

JOB SPECIFIC REQUIREMENTS

DUST EXTRACTION SYSTEMS LABORATORIES – NORTHERN REGION CONTRACT No. 20.0000303625.2597

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IC-QA-G1

VERSION FOR: Dust Extraction Units Northern Region Laboratories DATE: March 2021
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FOREWORD

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TfNSW QA SPECIFICATION G1

JOB SPECIFIC REQUIREMENTS

1 GENERAL

1.1 INTRODUCTION AND BACKGROUND

TfNSW has several Construction Materials Laboratories, the primary work related to these laboratories is the testing and analysis of soil, aggregate and concrete samples in wet and dry form. During the processing of these samples natural dust particles are made and released into the work area.

The Northern Region Laboratories comprise of four (4) locations at Port Macquarie, Tamworth, Grafton and Ballina. All locations have current dust extraction systems that have become out dated and not suitable to today's Safe Work requirement of 0.025 mg/m³ (margin of safety factor) TWA - Work Place Exposure Standard for Air Born Contaminates 2019 – Safe Work Australia.

1.2 SCOPE OF WORKS

The Contract is for:

- Decommissioning and disposal of the existing dust extraction systems (pictures of these are within the ANNEXURE G1/A INFORMATION FOLDER);
- Supply, install, commission new relevant dust extraction unit to the required updated standard (there are rough diagrams within the Annexure G1/A Information Folder along with pictures of the lab and distance estimates);
 - Minimum 3 year warranty;
 - “Make Up Air” system to maintain room air-conditioned air (if required)
 - Maintenance and cleaning schedule following commissioning;
 - New unit to be able to self-clean into disposable bags; and
 - How regularly does the system self-clean?
- Preparation / implementation of site specific de-commissioning and disposal methodology plan. If asbestos discovered in any of these buildings? If so, an Asbestos management plan will need to be developed.
- Preparation/ implementation of Site Specific WH&S documentation in accordance with TfNSW QA Specification G22 Work Health and Safety (Construction and Maintenance Works);
- Attend project inception meeting with TfNSW Representative prior to starting works and conduct daily toolbox safety talks between all personnel;
- Isolate and shut off all services not required during the de-commissioning process within or outside of the building line before work commences. Services may include (and not be limited to) electricity, gas
- Provision of all tools and machinery to complete works

- Tracking and submission to the TfNSW Representative all waste disposal receipts for all materials taken offsite;
- Mobilisation of all personnel and equipment to the site for all works;
- Demobilisation of all personal and equipment from the site once all works are completed;
- Provision of insurances for equipment, workers compensation and public and products liability;

Note: the order of which the units are delivered, will be determined by the Awarded Contractor.

STRUCTURE OF THE SPECIFICATION

This Specification includes a series of annexures that detail additional requirements.

1.2.1 Measurement and Payment

The method of measurement and payment and the acceptance of materials and work must comply with Annexure G1/B.

1.2.2 Schedules of HOLD POINTS, WITNESS POINTS and Identified Records

The schedules in Annexure G1/C list the **HOLD POINTS** and **WITNESS POINTS** that must be observed. Refer to Specification TfNSW Q for the definitions of **HOLD POINTS** and **WITNESS POINTS**.

The records listed in Annexure G1/C are **Identified Records** for the purposes of TfNSW Q Annexure Q/E.

1.2.3 Referenced Documents

Unless specified otherwise or is specifically supplied by the Principal, the applicable issue of a referenced document is the issue current at the date one week before the closing date for tenders, or where no issue is current at that date, the most recent issue.

Standards, specifications and test methods are referred to in abbreviated form (eg AS 1234). For convenience, the full titles are given in Annexure G1/M.

2 DESIGN FEATURES

At each location one of, supply, install and connection of a rear / down draft table which is to be enclosed with a sliding front Perspex door similar to the below (example only), it needs to be of sturdy construction of Stainless steel work bench or similar material with the hood to be of suitable material with a 5 year manufacturing warranty. Approximate size 1200mm long 700mm deep and adjustable legs for height requirements.



- Existing swing arms can be re-used if deemed suitable by supplier
- Each location requires 2 ceiling ducted swing arms to be installed (note Port, Grafton, Tamworth have one existing arm and Ballina has 2, all existing swing arms are 150mm diameter duct)
- Swing arms to be of 2000mm workable reach area.

- System at each location to have 2 fixed suction points to be fitted to machinery permanently.
- System at each location to have 4 points to be used to vacuum / clean the lab space via a 3 m flexible hose (location to be central to the proposed diagrams, suggested hose diameter id 50mm) note 2 hoses to be supplied.
- Estimated CFM for each point to be included in the design when X amount of ports are operational vacuum ports to be included in this summary.
- Detail on how many ports can be operational at once.
- Ability to shut off ports that are not required when system is in operation
- System requirements for power draw.
- System to note how many ports can be operated at once and any internal safety system shut to self-preserve ducting.
- External unit not exceed 75 decibels when in operation or sound proofing to be installed
- Ability or requirement for the unit run time or wind down ie can it be turn off and on regularly or remain on.
- Ability to upgrade and add additional extraction points if required
- Note Ballina, Grafton and Tamworth all have underfloor and roof accessibility, Port Macquarie is on a concrete slab which will have ceiling and wall accessibility.

3 WORKING AREA

The working area available to you shall be the property:

- 1) Grafton 34 Heber Street Grafton
- 2) Port Macquarie Corner Fernbank Rd and Pacific HWY Fernbank
- 3) Ballina 2 Boat Harbour Road Ballina
- 4) Tamworth 371 Goonoo Goonoo Road Tamworth

All wastes generated during the works shall be managed by you with waste tracking receipts provided at the completion of the works for disposal of any materials to landfill.

You shall supply, equip, service and neatly maintain all necessary storage areas for the satisfactory completion of the work. Toilet facilities will be provided on site by TfNSW for the use of all personnel.

You are responsible for the security of your storage areas, materials, construction plant, equipment and machinery.

4 UTILITY ADJUSTMENTS

The contractor shall make sure they are aware of all utility locations throughout the work site and is responsible for the isolation of applicable utilities appropriate to this work, such as electricity. Licenced electricians must be utilised for any electrical work.

5 MILESTONE

Milestones	Indicative Dates
Contract Award	June 2021
Inception Meeting	June 2021
Submission of WHS Plan	15 April 2021
Confirmation of manufactured and imported items schedule to meet required milestones of installation.	June 2021
Confirmation schedule is on track for completion date.	17 June 2021
Commence decommission of existing dust extraction unit and disposal at Site 1	Mid June 2021
Install new dust extraction unit and ducting at Site 1	Mid June 2021
Commence decommission of existing dust extraction unit and disposal at Site 2	End June 2021
Install new dust extraction unit and ducting at Site 2	End June 2021
Commence decommission of existing dust extraction unit and disposal at Site 3	End June 2021
Install new dust extraction unit and ducting at Site 3	End June 2021
Commence decommission of existing dust extraction unit and disposal at Site 4	Early July 2021
Install new dust extraction unit and ducting at Site 4	Early July 2021
Complete Contract	July 2021

6 CHANGES TO QA MODEL SPECIFICATIONS

Where necessary, changes have been made to specifications to suit project specific requirements

7 MATERIALS SUPPLIED BY THE PRINCIPAL

No other materials shall be supplied by the Principal. If materials are to be supplied by the Principal, you shall, in the presence of the Principal's representative, inspect for conformance of all items supplied by the principal. You shall issue the Principal's representative with a receipt for these items and shall thereafter be responsible for their care.

All other materials shall be supplied by the Contractor.

ANNEXURE G1/A – INFORMATION FOLDER**ANNEXURE G1/B – MEASUREMENT AND PAYMENT**

Payment shall be made for all activities associated with completing the work as detailed in this Specification in accordance with the Schedule of Pay Items listed in the Schedule of Prices form.

ANNEXURE G1/C – SCHEDULES OF HOLD POINTS, WITNESS POINTS AND IDENTIFIED RECORDS**C1 SCHEDULE OF HOLD POINTS, WITNESS POINTS AND IDENTIFIED RECORDS**

Spec No.	Clause	Type	Detail/Comment	Released by	Revision Date and No.
G22			Work Health and Safety (Construction and Maintenance Works)		February 2021: Ed 6 Rev 4
	3.8.3	Hold	Submission of the Project WHS Management Plan	TfNSW	
	4.3.2	Hold	Submission of HVCoR Management Plan	TfNSW	
	6.3.1	Hold	Intervention by the Principal	TfNSW	
	8.1	Identified Records	Project WHS Records and Safe Work Method Statement	TfNSW	
	8.1	Identified Records	Health monitoring records	TfNSW	

ANNEXURES G1/D TO G1/L – (NOT USED)

ANNEXURE G1/M – REFERENCED DOCUMENTS

TfNSW Specifications

TfNSW Q	Quality Management System
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ANNEXURE G1/A – INFORMATION FOLDER

Below are some sketches, photos of the Lab layouts, distance estimates about existing dust extraction systems at the four locations that indicate, as to where we want the ducting and air extraction sources.

Port Macquarie

- Main unit is on the external wall where both snorkel arms will be directly mounted to, minimal ducting of approximate 5m
- Additional fixed points to be ducted approximate total distance 15m



Port Mac possible
layout.xlsx

Port Macquarie Laboratory



Port Macquarie Current Snorkel Location



Port Macquarie Current Extraction Location



Tamworth

- Main unit is on the external wall where both snorkel arms will be directly mounted to, minimal ducting of approximate 8m
- Additional fixed points to be ducted approximate total distance 20m
- Building on bears and joist with under floor access.



Tamworth possible
layout.xlsx

Tamworth Laboratory



Tamworth Current Snorkel Location



Tamworth Laboratory



Grafton

- Main unit is on the external wall where both snorkel arms will be directly mounted to, minimal ducting of approximate 15m
- Additional fixed points to be ducted approximate total distance 20m
- Building on bears and joist with under floor access.



Grafton possible
layout.xlsx

Grafton Laboratory



Grafton Current Extraction Location



Grafton Current Snorkel Location



Grafton additional Snorkel and Fixed Point Location



Job Specific Requirements

G1

Ballina

- Main unit is on the external wall where both snorkel arms will be directly mounted to, minimal ducting of approximate 8m
- Additional fixed points to be ducted approximate total distance 20m
- Building on bears and joist with under floor access.
- Possibly no snorkels required.
- Fixed vacuum ports to be on the external part of the building on the veranda with potential to be backed into the building.



Ballina Possible
layout.xlsx

Ballina Laboratory



Ballina Current Extraction Unit



Ballina Location of Fixed Point



Ballina Laboratory Inside



Ballina Possible Location of Dust Cabinet

