



LEGEND	DESCRIPTION
	CONCRETE ROAD
	GRAVEL ROAD

- GENERAL NOTES**
1. ALL LEVELS, DIMENSIONS AND SETTING OUT DETAILS TO BE VERIFIED BY CONTRACTORS ON SITE PRIOR TO CONSTRUCTION.
 2. ALL EXISTING DRAINAGE CULVERTS ARE TO BE INSPECTED, AND ANY FOUND IN UNSERVICEABLE CONDITION ARE TO BE REPORTED TO THE ENGINEER REPLACED UNLESS SHOWN OTHERWISE.
 3. CULVERT INVERTS ARE TO BE DECIDED BY ENGINEER ON SITE UNLESS SHOWN MIN. COVER = 800mm, MIN SLOPE = 2%.
 4. PIPE CULVERTS ARE TO BE LAID IN ACCORDANCE WITH SD 0401 WITH HEADWALLS AS ACCESS BELL-MOUTHS, AND MIN DIA = 600mm FOR MAJOR ROAD CROSS DRAINAGE AS PER SD 0401, SD 0403, SD 0406. MIN DIA = 450mm FOR MINOR ACCESS ROADS.
 5. BOX CULVERTS < 1.8m HIGH ARE TO BE CONSTRUCTED IN ACCORDANCE WITH SD 0404 OR SD 0407. BOX CULVERTS > 1.8m HIGH ARE TO BE CONSTRUCTED AS PER THE STRUCTURAL ENGINEER'S DESIGN IN ACCORDANCE WITH K2NDOT STANDARDS.
 6. FOR EROSION CONTROL, GABION MATTRESSES ARE RECOMMENDED AT CULVERT INLETS AND OUTLETS.
 7. EARTH BERM ARE TO BE CONSTRUCTED AT CULVERT INLETS TO DIRECT STORM-WATER INTO CULVERTS WHERE NECESSARY.
 8. ROCK BOLSTERS ARE TO BE PLACED ACROSS THE INVERT OF DRAINS SUSCEPTIBLE TO EROSION FOR EVERY 2m VERTICAL DROP.
 9. GRASSED/CONCRETE LINED V-DRAINS AS PER SD 0601/3 & 4 ARE RECOMMENDED FOR SHALLOW CUTTINGS OF DEPTH LESS THAN 5m MEASURED AT A POINT 6m FROM EDGE OF CARRIAGEWAY. CONCRETE LINE 1500 V-DRAINS AS PER SD 0601/2 ARE RECOMMENDED FOR DEEP CUTTINGS OF DEPTH GREATER THAN 5m MEASURED AT A POINT 6m FROM EDGE OF CARRIAGEWAY.
 10. SUBSOIL DRAINS AS PER SD 0501 ARE TO BE INSTALLED WITH 1500 V-DRAINS OR WHERE HIGH WATER TABLES ARE ENCOUNTERED.
 11. KERB AND CHANNEL DRAINS AS PER 0701 ARE TO BE PROVIDED WHERE FILL EMBANKMENTS EXCEED 3m IN HEIGHT.
 12. WHERE SURFACE RUNOFF IS TOWARD THE ROAD, CATCH-WATER BANKS ARE TO BE PROVIDED TO DIVERT STORM-WATER TO MAJOR CROSS DRAINAGE STRUCTURES.
 13. THE POSITIONS OF ACCESSSES ARE TO BE DETERMINED IN CONSULTATION WITH THE LOCAL COMMUNITY. DAY LIGHTING REQUIREMENTS ARE TO BE DECIDED BY THE ENGINEER ON SITE. CONCRETE WEIRS AS PER SD 0303 MAY BE USED IN PLACE OF SURFACE BELL-MOUTHS FOR ACCESSSES SERVING SINGLE RESIDENTIAL PROPERTIES.
 14. GUARDRAILS ARE TO BE INSTALLED IN ACCORDANCE WITH SD 1101 AND SD 1102 WHERE FILL EMBANKMENTS EXCEED 3m IN HEIGHT OR WHERE HAZARDOUS OBSTRUCTION CANNOT BE REMOVED.
 15. EXISTING ROAD SIGNS, SERVICES AND FENCING AFFECTED BY CONSTRUCTION ARE TO BE REMOVED/RELOCATED WHERE NECESSARY.
 16. UNDERGROUND SERVICE CROSSINGS AND MARKERS ARE TO BE IN ACCORDANCE WITH SD 1001 - 3.
 17. ALL NEW ROAD SIGNS AND ROAD MARKING REQUIREMENTS ARE TO CONFORM TO THE SOUTHERN AFRICAN ROAD TRAFFIC SIGNS MANUAL (SARTSM).
 18. ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH 'COLT' SPECIFICATIONS FOR ROAD AND BRIDGE WORKS FOR STATE ROAD AUTHORITIES.
 19. ALL SURVEY AND SETTING OUT DATA PROVIDED ON (WGS 84).
 20. NEW FILLS AND EXPOSED CUTTINGS ARE TO BE TOP-SOILED AND VEGETATED IMMEDIATELY AFTER CONSTRUCTION TO PREVENT EROSION.

HORIZONTAL ALIGNMENT CURVE DATA

AI PI 1 (5 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	0.000
End	8950.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 2 (10 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	8950.000
End	9000.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 3 (15 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9000.000
End	9050.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 4 (20 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9050.000
End	9100.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 5 (25 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9100.000
End	9150.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 6 (30 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9150.000
End	9200.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 7 (35 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9200.000
End	9250.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 8 (40 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9250.000
End	9300.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 9 (45 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9300.000
End	9350.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 10 (50 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9350.000
End	9400.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 11 (55 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9400.000
End	9450.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 12 (60 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9450.000
End	9500.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 13 (65 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9500.000
End	9550.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 14 (70 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9550.000
End	9600.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 15 (75 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9600.000
End	9650.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 16 (80 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9650.000
End	9700.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 17 (85 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9700.000
End	9750.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 18 (90 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9750.000
End	9800.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 19 (95 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9800.000
End	9850.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 20 (100 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9850.000
End	9900.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 21 (105 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9900.000
End	9950.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 22 (110 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	9950.000
End	10000.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 23 (115 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10000.000
End	10050.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 24 (120 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10050.000
End	10100.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 25 (125 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10100.000
End	10150.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 26 (130 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10150.000
End	10200.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 27 (135 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10200.000
End	10250.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 28 (140 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10250.000
End	10300.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 29 (145 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10300.000
End	10350.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 30 (150 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10350.000
End	10400.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 31 (155 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10400.000
End	10450.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 32 (160 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10450.000
End	10500.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 33 (165 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10500.000
End	10550.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 34 (170 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10550.000
End	10600.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 35 (175 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10600.000
End	10650.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 36 (180 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10650.000
End	10700.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 37 (185 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10700.000
End	10750.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 38 (190 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10750.000
End	10800.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 39 (195 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10800.000
End	10850.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 40 (200 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10850.000
End	10900.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 41 (205 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10900.000
End	10950.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 42 (210 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	10950.000
End	11000.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 43 (215 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11000.000
End	11050.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 44 (220 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11050.000
End	11100.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 45 (225 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11100.000
End	11150.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 46 (230 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11150.000
End	11200.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 47 (235 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11200.000
End	11250.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 48 (240 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11250.000
End	11300.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 49 (245 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11300.000
End	11350.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 50 (250 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11350.000
End	11400.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 51 (255 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11400.000
End	11450.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 52 (260 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11450.000
End	11500.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 53 (265 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11500.000
End	11550.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 54 (270 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11550.000
End	11600.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 55 (275 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11600.000
End	11650.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 56 (280 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11650.000
End	11700.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 57 (285 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11700.000
End	11750.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 58 (290 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11750.000
End	11800.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 59 (295 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11800.000
End	11850.000
Radius = 200.000	Tangent L = 16.800
Int Angle = -32.49 43	Curve L = 33.337
AI PI 60 (300 (1)) : CURVE TO THE RIGHT	
Curve type: CIRCULAR CURVE	
Point	Peg Distance
Start	11850.