



COMPLEX CHALLENGES ...
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Plots NT02, NT03, NT04 Enabling Works

Phasing Plan

1.0 Introduction

This phasing plan has been developed in response to Condition 4 of planning application 136814/FO/2023, Land bound by Dantzic Street, Dalton Street and the Railway Line known as Plots NT02, NT03 and NT04.

This note describes the phasing and outline scope of works to be completed within the defined Enabling Works, specifically in relation to site remediation. This note should be read in conjunction with appended drawings RDB-ROC-XX-XX-DR-C-PP01 and PP02 which defines the areas of the Enabling Works Phases as summarised below. The main intent of the phasing is to differentiate areas of the site into that which requires soil and ground water remediation owing to the presence of TCE contamination, and that which does not.

2.0 Prior works

In accordance with Condition 4 attached to 136814/FO/2023, the scope of works prior to the Enabling Works Phase includes:

- Vegetation Clearance
- Site Setup
- Above ground demolition
- Services disconnection (approx. 10 number private electric, water, comms and gas connections to the at back of footpath of Dantzic Street and Dalton Street)

3.0 Soil Remediation Phase

The scope of the Soil Remediation Phase is defined on drawing RDB-ROC-XX-XX-DR-C-PP01. The objective of the Enabling Works Soil Remediation Phase is to complete site clearance, below ground demolition, bulk earthworks, and material selection in preparation for the following Construction Phase. The Soil Remediation Phase also includes installation of a contiguous piled retaining wall to allow partial removal of an earthworks mound supporting the adjacent Network Rail land, known as the NR Mound. Following completion of the new retaining wall the residual mound will be removed as part of the general earthworks under this phase.



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The Soil Remediation Phase has been separated into two areas. Area A is defined as soils without TCE contamination. Whereas Area B is defined as soils potentially containing elevated levels of TCE contamination that need further consideration from a remediation perspective.

In accordance with the requirements of condition 17 attached to 136814/FO/2023 a remedial strategy addressing the full scope of remedial works required for the proposed development has produced and will be submitted for formal approval in due course. A summary of the scope of work anticipated for the soils remediation 'enabling phase' (taken from the wider remedial strategy) is presented below:

- Identify and protect bore holes retained for testing
- Ground water monitoring via existing wells to continue
- Soil scrape and removal from Area A
- Removal of hardstanding from Area A
- Turnover and removal of obstructions
- Select and sort material for reuse or export
- Excavate and removal of soils from Area A (formation of basement excavations)
- Formation of piling platform using site won material
- Installation of piled retaining wall
- Removal of NR mound
- Removal of hardstanding from Area B
- Removal of contaminated soils from Area B and replacement with selected fill
- Interim verification of soil screening and remediation

The medium pressure gas main will be diverted after the soil remediation phase.

Installation of the piled retaining wall shall be subject to submission and agreement to a piling risk assessment in accordance with condition 20 of application 136814/FO/2023.

3.1 Area B

The distinction of Area B is that the underlying made ground has been identified as being at risk of elevated levels of TCE contamination. In accordance with the requirements of condition 17 attached to 136814/FO/2023 a remedial strategy addressing the full scope of remedial works required for the proposed development has produced and will be submitted for formal approval in due course. The remediation strategy will be capture screening criteria for the remediation of the contaminated soils and ground water at risk of TCE contamination specific to Area B.



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The current hardstanding in Area B, including existing building slabs, is considered to offer some level of protection to prevent leaching of the TCE contamination to ground waters. Hardstanding areas in Area B are not to be removed as part of wider site clearance and must remain in place until immediately prior to remediation of the soils (maximum of 8 weeks).

An ongoing regime of groundwater monitoring is to be implemented as set out in the remediation strategy. This will monitor for changes in ground water contamination as a result of changes in site condition, notably slab removal, soil remediation and any intervening period between this and subsequent ground water remediation.

In the event that ground water contamination is seen to be mobilised as a result of changing site conditions a contingency plan is to be implemented.

3.2 Contingency Plan

Should the monitoring of ground water highlight mobilisation of ground water contamination, prior, during or subsequent to the Soil Remediation Phase a contingency plan needs to be implemented to prevent wider distribution of ground water contamination and risk to nearby receptors. The contingency plan is set out in the remediation strategy.

3.3 Gas Main Diversion

A medium pressure gas main diversion is to be implemented during the Enabling Works phase. The existing and proposed route is indicated on the Phasing Plan drawings RDB-ROC-XX-XX-DR-C-PP01 & PP02. The timing of the diversion is dependent on third party statutory contractors although it is envisaged to be completed subsequent to the soil remediation in Area B. On this basis, the new gas main will be installed within remediated soils.

The gas main is to be installed at a depth of circa 900mm meaning it will lie within remediated made ground deposits. The installation will not impact on or prevent future remediation of contaminated ground waters. The new gas main route will be recorded such that it can be acknowledged and incorporated within any subsequent ground water remediation design.

4.0 Ground Water Remediation Phase

The scope of the Ground Water Remediation Phase is defined on drawing RDB-ROC-XX-XX-DR-C-PP02.

An area of TCE contamination has been identified in the south west of the site, focused around the area of the existing warehouse on plot NT02. Remediation requirements



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have been outlined in the remediation strategy produced in response to Planning Condition 17.

As noted in the Soil Remediation Phase, hardstanding areas will remain in place until soil remediation activities are ready to proceed to minimise risk of contamination mobilisation due to surface water filtration.

On completion of the soil remediation, ground water monitoring will continue during the intervening period between soil remediation and ground water remediation to monitor for any increase in mobilisation of ground water contamination.

In the event that ground water contamination is seen to be mobilised as a result of changing conditions, a contingency plan is to be implemented. The contingency plan is as set out in the remediation strategy.

An interim remediation verification report will be completed recording implementation of the ground water remediation.

5.0 Verification

In accordance with the requirements of condition 18, a remedial verification report will be completed at completion of the Enabling Works phase. This 'Interim' verification report will record and report on remediation measures implemented during the Enabling Works phase (Soil Remediation Phase and Ground Water Remediation Phase) as recommended by the remediation strategy.

The detail of this verification is captured in the remediation strategy, but in summary this interim verification will capture, selection and removal of soil, removal of TCE contaminated soils, implementation of ground water remediation.

As per the wording of condition 18 attached to 136814/FO/2023, it is noted that following the commencement of the Construction Phase but prior to occupation, it will be necessary to submit further verification reporting confirming the successful conclusion of site remedial efforts, to capture installation of human health requirements for capping and membrane systems as identified in the remediation strategy. A verification report will be issued for each of the construction phases identified in the Construction Phase Plan, submitted under Condition 11, drawing upon and incorporating the interim verification report.

The construction phase will need to be reflective of the special extents of remediation requirements set out in the remediation strategy and the ground remediation completed in the Enabling Works phase.

6.0 Sequencing



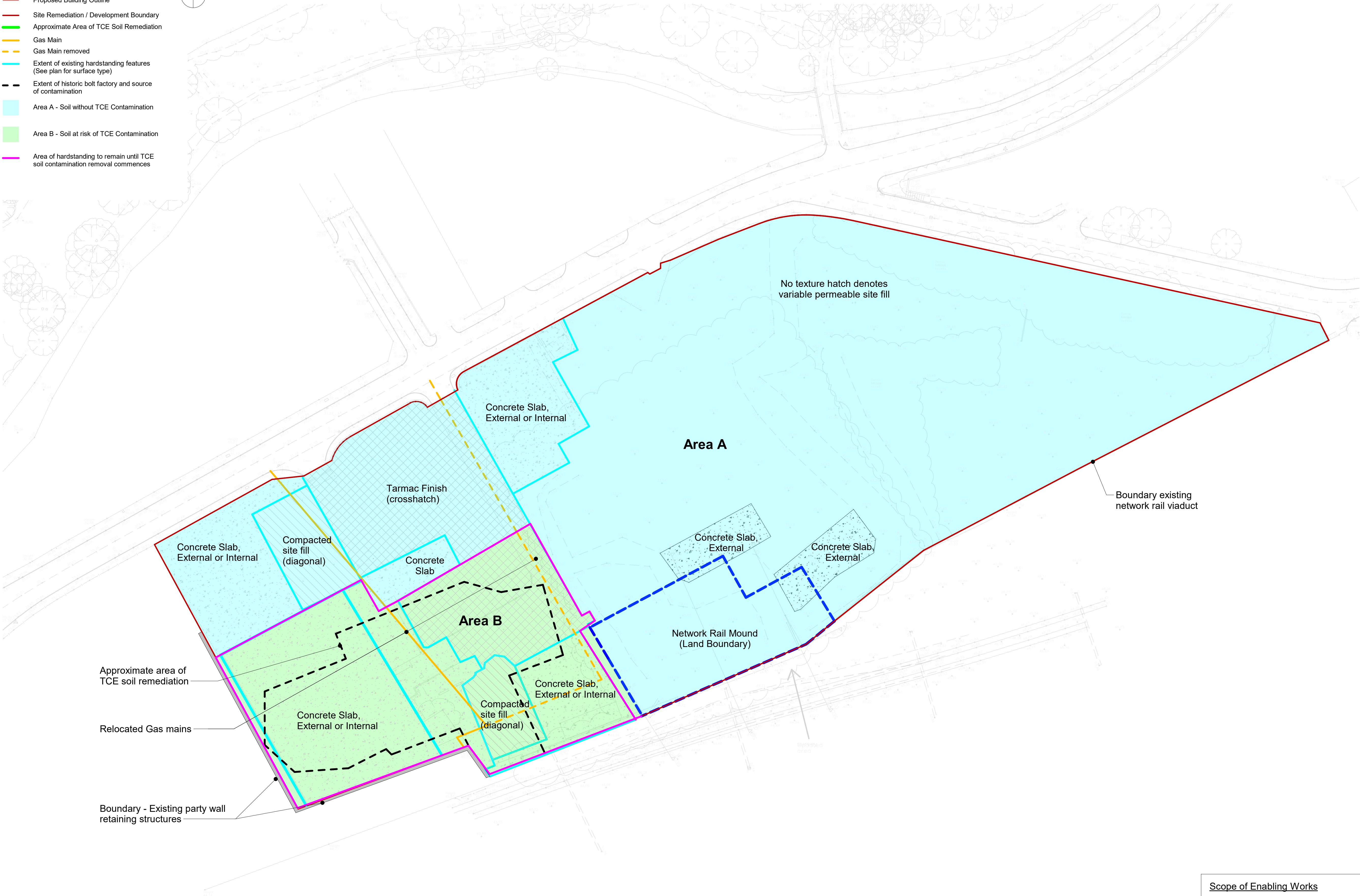
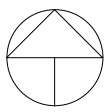
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Although the phasing of the site remediation is not intended to be interdependent, ie the soil remediation and ground water remediation phase, the following sequence of work is envisaged.

1. Soil Remediation Phase – Area A
 - This allows bulk earthworks to be mobilised, screened and sorted. Releasing site won made ground material allowed for follow on works including construction of the piling platform for the NR mound works and stockpiling of screened material for replacement of contaminated soils removed in Area B
2. Network Rail Retaining Wall
3. Soil Remediation Phase – Area B
 - This will commence with removal of all hardstanding within Area B, which is only to commence at the point which soil remediation is ready to start. The soil remediation will precede ground water remediation and ground of the following:
 - o Allows for removal of hardstanding and obstructions to assist water remediation by means of penetrative methods
 - o Removes contamination source from soils to reduce further leaching of contamination to remediated ground waters
 - o Clears soils ahead of the gas main diversion
 - o The ground water remediation will introduce a further network of monitoring points which could not be maintained while bulk earthworks take place
4. Gas Mian Diversion
5. Ground Water Remediation
6. Verification

REMEDATION LEGEND

- Proposed Building Outline
- Site Remediation / Development Boundary
- Approximate Area of TCE Soil Remediation
- Gas Main
- Gas Main removed
- Extent of existing hardstanding features (See plan for surface type)
- Extent of historic bolt factory and source of contamination
- Area A - Soil without TCE Contamination
- Area B - Soil at risk of TCE Contamination
- Area of hardstanding to remain until TCE soil contamination removal commences



00 ENABLING WORKS - PHASING PLAN
1 : 500

Scope of Enabling Works

Earthworks and Ground Remediation

- Soil scrape and remove
- Break out hardstanding (Area A)
- Turnover and remove obstructions
- Select and sort material for reuse/export
- Excavation and removal of soils excluding TCE contamination (Area A)
- Formation of piling platform using site won material
- Installation of piled retaining wall
- Removal of Network Rail mound
- Removal of hardstanding (Area B)
- Removal of TCE contaminated soil and replace with selected site won material (Area B)
- Diversion of existing gas main

Prior Works

- Vegetation clearance
- Above ground demolition
- Services disconnection

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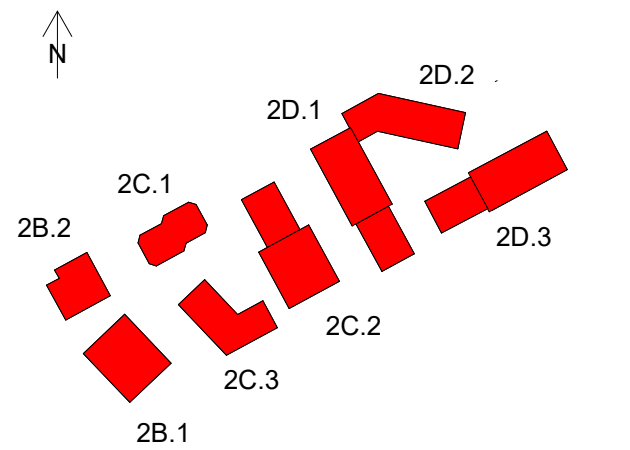
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NOTES

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3. It is the responsibility of the lead consultant (architect) to check the setting out provided on these drawings and the co-ordination of the frame with the envelope & other elements of the building.
4. All dimensions are in millimetres unless noted otherwise.
5. All levels are in metres above Ordnance Datum unless noted otherwise.
6. For Concrete Grades and RC Estimates see general notes drg 8050.
7. This drawing is to be read in conjunction with general notes drg 8050.
8. For Loading Information refer to Drg 8080+

VOLUME / BLOCK PLAN



P02	24.11.2023	SCOPE OF ENABLING WORKS & GROUND WATER REMEDIATION	SJB	MJN	
P01	31.10.2023	INITIAL ISSUE	EGP	IMN	
REV	DATE	DETAILS	DRN	CHK	

PRELIMINARY
STAGE 3

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DRAWN EGP	DATE 02.11.2023	SCALES As indicated
CHECKED MN	DATE 02.11.2023	THE ABOVE SCALES APPLY WHEN PLOTTED AT A1 SIZE -DO NOT SCALE-
APPRVD MN	DATE 02.11.2023	EMAIL FOR DRAWINGS: info@roconsulting.com

CLIENT
FEC

PROJECT TITLE
RED BANK DEVELOPMENT

DRAWING TITLE
**BLOCK XX
ENABLING WORKS SOIL
REMEDATION
PHASING PLAN**

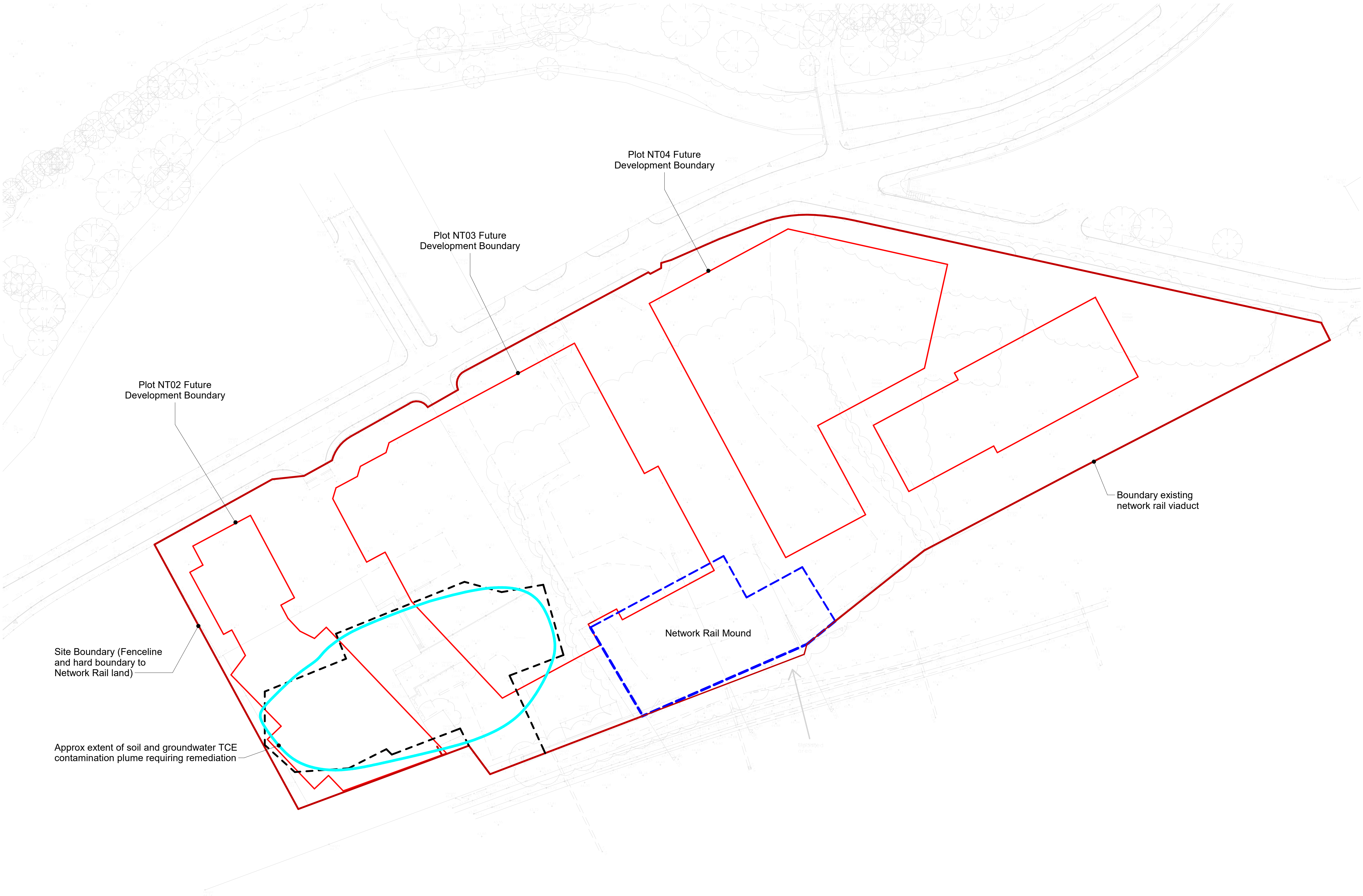
DRAWING No. RDB-ROC-XX-XX-DR-C-PP01	REV. P02
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REMEDIATION LEGEND

- Site Remediation / Development Boundary
- Approximate Area of TCE Ground Water Remediation
- Extent of historic bolt factory and source of contamination

NOTES

1) Assumed soil & groundwater TCE plume extents taken from model input parameters used in the Level 2 and Level 3 DQRA modelling assessment (see RSK Geosciences report ref :11847 R01(01) dated December 2023 for further information). Actual spatial extent may vary on site and the extents shown on this plan should be considered as indicative.



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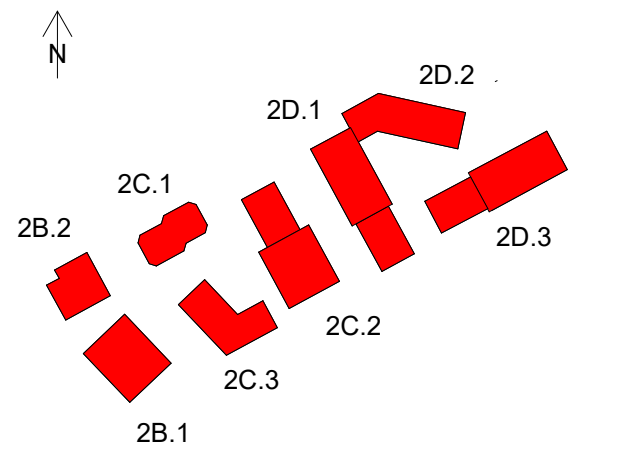
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VOLUME / BLOCK PLAN



P02	21.12.2023	SCOPE OF GROUND WATER REMEDIATION	SJB	MJN	
P01	24.11.2023	SCOPE OF ENABLING WORKS & GROUND WATER REMEDIATION	SJB	MJN	
REV	DATE	DETAILS	DRN	CHK	

DRAWING STATUS
PRELIMINARY
STAGE 3

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