

**NOTES**

**ZONE 1**

SOIL TO BE USED MAY INCLUDE FREE-DRAINING COARSE SAND, GRAVEL, LOAM AND SOIL OF A FRIABLE NATURE. PARTICULAR SIZE NOT TO EXCEED 20mm. BACKFILL IN LAYERS NOT EXCEEDING 300mm UPTO FINISHED GROUND LEVEL, EACH LAYER BEING WELL COMPACTED TO LIMIT VOIDS. MECHANICAL COMPACTION EQUIPMENT MAY BE USED IF APPROVED BY ENGINEER.

**ZONE 2**

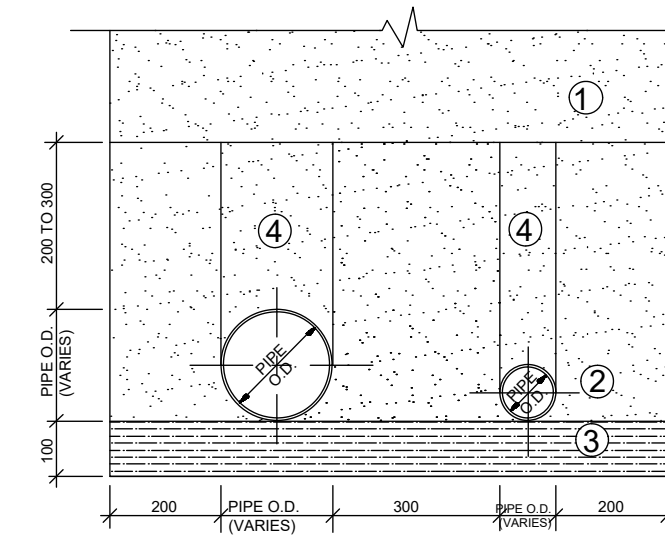
BACKFILL WITH SOIL APPROVED BY THE ENGINEER, IN LAYERS NOT EXCEEDING 200mm. THOROUGHLY COMPACT SOIL, TAMPING EQUALLY ON EITHER SIDE AND ALONG LOWER EDGE OF PIPE. ONLY HAND TAMPING TO BE USED

**ZONE 3**

IF ROCK SHARP PROJECTIONS, TREE ROOTS OR OTHER UNSUITABLE MATERIAL IS ENCOUNTERED AT TRENCH INVERT LEVEL, A FURTHER 100mm DEPTH OF MATERIAL IS TO BE EXCAVATED. BACKFILL WITH SOIL APPROVED BY THE ENGINEER UPTO TRENCH INVERT LEVEL. THOROUGHLY COMPACT SOIL BY HAND TO GIVE A UNIFORM GRADIENT ALONG PIPE TRENCH, LEAVING RECESSES FOR PIPE JOINTS.

**ZONE 4**

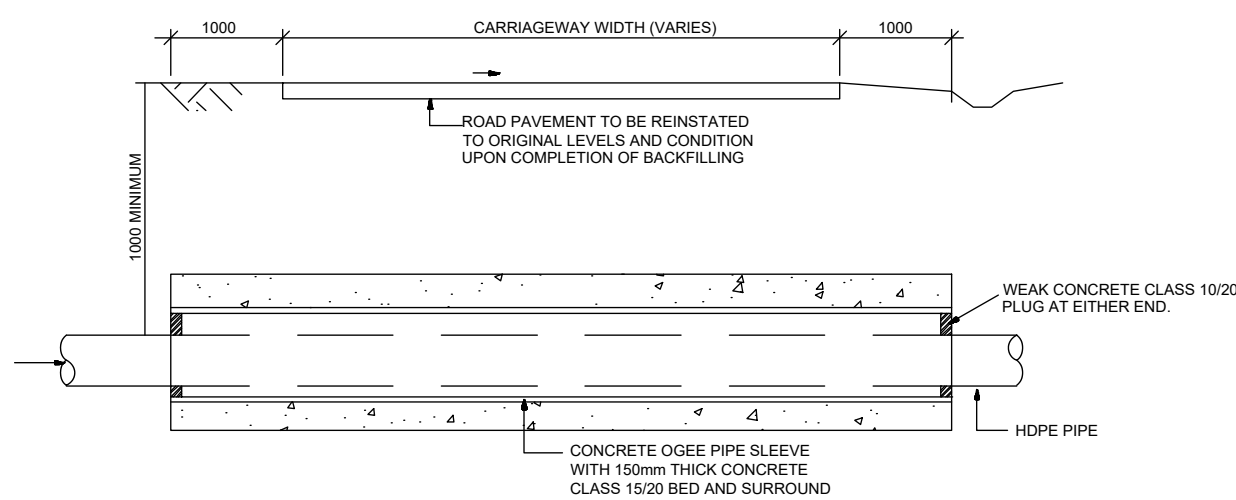
SIMILAR REQUIREMENTS TO ZONE 2 EXCEPT NO EXCESS TAMPING IS PERMITTED OVER PIPE.



**TWIN PIPES IN SINGLE TRENCH**  
SCALE 1:20

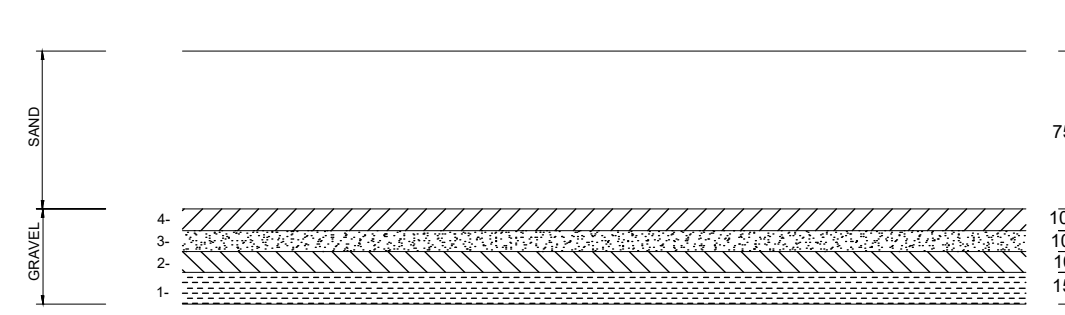
**TYPICAL TRENCH DETAIL FOR RETICULATION PIPES (HDPE OR C/L FERROUS PIPES)**

SCALE 1:100



**TYPICAL ROAD PIPE CROSSING DETAIL FOR HDPE PIPES**

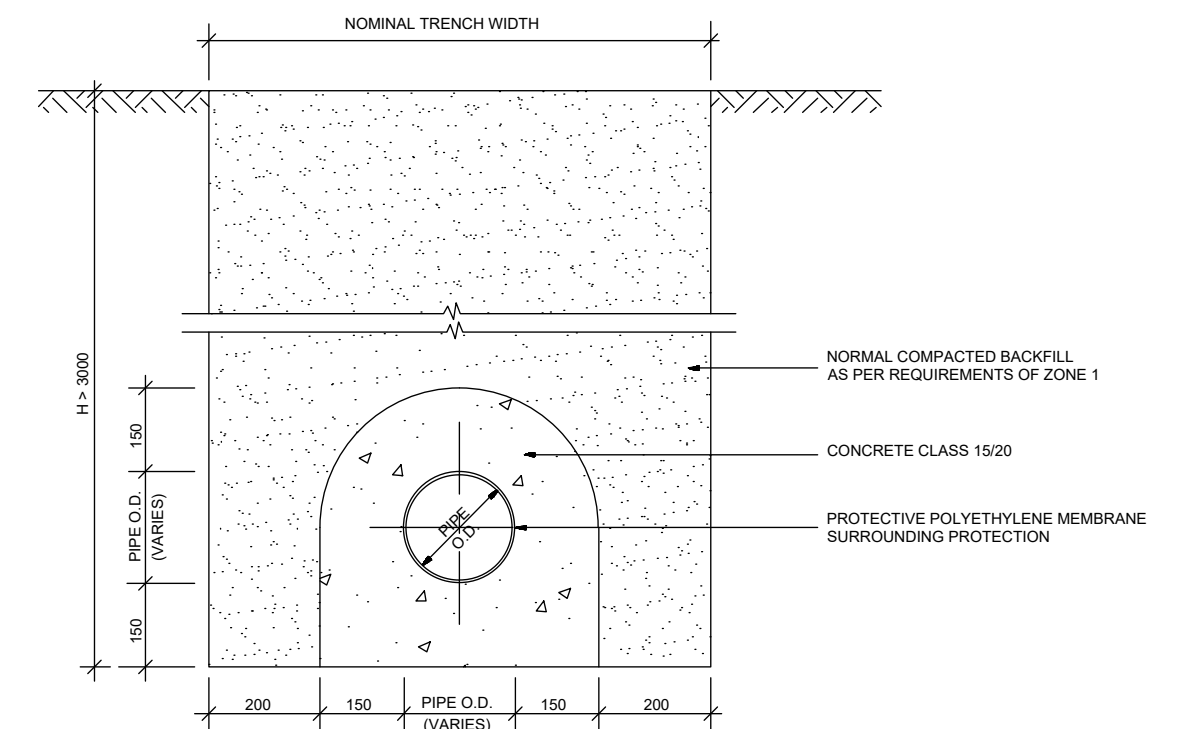
SCALE A1- 1: 100



LAYER	1	2	3	4
DEPTH (mm)	150	100	100	100
PASSING SQUARE MESH	38mm (1 1/2")	20mm (3/4")	12mm (1/2")	5mm (3/16")
RETAINED	20mm (3/4")	12mm (1/2")	5mm (3/16")	2mm (3/32")

TOP SAND LAYER 750mm EFFECTIVE SIZE 0.7mm UNIFORMITY COEFFICIENT 1.5

**DETAILS OF FILTER MEDIA IN RAPID SAND FILTERS**  
NTS



**CONCRETE PROTECTION TO uPVC PIPES LAID AT DEPTHS GREATER THAN 3.0m**  
SCALE 1: 20

**NOTES**

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED

**ABBREVIATIONS**

O.D. - Outside Diameter

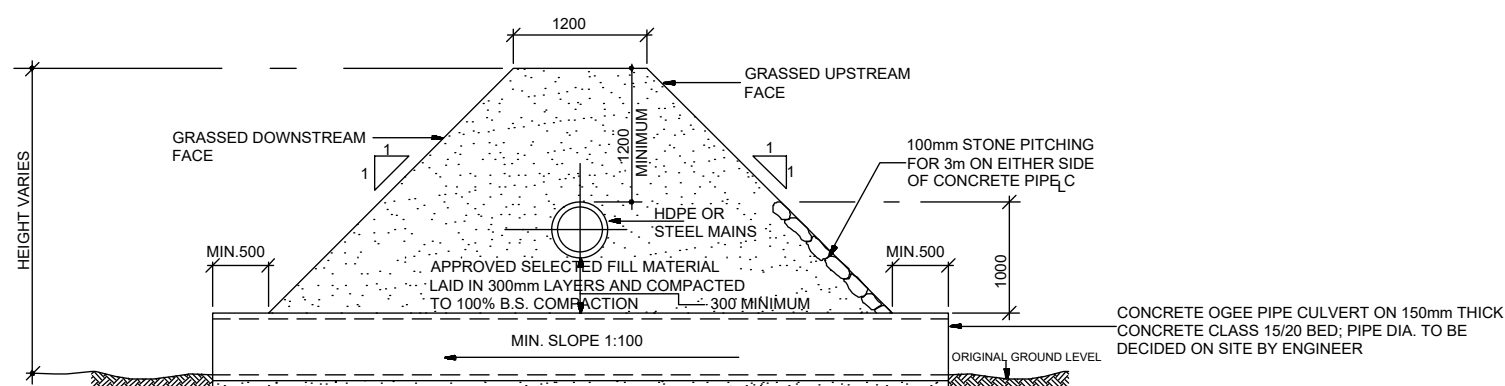
C or C/L - Centre line

mm - Milimeter

m - Meter

> - Greater Than

MIN - Minimum



**TYPICAL DETAIL OF PIPE CROSSING SEASONAL STREAM / DRAINAGE DITCH**

SCALE 1 : 100

REVISIONS			DESIGN DRAWING		PROJECT TITLE	PARTNERS
REV.No.	DATE	DESCRIPTION	DRAWN BY	DATE		
			PLC	AUGUST 2024	NYAMASARIA AQUA UPLIFT LIFTING COMMUNITIES OUT OF WATER & SANITATION STAGNATION	
			APPROVED BY NRWM/PDCE	SCALE(S) AS SHOWN		
			SHEET 1/2	DRAWING NO. WFL/SD/002		



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