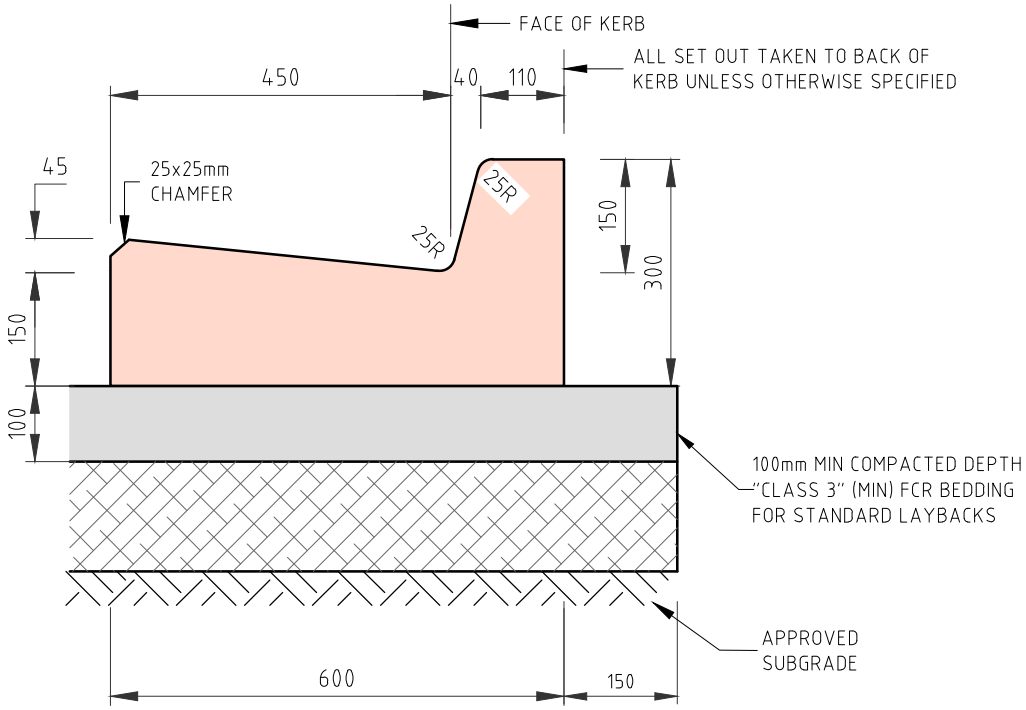
CITY OF GREATER BENDIGO
STANDARD DRAWINGS

STANDARD DRAWINGS
INDEX SHEET

DRAWING No.	DESCRIPTION	REVISION	DATE LAST MODIFIED
100	**KERBS**		
SD 190	B4 KERBING (600mm BARRIER KERB)	A	21/09/2017
SD 191	DRIVEWAY LAYBACK FOR "B4" KERB	A	19/09/2017
SD 192	PEDESTRIAN LAYBACK FOR "B4" KERB	E	3/08/2020
SD 193	BLUESTONE KERB AND CHANNEL	A	19/09/2017
SD 194	DRIVEWAY LAYBACK FOR BLUESTONE KERB AND CHANNEL	A	19/09/2017
SD 195	PEDESTRIAN LAYBACK (BLACK CONCRETE) FOR BLUESTONE KERB AND CHANNEL	B	1/10/2018
SD 196	FLAGSTONE / SAWN BLUESTONE KERB	A	19/09/2017
SD 197	BLACK CONCRETE PLINTH KERB	A	19/09/2017
200	**PAVEMENTS**		
SD 290	CBD BLUESTONE BANDING FOOTPATH	B	26/08/2020
SD 291	CBD BLUESTONE FOOTPATH	B	26/08/2020
SD 292	ASPHALT SHARED PATH	A	19/09/2017
SD 293	PSM COVER & SURROUND	A	25/08/2021
300	**TRENCHING BACKFILL**		
SD 390	DRAINAGE PIPE TRENCH BACKFILL - COMPACTED FILL NON-HARD SURFACE AREAS	A	24/11/2017
SD 391	DRAINAGE PIPE TRENCH BACKFILL - UNDER NEW ROAD / KERB / FOOTPATH	A	24/11/2017
SD 392	DRAINAGE PIPE TRENCH BACKFILL - UNDER EXISTING ROAD	A	24/11/2017
500	**PITS & DRAINAGE STRUCTURES**		
SD 590A	UNHAUNCHED PIT	B	20/11/2019
SD 590B	HAUNCHED PIT	B	20/11/2019
SD 590C	FLAT PIT FLOOR	A	14/03/2019
SD 590D	SHAPED 25% OF PIPE PIT FLOOR	A	14/03/2019
SD 590E	SHAPED 50% OF PIPE PIT FLOOR	A	14/03/2019
SD 590F	SHAPED FULL HEIGHT OF PIPE PIT FLOOR	A	14/03/2019
SD 590G	SIDE ENTRY PIT - CONCRETE LINTEL	A	19/09/2017
SD 590H	EXTENDED KERB INLET PIT - PROPOSED PIT UNDER KERB	A	19/09/2017
SD 590I	EXTENDED KERB INLET PIT (RECESSED) - EXISTING PIT BEHIND KERB	A	19/09/2017
SD 590J	EXTENDED KERB INLET PIT - EXISTING PIPE BEHIND KERB	A	19/09/2017
SD 590K	GRATED INLET PIT - CONVERTED FROM EXISTING SIDE ENTRY PIT BEHIND KERB	A	19/09/2017
SD 590M	JAIL CELL GRATE	A	19/09/2017
SD 590O	EXTENDED KERB INLET PIT - EXISTING PIPE IN ROAD	A	5/07/2019
SD 590N	BASKET GRATE	A	19/09/2017
SD 590R	CONCRETE LID WITH INSERT - CONCRETE LINTEL	A	19/09/2017
SD 590S	CAST IRON / STEEL LID	A	19/09/2017
700	**OTHER**		
SD 790	REMOVEABLE BOLLARD	A	26/06/2020



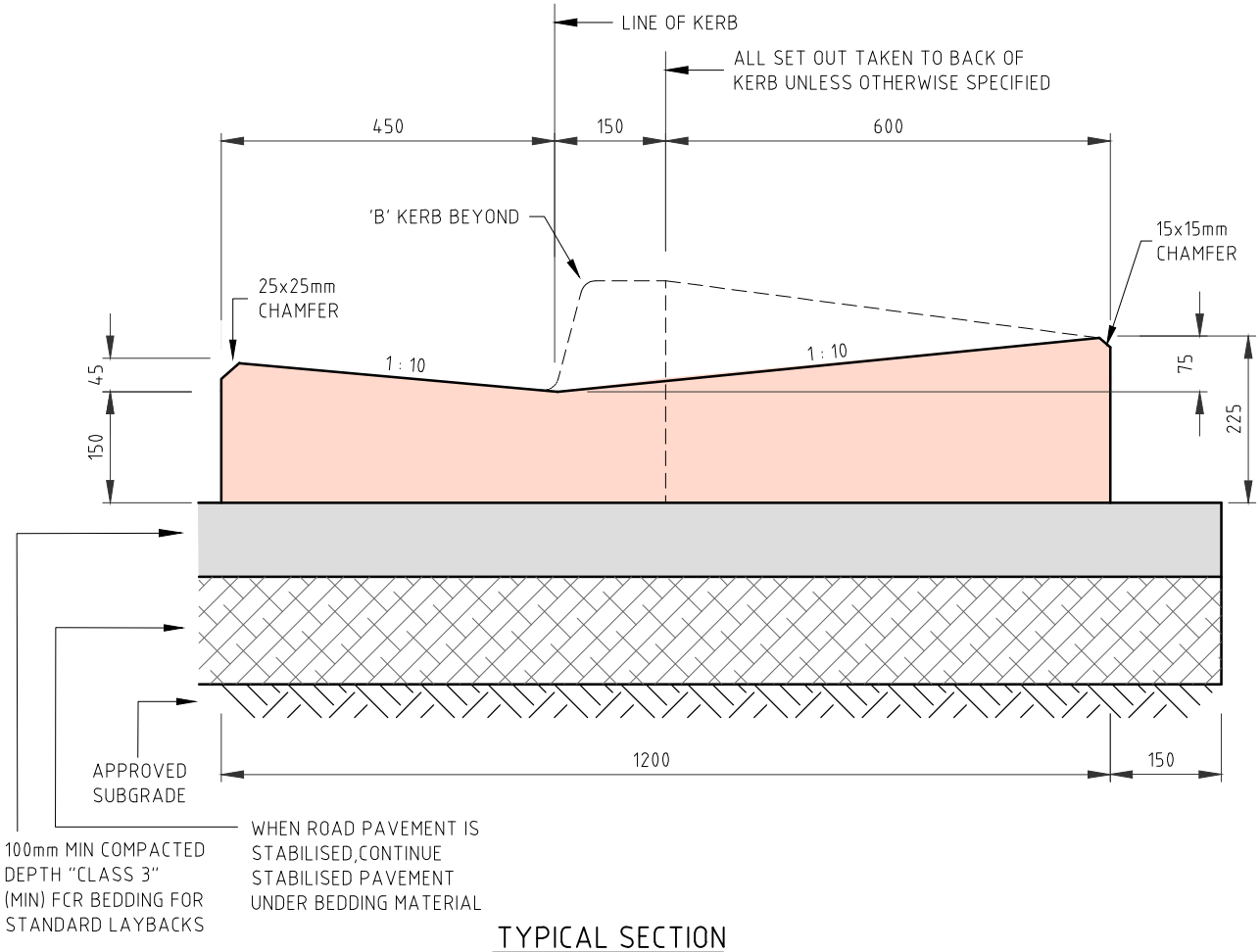
B4 KERBING (600mm Barrier kerb)

NOTES:

1. REFER TO AS. 2876-2000 CONCRETE KERBS AND CHANNELS FOR SPECIFIC REQUIREMENTS
2. REFER TO AUSTROADS GUIDE TO ROAD DESIGN PART 3: GEOMETRIC DESIGN FOR THE RECOMMENDED USE OF KERB AND CHANNEL
3. CONCRETE SHALL BE N25 STANDARD STRENGTH GRADE COMPLYING WITH THE REQUIREMENTS OF AS. 1379. REFER TO VICROADS STANDARD SPECIFICATION 703 FOR REQUIREMENTS OF CONCRETE TO BE USED IN EXTRUSION MACHINES.
4. BEDDING TO BE COMPACTED CLASS 3 F.C.R. SUPPLIED BY THE CONTRACTOR UNLESS OTHERWISE DIRECTED. (REFER IDM SD110). MINIMUM THICKNESS 100mm OR EXTENSION OF ROAD PAVEMENT LAYERS, WHICH EVER IS GREATER (INCLUDING STABILISED LAYERS)
5. CONCRETE TO BE SMOOTH TROWEL FINISH ON TRAY AND KERB
6. CONSTRUCTION JOINTS LOCATED - 2500mm MAXIMUM SPACING
   - 75mm MINIMUM DEPTH

ALL MEASUREMENTS IN MILLIMETRES

B4 KERBING (600mm BARRIER KERB)	REVISION B July 2019
City of Greater Bendigo Standard Drawings	SD 190
A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	SCALE 1:10



TYPICAL SECTION

NOTES:

1. REFER TO AS. 2876-2000 CONCRETE KERBS AND CHANNELS FOR SPECIFIC REQUIREMENTS
2. REFER TO AUSTROADS GUIDE TO ROAD DESIGN PART 3: GEOMETRIC DESIGN FOR THE RECOMMENDED USE OF KERB AND CHANNEL
3. CONCRETE SHALL BE N25 STANDARD STRENGTH GRADE COMPLYING WITH THE REQUIREMENTS OF AS. 1379. REFER TO VICROADS STANDARD SPECIFICATION 703 FOR REQUIREMENTS OF CONCRETE TO BE USED IN EXTRUSION MACHINES.
4. BEDDING TO BE COMPACTED CLASS 3 F.C.R. SUPPLIED BY THE CONTRACTOR UNLESS OTHERWISE DIRECTED. (REFER IDM SD110). MINIMUM THICKNESS 100mm OR EXTENSION OF ROAD PAVEMENT LAYERS, WHICH EVER IS GREATER (INCLUDING STABILISED LAYERS)
5. CONCRETE TO BE SMOOTH TROWEL FINISH ON TRAY AND KERB
6. CONCRETE TO BE SPONGE FINISHED ON LAYBACK
7. CONSTRUCTION JOINTS LOCATED - 2500mm MAXIMUM SPACING
   - 75mm MINIMUM DEPTH

ALL MEASUREMENTS IN MILLIMETRES

DRIVEWAY LAYBACK FOR "B4" KERB

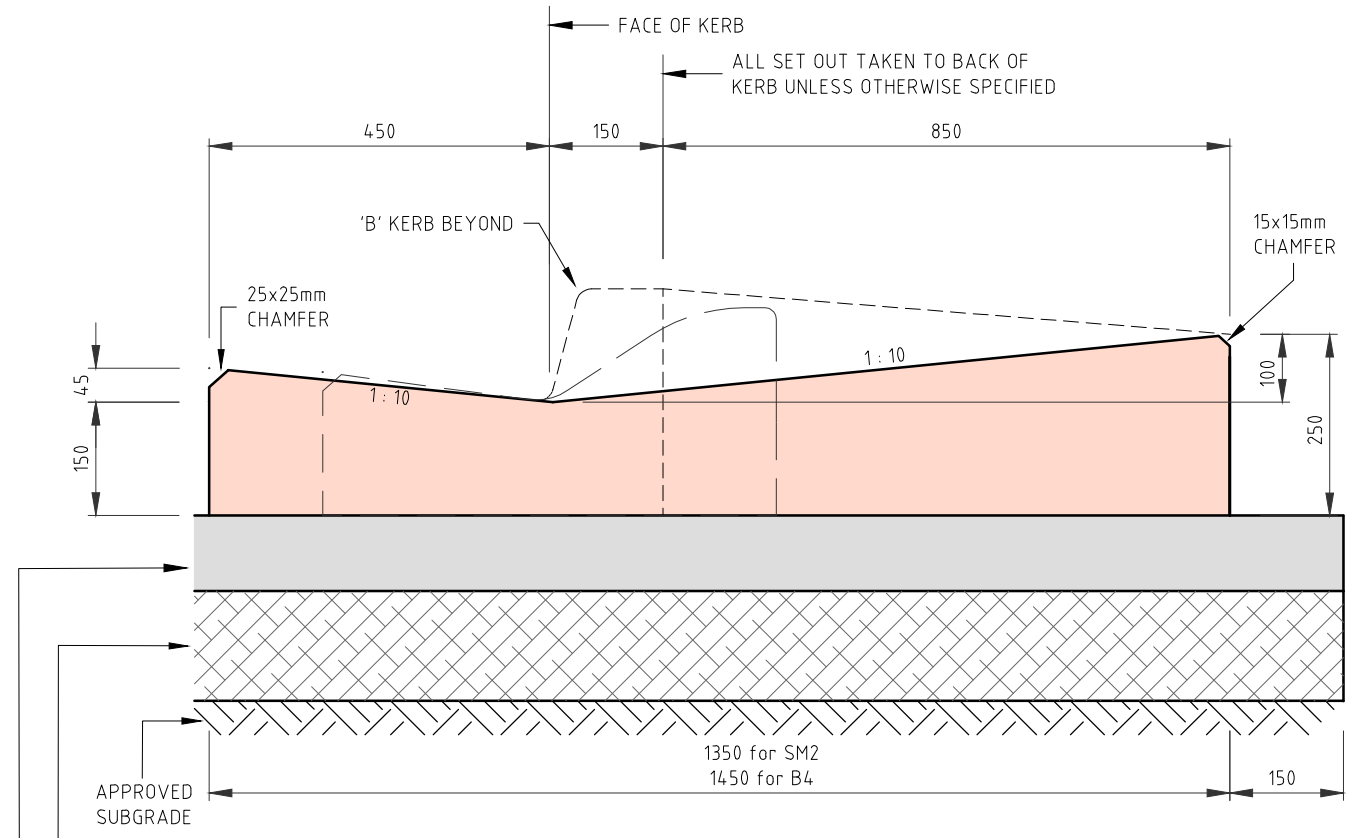
City of Greater Bendigo Standard Drawings

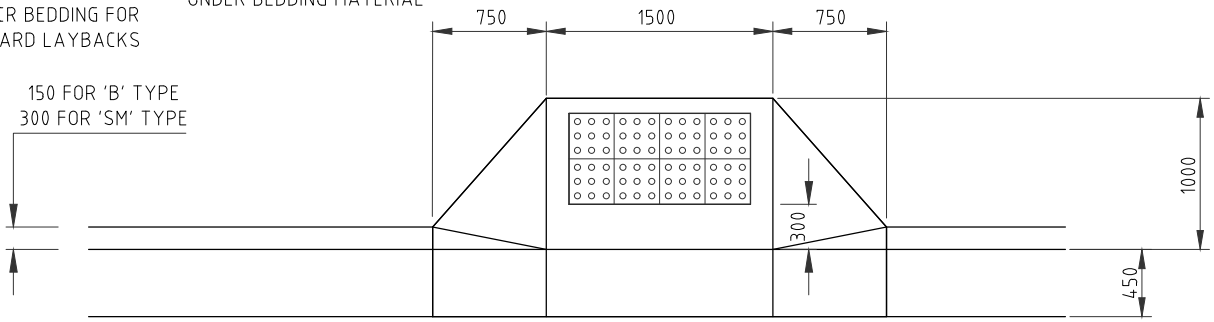
A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au

REVISION B
July 2019

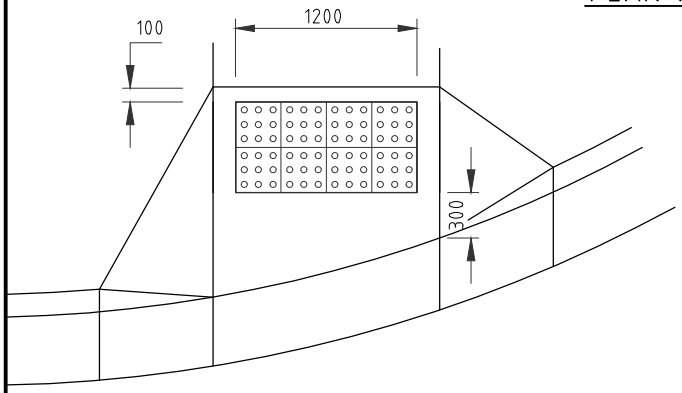
SD 191

SCALE 1:10





PLAN VIEW 1:50



LAYBACK ON CURVE

NOTES:

1. CONCRETE SHALL BE 25 MPa STANDARD STRENGTH GRADE COMPLYING WITH THE REQUIREMENTS OF AS. 1379.
2. CONCRETE TO BE TROWELLED THEN BROOM FINISH ON LAYBACK.
3. BEDDING TO BE COMPACTED CLASS 3 F.C.R. SUPPLIED BY THE CONTRACTOR UNLESS OTHERWISE DIRECTED.
4. TGSI's ARE TO BE FIBRE REINFORCED POLYMER INSTALLED IN ACCORDANCE WITH AS1428.4.
5. TGSI's ARE TO BE BLACK OR GREY ON WHITE CONCRETE
6. TGSI's ARE TO HAVE A SLIP RESISTANCE OF R12 IN ACCORDANCE WITH AS/NZS4586:2004 Appendix D – Oil-Wet
7. TGSI's ARE TO BE FIXED TO THE DESIGN SURFACE IN ONE OF TWO WAYS:
   - FIX USING BOTH CHEMICAL BOND (GLUE) AND MECHANICAL METHOD (SCREWS)
   - FIX BY MECHANICALLY ATTACHING TO CAST IN SITU REBATED FRAME

ALL MEASUREMENTS IN MILLIMETRES

PEDESTRIAN LAYBACK FOR "B4" KERB

City of Greater Bendigo Standard Drawings

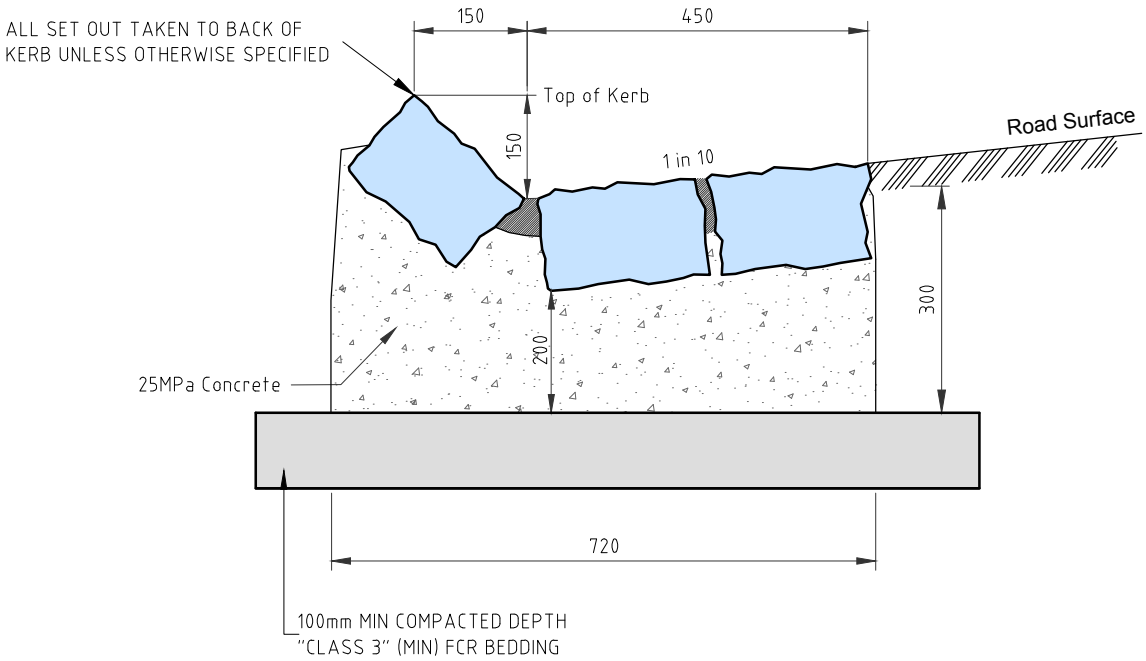
A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au

REVISION F
September 2020

SD 192

SCALE 1:10

GROUT MIX
- 5 parts fine sand
- 1 part GP cement
- Colour: Black



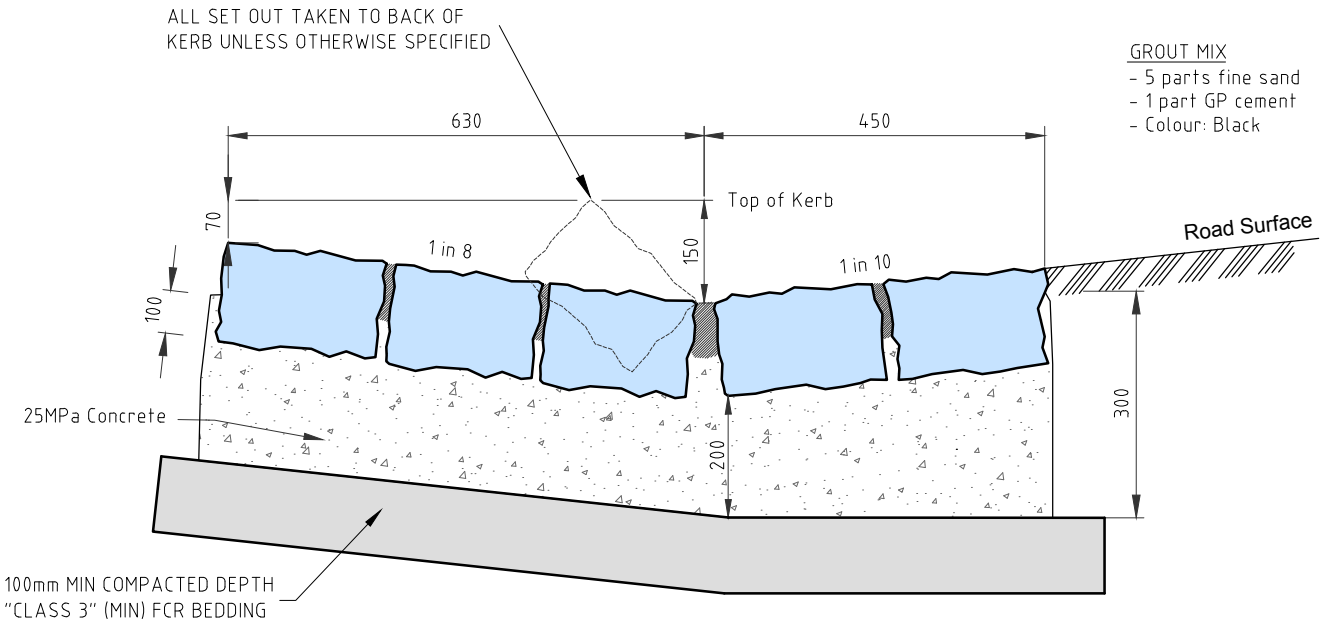
TYPICAL BLUESTONE KERB SECTION

NOTES:

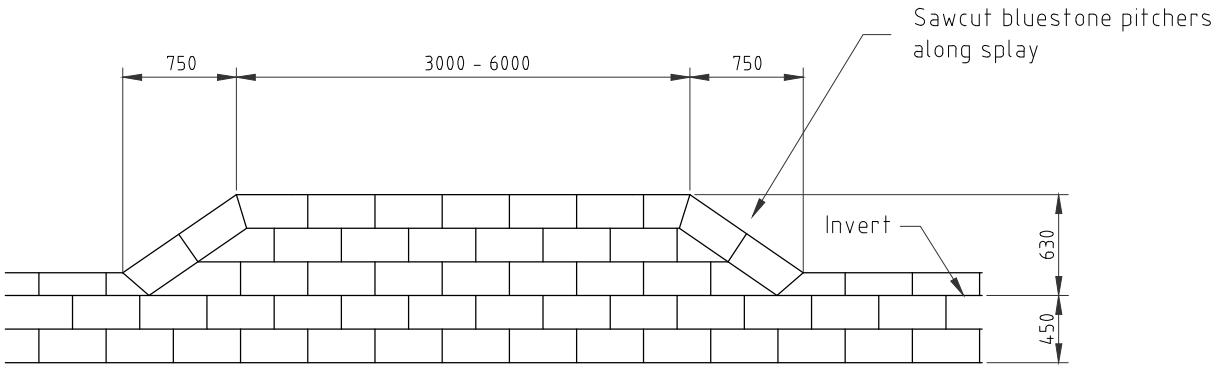
1. CLEAN AND REMOVE ALL FOREIGN MATERIAL FROM BLUESTONE PITCHER.
2. CONCRETE BASE TO HAVE MINIMUM DEPTH OF 300mm, STRENGTH 25MPa.
3. BLUESTONE PITCHERS TO BE BEDDED 100mm INTO CONCRETE BASE.
4. BEDDING TO BE COMPACTED CLASS 3 F.C.R. SUPPLIED BY THE CONTRACTOR UNLESS OTHERWISE DIRECTED.
5. JOINTS:
   MORTAR TO BE PLACED BETWEEN ALL JOINTS
   MORTAR SHALL BE TO A MINIMUM DEPTH OF 50mm AND FINISHED WITHIN 15mm FLUSH OF THE PITCHER SURFACE.
   JOINTS SHALL BE A MINIMUM WIDTH OF 10mm AND A MAXIMUM WIDTH OF 25mm.
6. PIT CONSTRUCTION SHALL BE IN ACCORDANCE WITH STANDARD DRAWINGS - LINTEL PIT COVER AND INSERT TO BE COLOURED SAME AS MORTAR JOINTS.
7. STORMWATER PIPES TO BE CONSTRUCTED IN ACCORDANCE WITH IDM S.D. 140 OR EQUIVALENT.

ALL MEASUREMENTS IN MILLIMETRES

	BLUESTONE KERB AND CHANNEL	REVISION B July 2019
	City of Greater Bendigo Standard Drawings	SD 193
	A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	SCALE 1:10



TYPICAL BLUESTONE KERB SECTION



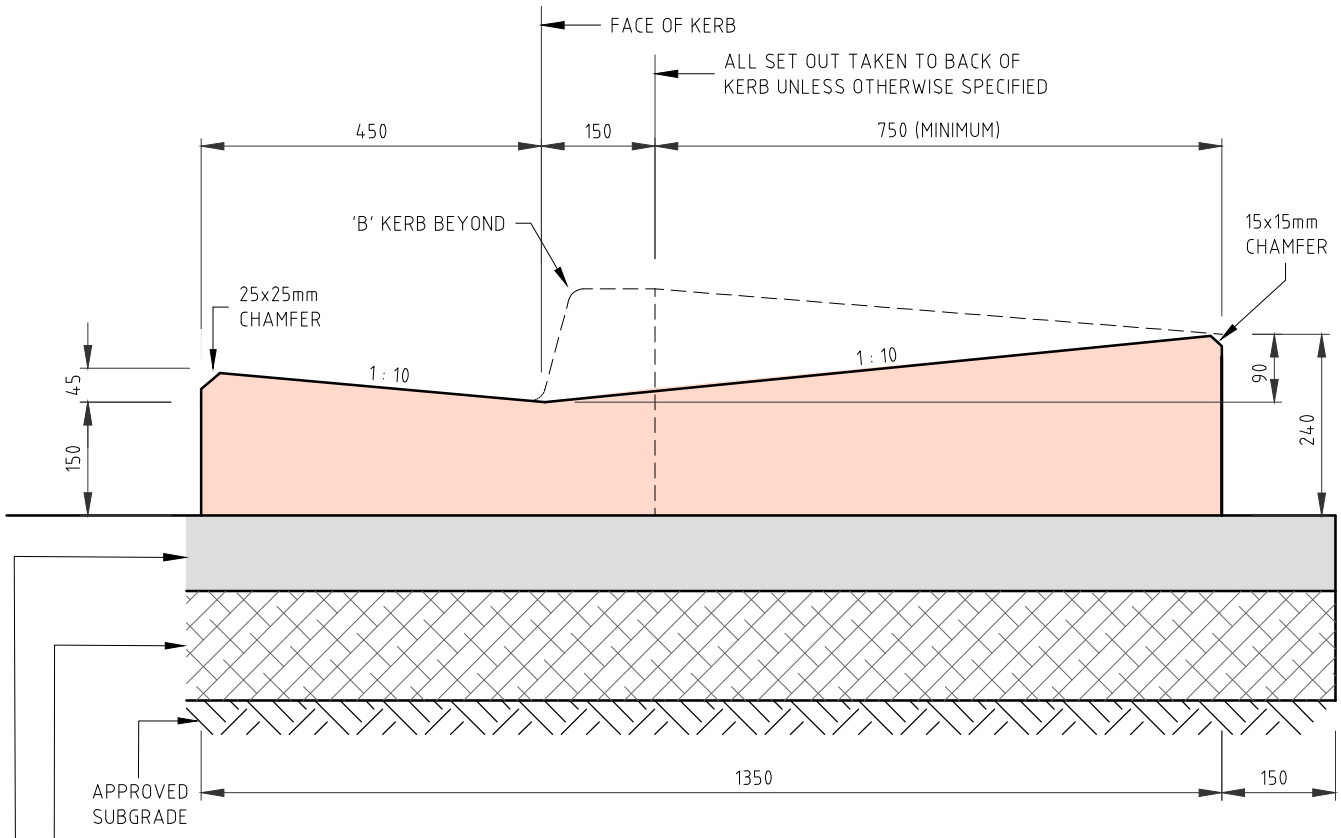
PLAN VIEW 1:50

NOTES:

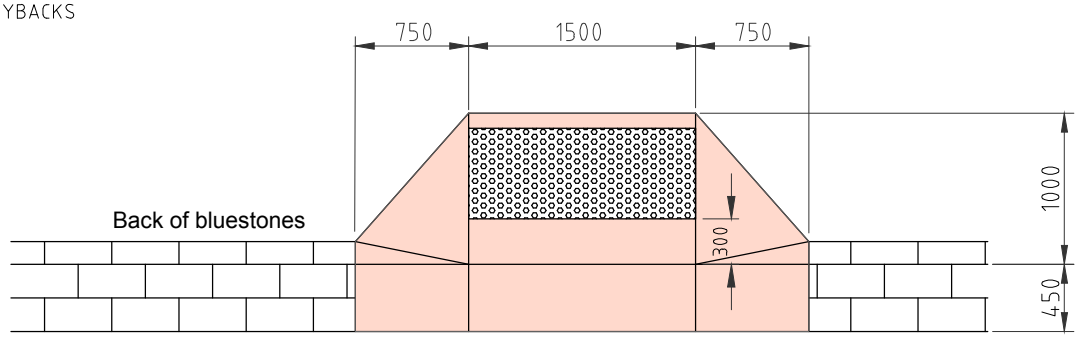
1. CLEAN AND REMOVE ALL FOREIGN MATERIAL FROM BLUESTONE PITCHER.
2. CONCRETE BASE TO HAVE MINIMUM DEPTH OF 300mm, STRENGTH 25MPa.
3. BLUESTONE PITCHERS TO BE BEDDED 100mm INTO CONCRETE BASE.
4. BEDDING TO BE COMPACTED CLASS 3 F.C.R. SUPPLIED BY THE CONTRACTOR UNLESS OTHERWISE DIRECTED.
5. JOINTS:
   MORTAR TO BE PLACED BETWEEN ALL JOINTS.
   MORTAR SHALL BE TO A MINIMUM DEPTH OF 50mm AND FINISHED WITHIN 15mm FLUSH OF THE PITCHER SURFACE.
   JOINTS SHALL BE A MINIMUM WIDTH OF 10mm AND A MAXIMUM WIDTH OF 25mm.

ALL MEASUREMENTS IN MILLIMETRES

	DRIVEWAY LAYBACK FOR BLUESTONE KERB AND CHANNEL	REVISION B July 2019
	City of Greater Bendigo Standard Drawings	SD 194
	A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	SCALE 1:10



TYPICAL SECTION



PLAN VIEW 1:50

NOTES:

1. CONCRETE SHALL BE 25 MPa STANDARD STRENGTH GRADE COMPLYING WITH THE REQUIREMENTS OF AS. 1379.
2. CONCRETE TO BE TROWELLED THEN BROOM FINISH ON LAYBACK.
3. BEDDING TO BE COMPACTED CLASS 3 F.C.R. SUPPLIED BY THE CONTRACTOR UNLESS OTHERWISE DIRECTED.
4. TGSI's ARE TO BE FIBRE REINFORCED POLYMER INSTALLED IN ACCORDANCE WITH AS1428.4.
5. TGSI's ARE TO BE WHITE WHEN ON BLACK CONCRETE
6. TGSI's ARE TO HAVE A SLIP RESISTANCE OF R12 IN ACCORDANCE WITH AS/NZS4586:2004 Appendix D - Oil-Wet
7. TGSI's ARE TO BE FIXED TO THE DESIGN SURFACE IN ONE OF TWO WAYS:
   - FIX USING BOTH CHEMICAL BOND (GLUE) AND MECHANICAL METHOD (SCREWS)
   - FIX BY MECHANICALLY ATTACHING TO CAST IN SITU REBATED FRAME

ALL MEASUREMENTS IN MILLIMETRES

PEDESTRIAN LAYBACK (BLACK CONCRETE) FOR BLUESTONE KERB AND CHANNEL

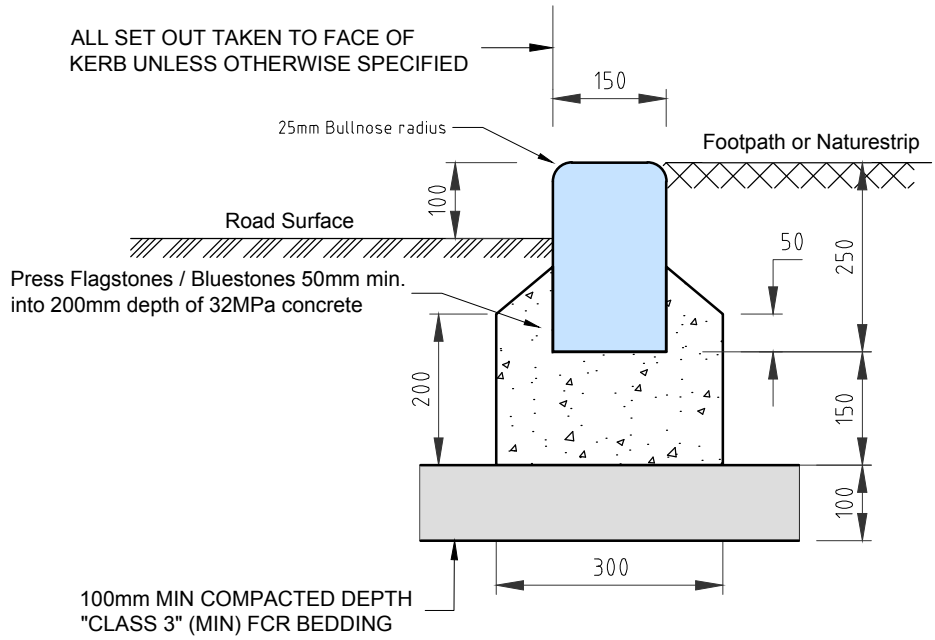
City of Greater Bendigo Standard Drawings

A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au

REVISION C
July 2019

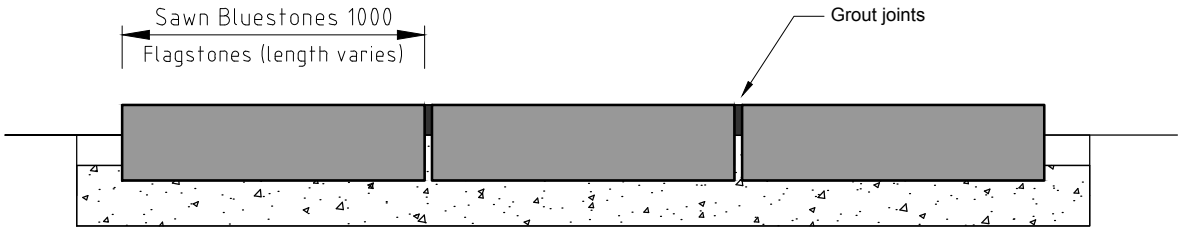
SD 195

SCALE 1:10



TYPICAL FLAGSTONE / SAWN BLUESTONE KERB SECTION

GROUT MIX
- 5 parts fine sand
- 1 part GP cement
- Colour: Black



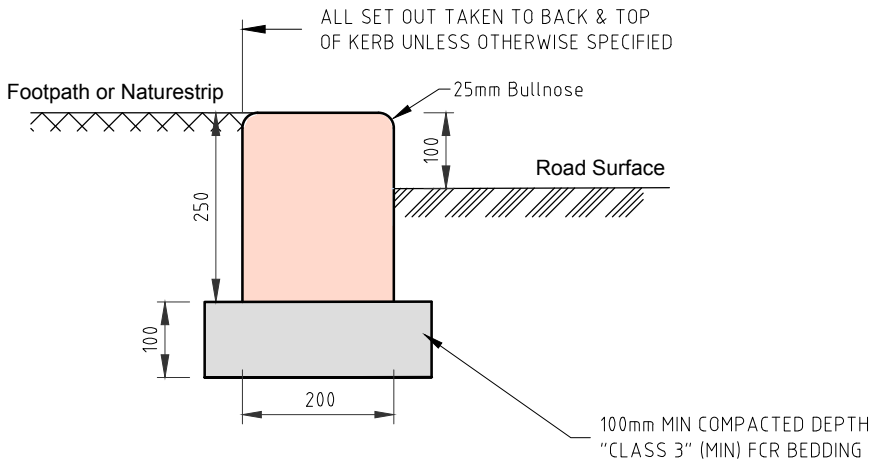
ELEVATION VIEW 1:25

NOTES:

1. CLEAN AND REMOVE ALL FOREIGN MATERIAL FROM FLAGSTONES.
2. CONCRETE BASE TO HAVE MINIMUM DEPTH OF 300mm, STRENGTH 25MPa.
3. FLAGSTONES TO BE BEDDED 50mm INTO CONCRETE BASE.
4. BEDDING TO BE COMPACTED CLASS 3 F.C.R. SUPPLIED BY THE CONTRACTOR UNLESS OTHERWISE DIRECTED.
5. JOINTS:
   MORTAR TO BE PLACED BETWEEN ALL JOINTS.
   MORTAR SHALL BE TO A MINIMUM DEPTH OF 50mm AND FINISHED WITHIN 15mm FLUSH OF THE PITCHER SURFACE.
   JOINTS SHALL BE A MINIMUM WIDTH OF 10mm AND A MAXIMUM WIDTH OF 25mm.
6. PIT CONSTRUCTION SHALL BE IN ACCORDANCE WITH STANDARD DRAWINGS - LINTEL PIT COVER AND INSERT TO BE COLOURED SAME AS MORTAR JOINTS.
7. STORMWATER PIPES TO BE CONSTRUCTED IN ACCORDANCE WITH IDM S.D. 140 OR EQUIVALENT.

ALL MEASUREMENTS IN MILLIMETRES

	FLAGSTONE / SAWN BLUESTONE KERB	REVISION B July 2019
	City of Greater Bendigo Standard Drawings	SD 196
	A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	SCALE 1:10



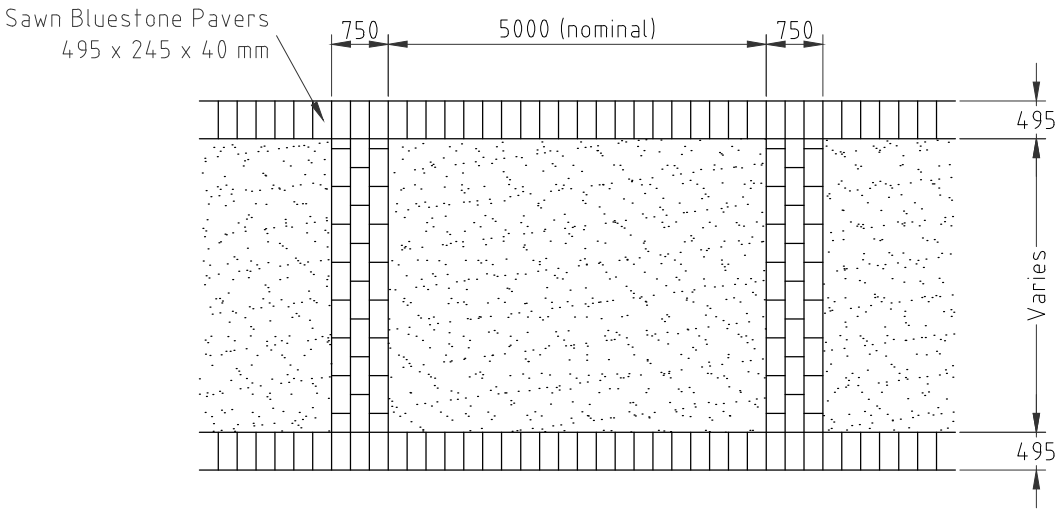
TYPICAL CONCRETE PLINTH SECTION

NOTES:

1. CONCRETE SHALL BE NORMAL N25 STANDARD STRENGTH GRADE COMPLYING WITH THE REQUIREMENTS OF AS. 1379. CONCRETE TO BE COLOURED BLACK FOR TOTAL DEPTH.
2. CONSTRUCTION JOINTS TO BE LOCATED AT INTERVALS BETWEEN 1000mm - 1200mm, 75mm MINIMUM DEPTH.
3. BEDDING TO BE COMPACTED CLASS 3 F.C.R. SUPPLIED BY THE CONTRACTOR UNLESS OTHERWISE DIRECTED (AS PER IDM SD110).

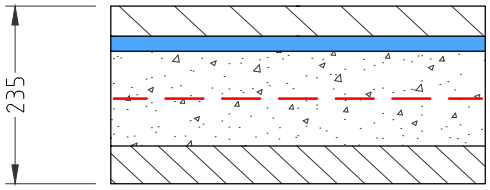
ALL MEASUREMENTS IN MILLIMETRES

	BLACK CONCRETE PLINTH KERB	REVISION B July 2019
	City of Greater Bendigo Standard Drawings	SD 197
	A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	SCALE 1:10



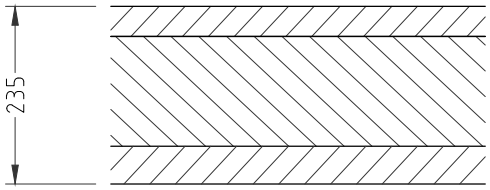
MORTAR MIX
- 20 parts fine sand
- 4 parts GP cement
- 1 part Lime
- 1 Litre Bond-crete
- 30ml of Plasticiser

FOOTPATH DETAIL (1:100)



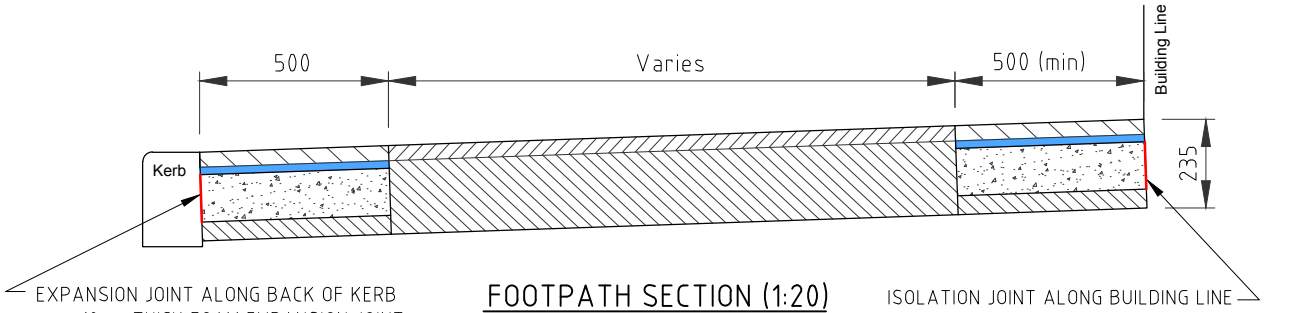
- 40mm sawn bluestone paver (495x245x40)
  or 40mm Harcourt Granite paver (495x495x40)
- 20mm mortar (see mortar mix details)
- 125mm 25MPa concrete slab with central L8TM400
- 50mm compacted CL3 FCR
- Concrete slab to have expansion joints as per IDM SD210

PAVER SECTION DETAIL (1:10)



- 40mm Type L asphalt (7mm stone)
- 145mm depth CL3 FCR compacted to 98%MMDD
- 50mm compacted CL3 FCR compacted to 95%SMDD
- Under Driveways, the 50mm bed layer to be 3% cement treated FCR

ASPHALT SECTION DETAIL (1:10)



EXPANSION JOINT ALONG BACK OF KERB
- 10mm THICK FOAM EXPANSION JOINT
- PAVERS AND MORTAR TO GO OVER JOINT

FOOTPATH SECTION (1:20)

ISOLATION JOINT ALONG BUILDING LINE
- 10mm THICK FOAM EXPANSION JOINT
- PAVERS AND MORTAR TO GO OVER JOINT

NOTES:

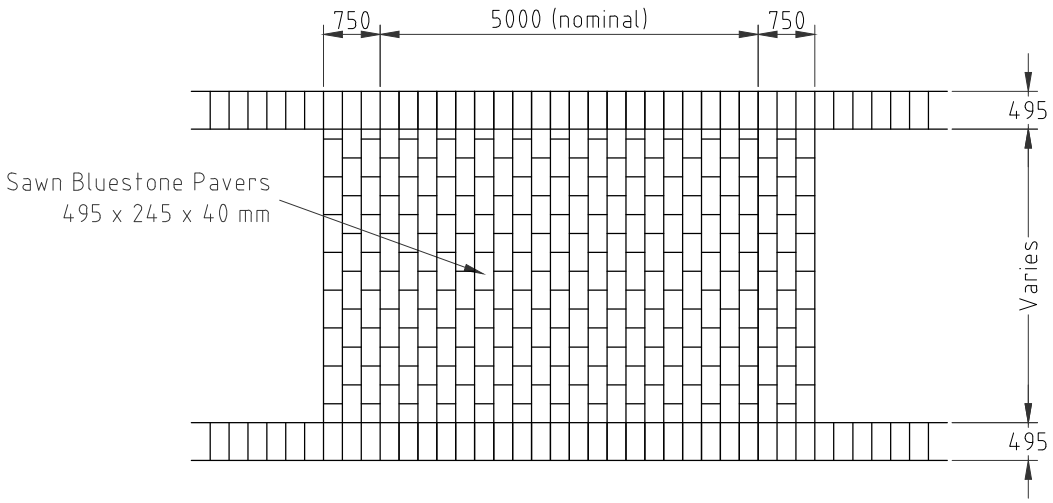
1. JOINTS BETWEEN PAVERS TO BE 5 mm.
2. BLUESTONE PAVERS TO HAVE 2mm CHAMFER ALONG EDGES.

GROUT MIX
- 5 parts fine sand
- 1 part GP cement
- Colour: Black

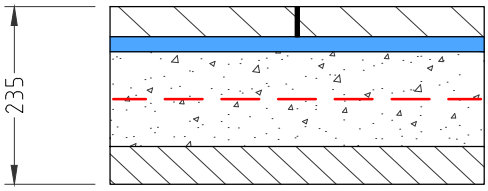
ALL MEASUREMENTS IN MILLIMETRES

	CBD BLUESTONE BANDING FOOTPATH	REVISION B August 2020
	City of Greater Bendigo Standard Drawings	SD 290
	A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	As shown

MORTAR MIX
- 20 parts fine sand
- 4 parts GP cement
- 1 part Lime
- 1 Litre Bond-crete
- 30ml of Plasticiser
- Colour: Black

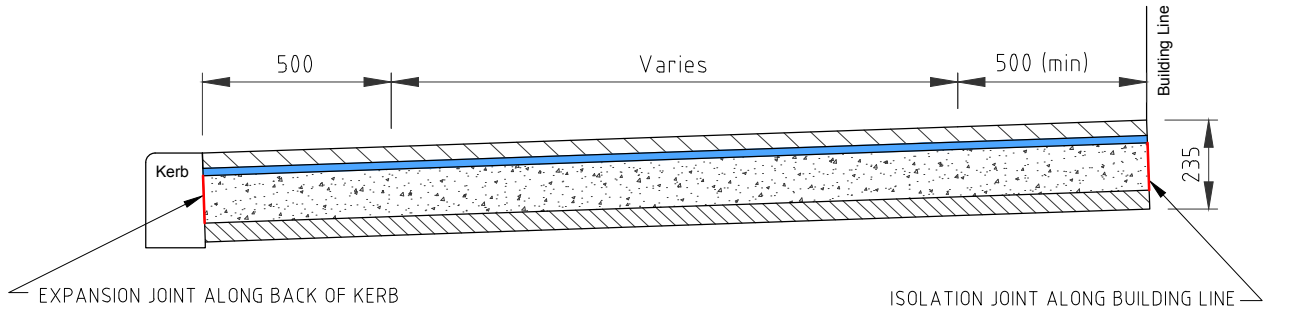


FOOTPATH DETAIL (1:100)



- 40mm sawn bluestone paver (495x245x40)
  or 40mm Harcourt Granite paver (495x495x40)
- 20mm mortar (see mortar mix details)
- 125mm 25MPa concrete slab with central SL72
- 50mm compacted CL1 FCR
- Concrete slab to have expansion joints as per IDM SD210

PAVER SECTION DETAIL (1:10)



EXPANSION JOINT ALONG BACK OF KERB
- 10mm THICK FOAM EXPANSION JOINT
- PAVERS AND MORTAR TO GO OVER JOINT

ISOLATION JOINT ALONG BUILDING LINE
- 10mm THICK FOAM EXPANSION JOINT
- PAVERS AND MORTAR TO GO OVER JOINT

FOOTPATH SECTION (1:20)

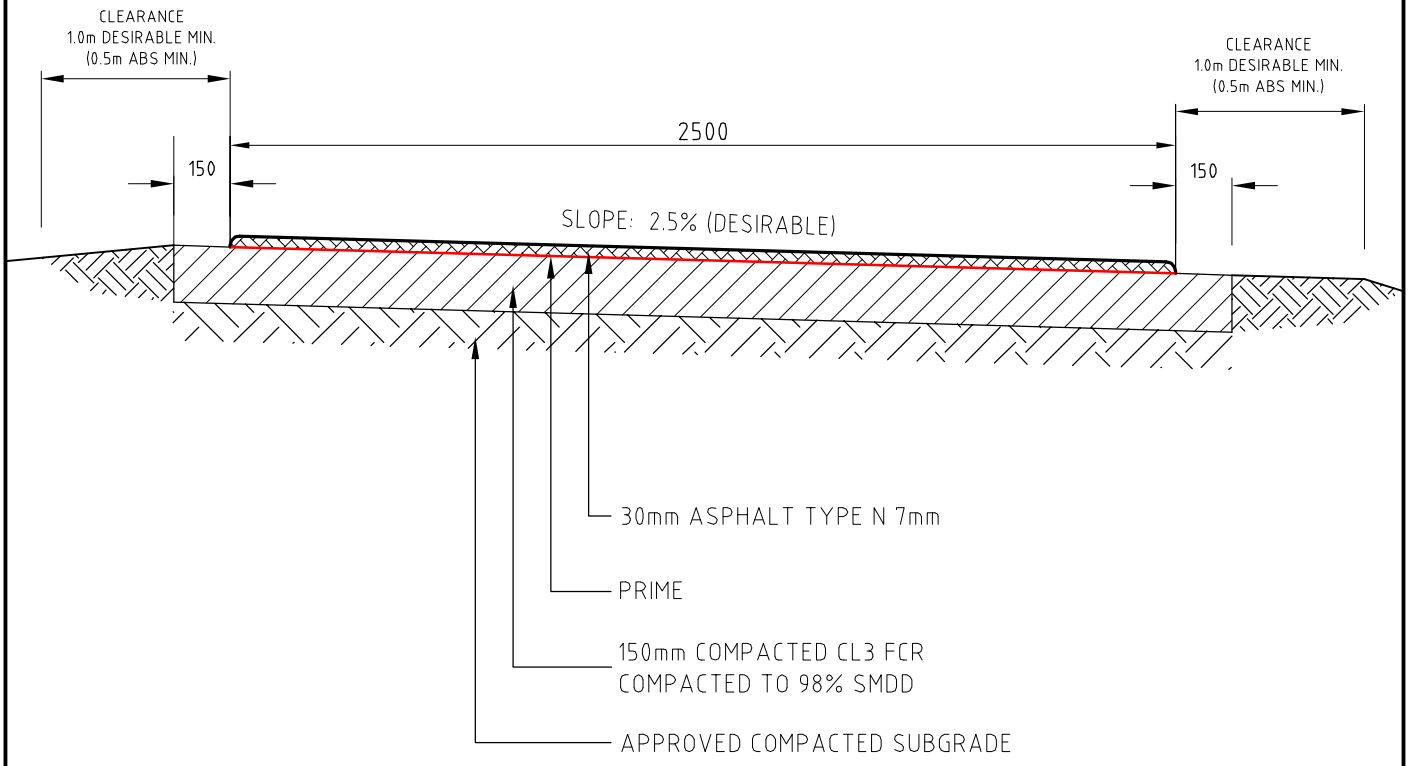
NOTES:

1. JOINTS BETWEEN PAVERS TO BE 5 mm.
2. BLUESTONE PAVERS TO HAVE 2mm CHAMFER ALONG EDGES.

GROUT MIX
- 5 parts fine sand
- 1 part GP cement
- Colour: Black

ALL MEASUREMENTS IN MILLIMETRES

	CBD BLUESTONE FOOTPATH	REVISION B August 2020
	City of Greater Bendigo Standard Drawings	SD 291
	A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	As shown



NOTES:

1. AUSTROADS GUIDELINES RECOMMENDS 1.0m LATERAL CLEARANCE (0.5M ABSOLUTE MIN.) BETWEEN THE BICYCLE OPERATING ENVELOPE AND OBJECTS BESIDE THE PATH. A LESS CLEARANCE SHOULD ONLY BE USED WHERE SAFE AND WHERE UNAVOIDABLE.
2. OBSTACLES BESIDE PATHS INCLUDE BUSHES, CULVERT END WALLS, TREES AND LARGE ROCKS USED IN LANDSCAPING. PROVIDED THE DESIGN AND END TREATMENTS ARE APPROPRIATE, OR WHERE EXTENUATING CIRCUMSTANCES EXIST, A LESSER CLEARANCE MAY BE ACCEPTABLE FOR FENCES AND OTHER OBSTACLES THAT HAVE SMOOTH FEATURES AND ARE ALIGNED PARALLEL TO THE PATH (0.3m ABSOLUTE MINIMUM).

ALL MEASUREMENTS IN MILLIMETRES

ASPHALT SHARED PATH

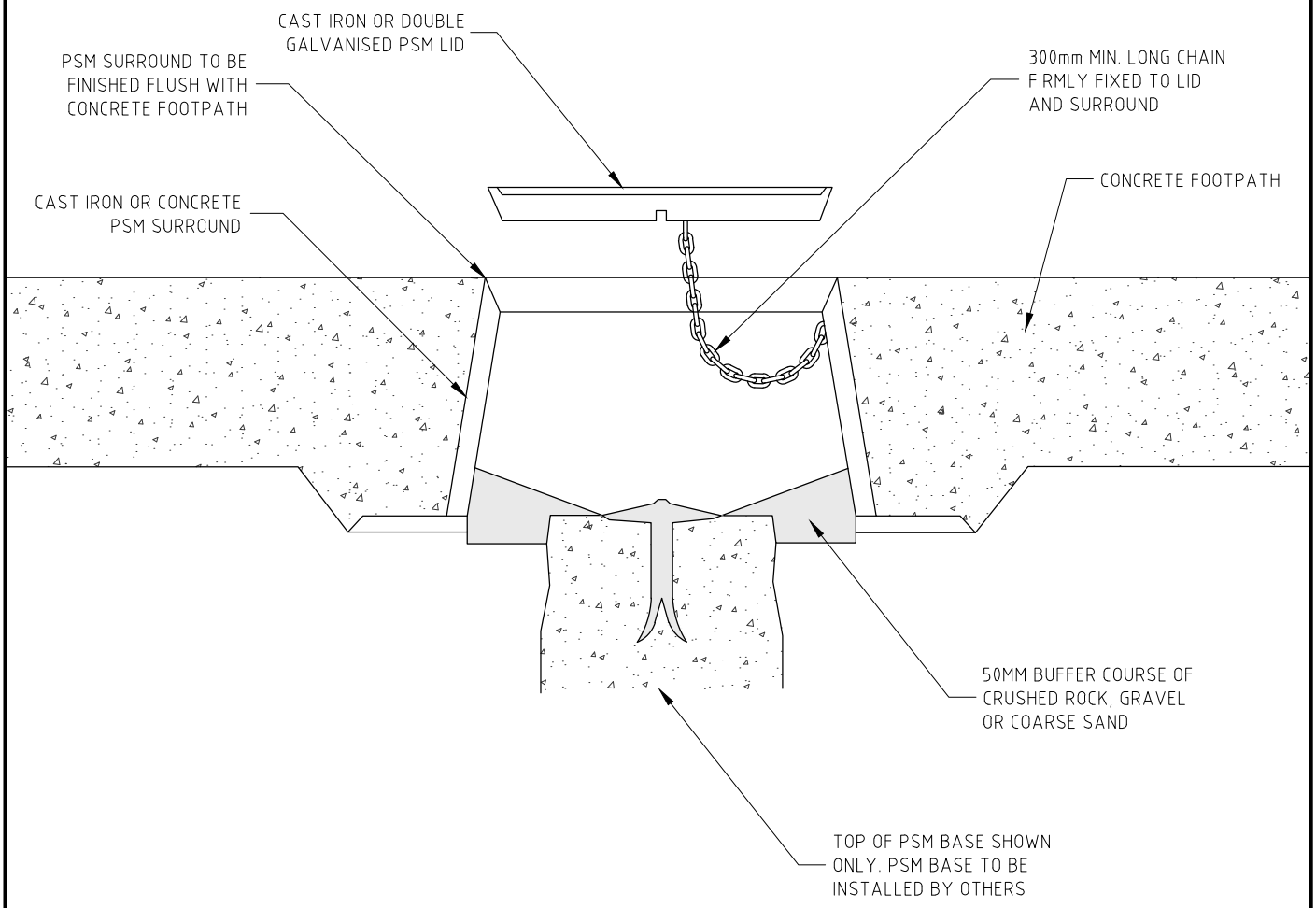
City of Greater Bendigo Standard Drawings

A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au

REVISION A

SD 292

Scale 1 : 20



NOTES:

1. THE PSM SURROUND IS NOT TO BE PHYSICALLY CONNECTED TO THE CONCRETE PSM BASE.
2. ANY SQUARE CAST IRON SURROUND AND COVER IN GOOD CONDITION CAN BE REUSED.
3. ANY OLD ROUND PSM SURROUNDS/COVERS ARE NOT TO BE REUSED, BUT BE REPLACED BY NEW SQUARE CONCRETE SURROUND WITH DOUBLE GALVANISED COVER.

ALL MEASUREMENTS IN MILLIMETRES

PSM COVER & SURROUND

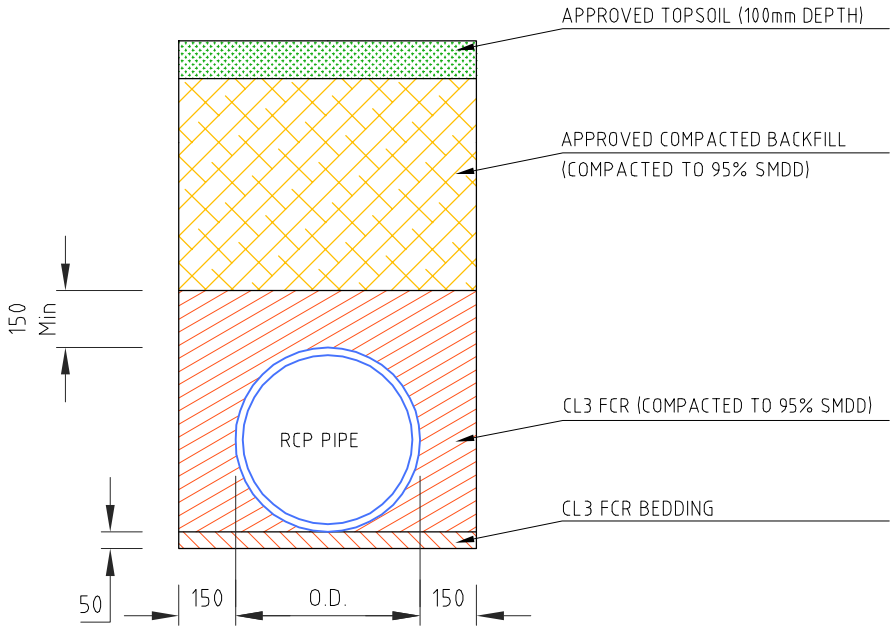
City of Greater Bendigo Standard Drawings

A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au

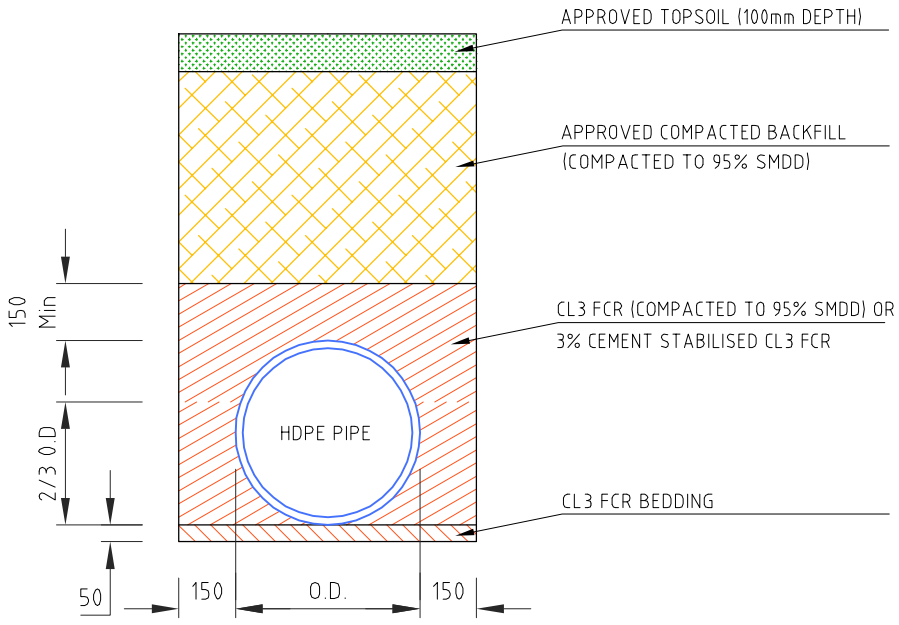
REVISION A
August 2021

SD 293

SCALE: NTS



RCP DRAINAGE PIPE TRENCH BACKFILL DETAIL
NON HARD SURFACE AREAS



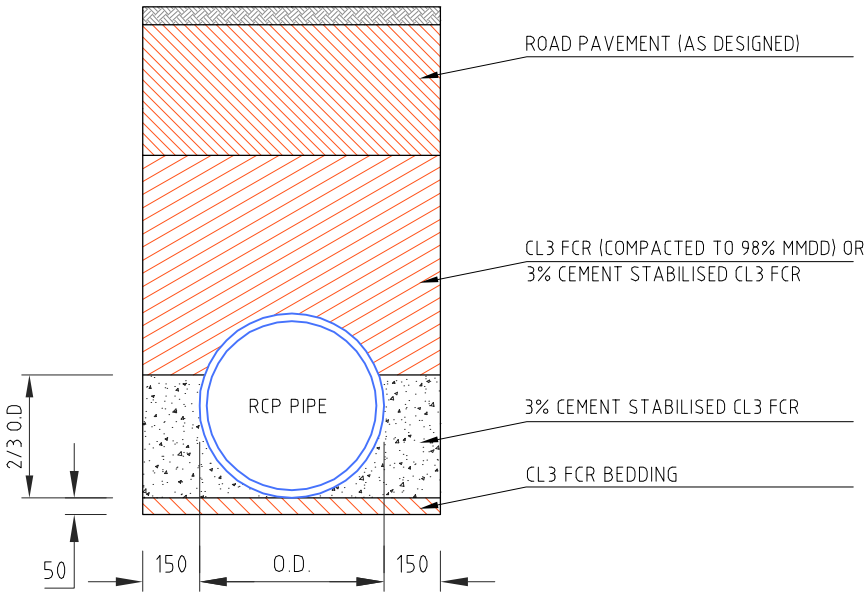
HDPE DRAINAGE PIPE TRENCH BACKFILL DETAIL
NON HARD SURFACE AREAS

NOTES:

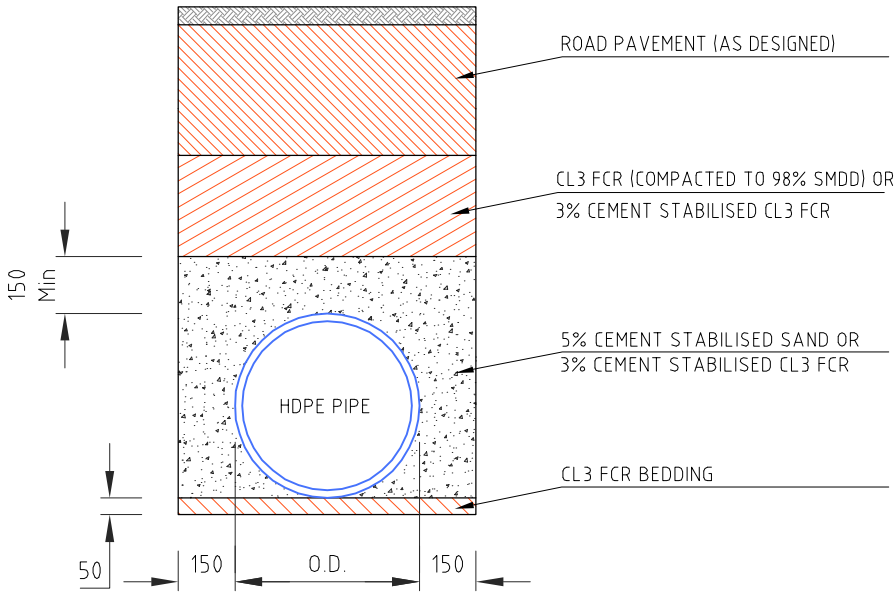
1. BACKFILL TO BE COMPACTED IN 300mm LAYERS.
2. 50mm MINIMUM DEPTH CONSOLIDATED CL3 FCR BEDDING.
3. IF TRENCH DEPTH IS OVER 1500mm THEN TRENCH MUST COMPLY WITH AUSTRALIAN STANDARD TRENCHING REGULATIONS.
4. TRENCHES SHALL ACHIEVE THE SPECIFIED COMPACTION VALUE WITHOUT EXCEPTION. THE MUNICIPAL ENGINEER RESERVES THE RIGHT TO REQUEST COMPACTION TESTING AT THE CONTRACTORS EXPENSE.

ALL MEASUREMENTS IN MILLIMETRES

DRAINAGE PIPE TRENCH BACKFILL COMPACTED FILL NON HARD SURFACE AREAS	REVISION A
City of Greater Bendigo Standard Drawings	SD 390
A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	Scale 1 : 20



RCP DRAINAGE PIPE TRENCH BACKFILL DETAIL
UNDER NEW ROAD / KERB / FOOTPATH
COMPACTED FCR OR STABLISED BACKFILL



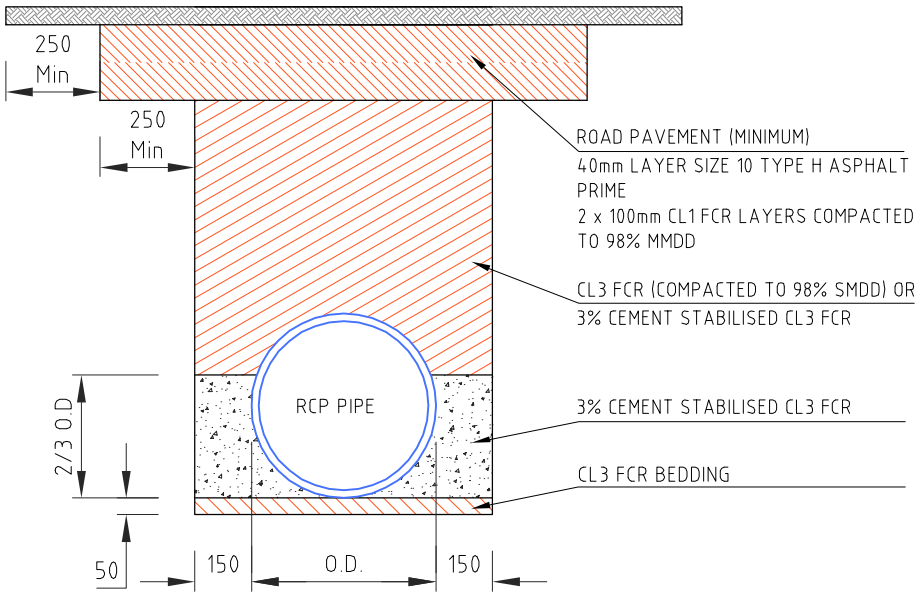
HDPE DRAINAGE PIPE TRENCH BACKFILL DETAIL
UNDER NEW ROAD / KERB / FOOTPATH
COMPACTED FCR OR STABILISED BACKFILL

NOTES:

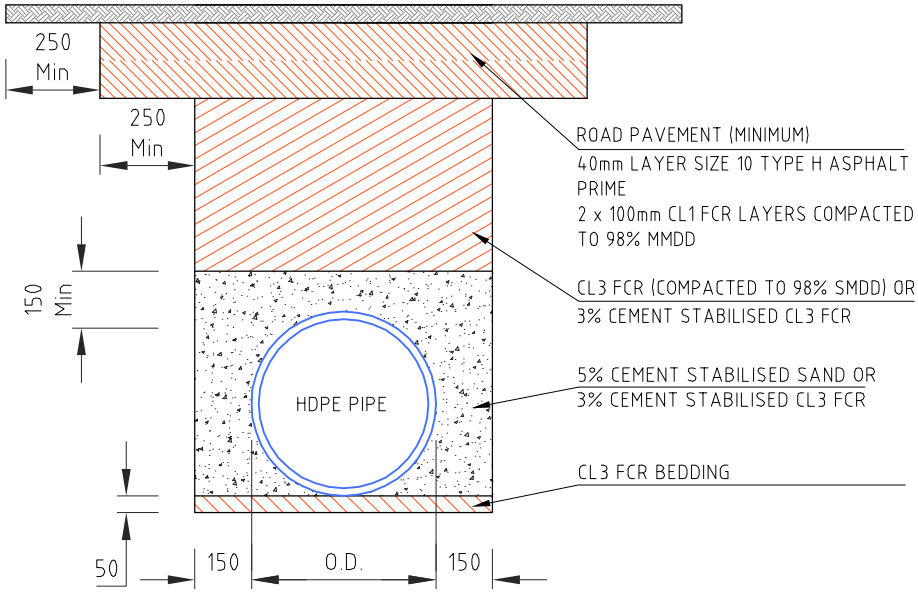
1. BACKFILL TO BE COMPACTED IN 300mm LAYERS.
2. 50mm MINIMUM DEPTH CONSOLIDATED CL3 FCR BEDDING.
3. IF TRENCH DEPTH IS OVER 1500mm THEN TRENCH MUST COMPLY WITH AUSTRALIAN STANDARD TRENCHING REGULATIONS.
4. TRENCHES SHALL ACHIEVE THE SPECIFIED COMPACTION VALUE WITHOUT EXCEPTION. THE MUNICIPAL ENGINEER RESERVES THE RIGHT TO REQUEST COMPACTION TESTING AT THE CONTRACTORS EXPENSE.

ALL MEASUREMENTS IN MILLIMETRES

DRAINAGE PIPE TRENCH BACKFILL UNDER NEW ROAD/ KERB/FOOTPATH	REVISION A
City of Greater Bendigo Standard Drawings	SD 391
A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	Scale 1 : 20



RCP DRAINAGE PIPE TRENCH BACKFILL DETAIL
UNDER EXISTING ROAD PAVEMENT
COMPACTED FCR OR STABLISED BACKFILL



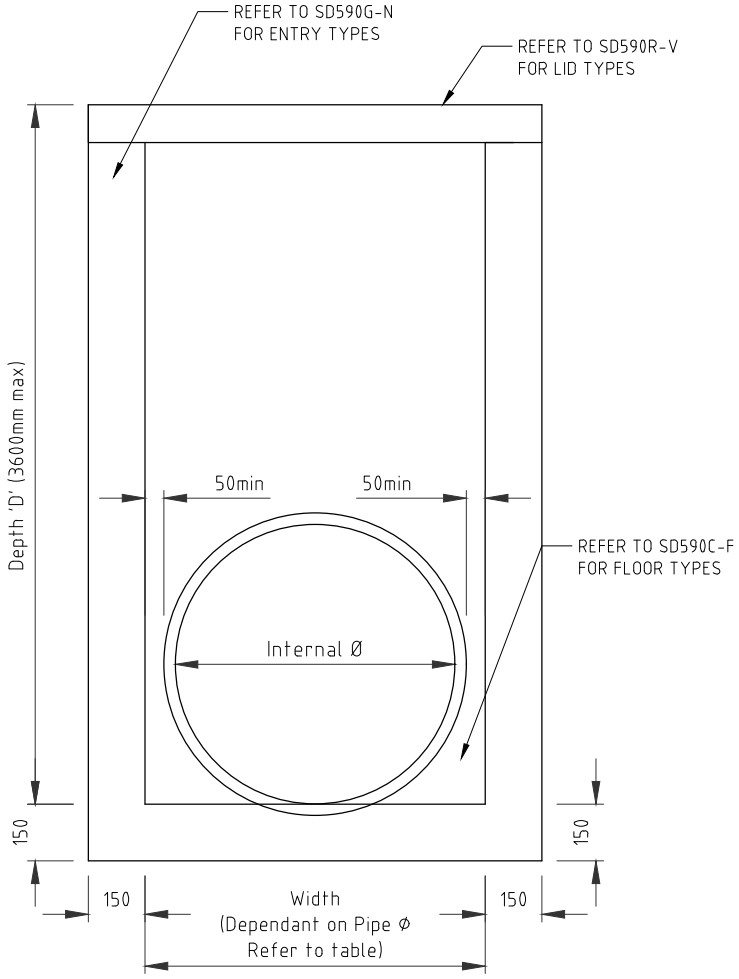
HDPE DRAINAGE PIPE TRENCH BACKFILL DETAIL
UNDER EXISTING ROAD PAVEMENT
COMPACTED FCR OR STABLISED BACKFILL

NOTES:

1. BACKFILL TO BE COMPACTED IN 300mm LAYERS.
2. 50mm MINIMUM DEPTH CONSOLIDATED CL3 FCR BEDDING.
3. IF TRENCH DEPTH IS OVER 1500mm THEN TRENCH MUST COMPLY WITH AUSTRALIAN STANDARD TRENCHING REGULATIONS.
4. TRENCHES SHALL ACHIEVE THE SPECIFIED COMPACTION VALUE WITHOUT EXCEPTION. THE MUNICIPAL ENGINEER RESERVES THE RIGHT TO REQUEST COMPACTION TESTING AT THE CONTRACTORS EXPENSE.

ALL MEASUREMENTS IN MILLIMETRES

	DRAINAGE PIPE TRENCH BACKFILL UNDER EXISTING ROAD	REVISION A
	City of Greater Bendigo Standard Drawings	SD 392
	A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	Scale 1 : 20



UNHAUNCHED PIT

Pits up to 3600 Depth

Referencing Pit Types

When referencing pits the following format should be followed (see table below):
SD590-"A"-"C"-"G"-"R".
"A" refers to HAUNCHING type,
"C" refers to the FLOOR type,
"G" refers to the INLET type and
"R" refers to the LID type.

DRAINAGE PITS	
HAUNCHING	
Un-haunched	590-A
Haunched	590-B
FLOOR TYPE	
Flat floor	590-C
Shaped 25% of pipe Ø	590-D
Shaped 50% of pipe Ø	590-E
Shaped full ht of pipe Ø	590-F
INLET TYPE	
Side Entry	590-G
EKI - Standard	590-H
EKI - Existing Pit	590-I
EKI - Existing Pipe in N/S	590-J
Tray Grate	590-K
No kerb Inlet	590-L
Jail Cell Grate	590-M
Basket	590-N
EKI - Existing Pipe in Road	590-O
LID TYPE	
Concrete with insert	590-R
Cast Iron / Steel	590-S
Fibreglass	590-T
Grate (flat)	590-U
Bike Safe Weave Grate	590-V

Notes

1. If pit width is 450mm, maximum depth to be 1000mm.
2. Pipes greater than 450mm may require haunching, refer to SD590B.
3. Either fibre or reinforcement bars can be used for pit reinforcement. If reinforcement bars are used, reinforcement bars shall have 300mm min laps, clear cover to be 50mm min. & corner return reinforcement may be fabric or equivalent bars.
4. Concrete strength 25MPa. (min) at 28 days.

Pit Sizing

Diameter (mm)	Width (mm)
150	450
225	450
300	600
375	600
450	600
525	900

ALL MEASUREMENTS IN MILLIMETRES

UNHAUNCHED PIT

City of Greater Bendigo Standard Drawings

A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au

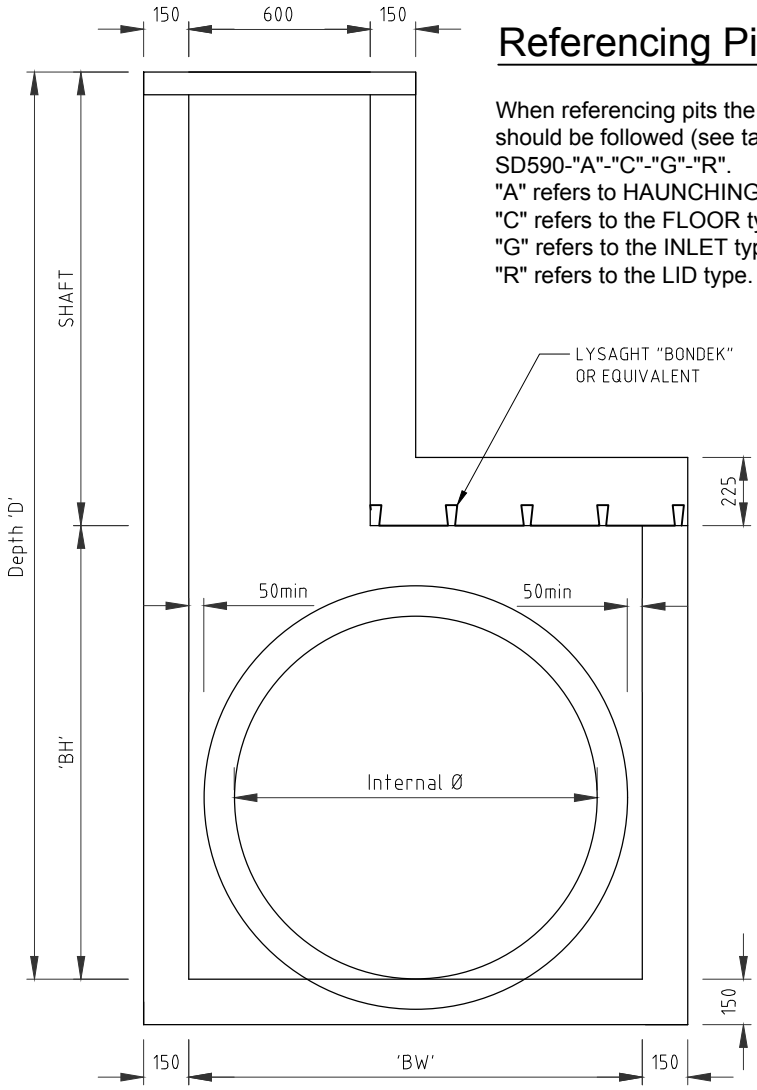
REVISION B

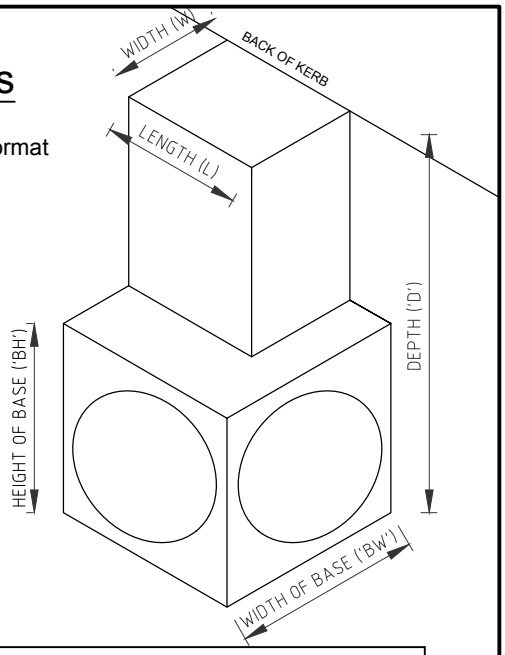
SD 590A

Scale 1 : 20

Referencing Pit Types

When referencing pits the following format should be followed (see table below):
SD590-"A"-"C"-"G"-"R".
"A" refers to HAUNCHING type,
"C" refers to the FLOOR type,
"G" refers to the INLET type and
"R" refers to the LID type.





DRAINAGE PITS	
HAUNCHING	
Un-haunched	590-A
Haunched	590-B
FLOOR TYPE	
Flat floor	590-C
Shaped 25% of pipe Ø	590-D
Shaped 50% of pipe Ø	590-E
Shaped full ht of pipe Ø	590-F
INLET TYPE	
Side Entry	590-G
EKI - Standard	590-H
EKI - Existing Pit	590-I
EKI - Existing Pipe in N/S	590-J
Tray Grate	590-K
No kerb Inlet	590-L
Jail Cell Grate	590-M
Basket	590-N
EKI - Existing Pipe in Road	590-O
LID TYPE	
Concrete with insert	590-R
Cast Iron / Steel	590-S
Fibreglass	590-T
Grate (flat)	590-U
Bike Safe Weave Grate	590-V

Notes

1. For pipes less than 525mm diameter, refer to SD580A.
2. Pits with Haunching in two directions require special structural design.
3. For details on specific lid types, floor types and entry types refer to SD590A-H, SD590L-O and SD590T-W.
4. Concrete Strength 25MPa (min) at 28 days.
5. Dimensions 'BW' and 'BH' are to be used unless noted otherwise

Pit Sizing

Diameter (mm)	BW & BH (mm)
525	900
600	900
675	900
750	900
825	900
900	1200
975	1200
1050	1200
1125	1200
1200	1500

ALL MEASUREMENTS IN MILLIMETRES

HAUNCHED PIT

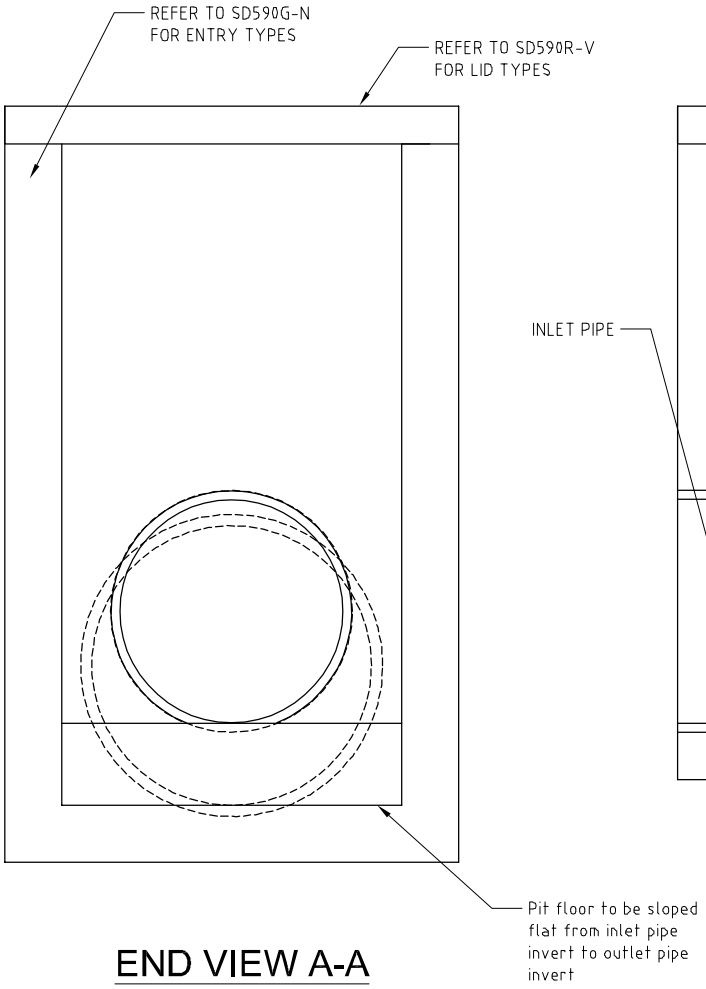
City of Greater Bendigo Standard Drawings

A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au

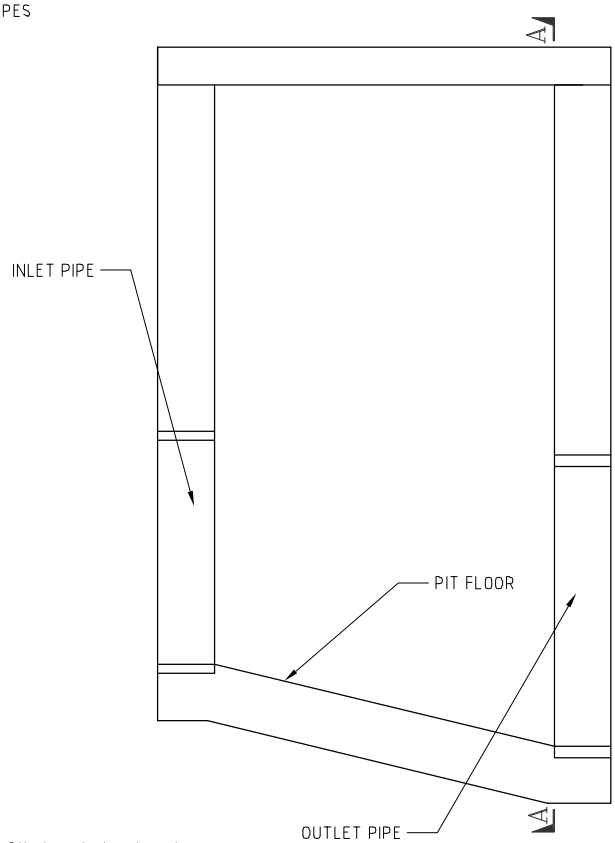
REVISION B

SD 590B

Scale 1 : 25



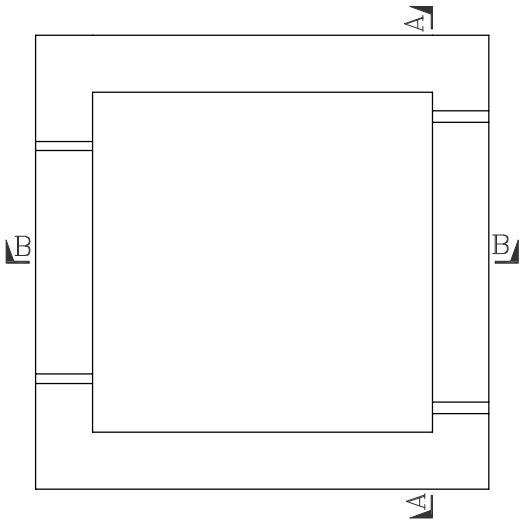
END VIEW A-A



SIDE VIEW B-B

Notes

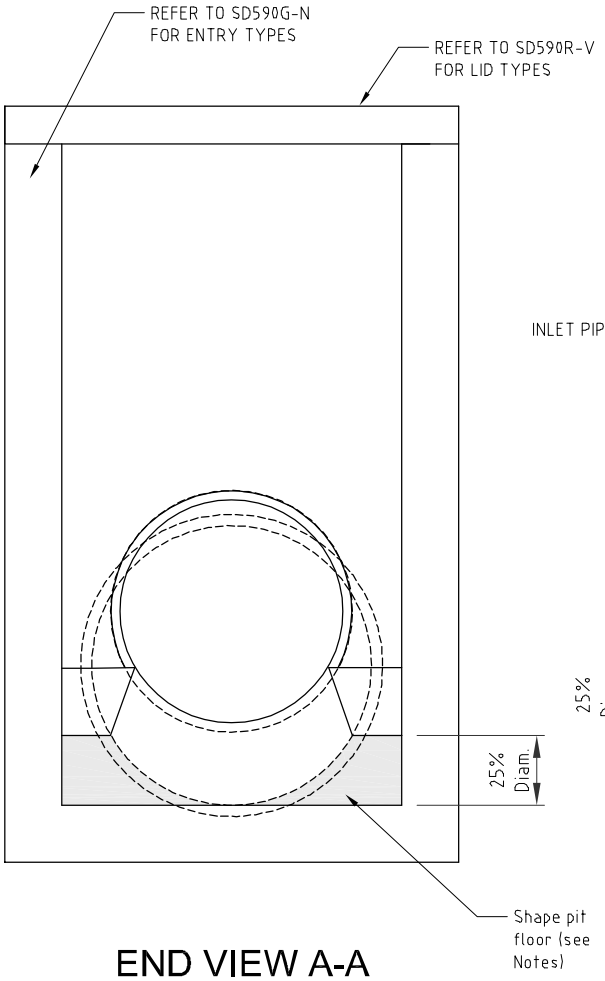
1. Pit floor to be sloped flat from inlet pipe invert to outlet pipe invert
2. Pipes greater than 450mm may require haunching, refer to SD590B.
4. Construct pit floor using 25MPa. concrete with adequate vibration to ensure solid form.
5. The pit floor to be either trowelled, or bagged to a smooth finish.



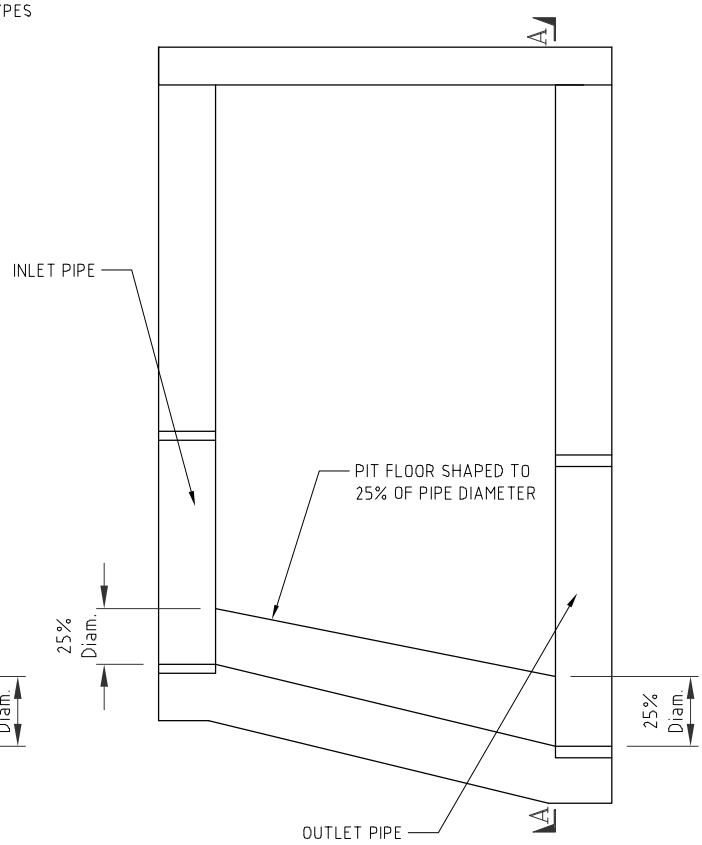
PLAN VIEW

ALL MEASUREMENTS IN MILLIMETRES

	FLAT PIT FLOOR	REVISION A
	City of Greater Bendigo Standard Drawings	SD 590C
	A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	Scale 1 : 20



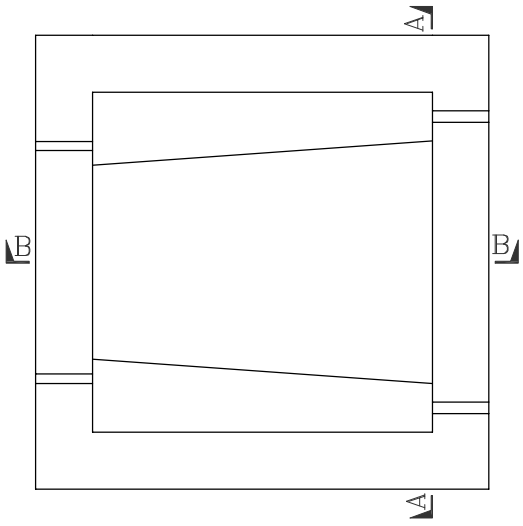
END VIEW A-A



SIDE VIEW B-B

Notes

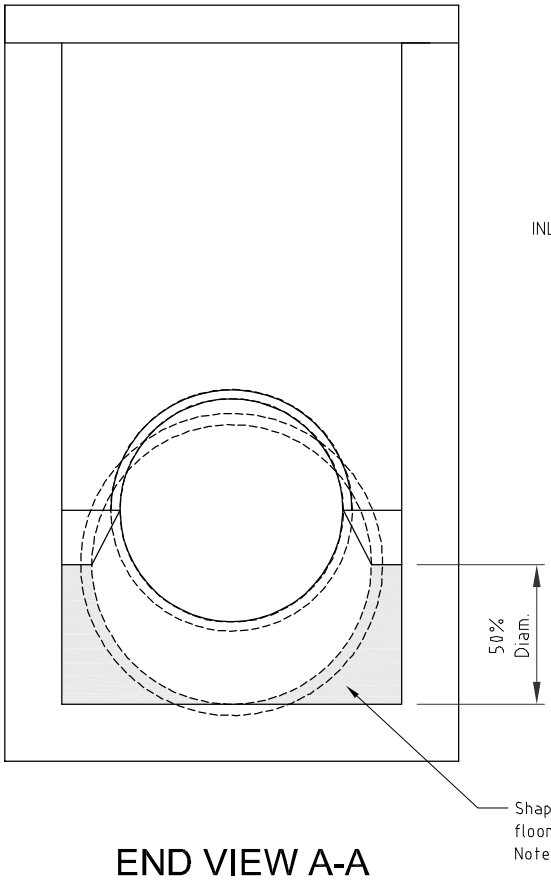
1. Pit floor to be shaped smoothly to 25% the height of the pipes from inlet pipe invert to outlet pipe invert.
2. If pipes are of different sizes, shaping to transition uniformly over length of pit.
3. Pipes greater than 450mm may require haunching, refer to SD590B.
4. Construct pit floor using 25MPa. concrete with adequate vibration to ensure solid form.
5. The pit floor shape to be either trowelled, or bagged to a smooth finish.



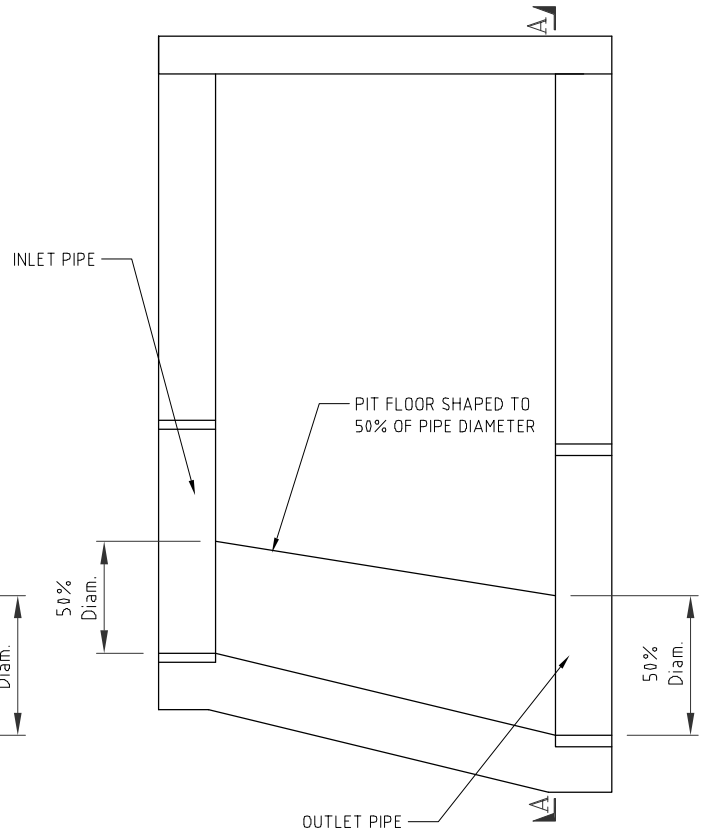
PLAN VIEW

ALL MEASUREMENTS IN MILLIMETRES

Shaped 25% of pipe Ø PIT FLOOR	REVISION A
City of Greater Bendigo Standard Drawings	SD 590D
A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	Scale 1 : 20



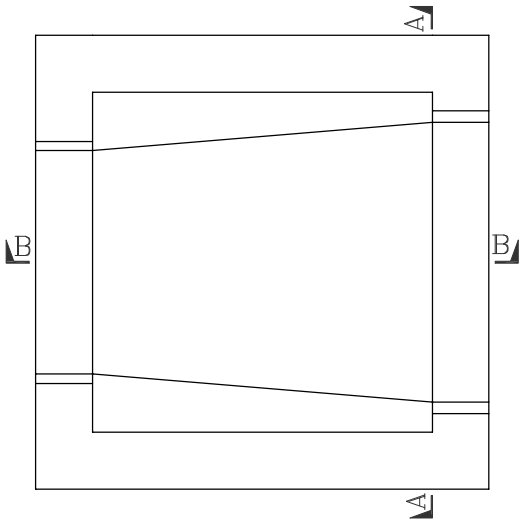
END VIEW A-A



SIDE VIEW B-B

Notes

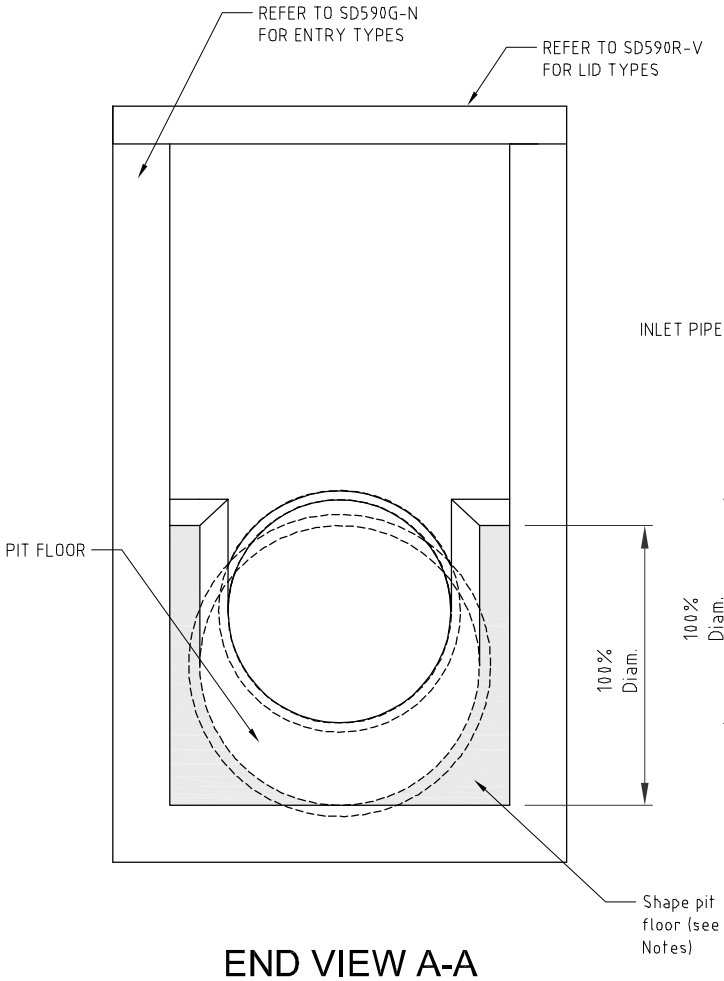
1. Pit floor to be shaped smoothly to 50% the height of the pipes from inlet pipe invert to outlet pipe invert.
2. If pipes are of different sizes, shaping to transition uniformly over length of pit.
3. Pipes greater than 450mm may require haunching, refer to SD590B.
4. Construct pit floor using 25MPa. concrete with adequate vibration to ensure solid form.
5. The pit floor shape to be either trowelled, or bagged to a smooth finish.



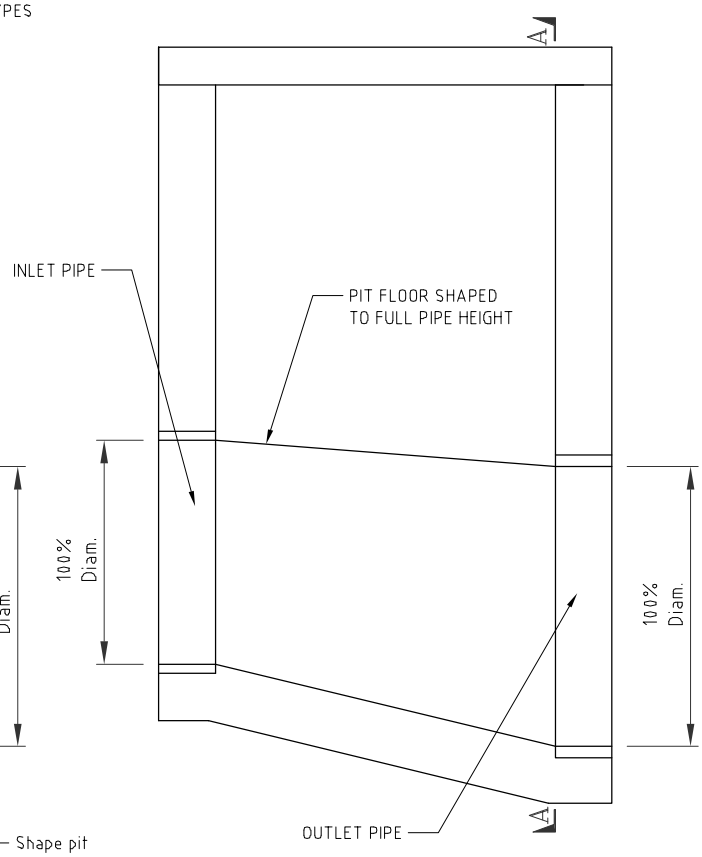
PLAN VIEW

ALL MEASUREMENTS IN MILLIMETRES

	Shaped 50% of pipe Ø PIT FLOOR	REVISION A
	City of Greater Bendigo Standard Drawings	SD 590E
	A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	Scale 1 : 20



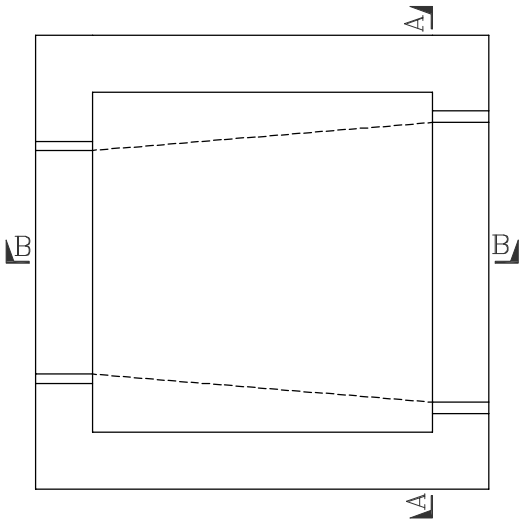
END VIEW A-A



SIDE VIEW B-B

Notes

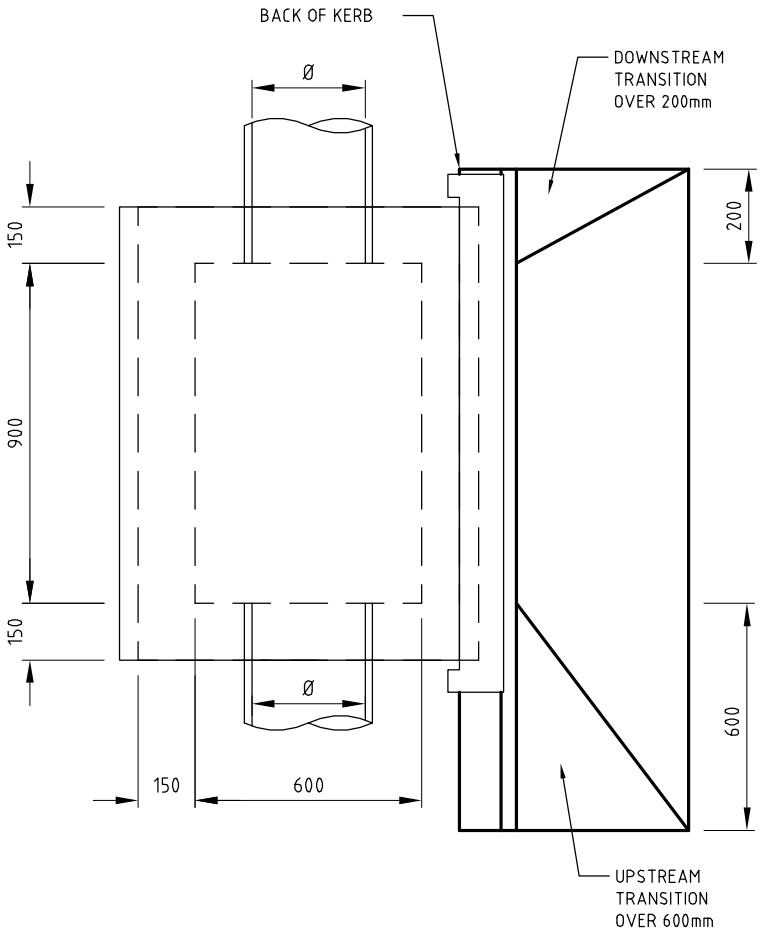
1. Pit floor to be shaped smoothly to 50% the height of the pipes from inlet pipe invert to outlet pipe invert and then to extend vertically to the obvert of the pipes.
2. If pipes are of different sizes, shaping to transition uniformly over length of pit.
3. Pipes greater than 450mm may require haunching, refer to SD590B.
4. Construct pit floor using 25MPa. concrete with adequate vibration to ensure solid form.
5. The pit floor shape to be either trowelled, or bagged to a smooth finish.

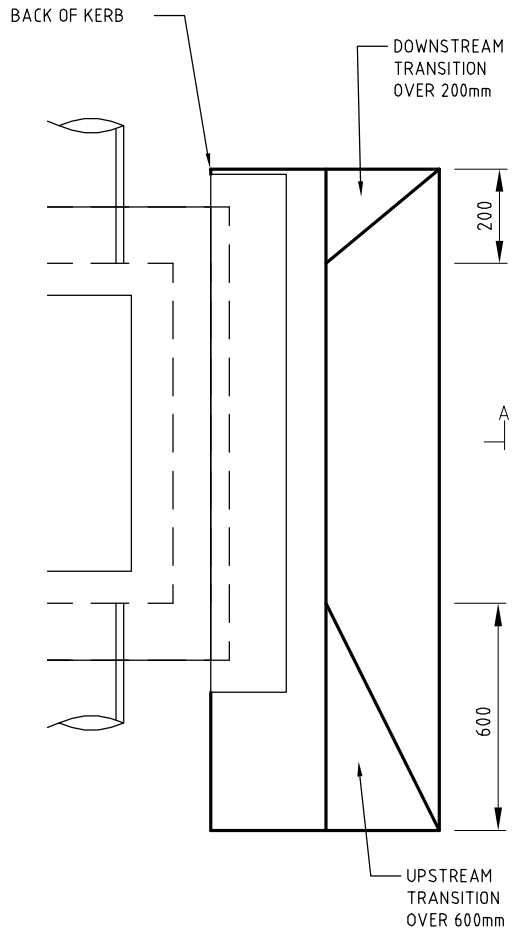


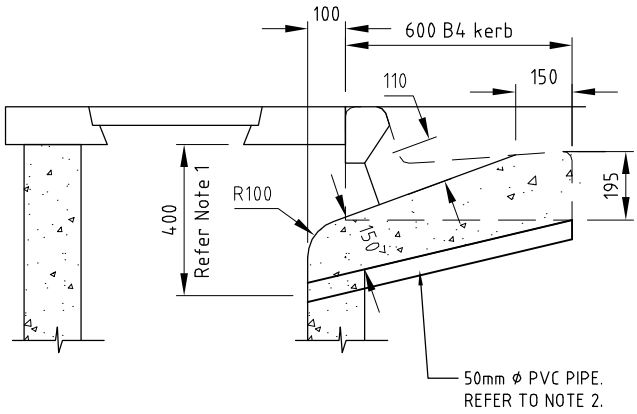
PLAN VIEW

ALL MEASUREMENTS IN MILLIMETRES

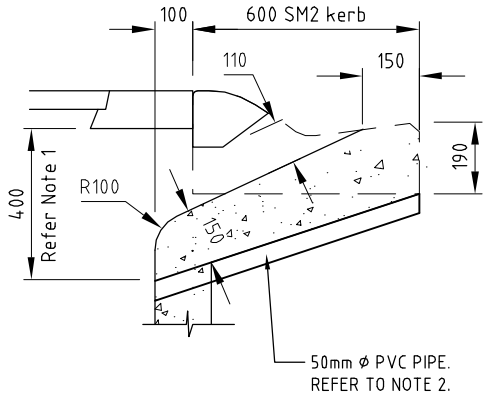
	Shaped Full Height of pipe Ø PIT FLOOR	REVISION A
	City of Greater Bendigo Standard Drawings	SD 590F
	A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	Scale 1 : 20







BARRIER KERB (B4)



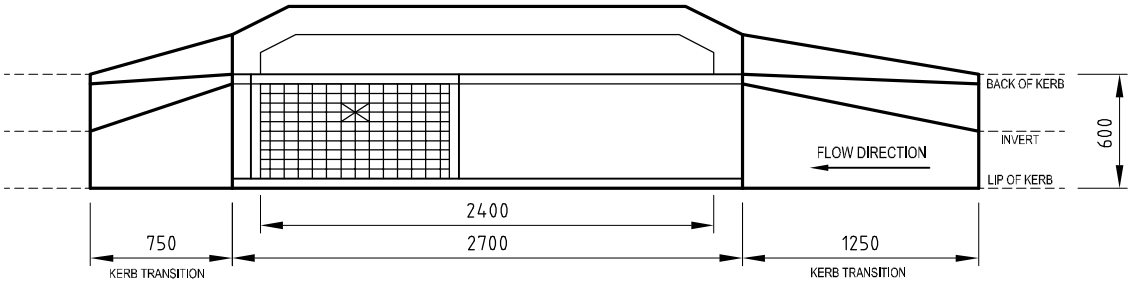
SEMI-MOUNTABLE KERB

NOTES:

1. PIT TO BE CONSTRUCTED IN TWO STAGES. FRONT OF PIT (400mm DEPTH) NOT TO BE CONSTRUCTED DURING STAGE 1. LINTEL AND PIT OPENING TO BE CONSTRUCTED IN STAGE 2.
2. WHERE PIT IS LOCATED IN A LOW POINT, INSTALL 50mm ø PVC PIPE WITH STAGE 2 WORKS (TO ALLOW FOR WATER TO DRAIN FROM PAVEMENT AREA).
3. FOR PIPE DIAMETERS GREAT THAN 450mm REFER TO CoGB SD590B FOR HAUNCHING DETAILS.
4. CONCRETE STRENGTH 25MPa.

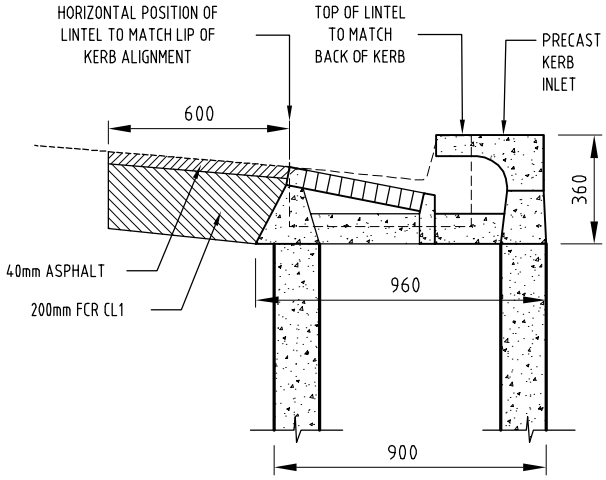
ALL MEASUREMENTS IN MILLIMETRES

	SIDE ENTRY PIT CONCRETE LINTEL	REVISION A
	City of Greater Bendigo Standard Drawings	SD 590G
	A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	Scale 1 : 20



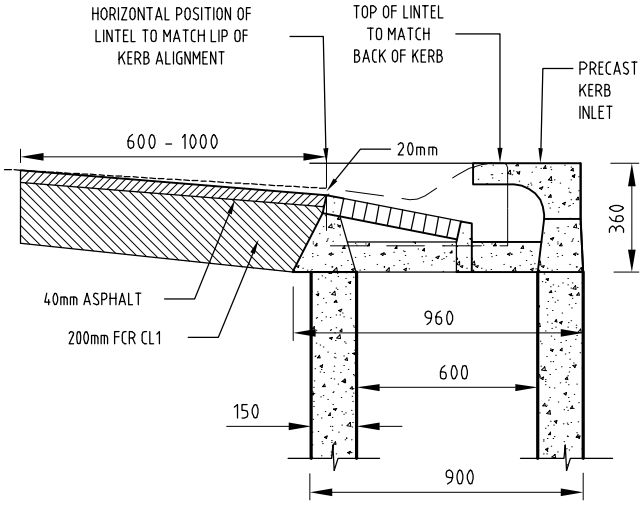
PLAN VIEW

EKI (L) is shown above



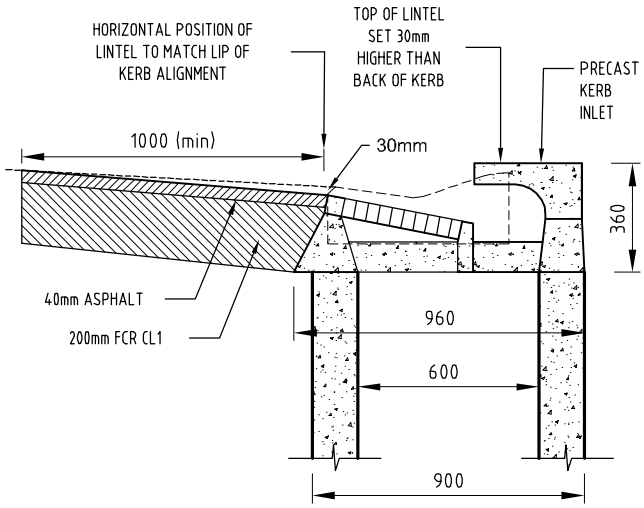
BARRIER KERB

Scale 1 : 25



SM2 KERB

Scale 1 : 25



SM2-M KERB

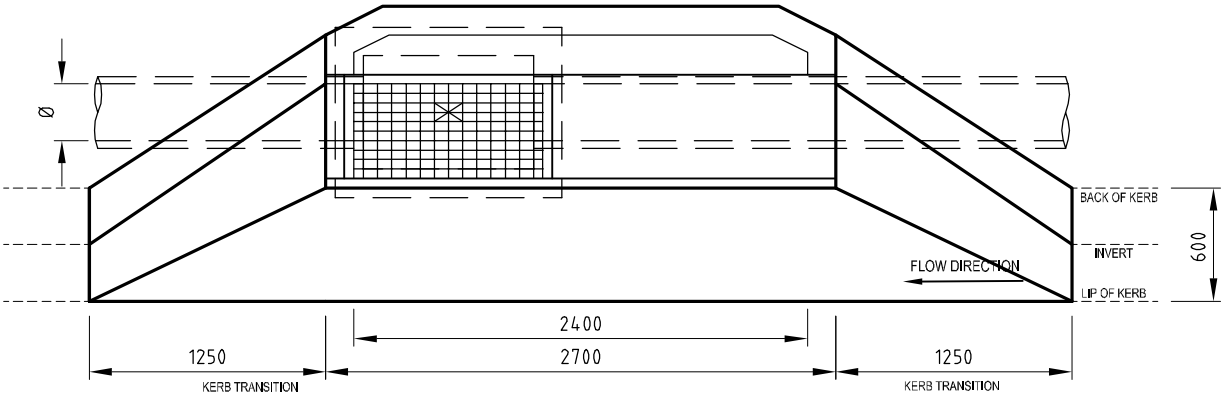
Scale 1 : 25

NOTES:

1. PIT TO BE CONSTRUCTED 380mm BELOW TOP OF PIT. THIS ALLOWS FOR A 20mm CONCRETE BED BETWEEN EKI PRECAST ASSEMBLY AND PIT.
2. WHERE PIT IS LOCATED IN A LOW POINT, INSTALL 50mm ϕ PVC PIPE WITH STAGE 2 WORKS (TO ALLOW FOR WATER TO DRAIN FROM PAVEMENT AREA).
3. FOR PIPE DIAMETERS GREAT THAN 450mm REFER TO CoGB SD590B FOR HAUNCHING DETAILS.
4. CONCRETE STRENGTH 25MPa.

ALL MEASUREMENTS IN MILLIMETRES

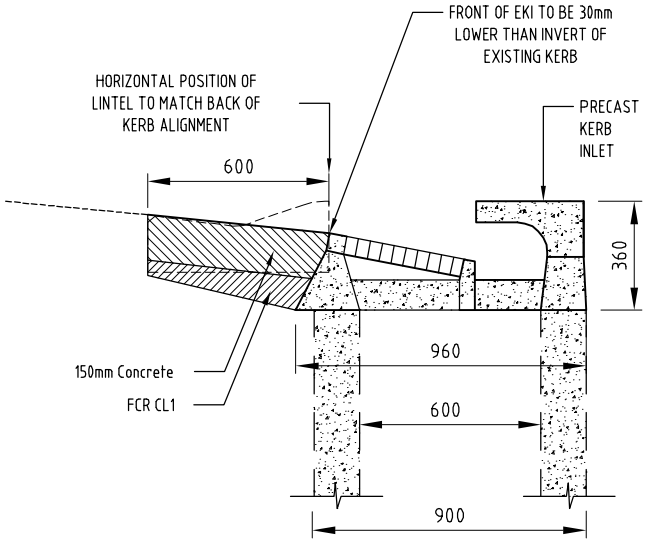
	EXTENDED KERB INLET PIT PROPOSED PIT UNDER KERB	REVISION A
	City of Greater Bendigo Standard Drawings	SD 590H
	A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	Scale 1 : 25



EXISTING PIT BEHIND KERB

EKI (L) is shown above

Scale 1 : 40



EXISTING PIT BEHIND KERB

SM2-M KERB

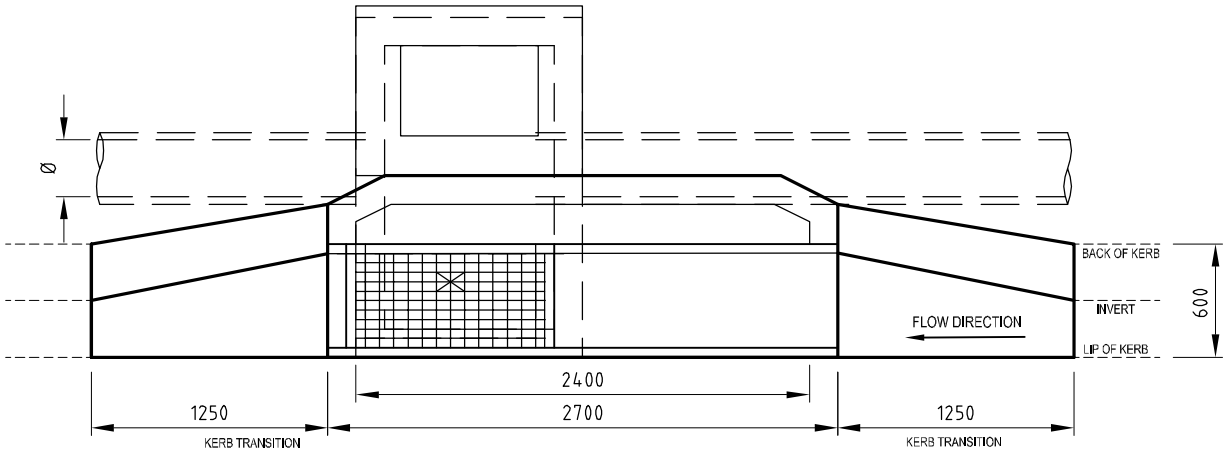
Scale 1 : 25

NOTES:

1. FRONT OF PIT TO BE CONSTRUCTED 380mm BELOW TOP OF PIT. THIS ALLOWS FOR A 20mm CONCRETE BED BETWEEN EKI PRECAST ASSEMBLY AND PIT.
2. FOR PIPE DIAMETERS GREAT THAN 450mm REFER TO CoGB SD590B FOR HAUNCHING DETAILS.
3. CONCRETE STRENGTH 25MPa.
4. FOR OTHER KERB PROFILES, REFER TO sd 590h FOR ELEVATION DETAILS.

ALL MEASUREMENTS IN MILLIMETRES

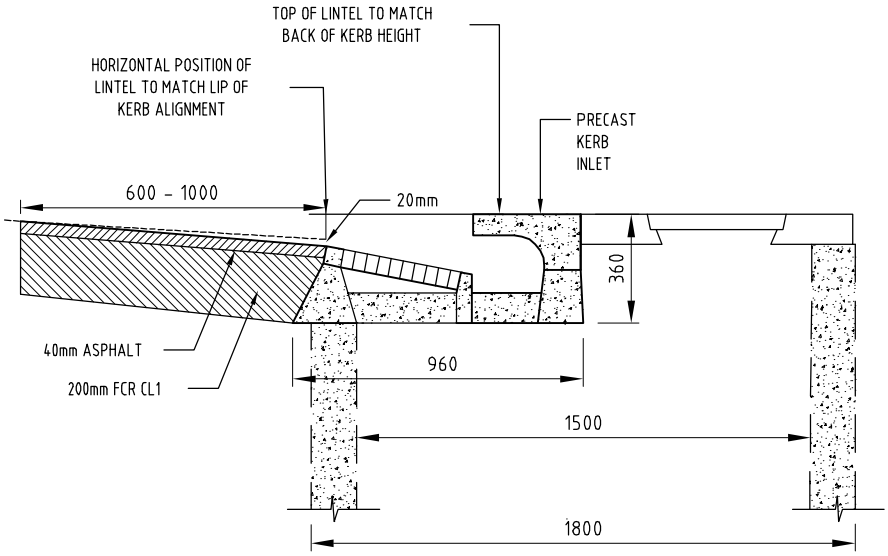
EXTENDED KERB INLET PIT (RECESSED) EXISTING PIT BEHIND KERB	REVISION A
City of Greater Bendigo Standard Drawings	SD 590I
A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	Scale 1 : 25



EXISTING PIPE BEHIND KERB

EKI (L) is shown above

Scale 1 : 40



EXISTING PIPE BEHIND KERB

SM2-M KERB

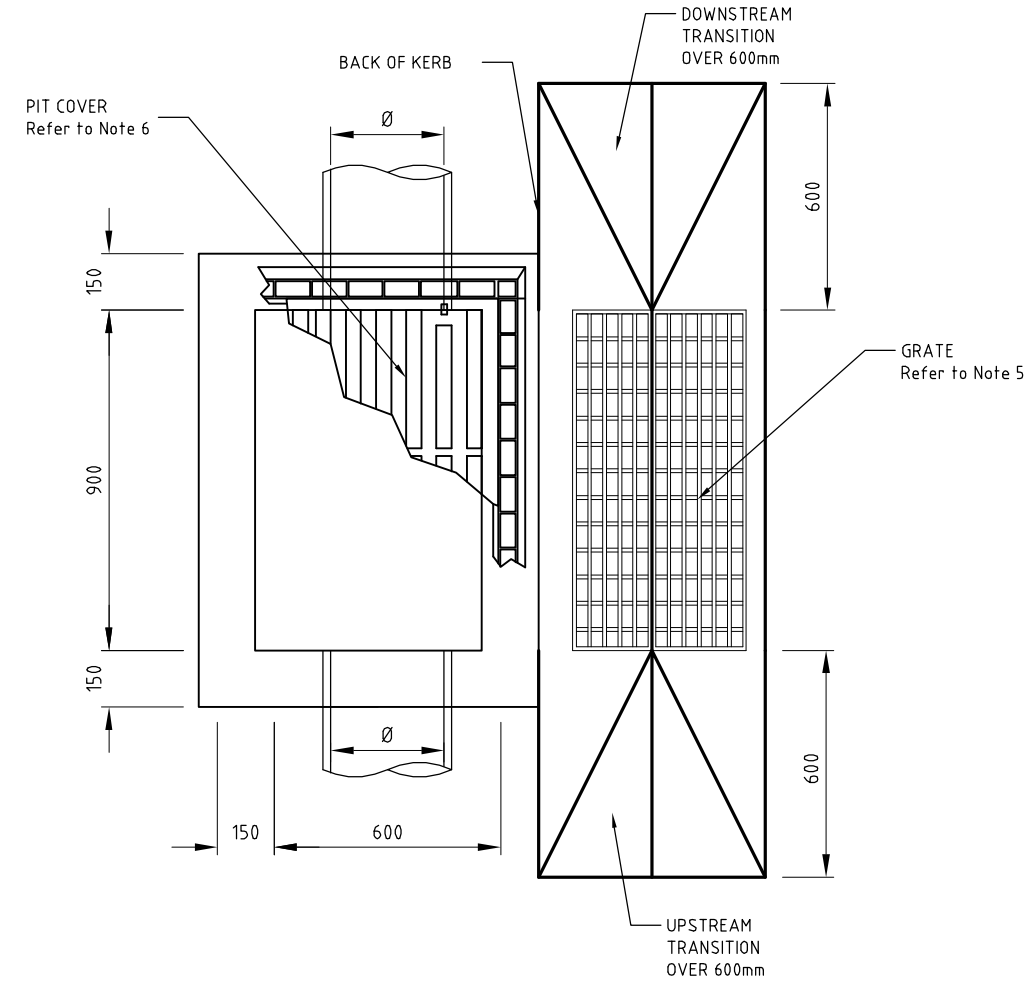
Scale 1 : 25

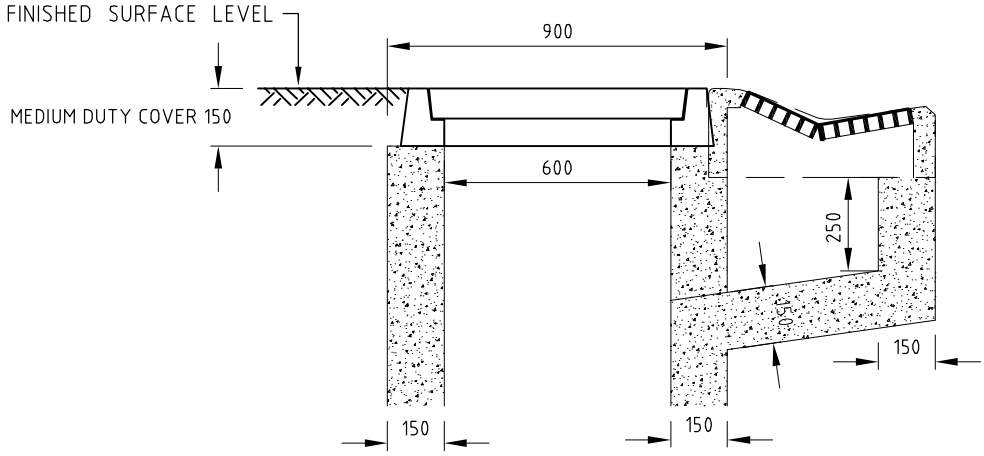
NOTES:

1. FRONT OF PIT TO BE CONSTRUCTED 380mm BELOW TOP OF PIT. THIS ALLOWS FOR A 20mm CONCRETE BED BETWEEN EKI PRECAST ASSEMBLY AND PIT.
2. FOR PIPE DIAMETERS GREAT THAN 450mm REFER TO CoGB SD590B FOR HAUNCHING DETAILS.
3. CONCRETE STRENGTH 25MPa.
4. FOR OTHER KERB PROFILES, REFER TO sd 590h FOR ELEVATION DETAILS.

ALL MEASUREMENTS IN MILLIMETRES

EXTENDED KERB INLET PIT EXISTING PIPE BEHIND KERB	REVISION A
City of Greater Bendigo Standard Drawings	SD 590J
A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	Scale 1 : 25





NOTES:

1. PIT TO BE CONSTRUCTED IN TWO STAGES. FRONT OF PIT (750mm DEPTH) NOT TO BE CONSTRUCTED DURING STAGE 1. LINTEL AND PIT OPENING TO BE CONSTRUCTED IN STAGE 2.
2. WHERE PIT IS LOCATED IN A LOW POINT, INSTALL 50mm ø PVC PIPE WITH STAGE 2 WORKS (TO ALLOW FOR WATER TO DRAIN FROM PAVEMENT AREA).
3. FOR PIPE DIAMETERS GREAT THAN 450mm REFER TO CoGB SD590B FOR HAUNCHING DETAILS.
4. CONCRETE STRENGTH 25MPa.
5. GRATE TO BE "WELDLOK RFK94WCD" OR EQUIV.
6. PIT COVER TO BE "R&S" HEAVY DUTY AC-C-H9060 OR EQUIV.

ALL MEASUREMENTS IN MILLIMETRES

GRATED INLET PIT CONVERTED FROM EXG SIDE ENTRY PIT BEHIND KERB

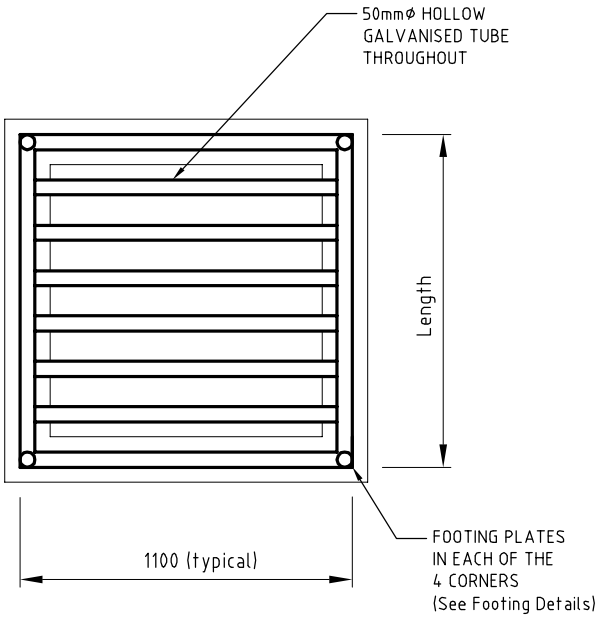
City of Greater Bendigo Standard Drawings

A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au

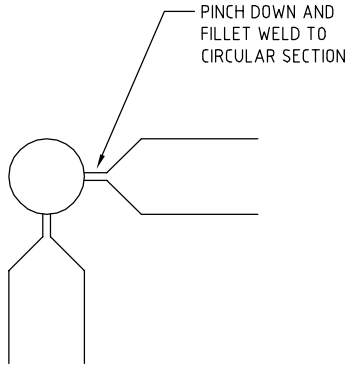
REVISION A

SD 590K

Scale 1 : 20

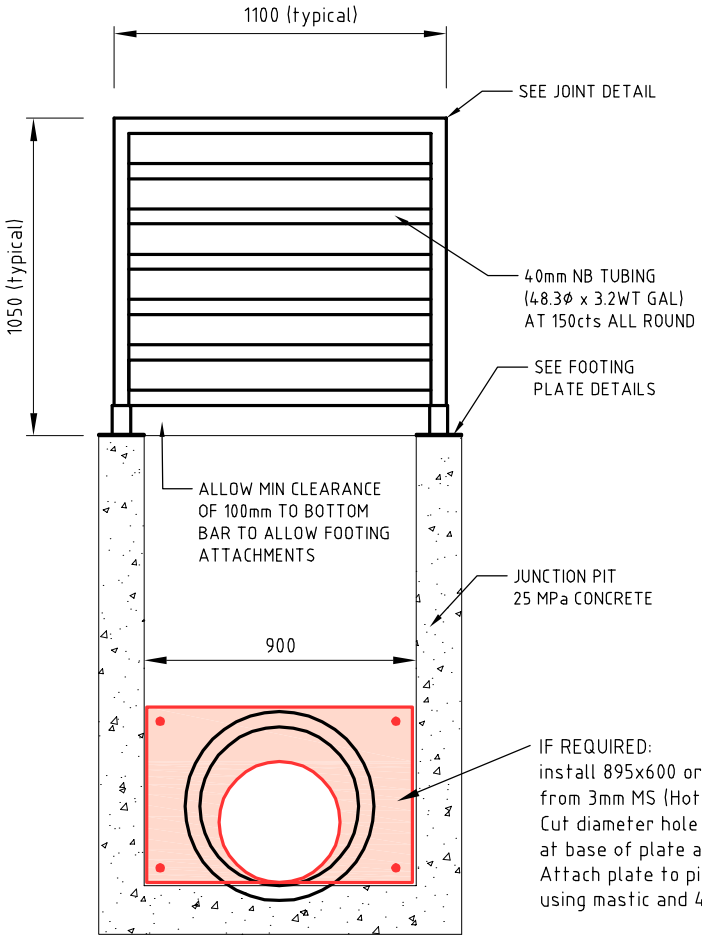


PLAN VIEW

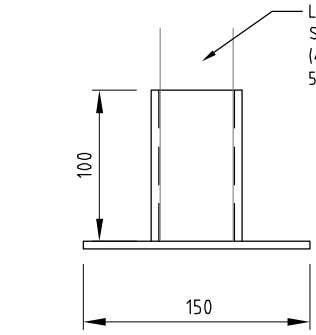


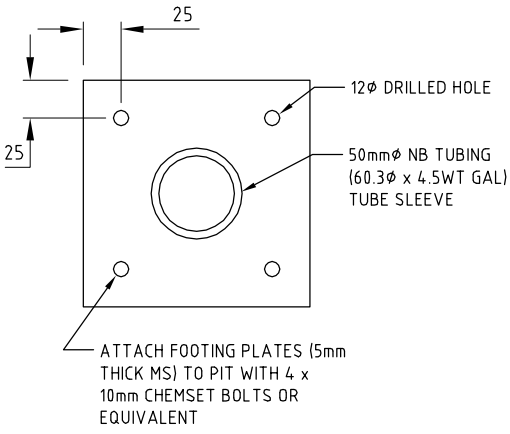
GRATE JOINT DETAIL

Scale 1 : 5



SECTION VIEW





GRATE FOOTING DETAIL

Scale 1 : 5

ALL MEASUREMENTS IN MILLIMETRES

JAIL CELL GRATE

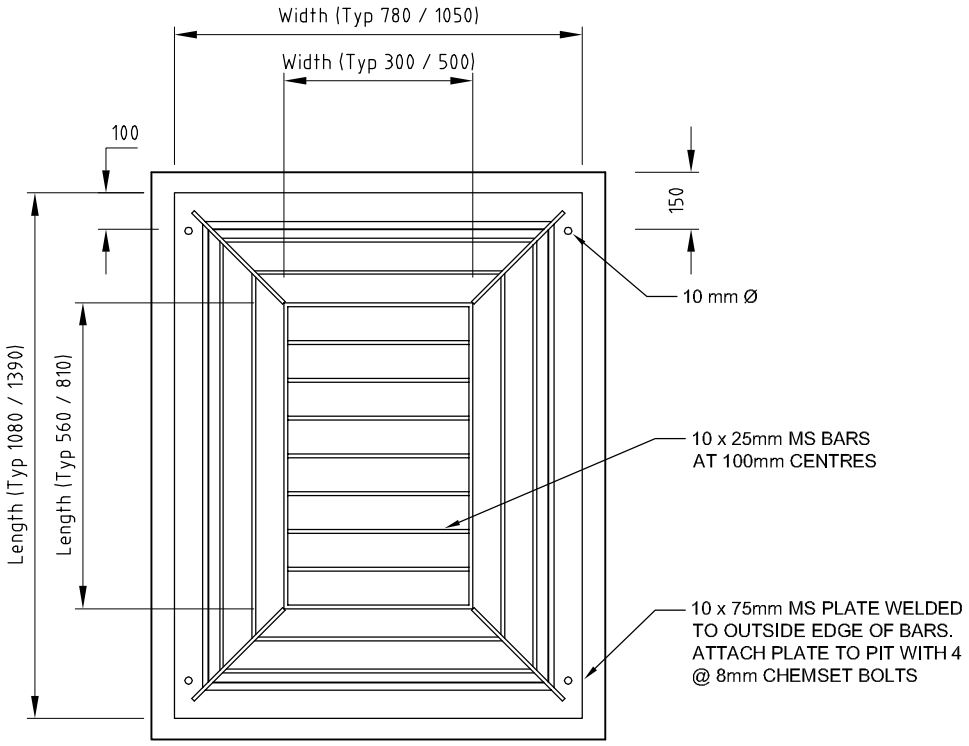
City of Greater Bendigo Standard Drawings

A copy of the City of Greater Bendigo Standard Drawings
can be viewed on the City of Greater Bendigo website
www.bendigo.vic.gov.au

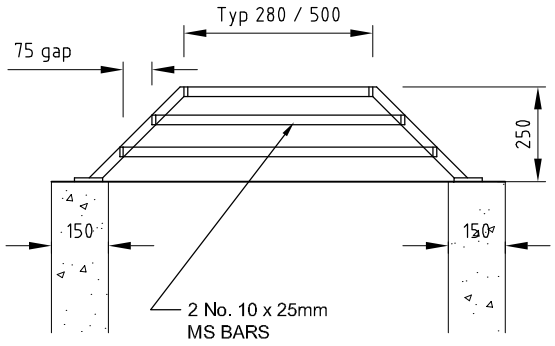
REVISION A

SD 590M

Scale 1 : 25



PLAN VIEW



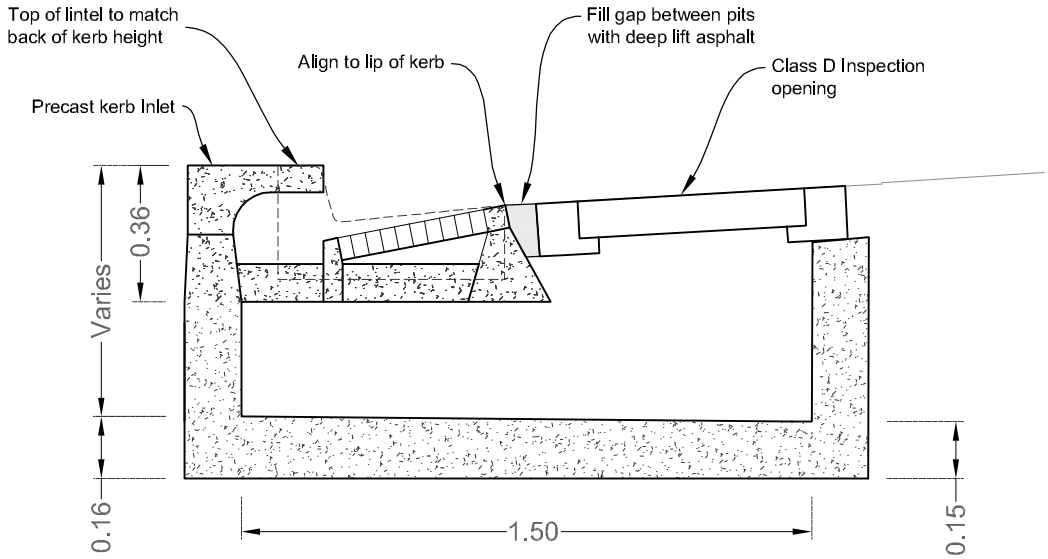
SECTION A - A

Notes

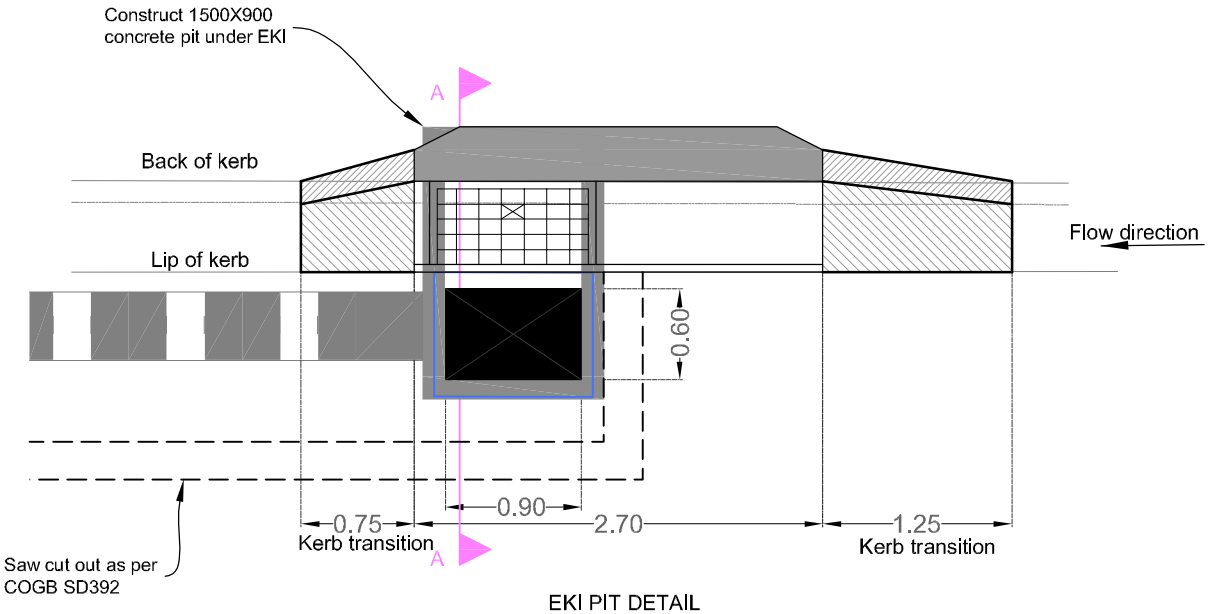
1. Grate to be Hot Dipped Galvanised
2. 6mm fillet welds along both sides of bars

ALL MEASUREMENTS IN MILLIMETRES

	BASKET GRATE	REVISION A
	City of Greater Bendigo Standard Drawings	SD 590N
	A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	Scale 1 : 20



SECTION A-A
SCALE 1:20



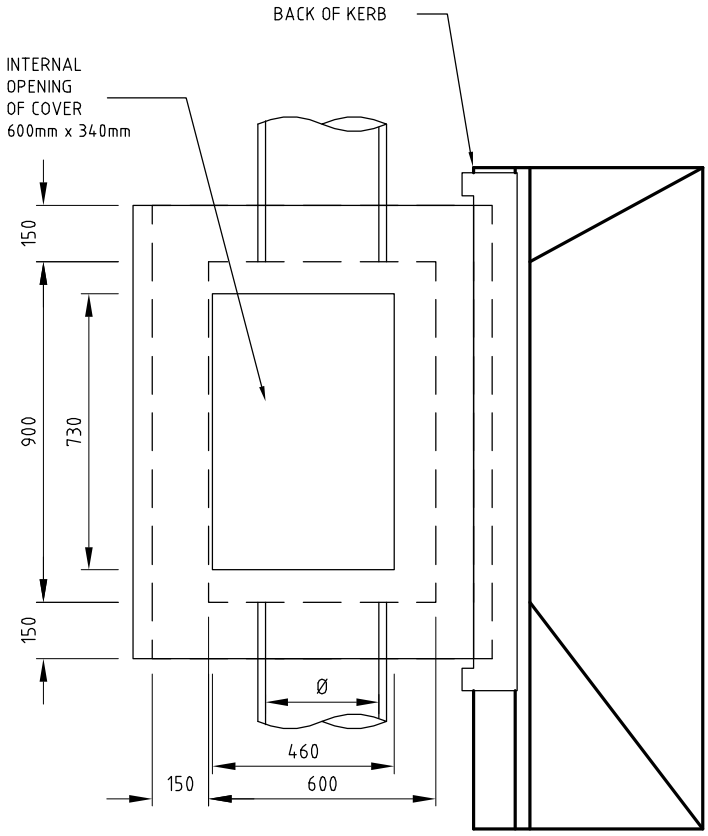
EKI PIT DETAIL
SCALE 1:50

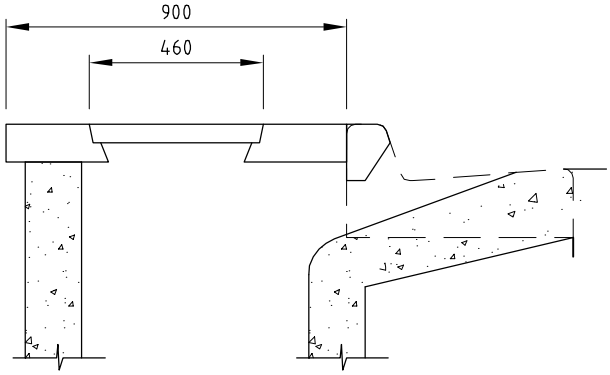
NOTES:

1. FOR PIPE DIAMETERS GREAT THAN 450mm REFER TO CoGB SD590B FOR HAUNCHING DETAILS.
2. CONCRETE STRENGTH 25MPa.
3. FOR OTHER KERB PROFILES, REFER TO SD 590H FOR ELEVATION DETAILS.

ALL MEASUREMENTS IN MILLIMETRES

	EXTENDED KERB INLET PIT EXISTING PIPE IN ROAD	REVISION A
	City of Greater Bendigo Standard Drawings	SD 590O
	A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	Scale 1 : 20

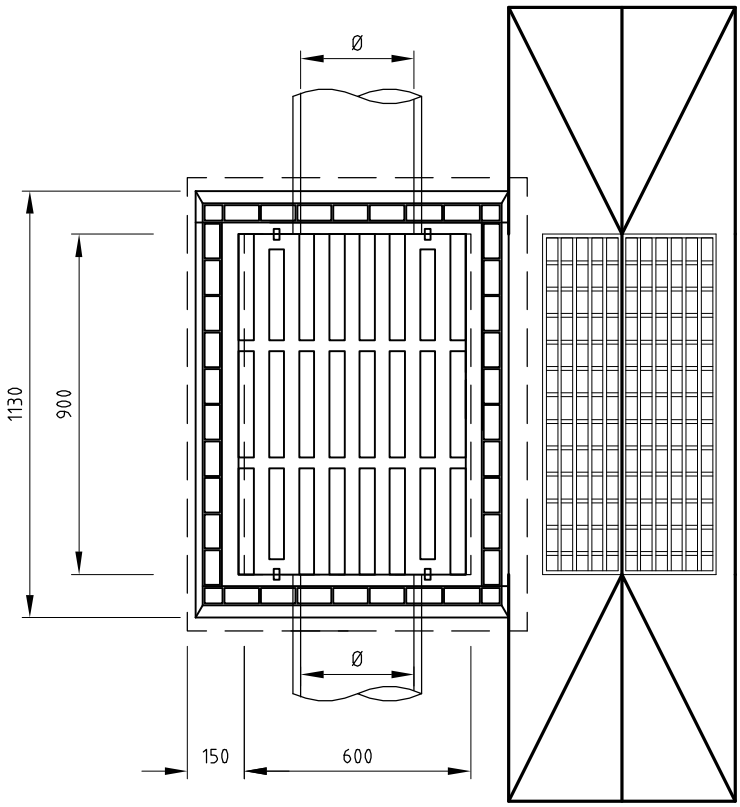


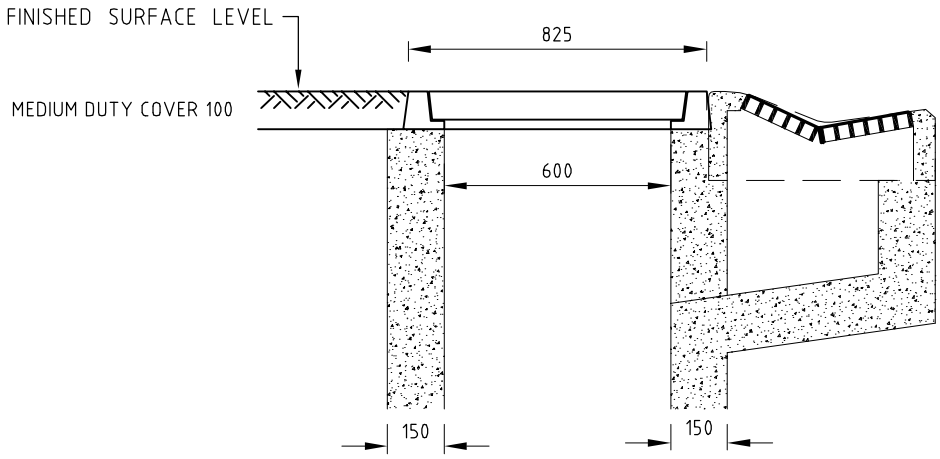


CONCRETE LID WITH INSERT

ALL MEASUREMENTS IN MILLIMETRES

	CONCRETE LID WITH INSERT CONCRETE LINTEL	REVISION A
	City of Greater Bendigo Standard Drawings	SD 590R
	A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	Scale 1 : 20



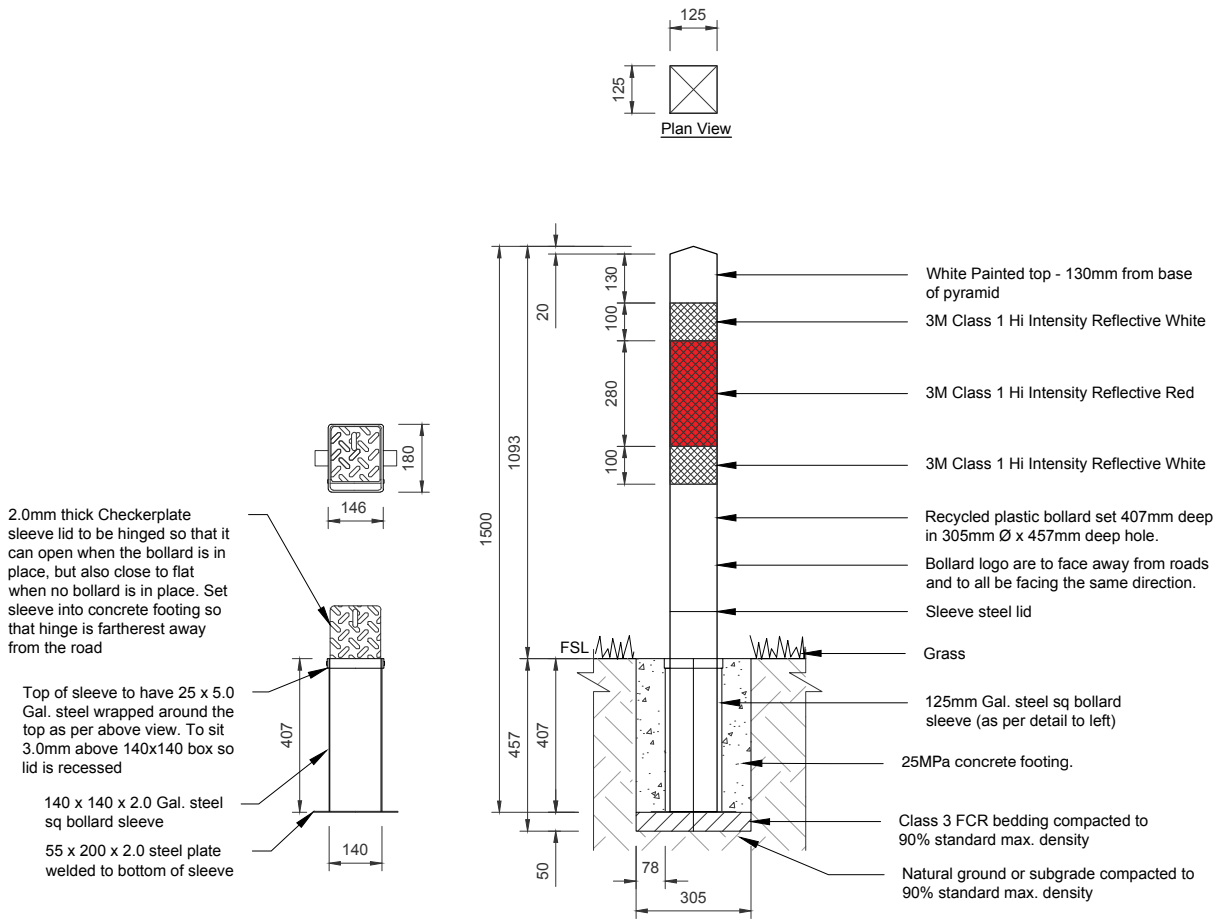


NOTES:

1. PIT COVER TO BE "R&S" HEAVY DUTY AC-C-M9060 OR EQUIV.

ALL MEASUREMENTS IN MILLIMETRES

	CAST IRON / STEEL LID	REVISION A
	City of Greater Bendigo Standard Drawings	SD 590S
	A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	Scale 1 : 20



BOLLARD SLEEVE PLASTIC BOLLARD

ALL MEASUREMENTS IN MILLIMETRES

	REMOVABLE PLASTIC BOLLARD	REVISION A
	City of Greater Bendigo Standard Drawings	SD 790
	A copy of the City of Greater Bendigo Standard Drawings can be viewed on the City of Greater Bendigo website www.bendigo.vic.gov.au	Scale 1 : 20