

A12 Chelmsford to A120 widening scheme TR010060

6.5 First Iteration Environmental Management Plan Appendix E: Dust Management Plan

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6.5 First Iteration Environmental Management Plan Appendix E: Dust Management Plan

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Appendix E Dust Management Plan

E.1 Background to the plan

- E.1.1 The proposed scheme comprises improvements to the A12 between junction 19 (Boreham interchange) and junction 25 (Marks Tey interchange), a distance of approximately 24km, or 15 miles. The proposed scheme involves widening the A12 to three lanes throughout (where it is not already three lanes) with a bypass between junctions 22 and 23 and a second bypass between junctions 24 and 25. It also includes safety improvements, including closing off existing private and local direct accesses onto the main carriageway, and providing alternative provision for walkers, cyclists and horse riders (WCH) to existing routes along the A12, which would be removed. A detailed description of the proposed scheme can be found in Chapter 2 of the Environmental Statement [TR010060/APP/6.1].
- E.1.2 This Dust Management Plan (DMP), in outline, sets out the measures that would be used by the Principal Contractor (PC) to manage dust and emissions from construction plant and vehicles to air, generated by the construction of the proposed scheme. Dust and emissions from construction plant and vehicles can affect residential occupants, businesses and commercial facilities, users of the road and public rights of way network, users of open space, and sensitive ecological sites and habitats.
- E.1.3 The construction dust assessment determined the proposed scheme construction would give rise to a high risk of dust based on receptor numbers and a large potential for dust emissions. It concluded no significant effects based on best practice and appropriate mitigation measures.
- E.1.4 This management plan will be updated by the PC and included within the second iteration Environmental Management Plan (EMP), as appropriate and necessary, prior to commencement of works in accordance with the relevant Requirements in Schedule 2 of the draft Development Consent Order (DCO) [TR010060/APP/3.1] and the requirements of the first iteration EMP [TR010060/APP/6.5].

E.2 Responsibilities

- E.2.1 In relation to the control and management of dust and emissions to air the PC shall establish the appropriate roles and responsibilities for site staff in accordance with the roles and responsibilities set out in Chapter 2 of the EMP.

E.3 Control measures

- E.3.1 In order to minimise potential emissions of fugitive dust during construction, best practice measures would be employed to control fugitive dust in compliance with Design Manual for Roads and Bridges (DMRB) LA 105 Air Quality (Highways England, 2019).
- E.3.2 The following control measures will be implemented across all construction works where practicable. These measures are based on those outlined by the Institute for Air Quality Management Publication Guidance on the assessment of dust from demolition and construction (Version 1.1) (2014).

Monitoring

- E.3.3 The PC would undertake regular onsite and offsite visual inspections, where receptors (including roads) are nearby, to monitor dust control measures, record inspection results and make the log available to the local authority upon request.
- E.3.4 The frequency of inspections would be increased by the person accountable for fugitive dust issues when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
- E.3.5 The construction team shall assess the weather forecast ahead of works which have potential for dust generation and would, where reasonably practical, reprogramme works to minimise any effects caused by the weather.

Preparing and maintaining the site

- E.3.6 In preparing and maintaining the site, consideration shall be given to:
- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is reasonably practicable.
 - Where deemed appropriate, set up of static dust suppression equipment or erect solid screen or barrier/bund around particularly dusty activities
 - Fully enclose specific operations where there is a high potential for dust production and the site is active for an extensive period.
 - Avoid site runoff of water or mud.
 - Keep site fencing, barriers, traffic management and scaffolding clean using wet methods where there is the risk of dust accumulation.
 - Where reasonably practical cover, seed or fence stockpiles to prevent wind whipping.
 - Remove materials that have the potential to produce dust from site as soon as reasonably practical, unless being reused onsite. If they are being reused onsite, cover as appropriate.

- Site access points would be designed to minimise queuing traffic adjacent to access points.
- Access gates to be located at least 10m from receptors where practicable.

Construction activities

E.3.7 Construction activities would include the following measures to limit dust emissions, as appropriate:

- Ensure an adequate water supply on the site for effective dust/particulate matter suppression should it be required. Use non-potable water where practicable and appropriate for dust suppression where available.
- Minimise drop heights from loading shovels, and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- Where required and appropriate use enclosed chutes and covered skips.
- Avoid dry sweeping of areas if causing visible dust emissions and the area is within 350m of human receptors.

E.3.8 The DMP to be included within the second iteration EMP will be updated to give details on measures to limit dust from specific construction activities and/or locations including but not limited to borrow pit excavations, earthworks, demolition, and the storage and handling of materials.

E.3.9 Specifically, at borrow pit J there is a solar panel farm located approximately 120m to the south-east of the proposed scheme. The solar panel farm is generally upwind of this borrow pit. As described above dust suppression would be undertaken to limit fugitive dust, with particular attention taken when the wind is blowing from the north.

Haul roads and trackout

E.3.10 Trackout is the movement of dust and dirt from a construction site onto the public road network, where it may be deposited and then re-suspended by vehicles using the network. Haul roads would be provided onsite for use by construction vehicles to access works areas. The construction and maintenance of haul roads would include the following measures to limit dust emissions from trackout, as appropriate:

- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.
- Avoid dry sweeping of large areas.
- Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.

- Implement a wheel washing system with rumble grids or other suitable methods to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable.
- Inspect haul roads, including crossing points on the existing highway, for integrity and instigate any necessary repairs to the surface as soon as reasonably practicable.
- Install hard surfaced haul roads, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.
- 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.
- Access gates to be located at least 10m from receptors where practicable.

Plant and vehicles

- E.3.11 All non-road mobile machinery (NRMM) emissions (i.e. mobile machines, transportable industrial equipment or vehicles which are fitted with an internal combustion engine and not intended for transporting goods or passengers on roads) comply with NRMM regulations.
- E.3.12 Measures would be implemented to limit emissions from construction plant and vehicles, including the following, as appropriate:
- Construction plant, vehicles and equipment would be operated in accordance with manufacturer's guidance and would be regularly maintained and checked.
 - Engines would be switched off when not in use.
 - Vehicle and construction plant exhausts should be directed away from the ground and be positioned at a height to facilitate appropriate dispersal of exhaust emissions.
 - The movement of construction traffic around the site would be kept to the minimum reasonable for the effective and efficient operation of the site and construction of the proposed scheme.
 - Where stationary generators are required, ensure these are sited as far from sensitive receptors as practicable.
 - The use of diesel- or petrol-powered generators would be reduced by using mains electricity, hybrid generators, hydrogen generators or battery powered equipment where reasonably practicable.

References

Highways England (2019). Design Manual for Roads and Bridges: LA 105 Air Quality. Available at:

[REDACTED]
[REDACTED] December 2021.

Institute of Air Quality Management (2014). Guidance on the assessment of dust from demolition and construction (Version 1.1). Available at:

[REDACTED] Accessed
November 2021.