

IN THE MATTER of the Resource Management Act
1991

AND

IN THE MATTER of an application to Kapiti Coast
District Council for non-complying
resource consent for a proposed 53 lot
subdivision (including earthworks and
infrastructure) at Otaihanga, Kapiti
Coast.

**STATEMENT OF EVIDENCE OF CHRISTOPHER GRAHAM GREENSHIELDS
ON BEHALF OF THE APPLICANT**

1. INTRODUCTION

Qualifications and experience

- 1.1 My full name is Christopher Graham Greenshields.
- 1.2 I am employed by DCM Urban Design Limited (DCM) as a Principal Landscape Architect, based in Christchurch, since April 2021. Prior my employment with DCM, I was employed with Christchurch City Council for 13 years.
- 1.3 I hold a Bachelor of Landscape Architect (BLA) with Second Class Honours from Lincoln University. I am a Registered Landscape Architect with the New Zealand Institute of Landscape Architects (NZILA). I have an Advanced Training in Crime Prevention Through Environmental Design (CPTED) Certificate from the International Security Management and Crime Prevention Institute (ISMCPPI) training course in September 2018.
- 1.4 My work as a landscape architect has covered a wide range of skills within the landscape profession ranging from high level master planning, landscape assessment, detailed design and construction delivery, especially within publicly accessible open space and infrastructure.

- 1.5 I have experience in applying the strategic thinking and principles of CPTED¹ at differing levels of the design process, and have undertaken several CPTED reports, including day and night time audits to assess and advise on likely CPTED related issues and considerations to inform the design response or against a proposed design and/or existing environment. Relevant projects of note range from inner city streets, new reserve development within the Christchurch Residential Redzone and a proposed shared path and cycle route railway crossing.
- 1.6 My experience has largely been applied within Christchurch City due to me tenure at Christchurch City Council.

Background

- 1.7 I have not been involved in design of the proposed development application for Otiahanga Estates subdivision. I was brought in to provide a CPTED assessment of the proposed 3m 'gravel' surface shared use path (SUP) (Lot 104) which links the north and south portions of the proposed development. Specifically, this has involved:
- (a) Assisting the Applicant to respond to the s.92 Request for Further Information by Kāpiti Coast District Council (KCDC) which requested a CPTED Assessment in relation to the proposed SUP (Lot 104);² and
 - (b) Reviewing the Officer's Report and evidence of Mr Trotter.
- 1.8 I note that I have not visited the site. I have taken a desk top assessment of the CPTED site, viewed photographs from Mr Compton-Moen's assessment, aerials images, contours plans and Google Street view. I consider this is sufficient given the limited scope of my evidence.
- 1.9 I confirm that I have read the KCDC s42a Report for Tieko Street and Otaihanga Road, Otaihanga³ and read the briefs of evidence prepared by Mr Compton-Moen (Landscape and Visual), Ms Harriet Fraser (traffic) and Mr Nick Taylor (infrastructure) on behalf of the applicant. I have read KCDC's Appendix 5.5 CPTED Guidelines⁴ which adapts the Ministry of

¹ Ministry of Justice's National Guidelines for Crime Prevention through Environmental Design in New Zealand Part 1: Seven Qualities of Safer Places (2005)

² 2020_142 Mansell Otaihanga Subdivision CPTED_C (DCM Urban Design Limited)

³ rm210147-kāpiti-coast-district-council-s42a-report-tieko-street-and-otaihanga-road-otaihanga

⁴ <https://www.kapiticoast.govt.nz/media/xvhlydwww/app-55crimepreventnthroughenvirmntaldesign-appeals-vn.pdf>

Justice's National Guidelines for CPTED. I have reviewed the most up-to-date revision of the subdivision road design and landscape plans. I have also reviewed the Officer's Report, Mr Trotter's evidence and the Council's proposed conditions. However, my evidence will focus on my area of expertise in relation to CPTED.

- 1.10 For the purposes of my evidence I adopt the definition of the CPTED as stated in *Ministry of Justice's National Guidelines for Crime Prevention through Environmental Design* and the *Seven Qualities (Principles) to Safer Spaces*. This is also consistent with KCDC's Appendix 5.5 CPTED Guidelines.

2. CODE OF CONDUCT

- 2.1 Although not necessary in respect of Council hearings, I can confirm I have read the Expert Witness Code of Conduct set out in the Environment Court's Practice Note 2014. I have complied with the Code of Conduct in preparing this evidence and I agree to comply with it while giving oral evidence before the Hearing Committee. Except where I state that I am relying on the evidence of another person, this written evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in this evidence.

3. EXECUTIVE SUMMARY

- 3.1 In my opinion, the sense of an unsafe situation or threaten space is interpreted differently in people. Their sense of safety largely relates to their perception of safety, past experiences, acceptable risk, and whether they are alone or in group.
- 3.2 Generally I would agree with Mr Trotter in relation to the potential for proposed flatter sections of the path to allow a wider variety of user in relation to accessibility and inclusion. In regard to CPTED principles this has the potential to provide a greater "*Activity Mix – Eyes on the Street*", increasing the use of the SUP, in turn providing an improved sense of (perceived) safety through passive surveillance and activities from other users. However, as noted in the initial CPTED assessment, application of these principles also needs to be considered in light of what is
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achievable in the proposed environment and take into account other constraints such as landscape, ecology and cultural considerations.

- 3.3 The SUP surface treatment is proposed to be gravel (crusher dust) with the steeper section sealed. It is unclear from Mr Trotter's evidence whether he has realised that the steeper section of the shared path is proposed to be sealed. Regardless of surface, whether as proposed or amended to be in line with Mr Trotter's opinion that this pathway should be sealed for the full length, I am of neutral opinion in relation to CPTED and recommend the surface treatment to be agreed between the Applicant and the Council. I defer to the evidence of Mr Compton-Moen, Ms Fraser and Mr Taylor on this issue.
- 3.4 With regard to CPTED principle of "*Quality environments - Well designed, managed and maintained environments*", consideration to the maintenance of the surface treatment should be at an appropriate frequency to evoke a sense of care and ownership over the SUP. When a space is cared for and well maintained there is a greater sense of (perceived) safety and is likely to better discourage any potential antisocial behaviour and/or offending. I note the Applicant's experts consider it to be a neighbourhood path, Ms Fraser notes usage is expected to be low, used by residents only and it is important to bear in mind for the ultimate use of the path when considering its design and lighting.
- 3.5 Decision on whether to light a space, in this case a publicly accessible SUP, needs careful consideration as to the 'messages' of perceived safety lighting gives to legitimate night time use of the pathway. In this context, I consider lighting the SUP to be inappropriate, and alternatively on street paths which run along Tieko Street and Otaihanga Road should be encouraged as a safer night time route, further enhanced with highly legible wayfinding signage (refer to mitigate measure MM3).
- 3.6 I acknowledge that intended use and frequency of use for spaces change over time, generally as a result of further development increasing demand on the facility. I recommend an adaptive application of CPTED which responds to future needs as they arise. This SUP should be monitored for the type and frequency of user during both daylight and night time hours to build a 'picture' of use with actual data. This data can

then be used to support or not, any additional CPTED measures which may be deemed appropriate at that time.

4. SCOPE AND STRUCTURE OF EVIDENCE

4.1 I have structured my evidence as follows:

- (a) Summary of CPTED Assessment for the shared path.
- (b) Review of the Design and RFI responses provided on this issue by the Applicant.⁵
- (c) Response to Evidence of Neil Trotter in respect of the shared path.
- (d) Conclusion.

5. SUMMARY OF CPTED ASSESSMENT

5.1 My report outlined the proposal in relation to the resource consent application for the proposed Otaihanga Estates subdivision which includes a shared use path (SUP) labelled as Lot 104 between the northern area (rural-residential lifestyle lots) and the southern area (residential lots). Parts of the proposed SUP more or less follows a Dray Track identified by the Project archaeologist and iwi. The differing views on the design of the SUP stems from disagreement between the Applicant and the Council as to the use and extent of the path. The Applicant sees the path as a recreation track including it as a local purpose reserve – recreation asset connected to Lot 105 (Recreation Reserve) and Council's Transport Team's preference that it must be developed and vest the SUP as a roading asset and meet the necessary standards for that. Regardless of asset owner, the path should be delivered in a safe and legible way which meets its intended use and appropriately conforms to CPTED principles.

5.2 The assessment addressed CPTED the matters within NZS4404:2010 - 3.3.11.1 FOOTPATHS AND ACCESSWAYS which related to:

- (a) Be direct and no greater than two properties long;

⁵ 2020_142 Mansell Otaihanga Subdivision CPTED_C (DCM Urban Design Limited)

- (b) Have good sight lines for passive surveillance with fences a maximum height of 1.2m for 10m from the road frontage, or no fencing;
- (c) Be sited to ensure high levels of community use;
- (d) Be amenity landscaped without compromising safety;
- (e) Have provision for the disposal of stormwater;
- (f) Be provided with pedestrian level lighting; and
- (g) Have a legal width not less than 5.5m.

5.3 The methodology was to assess the design of the proposed SUP in relation to the Seven Qualities (Principles) of Safer Spaces, as outlined in the *Ministry of Justice's National Guidelines for Crime Prevention through Environmental Design in New Zealand Part 1: Seven Qualities of Safer Places (2005)*, which I adopted for the assessment. I have taken a desk top assessment of the CPTED site, viewed photographs from Mr Compton-Moen's assessment, aerials images, contour plans and Google Street view. I consider this is sufficient given the limited scope of my evidence.

6. KEY FINDINGS

6.1 Key findings of my report concluded I consider the proposal is appropriate for its setting in a rural-residential environment and meets good CPTED Principles for the following reasons:

- (a) The environment is safe and secure with long, open views possible, resulting in good visibility with clear sightlines;
- (b) Passive surveillance is provided from adjoining dwellings with open style fencing proposed along boundaries;
- (c) No dense planting is proposed along the edges of the SUP or within the corridor;
- (d) There is a clear demarcation of public and private space with the use of farm style fences;

- (e) Although no lighting is proposed, I consider this an appropriate design response for this environment and the nature of the SUP; and
- (f) The use of an unsealed surface on the SUP provides an appropriate compromise between the rural-residential context for this portion of the proposed development, natural character, and cultural sensitivity, balanced with accessibility and intended user groups.

7. RESPONSE TO REQUESTS FOR FURTHER INFORMATION (REVISED APPLICATION).

7.1 My CPTED assessment was submitted in response to the KCDC request for further information where I was required to undertake a CPTED assessment of the proposed SUP (Lot 104). A summary of my assessment and key findings are outlined above in section 6.

7.2 I consider that the design of the SUP proposed by the Applicant is largely acceptable and appropriate with regards to CPTED and recommend the below mitigation measures as consent conditions outlined in Section 8.

7.3 RESPONSE TO EVIDENCE OF MR TROTTER

7.4 Mr Trotter's evidence has raised a number of matters/ issues/ concerns that are within my area of expertise. I have carefully considered the points raised by the Mr Trotter, and they are discussed in detail below.

7.5 SUP gradient design – Mr Trotter states in section 9.14 of his evidence that: “... and providing short flatter sections (say 20m long) at regular intervals to give cyclists travelling both uphill and downhill some relief from the gradient.”

7.6 Mr Trotter moves on to state in section 9.15 of his evidence that: “The provision of flatter areas will also help wheelchair users and the less physically able pedestrians and cyclists to enjoy inclusive use of the facility.”

7.7 Further Mr Trotter states in section 9.25 of his evidence that “...the path will not be purely a leisure route and is likely to be used by those

commuting to work or for education purposes by residents of the proposed development or existing Tieko Street residents.”

- 7.8 I largely agree with these statements and support with the CPTED principle of “Activity Mix – Eyes on the Street”, in relation to legitimate daylight use (refer to section 7.16 below for further discussion regarding lighting of the pathway). “Activity Mix” relates to providing a range of human activity appropriate to the use, location (and time), creating a reduction in the (perceived) risk of crime and sense of safety. Through providing a more assessable pathway and therefore a pathway more inclusive to a wider range of users, the potential for increased use is positive in providing a greater sense of (perceived) safety through passive surveillance from activities of other users.
- 7.9 I acknowledge the ability to achieve these ‘flatter sections’ as stated by Mr Trotter along the pathway is not feasible due to the constrained topography and increased level of earthworks required to achieve these additional flatter sections and the adverse cultural, landscape, visual and natural character effects constructing this would have on the site. As I noted in my CPTED report the SUP is more rural in nature than urban and Mr Trotter’s approach is more aligned with an urban environment, or construction of cycleways along the Expressway. It is noted that there are many existing shared paths within rural parts of Kapiti that do not meet this standard.⁶
- 7.10 SUP surface treatment/ material – the SUP is proposed to be gravel (compacted crusher dust) surface which is intended to be more ‘natural’ and culturally appropriate, with the Applicant proposing to seal the steep section of the SUP.⁷ Though these are genuine concerns, they are not obvious influences on the CPTED, but are relevant considerations when settling on the final form of the SUP.
- 7.11 Mr Trotter states in section 9.21 of his evidence that the proposed gravel chip finish, in this instance is considered inappropriate in his opinion. Mr Trotter references Austroads 6A guidance which provides direction on Surface treatments and (he) concludes in section 9.26 that in his opinion:

⁶ CPTED Assessment page 2.

⁷ See Dray Report dated 29 January 2022, Mr Ra Higgot on behalf of Te Atiawa ki Whakarongotai Charitable Trust Taiao Unit.

“...the surface of the entire length of the shared path should be provided in a bound material, either in asphalt or concrete or a chipseal type surface which could be coloured to make it more aesthetically pleasing and suited to the rural.”

7.12 Mr Trotter does not mention the section of the path that the Applicant proposes to seal. This appears to be the steepest section, which would mitigate some of the concerns expressed by Mr Trotter. It is reasonable to note that the path along Otaihanga Road is a ‘gravel’ surface and this would be at odds with other paths in the area.

7.13 Providing a ‘sealed’ surface the full length of the SUP as recommended by Mr Trotter has financial implications for the Applicant, though also potentially positive operational maintenance outcomes for KCDC. To relate this in an effect on CPTED, sealed surfaces have the following benefits to the CPTED principles of:

- (a) “Activity Mix – Eyes on the Street”. Refer to above section 7.8 which discussed the benefits a sealed surface provides for a more assessable pathway and therefore more inclusive to a wider range of users. The potential for increased use is positive in providing a greater sense of (perceived) safety through passive surveillance from the activities of other users.
- (b) “Quality environments - Well designed, managed and maintained environments”. This principle defines amongst other considerations, the *‘Design and layout supports management and maintenance’* and *‘appropriate management and maintenance systems are in place.’* In relation the SUP these considerations are interpreted to relate to the design’s surface material choice and that adequate operational maintenance is in place to provide a sense of a well-cared for space, in turn providing the (preserved) sense of a safer space.
- (c) A gravel track can be prone to weed growth, and though in my opinion I am not against the use of a gravel surface, adequate maintenance (such as spraying) needs to be programmed at a frequency to retain a sense of care and ownership. Sealed paths, such as concrete, generally require a lesser degree of maintenance. If a space is not cared for, this can create a

perception the SUP is unsafe and potentially attract an increased level of vandalism, other antisocial behaviour or offending.

- (d) Submitter concerns of the track being sealed and (potentially) enabling the use of motorised vehicles (motorbikes) which (might) pose a safety issue could be alleviated through the use of thresholds, chicanes and other speed reduction measures to reduce unwanted and potentially antisocial use whose presence may be interpreted as threatening or unsafe.

7.14 In my opinion, the use of a gravel surface with steeper sections sealed for safety on the SUP could be seen as an appropriate compromise between the rural-residential context for this portion of the proposed development, natural character, and cultural sensitivity, balanced with accessibility and intended user groups.

7.15 I am of neutral opinion in balance of the above comprises in relation to effects on CPTED. I defer the type of surface material treatment to the agreement between the Applicant and Council and the views set out in the evidence of Mr Taylor and Ms Fraser.

SUP Lighting

7.16 Mr Trotter references in section 9.27 of his evidence the Austroads 6A guidance on lighting paths. I largely agree the intended objectives of the Austroads 6A guidance, with the caveat, “when used in the right context”. Decision on whether to light a space, in this case a publicly accessible SUP, needs careful consideration as to the ‘messages’ of perceived safety lighting gives to legitimate night time use of the pathway.

7.17 In my opinion, as set out in my initial assessment the sense of an unsafe situation or threaten space is interpreted differently in people. Their sense of safety largely relates to their perception of safety, past experiences, acceptable risk, and whether they are alone or in group. Where possible an alternative route and/or the ability for retreat or escape routes should be available to the user. Pathways of this nature are generally limited in this respect, creating obvious movement prediction for potential offenders.

- 7.18 The decision whether to light the SUP in context of the proposal and surrounds, in my opinion relates to:
- (a) The intended legitimate use/ users and likely frequency of use at night time – lighting can give the potentially false impression that the SUP is a safe route for night time. Conversely an unlit pathway can provide the message to users on the unintended use of the SUP at night, and the available alternative route should be used.
 - (b) How the design of the pathway creates movement predicators with minimal escape/ retreat options for potential victims, largely due to the linear nature of the pathway.
 - (c) Visibility and sightlines - lighting may make a potential victim more visible to a potential offender. Light spill and potential dark spots within or to the side of the SUP may in turn create a situation where glare from lighting can reduce the ability for user to see and react to a potential threat or offender.
 - (d) Potential for passive surveillance from nearby properties which have the ability to overlook the pathway – the SUP runs along a proposed lower density rural-residential development which at night time will provide a reduced sense of passive surveillance due to fewer houses. While adequate in daylight hours, topography also plays a role in the reduction of passive surveillance night time and has the potential to create a sense of isolation within the SUP.
 - (e) How physical features such as topography and vegetation have the potential to conceal an offender – while the alignment is somewhat constrained by topography, this offers less of a potential for concealment. The landscape design for the SUP does not propose planting along the alignment. This is considered a positive exclusion which does not prompt potential concealment, cast shadows, create entrapment spaces and encourage antisocial behaviour or potential for offending out of sight.
 - (f) How the design of the pathway creates a clear legibility for wayfinding – as stated below in Section 8, the proposed

mitigation measure for wayfinding and directional signage is recommended. This should enable users the ability to orientate themselves and provide useful distance information to the connecting streets and alternative routes.

- 7.19 These considerations as outlined above when assessed against the proposal and principles of CPTED, in my opinion supports a decision to not light the SUP, contrary to Mr Trotter's evidence. The main reason for not lighting the SUP is to discourage night time use and prevent the incorrect perception this route is safe for legitimate night time use. Topography and low density rural-residential development along this SUP reduces the potential for safe use due to inadequate night time passive surveillance and a potential for a sense of isolation. Additionally the pathway is a liner movement predictor with limited to no ability of escape route, other than retreat, should and threatening situation or offender be present. While I consider daylight sightlines adequate, lighting of this movement predictor, in this case, can give an advantage to a potential offender through easily interpreting the movement of a potential victim. Proposed transparent fencing gives a positive and clear demarcation between private and public space, though adds to the liner movement predictor of the SUP. I also note Otaihanga Road is an alternative and considered a more suitable night time route.
- 7.20 I acknowledge that intended use and frequency of use for spaces change over time, generally as a result of further development increasing demand on the facility. I recommended an adaptive application of CPTED which responds to future needs as they arise. This SUP should be monitored for the type and frequency of user during both daylight and night time hours to build a 'picture' of use with actual data. This data can then be used to support or not, any additional CPTED measures which may be deemed appropriate at that time.
- 7.21 In this context, I consider lighting the SUP to be inappropriate, and the alternative on street paths which run along Tieko Street and Otaihanga Road should be encouraged as a safer night route, further enhanced with highly legible wayfinding and directional signage.

8. CONDITIONS

- 8.1 It is unclear from the application roading plans and landscape plans to the extent of wayfinding signage proposed. I recommend the Applicant offers the below condition as a mitigation measure (MM) relating to CPTED for consent be granted.
- 8.3 MM1- I also support Ms Fraser's suggestion that bollards be placed to prevent vehicle access at each entrance to the SUP.
- 8.4 MM2- I recommend a specific condition confirming vehicle access and the use of motorised vehicles is prohibited on the SUP, which may include other physical measures/ installations to discourage this unintended use along the route of the SUP.

MM3 – I recommend that clear and legible wayfinding and directional signage be included along the proposed SUP that enables users to orientate themselves within their surroundings and to understand where the pathway leads them. Distance to connecting streets should be noted on these signs to give users an indication of nearest more populated street or distance left to travel. The alternative route along Otaihangā Road and Tieko Street should be clearly shown, specifically for night time hours. Steepness indication could also be considered as part of this signage, though I consider this to be of lesser importance in relation to CPTED.

Wayfinding signage to be resolved and agreed with Council at detailed design.

- 8.1 I also consider that reference to the shared use path should be removed from the lighting condition 67. As noted above I consider that the level of lighting proposed by Mr Trotter is inappropriate for the SUP.
- 8.2 I support condition 7 which refers to the SUP being a local purpose reserve, noting that this status would better reflect the intentions of the Applicant and design of the development.

9. CONCLUSION

- 9.1 I consider the inclusion of the SUP as a positive connection between the north and south portions of the proposed development, and there is consensus in this outcome between experts. In relation to the relevant

principles of CPTED, the SUP will promote improved activation of the area through a mix of activities and users. The SUP clearly defines boundaries between public and private creating a highly legible route.

- 9.2 While I consider the proposed gravel (compacted crusher dust) surface and sealed steeper sections to be adequate from a CPTED perspective, consideration should be given to the maintenance of such surface and should be maintained at a frequency to ensure the SUP retains a well care for and safer perception, to better discourage the possibility for antisocial behaviour or offending that can occur regardless of surface. I am of neutral opinion in balance of the differing surface types and I defer the type of surface material treatment to the agreement between the Applicant and Council and defer to the evidence of others.
- 9.3 With regard to night time lighting of the SUP, careful consideration is required as to the 'messages' of perceived safety lighting gives to legitimate night time use of the SUP. In this context, I consider lighting the SUP to be inappropriate, and alternatively street paths which run along Tieko Street and Otaihangā Road should be encouraged as a safer night time route, further enhanced with highly legible wayfinding signage.
- 9.4 I consider that the design of the SUP proposed by the Applicant is largely acceptable and appropriate with regards to CPTED and recommend consent to be granted, with reference to the above conditions as a mitigation measures.



Christopher Graham Greenshields

18 July 2022