Accessibility Audit

on

Inis Cealtra

For

Clare County Council

By

Evolve Technologies

Prepared by Mike Linnane, Ian Lambe & Ciara Linnane 16/08/2024

Approvals

Name	Date	Reason for Changes	Version
Mike Linnane	01/08/2024	1st Draft	V1.0

Changes

Name	Date	Reason for Changes	Version
Mike Linnane	04/11/2024	Final Version	V1.1

1. Introduction

1.1 Introduction

Holy Island, or Inis Cealtra, is a historically significant site located on Lough Derg in County Clare, Ireland. Renowned for its deep religious and cultural heritage, the island was a major early Christian monastic centre, established in the 7th century. Key features include a well-preserved round tower, ancient church ruins all of which contribute to its status as a spiritual and reflective destination. Accessible by boat, Holy Island remains an untouched environment, known for its historical integrity and its role in connecting visitors to Ireland's early Christian history.

In July, 2024, Clare County Council engaged Evolve Technologies to conduct an accessibility audit for Holy Island. The study will be guided primarily by Sport Ireland's outdoor accessibility guidelines, along with the Heritage Council's document on improving accessibility in historic places and the National Disability Authority's "Building for Everyone" document.

It is important to note the limitations on the types of works that can be undertaken on the island due to archaeological and ecological considerations. Any planned works must carefully balance the need for accessibility improvements with the preservation of the island's historical and environmental integrity.

1.2 Project Description

The island's natural landscapes and limited infrastructure present unique challenges due to the age and fragile nature of its archaeological sites. The study will assess access routes, including the jetty, pathways, and visitor facilities, focusing on identifying accessibility barriers while preserving the island's historical and natural integrity, ensuring it remains accessible to visitors without compromising its cultural significance.

While some sections of the planned trail network already exist, others remain undeveloped and impassable. Planned improvements include upgrades to the jetty, the addition of a shelter area, toilet facilities, staff facilities and the provision of new pedestrian mown paths. It is important to note that the island's trail network is part of a broader visitor experience, with amenities available in Mountshannon, such as a visitor centre, picnic areas, toilet facilities, and parking.

Initially, the project involved verifying ground conditions through survey systems, gradient analysis, and capturing 3D footage using GoPro technology. This data was then evaluated against relevant accessibility standards, resulting in this report outlining our findings.

1.3 Methodology

There are potentially three key guidelines to follow in this accessibility project. The first is the Sports Ireland Accessibility Guide, which focuses on creating accessible outdoor environments for all users, particularly people with disabilities. The second is "Improving the Accessibility of Historic Buildings and Places," which addresses the challenges of enhancing access to historical sites while preserving their integrity. The third is "Building for Everyone: A Universal Design Approach," which provides detailed recommendations for making various landscape types accessible using universal design principles.

The Sports Ireland Accessibility Guide highlights the importance of creating accessible outdoor environments, particularly for the 13.5% of the Irish population living with disabilities (Sport Ireland, 2019; Central Statistics Office, 2017). Developed in response to the UN Convention on the Rights of Persons with Disabilities (CRPD), the guide provides practical guidelines for making trails, parks, beaches, and waterways accessible to all. It emphasizes universal design principles to ensure usability for everyone, regardless of ability, and stresses the importance of consulting with people with disabilities in the planning process. The guide is supported by key Irish legislation, including the Disability Act 2005 and the National Disability Inclusion Strategy 2017/2021.

The "Improving the Accessibility of Historic Buildings and Places" guide emphasizes the importance of making historic sites accessible to everyone, recognizing them as valuable cultural, social, and economic assets. It acknowledges the challenges of adapting these sites, which were not originally designed with accessibility in mind, and stresses the need for a balanced approach that preserves the historic fabric while improving access. The document provides guidance on relevant legislation, practical advice on access strategies, and showcases successful case studies, laying a foundation for enhancing accessibility while maintaining the historic integrity of these sites.

The guidance on outdoor access in *"Building for Everyone: A Universal Design Approach"* emphasizes the need for outdoor environments that are accessible to all, regardless of physical abilities. It covers various landscape types—natural, tempered, urban, and tamed—and provides specific recommendations for each. Few people would expect to access wild landscapes alone, whereas a tamed (urban) landscape would be expected to be accessed independently. This distinction is also relevant for protecting the inherent character of each landscape type. The guide highlights the importance of universal design principles, firm and stable surfaces for paths, and accessible outdoor facilities like picnic areas and viewing points. It also stresses the need for clear signage, including tactile maps and braille, and regular, accessible seating along routes. Providing a well-designed visitor experience helps individuals navigate and understand the site more effectively, while preserving its natural and historical integrity. Incorporating detailed guides and information supports the principle of minimal intervention, enhancing accessibility through non-physical means and avoiding extensive environmental modifications. Overall, it advocates for thoughtful planning to ensure everyone can enjoy outdoor spaces.

1.3.1 Document Review

Certain accessibility features, like indoor circulation and lighting, are not relevant to the island due to its natural, outdoor setting. Similarly, facilities such as picnic areas, car parks and visitor information sgins are better managed by the planned visitor centre on the mainland given the island's minimal infrastructure. On the island, the focus is on ensuring accessible routes, clear signage, and carefully planned environmental alterations, such as a jetty or shelter pods, to accommodate all visitors while preserving the island's natural and historical integrity.

Please see below the sections identified as – "Not Applicable", "Dealt with in Mountshannon" and "Relevant to the Island" from the three documents. Where HC represents the Heritage Council, SP represents Sports Ireland, and UD represents Universal Design.

1.3.2 Summary of Not Applicable Sections

1. **Circulation Within the Building**: Guidelines related to indoor circulation, such as wide corridors, clear routes, and level floors, are not applicable, as they pertain to interior building environments, which do not exist on the island (HC).
2. **Lighting**: Recommendations for lighting within buildings, such as ensuring adequate levels of illumination, are also not applicable due to the lack of indoor spaces on the island (HC).
3. **Indoor Signage and Information**: Sections related to the availability of information in various formats, ease of reading labels, and marking of accessible routes inside buildings are not relevant in this outdoor, natural setting (HC).
4. **Tactile Surfacing**: The use of tactile ground surface indicators and tactile signage, typically used in more developed urban or indoor environments, is not relevant to the island's natural landscape (SI).
5. **Viewing Points**: Specific recommendations for designated viewing points, often involving built structures, are also marked as not applicable, as such facilities may not be necessary or feasible on the island (SI).

1.3.3 Summary of Elements Dealt with in Mountshannon

These elements are better suited to the more developed environment of the mainland, where full infrastructure and services can be provided to support visitors' needs before they explore the island.

1. **Facilities**: General public amenities such as accessible restrooms, drinking fountains, and seating areas are more suited to the mainland's developed environment where these services can be fully implemented. (HC).
2. **Pre-visit Information**: Pre-visit information, including detailed descriptions, maps, and accessibility guides, are managed on the mainland, ensuring visitors are well-informed before arriving at the island. (HC).
3. **Litter Bins**: Adequate litter management, including the provision of litter bins are to be maintained on the mainland, where infrastructure can support waste disposal services. (UD)
4. **Campsites and Caravan Parks**: The arrangement and accessibility of campsites and caravan parks, including amenities like fire points and accessible equipment, are addressed on the mainland.(UD)
5. **On-site Equipment**: It is planned, that equipment available on the island be at a minimum and where possible all other equipment be on the mainland . (SI)
6. **Picnic Areas** : Picnic areas, including accessible routes to these areas, are established on the mainland, where the terrain and infrastructure can better support such facilities. (SI)
7. **Playground Route**: Any routes to playgrounds, along with related accessibility considerations, are managed on the mainland, providing safe and easy access to these family-friendly areas. (SI)

1.3.4 Summary of Sections Relevant to the Island

These sections are crucial for ensuring that the island remains accessible and enjoyable for all visitors, while also preserving its natural and historical significance. The focus is on practical measures that can be implemented directly on the island to improve visitor experience and safety.

1. **Wayfinding and Signage** : Ensuring clear, high-contrast signs are placed consistently and provide directional and informative guidance. This is crucial for helping visitors navigate the island safely. Signage should be designed to be both accessible (e.g., tactile, braille) and sensitive to the historical landscape by using materials that blend with the environment. Note, an update to the existing OPW signage is planned along with additional safety signage. By implementing guided walks, using mown paths and providing paper maps, accessibility and navigation are enhanced, ensuring that visitors can safely and effectively explore the site while benefiting from clear and comprehensive information. (HC, UD,SI)
2. **Accessible** Establishing and maintaining accessible routes across the island, ensuring that pathways are firm, stable, and safe for all visitors, particularly those with mobility challenges. Recommended surface materials include compacted gravel, stabilized earth, or accessible boardwalks.(HC, UD,SI)
3. **Trail/Pathway Accessibility**: Evaluating the level of accessibility of trails and pathways, ensuring they are as accessible as possible, with considerations for gradient, surface material, and potential barriers. (SI)
4. **Rest Areas/Seating/Shelters/Toilets**: The provision of rest areas, shelters, and toilets is essential to improve accessibility, making the island more welcoming and accommodating for all visitors. Note, these amenities should be thoughtfully located to support visitor needs while maintaining sensitivity to the island's natural and historical character. (SI).
5. **Historic Site Accessibility** Ensuring that at least part of the historic site is accessible to visitors with disabilities. This includes providing accessible pathways to key viewing points while minimizing the need for interventions like ramps within the monuments themselves. (HC).
6. **Outdoor Access**: Assessing and improving outdoor access by providing information about the environment and services, ensuring that the natural landscape of the island is navigable and that visitors can enjoy the scenery safely. (HC)
7. **Signage for Landscape Types**: Providing clear information and signage for different landscape types on the island, ensuring that visitors are aware of varying terrain and any associated challenges. Note, it is envisaged that all terrain information will be provided on the mainland.(UD)
8. **Waterways Access**: Sport Ireland recommends jetties be at least 2000mm wide with 150mm raised kerbs and railings for safety. Non-slip, stable surfaces are essential, with gentle slopes and handrails where needed. Regular maintenance ensures accessibility and safety by keeping surfaces clean and hazard-free. (SI)

1.4 Landscape Types

The NDA guide categorizes landscapes into four main types:

1. **Natural Landscapes:** These include national parks, beaches, mountains, and other minimally altered areas. Accessibility in these spaces is often challenging, but where possible, new paths, signage, and facilities should be designed with universal access in mind.
2. **Tempered Landscapes:** These are semi-natural environments like country parks, historic sites, and woodlands, where human intervention has shaped the landscape. Accessibility in these spaces involves adding elements like universally designed paths, gates, and signage that do not compromise the natural or historical integrity of the area. Note, some challenging terrains are potentially part of the overall experience and often would not be visited alone.
3. **Urban Landscapes:** Fully human-made environments such as city parks and urban squares. These areas should be fully accessible, with pathways, signage, and facilities designed to accommodate diverse needs.
4. **Tamed Landscapes:** These include areas like playgrounds, sports grounds, and urban parks, where human intervention is dominant. Accessibility should be universal in these spaces, ensuring all amenities are usable by people with diverse abilities.

The island falls between the Natural and Tempered landscape categories. Most of the terrain is largely untouched, with paths that blend into the environment and historical remains, fitting the description of a Natural Landscape. However, the presence of historical sites and controlled pathways aligns it with the Tempered Landscape category.

1.5 Reference Documents

Sport Ireland, 2019. *Great Outdoors: A Guide for Accessibility*. [pdf] Available at: https://www.sportireland.ie/sites/default/files/2019-10/great-outdoors-a-guide-foraccessibility.pdf [Accessed 12 July 2024]

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Irish Wheelchair Association, 2014. *Best Practice Access Guidelines*. [pdf] Available at: https://www.iwa.ie/app/uploads/access-guidelines/best-practice-accessguidelines/3188_IWA_Best_Practice_Access_Guidelines_4.pdf [Accessed 12 August 2024].

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Central Statistics Office, 2017. *Census of Population 2016 – Profile 9 Health, Disability and Carers*. [online] Available at: https://www.cso.ie/en/releasesandpublications/ep/pcp9hdc/p8hdc/ [Accessed 12 August 2024].

Department of Justice and Equality, 2021. *National Disability Inclusion Strategy 2017-2021: Progress Report 2020*. [pdf] Available at: https://assets.gov.ie/162923/96990962-f41f-4844b784-e9ccf8cbfa42.pdf [Accessed 12 August 2024].

2. Field Work

2.1 Overview

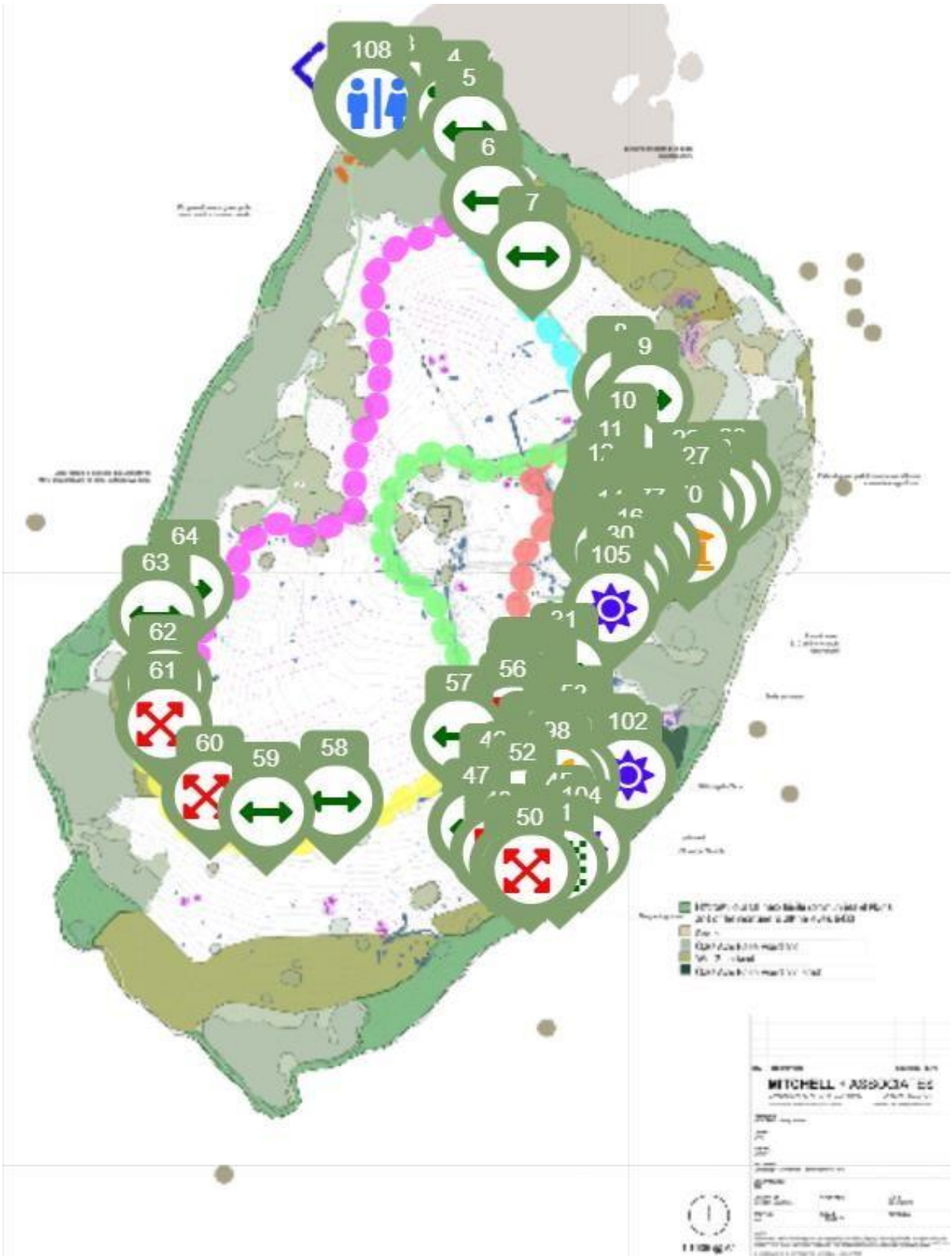
The proposed trail network on the island includes a looped walk complemented by several shorter interconnecting trails, along with dedicated paths leading directly to key monuments. While the island already has some existing paths, the new network aims to enhance accessibility while respecting the natural landscape and historical features. The trails have been divided into segments labelled P1-P12 to facilitate phased development and assessment. However, not all of these trails were fully surveyed due to dense areas of scrub that currently limit access.

Two site visits to Holy Island were conducted to complete survey work, gradient analysis, and capture GoPro footage. Following the initial accessibility surveys, detailed notes were compiled for each segment. Before carrying out the fieldwork, the map provided by the architects was georeferenced onto our surveying system to ensure precise orientation during the surveys. The path network was also loaded onto Locus Maps for accuracy during the fieldwork.

2.2 Sport Ireland Surveys

We conducted a Sports Ireland review using a number of predefined surveys for Trail Accessibility including a Water Way Access section for jetty accessibility. Certain sections of the path were not physically accessible due to dense vegetation .

We focused on key accessibility aspects such as trail width, gradient, surface stability, and overall safety. Each trail segment was carefully examined for accessibility, with detailed measurements taken as well as the condition and consistency of the surfaces. We also looked at the effectiveness of signage and information points to ensure they are clear and accessible for all users, including those with visual impairments. Hazard identification was another important part of our survey, as we assessed potential risks like uneven terrain, steep sections, and natural obstacles.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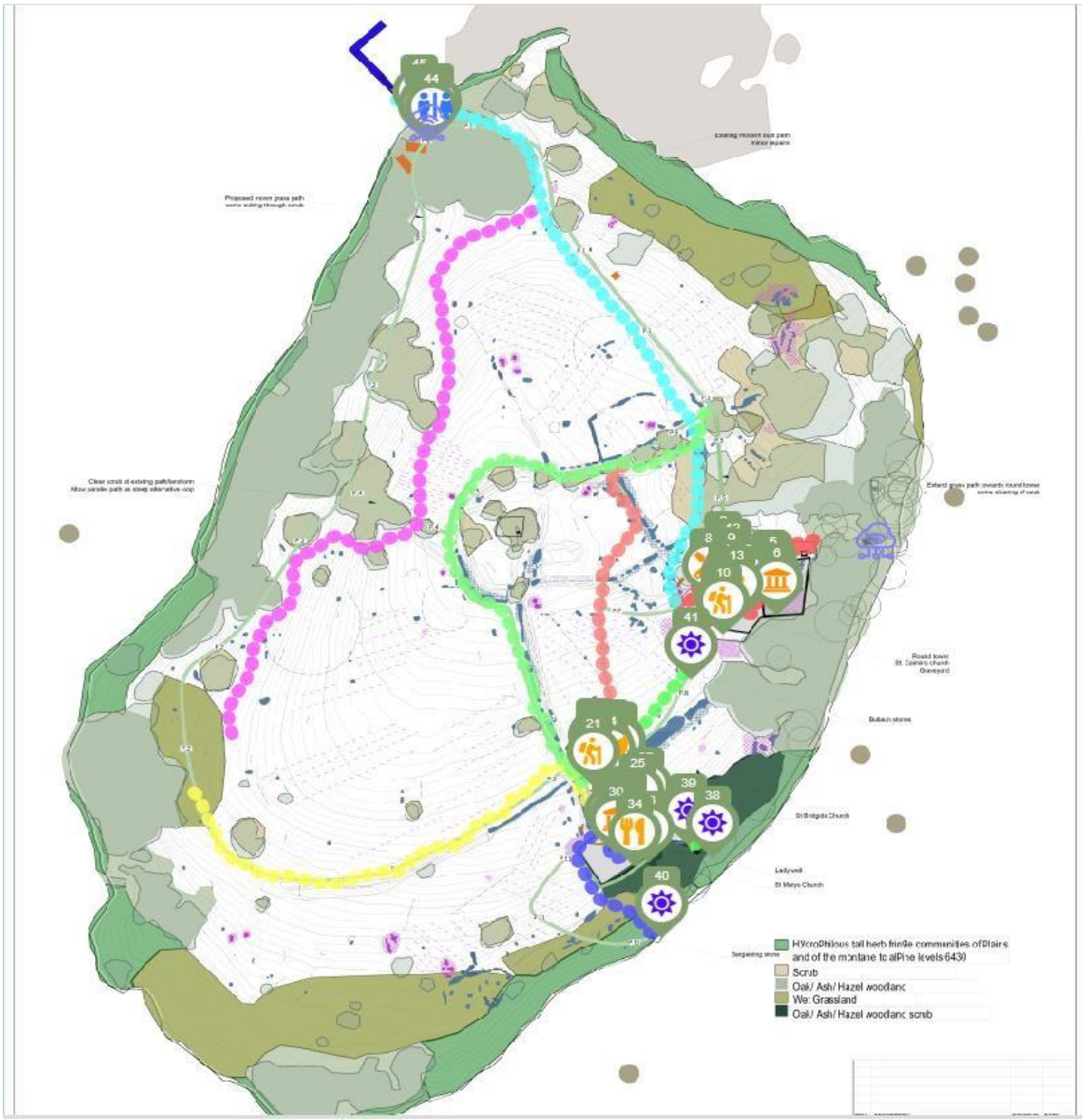
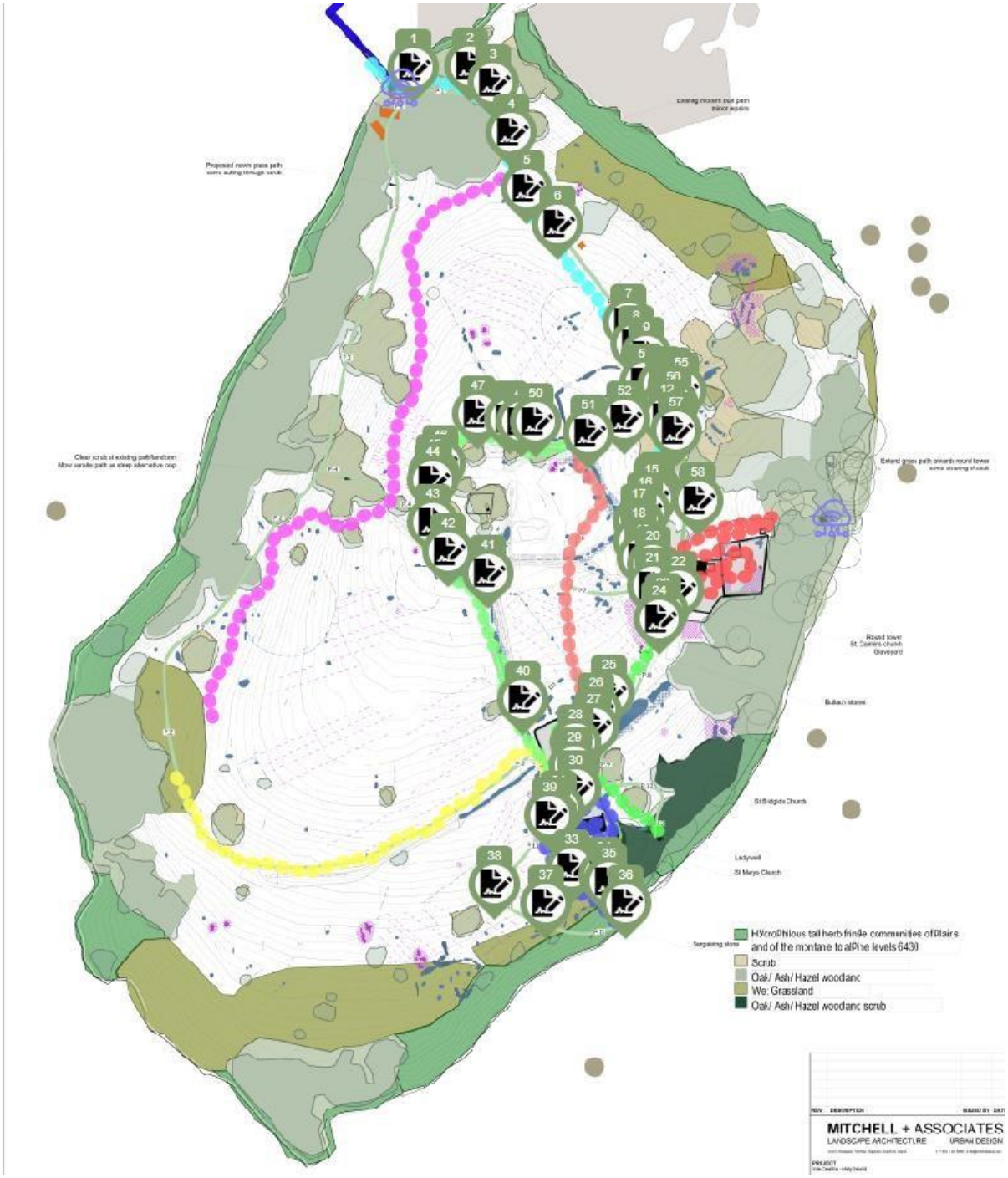
2.3 Heritage Access Surveys & Universal Design

We conducted detailed surveys based on the Heritage Council (HC) and National Disability Authority(UD) guidelines, focusing on both heritage preservation and outdoor accessibility. The assessments were carried out using predefined surveys designed to evaluate aspects such as outdoor access, viewing points, archaeological site preservation, and natural heritage areas. These were taken mostly around the monuments as the Sports Ireland surveys covered the Trail Network.



2.4 Gradient

Our approach to gradient surveying involved using the inclinometer on our surveying device and marking key points along the trail whenever a noticeable change in gradient occurred. At each section, we recorded the start and end coordinates (latitude and longitude) and took a gradient measurement at the midpoint. The sections varied in length, ranging from as short as 2 meters to as long as 69 meters, with an average section length of 14 meters. This method allowed us to capture detailed variations in gradient across the trails, leading to more accurate accessibility assessments. The back section of the looped walk was not completed due to dense vegetation.



The gradient analysis involved 58 readings across various trail sections, with gradients ranging from *multiaccess*, *challenging*, *exceptional circumstances* and *outside the criteria*. While the average gradient across the surveyed sections was relatively mild, though several steeper points were identified. For example, part of the main looped trail, includes steep sections with gradients reaching up to 14.6 degrees. Modifications are restricted due to the potential impact on archaeological remains, limiting accessibility improvements.

We also created a digital elevation model from a point cloud from OSI to do a more thorough review of the profiles. These are provided in Appendix 3.

1. **Trail Lengths and Average Distance:** The lengths of the gradient sections varied significantly, from as short as 2 meters to as long as 69.5 meters. The average section length was approximately 14 meters. Many sections were relatively short, reflecting the need to capture precise variations in gradient.

2. **Steep Sections and Potential Challenges:** Some sections exhibited steep gradients, notably a 14.6-degree (1:4) incline over a very short stretch with some sections having longer steeper gradients. These steep areas will pose challenges for users with mobility impairments and would normally require interventions such as smoother surfaces or gentler transitions however modification of gradients are not possible owing to archaeological sensitivities.

3. **Variations and Terrain Complexity:** The analysis revealed several areas with negative gradients (downhill), including -14.4 degrees and -13.9 degrees (1:4), indicating steep descents. The frequent changes in gradient, especially over short distances, highlight the varied terrain of the island, which will need careful management to improve accessibility.

4. **Overall Gradient Trends:** Most gradients fell within the 1 to 10-degree range (1:57, 1:6), making the trail relatively accessible in many areas. However, steeper sections would pose challenges for wheelchair users. Full access cannot be achieved in these sections due to the site's natural characteristics, its sensitivity, and the overall design objective to preserve the unique environment.

2.5 Go Pro Footage

To ensure comprehensive documentation and analysis of the island's trails and monuments, we captured 3D GoPro footage along all accessible paths and around key monuments. This approach allows us to review the site after our visit and cross-check the footage with the gradient measurements taken during our surveys. The 3D footage provides a detailed visual reference, helping us to assess trail conditions, identify potential hazards, and confirm key features such as gradient changes, surface stability, and the proximity of paths to heritage areas.

3. Analysis

3.1 Gradient

Gradient plays a crucial role in determining the accessibility and safety of trails, particularly for users with mobility challenges. Gentle slopes are essential to accommodate a wide range of visitors, from those using wheelchairs to those with limited stamina. Steeper gradients can present significant difficulties, often requiring additional features such as handrails, resting points, or even alternate routes to ensure all users can navigate safely.

The guidelines recommend maintaining a gradient below 1:21 for accessible trails, with steeper sections only used sparingly and designed carefully to avoid creating barriers for users. In heritage sites, managing gradient is particularly important to balance accessibility with the preservation of the historical landscape. Gradual slopes not only enhance user comfort but also help maintain the visual and environmental integrity of sensitive areas.

Please see the graphic below from Sports Ireland what is regarded as a multi access route along with the definition of a Challenging-Access Route.

→ **Level and sloping surfaces on Multi-Access Routes.**

The ideal situation for all sections of a multi-access trail is that it is completely flat - 0% gradient. Always choose the option of providing the least slope. The surface on Multi-Access Routes should be level. A surface gradient of 1:40 - 1:50 is considered level while allowing for drainage of surface water. Where slopes are unavoidable the gradient should always be as smooth as possible and no steeper than 1:21 (5%) for short distances i.e. no more than 10m in any one section and no more than 2 consecutive sections at any location. Ensure a 1500mm length landing is available between sections and provide handrails on both sides of the sloped ground.

Slopes that have a gradient steeper than 1:21 are considered ramps and require specific design elements including the provision of adjacent steps which are favoured by some people who have a mobility impairment. Section 7, page 104 of this guide gives design guidance for ramp design.

→ **Surface gradients on Challenging-Access Routes.**

These routes may be a bit undulating but should not have gradients any steeper than 1:15 (7%) for short distances i.e. a maximum length of 5m between landings with a maximum rise of 333mm in any one section. Ensure the availability of 1500mm length landings between sections and no more than 2 consecutive sections at any location.

A slope gradient of 1:15 (7%) is considered a ramp and therefore should include handrails/ adjacent steps etc. as described in Section 7 page 104. Some people may like to challenge themselves on more difficult routes and /or to use off-road mobility equipment.

A steeper slope gradient of 1:12 (8%) is not recommended and is only acceptable in very exceptional circumstances when no other options are available or possible and only for a very short distance i.e. a maximum length of 2m with a maximum rise of 166mm.

Our gradient survey of the island trails revealed a wide range of gradient conditions across different sections. Most of the segments were moderate however, some sections presented steeper gradients and were uncategorised. See Appendix 3. Normally, mitigation actions would be considered for these sections; however, adjustments are not feasible due to the site's natural characteristics, its sensitivity, and the overarching design objective to preserve the unique environment.

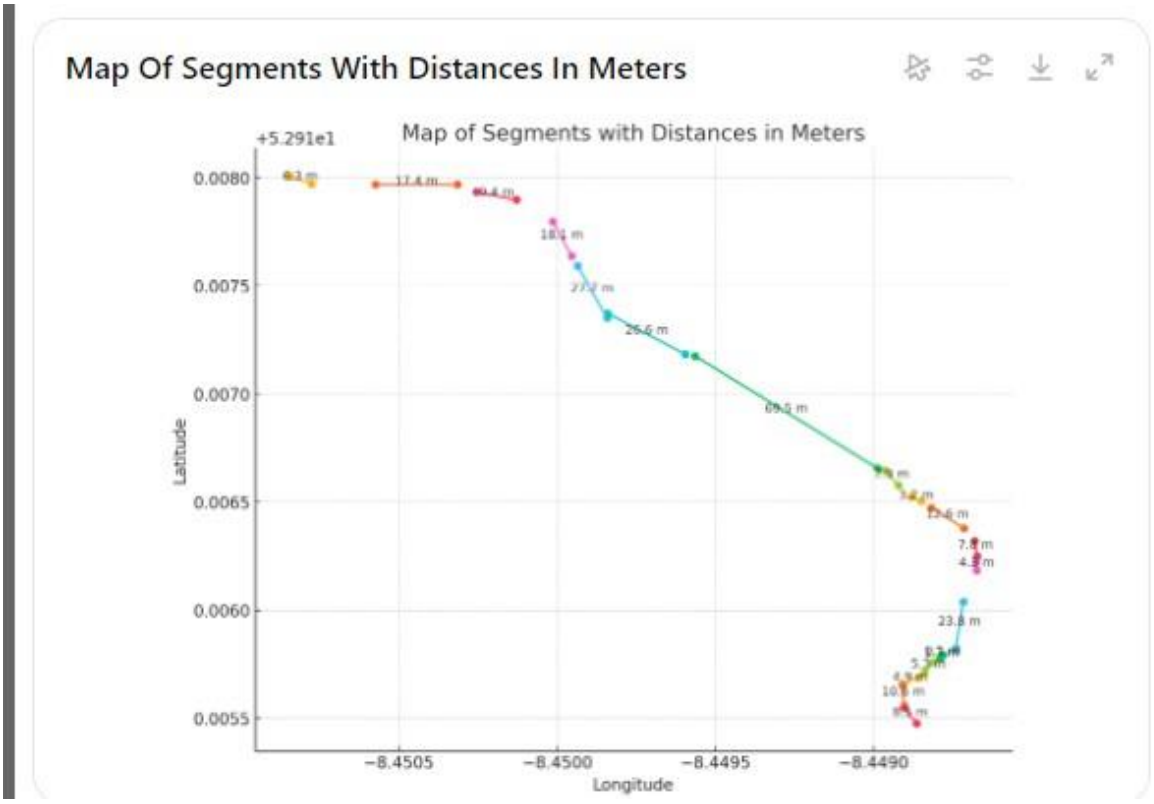
The distances covered by each section ranged from as short as 2 meters to as long as 69.5 meters. On average, the sections were approximately 14 meters in length, with the longer sections allowing

for smoother transitions between varying gradients. Negative gradients (declines) were also observed, with a few segments showing steep drops, such as -14.4 degrees.

As the trails network sits on a historical site, very little changes to the elevation are permitted as it could potentially disturb archaeological remains. From review, it can be determined that there is a mix of different gradients with a steep rise at the start followed by a steep fall to the bargaining stone for example. To this end see Appendix 2 where the gradients are grouped and classified against the Sport Ireland Accessibility guidelines (multi use, challenging use).

We carried out a double check to confirm the distance travelled using the go pro footage matched the gradients surveys collected while completing the survey and an example of the first section is attached below for reference.

Many trails on the island, particularly the main looped walk and paths like P11 leading to the Bargaining Stone, feature steep gradients and natural terrain. In some areas, inclines reach up to 14.6 degrees, posing challenges for visitors with mobility impairments. While gradient adjustments could enhance accessibility, altering these steep areas on Holy Island risks disrupting archaeological remains and altering the natural landscape. Given the sensitivity of this heritage site and the preservation-focused design objectives, extensive physical changes—such as adding handrails or levelling slopes—are not feasible. Consequently, these sections remain challenging, balancing accessibility with the essential goal of retaining the island's authentic historical character.



3.2 Elevation

Elevation profiles was also captured from the GroPro as we walked around the paths. These were included for completeness. The main profiles were generated from the OSI point cloud.

3.3 Surface Analysis

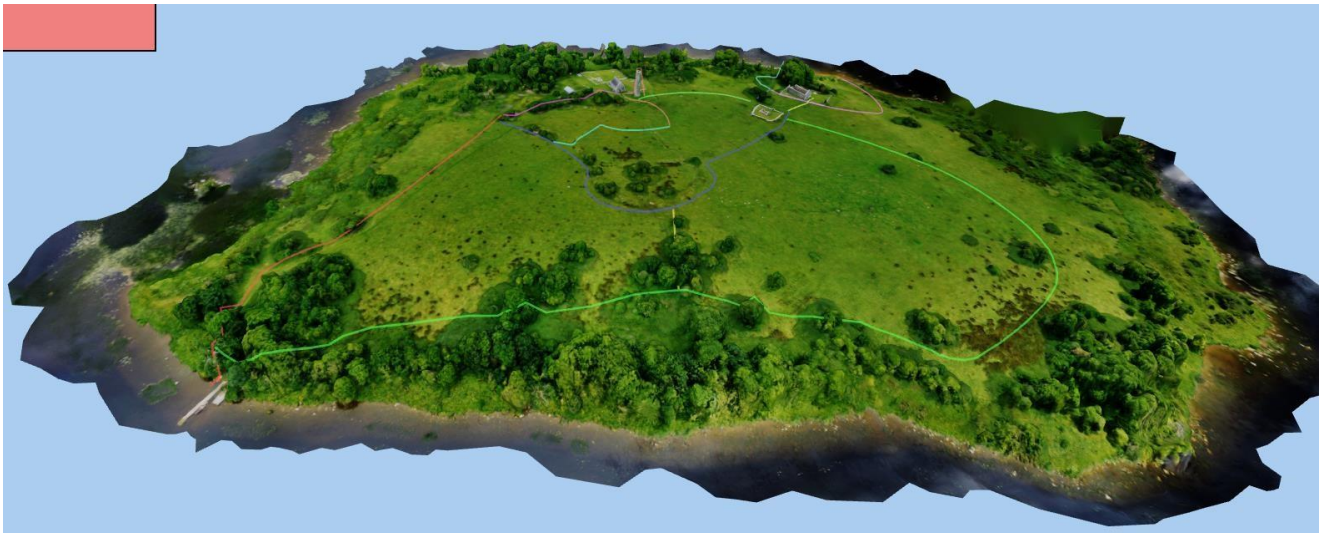
The dominant surface type on Holy Island is grass. According to the Irish Wheelchair Association, trail surfaces should be compact, non-slip, and free from erosion or flooding risks. Grass, however, is generally unsuitable for wheelchair users due to its instability and unevenness, which pose significant challenges for mobility. The soft, inconsistent nature of grass—especially when wet or worn—makes it difficult for wheelchair users to manoeuvre safely.

The island's natural terrain, coupled with its historical remnants and uneven surfaces, presents unique accessibility challenges, particularly due to grass-covered paths. Steep gradients can become especially hazardous when grass is wet or worn, reducing traction and heightening the risk of slips or loss of control, especially on descents. Ordinarily, grass would not be ideal for accessibility, especially for visitors relying on wheelchairs or mobility aids. However, the island's archaeological sensitivity prevents the installation of alternative surfaces, as this would require digging or layering materials that could disturb underlying historical artifacts. Additionally, introducing non-native materials would disrupt the island's natural aesthetic.

To mitigate these issues, maintaining mown paths offers a practical solution. By keeping the grass trimmed to an even level, the paths become more navigable, preserving both the natural and historical character of the island. Although mown grass does not fully resolve all accessibility challenges, it provides a necessary compromise, balancing improved access with the protection of the site's archaeological and natural integrity.

3.4 3D Model Creation

We developed a 3D model of the island to assist in our assessment, especially since some trails were either not navigable or not clearly marked. This model allowed us to remotely analyse challenging areas, assess gradient changes, and identify potential obstacles, providing a comprehensive view of the island's terrain.



4. Findings

4.1 Wayfinding and Signage

Our assessment of the island highlighted several significant issues related to wayfinding and signage. Currently, there is no formal signage in place to guide visitors, provide emergency information, or mark trailheads. The existing signs are primarily OPW information boards, many of which are worn and difficult to read. In some cases, the white backgrounds create glare, further reducing legibility. According to the Sports Ireland, Heritage Council, and NDA guidelines, effective wayfinding is crucial for ensuring that visitors, including those with disabilities, can navigate trails safely and confidently.

Although visits to the island will be guided, without clear wayfinding, visitors may struggle to navigate the paths, leading to confusion or even safety concerns, especially for those exploring unguided. (There is also the concept of leaving the visitor sometime to themselves to explore). This concern is particularly important given that some grass paths, trodden by sheep, do not form

part of the official trail network. The lack of legible, strategically placed signage represents a significant gap in the island's accessibility and visitor experience. According to best practices outlined in the guidelines, (1) wayfinding systems should be consistent and legible, (2) signage should be placed at decision points, (3) signs must have high contrast and be glare-free, and (4) signage should blend with the natural environment without compromising functionality.

Typically, an accessible trail would include regular signage to guide visitors, display emergency information, and offer route clarity for those unfamiliar with the terrain. On Holy Island, however, large-scale or prominent signage could detract from the natural environment and historical aesthetics, which are central to the visitor experience. To work within these limitations, the design proposes subtle wayfinding solutions, such as guided walks and paper maps. While these choices may not fully address traditional wayfinding needs, they adhere to the island's protected status and support the goal of preserving its heritage.

In summary, the planned guided tours, paper maps, along with updated OPW signage, will provide essential support for wayfinding. However, additional wayfinding posts or markers are not appropriate, as they are unfeasible due to the site's natural characteristics, its sensitivity, and the overarching design objective to preserve the unique environment.

4.4 Rest Areas/Shelter Pod/Toilets

The proposed planned additions of a public shelter area, compostable toilet, a number of rest areas and staff facilities for the OPW provide essential rest and comfort amenities for visitors, aligning with accessibility guidelines from Sports Ireland. These facilities provide key rest points while preserving the island's natural and historical integrity. The shelter area will serve as a resting spot, offering protection from the elements, while the compostable toilet ensures that necessary amenities are available without significant environmental impact. The warden's hut will not only provide a space for site management but also offer a point of contact for visitor assistance.

A number of rest areas are planned at strategic points, such as after a steep climb near the start of the walk Any new structures should be designed with inclusivity in mind while preserving the island's natural character.

4.5 Outdoor Access

As most visitors will participate in guided tours, safe outdoor access will primarily be managed through these tours. Guides will lead visitors along the trails, ensuring everyone can safely enjoy the island's natural landscape. In this context, there will be less reliance on signage or self-guided paths, as the guides will provide all necessary information about the environment and services during the tour. This approach allows visitors to explore the island with confidence, knowing that their safety is being overseen by experienced guides.

With regard to visitors who travel to the island out of hours arriving by kayaks or cruisers, note there will be no guided tours available and it is planned to discourage out of hours access. It is also important to note that the island is accessible currently via two main jetties and potentially several other landing points.

4.6 Additional Signage for Landscape Types

To ensure the island is accessible to all visitors, including the elderly and those with mobility challenges such as arthritis, it is essential to provide clear and informative signage regarding the varying terrain. The island features a number of steep gradients that can be particularly challenging, especially when descending. Additionally, the presence of historical remains means that paths follow the natural, uneven ground, creating potential trip hazards. Note advance information will be provided in the Visitor Centre to advise visitors of the steep and uneven sections, advising caution and offering alternative routes where possible. This will help visitors with mobility issues make informed decisions about their route, reducing the risk of accidents and ensuring a safer experience for everyone.

Although no additional physical signage is currently planned, a guide, mown paths along with a paper map would inform visitors about the various landscape types and gradients they may encounter

4.7 Waterways Access

The current jetty is very narrow and partial to overcrowding with 2 boats tied up (as was the case during our recent visit). There are no railings and the surface is uneven and unsuitable making it challenging for those with mobility impairments. Sport Ireland guidelines recommend jetties be 2000mm wide for accessibility, with 1500mm acceptable in narrower spaces. Railings and edge protection are advised in elevated areas, though specific heights aren't stated. Non-slip surfaces and safety features like life rings are essential, with gentle slopes around 1:12 for gangways. From initial review of the plans the main section of the new jetty is planned at being 4m wide by 21m long. It is important to consider the demographic of the type of visitor to the island along with their needs and that the surface and guardrails are suitable for each demographic.

4.8 Landscape Types Review

The primary challenges identified in our assessment relate to the natural grass surfaces and steep gradients, which pose obstacles for accessibility. In line with UD guidelines, these areas should prioritize stable, firm surfaces and universally designed pathways where interventions are necessary. Our findings emphasize the need for accessible routes, clear signage, and safe entry points, particularly for those exploring without guides. Given these factors, the island fits best under the Tempered Landscape category, where human intervention for accessibility improvements can be balanced with preserving the natural and historical integrity of the environment. Any physical alterations could potentially compromise the island's unique ambiance.

5. **Conclusion**

The accessibility assessment of the island highlights the unique challenges presented by its natural terrain and the need for strategic planning to ensure all visitors can safely and comfortably experience its attractions. The island's historic significance and natural beauty are key elements, but these qualities also create substantial obstacles, particularly for those with mobility impairments.

While the site has some steep gradients and uneven surfaces, the provision of mown grass paths and a number of well-placed seating areas on long or steep inclines will improve overall accessibility. The current use of grass as a primary surface material is unsuitable for standard wheelchairs and those with significant mobility challenges. Grass by its nature can be unstable, especially in wet conditions, and its uneven texture increases the risk of wheelchairs becoming stuck but by providing a well mown path with edging can increase its accessibility.

Although the island will be reasonably accessible after the planned works, wheelchair users would still require assistance to navigate certain areas..

Another key finding is the need for clear and informative signage. Due to the island's terrain and lack of formal wayfinding systems, visitors risk becoming disoriented or encountering unsafe areas without warning. The planned implementation of guided tours will significantly enhance overall accessibility to the island. These tours will provide structured guidance, making it easier for all visitors to explore and enjoy the site fully.

The proposed environmental enhancements, including a jetty, toilet, rest areas and shelter pod, must be planned with accessibility in mind. These facilities should be designed according to universal design principles to ensure they are easily accessible to all visitors, including those with mobility issues. By addressing these challenges and implementing these improvements, the island can enhance its visitor experience while preserving its natural and historical heritage.

Finaly, this audit underscores that several accessibility issues on Holy Island are unavoidable due to the nature and sensitivity of the site, as well as the design objective of minimizing intervention to preserve its historical, cultural, and natural integrity. The overarching goal of the project is to improve accessibility in ways that respect the island's archaeological significance and environment, resulting in certain design limitations where modifications could disrupt the island's character

6. Appendix 1 :Trails P1 to P12

The island currently has some paths on it. There are proposed trails which have been divided into P1-P12. Not all of these trails were possible to survey due to dense areas of scrub.

6.1 Main Trail Loop (P1, P2, P5, P8)

6.1.1 P1

This is the first part of the trail, which starts from the left of the pier and goes up hill towards Saint Caimin's Church. The path has a grass surface. P1 includes some parts of the existing trail and a new trail. The proposed trail runs through some areas of dense scrub, it was not possible to get through these areas to complete accessibility surveys. P1 ends at the junction between P1, P3 and P5. This area, part of the main looped trail, includes steep sections with gradients reaching up to 14.6 degrees. The path leading uphill to Saint Caimin's Church consists of uneven, grassy surfaces, making it challenging for wheelchair access. Modifications are restricted due to the potential impact on archaeological remains, limiting accessibility improvements. Access to sites like Saint Caimin's Church involves steps and stiles, making them impassable for wheelchair users.

Survey No.	Survey Name	Survey Findings	Survey Note	Survey Photo
1	Trails - 1. Trail/path way access 1	Multi-Access: Fully accessible trail : No Little or no gradient : Yes Flat /smooth surfacing i.e. concrete, tarmac, bitumen macadam. : No No steps : Yes Information and waymarking : No Challenging Access: Accessible but somewhat more challenging trail/ pathway : Yes More significant gradients at some locations, max 1:15 : Yes Surface may not be as firm e.g. use of gravel/quarry dust : Yes Trail may be narrower : Yes, No steps : Yes.	No waymarking present on the route, no information display about the overall accessibility of the trails. Overall - the trails are grass paths, have a gradual incline. There are some undulating parts of the paths. The path itself has no steps, however access in and out of the historic sites involves steps up + down.	 **Lat:** 52.9180 **Lon:** -8.4509

2	Trails - 5. Information 1	Is information on the site and the accessibility of the site/trail provided: online brochures, display boards, waymarking etc.? : No	No existing information on site regarding the accessibility of the trails. No waymarking present. There are display boards present, although some are in poor condition. The existing display boards are not accessible/readable to all. The font size and spacing is important to consider as well as the colour of the text and the background. Display boards should be readable from a sitting or standing position.	 **Lat:**52.9180 **Lon:**-8.4509
3	Trails - 7. Trail Width 1	7a. Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : No If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : No		 **Lat:**52.9180 **Lon:**-8.4505
4	Trails - 8. Guarding 1	Are railings or guarding positioned at all steep parts of a route, in places where the path is higher that the adjoining ground, along cliff edging and other hazards? : No	no guarding present	 **Lat:**52.9179 **Lon:**-8.4501

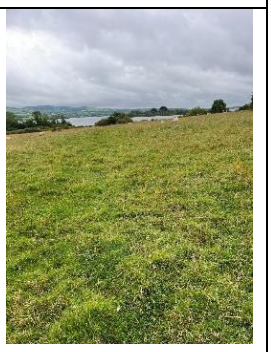
5	Trails - 7. Trail Width 1	Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : No, If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : No	177.8cm wide - The grass would be too long on the side of the path for a wheelchair user to pull in to allow another wheelchair user to pass by.	 **Lat:**52.9178 **Lon:**-8.4500
6	Trails - 7. Trail Width 1	Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : No , . If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : No	94cm wide trail narrows here	 **Lat:**52.9174 **Lon:**-8.4498
7	Trails - 7. Trail Width 1	Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : No, If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : No	84cm	 **Lat:**52.9171 **Lon:**-8.4495

8	Trails - 7. Trail Width 1	Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : No, If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : No	Here the trail is approx. 74cm wide, this is a narrow section of the trail.	 **Lat:**52.9164 **Lon:**-8.4487
108	Waterway - 3. WC facilities 1	Are there accessible WC facilities on-site? : No, 3b. Is there a Changing Place WC facility on-site? : No		 **Lat:**52.9179 **Lon:**-8.4509
109	Waterway - 8. Guarding 1	Are railings or guarding positioned at all steep parts of a route, in places where the path is higher that the adjoining ground, along cliff edging and other hazards? : No	No rails on pier or warning signs	 **Lat:**52.9180 **Lon:**-8.4510

110	Waterway - 10. Rest Areas/Seating/Shelters 1	Are rest areas/seating/ shelters provided at regular intervals i.e. at distances of 25-50m apart ? : No		 **Lat:**52.9180 **Lon:**-8.4508
106	Waterway - 9. Tactile Surface 1	Are tactile ground surface indicators provided where appropriate i.e. at route crossings within the built environment? : No		 **Lat:**52.9180 **Lon:**-8.4509
107	Waterway - 1. Waterway access 1	Multi-Access to Waterway sites : Fully accessible trail : No, Little or no gradient : Yes, Flat /smooth surfacing i.e. concrete, tarmac, bitumen macadam. : No, No steps : Yes, Information and waymarking : No. Challenging Access trail/ pathway : Accessible but somewhat more challenging trail/ pathway : Yes, More significant gradients at some locations, max 1:15 : No, Surface may not be as firm e.g. use of gravel/quarry dust : Yes, Trail may be narrower : No, No steps : Yes.		 **Lat:**52.9179 **Lon:**-8.4509

6.1.2 P2

P2 runs from Saint Brigid's Church and skirt around the edge of the island and links up with the start of P1 at the pier. P2 goes through some thick parts of scrub making it impossible to get through. There is no existing path there currently other than some paths created by the sheep.

Survey No.	Survey Name	Survey Check	Survey Note	Survey Photo
57	Trails - 7. Trail Width 1	Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : No, If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : No	The proposed trail runs through here, no clear trail present to measure the width.	 **Lat:**52.9144 **Lon:**-8.4501
58	Trails - 7. Trail Width 2	Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : No, If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : No	The proposed trail runs through here, no clear trail present to measure the width.	 **Lat:**52.9140 **Lon:**-8.4512
59	Trails - 7. Trail Width 1	Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : No, If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : No	The proposed trail runs through here, no clear trail present to measure the width.	 **Lat:**52.9140 **Lon:**-8.4518

60	Inaccessible 1	Section : P2	The proposed trail P2 runs through here. It's inaccessible.	 **Lat:**52.9141 **Lon:**-8.4523
61	Inaccessible 1	Section: P2	The trail P2 goes through these rushes, they are too thick to get through.	 **Lat:**52.9145 **Lon:**8.4527
62	Inaccessible 1	Section: P2	The trail P2 goes through these rushes, they are too thick to get through.	 **Lat:**52.9147 **Lon:**-8.4527
63	Trails - 7. Trail Width 1	Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : No, If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : No	The proposed trail runs through here, no clear trail present to measure the width.	 **Lat:**52.9151 **Lon:**-8.4528

64	Trails - 7. Trail Width 1	Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : No, If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : No	The proposed trail runs through here, no clear trail present to measure the width.	 **Lat:**52.9152 **Lon:**-8.4525

4.1.3 P5

P5 links P1 to the round tower at Saint Caimin's Church. This path has a slight incline and goes through scrub. There is an existing path almost adjacent to P5, this path had to be used whilst undertaking the surveys due to dense scrub along P5.

Survey No.	Survey Name	Survey Check	Survey Note	Survey Photo
9	Trails - 7. Trail Width 1	Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? NA	Attempted to follow the proposed trail, no trail to measure	 **Lat:**52.9163 **Lon:**-8.4485
22	Trails - 4. Access to trail/pathways 1	Is there level access from the parking area to the route/s leading to the trail/ pathways and to any on-site facility? : No	Stile with steps. Steps were 23 cm high (generally most of the new wooden stile steps are 23cm give or take). This is not on P5 but its close enough. Entry to the site requires navigating V-shaped stiles with steps, making it inaccessible for wheelchair users	 **Lat:**52.9158 **Lon:**-8.4481

14	Trails - 4. Access to trail/pathways 1	Is there level access from the parking area to the route/s leading to the trail/ pathways and to any on-site facility? : No	Access to Saint Caimin's Church via a V-shaped stile with steps up/down would be impossible for wheelchair user to navigate. There are 3 of these stiles to access the site. There is a gate beside the stile in the photo here, which could be used for alternative access.	 **Lat:**52.9154 **Lon:**-8.4488
15	Trails - 4. Access to trail/pathways 1	Is there level access from the parking area to the route/s leading to the trail/ pathways and to any on-site facility? : No	The gate was padlocked and only opened one way. The gate measured approx. 120cm wide.	 **Lat:**52.9155 **Lon:**-8.4488
16	Trails - 4. Access to trail/pathways 1	Is there level access from the parking area to the route/s leading to the trail/ pathways and to any on-site facility? : No	Entry to the site requires navigating V-shaped stiles with steps, making it inaccessible for wheelchair users	 **Lat:**52.9153 **Lon:**-8.4486

4.1.4 P8

P8 joins up the round tower at Saint Caimin's Church to Saint Brigid's Church. Two Bullaun Stones are located to the side of P8. This path exists currently and has some undulating parts.

Survey No.	Survey Name	Survey Findings	Survey Note	Survey Photo
30	Trails - 7. Trail Width 1	7a. Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : No 7b. If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : No	Approx 100cm wide	 **Lat:**52.9152 **Lon:**-8.4487
31	Trails - 7. Trail Width 1	7a. Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : No 7b. If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : No	111cm wide	 **Lat:**52.9148 **Lon:**-8.4492

105	Monument 1	Monument	Bullaun Stones	 **Lat:**52.9151 **Lon:**-8.4488
32	Trails - 4. Access to trail/pathways 1	Is there level access from the parking area to the route/s leading to the trail/ pathways and to any on-site facility? : No	Access into this site is uneven. The self-closing mechanism on the gate doesn't work fully, it almost closes but needs an extra push to shut properly. The gate is quite narrow (77cm wide + 175cm tall) and opens only one way.	 **Lat:**52.9146 **Lon:**-8.4495

6.2 Inter Connection Trails

6.2.1 P3

P3 starts at the junction between P1, P3 and P5. P3 loops around the centre of the island (and an area of scrub) and ends at Saint Brigid's Church. There was no existing path present along P3. The ground was flat and it was possible to walk P3.

6.2.2 P4

P4 is a short and straight part of the trail that links up P2 and P3. P4 goes directly through a thick part of scrub which was not possible to get through.

6.2.3 P6

P6 joins P3 to the P6, P8, P9 junction. There is no existing path here, but the proposed path was walkable (i.e. no scrub blocking the way). This section is relatively flat.

6.2.4 P7

P7 joins P6 to the round tower at Saint Caimin's Church. The path does not exist at the moment.

6.2.5 P9

P9 is very short and links up P8 and P11. It goes through dense scrub. It was not possible to take any surveys on P9 as a result.

6.2.6 P10

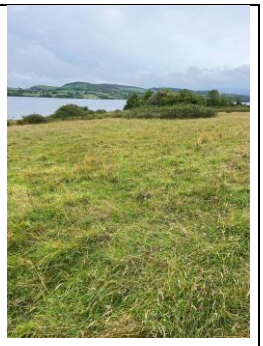
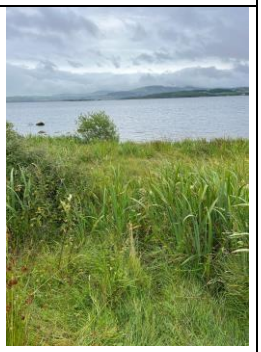
P10 joins P8 to P11 (i.e. Saint Brigid's Church and Saint Mary's Church).

Survey No.	Survey Name	Survey Check	Survey Note	Survey Photo
56	Hazard Identification 1	High, Medium or Low Hazard : High Describe the Hazard : Waymarkers Required Is the Hazard obstructing the path : No	Notes: Easy to get lost here due to the lack of waymarking.	 **Lat:**52.9145 **Lon:**-8.4496

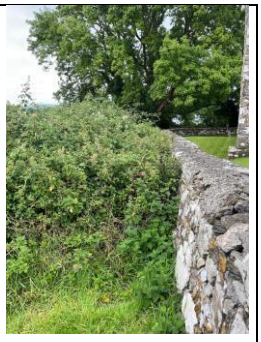
6.2.7 P11

Linking up Saint Mary's Church and the Bargaining Stone is P11. This path is mostly non-existent. There is an existing path which goes straight from Saint Mary's Church to the Bargaining Stone, this path overall was wide enough and had a bit of a decline/incline. The proposed path goes through an area of rushes and is a good bit longer compared to the direct route of the existing path. The path leading to the Bargaining Stone includes steep descents that pose accessibility challenges and are unsuitable for alteration due to the site's natural characteristics, its sensitivity, and the overarching objective to preserve the unique environment.

Survey No.	Survey Name	Survey Check	Survey Note	Survey Photo
44	Trails - 7. Trail Width 1	Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : No, If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : No	Measures approx. 1m wide	 **Lat:**52.9141 **Lon:**-8.4496

46	Trails - 7. Trail Width 1	Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : No, If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : No	The proposed trail runs through here, no clear trail present to measure the width.	 **Lat:**52.9141 **Lon:**-8.4498
47	Trails - 7. Trail Width 1	Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : No, If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : No	The proposed trail runs through here, no clear trail present to measure the width.	 **Lat:**52.9139 **Lon:**-8.4499
48	Hazard Identification 1	High, Medium or Low Hazard : Medium, Describe the Hazard : Rock, Is the Hazard obstructing the path : Yes	Following the proposed trail, this rock seems to be on the path. The rock is a trip hazard.	 **Lat:**52.9138 **Lon:**-8.4498
49	Trails - 7. Trail Width 1	Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : No, If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : No		 **Lat:**52.9137 **Lon:**-8.4496

50	Inaccessible 1	Section: 11	The proposed trail P11 becomes inaccessible here, the bush is too thick to get through.	 **Lat:**52.9137 **Lon:**-8.4495
51	Trails - 9. Tactile Surface 1	Are tactile ground surface indicators provided where appropriate i.e. at route crossings within the built environment? : No	The surface is very uneven here, there are mounds of grass which are easy to trip over.	 **Lat:**52.9137 **Lon:**-8.4492
52	Trails - 7. Trail Width 1	Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : Yes, If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : Yes	This is the existing trail down to the bargaining stone, it is plenty wide but a little steep.	 **Lat:**52.9140 **Lon:**-8.4495
38	Trails - 7. Trail Width 1	Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : No, If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : No	The width of the trail gets quite arrow around the border of the site. Measures approx. 33cm wide here.	 **Lat:**52.9144 **Lon:**-8.4492

53	Inaccessible 1	P11	The trail around the historic monument becomes impassable here	 **Lat:**52.9144 **Lon:**-8.4491
43	Hazard Identification 1	High, Medium or Low Hazard : Medium, Describe the Hazard : Rock Is the Hazard obstructing the path : Yes	There is a rock in the path here, not very obvious to the eye. Could be a potential trip hazard.	 **Lat:**52.9143 **Lon:**-8.4494
37	Trails - 4. Access to trail/pathways 1	Is there level access from the parking area to the route/s leading to the trail/ pathways and to any on-site facility? : No	This stile was the only type of access to the site It measured approx. 30cm wide and had a step up to it making it inaccessible for wheelchair users	 **Lat:**52.9143 **Lon:**-8.4492
36	Trails - 4. Access to trail/pathways 1	Is there level access from the parking area to the route/s leading to the trail/ pathways and to any on-site facility? : No	There are two potential points of access to this site. A stile and this gate. The gate is padlocked shut at the moment and measures approx. 127cm wide.	 **Lat:**52.9143 **Lon:**-8.4494

6.2.8 P12

P12 is accessed from P11/P9 and heads down to the holy well. There is an existing path down to the well, however P12 does not follow this path. P12 skirts around and goes through an area of scrub which was not possible to get through.

Survey No.	Survey Name	Survey Check	Survey Note	Survey Photo
39	Trails - 7. Trail Width 1	7a. Is the width of the trail/ pathway 2000mm to allow two people using wheelchairs to pass each other safely? : Yes 7b. If the trail/pathway is narrower than 2000mm are there passing places to enable two people using wheelchairs to pass each other? : Yes	The trail is wide here, more than enough space for two wheelchair users to pass each other.	 **Lat:**52.9144 **Lon:**-8.4490
54	Inaccessible 1	Section : P12	The proposed trail P12 becomes inaccessible here, the bush is too dense to get through.	 **Lat:**52.9144 **Lon:**-8.4491
102	Monument	Holy well steep access down to it		 **Lat:**52.9142 **Lon:**-8.4486

40	Hazard Identification	Data: select - High, Medium or Low Hazard : Low Describe the Hazard : Steep Is the Hazard obstructing the path : No	The trail becomes steeper here on the way down to the holy well. It would be difficult for people with mobility/balance issues to navigate.	 **Lat:**52.9142 **Lon:**-8.4487

7. APPENDIX 2 :Gradient Analysis

Please see below gradient analysis. Green correlates to multi accessible (no steeper than 1:21 – 5 degrees or less), Orange (no steeper than 1:15 - between 5 and 7 degrees) is regarded as challenging, 7 to 8 degrees (1:12) is allowable but for only short distances and grey is outside of categorisation. Note the 1st column is the P number. The blue colour denotes the main looped walk and the green denotes interconnecting trails and or trails around the monuments.

1:21 or Above (%)	Multi Access
1:15 to 1:21 (%)	Challenging
1:12 to 1:15 (%)	Steeper Slope
1:12 and Below (%)	No Category

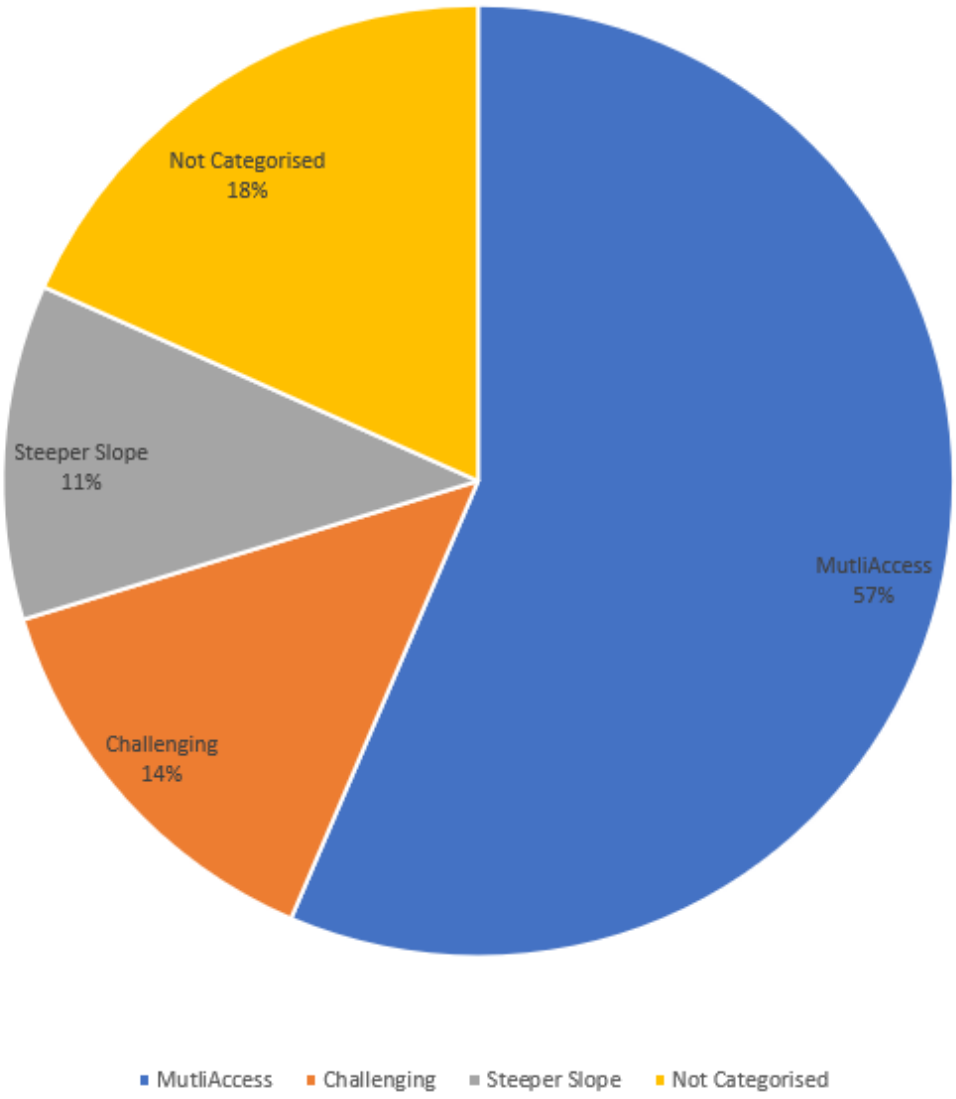
POS	created	1:X	DISTANCE	
1	25/07/2024 09:13	16.3	6.3	
2	25/07/2024 09:31	15.1	17.4	
3	25/07/2024 09:32	6.7	9.4	
4	25/07/2024 09:34	8.9	18.1	
5	25/07/2024 09:36	8.9	27.7	
6	25/07/2024 09:39	20.4	26.6	
7	25/07/2024 09:41	52.1	69.5	
8	25/07/2024 09:41	19.1	7.9	
9	25/07/2024 09:42	-10.6	3.2	
10	25/07/2024 09:43	-95.5	12.6	
11	25/07/2024 09:44	6.3	7.8	
12	25/07/2024 09:44	33.7	4.3	
13	25/07/2024 09:46	40.9	23.8	
14	25/07/2024 09:47	3.8	0.1	
15	25/07/2024 09:48	-3.9	1.7	
16	25/07/2024 09:48	52.1	5.3	
17	25/07/2024 09:49	3.8	4.9	
18	25/07/2024 09:50	-47.7	10.6	
19	25/07/2024 09:50	8.4	8.5	
20	25/07/2024 09:51	-4.0	6.1	
21	25/07/2024 09:52	-19.7	10.0	
22	25/07/2024 09:53	-15.5	10.4	
23	25/07/2024 09:54	71.6	12.8	
24	25/07/2024 09:55	11.7	5.7	
25	25/07/2024 09:56	114.6	43.2	
26	25/07/2024 09:57	21.2	10.4	
27	25/07/2024 09:58	-5.7	7.5	
28	25/07/2024 09:59	114.6	12.8	
29	25/07/2024 10:00	38.2	12.9	
30	25/07/2024 10:01	-71.6	11.3	
31	25/07/2024 10:03	-63.7	7.8	

32	25/07/2024 10:04	-6.9	2.9	
33	25/07/2024 10:05	-10.4	27.8	
34	25/07/2024 10:05	-11.9	15.0	
35	25/07/2024 10:06	-3.9	2.9	
36	25/07/2024 10:07	-10.4	5.7	
37	25/07/2024 10:25	3.2	8.2	
38	25/07/2024 10:27	7.7	19.9	
39	25/07/2024 10:28	n/a	n/a	
40	25/07/2024 10:30	15.1	45.4	
41	25/07/2024 10:37	14.7	54.4	
42	25/07/2024 10:39	47.7	19.4	
43	25/07/2024 10:41	38.2	19.6	
44	25/07/2024 10:42	-35.8	19.8	
45	25/07/2024 10:44	-5.5	1.7	
46	25/07/2024 10:45	-23.9	5.9	
47	25/07/2024 10:47	21.2	27.3	
48	25/07/2024 10:49	143.2	8.2	
49	25/07/2024 10:49	21.2	6.1	
50	25/07/2024 10:50	-8.3	7.6	
51	25/07/2024 10:51	9.8	11.2	
52	25/07/2024 10:53	2.7	8.0	
53	25/07/2024 10:57	-15.1	29.1	
54	25/07/2024 10:58	-11.4	10.6	
55	25/07/2024 11:04	4.3	7.2	
56	25/07/2024 11:05	-71.6	8.5	
57	25/07/2024 11:07	4.7	8.7	
58	25/07/2024 11:12	114.6	14.4	

8. APPENDIX 3: Elevation Analysis

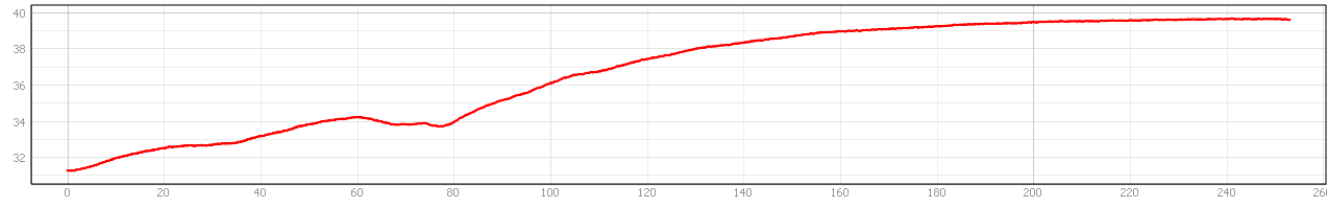
As an exercise, we took P1 and broke it down to .5m segments for Wheel Chair users we then categorised them into Multi Access, Challenging, Exceptional Circumstances and Not Categorised. We got the following number of data points – which corelates to the below table and pie chart.

Multi Access	Challenging	Steeper Slope	Not Categorised
228	56	46	74

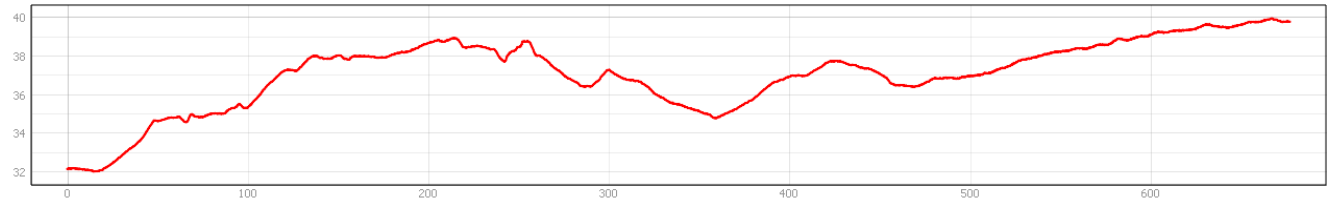


See below the following path profiles for information.

P1

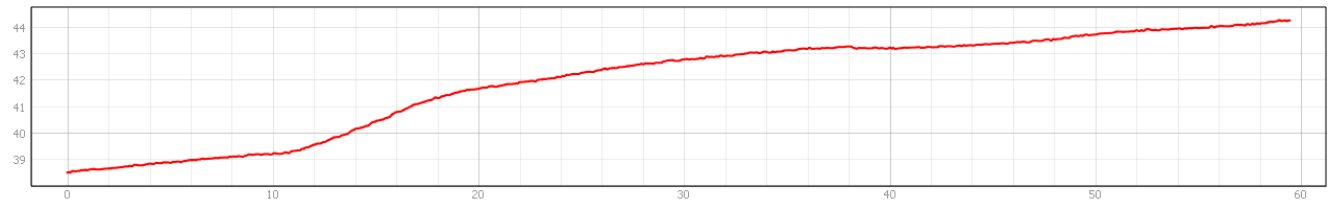


P2

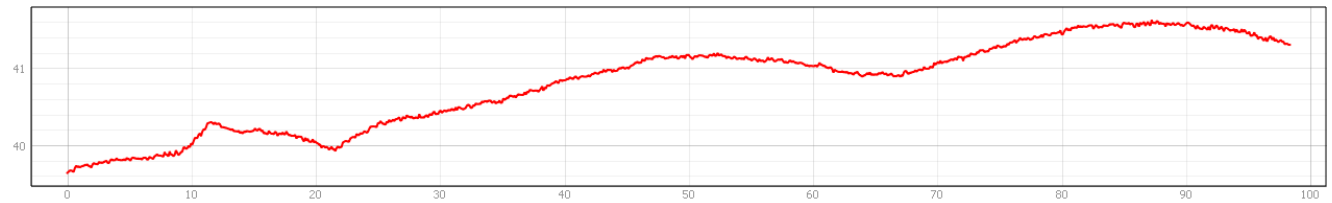


P3

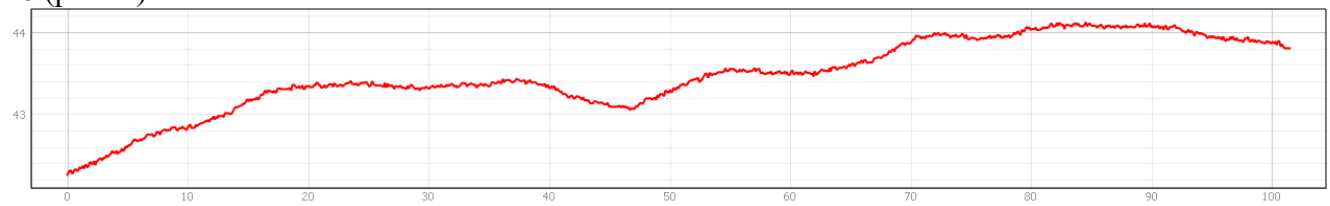
P4



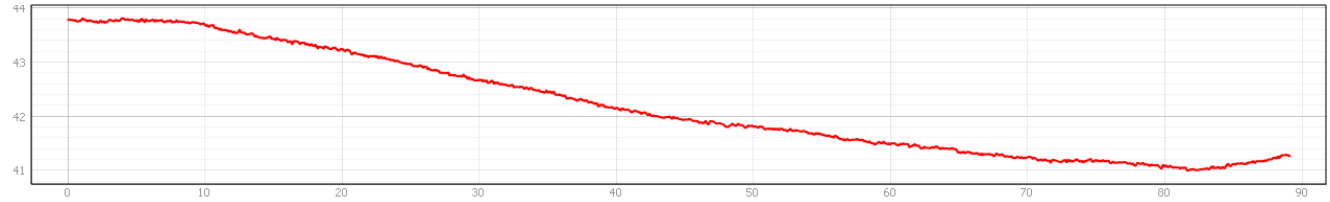
P5



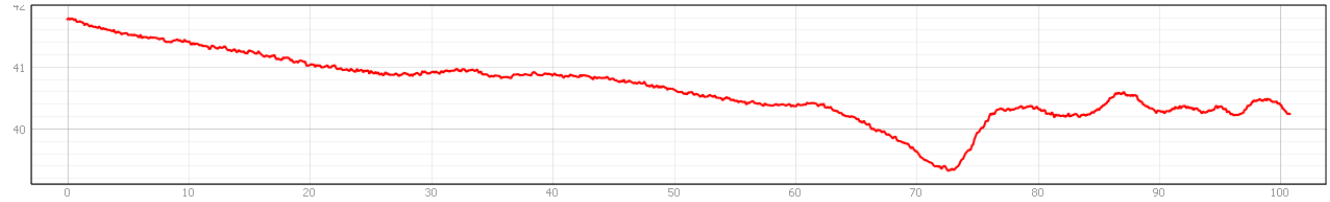
P6 (partial)



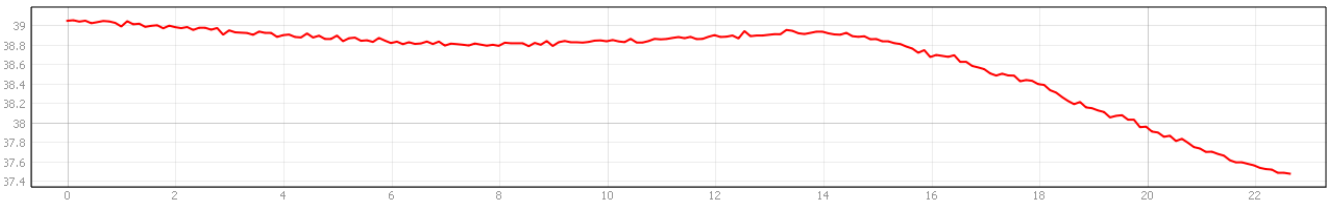
P7



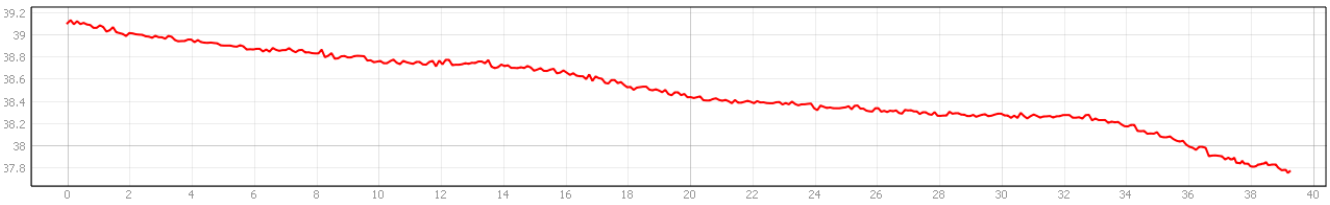
P8



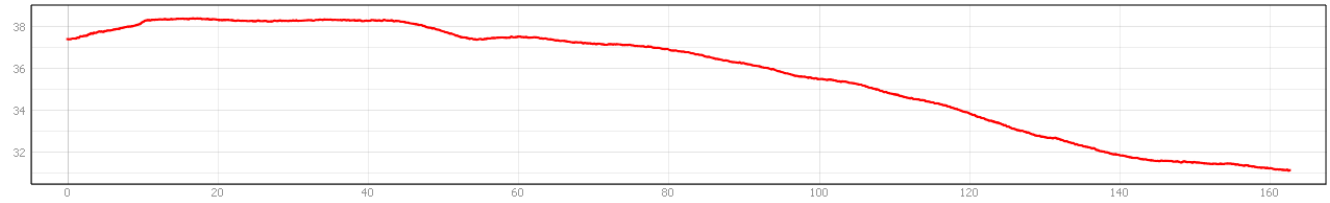
P9



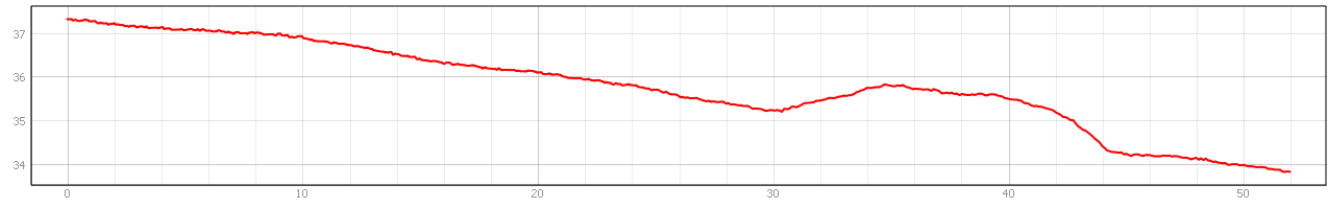
P10



P11



P12



9. **APPENDIX 4: Island Master Plan**