

Considered Opinion

Marina East

Public Art Installation

OHA

24 April 2020

Introduction and background

Thank you for the opportunity to review the plans for a public art installation proposed for the Marina East Project.

I understand the artwork has been identified as a potential hazard due to the location of the artwork, with protruding elements, located adjacent to the boardwalk in the Marina East precinct. The artwork protrudes up to 700mm into the accessible path of travel (the boardwalk) in a height range less than 2000mm.

It is considered this may pose a particular hazard to persons with vision impairment or who are blind who may not anticipate a protrusion into the accessible path of travel, and therefore, may be at risk of walking into the artwork unexpectedly.

On 24 January 2020, Mr Richard Attiwell, Building Certifier, Milestone Certifiers prepared a letter (*attached*) that addressed and proposed measures to remediate the hazard. It is, however, understood that the City of Belmont is seeking an additional response to ensure that all potential or alternative hazard mitigation strategies have been considered.

Qualifications and experience

O'Brien Harrop Access is a Western Australian based consultancy that is dedicated in a full-time capacity to the provision of independent Access Consultancy services. Our expertise is in matters pertaining to the functional requirements of people with disabilities as well as equitable and dignified access for people with disabilities. O'Brien Harrop Access provides consultancy services to architects and landscape architects, interior designers, local and state government authorities, building managers, project managers, developers, builders, building surveyors and building certifiers across a broad range of public and private sector projects.

Principal Access Consultant for O'Brien Harrop Access, **Anita Harrop**, is an Occupational Therapist with over 20 years of experience working in acute, community and rehabilitation settings within the health context. Anita has gained experience both locally and in the UK and in 2000 commenced working as a Disability Access Consultant at the Independent Living Centre of WA (Inc).

Since 2004 Anita has worked as a private Access Consultant and in 2010 formed a strong partnership with Ann O'Brien and together commenced trading as O'Brien Harrop Access.

Anita has a comprehensive understanding of how the built environment can impact independent access for people with a range of disabilities and has wide experience across a broad range of projects.

Anita is an Accredited Member of the Association of Consultants in Access, Australia (Inc) (ACAA), a member of Occupational Therapy Australia Limited (WA) and a Livable Housing and Changing Places Assessor. Anita has the qualifications and experience to provide a considered opinion on matters pertaining to access for people with disabilities.

References

Information in this report is based on the consultant's knowledge and understanding of current legislative requirements, including the intent of the Disability Discrimination Act (1992) (the DDA). Our expertise is in matters pertaining to the functional requirements of people with disabilities as well as equitable and dignified access for people with disabilities.

In the formation of my considered opinion, the following documents are referenced:

- AS1428.1 2009 Design for Access and Mobility – General Requirements for Access – New Building Works
- AS1428.4.1 2009 Design for Access and Mobility – Means to assist the orientation of people with a vision impairment - Tactile ground surface indicators

Response

I have reviewed the letter provided by Mr Attiwell and confirm it summarises the issue at hand and provides a solution that is supported by an NCC referenced Australian Standard, AS1428.4.1 2009.

The clause to which Mr Attiwell refers is AS1428.4.1 2009 Clause 2.6. This clause is entitled "WARNING OF HAZARDS WITHIN THE CIRCULATION SPACE, OR ADJACENT TO A CONTINUOUS ACCESSIBLE PATH OF TRAVEL" and has been appropriately applied in Mr Attiwell's recommendation. AS1428.4.1 2009 Clause 2.6 reads:

"Where there are impediments or hazards with less than 2000 mm height clearance in an accessible open public space with no clearly defined continuous accessible path of travel (e.g., areas under a stairway, escalator or moving walkway), contact with overhead hazard shall be prevented by a suitable barrier such as —

(a) enclosing the area; or

(b) providing handrails with kerbs or kerb rails in accordance with AS 1428.1, [see Figures 2.6(A)].

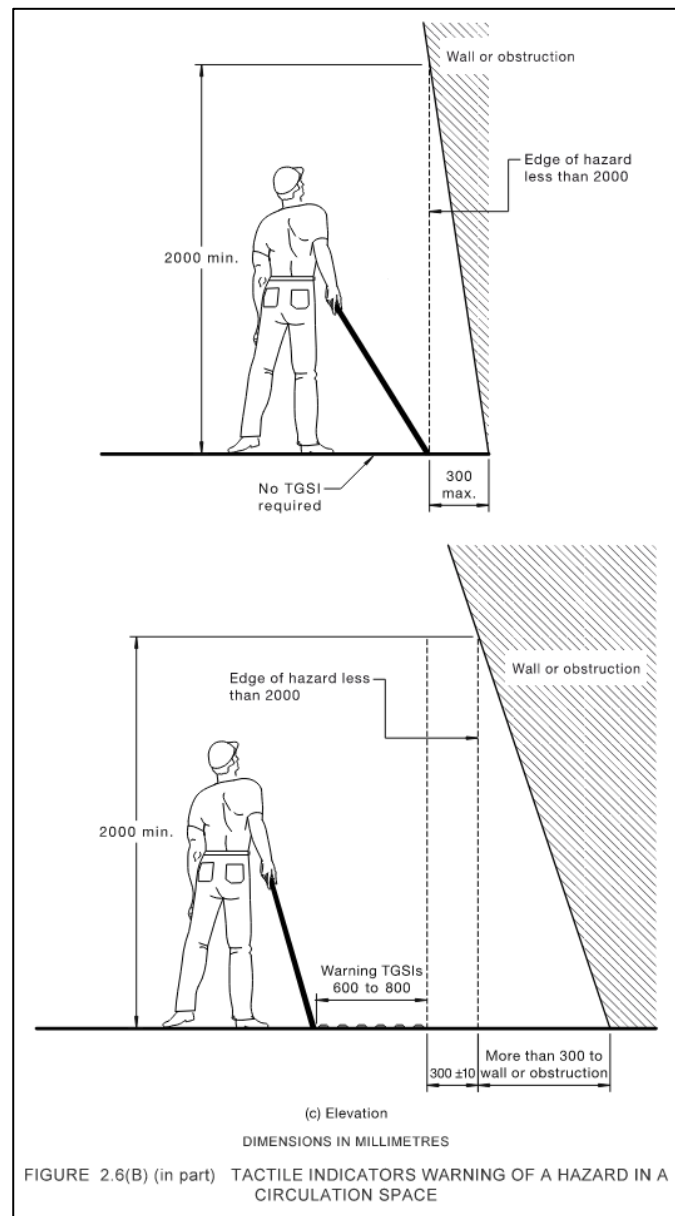
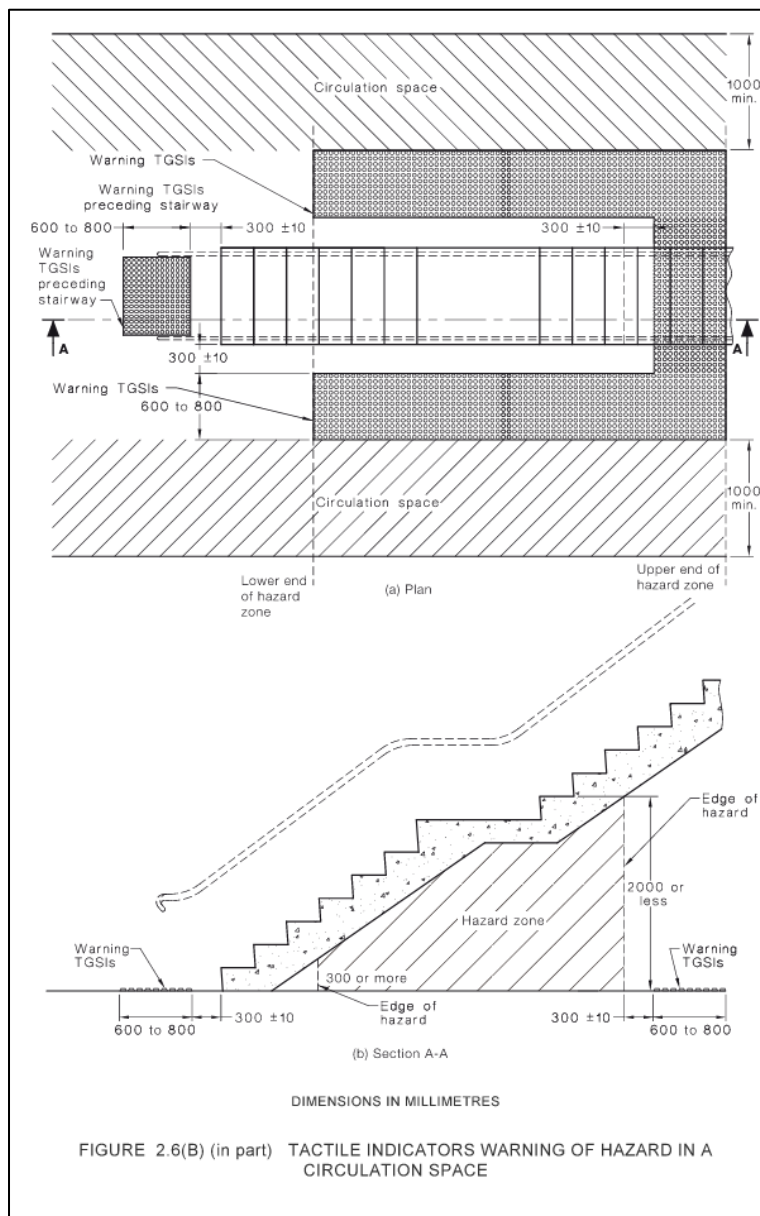
In the absence of a suitable barrier, TGSIs shall be installed as shown in Figures 2.6(B)."

In addition to the above recommendation made by Mr Attiwell, Mr David Fitzgerald, Development Manager Blackburne, has suggested an additional measure that can assist improve the hazard mitigation strategy of laying the warning tactile ground surface indicators.

Mr Fitzgerald has suggested placing bollards at each end of the artwork installations and at the corner of the buildings where the artwork wraps around. I have considered both this and the recommendation to installing warning tactile ground surface indicators, below.

In the absence of a suitable barrier, TGSIs shall be installed

Warning style tactile ground surface indicators (TGSIs) are a valid and compliant solution to address the hazard. If this approach is adopted, the warning TGSIs installation would need to be in the same arrangement as depicted in AS1428.4.1 2009 Figure 2.6(A) and (B) (*replicated below*).



AS1428.4.1 2009 Figure 2.6(A) and (B)

That is, for any component of the artwork protruding for more than 300mm and within the height range less than 2000mm, warning TGSIs would be required to be installed to effectively “enclose” the hazard. This could be delivered in two ways. Firstly, install warning TGSIs only around the elements that protrude by more than 300mm, or, alternatively, enclose the entire artwork with warning TGSIs at ground level, set 300mm off the protruding parts of the artwork, that is:

- Installed in a non-uniform pattern, to match the line of the artwork; or
- Installed 300mm off the furthest protruding part, i.e. 700mm plus 300mm and enclose the artwork with a rectangle shape of warning TGSIs.

As conveyed by Mr Attiwell, any installed TGSIs would need to be installed in the required 30% luminance contrast and to the set out /depth of AS1428.1 2009 Clause 2.3 and 2.6.

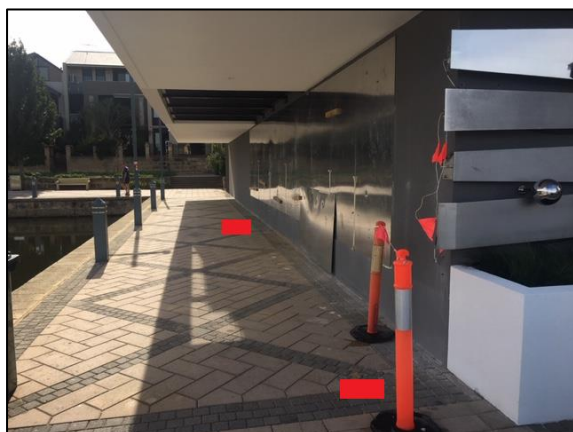
Set a bollard at each end and at the corners of the artwork

I have considered the additional strategy of installing a bollard at the ends and corner of the wall-mounted artwork, in combination with the laying of the warning tactile ground surface indicators. Mr Fitzgerald has proposed use of the same bollards that are used throughout the precinct and I find this will certainly provide an additional safety measure for people who are blind or vision impaired and others.

Mr Fitzgerald has proposed bollards be installed in combination with the warning style tactile ground surface indicators, as indicated in the photos below:



The red squares indicatively represent the proposed location for the bollards.



The bollards will match existing bollards used throughout the landscaped precinct.

The bollards will match the existing bollards, which at 1.2 metres high, finished in a matt blue colour, will ensure information is conveyed to pedestrians in both a tactual and visual manner.


Conclusion

The proposal to install warning TGSIs to address the artwork protrusion into the accessible path of travel offers a compliant solution when the requirements of AS1428.4.1 2009 Clauses 2.2 (luminance contrast), 2.3 (warning TSGI requirements) and 2.6 (using warning TGSIs to address an unanticipated hazard in an accessible path of travel), are applied.

The advantage of the warning TGSi treatment is that this treatment is limited to the ground surface and has no vertical component. The only visual intrusion of the warning TGSIs is the mandatory requirement to achieve 30% luminance contrast to the adjacent surfaces. The other advantage is that, when installed to Australian Standards requirements, this offers a compliant solution to address the hazard.

Alternatives to the installation of warning TGSIs that could be considered include physical measures to distance the public from the artwork (e.g. plantings), enclosing the area which may have significant practical implications for this already completed precinct or, as alluded to in AS1428.4.1 2009 Clause 2.6(b), installing handrails and a kerb edge/kerb rail, which is not practical given how low the artwork extends.

Therefore, I consider, in combination with the proposed installation of warning tactile ground surface indicators, the additional treatment of installing 1.2 metre high bollards at the “exposed ends” and “corners” of the artwork, will provide an additional safety measure, that is both physical but also visual in the vertical plane, is a sound and practical approach to improving the safety of all pedestrians.

Date report issued:	24 April 2020
Report issued to:	David Fitzgerald, Development Manager Blackburne
Report prepared by	Anita Harrop Occupational Therapist BAppSc (OT) (Hons) Accredited member ACAA No. 147 

Enclosures:

- Marina East Project – Boardwalk Art Installation, letter prepared by Richard Attiwell, Milestone Certifiers

This report remains the intellectual property of O’Brien Harrop Access. The use of this report and the professional opinions provided within this report cannot be used for any other purpose or project or replicated in any manner.

24th January 2020

Attn: David Fitzgerald – Development Manager
Blackburne Property Group

Dear David

Marina East Project – Boardwalk Art Installation

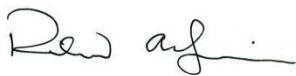
I refer to your instructions to review the potential accessibility hazard associated with the proposed art installation adjacent to the boardwalk at the Marina East project.

I have reviewed the proposed public art installation and I would tend to agree with the concerns in relation to the potential hazard posed by elements of the structure. From my assessment it would appear that there are projections of approximately 700mm into the boardwalk 'airspace', located less than 2000mm above the boardwalk level. These may become a hazard for people with a vision impairment.

The Australian Standard AS1428.4 addresses issues with respect to access for people with a vision impairment. The Standard allows for specific solutions to deal with obstacles along the accessible path of travel. One such solution is the provision of tactile ground surface indicators (TGSIs) that warn vision impaired people of hazards within their vicinity. I would suggest that this type of solution could be considered in this situation – with TGSIs located around the projecting art work along the boardwalk where other hazard-mitigation measures are not present (e.g. planters). I would also note that the TGSIs need to have a minimum 30% luminance contrast with the boardwalk finish.

If there is anything further you require, please do not hesitate to contact the undersigned by telephone on 08 9330 7476, mobile 0400 247 328 or contact via email at richarda@milestonebc.com.au.

Yours sincerely



Richard Attiwell

Director - MILESTONE CERTIFIERS
Building Surveyor – WA accredited practitioner Level 1 (No. 124)

