Executive Summary

In 2008, Council completed construction of a boardwalk and reclamation along the Mangonui waterfront. The Northland Regional Council resource consent authorising the structure includes a condition requiring that the boardwalk include a safety barrier. A safety barrier is also required under the Building Code. The structure does not have a safety barrier and is therefore unlawful because it is in breach of the Resource Management 1991 and the Building Act 2004. At a Council meeting held 30 July 2009, Council resolved to waive the requirements of the Building Code and further to not construct the safety barrier as required by the resource consent authorising the structure. The resolution to waive the requirements of the Building Code was beyond Council’s authority to grant. The decision to not construct the barrier, as required by the resource consent, constituted a flagrant breach of Council’s legal obligations under the Resource Management Act 1991, which fundamentally put the public at risk as a result of the boardwalk structure failing to meet the relevant safety standards.

Recommendation

**THAT** Council rescind the resolution made at its 30 July 2009 meeting in respect of agenda item 8.2 “Mangonui Boardwalk BC 2007 - 2710” which sought to waive the requirements of the Clause F4 of the Building Code and to not construct a safety barrier along the Mangonui boardwalk;

**AND THAT** a safety barrier that meets the requirements of the Building Code be constructed along the full length of the Mangonui boardwalk as soon as reasonably practicable and no later than 30 September 2016.

1) Background

1.1 Introduction

The Mangonui boardwalk is located in the coastal marine area of Mangonui Harbour and is authorised by Northland Regional Council resource consent AUT.010751.02.01. A condition of that resource consent sets out that the boardwalk shall include a safety barrier along its entire length. When the construction of the boardwalk was completed in 2008, it did not include a safety barrier, and it has remained without a safety barrier since that time.

Since the boardwalk was constructed, Northland Regional Council (NRC) has regularly requested that FNDC comply with the resource consent by installing a safety barrier. In a letter dated 18 August 2015 (document #A1729861), NRC compliance staff identified that the boardwalk was non-compliant because it did not include a safety barrier and that this non-compliance presented a risk to public. It is relevant to note that this request by NRC is one of many issued to FNDC over the years.
After receiving the August 2015 letter from NRC, staff considered the matter against the Significance and Engagement Policy (Policy # 2124) and determined that, owing to its controversial history, the subject should be included in the Annual Plan 2016-17 Consultation Document.

The consultation document set out that FNDC would be installing a safety barrier along the boardwalk, to comply with the law. Following the Annual Plan consultation, a number of submissions were received in addition to two petitions opposing installation of a handrail along the boardwalk. At the deliberations for the Annual Plan 2016-17, Council resolved to continue to explore options to achieve compliance with the resource consent and Building Code, in addition to retiming various capital budgets to allow for various amenity improvements to be made at Mangonui as part of a wider place planning exercise. Moreover, it is relevant to note that a number of Elected Members and staff met at Mangonui with Doubtless Bay Promotions Inc. on 10 May 2016. At that meeting, Elected Members committed to investigating all possible options available to exempt the boardwalk structure from requiring a handrail.

More recently, a meeting was held at Kenana Marae on 13 June 2016. The marae representatives at that meeting expressed their concern that the safety barrier had not been erected and that Council was failing to meet its obligation in terms of compliance with the resource consent authorising the structure. It is relevant to point out that Kenana Marae has been seeking to have the resource consent complied with since the boardwalk development commenced construction in 2007.

The purpose of this report is to summarise the options considered by staff for the purpose of addressing Council’s legal obligation to meet the requirements of the Building Code and the Resource Management Act 1991 (RMA). A recommendation has been put forward, taking into account the various options in terms of cost, timeframes, engineering issues, RMA planning constraints and risk to public safety.

1.2 Legal Setting

Resource Management Act 1991

Section 12 of the RMA sets out that the occupation and use of structures in the coastal marine area requires resource consent, unless permitted by a rule in a regional plan. FNDC hold resource consent to allow for the occupation and use of the boardwalk. That resource consent includes a condition which requires that the structure includes a safety barrier. The absence of a barrier on the boardwalk is a breach of the condition of the resource consent. This is a fact beyond any doubt. The boardwalk is therefore unlawful on the basis that is does not comply with the requirements of the resource consent for the structure. This constitutes an offence against s12 of the RMA.

The boardwalk structure has been unlawful since it was constructed because it does not include a safety barrier. NRC is the regulatory authority in terms of enforcing the provisions of section 12 of the RMA and the conditions of the resource consent authorising the structure. It is relevant to point out that in 2011 NRC staff had prepared a detailed affidavit to support an application to the Environment Court for an Enforcement Order that would require compliance with the resource consent conditions relating to the safety barrier. However, the Enforcement Order was never sought because FNDC at the time gave assurances that the barrier would be installed forthwith.

More recently, NRC wrote to FNDC in a letter dated 10 June 2016 to advise that it expects FNDC to comply with the requirements of the resource consent by 30 September 2016 (Attachment 1). That letter also points out that the reason why NRC did not lodge an enforcement order with the Environment Court was because FNDC’s legal counsel had given assurances in a letter dated 25 March 2011 to NRC stating FNDC was “taking immediate steps to source the required materials and then install a railing around the outer edge of the walkway”

**Building Act 2004**

All building work in New Zealand must comply with the Building Code. This requirement is set out in Section 17 of the Building Act 2004. Clause F4 of the Building Code sets out that barriers are required where people could fall one metre or more. The fall height along the entire length of the Mangonui boardwalk is well over one metre. The boardwalk structure is therefore subject to Clause F4 of the Building Code and so a safety barrier is required in accordance with that Clause.

**1.3 Previous Council Resolutions and Waivers**

FNDC holds a building consent for the boardwalk. That consent is referenced BC-2007-2710/1 and was issued on the 26 July 2007, prior to the construction of the boardwalk. The original consent included plans that depicted the specific design Building Code compliant safety barrier.

At its 30 July 2009 meeting, Council passed the following resolution:

"That the report, "Mangonui Boardwalk BC 2007-2710" be received; And that the Council instructs the CEO to accept the request for a waiver for compliance with Mangonui Boardwalk building consent 2007-2710; And further that the final barrier at Mangonui Boardwalk not be erected."

In effect, Council sought to waive the requirements of Clause F4 of the Building Code and took a decision to not install any form a safety barrier along the water front at all. An application to amend the building consent was lodged by staff to the Building consents team on 24 July 2009. An amended building consent, with plans omitting the handrail, was issued in August 2009. It is relevant to note that Building Manager at the time submitted a Conflict of Interest Resolution Form identifying that in this instance a waiver was not applicable and that it was being granted because he was instructed to do so by the CEO at the time.

**Waiver to the Building Code**

Section 67 of the Building Act 2004 enables that a territorial authority may grant building consent subject to waivers or modifications of building code. Any such waiver may be exercised only for the purposes of achieving the objectives of the Building Act 2004 and the Building Code. Collateral purposes (i.e. purposes outside those objectives) are likely to be held invalid.

In the present case, Council sought to waive the requirement for the Mangonui boardwalk to include a safety barrier as required by Clause F4 of the Building Code. The objective of Clause F4 is set out in F4.1 of the Code, which states:

"The objective of this provision is to safeguard people from injury caused by falling."

The waiver Council sought to issue was done on aesthetic grounds, which is obviously a purpose that is collateral to the objective of Clause F4 of the Building
Code. On those grounds alone, it is likely that the waiver that Council sought to issue itself was invalid. However, there are additional compounding factors which contribute to the invalidity of the apparent waiver.

Firstly, it is relevant to draw on the staff report that accompanied the agenda item that gave rise to the Council resolution (document #A1161010). In that document, staff confirmed that the then Department of Building and Housing had been consulted with in respect of the requirement for a safety barrier. The report stated that the Department’s representative had confirmed that a waiver was not justified given the safety risks. The report went on to explain that the Department had identified that a determination on the matter could be sought, but that the department had suggested that that the likely outcome of any determination on the subject would be that a barrier would be required, taking into account the safety issues and recent determinations on similar situations. Staff went on to conclude in that report that a barrier should be erected, stating:

"In conclusion the issue has been highlighted to the Department of Building and Housing, who have knowledge of this area of non compliance and risk to the public. The department (DBH) has the authority to act either via a complaint or of its own accord, and can initiate a determination and subsequently reverse Council’s decision. It is a critical area of concern to the Far North District and action is needed to resolve the matter. The recommendation of the FNDC Building team is that the barrier should be erected."

In addition to Council attempting to issue a waiver that was inconsistent with the objectives of the Building Code and the advice of the Department of Building and Housing and FNDC staff, it is relevant to note that a determination on an analogous situation had already been made by the then Building Industry Authority. That determination set a precedent on the matter and was not considered by Council when it made the decision to waive the requirements of the Building Code. Specifically, in Determination No.95/004 (Attachment 2) a territorial authority sought to waive the requirements for handrail on the basis that a structure originally designed as a walkway was in fact a wharf. The Authority ruled that the structure was clearly not designed as a wharf and that a handrail was required. The situation described in the above Determination is almost identical to the situation at Mangonui and sets a precedent for the need to provide a safety barrier, irrespective of the impact of that barrier on aesthetics.

Taking into account all of the above, it is considered that the waiver Council sought to issue itself in respect of the requirement under the Building Code was invalid and should therefore be rescinded.

Decision to not build the handrail

The 2009 resolution also included a decision to not build a safety barrier at all. Whilst Council sought to issue a waiver in respect of the requirements of Clause F4 of the Building Code, Council cannot not seek to waive its obligation to comply with the condition of the resource consent authorising the boardwalk. The resolution to not build the safety barrier therefore constitutes a blatant and conscious decision to allow the boardwalk to remain unlawful.

Public Health and Safety

Staff have sought advice from Worksafe to confirm whether or not the boardwalk is a workplace within the meaning of the Health and Safety at Work Act 2015. Worksafe has confirmed the site is not a Workplace, and if there was an accident resulting in a member of the public falling from the boardwalk, there would be no liability under that Act.
However, simply because the boardwalk site is not subject to the Health and Safety at Work Act 2015, this does not remove Council’s obligations to comply with other safety regulations - in particular Clause F4 of the Building Code. Should an accident associated with falling from the boardwalk occur, there would be reasonable grounds to take court action against Council on the basis that it is providing a public facility that knowingly fails to meet the relevant safety standards.

2) Discussion and options

The boardwalk structure does not comply with the Building Code or the resource consent authorising the structure, because it does not include a safety barrier. The structure therefore presents a risk to public safety and needs to be addressed as soon as reasonably practicable.

It is recognised, however, that Council has given an undertaking to consider various options to address the Building Code requirements, including engineering solutions that would remove the requirement for a safety barrier in the first place. To this end, Far North Holdings Ltd (FNHL) recently completed a site inspection report on the Mangonui Boardwalk (FNHL Report). That report includes an assessment of the various solutions that could be implemented to meet the safety requirements set down in the Building Code. A summary of these options is included in the below section.

2.1 Options Assessment

This section includes a summary of the engineering options and constraints considered by FNHL. Accompanying each option is a staff assessment. A summary of costs, timeframes and risk is included in Table 1 below.

Table 1. Summary of options to address non-compliance with the Building Code and resource consent for the Mangonui Boardwalk. Note that those options with consenting timeframes marked “not feasible” are expected to be declined by NRC on the basis that the options will not address compliance with the building code.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Approx. total cost (incl. consenting)</th>
<th>Consenting timeframe</th>
<th>Total project delivery timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Safety barrier as per the resource consent and building code.</td>
<td>$200,000</td>
<td>Nil</td>
<td>6 months</td>
</tr>
<tr>
<td>2</td>
<td>Toe rail/alternative barrier</td>
<td>&lt;$100,000</td>
<td>Not feasible</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>Seabed excavation</td>
<td>$350,000</td>
<td>Not feasible</td>
<td>N/A</td>
</tr>
<tr>
<td>4</td>
<td>Deposition of rocks</td>
<td>$200,000; $350,000 with a barrier</td>
<td>6 months</td>
<td>12 months</td>
</tr>
<tr>
<td>5</td>
<td>Platform below the boardwalk</td>
<td>$338,000, $488,000 with a barrier,</td>
<td>6 months</td>
<td>12 months</td>
</tr>
<tr>
<td>6</td>
<td>Reclamation</td>
<td>$700,000</td>
<td>12 months</td>
<td>18-24 months</td>
</tr>
<tr>
<td>7</td>
<td>Net below the boardwalk</td>
<td>$195,000</td>
<td>6 months</td>
<td>12 months</td>
</tr>
</tbody>
</table>

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2.2 Safety Barrier

Description

For this option, FNHL considered installing a safety barrier that would meet the requirements of F4 of the Building Code. Modern types of curved handrail can be considered as practical solutions that are being widely used at waterfront boardwalks around the world. The handrail type considered in this assessment is the curved stainless steel plate baluster post with horizontal wires (currently being installed at Marsden cove marina at Whangarei, see photo attached as Attachment 3) would minimise the visual impact on the waterfront view. The approximate cost of this handrail is $1,150 per metre. Considering the overall 160m length of boardwalk, the total cost for installing handrail is approximately $184,000. However, because the existing boardwalk is cantilevered from the outer boundary joist by approximately 0.5m, the structural design for handrail fixing and additional timber support would also be required, at a total cost of around $16,000. Therefore total cost for installing being $200,000.

Assessment

This option would result in the structure meeting the requirements of the resource consent and the Building Code and would not require any additional consent planning input. The resource consent condition requiring the safety barrier is not specific in terms of the design, and so there is sufficient scope to allow some flexibility in terms of the design of the barrier. This option would enable Council to fully comply with its obligations under the Building Code and the RMA, and carries the least risk and cost.

2.3 Upgraded Toe rail/Alternative Barrier

FNHL has suggested that a barrier would not be required if it were possible to demonstrate that it would be incompatible with the intended use of the structure. In that regard, if it could be demonstrated that the safety barrier would impede the intended use of the boardwalk, FNHL has proposed an alternative safety barrier could be installed. For example, if the boardwalk could be classified as a wharf or similar, the boardwalk would simply require an upgrade to the existing toe rail, with a new 150mmx 150mm toe rail fixed to the timber deck with a spacer block of 150mmx150mm thus, providing toe rail height of 300mm as some sort of barrier. The risk could also be mitigated by signage warning of harm at low tides.

Assessment

This option is not considered to be feasible. Clause F4.3.1 of the Building Code allows for an exemption where “such a barrier would be incompatible with the intended use of an area”. This exemption generally applies for wharves and other working platforms where a handrail would affect their intended use as a loading and working platform for boats. In the present case, Council set out the purpose of the boardwalk and reclamation works in the resource consent application for that work. The purpose of that work was to provide for road realignment, car parking, and additional footpaths. That purpose is the intended use of the area. A safety barrier will not derogate that intended use and therefore there are no grounds to seek an exemption as per Clause F4.3.1 of the Building Code.

In addition, this option would require an amendment to the resource consent authorising the boardwalk, removing the requirement for a safety barrier. As discussed earlier in this report, an application to amend the resource consent would only be successful if it could be demonstrated that the structure fully meets the requirements of the building code.
Finally, it should be noted that FNDC sought counsel from Law North on the option of reclassifying the structure as a wharf in 2009. Law North’s advice on the matter was given in a letter dated 01 April 2009. Law North’s counsel was not in support of reclassifying the structure as a wharf, giving reference to a similar situation brought to the Building Industry Authority for a determination (Determination No.95/004). In that determination, a territorial authority sought to waive the requirements for a handrail on the basis that a structure originally designed as a walkway was in fact a wharf. The Authority ruled that the structure was clearly not designed as a wharf and that a handrail was required. The situation described in the Determination is analogous to the situation at Mangonui.

Taking into account earlier counsel given by Law North on the subject, and in particular the Building Industry Authority determination referred to in that counsel, seeking to remove the requirement for a barrier on the basis of it being incompatible with its intended use is not considered to be feasible. This option should therefore not be entertained as a possible solution.

2.4 Excavation of the seabed

For this option, FNHL considered excavating the seabed in front of the boardwalk, in order to reduce the risk of injury from falling, by ensuring removal of any exposed rocks during low tide. Currently there are three rock patches of high spot islands during mid to low tide. The proposal suggests excavation to a depth of 2m, in order to ensure that there is water depth all the time. On assessing the site, FNHL suggested a minimum excavation width of 7m, thus the surface area of 14m² along 160m length would require minimum dredge volume of 2240m³. For dredging operation, the mobilisation and demobilisation cost would be higher if there is no locally available barge. Based on the nearest available barge from Total Marine Services in Opua, the cost for mobilisation/demobilisation would be in range of $25,000 and the rate for dredging is approx. $50/m³. Disposal depends up on the availability of nearest disposal site. If a suitable site can be found within a 3km proximity, the trucking fee of approx. $7/m³ shall apply, bringing the total dredging rate to $57/m³. Thus the overall cost for dredging 2240m³ would be approx. $153,000.

However, FNHL state that it should be noted that a bathymetric survey and hydrological modelling should be carried out in order to study the hydraulic character of Mangonui basin to ensure that there would not be a significant siltation issue. Looking at the shallow seabed profile, it is likely that significant infilling of the trench would occur, leading to on-going maintenance dredging. Furthermore FNHL state that the embedment of the existing timber and concrete piles would require further additional structural works due to potential undermining, which are estimate at around $50,000.

Total engineering costs of this option are therefore around $200,000, plus on-going maintenance dredging.

Assessment

This option would require resource consent for dredging/excavating the coastal marine area, including on-going maintenance dredging. Taking into account the scale of the work, it is likely an activity of this nature would be notified and subject to a hearing. Detailed empirical work on the impact of the lowering of the seabed on coastal processes, the boardwalk structure itself and local ecology, would be required. Total consenting costs, including technical work and hearing fees, would be in the order of $100,000. Consenting timeframes would be in the order of 12-18

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3 Legal Advice from Law North Dated 1 April 2009 (document #A1718658).
months, including application preparation, consent hearings and possible court appeals. This brings the total cost of this option to around $300,000.

Moreover, it is unlikely that this option would result in compliance with the Building Code. Whether or not there is a fall into water or land is not relevant for the purpose of Clause F4 of the Building Code. Taking into account the costs and timeframe associated with this option, and because it is unlikely to result in the boardwalk from being exempted from requiring a safety barrier, this option is not considered to be feasible.

2.5 Deposition of rocks

This option involves the construction of a new rock structure on the seabed, to ensure a fall height of less than 1m from the boardwalk itself. The concept design is a rock bund platform. Considering approximate rate for supply and construction of a rock bund of $60/m³, this option would require a total cost of around $154,000 for construction of 160m of rock bund (4m wide, 2m depth with, 1:2 batter, i.e. 16m²). Although this rock bund might resolve the issue of a fall from the timber boardwalk, it does not mitigate the potential risk of fall from the top of rock bund to the shallow seabed.

Assessment

This option would require a new resource consent for the rock bund in addition to a variation to the resource consent authorising the boardwalk. The resource consent for the rock structure would likely be a 6 month process, costing up to $50,000, assuming a consent hearing and no appeals to the environment court.

The variation to the resource consent for the boardwalk would only be granted provided the rock bund exempted the boardwalk from having to provide a safety barrier in accordance with the Building Code. Assuming the rock bund was successful in that regard, the consent process would be reasonably straightforward and would simply be bundled with the package of consent applications for the rock structure.

It should be noted, however, that this option may require a safety barrier on the seaward side of the rock bund, given the fall height from this structure will be over 1m along most of its length. Should this be required, the costs of such a barrier would need to be factored into the total costs, thus bringing the costs of this option to $200,000 to $350,000, depending on whether a handrail is required along the rock structure.

2.6 Erecting a platform adjacent to the boardwalk

This option involves erecting a platform adjacent to the current boardwalk but at a elevation of 1m below the height of the current boardwalk. The purpose of this structure is to reduce the fall height to less than a meter, thus eliminating the need for a handrail on the original boardwalk.

Considering approximate rate of $900/m² for supply and driven structural timber piles and timber boardwalk, the approx. cost for boardwalk extension of 2m for an additional area of 160m x 2m = 320m² would be $ 288,000. It is likely this option will also require a handrail, increasing the costs bay around $150,000.

Assessment

This option would have similar consenting issue to that of Option 4 (rock deposition) and would require resource consent for the boardwalk in addition to a variation to the resource consent authorising the boardwalk. The resource consent for the boardwalk would likely be a 6 month process, costing up to $50,000, assuming a consent
hearing and no appeals to the environment court. Thus the total costs for this option would be in the area of $338,000 to $488000, depending on whether a handrail is required for the structure.

2.7 Reclamation

Reclaiming the land below the boardwalk is an alternative solution for reducing the fall depth to less than 1m. Due to the shallow nature of the seabed profile at Mangonui, the minimum width of the reclamation towards seawards side would be approximately 20-30m in order to ensure the edge of the reclaimed area extends out to the low tide channel. The fill depth would need to be area around 2.5m, requiring a total of 10,000m³ of fill. Considering the rate of $30/m³ for fill material, the approx. cost would be not less than $300,000. In addition, to retain the fill material on place, a seawall either in terms of rock bund or vertical panel (steel sheets) would be required. Considering the rate of $80/m³ for rock bund construction for 160m length of seawall, the approximate cost for construction of seawall is $250,000. Thus the approximate cost for reclaiming below the boardwalk would be not less than $550,000.

Assessment

A detailed analysis on the effects of the activity on ecology and coastal processes would be required. It is also likely this would be a fully notified and so would be subject to a Council hearing and potential appeal to the Environment Court. In that regard, it is relevant to point out that the original consent application for the boardwalk was appealed to the Environment Court. The relief sought by the appeal was that the size of the reclamation be reduced and the consent order eventually issued by the Environment Court granting the consent required that the originally sought reclamation was reduced in area. Ultimately it is likely a consent application for reclamation would be granted eventually. However there is a risk consent would not be granted for the full reclamation taking into account earlier appeals on the boardwalk consent application, which sought to reduced the original size of the reclamation. Total consenting costs, including technical work and hearing fees, would be in the order of $150,000. Consenting timeframes would be in the order of 12-18 months, including application preparation, consent hearings and possible court appeals. This brings the total costs of this option to around $700,000.

2.8 Net below the boardwalk

This option involves erecting a net below the boardwalk to ensure that there is a safe landing platform to arrest any falls from the boardwalk. Staff commissioned FNHL to undertake a concept design for this option (Attachment 4). In summary, the concept design sets out that the net structure would involve attaching 125mm galvanised steel tubes to each pile, resulting in the tubes being installed every 4-5m. The tubes would be placed less than 1m below the height of the boardwalk, and extend 2m horizontal from the seaward edge of the boardwalk. Netting would be placed atop the tubes, with tension provided via steel wire attached to the ends of the steel tubes and the boardwalk.

FNHL estimate the total costs of the structure would be approximately $115,000 with a 20% contingency. It should be noted that FNHL have used galvanised steel for the costings work both for the fixtures and the steel tubes. However, New Zealand Standards 3604:2011 sets out that all structural fixings for buildings located within 500m of the coast require Type 304 stainless steel. The use of stainless steel would increase the costs of the structure, potentially beyond the 20% contingency. A total cost of $145,000 has therefore been used to estimate the approximate costs of this option.
Assessment

Staff have contacted the Ministry of Business Innovation and Employment in respect of whether or not the net option would meet the requirements of the Building Code. The Ministry provided two Determinations relating to the use of horizontal barriers as a means of complying with Clause F4 of the Building Code. The first Determination (No.2001/2) involved the proposed use of a horizontal safety canopy, in conjunction with a 600mm to 800mm vertical barrier as a means of complying with Clause F4 of the building code. The Authority found that the horizontal barrier in conjunction with the small vertical barrier would comply with Clause F4 of the building code. That situation related to a barrier to protect from falls from deck around a house.

A later determination (No. 2002/6) related to a horizontal safety net being placed around the deck of a house for the purpose of complying with Clause F4. In that case, the Authority concluded the net did not comply with Clause F4. The difference in view between the two determinations was largely as a result of the earlier situation having a 600mm to 800mm vertical barrier in conjunction with the horizontal barrier. The latter situation simply had a horizontal net similar to the option presented in this report. Taking into account the later Determination, on face value it would appear the net option for the Mangonui boardwalk would not meet the requirements of Clause F4 of the building code. However, to establish certainty on this matter, staff will be lodging an application with MBIE for a determination on whether the net option set out in the attached concept design would meet the requirements of Clause F4 of the Building Code. This process will take four to six weeks.

In terms of the resource consent, proceeding with the net option would require a variation to the NRC consent. Given the level of uncertainty in terms of compliance with the Building Code, it is likely NRC would only consider granting the variation should MBIE provide a determination confirming that the net option met the requirements of the Building Code.

Assuming the determination confirms compliance with the building code, FNDC would be able to proceed by way of a variation to the original resource consent. It should be noted, however, that the consent authority, when considering an application made under section 127, must decide whether those who made a submission on the original application are affected by the variation. With that in mind, submissions were made on the original resource consent application setting out that a safety barrier was needed. Those parties may be considered affected and therefore they will have the ability to submit on the variation application and appeal any decision made by NRC to the Environment Court. The risk of this scenario would be relatively low provided adequate consultation was undertaken with affected parties, given that the submissions setting out the requirement for a barrier were made on the basis of concerns around public safety. Total consenting time for the net option would be around four to six months at a cost of around $25,000-$50,000, depending on whether or not a council hearing is required. Thus total costs for this option are therefore around $195,000.

3) Financial implications and budgetary provision

The financial implications of each option are set down in Table 1. The recommended option is to build the safety barrier in accordance with the resource consent, at a cost of approximately $200,000. As part of the Annual Plan 2016-17 deliberations, Council resolved to budget $150,000 for a safety barrier for the 16/17 financial year. An
amendment to that quantum will be sought via a resolution in Council if necessary after a design for the barrier has been selected and costed.

4) Reason for the recommendation

Ultimately, the removal of the requirement for a handrail is going to require significant capital investment and at least 12 months to address the consenting requirements and to deliver. Funding aside, the delivery timeframe will mean FNDC will continue to breach the provisions of the RMA and the Building Act 2004 throughout that time. That Council is breaching the requirements of the Building Act 2004 and the RMA by failing to include a safety barrier on the boardwalk is a fact beyond any doubt. That this breach has occurred since 2008, and has been mandated through a Council resolution, represents a flagrant breach of the law surrounding this issue.

The breach of the above legislation is a significant issue that needs to be rectified as soon as practicable. Council is a regulatory authority both in terms of the RMA and the Building Act 2004. Flagrantly breaching that legalisation whilst regulating compliance with resource consents it has issued, is an untenable position for Council to take.

Secondly, NRC expects compliance with the requirements of the boardwalk resource consent by 30 September 2016. To meet that timeframe, the only feasible option would be to construct the safety barrier as required by the resource consent. Even with that option, the construction deadline will be very tight taking into account design, procurement, lead-in time and construction time. NRC staff have advised that, provided adequate steps are being taken to comply install the safety barrier, they would be willing to extend the 30 September 2016 deadline. It is relevant to note that in 2011 NRC was about to lodge an application for an enforcement order with the Environment Court. The application was not lodged, however, because FNDC at the time gave assurances that the materials necessary to build the barrier were on order that it would be constructed forthwith. The barrier was obviously not constructed. Should FNDC fail to take adequate steps to comply with the resource consent, and in light of Council’s past conduct on this issue, the next step for NRC would be to seek an enforcement order. Breach of such an order is considered contempt of court.

Finally, and most importantly, is the issue of public safety. The reason for the safety barrier is to meet the objective of Clause F4 of the Building Code. The purpose of that clause is to safeguard people from injury caused by falling. Bearing in mind the length of time this issue has occurred for, coupled with Council’s refusal to address it by complying with the law, if a person was to fall from the boardwalk it is likely Council would be found to have been criminally negligent.

Taking into account all of the above reasons, the only recommendation that can be put forward to Council is to construct a compliant handrail along the entire length of the boardwalk as soon as reasonably practicable.

Manager: Jacqui Robson - General Manager Infrastructure and Asset Management Group

Attachment 1: 10 June 2016 letter from Northland Regional Council - Document number A1734295

Attachment 2: Determination No.95/004 - Document number A1734298

Attachment 3: Example of handrail at Marsden Cove Marina - Document number A1734302
Compliance schedule:

Full consideration has been given to the provisions of the Local Government Act 2002 S77 in relation to decision making, in particular:

1. A Local authority must, in the course of the decision-making process,
   a) Seek to identify all reasonably practicable options for the achievement of the objective of a decision; and
   b) Assess the options in terms of their advantages and disadvantages; and
   c) If any of the options identified under paragraph (a) involves a significant decision in relation to land or a body of water, take into account the relationship of Māori and their culture and traditions with their ancestral land, water sites, waahi tapu, valued flora and fauna and other taonga

2. This section is subject to Section 79 - Compliance with procedures in relation to decisions.

<table>
<thead>
<tr>
<th>Relationship with existing policies and Community outcomes.</th>
<th>The subject of this report relates to Council’s obligations to comply with the legal requirements associated with the Mangonui boardwalk. There are no specific policies or community outcomes linked with this subject. However, Council has a duty to comply with the law, particularly given that it is a regulatory authority itself.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible implications for the relationship of Māori and their culture and traditions with their ancestral land, water, site, waahi tapu, valued flora and fauna, and other taonga.</td>
<td>Kenana Marae have been seeking that FNDC comply with the resource consent for several years.</td>
</tr>
<tr>
<td>Views or preferences of persons likely to be affected by, or to have an interest in the matter, including persons with disabilities, children and older persons.</td>
<td>Kenana Marae has expressed the view that FNDC needs to comply with the resource consent. There is local opposition to the safety barrier being erected.</td>
</tr>
<tr>
<td>Does the issue, proposal, decision or other matter have a high degree of significance or engagement as determined under the Council's Policy #2124?</td>
<td>Yes, the subject is controversial.</td>
</tr>
<tr>
<td>If the matter has a Community rather than a District wide relevance has the Community Board's views been sought?</td>
<td>No, the subject of this report relates to Council's legal obligations to provide a boardwalk that meets the relevant safety standards.</td>
</tr>
<tr>
<td>Financial Implications and Budgetary Provision.</td>
<td>The Annual Plan includes budget of 150,000 for a safety barrier for the 2016/17 financial year. This quantum is less than estimated costs for the barrier. Constructing a compliant safety barrier will therefore require some unbudgeted expenditure.</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Chief Financial Officer review.</td>
<td>The Chief Financial Officer has not reviewed this report.</td>
</tr>
</tbody>
</table>
10 June 2016

Colin Dale
Acting Chief Executive Officer
Far North District Council
Private Bag 752
Kaikohe 0440

Dear Colin

REG.010751.01: WALKWAY (BOARDWALK) STRUCTURE IN MANGONUI TOWNSHIP

The Northland Regional Council’s letter to the Far North District Council (“district council”) dated 18 August 2015 highlighted the ongoing non-compliance with the resource consent held by the district council for the walkway (boardwalk) constructed at Mangonui Township, due to the lack of a safety barrier. Staff from our councils met last month to discuss the matter and I confirm the following from those discussions:

- The Northland Regional Council (“the regional council”) is aware that the district council is reconsidering the installation of a safety barrier on the walkway.

- Condition 2 of the consent (former reference CON200310751(01)-(03); new reference AUT.010751.01-03) requires that the walkway needs to incorporate a safety barrier. Condition 1 of the consent requires the works to be constructed in accordance with a plan that is attached to the consent and that plan shows a safety barrier. Condition 2 makes reference to the walkway design including "railings". Condition 2 also requires the preparation of an Environmental Management Plan that is to be prepared according to the details outlined in Schedule 2 (also attached to the consent) and this schedule requires that detailed drawings be included which detail the design of the boardwalk including the “design of railings”.

- The regional council did not progress an enforcement order in 2011 that would have required the district council to "commence all necessary steps to comply with conditions 1 and 2 of Resource Consent No. CON200310751(02)" on the commitment, made in the enclosed letter dated 25 March 2011, that the district council was “taking immediate steps to source the required materials and then install a railing around the outer edge of the walkway.

- The regional council recognises that the district council’s responsibility under the Building Act 2004 regarding the safety of its buildings is the primary means to address these concerns. Nevertheless, the regional council is obliged to enforce compliance with the resource consent for the walkway, which was granted (partly) on the proposed improvements that the walkway would provide to public amenity and public safety. This will continue to be the case until the district council either:
  - complies with Conditions 1 and 2 of the consent, or
  - successfully obtains changes to those conditions to remove the requirement for a safety barrier.
I am aware that you and your staff and councillors have met with the community to discuss this matter and are seeking to find a mutually acceptable solution. The regional council accepts that this process will take time to work through, but requests that the district council implements the action required to resolve the matter by no later than 30 September 2016.

Yours sincerely

Malcolm Nicolson
Chief Executive
25 March 2011

Karenza de Silva  
PO Box 100 047  
North Shore City 0745  
by email: karenza.desilva@xtra.co.nz

Dear Karenza,

Northland Regional Council – Far North District Council –Mangonui Harbour Walkway – Safety Railing

1. As you know I have been instructed to act in this matter for the Far North District Council (FNDC) by Law North Kerikeri. I refer to your letter dated 10 February 2001 to the Council’s CEO David Edmunds and our subsequent communications.

   I have provided advice concerning the matters raised in your letter and the draft enforcement proceedings to Council and have instructions.

2. The FNDC has instructed me to advise NRC it is taking immediate steps to source the required materials and then install a railing around the outer edge of the walkway at Mangonui Harbour in accordance with the design and appearance of the railing:

   (a) as shown in the documents accompanying the application for resource consent; and

   (b) by reference to the drawing referred to in condition 1 of the decision granting consent (in its final form as signed off by the Environment Court by consent order dated 14 December 2004); and

   (c) to the railing design approved by Northland Regional Council in accordance with condition 2 of that consent which required approval of an environmental management plan. I refer in that regard to the letter which approved the EMP documentation from the Northland Regional Council to the Far North District Council dated 13 November 2007, and the approved Harrison Grierson plan 006963-300 dated April 2007.

3. I am also instructed to advise the FNDC is going to consider making an application to vary the resource consent in question; in relation to the obligation to have a railing on the outside edge of the boardwalk in question.
4. When the District Council has further specific information as to when the necessary railing materials will be available and construction can commence either I or the District Council will advise you further.

Yours sincerely

Richard Brabant

Copy by email to:  

David Edmunds  
Far North District Council

Richard Ayton  
Law North
Determination
under the
Building Act 1991

No. 95/004: Safety barrier for a waterfront walkway

1. The matter to be determined

1.1 The matter before the Authority was whether a safety barrier was required alongside a waterfront walkway. The walkway is part of a development of the territorial authority’s facilities, but it is constructed on land below the line of mean high water spring tides so that, because of the definition of “territorial authority” in section 2 of the Building Act 1991, the building consent falls to be granted or refused by the regional council, as the “organisation authorised to permit structures pursuant to section 12(1)(b) of the Resource Management Act 1991”.

1.2 The applicant was the regional council. The only other party was the owner, the territorial authority.

1.3 The owner applied to the applicant for a building consent. The applicant refused building consent because it considered that a safety barrier was needed.

1.4 The Authority accordingly takes the view that it is being asked in effect to determine whether the proposed walkway, without a safety barrier, would comply with clause F4 “Safety from falling” of the building code (the First Schedule to the Building Regulations 1992).

1.6 In making its determination, the Authority has not considered whether the proposed building will comply with any other provisions of the building code.

2 The building

2.1 The walkway is a timber deck along the waterfront. The timber decking is laid over timber joists supported by steel beams on timber piles. In some places it is cantilevered above the water, in other places it is above the rocky margin of the water. People could fall 1 metre or more from the walkway.

2.2 The rest of the development is proposed to include a restaurant opening on to the walkway and is also proposed to include museums and other recreational facilities adjacent to the walkway.
2.3 The owner has in fact constructed the walkway, without a barrier, but is understood to have installed a temporary barrier pending the outcome of this determination.

3 The parties’ contentions

3.1 The applicant contends that the walkway will be used for a variety of purposes as well as for access, in particular for viewing marine activities and for social gatherings. The water area adjoining the walkway is generally not navigable except at high water. The walkway will not be a wharf and has not been designed as such. The applicant’s submissions included photographs of the walkway.

3.2 The owner made no specific submissions. However, before the application for a determination was made, the designer of the development discussed drawings of the proposed development with a member of the Authority’s staff, who understood that the walkway was in fact to be used on an everyday basis as a working wharf, with the walkway aspect secondary. The staff member noted the “Limits on application” to clause F4.1, and on that basis gave a personal opinion to the effect that clause F4.1 did not apply and a barrier was not required along the edge of the wharf, but that a barrier should be erected along the frontage of the restaurant which would prevent young children from straying from the restaurant onto the wharf. That opinion included a disclaimer to the effect that it was a personal opinion based on the information provided and that a different decision might be reached if the matter was referred to the Authority for a formal determination.

4. Discussion

4.1 The relevant provision of the building code is clause F4.1:

F4.1 Where people could fall 1 metre or more from an opening in the external envelope or floor of a building, or from a sudden change of level within or associated with a building, a barrier shall be provided.

The associated “Limits on application” states:

Performance F4.1 shall not apply where such a barrier would be incompatible with the intended use of an area, or to temporary barriers on construction sites where the possible fall is less than 3 metres.

4.2 The walkway is a substantial structure. It is clearly a “building” for the purposes of the Building Act.

4.3 It is not disputed that people could fall 1 metre or more from the walkway. Thus the only question is whether a barrier would be incompatible with the intended use of the area as provided in the “Limits on application” for clause F4.3.1 of the building code.

4.4 There are significant differences between the drawings of the walkway as proposed and the photographs of the walkway as constructed. Where a drawing shows stone-faced walls rising vertically from the water, the corresponding photograph shows jagged rocks. It is clear from the photographs that the walkway cannot be used as a working wharf. In some
parts it is possible that vessels would occasionally tie up to the walkway at high water, but
that would not mean that the intended use of the walkway is as a working wharf.

4.5 The Authority accepts the applicant’s contentions as to the intended use of the walkway as
being both to provide access to the various facilities and as a venue for social gatherings and
not as a working wharf.

4.6 Admittedly, there are working wharves in the immediate vicinity of the walkway. Some
people could well perceive an undesirable visual contrast between those wharves, with no
barriers and the walkway with a barrier. In its previous Determination No. 92.1102
“Handrails for an Assembly Service Building” the Authority said that it did not consider that
a wish to achieve an appropriate visual appearance justified a waiver of the building code,
and it sees no reason to alter that opinion in this case.

4.7 The applicant did not specifically address clause F4.3.4, which requires that barriers shall
restrict the entry of children under 6 years of age when located in areas likely to be
frequented by them. The Authority considers that the walkway is an area likely to be
frequented by children under 6 years of age because of the proximity of various existing and
proposed recreational facilities suitable for family outings. In terms of Approved Document
F4/AS1 the Authority considers that the walkway is similar to a bridge with pedestrian
access and should be designed to restrict the passage of children in the age group “4 and
under 6”. The fact that children on the walkway are likely to be under adult supervision is
not sufficient, as was also discussed in Determination No. 92.1102, where the Authority
pointed out that it takes only a few seconds for a child to climb over or fall through a
handrail, and it is unreasonable to expect a level of supervision that could prevent that.

5. The Authority’s decision

5.1 In accordance with section 20(a) of the Building Act the Authority hereby determines that a
building consent is not to be issued for the proposed walkway without a barrier complying
with clause F4.3.4 of the building code and designed to restrict the entry of children in the
age group “4 and under 6”.

Signed for and on behalf of the Building Industry Authority on this 30th day of
October 1995

J H Hunt
Chief Executive
Attachment 3: Marsden Cove safety barrier.
16 186

11 July 2016

Far North Holdings Ltd via email chris@fnhl.co.nz
PO Box 7
Opua

Attention Chris Galbraith

Dear Chris

Re: Mangonui Boardwalk – Concept Design for a Safety Net

Introduction
Further to our meeting 29 June we furnish a concept design for a safety net attached to the outside of the board walk at Waterfront Drive, Mangonui. The concept design has been based upon the safety net concept sketch provided to us at our meeting, the as-built drawings supplied of Mangonui boardwalk and product literature for safety nets by Safety Nets NZ Ltd.

Concerns regarding building code compliance and safety of the solution were raised at our meeting; however our brief is limited to the structural concept only, with these matters to be the content of later discussions between the interested parties.

The Site & Proposal
Mangonui boardwalk was constructed ca. 6 years ago and comprises a timber decked boardwalk alongside Waterfront drive constructed in two separable parts;

- A concrete structure comprising 400 dia concrete piles with a concrete deck and timber deck over, extending from the four square building ca. 73 m south
- A timber structure comprising 300 dia timber piles with a timber deck over, extending a further ca. 81 m south, around a curve.

We understand the concept of a safety net was tabled as an alternative to a traditional safety barrier, as there is a fall of ca. 2-3 m to the seabed. Safety barrier design is normally carried out in compliance with the building code clause F4, with structural loads in accordance with AS/NZS1170.

Safety nets are commonly used in NZ for safety from falling on construction sites, particularly for working on roofs. We are advised a similar safety net solution has been used elsewhere as a permanent fixture, but we do not know the detail, and this solution is out of the ordinary with regards to the MBIE publications and NZ standards.

The concept design variables are therefore require discussion and agreement with the persons of delegated authority and the building consents team leader.

In preparing this concept design, we have reviewed MBIE publication ‘Best practice guidelines for working on roofs’, June 2012, and copies of some relevant pages are attached to this letter. We have also discussed the application with Safety Nets NZ Ltd, and that discussion needs to be advanced if the concept design is to be adopted with regard to design loads and material specifications.
We are advised from Safety Nets NZ Ltd that the design load for a person falling for their propriety nets is 2.2 kN. This transposes to $2.2 / 9.81 = 224$ kg, being the load of a person falling.

The concept is that the net is to be less than 1 m below the deck or kick rail, such that fall height is less than 1 m, thereby providing a form of compliance with the building code. The design load appears to be conservative for a single person falling.

There is no guidance as to how many people the net should be designed to cope with at any one time and the design loading needs to be agreed between the parties; ie

- are several people likely to fall onto the net at one time?
- Is it likely that children (or adults!) will use the net for playing?

For this concept, we have adopted a 125 mm diameter nominal bore galvanised steel tube, attached to the piles with a pile clamp. This is typically every 4.5 m for the timber piles, or 5.0 m for the concrete piles.

The steel tube extends beyond the outer extent of the boardwalk by ca. 2 m, with tension provided to the net via a steel wire attached to the end of the steel tubes and at the boardwalk.

With this concept, we calculate that a single 125 NB pipe can support 2 people, or one person every 2 metres. The pipe size may be increased to support more people, but the safety net capacity will also require checking.

To present this concept, we have sketched on the boardwalk plans provided to us the location and typical details of the outriggers and net position. The next stage should involve

- Discussion of the concept between the parties
- Agreement for design loads
- Costings from a steel fabricator and professional rigging company (ie Safety Nets NZ Ltd)

Yours faithfully

John Papesch

Enclosures
1. Outrigger Schematic
2. Overall Site Plan
3. Site Plan – Timber Boardwalk
4. Concrete Boardwalk – Typical Details
5. Timber Boardwalk – Typical Details
6. Timber Boardwalk – Safety Net Connection
7. Concrete Boardwalk – Safety Net Connection
DESIGN LOAD - AS ADVISED BY SAFETY NETS NO. 2.2 KN FOR A SINGLE PERSON FALLING

BENDING MOMENT = 2.2 \times 2 \times 1.5
\text{m}^2 = 6.6 \text{ kNm}.

TRY 125 NB HEAVY (139 OD \times 5.4 \text{ WT}).

\begin{align*}
\beta &= 0.9 \\
A &= 73.5 \text{ cm}^2 \\
A_y &= 245 \text{ mm}^2 \\
\phi \text{ ML} &= 9.9 \times 245 \times 73.5 \times 10 \times \beta \\
&= 16 \text{ kNm} > 6.6 \text{ kNm} \quad \text{OK}.
\end{align*}

With timber piles at 4.5m O/C, one cantilever steel tube can support 2 people or 1 person every 2m.

PILE CLAMP TYPICAL ARRANGEMENT.

- 300 mm FOR TIMBER PILES
- 400 mm FOR CONCRETE PILES

4 M16 BOLTS