

Technical Note

To: Manchester City Council (Planning)

From: Jake Busby (Curtins)

Subject: Surface Water Drainage Strategy

Reference: 20200-CUR-ISZ-XX-GN-C-00001

Date: 25th June 2021

This technical note has been prepared in support of an application for planning permission for a package of enabling works on land within the North Manchester General Hospital campus (hereafter referred to as the Southern Enabling Works"). The works will enable the subsequent delivery of the New Park House development.

The package of works proposed within the planning application comprises:

- Constructing sections of the western access road which were approved as part of the New Park House development under planning permission 128563/FO/2020. It is necessary to create a free-standing planning permission for the same highway works to allow the highway works to progress ahead of the wider New Park House development.
- Constructing a new temporary substation;
- Installing below ground utility infrastructure to service the New Park House development.

The land affected by the works is shown in drawing references 20200-SRA-152-XX-DR-A-0281 and 20200-SRA-152-XX-DR-A-0282

Further details of the works and the proposed surface water drainage strategy is detailed below:

Northern Section of Western Road (Link to Central Drive)

The inclusion of a new section of road to serve the New Park House development will require some additional surface water drainage to what is already on site. As shown on drawing reference 20200-CUR-ISZ-XX-DR-C-95002 there is to be a new surface water manhole and 4 new highway gullies. These are to be connected into the existing on-site network as surveyed on drawing reference 20200-CUR-ISZ-XX-DR-C-02004. There is no net increase in impermeable area as a result of this section of road. The existing condition is impermeable and currently sheds water to the surrounding areas (carparking / central drive).

Road gullies are easily maintainable from surface level, as is the main sewer run from the proposed manhole. The run of drainage currently within Central Drive ultimately discharges to the UU combined sewer network and therefore risk of pollution is considered very low.

Southern Section of Western Road (Realignment of Eyam Road / Ellis Drive junction)

The realignment of the existing junction between Eyam Road and Ellis Drive will require some new gullies. As shown on drawing reference 20200-CUR-ISZ-XX-DR-C-95011 two new gullies are

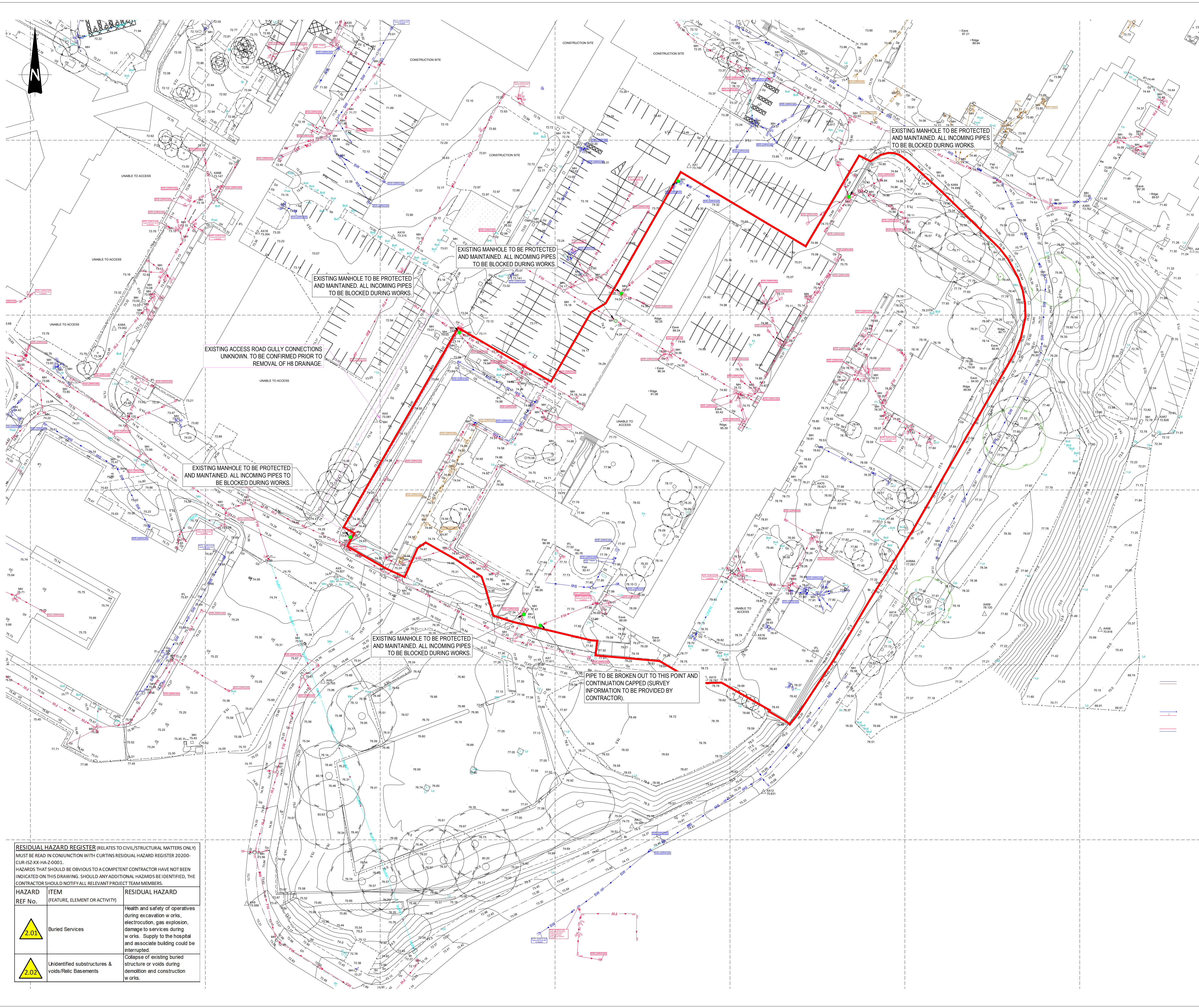
needed to drain the realigned road. The existing gullies currently in Eyam Road will be removed as part of the works and relocated. There is no net increase in impermeable area as a result of this realignment of road. The existing condition is landscaping, however the removal of the current road alignment is a like for like in respect of hardstanding.

Road gullies are easily maintainable from surface level, as is the main sewer run from the existing manhole. The run of drainage currently within Eyam Road ultimately discharges to the UU combined sewer network and therefore risk of pollution is considered very low.

Substation

The substation will require a roof and as such result in some additional run-off into the NMGH network. The locations of the rainwater pipes are not known however it is envisaged they will shed direct onto the surrounding ground. The run-off will be captured by the existing highway gullies and ultimately discharge via the UU combined sewer network.

Rainwater will not be able to enter the substation unit and therefore there is no risk of oil mixing with the run-off. The substation will need to be fitted with a sump and pump to prevent any oil spill leaving the unit and entering the drainage network.



GENERAL NOTES:

- 1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
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- 3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
- 4. FOR GENERAL NOTES REFER TO DRAWING.
- 5. DESIGN BASED ON TOPOGRAPHICAL SURVEY INFORMATION AVAILABLE AT THE TIME OF DESIGN. ANY VARIANCE FROM THE INFORMATION SHOWN SHOULD BE REPORTED TO THE ENGINEER FOR REVIEW.
- 6. NOT TO BE USED FOR CONSTRUCTION OR TENDER, FOR COORDINATION AND PLANNING ONLY.

DEMOLITION NOTES:

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- 2. CONTRACTOR TO UNDERTAKE ALL DILAPIDATION SURVEYS AND CCTV SURVEYS OF ANY DRAINAGE NOTED AS REQUIRING PROTECTION.
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- 5. CONTRACTOR TO ESTABLISH SAFETY EXCLUSION / DROP ZONES.
- 6. GENERAL LANDSCAPING TO REMAIN INTACT AND TREES WILL NOT BE REMOVED UNLESS OTHERWISE AGREED.
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- 20. DELIVERED SITE WILL BE LEFT AS EXISTING LEVELS SET OUT ON THE SURVEYS COMPLETED IN 2020.
- 21. DISCOVERED BASEMENTS WILL BE LEFT OPEN AND UNFILLED WITH SUITABLE EDGE PROTECTION UNLESS IMPACTED BY WORKS TO CAR PARKING / HIGHWAYS ACCESS ETC TO ENSURE STABILITY.



KEYPLAN

KEY

PROPOSED DEMOLITION WORKS BOUNDARY (HOARDING LINE)

P02	21/05/21	ISSUED FOR COORDINATION (S1)	JDB	JK
P01	20/05/21	ISSUED FOR COORDINATION (S1)	JDB	JK
REV.	DATE	AMENDMENT	DRW.	CHK.



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PROJECT
NORTH MANCHESTER GENERAL HOSPITAL

SCALE@A1	DATE	ORIGINATOR	CHECKED	AUTHORISED
1:500	20/05/2021	JDB	JDB	JK

SOUTHERN ENABLING WORKS
EXISTING DRAINAGE OVERVIEW

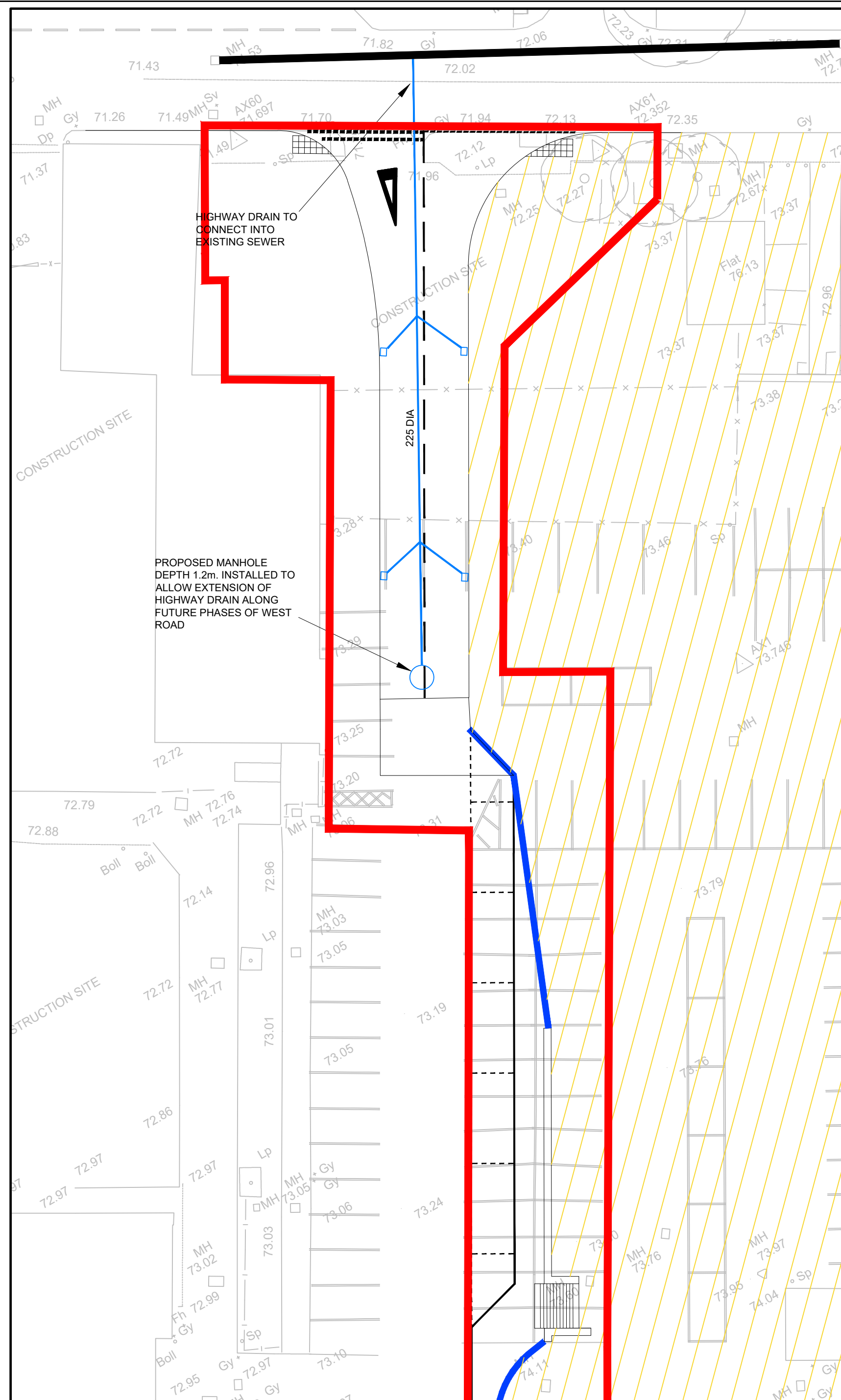
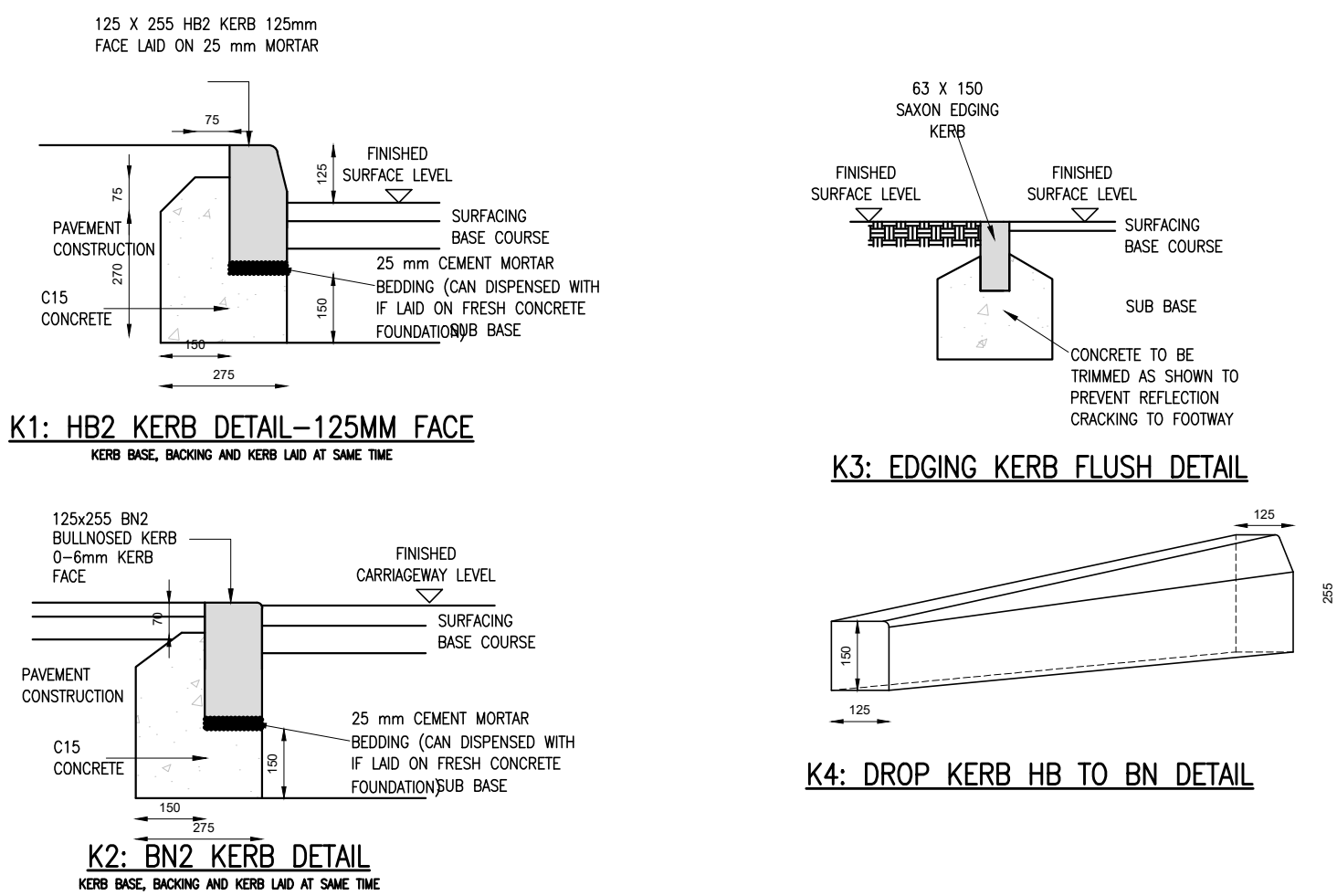
STATUS	PURPOSE FOR ISSUE	PR NO.
S1	FOR COORDINATION	075805
DRAWING NO.		REV.
20200 · CUR · ISZ · XX · DR · C · 02004	P02	

RESIDUAL HAZARD REGISTER (RELATES TO CIVIL/STRUCTURAL MATTERS ONLY) MUST BE READ IN CONJUNCTION WITH CURTINS RESIDUAL HAZARD REGISTER 20200-CUR-ISZ-XX-HA-Z-0001. HAZARDS THAT SHOULD BE OBVIOUS TO A COMPETENT CONTRACTOR HAVE NOT BEEN INDICATED ON THIS DRAWING. SHOULD ANY ADDITIONAL HAZARDS BE IDENTIFIED, THE CONTRACTOR SHOULD NOTIFY ALL RELEVANT PROJECT TEAM MEMBERS.		
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2.02	Unidentified substructures & voids/Relic Basements	Collapse of existing buried structure or voids during demolition and construction works.

KERBING DETAILS

KEY

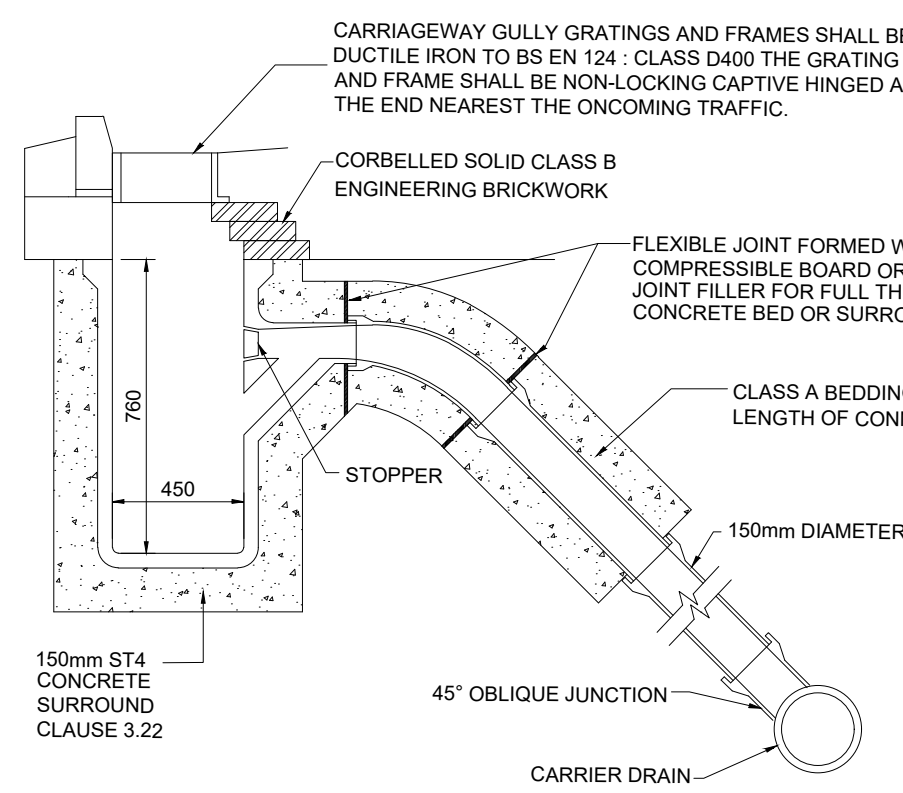
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-  K2- PRE CAST CONCRETE DROPPED KERB
- K3- PRE CAST CONCRETE EDGING
- K4- PRE CAST CONCRETE TRANSITION KERB



DRAINAGE DETAILS

KEY

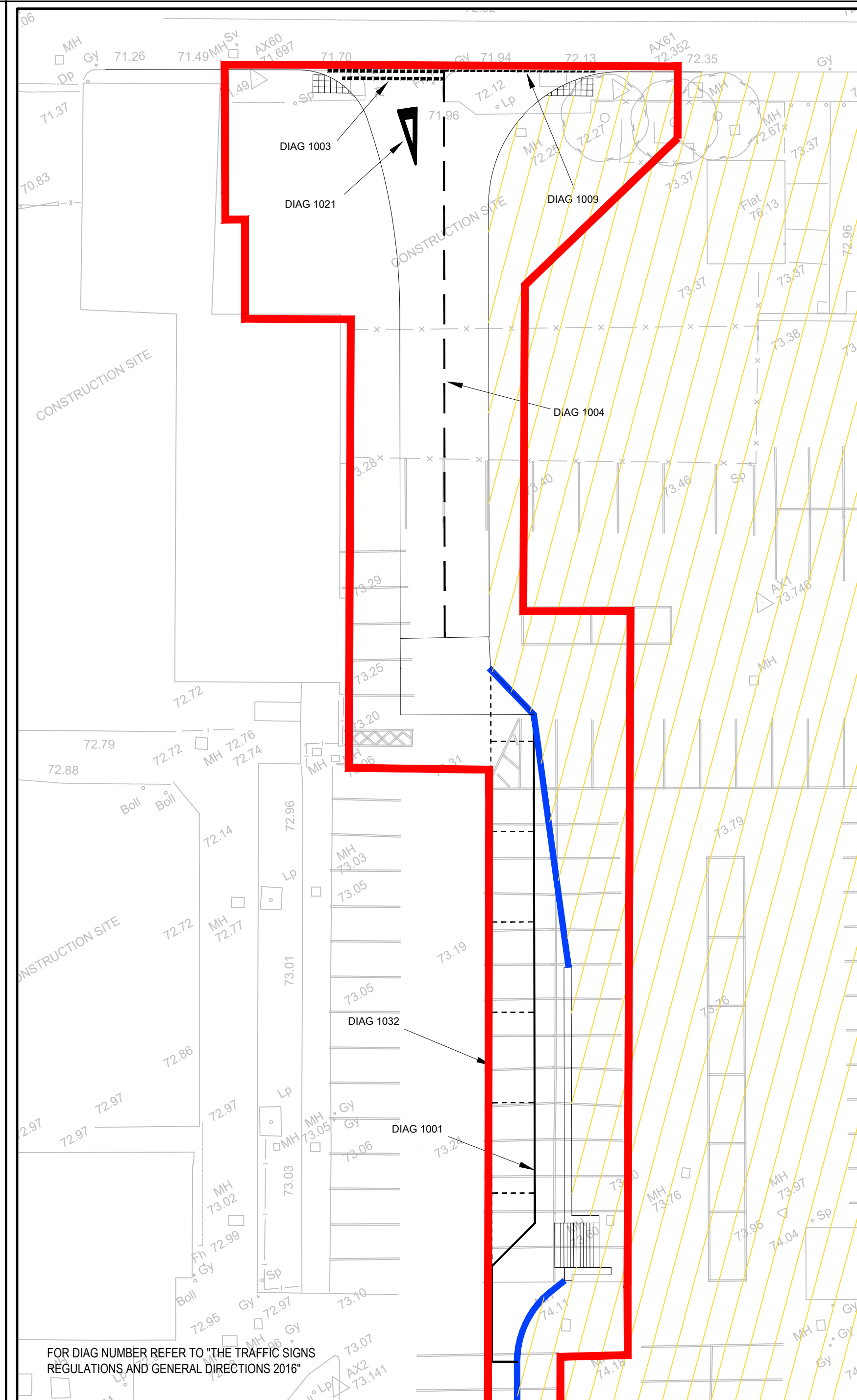
- 150mm DIA GULLY CONNECTION
PROPOSED GULLY



- ## NOTES
1. GULLY POT TO BE 95 LITRES MIN CAPACITY
 2. MAXIMUM TRENCH WIDTH FOR 150mm GULLY LEAD IS 600mm
NUMBER OF BENDS MAY VARY DUE TO SITE DIFFERENCES.
 3. CONCRETE SURROUND TO PIPES SHALL ALWAYS FINISH AT A JOINT
 4. CONCRETE GULLY POT TO BS5911 PART 230 CLAUSE 3:10 (ii)

GULLY DETAIL WITH CONNECTION TO CARRIER DRAIN

SCALE N.T.S



ROAD MARKINGS

Notes:

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KEY



REFER TO GMMH EXTERNAL WORKS DETAILED DESIGN
FOR CONSTRUCTION DETAILS

P02	21/06/21	RED LINE BOUNDARY ADDED	JDB	HS
P01	21/05/21	FIRST ISSUE	HS	AR
REV.	DATE	AMENDMENT	DRW.	CHK.
CLIENT				

CLIENT



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PROJECT
SOUTHERN ENABLING WORKS

SCALE@A1	DATE	ORIGINATOR	CHECKED	AUTHORISED
1/250	21/05/21	HS	HS	AR

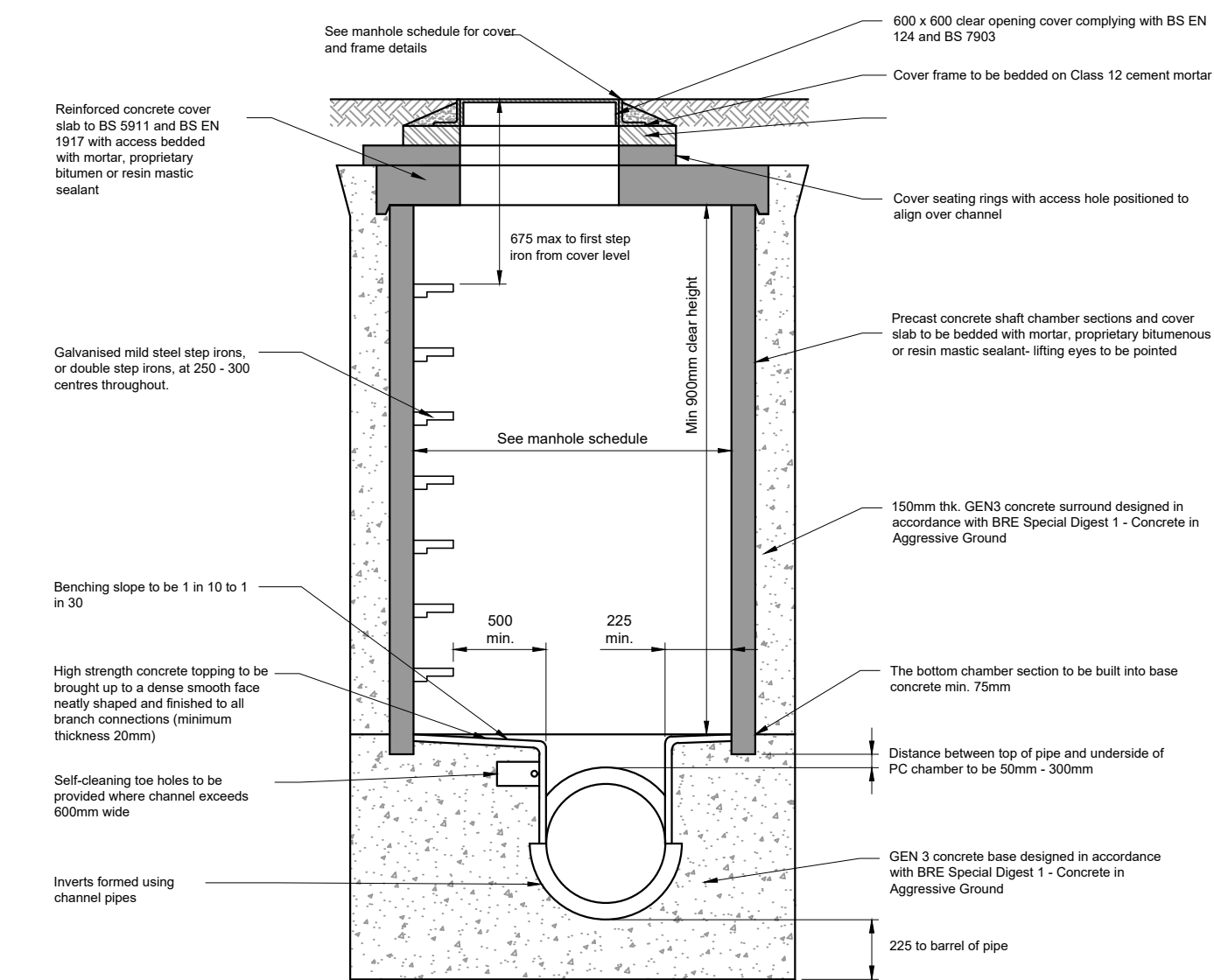
**WEST ROAD JUNCTION
CONSTRUCTION DETAILS 2 OF 2**

STATUS	PURPOSE FOR ISSUE	SR NO.
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S3 FOR REVIEW/COMMENT

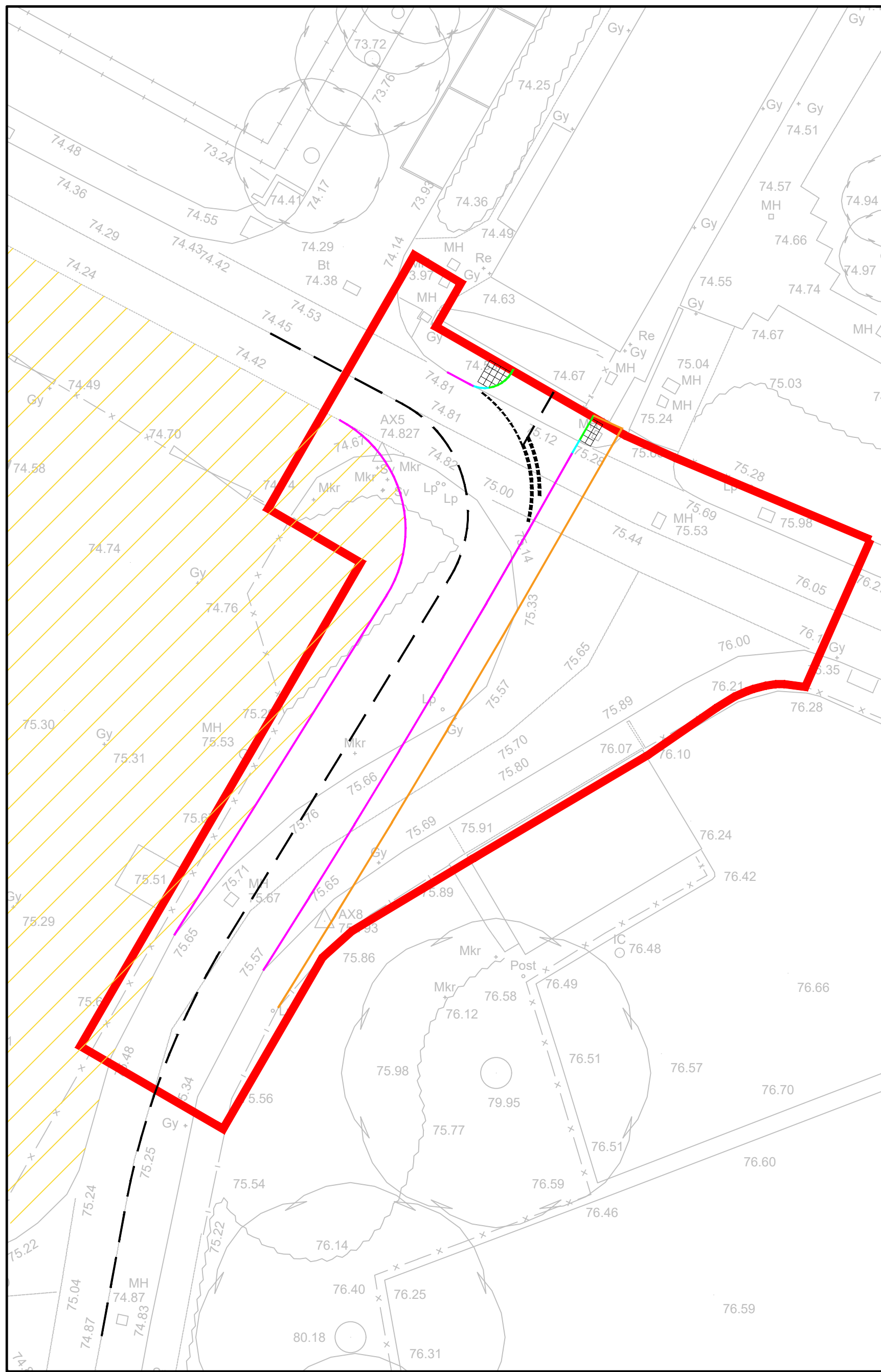
DRAWING NO. REV.

20200-CUR-ISZ -XX-DR - C - 95002 P02



TYPICAL TYPE 2 CONCRETE MANHOLE (PCC) DETAIL

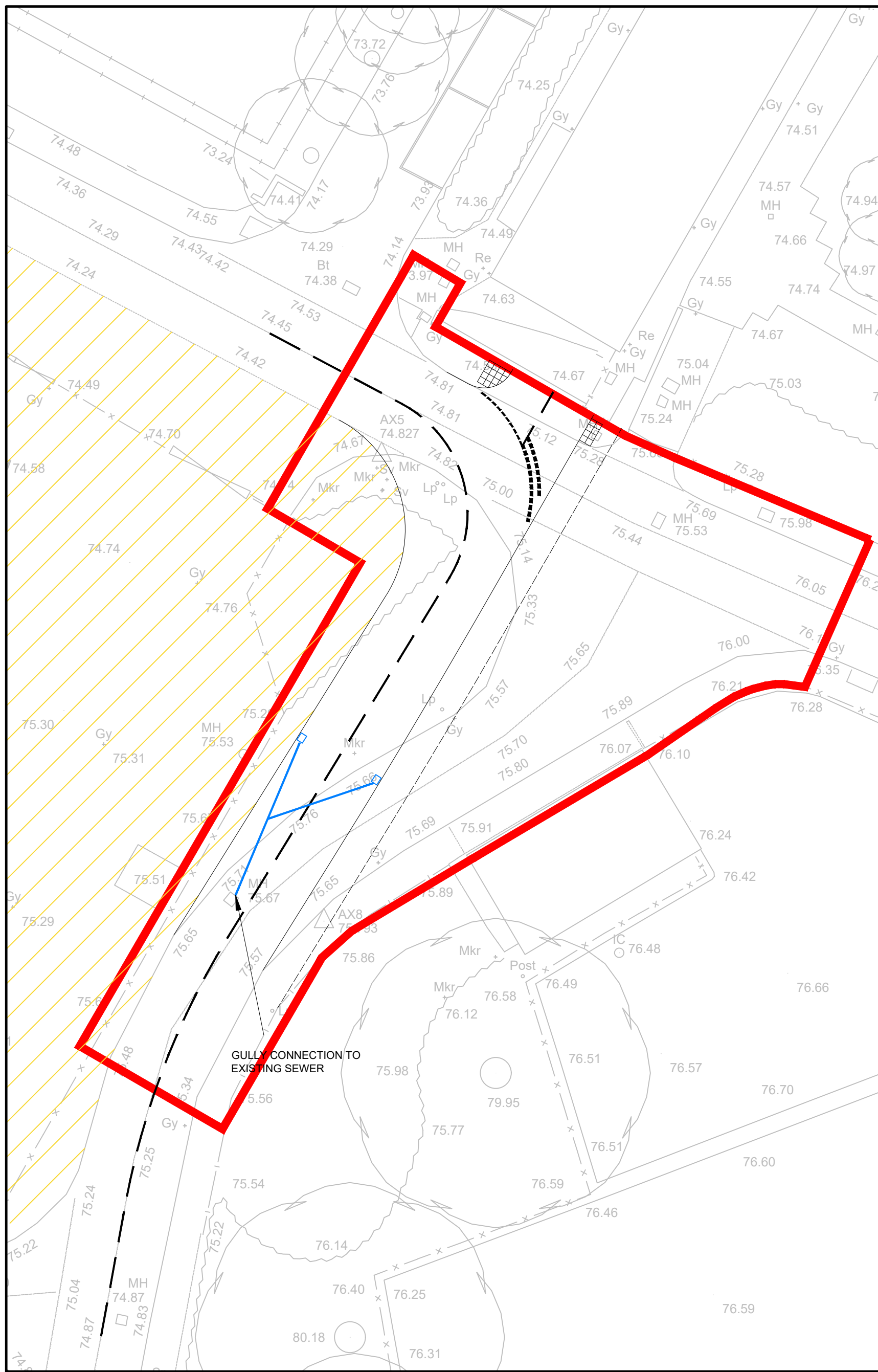
MAX. DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE 3.0m



KERBING DETAILS

KEY

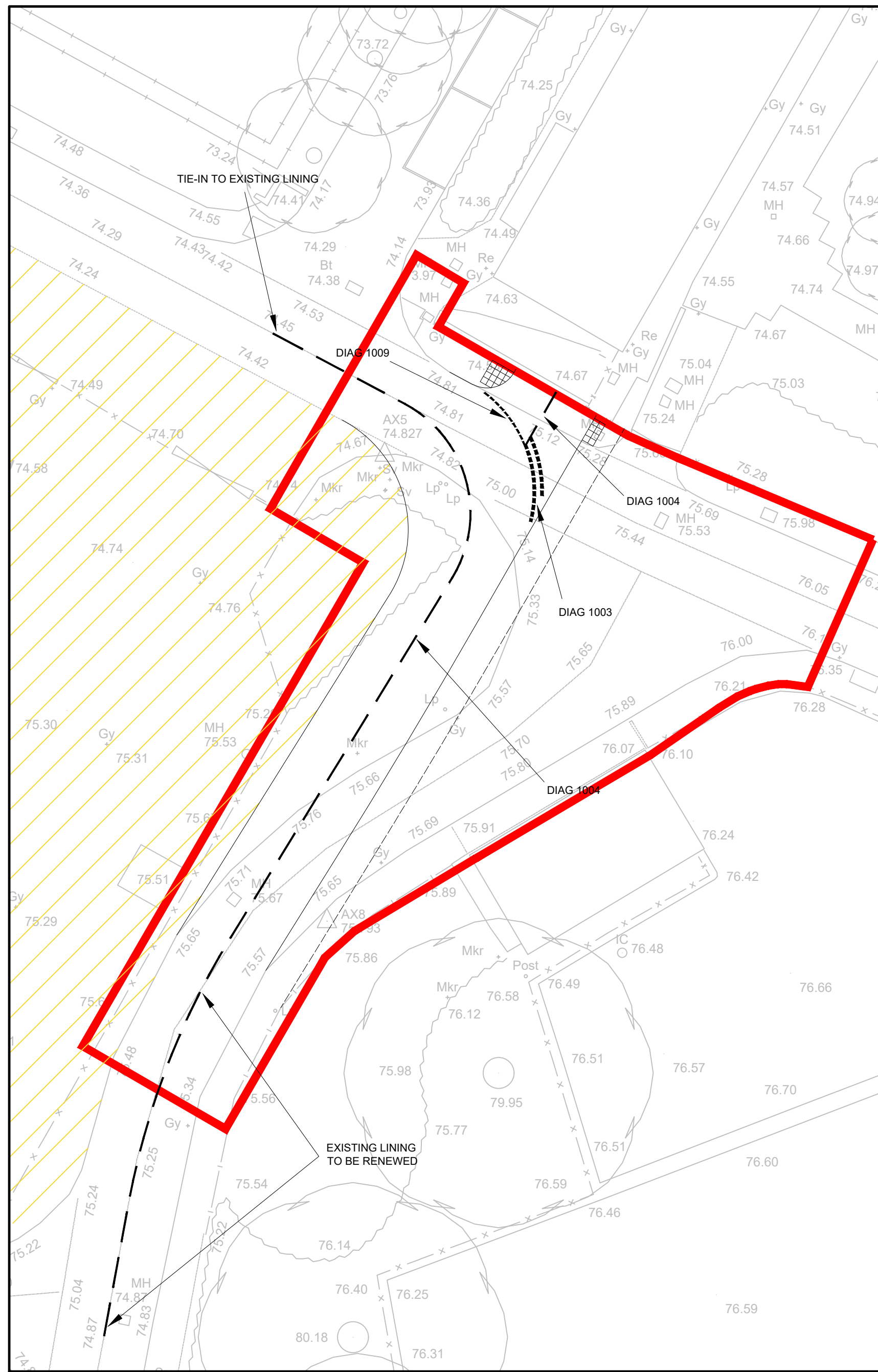
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DRAINAGE DETAILS

KEY

- 150mm DIA GULLY CONNECTION
- PROPOSED GULLY

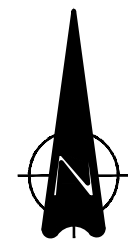


ROAD MARKINGS

FOR DIAG NUMBER REFER TO "THE TRAFFIC SIGNS REGULATIONS AND GENERAL DIRECTIONS 2016"

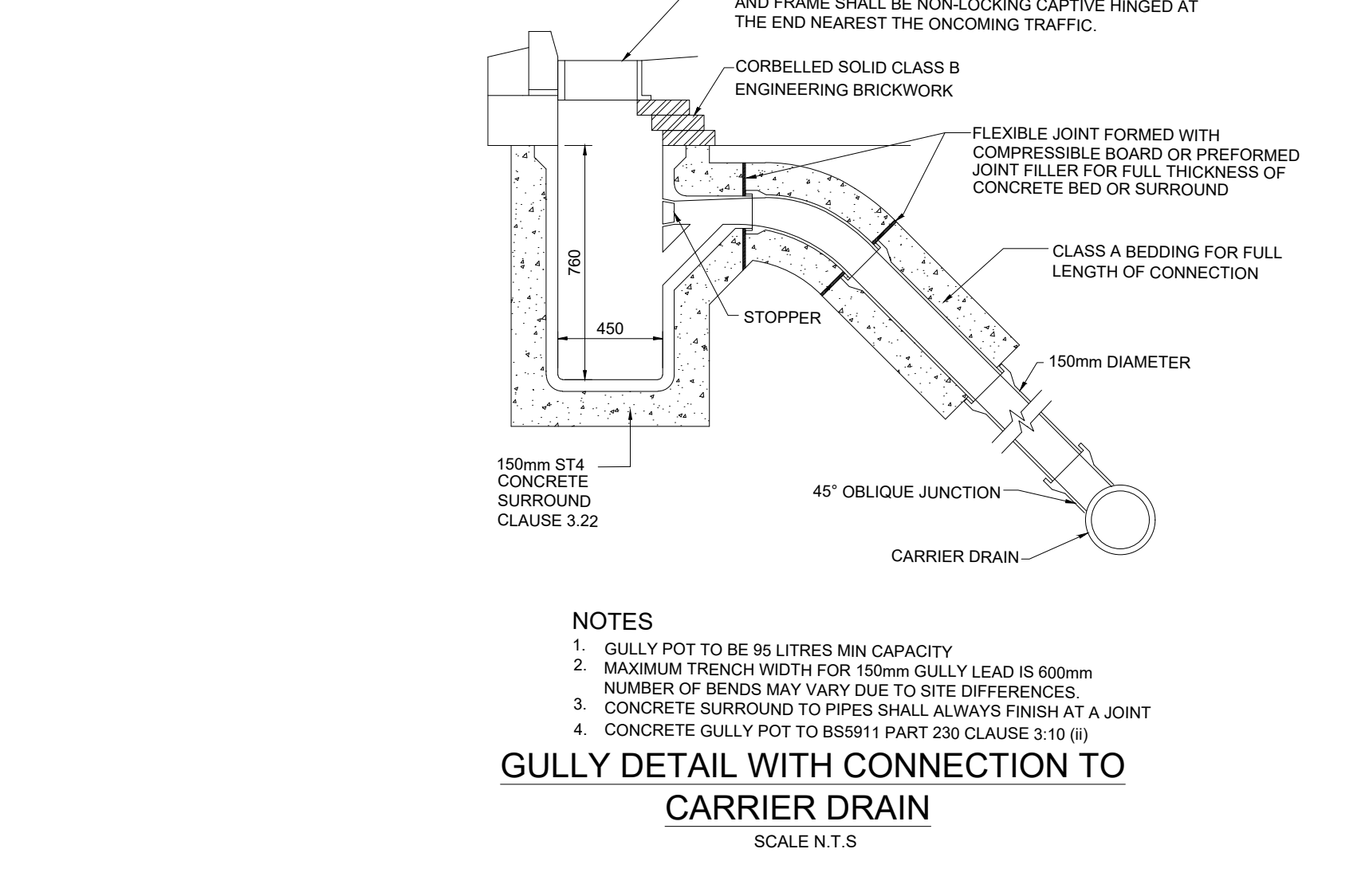
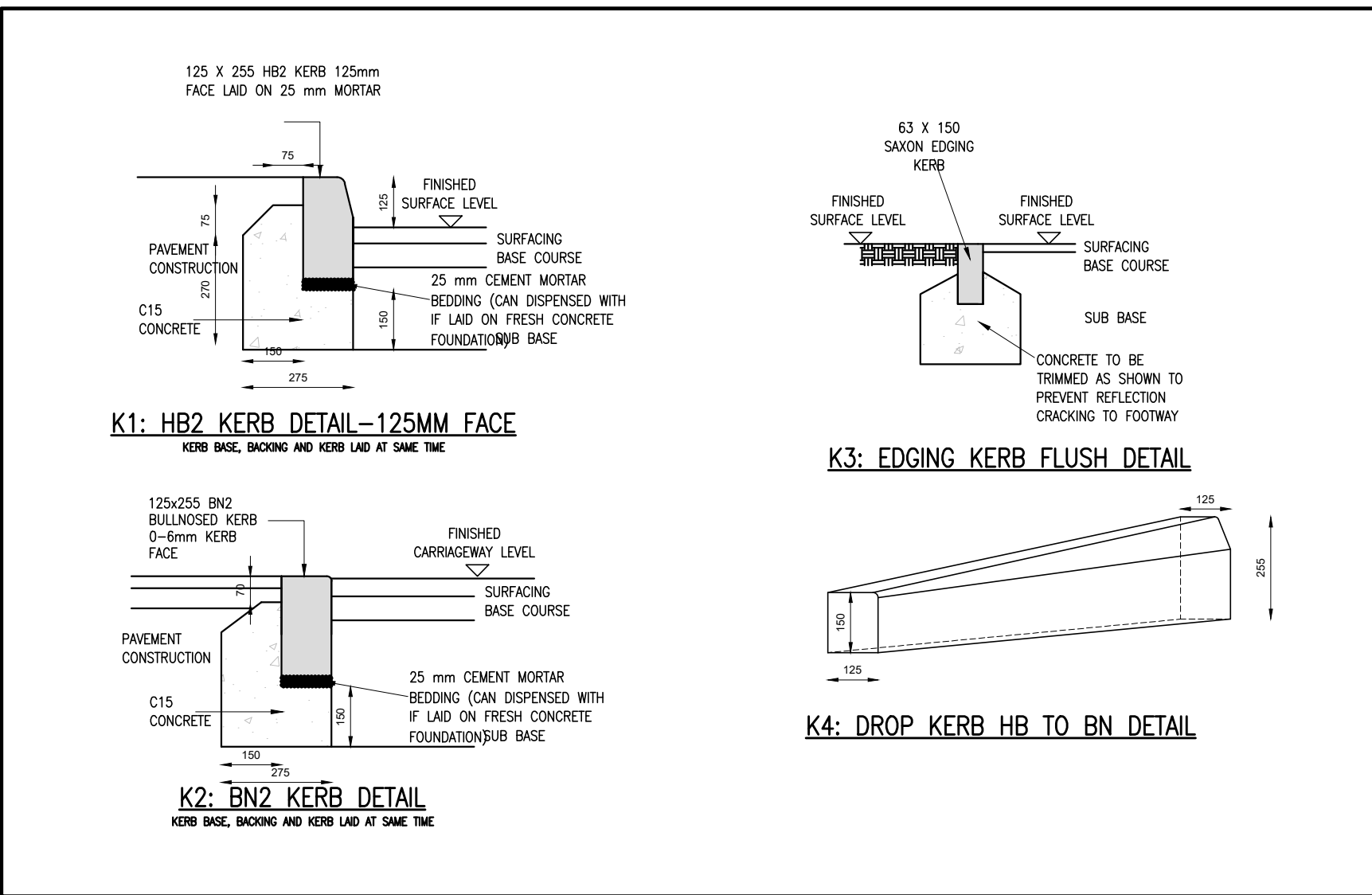
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KEY

- REFER TO MODULAR BUILDING DETAILED DESIGN FOR CONSTRUCTION DETAILS



GULLY DETAIL WITH CONNECTION TO CARRIER DRAIN

SCALE N.T.S

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P01	20/05/21	FIRST ISSUE	HS	AR
REV.	DATE	AMENDMENT	DRW.	CHK.
CLIENT				

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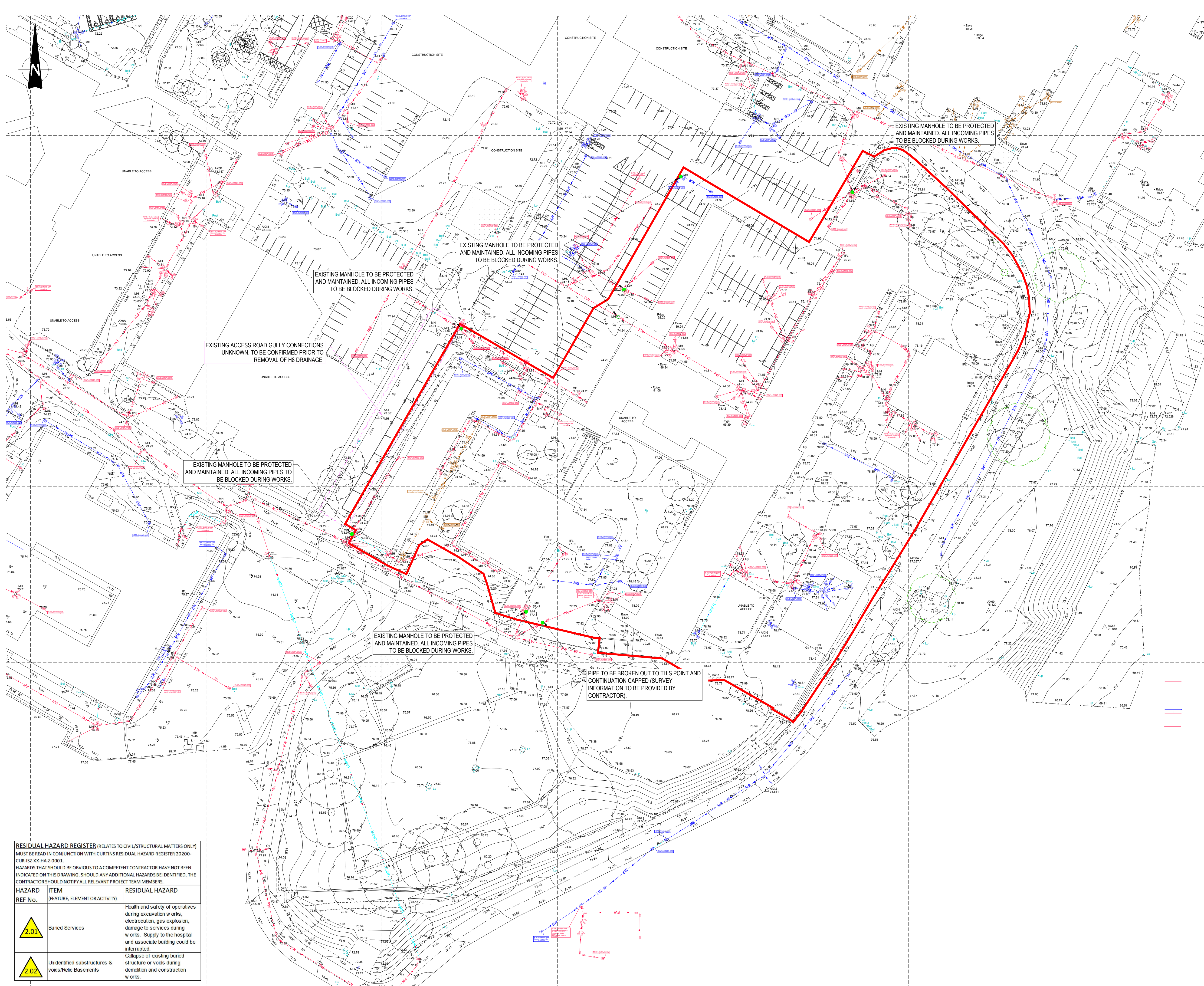
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PROJECT
SOUTHERN ENABLING WORKS

SCALE@A1	DATE	ORIGINATOR	CHECKED	AUTHORISED
1/250	20/05/21	HS	HS	AR

EYAM ROAD / ELLIS DRIVE
CONSTRUCTION DETAILS 2 OF 2

STATUS	PURPOSE FOR ISSUE	SR NO.
S3	FOR REVIEW/COMMENT	95
DRAWING NO.		REV.
20200-CUR-ISZ	-XX-DR-C-95011	P02



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REV.	DATE	AMENDMENT	DRW.	CHK.



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PROJECT
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SCALE@A1 DATE ORIGINATOR CHECKED AUTHORISED
1:500 20/05/2021 JDB JDB JK

SOUTHERN ENABLING WORKS
EXISTING DRAINAGE OVERVIEW

STATUS	PURPOSE FOR ISSUE	PR NO.
S1	FOR COORDINATION	075805
DRAWING NO.		REV.
20200 · CUR · ISZ · XX · DR · C · 02004	P02	

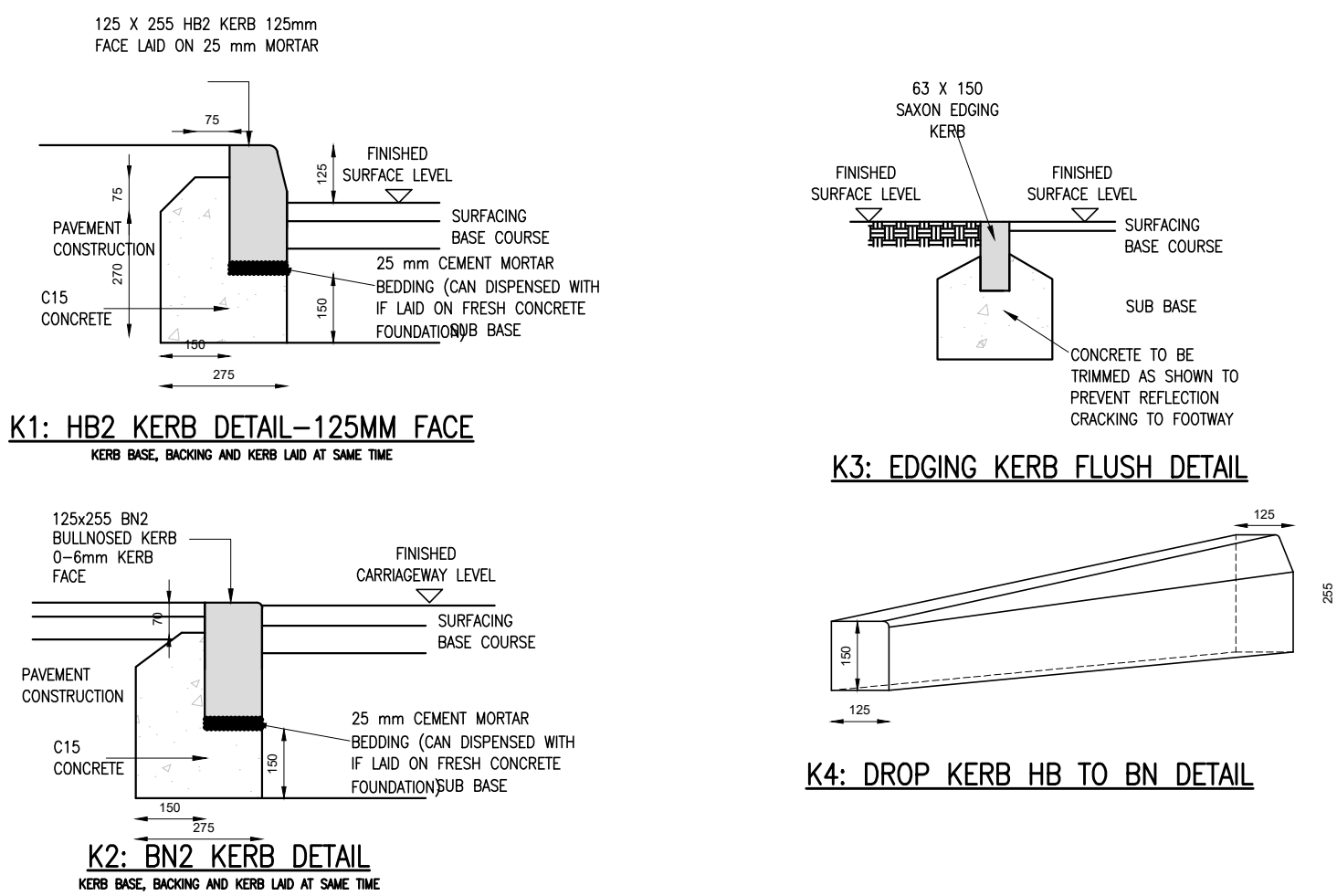
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KERBING DETAILS

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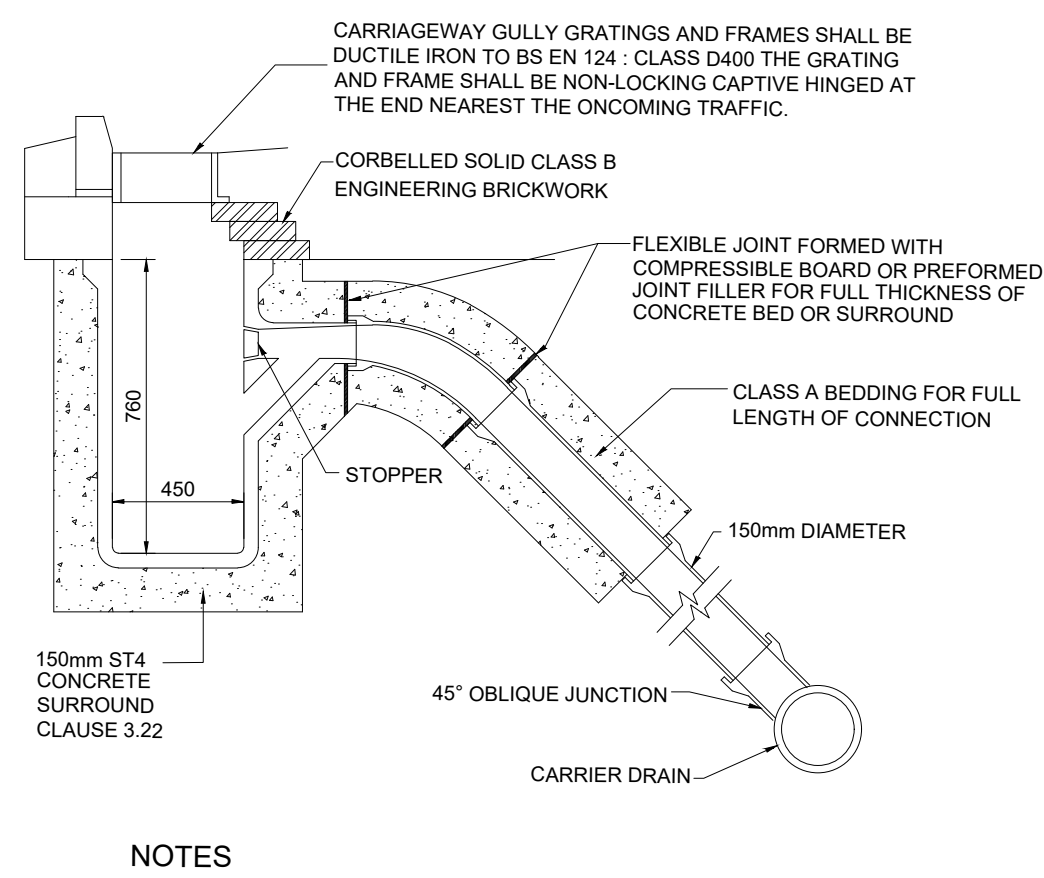
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DRAINAGE DETAILS

KEY

- 150mm DIA GULLY CONNECTION
PROPOSED GULLY



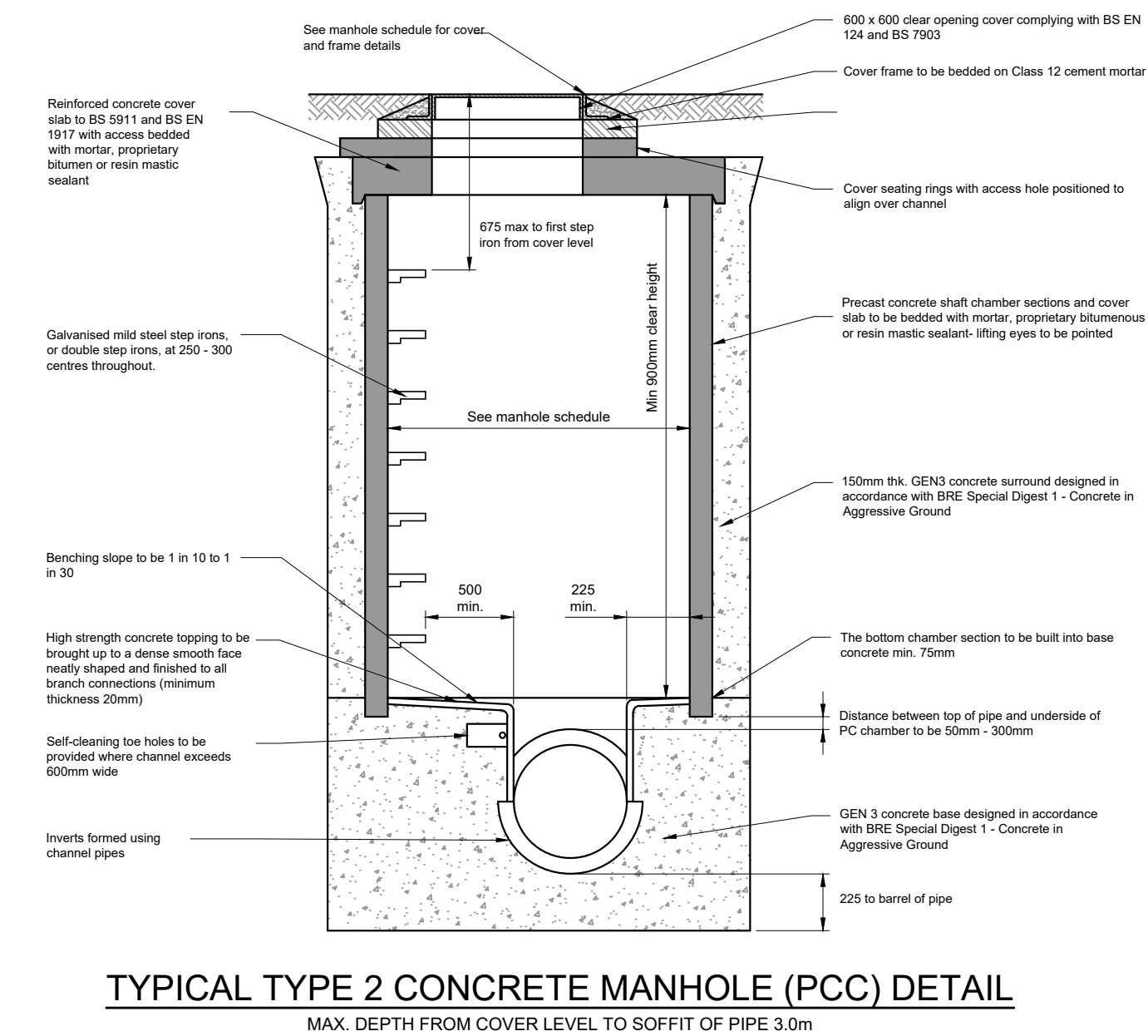
- ## NOTES
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 4. CONCRETE GULLY POT TO BS5911 PART 230 CLAUSE 3:10 (ii)

GULLY DETAIL WITH CONNECTION TO CARRIER DRAIN

SCALE N.T.S

ROAD MARKINGS

ROAD MARKINGS

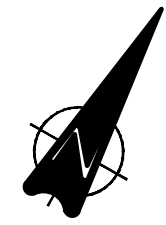


TYPICAL TYPE 2 CONCRETE MANHOLE (PCC) DETAIL

MAX. DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE 3.0m

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REFER TO GMMH EXTERNAL WORKS DETAILED DESIGN
FOR CONSTRUCTION DETAILS

P02	21/06/21	RED LINE BOUNDARY ADDED	JDB	HS
P01	21/05/21	FIRST ISSUE	HS	AR
REV.	DATE	AMENDMENT	DRW.	CHK.
CLIENT				

CLIENT



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PROJECT
SOUTHERN ENABLING WORKS

SCALE@A1	DATE	ORIGINATOR	CHECKED	AUTHORISED
1/250	21/05/21	HS	HS	AR

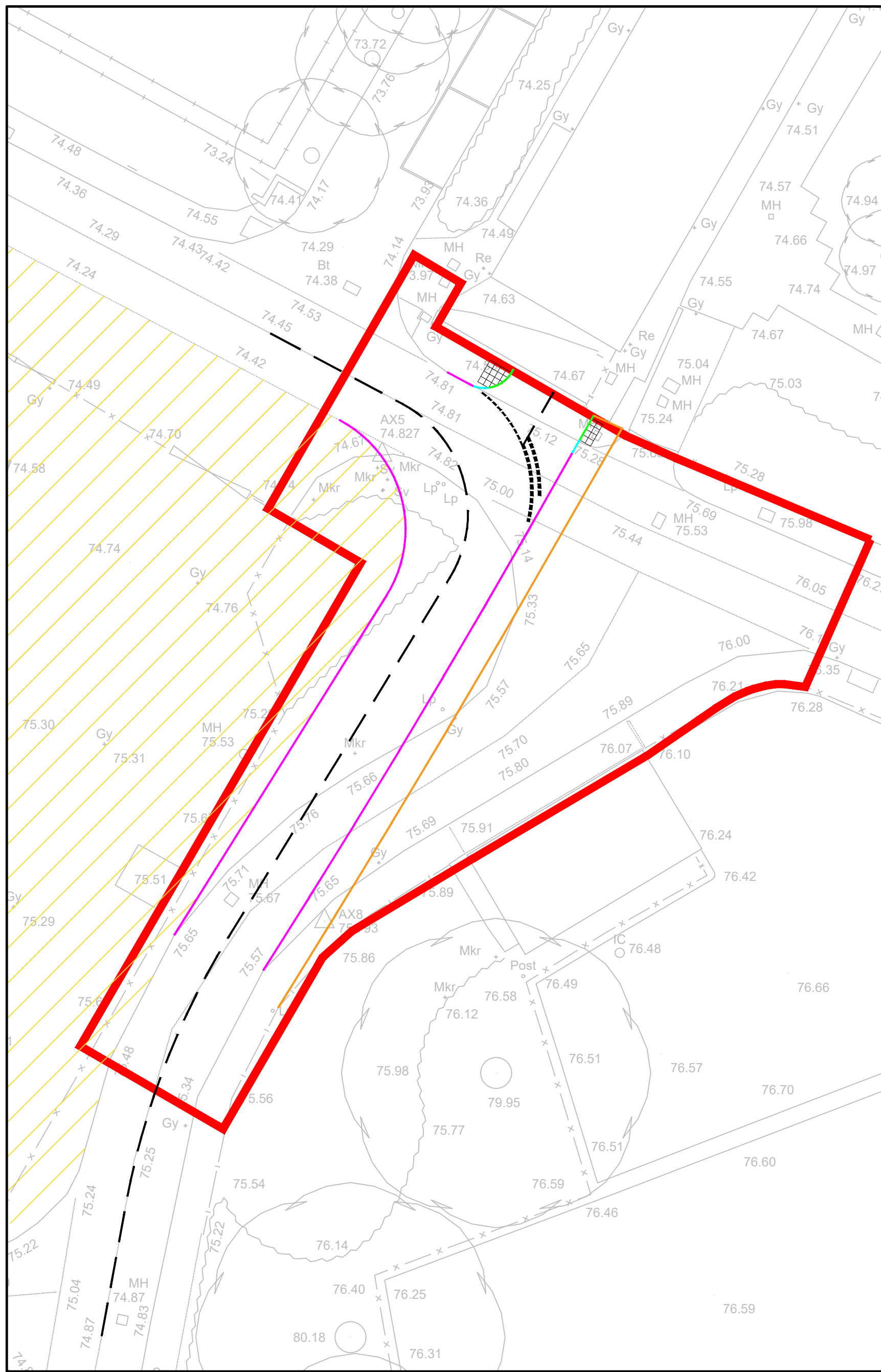
**WEST ROAD JUNCTION
CONSTRUCTION DETAILS 2 OF 2**

STATUS	PURPOSE FOR ISSUE	SR NO.
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S3 FOR REVIEW/COMMENT

DRAWING NO. REV.

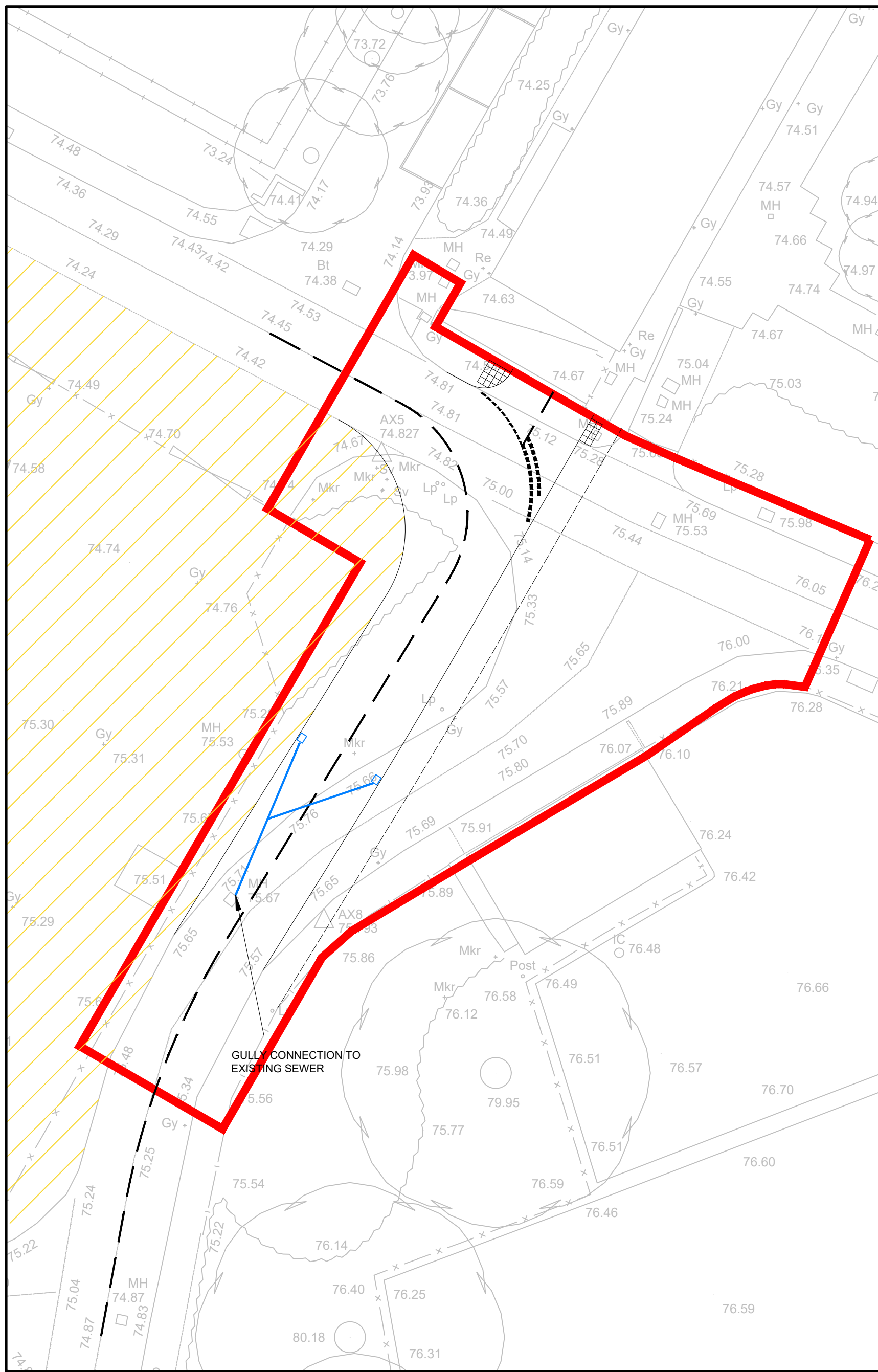
20200-CUR-ISZ -XX- DR - C - 95002 P02



KERBING DETAILS

KEY

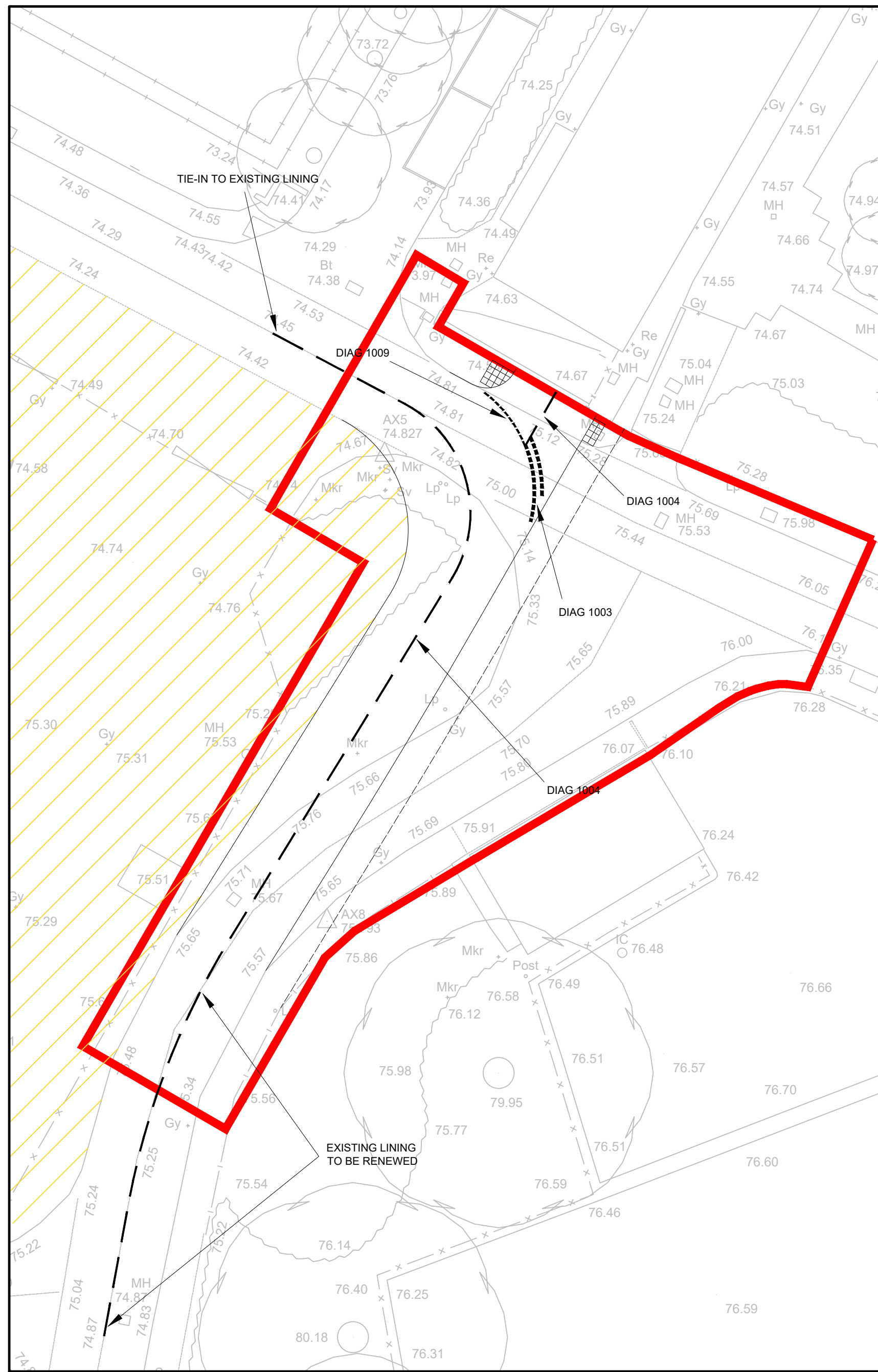
- K1- PRE CAST CONCRETE HALF BATTERED KERB
- K2- PRE CAST CONCRETE DROPPED KERB
- K3- PRE CAST CONCRETE EDGING
- K4- PRE CAST CONCRETE TRANSITION KERB



DRAINAGE DETAILS

KEY

- 150mm DIA GULLY CONNECTION
- PROPOSED GULLY

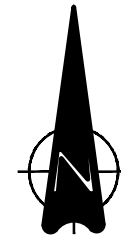


ROAD MARKINGS

FOR DIAG NUMBER REFER TO "THE TRAFFIC SIGNS REGULATIONS AND GENERAL DIRECTIONS 2016"

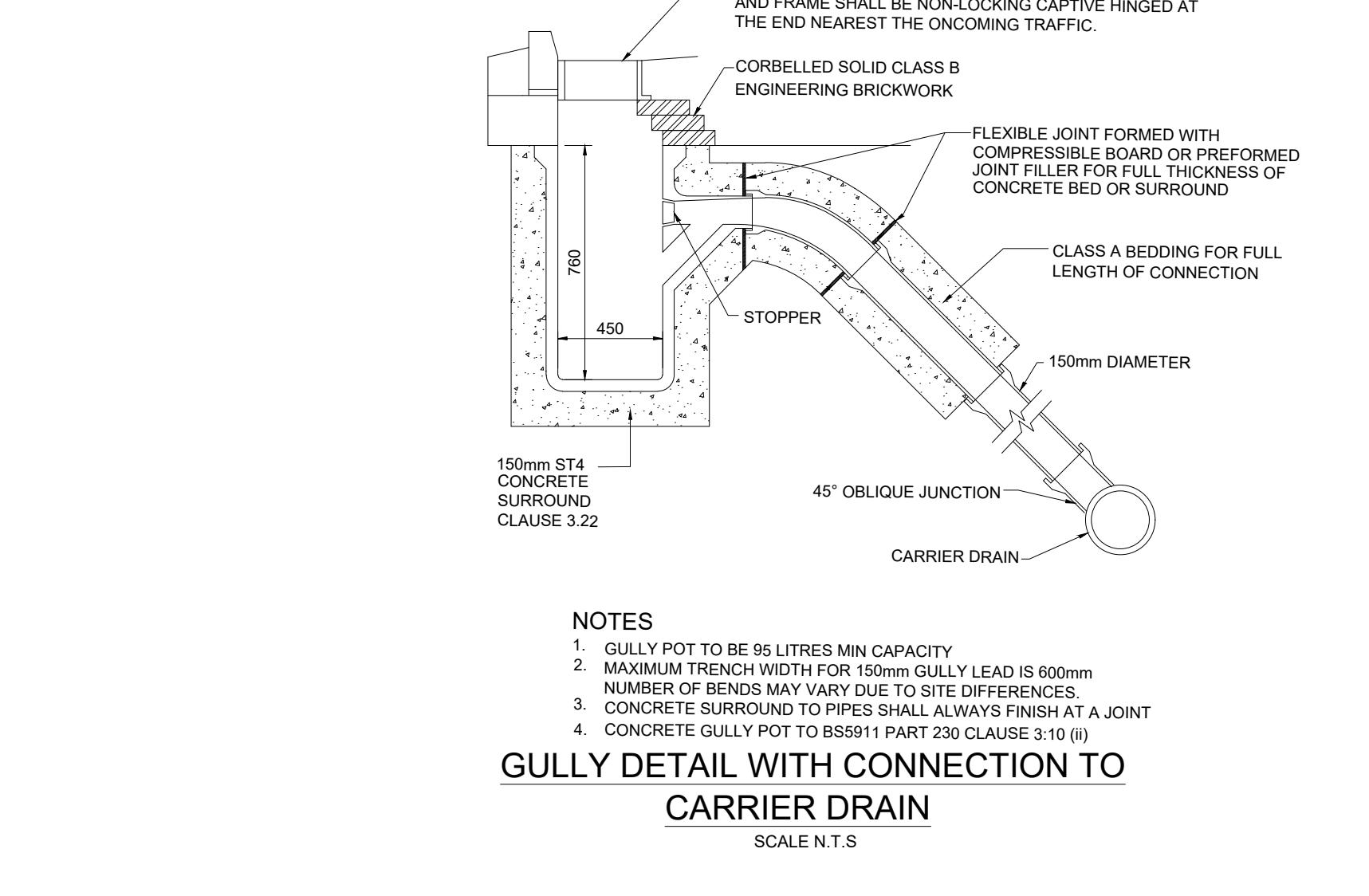
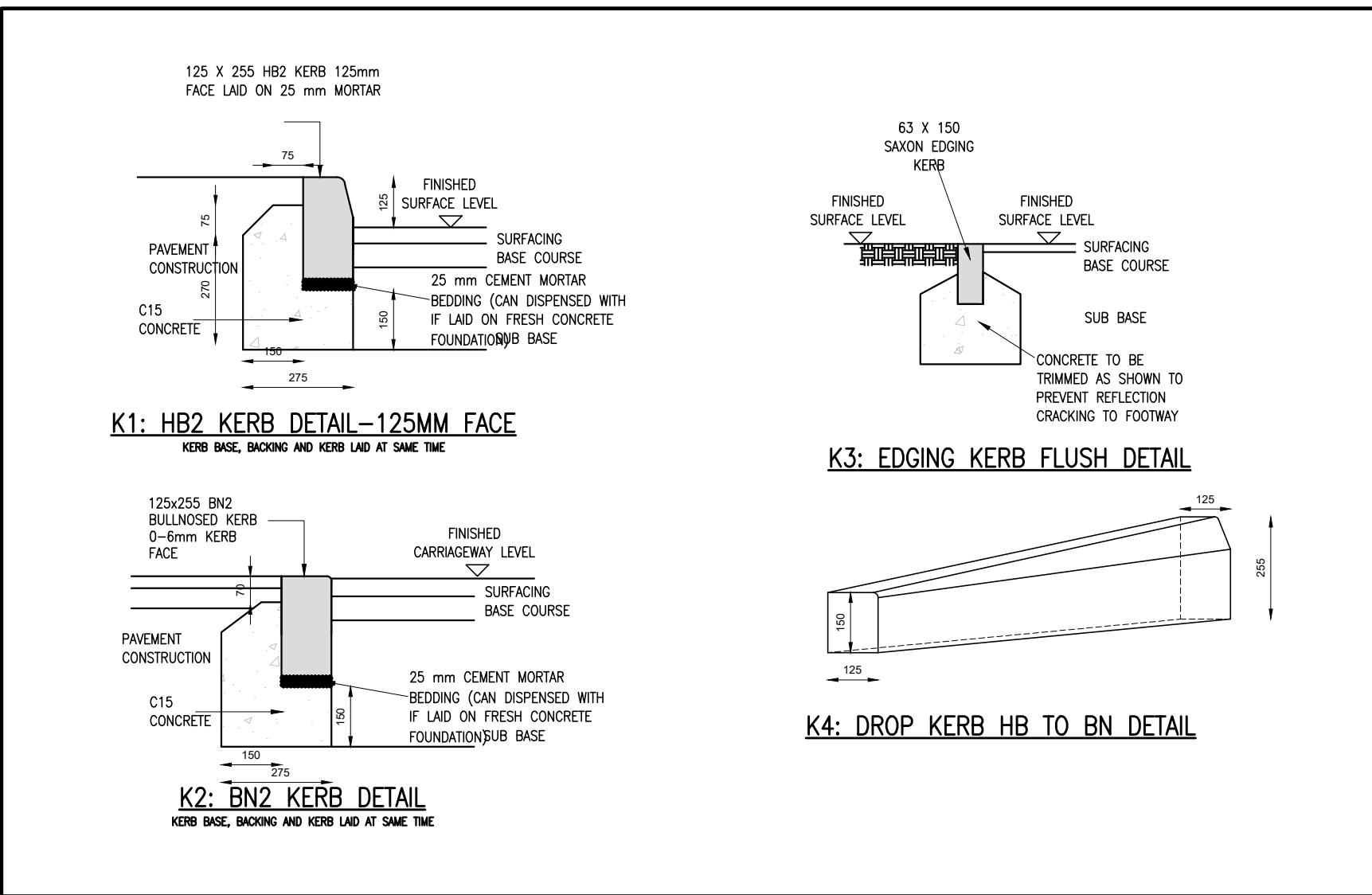
Notes:

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
- DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
- ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
- FOR GENERAL NOTES REFER TO DRAWING.



KEY

- REFER TO MODULAR BUILDING DETAILED DESIGN FOR CONSTRUCTION DETAILS



GULLY DETAIL WITH CONNECTION TO CARRIER DRAIN

SCALE N.T.S

P02	21/06/21	RED LINE BOUNDARY ADDED	JDB	HS
P01	20/05/21	FIRST ISSUE	HS	AR
REV.	DATE	AMENDMENT	DRW.	CHK.
CLIENT				

NHS
Manchester University
NHS Foundation Trust

Curtins

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0161 236 2394
manchester@curtins.com
www.curtins.com

PROJECT
SOUTHERN ENABLING WORKS

SCALE@A1	DATE	ORIGINATOR	CHECKED	AUTHORISED
1/250	20/05/21	HS	HS	AR

EYAM ROAD / ELLIS DRIVE
CONSTRUCTION DETAILS 2 OF 2

STATUS	PURPOSE FOR ISSUE	SR NO.
S3	FOR REVIEW/COMMENT	95
DRAWING NO.		REV.
20200-CUR-ISZ	-XX-DR-C-95011	P02