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The Coal Authority
200 Lichfield Lane
Berry Hill
Mansfield
Nottinghamshire
NG18 4RG

Date: 16th August 2022

Our ref.: C8341/AMG/9946

Dear Sirs,

Re: C8341 – Land off Goat Mill Road, Merthyr Tydfil, Merthyr Tydfil County Borough Council Planning Application Ref. P/22/0064

Further to correspondence from the Coal Authority (CA) to Merthyr Tydfil County Borough Council (MTCBC) in relation to the above-referenced planning application, dated 7th April 2022 (which was forwarded to Sirius on 12th May 2022), we write to respond to the comments therein.

Recorded Mine Entries Beneath Proposed Buildings

Please see attached Sirius Geotechnical Drawing No. C8341/05. This shows the coal mine entries that are recorded within the site by the CA, the known details of which are stated within the Sirius Geotechnical Ltd Preliminary Appraisal report for the site (report ref. C8341 Rev B, dated February 2022).

The locations of the mine entries shown on the Drawing are centred on the co-ordinates recorded in the CA Consultants Mining Report, contained within Appendix C of the Preliminary Appraisal. At each recorded mine entry location, there are two blue circles; the inner circle is the assumed diameter of the mine entry, as taken from the CA Interactive Viewer. The outer circle is the possible zone of influence of the mine entry, with the radius determined using the sum of two separate factors:

- The 'Departure' stated on the CA Interactive Map Viewer, i.e., the possible margin of error in transferring the mine entry location from the original source of information, on to modern mapping.
- The thickness of opencast backfill overlying the mine entries, estimated from review of the Robert West Consulting Ltd *Assessment of Ground Conditions Report*, as detailed within the Sirius Preliminary Appraisal report. As the zone of influence of a mine entry is assumed to extend upwards to the surface from rockhead at an angle of 45⁰, the

thickness of the fill is assumed to be equal to the radius of the zone of influence at the surface.

Drawing No. C8341/05 also shows the extent of excavation at the previous Great White Tip opencast coal mine, as taken from the CA Mine Abandonment Plan, Catalogue No. 17930/1, a copy of which is included within Appendix C of the Sirius Preliminary Appraisal report.

The extent of excavation at the historical opencast mine encompassed the majority of the proposed development site, including the full potential zone of influence of CA mine adit ref. 306206-006. It is therefore considered almost certain that the mine adit has been fully removed and does not present a risk to site stability.

The proposed site layout has now been amended, so that Building 2 is no longer affected by any recorded mine entries, as shown on Sirius Planning Drawing No. JAY1001/04/06 Revision 1, dated 08/08/2022 (copy attached).

Recorded Mine Entries Beneath Proposed External Areas

As shown on Drawing No. C8341/05, there are four CA recorded mine entries in the east of the site (three shafts and one adit). As these are located well within the former opencast extraction boundary, it is considered almost certain that the adit (CA ref. 306206-083) has been fully removed, and possible that the mine shafts have been fully removed, by opencast mining, although it is possible that remnants of the mine shafts remain below the base of the backfilled opencast backfill.

The recorded locations of the five mine entries within the site, and their associated zones of influence, are located wholly within external areas of the proposed development. Although there are proposed plastic waste bale storage areas that coincide with the recorded locations of four mine entry locations or their zones of influence, it should be noted that these are not classified as structures for the purposes of assessing coal mining stability risks, i.e., they do not require foundations, are only 4m high, impose only a very light loading (c. 12 kPa) on to the external surfacing, and are not being sensitive to small ground movements.

Consequently, storage of plastic waste bales should not be considered as 'building over or within the influencing distance of a mine entry' in relation to the CA's policy in this respect, and the objection to the planning application should be removed.

Notwithstanding the above, the site is located within a Development High Risk Area with respect to several coal mining hazards, and the Preliminary Appraisal report recommends intrusive investigation to further inform the assessment of coal mining stability risks to the proposed development, including targeted investigation of the recorded mine entries that may remain below proposed developed areas following opencast mining, using trial trenching and rotary probehole drilling.

Construction of paved external areas in industrial developments over / within the zone of influence of mine entries has been successfully undertaken elsewhere with CA approval following appropriate site investigation and, where necessary, stabilisation works. Dependent on the depth to any mine shafts that remain on the site following opencast mining, possible options for mitigation of future instability risks could include filling shafts with suitable granular material, provision of a concrete shaft plug, drilling and grouting, provision of geosynthetic reinforcement of shallow soils, construction of shaft caps at rockhead, or above rockhead, supported on piles, or a combination of two or more of these procedures.

Treatment of mine adits may include excavation at near surface, and placement of suitable engineered fill materials, and filling by drilling and grouting, at greater depths.

The details of any treatment works on coal mine entries must be agreed in advance with the CA.

We trust that the above and attached meets with your approval is sufficient for removal of the objection to the planning application; however, should you wish to discuss any aspect of the above, please do not hesitate to contact the undersigned.

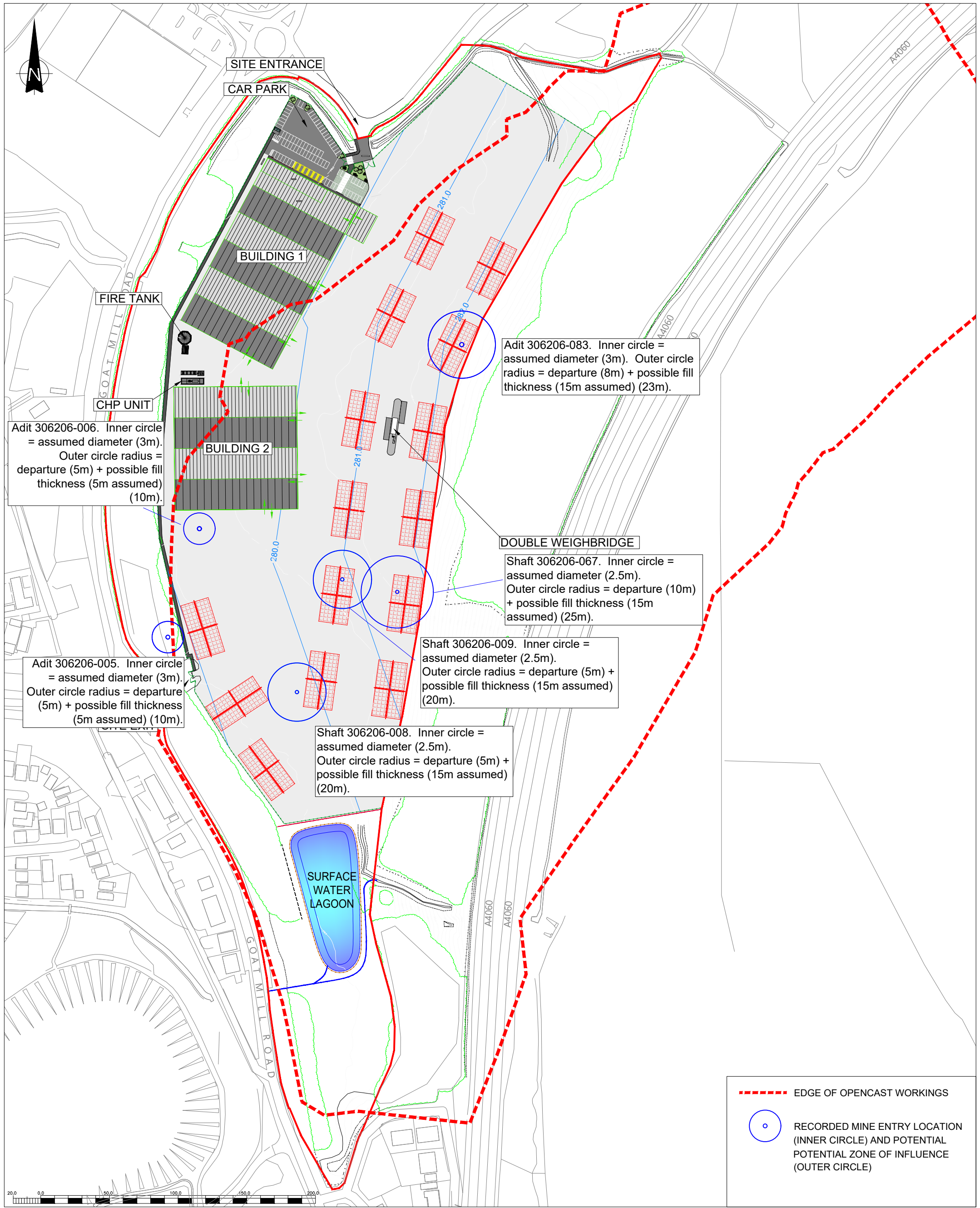
Yours faithfully,

A handwritten signature in black ink, appearing to read 'Adrian Grant', with a stylized, flowing script.

Adrian Grant
Principal Engineer

For and on behalf of
Sirius Geotechnical Ltd

Enc Drawings



----- EDGE OF OPENCAST WORKINGS

RECORDED MINE ENTRY LOCATION (INNER CIRCLE) AND POTENTIAL POTENTIAL ZONE OF INFLUENCE (OUTER CIRCLE)

CLIENT

**J&A YOUNG
(LEICESTER) LTD**



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JOB TITLE

GOAT MILL ROAD, MERTHYR TYDFIL

DRAWING TITLE

**MINE ENTRIES AND OPENCAST EXCAVATION
IN RELATION TO PROPOSED SITE LAYOUT**

KEY

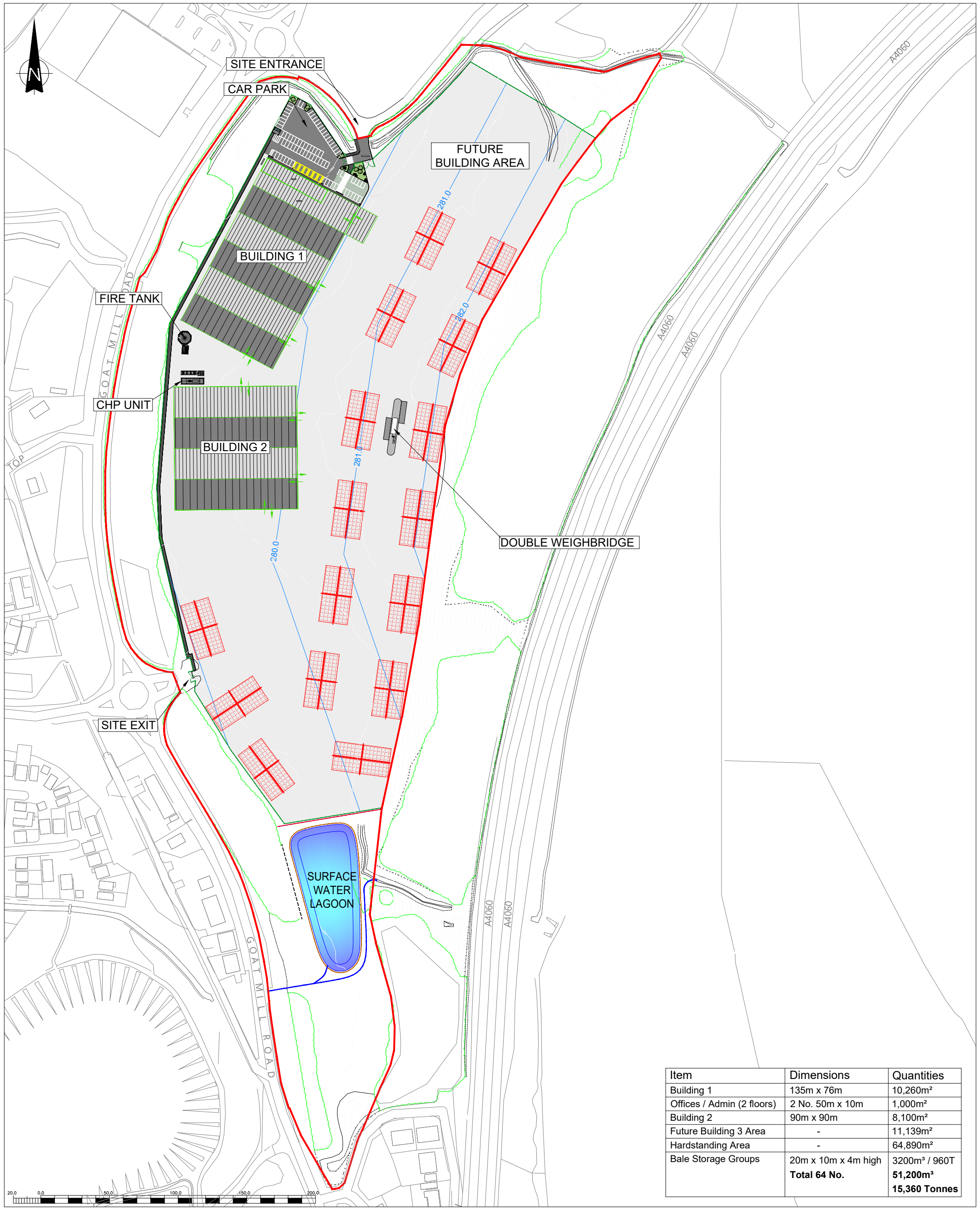
- PLANNING APPLICATION BOUNDARY
- PROPOSED DEVELOPMENT PLATFORM CONTOURS
- PROPOSED PALADIN SECURITY FENCE
- PROPOSED TIMBER CLOSE BOARDED FENCE
- PROPOSED TIMBER POST AND RAIL FENCE
- PROPOSED FOOTPATH
- PROPOSED BALE STORAGE

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REV	DESCRIPTION	DATE	BY

DRAWN	DATE	APPROVED	DATE
AMG	8/8/2022	AMG	8/8/2022

SCALE	SHEET	DRAWING NUMBER	REVISION
1:2500	A3P	C8341/05	



Item	Dimensions	Quantities
Building 1	135m x 76m	10,260m ²
Offices / Admin (2 floors)	2 No. 50m x 10m	1,000m ²
Building 2	90m x 90m	8,100m ²
Future Building 3 Area	-	11,139m ²
Hardstanding Area	-	64,890m ²
Bale Storage Groups	20m x 10m x 4m high	3200m ³ / 960T
	Total 64 No.	51,200m³ 15,360 Tonnes

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JOB TITLE
GOAT MILL ROAD, MERTHYR

DRAWING TITLE
SITE LAYOUT

KEY

PLANNING APPLICATION BOUNDARY

PROPOSED DEVELOPMENT PLATFORM CONTOURS

PROPOSED PALADIN SECURITY FENCE

PROPOSED TIMBER CLOSE BOARDED FENCE

PROPOSED TIMBER POST AND RAIL FENCE

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1

BUILDING 2 AMENDED

8/8/22

S.T

REV

DESCRIPTION

DATE

BY

DRAWN

DATE

APPROVED

DATE

S.T

8/8/2022

D.B

8/8/2022

SCALE

SHEET

DRAWING NUMBER

REVISION

1:2500

A3P

JAY1001/04/06

1