DRAINAGE DETAILS

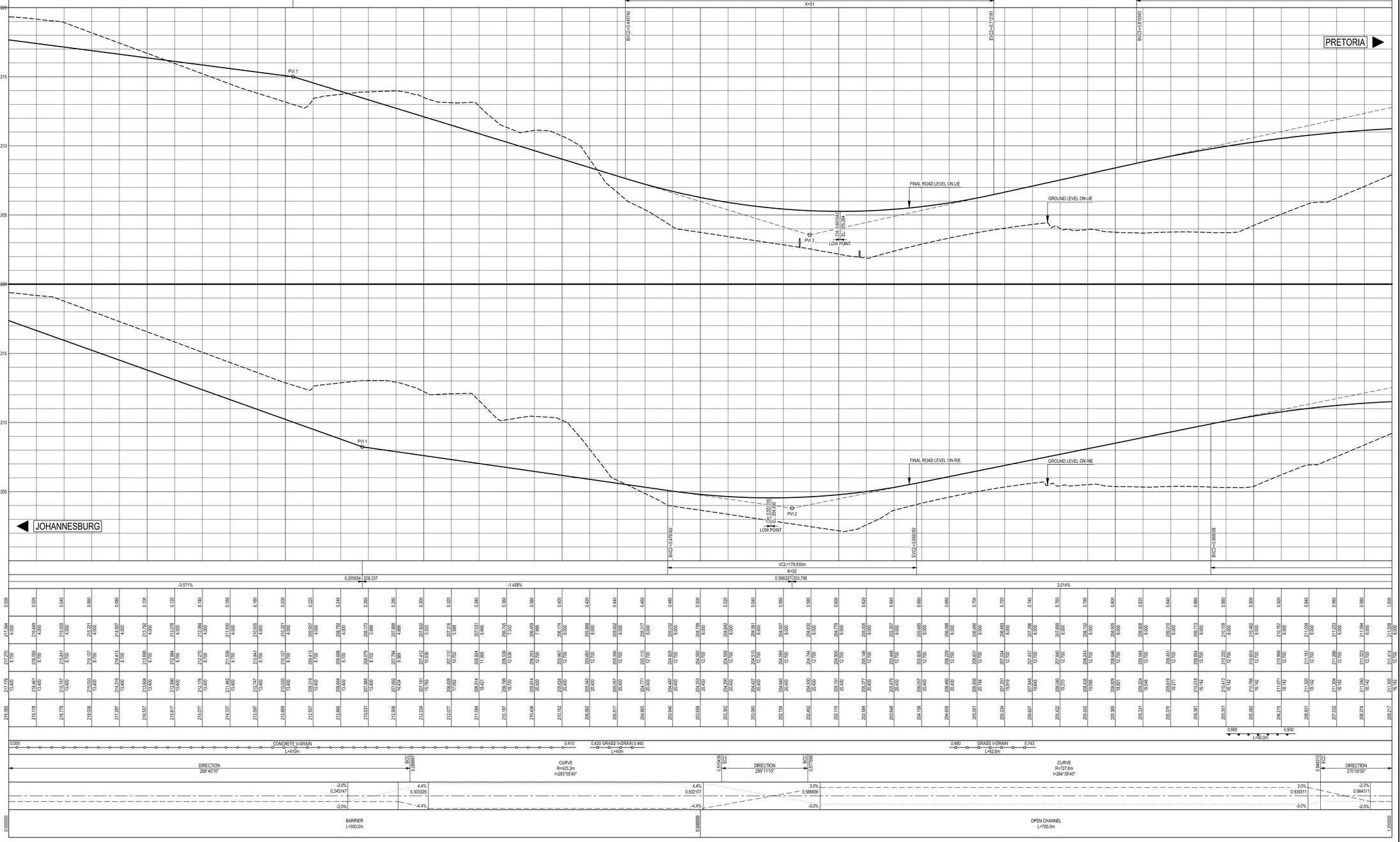
FLOW DIRECTION — INCREASING DISTANCE — FLOW DIRECTION

2 X Ø600 mm PIPE CULVERT ANGLE 270° CH: 0.571824 INV AT CL: 202.672

1 X H300 X W600 mm BOX CULVERT ANGLE 225° CH: 0.615102 INV AT CL: 202.035

LEFT CARRIAGEWAY

SIDE DRAINS LEFT	0.000 CONCRETE V-DRAIN L=60m 0.060 — 0.080 GRASS V-DRAIN L=80m 0.160 — 0.218 CONCRETE V-DRAIN L=185m 0.403 — 0.410 GRASS V-DRAIN L=30m 0.440 — 0.620 K&C L=520.0m 1.140
GUARDRAILS LEFT	0.620 L=520.0m 1.140
GROUND LEVELS ON LIE	219.335 / 219.166 / 218.915 / 218.175 / 217.435 / 216.695 / 215.955 / 215.214 / 214.474 / 213.801 / 213.170 / 213.360 / 213.726 / 213.904 / 213.976 / 213.510 / 213.125 / 212.872 / 211.342 / 211.123 / 210.707 / 209.034 / 208.635 / 205.378 / 204.156 / 203.144 / 203.445 / 203.145 / 202.845 / 202.535 / 202.172 / 201.883 / 202.392 / 202.894 / 203.337 / 203.723 / 204.050 / 204.319 / 204.022 / 203.846 / 203.754 / 203.694 / 203.771 / 203.766 / 203.727 / 204.342 / 205.061 / 205.928 / 206.228 / 207.070 / 207.912
FINAL DESIGN ROAD LEVELS — LEFT OUTSIDE EDGE (LOE)	217.476 / 217.216 / 216.957 / 216.698 / 216.438 / 216.179 / 215.920 / 215.660 / 215.378 / 215.105 / 214.832 / 214.303 / 213.882 / 213.392 / 213.066 / 213.020 / 212.604 / 211.452 / 210.840 / 210.227 / 209.615 / 209.002 / 208.390 / 207.798 / 207.281 / 206.843 / 206.200 / 205.775 / 205.344 / 204.875 / 204.910 / 205.024 / 205.217 / 205.489 / 205.840 / 206.263 / 206.702 / 207.140 / 207.578 / 208.016 / 208.454 / 208.865 / 209.241 / 209.590 / 209.883 / 210.149 / 210.390 / 210.704 / 210.862 / 210.883
FINAL DESIGN ROAD LEVELS — LEFT CENTRE LINE (LCL)	217.570 / 217.310 / 217.051 / 216.792 / 216.532 / 216.273 / 216.014 / 215.755 / 215.495 / 215.236 / 214.977 / 214.460 / 213.848 / 213.312 / 213.803 / 213.466 / 213.088 / 212.451 / 211.087 / 210.474 / 209.862 / 209.250 / 208.637 / 208.025 / 206.816 / 206.478 / 206.065 / 205.883 / 205.399 / 205.194 / 204.904 / 205.124 / 205.159 / 205.273 / 205.466 / 205.728 / 205.988 / 206.249 / 206.512 / 206.951 / 207.202 / 207.388 / 207.827 / 208.265 / 208.703 / 209.114 / 209.490 / 209.829 / 210.132 / 210.398 / 210.632 / 210.833 / 211.002 / 211.140 / 211.248
FINAL DESIGN ROAD LEVELS — LEFT INSIDE EDGE (LIE)	217.664 / 217.404 / 217.145 / 216.886 / 216.626 / 216.367 / 216.108 / 215.848 / 215.589 / 215.330 / 215.071 / 214.554 / 213.942 / 213.330 / 212.717 / 212.105 / 211.492 / 210.880 / 210.268 / 209.655 / 209.043 / 208.430 / 207.818 / 207.205 / 206.592 / 206.316 / 205.781 / 205.512 / 205.032 / 204.632 / 204.420 / 205.308 / 205.265 / 205.303 / 205.414 / 205.607 / 205.879 / 206.230 / 206.663 / 207.092 / 207.530 / 207.968 / 208.406 / 208.844 / 209.255 / 209.651 / 210.019 / 210.413 / 210.786 / 211.071 / 211.305 / 211.494 / 211.639 / 211.740 / 211.805 / 211.829
DISTANCE (km)	0.000 / 0.020 / 0.040 / 0.060 / 0.080 / 0.100 / 0.120 / 0.140 / 0.160 / 0.180 / 0.200 / 0.220 / 0.240 / 0.260 / 0.280 / 0.300 / 0.320 / 0.340 / 0.360 / 0.380 / 0.400 / 0.420 / 0.440 / 0.460 / 0.480 / 0.500 / 0.520 / 0.540 / 0.560 / 0.580 / 0.600 / 0.620 / 0.640 / 0.660 / 0.680 / 0.700 / 0.720 / 0.740 / 0.760 / 0.780 / 0.800 / 0.820 / 0.840 / 0.860 / 0.880 / 0.900 / 0.920 / 0.940 / 0.960 / 0.980 / 1.000
VERTICAL PROFILE AND GRADES AT LIE	0.205449 215.000 — 0.578960 203.563 — -1.297% — -3.062% — 2.191%



LEGEND

- NGL (NATURAL GROUND LEVEL)
- FRL (FINAL ROAD LEVEL)
- CONCRETE LINED V-DRAIN
- GRASS LINED V-DRAIN
- K&C (KERB AND CHANNEL)
- GUARDRAIL

SCALES:
Horizontal 1:1000
Vertical 1:100

DATUM 200.000

LOE LCL LIE | RIE RCL ROE ℄

SUPERELEVATION PIVOT POINT — SUPERELEVATION PIVOT POINT

SCALES:
Horizontal 1:1000
Vertical 1:100

DATUM 200.000

RIGHT CARRIAGEWAY

VERTICAL PROFILE AND GRADES AT RIE	0.255554 208.237 — 0.566327 203.798 — -3.571% — +1.428% — 2.014%
DISTANCE (km)	0.000 / 0.020 / 0.040 / 0.060 / 0.080 / 0.100 / 0.120 / 0.140 / 0.160 / 0.180 / 0.200 / 0.220 / 0.240 / 0.260 / 0.280 / 0.300 / 0.320 / 0.340 / 0.360 / 0.380 / 0.400 / 0.420 / 0.440 / 0.460 / 0.480 / 0.500 / 0.520 / 0.540 / 0.560 / 0.580 / 0.600 / 0.620 / 0.640 / 0.660 / 0.680 / 0.700 / 0.720 / 0.740 / 0.760 / 0.780 / 0.800 / 0.820 / 0.840 / 0.860 / 0.880 / 0.900 / 0.920 / 0.940 / 0.960 / 0.980 / 1.000
FINAL DESIGN ROAD LEVELS — RIGHT INSIDE EDGE (RIE)	217.364 / 216.649 / 215.935 / 215.221 / 214.507 / 213.792 / 213.078 / 212.364 / 211.650 / 210.935 / 210.221 / 209.507 / 208.792 / 208.173 / 207.888 / 207.602 / 207.316 / 207.031 / 206.745 / 206.145 / 206.459 / 206.174 / 205.888 / 205.602 / 205.317 / 205.032 / 204.799 / 204.567 / 204.642 / 204.561 / 204.557 / 204.630 / 204.779 / 205.005 / 205.307 / 205.685 / 206.088 / 206.490 / 206.893 / 207.296 / 207.699 / 208.102 / 208.505 / 208.908 / 209.310 / 209.713 / 210.109 / 210.482 / 210.832 / 211.024 / 211.233 / 211.394 / 211.508
FINAL DESIGN ROAD LEVELS — RIGHT CENTRE LINE (RCL)	217.270 / 216.555 / 215.841 / 215.127 / 214.413 / 213.699 / 212.984 / 212.270 / 211.556 / 210.841 / 210.127 / 209.413 / 208.688 / 208.079 / 207.794 / 207.508 / 207.223 / 206.938 / 206.653 / 206.253 / 205.967 / 205.681 / 205.395 / 205.110 / 204.825 / 204.592 / 204.359 / 204.429 / 204.413 / 204.589 / 204.744 / 204.920 / 205.146 / 205.448 / 205.826 / 206.229 / 206.631 / 207.034 / 207.437 / 207.840 / 208.243 / 208.646 / 209.049 / 209.451 / 209.854 / 210.250 / 210.603 / 210.908 / 211.161 / 211.366 / 211.523 / 211.633 / 211.694 / 211.708
FINAL DESIGN ROAD LEVELS — RIGHT OUTSIDE EDGE (ROE)	217.176 / 216.461 / 215.747 / 215.033 / 214.319 / 213.604 / 212.890 / 212.176 / 211.462 / 210.747 / 210.033 / 209.319 / 208.604 / 207.995 / 207.692 / 207.388 / 207.085 / 206.781 / 206.478 / 206.174 / 205.871 / 205.567 / 205.263 / 204.960 / 204.657 / 204.440 / 204.222 / 204.003 / 204.650 / 204.779 / 205.151 / 205.377 / 205.679 / 206.057 / 206.460 / 206.868 / 207.271 / 207.645 / 208.040 / 208.435 / 208.829 / 209.224 / 209.619 / 210.018 / 210.413 / 210.786 / 211.071 / 211.320 / 211.504 / 211.640 / 211.730 / 211.774 / 211.785
GROUND LEVELS ON RIE	219.385 / 219.178 / 218.778 / 218.038 / 217.297 / 216.557 / 215.817 / 215.077 / 214.337 / 213.597 / 212.859 / 212.557 / 212.866 / 213.011 / 212.908 / 212.234 / 212.077 / 211.584 / 210.197 / 210.436 / 210.152 / 209.062 / 205.817 / 204.865 / 203.946 / 203.658 / 203.392 / 203.090 / 202.759 / 202.462 / 202.170 / 202.589 / 203.648 / 204.158 / 204.609 / 205.091 / 205.334 / 205.607 / 205.422 / 205.505 / 205.389 / 205.331 / 205.375 / 205.361 / 205.911 / 205.882 / 206.215 / 206.931 / 207.632 / 208.374 / 209.217
GUARDRAILS RIGHT	0.880 0.930 L=50.0m
SIDE DRAINS RIGHT	0.000 CONCRETE V-DRAIN L=410m 0.410 — 0.420 GRASS V-DRAIN 0.460 L=40m — 0.680 GRASS V-DRAIN L=62.6m 0.743
HORIZONTAL ALIGNMENT	DIRECTION 268°40'10" — BCC 0.289997 — CURVE R=423.2m I=283°55'40" — ECC 0.515439 — DIRECTION 299°11'10" — BCC 0.577656 — CURVE R=727.6m I=284°35'40" — ECC 0.845310 — DIRECTION 270°00'00"
SUPERELEVATION (LEFT ····· / RIGHT — —)	-2.0% 0.245147 -2.0% — 4.4% 0.303329 -4.4% — 4.4% 0.502107 -4.4% — 3.0% 0.586656 -3.0% — 3.0% 0.939311 -3.0% — -2.0% 0.984311 -2.0%
MEDIAN TYPE	0.000000 BARRIER L=500.0m 0.500000 — OPEN CHANNEL L=700.0m 1.200000