DUST MANAGEMENT PLAN

Purpose

To reduce the risk of dust from Keepmoat sites ('Dust' in this context refers to particles that give rise to soiling, harm to human health and ecological effects). Specifically, this involves:

a. Dust arising from Keepmoat developments.

Scope

The requirements for a Dust Management Plan applies to all Keepmoat Homes developments irrespective of size and location.

Process

Dust Management Plans are developed and subsequently reviewed in two phases:

Phase A – Following successful agreement to purchase the site, the site will be screened to determine if a detailed dust management plan is required.

Screening is completed through Section 5 of this plan to identify sensitive receptors.

An assessment will normally be required where there is:

- A 'human receptor' (school, housing etc) within:
  - 350 m of the boundary of the site; or
  - 50 m of the route(s) used by construction vehicles on the public highway, up to 500 m from the site entrance(s).

- An 'ecological receptor' (SSSI or similar protected site) within:
  - 50 m of the boundary of the site; or
  - 50 m of the route(s) used by construction vehicles on the public highway, up to 500 m from the site entrance(s).

Where a detailed assessment is not required; sites should implement all minimum controls in Section 9 - Site Specific Mitigation Measures.

Where a detailed assessment is required; Technical will determine site-specific mitigation for the site and pre-populate the dust management plan with proportionate and effective controls, following guidance laid out in Appendix 1 and 2.

Phase B – The Plan will be finalised by the Construction Team, with the groundworks/road and sewer and remediation contractors. It will form part of all Construction Phase Plans. The Construction Team will ensure that all arrangements are:

- Suitable, practicable and effective,
- Compatible with site-specific details,
- Implemented and maintained throughout the construction lifecycle,
- Ensure that, whilst grounds contractors are Principal Contractor, they agree their responsibility to implement the DMP as Lead Partner by signing off this document,
- Any deviation from the plan must be signed off by the Construction Director and the plan updated accordingly.

DUST MANAGEMENT PLAN

Site Details

SITE NAME	982 Church Road Old Newton
ADDRESS (&POST CODE)	Church Road Old Newton IP14 4ED
DATE ORIGINALLY DRAFTED	04 April 2022
SITE MANAGER DETAILS (Name, phone, email)	TBC
REGULATOR DETAILS:	Environmental Agency, Local Authority etc as applicable

Change Log

Any changes to the Dust Management Plan must be signed off by the Construction Director unless an emergency. Regulator Details

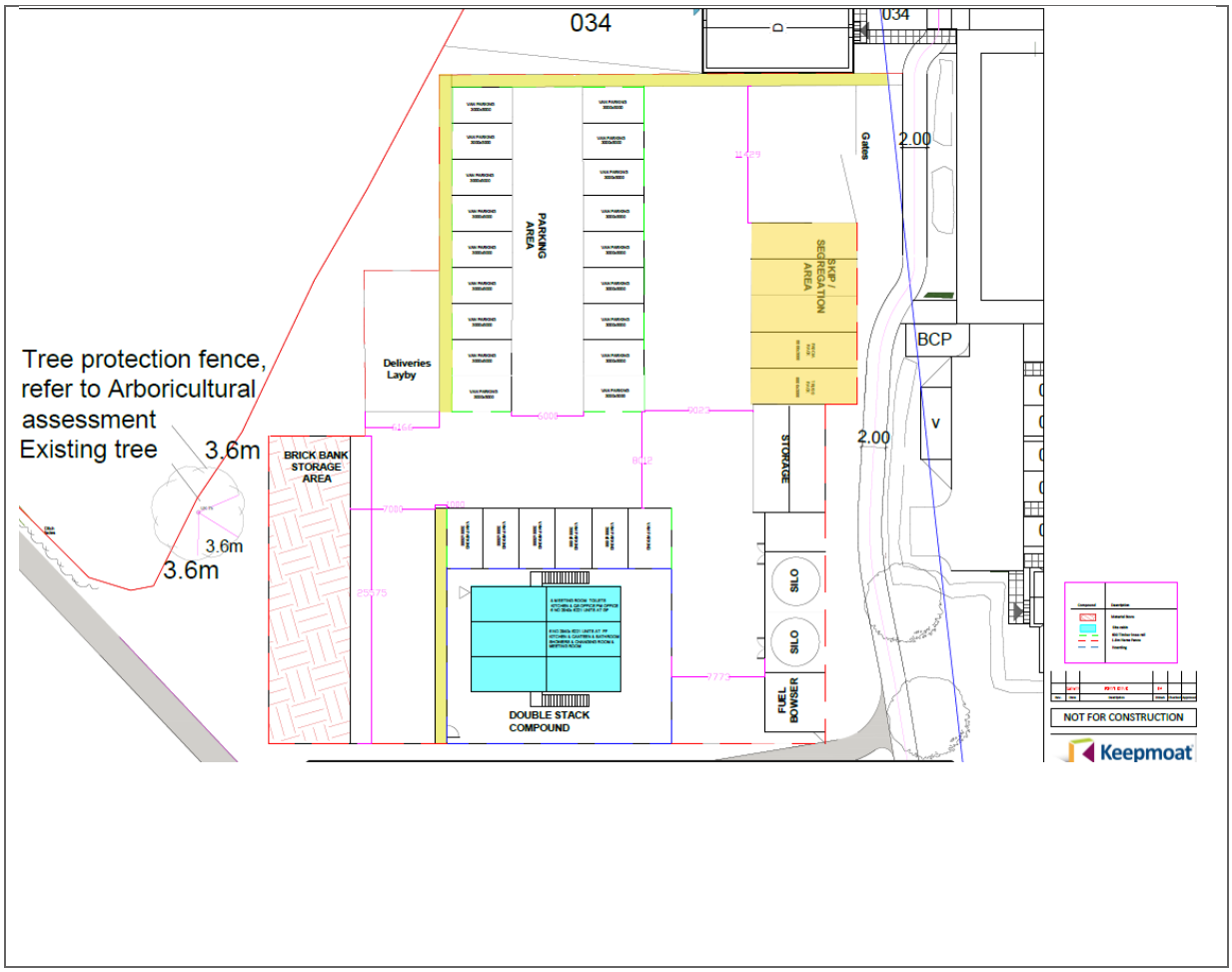
REVERSION NO:	DATE:	DETAILS OF CHANGES	REVIEWED BY:
A	08.06.2023	Updated site plan and information	Dilek Aslan

Dust Management Plan Sign Off

PHASE A – PLANNING AND TECHNICAL APPRAISAL					
Technical	Ian Mcfaul	09/06/23	Land & partnership	Steve Norton	Date
Construction	Matt Figg	Date	EHS	Name & Signature	Date

Site Plan

Site Name
Description of Site : The site is located on the eastern edge of the village of Old Newton which is approximately 2 miles north of Stowmarket The site is an irregularly shaped existing greenfield land and agricultural arable farming field. It extends across three plots of land. The southern and eastern plots comprised arable farming fields cropped with barley and the central/northern portion of the site comprised greenfield land that was overgrown in parts with vegetation comprising primarily grass, brambles, and nettles. The site is relatively flat and ditches containing water were located along the western site boundary and on the boundary between the eastern cropped field and the southern cropped field.
Scope of works expected to generate dust impacts: 1. Plant Movement 2. Soil stockpiling 3. Piling 4. Groundworks
Insert Site Plan identifying key dust sources and activities



Sensitive Receptor Plan

Sensitive receptors

Details of Sensitive Receptors

Take into consideration the impact on human health, ecology, and dust soiling effects.

350m Receptors:

Areas affected by noise (Refer to construction management plan for details)

- *Residential areas*
- *Food store*

50m Receptors:

Areas affected by noise (Refer to construction management plan for details)

-Residential areas

Emission Magnitude (refer to Appendix 1 Stage 1)

Dust Emission Magnitude (Small, Medium, Large, N/A)	
Demolition	N/A
Scope of works expected to generate dust impacts	Medium
Construction	Medium
Track out	Medium

Sensitivity Magnitude (refer to Appendix 1 Stage 2)

Sensitivity of the site and surrounding area	
Demolition Site Sensitivity (Low, Medium, High)	Medium

Overall Dust Risk (refer to Appendix 1 Stage 3)

Overall Risk of Dust Impact (High, Medium, Low or Negligible Risk)	
Demolition	N/A
Earthworks	Medium
Construction	Medium
Track out	low

Site Specific Mitigation Measures (insert additional rows as necessary)

*Items identified below are minimum requirements for all Keepmoat sites. Detailed assessments **MUST** refer to Appendix 2 and identify site specific measures to implement, e.g., Site Manager and Keepmoat central contact details available at site entrance*

ACTIVITY	MITIGATION MEASURE	Implemented
Communication	Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This is likely to be the Site Manager.	
	Manager. All contractors and sub-contractors to be made aware of and sign-up to the dust management scheme.	
Site Management	Record all dust and air quality complaints on Airsweb, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.	
	Make the complaints log available to the local authority when asked.	
	Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book.	

Monitoring	Carry out regular inspections to monitor compliance with DMP, record inspection results, and make an inspection log to the local authority when asked.	
	Carry out regular inspections to monitor compliance with DMP, record inspection results, and make an inspection log to the local authority when asked.	
	Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.	
Preparing and Maintaining the Site	Avoid site runoff of water or mud.	
	Remove materials that have a potential to produce dust from site as soon as possible, unless being reused on site.	
	Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.	
	Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.	
Operations	Only use cutting, grinding, or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g., suitable local exhaust ventilation systems.	
	Minimise drop heights from loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	
Fleet, Plant and Deliveries	Ensure all vehicles switch off engines when stationary - no idling vehicles.	

	Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable.	
Demolition	Ensure effective water suppression is used during demolition operations. Handheld sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.	
Earthworks	None applicable (High Risk Only)	
Construction	Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.	
	Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.	
	For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.	
Track - out	Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.	
	Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.	
	Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.	
	Record all inspections of haul routes and any subsequent action on Airsweb.	
	Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.	

	Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).	

Inspection and monitoring frequency

WHAT	WHOM	WHEN
Dust generating activities and processes	Site Manager	Weekly, daily during dry weather
Mitigation measures	Site Manager	Weekly
Dust Plan and complaints log	Contract Manager	Minimum monthly and following/during severe weather conditions.

Reporting

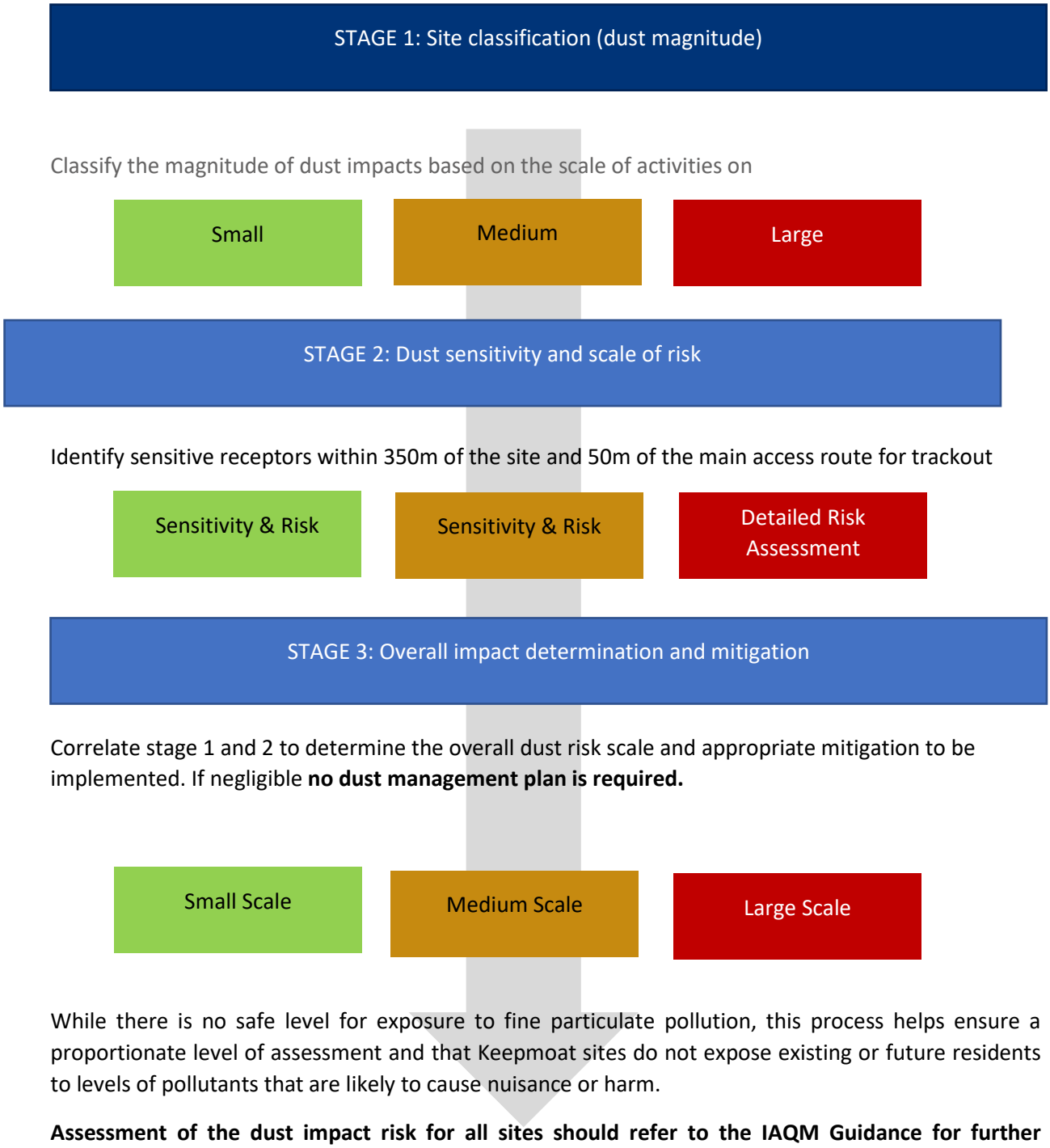
WHAT	WHOM	WHEN
Breaches of measures of dust		Immediate
Inadequacy of implemented measures to control dust		Immediate
Visual dust changes		Immediate
Complaints and regulatory visits		Immediate

Associated information

1. Dust Management Standard (**HSS-ST-001-Dust**)
2. Industry Guidance Note – IAMQ Guidance of dust from demolition and construction
3. Control of Substances Hazardous to Health (**HSS-ST-001-COSHH**)
4. Construction Dust – Controls and Protection (**HSS-GN-001-COSHH**)

Appendix 1: Assessment Guidance

1. Dust Management Process



While there is no safe level for exposure to fine particulate pollution, this process helps ensure a proportionate level of assessment and that Keepmoat sites do not expose existing or future residents to levels of pollutants that are likely to cause nuisance or harm.

Assessment of the dust impact risk for all sites should refer to the IAQM Guidance for further information.

Assessment Guidance for Dust Management Plan

STAGE 1: Classification of site dust emission magnitude

ACTIVITY	CRITERIA	SCALE	✓
Earthworks	<2,500m2 total site area using <5 heavy moving vehicles.	Small	
	2,500m2-10,000m2 total site area, 5-10 heavy moving vehicles.	Medium	
	>10,000m2 total site area >10 heavy moving vehicles.	Large	✓
Construction	<25,000m3 construction material.	Small	
	25,000m3-100,000m3 construction material.	Medium	✓
	>100,000m3 construction material.	Large	
Track-out	<10 HDV (>3.5t) outward movements off-site in any one average day	Small	
	0-50 HDV (>3.5t) outward movements in any one average day.	Medium	✓
	>50 HDV (>3.5t) outward movements in any one average day.	Large	

STAGE 2: Define the sensitivity of the area

The potential risk of dust impacting on receptors requires assessing to enable to gauge the level of required mitigation. The level of dust impact is associated with:

- The number, location, and sensitivity of receptors;
- The type, location, and frequency of site activity;
- The scale of the development;
- The potential to affect sensitive habitats and plant communities;
- The potential impact on human health;
- The potential impact on people and their property due to dust soiling.

Sensitive Receptors

Identify sensitive receptors within 350m of the site boundary, as per the table below:

Sensitive receptor within 50 m of the route(s) used by construction vehicles on the public highway should be included in the above assessment for trackout impacts (within 500m of the site for large magnitude, 200m for medium magnitude and 50m for small magnitude)

EXAMPLE OF SENSITIVE RECEPTORS		
High Sensitivity	**Medium Sensitivity**	**Low Sensitivity**
Hospitals, clinics	Schools	Farms
Hi-tech industries	Residential areas	Light & heavy industry
Painting & furnishing	Food retailers	Outdoor storage areas
Food Processing	Greenhouses, nurseries & horticultural land	
Nursing homes, sheltered housing	Offices	
	Protected sites (e.g., SSSI)	

SENSITIVE RECEPTORS	TOTAL NO OF RECEPTORS	DISTANCE FROM SOURCE(m)			
		<20	<50	<100	<350
		Scale of Risk			
High	>50	High	High	Medium	Low
	10-50	High	Medium	Low	Low
	1-10	Medium	Low	Low	Low
Medium	>1	Medium	Low	Low	Low
Low	>1	Low	Low	Low	Low

Additional factors to consider when determining the sensitivity of the area:

- Any history of dust generating activities in the area;
- The likelihood of concurrent dust generating activity on nearby sites;
- Any pre-existing screening between the source and receptors;
- Any conclusions drawn from analysing local metrological data which accurately represent the area; and if relevant the during which the works takes place;
- Any conclusions drawn from local topography;
- Duration of the potential impacts, as a receptor may become more sensitive over time; and
- Any known specific receptor sensitivities which go beyond the classifications given in this document.

STAGE 3 Define the Overall Risk of Dust Impact & Mitigating Actions:

Risk of Dust Impacts – Demolition

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Medium Risk
Medium	High Risk	Medium Risk	Low Risk
Low	Medium Risk	Low Risk	Negligible

Risk of Dust Impacts – Earthworks

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

Risk of Dust Impacts – Construction

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

Risk of Dust Impacts – Trackout

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Low Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

Appendix 2: Recommended Mitigation Measures

Bold and Blue items are minimum required controls on all Keepmoat Sites

GENERAL MITIGATION				
Measure		Risk		
		Low	Medium	High
Communications	Develop and implement a stakeholder communications plan that includes community engagement before work commences on-site.		✓	✓
	Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This is likely to be the Site Manager.	✓	✓	✓
	Display the regional office contact information.		✓	✓
	All contractors and sub-contractors to be made aware of and sign-up to the dust management scheme.	✓	✓	✓
Site Management	Record all dust and air quality complaints on Airsweb, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.		✓	✓
	Make the complaints log available to the local authority when asked.	✓	✓	✓
	Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the logbook.		✓	✓
Monitoring	Hold regular liaison meetings with other high risk construction sites within 500m of the site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/deliveries which might be using the same strategic road network routes.			✓
	Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust and record inspection results. Log on Airsweb and available to the local authority upon request. This should include regular dust soiling checks of surfaces such as street furniture, cars, and windowsills within 100m of site boundary, with cleaning to be provided if necessary.		✓	✓
	Carry out regular inspections to monitor compliance with DMP, record inspection results, and make an inspection log to the local authority when asked.	✓	✓	✓
	Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.		✓	✓
	Agree dust deposition, dust flux, or real-time PM10 continuous monitoring locations with the Local Authority. Where possible			✓

	commence baseline monitoring at least three months before work commences on site or, if it a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks, and construction.			
Operations	Use enclosed chutes and covered skips.	✓	✓	✓
	Only use cutting, grinding, or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g., suitable local exhaust ventilation systems.	✓	✓	✓
	Minimise drop heights from loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	✓	✓	✓
Preparing and maintaining the site	Keep site fencing, barriers and scaffolding clean using wet methods.	✓	✓	✓
	Avoid site runoff of water or mud.	✓	✓	✓
	Remove materials that have a potential to produce dust from site as soon as possible, unless they are being re-used.	✓	✓	✓
	Ifmaterials are being re-used on-site cover, seed, or fence stockpiles to prevent wind whipping.		✓	✓
	Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.	✓	✓	✓
	Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.		✓	✓
	Fully enclose site or specific operations where there is a high potentialfordustproductionandthesiteisactivesforanextensive period		✓	✓
	Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.	✓	✓	✓
	Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.	✓	✓	✓
	Avoid dry sweeping of large areas.		✓	✓
	Use water-assisted dust sweeper(s) on the site, access, and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.		✓	✓
Fleet, Plant & Deliveries	Ensure all fleet and plant meet the required emission standards.		✓	✓
	Ensure all vehicles switch off engines when stationary - no idling vehicles.	✓	✓	✓
	Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable.	✓	✓	✓
	Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).			✓
	Produce a Traffic Management Plan to manage the sustainable			✓

	delivery of goods and materials.			
DEMOLITION SPECIFIC				
Demolition	Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).	✓	✓	✓
	Ensure effective water suppression is used during demolition operations. Hand-held sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.	✓	✓	✓
	Use appropriate manual or mechanical alternatives.		✓	✓
	Bag and remove any biological debris or damp down such material before demolition.	✓	✓	✓
EARTHWORKS SPECIFIC				
Earthworks	Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.			✓
	Use Hessian, mulches or tackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.			✓
	Only remove the cover in small areas during work and not all at once.			✓
CONSTRUCTION SPECIFIC				
Construction	Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.		✓	✓
	Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.		✓	✓
	For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.		✓	✓
TRACKOUT SPECIFIC				
Trackout	Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.	✓	✓	✓
	Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.		✓	✓
	Record all inspections of haul routes and any subsequent action on Airsweb.		✓	✓
	Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.		✓	✓
	Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).		✓	✓

	Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.			✓