APPENDIX K

STANDARD DRAWINGS

Appendix K Standard Drawings

The title on all Standard Drawings was amended to remove reference to the year of the DCP revision. All amendment history is noted in the amendment boxes on the Standard Drawings.

Standard Drawing Number	Number of Sheets	Title	Any changes from 2007 Version
Notes			
SD-NT01	1	Notes – General	NO
SD-NT02	1	Notes – Concrete	NO
SD-NT03	1	Notes – Earthworks	NO
SD-NT04	1	Notes – Steelwork and Steel Reinforcement	NO
SD-NT05	1	Notes – Special Conditions	NO
SD-NT06	4	Notes – Product Specifications	NO
SD-NT07	1	Notes – Sediment and Erosion Control	NO
Roads			
SD-R01	1	Vertical Curves	NO
SD-R02	1	Cul-de-sac Standard	NO
SD-R03	1	Kerb Return Layout and Design Details	NO
SD-R04	1	Kerbs and Gutters	NO
SD-R05	1	Sub-soil Drainage	NO
SD-R06	1	Kerb Weephole and Kerb Adaptor	NO
SD-R07	4	Kerb Ramps	NO
SD-R08	2	Residential Vehicle Crossing	YES
SD-R09	2	Medium Density Vehicle Crossing	YES
SD-R10	2	Commercial and Industrial Vehicle Crossing	YES
SD-R11	1	Footpath	YES
SD-R12	1	Bicycle Path	NO
SD-R13	1	Low Mountable Island	NO
SD-R14	1	T-intersection Treatment	NO
SD-R15	1	Roundabouts	YES
SD-R16	1	Parking Modification to Provide Disabled Persons Parking	NO
SD-R17	1	Zig zag Pavement Markers	NO
SD-R18	1	Street Sign	NO
SD-R19	1	Supplementary Road Name Signposting for Roundabouts	NO
SD-R20	1	Log Vehicle Barrier	YES
SD-R21	1	Cycle path Holding Rail	NO
SD-R22	1	Laneway Baulk	NO

Standard Drawing Number	Number of Sheets	Title	Any changes from 2007 Version
SD-R23	1	Pathway Baulks	NO
SD-R24	1	Wire Rope Barrier	NO
Stormwater			
SD-S01	1	Trash Rack Warning Sign	NO
SD-S02	1	Pipe Flood Warning Sign	NO
SD-S03	1	Floodway Warning Sign	NO
SD-S04	1	Geo-composite Drain	NO
SD-S05	1	Connection to Main Drain	NO
SD-S06	1	Grated Gully Pit with Extended Kerb Inlet Pit	NO
SD-S07	1	Kerb Median Inlet Pit	NO
SD-S08	1	Surcharge Pit	NO
SD-S09	1	Step Irons	NO
SD-S10	1	Minor Drainage Connections	NO
SD-S11	1	Surface Inlet and Letterbox Pit	NO
SD-S12	2	Heavy Duty Junction Pit	NO
SD-S13	2	Outlet Details Grass Lined Channel/Creel	NO
SD-S14	1	Reinforced Turf Detail	NO
SD-S15	1	Pyramid Grate	NEW
SD-S16	1	No climbing warning sign	NEW
SD-S17	1	No planting warning sign	NEW
Miscellaneous			
SD-M01	1	Erosion and Sediment Control Plan	NO
SD-M02	1	Stockpiles	NO
SD-M03	1	Earth Bank (low flow)	NO
SD-M04	1	Straw Bale Filter	NO
SD-M05	1	Sediment Fence	NO
SD-M06	1	Mesh and Gravel Inlet Filter	NO
SD-M07	1	Geotextile Inlet Filter	NO
SD-M08	1	Kerbside Turf Strip	NO
SD-M09	1	Stabilised Site Access	NO

NOTES

1. SIGN TO CONSIST OF 3mm THICK ALUMINIUM & TO BE IN CORPORATE COLOURS ON A DIAMOND GRADE, WHITE REFLECTIVE PLATE, UV TREATED COVERED IN ANTI-GRAFFITI FILM AND COMPLY WITH A.S.1743.
2. LETTERING "WARNING" TO BE RED AND OTHERS IN BLACK.
3. THE GRAGHIC CONSISTS OF AN OUTLINE SKETCH OF THE PEDESTRIAN AND A RED SYMBOLIC SIGN "PROHIBITED ENTRY" OVER THE SKETCH.
4. COLOUR OF GRAPHIC SHALL BE BLACK.
5. THE SIGN SHALL BE 900 HIGH BY 600 WIDE WITH CORNER RADII OF 60.
6. SIGN POST SHALL BE HOT DIPPED GALVANISED, 101.6 x 5.0 CHS, 3100 LONG WITH HOT DIPPED GALVANISED TOP END CAP. POST TO BE SET 600 DEEP INTO Ø300 MASS CONCRETE. GROUND CLEARANCE TO SIGN TO BE MINIMUM 2000.

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.
A	MAY 2007	SIGN IN COLOUR	CK	DW

campbelltown city council

CHECKED: C. Kinsey DATE: OCT 04

PROJECT TITLE: STANDARD DRAWINGS

APPROVED: D. Webb DATE: NOV 04

SHEET TITLE: TRASH RACK WARNING SIGN

STD DWG No. SD-S01

SCALE: N.T.S

SHEET 1 of 1

REV. VER2007 DATE: MAY07

DANGER

STORMWATER PIPE

PIPES FLOOD
WITHOUT WARNING

KEEP OUT

NOTES

1. SIGN TO CONSIST OF 3mm THICK ALUMINIUM & TO BE IN CORPORATE COLOURS ON A DIAMOND GRADE, WHITE REFLECTIVE PLATE, UV TREATED COVERED IN ANTI-GRAFFITI FILM AND COMPLY WITH A.S.1743.
2. LETTERING "WARNING" TO BE RED AND OTHERS IN BLACK.
3. THE GRAGHIC CONSISTS OF AN OUTLINE SKETCH OF THE PEDESTRIAN AND A RED SYMBOLIC SIGN "PROHIBITED ENTRY" OVER THE SKETCH.
4. COLOUR OF GRAPHIC SHALL BE BLACK.
5. THE SIGN SHALL BE 900 HIGH BY 600 WIDE WITH CORNER RADII OF 60.
6. SIGN POST SHALL BE HOT DIPPED GALVANISED, 101.6 x 5.0 CHS, 3100 LONG WITH HOT DIPPED GALVANISED TOP END CAP. POST TO BE SET 600 DEEP INTO Ø300 MASS CONCRETE. GROUND CLEARANCE TO SIGN TO BE MINIMUM 2000.

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.
A	MAY 2007	OUTLET CHANGED TO PIPE, SIGN IN COLOUR.	CK	DW

campbelltown city council

CHECKED: C. Kinsey DATE: OCT 04

PROJECT TITLE: STANDARD DRAWINGS

APPROVED: D. Webb DATE: NOV 04

SHEET TITLE: PIPE FLOOD WARNING SIGN

STD DWG No. SD-S02

SCALE: N.T.S

SHEET 1 of 1

REV. VER2007 DATE: MAY07

NOTES

1. SIGN TO CONSIST OF 3mm THICK ALUMINIUM & TO BE IN CORPORATE COLOURS ON A DIAMOND GRADE, WHITE REFLECTIVE PLATE, UV TREATED COVERED IN ANTI-GRAFFITI FILM AND COMPLY WITH A.S.1743.
2. LETTERING "WARNING" TO BE RED AND OTHERS IN BLACK.
3. THE SIGN SHALL BE 900 HIGH BY 600 WIDE WITH CORNER RADII OF 60.
4. SIGN POST SHALL BE HOT DIPPED GALVANISED, 101.6 x 5.0 CHS, 3100 LONG WITH HOT DIPPED GALVANISED TOP END CAP. POST TO BE SET 600 DEEP INTO Ø300 MASS CONCRETE. GROUND CLEARANCE TO SIGN TO BE MINIMUM 2000.

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.
A	MAY 2007	SIGN IN COLOUR.	CK	DW

campbelltown city council

CHECKED: C. Kinsey DATE: OCT 04

PROJECT TITLE: STANDARD DRAWINGS

APPROVED: D. Webb DATE: NOV 04

SHEET TITLE: FLOODWAY WARNING SIGN

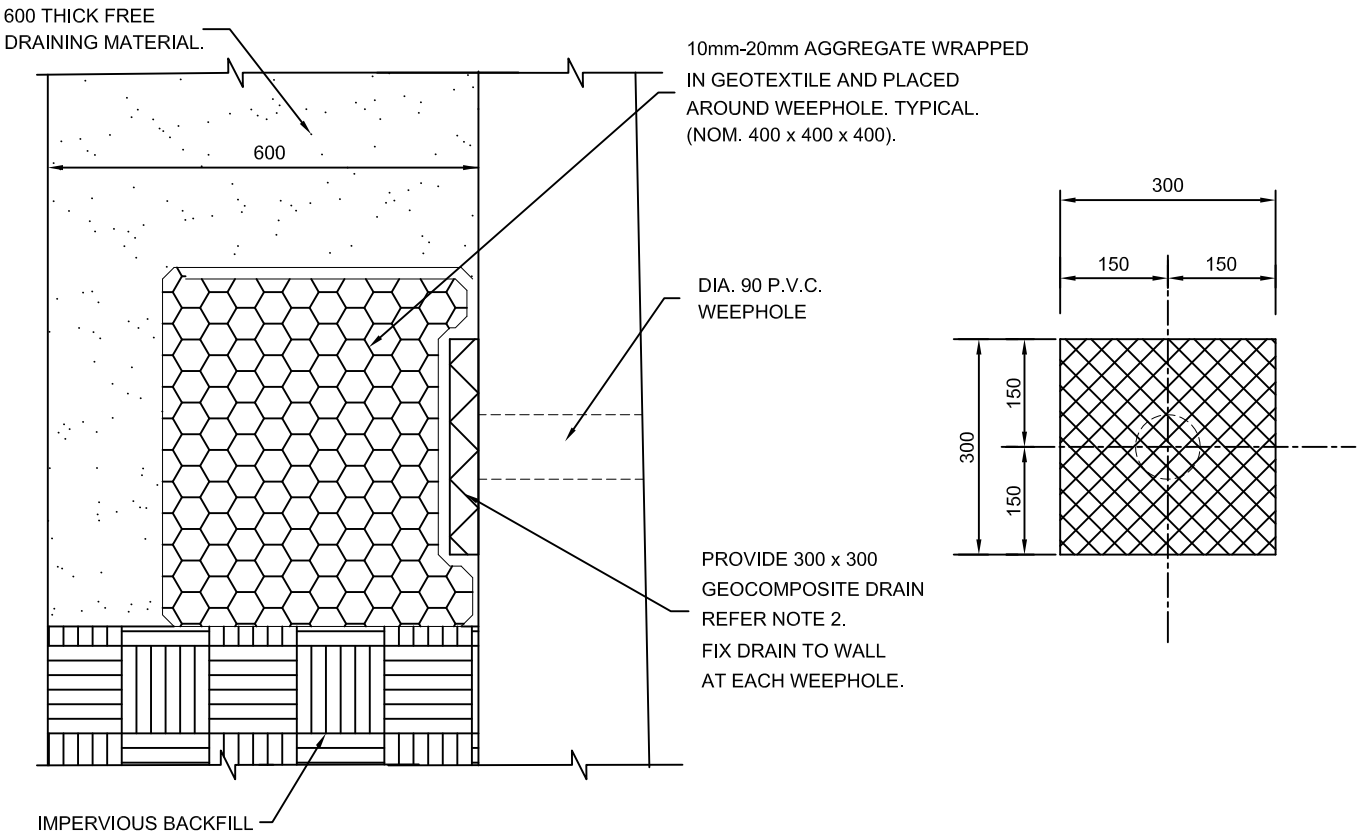
STD DWG No. SD-S03

SCALE: N.T.S

SHEET 1 of 1

REV. VER2007 DATE: MAY07

GEOCOMPOSITE DRAIN DETAILS.



NOTES:

1. THE GEOTEXTILE TO BE USED AROUND THE GRANULAR BACKFILL IS TO COMPLY WITH THE FOLLOWING:

MECHANICAL/HYDRAULIC PROPERTIES	TEST METHOD	UNITS	TYPICAL VALUES
MASS	AS3706-1	g/sqm	MIN 160
G RATING	AUSTROADS	G	MIN 1900
GRAB TENSILE STRENGTH	AS2001.2.3	N	MIN 800
PORE SIZE - DRY SIEVING	AS3706.7-90	O95-um	MAX 210
FLOW RATE UNDER 100mm HEAD	AS3706.9-90	l/sqm/sec	MAX 250

2. THE GEOCOMPOSITE DRAIN SHALL CONSIST OF A PLASTIC CORE WRAPPED WITH GEOTEXTILE ON EARTH SIDE ONLY. THE PLASTIC CORE SHALL COMPLY WITH THE FOLLOWING MINIMUM CRITERIA:

   - CRUSH STRENGTH 100kPa
   - CORE THICKNESS 12mm
   - IN-PLANE FLOW RATE/m-WIDTH (NOMINAL) 75 litres/min/m
     @ SLOPE 100%
     @ PRESSURE 100kPa

3. THE GEOTEXTILE WRAP SHALL COMPLY WITH THE FOLLOWING MINIMUM CRITERIA:
   - NON WOVEN GEOTEXTILE.
   - FLOW RATE UNDER 100mm HEAD 80 litres/m^2/sec

4. THE GEOCOMPOSITE DRAIN IS TO BE CONNECTED TO WEEP HOLES WITH A SUITABLE FITTING AS PER MANUFACTURER'S RECOMMENDATIONS.

5. ALL DIMENSIONS ARE IN MILLIMETRES UNLES OTHERWISE NOTED.

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.
A	MAY 2007	DETAILS CORRECTED	CK	DW

campbelltown city council

CHECKED: C. Kinsey DATE: OCT 04

PROJECT TITLE: STANDARD DRAWINGS

APPROVED: D. Webb DATE: NOV 04

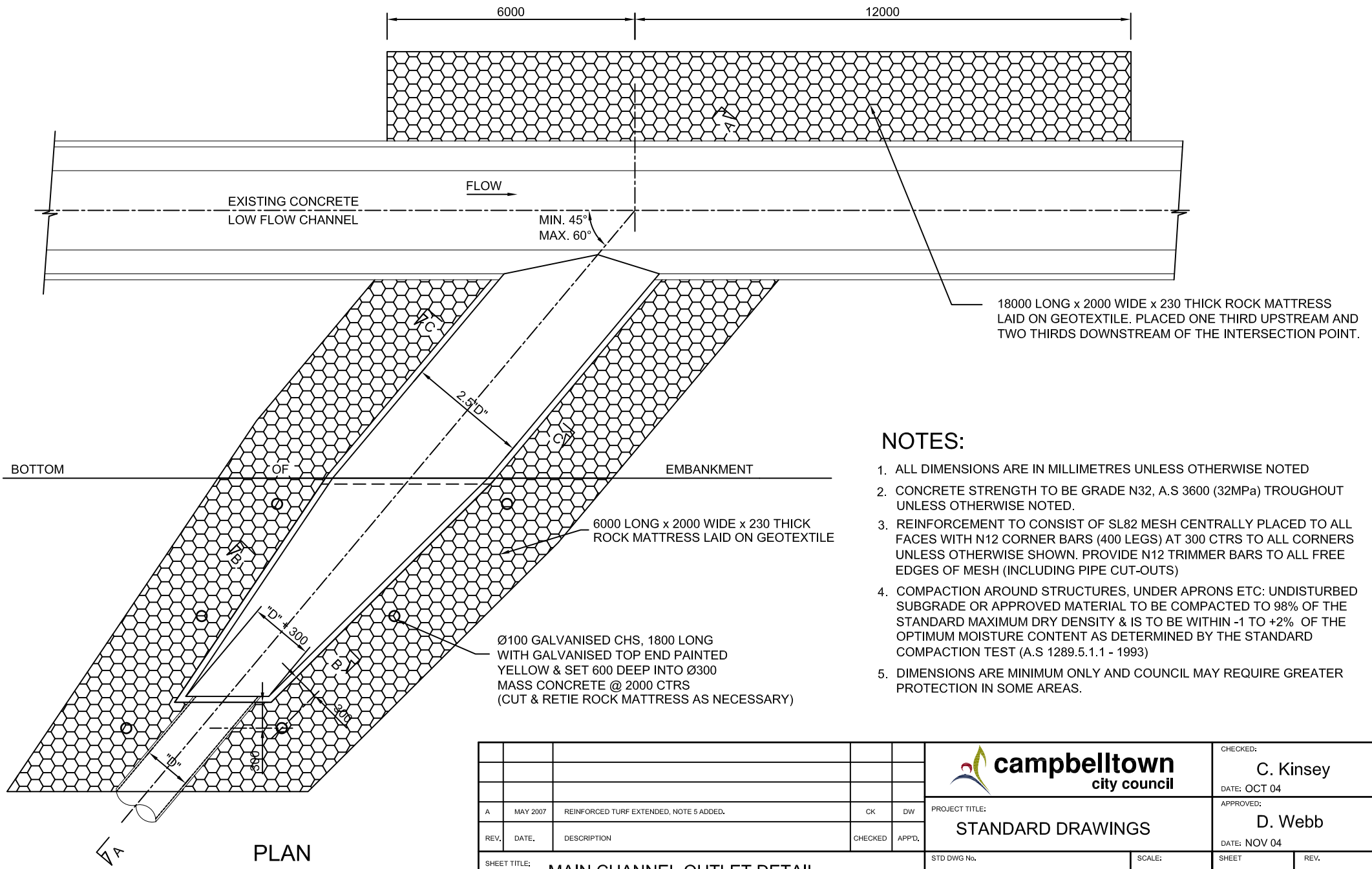
SHEET TITLE: GEOCOMPOSITE DRAIN AT WEEPHOLE

STD DWG No. SD-S04

SCALE: N.T.S

SHEET 1 of 1

REV. VER2007 DATE: MAY07



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
2. CONCRETE STRENGTH TO BE GRADE N32, A.S 3600 (32MPa) TROUGHOUT UNLESS OTHERWISE NOTED.
3. REINFORCEMENT TO CONSIST OF SL82 MESH CENTRALLY PLACED TO ALL FACES WITH N12 CORNER BARS (400 LEGS) AT 300 CTRS TO ALL CORNERS UNLESS OTHERWISE SHOWN. PROVIDE N12 TRIMMER BARS TO ALL FREE EDGES OF MESH (INCLUDING PIPE CUT-OUTS)
4. COMPACTION AROUND STRUCTURES, UNDER APRONS ETC: UNDISTURBED SUBGRADE OR APPROVED MATERIAL TO BE COMPACTED TO 98% OF THE STANDARD MAXIMUM DRY DENSITY & IS TO BE WITHIN -1 TO +2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE STANDARD COMPACTION TEST (A.S 1289.5.1.1 - 1993)
5. DIMENSIONS ARE MINIMUM ONLY AND COUNCIL MAY REQUIRE GREATER PROTECTION IN SOME AREAS.

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.
A	MAY 2007	REINFORCED TURF EXTENDED, NOTE 5 ADDED.	CK	DW

campbelltown city council

PROJECT TITLE: STANDARD DRAWINGS

SHEET TITLE: MAIN CHANNEL OUTLET DETAIL Ø375mm TO Ø1200mm - PLAN

CHECKED: C. Kinsey DATE: OCT 04

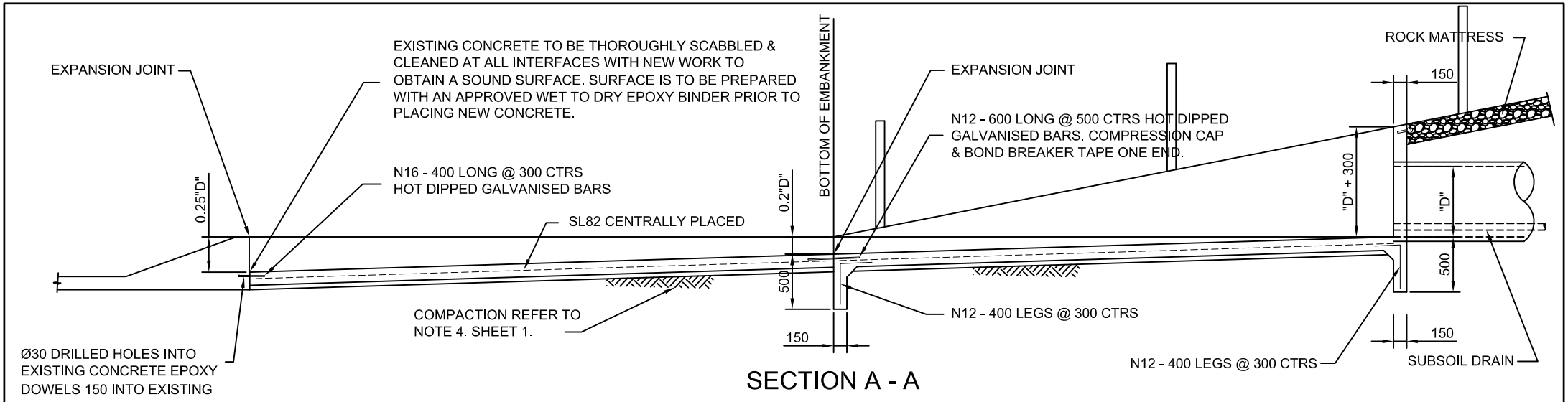
APPROVED: D. Webb DATE: NOV 04

STD DWG No. SD - S05

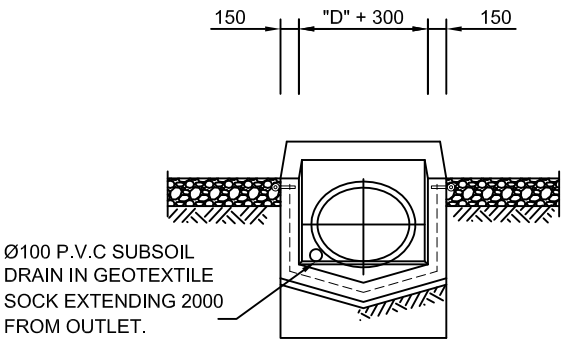
SCALE: N.T.S

SHEET 1 of 2

REV. VER2007 DATE: MAY07



SECTION A - A



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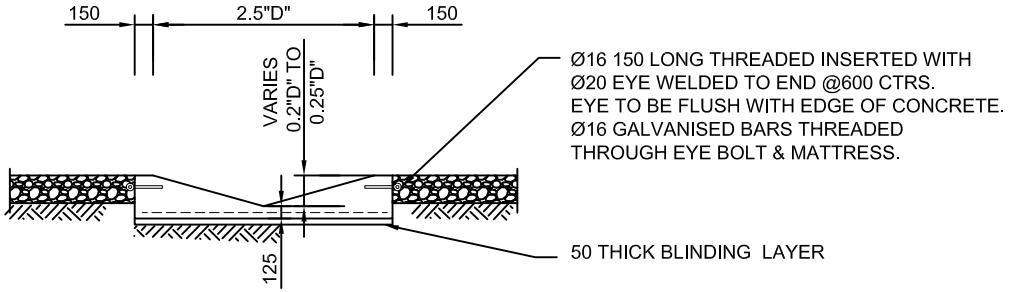


SECTION C - C

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.
A	MAY 2007	NOTE 4 REFERENCE CORRECTED, NOTE IN SECTION C-C AMENDED.	CK	DW

campbelltown city council

CHECKED: C. Kinsey DATE: OCT 04

PROJECT TITLE: STANDARD DRAWINGS

APPROVED: D. Webb DATE: NOV 04

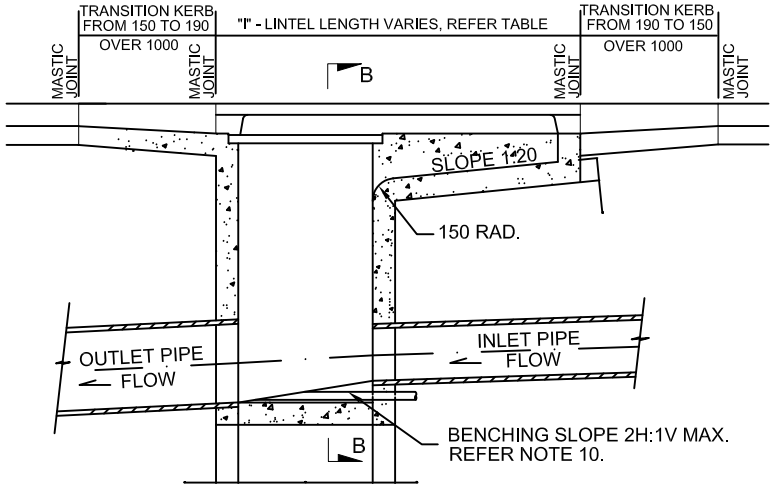
SHEET TITLE: MAIN CHANNEL OUTLET DETAIL Ø375mm TO Ø1200mm - SECTIONS

STD DWG No. SD - S05

SCALE: N.T.S

SHEET 2 of 2

REV. VER2007 DATE: MAY07



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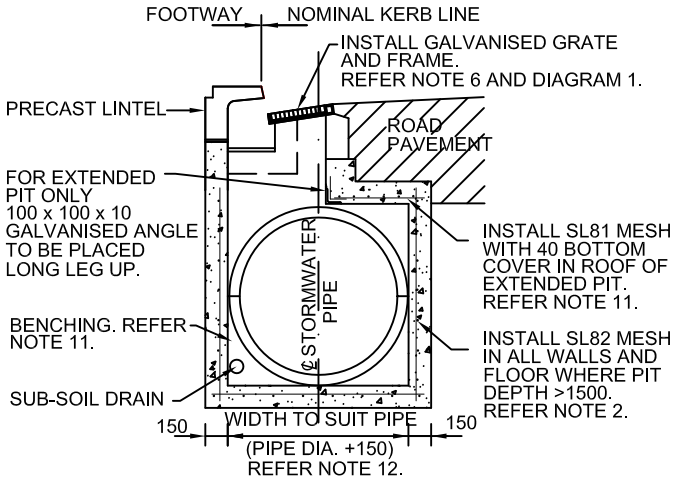
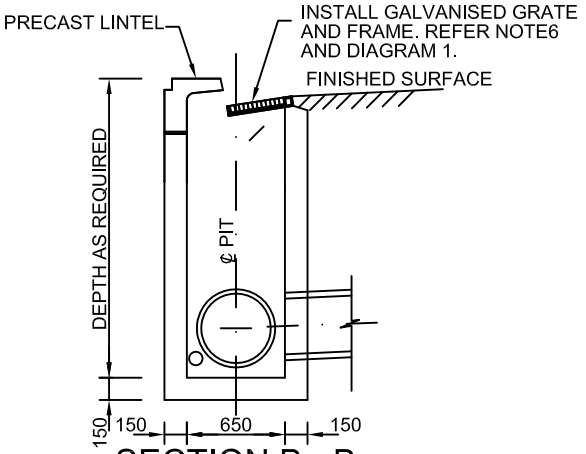
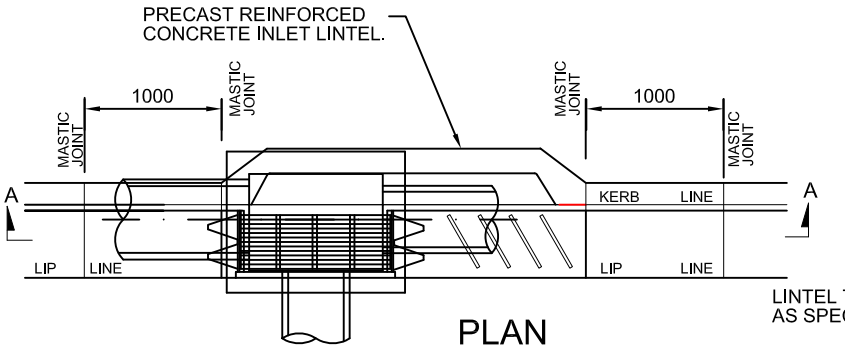


SECTION B - B
EXTENDED PIT CHAMBER
REFER NOTE 9.



SECTION B - B
STANDARD PIT
REFER NOTE 9.



PLAN

PRECAST LINTEL SIZES.	
NOMINAL OPENING SIZE METRES	OVERALL LENGTH "l" mm
0.9	1825
1.2	1825
1.8	2438
2.4	3048
3.0	3657
3.6	4267
4.2	4877
4.8	5486

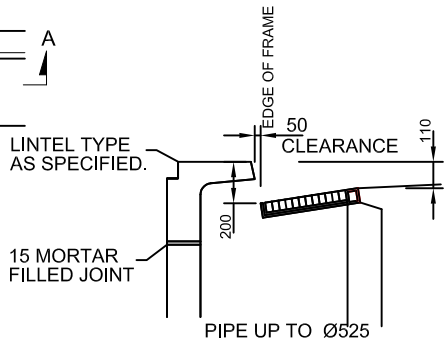


DIAGRAM 1

NOTES

1. CONCRETE TO BE 25MPa MINIMUM AT 28 DAYS.
2. WHERE DEPTH OF PIT EXCEEDS 1500, WALLS AND BOTTOM TO BE REINFORCED IN ALL DIRECTIONS WITH SL82 MESH AT 40 COVER TO INSIDE FACE WITH N12 CORNER BARS 300 LEGS AT 400 CTRS. PITS DEEPER THAN 2000 SHALL BE DESIGNED BY A PROFESSIONAL STRUCTURAL ENGINEER.
3. SAG PITS TO HAVE LINTEL LOCATED CENTRALLY OVER PIT.
4. BACKFILL ADJACENT TO PITS TO BE APPROVED GRANULAR MATERIAL.
5. A 3m LENGTH OF APPROVED "FILTER FABRIC" WRAPPED 100mm SUB-SOIL DRAIN OR EQUIVALENT IS TO BE PROVIDED AND CONNECTED TO THE UPSTREAM PIT WALL.
6. PIT GRATE AND FRAME TO BE "WELDLOK" GG78-50 FOR RESIDENTIAL ROADS AND GG78-42A FOR INDUSTRIAL ROADS, FITTED WITH A LOCKABLE "J" BOLT.
7. STEP IRONS WHERE THE PIT EXCEEDS 1200 IN DEPTH. AS PER SD-S09.
8. THE CENTRE LINES OF INTERSECTING PIPES ARE TO MEET AT THE DOWNSTREAM FACE OF THE PIT WHERE POSSIBLE.
9. WHERE ENTERING PIPE EXCEEDS 525 IN DIAMETER, EXTEND PIT CHAMBER AS SHOWN.
10. FLOOR OF PIT TO BE BENCHED TO MID POINT OF OUTLET PIPE WHERE OUTLET PIPE IS >600 DIAMETER.
11. WHERE EXTENDED CHAMBER WIDTH EXCEEDS 1200, ROOF REINFORCEMENT TO BE DESIGNED BY A PROFESSIONAL STRUCTURAL ENGINEER.
12. CONTRACTOR TO ENSURE CLEARANCE BETWEEN LINTEL AND OPEN GRATE.
13. ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.
14. PITS IN AREAS OF SALINITY HAZARD SHALL BE APPROPRIATELY DESIGNED.

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.
A	MAY 2007	ANGLE SIZE CHANGED, MINOR GRAMMAR CORRECTIONS.	CK	DW

campbelltown city council

PROJECT TITLE: STANDARD DRAWINGS

SHEET TITLE: GRATED GULLY PIT WITH EXTENDED KERB INLET PIT

CHECKED: C. Kinsey DATE: OCT 04

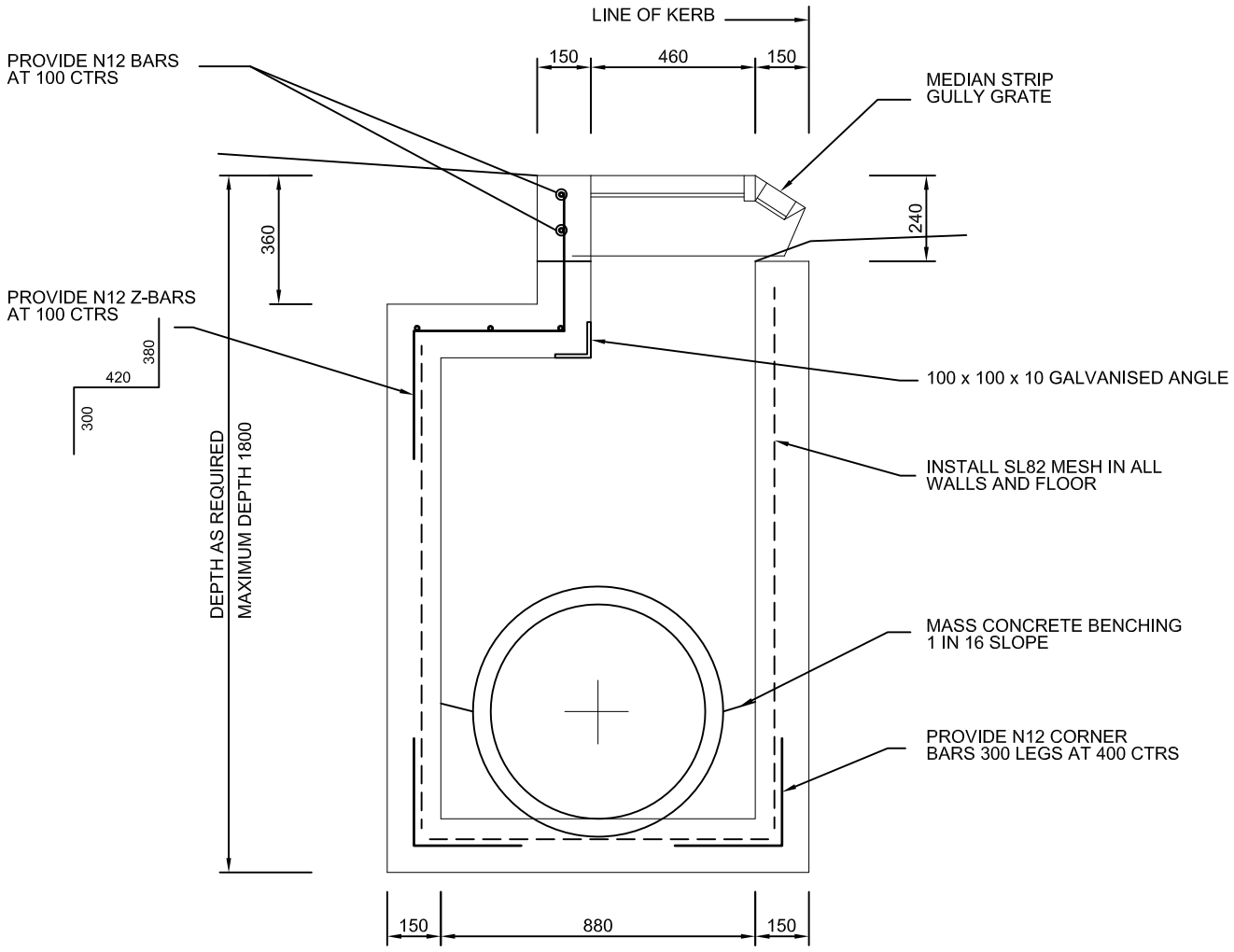
APPROVED: D. Webb DATE: NOV 04

STD DWG No. SD-S06

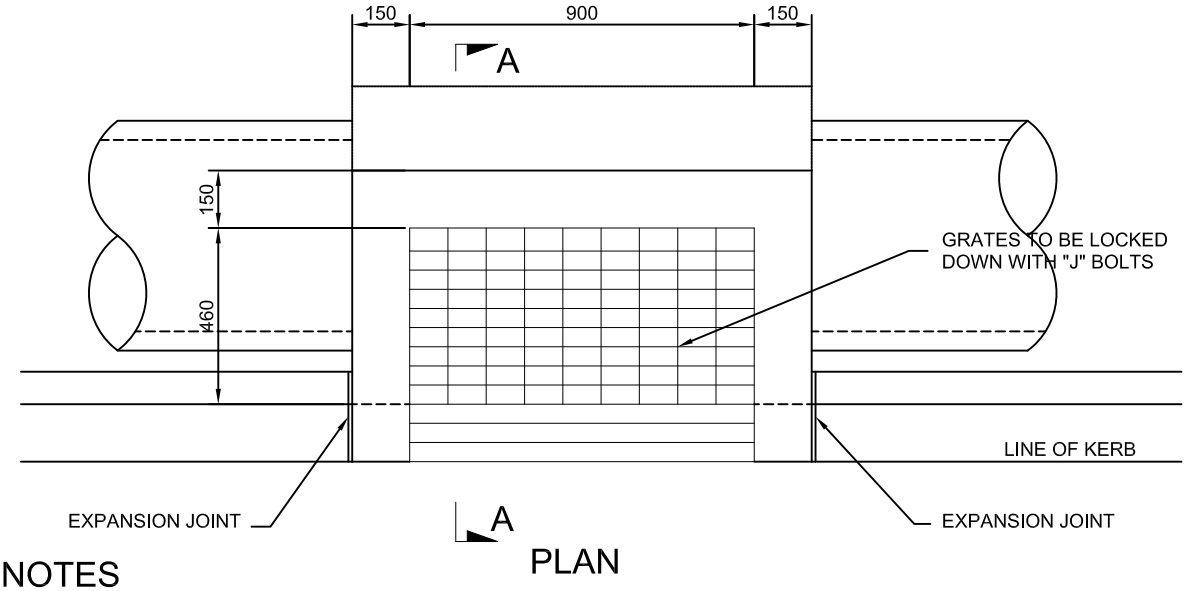
SCALE: N.T.S

SHEET 1 of 1

REV. VER2007 DATE: MAY07



SECTION A - A



PLAN

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. CONCRETE TO BE 25MPa @ 28 DAYS.
3. ALL REINFORCEMENT TO BE CENTRALLY LOCATED.
4. PITS GREATER THAN 2000 IN DEPTH SHALL BE DESIGNED BY A PROFESSIONAL STRUCTURAL ENGINEER.
5. WHERE DIRECTED PROVIDE 2000 OF 100Ø CORRUGATED P.V.C. SUBSOIL DRAIN ON INLET SIDE OF PIT. SUBSOIL DRAIN TO BE SURROUNDED BY A MIN 300 OF 5mm AGGREGATE.
6. PROVIDE STEP IRONS AS PER SD-S09 FOR PITS DEEPER THAN 1200.
7. PITS IN AREAS OF SALINITY HAZARDS SHALL BE APPROPRIATELY DESIGNED.

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.
A	MAY 2007	BAR SPACING REDUCED	CK	DW

campbelltown city council

CHECKED: C. Kinsey
DATE: OCT 04

PROJECT TITLE: STANDARD DRAWINGS

APPROVED: D. Webb
DATE: NOV 04

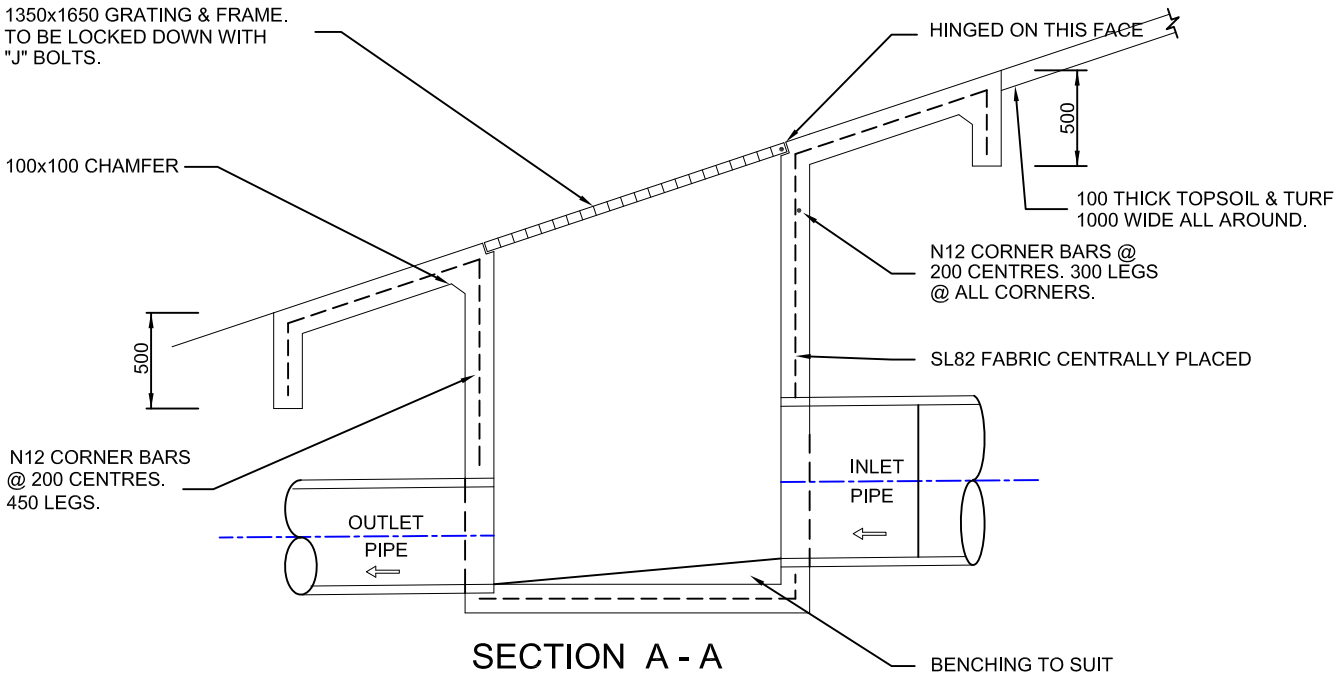
SHEET TITLE: KERB INLET MEDIAN PIT

STD DWG No. SD-S07

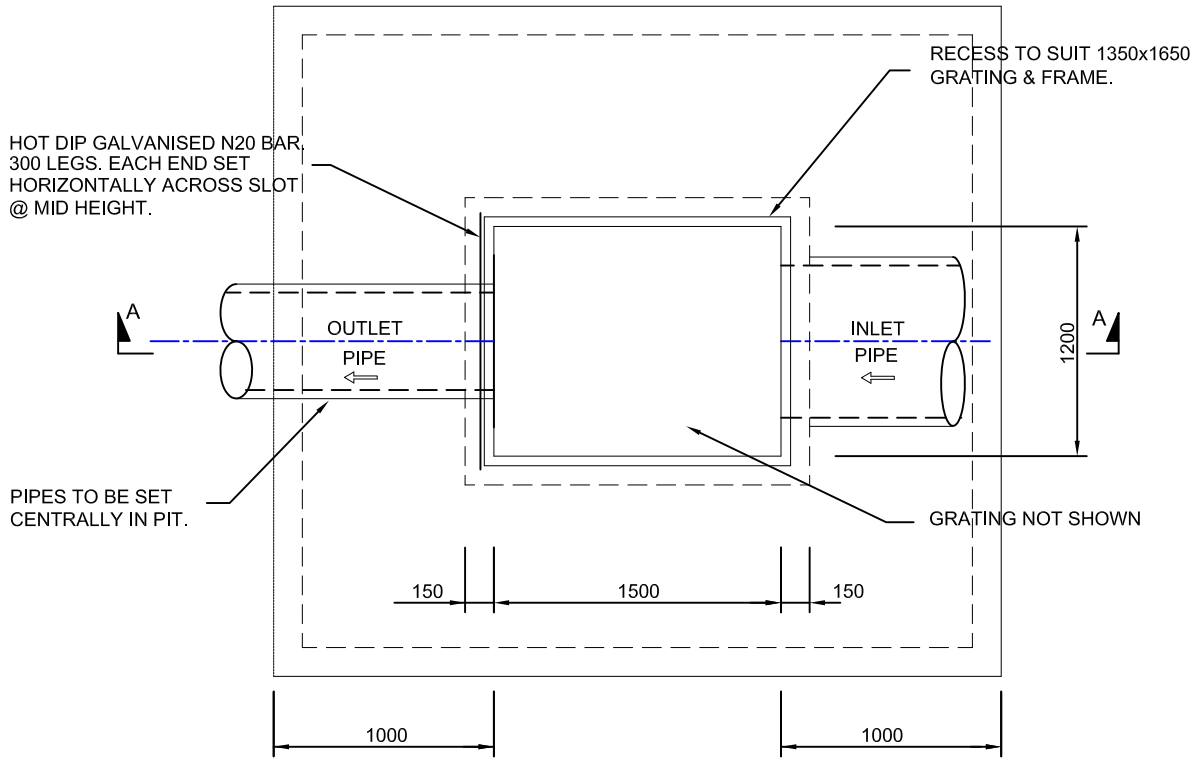
SCALE: N.T.S

SHEET 1 of 1

REV. VER2007
DATE: MAY07



SECTION A - A



PLAN

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. CONCRETE TO BE 25MPa @ 28 DAYS.
3. ALL REINFORCEMENT TO BE CENTRALLY LOCATED.
4. ALL PIT WALLS AND BASE TO BE MIN 150 THICK.
5. STREAMLINE BASE OF PIT TO SUIT.
6. PITS GREATER THAN 2000 IN DEPTH SHALL BE DESIGNED BY A PROFESSIONAL STRUCTURAL ENGINEER.
7. WHERE DIRECTED PROVIDE 2000 OF 100Ø CORRUGATED P.V.C. SUBSOIL DRAIN ON INLET SIDE OF PIT. SUBSOIL DRAIN TO BE SURROUNDED BY A MIN 300 OF 5mm AGGREGATE.
8. PROVIDE STEP IRONS AS PER SD-S09 FOR PITS DEEPER THAN 1200.
9. PITS IN AREAS OF SALINITY HAZARDS SHALL BE APPROPRIATELY DESIGNED.

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.
A	MAY 2007	APRON ADDED, BAR SPACING REDUCED.	CK	DW

campbelltown city council

PROJECT TITLE: STANDARD DRAWINGS

CHECKED: C. Kinsey DATE: OCT 04

APPROVED: D. Webb DATE: NOV 04

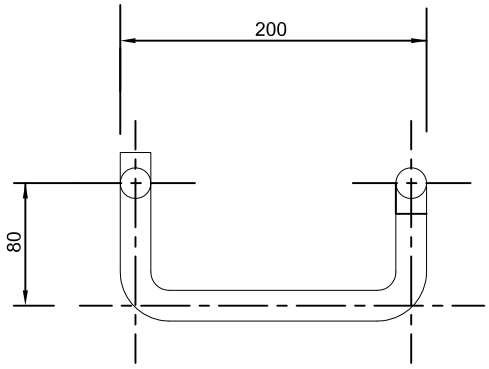
SHEET TITLE: SURCHARGE PIT

STD DWG No. SD-S08

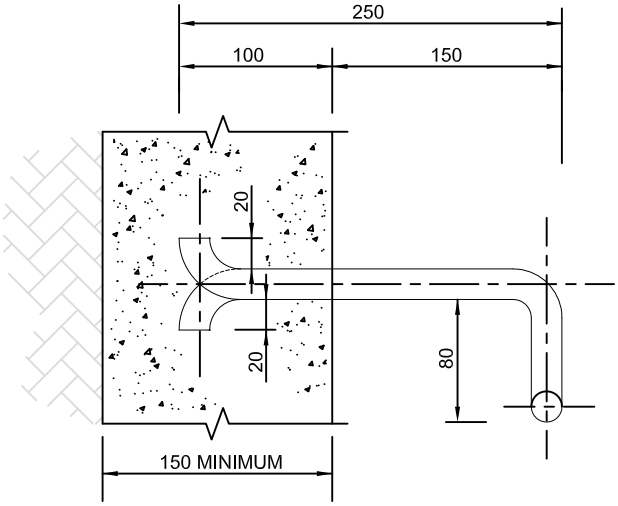
SCALE: N.T.S

SHEET 1 of 1

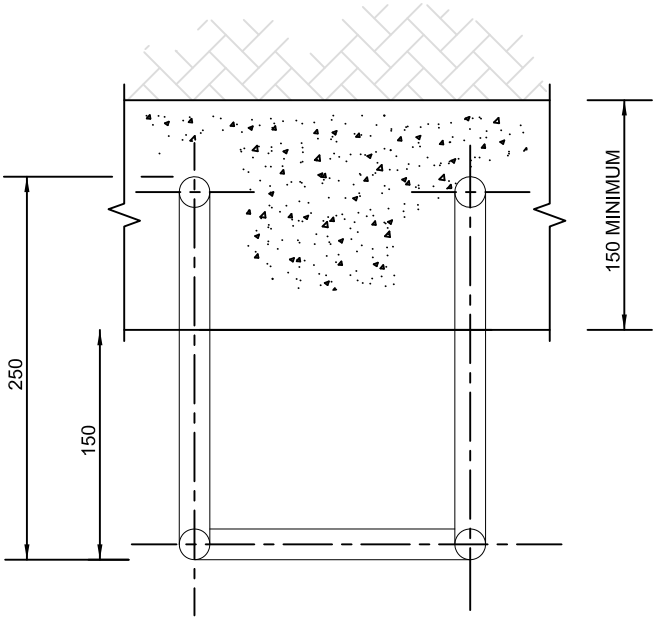
REV. VER2007 DATE: MAY07



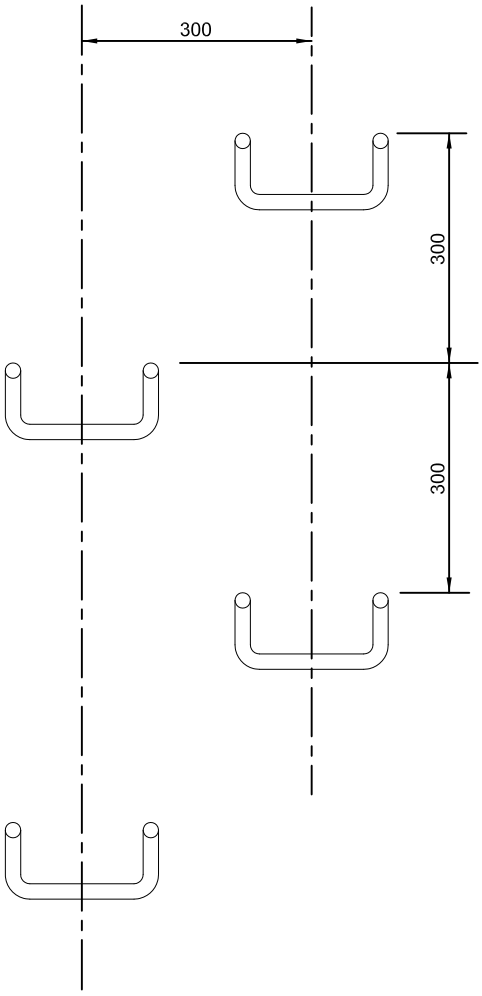
FRONT ELEVATION



SIDE ELEVATION



PLAN



STEP IRON PLACEMENT DIAGRAM

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. STEP IRONS TO BE FABRICATED FROM Ø20 M.S. BARS
3. ALL BENDS TO BE FORMED AROUND Ø12 PIN
4. STEP IRONS TO BE HOT DIPPED GALVANISED

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.
A	MAY 2007	CONCRETE THICKNESS SHOWN.	CK	DW

campbelltown city council

PROJECT TITLE: STANDARD DRAWINGS

CHECKED: C. Kinsey DATE: OCT 04

APPROVED: D. Webb DATE: NOV 04

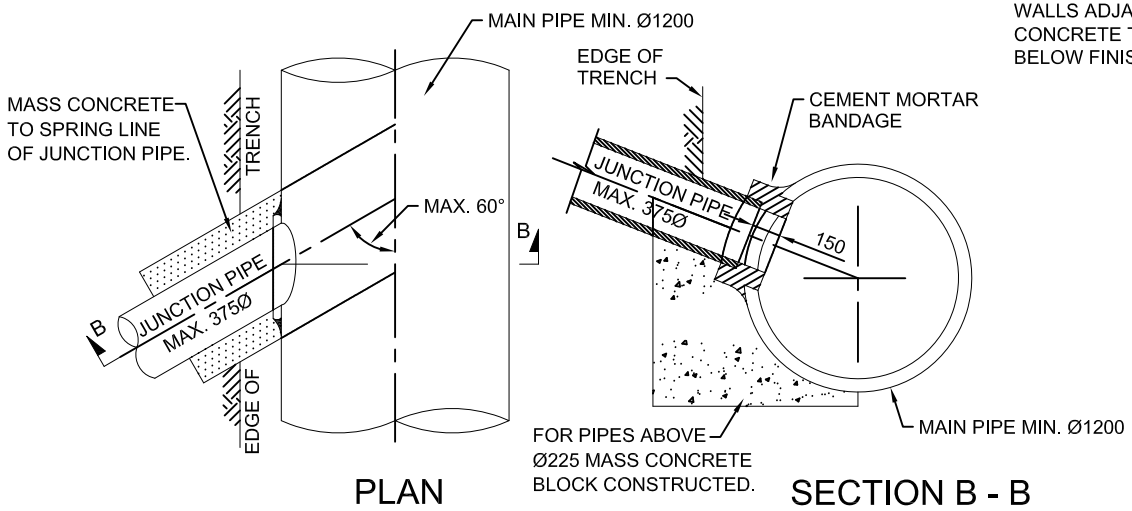
SHEET TITLE: STEP IRONS

STD DWG No. SD-S09

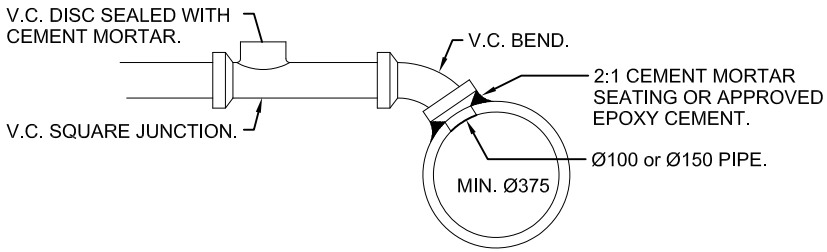
SCALE: N.T.S

SHEET 1 of 1

REV. VER2007 DATE: MAY07



TYPICAL DIRECT CONNECTION OF SMALL PIPE AND LARGE PIPE

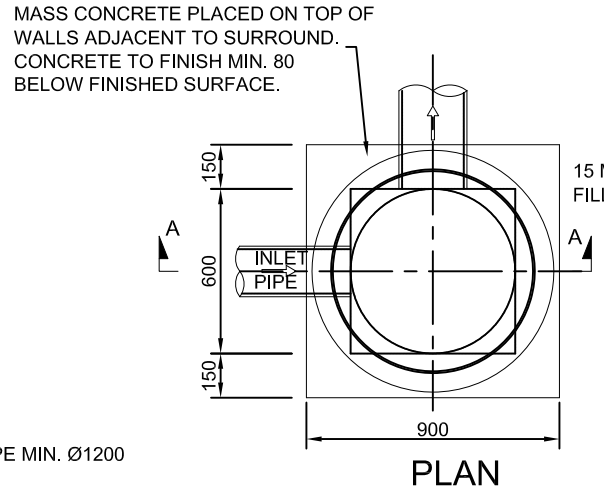


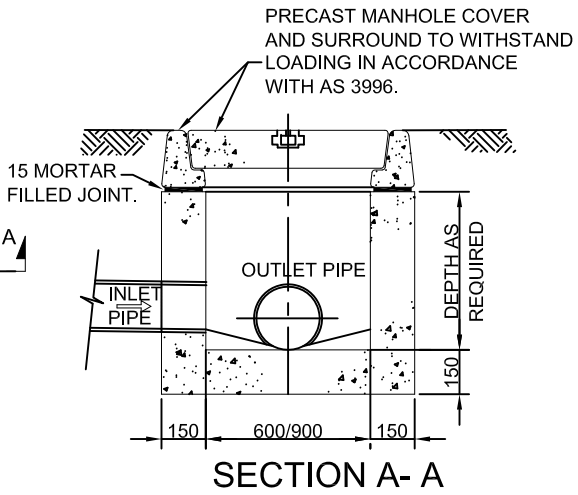
THE R.C. STORMWATER PIPE SHALL BE PIERCED BY A NEAT OPENING AS SHOWN, TO ALLOW THE CONNECTION OF A VITRIFIED CLAY SQUARE, SLOPED JUNCTION OR BEND WHICH SHALL NOT PROTRUDE BEYOND THE INNER SURFACE OF THE R.C. STORMWATER PIPE.
THE INTERNAL JUNCTION SHALL BE SMOOTHLY FINISHED WITH 2:1 CEMENT MORTAR SO AS TO PRESENT NO OBSTRUCTION WITHIN THE INTERNAL CHANNEL OF THE R.C. STORMWATER PIPE.

CONNECTION OF DRAINAGE LINES TO R.C.PIPE

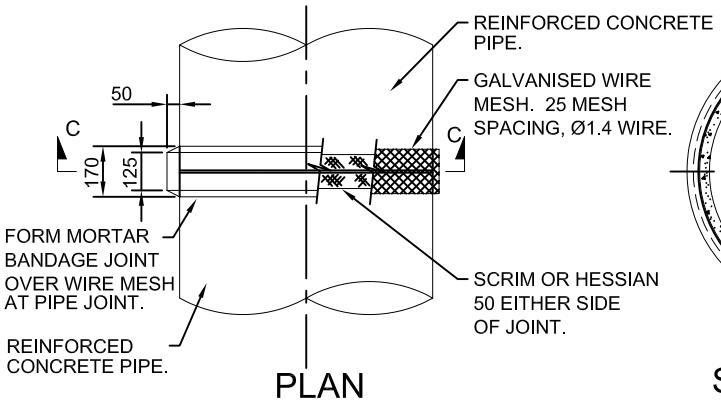
NOTES:

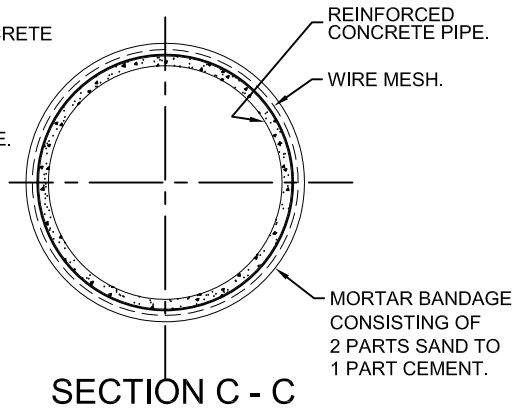
1. COMPRESSIVE STRENGTH F'c FOR CAST IN SITU CONCRETE TO BE A MIN. 25 MPa AT 28 DAYS.
2. ALL DIMENSION ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.





CONCRETE INSPECTION PIT





BANDAGE JOINT DETAILS

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.
A	MAY 2007	MORTAR MIX MADE CONSISTENT. PRECAST MANHOLE COVER NOTE AMENDED.	CK	DW

campbelltown city council

CHECKED: C. Kinsey DATE: OCT 04

PROJECT TITLE: STANDARD DRAWINGS

APPROVED: D. Webb DATE: NOV 04

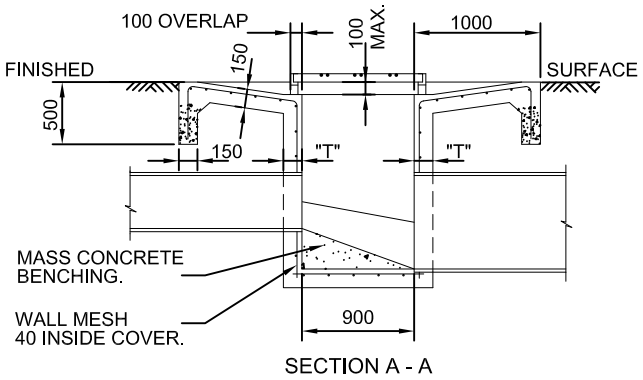
SHEET TITLE: MINOR DRAINAGE CONNECTIONS

STD DWG No. SD-S10

SCALE: N.T.S

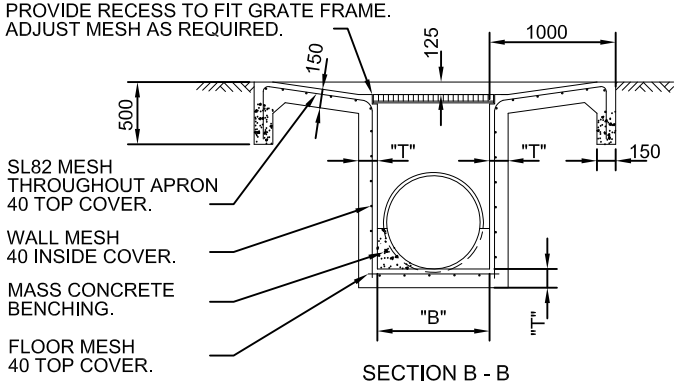
SHEET 1 of 1

REV. VER2007 DATE: MAY07



SECTION A - A

PIT TYPE A - RAISED GRATE



SECTION B - B

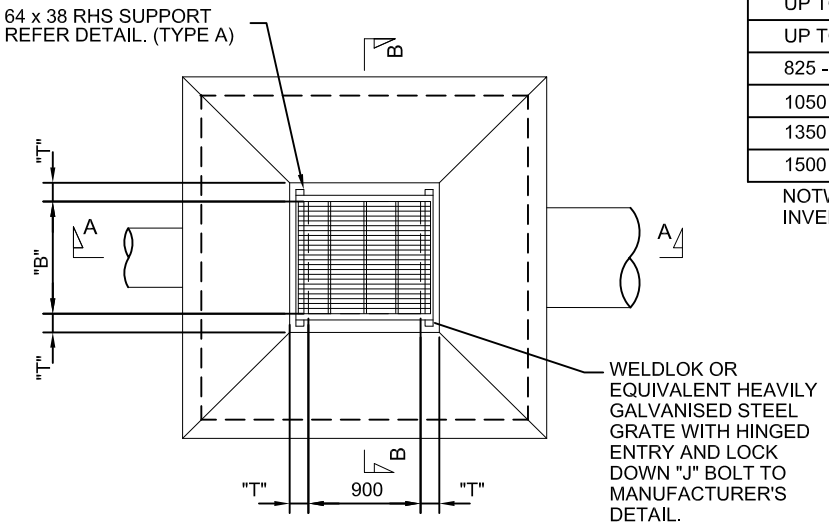
PIT TYPE B - FLUSH GRATE

NOTES.

1. ALL CONCRETE TO HAVE A MINIMUM STRENGTH OF N25 UNLESS OTHERWISE NOTED.
2. APPROVED STEP IRONS SHALL BE PROVIDED WHERE THE PIT EXCEEDS 1200 IN DEPTH. REFER TO SD-S09
3. GRATES MUST BE CLASS C FOR NON-ROAD INSTALLATION AND CLASS D FOR ROAD INSTALLATION. CLASSES AS DEFINED IN A.S.3996.
4. GRATE LEGS TO BE WELDED TO FRAME PRIOR TO GALVANISING. (TYPE A)
5. ALL CONCRETE WORK TO BE A MINIMUM OF 150 THICK.
6. MASS CONCRETE BENCHING TO PIPE CENTRELINE MUST BE PROVIDED AS INDICATED.
7. WHERE SITE CONDITIONS DICTATE, THE SUPERVISING ENGINEER MAY INCLINE THE PIT TOPS TO AN UPPER LIMIT OF 1 VERT. in 4 HORIZ. NO ALTERATION TO REINFORCEMENT IS REQUIRED, HOWEVER, THE ENTIRE PIT ROOF (AND ACCOMPANYING APRONS) ARE TO REMAIN PLANAR.
8. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
9. PITS IN AREAS OF SALINITY HAZARD SHALL BE APPROPRIATELY DESIGNED.

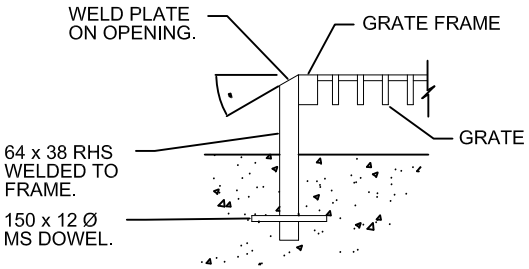
PIT DIMENSIONS and MESH			
LARGEST PIPE CONNECTED TO PIT	DIMENSION "B"	DIMENSION "T"	MESH (WALLS and FLOOR ONLY)
UP TO 525	600	150	SL82
UP TO 750	900	150	SL82
825 - 900	1000	150	SL82
1050 - 1200	1400	150	SL82
1350	1550	200	SL82
1500	1700	200	SL102

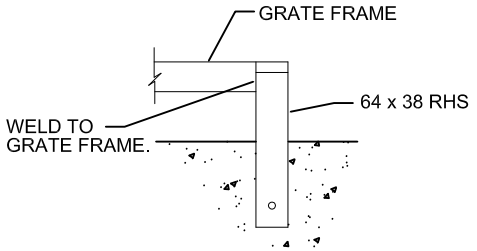
NOTWITHSTANDING THE ABOVE TABLE, PITS DEEPER THAN 2000 TO INVERT SHALL BE STRUCTURALLY DESIGNED.



PLAN - PIT TYPE A and B

TYPICAL DETAIL SURFACE INLET TO SUIT PIPES UP TO 1500mm DIA.





DETAIL SHOWING CONNECTION OF RAISED GRATE TO PIT. (TYPE A)

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.
A	MAY 2007	STRESS GRADING CHANGED TO STRENGTH IN NOTE 1.	CK	DW

campbelltown city council

CHECKED: C. Kinsey DATE: OCT 04

PROJECT TITLE: STANDARD DRAWINGS

APPROVED: D. Webb DATE: NOV 04

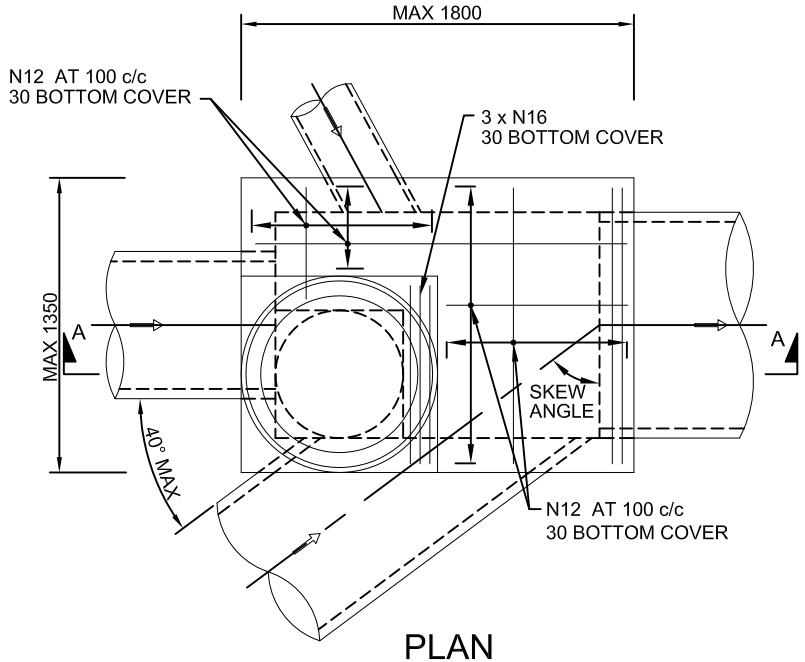
SHEET TITLE: SURFACE INLET & LETTER BOX PIT

STD DWG No. SD-S11

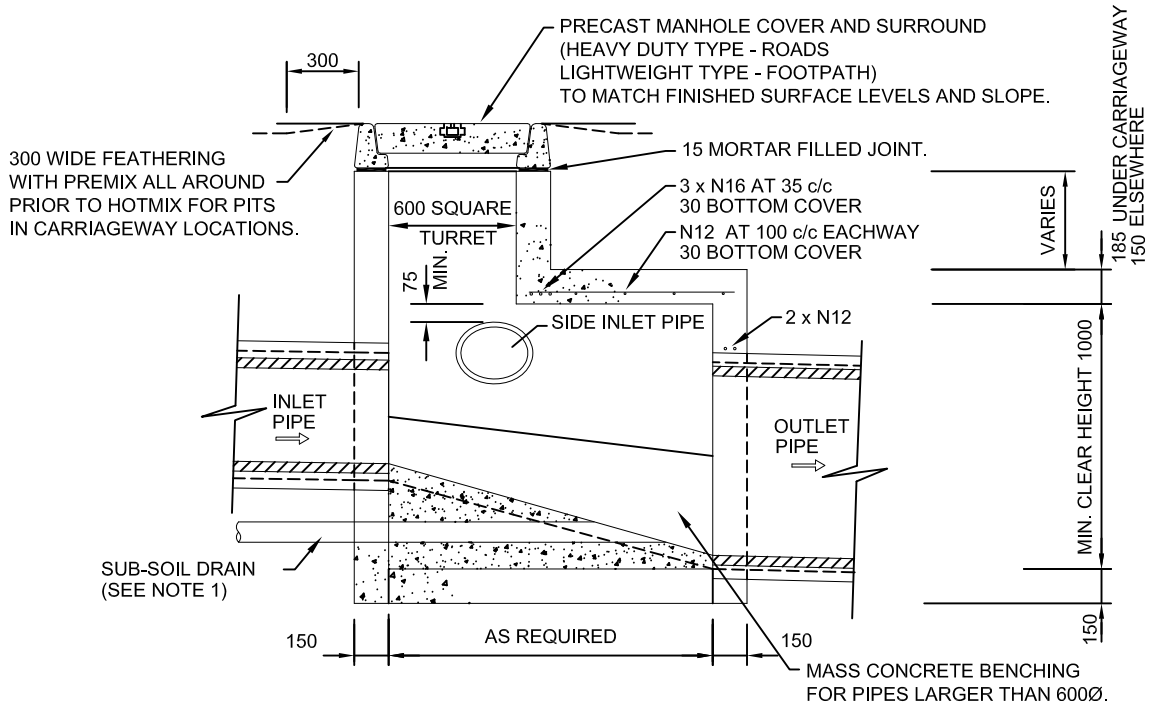
SCALE: N.T.S

SHEET 1 of 1

REV. VER2007 DATE: MAY07



PLAN



SECTION A - A

NOTES:

1. PROVIDE Ø100 SUB-SOIL DRAINAGE PIPE, 2000 LONG, WRAPPED IN FABRIC SOCK ADJACENT TO INLET PIPES.
2. MAXIMUM OUTLET PIPE ON STRAIGHT Ø900
3. MAXIMUM OUTLET PIPE ON SKEW Ø825
4. MAXIMUM SIDE ENTRY PIPE Ø825 AT APPROX. 40° SKEW.
5. MINIMUM INTERNAL DIMENSIONS - LENGTH 900
   - WIDTH 700
   - HEIGHT 1000.
6. CAST IN SITU CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 25 MPa AT 28 DAYS.
7. WHERE PITS ARE DEEPER THAN 1200 PROVIDE STEP IRONS. REFER TO SD-S09
8. PITS DEEPER THAN 1500 SHALL BE REINFORCED WITH ONE LAYER OF SL82 TO FLOOR AND WALLS FOR THE FULL DEPTH. PITS DEEPER THAN 2000 SHALL BE STRUCTURALLY DESIGNED.
9. PITS IN AREAS OF SALINITY HAZARD SHALL BE APPROPRIATELY DESIGNED.

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.
A	MAY 2007	BAR SPACING CHANGED.	CK	DW

campbelltown city council

PROJECT TITLE: STANDARD DRAWINGS

CHECKED: C. Kinsey DATE: OCT 04

APPROVED: D. Webb DATE: NOV 04

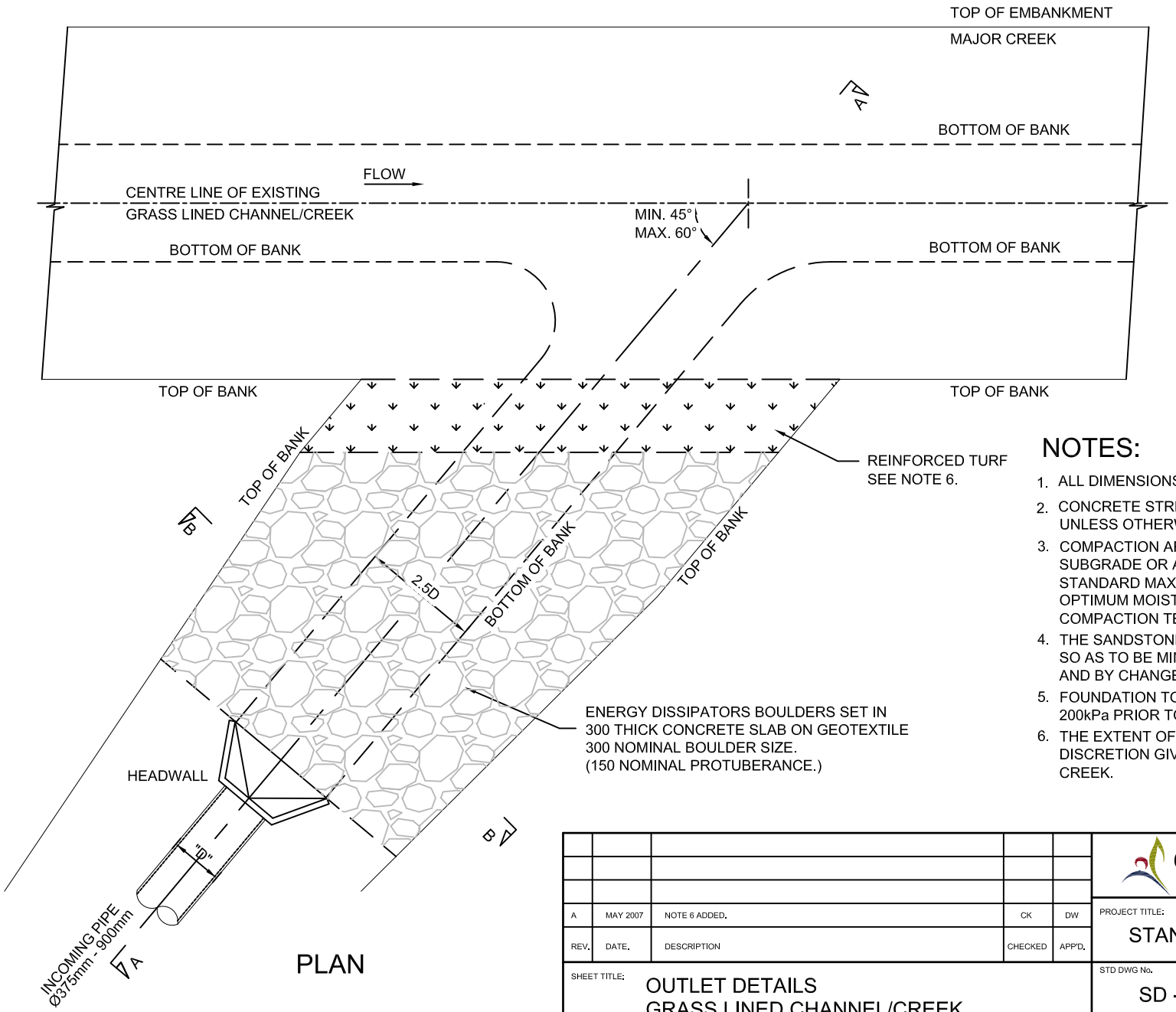
SHEET TITLE: HEAVY DUTY JUNCTION PIT

STD DWG No. SD-S12

SCALE: N.T.S

SHEET 1 of 1

REV. VER2007 DATE: MAY07



PLAN

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
2. CONCRETE STRENGTH TO BE GRADE N32, A.S 3600 (32MPa) TROUGHOUT UNLESS OTHERWISE NOTED.
3. COMPACTION AROUND STRUCTURES, UNDER APRONS ETC: UNDISTURBED SUBGRADE OR APPROVED MATERIAL TO BE COMPACTED TO 98% OF THE STANDARD MAXIMUM DRY DENSITY & IS TO BE WITHIN -1 TO +2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE STANDARD COMPACTION TEST (A.S 1289.5.1.1 - 1993)
4. THE SANDSTONE ROCKS TO BE USED ARE TO BE OF ADEQUATE DURABILITY, SO AS TO BE MINIMALLY AFFECTED BY THE ERODING EFFECTS OF WATER AND BY CHANGES IN TEMPERATURE.
5. FOUNDATION TO BE APPROVED FOR A SAFE BEARING CAPACITY OF 200kPa PRIOR TO CONSTRUCTION.
6. THE EXTENT OF REINFORCED TURF MAY BE EXTENDED AT COUNCIL'S DISCRETION GIVING CONSIDERATION TO THE STABILITY OF THE EXISTING CREEK.

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.
A	MAY 2007	NOTE 6 ADDED.	CK	DW

campbelltown city council

CHECKED: C. Kinsey DATE: DEC 06

PROJECT TITLE: STANDARD DRAWINGS

APPROVED: D. Webb DATE: DEC 06

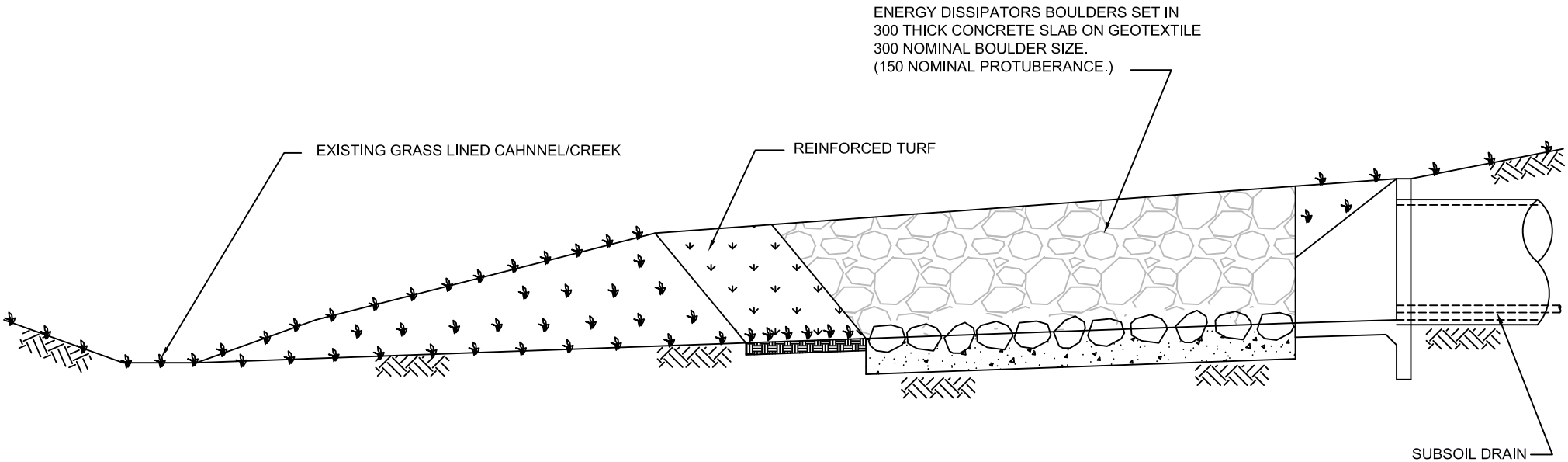
SHEET TITLE: OUTLET DETAILS GRASS LINED CHANNEL/CREEK

STD DWG No. SD - S13

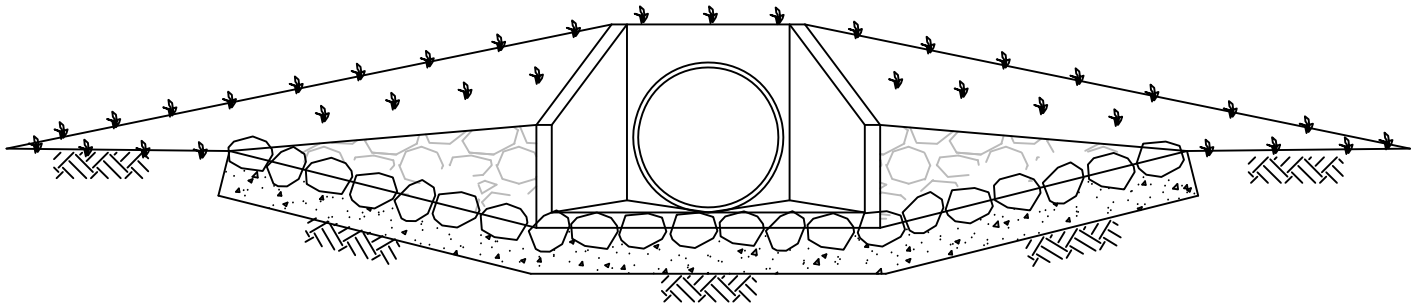
SCALE: N.T.S

SHEET 1 of 2

REV. VER2007 DATE: MAY07



SECTION A - A



SECTION B - B

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.
---	MAY 2007	REVIEWED - NO CHANGES	CK	DW

campbelltown city council

PROJECT TITLE: STANDARD DRAWINGS

SHEET TITLE: OUTLET DETAILS GRASS LINED CHANNEL

CHECKED: C. Kinsey DATE: DEC 06

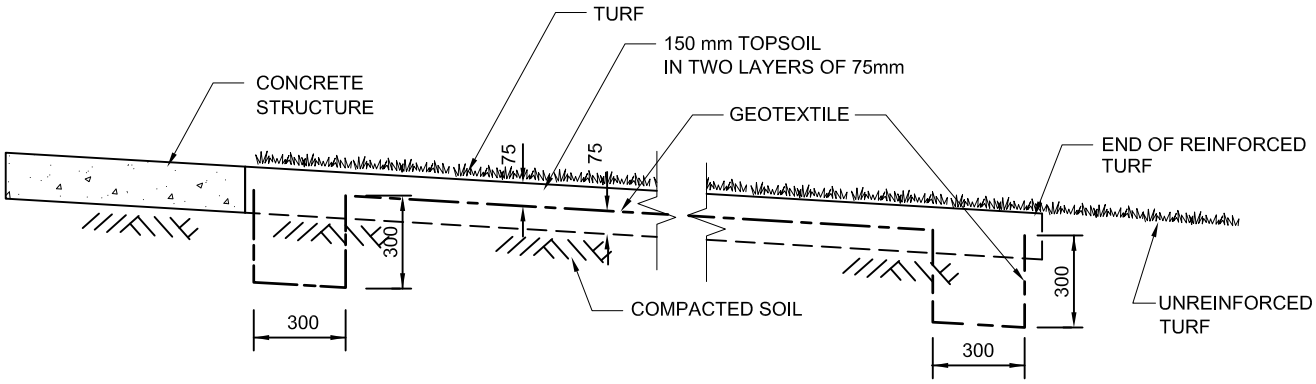
APPROVED: D. Webb DATE: DEC 06

STD DWG No. SD - S13

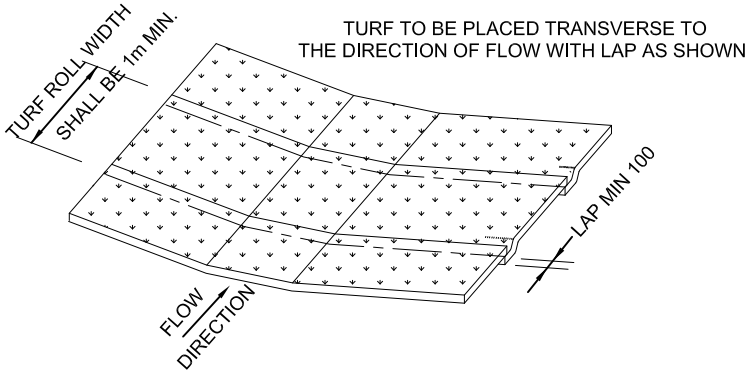
SCALE: N.T.S

SHEET 2 of 2

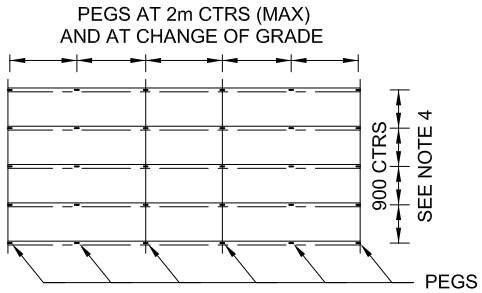
REV. VER2007 DATE: MAY07



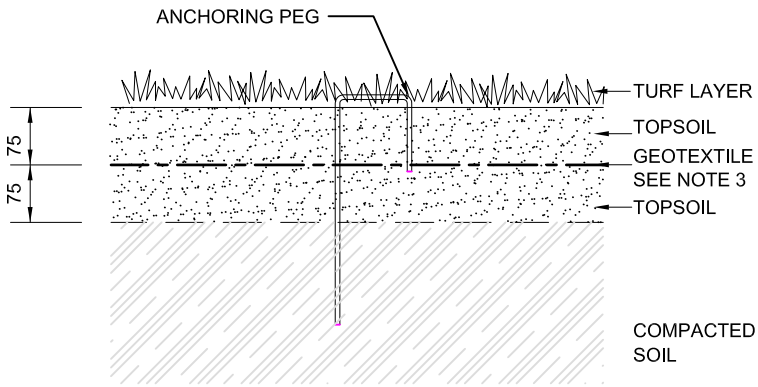
PLACEMENT OF GEOTEXTILE AT TERMINATIONS



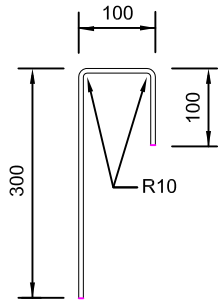
TURF LAPPING ORDER



POSITIONING OF ANCHORING PEG



ANCHORING DETAIL



DETAIL OF ANCHORING PEG

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. PEGS SHALL BE GALVANIZED Ø6 ROUND STEEL BARS.
3. GEOTEXTILE SHALL BE ENKAMAT 7018 OR SIMILAR UNLESS NOTED OTHERWISE.
4. SPACING OF PEGS TO VARY DEPENDING ON WIDTH OF GRASS STRIP UP TO 2m MAXIMUM.

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.

campbelltown city council

CHECKED: C. Kinsey DATE: MAY 07

PROJECT TITLE: STANDARD DRAWINGS

APPROVED: D. Webb DATE: MAY 07

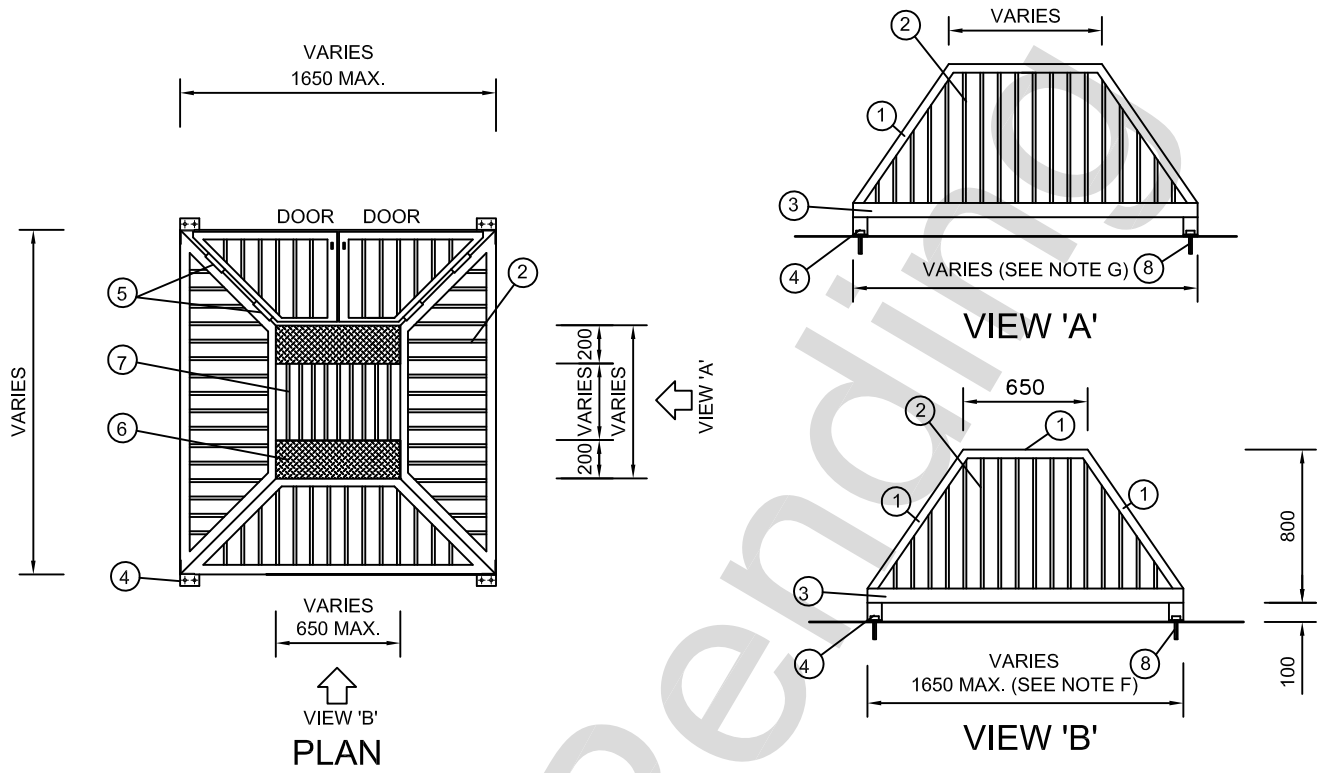
SHEET TITLE: REINFORCED TURF DETAIL

STD DWG No. SD-S14

SCALE: N.T.S

SHEET 1 of 1

REV. VER2007 DATE: MAY07



	MATERIALS LIST
ITEM No.	DESCRIPTION
1	100 x 6mm FLAT BAR BENT TO SUIT
2	Ø16mm SOLID BARS @ 91mm CTRS CLEAR OPENING OF 75mm
3	50 x 50 x 5mm ANGLE BASE
4	90 x 90 x 6mm ANGLE LEGS WITH 130 x 130 x 10mm BASE PLATE
5	HINGE 25mm N.B. CASTING WITH 25mm SHAFT
6	5mm THICK FLOOR PLATE
7	Ø16mm SOLID BARS @ 66mm CTRS CLEAR OPENING OF 50mm
8	Ø16mm x 100mm LONG CHEMSET BOLTS

NOTES

A. THIS PLAN SHOULD ONLY BE USED AS A GUIDE. A STRUCTURAL ENGINEER SHOULD CERTIFY THE CONSTRUCTED UNITS BEFORE USE TO ENSURE STRENGTH AND WORKMANSHIP MEETS EXPECTATION.
B. ALL JOINTS ARE TO BE WELDED. ALL WELDING SHALL COMPLY WITH A.S.1554.
C. CARE TO BE TAKEN WITH WELDING AND GALVANISING TECHNIQUES. ALL OUT OF TRUE MEMBERS SHALL BE RECTIFIED. ALL WELDS TO BE NEATLY FINISHED AND GROUND SMOOTH. ALL EXCESS GALVANISING TO BE REMOVED.
D. ALL STEELWORK NOMINATED SHALL BE HOT DIP GALVANISED AFTER FABRICATION, IN ACCORDANCE WITH A.S.1650.
E. WHERE THE SHORT DIMENSION IS LESS THAN 1200mm, ONLY ONE DOOR IS REQUIRED.
F. FOR SHORT DIMENSION GREATER THAN 1650, DESIGN BY A STRUCTURAL ENGINEER IS REQUIRED.
G. IF THE LONG DIMENSION IS GREATER THAN 1800mm, ADDITIONAL SUPPORTS MAY BE REQUIRED AND SHOULD BE DESIGNED BY A STRUCTURAL ENGINEER.
H. WORKMANSHIP AND MATERIAL SHALL COMPLY WITH A.S.4100.

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.

campbelltown city council

CHECKED: C. Kinsey DATE: OCT 07

PROJECT TITLE: STANDARD DRAWINGS

APPROVED: D. Webb DATE: OCT 07

SHEET TITLE: PYRAMID GRATE

STD DWG No. SD-S15

SCALE: N.T.S

SHEET 1 of 1

REV. VER2009 DATE: MAR 09

campbelltown
city council

WARNING

30mm LETTERING.

FALL DANGER

20mm LETTERING.

CLIMBING OR
WALKING ALONG
THE WALL
IS NOT ALLOWED

15mm LETTERING.

NOTES

1. SIGN TO CONSIST OF 3mm THICK ALUMINIUM & TO BE IN CORPORATE COLOURS ON A DIAMOND GRADE, WHITE REFLECTIVE PLATE, UV TREATED COVERED IN ANTI-GRAFFITI FILM AND COMPLY WITH A.S.1743.
2. LETTERING "WARNING" TO BE RED AND OTHERS IN BLACK.
3. THE SIGN SHALL BE 450 HIGH BY 300 WIDE WITH CORNER RADII OF 60.
4. SIGN POST SHALL BE HOT DIPPED GALVANISED, 101.6 x 5.0 CHS, 3100 LONG WITH HOT DIPPED GALVANISED TOP END CAP. POST TO BE SET 600 DEEP INTO Ø300 MASS CONCRETE. GROUND CLEARANCE TO SIGN TO BE MINIMUM 2000.

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.
.	.	.	.	.

campbelltown city council

CHECKED: C. Kinsey DATE: MAR 08

PROJECT TITLE: STANDARD DRAWINGS

APPROVED: D. Webb DATE: MAR 08

SHEET TITLE: 'NO CLIMBING' WARNING SIGN

STD DWG No. SD-S16

SCALE: N.T.S

SHEET 1 of 1

REV. VER2009 DATE: MAR 09

campbelltown
city council

WARNING

30mm LETTERING.

THIS IS A
DETENTION BASIN WALL
NO PLANTING OR
EXCAVATION ALLOWED

15mm LETTERING.

NOTES

1. SIGN TO CONSIST OF 3mm THICK ALUMINIUM & TO BE IN CORPORATE COLOURS ON A DIAMOND GRADE, WHITE REFLECTIVE PLATE, UV TREATED COVERED IN ANTI-GRAFFITI FILM AND COMPLY WITH A.S.1743.
2. LETTERING "WARNING" TO BE RED AND OTHERS IN BLACK.
3. THE SIGN SHALL BE 450 HIGH BY 300 WIDE WITH CORNER RADII OF 60.
4. SIGN POST SHALL BE HOT DIPPED GALVANISED, 101.6 x 5.0 CHS, 3100 LONG WITH HOT DIPPED GALVANISED TOP END CAP. POST TO BE SET 600 DEEP INTO Ø300 MASS CONCRETE. GROUND CLEARANCE TO SIGN TO BE MINIMUM 2000.

REV.	DATE.	DESCRIPTION	CHECKED	APP'D.
.	.	.	.	.

campbelltown city council

PROJECT TITLE: STANDARD DRAWINGS

CHECKED: C. Kinsey DATE: MAR 08

APPROVED: D. Webb DATE: MAR 08

SHEET TITLE: 'NO PLANTING' WARNING SIGN

STD DWG No. SD-S17

SCALE: N.T.S

SHEET 1 of 1

REV. VER2009 DATE: MAR 09