

**HSMS 10 – Construction (Design & Management) Regulation 2015**

**Pre-Construction Information**

**THE design, procurement, AND INSTALLATION OF a surface water PUMPing System**

**SEFTON MEADOWS landfill site Extension nO 2**

**January 2022**

**Issue 1**

**Amendment 1**

**Template Revision History**

**Issue: 1**

**Date of Issue: 20th February 2018**

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| **Issue** | **Author** | **Date** | **Amendments** |
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| 1 | ASB | 20/02/18 | First issue |

**Amendment to scope of works\***

**Amendment: 1**

**Date of Amendment: 26th January 2022**

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| **Issue** | **Author** | **Date** | **Amendments** |
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| 1 | ASB | 26/01/22 | First Issue |

\*To be amended to accommodate changes in the scope of works

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**1.0 Project details**

**1.1 Client:**

Merseyside Waste Disposal Authority (the Authority)

7th Floor No 1 Mann Island

Liverpool

L3 1BP

**1.2 Client contact details:**

Tony Byers

Merseyside Waste Disposal Authority

7Th Floor No 1 Mann Island

Liverpool

L3 1BP

**1.3 Principal Designer/Contractor:**

The successful and appointed tenderer shall be appointed as Principal Designer and Principal Contractor, and shall fulfil all of those duties under the CDM Regs 2015

**1.4 Principal Designer/Contractor Contact details:**

TBC

**1.5 Anticipated start date:**

TBC

**1.6 Anticipated construction period:**

6 weeks comprising 4 weeks procurement and 2 weeks installation

**1.7 Key dates:**

NA

**2.0 Brief description of the works**

The procurement and installation of 2 No pumps, and all ancillary apparatus, into an existing surface water pumping station to replace the existing redundant system.

The procurement and installation et al is to be delivered as a turn key project by the appointed contractor.

**3.0 EXISTING ENVIRONMENT**

**3.1 Location of works:**

The works are to be undertaken at the existing surface water pumping station located within the curtilage of Sefton Meadows former landfill site (Ext No 2):

Sefton Lane, Maghull, Sefton, Merseyside, L31 8BX

Access to the site is made through the operational household waste recycling centre:

Sefton Meadows HWRC, Sefton Lane, Maghull, Merseyside,

L31 8BX

The landfill site is in third party ownership and is actively farmed. The surface water pumping station and access road is in the ownership of MWDA, and is enclosed by the landfill site. See drawings located in Appendix 1 of the tender documents.

**3.2 Ground conditions:**

The ground conditions are that of a municipal solid waste landfill site, finished with a cover of restoration material to a varying depth from site to site.

Under the scope of these works, there is no requirement to undertake any excavation works that will entail contact with the underlying material

**3.3 Existing structures:**

The surface water pumping station comprises of an open surface water retention lagoon nominally 4m deep and 45m diameter comprising of a 150mm thick concrete base slab with sheet piling walls topped with a concrete beam.

A Nom 4m wide x 1m deep dry weather flow channel across the diameter of the lagoon.

A single storey brick housing nominally 5.5m x 8.5m x 3.5m high, serving as a motor room to the redundant pumps, with a basement nominally 5.5m deep serving as the pump well.

See existing infrastructure drawings in Appendix 1

**3.4 Existing services:**

An underground electricity cable feeds an adjacent pole mounted transformer, which in turn supplies the surface water pumping station by an underground feed.

There are 2No 400/350 dia ductile iron discharge pipes nominally 900mm below ground to discharge surface water from the retention lagoon into the river Alt via a culvert headwall. These pipes shall be considered redundant as part of the existing redundant pumping system

See existing infrastructure drawings in Appendix 1

**3.5 Overlap with operations:**

There is no overlap with operations apart from access through the operational household waste recycling facility. See section 3.8

**3.6 Overlap with public:**

The surface water lagoon and associated housing are located behind a palisade fence with no public access.

The access route from the highway through the household waste recycling centre and along the private trackway are all open to the public, and public encounters should be expected.

The Contractor shall be aware of the potential theft of any unsecured items.

**3.7 Site conditions:**

The site is exposed to the elements with the only shelter being the brick motor housing.

The Contractor shall make their own provisions to shelter from the elements as necessary as part of their welfare provisions.

**3.8 Access and egress:**

Access to the works area shall be made from Sefton Lane, through the household waste recycling centre, and along the private stone track as indicated on the drawing located in Appendix 1

The Contractor must adhere to the predetermined access routes through the HWRC and along the track as indicated on the drawings. Vehicular access outside of these routes is not permitted without prior consent from the Authority.

Compliance with the HWRC site rules will be required when maneuvering through the sites, and it is a requirement to sign In and Out at the HWRC office.

The stone trackway leading from the HWRC to the pump station is nominally 3.5m wide and is made up of compacted stone. Although suitable for traffic, the trackway has developed large potholes of varying depth.

There is a steep incline (down) and 90o turn as the track exits the HWRC towards the pump station, and another steep incline (down) at the end of the track at the pump station compound. Although steep, these have been regularly trafficked by large HGV delivery vehicles without issue. The Contractor is advised to satisfy themselves as to the nature of the access before committing to delivery of any materials etc.

Traffic shall be restricted to a maximum speed of 5mph when travelling through the HWRC and along the stone track.

The Contractor shall make provision for any abnormal loads/deliveries to be marshalled through the HWRC.

The Contractor shall give advance notice of all their traffic movements through the HWRC to the site operative*.*

The Contractor shall be aware that due to the failure of the existing surface water pumps, there is a system of temporary pumps and associated apparatus on site and inside the lagoon compound. The Contractor shall ensure that they have fully assessed the nature of access to undertake these works around the existing temporary pump arrangements.

**3.9 Welfare facilities:**

There are no welfare facilities on site, and there is no potable water. As such the Contractor shall make their own provisions as necessary.

**3.10 Limitations on working hours:**

The Contractors working hours are restricted to the operational hours of Sefton Meadows HWRC.

The HWRC is open 7 days per week, from 08:00 – 17:00 hrs.

**4.0 HEALTH AND SAFETY**

**4.1 Site Rules:**

**1 Landfill Gases**

Due to the potential presence of Landfill Gas, smoking or naked flames are not permitted on site. Hot Works are only permitted via a Permit to Work.

**2 Personal Protective Equipment**

Although the site is no longer an active landfill site, the appropriate P.P.E. for the nature of the works, and subsequent Risk Assessment, shall be worn at all times.

A minimum P.P.E. of:

Hi Visibility jacket/vest

Hard hat/Bump Cap

Protective boots

is required.

Protective eyewear and gloves are recommended subject to the nature of the works being undertaken

**3 Traffic**

Traffic is restricted to 5mph and to the predetermined access routes at all time.

**4 Site Security**

There are security gates at the exit point through the HWRC and at the entry point into the works area. The Contractor shall ensure that these gates are closed and locked immediately after use. At no times shall these gates remain open without immediate supervision.

If the Contractor is expecting a delivery of materials or equipment, provision shall be made for the deliverer to contact the Contractor when they reach the gates.

The Contractor shall ensure that all work areas are secure, and that the gates are closed and locked when vacating site.

Remote monitored CCTV cameras are installed at the lagoon compound.

**4.2 Environmental Monitoring Boreholes**

1 Closed landfill sites general contain environmental monitoring boreholes in one form or another. These generally take the appearance of Nom 150 Dia capped galvanized steel pipes, protruding generally approximately 1.0m from the ground.

2 If the Contractor encounters what they believe to be a borehole that is uncapped, i.e. the blank flange on the top is missing or open; they should inform MWDA at their earliest convenience.

3 Where it is necessary for a Contractor to work alongside a monitoring borehole, they should work at arm’s length, and cross-wind of the installation wherever possible.

4 At no time shall a Contractor stand above or lean over an open Monitoring Borehole.

5 All boreholes across all closed landfill sites have a DSEAR classification. See section 4.11.

**4.3 Pests and Vermin**

1 Insects, pests and vermin are to be expected on site. The use of insect repellent is advised, and any observation of pests and vermin shall be reported to MWDA.

2 Disposal of foodstuffs and food packing on the site is not acceptable, and such items must be removed from site.

3 See clause 4.5 for information on Leptospirosis

**4.4 Public Encounters**

1 The site is open to the public, and public encounters should be anticipated.

2 The Contractor shall be aware that game hunting and pest control takes place at the landfill site; and the Contractor shall be aware of hunting dogs and shot gun fire.

3 Any indications of ‘Traveller’ presence or encampments on site shall be reported to MWDA immediately.

**4.5 Health and Vaccinations**

1 The Contractors’ attention is drawn to the potential of Tetanus and Hepatitis B infections, along with the potential for Weil’s disease (Leptospirosis).

It is recommended that all personnel working on a closed landfill site should have undergone a course of Tetanus and Hepatitis B vaccinations

2 Weil’s Disease (Leptospirosis)

Weil's Disease is a serious, sometimes fatal, infection transmitted by contact with urine from infected rats and contaminated water. The bacteria can enter the body through cuts and scratches and through the lining of the mouth, throat and eyes.

HSE also produces a workers’ pocket card advising on Leptospirosis (Weil’s Disease)

To protect against Weil's Disease, exposed skin should be covered (e.g. waterproof gloves and long sleeves are to be worn). In windy conditions face protection should also be considered.

If any splashing occurs during the course of the operatives’ works, the affected area should be cleansed immediately.

3 Personal Hygiene

Closed landfill site do not support welfare facilities, and the Contractor shall make suitable provision for their personnel. Adequate washing facilities are important as antiseptic wipes alone may not be sufficient.

All personnel shall undertake protective hygiene measures. Hands, wrists and forearms should be washed at the end of the working day, and prior to the consumption of any food or drink

**4.6 Traffic restrictions:**

Traffic is restricted to 5mph and to the predetermined access routes at all time. Vehicular traffic across the landfill site is not permitted without prior consent from the Authority.

**4.7 Site Inductions:**

The Contractor shall be subject to a site induction undertaken by a representative from the Authority. The Contractor shall then be responsible for conducting site Inductions for any and all sub-contractors appointed by the Contractor.

**4.8 Works Authorisation:**

Prior to commencing works, the appointed Contractor shall be subject to a Works Authorisation document. This shall be completed jointly between representatives of the Authority and the Contractor.

The document confirms that all safety measures are in place, and grants the Contractor authorisation to commence works on site.

The document shall be held by the Contractor on site for the duration of the works, and shall be signed off by both parties upon completion of the works. The document shall be retained by the Authority.

**4.9 Permit to Work:**

In addition to the Works Authorisation, an Authority issued Permit to Work shall be required for tasks involving:

* + Confined space entry
  + Working at heights
  + Electrical works
  + Hot works
  + Works on pressurised mains

The permit shall be completed jointly by a representative from the Authority and the Contractor, and shall be retained by the Contractor for the duration of the task.

The Permit shall be applicable to the task being undertaken only.

**4.10 COSHH:**

The Contractor shall be responsible for undertaking COSHH assessment for any materials that the Contractor will use.

**4.11 DSEAR:**

**DSEAR The Dangerous Substances and Explosive Atmospheres Regulations 2002)**

**ATEX EU Directive 94/9/EC (also known as 'ATEX 95' or 'the ATEX Equipment Directive') concerning equipment and protective systems intended for use in potentially explosive atmospheres.**

Due to the risk of fire and explosion as a result of landfill gases, the sites have been classified into the various DSEAR zones in accordance with the regulations. The use of tools, equipment and machinery shall be restricted to those compliant with ATEX categories.

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| DSEAR | | ATEX | |
| Zone | Description | Category | Requirements |
| 0 | Explosive atmosphere is present continuously, for long periods, or frequently. | 1 | Equipment must be safe under normal operation, expected and rare malfunction. |
| 1 | Explosive atmosphere is likely  to occur under normal operation, occasionally. | 2 | Equipment must be safe under normal operation, expected malfunction. |
| 2 | Explosive atmosphere may occur under abnormal operation and only persists for a short period. | 3 | Equipment must be safe under normal operation. |

**The basement level of the pump motor housing building is classified as DSEAR Zone 2, ATEX Category 3. See DSEAR drawing in Appendix 2**

**4.12 Confined space:**

**Confined Space Any place, including any chamber, tank, vat, silo, pit, trench, pipe, sewer, flue, well or other similar space in which, by virtue of its enclosed nature, there arises a reasonably foreseeable specified risk**

**[The Confined Spaces Regulations 1997]**

Confined spaces are to be encountered on all closed landfill sites. Entry into a confined space is forbidden without a Permit to Work.

Confined spaces on the closed landfill sites have been categorised by way of the National Categories and City & Guilds 6150 Scheme:

**NC1 Low risk entry with adequate natural or mechanical ventilation. Typically meter pits and valve chambers**

**NC2 Vertical direct unobstructed access with continuous attachment to a safety line**

**NC3** **When not possible to have continuous attachment to a safety line. Typically where the work team must move away from the point of entry.**

**NC4 Nonstandard entry involving complex operations. A safe system of work must be developed.**

Entry into a Confined Space shall only be undertaken by suitably qualified personnel in accordance with an appropriate Risk Assessment and Method Statement, and only when accompanied by an authorised Permit to Work.

**The basement level of the pump motor housing building is classified as NC3. See Confined Space drawing in Appendix 3**

**4.13 Works adjacent water courses:**

The works area is located adjacent to the River Alt, and the nature of the works is such that the outfall pipes from the new installation will discharge into the river. As such, the Contractor shall include in the Construction Phase Plan a Safe System of Work for working adjacent a water course.

**4.14 First Aid**

The Contractor shall make all necessary provisions to ensure their own safety and wellbeing. This shall include the provision of a suitably qualified first aider and first-aid kits Etc., along with establishing procedures for emergency assistance etc.

The Contractor shall consider that the sites are remote, without facilities, and there are no first-aid measures on any of the sites.

**4.15 Medical Centres**

The Site Induction leaflets include details of the nearest medical centres. See Appendix 4

**4.16 Asbestos Management Plan**

The asbestos management plan has been reviewed as part of this tender process, and is available in Appendix 5.

There is no evidence of asbestos based materials.

**5.0 (PRINCIPAL) CONTRACTOR’S OBLIGATION**

**5.1 Construction Phase Plan**

In accordance with the Construction (Design and Management) Regulations 2015, a Construction Phase Plan (CPP) is required for all construction works, no matter how small or straightforward they would appear to be

5.1.2 The CPP must set out the health and safety arrangements and site rules associated with the construction phase of the project.

5.1.3 The CPP shall be proportionate in detail to the nature, complexity and scale of the construction project.

5.1.4 The CPP shall also include details of the control measure for the following specific risks where relevant:

1. Work which puts workers at risk of burial under earthfalls, engulfment in swampland or falling from a height, where the risk is particularly aggravated by the nature of the work or processes used or by the environment at the place of work or site.

2. Work which puts workers at risk from chemical or biological substances constituting a particular danger to the health or safety of workers or involving a legal requirement for health monitoring.

3. Work with ionizing radiation requiring the designation of controlled or supervised areas under regulation 16 of the Ionising Radiations Regulations 1999(a).

4. Work near high voltage power lines.

5. Work exposing workers to the risk of drowning.

6. Work on wells, underground earthworks and tunnels.

7. Work carried out by divers having a system of air supply.

8. Work carried out by workers in caissons with a compressed air atmosphere.

9. Work involving the use of explosives.

10. Work involving the assembly or dismantling of heavy prefabricated components.

5.1.5 The CPP shall be submitted to the Authority for its consideration (with sufficient time for the PCC to be fully reviewed), before the construction phase begins;

**5.2 Risk Assessment and Method Statement**

5.2.1 The (Principal) Contractor shall submit to the Authority for its consideration a Risk Assessment and Method Statement for the works.

5.2.2 The Risk Assessment and Method Statement shall be submitted with sufficient time for it to be fully reviewed before the works commences.

**5.3 Health and Safety file**

5.3.1 The (Principal) Contractor shall submit to the Authority any information on the project likely to be needed to ensure health and safety for any subsequent works, along with information on future maintenance, refurbishment, and cleaning etc.

5.3.2 This shall include details of any subcontractors and suppliers used in the works, along with material and product details; including operational and instruction manuals etc.

5.3.3 As Built drawings and other such records shall be formulated during the course of the works and provided to the Authority.