Flo-Grout HFR Method Statement
(High flow non-shrink cementitious precision grout)

Section A : General Comments

High temperature working

The following guidelines are adopted as good working practice:

(i) Store unmixed materials in a shaded area, avoiding exposure to direct sunlight.

(ii) It is not recommended to apply the materials during the hottest time of the day.

(iii) It is also recommended to use tap water with temperature not exceeding 25°C.

(iv) To ensure continuous grout pouring, enough materials, water, and labour should be available.

Equipment

It is suggested that the following list of equipment is adopted as a minimum requirement:

Protective clothing	:	*Protective overalls and safety shoes*
	:	*Good quality gloves, goggles and face mask*
Mixing equipment	:	*Graduated cylinder, slow speed mixer and double head Mixing Paddle*
		Mixing bucket (25 litre)
Application equipment	:	*Wood float and steel trowel*

Section B : Application

1.0 Surface Preparation

1.1 Surface must be clean and sound.

1.2 All dust, laitance, grease and curing compound should be removed by suitable method.

1.3 All honey combed or defected concrete surfaces must be removed to reach sound and solid surfaces.

1.4 Base plate's underside should be clean and free from oil, rust and scale.

1.5 For isolated areas and large base plate areas, it is recommended to open air release vent holes to relief air pressure.

1.6 Concrete surfaces and formworks shall be soaked with water for 12 - 24 hours prior to application aiming to reach saturated surface dry. All excess water must be removed before application.

2.0 Formwork

2.1 Formwork should be made of rigid non-absorbent materials.

2.2 Formwork should be securely fixed, liquid tight and strong enough to withstand grout pressure developed during grout pouring.

2.3 A head box (FEEDING HOPPER) 100 - 250 mm high should be erected at one side with minimum 50 mm side clearance to aid in building hydrostatic pressure enough for the grout to travel underneath the base plate.

2.4 A formwork clearance of 25 - 50 mm should be allowed for remaining sides of the base plate.

2.5 All formwork should be coated with suitable oil release agent.

2.6 If there are areas or leveling shims where bond is not desired or to be removed, then it must be treated with release agent or thin grease layer.

3.0 Mixing

3.1 Depending on the required consistency, using graduated cylinder measure 4.25 litre of clean water for flowable consistency and 3.5 litre for trowelable consistency and 4.45 litre for fluid consistency into the mixing bucket.

3.2 Slowly add the full 25 kg bag of Flo-Grout HFR to the measured water and using the electrical mixer fitted with large paddle mix continuously for 3 - 4 minutes until smooth, lump free consistency is reached.

3.3 No part bag mixing is allowed.

4.0 Placement procedure

4.1 Flo-Grout HFR can be placed in a single layer up to 100 mm thickness. For thicker section, and to reduce heat of hydration, it is necessary to add 15 kg, 8 - 12 mm washed aggregates to 25 kg of Flo-Grout HFR. Yet water addition will remain the same.

4.2 Bolts holes should be grouted first before grouting between base plate and concrete substrate.

4.3 It is a must to grout from one side to eliminate air entrapment.

4.4 Enough mixed grout shall be ready to start with and to build the required hydrostatic head.

4.5 The mixed grout shall be placed continuously with maintained head to ensure proper grout placement until it reaches the open side of the formwork and rises above the underside of the base plate. Grout placing shall be continuing slowly down the length of the base plate until completed.

5.0 Curing

5.1 The poured grout should either wet cured for minimum 3 days using wetted hessian cloth and PE sheet or by using curing compound such as Setseal 22/33/44.

Section C : Approval and variations

This method statement is offered by DCP as a 'standard proposal' for the application of **Flo-Grout HFR**. It remains the responsibility of the Engineer to determine the correct method for any given application. Where alternative methods are to be used, these must be submitted to DCP for approval, in writing, prior to commencement of any work. DCP will not accept responsibility or liability for variations to the above method statement under any other condition.