NRM Laboratories source laboratory testing results, enclosed within *Appendix A4*, were made available for review, indicating the soil can be classified as Multipurpose Grade topsoil in accordance with BS3822:2015. The soil Textural Class is identified as Organic Sandy Loam.

Once imported, Curtins attended site to undertake a visual inspection of this material and obtain samples for laboratory analysis to identify the chemical composition and prove the material is 'clean' and 'suitable for use'.

Considering the volume of imported materials, broadly in line with the testing frequency outlined in Curtins Remedial Capping Specification (one sample every 100m^3 used or a minimum of 3 no. samples, whichever is greater). Three samples were obtained from areas of landscaping within the central courtyard area. The samples were obtained from HP1, HP3 and HP4, illustrated in Curtins Drawing ref. *067896-CUR-00-XX-DR-GE-0002-V01*, Capping Validation Plan, enclosed within *Appendix A1*.

The samples were tested for the environmental chemistry analysis suite outlined in Curtins Remediation Capping Specification at Envirolab, a UKAS and MCERTS accredited laboratory.

Testing results (report ref. 20/05530-1) were compared with criteria for a '*Residential with Plant Uptake end use 6% SOM*' (both enclosed in *Appendix A4*). No exceedances of assessment criteria were recorded and furthermore no asbestos was identified.

On this basis the topsoil sourced from 'Hightown Compost Site' for the New Cross development may be considered 'clean' and 'suitable for use' in areas of soft landscaping.

No subsoil was imported to the site.

2.1.2 Depth Validation

Validation of sufficient thickness of Topsoil was undertaken by a Curtins Engineer on 06 July 2020. 5 no. hand excavated trial holes were advanced across areas of completed soft landscaping adjacent to Block B, the southern corner of landscaping adjacent to Block A and a small area centrally within the courtyard. The locations of each hand pit are recorded in Curtins Capping Validation Plan (ref. *067896-CUR-00-XX-DR-GE-0002-V01* and *067896-CUR-00-XX-DR-GE-0003-V01*) enclosed within *Appendix A1*.

A summary of the recorded capping thicknesses is presented in *Table 2.1.2a.*

Table 2.1.2a – *Summary of Curtins Hand Excavated Trial Hole Topsoil Depths*

Trial Hole I.D	Capping Thickness Recorded (mm)	Soil Sample Obtained For Testing	Pass/Fail
HP1	570	✓	Pass
HP2	670	X	Pass

Trial Hole I.D	Capping Thickness Recorded (mm)	Soil Sample Obtained For Testing	Pass/Fail
HP3	650	✓	Pass
HP4	600	✓	Pass
HP5	450	X	Pass

Depth validation photographic records were also provided by Balfour Beatty from the remaining areas of soft landscaping, which were not completed on 06 July 2020. All photos show the topsoil to meet the required depths. The recorded capping thickness is presented in *Table 2.1.2b.*

Table 2.1.2b – *Summary of Recorded Capping Thicknesses*

Trial Hole I.D	Date of Record	Capping Thickness Recorded (mm)	Pass/Fail
BB1	13 August 2020	450	Pass
BB2	13 August 2020	450	Pass
BB3	13 August 2020	460	Pass
BB4	15 August 2020	510	Pass
BB5	17 August 2020	450	Pass
BB6	17 August 2020	490	Pass
BB7	20 August 2020	510	Pass
BB8	20 August 2020	460	Pass

A photographic record of all hand excavated trial pits is attached within *Appendix A2*.

All validation trial holes recorded the required thickness of topsoil, determined by the Remedial Capping Specification.

2.2 Unexpected Contamination and Contaminative Incidents

Chartrange, the groundworks contractor for the development, confirmed that following the removal of the underground storage tanks and associated contamination (works previously verified by Curtins, Ref. 3), no contaminated ground was encountered during the works. Correspondence from Chartrange is attached in *Appendix A3* confirming this.

3.0 Conclusion

Considering the evidence obtained from Balfour Beatty and information collected through independent inspection visits Curtins can confirm the following:

- Imported topsoil from 'Hightown Compost Site' has been proven to be 'clean' and 'suitable for use' in gardens through environmental laboratory analysis;
- The engineered capping layer has been installed to agreed specification in soft landscaping areas, confirmed through independent inspection study of available records; and
- No unexpected contamination or contaminative incidents were reported during construction.

On this basis, the installation remedial measures have been undertaken satisfactorily and in accordance with the Remedial Capping Specification. The PPL, identified in *Section 1.3*, no longer remains as the pathway between the contaminants within the Made Ground and the site end users and property has been broken by the installation of engineered capping in soft landscaping and planting areas.

Appendix A1 – Drawings

- SLR Courtyard General Arrangement Ref. NCR-CLR-Z0-Z0-DR-L-101-P12
- SLR Ground Floor General Arrangement Sheet 2 of 2 Ref. NCR-CLR-Z0-Z0-DR-L-102-P07
- Curtins Capping Validation Plan Central Courtyard Ref. 067896-CUR-00-XX-DR-GE-0002-V01
- Curtins Capping Validation Plan Ground Floor Ref. 067896-CUR-00-XX-DR-GE-0003-V01

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KERBS/EDGES

Decorative Flush Kerb
Product: Charcon Eco Countryside Crossing Kerb or similar approved.
Size: 145x150x914mm
Colour: Black Fleck

Decorative Upstand Kerbs
Product: Charcon Eco Countryside Classic Kerb or similar approved.
Size: 255x145x914mm
Colour: Black Fleck.

Proposed Pin Kerb Edging
Product: Charcon Eco Countryside Flat Top Edging
Size: 50x150x914mm
Colour: Black Fleck

Proposed Dwarf Wall Kerb
Supplier: FP McCan or similar approved
Size: 90x380x915mm

Proposed Retaining Wall
In accordance with Engineer's details

SOFTWORKS

Shrub Planting
Refer to planting drawing:
NCR-SLR-Z0-Z0-DR-L-200 and 201
Refer to Landscape Specification

Bamboo Hedging
Refer to planting drawing:
NCR-SLR-Z0-Z0-DR-L-200 and 201
Refer to Landscape Specification

Specimen Shrub
Refer to planting drawing:
NCR-SLR-Z0-Z0-DR-L-200 and 201
Refer to Landscape Specification

MANHOLE COVERS

Recessed Manhole Cover 1200 x 675mm
To be positioned to avoid paving banding and lighting in accordance with Engineer's Details

Recessed Manhole Cover 600 x 600mm
To be positioned to avoid paving banding and lighting in accordance with Engineer's Details

Recessed Manhole Cover 300 x 300mm
To be positioned to avoid paving banding and lighting in accordance with Engineer's Details

Junction Boxes
To be positioned to avoid paving banding and lighting in accordance with Engineer's Details

HARDWORKS

Permeable Block Paving Type 1
Product: Hardscape Kellen Lavaro Sett Permeable Paving or similar approved.
Size: 200x100x80mm
Colour: Wit.

Block Paving (Not Permeable) Type 1
Product: Hardscape Kellen Lavaro Sett Paving or similar approved.
Size: 200x100x80mm
Colour: Wit.

Permeable Block Paving Type 2
Product: Hardscape Kellen Lavaro Sett Permeable Paving or similar approved.
Size: 200x100x80mm
Colour: Grijs/Rood.

Block Paving (Not Permeable) Type 2
Product: Hardscape Kellen Lavaro Sett Paving or similar approved.
Size: 200x100x80mm
Colour: Grijs/Rood.

Gravel Maintenance Path
Product: Decorative Slate Chippings
Size: 20mm chippings
Depth: 80mm depth

Pedestrian Asphalt Surface (Section 278 Works)
Refer to Clients Engineer

FURNITURE AND FEATURES

Hardwood Timber Trellis
Timber frame with tensioned wires as supplied by Woodscape or similar approved
Size: 2500mm height x 2000mm length

Free Standing Bench
Product: Marshalls Metrolinia Seating or similar approved
Size: Individual Units 1200mm x 600mm x 450mm
For details refer to drawing : NCR-SLR-Z0-Z0-DR-L-304

Sliding Security Gate
Product: Lang + Fulton Modena Sliding Gate or similar approved.
Size: 2400mm x 3000mm long
Colour: Polyester Powder Coated Matt Mica Grey

Mild Steel Railings
Product: Lang + Fulton Modena or similar approved
Size: 2400mm high
Colour: Polyester Powder Coated Matt Mica Grey

Pedestrian Guard Rail
In accordance with Architectural Fabrication Ltd Details

Cycle Stands
Product: Broxap Sheffield Cycle Stand BXMW/SS or similar approved
Size: 800x715x48.3mm

Bollards
Product: Marshalls Geo MK2
Blind Lift Out Bollard
Colour: Stainless steel with bead blasted finish
Size: 1100mm x 140mm Ø

LED lighting column
Product: Urbus Schreder Kazu Circular 24LEDs or similar approved
Sizes: 4m high

Video/audio intercom unit fixed to post.
In accordance with Engineer's Details

Integrated LED Ground Lights/ Decorative Edging
Product: DW Windsor Vaio LED Linear Ground Light or similar approved
Sizes:1000mm/3000mmx30mmx40mm
Edging: Charcon Eco Countryside Kerb (Classic Flat Top Edging) Colour: Black Fleck. Size: 50x150x914mm

Integrated LED Ground Lights/ Decorative Edging
Product: DW Windsor Vaio LED Linear Ground Light or similar approved
Sizes:750mmx30mmx40mm
Edging: Charcon Eco Countryside Kerb (Classic Flat Top Edging) Colour: Black Fleck. Size: 50x150x914mm

ACODrain
In accordance with Engineer's Details

Revision	By	Chk'd By	Date	Comments
P12	MA	AC	Jan 2020	For Approval
P11	MA	AC	Jan 2020	For Approval
P10	MA	MA	Jan 2020	Paving materials updated
P09	MA	CK	12/09/19	Bollard Details Updated
P08	CL	MA	17/06/19	Minor Layout changes
P07	MA	NJ	14/05/19	Issued for Construction
P06	AC	AS	07/09/18	Revisions in line with Balfour Beatty marked up drawings
P05	AC	AS	23/08/18	Junction box locations updated and terrace paving revised
P04	AC	EMc	22/06/18	Manhole covers amended and retaining walls added
P03	AC	EMc	24/05/18	Aco Drain Added, Bollards updated, Intercom moved, light columns added in, ends of benches removed
P02	AC	AS	18/04/18	General revisions following team meeting on 24.04.18

Drawings to be read in conjunction with the following:

NCR-SLR-Z0-Z0-DR-L-100 - 103 - General Arrangement Drawings
NCR-SLR-Z0-Z0-DR-L-200 - 201- Planting Drawings
NCR-SLR-Z0-Z0-DR-L-300 - 304 - Construction Details
NCR-SLR-Z0-Z0-DR-L-400 - 402 - Setting Out Drawings
NCR-SLR-Z0-Z0-DR-L-500 - 501 - Indicative Levels Drawings

SLR Landscape Specification

0 1 2 3 4 m 6 8 10
Metres

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Client
Balfour Beatty Investments

Project
New Cross
Manchester

Drawing Title
Courtyard General Arrangement

Scale
1:100@A1

Date
29/03/18

Drawing Number
NCR-SLR-Z0-Z0-DR-L-101

Revision
P12

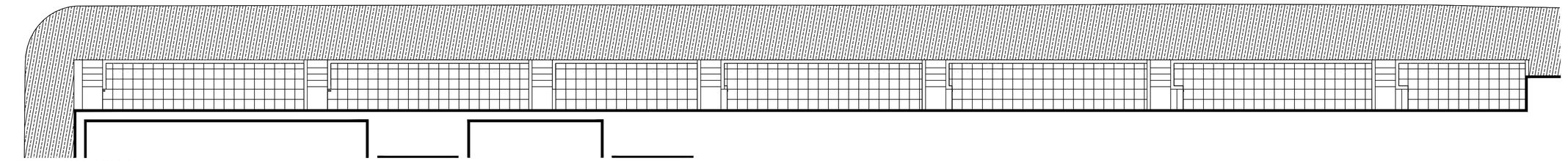
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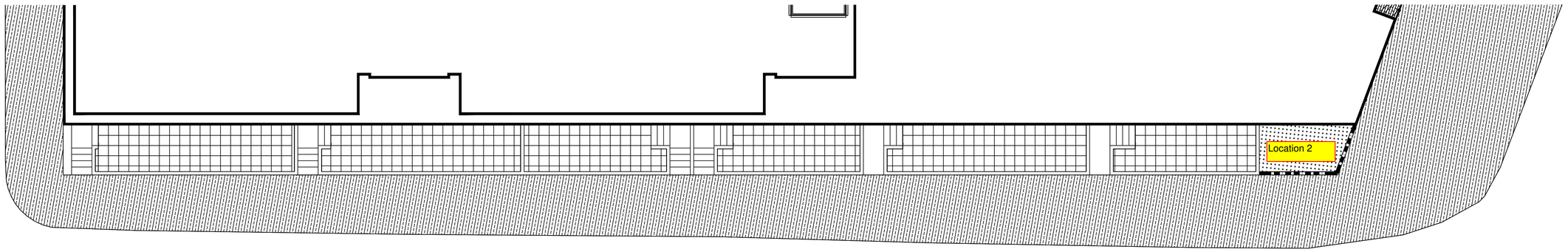
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COURTYARD GENERAL ARRANGEMENT.dwg

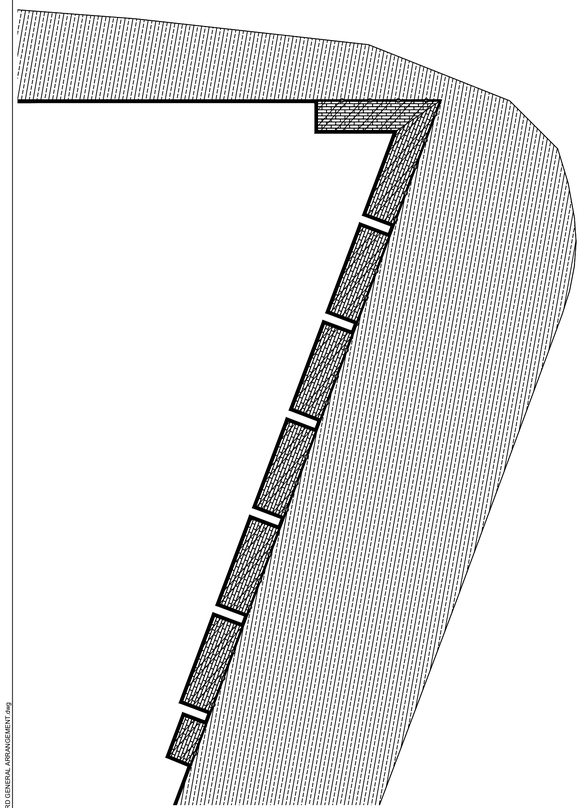
BENDIX STREET



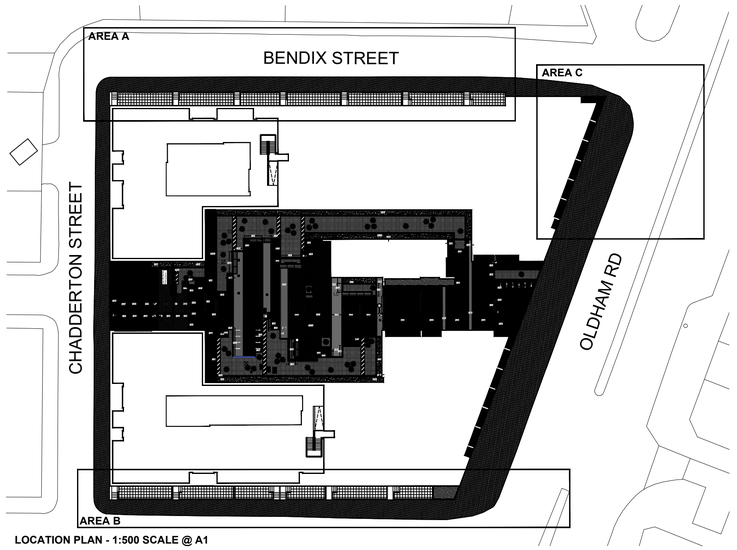
INSET PLAN - AREA A - 1:100 @ A1



INSET PLAN - AREA B - 1:100 @ A1



INSET PLAN - AREA C - 1:100 @ A1



LOCATION PLAN - 1:500 SCALE @ A1

HARDWORKS

Block Paving (Not Permeable) Type 1
Product: Hardscape Kellen Lavaro Sett Paving or similar approved.
Size: 200x100x80mm
Colour: Wit.

Flag Paving
Product: Hardscape Kellen Lavaro Flag Paving or similar approved.
Size: 400x400x50mm
Colour: Wit

Pedestrian Asphalt Surface (Section 278 Works)
Refer to Clients Engineer

Decorative Upstand Kerbs
Product: Charcon Eco Countryside Classic Kerb or similar approved.
Size: 255x145x914mm
Colour: Black Fleck.

Proposed Pin Kerb Edging
Product: Charcon Eco Countryside Flat Top Edging
Size: 50x150x914mm
Colour: Black Fleck

Shrub Planting
Refer to planting drawing:
NCR-SLR-Z0-Z0-DR-L-200 and 201
Refer to Landscape Specification

Note:
Flag paving to terraces to be set out as illustrated with full flag to building line and top of steps.

Refer to the following drawing for proposed paving layouts to each of the terrace types (A, B & C):
- NCR-SLR-Z0-Z0--DR-308.

Drawings to be read in conjunction with the following:

NCR-SLR-Z0-DR-L-100 - 103 - General Arrangement Drawings
NCR-SLR-Z0-Z0-DR-L-200 - 201- Planting Drawings
NCR-SLR-Z0-Z0-DR-L-300 - 304 - Construction Details
NCR-SLR-Z0-Z0-DR-L-400 - 402 - Setting Out Drawings
NCR-SLR-Z0-Z0-DR-L-500 - 501 - Indicative Levels Drawings

SLR Landscape Specification

Revision	By	Chk'd By	Date	Comments
P07	MA	AC	Jan 2020	For Approval
P06	MA	AC	Jan 2020	For Approval
P05	MA	MA	Jan 2020	Material selection updated
P04	MA	MA	10/10/19	Flag paving layout confirmed
P03	CL	MA	17/06/19	Planting Removed From Terraces
P02	MA	NJ	14/05/19	Issued for Construction
P01	AC	AS	04/09/18	First Issue

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Client
Balfour Beatty Investments

Project
New Cross
Manchester

Drawing Title
Ground Floor General Arrangement Sheet 2 of 2

Scale
1:100@A1

Date
04/09/18

Drawing Number
NCR-SLR-Z0-Z0-DR-L-102

Revision
P07

FOR APPROVAL

0 1 2 3 4 m 6 8 10
Metres

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COURTYARD GENERAL ARRANGEMENT.dwg



HAND EXCAVATED TRIAL PIT (CURTINS)

HAND EXCAVATED TRIAL PIT (BALFOUR BEATTY)

Topsoil samples obtained from HP1, HP3 and HP4.

570mm topsoil HP1 - To be topped to 600mm with thin layer of topsoil to take to curb level and mulch for shrubs.

670mm topsoil in HP2.

650mm topsoil in HP3.

600mm topsoil in HP4.

450mm topsoil in HP5. Underlain by visqueen and hardcore material.

450mm topsoil in BB1.

460mm topsoil in BB3.

510mm topsoil in BB4.

450mm topsoil in BB5.

490mm topsoil in BB6.

510mm topsoil in BB7.

460mm topsoil in BB8.

Rev:	Description:	Date:	By:	Chkd:

curtins

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Birmingham - Bristol - Cardiff - Douglas - Edinburgh - Kendal - Leeds - Liverpool - London - Manchester - Nottingham

Status:

INFORMATION

Project:

NEW CROSS CAPPING VALIDATION

Drg Title:

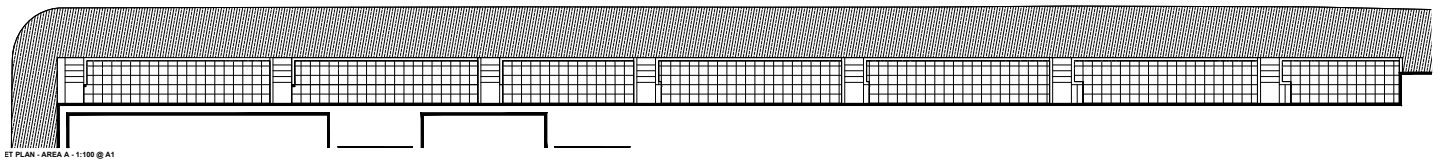
CAPPING VALIDATION PLAN
CENTRAL COURTYARD

Scale:	Size:	First Issue:	Drawn:	Checked:
NTS	A3	21/08/2020	MH	SH

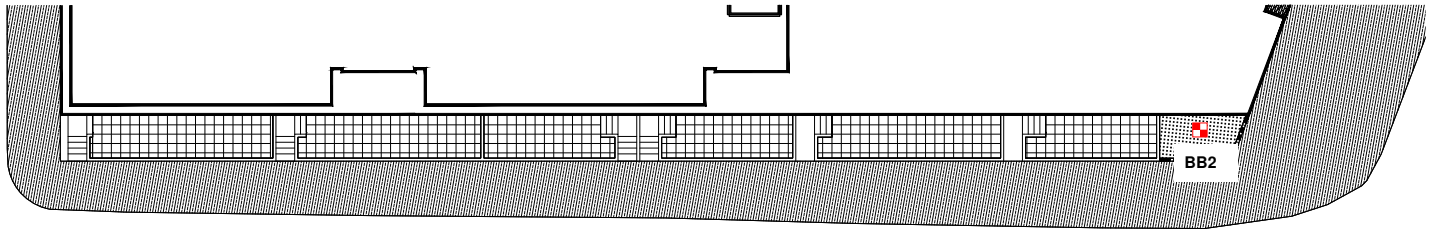
Drg No: **067896-CUR-00-XX-DR-GE-0002** Rev: **V01**

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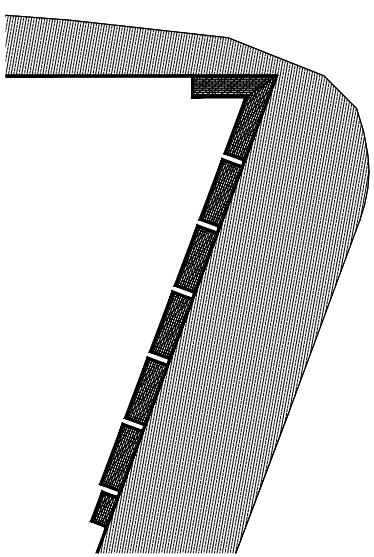
BENDIX STREET

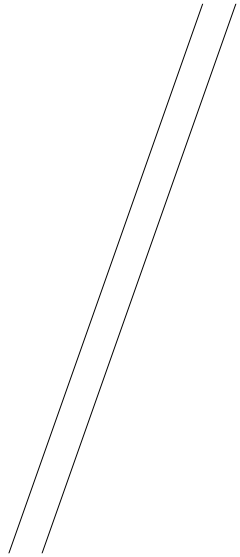


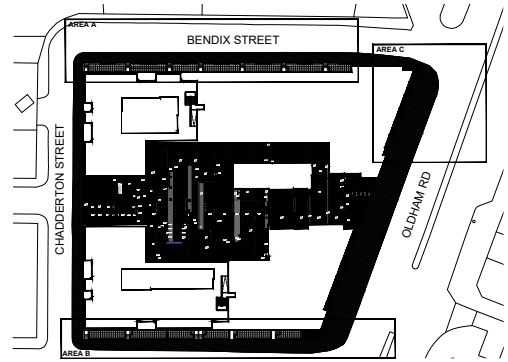
ET PLAN - AREA A - 1:100 @ A1



ET PLAN - AREA B - 1:100 @ A1









HAND EXCAVATED TRIAL PIT (CURTINS)

HAND EXCAVATED TRIAL PIT (BALFOUR BEATTY)

450mm topsoil in BB2.

Rev:	Description:	Date:	By:	Chkd:

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Status:

INFORMATION

Project:

NEW CROSS CAPPING VALIDATION

Drg Title:

CAPPING VALIDATION PLAN GROUND FLOOR

Scale:	Size:	First Issue:	Drawn:	Checked:
NTS	A3	21/08/2020	MH	SH

Drg No:	Rev:
067896-CUR-00-XX-DR-GE-0003	V01

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