

CROSS DRAINAGE DETAILS (WGS)															SURFACE / SUB SURFACE DRAINAGE DETAILS					GUARDRAIL / BARRIER DETAILS					RETAINING WALL DETAILS					SIDE WALK DETAILS														
S.K.D.	Type	Size (dia)	Class	Bedding Class	Length	Skew	Conc. Chutes	Reference Dwg	Side Inlet	Co-ordinates Y	Co-ordinates X	Grid Inlets	Co-ordinates Y	Co-ordinates X	Head Wall	Co-ordinates Y	Co-ordinates X	LHS / RHS	Grade (%)	Area (ha)	Discharge (m³/s)	Vel (m/s)	Remarks	Legend	Type	LHS/RHS	Start Km	End Km	Length	Reference	Legend	Type	LHS/RHS	Start Km	End Km	Length	Reference	Legend	Type	LHS/RHS	Start Km	End Km	Length	Reference
0.019,64	PC	900	100D	C	18.38	286	-	SD 0401	2	-	-	-	-	-	-	-	-	R-LHS	3.33	1.2	0.255	3.30	-	1000 V	RHS	0.000	0.130	130m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.024,19	C	-	-	-	-	-	-	SD 0602/B	-	-	-	2	-	-	-	-	-	RHS	-	-	-	-	-	1000 V	RHS	0.160	0.220	60m	-	-----	LOFFELSTEIN	RHS	0.730	0.780	50m	CUT	SD 0901	-----	LHS	0.175	0.300	140m	SD 0203/1	
0.050	C	-	-	-	-	-	-	SD 0703/A	1	-	-	-	-	-	-	-	-	LHS	-	-	-	-	-	1000 V	RHS	0.220	0.284	64m	-	-----	LOFFELSTEIN	RHS	0.730	0.780	50m	CUT	SD 0901	-----	RHS	0.000	7.517	7733m	SD 0203/1	
0.087,48	PC	900	100D	C	14.45	296	-	SD 0401	2	-	-	-	-	-	-	-	-	R-LHS	5.00	1.2	0.295	4.00	-	1000 V	RHS	0.285	0.330	45m	-	-----	LOFFELSTEIN	RHS	0.730	0.780	50m	CUT	SD 0901	-----	LHS	0.000	0.175	0.300	140m	SD 0203/1
0.091,23	-	-	-	-	-	-	-	SD 0602/B	-	-	-	2	-	-	-	-	-	RHS	-	-	-	-	-	1000 V	RHS	0.335	0.470	135m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.129,58	PC	900	100D	C	21.77	332	-	SD 0401	2	-	-	-	-	-	-	-	-	R-LHS	5.00	1.2	0.300	4.00	-	1000 V	LHS	0.440	0.540	100m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.160	C	-	-	-	-	-	-	SD 0602/B	-	-	-	2	-	-	-	-	-	RHS	-	-	-	-	-	1000 V	RHS	0.470	0.554	84m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.160	C	-	-	-	-	-	-	SD 0703/A	1	-	-	-	-	-	-	-	-	LHS	-	-	-	-	-	1000 V	RHS	0.540	0.620	80m	-	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.200	PC	900	100D	C	13.51	310	-	SD 0401	2	-	-	-	-	-	-	-	-	R-LHS	1.67	1.2	0.305	2.70	-	1000 V	RHS	0.555	0.640	85m	-	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.220	C	-	-	-	-	-	-	SD 0602/B	-	-	-	2	-	-	-	-	-	RHS	-	-	-	-	-	1000 V	LHS	0.620	0.760	140m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.250	C	-	-	-	-	-	-	SD 0703/A	1	-	-	-	-	-	-	-	-	LHS	-	-	-	-	-	1000 V	RHS	0.640	0.730	90m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.281,54	PC	900	100D	C	11.13	292	-	SD 0401	2	-	-	-	-	-	-	-	-	R-LHS	2.86	1.6	0.280	3.20	-	1000 V	RHS	0.730	0.760	30m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.284,41	C	-	-	-	-	-	-	SD 0602/B	-	-	-	2	-	-	-	-	-	RHS	-	-	-	-	-	1000 V	RHS	0.730	0.760	30m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.330	C	-	-	-	-	-	-	SD 0703/A	1	-	-	-	-	-	-	-	-	LHS	-	-	-	-	-	1000 V	RHS	0.730	0.760	30m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.332,32	C	-	-	-	-	-	-	SD 0703/A	1	-	-	-	-	-	-	-	-	LHS	-	-	-	-	-	1000 V	RHS	0.640	0.730	90m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.334,82	C	-	-	-	-	-	1	SD 0604/A	-	-	-	-	-	-	-	-	-	RHS	-	-	-	-	-	1000 V	RHS	0.730	0.760	30m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.381	C	-	-	-	-	-	-	SD 0703/A	1	-	-	-	-	-	-	-	-	LHS	-	-	-	-	-	1000 V	RHS	0.730	0.760	30m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.444,56	PC	600	100D	C	17.40	304	-	SD 0401	1	-	-	1	-	-	-	-	-	R-LHS	6.67	1.6	0.150	3.80	-	1000 V	RHS	0.730	0.760	30m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.450	C	-	-	-	-	-	-	SD 0603/A	-	-	-	-	-	-	-	-	-	LHS	-	-	-	-	-	1000 V	RHS	0.730	0.760	30m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.470	C	-	-	-	-	-	-	SD 0602/B	-	-	-	1	-	-	-	-	-	RHS	-	-	-	-	-	1000 V	RHS	0.730	0.760	30m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.520	C	-	-	-	-	-	-	SD 0603/A	-	-	-	-	-	-	-	-	-	RHS	-	-	-	-	-	1000 V	RHS	0.730	0.760	30m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.540	C	-	-	-	-	-	-	SD 0603/A	-	-	-	-	-	-	-	-	-	LHS	-	-	-	-	-	1000 V	RHS	0.730	0.760	30m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.554,03	C	-	-	-	-	-	1	SD 0604/A	-	-	-	-	-	-	-	-	-	RHS	-	-	-	-	-	1000 V	RHS	0.730	0.760	30m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.600	C	-	-	-	-	-	-	SD 0603/A	-	-	-	-	-	-	-	-	-	RHS	-	-	-	-	-	1000 V	RHS	0.730	0.760	30m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.620	C	-	-	-	-	-	1	SD 0604/A	-	-	-	-	-	-	-	-	-	LHS	-	-	-	-	-	1000 V	RHS	0.730	0.760	30m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.695,64	C	-	-	-	-	-	-	SD 0703/A	1	-	-	-	-	-	-	-	-	LHS	-	-	-	-	-	1000 V	RHS	0.730	0.760	30m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	
0.731,17	C	-	-	-	-	-	1	SD 0604/A	-	-	-	-	-	-	-	-	-	RHS	-	-	-	-	-	1000 V	RHS	0.730	0.760	30m	SD 0601	-----	LOFFELSTEIN	RHS	0.400	0.500	100m	CUT	SD 0901	-----	LHS	0.000	0.165	180m	SD 0203/1	

KERB AND CHANNEL DETAILS						
Legend	Type	LHS/RHS	Start Km	End Km	Length	Reference
---	500 K & C	LHS	0,000	0,130	130 m	SD 0701
---	500 K & C	RHS	0,000	0,760	760 m	SD 0701

P402 - DESIGN SPEED 80km/h
P402 - SIGN POSTED SPEED 60km/h

CURVE NO. 1 LEFT
R = 365m
Δ = 65°27'02"
TL = 234.553m
CL = 416.949m
BC = km 0 + 306
EC = km 0 + 723

MAIN ROAD 402 CENTRELINE CO-ORDINATES (LO 31 - WGS 84)			
POINT	Y	X	
START	88 412.781	3 287 435.851	
PI 1	88 114.797	3 286 984.596	
BC 1	88 244.046	3 287 180.325	
EC 1	88 239.133	3 286 785.709	
PI 2	88 330.442	3 286 639.653	
BC 2	88 301.544	3 286 685.876	
EC 2	88 370.654	3 286 602.847	

TAXI / BUS PARKING BAY CO-ORDINATES				
BAY No.	LHS/RHS	POINT	Y	X
B1	LHS	1	88303.839	3287262.617
		2	88298.157	3287247.283
		3	88290.267	3287235.325
		4	88278.222	3287223.824
B2	RHS	1	88328.118	3287315.898
		2	88316.269	3287304.655
		3	88308.379	3287292.696
		4	88302.605	3287277.262

NOTE
FOR ACCESS CROSSINGS REFER TO SD C43751

- GENERAL NOTES**
- ALL LEVELS, DIMENSIONS AND SETTING OUT DETAILS ARE TO BE VERIFIED BY CONSULTANT AND CONTRACTOR ON SITE PRIOR TO CONSTRUCTION.
 - ALL EXISTING DRAINAGE CULVERTS ARE TO BE INSPECTED, AND ANY FOUND IN UNSERVICEABLE CONDITION ARE TO BE REPLACED UNLESS SHOWN OTHERWISE.
 - CULVERT DESIGN ON DRAWING.
 - ADJUSTMENT ON SITE MUST ADHERE TO MIN COVER = 600mm, MIN SLOPE = 2%.
 - PIPE CULVERTS ARE TO BE LAID IN ACCORDANCE WITH SD 0401 WITH HEADWALLS AS PER SD 0406.
 - MIN. DIA. = 450mm FOR MINOR ACCESS ROADS AND ACCESS BELLMOUTHS, AND MIN. DIA. = 600mm FOR MAJOR ROAD CROSS DRAINAGE.
 - FOR EROSION CONTROL GABION MATTRESSES ARE RECOMMENDED AT CULVERT INLETS AND OUTLE