



**Dewsbury Market
Whitehall Way
Dewsbury
WF13 1QX**

Remediation Method Statement



July 2025

J24331B
Rev 0





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0	Final		31 July	

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1.0 Introduction

It is proposed to develop this site by the construction of a single-storey 16 m² market stores building with areas for additional domestic wheelie bins and the larger four-wheel eurobins. In addition, the existing area of the outside market will be redesigned to comprise paved piazza areas and soft landscaping comprising a central lawn area, with boundary trees, shrubs and water features. An electric substation and plant room, and bin store are also proposed along the boundary of the site. A significant play area also forms part of the proposal, with hard landscaping beneath along the northern area of the market site. The piazza area will be used to house temporary markets with removable stalls. A Desk Study and Ground Investigation has previously been carried out by GEA (report J24331 Rev 0 dated April 2025).

The previous reports contain data pertinent to the site and should therefore be read in conjunction with this report.

The previous investigations identified the presence of polycyclic aromatic hydrocarbon (PAH) compounds which exceeded their relevant human health threshold concentrations and elevated concentrations of copper and zinc that may inhibit plant growth

The remedial proposals for this development include the installation of a clean capping layer in the landscaped areas.

2.0 The Site

2.1 Site Description

The site is located in Dewsbury town centre and is bounded to the north and east by Whitehall Way, Clackenedge Lane and Corporation Street to the south and southeast, and by Foundry Street to the west. In addition, a small parcel of land is situated east of Whitehall Way and is bounded by the A638 to the northeast. The site is irregular in shape, covers an area of 1.0 Ha and its centre may also be represented by National Grid Reference SE 246 219. The site encompasses two parcels of land. A small northern section of a car park and a small secure waste area for the market traders, and separated from the main area of the site by Whitehall Way, a larger outdoors market area is to the south and west.

2.1.1 Northern Parcel

The northern parcel comprises an enclosed waste area for industrial metal wheelie bins, two mechanical waste compactors and open and closed skips. At the time of the walkover, the compound was enclosed by a sandstone wall with a double metal palisade security gate. The base of the compound comprised reinforced concrete panels with a wide surface water gully along the entire gate width. The area of the waste storage was to be extended into the adjacent public car park taking approximately three car parking spaces and the exit.

The sandstone retaining wall supporting the A638 Dewsbury Ring Road makes up the northern boundary of the site and beyond the eastern boundary the stub of Wood Lane, with two-storey sandstone residential properties and the Station Hotel are present. The southern boundary comprises the footpath for Whitehall Way, with the western boundary being open.

2.1.2 Southern and Western Parcel

The larger market area comprises level paved hardstanding with many timber booth and open-table market stalls, and is bisected by the pedestrianised block-paved Cloth Hall Street. The large covered market area in the east is beyond the scope of this investigation. Two single storey sandstone-clad short rows of shops/market stalls are present in the western area of the site, with public toilets centrally located. This part of the site is completely bounded by the footpaths of Whitehall Way, Foundry Street, Corporation Street and Crackenedge Lane, with occasional bollards and low sandstone walls along their boundaries.



3.0 Ground Model

The site is proposed to be repurposed for an outdoor piazza area with dedicated soft landscaping comprising lawn as well as planted borders. An area for children to play is proposed associated with the soft landscaping. The piazza will be partially utilised as a temporary outdoor market stall area. Other than the soft landscaping, all other areas of the site (including the play area), will comprise hardstanding, anticipated to comprise decorative paving with soft play surfaces for the children's area. Small shallow water features will be present associated with the soft landscaping and are anticipated to be integrally supplied and managed, and not in continuity with local groundwater. Structures are limited to small single-storey utility building such as a plant room for the water features and an electrical substation.

The market area has had a significant industrial history prior to 1938; with the majority of the site comprising mills, theatres, timber yards and other smaller manufacturing yards. Significant basement features are anticipated to remain intact/backfilled, with substructure walls and floor slabs present. The former Cloth Hall Street road formation was encountered by Silkstone Environmental Ltd to be intact. Infill within former basements were noted to comprise ash, clinker and slag which is likely to be derived from the many nearby foundries.

Underlying the remnant structures and made ground is cohesive alluvium associated with the fluvial route of the now culverted Dewsbury Beck, as well as cohesive glacial till. The strength of the alluvium was noted to be predominantly very soft to soft and occasionally firm with the glacial clay, where encountered noted as firm to stiff (locally softened at interfaces and where higher proportions of granular strata was noted). Water bearing lenses of granular stratum were noted within both the alluvium and glacial till deposits. Bedrock was encountered between 6.5m and 8m below ground level, comprising mudstone with a thin coal lens.

The proposed works will predominantly be associated with reprofiling the hardstanding surface with provision for landscaping, which will predominantly be associated with shallow ground groundworks. The proposed structures are small and lightly loaded.

Groundwater flow is anticipated to be limited to granular made ground near surface, and is likely to be ponded or retained within remnant structures. Water movement within the superficial strata is anticipated to be predominantly within the granular lenses encountered; however these are not considered to be laterally extensive and are likely to have a significant fines content to retard groundwater flow. The site is situated within a

flood plain and hence there will be periods of static high level groundwater, which have been present throughout the period of the site's previous developments.



4.0 Risk Assessment

The table below sets out the risk pathways that could potentially be present following the redevelopment of the site, which will have a residential with plant uptake end use. This conceptual model is based upon the findings of the ground model developed in the light of the investigation findings and highlights areas where remedial work should be considered.

SOURCE	RECEPTOR	PATHWAY	COMMENT
Metal and PAH concentrations	End users	Direct soil and dust ingestion, skin contact with soils and dust and inhalation of dust and vapours	The proposed development will result in a large proportion of the site being hard covered which will prevent interaction between end users and potentially contaminated soil. In areas of landscaping a cover system comprising 'clean' certified soil over a geotextile marker layer will prevent interaction of end users and potentially contaminated soil.
	Ground workers and future site workers	Accidental ingestion of soil and inhalation and ingestion of soil derived dust, direct contact with contaminated soils	Skin contact with soil will be minimized through the use of appropriate PPE and washing facilities will be provided. Soil will be kept damp to prevent fugitive dust emissions. The presence of contamination should be noted on the construction file.
	Groundwater	Percolation and leaching of surface run-off in areas of soft landscaping and permeable paving	The contamination identified has been found to be largely insoluble and as such significant leaching of contamination is not anticipated.
	Water supply pipes	Direct contact	Contamination will be isolated from new water supply pipes services through the use of oversized, clean backfilled trenches or through the use of barrier pipe
Asbestos fibres within made ground	End users	Inhalation of fibres	In areas of landscaping a cover system comprising 'clean' certified soil over a geotextile marker layer will prevent interaction of end users and potentially contaminated soil.
	Site Workers	Inhalation of fibres	A single sample has been found to contain asbestos at a concentration of 0.001% fugitive emissions are therefore highly unlikely to occur from damp soil matrix. However appropriate protective equipment and working practices will be required during groundworks.



5.0 Remedial Recommendations

Based on the above risk assessment the following remedial objectives can be established for this development:

-  to protect end users and provide a suitable growing medium for plant growth, through the capping of the made ground in which the elevated contaminant concentrations were measured;
-  protect ground workers who will be exposed to the soil, through minimising their potential exposure and the potential for dust generation; and
-  provide buried water supply pipes with protection to minimise the potential for permeation or degradation by contaminants and to minimise the potential exposure of future maintenance personnel.

In order to address these remedial objectives the remedial measures will include:

-  installation of geotextile separation layer and clean imported soil in all areas of soft landscaping; and
-  installation of buried water supply pipes within oversized trenches back filled within clean material.

The details of these remedial measures are set out below.

6.0 Verification Plan

This section sets out how the remedial measures will be achieved and validated.

6.1 Soft Landscaped Areas

Importation of soil

Prior to the importation of any topsoil for use within the garden, certification will be provided by the supplier and approved by GEA. The suitability of the material to be free of contaminants will be assessed against the GEA Screening Values, which are based on C4SL or LQM/CIEH S4UL for a residential without plant uptake end use, a copy of which is enclosed. The suitability of the soil with regard to nutrient levels specific to the planting scheme will be assessed by the landscape architect.

Installation of clean cover layer

The clean cover layer will extend to a depth of 300 mm for grassed areas and 600 mm in areas of planting. The cover may need to be deepened for tree pits etc. in accordance with the landscaped architects requirements. In accordance with BRE recommendations¹, the upper 150 mm of will be classified as topsoil, in accordance with BS3882:2007. Where the made ground is covered by buildings or hardstanding, no additional protection measures are deemed necessary.

Insitu validation of clean cover layer

Photographs of the installation will be taken by the contractor along with records of the levels before and after installation, and these will be included in the validation report.

In addition to the above, confirmation of the correct installation of the clean cover layer will be validated by a series of trial holes and / or hand auger boreholes undertaken by GEA. In support of the visual examination, further samples of the material will be taken by GEA for laboratory testing and assessment against the adopted screening values for residential end use with plant uptake.

Frequency of analysis

Confirmatory soil samples will be taken at a rate of one sample per 50m³ to 100m³ of certified material and a minimum of three samples per source.

¹ BRE (2004) *Cover systems for land regeneration. Thickness of cover systems for contaminated land*. BRE pub 465



Documentation

The validation report will include waste transfer documents for all exported and imported material, photographs of the capping layer, details of the certified imported soil and the results of the validation testing together with the thickness of the imported clean cover layer.

6.2 Site Workers

Site workers will be made aware of the potential for contamination in the soils and a programme of working will be identified to protect workers handling any soil. The method of site working will be in accordance with guidelines set out by HSE and CIRIA. Washing facilities will be provided and site workers will be encouraged to wash prior to eating and to use appropriate PPE when on site to minimise skin contact with the soil.

There will be no stockpiling of soil on the site. If any areas of made ground are left exposed for long periods measures will be required to prevent dust generation.

6.3 Unknown Contamination

Prior to the commencement of ground works a site induction meeting will be held, attended by the developer and site workers, where the appointed geoenvironmental engineer will brief the workers on the history of the site and the nature of any contaminated soils they may encounter. This information will be included in the Discovery Strategy which will also be displayed in the site office, along with the contact names and numbers of the geoenvironmental engineers, so that contact can easily be made if any suspicious substances are encountered. If, during development, contamination not previously identified is found to be present at the site, the Council will be informed immediately and no further development (unless otherwise agreed in writing by the Council) will be carried out until a report indicating the nature of the contamination and how it is to be dealt with is submitted to, and agreed in writing by, the Council. A copy of the discovery strategy is included in the attached appendix.

In the event that contamination is not encountered, a statement to this effect by a suitably qualified and experienced individual will be provided.

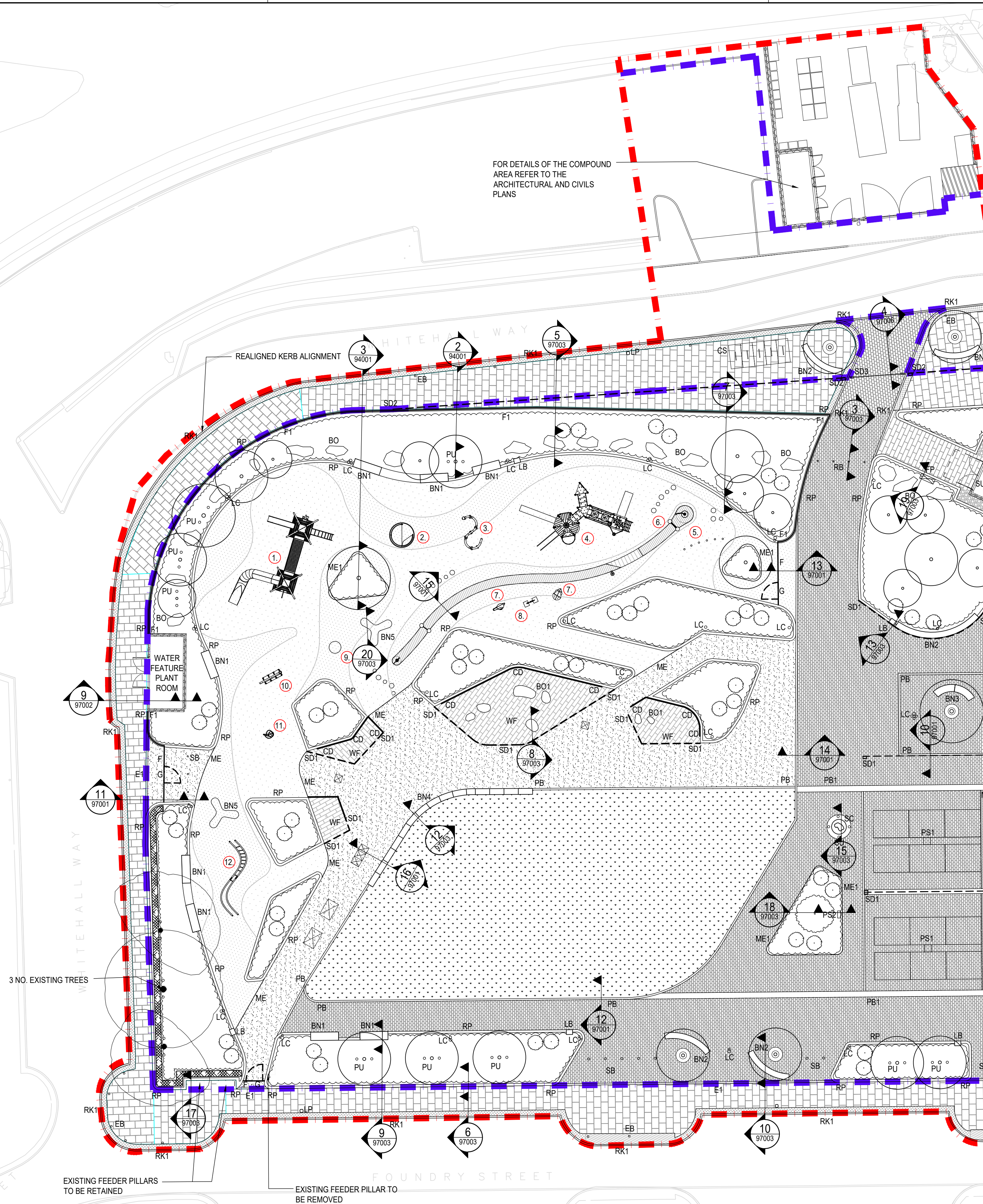
6.4 Reporting

On completion of the remedial works, a report will be prepared documenting the satisfactory undertaking of the remediation proposals and of any duty of care under the waste management legislation, together with an assessment of the suitability of the soils remaining beneath the site in respect of the proposed residential development. The report will include written and photographic records of the site inspections carried out, together with the results of the validation analyses and will present an assessment of the condition of the remediated site with respect to the end use.



Appendix

- a. Landscape Proposals Drawing
- b. GEA Soil Importation Screening Values



FOR CONTINUATION SEE - DMTP-BDP-TP-SL-PL-L-90112

- PROPOSED EVERGREEN HEDGE
- 'FP' FEEDER PILLAR TO ENGINEERS DETAIL, PAINTED IN RAL COLOUR TO MATCH ARCHITECTURE METAL WORK
- EXISTING TREES RETAINED
- PROPOSED TREES TO ESL-400
- PROPOSED SPECIMEN SHRUBS TO ESL-200
- PROPOSED MIXED PLANTING TO ESL-201
- PROPOSED LAWN TO ESL-100
- TREE GRILLE TO ESF-140
- 'SD1' SLOT DRAIN TO ENGINEERS SPECIFICATION WITH RECESSED ACCESS COVER TO BE ALIGNED WITH PAVING
- 'SD2' DUO SLOT DRAIN TO ENGINEERS SPECIFICATION WITH RECESSED ACCESS COVER TO BE ALIGNED WITH PAVING
- 'SD3' WIDE SLOT DRAIN TO ENGINEERS SPECIFICATION WITH RECESSED ACCESS COVER TO BE ALIGNED WITH PAVING
- 'SD4' DISHED GRATE WITH YORKSTONE DISHED PROFILE TO ENGINEERS SPECIFICATION
- 'CD' CHANNEL DRAIN TO WATER FEATURE SPECIALISTS DETAIL AND SPECIFICATION
- 'WF' WATER FEATURE TO WATER FEATURE SPECIALISTS DETAIL AND SPECIFICATION
- 'BO1' WATER FEATURE BOULDERS TO ESL-701
- FLUSH IN GROUND ANCHOR POINTS FOR MARKET STALLS TO CONTRACTORS DESIGN
- 'BN5' BENCH TYPE 5 - BOOMERANG BENCH TO ESF-204

- KEY**
- PLANNING BOUNDARY
 - HIGHWAY BOUNDARY
 - PAVING TYPE 1 - HIGHWAY - 600 x 900mm YORKSTONE FLAGS, DIAMOND SAWN FINISH TO EHS-120
 - PAVING TYPE 2 - VEHICLE AREAS - 200 x 300mm YORKSTONE SETTS, DIAMOND SAWN FINISH TO EHS-121
 - PAVING TYPE 3 - WATER FEATURE - 900 x 300mm GRANITE, AMARELO ARIZ, FLAMED FINISH TO EHS-122
 - PAVING TYPE 4 AND 5:
 - 4. PLAY RILL BASE, 100mm SQUARE GRANITE SETTS, AMARELO ARIZ, FLAMED FINISH TO EHS-123
 - 5. PLAY RILL BRIDGE, 900mm x 300mm GRANITE, AMARELO ARIZ, FLAMED FINISH TO EHS-123
 - PAVING TYPE 6 - EVENT SPACE - 50% 200 x 50mm KELLEN BRECCIA TAGENTA E, TEXTURED FINISH AND 50% 200mm x 50mm KELLEN LISIO TAGENTA E, GROUND FINISH TO EHS-101
 - PAVING TYPE 7 - MARKET WIDE - 150 x 300mm AND 100 x 300mm BRECCIA MAGMA TO EHS-102
 - PAVING TYPE 8 - URBAN PARK - RESIN BOUND GRAVEL BY ADDAGRIIP, COLOUR TRENT TO EHS-221
 - PAVING TYPE 9 - PLAY SURFACE - WETPOUR BY RTS, COLOUR MIX OF CLASSIC BLEND AND EGG SHELL TO EHS-222
 - GRAVEL MAINTENANCE STRIP TO EHS-301
 - HAZARD WARNING 1. TACTILE BLISTER PAVING AND 2. HAZARD PAVING TO EHS-210 TO ADAPTABLE HIGHWAY STANDARD
 - 'SC' SCULPTURE PLINTH TO ESF-300. SCULPTURE TO ARTISTS DETAIL
 - 'E1' FLUSH EDGE - AMARELO ARIZ, FLAMED FINISH TO EHL-100
 - 'ME' METAL EDGE - LAID FLUSH TO EHL-101
 - 'ME1' PLANTER METAL EDGE LAID FLUSH TO EHL-102
 - PAVING BANDS:
 - 'PB' 145mm W, AMARELO ARIZ, FLAMED FINISH, FLUSH TO EHL-103
 - 'PB1' 500mm W, AMARELO ARIZ, FLAMED FINISH, FLUSH TO EHL-104
 - CONCRETE ROAD KERBS:
 - 'RK1' 125mm W, CONCRETE, WITH 15mm UPSTAND EDGE TO MATCH EXISTING TO EHL-105
 - 'RK2' 125mm H, 125mm W, CONCRETE, SPLAYED TO EHL-106
 - 'RK3' 125mm H, 125mm W, CONCRETE, BULLNOSED TO EHL-107
 - 'RK4' 50mm H, 125mm W, CONCRETE, BULLNOSED TO EHL-108
 - TRANSITION KERBS:
 - 'TK' SPLAY TO BULLNOSE (125mm H) TO EHL-109
 - 'DK' DROP KERB TO EHL-110
 - 'RP' RAISED PLANTERS, HEIGHT VARIES FROM 150mm - 450mm, 200mm WIDTH, WITH NATURAL STONE FINISH TO ESF-220
 - 'F' METAL FENCE, RAL 9002 TO EFG-100
 - 'F1' METAL FENCE ON TOP OF RAISED PLANTER, RAL 9002 TO EFG-101
 - 'G' GATE TO EFG-200
 - 'RBX' RETRACTABLE BOLLARD TO ESF-120 OR ESF-123. 'SBX' STATIC BOLLARDS TO ESF-121 OR ESF-124
 - 'LP' EXISTING LAMP POST
 - 'EB' EXISTING BOLLARD
 - 'BN1' BENCH TYPE 1 - TIMBER WALL MOUNTED WITH ARM RESTS AND BACK, ON STONE BASE TO ESF-200
 - 'BN2' BENCH TYPE 2 - STONE BENCH TO ESF-201
 - 'BN3' BENCH TYPE 3 - TIMBER CURVED BENCHES ESF-202
 - 'BN4' BENCH TYPE 4 - FEATURE TIMBER BENCH WALL MOUNTED WITH BACK REST, ON STONE BASE TO ESF-203
 - 'LB' LITTER BIN TO ESF-110
 - 'BO' BOULDERS TO ESL-701
 - 'CS' CYCLE STAND TO ESF-150
 - LIGHTING TO ENGINEERS DETAIL:
 - 'LC' LIGHT COLUMNS
 - 'CU' COLUMN UPLIGHTS
 - 'PU' PLANTER UPLIGHTS
 - 'SU' SCULPTURE UPLIGHTS
 - POWER POINTS TO ENGINEERS DETAIL:
 - 'PS1' - IN GROUND POP UP POWER UNIT
 - 'PS2' - POWER UNIT ABOVE GROUND, RAL COLOUR TO MATCH ARCHITECTURAL METALWORK

BUILDING DESIGN PARTNERSHIP SHALL HAVE NO RESPONSIBILITY FOR ANY USE MADE OF THIS DOCUMENT OTHER THAN FOR THAT WHICH IT WAS PREPARED AND ISSUED.

ALL DIMENSIONS SHOULD BE CHECKED ON SITE.

DO NOT SCALE FROM THIS DRAWING.

ANY DRAWING ERRORS OR DIVERGENCES SHOULD BE BROUGHT TO THE ATTENTION OF BUILDING DESIGN PARTNERSHIP AT THE ADDRESS SHOWN BELOW.

NOTES

TO BE READ WITH OTHER BDP LANDSCAPE DRAWINGS AND DOCUMENTS:

FOR GENERAL ARRANGEMENT REFER TO DRAWINGS ENDING - PL-90111-90112.

FOR LEVELS REFER TO DRAWINGS ENDING - PL-L-93001-93002.

FOR PLANTER EDGE SCHEDULE PLAN REFER TO DRAWING ENDING - 97001.

FOR PLANTING REFER TO DRAWINGS ENDING - PL-L-94001.

FOR TREE ROOT BARRIER AND RETENTION PLAN REFER TO DRAWING ENDING IN - PL-L-94003.

FOR HARD DETAILS REFER TO DRAWINGS ENDING - DT-L-97001 ONWARDS.

FOR SOFT DETAILS REFER TO DRAWINGS ENDING - DT-L-94001 ONWARDS.

FOR SPECIFICATION REFER TO - SPL-10001.

FOR PLANTING SCHEDULE REFER TO - SH-10002.

NOTES

- THIS PLAY SPACE AND WATER FEATURES SHOWN ON THIS GENERAL ARRANGEMENT PLAN IS THE DESIGN INTENT AND WILL BE FULLY RESOLVED DURING THE PLANNING CONDITION STAGE
- THE PLAY SPACE LAYOUT SHOWN PROVIDES THE DESIGN INTENT AND HAS BEEN DEVELOPED IN COLLABORATION WITH A PLAY SPECIALIST AND SETS THE EXPECTATIONS FOR THE ANTICIPATED 'PLAY VALUE' THE SPACE WILL PROVIDE. AS SUCH, ALL ELEMENTS WITHIN THE SPACE ARE TESTED AND APPROVED PIECES OR EQUIPMENT, WITH THEIR LOCATIONS COORDINATED ACCORDING TO THE REQUIRED STANDARDS.
- THE PLAY EQUIPMENT DESIGN INTENT PIECES ARE LABELED WITHIN THE PLAN AS FOLLOWS:

1. PYRAMID TOWERS BY SPIEL BAU OR EQUAL AND APPROVED
2. WHEELCHAIR CAROUSEL BY KOMPAN OR EQUAL AND APPROVED
3. WORM SEE-SAW BY GB SPORT OR EQUAL AND APPROVED
4. TRIPLE TOWERS BY KOMPAN OR EQUAL AND APPROVED
5. EMPEROR CHIMES BY PERCUSSION PLAY OR EQUAL AND APPROVED
6. PLAY RILL BY TIMBERPLAY OR EQUAL AND APPROVED
7. STROKING STONES - SNAIL AND FROG BY TIMBERPLAY OR EQUAL AND APPROVED
8. PAIRS BY TIMBERPLAY OR EQUAL AND APPROVED
9. INCLUSIVE DISH ROUNDOABOUT BY SUTCLIFFE PLAY OR EQUAL AND APPROVED
10. ACTIO 160 BY KAISER KUHNE OR EQUAL AND APPROVED
11. ROCKET ROLLER BY KOMPAN OR EQUAL AND APPROVED
12. ROLLER COASTER BY RUSSELL PLAY OR EQUAL AND APPROVED
13. STEPPING CONCRETE STONES BY EVANS CONCRETE OR EQUAL AND APPROVED

- FOR PLAY DETAILS REFER TO DRAWINGS - DMTP-BDP-TP-SL-DT-L-97004 AND DMTP-BDP-TP-SL-DT-L-97005
- FOR LIGHTING DETAILS REFER TO THE LIGHTING ENGINEERS DRAWINGS AND DETAILS
- THE SIZE OF WATER FEATURE BOULDERS MUST FIT TO THE WATER FEATURE DESIGN LAYOUT. NO SHARP CORNERS OR EDGES WHICH MAY CAUSE INJURY CAN BE PRESENT.
- BOULDERS GENERALLY TO HAVE NO SHARP CORNERS OR EDGES WHICH MAY CAUSE INJURY CAN BE PRESENT.

REVISION	DESCRIPTION	DRAWN	CHECKED	DATE
P04	TENDER ISSUE	EG	ND	16.05.25
P03	TENDER ISSUE	EG	ND	02.05.25
P02	TENDER ISSUE	EG	ND	25.04.25
P01	TENDER ISSUE	ND	MC	18.04.25
FIRST ISSUE				

DMTP-BDP-TP-SL-PL-L-90111

DMTP-BDP-TP-SL-PL-L-90112

Kirklees COUNCIL

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PROJECT TITLE
Dewsbury Market

PROJECT NUMBER
P3001350

DRAWING TITLE
**Landscape General
Arrangement Sheet 1 of 2**

DRAWING NO.
DMTP-BDP-TP-SL-PL-L-90111

SCALE
1:200 @A1

DATE
APR '25

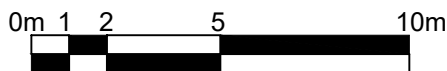
REVISION
P04

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- 'F1' METAL FENCE ON TOP OF RAISED PLANTER, RAL 9002 TO EFG-101
- 'G' GATE TO EFG-200
- 'RBX' RETRACTABLE BOLLARD TO ESF-120 OR ESF-123, 'SBX' STATIC BOLLARDS TO ESF-121 OR ESF-124
- 'LP' EXISTING LAMP POST
- 'EB' EXISTING BOLLARD
- 'BN1' BENCH TYPE 1 - TIMBER WALL MOUNTED WITH ARM RESTS AND BACK, ON STONE BASE TO ESF-200
- 'BN2' BENCH TYPE 2 - STONE BENCH TO ESF-201
- 'BN3' BENCH TYPE 3 - TIMBER CURVED BENCHES ESF-202
- 'BN4' BENCH TYPE 4 - FEATURE TIMBER BENCH WALL MOUNTED WITH BACK REST, ON STONE BASE TO ESF-203
- 'LB' LITTER BIN TO ESF-110
- 'BO' BOULDERS TO ESL-701
- 'CS' CYCLE STAND TO ESF-150
- LIGHTING TO ENGINEERS DETAIL:
- 'LC' LIGHT COLUMNS
 - 'CU' COLUMN UPLIGHTS
 - 'PU' PLANTER UPLIGHTS
 - 'SU' SCULPTURE UPLIGHTS
- POWER POINTS TO ENGINEERS DETAIL:
- 'PS1' - IN GROUND POP UP POWER UNIT
 - 'PS2' - POWER UNIT ABOVE GROUND, RAL COLOUR TO MATCH ARCHITECTURAL METALWORK



BUILDING DESIGN PARTNERSHIP SHALL HAVE NO RESPONSIBILITY FOR ANY USE MADE OF THIS DOCUMENT OTHER THAN FOR THAT WHICH IT WAS PREPARED AND ISSUED.

ALL DIMENSIONS SHOULD BE CHECKED ON SITE.
DO NOT SCALE FROM THIS DRAWING.
ANY DRAWING ERRORS OR DIVERGENCES SHOULD BE BROUGHT TO THE ATTENTION OF BUILDING DESIGN PARTNERSHIP AT THE ADDRESS SHOWN BELOW.

NOTES

TO BE READ WITH OTHER BDP LANDSCAPE DRAWINGS AND DOCUMENTS:

FOR GENERAL ARRANGEMENT REFER TO DRAWINGS ENDING - PL-L-90111-90112.

FOR LEVELS REFER TO DRAWINGS ENDING - PL-L-93001-93002.

FOR PLANTING SCHEDULE PLAN REFER TO DRAWING ENDING - 97001.

FOR PLANTING REFER TO DRAWINGS ENDING - PL-L-94001.

FOR TREE ROOT BARRIER AND RETENTION PLAN REFER TO DRAWING ENDING IN - PL-L-94003.

FOR HARD DETAILS REFER TO DRAWINGS ENDING - DT-L-97001 ONWARDS.

FOR SOFT DETAILS REFER TO DRAWINGS ENDING - DT-L-94001 ONWARDS.

FOR SPECIFICATION REFER TO - SPL-10001.

FOR PLANTING SCHEDULE REFER TO - SH-10002.

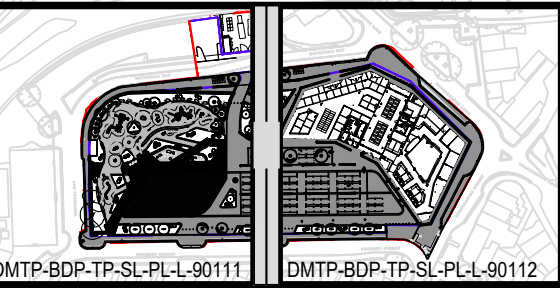
NOTES

- FOR LIGHTING DETAILS REFER TO THE LIGHTING ENGINEERS DRAWINGS AND DETAILS.
- DETAIL TAGS WITH BLUE CIRCLE OUTLINE ARE PART OF HIGHWAY WORKS TO SEPARATE TENDER PACKAGE.

P04	TENDER ISSUE	EG	ND	16.05.25
	HIGHWAY BOUNDARY ADDED			
P03	TENDER ISSUE	EG	ND	02.05.25
	TAGS AND DRAINAGE UPDATED			
P02	TENDER ISSUE	EG	ND	25.04.25
	UPDATED DETAIL LOCATIONS			
P01	TENDER ISSUE	ND	MC	25.04.25

FIRST ISSUE

REVISION DESCRIPTION	DRAWN	CHECKED	DATE
REV PLAN			



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PROJECT TITLE	Dewsbury Market		
PROJECT NUMBER	P3001350	SCALE	1:200 @A1
DRAWING TITLE	Landscape General	DATE	APR '25
ARRANGEMENT	Arrangement Sheet 2 of 2	REVISION	P04
DRAWING NUMBER	DMTP-BDP-TP-SL-PL-L-90112		

		Geotechnical & Environmental Associates www.gea-ltd.co.uk		Generic Risk-Based Soil Screening Values	
Site	Woodlands Cottage, Oxhey Lane, Watford				Job Number J24331B
Client	Kirklees Council				Sheet 1 / 2
Engineer	BDP				
Proposed End Use Residential without plant uptake					
Soil Organic Matter content % 2.5					
Contaminant	Screening Value mg/kg	Data Source	Contaminant	Screening Value mg/kg	Data Source
Metals			Hydrocarbons		
Arsenic	40	C4SL	Banded TPH (8-10)	169	Calc1
Cadmium	150	C4SL	Banded TPH (10-12)	908	Calc1
Chromium (III)	910	S4UL	Banded TPH (12-16)	3538	Calc1
Chromium (VI)	21	C4SL	Banded TPH (16-21)	2923	Calc1
Copper	7,100	S4UL	Banded TPH (21-35)	2923	Calc1
Lead	310	C4SL	Benzene	1.4	C4SL
Elemental Mercury	1.2	S4UL	Toluene	320	SGV
Inorganic Mercury	300	C4SL	Ethyl Benzene	180	SGV
Nickel	180	S4UL	Xylene	120	SGV
Selenium	430	S4UL	Aliphatic C5-C6	78	S4UL
Zinc	40,000	S4UL	Aliphatic C6-C8	230	S4UL
Anions			Aliphatic C8-C10	65	S4UL
Soluble Sulphate	500 mg/l	Structures	Aliphatic C10-C12	330	S4UL
Sulphide	50	Structures	Aliphatic C12-C16	2400	S4UL
Chloride	400	Structures	Aliphatic C16-C35	92,000	S4UL
Others			Aromatic C6-C7	See Benzene	S4UL
Organic Carbon (%)	6	Methanogenic potential	Aromatic C7-C8	See Toluene	S4UL
Total Cyanide	140	WRAS	Aromatic C8-C10	110	S4UL
Total Mono Phenols	420	SGV	Aromatic C10-C12	590	S4UL
PAH			Aromatic C12-C16	2300	S4UL
Naphthalene	36.00	C4SL	Aromatic C16-C21	1900	S4UL
Acenaphthylene	4,600	S4UL	Aromatic C21-C35	1900	S4UL
Acenaphthene	4,700	S4UL	PRO (C5 –C10)	804	Calc2
Fluorene	3,800	S4UL	DRO (C12 –C28)	98,600	Calc2
Phenanthrene	1,500	S4UL	Lube Oil (C28 –C44)	93,900	Calc2
Anthracene	35,000	S4UL	TPH	500	Trigger to consider speciated testing
Fluoranthene	1,600	S4UL	Chlorinated Solvents		
Pyrene	3,800	S4UL	1,1,1 trichloroethane (TCA)	18	S4UL
Benzo(a)anthracene	14.0	S4UL	tetrachloroethane (PCA)	3.5	S4UL
Chrysene	31	S4UL	tetrachloroethene (PCE)	0.71	C4SL
Benzo(b)fluoranthene	4.0	S4UL	trichloroethene (TCE)	0.02	C4SL
Benzo(k)fluoranthene	110.0	S4UL	1,2-dichloroethane (DCA)	0.24	C4SL
Benzo(a)pyrene	4.70	C4SL	vinyl chloride (Chloroethene)	0.019	C4SL
Indeno(1 2 3 cd)pyrene	46.0	S4UL	tetrachloromethane (Carbon tetra	0.056	S4UL
Dibenz(a h)anthracene	0.32	S4UL	trichloromethane (Chloroform)	2.1	S4UL
Benzo (g h i)perylene	360	S4UL	cis1-2 dichloroethene (DCE)	0.84	C4SL
Notes					
Concentrations measured below these screening values may be considered to represent 'uncontaminated conditions' which pose a 'LOW' risk to human health. Concentrations measured in excess of these values indicate a potential risk which require further, site specific risk assessment.					
C4SL - Defra Category 4 Screening value based on Low Level of Toxicological Risk					
SGV - Soil Guideline Value, derived from the CLEA model and published by Environment Agency 2009 - where not superseded by C4SL					
S4UL - LQM/CIEH Suitable for use Level (2015) based on 'minimal' level of risk					
Calc1 - sum of thresholds for Ali & Aro fractions - assuming a 35% Aro:65% Ali ratio as is commonly encountered in the soil					
Calc2 - sum of nearest available carbon range specified including BTEX for PRO fraction					
Total PAH based on B(a)P / 0.15 - GEA experience indicates that Benzo(a) pyrene rarely exceeds 15% of the total PAH concentration					



GEA

Geotechnical & Environmental Associates

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Generic Risk-Based Soil Screening Values

Site	Woodlands Cottage, Oxhey Lane, Watford	Job Number J24331B
Client	Kirklees Council	Sheet 2 / 2
Engineer		

Proposed End Use **Residential without plant uptake**

The key generic assumptions for this end use are as follows;

- ☐ that groundwater will not be a critical risk receptor;
- ☐ that the critical receptor for human health will be a young female aged 0 to 6 years old;
- ☐ that the exposure duration will be six years;
- ☐ that the building type equates to a terraced house.
- ☐ that the critical exposure pathways will be direct soil and indoor dust ingestion, skin contact with soils and dust, and inhalation of dust and vapours;

Where contaminant concentrations are measured at concentrations below the generic screening value it is considered that they pose an acceptable level of risk and thus further consideration of these contaminant concentrations is not required. However, where concentrations are measured in excess of the generic screening value there is considered to be a potential that they could pose an unacceptable risk and thus further action will be required which could include:

- ☐ additional testing to zone the extent of the contaminated material and thus reduce the uncertainty with regard to its potential risk;
- ☐ site specific risk assessment to refine the assessment criteria and allow an assessment to be made as to whether the concentration present would pose an unacceptable risk at this site; or
- ☐ soil remediation or risk management to mitigate the risk posed by the contaminant to a degree that it poses an acceptable risk.



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