

PLASTIC CHAMBERS AND RINGS SHALL COMPLY WITH BS EN 13598-1 AND BS EN 13598-2 OR HAVE EQUIVALENT INDEPENDENT APPROVAL.

MORTAR BEDDING AND HAUNCHING TO COVER AND FRAME TO CLAUSE E6.7

PRECAST CONCRETE SLAB OR IN-SITU CONCRETE SLAB TO SUPPORT COVER AND FRAME

FLEXIBLE SEAL

TEMPORARILY CAP MANHOLE SHAFT DURING CONSTRUCTION

JOINTS BETWEEN BASE AND SHAFT AND BETWEEN SHAFT COMPONENTS TO BE FITTED WITH WATERTIGHT SEALS

JOINT TO BE AS CLOSE AS POSSIBLE TO FACE OF THE CHAMBER TO PERMIT SATISFACTORY JOINT AND SUBSEQUENT MOVEMENT

MANHOLE COVER TO SUIT BS EN 124 LOADING HIGHWAYS - CLASS D400 600mm CLEAR OPENING

ACCESS OPENING RESTRICTED TO 350mm DIAMETER OR 300mm x 300mm IF DEPTH OF CHAMBER TO INVERT > 1m

CLASS B ENGINEERING OR PRECAST CONCRETE COVER FRAME SEATING RINGS

DOT TYPE 1 SUB BASE (THICKNESS VARIES)

MINIMUM INTERNAL DIMENSIONS 450mm DIAMETER OR 450mm x 450mm

DOT TYPE 1 SUB BASE (THICKNESS VARIES) OR CONCRETE SURROUND

BASE UNIT TO HAVE ALL CONNECTIONS WITH SOFFIT LEVELS SET NO LOWER THAN THAT OF THE MAIN PIPE

GRANULAR BEDDING MATERIAL

INVERT OF CONNECTING PIPE AT LEAST 50mm ABOVE THAT OF THE MAIN PIPE

MORTAR BEDDING AND HAUNCHING TO COVER AND FRAME TO CLAUSE E6.7

MINIMUM 2 COURSES OF CLASS B ENGINEERING BRICKS OR PRECAST CONCRETE COVER FRAME SEATING RINGS

675mm MAXIMUM TO FIRST STEP RUNG FROM COVER LEVEL

LIFTING EYES IN CONCRETE RINGS TO BE POINTED

IN-SITU CONCRETE TO BE GEN3 (DESIGNED TO BRE SPECIAL DIGEST 1 CONCRETE IN AGGRESSIVE GROUND)

HIGH-STRENGTH CONCRETE TOPPING TO BE BROUGHT UP TO A DENSE, SMOOTH FACE, NEATLY SHAPED AND FINISHED TO ALL BRANCH CONNECTIONS (MINIMUM THICKNESS 20mm)

CONSTRUCTION JOINT

SELF-CLEANING TOE HOLES TO BE PROVIDED WHERE CHANNEL EXCEEDS 600mm WIDE

INVERTS TO BE FORMED USING CHANNEL PIPES

600mm x 600mm CLEAR OPENING COVER COMPLYING WITH BS EN 124 AND BS 7903 SEE CLAUSE E2.32

MINIMUM CLEAR ACCESS 600mm

PRECAST CONCRETE MANHOLE SECTIONS AND COVER SLAB TO BE BEDDED WITH MORTAR, PLASTOMERIC OF ELASTOMERIC SEAL CONFORMING TO BS EN 1917 AND BS 5911-3 SEE CLAUSE E2.29

150mm CONCRETE SURROUND

CHAMBER HEIGHT (NOT LESS THAN 900mm)

BENCHING SLOPE TO BE 1:10 TO 1:30

THE BOTTOM PRECAST MANHOLE RING TO BE BUILT INTO BASE CONCRETE MINIMUM 75mm

DISTANCE BETWEEN TOP OF PIPE AND UNDERSIDE OF PRECAST SECTION TO BE MINIMUM 50mm TO MAXIMUM 300mm

225mm TO UNDERSIDE OF CHANNEL

TYPICAL ACCESS CHAMBER DETAIL - TYPE 3 (FLEXIBLE MATERIAL DETAIL)

MAXIMUM DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE IN AREAS SUBJECT TO VEHICLE LOADING 3m, NON ENTRY (1:25)

SITED IN DOMESTIC DRIVEWAYS OR FOOTWAYS

MORTAR BEDDING AND HAUNCHING TO COVER AND FRAME TO CLAUSE E6.7

150mm DEEP CONCRETE COLLAR

TEMPORARILY CAP MANHOLE SHAFT DURING CONSTRUCTION

FLEXIBLE SEAL

COVER COMPLYING WITH BS EN 124 AND BS 7903 DRIVEWAYS, FOOTWAYS AND LANDSCAPED AREAS - CLASS B125 SEE CLAUSE E2.32

ACCESS OPENING RESTRICTED TO 350mm DIAMETER OR 300mm x 300mm IF DEPTH OF CHAMBER TO INVERT IS > 1m

MINIMUM INTERNAL DIMENSIONS 450mm DIAMETER OR 450mm x 450mm

SITED IN DOMESTIC GARDENS

MORTAR BEDDING AND HAUNCHING TO COVER AND FRAME TO CLAUSE E6.7

TEMPORARILY CAP MANHOLE SHAFT DURING CONSTRUCTION

FLEXIBLE SEAL

COVER COMPLYING WITH BS EN 124 AND BS 7903 GARDENS - CLASS A15 SEE CLAUSE E2.32

ACCESS OPENING RESTRICTED TO 350mm DIAMETER OR 300mm x 300mm IF DEPTH OF CHAMBER TO INVERT IS > 1m

MINIMUM INTERNAL DIMENSIONS 450mm DIAMETER OR 450mm x 450mm

TOPSOIL

MINIMUM BEDDING

SUB-BASE

PRECAST CONCRETE 125 WIDE x 255 DEEP x 914 LONG HB2 KERB.

BED AND BACKING TO BE MIX ST1 CONCRETE TO CLAUSE 2602SR.

UNLESS OTHERWISE AGREED

25 UPSTAND AT VEHICULAR CROSSINGS AND 0-6mm AT PEDESTRIAN CROSSINGS.

PRECAST CONCRETE 50 WIDE x 150 DEEP x 914 LONG EF EDGING LAID FLUSH.

BED AND BACKING TO BE MIX ST1 CONCRETE TO CLAUSE 2602SR.

MINIMUM BEDDING

SUB-BASE

TYPICAL MANHOLE DETAIL - TYPE 2

MAXIMUM DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE 3.0m (1:25)

NON WOVEN GEOTEXTILE TO ACHIEVE MINIMUM WATER PERMEABILITY OF 36 LITRES/m²/SECOND

PERMEABLE PAVING BLOCKS.

50mm LAYING COURSE MATERIAL 2/6.3 GRIT (CLEAN STONE) (30mm AFTER COMPACTION)

70mm DENSE ASPHALT CONCRETE BINDER COURSE AC20 DENSE BIN 100/150, CORE WITH 75mm DIA. HOLES AT 750x750 CTRS PRIOR TO LAYING SURFACE COURSE AND CAREFULLY FILL WITH 2/6.3 GRIT (CLEAN STONE)

SUB-BASE MATERIAL 4/20 CLEAN ANGULAR STONE TO BS EN 13242 PLACED IN LAYERS NOT EXCEEDING 150mm THICK.

PROOF ROLL FORMATION, SOFT SPOTS INFILLED WITH TYPE 6F2

NON WOVEN GEOTEXTILE TO ACHIEVE MINIMUM WATER PERMEABILITY OF 36 LITRES/m²/SECOND

PERMEABLE PAVING CONSTRUCTION

PERMEABLE PAVING CONSTRUCTION

PERMEABLE PAVING CONSTRUCTION

PERMEABLE PAVING CONSTRUCTION

PIPE BED AND SURROUND DETAIL (CLASS S)

TO BE USED WHERE COVER TO PIPE SOFFIT IS LESS THAN 1200mm IN VEHICULAR AREAS AND 900mm IN NON-TRAFFICKED AREAS (IE FOOTPATHS, VERGES, ETC)

FINISHED ROAD/SLAB LEVEL

GRANULAR BACKFILL LAID IN 150mm LAYERS AND COMPACTED

A10/A14 GRANULAR MATERIAL BED AND SURROUND

MINIMUM 300mm BEARING ON ORIGINAL GROUND

ALTERNATIVE PROTECTION OF A SHALLOW PIPELINE USING A SLAB

PROTECTION TO PIPELINES (SCALE 1:25@A1)

TO BE USED WHERE COVER TO PIPE SOFFIT IS LESS THAN 1200mm IN VEHICULAR AREAS AND 900mm IN NON-TRAFFICKED AREAS (IE FOOTPATHS, VERGES, ETC)

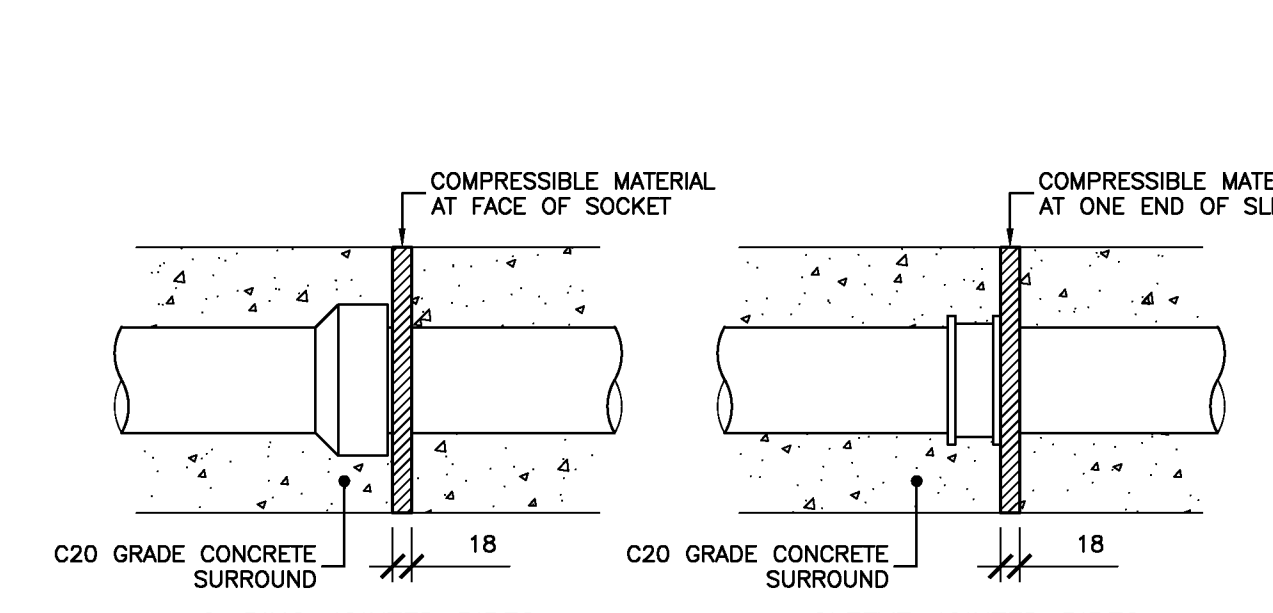
FINISHED ROAD/SLAB LEVEL

RODDING EYE WITH ALUMINIUM SEALING PLATE, SEALING RING AND SAFETY VALVE, SET IN RIM 100mm CONCRETE AT FINISHED GROUND LEVEL (HEP CODE 262)

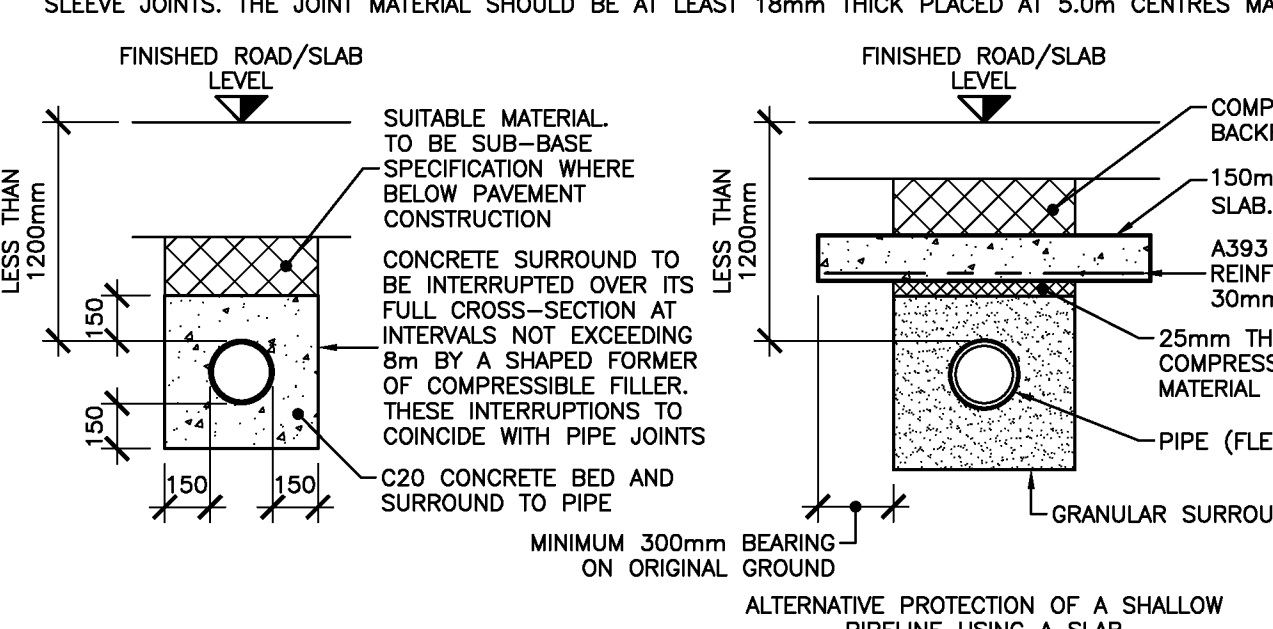
PIPE CUT TO SUIT DEPTH REQUIREMENT

STANDARD 45° BEND

GRANULAR BED, SIDEFILL AND COVER TO DRAIN

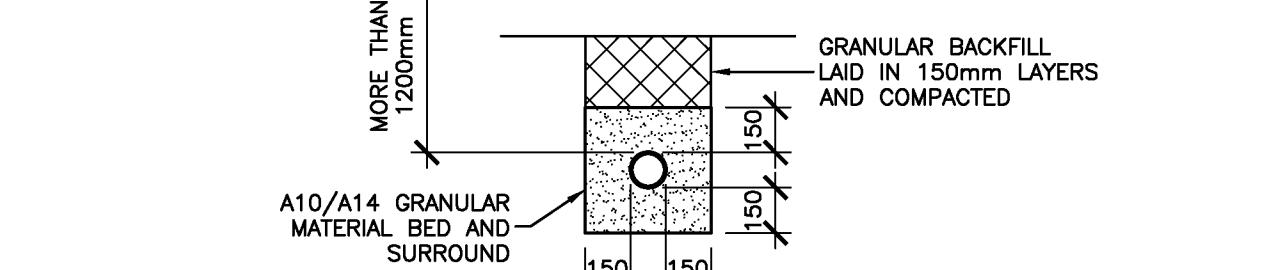


THE FLEXIBILITY OF A PIPELINE BEDDED ON, OR SURROUNDED WITH, CONCRETE SHOULD NORMALLY BE MAINTAINED BY THE PROVISION OF FLEXIBLE CONSTRUCTION JOINTS THROUGH THE CONCRETE AT PIPE JOINTS. THESE SHOULD BE MADE FROM BITUMEN IMPREGNATED INSULATING BOARD COMPLYING WITH B.S. 1142 PART 3, OR OTHER EQUALLY COMPRESSIBLE FILLER MATERIAL SUCH AS EXPANDED POLYSTYRENE. THE BOARD SHOULD BE CUT TO FIT THE PIPES AND PLACED AT THE FACE OF THE PIPE SOCKETS OR AT ONE END OF SLEEVE JOINTS. THE JOINT MATERIAL SHOULD BE AT LEAST 18mm THICK PLACED AT 5.0m CENTRES MAX.



PROTECTION TO PIPELINES (SCALE 1:25@A1)

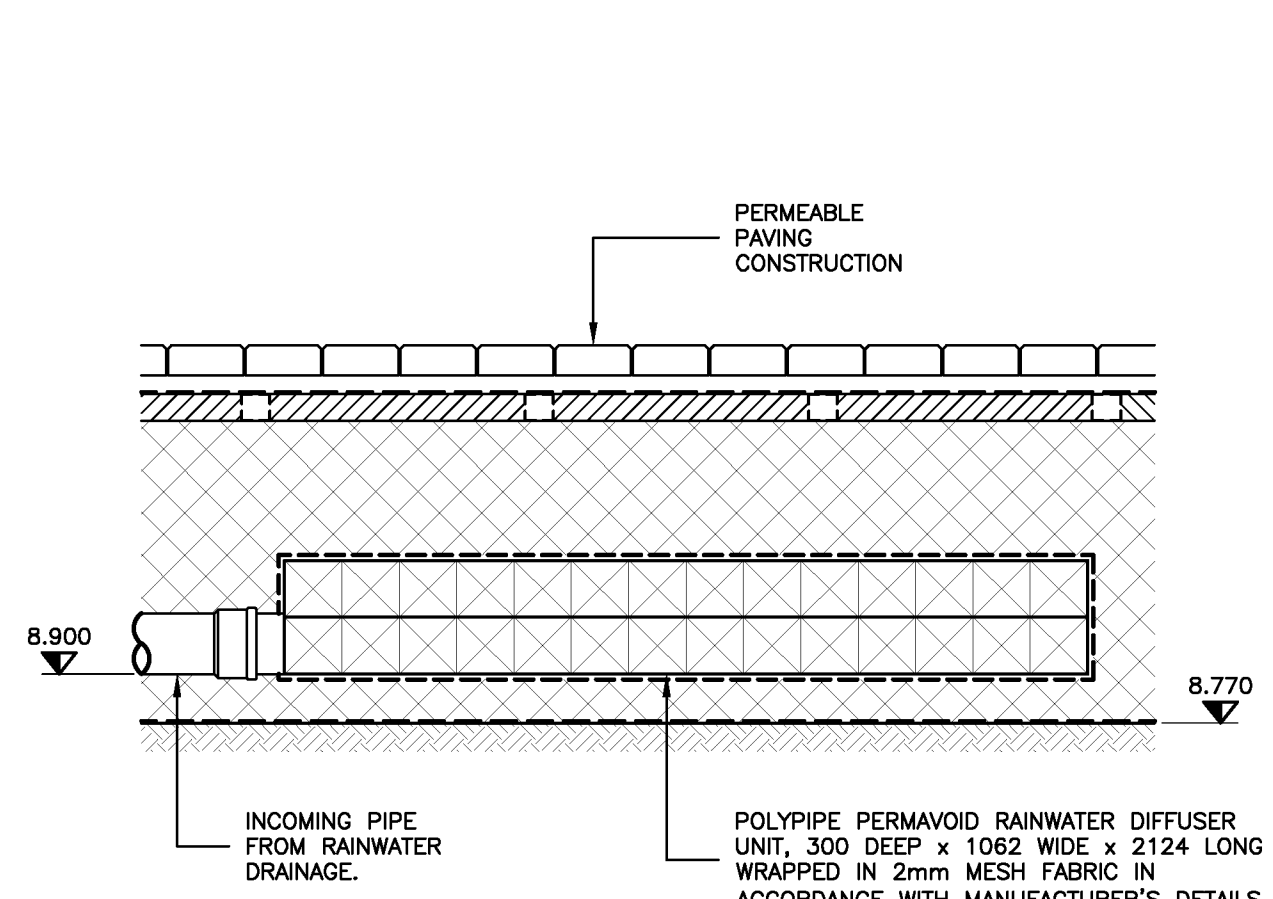
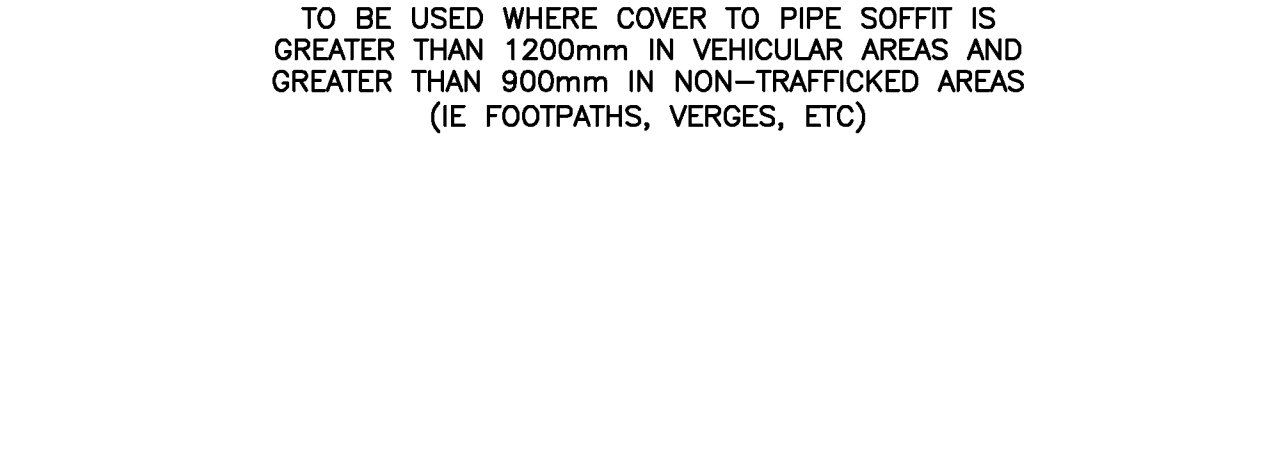
TO BE USED WHERE COVER TO PIPE SOFFIT IS LESS THAN 1200mm IN VEHICULAR AREAS AND 900mm IN NON-TRAFFICKED AREAS (IE FOOTPATHS, VERGES, ETC)



SIZE OF GRANULAR MATERIAL (TO BS 882: 1983)		
NOMINAL BORE OF PIPE (mm)	SIZE (mm)	
	SINGLE-SIZED	GRADED
100 AND 150	10	-
225 AND 300	10 OR 20	20 TO 5
375 - 500	20	20 TO 5

PIPE BED AND SURROUND DETAIL (CLASS S)

TO BE USED WHERE COVER TO PIPE SOFFIT IS GREATER THAN 1200mm IN VEHICULAR AREAS AND GREATER THAN 900mm IN NON-TRAFFICKED AREAS (IE FOOTPATHS, VERGES, ETC)



POLYPIPE PERMAVOID RAINWATER DIFFUSER UNIT (SCALE 1:20@A1)

TO BE USED WHERE COVER TO PIPE SOFFIT IS GREATER THAN 1200mm IN VEHICULAR AREAS AND GREATER THAN 900mm IN NON-TRAFFICKED AREAS (IE FOOTPATHS, VERGES, ETC)



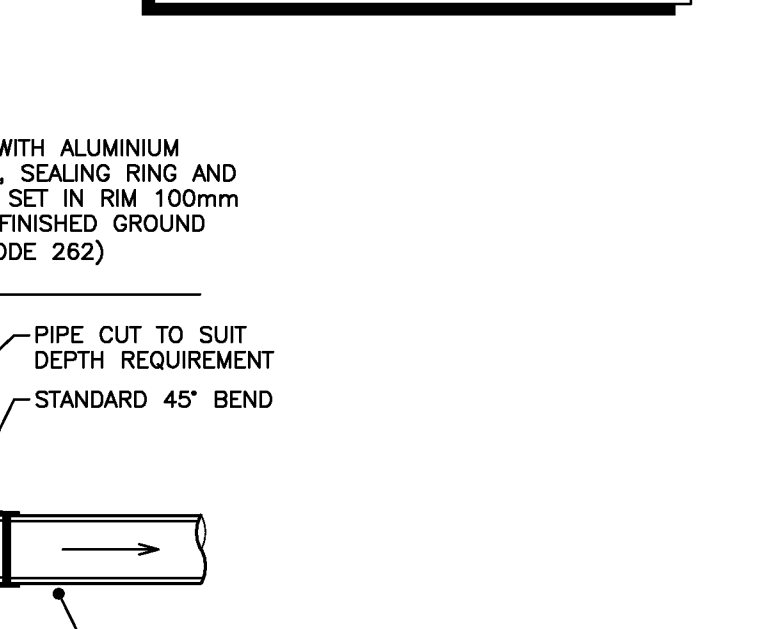
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RODDING EYE DETAIL (VC SHOWN - PVCu ALTERNATIVE TO SUIT)

TO BE USED WHERE COVER TO PIPE SOFFIT IS LESS THAN 1200mm IN VEHICULAR AREAS AND 900mm IN NON-TRAFFICKED AREAS (IE FOOTPATHS, VERGES, ETC)



P3	18.12.18	SUBBASE DEPTH AMENDED TO SUIT FORMATION LEVEL	JMB
P3	06.12.18	STORAGE TANK DETAIL DELETED AND DIFFUSER DETAIL ADDED.	JMB
P1	26.11.18	PRELIMINARY ISSUE FOR COMMENT	JH
Revision	Date	Description	By

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ace
architectural engineering structural environment

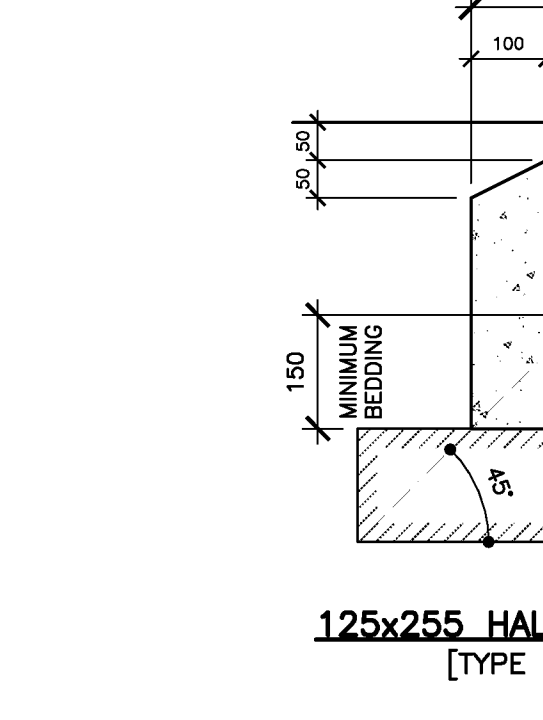
Client
RENAISSANCE RETIREMENT

Architect
WILLIAM LESTER CHARTERED ARCHITECTS

Project Title
RETIREMENT APARTMENTS
STATION ROAD
RUSTINGTON

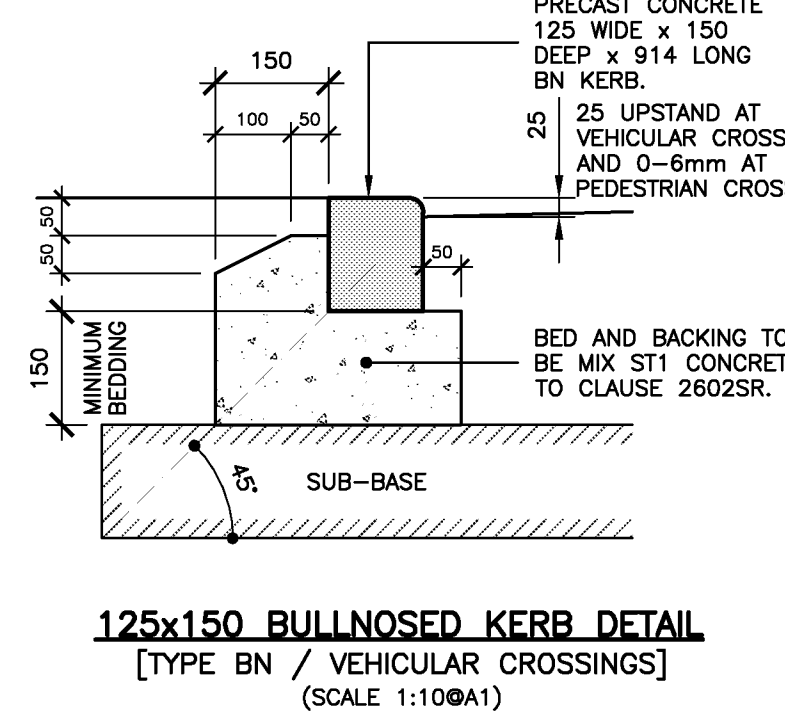
Drawing Title
DRAINAGE & EXTERNAL WORKS DETAILS

Scale	Paper Size	Date	Drawn By	Checked By
AS SHOWN	A1	JUNE 2017	JH	CH
Project No.	Drawing No.	Revision		
RRL012	551	P3		



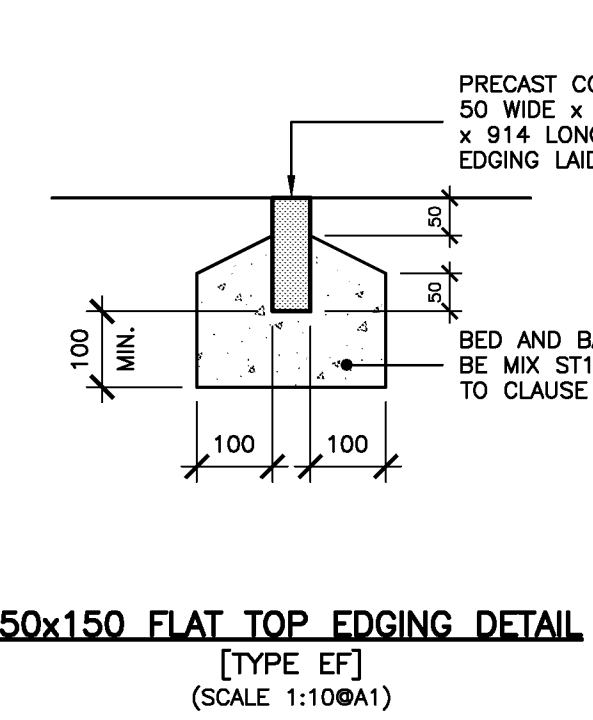
125x255 HALF BATTERED KERB DETAIL [TYPE HB2 / 125 UPSTAND] (SCALE 1:10@A1)

TO BE USED WHERE COVER TO PIPE SOFFIT IS GREATER THAN 1200mm IN VEHICULAR AREAS AND GREATER THAN 900mm IN NON-TRAFFICKED AREAS (IE FOOTPATHS, VERGES, ETC)



125x150 BULLNOSED KERB DETAIL [TYPE BN / VEHICULAR CROSSINGS] (SCALE 1:10@A1)

TO BE USED WHERE COVER TO PIPE SOFFIT IS GREATER THAN 1200mm IN VEHICULAR AREAS AND GREATER THAN 900mm IN NON-TRAFFICKED AREAS (IE FOOTPATHS, VERGES, ETC)



50x150 FLAT TOP EDGING DETAIL [TYPE EF] (SCALE 1:10@A1)

TO BE USED WHERE COVER TO PIPE SOFFIT IS GREATER THAN 1200mm IN VEHICULAR AREAS AND GREATER THAN 900mm IN NON-TRAFFICKED AREAS (IE FOOTPATHS, VERGES, ETC)