



Enterprise Skip Hire Ltd
Wendover Rd, Stoke Mandeville
Fire Prevention Plan (FPP)

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AA Environmental Limited
Units 4 to 8 Cholswell Court
Shippon
Abingdon
OX13 6HX
T 01235 536042
F 01235 532849
info@aae-ltd.co.uk
www.aae-ltd.co.uk

Contents

- 1.0 INTRODUCTION
- 2.0 MANAGEMENT
- 3 SITE CHARACTERISTICS
- 4.0 FIRE RISK
- 5 FIRE PREVENTION MEASURES
- 6 FIRE CONTROLS
- 7 FIRE ACTION MANAGEMENT PLAN
- 8 POLLUTION PREVENTION MEASURES
- 9 FIRE INVESTIGATIONS DETAILS
- 10 EMERGENCY REVIEW

DRAWINGS

- 233036/D/002 Receptor Plan
- 233036/D/004 Site Layout Plan
- 233036/D/005 Drainage Plan
- 233036/D/006 Fire Prevention Plan

APPENDICES

- Appendix A Stockpile Calculator
- Appendix B Hot Works Permit
- Appendix C Fuel Management Procedure
- Appendix D Buckinghamshire Fire Service
- Appendix E Fire Detection Camera Data Details
- Appendix F Fire Engine Data Details

Table of Revisions

Issue	Description of status

1.0 INTRODUCTION

Overview

- 1.1 The Fire Prevention Plan (FPP) forms part of the EMS for the bespoke permit for a waste treatment and transfer facility. The annual tonnage is 125,000 tonnes. The Permit is operated by Enterprise Skip hire Limited, on land adjacent to Chiltern View Nursery, Wendover Road, Stoke Mandeville, Aylesbury HP22 5GX. The site layout and fire prevention plans are presented in 233036/D/005 and 233036/D/006.
- 1.2 This document has been written in accordance with the guidance issued by the Environment Agency's 'Fire Prevention Plans: environmental permits' (updated January 2021).
- 1.3 This document identifies the potential on site fire risk, fire prevention measures and procedures to control the spread and minimise impact on human health and the environment.

2.0 MANAGEMENT

Management

- 2.1 The site will be operated in accordance with Enterprise Skip Hire Limited's Management Systems.
- 2.2 Emergency and on site contact details will be displayed in the office and welfare units. Table 1 outlines the relevant contact details:

Table 1 Enterprise Skip Senior Management		
Duty	Contact	Contact Number
Fire, Police, Ambulance	Emergency	999
Operating Director	Billy Bone	01296 615320
General Office	Emergency	01296 615320
Out of Hour Contact	Billy Bone	01296 615320

Staffing

- 2.3 All staff and contractors working onsite will be aware and understand the contents of the FPP and what they must do during a fire. This will be briefed during initial site induction and site briefings.
- 2.4 The Site Manager will ensure all staff know where the FPP and all associated FPP equipment is kept.
- 2.5 The Site Manager will only authorise for works to be undertaken once relevant legal requirements and a site specific risk assessment has been completed.

3.0 SITE CHARACTERISTICS

Geology

- 3.1 There is a concrete slab surfacing across the site. The site is underlain by the Gault Formation and Upper Greensand Formation (mudstone, siltstone and sandstone). There are no superficial deposits recorded at the site or on neighbouring land.

Hydrogeology

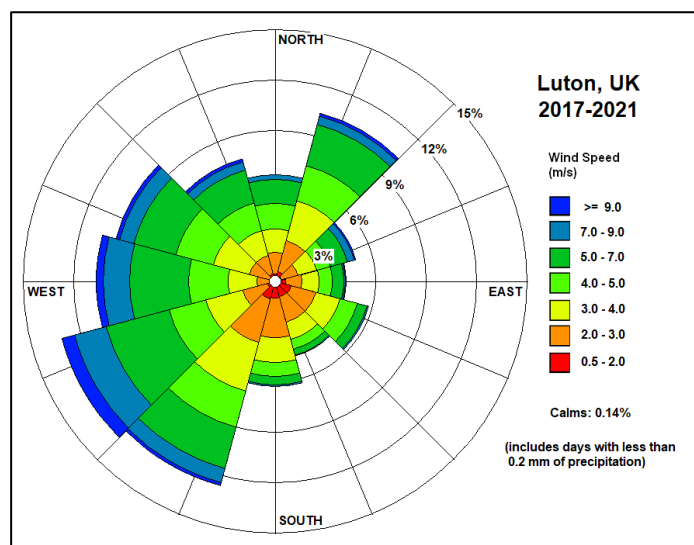
- 3.2 The underlying Gault Formation and Upper Greensand bed rock is unproductive strata therefore it is a non-aquifer.

Hydrology and fluvial flood risk

- 3.3 The nearest main surface watercourse is located along the eastern boundary of the site. This is a land drain, not a main river. The surface water is culveted in the south east, and becomes an open ditch as it flows north along the boundary. The site is located within Flood Zone 1.
- 3.4 All external surface drainage falls towards a silt trap and oil separator. This is located in the north west of the site in the external yard area. The surface water drainage drains into surface water lagoon in the north of the site. The lagoon will have an overflow which connects to the land drain in the north east. The drain is not a main river and is an ordinary watercourse, which ultimately joins the Bear Brook, 5 km north west of the site. The site drainage is shown in drawing 233036/D/005.

Prevailing wind direction

- 3.5 Meteorological wind data has been acquired for the last five year period from the Met Office for the years 2017 to 2021 at the Luton Airport weather station which is approximately 30 km to the east of the site. The data shows that the prevailing wind direction in the area is from the south west quadrant. Accordingly, if fugitive dusts are emitted they are most likely to propagate towards the east-north-east.



Surrounding receptors

- 3.6 The site is bordered to the south west / north west by a railway line and by commercial / industrial uses to the east and south. The north / north east is bound by a drain / ditch beyond which is an arable field. The sensitive receptors are shown in drawing 233036/D/002.
- 3.7 Considering that the prevailing wind direction is from the south west, the most sensitive receptors will be the Chilterns View Garden Centre and the residential receptors on Wendover Road, circa 230 m from the eastern border of the site. Additionally, the agricultural land beyond the residential dwellings is a sensitive receptor. Although not a dominant wind direction, the railway, which is critical infrastructure, is also a sensitive receptor.

4.0 FIRE RISK

- 4.1 Mixed and segregated non-hazardous wastes can be combustible or readily susceptible to an external fire source. Therefore, special measures are required to be in place to minimise fire risk.
- 4.2 The non-hazardous feedstock waste will be stored within the main buildings. Segregated, potentially combustible waste will be stored internally within storage bays. Drawing 233036/D/006 shows the operational layout of the site, indicating the location of potentially combustible wastes.

4.3 The waste streams on site are: non-hazardous (commercial/industrial, mixed skip, metals, plastics, and timber), segregated non-hazardous waste (paper & cardboard, plastics, metals, timber, textiles, plasterboard, trommel fines and residual mixed waste). Wood, plastics, paper & cardboard, residual mixed waste streams, have the potential to possess a high calorific value and are considered combustible. There is also hardcore, inerts which are non-combustible.

4.4 The table below sets out the total storage and tonnage by waste stream on site. The volumes are indicative and anticipated to be worst case. The sizes are shown in Appendix A. The total combustible waste is moderate and all volumes are below the maximum pile size volume outlined in the EA's Fire Prevention Plan guidance. The fire risk is considered low.

Table 2. Total storage and tonnage by waste stream			
Reference	Waste Stream	On site Location	Assessed Volume (m³)
A1	Unsorted Mixed Construction & Industrial Waste	Building 1 (Waste acceptance area)	121
A2		Building 1 (Waste acceptance area)	117
A3	Segregated combustible waste streams (consisting of A3 to A10, dependent on types of waste on site) (loose and >150mm)	Storage bay within Building 1	71
A4			139
A5			101
A6			101
A7			93
A8			54
A9		Intermittent wood shredding	Storage bay within Building A
A10-A14 ²	Non-combustible hardcore inert	Storage bay within Building A	49
	Wood (loose and >150mm)	Stored under fixed plant in Building A in 5 x concrete bays.	5 x 28 = 140
	Mixed Waste		
	Residual Soil		
	Metal (loose and >150mm)		
	Plastic		
	Paper/cardboard (loose and >150mm)		
A15	Residual mixed light material	Stored under fixed plant in Building A.	28
A16	Trommel Fines (loose and <10mm)	Stored under fixed plant in Building A.	63
A17	Segregated combustible waste streams ¹	Stored internally within sealed covered skip containers 3 skips at 6 m x 3 m x 1.2 m.	Skips are segregated so the maximum volume per skip is 22.5 m ³

			22.5 x 3 = 67.5 m ³
A18	Segregated combustible waste streams (consisting of A3 to A10, dependent on types of waste on site) (loose and >150mm)	Storage bay within Building A	150
A19	Unsorted Mixed Construction & Industrial Waste	Feedstock within Building A	246
A20	Non-combustible waste streams	Storage bay between Building A and Building B	77
A21	Segregated combustible waste streams (consisting of A3 to A10, dependent on types of waste on site) (loose and >150mm)	Storage bay within Building B	120
A22	Segregated combustible waste streams (consisting of A3 to A10, dependent on types of waste on site) (loose and >150mm)	Storage bay within Building B	131
A23-A25	Segregated combustible waste streams (consisting of A3 to A10, dependent on types of waste on site) (loose and >150mm)	Storage bay within Building B	161 x 3 = 483
A26-A29	Hardcore / inert materials (non-combustible)	Storage bays within Building B	205.5 x 4 = 822
Total (worst case scenario)			3,173.5

Note:

1. Maximum waste stored limited by skip container size or maximum permitted waste capacity at any time. Estimated tonnages using WRAP generic conversion factors.
2. The storage underneath the picking line is variable dependent on output.
3. Based on volumetric calculations and site design parameters.

4.5 Risk to human health and wellbeing, economic productivity

When combustible waste streams are burning it can generate the following emissions to air that can be harmful:

- *Direct impact on human health*
 - Heat and fire/explosive conditions;
 - Particulates and black smoke;
 - Inhalation of gasses;
 - Carbon monoxide;
 - Carbon dioxide
 - Hydrogen sulphide; and
 - Dioxins.
- *Indirect risk to human health and amenity*
 - Risk of poor visibility and air quality around the site. Associated increased risk to users of infrastructure including footpaths and road and rail network;
 - Loss of amenity in area; and

- Loss of business due to closure of infrastructure.
- *Risk to surface water environment*
 - Direct discharge of fire suppressant waters with entrained suspended particulates caused pollution; and
 - Deposition of air entrained solids into the nearby watercourse.
- *Risk to terrestrial and aquatic ecology*
 - Discharges to surface water and/or the deposition of fugitive emissions of particulates may cause a deterioration in habitat quality and impact upon integrity of the nearby watercourse.

Table 3. Receptors at risk in different wind conditions			
Wind direction (blowing from)	High risk	Moderate risk	Critical infrastructure
West	Office welfare unit, main building units, external yard and site hoardings	Chiltern View Garden Centre and residential properties on Wendover Road	Electricity pole outside site boundary.
South	Office welfare unit, main building units, external yard and site hoardings	Chiltern View Garden Centre, residential properties on Wendover Road, vegetation and agricultural fields.	Electricity pole outside site boundary.
East	Office welfare unit, main building units, external yard and site hoardings.	Railway line and vegetation.	Railway line.
North	Office welfare unit, access, main building units, external yard and site hoardings	Commercial units and agricultural fields.	Railway line.

5.0 FIRE PREVENTION MEASURES

Security

- 5.1 Enterprise Skip Hire Limited has security arrangements during normal working hours. The site is fully fenced and locked at night. The site has CCTV security arrangements. Combustible waste is fully contained in managed stockpiles and concrete bays. Access to the site is controlled through two gates. These measures prevent unauthorised access and the potential for vandalism and the risk of arson.

Storage Controls

- 5.2 The design of the waste storage has been undertaken in accordance with EA Guidance '*Fire Prevention Plans: environmental permits*'. This includes the following design measures:

- A maximum of 2,225.5 m³ of combustible waste is stored on site at any time within the buildings;
- Skip containers are approximately 5 x 3 m and are designed to help prevent fire spreading, as well as prevent rain water ingress and waste escaping;
- The combustible segregated materials (rubbish/ plastics, paper/ card, wood, plasterboard and metal) are stored internally within bays or within sealed skips externally. These bays/skips are isolated and segregated from one another to minimise fire spreading;
- The external yard layout has been designed to ensure segregated combustible waste skip containers can be accessed from all sides by Fire Engines immediately or have a fire resistant façade to prevent spread 360°;
- Signs are placed around the site to make people aware of fire risk;
- The layout enables storage areas to be isolated and treated individually, ensuring the amount of material on fire is minimised. This also minimises the amount of water required; and
- The layout ensures there is 6 m fire break or fire resistant blocks between the combustible waste storage containers, waste storage buildings and other structures/plant. This permits access in the event of a fire and minimises fire spreading.

Quarantine Measures

- 5.3 The Operational Plan for the site sets out the waste acceptance procedures. Any incoming waste that has signs of smouldering (visual smoke, odours or obvious heat) is rejected. If rejection is not possible and any load is showing signs of fire it will be treated as an emergency and the vehicle directed to a safe area of the site and container cordoned off. The site has an area in the middle of the external yard which is set aside for fire quarantine (shown in 233036/D/006) as FSQ (fire stockpile quarantine) and FCQ (fire container quarantine). The area is circa 195 m² and can hold at least 50 % of the largest stockpile at circa 0.6 m waste thickness. Unacceptable waste streams are stored in the Fire Quarantine Area until reported and the Waste Producer has been notified to collect it. All unacceptable hazardous wastes with 'Flammable/Explosive/Oxidising' CLP symbols are stored in a lockable, sealed container). A quarantined skip will have an approximate 10 m fire break; and a quarantined stockpile of 50% of the largest pile will have a 6 m fire break to minimise fire spreading.

Site operation prevention measures

- 5.4 The site operation prevention measures have been undertaken in accordance with EA Guidance. This includes the following prevention measures:

- All personnel on site receive training on their responsibilities, this includes the site manager, site operatives, fire wardens and deputies. This includes all measures set out in this FPP;
- Fire management preparedness is tested on at least a six monthly basis and improvements made as determined necessary;
- Fire extinguishers are based in all plant, the picking station and office/welfare unit and in the Quarantine Area. These are tested (and replaced if necessary) annually by a third part contractor;
- In the event that hot works occur within the enclosure, typically on static plant, they will be undertaken in the workshop - away from any stored waste;

- Hot works will not be undertaken until a Hot Works Permit has been issued and a fire watch has been organised for the activities. The post-watch will typically be 15 minutes after the hot works activity. An example of the Hot Works Permit is attached in Appendix B;
- There are no naked flames, permanent space heaters, industrial heaters, furnaces, incinerators used or stored at the site;
- Smoking is only permitted in the designated smoking areas (non-operational) within the welfare / office area;
- There is no vehicle parking on site in order to maximise fire breaks between structures/plant;
- The external yard is cleaned on a weekly basis to prevent the accumulation of dust;
- All mobile plant and machinery is sprayed down on a daily basis to ensure no build up of dust/fluff. All static plant is air hosed clean on a daily basis to ensure no build-up of dust/fluff. These measures form part of the plant maintenance checklist;
- Regular checks, throughout the day, are made by the vehicle operative to ensure no significant build-up of dust/fluff around the exhaust/engine area;
- Plant and machinery is not left in close proximity to waste storage areas when non-operational;
- Mixed and segregated non-hazardous waste streams are typically stored for a 2 day period to minimise the risk of self-combustion. As a worst case, the waste may be present on site for a maximum of 4 weeks. In the unforeseen situation that waste is stored for 4 weeks it is immediately transferred off site for onward recovery at a licensed facility. In addition, non-hazardous mixed wastes are managed to ensure that the most aged waste is removed first;
- The waste storage buildings and skip containers are routinely inspected (at least twice daily by operatives). Site inspections are undertaken on operational days to check for unforeseen emissions and compliance with the Permit requirements. Inspections and corrective actions (including any required notifications to the EA) are recorded in the Site Diary by TCM. This includes inspecting for any potential signs of smouldering (by visual observation), as well as the identification and clearing up of any loose materials to minimize potential fire risks. Given the very low volumes of potentially combustible materials held, and the very short-term storage, thermal probes are not considered necessary as part of these daily inspections;
- All site operatives are briefed on the working method and stockpile rotation management within each building;
- On a quarterly basis, all feedstock bays are completely emptied, inspected and cleaned as part of the maintenance of the impermeable surfacing at the site;
- During sustained hot weather conditions (> 2 days), additional fire watch inspections are incorporated into the daily site inspections by the Site Manager, Fire Warden and/or nominated site operative. All waste is stored in shade which will keep it shaded and reduce heat potential. Stockpiles are inspected for signs of heating (haze, smouldering, smoke).
- All electrics on site are maintained and managed in line with the Enterprise Skip Hire Limited Health & Safety policy. All electrical wiring and devices are inspected annually, or in the event of any signs of damage or deterioration. All electrical checks and work are undertaken by a suitably qualified electrician;
- No waste is burned at the site; and
- All instances of fires (or suspected fires) will be recorded in the site diary.

6.0 FIRE CONTROLS

Fire Extinguishers

6.1 Fire extinguishers are located at the picking station, main building, main site office/welfare unit and quarantine area; as well as small extinguishers within all plant machinery.

6.2 Site staff will be instructed in fire extinguisher use and to take the following action in fire event:

- Notify the Fire Brigade immediately and the Environment Agency as soon as is practicable.
- Isolate the burning area and attempt to extinguish the fire utilising the on-site fire extinguishers if specifically trained to do so and if this can be undertaken without placing any member of staff or the public at risk; and
- Evacuate the site if the fire is not containable.

6.3 In addition to the fire extinguishers, there is circa 90 m³ of inert soil to suppress skip container or stockpile fires, in the first instance. The soils will be placed on top of the container/stockpile fire to a depth of 1 m to de-oxygenate the fire and reduce burning. The soil is stored in the hardcore bay.

6.4 The location of fire fighting equipment is shown on drawing number 233036/D/006.

Water Supply Requirement

6.5 The table below outlines water supply requirements for the worst case storage volume.

Assessed worst case stockpile volume (m ³)	Fire Water Required		
	L/min	L/sec	m ³ /hour
246	1,640	27	98.4

Fire Detection Measures

Normal Working Hours

6.6 The site has 16 CCTV cameras, consisting of 12 Day/Night bullet camera (model IHFW3549T1P-AS-PV28) which include a 'Heat Map' and alert trigger; and 4 Thermal Network Bullet Camera (7.5mm Lens, Temperature Measurement) camera (model TPC-BF5601P-TB7). The cameras focus on the waste acceptance area, Building A and Building B bays. During normal working hours, these camera feeds are inspected on CCTV and any triggers raised alert to the Site Team. These alerts would trigger the Fire Action Management Plan. The specifications and installation sign off are presented in Appendix E.

Out of Hours

6.7 The wider industrial estate has an on-site security guard 24/7 and undertakes 2 inspections through the night. The security guard undertakes visual inspection (looking for signs of smoulder, flames, smoke or heat haze). The guard also has access to the CCTV cameras and receives the alerts from the cameras, if heat escalates. Alerts or visual identification would trigger the Fire Action Management Plan.

Fire Suppression Measures

Onsite Rain Guns and Atomiser Misting System

6.8 The rain gun and atomiser misting systems within the site. The misting system is shown in drawing 233036/D/006. The systems are predominantly for dust suppression however do provide additional suppression for low scale fire incidents. The rain guns would provide useful suppression on small scale fires in the fire quarantine area. In the event the fire is larger, the suppression systems will be turned off to conserve water supply on site for the Fire Brigade.

6.9 There will be five 25 m³ rainwater harvesting tanks, one 10 m³ and one 5 m³ on site. Two are located north of Building 2 and two are located east of Building 1. These can be utilised for fire suppression during an event. On site tank water supply provision totals 140 m³ with an

additional 40m³ from continuous mains supply during an event. There is additional capacity offered from the fire vehicles and fire hydrant.

- 6.10 Based on information from Buckinghamshire Fire & Rescue Service (shown in Appendix D), there is 1 fire hydrant in front of property 246A on Wendover Road within 100 m of the facility. The hydrant is advised as on a 300 mm main and would likely provide 1200 L/minutes (72m³/hour).
- 6.11 Access to the hydrant is maintained at all times. Hosing will be provided by the Emergency Services. In addition, on site water supply from the 30 m³ water storage tanks can be utilised in the event of a significant fire event.

Private Fire Engine Vehicles

- 6.12 The site has access to shared fire vehicles (shared between the Nursery and the waste facility). A photo and details of the vehicles are shown in Appendix F. Plant operatives will be aware of the vehicles and will understand how to turn on the engines and deploy water. Water is stored and maintained in line with the manufacturer's recommendations. The combined water provision is 18.8 m³. In the event it is not a small scale fire incident, the water can be used as on site water provision for the Fire Brigade.
- 6.13 The fire tanks are maintained to hold the full water capacity. Both operatives (for normal working hour incidents) and the security (out of hour provision) will be trained to use the vehicles. The training will be internal by the Senior Site Team. The vehicles will be serviced and maintained in line with manufacturer's recommendations. The vehicles are in the Operator's wider land ownership and are accessible at all times.

Personnel System

- 6.14 Prior to any access on site, an attendance register must be completed (signing in sheet). The register is signed when personnel leave the site. In the event of a fire, the register will be referred to at the muster point.

Fire Brigade Routing

- 6.15 Drawing 233036/D/006 shows the routing for fire-fighting appliances to and around the site. This routing will be confirmed with the Buckinghamshire Fire Service.

7.0 FIRE ACTION MANAGEMENT PLAN

- 7.1 **Stage 1:** In the event of a fire or in the suspicion of smouldering within a container or building, the identifier will sound the alarm. At no time should any operative tackle the fire unless trained and approved by the Fire Warden to do so.

- Small scale, locally contained fires should be suppressed using the fire extinguishers, fire engine vehicles, or inert, non-combustible soils provided (or a combination of the three). If the smouldering material is able to be segregated, the material will be removed to the fire quarantine area. In the event that the fire is not readily controllable you should immediately notify the Fire Warden and all works on site will cease until the Fire Warden / Emergency Services have confirmed that it is safe to do so.
- Any containers or materials surrounding the area of smoulder or fire, will be removed and transferred if considered safe to do so. This enables the hot spot to be dealt with in isolation. Water from the on site provision will be used to deluge the flame or smouldering waste, putting it out. Once out, the affected waste will be moved to the container in the Quarantine Area.

- 7.2 The following information should be given to the Fire Warden:

- Site area name: Enterprise Skip Hire Limited, on land adjacent to Chiltern View Nursery, Wendover Road, Stoke Mandeville, Aylesbury HP22 5GX.
- Building/container reference: as per layout; and

- Fire Status: smouldering / live and limited to 1 container / live and spreading.
- 7.3 **Stage 2:** In the event that either the fire cannot be contained, or a person is not active in managing the situation, staff should immediately cease all work activities and evacuate the permitted site area. Any dust suppression will be turned off to conserve on site water provision. The site supervisor will take the register from the site office. The muster location is shown on drawing 233036/D/006 and this will be on display in the office and will be part of the induction.
- 7.4 Points to note: all employees and visitors are asked to make their way to the muster point in haste without creating a situation that may further increase the risk of injury by causing bottle necks, trips and falls which may decrease the efficiency of the evacuation.
- 7.5 **REMEMBER**
- Do leave immediately by the nearest usable emergency escape.
 - Do take the shortest safe route to the designated assembly point.
 - Do not wait to collect personal belongings.
 - Do not re-enter the site until told to do so by the Operating Director or the Senior Attending Officer from the Emergency Services.
- 7.6 The identifier will contact the Fire Warden and/or their deputy. The Fire Warden or their deputy will check that the site has been fully evacuated. All First Aiders should report to the Fire Warden.
- 7.7 In the event of Fire, no waste will be accepted at the site until it has been agreed with the Environment Agency and the Fire Brigade. All waste contractors will be diverted away from the site.
- 7.8 **Stage 3:** The Fire Warden or delegate will co-ordinate any response with the Emergency services. They will advise on the prevailing wind direction and severity of the fire.
- 7.9 The Fire Warden will check that all personnel are accounted for. All High Risk areas of the site will be immediately evacuated. The Fire Warden will then instruct the relevant drainage gullies (if any) around the site to be blocked. On arrival the Fire Brigade will be notified of the stockpile waste description on fire and the quickest access route, as well as being shown the area on site for the purposes of fire water containment.
- 7.10 At the onset of a fire, all businesses and residences off Wendover Road and Quilters Way will be notified. Following consultation with the Fire Brigade, other Government Services, including the Police, Environment Agency, Local Authority and the Highways Agency will be notified. In the event of an easterly wind, the Fire Brigade or Fire Warden will notify Network Rail and/or the Police of the risk of smoke drift.
- 7.11 The Fire Brigade will instruct Medium Risk businesses on the actions that should be undertaken. This may include closure of the public highway along Wendover Road and Chiltern View Garden Centre.
- 7.12 **Stage 4:** Full co-operation by Enterprise Skip Hire Limited staff will be provided to the Fire Warden and the Emergency Services.
- 7.13 If considered safe to do so, materials, plant or containers near to the fire will be moved by front loader and/or excavator to a safe area of the site, minimising the volume of waste requiring suppression.
- 7.14 The Operator will divert all contracts to suitable alternate sites. The Operator will have a list of alternative sites and orders can be sent out to all drivers to ensure no build up of traffic along Wendover Road. The Operator can use off road parking within the wider Chiltern View nursery and has permission to do this.

7.15 **Stage 5:** Access to the site and the surrounding office and workshop will only be granted to re-enter once the Fire Warden has stated it is safe to do so, in consultation with the Emergency services.

8.0 POLLUTION PREVENTION MEASURES

Design Controls

8.1 The entire site area is surfaced by impermeable concrete. The external surfacing drains via a series of falls to the manholes and gullies. The floor of the main buildings (Buildings A & B and Buildings 1 & 2) is under cover and there is no positive drainage within the buildings. The roof runoff from the buildings is separate to the floor surface water drainage. All external surface drainage runoff falls towards a silt trap tank and oil separator through a series of gullies to a surface water lagoon in the north west of the site.

8.2 In the event of a fire, all firewater will be contained on site at all times. The containment will be by using the existing concrete surfacing and existing site levels to convey water to lower areas. All gully drains will be covered by drain covers or 'dammit' mats (kept in office / workshop) in the event fire water is used. Building 1 and Building A drain to the southern gullies. This catchment is known as Containment Area 1 (CA1). This will be blocked and water will store on the concrete. Building 2 and Building B will drain to the north west gully. This catchment is known as Containment Area 2 (CA2). This will be blocked and water will store on the concrete. There may be further use of soils to keep access to certain areas. The containment areas are shown on drawing 233036/D/006. Although not shown, there is also potential for use of the surface water lagoon to hold water as an option.

8.3 The table below sets out the area for water storage and calculated storage volumes. The worst-case fire water volume has been calculated based on the values previously presented, where the required water supply is calculated.

Table 5. Firewater Storage					
Storage Feature	Area (m ²)	Average Containment depth (m)	Worst case firewater volume required (m ³ over 3 hours)	Minimum Firewater Containment Provided (m ³)	Can the firewater be contained?
Waste acceptance area and Building 1 containment area (CA1)	1209	0.2	295.2	242	Yes
Building 2 containment area (CA2)	523	0.2		105	
Surface water lagoon (if water not being used for suppression)	127	0.3		38	

8.4 The water will be pumped and treated prior to discharge to the wider drainage network or taken away by a specialist contractor, following agreement with the Environment Agency and/or Thames Water about the required standards. Any treatment will be discussed / agreed with the EA and/or Thames Water.

Site actions in the event of a fire

8.5 The site team are trained to remove materials and skip containers not at immediate risk of fire, to minimise the supply of fire susceptible material and subsequently necessary suppression

volumes. The judgement on the extent of the waste removal will be made on site by the Fire Warden.

Decontamination / clear up following a fire

- 8.6 All surfacing will be inspected post fire. Concrete surfaces will be swept. Arisings will be stored in containers. Any contaminated mineral material and/or burnt waste will be cleared up by excavator and/or front shovel loader into covered skips within the Fire Quarantine Area. The plant operators will be briefed to ensure as much segregation as possible between burnt waste. The material will be tested and characterised in accordance with detail below. Based on the characterisation, the material will be transferred to a suitably licensed facility. The EWC code will be determined and advice on classification will be sought from the local EA Officer.
- 8.7 All impacted containers will be inspected and if damaged repaired or replaced. In the event there has been any damage to concrete surfacing/bays and/or overhead structure, the area will not be operational until repairs made and satisfactory construction quality assurance by the contractor.
- 8.8 Prior to disposal of fire impacted soils, wastes and water a comprehensive test will be undertaken, and the material characterised in line with waste regulatory guidance. The material will be disposed of in accordance with the waste regulatory regime.
- 8.9 The fire impacted mineral and burnt wastes will be sampled. A minimum of 3 representative samples will be collected. The material will be sub-sampled and sent for analysis. The sampling regime will be agreed with the Operator's Environmental Consultant. There will be minimum of 3 samples, but this will increase dependent upon tonnage.
- 8.10 The number of samples to be tested will be advised by the Consultant and will follow Environment Agency Guidance for heterogenous wastes. The resulting material will be tested for organics (Total Organic Compounds, Hydrocarbons, Semi Volatile Organic Compounds and Volatile Organic Compounds) and inorganic compounds (metals, non-metals and asbestos) and the Waste Acceptance Criteria. Testing will occur at a suitable accredited laboratory and the results analysed against waste regulatory guidance including WM3. The waste will be disposed of in accordance with the resulting classification.

9.0 FIRE INVESTIGATION DETAILS

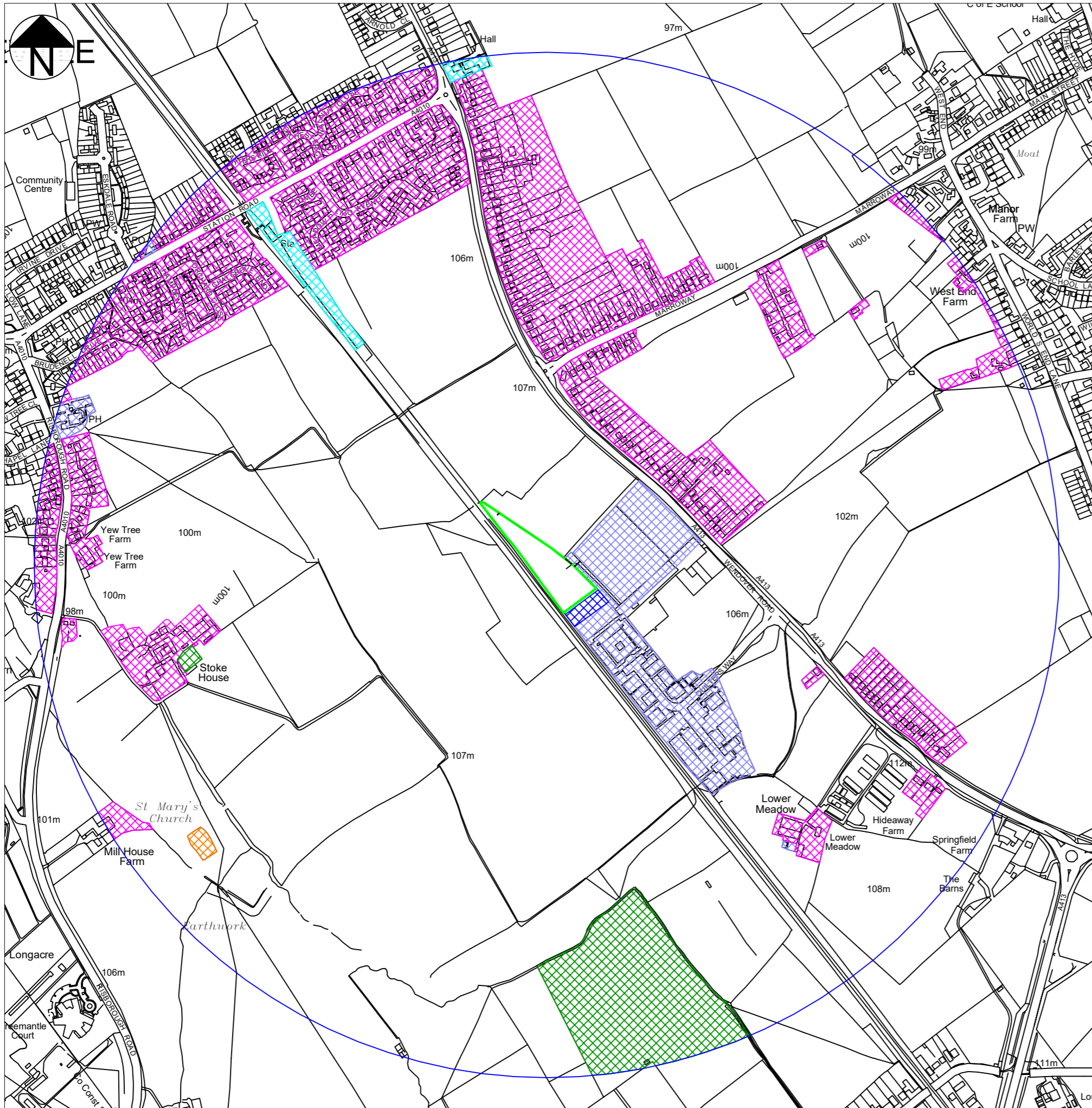
- 9.1 Emergency investigations will be carried out by the Enterprise Skip Hire Limited Health & Safety Advisor for all accident & incidents and near miss occurrences. These events will be reported as they occur to allow sufficient time for the H&S Advisor representative to carry out a full investigation (this will be determined by the H&S Advisor).
- 9.2 All accident, incidents and near misses will be reported and recorded in the H&S Department register.

10.0 DOCUMENT REVIEW

- 10.1 The Fire Prevention Plan will undergo regular review, and will be revised (if necessary) for example:
- If there is a near miss incident
 - If there is a fire incident
 - In the event guidance is updated at the FPP no longer meets the objectives
 - The permit activity changes
 - If the wider environmental conditions change (e.g. if a school or residential development is built nearby)
 - At the request of the EA as a result of concern of risk posed by operation

- 10.2 Following the event of a fire or near miss, it is the duty of the Site Manager to ensure a review has been fully undertaken.
- 10.3 The review will occur once a report from the attending authority and/or Agency has been collated and assessed along with the report from the Health & Safety Advisor.
- 10.4 As necessary, changes in the controls applied will be agreed with the Fire Brigade and other necessary authorities. As part of this review, this FPP will be updated as determined necessary.
- 10.5 Once the report has been fully reviewed it will then be disseminated to all relevant operational personnel.

DRAWINGS



KEY

- Permit Boundary
- 1 km Radius
- ▨ Commercial
- ▨ Residential
- ▨ Industrial
- ▨ Archaeological
- ▨ Ecological
- ▨ Other

Rev.	Details	Drawn	Date
	Project 233036 Enterprise Skip Hire Limited Stoke Mandeville	Chkd.	
	Title Sensitive Receptor Plan		
	AA Environmental Ltd Units 4-8 Cholswell Court Shippon Abingdon Oxon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-ltd.co.uk www.aae-ltd.co.uk		
Scale	Date	Drng. No.	Rev.
1:10,000@A3	Feb'23	233036/D/002	
	Drawn	Chkd.	
	EF	EB	



105m

Track

105m

Lined Lagoon

Hardcore / Inert Material

Plant Store

Workshop

Office

Entrance and Exit

Quarantine Area

Weighbridge

A26-29

Building 2

A23-25

Building B

A22

A21

A20

A19

Building A

A18

A17

A16

Picking Station

A15

A14

A13

A12

A11

A10

A9

A8

A7

A6

A5

A4

A3

A2





A1

UNLOADING / SORTING

Plant Store

Wind Netting
(1 m on top of
Concrete Wall)

KEY

-  Permit Boundary
-  Operational Building
-  Quarantine Area
-  Impermeable Concrete Hardstanding

Rev.	Details	Drawn	Date
		Chkd.	

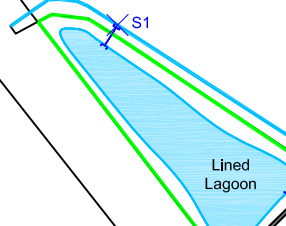
Project
 233036
 Enterprise Skip Hire Limited
 Stoke Mandeville

Title
 Site Layout Plan



AA Environmental Ltd
 Units 4-8
 Cholswell Court
 Shippon Abingdon
 Oxon OX13 6HX
 T:(01235) 536042
 F:(01235) 523849
 info@aae-ltd.co.uk
 www.aae-ltd.co.uk

Scale	Date	Apr '23	Drg. No.	Rev.
1:1000@A3	Drawn	Chkd.	233036/D/004	
	EF	EB		



105m

Track

105m



KEY

- Permit Boundary
- Sub-Surface Drainage
- Land Drain Surface Water
- Rain Water Harvesting Tank
- Gully
- Building Cover
- Impermeable Concrete Hardstanding
- Surface Water Flow
- × Lined Lagoon Overflow Discharge Point

Notes:

1. Clean roof runoff goes straight to drainage ditch and/or soakaway.
2. S1 Easting = 484379.435, Northing = 210083.415

Rev.	Details	Drawn	Date
		Chkd.	

Project
 233036
 Enterprise Skip Hire Limited
 Stoke Mandeville

Title
 Drainage Plan

AA Environmental Ltd
 Units 4-8
 Cholswell Court
 Shippon Abingdon
 Oxon OX13 6HX

T: (01235) 536042
 F: (01235) 523849
 Info@aae-ltd.co.uk
 www.aae-ltd.co.uk

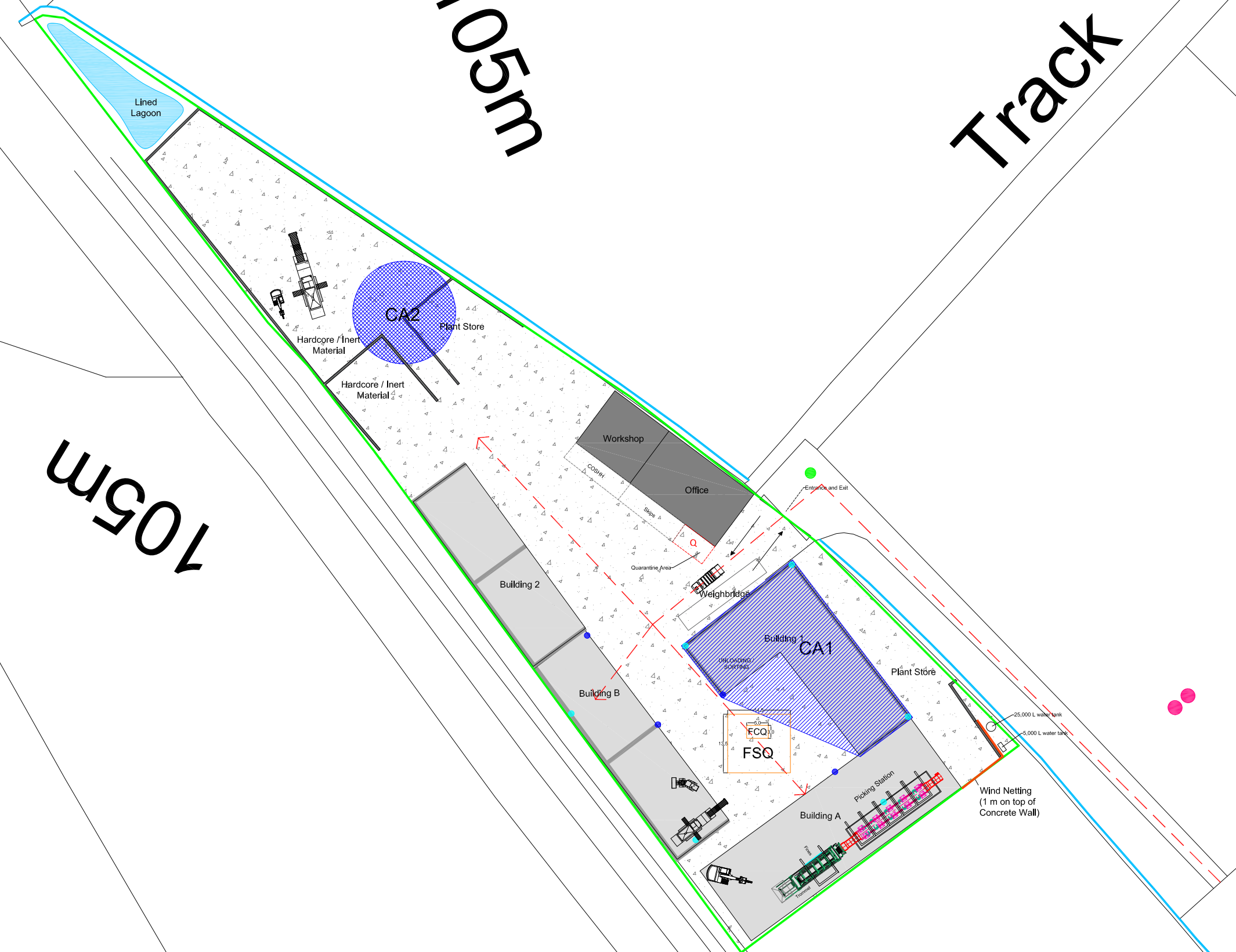
Scale	Date	Apr '23	Drg. No.	Rev.
1:1000@A3	Drawn	Chkd.	233036/D/005	
	EF	EB		



105m

Track

105m



- KEY**
- Permit Boundary
 - Operational Building
 - Quarantine Area
 - Impermeable Concrete Hardstanding
 - Concrete Block Wall / Bay (3.6 m tall incl. bays)
 - FCQ - Fire Container Quarantine
 - FSQ - Fire Stockpile Quarantine
 - Indicative Fire Brigade Routing
 - Muster Point
 - Fire Engine Location
 - Rain Guns
 - Atomiser Guns
 - Atomiser Shower Curtain
 - CA1 - Containment Area 1
 - CA2 - Containment Area 2

- Notes:**
1. Fixed plant consists of the trommel and picking line within the main building. Mobile shredder plant may internally operate in the centre of the building but will be stored externally/off-site if not in use.
 2. All mobile plant to be stored 6 m away from waste at the end of each working day.
 3. In the event 6 m gaps cannot be achieved, fire resistant walls will provide separation between waste stockpiles. The bays will be 3.6 high providing 1 m freeboard.

Rev.	Details	Drawn Chkd.	Date
<p>Project 233036 Enterprise Skip Hire Limited Stoke Mandeville</p>			
<p>Title Fire Prevention Plan</p>			
		<p>AA Environmental Ltd Units 4-8 Cholswell Court Shippon Abingdon Oxon OX13 6HX T: (01235) 536042 F: (01235) 523849 Info@aae-ld.co.uk www.aae-ld.co.uk</p>	
Scale 1:1000@A3	Date Apr '23	Drg. No. 233036/D/006	Rev.
Drawn EF	Chkd. EB		

APPENDIX A

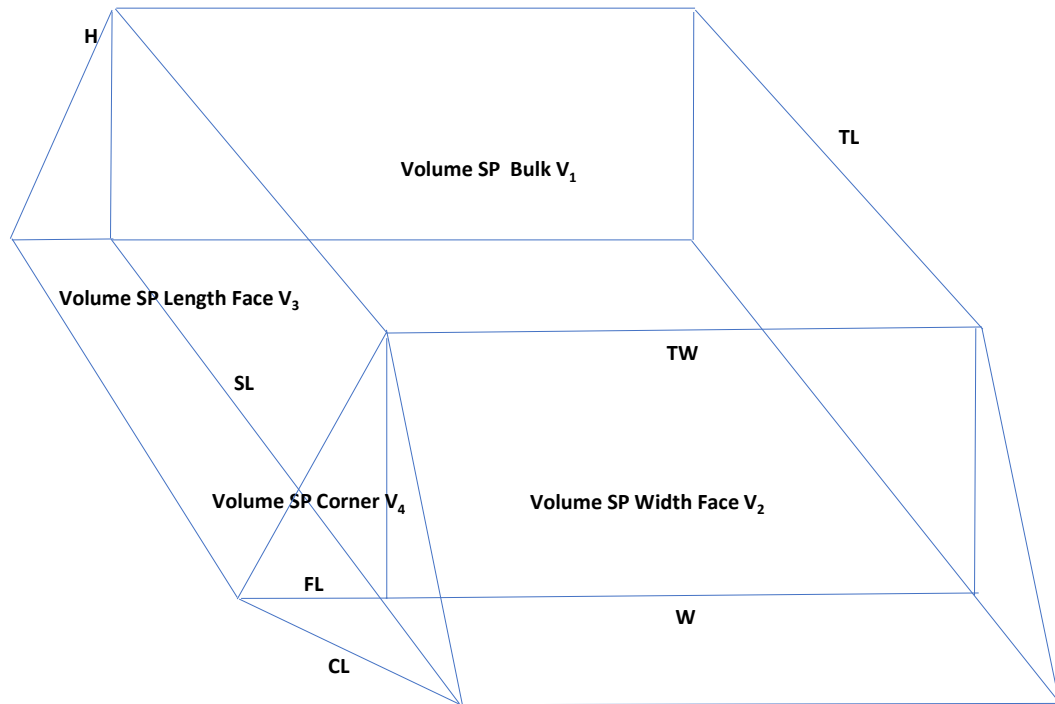
Stockpile Calculator

STANDARD STOCKPILE CALCULATOR

Bay ID	A1
---------------	-----------

Stockpile Length	SL	9.4	m
Waste Height	H	2.6	m
Top Length	TL	6.4	m
Face Length	FL	3	m
Corner Length	CL	4.24	m
Stockpile Width	W	7.5	m
Top Width	TW	4.5	m

V1 = H x TL x W	74.88	cu m
V2 = (0.5 x H x FL) x TW	17.55	cu m
V3 = (0.5 x H x FL) x TL	24.96	cu m
V4 = (CL x CL x H) / 3 / 4	3.9	cu m
V total = V1 + V2 + V3 + V4	121.29	cu m

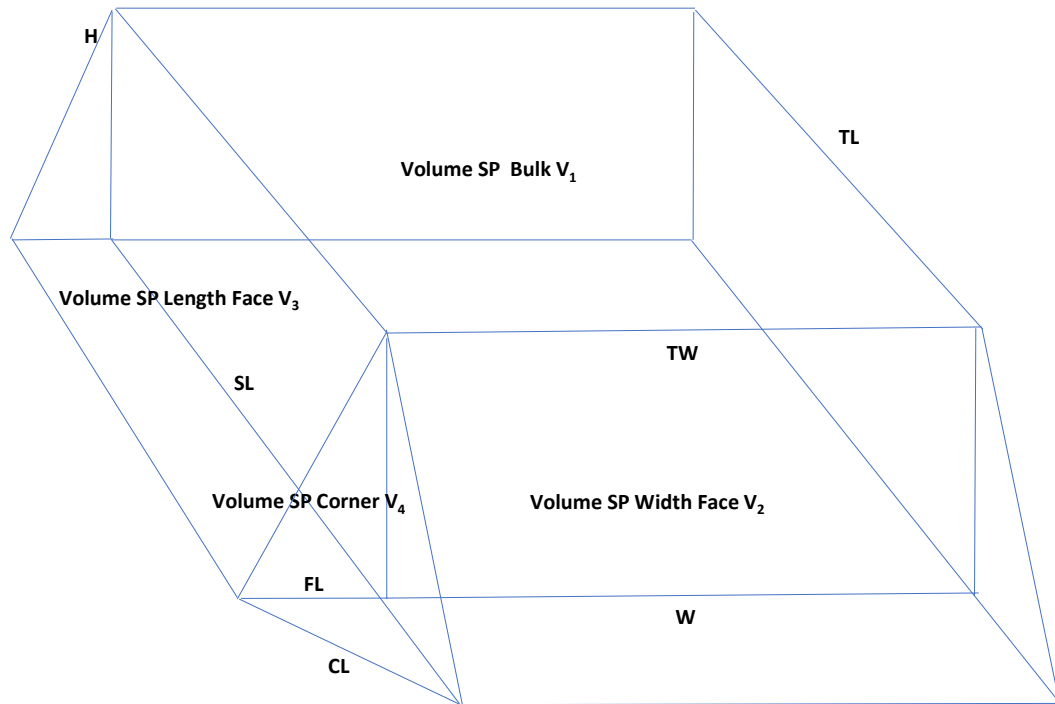


STANDARD STOCKPILE CALCULATOR

Bay ID	A2
---------------	-----------

Stockpile Length	SL	9.1	m
Waste Height	H	2.6	m
Top Length	TL	6.1	m
Face Length	FL	3	m
Corner Length	CL	4.24	m
Stockpile Width	W	7.5	m
Top Width	TW	4.5	m

V1 = H x TL x W	71.37	cu m
V2 = (0.5 x H x FL) x TW	17.55	cu m
V3 = (0.5 x H x FL) x TL	23.79	cu m
V4 = (CL x CL x H) / 3 / 4	3.9	cu m
V total = V1 + V2 + V3 + V4	116.61	cu m

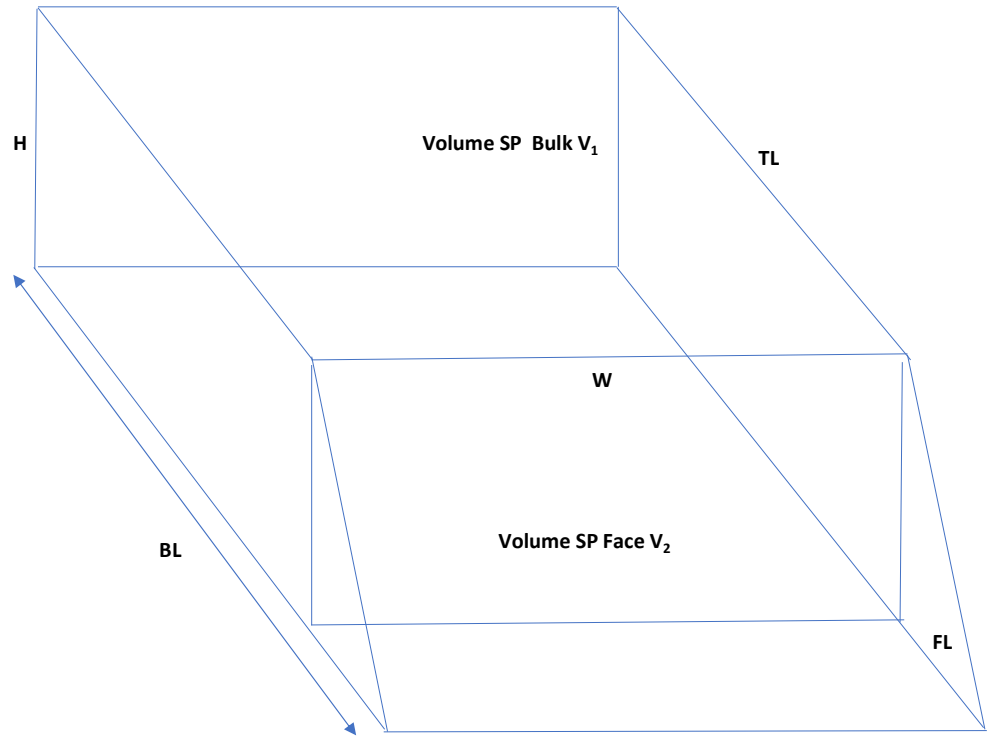


STANDARD STOCKPILE CALCULATOR

Bay ID	A3
--------	----

Bay Length (total length minus 1 m to stop outspilling)	BL	7.3	m
Waste Height	H	2	m
Top Length	TL	4.8	m
Face Length	FL	2.5	m
Stockpile Width	W	5.9	m

V1 = H x TL x W	56.64	cu m
V2 = (0.5 x H x FL) x W	14.75	cu m
V total = V1 + V2	71.39	cu m

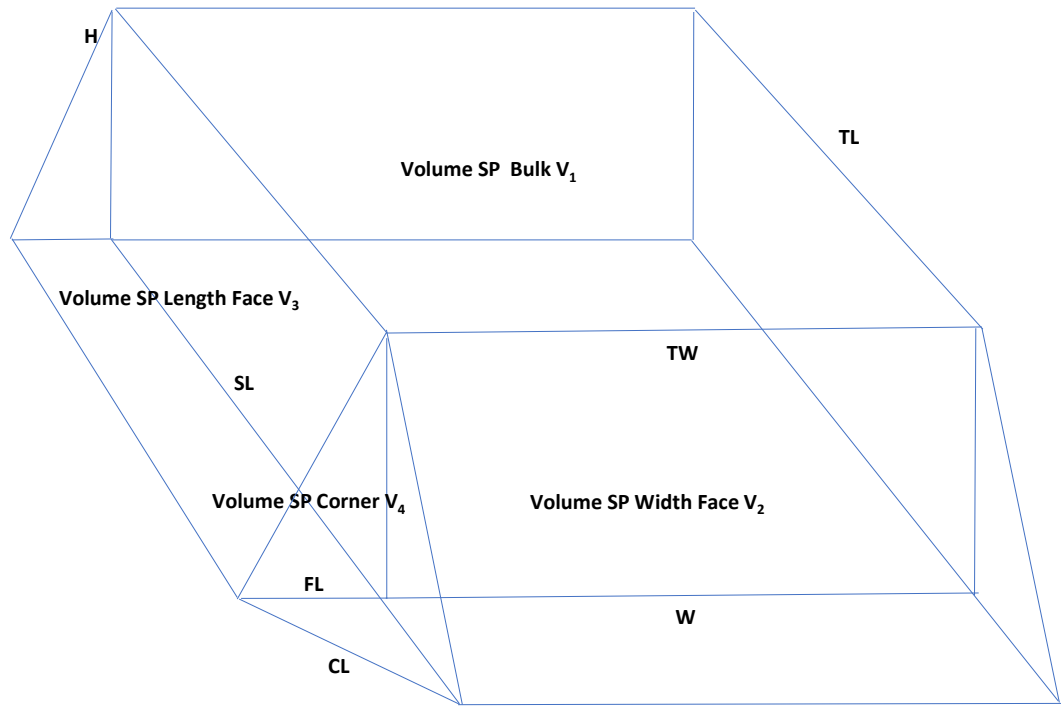


STANDARD STOCKPILE CALCULATOR

Bay ID	A4
---------------	-----------

Stockpile Length	SL	9.5	m
Waste Height	H	2.6	m
Top Length	TL	6.5	m
Face Length	FL	3	m
Corner Length	CL	4.24	m
Stockpile Width	W	8.3	m
Top Width	TW	5.3	m

V1 = H x TL x W	89.57	cu m
V2 = (0.5 x H x FL) x TW	20.67	cu m
V3 = (0.5 x H x FL) x TL	25.35	cu m
V4 = (CL x CL x H) / 3 / 4	3.9	cu m
V total = V1 + V2 + V3 + V4	139.49	cu m

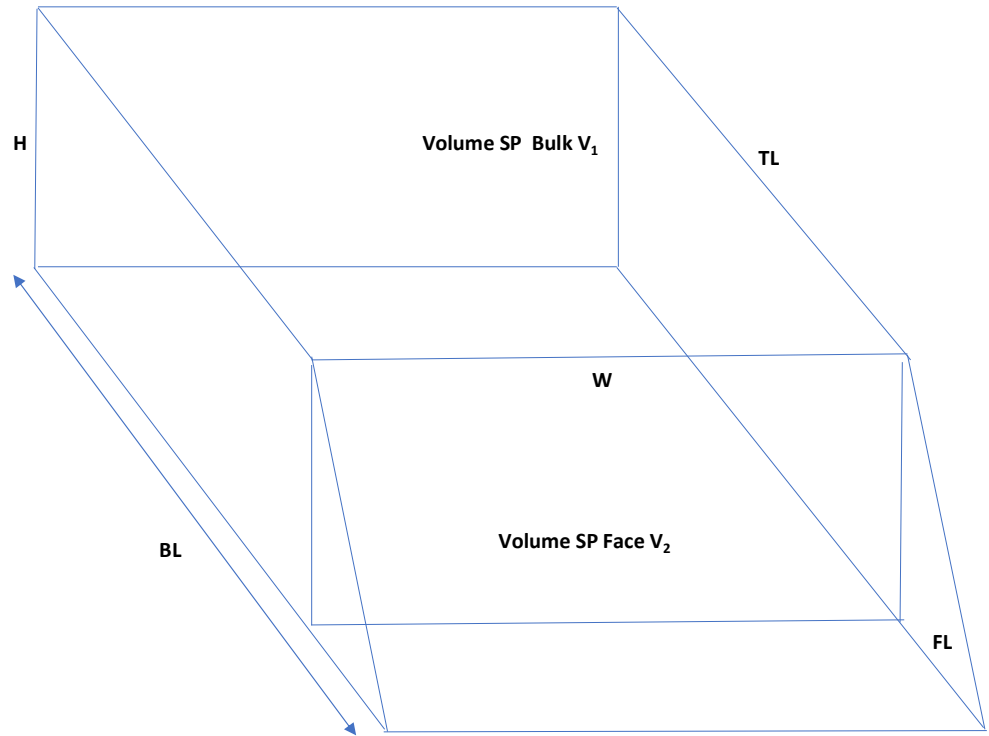


STANDARD STOCKPILE CALCULATOR

Bay ID	A5 & A6
---------------	--------------------

Bay Length (total length minus 1 m to stop outspilling)	BL	8.5 m
Waste Height	H	2 m
Top Length	TL	6 m
Face Length	FL	2.5 m
Stockpile Width	W	7 m

V1 = H x TL x W	84 cu m
V2 = (0.5 x H x FL) x W	17.5 cu m
V total = V1 + V2	101.5 cu m

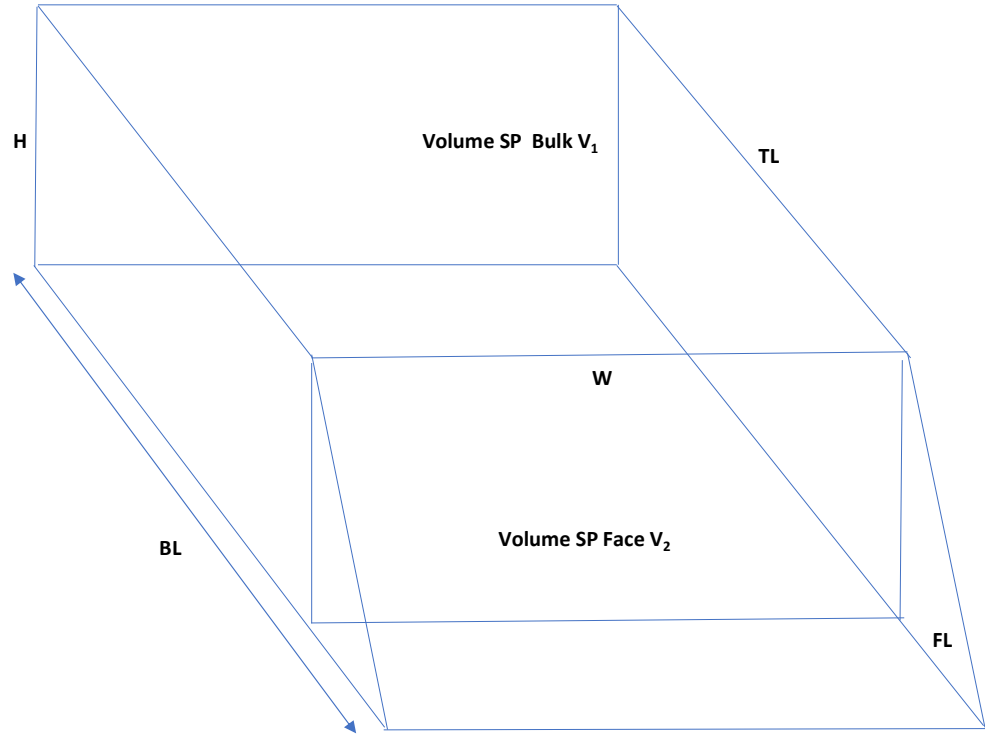


STANDARD STOCKPILE CALCULATOR

Bay ID	A7
--------	----

Bay Length (total length minus 1 m to stop outspilling)	BL	8.5 m
Waste Height	H	2 m
Top Length	TL	6 m
Face Length	FL	2.5 m
Stockpile Width	W	6.4 m

V1 = H x TL x W	76.8 cu m
V2 = (0.5 x H x FL) x W	16 cu m
V total = V1 + V2	92.8 cu m

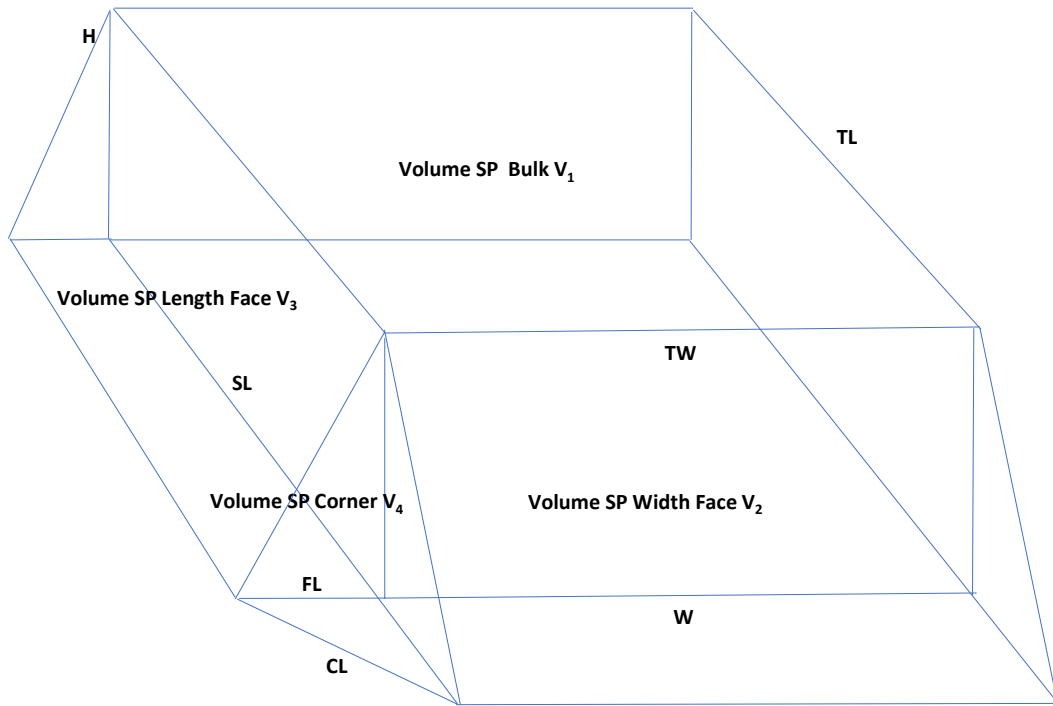


STANDARD STOCKPILE CALCULATOR

Bay ID	A8
---------------	-----------

Stockpile Length	SL	9.5	m
Waste Height	H	2.6	m
Top Length	TL	6.5	m
Face Length	FL	3	m
Corner Length	CL	4.24	m
Stockpile Width	W	4.2	m
Top Width	TW	1.2	m

V1 = H x TL x W	20.28	cu m
V2 = (0.5 x H x FL) x TW	4.68	cu m
V3 = (0.5 x H x FL) x TL	25.35	cu m
V4 = (CL x CL x H) / 3 / 4	3.9	cu m
V total = V1 + V2 + V3 + V4	54.21	cu m

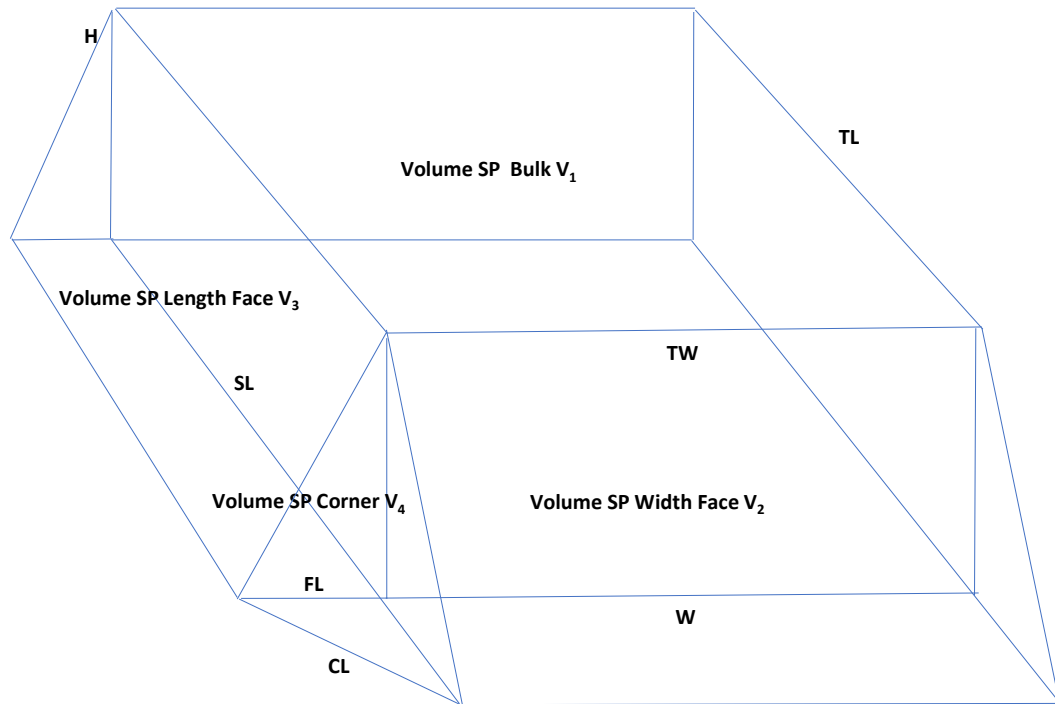


STANDARD STOCKPILE CALCULATOR

Bay ID	A9
---------------	-----------

Stockpile Length	SL	9.3	m
Waste Height	H	2.6	m
Top Length	TL	6.3	m
Face Length	FL	3	m
Corner Length	CL	4.24	m
Stockpile Width	W	4	m
Top Width	TW	1	m

V1 = H x TL x W	16.38	cu m
V2 = (0.5 x H x FL) x TW	3.9	cu m
V3 = (0.5 x H x FL) x TL	24.57	cu m
V4 = (CL x CL x H) / 3 / 4	3.9	cu m
V total = V1 + V2 + V3 + V4	48.75	cu m

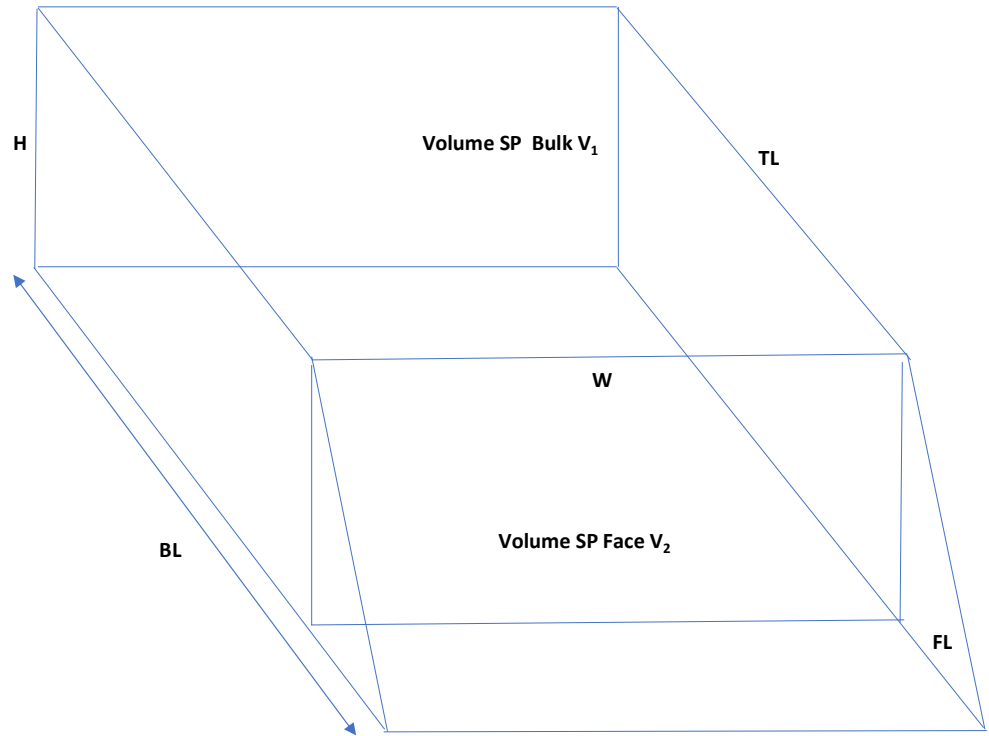


STANDARD STOCKPILE CALCULATOR

Bay ID	A10 - A15
---------------	------------------

Bay Length (total length minus 1 m to stop outspilling)	BL	5.4	m
Waste Height	H	2	m
Top Length	TL	2.9	m
Face Length	FL	2.5	m
Stockpile Width	W	3.4	m

V1 = H x TL x W	19.72	cu m
V2 = (0.5 x H x FL) x W	8.5	cu m
V total = V1 + V2	28.22	cu m

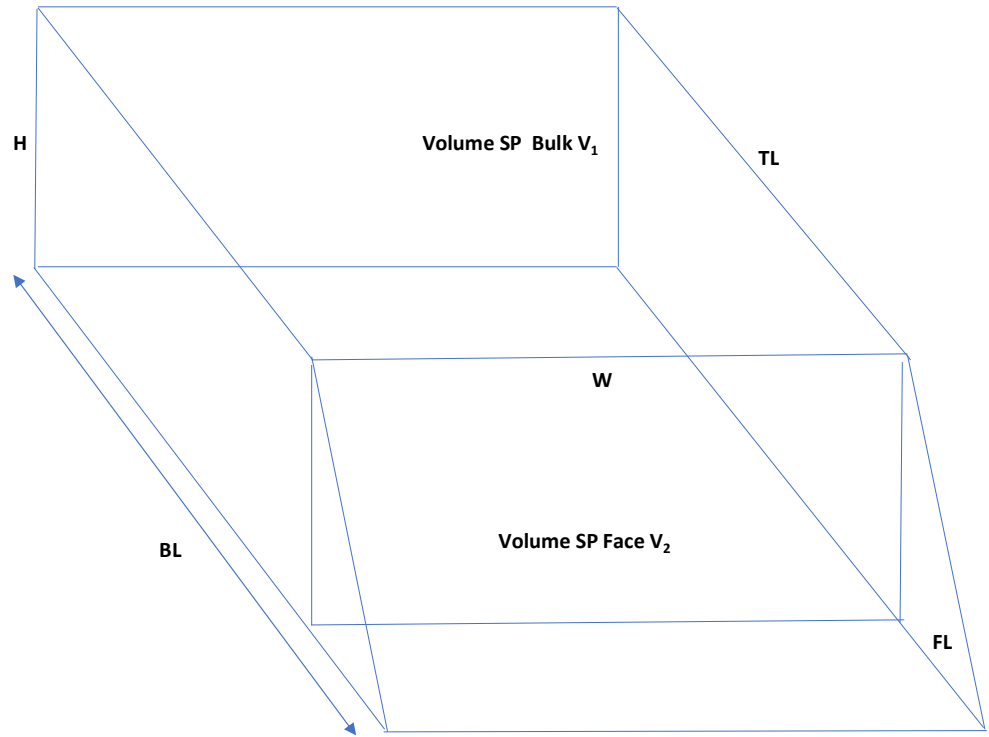


STANDARD STOCKPILE CALCULATOR

Bay ID	A16
--------	-----

Bay Length (total length minus 1 m to stop outspilling)	BL	6.3	m
Waste Height	H	2	m
Top Length	TL	3.8	m
Face Length	FL	2.5	m
Stockpile Width	W	4.5	m

V1 = H x TL x W	34.2	cu m
V2 = (0.5 x H x FL) x W	11.25	cu m
V total = V1 + V2	45.45	cu m

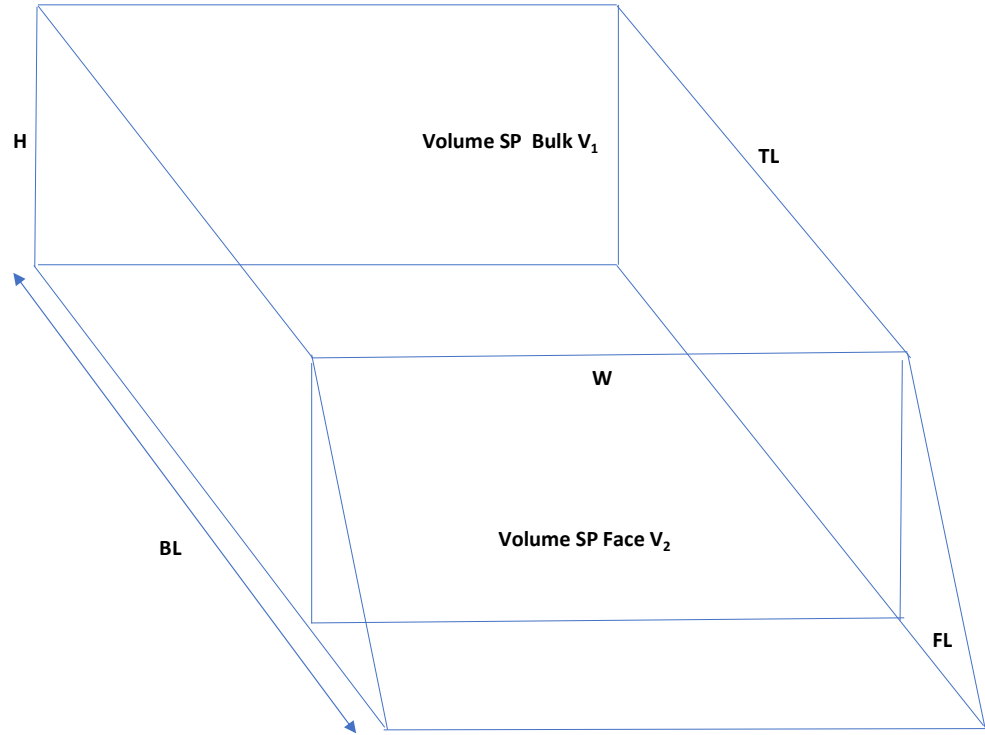


STANDARD STOCKPILE CALCULATOR

Bay ID	A18
--------	-----

Bay Length (total length minus 1 m to stop outspilling)	BL	9.5	m
Waste Height	H	2	m
Top Length	TL	7	m
Face Length	FL	2.5	m
Stockpile Width	W	9.1	m

V1 = H x TL x W	127.4	cu m
V2 = (0.5 x H x FL) x W	22.75	cu m
V total = V1 + V2	150.15	cu m

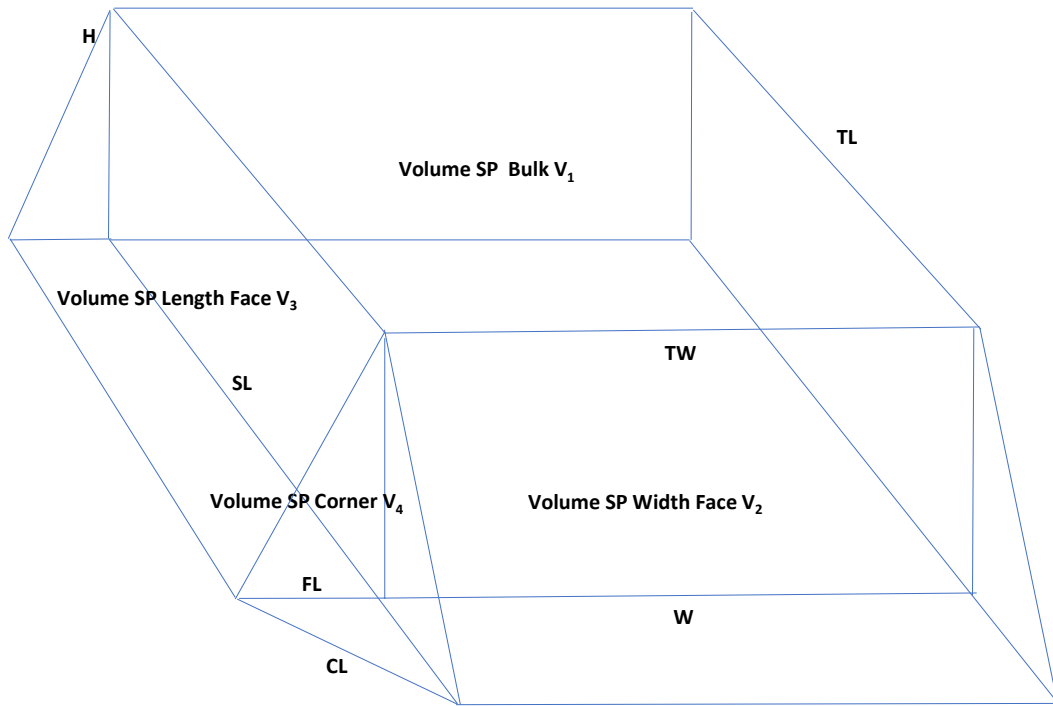


STANDARD STOCKPILE CALCULATOR

Bay ID	A19
---------------	------------

Stockpile Length	SL	12.7	m
Waste Height	H	2.6	m
Top Length	TL	9.7	m
Face Length	FL	3	m
Corner Length	CL	4.24	m
Stockpile Width	W	10	m
Top Width	TW	7	m

V1 = H x TL x W	176.54	cu m
V2 = (0.5 x H x FL) x TW	27.3	cu m
V3 = (0.5 x H x FL) x TL	37.83	cu m
V4 = (CL x CL x H) / 3 / 4	3.9	cu m
V total = V1 + V2 + V3 + V4	245.57	cu m

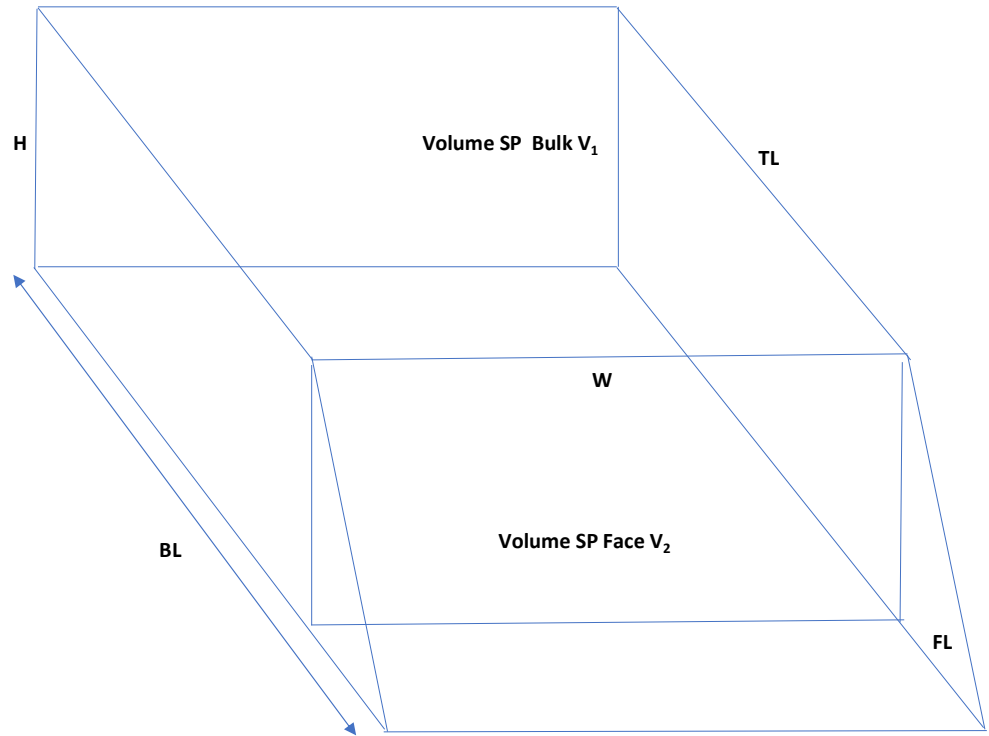


STANDARD STOCKPILE CALCULATOR

Bay ID	A20
--------	-----

Bay Length (total length minus 1 m to stop outspilling)	BL	8.5 m
Waste Height	H	2 m
Top Length	TL	6 m
Face Length	FL	2.5 m
Stockpile Width	W	5.3 m

V1 = H x TL x W	63.6	cu m
V2 = (0.5 x H x FL) x W	13.25	cu m
V total = V1 + V2	76.85	cu m

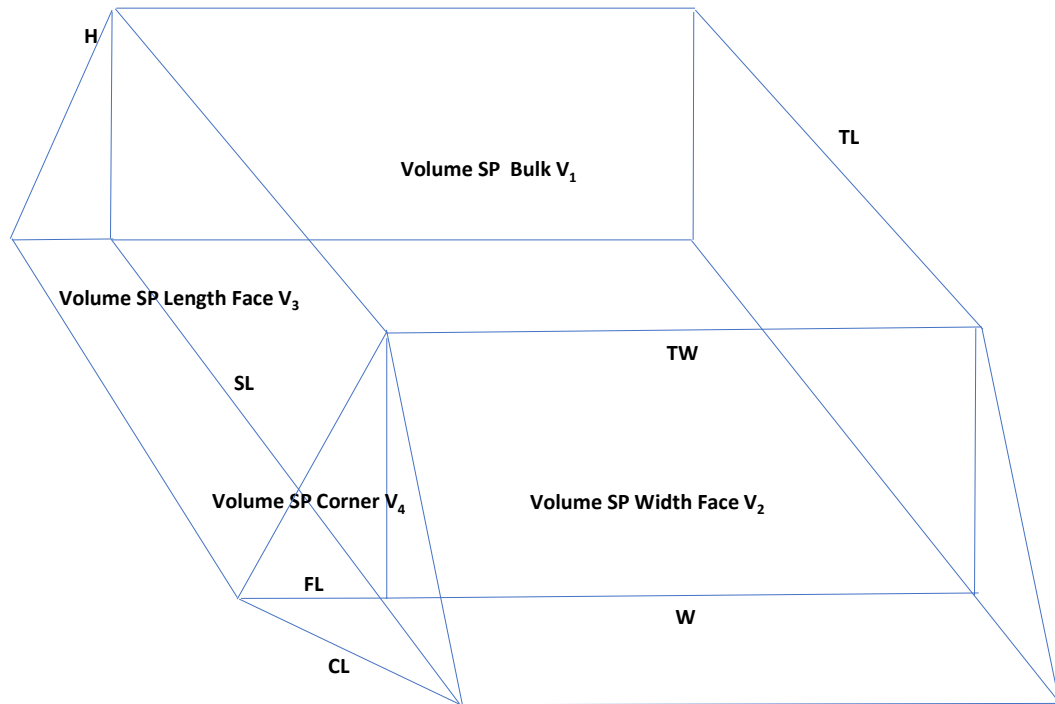


STANDARD STOCKPILE CALCULATOR

Bay ID	A21
---------------	------------

Stockpile Length	SL	9.5	m
Waste Height	H	2.6	m
Top Length	TL	6.5	m
Face Length	FL	3	m
Corner Length	CL	4.24	m
Stockpile Width	W	7.4	m
Top Width	TW	4.4	m

V1 = H x TL x W	74.36	cu m
V2 = (0.5 x H x FL) x TW	17.16	cu m
V3 = (0.5 x H x FL) x TL	25.35	cu m
V4 = (CL x CL x H) / 3 / 4	3.9	cu m
V total = V1 + V2 + V3 + V4	120.77	cu m

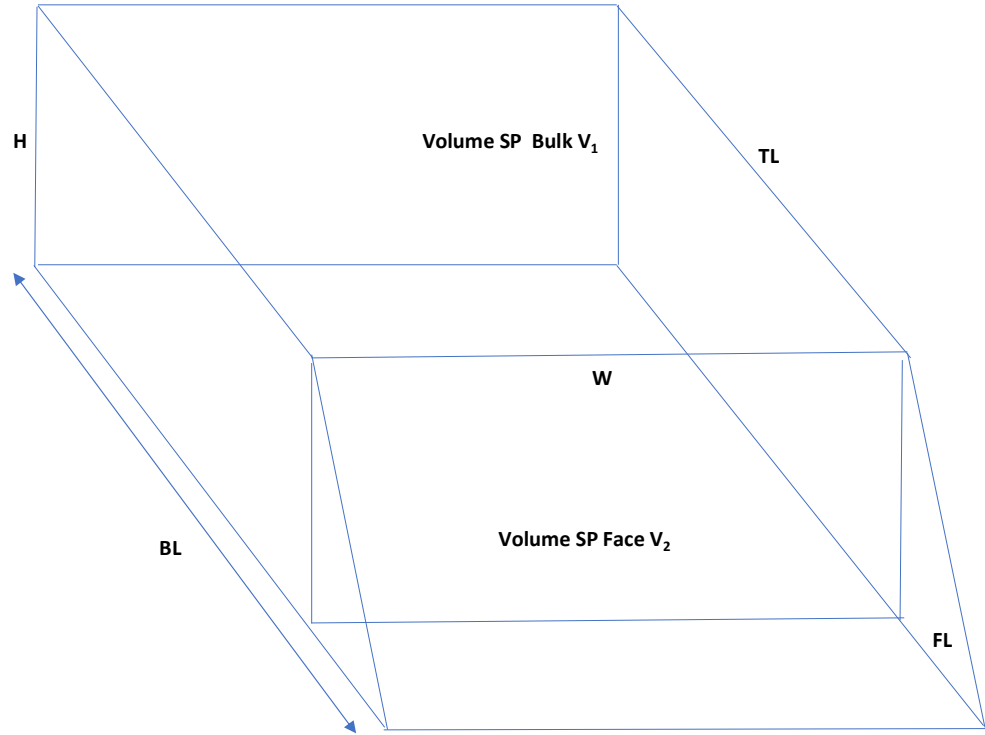


STANDARD STOCKPILE CALCULATOR

Bay ID	A22
--------	-----

Bay Length (total length minus 1 m to stop outspilling)	BL	8.5	m
Waste Height	H	2.6	m
Top Length	TL	6	m
Face Length	FL	2.5	m
Stockpile Width	W	7	m

V1 = H x TL x W	109.2	cu m
V2 = (0.5 x H x FL) x W	22.75	cu m
V total = V1 + V2	131.95	cu m

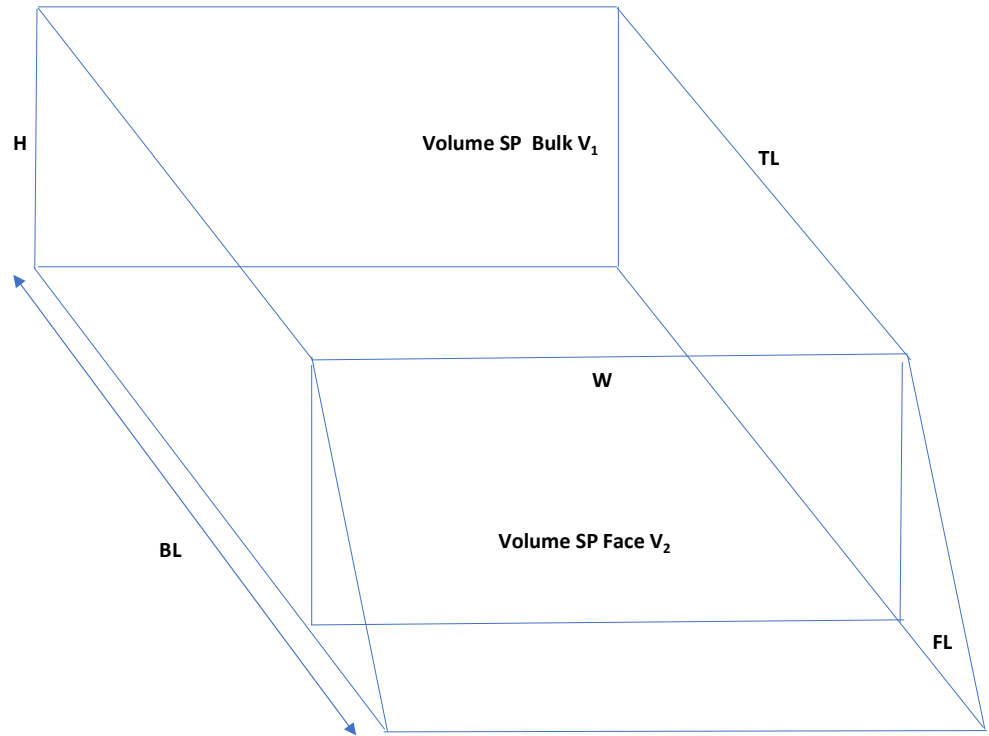


STANDARD STOCKPILE CALCULATOR

Bay ID	A23 - A25
---------------	------------------

Bay Length (total length minus 1 m to stop outspilling)	BL	9 m
Waste Height	H	2.6 m
Top Length	TL	6.5 m
Face Length	FL	2.5 m
Stockpile Width	W	8 m

V1 = H x TL x W	135.2	cu m
V2 = (0.5 x H x FL) x W	26	cu m
V total = V1 + V2	161.2	cu m

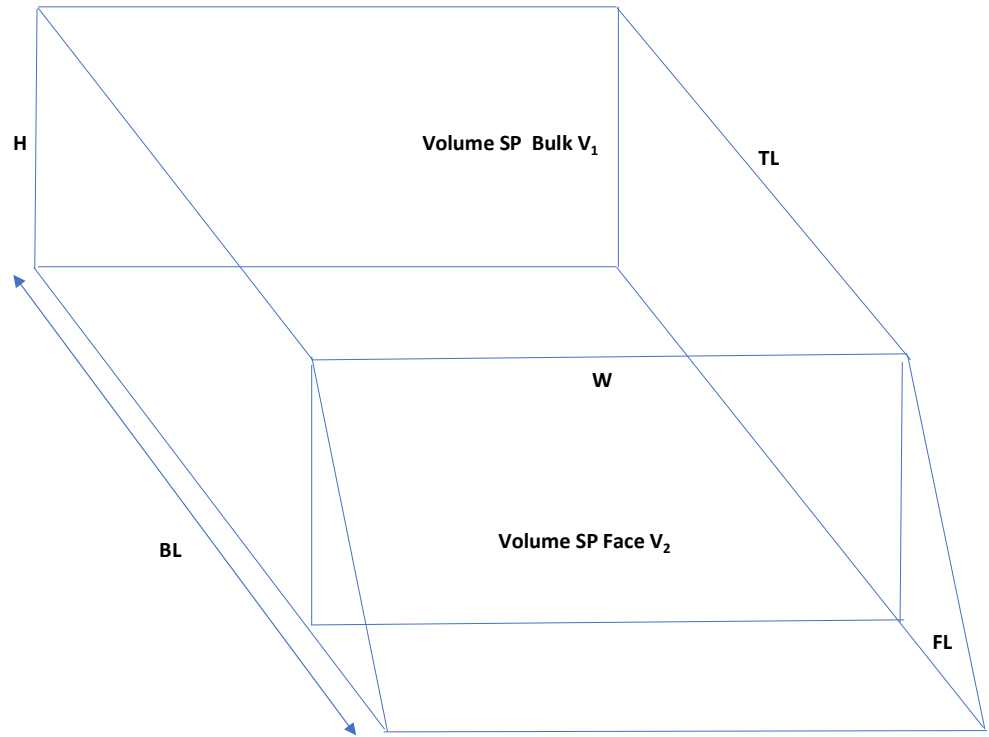


STANDARD STOCKPILE CALCULATOR

Bay ID	A26-A29
---------------	----------------

Bay Length (total length minus 1 m to stop outspilling)	BL	9 m
Waste Height	H	2.6 m
Top Length	TL	6.5 m
Face Length	FL	2.5 m
Stockpile Width	W	10.2 m

V1 = H x TL x W	172.38	cu m
V2 = (0.5 x H x FL) x W	33.15	cu m
V total = V1 + V2	205.53	cu m



APPENDIX B

Hot Works Permit

HOT WORK	PERMIT TO WORK No.	
----------	--------------------	--

DESCRIPTION OF WORK	
ITEMS OF PLANT/TOOLS/EQUIPMENT	
JOB LOCATION/PLANT IDENTIFICATION	

IS ANY OTHER WORK CURRENTLY BEING UNDERTAKEN THAT MAY INTERACT OR AFFECT THIS PERMIT? (QUOTE PERMIT NUMBERS WHERE APPLICABLE)

--

This permit is only valid when all sections are complete. If you are in doubt or don't understand, then please ask. Remember, all accidents are preventable and it is people who get hurt and suffer pain. Please use this permit in the spirit intended to protect yourself and others. Please ensure that you sign this permit-to-work. **DO NOT PROCEED WITH YOUR WORK UNTIL YOUR PERMIT HAS BEEN AUTHORISED BY THE SITE MANAGER/FIRE WARDEN.**

PRIMARY HAZARDS								
Fumes	Gasses	Electrics	Liquids	Fire	Smouldering	Radiation	Moving Parts	Other (Please specify):

PRECAUTIONS TO BE TAKEN	YES	NO	N/A	Please tick ✓	COMMENTS
Are you qualified/trained to undertake this work?					
Has a sprinkler/fixed fire installation been left in service?					
Are there extinguishers or a hose pipe to hand?					
Are there means of sounding the fire alarms to hand?					
Is the work more than 10 m from any waste/plant?					
Is the area cleared of combustible material/flammable liquid and/or protected?					
Are the walls/floors (including gulleys) of combustible construction, suitably protected?					
Are all vessels/lines isolated and purged of flammable liquid?					
Is the area to be wetted down or fire blanket to be used?					
Is there a competent person, trained in the use of a fire extinguisher in attendance throughout the work and for _____ mins. after?					
Is continual gas monitoring to be used?					
Is intrinsically safe equipment to be used?					
Is an atmosphere test required? If yes, please complete section below.					
Is the burning, welding or other hot work equipment in good condition and safe to operate?					
Is any electrical isolation required?					
Is the operation fenced off and/or warning notices posted?					
Is Personal Protective Equipment (PPE) required?					
Specify:					
Other precautions required					
Other safety equipment required					

AUTHORISATION AND ACCEPTANCE		
I confirm that I have verified the above information and ensured that the necessary precautions have been taken. It is safe to carry out the work as defined above and the permit information has been explained to all workers involved. I accept responsibility for this work.		
PERSON IN CHARGE		PERMIT EXPIRY DETAILS DATE ____/____/____ TIME ____:____
COMPANY		
SIGNATURE	Date & Time:	
I, the permit issuer, certify that it is safe to proceed with the work description detailed in this permit provided that the precautions are undertaken.		
PERMIT ISSUER		
JOB TITLE	Date & Time:	

FIRE WATCH		
I hereby state that a Fire Watch has been carried out in the area where HOT WORK covered by this permit has been carried out for 60 minutes. No sign of fire, combustion or smouldering has been detected.		
NAME	SIGNATURE	Date & Time

HAND BACK AND CANCELLATION		
I confirm that the work has been completed/partially* completed, checked by myself, fire watch completed and the area left in a safe and tidy condition. (*delete as appropriate)		
PERSON IN CHARGE	SIGNATURE	Date & Time
I have inspected the complete/partially completed* work, confirmed fire watch completed and hereby cancel this permit. (*delete as appropriate)		
PERMIT ISSUER	SIGNATURE	Date & Time

APPENDIX C

Fuel Management

Fuel Management Procedure

Table of Revisions

Issue	Date	Description of status
1	12/07/21	Final

Fuel Management Procedure

INTRODUCTION

Overview

This Fuel Management Procedure relates to the waste operation at 7 St Albans Road, Ashville Business Park, Gloucester GL2 5FW. The site operates as a Standard Rules 2015 No. 10 HCl Waste Transfer Station; including manual and mechanical sorting, treatment and storage of non-hazardous wastes.

Purpose

The objective of this procedure is to ensure all gas oil/diesel deliveries, storage and the re-fuelling of mobile plant and vehicles is carried out with minimum impact on safety and the environment.

RESPONSIBILITY

The Site Manager and/or nominated site operative is responsible for ensuring that all mobile plant operators and Large Goods Vehicle (LGV) drivers adhere to the conditions stipulated in this procedures. The Site Manager and/or nominated operative is responsible for arranging all gas oil and diesel deliveries at the site. All mobile plant operators are responsible for complying and ensuring that no spillages of fuel occur during re-fuelling operations.

ASSOCIATED DOCUMENTS

- Fire Prevention Plan; and
- Spill Response Plan.

LIST OF SUBSTANCES & STORAGE FACILITIES

Material	Quantity	Location on site
Diesel	5,000 litres (indicative, this may vary based on intensity of work on site)	Workshop
Propane	Small scale storage of oils and greases (less than 100 L). It should be noted that this is indicative and not some liquids may not be stored if not required.	Workshop
Various oils		
Ad Blue		
Lubricants		
Paints/thinners		

Fuel Management Procedure

PROCEDURE

Pre-Delivery Checks:

The Site Manager and/or nominated site operative is responsible for arranging all gas oil and diesel deliveries at the site. Fuel orders generally occur on a weekly basis when the following approximate fuel levels are reached. The amount of fuel used on a weekly basis can vary depending on shift pattern and workload. The Site Manager will order more fuel when the fuel levels are circa 10-30% from empty.

Fuel readings are taken from the meter on each fuel tank. The fuel tank is located within the workshop area. The gas oil meter is located at the fuel dispensing point at the front of each of the tanks

Delivery Checks and Tank Refuelling:

All deliveries of fuel to the site must be supervised by an employee of KW1000 Ltd. Employees supervising the delivery of fuel to the site must be trained and familiar with the requirements of Spill Response Plan. Training will involve an internal site briefing and tool box talk including a demonstration.

The fuel delivery tank must reverse, as far as practically possible, into position by a trained site banksman ensuring that the vehicle does not come into contact with any pedestrians or other mobile plant during fuelling operations.

Once the tanker is in position the delivery driver will attach the hose to the relevant fuel tank valve. At this point the delivery driver will follow their company procedures for dispensing fuel. Both fuel tank valves are fitted with anti-overfilling valve to stop the overfilling of each tank.

The employee overseeing the tank filling must ensure that the drip tray is free of fuel at the end of the filling operation. Any significant quantity of fuel in the drip tray must be decanted from the tray and placed in to the waste oil tank located in the workshop.

During tank filling operations it will be the responsibility of the overseeing operative to inspect the bund for any residual spill and integrity of the bund. If damage is identified, this should be reported to the Site Manager. A spill kit will be positioned in close proximity to each fuel tank.

In addition to this, an emergency spill kit must be directly accessible during filling operations.

SMOKING, GRINDING AND NAKED FLAMES ARE NOT PERMITTED WITHIN 20 METRES OF THE FUEL TANK AT ANY TIME. USE OF MOBILE PHONES IS PROHIBITED DURING FUELING OPERATIONS.

Fuel Management Procedure

Mobile plant and LGV Fuelling

Fuelling of mobile plant (excavators, fork lift trucks, loading shovels etc.) and LGV's should occur at the main fuel pumps whenever possible.

The vehicles should park as close to the fuel tank as possible ensuring that there is sufficient space to let both pedestrians and other site vehicles access at all times. When fuelling the vehicle engine must be switched off and the hand brake applied.

To fuel the operative should lift the respective pump nozzle they require (diesel, gas oil) and then carefully make way to the tank fill point of the vehicle. The pump trigger must not be pressed until the nozzle is properly inserted into the tank.

When fuelling the operative must stay at the fuelling point to be able to deal with any situation that could occur. The fuel nozzle is fitted with an anti-overfill valve to ensure there is no spillage due to overfilling.

Once the tank is filled, the pump nozzle should be taken from the tank (taking care not to press the trigger) and placed back in the main pump at the front of the diesel tank. The operative should then write the amount of fuel used on the fuel log.

SMOKING, NAKED FLAMES AND THE USE OF MOBILE PHONES ARE NOT PERMITTED AT ANY TIME WHEN THE FUEL PUMP IS IN USE.

Any spillages should be dealt with immediately (or as soon as it is safe to do so) in line with the requirements of Spill Response Plan.

Fuel Management Procedure

COSHH STORAGE PROCEDURE

All hazardous substances are stored within the workshop in a lockable, sealed storage container. All substances are stored on secondary containment with a total storage capacity of 110%. Control of hazardous substances will be in accordance with the COSHH Regulations (2002).

A COSHH register is maintained on site including all hazardous substances' safety data sheets.

RECORDS

On site Records

A copy of this management plan is kept on site and briefed to all site operatives upon site induction. Any identified incidents or accidents, as well as corrective measures, are recorded in the Daily Site Diary.

Review

This management plan is reviewed on a yearly basis or post-incident to ensure it remains up-to-date with the site operations. The COSHH register is reviewed on an annual basis and updated every time a new hazardous substance is used on site.

APPENDIX D
Buckinghamshire Fire Service

Sam Muir

From: Vallance, Piers <pvallance@bucksfire.gov.uk>
Sent: 10 February 2023 11:13
To: Sam Muir
Subject: FW: {EXTERNAL} - Enquiry HP22 5GX

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning

Our nearest hydrant to this site is opposite outside number 246A Wendover Road.

This is on a 300mm main this should give 35 L/sec (1200 l/min)

Potentially up to 50 l/sec (3000 l/m).

However, we don't do flow tests as it is frowned upon by the water companies as a waste of water and can cause problems with household supplies.

They can contact Thames water to do this, but they will have to pay for this service.

Hope this helps in some way.

Regards

Adrian

From: Central Admin <CentralAdmin@bucksfire.gov.uk>
Sent: 09 February 2023 08:56
To: Water Enquiries <waterenquiries@bucksfire.gov.uk>
Subject: FW: {EXTERNAL} - Enquiry HP22 5GX

Piers

Just checking that you have already received this and that it is correct to send to water enquires??

Regards

Jen

From: Sam Muir <sam.muir@aae-ltd.co.uk>
Sent: 03 February 2023 15:43
To: {AVDC-CDC Fire Safety} <AVDC-CDC-Fire-Safety@bucksfire.gov.uk>
Subject: {EXTERNAL} - Enquiry HP22 5GX

Some people who received this message don't often get email from sam.muir@aae-ltd.co.uk. [Learn why this is important](#)

CAUTION: This email originated from outside of Buckinghamshire Fire and Rescue. Do not click links or open attachments unless you recognize the sender and know the content is safe.

To whom this may concern,

I write to you in regards to a site located at on land adjacent to Chiltern View Nursery, Wendover Road, Stoke Mandeville, Aylesbury HP22 5GX. AAe have been commissioned to produce a Fire Prevention Plan for an environmental permit application at this location. Could you please advise on the fire hydrant locations, flow rates and capacity within 250 m of the site boundary as shown below in red.



Kind Regards,

Samantha Muir | BSc

(she/her, they/them)

Senior Environmental Consultant



T 01235 536042 M 07769 358306 F 01235 523849 W www.aae-ltd.co.uk



AA Environmental Limited, 4 to 8 Cholswell Court, Shippon, Abingdon, OX13 6HX

Registered Office (England and Wales) as above Company No. 8474322

P Please consider the environment before printing this email

This message (including any attachments) is confidential and may be legally privileged. If you are not the intended recipient, you should not disclose, copy or use any part of it. Please delete all copies and notify us immediately. This message (including any attachments) has originated from our virus protected network. However, we cannot accept any liability for any loss or damage arising from the use of this e-mail (including any attachments) and recommend the recipient uses virus checking procedures prior to use.

Click [here](#) to report this email as spam.

This message has been scanned for malware by Forcepoint. www.forcepoint.com

APPENDIX E

Fire Detection Camera Data Details

CERTIFICATE OF CONFORMITY



This is to certify that Alpine Security (UK) Ltd are registered with the Security Systems and Alarms Inspection Board (SSAIB) and that the system below conforms to the relevant British, European or other Standard or Codes of Practice as detailed below.

Certificate Number
1549301

System Type
CCTV Systems

Customer Details

System Details

Customer's Name Enterprise Skiphire Ltd	Applicable Standards SSAIB CoP SS2003 CCTV Code of Practice
Address Wendover Road Stoke Mandeville Aylesbury Buckinghamshire HP22 5GX	
Installation Ref. No. AS010422-CCTV	
Date Commissioned 01/04/2022	

REGISTERED FIRM

Alpine Security (UK) Ltd (SUFF011)
13 Whitworth way
Wilstead
Bedford
Bedfordshire
MK45 3DX
Tel: 08000 842 741

Signature:	Installer Name: Alpine Security (UK) Ltd
	Date: 25/10/2022

Important Notes to Customer:

1. This certificate is only valid if the reference number is not defaced, modified or deleted.
2. The reference number of this certificate must be quoted in any correspondence relating to this system.
3. In the event of a dispute relating to quality of work or compliance with standards which the customer has been unable to resolve directly with the installer, the SSAIB will investigate upon receipt of the customers written request.
4. This certificate does not express or imply that SSAIB gives any warranty or accepts any responsibility for any failure or defect that may occur, now or hereafter relating to the products or services supplied by the installer.

SSAIB, 7-9 Earsdon Road, West Monkseaton, Whitley Bay, NE25 9SX

DH-IPC-HFW3549T1-AS-PV

5MP Full-color Active Deterrence Fixed-focal Bullet WizSense Network Camera



Wiz Sense

Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

Series Overview

With advanced deep learning algorithm, Dahua WizSense 3 Series network camera supports intelligent functions, such as perimeter protection and smart motion detection. In addition, with full-color technology, it provides a better image effect in the condition of low illuminance.

Functions

SMD Plus

With intelligent algorithm, Dahua Smart Motion Detection technology can categorize the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm.

Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, Dahua smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

Full-color

With high-performance sensor and large aperture lens, Dahua Full-color technology can display clear colorful image in the environment of ultra-low illuminance. With this photosensitivity technology, the camera can capture more available light, and display more colorful image details.

Siren and Light Active Deterrence

Dahua siren and light active deterrence network camera supports light alarm and voice alarm when perimeter event occurs, to realize the deterrence and effective intervention. The camera is built in multiple voices for selection, and supports customized voice importing.

- 5MP, 1/2.7" CMOS image sensor, low illuminance, high image definition
- Outputs max. 5MP (2592 × 1944) @20 fps, and supports 4MP (2688 × 1520) @25/30 fps
- H.265 codec, high compression rate, low bit rate
- Built-in warm illuminator, and the max. illumination distance: 40 m
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
- Intelligent detection: Intrusion, tripwire (support the classification and accurate detection of vehicle and human)
- Abnormality detection: Motion detection, video tampering, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection.
- Supports sound and light alarm linkage. When an alarm is triggered, the camera links sound alarm and light flashing.
- Supports one-tap disarming. You can disarm the events of alarm output, sending email, audio, and light in the configured period.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card, built-in Mic and speaker
- 12V DC/PoE power supply
- IP67 protection
- SMD Plus
- Red and blue flashlight alarm



Cyber Security

Dahua network camera is equipped with a series of key security technologies, such as security authentication and authorization, access control, trusted protection, encrypted transmission, and encrypted storage, which improve its security defense and data protection, and prevent malicious programs from invading the device.

Protection (IP67, wide voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can works normal after soaking in 1 m deep water for 30 minutes.

Wide voltage: The camera allows $\pm 30\%$ input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Technical Specification

Camera

Image Sensor	1/2.7"5Megapixel progressive CMOS
Max. Resolution	2592 (H) × 1944 (V)
ROM	128 MB
RAM	512 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.003 Lux @ F1.0
S/N Ratio	> 56 dB
Illumination Distance	40 m (131.2 ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	2 (Warm light)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360°

Lens

Lens Type	Fixed-focal				
Mount Type	M12				
Focal Length	2.8 mm; 3.6 mm; 6 mm				
Max. Aperture	F1.0				
Field of View	2.8 mm: Horizontal 98° × Vertical 71° × Diagonal 129° 3.6 mm: Horizontal 77° × Vertical 56° × Diagonal 101° 6 mm: Horizontal 53° × Vertical 40° × Diagonal 66°				
Iris Type	Fixed				
Close Focus Distance	2.8 mm: 1.2 m (3.9 ft) 3.6 mm: 2.1 m (6.9 ft) 6 mm: 4.5 m (14.8 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	67.4 m (221.1 ft)	27 m (88.6 ft)	13.5 m (44.3 ft)	6.7 m (22.0 ft)
	3.6 mm	80.0 m (262.5 ft)	32.0 m (105.0 ft)	16.0 m (52.5 ft)	8.0 m (26.2 ft)
	6 mm	120.0 m (393.7 ft)	48.0 m (157.5 ft)	24.0 m (78.7 ft)	12.0 m (39.4 ft)

Professional, intelligent

IVS (Perimeter Protection)	Tripwire; intrusion (support the classification and accurate detection of vehicle and human)
Intelligent Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos.

Video

Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream)
Smart Codec	Smart H.265+/Smart H.264+
Video Frame Rate	Main stream: 2592 × 1944 @1-20 fps/ 2688 × 1520 @1-25/30 fps Sub stream: 704 × 576 @1-25 fps/704 × 480 @ 1-20fps Third stream: 1920 × 1080 @1-25/30 fps
Stream Capability	3 streams

Resolution	5M (2592 × 1944); 4M (2688 × 1520); 4M (2560 × 1440); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (354 × 288/354 × 240)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 32 kbps–8192 kbps H.265: 12 kbps–8192 kbps
Day/Night	Color/B/W
BLC	Yes
HLC	Yes
WDR	120 dB
Scene Self-adaptation (SSA)	Yes
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Auto/Manual
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas)
Region of Interest (RoI)	Yes (4 areas)
Smart Illumination	Yes
Image Rotation	0°/90°/180°/270° (Support with 2592×1944 resolution and lower)
Mirror	Yes
Privacy Masking	4 areas

Audio

Built-in MIC	Yes
Audio Compression	PCM; G.711a; G.711Mu; G.726; G.723

Alarm

Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; scene changing; audio detection; voltage detection; external alarm; SMD; safety exception; light alarm; sound alarm (11 built-in sounds and custom voices importing)
Network	
Network	RJ-45 (10/100 Base-T)
SDK and API	Yes
Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP
Cyber Security	Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTPS; 802.1x; trusted boot; trusted execution; trusted upgrade
Interoperability	ONVIF(Profile S/Profile G/Profile T); CGI; Milestone; Genetec; P2P
User/Host	20 (Total bandwidth: 80 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS
Browser	IE: IE8 and later Chrome Firefox Safari: Safari 12 and later

Management Software	Smart PSS; DSS; DMSS
Mobile Phone	IOS; Android

Certification

Certification	CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B
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Port

Audio Input	1 channel (RCA port)
Audio Output	1 channel (RCA port)
Alarm Input	1 channel in: 5mA 3V–5V DC
Alarm Output	1 channel out: 300mA 12V DC

Power

Power Supply	12V DC/PoE (802.3af)
Power Consumption	Basic power consumption: 2W (12V DC); 2.6W (PoE) Max. power consumption (H.265 + warm light + IVS + sound alarm + red and blue lights flash): 7.5W (12V DC); 8.8W (PoE)

Environment

Operating Conditions	–40°C to +60°C (–40°F to +140°F)/Less than 95% RH
Storage Conditions	–40°C to +60°C (–40°F to +140°F)
Protection Grade	IP67

Structure

Casing	Metal + plastic
Dimensions	288.4 mm × 94.4 mm × 84.7 mm (11.4" × 3.7" × 3.3") (L × W × H)
Net Weight	1.0 kg (2.2 lb)
Gross Weight	1.23 kg (2.7 lb)

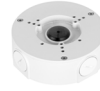
Ordering Information

Type	Part Number	Description
5MP Camera	DH-IPC-HFW3549T1P-AS-PV	5MP Full-color Active Deterrence Fixed-focal Bullet WizSense Network Camera, PAL
	DH-IPC-HFW3549T1N-AS-PV	5MP Full-color Active Deterrence Fixed-focal Bullet WizSense Network Camera, NTSC
	IPC-HFW3549T1P-AS-PV	5MP Full-color Active Deterrence Fixed-focal Bullet WizSense Network Camera, PAL
	IPC-HFW3549T1N-AS-PV	5MP Full-color Active Deterrence Fixed-focal Bullet WizSense Network Camera, NTSC
Accessories (optional)	PFA130-E	Junction Box
	PFA152-E	Pole Mount
	PFM321D	12V DC 1A Power Adapter
	LR1002-1ET/1EC	Single-port Long Reach Ethernet over Coax Extender

	PFM900-E	Integrated Mount Tester
	PFM114	TLC SD Card

Accessories

Optional:



PFA130-E
Junction Box



PFA152-E
Pole Mount



PFM321D
12V DC 1A Power
Adapter



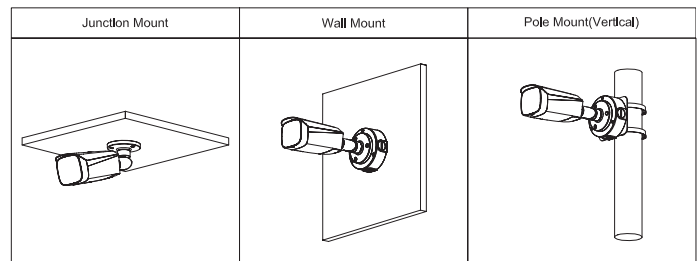
LR1002-1ET/1EC
Single-port Long
Reach Ethernet over
Coax Extender



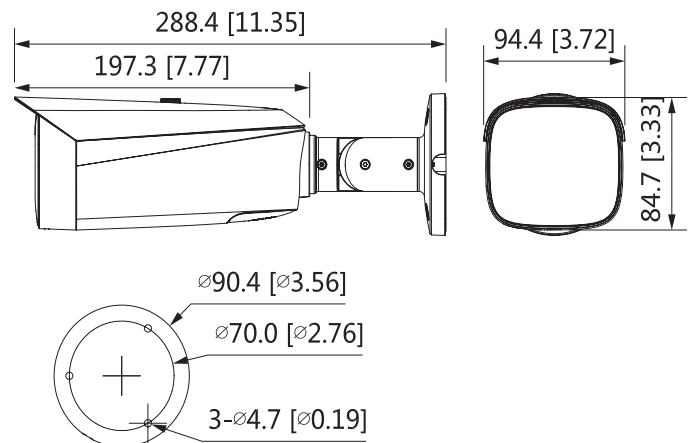
PFM900-E
Integrated Mount
Tester



PFM114
TLC SD Card



Dimensions (mm/inch)



System Design Proposal

Surveyor: Danny Bates **Date** 01/04/2022

Address: Enterprise Waste Management, Wendover Rd, Stoke Mandeville, Aylesbury, HP22 5GX

System Design Proposal for the Installation of a CCTV System

Description of Premises; whatever the type of premises

This design is based on a survey of the premises and information available at the time, including any valuation(s) or other information provided by the customer or the customer's representatives.

You are advised to consult with your insurer in relation to this CCTV System Design Proposal

Every care has been taken during the preparation of the proposal to ensure it complies with the relevant standards and the SSAIB Codes of Practice for CCTV Version 6 June 2016.

Reason for System - Event Recording

Type of Recording - Continuous Recording

Format of Recording – IP

Method of Recording – is by a 16 channel 6 TB NVR with remote viewing & recording method of retrieving video images is via USB Stick or via a PC providing a minimum of 21 days recording, if type of recording is by event then this is recording time is dependent on the activity in the specific area

This design proposal conforms to: SSAIB CCTV Code of Practice.

Objective: - The objective of the proposed system is to give general detection of people in all areas along with recognition & identification of people in specified areas and heat detection specified areas as follows:

DEVICES

Camera No. 1 **General Detection** **5MP IP** **External**

One Day/Night bullet camera (model IHFW3549T1P-AS-PV28) to be sited on the front LHS of the furniture store unit directed towards the car park to cover the visitor car park at a height of approximately 4.5 meters.

Camera No. 2 **General Detection** **5MP IP** **External**

One Day/Night bullet camera (model IHFW3549T1P-AS-PV28) to be sited on the front RHS of the furniture store unit directed towards the car park to cover the visitor car park and car park entrance at a height of approximately 4.5 meters.

Camera No. 3 **General Detection** **5MP IP** **External**

One Day/Night bullet camera (model IHFW3549T1P-AS-PV28) to be sited on the right-side front of the furniture store unit directed towards the car park to cover the skip lorry car park at a height of approximately 4.5 meters.

Camera No. 4 **General Detection** **5MP IP** **External**

One Day/Night bullet camera (model IHFW3549T1P-AS-PV28) to be sited on the right-side back of the furniture store unit directed towards the car park to cover the skip lorry car park at a height of approximately 4.5 meters.

Camera No. 5 **General Detection** **5MP IP** **External**

One Day/Night bullet camera (model IHFW3549T1P-AS-PV28) to be sited on back RHS of the furniture store unit directed towards the car park to cover the staff car park at a height of approximately 4.5 meters.

Camera No. 6 **General Detection** **5MP IP** **External**

One Day/Night bullet camera (model IHFW3549T1P-AS-PV28) to be sited on front of the skip yard office unit directed towards the front entry to cover the front vehicle entry at a height of approximately 4.5 meters.

Camera No. 7 **General Detection** **5MP IP** **External**

One Day/Night bullet camera (model IHFW3549T1P-AS-PV28) to be sited on LHS of the skip yard office unit directed towards the side sorting area to cover the vehicles and skips at a height of approximately 4 meters.

Camera No. 8 **General Detection** **5MP IP** **External**

One Day/Night bullet camera (model IHFW3549T1P-AS-PV28) to be sited on back LHS of the skip yard office unit directed towards the back area to cover the back area at a height of approximately 4 meters.

Camera No. 9 **General Detection** **5MP IP** **External**

One Day/Night bullet camera (model IHFW3549T1P-AS-PV28) to be sited on back RHS of the skip yard office unit directed towards the outside of the workshop entrance to cover the outside of the workshop entrance at a height of approximately 4 meters.

Camera No. 10 **General Detection** **5MP IP** **External**

One Day/Night bullet camera (model IHFW3549T1P-AS-PV28) to be sited on front of the picking belt unit directed towards the sorting area to cover the sorting area at a height of approximately 4 meters.

Camera No. 11 **General Detection** **5MP IP** **External**

One Day/Night bullet camera (model IHFW3549T1P-AS-PV28) to be sited on back LHS of the picking belt unit directed towards the skip store entry to cover the vehicles and skips at a height of approximately 4 meters.

Camera No. 12 **General Detection** **5MP IP** **External**

One Day/Night bullet camera (model IHFW3549T1P-AS-PV28) to be sited on back RHS of the picking belt unit directed towards the back of the skip store to cover the skips and back fence line at a height of approximately 4 meters.

Camera No. 13 **Temperature Measurement** **Thermal** **External**

One Thermal Network Bullet Camera (7.5mm Lens, Temperature Measurement) camera (model TPC-BF5601P-TB7) to be sited on the front LHS of the picking belt unit directed towards the wood chip pile to cover the wood chip pile at a height of approximately 4 meters.

Camera No. 14 **Temperature Measurement** **Thermal** **External**

One Thermal Network Bullet Camera (7.5mm Lens, Temperature Measurement) camera (model TPC-BF5601P-TB7) to be sited in the front RHS of the picking belt unit directed towards the waste sorting pile to cover the waste sorting pile at a height of approximately 4 meters.

Camera No. 15 **Temperature Measurement** **Thermal** **External**

One Thermal Network Bullet Camera (7.5mm Lens, Temperature Measurement) camera (model TPC-BF5601P-TB7) to be sited in the front LHS of the waste holding unit directed towards the new waste pile to cover the new waste pile at a height of approximately 4 meters.

Camera No. 16 **Temperature Measurement** **Thermal** **External**

One Thermal Network Bullet Camera (7.5mm Lens, Temperature Measurement) camera (model TPC-BF5601P-TB7) to be sited in the front middle of the picking belt unit directed towards the waste drop off area to cover the waste drop off area at a height of approximately 4 meters.

CAMERA SPECIFICATION

Model IHFW3549T1P-AS-PV28 (specification attached)

Model TPC-BF5601P-TB7 (specification attached)

CONTROL EQUIPMENT

Recording Equipment: -

One 16 channel Viper NVR with a 6TB hard drive will be fitted on to the office floor, the system is setup to record at 10 fps recording on event and 3 fps on schedule. Footage recovery is by USB memory stick or via a PC with the CMS software.

The unit will require a 230V supply socket fitted in close proximity of the control equipment.

Monitors: -

One 50" Monitor is to be sighted in the manager's office.

Other Equipment: -

There will be 2, 8 port POE switches located in an enclosure on the front of the picking belt unit to power and network cameras.

There will be 1, 8 port POE switch located in the furniture store unit to power and network cameras.

NOTIFICATIONS

The system will be programmed to send push notifications to designated phones upon an event activation. E.G. heat spike.

DATA PROTECTION

Your attention is drawn to compliance with the CCTV data protection legislation (Data protection Act 1998).

The Act applies to commercial and public CCTV systems only, and is enforceable where a CCTV system obtains, records, or stores personal data in the form of video images.

Your CCTV system may need to be registered by notifying the Information Commissioner at www.informationcommissioner.gov.uk or telephone 01625 545740. The notification period is one year and the fee is £35. **Warning signs must be displayed to show that CCTV cameras are recording, stating the purpose of the system and including details of who manages the system and contact details.**

For more information, contact the information commissioner at www.informationcommissioner.gov.uk or telephone 01625 545740.

MANAGEMENT OF THE SYSTEM / REPORTING MEDIA.

It is the clients/ end user's management team / operations manager or nominated person's responsibility to manage the CCTV system, retain recording of specific events (within the guidelines of the data protection act) set time profiles/ groups ETC and ensure that the network is kept in good working order so that the system can send notifications. Alpine Security cannot accept any responsibility for any notification failures as these are outside of our control.

STANDBY POWER / BACK UP

There has been no allowance for any standby batteries or UPS equipment to be fitted, the CCTV system will warm start in the event of power restored.

WORKING HOURS

This quotation is subject to installation being carried out during our normal working hours - Monday to Friday 9.00am to 5.00pm. It does not cover extraneous work, building work, carpet lifting, refitting or redecoration.

SYSTEM CERTIFICATION


The system will be certificated based on the system conforming to the SSAIB CCTV Code of Practice

Acceptance

I agree to the installation of this security system as detailed above and have read and understand all parts

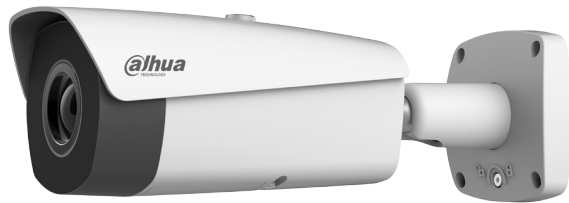
Signed: (Print name) Date:
(Customer's Signature)

The system has been installed in accordance with the above specification.

Signed:  (Print name) D Bates Date: 01/04/2022
(Engineer's Signature)

DH-TPC-BF5601-T

Thermal Network Bullet Camera



- 640 × 512 uncooled VOx thermal sensor technology
- Athermalized lens (thermal), focus-free
- Support temperature measurement
- Various lens optional (7.5/13/25 mm)
- 2/2 alarm in/out
- Micro SD memory, IP67, PoE, ePoE

System Overview

Featuring a fixed lens bullet camera, this series provides an all-in-one solution that is especially beneficial for temperature measurement. Together with Thermal technology, the camera's long range capabilities are able to be utilized even at night.

Functions

Uncooled VOx Technology

Dahua thermal cameras use uncooled VOx sensor technology. Their small size and better performance make them a cost-effective solution for thermal security.

High Sensitivity

High thermal sensitivity (< 40mK) makes cameras capture more image details and temperature difference information.

Temperature Measurement

Dahua thermal cameras (-T models) provide remote temperature monitoring functionality with the ability to set temperature threshold alarms. Object temperatures can be monitored in daytime or at night, making them ideal for usage in power plant or oil extraction applications where overheating can be dangerous. When the temperature exceeds the set threshold, an alarm is triggered. The temperature range is between -20 °C to 550 °C.

Intelligent Video System (IVS)

IVS is a built-in video analytics algorithm that delivers intelligent functions to monitor a scene for tripwire violations, intrusion detection. A camera with IVS quickly and accurately responds to monitoring events in a specific area.

Environmental

With a temperature range of -40 °C to +70 °C (-40 °F to +158 °F), the camera is designed for extreme temperature environments. Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications.

Protection

The camera allows for wide input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning.

Technical Specification

Thermal			
Detector Type	Vanadium Oxide Uncooled Focal Plane Detector		
Max. Resolution	640 × 512		
Pixel Pitch	17µm		
Spectral Range	8µm–14µm		
Thermal Sensitivity (NETD)	≤ 40mK@f/1.0		
Focal Length	7.5 mm	13 mm	25 mm
Field of View	H: 91.2° × V: 70.3°	H: 48.9° × V: 38.8°	H: 24.6° × V: 19.8°
Effective Distance Human (1.8 m × 0.5 m)	D: 221 m (725.07 ft) R: 57 m (187.01 ft) I: 28 m (91.86 ft)	D: 382 m (1253.28 ft) R: 98 m (321.52 ft) I: 49 m (160.76 ft)	D: 735 m (2411.42 ft) R: 189 m (620.08 ft) I: 95 m (311.68 ft)
	D: 558 m (1830.71 ft) R: 147 m (482.28 ft) I: 74 m (242.78 ft)	D: 1020 m (3346.47 ft) R: 255 m (836.61 ft) I: 127 m (416.67 ft)	D: 1961 m (6433.73 ft) R: 490 m (1607.61 ft) I: 245 m (803.81 ft)
	Focus Mode		
Aperture	F1.0		
Digital Detail Enhancement (DDE)	Yes		
Image Stabilization	Electronic Image Stabilization		
Digital Zoom	24×		
AGC	Auto; Manual		
Noise Reduction	2D NR; 3D NR		
Image Flip	90°/180°/mirror		

Intelligence

Advanced Intelligence	Fire Detection & Alarm Cold & Hot Spot Trace Tripwire & Intrusion Human & Vehicle Classification
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Temperature Measurement

Temperature Range	Low Temperature Mode: -20°C to +150°C (-4°F to +302°F) High Temperature Mode: 0°C to +550°C (+34°F to +1022°F)
Temperature Accuracy	Max (±2°C, ±2%) Operating Temperature: -20°C to +60°C (-4°F to +140°F)
Temperature Mode	Spot: 12 Line: 12 Area: 12 Support 12 rules simultaneously

Video and Audio

Video Compression	H.265/H.264M/H.264H/H.264B/MJPEG
Resolution	Main stream: (1280 × 1024/1280 × 720/640 × 512/), 1280 × 1024 by default; Sub stream: (640 × 512/320 × 256), 640 × 512 by default

Frame Rate	50Hz: Main Stream: 1fps–25fps, 25fps by default; sub stream: 1fps–25fps, 15fps by default 60Hz: Main Stream: 1fps–30fps, 30fps by default; sub stream: 1fps–30fps, 15fps by default
Audio Compression	G.711a; G.711mu; PCM

General Function

Network Protocol	HTTP; HTTPS; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; PPPOE; IPv4/v6; SNMP; QoS; UPnP; NTP
Region of Interest (ROI)	Yes
Edge Storage	FTP; Micro SD card (256G)
Interoperability	ONVIF; CGI; DAHUA SDK
Browser	IE: IE9 and the later (Edge not support) Google: 42 and the earlier Firefox: 52 and the earlier
User/Host	20 channels at most (the total bandwidth 64M)
Security	Authorized username and password; attached MAC address; encrypted HTTPS; IEEE 802.1x; controlled network access
User Management	Support 20 users at most and users are classified as two groups-administrator group and user group.
Malfunction Detection	Network disconnection; IP addresses conflict; SD card error (status or storage space)

Certification

Certifications	CE; FCC
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Port

Analog Video Output	1 channel of CVBS output with BNC port
Network	1 10M/100M Ethernet port (RJ-45)
Audio Input	1
Audio Output	1
Alarm Input	2
Alarm Output	2
RS-485	1 pair

Power

Power Supply	12V±20% DC, 1.2A, PoE (802.3af), ePoE
Power Consumption	Basic: 5.0W Maximum: 13W (power adapter excluded)

Environment

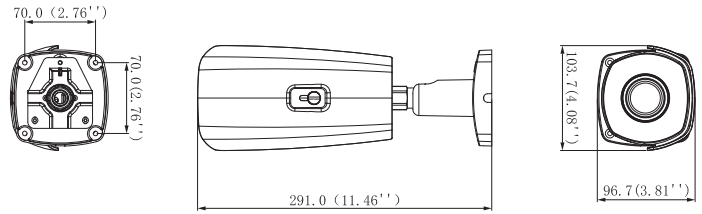
Operating Temperature	-40°C to +70°C (-40°F to +158°F)
Operating Humidity	≤ 95%
Self-Adaptive	Auto heating to protect the chip under the cold environment

Physical Characteristics

Protection Grade	IP67, anti-surge 6KV, anti-electrostatic 8KV (touched by objects), anti-electrostatic 15KV (air)
Product Dimensions (L × W × H)	291 mm × 103.7 mm × 97 mm (11.46" × 4.06" × 3.82")
Packaging Dimensions (L × W × H)	365 mm × 175 mm × 176 mm (14.37" × 6.89" × 6.93")

Net Weight	≤1.4 kg (3.09 lb)
Gross Weight	≤1.9 kg (4.19 lb)
Lens	Contained
Power Adaptor	Selectable

Dimensions (mm[inch])



Ordering Information

Type	Model	Description
DH-TPC-BF5601-T	DH-TPC-BF5601P-TB7	(with temperature measurement function) Thermal: 640 × 512 7.5 mm lens
	DH-TPC-BF5601N-TB7	
	DH-TPC-BF5601P-TB13	(with temperature measurement function) Thermal: 640 × 512 13 mm lens
	DH-TPC-BF5601N-TB13	
	DH-TPC-BF5601P-TB25	(with temperature measurement function) Thermal: 640 × 512 25 mm lens
	DH-TPC-BF5601N-TB25	

Accessories



DH-PFA121-V2



DH-PFA151



DH-PFA152-E

Wall Mount	Corner Mount	Pole Mount
PFA121	PFA121+PFA151	PFA121+PFA152-E

APPENDIX F

Fire Engine Vehicle Details

Bedford 4 x 4 Water Tanker:

- 4 x 4 capacity;
- Pressure-fed water supply;
- Hosing included;
- 8.8 m³ water supply.



ERF Scania Water Tanker:

- Dual fire pump capacity;
- Pressure-fed water supply;
- Hosing included;
- 10 m³ water supply.

