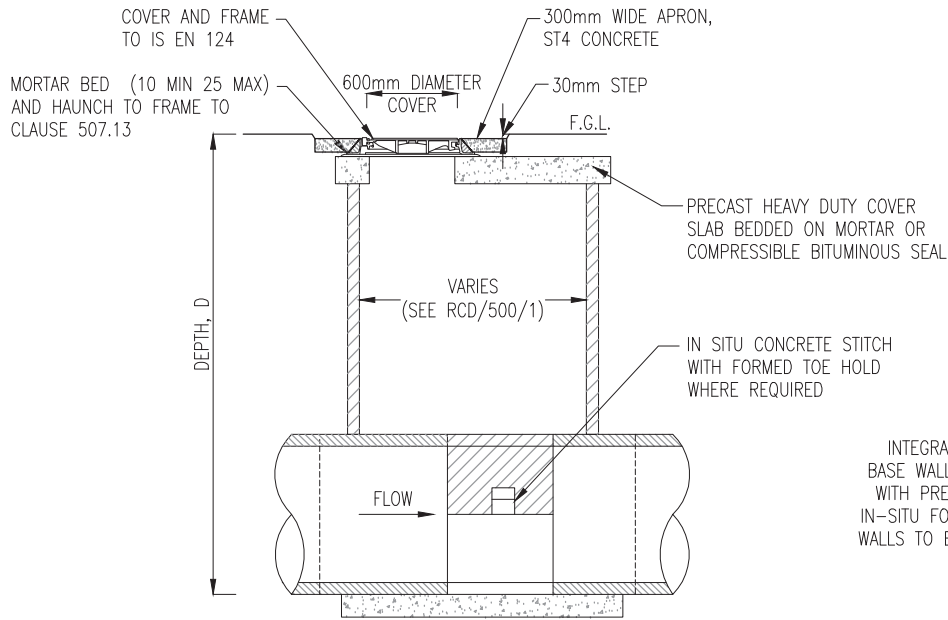


- NOTES A:
1. FENCES SHALL BE CONSTRUCTED AND ERECTED IN ACCORDANCE WITH IS. 435: 2005 EXCEPT WHERE OTHERWISE SHOWN.
 2. ANY LENGTH OF FENCING (INCLUDING BRANCHES AND SPURS) SHALL START WITH A POST AND END WITH A POST. AN ADDITIONAL POST SHALL BE PROVIDED AT FENCE JUNCTIONS AND AT FENCE CORNERS.
 3. POST HOLES FALLING IN ROCK SHALL BE EXCAVATED TO THE DEPTH SHOWN ON THIS DRAWING OR, SUBJECT TO AGREEMENT WITH THE EMPLOYER'S REPRESENTATIVE, TO A DEPTH OF 500mm, AND SHALL BE BACKFILLED WITH MIX ST2 CONCRETE. WHERE A REDUCED DEPTH OF HOLE IS AGREED, THE TOP OF THE POST SHALL BE SUITABLY CUT AND TREATED IN ACCORDANCE WITH THE RECOMMENDATIONS OF I.S. 435: 2005.
 4. FENCE POST AND RAIL SHALL BE TREATED WITH PRESERVATIVE IN ACCORDANCE WITH THE REQUIREMENTS OF CC-SPW-00300 AND APPENDIX B OF I.S. 435-1: 2005.
 5. CONCRETE FOUNDATIONS TO POSTS SHALL BE PROVIDED WHERE STATED IN APPENDIX 3/1.
 6. WHERE SIDELONG GROUND SLOPES DOWN TOWARDS THE FENCE AT A SLOPE GREATER THAN 1:4, THEN THE PERMANENT FENCING POST HEIGHT SHALL BE INCREASED BY A MINIMUM OF 250mm AND AN ADDITIONAL RAIL ADDED.

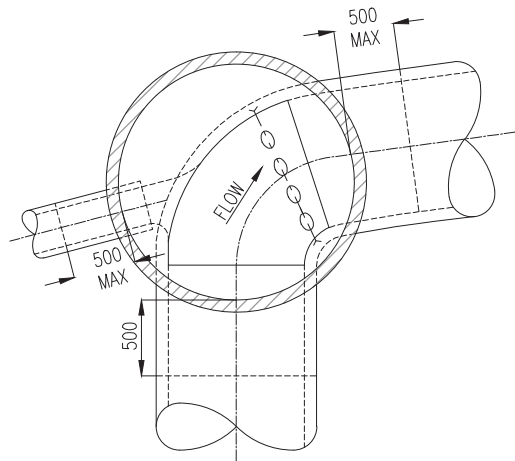
NOTES B:
 CHAINLINK MESH SHALL BE 1300mm WIDE, 50mm MESH MADE OF 2.25/3.15mm DIAM. PLASTIC COATED GALVANISED MILD MESH STEEL WIRE TO IS EN 10223-6.

FIXING:
 FIXING IN ACCORDANCE WITH I.S. 435-3, 2005,
 NOTES 13 AND 14 AND SECTION 4.4 OF I.S. 435-3, 2005

	ACTIVITY	PUBLICATION TITLE								
		FENCING TIMBER POST AND RAIL FENCE								
STREAM	HISTORICAL REFERENCE	DOCUMENTATION SET	PUBLICATION DATE	PUBLICATION NUMBER						
STANDARD CONSTRUCTION DETAILS (SCD)	RCD/300/1	STANDARDS	JANUARY 2009	<table border="1"> <tr> <td>ACTIVITY</td> <td>STREAM</td> <td>DRAWING NUMBER</td> </tr> <tr> <td>CC</td> <td>SCD</td> <td>00301</td> </tr> </table>	ACTIVITY	STREAM	DRAWING NUMBER	CC	SCD	00301
ACTIVITY	STREAM	DRAWING NUMBER								
CC	SCD	00301								

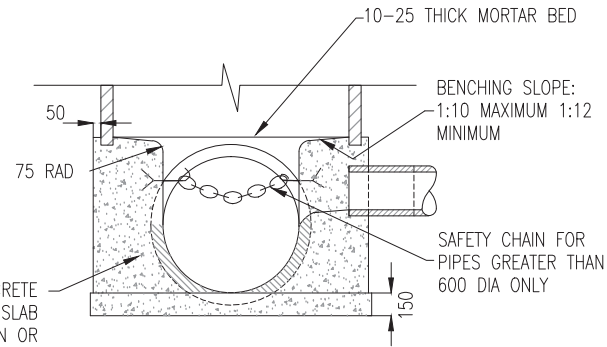


SECTION X-X

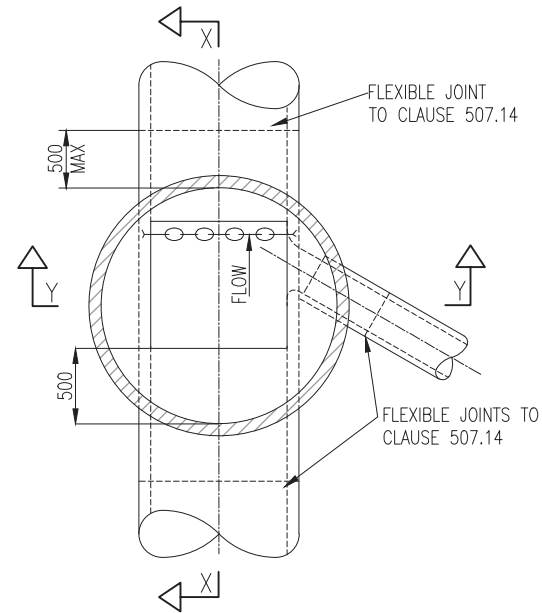


PLAN ON ANGLED INVERT

INTEGRAL IN-SITU MIX ST4 CONCRETE
 BASE WALLS, BENCHING AND BASE SLAB
 WITH PRECAST CHANNEL AS SHOWN OR
 IN-SITU FORMED INVERT AS ALTERNATIVE.
 WALLS TO EXTEND 50mm BEYOND OUTER
 FACES OF CHAMBER RING.



SECTION Y-Y



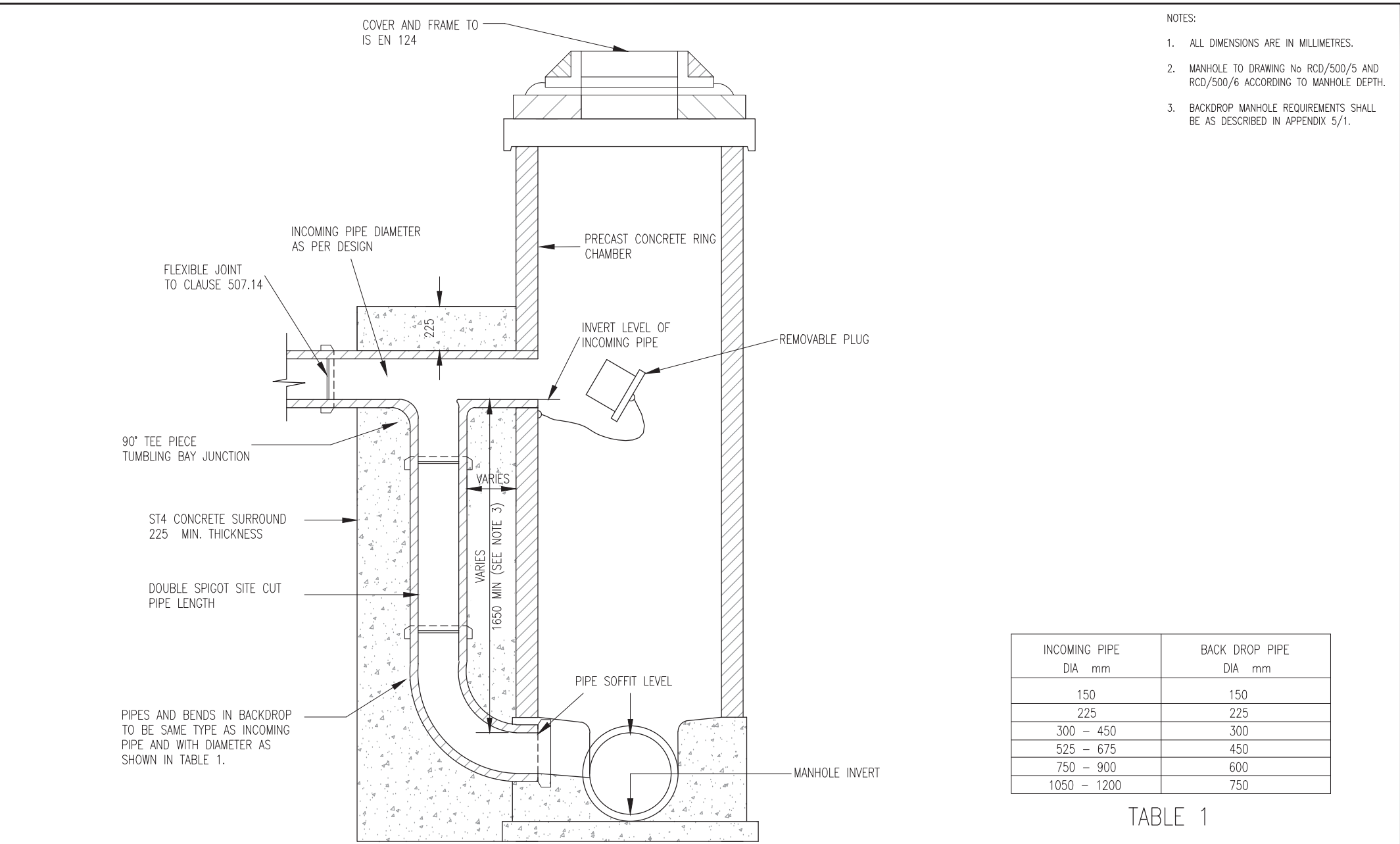
PLAN ON STRAIGHT INVERT

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. CHAMBER WALLS AND COVER SLAB TO BE CONSTRUCTED IN PRECAST CONCRETE TO BS 5911-3 AND IS EN 1917.
3. FOR INVERT DETAILS, NUMBER OF BRANCHES, DETAILS OF PIPES AND TYPE OF COVER AND FRAME SEE APPENDIX 5/1.
4. MORTAR TO BE TO CLAUSE 507.13.
5. SAFETY CHAIN REQUIRED WHERE PIPE IS GREATER THAN 600 DIAMETER. SEE DRAWING No RCD/500/13 FOR DETAILS OF SAFETY CHAIN AND HANDHOLDS.
6. MANHOLE COVER ARRANGEMENT IN CARRIAGEWAYS TO BE IN ACCORDANCE WITH RCD/500/14.
7. FLEXIBLE JOINTS TO BE IN ACCORDANCE WITH CLAUSE 507.14 AND RCD/500/14.

NOT TO SCALE

P5	03/15
P4	04/11
P3	01/09
Issue	Date



- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. MANHOLE TO DRAWING No RCD/500/5 AND RCD/500/6 ACCORDING TO MANHOLE DEPTH.
 3. BACKDROP MANHOLE REQUIREMENTS SHALL BE AS DESCRIBED IN APPENDIX 5/1.

INCOMING PIPE DIA mm	BACK DROP PIPE DIA mm
150	150
225	225
300 - 450	300
525 - 675	450
750 - 900	600
1050 - 1200	750

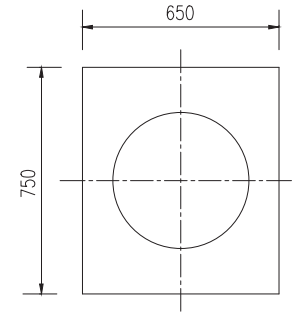
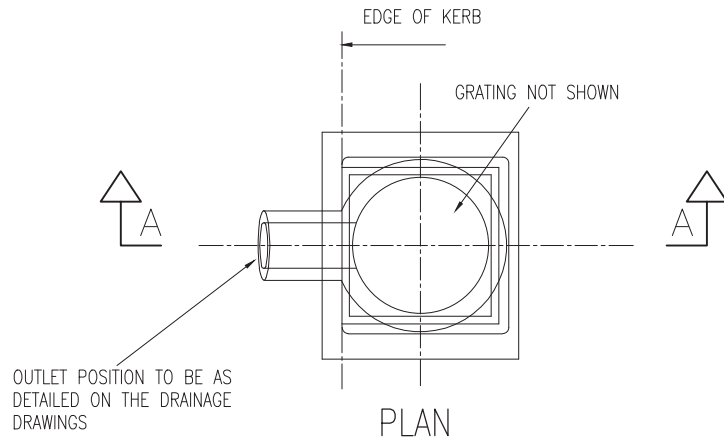
TABLE 1

NOT TO SCALE

SECTION THROUGH MANHOLE

TII PUBLICATION NUMBER: **CC-SCD-00508**

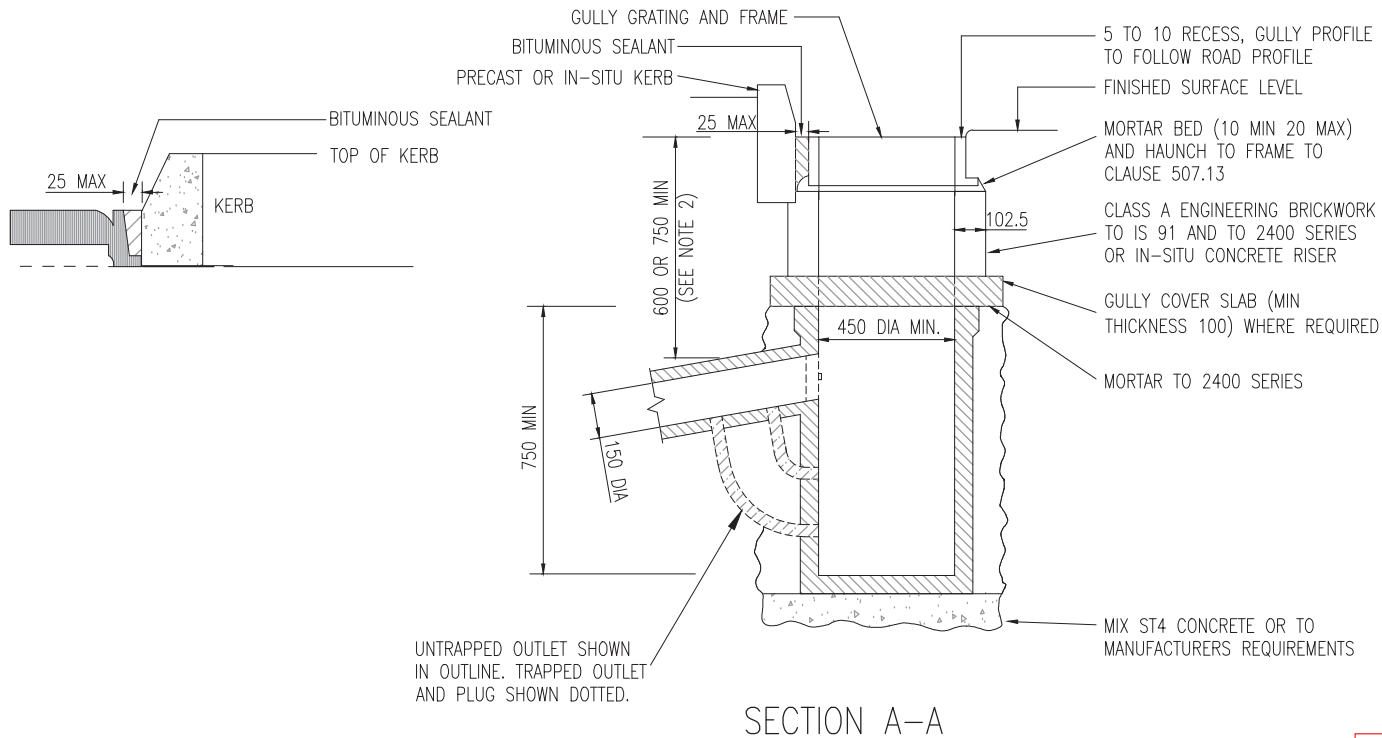
	ROAD CONSTRUCTION DETAILS	DRAINAGE	P6	03/15	VERTICAL BACKDROP IN MANHOLES	Drawing No.
			P5	04/11		RCD/
			P4	12/10		500/8
			Issue	Date		



GULLY COVER SLAB

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. THE MINIMUM DEPTH FROM THE TOP OF THE GRATING TO THE TOP OF THE GULLY OUTLET IS TO BE 750 WHEN THE CONNECTING PIPE IS UNDER A CARRIAGEWAY OR A HARD SHOULDER AND 600 ELSEWHERE.
3. PRECAST CONCRETE GULLIES AND COVER SLABS SHALL BE TO IS EN 1917 OR BS 5911- 6.
4. FOR DETAILS OF TYPICAL GULLY GRATING SEE DRAWING No RCD/500/12.
5. WHERE A GULLY HAS A TRAP THE STOPPERS SHALL COMPLY WITH THE REQUIREMENTS OF BS 5911-4 AND IS EN 1917.
6. FOR DETAILS OF GULLY GRATINGS REFER TO APPENDIX 5/1.
7. SEE RCD/500/11 FOR IN-SITU CONCRETE AND BLOCKWORK GULLIES.

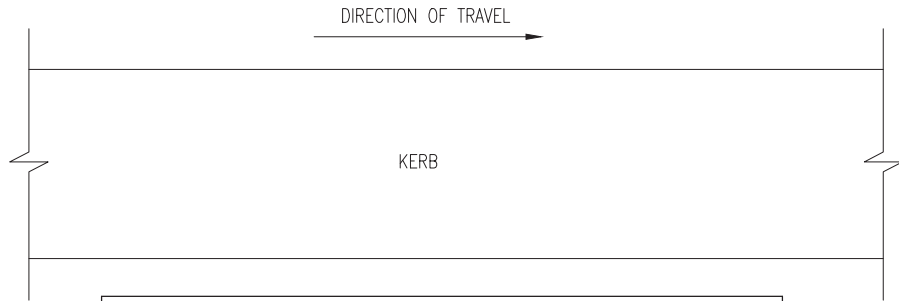


NOT TO SCALE

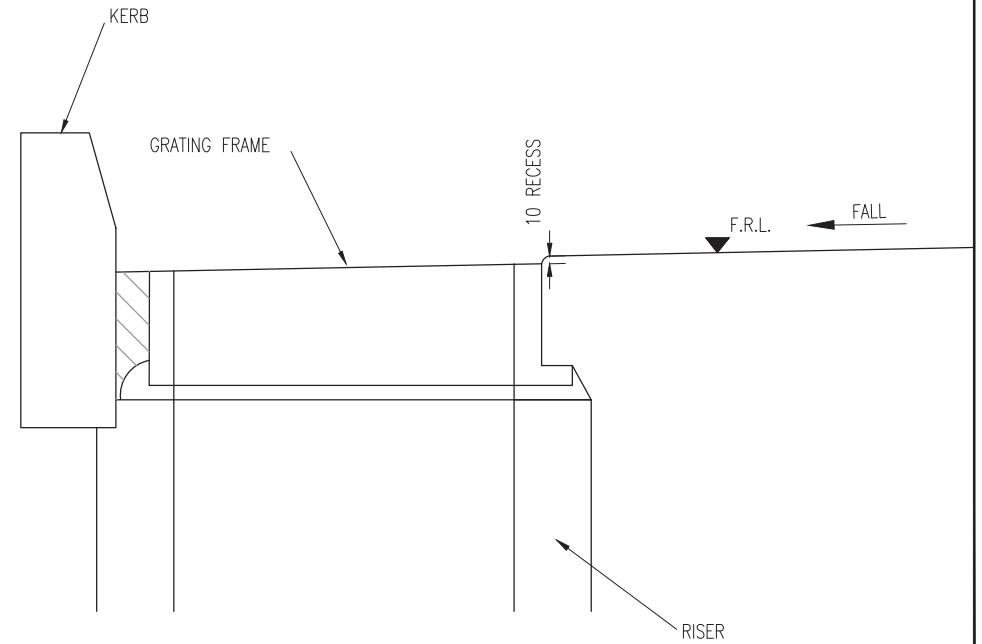
TII PUBLICATION NUMBER: CC-SCD-00510

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. GULLY GRATING TO COMPLY WITH IS EN 124.
3. GULLY GRATING TO BE PROVIDED WITH A LOCKING DEVICE IN ACCORDANCE WITH CLAUSE 508.4.



INDICATIVE GULLY GRATING DETAIL



GULLY PROFILE

NOT TO SCALE

TII PUBLICATION NUMBER: CC-SCD-00512



ROAD CONSTRUCTION
DETAILS

DRAINAGE

P5	03/15
P4	04/11
P3	01/09
Issue	Date

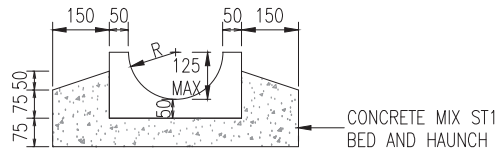
GULLY GRATING

Drawing No.

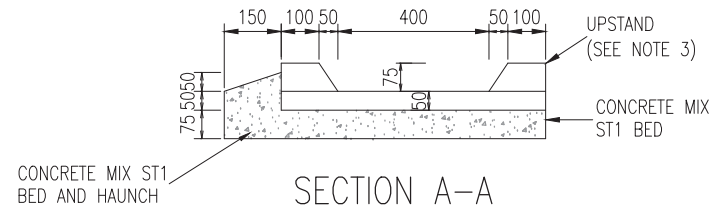
RCD/
500/12

NOTES:

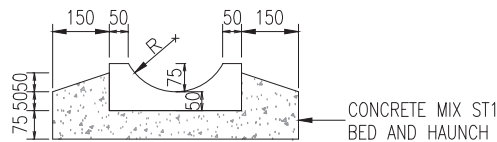
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. DIMENSIONS R & L SHALL BE AS DESCRIBED IN APPENDIX 5/3.
3. DRAINAGE CHANNEL BLOCKS TO BE MADE OF PRESSED CONCRETE TO IS EN 1340 OR EXTRUDED IN-SITU. FOR BLOCKS TYPE C THE UPSTAND MAY BE N-SITU CONCRETE OR THE KERB TYPE USED FOR THE CARRIAGEWAY.



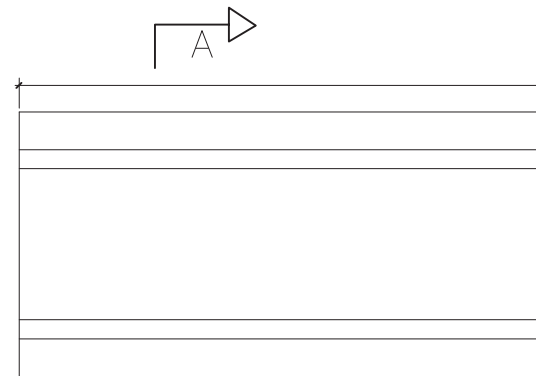
DRAINAGE CHANNEL BLOCK
TYPE A



SECTION A-A



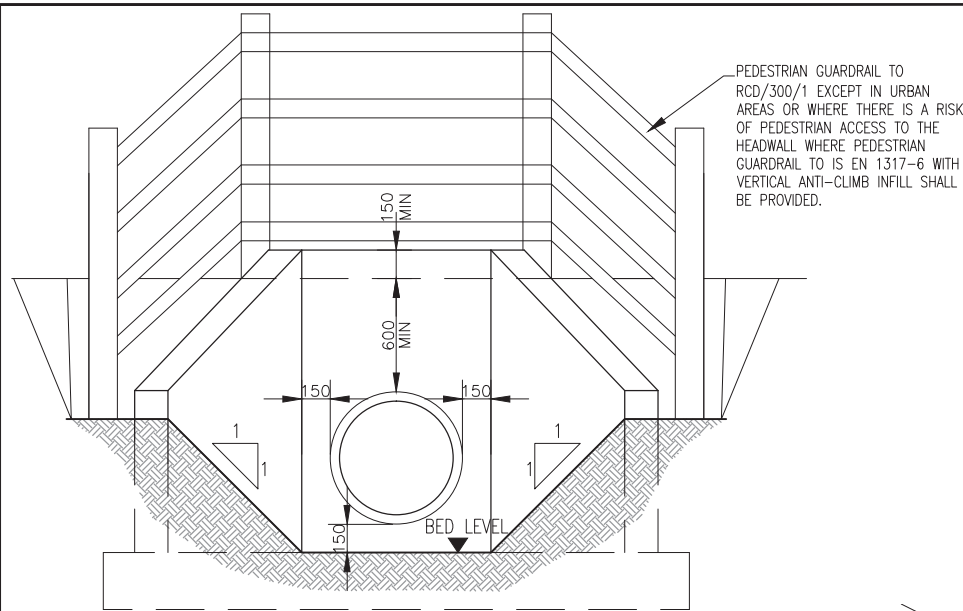
DRAINAGE CHANNEL BLOCK
TYPE B



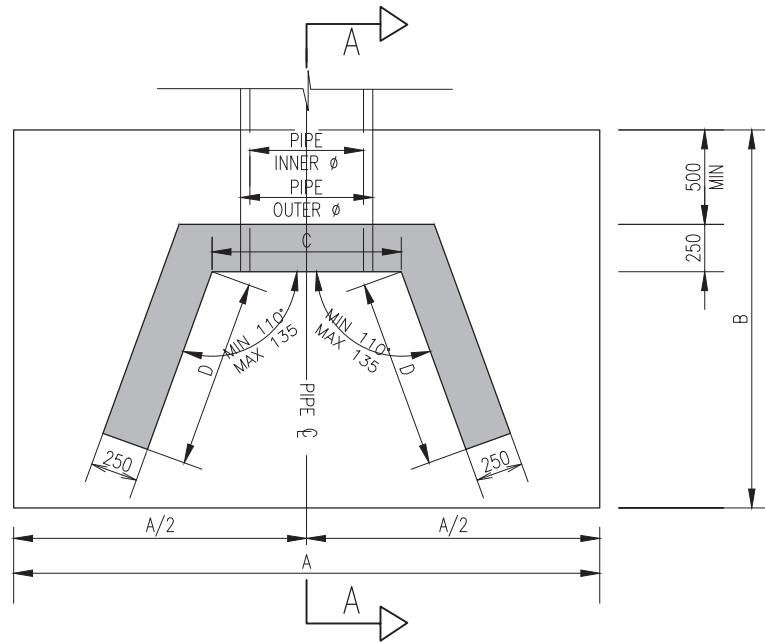
DRAINAGE CHANNEL BLOCK
TYPE C

NOT TO SCALE

TII PUBLICATION NUMBER: CC-SCD-00523



ELEVATION

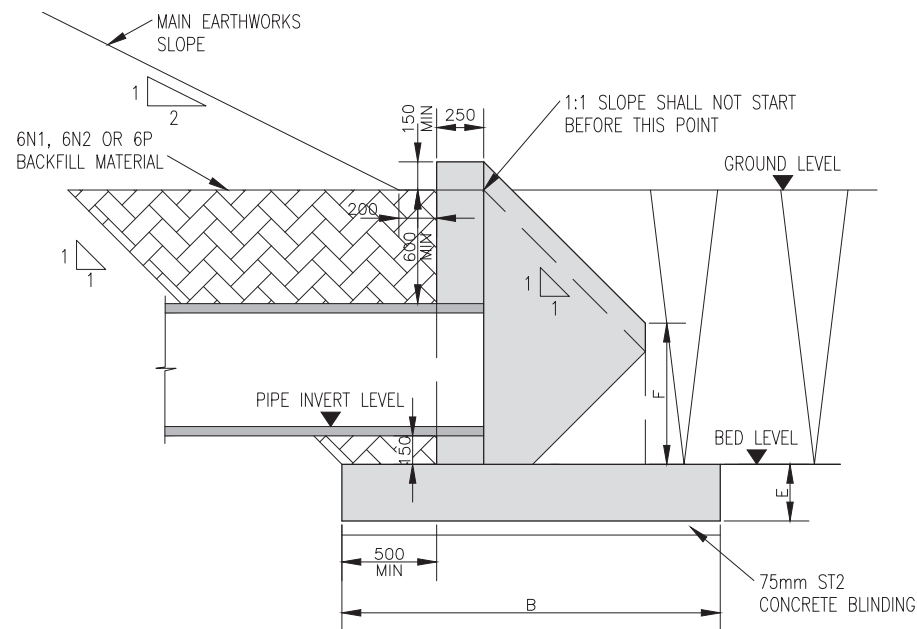


PLAN

SCHEDULE OF MINIMUM DIMENSIONS						
PIPE INNER ϕ	A	B	C	D	E	F
≤ 300	2000	2000	PIPE OUTER $\phi + 300$	1000	400	500
301-600	2500	2500	PIPE OUTER $\phi + 300$	1250	400	600
601-900	3200	3200	PIPE OUTER $\phi + 300$	1550	500	700
901-1200	3900	3900	PIPE OUTER $\phi + 300$	1850	500	800
1201-1500	4700	4700	PIPE OUTER $\phi + 300$	2150	500	900
1501-1800	5200	5200	PIPE OUTER $\phi + 300$	2350	500	1000

THE DIMENSIONS CONTAINED IN THE TABLE ABOVE ARE MINIMUMS ONLY AND THE DESIGNER SHALL CONFIRM DETAILS FOR SPECIFIC SITE CONDITIONS. THE DIMENSIONS CONTAINED IN THE TABLE ABOVE ARE BASED ON THE FOLLOWING CONSTRAINTS:

- ANGLE BETWEEN HEADWALL AND WINGWALL IS 110° ;
- BACKFILL MATERIAL IS FREE DRAINING;
- THERE ARE NO LIVE LOAD EFFECTS ON THE HEADWALL;
- CHARACTERISTIC VALUE OF INTERNAL FRICTION (ϕ) OF THE BACKFILL MATERIAL = 37.5° ;
- 600mm COVER TO THE PIPE AT THE REAR OF THE HEADWALL, WITH A 200mm WIDE FLAT AREA BEFORE THE COMMENCEMENT OF THE MAIN EARTHWORKS SLOPE;
- SLOPE OF FILL MEASURED FROM THE REAR FACE OF THE WINGWALLS DOWNWARDS AND FROM BED LEVEL UPWARDS ARE BOTH TO BE 1:1



SECTION A-A

NOTES :

- ALL DIMENSIONS ARE MILLIMETRES.
- THIS RCD IS ONLY TO BE USED IN ASSOCIATION WITH A UNIQUE STRUCTURAL DESIGN. THIS DESIGN IS TO BE CARRIED OUT IN ACCORDANCE WITH THE NRA REQUIREMENTS FOR THE USE OF EUROCODES FOR THE DESIGN OF ROAD STRUCTURES.
- REINFORCED CONCRETE SHALL BE A MINIMUM GRADE OF C32/40. ALL STRUCTURAL CONCRETE SHALL BE SPECIFIED IN ACCORDANCE WITH SERIES 1700 OF THE NRA MCDRW.
- ALL BLINDING CONCRETE SHALL BE ST2 IN ACCORDANCE WITH IS EN 206.
- THE MINIMUM COVER TO REINFORCEMENT FOR DURABILITY SHALL BE IN ACCORDANCE WITH NRA BD 57. MINIMUM EXPOSURE CLASS TO BE XC4.
- ANY RESULTING VOID BETWEEN THE OUTSIDE OF THE PIPE AND THE OPE IN THE HEADWALL SHALL BE FILLED WITH NON-COMPRESSIBLE HIGH STRENGTH GROUT.
- ALL EXPOSED CONCRETE SURFACES FROM 100mm BELOW GROUND LEVEL TO BE CLASS U4/F4 FINISH. ALL OTHER CONCRETE SURFACES TO BE CLASS U1/F1 FINISH UNLESS OTHERWISE SPECIFIED.
- HEADWALL WINGWALLS TO BE SLOPED AND SHALL MAINTAIN A MINIMUM HEIGHT OF 150mm ABOVE ADJACENT BACKFILL LEVEL.
- RENDERED CONCRETE BLOCKWORK MAY BE USED AS AN ALTERNATIVE TO IN-SITU OR PRECAST CONCRETE FOR PIPES UP TO 300mm INNER DIAMETER.
- ALL HEADWALLS SHALL BE BACKFILLED WITH CLASS 6N1, 6N2 OR 6P BACKFILL MATERIAL. HEADWALLS SHALL BE FOUNDED ON A MINIMUM 75mm LAYER OF ST2 BLINDING CONCRETE. DETAILS OF THE SUB-BASE LAYER TO BE CONFIRMED BASED ON SITE CONDITIONS.
- ROCK ARMOUR AND/OR GABION HEADWALLS AND WINGWALLS ARE PROHIBITED.

NOT TO SCALE

TII PUBLICATION NUMBER: CC-SCD-00553