KEY PLAN WITH ROAD SHOWING CULVERT POSITIONS

KEY PLAN

DRAINAGE SCHEDULE

DESCRIPTION	ITEM NUMBER								
	ROAD KILOMETRE DISTANCE							<u> </u>	
	TYPE OF CULVERT							<u> </u>	
	SPAN/DIA (mm)							<u> </u>	
	HEIGHT (mm)								
I	PIPE & BEDDING CLASS								
CULVERT	SKEW ANGLE ° (Deg)								
l no	WING WALL REFERENCE (IF APPLICABLE)								
	CATCHMENT AREA CA (ha)								
	TIME OF CONCENTRATION Tc (minutes)								
 C/	RAINFALL INTENSITY I (mm/h)								
.0G	CATCHMENT DISCHARGE AT INLET (m3/s)								
HYDROLOGICAL DATA	WATER HEAD WH (m)								
	DESIGN HIGH FLOOD LEVEL DHFL (m)								
	. (,								
	FLOW VELOCITY V (m/s)								
	ROAD LEVEL - LEFT SHOULDER RL (m)								
ROAD DATA	ROAD LEVEL - ROAD C/L (MEDIAN) RM (m)							<u> </u>	
R0 PA								<u> </u>	
	ROAD FORMATION WIDTH F (m)							<u> </u>	
	FLOOR SLOPE S (%)								
	INVERT LEVEL - LEFT IL (m)								
CULVERT	INVERT LEVEL - ROAD C/L (MEDIAN)IM (m)								
	INVERT LEVEL - RIGHT IR (m)								
	FILL HEIGHT - LEFT HL (m)								
	FILL HEIGHT - ROAD C/L (MEDIAN)HM (m)								
	FILL HEIGHT - RIGHT HR (m)								
	LENGTH - LEFT TO ROAD C/L (MEDIANL) (m)								
	TOTAL LENGTH - INLET TO OUTLET L (m)								
	NUMBER OF UNITS NUMBER								
1			 		 	 	 		

KEY TO CULVERT TYPES

PC - PIPE CULVERT (UNIT LENGTHS 2,44m)
BC - BOX CULVERT (UNIT LENGTHS 1,22m)

IBC - IN-SITU BOX CULVERT

APC - ARMCO PIPE CULVERT

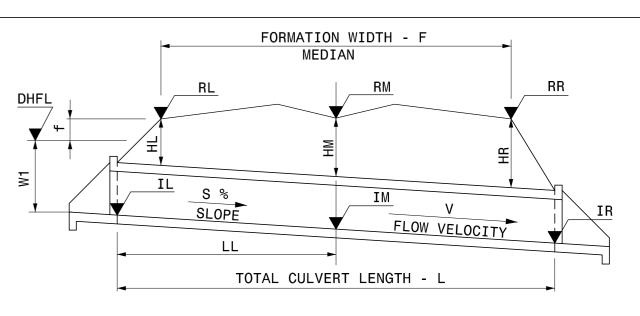
MH - MANHOLE SI - SIDE INLET

SCI - SPECIAL CULVERT INLET

FA - FARM ACCESS

SDW - SIDE DRAIN WING WALL

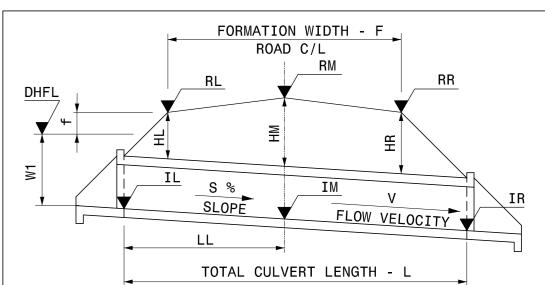
DI - DROP INLET



TYPICAL LONGITUDINAL SECTION OF CULVERT UNDER DOUBLE CARRIAGEWAY ROAD

SCALE: SCHEMATIC

(SHOW APPROPRIATE ROAD CROSS SECTION OF SINGLE / DOUBLE CARRIAGEWAY ON SCHEDULE)



TYPICAL LONGITUDINAL SECTION OF CULVERT UNDER SINGLE CARRIAGEWAY ROAD

SCALE: SCHEMATIC

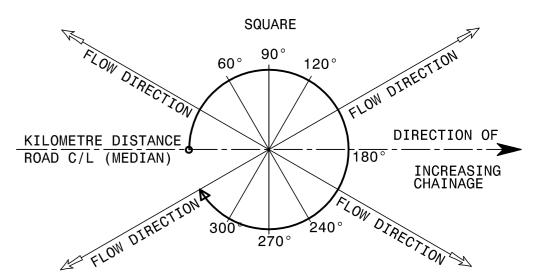


DIAGRAM SHOWING SLOPE & SKEW-ANGLE CONVENTION

V1		ORIGINAL VERSION	
No	DATE	REVISION	APPROVED

SANRAL TYPICAL DRAWINGS

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TYPICAL DRAWINGS - DRAINAGE

KEY PLAN AND DRAINAGE SCHEDULE NEW ROADS

SANRAL DOC. No. (PDF)
180759
SANRAL DOC. No. (DWG)
180760
SANRAL DRAWING No.
TD-D-DS-001-V1

KEY PLAN WITH ROAD SHOWING CULVERT POSITIONS

KEY PLAN

KEY TO CULVERT TYPES

PC - PIPE CULVERT (UNIT LENGTHS 2,44m)
BC - BOX CULVERT (UNIT LENGTHS 1,22m)

IBC - IN-SITU BOX CULVERT

APC - ARMCO PIPE CULVERT
MH - MANHOLE

SI - SIDE INLET SCI - SPECIAL CULVERT INLET

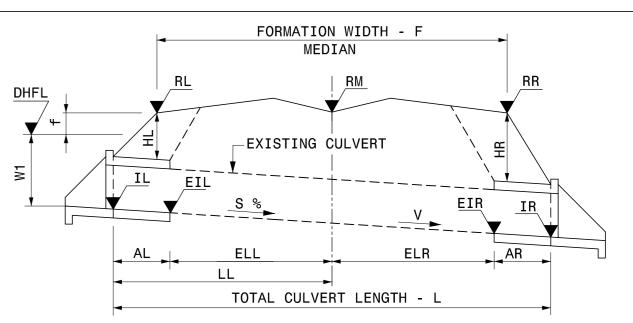
FA - FARM ACCESS

SDW - SIDE DRAIN WING WALL

DI - DROP INLET

NOTE :

- 1. DETAIL OF LONGITUDINAL SECTIONS OF CULVERTS TO BE EXTENDED, SHOWN ON SEPARATE DRAWINGS.
- 1. CULVERT EXTENSIONS ON LEFT AND RIGHT HAND SIDE REQUIRED ONLY IF DIMENSIONS AL AND AR IN SCHEDULE /= 0



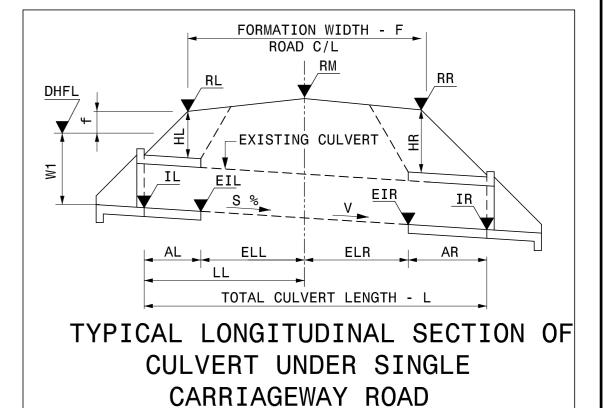
TYPICAL LONGITUDINAL SECTION OF CULVERT UNDER DOUBLE CARRIAGEWAY ROAD

SCALE: SCHEMATIC

(SHOW APPROPRIATE ROAD CROSS SECTION OF SINGLE / DOUBLE CARRIAGEWAY ON SCHEDULE)

DRAINAGE SCHEDULE

	TTEM NUMBER	 					
	ITEM NUMBER						
DESCRIPTION	ROAD KILOMETRE DISTANCE						
	TYPE OF CULVERT						
	SPAN/DIA (mm)						
1	HEIGHT (mm)						
RT.	PIPE & BEDDING CLASS						
CULVERT	SKEW ANGLE ° (Deg)						
1 75	WING WALL REFERENCE (IF APPLICABLE)						
	CATCHMENT AREA CA (ha)						
بـ ا	TIME OF CONCENTRATION Tc (minutes)						
\S	RAINFALL INTENSITY I (mm/h)						
	CATCHMENT DISCHARGE AT INLET (m3/s)						
HYDROLOGICAL DATA	WATER HEAD WH (m)						
Ä	DESIGN HIGH FLOOD LEVEL DHFL (m)						
1 =	FREE BOARD f (m)						
	FLOW VELOCITY V (m/s)						
ROAD DATA	ROAD LEVEL - LEFT SHOULDER RL (m)						
	ROAD LEVEL - RIGHT SHOULDER RR (m)						
	ROAD FORMATION WIDTH F (m)						
	FLOOR SLOPE S (%)						
	INVERT LEVEL - LEFT IL (m)						
	INVERT LEVEL - RIGHT IR (m)						
	EXISTING INVERT LEVEL LEFT EIL (m)						
	EXISTING INVERT LEVEL RIGHT RIL (m)						
1.	FILL HEIGHT - LEFT HI (m)						
VERT	FILL HEIGHT - RIGHT HR (m)						
	LENGTH-LEFT TO ROAD C/L(MEDIAN) LL (m)						
CUL	TOTAL LENGTH - INLET TO OUTLET L (m)						
	EXISTING LENGTH LEFT ELL (m)						
	EXISTING LENGTH RIGHT RLL (m)						
	ADDITION LEFT AL (m)						
	NUMBER OF UNITS (LEFT) NUMBER						
	ADDITION RIGHT AR (m)						
	NUMBER OF UNITS (RIGHT) NUMBER						



SCALE: SCHEMATIC

SQUARE

FLOW DIRECTION

60° 90° 120°

FLOW DIRECTION

DIRECTION

INCREASING CHAINAGE

FLOW DIRECTION

INCREASING CHAINAGE

DIAGRAM SHOWING SLOPE & SKEW-ANGLE CONVENTION

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V1		ORIGINAL VERSION		
No.	DATE	REVISION	APPROVED	

SANRAL TYPICAL DRAWINGS

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TYPICAL DRAWINGS - DRAINAGE

KEY PLAN AND DRAINAGE SCHEDULE REHABILITATION - UPGRADING ROADS

SANRAL DOC. No. (PDF)

180761

SANRAL DOC. No. (DWG)

180762

SANRAL DRAWING No.

TD-D-DS-002-V1