

				Process Control Plan		FHIMS-QA-6006		Approved		Signature	
				Contract Name: <i>Pomona Road Reservoir Upgrade</i>				FH Engineer		Paul Hunter	
				Procedure: Insitu Concrete				FH Quality Manager		Josh Turner	
Inspection & Test Plan / Checklist											
Lot No:				Corresponding Work Instruction: <i>PRR-CS-7052</i>				Compliance with Work Instructions and Specifications			
Detailed Location:											
Chainage:											
No:	Inspection / Test Point	ACTION (Hold, Monitor, Witness)	Detail	Frequency	Inspection / Test Method submission, visual inspection, testing, measure, review	Conformance Criteria	Records	FH Initials	Design Engineer Initials (Grey if not required)	Date(s)	
1	Permits	H	Obtain Permits	As required	Document Review	Control Checklist - Fall Prevention (if applicable). Notify Worksafe NZ if required. Ensure all necessary Permit to Works & Controlled Checklists are in place	Permit attached or permit number noted	Site Engineer			
2	Pre-construction sign offs	H	Is the Work Instruction for this work complete?	Prior to commencement	Document Review		TMP on RecordsLink	Site Engineer			
		H	Relevant non conformance of previous work signed off	As required	Document Sign Off	Relevant parties to inspect and review		Site Engineer			
3	Design	H	Ensure that Design is approved and Drawings are of the latest revision	Prior to commencement	Document Review		Check Drawing Register	Site Engineer			
4	Material Compliance	H	Concrete mix design(s) submitted and approved by Design Engineer	Prior to commencement	Document Review	Check concrete mix design status	Design Engineer Approval	Site Engineer	Design Engineer		
		W	All concrete delivered to site shall be produced in accordance with the approved mix design	Prior to pouring concrete	Concrete Delivery Dockets		Concrete Delivery Dockets	Site Engineer			
		W	Steel reinforcement complys with drawings, specifications and standards	Prior to commencement	Document review	Steel reinforcing conforms to drawings and specification	Detail Sheets and Mill Certificates	Site Engineer			
		H	Any welding or mechanical splicing to be approved in writing by the Design Engineer	Prior to welding or splicing	Document review		Mark Up As Built Drawings	Site Engineer			
		H	Any reinforcement modifications (cutting or bending) on site to be approved in writing by the Design Engineer	Prior to cutting or bending on site	Document review		Mark Up As Built Drawings	Site Engineer			
5	Foundation Acceptance by Engineer's Rep	H	Approval given by engineer's Rep and Signed off Subgrade Approval Checksheet	Prior to commencement	Inspection by Engineer	Inspection and Acceptance of Structure Foundations	FHIMS - CS-4100	Site Engineer	Design Engineer		
6	Survey Setout	H	Set out design features as per IFC drawings (Cast in items, Ducting, Penetrations)	Prior to commencement	Survey	Consistency with Construction Drawing	Survey receipt	Site Engineer			
7	Blinding Concrete	H	Once blinding concrete layer has been completed the Engineer's Rep to inspect and give approval for the rest of the works to commence	Prior to commencement	Inspection by Engineer		Sign off this document	Site Engineer	Design Engineer		
8	Temporary Works (Formwork)	W	Formwork to be constructed to design and set to correct line and level as set out by the surveyor	Daily Visual Inspection	Visual inspection	Concrete Inspection Record	FHIMS-CS-4008	Site Engineer			
		H	The Site Engineer and must sign off the formwork prior to concrete being poured	Prior to concrete pour	Visual inspection	Concrete Inspection Record	FHIMS-CS-4008	Site Engineer			
9	Reinforcing	W	Reinforcing steel shall be handled, placed and fixed as per NZS 3109	Daily Visual Inspection	Document review	Concrete Inspection Record	FHIMS-CS-4008	Site Engineer			

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		W	Check for any cast in items and ensure they are fixed correctly	Prior to concrete pour	Visual inspection	Concrete Inspection Record	FHIMS-CS-4008	Site Engineer		
10	Waterstop	W	Waterstop and Hydrophilic placement checks to ensure correct placement including welds	Prior to commencement	Visual inspection	Photos & sign off	FHIMS-CS-4029	Site Engineer		
11	Concrete Pumping Operations	W	Ensure the Permit to Concrete Pump Checksheet has been completed before concrete pumping commences	Prior to commencement	Document review		FHIMS-CS-4029	Site Engineer		
12	Concreting	H	The Design Engineer shall be advised at least 24 working hours before the proposed time for concreting that a pre-pour inspection is required	Prior to concrete pour	Visual inspection		FHIMS-CS-4008	Site Engineer	Design Engineer	
		H	Concrete dockets checked for correct mix and concrete site testing undertaken. 1 slump test per truck. 1 sample set per 75m3 of each different mix	Prior to concrete pour	Test Results	NZS 3104	FHIMS-CS-4090	Site Engineer		
		H	Concrete surfaces shall be F4 or better for formed surfaces and U3 or better for unformed surfaces	Post pour	Visual inspection	Concrete Inspection Record	FHIMS-CS-4008	Site Engineer		
		M	Curing and thermal monitoring	Post pour	Visual inspection	Concrete Inspection Record	FHIMS-CS-4008	Site Engineer		
		W	Review concrete compressive tests results	Post pour	Visual inspection	Concrete Inspection Record	FHIMS-CS-4008	Site Engineer		
13	Remove formwork	W	Remove formwork as per the approved work method	At completion of pour	Visual inspection	Concrete Inspection Record	FHIMS-CS-4008	Site Engineer		
14	Lot Number QA File	W	Ensure all OFIs are closed and included within QA file	At completion of Lot	Document Review			Site Engineer		
		W	The Concrete Test Result Spreadsheet and Test reports to be included within QA file	At completion of Lot	Document Review			Site Engineer		
		W	Delivery Dockets to be included in QA file	At completion of Lot	Document Review			Site Engineer		
15	As-builts	H	Red pen mark up drawings to be included in QA file	At the completion of the Lot of work	Drawings		Asbuilt Drawing	Site Engineer		

Comments:

IFC Drawings used for Construction incl. Rev numbers:

Reference Documentation (Notices/OFI's etc.):

QA Compiled By Quality Manager: _____

Signature: _____

Date: _____

QA checked By Contract Manager: _____

Signature: _____

Date: _____

Accepted By Design Engineer: _____

Signature: _____

Date: _____