

SECTION A-A

SECTION B-B

Do not scale from this drawing

- Legend**
- Water line @ 65.500m
 - Cut / fill line position
 - Existing ground profile
 - Earthworks profile
 - Datum line - level as stated

DIMENSIONAL SUMMARY

Overall depth	6.450m
Freeboard	0.750m
Water depth	5.700m
Capacity	92,896m ³ (20.43million gallons imp)
Crest width	4.00m
Dry slope	1:4
Wet slope	1:4
Reservoir area	22,895m ² (water level when full)
Reservoir area	38,629m ² (total footprint)
Embankment crest	26.650 AOD
Water level	25.900 AOD (overflow)
Base of reservoir	20.200m AOD
Lowest external ground level	18.625m AOD
Max height of embankment	8.025m (Crest to ground level)
Max height of embankment	7.275m (Water level to ground level)
Liner area - Base & wet slope	= 25,318m ²
Anchor trench length	= 668m

FOR COMMENT

Reservoir sited at National Grid Reference SE938153 (0.1km square)

CROSS SECTION THROUGH PROPOSED RESERVOIR 1:400

EARTHWORKS

All earthworks will be undertaken in accordance with The Department of Transport Manual of Contract Documents for Highways Works Volume 1 as per the table attached in appendix 1. Embankment fill shall be placed in layers not exceeding 250mm loose thickness. Compaction of all placed fill shall be by BW6 towed vibrating roller. This will be towed by a Komatsu Dozer. Exact plant to be confirmed prior to works commencement.

See appendix 1 of the specification for compaction table 6/4 from Highways specification.
Source of fill to form embankments to be the excavated arisings from the base. Coarser granular material to be used in outer slope with clay used in the inner "wet" slope. Volumetric design based on achieving a cut & fill balance.
Water tightness achieved by use of liner.

WATER MANAGEMENT

Reservoir to be filled by pumped pipeline from borehole. Pumphouse to be located at borehole (TBC)
Reservoir to be emptied by electric / diesel powered pumps (TBC)
Overflow pipe (300mm) at level 25.900 to discharge into existing ditch.
Gauge boards to be fitted to aid water management

GEOLOGY

Trial holes excavated on site confirm ground conditions of limestone / chalk ground.

BULK EARTHWORKS VOLUMES

Total cut (excavation) = 55,750m³
Total fill (embankments) = 55,750m³
(Includes strip & replace soil beneath crest footprint - 0.5m)

STORAGE CAPACITY SUMMARY

Required storage volume = 20,000,000 gallons = 90,922m³
New reservoir @ 750mm freeboard New volume = 92,896m³ As gallons = 20,434,263
Volume stored above lowest adjacent ground level (18.625m AOD) = 92,896m³ As gallons = 20,434,263

Outfall to existing reservoir. Bank protection to be reviewed on site

Inlet & outlet pipe sizes & materials TBC

MDPE overflow pipe through bank

Overflow to be 300mmø

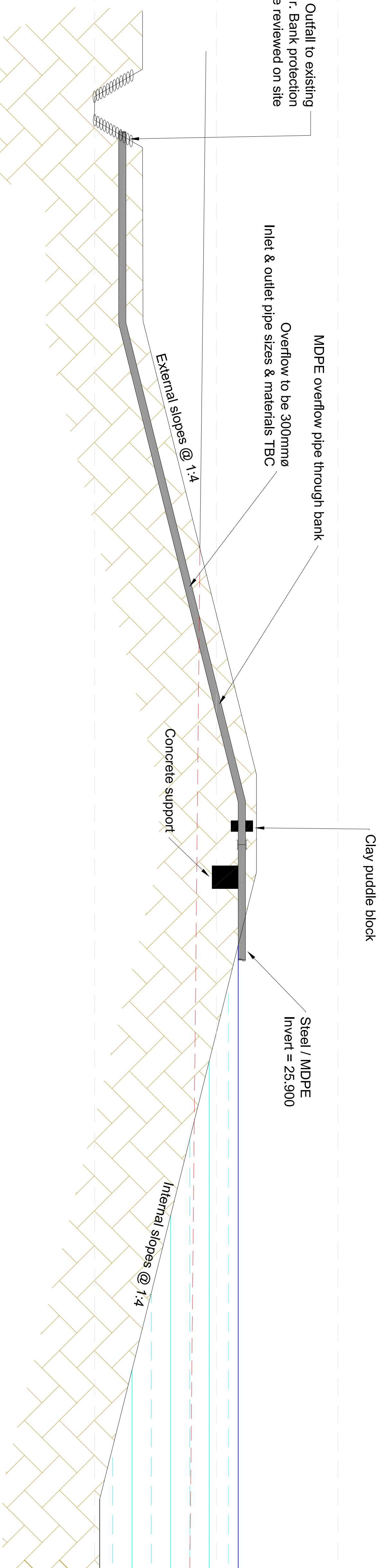
External slopes @ 1:4

Concrete support

Clay puddle block

Steel / MDPE Invert = 25.900

Internal slopes @ 1:4



SECTION THROUGH OVERFLOW 1:100

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Rev		Revision	Int	Date

FOR COMMENT

Reservoir sited at National Grid Reference SE938153 (0.1km square)

PLANT HIRE & CIVIL ENGINEERING
J.E. SPENCE & SON LTD.

Mill Hill Farm, Blandford
Sturminster Newton, Dorset DT99 8JG
Tel: 01258 848682

Project: **Low Risby Reservoir**

Drawing Title: **New reservoir Sections & details**

Scale	Varies - as stated	Sheet Size	A1
Drawn	N.Hewardine	Checked	Approved
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