



INDICATIVE PLANS AND ELEVATIONS

Drax Bioenergy with Carbon Capture and Storage

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations, 2009 - Regulation 5(2)(o)

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Applicant: Drax Power Limited

PINS Reference: EN010120



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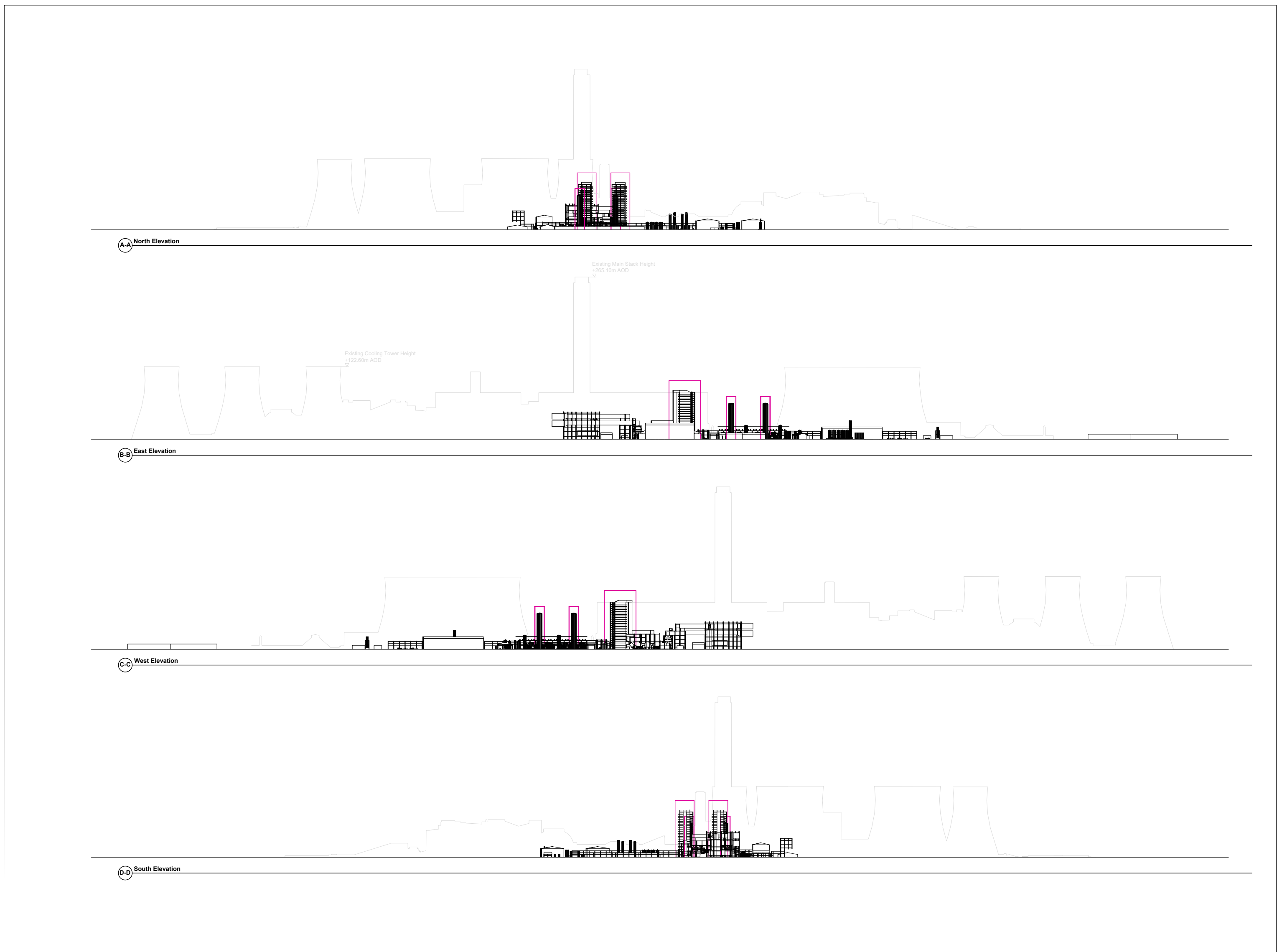
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SHEET 1 OF 3: PLANT EQUIPMENT -
INDICATIVE LAYOUT



SHEET 2 OF 3: PLANT EQUIPMENT -
INDICATIVE AERIAL VIEW



SHEET 3 OF 3: PLANT EQUIPMENT -
INDICATIVE ELEVATIONS

Notes:

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PROJECT TITLE
**DRAX BECCS
DCO**

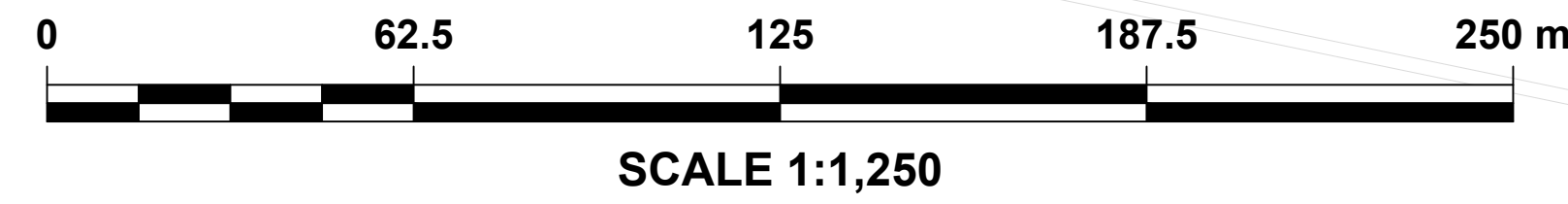
DRAWING TITLE
INDICATIVE PLANS AND ELEVATIONS
KEY PLAN

DRAWING STATUS
FOR ISSUE

DRAWN CH	CHECKED RM	APPROVED MM	AUTHORISED NA
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SCALE @ A0 SIZE REFER TO SPECIFIC SHEETS	DATE 06/05/2022	REVISION P01
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DRAWING NUMBER
EN010120-PA-EN-2.5-Sheet0



Key:

- Order Limits
- Pipe Bridges and Ducting
- Aboveground Carbon Dioxide Pipeline
- Underground Carbon Dioxide Pipeline

Notes:

- This drawing includes only the main plant equipment / buildings as referenced in Schedule 14 of the draft DCO.
- Although the layout configuration, dimensions and number of plant equipment / buildings presented should be considered indicative, it represents the current concept design which has been developed from thorough and detailed engineering work with consideration given to the deliverability and integration with the existing Drax Power Station. For reference of the maximum parameters used for the environmental assessment, please refer to Schedule 14 of the draft DCO.
- 7 metre easement from the culvert walls of Carr Dyke required. Route and width of culvert indicatively shown on plan but to be confirmed during surveys at Detailed Design.
- Any works associated with replacements, upgrades or modifications of existing plant equipment / buildings have not been shown in this drawing. However, specific details for each of these works have been outlined below for reference, and details of all works have been included in Chapter 2 - Project Description of the Environmental Statement and Schedule 1 of the draft DCO:
 - An alternate secondary electrical supply for the BECCS equipment would be provided from the existing 132 kV air insulated switchgear through upgrade works on the existing 400 kV National Grid substation, the existing 132 kV air insulated switchgear, replacement of existing 132 kV underground cabling and restringing of existing 132 kV overhead powerlines, and installation of new distribution voltage infrastructure.
 - Cooling requirements would be provided using the existing northern cooling towers. Modification works would be required to the existing cooling water pumps and reconfiguration of the cooling water discharge manifold.
 - Modification, upgrade and extension works would be required to the existing Unit 1 and Unit 2 to enable steam extraction and supply to the BECCS equipment.
 - Modification and refurbishment works would be required to the existing Unit 1 and Unit 2 electrostatic precipitators.
 - Replacement and upgrade works would be required to the existing main generator transformers for Unit 1 and Unit 2.
 - Retrofitting works would be required to the existing Sedimentation Tanks to ensure suitable quality of circulating water through the BECCS plant.

Item	Description
1	Gas / Gas Heat Exchanger
2	Quench Column
3	Absorber Column
4	Solvent Regeneration System (Regenerators and Solvent Processing)
5	Rich Solvent / Lean Solvent Heat Exchangers
6	Main Process and Services Rack
7	Steam Pipe Bridge
8	Combined Power Turbines Building
9	Pressure Reducing De-Superheating Station Buildings
10	Solvent Storage and Make-up System
11	Carbon Dioxide Pipe Bridge
12	Carbon Dioxide Processing and Compression Plant
13	Carbon Dioxide Main Vent Stacks
14	Carbon Capture Wastewater Treatment Plant
15	Electrical Switchroom Buildings
16	Carbon Dioxide Delivery Terminal Compound (National Grid Carbon Limited)
17	Fire Water Tanks

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PROJECT TITLE

DRAX BECCS DCO

DRAWING TITLE

INDICATIVE PLANS AND ELEVATIONS

SHEET 1 OF 3: PLANT EQUIPMENT - INDICATIVE LAYOUT

DRAWING STATUS

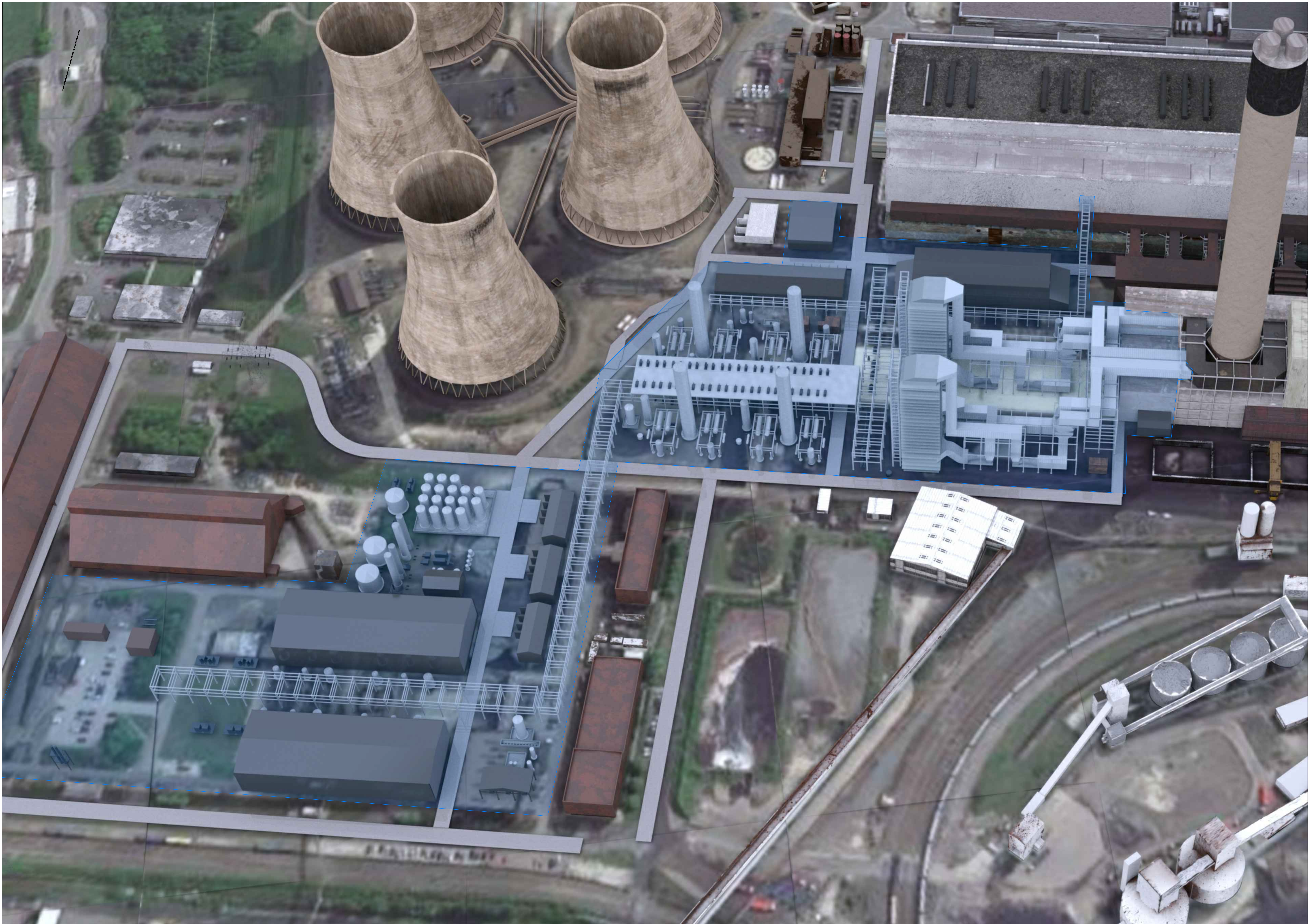
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EN010120-PA-EN-2.5-Sheet1



3D model aerial view looking east and showing new BECCS plant equipment area (highlighted in blue) in relation to the existing Drax Power Station.

Key:

New BECCS Plant Equipment Area

Notes:

1. Although the layout configuration, dimensions and number of plant equipment / buildings presented should be considered indicative, it represents the current concept design which has been developed from thorough and detailed engineering work with consideration given to the deliverability and integration with the existing Drax Power Station.

2. The Carbon Dioxide Delivery Terminal Compound (National Grid Carbon Limited) situated further north is not shown in this aerial view drawing.

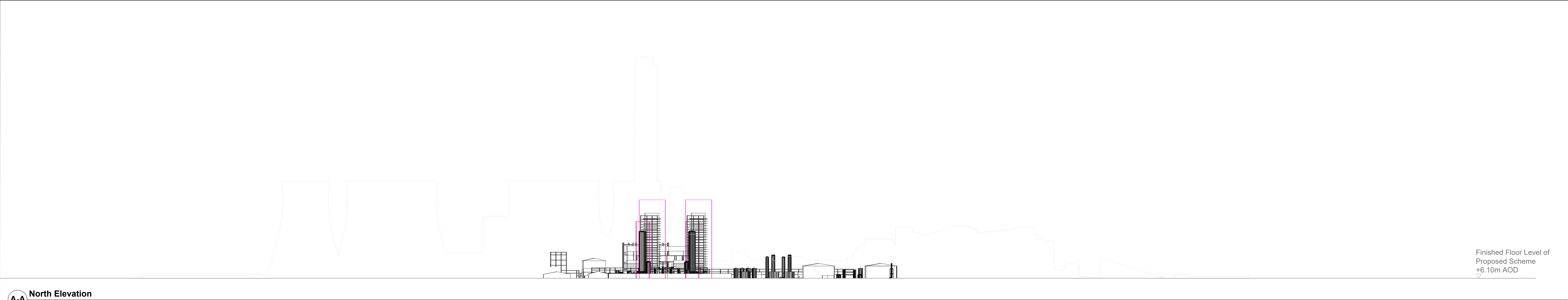
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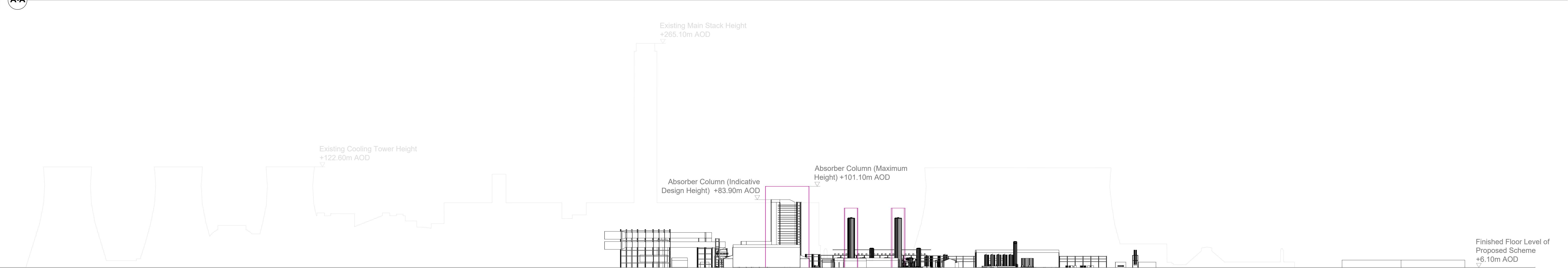
PROJECT TITLE
**DRAX BECCS
DCO**

DRAWING TITLE
INDICATIVE PLANS AND ELEVATIONS
SHEET 2 OF 3: PLANT EQUIPMENT - INDICATIVE AERIAL VIEW

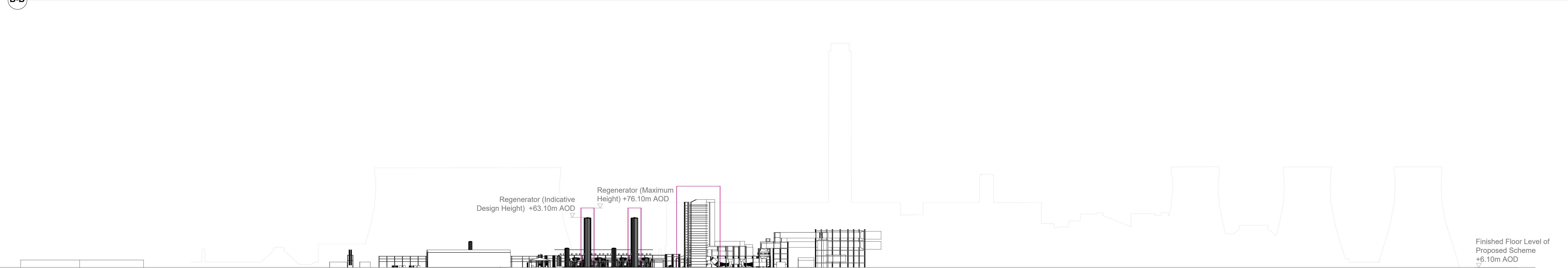
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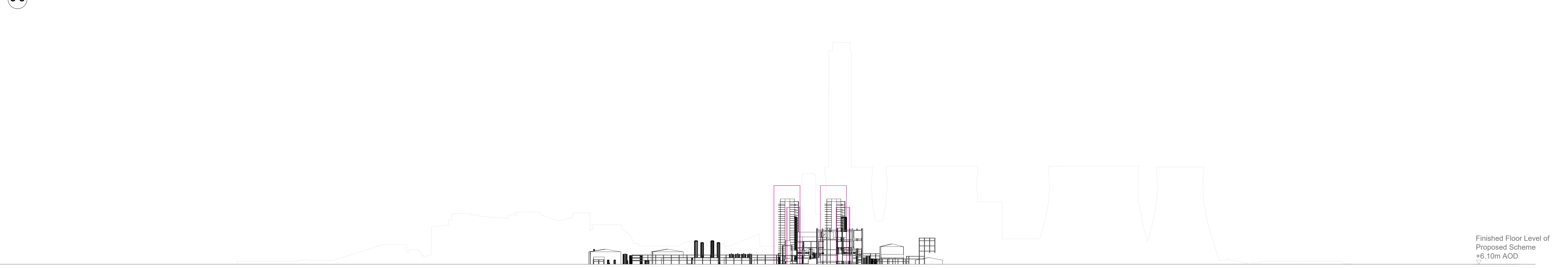
A-A North Elevation



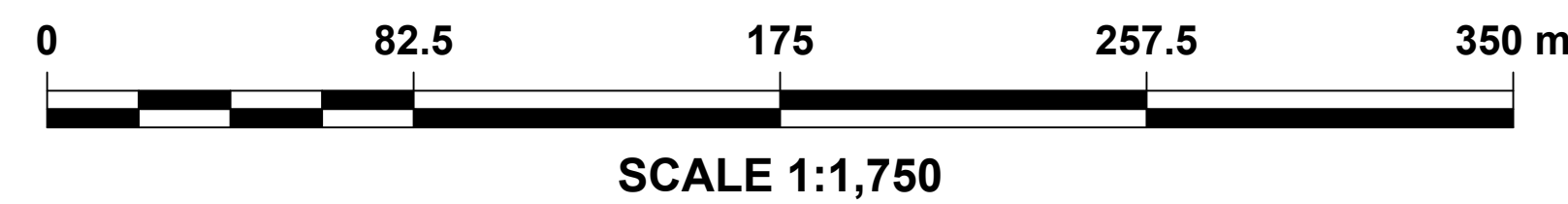
B-B East Elevation



C-C West Elevation



D-D South Elevation



Plan View

Isometric View

Key:

- New BECCS Plant Equipment
- New BECCS Plant Equipment
- Maximum Parameters (shown for the Absorber Columns and Regenerators)
- New BECCS Plant Equipment Area
- Existing Drax Power Station - Profile

Notes:

- The elevations shown on this drawing should be considered indicative, representing the current concept design which has been developed from thorough and detailed engineering work with consideration given to the deliverability and integration with the existing Drax Power Station. The maximum parameters (as outlined in Schedule 14 of the draft DCO) is shown for the Absorber Columns and Regenerator Columns.
- The purpose of this drawing is to focus on the elevations of the Proposed Scheme, with the profile of the existing Drax Power Station added for context only. For a visual representation of the new BECCS Plant Equipment relative to the existing Drax Power Station refer to the Orthographic Elevations, included within Section 4.6 of the Design Framework Document (Document Reference Number: 6.9).
- Finished Floor Level for the Proposed Scheme: +6.1m AOD. (Maximum finish floor level height to represent the 'worse-case' AOD height for all equipment and buildings in the overall existing built footprint extents. The finished floor may be under +6.1m AOD in some areas of the Proposed Scheme but will not be lower than the levels specified in the Flood Risk Assessment (Document Reference 6.3.12.1) for a design flood event.

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drax

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PROJECT TITLE

DRAX BECCS DCO

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INDICATIVE PLANS AND ELEVATIONS

SHEET 3 OF 3: PLANT EQUIPMENT - INDICATIVE ELEVATIONS

DRAWING STATUS

FOR ISSUE

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