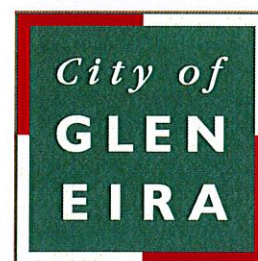


CITY OF GLEN EIRA



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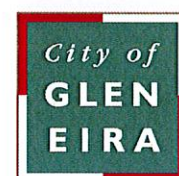
STANDARD DRAWINGS INDEX

No.	Title	No.	Title	No.	Title
000	INDEX	200	SUB SURFACE DRAINAGE	500	PARK & STREET FURNITURE
100	PITS	STD-201	A.G. Drain and Flushing Point Details	STD-501	Chain Wire Fence
STD-101	Pit Dimensioning / Set-Out	STD-202	House Drain Inspection Opening and Connection (2 Sheets)	STD-502	Welded Mesh Fence
STD-102	Step Irons	STD-203	Pipe Bedding and Backfill Details	STD-503	Pedestrian Fence, 3000mm Panels
STD-103	Pit Covers and Surrounds	STD-204	Clearance Requirements to Other Authorities Assets	STD-503A	Pedestrian Fence, 1510mm Panels
STD-104	Precast Concrete Lintels	300	KERBS	STD-504	Playground Fence
STD-105	Junction Pit (Cover, Grate, V-Grate & Depressed Grate)	STD-301	Concrete Kerb and Channel Sections	STD-505	Plinth Edge Restraint (2 Sheets)
STD-105A	Large Junction Pit, Type A, 2400X2400X3600 Max Depth	STD-302	Bluestone Kerb and Channel Sections	STD-506	Sign
STD-105B	Large Junction Pit, Type B, 2400X2400X5400 Max Depth	STD-303	Bluestone Kerb and Concrete Channel Sections	STD-507	Bollard Layout and Installation
STD-106	S1 Type S.E.P. Single	400	PAVEMENTS	STD-508	Seat/Bench Layout and Installation
STD-107	S1D Type S.E.P. Double	STD-401	Vehicle Crossing Details (2 Sheets)	STD-509	Bike Leaning Rail Layout and Installation
STD-108	S2 Type S.E.P. Single	STD-401A	Alternate Vehicular Crossing Details - 900mm Radials	STD-510	Litter Bin
STD-109	S2D Type S.E.P. Double	STD-401B	Vehicle Crossing Modified Details - 900mm Radials	STD-511	Tree Guard
STD-110	S3 Type S.E.P. Single	STD-402.2018	Footpath Details up to 1.95 metres wide	STD-512	Drinking Fountain
STD-111	S3D Type S.E.P. Double	STD-403	Perambulator Crossing Details (2 Sheets)	600	LANDSCAPING
STD-112	S4 Type (Grated) S.E.P. Single	STD-404	Laneway Details	STD-601	Tree Bud Lighting, Typical Conduit Layout
STD-113	Unhaunched Pits	STD-405	Plain Concrete Pavement - Transverse Joint and Isolated Reinforcement Detail	STD-602	Roof Barrier
STD-114	Haunched Pits	STD-406	Jointed Reinforced Concrete Pavement - Transverse Joint Detail	700	TRAFFIC
STD-115	Trench Grating Pit	STD-407	Jointed Reinforced Concrete Pavement - Reinforcement and Joint Detail	STD-701	Road Hump
STD-116	Vehicle Crossings Grating Pit	STD-408	Jointed Plain and Reinforced Concrete Pavement - Treatment of Slab Openings	STD-702	Traffic Island
		STD-409	Jointed Plain Pavement - Slab Replacement	STD-703	Pavement Marking (2 Sheets)
		STD-410	Concrete Pavement (All Types) - Expansion Joint Detail	STD-704	Traffic Sign Layout and Installation
		STD-411	Concrete Pavement (All Types) - Longitudinal Tied Joints	STD-705A	Speed Cushions
		STD-412	Pavement Sections - Design Guide (2 Sheets)	STD-705B	Speed Cushions - Bus Routes
				800	MISCELLANEOUS
				STD-801	Installation of Conduits

STANDARD DRAWINGS INDEX

NOTE: GREY TITLES (STD-204) DENOTES DRAWINGS THAT HAVE NOT BEEN ISSUED

CITY OF GLEN EIRA

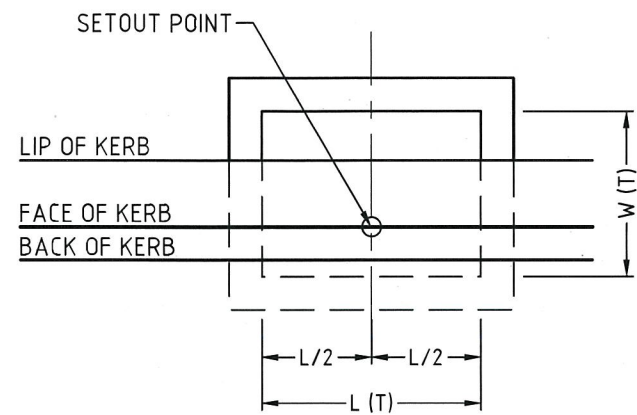


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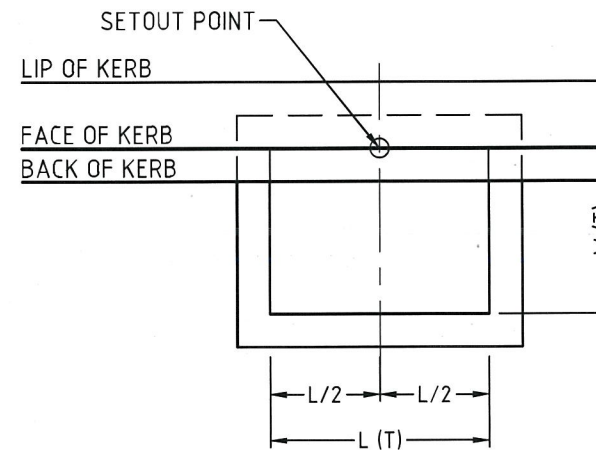
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Drawn	PRO & INF	APR 2018	Reference
Checked	PRO & INF	APR 2018	-
Approved		4/18	Version
	Dir. Inf, Env & Leisure	Date	-

STANDARD DRAWING INDEX

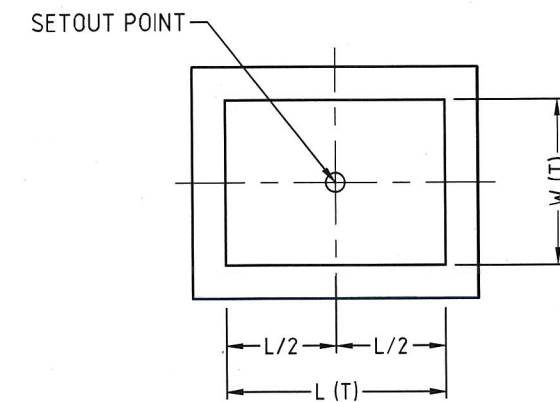
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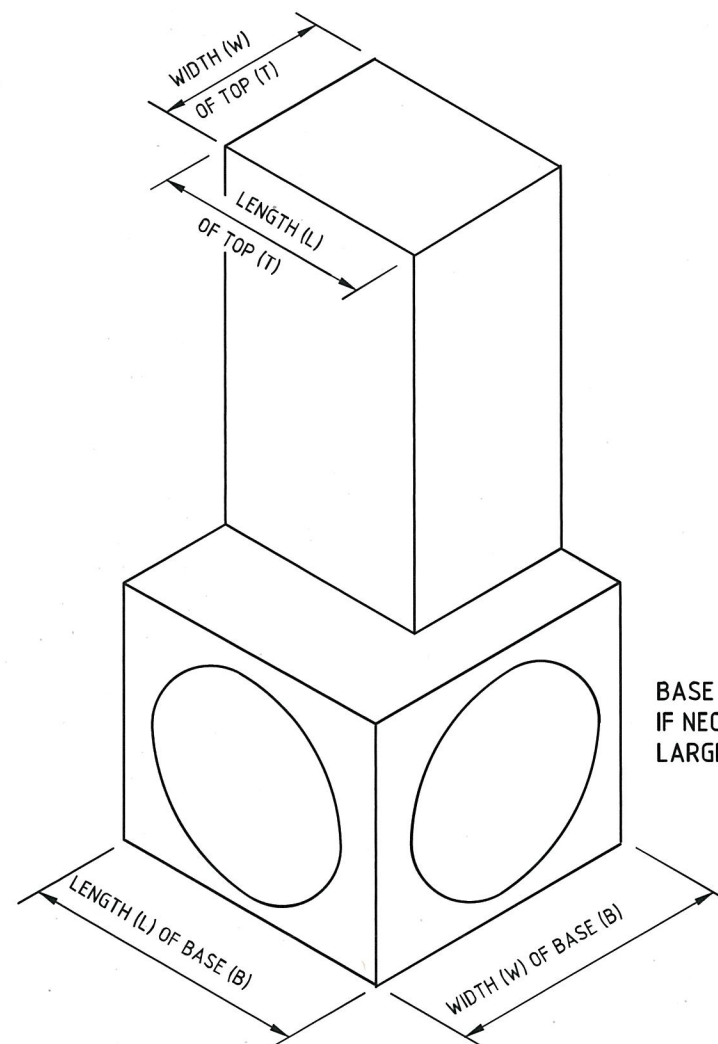
PLAN 1
S3 GRATED SIDE ENTRY PIT



PLAN 2
S1 & S2 SIDE ENTRY PIT

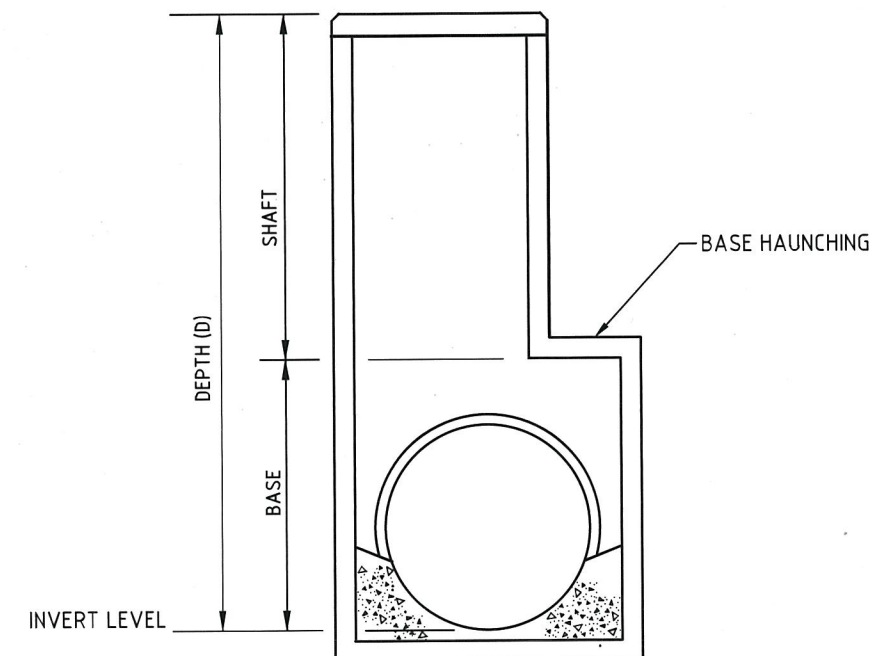


PLAN 3
GRATED PIT & JUNCTION PIT



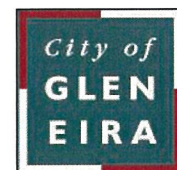
BASE TO BE HAUNCHED
IF NECESSARY TO FIT
LARGE PIPES

INTERNAL PIT DIMENSIONS



SHAFT CONFIGURATIONS
PIT WITH HAUNCHED
BASE

CITY OF GLEN EIRA



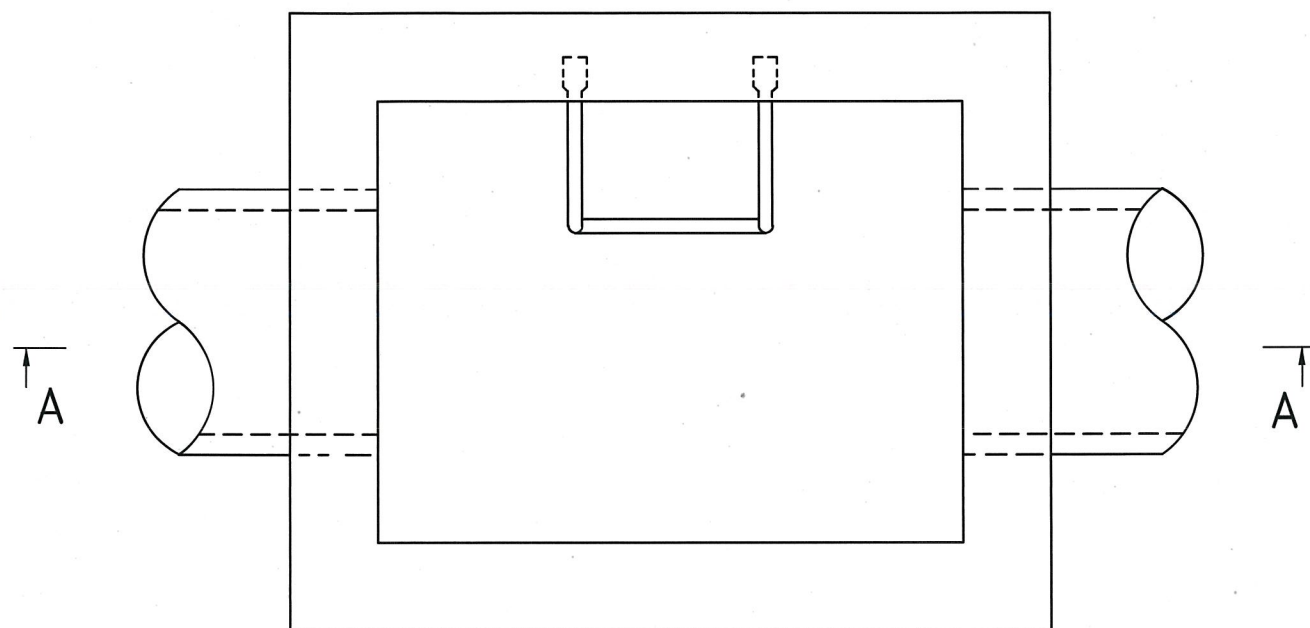
Corner Glen Eira and Hawthorn Roads
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	Initials	Date
Designed	CAP WORKS	AUG 2009
Drawn	CAP WORKS	AUG 2009
Checked		
Approved	<i>[Signature]</i>	
Dir. Assets & Facilities		Date

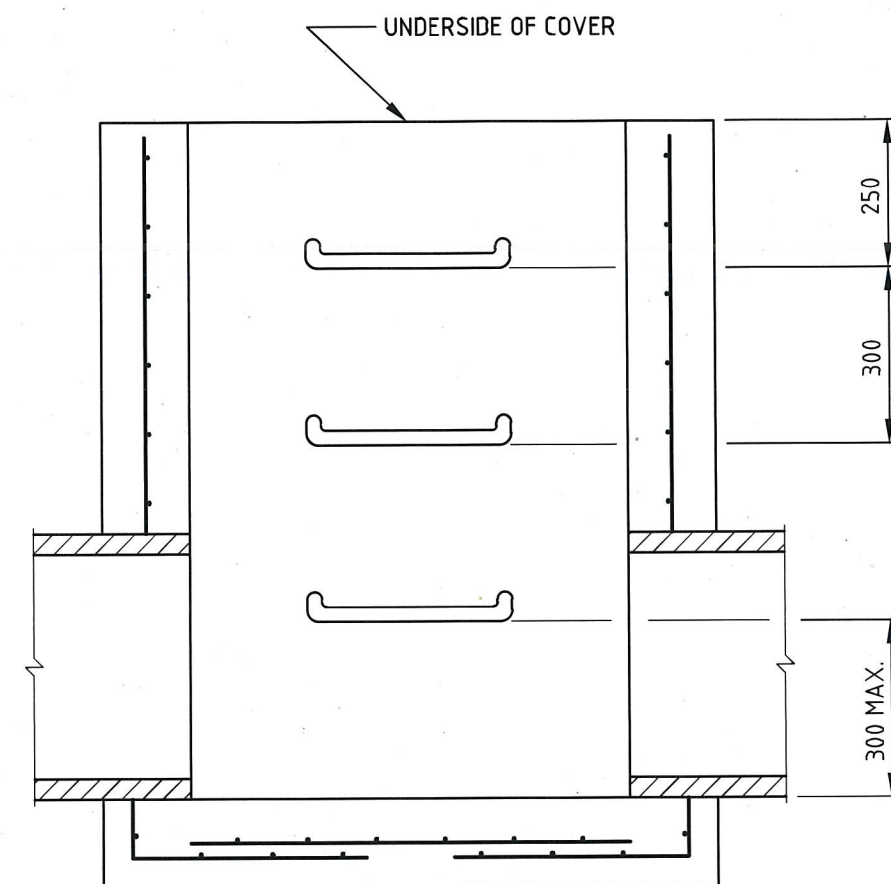
CAD Reference	STD-101_PIT DIMS
Reference	VicRoads SD 1001C
Version	-
Date	16.01.10

PIT DIMENSIONS AND SETTING OUT DETAIL

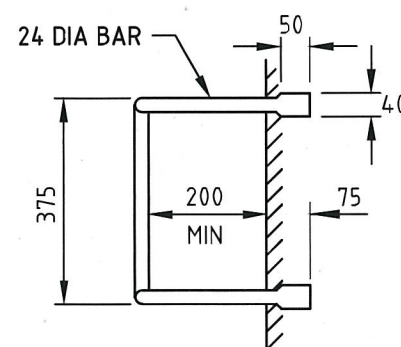
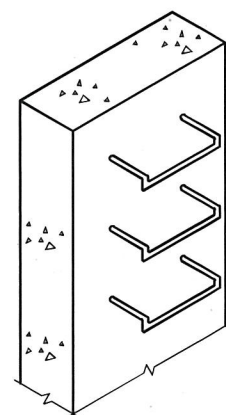
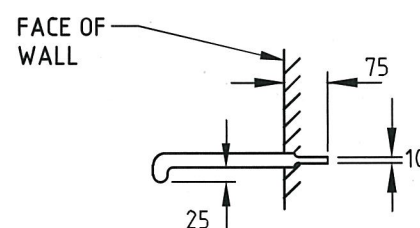
SCALE:	AS SHOWN	DRG. NO.	STD-101	SHEET	1 OF 1
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PLAN



SECTION A-A

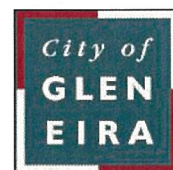


STEP IRON DETAILS

NOTES:

1. PITS DEEPER THAN 1000 SHALL BE FITTED WITH STEP IRONS.
2. STEP IRONS SHALL BE LOCATED:
 - DIRECTLY BELOW THE OPENING IN THE COVER.
 - DESIRABLY ON A WALL WITHOUT PIPE OPENINGS.
 - DESIRABLY ON ONE OF THE LONG SIDES OF THE PIT.
3. STEEL FOR STEP-IRONS SHALL BE STRUCTURAL GRADE 250 TO AS3679 PART 1.
4. STEP IRONS SHALL HAVE SHARP EDGES ROUNDED AND HOT DIP GALVANIZED AFTER FABRICATION TO AS/NZS 4680.
5. PROPRIETARY STEPS SUCH AS THE GATIC 373 PM POLYPROPYLENE STEPS (OR APPROVED ALTERNATIVE) MAY BE USED. THESE SHALL BE INSTALLED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS.
6. FOR PRECAST PITS, STEP IRONS SHALL BE LOAD TESTED TO AS4198/1994.

CITY OF GLEN EIRA

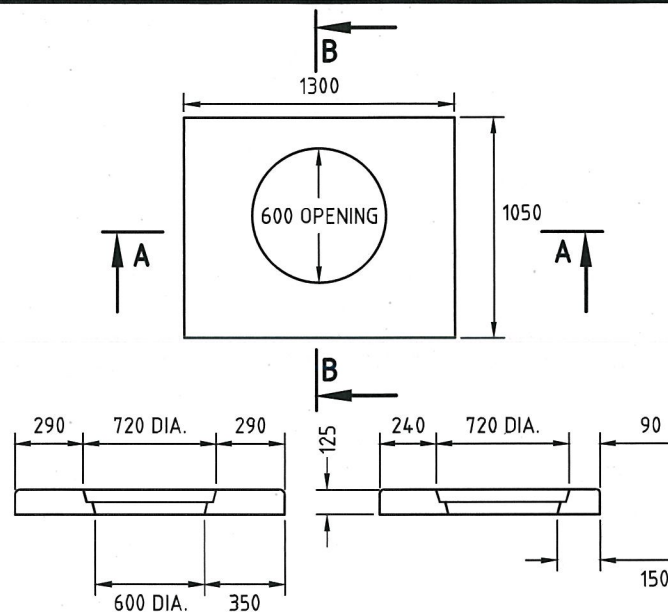


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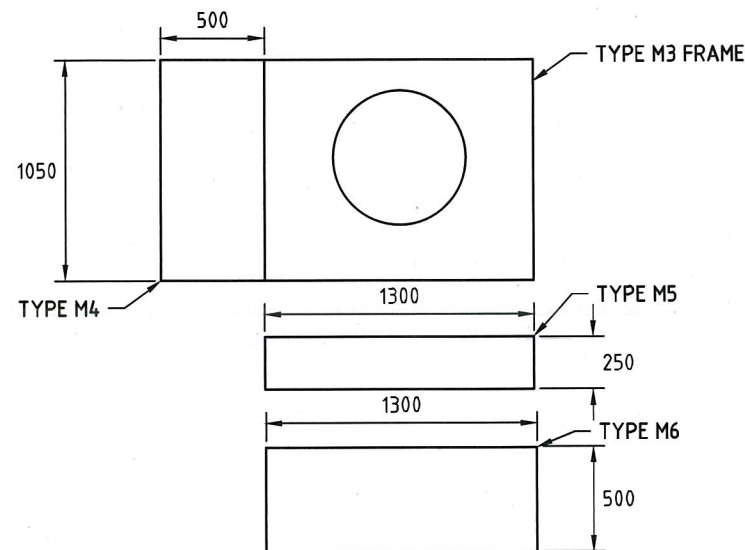
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Drawn	CAP WORKS	AUG 2009	Reference
Checked			VicRoads SD 1041 C
Approved	<i>[Signature]</i>		Version
Dir. Assets & Facilities		Date	16.01.12

STEP IRONS

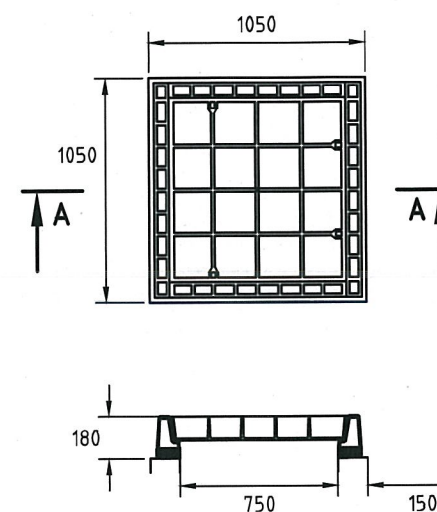
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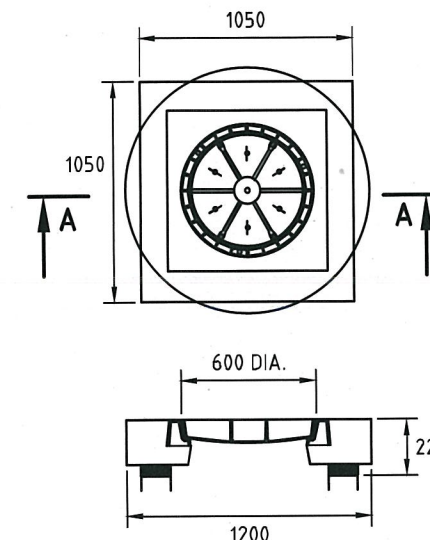
SECTION A-A
(LID NOT SHOWN)
TYPE M3
MEDIUM DUTY



COVER EXTENSIONS TYPES M4, M5 & M6
MEDIUM DUTY



SECTION A-A
TYPE H1
HEAVY DUTY
(GATIC H212 OR EQUIVALENT)



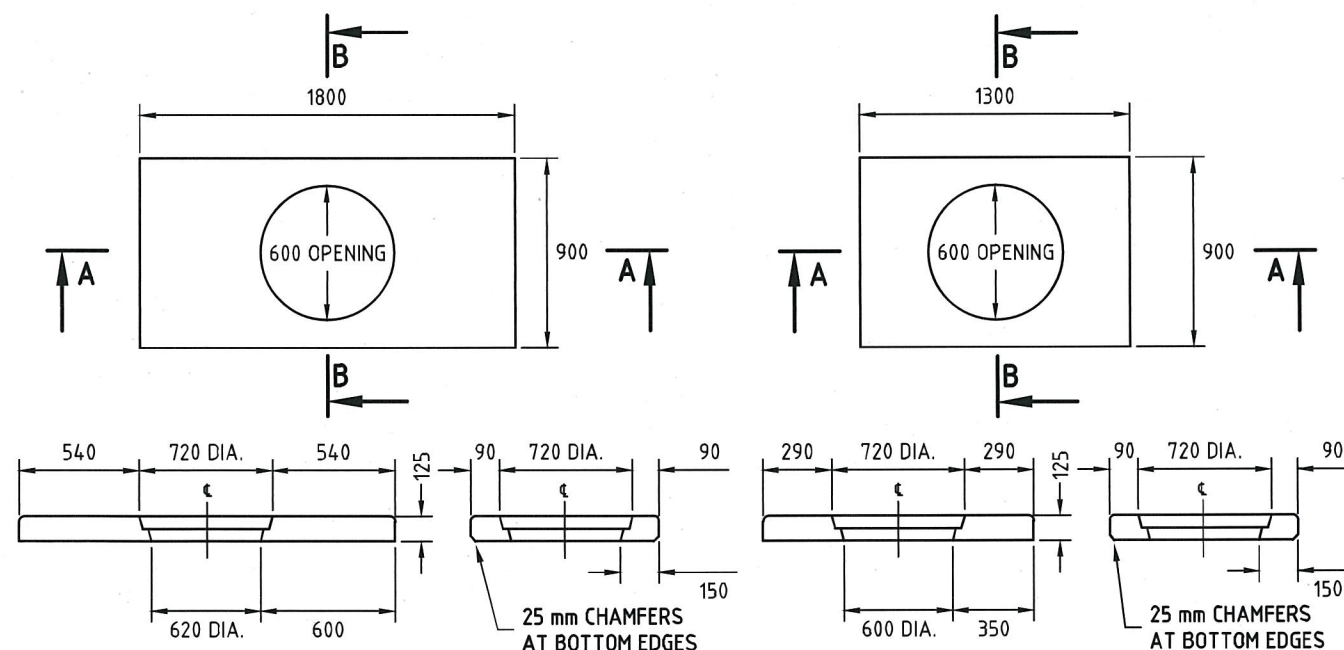
SECTION A-A
TYPE H2
HEAVY DUTY
(GATIC H212 OR EQUIVALENT)

"CLASS C"

JUNCTION PIT COVERS

"CLASS D"

(GATIC H212 OR EQUIVALENT)



SECTION A-A
TYPE M1
MEDIUM DUTY

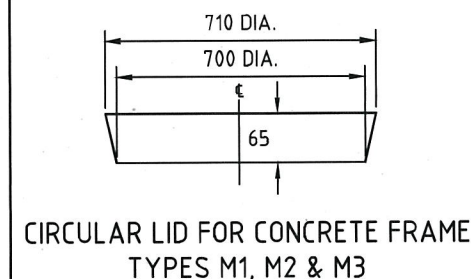
SECTION B-B

SECTION A-A

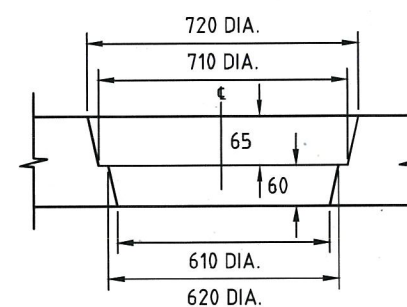
SECTION B-B
TYPE M2
MEDIUM DUTY

(LID NOT SHOWN)

SIDE ENTRY PIT ACCESS COVERS



CIRCULAR LID FOR CONCRETE FRAME
TYPES M1, M2 & M3



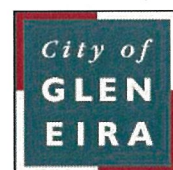
OPENING FOR CONCRETE FRAME
TYPES M1, M2 & M3

NOTES:

- HEAVY DUTY COVERS SHALL BE USED IN TRAFFIC LANES. MEDIUM DENSITY COVERS ARE FOR SHOULDERS AND OFF ROAD USE.
- COVERS ARE REQUIRED TO SUPPORT THE FOLLOWING TEST LOADS IN ACCORDANCE WITH VICROADS' "INTERIM TEST METHOD FOR TESTING PIT COVERS, LINTELS AND LIDS".
HEAVY DUTY : - LID AND FRAME, INCLUDING CONCRETE SURROUND - 210kN
MEDIUM DUTY : - CONCRETE FRAME - 100kN
- CONCRETE COVER EXTENSION - 100kN
- CONCRETE LID - 60 kN
- STEEL REINFORCEMENT SHALL COMPLY WITH SECTION 611 OF VICROADS SPECIFICATION.
- CONCRETE SHALL BE CONCRETE GRADE N40 COMPLYING WITH SECTION 610 OF VICROADS SPECIFICATION. EXPOSURE CLASSIFICATIONS UP TO AND INCLUDING B1.
- MINIMUM CLEAR COVER TO REINFORCEMENT 25 mm FOR PRECAST CONCRETE UNITS.
- ALL LIDS SHALL HAVE WEIGHT AND CAPACITY IMPRINTS. FOR CONCRETE LIDS, THE LETTERING SIZE SHALL BE 25 mm WITH THE WORD 'DRAIN' IMPRINTED ABOVE WEIGHT AND CAPACITY.
- ALL LIDS SHALL FIT FLUSH AND HAVE PROVISION FOR LIFTING. CONCRETE LIDS SHALL HAVE TWO LIFTING HOLES OF 25 x 50 MIN.
- ANCHORAGE MUST BE PROVIDED TO ENSURE THAT FRAMES AND LIDS DO NOT COME LOOSE UNDER TRAFFIC.
- SPECIAL COVERS ARE REQUIRED FOR SOME PITS (eg. GRATED SIDE ENTRY PITS).
- ALL EXPOSED EDGES OF CONCRETE FRAMES AND LIDS SHALL BE ROUNDED OR CHAMFERED. (NO FINS OR CHIPS.)
- CONCRETE FRAMES ARE TO BE SET ON 5 mm MORTAR.
- JUNCTION PIT COVERS LARGER THAN TYPE M3 MAY BE CONSTRUCTED AS AN INTEGRAL UNIT OR EXTENDED USING UNITS M4, M5 AND M6 AS SHOWN BELOW. THE EXTENSION UNITS SHALL FIT FLUSH WITH THE TYPE M3 COVER.

JUNCTION PIT SIZE (INTERNAL DIMENSIONS)	COMBINATION OF COVER TYPES
750 x 750	M3, H1 OR H2
750 x 1000	M3
750 x 1500	M3 + M4
750 x 2000	M3 + 2 x M4
1000 x 1000	M3 + M5
1000 x 1500	M3 + M5 + M6
1000 x 2000	M3 + M5 + 2 x M6

CITY OF GLEN EIRA



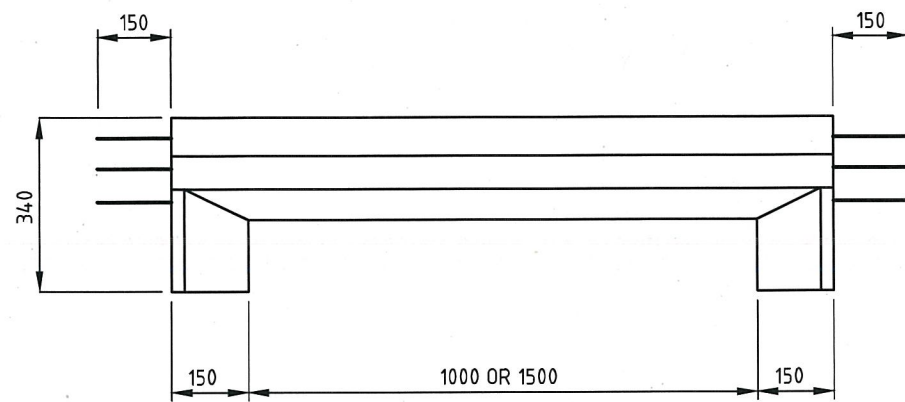
Corner Glen Eira and Hawthorn Roads
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E-Mail mail@gleneira.vic.gov.au
Web www.gleneira.vic.gov.au

	Initials	Date
Designed	CAP WORKS	AUG 2009
Drawn	CAP WORKS	AUG 2009
Checked		
Approved	<i>[Signature]</i>	
Dir. Assets & Facilities		Date

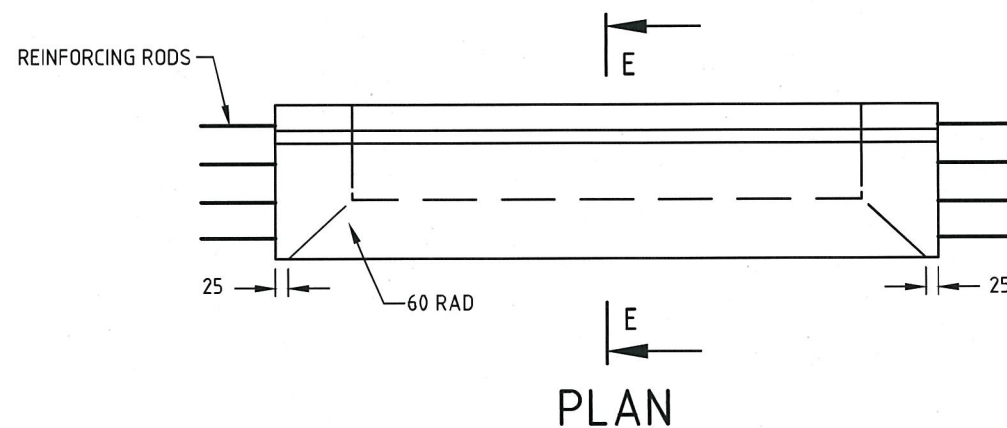
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Reference	VicRoads SD 1051
Version	-
Date	16.01.12

PIT COVERS

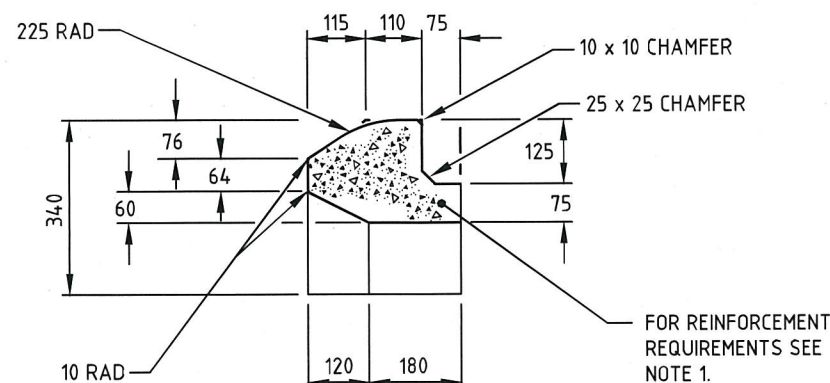
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ELEVATION

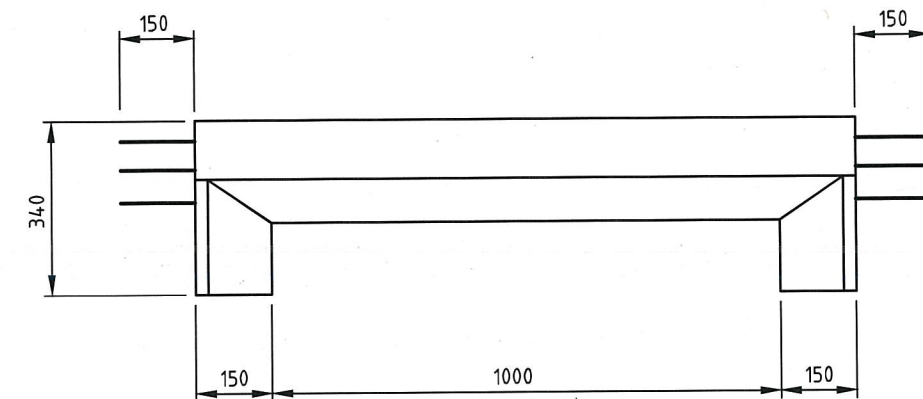


PLAN

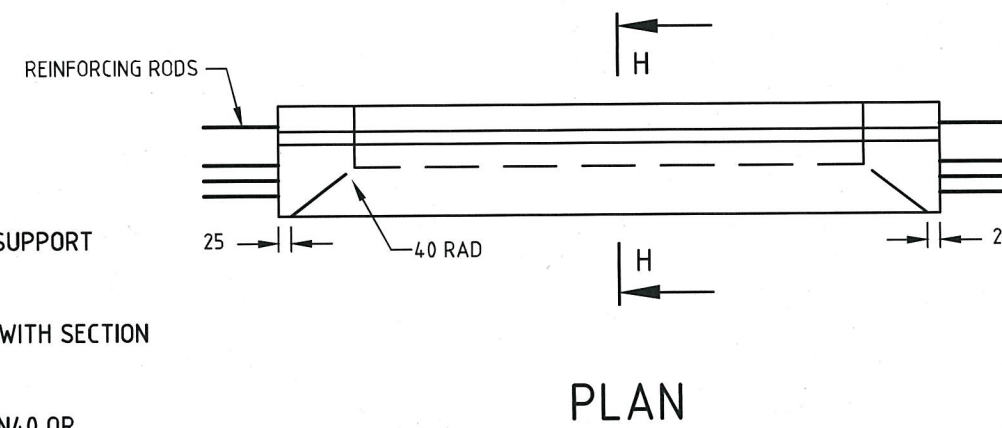


SECTION E-E

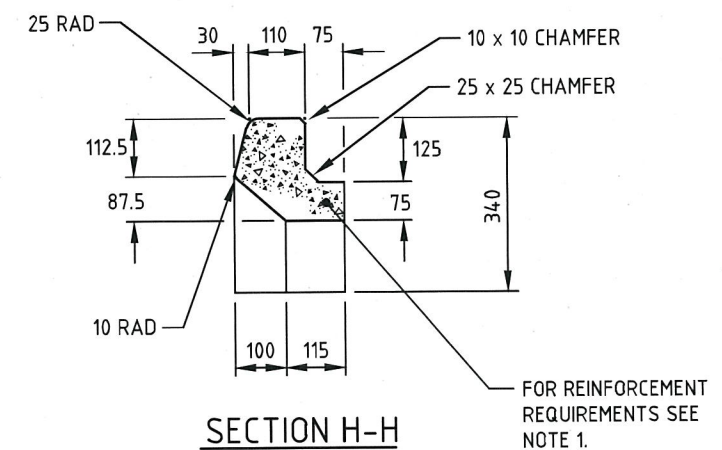
SM TYPE LINTELS



ELEVATION



PLAN



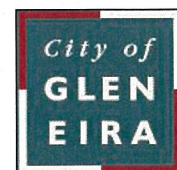
SECTION H-H

B TYPE LINTELS

NOTES

1. STANDARD LINTELS ARE REQUIRED TO SUPPORT A TEST LOAD OF 100 kN.
2. STEEL REINFORCEMENT SHALL COMPLY WITH SECTION 611 OF VICROADS SPECIFICATION.
3. CONCRETE SHALL BE CONCRETE GRADE N40 OR HIGHER COMPLYING WITH AS 1379, EXPOSURE CLASSIFICATIONS UP TO AND INCLUDING B1.
4. MINIMUM CLEAR COVER TO REINFORCEMENT 25 mm FOR PRECAST CONCRETE UNITS.

CITY OF GLEN EIRA



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	Initials	Date	CAD Reference
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Drawn	CAP WORKS	AUG 2009	Reference
Checked			VicRoads SD 1061
Approved			Version
			-
			Date
			16-01-12

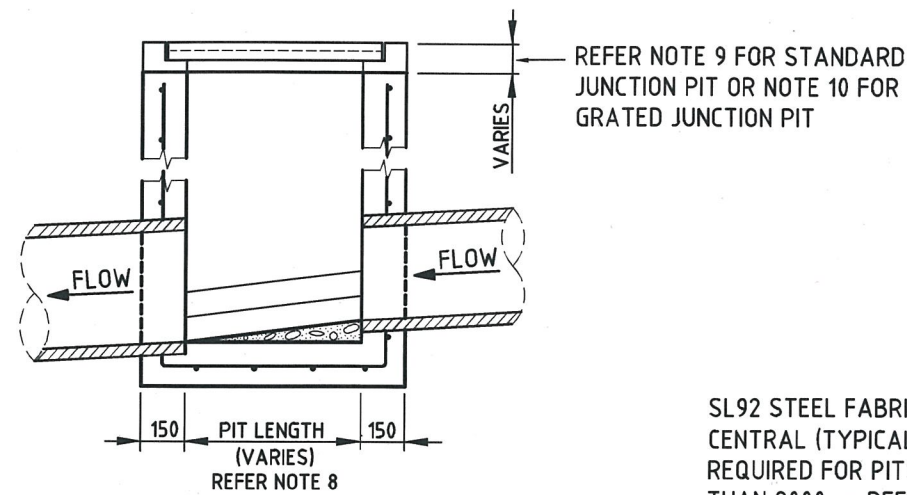
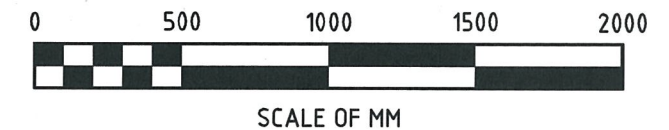
PRECAST CONCRETE LINTELS

SCALE:	AS SHOWN	DRG. NO.	STD-104	SHEET	1 OF 1
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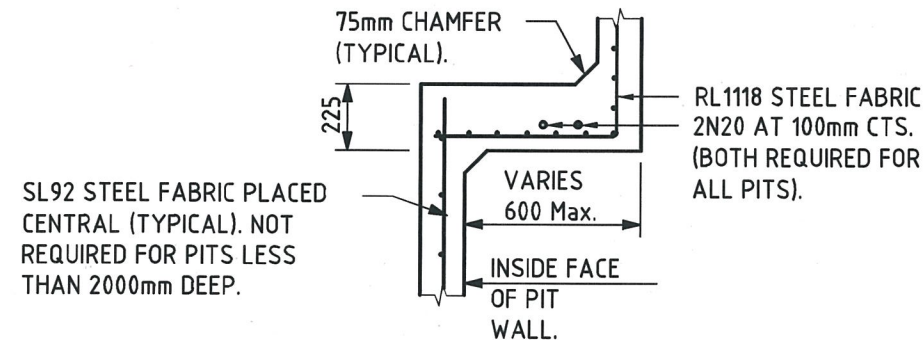
NOTES:

1. WALL THICKNESS SHALL APPLY TO ALL PITS UP TO 3000mm IN DEPTH. FOR PITS DEEPER THAN 3000mm SEE STD-113 AND STD-114.
2. REINFORCING TO PIT WALLS AND BASE IS NOT REQUIRED FOR PITS LESS THAN 2000mm IN DEPTH UNLESS NOTED OTHERWISE
3. REINFORCING IS REQUIRED TO ALL CORBELS ON PITS AS NOTED ON DETAIL 'B'
4. ALL REINFORCEMENT LAPS SHALL BE 300mm MINIMUM.
5. MINIMUM COVER TO REINFORCEMENT SHALL BE 50mm UNLESS OTHERWISE SPECIFIED.
6. ALL REINFORCEMENT SHALL BE SL92 STEEL FABRIC, UNLESS OTHERWISE SPECIFIED.
7. PITS DEEPER THAN 1000mm AND UP TO 3000mm SHALL BE FITTED WITH STEP IRONS. SEE STD-102. PITS DEEPER THAN 3000mm SHALL BE FITTED WITH LADDERS.
8. PIT DIMENSIONS SHALL BE AS FOLLOWS:

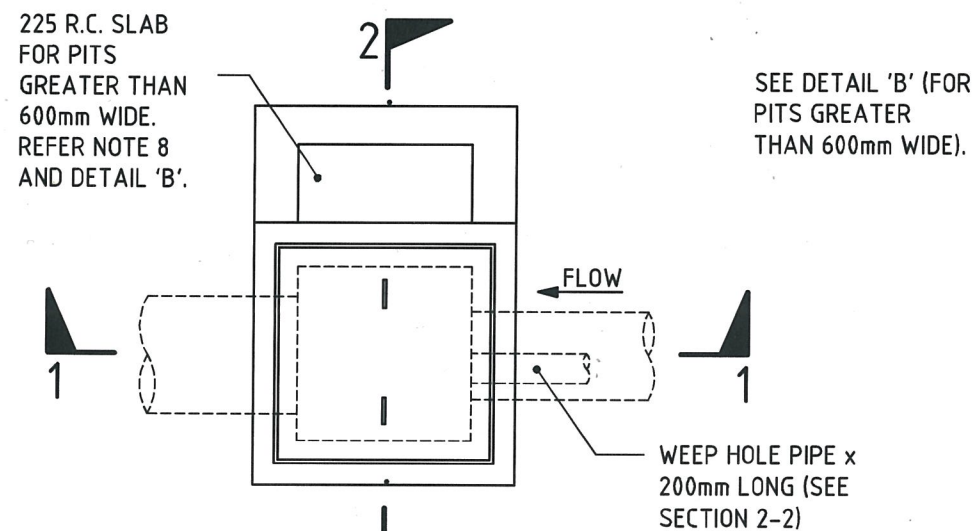
a. LENGTH	FOR PITS UP TO 1000mm DEEP,	L = 600mm
	FOR PITS DEEPER THAN 1000mm,	L = 750mm
b. WIDTH	FOR PIPE DIAMETER UP TO 450mm,	W = 600mm
	FOR PIPE DIAMETER GREATER THAN 450mm,	W = D + 150mm
9. COVERS SHALL BE IN ACCORDANCE WITH AS3996 AND AS FOLLOWS:
 - a. NATURESTRIP AND FOOTPATH AREAS: CLASS A, FACTORY PRODUCED PRECAST CONCRETE COVERS SHALL BE USED.
 - b. OTHER PAVEMENT AREAS: GATIC OR APPROVED EQUIVALENT STRENGTH COVERS SHALL BE USED AS SPECIFIED BELOW:
 - CLASS D: ROAD PAVEMENT IN MAJOR ROAD DRIVE CROSSINGS FOR SERVICE AND FIRE STATIONS.
 - CLASS C: ROAD PAVEMENT IN LOCAL STREET AND LANEWAY. DRIVE CROSSINGS FOR COMMERCIAL AND INDUSTRIAL USE.
 - CLASS B: DRIVE CROSSINGS FOR RESIDENTIAL USE.
 COVERS AND FRAMES ARE TO BE MANUFACTURED FROM NOT LESS THAN GRADE 12 GREY CAST IRON IN ACCORDANCE WITH AS1830.
10. GRATES SHALL BE IN ACCORDANCE WITH AS3996 AND GATIC OR APPROVED EQUIVALENT STRENGTH. GRATES AND FRAMES ARE TO BE MANUFACTURED FROM NOT LESS THAN GRADE 12 GREY CAST IRON IN ACCORDANCE WITH AS1830. REFER TO PROJECT DRAWINGS FOR LOAD CLASS.



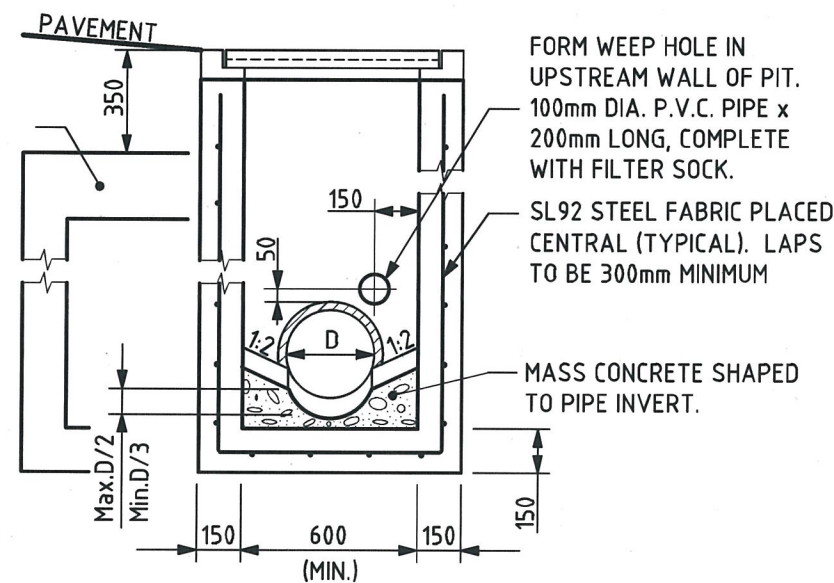
SECTION 1-1



DETAIL 'B'
(FOR PITS GREATER THAN 600mm WIDE)

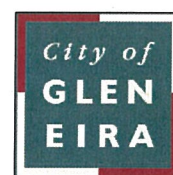


PLAN



SECTION 2-2

GLEN EIRA CITY COUNCIL



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	Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009	STD-105_JP
Drawn	CAP WORKS	AUG 2009	Reference
Checked			-
Approved	<i>Paul Wilk</i> 23-6-14		Version
Dir. Assets & Facilities	Date		Date

JUNCTION PITS (COVER, GRATE, V-GRATE & DEPRESSED GRATE)

SCALE:	AS SHOWN	DRG. NO.	STD-105	SHEET	1 OF 1
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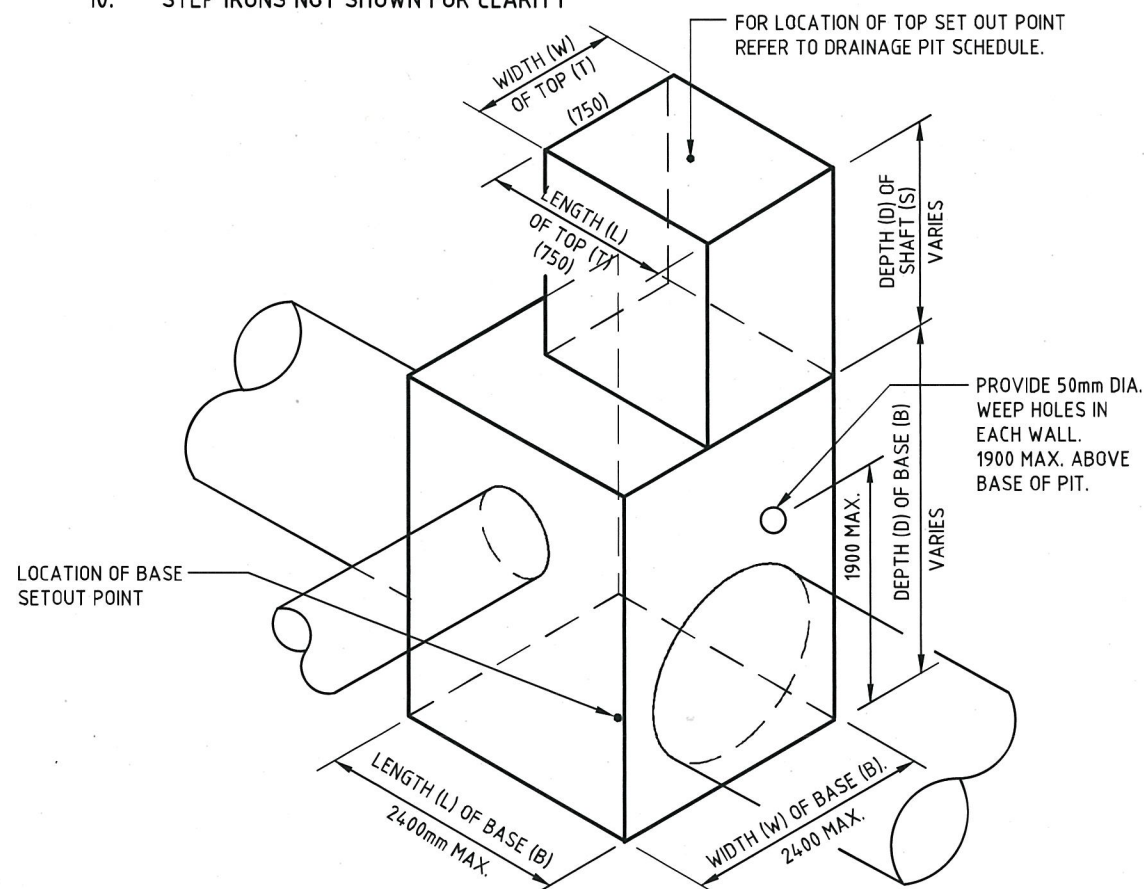
NOTES:

CONCRETE

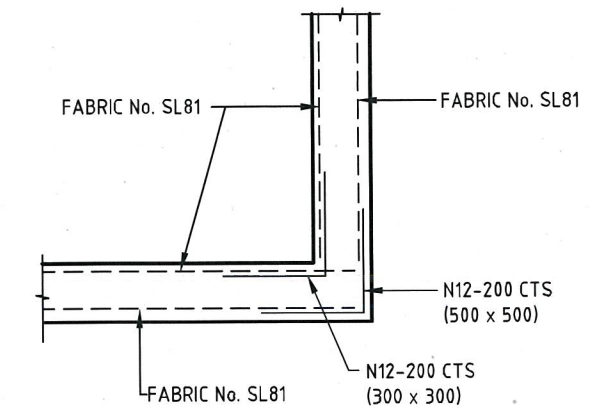
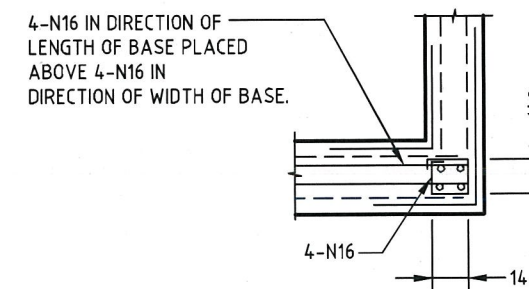
1. CONCRETE STRENGTH GRADE SHALL BE N32 STANDARD STRENGTH CONCRETE OR HIGHER COMPLYING WITH THE REQUIREMENTS OF AS 1379
2. ALL CORNERS SHALL HAVE 20x20mm FILLETS OF CHAMFERS UNLESS NOTED OTHERWISE.

REINFORCEMENT

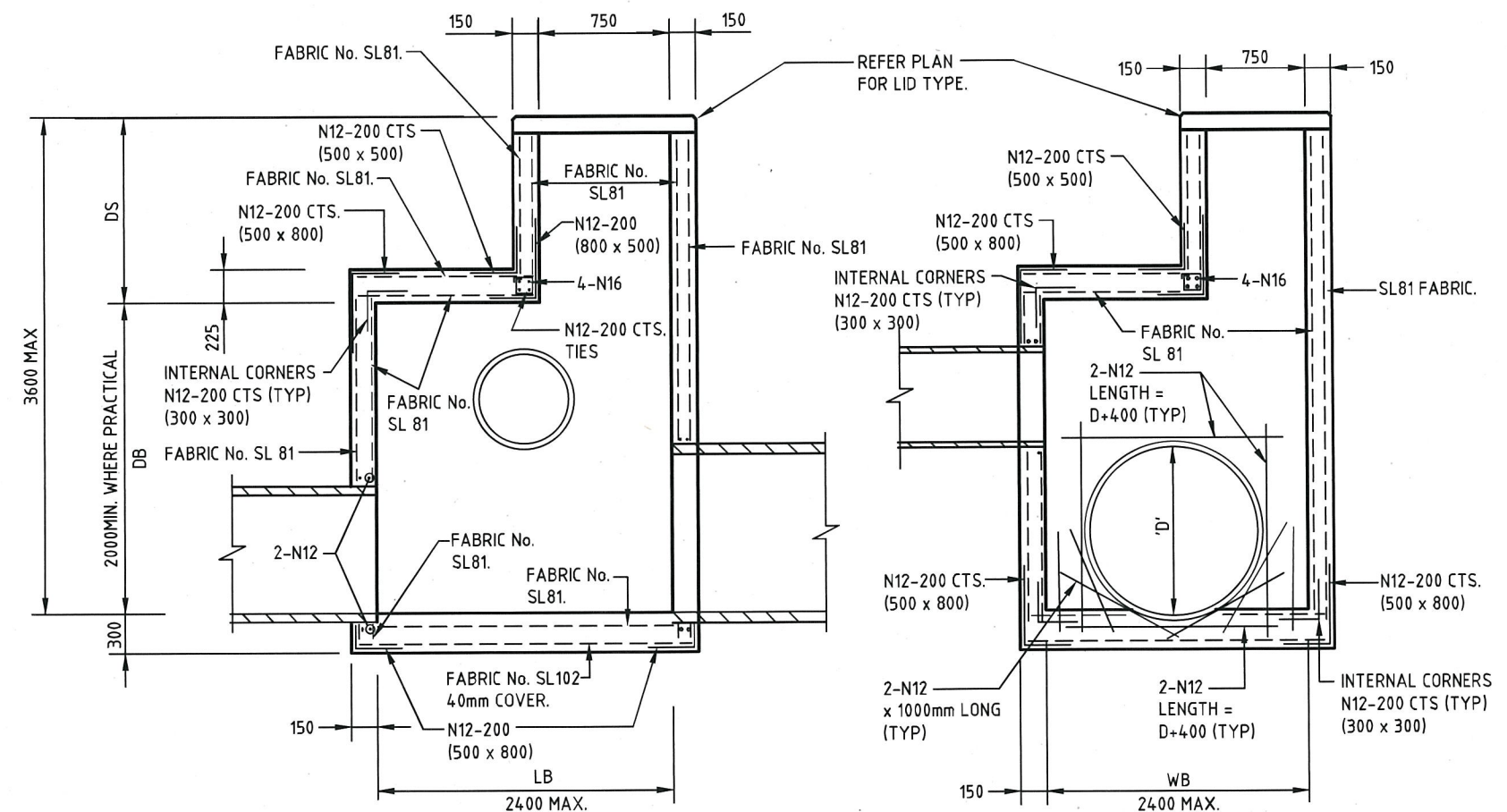
3. COVER - 35mm UNLESS NOTED OTHERWISE
4. SPACING - TAKEN AS EQUAL UNLESS NOTED OTHERWISE
5. GRADE - 500(VN) TO AS/NZS 4671
6. WELDED WIRE REINFORCING FABRIC SHALL COMPLY TO AS/NZS 4671
7. WELDING - SHALL NOT BE PERMITTED UNLESS NOTED OTHERWISE
8. TREADS - FOR STEP IRON DETAIL REFER TO STD-102
9. STEELWORK SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH AS/NZS 4680
10. STEP IRONS NOT SHOWN FOR CLARITY



TYPICAL INTERNAL PIT DIMENSIONS

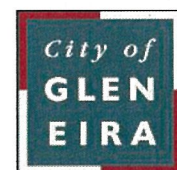


CORNER DETAILS - PLAN VIEW



TYPICAL SECTIONS THROUGH PIT LENGTH & WIDTH

CITY OF GLEN EIRA



Corner Glen Eira and Hawthorn Roads
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Caulfield South Vic 3162
Phone 9524 3333
Fax 9524 3424
E-Mail mail@gleneira.vic.gov.au
Web www.gleneira.vic.gov.au

	Initials	Date	CAD Reference
Designed	HM	NOV 2010	STD-105A_JP(LARGE)
Drawn	HM	NOV 2010	Reference
Checked			-
Approved			Version
			-
			Date
			16.01.12

LARGE JUNCTION PIT TYPE A
2400 x 2400 x 3600mm MAX. DEPTH

SCALE: AS SHOWN	DRG. NO. STD-105A	SHEET 1 OF 1
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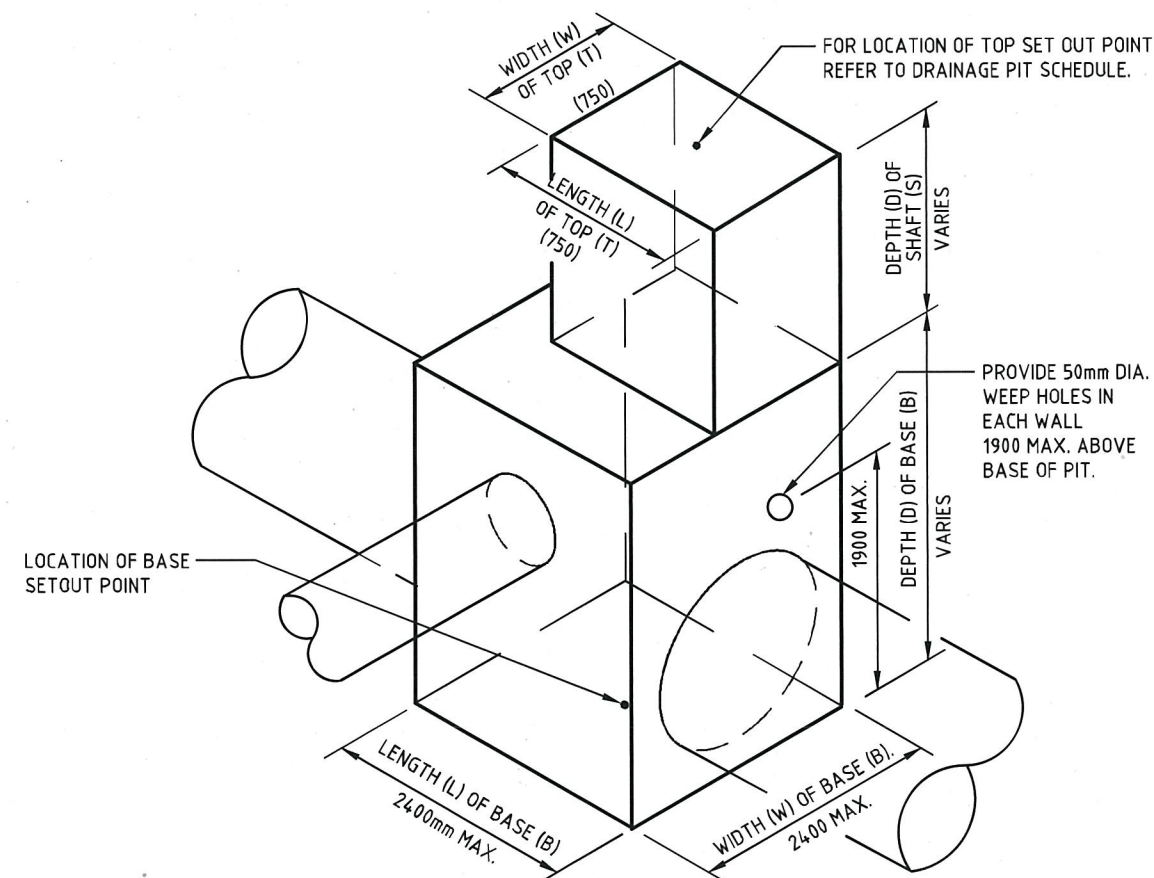
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CONCRETE

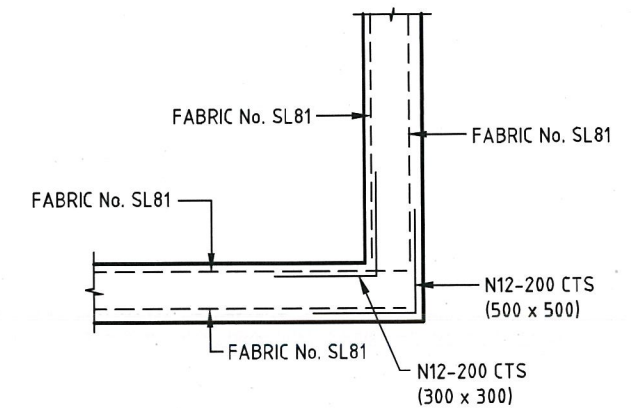
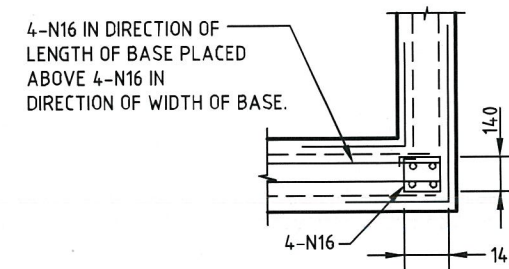
1. CONCRETE STRENGTH GRADE SHALL BE N32 STANDARD STRENGTH CONCRETE OR HIGHER COMPLYING WITH THE REQUIREMENTS OF AS 1379
2. ALL CORNERS SHALL HAVE 20x20mm FILLETS OF CHAMFERS UNLESS NOTED OTHERWISE.

REINFORCEMENT

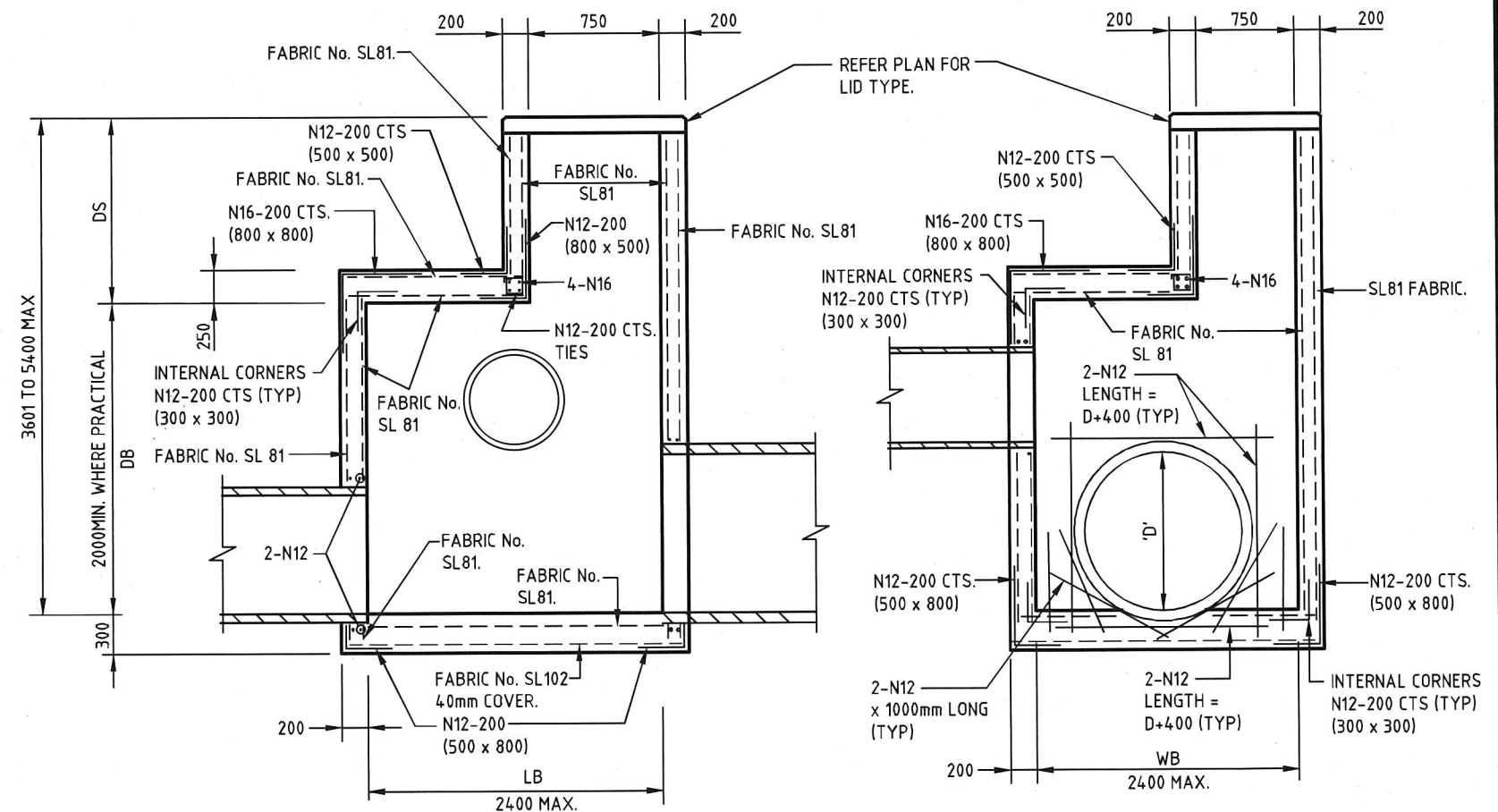
3. COVER - 35mm UNLESS NOTED OTHERWISE
4. SPACING - TAKEN AS EQUAL UNLESS NOTED OTHERWISE
5. GRADE - 500(VN) TO AS/NZS 4671
6. WELDED WIRE REINFORCING FABRIC SHALL COMPLY TO AS/NZS 4671
7. WELDING - SHALL NOT BE PERMITTED UNLESS NOTED OTHERWISE
8. STEP IRONS - FOR STEP IRON DETAIL REFER TO STD-102
9. STEELWORK SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH AS/NZS 4680
10. STEP IRONS NOT SHOWN FOR CLARITY



TYPICAL INTERNAL PIT DIMENSIONS

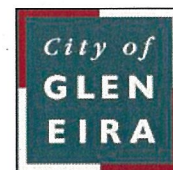


CORNER DETAILS - PLAN VIEW



TYPICAL SECTIONS THROUGH PIT LENGTH & WIDTH

CITY OF GLEN EIRA



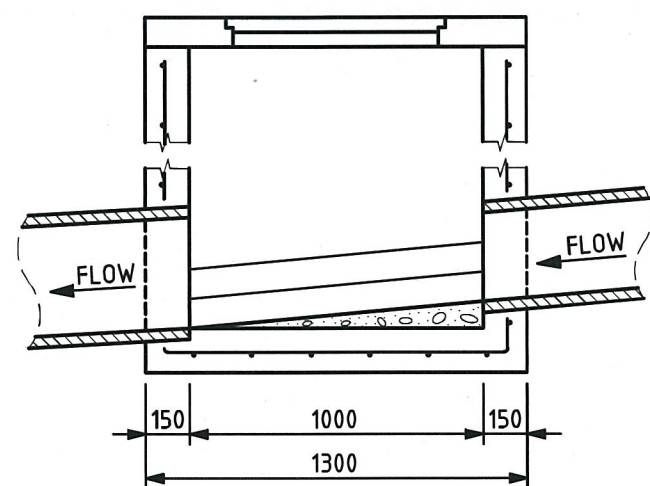
Corner Glen Eira and Hawthorn Roads
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Caulfield South Vic 3162
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E-Mail mail@gleneira.vic.gov.au
Web www.gleneira.vic.gov.au

	Initials	Date	CAD Reference
Designed	HM	NOV 2010	STD-105B_JP(LARGE)
Drawn	HM	NOV 2010	Reference
Checked			-
Approved	<i>Paul Webb</i>		Version
Dir. Assets & Facilities	Date	16.01.12	

LARGE JUNCTION PIT TYPE B
2400 x 2400 x 5400mm MAX. DEPTH

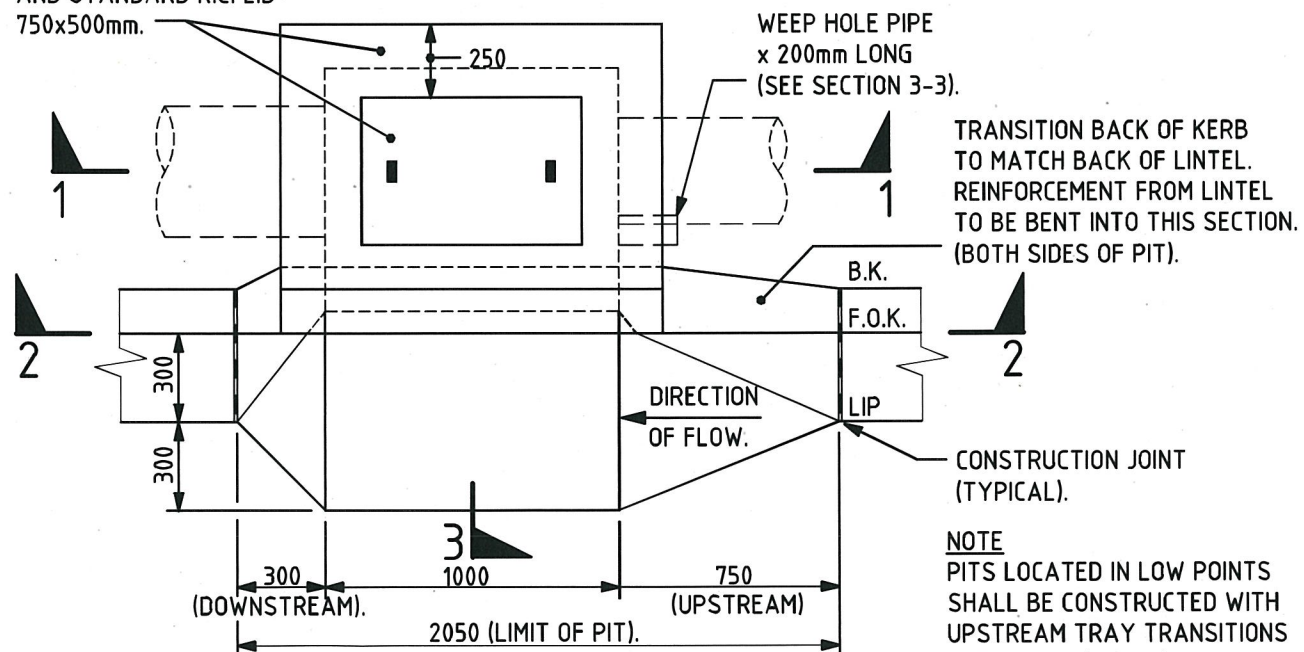
SCALE: AS SHOWN	DRG. NO. STD-105B	SHEET 1 OF 1
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SECTION 2-2

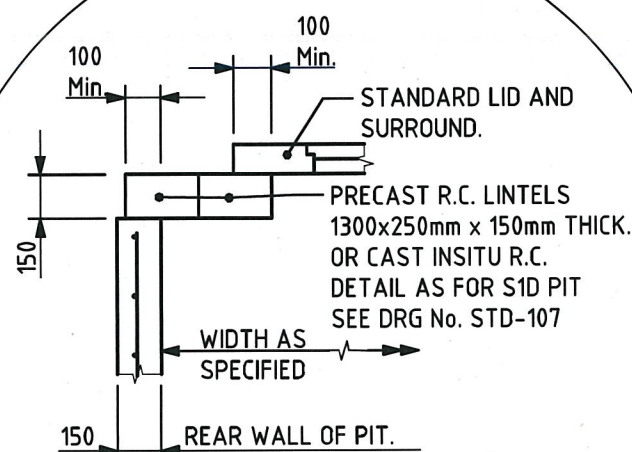


SECTION 1-1

PRECAST R.C. LID SURROUND
1300x900mm x 125mm THICK
AND STANDARD R.C. LID
750x500mm.



PLAN

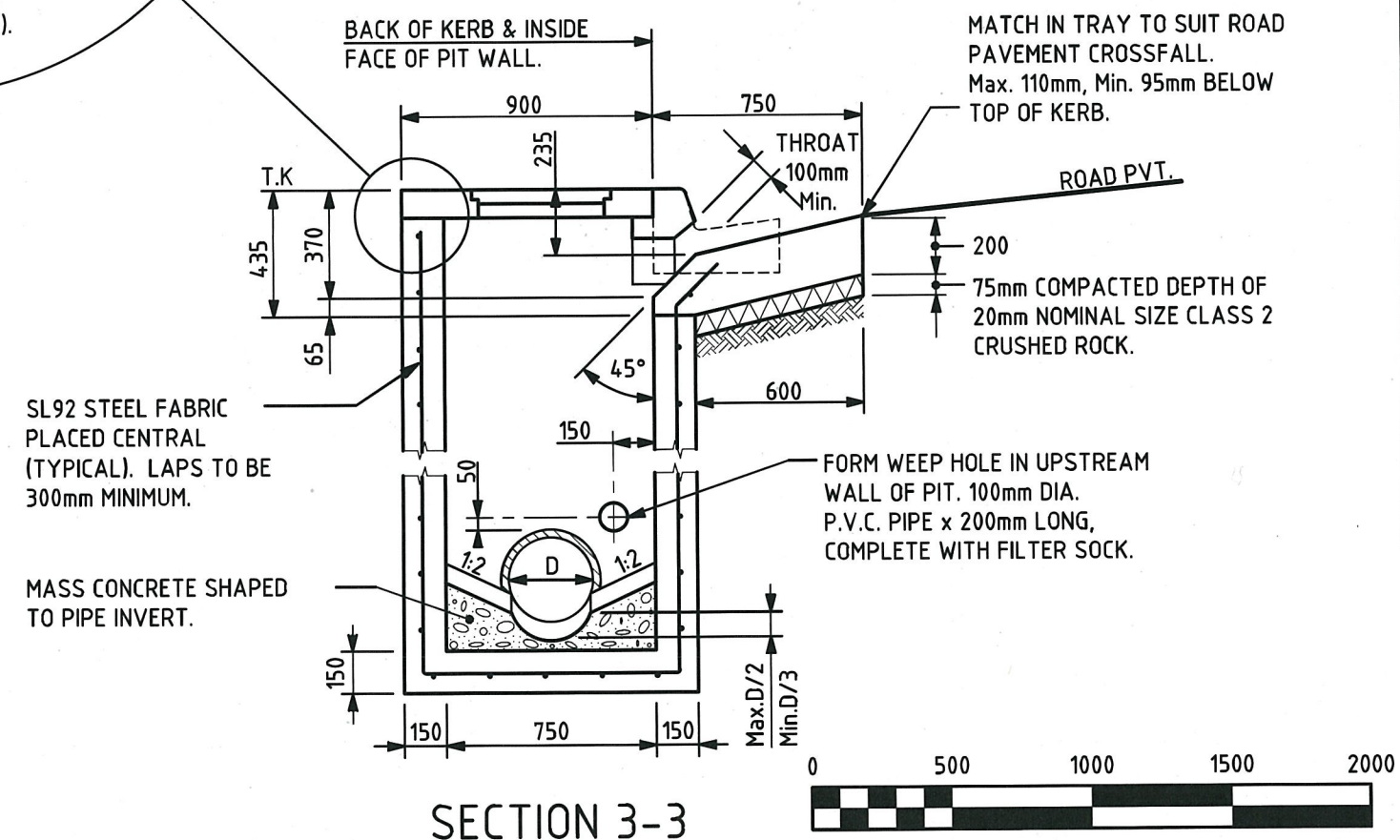


REAR LINTEL DETAIL

(For Pits Greater Than
750mm Standard Width).

NOTES:

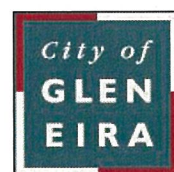
1. WALL THICKNESS AND REINFORCEMENT SHALL APPLY TO ALL PITS UP TO 3000mm DEEP. FOR DEEPER PITS SEE STD-113 AND STD-114.
2. ALL REINFORCEMENT LAPS SHALL BE 300mm LONG.
3. MINIMUM COVER TO REINFORCEMENT SHALL BE 50mm UNLESS OTHERWISE SPECIFIED.
4. ALL REINFORCEMENT SHALL BE SL92 STEEL FABRIC, UNLESS OTHERWISE SPECIFIED.
5. PITS UP TO 2000mm DEEP SHALL BE CAST WITH WALLS AND FLOOR SLABS UNREINFORCED, UNLESS OTHERWISE SPECIFIED.
6. PITS DEEPER THAN 1000mm AND UP TO 3000mm SHALL BE FITTED WITH STEP IRONS. SEE STD-102. PITS DEEPER THAN 3000mm SHALL BE FITTED WITH LADDERS.
7. PIT DIMENSIONS AND REFERENCES TO BACK OF KERB ARE BASED ON STANDARD CONCRETE BARRIER TYPE B1 KERB PROFILE, 150mm KERB HEIGHT. SEE STD-301.
8. FOR PITS OF LENGTH GREATER THAN 1000mm CORBEL ROOF AT REAR AND SIDES USING CAST INSITU DETAIL AS PER REAR LINTEL FOR DOUBLE SIDE ENTRY PIT TYPE S1D. SEE STD-107.




SECTION 3-3

SCALE OF MM

CITY OF GLEN EIRA

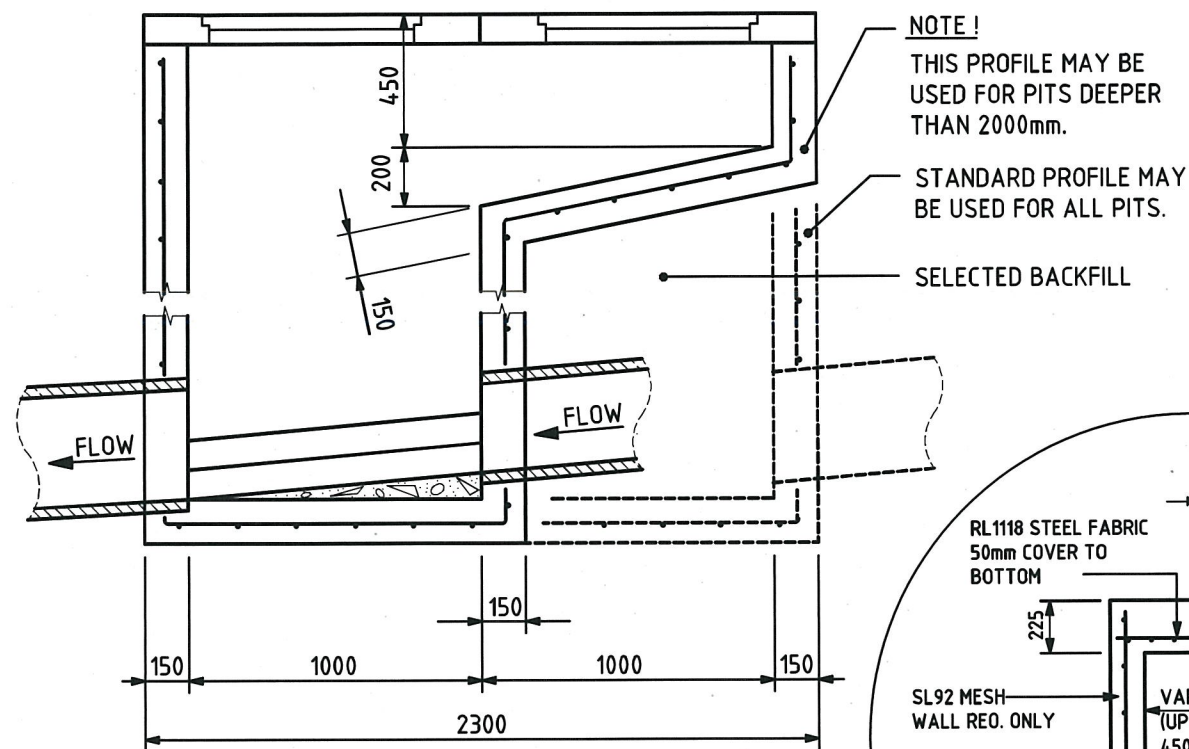


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	Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009	STD-106__S1 SEP
Drawn	CAP WORKS	AUG 2009	Reference
Checked			-
Approved	 Dir. Assets & Facilities		Version
			Date 16.01.17

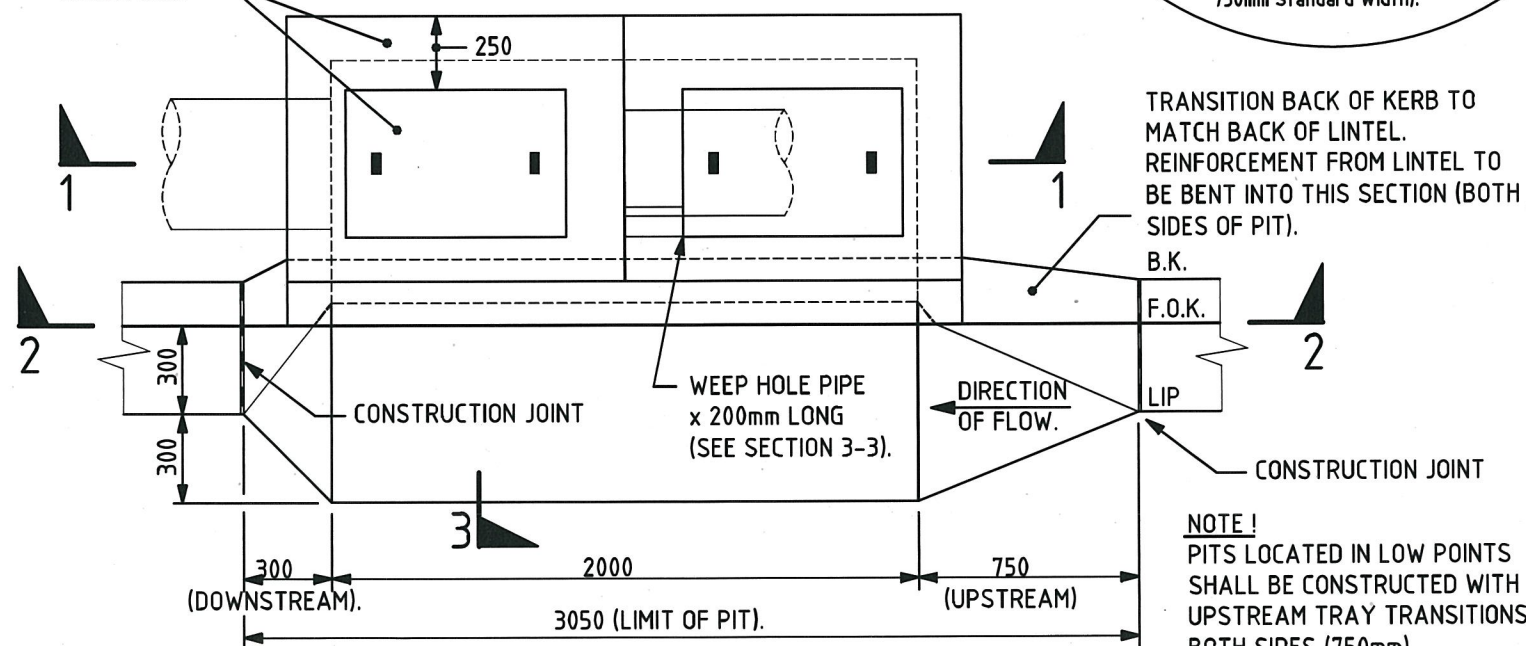
S1 TYPE SIDE ENTRY PIT
SINGLE

SCALE:	AS SHOWN	DRG. NO.	STD-106	SHEET	1 OF 1
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SECTION 1-1

2No PRECAST R.C. LID SURROUND
1150x900mm x 125mm THICK
AND STANDARD R.C. LID
750x500mm.

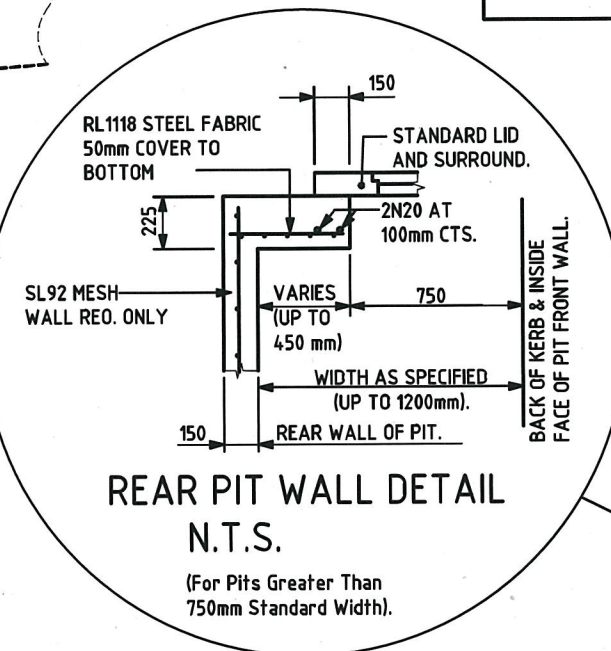


PLAN

NOTE!
THIS PROFILE MAY BE
USED FOR PITS DEEPER
THAN 2000mm.

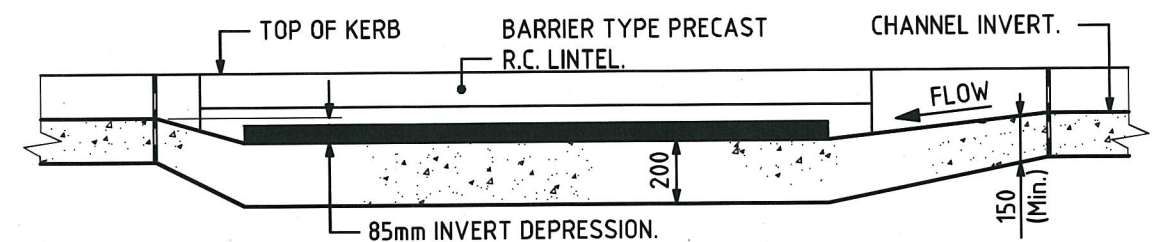
STANDARD PROFILE MAY
BE USED FOR ALL PITS.

SELECTED BACKFILL

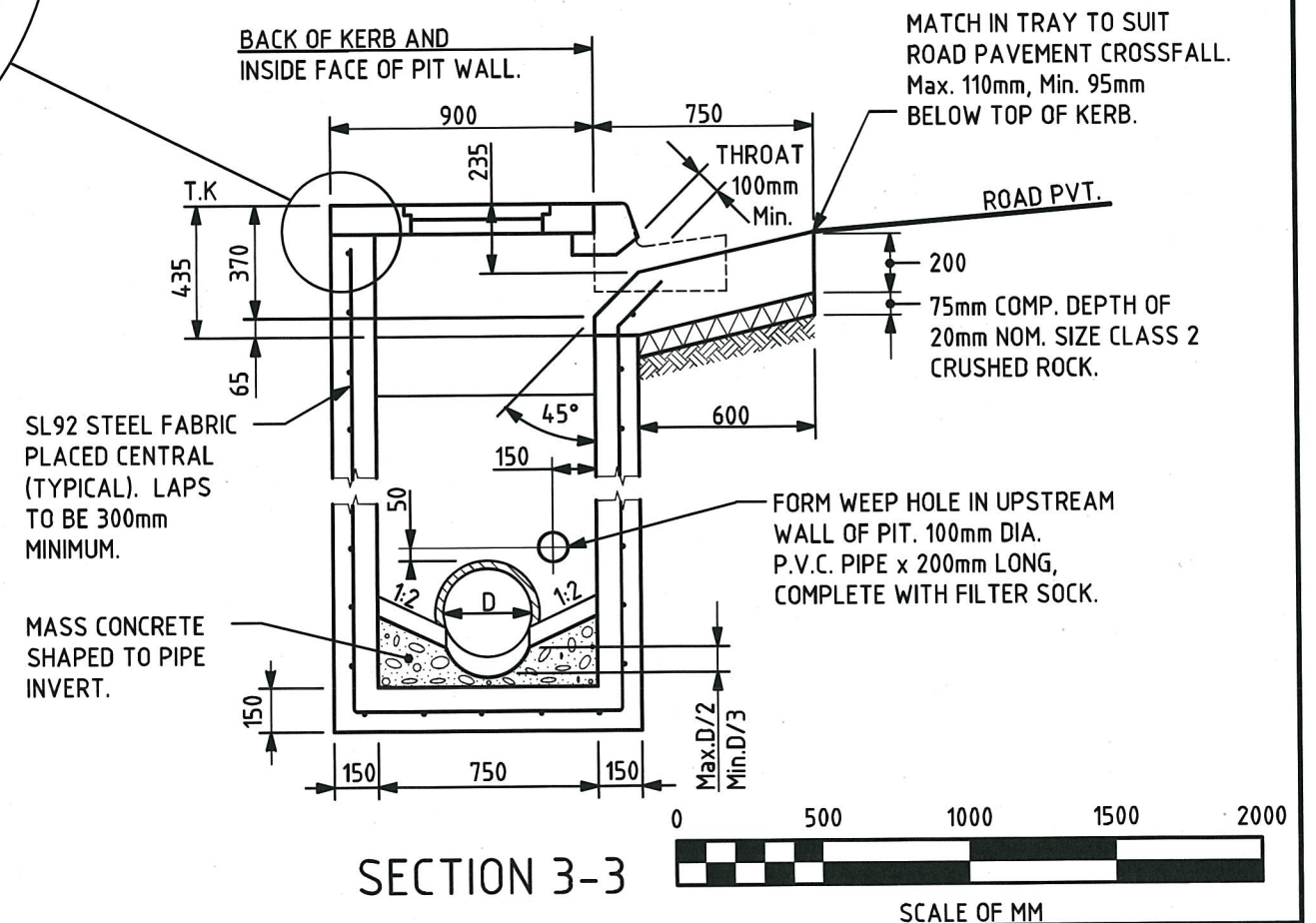


REAR PIT WALL DETAIL
N.T.S.
(For Pits Greater Than
750mm Standard Width).

- NOTES:**
1. WALL THICKNESS AND REINFORCEMENT SHALL APPLY TO ALL PITS UP TO 3000mm DEEP. FOR DEEPER PITS STD-113 AND STD-114.
 2. ALL REINFORCEMENT LAPS SHALL BE 300mm, UNLESS OTHERWISE SPECIFIED.
 3. MINIMUM COVER FOR REINFORCEMENT SHALL BE 50mm, UNLESS OTHERWISE SPECIFIED.
 4. ALL REINFORCEMENT SHALL BE SL92 STEEL FABRIC, UNLESS OTHERWISE SPECIFIED.
 5. PITS UP TO 2000mm DEEP SHALL BE CAST WITH WALLS AND FLOOR SLABS UNREINFORCED, UNLESS OTHERWISE SPECIFIED.
 6. PITS DEEPER THAN 1000mm AND UP TO 3000mm SHALL BE FITTED WITH STEP IRONS. SEE STD-102. PITS DEEPER THAN 3000mm SHALL BE FITTED WITH LADDERS.
 7. PIT DIMENSIONS AND REFERENCES TO BACK OF KERB ARE BASED ON STANDARD CONCRETE BARRIER TYPE B1 KERB PROFILE, 150mm KERB HEIGHT. SEE STD-301.

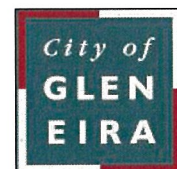


SECTION 2-2



SECTION 3-3

CITY OF GLEN EIRA

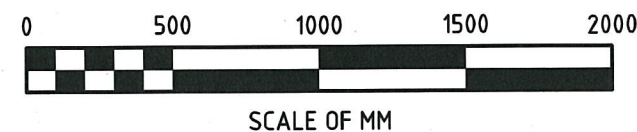


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	Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009	STD-107_S1 DSEP
Drawn	CAP WORKS	AUG 2009	Reference
Checked			-
Approved	<i>Paul Wilkes</i>		Version
Dir. Assets & Facilities	Date	16.01.12	-

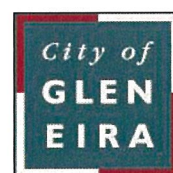
**S1D TYPE SIDE ENTRY PIT
DOUBLE**

SCALE: AS SHOWN DRG. NO. STD-107 SHEET 1 OF 1




1. WALL THICKNESS AND REINFORCEMENT SHALL APPLY TO ALL PITS UP TO 3000mm DEEP. FOR DEEPER PITS SEE STD-113 AND STD-114.
2. ALL REINFORCEMENT LAPS SHALL BE 300mm LONG.
3. MINIMUM COVER TO REINFORCEMENT SHALL BE 50mm UNLESS OTHERWISE SPECIFIED.
4. ALL REINFORCEMENT SHALL BE SL92 STEEL FABRIC, UNLESS OTHERWISE SPECIFIED.
5. PITS UP TO 2000mm DEEP SHALL BE CAST WITH WALLS AND FLOOR SLABS UNREINFORCED, UNLESS OTHERWISE SPECIFIED.
6. PITS DEEPER THAN 1000mm AND UP TO 3000mm SHALL BE FITTED WITH STEP IRONS. SEE STD-102. PITS DEEPER THAN 3000mm SHALL BE FITTED WITH LADDERS.
7. PIT DIMENSIONS AND REFERENCES TO BACK OF KERB ARE BASED ON STANDARD CONCRETE BARRIER TYPE B1 KERB PROFILE, 150mm KERB HEIGHT. SEE STD-301.

CITY OF GLEN EIRA

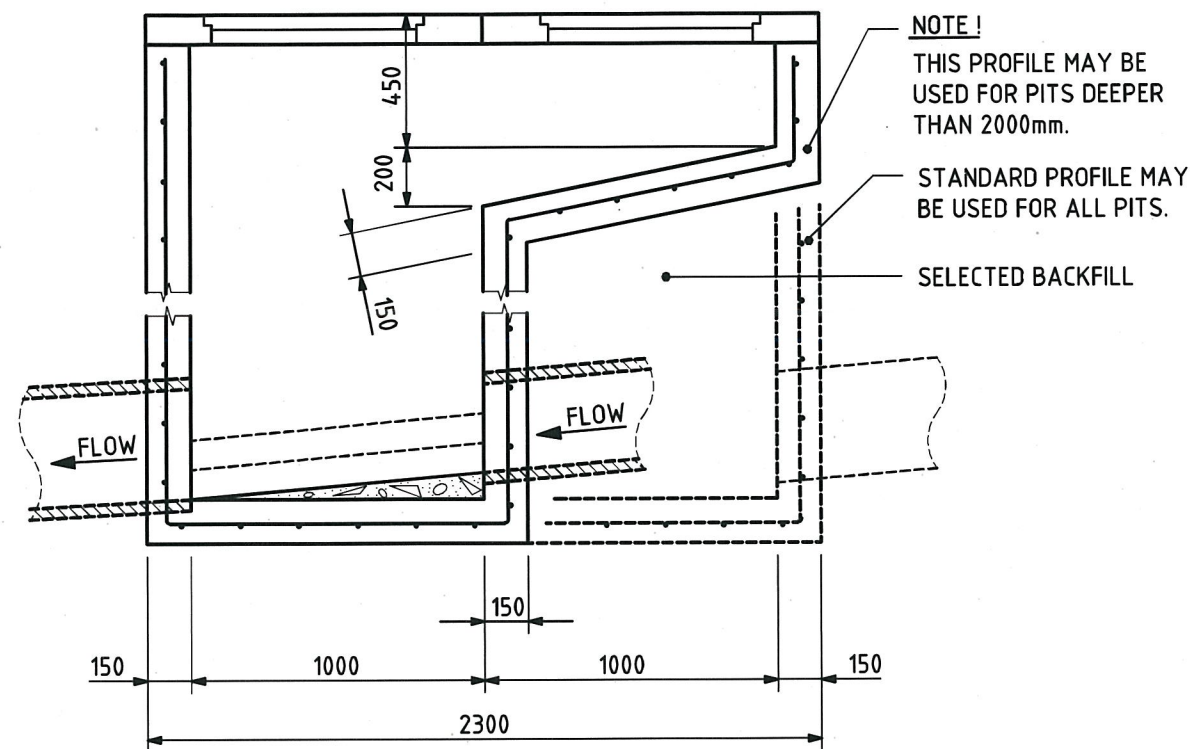


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	Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009	STD-108_S2 SEP
Drawn	CAP WORKS	AUG 2009	Reference
Checked			-
Approved	 Dir. Assets & Facilities		Version
			Date
			16.0.12

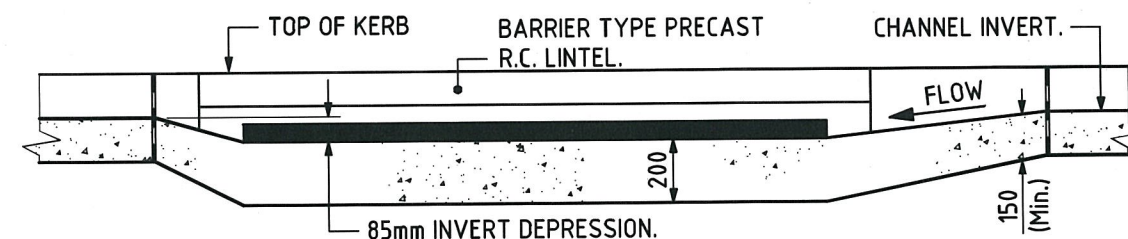
S2 TYPE SIDE ENTRY PIT
SINGLE

SCALE:	AS SHOWN	DRG. NO.	STD-108	SHEET	1 OF 1
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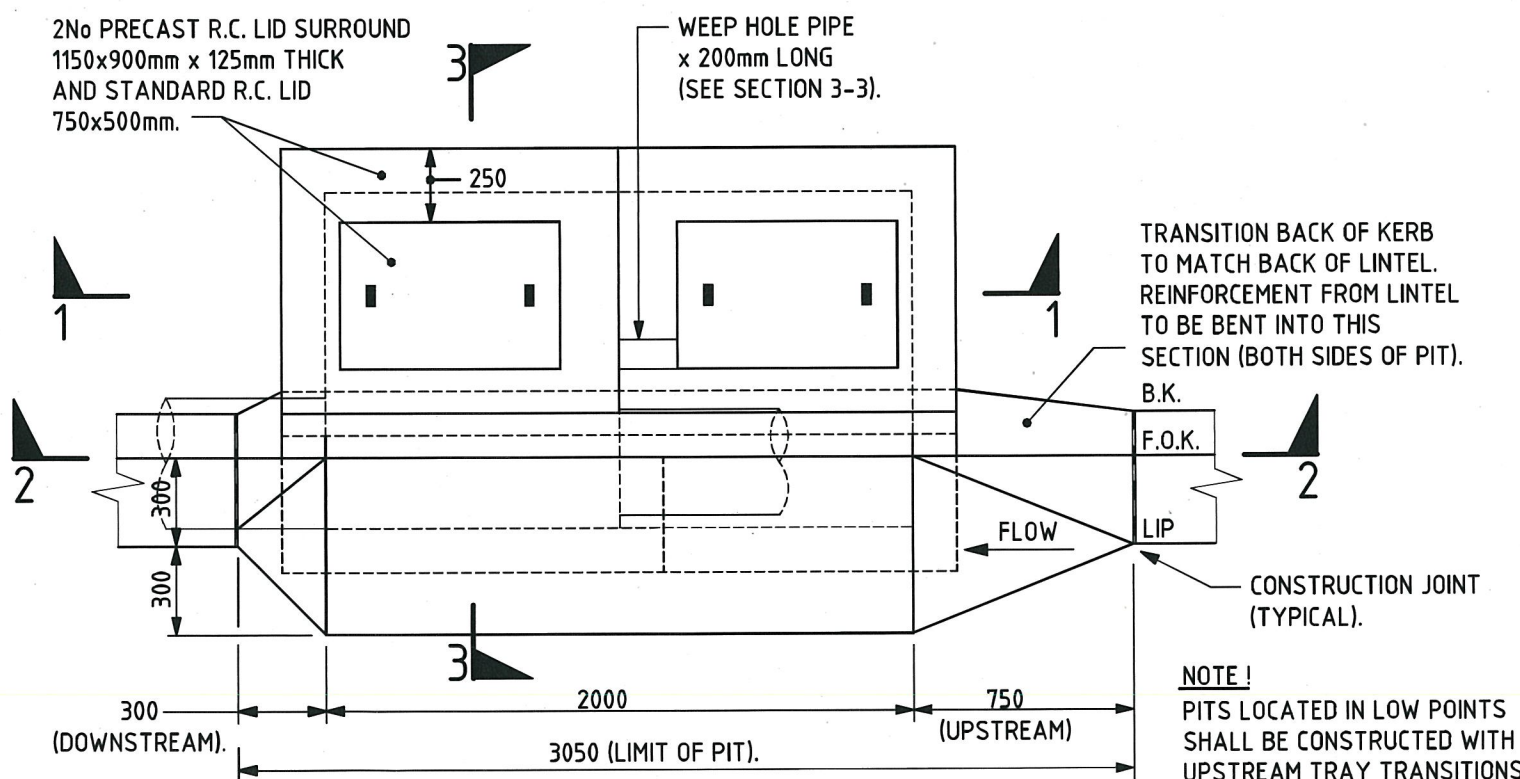


SECTION 1-1

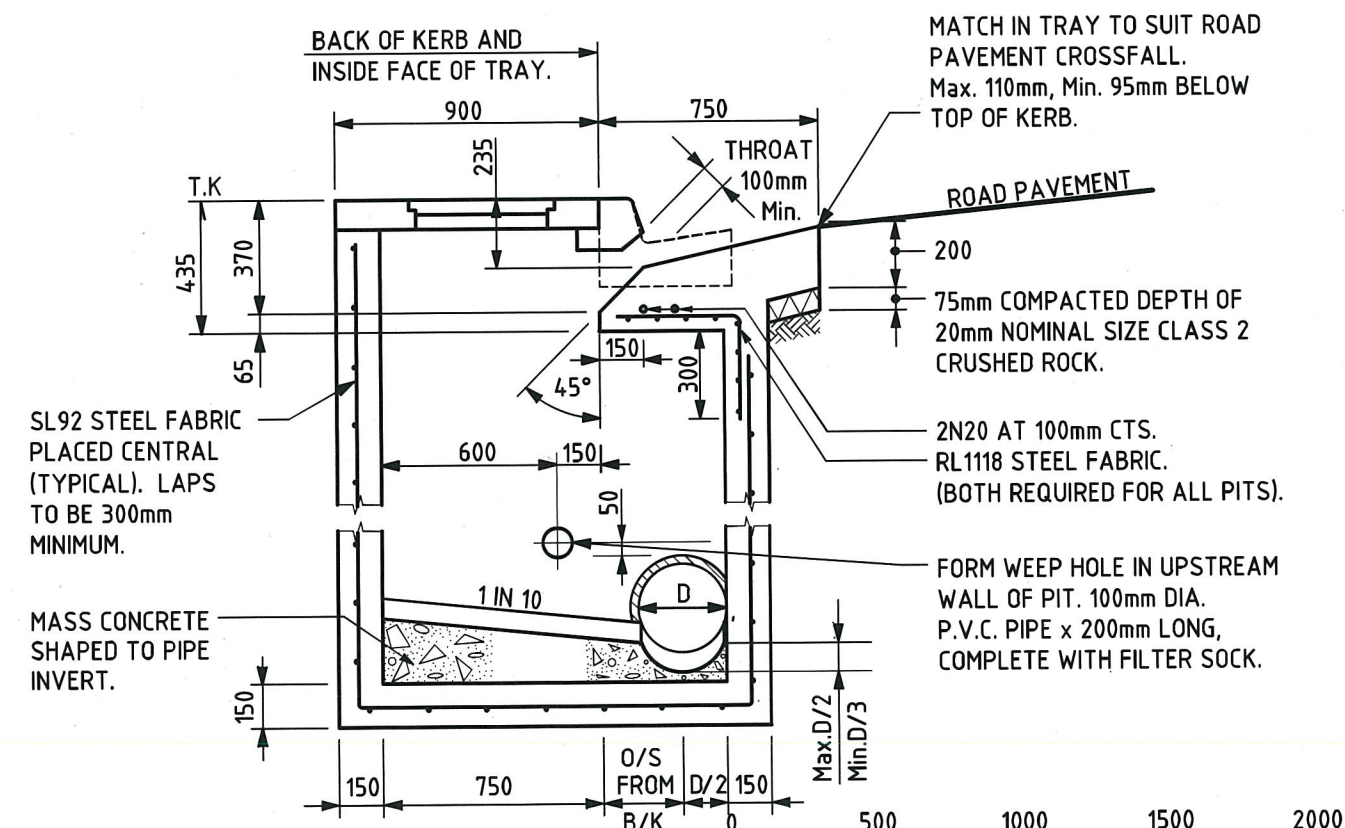
- NOTES:**
1. WALL THICKNESS AND REINFORCEMENT SHALL APPLY TO ALL PITS UP TO 3000mm DEEP. FOR DEEPER PITS SEE STD-113 AND STD-114.
 2. ALL REINFORCEMENT LAPS SHALL BE 300mm, UNLESS OTHERWISE SPECIFIED.
 3. MINIMUM COVER FOR REINFORCEMENT SHALL BE 50mm, UNLESS OTHERWISE SPECIFIED.
 4. ALL REINFORCEMENT SHALL BE SL92 STEEL FABRIC, UNLESS OTHERWISE SPECIFIED.
 5. PITS UP TO 2000mm DEEP SHALL BE CAST WITH WALLS AND FLOOR SLABS UNREINFORCED, UNLESS OTHERWISE SPECIFIED.
 6. PITS DEEPER THAN 1000mm AND UP TO 3000mm SHALL BE FITTED WITH STEP IRONS. SEE STD-102 PITS DEEPER THAN 3000mm SHALL BE FITTED WITH LADDERS.
 7. PIT DIMENSIONS AND REFERENCES TO BACK OF KERB ARE BASED ON STANDARD CONCRETE BARRIER TYPE B1 KERB PROFILE, 150mm KERB HEIGHT. SEE STD-301.



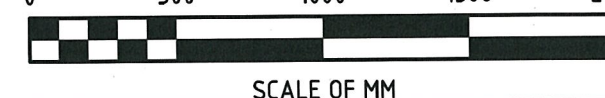
SECTION 2-2



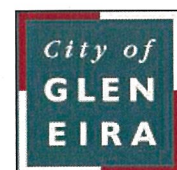
PLAN



SECTION 3-3



CITY OF GLEN EIRA

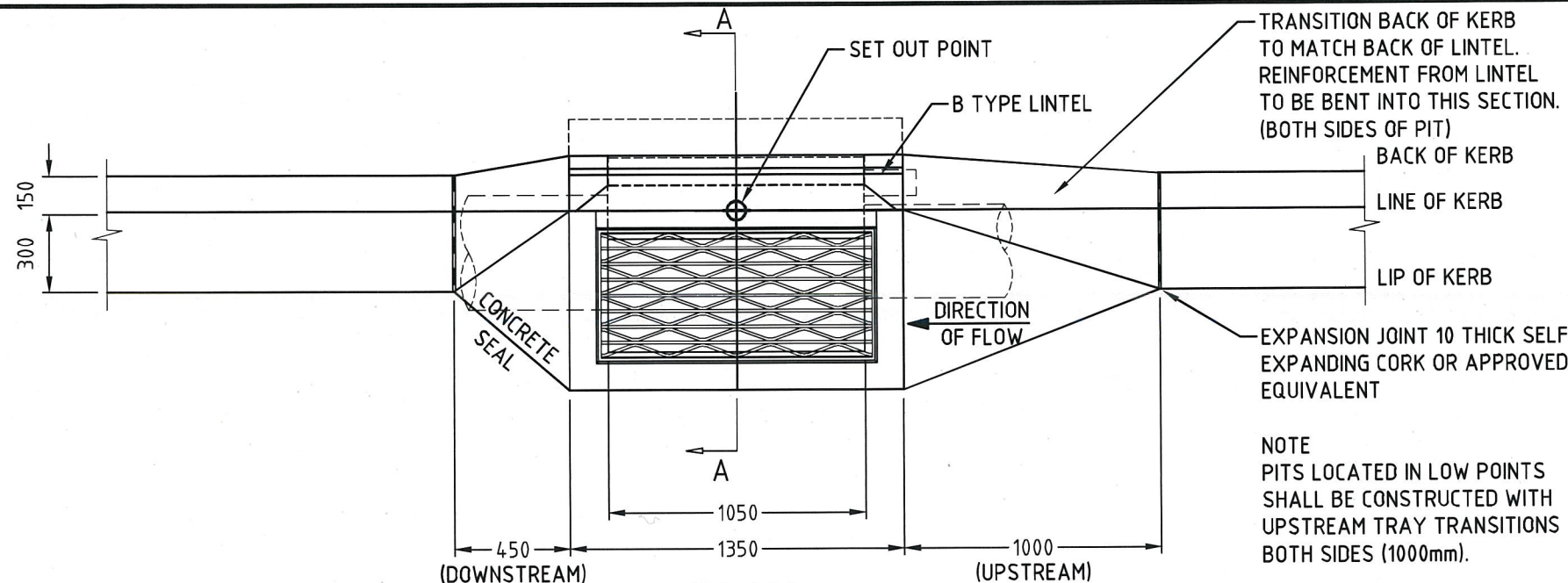


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	Initials	Date	CAD Reference
Designed	CAP WORKS	JUL 2009	STD-109_S2 DSEP
Drawn	CAP WORKS	JUL 2009	Reference
Checked			-
Approved	<i>[Signature]</i>		Version
Dir. Assets & Facilities		Date	16-01-12

**S2D TYPE SIDE ENTRY PIT
DOUBLE**

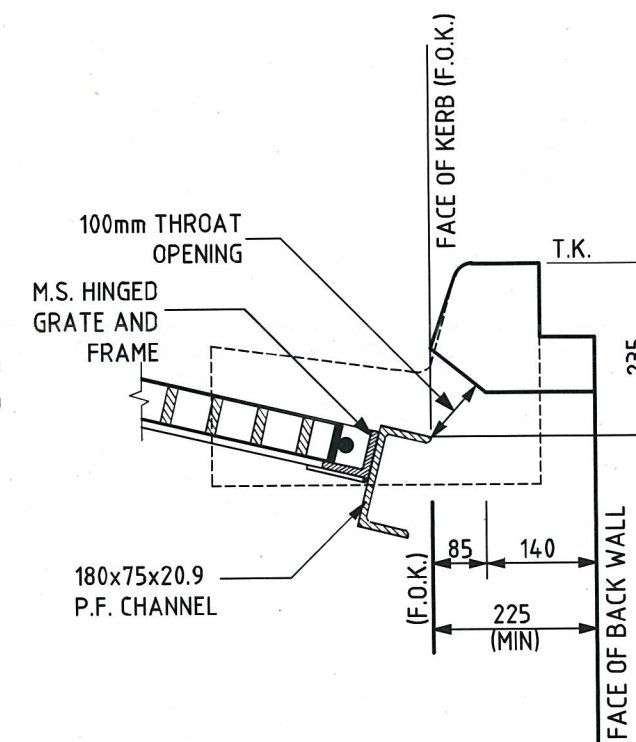
SCALE: AS SHOWN	DRG. NO. STD-109	SHEET 1 OF 1
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PLAN

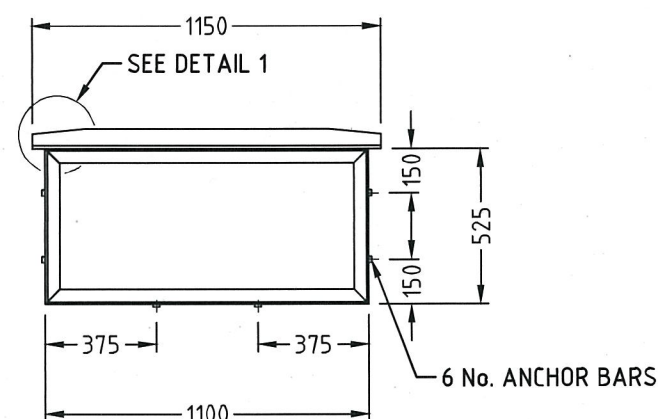
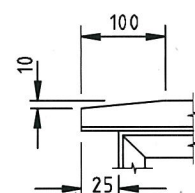
NOTES:

1. HAUNCHING MAY BE REQUIRED FOR PIPES OVER 450 DIAMETER. REFER TO PIT SCHEDULE FOR SIZES OF SPECIFIC PITS. PITS WITH HAUNCHING IN TWO DIRECTIONS REQUIRE SPECIAL STRUCTURAL DESIGN.
2. PIT REINFORCEMENT - SL92. LAPS TO BE 300 MINIMUM. CLEAR COVER TO BE 50 MINIMUM. CORNER RETURN REINFORCEMENT MAY BE FABRIC OR EQUIVALENT BARS. BARS GRADE D500N & FABRICS TO COMPLY WITH AS/NZS 4671. CONCRETE SHALL BE NORMAL-CLASS N32 STANDARD STRENGTH GRADE OR HIGHER COMPLYING WITH THE REQUIREMENTS OF AS 1379. EXPOSURE CLASSIFICATIONS UP TO AND INCLUDING B1.
3. PITS DEEPER THAN 1000 SHALL BE FITTED WITH STEP IRONS. REFER TO STD-102.
4. CONCRETE LINTEL IS REQUIRED TO SUPPORT A TEST LOAD OF 100 kN IN ACCORDANCE WITH VICROADS' "INTERIM TEST METHOD FOR TEST LOADING PIT COVERS, LINTELS AND LIDS."
5. PRECAST UNITS MAY BE CONSTRUCTED TO THE MANUFACTURER'S DETAILS. THE DESIGN SHALL COMPLY WITH THE AS 5100 BRIDGE DESIGN AND THE FOLLOWING ADDITIONAL REQUIREMENTS:
 - a. COMBINED FACTORED LATERAL PRESSURE AT ANY POINT AT THE ULTIMATE LIMIT STATE SHALL BE NOT LESS THAN 25 kPa.
 - b. ADEQUATE DRAINAGE SHALL BE PROVIDED TO PIT WALLS TO AVOID HYDROSTATIC PRESSURE.
 - c. VERTICAL LOAD 210 kN APPLIED ANYWHERE ON PIT.
 - d. MINIMUM REINFORCEMENT AREA SHALL BE 150 mm² /m.
 - e. CONCRETE SHALL BE NORMAL-CLASS N32 STANDARD STRENGTH GRADE OR HIGHER COMPLYING WITH THE REQUIREMENTS OF AS 1379. EXPOSURE CLASSIFICATIONS UP TO AND INCLUDING B1.
6. GRATE FRAME SHALL BE CONSTRUCTED FROM 75x50x8 MS ANGLE. EACH CORNER SHALL BE CHAMFERED ON UNDERSIDE OF HORIZONTAL LEG AND ON INSIDE OF VERTICAL LEG BEFORE WELDING WITH SINGLE V BUTT WELD. FRAME TO BE WELDED TO 125 X 65 13.4kg/m TF CHANNEL.
7. BOTH GRATE AND GRATE FRAME SHALL BE HOT DIP GALVANIZED TO AS 1650 UNLESS SPECIFIED OTHERWISE.
8. PRECAST CONCRETE LINTELS IN ACCORDANCE WITH GECC STANDARD DRAWING STD-104.

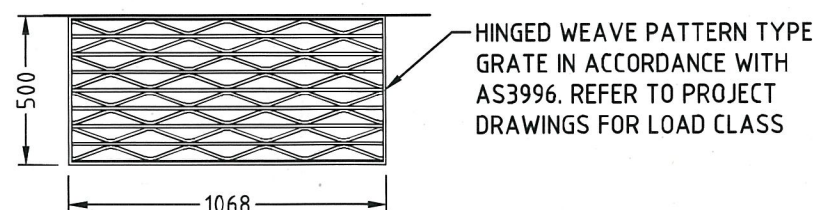


SECTION THROUGH GRATE

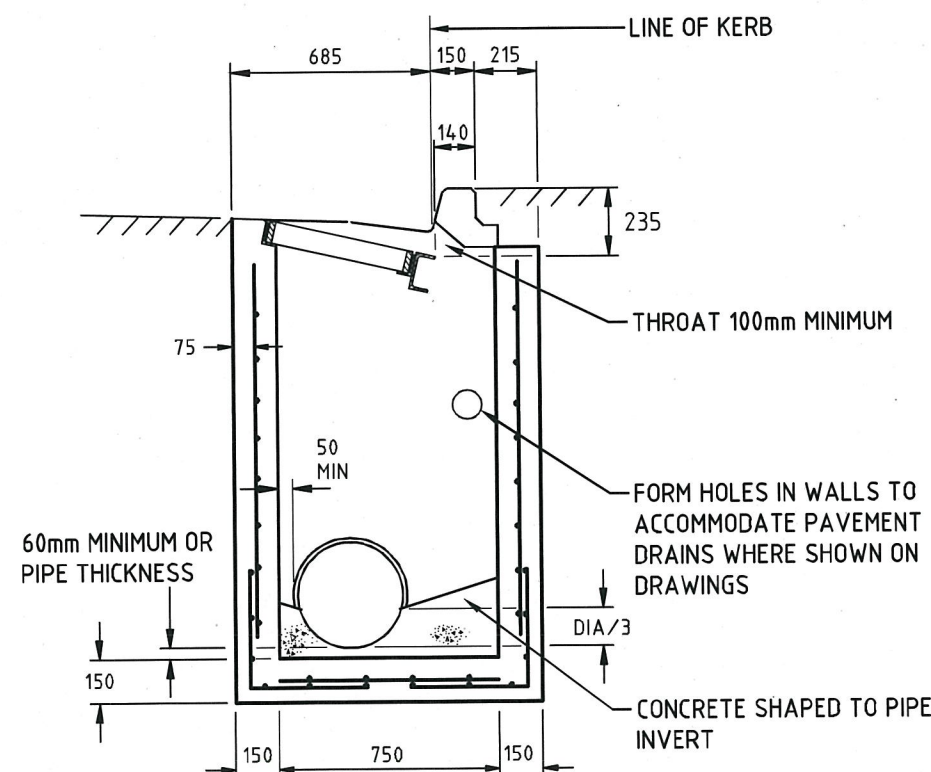
DETAIL 1



GRATE FRAME

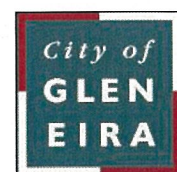


GRATE



SECTION A-A

CITY OF GLEN EIRA

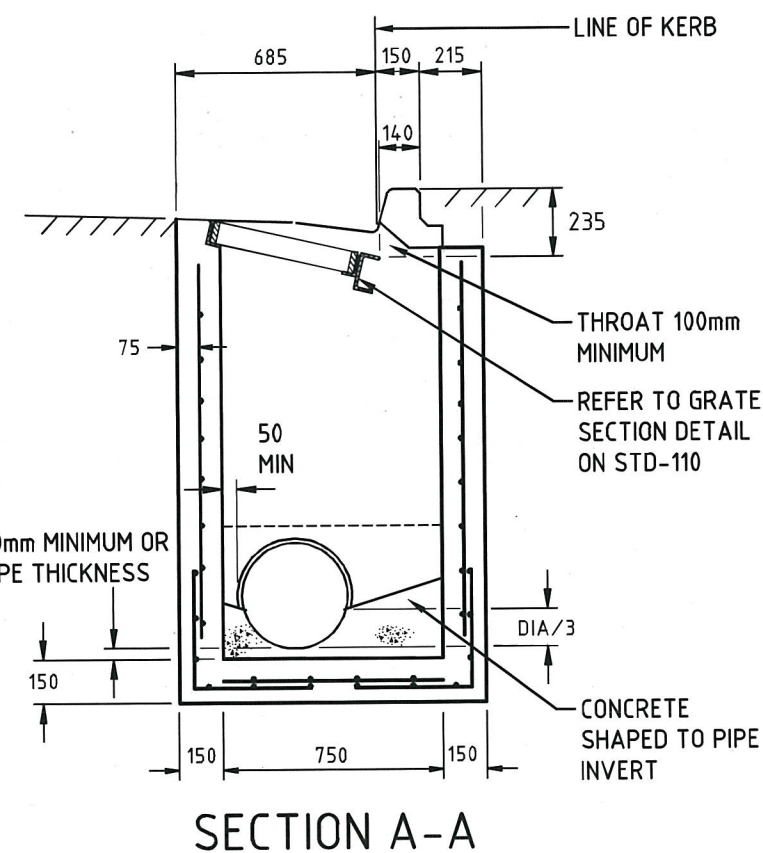
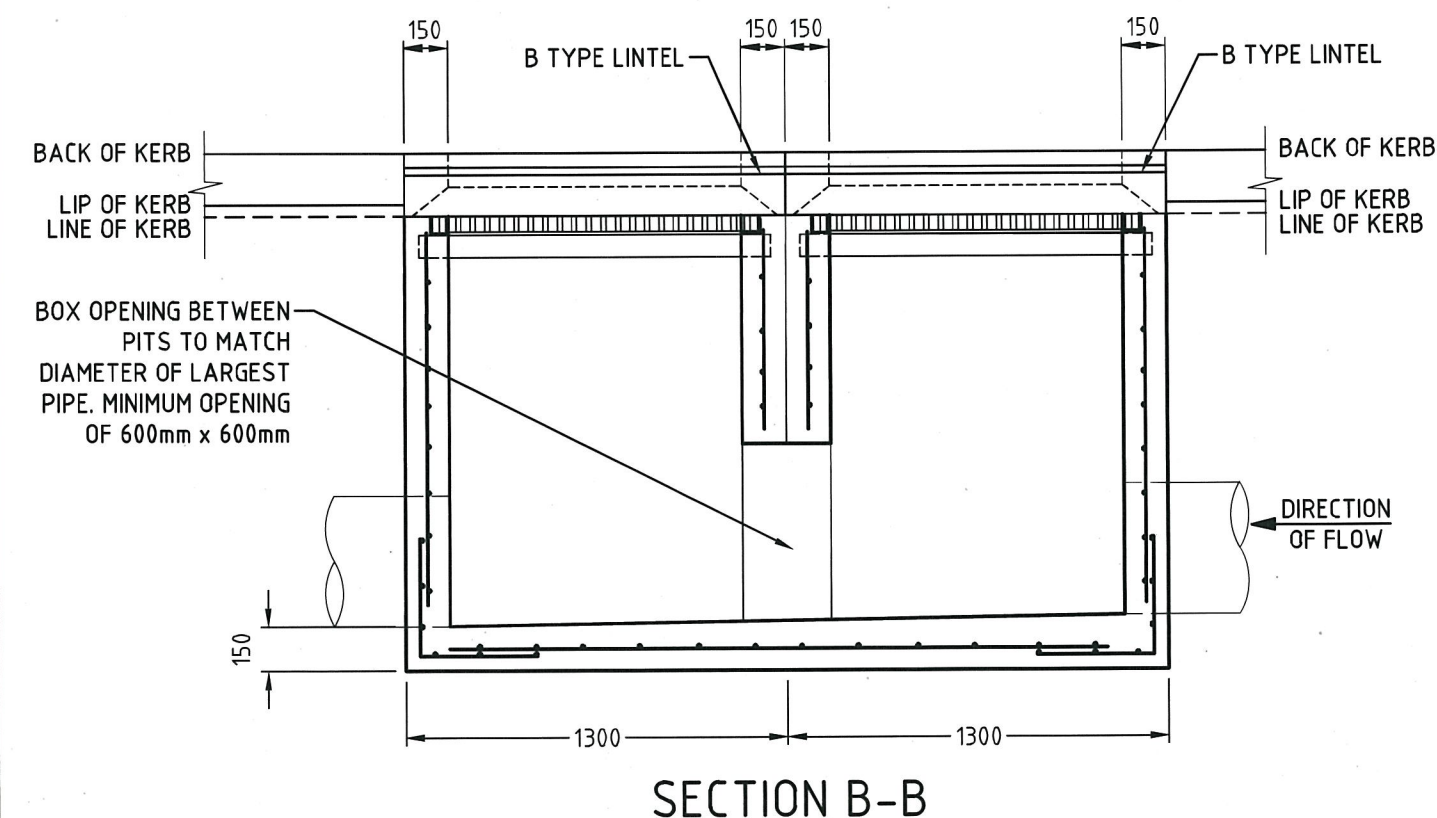
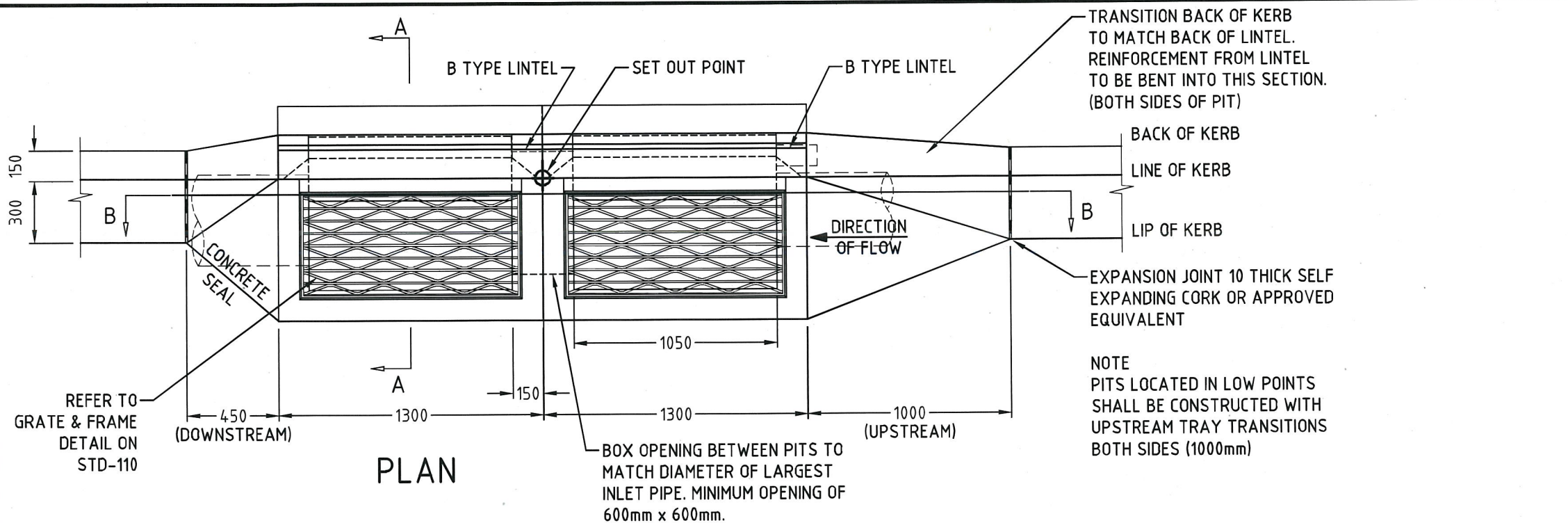


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	Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009	STD-110 _S3 SEP
Drawn	CAP WORKS	AUG 2009	Reference
Checked			VicRoads SD 1322
Approved	<i>Paul Welch</i>		Version
Dir. Assets & Facilities	Date	16-01-12	

**S3 TYPE (GRATED) SIDE ENTRY PIT
SINGLE**

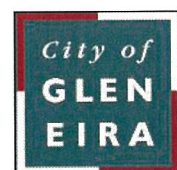
SCALE: AS SHOWN	DRG. NO. STD-110	SHEET 1 OF 1
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NOTES:

- HAUNCHING MAY BE REQUIRED FOR PIPES OVER 450 DIAMETER. REFER TO PIT SCHEDULE FOR SIZES OF SPECIFIC PITS. PITS WITH HAUNCHING IN TWO DIRECTIONS REQUIRE SPECIAL STRUCTURAL DESIGN.
- PIT REINFORCEMENT - SL92. LAPS TO BE 300 MINIMUM. CLEAR COVER TO BE 50 MINIMUM. CORNER RETURN REINFORCEMENT MAY BE FABRIC OR EQUIVALENT BARS. BARS GRADE D500N & FABRICS TO COMPLY WITH AS/NZS 4671. CONCRETE SHALL BE NORMAL-CLASS N32 STANDARD STRENGTH GRADE OR HIGHER COMPLYING WITH THE REQUIREMENTS OF AS 1379. EXPOSURE CLASSIFICATIONS UP TO AND INCLUDING B1.
- PITS DEEPER THAN 1000 SHALL BE FITTED WITH STEP IRONS. REFER TO STD-102.
- CONCRETE LINTEL IS REQUIRED TO SUPPORT A TEST LOAD OF 100 kN IN ACCORDANCE WITH VICROADS' "INTERIM TEST METHOD FOR TEST LOADING PIT COVERS, LINTELS AND LIDS."
- PRECAST UNITS MAY BE CONSTRUCTED TO THE MANUFACTURER'S DETAILS. THE DESIGN SHALL COMPLY WITH THE AS 5100 BRIDGE DESIGN AND THE FOLLOWING ADDITIONAL REQUIREMENTS:
 - COMBINED FACTORED LATERAL PRESSURE AT ANY POINT AT THE ULTIMATE LIMIT STATE SHALL BE NOT LESS THAN 25 kPa.
 - ADEQUATE DRAINAGE SHALL BE PROVIDED TO PIT WALLS TO AVOID HYDROSTATIC PRESSURE.
 - VERTICAL LOAD 210 kN APPLIED ANYWHERE ON PIT.
 - MINIMUM REINFORCEMENT AREA SHALL BE 150 mm² /m.
 - CONCRETE SHALL BE NORMAL-CLASS N32 STANDARD STRENGTH GRADE OR HIGHER COMPLYING WITH THE REQUIREMENTS OF AS 1379. EXPOSURE CLASSIFICATIONS UP TO AND INCLUDING B1.
- GRATE FRAME SHALL BE CONSTRUCTED FROM 75x50x8 MS ANGLE. EACH CORNER SHALL BE CHAMFERED ON UNDERSIDE OF HORIZONTAL LEG AND ON INSIDE OF VERTICAL LEG BEFORE WELDING WITH SINGLE V BUTT WELD. FRAME TO BE WELDED TO 125 X 65 13.4kg/m TF CHANNEL.
- BOTH GRATE AND GRATE FRAME SHALL BE HOT DIP GALVANIZED TO AS 1650 UNLESS SPECIFIED OTHERWISE.

CITY OF GLEN EIRA

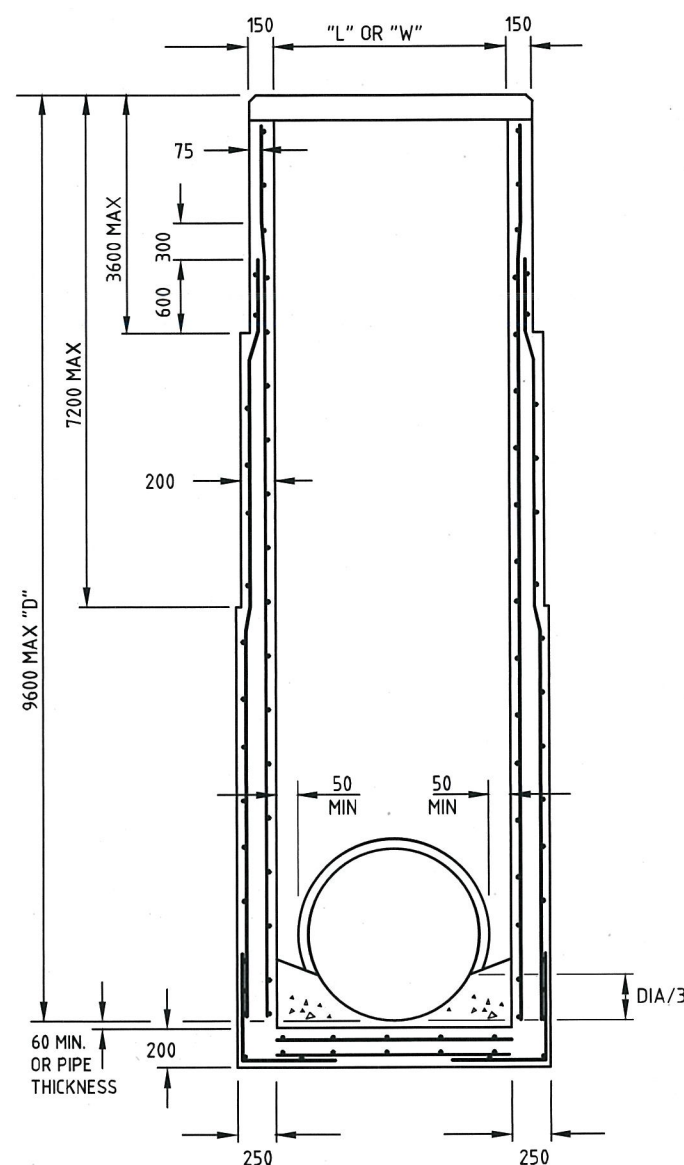


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	Initials	Date	CAD Reference
Designed	M.H	AUG 2011	STD-111_S3 DSEP
Drawn	M.H	AUG 2011	Reference
Checked	J.P	AUG 2011	
Approved	<i>[Signature]</i>		Version
Dir. Assets & Facilities	Date	16.01.12	

S3 TYPE (GRATED) SIDE ENTRY PIT DOUBLE

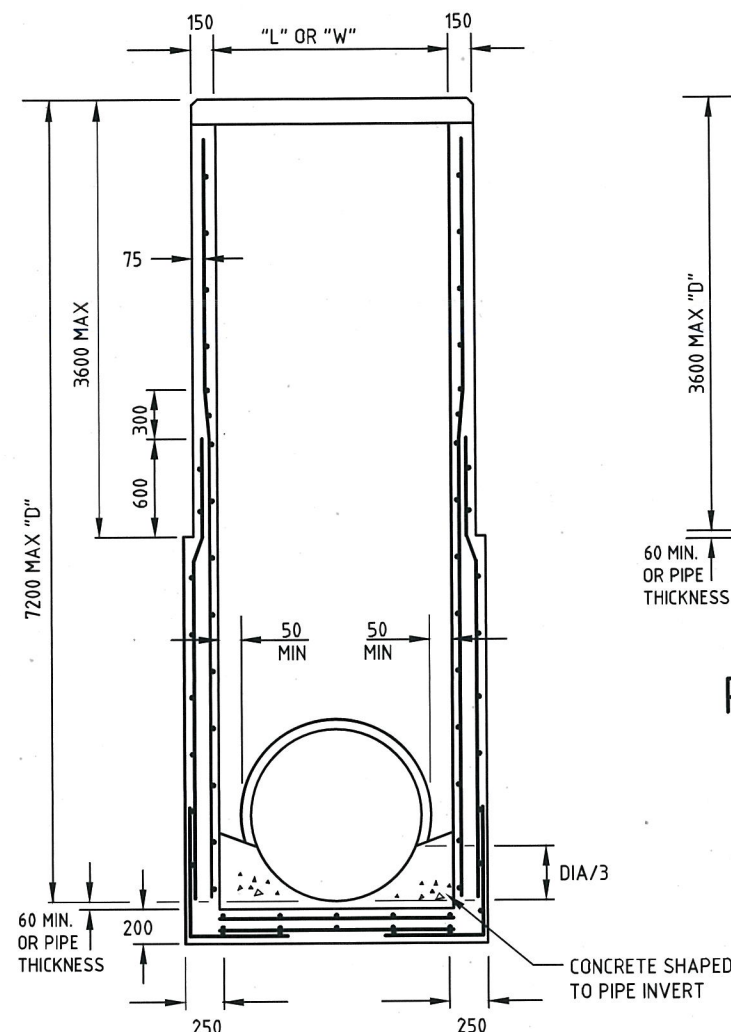
SCALE: AS SHOWN	DRG. NO. STD-111	SHEET 1 OF 1
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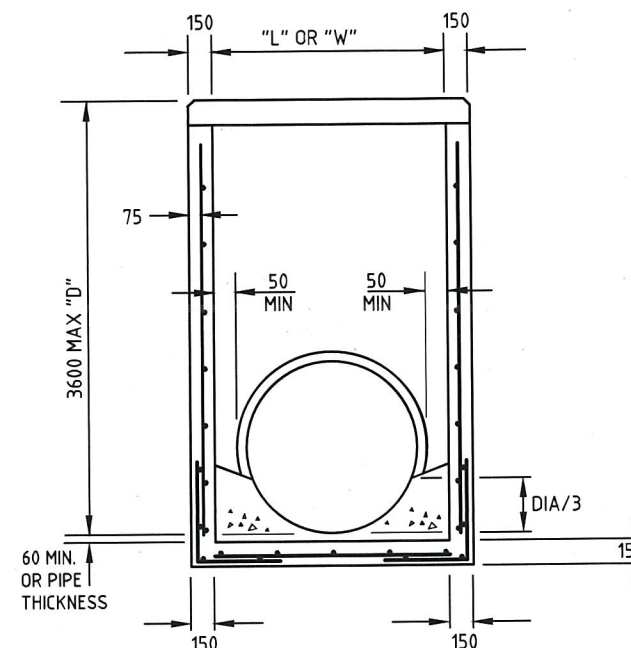
PITS 7201 TO 9600 DEPTH

REINFORCEMENT DETAILS

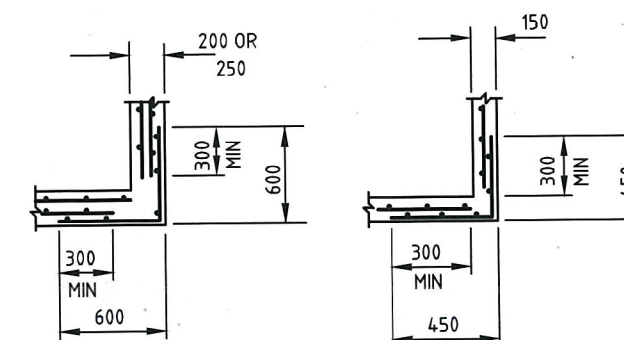
PIT LENGTH "L"	REINFORCEMENT
UP TO 1200	SL92
1201 TO 1800	RL918
1801 TO 2400	RL1218



PITS 3601 TO 7200 DEPTH



PITS UP TO 3600 DEPTH



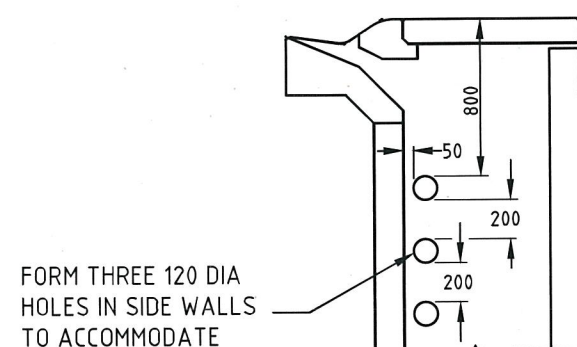
CORNER DETAILS
PLAN VIEW

NOTES:

1. MINIMUM PIT SIZES

DEPTH	INTERNAL DIMENSIONS	
	PITS IN TRAFFIC LANES	PITS IN OTHER LOCATIONS
0 - 1200	750 x 750	750 x 750
1201 UPWARDS	750 x 750	750 x 1000

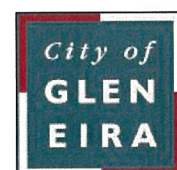
- FOR PIPES OVER 450 DIA. HAUNCHING MAY BE REQUIRED. REFER STD-114.
- FOR DETAILS OF SPECIFIC PITS REFER TO PIT SCHEDULE.
- PIT REINFORCEMENT DETAILS ARE SHOWN IN TABLE. FABRIC IN SHAFT SHALL HAVE THE MAIN BARS POSITIONED HORIZONTALLY. LAPS TO BE 300 MIN. CLEAR COVER TO BE 50 MIN. CORNER RETURN REINFORCEMENT MAY BE FABRIC OR EQUIVALENT BARS. BARS GRADE 500N & FABRICS TO COMPLY WITH AS/NZS 4671. CONCRETE SHALL BE NORMAL CLASS N32 STANDARD STRENGTH GRADE OR HIGHER COMPLYING WITH THE REQUIREMENTS OF AS 1379. EXPOSURE CLASSIFICATIONS UP TO AND INCLUDING B1.
- PITS DEEPER THAN 1000 SHALL BE FITTED WITH STEP IRONS, REFER STD-102.
- FOR TOP OF PIT DETAILS, REFER TO PIT SCHEDULE AND RELEVANT STANDARD DRAWINGS.
- PRECAST UNITS MAY BE CONSTRUCTED TO THE MANUFACTURER'S DETAILS. DESIGN SHALL COMPLY WITH THE AS 5100 BRIDGE DESIGN AND THE FOLLOWING ADDITIONAL REQUIREMENTS:
 - COMBINED FACTORED LATERAL PRESSURE AT ANY POINT AT THE ULTIMATE LIMIT STATE SHALL BE NOT LESS THAN 25 kPa.
 - ADEQUATE DRAINAGE SHALL BE PROVIDED TO PIT WALLS TO AVOID HYDROSTATIC PRESSURE.
 - VERTICAL LOAD 210 kN APPLIED ANYWHERE ON PIT.
 - MINIMUM REINFORCEMENT AREA SHALL BE 150mm²/m.
 - CONCRETE SHALL BE NORMAL CLASS N32 STANDARD STRENGTH GRADE OR HIGHER COMPLYING WITH THE REQUIREMENTS OF AS 1379. EXPOSURE CLASSIFICATIONS UP TO AND INCLUDING B1.
- SUBSURFACE DRAIN HOLES TO BE SEALED IF NOT USED.



FORM THREE 120 DIA HOLES IN SIDE WALLS TO ACCOMMODATE SUBSURFACE DRAINS IN BOTH SIDES.

PRECAST PIT

CITY OF GLEN EIRA

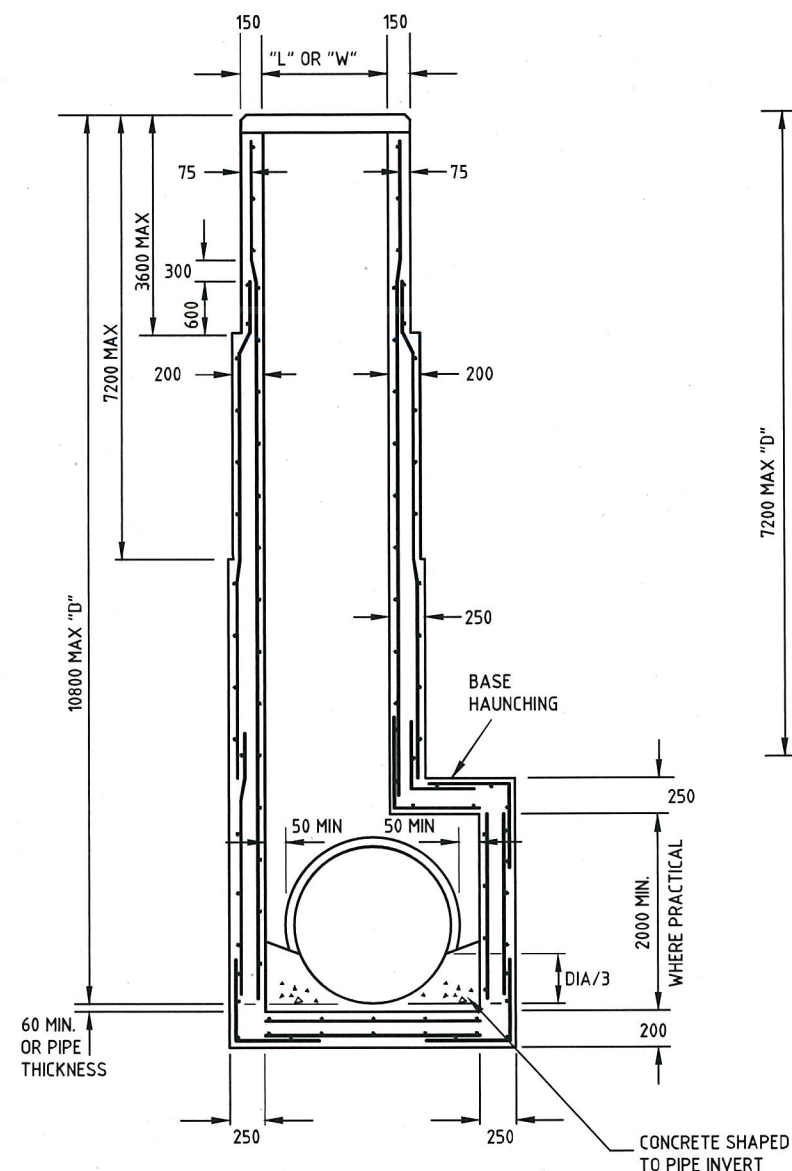


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Web www.gleneira.vic.gov.au

	Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009	STD-113_UNHAUNCHED PITS
Drawn	CAP WORKS	AUG 2009	Reference
Checked			VicRoads SD 1011 D
Approved	<i>[Signature]</i>		Version
Dir. Assets & Facilities		Date	16.01.12

UNHAUNCHED PITS

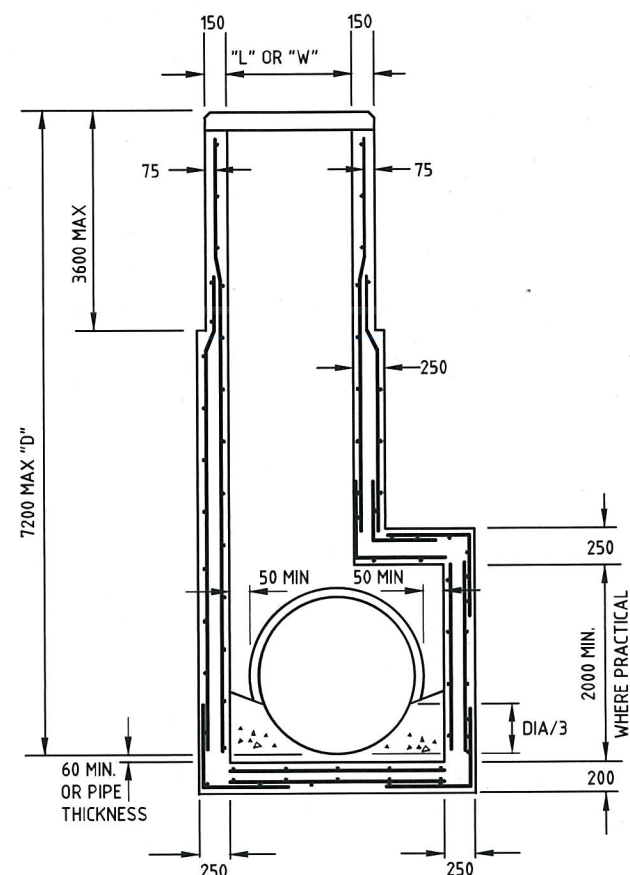
SCALE:	AS SHOWN	DRG. NO.	STD-113	SHEET	1 OF 1
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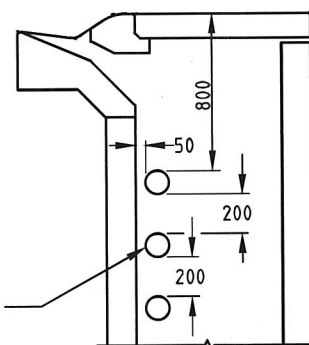
PITS 7201 TO 10800 DEPTH

REINFORCEMENT DETAILS

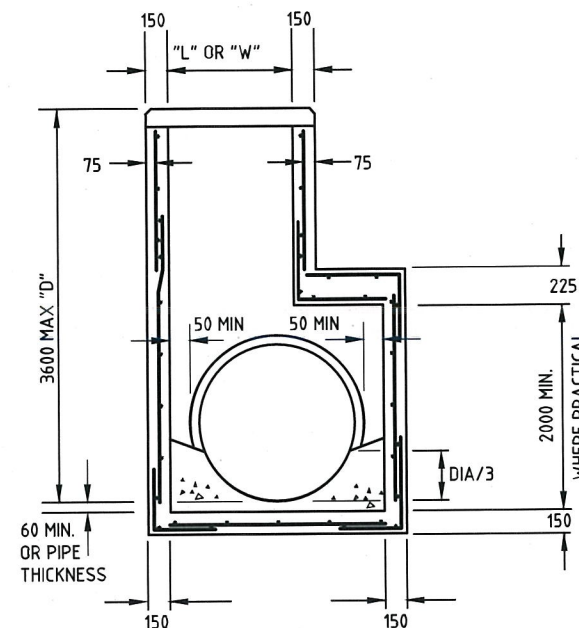
PIT LENGTH "L"	REINFORCEMENT
UP TO 1200	SL92
1201 TO 1800	RL918
1801 TO 2400	RL1218



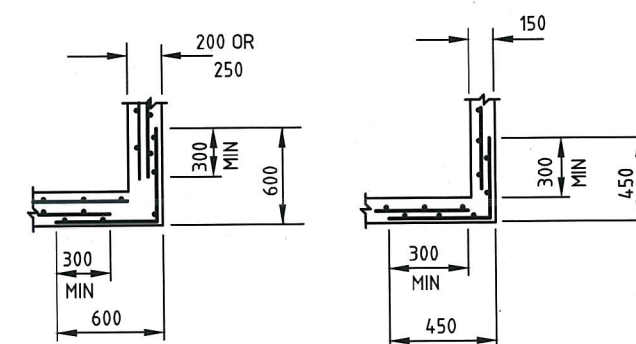
PITS 3601 TO 7200 DEPTH



PRECAST PIT



PITS UP TO 3600 DEPTH



CORNER DETAILS
PLAN VIEW

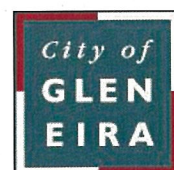
NOTES:

1. MINIMUM PIT SIZES

DEPTH	INTERNAL DIMENSIONS	
	PITS IN TRAFFIC LANES	PITS IN OTHER LOCATIONS
0 - 1200	750 x 750	750 x 750
1201 UPWARDS	750 x 750	750 x 1000

- PITS WITH HAUNCHING IN TWO DIRECTIONS REQUIRE SPECIAL STRUCTURAL DESIGN. THE STANDARD DETAILS DO NOT APPLY.
- FOR DETAILS OF SPECIFIC PITS REFER TO PIT SCHEDULE.
- PIT REINFORCEMENT DETAILS ARE SHOWN IN TABLE. FABRIC IN SHAFT SHALL HAVE THE MAIN BARS POSITIONED HORIZONTALLY. LAPS TO BE 300 MIN. CLEAR COVER TO BE 50 MIN. CORNER RETURN REINFORCEMENT MAY BE FABRIC OR EQUIVALENT BARS. BARS GRADE 500N & FABRICS TO COMPLY WITH AS/NZS 4671. CONCRETE SHALL BE NORMAL CLASS N32 STANDARD STRENGTH GRADE OR HIGHER COMPLYING WITH THE REQUIREMENTS OF AS 1379. EXPOSURE CLASSIFICATIONS UP TO AND INCLUDING B1.
- PITS DEEPER THAN 1000 SHALL BE FITTED WITH STEP IRONS, REFER STD-102.
- FOR TOP OF PIT DETAILS, REFER TO PIT SCHEDULE AND RELEVANT STANDARD DRAWINGS.
- PRECAST UNITS MAY BE CONSTRUCTED TO THE MANUFACTURER'S DETAILS. DESIGN SHALL COMPLY WITH THE AS 5100 BRIDGE DESIGN AND THE FOLLOWING ADDITIONAL REQUIREMENTS:
 - COMBINED FACTORED LATERAL PRESSURE AT ANY POINT AT THE ULTIMATE LIMIT STATE SHALL BE NOT LESS THAN 25 kPa.
 - ADEQUATE DRAINAGE SHALL BE PROVIDED TO PIT WALLS TO AVOID HYDROSTATIC PRESSURE.
 - VERTICAL LOAD 210 kN APPLIED ANYWHERE ON PIT.
 - MINIMUM REINFORCEMENT AREA SHALL BE 150mm²/m.
 - CONCRETE SHALL BE NORMAL CLASS N32 STANDARD STRENGTH GRADE OR HIGHER COMPLYING WITH THE REQUIREMENTS OF AS 1379. EXPOSURE CLASSIFICATIONS UP TO AND INCLUDING B1.
- SUBSURFACE DRAIN HOLES TO BE SEALED IF NOT USED.

CITY OF GLEN EIRA



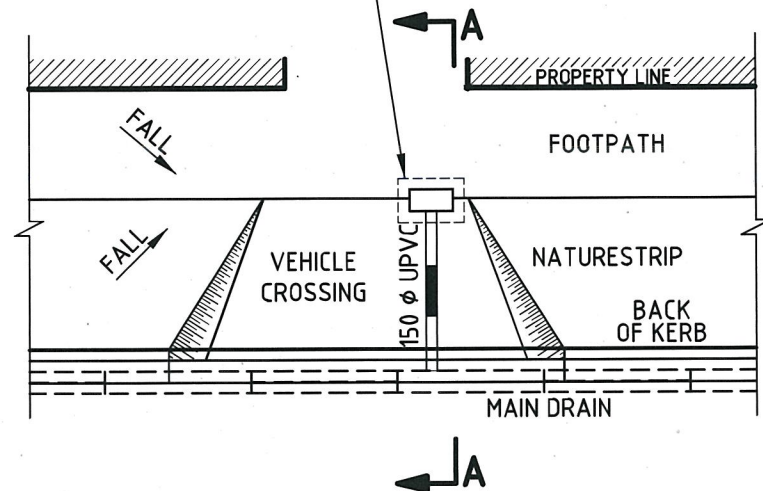
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	Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009	STD-114_HAUNCHED PITS
Drawn	CAP WORKS	AUG 2009	Reference
Checked			VicRoads SD 1021 D
Approved	<i>Paul Wilks</i>		Version
Dir. Assets & Facilities	Date	16-01-12	

HAUNCHED PITS

SCALE:	AS SHOWN	DRG. NO.	STD-114	SHEET	1 OF 1
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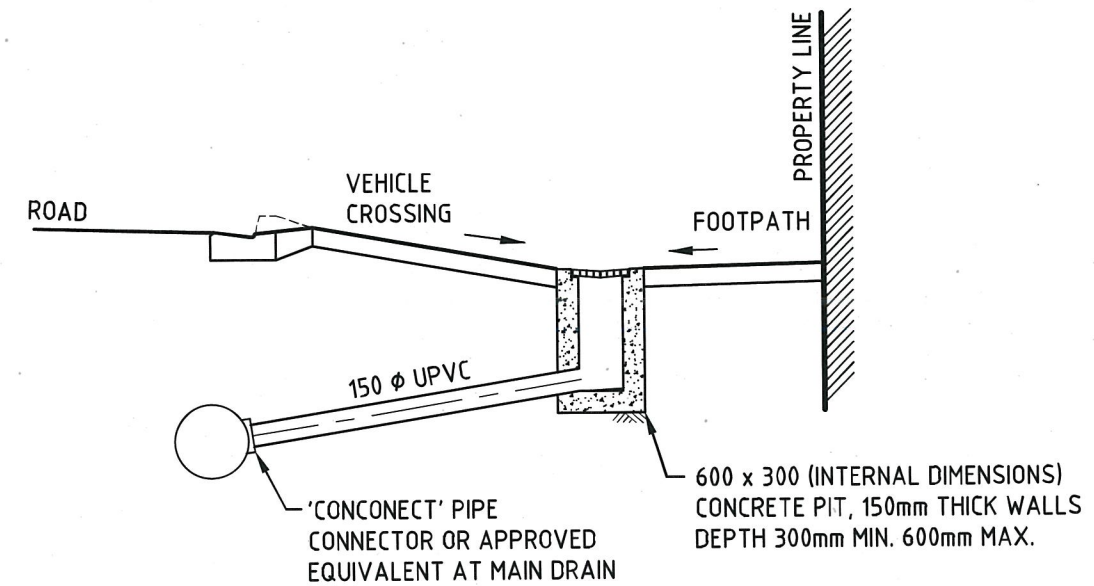
600 x 300 (INTERNAL DIMENSIONS)
CONCRETE PIT, 150mm THICK WALL
WITH V-GRADE
RESIDENTIAL - CLASS B
COMMERCIAL - CLASS C



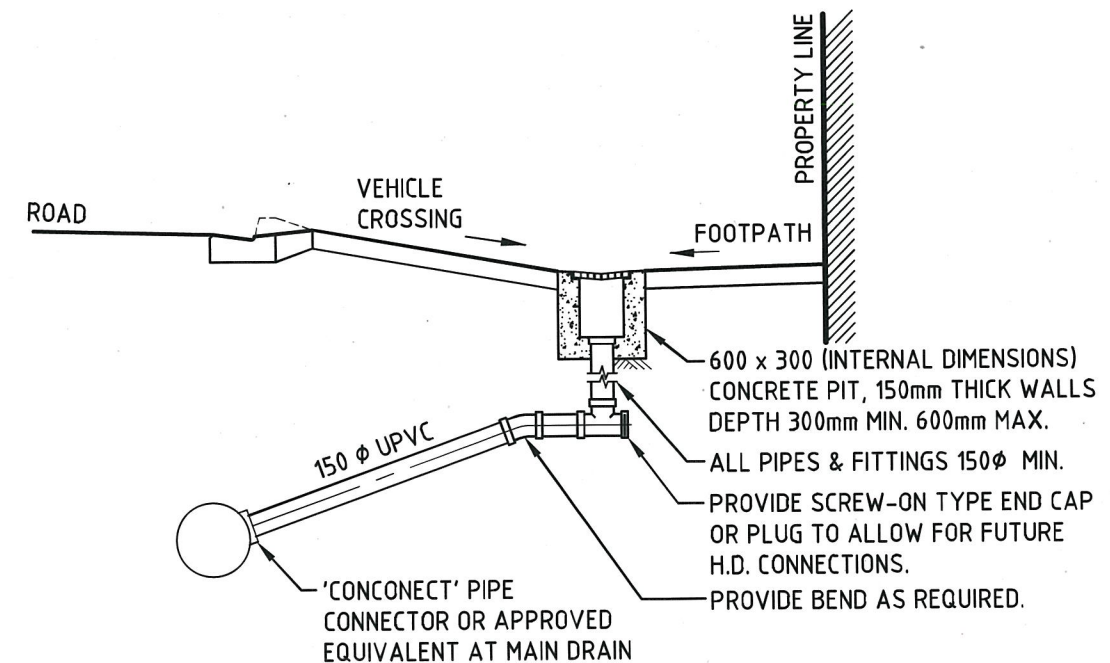
TYPICAL PLAN

NOTES

1. ALL PIPE AND FITTINGS USED SHALL BE 150mm (MINIMUM) SEWER CLASS U.P.V.C. AS INDICATED ON THE DETAIL PLANS.
2. CARE IS TO BE TAKEN TO AVOID DAMAGE TO ANY UNDERGROUND SERVICES DURING EXCAVATION AND CONSTRUCTION OF HOUSE DRAINS.
3. HOUSE DRAINS ARE TO BE BEDDED ON 50mm COMPACTED DEPTH OF CLASS 3 C.R.
4. CLASS 3 GRADED RECYCLED CONCRETE MAY BE USED FOR DRAIN TRENCH BACKFILL.

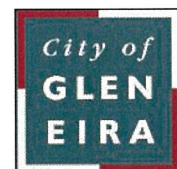


SECTION A-A. (TYPICAL).
OPTION 1



SECTION A-A. (TYPICAL).
OPTION 2

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	Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009	STD-116_VX PIT
Drawn	CAP WORKS	AUG 2009	Reference
Checked			-
Approved	<i>Paul Wilch</i>		Version
Dir. Assets & Facilities		Date	16-01-12

VEHICLE CROSSING GRATED PIT

SCALE: AS SHOWN DRG. NO. STD-116 SHEET 1 OF 1

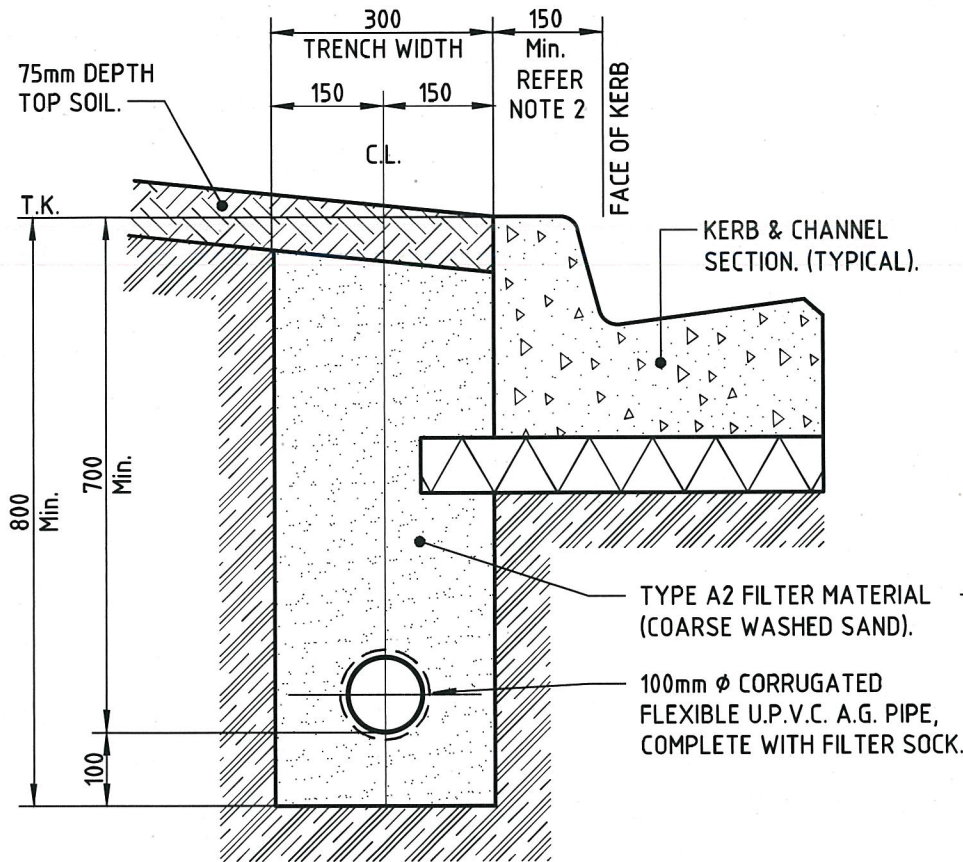
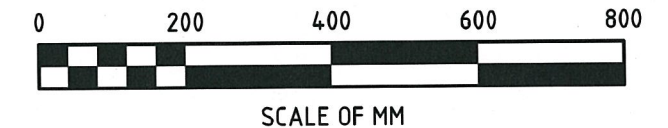
ALL DIMENSIONS IN MM

DO NOT SCALE

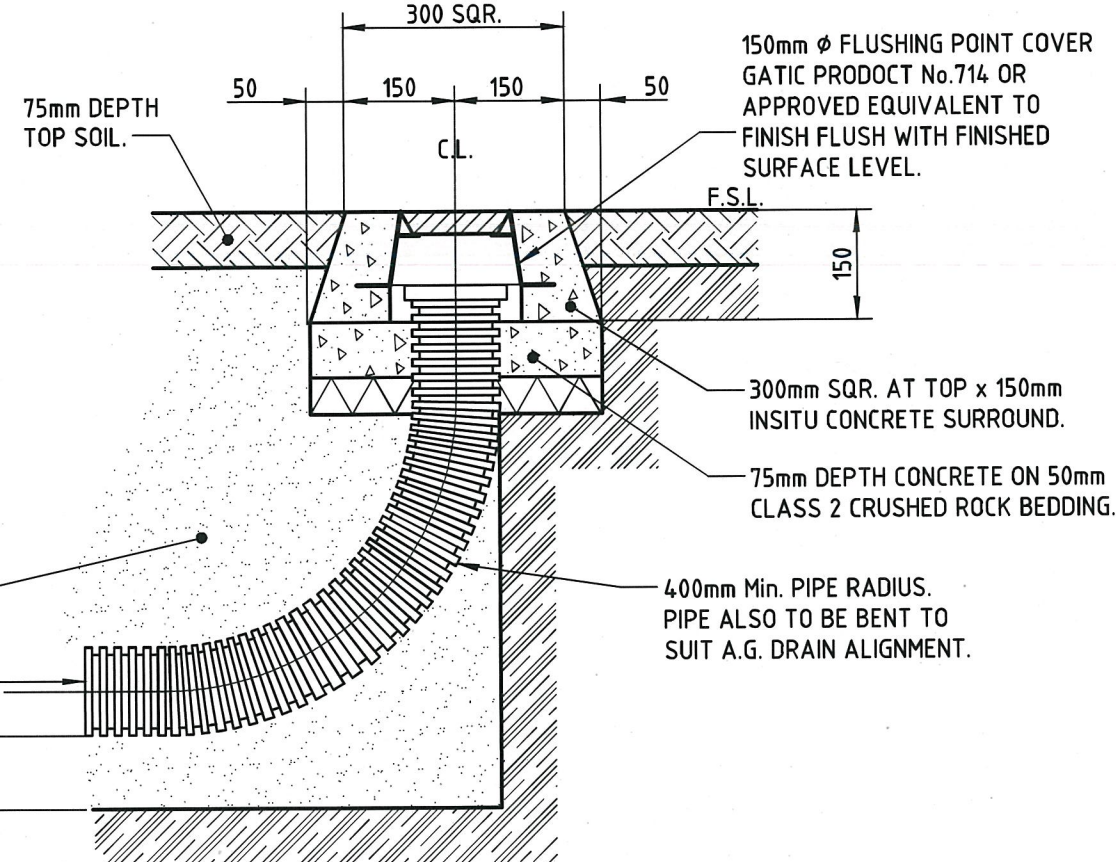
IF IN DOUBT ASK

NOTES:

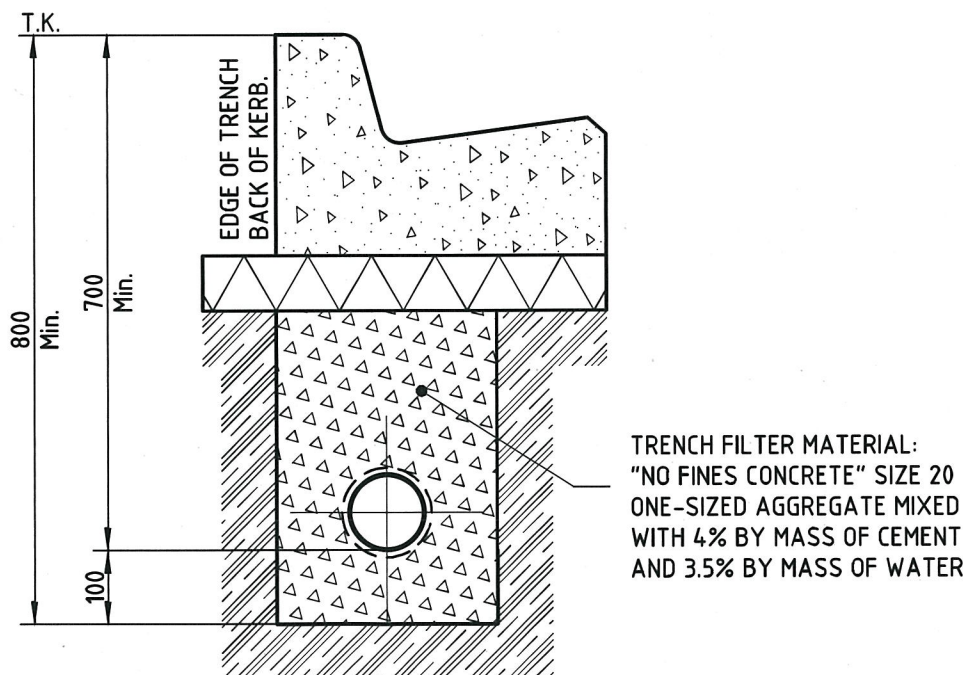
1. EITHER A FLUSHING POINT (REFER DETAIL) OR S.E.P. / JUNCTION PIT SHALL BE PROVIDED FOR MAINTENANCE, AT THE COMMENCEMENT OF ALL A.G. LINES.
2. EXACT LOCATIONS OF A.G. LINES SPECIFIED ON DETAIL PLANS, DIMENSIONS SHALL PREVAIL OVER DIMENSIONS ON THIS DRAWING.
3. WHERE A.G. LINES RUN UNDER PAVING, FILTER MATERIAL SHALL BE TAKEN UP TO THE PAVING BASE LEVEL.
4. REFER TO SPECIFICATION FOR GRADING OF TYPE A2 FILTER MATERIAL & FILTER SOCK DETAIL.



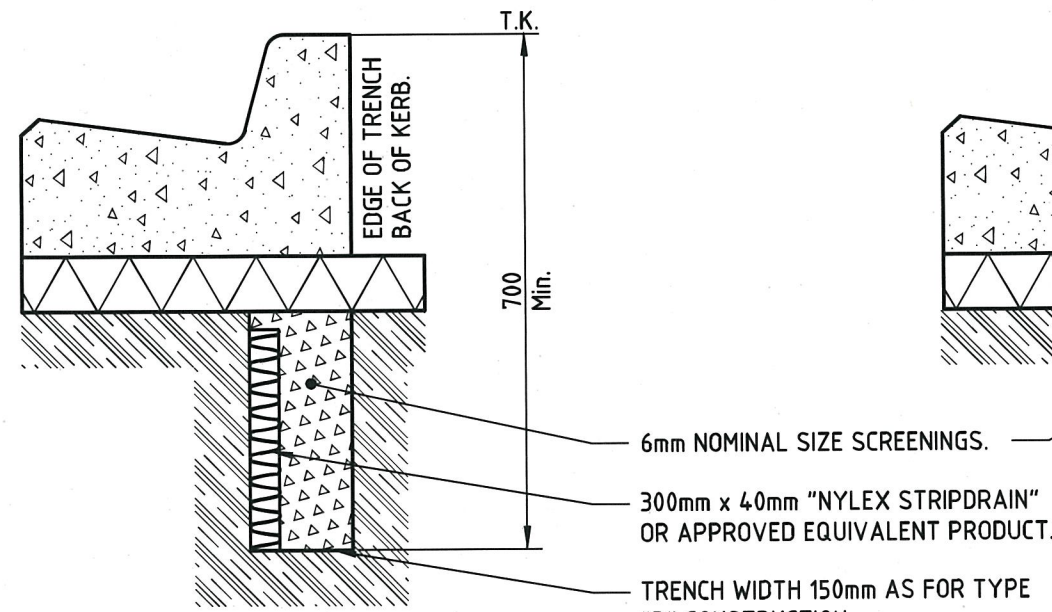
TYPE "A"



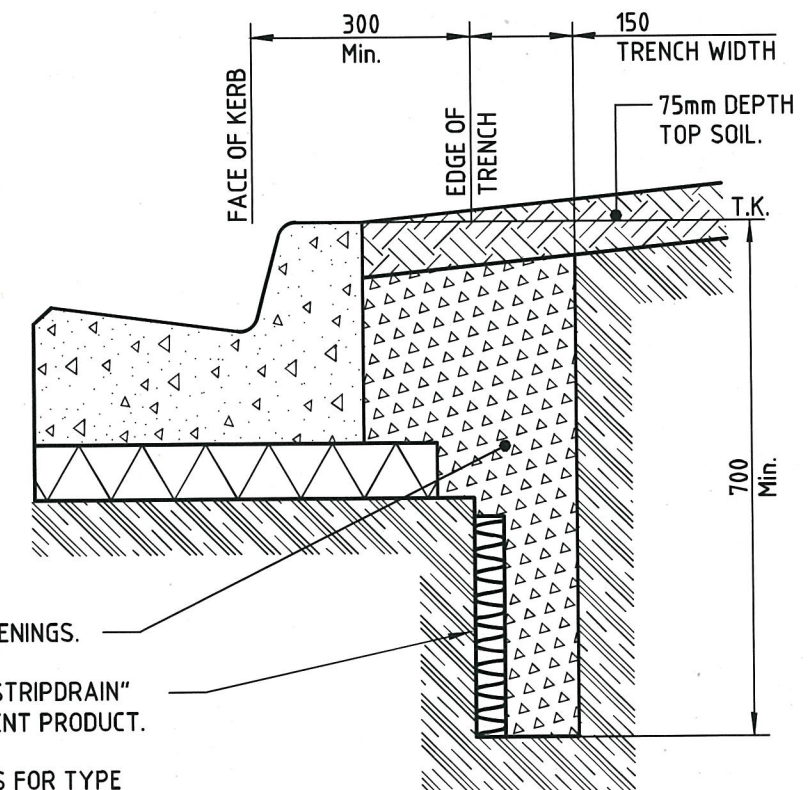
FLUSHING POINT
DETAIL.



TYPE "B"

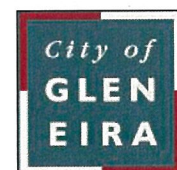


TYPE "C"



TYPE "D"

CITY OF GLEN EIRA



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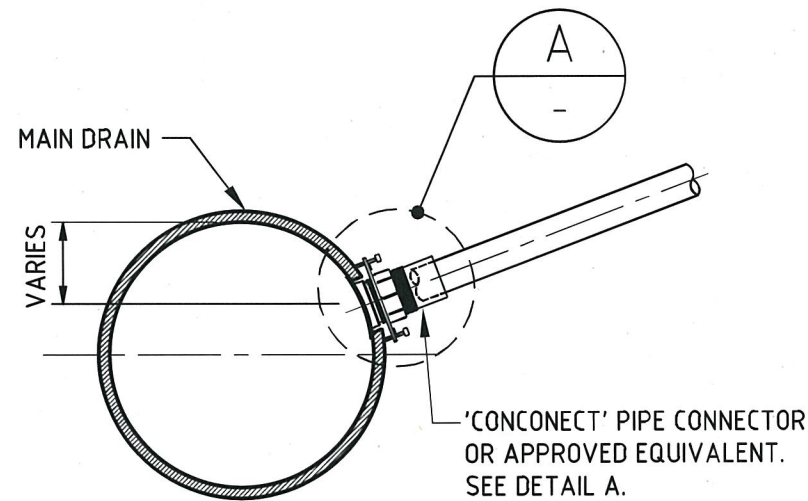
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Designed	CAP WORKS	AUG 2009	STD-201_AGDET
Drawn	CAP WORKS	AUG 2009	Reference
Checked			-
Approved			Version
			-
			Date
			16-01-12
Dir. Assets & Facilities		Date	

A.G. DRAIN AND FLUSHING POINTS DETAILS

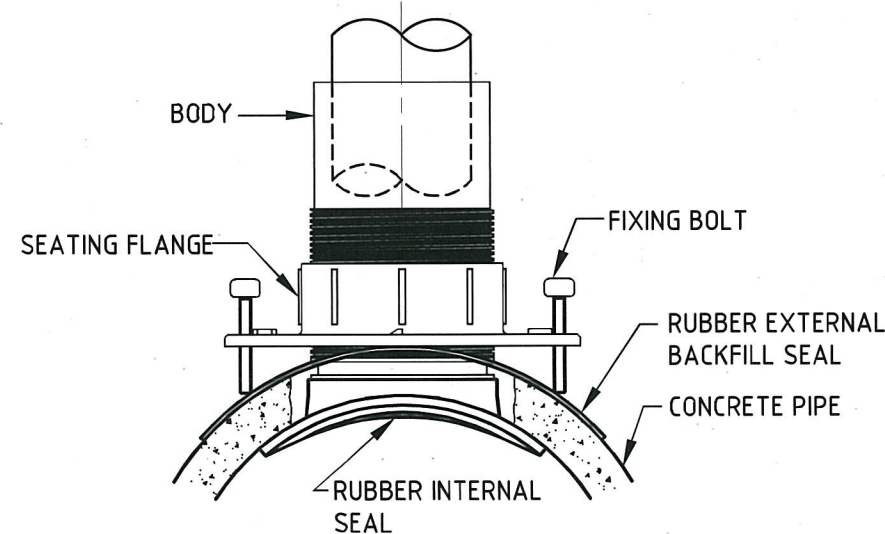
SCALE:	AS SHOWN	DRG. NO.	STD-201	SHEET	1 OF 1
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NOTES:

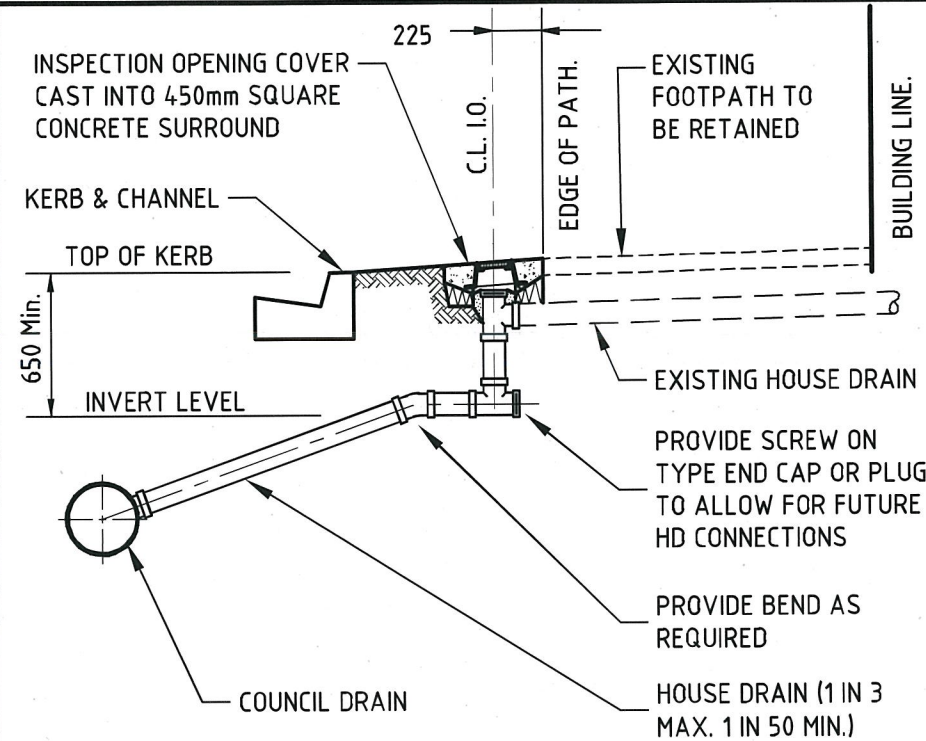
1. ALL PIPE JOINERS AND FITTINGS USED SHALL BE 100mm OR 150mm SEWER CLASS UPVC AS INDICATED ON THE DETAIL PLANS AND APPROVED BY COUNCIL SUPERINTENDENT
2. CARE IS TO BE TAKEN TO AVOID DAMAGE TO ANY UNDERGROUND SERVICES DURING EXCAVATION AND CONSTRUCTION OF HOUSE DRAINS
3. HOUSE DRAINS ARE TO BE BEDDED ON 50mm COMPACTED DEPTH OF CLASS 3 CR
4. CLASS CC3 GRADED RECYCLED CONCRETE MAY BE USED FOR DRAIN TRENCH BACKFILL
5. CAST IRON INSPECTION OPENING COVERS TO BE R&S GRATING PRODUCT FPC150 OR APPROVED EQUIVALENT FOR 100mm ϕ RISERS AND R&S GRATING PRODUCT FPC229 OR APPROVED EQUIVALENT FOR 150mm ϕ RISERS



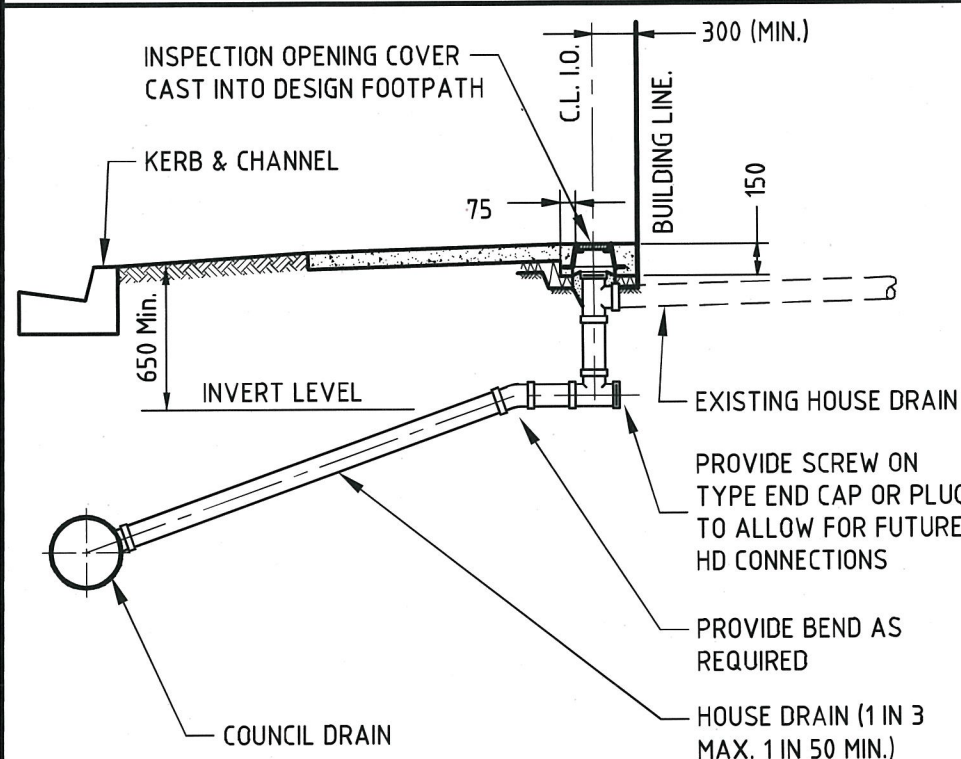
TYPE 3 (CONNECTION)



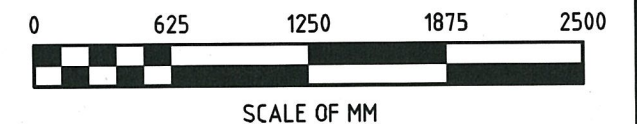
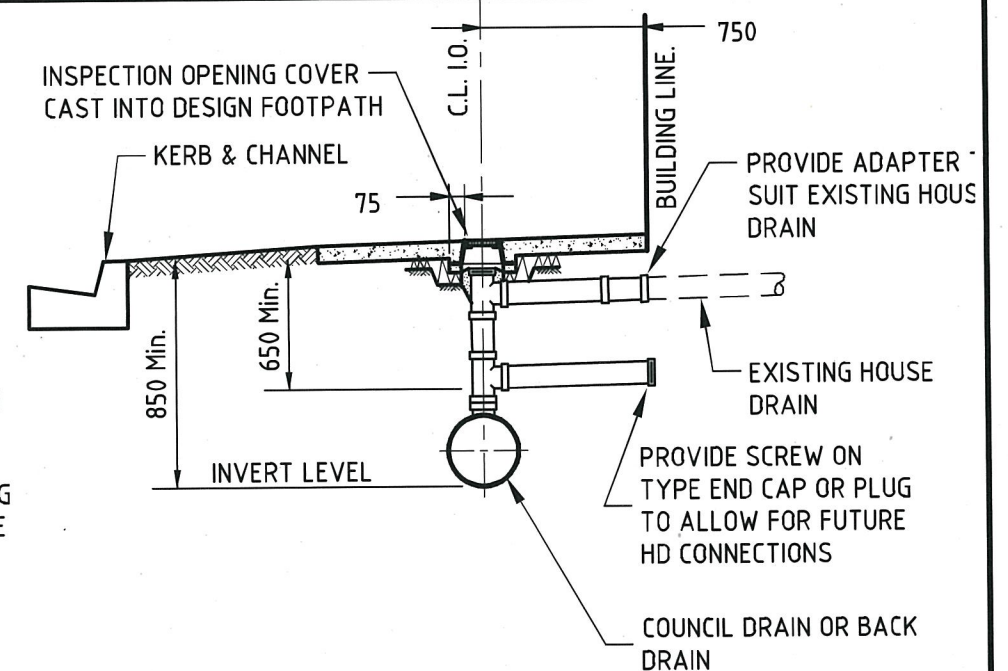
DETAIL A



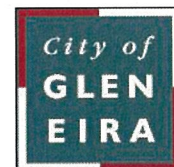
TYPE 1
I.O. LOCATED IN NATURESTRIP



TYPE 2
I.O. LOCATED IN FOOTPATH



CITY OF GLEN EIRA

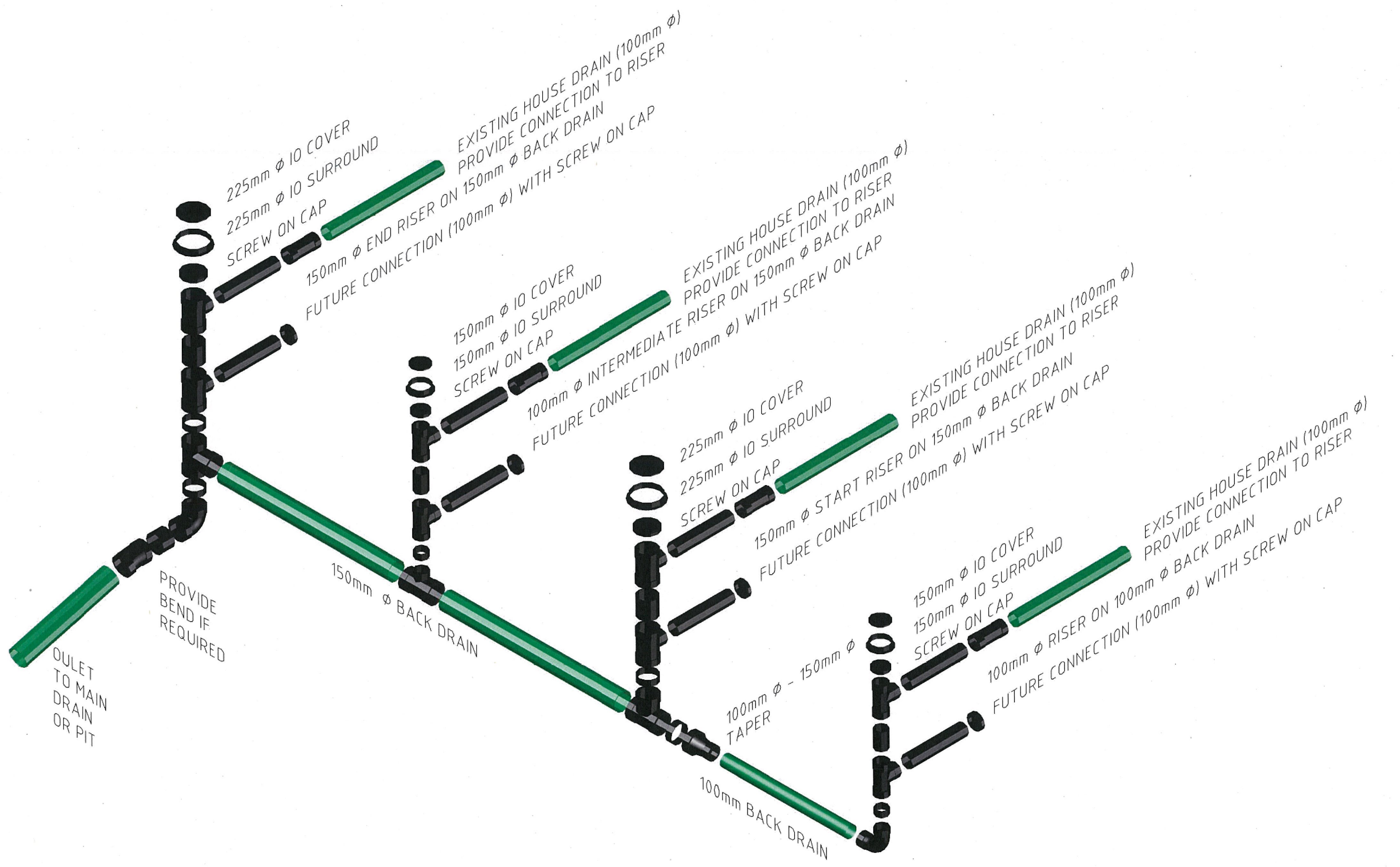


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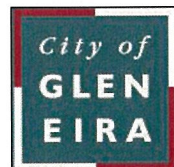
	Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009	STD-202_10
Drawn	CAP WORKS	AUG 2009	Reference
Checked			-
Approved	<i>Paul White</i>		Version
Dir. Assets & Facilities	Date	16.01.12	-

HOUSE DRAIN INSPECTION OPENING AND CONNECTION

SCALE: AS SHOWN DRG. NO. STD-202 SHEET 1 OF 2



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	Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009	STD-202_10-3D
Drawn	CAP WORKS	AUG 2009	Reference
Checked			-
Approved	<i>Paul W. H.</i>		Version
Dir. Assets & Facilities		Date	16-01-12

HOUSE DRAIN INSPECTION OPENING AND BACK DRAIN EXPLODED ASSEMBLY

SCALE: AS SHOWN DRG. NO. STD-202 SHEET 2 OF 2

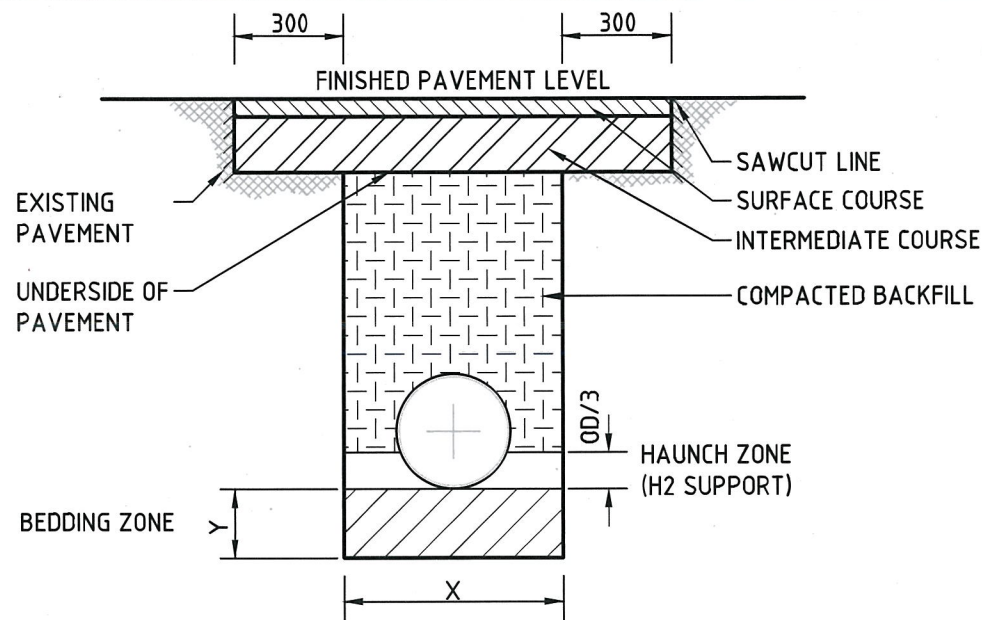
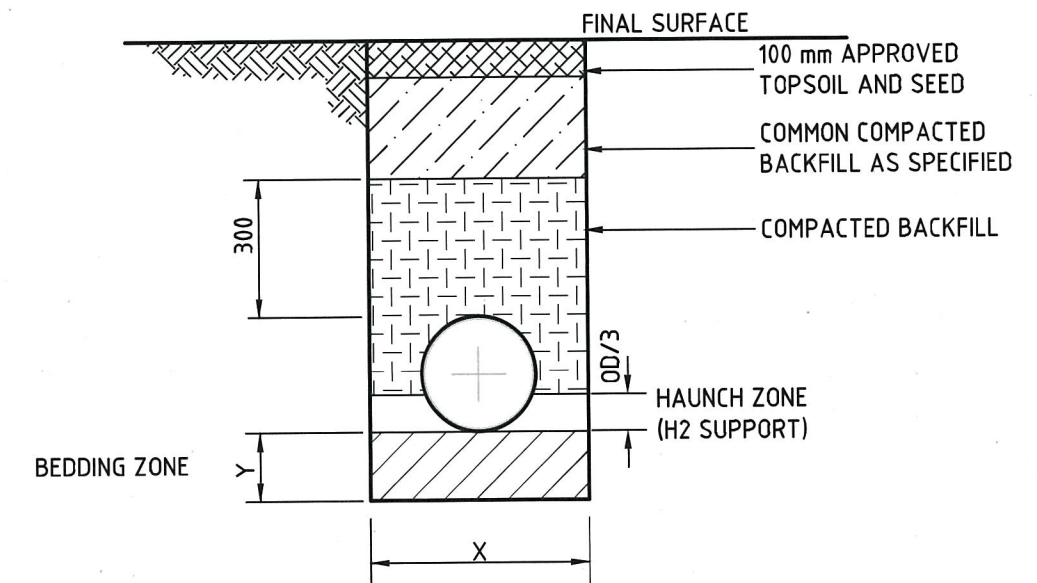


TABLE A	
PIPE ϕ	BEDDING DEPTH (Y)
mm	mm
300 - 450	75
525 - 1050	100
1200 - 1500	125
1650 or greater	150

TABLE B		
PIPE ϕ	TRENCH WIDTH "X" (MIN.)	
	depth < 1.5m	depth > 1.5m
mm	mm	mm
300	600	900
375 - 450	750	1050
525	900	1200
600 - 675	1050	1350
750 - 825	1200	1500
900	1350	1650
1050	1500	1800
1200	N/A	2000
1350	N/A	2150
1500	N/A	2300
1650	N/A	2500
1800	N/A	2700

COMPACTION TO BE 97% BY CHARACTERISTIC VALUE OF DENSITY RATIO (IN 150mm LAYERS) TESTING IS NOT REQUIRED.



NOTE:

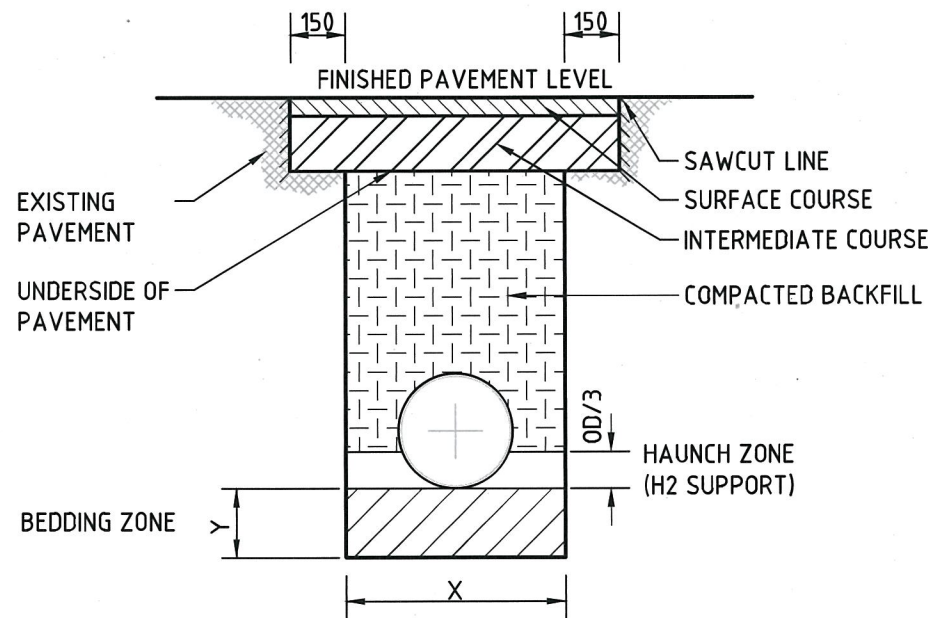
1. COMPACTED BACKFILL TO BE CLASS 3 FINE CRUSHED ROCK OR CLASS CC3 CRUSHED CONCRETE
2. HAUNCH ZONE TO BE 20mm AGGREGATE - MATERIAL AS SPECIFIED
3. BEDDING ZONE TO BE CLASS 3 FINE CRUSHED ROCK - COMPACTED DEPTH "Y" AS SHOWN IN TABLE A
4. TRENCH WIDTH "X" AS SHOWN IN TABLE B

PIPE TRENCH DETAIL - NATURE STRIPS

NOT TO SCALE

VIC ROADS MAIN ROADS - PIPE TRENCH DETAIL

NOT TO SCALE



COUNCIL LOCAL ROADS - PIPE TRENCH DETAIL

NOT TO SCALE

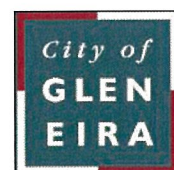
NOTE:

1. COMPACTED BACKFILL TO BE CLASS 3 FINE CRUSHED ROCK OR CLASS CS3 CRUSHED CONCRETE
2. HAUNCH ZONE TO BE 20mm AGGREGATE - MATERIAL AS SPECIFIED
3. BEDDING ZONE TO BE CLASS 3 FINE CRUSHED ROCK - COMPACTED DEPTH "Y" AS SHOWN IN TABLE A
4. TRENCH WIDTH "X" AS SHOWN IN TABLE B
5. COMPACTION TO BE 97% BY CHARACTERISTIC VALUE OF DENSITY RATIO (IN 150mm LAYERS) TESTING - EVERY 50m OR BETWEEN PITS, WHICH EVER IS GREATER, AT TOP OF CLASS 3 LEVEL.

IMPORTANT NOTE !

TRENCH SUPPORT MUST BE PROVIDED FOR DEPTH GREATER THAN 1.5m AS PER THE MINES ACT 1958. WORKSAFE VICTORIA TO BE CONTACTED 3 DAYS PRIOR TO EXCAVATION WORKS FOR TRENCHES GREATER THAN 1.5m

CITY OF GLEN EIRA



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	Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009	STD-203_PIPE BEDDING
Drawn	CAP WORKS	AUG 2009	Reference
Checked			-
Approved			Version
			-
			Date
			16-01-12
			Dir. Assets & Facilities

PIPE BEDDING AND BACKFILL DETAILS

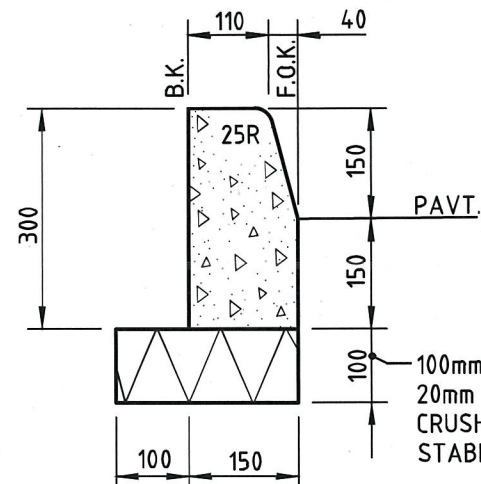
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9/01/2012 11:31:45 AM

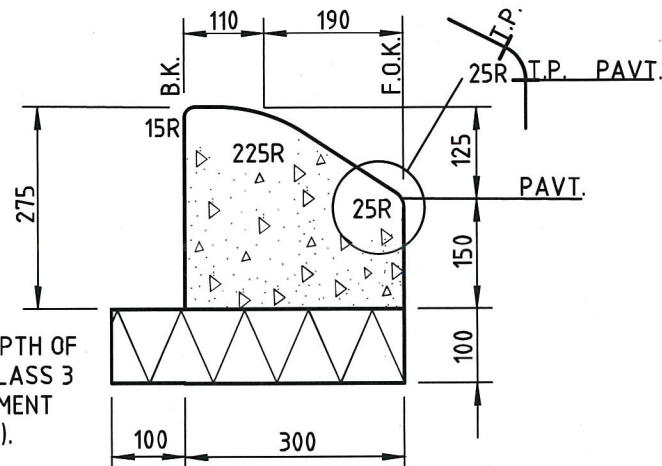
ALL DIMENSIONS IN MM

DO NOT SCALE

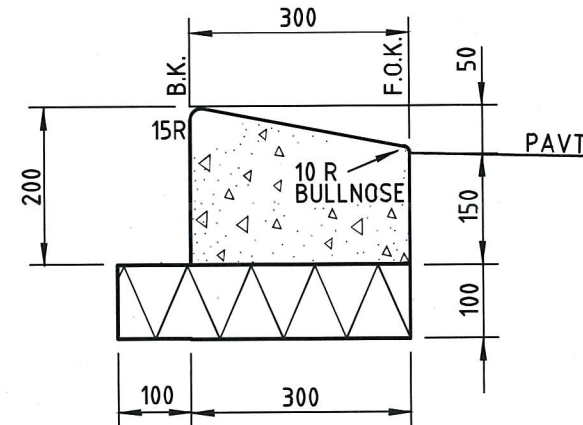
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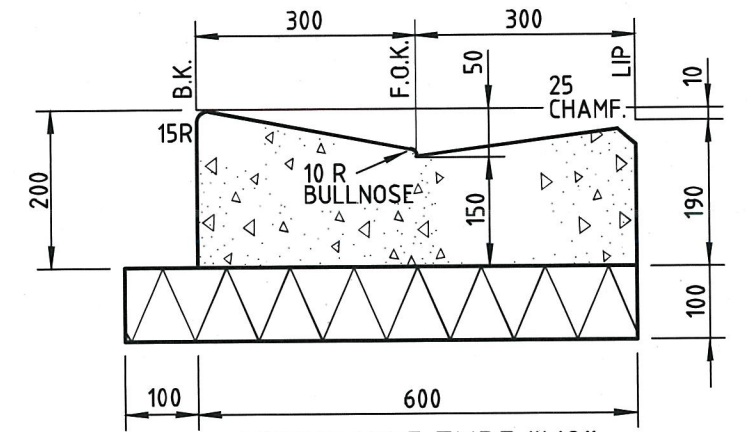
BARRIER TYPE "B1"
KERB ONLY.



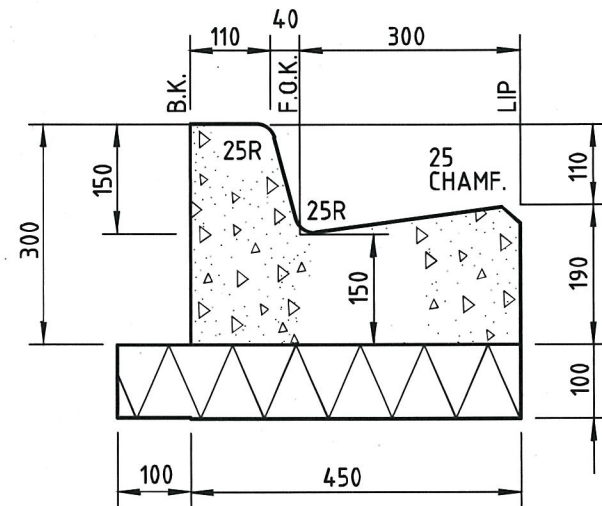
SEMI-MOUNTABLE TYPE "SM1"
KERB ONLY.



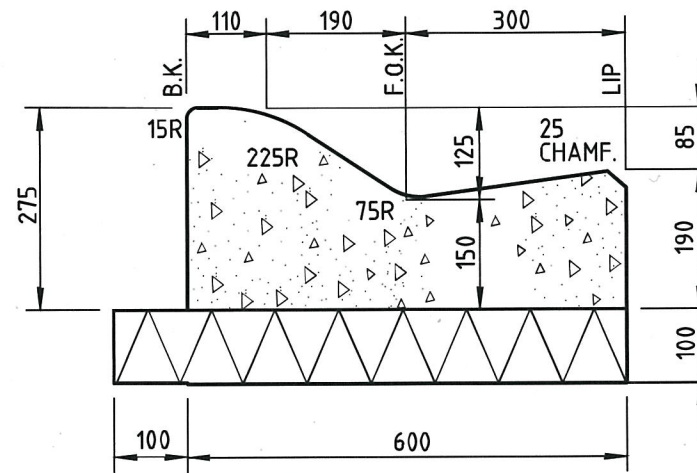
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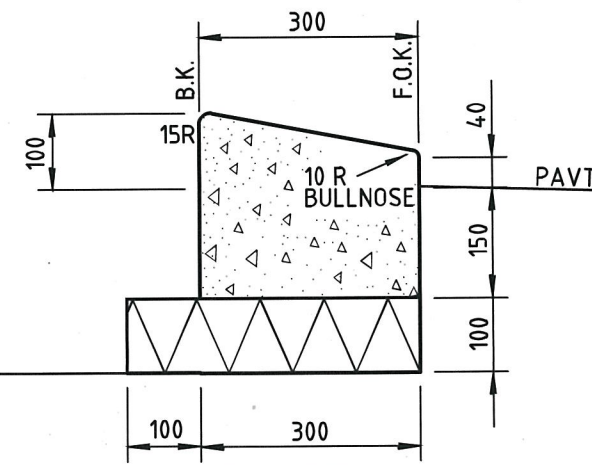
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KERB & CHANNEL.



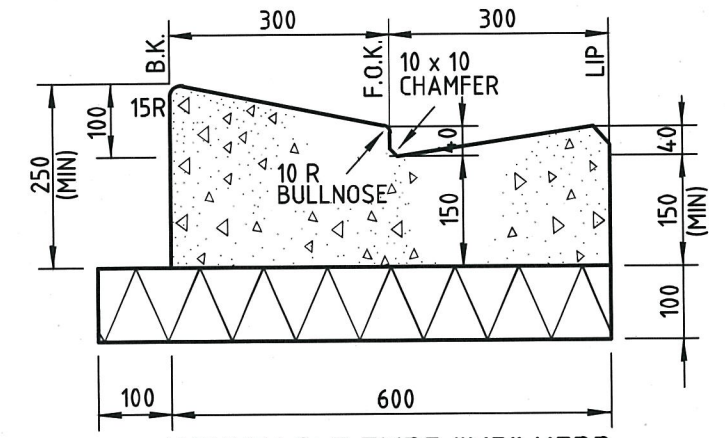
BARRIER TYPE "B2"
KERB & CHANNEL.



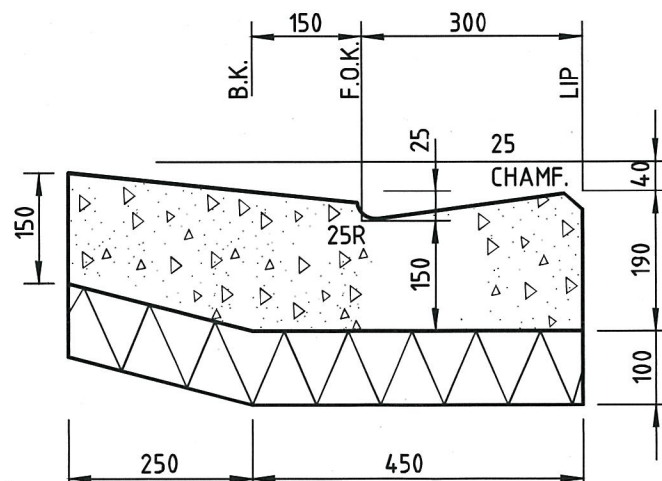
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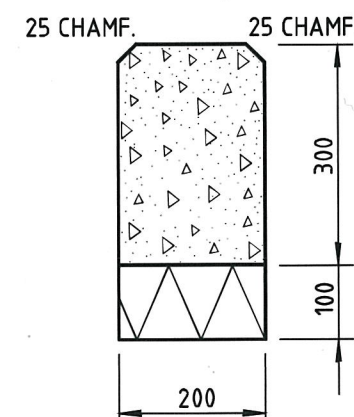
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KERB ONLY.



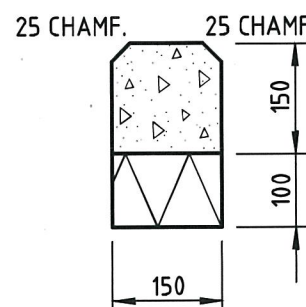
MOUNTABLE TYPE "M5" KERB.



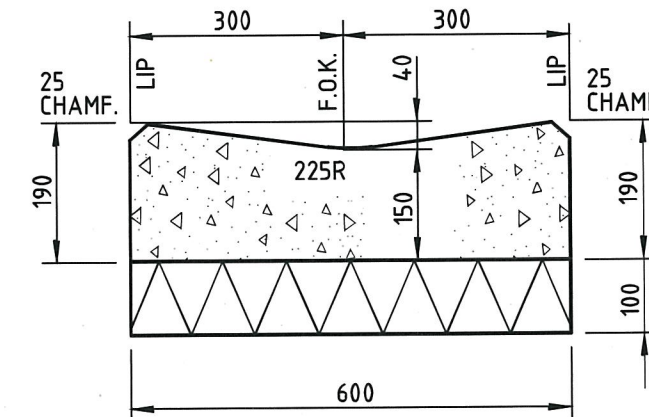
REVERSE FALL
LAYBACK



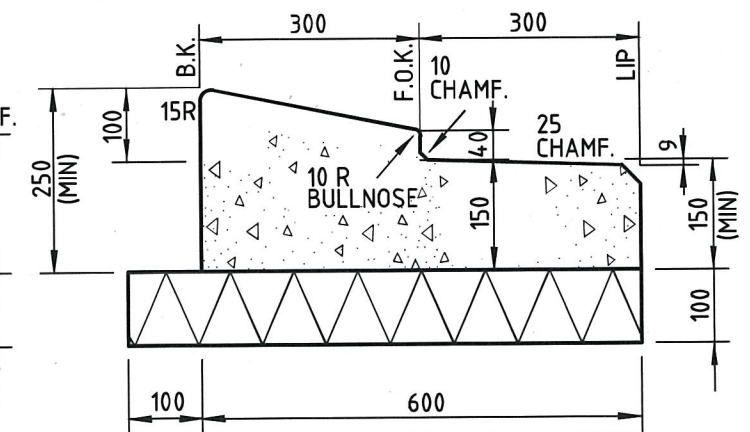
EDGE RESTRAINT
TYPE "E1"



EDGE RESTRAINT
TYPE "E2"

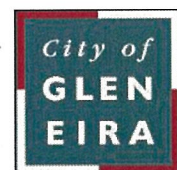


V-CHANNEL TYPE "V1".



MOUNTABLE TYPE "M6" KERB.

CITY OF GLEN EIRA



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Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009
Drawn	CAP WORKS	AUG 2009
Checked		
Approved		
Dir. Assets & Facilities	Date	16.01.12

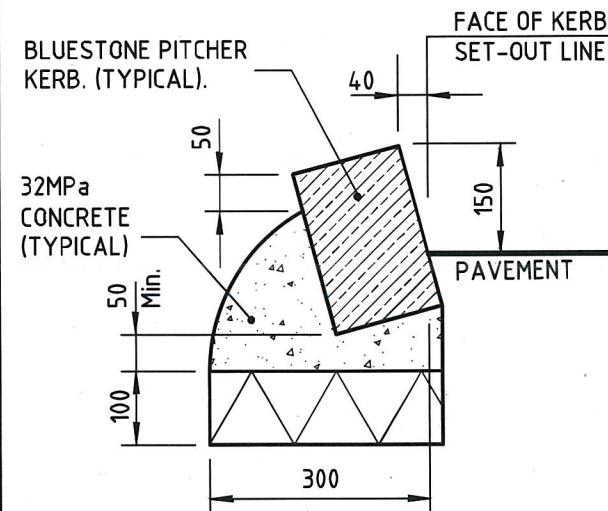
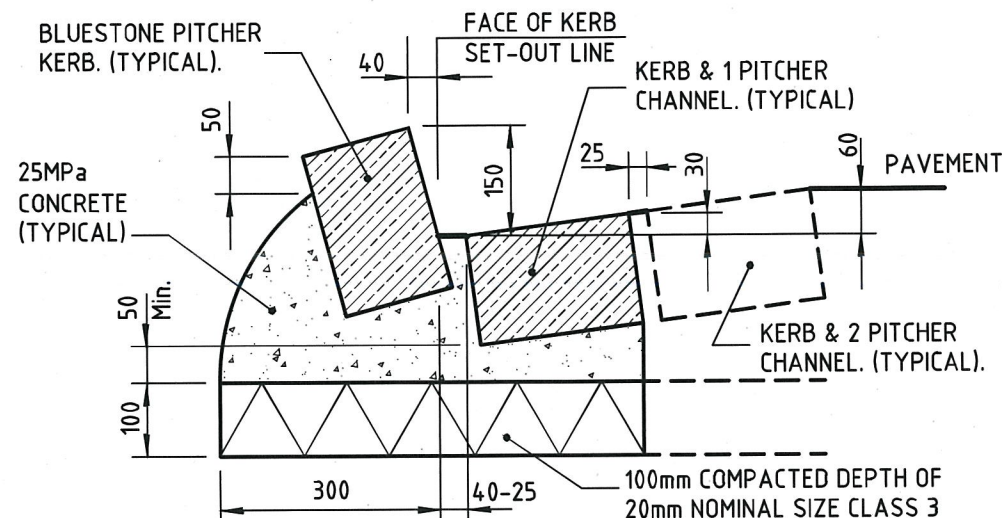
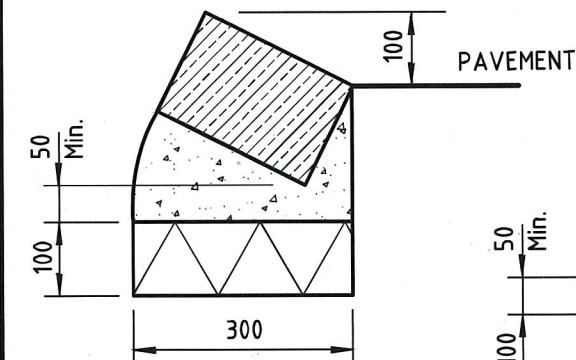
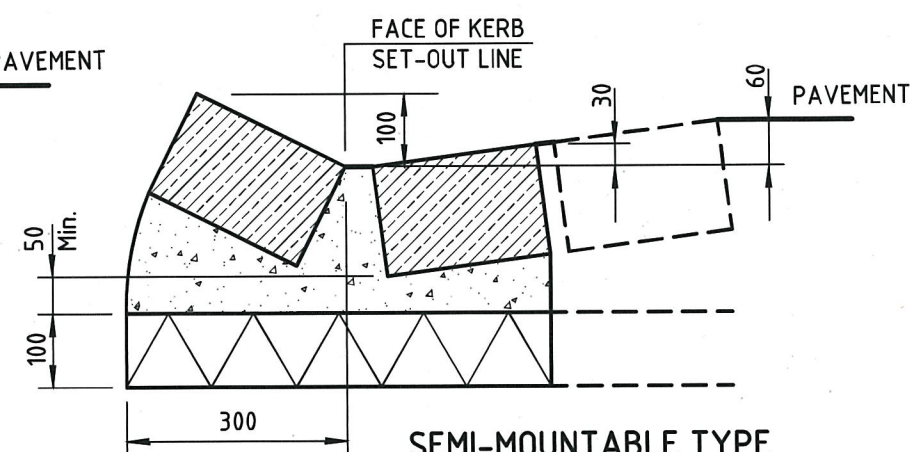
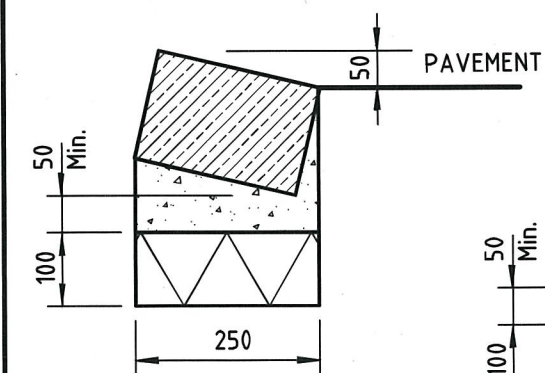
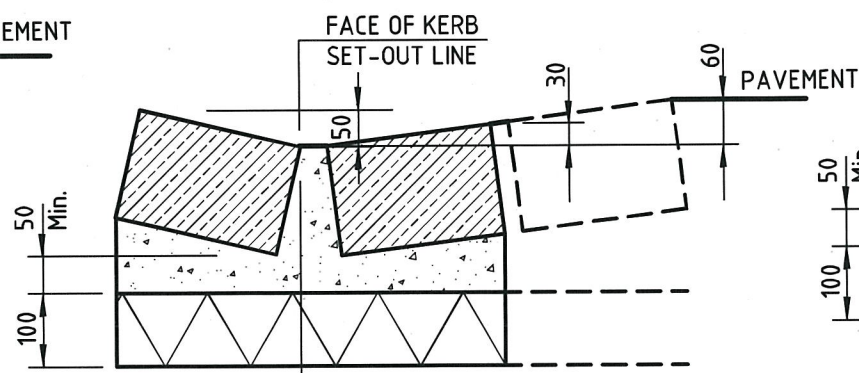
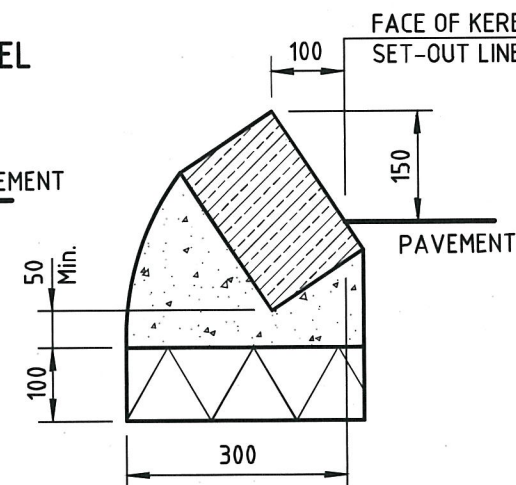
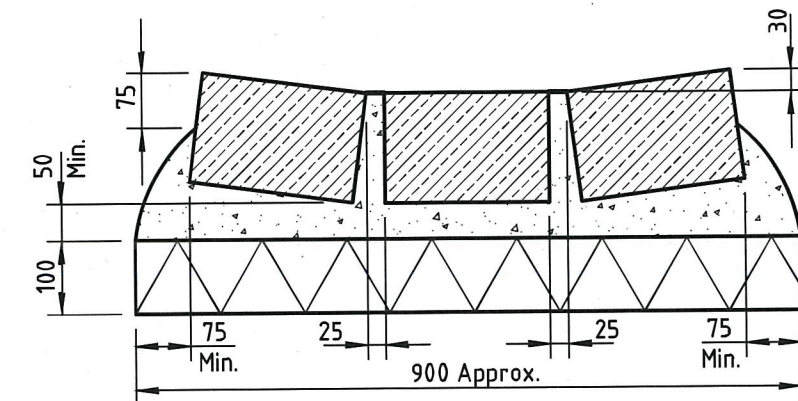
Reference	Version	Scale	DRG. NO.	SHEET
STD-301_KERB-CON	-	N.T.S	STD-301	1 OF 1

9/01/2012 11:32:14 AM

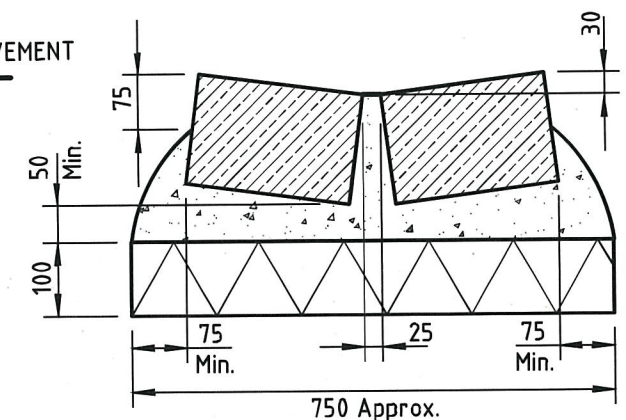
ALL DIMENSIONS IN MM

DO NOT SCALE

IF IN DOUBT ASK

BARRIER TYPE "B1-BP"
KERB ONLY.BARRIER TYPE "B2-BP"
KERB & CHANNEL.SEMI-MOUNTABLE TYPE
"SM1-BP-100" KERB ONLYSEMI-MOUNTABLE TYPE
"SM2-BP-100" KERB & CHANNELMOUNTABLE TYPE
"M1-BP" KERB ONLYMOUNTABLE TYPE
"M2-BP" KERB & CHANNELSEMI-MOUNTABLE TYPE
"SM1-BP-150" KERB ONLY

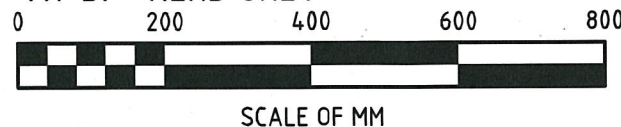
V-CHANNEL TYPE "V2-BP"



V-CHANNEL TYPE "V1-BP"

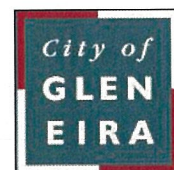
NOTES:

1. DETAILS FOR TYPE "B2-BP" KERB & CHANNEL SECTION ARE TYPICAL FOR ALL OTHER SECTIONS UNLESS NOTED OTHERWISE.
2. JOINTING:
BLUESTONE PITCHERS TO BE POINTED TOP AND FACE
CHARCOAL COLOURED MORTAR TO BE SWEEPED INTO CHANNEL
FULL DEPTH CHARCOAL COLOURED MORTAR JOINTS ARE TO BE USED FOR SECTION TYPES "B1-BP" & "SM2-BP-150" WITH 4:1 SAND / CEMENT.
FULL DEPTH CHARCOAL COLOURED QUARTER MINUS CONCRETE 25MPa IS TO BE USED FOR JOINTING SECTION TYPES "SM2-BP-100", "M1-BP", "V1-BP" & "V2-BP".
GAPS BETWEEN PITCHERS TO BE APPROX. 25mm & FINISHED FLUSH WITH SURFACE
3. COLOURING:
COLOURING OF ALL CONCRETE & MORTAR SHALL BE ACHIEVED ONLY BY THE ADDITION OF IRON OXIDE, 8.3% IRON OXIDE BY WEIGHT OF CEMENT.
4. CHANNELS AT PRAM CROSSINGS SHALL BE CHARCOAL COLOURED CONCRETE, WIDTH TO MATCH ABUTTING BLUESTONE CHANNEL. REFER PRAM CROSSING STANDARD DRAWING.



SCALE OF MM

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	Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009	STD-302_KERB-BS1
Drawn	CAP WORKS	AUG 2009	Reference
Checked			-
Approved	<i>Paul Wicks</i>		Version
Dir. Assets & Facilities		Date	16-01-12

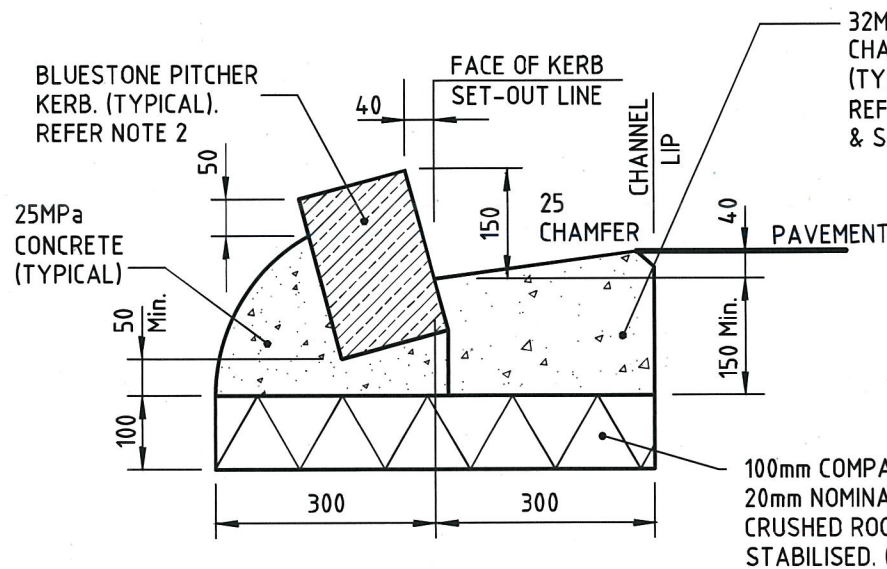
KERB & CHANNEL SECTIONS
BLUESTONE

SCALE:	AS SHOWN	DRG. NO.	STD-302	SHEET	1 OF 1
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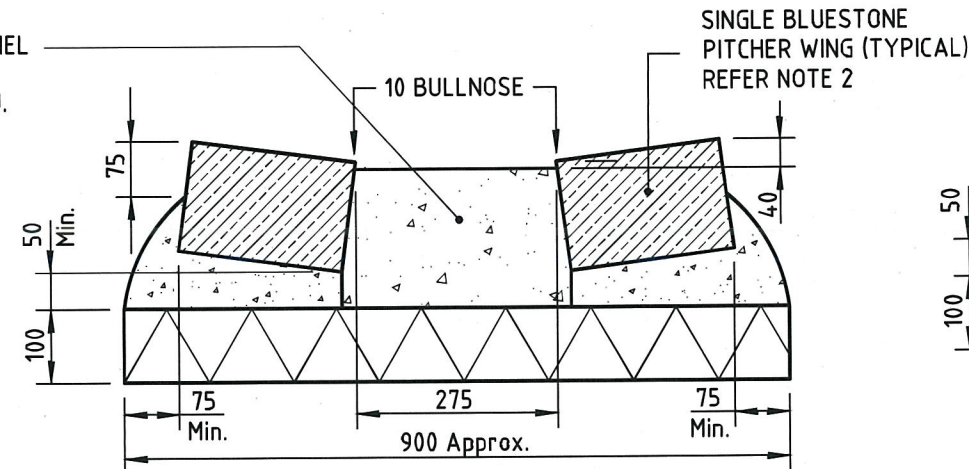
ALL DIMENSIONS IN MM

DO NOT SCALE

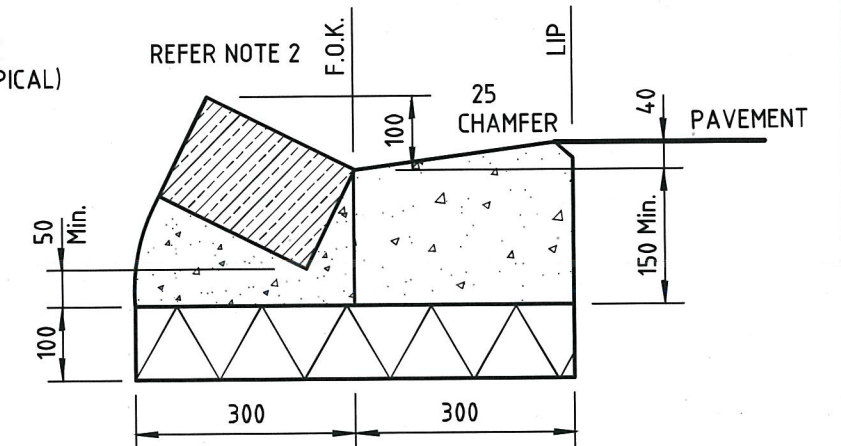
IF IN DOUBT ASK



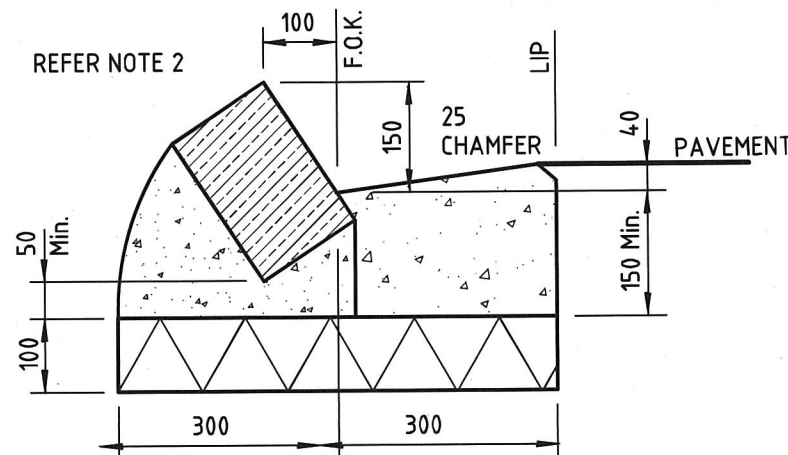
BARRIER TYPE "B2-BPCC" KERB & CHANNEL.



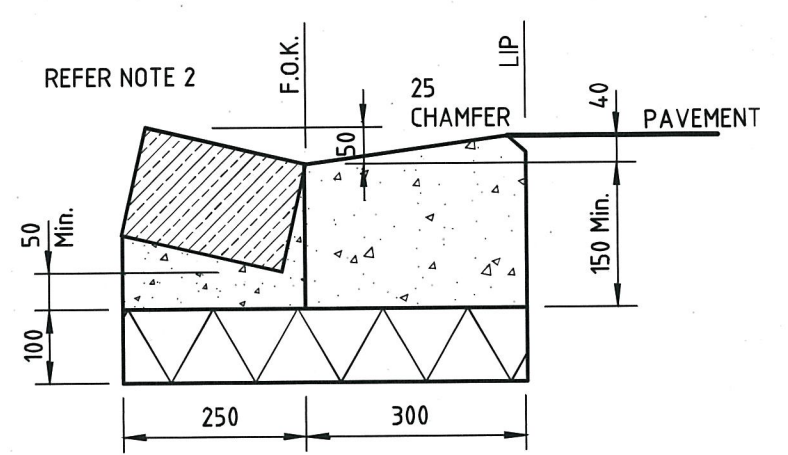
V-CHANNEL TYPE "V2-BPCC"



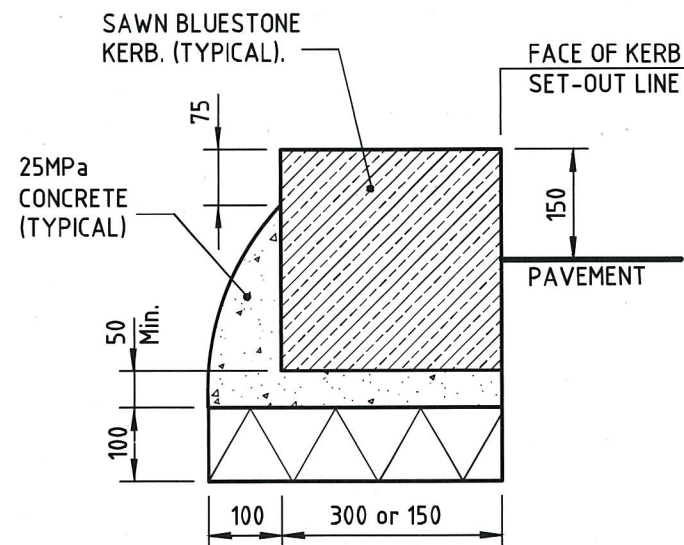
SEMI-MOUNTABLE TYPE "SM2-BPCC-100" KERB & CHANNEL



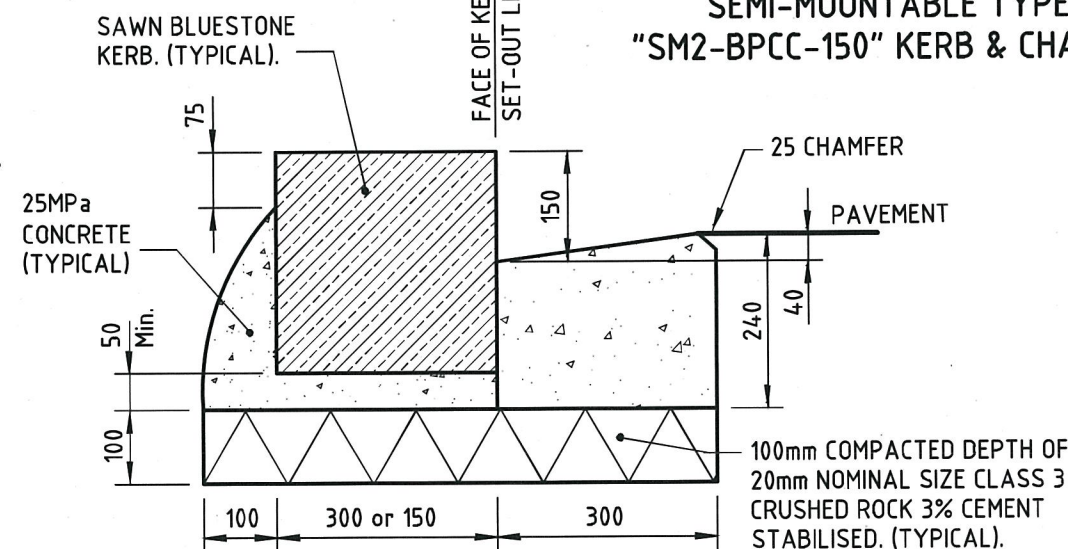
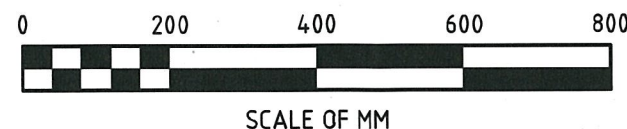
SEMI-MOUNTABLE TYPE "SM2-BPCC-150" KERB & CHANNEL



MOUNTABLE TYPE "M2-BPCC" KERB & CHANNEL



BARRIER KERB ONLY TYPE "B1-SB-300" OR "B1-SB-150"

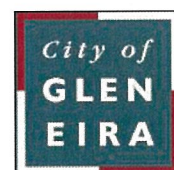


BARRIER KERB & CHANNEL. TYPE "B2-SB-300" OR "B2-SB-150"

NOTES:

1. DETAILS FOR TYPE "B2-BPCC" KERB & CHANNEL SECTION ARE TYPICAL FOR ALL OTHER SECTIONS UNLESS NOTED OTHERWISE.
2. JOINTING:
BLUESTONE PITCHERS TO BE POITED TOP AND FACE
FULL DEPTH CHARCOAL COLOURED MORTAR JOINTS ARE TO BE USED FOR SECTION TYPES "B2-BPCC" & "SM2-BPCC-150" WITH 4:1 SAND / CEMENT.
FULL DEPTH CHARCOAL COLOURED QUARTER MINUS CONCRETE 25MPa IS TO BE USED FOR JOINTING SECTION TYPES "SM2-BPCC-100", "M2-BPCC", & "V2-BPCC".
GAPS BETWEEN PITCHERS TO BE APPROX. 25mm & FINISHED FLUSH WITH SURFACE
3. COLOURING:
COLOURING OF ALL CONCRETE & MORTAR SHALL BE ACHIEVED ONLY BY THE ADDITION OF IRON OXIDE, 8.3% IRON OXIDE BY WEIGHT OF CEMENT.
4. CHANNELS AT PRAM CROSSINGS SHALL BE CHARCOAL COLOURED CONCRETE, WIDTH TO MATCH ABUTTING BLUESTONE CHANNEL. REFER PRAM CROSSING STANDARD DRAWING.

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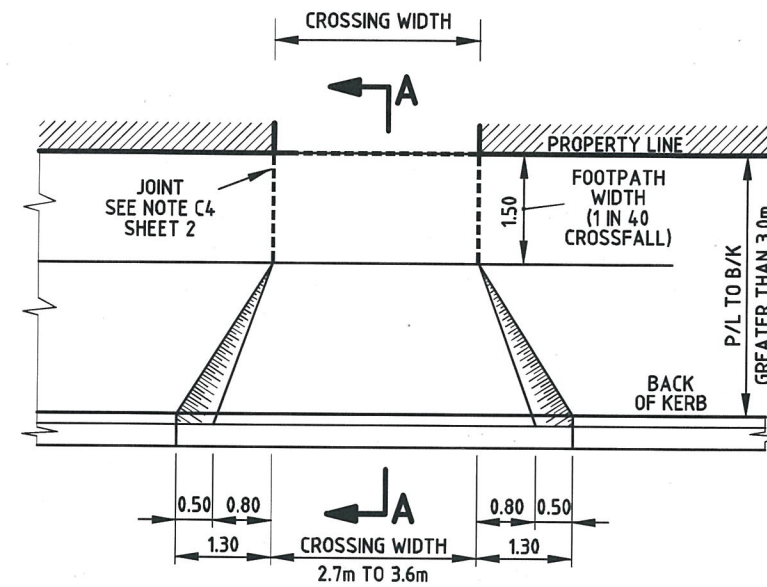
	Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009	STD-303_KERB-BS2
Drawn	CAP WORKS	AUG 2009	Reference
Checked			-
Approved			Version
			-
			Date
			16-01-12
Dir. Assets & Facilities		Date	

KERB AND CHANNEL SECTIONS
BLUESTONE KERB / CONCRETE CHANNEL

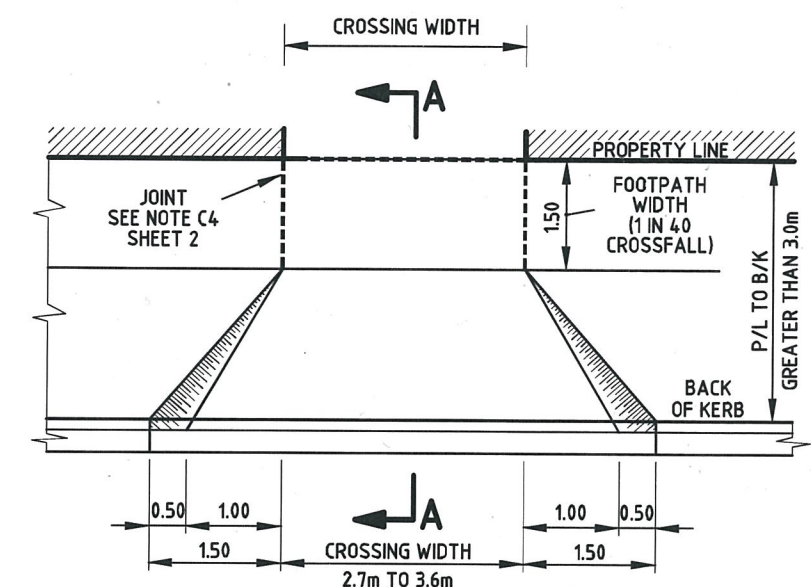
SCALE: AS SHOWN	DRG. NO. STD-303	SHEET 1 OF 1
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NOTES:

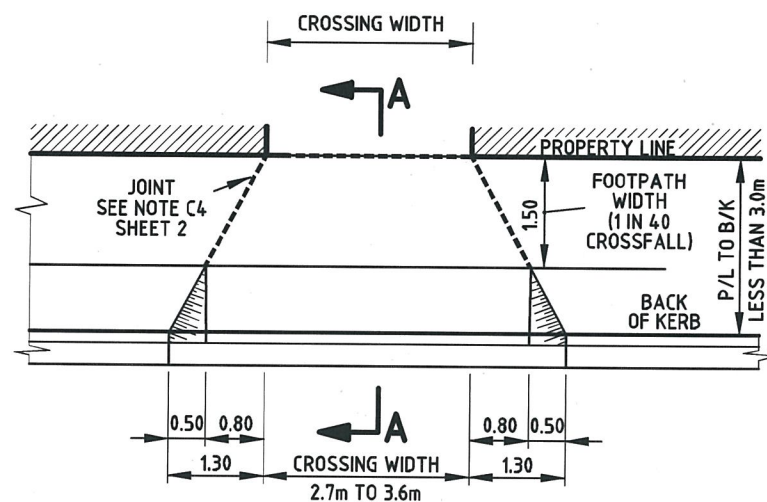
1. EXISTING KERB AND CHANNEL MATERIALS TO BE MAINTAINED
2. VEHICLE CROSSINGS TO BE CONSTRUCTED 3.0m CLEAR FROM COUNCIL TREES. CROSSINGS CLOSER THAN 3.0m FROM THE TREE TRUNK REQUIRE COUNCIL ARBORIST INSPECTION AND REPORT
3. REVERSE CROSSFALL TYPE VEHICLE CROSSING TO BE CONSTRUCTED WHERE THE TOP OF THE KERB IS GREATER THAN:
60mm FOR FOOTWAY > 3.0m, or
70mm FOR FOOTWAY < 3.0m
ABOVE THE PROPERTY LINE (TO ACHIEVE 1% MINIMUM SLOPE)
4. VEHICLE CROSSINGS WITH INFILL AT A SLOPE GREATER THAN 1 IN 10 (DESIGN IN ACCORDANCE WITH AS2890.1 TO BE SUBMITTED TO GECC FOR REVIEW AND APPROVAL)
5. ON COMPLETION:
-APPROVED TOPSOIL TO BE SPREAD IN NATURESTRIP AREA AND SEEDED
6. -THE SITE SHALL BE CLEANED AND WASHED OF ALL CONSTRUCTION MATERIAL
7. CONCRETE STRENGTH = 32MPa



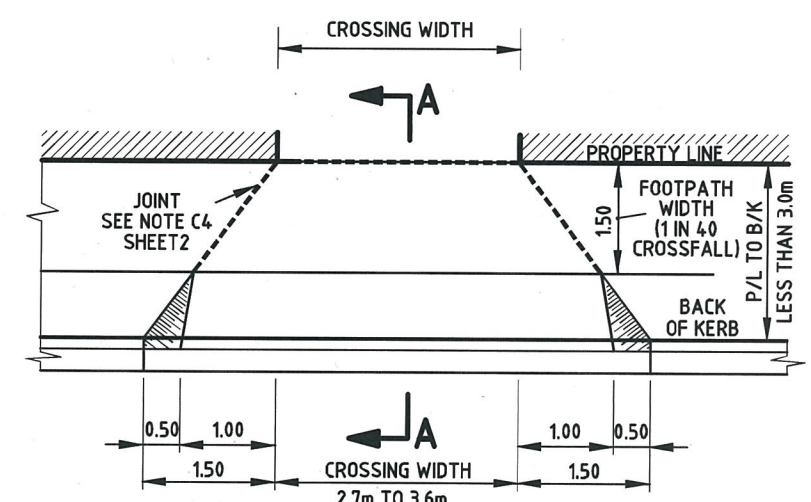
TYPICAL PLAN
(COUNCIL ACCESS ROADS)
P/L TO B/K GREATER THAN 3.0 m



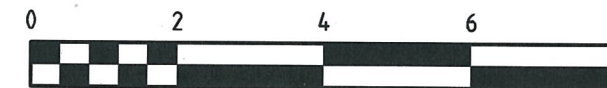
TYPICAL PLAN
(COUNCIL LINK/COLLECTOR ROADS)
P/L TO B/K GREATER THAN 3.0 m



TYPICAL PLAN
(COUNCIL ACCESS ROADS)
P/L TO B/K LESS THAN 3.0 m

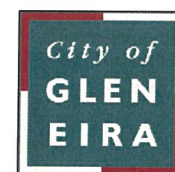


TYPICAL PLAN
(COUNCIL LINK/COLLECTOR ROADS)
P/L TO B/K LESS THAN 3.0 m



SCALE OF METRES

GLEN EIRA CITY COUNCIL



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	Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009	STD-401_X-VEH
Drawn	CAP WORKS	AUG 2009	Reference
Checked			-
Approved			Version
	Dir. Assets & Facilities	Date	-

VEHICLE CROSSING DETAILS - LAYOUT

SCALE:	AS SHOWN	DRG. NO.	STD-401	SHEET	1 OF 2
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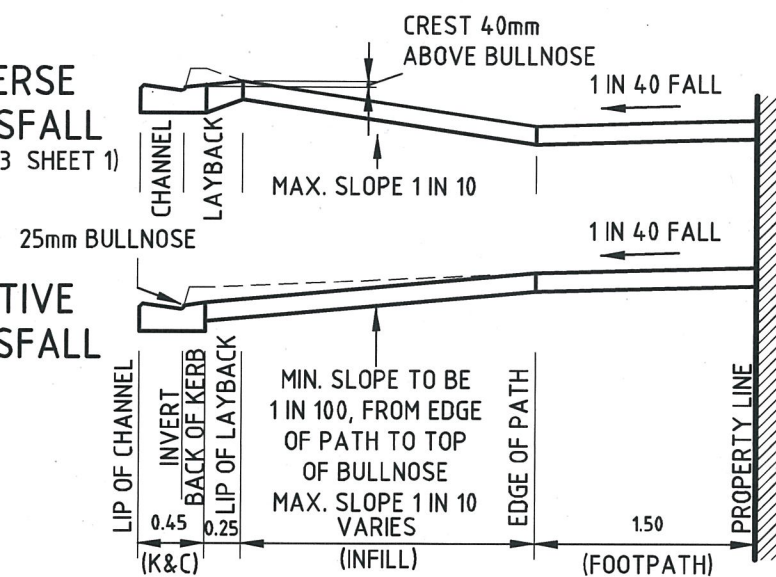
CONCRETE CROSSING

CONCRETE NOTES:

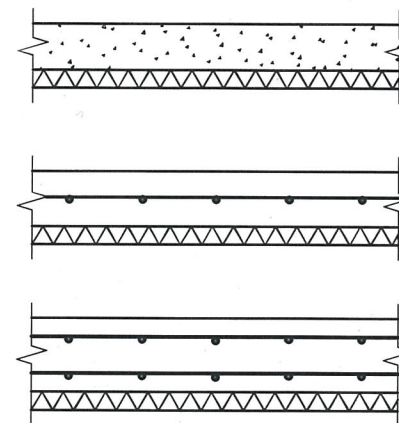
- C1. SEE GENERAL NOTES ON SHEET 1**
C2. CONCRETE STRENGTH = 32 MPa.
C3. IF NOMINATED, CHARCOAL CONCRETE COLOUR TO BE ACHIEVED BY THE ADDITION OF 8.3% IRON OXIDE DYE BY WEIGHT OF CEMENT
C4. EXPANSION JOINTS (15mm ABELFLEX OR APPROVED EQUIVALENT) TO BE PROVIDED AT EXISTING FOOTPATH AND ALONG THE PROPERTY LINE, TRIMMED AND CAULKED TO MATCH FINISHED LEVELS
C5. CONTRACTION JOINTS SHALL BE PROVIDED IN BOTH DIRECTIONS AT INTERVALS OF 1.0m TO 2.5m
C6. SAWCUT EXISTING CONCRETE OR ASPHALT PAVING AND KERB & CHANNEL ALONG BREAKOUT LINES WHERE REQUIRED

REVERSE
CROSSFALL
(SEE NOTE 3 SHEET 1)

POSITIVE
CROSSFALL



SECTION A-A. (TYPICAL).



CROSS SECTION

N.T.S.

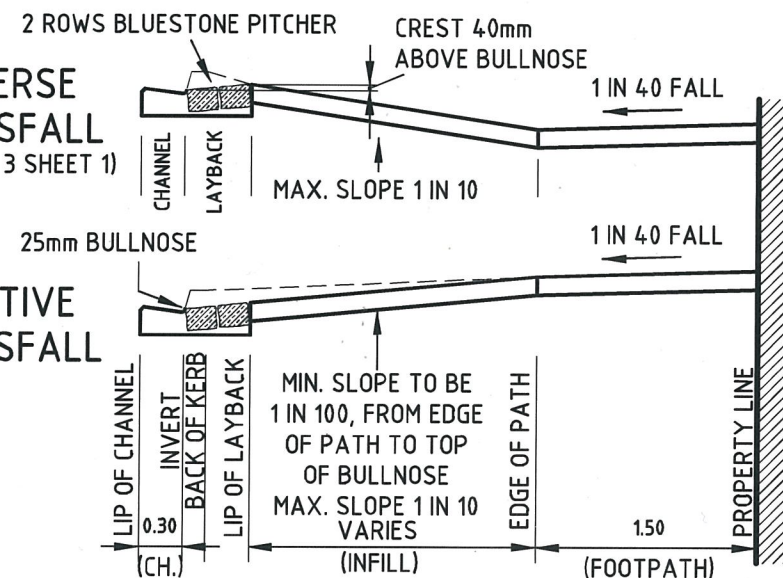
ASPHALT CROSSING

ASPHALT NOTES:

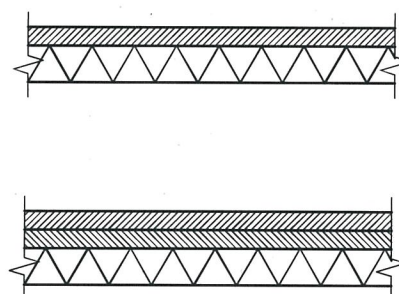
- A1. SEE GENERAL NOTES ON SHEET 1**
A2. ASPHALT TO BE CONSTRUCTED WITH 75mm X 38mm REDGUM PLINTH ALONG THE NATURESTRIP
A3. THE FINISHED SURFACE IS TO BE SMOOTH WITHOUT GROOVES, PITTING, LOOSE STONES OR EXPOSED EMULSION
A4. ALL JOINTS TO EXISTING ASPHALT TO BE SAW CUT, CLEANED AND TACK COATED

REVERSE
CROSSFALL
(SEE NOTE 3 SHEET 1)

POSITIVE
CROSSFALL



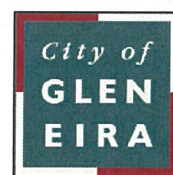
SECTION A-A. (TYPICAL).




CROSS SECTION

N.T.S.

GLEN EIRA CITY COUNCIL

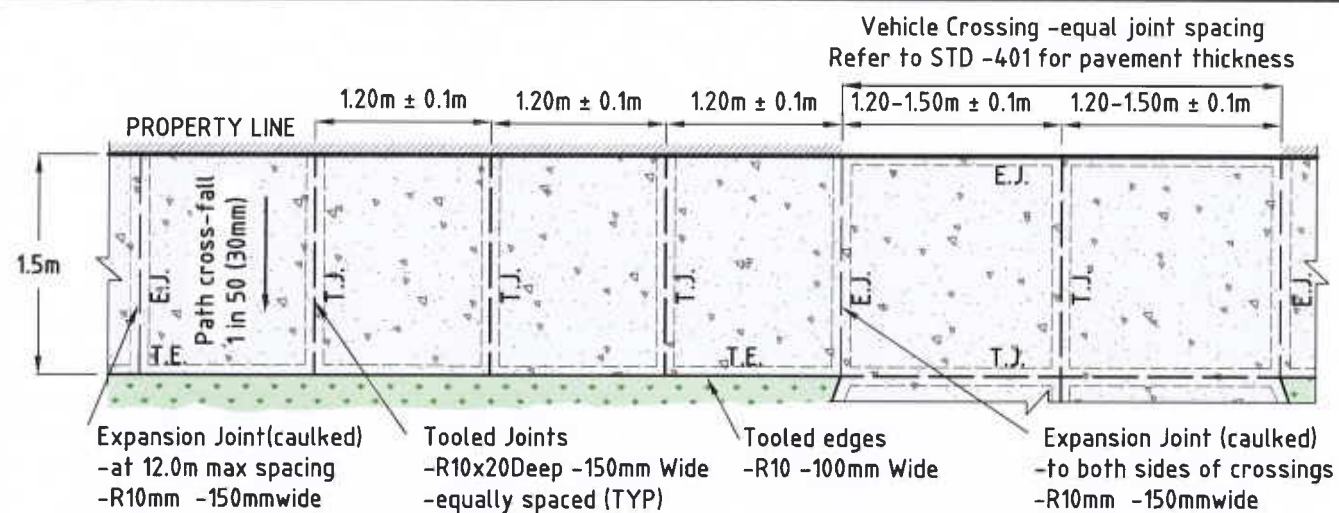


Corner Glen Eira and Hawthorn Roads
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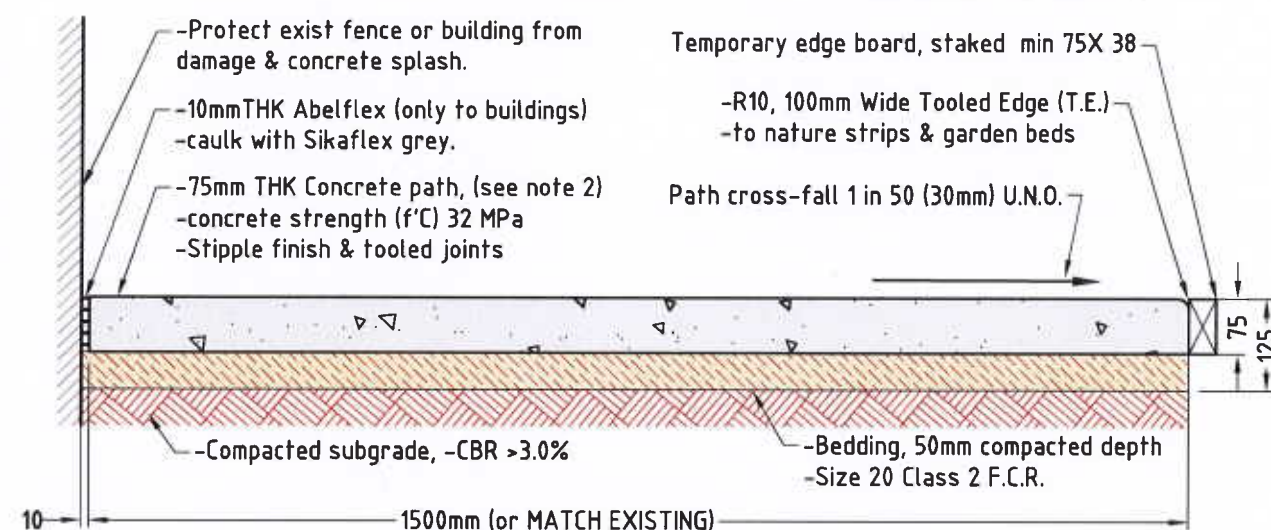
	Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009	STD-401_X-VEH
Drawn	CAP WORKS	AUG 2009	Reference
Checked			-
Approved			Version
Dir. Assets & Facilities	Date	23.6.14	-

VEHICLE CROSSING DETAILS - SECTIONS

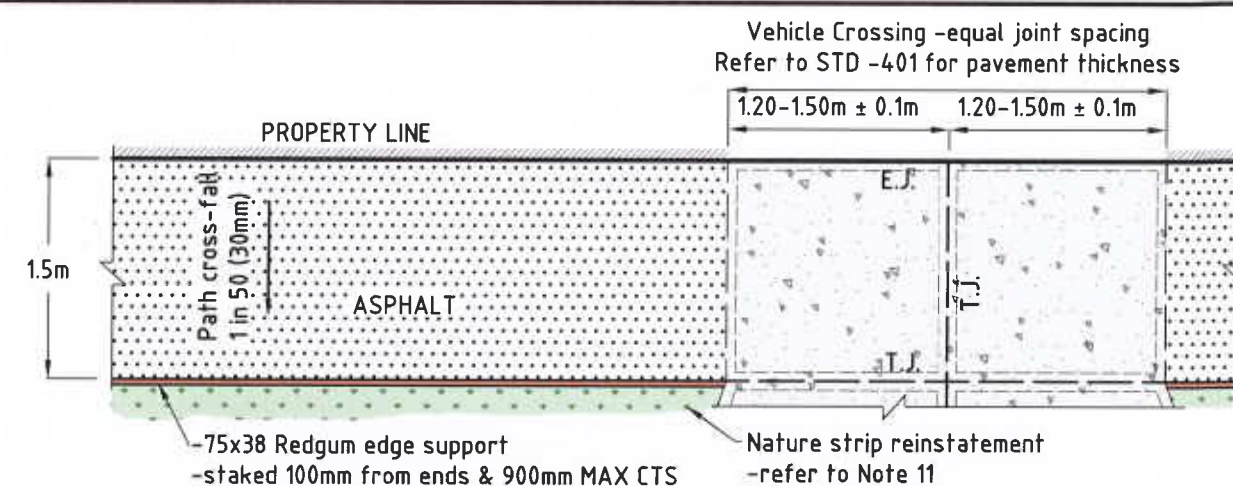
SCALE:	AS SHOWN	DRG. NO.	STD-401	SHEET	2 OF 2
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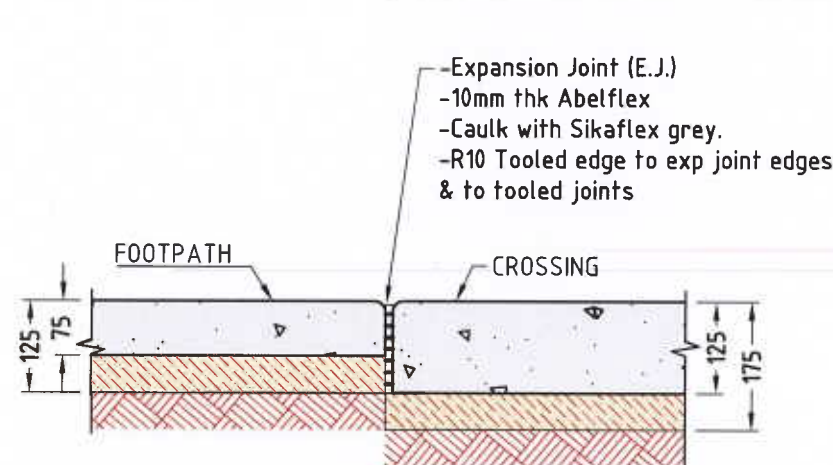
TYPICAL CONCRETE FOOTPATH LAYOUT



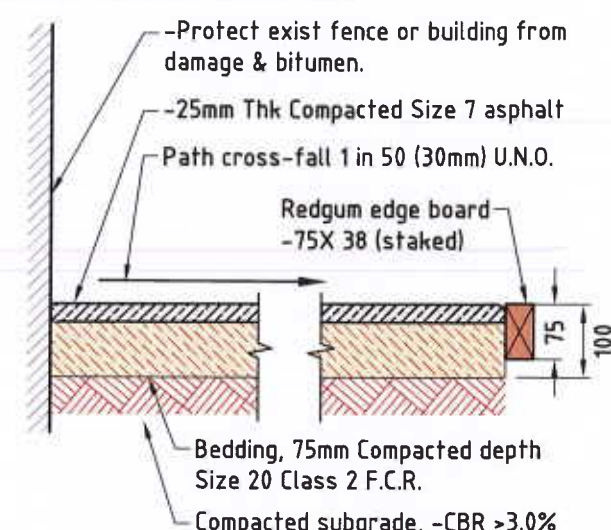
FOOTPATH SECTION DETAIL



TYPICAL ASPHALT FOOTPATH LAYOUT



EXPANSION JOINT (SHOWN AT CROSSING)



ASPHALT SECTION DETAIL

NOTES

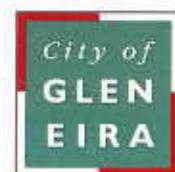
1. **CONCRETE STRENGTH (f'c)** -shall be 32 Mpa for all paths.
2. **PAVING THICKNESS** -shall be 75mm. -increase to 125mm for industrial areas, commercial areas, Council Reserves, new subdivisions and any other open areas which can be accessed by maintenance or construction vehicles.
3. **TOOLED JOINTS (T.J.)** -10R x 20mm Deep, 150mm Wide tool, shall be placed along the footpath at even spacing, 1.20m, ±0.10m.
4. **EXPANSION JOINTS (E.J.)** -to the path (at 12.0m max spacing), to both sides of crossings, & along back of kerbs & exist concrete.
5. **JOINT ALIGNMENT** -shall to be perpendicular to the building line, straight and of high standard.
6. **STIPPLE FINISH TO SURFACE** -shall commence following sufficient curing such that penetrations are not excessive (refer to specification). Sub-standard finish will result in removal and replacement.
7. **TOOLED JOINTS AND TOOLED EDGES** -shall be finished with a final pass of the tool after the surface stipple finish.
8. **CROSS-FALL** -2.0% MAX (1 in 50, 30mm over a width of 1.5m).
-transition the cross-fall to existing over the first bay -may retain exist cross-fall if less than 4.0m of path is replaced.
9. **LONGITUDINAL GRADE** -shall match existing, -1 in 20 max for all paths, -grades in excess of 1 in 20 require Council approval.
10. **SUB-GRADE PROTECTION** -back fill paving excavations with minimum delay to reduce the risk of damage to the sub-grade.
11. **NATURE STRIPS AND DISTURBED AREAS** -shall be cleared of debris and surfaced with 75mm depth of approved topsoil and grass seed. Lightly compact against the path edge to prevent local settlement.
12. **PROTECTION** -paving shall not be poured under adverse weather conditions, (excessive heat or wind or rain) unless properly protected. Refer to the Specification. Paths with inscriptions, cracks or weakened/dusty surface will not be accepted.

CONCRETE PAVING AND JOINT SCHEDULE

PROPOSED USE & ACCESS	PAV'T DEPTH	CONC MPa	TOOL JOINTS (SPACING)	EXP JOINTS (SPACING)
Footpath up to 1.50m W -Residential	75 mm	32	1.1-1.3m -Adopt 1.2m U.N.O.	12.0m max
Footpath up to 1.50m W -Parks, Commercial & Industrial	125 mm	32	1.1-1.3m -Adopt 1.2m U.N.O.	12.0m max
Footpath 1.55- 1.95m W -all paths U.N.O.	125mm	32	1.1-1.3m -Adopt 1.2m	12.0m max
Crossings	-Refer to Councils Standard crossing details STD-401			

NO.	REFERENCES
1.	STD-401 VEHICLE CROSSING DETAILS
2.	STD-403 PERAMBULAR CROSSING
3.	
4.	
5.	

CITY OF GLEN EIRA



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	Initials	Date	CAD Reference
Designed	CAP WORKS	MAR 2018	STD-402 2018
Drawn	CAP WORKS	MAR 2018	Reference
Checked	F.R.	APRIL 2018	-
Approved			Version A
Dir. Inf, Env & Leisure	Date	13/4/18	Date

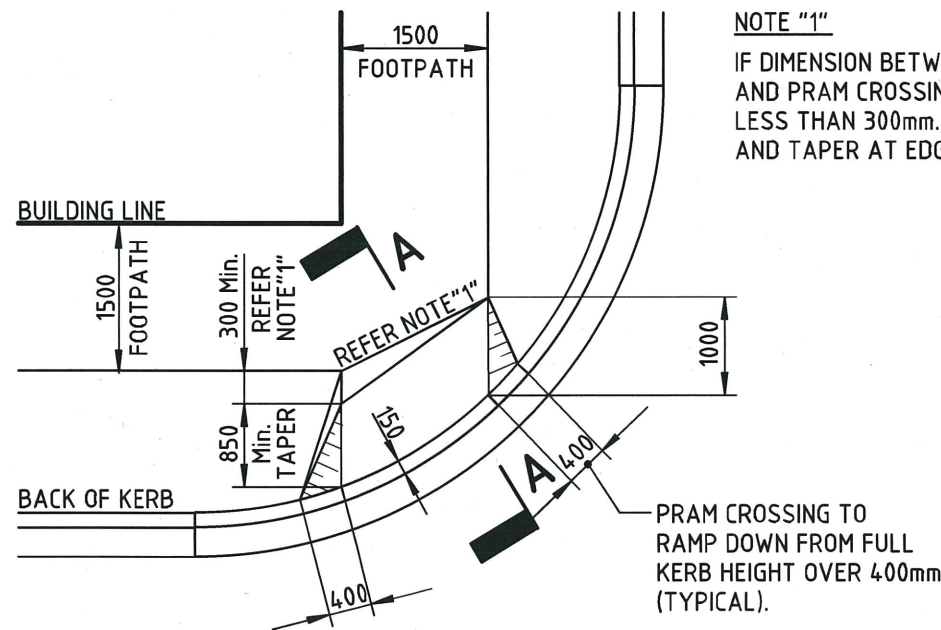
FOOTPATH DETAILS UP TO 1.95m WIDE

SCALE: AS SHOWN	DRG. NO. STD-402 2018	SHEET 1 OF 1
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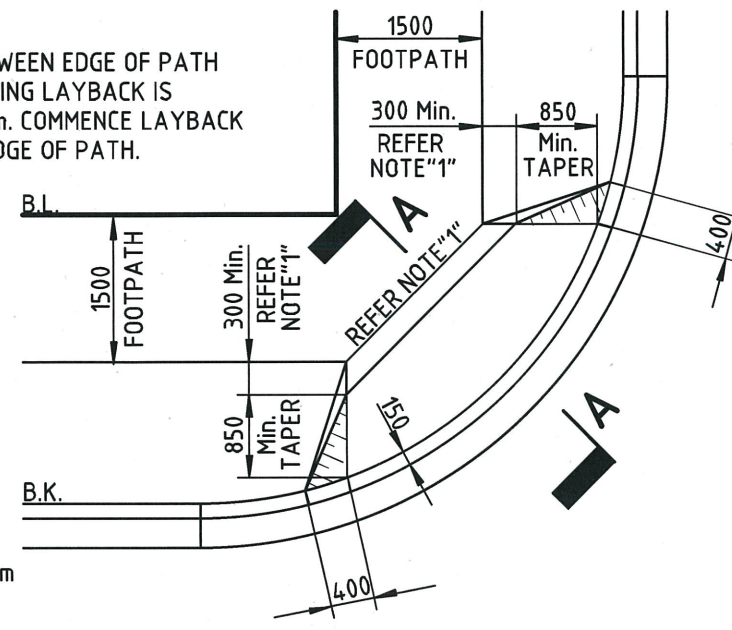
ALL DIMENSIONS IN MM

DO NOT SCALE

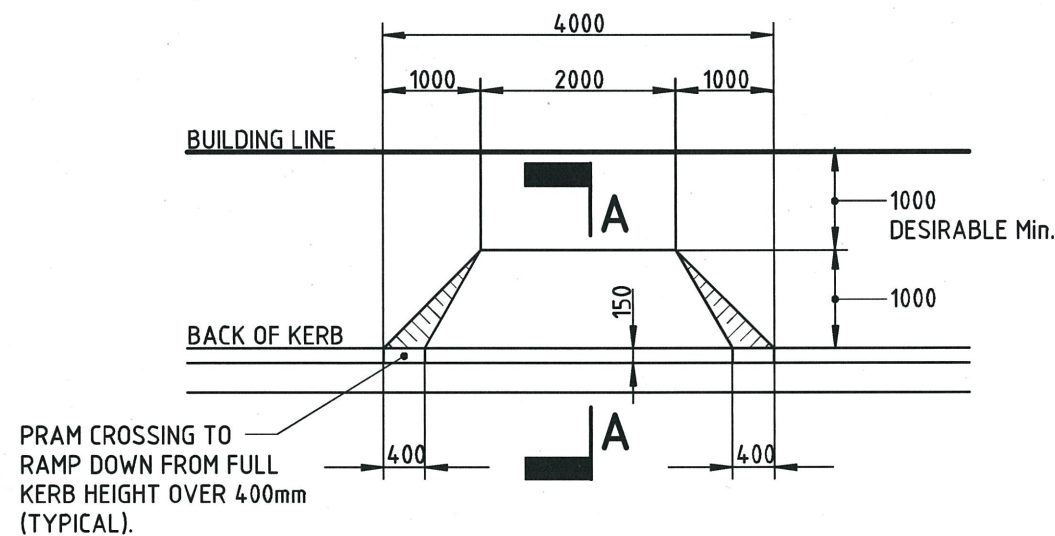
IF IN DOUBT ASK



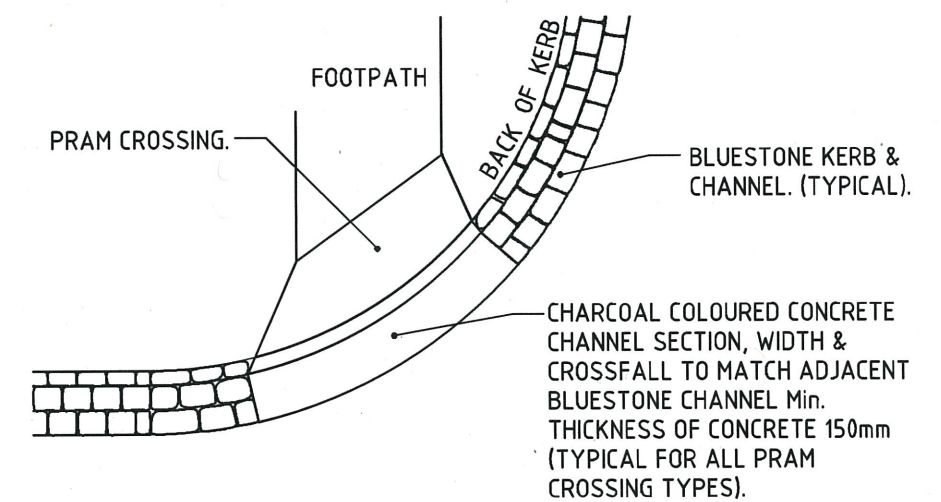
TYPE "1" PRAM CROSSING
SINGLE



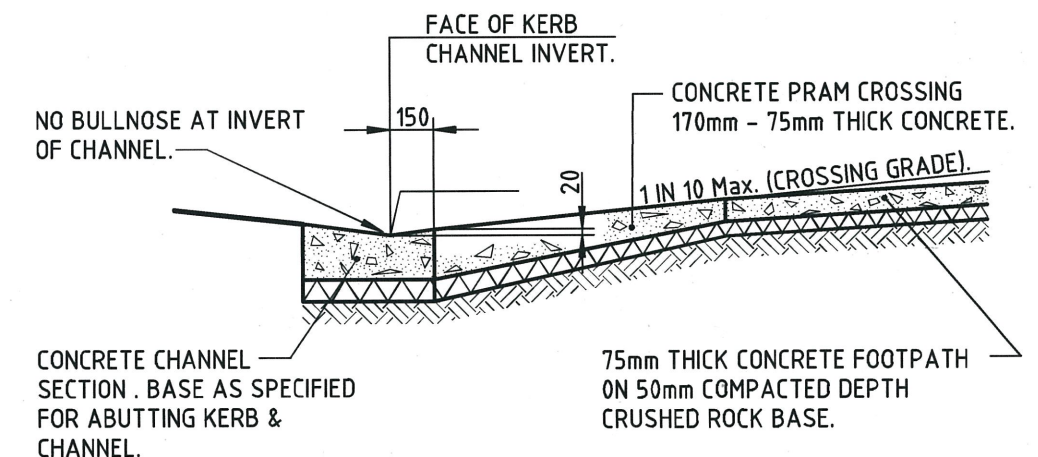
TYPE "2" PRAM CROSSING
DOUBLE



TYPE "3" PRAM CROSSING
(AT MID BLOCK).



PRAM CROSSING FOR
BLUESTONE CHANNEL.

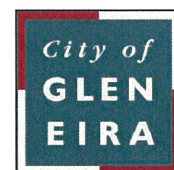


SECTION A-A.
N.T.S.

NOTES:

- IF DIMENSION BETWEEN EDGE OF PATH AND PRAM CROSSING IS LESS THAN 300mm. COMMENCE LAYBACK AND TAPER AT EDGE OF PATH.
- THESE DETAILS TO BE READ IN CONJUNCTION WITH THE PROJECT DRAWINGS FOR THE SPECIFIC PRAM CROSSING TYPES AND LOCATIONS. CONSTRUCTION PLANS ARE TO BE ADOPTED, SHOULD THEY VARY FROM THESE STANDARD DETAILS.
- CONCRETE STRENGTH = 32MPa

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	Initials	Date
Designed	CAP WORKS	AUG 2009
Drawn	CAP WORKS	AUG 2009
Checked		
Approved	<i>[Signature]</i>	
Dir. Assets & Facilities		Date

CAD Reference	STD-403_X-PRAM
Reference	-
Version	-
Date	20.03.12

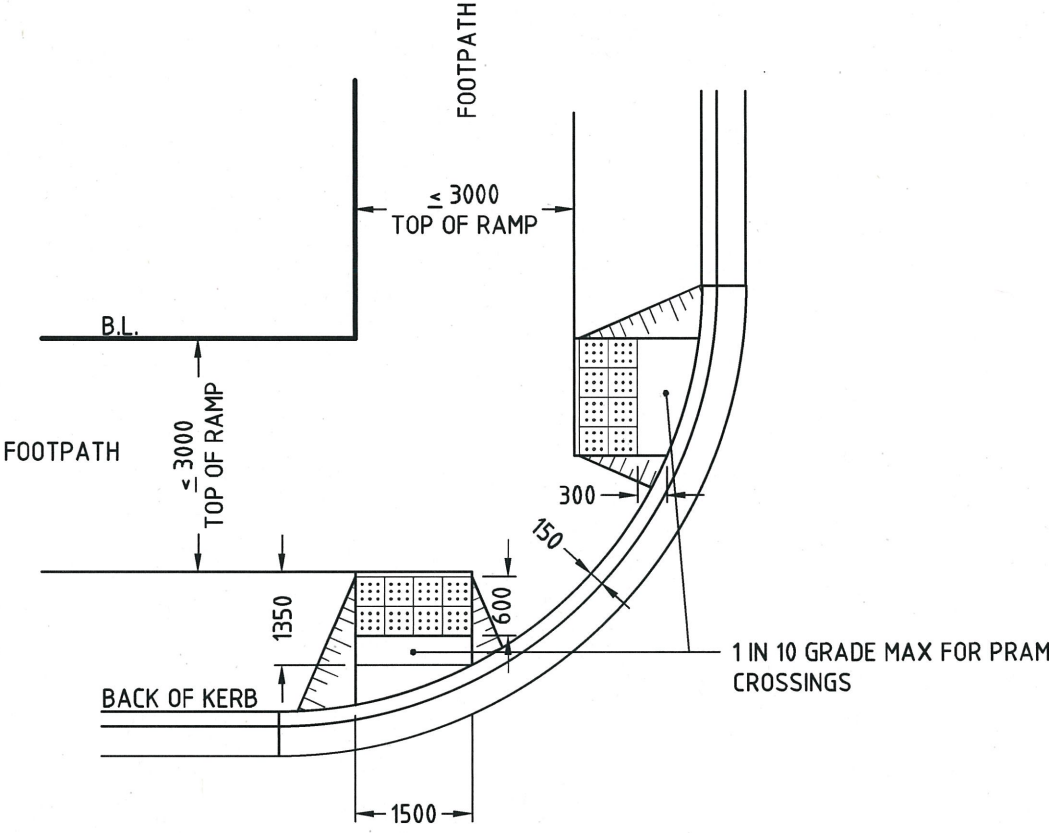
PERAMBULATOR CROSSING DETAILS

SCALE:	AS SHOWN	DRG. NO.	STD-403	SHEET	1 OF 2
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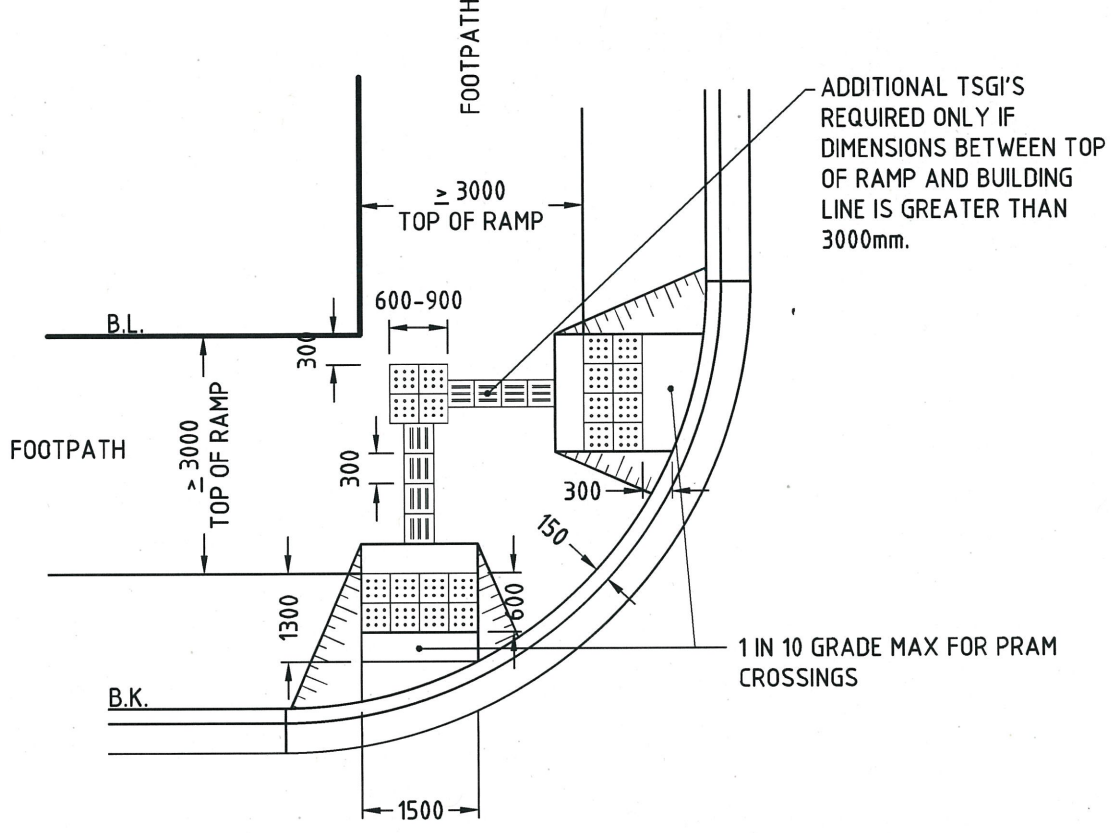
ALL DIMENSIONS IN MM

DO NOT SCALE

IF IN DOUBT ASK



TYPE "3" PRAM CROSSING
DOUBLE (TSGI)



TYPE "4" PRAM CROSSING
DOUBLE (TSGI)

TSGI NOTES:

1. LUMINANCE CONTRAST BETWEEN TSGI's AND PAVEMENT BE TESTED IN ACCORDANCE WITH AS1428.4.1 - 2009

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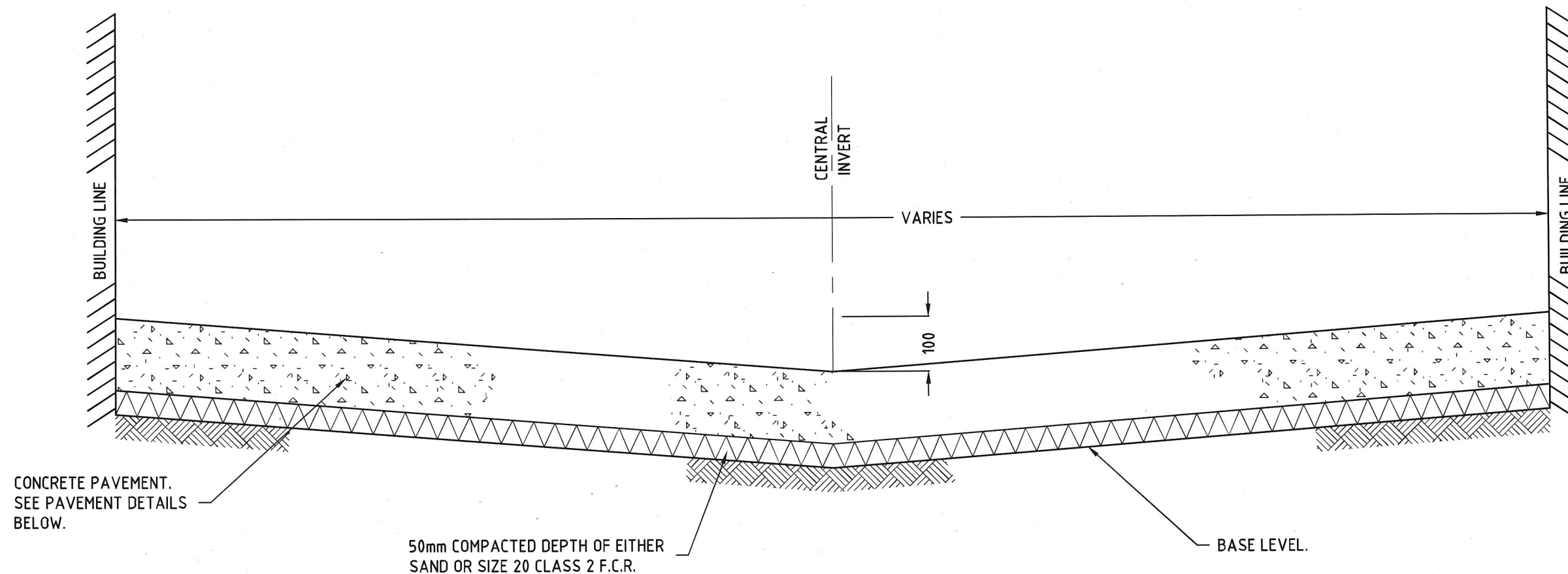
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	Initials	Date
Designed	M.H	AUG 2011
Drawn	M.H	AUG 2011
Checked	J.P	AUG 2011
Approved	<i>Per W. J.</i>	
Dir. Assets & Facilities		Date

CAD Reference	STD-403_X-PRAM
Reference	-
Version	-
Date	20.03.12

PERAMBULATOR CROSSING DETAILS

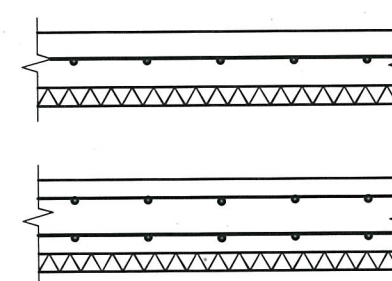
SCALE:	AS SHOWN	DRG. NO.	STD-403	SHEET	2 OF 2
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TYPICAL LANEWAY CROSS-SECTION

NOTES

1. REFER TO STD-407 FOR REINFORCEMENT DETAILS
2. REFER TO STD-408 FOR ISOLATION JOINT DETAILS AT PAVEMENT OPENINGS.
3. CONSTRUCTION JOINTS TO BE SPACED AT MAXIMUM 3m CENTRES, PERPENDICULAR TO THE LANEWAY. REFER TO STD-406 FOR DETAIL.
4. EXPANSION JOINTS TO BE PLACED AT A MAXIMUM SPACING OF 15m CENTRES. REFER TO STD-410 FOR DETAIL.
5. CONCRETE STRENGTH = 32 MPa



COMMERCIAL

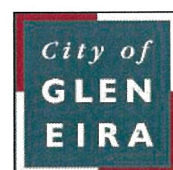
150mm DEPTH SL72 MESH PLACED CENTRAL)
50mm COMPACTED DEPTH OF EITHER SAND OR
20mm N.S. CLASS 2 F.C.R.

INDUSTRIAL

200mm DEPTH (SL72 PLACED TOP & BOTTOM 50mm COVER)
50mm COMPACTED DEPTH OF EITHER SAND OR 20mm N.S.
CLASS 2 F.C.R.

PAVEMENT DETAILS

CITY OF GLEN EIRA

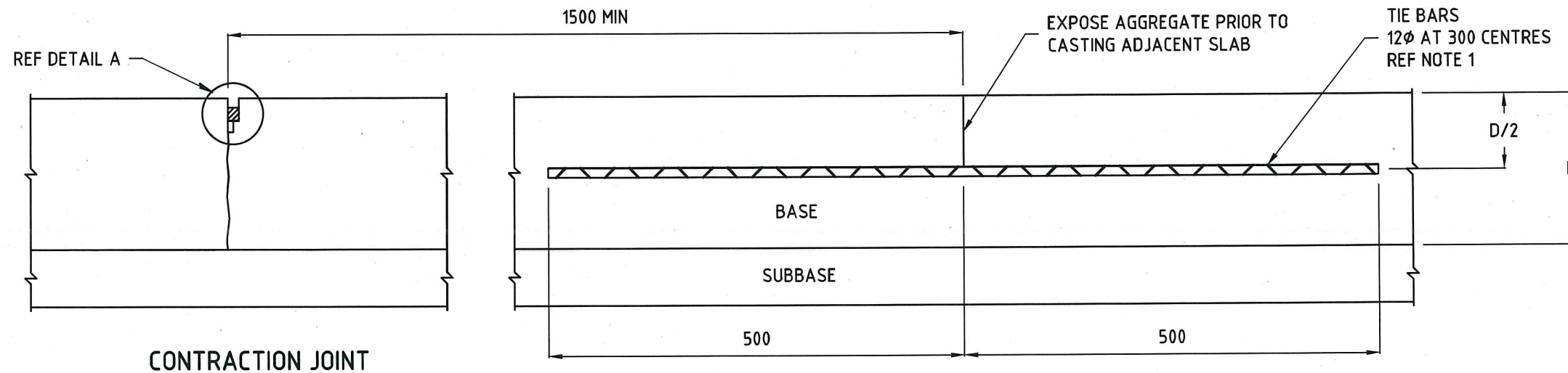


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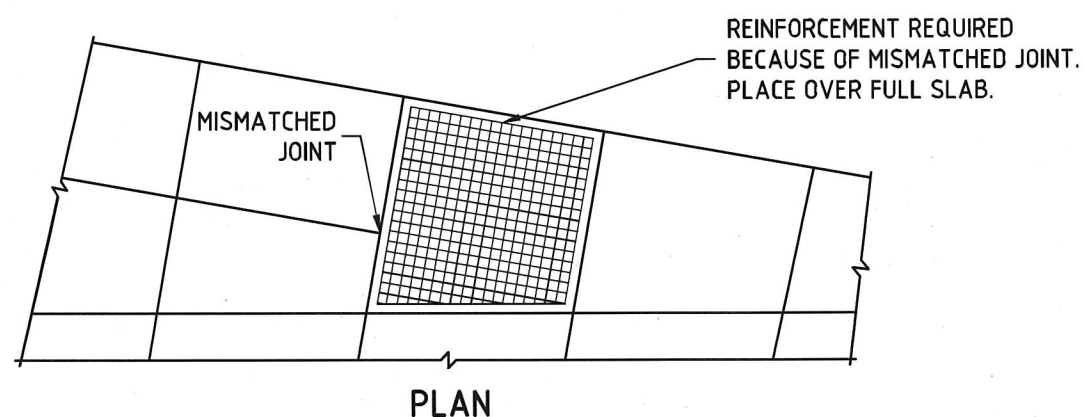
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Drawn	CAP WORKS	AUG 2009	Reference
Checked			-
Approved	<i>[Signature]</i>		Version
Dir. Assets & Facilities		Date	-
		16.01.12	

LANEWAY DETAILS

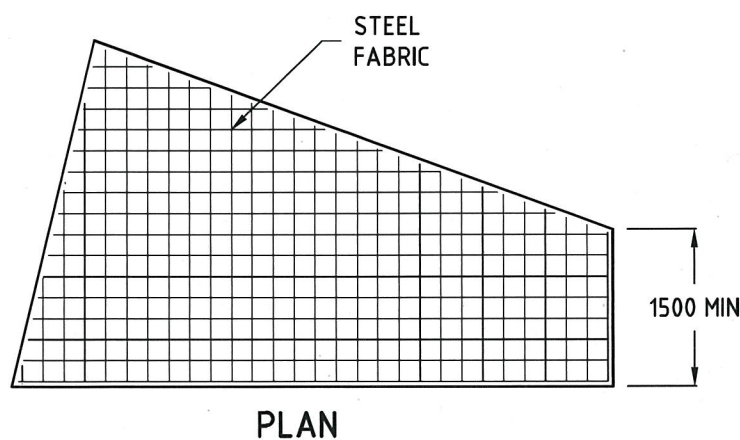
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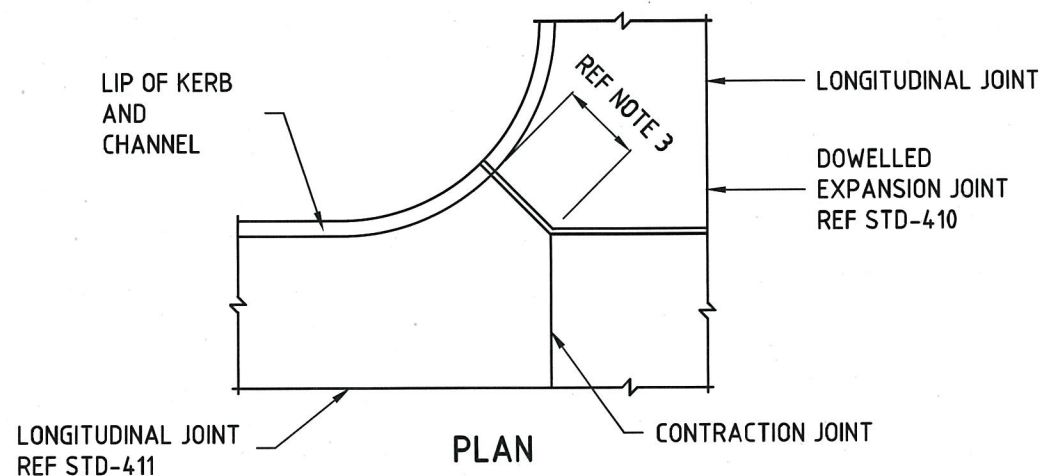
TRANSVERSE JOINTS



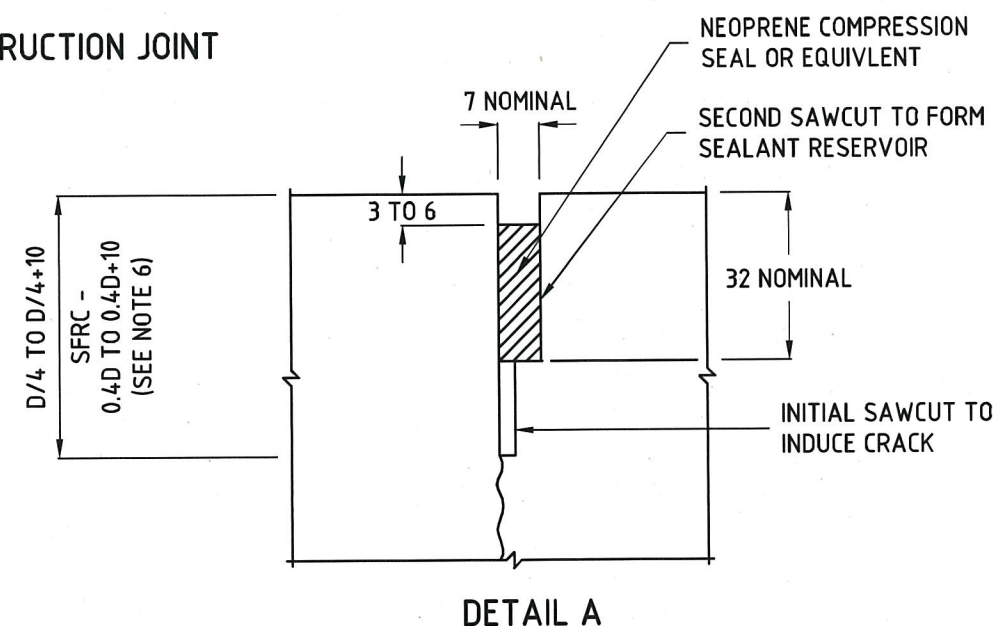
MISMATCHED JOINTS



ODD SHAPED SLABS REF NOTE 4



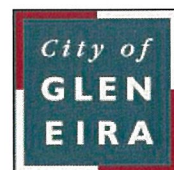
DETAIL AT INTERSECTIONS TO AVOID ACUTE ANGLES



NOTES:

1. TIE BARS SHALL BE HOT DIP GALVANISED GRADE 500N DEFORMED STEEL BARS.
2. SUBBASE AND BASE JOINTS SHALL BE OFFSET BY A MINIMUM OF 500mm.
3. MINIMUM SLAB WIDTH AT INTSECTIONS SHALL BE 500mm.
4. ODD SHAPED SLABS ARE SLABS WITH ONE SIDE AT LEAST 50% LONGER THAN THE SHORTEST SIDE.
5. REINFORCEMENT SHALL BE SL82 STEEL FABRIC LOCATED IN THE TOP THIRD OF BASE AND SHALL HAVE A MINIMUM COVER OF 50mm. IN SLABS CONTAINING TRAFFIC SIGNAL DETECTOR LOOPS THE REINFORCEMENT SHALL BE LOCATED AT MIDDEPTH OF THE BASE.
6. SFRC IS STEEL FIBRE REINFORCED CONCRETE.

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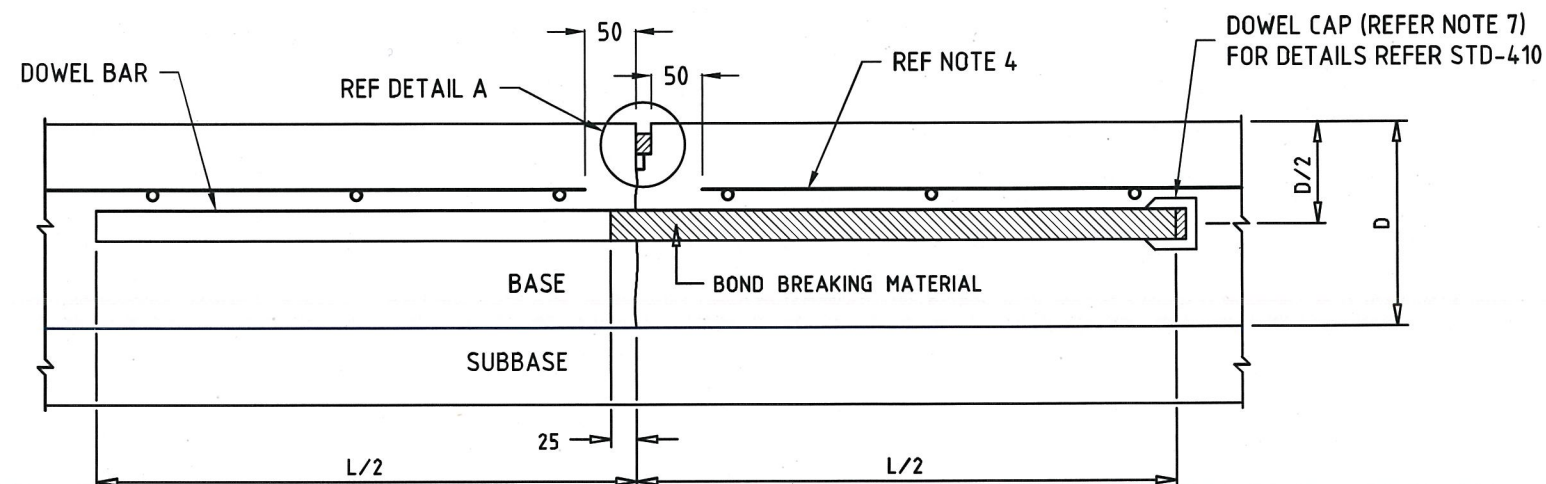


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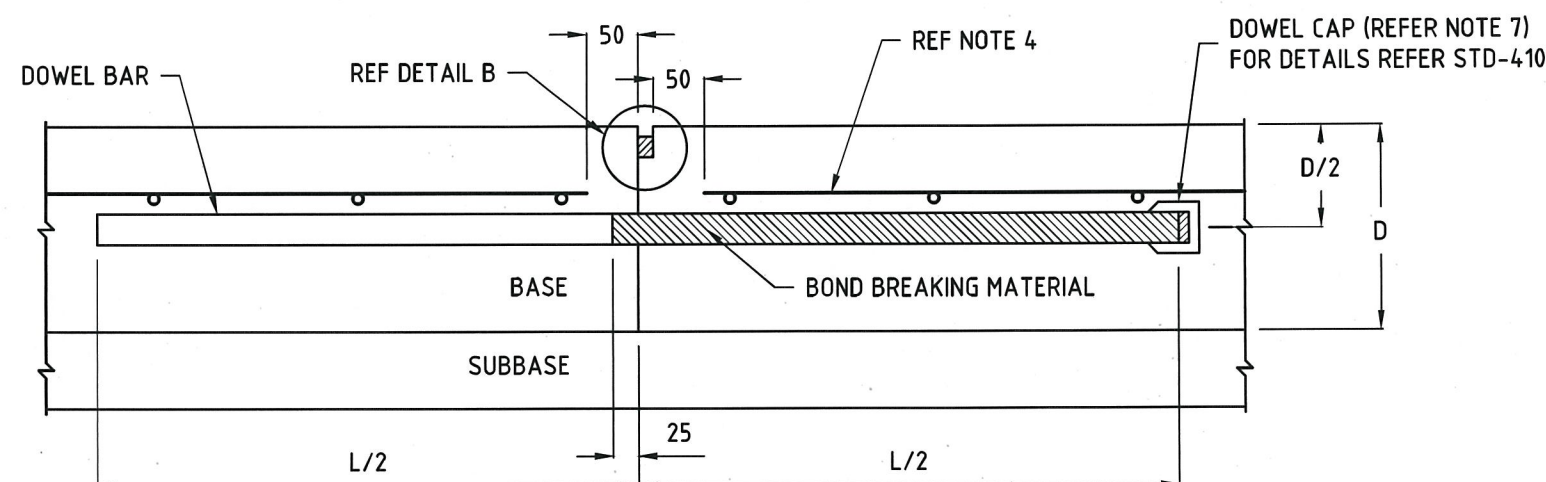
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Designed	CAP WORKS	AUG 2009	STD-405_CP-PLAIN-TRANS
Drawn	CAP WORKS	AUG 2009	Reference
Checked			VicRoads SD-5301C
Approved			Version
			-
			Date
			16.01.12.

PLAIN CONCRETE PAVEMENT TRANSVERSE JOINT & ISOLATED REINFORCEMENT DETAIL

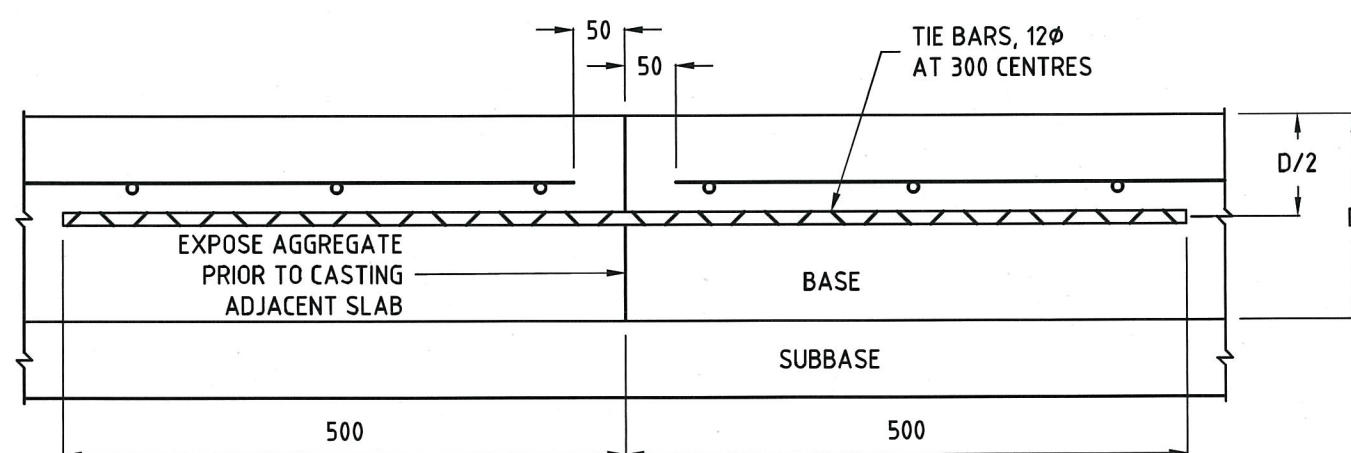
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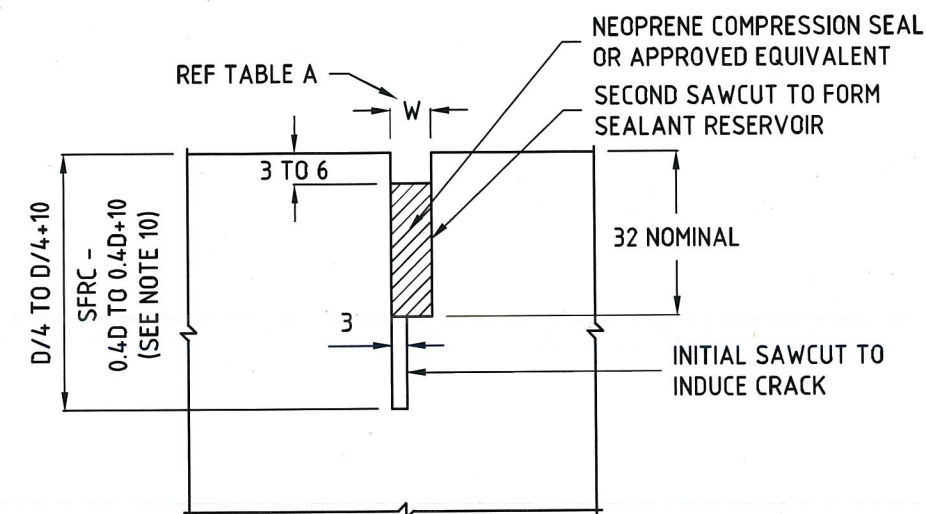
DOWELLED CONTRACTION JOINT



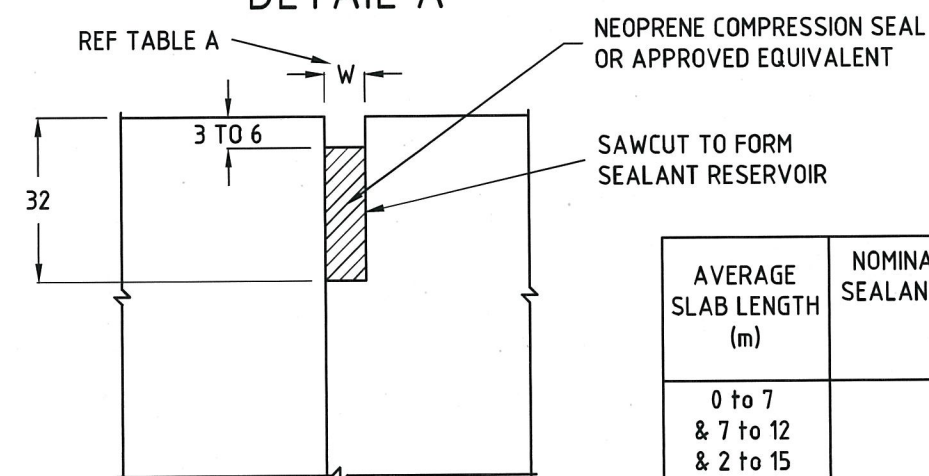
DOWELLED CONSTRUCTION JOINT - AT A CONTRACTION JOINT



TIED CONSTRUCTION JOINT - NOT AT A CONTRACTION JOINT



DETAIL A



DETAIL B

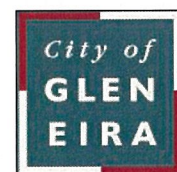
AVERAGE SLAB LENGTH (m)	NOMINAL WIDTH OF SEALANT RESERVOIR W (mm)
0 to 7	7
& 7 to 12	12
& 2 to 15	15

TABLE A

NOTES

1. DOWEL BAR DIAMETER, LENGTH AND SPACING SHALL BE AS SPECIFIED IN THE SCHEDULE OF DETAILS.
2. DOWELS SHALL BE:
 - SECURELY POSITIONED PARALLEL TO PAVEMENT CENTRELINE AND FINISHED SURFACE.
 - PART COATED AS SHOWN WITH APPROVED BOND BREAKING MATERIAL.
3. TIE BARS SHALL BE SECURELY POSITIONED PARALLEL TO PAVEMENT CENTRELINE AND FINISHED SURFACE.
4. STEEL FABRIC SHALL BE LOCATED IN THE TOP THIRD OF THE BASE AND SHALL HAVE A MINIMUM COVER OF STEEL FABRIC.
5. SUBBASE AND BASE TRANSVERSE JOINTS SHALL BE OFFSET BY A MINIMUM OF 500mm.
6. TIED CONSTRUCTION JOINTS SHALL BE LOCATED IN THE MIDDLE THIRD OF THE SLAB LENGTH AND AT LEAST 1.5m FROM TRANSVERSE CONTRACTION JOINTS.
7. DOWEL CAP MAY BE OMITTED FOR SHORT SLAB (<5m) CONTRACTION JOINTS.
8. SFRC IS STEEL FIBRE REINFORCED CONCRETE.

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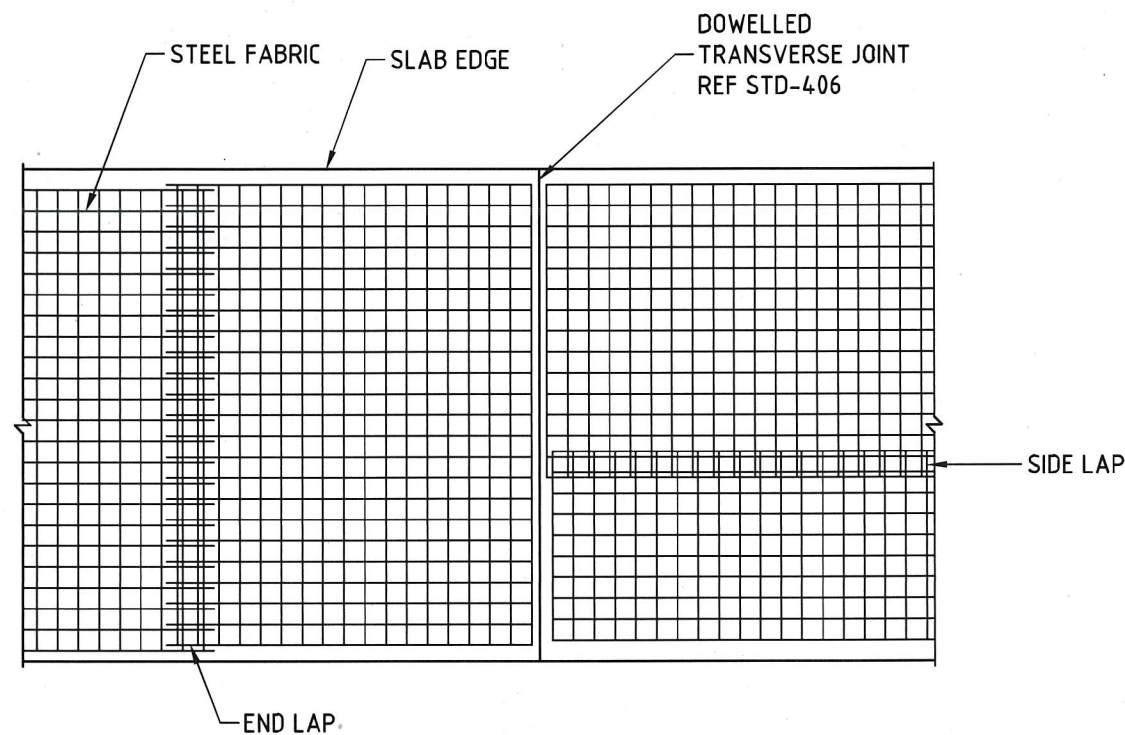


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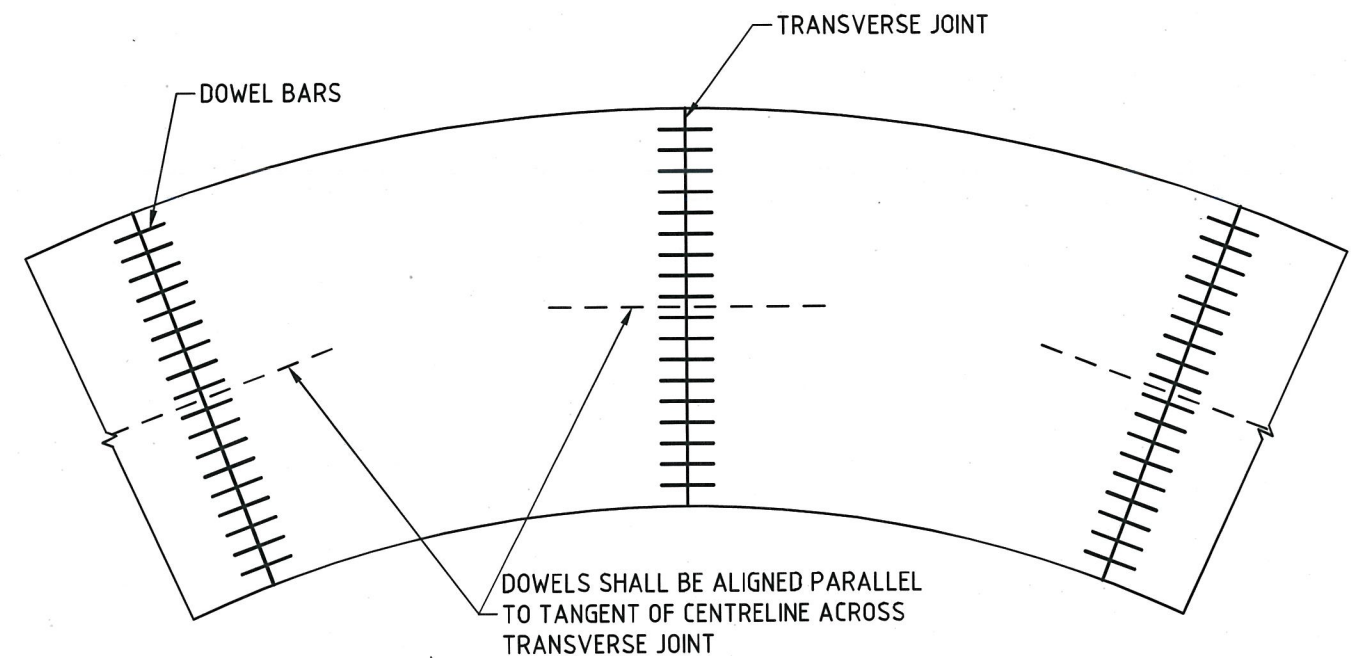
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Drawn	CAP WORKS	AUG 2009	Reference
Checked			VicRoads SD-5311B
Approved			Version
			Date
			16.01.12.

JOINTED REINFORCED CONCRETE PAVEMENT TRANSVERSE JOINT DETAIL

SCALE:	AS SHOWN	DRG. NO.	STD-406	SHEET	1 OF 1
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PLAN

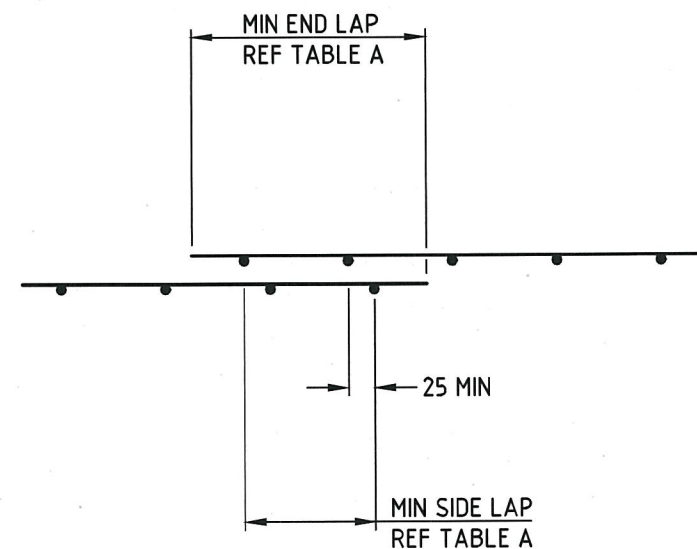


TRANSVERSE JOINTS ON CURVES

MINIMUM LAP

FABRIC REF NO'S	CROSS WIRE SPACING mm	MIN END LAP mm	MIN SIDE LAP mm
RL1218 to RL718	200	425	225
RL928 to RL828	250	525	275
SL81	100	225	125
SL102 to SL42	200	425	225

TABLE A

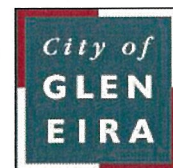


LAP LENGTH DETAIL

NOTES

1. RECTANGULAR MESH SHALL BE ALIGNED WITH THE CLOSER SPACED WIRES PARALLEL TO THE PAVEMENT CENTRELINE.
2. STEEL FABRIC SHALL BE LOCATED IN THE TOP THIRD OF THE BASE AND SHALL HAVE A MINIMUM COVER OF 50mm. REFER TO SPECIFICATIONS FOR DETAILS OF STEEL FABRIC.

CITY OF GLEN EIRA

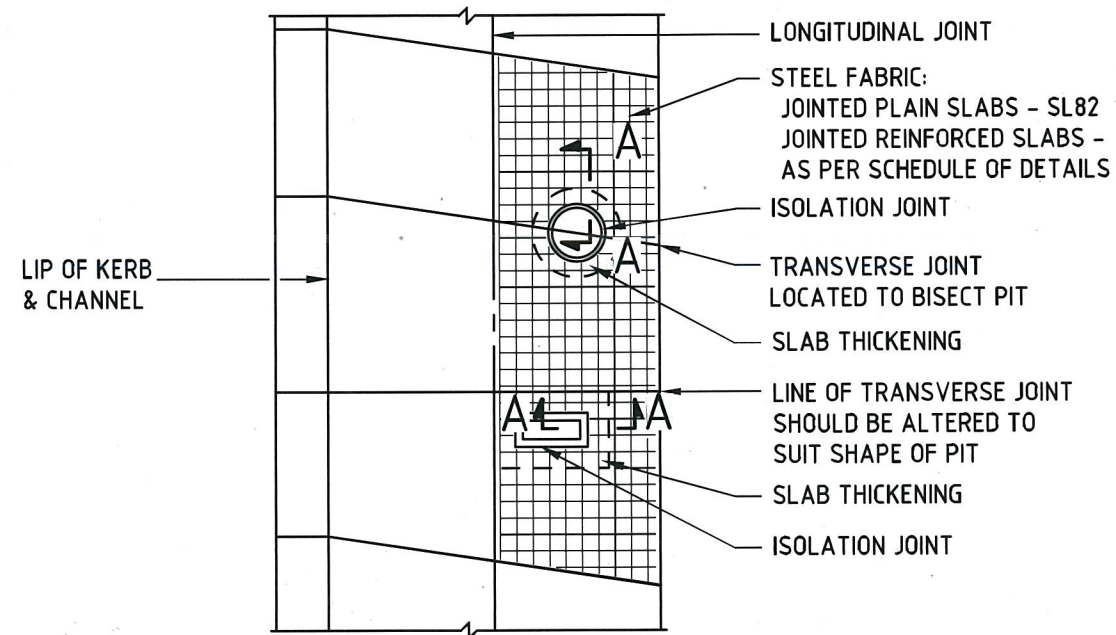


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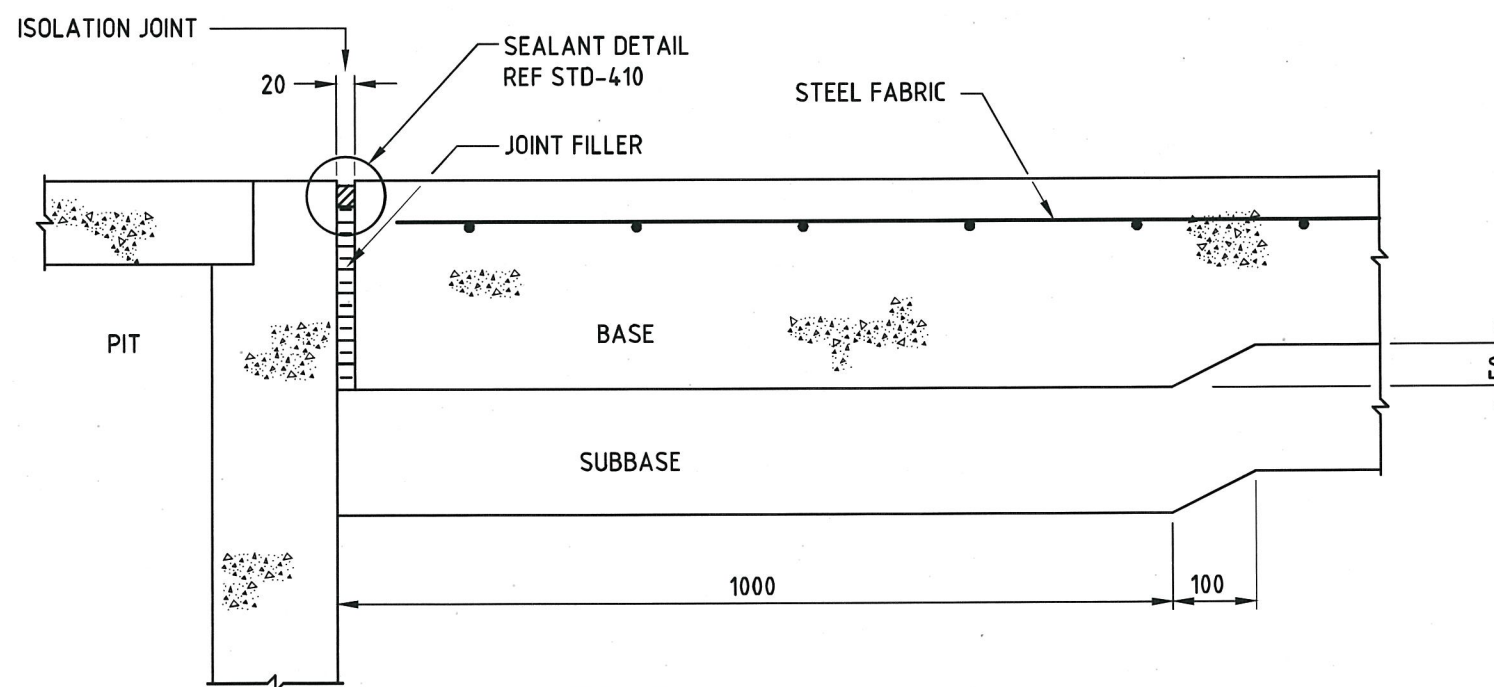
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Drawn	CAP WORKS	AUG 2009	Reference
Checked			VicRoads SD-5321A
Approved			Version
Dir. Assets & Facilities		Date	16.01.12.

**JOINTED REINFORCED CONCRETE PAVEMENT
REINFORCEMENT AND JOINT DETAIL**

SCALE: AS SHOWN	DRG. NO. STD-407	SHEET 1 OF 1
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PREFERRED POSITIONING OF SLAB OPENINGS

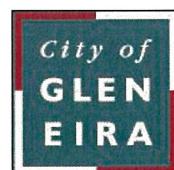


SECTION A-A

NOTE

STEEL FABRIC SHALL BE LOCATED IN THE TOP THIRD OF THE BASE AND SHALL HAVE A MINIMUM COVER OF 50mm.

CITY OF GLEN EIRA

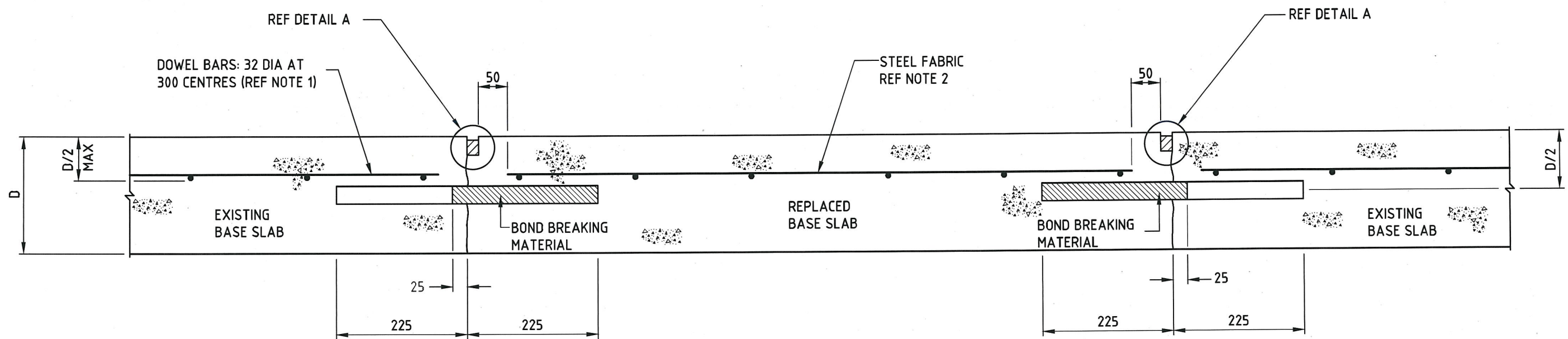


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	Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009	STD-408_CP-SLAB OPENINGS
Drawn	CAP WORKS	AUG 2009	Reference
Checked			VicRoads SD-5331A
Approved	<i>Paul Wilby</i>		Version
Dir. Assets & Facilities		Date	16.01.12.

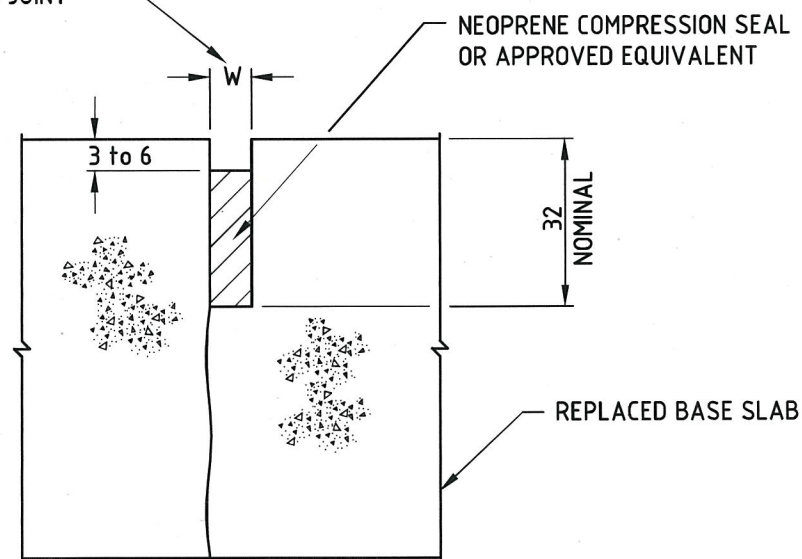
JOINTED PLAIN & REINFORCED CONCRETE PAVEMENT TREATMENT OF SLAB OPENINGS

SCALE:	AS SHOWN	DRG. NO.	STD-408	SHEET	1 OF 1
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TRANSVERSE JOINTS

WIDTH OF SEALANT RESERVOIR (W)
AS FOR ORIGINAL JOINT

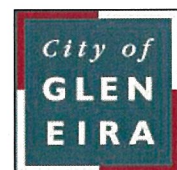


DETAIL A

NOTES:

1. DOWEL BARS SHALL BE:
- SECURELY POSITIONED PARALLEL TO PAVEMENT CENTRELINE AND FINISHED SURFACE
- PART COATED AS SHOWN WITH APPROVED BOND BREAKING MATERIAL
2. STEEL FABRIC:
SL82 FABRIC SHALL BE SPECIFIED FOR REPLACED SLABS IN JOINTED PLAIN CONCRETE PAVEMENTS. FOR JOINTED REINFORCED PAVEMENTS REPLACEMENT FABRIC SHALL SUIT THE REPLACEMENT TRANSVERSE JOINT SPACING.
3. REINFORCEMENT SHALL BE LOCATED IN THE TOP THIRD OF THE BASE SLAB AND SHALL HAVE A MINIMUM COVER OF 50mm.
4. LONGITUDINAL JOINTS:
TIE BARS AT LONGITUDINAL JOINTS SHALL BE REINSTATED IN ACCORDANCE WITH STD-411.

CITY OF GLEN EIRA

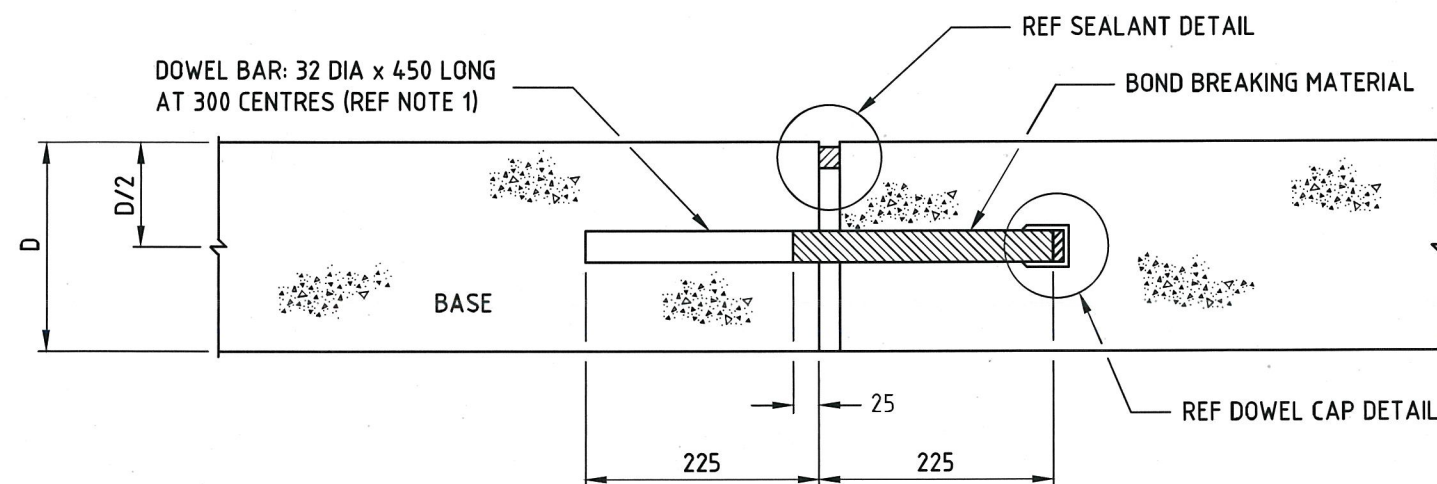


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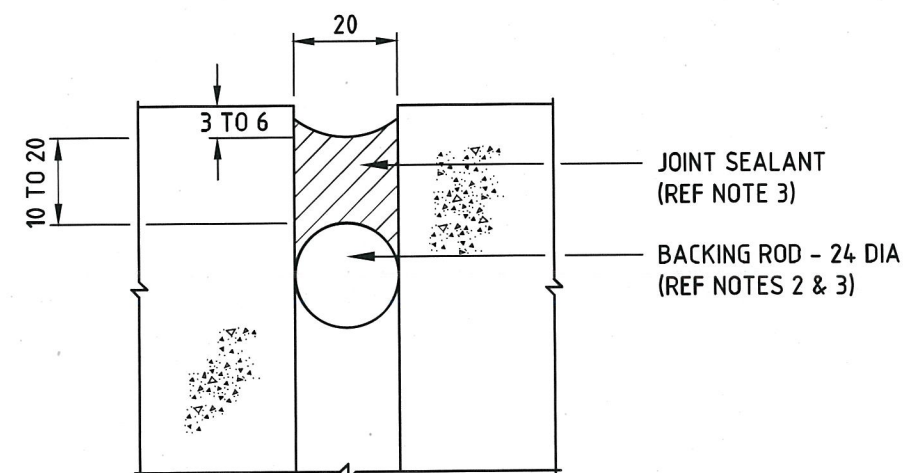
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Drawn	CAP WORKS	AUG 2009	Reference
Checked			VicRoads SD-5341A
Approved	<i>[Signature]</i>		Version
Dir. Assets & Facilities		Date	16.01.12.

JOINTED PLAIN PAVEMENT SLAB REPLACEMENT

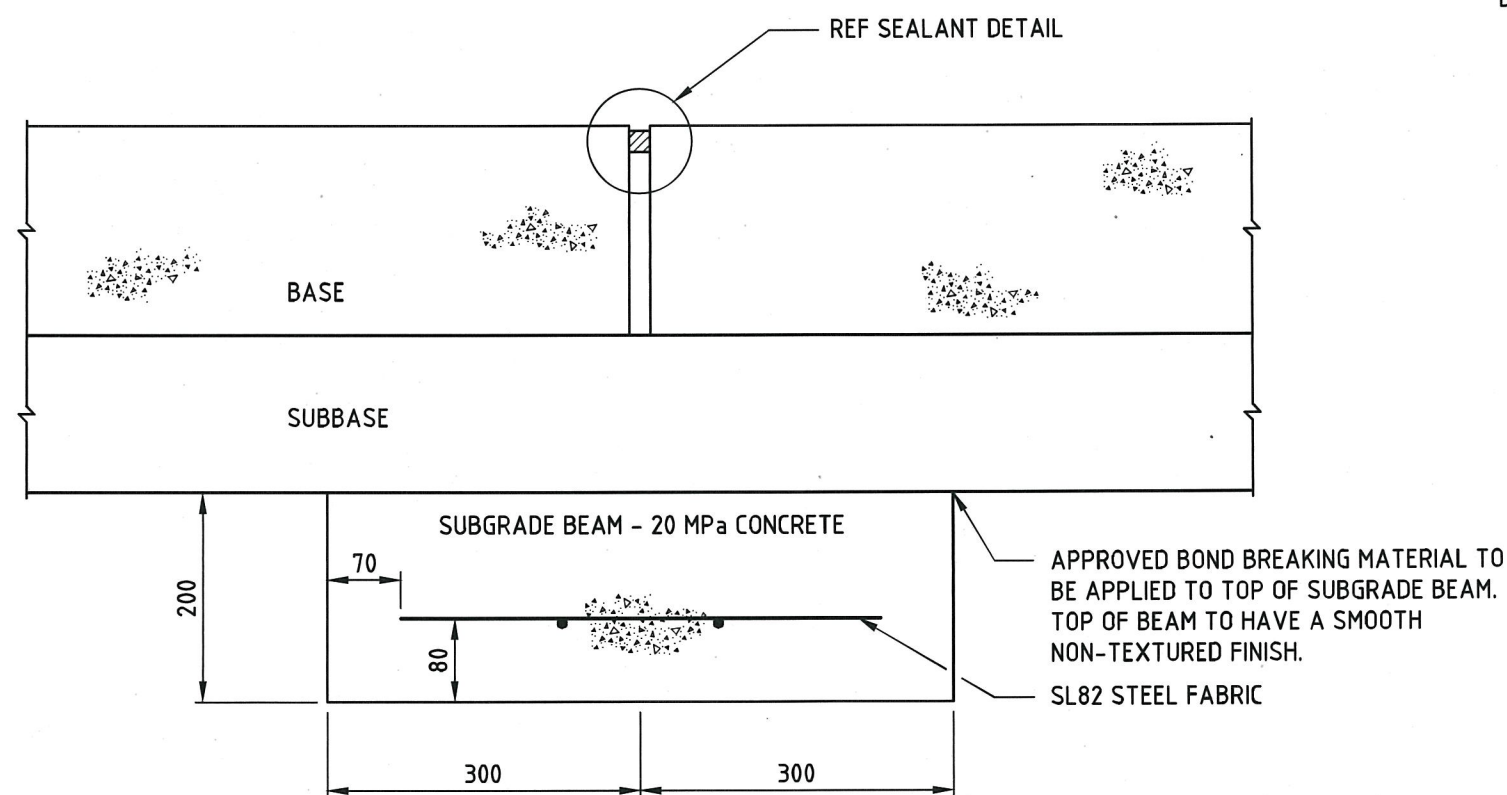
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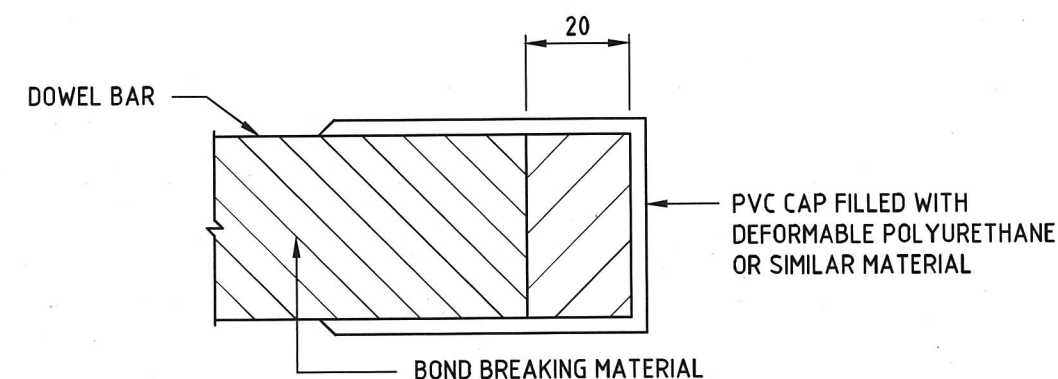
DOWELLED EXPANSION JOINT



SEALANT DETAIL - EXPANSION JOINT



EXPANSION JOINT WITH SUBGRADE BEAM

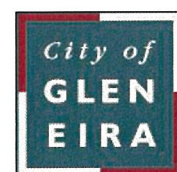


DOWEL CAP DETAIL

NOTES:

1. DOWEL BARS SHALL BE:
-SECURELY POSITIONED PARALLEL TO PAVEMENT CENTRELINE AND FINISHED SURFACE.
-PART COATED AS SHOWN WITH APPROVED BOND BREAKING MATERIAL.
2. BACKING ROD SHALL BE MADE OF POLYETHELENE FOAM OR APPROVED EQUIVALENT. ALTERNATIVE MATERIAL AND SHAPE MAY BE APPROVED.
3. AN APPROVED NEOPRENE COMPRESSION SEAL CONFORMING TO AS2628 MAY BE USED INSTEAD OF A FIELD MOULDED SEALANT AND BACKING ROD.
4. AN APPROVED SEALANT SHALL BE INSTALLED ALONG THE TOP AND DOWN THE VERICAL EDGES OF THE EXPANSION JOINT.
5. REINFORCEMENT SHALL BE LOCATED IN THE TOP THIRD OF THE BASE AND SHALL HAVE A MINIMUM COVER OF 50mm.

CITY OF GLEN EIRA

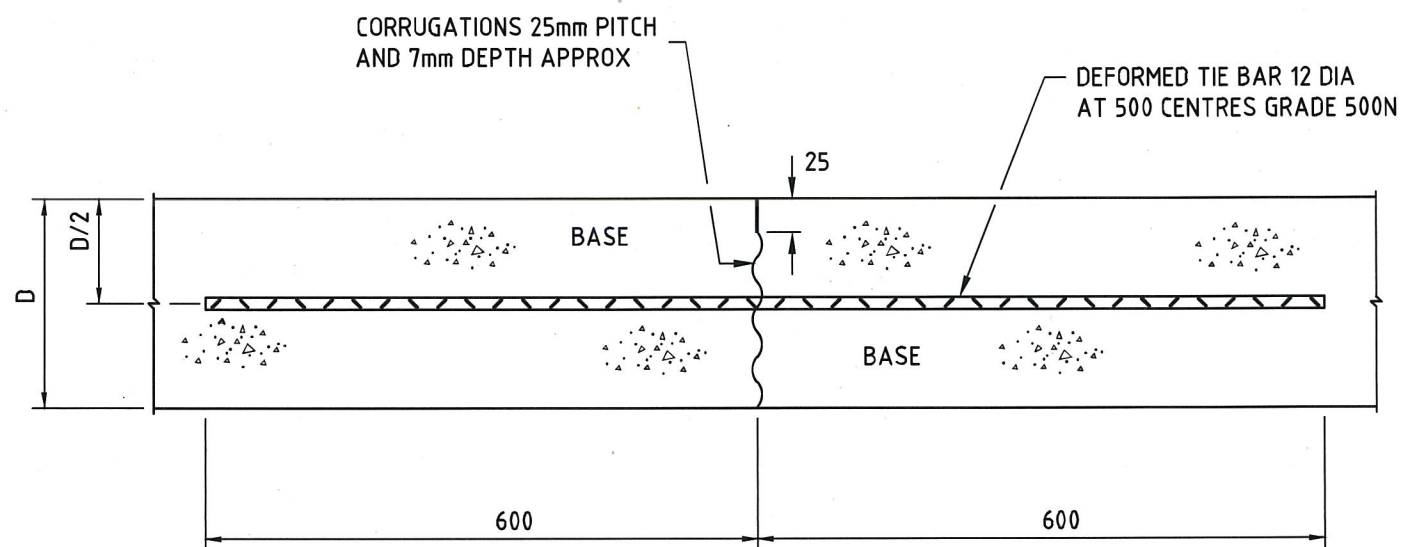


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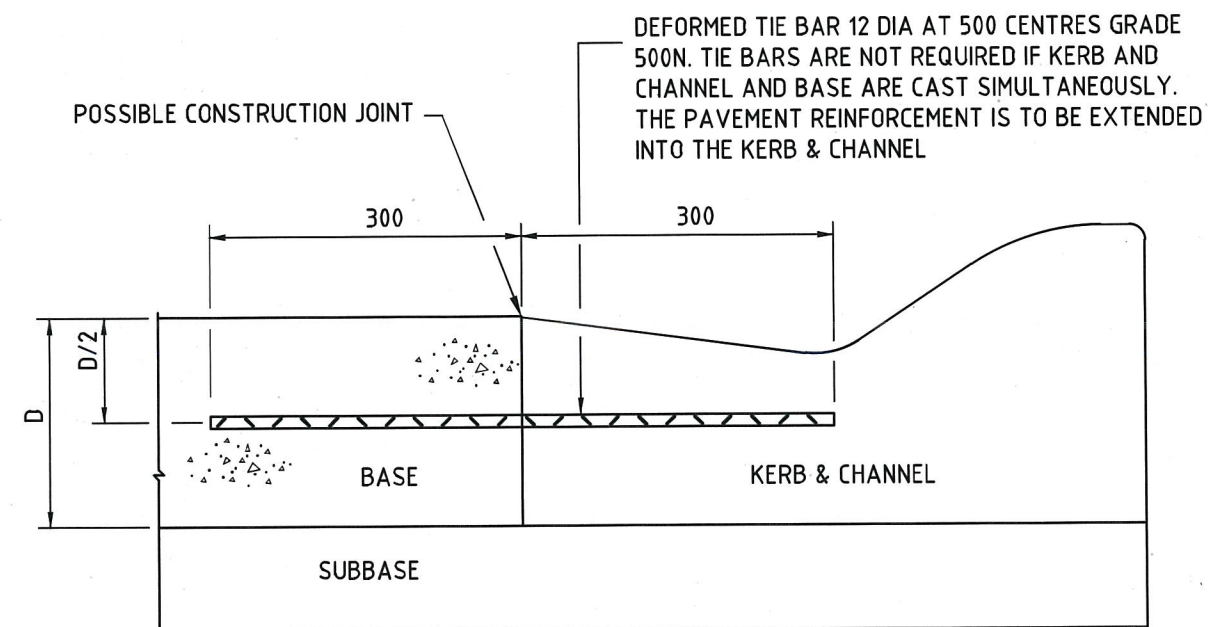
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Drawn	CAP WORKS	AUG 2009	Reference
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Approved	<i>[Signature]</i>		Version
Dir. Assets & Facilities		Date	16.01.12

CONCRETE PAVEMENT (ALL TYPES)
EXPANSION JOINT DETAIL

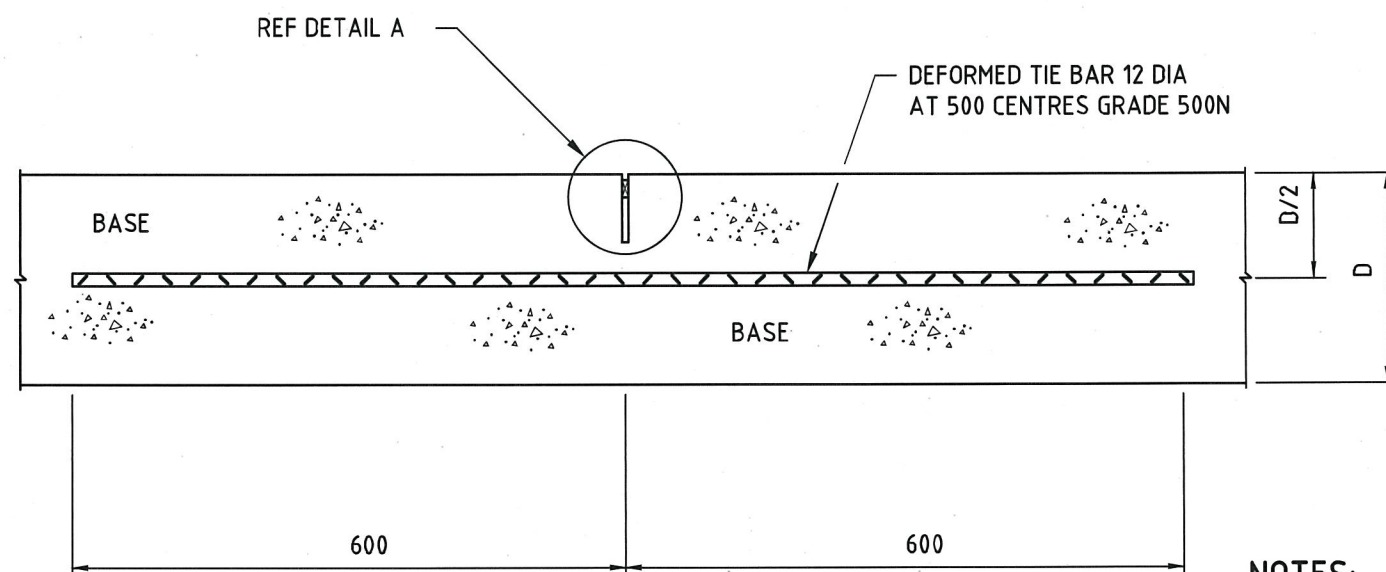
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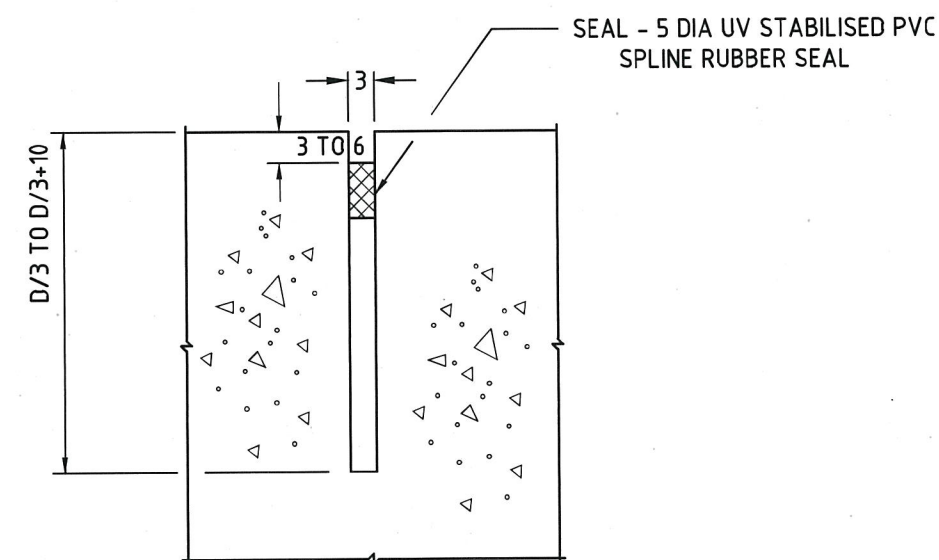
CONSTRUCTION JOINT



KERB AND CHANNEL TIED JOINT



SAWN LONGITUDINAL JOINT

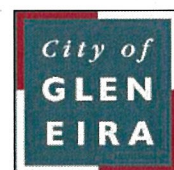


DETAIL A

NOTES:

1. TIE BAR SHALL NOT BE PLACED WITHIN 500mm OF A TRANSVERSE CONTRACTION JOINT.
2. REINFORCEMENT FOR JOINTED AND CONTINUOUSLY REINFORCED PAVEMENTS IS NOT SHOWN. REFER TO SCHEDULE OF DETAILS.
3. SUBBASE AND BASE LONGITUDINAL JOINTS SHALL BE OFFSET BY NOT LESS THAN 250mm BUT NOT MORE THAN 300mm.
4. DIMENSIONS SHOWN ARE APPLICABLE FOR STEEL FIBRE REINFORCED CONCRETE.
5. KERB & CHANNEL TIED JOINT; IF KERB & CHANNEL AND BASE ARE CAST SIMULTANEOUSLY, TIE BARS ARE NOT REQUIRED BETWEEN THEM. THE PAVEMENT REINFORCEMENT SHALL BE EXTENDED INTO THE KERB & CHANNEL AND THE BACK OF KERB IS THE EDGE PAVEMENT

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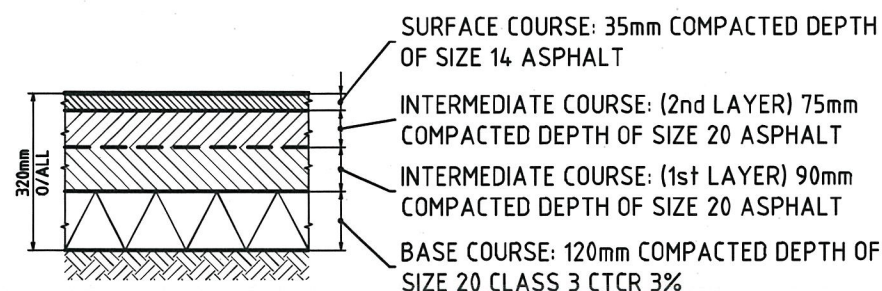


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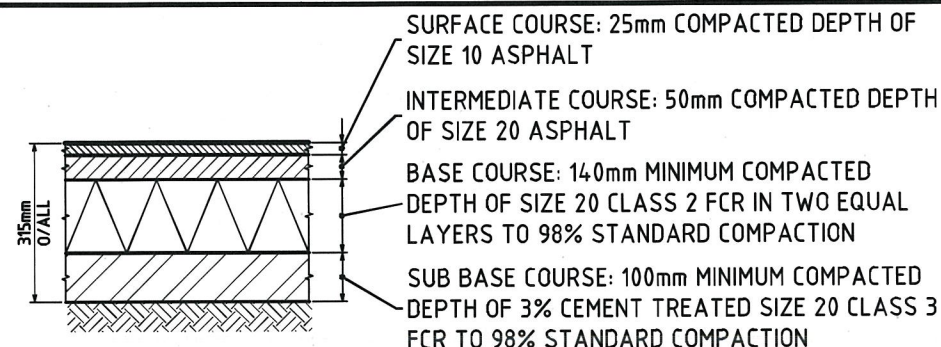
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Drawn	CAP WORKS	AUG 2009	Reference
Checked			VicRoads SD-541B
Approved	<i>Paul W. W.</i>		Version
Dir. Assets & Facilities		Date	16.01.12.

CONCRETE PAVEMENT (ALL TYPES)
LONGITUDINAL TIED JOINTS

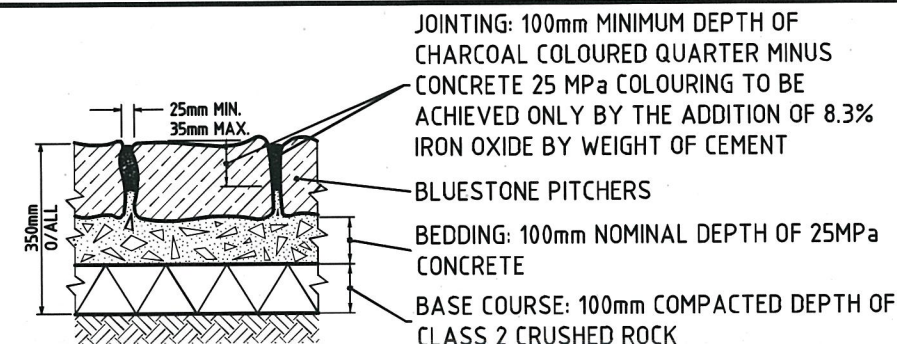
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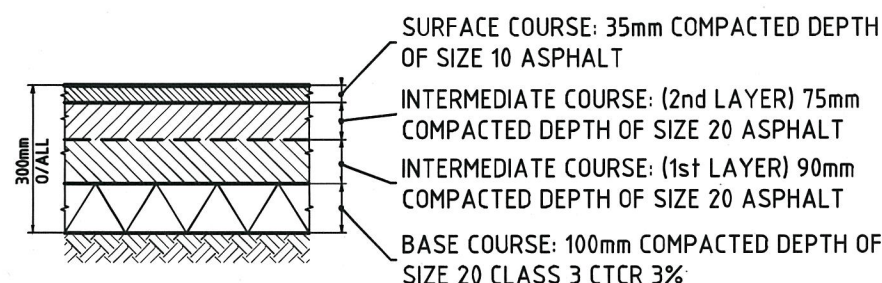
ROAD PAVEMENT CONSTRUCTION DETAIL
(ARTERIAL ROAD)



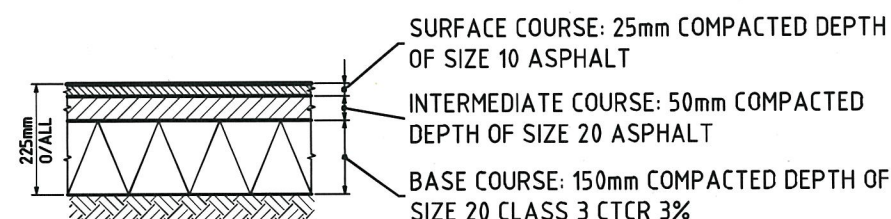
ROAD PAVEMENT CONSTRUCTION DETAIL '2'
(LOCAL STREET)



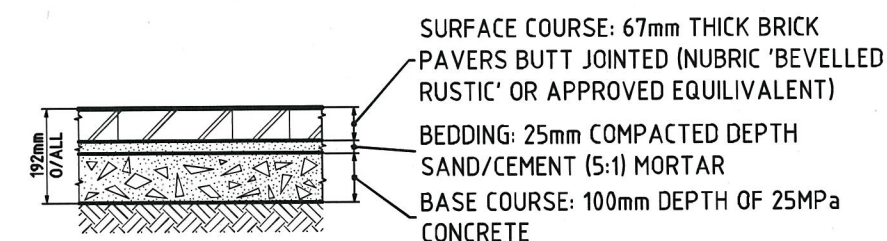
ROAD PAVEMENT CONSTRUCTION DETAIL
(BLUESTONE RUMBLE STRIP)



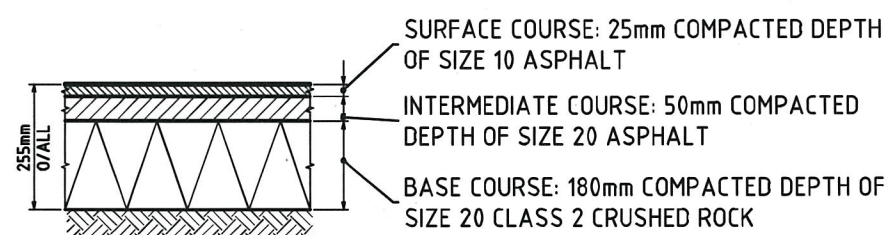
ROAD PAVEMENT CONSTRUCTION DETAIL
(ARTERIAL ROAD SIDE STREETS)



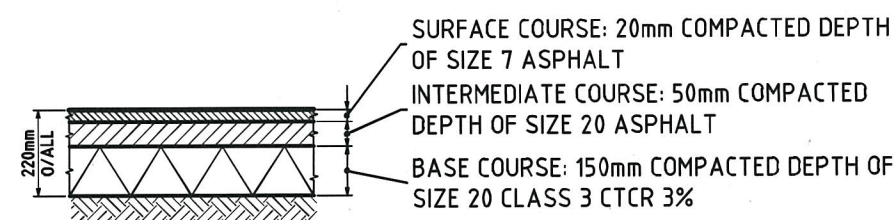
ROAD PAVEMENT CONSTRUCTION DETAIL '3'
(LOCAL STREET)



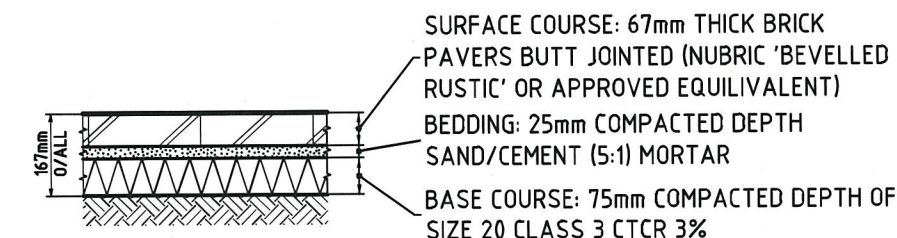
BRICK PAVING DETAIL '1'
(ROAD PAVEMENT)



ROAD PAVEMENT CONSTRUCTION DETAIL '1'
(LOCAL STREET)

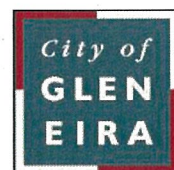


ROAD PAVEMENT CONSTRUCTION DETAIL
(CAR PARK / PARKING BAYS)



BRICK PAVING DETAIL '2'
(FOOTWAY AREAS)

CITY OF GLEN EIRA



Corner Glen Eira and Hawthorn Roads
PO Box 42
Caulfield South Vic 3162
Phone 9524 3333
Fax 9524 3424
E-Mail mail@gleneira.vic.gov.au
Web www.gleneira.vic.gov.au

	Initials	Date	CAD Reference
Designed	CAP WORKS	AUG 2009	STD-412_P-MENT
Drawn	CAP WORKS	AUG 2009	Reference
Checked			-
Approved	<i>[Signature]</i>		Version
Dir. Assets & Facilities		Date	16.01.12.

PAVEMENT SECTIONS DESIGN GUIDE

SCALE: AS SHOWN	DRG. NO. STD-412	SHEET 1 OF 2
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