

EXTENT

HERITAGE ADVISORS
TO AUSTRALIA AND
THE ASIA PACIFIC



Twelve Apostles Saddle Lookout Assessment of Impacts on National Heritage Values

Client: Parks Victoria

Version: Final

Sydney
Melbourne
Brisbane
Perth

extent.com.au

EXTENT HERITAGE PTY LTD

ABN 24 608 666 306
ACN 608 666 306
info@extent.com.au
extent.com.au

SYDNEY

3/73 Union Street
Pyrmont NSW 2009
P +61 (0)2 9555 4000
F +61 (0)2 9555 7005

MELBOURNE

13/240 Sydney Road
Coburg VIC 3058
P +61 (0)3 9388 0622

BRISBANE

7/757 Ann Street
Fortitude Valley QLD 4006
P +61 (0)7 3667 8881

PERTH

1/191 St Georges Tce
Perth WA 6000
P +61 (0)8 9381 5206

Document information

Extent Heritage project no.:	#20190241
Client:	Parks Victoria
Project:	Twelve Apostles Saddle Lookout EPBC Act referral
Site location:	Twelve Apostles, Port Campbell National Park, Port Campbell Victoria
Author(s):	Luke James, Andrew Sneddon, Steve Skitmore

Document control

Version	Internal reviewer	Date	Review type
Draft 01	Kate Hatch	09 August 2019	Proofread
Draft 01	Andrew Sneddon	12 August 2019	QA
Draft 01	Andrew Sneddon	17 October 2019	QA

Acknowledgements

Extent Heritage acknowledged Steve Schutt and Pat Iwanyshyn, Hansen Partnership Pty Ltd for contributing data to support the creation of the viewshed image (Figure 19), and baseline photographs, and photomontages (Figure 22 to Figure 42). All analysis and the conclusions in this report are those of Extent Heritage, and do not necessarily reflect the views of Hansen Partnership Pty Ltd.

Copyright and moral rights

Historical sources and reference materials used in the preparation of this report are acknowledged and referenced in figure captions or in text citations. Reasonable effort has been made to identify, contact, acknowledge and obtain permission to use material from the relevant copyright owners.

Unless otherwise specified in the contract terms for this project Extent Heritage Pty Ltd

- vests copyright of all material produced by Extent Heritage Pty Ltd (but excluding pre-existing material and material in which copyright is held by a third party) in the client for this project (and the client's successors in title);
- retains the use of all material produced by Extent Heritage Pty Ltd for this project, for its ongoing business, and for professional presentations, academic papers or publications.

Executive summary

Parks Victoria has engaged Extent Heritage to identify the potential impacts of the proposed Twelve Apostles Saddle Lookout on the National Heritage values of the Great Ocean Road and Scenic Environs National Heritage place.

The Twelve Apostles is the third-most visited natural site in Australia with over two million annual visits, and up to 15,000 daily visitors. The existing Saddle Lookout alone receives over 1,600 visitors during the peak hour of the day. These visitor numbers are forecast to increase significantly and the existing viewing facilities are not adequate to cope with them. The result is a diminished visitor experience at an iconic heritage place.

The Proposed Saddle Lookout is designed to increase the place's tourist carrying capacity and improve the visitor experience. It would be sited on a rocky promontory known as Castle Rock, within Port Campbell National Park, and also located within the Great Ocean Road and Scenic Environs National Heritage place, in close proximity to the Twelve Apostles limestone formation (also included within the National Heritage place). It would consist of two parallel rectangular elements, partly cantilevered, in colours inspired by the immediate environment and expressing Traditional Owner associations.

The Proposed Saddle Lookout would replace the two existing lookouts and associated infrastructure on Castle Rock, allowing the promontory to be remediated. It would deliver significant improvements to visitor safety and the viewing experience, and enable equitable access for visitors of all abilities and cultural backgrounds.

The Proposed Saddle Lookout would result in impacts against National Heritage values under criterion (e) (aesthetic value) and, to a lesser extent, criteria (d) and (g). However, the Proposed Saddle Lookout would also include measures to mitigate its potential impacts, and itself represents a positive step in the mitigation of broader existing and anticipated threats to the National Heritage values of the Great Ocean Road and Scenic Environs.

Assessed against the National Heritage values of the Great Ocean Road and Scenic Environs using the Significant Impact Guidelines, there is a real chance or possibility that the proposed action would:

- obscure landforms or landscape features in a National Heritage place when viewed from some locations that make a contribution to the place's overall heritage values. However, the proposed viewing platform would also enhance views and experiences of other landforms and landscape features in the National Heritage place;
- involve the construction of buildings or other structures within, adjacent to, or within important sight lines of, a National Heritage place which are inconsistent with relevant values, although these would be confined to only some locations and partly mitigated by sensitive design responses. Further, the proposed viewing platform would enhance other critical sight lines in the National Heritage place; and
- make notable changes to the form of a landscape or setting of a National Heritage place in a manner which is inconsistent with relevant values when viewed from some locations, while also improving the ability of visitors to appreciate the setting of the Twelve Apostles when viewed from the proposed structure.

Contents

1.	Introduction and background	1
1.1	Context of assessment.....	1
1.2	The proposed action	1
1.3	The strategic planning context	16
1.4	Scope of assessment.....	17
1.5	National Heritage values	18
2.	Approach to the assessment	19
2.1	Understanding the site context, proposed action and existing documents.....	19
2.2	Understanding the National Heritage values and attributes.....	20
2.3	Inspecting the site	21
2.4	Evaluating potential impacts.....	21
3.	National Heritage values and attributes	22
3.1	Relevant criteria, values and attributes	22
3.2	Preliminary assessment	23
3.3	Criteria (a), (b), (c), (d), (h)	27
3.4	Criterion (e).....	29
3.5	Criterion (g).....	40
4.	Assessment of potential impacts on National Heritage values	41
4.1	Rationale for approach.....	41
4.2	Impacts on Criteria (a), (b), (c), (d), (h).....	41
4.3	Impacts on Criterion (e).....	43
4.4	Impacts on Criterion (g).....	72
4.5	Measures to avoid or reduce impacts—steps in mitigation.....	73
5.	Conclusion.....	76
6.	Bibliography.....	77

1. Introduction and background

1.1 Context of assessment

Parks Victoria has engaged Extent Heritage Pty Ltd (Extent Heritage) to assist with the preparation of a referral under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act) in relation to the potential impact of the proposed Twelve Apostles Saddle Lookout (Proposed Saddle Lookout) on the National Heritage values of the Great Ocean Road and Scenic Environs National Heritage place (Referral). This report comprises an assessment of the potential impacts of the proposed Twelve Apostles Saddle Lookout on the National Heritage values of the Great Ocean Road and Scenic Environs.

1.2 The proposed action

1.2.1 Site context and existing condition

The Proposed Saddle Lookout would be sited on a rocky promontory known as Castle Rock, within Port Campbell National Park, approximately 12 km south-east of Port Campbell, and also located within the Great Ocean Road and Scenic Environs NHL place (see Figure 1). To the north-west of Castle Rock lies the Twelve Apostles limestone formation (also included within the NHL place). Despite its name, with the most recent loss of a rock stack in July 2005 the Twelve Apostles today consists of seven limestone stacks. Castle Rock and its immediately adjoining coastline hosts an array of park and tourism-related infrastructure to service visitation to the Twelve Apostles. This infrastructure includes four recognised lookouts (further described below), stairs, pathways, drainage culverts and safety barriers, in timber, steel and concrete.

- The *'bunker' lookout* situated atop the mound that likely gives Castle Rock its name, which affords 360-degree views of the Twelve Apostles to the north-west and Gibson Beach to the south-east, above a low concrete wall with picketed timber fence, and an 'island' bench in the middle for seating or standing.

The Twelve Apostles is the third most visited natural site in Australia with over two million annual visits, with over one million of these visits occurring during the December to April peak period. It hosts up to 15,000 daily visitors (Parks Victoria 2019b), and the Saddle Lookout alone receives over 1,600 visitors during the peak hour of the day (Arup 2018; see Figure 2 below). Between 2017 and 2018 visitation to the Twelve Apostles grew by 9%, and is expected to grow further (Parks Victoria 2015).



Figure 2. Example of visitation at existing Saddle lookout. Image courtesy of Denton Corker Marshall.

There are significant accessibility and visitor management issues presented by the existing tourism infrastructure. The path between the smaller designated viewing area and the existing saddle lookout has significant long slopes of approximately 1:10 gradient in several sections, making passage difficult for wheelchairs and strollers (Parks Victoria n.d.). During the peak

season Parks Victoria engages in daily monitoring of visitor behaviour from 9.00 am to 9.00 pm to deter visitors climbing over barriers to access cliff top locations and other activities detrimental to park values and visitor experience, with seasonal rangers supplementing Parks Victoria staff's ongoing patrols (Parks Victoria 2019b).

The existing viewing facilities on Saddle Lookout were constructed over 25 years ago. It is a utilitarian structure using basic construction materials. Little thought was put into the aesthetic merits of the viewing platform, with the focus instead being on its basic function. It was constructed at a time when visitation to the area was much lower than it is today and much lower than is projected into the future. In terms of its function as a viewing platform designed to accommodate twenty-first century tourist numbers, it has already exceeded its use life.

On many days of the year, the existing viewing platform at Saddle Lookout affords visitors an unpleasant environment from which to experience one of Australia's natural wonders. It is exposed, cold and windy. This is reflected in feedback received from international visitors who have praised the view but criticised the viewing experience.

As a result, the existing viewing platform diminishes the ability of Parks Victoria to best communicate the heritage values of the place to the widest audience, consistent with its obligation to transmit its National Heritage values under National Heritage management principles pursuant to the EPBC Act.

1.2.2 Selecting and developing the design

Having regard to the failings of the present viewing facilities, and pursuant to implementation of stage one of the Shipwreck Coast Masterplan (see further Part 1.3 below), Parks Victoria commenced a process of identifying creative and innovative alternatives. In doing so, Parks Victoria was alert to the contemporary approaches to engaging tourists using innovative architectural design. For example:

- The Grand Canyon Skywalk—a horseshoe-shaped glass bridge that extends over 20 metres out from the wall of the World Heritage inscribed Grand Canyon, over 1,200 metres over the canyon floor (See Figure 3).²

² <https://grandcanyonwest.com/explore/west-rim/skywalk-eagle-point/>, accessed 3 September 2019.



Figure 3. The Grand Canyon Skywalk. Photo courtesy of L Richards Martin Jr. (n.d.)

- The Stegastein Viewpoint, Flåm, Norway—designed by Tod Saunders and Tommie Wilhelmsen, extends 30 metres from the side of a mountain, 650 metres above a fjord, and is adjacent to the National Tourist Road from Aurland to Lærdal (see Figure 4).³



Figure 4. The Stegastein Viewpoint, Flåm, Norway. Photo courtesy of dconvertini (n.d.).

- AlpsiX, Germany—extending 25 metres from the mountainside, two steel beams form an 'x' over a vertical drop of almost 1,000m.⁴

³ <https://www.visitnorway.com/listings/stegastein-viewpoint/171495/>, accessed 3 September 2019.

⁴ <https://zugspitze.de/en/summer/mountain/garmisch-classic/alpspix>, accessed 3 September 2019.



Figure 5. AlpsiX, Germany. Photo courtesy of Túrelío (n.d.)

- Messner Mountain Museum, Corones, Italy—designed by Pritzker award winning architect Zaha Hadid, the Messner Mountain Museum is situated on the summit of Kronplaz, at 2,275 metres in altitude (Figure 6).⁵



Figure 6. Messner Mountain Museum, Corones, Italy. Photo courtesy of ErWin (2017).

⁵ <http://www.messner-mountain-museum.it/en/corones/museum/>, accessed 3 September 2019.

- Clingmans Dome Tower, Great Smoky Mountains, USA—a 16 metre observation tower offering 360-degree views above Clingmans Dome, the highest peak in the Smoky Mountains at over 2,000 metres in elevation (Figure 7).⁶



Figure 7. Clingmans Dome Tower, Great Smoky Mountains, USA. Photo courtesy of daveynin (n.d.).

- Viewpoint Snøhetta, Norway—designed by Snøhetta architects and opened in 2011, overlooks Tverrfjellet mountain at Hjerkin (Figure 8).⁷



Figure 8. Viewpoint Snøhetta, Norway. Photo courtesy of Kirk Y (n.d.).

⁶ <https://www.greatsmokies.com/clingmans-dome/>, accessed 3 September 2019.

⁷ <https://www.visitnorway.com/listings/viewpoint-sn%C3%98hetta/181161/>, accessed 3 September 2019.

Parks Victoria invited design submissions from selected panellists following an open tender for design services.

The architectural brief included the following principles:

- Place Responsiveness—Responding to the site’s unique character and physical attributes including views, landscape, environmental assets, geology and cultural values
- Expression—Architectural, urban design and landscape proposition considering identity, world-class quality, elegance, responsiveness and positive physical and cultural legacy
- Visitor Experience—Enhancing the visitor journey with diverse experiences that are dramatic or contemplative, but always memorable and engaging
- User Amenity—Pragmatic user considerations including accessibility, movement, safety and shelter, addressing the capacity, exposure and operational demands of the sites
- Constructability and Functionality—Satisfying the unique deliverability, durability, maintenance and operational challenges, particularly prefabrication, value for money, stageability (in delivery), flexibility (in operations) and serviceability
- Design Process—Integrated, multi-disciplinary design process, incorporating diverse stakeholder input (Traditional Owner, Parks Victoria, council, community, agencies), to achieve functional, value for money and world-class solutions

The design brief required the architects to have regard to the Shipwreck Coast Design Framework (Parks Victoria 2017), which included the following relevant considerations:

Principle one: environmental and cultural heritage as the foundation.

The design and development of facilities must respect, reflect and assist in interpreting the national and coastal parks and marine protected area settings, the cultural landscape, its natural and cultural qualities, its geology and geomorphology, Indigenous and post-European heritage values [...]

Environmentally sensitive and responsive design principles must be applied to all projects to promote the protection and enhancement of the National Parks and encourage ongoing site appreciation, learning and understanding.

Environmental and heritage controls and legislation under the National Parks Act 1975, the Coastal Management Act 1995, the Environment Protection and Biodiversity Conservation Act 1999, [...] and the Aboriginal Heritage Act 2006 will be key ongoing considerations [...]

Principle two: landscape character and views

Maintain, enhance and promote the unique and iconic landscape character by retaining and celebrating the expansive, uninterrupted vistas and views along the Shipwreck Coast.

Principle three: a special world class place

Respond to the Shipwreck Coast's strong sense of place, its physical and temporal scale, its history and heritage and its spirit. Take cues and influences from the natural environment, local communities and Traditional Owner stories.

The concept of 'world-class' design and visitor experience is central to achieving the intended outcomes of the master plan, driving the visitor economy, investment and economic growth and the development of high quality tourism infrastructure and products. Design quality for all facilities within the key precincts must be benchmarked against similar exemplar projects from around the world.

Principle four: enhancing visitor experience

[...] The visitors' experience of exploring the Shipwreck Coast must be rich and diverse, authentic and memorable.

Infrastructure and facilities provided are to contribute to visitors' enjoyment of the natural and cultural qualities of the landscape. [...]

Principle five: accessibility and legibility

[...] Provide legible, safe and comfortable universal access for all visitors. Facilities at primary visitor destinations within each of the precincts must be designed to meet the universal design principles for visitors with varied needs and cultural backgrounds, to reflect the breadth and diversity of visitors to the Shipwreck Coast and their specific access needs and requirements.

Principle six: safety and risk

Promote and ensure the principle of 'safety first' through every facet of the design and development of a project to ensure a safe workplace for land managers and a safe environment for visitors

Principle seven: fit and function

The use and performance of all assets and facilities must be a key driver for design decisions with the clear objective that they are 'fit for purpose'. [...]

Principle nine: expression and restraint

The design process must consider where strong design expression is appropriate and alternatively, where a more restrained approach would be applied [...] This principle will be an important aspect of design review, whereby a panel of design experts will be able to make this assessment.

This reinforces a spectrum of appropriate approaches and responses that emphasize the natural landscape and environment as the 'hero' of the experience, and that design and built elements are to be considered subservient (secondary), but supportive of the core experience.

The principles of protecting and enhancing the coastal landscape, vistas and views are to be highlighted and supported.

Principle ten: materiality

Materials used within the Shipwreck Coast study area must be selected from a defined palette of materials, sympathetic to the environment they are used in and developed to respond to issues including appearance, performance, durability and resilience, contamination, availability and maintenance.

Given the national park and marine protected area context, natural materials such as stone, timber and those which will weather to give a natural patina are to be given preference in the materials palette.

A series of guidelines were provided to assist with meeting these design principles, including:

Guideline 1.1—Undertake detailed assessments to identify natural and cultural values to be protected.

Guideline 1.2—Employ the philosophy of protecting natural and cultural values, avoiding impacts wherever possible and mitigating impacts where unavoidable.

Guideline 1.3—Comply with all state and federal environmental, cultural and heritage legislation and regulations. [...]

Guideline 1.5—Work with Traditional Owners to ensure cultural values are protected, appropriately acknowledged, interpreted and celebrated.

Guideline 2.1—Maintain as unobstructed, all important vistas and views along the Shipwreck Coast including all key rock stack formations within the study area.

Guideline 2.2—Provide new and different views and perspectives of the coast [...]

Guideline 3.1—The landscape is the 'hero'. Designs must respond to the site's unique qualities, its sense of place and its international brand and profile.

Guideline 3.2—All facilities at the four key visitor precincts must be of a quality and design integrity consistent with the Shipwreck Coast's profile as an international tourist destination.

Guideline 3.3—Cultivate the inspiration from site to generate unique and responsive design outcomes to provide a visitor experience commensurate with the grandeur of place.

Guideline 3.4—Benchmark proposals against comparable exemplars from around the world. [...]

Guideline 5.5—At primary sites provide universal and inclusive design for all people. [...]

Guideline 6.1—Ensure primary sites are carefully designed to control visitor access and circulation within defined boundaries to mitigate risks to both personal safety and impacts on the natural and cultural values of the landscape. [...]

Guideline 9.1—Maintain unobstructed, all important, key and spectacular vistas and views along the Shipwreck Coast.

Guideline 9.2—Strong design or architectural expression will only be considered at high profile visitor sites and only where the approach contributes to, or enhances the visitor experience of engaging with the natural environment in that location. [...]

The winning entry was by Denton Corker Marshall.

After additional design input from the Office of the Victorian Government Architect, Parks Victoria concluded that the Proposed Saddle Lookout is a considered response to the need for improved visitor infrastructure capable of handling both the current and projected increase to visitor numbers in a manner that ensures the safety of visitors and fulfils the visitor experience.



Figures 9 (top) and 10 (bottom): Saddle Lookout, architect's impression of current design from entry plaza to south lookout (Figure 11) and from west (Figure 12).

Denton Corker Marshall expressed their design approach as follows:

The Saddle Lookout is conceptually distinctive, perched like so many visitors on top of the cliffs, to elevate and experience the scale and heightened drama of this incredible landscape.

It is deliberately rectilinear and man-made, composed of two contrasting 'blocks' or 'sticks'. One rests upon the ground while the other cantilevers out into the sky.

The journey is extended through a series of shallow ramps within, over and around the lookout, creating additional perimeter for larger crowds to be able to access views.

The initial experience is unsettled, deliberately bringing visitors in on a high point, framing a view along a shallow ramp, and creating an unexpected shift by leaning the form over on its side.

As one descends, the great view to the apostles is revealed and with the panorama of ocean, cliffs and sky, the visitor feels exposed on the edge of the world.

Drawn in to the second stick, the visitor is elevated 8m above the natural ground level, within a cantilevered structure.

The surface finish of the sticks provides an opportunity for additional layers of narrative in collaboration with the Traditional Owners.

The block forms are prefabricated, modular and expandable, intended to be adaptable to future and constant change, like the coastal landscape itself. (Denton Corker Marshall et. al., 2018)

In April 2018, the Office of the Victorian Government Architect (OVGA) indicated that it was 'supportive of the abstract concept of two linear forms in the landscape, which is a strong, simple design gesture'.

While these will read as two horizontal objects dropped into the landscape, we suggest that the concept is appropriate for the site and will define the approach to the 12 Apostles in a striking, contemporary way.

The OVGA further stated that the Proposed Saddle Lookout represented:

an ambitious outcome for the Great Ocean Road [which] is important to follow through, to ensure this world class asset offers a world class experience. We are conscious that Victoria has an opportunity to raise the bar in providing quality architectural experiences in extraordinary natural places and the OVGA remains supportive of projects that reflect the design ambition embedded in the architectural brief. (Parks Victoria 2019a)

The proposed action described in this report would give effect to the architectural vision outlined by the architect and supported by the OVGA.

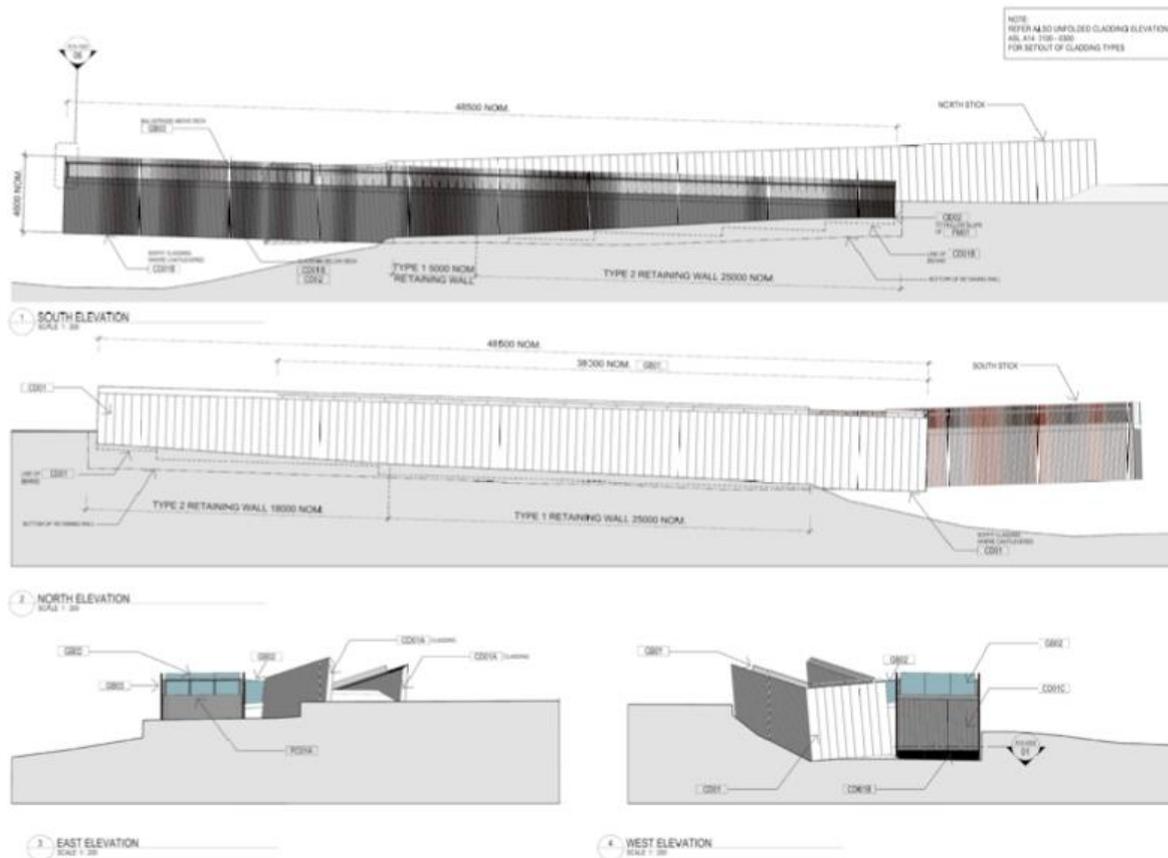


Figure 15. Proposed Saddle Lookout elevations.

The Saddle Lookout would provide approximately 380 m² of floor area and 104 m of viewing perimeter. By comparison, the existing Saddle lookout provides 113 m² of lookout and path area and 63 m of viewing frontage. This would represent approximate increases of 330% in capacity and 165% in available viewing perimeter. The Saddle Lookout would provide higher viewing locations of up to 7 m above the existing Saddle lookout.

Construction of the Proposed Saddle Lookout would require four 900 mm piles of up to 20 m deep be driven into the limestone substrate and the construction of a vehicle access path through approximately 350 m of previously undisturbed scrub. This vehicle access path would be reused as a new pedestrian access path and boardwalk to the Saddle Lookout (see further below).

New and realigned paths, boardwalks and rest areas

The proposed action would involve the construction of 600 m of new concrete path and boardwalk to form a new eastern access route, and an additional 200 m of new or rerouted path on or adjacent to the existing access part to the existing Saddle and bunker lookouts. This would form an access loop, enabling more fluid visitor circulation. The proposed action would also involve the construction of two new timber-decked 'approach areas' at the foot of each lookout, with timber seating and an opportunity for site interpretation.

Importantly, a consequence of the proposed action would include changed visitor circulation patterns around the Twelve Apostles lookout area, with the introduction of a one-way return

loop path which would effectively reverse the direction of their current travel (see Figure 1). From the carpark and visitors centre, visitors would be directed along the new concrete return loop path and boardwalk, with coastal views revealed only upon entry to the Proposed Saddle Lookout. Visitors would enter via the north lookout, from which they would obtain their first sight of the Twelve Apostles to the north-west, and circulate to the south lookout, offering views to the south-east toward the ‘Gog and Magog’ limestone stacks, Gibson Beach and beyond. They would then return along a new, wider concrete path toward the existing main viewing platform.

SADDLE LOOKOUT

- | | |
|-------------------------------------|----------------------------------|
| 1. Existing concrete path | 6. Exit |
| 2. Existing timber boardwalk | 7. New elevated timber boardwalk |
| 3. New 4 m wide white concrete path | 8. New concrete return loop path |
| 4. Concrete seating | 9. Gated maintenance points |
| 5. Entry | |



Figure 16. Proposed path network. Image courtesy Denton Corker Marshall.

Removal of existing lookouts, paths and rest areas

The existing Saddle and ‘bunker’ lookouts and their access pathways beyond the North lookout would be decommissioned, removed and revegetated. This would include the removal of asphalt paths, boards, seated areas, steel balustrades and wires, and at the bunker timber palisade fence and low concrete wall. Part of the existing pathway would be retained as a restricted-access path to allow ranger, service and maintenance access to the footings of the Proposed Saddle Lookout.

1.3 The strategic planning context

The Proposed Saddle Lookout was identified as a necessary specific action in the *Shipwreck Coast Master Plan* (Parks Victoria 2015) and its design was informed by both the *Shipwreck Coast Design Framework* (Parks Victoria 2017) and public consultation process established thereunder. The *Shipwreck Coast Master Plan* recognised that ‘many of the existing visitor sites

are considered to under deliver on visitors' expectations in poor weather' (Parks Victoria 2015, 17).

The strategic planning context for the proposed viewing platform established a concept for the ways in which future generations of visitors would engage with the history and culture of the place. For example, one of the major deliverables identified by the *Shipwreck Coast Masterplan* was the *Twelve Apostles Precinct Masterplan*. The objective of the latter document is to eventually deliver a 'Visitor Experience Centre which will become the main entry point and gateway for those visiting the Twelve Apostles' (quoting the Parks Victoria website). In other words, if the full vision for the coast is realised, visitors to the Shipwreck Coast approaching from the east would first be introduced to the history and culture of the region in a modern and contemporary visitors' centre inspired by similar visitor centres around the world (e.g. the Stonehenge Exhibition and Visitor Centre, Wiltshire, UK—which was also designed by Denton Corker Marshall—or the Giants Causeway Visitor Centre in Northern Ireland).

If this vision is realised, the Proposed Saddle Lookout would become a component in a larger integrated visitor experience, which illustrates the need for high-quality design in its construction and the necessity of moving on from the unremarkable and utilitarian designs of last century. This is important because some of the contributory views impacted by the proposed works (discussed in Part 4.3 below) would be those first partial views of the Twelve Apostles when approaching from this direction. Insofar as these views would be impacted by the Proposed Saddle Lookout, these same experiences would be enhanced from this general area through the introduction of the visitor centre envisaged by the *Twelve Apostles Precinct Masterplan*, should future circumstances permit its construction.

The design rationale for the proposed viewing platform at The Saddle includes subtle but leading-edge architectural design, in preference to the existing underwhelming viewing facilities. The design responds to the stated aim of the *Shipwreck Coast Master Plan* to:

Enhance the Shipwreck Coast as a distinctive, cultural and remarkable world-class destination.
(Parks Victoria 2015, 5)

It is also generally consistent with feedback received from a range of stakeholders, including representatives of the local Aboriginal communities who provided ongoing input as the viewing platform's design evolved, and tour operators, who welcomed the new facilities. When Parks Victoria invited public comment on the *Shipwreck Coast Master Plan (Stage 1)* through its online portal the feedback on the design from the wider community was highly mixed, with positive and negative reactions to what had been designed (according to the July 2018 Engagement Summary). This is typical of contemporary design responses for public infrastructure, which commonly evince contrasting initial public reactions. However, in response to comments received through public submissions, changes were made to the siting, colours and materials of the proposed structure to better meld it with the geology and colour palette of the local landscape.

1.4 Scope of assessment

This report assesses the potential impacts of the proposed action on the National Heritage values of the Great Ocean Road and Scenic Environs to inform a referral of the action under

the EPBC Act. It confines its impact assessment to National Heritage values (as opposed to, for example, state or local heritage significance). It relies on the history and assessments of heritage values contained within the place's gazetted citation on the NHL (available online).

1.5 National Heritage values

The Great Ocean Road and Scenic Environs was included in the National Heritage List on 7 April 2011 under criteria (a), (b), (c), (d), (e), (g) and (h). A summary of these values is below, abridged from the gazetted values:

- (a) Constructed by workers including more than 3000 returned servicemen as a utilitarian memorial to First World War servicemen, the Great Ocean Road is a significant reminder of the participation of Australian servicemen in the First World War, the Australian community's appreciation of their service, and the support provided for the continuing welfare of servicemen upon returning to Australia. The *Ocean Road Planning Scheme* was a pioneering planning mechanism which enabled an integrated approach across four local shires to protect and preserve the exceptional scenery of the region. The Scheme initiated processes which led to an evolution in the protection of land in Australia for its scenic environmental value. The Otway Ranges Coastal Cretaceous site includes Dinosaur Cove, Australia's most famous polar dinosaur fossil site and a site which helped popularise fossils and dinosaurs in Australia.
- (b) The geomorphological features of the Port Campbell Limestone Coast are rare in their diversity. The Otway Ranges Coastal Cretaceous site contains rare polar dinosaur fossil sites.
- (c) Archaeological evidence of the repatriation workers camps has potential to reveal details of the living and working conditions and experiences of sustenance workers in remote locations during the inter-war period. Fossils from later periods are also being discovered in the dunes around Bells Beach. Fossil finds extracted from these sites continue to yield important information about Australia's prehistory, and processes of erosion may lead to further discoveries along this coastline in the future. The Cretaceous coast of the Otways displays geomorphological processes that are contributing to research into the origins of significant shore platforms that illustrate the environment prior to the breakup of Gondwana.
- (d) The frequently changing diverse landscapes and views from the Great Ocean Road have made it an exemplar route of scenic journey, and Australia's most famous coastal drive. The route was designed to follow the lines of nature and facilitate public access to this spectacular coastline, creating a flowing, serpentine journey that hugs the coast and provide views of diverse scenery. Its viewpoints, scenic lookouts and unobtrusively engineered roadworks allow a natural aesthetic to dominate. The Port Campbell Limestone Coast is the definitive place in Australia to observe limestone geomorphology and coastal erosion processes on rocky coasts.
- (e) The Great Ocean Road and Scenic Environs demonstrate outstanding scenic landscape values and a diversity of natural landscapes. Included within the environs and of particular significance are the Twelve Apostles. This distinctive and spectacular group of rock formations is widely recognised, and is capable of evoking strong emotional responses. A

number of lookout points are recognised for particularly significant aesthetic experiences. The coastline from Lorne to Kennett River offers among the world's most dramatic cliff and ocean scenery able to be viewed from a vehicle. The diverse and changing scenery along the route is intrinsic to the vast appeal of this coastline, and have inspired visual artists, writers, musicians and theatre troupes.

- (g) The iconic Bells Beach is valued by Australia's surfing community for its place in Australian surfing. It was the world's first Surfing Recreation Reserve, and remains the location of the world's longest running international surfing carnival and home to one the most prestigious trophies in surfing. The powerful, spectacular and distinctive landscapes of the Great Ocean Road and Scenic Environs are highly valued by the Australian community and for many the Great Ocean Road is synonymous with tourism and holidays.
- (h) The Great Ocean Road and Scenic Environs has a special association with a number of people with importance to Australian history, including William Thomas Bartholomew McCormack, founding member of the Victorian Country Roads Board; Howard Hitchcock, businessman, philanthropist, and Mayor of Geelong from 1917 to 1922; eminent landscape designer Edna Walling; and the more than 3000 returned servicemen who were employed to construct the road.

2. Approach to the assessment

This assessment was prepared using the following steps: firstly, gaining a broader understanding of the site context and proposed action, including confirming the relationship of the site with the National Heritage place and values; then revisiting the relevant National Heritage values and their associated attributes as they relate to the site context; a more detailed understanding of the site context and action through a site inspection; and finally, as a culmination of these steps, an evaluation of the impact of the action on the National Heritage values. Each of these steps is considered in turn below.

2.1 Understanding the site context, proposed action and existing documents

Following an initial inception meeting with Parks Victoria on 5 July 2019, Extent Heritage reviewed relevant background documents from Parks Victoria and its consultants, including the following:

- the *Shipwreck Coast Master Plan* (Parks Victoria 2015) and associated documents, including the design framework;
- plans, elevations and other images prepared by design architect Denton Corker Marshall;
- Parks Victoria's self-assessment under the EPBC Act and associated documents;
- visitation data and pedestrian modelling;

- engagement report and submissions in relation to the *Shipwreck Coast Master Plan* (Parks Victoria 2015);
- the cultural heritage management plan prepared for the site under the *Aboriginal Heritage Act 2006* (Vic); and
- the *Port Campbell National Park and Bay of Islands Coastal Park Management Plan* (Parks Victoria 1998).

Extent Heritage further sourced and reviewed material related to particular aspects of the National Heritage values, including:

- Planisphere. 2003. 'The Great Ocean Road Region Landscape Assessment Study: Precinct Package, Precinct 3.1 Port Campbell Coast and Hinterland.' Report prepared for the Department of Sustainability and Environment.

A full list of reference material is included in the Bibliography, below.

On 16 July 2019 Extent Heritage met with the lead design architect of the proposed Saddle lookout, Neil Bourne of Denton Corker Marshall.

2.2 Understanding the National Heritage values and attributes

Extent Heritage then returned to a more detailed and focused consideration of the National Heritage values of the Great Ocean Road and Scenic Environs in light of our understanding of the broader site context and proposed action. This is set out in Part 3, below. In particular, Extent Heritage considered how to define the attributes of these values. The *Guidelines for the Assessment of Places for the National Heritage List* (Australian Heritage Council 2009, 19) describes values as 'not easily quantifiable. By contrast attributes are more tangible and can be measured and monitored'. Defining attributes of values is a useful initial step in robustly evaluating potential impacts.

Reflecting evolving assessment approaches that recognise values-based management, the gazetted values for National Heritage places express attributes clearly, often explicitly or otherwise implicitly. The gazetted values for the Great Ocean Road and Scenic Environs adopted an implicit approach. Accordingly, a preliminary analytical step would be to make those implicit attributes explicit. To do so, Extent Heritage prepared a table drawing out attributes from the gazetted values (See Table 1, below)

To assist with interpreting values and drawing attributes from these values, Extent Heritage referred to the Australian Heritage Council's final assessment report given to the Minister (n.d.). Noting that the values were adopted by the Minister without alteration, this assessment report represents an important reference document.⁸

⁸ Author's disclosure: Luke James was employed by the Environment Department and responsible for the historic heritage assessment and coordination of the assessment overall in its final stages up to

At 242 km long, approximately 42,000 ha in area and with natural and historic values spanning seven of the possible nine criteria, the Great Ocean Road and Scenic Environs is among the largest National Heritage places on the NHL with the most diverse values. Some of these values, through their attributes, span much of the length of the place; others can be located at specific points. Noting that the proposed action would occur at a single point, a crucial initial aspect therefore involved considering those values and attributes that might be relevant and those which are not. Those criteria and their corresponding values, which are plainly of less relevance to this assessment, are therefore grouped together in Parts 3 and 4. Nonetheless, all seven criteria have been considered in this assessment.

2.3 Inspecting the site

A site inspection took place on 11 June 2019, accompanied by Mr Ron Parker (Project Manager, Infrastructure and Capital Projects, Parks Victoria). The site inspection included recording and giving detailed consideration of views to and from the location of the proposed Saddle lookout, including from the existing Twelve Apostles, Gibson Steps and Great Ocean Walk lookouts, and from the Great Ocean Road and Great Ocean Walks. The site inspection was followed by a meeting with Mr Parker and Mr Michael Smith, Area Chief Ranger, Parks Victoria.



Figure 17. Recording RTK data for Great Ocean Walk view location.



Figure 18. Inspecting site of Proposed Saddle Lookout.

2.4 Evaluating potential impacts

Having identified and developed a detailed understanding of the site context, the action, the values and their attributes, Extent Heritage then identified and evaluated the possible impacts and their degree of significance, as set out in Part 4, below. Importantly in the EPBC context, Extent Heritage considered the threshold question of whether such impacts were significant impacts on any value. To guide this process, Extent Heritage consulted the *Matters of National Environmental Significance Significant Impact Guidelines 1.1* (DEE 2013; see Part 4, below).

the point at which it was included in the National Heritage List. He also led the coordination of consultation with place managers in the early post-listing period.

3. National Heritage values and attributes

3.1 Relevant criteria, values and attributes

As noted in Part 2, above, the Great Ocean Road and Scenic Environs is a long, linear site with diverse values and attributes across seven National Heritage criteria. While some of these values and associated attributes are evidently relevant to the length of the site, some have clearly limited geographic application—take the reference to Bells Beach under Criterion (g) for example—that can be clearly excluded from consideration as a preliminary step. Prior to a closer analysis of the values and attributes, to ensure our attention was directed to where it would be most needed, Extent Heritage engaged in a preliminary review of which values, associated attributes and therefore criteria were most likely to have a bearing on the assessment of the particular site and action. This preliminary assessment is at 3.2, below, and resulted in separating the values under criteria (a), (b), (c), (d) and (h) for initial consideration, and the values and attributes under criteria (e) and (g) for more detailed analysis in Parts 3.4 and 3.5, below.

3.2 Preliminary assessment

Table 1, below, sets out our preliminary assessment of the relevance of values and attributes.

Table 1. Preliminary assessment of relevant values and attributes by criteria

Criterion	Summary of National Heritage values	Attributes	Potential relevance to assessment
(a)	Great Ocean Road as WW1 memorial road and providing access for and representing a stage in Australian tourism. Pioneering coastal planning instrument. Importance of discovery of Australian polar dinosaur fossils.	<ul style="list-style-type: none"> ▪ The Great Ocean Road route ▪ Memorial Arch at Eastern View ▪ Memorial plaques at Eastern View and Mount Defiance ▪ Hand cut cliff-face markings ▪ Continuing protection provided by the planning system around the Great Ocean Road ▪ Otway Ranges Coastal Cretaceous site (from Lorne to Moonlight head) 	<p>Low to no relevance</p> <p>Site of proposed action is outside road alignment, away from memorial fabric and outside Otway Ranges Coastal Cretaceous site.</p>
(b)	Rarity of diversity of geomorphological features in single lithological unit of Port Campbell limestone, and of polar dinosaur fossils	<ul style="list-style-type: none"> ▪ Port Campbell limestone ▪ Otway Ranges Coastal Cretaceous site 	<p>Low relevance</p> <p>Proposed action would involve boring into limestone substrate but unlikely to diminish attribute in a fashion that would affect values under this criterion. Site of proposed action is outside Otway Ranges Coastal Cretaceous site.</p>
(c)	Potential for remains of construction workers' camps; Otway Ranges Coastal Cretaceous and Bells Beach fossil sites and Cretaceous coast geomorphology to yield information.	<ul style="list-style-type: none"> ▪ Construction workers' camp sites ▪ Otway Ranges Coastal Cretaceous site ▪ Bells Beach ▪ Geomorphological monitoring sites and precincts 	<p>Low relevance</p> <p>Site of proposed action is well away from known attributes, all of which are located east of Port Campbell National Park. Yet nature of criterion requires consideration of discovery</p>

Criterion	Summary of National Heritage values	Attributes	Potential relevance to assessment
		<ul style="list-style-type: none"> Rock platforms and associated geomorphological features (specific locations) 	of unknown but possible attributes, which would include sites of construction camps.
(d)	Great Ocean Road as exemplar route of scenic journey within Australia. Port Campbell Limestone Coast is the definitive place in Australia to observe and study limestone geomorphology and coastal erosion processes on rocky coasts.	<ul style="list-style-type: none"> Intentionally designed route of the Great Ocean Road; its key viewpoints, scenic lookouts and unobtrusively engineered road works Geomorphological and coastal erosion processes of the Port Campbell Limestone coast 	<p>Low relevance</p> <p>Proposed action would not impact on road fabric; no Great Ocean Road key viewpoints or scenic lookouts in the vicinity. Site of proposed action is within Port Campbell Limestone Coast but not expected to affect ability to study limestone geomorphology and coastal erosion processes.</p>
(e)	The Great Ocean Road and Scenic Environs demonstrate outstanding scenic landscape values and a diversity of natural landscapes. Twelve Apostles particularly significant as widely recognised by the Australian community and as an inspirational landscape. The coastline from Lorne to Kennett River offers among the world’s most dramatic cliff and ocean scenery viewed from a vehicle. Lookout points and pullover points beside or nearby the road provide spectacular view of coastline, hinterland and Bass Strait seascape framed only by cliffs, lighthouses and unencumbered by intrusive built structures. Certain lookout points recognised as having particularly significant aesthetic values. Diverse and changing scenery intrinsic to appeal of coastline. Rural landscape west of Otway Ranges opens to spectacular vista of Twelve Apostles, inland along Port Campbell coast is coastal heath and scrub, swamp lands and wetlands. Great	<ul style="list-style-type: none"> All views from Great Ocean Road and Great Ocean Walk Twelve Apostles Bay of Islands Bay of Martyrs Coastline from Lorne to Kennett River Spectacular views from lookout points and pullovers beside or nearby Great Ocean Road of coastline, hinterland and Bass Strait seascape, framed only by cliffs, lighthouses and unencumbered by intrusive built structures Specified lookout points for particularly significant aesthetic experiences include: <ul style="list-style-type: none"> Gibson Steps The Twelve Apostles (several viewing areas). 	<p>High relevance</p> <p>Location of site of proposed action in Twelve Apostles precinct and in vicinity of lookout points considered as attributes, part of the Great Ocean Walk and the land/sea scapes features in print and digital media. However, the site is not located along Lorne to Kennett River Coastline.</p>

Criterion	Summary of National Heritage values	Attributes	Potential relevance to assessment
	Ocean Road and Scenic Environs include some of the most featured landscapes and seascapes in print, film and digital media.	<ul style="list-style-type: none"> • All views from the Great Ocean Walk (note: second reference under this criterion) ▪ Diverse and changing scenery, including: coastal cliffs; curving beaches; dense native vegetation; tall eucalypt forest ▪ Sheer cliff walls, island arches, blowholes, canyons and caves west of the Otway Ranges opens to spectacular vista of the Twelve Apostles ▪ Coastal heath and scrub, swamp lands and wetlands inland of Port Campbell Coast ▪ Landscapes and seascapes featured in print, film and digital media 	
(g)	Bells Beach is an internationally renowned surfing location associated with development of surfing and surf industry, with importance to the Australian surfing community. Bells Beach surfing reserve first of its kind in Australia and the world. Its unique surfing conditions have been instrumental in development of surfing technology and it hosts the world's longest-running surfing carnival. The landscape is highly valued by many Australians and reached iconic status. It is synonymous with tourism, with visitors attracted to scenery experienced on the scenic journey and accessibility of shipwrecks.	<ul style="list-style-type: none"> ▪ Bells Beach ▪ Accessibility of the Great Ocean Road for tourism and iconic, spectacular scenery experienced on scenic journey ▪ Accessible shipwrecks along coast 	<p>Moderate to high relevance</p> <p>The site is located at the most visited attraction accessible from the Great Ocean Road and contributes substantially to the number of visits and 'iconicity' of the landscape. However, it is not prominently visible from the Great Ocean Road as a scenic journey.</p>

Criterion	Summary of National Heritage values	Attributes	Potential relevance to assessment
(h)	The Great Ocean Road has a special association with people of national importance: William T B McCormack, road designer and engineer; Howard Hitchcock, inaugural Chair of the Great Ocean Road Trust; Edna Walling, landscape designer who drew inspiration from coastal views and nature; and the more than 3,000 returned servicemen involved in its construction.	<ul style="list-style-type: none"> ▪ The Great Ocean Road, and particularly parts that exemplify 'following the lines of nature' ▪ Memorial Arch at Eastern View ▪ Memorial plaques at Eastern View and Mount Defiance ▪ Other memorial plaques specifically referring to William TB McCormack and/or Howard Hitchcock ▪ Site of Edna Walling's house 'East Point' at Big Hill near Lorne. 	<p>Low to no relevance</p> <p>None of the attributes are in the vicinity of the site of the proposed action.</p>

3.3 Criteria (a), (b), (c), (d), (h)

As noted in the preliminary assessment of relevance in Part 3.2, above, Criteria (a), (b), (c), (d) and (h) are considered to have values and associated attributes that are of low or no relevance to assessment of the proposed action. Further consideration of the values and attributes of those values under these criteria that may be impacted by the proposed action is set out below.

Criterion (a)

Criterion (a) values are associated with the design, planning processes and materiality of the Great Ocean Road as a war memorial and its provision for recreational tourist access to coastal vistas and adjacent landscapes. The attributes identified from these values include the route and associated infrastructure of the Great Ocean Road and the Otway Ranges Coastal Cretaceous site. Although an important value under this criterion, it is less clear how recognition of the Ocean Road Planning Scheme might be linked to tangible attributes. It is possible that the continuing protection provided by the planning system around the Great Ocean Road could be such an attribute, but that is not under consideration as part of the proposed action, which has received a permit under the relevant planning scheme.⁹ The proposed action is outside the alignment of the Great Ocean Road and at least 15 km from Moonlight Head, the nearest point of the Otway Ranges Coastal Cretaceous site. Therefore, the values and associated attributes under criterion (a) are confirmed as having no to low relevance in relation to the assessment of the proposed action, and accordingly no further examination of these values is proposed in this Part.

Criterion (b)

Criterion (b) values are associated with the rarity of the diversity of geomorphological features found in the Port Campbell Limestone lithological unit and Otway Ranges polar dinosaur fossils. Relevant attributes include the lithological unit of Port Campbell Limestone and the Otway Ranges polar dinosaur fossil sites. The Otway Ranges polar dinosaur fossil sites form part of the Otway Ranges Coastal Cretaceous site which, as noted above, is at its closest point at least 15 km from the site of the proposed action. Consultant geologist and karst geomorphologist Dr Susan White advised that 'while the limestone geology is fossiliferous, the chance of finding any fossils of significance is possible but not probable and considered low risk' (Parks Victoria 2019a). However, the site of the proposed action does occur in the vicinity of the Port Campbell Limestone lithological unit, and the limestone itself will be impacted by boring for foundations at the site of the proposed action. Nevertheless, the limited nature of this boring, occurring at a single point in respect of the extent of the Port Campbell Limestone lithographic unit, which extends along over 20 km of coastline just between Princetown and Peterborough alone with a maximum thickness of 550 m (Geoscience Australia 2018; DJPR 2019), suggests a very limited need to consider impacts to the diversity of geomorphological features that form an attribute of the values under this criterion.

Criterion (c)

Criterion (c) values are associated with the research potential of the Great Ocean Road and Scenic Environs, especially in relation to construction workers' camps from the construction of

⁹ Planning permit PP2018/112 issued by Corangamite Shire Council on 15 April 2019.

the Great Ocean Road, further fossil discoveries and information about geomorphological processes. For the abovementioned reasons, being well outside the Otway Ranges Coastal Cretaceous site and Bells Beach the site of the proposed action has very little relationship to attributes related to the research potential in relation to fossils. The attributes of the values related to geomorphological research potential are the geomorphological monitoring sites and precincts, and rock platforms and associated geomorphological features at specific locations. The locations of all known geomorphological monitoring sites are on the eastern side of Cape Otway, and therefore well outside the Port Campbell National Park (Gill and Lang 1983, 142), while the closest rock platforms and associated geomorphological features terminating at Milanesia Beach, over 20 km along the coastline from the site of the proposed action.

The attributes relevant to the research potential of the construction workers' camps is the material culture of both known and unknown construction workers' campsites. While none of the known campsites locations are in the vicinity of the site of the proposed action, and there are no apparent geographic features (such as sources of fresh water) that would increase the likelihood that such a location might have been a campsite, being in the vicinity of the Great Ocean Road itself the material culture of yet to be identified campsites may still be present.

Criterion (d)

Criterion (d) values are associated with the Great Ocean Road as an exemplar route of a scenic journey in Australia and as the definitive pace in Australia to observe and study limestone geomorphology and coastal erosion processes on rocky coasts. Attributes of this value include the intentionally designed route and unobtrusively engineered road works of the Great Ocean Road, its key viewpoints and scenic lookouts, and the geomorphological and coastal erosion processes and features of the Port Campbell Limestone coast. Being outside the road alignment, neither the route nor unobtrusively engineered road works of the Great Ocean Road is of particular relevance to the assessment. The reference to key viewpoints and scenic lookouts ought to be interpreted by reference to the central value under this criterion—an exemplar route of scenic journey—and specifically, 'Australia's most famous coastal drive'.

This value primarily relates to the experience of the journey, which is primarily undertaken by vehicle in motion with occasional stops. Therefore, the viewpoints and scenic lookouts as attributes are those available or immediately accessible from the Great Ocean Road, and, in this regard, there is a significant overlap with criterion (e), which is more detailed and expansive. It is relevant however to note here (and under criterion (e), below) there is a concern with 'obtrusive' or 'intrusive' works or structures in respect of the scenery of the Great Ocean Road. This too will be further discussed under criterion (e).

While the proposed action will take place on Port Campbell Limestone, it is the geomorphological and coastal erosion processes and features of this unit which constitute the attribute.

Criterion (h)

Criterion (h) values are associated with the importance of the Great Ocean Road in the lives of people of importance to Australian history. Attributes of this value include the tangible aspects of the lives and contributions of William T B McCormack, Howard Hitchcock and Edna Walling, and the Great Ocean Road construction workers. These include The Great Ocean Road, and

particularly parts that exemplify ‘following the lines of nature’; the Memorial Arch at Eastern View; memorial plaques at Eastern View and Mount Defiance; other memorial plaques specifically referring to William TB McCormack and/or Howard Hitchcock; and the site of Edna Walling’s former house, ‘East Point’ at Big Hill near Lorne. No known related attributes are present in the location of the proposed action.

3.4 Criterion (e)

The National Heritage values under criterion (e) relate to the place having ‘outstanding heritage value to the nation because of the place’s importance in exhibiting particular aesthetic characteristics valued by a community of cultural group’. This is of particular relevance to the proposed action, as the values under this criterion include ‘outstanding scenic values’.

3.4.1 Relevant values and attributes

The values and associated attributes in the following paragraphs are directly relevant to an assessment of the potential impact of the proposed action on the National Heritage values of the place:

The scenic environs include all views from the Great Ocean Road and Great Ocean Walk. Included within the environs and of particular significance are the Twelve Apostles. This distinctive and spectacular group of rock formations is widely recognised by the Australian community, serving as an inspirational landscape capable of evoking strong emotional responses...

Along the length of the Great Ocean Road, the pullover points and lookouts beside or nearby the road provide travellers with spectacular views of the coastline, hinterland, and Bass Strait seascape, framed only by cliffs, lighthouses and unencumbered by intrusive built structures.

Lookout points for particularly significant aesthetic experiences include: ... Gibson’s Steps, the Twelve Apostles (several viewing areas) ... (Planisphere 2003) and all views from the Great Ocean Walk.

The rolling rural landscape west of the Otway Ranges opens up to the spectacular vista of the Twelve Apostles ... Immediately inland along the rocky Port Campbell coast is coastal heath and scrub, swamp land and wetlands.

The Great Ocean Road and Scenic Environs include some of the most featured Australian landscapes and seascapes in print, film and digital media. The region has inspired a number of works by significant artists, photographers and writers, including Arthur Streeton, Eugene von Guerard, Nicholas Chevalier, Jeffrey Makin, Frank Hurley, Steve Parish, Ken Duncan and Myra Morris. Theatrical groups, musicians and filmmakers have also taken inspiration from the scenic journey and environment of the Great Ocean Road. (Australian Heritage Council 2005, ‘E Aesthetic characteristics’)

3.4.2 Understanding aesthetic value

To further understand and interpret these values and their associated attributes in the context of the site of the proposed action, it is noted that the Australian Heritage Council’s *Guidelines*

for the *Assessment of Places for the National Heritage List* (2009) provides the following guidance:

Aesthetic quality is determined by the response derived from the experience of the environment or of particular natural and cultural attributes within it. This response can be evoked by visual or non-visual elements but is predominantly visual and related to the concept of beauty. It can include related to this, emotional responses, sense of place, sound, smell, or any other factor having a strong impact on human thoughts, feelings and attitudes (Australian Heritage Council 2009, 36).

The Australian Heritage Council's final assessment report: *Great Ocean Road and Scenic Environs* (n.d.) demonstrated how this approach was deployed in the assessment methodology:

Aesthetic value for NHL assessment uses the phenomenological/experiential approach that involves the value being identified from several sources, which may include landscape experts, communities, tourism information, and art and literature. (Australian Heritage Council n.d., 'Criterion (e)')

It is important to emphasise how aesthetic value is not an abstract or objective quality of place, but rather 'in relation to natural places, it is human perception of the natural place which creates the aesthetic value' (Australian Heritage Council 2009, 34). Further, it is a 'requirement that the aesthetic characteristics are 'valued' by a community or cultural group' and 'for a place to satisfy this criterion there must be clear evidence of a community or cultural group valuing its aesthetic characteristics' (Australian Heritage Council 2009, 35). The gazetted values make clear that the aesthetic values of the place are valued by 'the Australian community' at large, and thus it is the widest possible range of subjective perceptions that ought to be considered. It is acknowledged that a large proportion of visitors to the Great Ocean Road and the Twelve Apostles in particular are interstate and international visitors. Particularly relevant here, 'a place can be considered for its aesthetic value in relation to a view/s of the place from outside the place and also view/s across the place' (Australian Heritage Council 2009, 35).

These principles are consistent with the Burra Charter which defines 'place' (Article 1.1) to mean:

A geographically defined area. It may include elements, objects, spaces and views ...

Relatedly, the Burra Charter (Article 1.2) notes that cultural significance is embodied by not just the place itself but includes also its 'setting'. 'Setting' is defined to mean (Article 1.12):

The immediate and extended environment of a place that is part of or contributes to its cultural significance and distinctive character'

An explanatory note to Article 1.12 observes:

Setting may include: structures, land, water and sky; the visual setting including views to and from the place, and along a cultural route; and other sensory aspects of the setting such as smells and sounds [...]

3.4.3 Identifying views

Our approach to understanding the values and associated attributes under this criterion follows the approach suggested above. Extent Heritage began by identifying and articulating particular views¹⁰ experienced in the vicinity of the subject of the proposed action that may be referenced to criterion (e) values and attributes.

Identifying views 'from'

Certain views and lookouts—both specified or unspecified—are designated as points or routes *from* which aesthetic values are formed. As an initial step, Extent Heritage identified and articulated specific viewpoints represented in these values and attributes, remaining alert to the possibility that there may also have been other important views embodying the values under this criterion. Regard was had to the gazetted values and the Planisphere (2003) landscape assessment report.

Beginning with the most clearly specified to the broadest, these values are as follows:

Gibson Steps: Under the list of 'lookout points for particularly significant aesthetic experiences', the gazetted values specify only 'Gibson's Steps'. Noting that this reference could encompass the Gibson Steps Lookout, the steps themselves descending from the clifftop to the beach below, or the beach itself—known as 'Gibson Beach'—here it is important to understand which constitutes the specific lookout point(s) to which the values refer.

The list of lookout points in the values cites the Planisphere report (2003), which includes the following detailed description:

GIBSONS STEPS

The smallest of the four formalised viewing areas in the precinct, the Gibsons Steps viewing platform is located in [*sic*] the ocean side of the Great Ocean Road. The platform itself is a small area, encircled with timber fencing with and accessed by a narrow gravel path. Access is available to the beach below by a series of timber steps. Expansive views of dramatic coastal cliffs, the ocean and the beach are available to the east and west. (Planisphere 2003, 8)

Notwithstanding the lack of reference to 'lookout' in the title, this appears to support the reference to the viewpoint being the Gibson Steps viewing platform. While the reference to accessibility to the beach introduces the possibility that the final sentence ('Expansive views of dramatic coastal cliffs, the ocean and the beach are available to the east and west') refers to the view from the beach itself, it is likely that this would have been phrased differently if this were intended, and indeed the word 'expansive' seems to imply an elevated perspective. Furthermore, the page is illustrated with a photograph clearly depicting the view east from the

¹⁰ Note this report makes a careful distinction between the terms *viewpoint*, *view location* and *view*. Viewpoint is the term specifically used in the values and analysis thereof; view location refers to the particular places representative of the viewpoints that selected for analysis as regard to impact; and view refers to the particular experience of viewing from the view location, having regard to those factors bearing on the 'phenomenological-experiential' qualities, including the landscape features (particularly those noted in the gazetted values), whether dynamic (i.e. in motion) or static, and likely direction of travel and view direction and focus.

Gibson Steps viewing platform.¹¹ Accordingly, the relevant viewpoint identified ‘particularly significant aesthetic experiences’ is the that from the Gibson Steps viewing platform.

Nevertheless, views from Gibson Steps Beach ought to be considered for ‘outstanding scenic landscape value’ and as ‘one of the most featured Australian landscapes and seascapes in print, film and digital media’ (see also Part 3.4.4, below).

Twelve Apostles (several viewing areas): The gazetted values include ‘the Twelve Apostles (several viewing areas)’. The Planisphere report (2003, 8) noted:

The Twelve Apostles viewing experience is very formalised, the approach being dominated by a large sealed car park, visitor centre, signage and designed landscaping. A wide timber and coloured concrete path, with steel railings and rock walls, leads to the viewing areas consisting of elevated timber board walks and viewing platforms.

Expansive views of the dramatic cliffs and rock formations are available to the east and west. The immediate environment is dominated by low coastal scrub, or rocky cliff tops.

On this basis, Extent Heritage takes the ‘several viewing areas’ to refer to those described in Part 1.2.1, above. However, the proposed action includes the decommissioning, removal and replacement of the existing Saddle lookout and the ‘Bunker’ lookout. This report compares the existing and proposed views as part of its impact assessment (see Part 4.3.4, below).

All views from the Great Ocean Road and Great Ocean Walk: The gazetted values state both that ‘the scenic environs include all views from the Great Ocean Road and Great Ocean Walk’ and ‘lookout points for particularly significant aesthetic experiences include: [...] all views from the Great Ocean Walk’. Further, the gazetted values state that

Along the length of the Great Ocean Road, the pullover points and lookouts beside or nearby the road provide travellers with spectacular views of the coastline, hinterland and Bass Strait seascape, framed only by cliffs, lighthouses and unencumbered by intrusive built structures.

This report utilises a viewshed analysis to assess potential impacts against these values. It captures the parts of these linear routes from which the site of the proposed action may be visible (see Figure 19).

¹¹ Incorrectly captioned as ‘View east from the Simpson Steps [sic] viewing area’.

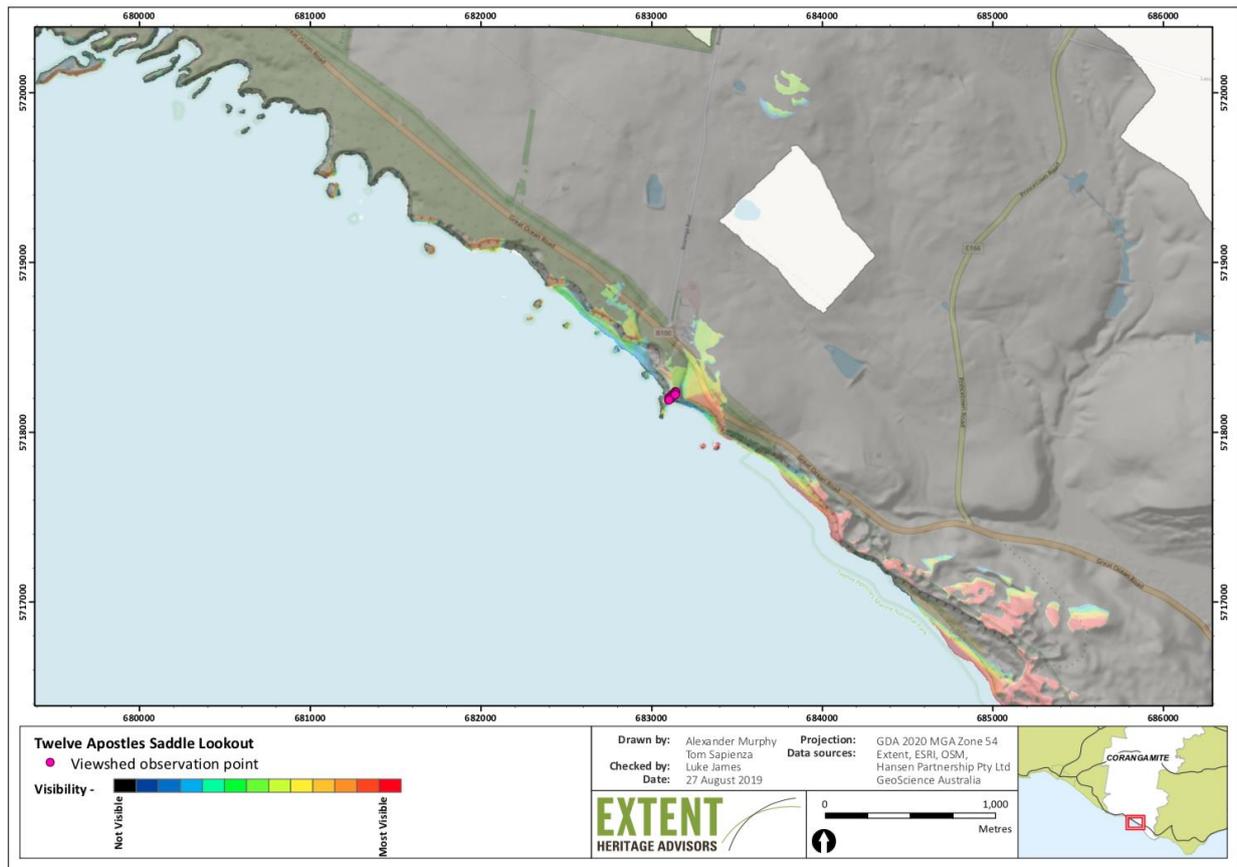


Figure 19. Viewshed analysis of area in the vicinity of the proposed action.

There are a range of modes (from static to dynamic) by which views along routes may be experienced (Part 3.4.4, below). In particular, in such circumstances the actual number of potential static viewpoints may be significantly circumscribed. For example, our site inspection and analysis established that there are no formal or safe pullover points along the Great Ocean Road in the vicinity of the site of the proposed action, and the only such lookouts beside or nearby the road would be Gibson Steps lookout, the Twelve Apostles viewpoints and the Great Ocean Walk 'Walking Australia's Icons' lookout. From the point at which the site the subject of the proposed action might enter the viewshed from the Great Ocean Walk, the route winds its way among clifftop dunes and scrub before turning inland and descending through an underpass to emerge inland from the Great Ocean Road before the site again comes into view. Such considerations are important to take into account in relation to views from these routes.

Accordingly, views from the following view locations (shown on Figure 20, below) have been identified as representative.¹²

¹² Some of these view locations were identified by Hansen Partnership Pty Ltd, which prepared the images bearing its name in this report.

Table 2. Representative view locations identified for particular consideration

View location	Description / rationale/distance (approximate)
1. Twelve Apostles Viewing Platform	148 m from site of proposed action. Site of the most well-recognised view of the Twelve Apostles.
2. Great Ocean Road	At the closest point of the Great Ocean Road to the site of proposed action (184 m distant).
3. Great Ocean Road	At the point where westbound vehicle passengers may experience their first view of the Twelve Apostles. 223 m from site of proposed action.
4. Great Ocean Walk	On approach to the western end of the walk at the Twelve Apostles Visitor Centre. 308 m from site of proposed action.
5. Great Ocean Road	On approach to the Twelve Apostles Visitor Centre for eastbound travellers. 574 m from site of proposed action.
6. Gibson Steps Beach	Popular and prominent view of limestone cliffs and 'Gog and Magog' stacks. 740 m from site of proposed action at foot of stairs.
7. Great Ocean Walk 'Walk Victoria's Icons' Lookout	Most accessible lookout along the Great Ocean Walk, and likely first point at from which Twelve Apostles would be clearly visible. 1,235 m from site of proposed action.
8. Great Ocean Walk	Clear view of site of proposed action and surrounding limestone stacks. 1,065 m from site of proposed action.
9. Great Ocean Walk	Clear view of Saddle and site of proposed action against horizon. Path moves inland and out of view from here for next several hundred metres. 1,000 m from site of proposed action.
10. Gibson Steps lookout	Specifically mentioned viewpoint in values under criterion (e). 697 m from site of proposed action.

Images from these view locations are shown in Part 4.3.2, below.

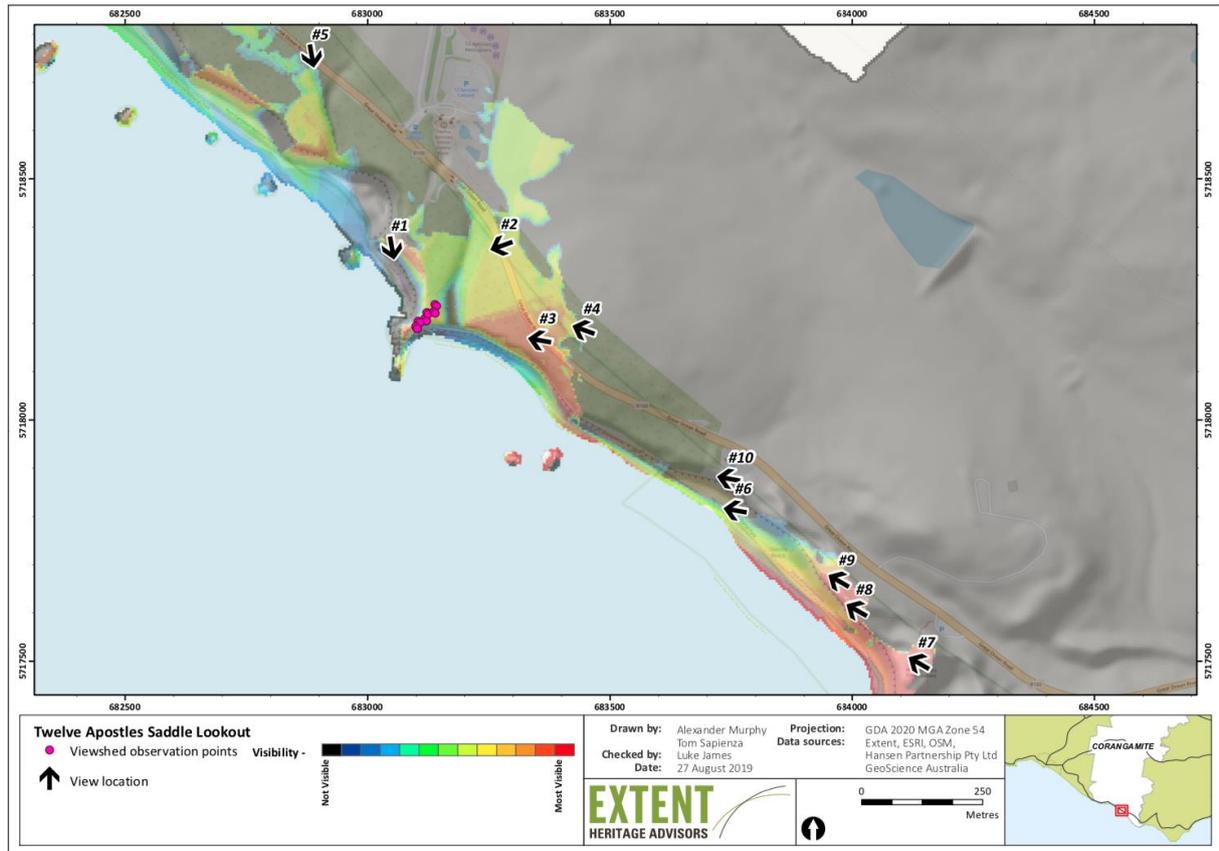


Figure 20. View locations in relation to site of Proposed Saddle Lookout.

In addition, Extent Heritage notes the unspecified view suggested by the following reference in the values under this criterion:

- ‘The rolling rural landscape west of the Otway Ranges opens to the spectacular vista of the Twelve Apostles’—it is considered this would be represented by view locations 3 and 4.

Identifying views ‘to’

Further, certain elements are specified as the potential subject of views from these points or routes, and indeed some viewpoints and elements are paired. One example is the following statement in the values: ‘Immediately inland along the rocky Port Campbell coast is coastal heath and scrub, swamp land and wetlands’. This indicates that such vegetation ought to be considered as a significant element in any view. Whereas the Twelve Apostles is accorded particular significance as a subject without reference to particular viewpoints, it is clear from its context that the ‘spectacular views of the coastline, hinterland, and Bass Strait seascape, framed only by cliffs, lighthouses and unencumbered by intrusive built structures’ relates to ‘pullover points and lookouts *beside or nearby the road*’. Further considerations relevant to view direction and the attention of the viewer in Part 3.4.4, below.

3.4.4 Experiencing views

Having identified the relevant views from and—where indicated—to, it is important to recall the use of a ‘phenomenological/experiential approach’ in the Australian Heritage Council’s

assessment report. In doing so, it was relevant to consider that there are a range of modes by which these views may be experienced, both in relation to visitors' direct experience of the place and other sources including art, literature and digital media. These modes and their inherent opportunities and limitations are a significant attenuating factor to a consideration of the aesthetic value. In relation to direct experience, these modes range from the static, relatively formalised viewpoints at Gibson Steps and Twelve Apostles' viewing areas or at pullover points or lookouts accessible by vehicle, to the more dynamic experience of the walker along the Great Ocean Walk, through to the experience of a traveller moving in a vehicle at up to 80 km per hour along the Great Ocean Road. Each of these modes needs to be subject to particular considerations. Both in regard to views from viewpoints, lookouts and the two dynamic routes, a further important consideration allows us to give proper weight to the phenomenological/experiential approach to understanding aesthetic values under this criterion. While, as noted above, the gazetted values specify certain subjects of views—views *to*—identifying relevant view lines in light of the values under this criterion requires a more nuanced understanding of visitor behaviour and indeed that nature of 'seeing' than that which may be undertaken in conventional landscape impact assessment methodology.

In this regard, helpful direction is provided by the concept of the 'tourist gaze' (Urry and Larsen 2011). This concept articulates how 'people gaze upon the world through a particular filter of ideas, skills, desires and expectations, framed by social class, gender, nationality, age and education' (2).

Gazing at particular sights is conditioned by personal experiences and memories and framed by rules and styles, as well as by circulating images and texts of this and other places. Such 'frames' are critical resources, techniques, cultural lenses that potentially enable tourists to see the physical forms and material spaces before their eyes as 'interesting, good or beautiful'. They are not the property of mere sight [...] The 'tourist gaze' is not a matter of individual psychology but of socially patterned and learnt 'ways of seeing' (Urry and Larsen 2000, 2, citing Berger)

The concept of a 'tourist gaze' helps us move from a universal, view from nowhere approach that would potentially orient all views unrealistically toward the object of assessment, thus giving disproportionate emphasis to views and view directions that would not receive particular emphasis by those at the view location. At the same time, whilst visitor behaviour may be 'socially patterned' and capable of objective analysis, it is important to avoid subjecting this behaviour to a mechanistic understanding. To do so ignores the potential for the range of individual responses to this 'inspirational landscape capable of evoking strong emotional responses' and 'sense of place'.

In this regard, it is relevant to consider that images of the Twelve Apostles and its setting form 'some of the most featured Australian landscapes and seascapes in print, film and digital media' including through works of artists and photographers specifically mentioned in the values under this criterion, but also through popular and social media representations. In this regard, it is clear that there is a particular view of the Twelve Apostles that contributed to and, in turn, has become a product of the Twelve Apostles as an 'iconic'. This view can be exemplified in Frank Hurley's pre-1962 photograph of the Twelve Apostles taken westward from the cliff top, approximately where today's main viewing platform stands (see Hurley n.d.). This is also the characteristic view

of an image produced by photographer Steve Parish.¹³ Photographer Ken Duncan has produced a striking image from this direction from sea level.¹⁴ This view has become the characteristic angle from which the Twelve Apostles is represented in popular and social media. A survey of photographs posted to visually-oriented social media platforms Instagram and Flickr reveals a preference for this view extends to social media posts,¹⁵ and was supported by our study of visitor behaviour during the site visit (see Figure 21). However, it is not the only prominent view represented. Ken Duncan has also represented the Twelve Apostles from the west from a point not recognised as either a lookout or accessible viewpoint.¹⁶ Arthur Streeton's 1932 oil-on-canvas 'Cliff and Ocean Blue' depicts an unidentified section of the Port Campbell limestone coast absent the Twelve Apostles.¹⁷

¹³ See <https://gallery.steveparish-natureconnect.com.au/shop/product/tumble-coast-ii/>, accessed 7 August 2019. See also <https://gallery.steveparish-natureconnect.com.au/shop/product/tumble-coast-ii/>, accessed 7 August 2019.

¹⁴ See <https://www.australiantraveller.com/vic/great-ocean-road/003-twelve-apostles-vic/>, accessed 1 August 2019. However, this is not a location usually accessible to visitors, as Duncan himself noted: 'People are not normally allowed onto this beach because of the penguin colony, but I was granted special permission and had to be accompanied by a ranger'.

¹⁵ See: <https://www.instagram.com/explore/locations/467804/the-twelve-apostles>, <https://www.instagram.com/explore/locations/218300166/12-apostles>, and <https://www.flickr.com/photos/tags/twelveapostles>—all accessed 1 August 2019.

¹⁶ See <https://www.frameshop.com.au/art-prints/australian-art/twelve-apostles>, and <https://www.australiantraveller.com/vic/great-ocean-road/003-twelve-apostles-vic/>, accessed 1 August 2019. See also <https://www.frameshop.com.au/art-prints/australian-art/twelve-apostles> and <https://www.australiantraveller.com/vic/great-ocean-road/003-twelve-apostles-vic/>, accessed 1 August 2019.

¹⁷ See <https://www.deutscherandhackett.com/auction/30-important-australian-international-fine-art/lot/cliff-and-ocean-blue-1932-also-known-port>, accessed 1 August 2019.



Figure 21. visitors at main viewing platform, Twelve Apostles. Image taken facing west, illustrating both the view and the difficult environment (cold, wind and rain) for visitors using the existing platform.

Supporting our approach that views from Gibson Beach ought to be considered (among others) under this criterion, representations of Gibson Steps in tourism information and digital media demonstrate that the view at sea level from Gibson Beach, particularly looking west in the direction of the 'Gog and Magog' limestone stacks and broadly in the direction of the site of the proposed action, is as prominent as that from the Gibson Steps Lookout.¹⁸

In light of the above analysis Table 3, below, sets out particular further considerations in relation to the views previously identified to better articulate the experience of these views. These will form part of the basis for our analysis of potential impacts at Part 4, below.

¹⁸ See <https://www.visit12apostles.com.au/attractions/gibson-steps>, <http://greateoceanroad.com/play/gibsons-steps>, and <https://www.instagram.com/explore/locations/222907565/gibson-steps>, accessed 7 August 2019.

Table 3. Identified views and particular considerations

View(s)	Particular considerations
All views from Great Ocean Road	Vehicle motion and direction of attention—the dynamic nature of driving and the demanding driving environment significantly diminishes the opportunity for sustained and detailed attention on particular subjects.
All views from Great Ocean Walk	<p>Winding and undulating nature of Great Ocean Walk, including impact of vegetation, means views toward site of proposed action are intermittent. However, the one-way walking direction (from east to west) until Gibson Steps and the walkers' likely knowledge and anticipation of the Twelve Apostles make it likely that their gaze is directed toward the site of the proposed action.</p> <p>The view from the Great Ocean Walk 'Walk Victoria's Icons' Lookout forms a prominent formalised viewpoint along the Great Ocean Walk, orienting walker's views in the direction of the proposed lookout, and for many walkers may be their first opportunity to sight the limestone stacks.</p>
Lookout points and pullovers beside or nearby Great Ocean Road	No vehicle pullovers beside Great Ocean Road in vicinity of proposed action. The only lookout directly nearby the road in the vicinity of the proposed action is the Gibson Steps lookout .
Gibson Steps	<p>View from Gibson Steps Lookout provides a panoramic 180+ degree view of the seascape and limestone cliffs. Visitors' gaze may be directed evenly, but limestone stacks 'Gog and Magog' likely to draw in westerly direction.</p> <p>Gibson Beach views likely to be drawn towards western direction toward 'Gog and Magog'. Tidal movements affect possible viewing location, particularly with effect of tidal swells during windy days. Views from intertidal area intermittently available.</p>
The Twelve Apostles (several viewing areas)	<p>Main viewing platform: views are drawn toward the 'classic view' of the Twelve Apostles to the west rather than the direction of the proposed action. Nevertheless, the direction of the proposed action forms part of the broader viewshed and becomes more prominent as visitors move east toward the saddle area.</p> <p>Smaller designated viewing area: views are again oriented toward the west toward the Twelve Apostles. The site of the proposed action again forms part of the broader viewshed and becomes more prominent as visitors turn to move south-east toward the saddle area.</p> <p>It is important to note that both of the above viewpoints are subject to intensive visitation and crowding during peak periods, with up to 1600 visitors during the peak hour of the day (see Figure 1, above). Such conditions significantly affect the available view experience.</p> <p>Note: the existing 'saddle' lookout and 'bunker' lookout, proposed to be decommissioned and removed as part of the proposed action, are subject to consideration at Part 4.3.4, below.</p>
Unspecified: 'The rolling rural landscape west of the Otway Ranges opens to the spectacular vista of the Twelve Apostles'	Suggestive of scenic journey by Great Ocean Road, but also potentially the Great Ocean Walk. Places importance on particular views toward site of proposed action from the east at points where Twelve Apostles may enter vista, including viewpoints two and three identified in Table 2.

View(s)	Particular considerations
Unspecified: 'Immediately inland along the rocky Port Campbell coast is coastal heath and scrub, swamp land and wetlands.'	Presence under this criterion suggests consideration of coastal heath and scrub as part of visual setting.

3.5 Criterion (g)

The National Heritage values under criterion (g) relate to the place having 'outstanding heritage value to the nation because of the place's strong or special association with a particular community or cultural group for social, cultural or spiritual reasons'. The values and attributes of particular relevance under this criterion are as follows:

The landscape is highly valued by many Australians, and has obtained iconic status. For many Australians, the Great Ocean Road is synonymous with tourism and holidays, with over 7 million visits by Australians to the Great Ocean Road region annually. Visitors are attracted to the iconic, spectacular scenery experienced on the scenic journey.

While the gazetted values make no specific reference to the Twelve Apostles, the Australian Heritage Council's assessment report specifies that:

The local community values the GOR and scenic environment for its tourism, memorial and iconic status, and it is also of great significance to the wider Australian community as a national icon, *particularly the Twelve Apostles* (Australian Heritage Council n.d., emphasis added).

The report further states:

The spectacular Twelve Apostles are easily identified by Australians as an iconic element of the southern Australian coastline. [...] The GOR and its major tourist drawcard the Twelve Apostles are as well recognised, visited and identified by Australians [as Uluru, the Great Barrier Reef Kakadu]. The GOR as a scenic drive is equally well recognised, and is intrinsically linked to the natural features of the adjacent coastline. (Australian Heritage Council n.d.)

The *Guidelines for the Assessment of Places for the National Heritage List* (Australian Heritage Council 2009, 42) note that criterion (g) shares wording and concepts with criterion (e). The *Guidelines* further state that this criterion is concerned with 'a strong or special association' between the identified community and the place, which 'will usually be enduring and contain a deep sense of ownership or connectedness' (43).

Excluding consideration of the Bells Beach component (which is not relevant for reasons stated in Part 3.2 above) the values and attributes under this criterion overlap considerably with the values under criterion (e) and, to a lesser extent, criterion (d). The iconic nature of the Great Ocean Road and scenic environs, and in particular the contribution of the Twelve Apostles to this, emanate from and rest on its aesthetic values experienced and interpreted through tourism and images in art, photography and digital media. An impact to values under criterion (e) may have an impact on values under this criterion; conversely, however, it would be very difficult to envisage impacts under this criterion that would not also impact and need to be considered

under criterion (e). In other words, given the close association between the aesthetic values of the place, and its special association with the Australian community, the impacts on the former can be taken to also constitute impacts on the latter.

4. Assessment of potential impacts on National Heritage values

4.1 Rationale for approach

This report follows the methodology set out in the *Significant Impact Guidelines* (see Appendix A). As noted in the preliminary assessment in Part 3.2, above, not all criteria demonstrate values and associated attributes of equal relevance to this assessment. Therefore, as done in Part 3, above, this Part begins with a brief assessment of impacts against non-critical criteria ((a), (b), (c), (d), (h)), followed by a more detailed assessment against criteria (e) and (g), as well as a consideration of any proposed measures to mitigate impacts. Having identified and assessed the impacts of the proposed action on the National Heritage values, and then considering measures to avoid or reduce impacts, these impacts are assessed as to whether they constitute a ‘significant impact’, as that term is understood in the EPBC Act and *Significant Impact Guidelines*, on the National Heritage values of the Great Ocean Road and Scenic Environs National Heritage place.

4.2 Impacts on Criteria (a), (b), (c), (d), (h)

As detailed in in Part 3.2, above, no attributes of criteria (a) and (h) are in the vicinity of the site of the proposed action, and therefore no values would be impacted by it.

Certain aspects of the attributes associated with values under criteria (b), (c), (d) may be impacted by the proposed action and are evaluated below. Parts of the *Significant Impact Guidelines* relevant to consideration of impacts to the values and associated attributes under these criteria are as follows:

National Heritage places with natural heritage values

An action is likely to have a significant impact on natural heritage values of a National Heritage place if there is a real chance or possibility that the action will:

Values associated with geology or landscapes

- damage, modify, alter or obscure important geological formations in a National Heritage place
- damage, modify, alter or obscure landforms or landscape features, for example, by clearing, excavating or infilling the land surface in a National Heritage place
- modify, alter or inhibit landscape processes, for example, by accelerating or increasing susceptibility to erosion, or stabilising mobile landforms, such as sand dunes in a National Heritage place

- divert, impound or channelise a river, wetland or other water body in a National Heritage place, and [*sic*—this is interpreted to mean ‘and/or’]
- substantially increase concentrations of suspended sediment, nutrients, heavy metals, hydrocarbons, or other pollutants or substances in a river, wetland or water body in a National Heritage place; permanently damage or obscure rock art or other cultural or ceremonial features with World Heritage values.

National Heritage places with cultural heritage values

An action is likely to have a significant impact on historic heritage values of a National Heritage place if there is a real chance or possibility that the action will:

Historic heritage values

- permanently remove, destroy, damage or substantially alter the fabric¹⁹ of a National Heritage place in a manner which is inconsistent with relevant values
- extend, renovate, refurbish or substantially alter a National Heritage place in a manner which is inconsistent with relevant values
- permanently remove, destroy, damage or substantially disturb archaeological deposits or artefacts in a National Heritage place
- involve activities in a National Heritage place with substantial and/or long-term impacts on its values
- involve the construction of buildings or other structures within, adjacent to, or within important sight lines of, a National Heritage place which are inconsistent with relevant values, and [*sic*—this is interpreted to mean ‘and/or’]
- make notable changes to the layout, spaces, form or species composition of a garden, landscape or setting of a National Heritage place in a manner which is inconsistent with relevant values.

Other cultural heritage values

- restrict or inhibit the continuing use of a National Heritage place as a cultural or ceremonial site causing its values to notably diminish over time
- permanently diminish the cultural value of a National Heritage place for a community or group to which its National Heritage values relate
- destroy or damage cultural or ceremonial, artefacts, features, or objects in a National Heritage place [...]

4.2.1 Criterion (b)

Criterion (b) values that could potentially be diminished by the proposed action include the rarity of the Port Campbell Limestone.

¹⁹ ‘Fabric’ means physical material including structural elements and other components, fixtures, fittings, contents and items with historic value.

The impact on the formation would be limited to removal of topsoil above the geology, and four 900 mm diameter, 20 m deep holes for poured concrete piles and four shallow pad footings. None of these actions would damage, modify, alter or obscure the Port Campbell Limestone geological formation. These minor changes would not constitute a significant impact on this value under the criterion.

4.2.2 Criterion (c)

Criterion (c) values and associated attributes that may potentially be impacted by the proposed action are related to the archaeological potential of construction workers' camps.

While some of the workers camps' locations are known, all of which are east of the Port Campbell National Park, limited knowledge exists of the specific locations of the majority of camp sites. However, they are thought to have been located in roadside areas. Although unlikely, it is possible that sub-surface disturbance as part of the proposed action would expose archaeological material culture associated with former camps.

There is low potential for the remains of a construction workers' campsite to be disturbed during sub-surface works. In any event, Parks Victoria proposes to ensure works involving sub-surface disturbance are monitored by a qualified archaeologist to ensure that should any historical archaeology be identified it would be appropriately recorded so that it might contribute to ongoing research outcomes. This is directly relevant to a consideration of impacts under this criterion, because it would reduce the risk that the action will 'permanently remove, destroy, damage or substantially disturb archaeological deposits or artefacts in a National Heritage place'. Given that the value specifically relates to the research potential of archaeological deposits, and that any disturbance would be undertaken in a manner consistent with this value (i.e. monitoring and recording by an archaeologist to ensure material culture and its context is available for further research), it is concluded that the proposed action would not significantly impact on criterion (c) values.

4.2.3 Criterion (d)

As noted in Part 3.3, above, the values and associated attributes under this criterion of relevance to the assessment are taken to refer to the experience of the journey, which is primarily undertaken by vehicle in motion with occasional stops, with the viewpoints and scenic lookouts as attributes (i.e. those available or immediately accessible from the Great Ocean Road). In this regard there is a significant overlap with criterion (e), assessed in Part 4.3, below.

Relevant views and impacts are discussed in detail in Part 4.3 below, where some impacts on some contributory views are identified (especially view locations 2, 3 and 5 in Figures Figure 25Figure 27Figure 31).

4.3 Impacts on Criterion (e)

Our analysis of impacts on criterion (e) values is set out below, beginning with a discussion of the specific methodology for assessing impact under this criterion, consideration of impacts on identified representative views, and impacts of loss of existing lookouts. Some impacts are identified.

4.3.1 Methodology for assessment under this criterion

To assess impacts on the aesthetic values and associated attributes under this criterion, a phenomenological/experiential understanding of the values and attributes articulated in Part 3.4, above, was combined with the central elements of a traditional 'landscape impact assessment' approach.

Regard was had to the *Guidelines for Landscape and Visual Impact Assessment* (LI and IEMA2013), and in particular the methodology for the assessment of visual effects (Chapter six). Components of this approach include:

- Establishing the visual baseline, including 'the area from which the development may be visible, the different groups of people who may experience views of the development, the viewpoints where they will be affected and the nature of views at those points' (p. 98).

(This has been done in Part 3.4 above, and baseline images from these views are included at Part 4.3.2, below.)

- Predicting and describing visual effects, including:
 - the nature of the view of the development (full/partial/glimpse) and proportion of development visible
 - distance of viewpoint from development, and attention of viewer given to it (e.g. 'whether as a result of its scale and proximity viewer would focus on it, or would be a small, minor element in a panoramic view')
 - whether view is stationary, transient or one of a sequence (as from a footpath or moving vehicle)
 - the nature of changes, including changes in existing skyline profile, creation of a new visual focus in the view, introduction of new, human-made objects, changes in visual simplicity or complexity, alteration of visual scale and change in the degree of visual enclosure (p. 112).

(This has been partially considered this in Part 3.4 above, and considered further in Part 4.3.2, below.)

- Assessing the susceptibility of people or groups of people to changes in views, and value attached to particular views, noting increased susceptibility to change includes:
 - 'People, whether residents or visitors, engaged in outdoor recreation, whose attention or interest is likely to be focused on the landscape and on particular views'
 - 'Visitors to heritage assets, or to other attractions, where views of the surroundings are an important contributor to the experience'
 - 'Where travel involves recognised scenic routes awareness of views is likely to be particularly high'
 - Recognition of the value attached to particular views, e.g. heritage assets, indicated through appearance in guidebooks, tourist maps or provision of facilities for their enjoyment, artistic representations (pp. 113-5)

(This has been partially considered this in Part 3.4, above, and considered further in Part 4.3.2, below.)

- Magnitude of visual effects, including:
 - Size or scale: ‘the scale of the change in view with respect to the loss or addition of features in the view and changes in its composition, including the proportion of the view occupied by the proposed development and the degree of contrast or integration with existing landscape elements,
 - Geographic extent: including angle, distance and extent of visible area.
 - Duration and reversibility (p. 115)

(This has been considered in Part 4.3.2, below.)

- Where visual effects are judged to be significant and adverse, proposals for mitigation (preventing/avoiding, reducing, offsetting or compensating for them) should be described, and the significant visual effects remaining after mitigation should be summarised as the final step in the process. (p. 116)

(This has been considered in Part 4.5, below.)

The Guidelines note that ‘there are no hard and fast rules about what makes a significant effect, and there cannot be a standard approach since circumstances vary’, and they make the observation that a ‘nationally [...] important landscape does not automatically have a high susceptibility to all types of change’ (p. 90). However, the following points of guidance are relevant:

- Effects on people who are particularly sensitive to changes in views and visual amenity are more likely to be significant
- Effects on people at recognised and important viewpoints or from recognised scenic routes are more likely to be significant
- Large-scale changes which introduce new, non-characteristic or discordant or intrusive elements into the view are more likely to be significant than small changes or changes involving features already present within the view.

4.3.2 Impacts on identified views

Having identified representative views and their view locations, further articulated through a number of considerations (in Parts 3.4.3 and 3.4.4 above), Extent Heritage considered the potential impact of the proposed action on these views. This was done through a combination of site inspection and analysis of photographs and photomontages, which enabled a direct comparison of the existing (‘baseline’) view and a representation of that view after completion of the proposed action, including the Proposed Saddle Lookout and associated infrastructure described at Part 1.2.3, above.

Each of the view locations was assessed in regard to two factors:

- its contribution to the National Heritage values of the place (rated as either significant, moderate or limited); and

- the impact of the proposed development on the view (rated as either low, moderate or high)

This then permitted an assessment of the overall impact of the proposed action on the place's overall heritage values, also having regard to mitigating factors.

The view locations for the following figures are illustrated in Figure 20 above and described above (in Table 2).

**Shipwreck Coast
12 Apostles Site**

**Photomontage 1
Existing view**



View location 1 - from 12 Apostles Lookout, facing south-west towards subject site

Photomontage created by:
SH - B.Arch

Images created using:
3ds max 2019, autocad 2019, adobe photoshop, illustrator & indesign cc 2018, vray 3

Method used to collect relevant data:
Photo locations obtained on site by Geocomp Consulting city ltd on the 22/11/18

Camera:
Canon EOS 50d, Digital SLR

Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
12.06pm on the 22/11/18

Photo taken at:
160cm above ground level

View location 1:
e: 682050 6490
n: 5718258 3260
rl: 47.6860

Approx. distance from the proposed structure
148m



project ref: 18.636
dwg no.: WA-001
date: 28/11/18
revision: P

hansen partnership pty ltd
melbourne | vietnam
level 4 135 melborton st
melbourne vic 3000
t 61 3 9654 8844 f 61 3 9654 8098
e info@hansenpartnership.com.au
w hansenpartnership.com.au

Figure 22. View location 1: existing view from Twelve Apostles main platform lookout, facing south-west towards site of proposed action.



View location 1 - from 12 Apostles Lookout, facing south-west towards subject site

Photomontage created by:

SM - B Arch
Images created using:
Sds max 2019, autocad 2019, adobe photoshop,
illustrator & indesign cc 2018, wray 3

Method used to collect relevant data:
Photo locations obtained on site by Geocomp
Consulting Pty Ltd on the 22/11/18

Camera:
Canon EOS 5Dx Digital SLR

Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:

12:05pm on the 22/11/18
Photo taken at:
150cm above ground level

View location 1:

663050 6490
5718258 3360
47 6860

Approx. distance from the proposed structure
148m



project ref: 18-030
dwg no.: V44-002
date: 29/11/18
revision: P

hansen partnership pty ltd
melbourne | vietnam
level 4 136 exhibition st
melbourne vic 3000
t 61 3 9654 8944 f 61 3 9654 8088
e info@hansenpartnership.com.au
w hansenpartnership.com.au

Figure 23. View location 1: photomontage of view from Twelve Apostles viewing platform after completion of proposed action.



View location 2 - from Great Ocean Road, facing south-west towards subject site

Photomontage created by:

SH - B.Arch

Images created using:

3ds max 2019, autocad 2019, adobe photoshop,

illustrator & indesign cc 2018, vray 3

Method used to collect relevant data:

Photo locations obtained on site by Geocomp

Consulting Pty Ltd on the 22/11/18

Camera:

Canon EOS 50k Digital SLR

Camera lens:

Canon EF 50mm f/1.8 USM

Photograph taken:

12.30pm on the 22/11/18

Photo taken at:

160m above ground level

View location 2:

e 682276.8460

n 5718261.8630

r 49.5800

Approx. distance from the proposed structure:

194m



project ref: 18.636

dwg no.: WA-004

date: 29/11/18

revision: P

hansen partnership pty ltd

melbourne | vietnam

level 4 136 exhibition st

melbourne vic 3000

t 61 3 9654 8844 f 61 3 9654 8988

e info@hansenpartnership.com.au

w hansenpartnership.com.au

Figure 24. View location 2: existing view from Great Ocean Road, facing south-west towards site of proposed action.

**Shipwreck Coast
12 Apostles Site**

**Photomontage 2
View of proposed development**



View location 2 - from Great Ocean Road, facing south-west towards subject site

Photomontage created by:
SH - B Arch

Images created using:
3ds max 2019, vrayc4d 2019, adobe photoshop, illustrator & indesign cc 2019, vray 3

Method used to collect relevant data:
Photo locations obtained on site by Giescomp Consulting Pty Ltd on the 22/11/18

Camera:
Canon EOS 5D4 Digital SLR

Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
12.50pm on the 22/11/18

Photo taken at:
165cm above ground level

View location 2:
e: 663276 0460
a: 5718261 8630
rl: 49 5600

Approx. distance from the proposed structure
18km



project ref: 16.036
dwg no.: VIA-005
date: 29/11/18
revision: 0

hansen partnership pty ltd
melbourne | westrum
level 4 126 melbton st
melbourne vic 3000
t 61 3 9654 8044 f 61 3 9654 8088
e info@hansenpartnership.com.au
w hansenpartnership.com.au

Figure 25. View location 2 photomontage of view from Great Ocean Road after completion of proposed action.



View location 3 - from Great Ocean Road, facing west towards subject site

Photomontage created by:

SH - B.Arch

Images created using:

3ds max 2019, autocad 2019, adobe photoshop.

Illustrator 19 and design cc 2019, vray 3

Method used to collect relevant data:

Photo locations obtained on site by Geocomp

Consulting Pty Ltd on the 22/11/18

Camera:

Canon EOS 5Dx Digital SLR

Camera lens:

Canon EF 50mm f/1.8 USM

Photograph taken:

12.33pm on the 22/11/18

Photo taken at:

160cm above ground level

View location 3:

e 682355.4950

n -5718166.4210

rt 58.1610

Approx. distance from the proposed structure:

223m



project ref: 18.636

dwg no.: VA-007

date: 29/11/18

revision: P

hansen partnership pty ltd

melbourne | victnam

level 4 136 exhibition st

melbourne vic 3000

t 61 3 9654 8844 f 61 3 9654 8088

e info@hansenpartnership.com.au

w hansenpartnership.com.au

Figure 26. View location 3 existing view from Great Ocean Road, facing west towards site of proposed action.



View location 3 - from Great Ocean Road, facing west towards subject site

Photomontage created by:
SH - B.Arch

Images created using:
S&S max 2019, autocad 2019, adobe photoshop, illustrator & indesign cc 2018, vray 3

Method used to collect relevant data:
Photo locations obtained on site by Geocomp Consulting Pty Ltd on the 22/1/18

Camera:
Canon EOS 50c Digital SLR

Camera lens:
Canon EF 50mm 1/1.8 USM

Photograph taken:
12:55pm on the 22/1/18

Photo taken at:
160cm above ground level

View location 3:
e: 682355.4950
n: 5718166.4210
rt: 50.1610

Approx. distance from the proposed structure
223 m



project ref: 18.036
dwg no.: 104-008
date: 29/1/18
revision: P

hansen partnership pty ltd
melbourne | victoria
level 4 138 exhibition st
melbourne vic 3000
t 61 3 9654 8844 f 61 3 9654 8088
e info@hansenpartnership.com.au
w hansenpartnership.com.au

Figure 27. View location 3 photomontage of view from Great Ocean Road after completion of proposed action.

**Shipwreck Coast
12 Apostles Site**

**Photomontage 4
Existing view**



View location 4 - from Great Ocean Walk, facing west towards subject site

Photomontage created by:
SA - S Arch

Images created using:
Sds max 2019, autocad 2019, adobe photoshop, illustrator & indesign cc 2018, vray 3

Method used to collect relevant data:
Photo locations obtained on site by Geocomp Consulting Pty Ltd on the 22/11/18

Camera:
Canon EOS 50D Digital SLR

Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
32.41m on the 22/11/18

Photo taken at:
160cm above ground level

View location 4:
e: 683445.5310
n: 5718187.0530
st: 54.3850

Approx. distance from the proposed structure
308m



project ref: 18-036
draw no.: VA-010
date: 29/11/18
revision: P

hansen partnership pty ltd
melbourne | westtram
level 4 138 exhibition st
melbourne vic 3000
t 61 3 9654 8844 f 61 3 9654 8088
e info@hansenpartnership.com.au
w hansenpartnership.com.au

Figure 28. View location 4: existing view from Great Ocean Walk, facing west towards site of proposed action.



View location 4 - from Great Ocean Walk, facing west towards subject site

Photomontage created by:
SH - B.Arch
Images created using:
3ds max 2019, autocad 2019, adobe photoshop,
illustrator & indesign cc 2018, vray 3
Method used to collect relevant data:
Photo locations obtained on site by Genscomp
Consulting Pty Ltd on the 22/11/18
Camera:
Canon EOS 50D Digital SLR
Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
12.41am on the 22/11/18
Photo taken at:
160cm above ground level

View location 4:
e: 663445.5910
n: 5718167.0530
rt: 54.3650

Approx. distance from the proposed structure
300m



project ref: 18.036
dwg no.: VA-011
date: 29/11/18
revision: P

hansen partnership pty ltd
melbourne | vietnam
level 4 136 exhibition st
melbourne vic 3000
t 61 3 9654 8844 f 61 3 9654 8088
e info@hansenpartnership.com.au
w hansenpartnership.com.au

Figure 29. View location 4: photomontage of view from Great Ocean Walk after completion of proposed action.

**Shipwreck Coast
12 Apostles Site**

**Photomontage 5
Existing view**



View location 5 - from Great Ocean Road, facing south-east towards subject site

Photomontage created by:
SH - 8 April

Images created using:
Site max 2019; aircad 2019; wibbe photoshop; illustrator & indesign cc 2018; wray 3

Method used to collect relevant data:
Photo locations obtained on site by Geocomp Consulting Pty Ltd on the 22/11/18

Camera:
Canon EOS 5Dc Digital SLR

Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
12.55pm on the 22/11/18

Photo taken at:
180cm above ground level

View location 5:
e: 862895, 6080
n: 5718755, 8830
rt: 58.2650

Approx. distance from the proposed structure
574m



project ref: 18.E06
dwg no.: VA-013
date: 29/11/18
revision: 0

hansen partnership pty ltd
melbourne | western
level 4 | 326 exhibition st
melbourne vic 3000
t 61 2 9854 8844 f 61 2 9854 8288
e info@hansenpartnership.com.au
w hansenpartnership.com.au

Figure 30. View location 5: existing view from the Great Ocean Road, facing south-east towards site of proposed action.



View location 5 - from Great Ocean Road, facing south-east towards subject site

Photomontage created by:

SH - S.Arch

Images created using:

3ds max 2019, autocad 2019, adobe photoshop, illustrator & indesign cc 2018, vray 3

Method used to collect relevant data:

Photo locations obtained on site by Geocomp Consulting Pty Ltd on the 22/11/18

Camera:

Canon EOS 50D Digital SLR

Camera lens:

Canon EF 50mm f/1.8 USM

Photograph taken:

12.55pm on the 22/11/18

Photo taken at:

160cm above ground level

View location 5:

e: 662885.6080

n: 5718755.0830

rt: 59.2850

Approx. distance from the proposed structure

574m



project ref: 18-036
dwg no.: VA-014
date: 29/11/18
revision: P

hansen partnership pty ltd
melbourne | vietnam
level 4 136 exhibition st
melbourne vic 3000
t 61 3 9654 8844 f 61 3 9654 8088
e info@hansenpartnership.com.au
w hansenpartnership.com.au

Figure 31. View location 5: photomontage of view from Great Ocean Road after completion of proposed action.

**Shipwreck Coast
12 Apostles Site**

**Photomontage 6
Existing view**



View location 6 - from Gibson Beach, facing north-west towards subject site

Photomontage created by:

SH - S.Arch
Images created using:
3ds max 2019, autocad 2019, adobe photoshop,
illustrator & indesign cc 2018, vray 3

Method used to collect relevant data:

Photo locations obtained on site by Geoscomp
Consulting Pty Ltd on the 22/11/18

Camera:

Canon EOS 50d Digital SLR

Camera lens:

Canon EF 50mm ƒ/1.8 USM

Photograph taken:

01:15pm on the 22/11/18

Photo taken at:

160cm above ground level

View location 6:

e: 682757.7580

n: 5717813.2730

rt: 3.0630

Approx. distance from the proposed structure

740m



project ref: 18 626
dwg no.: WA-016
date: 29/11/18
revision: P

hansen partnership pty ltd
melbourne | vietnam
level 4 126 exhibition st
melbourne vic 3000
t 61 3 9654 8844 f 61 3 9654 8088
e info@hansenpartnership.com.au
w hansenpartnership.com.au

Figure 32. View location 6: existing view from Gibson Beach, facing north-west towards site of proposed action.

**Shipwreck Coast
12 Apostles Site**

**Photomontage 6
View of proposed development**



View location 6 - from Gibson Beach, facing north-west towards subject site

Photomontage created by:

SH - B Ansh

Images created using:

3ds max 2019, autocad 2019, adobe photoshop, Illustrator & indesign cc 2018, vray 3

Method used to collect relevant data:

Photo locations obtained on site by Genscamp Consulting Pty Ltd on the 22/11/18

Camera:

Canon EOS 5Ds Digital SLR

Camera lens:

Canon EF 50mm f/1.8 USM

Photograph taken:

01.15pm on the 22/11/18

Photo taken at:

760cm above ground level

View location 6:

e: 683797.7580

n: 5177613.2730

el: 3.0630

Approx. distance from the proposed structure

740m



project ref: 18.636

dwg no.: VA-017

date: 29/11/18

revision: P

hansen partnership pty ltd

melbourne | vietnam

level 4 136 exhibition st

melbourne vic 3000

† 61 3 9654 8844 † 61 3 9654 8868

• info@hansenpartnership.com.au

www.hansenpartnership.com.au

Figure 33. View location 6: photomontage of view from Great Ocean Road after completion of proposed action.

**Shipwreck Coast
12 Apostles Site**

**Photomontage 7
Existing view**



View location 7 - from Great Ocean Walk Lookout, facing north-west towards subject site

Photomontage created by:
R. Urban & Regional Planning, M Urban Design

Images created using:
3ds max 2019, autocad 2019, adobe photoshop, illustrator & indesign cc 2018, vray 3

Method used to collect relevant data:
Photo locations obtained on site by Gescomp Consulting Pty Ltd on the 20/07/19

Camera:
Canon EOS 50D Digital SLR

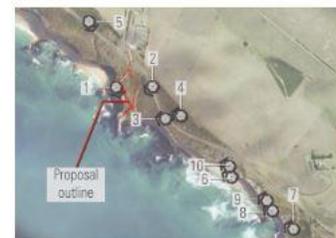
Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
2:24pm on the 20/07/19

Photo taken at:
160cm above ground level

View location 7:
e: 684137 8540
s: 5717496.0360
rt: 48.368

Approx. distance from the proposed structure:
1235m



project ref: 18.036
diag no.: VA-052
date: 07/08/2019
revision: 0

hansen partnership pty ltd
melbourne | victoria
level 4 136 exhibition st
melbourne vic 3000
t 61 3 9654 8844 f 61 3 9654 8888
e info@hansenpartnership.com.au
w hansenpartnership.com.au

Figure 34. View location 7: existing view from Great Ocean Walk 'Walk Victoria's Icons' Lookout, facing north-west towards site of proposed action.



View location 7 - from Great Ocean Walk Lookout, facing north-west towards subject site

Photomontage created by:
PI - B Urban & Regional Planning, M Urban Design

Images created using:
Site max 2019, autocad 2019, Adobe photoshop, Illustrator & Indesign cc 2018, vray 3

Method used to collect relevant data:
Photo locations obtained on site by Geocomp Consulting pty ltd on the 30/07/19

Camera:
Canon EOS 5Dx Digital SLR

Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
2,249m on the 30/07/19

Photo taken at:
160cm above ground level

View location 7:
e: 684137.9540
n: 5717496.0360
rk: 48.368

Approx. distance from the proposed structure:
1225m.



project ref: 18.636
dwg no.: VIA-053
date: 07/08/2019
revision: 0

hansen partnership pty ltd
melbourne | vietnam
level 4, 136 exhibition st
melbourne vic 3000
t 61 3 9654 8844 f 61 3 9654 8898
e info@hansenpartnership.com.au
w hansenpartnership.com.au

Figure 35. View location 7: photomontage of view from Great Ocean Walk ‘Walk Victoria’s Icons’ Lookout after completion of proposed action.

**Shipwreck Coast
12 Apostles Site**

**Photomontage 8
Existing view**



View location 8 - from Great Ocean Walk facing north-west towards subject site

Photomontage created by:
R. Urban & Regional Planning, M Urban Design
Images created using:
3ds max 2019, autocad 2019, adobe photoshop,
illustrator 6 and design cc 2018, vray 3
Method used to collect relevant data:
Photo locations obtained on site by Gascamp
Consulting pty ltd on the 20/07/19
Camera:
Canon EOS 50d Digital SLR
Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
2.33pm on the 20/07/18
Photo taken at:
180cm above ground level

View location 8:
e 684009 0990
n 5717607 2210
rl 40 004

Approx. distance from the proposed structure
100m



project ref: 18.026
dwg no.: WA-055
date: 07/08/2019
revision: 0

hansen partnership pty ltd
melbourne | vietnam
level 4 136 exhibition st
melbourne vic 3000
t 61 3 9654 8844 f 61 3 9654 8098
e info@hansenpartnershp.com.au
w hansenpartnershp.com.au

Figure 36. View location 8: existing view from Great Ocean Walk, facing north-west towards site of proposed action.



View location 8 - from Great Ocean Walk facing north-west towards subject site

Photomontage created by:
P. - B Urban & Regional Planning, M Urban Design

Images created using:
3ds max 2019, autocad 2019, adobe photoshop, Illustrator & indesign cc 2018, vray 3

Method used to collect relevant data:
Photo locations obtained on site by Geocomp Consulting Pty Ltd on the 30/07/19

Camera:
Canon EOS 5Dx Digital SLR

Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
2.35km on the 30/07/19

Photo taken at:
160cm above ground level

View location 8:
694009.0990
5717607.2210
dl: 40.004

Approx. distance from the proposed structure
1065m



project ref: 18.836
dwg no.: WA-056
date: 07/09/2019
revision: 0

hansen partnership pty ltd
melbourne | vietnam
level 4 136 exhibition st
melbourne vic 3000
t 61 3 9654 8644 f 61 3 9654 8086
e info@hansenpartnership.com.au
w hansenpartnership.com.au

Figure 37. View location 8: photomontage of view from Great Ocean Walk ‘Walk Victoria’s Icons’ Lookout after completion of proposed action.

**Shipwreck Coast
12 Apostles Site**

**Photomontage 9
Existing view**



View location 9 - from Great Ocean Walk, facing north-west towards subject site

Photomontage created by:
H - B Urban & Regional Planning, M Urban Design
Images created using:
3ds max 2019, autocad 2019, adobe photoshop,
illustrator & indesign cc 2019, vray 3
Method used to collect relevant data:
Photo locations obtained on site by Genscomp
Consulting pty ltd on the 30/07/19.
Camera:
Canon EOS 5Dc Digital SLR
Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
2.05pm on the 30/07/19
Photo taken at:
100cm above ground level

View location 9:
e: 662872.0960
n: 5717967.7150
r: 40.067

Approx. distance from the proposed structure
1000m.



project ref: 18.536
dwg no.: VA-058
date: 07/08/2019
revision: 0

hansen partnership pty ltd
melbourne: | vietnam
level 4 136 exhibition st
melbourne vic 3000
t 61 3 9654 8844 f 61 3 9654 8088
e info@hansenpartnership.com.au
w hansenpartnership.com.au

Figure 38. View location 9: existing view from Great Ocean Walk, facing north-west towards site of proposed action.



View location 9 - from Great Ocean Walk, facing north-west towards subject site

Photomontage created by:
FR - R Urban & Regional Planning, M Urban Design

Images created using:
Sds max 2019, autocad 2019, adobe photoshop, illustrator & indesign cc 2019, vray 3

Method used to collect relevant data:
Photo locations obtained on site by Geocomp Consulting Pty Ltd on the 30/07/19

Camera:
Canon EOS 50D Digital SLR

Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
2/36cm on the 30/07/19

Photo taken at:
150cm above ground level

View location 9:
e: 662972 0960
a: 5717667 7150
rl: 40.067

Approx. distance from the proposed structure
1000m



project ref: 16.036
dwg no.: 10A-019
date: 07/08/2019
revision: 0

hansen partnership pty ltd
melbourne | westrum
level 4 138 exhibition st
melbourne vic 3000
t 61 3 9654 8844 f 61 3 9654 8888
e info@hansenpartnership.com.au
w hansenpartnership.com.au

Figure 39. View location 9: photomontage of view from Great Ocean Walk after completion of proposed action.

**Shipwreck Coast
12 Apostles Site**

**Photomontage 10
Existing view**



View location 10 - from top lookout, Gibson Steps, facing direction north-west towards site

Photomontage created by:
TJ - B Urban & Regional Planning, M Urban Design

Images created using:
3ds max 2019, autocad 2019, adobe photoshop, illustrator & indesign cc 2018, vray 3

Method used to collect relevant data:
Photo locations obtained on site by Geocomp Consulting pty ltd on the 30/07/19

Camera:
Canon EOS 5Dc Digital SLR

Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
1.45km on the 30/07/19

Photo taken at:
165cm above ground level

View location 10:
663745.6690
5717878.2170
36.355

Approx. distance from the proposed structure
697m



project ref: 16.636
dwg no.: VAA-061
date: 07/09/2019
revision: 0

hansen partnership pty ltd
melbourne | vietnam
level 4, 1.35 exhibition st
melbourne vic 3000
t 61 3 9654 8844 f 61 3 9654 8298
e info@hansenpartnership.com.au
w hansenpartnership.com.au

Figure 40. View location 10: existing view from Gibson Steps Lookout, facing north-west towards site of proposed action.

**Shipwreck Coast
12 Apostles Site**

**Photomontage 10
View of proposed development**



View location 10 - from top lookout, Gibson Steps, facing direction north-west towards site

Photomontage created by:
P. B. Urban & Regional Planning, M Urban Design

Images created using:
3ds max 2019, autocad 2019, adobe photoshop, illustrator & indesign cc 2018, vray 3

Method used to collect relevant data:
Photo locations obtained on site by Gescamp Consulting Pty Ltd on the 30/07/18

Camera:
Canon EOS 5Ds Digital SLR

Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
1.45km on the 30/07/18

Photo taken at:
160cm above ground level

View location 10:
e 663745.6680
n 5717878.2170
rl 38.355

Approx. distance from the proposed structure
697m



project ref: 18.036
dwg no.: 18A.002
date: 07/08/2018
revision: 0

hansen partnership pty ltd
melbourne | westrum
level 4 136 exhibition st
melbourne vic 3000
t 61 3 9654 8844 f 61 3 9654 8808
e info@hansenpartnership.com.au
w hansenpartnership.com.au

Figure 41. View location 10 photomontage of view from Gibson Steps Lookout after completion of proposed action (fully obscured).

**Shipwreck Coast
12 Apostles Site**

**Photomontage 10
View of proposed development outlined in red**



View location 10 - from top lookout, Gibson Steps, facing direction north-west towards site

Photomontage created by:
R. B Urban & Regional Planning, M Urban Design
Images created using:
3ds max 2019, autocad 2019, adobe photoshop, illustrator & indesign cc 2018, vray 3
Method used to collect relevant data:
Photo locations obtained on site by Geocomp Consulting Pty Ltd on the 20/07/19
Camera:
Canon EOS 50D Digital SLR
Camera lens:
Canon EF 50mm f/1.8 USM

Photograph taken:
1.40pm on the 20/07/19
Photo taken at:
160cm above ground level
View location 10:
e: 683745.6680
n: 5717878.2170
rl: 36.355

Approx. distance from the proposed structure:
99m



project ref: 19.036
dwg no.: VA.063
date: 07/06/2019
revision: 0

hansen partnership pty ltd
melbourne | vestrum
level 4 136 exhibition st
melbourne vic 3000
t 61 3 9654 8844 f 61 3 9654 8888
e info@hansenpartnership.com.au
w hansenpartnership.com.au

Figure 42. View location 10 photomontage of view from Gibson Steps Lookout after completion of proposed action (fully obscured, indicative red outline).

4.3.3 Analysis and discussion

View location 1: from Twelve Apostles main platform lookout, facing south-west towards site of proposed action

This view location is the site of the ‘classic’ view of the Twelve Apostles, approximately north-west from this location. The view represented in Figure 22 is appreciated when visitors turn from the ‘classic view’ to the east to contemplate both the wider seascape and limestone form of Castle Rock and to follow the route of the viewing platform. Currently, the view includes the landform of Castle Rock with people and existing tourism infrastructure moderately visible along its ridgeline or (in the case of a further section of the viewing platform) raised on stilts. By comparison to the ‘classic view’ to the west, this view makes a lesser contribution to the values of the place and is secondary to the views west towards the Twelve Apostles.

After completion of the proposed action, it is important to note that visitor circulation would be reversed, such that visitors would approach this view location from the direction of the Proposed Saddle Lookout. It is likely that their attention would be captured by the emerging ‘classic view’ of the Twelve Apostles and the broader seascape to their left side. Only upon turning to view the direction from where they had come would the Proposed Saddle Lookout come into full view, replacing some of the existing tourist infrastructure and people along the ridgeline of Castle Rock. From this view, the Proposed Saddle Lookout would replace the existing viewing platform which is already prominent. From this view some of the sense of a seascape encompassing the entire coastline panorama would be reduced by the introduction of the Proposed Saddle Lookout but from the lookout itself, the seascape to both the east and west could be better appreciated in a more comfortable and less crowded environment.

This view makes a moderate contribution to the National Heritage values under this criterion. The impact of the proposed built form on this view would be moderate. This would be partly mitigated by the improved visitor experience that it would afford, including enhanced views from the lookout itself (compared to those of the existing arrangements). Other steps in mitigation of potential impacts to the place’s heritage values are described in Part 4.5 below.

View location 2: from Great Ocean Road, facing south-west towards site of proposed action

This view location is the closest point of the Great Ocean Road from the site of the proposed action. Currently, the view is dominated by coastal scrub and a strip of seascape, but makes only a limited contribution to views from the Great Ocean Road and no contribution to views to the Twelve Apostles. The viewer, being positioned in a moving vehicle or bicycle, would experience the view as one in a sequence, at up to 80 km per hour, although likely much slower during busy tourist periods, with no particular points of focus. Some visitors to the existing Twelve Apostles viewing areas may be visible above the scrub, but not prominently so.

After completion of the proposed action, the Proposed Saddle Lookout and part of its approach platform would be visible, with a view along the length of the south lookout. While not prominent, it would nevertheless read as a human-made structure in an otherwise (already somewhat compromised) natural landscape. It would be visible extending into part of the seascape. The concrete return loop path, whilst not itself visible from this view location, would bring visitors closer to this point, and likely increase their visibility from this view location.

This view makes a limited contribution to the National Heritage values of the place under this criterion. The impact of the proposed built form on this view would be low.

View location 3: from Great Ocean Road, facing west towards site of proposed action

This view location is the point at which westbound vehicle passengers may experience their first view of the Twelve Apostles. It is similar to view location 2, however, it offers a clear view of the eastern limestone face of Castle Rock against the seascape and catches a momentary glimpse of the upper part of some of the Twelve Apostles. These form focal points, the latter being particularly much anticipated although subtly emerging rather than suddenly revealed. Visitors may be visible in the landscape, but less so than from view location 2.

After completion of the proposed action, the Proposed Saddle Lookout would be a visible element between Castle Rock and the distant Twelve Apostles, particularly the cantilevered section of the south lookout, which would also obscure part of the seascape. This would represent the introduction of the first human-made structure in the view.

This view makes a moderate contribution to the National Heritage values of the place under this criterion. The impact of the proposed built form on this view would be moderate. (Steps in mitigation of the potential impacts to the place's heritage values are described in Part 4.5 below).

View location 4: from Great Ocean Walk, facing west towards site of proposed action

This view location represents one of the closest locations from which the site of the proposed action would be visible from the Great Ocean Walk. It shares many similarities with view location 2, with the exception of an existing blue road sign prominent against the seascape, and the fact that walkers would experience this at a slower speed or possibly as a static view.

After completion of the proposed action, the Proposed Saddle Lookout would become a visible but not prominent element in the landscape, with the south lookout appearing to rest on the coastal scrub in earthy tones. The lookout would be the first visible human-made structure in the landscape from this location, but its low position in the scrub, beneath views of the seascape, and its earthy colours, would make it an unobtrusive feature in the landscape.

This view makes a limited contribution to the National Heritage values of the place under this criterion. The impact of the proposed structure on this view would be low.

View location 5: view from the Great Ocean Road, facing south-east towards site of proposed action

This view location represents the view of eastbound vehicle travellers as they would approach the turn-off for the visitors' centre. The road itself forms a more prominent part of the view here, with the view again otherwise dominated by coastal scrub and seascape, offering panoramic perspectives of the coastal headlands and rolling hills to the south-east.

After completion of the proposed action, the Proposed Saddle Lookout would be a partially visible and unobtrusive element in the landscape.

This view makes a limited contribution to the National Heritage values under this criterion. The impact of the proposed structure on this view would be low.

View location 6: view from Gibson Beach, facing north-west towards site of proposed action

This view location is in the intertidal zone of Gibson Beach, and thus accessible to visitors only intermittently when tidal conditions and sea swells permit. It affords striking views of the limestone cliffs, ‘Gog and Magog’ stacks, and seascape. The beach offers multiple viewing locations, with the view represented at view location 6 close to the base of Gibson Steps, and thus very accessible when available.

After completion of the proposed action, a small cantilevered section of the south element of the Proposed Saddle Lookout would be visible from this view location. It would read as a horizontal and humanmade element extending perpendicularly from the vertical cliff face at a point where ‘Gog and Magog’ are viewed by contemporary visitors.

This view makes a significant contribution to the National Heritage values of the place under this criterion. The impact of the proposed structure on this view would be high. This would be partly mitigated by the colours proposed for the structure. Other steps in mitigation of the potential impacts to the place’s heritage values are described in Part 4.5, below.

View location 7: view from Great Ocean Walk ‘Walk Victoria’s Icons’ Lookout, facing north-west towards site of proposed action

This view location is the most accessible formal lookout along this section of the Great Ocean Walk, and with its elevated perspective, likely the first point from which the Twelve Apostles would be clearly visible. It provides a panoramic view of the seascape, limestone stacks and cliffs, including a glimpse of the topmost section of some of the Twelve Apostles stacks. It also represents a view of the Great Ocean Road itself winding through the coastal scrub. The many coastal headlands jutting into view offer a sense of scale and accentuate a sense of distance, and the limestone features can be seen in relief against one another in alternating light and shade.

After completion of the proposed action, the south lookout would become a prominent element in the middle distance when viewed from this point. Due to its regular lines and angles—when read against the irregular natural forms of the cliffs, stacks and headlands—it would be perceived as a clearly humanmade introduction into the otherwise natural landscape. This would be accentuated by its slight upward tilt when compared to the naturally downward trending ground surface. The built form would be situated in the viewers eye between the Gog and Magog stacks and their first glimpses of the Twelve Apostles.

This view makes a significant contribution to the National Heritage values of the place under this criterion. The impact of the proposed structure on this view would be high, although it is also from these long views that the creativity of the architect’s design might be best appreciated. Adverse impacts would be mitigated by a range of design responses described in Part 4.5 below.

View location 8: view from Great Ocean Walk, facing north-west towards site of proposed action

This view location represents a position on the Great Ocean Walk path itself that offers a slightly closer although similar view to that in view location 7, with a less panoramic sense of the distant coast, more emphasis on the coastal scrub in the foreground, the road, and a view of the Gibson

Steps carpark. 'Gog and Magog' are clearly visible and some of the Twelve Apostles stacks are partially visible. Being on the path, the view is likely to be momentary although experienced statically or at a slow pace. This view has already been partly compromised by other visible human-made elements.

After completion of the proposed action, the south lookout would become a clearly human-made element in the middle distance, adding to those that are already visible.

This view makes a moderate contribution to the National Heritage values of the place under this criterion, having been compromised to a degree by existing built form. The impact of the proposed structure on this view would be high, although it is also from these long views that the creativity of the architect's design could be best appreciated. The structure's prominence would be reduced by the use of sympathetic colours. Other design responses that would assist to mitigate any adverse impacts are described in Part 4.5 below.

View location 9: view from Great Ocean Walk, facing north-west towards site of proposed action

This view location is similar to view location 8, but the other existing human-made elements (the carpark and road) being somewhat less visible. The Twelve Apostles are partially visible and 'Gog and Magog' are clearly visible against the sea.

This view makes a significant contribution to the National Heritage values of the place under this criterion, only partially compromised by existing built form. The impact of the proposed structure on this view would be high, although it is also from these long views that the creativity of the architect's design might be best appreciated. The structure's prominence would be reduced by the use of sympathetic colours. Other design responses that would assist to mitigate any adverse impacts are described in Part 4.5 below.

View location 10: view from Gibson Steps Lookout, facing north-west towards site of proposed action

This view location offers a panoramic, 180-degree view of the limestone cliffs and stacks, beach, seascape and coastal scrub.

The Proposed Saddle Lookout and all associated elements would not be visible from this view location (see Figure 42).

This view makes a significant contribution to the National Heritage values under this criterion. The impact of the proposed structure on this view would be nil.

4.3.4 Impacts of loss of existing viewpoints

The proposed action would result in the loss of existing viewpoints at the Twelve Apostles viewing area. The existing saddle and 'Bunker' lookouts would be decommissioned, removed and remediated, along with most of the associated infrastructure including the pathway, palisade timber fencing and timber, steel and wire fencing.

Under criterion (e) the heritage citation notes the importance of the 'Twelve Apostles (several viewing areas)' in its observation that there are 'Lookout points for particularly significant

aesthetic experiences'. This text is clearly general in nature and reinforces the importance of viewing points along the Great Ocean Road as part of the visitor experience. This report concludes that the removal of the existing viewing facilities near Castle Rock would not constitute an adverse heritage impact given their proposed replacement with upgrade and improved viewing facilities (see Figure 43).

To put this another way, while the views from two existing lookouts make a significant contribution to the National Heritage values, they would be replaced and augmented by the proposed action with positive heritage outcomes.

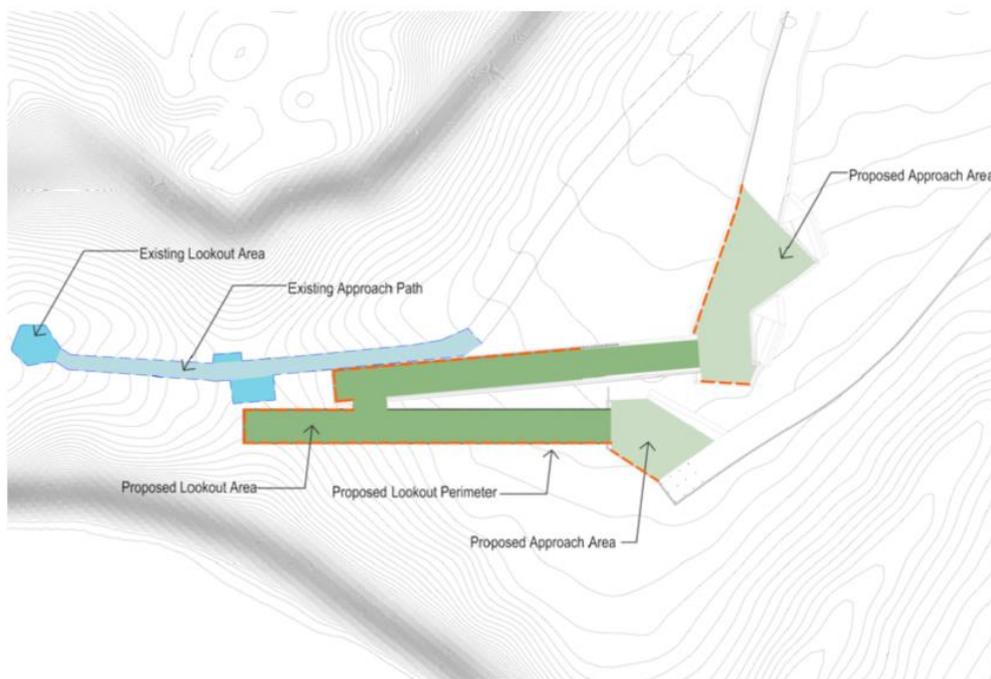


Figure 43. Comparison of proposed and existing lookouts.

4.4 Impacts on Criterion (g)

The values under this criterion relating to Bells Beach would be unaffected by the proposed action.

Given the close relationship between the aesthetic values of the Twelve Apostles and Great Ocean Road and their social, cultural and spiritual values it can be assumed that the proposed action would also have an impact on those latter values. It is difficult to quantify those impacts. No community consultation has been undertaken by Extent Heritage. However, we are aware that the proposed action has been well-publicised, including through and considered, including through community consultation pursuant to the *Shipwreck Coast Master Plan* in which it is specifically contemplated, consultation with the Office of the Victorian Government Architect, and in a formal workshop with the Victorian Design Review Panel (VDRP) which included Councillors and Senior Officers from Corangamite Shire Council. Some of this feedback was positive, including that from the Eastern Maar Traditional Owners, and critical comment was responded to in development of the mitigation approaches (set out below at Part 4.5).

Any adverse impacts to the social, cultural and spiritual values to the place would be offset by the introduction of innovative architectural design to the Great Ocean Road, replacing out-dated and inefficient viewing facilities that cause congestion and lessen the visitor (and community) experience.

4.5 Measures to avoid or reduce impacts—steps in mitigation

The *Significant Impact Guidelines* require assessors to ask:

3. Are there any proposed measures to avoid or reduce impacts on matters of national environmental significance (and if so, is the effectiveness of these measures certain enough to reduce the level of impact below the 'significant impact' threshold)?

This Part considers direct measures incorporated into the design of the proposed viewing platform to avoid or reduce the impacts of the proposed action.

It also describes the ways in which the Proposed Saddle Lookout itself represents a positive step in mitigation of those adverse heritage outcomes identified for some of the contributory views above.

4.5.1 Direct measures to reduce impacts

Any viewing facilities that replace the existing facilities will by their nature be visible from multiple locations, including many of those described in Figures Figure 22 to Figure 42 above. A viewing platform must achieve a level of elevation to afford visitors panoramic views. Given this circumstance, a decision has been made by the designers, in consultation with key stakeholders, to make the platform a creatively designed feature in the landscape rather than merely a dull, utilitarian element. As noted in Parts 1.2.3 and 1.3 above, this is consistent with world best practice and the master planning context for the region.

The Proposed Saddle Lookout would comprise human-made built form introduced into a natural landscape. In response to this:

- Non-reflective materials are proposed for the Proposed Saddle Lookout to minimise the structure's visibility in different light conditions.
- The colour palette that would be used would be drawn from the local geology and inspired by Aboriginal culture. The colour of the structure would blend with the cliff faces that it overlooks.
- Minimal lighting would be employed to ensure that the dawn and dusk experience is not impacted.

Additionally, in a conscious effort to distinguish the naturally irregular lines of the local topography from the humanmade built form, the structure would employ crisp straight lines and angles (visible in long and closer views), together with angled metal fins (visible in closer views). The structure's location and design would invite viewers to appreciate the vast scale of the natural features by reference to the smaller humanmade structure sitting lightly adjacent to

them. The starkness of its design also accords with the harsh environment in which it would be set. The Proposed Saddle Lookout represents a sensible and achievable balance between the need for new viewing facilities (that will have a level of visual impact regardless of their form), and a desire to complement the aesthetic values of the Great Ocean Road through innovative and considered design.

As noted in Part 1.2.3, the design was selected as the winning entry in a design competition, which included the Victorian Government Architect on the selection panel. It has been subject to ongoing development including evolution under the guidance of the OVGA and Victorian Design Review Panel.

In settling on the location of the Proposed Saddle Lookout consideration was given to a range of options. An earlier iteration that placed the Proposed Saddle Lookout closer to the promontory at Castle Rock was modified to minimise the intrusion of the proposed built form into contributory views (see Figure 44). Similarly, changes were made to the colour and materials of the proposed structure in response to public submissions made under the *Shipwreck Coast Master Plan* process.



Figure 44. Site plan showing site of Proposed Saddle Lookout (in pink) and previously considered location (in blue outline) (Image courtesy Denton Corker Marshall).

4.5.2 Proposed Saddle Lookout as a step in the mitigation of broader adverse impacts

The Proposed Saddle Lookout itself represents a positive step in the mitigation of broader existing and anticipated threats to the National Heritage values of the Great Ocean Road and Scenic Environs, particularly those relating to criterion (e). These threats include the

overcrowding and poor visitor access at the existing facilities resulting in a diminished experience of the place's aesthetic and social values.

The existing Twelve Apostles lookout areas comprise an intensively-visited tourist facility that has reached the end of its use life. The existing facilities are inadequate to the place's needs and make it difficult for the managers of the place to effectively transmit its heritage values to the Australian public and international visitors, which is a requirement of the National Heritage Management Principles under the EPBC Act. The removal of the existing facilities and their replacement with the Proposed Saddle Lookout would provide visitors with better views of critical vistas in a more pleasant environment. In this regard, it is noted that the Proposed Saddle Lookout would represent approximate increases of 330% in visitor capacity and 165% in available viewing perimeter. This would be a positive heritage outcome.

An important design consideration which is relevant to the transmission of heritage values was the need to provide for universal access and an 'equitable experience'. Whereas the existing saddle lookout presents significant accessibility issues for people using wheelchairs or with other mobility limitations, the Proposed Saddle Lookout has been designed to provide not only full accessibility but also equity of viewing experience for visitors of various ages and abilities. For example, design details include a combination of solid low-level balustrades, open full-height fins and glass balustrading in selected locations (See Figure 45 below). Furthermore, equitable access considerations extended beyond physical ability to encompass the differing visitation preferences of people from different cultural backgrounds. This was an important consideration for a site that hosts visitors from many cultural backgrounds.

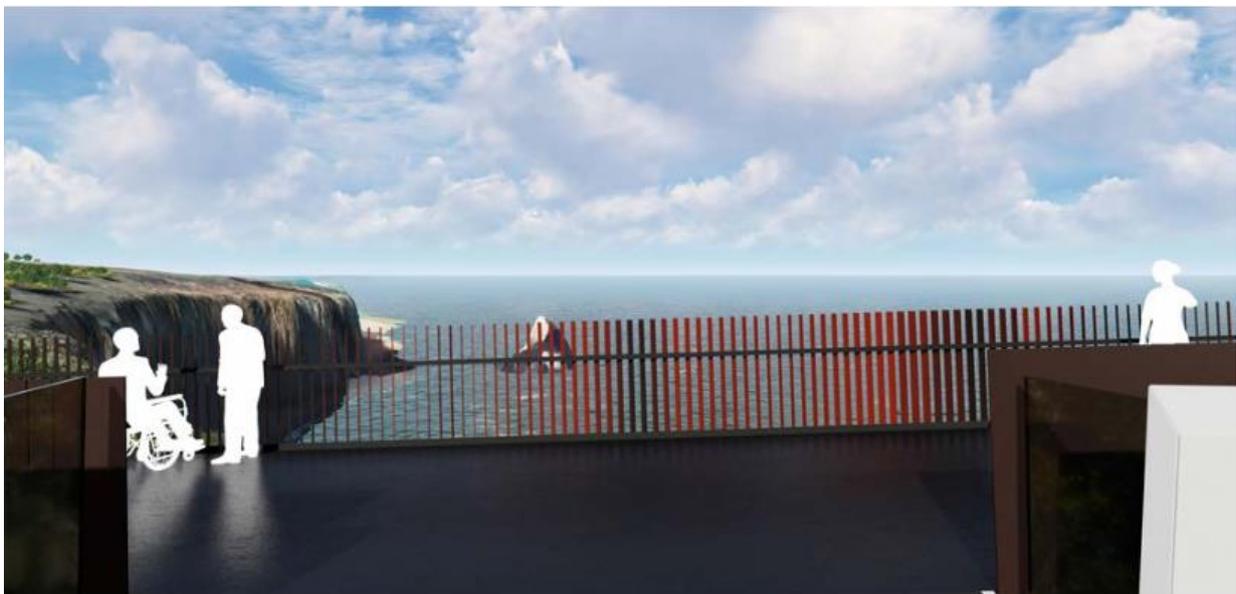


Figure 45. Architects modelling showing use of design features to enable an equitable viewing experience. (Image courtesy Denton Corker Marshall).

Another threat to the heritage values of the place includes the erosion of Castle Rock, both on a smaller scale, from visitor egress from existing facilities, and on a larger scale, from the natural weathering predicted to result eventually in the separation of Castle Rock from the mainland. The scale, location and cantilevering of the Proposed Saddle Lookout incorporates geotechnical

considerations to mitigate the effect of such future erosion, balancing the need to transmit heritage values to visitors with the need for robust and sustainable infrastructure that will alleviate known future risk.

5. Conclusion

The Significant Impact Guidelines stipulate that:

A 'significant impact' is an impact which is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends upon the sensitivity, value, and quality of the environment which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impacts (Department of Environment 2013).

This is a relatively low threshold, and can capture both an adverse impact and a positive impact. Fine architectural design that has a positive impact on a place might satisfy this criterion as being 'significant' in good ways.

The *Guidelines* further indicate that:

An action is likely to have a significant impact on natural heritage values of a National Heritage place if there is a real chance or possibility that the action will:

- damage, modify, alter or obscure important geological formations in a National Heritage place
- damage, modify, alter or obscure landforms or landscape features, for example, by clearing, excavating or infilling the land surface in a National Heritage place [...]

An action is likely to have a significant impact on historic heritage values of a National Heritage place if there is a real chance or possibility that the action will: [...]

- involve the construction of buildings or other structures within, adjacent to, or within important sight lines of, a National Heritage place which are inconsistent with relevant values, and [...]
- make notable changes to the layout, spaces, form or species composition of a garden, landscape or setting of a National Heritage place in a manner which is inconsistent with relevant values.

In light of the above considerations, there is a 'real chance or possibility' that the proposed action would:

- obscure landforms or landscape features in a National Heritage place when viewed from some locations that make a contribution to the place's overall heritage values. However, the proposed viewing platform would also enhance views and 'experiences' of other landforms and landscape features in the National Heritage place;
- involve the construction of buildings or other structures within, adjacent to, or within important sight lines of, a National Heritage place which are inconsistent with relevant

values, although these would be confined to only some locations and partly mitigated by sensitive design responses. Further, the proposed viewing platform would enhance other critical sight lines in the National Heritage place; and

- make notable changes to the ... form ... of a ... landscape or setting of a National Heritage place in a manner which is inconsistent with relevant values when viewed from some locations, while also improving the ability of visitors to appreciate the setting of the Twelve Apostles when viewed from it.

6. Bibliography

Arup. 2018. 'Shipwreck Coast—Stage One: Engineering Scheme Design.' Last modified 30 May 2018. Report prepared for Parks Victoria.

Australian Heritage Council. 2009. *Guidelines for the Assessment of Places for the National Heritage List*. Canberra: Department of the Environment, Water, Heritage and the Arts. <https://www.environment.gov.au/system/files/resources/8b50f335-42e8-4599-b5e0-ac643f75475f/files/nhl-guidelines.pdf>.

Australian Heritage Council. n.d. *Great Ocean Roads and Scenic Environs*. Final report. Canberra: Department of the Environment, Water, Heritage and the Arts. <https://www.environment.gov.au/system/files/pages/5f562eba-4627-458a-af03-428b159fda90/files/gor-assessment.pdf>.

Biosis. 2018. 'Shipwreck Coast Masterplan Stage One: Cultural Heritage Management Plan 15179.' Last modified 3 December 2018. Report prepared by L Bradley, D Mullaney, A Wood, P Liro, and I Berelov for Parks Victoria.

daveynin. n.d. 'Heading to Clingmans Dome.' Photo licenced under CC BY 2.0. Accessed 3 September 2019. <https://ccsearch.creativecommons.org/photos/3eee229d-6ff7-426f-9996-cbc85efd2a8a>, accessed 3 September 2019.

dconvertini. n.d. 'Stegastein, Aurlandsfjorden, Norway.' Photo licensed under CC BY-SA 2.0. Accessed 3 September 2019. <https://ccsearch.creativecommons.org/photos/3b1b001c-8b2b-45b8-9d2d-ac57545c87f2>.

Decisive Consulting Pty Ltd. 2016. 'Report on the Economic Contribution to Victoria of the Shipwreck Coast Visitor Opportunity.' Report prepared for Great Ocean Road Regional Tourism Ltd. <https://www.greatoceanroadtourism.org.au/download/economic-value-to-victoria-of-visitation-to-the-shipwreck-coast>.

Denton Corker Marshall, Arup, and McGregor Coxall. 2018. *Shipwreck Coast Stage 1 Design Development Report*. Report prepared for Parks Victoria.

Department of the Environment. 2013. *Matters of National Environmental Significance: Significant impact guidelines 1.1—Environment Protection and Biodiversity Conservation Act 1999*. Canberra: Department of Environment.

Department of Jobs, Precincts, and Regions. 2019. 'GeoVic.' Earth Resources. Last modified 5 August 2019. <https://earthresources.vic.gov.au/geology-exploration/maps-reports-data/geovic>.

ErWin. 2017. 'Corones 2017.' Photo licenced under CC BY-SA 2.0. Accessed 3 September 2019. <https://ccsearch.creativecommons.org/photos/f1da5831-1217-4de4-8c83-93e88805f47a>.

Gill, ED, and JG Lang. 1983. 'Micro-Erosion Meter Measurements of Rock wear on the Otway Coast of Southeast Australia.' *Marine Geology* 52:141–156.

Geoscience Australia. 2018. 'Stratigraphic Unit Details: Port Campbell Limestone.' Australian Stratigraphic Units Database. Last modified 20 August 2018. <https://asud.ga.gov.au/search-stratigraphic-units/results/15462>.

Hurley, F. (n.d.). *The Twelve Apostles Port Campbell Victoria [Viewed from the East]*. Photograph (digitised). Hurley negative collection, National Library of Australia. Accessed 1 August 2019. <http://nla.gov.au/nla.obj-160175556/view>.

Kirk Y (n.d.). 'DSCF0861.' Photo is licensed under CC BY 2.0. Accessed 3 September 2019. <https://ccsearch.creativecommons.org/photos/f992cab4-85d2-49a0-bd7a-864dd54ddab7>.

LI and IEMA (Landscape Institute and Institute of Environmental Management and Assessment) 2013. *Guidelines for Landscape and Visual Impact Assessment*. 3rd ed. London: Routledge.

Martin, LR, Jr. n.d. 'Skywalk at Grand Canyon West Ridge.' Photo licensed under CC BY 2.0. Accessed 3 September 2019. <https://ccsearch.creativecommons.org/photos/80c93aab-8baa-4523-8439-e1588589b6e6>,

Parks Victoria. 2015. *Shipwreck Coast Master Plan: Master Plan Report*. Kew, Vic: Parks Victoria.

Parks Victoria. 1998. *Port Campbell National Park and Bay of Islands Coastal Park Management Plan*. Kew, Vic: Parks Victoria.

Parks Victoria. 2017. *Shipwreck Coast Design Framework*. Kew, Vic: Parks Victoria.

Parks Victoria. 2019a. 'Parks Victoria's (PV) Response to the Department of the Environment and Energy (DEE) on Shipwreck Coast—Addendum to Self-Assessment.' Copy of report supplied by Park Victoria.

Parks Victoria. 2019b. 'Twelve Apostles and Lock Ard Gorge: 2018–2019 Summer Season Traffic Management Update: Final Report.' Report prepared for operational period 22 December 2018 to 30 April 2019. Copy of report supplied by Park Victoria.

Parks Victoria. n.d. 'Twelve Apostles.' Parks Victoria website. Accessed 23 July 2019. <https://parkweb.vic.gov.au/explore/parks/port-campbell-national-park/things-to-do/twelve-apostles>.

Planisphere. 2003. 'The Great Ocean Road Region Landscape Assessment Study: Precinct Package, Precinct 3.1 Port Campbell Coast and Hinterland.' Last modified September 2003. Report prepared for the Department of Sustainability and Environment.

Túrelío. N.d. 'AlpSpix Plattform Von Al্পspitzseilbahn.' Photo licensed under CC BY-SA 3.0. Accessed 3 September 2019. <https://ccsearch.creativecommons.org/photos/93ede1b2-5192-40a9-90c4-685aec736778>.

Urry, J, and J Larsen., 2011. *The Tourist Gaze 3.0*. 3rd ed. Los Angeles: Sage Publications.