Date: 25 May 2022
Your Ref: NYM/2020/1018/FL
Our Ref: 006/2020/02

North York Moors National Park Authority
The Old Vicarage
Bondgate, Helmsley
York, North Yorkshire
YO62 5BP

Dear Sir/Madam

Sandsend visitor car park (NYM/2020/1018/FL) Discharge of Conditions 9 and 11 and revisions to plans previously approved (NYM/2022/0155) pursuant to Condition 7 (Planning Portal Ref: PP-11283579)

I am writing to you, to inform you of the submission of discharge of condition application, seeking the partial discharge of condition: 9 (road safety audit and off site works. The programme for delivery will be submitted following approval of the off site works details); and full discharge of condition 11 (Visibility Splay) and Revisions to plans previously approved (NYM/2022/0155) pursuant to Condition 7 of planning consent NYM/2020/1018/FL Sandsend Visitor Car Park.

The revisions to plans previously approved pursuant to Condition 7 (NYM/2022/0155) follow recommendations in the Stage 2 RSA, The changes are minor in nature: parking at Fish Cottage and Gift Shop added, Filter Drain added; footway widened to 2m, disabled parking relocated.

- Covering Letter
- Discharge of Condition Application Form and Certificate of Ownership
- Stage 2 Road Safety Audit (300390_001_01)
- Road Safety Audit Decision Log (11613_005_02)
- Off Site Highway Works (300630_1100_002)
- Vehicle Tracking (300630_SO_002)
- General Arrangements (300630_100_001A)
- Contours and Long Sections (300630_100002A)
- Surface Water Drainage (300630_500_001A)
- Pavements (300630_700_001A)
- Kerbing (300630_1100_001A)

The planning application fee of £116 + £32 service charge has been paid by the applicant via the planning portal.

I trust that this is everything you require to validate the application and to inform the Authority's consideration of the discharge application. Please do contact me if you require any additional information, please do contact me.

Yours sincerely

John Long BA (hons) DipTP, MRTPI
Director
Encl.

NYMNPA

26/05/2022

Road Safety Audit Decision Log

Document Ref No. 11613-004
Document Revision. 01

ROAD SAFETY AUDIT STAGE 1

RSA problem	RSA recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA action
Problem 1.1: **Location:** Existing access and car parking adjacent to the A174. **Summary:** Drawings 11613-003 & 004 do not show if the existing parking (adjacent to the A174) is retained and whether pedestrian facilities will be provided along the new access road to access the existing shops, Fish Cottage, other buildings and the woodland. If the car parking is retained in an 'ad hoc' fashion adjacent to the new access road this could lead vehicles manoeuvring on and off the access road in conjunction with people on foot accessing the shops and woodland along the access road leading to pedestrian / vehicle conflict and vehicle / vehicle manoeuvring collisions.	If the car parking (for the shops and Fish Cottage) is to be retained, formalise the parking arrangements and its management and provide pedestrian facilities to access the shops and other buildings on the northern side of the new access road and across the access road junction with the A174, providing dropped kerbs and tactile paving where appropriate.	The existing 2 N° shops and bistro have existing access to designated spaces located in proximity to the site access. The units will remain to have access to designated parking, however, the spaces will be provided in an alternative location (to be agreed) in order to accommodate the proposed layout.		
Problem 1.2: **Location:** Existing footpath / private drive along the south side of East Row Beck to the A174. **Summary:** Drawing 11613-004 indicates that there is no pedestrian route on to the A174 and that the pedestrian access to / from the car park to the A174 is along the existing footpath / private drive. It is understand that this relates to vehicle occupants accessing the car parking where the existing footpath should be used to minimise foot traffic across East Row Bridge. The existing footpath / private drive is in very poor condition in terms of its surfacing and drainage for access on foot and there is no indication of whether improvements are proposed. It is also used for vehicular access to the properties along the private drive. The existing footpath route in its present condition would not be attractive for use by people with pushchairs / wheelchairs, young children and those with mobility / visual impairments and vehicle occupants would likely be attracted to use the new access road since there is a footpath along part of it (between the two proposed bridges) and it is then only a short distance (circaian slip and trip incidents. e are the existing shops and Fish Cottage. Pedestrians using the new access road in this manner could lead to pedestrian / vehicle conflict if they walk in the carriageway to gain access to the A174.	Provide appropriate improvements to the footpath / private drive in terms of surfacing, drainage, signage and levels / gradients for pedestrians in accordance with the proposed pedestrian access strategy.	An alternative pedestrian access strategy has been developed which does not involve pedestrian movements along the unmade sections of the private road. Pedestrians will utilise a proposed footbridge located ~45m south-west of the A174 East Row Bridge to cross between the vehicle access road to the north of the beck and the private road to the south of the beck. A suitably surfaced, delineated footway is proposed along the southern side of the private road between the footbridge and existing pedestrian infrastructure along the A174. The proposed pedestrian improvements are shown on drawing 11613-006 at **Appendix B**.		
Problem 1.3: **Location:** Existing footpath / private drive junction with the A174. **Summary:** Drawings 11613-003 & 004 do not show if any pedestrian improvements are proposed at the junction of the existing footpath / private drive with the A174. There are existing part time (21 March to 30 September) waiting restrictions on the adopted part of the A174 junction area and a car was observed parking on the private drive part against the existing footway, effectively blocking access to the footway from the private drive. Furthermore, there are no existing dropped kerbs (or tactile paving) or a clear route to indicate how pedestrians should join the existing footway from the end of the private drive. Inadequate pedestrian facilities could lead to conflict between pedestrians and vehicles in the private drive junction area and where vehicles are also negotiating the sharp bend on to the East Row Bridge.	Provide appropriate pedestrian facilities including footway provision, dropped kerbs / tactile paving in the private drive / A174 junction area.	A suitably surfaced, delineated footway is proposed along the southern side of the private road from the footbridge and will tie in directly with the existing pedestrian infrastructure along the A174. This is shown on drawing 11613-006 at Appendix B.		
Problem 1.4: **Location:** Proposed car park vehicular bridge north and south ends. **Summary:** Drawing 11613-004 does not show the vehicle route arrangements at the ends of the proposed car park vehicular bridge, carriageway widths or vehicle swept paths. If the carriageway width is adequate to allow two way flow at the bridge ends in conjunction with restricted forward visibility across the bends it could lead to head on vehicle collisions.	Provide appropriate carriageway width on the bends for the predicted types of vehicle swept paths and forward visibility taking into account the proposed bridge parapets and abutment walls in conjunction with the pedestrian facilities.	The bridge alignment and carriageway widths have been slightly amended to ensure that two-way vehicle flow can be accommodated at both ends of the bridge.		
Problem 1.5: **Location:** Proposed car park vehicular bridge south end. **Summary:** Drawing 11613-004 does not clearly show the proposed pedestrian facilities and dimensions where the pedestrian access route joins the access road just to the south of the vehicle access bridge or across the bridge. Inadequate pedestrian facilities and width could lead to conflict between pedestrians and vehicles where pedestrians need to cross the access road or walk along it to access the car parking area.	Provide footways / footpath routes of appropriate width on the bends at both ends of the bridge, across the bridge and where the pedestrian access route joins the access road together with provision of pedestrian / vehicle inter-visibility taking into account the proposed bridge parapets and abutment walls in conjunction with the proposed pedestrian facilities. If the pay stations are relocated to the southern side this would reduce the need for pedestrians to cross the access road.	A continuous 2.0m wide pedestrian footway is proposed from the car park, along the access road to the proposed pedestrian footbridge located ~45m to the south-west of East Row Bridge. The footway will include 1.0m high bird-mouth fencing along the top of embankment to prevent falling from height and a 0.45m high chain-link fence will be provided along the edge of footway / edge of carriageway.		
Problem 1.6: **Location:** Proposed car park vehicular bridge. **Summary:** Drawing 11613-004 does not show the proposed dimensions of the vehicle access bridge. It is not clear from the drawings if the car park would remain open if maintenance operations are needed to the bridge. Adequate width would be required to allow for at least single file traffic (vehicle and pedestrian) together with working room for maintenance operations if the car park is not closed. Inadequate width could lead to conflict between pedestrians / vehicles and construction operatives carrying out maintenance activities on the bridge.	Provide appropriate bridge widths for the proposed maintenance strategy and its management.	Car park will be closed during bridge maintenance periods. The car park is to operate on a seasonal basis and any maintenance will be programmed to take place during these non-operational periods.		

ROAD SAFETY AUDIT STAGE 2

RSA problem	RSA recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA action
Problem 1.1: From drawing 300630-1100-001 it appears that a bullnose dropped kerb is proposed on the northern side of the proposed access road adjacent to the Fish Cottage and gift shop which also incorporates a pedestrian crossing point, presumably for pedestrian access to the Fish Cottage and gift shop. Furthermore, the area between the edge of the proposed access road and the gift shop is particularly uneven with a gravel surface, a drainage grip and rope barriers which prevent pedestrians using the area. Parking on the southern side is inhibited by a low chain fence and kerb up to the proposed footbridge. No details of any highway works or surface treatment on the northern side of the access road are shown on the drawings or how parking might be retained. If parking takes place on an ad hoc basis this could lead to pedestrians walking in the carriageway to access the Fish Cottage and gift shop and result in conflict with vehicles that are behind them exiting from the car park.	If car parking (for the gift shop and Fish Cottage) is to be retained, formalise the parking arrangements and its management and provide pedestrian facilities to access the shops and other buildings on the northern side of the new access road, providing dropped kerbs and tactile paving where appropriate so pedestrians can cross the proposed access road to the footbridge.	Some short term parking has been proposed for the gift shop and Fish Coltage. Pedestrian access is provided along the northern side of the proposed access road.		
Problem 1.2: See comments below for item 1.3 which relate to the section of existing footpath / private drive between the proposed footbridge and the A174.				
Problem 1.3: The drawing series with numbers starting 300630 do not show any details for highway works to the south of East Row Beck. However, drawing 11613-006 shows proposals for a footpath from the end of the footbridge to link with the existing provision on the A174. A sign on the wall of Thordisa Cottage suggests that the existing block paved surface (identified on the drawing in front the cottage) is used for residential parking. Parking was also observed just to the north east of the cottage on the surfaced part of the A174, and also against the boundary wall, just to the south west of the cottage. A bin enclosure was also situated on the block paved area. The existing footpath / private drive between the footbridge and the A174 is in poor condition in terms of its surfacing and drainage with many slip and trip hazards for access on foot. If parking takes place as observed, in front of the cottage and against the boundary wall, pedestrians are likely to walk on the private track resulting in pedestrian slip and trip incidents.	Provide appropriate treatment to the footpath / private drive in terms of surfacing, dropped kerbs, drainage, signage, levels / gradients and features to manage parking so that pedestrians can join the existing footway to the north east of the cottage without obstruction	A further drawing 300630-1100-002 in response to the comments raised by the Audit Team		
Problem 1.4: No further comment.				
Problem 1.5: No further comment. See Stage 2 item 2.3.				
Problem 1.6: No further comment.				
Problem 2.1: **Location:** Proposed car park vehicular bridge **Summary:** Drawing 300630-1100-001 appears to show a bridge parapet / barrier on the southernmost side of the bridge which is within the footway width (2m) but no dimensions are shown for the proposed clear width of footway between the parapet and kerb line. Inadequate pedestrian footway width could lead to conflict between pedestrians and vehicles if they step into the carriageway to pass opposing pedestrians or pass family groups utilising the full width of the reduced footway width.	Provide an appropriate footway width past the parapet / barrier.	The structural engineers who are designing the bridge will be advised of the Audit Teams concerns and requested to ensure that a footway width of 2m is provided for pedestrians.		
Problem 2.2: **Location:** North side of access road between the vehicle bridge and circa 20m north east of the existing gate on the access road. **Summary:** Drawing 300630-1100-001 shows that the northernmost edge of the proposed access road is in the order of 3m from the edge of the existing surfaced access track. The land on the northern side of the existing access track rises steeply from the edge of the track and no details of how the land will be regraded or retained are shown nor how surface water run-off from the land on to the carriageway will be intercepted to prevent silt and other soil debris being washed on to the carriageway surface. Furthermore, there are several individual mature trees that are likely to be affected by the excavations for the new access road. Given that permeable surfacing is proposed and the longitudinal and cross sectional gradients are fairly flat a build up of silt and debris or water on the carriageway surface could lead to reduced drainage performance or skid resistance and result in vehicle loss of control / skidding type incidents. Furthermore, since permeable surfacing is proposed there are no gullies proposed against the proposed kerb line which would act so as to stop surface water flowing off the carriageway and if surface permeability is impaired over time, water could pond at low spots in the vertical alignment leading to vehicle loss of control / skidding type incidents.	Provide an appropriate cross sectional detail on the northern most side of the access road to minimise surface water run-off from the land on to the carriageway and hence silt / soil and other debris being washed on to the carriageway surface	The designers advise that surface crossfall is typically 1:50 and do not agree that these can be considred as "fairly flat". The new road design sits slightly higher than existing levels to mitigate issues of the above occurring however we acknowledge that there may be instances where this does. the designers therefore propose to install a filter drain on the northern edge to assist with prevention of siltation and ponding. This will intercept any surface water runoff and discharge it into the		
Problem 2.3 **Location:** South side of the access road between the vehicle bridge and footbridge to the east. **Summary:** Drawing 300630-1100-001 shows the provision of a low chain fence between the footway and kerb line which is within the footway width (2m). No dimensions are shown for the proposed offset from the kerb for either clearance to vehicles and the remaining clear width of footway. The purpose of the low chain fence is not clear but it would inhibit vehicles parking part on the footway obstructing pedestrians. Inadequate pedestrian footway width could lead to conflict between pedestrians travelling in opposing directions on the footway or to pass family groups utilising the full width of the footway and in this case they could step off the back of footway. Alternatively, pedestrians could walk in the carriageway at busy times, on the wrong side of the low chain fence, in conflict with vehicles since they could not easily step back onto the footway. Furthermore, if pedestrians step off the back of footway there is a level difference between the footway and East Row Beck, which is just to the south. The design response to item 1.5 suggests that a 1m high bird-mouth fence would be provided along the top of embankment to prevent falling from height.	Provide an appropriate footway width between the low chain fence and back of footway and also between the fence and vehicles. This would be in conjunction with fence along the top of the embankment / back of footway.	The designers acknowledge the comments of the Audit team and propose to widen the footway to 2.55m, which will ensure that pedestrians are afforded a 2m width behind the low level fence (100mm wide and set back 450mm from kerb face)		
Problem 2.4 **Location:** Proposed car park vehicular bridge. **Summary:** Drawing 300630-1100-001 shows the provision of disabled parking on the northern side of the car park layout the furthest distance from the proposed footway on the southern side of the access road. There is no pedestrian route along the eastern most edge of the car park and passed either the electric charging points or cycle parking. In this situation persons with mobility impairments or using wheelchairs from the disabled parking bays would have to share the car park aisle and cross the car park entry traffic stream to access the footway. An inadequate pedestrian route from the disabled parking to the footway and dropped kerbs could lead to conflict between pedestrians and vehicles.	Potentially relocate the disabled parking to the southern side of the car park layout adjacent to the proposed footway and provide dropped kerbs or provide a footway around the eastern edge of the car park or if these are not feasible provide a marked pedestrian route leading from the disabled parking to the footway and provide dropped kerbs.	The designers acknowledge the Audit teams comments and have relcoated the disabled bays as suggested		

sanderson associates (consulting engineers) ltd

Highways | Traffic | Transportation | Water

Sanderson Associates (Consulting Engineers) Ltd, Sanderson House
Jubilee Way, Grange Moor, Huddersfield, West Yorkshire WF4 4TD

Prepared on behalf of

The Mulgrave Estate

Proposed Car Park,
The Mulgrave Estate, Land off the A174
Sandsend

Stage 2 Road Safety Audit

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Company No. 3235830
Registered Office
Sanderson House, Jubilee Way
Grange Moor WF4 4TD

IHE

Control Sheet

CLIENT: **The Mulgrave Estate**

PROJECT TITLE: **Proposed Car Park**
The Mulgrave Estate
Land off the A174
Sandsend

REPORT TITLE: **Stage 2 Road Safety Audit**

PROJECT REFERENCE: **300390**

DOCUMENT NUMBER: **001**

STATUS: **Final**

Issue & Approval Schedule	Version 01	Name	Signature	Date
	Prepared by	David Colley		09/03/2022
	Checked by	Ashley Armitage		09/03/2022
	Approved by	Ashley Armitage		09/03/2022

Revision Record	Ver.	Date	Status	Description	Signature	
					By	
					Check	
					Approve	
					By	
					Check	
					Approve	

This document has been prepared in accordance with procedure OP/P02 of the *Fairhurst Quality and Environmental Management System*

This document has been prepared in accordance with the instructions of the client, The Mulgrave Estate, for the client's sole and specific use. Any other persons who use any information contained herein do so at their own risk.

Disclaimer

The methodology adopted and the sources of information used by Sanderson Associates (Consulting Engineers) Ltd in providing its services are outlined within this Report.

Any information provided by third parties and referred to herein has not been checked or verified by Sanderson Associates (Consulting Engineers) Ltd, unless otherwise expressly stated within this report.

This report was checked and approved on the 9th March 2022 and the Report is therefore valid on this date, circumstances, regulations and professional standards do change which could subsequently affect the validity of this report.

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Appendices

APPENDIX A

Marked Up Plan

1 Introduction

1.1 Sanderson Associates (Consulting Engineers) Ltd have been appointed by The Mulgrave Estate to carry out a Stage 2 Road Safety Audit (RSA) of the highway works comprising of vehicular access improvements from the A174 to serve a proposed new 150 space car park and pedestrian access.

1.2 The proposed access is situated in the same location as an existing access serving a takeaway / restaurant (Fish Cottage), two gift type shops, other buildings, a car park area and access to the Mulgrave Estate woodland to the west. A number of vehicles were observed using the car park and people were walking into the woodland from the A174.

1.3 This Stage 2 Road Safety Audit has been instructed by Sanderson Associates for the Mulgrave Estate Limited on the 22nd February 2022. The following drawings and information have been provided to the RSA Team for review:

Drawings and information for Audit purposes.

Drawings by Sanderson's

- 300630-SO-001 – (no revision): Setting Out
- 300630-100-001 – (no revision): General Arrangement
- 300630-100-002 – (no revision): Contours and Long Sections
- 300630-200-001 – (no revision): Site Clearance
- 300630-500-001 – (no revision): Surface Water Drainage
- 300630-700-001 – (no revision): Pavements
- 300630-700-002 – (no revision): Construction Details
- 300630-1100-001 – (no revision): Kerbing

Other information provided by Sanderson's

- Stage 1 RSA report and RSA Response Report (including Decision Log) reference 11613/004/01 dated 19th May 2021. The RSA Response Report includes a copy of drawing 11613-006 – Proposed Pedestrian Route

1.4 The Audit Team members are as follows and also undertook the previous Stage 1 Road Safety Audit:

- Audit Team Leader - David Colley MCIHT, Associate Director at Sanderson Associates
- Audit Team Member - Ashley Armitage MIHE, Assistant Engineer at Sanderson Associates

1.5 The Audit took place on site on Tuesday morning 1st March 2022. During the site visit the weather was dry with broken cloud cover and the road surface was damp. There were no incidents on the existing access road although there was some building work being undertaken on the gift shop.

1.6 The pedestrian access strategy for the Stage 2 Audit has some differences from that considered for the Stage 1 Audit. The main differences are:-

- The proposed pedestrian footbridge has been relocated closer to the A174 and is situated approximately 25m from the carriageway.
- The footpath along the southern side of the East Row Beck between the car park and the A174 is no longer proposed for use apart from a short length (circa 25m) from the footbridge to the A174 existing footway provision.
- The proposed footway along the southern side of the vehicular access road is extended to the footbridge.
- The vehicular bridge is in approximately the same location but more skewed relative to East Row Beck.
- Access into the car park is controlled by ANPR camera / barrier as before.
- A pedestrian crossing point as been included between the south side footway and north side of the access road, presumably to allow people on foot to access the Fish Cottage (takeaway / restaurant) and gift shop.
- No details of any highway works on the northern side of the access road are shown on the drawings for any retained parking, or pedestrian access to the Fish Cottage and gift shop. The area between the edge of the proposed access road and the gift shop is particularly uneven with a drainage grip. The nearest parking spaces in the car park are approximately 220m from the gift shop.

- There will be no access to parking behind the footway on the southern side of the access road since a low chain fence and kerb are proposed between the road and footway.

1.7 Reference to the website Crashmap.co.uk indicates that there are no accidents on the A174 adjacent to the proposed access works. The nearest incidents are noted to have occurred adjacent to the bus stops just to the east of the A174 / Dunsley Lane junction (approximately 400m from the site access) on A174 Sandsend Road.

1.8 The terms of reference of the Road Safety Audit are as described in GG119. The team has examined the works and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the works to any other criteria.

1.9 All of the problems described in Section 3 of this report are considered by the Audit Team to require action in order to improve the safety of the scheme. However, any recommendation included within this report should not be regarded as being a prescriptive design solution to the problem raised. They are intended only to indicate a proportionate means of eliminating or mitigating the identified problem. It is noted that there may be alternative methods of addressing a problem that would be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.

1.10 A marked up plan is included in **Appendix A**, which identifies the approximate location of problems that have been raised. General problems or those with multiple locations have not all been shown.

1.11 Following the completion of the Road Safety Audit, the design team should prepare a *'Road Safety Audit Response Report'* in collaboration with the Overseeing Organisation. The response report should incorporate the following:

- Decision Log spreadsheet, where each Problem and Recommendation in the Road Safety Audit report is reiterated;

- In the Decision Log, a response should be provided by the Design Team and then by the Overseeing Organisation for each problem raised. This should then be followed by an agreed action.

Further information to assist the preparation of the Road Safety Audit Response Report is provided in **GG119 Sections 4.11 to 4.19 and Appendix F** (that includes a Road Safety Audit Response Report template). In accordance with GG119, the response report should be produced and finalised within one month of the issue of the Road Safety Audit report. A copy of the response report should be issued to the Road Safety Audit Team for information.

2 Items Raised for the Stage 1 Road Safety Audit

The following reproduces the items raised for the Stage 1 Road Safety Audit and the response from the design organisation team. Further Stage 2 Audit team comments have been added to each item where relevant and still applicable.

Problem 1.1:

Location: Existing access and car parking adjacent to the A174.

Summary: Drawings 11613-003 & 004 do not show if the existing parking (adjacent to the A174) is retained and whether pedestrian facilities will be provided along the new access road to access the existing shops, Fish Cottage, other buildings and the woodland. If the car parking is retained in an 'ad hoc' fashion adjacent to the new access road this could lead vehicles manoeuvring on and off the access road in conjunction with people on foot accessing the shops and woodland along the access road leading to pedestrian / vehicle conflict and vehicle / vehicle manoeuvring collisions.

Recommendation: If the car parking (for the shops and Fish Cottage) is to be retained, formalise the parking arrangements and its management and provide pedestrian facilities to access the shops and other buildings on the northern side of the new access road and across the access road junction with the A174, providing dropped kerbs and tactile paving where appropriate.

Designers Response: *The existing 2 Nº shops and bistro have existing access to designated spaces located in proximity to the site access. The units will remain to have access to designated parking, however, the spaces will be provided in an alternative location (to be agreed) in order to accommodate the proposed layout.*

Stage 2 Audit team comment.

From drawing 300630-1100-001 it appears that a bullnose dropped kerb is proposed on the northern side of the proposed access road adjacent to the Fish Cottage and gift shop which also incorporates a pedestrian crossing point, presumably for pedestrian access to the Fish Cottage and gift shop. Furthermore, the area between the edge of the proposed access road and the gift shop is particularly uneven with a gravel surface, a drainage grip and rope barriers which

prevent pedestrians using the area. Parking on the southern side is inhibited by a low chain fence and kerb up to the proposed footbridge. No details of any highway works or surface treatment on the northern side of the access road are shown on the drawings or how parking might be retained. If parking takes place on an ad hoc basis this could lead to pedestrians walking in the carriageway to access the Fish Cottage and gift shop and result in conflict with vehicles that are behind them exiting from the car park.

Stage 2 Recommendation: If car parking (for the gift shop and Fish Cottage) is to be retained, formalise the parking arrangements and its management and provide pedestrian facilities to access the shops and other buildings on the northern side of the new access road, providing dropped kerbs and tactile paving where appropriate so pedestrians can cross the proposed access road to the footbridge.

Problem 1.2:

Location: Existing footpath / private drive along the south side of East Row Beck to the A174.

Summary: Drawing 11613-004 indicates that there is no pedestrian route on to the A174 and that the pedestrian access to / from the car park to the A174 is along the existing footpath / private drive. It is understand that this relates to vehicle occupants accessing the car parking where the existing footpath should be used to minimise foot traffic across East Row Bridge. The existing footpath / private drive is in very poor condition in terms of its surfacing and drainage for access on foot and there is no indication of whether improvements are proposed. It is also used for vehicular access to the properties along the private drive. The existing footpath route in its present condition would not be attractive for use by people with pushchairs / wheelchairs, young children and those with mobility / visual impairments and vehicle occupants would likely be attracted to use the new access road since there is a footpath along part of it (between the two proposed bridges) and it is then only a short distance (circa 110m) to the A174 where there are the existing shops and Fish Cottage. Pedestrians using the new access road in this manner could lead to pedestrian / vehicle conflict if they walk in the carriageway to gain access to the A174.

Recommendation: Provide appropriate improvements to the footpath / private drive in terms of surfacing, drainage, signage and levels / gradients for pedestrians in accordance with the proposed pedestrian access strategy.

***Designers Response**: An alternative pedestrian access strategy has been developed which does not involve pedestrian movements along the unmade sections of the private road. Pedestrians will utilise a proposed footbridge located ~45m south-west of the A174 East Row Bridge to cross between the vehicle access road to the north of the beck and the private road to the south of the beck. A suitably surfaced, delineated footway is proposed along the southern side of the private road between the footbridge and existing pedestrian infrastructure along the A174. The proposed pedestrian improvements are shown on drawing 11613-006 at **Appendix B**.*

Stage 2 Audit team comment.

See comments below for item 1.3 which relate to the section of existing footpath / private drive between the proposed footbridge and the A174.

Problem 1.3:

Location: Existing footpath / private drive junction with the A174.

Summary: Drawings 11613-003 & 004 do not show if any pedestrian improvements are proposed at the junction of the existing footpath / private drive with the A174. There are existing part time (21 March to 30 September) waiting restrictions on the adopted part of the A174 junction area and a car was observed parking on the private drive part against the existing footway, effectively blocking access to the footway from the private drive. Furthermore, there are no existing dropped kerbs (or tactile paving) or a clear route to indicate how pedestrians should join the existing footway from the end of the private drive. Inadequate pedestrian facilities could lead to conflict between pedestrians and vehicles in the private drive junction area and where vehicles are also negotiating the sharp bend on to the East Row Bridge.

Recommendation: Provide appropriate pedestrian facilities including footway provision, dropped kerbs / tactile paving in the private drive / A174 junction area.

***Designers Response**: A suitably surfaced, delineated footway is proposed along the southern side of the private road from the footbridge and will tie in directly with the existing pedestrian infrastructure along the A174. This is shown on drawing 11613-006 at Appendix B.*

Stage 2 Audit team comment.

The drawing series with numbers starting 300630 do not show any details for highway works to the south of East Row Beck. However, drawing 11613-006 shows proposals for a footpath from the end of the footbridge to link with the existing provision on the A174. A sign on the wall of Thordisa Cottage suggests that the existing block paved surface (identified on the drawing in front the cottage) is used for residential parking. Parking was also observed just to the north east of the cottage on the surfaced part of the A174, and also against the boundary wall, just to the south west of the cottage. A bin enclosure was also situated on the block paved area. The existing footpath / private drive between the footbridge and the A174 is in poor condition in terms of its surfacing and drainage with many slip and trip hazards for access on foot. If parking takes place as observed, in front of the cottage and against the boundary wall, pedestrians are likely to walk on the private track resulting in pedestrian slip and trip incidents.

Stage 2 Recommendation: Provide appropriate treatment to the footpath / private drive in terms of surfacing, dropped kerbs, drainage, signage, levels / gradients and features to manage parking so that pedestrians can join the existing footway to the north east of the cottage without obstruction.

Problem 1.4:

Location: Proposed car park vehicular bridge north and south ends.

Summary: Drawing 11613-004 does not show the vehicle route arrangements at the ends of the proposed car park vehicular bridge, carriageway widths or vehicle swept paths. If the carriageway width is adequate to allow two way flow at the bridge ends in conjunction with restricted forward visibility across the bends it could lead to head on vehicle collisions.

Recommendation: Provide appropriate carriageway width on the bends for the predicted types of vehicle swept paths and forward visibility taking into account the proposed bridge parapets and abutment walls in conjunction with the pedestrian facilities.

***Designers Response**: The bridge alignment and carriageway widths have been slightly amended to ensure that two-way vehicle flow can be accommodated at both ends of the bridge.*

Stage 2 Audit team comment.

No further comment.

Problem 1.5:

Location: Proposed car park vehicular bridge south end.

Summary: Drawing 11613-004 does not clearly show the proposed pedestrian facilities and dimensions where the pedestrian access route joins the access road just to the south of the vehicle access bridge or across the bridge. Inadequate pedestrian facilities and width could lead to conflict between pedestrians and vehicles where pedestrians need to cross the access road or walk along it to access the car parking area.

Recommendation: Provide footways / footpath routes of appropriate width on the bends at both ends of the bridge, across the bridge and where the pedestrian access route joins the access road together with provision of pedestrian / vehicle inter-visibility taking into account the proposed bridge parapets and abutment walls in conjunction with the proposed pedestrian facilities. If the pay stations are relocated to the southern side this would reduce the need for pedestrians to cross the access road.

***Designers Response**:- A continuous 2.0m wide pedestrian footway is proposed from the car park, along the access road to the proposed pedestrian footbridge located ~45m to the south-west of East Row Bridge. The footway will include 1.0m high bird-mouth fencing along the top of embankment to prevent falling from height and a 0.45m high chain-link fence will be provided along the edge of footway / edge of carriageway.*

Stage 2 Audit team comment.

No further comment. See Stage 2 item 2.3.

Problem 1.6:

Location: Proposed car park vehicular bridge.

Summary: Drawing 11613-004 does not show the proposed dimensions of the vehicle access bridge. It is not clear from the drawings if the car park would remain open if maintenance operations are needed to the bridge. Adequate width would be required to allow for at least single file traffic (vehicle and pedestrian) together with working room for maintenance operations if the car park is not closed. Inadequate width could lead to conflict between pedestrians / vehicles and construction operatives carrying out maintenance activities on the bridge.

Recommendation: Provide appropriate bridge widths for the proposed maintenance strategy and its management.

Designers Response: *Car park will be closed during bridge maintenance periods. The car park is to operate on a seasonal basis and any maintenance will be programmed to take place during these non-operational periods.*

Stage 2 Audit team comment.

No further comment.

3 Items Raised at this Stage 2 Road Safety Audit

Problem 2.1

Location: Proposed car park vehicular bridge.

Summary: Drawing 300630-1100-001 appears to show a bridge parapet / barrier on the southernmost side of the bridge which is within the footway width (2m) but no dimensions are shown for the proposed clear width of footway between the parapet and kerb line. Inadequate pedestrian footway width could lead to conflict between pedestrians and vehicles if they step into the carriageway to pass opposing pedestrians or pass family groups utilising the full width of the reduced footway width.

Recommendation: Provide an appropriate footway width passed the parapet/ barrier.

Problem 2.2

Location: North side of access road between the vehicle bridge and circa 20m north east of the existing gate on the access road.

Summary: Drawing 300630-1100-001 shows that the northernmost edge of the proposed access road is in the order of 3m from the edge of the existing surfaced access track. The land on the northern side of the existing access track rises steeply from the edge of the track and no details of how the land will be regraded or retained are shown nor how surface water run-off from the land on to the carriageway will be intercepted to prevent silt and other soil debris being washed on to the carriageway surface. Furthermore, there are several individual mature trees that are likely to be effected by the excavations for the new access road. Given that permeable surfacing is proposed and the longitudinal and cross sectional gradients are fairly flat a build up of silt and debris or water on the carriageway surface could lead to reduced drainage performance or skid resistance and result in vehicle loss of control / skidding type incidents. Furthermore, since permeable surfacing is proposed there are no gullies proposed against the proposed kerb line which would act so as to stop surface water flowing off the carriageway and if surface permeability is impaired over time, water could

pond at low spots in the vertical alignment leading to vehicle loss of control / skidding type incidents.

Recommendation: Provide an appropriate cross sectional detail on the northern most side of the access road to minimise surface water run-off from the land on to the carriageway and hence silt / soil and other debris being washed on to the carriageway surface.

Problem 2.3

Location: South side of the access road between the vehicle bridge and footbridge to the east.

Summary: Drawing 300630-1100-001 shows the provision of a low chain fence between the footway and kerb line which is within the footway width (2m). No dimensions are shown for the proposed offset from the kerb for either clearance to vehicles and the remaining clear width of footway. The purpose of the low chain fence is not clear but it would inhibit vehicles parking part on the footway obstructing pedestrians. Inadequate pedestrian footway width could lead to conflict between pedestrians travelling in opposing directions on the footway or to pass family groups utilising the full width of the footway and in this case they could step off the back of footway. Alternatively, pedestrians could walk in the carriageway at busy times, on the wrong side of the low chain fence, in conflict with vehicles since they could not easily step back onto the footway. Furthermore, if pedestrians step off the back of footway there is a level difference between the footway and East Row Beck, which is just to the south. The design response to item 1.5 suggests that a 1m high bird-mouth fence would be provided along the top of embankment to prevent falling from height.

Recommendation: Provide an appropriate footway width between the low chain fence and back of footway and also between the fence and vehicles. This would be in conjunction with fence along the top of the embankment / back of footway.

Problem 2.4

Location: Proposed car park vehicular bridge.

Summary: Drawing 300630-1100-001 shows the provision of disabled parking on the northern side of the car park layout the furthest distance from the proposed footway on the southern side of the access road. There is no pedestrian route along

the eastern most edge of the car park and passed either the electric charging points or cycle parking. In this situation persons with mobility impairments or using wheelchairs from the disabled parking bays would have to share the car park aisle and cross the car park entry traffic stream to access the footway. An inadequate pedestrian route from the disabled parking to the footway and dropped kerbs could lead to conflict between pedestrians and vehicles.

Recommendation: Potentially relocate the disabled parking to the southern side of the car park layout adjacent to the proposed footway and provide dropped kerbs or provide a footway around the eastern edge of the car park or if these are not feasible provide a marked pedestrian route leading from the disabled parking to the footway and provide dropped kerbs.

4 Audit Team Statement

4.1 We certify that the terms of reference of the audit are as described in GG119.

Audit Team Leader:

David Colley MCIHT

Highways England Approved RSA Certificate of Competency

Associate Director at Sanderson Associates (Consulting Engineers) Ltd

Signed: Dated: 9th March 2022

Audit Team Members:

Ashley Armitage MIHE

Assistant Engineer at Sanderson Associates (Consulting Engineers) Ltd

Signed: Dated: 9th March 2022

APPENDIX A

Marked Up Plan

- Sanderson Associates (Consulting Engineers) Ltd ("the consultant"), has not checked or verified, and shall have no liability whatsoever for any inaccuracies which may be attributable to any data, reports, base plan(s) and drawings provided by the client, or purchased by the consultant on the client's behalf, that may have been utilised within this drawing.
- The consultant shall not be liable for the use by any person of any document for any purpose other than that for which the same were provided by the consultant.
- No liability whatsoever is accepted by the consultant for any error or omissions.
- The consultant accepts no liability for any vehicle specification errors within the vehicle track software used and / or it's vehicle libraries.
- The locations of utilities apparatus, if shown, is reproduced from plans supplied to the consultant, although care has been taken when duplicating this information. These locations are approximate only and no guarantee can be given for their accuracy. It is the client's or it's appointed agent/contractors responsibility to verify the exact locations on site by hand dug trial holes or other appropriate means prior to mechanical excavation.
- Service connections are not shown but their presence should be anticipated.
- Reference to any third party equipment shown on this drawing was only relevant at the time the drawing was prepared.
- It is the client's responsibility to ensure that any equipment ordered meets the design.

Parking area edged with sleepers as vehicle stop
Area to be planted
3 No. existing trees to be removed.
Low level birds mouth fencing
8 No Disabled Parking Bays
2no. electric vehicle charging points
2.4
Proposed Bridge (By others)
2.2
2.1
2.3
1.1
1.2
1.3
4no. cycle lockers
2no. motorcycle parking bays
ANPR Camera Post / Barrier
2no. Proposed pay stations
Total parking bays - 78 No. (Including 8 disabled parking)
Car park to be constructed using permeable paving with a grey granular finish or similar approved.
2m high Deer Fencing
Low level birds mouth fencing
Proposed Footpath 2.0m wide
Low chain fence bewtween path and road
Proposed Pedestrian Crossing point
Proposed Footpath 2m wide
Proposed Pedestrian Bridge (By others)
Proposed access road to be constructed as permeable paving with a permeable bitumen surface finish or any other suitable approved.
Fish Cottage
gift shop
Cleveland Way
East Row
Thordisa Cottage
FOOTBRIDGE
LOG PROCESSING SHED
SHED
BECK
POWER LINE
BITUMEN
ALLOTMENTS
UNUSED ALLOTMENT
AVIARY
RETAINING WALL
FENCE
10 m
15 m
20 m
30 m
35 m
40 m

sanderson associates (consulting engineers) ltd Highways | Traffic | Transportation | Water	Client: The Mulgrave Estate	Project Title: Sandsend	Drawing Title: General Arrangement	Rev	Amendment	Drawn	Date	Checked	Scale: 1:500 @ A1 / Drawing Size: A1 / Date: 10/02/2022 / Drawn By: LOB / Checked By: WW / Approved By: PJM / Drawing Number: 300630-100-001 / Rev: –