



ODYSSEY

DEVELOPING JOURNEYS

KINGFISHER GROVE, WOKINGHAM

**ESTATE ROADS AND ACCESS
SPECIFICATION**



Kingfisher Grove, Wokingham

**ESTATE ROADS AND ACCESS SPECIFICATION
ON BEHALF OF SOVERIGN**

Prepared by

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**DOCUMENT CONTROL SHEET**

Project Name Kingfisher Grove, Wokingham

Project No. 23-117

Rev	Issue Purpose	Author	Checked	Reviewed	Approved	Date
-	Issue to client	BJ	BO	BJ	BC	31/10/25
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CONTENTS

1.0	INTRODUCTION	4
2.0	CONCLUSION	8

DRAWINGS

23-117-100	Site Access Constraints Layout
23-117-101	Site Location Plan
23-117-102	Site Access Clearance Layout
23-117-103	Site Access General Arrangement
23-117-104	Site Access Construction Makeup
23-117-105	Site Access Signage and White Lining
23-117-106	Site Access Engineering Layout
23-117-107	Site Access Long Sections
23-117-108	Site Access Construction Details



1.0 INTRODUCTION

1.1 *Preamble*

1.1.1 This specification document supports the discharge of Condition 07 of the Outline Planning Consent and the S106 Estate Roads Specification for the Kingfisher Grove residential development in Wokingham.

1.1.2 Condition 07 states *“Prior to the commencement of development, full details of the construction of the access, including levels, widths, construction materials, depths of construction, surface water drainage, boundary treatment, landscaping and lighting shall be submitted to and approved in writing by the local planning authority. Each dwelling shall not be occupied until the vehicle access to serve that dwelling has been constructed in accordance with the approved details to road base level and the final wearing course will be provided within 3 months of occupation, unless otherwise agreed in writing by the local planning authority.”*

1.1.3 *“Prior to Commencement of Development to pay to the Council the Estate Roads Inspection Fee and to submit to the council for its approval in writing (such approval not to be unreasonably withheld or delayed) a Detailed Specification in respect of the Estate Roads which sets out the construction of the Estate Roads which must be to a durable and serviceable standard.”*

1.1.4 It defines the technical parameters and materials to be applied in the design and construction of the estate road access and associated works, ensuring compliance with Wokingham Borough Council (WBC) Design Guide and Specification for Adoptable Roads.

1.2 *Accompanying Drawings*

1.2.1 The following drawings prepared by Odyssey Consult Ltd accompany this specification are shown in **Table 1-1** below.

**Table 1-1: Accompanying Drawings**

Drawing Number	Drawing Title
23-117-100	Site Access Constraints Layout
23-117-101	Site Location Plan
23-117-102	Site Access Clearance Layout
23-117-103	Site Access General Arrangement
23-117-104	Site Access Construction Make-up
23-117-105	Site Access Signage and White Lining
23-117-106	Site Access Engineering Layout
23-117-107	Site Access Long Sections
23-117-108	Site Access Construction Details

1.3 3. Design Standards and References

1.3.1 The estate access and road design has been developed in accordance with the following documents and standards:

- Wokingham Borough Council Design Guide and Specification for Adoptable Roads
- Wokingham Borough Council Highways Design Guide for Developers
- Design Manual for Roads and Bridges (DMRB)
- Specification for Highway Works (SHW)
- Manual for Streets (MfS1 & MfS2)
- CIRIA SuDS Manual (C753)

1.4 Estate Access Layout

1.4.1 The proposed estate access is designed to serve the development in accordance with WBC's visibility and geometry requirements.

1.4.2 The access ties into the existing highway with a **6.0m wide carriageway** and **2.0m wide footways** on both sides.

1.4.3 Visibility splays of **2.4m x 43m** are provided in each direction and have been demonstrated to be achievable within the adopted highway or within the applicant's control.

1.4.4 Vehicle tracking confirms that a large refuse vehicle can enter and exit the site in forward gear.



1.5 Construction Specification

1.5.1 The construction make-up for the access and estate roads follows WBC and SHW standards. The proposed typical construction details are as follows:

- **Carriageway:** 40mm SMA Surface Course, 60mm Binder Course, 150mm Type 1 Sub-base
- **Footways:** 25mm AC10 Surf, 50mm Binder, 100mm Type 1 Sub-base
- **Shared surfaces:** As per WBC specification for light vehicular loading areas
- **Kerbs:** HB2 for carriageway, 50mm splayed kerb to crossings, bullnose kerbs for internal radii

1.6 Drainage and Levels

1.6.1 Surface water drainage has been designed to capture and convey runoff from the access and estate roads to the approved site drainage network, ensuring discharge does not exceed greenfield rates.

1.6.2 Levels are designed to direct flows towards kerb lines and the proposed gullies located to the north of the access junction.

1.6.3 All pipework and manholes conform to *Sewers for Adoption 7th Edition* and WBC drainage requirements.

1.7 Materials and Finishes

1.7.1 Surfacing materials have been selected to ensure long-term durability and low maintenance.

1.7.2 Tactile paving is provided at pedestrian crossing points, and block paving is limited to private drives.

1.7.3 Footways are asphalt surfaced with concrete edgings, and grass verges are topsoiled and seeded.

1.8 Lighting and Street Furniture

1.8.1 Street lighting design is to be undertaken by others and coordinated with WBC prior to installation.



1.8.2 Ducts for electrical and communication services are to be installed in advance of final surfacing.

1.8.3 Signage and road markings are provided as shown on Odyssey **Drawing 23-117-105**.

1.9 Compliance Statement

1.9.1 This specification confirms that the estate road and access works at Kingfisher Grove comply with the standards and guidance set by WBC and SHW.

1.9.2 All materials and construction methods will ensure durability, serviceability, and maintainability suitable for long-term adoption.

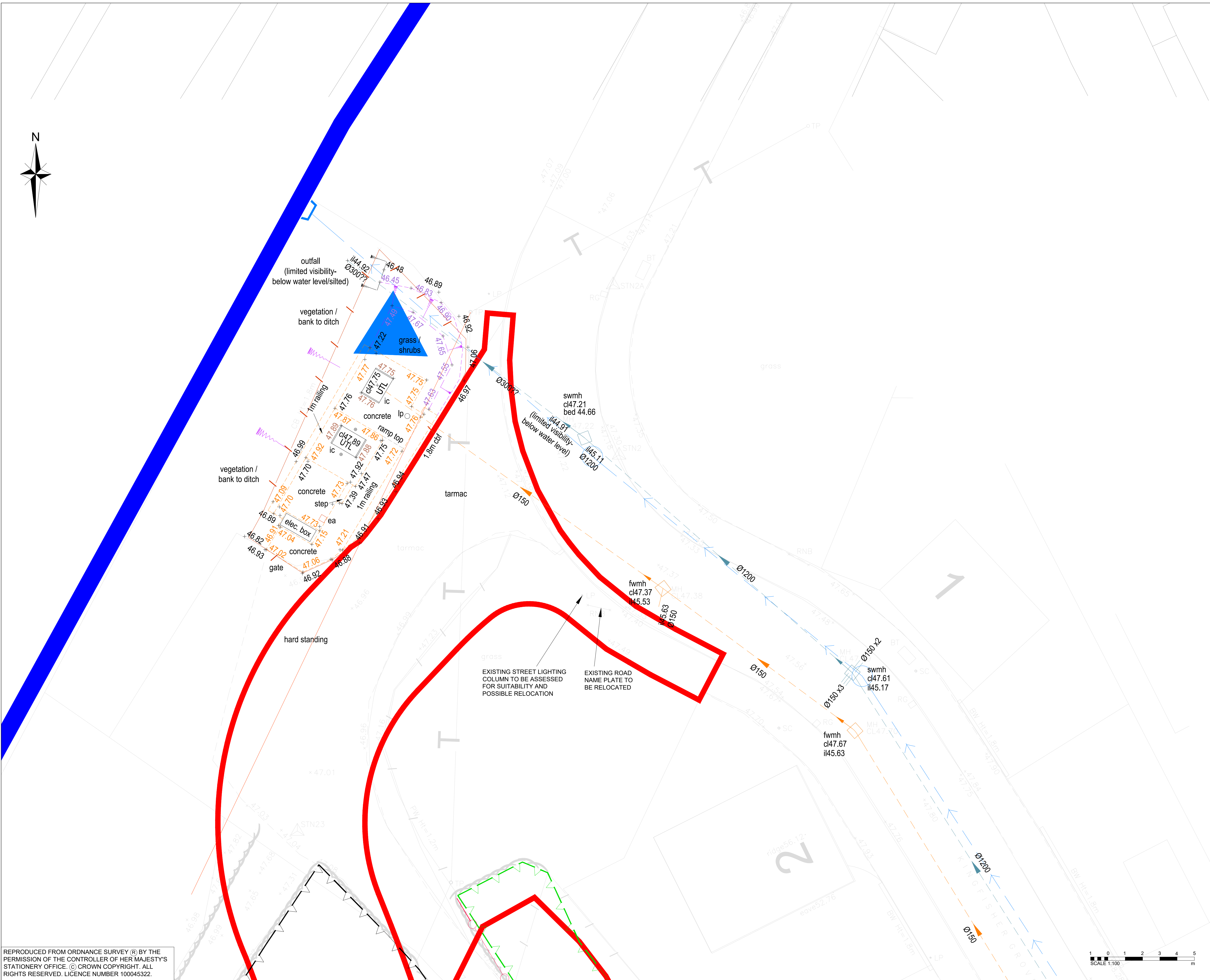


2.0 CONCLUSION

2.1.1 This document, read alongside Odyssey **Drawings 23-117-100 to 108**, provides the full technical basis for the discharge of **Condition 07 (Access Construction)** and the **S106 Estate Roads Specification**. The proposed works ensure safe and adoptable access in accordance with WBC standards.

DRAWINGS

P:\23-117 - Land West of Kingfisher Grove, Three Mile Cross\Tech\Acad\Drawings\Outline Condition 15 Access Construction\23-117-100 Site Access Constraints Layout.dwg



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NOTES

1. THIS DRAWING IS FOR THE PURPOSE OF CONFIRMING ALL THE EXISTING SERVICES AND CONSTRAINTS NOTED.

2. THE CONTRACTOR IS TO SATISFY THEMSELVES ALL EXISTING SERVICES ARE LOCATED AND CONFIRMED BEFORE COMMENCEMENT OF ANY WORKS.

3. IT IS NOTED THAT A 11KV ELECTRIC CABLE CROSSES THE SITE FROM EAST TO WEST, THESE CABLES WILL REQUIRE DIVERSION TO FACILITATE THE DEVELOPMENT.

4. DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.

5. ALL DIMENSIONS SHOWN ON THIS DRAWING ARE IN METRES.

6. ALL EXISTING LEVELS, GRADIENTS, DEPTHS, Etc. ARE TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES ARE TO REPORTED TO THE ENGINEER IMMEDIATELY

7. TOPOGRAPHICAL SURVEY HAS BEEN PROVIDED BY GROUNDSSURVEYS LTD. DRAWING REFERENCE 7280-01A. DATED JANUARY 2020.

8. SITE LAYOUT HAS BEEN PROVIDED BY DWC ARCHITECTS

9. THE LEVELS SHOWN ON THIS DRAWING ARE INDICATIVE AND SUBJECT TO CHANGE.

10. INFORMATION SHOWN IS IN PERSUANCE OF CLEARING OUTLINE CONDITION 15 OF THE PLANNING APPROVAL.

KEY

PROPOSED SITE BOUNDARY

EXISTING SURFACE WATER SEWER - PIPE SIZE INDICATED ON PLAN

EXISTING SURFACE WATER MANHOLE

EXISTING FOUL WATER SEWER - PIPE SIZE INDICATED ON PLAN

EXISTING FOUL WATER MANHOLE

EXISTING SURFACE WATER OUTFALL

EXISTING FOUL WATER PUMPING STATION

TREE PROTECTION FENCING

CATEGORY C HEDGE

CATEGORY C TREE

EXISTING OVERHEAD TELECOM LINE

EXISTING TELEGRAPH POLE

EXISTING LIGHTING COLUMN

INDICATIVE OVERHEAD 11KV ELECTRICITY CABLE

A

DRAWING TITLE AMENDED

LG

BO

GG

21.11.25

Rev

Amendments

Dm

Chk

App

Date

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Job Title

LAND WEST OF KINGFISHER GROVE, THREE MILE CROSS

Drawing Title

SITE ACCESS CONSTRAINTS OUTLINE CONDITION 07

Client

SOVEREIGN

Scale

1:100 @A1

Date

OCT 25

Designed

LG

Drawn

LG

Checked

BO

Approved

BO

Job No

23-117

Drawing No

23-117-100

Rev

A



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5. INFORMATION SHOWN IS IN PERSUANCE OF CLEARING OUTLINE CONDITION 07 OF THE PLANNING APPROVAL.

KEY

— PROPOSED SITE BOUNDARY

A	DRAWING TITLE AMENDED	LG	BO	GG	21.11.25
Rev	Amendments	Drn	Chk	App	Date



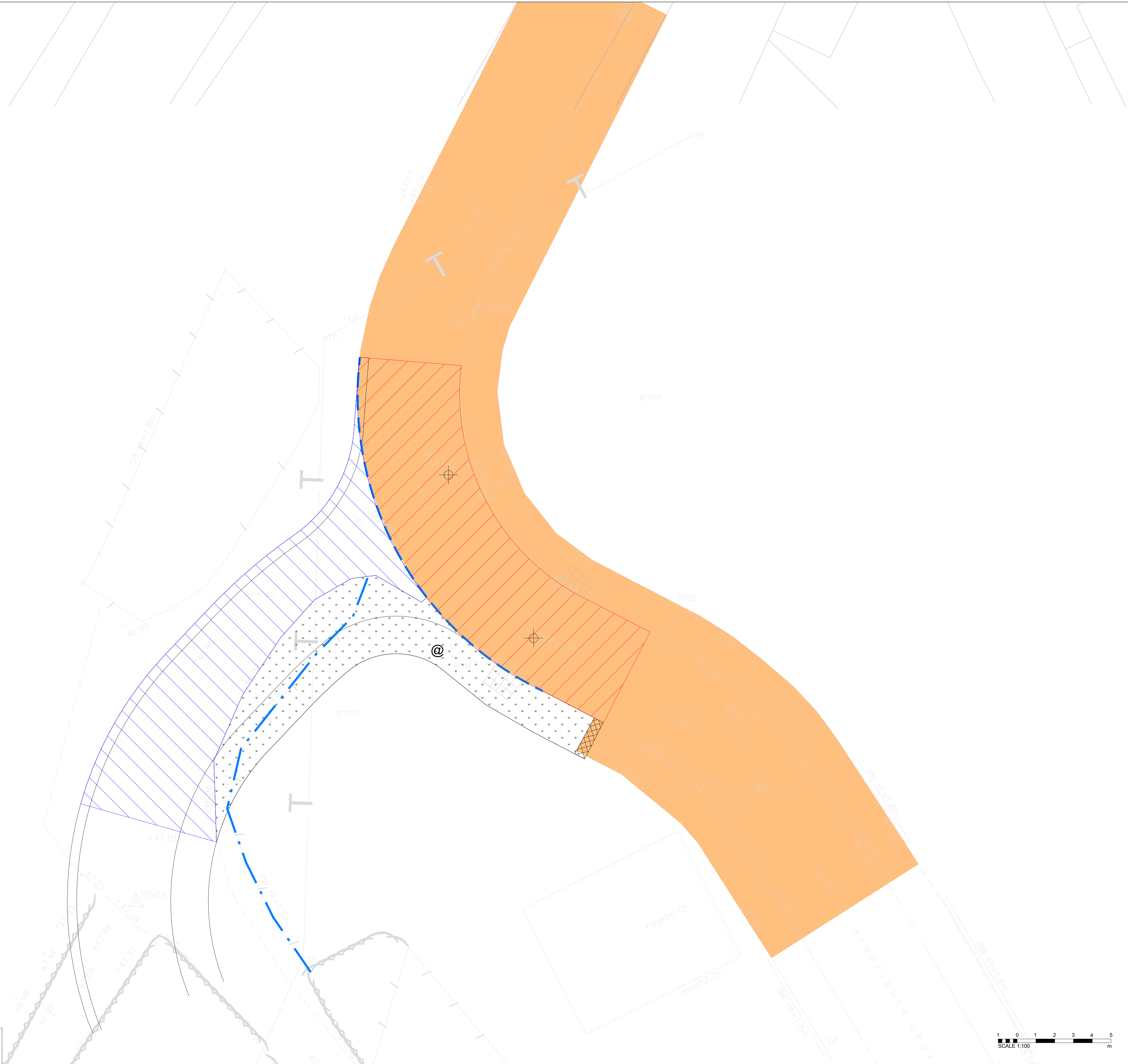
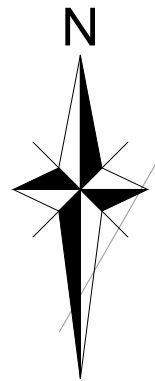
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Job Title	KINGFISHER GROVE	Scale	1:1250 @A4	Date	OCT 25	Designed	LG
Drawing Title	LOCATION PLAN	Drawn	LG	Checked	BO	Approved	BO
Client	SOVEREIGN	Job No	23-117	Drawing No	23-117-101	Rev	A

P:\23-117 - Land West of Kingfisher Grove, Three Mile Cross\Tech\Acad\Drawings\Outline Condition 15 Access Construction\23-117-102 Site Access Clearance Layout.dwg

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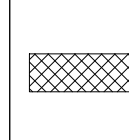
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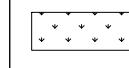
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4. ALL DIMENSIONS, LEVELS AND SURVEY GRID CO-ORDINATES ARE TO BE CHECKED ON SITE AND THE ENGINEER NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF THE WORKS
5. NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING IS PERMITTED WITHOUT PERMISSION FROM THE ENGINEER
6. THE CONTRACTOR MUST ENSURE ALL WORKING AREAS ARE FULLY SECURE
7. UNLESS OTHERWISE STATED, ALL EXCAVATED MATERIAL SHALL BE DISPOSED OFF TO AN APPROVED TIP
8. ALL EXISTING IRON WORK SHALL BE ADJUSTED TO SUIT PROPOSED FINISH LEVELS USING CLASS B ENGINEERING BRICKS TO B.S. EN 711-1 AND/OR CEMENT MORTAR DESIGNATION (i) TO CLAUSE 2404 OF THE SPECIFICATION FOR HIGHWAY WORKS WITH THE APPROVAL OF THE STATUTORY UNDERTAKER
9. ALL FOUNDATIONS TO EXISTING ROAD SIGNS, LIGHTING COLUMNS, TELEGRAPH POLES ETC. TO BE REMOVED SHALL BE BROKEN OUT AND DISPOSED OF TO AN APPROVED TIP.
10. BUSHES, UNDERGROWTH OR SMALL TREES, THE TRUNKS OF WHICH ARE LESS THAN 300mm GIRTH AT 1m ABOVE GROUND LEVEL, TREE STUMPS LESS THAN 100mm DIAMETER AND HEDGES WITHIN THE LIMIT OF THE WORKS, SHALL BE UPROOTED AND DISPOSED OF BY THE CONTRACTOR
11. CONTRACTOR TO LOCATE THE POSITION AND DEPTH OF ALL SERVICES BEFORE COMMENCING SITE CLEARANCE WORKS
12. ALL TOPSOIL SHALL BE STRIPPED WITHIN THE LIMIT OF WORKS FOR RE-USE ON VERGES ETC. THE TOP SOIL TO BE STOCKPILED AT A LOCATION TO BE AGREED WITH THE ENGINEER
13. ALL BLOCKAGES IN THE EXISTING DRAINAGE TO BE CLEARED AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE ENGINEER AND WOKINGHAM BOROUGH COUNCIL
14. ALL EXISTING CARRIAGEWAY MARKINGS AFFECTED BY THE PROPOSALS SHALL BE REMOVED AS SOON AS THEY BECOME SUPERFLUOUS OR A HAZARD TO TRAFFIC.
15. ALL EXISTING ROAD SIGNS WITHIN AND ADJACENT TO THE WORKS TO BE ASSESSED FOR SUITABILITY AS SHOWN ON THE SIGNAGE DRAWINGS. EXISTING VEGETATION TO BE CUT BACK AND REMOVED TO ENSURE CLEAR VIEW OF SIGN IN ITS EXISTING OR RELOCATED POSITION.


KEY

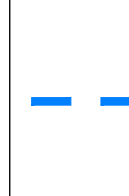
 EXISTING SURFACE COURSE TO BE PLANED OFF AND REMOVED TO AN APPROVED TIP

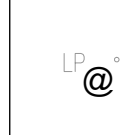
 EXISTING CAR PARK CONSTRUCTION TO BE EXCAVATED TO FORMATION AND REMOVED TO AN APPROVED TIP

 EXISTING FOOTWAY CONSTRUCTION TO BE TIED-IN WITH NEW FOOTPATH AND LEVELS LOCALLY ADJUSTED TO SUIT NEW CARRIAGEWAY/CYCLEWAY/FOOTWAY CONSTRUCTION

 EXISTING TOPSOIL TO BE STRIPPED, LOCALISED LEVELLING OF AREA AS REQUIRED

 EXISTING POST AND RAIL FENCE INCLUDING ANY FOUNDATIONS TO BE REMOVED

 EXISTING KERBS TO BE REMOVED. EXISTING KERB TO BE REUSED IF IN AN ACCEPTABLE CONDITION AND SECURELY STORED. ALL UNSUITABLE KERBS TO BE TAKEN TO CONTRACTORS APPROVED TIP. ASSOCIATED FOUNDATIONS BROKEN OUT AND MATERIAL REMOVED TO CONTRACTOR APPROVED TIP

 ALL EXISTING STREET LIGHTING COLUMNS WITHIN JUNCTION WORKS TO BE ASSESSED FOR SUITABILITY BY WOKINGHAM BOROUGH COUNCIL STREET LIGHTING TEAM

 EXISTING MANHOLE - SEE NOTE 8.

 EXISTING HIGHWAY LAND

A	DRAWING TITLE AMENDED	LG	BO	GG
Rev	Amendments	Dm	Chk	App

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Job Title
LAND WEST OF KINGFISHER GROVE, THREE MILE CROSS

Drawing Title
**SITE ACCESS CLEARANCE LAYOUT
OUTLINE CONDITION 07**

Client
SOVEREIGN

Scale 1:100 @A1	Date 16.10.25	Designed LG
Drawn LG	Checked BO	Approved BO
Job No 23-117	Drawing No 23-117-102	Rev A

P:\23-117 - Land West of Kingfisher Grove, Three Mile Cross\Tech\Acad\Drawings\Outline Condition 15 Access Construction\23-117-103 Site Access General Arrangement.dwg

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 - THE LEVELS SHOWN ON THIS DRAWING ARE INDICATIVE AND SUBJECT TO CHANGE.
 - ALL TESTING REQUIRED TO OBTAIN ADOPTION FROM WOKINGHAM BOROUGH COUNCIL IS TO BE CARRIED OUT AT THE CONTRACTORS EXPENSE.
 - ALL AFFECTED EXISTING SERVICE COVERS / IRON WORK TO BE ADJUSTED TO SUIT THE PROPOSED LEVELS WITH THE APPROVAL OF THE APPROPRIATE STATUTORY UNDERTAKER
 - CONTRACTOR TO LOCATE THE POSITION AND DEPTH OF ALL SERVICES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
 - INFORMATION SHOWN IS IN PERSUANCE OF CLEARING OUTLINE CONDITION 15 OF THE PLANNING APPROVAL.

- KEY
- 2.4m x 25m VISIBILITY SPY (30mph MIS)
 - 1.5m x 25m PEDESTRIAN VISIBILITY UNLESS NOTED OTHERWISE
 - EXISTING HIGHWAY LAND
 - ACCESS ROAD

A		DRAWING TITLE AMENDED		LG	BO	GG	21.11.25
Rev	Amendments			Dm	Chk	App	Date

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Job Title

LAND WEST OF KINGFISHER GROVE, THREE MILE CROSS













Drawing Title

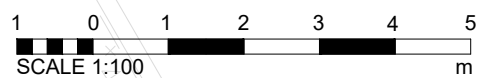
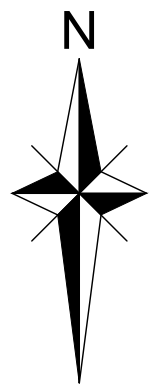
GENERAL ARRANGEMENT OUTLINE CONDITION 07

Client

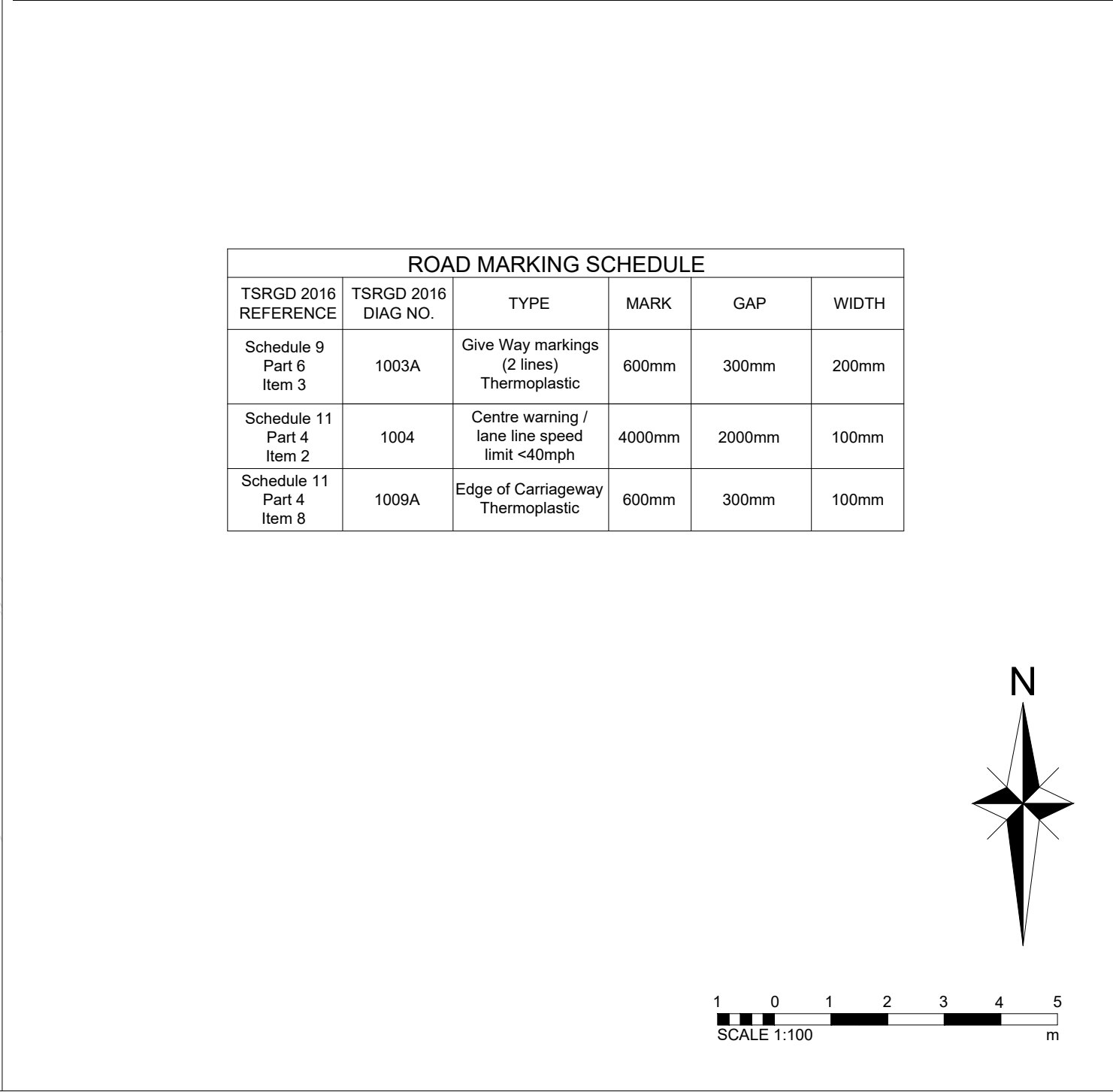
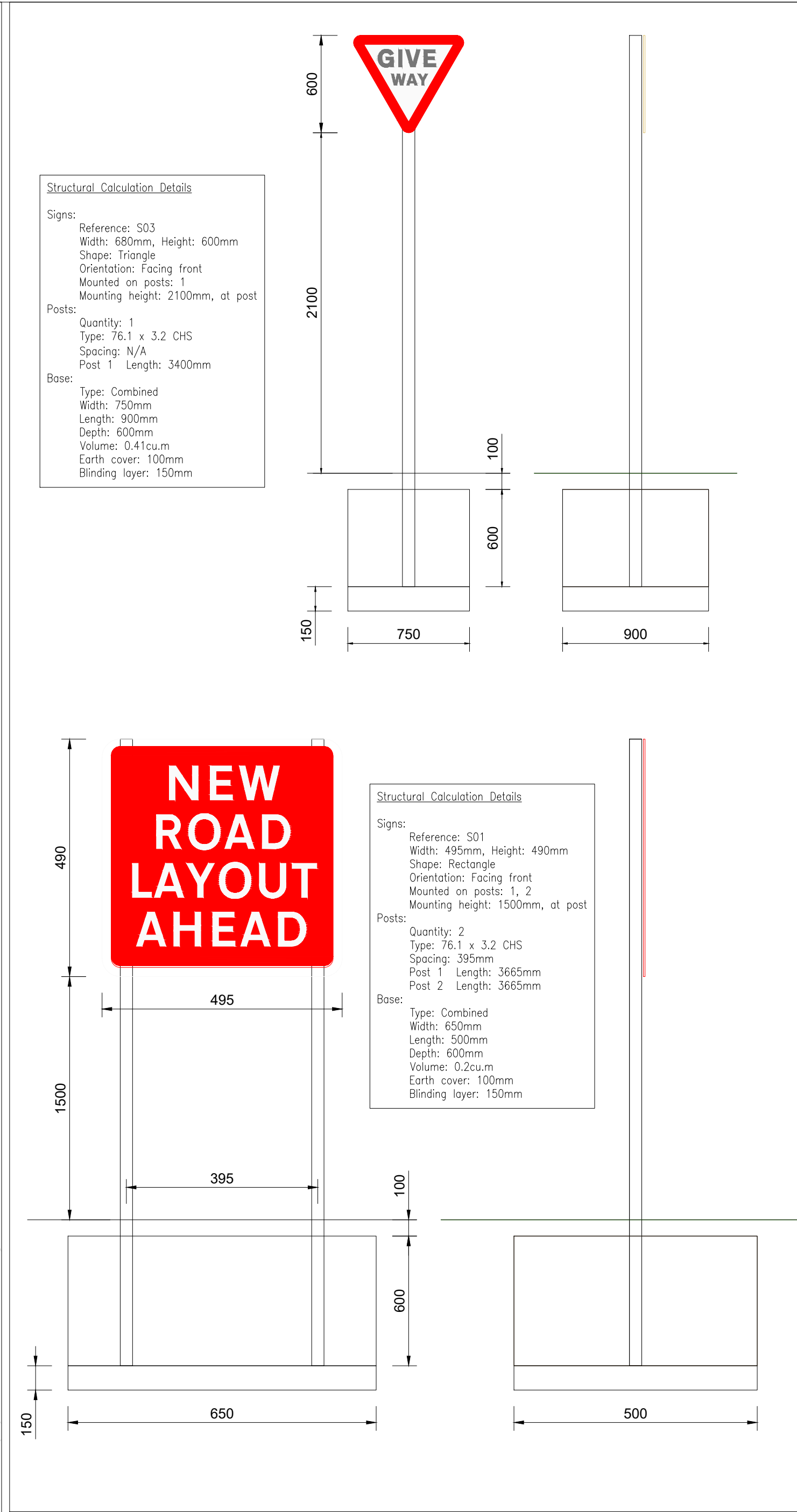
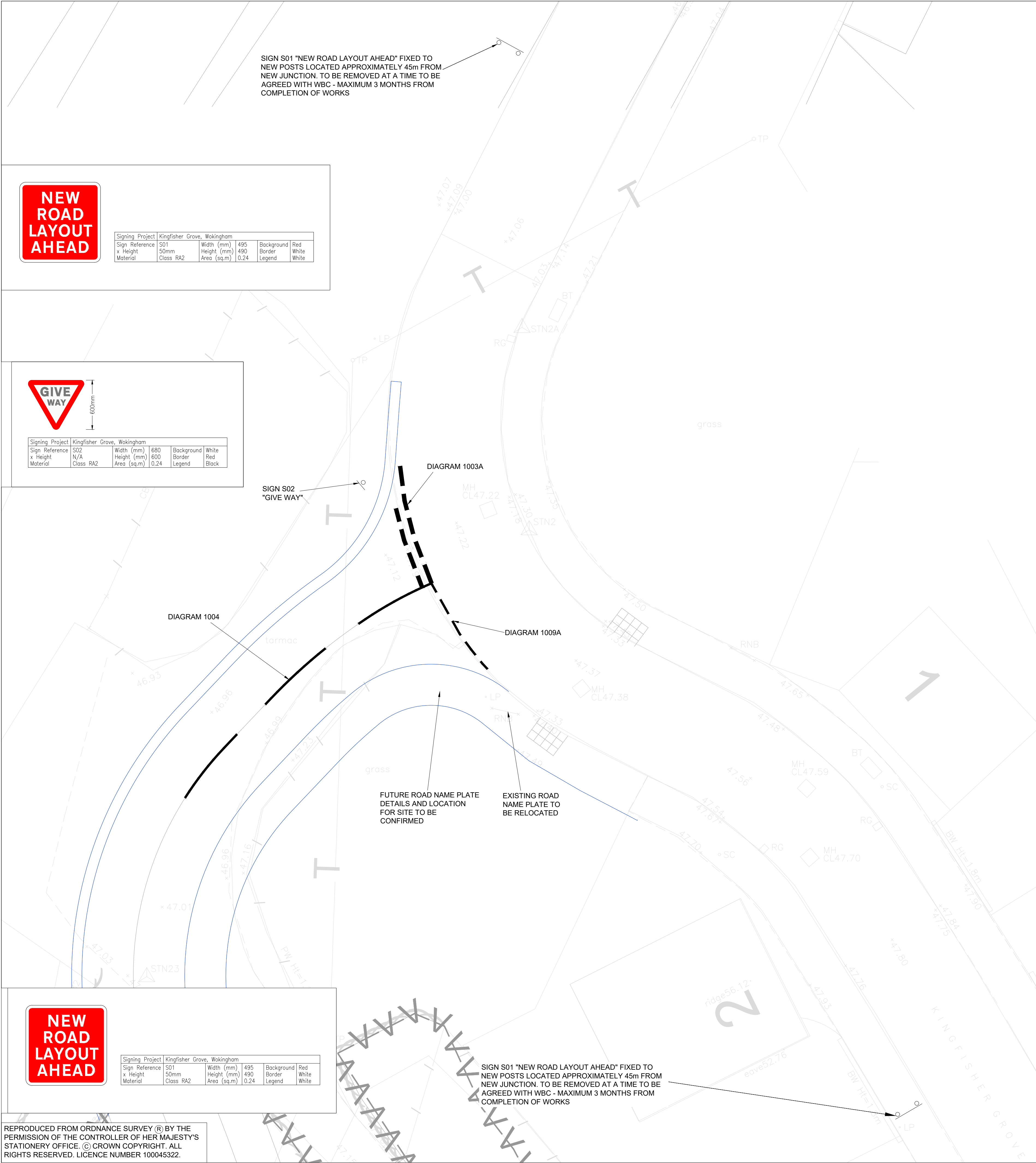
SOVEREIGN

Scale	Date	Designed
1:100 @A1	16.10.25	LG
Drawn	Checked	Approved
LG	BO	BO
Job No	Drawing No	Rev
23-117	23-117-103	A

NOTES					
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS AND OTHER RELATED DRAWINGS ISSUED BY THE ENGINEER.					
2. ALL ADAPTABLE WORKS IN ACCORDANCE WITH WOKINGHAM BOROUGH COUNCIL (WBC) STANDARD DETAILS AND SPECIFICATION FOR HIGHWAY WORKS (S.H.W.) LATEST EDITION AND CURRENT BRITISH STANDARDS.					
3. NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING IS PERMITTED WITHOUT PERMISSION FROM THE ENGINEER.					
4. ALL SOFT SPOTS AND VOIDS SHALL BE REMOVED PRIOR TO CONSTRUCTION AND REPLACED WITH SUITABLE FILL MATERIAL AS AGREED WITH WBC HIGHWAY ENGINEER.					
5. ALL CONCRETE AND CONCRETE PRODUCTS BELOW GROUND LEVEL SHALL BE SULPHATE RESISTANT DEPENDENT ON SUBSOIL CONDITIONS.					
6. WITH SUB-BASE MATERIAL PARTICULAR ATTENTION SHALL BE PAID PLACING AND COMPACTING TO ACHIEVE MAXIMUM DENSITY.					
7. ALL ASPHALT / BITUMINOUS MATERIAL SHALL BE TRANSPORTED, LAID, COMPACTED AND TESTED TO BS 594987 BY AN EXPERIENCED CONTRACTOR.					
8. WHERE THE WIDTH OF FULL DEPTH CONSTRUCTION IS LESS THAN 1000mm CONSTRUCTION LAYERS BELOW SURFACING SHALL BE REPLACED WITH STA CONCRETE.					
9. ALL JOINTS IN BINDER AND BASE COURSES TO BE SEALED WITHIN 24 HOURS IN ACCORDANCE WITH SHW CLAUSE 903.					
10. EXACT EXTENT OF HIGHWAY RESURFACING TO BE AGREED ON SITE WITH WBC HIGHWAY ENGINEER.					
11. THE PAVEMENT CONSTRUCTION HAS BEEN DESIGNED ON THE BASIS OF AN ASSUMED WORST CASE CBR VALUE OF 5%. THE CONTRACTOR AT HIS OWN EXPENSE IS TO UNDERTAKE INSITU TESTING AT 30 METRE CENTRES TO ESTABLISH THE ACTUAL CBR VALUES AND ADJUST THE PAVEMENT FOUNDATION CONSTRUCTION IN ACCORDANCE THE WBC FOUNDATION TABLE SHOWN ON DRAWING 23-119/112. THE CONTRACTOR IS TO LIAISE WITH THE ENGINEER IF THERE IS ANY DISCREPANCY. IN THE EVENT THE INSITU TESTING CONFIRMS THAT CBR'S ARE LESS THAN 2.5% REFER TO ENGINEER FOR APPROPRIATE ACTION TO STABILISE OR REINFORCE THE GROUND.					
12. COPIES OF ORDERS SHALL BE MADE AVAILABLE TO THE ENGINEER.					
13. COPIES OF DELIVERY TICKETS AND RECORDS OF WHERE MATERIALS ARE LAID.					
14. CERTIFICATION SHALL BE PROVIDED OF DELIVERY AND ROLLING TEMPERATURES.					
15. EXISTING PAVEMENT STRUCTURE TO BE CONFIRMED WITH CORE SAMPLES TO ASSESS SUITABILITY BEFORE OVERLAY CONSTRUCTION DESIGN CAN BE FINALISED.					
16. INFORMATION SHOWN IS IN PURSUENCE OF CLEARING OUTLINE CONDITION 15 OF THE PLANNING APPROVAL.					
KEY					
	FULL DEPTH CARRIAGEWAY CONSTRUCTION. REFER TO ODYSSEY DRG 23-117/...				
	FULL DEPTH FOOTWAY CONSTRUCTION. REFER TO ODYSSEY DRG 23-117/...				
	CARRIAGEWAY OVERLAY AND TIE IN CONSTRUCTION. REFER TO ODYSSEY DRAWING 23-117/...				
	FOOTWAY TIE IN CONSTRUCTION. REFER TO ODYSSEY DRAWING 23-117/...				
	TEMPORARY END OF ROAD. BITUMINOUS MATERIAL WITH 1 IN 10 GRADIENT TO EXISTING GROUND. REFER TO DRAWING 23-117/...				
	BLISTER TACTILE PAVING (COLOUR TO ARCHITECT SPECIFICATION). REFER TO ODYSSEY DRAWING 23-117/...				
	HALF BATTERED PRECAST CONCRETE KERB. REFER TO DRAWING 23-117/...				
	PRECAST CONCRETE EDGING KERB. REFER TO DRAWING 23-117/...				
	PRECAST CONCRETE CHANNEL KERB. REFER TO DRAWING 23-117/...				
	PRECAST CONCRETE TRANSITION KERBS BETWEEN HB2 & DK. REFER TO DRAWING 23-117/...				
	PRIVATE ACCESS ROAD.				
A	DRAWING TITLE AMENDED	LG	BO	GG	23.11.25
Rev	Amendments	Dm	Chk	Appr	Date
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Unit 1 Pucknall Farm Donis Lane Braintree Romey SS09 9QJ		Telephone: 01794 537880 Fax: 01526 311134 E: info@odysseyconsult.co.uk W: www.odysseyconsult.co.uk			
Job Title					
LAND WEST OF KINGFISHER GROVE, THREE MILE CROSS					
Drawing Title					
SITE ACCESS CONSTRUCTION MAKEUP OUTLINE CONDITION 07					
Client					
SOVEREIGN					
Scale	Date		Designed		
1:100 @A1	OCT 25		LG		
Drawn	Checked		Approved		
LG	BO		BO		
Job No	Drawing No				Rev
23-117	23-117-104				A



P:\23-117 - Land West of Kingfisher Grove, Three Mile Cross\Tech\Acad\Drawings\Outline Condition 15 Access Construction\23-117-105 Site Access Signage and White Lining.dwg



NOTES

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH SPECIFICATION FOR HIGHWAY WORKS (S.H.W.), WOKINGHAM BOROUGH COUNCIL (W.B.C.) SPECIFICATIONS, STANDARD DETAILS AND ALL OTHER RELEVANT DRAWINGS ISSUED BY THE ENGINEER.
- THE CONTRACTOR SHALL REFER TO THE TRAFFIC SIGNS REGULATIONS AND GENERAL DIRECTIONS 2016 ACT FOR ROAD MARKINGS ALLOWED.
- ALL LOCATIONS TO BE AGREED ON SITE WITH W.B.C. ENGINEER/HIGHWAY OFFICER.
- PROPOSED LINING TO TIE IN SMOOTHLY WITH EXISTING.
- ALL EXISTING LINING TO BE REFRESHED WITHIN THE VICINITY OF THE WORKS TO ENSURE AND PROVIDE CLEAR INSTRUCTION TO THE ROAD USER.
- ALL PERMANENT ROAD MARKINGS SHALL BE REFLECTORISED AND COMPLY FULLY WITH THE SPECIFICATION AND PERFORMANCE REQUIREMENTS OF CLAUSE 1212.
- FOUNDATION SIZES BASED UPON A SOIL BEARING CAPACITY OF 100 kPa. TO BE CONFIRMED BY SITE INVESTIGATION.
- INFORMATION SHOWN IS IN PERSUANCE OF CLEARING OUTLINE CONDITION 15 OF THE PLANNING APPROVAL.

LEGEND

PROPOSED SIGNAGE / ROAD NAME PLATES

ACCESS ROAD

Job Title

LAND WEST OF KINGFISHER GROVE, THREE MILE CROSS

Drawing Title

SIGNAGE AND WHITE LINING OUTLINE CONDITION 07

Client

SOVEREIGN

Scale

1:100 @A1

Date

OCT 25

Designed

LG

Drawn

LG

Checked

BO

Approved

BO

Job No

23-117

Drawing No

23-117-105

Rev

A

ODYSSEY

Unit 1 Pucknall Farm
Dores Lane
Braintreefield
Romsey SO51 9QJ

Telephone: 01784 537880
Fax: 01265 331134
E: info@odysseyconsult.co.uk
W: www.odysseyconsult.co.uk


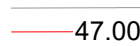





P123-117 - Land West of Kingfisher Grove, Three Mile CrossTechAcadDrawingsOutline Condition 15 Access Construction123-117-106 Site Access Engineering Layout.dwg

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NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS, DETAILS AND SPECIFICATIONS.
2. ALL ADOPTABLE WORKS IN ACCORDANCE WITH WOKINGHAM BOROUGH COUNTY (WBC) STANDARD DETAILS AND SPECIFICATION FOR HIGHWAY WORKS (S.H.W.) LATEST EDITION AND CURRENT BRITISH STANDARDS.
3. EXISTING DETAILS ARE ASSUMED AND TO BE CONFIRMED ON SITE. ANY DISCREPANCY TO BE REPORTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF WORKS.
4. IF THERE IS ANY AMBIGUITY BETWEEN THE SPECIFICATION AND THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER.
5. DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.
6. ALL DIMENSIONS, LEVELS, SETTING OUT POINTS AND SURVEY GRID CO-ORDINATES ARE TO BE CHECKED ON SITE AND THE ENGINEER NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF THE WORKS.
7. NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING IS PERMITTED WITHOUT PERMISSION FROM THE ENGINEER.
8. INFORMATION SHOWN IS IN PERSUANCE OF CLEARING OUTLINE CONDITION 15 OF THE PLANNING APPROVAL.
7. IN COMPLIANCE WITH CDM 2015 ODYSSEY HAS FOLLOWED IT'S DESIGN RISK MANAGEMENT PROCESS FOR HAZARD ELIMINATION AND RISK REDUCTION IN DEVELOPING THE ODYSSEY DESIGNS SHOWN ON THIS AND ASSOCIATED DRAWINGS. THERE ARE NO ABNORMAL OR UNUSUAL RESIDUAL RISKS ASSOCIATED WITH THE DESIGN. ANY OTHER RESIDUAL RISKS ARE THOSE THAT WOULD NORMALLY BE EXPECTED BY COMPETENT PERSONS OR CONTRACTORS ENGAGED ON WORK OF THIS NATURE OR TYPE.

KEY

- RG  PROPOSED ROAD GULLY AND LEAD, WITH D400 SIDE HINGED GRATING TO W.B.C. SPECIFICATION
-  47.00 PROPOSED CONTOURS SHOWN AT 20mm VERTICAL INTERVALS
- MH CL  76.32 EXISTING MANHOLE. WORKS AS NOTED
- EX.RG  EXISTING ROAD GULLY. TREATMENT AS NOTED
-  EXISTING SURFACE WATER DRAINAGE ROUTE TO BE CONFIRMED BEFORE COMMENCEMENT OF WORKS
-  EXISTING FOUL WATER DRAINAGE ROUTE TO BE CONFIRMED BEFORE COMMENCEMENT OF WORKS
- + 75.83 EXISTING SPOT LEVEL
-  ACCESS ROAD

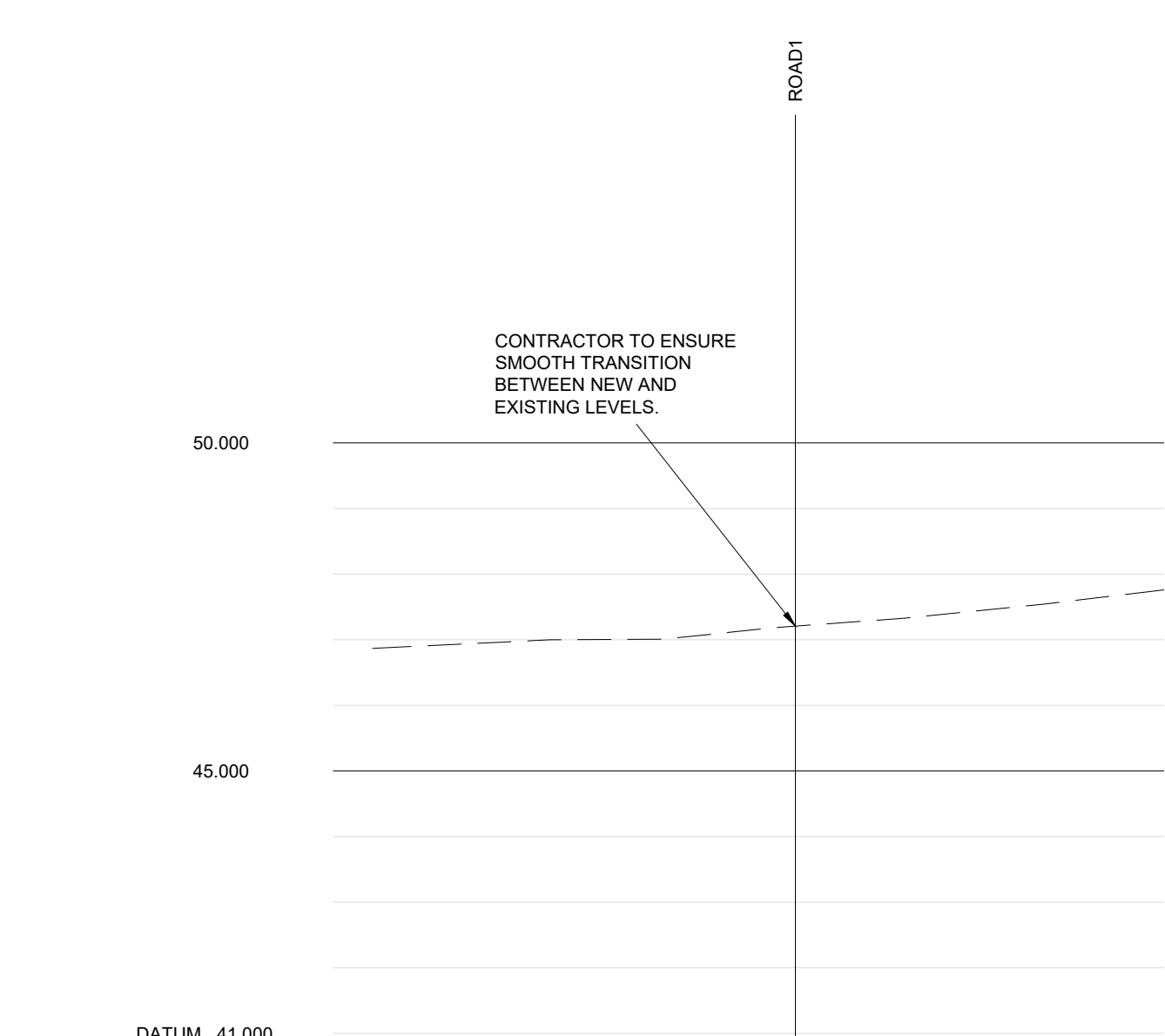
A	DRAWING TITLE AMENDED	LG	BO	GG	21.11.25
Rev	Amendments	Dm	Chk	App	Date

**ODYSSEY**

Unit 1 Pucknall Farm
Dores Lane
Braintreefield
Romey SO91 9QJ

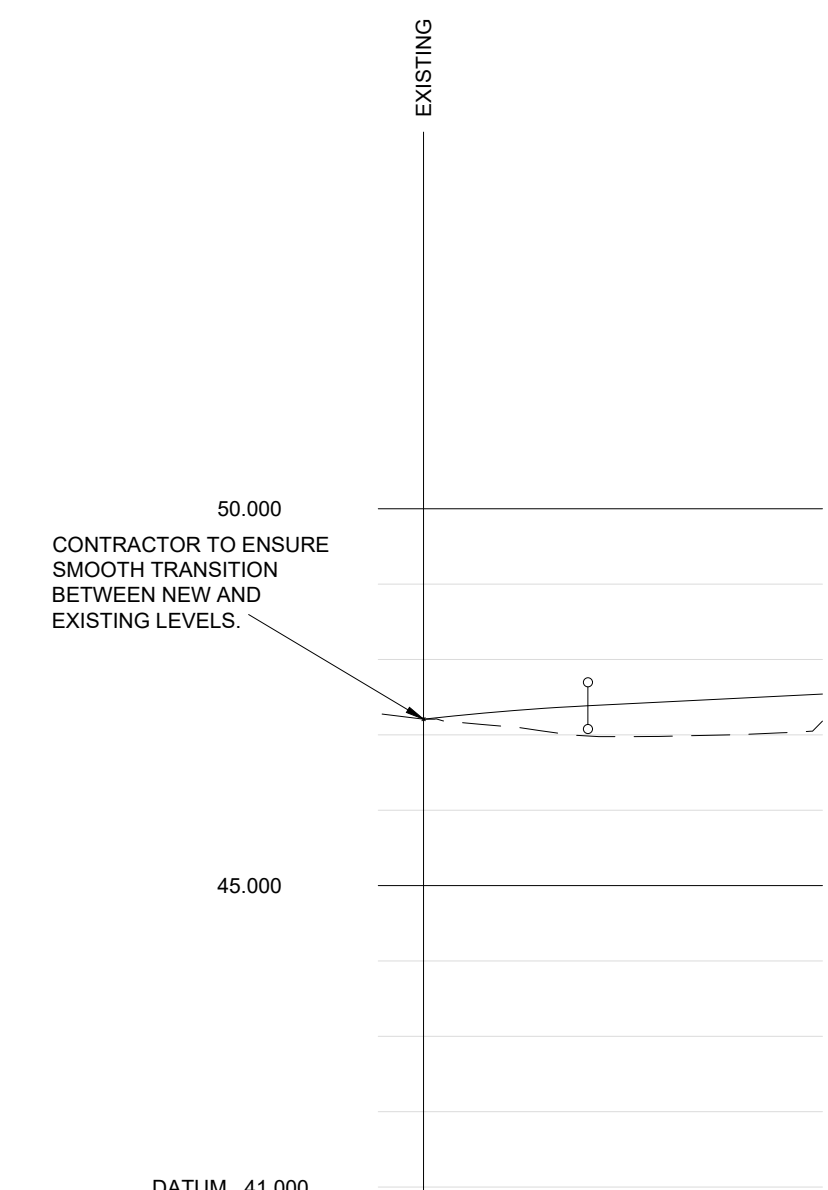
Telephone: 01784 537880
Fax: 01226 331134
E: info@odysseyconsult.co.uk
W: www.odysseyconsult.co.uk

Job Title					
LAND WEST OF KINGFISHER GROVE, THREE MILE CROSS					
Drawing Title					
SITE ACCESS ENGINEERING LAYOUT OUTLINE CONDITION 07					
Client					
SOVEREIGN					
Scale		Date		Designed	
1:100 @A1		OCT 25		LG	
Drawn		Checked		Approved	
LG		BO		BO	
Job No		Drawing No			Rev
23-117		23-117-106			A



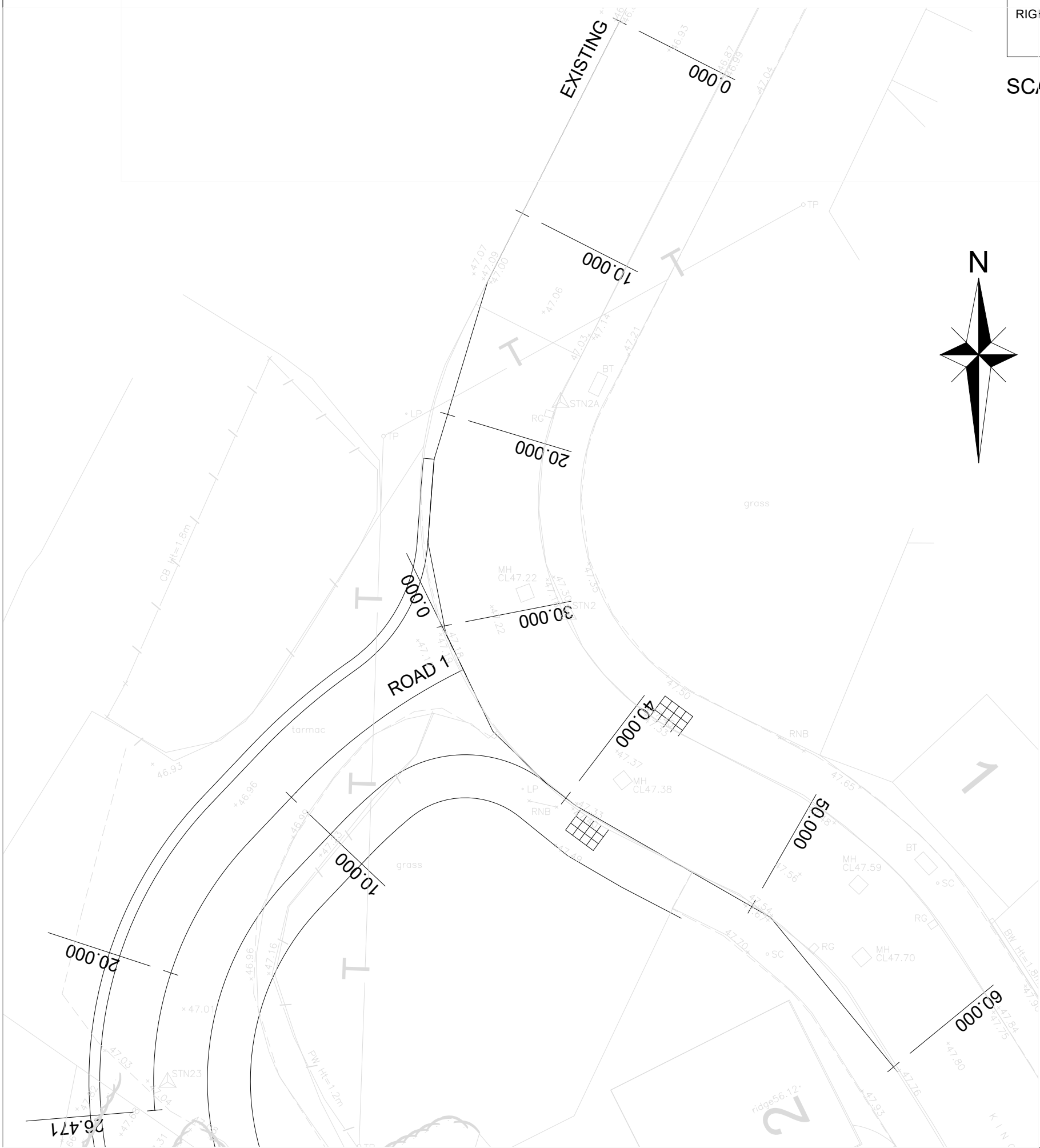
EXISTING						
DATUM	41.000					
CHAINAGE	0.000	10.000	20.000	30.000	40.000	50.000
EXISTING GROUND LEVEL	46.870	46.966	47.007	47.173	47.322	47.520
ALIGNMENT LEVEL	46.870	46.966	47.007	47.173	47.322	47.520
VERTICAL ALIGNMENT	G= 0.959% 1: 104.3					
	G= 0.106% 1: 945.2					
	G= 2.095% 1: 47.7					
	G= 1.465% 1: 68.2					
	G= 2.011% 1: 49.7					
	G= 2.309% 1: 42.2					
HORIZONTAL ALIGNMENT						

SCALE 1:500 HORIZONTAL, 1:100 VERTICAL



ROAD1						
DATUM	41.000					
CHAINAGE	0.000	5.000	10.000	20.000	26.471	
EXISTING GROUND LEVEL	47.208		46.997	47.000	47.183	
ALIGNMENT LEVEL	47.208	47.307	47.378	47.478	47.543	
VERTICAL ALIGNMENT	L= 10.913 KF= -8.49896					
	G= 1.002% 1: 99.8					
HORIZONTAL ALIGNMENT	R= 27.099					
	R= 16.150					
LEFT HAND CHANNEL	47.391	47.440	47.491	47.541	47.591	47.695
RIGHT HAND CHANNEL	47.245	47.296	47.315	47.396	47.416	47.486

SCALE 1:500 HORIZONTAL, 1:100 VERTICAL



OFFSET		2.750		
GROUND LEVEL	47.402	47.355	47.322	47.458
FEATURE LEVEL	47.391	47.322	47.486	47.340

ALIGNMENT EXISTING
CHAINAGE 40.000

OFFSET		2.750		
GROUND LEVEL	47.387	47.227	47.173	47.053
FEATURE LEVEL	47.242	47.173		

ALIGNMENT EXISTING
CHAINAGE 30.000

OFFSET		2.750		
GROUND LEVEL	47.329	47.175	47.088	47.068
FEATURE LEVEL	47.137	47.068		

ALIGNMENT EXISTING
CHAINAGE 25.000

OFFSET		4.500		
GROUND LEVEL	47.130	46.978	46.981	47.000
FEATURE LEVEL	47.779	47.686	47.478	47.416

ALIGNMENT ROAD1
CHAINAGE 20.000

OFFSET		4.500		
GROUND LEVEL	47.285	47.206	47.215	46.997
FEATURE LEVEL	47.614	47.565	47.378	47.315

ALIGNMENT ROAD1
CHAINAGE 10.000

OFFSET		4.856		
GROUND LEVEL	47.483	47.298	47.208	47.119
FEATURE LEVEL	47.451	47.327	47.208	47.130

ALIGNMENT ROAD1
CHAINAGE 0.000

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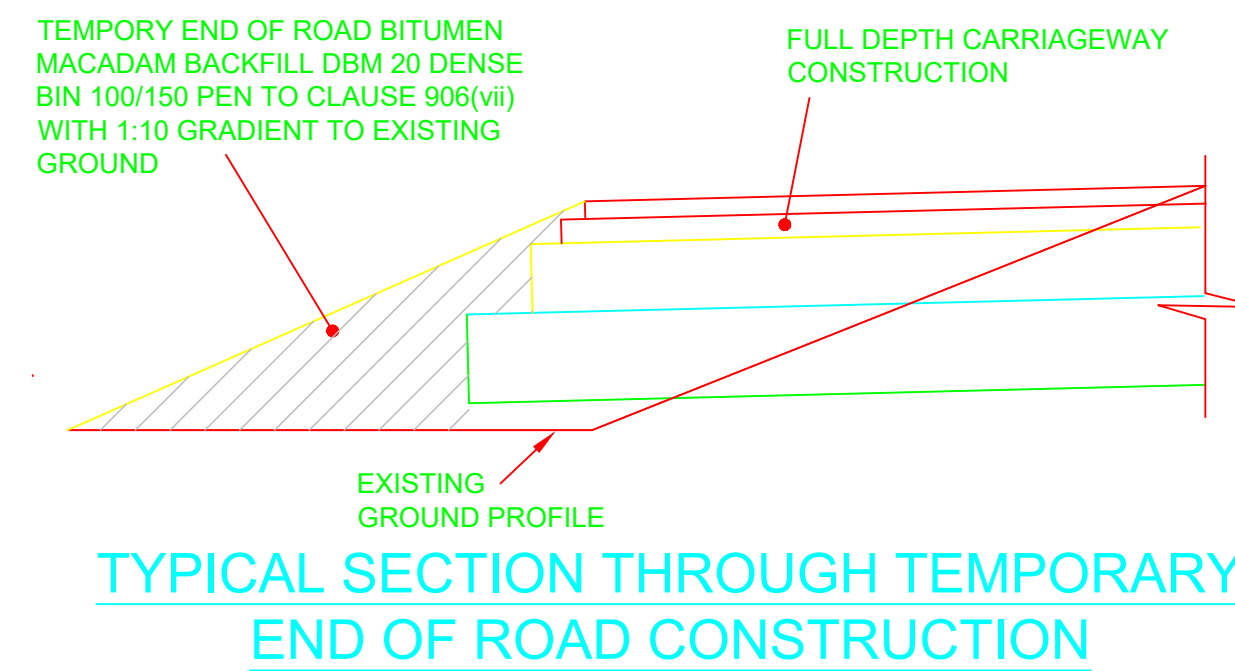
- NOTES
- DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.
 - ALL DIMENSIONS SHOWN ON THIS DRAWING ARE IN METRES.
 - ALL EXISTING LEVELS, GRADIENTS, DEPTHS, Etc. ARE TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES ARE TO REPORTED TO THE ENGINEER IMMEDIATELY
 - TOPOGRAPHICAL SURVEY HAS BEEN PROVIDED BY GROUND SURVEYS LTD. DRAWING REFERENCE 7280-01A. DATED JANUARY 2020.
 - SITE LAYOUT HAS BEEN PROVIDED BY DWC ARCHITECTS
 - INFORMATION SHOWN IS IN PERSUANCE OF CLEARING OUTLINE CONDITION 15 OF THE PLANNING APPROVAL.

KEY

----- EXISTING GROUND PROFILE

----- PROPOSED ALIGNMENT PROFILE

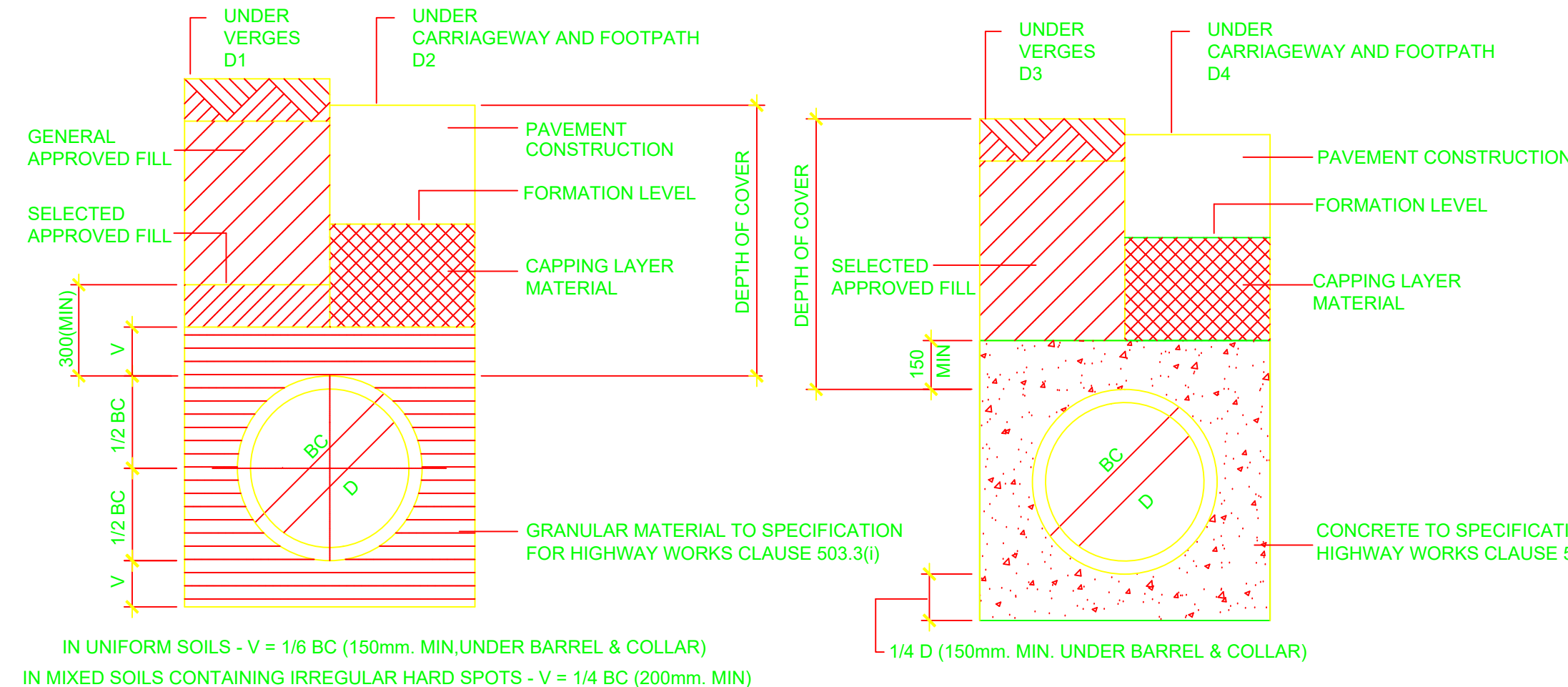
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Rev	Amendments	Dm	Chk	App	Date
Unit 1 Pucknall Farm Dores Lane Braintreefield Romsey SO51 9QJ					
Telephone: 01784 537880 Fax: 01266 331134 E: info@odysseyconsult.co.uk W: www.odysseyconsult.co.uk					
Job Title					
LAND WEST OF KINGFISHER GROVE, THREE MILE CROSS					
Drawing Title					
SITE ACCESS HIGHWAY SECTIONS OUTLINE CONDITION 07					
Client					
SOVEREIGN					
Scale	Date	Designed			
1:500 @A1	OCT 25	LG			
Drawn	Checked	Approved			
LG	BO	BO			
Job No	Drawing No	Rev			
23-117	23-117-107	A			



CBR % OF SUB-GRADE	<2%	<5%	<15%	<30%	>30%
SUB-BASE THICKNESS	750mm	500mm	225mm	150mm	0mm

TYPICAL SECTION THROUGH TEMPORARY END OF ROAD CONSTRUCTION

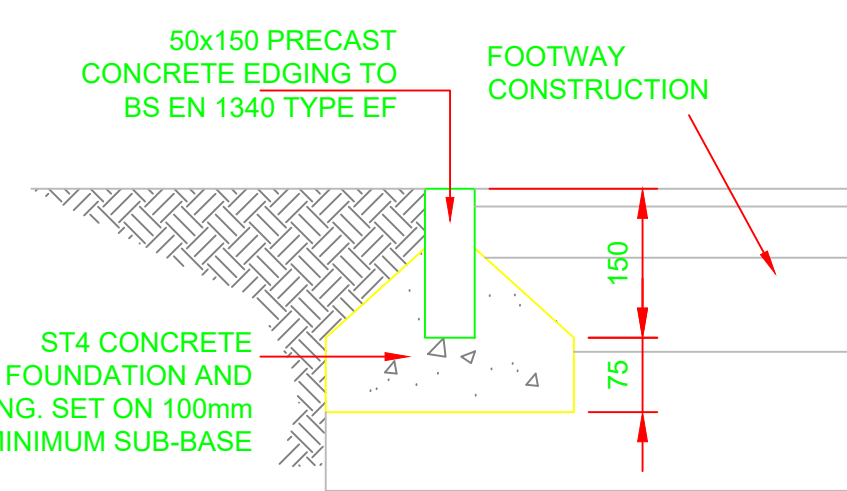
TO WOKINHAM DISTRICT COUNCIL DETAIL WSD/900/2 AND WSD/1100/13



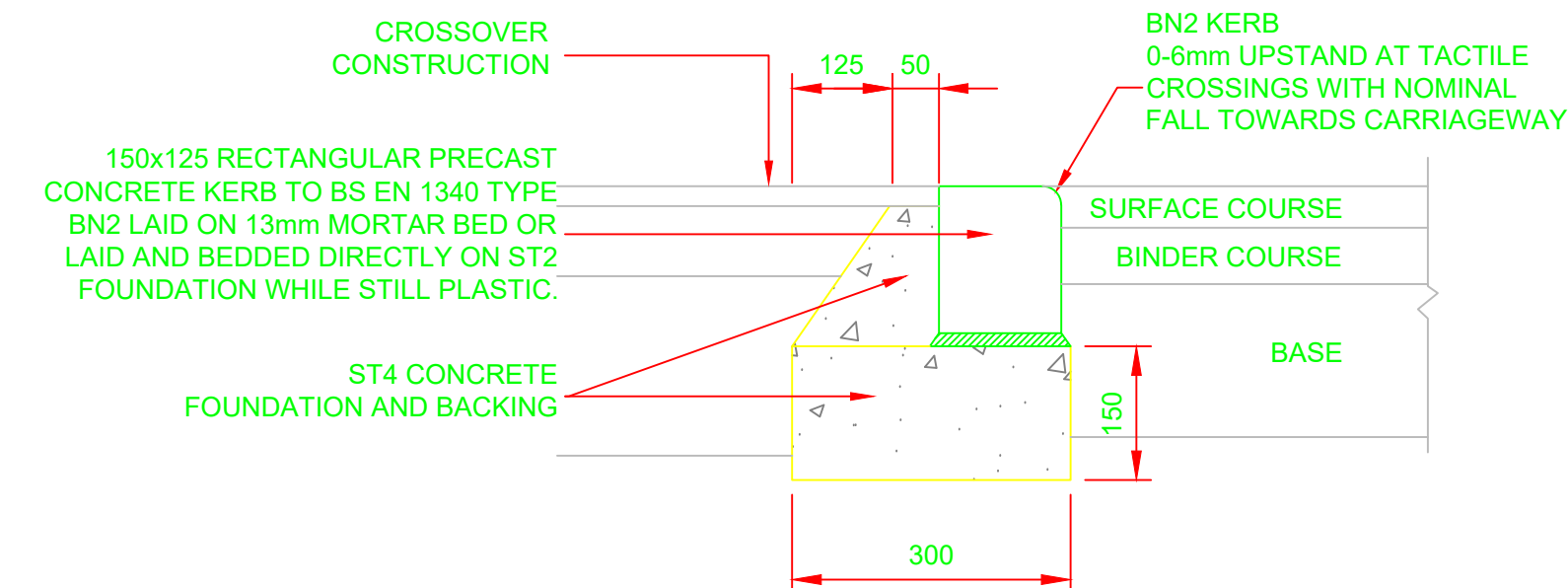
DESIGN D1 (UNDER VERGES - >900 COVER) DESIGN D3 (UNDER VERGES - <900 COVER)
DESIGN D2 (UNDER CARRIAGEWAYS - >1200 COVER) DESIGN D4 (UNDER CARRIAGEWAYS - <1200 COVER)

ALL OVERLAY WORKS TO EXISTING CARRIAGEWAY SUBJECT TO CORE SAMPLES BEING TAKEN TO ASSESS THE EXISTING PAVEMENT STRUCTURE AND ITS SUITABILITY

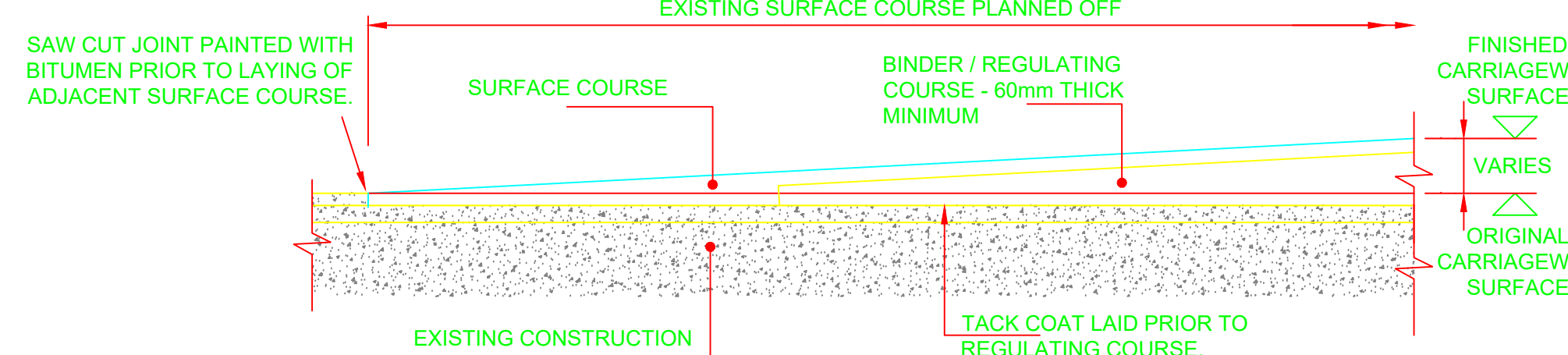
TO WOKINHAM DISTRICT COUNCIL DETAIL WSD/500/1



TO WOKINHAM DISTRICT COUNCIL DETAIL WSD/1100/1A



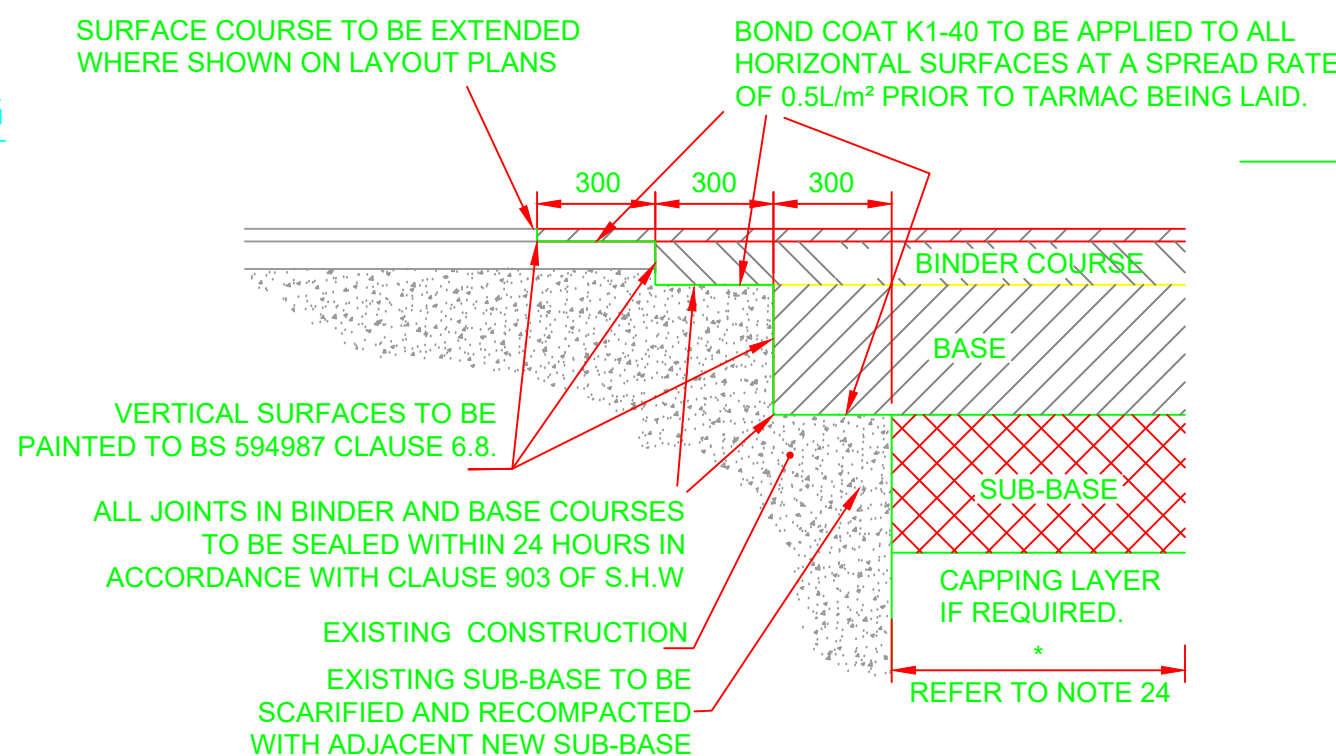
TO WOKINHAM DISTRICT COUNCIL DETAIL WSD/1100/1A



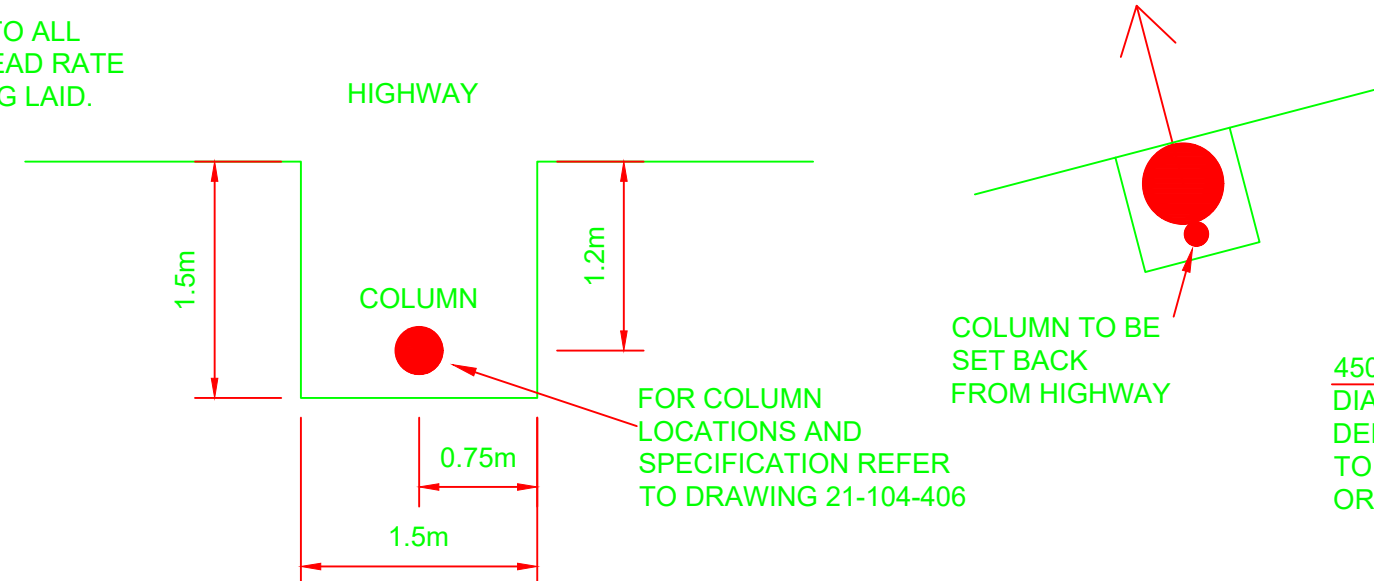
FOR KERB TYPE REFER
TO CONSTRUCTION
MAKEUP LAYOUT

150mm THICK D400 GULLY
GRATE AND FRAME. GULLY
HINGES TO FACE ONCOMING
TRAFFIC TO BS EN 124

TO WOKINHAM DISTRICT COUNCIL DETAIL WSD/1100/4




TYPICAL CARRIAGEWAY TIE-IN DETAIL



STREET LIGHTING TO BE CONFIRMED

TO WOKINHAM DISTRICT COUNCIL DETAIL WSD/1300/1

TO WOKINHAM DISTRICT COUNCIL DETAIL WSD/500/4

A	DRAWING TITLE AMENDED	LG	BO	GG	21.11.
Rev	Amendments	Dim	Ckx	App	Date
 ODYSSEY Engineering Ltd Unit 1 Pucknell Farm Dore Lane Braintree Romsey SO5 0GJ Telephone: 01794 837998 Fax: 01262 311135 E: info@odysseyconsult.co.uk W: www.odysseyconsult.co.uk					
Job Title					
LAND WEST OF KINGFISHER GROVE, THREE MILE CROSS					
Drawing Title					
SITE ACCESS CONSTRUCTION DETAILS OUTLINE CONDITION 07					
Client					
SOVEREIGN					
Scale		Date		Designed	
NOT TO SCALE		OCT 25		LG	
Drawn		Checked		Approved	
LG		BO		BO	
Job No		Drawing No			
23-117		23-117-108			

Rev

APPENDIX A

SECTION 38 ADOPTION PLAN



NOTES

1. DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.

2. ALL DIMENSIONS SHOWN ON THIS DRAWING ARE IN METRES.

3. ALL EXISTING LEVELS, GRADIENTS, DEPTHS, Etc. ARE TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES ARE TO REPORTED TO THE ENGINEER IMMEDIATELY

4. TOPOGRAPHICAL SURVEY HAS BEEN PROVIDED BY GROUND SURVEYS LTD. DRAWING REFERENCE 7280-01A. DATED JANUARY 2020.

5. SITE LAYOUT HAS BEEN PROVIDED BY DWG ARCHITECTS

6. THE LEVELS SHOWN ON THIS DRAWING ARE INDICATIVE AND SUBJECT TO CHANGE.

KEY

PROPOSED SITE BOUNDARY

S38 ADOPTABLE CARRIAGEWAY

S38 ADOPTABLE FOOTPATH

WATERCOURSE

PROPOSED SURFACE WATER SEWER AND MANHOLE

VORTEX FLOW CONTROL

PROPOSED HEADWALL

PROPOSED FOUL WATER SEWER AND MANHOLE

EXISTING FOUL WATER SEWER AND MANHOLE

EXISTING SURFACE WATER SEWER AND MANHOLE

EXISTING DECOMMISSIONED SEWER

PROPOSED BASIN. FIRST 300mm DEPTH BELOW SURFACE AT 1 IN 6 GRADIENT. 1 IN 3 GRADIENT BELOW THIS.

EXISTING THAMES WATER FOUL PUMPING STATION

PROPOSED HIGHWAY CONTOURS (SHOWN AT 20mm INTERVALS)

INDICATIVE BIORETENTION (RAIN GARDEN) SUDS FEATURE

Rev

Amendments

Des

Chk

App

Date

ODYSSEY

Landscaping House
White Hart Lane
Barnsley
S62 4AP

Telephone: 01226 331144
Fax: 01226 331144
Email: info@odysseyconsult.co.uk
Website: www.odysseyconsult.co.uk

Job Title

LAND WEST OF KINGFISHER GROVE, THREE MILE CROSS

Drawing Title

INDICATIVE S38 ADOPTION PLAN

Client

SOVEREIGN

Scale

1:500 @A0

Date

NOV 25

Designed

LT

Drawn

LT

Checked

BJ

Approved

BO

Job No

23-117

Drawing No

23-117-006

Rev

-

P:\23-117 - Land West of Kingfisher Grove, Three Mile Cross\Tech\Acad\Drawings\23-117-006 S38 Adoption Plan.dwg

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APPENDIX B

WBC HIGHWAYS DEVELOPMENT DESIGN STANDARD DETAILS

NOTES

GENERAL NOTES:

1. Do not scale from this drawing. Use only written dimensions.
2. All dimensions are in millimeters unless stated otherwise.
3. This drawing is to be read in conjunction with and checked against all other WBC Standard Detail drawings, Highways Design Guide, British Standards and all other relevant guidance's. In the event of any conflict with said guidance's, the standards shall prevail.
4. Appointed WBC Highway Engineer to be present during inspections/CBR testing.
5. All kerbs to BS EN 1340:2003.
6. All concrete within ground to be AC-4 with design sulphate class of DS-4.

CONSTRUCTION NOTES:

TARMACADAM (FLEXIBLE) FOOTWAY/CYCLEWAY

COURSE	SPECIFICATION	THICKNESS
SURFACE	CLOSE GRADED AC6, PEN 100/150.	25
BINDER	CLOSE GRADED AC20, PEN 40/60.	75
SUB-BASE	DIT TYPE 1	SEE TABLE NOTE 2

TABLE NOTES

1. SEE NOTE 9 FOR DETAILS ON BOND COATS BETWEEN LAYERS;
2. SUB-BASE REQUIREMENTS TO BE DETERMINED BY CBR TEST;
3. CARRIAGEWAY CAPPING REQUIREMENTS TO BE DETERMINED BY CBR TEST;
4. CBR TEST TO BE CARRIED OUT BY THE CONTRACTOR AT 20-30m INTERVALS AND RESULTS REPORTED TO THE HIGHWAY AUTHORITY/ENGINEER.

MODULAR PAVING (RIGID) FOOTWAY

COURSE	SPECIFICATION	THICKNESS
SURFACE	DEPENDENT ON LOCATION. SEE TABLE NOTES 1.	SEE TABLE NOTE 1
LAYING	COURSE SHARP SAND. SEE TABLE NOTES 2.	30-50
SUB-BASE	DIT TYPE 1	SEE TABLE NOTE 3

TABLE NOTES

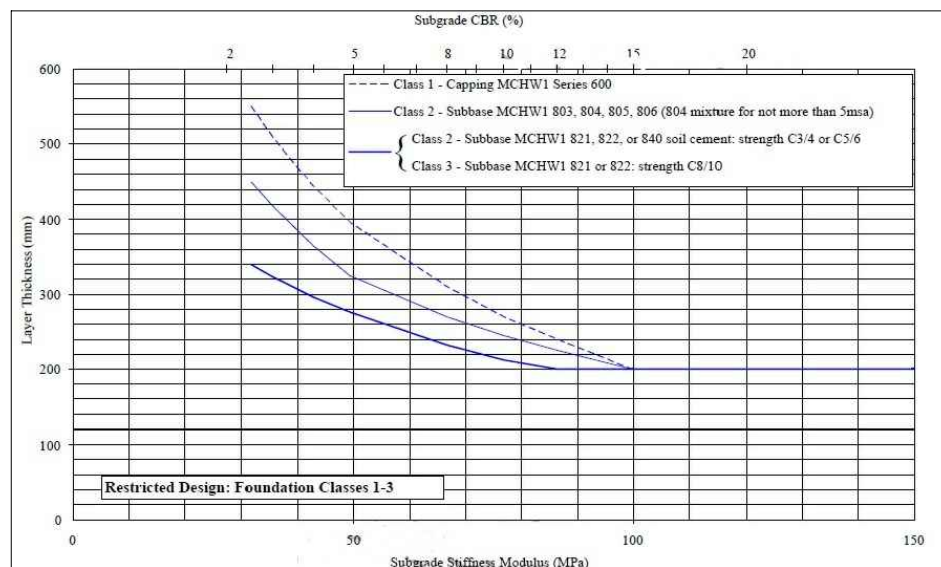
1. RIGID CONSTRUCTION ONLY APPLICABLE TO TOWN CENTRES AND OTHER PUBLIC REALM LOCATIONS. SEE HIGHWAYS DESIGN GUIDE TABLE A2 PAGE 52 'FOOTWAY AND PAVED AREA' FOR APPROVED MATERIALS;
2. TO BE TREATED WITH APPROVED ACTIVE PRE AND POST EMERGENCE RESIDUAL WEED KILLER.
3. SUB-BASE REQUIREMENTS TO BE DETERMINED BY CBR TEST;
4. CARRIAGEWAY CAPPING REQUIREMENTS TO BE DETERMINED BY CBR TEST;
5. CBR TEST TO BE CARRIED OUT BY THE CONTRACTOR AT 20-30m INTERVALS AND RESULTS REPORTED TO THE HIGHWAY AUTHORITY/ENGINEER.

VEHICULAR CROSSOVERS

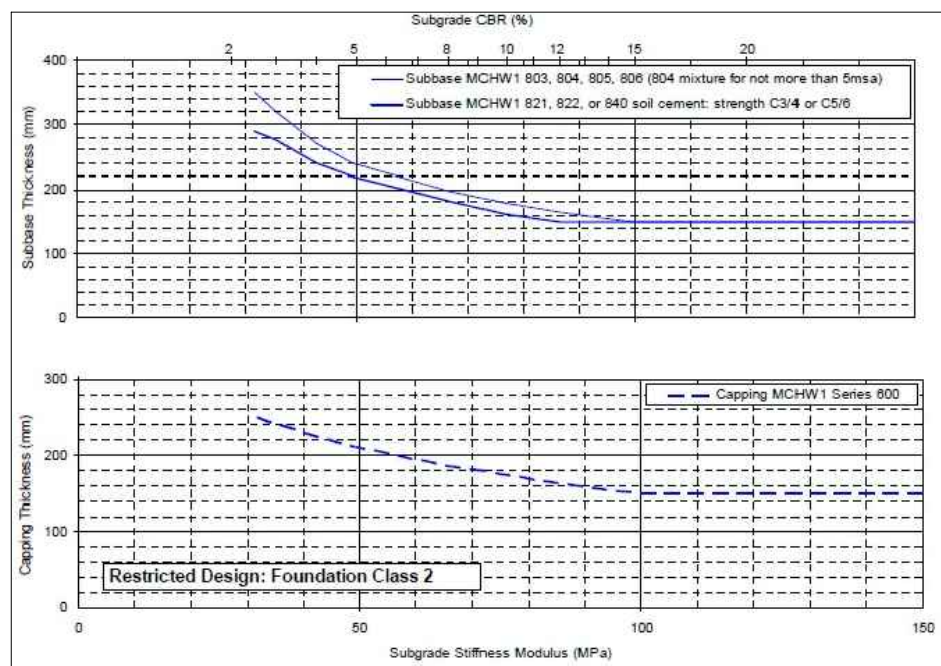
COURSE	SPECIFICATION	THICKNESS
SURFACE	CLOSE GRADED AC6, PEN 100/150.	25
BINDER	CLOSE GRADED AC20, PEN 40/60.	75
SUB-BASE	DIT TYPE 1.	SEE TABLE NOTE 2

TABLE NOTES

1. SEE NOTE 9 FOR DETAILS ON BOND COATS BETWEEN LAYERS;
2. SUB-BASE REQUIREMENTS TO BE DETERMINED BY CBR TEST;
3. CBR TEST TO BE CARRIED OUT BY THE CONTRACTOR AND RESULTS REPORTED TO THE HIGHWAY AUTHORITY/ENGINEER.



CARRIAGEWAY SUB-BASE OR CAPPING ONLY



CARRIAGEWAY SUB-BASE ON CAPPING

CBR (%)	Subbase on Capping (mm)	Subbase Only (mm)
	Ground Stabilisation	Ground Stabilisation
≤2.5	350	250
2.6 - 2.9	320	240
3.0 - 3.9	270	220
4.0 - 4.9	240	210
5.0 - 5.9	210	180
6.0 - 7.9	200	180
8.0 - 9.9	180	180
10 - 11.9	170	160
12.0 - 14.9	150	150

(figures used in the table above have been extracted from figures 3.1 and 3.2 of IAN 73/06 Rev 1)

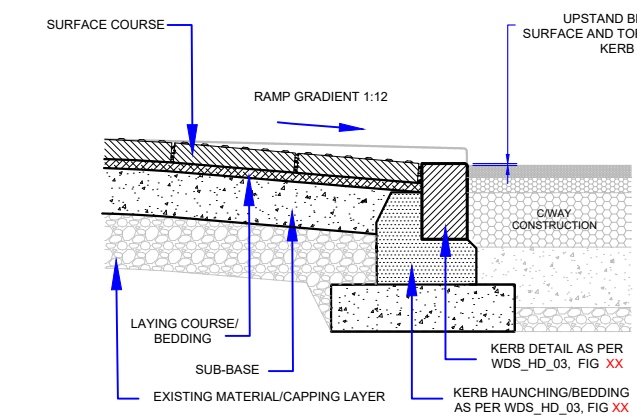
TARMACADAM CARRIAGEWAY

COURSE	SPECIFICATION	THICKNESS
SURFACE	HOT ROLLED ASPHALT. 30/14F + PCC 14/20, PEN 40/60, MIN PSV 63, MAX AAV 14.	40
BINDER	CLOSE GRADED AC10, PEN 100/150, MIN PSV 60, MAX AAV 14	40
BASE	CLOSE GRADED AC32, PEN 40/60.	60
SUB-BASE	DIT TYPE 1	SEE TABLE NOTE 3
CAPPING	CLASS 6F1 OR 6F2 GRANULAR CAPPING MATERIAL	SEE TABLE NOTE 4

TABLE NOTES

1. SEE NOTE 9 FOR DETAILS ON BOND COATS BETWEEN LAYERS;
2. SUB-BASE REQUIREMENTS TO BE DETERMINED BY CBR TEST;
3. CARRIAGEWAY CAPPING REQUIREMENTS TO BE DETERMINED BY CBR TEST;
4. CBR TEST TO BE CARRIED OUT BY THE CONTRACTOR AT 20-30m INTERVALS AND RESULTS REPORTED TO THE HIGHWAY AUTHORITY/ENGINEER.

Surface Options	Bituminous	Pavers	Flags	Concrete
Layer	20mm surface course ⁽¹⁾ 40mm binder course ⁽¹⁾	≥50mm clay pavers ≥60mm concrete blocks	300mm x 300mm x 60mm or 400mm x 400mm x 65mm or 450mm x 450mm x 70mm	150mm unreinforced, Grade C30P
Surfacing ⁽²⁾	30mm laying course sand (compacted)	25mm laying course sand (compacted) or mortar		
Sub-base ⁽³⁾	150mm	250mm	200mm	150mm
Subgrade ⁽⁴⁾	-	CBR ≥2%	CBR ≥2%	CBR ≥2%

CBR FOR FOOTWAYS & CYCLEWAYS
SUBJECT TO VEHICULAR LOADING

TACTILE PAVING PEDESTRIAN CROSSING

SEE TABLE FOR CONSTRUCTION DETAILS

TACTILE CROSSINGS

COURSE	SPECIFICATION	THICKNESS
SURFACE	400x400 TACTILE BLISTER PAVING FLAGS	65
LAYING	SAND/CEMENT MORTAR BED	30
SUB-BASE	DIT TYPE 1.	SEE TABLE NOTE 3

TABLE NOTES

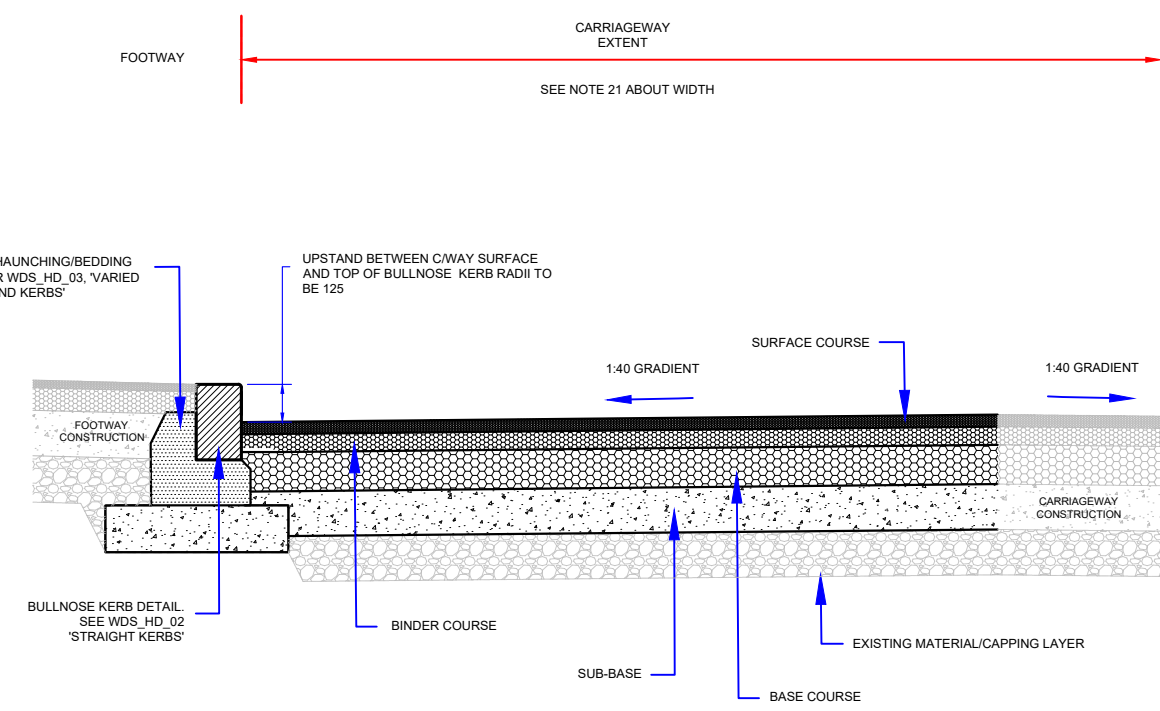
1. TACTILES WITHIN AREAS WITH VEHICLE OVER-RUN WILL REQUIRE 200x100x65 TACTILE BLOCKS;
2. SERVICE COVERS WITHIN TACTILE EXTENTS WILL REQUIRE RECESS COVERS AND FRAMES;
3. SUB-BASE REQUIREMENTS TO BE DETERMINED BY CBR TEST;
4. CARRIAGEWAY CAPPING REQUIREMENTS TO BE DETERMINED BY CBR TEST;
5. CBR TEST TO BE CARRIED OUT BY THE CONTRACTOR AT 20-30m INTERVALS AND RESULTS REPORTED TO THE HIGHWAY AUTHORITY/ENGINEER.

SHARED SURFACE ZONES

COURSE	SPECIFICATION	THICKNESS
SURFACE	MARSHALLS KEYBLOK (200x100) CONCRETE PAVING LAID IN HERRINGBONE PATTERN. COLOUR: GREYS: 'CHARCOAL' OR 'NATURAL', REDS: 'BRINDLE' OR 'RED' - SUBJECT TO CONTRAST WITH ADJACENT HIGHWAY AND HOUSES.	80
LAYING	COURSE SHARP SAND. TO BE TREATED WITH APPROVED ACTIVE PRE AND POST EMERGENCE RESIDUAL WEED KILLER.	30-50
BASE	CLOSE GRADED AC32, PEN 40/60.	130
SUB-BASE	DIT TYPE 1.	SEE TABLE NOTE 3
CAPPING	CLASS 6F1 OR 6F2 GRANULAR CAPPING MATERIAL.	SEE TABLE NOTE 4

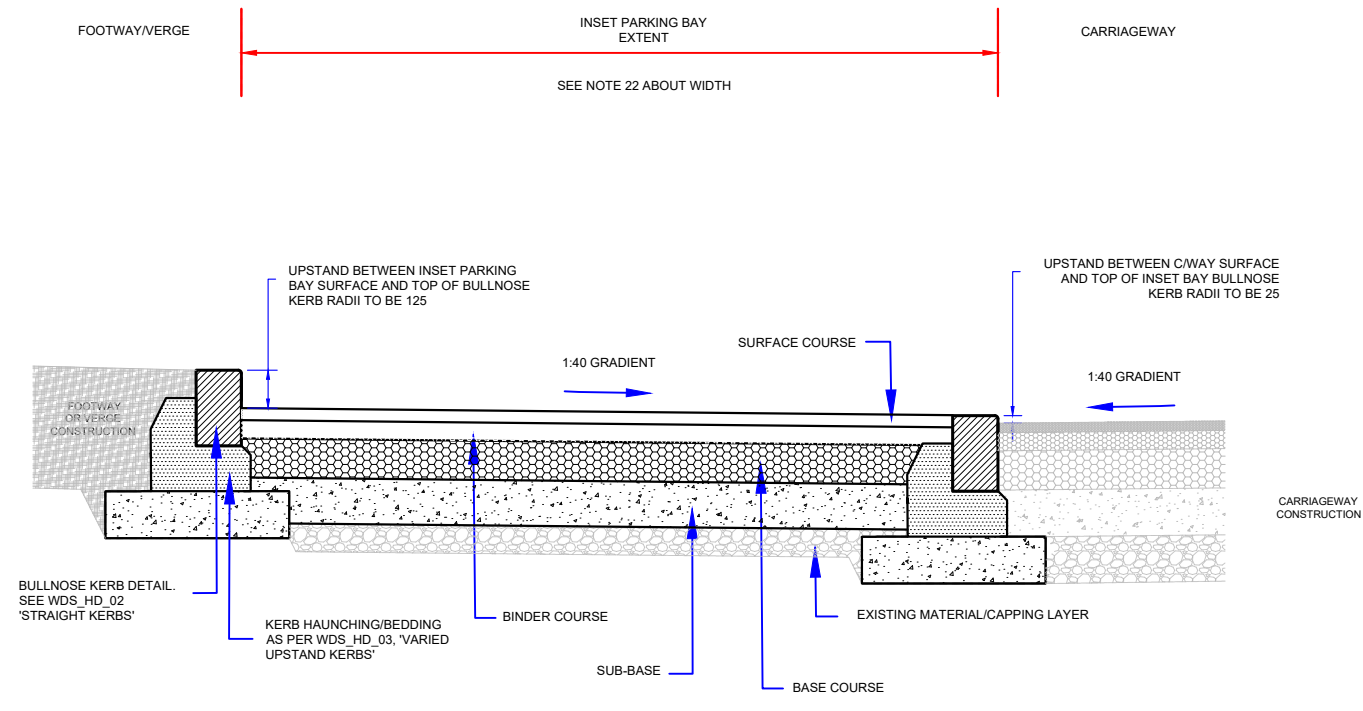
TABLE NOTES

1. ALL BLOCK PAVEMENT JOINTS TO BE SEALED WITH PRE-POLYMER URETHANE;
2. SUB-BASE REQUIREMENTS TO BE DETERMINED BY CBR TEST;
3. CARRIAGEWAY CAPPING REQUIREMENTS TO BE DETERMINED BY CBR TEST;
4. CBR TEST TO BE CARRIED OUT BY THE CONTRACTOR AT 20-30m INTERVALS AND RESULTS REPORTED TO THE HIGHWAY AUTHORITY/ENGINEER.



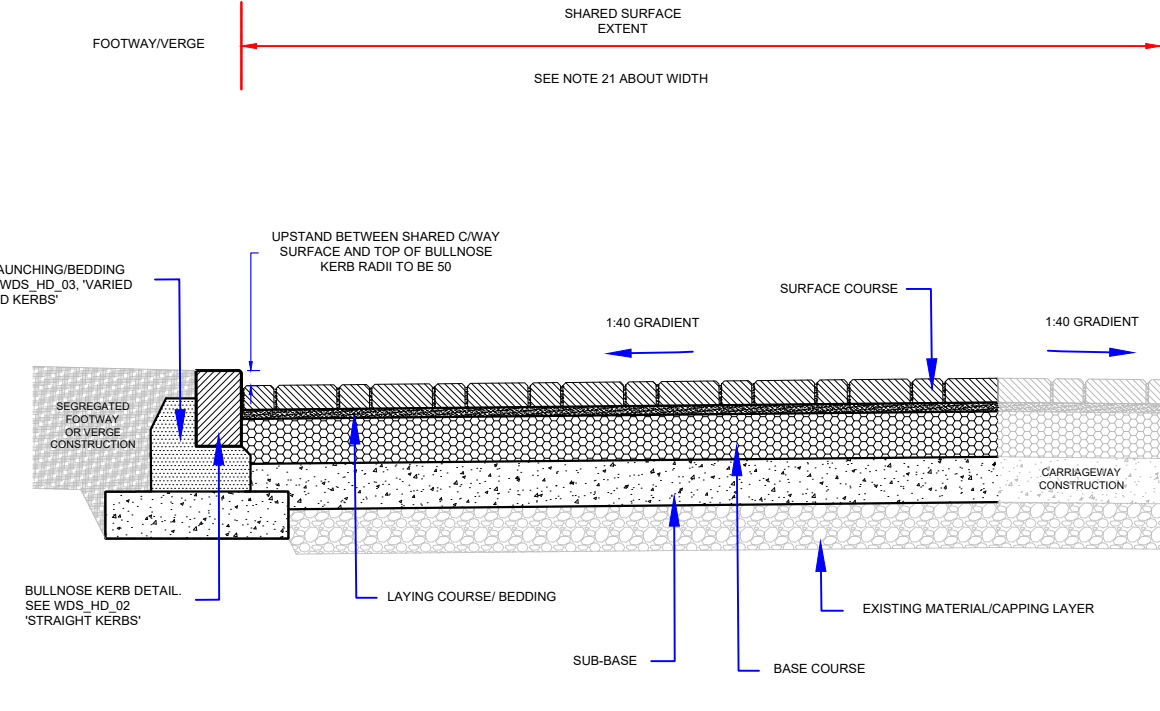
TARMACADAM CARRIAGEWAY

SEE TABLE FOR CONSTRUCTION DETAILS



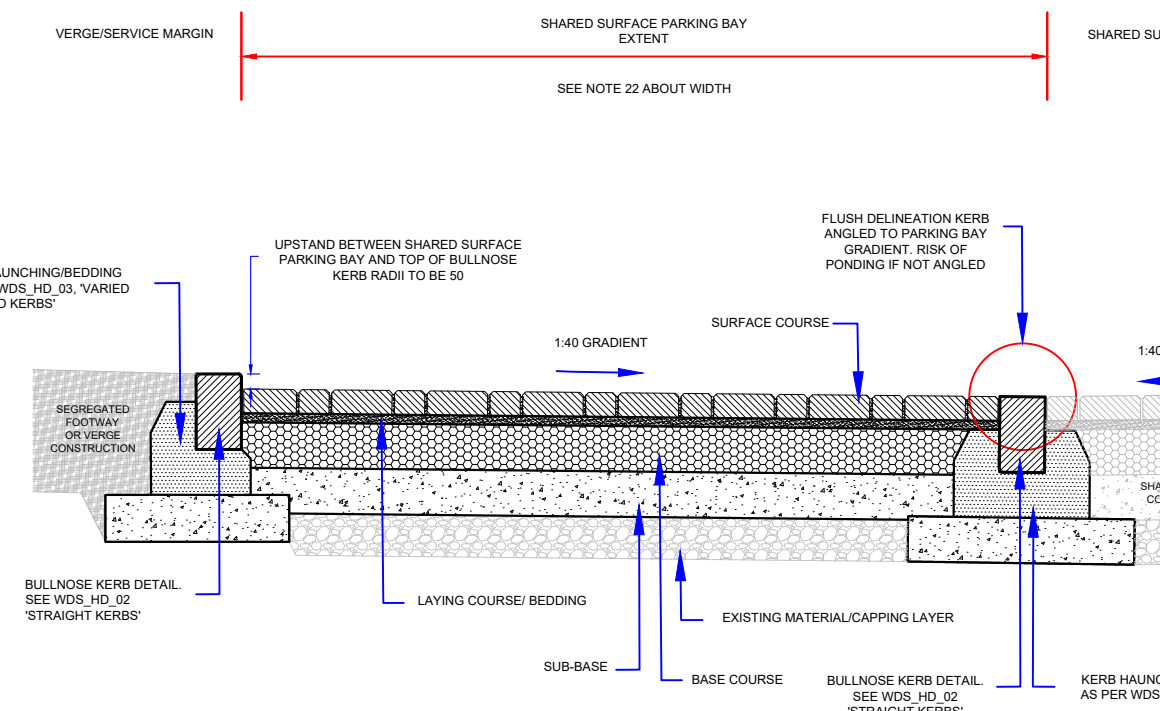
TARMACADAM CARRIAGEWAY (INSET PARKING BAYS)

SEE TABLE FOR CONSTRUCTION DETAILS



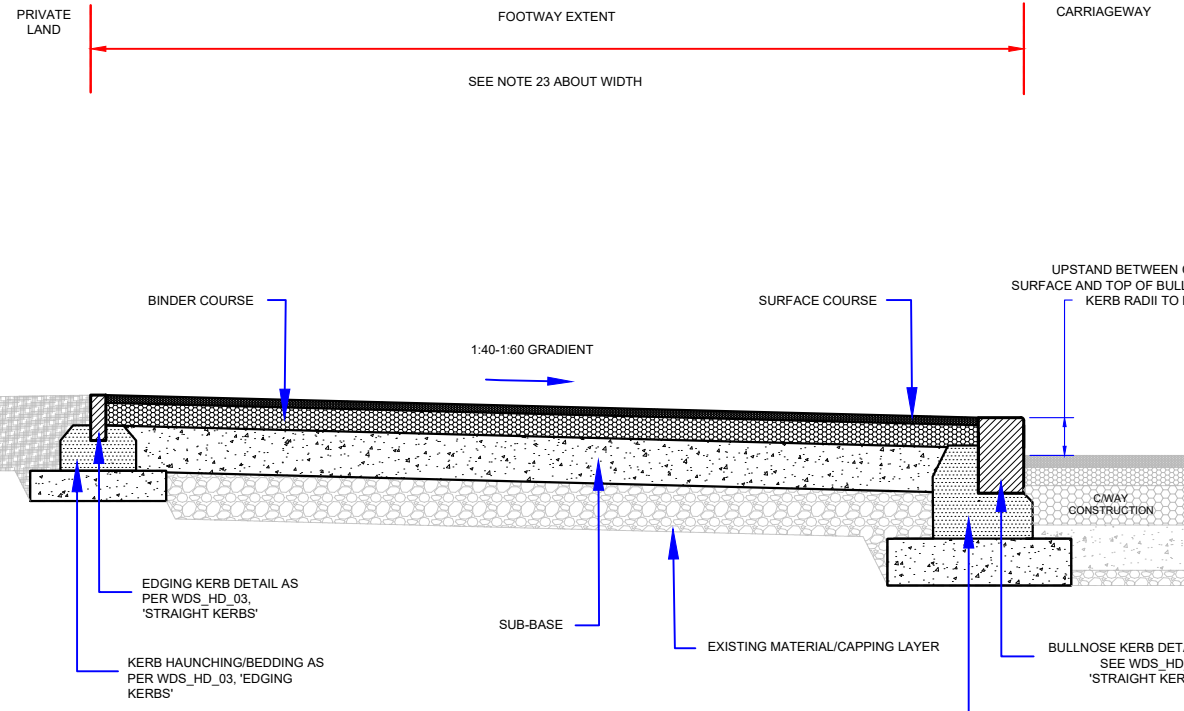
SHARED SURFACE ZONE

SEE TABLE FOR CONSTRUCTION DETAILS



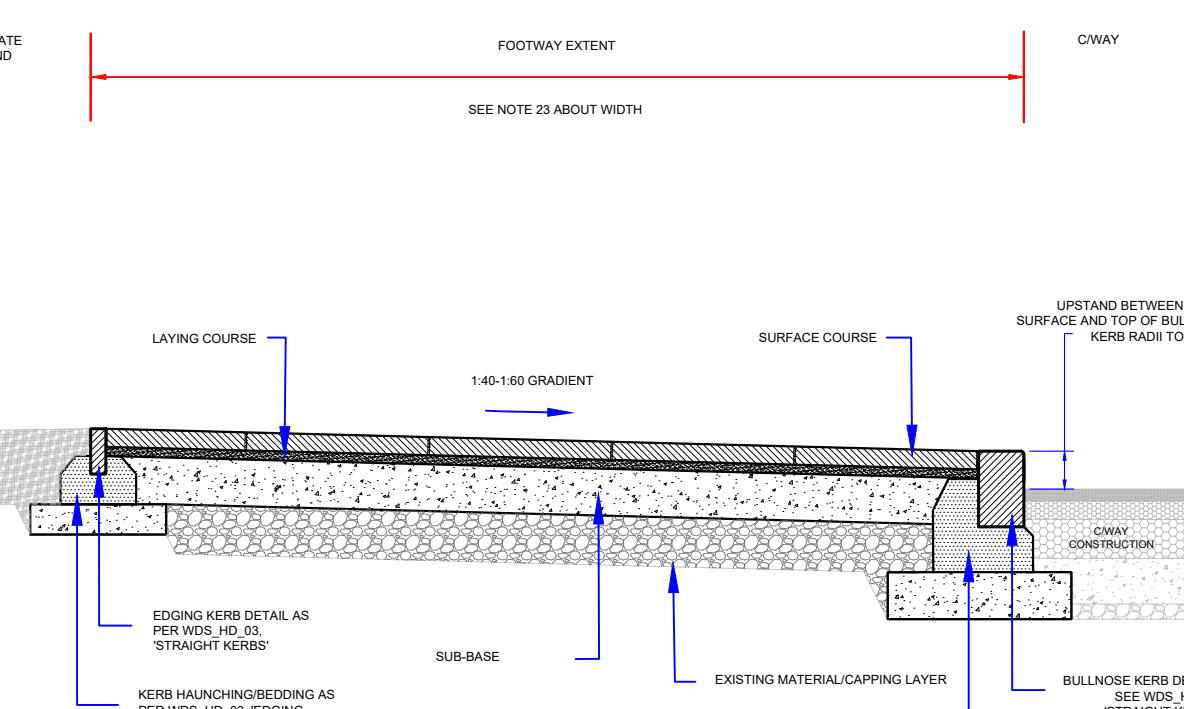
SHARED SURFACE ZONE (INSET PARKING BAYS)

SEE TABLE FOR CONSTRUCTION DETAILS



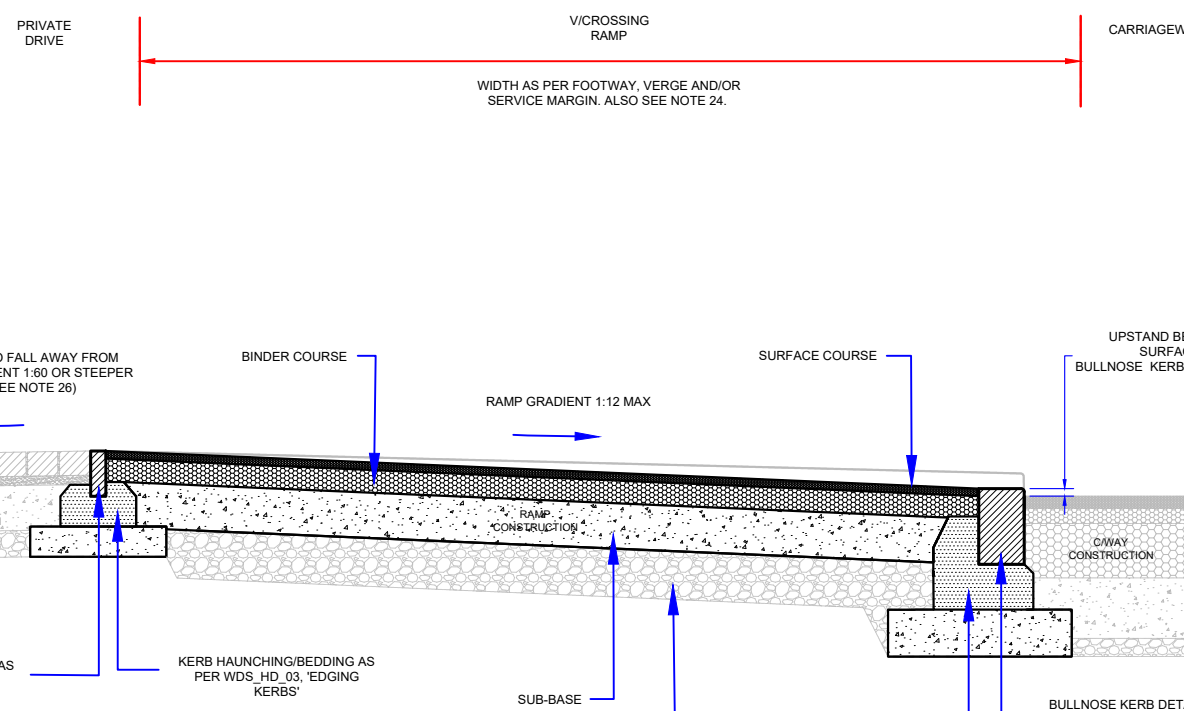
TARMACADAM FOOTWAY/CYCLEWAY

SEE TABLE FOR CONSTRUCTION DETAILS

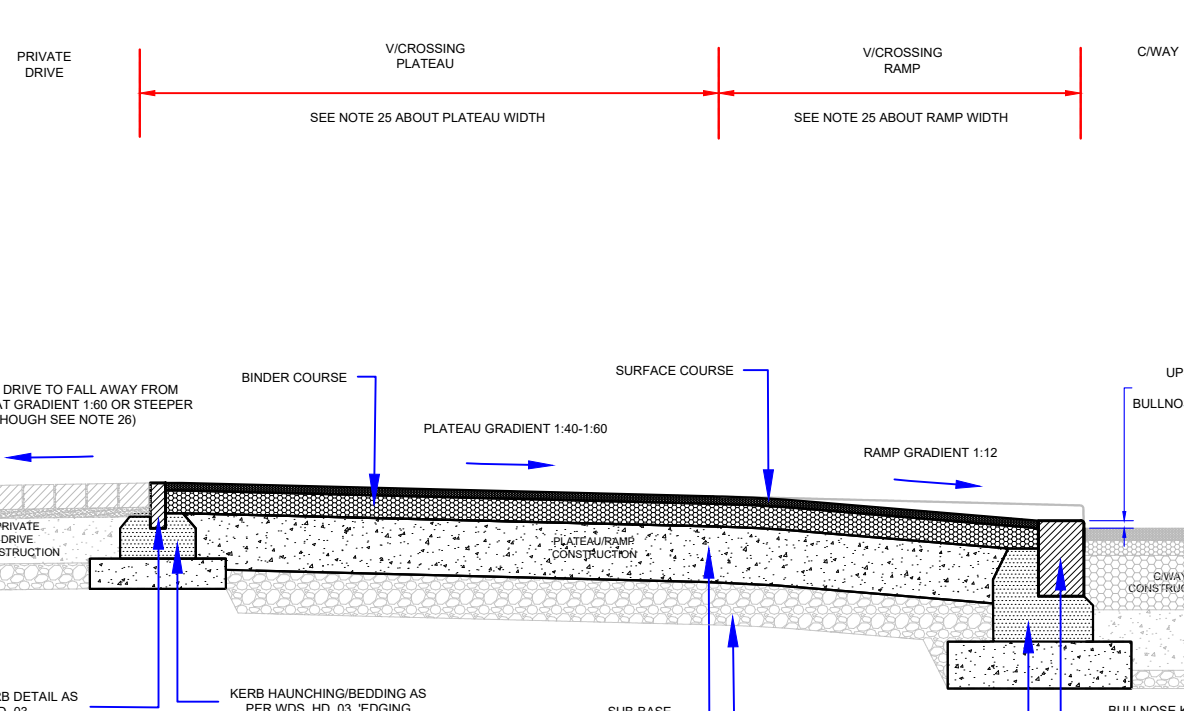


MODULAR PAVING FOOTWAY

SEE TABLE FOR CONSTRUCTION DETAILS



VEHICULAR CROSSING (TYPE 1)



VEHICULAR CROSSING (TYPE 2 & 3)

SEE TABLE FOR CONSTRUCTION DETAILS

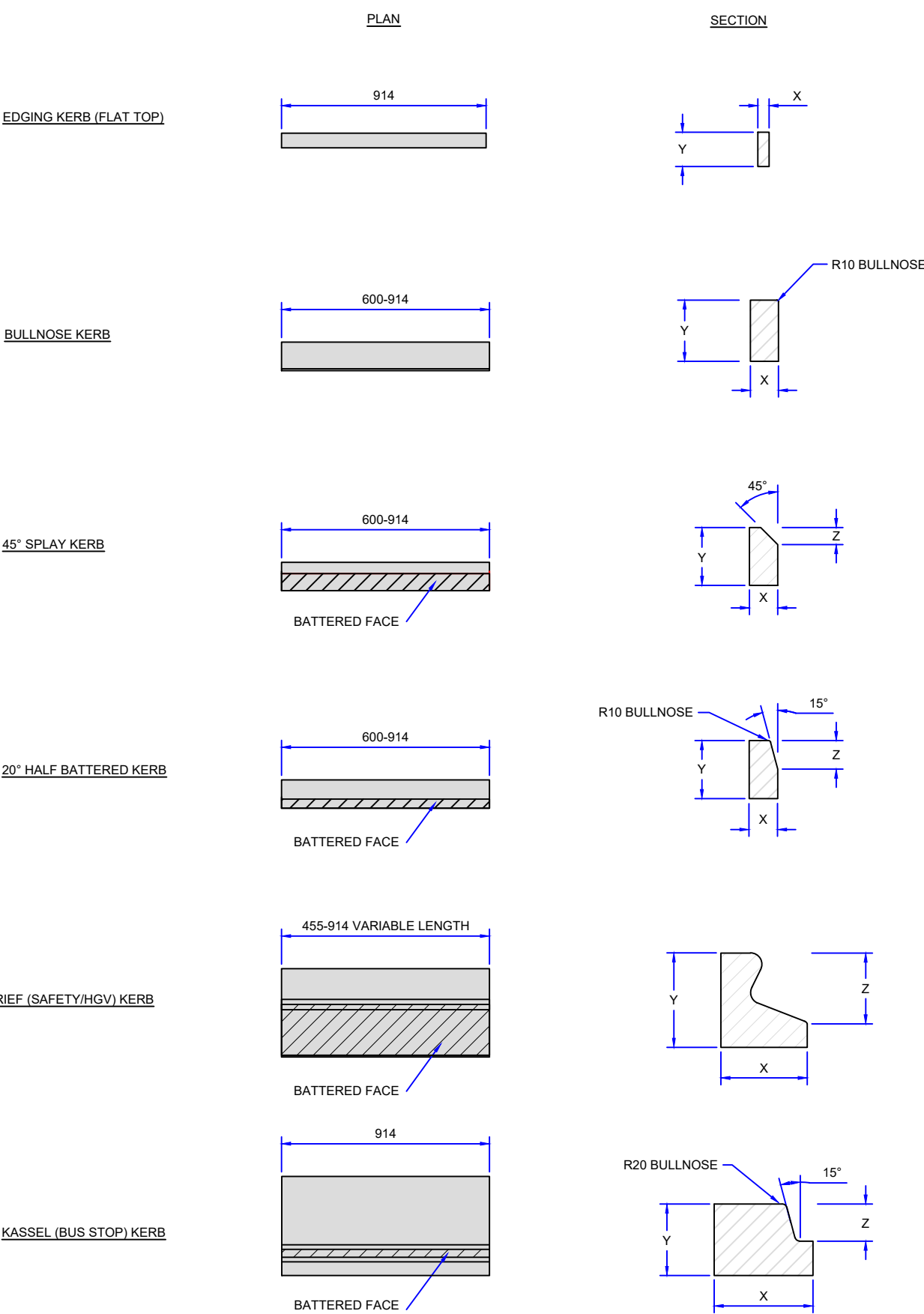


Project
WOKINGHAM BOROUGH COUNCIL
HIGHWAYS DEVELOPMENT
DESIGN STANDARD PLANS

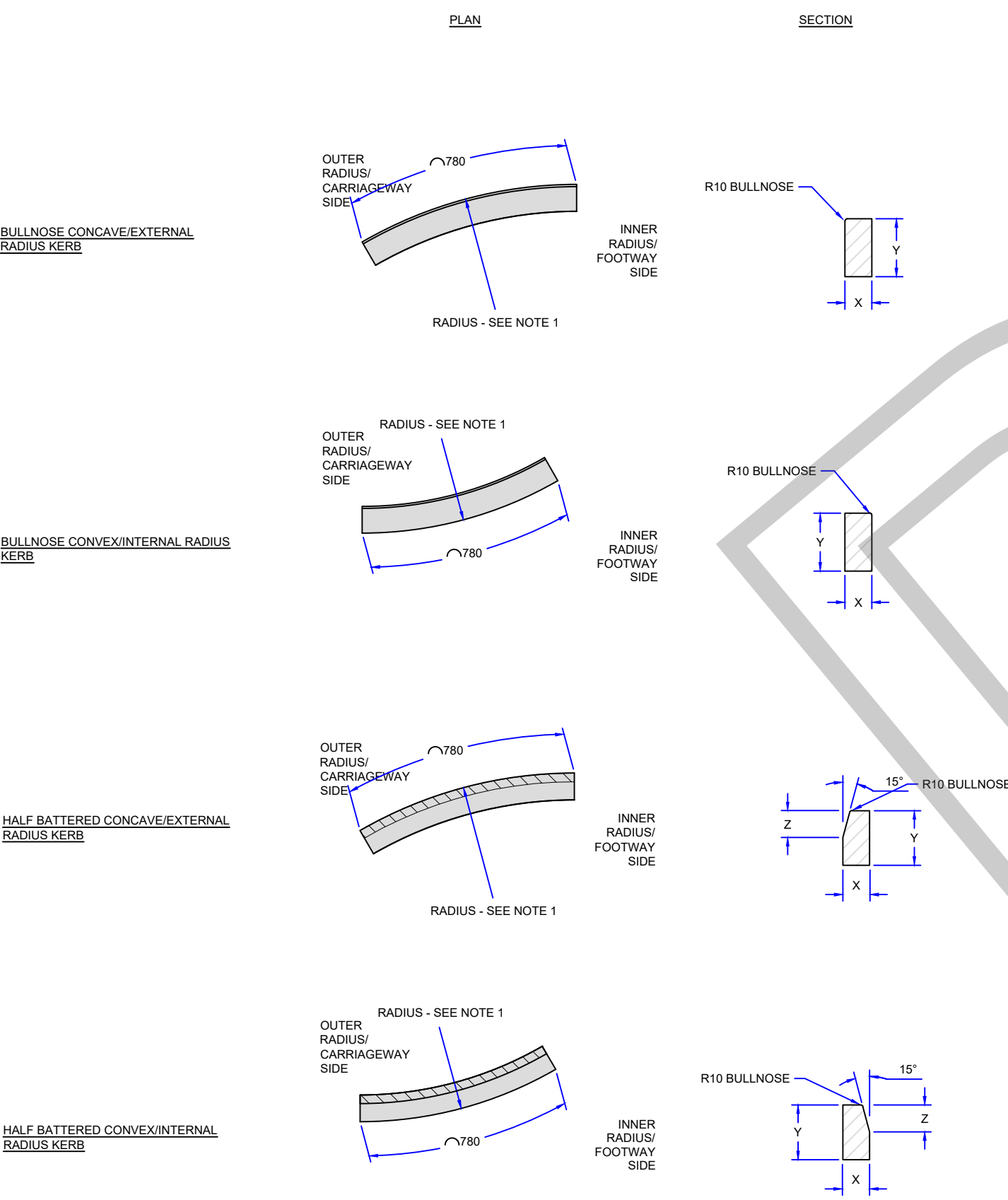
Title
STANDARD DETAILS
SHEET 1 OF 4

Scale	NOT TO SCALE	Drawn	SL
Drawing No.	WDS_HD_01	Rev.	A
Date Drawn	16/07/2020	Date Approved	17/07/2020

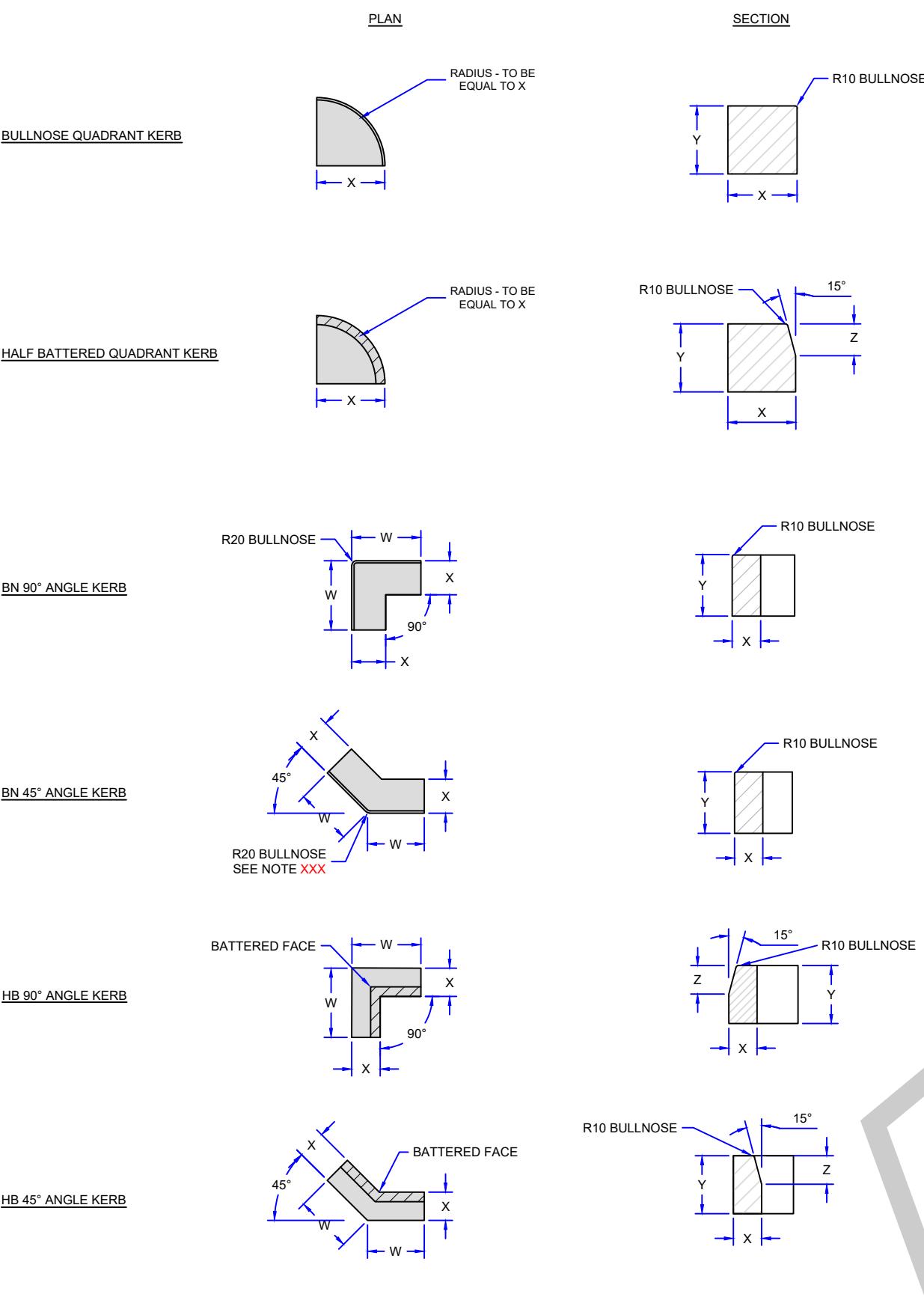
STRAIGHT KERBS



RADIUS KERBS



QUADRANTS AND ANGLES



NOTE:
* BN and HB ANGLE KERBS BOTH COME IN INTERNAL AND EXTERNAL (CONCAVE/CONVEX) ORIENTATIONS.

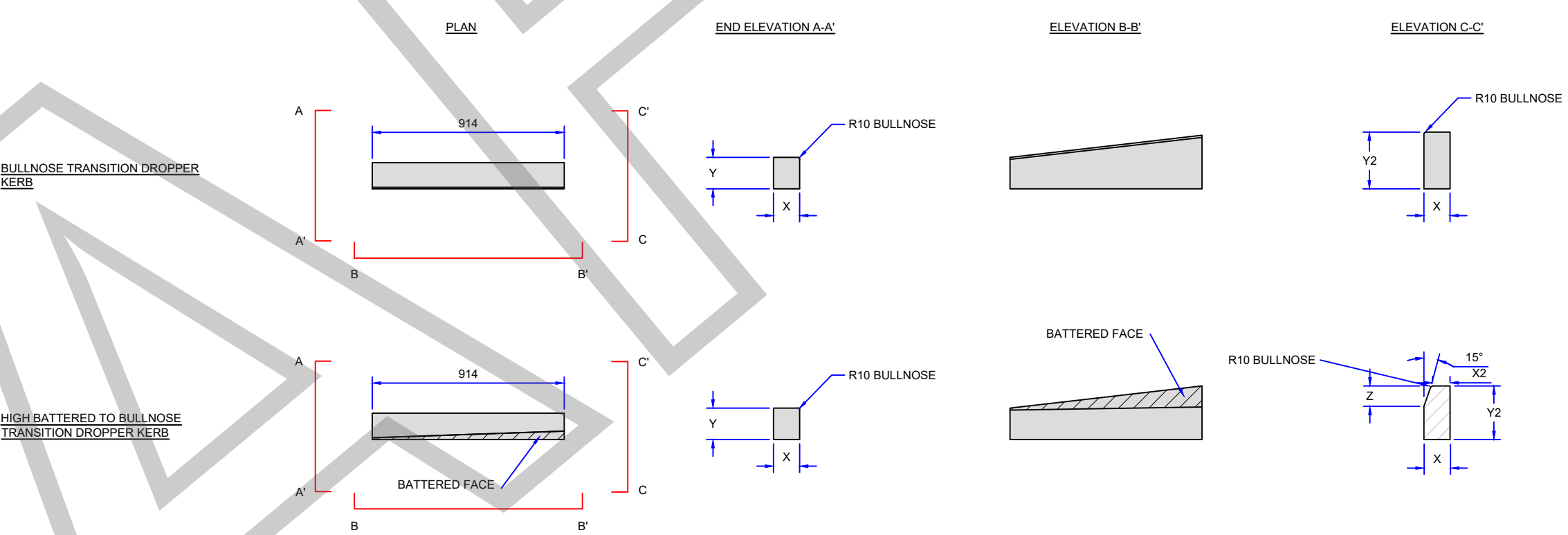
RADIUS					
ORIENTATION	TYPE	X	Y	Z	
CONCAVE/EXTERNAL	BN	125	255	-	
		125	255	-	
	HB	125	255	100	
CONCAVE/EXTERNAL	BN	125	255	-	
		125	255	-	
	HB	125	255	100	
		125	255	100	

APPROX NO. UNITS PER 1/4 CIRCLE	
SIZE OF RADIUS (m)	UNITS PER 1/4 CIRCLE
0.5	1
1	2
2	4
3	6
4	8
5	10
6	12
8	16
10	20
15	30

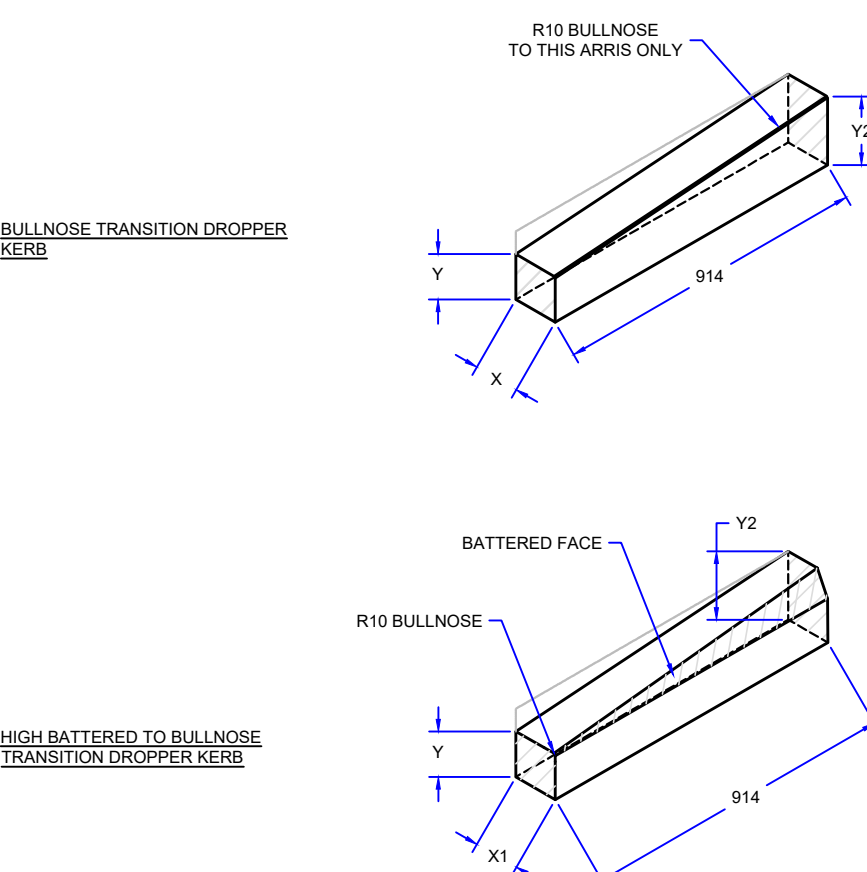
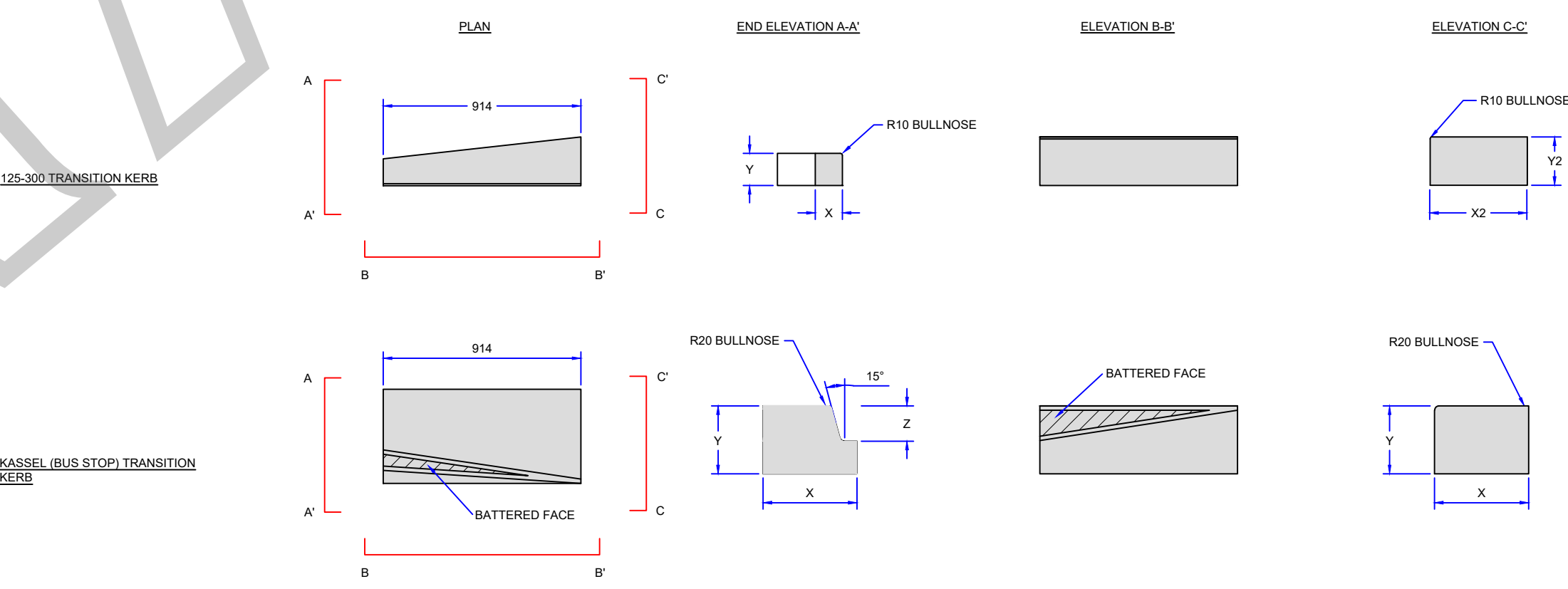
STRAIGHT KERBS			
TYPE	X	Y	Z
EDGING	50	150	-
BN	125	255	-
	125	150	-
HB	125	255	100
SP	125	255	75
TRIEF	380	415	300
KASSEL	435	314	160

QUADRANTS			
TYPE	X	Y	Z
BN	300	225	-
HB	300	225	100

TRANSITION DROPPER KERBS



TRANSITION KERBS



ANGLES						
ORIENTATION	TYPE	ANGLE	W	X	Y	Z
CONCAVE/EXTERNAL	BN	90°	305	125	255	-
		45°	305	125	255	-
	HB	90°	305	125	255	100
CONCAVE/EXTERNAL		45°	305	125	255	100
	BN	90°	305	125	255	-
		45°	305	125	255	-
	HB	90°	305	125	255	100
		45°	305	125	255	100

TRANSITION DROPPER KERBS					
TYPE	X	X2	Y	Y2	Z
BN	125	-	150	225	-
HB-BN	125	100	150	225	75

TRANSITION KERBS					
125-300 BN	125	300	150	225	-
KASSEL TO BN	435	-	314	-	160

NOTE:
* ALL THE ABOVE UNITS SHALL BE AVAILABLE AS BOTH LEFT AND RIGHT MIRROR VERSIONS

NOTES

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 - This drawing is to be read in conjunction with and checked against all other WBC Standard Detail drawings, Highways Design Guide, British Standards and all other relevant guidance's. In the event of any conflict with said guidance's, the standards shall prevail.
 - All kerbs to BS EN 1340:2003.
 - Appointed WBC Highway Engineer to be present during inspections/CBR testing.
- CONSTRUCTION NOTES:
- See Highways Design Guide Table A1 'Junction Radii' for requirements pending road priority.
 - All arrises shall be square (90°) unless otherwise indicated.
 - Kerbs to be precast concrete (pimple finish) unless otherwise indicated. Changes to kerb material such as granite or conservation kerb require approval from appointed WBC Engineer.
 - Where natural stone kerbs are approved for use:
 - Granite shall be fine picked/textured on all sides;
 - Conservation kerb shall be pimple finish/coarse.Where approved or instructed by the Highway Authority in writing in advance, a rough punched finish may be used as an alternative.
 - Transition kerbs to be used at all changes in kerb face.
 - For radii of 15m or less kerbs and channels of the appropriate radius shall be used.
 - For radii between 15m and 18m straight kerbs 600 long shall be used.
 - The length of any kerb or channel shall not be less than 600.
 - Cutting of kerbs and channels shall be by approved mechanical means.
 - Edging kerbs shall be provided on all free edges of paved areas not confined by a kerb or boundary wall.

17/07/2020

Date Approved

A

Revision

WOKINGHAM
BOROUGH COUNCIL

Project

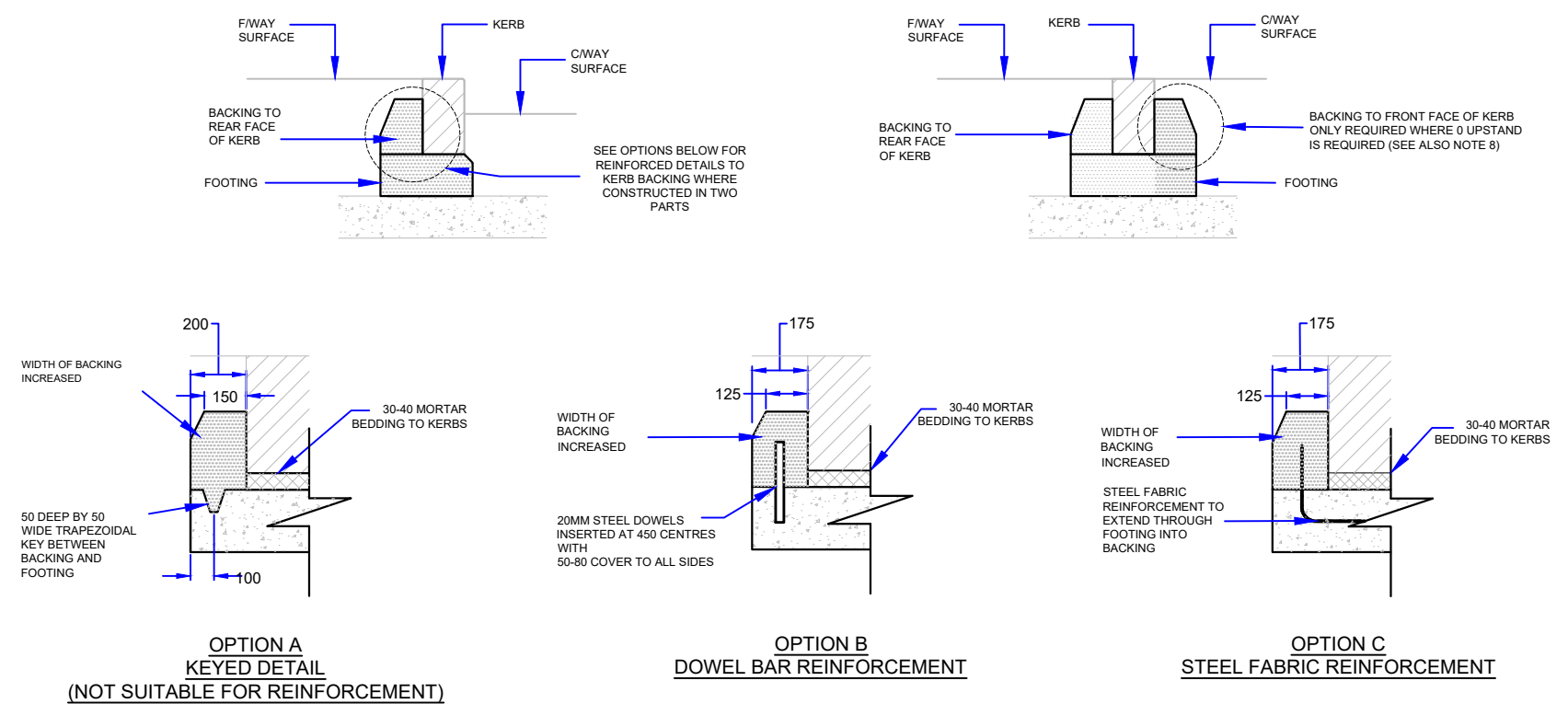
WOKINGHAM BOROUGH COUNCIL
HIGHWAYS DEVELOPMENT
DESIGN STANDARD PLANS

Title

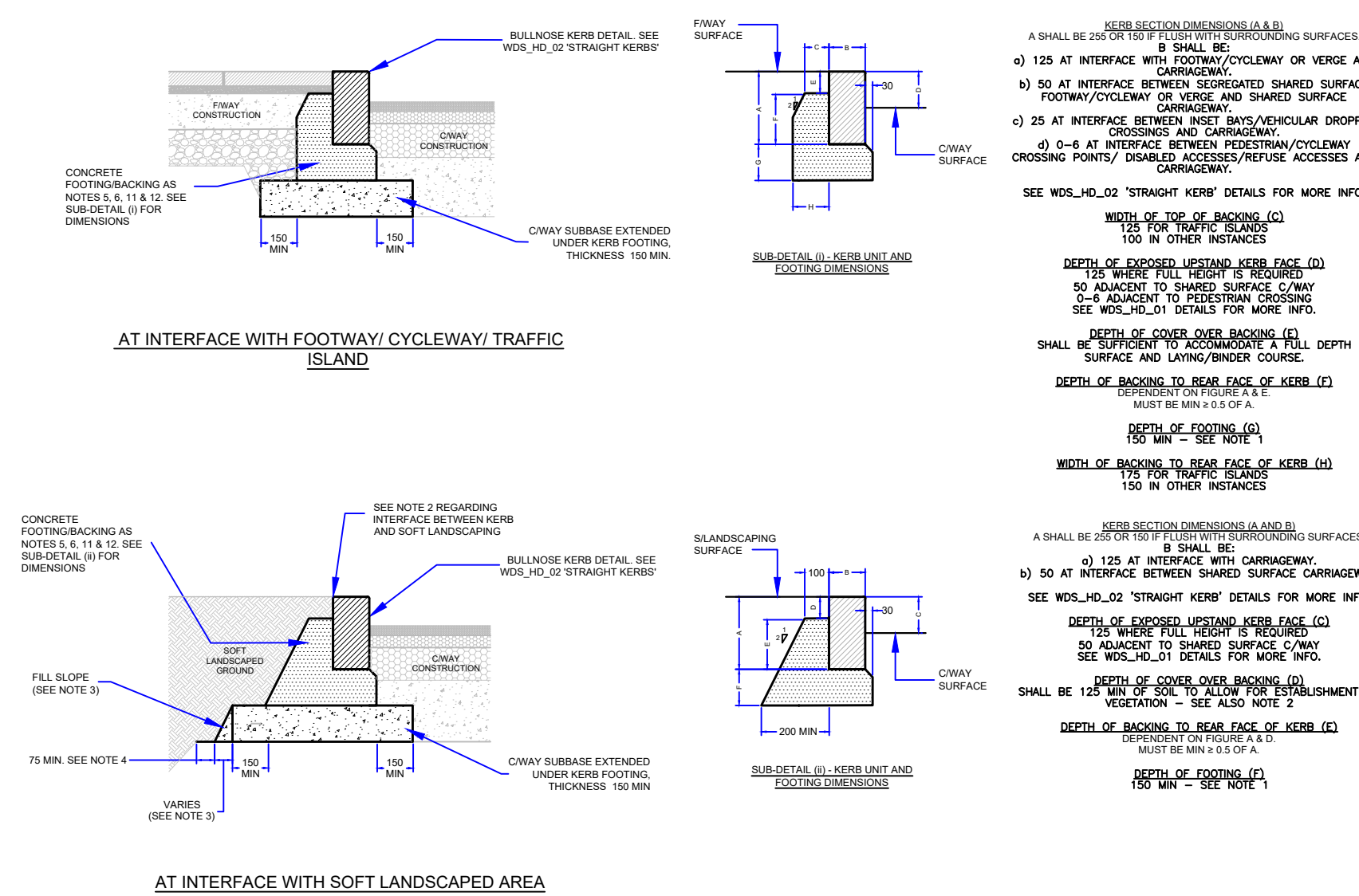
STANDARD DETAILS
SHEET 2 OF 4

Scale	NOT TO SCALE	Drawn	SL
Drawing No.	WDS_HD_02	Rev.	A
Date Drawn	16/07/2020	Date Approved	17/07/2020

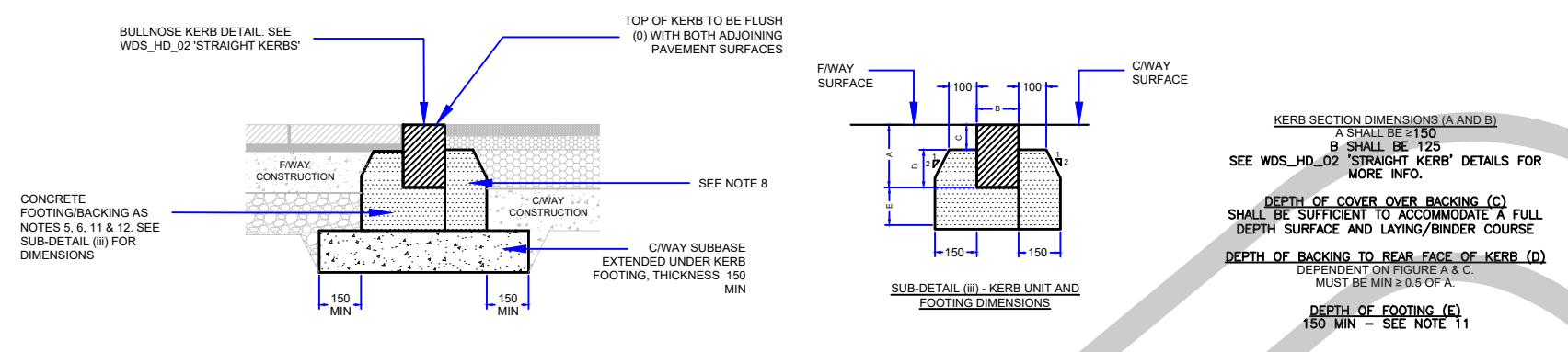
GENERAL LAYOUT DETAILS WITH OPTIONAL VARIABLES FOR ADAPTATION



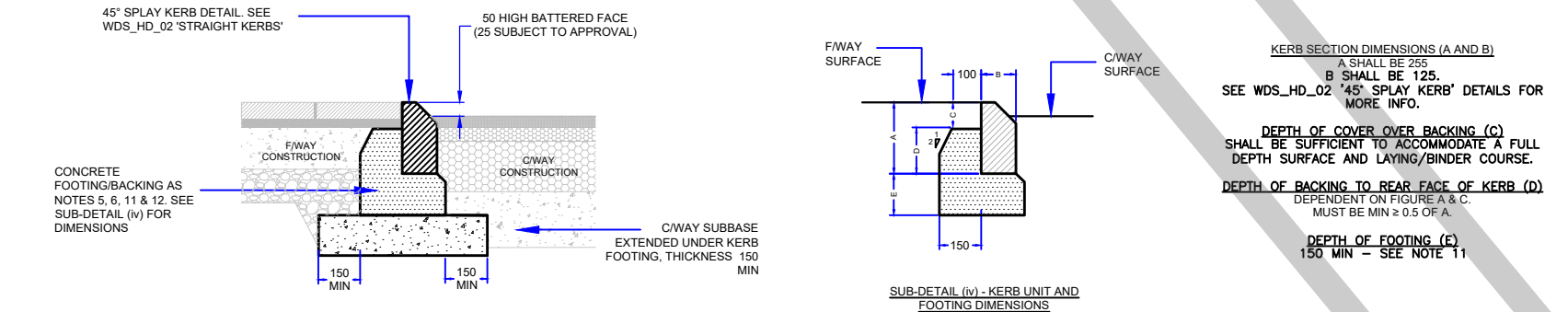
VARIED UPSTAND KERBS



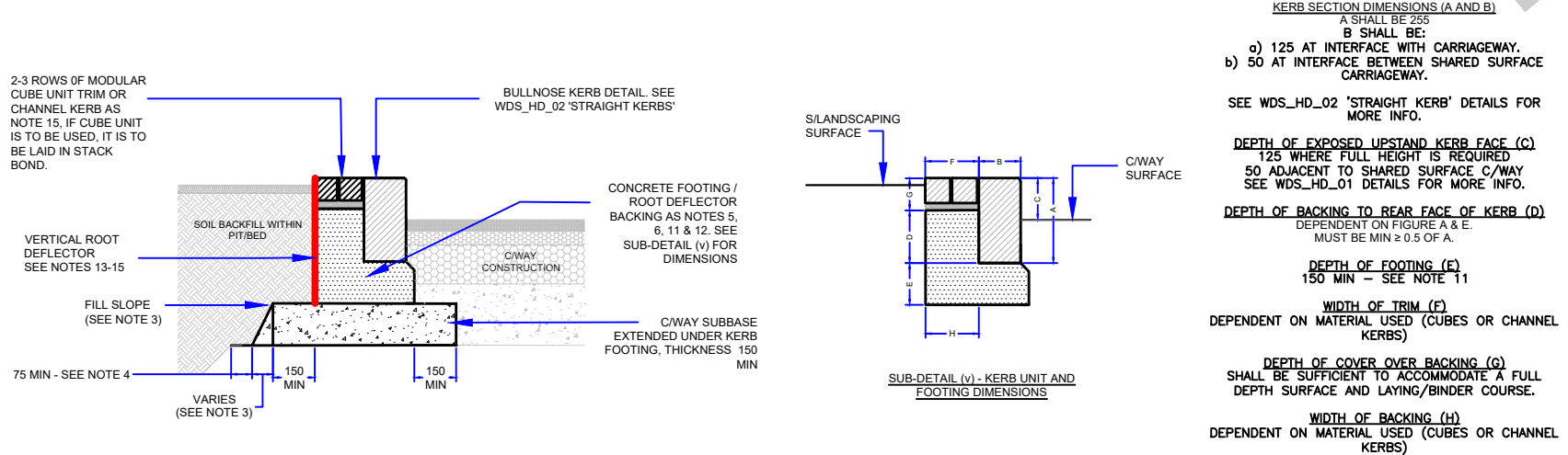
FLUSH KERBS



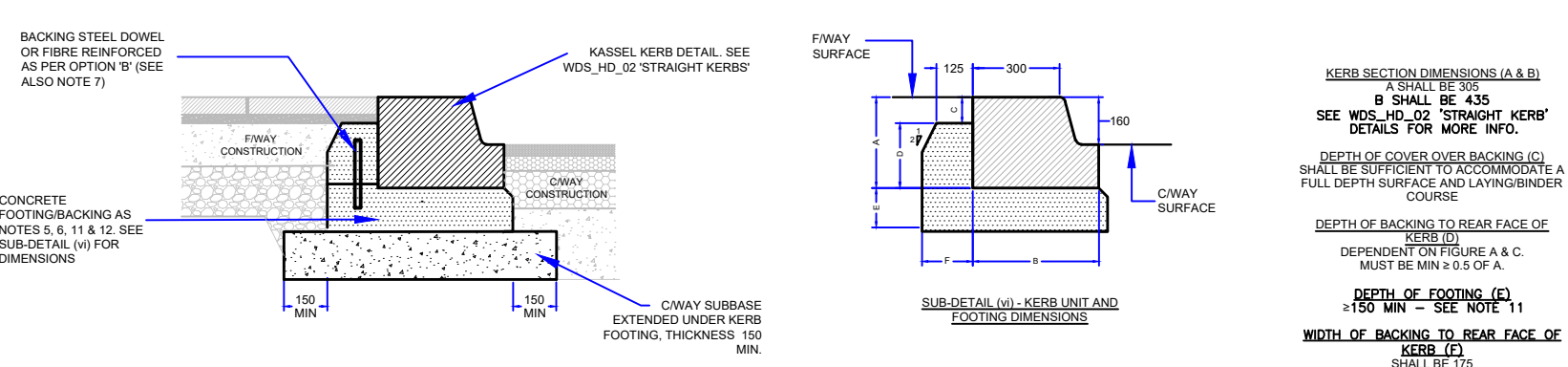
SPLAYED KERBS



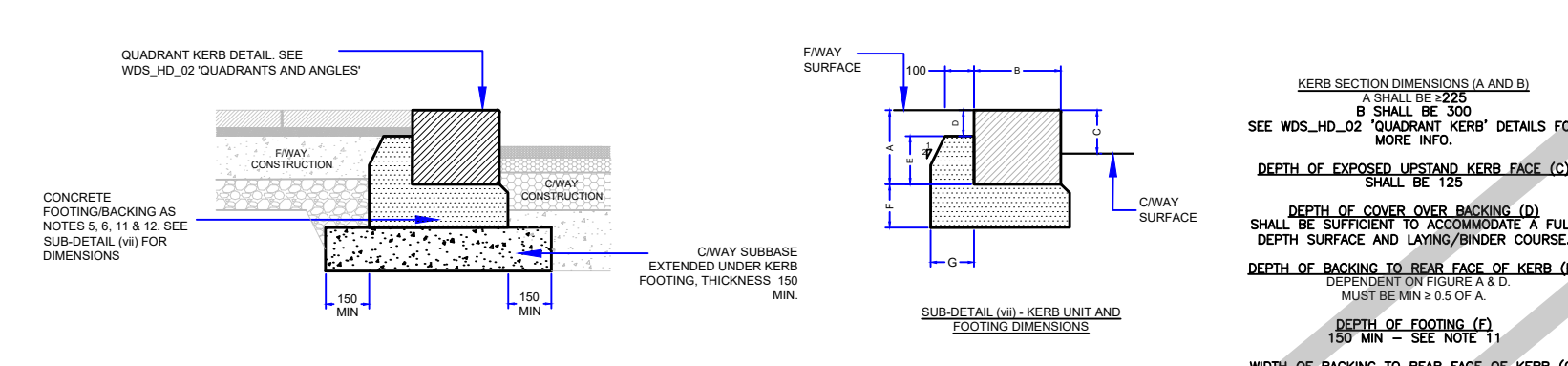
KERB TO TREEPIT/PLANTER BED



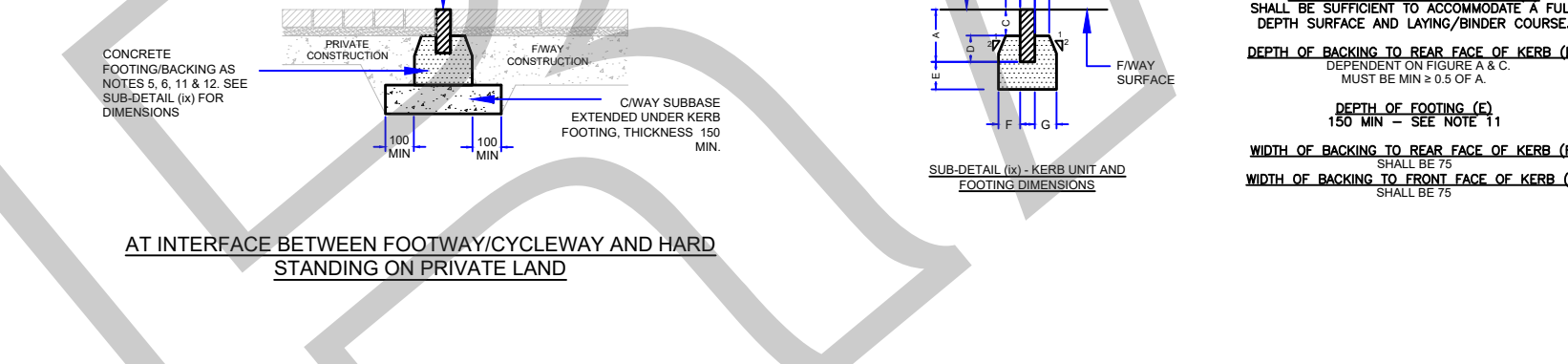
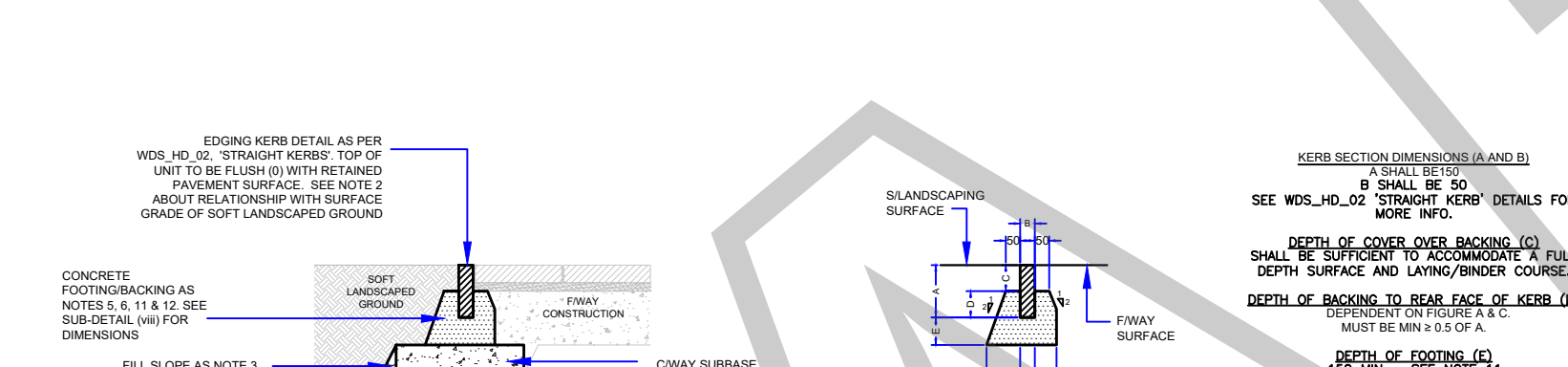
KASSEL (BUS STOP) KERBS



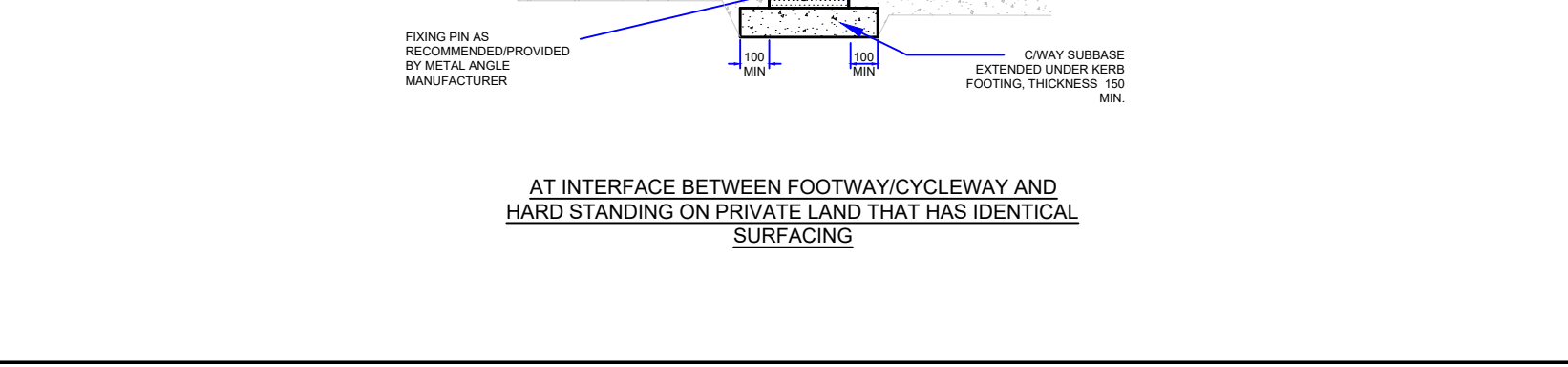
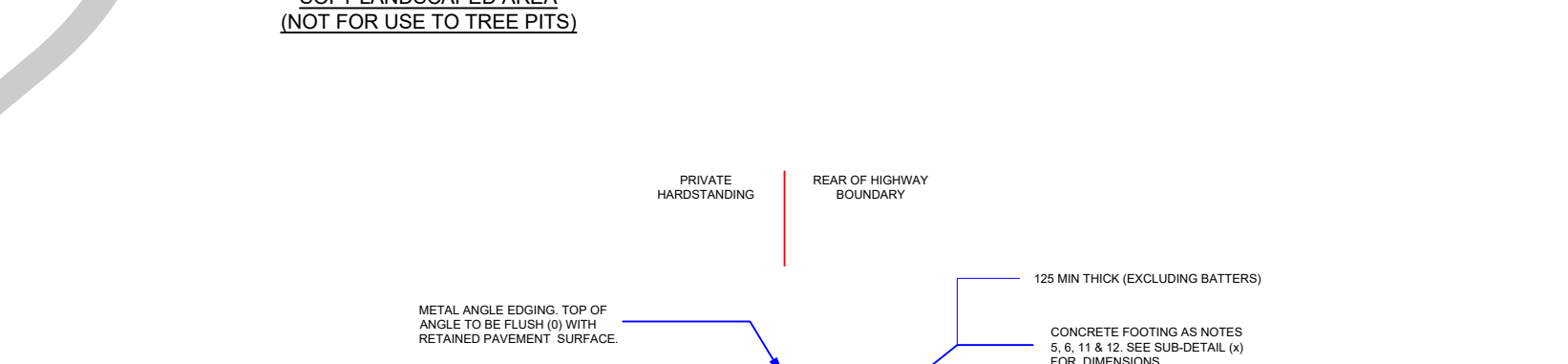
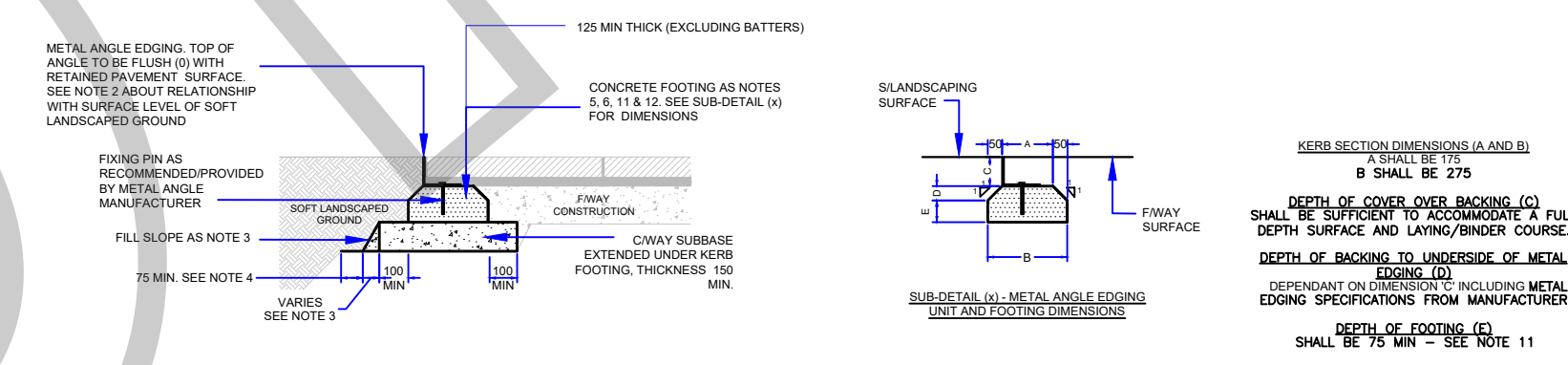
QUADRANT KERBS



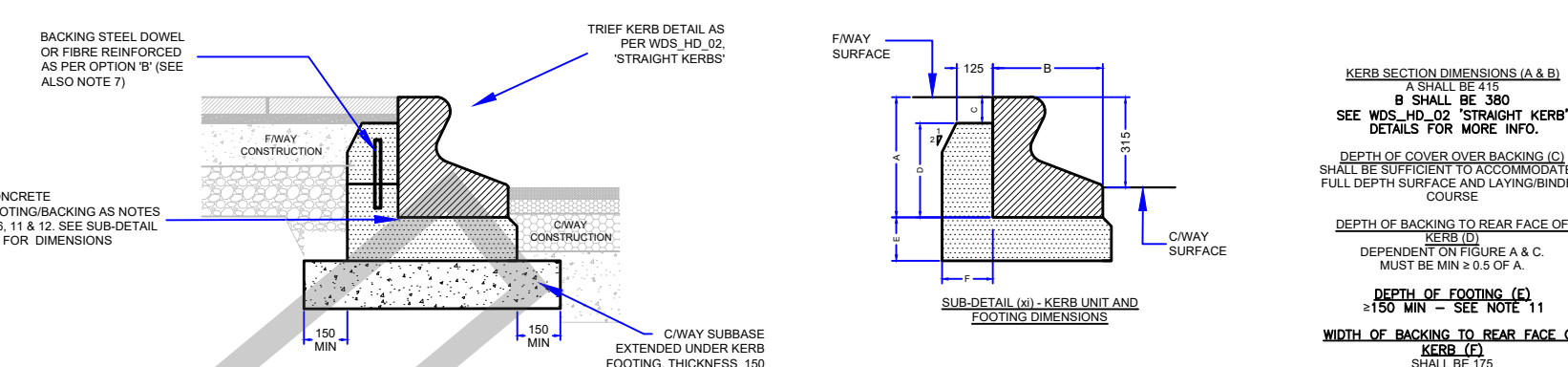
EDGING KERBS



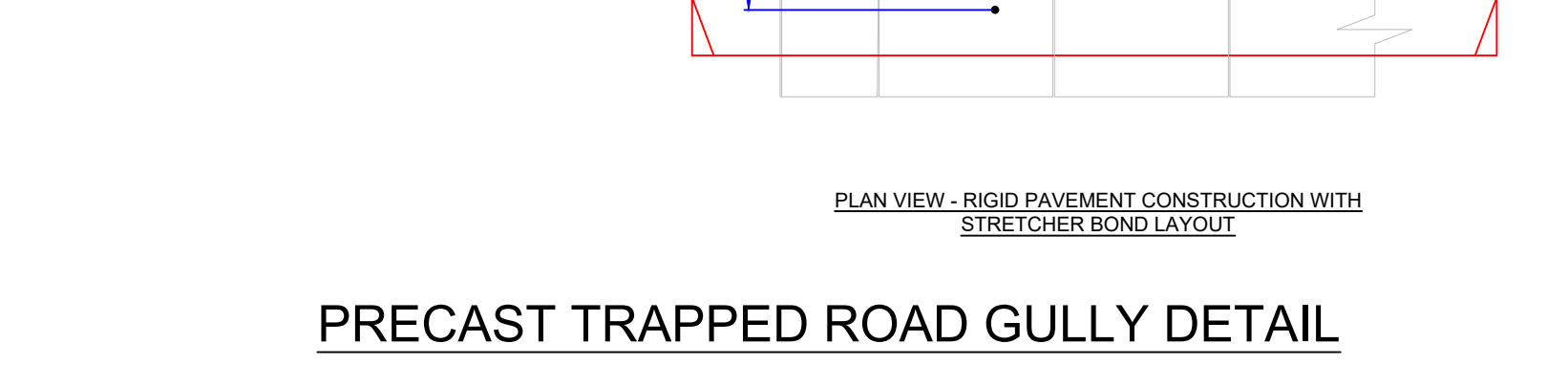
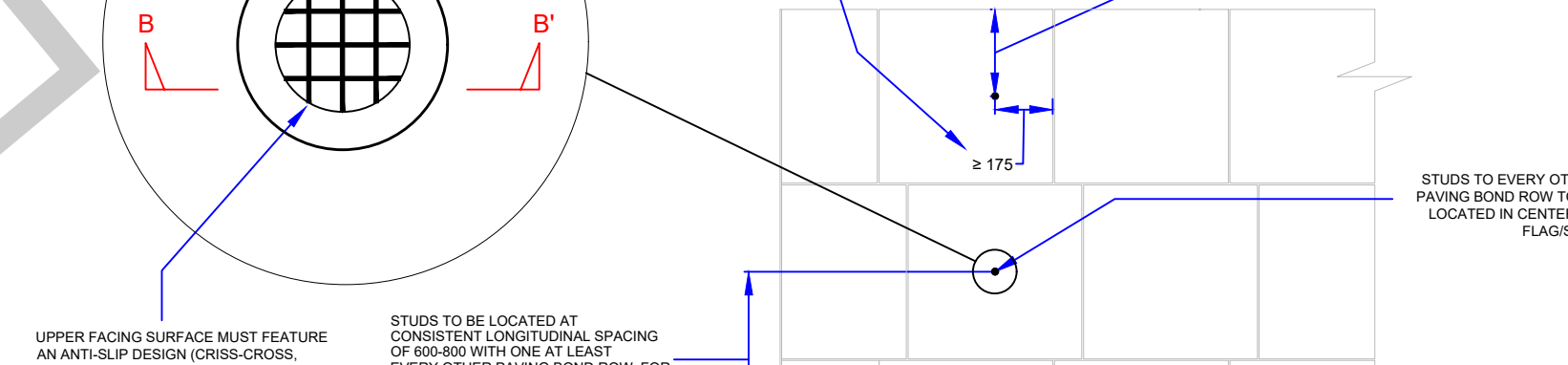
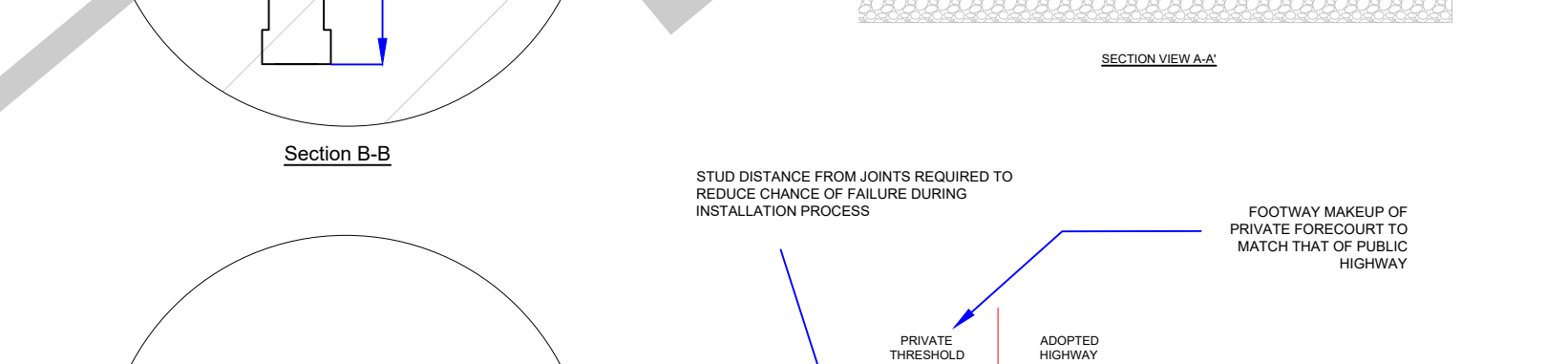
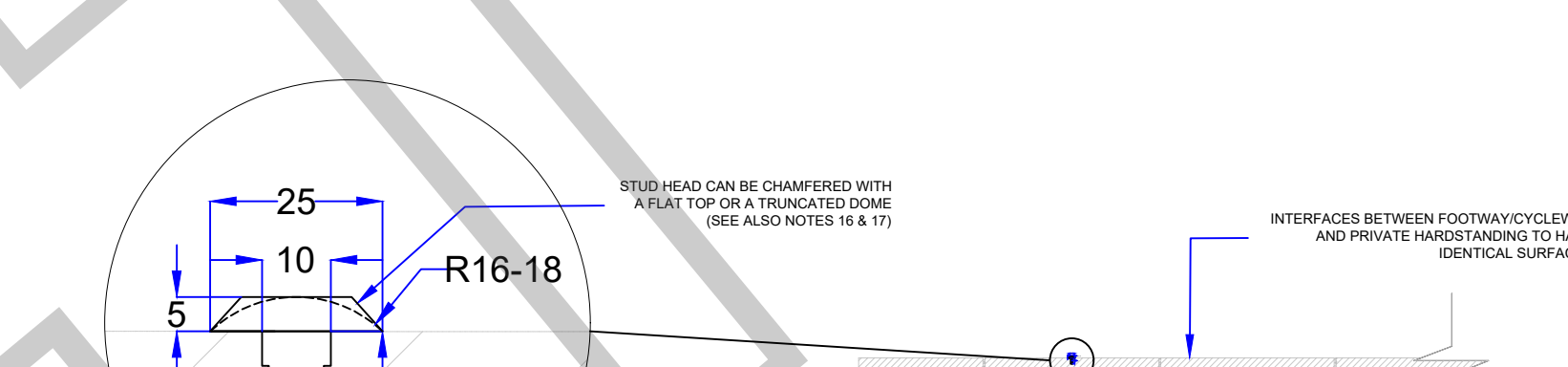
METAL EDGING/DEMARCATI



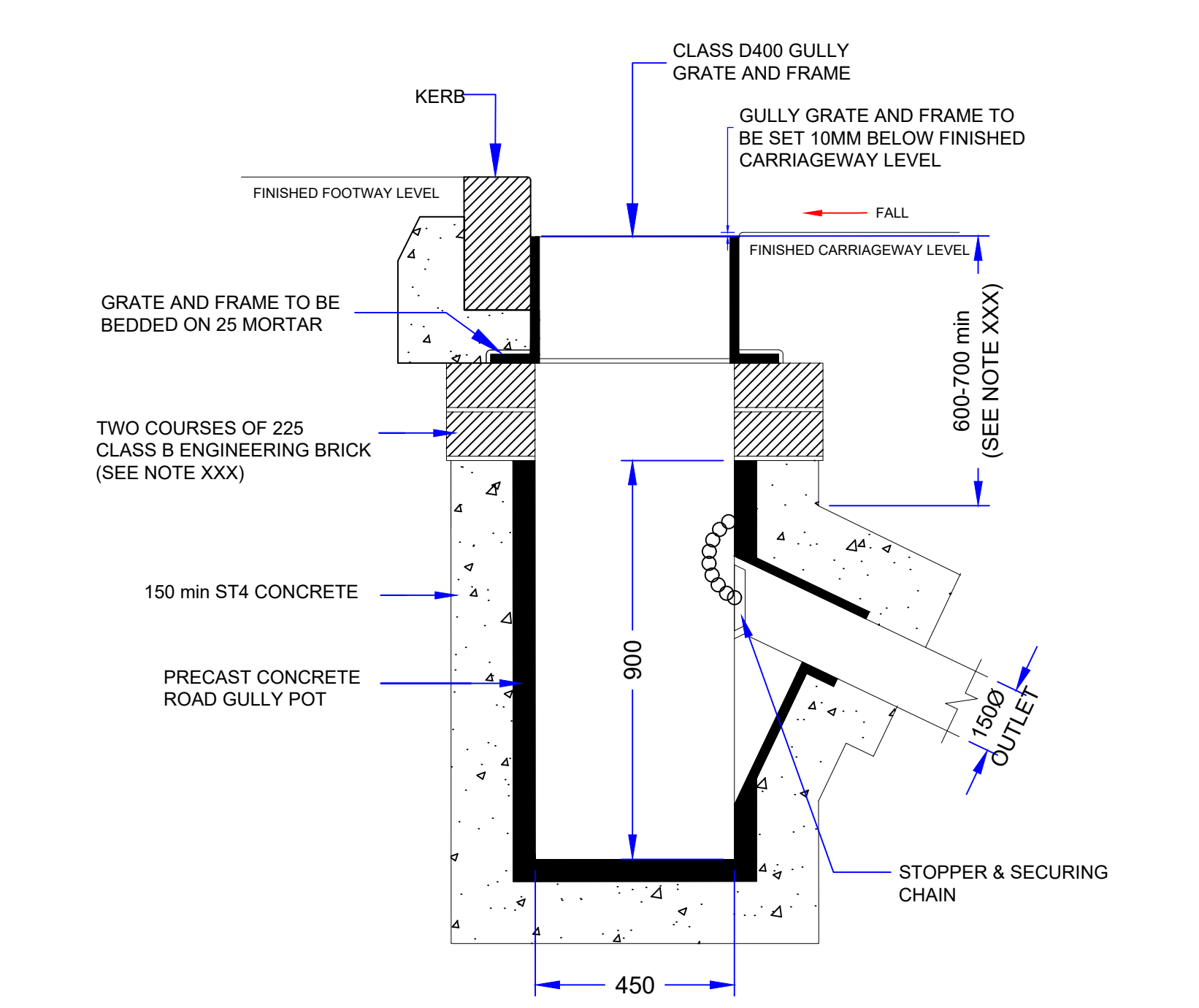
TRIEF (SAFETY/HGV) KERBS



METAL STUD DEMARCATI



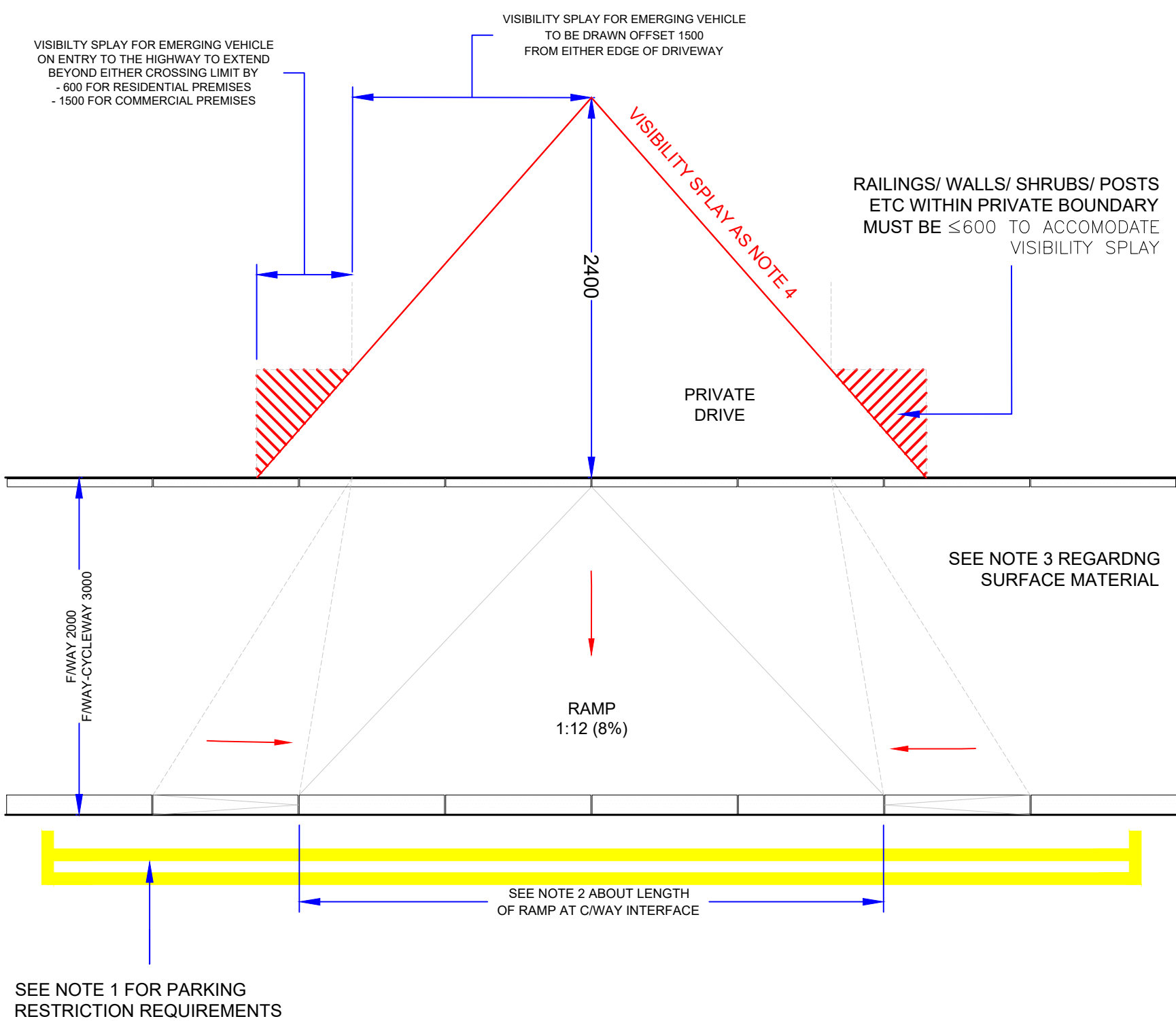
PRECAST TRAPPED ROAD GULLY DETAIL (CHANNEL INLET)



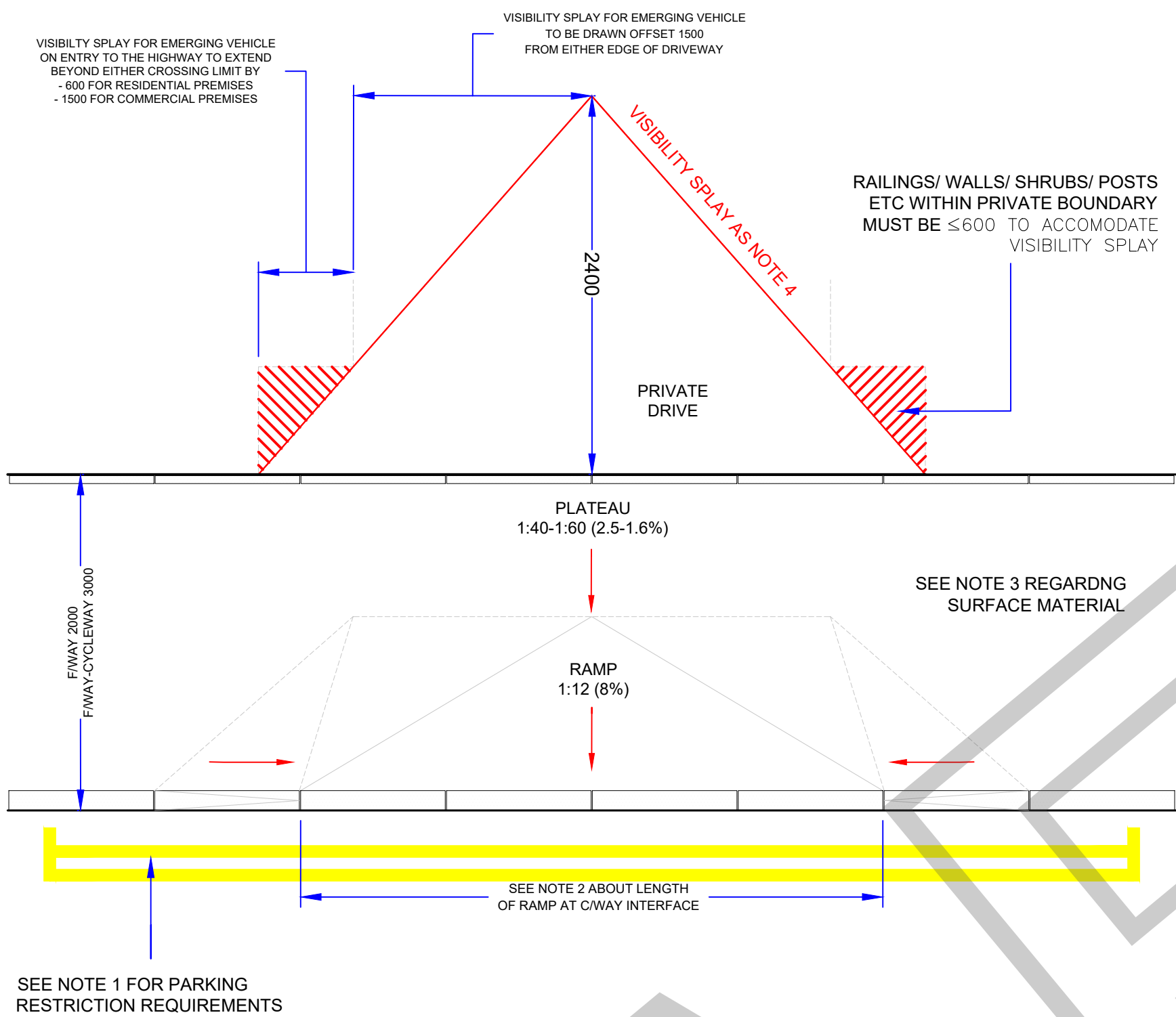
NOTES

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 - All kerbs to BS EN 1340:2003.
 - Appointed WBC Highway Engineer to be present during inspections/CBR testing.
 - All concrete within ground to be AC-4 with design sulphate class of DS-4.
- CONSTRUCTION NOTES:
- In all instances, the depth of footings/backings shall be sufficient to be placed directly on top of the sub-base.
 - The surface grade of the soft landscaped area at the interface with the kerb will vary. Typically
 - If the soft landscaped area is grass surfaced then it should be 25mm above the top of the kerb, sloping down if it is flush with it within the final 150mm.
 - If the soft landscaped area is mulch surfaced then the final mulch surface grade should be 25mm below the top of the kerb to prevent the mulch from spreading.
 - If the soft landscaped area is self binding gravel surfaced then the final gravel surface grade should be flush (0-6mm) with the top of the kerb.
 - If the carriageway pavement is previous then the surface grade of the soft landscaped area should be 40mm min beneath the top of the kerb to prevent sediment from it being carried onto the carriageway surface with runoff.
 - The subbase beneath the footing shall be terminated with a fill slope. The gradient of that slope shall be 2:1 (height:width) where the subbase is composed of an unbound granular mixture and vertical if it is composed of a concrete or hydraulically bound mixture.
 - Minimum 75 terrace between base of subbase fill slope and any further subgrade cut slope.
 - All in situ concrete footing and backing to be C20 (ST4).
 - If kerbs and footing/backing cannot be laid in one operation (else where reinforcement of backing in non-reinforced details is required) then standard details shall be adapted as per one of the reinforced options under 'General Layouts for Adaptation' to securely bed kerbs/link backing to pre-cured footings.
 - Reinforcement dowel bars may be required with standard kerbs in circumstances where the kerbs are more vulnerable.
 - If on edge channel is required then the section of footing beyond the front face of the kerb is to be omitted.
 - If kerbs used back to the edges of Traffic Islands then their footings shall be steel dowel or fabric reinforced as per one of the reinforced options under 'General Layouts for Adaptation'.
 - Kerbs shall be laid with dry joints and closely butted to adjacent kerbs and channels.
 - In all instances, the depth of footings/beams shall be sufficient to allow them to be placed directly on top of the subbase.
 - Movement joints shall be provided through footings/beams/backing.
 - Root deflectors shall be >440 high (appropriate to the required depth).
 - The top of root deflectors shall be flush (0 to -6) with the modular unit kerb trim. The base of root deflectors shall rest on the footway/carriageway subbase extension which shall be extended upwards where necessary.
 - Root Barriers may be required or justified include to protect:
 - major underground utility lines (especially if these have associated easements); and,
 - vulnerable basement structures.
 However, it does not necessarily follow that Statutory Undertakers will allow easement distances around major utilities to be reduced if Root Barriers are installed. Designers are advised to check with Statutory Undertakers for their policy on this matter at an early stage.
 - Stud material to be stainless steel.
 - Studs to be set in resin at depths specified by manufacturer.

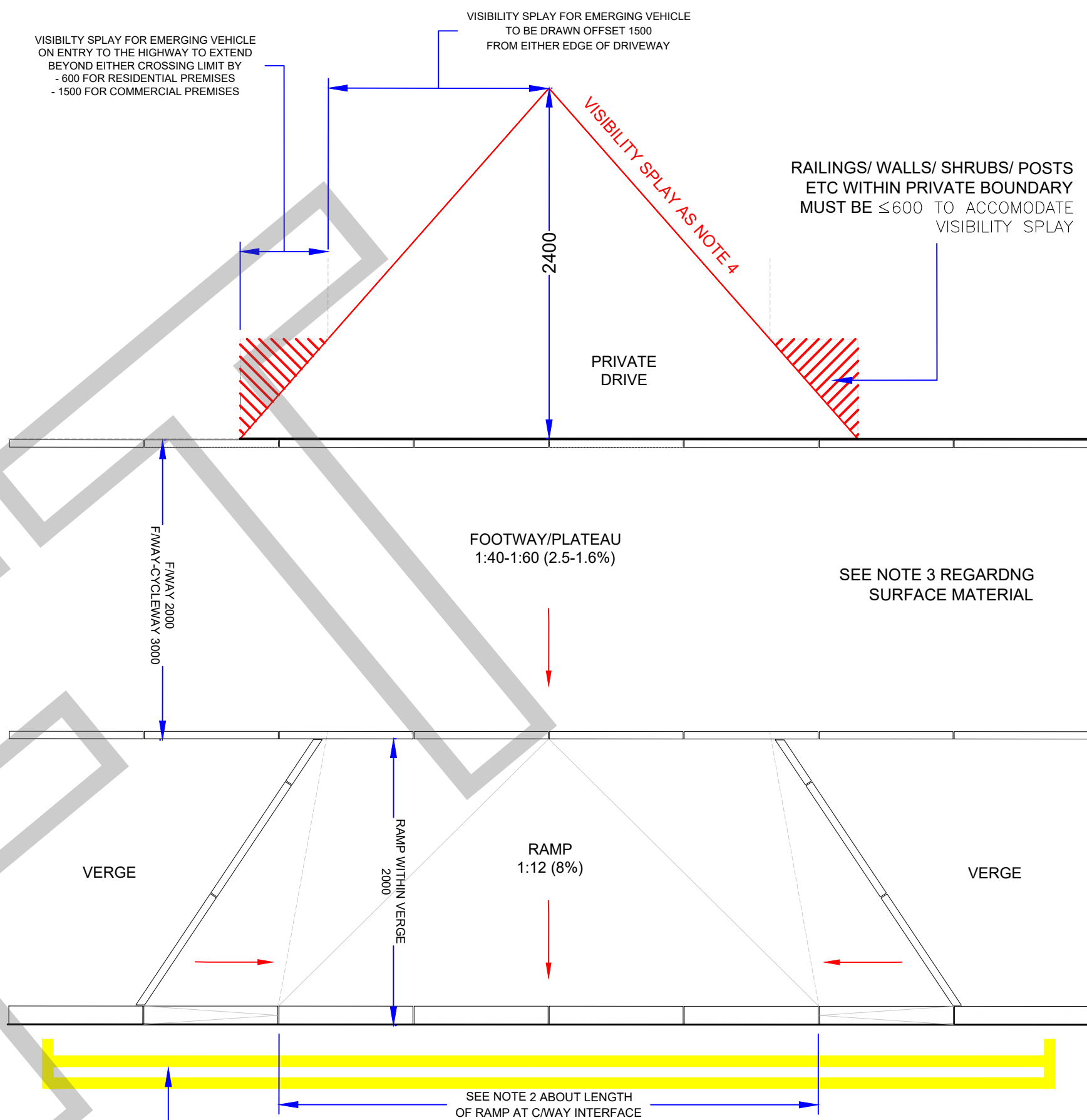
17/07/2020	A
Date Approved	Revision
WOKINGHAM BOROUGH COUNCIL	
Project WOKINGHAM BOROUGH COUNCIL HIGHWAYS DEVELOPMENT DESIGN STANDARD PLANS	
Title STANDARD DETAILS SHEET 3 OF 4	
Scale	NOT TO SCALE
Drawn	SL
Designed	WBC
Checked	
Approved	
Date Drawn	16/07/2020
Date Approved	17/07/2020



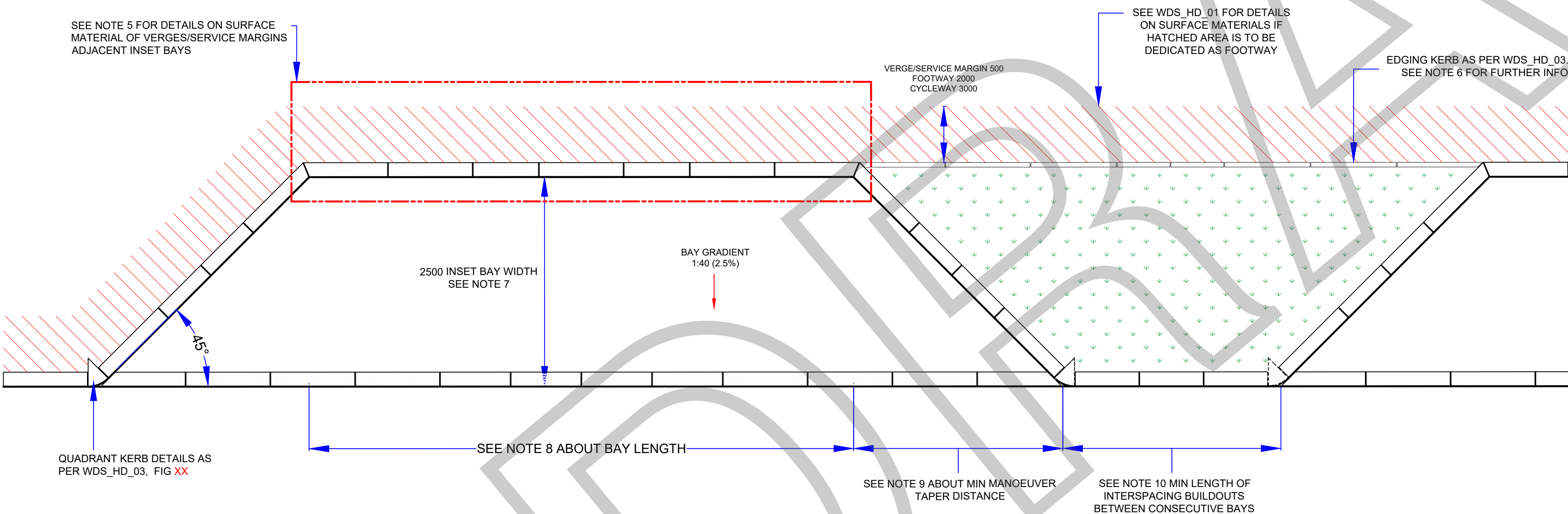
VEHICULAR CROSSING TYPE 1



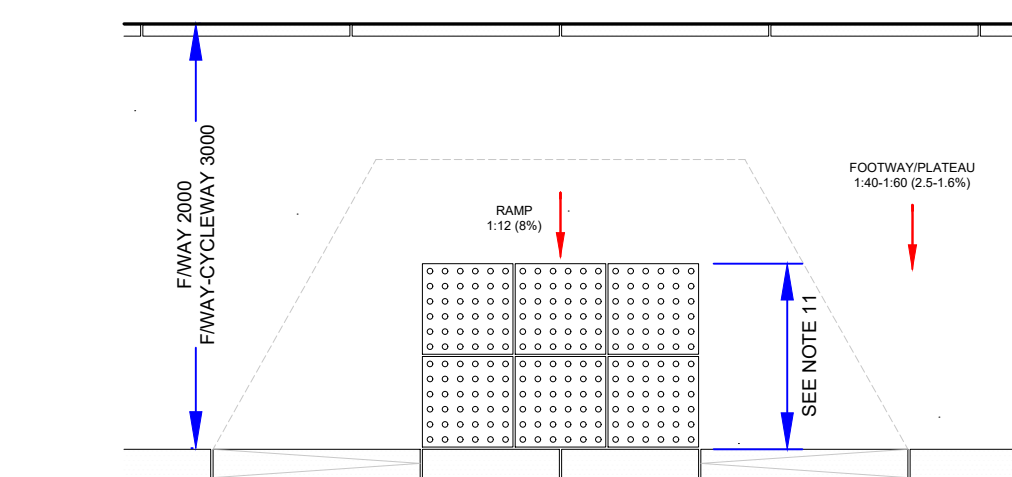
VEHICULAR CROSSING TYPE 2



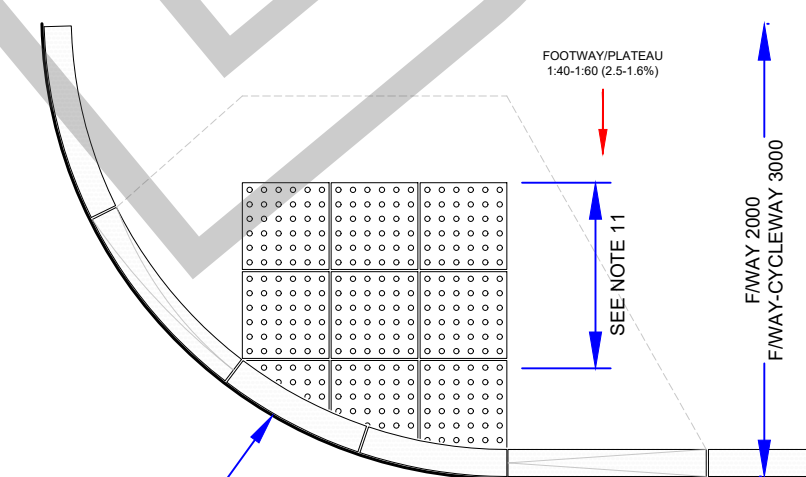
VEHICULAR CROSSING TYPE 3



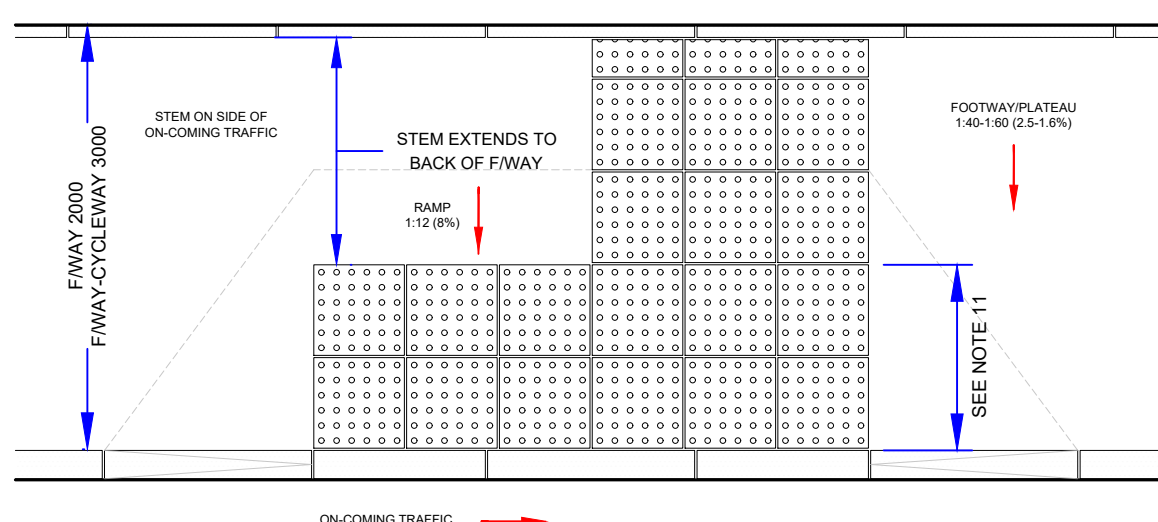
INSET PARKING BAY AND BUILDOUT



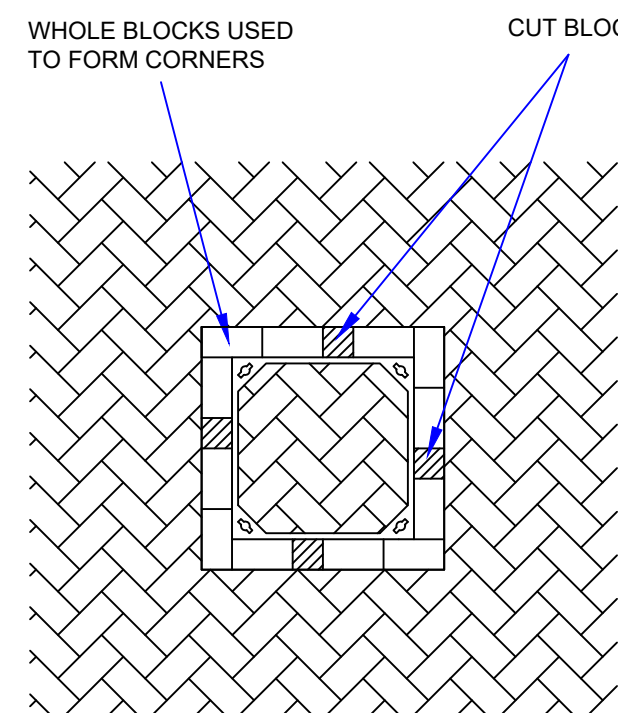
INSET TACTILE PAVING PEDESTRIAN CROSSING POINT AWAY FROM JUNCTIONS



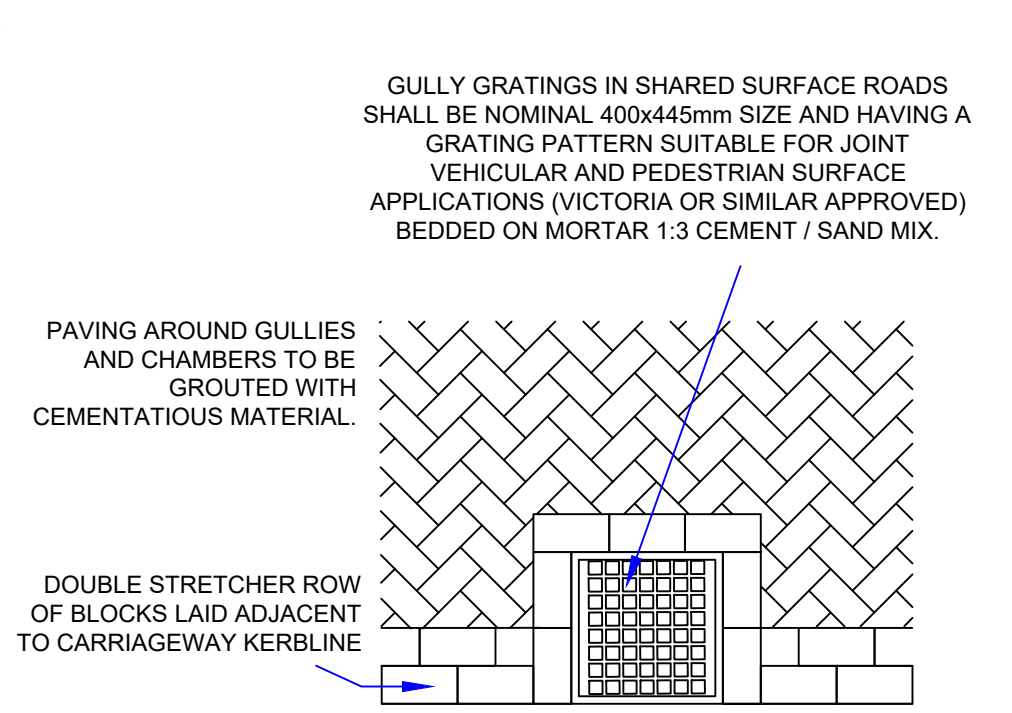
TACTILE PAVING PEDESTRIAN CROSSING AT JUNCTION



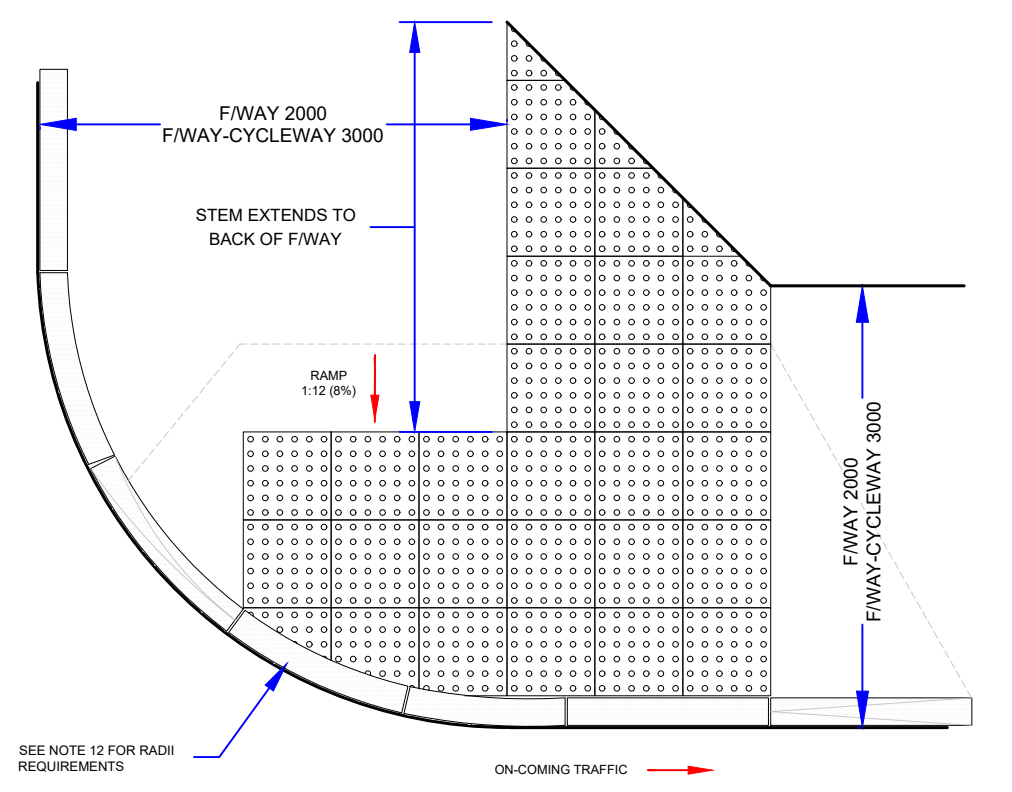
INSET CONTROLLED TACTILE PAVING PEDESTRIAN CROSSING POINT AWAY FROM JUNCTIONS



DETAILS AROUND CARRIAGEWAY IRONWORK IN BLOCKWORK



TYPICAL ARRANGEMENT OF PAVING AROUND GULLIES



CONTROLLED TACTILE PAVING PEDESTRIAN CROSSING AT JUNCTION

NOTES

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- Appointed WBC Highway Engineer to be present during inspections/CBR testing.

CONSTRUCTION NOTES:

- Double yellow line restrictions will be required along the carriageway edge between parking bays within roads governed by Restricted Parking Zones. They shall run through and for 1000 either side of ramps prior to the kerbs transition. Roads elsewhere can be controlled with optional H-Bar white lines to the same specification.
- Ramp width to be minimum necessary value of 3600 and a maximum of 4500. Vehicle tracking to be provided to demonstrate appropriateness. This may be increased to 7200 and a maximum of 9000 for crossings leading to double drives. Maximum values subject to if the private hard standing provides space for two vehicles to wait side by side and a sufficient turning area for both vehicles to emerge onto the Highway in forward gear. Vehicle tracking simulations will be required to demonstrate both these points.
- See WDS_HD_01 for details on surface materials. Where footway material differs that of the carriageway ramp and transition, the two surfaces shall be delineated using edging kerb.
- At the interface between a private hard standing and the rear limit of the Highway at a Vehicle Crossing, vehicle users emerging from the latter should be provided with a clear visibility splay in both directions that is unimpeded by any significant obstructions. Obstructions are to be applied to the vertical plane within the splay between 600-2000 above surface level. This is so that they can see pedestrians who may be passing along the footway.
- Where an inset parking bay is adjacent a verge and/or service margin, the verge construction shall be replaced with a footway as per WDS_HD_01 'Tarmacadam Footway' with a width ≥ 1000 .
- If hatched area is to be footway and surface material of build-out is to match that of footway, edging kerb is not required.
- Min width for residential inset parking bays to be 2500 for Primary and Secondary roads. All other roads to be appropriate to design (min 2000). If inset bay is intended for commercial use, loading bay width shall be 3000.
- For residential parking bays, length shall be 6000 and 6600 for Disabled Bays. For commercial Loading Bays, length shall be dependent on intended vehicle size and space required for unloading (generally 2000).
- For residential inset bays, taper shall be 45° from and kerb at rear of bay (2500 if bay width is 2500). For commercial use Loading Bays, the tapers shall be dependent on method of entry/manoeuvre as below:
 - Forwards in: Vehicle length + width
 - Forwards out: Vehicle length + width
 - Reverse in: Vehicle length + width
- Typically 2500 or 3500 if accommodating trees.
- Tactiles to be a minimum of 3 blister paving slabs behind rear kerb face if pedestrian crossing point is within path of pedestrian travel. Shall be minimum of 2 behind rear kerb face in other circumstances.
- See Highways Design Guide Table A1 'Junction Radii' for requirements pending road priority.
- The Highway Authority reserves the right to require Applicants to relocate any Highway Authority or Statutory Undertaker service covers and chambers (including gullies) within the carriageway should these be located immediately in front of proposed pedestrian and vehicular ramps.
- Any existing Highway Authority or Statutory Undertaker service covers within the area of the plateau or ramp shall be re-levelled, strengthened and replaced with appropriate load bearing cover. Existing Highway Authority or Statutory Undertaker services within the same areas shall be lowered where necessary.
- Existing verges adjacent to new kerbing must be regraded and seeded.
- Manhole covers should not be set until the base is laid.

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Date Approved	Revision
WOKINGHAM BOROUGH COUNCIL	
Project WOKINGHAM BOROUGH COUNCIL HIGHWAYS DEVELOPMENT DESIGN STANDARD PLANS	
Title STANDARD DETAILS SHEET 4 OF 4	
Scale	NOT TO SCALE
Drawing No.	WDS_HD_04
Date Drawn	16/07/2020
Drawn	SL
Designed	WBC
Checked	-
Approved	-
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