report describes the site as steeply contoured, sloping down 6 to 8 m in a uniform ramp from south to the north. The majority of the site is surfaced in asphalt. There are several trees within the car park apparently planted 30 years when the car park was formed. There are two established Oaks (*Quercus palustris*) on the street adjacent.
- 7.4 The proposed building is centrally located on the site with large setbacks from all boundaries apart from being built to the boundary on Moray Place.
- 7.5 The provided site survey plan (page 9, attached as Appendix 7 to the Application) shows a proposed roundabout with Filleul Street, and the removal of the one and the relocation of the other of the two Oak trees.
- 7.6 The two vehicle access lanes either side of the proposed building are wide and are shown (Site Survey Plan p9, attached as Appendix 7 to the Application) to disrupt continuous pedestrian thoroughfare and raise potential personal safety risks. I agree with the DCM report that the paving of the vehicular crossing points to these access ways should

be surfaced to show pedestrian priority. Further detail on this would need to be provided. More detail is also required about the crossing of Filleul Street.

- 7.7 The proposal suggests a level podium effectively two levels from the street at the lower point on the Filleul St corner. The Level 4 Plan (p13, attached as Appendix 7 to the Application) shows some public amenity along this edge including bike racks, public seating and two water features.
- 7.8 From the plan it appears that there are other semi public spaces, accessed internally on the podium level four and these consist of a children's play space and garden, a courtyard with table and chairs and a garden outside the gym /pool area. There is apparently a large sculpture located in the corner at the intersection of the bus lanes. As there is little information provided, it is difficult to see what these areas are and how they will be used.
- 7.9 The provision of continuous verandas is required in the central city (Objectives: 9.2.5, p13.12). Initially the applicant's drawings did not include this feature, however the subsequent drawings have noted a verandah extending along the edge of the building from the Filleul Street end of the site at a width of 2.5m. I note that the required width is 3m and that the veranda should be widened to meet this minimum requirement. (Objectives: 9.2.5, p13.12).
- 7.10 The section in the DCM report on 'Vegetation' focuses solely on the removal of trees on the site and the mature pinoaks on the adjoining street. The latter are recommended to be replaced with 2 new pinoaks planted on the kerbside of the footpath. The Operative Plan Rule 13.9.9 sets the requirement for street tree planting "The townscape will be enhanced through street tree planting" (P13.48). As noted only one of these trees shows up on the architects site plans. There is no mention of other new vegetation in the proposal such as the podium planting and on the façade both of which require specific information to be credible.

8. REVIEW OF VISUAL EFFECTS

- 8.1 The proposal is for a large building and there will be effects on the surrounding central city potentially from both distant and nearby

viewpoints. The visual issues can range from those of dominance to reflection to screening or blocking of views.

- 8.2 The applicant's proposal includes a separate report (updated 30 June 2017) outlining the methodology and series of 23 viewpoints supplied by Paterson Pitts Group (attached as Appendix 13a, b, and c to the Application).
- 8.3 This report includes further information which are a big improvement on the earlier visualisations which amounted to just 7 viewpoints, when the application was first submitted. The 23 viewpoints provide a more comprehensive survey of public viewpoints around the site and includes updated Anticipated Views 22 and 23 looking through the trees within the Octagon and viewing the development in the context of the historic Municipal Chambers. However, the only missing viewpoint that I suggested earlier is that from Stuart and Moray Place and this would have provided an important street view of the proposals southern elevation.
- 8.4 The reports methodology cites the use of the New Zealand Institute of Landscape Architects Visual Simulation guide (BPG 10.2), which is widely recognised as outlining best practise. However, there are several issues with what the report then presents. The heights and widths of the building are estimated relative to surrounds. I believe that computer modelling using 3D digital terrain model and fixed survey points is more accurate (refer to section 6.2 p13 Visual Simulations BPG 10.2 published 02/11/2010). The visualisations are also presented in one A3 image rather than a panorama (124 degree horizontal and 55 degree vertical maximum) which better simulates natural vision. And the photos have been taken in a mix of overcast and cloudless conditions. I note also that the rendering of the glass façade is generally shown as reflective.
- 8.5 The DCM reports section on Visual Assessment takes 13 viewpoints and analyses these in detail in relation to different receptors (note these do not appear to corollate exactly with the viewpoints provided by Paterson Pitts and are not mapped which adds to the confusion). A matrix of effects is also provided which summarises the perceived changes before mitigation and after. Most of the assessed effects for the various viewpoints in the DCM report are noted as less than minor or indiscernible.

- 8.6 The mitigation measures to change the visual effects suggested are to increase the transparency of the window glazing of the building and that of the Courtyard balustrade facing Moray Place. Noting also that the architects statement describes the glass cladding as lightly tinted I regard these mitigation measures to create only relatively small changes. I also note that the applicants planner has confirmed that reflectivity of the glass will similar to a standard residential double glazed window at 14% (C Anderson memo to N Bryce 3 July 2017). I believe that the buildings cladding will look like glass and have an increased reflectivity from non-glass cladding materials such as concrete, stone or plaster though will be significantly lower than fully reflective glass.
- 8.7 My interpretation of the visual effects of the proposal from a distance (referring to Paterson Pitts Viewpoint 18 though described in the DCM report as VSR 12) is that the central city can be clearly distinguished by a cluster of taller buildings though it is a relatively a low-rise cityscape with the natural feature of the hills forming the background. There appears to be several gaps in this central cluster which has a degree of symmetry around the central spire of St Pauls cathedral. The proposal is slightly taller whilst can be seen to fit within the cluster. The proposal does disturb the symmetry to a minor degree but does not dominate. I can agree with the DCM report that from this distant location “the proposed building will be viewed in context of the rest of the city” that the effects will be less than minor, however, I do not believe the application of the mitigation measures will render it indiscernible as the DCM report states (p22).
- 8.8 Viewed closer in the proposal will have different effects, including potential dominance and blocking of existing views.
- 8.9 I agree with the DCM report that the views from the intersection of Moray Place and George St are urban in nature and less than minor. I also agree that the views to the north and west looking back at the proposal are more than minor, though I cannot see how the increased transparency of the buildings cladding can reduce the effects to less than minor for the proposed 17 storey building. This is when seen against the abrupt change in scale of low-rise commercial and the heritage building of the Town Hall (see Corner Constitution/Filleul and London Streets Viewpoint 3). and the two to three level residential/ commercial to the west (see viewpoint 4 from 96 Cargill Street). To put

the scale of development from Viewpoint 4 in perspective, I refer to the applicants outline of an 11 metre (Operative Plan) and a 16 metre (proposed 2GP) building outline over the site. In this view, the difference in scale is striking, with the development height anticipated by the District Plans a comfortable step in transition from the residential, and with views of the town hall and the current skyline retained.

- 8.10 Equally baffling is the assessment of the anticipated view from Harrop St (number 5 from Paterson Pitts and VSR13 DCM) that the introduction of the large building which blocks the entire end of the street, and is framed by two heritage buildings, has less than minor effects. At this viewing point within the Octagon looking up Harrop Street towards the development, the building has the potential to visually dominate the setting created by these heritage buildings and be visible against the skyline behind the Municipal Chambers when viewed from the top of Lower Stuart Street (refer anticipated framework views 22 and 23). In my opinion, when viewing the development from within the Octagon and in context of the Octagon Townscape Precinct under the Operative Plan (and Heritage Precinct under the 2GP) the Building will have visual effects that are more than minor.
- 8.11 In general, I believe the DCM visual assessment underestimates the visual effects and overestimates the effect of the proposed mitigation measures.

9. REVIEW OF SHADING EFFECTS

- 9.1 Shading Assessment Report
- 9.2 A series of shading diagrams are provided also from Paterson Pitts Group (and attached as Appendix 14 to the Application), which show the effects of shade summer and winter solstice, and equinox. The stated methodology appears to be reasonably well founded, however there is no analysis or conclusions to the diagrams. Also, the effects of other buildings and large scale trees are not modelled, nor is the steeply rising topography to the west of the site.
- 9.3 The DCM report concludes that “I do not consider shading to be an issue, with the greatest effects being on the Kingsgate Hotel and the

Octagon Restaurants. In both instances the effects are less than minor” (p24 DCM)

- 9.4 In response to a request for further information the applicant has supplied 13 revised shading plans (4 July 2017). These map out the anticipated shade of 11m and 16m levels plus 10,14 and 16 storey building. I note that the information supplied on the winter solstice shading of the Octagon only covers from 2pm onwards and not before, though sheet 3 does seem to show that St Pauls Cathedral takes the shading prior to 2pm.
- 9.5 My interpretation and conclusions on shading differs from the DCM report and this requires the following explanation.
- 9.6 Located on the northern side of Moray Place the 17 storey development will be typically shading parts of the adjacent Moray Place most of the year with some shading to the west in the morning.
- 9.7 Referring to the Summer Solstice map (dated 30/6/2017 Sheet 1 and attached as Appendix 14 to the Application) the shading from the hotel is reasonably contained with the immediate vicinity. Shading of the residential area to the west occurs in the very early morning, Kingsgate is not shaded. There is shading of Moray Place street during the middle of the day and shading extending across buildings to the east in the late afternoon. A difference of approximately an hour of sunlight loss is shown between the 10 and the 16 storey building across these extremities.
- 9.8 The Equinox Map (both autumn and spring – sheet 2 dated 30/06/2017) shows less shading of the western area (residential zone) though extensive shading of Kingsgate Hotel for most of the morning for levels 14 and 16 (noting that the 10 storey or level 14 results in only partial shading). There is reasonable containment by the Town Hall/Library which are shaded into the early afternoon and a long shadow to the east down Moray Place in the late afternoon extending all the way to Castle Street. Partial shading of Harrop Street occurs around 2pm to approximately halfway (noting the 10 storey level does extend down Harrop Street)
- 9.9 The Winter Solstice plan (dated 30/06/2017) includes the above effects and shows more extensive shading spreading across the central city including the Octagon. The applicant has provided a further series of maps that depict the effects.

- 9.10 The DCM report notes that the “octagon is not affected by the Proposal in summer”⁴ however in winter “the restaurants on the southern side of the Octagon are affected by the proposal in the mid afternoon but the plan does not account for shading caused by the large London Plane trees within the Octagon which also shades this area at this time of year”⁵
- 9.11 It should be noted that London Plane trees are deciduous and hence will be largely leafless during the winter months. The sheet 4 Octagon Shading shows that at 2pm the shading effects of the Town Hall will also extend across the octagon at this time of year. Also evident on this sheet, though the DCM report does not note that, the shaft of daylight that currently extends down Harrop Street will also disappear at this time of year adding to the shading of the Octagon (noting that the 10 storey or level 14 does extend past Harrop Street at this time). Sheet 5 depicting shading at 2.25pm shows the shade extending across George Street. However referring to sheet 3 and 6, the further shading to south eastern wall of the Octagon (the café area) occurs from 3pm with sheet 7 shows the shadow has moved off the Octagon by 4pm. Referring to sheet 3 the shading effects for a 10 storey building appear to be contained within the existing shadow cast by the town hall.
- 9.12 The applicant has also supplied a series of shading diagrams that demonstrate the effects of a 11m and a 16m high building (sheets 12), and a 9m and 11m building (sheet 13). These would seem to demonstrate that there are some shading effects even at this level against the Kingsgate Hotel if the proposed building was located on the sites southern boundary. However, after studying these I cannot see how a lower building downhill can shade the entire height of the Kingsgate façade (refer to sheet 1 Position 4 that indicates the comparative heights of a 11 and 16m against the Kingsgate). I do not regard these plans as being of particular relevance, given the scale of the proposed development, and the current requirement for a consent for any such alternative development, however, they do provide a bench mark against which a controlled activity development (under the Operative Plan) and a permitted activity building (under the proposed 2GP, once these rules have legal effect) may provide for a non-fanciful

⁴ Para 3.1.5 Urban Design and Visual Impact Assessment DCM 31 March 2017 P13

⁵Ibid Para 3.1.5 P14

building). Generally, I believe that due to the location of the proposal on the north western side of Moray Place that largely the combined shading effects are reasonably contained. However, based on my analysis of the shading analysis that the proposal will have significant adverse effects on the Kingsgate Hotel (given that it will shade this neighbouring property for most of the morning during the Equinox and Winter periods, which comprises approximately $\frac{3}{4}$ of the year) and the additional shading to the Octagon open space, which given its sensitivity, is considered to create significant adverse effects

- 9.13 To underline the importance of access to sunlight I would like to cite a relevant recent published report “Valuing Sunshine” Motu Working Paper 17-13 June 2017 by D Fleming, A Grimes, L Lebreton, D Mare and P Nunns). Starting from the simple premise that “humans like to live and work near daylight” (page1) this pioneering study used topographic modelling to gauge the access to sunlight for over 5000 homes in Wellington and to establish direct correlations to real estate values. That access to sunlight provided higher amenity, better climate, lower energy costs and better health outcomes (page 3) and using big data they could establish a scientifically robust finding “that each additional hour of direct sunlight exposure for a house per day (on average across the year) adds 2.4% to a dwellings market value” (page 13). The study goes on to then propose a basis for possible compensation for affected adjacent owners. As our cities intensify I expect that this area of work will see much more study.

10. WIND ASSESSMENT

- 10.1 A report from specialist wind engineers JDH Consulting (Melbourne) (attached as Appendix 18 to the Application) has been provided to gauge the effects on human comfort. It is clearly stated that the report is an opinion piece not based on wind tunnel testing or computer modelling, however the report writers are recognised experts and very experienced. Their conclusions are that any increase in localised wind speed could be further mitigated by façade and other architectural devices. It seems reasonable then to support their conclusion that

should the development be granted consent approval it should be “conditional on a successful scale model wind tunnel study⁶

11. ANALYSIS OF SUBMISSIONS

- 11.1 I have reviewed the summary of the 271 submissions supplied to me by the Dunedin City Council. I have read several in full including the submission from the neighbouring Kingsgate Hotel (submission number 110).
- 11.2 The majority of the submissions have objected to the proposal largely on the common basis of excessive height, shading and effects on the heritage character of the central city. Many object to the glass façade and query the datedness of the design. There is also concerns expressed on the increase of wind currents.
- 11.3 A sizeable number of submissions support the proposal mainly on the need for the accommodation and economic benefits. Some applaud the use of glass for its contrast to the surrounds and light effects.
- 11.4 The Kingsgate submission made by owners Copthorne Group details their concerns with the inadequate analysis and incompatibility of the proposals effects on the surrounding neighbourhood particularly that “The proposed building is over 5 times the permitted building height on the site” (para 19) and that the shading for most of the morning will be a significant and adverse effect. The submission also notes that the suggested transparent glass is not only out of character with the surrounding materials but is not feasible on privacy grounds: “this will result in guests in the submitter’s hotel looking directly into north western guest accommodation rooms in the proposed hotel (and vice versa). No assessment of this effect on privacy or amenity is provided (para 25).
- 11.5 Several of the objectors on the grounds of excessive height point out that the existing height limits have been the result of extensive public consultation and to abandon these would make a “mockery” of the consultative process.
- 11.6 It is clear that the proposal has received a mixed reception and that the heritage values of the central city are highly regarded including the

⁶ p9 Wind Analysis for the proposed Dunedin Hotel Development at Moray Place Dunedin, JDH Consulting

sensitivity to the scale of the proposal and compatibility with the existing heritage character of the central city

- 11.7 Some submitters suggest that they are not against a hotel on the site and that a reduced height could be the way forward. And others do not see the need for self-contained apartments and penthouse suites to be built at this location as they contend they can be built elsewhere.

12. ANALYSIS OF BUILDING SCALE AND POTENTIAL MITIGATION OPTIONS

- 12.1 As noted earlier I believe that applicants proposed mitigation measures are insufficient. The following section of my evidence addresses whether it is possible to mitigate the visual dominance and shading effects raised by the development through a reduction of the building height. This analysis considers the following options which I have roughly mapped on the attached photo montages which I believe show the most relevant close in range of views (noting building height outline includes the lift well where possible). The heights noted next to each option, set out below are my own scaling off of the building height taken from the highest point of the building, being the right hand corner of the lift corner from existing ground level) and is scaled off Elevation Section AA.

- 12.2 The shading analysis of these additional options is my approximate estimate. It needs more accuracy as I haven't attempted to map these, though I would recommend that the applicant provide this (the heights noted are my own scaling off the plans submitted with the application) as follows:

- (a) Complying 11 metre maximum building (refer 11 metre height limit specified on Cross Section AA);
- (b) 6 storey development (or Level 10 on Drawing Page 19 (Cross Section AA and page 20 (Cross Section BB)) measuring between 35 metres in height from existing ground level (and includes lift core) (reflective of the height of the adjoining Kingsgate Hotel);
- (c) 9 storey development (or Level 13 on Drawing Page 19 (Cross Section AA and page 20 (Cross Section BB))

- measuring between 45.6 metres from existing ground level (and includes lift core);
- (d) 10 storey development (or Level 14 on Drawing Page 19 (Cross Section AA and page 20 (Cross Section BB)) measuring 49.4 metres from existing ground level (and includes lift core); and
 - (e) 11 storey development (or Level 15 on Drawing Page 19, (Cross Section AA and page 20 (Cross Section BB)) measuring between 53.2 metres from existing ground level (and includes lift core);
 - (f) 12 storey development (or Level 16 on Drawing Page 20,) measuring between 56.4 metres from existing ground level (and includes lift core).

- 12.3 I have considered each option against the photomontage information and shading analysis (note that when I refer to the west of the site it is generally the residential area, the north and east it is the commercial area and the south covers the Kingsgate Hotel, Moray Place and Octagon area).

11 metre (3 storeys from existing ground level – as depicted on Cross Section AA noted above)

Visual Dominance – there will be indiscernible effects as the development would sit below the surrounding building fabric (refer to sheet 12).

Shading Analysis-less than minor effects as the building is separated by street and car parks from other buildings. There is partial shading of Kingsgate Hotel in the early morning during the winter solstice (refer to sheets 10 and 14).

6 storeys (35 metres in height from existing ground level including lift core) or Level 10 on Drawing Page 19)

Visual Dominance – less than minor with no dominance issues as the building would appear as a step in height to the Kingsgate and Town Hall

Shading Analysis - minor shading effects on the Kingsgate and no additional shading of the Octagon (contained within existing shading)

9 storeys - removal of all apartments and penthouses (45.6 metres from existing ground level including lift core or Level 13 on Drawing Page 19)

Visual Dominance -minor effects from north and south (views 14 and 16) but less than minor from the Octagon (views 5 and12).

Shading Analysis minor shading on Kingsgate during Equinox and shading will extend past Harrop Street in winter onto the Octagon but not beyond road into Octagon reserve area.

10 storeys -removal of penthouse/apartment level and two levels of apartments below (49.4 metres from existing ground level including lift core or Level 14 on Drawing Page 19)

Visual Dominance - more than minor effects from north, west and south (views 14 and 16) but less than minor [see above] from the Octagon (views 5 and12)

Shading Analysis - more than minor shading on Kingsgate during Equinox and shading will extend past George St road area onto the south eastern edge of the Octagon

11 storeys – removal of penthouse/apartment level and one level of apartments below (53.2 metres from existing ground level including lift core or Level 15 on Drawing Page 19)

Visual Dominance – more than minor effects from the north, west and south. Minor effects from the Octagon and similar to the Council building.

Shading Analysis – more than minor shading of the Kingsgate during Equinox and adverse during Winter . [see above] adverse effects on the Octagon open space and including south eastern side (refer to sheets 3 and 6)

12 storeys – removal of penthouse/apartment level (56.4 metres from existing ground level including lift core or Level 16 on Drawing Page 19)

Visual Dominance – significant adverse effects from the north, west and south. More than Minor from the Octagon.

Shading Analysis – significant adverse effects on the Kingsgate and adverse effects on the Octagon open space and including south eastern side (refer to sheets 3 and 6)

13. CONCLUSION

- 13.1 There have been few large buildings erected in central Dunedin in recent years. I believe the proposal offers a bold contemporary design and high quality built form. In addition, as a 5 star hotel the proposal would bring much needed activity and vibrancy to the central city particularly in this weaker area north of the Octagon.
- 13.2 The proposal is situated within the central city cluster where there is already a context for taller buildings and located on the outer ring of Moray Place would reinforce the crescent and fill a major gap in the urban fabric.
- 13.3 In my view, however, there will be effects in terms of visual dominance. The proposed 17 storey building with an additional 4.5m for a lift well would make it significantly the tallest building in the central city and create significant adverse effects to its north and west where there is a sharp transition into a low rise commercial and residential area. The suggested lighter tinting of the glass cladding to reduce the perceived bulk of the building as recommended within the DCM report will have a very small mitigating effect, and will not mitigate the visual dominance down to a level where the proposal will have a minor effect.
- 13.4 The proposals shading effect, which is reasonably contained largely falling on the street, will extend over the neighbouring Kingsgate Hotel for most of the morning during the Equinox and Winter periods (that is roughly $\frac{3}{4}$ of the year). The Proposal, because of its height and location immediately to the top end of Harrop Street, will result in additional shading of the Octagon open space. These shading effects are considered to be significant adverse effects, they will be permanent

and will be extremely difficult to mitigate, unless the scale of the development was reduced in height.

- 13.5 I believe that the reduction of the proposed building height by four levels to bring the total height down to 9 storeys from existing ground level (or 13 level +157,500 which provides for a total height of approximately 45.6 metres from existing ground level (including lift core)) would provide greater mitigation of the visual dominance and shading issues identified in my assessment particularly with regards to effects on the Kingsgate Hotel and the Octagon urban space. I note that the reduction of the development by four levels will likely reduce the shading effects on the Kingsgate Hotel during the Equinox, which will lessen the extent that this property is shaded largely to the Winter period, with the property experiencing no shading over the Summer and Equinox periods (March to April and September to October). Further, this reduction would not add shading effects on the Octagon. Further, the reduction to the height of the development has the potential to lessen the visual dominance of the building when viewing the development from within the Octagon and will seek to ensure that the heritage buildings that border the Octagon are not adversely affected through over-dominance.
- 13.6 Due to gaps in certain areas of the assessments, a requirement for more information as the application proceeds into detail design is needed. These areas are the following:
- (a) Streetscape – the inclusion of 3 Pin Oak trees and the extension of the footpath treatment across the vehicle access to the site from Filleul St.
 - (b) Detail is required on the building frontage and proposed retail shops.
 - (c) Podium level – detail on the proposed facilities as well as detail on the vegetation planned for the building façade and on the podium.
 - (d) Wind effects should be modelled and mitigation measures detailed.
 - (e) Signage requires detail information.
 - (f) External lighting requires detail information.
- 13.7 With all this information satisfactorily supplied, and the building being reduced by four levels through the removal of the upper floors of

penthouses and apartments, I believe the proposal can be confidently supported.

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

Garth James Falconer
6 July 2017

Appendix Plans