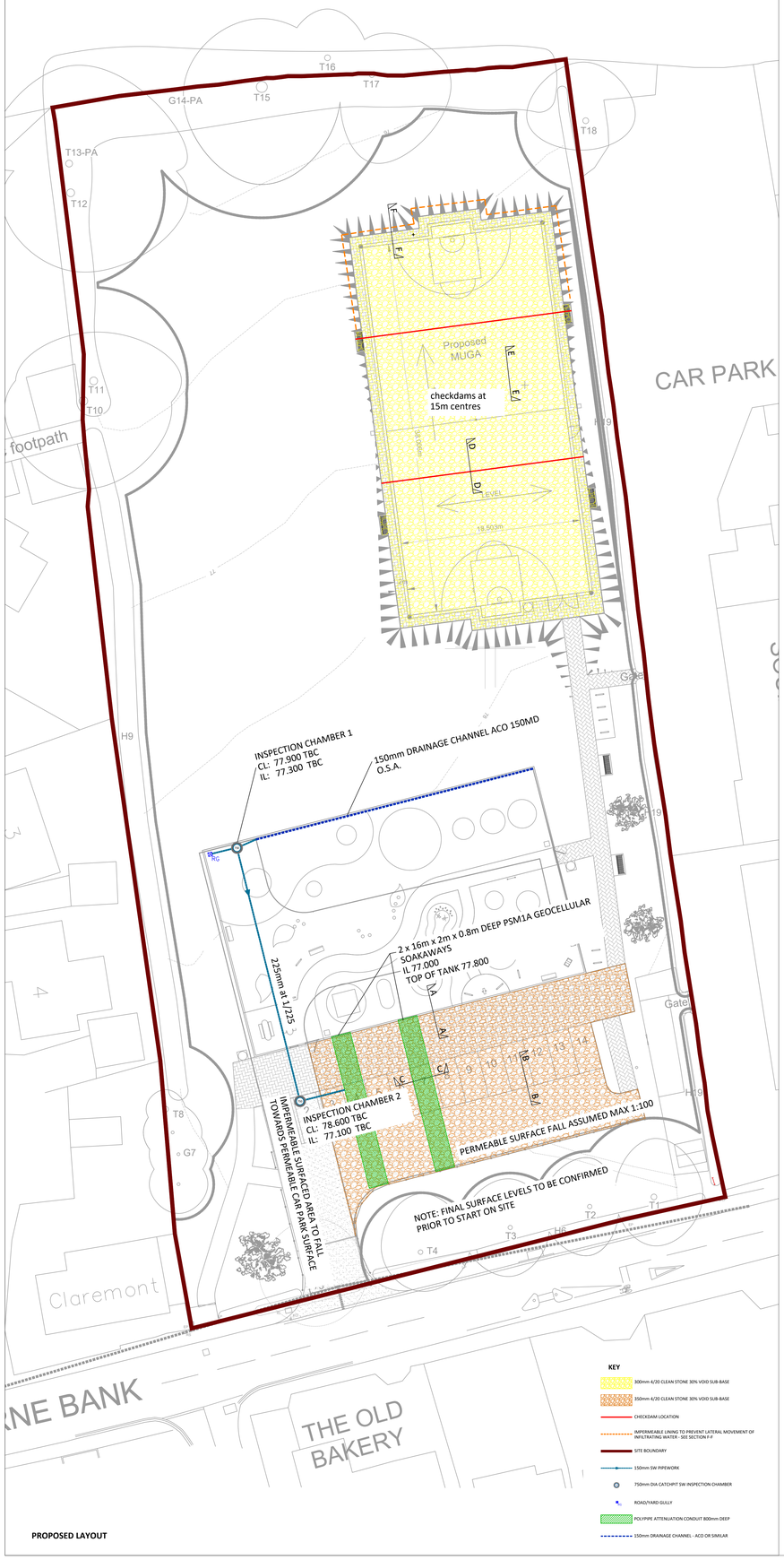


PROPOSED LAYOUT

Material Type	Blinding layer below Permavoid Material to BS EN 13242: 2002	Pervious Sub-base below Pervious Paving to BS EN 13242 and BS 7533 Pt 13 (also Type C filter material for filter drains and soakaway backfill in accordance with SHW Clause 505). Type 4/20
Properties	**Category to BS EN 13242**	**Category to BS EN 13242**
Grading	Grading 4/10, 4/20, 4/10, 10/20 or 2/14 (as specified for pipe bedding, haunching and surrounding material in Table 5/3 of the Specification for Highway Works) G_c 85 – 20, GT_{20}	Grading 4/20, Gc 85 – 15, GTc 20/17.5
Fines content	f_3	f_2
Shape	FI_{35}	FI_{35}
Resistance to fragmentation	LA_{50}	LA_{50}
Durability: — Water absorption to BS EN 1097-6:2000, Clause **7** — For WA ≥ 2 %, magnesium sulfate soundness	$WA_{24}2$ MS_{18}	$WA_{24}2$ MS_{18}
Resistance to wear	$M_{DE}20$	$M_{DE}20$
Acid-soluble sulfate content: — aggregates other than air-cooled blast-furnace slag — air-cooled blast-furnace slag	$AS_{0.2}$ $AS_{1.0}$	$AS_{0.2}$ $AS_{1.0}$
Total sulfur: — aggregates other than air-cooled blast-furnace slag — air-cooled blast-furnace slag	< / = 1 % by mass < / = 2 % by mass	< / = 1 % by mass < / = 2 % by mass
Volume stability of blast-furnace and steel slags: — air-cooled blast-furnace slag — steel slag	Free from dicalcium silicate and iron disintegration in accordance BS EN 13242:2002, **6.4.2.2** V_1	Free from dicalcium silicate and iron disintegration in accordance BS EN 13242:2002, **6.4.2.2** V_1
Leaching of contaminants	Blast furnace slag and other recycles materials should meet the requirements of the Environment Agency Waste Acceptance Criteria for inert waste when tested in accordance with BS EN 12457-3.	Blast furnace slag and other recycles materials should meet the requirements of the Environment Agency Waste Acceptance Criteria for inert waste when tested in accordance with BS EN 12457-3.

DIMENSION Y

CLASS	MACHINE DUG UNIFORM SOIL	ROCK OR MIXED SOILS
N,F,B & S	NOTE (i)	NOTE (ii)
A & Z	NOTE (ii)	NOTE (ii)

(i) Y=BC/6, WITH MIN 100 UNDER BARRELS (50 FOR SLEEVE JOINTED)
AND MIN 50 UNDER SOCKETS, WHICHEVER IS THE GREATER, WITH MAX OF 400.

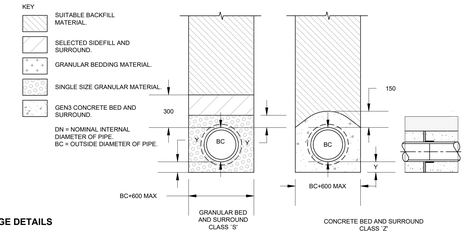
(ii) Y=BC/4, WITH MIN 200 UNDER BARRELS (150 FOR SLEEVE JOINTED) AND MIN 150 UNDER SOCKETS, WHICHEVER IS THE GREATER, WITH A MAX OF 400.

PIPE BEDDING CLASSIFICATIONS ARE DERIVED FROM T.R.R.L. DOCUMENT 'SIMPLIFIED TABLES OF EXTERNAL LOADS ON BURIED PIPELINES.'

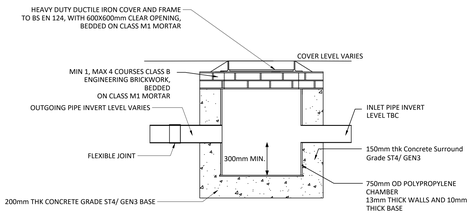
KEY

- SUITABLE BACKFILL MATERIAL.
- SELECTED SIDEFILL AND SURROUND.
- GRANULAR BEDDING MATERIAL.
- SINGLE SIZE GRANULAR MATERIAL.
- GEN3 CONCRETE BED AND SURROUND.

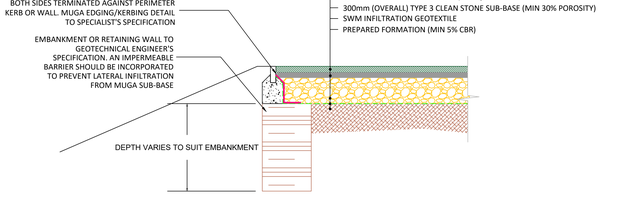
DN = NOMINAL INTERNAL DIAMETER OF PIPE.
BC = OUTSIDE DIAMETER OF PIPE.



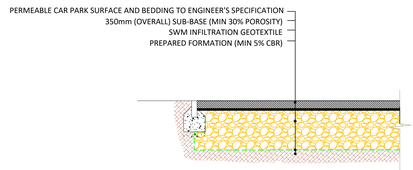
GENERAL DRAINAGE DETAILS



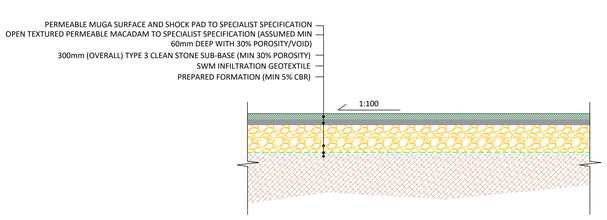
750Ø CATCHPIT INSPECTION CHAMBER



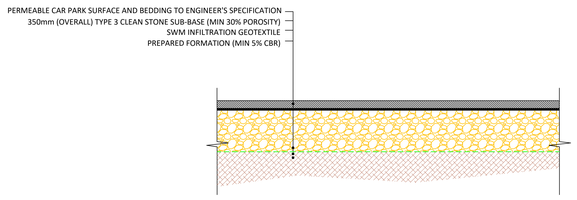
SECTION F-F - INDICATIVE SECTION THROUGH MUGA SHOWING IMPERMEABLE BARRIER (TO GEOTECHNICAL ENGINEER'S DETAILS)



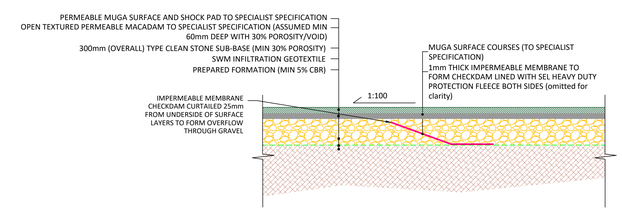
SECTION A-A - EDGE TERMINATION BETWEEN PLAYGROUND



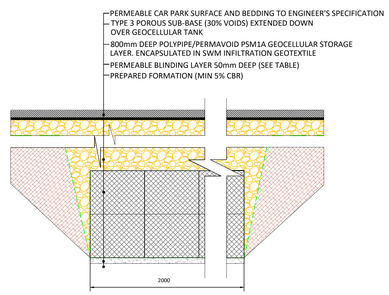
SECTION E-E - THROUGH SPORTS PITCH PERMEABLE SUB-BASE LAYER



SECTION B-B - TYPICAL SECTION PERMEABLE SUB-BASE LAYER - CAR PARK



SECTION D-D - THROUGH MUGA PERMEABLE SUB-BASE LAYER WITH IMPERMEABLE CHECKDAM AND OVERFLOW DETAIL



SECTION C-C THROUGH 800 DEEP ATTENUATION/INFILTRATION CONDUIT UNDER TRAFFICKED SURFACE (MIN 900mm COVER - POLYPIPE TO CONFIRM STRUCTURAL CALCULATIONS)

Notes.

1. Roadway and footpath surfacing design and construction to Engineer's Specification (by others).

2. Heavy duty geotextile fleece to be non-woven needle-punched polypropylene as per Specification. Geotextile to be laid with minimum 300mm overlaps. To be installed in accordance with the manufacturer's recommendations.

3. All dimensions are in millimetres unless otherwise stated.

4. Pre-cast concrete products shall comply with the relevant provisions of BS 5911 and be 'Kite Marked'.

5. All pipes and pipe fittings shall be HDPE twinwall and have current British Board of Agreement Certification.

6. Manhole covers and frames, grids and frames shall comply with the relevant provisions of BS EN 124.

7. Do not scale from this drawing. If in doubt ask.

8. This drawing to be read in conjunction with all relevant PEL, Architects & Engineers drawings.

9. Should there be any conflict between the details indicated on this drawing and those on other drawings the Engineer should be informed PRIOR to construction on site.

10. Until technical approval has been obtained from the relevant Authority, It should be understood that all drawings are PRELIMINARY and NOT FOR CONSTRUCTION.

11. At all times the works are to be executed in accordance with the requirements of the Health And Safety at Work Act 1974 and CDM Regulations 2015.

STATUS	REV	DATE	REVISION HISTORY	ORG	DRN	CHK	APP
S4	B	14.04.25	For comment	JR	JR	RG	RG
S3	A	07.02.25	For comment	JR	JR	RG	RG
S3		14.08.23	First issue	JR	JR	RG	RG

ALL REVISIONS

CLIENT

PBA PLANNING

KEY PLAN

ORIGINATOR

PLUVIAM ENVIRONMENTAL

DRAWING TITLE

COPTHORNE RECREATIONAL GROUND SURFACE WATER DRAINAGE PROPOSED LAYOUT AND DETAILS

	Name	Signature	Date
Designed by	JR		14/08/2023
Drawn by	JR		14/08/2023
Checked	RG		14/08/2023
Approved	RG		14/08/2023

PEL REF	SCALE	@ A0	BIM FILE NAME - REVISION
PN0237	1:200, 1:20		-
			S4

PROJECT	ISSUER	VOLUME	LEVEL	TYPE	ROLE	NUMBER	REV
PN0237	PEL	XX	XX	DR	Y	0001	B