Leicestershire County Council: North and East Melton Mowbray Distributor Road (MMDR)

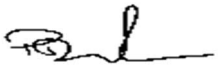
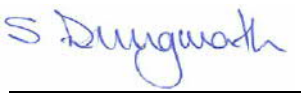
Stage 2 Road Safety Audit

Leicestershire County Council

Report Number: 60542201-ACM-LSI-GEN_GEN_ZZ_Z-RP-CH-0002

30th November 2020

Quality information

Prepared by	Checked by	Verified by	Approved by
			
Jamie Stone BEng (Hons) IEng MCIHT MSoRSA	Pete Denton BSc (Hons) DipASM MCIHT MSoRSA	Stuart Dungworth CEng FIHE MCIHT Reg RSA (IHE)	Stuart Dungworth CEng FIHE MCIHT Reg RSA (IHE)
Senior Engineer	Principal Engineer	Associate Director	Associate Director

Revision History

Revision	Revision date	Details	Authorized	Name	Position
01	20th November 2020	Issued to Client for Review		Stuart Dungworth	Associate Director
02	30th November 2020	Issued to Client		Stuart Dungworth	Associate Director

Distribution List

# Hard Copies	PDF Required	Association / Company Name
0	Yes	Leicestershire County Council
0	Yes	AECOM Nottingham

Prepared for:

Leicestershire County Council

Prepared by:

Jamie Stone
Senior Engineer
T: +44 (0)1246 218314
M: +44-(0)7747 214168

AECOM
Royal Court
Basil Close
Chesterfield
S41 7SL

T: +44 (0)1246 209221
www.aecom.com

PROJECT DETAILS	
Report Title (including stage of RSA)	Leicestershire County Council: North and East Melton Mowbray Distributor Road (MMDR)
Date	30/11/2020
Document reference and revision	60542201-ACM-LSI-GEN_GEN_ZZ_Z-RP-CH-0002 Rev.02
Prepared by	AECOM
On behalf of	Leicestershire County Council

Table of Contents

Figures:

1. Introduction

1.1 Background

1.1.1 This report results from a Stage 2 Road Safety Audit carried out on the North and East Melton Mowbray Distributor Road (MMDR). The Audit was carried out at the request of Andrew Sherwood of AECOM's Nottingham office on behalf of Leicestershire County Council (LCC).

1.1.2 The Road Safety Audit Team membership approved by the Overseeing Organisation Project Sponsor was as follows:

1.	Pete Denton	BSc (Hons) DipASM MCIHT MSoRSA
	Audit Team Leader	AECOM Infrastructure & Environment UK Limited
2.	Jamie Stone	BEng (Hons) IEng MCIHT MSoRSA
	Audit Team Member	AECOM Infrastructure & Environment UK Limited

1.1.3 The Road Safety Audit was undertaken in accordance with the instruction received via the Audit Brief dated 3rd November 2020 and the Audit comprised of an examination of the documents provided by the design team, which are listed in **Appendix A**. The documents consisted of a complete set of detailed design drawings, including, but not limited to plan and profiles, drainage and Non-Motorised User (NMU) provisions. It should be noted that a number of areas of ecological mitigation are in abeyance and have not been reviewed as part of this Stage 2 Road Safety Audit.

1.1.4 The Road Safety Audit took place during November 2020 and the site was examined by both members of the Road Safety Audit Team together during daylight hours on 30th October 2020. The weather during the daylight site visit was sunny and dry with a damp road surface. The site visit was carried out during the off-peak period between the hours of 10:30 and 12:30.

1.1.5 There were no road works or incidents affecting the area; however, it should be noted that traffic flows were considerably lower than usual due to the COVID-19 pandemic. Government social distancing procedures were followed during the site inspection.

1.1.6 The terms of reference of the Audit are as described in the Highways Agency's Design Manual for Roads and Bridges (DMRB) document HD 19/15 'Road Safety Audit'. The advice issued in the DMRB applies to trunk road and motorway highway improvement schemes; however, it has been used in this report to define the scope of this Audit.

1.1.7 An absence of any comment relating to specific road users/modes in Section 4 of this report does not imply that they have not been considered; instead the Audit Team feel that they are not adversely affected by the proposed changes.

1.1.8 The content of this Audit should not be regarded as a direct instruction to include or remove a measure from within the scheme. Responsibility for designing the scheme lies with the Designer and as such the Audit Team accepts no design responsibility for any changes made to the scheme as a result of this Audit.

1.1.9 The scheme has been examined, and this report compiled, only with regard to the safety implications to road users of the road layout as presented. It has not been examined or verified for compliance with any other standards or criteria. However, to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may, on occasion, have referred to a design standard without touching on technical audit.

1.1.10 All traffic sign and road marking diagram number references are made to The Traffic Signs Regulations and General Directions 2016 (TSRGD).

1.1.11 Unless general to the scheme, each problem has been identified with reference to key features and highlighted on the problem location plan in **Appendix C**.

1.2 Departures and Relaxations from Standard

1.2.1 As per the Audit Brief, the Audit Team requested Departures and Relaxations from Standard from the Highways Team; The Departures and Relaxations from Standard were issued to the Audit Team via email, dated 16th of November, by Jonathon Simons of AECOM's Nottingham Office and are outlined in detail within section 4 of this Stage 2 Road Safety Audit Report.

1.3 Collision Data

1.3.1 No Collision data has been provided to the Audit Team as part of this Stage 2 Road Safety Audit.

1.4 Traffic Flow and Speed Data

1.4.1 No specific Traffic flow or Speed data has been provided to the Audit Team as part of this Stage 2 Road Safety Audit. Information regarding traffic flows and speed data can be found within the North and East Melton Mowbray Distributor Road – Transport Assessment dated 27th September 2018 (report reference: 60542201-ACM-GEN-GEN_GEN_ZZ_Z-RP-T-0001).

2. Site Description

2.1 Overview

2.1.1 The scheme consists of a 7km long, 7.3m wide single carriageway, to the north and east of Melton Mowbray. This route links the A606 Burton Road, North of Burton Lazars, to the A606 Nottingham Road, at St. Bartholomew's way, via B676 Saxby Road; A607 Thorpe Road; Melton Spinney Road and Scalford Road. It crosses six watercourses, the flood plains of the River Eye and an active railway line.

2.1.2 The scheme comprises 6 roundabouts, 4 major bridge structures, several culverts and 10-km of NMU routes created or repurposed.

2.1.3 A location plan for the scope of the Stage 2 Road Safety Audit can be found at **Figure 1** below.

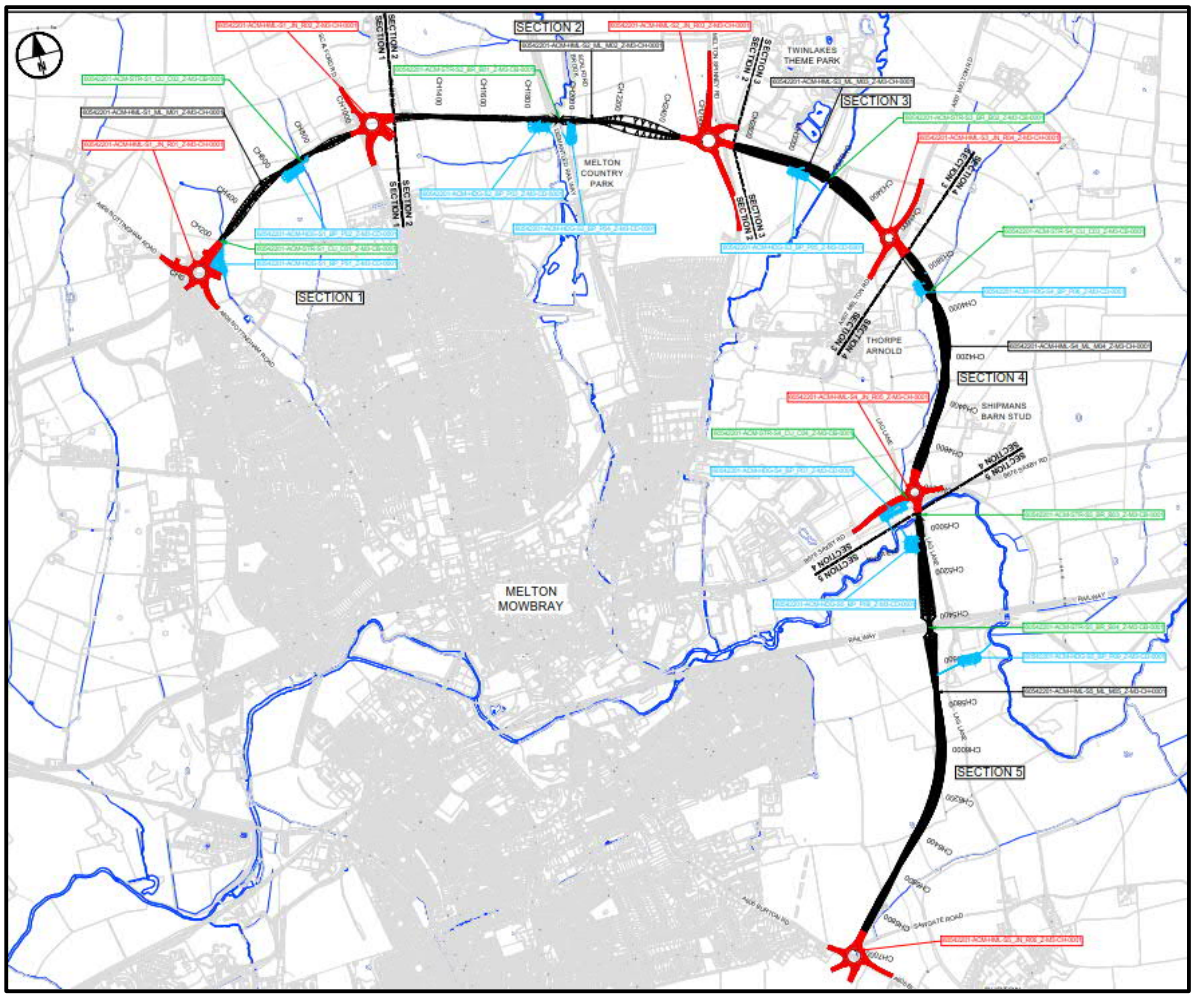


Figure 1: Scheme Location Plan

2.1.4 A number of different speed limits have been proposed throughout the scheme and are outlined below:

Mainline and Roundabouts

- **40 mph:**

  Mainline Section 1; Mainline Section 2;

  Roundabout 1; Roundabout 2; Roundabout 3; Roundabout 4; Roundabout 6.

- **50 mph:**

  Roundabout 5.

- **National speed limit (60 mph):**

  Mainline Section 3; Mainline Section 4; Mainline Section 5.

Side Roads, approaches and departures from Roundabouts:

- **Roundabout 01:**

  A606 North 50 mph, dropping to 40 on approach. Change of speed limit the same, location of change altered.

  A606 South 40 mph. Speed limit not changed by design.

  St Bartholomew's Way 40 mph. Speed limit not changed by design

  Stub arms to proposed housing development to south and proposed LCC development to north east 30 mph

- **Roundabout 02:**

  Scalford Road North national speed limit dropping to 40 mph on approach. Existing speed limit is national speed limit.

  Scalford Road South 30 mph increasing to 40 mph at roundabout entrance. Existing speed limit is national speed limit.

  Stub to proposed housing development 30 mph

- **Roundabout 03:**

  Melton Spinney Road North national speed limit dropping to 40 mph on approach. Existing speed limit is national speed limit.

  Melton Spinney Road South 30 mph increasing to 40 mph on approach. 30 mph section at Melton extended to meet scheme. Existing speed limit is national speed limit but this is to be removed south of Roundabout.

  New Arm to Twinlakes, 40 mph dropping to 30 mph at entrance. (This may be reduced further to 20 mph to comply with Twinlakes site restrictions)

- **Roundabout 04:**

  A607 North national speed limit dropping to 40 mph on approach. Existing speed limit is national speed limit.

  A607 South 40 mph on approach. Existing speed limit is national speed limit.

- **Roundabout 05:**

  B676 East 50 mph on approach. Existing speed limit is 50 mph.

  B676 West 50 mph on approach. Existing speed limit is 50 mph.

- **Roundabout 06:**

  A606 East 40 mph on approach. Existing speed limit is 50 mph.

  A606 West 40 mph on approach. Existing speed limit is 50 mph.

  Stub to proposed housing development 30 mph

  Stub to MMDRS is TBC

.

3. Items Raised at Previous Road Safety Audits

3.1.1 AECOM Infrastructure & Environment UK Limited carried out a Stage 1 Road Safety Audit during July and December 2018, report reference: 60542201/M001/RSA/RSA1/02. A Designer's Response was issued to the Audit Team following the Stage 1 Road Safety Audit.

3.1.2 The following items are considered outstanding from the initial Stage 1 Road Safety Audit, with comments taken directly from the Audit provided in italics.

3.1.3 The recommendations are the same as those used in the previous Audit report and the original reference numbers have been provided for consistency. All other issues raised at previous Road Safety Audits have now been addressed or are no longer considered to be road safety issues.

3.1.4.1 PROBLEM

Drawing Number(s): Various

Location: Various locations throughout the scheme extents.

Summary: Low points and flat spots within the carriageways, potentially leading to ponding water increasing the likelihood of loss of control collisions.

There are a number of locations throughout the scheme extents where low points and flat spots appear to be present within the carriageway. If these low points remain without adequate drainage facilities, ponding water may be present resulting in loss of control collisions occurring. This issue will be exacerbated during cold weather conditions or during periods of heavy rainfall.

RECOMMENDATION

It is recommended that sufficient drainage provisions are included at detail design stage and a review of the carriageway alignment is undertaken to assess if the low points within the carriageway can be adequately drained.

Designer's Response

The vertical highway alignment and drainage provision is currently ongoing and will ensure that appropriate cross-fall, long-fall and drainage provision are included to prevent ponding on the carriageway at low-points.

Audit Team Comment

The Audit Team acknowledge the Designer's Response, however, the drawings provided for review as part of this Stage 2 Road Safety Audit appear to show low points throughout the scheme which may lead to ponding water. Therefore, this issue is outstanding and the drainage provisions should be reviewed to ensure the carriageway drains efficiently.

RSA 2 Designer's Response

Low points on the carriageway are a necessary part of link road design and where present on this scheme are accompanied by appropriate cross-fall and drainage outfalls to ensure efficient carriageway drainage.

3.1.5.1 PROBLEM

Drawing Number(s): 60542201-ACM-HGN-GEN_GEN_ZZ_Z-SK-CH-0010 P01.

Location: Northbound and southbound approaches to roundabout 5.

Summary: Insufficient Polished Stone Value (PSV) potentially leading to vehicles failing to stop efficiently as they approach the roundabout.

The northbound and southbound approaches to roundabout 5 consist of a straight section of downhill carriageway with a relatively steep gradient. At this stage of the design, no pavement details have been provided to the Audit Team; however, there are concerns that high vehicular approach speeds, along with the carriageway alignment, may lead to late braking resulting in shunt type collisions, or loss of control and/or overshoot collisions as vehicles approach the roundabout too quickly.

RECOMMENDATION

It is recommended that a PSV of 68+ or High Friction Surfacing (HFS) is installed on the northbound and southbound approaches to roundabout 5.

Designer's Response

An appropriate Polished Stone Value (PSV) surfacing will be specified on the approach to all roundabouts as part of the detailed pavement design.

Audit Team Comment

The Audit Team acknowledge the Designer's Response; however, no PSV surfacing details have been provided to the Audit Team as part of this Stage 2 Road Safety Audit. As no details have been provided it is unclear whether or not the appropriate PSV surface course or HFS is to be installed throughout the scheme extents. Therefore, this issue remains outstanding.

RSA 2 Designer's Response

PSV details have been provided in Pavement specification Appendix 7/1 which is cross-referenced on the pavement drawings. The MMDR southbound carriageway has a shallow gradient (1.28%) for >700m on its approach to roundabout 5. The northbound approach has a short length of uphill gradient (0.95%) into the roundabout followed by a desirable minimum sag then crest curve. The maximum gradient of 4.7% occurs when it switches from sag to crest circa 165m in advance of the roundabout. The PSV of 65 specified in Appendix 7/1 for the northbound and southbound approaches to roundabout 5 complies with DMRB standards CS236 and CS228 and is considered to be appropriate. There are no proposals to install HFS on any roundabout approaches except where required by the design standards. The design standards only require HFS to be installed on the approaches to the Pegasus crossing on the B676 Saxby Road adjacent to Roundabout 5 and the Pegasus crossing on the A606 Burton Road adjacent to Roundabout 6.

3.1.7.1 PROBLEM

Drawing Number(s): Various.

Location: Mainline extents of the MMDR scheme.

Summary: Lack of lay-bys and over-run areas to allow for broken down vehicles to stop in an emergency increasing the likelihood of collisions occurring with other road users.

Lay-bys provide safe areas for drivers to gain respite and recover from fatigue, as well as being safe places for broken down vehicles to pull off the carriageway in an emergency. Throughout the MMDR scheme there are no provisions to allow for drivers to leave the carriageway in the case of an emergency, of particular concern is the 60mph section of the scheme. There are concerns that if lay-bys, or sufficient facilities are not provided for fatigued drivers or broken-down vehicles along the MMDR, unsafe parking activities could occur leading to collisions with other road users. The situation could be further exacerbated by driver fatigue due to lay-bys not being provided at reasonable intervals throughout the extents of the MMDR scheme.

RECOMMENDATION

It is recommended that a review of TD69/07 be undertaken to ascertain whether lay-by facilities should be provided along the MMDR scheme, in particular along the 60mph sections of the scheme.

Designer's Response

A 1m hard-strip is provided along the nearside edge of the carriageway throughout the 60mph section. This will reduce the obstruction caused by broken down vehicle throughout this section of the scheme. Lay-by provision on the scheme is being reviewed as part of the detailed design process.

Audit Team Comment

The Audit team acknowledge the Designer's Response. While the provision of a 1.0m hard strip is beneficial to reducing the carriageway obstruction it still may not be sufficient for vehicles. Although the provision of lay-by's was to be reviewed, none have been provided, therefore this issue remains outstanding.

RSA 2 Designer's Response

The provision of non-emergency rest lay-bys was raised with the MMDR project board and following review the Project board instructed Aecom not to install rest lay-bys on the scheme due to concerns regarding the environmental impact of litter, antisocial behaviour and specific landowner concerns. There is opportunity for motorists to exit the MMDR as from each of the 6 no. roundabouts which are spaced between 0.8km and 2.2km apart around the scheme. Melton Mowbray town centre can be accessed from each roundabout and provides car parking suitable for non-HGVs and public conveniences. There are also 4 petrol stations within Melton Mowbray which are currently accessible by HGVs located on the A606 and A607 less than 1km from the MMDR. The design team will raise the issue of continuing accessibility for HGVs to non-emergency rest areas with the project board in the light of any future proposals for HGV restrictions within Melton Mowbray. Regarding emergency provision for broken down vehicles, the 1m hard strips throughout the 60mph section will reduce the obstruction caused by allowing vehicles to partially pull off the carriageway.

3.1.9.1 PROBLEM

Drawing Number(s): 60542201-ACM-HML-GEN_ML_ZZ_Z-DR-CH-0001 P01.

Location: Adjacent verge to the carriageway within the 40mph section of the MMDR scheme.

Summary: Lack of Road Restraint System (RRS) potentially increasing the severity of injuries should an errant vehicle leave the carriageway.

RRS are to be installed within the verges of the 60mph sections of the scheme; no RRS is proposed within the 40mph sections. Although it is not a standard requirement to provide vehicle restraint systems within 40mph speed limits, there are concerns that a number of areas within the 40mph sections may have hazards within the verges or embankments/slopes greater than the examples within the typical cross section drawings. If these hazards are present, with no barriers provided, the severity of injuries occurring if an errant vehicle leaves the carriageway may be increased.

RECOMMENDATION

It is recommended that a Road Restraint Risk Assessment Process (RRRAP) assessment is undertaken at detail design to review if a RRS should be installed adjacent to the verge within the 40mph sections of the scheme.

Designer's Response

The Road Restraint Risk Assessment (RRRAP) is only applicable to roads with speed limits of 50mph or greater. However, a separate risk assessment process will be applied to the 40mph sections of the scheme to ensure that RRS are provided where appropriate.

Audit Team Comment

The Audit team acknowledge the Designer's Response, however, all sections of RRS appear to have been removed from the scheme except for the approaches to and over the bridge sections. If sufficient RRS is not provided, of particular concern are the high-speed sections of the scheme, the collision severity may be increased should an errant vehicle leave the carriageway. A RRRAP should be undertaken throughout the scheme extents and results provided to the Audit Team for review. This issue is outstanding.

RSA 2 Designer's Response

As previously advised, the Road Restraint Risk Assessment (RRRAP) is only applicable to roads with speed limits of 50mph or greater. However, a separate risk assessment process has also been applied to the 40mph sections of the scheme to ensure that RRS are provided where appropriate. Road restraints have been provided wherever the risk assessment processes have identified that it is necessary. Both the RRRAP and separate risk assessment are available should the audit team wish to review them.

3.3.5.2 PROBLEM

Drawing No(s): 60542201-ACM-ENM-S5_GEN_ZZ_Z-DR-Z-0007 P01.3.

Location: Sawgate Road access/egress onto roundabout 6.

Summary: Inappropriate access/egress from roundabout, increasing the likelihood of collisions involving vehicles travelling around the roundabout circulatory and users entering or leaving Sawgate Road.

Sawgate Road links into the northern arm of roundabout 6; however, farm vehicles wishing to enter or leave Sawgate Road onto or from the MMDR carriageway may be unable to undertake the turn manoeuvres due to a tight alignment, increasing the likelihood of kerb strikes or collisions with following vehicles due to slow turn movements.

Additionally, farm traffic leaving Sawgate Road will potentially have insufficient visibility to allow for safe movements onto the MMDR access onto the roundabout.

RECOMMENDATION

It is recommended that the access/egress for Sawgate Road is relocated away from the roundabout, preferably located along the A608 Burton Road east of the roundabout.

Designer's Response

The proposed farm access/egress for Sawgate Road positioned on Roundabout 6 is considered to be in the safest location since it enables direct access in a low speed environment without requiring right turn manoeuvres as would be the case on the A606 approaches to the roundabout. Sufficient space will be provided to ensure that farm traffic wishing to access the gated section of Sawgate Road can fully exit the carriageway prior to opening the gate, thus reducing the risk of any shunt type accidents. The access geometry and visibility from the access will also be reviewed to ensure this meets the required standards as part of the detailed design process.

Audit Team Comment

The alignment of the farm access/egress appears tight which may make turn manoeuvres difficult for users. The Audit Team have not been provided with any swept path analysis for the scheme so it is unknown whether or not farm vehicles will be able to undertake all manoeuvres safely and efficiently. It remains the Audit Team's belief that an alternate access/egress away from the roundabout is a safer option than what is currently detailed. This issue is outstanding.

RSA 2 Designer's Response

The access geometry and visibility from the access have been reviewed and these meet the required standards. For the reasons stated in the design response to the RSA 1 (see above), it is our professional opinion that the proposed farm access/egress for Sawgate Road positioned on Roundabout 6 is in the safest location. Relocating the access away from the roundabout is likely to increase the risk of conflict with high speed traffic as well as conflicts due to right-turn manoeuvres. It should be noted that Sawgate Road is being stopped up and gated as part of the scheme and access/egress will only be necessary for farm vehicles.

3.3.5.3 PROBLEM

Drawing No(s): Various.

Location: Roundabout circulatory carriageways throughout the scheme extents.

Summary: Insufficient carriageway widths potentially leading to grazing type collisions as vehicles attempt to pass side by side.

It is unclear whether all roundabouts throughout the scheme extents are to consist of a single lane or two lanes around the circulatory. If the carriageways are too narrow for all movements, grazing or side swipe collisions could be experienced around the roundabout circulatory.

RECOMMENDATION

It is recommended that swept path analysis is undertaken at each of the proposed roundabouts to ensure two vehicles can pass safely without conflict side by side.

Designer's Response

Swept path analysis has been undertaken and will be further reviewed as part of the detailed design process to minimise the risk of any conflict.

Audit Team Comment

The Audit team acknowledge the Designer's Response; however, no swept path analysis has been provided as part of this Stage 2 Road Safety Audit. Therefore, it is unknown whether all vehicular manoeuvres can be undertaken safely and efficiently. This issue remains outstanding.

RSA 2 Designer's Response

Swept path analysis has been undertaken confirming that all vehicles including maximum legal HGVS can negotiate the roundabout. Up to a maximum legal HGV and 7.5t HGV can negotiate the roundabout side by side. Increasing the ICD's further to accommodate two max legal HGV's side by side would lead to poor deflection and the appearance of reverse curves as well as increased costs and land take. As permitted by the standards, partial concentric lane markings are shown within the roundabout circulatory to provide guidance for smaller vehicles without fully delineating a two-lane circulatory.

3.3.5.4 PROBLEM

Drawing No(s): 60542201-ACM-HML-S4_JN_R05_Z-DR-CH-0001 P01.

Location: MMDR southbound approach and B676 Saxby Road approach to roundabout 5.

Summary: Lack of deflection increasing the likelihood of high approach speeds leading to loss of control collisions around circulatory.

The southbound approach to roundabout 5 consists of a straight section of carriageway with minimal deflection on the roundabout for vehicles continuing along the MMDR. Additionally, the B676 Saxby Road approach onto the MMDR also appears to have reduced deflection. There are concerns that due to this lack of deflection, drivers may approach the roundabout too quickly and continue through the roundabout at higher than appropriate speeds, increasing the likelihood of loss of control collisions.

RECOMMENDATION

It is recommended that the MMDR southbound approach and the B676 Saxby Road approach to roundabout 5 is reviewed to ensure sufficient deflection is attained to slow vehicles on the approach and travelling through the roundabout.

Designer's Response

The highway geometry will be reviewed as part of the detailed design process to ensure that it complies with the necessary requirements for deflection.

Audit Team Comment

The Audit team acknowledge the Designer's Response; however, the B676 Saxby Road southbound approach to the roundabout still has reduced deflection. This issue remains outstanding.

RSA 2 Designer's Response

The highway geometry on approach to the roundabout 5 complies with TD 16/07 and does not have reduced deflection. On the arm mentioned above the entry path radius ahead was measured at 74m which is less than the maximum of 100m allowed by the standards.

3.4.1.1 PROBLEM

Drawing No(s): 60542201-ACM-ENM-S1_GEN_ZZ_Z-DR-Z-0001 P01.3.

Location: Proposed footway/cycleway tie-in along the A606 Nottingham Road northbound and southbound carriageways.

Summary: Inconsistent cycle provision increasing the likelihood of cyclist collisions or injuries with other Non-Motorised Users (NMU).

The drawing states that the proposed 3m shared footway/cycleway is to tie in to the existing footpath provision along the northbound and southbound A606 Nottingham Road carriageway. However, the existing provisions are shown as footpath only, with no details

provided outlining how cyclists continue their onward journey southbound, or how cyclists leave the northbound carriageway to join the shared facility. If dropped kerbs (and markings) are not provided, cyclists may continue along the footpath provision (southbound) increasing the likelihood of injuries with pedestrians. Additionally, cyclists should be provided with dropped kerbs to guide users onto the shared facility northbound to avoid potential collisions with other road users on the approach to or around the roundabout.

RECOMMENDATION

It is recommended that appropriate provisions are incorporated for cyclists to continue their journeys along the A606 Nottingham Road southbound carriageway and to leave the northbound carriageway and join the NMU facilities.

Designer's Response

Appropriate provision will be incorporated within the detailed design to ensure that cyclists are able to access and egress the MMDR NMU facilities safely. The need for improved NMU facilities beyond the extents of the MMDR scheme has been highlighted to LCC for consideration as part of the Melton Mowbray Town Centre transport strategy.

Audit Team Comment

The Audit team acknowledge the Designer's Response and note that dropped kerbs have been provided for cyclists to enter and exit the shared use facility; however, no cycle carriageway markings, tactile paving or NMU signage has been detailed at the start and end points of the shared use facility. If adequate provisions are not installed the risk of cyclists continuing within the footway or visually impaired users entering the shared use area, being unaware of the change in facility, may lead to an increased risk of conflicts and collisions between pedestrians and cyclists.

RSA 2 Designer's Response

The design team will review the carriageway markings, tactile paving and NMU signage to determine if additional measures are required to reduce any likelihood of conflict between pedestrians and cyclists, whilst minimising sign clutter. Cyclist entry and exit points were provided along with sign mounted bollards in the D1 issue.

4. Items Identified During this Stage 2 Road Safety Audit

The following road safety issues were identified during this Stage 2 Road Safety Audit.

General

4.1 Departures and Relaxations from Standard

4.1.1 Seven Departures from Standard and six Relaxations from Standard have been proposed for the scheme, however, it is unclear at this time whether they have been approved by the Overseeing Organisation. These are outlined in **Appendix B**.

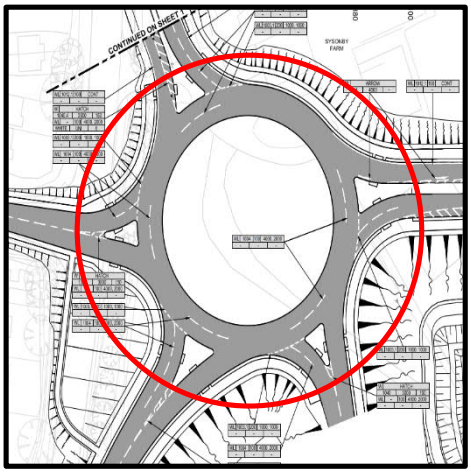
4.2 Access

4.2.1 See **Problem 3.3.5.2** from Section 3 of this Stage 2 Road Safety Audit report.

4.3 Basic Design Principles

Problem 4.3.1	
Drawing Number(s):	Various
Location:	Various
Summary:	Width of running lanes at the proposed roundabouts may lead to vehicles not being able to safely and efficiently pass side-by-side resulting in graze-type collisions occurring.
Description:	
Carriageway widths have been provided on the Cross Section drawings; however, no information has been provided to the Audit Team to outline the widths of the proposed running lanes at the roundabouts detailed throughout the extents of the scheme. If vehicles cannot safely and efficiently pass side-by-side through the proposed roundabouts, they may overhang the centre line leading to potential graze-type collisions or travel too close to the edge of the carriageway and strike the kerbs resulting in loss of control collisions. Of particular concern are vehicles with a larger turning circle such as buses or refuge vehicles.	
Recommendation:	
It is recommended that that all running lanes are of adequate width are provided to allow all vehicles types to proceed without overhanging lanes.	
RSA 2 Designer's Response Swept path analysis has been undertaken confirming that all vehicles including maximum legal HGVs can negotiate the roundabout. Up to a maximum legal HGV and 7.5t HGV can negotiate the roundabout side by side. Increasing the ICD's further to accommodate two max legal HGV's side by side would lead to poor deflection and the appearance of reverse curves as well as increased costs and land take. As permitted by the standards, partial concentric lane markings are shown within the roundabout circulatory to provide guidance for smaller vehicles without fully delineating a two lane circulatory.	

Problem 4.3.2	
Drawing Number(s):	Various.
Location:	All roundabouts within the scheme extents.
Summary:	Unclear number of lanes at the exit to the circulatory leading to side swipe or graze-type collisions.
Description:	



All approaches to the roundabouts have been detailed with two lanes; however, it is unclear whether the exits to the circulatory are one or two lanes. The exits to the circulatory appear wide which may lead to drivers exiting the circulatory from two lanes resulting in side swipe or graze-type collisions occurring.

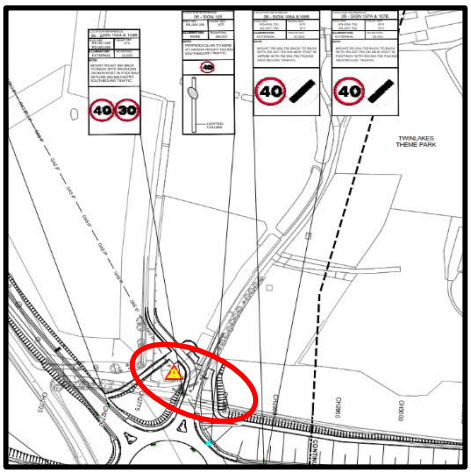
Recommendation:

It is recommended that the exits are clearly marked for one or two lanes. If an exit is two lanes an appropriate merge taper should be provided.

RSA 2 Designer's Response

The design standards require the exit from the roundabouts to be greater than 6m wide in order to allow space for motorists to pass broken down vehicles. The width shown allows for limited merge manoeuvres and following discussions with road safety specialists the design decision was made to show only merge arrows, rather than fully marking as two separate lanes.

Problem 4.3.3	
Drawing Number(s):	60542201 ACM HSN S1_ML_ZZ_Z DR CH 0106 P01
Location:	Twin Lakes approach to Roundabout 3.
Summary:	Lack of nearside speed limit terminal sign resulting in inconsistent speeds and potential shunt-type collisions.
Description:	



A 40mph speed limit terminal sign has been detailed on the offside approach from Twin Lakes to Roundabout 3. There is a risk that drivers may miss this sign resulting in them travelling at a lower speed than other vehicles, as they continue their journey, leading to potential shunt-type collisions with following vehicles.

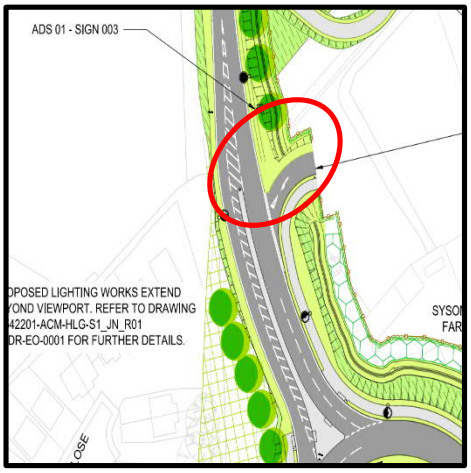
Recommendation:

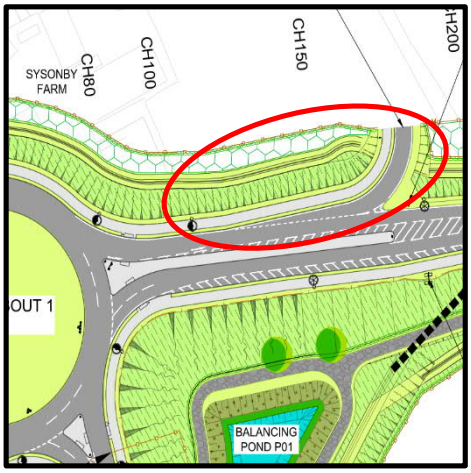
It is recommended that a 40mph speed limit terminal sign is installed on the nearside approach to Roundabout 3.

RSA 2 Designer's Response

Motorists entering Roundabout 3 from Twin Lakes will pass a 40mph terminal sign on the offside in addition to a 40mph repeater sign on the nearside and hence should be fully aware of the speed limit. These motorists will also pass either additional speed limit repeater signs or speed limit terminal signs when exiting the roundabout circulatory to continue their journey. The design speed of the roundabout circulatory is likely to reduce vehicle speeds for all vehicles entering the roundabout to less than 40mph. Provision of additional signing in this location is unlikely to provide any significant safety benefit and will increase signing clutter.

Problem 4.3.4	
Drawing Number(s):	60542201-ACM-GEN-S1_ML_ZZ_Z DR-Z-0001 P01
Location:	Access and exit roads for the development site.
Summary:	Drivers inadvertently turning into the development site road leading to unsafe manoeuvres and collisions with other road users.
Description:	





An access and exit point for a development site has been detailed in the vicinity of Roundabout 1. It is unclear whether access to the development will be permitted once the MMDR is constructed; no measures have been detailed which indicate that users cannot access the development site. There is a risk that if access isn't permitted, drivers may inadvertently turn onto the diverge road, for the development site, and become hesitant or confused, potentially leading to a driver undertaking unsafe turn manoeuvres and collisions occurring with other road users.

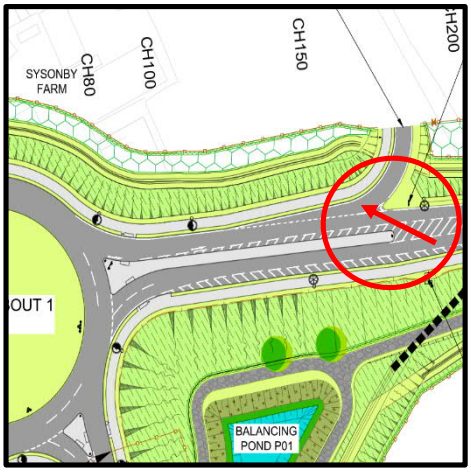
Recommendation:

It is recommended that physical measures are installed to prevent vehicles using the access and exit points to the development site until the development site is complete.

RSA 2 Designer's Response

Appropriate signage and physical measures will be installed as temporary traffic management measures to prevent the inadvertent use of the access and exit points to the development site by unauthorised vehicles prior to its completion.

Problem 4.3.5	
Drawing Number(s):	60542201-ACM-GEN-S1_ML_ZZ_Z DR-Z-0001 P01
Location:	Access road for the development site.
Summary:	Drivers undertaking a right turn movement into the development site resulting in loss of control or side swipe collisions.
Description:	



A kerbed central median has been detailed on the MMDR, east of Roundabout 1. It appears that this has been provided to prevent drivers from turning right from the MMDR into the development site; however, the kerbed central median does not extend far enough east, past the development access, to prevent drivers from attempting to make the right turn manoeuvre. Although unlikely, if drivers attempt to turn right from the westbound MMDR carriageway into the development site they may undertake sharp turn movements leading to loss of control collisions or turn across an oncoming vehicle leading to a side swipe collision.

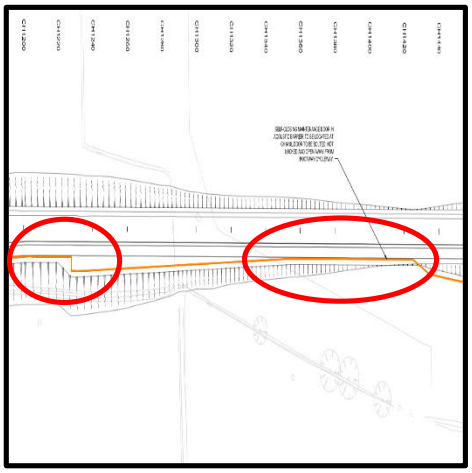
Recommendation:

It is recommended that the kerbed central median is extended to prevent drivers turning right from the MMDR into the development access.

RSA 2 Designer's Response

The proposed kerbed central median currently extends beyond the junction nosing for the slip road into the development. Any vehicles undertaking a right-turn manoeuvre from the westbound carriageway in this location would be forced to travel for several metres in a westbound direction on the eastbound carriageway and on the wrong side of the central reserve. This is deemed to be sufficient to discourage vehicles from undertaking this illegal right-turn manoeuvre from the MMDR westbound carriageway.

Problem 4.3.6	
Drawing Number(s):	Various.
Location:	Various.
Summary:	Acoustic barrier position may lead to pedestrian and cyclist conflicts and collisions resulting in injuries occurring.
Description:	



Acoustic Barriers have been detailed adjacent to NMU provisions throughout sections of the MMDR; however, it is unclear what the set back is for the Acoustic Barrier from the edge of the NMU provision (An example is shown above). If the Acoustic Barrier is installed too close to the edge of the NMU provision, NMUs may not be able to use the full width of the facilities, heightening the risk of pedestrians and cyclists passing too close to one another leading to conflicts and collisions between the user groups resulting in potential injuries occurring.

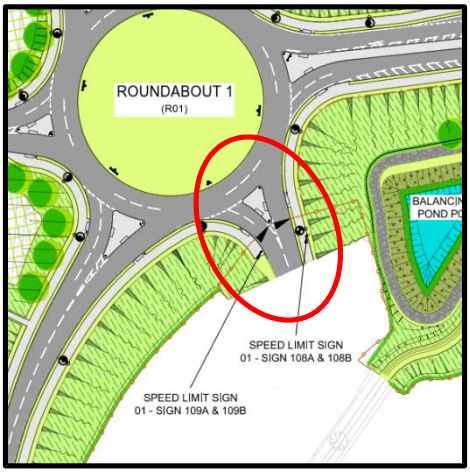
Recommendation:

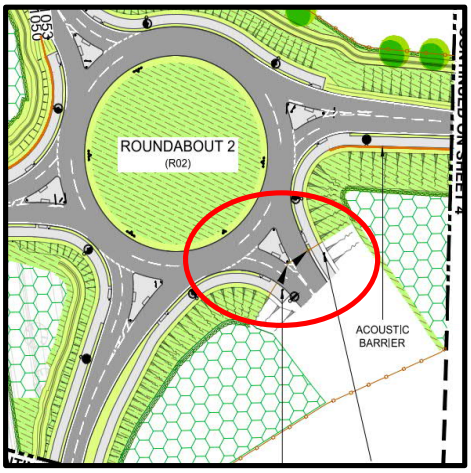
It is recommended that, in line with Table 5-3 within LTN1/20 Cycle Infrastructure Design, the Acoustic Barrier is installed a minimum of 500mm away from the edge of shared footway/cycleway routes along the MMDR.

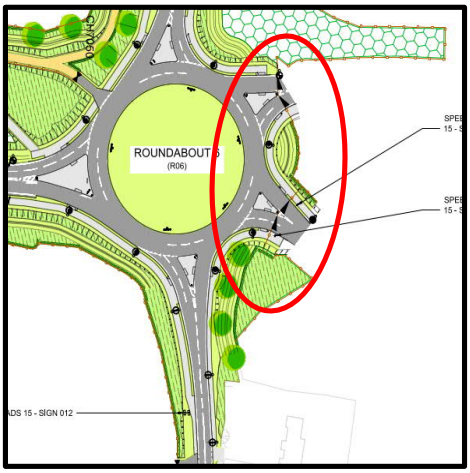
RSA 2 Designer's Response

The acoustic barrier will be installed a minimum of 500mm away from the edge of the shared footway/cycleway routes along the MMDR.

Problem 4.3.7	
Drawing Number(s):	Various.
Location:	Various.
Summary:	Unused roundabout arms leading to unsafe manoeuvres and conflicts and collisions occurring with circulating vehicles.
Description:	







Roundabouts 1, 2 and 6 have additional arms which appear to be unused and undeveloped at this stage of the scheme. If drivers are not aware that these arms are not to be used, they may become confused and hesitate on the approach to these exits, mistaking them for the signed exits. Unsafe manoeuvres may be carried out leading to conflicts and collisions with circulating vehicles. Alternatively, driver hesitations may lead to shunt-type collisions.

Recommendation:

It is recommended that physical measures are introduced across the mouths of the arms prevent access to the unused stubs.

RSA 2 Designer's Response

Appropriate signage and physical measures will be installed as temporary traffic management measures to prevent unauthorised vehicles from using unused or undeveloped stubs. Where permanent signage is proposed which shows these stubs, this will be reviewed and temporary stickers or plates included where necessary to ensure that drivers are not signed to use the stubs.

Problem 4.3.8	
Drawing Number(s):	60542201-ACM-GEN-S1_ML_ZZ_Z-DR-Z-0001 P01
Location:	Exit to the development site, north of Roundabout 1.
Summary:	Insufficient visibility at the exit to the development site leading to vehicles emerging into the path of oncoming vehicles and collisions occurring.
Description:	

Vehicles exit the development site on to the A606 Nottingham Road, north of Roundabout 1. There is a risk that the visibility for drivers exiting the development site may be restricted due to proposed landscaping, positioning of an ADS and position of a lighting column, to the north of the exit. If adequate visibility is not provided for drivers exiting the development site they may emerge into the path of oncoming vehicles, resulting in side swipe or shunt-type collisions.

Recommendation:

It is recommended that adequate visibility is attained for vehicles exiting the development site.

RSA 2 Designer's Response

Visibility splay checks will be undertaken for this location to ensure adequate visibility is attained for vehicles exiting the development site. The verge has been widened to accommodate the approach visibility splay and street furniture less than 0.5m wide is permitted within visibility splays as allowed by the standards.

4.4 Cross Sections

4.4.1 No issues that were considered to be detrimental to the safety of road users were identified in relation to this subject.

4.5 Landscaping

4.5.1 See **Problem 4.3.8** and **Problem 4.16.3**.

4.6 Visibility

4.6.1 No issues that were considered to be detrimental to the safety of road users were identified in relation to this subject.

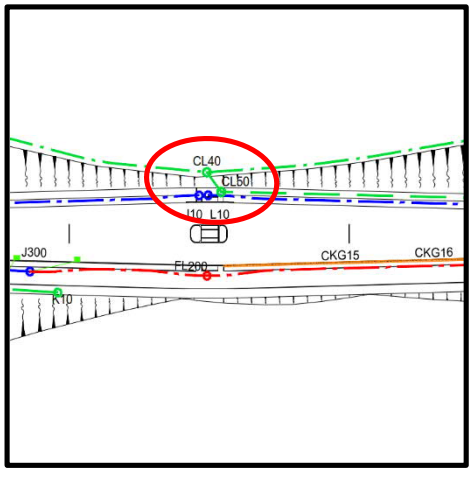
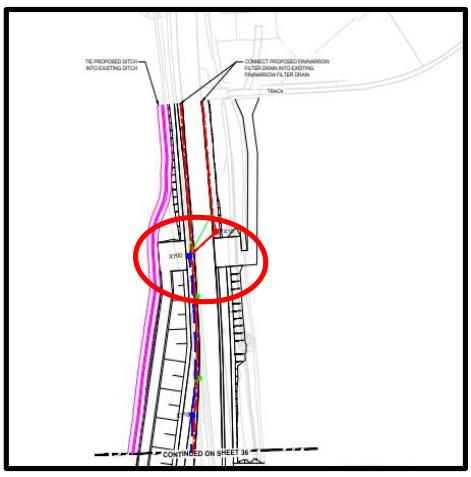
4.7 Fences and Road Restraint Systems

Problem 4.7.1	
Drawing Number(s):	Various.
Location:	Various.
Summary:	Rails potentially positioned on the incorrect side of the fence posts increasing the collision severity.
Description:	
It is unclear from the design drawings which side of the fence posts the rails are to be fixed. If the rails are installed on the trafficked side of the fence post and an errant vehicle were to leave the carriageway and strike the fence, the collision severity may be increased.	
Recommendation:	
It is recommended that the rails are installed on the non-trafficked side of the fence posts.	

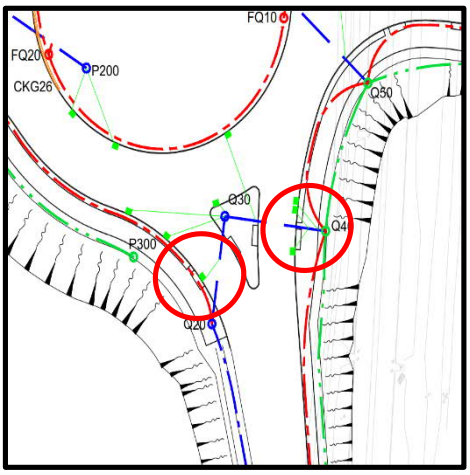
RSA 2 Designer's Response

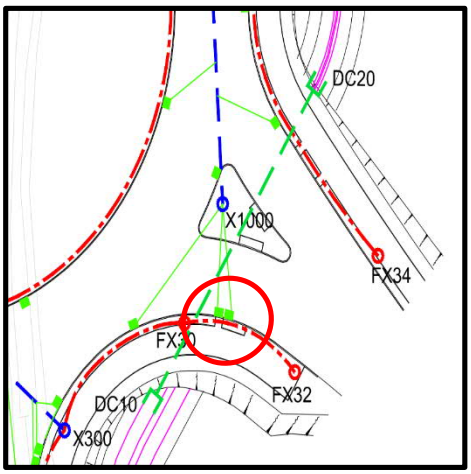
The design drawings will be amended to state the rails are to be installed on the non-trafficked side of the fence posts.

4.8 Drainage

Problem 4.8.1	
Drawing Number(s):	60542201 ACM HDG S2_ML_M02_Z DR CD 0013 P03 and 60542201 ACM HDG S5_JN_R06_Z DR CD 0035 P03
Location:	Proposed pedestrian crossing at approximate chainage CH2525 and proposed Pegasus crossing south of Roundabout 6.
Summary:	Drainage provisions within crossing points leading to pedestrian and equestrian slips, trips and falls resulting in injuries.
Description:	
 	
A number of drainage provisions have been detailed at the proposed pedestrian crossing to the west of Roundabout 3 and the Pegasus crossing to the south of Roundabout 6. There is a risk	

that if manhole covers are positioned at the crossing points, pedestrians or equestrians may step on to them leading to slips, trips and falls occurring or a rider becoming unmounted from their horse resulting in injuries. This issue will be exacerbated during periods of inclement weather.	
Recommendation:	
It is recommended that the drainage provisions are relocated away from the crossing facilities.	
RSA 2 Designer's Response Drainage provision at crossing points will be reviewed and covers repositioned where necessary to ensure that the risks of slips, trips and falls are minimised.	
Problem 4.8.2	
Drawing Number(s):	Various.
Location:	Various crossing points located throughout the scheme extents.
Summary:	Potential trips and falls due to poorly located gullies.
Description:	

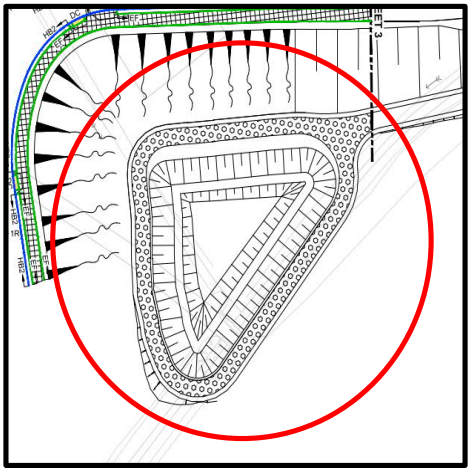


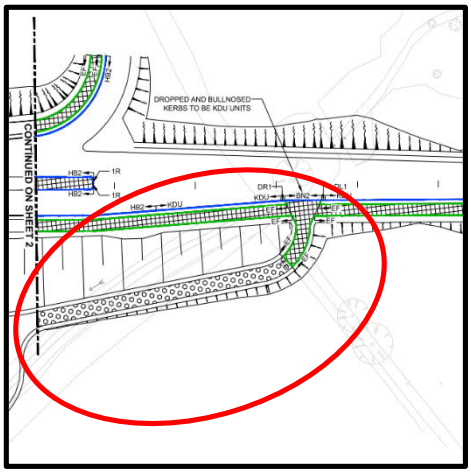


There are several locations throughout the scheme extents where proposed gullies are positioned within pedestrian crossing points (examples shown above). If gullies are provided at the dropped crossings, within pedestrian desire lines, the likelihood of pedestrian trips and falls occurring will be heightened.
Recommendation:
It is recommended that all proposed gullies are positioned away from all dropped crossing points and that carriageway levels drain away from the crossing points.
RSA 2 Designer's Response Proposed gullies will be positioned away from all dropped crossing points.

4.9 Pavement

Problem 4.9.1	
Drawing Number(s):	Various.
Location:	Access tracks for the balancing ponds throughout the extents of the scheme.
Summary:	Granular surface material may get transferred on to the mainline leading to loss of control collisions.
Description:	





Granular Surfacing has been detailed on the access tracks associated with the balancing ponds throughout the extents of the scheme (An example is shown above). There is a risk that maintenance vehicles may transfer the granular material on to the main line resulting in loss of control collisions. Additionally, loose stones may be projected into passing traffic, potentially motorcyclists, which may lead to serious injuries occurring.

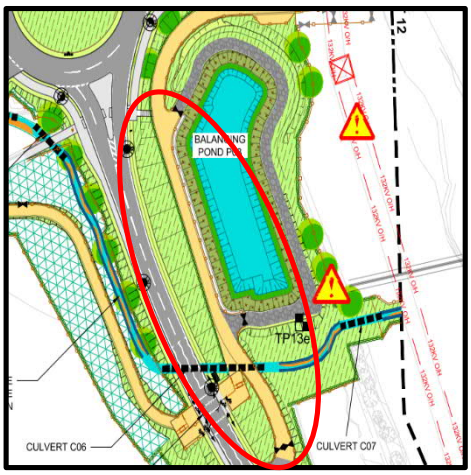
Recommendation:

It is recommended that a bound surface material is used on all the access tracks.

RSA 2 Designer's Response

Bound surface material is already specified for all access tracks on the approaches to the carriageway (as shown in the example above). Granular material is only specified away from the carriageway, beyond the gated access points. This minimises the risk of granular material being transferred onto the mainline, whilst ensuring a cost-effective access track construction.

Problem 4.9.2	
Drawing Number(s):	60542201-ACM-GEN-S4_ML_ZZ_Z-DR-Z-0011 P01.
Location:	Access track to balancing pond P08.
Summary:	Surface course may lead to drivers losing control and colliding with NMUs resulting in injuries.
Description:	



Maintenance vehicles are to access balancing pond P08 via a proposed bridleway, with bridleway surfacing detailed. There is a risk that maintenance vehicles may not have sufficient grip as they travel over the bridleway surface course which may lead to them being unable to stop efficiently resulting in conflicts and collisions with NMUs and potential injuries occurring.

Recommendation:

It is recommended that a bound surface material is used throughout the bridleway section which can also be used by vehicular traffic to access the pond.

RSA 2 Designer's Response

Vehicular access by maintenance vehicles is very occasional. Vehicle speeds are expected to be very low and the risk of skidding is considered to be very low. In addition, installation of a bound surface material is not considered appropriate for this location due to it being an equestrian route.

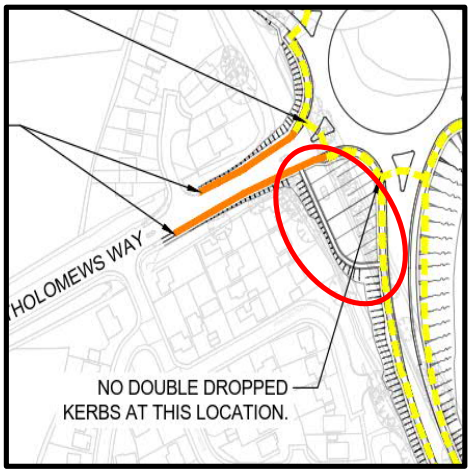
Non-Motorised User (NMU) Provisions

4.10 Adjacent Land

4.10.1 No issues that were considered to be detrimental to the safety of road users were identified in relation to this subject.

4.11 Pedestrians/Cyclists

Problem 4.11.1	
Drawing Number(s):	60542201 ACM ENM S1_GEN_ZZ_Z DR Z 0001 P02
Location:	Roundabout 1; Pedestrian link between the A606 Nottingham Road and St Bartholomews Way.
Summary:	Lack of NMU signage and tactile paving leading to potential conflicts and collisions between pedestrians and cyclists.
Description:	



A shared footway/cycleway route is provided to link the A606 Nottingham Road to the proposed development site via St Bartholomews Way; there is also an additional footpath link that joins the shared footway/cycleway route to the existing footway on St Bartholomews Way. No provisions have been detailed to inform users of the change in provision from shared footway/cycleway route to footway at the link between the A606 Nottingham Road and St Bartholomews Way. This may lead cyclists to travel along the footway resulting in conflicts and collisions with pedestrians. Additionally, visually impaired users will not be informed in the change of provision leading to an increased risk of conflicts and collisions with cyclists.

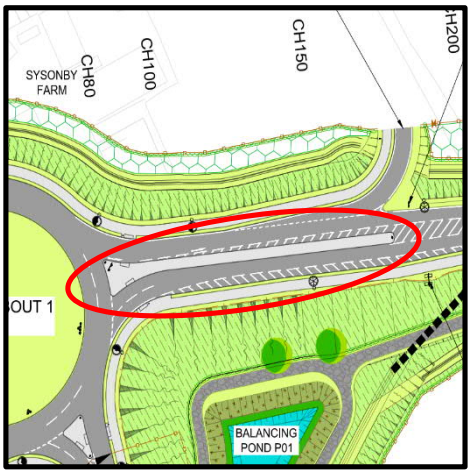
Recommendation:

It is recommended that appropriate tactile paving and NMU signage is provided to inform users of the change in provision between the A606 Nottingham Road and St Bartholomews Way.

RSA 2 Designer's Response

Tactile paving and NMU signage will be reviewed in this location to ensure appropriate information is given to inform users of the change in provision.

Problem 4.11.2	
Drawing Number(s):	60542201-ACM-GEN-S1_ML_ZZ_Z-DR-0001 P01
Location:	MMDR kerbed central median in the vicinity of the development site.
Summary:	Pedestrians may cross away from the designated crossing point leading to trips and falls or potential conflicts and collisions with vehicular traffic resulting in injuries.
Description:	



As part of the design, a kerbed central median has been provided on the MMDR, east of Roundabout 1. The length of the kerbed central median extends past the entry to the development site and also prevents vehicles turning right from the MMDR into the development site. There are concerns that pedestrians may attempt to cross the MMDR in 2 phases, using the kerbed central median as a refuge area. If pedestrians attempt to cross away from the designated crossing point, trips and falls may occur as they traverse a full height kerb or conflicts and collisions may occur with vehicular traffic who may inadvertently strike a pedestrian resulting in injuries.

Recommendation:

It is recommended that a pedestrian deterrent is installed within the kerbed central median to reduce the risk of pedestrians crossing away from the designated crossing point.

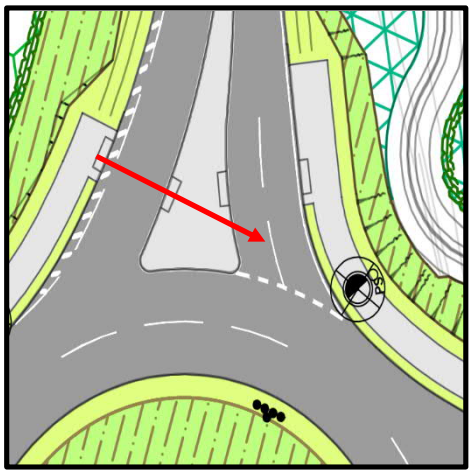
RSA 2 Designer's Response

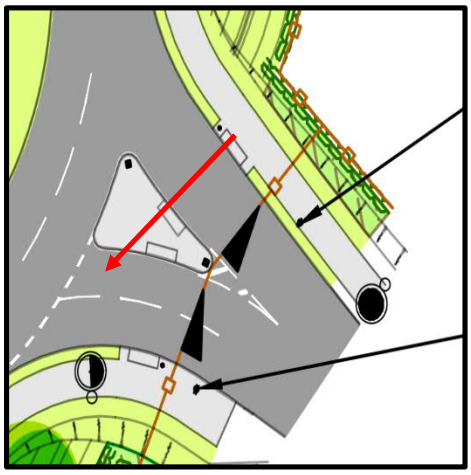
Installation of a pedestrian deterrent such as guardrail within the central reserve is unlikely to improve safety in this location. Whilst it is desirable that pedestrians cross at the designated uncontrolled crossing point, if pedestrians choose to cross away from this point, using the central median would be safer than crossing where there is no central median at all. If a physical deterrent such as guardrail were installed, pedestrian may choose to cross without using the central median at all which would increase their risk of being struck by vehicular traffic. Slips, trips and falls may also occur if pedestrians attempt to climb over the guardrail.

Problem 4.11.3	
Drawing Number(s):	Various.
Location:	Various.
Summary:	Lack of NMU directional signs detailed throughout the scheme extents leading to potential conflicts and collisions between differing user groups or trips and falls resulting in injuries.
Description:	
No NMU directional signs have been proposed throughout the scheme. If adequate NMU signing is not provided to show how NMU routes connect, NMUs may choose to continue within the carriageway leading to a heightened risk of collisions with oncoming vehicles or within the verges leading to trips and falls and injuries occurring.	
Recommendation:	
It is recommended that NMU directional signs are installed to guide NMUs through the scheme.	
RSA 2 Designer's Response NMU directional signage provision will reviewed and provided where appropriate, subject to the traffic signing decluttering rationale adopted for the overall scheme.	

Problem 4.11.4	
Drawing Number(s):	Various.
Location:	Various.
Summary:	Lack of provisions at the start and end points of the shared use facilities leading to conflicts and collisions between different user groups.
Description:	
Dropped kerbs have been provided for cyclists to enter and exit the shared use facilities throughout the extents of the scheme; however, no cycle carriageway markings, tactile paving or NMU signage has been detailed at the start and end points of the shared use facilities. If adequate provisions are not installed the risk of cyclists continuing within the footway or visually impaired users entering the shared use area, being unaware of the change in facility, may lead to an increased risk of conflicts and collisions between pedestrians and cyclists.	
Recommendation:	
It is recommended that adequate tactile paving and signs are installed at the start and end points of the shared use facilities.	
RSA 2 Designer's Response The provision of cycleway markings, tactile paving and NMU signage at the start and end points of shared use facilities will be reviewed and amended where appropriate, subject to the traffic sign decluttering rationale adopted for the overall scheme. Shared route signs mounted on cycle bollards are already provided.	

Problem 4.11.5	
Drawing Number(s):	Various.
Location:	Various.
Summary:	Inadequate alignment of tactile paving slabs may result in pedestrian injuries
Description:	





Uncontrolled pedestrian crossing points are proposed across all roundabouts throughout the scheme, however, the tactile paving slabs within a number of the central splitter islands are poorly aligned (examples are shown above). The alignment is such that partially sighted pedestrians may not be able to locate the second set of tactile leading to them to inadvertently cross at unsafe locations, resulting in trips and falls should they traverse a full height kerb.

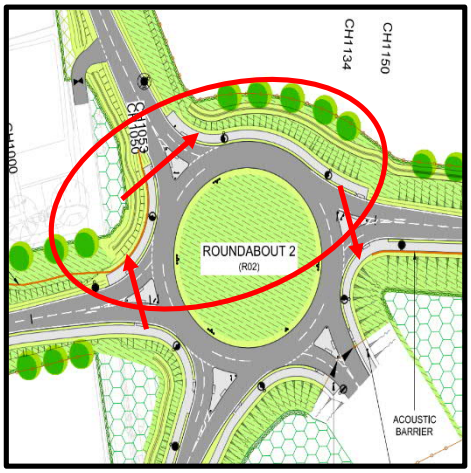
Recommendation:

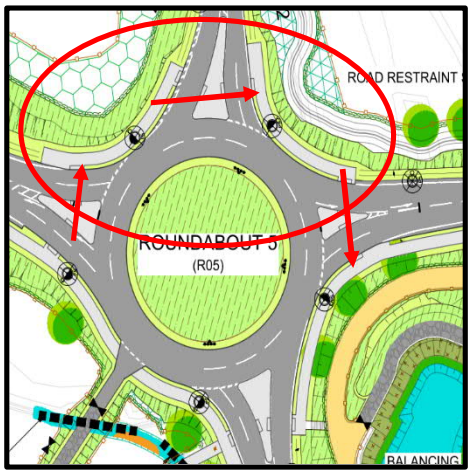
It is recommended that the alignment of all tactile paving slabs is reviewed and amended where necessary to guide visually impaired users through the uncontrolled crossing points safely and efficiently.

RSA 2 Designer's Response

The uncontrolled crossing points and associated tactile paving have been aligned so that they are close to right-angles to the traffic lane which is being crossed and where possible are located away from the final carriageway flare. This ensures all pedestrians are exposed to live traffic for the shortest distance possible and gives sighted pedestrians good visibility of approaching traffic. The tactiles either side of the carriageway are aligned with each other but due to the angles of the splitter island it has not always been possible to fully align the tactiles within splitter islands. However, the alignment of the tactiles within splitter islands will be reviewed and amended where required to ensure that the most appropriate location and alignment is achieved.

Problem 4.11.6	
Drawing Number(s):	Various.
Location:	Various.
Summary:	NMU provisions heightening the risk of pedestrian conflicts and collisions with vehicular traffic resulting in injuries.
Description:	





It appears that sections of footway/cycleways have been detailed around a number of the roundabouts (examples shown above), which may lead to pedestrians crossing additional carriageways to continue their journeys. These sections of footway/cycleway appear to be installed for cyclists travelling through the roundabouts with no deterrent for pedestrian usage. If pedestrians cross a number of carriageways to continue their journeys, instead of taking the shortest route through the roundabouts, the risk of them being struck by vehicles may be increased resulting in injuries.

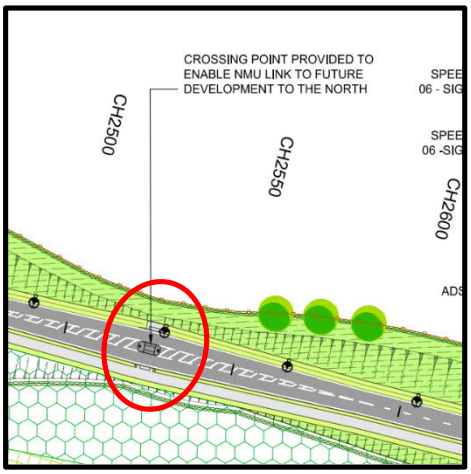
Recommendation:

It is recommended that the NMU provisions at the roundabouts are reviewed and pedestrians and cyclists are positively signed through the roundabout to deter them taking an unnecessary route.

RSA 2 Designer's Response

Pedestrians have good visibility across the roundabouts and will naturally choose the shortest route available to them for their journey. Additional signage is unnecessary and would only add to sign clutter.

Problem 4.11.7	
Drawing Number(s):	60542201-ACM-GEN-S2_ML_ZZ_Z-DR-Z-0006 P01.
Location:	Proposed NMU crossing; west of Roundabout 3.
Summary:	NMU provision may heighten the risk of conflicts and collisions with vehicular traffic resulting in injuries.
Description:	



An NMU crossing point has been detailed, to the west of Roundabout 3, to cater for NMU access/egress to a future development. There is a risk that if the crossing point is installed prior to the future development being completed, NMUs may use the crossing and continue their journey within an uneven verge leading to potential trips and falls or attempt to cross the MMDR again increasing the risk of being struck by an oncoming vehicle resulting in injuries.

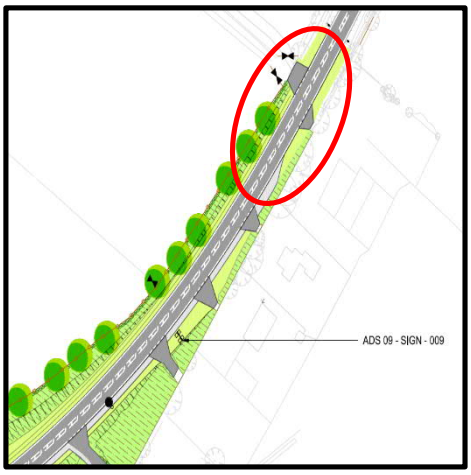
Recommendation:

It is recommended that measures are incorporated to prevent NMUs using the crossing point until the future development is completed.

RSA 2 Designer's Response

Until the future development is in place, there will be no pedestrian desire line in this location and pedestrians will be able to see that the crossing does not lead to the development without crossing the road. For this reason the risk of pedestrians choosing to cross in this location is very low and measures to prevent NMUs using the crossing point would not provide any safety benefit.

Problem 4.11.8	
Drawing Number(s):	60542201-ACM-GEN-S3_ML_ZZ_Z-DR-Z-0009 P01.
Location:	A607 Melton Road.
Summary:	Inappropriate termination of the footway provision leading to pedestrian injuries.
Description:	



A footway provision has been detailed adjacent to the A607 Melton Road; however, the footway appears to lead users directly on to a verge with no appropriate continuation provided. If pedestrians continue their journey within the verge trips and falls may occur as they travel over the uneven ground, resulting in injuries. Alternatively, pedestrians may continue their journey within the carriageway heightening the risk of being struck by vehicular traffic.

Recommendation:

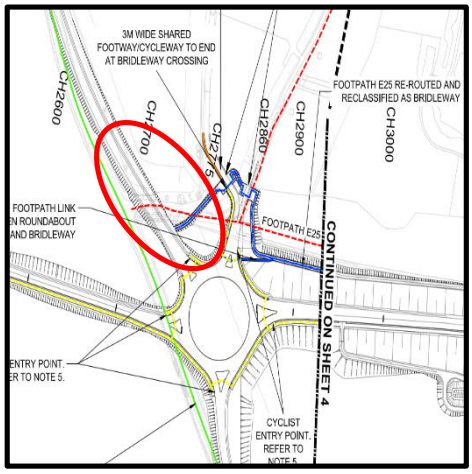
It is recommended that the footway provision is reviewed, and an appropriate continuation of the route provided, potentially the last driveway. Alternatively, this section of footway should be removed.

RSA 2 Designer's Response

Footway provision will be reviewed and if appropriate the footway will be continued up to the easternmost driveway on the south verge.

4.12 Equestrians

Problem 4.12.1	
Drawing Number(s):	60542201 ACM ENM S2_GEN_ZZ_Z DR Z 0003 P02
Location:	Bridleway at Roundabout 3
Summary:	Lack of connectivity of the bridleway resulting in horse riders travelling with the carriageway and heightening the risk of conflicts and collisions with vehicular traffic and injuries occurring.
Description:	



A bridleway is detailed at Roundabout 3 which terminates at Melton Spinney Road; however, no provisions have been detailed as to how equestrians are to safely continue their journey. If adequate provisions are not installed, equestrians will have to continue their journey within the carriageway heightening the risk of conflicts and collisions occurring with vehicular traffic resulting in injuries should a horse be struck or startled, and horse rider unmounted. Additionally, no equestrian warning signs have been detailed to warn oncoming drivers of the potential of equestrians in the area. This will exacerbate the issue should equestrians have to continue within the carriageway.

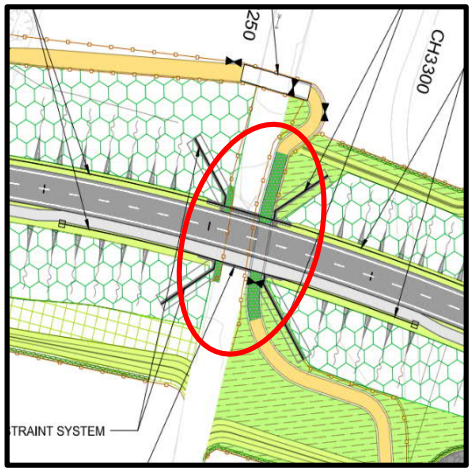
Recommendation:

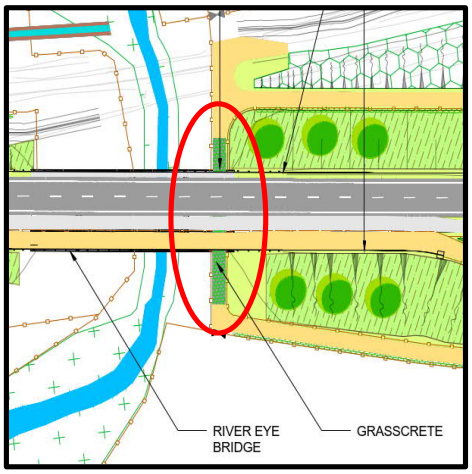
It is recommended that adequate provisions are installed to allow equestrians to continue their journeys off the carriageway and that adequate equestrian warning signs are installed.

RSA 2 Designer's Response

The existing bridleway commences at this point on Melton Spinney Road requiring equestrians who currently wish to access the bridleway to do so via Melton Spinney road. Removal of this access/egress would simply require equestrians to travel further on carriageway and enter Roundabout 3 prior to accessing the bridleway, which would introduce greater potential for conflict with motorised vehicles. It is beyond the scope of this scheme to introduce new off-carriageway bridleways northwards on Melton Spinney Road. However, the design team will reassess the visibility splays to/from the commencement of the bridleway to ensure these are suitable and not obscured by the proposed signage. The need for equestrian warning signs will also be reviewed and these will be included if appropriate on the Melton Spinney Road approaches.

Problem 4.12.2	
Drawing Number(s):	60542201-ACM-GEN-S3_ML_ZZ_Z DR Z 0008 P01 and 60542201-ACM-GEN-S5_ML_ZZ_Z DR Z 0012 P01
Location:	Bridleway's at Thorpe Brook and River Eye Bridge
Summary:	Surfacing detailed may lead to horses having trouble travelling along the proposed route, resulting in riders potentially being unmounted and injuries occurring.
Description:	





Grasscrete has been detailed at the Bridleway's under the Thorpe Brook and River Eye Bridges. There is a risk that horses may get their hooves trapped within the Grasscrete or the Grasscrete will lead horses to stumble as they travel over it potentially causing them to fall or unmount their rider resulting in injuries.

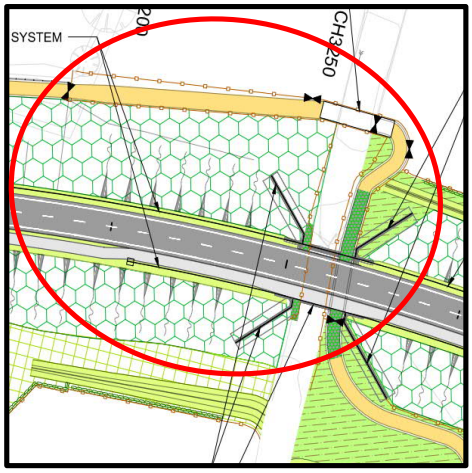
Recommendation:

It is recommended that an adequate surface course is provided for horses and their riders at all bridleways throughout the scheme extents.

RSA 2 Designer's Response

The 'grasscrete' solution proposed will be reviewed to ensure that the most appropriate product is selected which will balance the needs of horses and riders as well as providing a durable surface for potentially wet conditions next to Thorpe Brook and the River Eye bridges.

Problem 4.12.3	
Drawing Number(s):	60542201-ACM-GEN-S3_ML_ZZ_Z DR Z 0008 P01
Location:	Bridleway at Thorpe Brook Bridge
Summary:	Number of proposed gates may lead to difficulties for equestrians travelling along the bridleway resulting in potential injuries to riders.
Description:	



A number of gates have been detailed throughout the bridleway in vicinity of the Thorpe Brook bridge. The number of gates may make it difficult for equestrians to use the route and potentially increase the risk of a rider becoming injured should they have to continually mount and unmount their horse.

Recommendation:

It is recommended that the number of gates are rationalised throughout the bridleway and that they are fitted with appropriate catches so that a rider can operate/open the gates without dismounting.

RSA 2 Designer's Response

All bridleway gates will be fitted with appropriate catches so that the rider can operate and open the gates without dismounting. The layout of this section of the bridgeway and number of gates will be reviewed as part of the ongoing development of the proposed accommodation works required for the movement of livestock in this location.

Traffic Signs, Carriageway Markings and Lighting

4.13 Traffic Signs

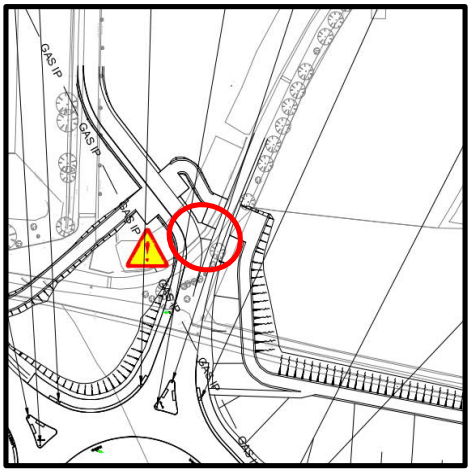
Problem 4.13.1	
Drawing Number(s):	Various
Location:	Various locations throughout the scheme extents.
Summary:	Potential vehicles striking sign faces or NMU injuries due to insufficient mounting height of traffic signs or lateral clearance from the carriageway.
Description:	
There appears to be no information of the mounting heights of signs positioned within the NMU provisions or the lateral clearance from the carriageway. If the signs are mounted too low, pedestrian injuries may occur. Additionally, if traffic signs are mounted too low or too close to the carriageway, sign faces may be struck by larger vehicles, potentially resulting in personal injuries.	
Recommendation:	
It is recommended that all traffic signs located within the NMU provisions are mounted at the correct height and positioned out of any potential conflict points.	

Problem 4.13.2	
Drawing Number(s):	Various
Location:	Various locations throughout the scheme extents.
Summary:	Increase in collision severity due to incorrect signposts being installed.
Description:	
No signpost diameter details have been provided to the Audit Team at this Stage 2 Road Safety Audit. There are concerns that if signposts that are too large are installed and an errant vehicle were to leave the carriageway and strike the signposts the severity of the collision could be increased.	
Recommendation:	
It is recommended that all traffic signs are installed on passive safe signposts or are protected by a RRS where there is a risk of collision.	

RSA 2 Designer's Response

All traffic signs proposed have been designed on passively safe signposts.

Problem 4.13.3	
Drawing Number(s):	60542201 ACM HSN S2_ML_ZZ_Z DR CH 0206 P01
Location:	Twin Lakes approach.
Summary:	Lack of keep left bollard on splitter island leading to kerb strikes and loss of control collisions.
Description:	



A splitter island has been provided on the approach to Twin Lakes; however, a keep left bollard has been omitted from the design. If a keep left bollard is not installed an oncoming vehicle may travel too close to the splitter island and inadvertently strike it resulting in loss of control collisions.

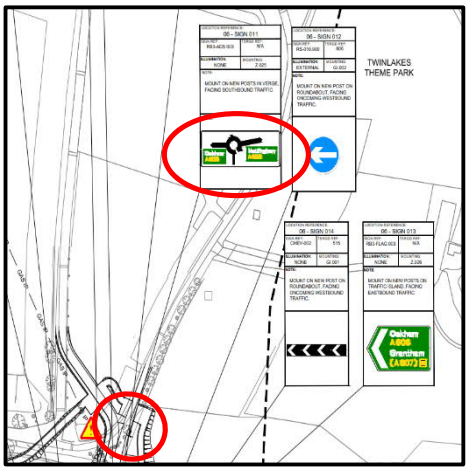
Recommendation:

It is recommended that a keep left bollard is installed on the splitter island on the Twin Lakes approach.

RSA 2 Designer's Response

A keep left bollard will be installed on the splitter island.

Problem 4.13.4	
Drawing Number(s):	60542201 ACM HSN S2_ML_ZZ_Z DR CH 0006 P01
Location:	Approach to Roundabout 3 from Twin Lakes.
Summary:	Omitted destination leading to potential driver confusion and hesitation resulting in shunt-type collisions
Description:	



Scalford has been added as a destination on all direction signage on approach to Roundabout 3 except for the Twin Lakes approach to the roundabout. This may lead to drivers becoming hesitant or confused on approach to the roundabout resulting in sudden or sharp braking and shunt-type collisions occurring.

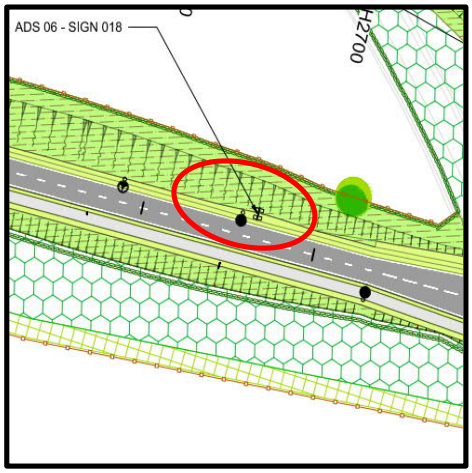
Recommendation:

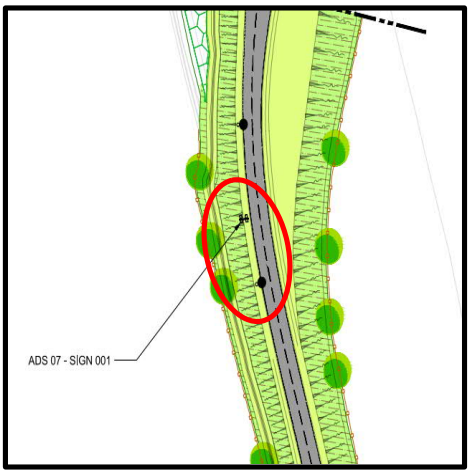
It is recommended that Scalford is added to the direction sign on the twin Lakes approach to Roundabout 3.

RSA 2 Designer's Response

The signing rationale for the MMDR is to encourage non-local traffic to use the MMDR, rather than minor local routes. Local traffic wishing to access Scalford should already be aware of its location. Not including Scalford on the map type sign is therefore unlikely to cause sudden braking or shunt-type collisions and would significantly increase the size of the sign.

Problem 4.13.5	
Drawing Number(s):	Various.
Location:	Various.
Summary:	Proposed lighting columns located in close proximity to Advanced Direction Signs (ADS) leading to potential sign masking and sudden and sharp braking resulting in shunt-type collisions.
Description:	





A number of proposed lighting columns have been detailed in close proximity to ADS, throughout the scheme extents (examples shown above). There is a risk that due to the close proximity of the lighting columns, some of the sign destinations may be masked to oncoming drivers. If drivers do not have clear sight of the signs, they may become hesitant or confused, on approach, leading to sudden or sharp braking and shunt-type collisions occurring.

Recommendation:

It is recommended that clear visibility is attained to all ADS throughout the scheme extents.

RSA 2 Designer's Response

The position of lighting columns in relation to ADS signs will be reviewed to ensure that drivers have a clear view of the signs in all locations.

Problem 4.13.6	
Drawing Number(s):	60542201-ACM-GEN-S1_ML_ZZ_Z-DR-CH-0006 P01
Location:	Central median opposite the development site.
Summary:	Lack of left turn only sign may lead to drivers exiting the development site into oncoming vehicles resulting in head-on collisions.
Description:	

Vehicles are detailed to exit the development site on to the A606 Nottingham Road, north of Roundabout 1. A left turn carriageway marking has been provided at the exit; however, this may be missed by drivers. If drivers miss the marking, they may undertake a right turn manoeuvre from the exit and travel into the path of an oncoming vehicle, resulting in a head-on collision.

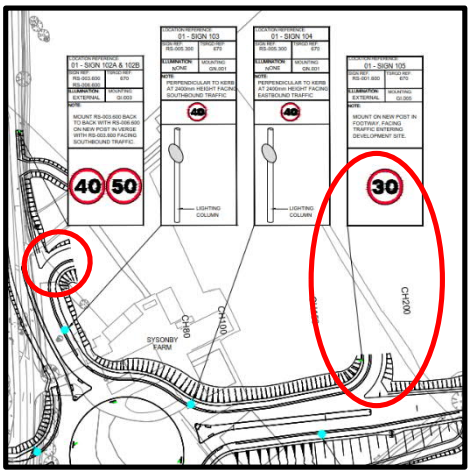
Recommendation:

It is recommended that a left turn only sign or no right turn sign is provided within the central median, opposite the development site exit.

RSA 2 Designer's Response

A left-turn only sign will be provided within the central median opposite the development site exit.

Problem 4.13.7	
Drawing Number(s):	60542201 ACM HSN S1_ML_ZZ_Z DR CH 0101 P01
Location:	Development site exit on to the A606 Nottingham Road.
Summary:	Lack of speed limit terminal sign resulting in inconsistent speeds and potential shunt-type collisions.
Description:	



A 30mph speed limit terminal sign has been detailed at the access to the development site, east of Roundabout 1; however, no 40mph speed limit terminal sign has been detailed at the development site exit on to the A606 Nottingham Road. This could lead to inconsistent speeds as vehicles exiting the development site may travel at a lower speed than approaching southbound vehicles on the A606 Nottingham Road leading to potential shunt-type collisions.

Recommendation:

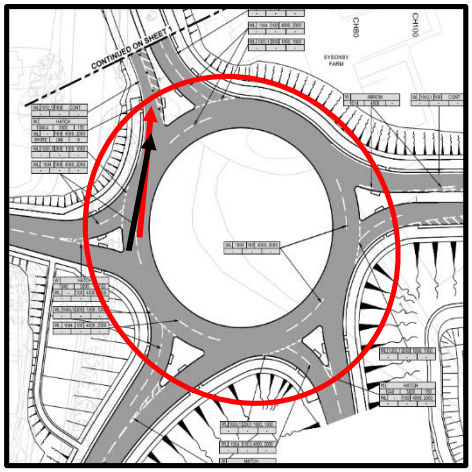
It is recommended that a 40mph speed limit terminal sign is installed at the development site exit on to the A606 Nottingham Road.

RSA 2 Designer's Response

A 40mph repeater sign has been provided south of the development site and will be visible to vehicles who have exited the development. Since all vehicles are expected to be slowing on the southbound approach Roundabout 1 the introduction of further speed limit signing to mitigate against vehicles travelling too slowly is considered unnecessary.

4.14 Carriageway Markings

Problem 4.14.1	
Drawing Number(s):	Various.
Location:	All proposed roundabouts throughout the scheme extents.
Summary:	Lack of guidance carriageway markings resulting in graze-type or side swipe collisions.
Description:	



No guidance markings have been provided to aid drivers transition from the approach road to the circulatory or from the circulatory to the exits. Additionally, there are large gaps within the circulatory markings which may lead to drivers attempting to exit the circulatory from the incorrect running lane. If adequate markings are not provided vehicles may enter the circulatory too close, side by side, resulting in graze-type collisions or side swipe collisions may occur should drivers try and exit the circulatory from the incorrect lane.

Recommendation:

It is recommended that adequate guidance markings are provided to guide drivers safely and efficiently on to, through and off the circulatory.

RSA 2 Designer's Response

The proposed roundabout circulatory markings are partial concentric markings which for the size of the roundabout are deemed to provide the most appropriate balance between guiding motorists and allowing them the flexibility to change lanes before exits.

Problem 4.14.2	
Drawing Number(s):	Various.
Location:	Throughout the scheme extents.
Summary:	Lack of carriageway studs leading to an increased risk of collisions during darkness hours.
Description:	
Carriageway studs have been detailed throughout sections of the MMDR; however, not all sections of the MMDR have carriageway studs detailed. There is a risk, especially in darkness hours, that if carriageway studs are not installed throughout all sections of the MMDR, drivers may inadvertently travel too close to the centre line leading to conflicts and collisions with oncoming vehicles or they may travel too close to the edge of carriageway and strike the adjacent kerbs leading to loss of control collisions. This issue is exacerbated as street lighting is not proposed on the mainline sections of the MMDR; only the immediate approaches and roundabouts are detailed with street lighting provisions.	
Recommendation:	
It is recommended that carriageway studs are installed within the centre line and carriageway edge lines throughout the whole length of the MMDR where lighting is not provided.	
RSA 2 Designer's Response Carriageway studs are already proposed on all sections of the MMDR where street lighting is not provided.	

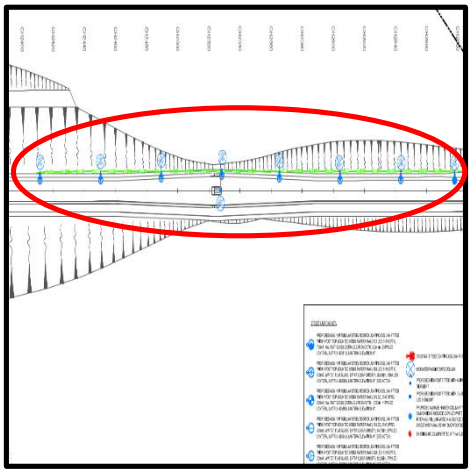
4.15 Poles/Columns

4.15.1 See **Problem 4.13.1**, **Problem 4.13.2** and **Problem 4.16.1**.

4.16 Lighting

Problem 4.16.1	
Drawing Number(s):	Various.
Location:	Various.
Summary:	Unclear provision of passive safe lighting columns leading to an increase in collision severity.
Description:	
It is unclear from the design drawings whether or not certain lighting columns are passively safe. If passively safe lighting columns are not installed adjacent to high speed carriageways or in vulnerable locations, such as the exit to a roundabout, the collision severity may be increased should an errant vehicle leave the carriageway and strike the lighting column.	
Recommendation:	
It is recommended that passive safe lighting columns are installed adjacent to high speed carriageways, where 50mph speed limit or above is detailed, and at locations which may be vulnerable to errant vehicle strikes.	
RSA 2 Designer's Response Passively safe lighting columns have been specified on all sections of the route.	

Problem 4.16.2	
Drawing Number(s):	Various.
Location:	Various locations throughout the scheme extents.
Summary:	Insufficient lighting provisions leading to dark patches within the footway or carriageway increasing the likelihood of personal injury collisions.
Description:	



There are several locations throughout the scheme extents where the Audit Team feel there are insufficient lighting units to ensure that there is adequate luminance across the footway/cycleways and adjacent carriageways (a few examples are shown above). Of particular concern are the uncontrolled crossing facilities at the proposed roundabouts and sections of the shared footway/cycleway adjacent to the MMDR were no lighting is provided or only provided within the opposing verge. If the shared footway/cycleways and carriageways are not sufficiently lit, drivers may not see NMUs in the relative shadows and be unable to identify their intended movements. This could result in NMU injuries or collisions with hazards in the carriageway, leading to personal injury collisions.

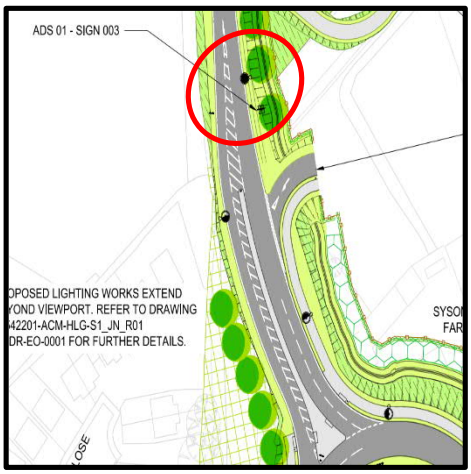
Recommendation:

It is recommended that the level of lighting avoids the presence of dark patches and that all road users are adequately illuminated.

RSA 2 Designer's Response

The level of lighting provided will be checked to ensure that there are sufficient lighting levels for motorists and non-motorised users adjacent to the carriageway.

Problem 4.16.3	
Drawing Number(s):	Various.
Location:	Various locations throughout the scheme extents.
Summary:	Trees positioned too close to street lighting units increasing the likelihood of dark patches being present on the shared footway/cycleways and carriageways resulting in personal injury collisions.
Description:	



Trees are proposed at various locations throughout the scheme extents, with several locations where the trees appear to be positioned close to a proposed lighting column (example shown above). If trees are positioned too close to a lighting column, when in full growth the branches may mask the lighting column unit, leading to dark patches being present on the adjacent shared footway/cycleway or carriageway. If dark patches are present, the likelihood of collisions occurring, or users striking a hazard on the shared footway/cycleways or carriageway will be heightened.

Recommendation:

It is recommended that all proposed tree installations are positioned far enough away from street lighting units to ensure enough luminance is provided along all footways and carriageways.

RSA 2 Designer's Response

In the example shown, the trees are located several metres further from the carriageway than the lighting columns, making it unlikely that the branches will mask the lighting units even when fully grown. However, the location of trees in relation to proposed lighting columns throughout the scheme will be checked to ensure that the likelihood of lighting units being masked is minimised.

5. Audit Team Statement

5.1.1 We certify that this Audit has been carried out based on the principles of DMRB HD 19/15 'Road Safety Audit'.

AUDIT TEAM LEADER

Pete Denton BSc (Hons) DipASM MCIHT MSoRSA

AECOM Infrastructure & Environment UK Ltd Signed: 

Royal Court

Basil Close Date: 30th November 2020

Chesterfield

Derbyshire

S41 7SL

AUDIT TEAM MEMBER

Jamie Stone BEng (Hons) IEng MCIHT MSoRSA

AECOM Infrastructure & Environment UK Ltd Signed: 

Royal Court

Basil Close Date: 30th November 2020

Chesterfield

Derbyshire

S41 7SL

AUDIT TEAM OBSERVER

There were no Audit Team Observers involved in this Audit.

OTHERS INVOLVED

There were no other persons involved in this Audit.

Appendix A – List of Drawings & Documents

The following documents were submitted as part of the Road Safety Audit:

Document No.	Rev.	Description	Date
60542201-ACM-LSI-GEN_GEN_ZZ_Z-SW-CH-0002	P01	North and East Melton Mowbray Distributor Road – Road Safety Audit Stage 2 Scope of Works	30th October 2020
60542201/M001/RSA/RSA1	02	Stage 1 Road Safety Audit	21/12/2018
-	-	Stage 1 Road Safety Audit and Designer's Responses	-
60542201-ACM-GEN-GEN_GEN_ZZ_Z-RP-T-0001		North and East Melton Mowbray Distributor Road – Transport Assessment	27th September 2018
60542201-ACM-HAW-S1_GEN_ZZ_Z-DR-CH-0001	P02	Accommodation Works Sheet 1 of 7	16/10/20
60542201-ACM-HAW-S2_GEN_ZZ_Z-DR-CH-0002	P02	Accommodation Works Sheet 2 of 7	16/10/20
60542201-ACM-HAW-S2_GEN_ZZ_Z-DR-CH-0003	P02	Accommodation Works Sheet 3 of 7	16/10/20
60542201-ACM-HAW-S3_GEN_ZZ_Z-DR-CH-0004	P02	Accommodation Works Sheet 4 of 7	16/10/20
60542201-ACM-HAW-S4_GEN_ZZ_Z-DR-CH-0005	P02	Accommodation Works Sheet 5 of 7	16/10/20
60542201-ACM-HAW-S5_GEN_ZZ_Z-DR-CH-0006	P02	Accommodation Works Sheet 6 of 7	16/10/20
60542201-ACM-HAW-S5_GEN_ZZ_Z-DR-CH-0007	P02	Accommodation Works Sheet 7 of 7	16/10/20
60542201-ACM-ENV-S1_ML_M01_Z-DR-LN-0005	P01	Acoustic Barrier Location Plan Sheet 2 of 4	16/10/20
60542201-ACM-ENV-S1_JN_R02_Z-DR-LN-0007	P01	Acoustic Barrier Location Plan Sheet 1 of 4	16/10/20
60542201-ACM-ENV-S2_ML_M02_Z-DR-LN-0009	P01	Acoustic Barrier Location Plan Sheet 3 of 4	16/10/20
60542201-ACM-ENV-S2_ML_M02_Z-DR-LN-0010	P01	Acoustic Barrier Location Plan Sheet 4 of 4	16/10/20
60542201-ACM-HML-S1_ML_M01_Z-DR-CH-0201	P01	Highways Contours Sheet 1 of 15	06/08/20
60542201-ACM-HML-S1_ML_M01_Z-DR-CH-0202	P01	Highways Contours Sheet 2 of 15	06/08/20
60542201-ACM-HML-S1_ML_M01_Z-DR-CH-0203	P01	Highways Contours Sheet 3 of 15	06/08/20
60542201-ACM-HML-S2_ML_M02_Z-DR-CH-0204	P01	Highways Contours Sheet 4 of 15	06/08/20
60542201-ACM-HML-S2_ML_M02_Z-DR-CH-0205	P01	Highways Contours Sheet 5 of 15	06/08/20

Document No.	Rev.	Description	Date
60542201-ACM-HML-S2_ML_M02_Z-DR-CH-0206	P01	Highways Contours Sheet 6 of 15	06/08/20
60542201-ACM-HML-S2_ML_M02_Z-DR-CH-0207	P01	Highways Contours Sheet 7 of 15	06/08/20
60542201-ACM-HML-S3_ML_M03_Z-DR-CH-0208	P01	Highways Contours Sheet 8 of 15	06/08/20
60542201-ACM-HML-S3_ML_M03_Z-DR-CH-0209	P01	Highways Contours Sheet 9 of 15	06/08/20
60542201-ACM-HML-S4_ML_M04_Z-DR-CH-0210	P01	Highways Contours Sheet 10 of 15	06/08/20
60542201-ACM-HML-S4_ML_M04_Z-DR-CH-0211	P01	Highways Contours Sheet 11 of 15	06/08/20
60542201-ACM-HML-S5_ML_M05_Z-DR-CH-0212	P01	Highways Contours Sheet 12 of 15	06/08/20
60542201-ACM-HML-S5_ML_M05_Z-DR-CH-0213	P01	Highways Contours Sheet 13 of 15	06/08/20
60542201-ACM-HML-S5_ML_M05_Z-DR-CH-0214	P01	Highways Contours Sheet 14 of 15	06/08/20
60542201-ACM-HML-S5_ML_M05_Z-DR-CH-0215	P01	Highways Contours Sheet 15 of 15	06/08/20
60542201-ACM-HML-S1_JN_R01_Z-DR-CH-0101	P01	Typical Cross Sections Roundabout 1 – A606 North	16/10/20
60542201-ACM-HML-S1_JN_R01_Z-DR-CH-0102	P01	Typical Cross Sections Roundabout 1 – A606 South	16/10/20
60542201-ACM-HML-S1_JN_R02_Z-DR-CH-0101	P01	Typical Cross Sections Roundabout 2 – Scalford Road North	16/10/20
60542201-ACM-HML-S1_JN_R02_Z-DR-CH-0102	P01	Typical Cross Sections Roundabout 2 – Scalford Road South	16/10/20
60542201-ACM-HML-S1_ML_M01_Z-DR-CH-0101	P01	Typical Cross Sections Section 1 Mainline – CH185	16/10/20
60542201-ACM-HML-S1_ML_M01_Z-DR-CH-0102	P01	Typical Cross Sections Section 1 Mainline – CH965	16/10/20
60542201-ACM-HML-S2_JN_R03_Z-DR-CH-0101	P01	Typical Cross Sections Roundabout 3 – Melton Spinney Rd North	16/10/20
60542201-ACM-HML-S2_JN_R03_Z-DR-CH-0102	P01	Typical Cross Sections Roundabout 3 – Melton Spinney Rd South	16/10/20
60542201-ACM-HML-S2_ML_M02_Z-DR-CH-0101	P01	Typical Cross Sections Section 2 Mainline – CH1230	16/10/20
60542201-ACM-HML-S2_ML_M02_Z-DR-CH-0102	P01	Typical Cross Sections Section 2 Mainline – CH2000	16/10/20
60542201-ACM-HML-S2_ML_M02_Z-DR-CH-0103	P01	Typical Cross Sections Section 2 Mainline – CH2740	16/10/20
60542201-ACM-HML-S3_JN_R04_Z-DR-CH-0101	P01	Typical Cross Sections Roundabout 4 – A607 Northeast	16/10/20

Document No.	Rev.	Description	Date
60542201-ACM-HML-S3_JN_R04_Z-DR-CH-0102	P01	Typical Cross Sections Roundabout 4 – A607 Southwest	16/10/20
60542201-ACM-HML-S3_ML_M03_Z-DR-CH-0101	P01	Typical Cross Sections Section 3 Mainline – CH2880	16/10/20
60542201-ACM-HML-S3_ML_M03_Z-DR-CH-0102	P01	Typical Cross Sections Section 3 Mainline – CH3300	16/10/20
60542201-ACM-HML-S4_JN_R05_Z-DR-CH-0101	P01	Typical Cross Sections Roundabout 5 – B676 East	16/10/20
60542201-ACM-HML-S4_JN_R05_Z-DR-CH-0102	P01	Typical Cross Sections Roundabout 5 – B676 West	16/10/20
60542201-ACM-HML-S4_ML_M04_Z-DR-CH-0101	P01	Typical Cross Sections Section 4 Mainline – CH4380	16/10/20
60542201-ACM-HML-S4_ML_M04_Z-DR-CH-0102	P01	Typical Cross Sections Section 4 Mainline – CH4760	16/10/20
60542201-ACM-HML-S5_JN_R06_Z-DR-CH-0101	P01	Typical Cross Sections Roundabout 6 – A606 Northwest	16/10/20
60542201-ACM-HML-S5_JN_R06_Z-DR-CH-0102	P01	Typical Cross Sections Roundabout 6 – A606 Southeast	16/10/20
60542201-ACM-HML-S5_ML_M05_Z-DR-CH-0101	P01	Typical Cross Sections Section 5 Mainline – CH4992	16/10/20
60542201-ACM-HML-S5_ML_M05_Z-DR-CH-0102	P01	Typical Cross Sections Section 5 Mainline – CH5140	16/10/20
60542201-ACM-HML-S5_ML_M05_Z-DR-CH-0103	P01	Typical Cross Sections Section 5 Mainline – CH5540	16/10/20
60542201-ACM-HDG-S1_JN_R01_Z-DR-CD-0001	P03	Drainage Layout Sheet 1 of 36	16/06/20
60542201-ACM-HDG-S1_JN_R01_Z-DR-CD-0002	P03	Drainage Layout Sheet 2 of 36	16/06/20
60542201-ACM-HDG-S1_ML_M01_Z-DR-CD-0003	P03	Drainage Layout Sheet 3 of 36	16/06/20
60542201-ACM-HDG-S1_ML_M01_Z-DR-CD-0004	P03	Drainage Layout Sheet 4 of 36	16/06/20
60542201-ACM-HDG-S1_ML_M01_Z-DR-CD-0005	P03	Drainage Layout Sheet 5 of 36	16/06/20
60542201-ACM-HDG-S1_JN_R02_Z-DR-CD-0006	P03	Drainage Layout Sheet 6 of 36	16/06/20
60542201-ACM-HDG-S1_JN_R02_Z-DR-CD-0007	P03	Drainage Layout Sheet 7 of 36	01/07/20
60542201-ACM-HDG-S1_JN_R02_Z-DR-CD-0008	P03	Drainage Layout Sheet 8 of 36	16/06/20
60542201-ACM-HDG-S2_ML_M02_Z-DR-CD-0009	P03	Drainage Layout Sheet 9 of 36	16/06/20
60542201-ACM-HDG-S2_ML_M02_Z-DR-CD-0010	P03	Drainage Layout Sheet 10 of 36	16/06/20

Document No.	Rev.	Description	Date
60542201-ACM-HDG-S2_ML_M02_Z-DR-CD-0011	P03	Drainage Layout Sheet 11 of 36	16/06/20
60542201-ACM-HDG-S2_ML_M02_Z-DR-CD-0012	P03	Drainage Layout Sheet 12 of 36	16/06/20
60542201-ACM-HDG-S2_ML_M02_Z-DR-CD-0013	P03	Drainage Layout Sheet 13 of 36	16/06/20
60542201-ACM-HDG-S2_ML_M02_Z-DR-CD-0014	P03	Drainage Layout Sheet 14 of 36	16/06/20
60542201-ACM-HDG-S2_JN_R03_Z-DR-CD-0015	P03	Drainage Layout Sheet 15 of 36	16/10/20
60542201-ACM-HDG-S2_JN_R03_Z-DR-CD-0016	P03	Drainage Layout Sheet 16 of 36	01/07/20
60542201-ACM-HDG-S2_JN_R03_Z-DR-CD-0017	P03	Drainage Layout Sheet 17 of 36	16/06/20
60542201-ACM-HDG-S3_ML_M03_Z-DR-CD-0018	P03	Drainage Layout Sheet 18 of 36	16/06/20
60542201-ACM-HDG-S3_ML_M03_Z-DR-CD-0019	P03	Drainage Layout Sheet 19 of 36	16/06/20
60542201-ACM-HDG-S3_JN_R04_Z-DR-CD-0020	P03	Drainage Layout Sheet 20 of 36	01/07/20
60542201-ACM-HDG-S3_JN_R04_Z-DR-CD-0021	P03	Drainage Layout Sheet 21 of 36	16/06/20
60542201-ACM-HDG-S3_JN_R04_Z-DR-CD-0022	P03	Drainage Layout Sheet 22 of 36	16/06/20
60542201-ACM-HDG-S4_ML_M04_Z-DR-CD-0023	P03	Drainage Layout Sheet 23 of 36	16/06/20
		Drainage Layout Sheet 24 of 36	
60542201-ACM-HDG-S4_ML_M04_Z-DR-CD-0025	P03	Drainage Layout Sheet 25 of 36	16/06/20
60542201-ACM-HDG-S4_JN_R05_Z-DR-CD-0026	P03	Drainage Layout Sheet 26 of 36	01/07/20
60542201-ACM-HDG-S4_JN_R05_Z-DR-CD-0027	P03	Drainage Layout Sheet 27 of 36	16/06/20
60542201-ACM-HDG-S5_ML_M05_Z-DR-CD-0028	P03	Drainage Layout Sheet 28 of 36	16/06/20
60542201-ACM-HDG-S5_ML_M05_Z-DR-CD-0029	P03	Drainage Layout Sheet 29 of 36	16/06/20
60542201-ACM-HDG-S5_ML_M05_Z-DR-CD-0030	P03	Drainage Layout Sheet 30 of 36	01/07/20
60542201-ACM-HDG-S5_ML_M05_Z-DR-CD-0031	P03	Drainage Layout Sheet 31 of 36	16/06/20
60542201-ACM-HDG-S5_ML_M05_Z-DR-CD-0032	P03	Drainage Layout Sheet 32 of 36	16/06/20

Document No.	Rev.	Description	Date
60542201-ACM-HDG-S5_ML_M05_Z-DR-CD-0033	P03	Drainage Layout Sheet 33 of 36	16/06/20
60542201-ACM-HDG-S5_ML_M05_Z-DR-CD-003	P03	Drainage Layout Sheet 24 of 36	16/06/20
60542201-ACM-HDG-S5_JN_R06_Z-DR-CD-0035	P03	Drainage Layout Sheet 35 of 36	16/06/20
60542201-ACM-HDG-S5_JN_R06_Z-DR-CD-0036	P03	Drainage Layout Sheet 36 of 36	01/07/20
60542201-ACM-ENM-S1_GEN_ZZ_Z-DR-Z-0001	P02	Proposed Permanent NMU Routes Sheet 1 of 7	08/05/20
60542201-ACM-ENM-S2_GEN_ZZ_Z-DR-Z-0002	P02	Proposed Permanent NMU Routes Sheet 2 of 7	08/05/20
60542201-ACM-ENM-S2_GEN_ZZ_Z-DR-Z-0003	P02	Proposed Permanent NMU Routes Sheet 3 of 7	08/05/20
60542201-ACM-ENM-S3_GEN_ZZ_Z-DR-Z-0004	P02	Proposed Permanent NMU Routes Sheet 4 of 7	08/05/20
60542201-ACM-ENM-S4_GEN_ZZ_Z-DR-Z-0005	P02	Proposed Permanent NMU Routes Sheet 5 of 7	08/05/20
60542201-ACM-ENM-S5_GEN_ZZ_Z-DR-Z-0006	P02	Proposed Permanent NMU Routes Sheet 6 of 7	08/05/20
60542201-ACM-ENM-S5_GEN_ZZ_Z-DR-Z-0007	P02	Proposed Permanent NMU Routes Sheet 7 of 7	08/05/20
605422201-ACM-EBD-S1_ML_ZZ_Z-DR-EG-0001	P01	Ecological Mitigation Sheet 1 of 21	22/10/20
605422201-ACM-EBD-S1_ML_ZZ_Z-DR-EG-0002	P01	Ecological Mitigation Sheet 2 of 21	22/10/20
605422201-ACM-EBD-S1_ML_ZZ_Z-DR-EG-0003	P01	Ecological Mitigation Sheet 3 of 21	22/10/20
605422201-ACM-EBD-S2_ML_ZZ_Z-DR-EG-0004	P01	Ecological Mitigation Sheet 4 of 21	22/10/20
605422201-ACM-EBD-S2_ML_ZZ_Z-DR-EG-0005	P01	Ecological Mitigation Sheet 5 of 21	22/10/20
605422201-ACM-EBD-S2_ML_ZZ_Z-DR-EG-0006	P01	Ecological Mitigation Sheet 6 of 21	22/10/20
605422201-ACM-EBD-S2_ML_ZZ_Z-DR-EG-0007	P01	Ecological Mitigation Sheet 7 of 21	22/10/20
605422201-ACM-EBD-S3_ML_ZZ_Z-DR-EG-0008	P01	Ecological Mitigation Sheet 8 of 21	22/10/20
605422201-ACM-EBD-S3_ML_ZZ_Z-DR-EG-0009	P01	Ecological Mitigation Sheet 9 of 21	22/10/20
605422201-ACM-EBD-S4_ML_ZZ_Z-DR-EG-0010	P01	Ecological Mitigation Sheet 10 of 21	22/10/20
605422201-ACM-EBD-S4_ML_ZZ_Z-DR-EG-0011	P01	Ecological Mitigation Sheet 11 of 21	22/10/20

Document No.	Rev.	Description	Date
605422201-ACM-EBD-S5_ML_ZZ_Z-DR-EG-0012	P01	Ecological Mitigation Sheet 12 of 21	22/10/20
605422201-ACM-EBD-S5_ML_ZZ_Z-DR-EG-0013	P01	Ecological Mitigation Sheet 13 of 21	22/10/20
605422201-ACM-EBD-S5_ML_ZZ_Z-DR-EG-0014	P01	Ecological Mitigation Sheet 14 of 21	22/10/20
605422201-ACM-EBD-S5_ML_ZZ_Z-DR-EG-0015	P01	Ecological Mitigation Sheet 15 of 21	22/10/20
605422201-ACM-EBD-S4_GEN_ZZ_Z-DR-EG-0016	P01	Ecological Mitigation Sheet 16 of 21	22/10/20
605422201-ACM-EBD-S4_GEN_ZZ_Z-DR-EG-0017	P01	Ecological Mitigation Sheet 17 of 21	22/10/20
605422201-ACM-EBD-S4_GEN_ZZ_Z-DR-EG-0018	P01	Ecological Mitigation Sheet 18 of 21	22/10/20
605422201-ACM-EBD-S5_GEN_ZZ_Z-DR-EG-0019	P01	Ecological Mitigation Sheet 19 of 21	22/10/20
605422201-ACM-EBD-S5_GEN_ZZ_Z-DR-EG-0020	P01	Ecological Mitigation Sheet 20 of 21	22/10/20
605422201-ACM-EBD-S5_GEN_ZZ_Z-DR-EG-0021	P01	Ecological Mitigation Sheet 21 of 21	22/10/20
605422201-ACM-HFE-S1_ML_ZZ_Z-DR-CH-0001	P01	Fencing Sheet 1 of 21	15/10/2020
605422201-ACM-HFE-S1_ML_ZZ_Z-DR-CH-0002	P01	Fencing Sheet 2 of 21	15/10/2020
605422201-ACM-HFE-S1_ML_ZZ_Z-DR-CH-0003	P01	Fencing Sheet 3 of 21	15/10/2020
605422201-ACM-HFE-S2_ML_ZZ_Z-DR-CH-0004	P01	Fencing Sheet 4 of 21	15/10/2020
605422201-ACM-HFE-S2_ML_ZZ_Z-DR-CH-0005	P01	Fencing Sheet 5 of 21	15/10/2020
605422201-ACM-HFE-S2_ML_ZZ_Z-DR-CH-0006	P01	Fencing Sheet 6 of 21	15/10/2020
605422201-ACM-HFE-S2_ML_ZZ_Z-DR-CH-0007	P01	Fencing Sheet 7 of 21	15/10/2020
605422201-ACM-HFE-S3_ML_ZZ_Z-DR-CH-0008	P01	Fencing Sheet 8 of 21	15/10/2020
605422201-ACM-HFE-S3_ML_ZZ_Z-DR-CH-0009	P01	Fencing Sheet 9 of 21	15/10/2020
605422201-ACM-HFE-S4_ML_ZZ_Z-DR-CH-0010	P01	Fencing Sheet 10 of 21	15/10/2020
605422201-ACM-HFE-S4_ML_ZZ_Z-DR-CH-0011	P01	Fencing Sheet 11 of 21	15/10/2020
605422201-ACM-HFE-S5_ML_ZZ_Z-DR-CH-0012	P01	Fencing Sheet 12 of 21	15/10/2020

Document No.	Rev.	Description	Date
605422201-ACM-HFE-S5_ML_ZZ_Z-DR-CH-0013	P01	Fencing Sheet 13 of 21	15/10/2020
605422201-ACM-HFE-S5_ML_ZZ_Z-DR-CH-0014	P01	Fencing Sheet 14 of 21	15/10/2020
605422201-ACM-HFE-S5_ML_ZZ_Z-DR-CH-0015	P01	Fencing Sheet 15 of 21	15/10/2020
60542201-ACM-HFE-GEN_GEN_ZZ_Z-DR-CH-0016	P01	Fencing Sheet 16 of 21	15/10/2020
60542201-ACM-HFE-GEN_GEN_ZZ_Z-DR-CH-0017	P01	Fencing Sheet 17 of 21	15/10/2020
60542201-ACM-HFE-GEN_GEN_ZZ_Z-DR-CH-0018	P01	Fencing Sheet 18 of 21	15/10/2020
60542201-ACM-HFE-GEN_GEN_ZZ_Z-DR-CH-0019	P01	Fencing Sheet 19 of 21	15/10/2020
60542201-ACM-HFE-GEN_GEN_ZZ_Z-DR-CH-0020	P01	Fencing Sheet 20 of 21	15/10/2020
60542201-ACM-HFE-GEN_GEN_ZZ_Z-DR-CH-0021	P01	Fencing Sheet 21 of 21	15/10/2020
60542201-ACM-GEN-S1_ML_ZZ_Z-DR-Z-0001_	P01	General Arrangement 1:1000 Sheet 1 of 21	22/10/20
60542201-ACM-GEN-S1_ML_ZZ_Z-DR-Z-0002_	P01	General Arrangement 1:1000 Sheet 2 of 21	22/10/20
60542201-ACM-GEN-S1_ML_ZZ_Z-DR-Z-0003_	P01	General Arrangement 1:1000 Sheet 3 of 21	22/10/20
60542201-ACM-GEN-S2_ML_ZZ_Z-DR-Z-0004_	P01	General Arrangement 1:1000 Sheet 4 of 21	22/10/20
60542201-ACM-GEN-S2_ML_ZZ_Z-DR-Z-0005_	P01	General Arrangement 1:1000 Sheet 5 of 21	22/10/20
60542201-ACM-GEN-S2_ML_ZZ_Z-DR-Z-0006_	P01	General Arrangement 1:1000 Sheet 6 of 21	22/10/20
60542201-ACM-GEN-S2_ML_ZZ_Z-DR-Z-0007_	P01	General Arrangement 1:1000 Sheet 7 of 21	22/10/20
60542201-ACM-GEN-S3_ML_ZZ_Z-DR-Z-0008_	P01	General Arrangement 1:1000 Sheet 8 of 21	22/10/20
60542201-ACM-GEN-S3_ML_ZZ_Z-DR-Z-0009_	P01	General Arrangement 1:1000 Sheet 9 of 21	22/10/20
60542201-ACM-GEN-S4_ML_ZZ_Z-DR-Z-0010_	P01	General Arrangement 1:1000 Sheet 10 of 21	22/10/20
60542201-ACM-GEN-S4_ML_ZZ_Z-DR-Z-0011_	P01	General Arrangement 1:1000 Sheet 11 of 21	22/10/20
60542201-ACM-GEN-S4_ML_ZZ_Z-DR-Z-0016_	P01	General Arrangement 1:1000 Sheet 16 of 21	22/10/20
60542201-ACM-GEN-S4_ML_ZZ_Z-DR-Z-0017_	P01	General Arrangement 1:1000 Sheet 17 of 21	22/10/20

Document No.	Rev.	Description	Date
60542201-ACM-GEN-S4_ML_ZZ_Z-DR-Z-0018_	P01	General Arrangement 1:1000 Sheet 18 of 21	22/10/20
60542201-ACM-GEN-S5_ML_ZZ_Z-DR-Z-0012_	P01	General Arrangement 1:1000 Sheet 12 of 21	22/10/20
60542201-ACM-GEN-S5_ML_ZZ_Z-DR-Z-0013_	P01	General Arrangement 1:1000 Sheet 13 of 21	22/10/20
60542201-ACM-GEN-S5_ML_ZZ_Z-DR-Z-0014_	P01	General Arrangement 1:1000 Sheet 14 of 21	22/10/20
60542201-ACM-GEN-S5_ML_ZZ_Z-DR-Z-0015_	P01	General Arrangement 1:1000 Sheet 15 of 21	22/10/20
60542201-ACM-GEN-S5_ML_ZZ_Z-DR-Z-0019_	P01	General Arrangement 1:1000 Sheet 19 of 21	22/10/20
60542201-ACM-GEN-S5_ML_ZZ_Z-DR-Z-0020_	P01	General Arrangement 1:1000 Sheet 20 of 21	22/10/20
60542201-ACM-GEN-S5_ML_ZZ_Z-DR-Z-0021_	P01	General Arrangement 1:1000 Sheet 21 of 21	22/10/20
60542201-ACM-HKF-GEN_GEN_ZZ_Z-SD-CH-0001	P01	Kerbs, Footways and Paved Areas Standard Details – Sheet 1 of 3	02/07/20
60542201-ACM-HKF-GEN_GEN_ZZ_Z-SD-CH-0001	P02	Kerbs, Footways and Paved Areas Standard Details – Sheet 1 of 3	10/08/20
60542201-ACM-HKF-GEN_GEN_ZZ_Z-SD-CH-0002	P01	Kerbs, Footways and Paved Areas Standard Details – Sheet 2 of 3	02/07/20
60542201-ACM-HKF-GEN_GEN_ZZ_Z-SD-CH-0003	P01	Kerbs, Footways and Paved Areas Standard Details – Sheet 3 of 3	10/08/20
60542201-ACM-HKF-S1_JN_R01_Z-DR-CH-0001	P01	Kerbs, Footways and Paved Areas Sheet 1 of 36	02/07/20
60542201-ACM-HKF-S1_JN_R01_Z-DR-CH-0002	P01	Kerbs, Footways and Paved Areas Sheet 2 of 36	02/07/20
60542201-ACM-HKF-S1_JN_R02_Z-DR-CH-0006	P01	Kerbs, Footways and Paved Areas Sheet 6 of 36	02/07/20
60542201-ACM-HKF-S1_JN_R02_Z-DR-CH-0007	P01	Kerbs, Footways and Paved Areas Sheet 7 of 36	02/07/20
60542201-ACM-HKF-S1_JN_R02_Z-DR-CH-0008	P01	Kerbs, Footways and Paved Areas Sheet 8 of 36	02/07/20
60542201-ACM-HKF-S1_ML_M01_Z-DR-CH-0003	P01	Kerbs, Footways and Paved Areas Sheet 3 of 36	02/07/20
60542201-ACM-HKF-S1_ML_M01_Z-DR-CH-0004	P01	Kerbs, Footways and Paved Areas Sheet 4 of 36	02/07/20
60542201-ACM-HKF-S1_ML_M01_Z-DR-CH-0005	P01	Kerbs, Footways and Paved Areas Sheet 5 of 36	02/07/20
60542201-ACM-HKF-S2_JN_R03_Z-DR-CH-0014	P01	Kerbs, Footways and Paved Areas Sheet 14 of 36	02/07/20
60542201-ACM-HKF-S2_JN_R03_Z-DR-CH-0015	P01	Kerbs, Footways and Paved Areas Sheet 15 of 36	02/07/20

Document No.	Rev.	Description	Date
60542201-ACM-HKF-S2_JN_R03_Z-DR-CH-0016	P01	Kerbs, Footways and Paved Areas Sheet 16 of 36	02/07/20
60542201-ACM-HKF-S2_JN_R03_Z-DR-CH-0017	P01	Kerbs, Footways and Paved Areas Sheet 17 of 36	02/07/20
60542201-ACM-HKF-S2_ML_M02_Z-DR-CH-0009	P01	Kerbs, Footways and Paved Areas Sheet 9 of 36	02/07/20
60542201-ACM-HKF-S2_ML_M02_Z-DR-CH-0010	P01	Kerbs, Footways and Paved Areas Sheet 10 of 36	02/07/20
60542201-ACM-HKF-S2_ML_M02_Z-DR-CH-0011	P01	Kerbs, Footways and Paved Areas Sheet 11 of 36	02/07/20
60542201-ACM-HKF-S2_ML_M02_Z-DR-CH-0012	P01	Kerbs, Footways and Paved Areas Sheet 12 of 36	02/07/20
60542201-ACM-HKF-S2_ML_M02_Z-DR-CH-0013	P01	Kerbs, Footways and Paved Areas Sheet 13 of 36	02/07/20
60542201-ACM-HKF-S3_JN_R04_Z-DR-CH-0020	P01	Kerbs, Footways and Paved Areas Sheet 20 of 36	02/07/20
60542201-ACM-HKF-S3_JN_R04_Z-DR-CH-0021	P01	Kerbs, Footways and Paved Areas Sheet 21 of 36	02/07/20
60542201-ACM-HKF-S3_JN_R04_Z-DR-CH-0022	P01	Kerbs, Footways and Paved Areas Sheet 22 of 36	02/07/20
60542201-ACM-HKF-S3_ML_M03_Z-DR-CH-0018	P01	Kerbs, Footways and Paved Areas Sheet 18 of 36	02/07/20
60542201-ACM-HKF-S3_ML_M03_Z-DR-CH-0019	P01	Kerbs, Footways and Paved Areas Sheet 19 of 36	02/07/20
60542201-ACM-HKF-S4_JN_R05_Z-DR-CH-0026	P01	Kerbs, Footways and Paved Areas Sheet 26 of 36	02/07/20
60542201-ACM-HKF-S4_JN_R05_Z-DR-CH-0027	P01	Kerbs, Footways and Paved Areas Sheet 27 of 36	02/07/20
60542201-ACM-HKF-S4_ML_M04_Z-DR-CH-0023	P01	Kerbs, Footways and Paved Areas Sheet 23 of 36	02/07/20
60542201-ACM-HKF-S4_ML_M04_Z-DR-CH-0024	P01	Kerbs, Footways and Paved Areas Sheet 24 of 36	02/07/20
60542201-ACM-HKF-S4_ML_M04_Z-DR-CH-0025	P01	Kerbs, Footways and Paved Areas Sheet 25 of 36	02/07/20
60542201-ACM-HKF-S5_JN_R06_Z-DR-CH-0035	P01	Kerbs, Footways and Paved Areas Sheet 35 of 36	02/07/20
60542201-ACM-HKF-S5_JN_R06_Z-DR-CH-0036	P01	Kerbs, Footways and Paved Areas Sheet 36 of 36	02/07/20
60542201-ACM-HKF-S5_ML_M05_Z-DR-CH-0028	P01	Kerbs, Footways and Paved Areas Sheet 28 of 36	02/07/20
60542201-ACM-HKF-S5_ML_M05_Z-DR-CH-0029	P01	Kerbs, Footways and Paved Areas Sheet 29 of 36	02/07/20
60542201-ACM-HKF-S5_ML_M05_Z-DR-CH-0030	P01	Kerbs, Footways and Paved Areas Sheet 30 of 36	02/07/20

Document No.	Rev.	Description	Date
60542201-ACM-HKF-S5_ML_M05_Z-DR-CH-0031	P01	Kerbs, Footways and Paved Areas Sheet 31 of 36	02/07/20
60542201-ACM-HKF-S5_ML_M05_Z-DR-CH-0032	P01	Kerbs, Footways and Paved Areas Sheet 32 of 36	02/07/20
60542201-ACM-HKF-S5_ML_M05_Z-DR-CH-0033	P01	Kerbs, Footways and Paved Areas Sheet 33 of 36	02/07/20
60542201-ACM-HKF-S5_ML_M05_Z-DR-CH-0034	P01	Kerbs, Footways and Paved Areas Sheet 34 of 36	02/07/20
60542201-ACM-ELS-S1_ML_ZZ_Z-DR-LV-0001	P02	Landscape Drawing Sheet 1 of 21	09/10/20
60542201-ACM-ELS-S1_ML_ZZ_Z-DR-LV-0002	P02	Landscape Drawing Sheet 2 of 21	09/10/20
60542201-ACM-ELS-S1_ML_ZZ_Z-DR-LV-0003	P02	Landscape Drawing Sheet 3 of 21	09/10/20
60542201-ACM-ELS-S2_ML_ZZ_Z-DR-LV-0004	P02	Landscape Drawing Sheet 4 of 21	09/10/20
60542201-ACM-ELS-S2_ML_ZZ_Z-DR-LV-0005	P02	Landscape Drawing Sheet 5 of 21	09/10/20
60542201-ACM-ELS-S2_ML_ZZ_Z-DR-LV-0006	P02	Landscape Drawing Sheet 6 of 21	09/10/20
60542201-ACM-ELS-S2_ML_ZZ_Z-DR-LV-0007	P02	Landscape Drawing Sheet 7 of 21	09/10/20
60542201-ACM-ELS-S3_ML_ZZ_Z-DR-LV-0008	P02	Landscape Drawing Sheet 8 of 21	09/10/20
60542201-ACM-ELS-S3_ML_ZZ_Z-DR-LV-0009	P02	Landscape Drawing Sheet 9 of 21	09/10/20
60542201-ACM-ELS-S4_ML_ZZ_Z-DR-LV-0010	P02	Landscape Drawing Sheet 10 of 21	09/10/20
60542201-ACM-ELS-S4_ML_ZZ_Z-DR-LV-0011	P02	Landscape Drawing Sheet 11 of 21	09/10/20
60542201-ACM-ELS-S5_ML_ZZ_Z-DR-LV-0012	P02	Landscape Drawing Sheet 12 of 21	09/10/20
60542201-ACM-ELS-S5_ML_ZZ_Z-DR-LV-0013	P02	Landscape Drawing Sheet 13 of 21	09/10/20
60542201-ACM-ELS-S5_ML_ZZ_Z-DR-LV-0014	P02	Landscape Drawing Sheet 14 of 21	09/10/20
60542201-ACM-ELS-S5_ML_ZZ_Z-DR-LV-0015	P02	Landscape Drawing Sheet 15 of 21	09/10/20
60542201-ACM-ELS-S4_GEN_ZZ_Z-DR-LV-0016	P02	Landscape Drawing Sheet 16 of 21	09/10/20
60542201-ACM-ELS-S4_GEN_ZZ_Z-DR-LV-0017	P02	Landscape Drawing Sheet 17 of 21	09/10/20
60542201-ACM-ELS-S4_GEN_ZZ_Z-DR-LV-0018	P02	Landscape Drawing Sheet 18 of 21	09/10/20

Document No.	Rev.	Description	Date
60542201-ACM-ELS-S5_GEN_ZZ_Z-DR-LV-0019	P02	Landscape Drawing Sheet 19 of 21	09/10/20
60542201-ACM-ELS-S5_GEN_ZZ_Z-DR-LV-0020	P02	Landscape Drawing Sheet 20 of 21	09/10/20
60542201-ACM-ELS-S5_GEN_ZZ_Z-DR-LV-0021	P02	Landscape Drawing Sheet 21 of 21	09/10/20
60542201-ACM-HLG-GEN_GEN_ZZ_Z-RP-EO-1300	P01	North and East Melton Mowbray Distributor Road – Lighting Calculations	October 2020
60542201-ACM-HLG-GEN_GEN_ZZ_Z-RP-EO-1400	P01	North and East Melton Mowbray Distributor Road – Cable Calculations	October 2020
60542201-ACM-HLG-GEN_GEN_ZZ_Z-SC-EO-0001	P01	Lighting and Electrical Roundabout 1 – Schematic Layout	23/10/20
60542201-ACM-HLG-GEN_GEN_ZZ_Z-SC-EO-0002	P01	Lighting and Electrical Roundabout 2 – Schematic Layout	23/10/20
60542201-ACM-HLG-GEN_GEN_ZZ_Z-SC-EO-0003	P01	Lighting and Electrical Roundabout 3 – Schematic Layout	23/10/20
60542201-ACM-HLG-GEN_GEN_ZZ_Z-SC-EO-0004	P01	Lighting and Electrical Roundabout 4 – Schematic Layout	23/10/20
60542201-ACM-HLG-GEN_GEN_ZZ_Z-SC-EO-0005	P01	Lighting and Electrical Roundabout 5 – Schematic Layout	23/10/20
60542201-ACM-HLG-GEN_GEN_ZZ_Z-SC-EO-0006	P01	Lighting and Electrical Roundabout 6 – Schematic Layout	23/10/20
60542201-ACM-HLG-S1_JN_R01_Z-DR-EO-0001	P02	Lighting and Electrical Design Sheet 1 of 36	23/10/20
60542201-ACM-HLG-S1_JN_R01_Z-DR-EO-0002	P02	Lighting and Electrical Design Sheet 2 of 36	23/10/20
60542201-ACM-HLG-S1_JN_R02_Z-DR-EO-0006	P02	Lighting and Electrical Design Sheet 6 of 36	23/10/20
60542201-ACM-HLG-S1_JN_R02_Z-DR-EO-0007	P02	Lighting and Electrical Design Sheet 7 of 36	23/10/20
60542201-ACM-HLG-S1_JN_R02_Z-DR-EO-0008	P02	Lighting and Electrical Design Sheet 8 of 36	23/10/20
60542201-ACM-HLG-S1_ML_M01_Z-DR-EO-0003	P02	Lighting and Electrical Design Sheet 3 of 36	23/10/20
60542201-ACM-HLG-S1_ML_M01_Z-DR-EO-0004	P02	Lighting and Electrical Design Sheet 4 of 36	23/10/20
60542201-ACM-HLG-S1_ML_M01_Z-DR-EO-0005	P02	Lighting and Electrical Design Sheet 5 of 36	23/10/20
60542201-ACM-HLG-S2_JN_R03_Z-DR-EO-0016	P02	Lighting and Electrical Design Sheet 16 of 36	23/10/20
60542201-ACM-HLG-S2_JN_R03_Z-DR-EO-0017	P02	Lighting and Electrical Design Sheet 17 of 36	23/10/20
60542201-ACM-HLG-S2_ML_M02_Z-DR-EO-0009	P02	Lighting and Electrical Design Sheet 9 of 36	23/10/20

Document No.	Rev.	Description	Date
60542201-ACM-HLG-S2_ML_M02_Z-DR-EO-0010	P02	Lighting and Electrical Design Sheet 10 of 36	23/10/20
60542201-ACM-HLG-S2_ML_M02_Z-DR-EO-0011	P02	Lighting and Electrical Design Sheet 11 of 36	23/10/20
60542201-ACM-HLG-S2_ML_M02_Z-DR-EO-0012	P02	Lighting and Electrical Design Sheet 12 of 36	23/10/20
60542201-ACM-HLG-S2_ML_M02_Z-DR-EO-0013	P02	Lighting and Electrical Design Sheet 13 of 36	23/10/20
60542201-ACM-HLG-S2_ML_M02_Z-DR-EO-0014	P02	Lighting and Electrical Design Sheet 14 of 36	23/10/20
60542201-ACM-HLG-S2_ML_M02_Z-DR-EO-0015	P02	Lighting and Electrical Design Sheet 15 of 36	23/10/20
60542201-ACM-HLG-S3_JN_R04_Z-DR-EO-0020	P02	Lighting and Electrical Design Sheet 20 of 36	23/10/20
60542201-ACM-HLG-S3_JN_R04_Z-DR-EO-0021	P02	Lighting and Electrical Design Sheet 21 of 36	23/10/20
60542201-ACM-HLG-S3_JN_R04_Z-DR-EO-0022	P02	Lighting and Electrical Design Sheet 22 of 36	23/10/20
60542201-ACM-HLG-S3_ML_M03_Z-DR-EO-0018	P02	Lighting and Electrical Design Sheet 18 of 36	23/10/20
60542201-ACM-HLG-S3_ML_M03_Z-DR-EO-0019	P02	Lighting and Electrical Design Sheet 19 of 36	23/10/20
60542201-ACM-HLG-S4_JN_R05_Z-DR-EO-0026	P02	Lighting and Electrical Design Sheet 26 of 36	23/10/20
60542201-ACM-HLG-S4_JN_R05_Z-DR-EO-0027	P02	Lighting and Electrical Design Sheet 27 of 36	23/10/20
60542201-ACM-HLG-S4_ML_M04_Z-DR-EO-0023	P02	Lighting and Electrical Design Sheet 23 of 36	23/10/20
60542201-ACM-HLG-S4_ML_M04_Z-DR-EO-0024	P02	Lighting and Electrical Design Sheet 24 of 36	23/10/20
60542201-ACM-HLG-S4_ML_M04_Z-DR-EO-0025	P02	Lighting and Electrical Design Sheet 25 of 36	23/10/20
60542201-ACM-HLG-S5_JN_R06_Z-DR-EO-0035	P02	Lighting and Electrical Design Sheet 35 of 36	23/10/20
60542201-ACM-HLG-S5_JN_R06_Z-DR-EO-0036	P02	Lighting and Electrical Design Sheet 36 of 36	23/10/20
60542201-ACM-HLG-S5_ML_M05_Z-DR-EO-0028	P02	Lighting and Electrical Design Sheet 28 of 36	23/10/20
60542201-ACM-HLG-S5_ML_M05_Z-DR-EO-0029	P02	Lighting and Electrical Design Sheet 29 of 36	23/10/20
60542201-ACM-HLG-S5_ML_M05_Z-DR-EO-0030	P02	Lighting and Electrical Design Sheet 30 of 36	23/10/20
60542201-ACM-HLG-S5_ML_M05_Z-DR-EO-0031	P02	Lighting and Electrical Design Sheet 31 of 36	23/10/20

Document No.	Rev.	Description	Date
60542201-ACM-HLG-S5_ML_M05_Z-DR-EO-0032	P02	Lighting and Electrical Design Sheet 32 of 36	23/10/20
60542201-ACM-HLG-S5_ML_M05_Z-DR-EO-0033	P02	Lighting and Electrical Design Sheet 33 of 36	23/10/20
60542201-ACM-HLG-S5_ML_M05_Z-DR-EO-0034	P02	Lighting and Electrical Design Sheet 34 of 36	23/10/20
60542201-ACM-HPV-GEN_GEN_ZZ_Z-SD-CH-0002	P01	Pavements Carriage Edge Details	02/07/20
60542201-ACM-HPV-GEN_GEN_ZZ_Z-SD-CH-0003	P01	Pavements Miscellaneous Details	10/08/20
60542201-ACM-HPV-GEN_GEN_ZZ_Z-SD-CH-0004	P01	Pavements Longitudinal Tie-In Details	02/07/20
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0001	P01	Pavement Planing and Perforation Sheet 1 of 15	02/07/20
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0002	P01	Pavement Planing and Perforation Sheet 2 of 15	02/07/20
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0003	P01	Pavement Planing and Perforation Sheet 3 of 15	02/07/20
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0101	P01	Permitted Pavement Options Sheet 1 of 15	02/07/20
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0102	P01	Permitted Pavement Options Sheet 2 of 15	02/07/20
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0103	P01	Permitted Pavement Options Sheet 3 of 15	02/07/20
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0004	P01	Pavement Planing and Perforation Sheet 4 of 15	02/07/20
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0005	P01	Pavement Planing and Perforation Sheet 5 of 15	02/07/20
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0006	P01	Pavement Planing and Perforation Sheet 6 of 15	02/07/20
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0007	P01	Pavement Planing and Perforation Sheet 7 of 15	02/07/20
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0104	P01	Permitted Pavement Options Sheet 4 of 15	02/07/20
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0105	P01	Permitted Pavement Options Sheet 5 of 15	02/07/20
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0106	P01	Permitted Pavement Options Sheet 6 of 15	02/07/20
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0107	P01	Permitted Pavement Options Sheet 7 of 15	02/07/20
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0008	P01	Pavement Planing and Perforation Sheet 8 of 15	02/07/20
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0009	P01	Pavement Planing and Perforation Sheet 9 of 15	02/07/20

Document No.	Rev.	Description	Date
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0108	P01	Permitted Pavement Options Sheet 8 of 15	02/07/20
60542201-ACM-HPV-S1_ML_ZZ_Z-DR-CH-0109	P01	Permitted Pavement Options Sheet 9 of 15	02/07/20
60542201-ACM-HPV-S4_ML_ZZ_Z-DR-CH-0010	P01	Pavement Planing and Perforation Sheet 10 of 15	02/07/20
60542201-ACM-HPV-S4_ML_ZZ_Z-DR-CH-0011	P01	Pavement Planing and Perforation Sheet 11 of 15	02/07/20
60542201-ACM-HPV-S4_ML_ZZ_Z-DR-CH-0110	P01	Permitted Pavement Options Sheet 10 of 15	02/07/20
60542201-ACM-HPV-S4_ML_ZZ_Z-DR-CH-0111	P01	Permitted Pavement Options Sheet 11 of 15	02/07/20
60542201-ACM-HPV-S5_ML_ZZ_Z-DR-CH-0012	P01	Pavement Planing and Perforation Sheet 12 of 15	02/07/20
60542201-ACM-HPV-S5_ML_ZZ_Z-DR-CH-0013	P01	Pavement Planing and Perforation Sheet 13 of 15	02/07/20
60542201-ACM-HPV-S5_ML_ZZ_Z-DR-CH-0014	P01	Pavement Planing and Perforation Sheet 14 of 15	02/07/20
60542201-ACM-HPV-S5_ML_ZZ_Z-DR-CH-0015	P01	Pavement Planing and Perforation Sheet 15 of 15	02/07/20
60542201-ACM-HPV-S5_ML_ZZ_Z-DR-CH-0112	P01	Permitted Pavement Options Sheet 12 of 15	02/07/20
60542201-ACM-HPV-S5_ML_ZZ_Z-DR-CH-0113	P01	Permitted Pavement Options Sheet 13 of 15	02/07/20
60542201-ACM-HPV-S5_ML_ZZ_Z-DR-CH-0114	P01	Permitted Pavement Options Sheet 14 of 15	02/07/20
60542201-ACM-HPV-S5_ML_ZZ_Z-DR-CH-0115	P01	Permitted Pavement Options Sheet 15 of 15	02/07/20
60542201-ACM-HML-S1_JN_R01_Z-DR-CH-0001	P02	Plan and Profile Section 1 – Roundabout 1	23/09/19
60542201-ACM-HML-S1_JN_R02_Z-DR-CH-0001	P02	Plan and Profile Section 1 – Roundabout 2	23/09/19
60542201-ACM-HML-S1_ML_M01_Z-DR-CH-0001	P02	Plan and Profile Section 1 Mainline	23/09/19
60542201-ACM-HML-S2_JN_R03_Z-DR-CH-0001	P02	Plan and Profile Section 2 – Roundabout 3 Sheet 1 of 2	23/09/19
60542201-ACM-HML-S2_JN_R03_Z-DR-CH-0002	P02	Plan and Profile Section 2 – Roundabout 3 Sheet 2 of 2	23/09/19
60542201-ACM-HML-S2_ML_M02_Z-DR-CH-0001	P02	Plan and Profile Section 2 Mainline Sheet 1 of 2	23/09/19
60542201-ACM-HML-S2_ML_M02_Z-DR-CH-0002	P02	Plan and Profile Section 2 Mainline Sheet 2 of 2	23/09/19
60542201-ACM-HML-S3_JN_R04_Z-DR-CH-0001	P02	Plan and Profile Section 3 – Roundabout 4	23/09/19

Document No.	Rev.	Description	Date
60542201-ACM-HML-S3_ML_M03_Z-DR-CH-0001	P02	Plan and Profile Section 3 Mainline	23/09/19
60542201-ACM-HML-S4_JN_R05_Z-DR-CH-0001	P02	Plan and Profile Section 4 – Roundabout 5	23/09/19
60542201-ACM-HML-S4_ML_M04_Z-DR-CH-0001_	P02	Plan and Profile Section 4 Mainline	23/09/19
60542201-ACM-HML-S5_JN_R06_Z-DR-CH-0001	P02	Plan and Profile Section 5 – Roundabout 6	23/09/19
60542201-ACM-HML-S5_ML_M05_Z-DR-CH-0001	P02	Plan and Profile Section 5 Mainline Sheet 1 of 2	23/09/19
60542201-ACM-HML-S5_ML_M05_Z-DR-CH-0002	P02	Plan and Profile Section 5 Mainline Sheet 2 of 2	23/09/19
60542201-ACM-HMK-S1_JN_R01_Z-DR-CH-0001	P02	Road Markings Sheet 1 of 36	06/08/20
60542201-ACM-HMK-S1_JN_R01_Z-DR-CH-0002	P02	Road Markings Sheet 2 of 36	06/08/20
60542201-ACM-HMK-S1_JN_R02_Z-DR-CH-0006	P02	Road Markings Sheet 6 of 36	06/08/20
60542201-ACM-HMK-S1_JN_R02_Z-DR-CH-0007	P02	Road Markings Sheet 7 of 36	06/08/20
60542201-ACM-HMK-S1_ML_M01_Z-DR-CH-0003	P02	Road Markings Sheet 3 of 36	06/08/20
60542201-ACM-HMK-S1_ML_M01_Z-DR-CH-0004	P02	Road Markings Sheet 4 of 36	06/08/20
60542201-ACM-HMK-S1_ML_M01_Z-DR-CH-0005	P02	Road Markings Sheet 5 of 36	06/08/20
60542201-ACM-HMK-S2_JN_R03_Z-DR-CH-0014	P02	Road Markings Sheet 14 of 36	06/08/20
60542201-ACM-HMK-S2_JN_R03_Z-DR-CH-0015	P02	Road Markings Sheet 15 of 36	06/08/20
60542201-ACM-HMK-S2_JN_R03_Z-DR-CH-0016	P02	Road Markings Sheet 16 of 36	06/08/20
60542201-ACM-HMK-S2_JN_R03_Z-DR-CH-0017	P02	Road Markings Sheet 17 of 36	06/08/20
60542201-ACM-HMK-S2_ML_M02_Z-DR-CH-0008	P02	Road Markings Sheet 8 of 36	06/08/20
60542201-ACM-HMK-S2_ML_M02_Z-DR-CH-0009	P02	Road Markings Sheet 9 of 36	06/08/20
60542201-ACM-HMK-S2_ML_M02_Z-DR-CH-0010	P02	Road Markings Sheet 10 of 36	06/08/20
60542201-ACM-HMK-S2_ML_M02_Z-DR-CH-0011	P02	Road Markings Sheet 11 of 36	06/08/20
60542201-ACM-HMK-S2_ML_M02_Z-DR-CH-0012	P02	Road Markings Sheet 12 of 36	06/08/20

Document No.	Rev.	Description	Date
60542201-ACM-HMK-S2_ML_M02_Z-DR-CH-0013	P02	Road Markings Sheet 13 of 36	06/08/20
60542201-ACM-HMK-S3_JN_R04_Z-DR-CH-0020	P02	Road Markings Sheet 20 of 36	06/08/20
60542201-ACM-HMK-S3_JN_R04_Z-DR-CH-0021	P02	Road Markings Sheet 21 of 36	06/08/20
60542201-ACM-HMK-S3_JN_R04_Z-DR-CH-0022	P02	Road Markings Sheet 22 of 36	06/08/20
60542201-ACM-HMK-S3_ML_M03_Z-DR-CH-0018	P02	Road Markings Sheet 18 of 36	06/08/20
60542201-ACM-HMK-S3_ML_M03_Z-DR-CH-0019	P02	Road Markings Sheet 19 of 36	06/08/20
60542201-ACM-HMK-S4_JN_R05_Z-DR-CH-0026	P02	Road Markings Sheet 26 of 36	06/08/20
60542201-ACM-HMK-S4_JN_R05_Z-DR-CH-0027	P02	Road Markings Sheet 27 of 36	06/08/20
60542201-ACM-HMK-S4_ML_M04_Z-DR-CH-0023	P02	Road Markings Sheet 23 of 36	06/08/20
60542201-ACM-HMK-S4_ML_M04_Z-DR-CH-0024	P02	Road Markings Sheet 24 of 36	06/08/20
60542201-ACM-HMK-S4_ML_M04_Z-DR-CH-0025	P02	Road Markings Sheet 25 of 36	06/08/20
60542201-ACM-HMK-S5_JN_R06_Z-DR-CH-0035	P02	Road Markings Sheet 35 of 36	06/08/20
60542201-ACM-HMK-S5_JN_R06_Z-DR-CH-0036	P02	Road Markings Sheet 36 of 36	06/08/20
60542201-ACM-HMK-S5_ML_M05_Z-DR-CH-0028	P02	Road Markings Sheet 28 of 36	06/08/20
60542201-ACM-HMK-S5_ML_M05_Z-DR-CH-0029	P02	Road Markings Sheet 29 of 36	06/08/20
60542201-ACM-HMK-S5_ML_M05_Z-DR-CH-0030	P02	Road Markings Sheet 30 of 36	06/08/20
60542201-ACM-HMK-S5_ML_M05_Z-DR-CH-0031	P02	Road Markings Sheet 31 of 36	06/08/20
60542201-ACM-HMK-S5_ML_M05_Z-DR-CH-0032	P02	Road Markings Sheet 32 of 36	06/08/20
60542201-ACM-HMK-S5_ML_M05_Z-DR-CH-0033	P02	Road Markings Sheet 33 of 36	06/08/20
60542201-ACM-HMK-S5_ML_M05_Z-DR-CH-0034	P02	Road Markings Sheet 34 of 36	06/08/20
60542201-ACM-GEN-GEN_GEN_ZZ_Z-SP-Z-0400	P02	North and East Melton Mowbray Distributor Road – Specification 0400 Road Restraint Systems (Vehicle and Pedestrian)	March 2020

Document No.	Rev.	Description	Date
60542201-ACM-HRR-S1_ML_M01_Z-DR-CH-0001	P01	Road Restraint Systems Sheet 1 of 15	08/04/20
60542201-ACM-HRR-S1_ML_M01_Z-DR-CH-0002	P01	Road Restraint Systems Sheet 2 of 15	08/04/20
60542201-ACM-HRR-S1_ML_M01_Z-DR-CH-0003	P01	Road Restraint Systems Sheet 3 of 15	08/04/20
60542201-ACM-HRR-S2_ML_M02_Z-DR-CH-0004	P01	Road Restraint Systems Sheet 4 of 15	08/04/20
60542201-ACM-HRR-S2_ML_M02_Z-DR-CH-0005	P01	Road Restraint Systems Sheet 5 of 15	08/04/20
60542201-ACM-HRR-S2_ML_M02_Z-DR-CH-0006	P01	Road Restraint Systems Sheet 6 of 15	08/04/20
60542201-ACM-HRR-S2_ML_M02_Z-DR-CH-0007	P01	Road Restraint Systems Sheet 7 of 15	08/04/20
60542201-ACM-HRR-S3_ML_M03_Z-DR-CH-0008	P01	Road Restraint Systems Sheet 8 of 15	08/04/20
60542201-ACM-HRR-S3_ML_M03_Z-DR-CH-0009	P01	Road Restraint Systems Sheet 9 of 15	08/04/20
60542201-ACM-HRR-S4_ML_M04_Z-DR-CH-0010	P01	Road Restraint Systems Sheet 10 of 15	08/04/20
60542201-ACM-HRR-S4_ML_M04_Z-DR-CH-0011	P01	Road Restraint Systems Sheet 11 of 15	08/04/20
60542201-ACM-HRR-S5_ML_M05_Z-DR-CH-0012	P01	Road Restraint Systems Sheet 12 of 15	08/04/20
60542201-ACM-HRR-S5_ML_M05_Z-DR-CH-0013	P01	Road Restraint Systems Sheet 13 of 15	08/04/20
60542201-ACM-HRR-S5_ML_M05_Z-DR-CH-0014	P01	Road Restraint Systems Sheet 14 of 15	08/04/20
60542201-ACM-HRR-S5_ML_M05_Z-DR-CH-0015	P01	Road Restraint Systems Sheet 15 of 15	08/04/20
60542201-ACM-HEL-S4_JN_R05_Z-DR-Z-0001	P01	Traffic Signals Roundabout 5 – Pegasus Crossing	21/10/20
60542201-ACM-HEL-S4_JN_R05_Z-RA-Z-0001	P01	Traffic Signal Design Risk Assessment Melton Mowbray Equestrian, West of Roundabout 5, Equestrian Crossing	25/09/2020
60542201-ACM-HEL-S4_JN_R05_Z-SP-Z-0001	P01	Traffic Signal Controller, Work Specification and Configuration Forms - Melton Mowbray Equestrian Crossing, Roundabout 5	28 July 2020
60542201-ACM-HEL-S4_JN_R05_Z-TD-Z-0001	P01	Cables in Ducts Melton Mowbray Equestrian, West of Roundabout 5	24/09/2020
60542201-ACM-HEL-S4_JN_R06_Z-RA-Z-0001	P01	Traffic Signal Design Risk Assessment Melton Mowbray Equestrian, East of Roundabout 6, Equestrian Crossing	24/09/2020

Document No.	Rev.	Description	Date
60542201-ACM-HEL-S4_JN_R06_Z-SP-Z-0001		Traffic Signal Controller, Work Specification and Configuration Forms - Melton Mowbray Equestrian, East of Roundabout 6	30 July 2020
60542201-ACM-HEL-S4_JN_R06_Z-TD-Z-0001_P01		Cables in Ducts Melton Mowbray East of R6 Equestrian	30/07/2020
60542201-ACM-HEL-S5_JN_R06_Z-DR-Z-0001	P01	Traffic Signals Roundabout 6 – Pegasus Crossing	21/10/20
60542201-ACM-HSC-S1_JN_R01_Z-DR-CH-0001	P01	Site Clearance Sheet 1 of 36	16/10/20
60542201-ACM-HSC-S1_JN_R01_Z-DR-CH-0002	P01	Site Clearance Sheet 2 of 36	16/10/20
60542201-ACM-HSC-S1_JN_R02_Z-DR-CH-0006	P01	Site Clearance Sheet 6 of 36	16/10/20
60542201-ACM-HSC-S1_JN_R02_Z-DR-CH-0007	P01	Site Clearance Sheet 7 of 36	16/10/20
60542201-ACM-HSC-S1_JN_R02_Z-DR-CH-0008	P01	Site Clearance Sheet 8 of 36	16/10/20
60542201-ACM-HSC-S1_ML_M01_Z-DR-CH-0003	P01	Site Clearance Sheet 3 of 36	16/10/20
60542201-ACM-HSC-S1_ML_M01_Z-DR-CH-0004	P01	Site Clearance Sheet 4 of 36	16/10/20
60542201-ACM-HSC-S1_ML_M01_Z-DR-CH-0005	P01	Site Clearance Sheet 5 of 36	16/10/20
60542201-ACM-HSC-S2_JN_R03_Z-DR-CH-0014	P01	Site Clearance Sheet 14 of 36	16/10/20
60542201-ACM-HSC-S2_JN_R03_Z-DR-CH-0015	P01	Site Clearance Sheet 15 of 36	16/10/20
60542201-ACM-HSC-S2_JN_R03_Z-DR-CH-0016	P01	Site Clearance Sheet 16 of 36	16/10/20
60542201-ACM-HSC-S2_JN_R03_Z-DR-CH-0017	P01	Site Clearance Sheet 17 of 36	16/10/20
60542201-ACM-HSC-S2_ML_M02_Z-DR-CH-0009	P01	Site Clearance Sheet 9 of 36	16/10/20
60542201-ACM-HSC-S2_ML_M02_Z-DR-CH-0010	P01	Site Clearance Sheet 10 of 36	16/10/20
60542201-ACM-HSC-S2_ML_M02_Z-DR-CH-0011	P01	Site Clearance Sheet 11 of 36	16/10/20
60542201-ACM-HSC-S2_ML_M02_Z-DR-CH-0012	P01	Site Clearance Sheet 12 of 36	16/10/20
60542201-ACM-HSC-S2_ML_M02_Z-DR-CH-0013	P01	Site Clearance Sheet 13 of 36	16/10/20
60542201-ACM-HSC-S3_JN_R04_Z-DR-CH-0020	P01	Site Clearance Sheet 20 of 36	16/10/20
60542201-ACM-HSC-S3_JN_R04_Z-DR-CH-0021	P01	Site Clearance Sheet 21 of 36	16/10/20

Document No.	Rev.	Description	Date
60542201-ACM-HSC-S3_JN_R04_Z-DR-CH-0022	P01	Site Clearance Sheet 22 of 36	16/10/20
60542201-ACM-HSC-S3_ML_M03_Z-DR-CH-0018	P01	Site Clearance Sheet 18 of 36	16/10/20
60542201-ACM-HSC-S3_ML_M03_Z-DR-CH-0019	P01	Site Clearance Sheet 19 of 36	16/10/20
60542201-ACM-HSC-S4_JN_R05_Z-DR-CH-0026	P01	Site Clearance Sheet 26 of 36	16/10/20
60542201-ACM-HSC-S4_JN_R05_Z-DR-CH-0027	P01	Site Clearance Sheet 27 of 36	16/10/20
60542201-ACM-HSC-S4_ML_M04_Z-DR-CH-0023	P01	Site Clearance Sheet 23 of 36	16/10/20
60542201-ACM-HSC-S4_ML_M04_Z-DR-CH-0024	P01	Site Clearance Sheet 24 of 36	16/10/20
60542201-ACM-HSC-S4_ML_M04_Z-DR-CH-0025	P01	Site Clearance Sheet 25 of 36	16/10/20
60542201-ACM-HSC-S5_JN_R06_Z-DR-CH-0035	P01	Site Clearance Sheet 35 of 36	16/10/20
60542201-ACM-HSC-S5_JN_R06_Z-DR-CH-0036	P01	Site Clearance Sheet 36 of 36	16/10/20
60542201-ACM-HSC-S5_ML_M05_Z-DR-CH-0028	P01	Site Clearance Sheet 28 of 36	16/10/20
60542201-ACM-HSC-S5_ML_M05_Z-DR-CH-0029	P01	Site Clearance Sheet 29 of 36	16/10/20
60542201-ACM-HSC-S5_ML_M05_Z-DR-CH-0030	P01	Site Clearance Sheet 30 of 36	16/10/20
60542201-ACM-HSC-S5_ML_M05_Z-DR-CH-0031	P01	Site Clearance Sheet 31 of 36	16/10/20
60542201-ACM-HSC-S5_ML_M05_Z-DR-CH-0032	P01	Site Clearance Sheet 32 of 36	16/10/20
60542201-ACM-HSC-S5_ML_M05_Z-DR-CH-0033	P01	Site Clearance Sheet 33 of 36	16/10/20
60542201-ACM-HSC-S5_ML_M05_Z-DR-CH-0034	P01	Site Clearance Sheet 34 of 36	16/10/20
60542201-ACM-HSN-GEN_GEN_ZZ_Z-DR-CH-0102	P01	Traffic Sign Face Details Speed Limit Signs Sheet 1 of 1	12/08/20
60542201-ACM-HSN-S1_JN_R01_Z-DR-CH-0301	P01	Traffic Sign Face Detail Roundabout 1 Sheet 1 of 6	12/08/20
60542201-ACM-HSN-S1_JN_R02_Z-DR-CH-0302	P01	Traffic Sign Face Detail Roundabout 2 Sheet 2 of 6	12/08/20
60542201-ACM-HSN-S1_ML_ZZ_Z-DR-CH-0001	P01	Sign Locations General Arrangement Sheet 1 of 15	12/08/20
60542201-ACM-HSN-S1_ML_ZZ_Z-DR-CH-0002	P01	Sign Locations General Arrangement Sheet 2 of 15	12/08/20

Document No.	Rev.	Description	Date
60542201-ACM-HSN-S1_ML_ZZ_Z-DR-CH-0003	P01	Sign Locations General Arrangement Sheet 3 of 15	12/08/20
60542201-ACM-HSN-S1_ML_ZZ_Z-DR-CH-0101	P01	Speed Limit Locations General Arrangement Sheet 1 of 15	12/08/20
60542201-ACM-HSN-S1_ML_ZZ_Z-DR-CH-0102	P01	Speed Limit Locations General Arrangement Sheet 2 of 15	12/08/20
60542201-ACM-HSN-S1_ML_ZZ_Z-DR-CH-0103	P01	Speed Limit Locations General Arrangement Sheet 3 of 15	12/08/20
60542201-ACM-HSN-S1_ML_ZZ_Z-DR-CH-0201	P01	Bollards & Warning Signs General Arrangement Sheet 1 of 21	11/08/20
60542201-ACM-HSN-S1_ML_ZZ_Z-DR-CH-0202	P01	Bollards & Warning Signs General Arrangement Sheet 2 of 21	11/08/20
60542201-ACM-HSN-S1_ML_ZZ_Z-DR-CH-0203	P01	Bollards & Warning Signs General Arrangement Sheet 3 of 21	11/08/20
60542201-ACM-HSN-S2_ML_ZZ_Z-DR-CH-0004	P01	Sign Locations General Arrangement Sheet 4 of 15	12/08/20
60542201-ACM-HSN-S2_ML_ZZ_Z-DR-CH-0005	P01	Sign Locations General Arrangement Sheet 5 of 15	12/08/20
60542201-ACM-HSN-S2_ML_ZZ_Z-DR-CH-0006	P01	Sign Locations General Arrangement Sheet 6 of 15	12/08/20
60542201-ACM-HSN-S2_ML_ZZ_Z-DR-CH-0007	P01	Sign Locations General Arrangement Sheet 7 of 15	12/08/20
60542201-ACM-HSN-S2_ML_ZZ_Z-DR-CH-0104	P01	Speed Limit Locations General Arrangement Sheet 4 of 15	12/08/20
60542201-ACM-HSN-S2_ML_ZZ_Z-DR-CH-0105	P01	Speed Limit Locations General Arrangement Sheet 5 of 15	12/08/20
60542201-ACM-HSN-S2_ML_ZZ_Z-DR-CH-0106	P01	Speed Limit Locations General Arrangement Sheet 6 of 15	12/08/20
60542201-ACM-HSN-S2_ML_ZZ_Z-DR-CH-0107	P01	Speed Limit Locations General Arrangement Sheet 7 of 15	12/08/20
60542201-ACM-HSN-S2_ML_ZZ_Z-DR-CH-0204	P01	Bollards & Warning Signs General Arrangement Sheet 4 of 21	11/08/20
60542201-ACM-HSN-S2_ML_ZZ_Z-DR-CH-0205	P01	Bollards & Warning Signs General Arrangement Sheet 5 of 21	11/08/20
60542201-ACM-HSN-S2_ML_ZZ_Z-DR-CH-0206	P01	Bollards & Warning Signs General Arrangement Sheet 6 of 21	11/08/20
60542201-ACM-HSN-S2_ML_ZZ_Z-DR-CH-0207	P01	Bollards & Warning Signs General Arrangement Sheet 7 of 21	11/08/20
60542201-ACM-HSN-S3_JN_R04_Z-DR-CH-0304	P01	Traffic Sign Face Detail Roundabout 4 Sheet 4 of 6	12/08/20
60542201-ACM-HSN-S3_ML_ZZ_Z-DR-CH-0008	P01	Sign Locations General Arrangement Sheet 8 of 15	12/08/20
60542201-ACM-HSN-S3_ML_ZZ_Z-DR-CH-0009	P01	Sign Locations General Arrangement Sheet 9 of 15	12/08/20

Document No.	Rev.	Description	Date
60542201-ACM-HSN-S3_ML_ZZ_Z-DR-CH-0108	P01	Speed Limit Locations General Arrangement Sheet 8 of 15	12/08/20
60542201-ACM-HSN-S3_ML_ZZ_Z-DR-CH-0109	P01	Speed Limit Locations General Arrangement Sheet 9 of 15	12/08/20
60542201-ACM-HSN-S3_ML_ZZ_Z-DR-CH-0208	P01	Bollards & Warning Signs General Arrangement Sheet 8 of 21	11/08/20
60542201-ACM-HSN-S3_ML_ZZ_Z-DR-CH-0209	P01	Bollards & Warning Signs General Arrangement Sheet 9 of 21	11/08/20
60542201-ACM-HSN-S4_JN_R05_Z-DR-CH-0305	P01	Traffic Sign Face Detail Roundabout 5 Sheet 5 of 6	12/08/20
60542201-ACM-HSN-S4_ML_ZZ_Z-DR-CH-0010	P01	Sign Locations General Arrangement Sheet 10 of 15	12/08/20
60542201-ACM-HSN-S4_ML_ZZ_Z-DR-CH-0011	P01	Sign Locations General Arrangement Sheet 11 of 15	12/08/20
60542201-ACM-HSN-S4_ML_ZZ_Z-DR-CH-0110	P01	Speed Limit Locations General Arrangement Sheet 10 of 15	12/08/20
60542201-ACM-HSN-S4_ML_ZZ_Z-DR-CH-0111	P01	Speed Limit Locations General Arrangement Sheet 11 of 15	12/08/20
60542201-ACM-HSN-S4_ML_ZZ_Z-DR-CH-0210	P01	Bollards & Warning Signs General Arrangement Sheet 10 of 21	11/08/20
60542201-ACM-HSN-S4_ML_ZZ_Z-DR-CH-0211	P01	Bollards & Warning Signs General Arrangement Sheet 11 of 21	11/08/20
60542201-ACM-HSN-S4_ML_ZZ_Z-DR-CH-0216	P01	Bollards & Warning Signs General Arrangement Sheet 16 of 21	11/08/20
60542201-ACM-HSN-S4_ML_ZZ_Z-DR-CH-0217	P01	Bollards & Warning Signs General Arrangement Sheet 17 of 21	11/08/20
60542201-ACM-HSN-S4_ML_ZZ_Z-DR-CH-0218	P01	Bollards & Warning Signs General Arrangement Sheet 18 of 21	11/08/20
60542201-ACM-HSN-S5_JN_R06_Z-DR-CH-0306	P01	Traffic Sign Face Detail Roundabout 6 Sheet 6 of 6	12/08/20
60542201-ACM-HSN-S5_ML_ZZ_Z-DR-CH-0012	P01	Sign Locations General Arrangement Sheet 12 of 15	12/08/20
60542201-ACM-HSN-S5_ML_ZZ_Z-DR-CH-0013	P01	Sign Locations General Arrangement Sheet 13 of 15	12/08/20
60542201-ACM-HSN-S5_ML_ZZ_Z-DR-CH-0014	P01	Sign Locations General Arrangement Sheet 14 of 15	12/08/20
60542201-ACM-HSN-S5_ML_ZZ_Z-DR-CH-0015	P01	Sign Locations General Arrangement Sheet 15 of 15	12/08/20
60542201-ACM-HSN-S5_ML_ZZ_Z-DR-CH-0112	P01	Speed Limit Locations General Arrangement Sheet 12 of 15	12/08/20
60542201-ACM-HSN-S5_ML_ZZ_Z-DR-CH-0113	P01	Speed Limit Locations General Arrangement Sheet 13 of 15	12/08/20
60542201-ACM-HSN-S5_ML_ZZ_Z-DR-CH-0114	P01	Speed Limit Locations General Arrangement Sheet 14 of 15	12/08/20

Document No.	Rev.	Description	Date
60542201-ACM-HSN-S5_ML_ZZ_Z-DR-CH-0115	P01	Speed Limit Locations General Arrangement Sheet 15 of 15	12/08/20
60542201-ACM-HSN-S5_ML_ZZ_Z-DR-CH-0212	P01	Bollards & Warning Signs General Arrangement Sheet 12 of 21	11/08/20
60542201-ACM-HSN-S5_ML_ZZ_Z-DR-CH-0213	P01	Bollards & Warning Signs General Arrangement Sheet 13 of 21	11/08/20
60542201-ACM-HSN-S5_ML_ZZ_Z-DR-CH-0214	P01	Bollards & Warning Signs General Arrangement Sheet 14 of 21	11/08/20
60542201-ACM-HSN-S5_ML_ZZ_Z-DR-CH-0215	P01	Bollards & Warning Signs General Arrangement Sheet 15 of 21	11/08/20
60542201-ACM-HSN-S5_ML_ZZ_Z-DR-CH-0219	P01	Bollards & Warning Signs General Arrangement Sheet 19 of 21	11/08/20
60542201-ACM-HSN-S5_ML_ZZ_Z-DR-CH-0220	P01	Bollards & Warning Signs General Arrangement Sheet 20 of 21	11/08/20
60542201-ACM-HSN-S5_ML_ZZ_Z-DR-CH-0221	P01	Bollards & Warning Signs General Arrangement Sheet 21 of 21	11/08/20
60542201-ACM-HSN-S2_JN_R03_Z-DR-CH-0303	P01	Traffic Sign Face Detail Roundabout 3 Sheet 3 of 6	12/08/20
60542201-ACM-SBR-S4_CU_C08_Z-DR-CB-0201	P01	Culvert C08 General Arrangement	16/10/20
60542201-ACM-STR-S1_CU_C01_Z-DR-CB-0201	P01	Culvert C01 General Arrangement	16/10/20
60542201-ACM-STR-S1_CU_C02_Z-DR-CB-0202	P01	Culvert C02 General Arrangement	16/10/20
60542201-ACM-STR-S2_BR_B01_Z-DR-CB-0201	C01	Scalford Brook Bridge General Arrangement	16/10/20
60542201-ACM-STR-S2_BR_B01_Z-DR-CB-0202	C01	Scalford Brook Bridge Sheet Pile Retaining Walls	16/10/20
60542201-ACM-STR-S2_BR_B01_Z-DR-CB-0203	C01	Scalford Brook Bridge Setting Out Details	16/10/20
60542201-ACM-STR-S2_BR_B01_Z-DR-CB-0204	C01	Scalford Brook Bridge Piling Layout and Reinforcement Details	16/10/20
60542201-ACM-STR-S2_BR_B01_Z-DR-CB-0205	C01	Scalford Brook Bridge Abutment and Wingwall Concrete Outline	16/10/20
60542201-ACM-STR-S2_BR_B01_Z-DR-CB-0207	C01	Scalford Brook Bridge West Abutment Reinforcement Details	16/10/20
60542201-ACM-STR-S2_BR_B01_Z-DR-CB-0208	C01	Scalford Brook Bridge East Abutment Reinforcement Details	16/10/20
60542201-ACM-STR-S2_BR_B01_Z-DR-CB-0209	C01	Scalford Brook Bridge West Wingwalls Reinforcement Details Sheet 2 of 2	16/10/20
60542201-ACM-STR-S2_BR_B01_Z-DR-CB-0210	C01	Scalford Brook Bridge East Wingwalls Reinforcement Details Sheet 2 of 2	16/10/20
60542201-ACM-STR-S2_BR_B01_Z-DR-CB-0211	C01	Scalford Brook Bridge Deck Dimensions and General Details	16/10/20

Document No.	Rev.	Description	Date
60542201-ACM-STR-S2_BR_B01_Z-DR-CB-0212	C01	Scalford Brook Bridge Pretensioned Y2 Beam Details	16/10/20
60542201-ACM-STR-S2_BR_B01_Z-DR-CB-0213	C01	Scalford Brook Bridge Deck Reinforcement details Sheet 1 of 2	16/10/20
60542201-ACM-STR-S2_BR_B01_Z-DR-CB-0214	C01	Scalford Brook Bridge Deck Reinforcement details Sheet 2 of 2	16/10/20
60542201-ACM-STR-S2_BR_B01_Z-DR-CB-0220	C01	Scalford Brook Bridge Miscellaneous Details	16/10/20
60542201-ACM-STR-S3_BR_B02_Z-DR-CB-0201_	C01	Thorpe Brook Bridge General Arrangement	02/09/20
60542201-ACM-STR-S3_BR_B02_Z-DR-CB-0202_	C01	Thorpe Brook Bridge Sheet Piling Retaining Walls	02/09/20
60542201-ACM-STR-S3_BR_B02_Z-DR-CB-0203_	C01	Thorpe Brook Bridge Setting Out Details	02/09/20
60542201-ACM-STR-S3_BR_B02_Z-DR-CB-0204_	C01	Thorpe Brook Bridge Piling Layout and Reinforcement Details	02/09/20
60542201-ACM-STR-S3_BR_B02_Z-DR-CB-0205_	C01	Thorpe Brook Bridge Abutment and Wingwall Concrete Outline	02/09/20
60542201-ACM-STR-S3_BR_B02_Z-DR-CB-0207_	C01	Thorpe Brook Bridge Northwest Abutment Reinforcement Details	02/09/20
60542201-ACM-STR-S3_BR_B02_Z-DR-CB-0208_	C01	Thorpe Brook Bridge South East Abutment Reinforcement Details	02/09/20
60542201-ACM-STR-S3_BR_B02_Z-DR-CB-0209	C01	Thorpe Brook Bridge North & West Wingwalls Reinforcement Details Sheet 1 of 2	02/09/20
60542201-ACM-STR-S3_BR_B02_Z-DR-CB-0210	C01	Thorpe Brook Bridge South & East Wingwalls Reinforcement Details Sheet 2 of 2	02/09/20
60542201-ACM-STR-S3_BR_B02_Z-DR-CB-0211	C01	Thorpe Brook Bridge Deck Dimensions and General Details	02/09/20
60542201-ACM-STR-S3_BR_B02_Z-DR-CB-0212	C01	Thorpe Brook Bridge Pretensioned Y2 Beam Details	02/09/20
60542201-ACM-STR-S3_BR_B02_Z-DR-CB-0213	C01	Thorpe Brook Bridge Deck Reinforcement Details Sheet 1 of 2	02/09/20
60542201-ACM-STR-S3_BR_B02_Z-DR-CB-0214	C01	Thorpe Brook Bridge Deck Reinforcement Details Sheet 1 of 2	02/09/20
60542201-ACM-STR-S3_BR_B02_Z-DR-CB-0220	C01	Thorpe Brook Bridge Miscellaneous Details	02/09/20
60542201-ACM-STR-S3_BR_B05_Z-DR-CB-0201	P01	Thorpe Brook Farm NMU Bridge General Arrangement	16/10/20
60542201-ACM-STR-S4_CU_C03_Z-DR-CB-0201	P01	Culvert C03 General Arrangement	16/10/20
60542201-ACM-STR-S4_CU_C04_Z-DR-CB-0201	P01	Culvert C04 General Arrangement	16/10/20

Document No.	Rev.	Description	Date
60542201-ACM-STR-S4_CU_C05_Z-DR-CB-0201	P01	Culvert C05 General Arrangement	16/10/20
60542201-ACM-STR-S4_CU_C06_Z-DR-CB-0201	P01	Culvert C06 General Arrangement	16/10/20
60542201-ACM-STR-S4_CU_C06_Z-DR-CB-0205	P01	Culvert C06 North & South Headwalls Dimensions	16/10/20
60542201-ACM-STR-S4_CU_C07_Z-DR-CB-0201	P01	Culvert C07 General Arrangement	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0221	C01	River Eye Bridge General Arrangement Sheet 1 of 2 Sections	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0222	C01	River Eye Bridge General Arrangement Sheet 2 of 2 Sections	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0226	C01	River Eye Bridge Setting Out	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0231	C01	River Eye Bridge Piling Layout & Reinforcement Details Sheet 1 of 2	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0232	C01	River Eye Bridge Piling Layout & Reinforcement Details Sheet 2 of 2	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0233	C01	River Eye Bridge Sheet Pile Retaining Wall	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0236	C01	River Eye Bridge North Abutment and Wingwalls Dimensions	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0241	C01	River Eye Bridge South Abutment and Wingwalls Dimensions	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0246	C01	River Eye Bridge Pier Dimensions	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0251	C01	River Eye Bridge North Abutment Reinforcement Details	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0256	C01	River Eye Bridge South Abutment Reinforcement Details	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0257	C01	River Eye Bridge South Abutment Wingwall Reinforcement Details	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0261	C01	River Eye Bridge Pier Reinforcement Details Sheet 1 of 3	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0262	C01	River Eye Bridge Pier Reinforcement Details Sheet 2 of 3	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0263	C01	River Eye Bridge Pier Reinforcement Details Sheet 3 of 3	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0266	C01	River Eye Bridge Deck Slab and Diaphragm Sheet 1 of 2	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0267	C01	River Eye Bridge Deck Slab and Diaphragm Sheet 2 of 2	16/10/20

Document No.	Rev.	Description	Date
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0271	C01	River Eye Bridge Prestressed Beam Details Sheet 1 of 2	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0272	C01	River Eye Bridge Prestressed Beam Details Sheet 2 of 2	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0276	C01	River Eye Bridge Deck Slab Reinforcement Details	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0277	C01	River Eye Bridge Pier Diaphragm Reinforcement Details	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0278	C01	River Eye Bridge Abutment Diaphragm Reinforcement Details	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0281	C01	River Eye Bridge Bearing Schedule	16/10/20
60542201-ACM-STR-S5_BR_B03_Z-DR-CB-0286	C01	River Eye Bridge Miscellaneous Details	16/10/20
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0201	C02	Railway Bridge (GSM2/30B) General Arrangement	03/08/20
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0203	C02	Railway Bridge Setting Out Details	03/08/20
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0205	C02	Railway Bridge Bankseat Dimensions North	03/08/20
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0206	C02	Railway Bridge Bankseat Dimensions South	03/08/20
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0207	C02	Railway Bridge North Bankseat Reinforcement Details	03/08/20
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0208	C02	Railway Bridge South Bankseat Reinforcement Details	03/08/20
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0211	C02	Railway Bridge Deck Slab Dimensions	03/08/20
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0213	C02	Railway Bridge Deck Slab Reinforcement Details Sheet 1 of 2	03/08/20
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0214	C02	Railway Bridge Deck Slab Reinforcement Details Sheet 2 of 2	03/08/20
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0215	C02	Railway Bridge Steelwork Sheet 1 of 3	03/08/20
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0216	C02	Railway Bridge Steelwork Sheet 2 of 3	03/08/20
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0217	C02	Railway Bridge Steelwork Sheet 3 of 3	03/08/20
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0219	C02	Railway Bridge Bearing Schedule	03/08/20
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0220	C02	Railway Bridge Miscellaneous Details	03/08/20
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0221	C02	Railway Bridge Approach Structures Dimensions	03/08/20

Document No.	Rev.	Description	Date
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0223	C02	Railway Bridge Approach Structures Reinforcement Details	03/08/20
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0224	C02	Railway Bridge Services Reinforcement Details	03/08/20
60542201-ACM-STR-S5_BR_B04_Z-DR-CB-0230_1	C02	Railway Bridge Reinforced Soil Outline	03/08/20
60542201-ACM-GEN-GEN_GEN_ZZ_Z-SP-Z-0500	P04	North and East Melton Mowbray Distributor Road Specification 0500 Drainage and Service Ducts	October 2020
60542201-ACM-GEN-GEN_GEN_ZZ_Z-SP-Z-1200	P03	North and East Melton Mowbray Distributor Road Specification 1200 Traffic Signs	October 2020
60542201-ACM-GEN-GEN_GEN_ZZ_Z-SP-Z-1300	P02	North and East Melton Mowbray Distributor Road Specification 1300 Road Lighting Columns and Brackets, CCTV Masts and Cantilever Masts	October 2020
60542201-ACM-GEN-GEN_GEN_ZZ_Z-SP-Z-1400	P02	North and East Melton Mowbray Distributor Road Specification 1400 Electrical Work for Road lighting and Traffic Signs	October 2020
60542201-ACM-GEN-GEN_GEN_ZZ_Z-SP-Z-3000	P02	North and East Melton Mowbray Distributor Road Specification 3000 Landscape and Ecology	October 2020
60542201-ACM-GEN-GEN_GEN_ZZ-Z-SP-Z-0600	P02	North and East Melton Mowbray Distributor Road Specification 0600 Earthworks	October 2020
60542201-ACM-GEN-GEN_GEN_ZZ-Z-SP-Z-1600	P02	North and East Melton Mowbray Distributor Road Specification 1600 Piling and Embedded Retaining Walls	October 2020
60542201-ACM-GEN-GEN_GEN_ZZ-Z-SP-Z-1700	P02	North and East Melton Mowbray Distributor Road Specification 1800 Structural Concrete	October 2020
60542201-ACM-GEN-GEN_GEN_ZZ-Z-SP-Z-1800	P02	North and East Melton Mowbray Distributor Road Specification 1800 Structural Steelwork	October 2020
60542201-ACM-GEN-GEN_GEN_ZZ-Z-SP-Z-1900	P02	North and East Melton Mowbray Distributor Road Specification 1900 Protection of Steelwork Against Corrosion	October 2020
60542201-ACM-GEN-GEN_GEN_ZZ-Z-SP-Z-2000	P02	North and East Melton Mowbray Distributor Road Specification 2000 Waterproofing for Concrete Structures	October 2020
60542201-ACM-GEN-GEN_GEN_ZZ-Z-SP-Z-2100	P02	North and East Melton Mowbray Distributor Road Specification 2100 Bridge Bearings	October 2020
60542201-ACM-GEN-GEN_GEN_ZZ-Z-SP-Z-2300	P02	North and East Melton Mowbray Distributor Road Specification 2300 Bridge Expansion Joints and Sealing of Gaps	October 2020
60542201-ACM-GEN-GEN_GEN_ZZ-Z-SP-Z-2400	P02	North and East Melton Mowbray Distributor Road Specification 2400 Brickwork, Blockwork and Stonework	October 2020
60542201-ACM-GEN-GEN_GEN_ZZ-Z-SP-Z-2600	P02	North and East Melton Mowbray Distributor Road Specification 2600 Miscellaneous	October 2020
60542201-ACM-ENM-GEN_GEN_ZZ_Z-RP-CH-0001	-	North and East Melton Mowbray Distributor Road Partially Complete - Walking, Cycling & Horse Riding Assessment Report	10th March 2020

Appendix B – Departures and Relaxations from Standard

Type	Location ID	Location Description	DMRB Standard	Summary	Benefits & Justifications	Risk & Mitigation	Overall Justification
Departure	R01	A606 Nottingham Road North Arm Roundabout 1 (Design Speed 70 kph)	Volume 6 Part 2 TD 27/05; Clause 3.6 & 3.7	There is no level section on the centreline of the A606 North arm where it connects into Roundabout 1 ICD. The standard states that a level section of at least 15m adjacent to the junction should be provided. Level section is defined as maximum 2% up or down hill. The proposed design starts the sag curve directly at the roundabout ICD with the gradient 15m in advance of the roundabout being 2.3%.	Creating a level section is not practicable due to the relatively short distance of the tie-in in conjunction with the existing topography of the A606 which is on a 5.5% gradient. Raising the levels of the roundabout would enable the level section to be accommodated however this would increase fill and make the tie into St Bartholomew's Way more difficult (see departure below).	As the proposed gradient is steeper by only 0.3% this is a very minor departure and the benefits of not worsening the impact on surrounding properties and land take (including land required for the LCC Depot) is not justified.	Although a departure is proposed for the 15m level section, the sag curve value of 20 used does meet the absolute minimum requirements.
Relaxation	R01	A606 Nottingham Road North Arm Roundabout 1 (Design Speed 70 kph)	Volume 6 Part 1 TD 9/93 Table 3	Two steps below desirable minimum radius (with superelevation of 7%) 180m R followed by 70m transition to straight does comply. Transition of 70m = √24R.	-	-	-
Relaxation	R01	A606 Nottingham Road South Arm Roundabout 1 (Design Speed 70 kph)	Volume 6 Part 1 TD 9/93 Table 3	Two steps below desirable minimum radius (with superelevation of 7%) 180m R followed by 70m transition to straight does comply. Transition of 70m = √24R.	-	-	-

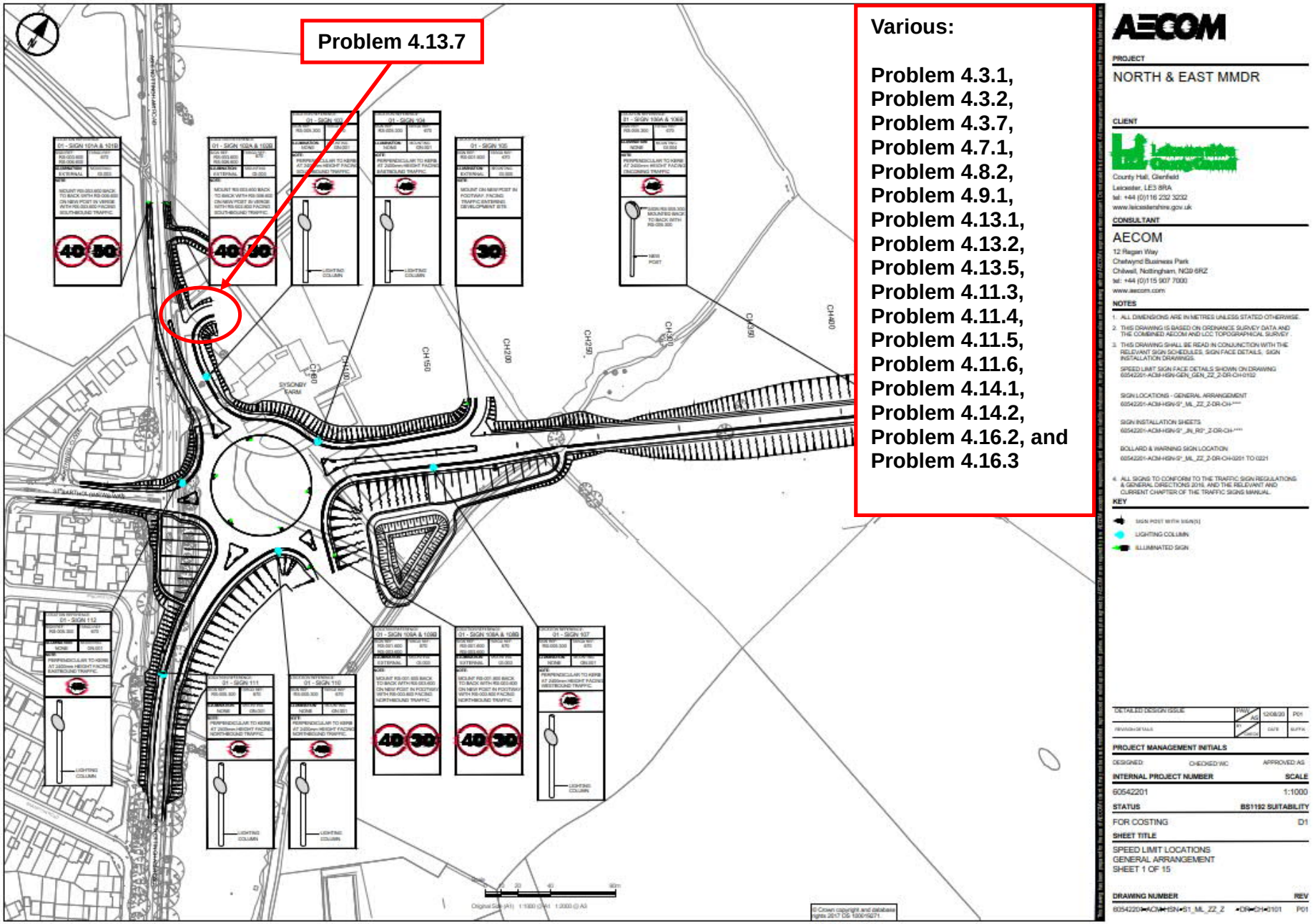
Departure	R01	St Bartholomew's Way Arm Roundabout 1 (Design Speed 70 kph)	Volume 6 Part 1 TD 9/93 Table 3 & Clause 1.26	Proposed use of two steps below absolute minimum sag curve K of 10 within vicinity of Roundabout 1. The existing A606 North gradient of 5.5% combined with the maximum recommended longfall on the circulatory carriageway being 2% means the proposed roundabout is raised circa 2m above existing ground on the St Barthomolew's Way arm.	Using the reduced sag curve allows the tie-in to be in proximity of Southwell Close, retaining existing channel levels at the bellmouth. Achieving this keeps the impact on residential properties that back onto the highway boundary to a minimum. Extending the tie-in further west to achieve absolute minimum curvature would worsen the impact on the nearest properties and likely extend that onto the next housing estate road. There is also an increase in speed limit to 50mph beyond this road, which would require higher vertical curvature values still.	The 85th percentile vehicle speeds are likely to be around 30mph maximum in the location of the reduced sag K of 10 which is slightly higher than the absolute minimum sag K value of 9 required for 50kph design speed, equating to a 30mph speed limit.	The proposed departure in vertical geometry occurs where the horizontal geometry is straight and SSD is compliant, making it readily understandable by drivers. As vehicles will be either approaching or exiting the roundabout traffic speeds will be lower.
Relaxation	R02	Scalford Road South Arm Roundabout 2 (Design Speed 60 kph)	Volume 6 Part 1 TD 9/93 Table 3	Two steps below desirable minimum radius (with superelevation of 7%) 127m R followed by 60m transition to straight does comply. Transition of 60m = $\sqrt{24R}$.	-	-	-

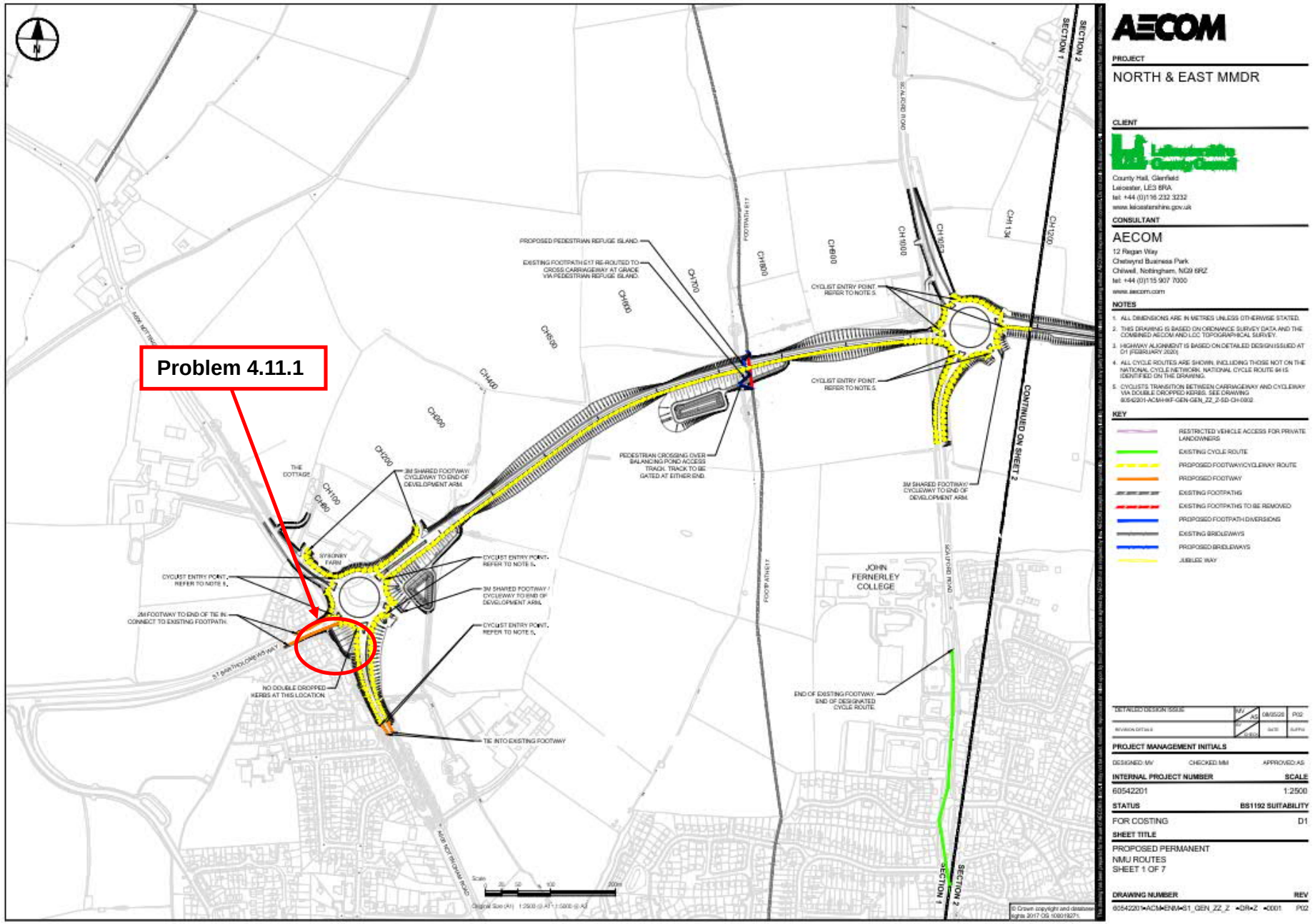
Departure	M02	Mainline Westbound Direction	Volume 6 Part 1 TD 9/93 Section 7	Assuming M02 is deemed a Category 1 Road Type the overtaking value required is 15%, however only 9% is achieved in the westbound direction.	The roundabout exit and presence of a pedestrian refuge island prevents any overtaking opportunity at the start of the section where the horizontal alignment is straight. The following downhill section provides a brief opportunity for overtaking before entering the left-hand curve which does not qualify. There is then another brief opportunity before the vertical alignment goes uphill to R02.	There is a possibility that on the downhill hill section where the horizontal is still straight people may consider overtaking. However with this section being in a large cutting leading into a left-hand curve and visibility restricted to SSD is should discourage drivers.	The proposed departure is justified with the combination of the horizontal and vertical geometry naturally restricts/discourages overtaking.
Relaxation	R03	Melton Spinney Road North Arm Roundabout 3 (Design Speed 100 kph)	Volume 6 Part 1 TD 9/93 Table 3	One step below (with superelevation of 7%) 510m R curve, followed by 70m transition (with q=0.6 to standard).	-	-	-
Relaxation	R03	Melton Spinney Road South Arm Roundabout 3 (Design Speed 70 kph)	Volume 6 Part 1 TD 9/93 Table 3	Two-steps below desirable min. 180m R (with superelevation of 7%), followed by reverse compound transition of 68.599+14.361m - q=0.6 to standard - to tie in with existing 859.798m R.	-	-	-
Departure	M03	Both Directions	Volume 6 Part 1 TD 9/93 Section 7	Assuming M03 is deemed a Category 2/3 Road Type the overtaking value required is 30%, however only 7% is achieved in both directions.	With the horizontal alignment being completely on a curve for the length of this section it is ineligible for overtaking. Exit widths have been maintained for a short length of 50m from both R03 & R04 to provide some overtaking.	The horizontal geometry and short overall length of this section means drivers are unlikely to attempt to overtake so the lack of provision should not cause driver frustration.	Besides the horizontal restrictions the length of this section is inadequate to provide vertical curvature compliant with FOSD.The proposed departure is justified with these constraints imposed.

Departure	M04	Both Directions	Volume 6 Part 1 TD 9/93 Section 7	Assuming M04 is deemed a Category 2/3 Road Type the overtaking value required is 30%, however only 4% is achieved in both directions.	With the majority of the horizontal alignment being on a curve in this section opportunities for providing overtaking are limited. The existing topography generally runs downhill from north to south with the exception of a large hill in the middle meaning the uphill vertical in the northbound direction is unavoidable and is therefore ineligible for overtaking. There is also a tributary of Lag Lane that runs parallel with part of this section restricting horizontal and vertical options. Exit widths have been maintained for a short length of 50m from both R04 & R05 to provide some overtaking.	The restrictions imposed by the horizontal and vertical geometry mean there is no opportunity to provide overtaking other than maintaining exits widths from both roundabout exits. The uphill vertical alignment in the northbound direction should naturally feel unsuitable for overtaking to the driver. The middle section of the route is also in a large cutting giving the impression the road is unsuitable for overtaking.	This departure is justified given the existing constraints in this section. The site topography, watercourse, 132kV pylon proximity and residential properties to the east meant options for optimising the horizontal alignment for overtaking were not possible.
Relaxation	R05	B676 West Arm Roundabout 5 (Design Speed 85 kph)	Volume 6 Part 1 TD 9/93 Table 3	One step below desirable min. 360m R used. Transition of 100m, q=0.4 to standard.	-	-	

Departure	M05	Westbound/Northbound Direction	Volume 6 Part 1 TD 9/93 Section 7	Assuming M05 is deemed a Category 2/3 Road Type the overtaking value required is 30%, however only 7% is achieved in the westbound/northbound direction.	There are various constraints on this section, including the route passing under 132kV power lines close to the river, a new river bridge and a new railway bridge. A length of overtaking is provided following the exit from R06 where FOSD is achieved until this is restricted by the left-hand curve after the near straight. Once the alignment is horizontally straight overtaking then becomes restricted by the the vertical crest, where FOSD compliant curves cannot be accommodated due to the constraints.	With some overtaking opportunity following the exit from R06 and the speed limit being 60mph following the 40mph limit on the A606 driver frustration should be limited. HGVs should also be able to do speeds close to the limit as the vertical is downhill. Following this downhill section the presence of two bridges in the remaining length should naturally discourage overtaking.	This departure is justified given the constraints in this section. The 132kV power lines, river, new river bridge and railway bridge meant options for further optimising the horizontal alignment for overtaking were not possible.
Departure	R06	A606 Burton Road West (Design Speed 70 kph)	Volume 6 Part 1 TD 9/93 Table 3 & Clause 1.26	Proposed use of one step below desirable minimum crest curve K of 17 within approach of Roundabout 6.	Placing a larger K value is not possible due to the short distance of the horizontal tie-in. Extending this tie-in north to attempt to accommodate the desirable K of 30 would further impact residential properties on Burton Road.	SSD CHECKED FOR 1.5 SSD & FAILS WITH CURRENT ALIGNMENT, NEEDS RESOLVING FOR S3 ISSUE AS SSD FAILURE WITHIN JUNCTION APPROACH NOT ACCEPTABLE**.**	

Appendix C – Problem Location Plan


Problem 4.13.7
Various:
Problem 4.3.1,
Problem 4.3.2,
Problem 4.3.7,
Problem 4.7.1,
Problem 4.8.2,
Problem 4.9.1,
Problem 4.13.1,
Problem 4.13.2,
Problem 4.13.5,
Problem 4.11.3,
Problem 4.11.4,
Problem 4.11.5,
Problem 4.11.6,
Problem 4.14.1,
Problem 4.14.2,
Problem 4.16.2, and
Problem 4.16.3
AECOM
PROJECT
NORTH & EAST MMDR
CLIENT
County Hall, Glenfield
Leicester, LE3 8RA
tel: +44 (0)116 232 3232
www.leicestershire.gov.uk
CONSULTANT
AECOM
12 Regan Way
Chetwynd Business Park
Chilwell, Nottingham, NG9 6RZ
tel: +44 (0)115 907 7000
www.aecom.com
NOTES
1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS BASED ON ORDNANCE SURVEY DATA AND THE COMBINED AECOM AND LCC TOPOGRAPHICAL SURVEY.
3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE RELEVANT SIGN SCHEDULES, SIGN FACE DETAILS, SIGN INSTALLATION DRAWINGS.
SPEED LIMIT SIGN FACE DETAILS SHOWN ON DRAWING
60542201-ACM-HSN-GEN_GEN_ZZ_Z-DR-CH-0152
SIGN LOCATIONS - GENERAL ARRANGEMENT
60542201-ACM-HSN-S*_ML_ZZ_Z-DR-CH-****
SIGN INSTALLATION SHEETS
60542201-ACM-HSN-S*_IN_RO*_Z-DR-CH-****
BOLLARD & WARNING SIGN LOCATION
60542201-ACM-HSN-S*_ML_ZZ_Z-DR-CH-0251 TO 0221
4. ALL SIGNS TO CONFORM TO THE TRAFFIC SIGN REGULATIONS & GENERAL DIRECTIONS 2016, AND THE RELEVANT AND CURRENT CHAPTER OF THE TRAFFIC SIGNS MANUAL.
KEY
SIGN POST WITH SIGN(S)
LIGHTING COLUMN
ILLUMINATED SIGN
DETAILED DESIGN ISSUE
PMW
AG
12/08/20
P01
PROJECT MANAGEMENT INITIALS
DESIGNED:
CHECKED:WC
APPROVED:AS
INTERNAL PROJECT NUMBER
60542201
SCALE
1:1000
STATUS
FOR COSTING
BS1192 SUITABILITY
D1
SHEET TITLE
SPEED LIMIT LOCATIONS
GENERAL ARRANGEMENT
SHEET 1 OF 15
DRAWING NUMBER
60542201-ACM-HSN-S1_ML_ZZ_Z-DR-CH-0101
REV
P01



AECOM

PROJECT
NORTH & EAST MMDR

CLIENT
County Hall, Glenfield
Leicester, LE3 8RA
tel: +44 (0)116 232 3232
www.leicestershire.gov.uk

CONSULTANT
AECOM
12 Regan Way
Chetwynd Business Park
Chilwell, Nottingham, NG9 6RZ
tel: +44 (0)115 907 7000
www.aecom.com

NOTES
1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
2. THIS DRAWING IS BASED ON ORDNANCE SURVEY DATA AND THE COMBINED AECOM AND LCC TOPOGRAPHICAL SURVEY.
3. HIGHWAY ALIGNMENT IS BASED ON DETAILED DESIGN ISSUED AT D1 (FEBRUARY 2020).
4. ALL CYCLE ROUTES ARE SHOWN, INCLUDING THOSE NOT ON THE NATIONAL CYCLE NETWORK. NATIONAL CYCLE ROUTE 64 IS IDENTIFIED ON THE DRAWING.
5. CYCLISTS TRANSITION BETWEEN CARRIAGEWAY AND CYCLEWAY VIA DOUBLE DROPPED KERBS. SEE DRAWING 60542201-ACM-HIF-GEN-GEN_ZZ_Z-SD-CH-0002.

KEY
- RESTRICTED VEHICLE ACCESS FOR PRIVATE LANDOWNERS
- EXISTING CYCLE ROUTE
- PROPOSED FOOTWAY/CYCLEWAY ROUTE
- PROPOSED FOOTWAY
- EXISTING FOOTPATHS
- EXISTING FOOTPATHS TO BE REMOVED
- PROPOSED FOOTPATH DIVERSIONS
- EXISTING BRIDLEWAYS
- PROPOSED BRIDLEWAYS
- JUBILEE WAY

DETAILED DESIGN ISSUE	MV / AS	08/05/20	P02
REVISION DETAILS	/		

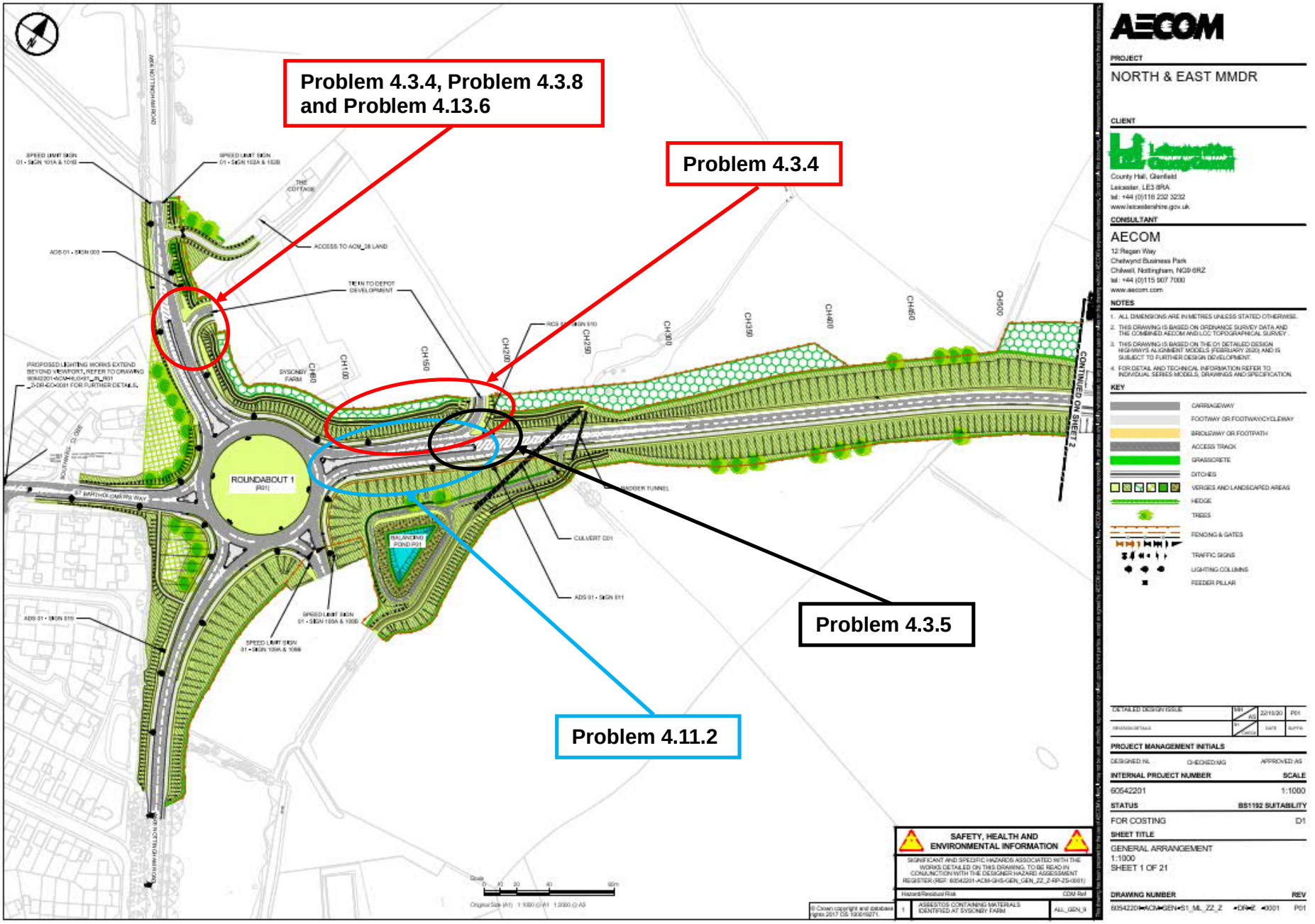
PROJECT MANAGEMENT INITIALS
DESIGNED: MV CHECKED: MM APPROVED: AS

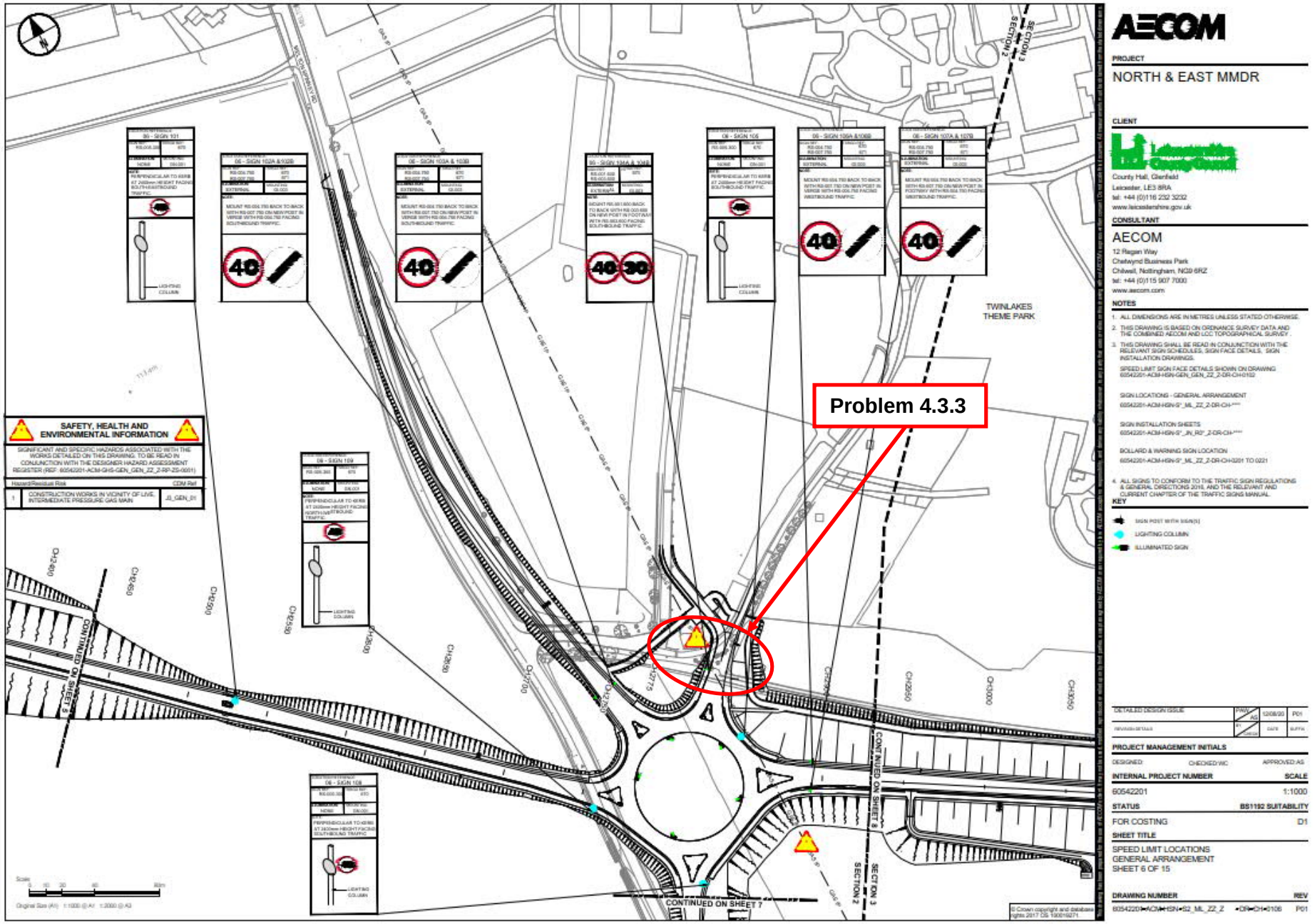
INTERNAL PROJECT NUMBER: 60542201
SCALE: 1:2500

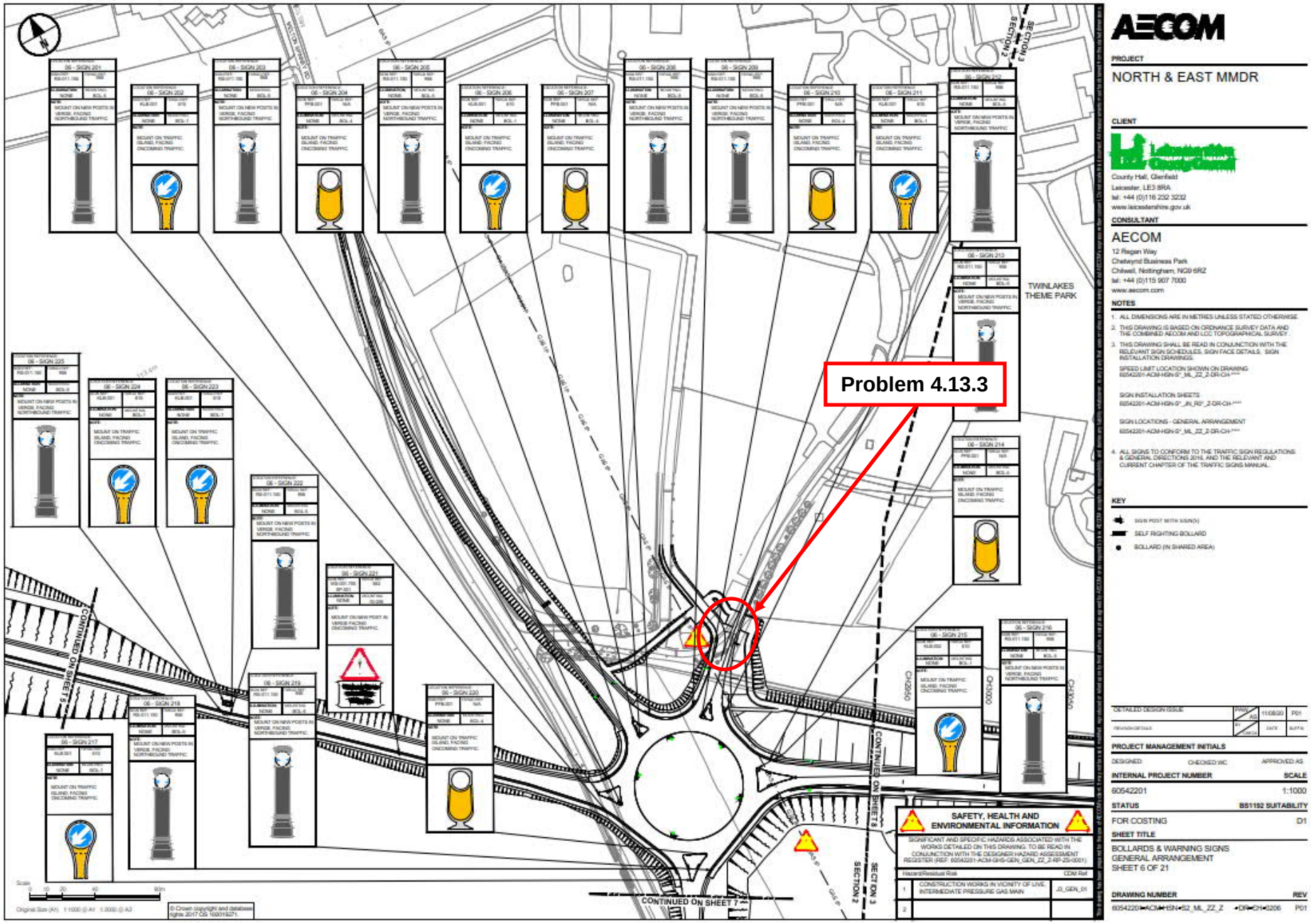
STATUS: FOR COSTING
BS1192 SUITABILITY: D1

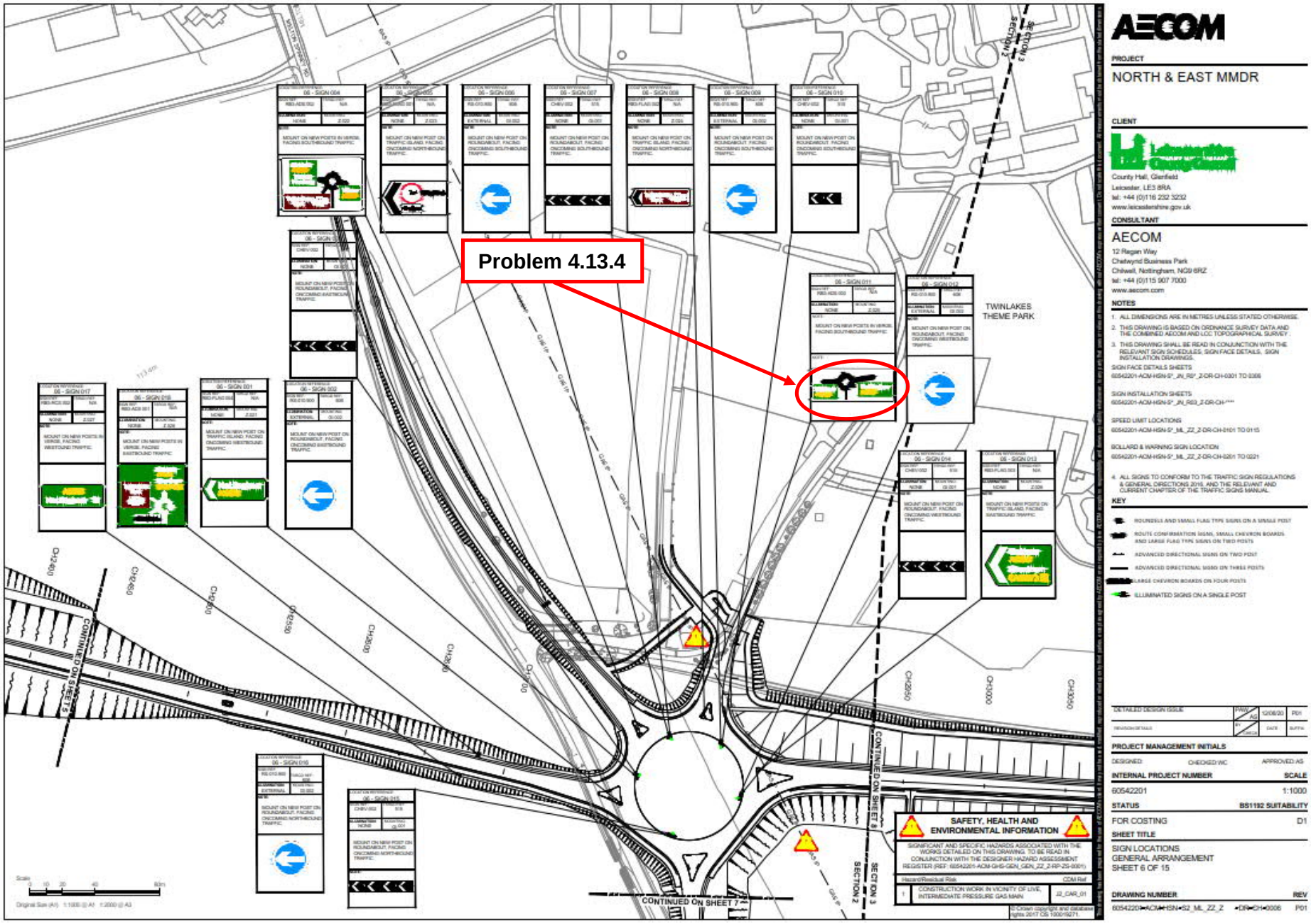
SHEET TITLE
PROPOSED PERMANENT NMU ROUTES
SHEET 1 OF 7

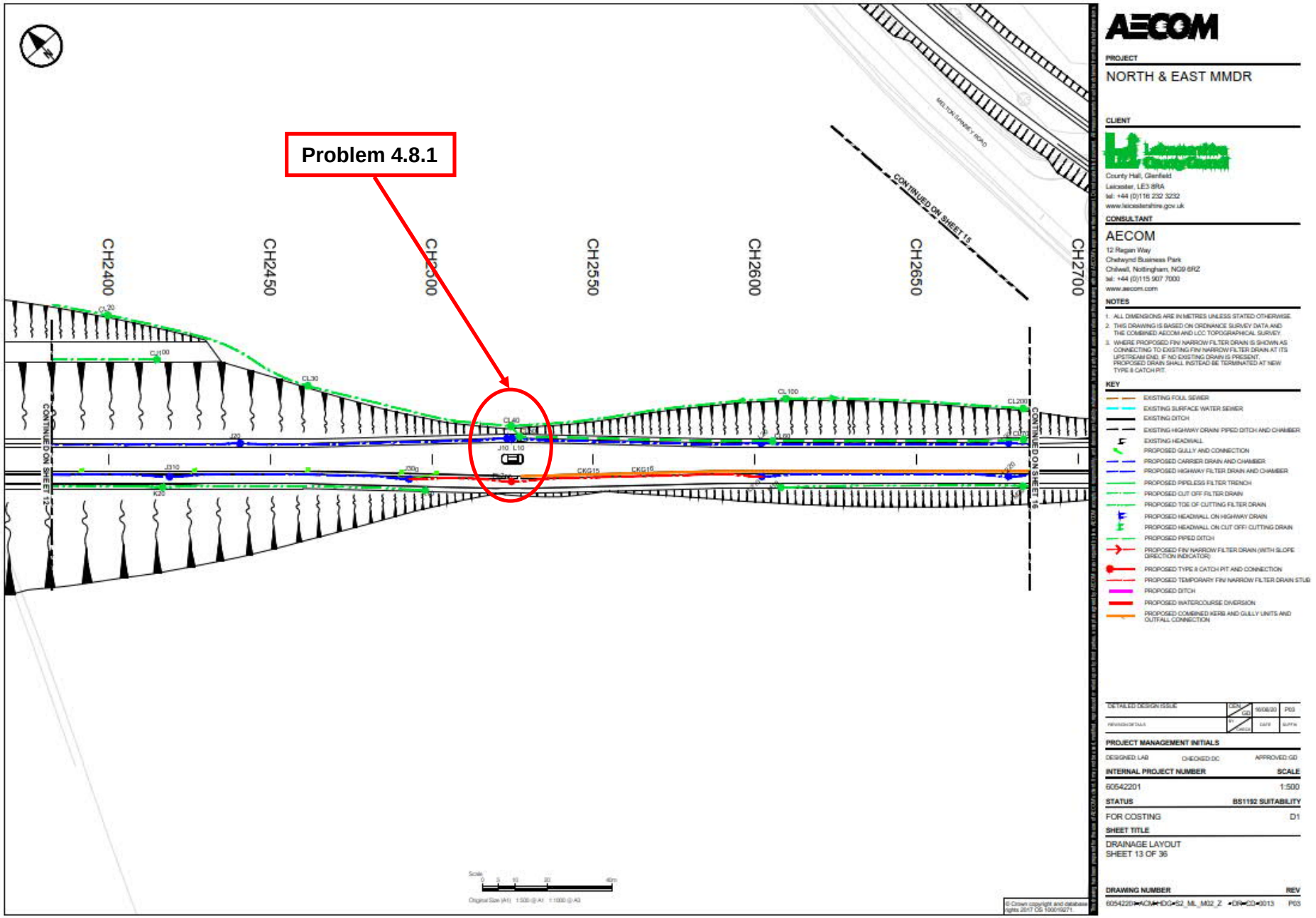
DRAWING NUMBER: 60542201-ACM-ENM-S1_GEN_ZZ_Z -DR-Z -0001
REV: P02

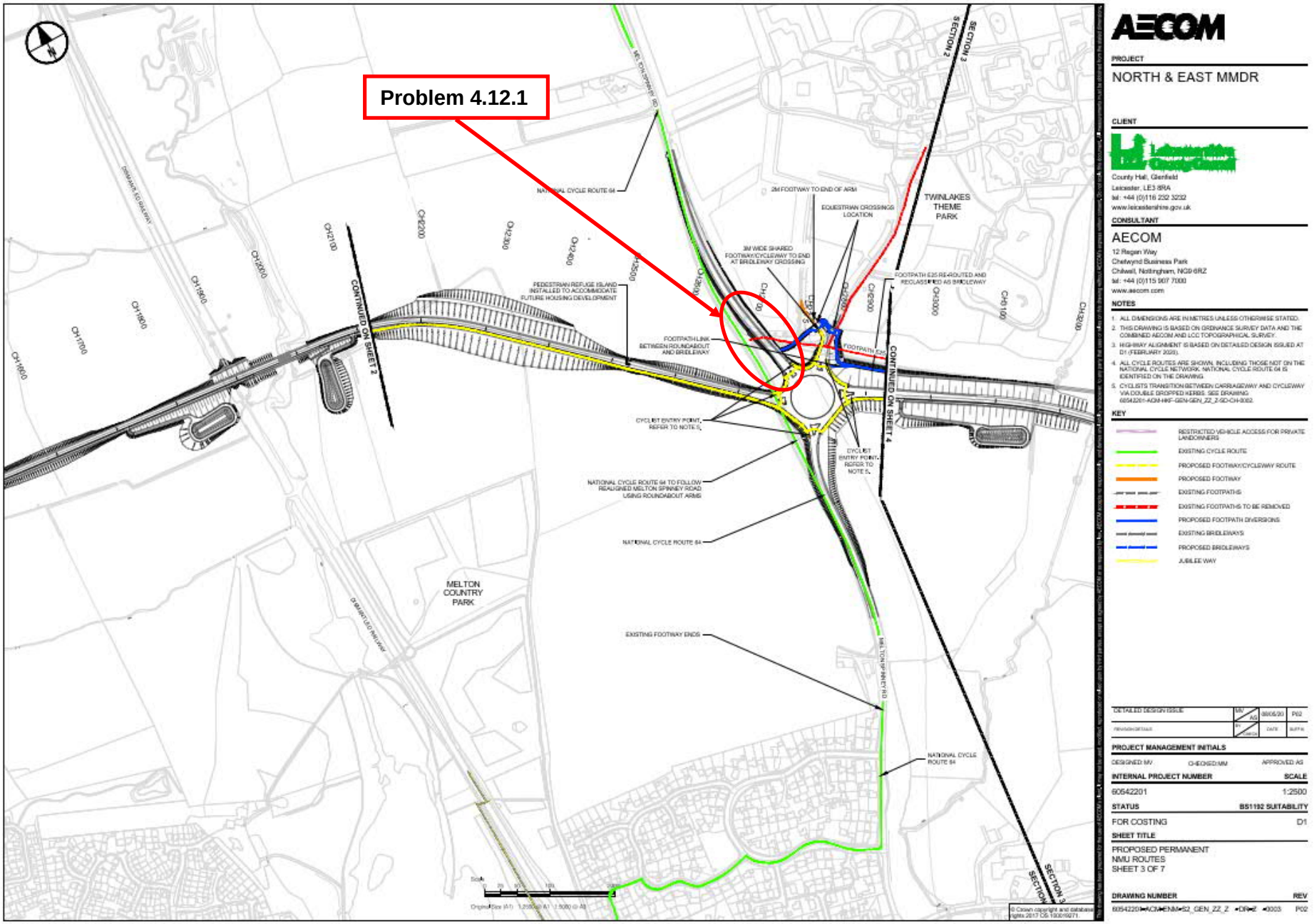

Problem 4.3.4, Problem 4.3.8 and Problem 4.13.6
Problem 4.3.4
Problem 4.3.5
Problem 4.11.2
ROUNDABOUT 1
AECOM
NORTH & EAST MMDR
AECOM
SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
GENERAL ARRANGEMENT
1:1000
SHEET 1 OF 21

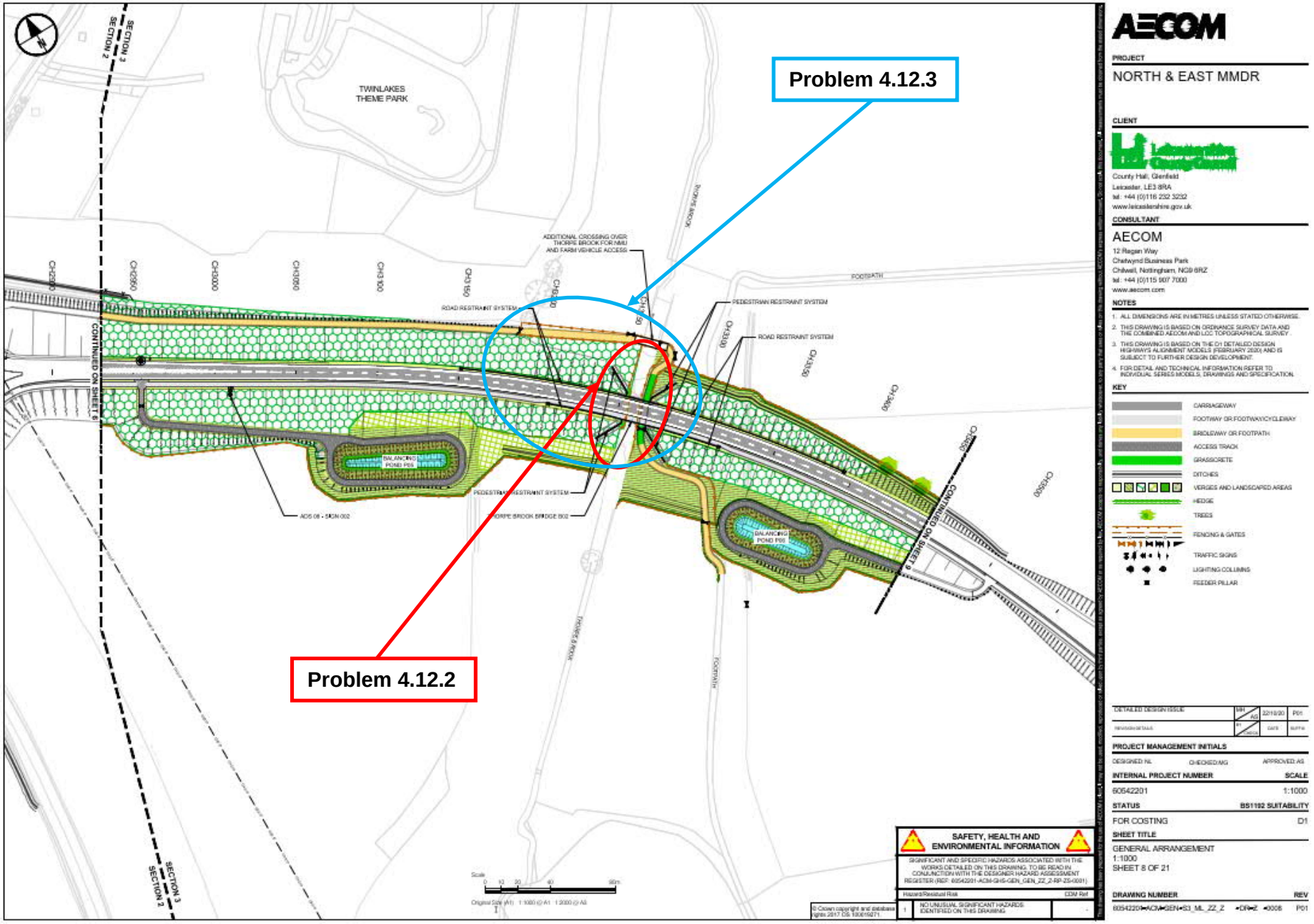

Problem 4.3.3
TWINLAKES
THEME PARK
SAFETY, HEALTH AND
ENVIRONMENTAL INFORMATION
CONTINUED ON SHEET 7
CONTINUED ON SHEET 8
SECTION 1
SECTION 2
SECTION 3
AECOM
PROJECT
NORTH & EAST MMDR
CLIENT
County Hall, Glenfield
Leicester, LE3 8RA
tel: +44 (0)116 232 3232
www.leicestershire.gov.uk
CONSULTANT
AECOM
12 Regan Way
Chetwynd Business Park
Chilwell, Nottingham, NG9 6RZ
tel: +44 (0)115 907 7000
www.aecom.com
NOTES
1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS BASED ON ORDNANCE SURVEY DATA AND THE COMBINED AECOM AND LCC TOPOGRAPHICAL SURVEY.
3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE RELEVANT SIGN SCHEDULES, SIGN FACE DETAILS, SIGN INSTALLATION DRAWINGS.
SPEED LIMIT SIGN FACE DETAILS SHOWN ON DRAWING 60542201-ACM-HSN-GEN_GEN_ZZ_2-DR-CH-0102
SIGN LOCATIONS - GENERAL ARRANGEMENT
60542201-ACM-HSN-S*_ML_ZZ_2-DR-CH-****
SIGN INSTALLATION SHEETS
60542201-ACM-HSN-S*_JN_R0*_2-DR-CH-****
BOLLARD & WARNING SIGN LOCATION
60542201-ACM-HSN-S*_ML_ZZ_2-DR-CH-0201 TO 0221
4. ALL SIGNS TO CONFORM TO THE TRAFFIC SIGN REGULATIONS & GENERAL DIRECTIONS 2016, AND THE RELEVANT AND CURRENT CHAPTER OF THE TRAFFIC SIGNS MANUAL.
KEY
SIGN POST WITH SIGN(S)
LIGHTING COLUMN
ILLUMINATED SIGN
DETAILED DESIGN ISSUE
PWW
AS
12/08/20
P01
PROJECT MANAGEMENT INITIALS
DESIGNED
CHECKED WC
APPROVED AS
INTERNAL PROJECT NUMBER
60542201
SCALE
1:1000
STATUS
FOR COSTING
BS1192 SUITABILITY
D1
SHEET TITLE
SPEED LIMIT LOCATIONS
GENERAL ARRANGEMENT
SHEET 6 OF 15
DRAWING NUMBER
60542201-ACM-HSN-S2_ML_ZZ_2-DR-CH-0106
REV
P01

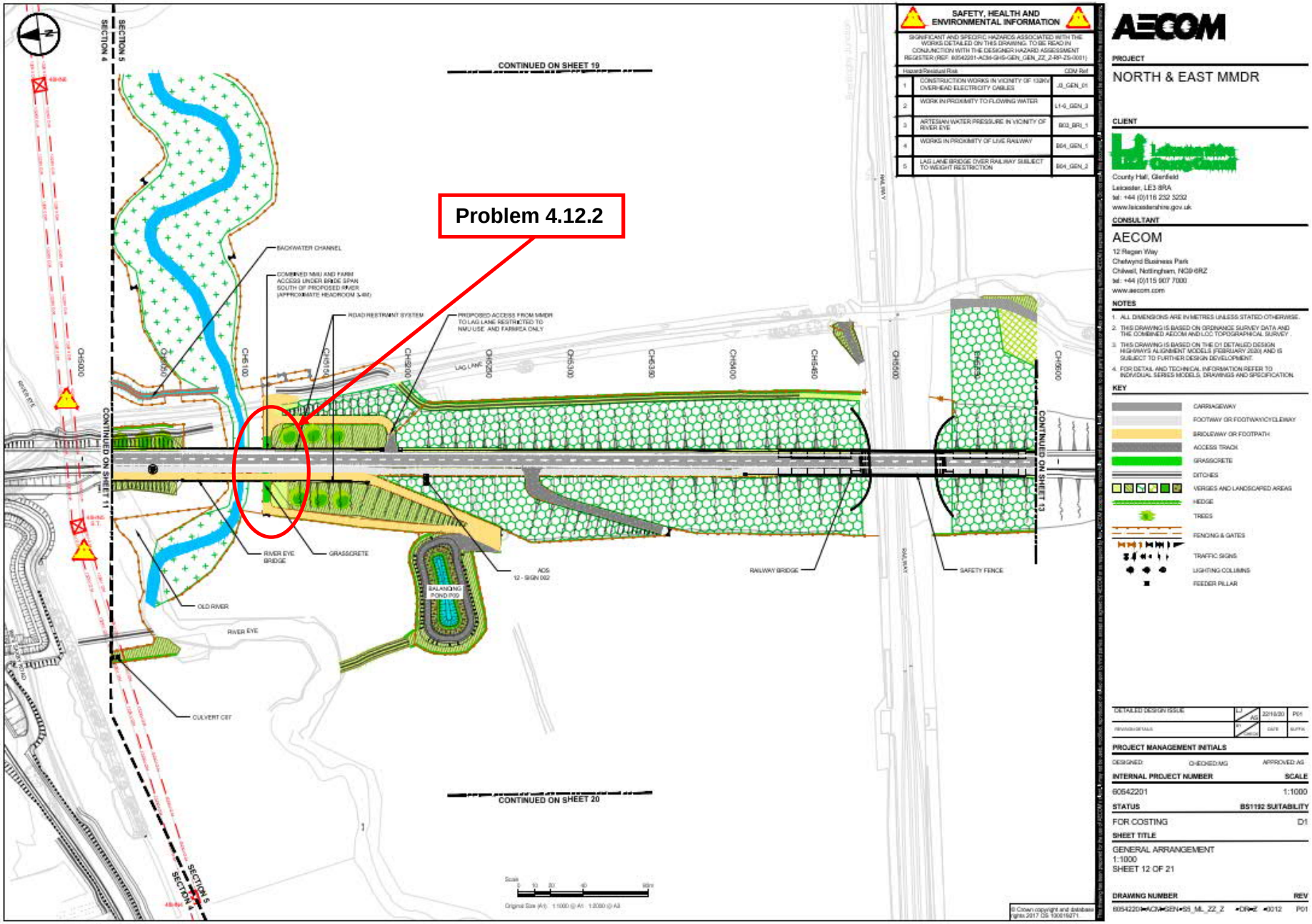

Problem 4.13.3
TWINLAKES THEME PARK
CONTINUED ON SHEET 7
CONTINUED ON SHEET 8
SECTION 3
SECTION 2
SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
AECOM
PROJECT
NORTH & EAST MMDR
CLIENT
County Hall, Glenfield
Leicester, LE3 8RA
tel: +44 (0)116 232 3232
www.leicestershire.gov.uk
CONSULTANT
AECOM
12 Regan Way
Chetwynd Business Park
Chilwell, Nottingham, NG9 6RZ
tel: +44 (0)115 907 7000
www.aecom.com
NOTES
1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS BASED ON ORDNANCE SURVEY DATA AND THE COMBINED AECOM AND LCC TOPOGRAPHICAL SURVEY.
3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE RELEVANT SIGN SCHEDULES, SIGN FACE DETAILS, SIGN INSTALLATION DRAWINGS.
SPEED LIMIT LOCATION SHOWN ON DRAWING 60542201-ACM-HGN-S*_ML_ZZ_Z-DR-CH-****
SIGN INSTALLATION SHEETS 60542201-ACM-HGN-S*_IN_R0*_Z-DR-CH-****
SIGN LOCATIONS - GENERAL ARRANGEMENT 60542201-ACM-HGN-S*_ML_ZZ_Z-DR-CH-****
4. ALL SIGNS TO CONFORM TO THE TRAFFIC SIGN REGULATIONS & GENERAL DIRECTIONS 2016, AND THE RELEVANT AND CURRENT CHAPTER OF THE TRAFFIC SIGNS MANUAL.
KEY
SIGN POST WITH SIGN(S)
SELF RIGHTING BOLLARD
BOLLARD (IN SHARED AREA)
DETAILED DESIGN ISSUE
PROJECT MANAGEMENT INITIALS
DESIGNED:
CHECKED:WC
APPROVED:AS
INTERNAL PROJECT NUMBER
60542201
SCALE
1:1000
STATUS
FOR COSTING
BS1192 SUITABILITY
D1
SHEET TITLE
BOLLARDS & WARNING SIGNS
GENERAL ARRANGEMENT
SHEET 6 OF 21
DRAWING NUMBER
60542201-ACM-HSN-S2_ML_ZZ_Z-DR-CH-0206
REV
P01

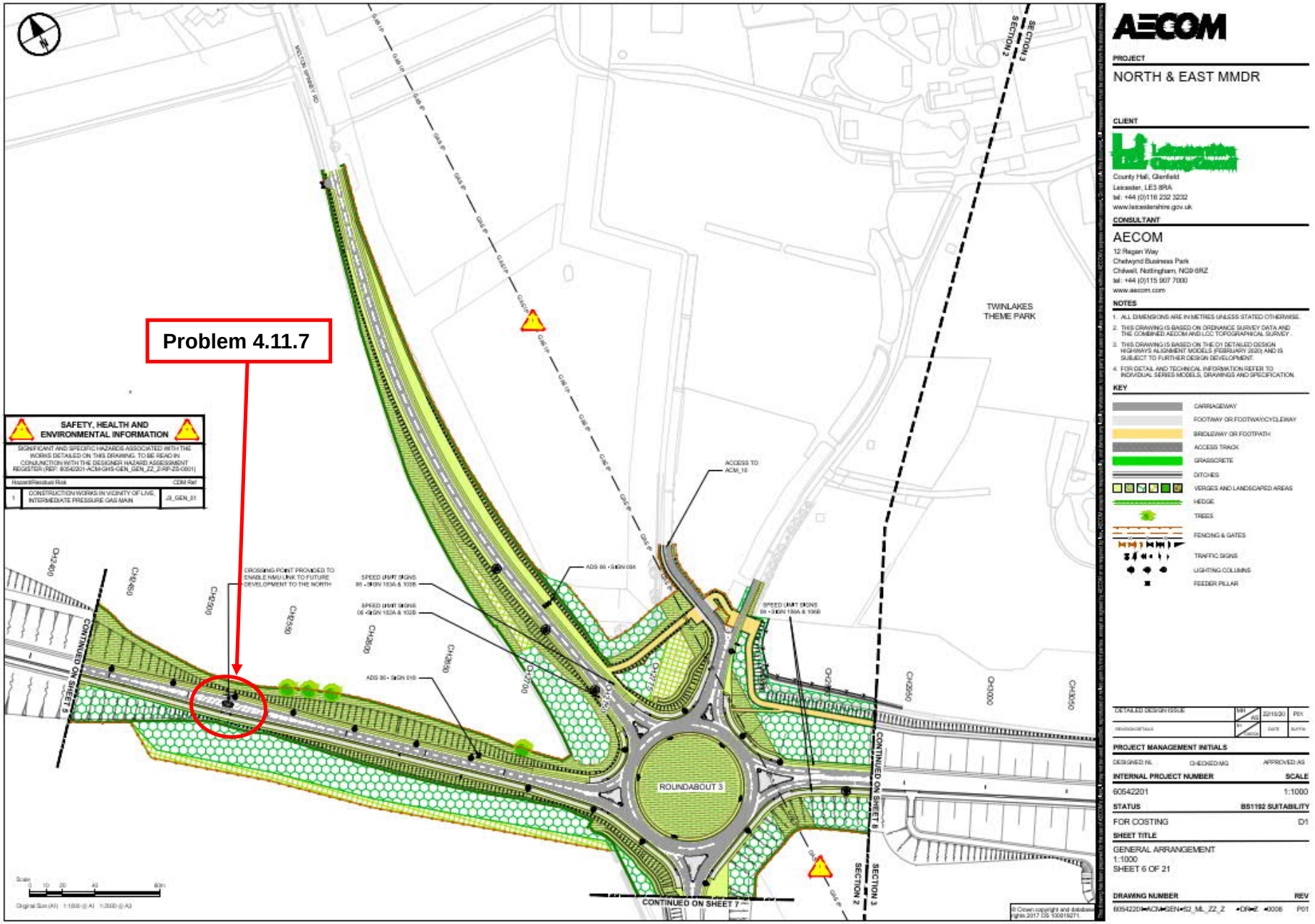

Problem 4.13.4
TWINLAKES THEME PARK
CONTINUED ON SHEET 7
CONTINUED ON SHEET 8
SECTION 3
SECTION 2
SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
AECOM
PROJECT
NORTH & EAST MMDR
CLIENT
CONSULTANT
AECOM
NOTES
KEY
SIGN LOCATIONS
GENERAL ARRANGEMENT
SHEET 6 OF 15
INTERNAL PROJECT NUMBER
60542201
SCALE
1:1000
STATUS
FOR COSTING
DRAWING NUMBER

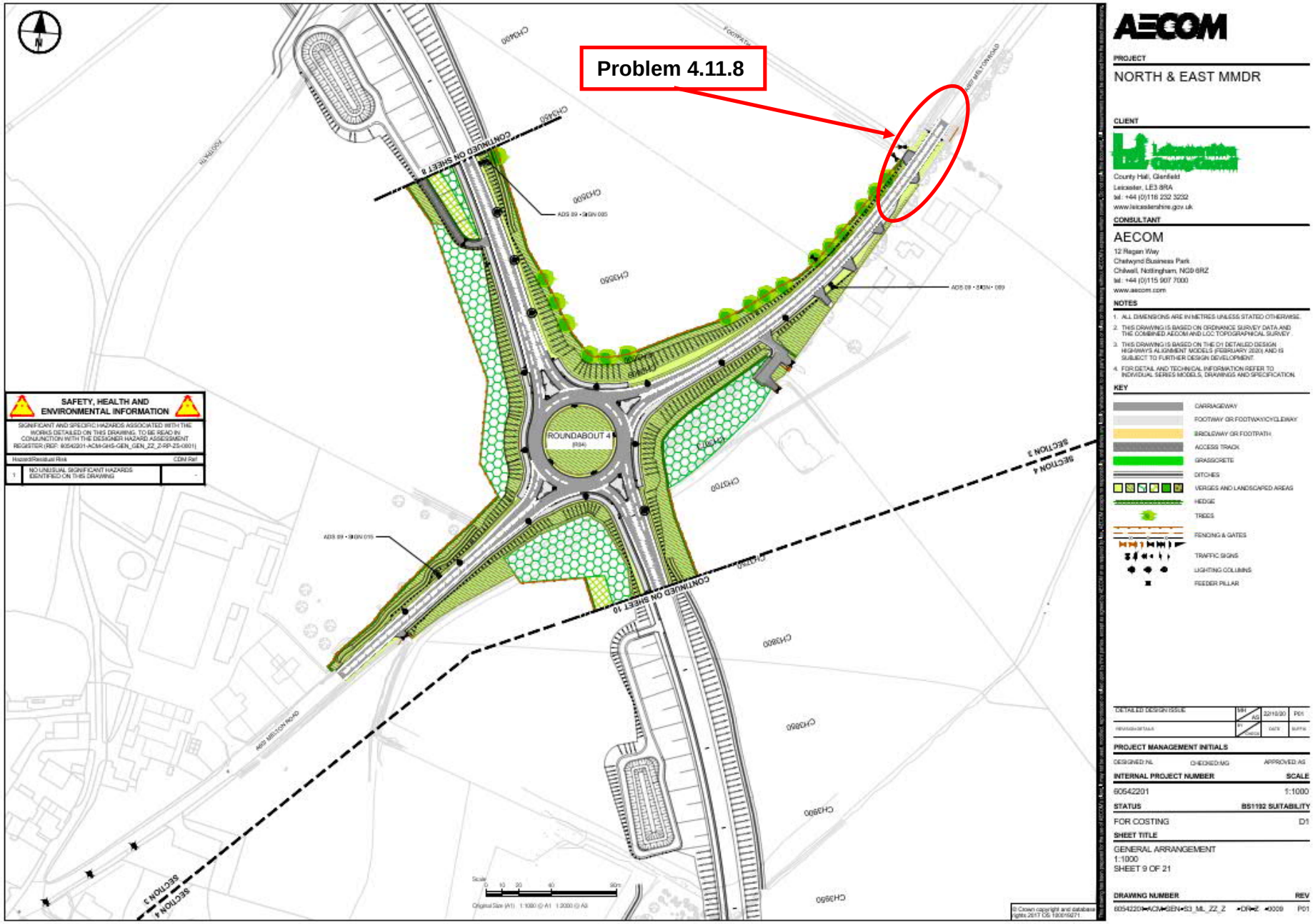

Problem 4.8.1
CH2400
CH2450
CH2500
CH2550
CH2600
CH2650
CH2700
CONTINUED ON SHEET 12
CONTINUED ON SHEET 15
CONTINUED ON SHEET 15
AECOM
PROJECT
NORTH & EAST MMDR
CLIENT
County Hall, Glenfield
Leicester, LE3 8RA
tel: +44 (0)116 232 3232
www.leicestershire.gov.uk
CONSULTANT
AECOM
12 Regan Way
Chetwynd Business Park
Chilwell, Nottingham, NG9 6RZ
tel: +44 (0)115 907 7000
www.aecom.com
NOTES
1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS BASED ON ORDNANCE SURVEY DATA AND THE COMBINED AECOM AND LCC TOPOGRAPHICAL SURVEY.
3. WHERE PROPOSED FIN/ NARROW FILTER DRAIN IS SHOWN AS CONNECTING TO EXISTING FIN/ NARROW FILTER DRAIN AT ITS UPSTREAM END, IF NO EXISTING DRAIN IS PRESENT, PROPOSED DRAIN SHALL INSTEAD BE TERMINATED AT NEW TYPE B CATCH PIT.
KEY
EXISTING FOUL SEWER
EXISTING SURFACE WATER SEWER
EXISTING DITCH
EXISTING HIGHWAY DRAIN/ PIPED DITCH AND CHAMBER
EXISTING HEADWALL
PROPOSED GULLY AND CONNECTION
PROPOSED CARRIER DRAIN AND CHAMBER
PROPOSED HIGHWAY FILTER DRAIN AND CHAMBER
PROPOSED PIPELESS FILTER TRENCH
PROPOSED CUT OFF FILTER DRAIN
PROPOSED TOE OF CUTTING FILTER DRAIN
PROPOSED HEADWALL ON HIGHWAY DRAIN
PROPOSED HEADWALL ON CUT OFF/ CUTTING DRAIN
PROPOSED PIPED DITCH
PROPOSED FIN/ NARROW FILTER DRAIN (WITH SLOPE DIRECTION INDICATOR)
PROPOSED TYPE B CATCH PIT AND CONNECTION
PROPOSED TEMPORARY FIN/ NARROW FILTER DRAIN STUB
PROPOSED DITCH
PROPOSED WATERCOURSE DIVERSION
PROPOSED COMBINED KERB AND GULLY UNITS AND OUTFALL CONNECTION
DETAILED DESIGN ISSUE
DRN GD
16/08/20
P03
PROJECT MANAGEMENT INITIALS
DESIGNED: LAB
CHECKED: DC
APPROVED: GD
INTERNAL PROJECT NUMBER
60542201
SCALE
1:500
STATUS
FOR COSTING
BS1192 SUITABILITY
D1
SHEET TITLE
DRAINAGE LAYOUT
SHEET 13 OF 36
DRAWING NUMBER
60542201-AOM-HDG-S2_ML_M02_Z_-DR-CD-0013
REV
P03

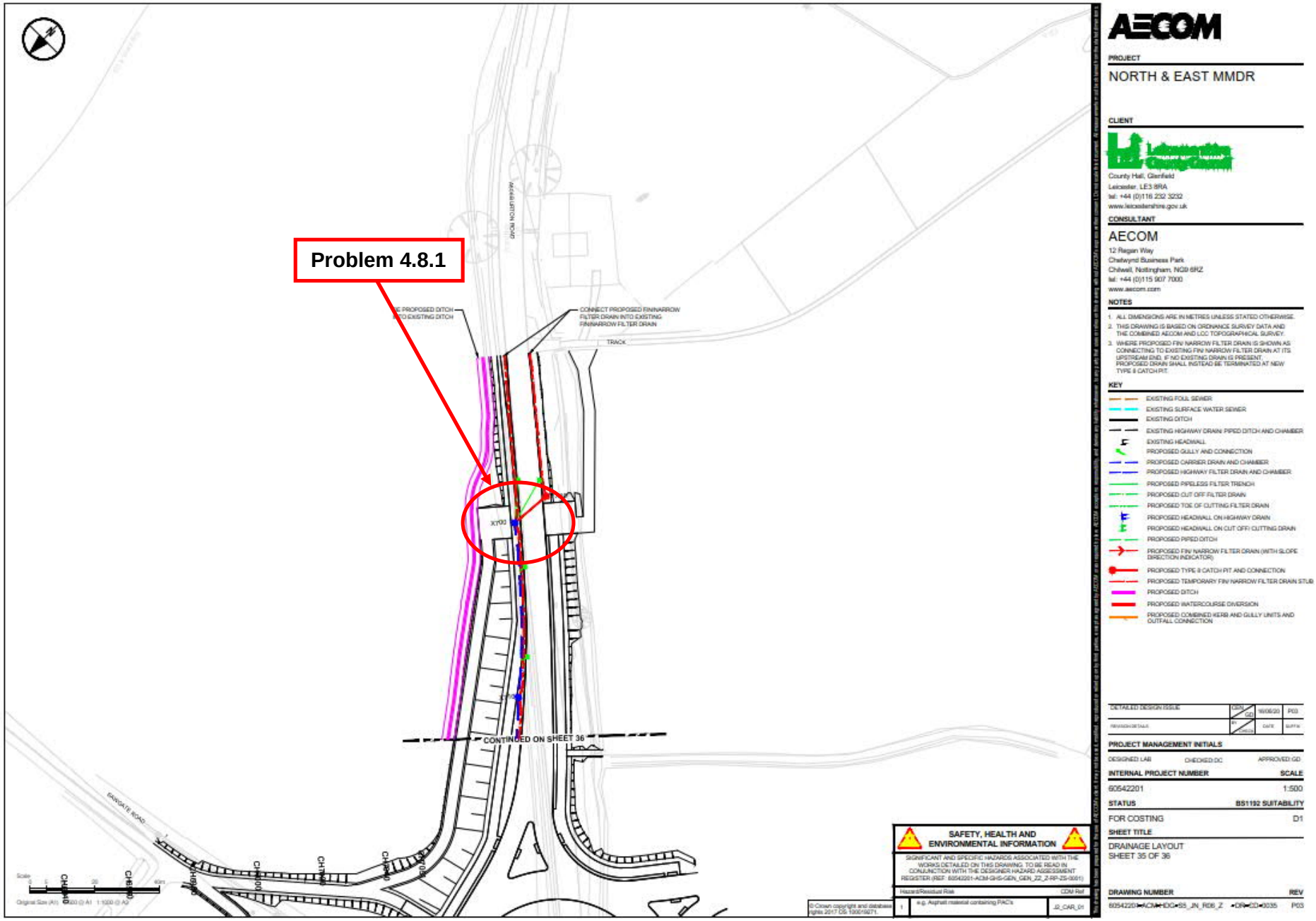

Problem 4.12.1
TWINLAKES THEME PARK
MELTON COUNTRY PARK
CONTINUED ON SHEET 2
CONTINUED ON SHEET 4
NATIONAL CYCLE ROUTE 64
EXISTING FOOTWAY ENDS
EQUESTRIAN CROSSING LOCATION
3M WIDE SHARED FOOTWAY/CYCLEWAY TO END AT BRIDLEWAY CROSSING
PEDESTRIAN REFUGE ISLAND INSTALLED TO ACCOMMODATE FUTURE HOUSING DEVELOPMENT
FOOTPATH LINK BETWEEN ROUNDABOUT AND BRIDLEWAY
CYCLIST ENTRY POINT, REFER TO NOTE 5
NATIONAL CYCLE ROUTE 64 TO FOLLOW REALIGNED MELTON SPINNEY ROAD USING ROUNDABOUT ARMS
SECTION 2
SECTION 3
AECOM
PROJECT
NORTH & EAST MMDR
CLIENT
County Hall, Glenfield
Leicester, LE3 8RA
tel: +44 (0)116 232 3232
www.leicestershire.gov.uk
CONSULTANT
AECOM
12 Regan Way
Chetwynd Business Park
Chilwell, Nottingham, NG9 6RZ
tel: +44 (0)115 907 7000
www.aecom.com
NOTES
1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
2. THIS DRAWING IS BASED ON ORDNANCE SURVEY DATA AND THE COMBINED AECOM AND LCC TOPOGRAPHICAL SURVEY.
3. HIGHWAY ALIGNMENT IS BASED ON DETAILED DESIGN ISSUED AT D1 (FEBRUARY 2020).
4. ALL CYCLE ROUTES ARE SHOWN, INCLUDING THOSE NOT ON THE NATIONAL CYCLE NETWORK. NATIONAL CYCLE ROUTE 64 IS IDENTIFIED ON THE DRAWING.
5. CYCLISTS TRANSITION BETWEEN CARRIAGEWAY AND CYCLEWAY VIA DOUBLE DROPPED KERBS. SEE DRAWING 60542201-ACM-HNF-GEN-GEN_ZZ_Z-SD-CH-0002.
KEY
RESTRICTED VEHICLE ACCESS FOR PRIVATE LANDOWNERS
EXISTING CYCLE ROUTE
PROPOSED FOOTWAY/CYCLEWAY ROUTE
PROPOSED FOOTWAY
EXISTING FOOTPATHS
EXISTING FOOTPATHS TO BE REMOVED
PROPOSED FOOTPATH DIVERSIONS
EXISTING BRIDLEWAYS
PROPOSED BRIDLEWAYS
JUBILEE WAY
DETAILED DESIGN ISSUE
MV
AS
08/05/20
P02
PROJECT MANAGEMENT INITIALS
DESIGNED MV
CHECKED MM
APPROVED AS
INTERNAL PROJECT NUMBER
60542201
SCALE
1:2500
STATUS
FOR COSTING
BS1192 SUITABILITY
D1
SHEET TITLE
PROPOSED PERMANENT NMU ROUTES
SHEET 3 OF 7
DRAWING NUMBER
REV
P02

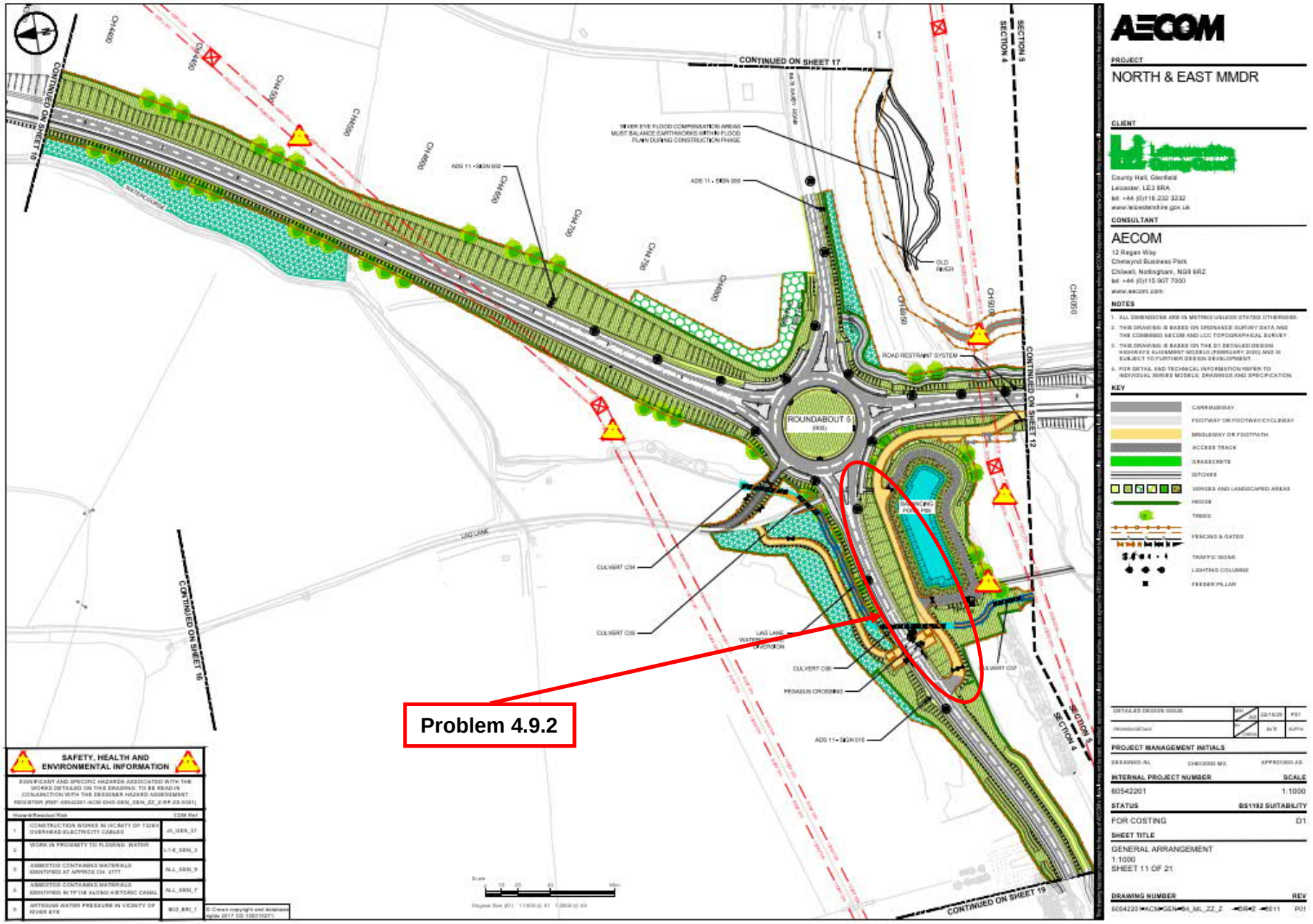

Problem 4.12.3
Problem 4.12.2
TWINLAKES THEME PARK
SECTION 3
SECTION 2
ADDITIONAL CROSSING OVER THORPE BROOK FOR NMU AND FARM VEHICLE ACCESS
ROAD RESTRAINT SYSTEM
PEDESTRIAN RESTRAINT SYSTEM
FOOTPATH
CONTINUED ON SHEET 9
CONTINUED ON SHEET 6
BALANCING POND P05
THORPE BROOK BRIDGE B02
AECOM
PROJECT
NORTH & EAST MMDR
CLIENT
County Hall, Glenfield
Leicester, LE3 8RA
tel: +44 (0)116 232 3232
www.leicestershire.gov.uk
CONSULTANT
AECOM
12 Regan Way
Chetwynd Business Park
Chilwell, Nottingham, NG9 6RZ
tel: +44 (0)115 907 7000
www.aecom.com
NOTES
1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS BASED ON ORDNANCE SURVEY DATA AND THE COMBINED AECOM AND LCC TOPOGRAPHICAL SURVEY
3. THIS DRAWING IS BASED ON THE D1 DETAILED DESIGN HIGHWAYS ALIGNMENT MODELS (FEBRUARY 2020) AND IS SUBJECT TO FURTHER DESIGN DEVELOPMENT.
4. FOR DETAIL AND TECHNICAL INFORMATION REFER TO INDIVIDUAL SERIES MODELS, DRAWINGS AND SPECIFICATION.
KEY
CARRIAGEWAY
FOOTWAY OR FOOTWAY/CYCLEWAY
BRIDLEWAY OR FOOTPATH
ACCESS TRACK
GRASSCRETE
DITCHES
VERGES AND LANDSCAPED AREAS
HEDGE
TREES
FENCING & GATES
TRAFFIC SIGNS
LIGHTING COLUMNS
FEEDER PILLAR
SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
SIGNIFICANT AND SPECIFIC HAZARDS ASSOCIATED WITH THE WORKS DETAILED ON THIS DRAWING. TO BE READ IN CONJUNCTION WITH THE DESIGNER HAZARD ASSESSMENT REGISTER (REF: 60542201-ACM-GHS-GEN_GEN_ZZ_Z-RP-ZS-0001)
NO UNUSUAL SIGNIFICANT HAZARDS IDENTIFIED ON THIS DRAWING
DETAILED DESIGN ISSUE
22/10/20
P01
PROJECT MANAGEMENT INITIALS
DESIGNED: NL
CHECKED: MG
APPROVED: AS
INTERNAL PROJECT NUMBER
60542201
SCALE
1:1000
STATUS
FOR COSTING
BS1192 SUITABILITY
D1
SHEET TITLE
GENERAL ARRANGEMENT
1:1000
SHEET 8 OF 21
DRAWING NUMBER
REV
P01


Problem 4.12.2
CONTINUED ON SHEET 19
CONTINUED ON SHEET 11
CONTINUED ON SHEET 13
CONTINUED ON SHEET 20
SECTION 4
SECTION 5
SECTION 6
SECTION 7
BACKWATER CHANNEL
ROAD RESTRAINT SYSTEM
PROPOSED ACCESS FROM MMDR TO LAG LANE RESTRICTED TO NMU USE AND FARMERS ONLY
LAG LANE
RIVER EYE BRIDGE
GRASSCRETE
OLD RIVER
RIVER EYE
CULVERT CBT
BALANCING POND P09
RAILWAY BRIDGE
SAFETY FENCE
SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
AECOM
PROJECT
NORTH & EAST MMDR
CLIENT
County Hall, Glenfield
Leicester, LE3 8RA
tel: +44 (0)116 232 5232
www.leicestershire.gov.uk
CONSULTANT
AECOM
12 Regan Way
Chetwynd Business Park
Chilwell, Nottingham, NG9 6RZ
tel: +44 (0)115 907 7000
www.aecom.com
NOTES
1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS BASED ON ORDNANCE SURVEY DATA AND THE COMBINED AECOM AND LCC TOPOGRAPHICAL SURVEY.
3. THIS DRAWING IS BASED ON THE D1 DETAILED DESIGN HIGHWAYS ALIGNMENT MODELS (FEBRUARY 2020) AND IS SUBJECT TO FURTHER DESIGN DEVELOPMENT.
4. FOR DETAIL AND TECHNICAL INFORMATION REFER TO INDIVIDUAL SERIES MODELS, DRAWINGS AND SPECIFICATION.
KEY
CARRIAGEWAY
FOOTWAY OR FOOTWAY/CYCLEWAY
BRIDLEWAY OR FOOTPATH
ACCESS TRACK
GRASSCRETE
DITCHES
VERGES AND LANDSCAPED AREAS
HEDGE
TREES
FENCING & GATES
TRAFFIC SIGNS
LIGHTING COLUMNS
FEEDER PILLAR
DETAILED DESIGN ISSUE
PROJECT MANAGEMENT INITIALS
DESIGNED:
CHECKED:MG
APPROVED:AG
INTERNAL PROJECT NUMBER
60542201
SCALE
1:1000
STATUS
FOR COSTING
BS1192 SUITABILITY
D1
SHEET TITLE
GENERAL ARRANGEMENT
1:1000
SHEET 12 OF 21
DRAWING NUMBER
REV
P01


Problem 4.11.7
SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
SIGNIFICANT AND SPECIFIC HAZARDS ASSOCIATED WITH THE WORKS DETAILED ON THIS DRAWING. TO BE READ IN CONJUNCTION WITH THE DESIGNER HAZARD ASSESSMENT REGISTER (REF: 60542201-ACM-GHS-GEN_GEN_ZZ_Z-RP-ZS-0001)
CONSTRUCTION WORKS IN VICINITY OF LIVE INTERMEDIATE PRESSURE GAS MAIN
TWINLAKES THEME PARK
ROUNDABOUT 3
CONTINUED ON SHEET 5
CONTINUED ON SHEET 6
CONTINUED ON SHEET 7
SECTION 2
SECTION 3
CROSSING POINT PROVIDED TO ENABLE NMU LINK TO FUTURE DEVELOPMENT TO THE NORTH
ACCESS TO ACM_10
SPEED LIMIT SIGNS
AECOM
PROJECT
NORTH & EAST MMDR
CLIENT
County Hall, Glenfield
Leicester, LE3 8RA
tel: +44 (0)116 232 3232
www.leicestershire.gov.uk
CONSULTANT
AECOM
12 Regan Way
Chetwynd Business Park
Chilwell, Nottingham, NG9 6RZ
tel: +44 (0)115 907 7000
www.aecom.com
NOTES
1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS BASED ON ORDNANCE SURVEY DATA AND THE COMBINED AECOM AND LCC TOPOGRAPHICAL SURVEY.
3. THIS DRAWING IS BASED ON THE D1 DETAILED DESIGN HIGHWAYS ALIGNMENT MODELS (FEBRUARY 2020) AND IS SUBJECT TO FURTHER DESIGN DEVELOPMENT.
4. FOR DETAIL AND TECHNICAL INFORMATION REFER TO INDIVIDUAL SERIES MODELS, DRAWINGS AND SPECIFICATION.
KEY
CARRIAGEWAY
FOOTWAY OR FOOTWAY/CYCLEWAY
BRIDLEWAY OR FOOTPATH
ACCESS TRACK
GRASSCRETE
DITCHES
VERGES AND LANDSCAPED AREAS
HEDGE
TREES
FENCING & GATES
TRAFFIC SIGNS
LIGHTING COLUMNS
FEEDER PILLAR
DETAILED DESIGN ISSUE
22/10/20
P01
PROJECT MANAGEMENT INITIALS
DESIGNED: NL
CHECKED: AG
APPROVED: AS
INTERNAL PROJECT NUMBER
60542201
SCALE
1:1000
STATUS
FOR COSTING
BS1192 SUITABILITY
D1
SHEET TITLE
GENERAL ARRANGEMENT
1:1000
SHEET 6 OF 21
DRAWING NUMBER
REV
P01


Problem 4.11.8
ROUNDABOUT 4
SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
NO UNUSUAL SIGNIFICANT HAZARDS IDENTIFIED ON THIS DRAWING
AECOM
PROJECT
NORTH & EAST MMDR
CLIENT
CONSULTANT
AECOM
NOTES
KEY
PROJECT MANAGEMENT INITIALS
INTERNAL PROJECT NUMBER
60542201
SCALE
1:1000
STATUS
FOR COSTING
BS1192 SUITABILITY
D1
SHEET TITLE
GENERAL ARRANGEMENT
1:1000
SHEET 9 OF 21
DRAWING NUMBER
REV
P01


Problem 4.8.1
CONNECT PROPOSED FIN/NARROW FILTER DRAIN INTO EXISTING FIN/NARROW FILTER DRAIN
TRACK
CONTINUED ON SHEET 36
SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
AECOM
PROJECT
NORTH & EAST MMDR
CLIENT
County Hall, Glenfield
Leicester, LE3 8RA
tel: +44 (0)116 232 3232
www.leicestershire.gov.uk
CONSULTANT
AECOM
12 Regan Way
Chetwynd Business Park
Chilwell, Nottingham, NG9 6RZ
tel: +44 (0)115 907 7000
www.aecom.com
NOTES
1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS BASED ON ORDNANCE SURVEY DATA AND THE COMBINED AECOM AND LCC TOPOGRAPHICAL SURVEY.
3. WHERE PROPOSED FIN/ NARROW FILTER DRAIN IS SHOWN AS CONNECTING TO EXISTING FIN/ NARROW FILTER DRAIN AT ITS UPSTREAM END, IF NO EXISTING DRAIN IS PRESENT, PROPOSED DRAIN SHALL INSTEAD BE TERMINATED AT NEW TYPE 8 CATCH PIT.
KEY
EXISTING FOUL SEWER
EXISTING SURFACE WATER SEWER
EXISTING DITCH
EXISTING HIGHWAY DRAIN/ PIPED DITCH AND CHAMBER
EXISTING HEADWALL
PROPOSED GULLY AND CONNECTION
PROPOSED CARRIER DRAIN AND CHAMBER
PROPOSED HIGHWAY FILTER DRAIN AND CHAMBER
PROPOSED PIPELESS FILTER TRENCH
PROPOSED CUT OFF FILTER DRAIN
PROPOSED TOE OF CUTTING FILTER DRAIN
PROPOSED HEADWALL ON HIGHWAY DRAIN
PROPOSED HEADWALL ON CUT OFF/ CUTTING DRAIN
PROPOSED PIPED DITCH
PROPOSED FIN/ NARROW FILTER DRAIN (WITH SLOPE DIRECTION INDICATOR)
PROPOSED TYPE 8 CATCH PIT AND CONNECTION
PROPOSED TEMPORARY FIN/ NARROW FILTER DRAIN STUB
PROPOSED DITCH
PROPOSED WATERCOURSE DIVERSION
PROPOSED COMBINED KERB AND GULLY UNITS AND OUTFALL CONNECTION
DETAILED DESIGN ISSUE
PROJECT MANAGEMENT INITIALS
DESIGNED LAB
CHECKED DC
APPROVED GD
INTERNAL PROJECT NUMBER
60542201
SCALE
1:500
STATUS
FOR COSTING
BS1192 SUITABILITY
D1
SHEET TITLE
DRAINAGE LAYOUT
SHEET 35 OF 36
DRAWING NUMBER
60542201-ACM-HDG-SS_JN_RD8_Z_-DR-CD-0035
REV
P03


CONTINUED ON SHEET 17
CONTINUED ON SHEET 10
CONTINUED ON SHEET 16
CONTINUED ON SHEET 12
CONTINUED ON SHEET 19
ROUNDABOUT 5
ROAD RESTRAINT SYSTEM
RIVER EYE FLOOD COMPENSATION AREAS MUST BALANCE EARTHWORKS WITHIN FLOOD PLAIN DURING CONSTRUCTION PHASE
LAG LANE
CULVERT C04
CULVERT C05
CULVERT C06
CULVERT C07
PEGASUS CROSSING
ADS 11 - SIGN 010
SECTION 4
SECTION 5
SECTION 6
Problem 4.9.2
SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
AECOM
PROJECT
NORTH & EAST MMDR
CLIENT
CONSULTANT
AECOM
NOTES
KEY
PROJECT MANAGEMENT INITIALS
INTERNAL PROJECT NUMBER
60542201
SCALE
1:1000
STATUS
FOR COSTING
BS1192 SUITABILITY
D1
SHEET TITLE
GENERAL ARRANGEMENT
1:1000
SHEET 11 OF 21
DRAWING NUMBER
REV
P01

About AECOM

AECOM (NYSE: ACM) is a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental, energy, water and government. With approximately 100,000 employees around the world, AECOM is a leader in all of the key markets that it serves. AECOM provides a blend of global reach, local knowledge, innovation, and collaborative technical excellence in delivering solutions that enhance and sustain the world's built, natural, and social environments. A Fortune 500 company, AECOM serves clients in more than 100 countries and has annual revenue in excess of $6 billion.

More information on AECOM and its services can be found.

AECOM Infrastructure & Environment UK Ltd.
Royal Court
Basil Close
Chesterfield
Derbyshire
S41 7SL
United Kingdom

Phone: 01246 209221
Fax: 01246 209229