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Outline Building Assessment

Crownhill Topsoil and Aggregates – Unit 1009 Caerwent Army Training Base.

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Contents

1 Introduction:

Crownhill Topsoil and Aggregates (the trading name for Sole Trader Simon Stone) is a recycling company undertaking the following activities:

- The production of soils and aggregates from inert wastes for sale to the commercial and domestic markets;
- The sale of quarried aggregates to the commercial and domestic markets;

The undertaking of these activities requires that a Bespoke Environmental Permit application be submitted to Natural Resources Wales (NRW) based on the SR2010_No12 – Treatment of Waste to produce Soil, Soil Substitutes and Aggregates Standard Rule Set.

Natural Resources Wales have requested an Outline Assessment of the condition of buildings to be used for the storage of inert soils and aggregates. This document records

2 Buildings at the Site:

The site is located at Unit 1009 of the Caerwent Army Training Estate in Caerwent.

There are 10 buildings within Unit 1009. 8 of these are used by Crownhill Topsoil and Aggregates. 3 of the buildings are used for the storage of soils and aggregates, 1 has been set aside to be used to quarantine soils and aggregates received into the site, which are out of specification, if they cannot be immediately removed. Storage within this building will be short duration while the waste consignee makes arrangements to collect the waste. 1 building will be used as a workshop. 2 buildings are used for the storage of plant and equipment and the remaining building is a modular office / weighbridge office.

The locations of these buildings can be seen within Appendix A:

2.1 Building 1:

Building 1 is the Quarantine Building. This has been selected as a quarantine area as the drainage in this area can be isolated from the remainder of the site.

The building is constructed on a concrete slab which has been cast in segments, with sealed joints. During the inspection it was noted that the top of the joints were filled with compacted soil / crushed concrete in most places but where this was raked out, mastic sealant was encountered. The full extent and integrity of this sealant was not investigated.

The slab extends for 2m outside the building to the east and the rear. The area to the west is compacted SHW Type 1 stone.

The building is of steel reinforced concrete frame construction with a pitched concrete roof sealed using a foil backed, reinforced felt and bitumen waterproofing system. The roof has been constructed in two bays with a central gutter, channelling rainwater to downpipes at either end of the building. The downpipe at the front of the building has been piped to the eastern side of the

building, There is guttering along the east and west façade of the building with downpipes at the corners. There is a central downpipe on the front of the building which has been diverted to the eastern side of the building. The central downpipe on the rear of the building drains onto the slab and runs into the vegetation to the rear of the building. The walls of the concrete frame are infilled with brick.

There was no sign of water ingress into the building. No water could be seen seeping beneath the walls along the slab.

Building 1 – Southern elevation, bund across forecourt to contain and direct runoff from the forecourt into a 1200l tank.

Building 1 – Southern elevation with flexible pipe taking runoff from the roof to a soakaway to the east of the building.

The building measures 26m across its frontage and is 19m deep. It is approximately 5m high. There is vehicular access doorway measuring 3.5m wide and one pedestrian doorway. There are steel doors on the pedestrian doorway and a roller shutter door on the vehicular doorway, although the tracks for this appeared to be damaged.

Building 1 – Eastern elevation.

Building 1 – Roof construction.

Building 1 – Quarantine bays and brick infills between concrete pillars making up the walls.

The building has guttering along the four sides of the roof connecting to downpipes.

2.2 Building 2:

Building 2 is used for the storage of topsoil and screened sub-soil. The area between buildings 1 and 2 is compacted stone for the first 8m to the west of Building 1 and is then concrete.

The building is constructed on a concrete slab which has been cast in segments, with sealed joints. Joints were not inspected. The building measures 26m x 19m x 5m high.

The slab extends for 2m outside the building and the area infront of the building is concrete slab.

The building is of steel reinforced concrete frame construction with a pitched concrete roof sealed using a foil backed, reinforced felt and bitumen waterproofing system. The roof has been constructed in two bays with a central gutter, channelling rainwater to downpipes at either end of the building. The central downpipe on the rear of the building drains onto the slab and runs into the vegetation to the rear of the building. The walls of the concrete frame are infilled with brick.

There was no sign of water ingress into the building. No water could be seen seeping beneath the walls along the slab.

Building 2 – Southern elevation with 3.5m wide vehicle access door and pedestrian door.

Building 2 – western section – Damage to brickwork around vehicular door. Brickwork is not structural as the doorway is supported by a concrete portal frame.

2.3 Building 3

Building 3 is of the same concrete and brick construction as Buildings 1 and 2. It measures 50m x 19m x 5m high, with a pitched roof constructed in four bays.

The building has guttering along the eastern and western elevations which captures rainfall runoff from the sections of roof immediately above them and channels this into downpipes at the front and rear of the building. The downpipes from the front of the building have been diverted to the rear of the building, where water appears to flow off the back of the slab into the vegetated area to the rear of the building.

Rainfall runoff from the roof valleys, is collected in guttering running along the front of the building and directly into downpipes at the rear of the building.

The building has two vehicular doors and two pedestrian doors. The doors have roller shutters, both of which were open so it is not clear whether these are operational.

Sections of the concrete floor slab which were visible, appeared to be intact. The integrity of the joints in the floor slab was not investigated.

There was no evidence of water ingress within the building, beyond rainfall which had blown in through the doors.

2.4 Building 4:

The construction is the same as buildings 1 and 2. The building measures 50m x 19m x 5m high.

Building 4 – Eastern end, with concrete frontage.

Building 4 – This is a four bay building.

Building 4 – Western side – Further damage to brickwork around vehicular door.

Building 4 – eastern elevation – there is a 4m wide strip of vegetated soil along side of the building.

Building 4 – Guttering along front of building, collecting rainfall from valleys between bays.

Building 4 – Rainfall from guttering at front of building being channelled to vegetated areas behind building.

The area to the west of the building is concrete slab, although during the walkover it was covered with a layer of earth with vegetation growing on it.

The building was part full of soils at the time of the walkover. There was no evidence of rainfall ingress into the building, within the sections which were visible.

2.5 Workshop:

This is the same construction as Buildings 1 and 2. This is a single bay building measuring 12m x 19m x 5m high and is used for the repair / servicing of plant and vehicles, the storage of plant and vehicle consumables, fuels and oils. There are bulk diesel storage tanks within the building for the storage of red and white diesel.

Rainfall runoff from the roof flows to gutters along the eastern and western elevations of the building. On the western elevation runoff flows into soft surfaced vegetated areas.

The building forecourt is concrete, tying into the access road into the site.

2.6 Office / Weighbridge Office:

This is a two-storey modular building utilising steel shipping containers fitted out as offices. The lower building is used as the weighbridge office and the upper building is utilised as office space. The upper building is accessed by a set of metal steps running up the outside of the building against the norther façade.

This building measures 7.4 x 2.6m and is approximately 5.4m high.

There are no gutters on the building, runoff from the buildings flows down the access road and then into the roadside ditch.

2.7 Building 5

Building 5 is used for the storage of produced topsoil, in order to keep it dry. The building measures 50m x 19m deep and 5m high and is of the same construction as Buildings 1 and 2. The building is 4 bays wide and has a vehicular door in the easternmost bay. A hole has been cut into the eastern wall to allow topsoil from the processing areas to be transported into the building from the conveyors on the screen.

The interior of the building was inspected and no water ingress was noted. The building was part full of topsoil. Sections of the concrete floor which were visible appeared to be in good condition. The integrity of the joints in the floor slab were not inspected.

Building 5 – Southern Elevation – Stockpiles of quarried aggregates stockpiled in bays against the building

Runoff from the roof of the building, discharges onto the concrete yard.

Building 5 – Eastern Section

Building 5 – eastern vehicular access door

Screen on hardstanding at the eastern end of Building 5 – screened topsoil is loaded into the building through the hole on the eastern wall of the building.

Building 5 – Western elevation – Quarried aggregate bays. This section of the yard is compacted stone.

2.8 Buildings 6 and 7

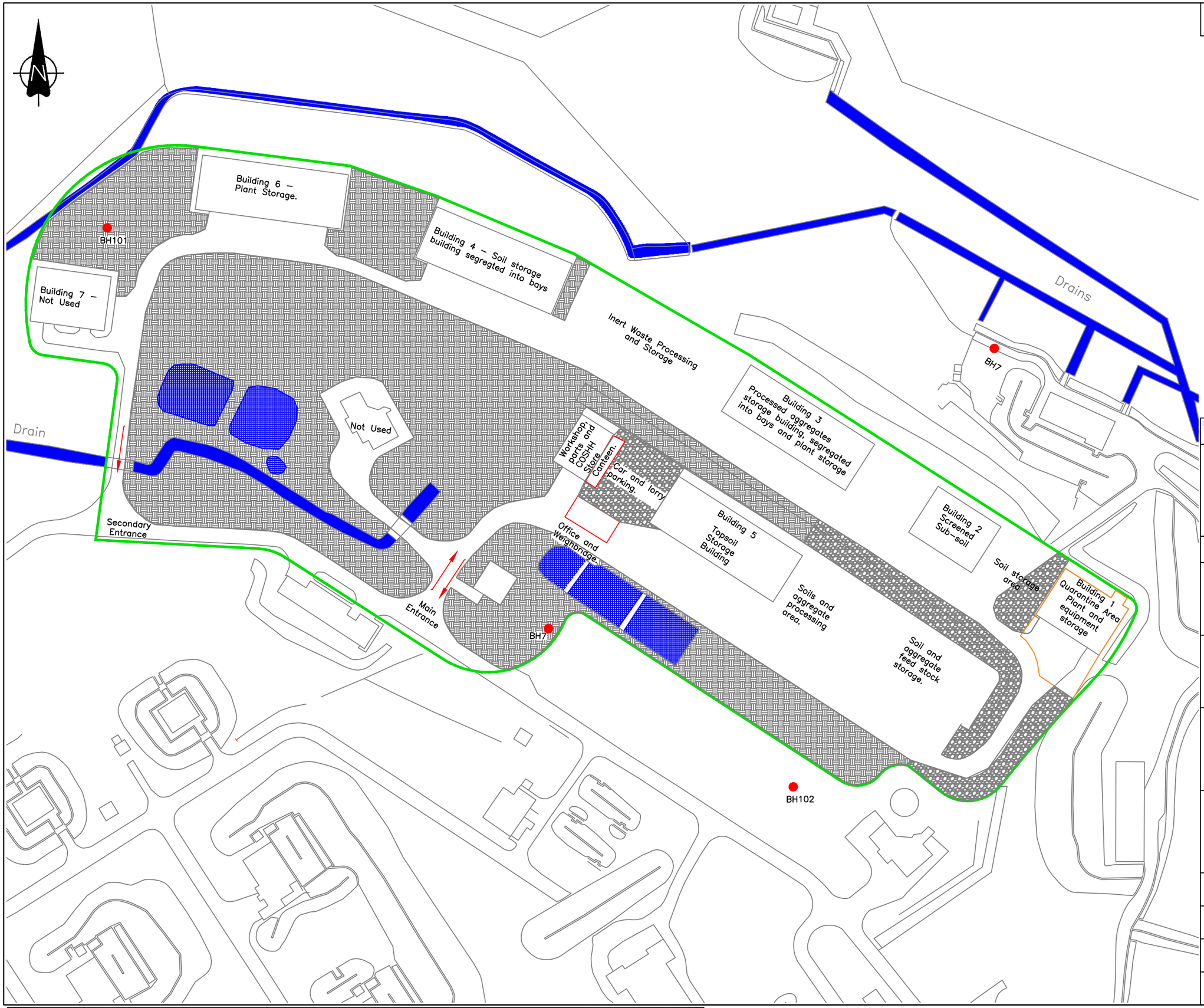
These buildings are of the same construction as buildings 1 and 2. Neither of these buildings is used by Crownhill. Both buildings drain onto soft surfaced areas, where rainfall is likely to soak away.

Building 6 – Eastern end of building.

Building 6 – Western end of building.

Building 7 – Rear of the building.

3 Appendix A – Site Layout Plan



DRAWING NUMBER	REVISION
EV170606/CHD02	0

KEY:

- SITE BOUNDARY
- GROUNDWATER MONITORING BOREHOLE
- Concrete surfaces
- Compacted Stone Surfaces used for the storage of soils
- Soiled / Vegetated Surfaces

REV	DATE	DESCRIPTION	DRWN	CHKD
		REVISIONS		
01	01/20	Additional information on surfaces and buildings	JG	SS

STATUS: INFORMATION

CLIENT: CROWNHILL
UNIT 1009 CAERWENT
ARMY TRAINING ESTATE
CALDICOT
NP26 5XL

PROJECT: CROWNHILL TOPSOIL AND AGGREGATES

TITLE: SITE LAYOUT

SCALE	DESIGNED
NTS	J. GREGORY
PROJECT NUMBER	DRAWN
EV160905	G. WILLIAMS
DATE	CHECKED
MARCH 2019	J. GREGORY
DRAWING NUMBER	REVISION
EV170606/CHD02	REVISION REF. 0