

Dorset Council

Dynamic Purchasing System for Road Surface Treatments

DPS Ref: DN318931

Sub Specification for Spray Injection Patching

1. Background

The Council requires a spray injection patching service in addition to the range of other highway maintenance patching processes employed. The service is required predominantly in rural areas to carry out remedial repairs to defects such as pot holes, edge deterioration, cracking and crazing and pre surface dressing patching.

Dorset Council owns and has continually used a spray injection patching machine with its own workforce since 2009. This DPS may be utilised to cover periods of exceptional demand and specific packages of work (subject to budgets).

2. Specification

The Contractor is required to be based at one of the Council's operational highways depots, where storage space for all plant and associated equipment will be made available by the Council.

The Contractor shall provide a mobile rear mounted spray injection patching service.

The operation employed by the Contractor shall, unless otherwise approved by the Council, meet the following requirements:

- i. Remove all dust, debris and excess moisture from a defect through the use of a high velocity air hose.
- ii. Seal the defect using high pressure cold applied bitumen emulsion bond coat applied through a rear mounted delivery hose.

- iii. Place through a delivery hose at high velocity, an aggregate (6mm) / cold bitumen emulsion mix, filling the defect to the required level.
- iv. Compaction of the completed defect repair by means of a vibrating plate unless agreed otherwise with the Council.
- v. Manual sweeping of the completed repair and the area immediately surrounding it to remove any loose material

The operation shall be manually operated from a self-contained vehicle employing a GPS tracking and reporting system, to record site operations including self-identified work.

The vehicle used for this operation shall have a minimum capacity of 5m³ to ensure efficient operations.

The vehicle shall carry all equipment and materials required to undertake the operation including temporary signage to comply with carrying out mobile road works in a rural and urban environment.

The vehicle shall incorporate appropriate safety measures including a rear observation system, and have cut out equipment installed to ensure operative safety.

The operation shall, subject to the agreement of the Council, be supported by a traffic management crew in areas where existing road conditions demand more than that provided by the standard Chapter 8 'mobile works' signage (narrow lanes/ stop and go). The traffic management crew will be arranged for and funded by the Council.

Operatives shall be given access to the Council's depot based telehandler machines and must be suitably qualified to operate such equipment in order to self-load.

Unless otherwise advised, the Council shall provide the 6mm aggregate chippings to comply with the requirements of BS EN 13043:2002 and 200 litre drums of cationic bitumen emulsion to comply with the requirements of BS EN 13808:2013 for use in the patching process. The Contractor shall, unless otherwise agreed, provide all other materials associated with the operation.

Where the Council does not provide materials used in the execution of the works, the Contractor shall be reimbursed in accordance with the rates submitted through the DPS.

The Contractor shall have a system in place to protect nearby property, including verges, vehicles, kerbs and ironworks from overspray (particularly in windy conditions).

Delivery of the service may be required to be undertaken throughout winter months (if weather conditions permit). However, no works will take place during particularly wet conditions and/ or low (5 degrees C and falling) or high (> 45 degrees C) road surface temperatures which could adversely affect the performance of the defect repair.

3. Quality

In addition to the requirements detailed in paragraph 2, the service provided by the Contractor under this DPS shall meet the following accreditation and fully comply with:

- i. ISO 9001 (Quality Management System) and ISO 14001 (Environmental Management System)
- ii. National Highways Sector Scheme 13 – The Supply and Application of Surface Treatments to Road Surfaces
- iii. Road Surface Treatments Association (RSTA) Code of Practice for Innovative Patching Systems

4. Training and competency

In addition to the requirements of the DPS General Specification, Contractors staff must hold an appropriate Construction Skills Certification Scheme (CSCS) card and have relevant experience of spray injection patching works. Staff providing services under this Framework shall be suitably and sufficiently trained, qualified and supervised and hold current, valid certificates as follows;

- a. NVQ Level 2 Industry Qualification as detailed in Appendix C of the National Highways Sector Scheme 13
- b. Banksman Qualification
- c. Basic or Emergency First Aid Qualification
- d. Moving Works Operative (MWO) LANTRA T1 Street works Training as defined within National Highways Sector Scheme 12 D

5. Sampling and Testing

The Contractor shall carry out material testing and submit its findings to the Council prior to commencement of works specifically to ensure the affinity of aggregates and bitumen emulsion.

Where materials are supplied by the Contractor;

The Council shall have the power to reject any materials which are not in accordance with the Contract Specification either before or after delivery either by reason of inferior quality or defects in the manufacture

and the Contractor shall at his own expense cause any material so rejected to be removed from the site of the works or from the depots and shall refund to the Council any costs in respect of plant or labour which may have been incurred by the Council in handling such material prior to its rejection. If not so removed by the Contractor the Council may cause the same to be removed and recover from the Contractor all expenses occasioned by such removal.

The Council shall be at liberty to obtain elsewhere suitable (compliant) material in place of any rejected material. Any reasonable extra cost incurred thereby shall be deducted from any sum owing to the Contractor or shall be otherwise recoverable from the Contractor.

Representative samples of materials proposed to be used are to be forwarded upon request to the Council, carriage paid.

The Council reserves the right to select samples of material supplied under the Contract. Sampling and subsequent testing shall be in accordance with the appropriate current British Standard specifications. Analyst's fees will be paid by the Council in respect of samples which comply with the Specification. If on analysis a sample does not comply, the cost of analysis will be payable by the Contractor.

The Council and its authorised representative shall at all times have access to all places where work is being carried out or materials are being obtained or manufactured for the purposes of this Contract and the Contractor shall afford every facility for and every assistance in obtaining the right to such access.

6. Plant, vehicles and staff

All appropriate Plant/Vehicles (as legally required) should be of a conspicuous colour and shall be supplied with signage and equipment in accordance with the current Traffic Signs Manual Chapter 8 regulations and for use on roadwork sites.

Equipment shall include;

Vehicles shall be equipped with either a roof-mounted flashing amber warning light bar (comprising at least two independent light sources) or two independent roof-mounted flashing amber beacons, visible through 360 degrees and must comply with the requirements of the Road Vehicle Lighting Regulations and Regulation 65 on Special Warning Lamps. Amber warning beacons shall be used when a vehicle is moving on the carriageway (at less than 25mph), when moving on and off site and when operating on site.

Chevron markings comprising alternative strips of fluorescent orange-red retro-reflective material and fluorescent yellow non-retro-reflective

material, of not less than 150mm width each, inclined at 45-60 degrees to the horizontal and pointing upwards.

Vehicles used for works purposes shall be identified by displaying to the rear the sign 'HIGHWAY MAINTENANCE'.

Red retro-reflective tape shall be applied to all rear facing edges of open doors, guardrails and equipment lockers.

Night silent reversing audible warning bleeper in good working order.

First Aid Kits stored in each vehicle with contents as recommended by all applicable first aid regulations.

All such equipment shall be tested, serviced and replaced in accordance with all relevant statutory and regulatory requirements.

During the Contract period, the Council reserves the right to carry out health and safety inspections / audits as required.

The Contractor shall ensure that all vehicles are provided with steps or ladders to provide safe means of access that are maintained in a safe and suitable condition, and must conform to the latest 'Working at Height Regulations.'

All Contractors staff shall in regard to the carriage of petroleum and any other dangerous goods comply with all applicable statutes and regulations and fulfil all applicable statutory and regulatory environmental regulations.

The Contractor shall ensure the accurate completion of documentation and records relating to work carried out as instructed or required by the Council.

All safety equipment must be provided by the Contractor.

The Contractor shall ensure that all staff employed on highway work wear high visibility clothing to BS EN ISO 20471:2013+A1:2016.

Contractor's staff whilst on a public highway shall wear approved reflective or fluorescent clothing to minimum BS EN ISO 20471:2013+A1:2016 Class 1 Orange Trousers and Class 3 Upper outer layers.

Safety toecap work-boots conforming to BS EN ISO 20345:2011 and where appropriate, hard hats and ear protectors must be worn in accordance with the latest Personal Protective Equipment Regulations as amended and related regulations.

7. Reporting

From time to time the Council may request details of works carried out, and as such the Contractor shall be expected to provide reports including but not limited to volume of works undertaken, volume of materials used, and location of works undertaken during an identified period, to allow for benchmarking against other patching processes.

8. Breakdowns

The contractor shall ensure that suitable contingency plans are in place in the event of a breakdown in order to ensure continuity of service, and shall arrange for a replacement vehicle to be available within 24 hours in the event of a major machine failure.