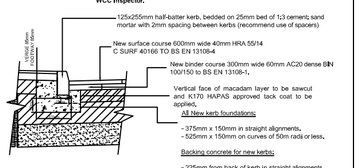
WCC 2023 400 01

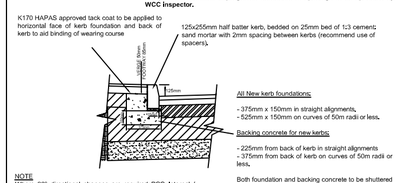
NB. WCC reserve the right to request the inclusion of expansion joints within the concrete kerb foundation. The joint will consist of an 18mm thick compressible bitumen impregnated fibreboard at spacings to be specified by WCC inspector.



125x255mm KERB TYPE HB 2 REPLACEMENT/TIE-IN TO EXISTING CARRIAGEWAY

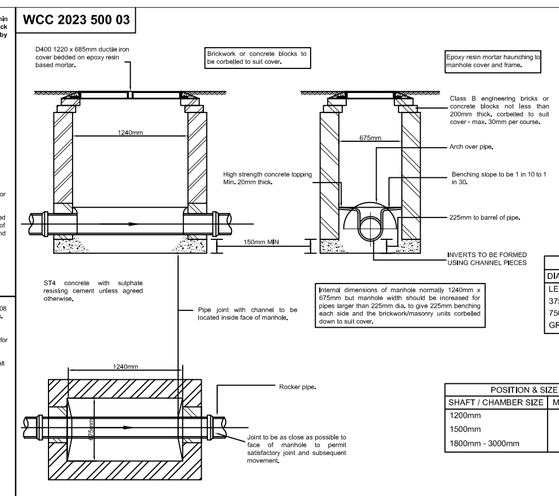
WCC 2023 400 02

NB. WCC reserve the right to request the inclusion of expansion joints within the concrete kerb foundation. The joint will consist of an 18mm thick compressible bitumen impregnated fibreboard at spacings to be specified by WCC inspector.



125x255mm HALF BATTERED KERB TYPE HB2

WCC 2023 500 03



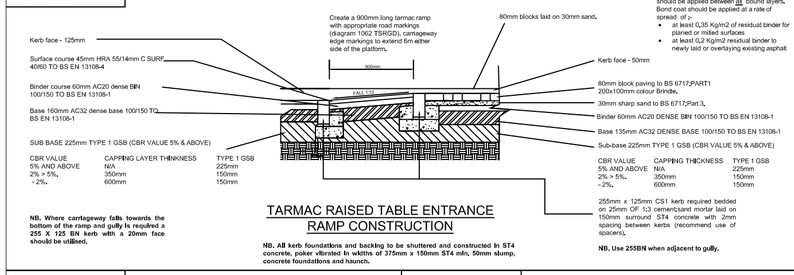
PIPE DIA. mm	ROCKER PIPE LENGTH m
150-600	0.6
675-750	1.0
>825	1.25

MANHOLE CHAMBER SIZES STANDARD DETAILS	
DIA OF LARGEST PIPE IN MH	INTERNAL CHAMBER DIA (mm)
LESS THAN 375mm	1200
375mm - 700mm	1500
750Mmm - 900mm	1800
GREATER THAN 900mm	ENGINEER TO ADVISE

POSITION & SIZE OF ACCESS IN CONCRETE COVER SLAB		
SHAFT / CHAMBER SIZE	M/H DEPTH LESS THAN 1.5m	M/H DEPTH 1.5m OR GREATER
1200mm	675 X 675mm CENTRAL	675 X 675mm ECCENTRIC
1500mm	1200 X 675mm CENTRAL	675 X 675mm ECCENTRIC
1800mm - 3000mm	1200 X 675mm CENTRAL	675 X 675mm ECCENTRIC

TYPICAL MANHOLE DETAIL C
DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE 1.0m TO 1.5m

WCC 2023 400 03



TARMAC RAISED TABLE ENTRANCE RAMP CONSTRUCTION

NB. All kerb foundations and backing to be shuttered and constructed in ST4 concrete, poker vibrated in widths of 375mm x 150mm ST4 min. 50mm slump, concrete foundations and haunch.

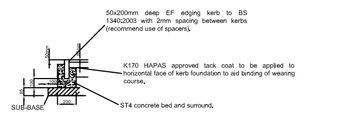
WCC 2023 400 04

NB. WCC reserve the right to request that the ST4 concrete bed and surround to be shuttered at the discretion of the WCC Inspector.

50x150mm EDGING BULLNOSE KERB TYPE EBN

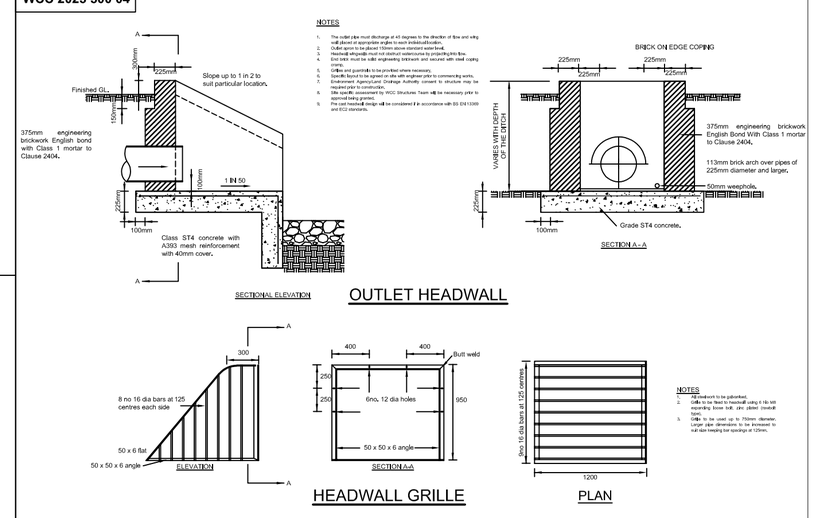
WCC 2023 400 05

NB. WCC reserve the right to request that the ST4 concrete bed and surround to be shuttered at the discretion of the WCC Inspector.



50x200mm EDGING KERB TYPE EF TO BE UTILISED AT VEHICULAR CROSSINGS

WCC 2023 500 04



OUTLET HEADWALL

HEADWALL GRILLE

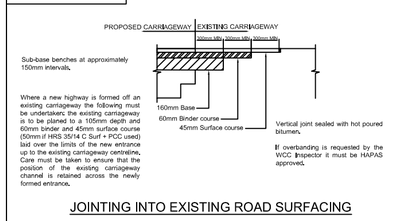
PLAN

WCC 2023 400 06

NB. WCC reserve the right to request that the ST4 concrete bed and surround to be shuttered at the discretion of the WCC Inspector.

50mm x 150mm EDGING KERB TYPE EF TO BE UTILISED OTHER THAN AT VEHICULAR CROSSINGS

WCC 2023 400 07

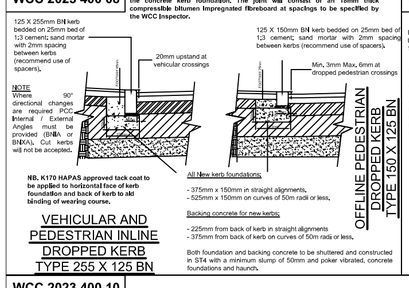


JOINTING INTO EXISTING ROAD SURFACING

A bond coat in accordance with BS EN 13808 should be applied between all bound layers. Bond coat should be applied at a rate of spread of :-
- at least 0.35 Kg/m2 of residual binder for planed or milled surfaces
- at least 0.2 Kg/m2 residual binder to newly laid or overlaying existing asphalt

WCC 2023 400 08

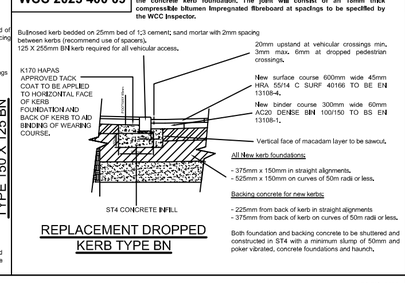
NB. WCC reserve the right to request the inclusion of expansion joints within the concrete kerb foundation. The joint will consist of an 18mm thick compressible bitumen impregnated fibreboard at spacings to be specified by the WCC Inspector.



VEHICULAR AND PEDESTRIAN INLINE DROPPED KERB TYPE 255 X 125 BN

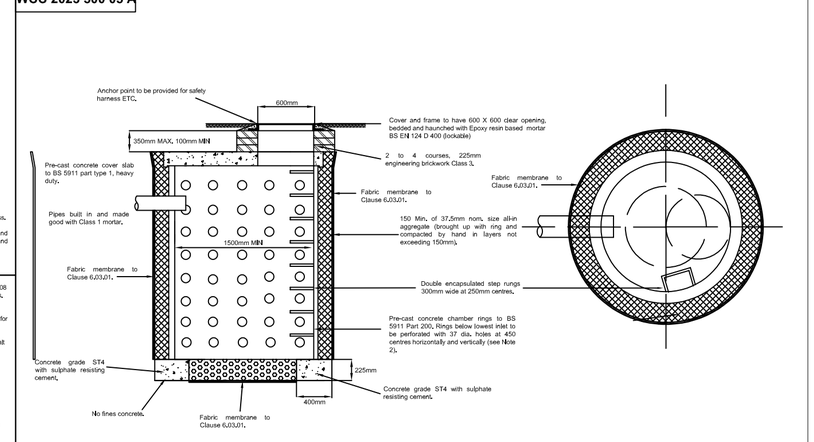
WCC 2023 400 09

NB. WCC reserve the right to request the inclusion of expansion joints within the concrete kerb foundation. The joint will consist of an 18mm thick compressible bitumen impregnated fibreboard at spacings to be specified by the WCC Inspector.



REPLACEMENT DROPPED KERB TYPE BN

WCC 2023 500 05 A

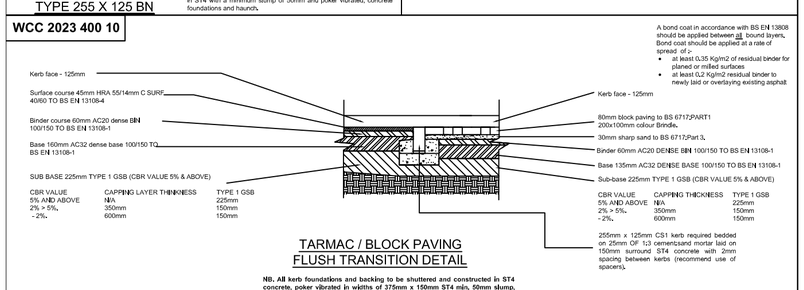


SOAKAWAY CHAMBER

NOTES:
1. Manhole rings, slabs and C30 concrete to be made using sulphate resisting concrete.
2. At least one perforated ring must be provided, with more perforated segments required to match depth of permeable strata up to the pipe invert.
3. Soakaway volumes shall be such that they can accomodate at least the whole of a five-year, twelve-hour storm. (42mm over a 12-hour period; 3.5mm/hour) below the drain invert level.

WCC 2023 400 10

NB. All kerb foundations and backing to be shuttered and constructed in ST4 concrete, poker vibrated in widths of 375mm x 150mm ST4 min. 50mm slump, concrete foundations and haunch.



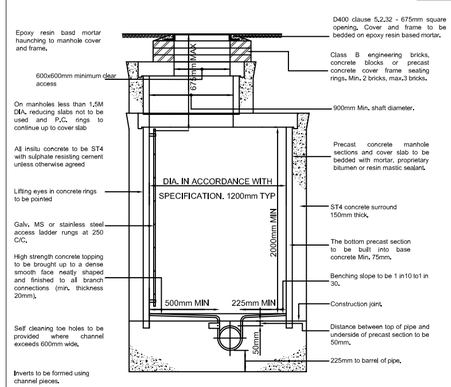
TARMAC / BLOCK PAVING FLUSH TRANSITION DETAIL

NB. All kerb foundations and backing to be shuttered and constructed in ST4 concrete, poker vibrated in widths of 375mm x 150mm ST4 min. 50mm slump, concrete foundations and haunch.

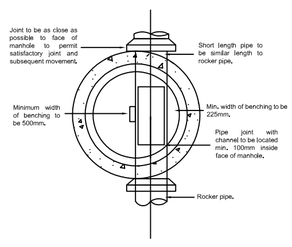
WCC 2023 500 01

POSITION & SIZE OF ACCESS IN CONCRETE COVER SLAB		
SHAFT / CHAMBER SIZE	M/H DEPTH LESS THAN 1.5m	M/H DEPTH 1.5m OR GREATER
1200mm	675 X 675mm CENTRAL	675 X 675mm ECCENTRIC
1500mm	1200 X 675mm CENTRAL	675 X 675mm ECCENTRIC
1800mm - 3000mm	1200 X 675mm CENTRAL	675 X 675mm ECCENTRIC

MANHOLE CHAMBER SIZES STANDARD DETAILS	
DIA OF LARGEST PIPE IN MH	INTERNAL CHAMBER DIA (mm)
LESS THAN 375mm	1200
375mm - 700mm	1500
750Mmm - 900mm	1800
GREATER THAN 900mm	ENGINEER TO ADVISE

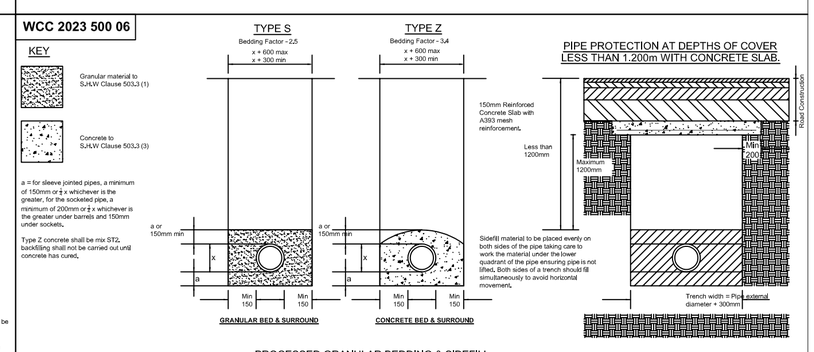


TYPICAL MANHOLE DETAIL TYPE A
DEPTH TO SOFFIT 3M TO 6M



PIPE DIA. mm	ROCKER PIPE LENGTH m
150-600	0.6
675-750	1.0
>825	1.25

WCC 2023 500 06



TRENCH WIDTHS

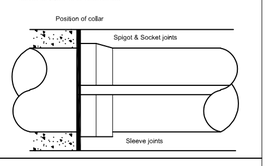
INTERNAL PIPE DIAMETER (mm)	MAXIMUM TRENCH WIDTH (mm)
100	600
150	600
225	700
300	850
375	1050
450	1150
525	1200
600	1350
675	1450
750	1500
825	1600
900	1900
975	2000
1050	2100
1200	2300

PROCESSED GRANULAR BEDDING & SIDEFILL MATERIALS FOR FLEXIBLE PIPES

PIPE NOMINAL BORE (mm)	NOMINAL MAXIMUM PARTICAL SIZE (mm)	MATERIAL SPECIFIC IN BRITISH STANDARDS
100	10	
Over 100 -150	15	10 or 14mm nominal single-size or 14mm to 5mm graded.
Over 150 -300	20	10,14 or 20mm nominal single-size or 14mm to 5mm graded or 20mm to 5mm graded.
Over 300 -550	20	14 or 20mm nominal single-size or 14mm to 5mm graded or 20mm to 5mm graded.
Over 550	40	14 or 20mm nominal single-size or 14mm to 5mm graded or 20mm to 5mm graded or 40mm to 5mm graded.

FLEXIBLE JOINTING TO CONCRETE BED

Flexibility maintainedin pipeline at every joint by break in bed formed by collar of bitumen impregnated insulating board. 1 x 18 thick for pipes 100 - 400mm dia. 2 x 18thick for pipes 40 to 1200mm dia.



WCC 2023 500 02

MANHOLE CHAMBER SIZES STANDARD DETAILS	
DIA OF LARGEST PIPE IN MH	INTERNAL CHAMBER DIA (mm)
LESS THAN 375mm	1200
375mm - 700mm	1500
750Mmm - 900mm	1800
GREATER THAN 900mm	ENGINEER TO ADVISE

POSITION & SIZE OF ACCESS IN CONCRETE COVER SLAB		
SHAFT / CHAMBER SIZE	M/H DEPTH LESS THAN 1.5m	M/H DEPTH 1.5m OR GREATER
1200mm	675 X 675mm CENTRAL	675 X 675mm ECCENTRIC
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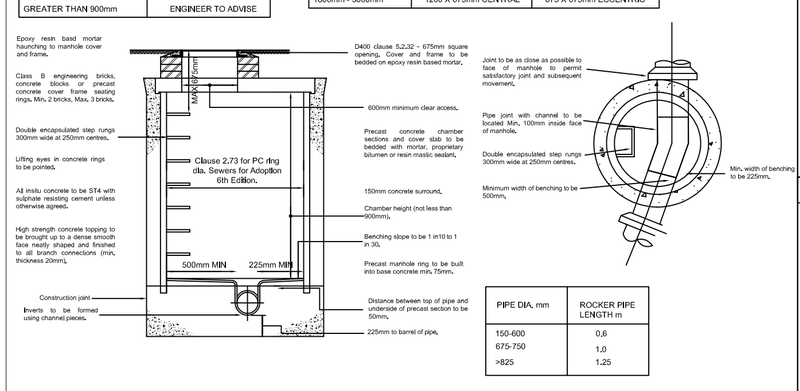
1800mm - 3000mm	1200 X 675mm CENTRAL	675 X 675mm ECCENTRIC

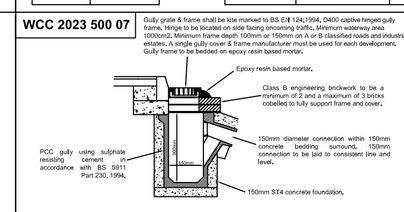


PIPE DIA. mm	ROCKER PIPE LENGTH m
150-600	0.6
675-750	1.0
>825	1.25

TYPICAL MANHOLE DETAIL TYPE B
MAX DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE 3.0m

WCC 2023 500 07

Gully grate & frame shall be kite marked to BS EN 124;1994, D400 captive hinged gully frame. Hinge to be located on side facing oncoming traffic. Minimum waterway area 1000cm2. Minimum frame depth 100mm or 150mm on A or B classified roads and industrial estates. A single gully cover & frame manufacturer must be used for each development. Gully frame to be bedded on epoxy resin based mortar.

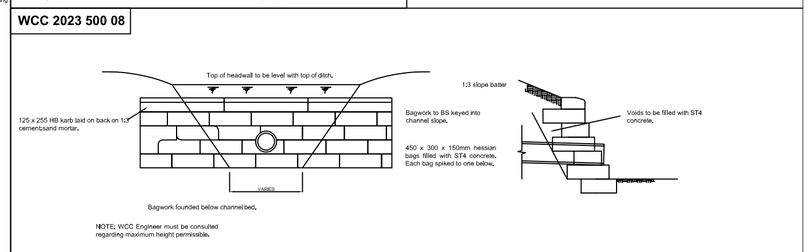


ROAD GULLY

NOTE:
PVCu plastic gully pots (BBA approved) may be utilised with the WCC Engineers written consent. A 150mm bed and surround of ST4 concrete must be utilised. Care must be taken to prevent the pot from distorting of floating when the concrete bed and surround is placed and compacted.

Specifically designed ironwork which allows blockwork to be laid directly up to the frame of the gully to be used in block-paved carriageways. Minimum 150mm depth ironwork to be used in block paved carriageways.

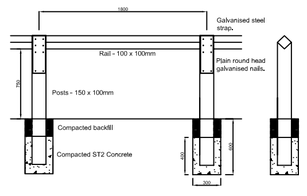
WCC 2023 500 08



TYPICAL HESSIAN BAG HEADWALL DETAIL WITH SECTION

WCC 2023 600 09

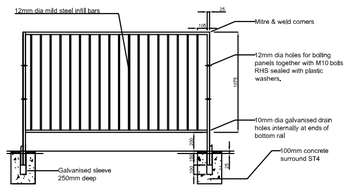
All fencing to be in accordance with BS1722 Part 7:2006. Guard rail to be in accordance with BS7818. Steel to be Grade 43C hot dip galvanised to BS EN 1461.



KNEE RAIL FENCE

WCC 2023 600 10

Non-standard lengths to be provided where necessary. Timber components life expectancy 15 years. Preservative treatment to be in accordance with BS8417.

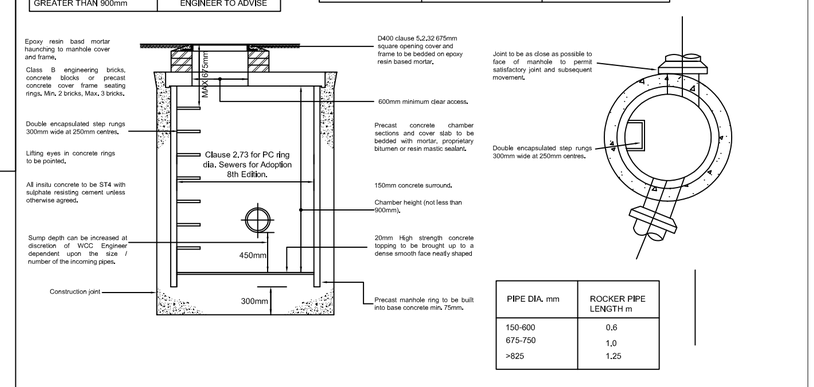


PEDESTRIAN GUARD RAIL

WCC 2023 500 09

MANHOLE CHAMBER SIZES STANDARD DETAILS	
DIA OF LARGEST PIPE IN MH	INTERNAL CHAMBER DIA (mm)
LESS THAN 375mm	1200
375mm - 700mm	1500
750Mmm - 900mm	1800
GREATER THAN 900mm	ENGINEER TO ADVISE

POSITION & SIZE OF ACCESS IN CONCRETE COVER SLAB		
SHAFT / CHAMBER SIZE	M/H DEPTH LESS THAN 1.5m	M/H DEPTH 1.5m OR GREATER
1200mm	675 X 675mm CENTRAL	675 X 675mm ECCENTRIC
1500mm	1200 X 675mm CENTRAL	675 X 675mm ECCENTRIC
1800mm - 3000mm	1200 X 675mm CENTRAL	675 X 675mm ECCENTRIC



PIPE DIA. mm	ROCKER PIPE LENGTH m
150-600	0.6
675-750	1.0
>825	1.25

TYPICAL CATCHPIT DETAIL
MAX DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE 3.0m

worcestershire countycouncil
County Hall
Spetchley Road
Worcester
WR5 2NP

Not To Scale

DRAWING TITLE.

2023 WCC STANDARD DETAILS SHEET 2 OF 2

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