



TECHNICAL NOTE

Date: 2 June 2021

File Ref: MA/CS/P21-2319/01TN

Subject: EL Dowley – Deadline 2 Submission

1.0 DEADLINE 2 SUBMISSION

- 1.1 Create Consulting Engineers Ltd (Create) have been appointed by our Client (LJ & EL Dowley) located in the close to the village of Theberton to provide a written submission for “Deadline 2” in line with the Planning Inspectorate timescale.
- 1.2 The [REDACTED] lies towards the West of the existing Sizewell Power Station and as part of the access arrangements to serve the proposed scheme, a new five-arm roundabout is proposed on the B1172 Abbey Road to the East of Leiston Abbey. The schematic layouts of the junction are presented at Appendix A of this note for convenience.
- 1.3 The purpose of this submission is to make the Inspector Panel aware of fundamental concerns potentially impacting upon our Client’s land and residential property regarding the effect of the aforementioned roundabout, specifically in relation to:
- Inconvenience/amenity;
 - Traffic capacity/safety;
 - Noise;
 - Lighting;
 - Dust; and
 - Visual impact.
- 1.4 Figure 1.1 highlights the proximity of our Client’s residential dwelling in relation to the proposed new roundabout (shown indicatively).

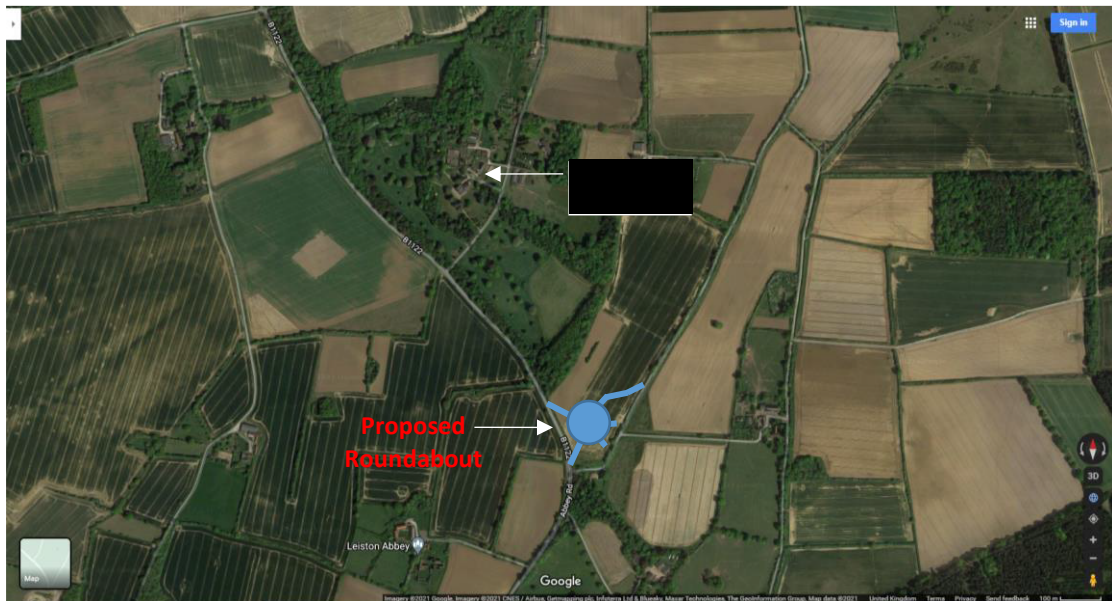


Figure 1: Proposed Location of 5-arm Roundabout on B1172 (source: Google Maps)

1.5 Reference is made to the SLR Plans for Approval Parts 1 and 2, along with the associated Technical Documents provided by the Applicant and all necessary updates as of 31st May 2021.

1.6 These include, but, are not limited to:

- SZC_Bk2_2.10_SLR Plans for Approval Part 1 of 3
- SZC_Bk2_2.10_SLR Plans for Approval Part 2 of 3
- Transport Assessment EN10012-002581 and Appendices / Updates
- Noise Assessment EN010012-002069 and Appendices
- Lighting Management Plan EN010012-001803
- Landscape and Visual Impact EN010012-002075
- Air Quality Assessment EN010012-002072

2.0 PROPOSED ROUNDABOUT, POINTS OF CONCERN

2.1 The following important points are highlighted:

- The scale of the proposed roundabout appears to be excessive for such a location. With an Inscribed Circle Diameter (ICD) of approximately 60m with extensive landscaping (for embankments, lines of sight/visibility, drainage etc.) the physical impact of the roundabout would be comparable with that typically found on a trunk road junction, not on a rural section of the B1122;
- The overall scale of junction, therefore, potentially has a major detrimental effect on the amenity of on our Client's property, as well as properties nearby and will dramatically affect the local, natural landscape;
- The layout allows for two-lane approaches on all arms of the roundabout, however, this is potentially excessive and will lead to unnecessarily high entry-speeds.

Additionally, the large ICD of the roundabout is likely to give rise to high circulatory speeds with corresponding concerns for safety;

- At this comparatively remote rural location a roundabout of this scale could potentially attract the attention of dangerous drivers (e.g. for drifting) and serious consideration should be given to reducing the ICD of the roundabout and/or introducing speed attenuation features;
- The roundabout will be of significant scale, and in-part elevated above surrounding land according to the new embankments indicated on the scheme plans. Will there be sufficient planting and screening for the new roundabout;
- Light, noise and other pollution could be significant issues. Also, nuisance could potentially be an issue on account of dangerous drivers congregating in this local area;
- Entry path curvature from southbound to northbound on the B1172 appears to be minimal, effectively the layout would offer little attenuation of traffic speeds in this direction and coupled with the large ICD would lead to safety issues;
- Sight stopping distances (120m) on the B1172 approaches to the proposed roundabout appear to be based on design speeds of 60kph (circa 45mph). At this location, the national speed limit (60mph) is currently in force which is significantly in excess of the applied design speeds. Consequently, visibility provision may need to be extended and this will increase the overall footprint of the junction further;
- The construction of a junction of this scale will have a major effect on local properties in terms of noise, dust, vibration etc. A comprehensive construction management plan would need to be prepared to sufficiently mitigate these impacts. As well as consulting the relevant statutory/technical authorities, it is considered essential that local residents are consulted on the construction management plan directly to ensure that their concerns are adequately addressed;
- There is no legacy benefit provided by this roundabout post-construction, and therefore it should be removed in its entirety once its purpose to serve the scheme construction is completed.

- 2.2 There remains a number of significant concerns which need to be addressed by the Applicant in light of the extended construction period. There are also significant concerns regarding the post construction phase.

Visual Impact / Lighting

- 2.3 The large ICD of the proposed roundabout will mean that illumination will be a significant issue at this location with the junction fully lit.
- 2.4 Create have reviewed the lighting proposals and consider this will result in widespread light pollution at this rural location.
- 2.5 The case for full street lighting at this location would need to be fully justified with mitigation put in place if this is deemed necessary, no light pollution mitigation is currently proposed by

the Applicant and at present, the current scheme design put forward is not considered to be acceptable to our Clients.

Noise

- 2.6 Limited background noise monitoring appears to have been undertaken in the vicinity of [REDACTED]. From what has been monitored, the survey suggests noise levels are very low, with values typically below 25dB. Values during construction are expected to be significant and will certainly require mitigation measures should be provided.
- 2.7 Currently, no mitigation appears to be planned for the immediate area.

Air Quality

- 2.8 The Client currently enjoys very good air quality at this rural location, which is not greatly influenced by traffic levels, or dust impacts.
- 2.9 The Applicant has failed to consider the extremely good background air quality levels, the outdoors recreation space which are in constant use by the Client and the percentage change to both dust and emissions levels.
- 2.10 Create, therefore, request a wider study is completed to accurately consider the direct impact on the Client's property and usable outdoor space.
- 2.11 Following this, mitigation should be provided by the Applicant, as necessary.

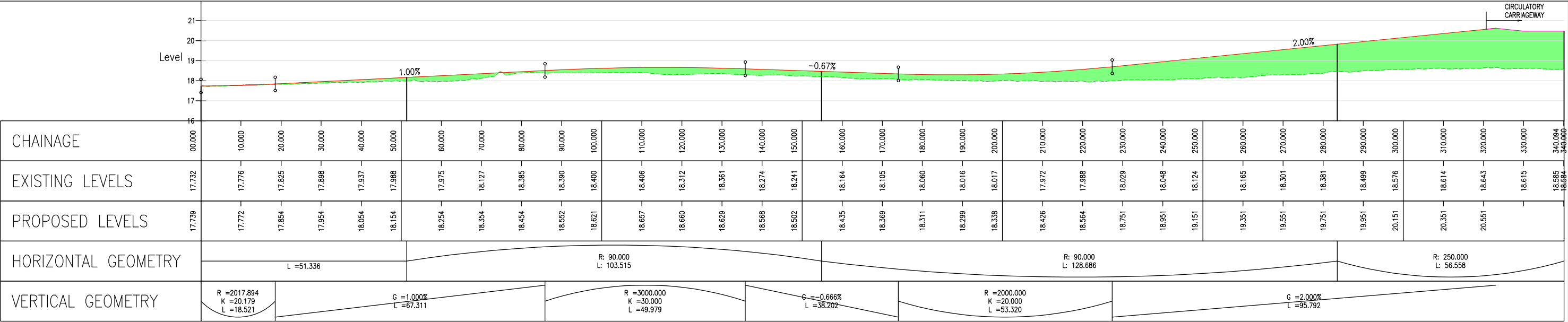
3.0 CONCLUSIONS

- 3.1 The purpose of this note is to consider the direct effects of the proposed 5-arm roundabout proposed by the Applicant on our Client's home at [REDACTED].
- 3.2 Our Client and Create have raised significant, legitimate concerns with respect to the SLR and it is requested that the Applicant responds accordingly which in turn could potentially lead to the introduction of a number of mitigation measures and/or redesigned components of the overall scheme currently being put forward.

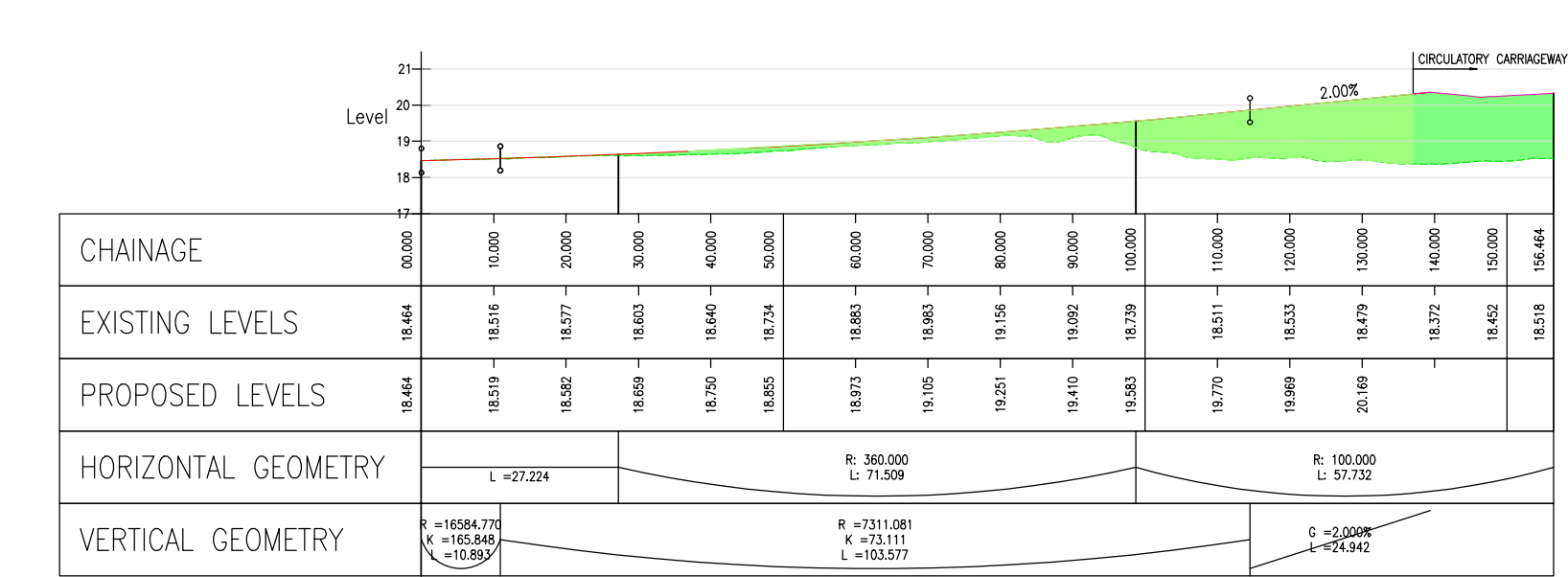
Note By: Paul Zanna - Technical Director

Appendix A Theberton Roundabout Plans

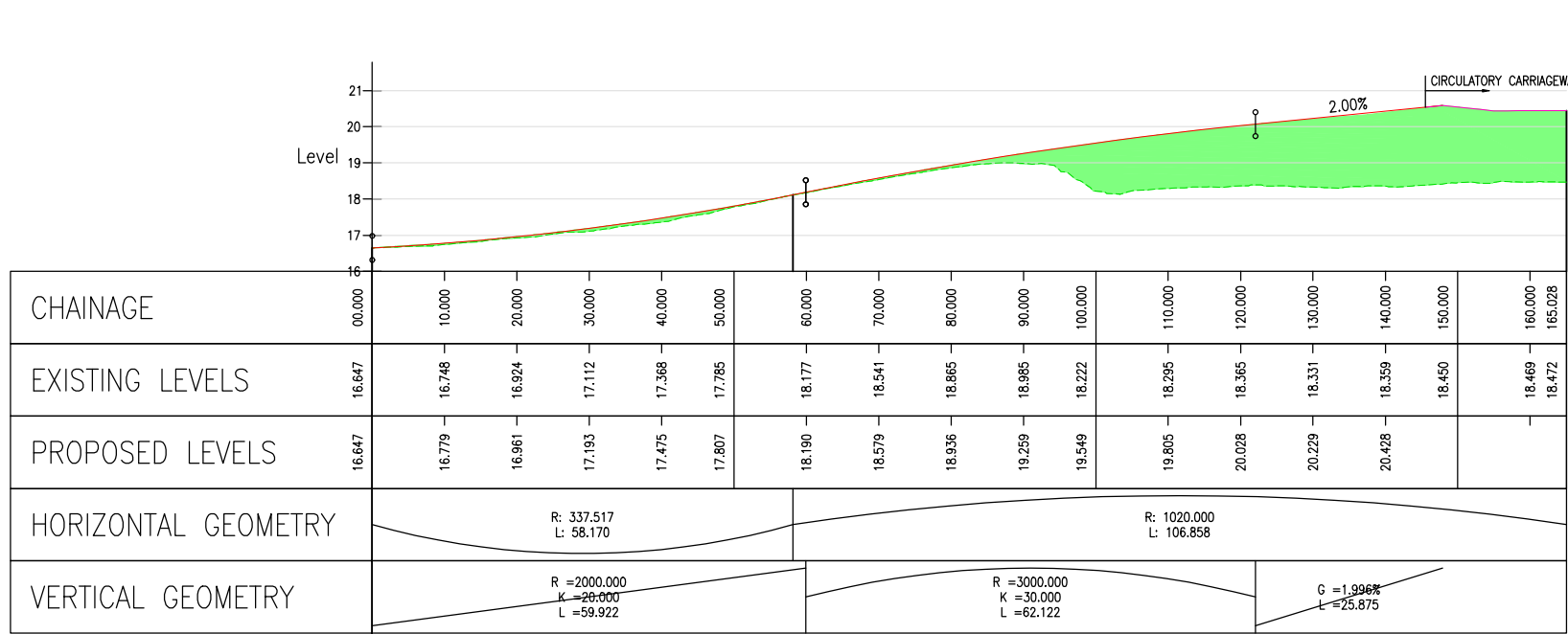
APPENDIX A



NORTH ARM CL

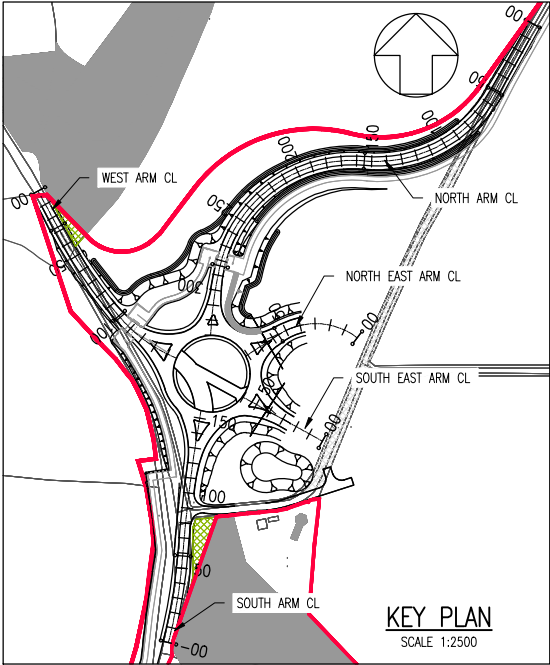


WEST ARM CL

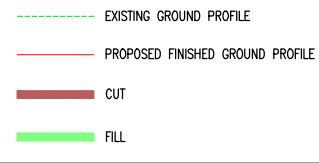


SOUTH ARM CL

ELEVATION AXIS 5x EXAGGERATED



KEY



NOTES:

1. This drawing is for planning purposes only and shall not be used for construction or any other purpose.
2. The development shall be provided as shown on the drawings unless alternative details are submitted and approved pursuant to a requirement.
3. All levels are in metres unless stated otherwise
4. All dimensions are in metres unless states otherwise.
5. The scheme design is based on Ordnance Survey Mapping data. The existing ground terian and proposed surfaces are based on the UK Government's open source LIDAR digital terrain mapping data. All positions and levels are to be reviewed following completion of a detailed site topographical survey.

01	FEB 2020	MW	NS	DCO SUBMISSION	SZC Co
REVISION	DATE	DRAWN/CHECKED	REASONS FOR REVISION / COMMENTS	APPROVED	

NOT PROTECTIVELY MARKED

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PROJECT:
SIZEWELL C

DOCUMENT:
APPLICATION DRAWING
- NOT FOR APPROVAL
REGULATION 5(2)(o)

DRAWING TITLE:
MAIN DEVELOPMENT SITE
MAIN SITE ACCESS ROUNDABOUT
PROPOSED VERTICAL PROFILES
SHEET 5 OF 22

DRAWING NO:
SZC-SZ0204-XX-000-DRW-100001

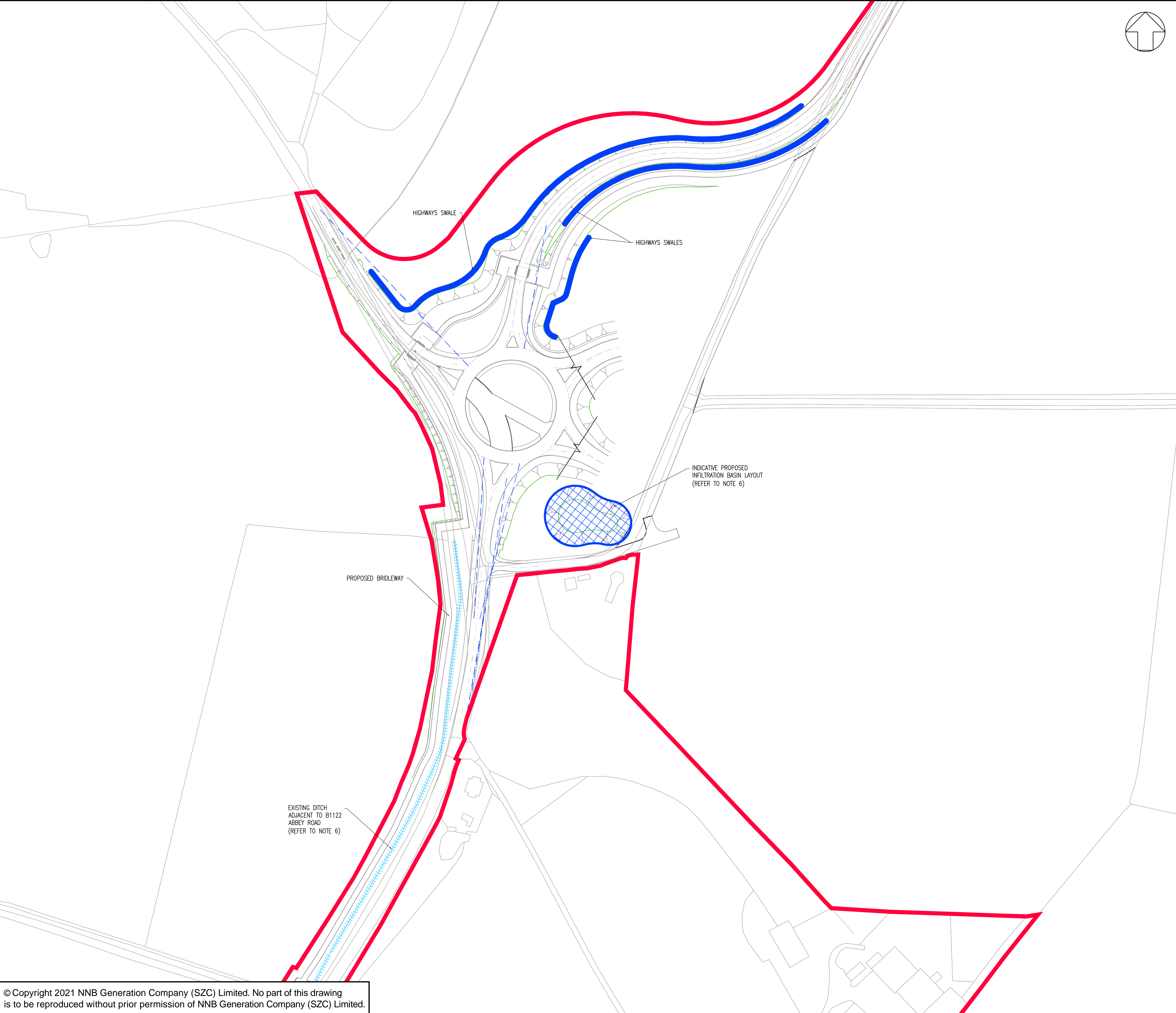
REVISION:
01

DATE:
FEB 2020

DRAWN:
LMM

SCALE:
1:500 @ A1





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- NOTES:**
1. THIS DRAWING IS FOR PLANNING PURPOSES ONLY AND SHALL NOT BE USED FOR CONSTRUCTION OR ANY OTHER PURPOSE.
 2. THE SCHEME DESIGN IS BASED ON ORDNANCE SURVEY MAPPING DATA. THE EXISTING GROUND TERRAIN AND PROPOSED SURFACES ARE BASED ON THE UK GOVERNMENT'S OPEN SOURCE LIDAR DIGITAL TERRAIN MAPPING DATA. ALL POSITIONS AND LEVELS ARE TO BE REVIEWED FOLLOWING COMPLETION OF A DETAILED SITE TOPOGRAPHICAL SURVEY.
 3. HIGHWAY DRAINAGE AT ROUNDABOUT – KERBED SECTIONS TO BE DRAINED BY GULLIES OR COMBINED KERB AND DRAINAGE SYSTEM DISCHARGING TO INFILTRATION POND.
 4. HIGHWAY DRAINAGE CLEAR OF ROUNDABOUT – UN-KERBED SECTIONS TO BE OVER THE EDGE INTO FILTER DRAINS OR SWALES DISCHARGING TO INFILTRATION BASIN, WHERE LEVELS PERMIT, WHERE LEVELS DO NOT PERMIT EXISTING DRAINAGE CONNECTIONS OR INFILTRATION TRENCHES TO BE UTILISED.
 5. FOOTPRINT FOR INFILTRATION POND IS INDICATIVE, SIZE TO BE DETERMINED FOLLOWING CONFIRMATION OF ACHIEVABLE INFILTRATION RATE.
 6. IN THE EVENT THAT INFILTRATION IS NOT ACHIEVABLE, POND WILL BE JOINT ATTENUATION/INFILTRATION BASIN. AN OUTFALL CONNECTION WILL BE MADE TO THE EXISTING HIGHWAY DITCH ALONG SIDE ABBEY ROAD B1122 TOWARDS ABBEY LANE. NO HIGHWAY RUNOFF IS TO PASS FROM ADOPTABLE HIGHWAY TO UN-ADOPTED EDF ROADS OR IN REVERSE.

KEY:

- DEVELOPMENT SITE BOUNDARY
- EXTENT OF EARTHWORKS (CUT)
- EXTENT OF EARTHWORKS (FILL)
- PROPOSED INDICATIVE ATTENUATION BASIN LOCATION AND EXTENT
- PROPOSED SWALE
- PROPOSED CULVERT
- EXISTING DITCH

02	JAN 2021	MW	NS	PROPOSED CHANGES TO THE DCO APPLICATION – JANUARY 2021	SZC Co
01	FEB 2020	GW	NS	DCO SUBMISSION	SZC Co
REVISION	DATE	DRAWN/CHECKED		REASONS FOR REVISION/COMMENTS	APPROVED

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PROJECT:

SIZEWELL C

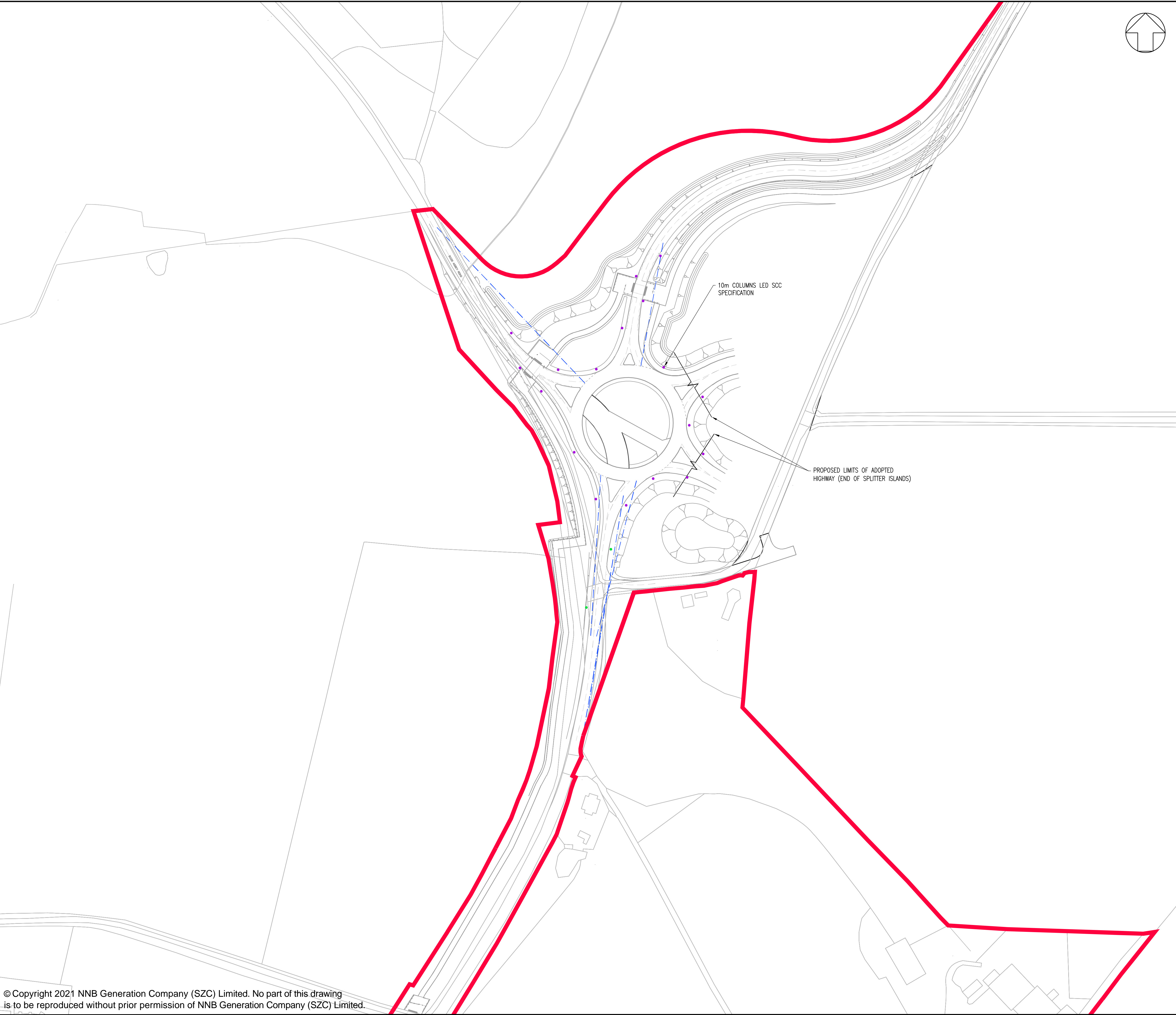
DOCUMENT:

APPLICATION DRAWING - NOT FOR APPROVAL
REGULATION 5(2)(o)

DRAWING TITLE:

MAIN DEVELOPMENT SITE
MAIN SITE ACCESS ROUNDABOUT
DRAINAGE PLAN
SHEET 2 OF 22

DRAWING NO: SZC-SZ0204-XX-000-DRW-100488			REVISION: 02
DATE: JAN 2021	DRAWN: G.W.	SCALE: 1:1,000 @ A1	
SCALE BAR: <div>0 1:1000 50 metres</div>			



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 3. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
 4. ALL LEVELS IN METRES UNLESS STATED OTHERWISE.
 5. ALL EARTHWORKS BATTER SLOPES ARE SHOWN AT A GRADIENT OF 1 IN 3
 6. THE PROPOSED CARRIAGEWAY WIDTH IS 7.3M WIDE WITH 1.0M HARDSTRIPS ON
 7. ALL PROPOSED ROADWORKS ARE TO BE IN ACCORDANCE WITH THE DESIGN MANUAL FOR ROADS AND BRIDGES (DMRB OR AS AGREED WITH LOCAL AUTHORITY).
 8. WHERE PROPOSED ROAD MARKINGS ARE SHOWN THE EXISTING ROAD MARKINGS ARE TO BE REMOVED AS APPROPRIATE.

- KEY:**
- DEVELOPMENT SITE BOUNDARY
 - INDICATIVE 10m LIGHTING COLUMNS 0.4 UNIFORMITY
 - LIGHTING AT ROUNDABOUT AND NMU CROSSINGS TO 15 LUX AVERAGE
 - — APPROACH ROAD LIGHTING TO 10 LUX AVERAGE

02	JAN 2021	MW	NS	PROPOSED CHANGES TO THE DDO APPLICATION – JANUARY 2021	SZC Co
01	FEB 2020	GW	NS	DDO SUBMISSION	SZC Co
REVISION	DATE	DRAWN	CHECKED	REASONS FOR REVISION / COMMENTS	APPROVED

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PROJECT:
SIZEWELL C

DOCUMENT:
APPLICATION DRAWING - NOT FOR APPROVAL
REGULATION 5(2)(o)

DRAWING TITLE:
MAIN DEVELOPMENT SITE
MAIN SITE ACCESS ROUNDABOUT
PROPOSED LIGHTING PLAN
SHEET 3 OF 22

DRAWING NO: SZC-SZ0204-XX-000-DRW-100489			REVISION: 02
DATE: JAN 2021	DRAWN: G.W.	SCALE: 1:1,000 @ A1	
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