



**CAMBRIDGESHIRE
& PETERBOROUGH**
COMBINED AUTHORITY

Infrastructure Support to the North Cambridgeshire Training Centre Business Case

30th June 2022



Version History

Revision Number	Revision Date	Nature of Revision	Checked by	Reviewed by	Approved by
1.0	30/05/2022	Draft	LS	SC	MS
2.0	30/06/2022	Final	LS	SC	MS

Advanced Manufacturing Innovation Launchpad Highway Mitigation – A141 /
Huntingdon Road Roundabout - *To be read alongside the original Metalcraft
Amil Growth Prospectus Application Form*

Overview

This business case seeks a grant of £347k to complete highways infrastructure improvements required by planning conditions necessary to unlock the Advanced Manufacturing Innovation Launchpad (AMIL) in Chatteris, specifically active travel and road safety works at the A141/Huntingdon Road roundabout.

The AMIL project received £3,160,000 Combined Authority Growth Funding (based on forecast Phase 1 cost of £4,060,000).

The AMIL is now constructed and complete but must fulfil a pre-occupation planning condition to provide capacity improvements at the A141/Huntingdon Road Roundabout. These works have been enforced and are essential in planning terms to mitigate the development transport impacts in this location, which would otherwise be severe. The works were identified through the planning application's Transport Assessment, and the solution designed through dialogue with the County Council Transport Assessment and Highways Development Management Teams.

The case for the AMIL investment has essentially been made, this bid seeks the funding required to deliver the previously unforeseen costs of meeting the planning obligations.

Project Background

The creation of an Innovation Launchpad will act as a nucleation point for innovation cluster development and business growth. The AMIL will focus on product development to support key growth sectors by bringing together an established manufacturing firm with training, R&D, incubation facilities, and supply cluster.

The £347k funding to enable the delivery of the roundabout works would enable completion of Phase 1, unlocking the AMIL and its associated benefits, summarised below.

Current AMIL Phase

Phase 1

Provision of a new vocational training centre to meet the needs of local and wider area businesses to address the lack of training facilities for apprentices. The facility can be used for upskilling of existing personnel and retraining across multiple skill sectors and will include conference and meeting space. Complementary to iMET at Alconbury, the facility would also incorporate space for initial R&D capability from organisations such as TWI, MTC, IfM and will provide a local support hub for Advanced Manufacturing businesses, particularly those based around the Fens.

Phase 1 will also facilitate initial infrastructure to open up the site for vehicular, cycle and pedestrian access to serve the training centre, provide access to a new development parcel for agritech business and secure the development potential for later Phases 2 and 3 which will fully unlock the potential of the wider site (totalling 11 ha).

During this initial phase, Metalcraft will be tendering for a long term (10 year) high value (circa £100 million) contract with Sellafield Ltd to manufacture cylindrical nuclear waste containers

for intermediate level nuclear waste. Based on the current timing, we would anticipate that award of a part of this contract would enable Metalcraft to expand our current footprint onto the AMIL.

The training facility will serve a wider local need for such facilities as well as being utilised in due course by the advanced manufacturing companies and their associated supply chain through the Phase 2 and 3 expansion. There are therefore significant opportunities for shared use of the training facility and through early discussions it is anticipated that a relevant clause within the funding agreement will be applied to ensure the building is used for training/innovation etc for at least 10 years, if not the grant.

Future AMIL Phases

Phase 2

Completion of infrastructure to allow inward investment by new advanced manufacturing organisations to locate on to the site as well as incubator space for start-up businesses.

Potential is identified for hotel and ancillary uses to address the recognised shortfall of accommodation in the immediate surrounding area. A total site capacity of 31,200 sqm has been calculated.

Phase 3

Provision of new serviced plots and units specifically designed for manufacturing research organisations such as NAMRC, TWI, MTC, IfM etc. These organisations which, elsewhere, are typically more academically led, would be led by industry on the Chatteris site to ensure that all occupants and organisations in the surrounding area are able to influence and receive the appropriate support.

AMIL would also provide access to subject matter experts in people & process skills for leadership, lean manufacturing and other soft skills development.

Metalcraft already has agreements in place with both land-owners for Phases 2 and 3 that they are prepared to make an agreement to secure the land for the whole site. Metalcraft are currently considering the approach to potential collaborations for the delivery of Phases 2 and 3 with a development partner. It is anticipated that this would be brought forward within the next two to three years, with development to then be built out over the following five years depending on market take up at the time.

The Phase 2 & 3 elements of the project unlock the bulk of the benefit in terms of:

- 638 permanent jobs on the site by 2030
- Up to 130 high quality apprenticeships per year
- Creation of 31,200m² of Advanced Manufacturing capability
- R&D & skills development links with Peterborough University
- Projected total of £844m GVA added to local economy by 2040

Project Scope

The scope of this bid relates to the delivery of the highway roundabout improvements only. This would essentially complete Phase 1 and unlock those benefits captured in the original Growth Fund application.

The roundabout improvement works were identified through the technical work associated with the planning application to the Local Planning Authority. Significant work has been undertaken with the Local Highway Authority to ensure that the works effectively mitigate the development.

The planning application for the development proposes a site access formed via a fourth arm from the A141 / Huntingdon Road roundabout in Chatteris. This fourth arm had been partially completed at the time the roundabout was itself implemented, but was left as a rarely used gated access to the site. At the time of the application the partially formed access was effectively blocked and appeared not to have been used for a considerable number of years.

A Transport Assessment was submitted as part of the planning application, and this was reviewed by the Transport Assessment Team. This included junction modelling to assess the implications of re-opening this access and adding additional development traffic. The modelling showed that whilst there was an impact at the junction, this would not be sufficiently 'severe' to warrant an objection from the Transport Assessment Team.

Cambridgeshire County Council's Highway Development Management Team also reviewed the proposal and identified two main issues:

- The opening of the fourth arm, which would increase traffic flows onto an area of the circulatory, where the lack of deflection means that vehicles are travelling at higher than desirable speeds.
- The introduction of an NMU crossing (which is required to make the site accessible) across the A141 north on the roundabout where again vehicle speeds will be higher than desirable and thus, leading to concerns in respect of the safety of crossing users.

The applicant sought to address these issues. However, a key issue is that to improve deflection and reduce speeds, the southern entry to the roundabout would require a reduction in entry width taking it from a '2 lane' width down to a '1 lane' width. Further modelling showed that this reduction in width would be significantly detrimental to the capacity on the A141.

However, a detailed analysis of the southern (A141) entry arm (by observing real traffic movements) showed that the two-lane approach was rarely used as such. Therefore, on this basis, it was agreed that the lane widths could be reduced. The Transport Assessment and Development Management Teams worked with the applicants to find a solution which would address the two main safety issues raised.

To ensure that the solution was one which could be implemented on site, the final proposed layout was reviewed informally by the County Council's Road Safety Audit Team. They stated that they were satisfied that the concept design for the roundabout junction could be

approved for the purposes of planning, subject to the submission of a stage 1/2 Audit prior to commencement on site.

On the above basis both the Transport Assessment and Development Management Teams have now concluded that they would not object to the development subject to the agreed mitigation measures being implemented prior to the occupation of the development.

Delivery

The works will be delivered by the developer, Metalcraft, through a Section 278 Agreement, based on a scheme that has been checked by the County Council and conditioned by the Local Planning Authority. This is a Metalcraft project for which they own the cost risks.

The S278 submission is at a point where it is generally acceptable to the Highway Authority and ready to proceed.

Summary of Strategic Case for AMIL

The AMIL facility will support skills, Covid economic recovery, and future business growth in our key growth sectors. The project is well advanced but requires additional funding to complete the additional planning mitigation package of essential infrastructure roundabout improvements.

Stainless Metalcraft (Chatteris) Ltd (Metalcraft) are seeking to develop the AMIL in Chatteris, as referenced within the Local Industrial Strategy for Cambridgeshire & Peterborough. The creation of an Innovation Launchpad will act as a nucleation point for innovation cluster development and business growth. The AMIL will focus on product development to support key growth sectors by bringing together an established manufacturing firm with training, R&D, incubation facilities, and supply cluster.

The CPCA have set an ambitious, achievable, goal of doubling GVA by 2042 whilst leading the transition to a zero-carbon economy. Making sure that our places and communities do more than just recover is therefore a national as well as local imperative.

Pre-Covid-19 growth was led by the four priority sectors identified in our Local Industrial Strategy (LIS): Life Sciences, Digital and AI, **Advanced Manufacturing** and Materials, and Agri-Tech. These sectors are central to the UK's strategy of building back a better, greener economy post Covid-19, and all forecast strong future global growth.

The Cambridgeshire and Peterborough Local Economic Recovery Strategy (March 2021) sets out the importance of advanced manufacturing, and the launchpad investment in both aiding economic recovery, and facilitating future growth.

Project Costs

A firm fixed price quotation has been received from an approved highways subcontractor (PGR Construction) who would be employed under the same contractor (Warwick Burt Construction) that has just completed the AMIL project.

The PGR Construction costs and Warwick Burt costs are as agreed and shown within the attached “S278 Highways Costs” summary. These costs and together with the associated costs for Cambridge County Council, the legal agreements, the additional design fees and an allowance for a highways bond during the works total £554,512.

This additional cost can however be reduced by the remaining original Grant Funding of £167,934 and the support of the contingency via Metalcraft’s parent company Avingtrans of £39,473 (note should this contingency not be required the equivalent investment will be made to support the NCTC). This with therefore become a nett additional cost requiring further funding of £347,105.

As the above costs are all firm and fixed price then no further allowances are required.

Attached summary of costs and the S278 Agreement and Plans.

Project Benefits

The original outputs/outcomes approved by the Business Board and Combined Authority Board are under threat of being delayed and potentially not being achieved if the centre cannot open due to the access infrastructure not being in place.

However when assessing and compiling the case for additional funding to unlock the access infrastructure the project applicant and their Further Education partner who will be running the centre have reported that demand is high for a broadened training offer to be provided at the centre, and as part of this case for funding support they have agreed to expand range of training courses above the original plan, also have committed to an increase at least 10% apprenticeship and learner outputs per year and commitment to include higher level apprenticeships being delivered to level 4 and 5, the list of broadened offer is as follows:

- General Welder Level 2
- LEAN Manufacturing Level 2
- Engineering Fitter Level 3
- Engineering Technician Level 3
- Maintenance and Operations Engineering Technician Level 3
- Engineering Manufacturing Technician Level 4
- Team Leader / Supervisor Level 3
- Operational and Departmental Manager Level 5
- Associate Project Manager Level 4
- HR Level 3/5
- Business Administrator Level 3
- Accounts assistant Level 2
- Customer Service Level 2/3
- Commercial Procurement and Supply Level 4

Also, as part of an offer to local residents and community they have also committed to provide adult learning courses to support over 500 individuals to enhance their English and Maths skills from the centre on top of the apprenticeship provision, below is the offer on extra adult learning proposed to be delivered from the centre:

Level 2 Provision - [Adult Learning Online Courses \(wsc.ac.uk\)](https://www.wsc.ac.uk)

Level 3 Provision - [Lifetime Skills](#)

[English and Maths](#)

[ESOL](#)

The Project lead and their Education Provider have also agreed to expand their commercial training offer as well to service demand that has become apparent from Fenland based companies and residents – these include the following:

- ILM Leadership and Management – Level's 2 through to 7
- IEE 18th Edition Wiring Regs / 2391 Inspection & Testing / 2377 PAT Testing
- First Aid / Mental Health First Aider
- IT Training - Excel, PowerPoint, Outlook etc.
- Sustainability and Sustainability Management
- Bespoke Engineering Training Units
- Coaching and Mentoring
- Non-accredited and bespoke skills training available, co-designed with industry

Please refer below from the original Metalcraft Local Growth Fund application form, which sets out the AMIL benefits:

PROJECT OUTPUTS 2022/23					
Project Outputs - please indicate how the project will deliver against the outputs below – complete only those that apply to your project.					
Transport					
Length of road to be resurfaced (meter)	Length of road to be newly built (meter)	Length of cycleway to be built (meter)			
	0.1	0.1			
PROJECT OUTPUTS 2022/23					
Project Outputs - please indicate how the project will deliver against the outputs below – complete only those that apply to your project.					
Employment					
Number of permanent jobs to be created	Number of temp jobs to be created	Number of indirect jobs to be created	Number of apprenticeships to be established – Level 1	Number of apprenticeships to be established – Level 2	Number of apprenticeships to be established – Level 3

14	23	30	20	30	30
Skills					
Area of learning/training space improved (m2)	Prior Estate Grade (A-D)	Post Completion Estate Grade (A-D)	Floor space rationalise (m2)	New learners assisted (on courses to full qualification)	Specialist equipment (item)
2400					
Commercial					
Commercial floorspace to be created (m2)	Commercial floorspace to be refurbished (m2)	Commercial floorspace to be occupied (m2)	Commercial businesses with broadband access		
2000		2000			
Flood Risk Prevention					
Land with reduced likelihood of flooding (m2)	Homes with reduced flood risks (unit)	Commercial property with reduced flood risk (units)			
Business & Enterprise					
Number of enterprises receiving grant support	Number of businesses receiving other grant support	Number of businesses receiving non financial support			
PROJECT OUTPUTS 2023/24					
Project Outputs - please indicate how the project will deliver against the outputs below – complete only those that apply to your project.					
Employment					
Number of permanent jobs to be created	Number of temp jobs to be created	Number of indirect jobs to be created	Number of apprenticeships to be established – Level 1	Number of apprenticeships to be established – Level 2	Number of apprenticeships to be established – Level 3
0	0	50	20	30	30
PROJECT OUTPUTS 2024/25					

Project Outputs - please indicate how the project will deliver against the outputs below – complete only those that apply to your project.

Employment

Number of permanent jobs to be created	Number of temp jobs to be created	Number of indirect jobs to be created	Number of apprenticeships to be established – Level 1	Number of apprenticeships to be established – Level 2	Number of apprenticeships to be established – Level 3
0	0	100	20	30	30

PROJECT OUTPUTS by 2030 Cumulative totals

Project Outputs - please indicate how the project will deliver against the outputs below – complete only those that apply to your project.

Employment

Number of permanent jobs to be created	Number of temp jobs to be created	Number of indirect jobs to be created	Number of apprenticeships to be established – Level 1	Number of apprenticeships to be established – Level 2	Number of apprenticeships to be established – Level 3
14	23	638	160	240	240

Commercial

Commercial floorspace to be created (m2)	Commercial floorspace to be refurbished (m2)	Commercial floorspace to be occupied (m2)	Commercial businesses with broadband access		
31200		31200			



STAINLESS METALCRAFT (CHATTERIS) – TRAINING FACILITY DEVELOPMENT

S278 HIGHWAYS COSTS

Current Costs **£554,512**

1	PGR Construction Costs	£394,727
2	Warwick Burt Additional Time Costs (15 weeks)	£52,500
3	Cambridge CC - S278 Agreement Costs	£14,229
4	Metalcraft Legal Costs	£8,750
5	Metalcraft Project Managers Costs (15 weeks)	£5,625
6	MEC S278 Design Fees plus Additional Design	£19,472
7	Metalcraft Allowance for Bond	£19,736
8	Contingency (10% of construction)	£39,473

Costs Remaining in First Grant Funding **£167,934**

Additional Funding Requirement Requirement **£386,578**

Less Avingtrans Contingency **£347,105**

Gary Barber BSC MRICS

Benchmark Property Limited

01/06/2022

My ref: G106.543

Your ref:

Date: 09th May 2022
Contact: Christopher Reed
Telephone:
E Mail: christopher.reed@cambridgeshire.gov.uk

Place and Economy
Executive Director, Steve Cox

Highway Development Management

PO Box ET 1029

Witchford Depot

Stirling Way

Witchford

Cambs.

CB6 3NR

Martin Lawrence
Stainless Metalcraft Ltd
15 Honeysome Road,
Chatteris,
PE16 6SA.

Dear Martin,

G106-543 - Stainless Metalcraft Limited, Chatteris – Technical Approval

Please accept this letter as confirmation that the following key drawings are now deemed acceptable to the Highway Authority:

- | | | |
|-----|---------|------------------------------|
| 1. | Dwg No. | 26034_03_010_01.1 Revision A |
| 2. | Dwg No. | 26034_03_010_01.2 Revision A |
| 3. | Dwg No. | 26034_03_010_01.3 Revision A |
| 4. | Dwg No. | 26034_03_020_01 Revision D |
| 5. | Dwg No. | 26034_03_030_09 Revision B |
| 6. | Dwg No. | 26034_03_050_02 Revision E |
| 7. | Dwg No. | 26034_03_050_03 Revision D |
| 8. | Dwg No. | 26034_03_060_04 Revision C |
| 9. | Dwg No. | 26034_03_070_05 Revision C |
| 10. | Dwg No. | 26034_03_080_06 Revision C |
| 11. | Dwg No. | 26034_03_090_07 Revision D |
| 12. | Dwg No. | 26034_03_110_010 Revision B |

- 13. Dwg No. 26034_03_110_08 Revision A
- 14. Dwg No. 26034_03_100_01 Revision B

I will require the following in order to progress the S278 agreement to sealing:

1. A complete electronic set of the approved drawings as an **Issued for Construction (IFC) status**. For clarity, these are to keep the same referencing and revisions as above.

2. **Two copies of full sized** paper set of all of the drawings (as referred to above being IFC status) sent to:

Christopher Reed
Cambridgeshire Highways
Highway Development Management,
Stirling Way,
Witchford,
Cambridgeshire,
CB6 3NR.

3. Pathfinder Legal who are acting on the behalf of the Highway Authority may also require hard copies of the plans as detailed above but this should be agreed and provided between the legal representatives.

Yours sincerely,

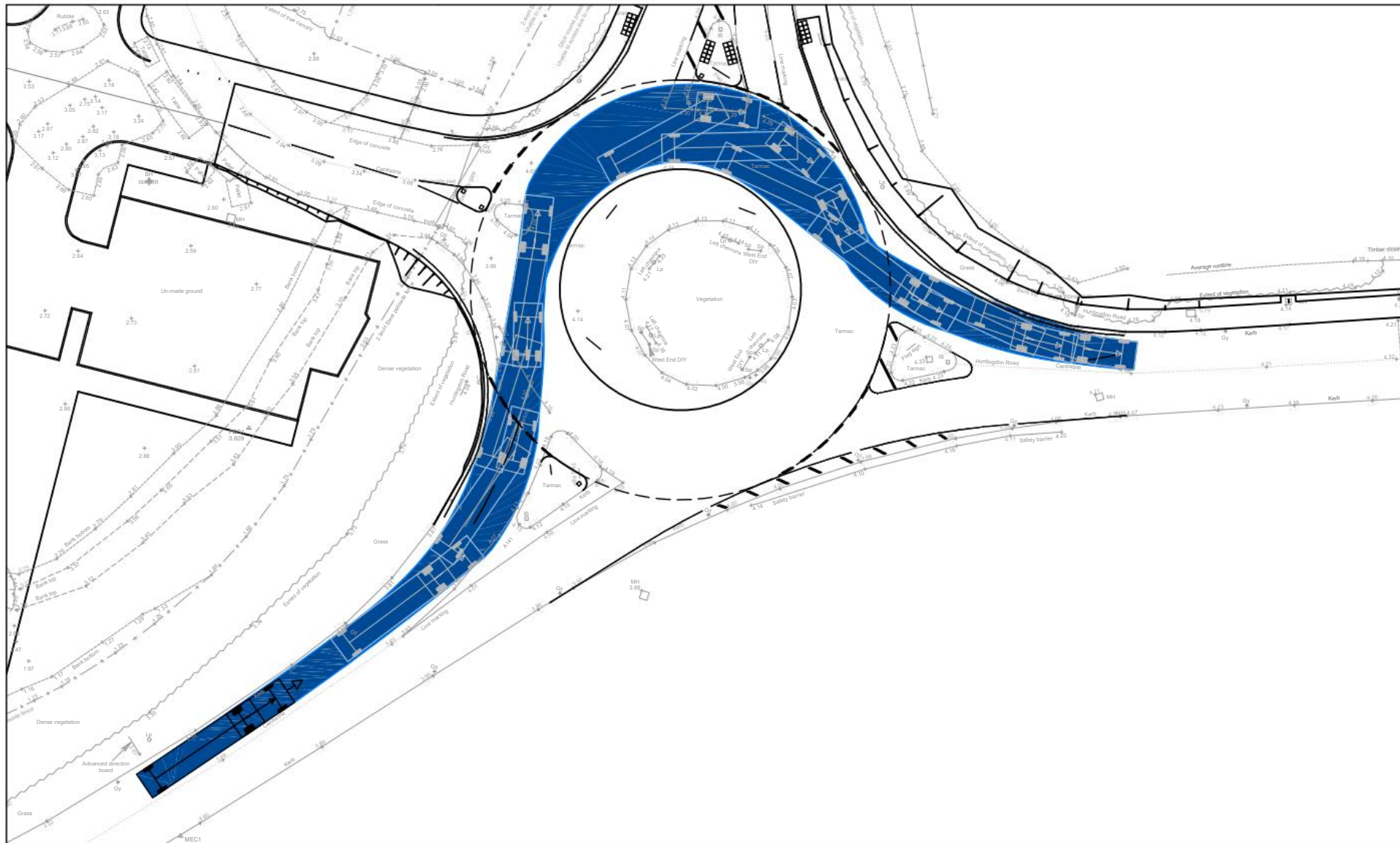
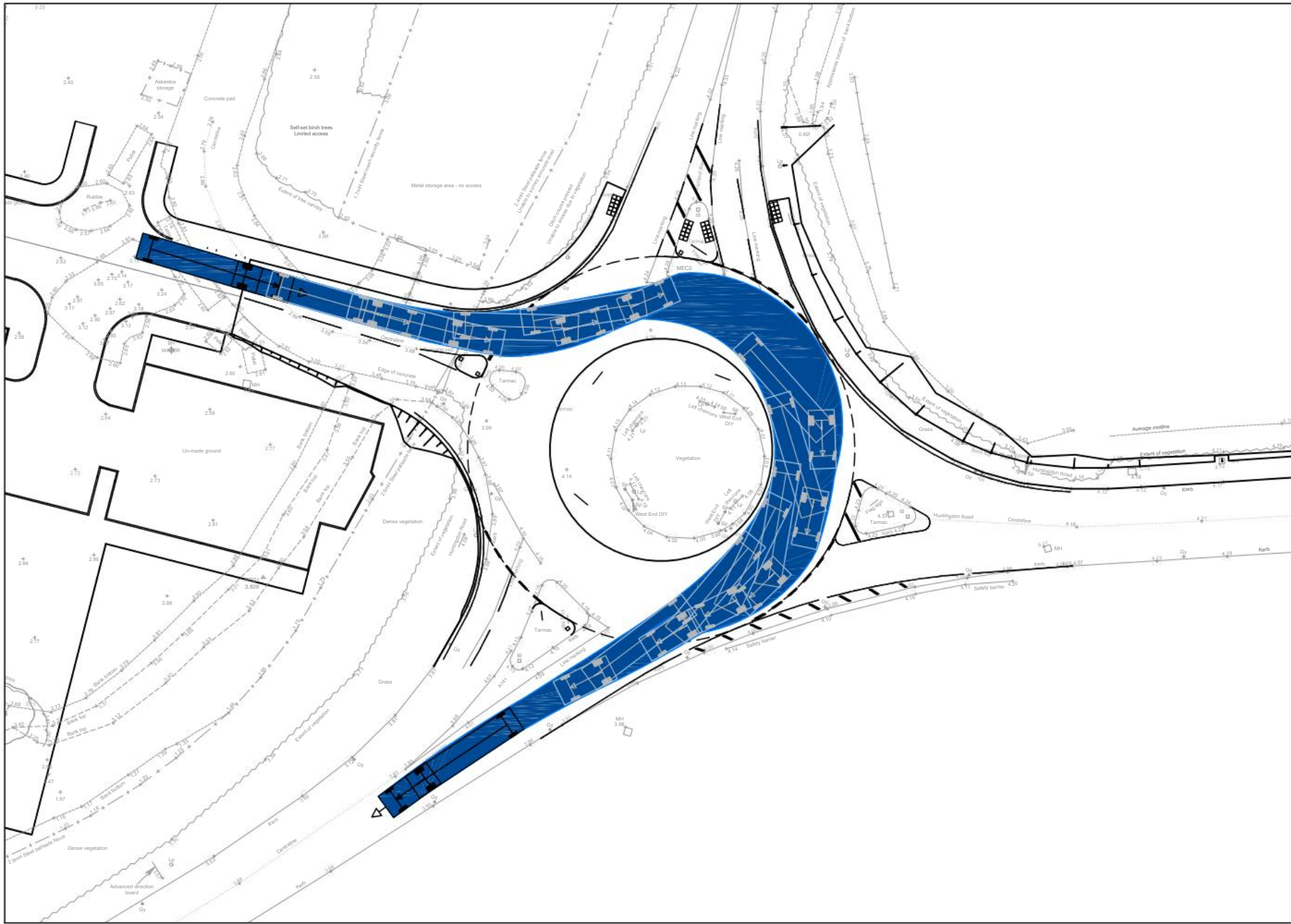
Christopher Reed

Development Management Engineer

cc:

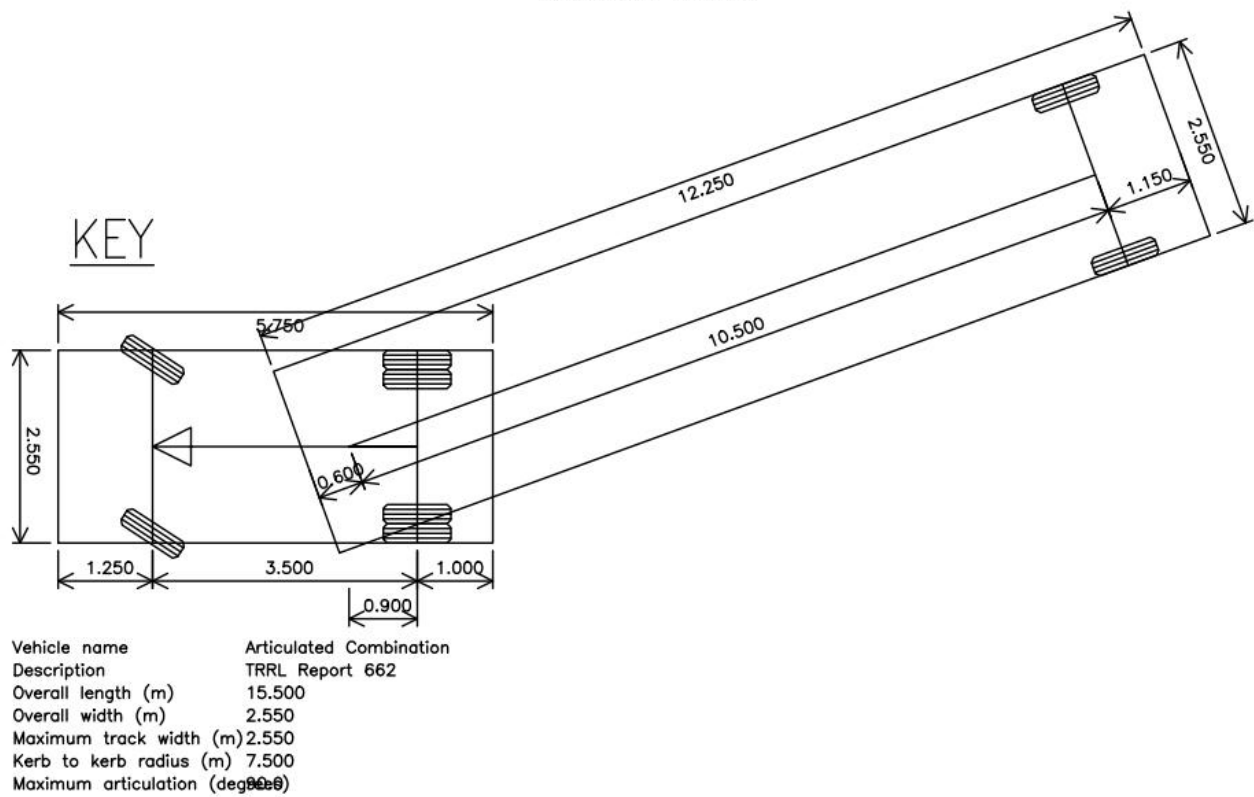
Tim Rose – Mewies Engineering Consultants Ltd

Bill Finn – Benchmark Property Ltd



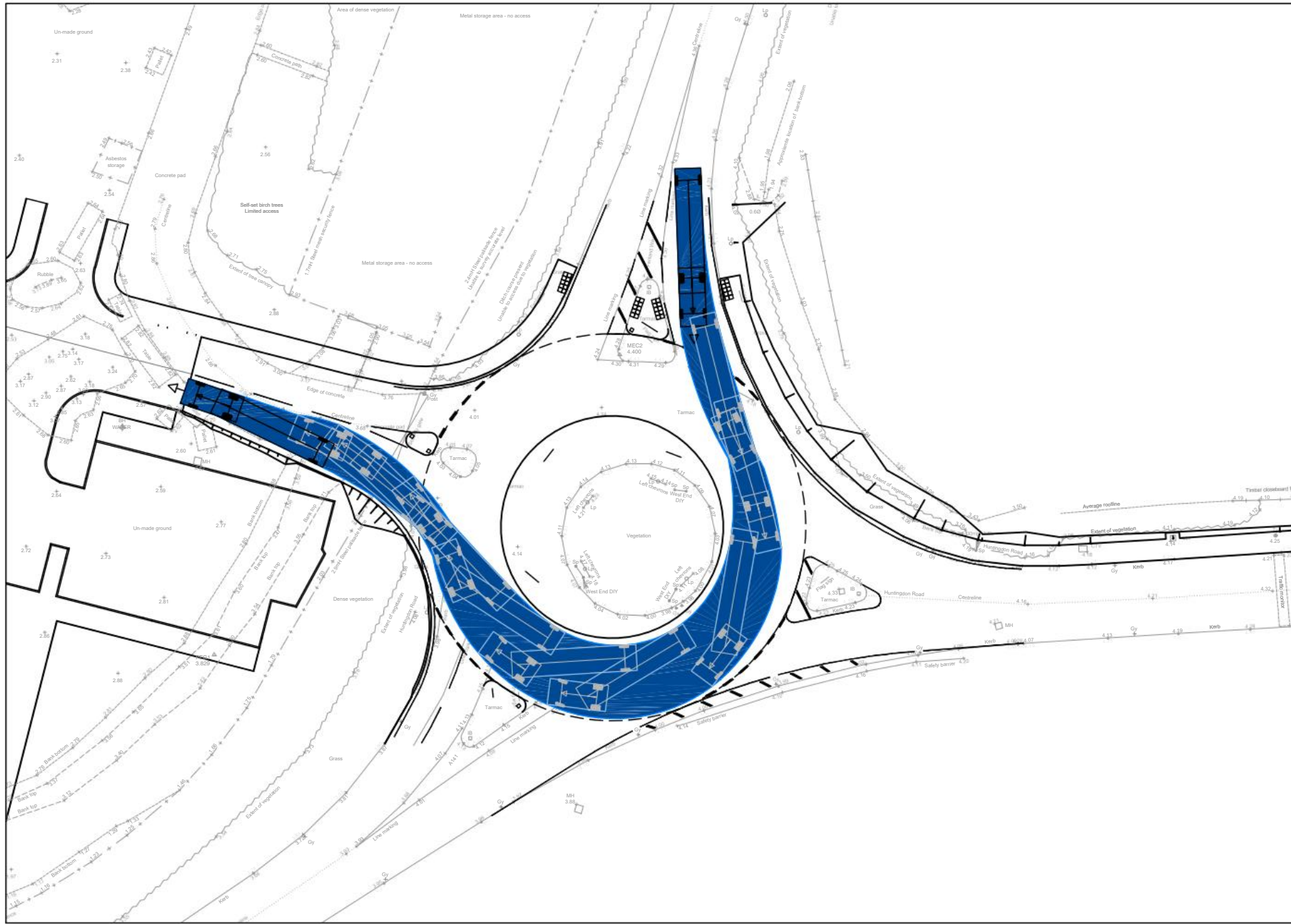
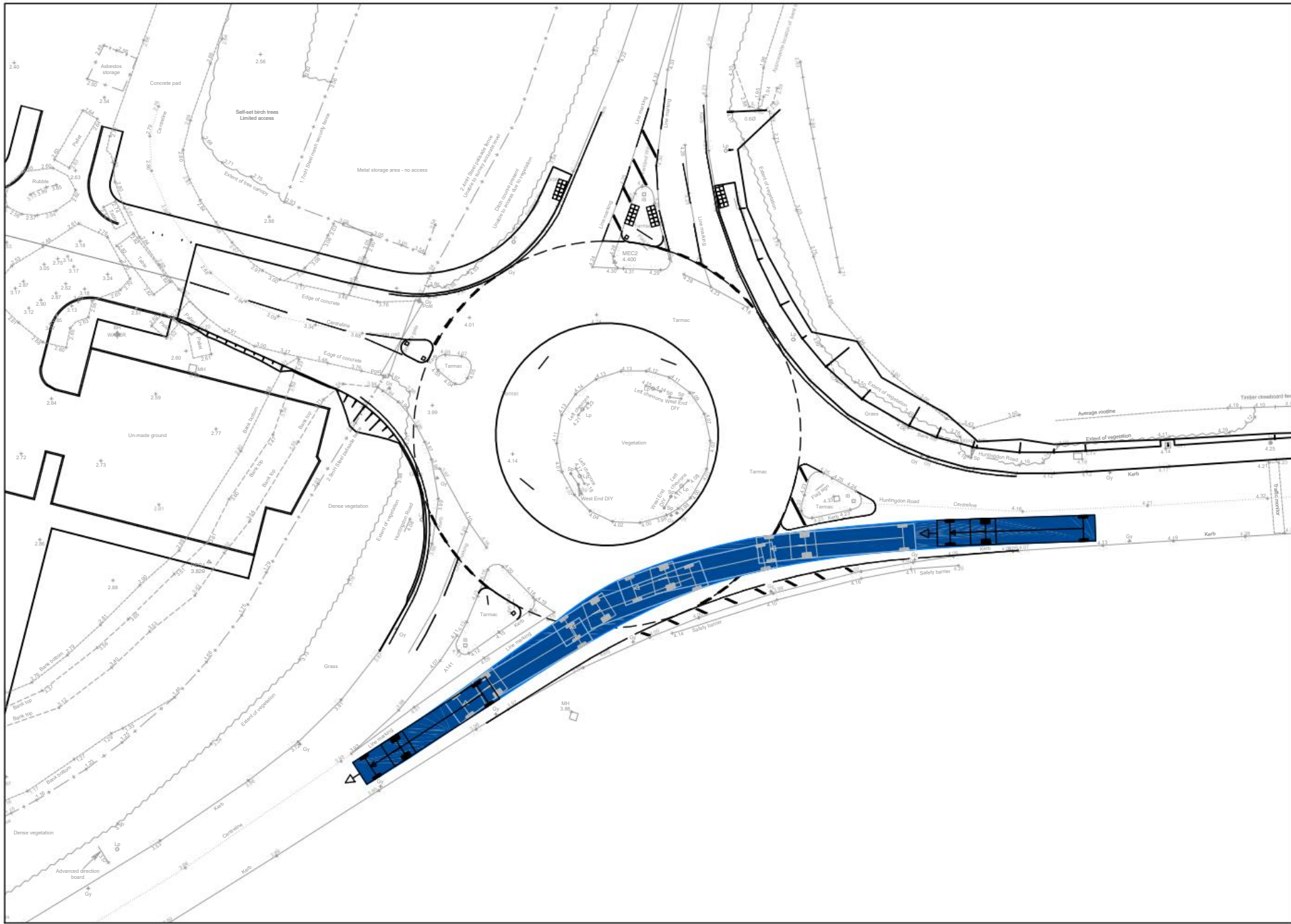
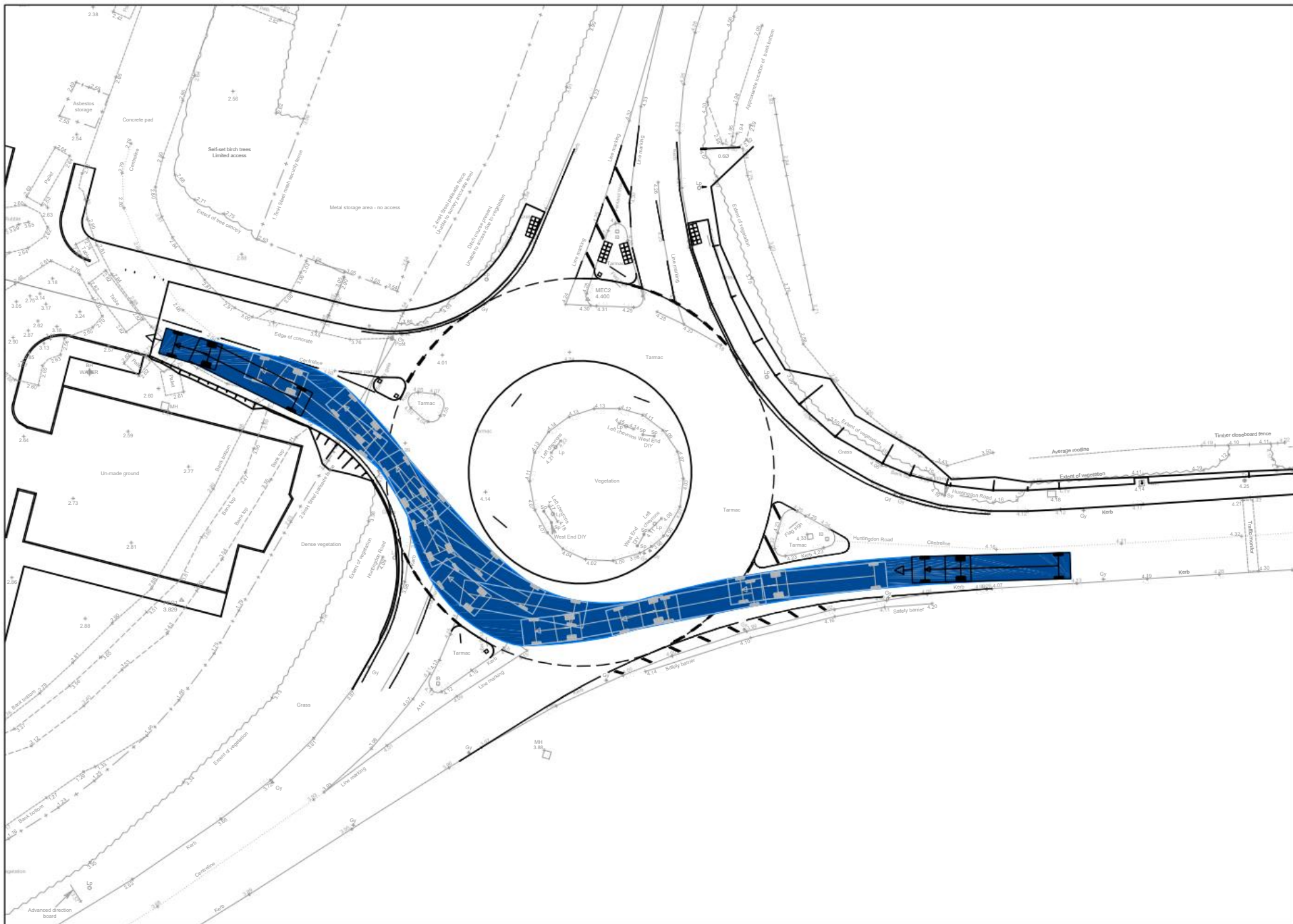
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- DO NOT SCALE THIS DRAWING.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEERS, ARCHITECTS AND SPECIALIST DESIGN DRAWINGS AND DETAILS.
- ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE. ALL LEVELS ARE IN METRES UNLESS NOTED OTHERWISE.
- ANY DISCREPANCIES NOTED ON SITE ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.
- ALL HIGHWAY WORKS TO BE CARRIED OUT IN ACCORDANCE WITH CAMBRIDGESHIRE COUNTY COUNCIL DESIGN GUIDE.
- THE CONTRACTOR SHALL CHECK ALL TIE-INS FOR LINE AND LEVEL WITH EXISTING BEFORE COMMENCING ANY WORKS. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING, SHOULD ANY ERRORS BE FOUND.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ANY SERVICE APPARATUS IN THE VICINITY OF THE WORKS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXECUTE THE WORKS AT ALL TIMES IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE HEALTH AND SAFETY AT WORK ACT 1974, AND THE C.D.M. REGULATIONS 2015.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL WORKS ARE TO THE SATISFACTION OF THE ENGINEER, AND SHALL BE DEEMED TO HAVE INCLUDED WITHIN HIS RATES FOR ANY NECESSARY TESTING.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY DE-WATERING AND TRENCH SUPPORT TO EXECUTE THE WORKS IN A SATISFACTORY MANNER, AND SHALL BE DEEMED TO HAVE ALLOWED FOR THE SAME WITHIN HIS RATES.
- ALL BURIED CONCRETE PRODUCTS AND MORTAR SHALL BE MADE USING SULPHATE RESISTING CEMENT.
- ALL EXISTING/PROPOSED SERVICE COVERS LOCATED WITHIN THE TACTILE PAVING AREA ARE TO HAVE RECESSED LIDS IN FILLED WITH TACTILE PAVING.
- ALL KERBS TO BE HB2 WITH 125MM UPSTAND (UNLESS NOTED AS PDC).
- ANY EXISTING MANHOLE/UTILITY COVERS WITHIN THE PROPOSED FOOTWAY/CYCLEWAY TO BE RAISED TO MATCH PROPOSED LEVELS



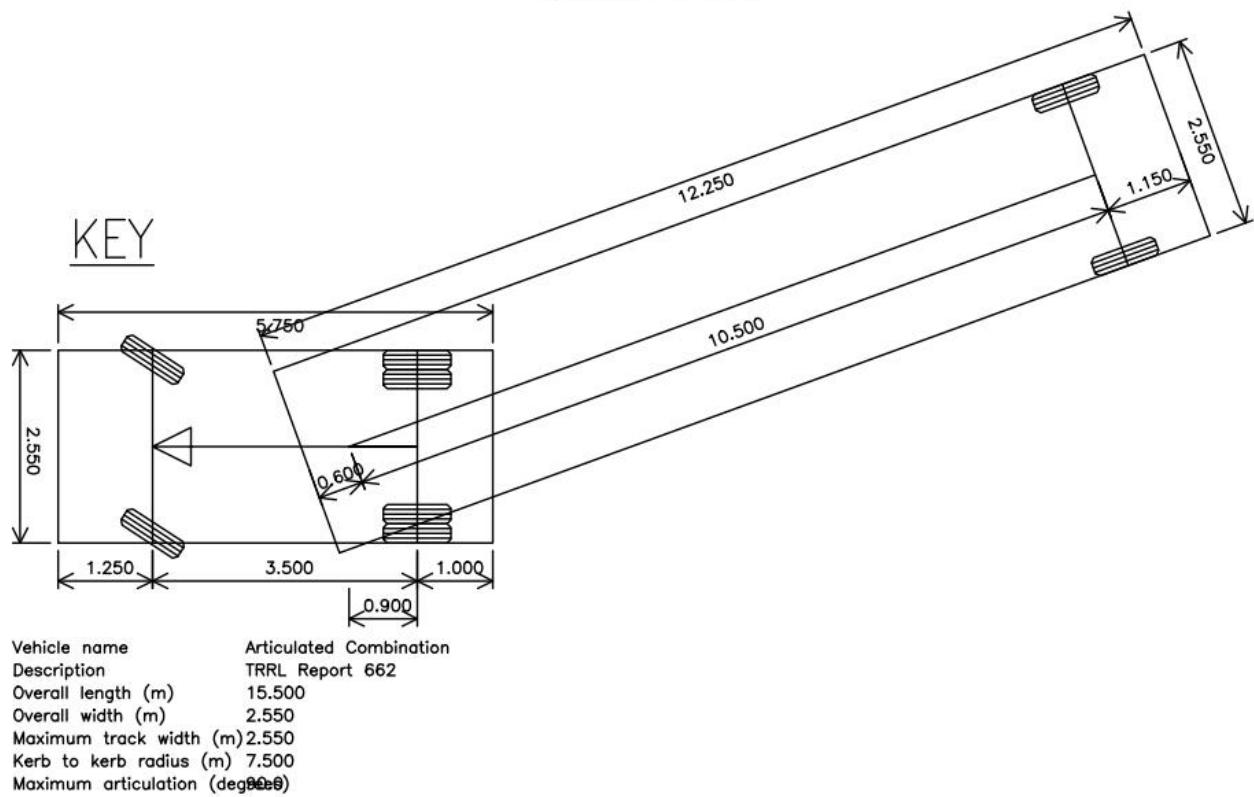
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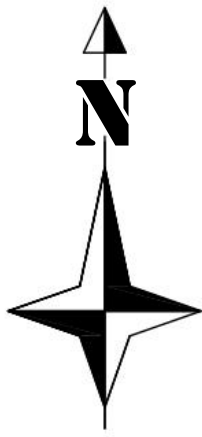
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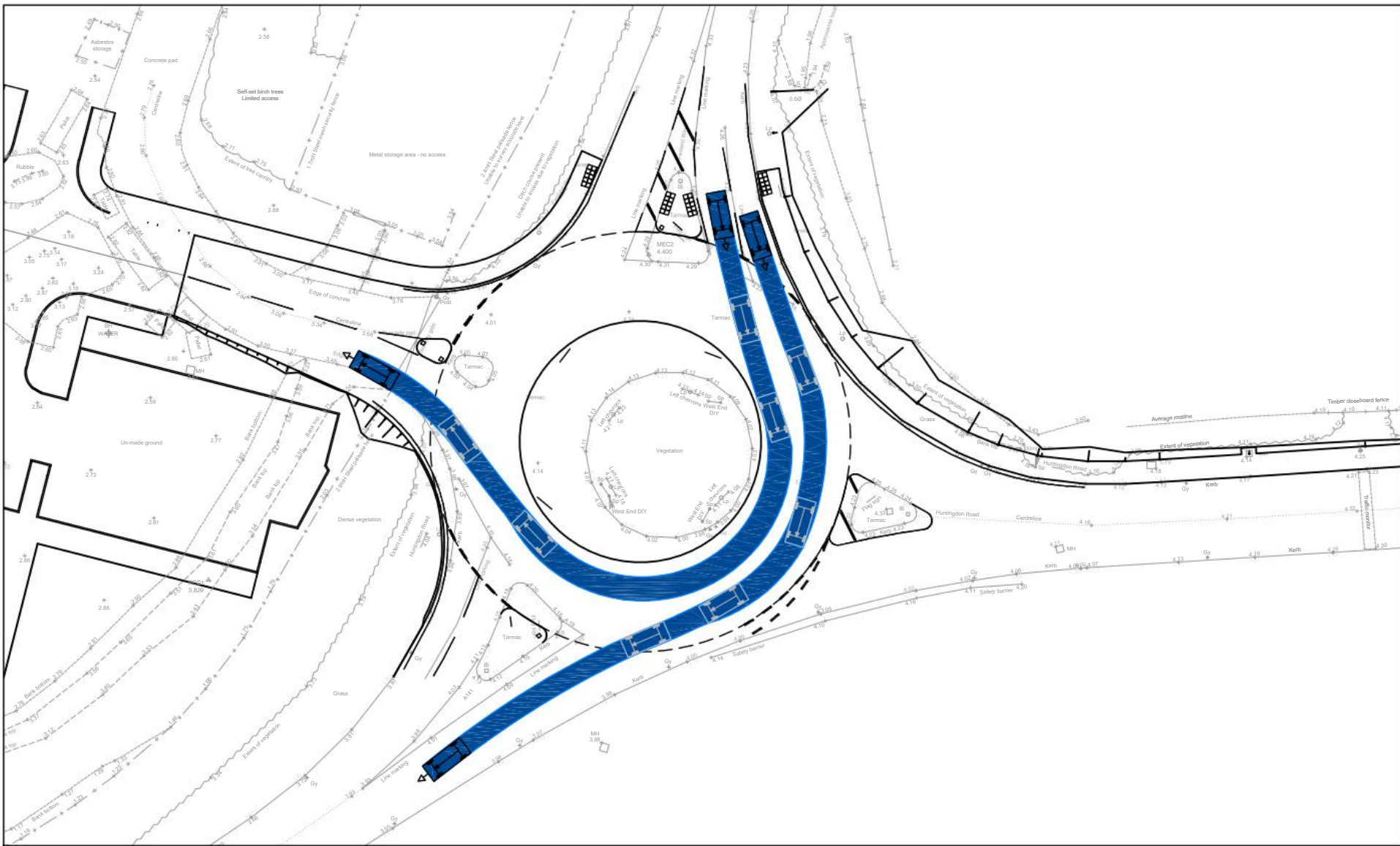
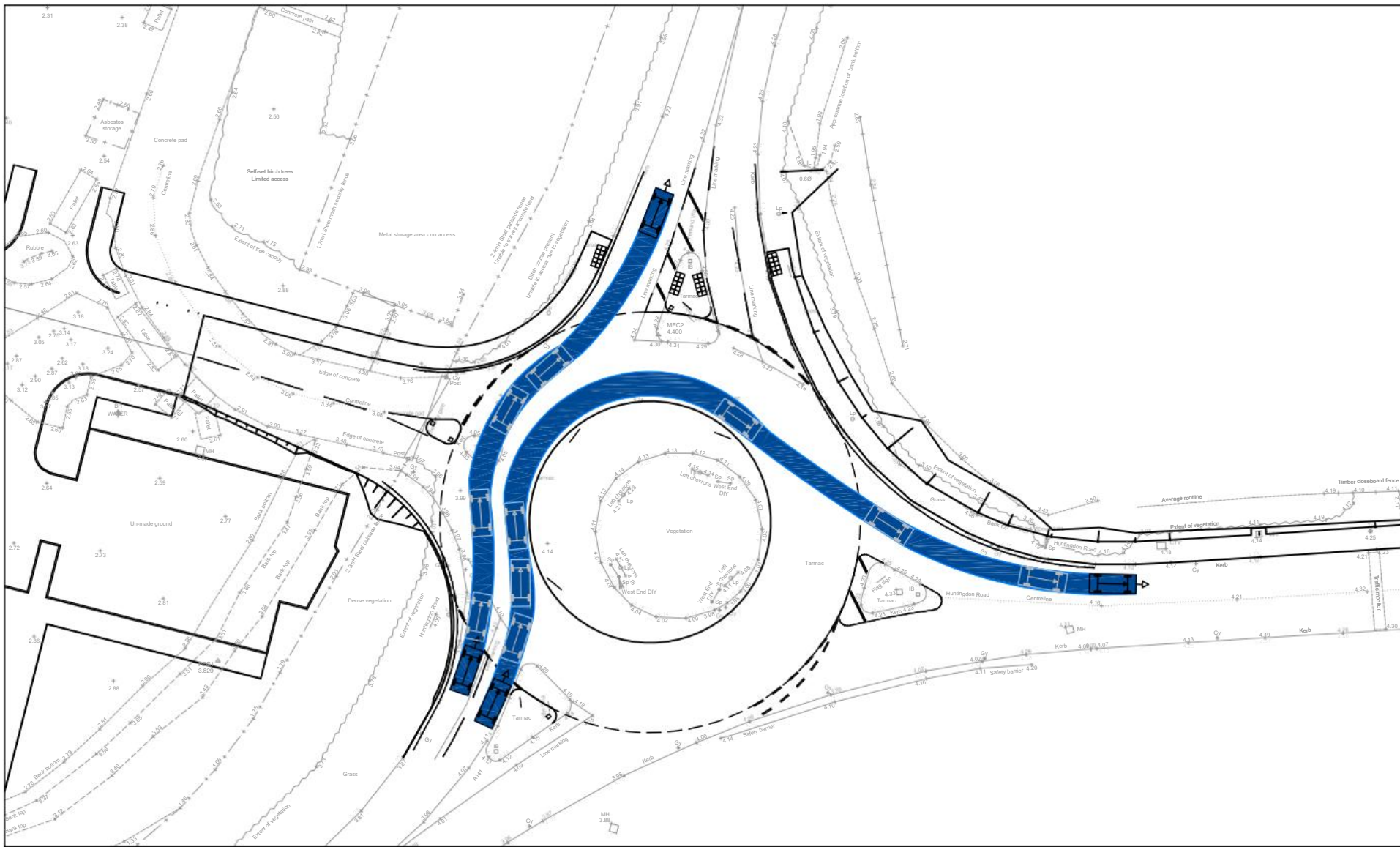
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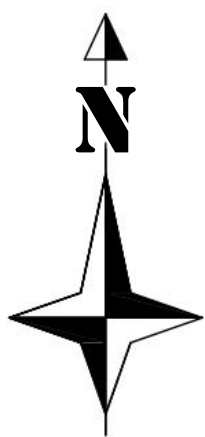
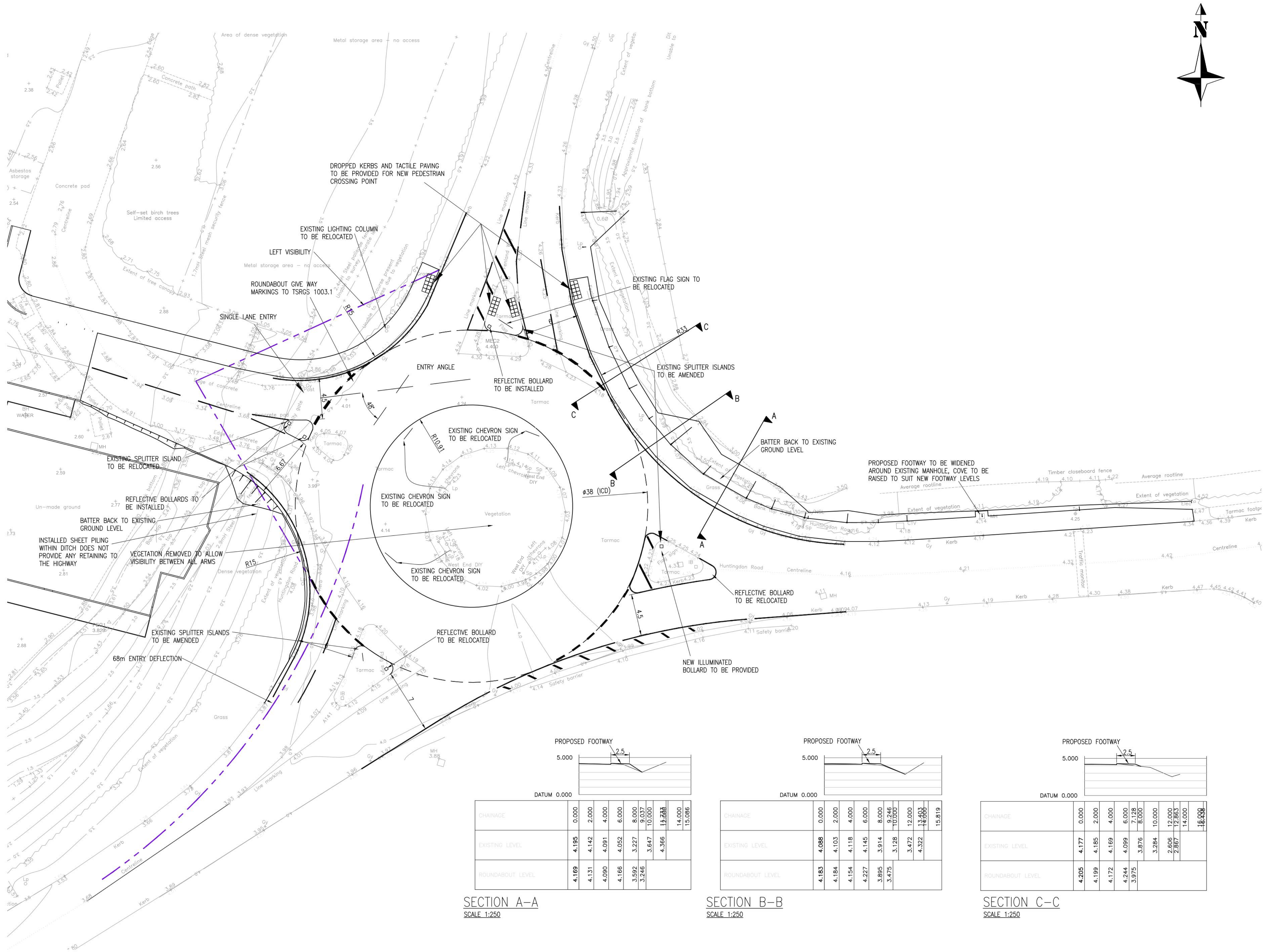
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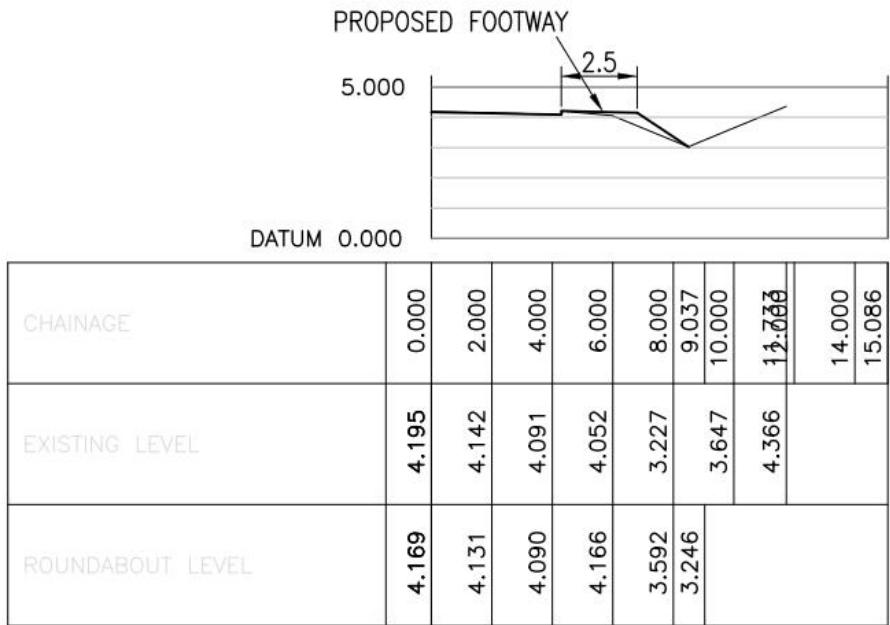
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REVISION: -		SHEET SIZE: A2		SCALE: 1:500	
STATUS: PRELIMINARY					
 Consulting Development Engineers		Telephone: 01530 264 753 Email: group@m-ec.co.uk Website: www.m-ec.co.uk ORDNANCE SURVEY © CROWN COPYRIGHT 2015. ALL RIGHTS RESERVED. LICENCE NUMBER 100055965.			

File Location: T:\M-EC\26034\26034.dwg
Printed: 17.03.2022

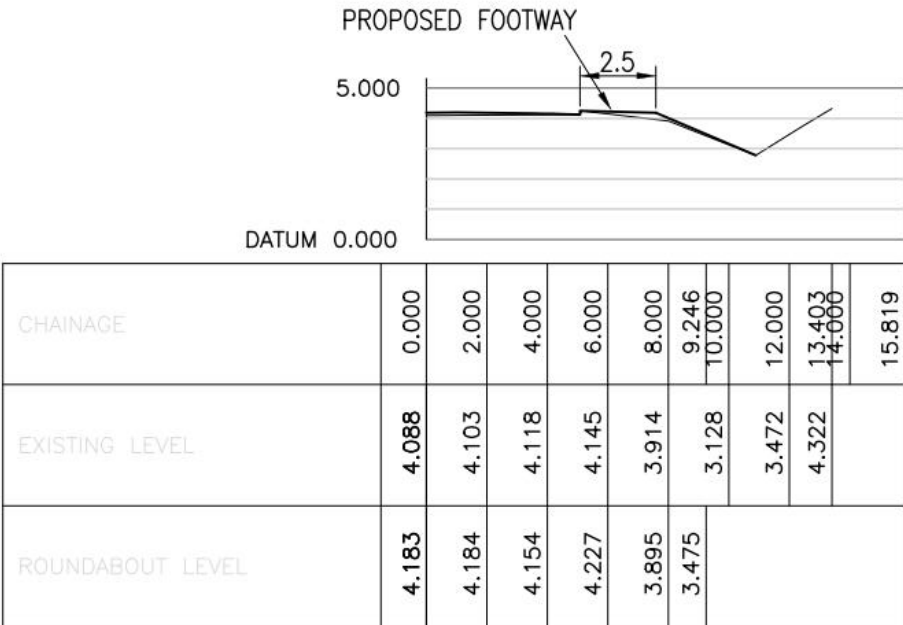


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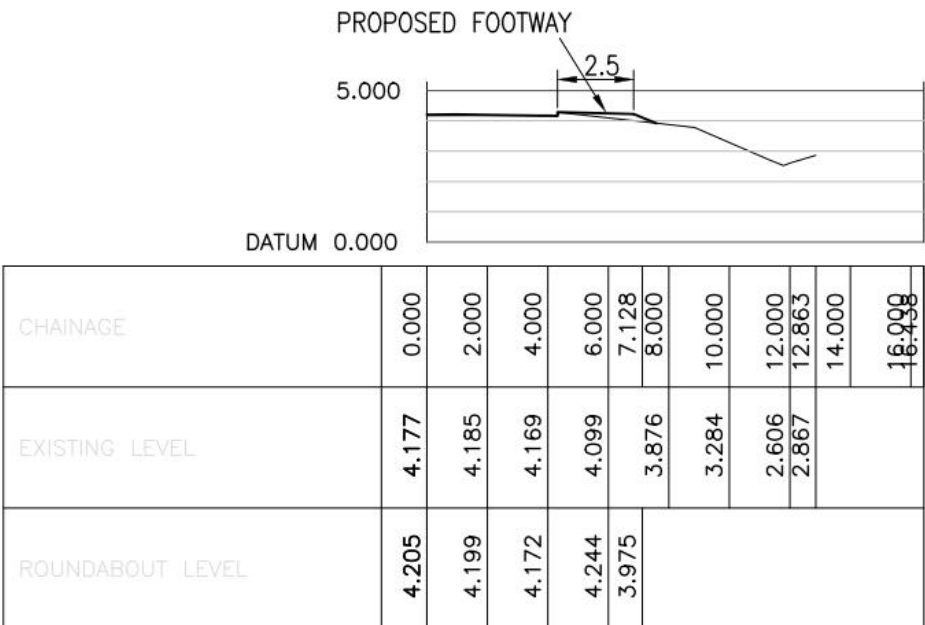
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- 12. ALL EXISTING/PROPOSED SERVICE COVERS LOCATED WITHIN THE TACTILE PAVING AREA ARE TO HAVE RECESSED LIDS IN FILLED WITH TACTILE PAVING.
- 13. ALL KERBS TO BE HB2 WITH 125MM UPSTAND (UNLESS NOTED AS PDC).
- 14. ANY EXISTING MANHOLE/UTILITY COVERS WITHIN THE PROPOSED FOOTWAY/CYCLEWAY TO BE RAISED TO MATCH PROPOSED LEVELS



SECTION A-A
SCALE 1:250



SECTION B-B
SCALE 1:250



SECTION C-C
SCALE 1:250

D	AMENDMENTS FOLLOWING CCC COMMENTS	PT	TR	TR	23.03.22
C	AMENDMENTS FOLLOWING LOCAL AUTHORITY COMMENTS	PT	TR	TR	15.03.22
B	AMENDMENTS FOLLOWING LOCAL AUTHORITY COMMENTS	PT	TR	TR	22.02.22
A	AMENDED FOLLOWING CCC COMMENTS	PT	TR	TR	11.02.22
REV:	FIRST ISSUE	PT	DMH	TR	21.01.22
	AMENDMENTS:	DRN	CHK	APP	DATE:

PROJECT: STAINLESS METALCRAFT, CHATTERIS

DRAWING TITLE: SECTION 278
GENERAL ARRANGEMENT

CLIENT: STAINLESS METALCRAFT

DRAWING NUMBER: 26034_03_020_01

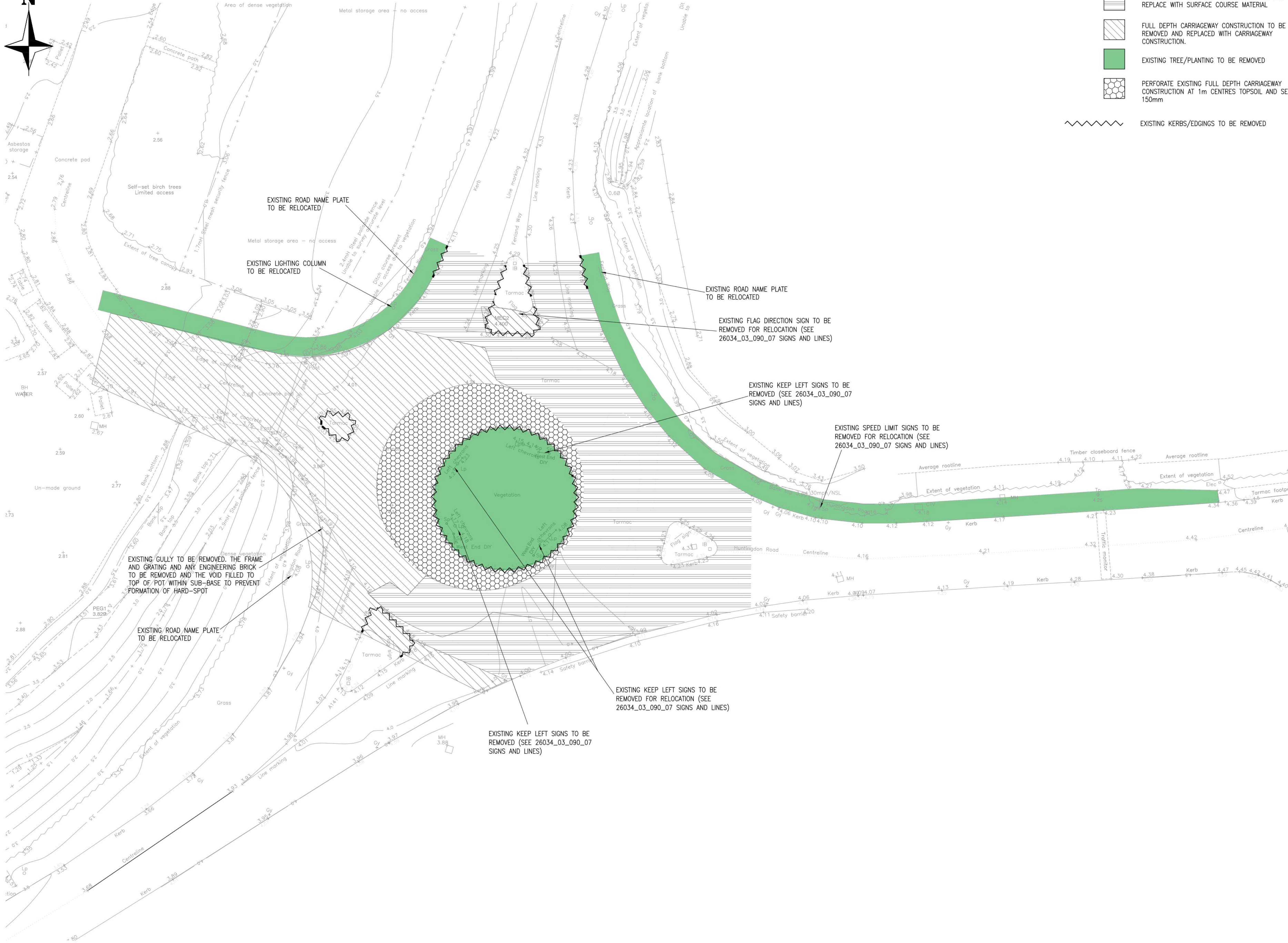
REVISION: D SHEET SIZE: A1 SCALE: 1:200

STATUS: PRELIMINARY

Consulting Development Engineers

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KEY:

- PLANE 50mm SURFACE COURSE MATERIAL AND REPLACE WITH SURFACE COURSE MATERIAL
- FULL DEPTH CARRIAGEWAY CONSTRUCTION TO BE REMOVED AND REPLACED WITH CARRIAGEWAY CONSTRUCTION.
- EXISTING TREE/PLANTING TO BE REMOVED
- PERFORATE EXISTING FULL DEPTH CARRIAGEWAY CONSTRUCTION AT 1m CENTRES TOPSOIL AND SEED 150mm
- EXISTING KERBS/EDGINGS TO BE REMOVED

NOTES:

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B	AMENDMENTS FOLLOWING CCC COMMENTS	PT	TR	TR	23.03.22
A	AMENDMENTS FOLLOWING LOCAL AUTHORITY COMMENTS	PT	TR	TR	15.03.22
-	FIRST ISSUE	PT	DMH	TR	11.02.22
REV:	AMENDMENTS:	DRN:	CHK:	APP:	DATE:

PROJECT: STAINLESS METALCRAFT, CHATTERIS

DRAWING TITLE: SECTION 278 SITE CLEARANCE PLAN

CLIENT: STAINLESS METALCRAFT

DRAWING NUMBER: 26034_03_030_09

REVISION: B SHEET SIZE: A1 SCALE: 1:200

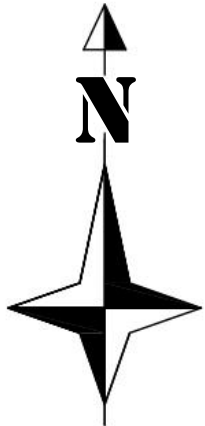
STATUS: PRELIMINARY

M-EC
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Printed: 24.03.2022



ALIGNMENT ICD									
LOCATION	CHAINAGE	EASTING	NORTHING	LEVEL	RADIUS	BEARING	ANGLE	ARC LENGTH	TANL
SPICD-1	0.000	538677.673	285759.405	4.190	19.000	308.97554	359.47485	119.206	0.087
IPICD-1		538677.740	285759.350						
CPICD-1	5.000	538673.419	285762.005	4.269					
CPICD-2	10.000	538668.635	285763.409	4.287					
CPICD-3	15.000	538663.651	285763.521	4.214					
CPICD-4	20.000	538658.809	285762.332	4.109					
CPICD-5	25.000	538654.443	285759.924	4.058					
CPICD-6	30.000	538650.854	285756.464	4.071					
CPICD-7	35.000	538648.289	285752.189	4.043					
CPICD-8	40.000	538646.923	285747.394	3.977					
CPICD-9	45.000	538646.853	285742.409	3.913					
CPICD-10	50.000	538648.081	285737.577	3.926					
CPICD-11	55.000	538650.524	285733.231	4.045					
CPICD-12	60.000	538654.013	285729.670	4.156					
CPICD-13	65.000	538658.309	285727.140	4.155					
CPICD-14	70.000	538663.115	285725.814	4.080					
CPICD-15	75.000	538668.101	285725.783	4.022					
CPICD-16	80.000	538672.922	285727.051	4.005					
CPICD-17	85.000	538677.248	285729.529	4.031					
CPICD-18	90.000	538680.781	285733.048	4.099					
CPICD-19	95.000	538683.276	285737.364	4.193					
CPICD-20	100.000	538684.563	285742.181	4.207					
CPICD-21	105.000	538684.552	285747.166	4.166					
CPICD-22	110.000	538683.245	285751.977	4.155					
CPICD-23	115.000	538680.732	285756.283	4.172					
EPICD-1	119.206	538677.808	285759.295	4.188	309.50070				

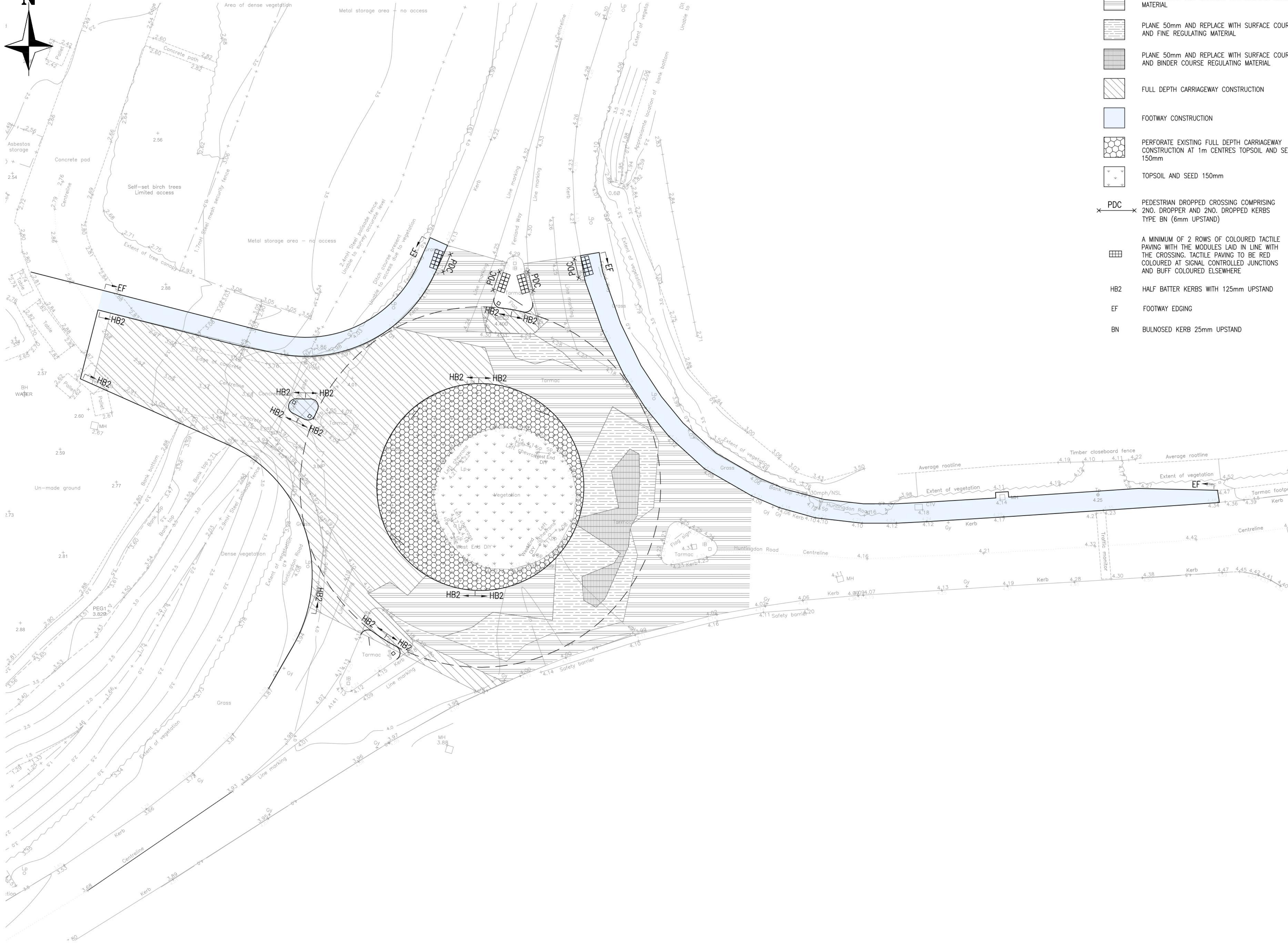
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LOCATION	CHAINAGE	EASTING	NORTHING	LEVEL	RADIUS	BEARING	ANGLE	ARC LENGTH	TANL
SPCROWNNE-1	0.000	538675.981	285757.314	4.244	16.310	308.97554	359.47485	102.331	0.075
IPCROWNNE-1		538676.039	285757.287						
CPCROWNNE-1	5.000	538671.876	285759.819	4.334					
CPCROWNNE-2	10.000	538666.816	285760.907	4.326					
CPCROWNNE-3	15.000	538661.854	285760.479	4.213					
CPCROWNNE-4	20.000	538657.253	285758.573	4.122					
CPCROWNNE-5	25.000	538653.441	285755.367	4.123					
CPCROWNNE-6	30.000	538650.775	285751.161	4.096					
CPCROWNNE-7	35.000	538649.502	285746.346	4.020					
CPCROWNNE-8	40.000	538649.741	285741.371	3.958					
CPCROWNNE-9	45.000	538651.471	285736.701	4.028					
CPCROWNNE-10	50.000	538654.529	285732.770	4.182					
CPCROWNNE-11	55.000	538658.631	285729.946	4.217					
CPCROWNNE-12	60.000	538663.394	285728.491	4.137					
CPCROWNNE-13	65.000	538668.375	285728.541	4.069					
CPCROWNNE-14	70.000	538673.108	285730.092	4.060					
CPCROWNNE-15	75.000	538677.152	285732.998	4.111					
CPCROWNNE-16	80.000	538680.130	285736.990	4.214					
CPCROWNNE-17	85.000	538681.765	285741.695	4.271					
CPCROWNNE-18	90.000	538681.904	285746.673	4.220					
CPCROWNNE-19	95.000	538680.534	285751.461	4.174					
CPCROWNNE-20	100.000	538677.783	285755.613	4.202					
EPCROWNNE-1	102.331	538676.097	285757.219	4.244	309.50070				

ALIGNMENT ROAD1L									
LOCATION	CHAINAGE	EASTING	NORTHING	LEVEL	RADIUS	BEARING	ANGLE	ARC LENGTH	TANL
SP1L-1	0.000	538643.415	285723.405	3.870	15.000	29.77124	95.71884	25.059	16.577
CP1L-1	5.000	538645.898	285727.745	3.921					
TP1L-1a	5.244	538646.019	285727.957	3.924					
IP1L-1		538654.250	285742.346						
CP1L-2	10.000	538647.692	285732.388	3.973					
CP1L-3	15.000	538647.870	285737.361	3.997					
CP1L-4	20.000	538646.412	285742.120	3.946					
CP1L-5	25.000	538643.476	285746.139	3.818					
CP1L-6	30.000	538639.387	285748.976	3.614					
TP1L-1b	30.303	538639.112	285749.102	3.599					
CP1L-7	35.000	538634.823	285751.017	3.360	294.05240				
CP1L-8	40.000	538630.257	285753.055	3.106					
CP1L-9	45.000	538625.691	285755.092	2.852					
EP1L-1	47.330	538623.563	285756.042	2.733					

ALIGNMENT ROAD1									
LOCATION	CHAINAGE	EASTING	NORTHING	LEVEL	RADIUS	BEARING	ANGLE	ARC LENGTH	TANL
JP1-1	0.000	538648.295	285752.205	4.043		287.42446			
CP1-1	5.000	538643.525	285753.702	3.793					
CP1-2	10.000	538638.754	285755.199	3.543					
CP1-3	15.000	538633.984	285756.696	3.293					
CP1-4	20.000	538629.213	285758.193	3.043					
EP1-1	24.953	538624.488	285759.677	2.795	287.42446				

ALIGNMENT ROAD1R										
LOCATION	CHAINAGE	EASTING	NORTHING	LEVEL	RADIUS	BEARING	ANGLE	ARC LENGTH	TANL	
SP1R-1	0.000	538662.260	285770.111	4.130	15.000	204.14026	77.35643	20.252	12.008	
TP1R-1a	3.102	538660.991	285767.280	4.115		204.14026				
IP1R-1		538656.080	285756.323							
CP1R-1	5.000	538660.108	285765.602	4.105						
CP1R-2	10.000	538656.847	285761.843	4.063						
CP1R-3	15.000	538652.535	285759.357	3.966						
CP1R-4	20.000	538647.647	285758.419	3.811						
TP1R-1b	23.354	538644.313	285758.716	3.676		281.49669				
CP1R-5	25.000	538642.700	285759.044	3.600		20.000				281.49669
TP1R-2a	27.163	538640.581	285759.475	3.492						
IP1R-2		538640.105	285759.572							
TP1R-2b	28.134	538639.635	285759.692	3.443	284.27668					
CP1R-6	30.000	538637.826	285760.152	3.349						
CP1R-7	35.000	538632.980	285761.385	3.096						
CP1R-8	40.000	538628.135	285762.618	2.843						
EP1R-1	42.809	538625.412	285763.311	2.701	284.27668					

ALIGNMENT CEN ISLA									
LOCATION	CHAINAGE	EASTING	NORTHING	LEVEL	RADIUS	BEARING	ANGLE	ARC LENGTH	TANL
SPCENISLA-1	0.000	538672.584	285753.116	4.105	10.910	308.97554	359.47485	68.451	0.050
IPCENISLA-1		538672.623	285753.084						
CPCENISLA-1	5.000	538668.124	285755.277	4.148					
CPCENISLA-2	10.000	538663.168	285755.241	4.079					
CPCENISLA-3	15.000	538658.738	285753.016	3.976					
CPCENISLA-4	20.000	538655.751	285749.062	3.962					
CPCENISLA-5	25.000	538654.820	285744.194	3.849					
CPCENISLA-6	30.000	538656.140	285739.416	3.889					
CPCENISLA-7	35.000	538659.437	285735.716	4.082					
CPCENISLA-8	40.000	538664.031	285733.855	4.005					
CPCENISLA-9	45.000	538668.974	285734.220	3.921					
CPCENISLA-10	50.000	538673.246	285736.733	3.971					
CPCENISLA-11	55.000	538675.965	285740.877	4.113					
CPCENISLA-12	60.000	538676.570	285745.796	4.088					
CPCENISLA-13	65.000	538674.936	285750.476	4.075					
EPENISLA-1	68.451	538672.662	285753.052	4.105	309.50070				



KEY:

- PLANE 50mm AND REPLACE WITH SURFACE COURSE MATERIAL
- PLANE 50mm AND REPLACE WITH SURFACE COURSE AND FINE REGULATING MATERIAL
- PLANE 50mm AND REPLACE WITH SURFACE COURSE AND BINDER COURSE REGULATING MATERIAL
- FULL DEPTH CARRIAGEWAY CONSTRUCTION
- FOOTWAY CONSTRUCTION
- PERFORATE EXISTING FULL DEPTH CARRIAGEWAY CONSTRUCTION AT 1m CENTRES TOPSOIL AND SEED 150mm
- TOPSOIL AND SEED 150mm
- PDC PEDESTRIAN DROPPED CROSSING COMPRISING 2NO. DROPPER AND 2NO. DROPPED KERBS TYPE BN (6mm UPSTAND)
- A MINIMUM OF 2 ROWS OF COLOURED TACTILE PAVING WITH THE MODULES LAID IN LINE WITH THE CROSSING. TACTILE PAVING TO BE RED COLOURED AT SIGNAL CONTROLLED JUNCTIONS AND BUFF COLOURED ELSEWHERE
- HB2 HALF BATTER KERBS WITH 125mm UPSTAND
- EF FOOTWAY EDGING
- BN BULNOSED KERB 25mm UPSTAND

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B	AMENDMENTS FOLLOWING LOCAL AUTHORITY COMMENTS	PT	TR	TR	15.03.22
A	AMENDED FOLLOWING CCC COMMENTS	PT	TR	TR	11.02.22
-	FIRST ISSUE	PT	DMH	TR	24.02.22
REV:	AMENDMENTS:	DRN	CHK	APP	DATE:

PROJECT: STAINLESS METALCRAFT, CHATTERIS

DRAWING TITLE: SECTION 278 SURFACE FINISHES PLAN

CLIENT: STAINLESS METALCRAFT

DRAWING NUMBER: 260304_03_060_04

REVISION: C SHEET SIZE: A1 SCALE: 1:200

STATUS: PRELIMINARY

M-EC Consulting Development Engineers

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KEY:

- PROPOSED GULLY
- EXISTING GULLY
- EXISTING SURFACE WATER SEWER

C	AMENDMENTS FOLLOWING CCC COMMENTS	PT	TR	TR	04.04.22
B	AMENDMENTS FOLLOWING LOCAL AUTHORITY COMMENTS	PT	TR	TR	15.03.22
A	AMENDED FOLLOWING CCC COMMENTS	PT	TR	TR	11.02.22
F	FIRST ISSUE	PT	DMH	TR	24.01.22
REV:	AMENDMENTS:	DRN	CHK:	APP:	DATE:

PROJECT: STAINLESS METALCRAFT, CHATTERIS

DRAWING TITLE: SECTION 278 DRAINAGE PLAN

CLIENT: STAINLESS METALCRAFT

DRAWING NUMBER: 26034_03_070_05

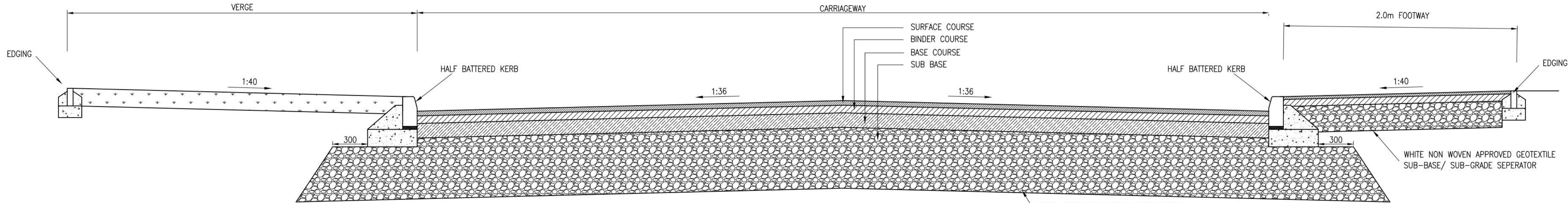
REVISION: C SHEET SIZE: A1 SCALE: 1:200

STATUS: PRELIMINARY

M-EC Consulting Development Engineers

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Email: group@mec.co.uk
Website: www.m-ec.co.uk

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ACCESS ROAD CARRIAGEWAY SECTION

SCALE 1:20

CARRIAGEWAY SPECIFICATION

	DISTRIBUTOR ROAD
SURFACE COURSE	50mm CASC 30/14 F SURF TO BS EN 13108-4 AND PD6691 WITH 40-60 PEN BINDER. CLAUSE 12.02 REFERS. STABILITY 4-8kN. PSV 68+
BINDER COURSE	65mm AC 20 DENSE BIN TO BS 13108-1 AND PD6691 AND LAID 65mm THICK. IT SHALL BE LAID AND THOROUGHLY COMPACTED ALL IN ACCORDANCE WITH BS 594987:2010. BINDER TO BE 40-60 PEN.
BASE COURSE	125m AC 20 DENSE BIN TO BS EN 13108-1 AND PD 6691. IT SHALL BE PLACED IN TWO LAYERS AND THOROUGHLY COMPACTED ALL IN ACCORDANCE WITH BS 594987:2010. AC 20 DENSE BIN CAN BE PLACED IN ONE LAYER OF 100mm WHEN A ROLLER OF AT LEAST 8 TONNE DEAD WEIGHT OR VIBRATORY ROLLER OF EQUIVALENT MASS IS AVAILABLE. THE SUPPLIED MATERIAL MUST BE COMPACTED IN ACCORDANCE WITH BS54987:2010.
SUB-BASE/CAPPING	SUB BASE - TYPE 1 MATERIAL TO CLAUSE 803 (THICKNESS SUBJECT TO INSITU CBR RESULTS - SEE TABLE 1) 520mm THICKNESS UNLESS PROVED OTHERWISE THROUGH CBR TESTING. CAPPING - 6F2 MATERIAL (THICKNESS SUBJECT TO INSITU CBR RESULTS)

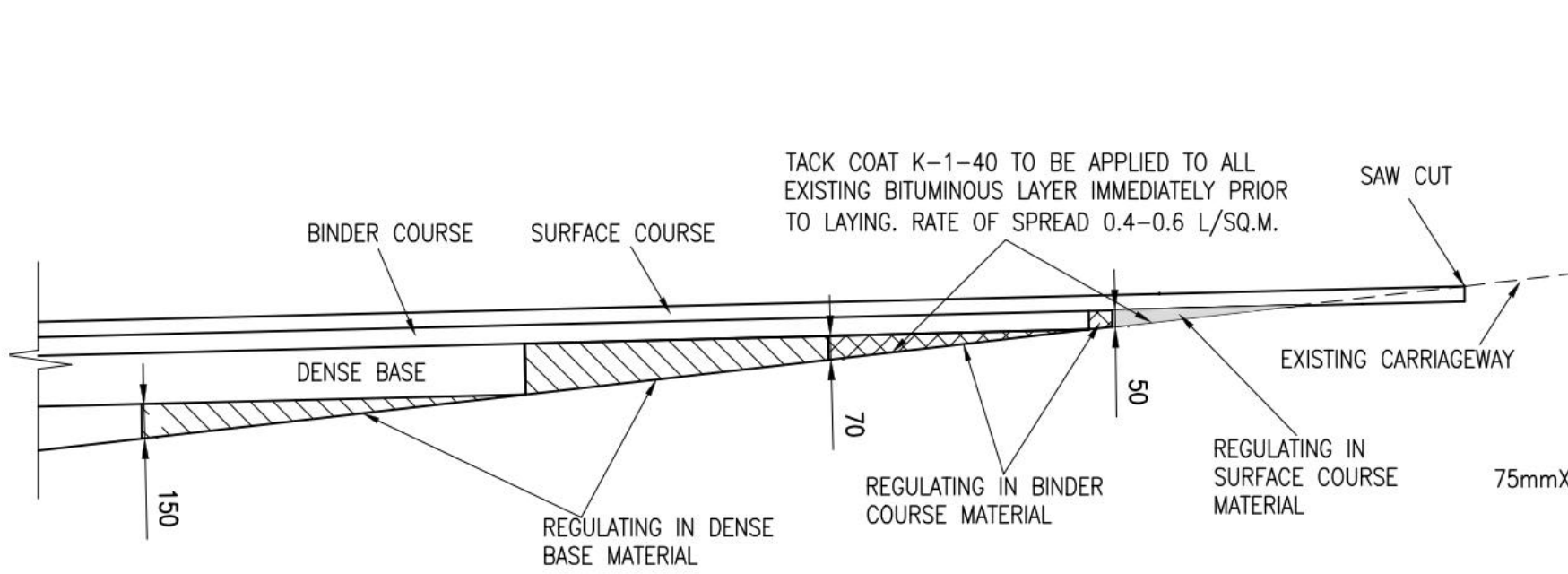
FOOTWAY SPECIFICATION

	BITUMINOUS FOOTWAY/CYCLEWAY/LIGHT VEHICLE CROSSING	VERGE
SURFACE COURSE	25mm COMPACTED THICKNESS OF AC 6 DENSE SURF IN ACCORDANCE WITH BS EN 13108-1 AND PD6691. THE COARSE AGGREGATE SHALL BE EITHER CRUSHED ROCK OR GRAVEL.	150mm THICK LAYER OF TOPSOIL FULLY COMPLIANT WITH BS 3882:1994 FREE FROM WEEDS, COARSE GRASS AND STONES. SHALL BE PLACED LEVELLED AND RAKED SMOOTH. GRASS SEED MIXTURE TO BE BRITISH SEED HOUSES - MIX A22
BINDER COURSE	60mm COMPACTED THICKNESS OF AC 14 CLOSE SURF DENSE ASPHALT CONCRETE TO BS EN 13108-1 AND PD6691 WITH 40-60	N/A
DENSE BASE	N/A	N/A
SUB-BASE/CAPPING	225mm SHW CLAUSE 803, TYPE 1, HER SUB-BASE OR SHW CLAUSE 804, OR COMPLIANT RECYCLED MATERIAL, COMPACTED TO TABLE 3B - BASE COMPACTION TO A FINISHED THICKNESS SHOWN IN TABLE 3	N/A

TABLE 1 - DISTRIBUTOR ROAD SUB-BASE THICKNESSES

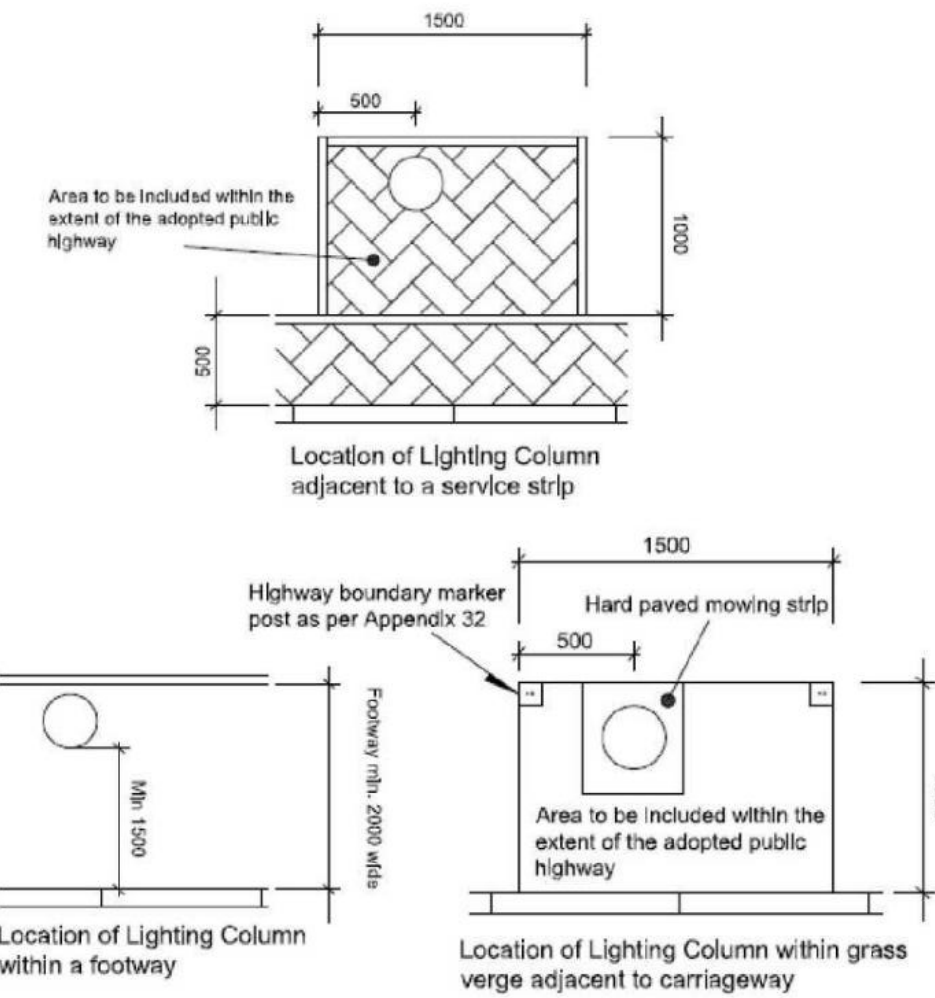
MEASURED CBR VALUES	REQUIRED DEPTH OF TYPE 1 OR HER SUB-BASE	TYPE OF FOOTWAY	DEPTH OF SUB-BASE
CBR LESS THAN 2%	520mm ± 10mm	LIGHT-VEHICLE CROSSING OF FOOTWAY WITH OCCASIONAL VEHICLE OVERRUN / TURNING	225mm
		HEAVY VEHICLE CROSSING OF FOOTWAY	365mm
		FOOTPATH SEPARATE FROM CARRIAGEWAY	150mm

TABLE 3 - DEPTH OF SUB-BASE MATERIALS - FOOTWAY



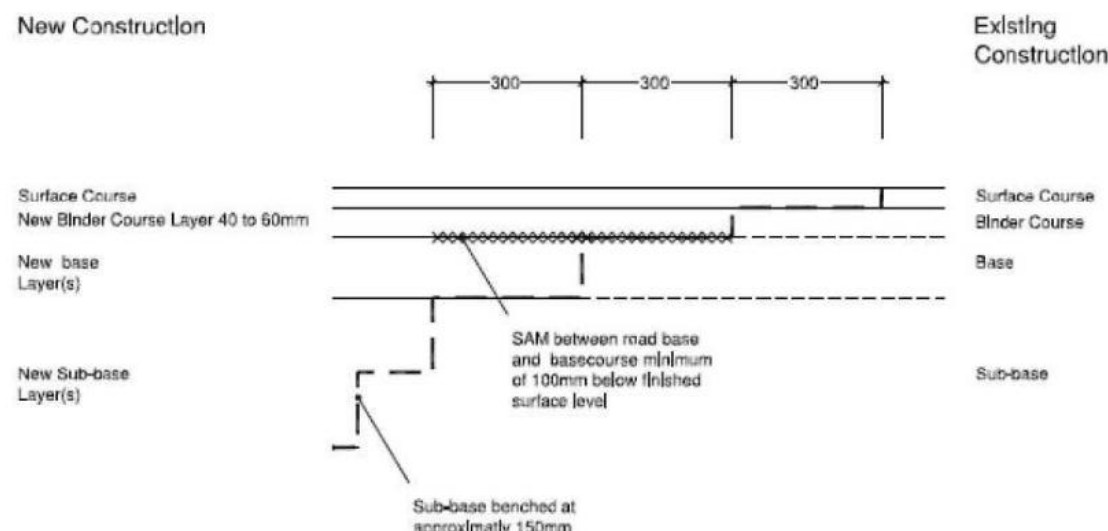
CARRIAGEWAY REGULATING DETAIL

SCALE 1:20



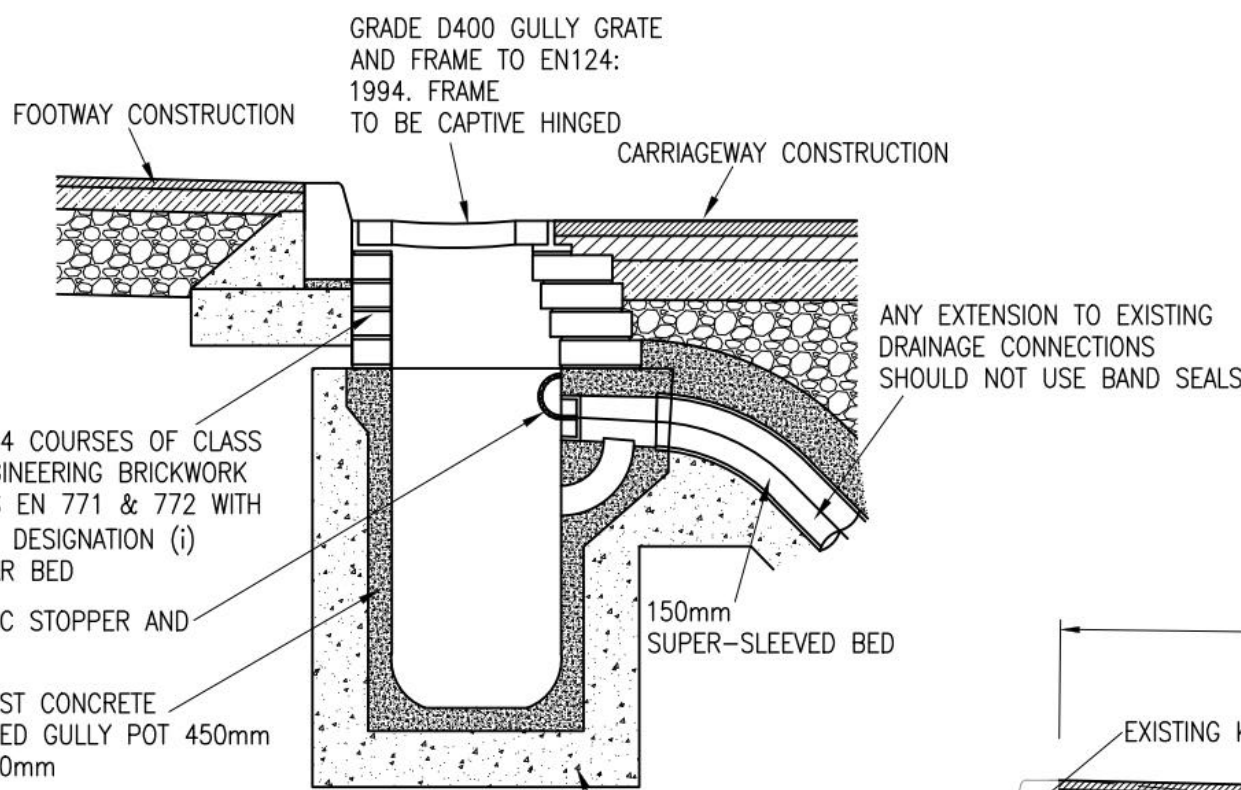
TYPICAL LIGHTING UNIT POSITIONS

SCALE NTS



STEPPED CONSTRUCTION DETAIL

SCALE NTS



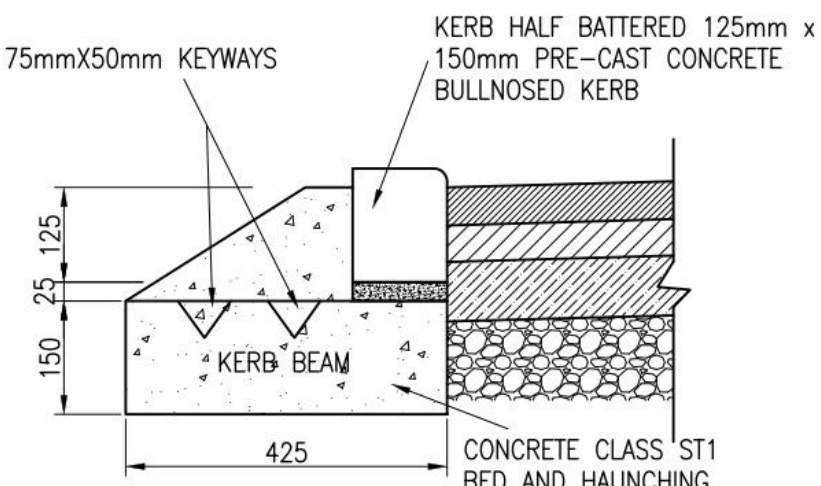
TRAPPED CARRIAGEWAY GULLY DETAIL

SCALE 1:20

- NOTES:
- GULLY POT AND OUTLET PIPE TO A DEPTH OF 1.2m TO BE SURROUNDED IN 1500 ST2 CONCRETE

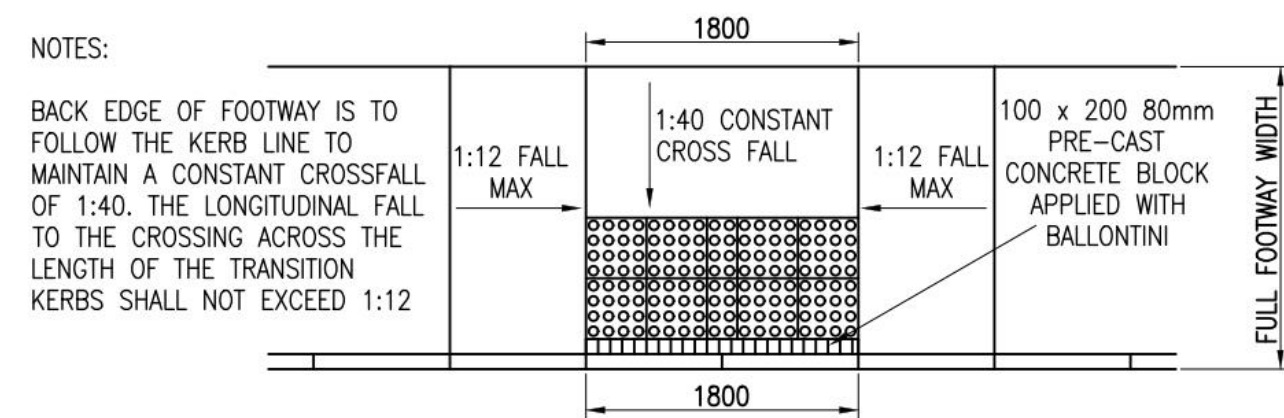
EDGING DETAIL

SCALE 1:10



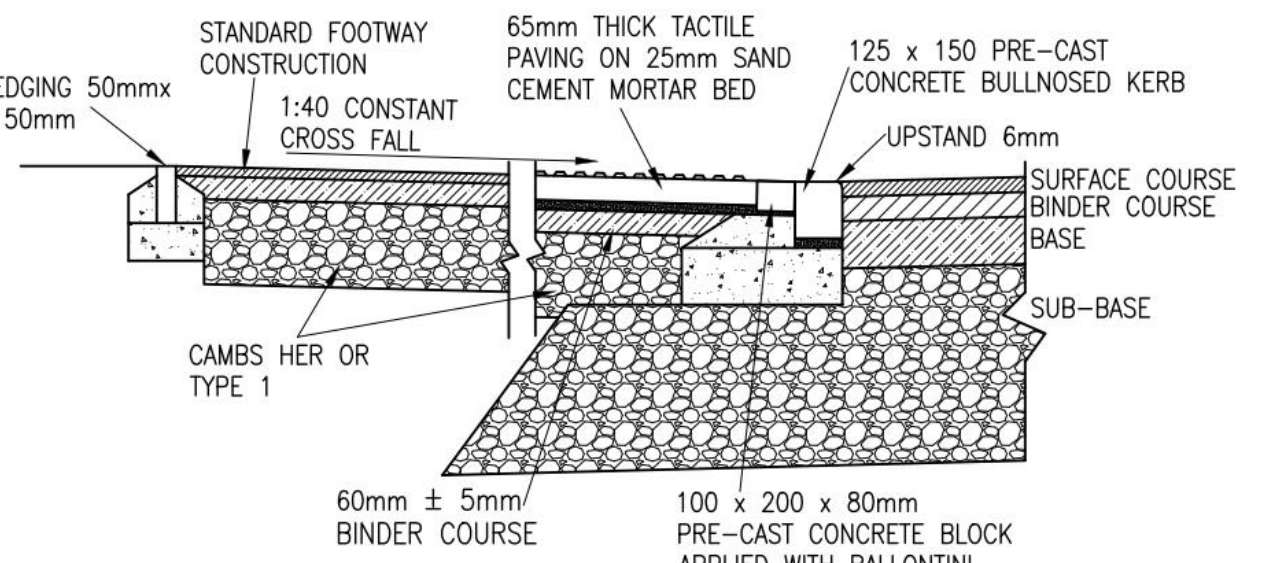
DROPPED KERB DETAIL

SCALE 1:10



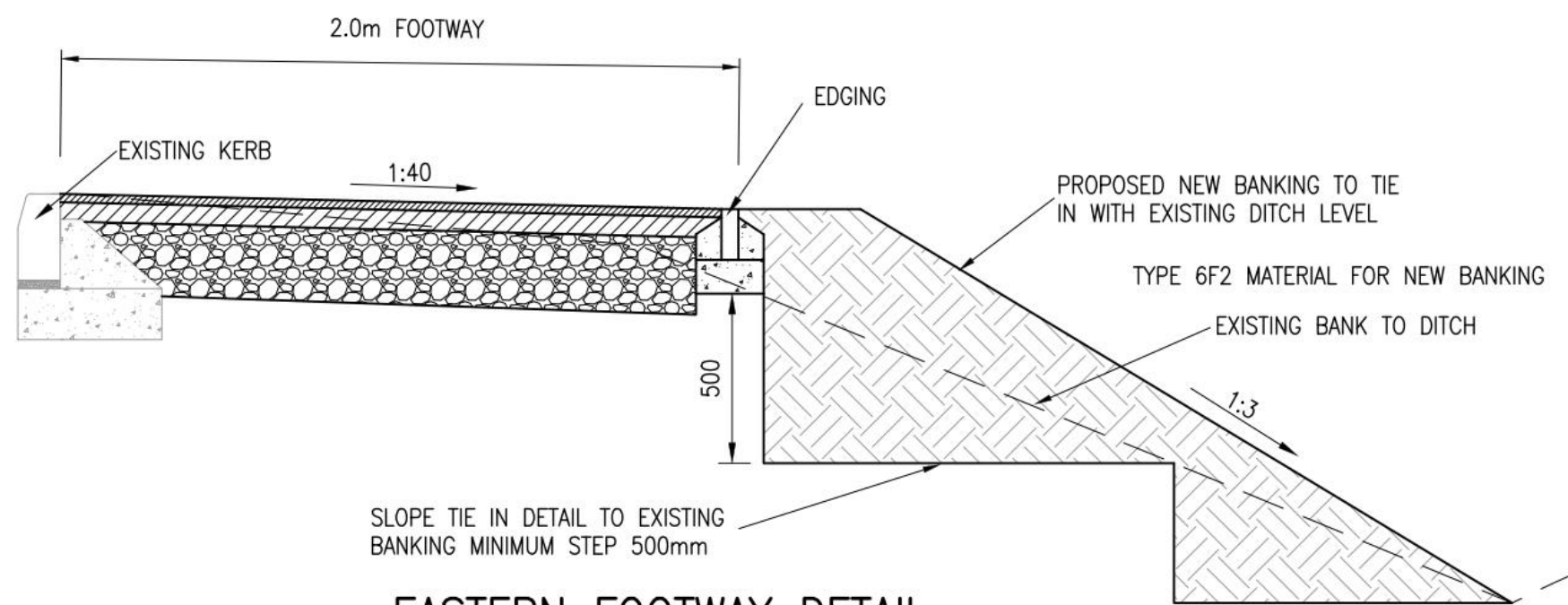
UNCONTROLLED PEDESTRIAN CROSSING TYPICAL PLAN

SCALE 1:50



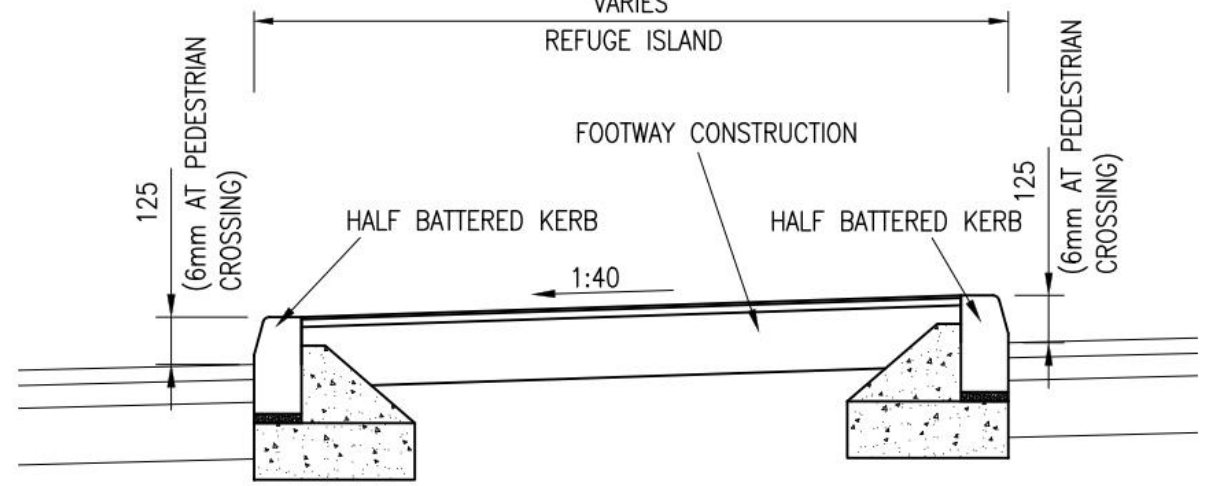
UNCONTROLLED PEDESTRIAN CROSSING TYPICAL SECTION

SCALE 1:20



EASTERN FOOTWAY DETAIL

SCALE 1:20



TYPICAL PEDESTRIAN REFUGE SECTION

SCALE 1:20

NOTES:

- DO NOT SCALE THIS DRAWING.
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS STATED OTHERWISE.
- CONCRETE BEDS TO KERBS TO BE MECHANICALLY VIBRATED AND THE SURFACE ROUGHENED TO PROVIDE A KEY FOR BACKING.
- ALL KERBS TO BE LAID ON A 20MM BED OF CLASS 1 SAND/CEMENT MORTAR.
- TYPE HB2 KERB FACE TO BE 125mm THROUGHOUT. ALL KERBS TO BE TO BS EN 1340:2003. MINIMUM UPSTAND ON 145X255 KERB TO BE 6MM UNLESS SPECIFIED OTHERWISE.
- KERBS TO BE LAID IN SMOOTH VERTICAL AND HORIZONTAL ALIGNMENTS. FOR CURVES OF RADIUS 12M OR LESS PRECAST KERBS OF APPROPRIATE RADIUS SHALL BE USED.
- SULPHATE RESISTING CEMENT PRODUCTS TO BE USED THROUGHOUT FOR DRAINAGE WORKS.
- THE FRAMES TO GULLY POTS SHALL BE BEDDED ON A FULL MORTAR BED OF 1:3 CEMENT/SAND MORTAR. THEY SHALL BE ACCURATELY SET FOR THE LEVEL AND POSITIONED ON MIN 2 COURSE MAX 4 COURSE OF ENGINEERING BRICKS, SO THAT THE TOP OF THE FRAME WILL NORMALLY BE SET BELOW THE FINISHED CHANNEL LEVEL. THE ALLOWABLE TOLERANCE SHALL BE 0 TO -5MM.
- BRICKWORK SHALL COMPLY WITH BS 392:1995 FOR CLASS B ENGINEERING BRICKS, SET ON 1:3 CEMENT/SAND MORTAR.
- REFERENCES TO SHW CLAUSES ARE FROM THE SPECIFICATION FOR HIGHWAYS WORKS (HIGHWAYS AGENCY/TSO).
- ALL ADAPTABLE HIGHWAY WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CAMBRIDGESHIRE COUNTY COUNCIL'S HOUSING ESTATE ROAD CONSTRUCTION GUIDE.
- CBR TEST SHALL BE CARRIED OUT PRIOR TO CONSTRUCTION TO DETERMINE THE NEED FOR A CAPPING LAYER AND THE THICKNESS OF SUB-BASE. THE NUMBER AND LOCATION OF THE TESTS MUST BE AGREED WITH CCC HIGHWAY AUTHORITY, FAILURE TO DO SO WILL RESULT IN THE HA ASSUMING A CBR OF LESS THAN 2%.

C	AMENDMENTS FOLLOWING LOCAL AUTHORITY COMMENTS	PT	TR	TR	15.03.22
B	AMENDMENTS FOLLOWING LOCAL AUTHORITY COMMENTS	PT	TR	TR	22.02.22
A	AMENDED FOLLOWING CCC COMMENTS	PT	TR	TR	11.02.22
	FIRST ISSUE	PT	DMH	TR	24.01.22
REV:	AMENDMENTS	DRN:	CHK:	APP:	DATE:

PROJECT: STAINLESS METALCRAFT, CHATTERIS

DRAWING TITLE: PROPOSED ACCESS HIGHWAY CONSTRUCTION DETAILS

CLIENT: STAINLESS METALCRAFT

DRAWING NUMBER: 26034_03_080_06

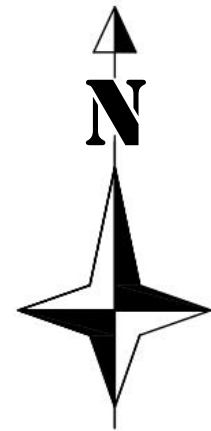
REVISION: C	SHEET SIZE: A1	SCALE: AS SHOWN
DRAWN BY:	CHECKED BY:	DATE:

STATUS: FOR CONSTRUCTION

M-EC Wellington House Leicester Road
Ibstock Leicestershire LE67 6HP
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ibstock@m-ec.co.uk
www.m-ec.co.uk

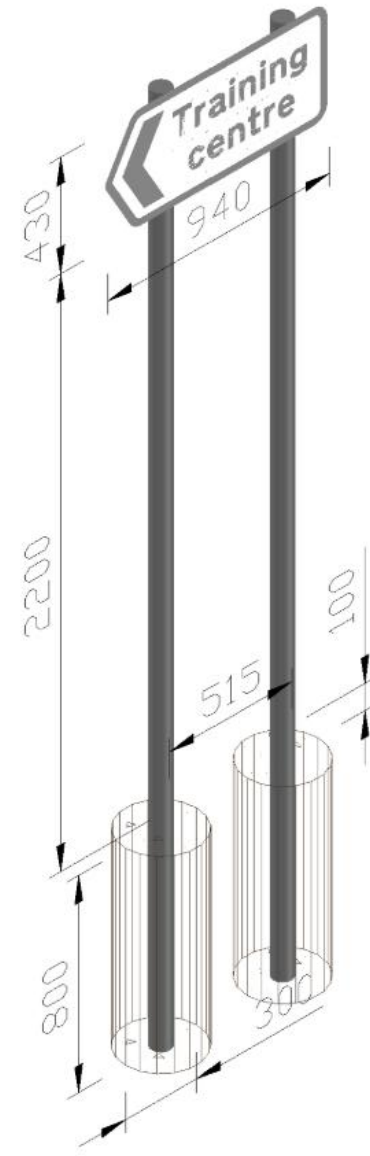
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LICENCE NUMBER 100022432.

File Location: T:\M-EC Job Book\26034\Drawings\03_Highways\26034_03_080_06.dwg
Printed: 12/05/2022



NEW PANEL TO BE FITTED TO EXISTING ADS TO SHOW 'STUB' FOR ACCESS TO TRAINING CENTRE

NOTE
NEW POSTS SHOULD BE PROVIDED ON EXITING SIGNS WHERE REQUIRED AND THE EXISTING PANEL BE RE-USED



Signing Project	Chatteris					
Sign Reference	A	Width (mm)	940	Background	White	
x Height	75.0	Height (mm)	430	Border	Black	
Material	Class RA2	Area (sq.m)	0.38	Legend	Black	

Structural Calculation Details

Signs:
Reference: A
Width: 940mm, Height: 430mm
Shape: Flag
Orientation: Facing front
Mounted on posts: 1, 2
Mounting height: 2200mm, at post

Posts:
Quantity: 2
Type: 76.1 x 3.2 CHS
Spacing: 515mm
Post 1 Length: 3530mm
Post 2 Length: 3530mm

Base:
Type: Planted
Diameter: 300mm
Depth: 800mm
Volume: 0.11cu.m
Earth cover: 100mm



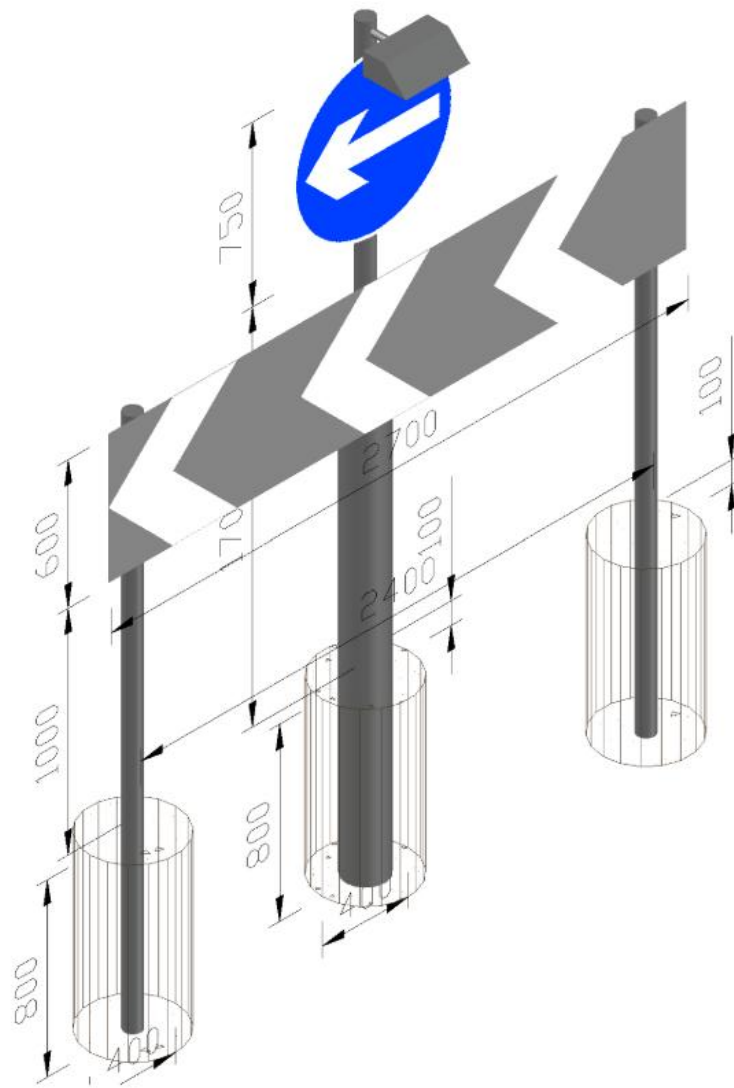
Signing Project	Chatteris					
Sign Reference	E	Width (mm)	750	Background	Blue	
x Height		Height (mm)	750	Border	White	
Material	Class RA2	Area (sq.m)	0.44	Legend	White	

Structural Calculation Details

Signs:
Reference: D
Width: 2700mm, Height: 600mm
Shape: Rectangle
Orientation: Facing front
Mounted on posts: 1, 2
Mounting height: 1000mm, at post

Posts:
Quantity: 2
Type: 76.1 x 3.2 CHS
Spacing: 2400mm
Post 1 Length: 2500mm
Post 2 Length: 2500mm

Base:
Type: Planted
Diameter: 400mm
Depth: 800mm
Volume: 0.20cu.m
Earth cover: 100mm



Structural Calculation Details

Signs:
Reference: E
Width: 750mm, Height: 750mm
Shape: Roundel
Orientation: Facing front
Mounted on posts: 1
Mounting height: 1700mm, at post

Posts:
Quantity: 1
Type: 76.1 x 3.2 CHS
Spacing: N/A
Post 1 (WBP) Length: 3470mm

Base:
Type: Planted
Diameter: 400mm
Depth: 800mm
Volume: 0.10cu.m
Earth cover: 100mm

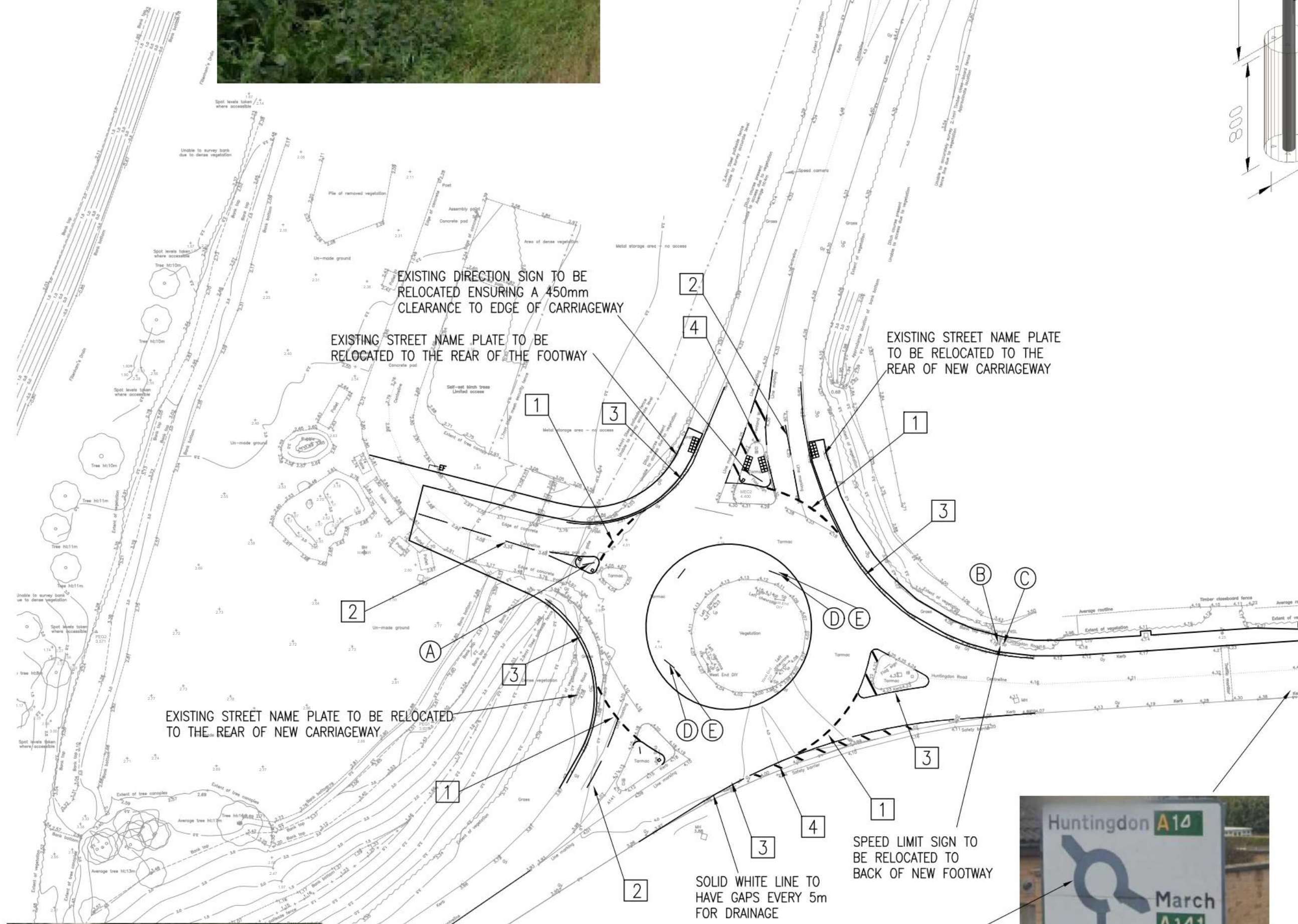
Illumination:
Orientation: Facing front
Light on posts: 1

NOTES:

- DO NOT SCALE THIS DRAWING.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEERS, ARCHITECTS AND SPECIALIST DESIGN DRAWINGS AND DETAILS.
- ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE. ALL LEVELS ARE IN METRES UNLESS NOTED OTHERWISE.
- ANY DISCREPANCIES NOTED ON SITE ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.
- ALL HIGHWAY WORKS TO BE CARRIED OUT IN ACCORDANCE WITH CAMBRIDGESHIRE COUNTY COUNCIL DESIGN GUIDE
- THE CONTRACTOR SHALL CHECK ALL TIE-INS FOR LINE AND LEVEL WITH EXISTING BEFORE COMMENCING ANY WORKS. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING, SHOULD ANY ERRORS BE FOUND.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ANY SERVICE APPARATUS IN THE VICINITY OF THE WORKS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXECUTE THE WORKS AT ALL TIMES IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE HEALTH AND SAFETY AT WORK ACT 1974, AND THE C.D.M. REGULATIONS 2015.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL WORKS ARE TO THE SATISFACTION OF THE ENGINEER, AND SHALL BE DEEMED TO HAVE INCLUDED WITHIN HIS RATES FOR ANY NECESSARY TESTING.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY DE-WATERING AND TRENCH SUPPORT TO EXECUTE THE WORKS IN A SATISFACTORY MANNER, AND SHALL BE DEEMED TO HAVE ALLOWED FOR THE SAME WITHIN HIS RATES.
- ALL BURIED CONCRETE PRODUCTS AND MORTAR SHALL BE MADE USING SULPHATE RESISTING CEMENT.
- ALL EXISTING/PROPOSED SERVICE COVERS LOCATED WITHIN THE TACTILE PAVING AREA ARE TO HAVE RECESSED LIDS IN FILLED WITH TACTILE PAVING.
- ALL KERBS TO BE HB2 WITH 125MM UPSTAND (UNLESS NOTED AS PDC).
- ANY EXISTING MANHOLE/UTILITY COVERS WITHIN THE PROPOSED FOOTWAY/CYCLEWAY TO BE RAISED TO MATCH PROPOSED LEVELS

KEY:

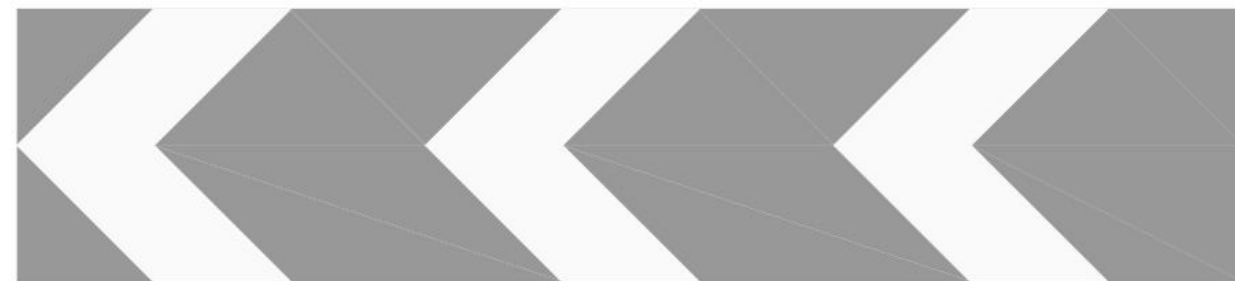
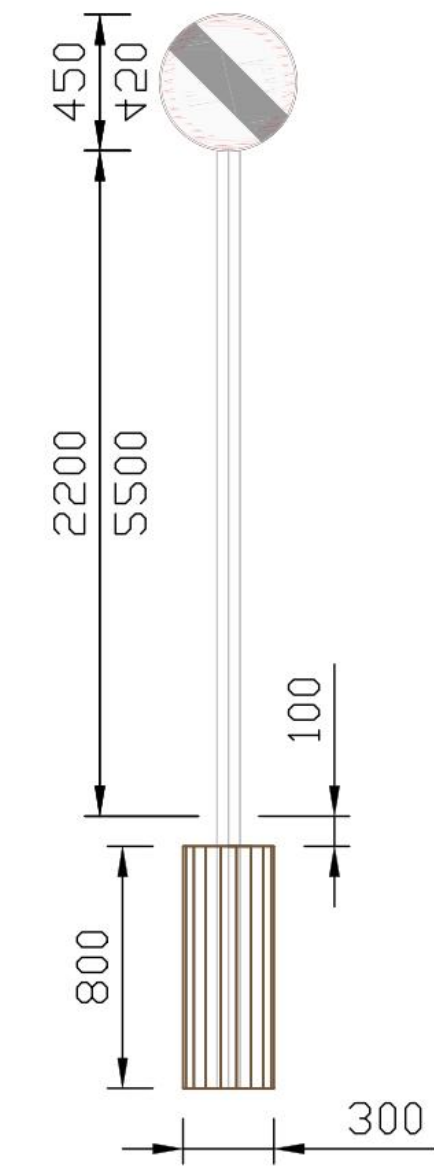
- WHITE LINING IN THERMOPLASTIC SCREED TO DIAG NO. 1003.1, 100mm LONG, 1000mm GAP, 200mm WIDE.
- WHITE LINING IN THERMOPLASTIC SCREED TO DIAG NO. 1004, 4000mm LONG, 2000mm GAP, 100mm WIDE.
- WHITE LINING IN THERMOPLASTIC SCREED TO DIAG NO. 1012.1, 100mm WIDE.
- WHITE LINING IN THERMOPLASTIC SCREED TO DIAG NO. 1040.



NEW PANEL TO BE FITTED TO NORTH BOUND EXISTING ADS TO SHOW 'STUB' FOR ACCESS TO TRAINING CENTRE (NOTE - LOCATION OF SIGN IS OUTSIDE THE EXTENT OF THE SURVEY)



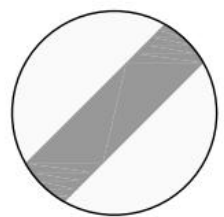
NEW PANEL TO BE FITTED TO EXISTING ADS TO SHOW 'STUB' FOR ACCESS TO TRAINING CENTRE



Signing Project	Chatteris					
Sign Reference	D	Width (mm)	2700	Background	White	
x Height	100.0	Height (mm)	600	Border	Black	
Material	Class RA2	Area (sq.m)	1.62	Legend	Black	



Signing Project	Chatteris					
Sign Reference	B	Width (mm)	450	Background	White	
x Height		Height (mm)	450	Border	Red	
Material	Class RA2	Area (sq.m)	0.16	Legend	Black	



Signing Project	Chatteris					
Sign Reference	C	Width (mm)	450	Background	White	
x Height		Height (mm)	450	Border	Black	
Material	Class RA2	Area (sq.m)	0.16	Legend	Black	

Structural Calculation Details

Signs:
Reference: B
Width: 450mm, Height: 450mm
Shape: Roundel
Orientation: Facing front
Mounted on posts: 1
Mounting height: 2200mm, at post

Reference: C
Width: 450mm, Height: 450mm
Shape: Roundel
Orientation: Facing back
Mounted on posts: 1
Mounting height: 2200mm, at post

Posts:
Quantity: 1
Type: 76.1 x 3.2 CHS
Spacing: N/A
Post 1 Length: 3550mm

Base:
Type: Planted
Diameter: 300mm
Depth: 800mm
Volume: 0.06cu.m
Earth cover: 100mm

D	AMENDMENTS TO SIGN DESIGN	PT	TR	TR	28.03.22
C	AMENDMENTS FOLLOWING CCC COMMENTS	PT	TR	TR	23.03.22
B	AMENDMENTS FOLLOWING RSK2	PT	TR	TR	09.03.22
A	AMENDED FOLLOWING CCC COMMENTS	PT	TR	TR	11.02.22
-	FIRST ISSUE	PT	DMH	TR	24.01.22
REV:	AMENDMENTS:	DRN	CHK	APP	DATE:

PROJECT: STAINLESS METALCRAFT, CHATTERIS

DRAWING TITLE: SECTION 278
SIGNING AND LINING
DETAILS

CLIENT: STAINLESS METALCRAFT

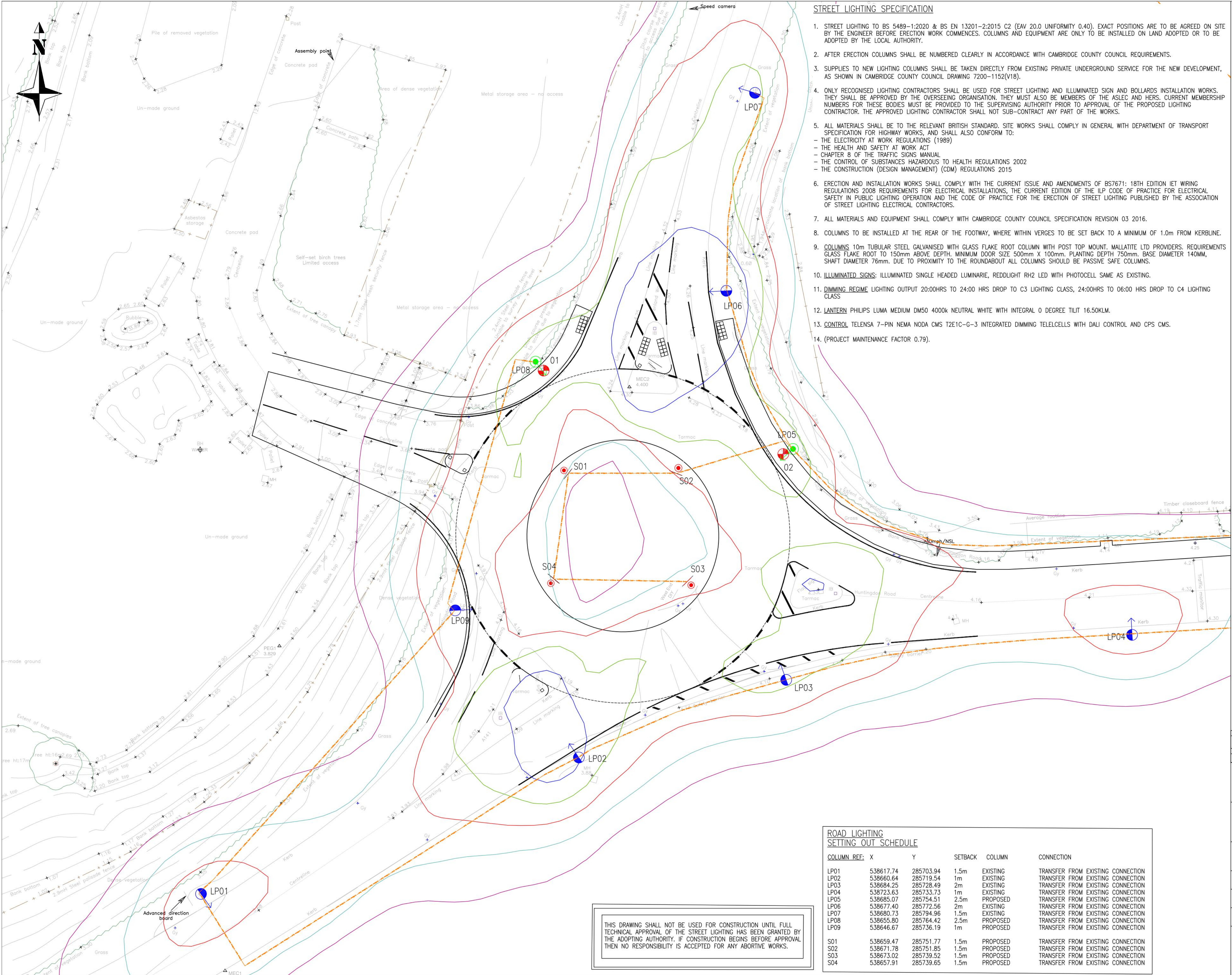
DRAWING NUMBER: 26034_03_090_07

REVISION: D SHEET SIZE: A1 SCALE: 1:500

STATUS: PRELIMINARY

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100055865.



STREET LIGHTING SPECIFICATION

- STREET LIGHTING TO BS 5489-1:2020 & BS EN 13201-2:2015 C2 (EAV 20.0 UNIFORMITY 0.40). EXACT POSITIONS ARE TO BE AGREED ON SITE BY THE ENGINEER BEFORE ERECTION WORK COMMENCES. COLUMNS AND EQUIPMENT ARE ONLY TO BE INSTALLED ON LAND ADOPTED OR TO BE ADOPTED BY THE LOCAL AUTHORITY.
- AFTER ERECTION COLUMNS SHALL BE NUMBERED CLEARLY IN ACCORDANCE WITH CAMBRIDGE COUNTY COUNCIL REQUIREMENTS.
- SUPPLIES TO NEW LIGHTING COLUMNS SHALL BE TAKEN DIRECTLY FROM EXISTING PRIVATE UNDERGROUND SERVICE FOR THE NEW DEVELOPMENT, AS SHOWN IN CAMBRIDGE COUNTY COUNCIL DRAWING 7200-1152(V18).
- ONLY RECOGNISED LIGHTING CONTRACTORS SHALL BE USED FOR STREET LIGHTING AND ILLUMINATED SIGN AND BOLLARDS INSTALLATION WORKS. THEY SHALL BE APPROVED BY THE OVERSEEING ORGANISATION. THEY MUST ALSO BE MEMBERS OF THE ASLEC AND HERS. CURRENT MEMBERSHIP NUMBERS FOR THESE BODIES MUST BE PROVIDED TO THE SUPERVISING AUTHORITY PRIOR TO APPROVAL OF THE PROPOSED LIGHTING CONTRACTOR. THE APPROVED LIGHTING CONTRACTOR SHALL NOT SUB-CONTRACT ANY PART OF THE WORKS.
- ALL MATERIALS SHALL BE TO THE RELEVANT BRITISH STANDARD. SITE WORKS SHALL COMPLY IN GENERAL WITH DEPARTMENT OF TRANSPORT SPECIFICATION FOR HIGHWAY WORKS, AND SHALL ALSO CONFORM TO:
 - THE ELECTRICITY AT WORK REGULATIONS (1989)
 - THE HEALTH AND SAFETY AT WORK ACT
 - CHAPTER 8 OF THE TRAFFIC SIGNS MANUAL
 - THE CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS 2002
 - THE CONSTRUCTION (DESIGN MANAGEMENT) (CDM) REGULATIONS 2015
- ERECTION AND INSTALLATION WORKS SHALL COMPLY WITH THE CURRENT ISSUE AND AMENDMENTS OF BS7671: 18TH EDITION IET WIRING REGULATIONS 2008 REQUIREMENTS FOR ELECTRICAL INSTALLATIONS, THE CURRENT EDITION OF THE I.P. CODE OF PRACTICE FOR ELECTRICAL SAFETY IN PUBLIC LIGHTING OPERATION AND THE CODE OF PRACTICE FOR THE ERECTION OF STREET LIGHTING PUBLISHED BY THE ASSOCIATION OF STREET LIGHTING ELECTRICAL CONTRACTORS.
- ALL MATERIALS AND EQUIPMENT SHALL COMPLY WITH CAMBRIDGE COUNTY COUNCIL SPECIFICATION REVISION 03 2016.
- COLUMNS TO BE INSTALLED AT THE REAR OF THE FOOTWAY, WHERE WITHIN VERGES TO BE SET BACK TO A MINIMUM OF 1.0m FROM KERBLINE.
- COLUMNS 10m TUBULAR STEEL GALVANISED WITH GLASS FLAKE ROOT COLUMN WITH POST TOP MOUNT. MALLATITE LTD PROVIDERS. REQUIREMENTS GLASS FLAKE ROOT TO 150mm ABOVE DEPTH. MINIMUM DOOR SIZE 500mm X 100mm. PLANTING DEPTH 750mm. BASE DIAMETER 140MM, SHAFT DIAMETER 76mm. DUE TO PROXIMITY TO THE ROUNDABOUT ALL COLUMNS SHOULD BE PASSIVE SAFE COLUMNS.
- ILLUMINATED SIGNS: ILLUMINATED SINGLE HEADED LUMINARIE, REDDLIGHT RH2 LED WITH PHOTOCCELL SAME AS EXISTING.
- DIMMING REGIME LIGHTING OUTPUT 20:00HRS TO 24:00 HRS DROP TO C3 LIGHTING CLASS, 24:00HRS TO 06:00 HRS DROP TO C4 LIGHTING CLASS
- LANTERN PHILIPS LUMA MEDIUM DM50 4000K NEUTRAL WHITE WITH INTEGRAL 0 DEGREE TILT 16.50KLM.
- CONTROL TELENZA 7-PIN NEMA NODA CMS T2E1C-G-3 INTEGRATED DIMMING TELELCELLS WITH DALI CONTROL AND CPS CMS.
- (PROJECT MAINTENANCE FACTOR 0.79).

- NOTES.
- DO NOT SCALE THIS DRAWING.
 - THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION UNTIL FULL TECHNICAL APPROVAL OF THE STREET LIGHTING HAS BEEN GRANTED BY THE ADOPTING AUTHORITY. IF CONSTRUCTION BEGINS BEFORE ADOPTION THEN NO RESPONSIBILITY IS ACCEPTED FOR ANY ABORTIVE WORKS.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEERS, ARCHITECTS AND SPECIALIST DESIGN DRAWINGS AND DETAILS.
 - ANY DISCREPANCIES NOTED ON SITE ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.
 - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ANY SERVICE APPARATUS IN THE VICINITY OF THE WORKS. THE CLIENT WILL ACCEPT NO CLAIMS WHATSOEVER IN RESPECT OF ANY LOSSES OR DAMAGE CAUSED IN RESPECT OF SUCH APPARATUS, HOWEVER CAUSED.
 - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXECUTE THE WORKS AT ALL TIMES IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE HEALTH AND SAFETY AT WORK ACT 1974, AND THE C.D.M. REGULATIONS 2015. THE CONTRACTOR WILL BE DEEMED TO HAVE ALLOWED FOR FULL COMPLIANCE, WITHIN THEIR RATES.
 - THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL WORKS ARE TO THE SATISFACTION OF THE ENGINEER, AND SHALL BE DEEMED TO HAVE INCLUDED WITHIN THEIR RATES FOR ANY NECESSARY TESTING.
 - MOST RECENT UTILITY DRAWINGS MUST BE VIEWED BEFORE WORKS COMMENCE.
 - DRAWING TO BE PRINTED IN COLOUR.

STREET LIGHTING KEY

- LP**
QUANTITY 7
PROPOSED STREET LIGHTING ADDED TO EXISTING CCC COLUMN
COLUMN HEIGHT: 10m
PROJECTION: 0.3M POST TOP
LANTERN MANUFACTURER: PHILIPS
LANTERN NAME: LUMA GEN2 MEDIUM
INCLINATION: 0°
LAMP TYPE: 80LED 4000K NEUTRAL WHITE
OPTIC: BGP704 DM50 16.50KLM
- LP**
QUANTITY 2
PROPOSED STREET LIGHTING COLUMN
COLUMN HEIGHT: 10m
PROJECTION: 0.3M POST TOP
LANTERN MANUFACTURER: PHILIPS
LANTERN NAME: LUMA GEN2 MEDIUM
INCLINATION: 0°
LAMP TYPE: 80LED 4000K NEUTRAL WHITE
OPTIC: BGP704 DM50 16.50KLM
- O**
QUANTITY 2
EXISTING STREET LIGHTING COLUMN TO BE DISCONNECTED FROM EXISTING SUPPLY. LIGHTING COLUMN AND BRACKET IS TO BE REMOVED TO TIP OFF SITE. LANTERN AND TELENZA NODE ARE TO BE SET ASIDE TO BE RETURNED TO CCC LIGHTING DEPOT
- S**
QUANTITY 4
TRAFFIC SIGN: ILLUMINATED SINGLE-HEADED POST:
4M LBP PT CUT TO SUIT
EXISTING REDDLIGHT RH2 LED WITH PHOTOCCELL LED
- PROPOSED 100mmø TWIN WALL PVC DUCT WITH 2 NO. BLUE DRAW ROPE TO BE INSTALLED
- 25.0 LUX ISO CONTOUR
20.0 LUX ISO CONTOUR
15.0 LUX ISO CONTOUR
10.0 LUX ISO CONTOUR
5.00 LUX ISO CONTOUR

ROAD LIGHTING
SETTING OUT SCHEDULE

COLUMN REF:	X	Y	SETBACK	COLUMN	CONNECTION
LP01	538617.74	285703.94	1.5m	EXISTING	TRANSFER FROM EXISTING CONNECTION
LP02	538660.64	285719.54	1m	EXISTING	TRANSFER FROM EXISTING CONNECTION
LP03	538684.25	285728.49	2m	EXISTING	TRANSFER FROM EXISTING CONNECTION
LP04	538723.63	285733.73	1m	EXISTING	TRANSFER FROM EXISTING CONNECTION
LP05	538685.07	285754.51	2.5m	PROPOSED	TRANSFER FROM EXISTING CONNECTION
LP06	538677.40	285772.56	2m	EXISTING	TRANSFER FROM EXISTING CONNECTION
LP07	538680.73	285794.96	1.5m	EXISTING	TRANSFER FROM EXISTING CONNECTION
LP08	538655.80	285764.42	2.5m	PROPOSED	TRANSFER FROM EXISTING CONNECTION
LP09	538646.67	285736.19	1m	PROPOSED	TRANSFER FROM EXISTING CONNECTION
S01	538659.47	285751.77	1.5m	PROPOSED	TRANSFER FROM EXISTING CONNECTION
S02	538671.78	285751.85	1.5m	PROPOSED	TRANSFER FROM EXISTING CONNECTION
S03	538673.02	285739.52	1.5m	PROPOSED	TRANSFER FROM EXISTING CONNECTION
S04	538657.91	285739.65	1.5m	PROPOSED	TRANSFER FROM EXISTING CONNECTION

THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION UNTIL FULL TECHNICAL APPROVAL OF THE STREET LIGHTING HAS BEEN GRANTED BY THE ADOPTING AUTHORITY. IF CONSTRUCTION BEGINS BEFORE APPROVAL THEN NO RESPONSIBILITY IS ACCEPTED FOR ANY ABORTIVE WORKS.

B	UPDATED FOLLOWING LPA COMMENTS	NA	DMH	TR	22.04.22
A	UPDATED COLUMN INFORMATION AND INCLUSION OF ILLUMINATED SIGNS	NA	DMH	TR	31.03.22
-	FIRST ISSUE	NA	DMH	TR	11.02.22
REV:	AMENDMENTS:	DRN:	CHK:	APP:	DATE:

PROJECT: STAINLESS METALCRAFT, CHATTERIS

DRAWING TITLE: SECTION 278 STREET LIGHTING DESIGN

CLIENT: STAINLESS METALCRAFT

DRAWING NUMBER: 26034_03_020_1

REVISION: B SHEET SIZE: A1 SCALE: 1:200

STATUS: FOR INFORMATION / APPROVAL

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North Cambridgeshire Training Centre in Chatteris

Proud to be part of Eastern Colleges Group

NCTC Training Offer

- ▶ Apprenticeships
- ▶ Focus on Engineering & Advanced Manufacturing
- ▶ Professional Development (employed and unemployed)
- ▶ Commercial Training Courses
- ▶ Pre-Employment Training
- ▶ Community Learning for Adults
- ▶ Skills Escalator to support local Schools



Apprenticeship Offer at NCTC

- General Welder Level 2
- LEAN Manufacturing Level 2
- Engineering Fitter Level 3
- Engineering Technician Level 3
- Maintenance and Operations Engineering Technician Level 3
- Engineering Manufacturing Technician Level 4
- Team Leader / Supervisor Level 3
- Operational and Departmental Manager Level 5
- Associate Project Manager Level 4
- HR Level 3/5
- Business Administrator Level 3
- Accounts assistant Level 2
- Customer Service Level 2/3
- Commercial Procurement and Supply Level 4

Commercial Offer at NCTC

- ILM Leadership and Management - Level's 2 through to 7
- IEE 18th Edition Wiring Regs / 2391 Inspection & Testing / 2377 PAT Testing
- First Aid / Mental Health First Aider
- IT Training - Excel, PowerPoint, Outlook etc.
- Sustainability and Sustainability Management
- Bespoke Engineering Training Units
- Coaching and Mentoring
- Non-accredited and bespoke skills training available, co-designed with industry

Adult Offer at NCTC

Local Funding

We have access to local funding to support the development of individuals outside of the normal Apprenticeship or University programmes. These are delivered across a range of Level 2 and Level 3 provision in a wide array of topics. Through our partnership we could grant access for your staff to utilise this training at no cost to you.

Level 2 Provision - [Adult Learning Online Courses \(wsc.ac.uk\)](http://wsc.ac.uk)

Level 3 Provision - [Lifetime Skills](#)

We also support over 500 individuals to enhance their English and Maths skills.

[English and Maths](#)
[ESOL](#)

Targets & Performance

Initial outlined targets require us to enrol between 80-120 Apprentices per year.

We have made a very positive start with the local training offer being very well received. Following marketing campaigns which included telephoning employers, e-shot, social media and attendance at many events we have already secured a pipeline of 41 Apprentices with many more employers coming back to us in the coming weeks with decisions on their recruitment.

Newly recruited Training Consultant is heading up the specific employer engagement across Northern Cambridgeshire and is solely focussing on NCTC and it's success.

Further Local Engagement Activity

In addition to 20 company commitments confirmed the Team have had positive dialogue with over 120 businesses in the CPCA and discussed at length around the benefits the NCTC will bring not just the immediate locality, but beyond.

Have hosted guided tours for employees of key stakeholders Combined Authority, Fenland District Council and Cambridgeshire County Council.

The Team has also worked closely with;

- Smart Manufacturing Alliance on the Cambs County day where the Cambridge's were in attendance.
- Have attended 14 school careers events and job fayres, with a further 4 planned.
- Held a pop up walk in information station at the recent Chatteris Midsummer Festival.
- Hosted a number personal tours at the NCTC for various persons of interest, most recently 4 Senior Transition Adviser's visited.
- Engaged with and planned further meetings with business parks Bartlett's and Lancaster Way.