

Government of the Republic of Kiribati
Ministry of Finance and Economic Development
Ministry of Public Works and Utilities



The World Bank



Asian Development Bank

Kiribati Road Rehabilitation Project

Consulting Services: Preparation of Design
and Construction Supervision of Road
Rehabilitation Works

Construction Phase Quarterly Progress Report

March 2014



Reference: KRRP.KIR-12/01.MPWU-0100.IA-ia

29th April 2014

Mr Ioataake Timeon
Secretary
Ministry of Public Works and Utilities

Attention: Mr Toani Toatu
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Dear Mr Toatu

Kiribati Road Rehabilitation Project (KRRP)
Contract KIR 12/01 for the Improvement of the Main Betio-Buota Road,
Temaiku Road and Feeder Roads in Betio, Bairiki and Bikenibeu

Quarterly Progress Report for March 2014.

In accordance with Reporting Requirements, as set out under Appendix B of our Consultants' Services Contract, we provide herewith five (5) 'paper' copies of our Quarterly report for the period ending 31st March 2014. The terms of our Contract stipulate that the reports are to be provided to the 'Quality Circle' and your assistance in distributing the appropriate copies to the relevant persons would be appreciated.

An 'electronic (pdf)' copy of the report was provided to you, this same day, for your records.

Yours faithfully

Ian Archer
Resident Engineer to Contract KIR-12/01

PROJECT NAME:	CONSULTING SERVICES: PREPARATION OF DESIGN AND CONSTRUCTION SUPERVISION OF ROAD REHABILITATION WORKS
REPORT TITLE:	CONSTRUCTION PHASE QUARTERLY REPORT
DATE:	MARCH 2014

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CONSULTING SERVICES: PREPARATION OF DESIGN AND CONSTRUCTION SUPERVISION OF ROAD REHABILITATION WORKS

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Appendix A: Key Materials & Material Suppliers

Appendix B: Weather

Appendix C: Import Permit & Certificates

Appendix D: Contract Variations

Appendix E: Contract Claims

Appendix F: Payments

EXECUTIVE SUMMARY

This report covers the period from 1st January 2014 to 31st March 2014. Key Contract information relating to the financial and programme status is summarised hereunder:

Item	Status	Comment
Contract Award		
Letter of Acceptance (LoA)	Issued 12 th February 2013	Donor 'No Objection Letter', to award Contract, provided 8 th February 2013
Contract Agreement	Issued 12 th February 2013	Signed & issued by the Employer with the LoA
	Returned 11 th March 2013	Signed & returned by the Contractor
Financial Status		
Accepted Contract Amount	AUD 48,197,957.20	Following adjustment from Contract Award negotiations
Approved Variations	AUD -1,350,776.38	Details provided at Appendix D
Approved Claims	AUD 0.00	Details provided at Appendix E
Contract Price Adjustment	AUD 0.00	The Contract makes provision for price adjustment under clause 13.8 of the GCC. The Contractor has not yet submitted required indices for approval.
Current Estimated Cost at Completion	AUD 48,476,756.20	Includes estimated costs based on those assigned to coastal protection works by the coastal design engineer (to be updated once decision on how to proceed with coastal works is known)
Certified Payments to Date	AUD 10,668,784.35	Details provided at Appendix F
Balance of Amount to Completion	AUD 37,807,971.85	
Programme Status		
Commencement Date	1 st July 2013	
Time for Completion	690 calendar days	
Date for 'Practical Completion'	22 nd May 2015	
Extensions of Time	0 calendar days	
Revised Contractual Date for Practical Completion	22 nd May 2015	
Engineer assessment of actual Date for Practical Completion	mid-July 2015	It is increasingly likely that the original date of 22 nd May 2015 will be exceeded given current circumstances (as described in this report). An EoT of at least 6-8 weeks seems likely although uncertainty remains in a number of areas.
Performance Indicators		
Assessment of Physical Works status		Main impediments to progress have been problems with base course supply and the asphalt plant. Recent poor weather conditions have also hampered works during this report period.
Excluding 'Materials on Site'	1.6%	
Including 'Materials on Site'	2.4%	
Elapsed Time		
No adjustment for mobilisation	40%	
Adjustment for mobilisation	26%	
Actual vs Anticipated Cash Flow		Available cash flow figures are completely out of date and comparison has little relevance at this time (a new programme is under preparation).

By way of a 'Letter of Acceptance' from the Employer dated 12th February 2013, following a 'No Objection Letter' from the World Bank on 8th February 2013, the Contract for services associated with construction activities on the Kiribati Road Rehabilitation Project (KRRP) was awarded to McConnell Dowell (Aust) Pty Ltd for the 'Accepted Contract Amount' of Australian Forty-Eight Million One Hundred and Ninety-Seven Thousand Nine Hundred and Fifty-Seven Dollars and Twenty Cents (AUD 48,197,957.20).

After fulfilment of certain Contractual obligations (by the Employer and Contractor) a 'Commencement Date' of 1st July 2013 has been established for the Contract. With a Contract duration of six hundred and ninety (690) calendar days the currently scheduled date for Practical Completion (issue of the Taking Over Certificate) will be 22nd May 2015 after which there will be a 'Defects Notification Period' of seven hundred and thirty (730) calendar days and the date of Contract Completion (issue of the Performance Certificate) will be 21st May 2017.

Issues relating to project work scope and material supply remain uncertain and the longer it takes to finalise matters the greater the risk of claims for disruption (with potential associated time and cost implications). Key components and issues, in this area, are itemised below:

Betio causeway; following completion of repairs to areas of the existing concrete revetment protection (previously identified as having 'problems'), further damage to the revetment occurred during the 'king' tides experienced during this report period. It is evident that significant deterioration to the revetment is on-going and, as the revetment is understood to be past its' design life, a decision on a long term solution for protecting the causeway is now required. The Government is understood to be looking at available options however, as far as the KRRP works is concerned, it has been necessary to defer pavement works (across the causeway) until as late as possible in the overall Works programme. Required instruction has been given to the Contractor who is having to re-programme works accordingly (works had been intended to commence at Betio and head towards Temaiku and now this is likely to be reversed). As pavement works are a 'critical path' activity (attracting delay if adversely impacted) a delay, and hence additional costs, can be expected as the Contractor will now have to carry out preparatory works ahead of such works commencing (preparatory works had been completed across the causeway and pavement works had been scheduled to start during this report period).

Coastal protection; following earlier decisions to review coastal protection work needs (at potentially 5 major sites), some of the required design information has become available and outstanding information is understood to be close to being completed. Pricing information provided by the Contractor indicates that costs will be higher than had been expected and, as there are financing considerations to address, there is now some uncertainty over what works will be included in the KRRP. The Donors have advised the MPWU that they must seek Donor 'no objection' for any variation to be issued to the Contractor (for coastal works) and this does have an impact in terms of timing requirements which in turn impacts on the Works programme (with consequential delays and associated costs).

Valve chambers; a need has been identified for 'chambers' (and associated works) to be installed along the KRRP roads, to avoid digging up the new road soon after it is completed, to facilitate the integration of future works being undertaken under other Donor financed projects, notably KAP-III (leak detection surveys and subsequent repairs to fresh water mains) and STSISP (rehabilitation of salt water mains & sewers). Information on requirements for KAP-III provision has recently been provided to the Contractor for pricing and the MPWU continues to liaise with the STSISP to finalise work scope requirements. As with the coastal protection works the Donors have advised the MPWU that they must seek Donor 'no objection' for any variation to be issued to the Contractor (for coastal works) and this does have an

impact in terms of timing requirements which in turn impacts on the Works programme (with consequential delays and associated costs).

Local coralline material supply; material supply constraints continue and present a significant risk to the project in terms of both increased costs and delayed completion. The Contractor has provided the MPWU with a renewed price proposal to excavate a channel (needed for dredger barge access) for ESAT/TACL which would yield a sufficient quantity of material for the KRRP with any surplus left for commercial activity. It is also understood that Government continue to explore other options for sourcing 'local' materials. A decision on how to procure the required works has not therefore been reached as Government and TACL continue to vacillate on the way forward. Notwithstanding any decision on a preferred 'supplier' (once identified) a separate contract agreement will need to be drafted and this in itself will take time to complete. Time will also be needed to mobilise any specialised equipment to the site and this will all likely impact on the overall project completion date. The quantum of any impact (time & cost) cannot be assessed until such time as firm arrangements have been put in place. As an interim measure the MPWU have been asked to consider making some material available (say ~5,000 m³), from which the Contractor could draw upon, however the mechanism of how such an arrangement might be managed requires further discussion and agreement.

Betio & Bairiki roads; as a result of poor weather conditions throughout this report period the existing road conditions within Betio and Bairiki (and which are not scheduled for improvement under the KRRP) have become noticeably worse and can be expected to deteriorate further during the lifetime of the KRRP. Whilst this matter was raised by the Donors previously (for the main Bairiki road only) costs and other considerations meant the issue was not pursued. Given that there is a roadworks Contractor now mobilised on Tarawa there may be some merit in reviewing options available, possibly associated with alternate funding arrangements, for required works to be actioned. Indicative costs, for the various road components, are provided within the main report for consideration. Overall costs could be of the order of up to AUD 10 million, depending on any scope of works that might be involved, however these have not been included in potential current KRRP costs as no formal directive has been given in this regard.

As far as physical works are concerned it was previously reported that these commenced, albeit rather slowly, on 10th October 2013 with the Contractor being somewhat restricted in his activities due to their asphalt sub-contractor entering receivership and separate technical problems being experienced with the supply of imported aggregates for pavement works. Those difficulties would now appear to have been overcome with the asphalt plant machinery arriving in early January 2014 (the equipment has been assembled and is close to being operational) and imported aggregates arriving late March 2014.

Having been in a better position to make better progress, on the various preparatory works that precede pavement operations, the weather conditions experienced throughout much of the report period have been poor. This has not been conducive to roadworks activities and, although some activities have been able to continue, the expected improvement in overall progress has not eventuated. Discounting setting out and investigative activities a brief summary of areas of physical works, and tasks undertaken to date, follows below:

Betio-Temaiku road; works have focused on the installation of underground pipes for water supply, and ducting for future fibre optic services, across the Betio causeway (Ch 0+000 to 3+300). Those works are nearly complete (chambers and fittings need to be installed) and, had the problems with the causeway not been experienced, pavement works would have commenced. Notwithstanding the deferral of works on the causeway, some pavement activity is imminent in the old 'toll booth area' although this will be restricted to ~400m (being an area not subject to any improvements needed to the Betio causeway

revetment). Works have also recently commenced on clearing activities, and drainage requirements (u-drains), across the Nanikai causeway (Ch 6+500 area).

Temaiku road; although some clearing activity has been undertaken (Ch 3+200 to 6+100) the main focus of activity has been in a section of the road that runs parallel to the airport runway (Ch 5+000 to 6+000) where works have included:

- Services, installation of ducting for future fibre optic services (Ch 5+000 to 6+100),
- Earthworks, cut & fill to widen road in swampy ground (Ch 5+900 area),
- Drainage, installation of stormwater culverts (4 no. from Ch xxx to xxx),
- Kerbing, commence installation of concrete edge strips (Ch 5+400 to 5+700), and
- Pavement, basecourse trials (Ch 5+400 to 5+700)

Airport road (Ananau causeway); the main focus of activity has been in a section of the road that approaches the Bonriki airport complex (Ch 0+000 to 2+000) where works have included:

- Coastal works, installation of embankment protection (Ch 0+050 to 1+400),
- Services, installation of ducting for future fibre optic services (Ch 0+050 to 1+200),
- Drainage, installation of stormwater culverts (1 no. at Ch 2+000), and
- Kerbing, installation of concrete edge strips (Ch 0+050 to 1+400)

Associated with the physical works are various 'safeguards' issues that the Employer and Contractor have to address and the key components are highlighted below together with any pertinent issues that have developed during the report period:

Resettlement Plan; the Employer, through MELAD/LMD, continues to progress with 'Resettlement' activities that are primarily associated with effecting payments for compensation entitlements associated with loss of land and/or crops. Initial efforts were focused towards those areas where the Contractor planned to start construction activities and, thereafter, areas were targeted based on the Contractors programmed intentions. Although there is now a need for the Contractor to re-programme the Works, resettlement activities are sufficiently advanced (~92% overall) that the Employer should still be in a position to grant the Contractor 'Possession of Site', for the purpose of executing works in the various sections, when requested to do so.

Health & Safety; the Contractor is implementing and rigidly enforcing a comprehensive Health & Safety Plan that has been prepared for the KRRP site activities. To ensure there is a safe working environment all employees, and visitors, have to pass through a site 'safety induction'. There are also a variety of separate meetings, primarily aimed at the Contractors workforce, where specific concerns and/hazards are highlighted and discussed. Selected members of the workforce are also attending first aid programmes being run by the Red Cross.

Separate to the needs of physical site activity the Contractor is also responsible for initiating HIV/AIDS IEC campaigns with the assistance of a local NGO. The Kiribati Family Health Association (KFHA) are the only organisation listed, in the Contract documents, as an authorised service provider. Although the KFHA have been running the required presentations they have so far failed to provide satisfactory supporting reports that provide information being requested by the Donors. Although there was some initial misunderstanding over requirements there have been a number of meetings where the KFHA have advised they are now aware of what is required and have undertook to deliver. Notwithstanding

the assurances offered there are now serious reservations over the capacity and capability of the KFHA to provide the information that is required.

Environment; the Contractor is working within an approved Contractor Environmental Management Plan (CEMP) although it has been acknowledged that this is a 'living' document that will, from time to time, need to be updated to ensure certain site specific activities are properly covered. Observation around the site does show that the Contractor is taking his responsibilities, on environmental matters, seriously and is intent on 'doing the right thing'. Apart from concerns previously reported, over the siting of the asphalt facility (which was resolved), there have been no major issues identified with respect to environmental matters.

The Employer is tasked with obtaining Environmental Licences (EL) for the works and those required for the majority of the KRRP works have been issued by MELAD/ECD with some, for 3 coastal works sites, understood to be imminent (but are not crucial for current activities).

Quality Assurance; the Contractor does now intend to engage a person for full time management of their quality control materials laboratory. Until such person has been identified the Contractor has a temporary manager in place as an interim measure. The laboratory manager has been tasked with preparation of a 'Laboratory Management Plan' (LMP) that sets out the procedures that need to be followed for the specific requirements of the KRRP. This LMP has not yet been provided but is understood to have been prepared, in draft, for internal review prior to it being adopted and shared with the Engineer.

The Contractor has taken steps to better equip his materials laboratory with more equipment arriving during this report period.

Total payments certified to the Contractor to date amount to AUD 10,668,784.35 (for works to end-February 2014). Physical works have been assessed as being ~2% complete with ~ 26-40% of time elapsed (depending on how any mobilisation period might be considered). There is obvious room for significant improvement in performance and the Contractor is aware of this. The Contractor has given indications that levels of production need to double in certain areas and is resourcing accordingly. The Engineer will continue to monitor progress and available resources in order to appraise the Contractor, and Employer, of any deficiencies in targeted requirements.

The Accepted Contract Amount for the KRRP was ~AUD 48.1 million however, depending on decisions made in respect of the various issues raised above, there is potential for costs to increase to ~AUD 63.7 million ie an additional cost of ~AUD 15.6 million (excluding any consideration given to potential works on Betio and Bairiki roads). It is therefore very important that the Employer appreciates that there are likely to be increases in the contract price that, unless alternative arrangements are made, will require financing by the Government of Kiribati. The amendment to coastal protection designs, if formalised by proposed Variations, is likely to lead to cost increases that will significantly exceed the amount of additional funding that is available from KAP III for this purpose (USD 980,000). The situation with cost and funding from KAP for the water supply chambers is as yet not known but it is unlikely that costs will be less than the available funds. There has been no mention to date of funding being transferred from STSISP to cover construction of chambers under KRRP. The worst case scenario with supply of local material from ESAT (ie no local material supply) will require additional financing of about AUD 4m. The impacts of any price fluctuation (as set out under Contract provisions) and costs associated with approved extensions of time resulting from variations or claims (the 'order of cost' of which will be at least AUD 300,000/month) will all be to the Government's account.

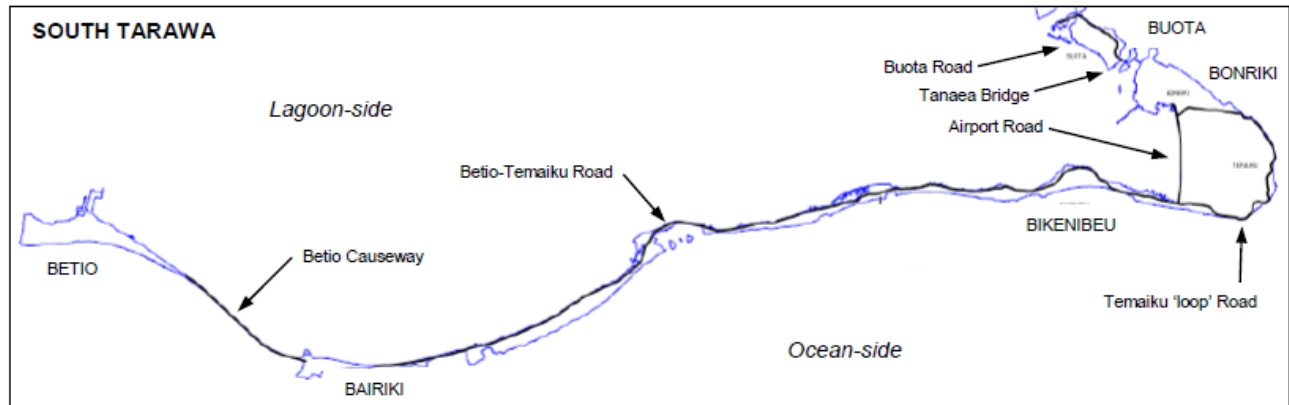
GENERAL

1. INTRODUCTION

1.1 Project Background

The Kiribati Road Rehabilitation Project (KRRP) involves the 'Improvement of the Main Betio-Buota Road, Temaiku Road and Feeder Roads in Betio, Bairiki and Bikenibeu' on the atoll of Tarawa, Kiribati. The principal roads are shown in Figure 1-1.

Figure 1-1: Location of main road components



The KRRP is jointly funded by the Government of Kiribati, World Bank, Asian Development Bank and Australian Aid (under the overall administration of the World Bank) with the Ministry of Finance and Economic Development (MFED) identified as the Executing Agency (EA) and the Ministry of Public Works and Utilities (MPWU) identified as the Implementing Agency (IA). The overall Work Scope, at the time of Bid, involved the following components:

South Tarawa

- Main road, Betio-Temaiku 24.0 km
- Temaiku road, 6.1 km
- Airport road, 2.2 km
- Betio feeder roads, 3.7 km
- Bikenibeu feeder roads, 3.1 km
- Betio main road repairs
- Bairiki feeder/loop road repairs

North Tarawa

- Buota 'main' road (ocean side), 2.0 km
- Buota feeder road (lagoon side), 1.0 km

Associated works involve:

South Tarawa

- Repairs and improvements to the Betio causeway bridge
- Upgrade of water supply transmission main from Teaoraereke to Betio (~11km)

The Works are anticipated to involve the following main construction activities:

- Scarify, regulate, reshape and compact existing pavement,
- Construction of new pavement layers,
- Installation of concrete edge strips/kerbs,
- Provision of footpaths
- Bituminous asphalt surfacing,
- Drainage improvements,
- Provisions for existing and future services,
- Installation of road safety features,
- Bridge repair and widening,
- Coastal protection works, and
- Installation of water supply pipeline and associated valves

The Contract was Bid under the World Bank Guidelines for International Competitive Bidding (ICB) procedures and on 8th February 2013, following the Bid and Bid review process (including pre-Contract Award Negotiations), the World Bank provided their '*No Objection*' to award the Contract to McConnell Dowell (Aust) Pty Ltd for the '*Accepted Contract Amount*' of Australian Forty-Eight Million One Hundred and Ninety-Seven Thousand Nine Hundred and Fifty-Seven Dollars and Twenty Cents (AUD 48,197,957.20). Accordingly the Employer issued a '*Letter of Acceptance*', to the Contractor, on 12th February 2013.

1.2 Consulting Services

Roughton International Ltd, in association with Fraser Thomas Ltd, were engaged to provide Consultant Services for Design and Supervision services by way of an agreement with the Ministry of Public Works and Utilities that was signed on 2nd December 2010 and which became effective on 8th February 2011. The Authorised Representative of the Consultant, for matters regarding this Contract, is Mr. Robert D'Cruz as the Roughton International Regional Manager for the Pacific.

1.3 Report Details

The Consultants' Contract requires, during supervision of the physical works, preparation of reports on a 'Quarterly' basis. This report has been prepared to cover the period from the 1st January 2014 to 31st March 2014.

2. CONTRACT PARTICULARS

2.1 Key Data

A summary of relevant key data is provided in a Basic Data Sheet provided as **Error! Reference source not found.**

Table 2-1: Basic Data Sheet

BASIC DATA SHEET		Reference ¹	Details
1	Project Title	ITB 2.1	KIRIBATI ROAD REHABILITATION PROJECT (KRRP)
2	Contract Details		
	Name	ITB 1.1	Improvement of the Main Betio-Buota Road, Temaiku Road and Feeder Roads in Betio, Bairiki and Bikenibeu
	Number	ITB 1.1	KIR-12/01
3	Funding Arrangements		
	Financing Institutions (the 'Bank')	CC 1.1.2.11	World Bank (Grant H645)
			Asian Development Bank (Loan No.2718-KIR)
			Australian Agency for International Development
	Borrower	ITB 2.1	Government of KIRIBATI (GoK)
	Executing Agency		Ministry of Finance and Economic Development (MFED)
	Implementing Agency (and 'Employer')		Ministry of Public Works and Utilities (MPWU)
4	Design and Supervision Arrangements		
	Consultant Services (and 'Engineer')	CC 1.1.2.4	Roughton International Ltd <i>in association with</i> Fraser Thomas Ltd
5	Procurement Details		
	Mode of Procurement		International Competitive Bidding (ICB) with Post-Qualification
	Deadline for Bids	ITB 22.1	Friday, 31 st August 2012
6	Contract Award		
	No Objection Letter to Award Contract		Friday, 8 th February 2013
	Letter of Acceptance	ITB 39.1	Tuesday, 12 th February 2013
	Contractor		McConnell Dowell (Aust) Pty Ltd
	Accepted Contract Amount	ITB 39.1	Australian Forty-Eight Million One Hundred and Ninety-Seven Thousand Nine Hundred and Fifty-Seven Dollars and Twenty Cents (AUD 48,197,957.20)
7	Programme Details		
	Commencement Date	CC 8.1	1 st July 2013
	Contract Duration	CC 1.1.3.3	Six hundred and ninety (690) calendar days
	Date of Practical Completion		22 nd May 2015
	Defects Liability Period	CC 1.1.3.7	Seven hundred and thirty (730) calendar days

¹ ITB = Instructions to Bidders (inc particulars in the Bid Data Sheet)
CC = Conditions of Contract (General and Particular Conditions)

	Date of Contract Completion	21 st May 2017
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2.2 Pre-Works Obligations

2.2.1 Contract Agreement

The Employer attached a signed Contract Agreement to the '*Letter of Acceptance*' of 12th February 2013 for counter-signature and return by the Contractor. The Contractor returned a signed Contract Agreement, to the Employer, on 11th March 2013.

2.2.2 Performance Bond

The Contractor delivered a Performance Bond to the Employer on 4th April 2013 together with the associated Power of Attorney. The Bond was approved by the Employer on 18th April 2013.

2.2.3 Insurances

In accordance with clause 18 of the Conditions of Contract the Contractor has taken out the various insurances required and provided evidence/policies of these.

2.2.4 Employers Financial Arrangements

In accordance with clause 2.4 of the Conditions of Contract the Employer provided the Contractor with details of proposed financing arrangements on 10th April 2013.

2.2.5 Possession of Site

In accordance with clause 2.1 of the General Conditions of Contract the Employer is required to provide the Contractor with 'Right of Access to the Site' within the time stipulated in the Contract.

It is to be noted that clause 2.1 of the Particular Conditions of Contract requires the Contractor to apply for 'Possession of Site' at least 14 days in advance of the actual date needed (as per requirements dictated by the Works programme submitted pursuant to clause 8.3 of the Conditions of Contract).

The Employer has generally been in a position to grant 'Possession of Site', to the Contractor, at the required time or soon thereafter (in a staged manner as set out by the 'current' Works programme).

2.2.6 Advance Payment

The Contractor has received the Advance Payment – this will start to be recovered in the certificate following the one in which the total of all payments, including the advance payment, has reached 30% of the Accepted Contract Amount.

2.2.7 Commencement Date

Following completion of contractual obligations, on the part of the Employer and the Contractor, the Engineer delivered an instruction to 'Commence the Works', to the Contractor, on 1st July 2013.

2.2.8 Contract Documents

The Employer and the Contractor have been provided with copies of the Contract Documents. Each party have a set of documents signed and countersigned by the other and these have been put aside for safe keeping.

2.2.9 Dispute Board

In accordance with clause 20.2 of the Conditions of Contract the Dispute Board shall comprise one (1) sole member, who shall be agreed by the Parties, and shall be appointed within twenty-eight (28) days after the '*Commencement Date*'.

Following liaison and communication the Employer and Contractor have signed a contract with Mr Derek Firth on 4th September 2013.

2.2.10 Environmental Licences

The Employer is responsible for obtaining Environmental Licences (EL) required for the Works.

EL's are provided for under Government Acts/Regulations and applications have to be made to the 'Environment Control Division' (ECD) of the Ministry of Environment, Lands, Agriculture and Development (MELAD). In addition to obtaining an EL for the road works, MPWU is required to obtain separate licenses for each site where coastal protection works will be constructed.

The status at the end of March 2014 was as follows:

- Main road works was re-issued on 18th July 2013, (some conditions were revised to align with the conditions of the construction contract)
- Betio causeway (covering repairs to existing structure) was issued on 9th August 2013,
- Ananau Causeway (covering coastal works on Airport Road) was issued on 3rd October 2013
- Bairiki Causeway (covering coastal site 1 at ch 5+260 and 5+450) issued on 9th October 2013
- Ambo Causeway (covering coastal site 5 at ch 12+700) was issued on 9th October 2013
- Temaiku road (covering coastal sites 10 & 11) has been prepared by ECD and is awaiting signature
- Bonriki Airport runway (covering coastal sites 15) has been prepared by ECD and is awaiting signature

For Bairiki and Ambo Causeway coastal sites the Employer was required to submit final designs to ECD, once available, and this has been done.

The Ananau Causeway license was issued on condition that existing trees be left undisturbed wherever possible. Most trees are in what will become the shoulder of the new road and they will have to be removed, but the coastal protection works have been diverted around some trees just outside the shoulder to allow them to be preserved.

Application for Temaiku Road sites 10 and 11 (Ch 2+400 and 1+500 respectively) was made by the Employer on 14th September 2013 but ECD deferred the processing after they had been advised that the designs would be reviewed. As the final designs have now been confirmed the issue of these licenses, by ECD, is now understood to be imminent.

The Contractor entered into separate contract arrangements to excavate part of the Takoronga channel (channel A2, as a docking area), identified under the Environmentally Safe Aggregates for Tarawa (ESAT) project for 'barge access', and activities were carried out under an environment licence issued to Te Atinimarawa Co. Ltd (a company established, under ESAT, for dredging operations). These activities have now been concluded although there are ongoing deliberations on the prospect of expanding the excavation (to include channel A1, for lagoon access).

In December 2013 the Employer advised that coastal protection works at the eastern end of Bonriki Airport runway, which are being planned as part of the works to upgrade the airport, would be transferred to the KRRP for construction. Necessary public consultations, based on concept designs, have been conducted and the Employer has made an application for the EL. The issue of these licenses, by ECD, is now understood to be imminent.

2.2.11 Unexploded Ordnance

Section 1900 of the Specification sets out requirements for dealing with Unexploded Ordnance and which targets the Betio area (scene of a major battle during World War II). The Contractor has agreed terms for a sub-contract with History Flight, but the agreement has not been signed.

The Employer has advised that any UXO that is found shall be stored at a 'bunker' within the Kiribati Police Service (KPS) station in Betio. The bunker is currently used to store UXO (discovered during other activities) and disposal is undertaken, as arranged through the Ministry of Foreign Affairs, by visiting military services

(United States, Australia, New Zealand) often on what is understood to be an annual basis. Additional security measures will be established (fencing, gates, locks etc), around the bunker, prior to its use for any KRRP storage and any UXO found will be stored within a sandbag 'pyramid' (open at the top) which is to be formed within the bunker. The Employer has written to the Commissioner of Police in December 2013 to obtain permission for the Contractor to carry out the proposed security measures and this has been agreed to. Instructions have been issued to the Contractor and works are awaited pending the Contractor finalising an agreement with the UXO survey specialist.

2.2.12 Manuals and Plans

Specification clause 1801 requires that the Contractor prepare a '*Contractors' Environmental (Management) Plan*' (CEMP) and stipulates that '*no physical works shall be carried out*' until such CEMP has been approved by the Engineer. The Contractor is also required to prepare other manuals and/or plans in respect of Health & Safety (H&S), Quality Assurance (QA), Traffic Management (TM) and General Construction Methodology (Construction Execution Plan – CEP).

The Contractor's CEMP was approved on 9th October 2013 to allow the Contractor to proceed with planned works, but the approval noted that some amendments would be required to provide additional details in regard to UXO removal and storage, Nanikai and Ambo Causeway coastal protection works, and repairs to Betio Causeway Bridge. The CEMP is seen as a 'living' document that will be amended and updated to cater for specific site activities ahead of their commencement. A number of revisions have been made to the CEMP with version I being recently submitted for review.

Other plans have been provided by the Contractor. The H&S plan is very comprehensive (and continues to be strictly actioned by the H&S officer) and the TM plan is working well (albeit on limited activities to date).

The Engineers' QA engineer continues to liaise with the Contractor to ensure all facets of the testing regime required under the Contract are properly addressed. The Contractor now has greater appreciation of his responsibilities and obligations and there is some general improvement in the Contractors' approach towards 'quality' issues. A need to update the QA plan, to include improved provisions for both quality control and quality compliance testing, has been identified.

2.2.13 HIV/AIDS prevention

The contract contains a requirement for the Contractor to provide an HIV-AIDs Information, Education and Consultation Communication (IEC) campaign. This is set out at clause 6.7 of the Particular Conditions of Contract, Part A; Contract Data. The clause originates from the World Bank standard forms for bidding documents that were specified for use on the project. Under this clause the Employer is obliged to provide a list of approved service providers and the Contractor is obliged to select a service provider from this list to undertake the IEC campaign.

The Employer (MPWU) provided the list of approved service providers in the contract documents at clause 6.7 Particular Conditions of Contract Part B; Specific Provisions. The list consisted of just one organisation, namely Kiribati Family Health Association (KFHA). Under clause 6.7 the approved service provider shall prepare the IEC campaign which shall be submitted to the Employer for approval. The Engineer advised the Contractor on 24th June 2013 that the IEC campaign should be based upon the World Bank's 'The Road to Good Health' toolkit (www.theroadtogoodehealth.org), because the toolkit is specifically designed to ensure that proper IEC campaigns are executed for road projects.

The Kiribati Fiduciary Support Unit (KFSU) sent a proposed 'Terms of Reference (ToR) for the engagement of the IEC service provider (by the Contractor) to both the Employer and the Contractor on 28th June 2013. The Contractor submitted details of the proposed IEC campaign to the Employer and the Engineer under cover of an email dated 9th July 2013. No comments were forthcoming and specific approval from the Employer was not provided but the IEC campaign commenced on 19th July 2013. A second session was carried out in September 2013 and further sessions have continued roughly on a bimonthly basis.

A 'Memorandum of Understanding' (MoU) between the Contractor and the KFHA had not been signed at this stage (although this was not discovered until later) as the budget proposed by KFHA was in excess of the provisional sum amount contained in the Main Contract (AUD 50,000). KFHA (the service provider) issued reports on the first training sessions on 25th November 2013 which were forwarded to the Engineer on 27th November 2013. The Engineer informed the Contractor by letter on 28th November 2013 that these reports fell far short of the requirements of the 'Road to Good Health' tool kit. They have not been resubmitted despite many requests.

As a follow up to various communications a joint meeting with the KFHA, Contractor and Engineer was held on 17th December 2013 at which KFHA acknowledged that they had misunderstood the reporting requirements but could comply and that they would gather information that would allow them to prepare a baseline survey and carry out monitoring and evaluation. This would need a revision to the budget.

Subsequently a revised budget and work plan were issued on 20th December 2013 which the Engineer forwarded to the Employer the same day. The MoU between Contractor and KFHA was signed at about the same time. The Engineer followed up verbally with the Contractor on the issue of the baseline survey and was handed a copy of what the service provider purported to be the survey on about 13th February 2014. The document provided was not forwarded to the Employer as the Engineer remained of the opinion that it continued to fall far short of what was required.

In discussions the Contractor has stated that the contract only requires the Contractor to provide an IEC campaign using an approved service provider. The baseline survey and monitoring and evaluation aspects are considered to be additional requirements to what is required by the contract. During the November mission the Donors advised that, in their opinion, baseline surveys were considered to be routine practice when undertaking IEC campaigns (it is noted that the 'toolkit' has separate sections for the carrying out of IEC campaigns and baseline surveys with no mention of baseline surveys in the section on campaign requirements). Nevertheless the Contractor, service provider and Engineer are working in a cooperative manner to try and provide the additional requirements requested by the Donors.

The essence of the problem is that the service provider, the only one on the list of approved organisations, while competent at the presentation requirements is not very proficient at providing the reporting requirements. The IEC campaign is proceeding satisfactorily in accordance with the requirements of the contract but further efforts will be needed to enhance the reporting.

In meetings during the March 2014 Donor mission the difficulties being experienced were discussed and assistance from the attending 'safeguard specialist', to meet separately with KFHA, was requested (although did not eventuate). During the Donor mission KFHA did attend a 'general' meeting at which they explained their position and outlined their approach towards providing the information that was being requested. KFHA did give an undertaking to submit required reports by the end of March 2014 but these have not yet been provided.

3. EMPLOYERS' ORGANISATION

3.1 Project Management

The KRRP is administered by the Ministry of Finance and Economic Development (MFED) as the Executing Agency (EA), supported by the Kiribati Fiduciary Support Unit (KFSU), and the Ministry of Public Works and Utilities (MPWU) as the Implementing Agency (IA).

The Employer for the KRRP is the MPWU as set out in the Conditions of Contract at clause 1.1.2.2. The Employers' Representative is Mr. Ioataake Timeon, the current Secretary for MPWU (the former Secretary, Mr Elliot Ali, has transferred to the MFED). The Secretary is supported by:

- Mr Toani Toatu, Director of Engineering Services (DES), and
- Mr Patrick Mannix, Technical Auditor and Advisor (TAA)

The MPWU have advised that communications for the KRRP (formal and informal) should be addressed to the Secretary, annotated for the attention of the DES and copied to the TAA.

4. ENGINEERS' ORGANISATION AND ESTABLISHMENT

4.1 Engineer Details

The Engineer for the KRRP is Roughton International (RI), as set out in the Conditions of Contract at clause 1.1.2.4, and Mr John McFarlane, based in Fiji, is the Engineers' Representative. The Engineer has delegated responsibility for day-to-day administration of the KRRP construction contract to Mr. Ian Archer as the Resident Engineer. Mr Archer will be resident in Tarawa during the execution of the works, except for designated periods of leave.

4.2 Staffing

4.2.1 International

The Engineers' resident international staff comprises:

- Resident Engineer, Mr Ian Archer
- Quality Assurance Engineer, Mr James (Jim) McCluskey
- Works Inspector, Mr Llewellyn (Lew) Morgan (replaced Mr Blackstaffe)

Mr Archer was named in the Consultants' proposal (submitted in late-2010).

In early January 2014 the Engineers' Works Inspector (Mr Blackstaffe) tendered his resignation citing medical problems as being a main factor in that decision. Mr Blackstaffe departed Kiribati on 2nd March 2014 and, following Employer approval, Mr Morgan was engaged as a replacement Works Inspector arriving in Kiribati on 6th March 2014.

In late March 2014 the Engineers' QA Engineer (Mr McCluskey) tendered his resignation citing personal issues as being a main factor in that decision. Mr McCluskey is scheduled to depart Kiribati in mid-May 2014 with a replacement targeted for arrival in early-May 2014 so that some handover can take place.

4.2.2 National

National staff engaged directly by the Engineer comprises:

- Environmental Specialist Bweneata Kaoti,
- Community Liaison Officer, Mr Moanataake Beiabure
- Office Administrator, Ms Regina Fay
- Laboratory Technician, Mr Savaliga Malau

The position of National Environmental Specialist was the only national staff position for which a candidate CV had to be supplied in the consultant's proposal and which was evaluated. The position is not full time but requires intermittent inputs of about 5 days a month.

Following Donor concerns over possible 'conflict of interest' with the Consultants' original candidate for environmental monitoring activities an alternative candidate was sought. The difficulties in finding a suitable replacement candidate were highlighted and, during the Donor November 2013 mission, there was some acknowledgement that a 'less qualified' person could be considered. Subsequently, following Employer approval, Ms Bweneata Kaoti has been engaged with services commencing on 10th February 2014.

During the Donor March 2014 mission there were some reservations made over Ms Kaoti engagement (citing the February 2014 report as being somewhat deficient) however it was pointed out that Ms Kaoti had only recently joined the team and her inputs were only part time (in accordance with ToR requirements

which allow for roughly 1 day/week for 'inspections' and 2-3 days at month end for reporting). Subsequently, the Donors indicated that additional inputs, for environmental personnel (both national and international) would be considered favourably and the Employer was tasked with formalising necessary arrangements.

The position of Community Liaison Officer was originally intended to be filled by MPWU under counterpart staffing arrangements. However the Employer advised that they did not have a suitable candidate who could be released for this full time position and so provision was made under Variation No.02 to the Consultant Services Contract for the Consultant to engage someone directly. Mr Beiabure is a former Director of Engineering Services (DES) with MPWU, now retired, and as such does have some standing within the local communities. He also has an engineering background, is fully familiar with local protocols and is aware of the philosophy of the designs that have been developed for the KRRP (having been brought out of retirement as acting DES during the design phase).

Ms Fay and Mr Malau both worked for the Consultant during the design phase of the project and, as they had proved themselves to be proficient and reliable, were retained for positions in the construction supervision phase.

4.2.3 Counterpart

The Consultants' contract provides for the Employer to assign full time counterpart staff, to the KRRP, for the duration of the physical works. Identified staffing positions, and assigned candidates, comprise:

- Technician Engineer, Michael Reiher
- Technician Engineer, Mikeere Neemia
- Community Liaison Officer, Unassigned

The above technician engineers were identified, by the Employer, for attachment to the Engineers staff for the duration of the physical works.

The MPWU wrote to the Public Service Office in September 2013 requesting and supporting the proposed attachment of the two engineers, on a 'leave of absence' basis, and formal confirmation of the above arrangement was provided to the Consultant on 28th October 2013. The two counterparts took up their duties with the consultant with immediate effect from the same date. The Consultant will employ them during the leave of absence period and this arrangement is covered by Variation no.2 to the consultant contract. It should be noted that the official approval provides leave of absence until 31st May 2015. If the construction period is extended then the period of leave of absence will need to be extended correspondingly as the services of the counterparts will be needed to the completion of the physical works.

The Donors, during the March 2014 mission, expressed some concern over the method of recruitment, and financial arrangements, citing Government reservations and loan agreement conditions as matters that needed consideration. The MPWU did advise that proper procedures had been followed and that the attachment was fully supported by Government (who saw this as an opportunity for increased capacity)

The Engineer has encouraged the Employer to assign other Engineers within their organisation to the KRRP, on a rotating short-term basis, so they might benefit from the experience gained.

4.3 Engineers' Facilities

4.3.1 Office & Laboratory

The main office and laboratory facilities have been established in part of the Employers' 'Civil Yard' compound in Betio (areas have been made available, within such facilities, for use by the Contractor). On completion of the Works the main buildings will be handed over to the Employer.

The Contractor has provided prefabricated 'kit-set' buildings (ex NZ) for this purpose. Required building permits were granted in June 2013 and the Contractor commenced erection soon thereafter. Work did take the Contractor longer than expected although the facilities are now occupied and functioning:

Office; The Engineer was able to occupy the building in early October 2013.

Laboratory; The Engineer was able to occupy the laboratory building from early November 2013.

Following a review of the Contractors' proposed list of laboratory equipment the Engineers' QA Engineer has had to liaise with the Contractor in order to draw up a list that will allow the Contractor to fulfil his Contractual obligations. The majority of the equipment arrived during January/February 2014 and the Contractors' laboratory is now better able to undertake required testing. There are still some items outstanding and these are expected to arrive in April 2014.

Some of the equipment in both Engineer and Contractor laboratories will soon require calibration and appropriate arrangements are currently being made.

4.3.2 Transport

Vehicles for the Engineer are being provided through the construction contract. Four vehicles have been handed over and are being regularly serviced by the Contractor. These vehicles will become the property of the Employer when the contract is completed. In addition the Engineer has provided an additional vehicle from its own resources.

4.4 Construction Supervision Plan

The Engineer submitted a draft 'Construction Supervision Plan' (CSP) to the Employer on 26th February 2014 and feedback from the Employer is awaited before it can be finalised.

4.5 Ceiling Amount

The contract is time based and payments are made on the basis of the actual inputs made by the various individual inputs. The quantities stipulated in the contract, as amended by variations, are estimates.

The following table gives an estimate of the final costs:

Table 4-1: Estimate of Costs for Consulting Services

Currency	Current Ceilings (inclusive VO2)	Anticipated cost to complete ¹	Difference	Comments
GBP	430,598	477,976	47,378	1, 2
USD	1,570,534	1,660,982	90,448	3, 4, 5, 6, 7
AUD	910,846	849,848	(60,998)	8, 9

¹ - Subject to completion by the currently scheduled date for practical completion (ie no allowance for any extension that might be needed to provide services to the date of 'actual' completion).

1. Increased input of the Regional Manager (1.4 person months) during the Design and Procurement Phase due to long procurement period, offset by some savings in late mobilisation of Senior Works Inspector in the construction phase due to slow start of physical works.
2. Cost fluctuation impact. There was no GBP contingency to cover cost fluctuation
3. Increased input from Design team leader during Design and procurement phase due to long procurement period (6.8 person months).
4. Anticipated increased input of Resident Engineer during the construction phase as Client requested early mobilisation before Notice to Commence was issued (2.3 person months).
5. Anticipated input by Structural Engineer, and minor inputs from Environmental Specialist and Consultation Specialist.
6. Impact of cost fluctuation.

7. Items 3, 4, 5 offset by USD 200,000 contingency allowance in the estimates.
8. Savings on costs of local staff due to delays in arranging counterpart staff and the late start of physical works
9. There was no AUD contingency for cost fluctuation but the impact of cost fluctuation on AUD has been relatively small to date compared to USD and GBP.

The above figures have not changed since the last quarterly report (December 2013). Given the intention to increase inputs on environmental matters, and potential additional design/coordination inputs (arising out of integration of KRRP works with those of other donor financed projects), there is some likelihood that the above amounts will change during the next reporting period.

5. CONTRACTORS' ORGANISATION AND ESTABLISHMENT

5.1 Mobilisation

The Contractor has now mobilised the majority of equipment required to carry out the various scheduled activities. Due to the 'slow start' to the project the Contractor has indicated that there does need to be an increase in performance and production levels for the remaining part of the Contract and scheduled targets will be monitored to assess whether or not available resource levels are adequate to meet current needs.

Main items to be mobilised during the period related to asphalting facilities and establishment of the asphalt plant was close to completion at the end of March 2014. Trialling of the plant is expected to be carried out in early-April 2014 with asphalt mix trials to follow soon thereafter. The Contractor has been reminded that environmental obligations need to be addressed prior to asphalt production commencing.

5.2 Subcontracts

Clause 4.4 of the Conditions of Contract set out the provisions for subcontracting arrangements and it is to be noted that the Contractor is not permitted to subcontract the whole of the Works. Unless any subcontractor is named in the Contract (or Bid) the prior consent of the Engineer is required for proposed subcontracting arrangements.

To date the Contractor has entered into few sub-contract arrangements with the following being the current status:

- Blacktop Construction; major sub-contract for asphalting (and some pavement) activities subsequently fell through when company entered receivership in early September 2013
- History Flight; minor sub-contract for UXO surveys not yet formalised and agreed

5.3 Staffing

The Contractors' staffing and workforce levels fluctuate during the reporting period but, at the end of March 2014 the number of persons engaged (including TSS) was:

- International, 25 (23 male, 2 female)
- National, 126 (120 male, 6 female)

The Contractor has been coordinating local labour requirements with the Ministry of Labour under an 'Employment Agreement' that meets with their approval. A breakdown of the labour force into the various disciplines follows:

Table 5-1: Details of Contractor Labourforce

Organisation	Discipline	Numbers
MacDow	Carpenters	27
	Drivers	22
	Operators	25
	Labour (skilled)	10
	Labour (unskilled)	23
	Male	107
	Female	6
	Resignation and/or dismissal	13
TSS	Security	12
	Traffic Control	14

TSS are a 'local' company offering security services. There is a slight disparity in the overall totals as a result of resignations and/or dismissals.

The Contractor has reported no industrial relations issues to date.

5.4 Equipment

The Contractor has mobilised a total number of just over 170 items of plant and equipment as of the end of March 2014. This includes major items of construction equipment together with miscellaneous items such as pumps and generators. A summary of the various items is provided hereunder:

Table 5-2: Details of Contractor Equipment

Description		Number
Construction plant		24
Trucks (general, crane, concrete, tanker)		31
Utility vehicles		17
Pumps, compressors & generators		23
Plate compactors & power tools		12
Containerised facilities		22
Miscellaneous		39
Facilities:	Screen plant	1
	Concrete batcher	1
	Asphalt plant	1

All vehicles have been registered and insured in Kiribati. The Contractor has an established plant workshop in Betio and servicing schedules have been prepared.

5.5 Materials and Material Suppliers

5.5.1 Materials on Site

Clause 14.5 of the Conditions of Contract does make provision for the payment of '*Materials on Site*' for certain materials:

- Precast concrete items,
- Imported processed aggregates, and
- Bitumen
- PVC pipes/ducts

The Contractor did request the inclusion of water supply materials (PVC pipes/ducts). This was supported by the Engineer and approved by the Employer in December 2013.

The first major consignment of imported basecourse material (~2,000 t) had been expected mid-March 2014 but bad weather (and rough seas) has put things back. The barge is understood to be close to Tarawa and expected very early in April.

5.5.2 Material Suppliers

The Contractor is making arrangements, with many suppliers, to provide certain items and materials required for the Works. A current listing of material suppliers, and their status, is provided at Appendix A.

5.6 Workshops, Depots and Storage Areas

Apart from the main office-laboratory compound the Contractor requires many other 'areas' to use for workshops (mechanical, carpentry etc), depots (concrete batching, asphalt plant etc) and general storage (imported aggregates, precast concrete units etc). The following main areas are currently being utilised:

- Storage area, Betio (adjacent to meteorological station)
- Storage area, Betio (ESAT/TACL compound, Takoronga)
- Storage area, Bairiki (north loop road)
- Storage area, Bairiki causeway (km5)
- Storage & screening plant, Betio-Temaiku road (km11, opposite parliament)
- Storage & concrete plant, Betio-Temaiku road (km22.5, McKenzie Point), and
- Asphalt plant, Temaiku (old PVU car dump site)



pvc Pipe storage - Bairiki



Asphalt plant being established - Temaiku

Storage Areas and Plant Facilities

5.7 Micro-enterprise Groups

The Contract makes the following provisions for training of routine road maintenance micro-enterprise groups by the Contractor.

"Six micro-enterprise routine road maintenance groups (4 persons in each) are to be established, and trained, by the Contractor during project implementation and will be employed by him for routine maintenance of the completed works during the defects notification period. It is expected that one group will be established in each of the following areas: Betio, Bairiki, Ambo, Bikenibeu, Bonriki and Buota. The final locations shall be subject to the approval of the Engineer."

Teams, established in consultation with the Engineer, shall be trained in routine maintenance activities such as clearing the roadway area of sand (and other debris/rubbish), cleaning out drains and side ditches, opening up drainage paths, cutting grass and bushes and small pot-hole repairs."

In March 2014 a micro-enterprise specialist visited Kiribati and met with the MPWU, Engineer and Contractor. There was general acknowledgement that there were areas where there was some conflict and overlap in the respective undertakings required by the physical works contract and the micro-enterprise specialist.

Following a familiarisation of the site, the proposed works and local conditions, the micro-enterprise specialist was in agreement that, once the KRRP works were completed, there should be little need for maintenance (and training) in areas of pavement repair (ie pothole repairs to pavement and surfacing). The main focus was seen as being the need to keep roads/drains clean, ensure vegetation was cut back and that road furniture (signs, markings etc) remained adequate.

It was explained that the KRRP contractor intended to engage personnel, during the course of the Works, who he considered responsible and reliable enough to carry out maintenance duties with limited supervision during the defects liability period (a Contractor representative may visit on a monthly or bi-monthly basis depending on performance levels). Training was to be undertaken on physical work activities only and, on completion of the defects liability period, it had been envisaged that the maintenance groups would somehow be integrated into the MPWU.

The micro-enterprise specialist advised that he was looking at options on how best to engage the various micro-enterprise groups that were needed and, thereafter, consideration was still being given on levels of training required. Whilst it was acknowledged that the Contractor would be responsible 'on the job training' a more formal training exercise programme, that combined physical works and small business management, may be more appropriate (the prospect of flexibility within the KRRP contractor 'groups' to attend any more formal training would need further discussion with the road contractor). There was also a need for further discussion with the MPWU over how the 'groups' would continue the activities needed once the defects liability period was over (ie either incorporated into, or managed by, the MPWU).

The micro-enterprise specialist undertook to prepare a set of 'guidelines' (for the engagement, maintenance activities, training programme and long-term duties) for review by, and further discussion with, the MPWU, Engineer and Contractor.

There was some discussion on the proposed timelines for necessary actions. The Contractor advised an intention to begin engaging personnel once a reasonable section of road had been completed (possibly within the next 6 months). The micro-enterprise specialist advised this might be earlier than had been envisaged under his programme but the matter would be assessed and reported on.

6. PROGRAMME & CASHFLOW

6.1 Programme

As set out under clause 8.3 of the Conditions of Contract the Contractor has to submit a Works Programme within twenty-eight (28) days of the receipt of an instruction to 'Commence the Works' and subsequently update the programme if at any time the Engineer notifies the Contractor that the programme is not consistent with the actual rate of progress.

6.1.1 Programme rev.0 (July 2013)

A programme (rev 0) was issued within 28 days of Commencement but it initially lacked the additional supporting information required by the specification. The general philosophy of the Contractors programme remained as per the programme provided with their Bid ie one team working along the main Betio-Temaiku road (starting at the western 'Toll Booth' end and working progressively eastwards) and one team working in parallel in the Temaiku area (working, in turn, on the Temaiku, Airport and Buota roads).

Further information was supplied but this was still considered to be insufficient and there were issues that needed to be addressed. Physical works were not however planned for commencement until 4th October 2013. Completion of works was still being targeted for 21st May 2015 in line with Contract requirements.

The demise of the proposed asphalt sub- contractor, and advice provided by the Employer with regards to Work Scope changes and Coastal Protection Works, made it clear that an updated programme would in any case be required.

6.1.2 Programme rev.1 (November 2013)

A revised programme (rev 1) was provided on 25th November 2013 which still did not provide all the supporting information provided by the terms of the contract. Completion of works was still being targeted for 21st May 2015 in line with Contract requirements.

By the end of the December 2013 the programme had already become out of date, certain works were behind programme and being executed out of sequence, and further revision was requested, by the Engineer, in late-January 2014.

6.1.3 Programme rev.2 (February/March 2014)

A revised programme (rev 2) was submitted on 26th February 2014 with a supporting 'report' provided on 4th March 2014.

The programme showed activity commencing in advance of dates that would allow various contract formalities to be carried out and completed, notably:

- 'Possession of Site', and
- 'Entry upon land within the Site boundary'

The supporting report also lacked detail in respect of various other technical matters that needed to be addressed ie mass-haul, inspection & testing provisions, cash flow expectations etc. Completion of works was still being targeted for 21st May 2015 in line with Contract requirements.

On the basis of the deficiencies that were identified programme (rev.2) was not accepted and was asked to resubmit accordingly.

At site meeting (No.08), held on 8th March 2014, the Contractor tabled an updated version of their 'rev 2' programme (for currently contracted works) together with a 'what if' programme (for inclusion of proposed 'new' coastal works at sites 1 & 5). The Contractor advised that the 'what if' programme was dependent on receiving an instruction (for coastal sites 1 & 5) by 1st April 2014.

The following was noted in respect of completion dates:

- May-15 (for contracted works as scheduled)

- Nov-15 (including 'new' works at coastal sites 1 & 5)

Due to the deteriorating condition of the Betio causeway protection revetment, and following discussions during the Donor mission in March 2014, the Contractor was notified, on 21st March 2014, to defer pavement works (across the causeway, Betio-Temaiku road Ch 0+000 to 3+300) and Betio bridge works until as late as possible in a revised programme. Following further discussion, with MPWU and Contractor, the above notification was amended, to mitigate extension of time implications, and Contractor was subsequently instructed, on 31st March 2014, to defer works as previously notified with the exception of pavement/surfacing activities on the Betio-Temaiku road Ch 0+000 to 0+400 (including the 'toll booth area'). The section of works that was reinstated (Ch 0+000 to Ch 0+400) is essentially 'landlocked' and not at risk as a result of the on-going deterioration in the causeway protection revetment.

6.1.4 Programme rev.3 (April 2014)

The Contractor is currently preparing an updated programme following the recent deferral of selected works across the Betio causeway.

In general discussions the Contractor has indicated that he is now giving consideration to relocating his main activities to the Temaiku area with works on the main Betio-Temaiku road 'commencing' at Ch 23+900 (intersection with the Airport and Temaiku roads) and working westwards towards Betio. The Contractor has advised that the complete change in general philosophy (from rev 0 and subsequent programmes) should, as a result of differing critical path activities (notably production of precast concrete items), allow the coastal protection works (at sites 1 & 5, precast concrete 'blocks') to be better incorporated into the overall works programme.

Pavement works along the main Betio-Temaiku road have been identified as critical path activities and the impact of relocation, as is being considered, will have extension of time implications as advance works (contract formalities, existing service investigations, installation of new underground services, kerb installation etc) all need to be done before pavement works can commence. The Contractor has indicated that the overall impact could be an extension of time of about 2 months although, as previously noted, this could (if a decision is timeously provided) allow other coastal works to now be incorporated (hence reducing the 5-6 month time extension provided on the rev2 'what if' programme).

6.1.5 Cashflow

The Contractor provided updated cash flow expectations with his programme rev2 but these were in error (wrong totals to date and incorrect 'final' contract amount). Correction was requested however updated information has not been provided.

In the absence of any 'current' contractor information the Engineer has made an estimate of cash flow requirements as provided below:

Table 6-1: KRRP Cash-flow Expectations

Year	Month	Amount (monthly)		Cumulative
		Actuals	Predicted	
2013	April	4,819,795.72		4,819,795.72
	May	1,112,065.70		5,913,861.42
	June	839,799.80		6,771,661.22
	July	771,879.56		7,543,540.78
	August	448,581.84		7,992,122.62
	September	361,830.92		8,353,953.54
	October	353,545.13		8,707,498.67
	November	446,959.80		9,154,458.47
	December	385,385.50		9,539,843.97

2014	January	754,090.44		10,293,934.41
	February	374,849.95		10,668,784.36
	March		804,596.59	11,473,380.95
	April		1,275,687.42	12,749,068.37
	May		1,827,237.92	14,576,306.29
	June		2,378,788.41	16,955,094.70
	July		2,880,000.00	19,835,094.70
	August		2,880,000.00	22,715,094.70
	September		2,880,000.00	25,595,094.70
	October		3,072,000.00	28,667,094.70
	November		3,200,000.00	31,867,094.70
	December		3,200,000.00	35,067,094.70
2015	January		3,000,000.00	38,067,094.70
	February		2,800,000.00	40,867,094.70
	March		2,400,000.00	43,267,094.70
	April		1,800,000.00	45,067,094.70
	May		1,000,000.00	46,067,094.70
Repayment of Retention			2,407,897.86	48,474,992.56

It is to be noted that:

- The figures for March 2014 are based on the Contractors payment application
- The figures from April 2014 onwards are the Engineers estimate based on the current estimated cost to complete (as the Contractors actual cash flow is awaited) and assumes completion of works within the current scheduled timeframe (there is a minor discrepancy in the cumulative total, when compared to the estimated cost to complete, and this is due to the 'rounding' of estimated monthly earnings),
- the above will likely change once the Contractors revised programme becomes available,
- there remains a great deal of uncertainty over the 'final' KRRP work scope (and hence the 'final' cost to complete the works),
- to date costs reflect only physical works activities although it can be expected that additional costs will accrue as a result of extension of time (and price fluctuation) needs, and
- Repayment of Retention is governed by GCC clause 14.9 which makes provision for 50% repayment once the Taking-Over Certificate is issued and 50% at the expiry of the Defects Notification Period. The Defects Notification Period is 24 months and it can be expected that the Contractor will request that a 'bond' be provided in lieu of the retention held.

7. CONTRACT ADMINISTRATION

7.1 Communications

To avoid confusion it is important that proper lines of communication are established between the Employer, Engineer and Contractor. Required procedures have been initiated and matters have been eased now that permanent office facilities are available.

7.2 Meetings

Site meetings, with the Contractor (and Employer), are being held on a routine basis. Additional meetings will be called if and when circumstances dictate this is required. Two site meetings were held during the period under review, on 5th February, and 12th March 2014.

7.3 Notices & Instructions

During the course of the Works there will be times when the Engineer has to give instruction to the Contractor and when the Contractor needs to seek clarification from the Engineer. Systems have been established whereby this can take place.

7.4 Site Records

The importance of having good site records available is recognised and, wherever practicable, such records should be agreed by personnel from the respective Engineer/Contractor organisations. Of particular note is the need to agree measurements of completed works that is due for payment (particularly if it is to be 'covered up'). Systems are being established to ensure such records are maintained.

7.5 Inspection and Testing

As set out at section 1205 of the Specification the Contractor maintains responsibility for overall Quality Control of the Works. The Engineer will however institute routine inspection and testing through an 'Audit' Laboratory that is being established for the Engineers' use. Systems have been established whereby the Contractor provides the Engineer with due notice of on-going works that are ready for testing and the Contractors' records will be reviewed and checked. Additional 'audit' checks may be carried out as and when required and various standard forms, established and used on past projects, will be adapted for use in monitoring the KRRP day-to-day activities, conducting various inspections and undertaking, and reporting on, the various laboratory testing that is required.

7.6 Measurement and Payment

Clauses 12 and 14 of the Conditions of Contract respectively set out the various formal requirements for Measurement and Payment. Some procedures for routine agreement (Engineer/Contractor) of measured works and/or activities have already been established and, if necessary, others will be prepared ahead of permanent work activities. Agreed quantities of works will be used to prepare Interim Payment Certificates and summaries will be provided in the attached supporting documentation.

8. COMMUNITY LIAISON

It is recognised that it will be important for local communities to be kept apprised, in advance, of the Contractors' scheduled activities. There will also be a need for close dialogue with the communities, during actual physical works, to make sure they are informed about the potential hazards and dangers involved, as well as general liaison in respect of permanent/temporary access arrangements and issues with existing services & utilities. In particular work on feeder roads is constrained by lack of working space and this will need careful planning

Both the Engineers' and Contractors' staffing arrangements provide for a 'local' Community Liaison Officer (CLO) who will deal with issues raised by the various stakeholders and communities as the works proceed. Following communications with the Employer/Donors, and discussions with the Contractor, the CLO's will also coordinate any comments and complaints (and any subsequent responses) received either by telephone call to the Contractors' office or by SMS (text messaging) to the web-based system established by the Donors. Telephone numbers have been included on the project noticeboards for the public to use for advice and/or complaints. Proposed arrangements have been incorporated into the Contractors CEMP. At the end of the period under review the technical difficulties in the web-based complaint's logging system had seemingly been resolved.

ISSUES IMPACTING ON THE WORKS

9. WORK SCOPE

9.1 General

The main road components of the KRRP, as described at section 1.1, are shown on a plan of South Tarawa included as Figure 1-1.

Since the award of the construction contract, the Donors have made suggestions to the Government on various proposed work scope changes. During meetings with the Donors, at the various missions that have taken place, it is to be noted that proposed changes discussed as being recommendations to the Government include a proviso that the Government may need to make alternative funding arrangements for any works undertaken that had been recommended for omission.

Some of the proposed work scope changes, to the KRRP scheduled works, have been dealt with after discussions with Government and decisions by the Cabinet but key changes in other areas, where details have not yet been finalised or to facilitate works needed as a result of 'other' Donor funded projects, have still to be actioned. Once agreed in principle the proposed changes require design details and quantities to be prepared so that formal variations can be issued to the KRRP Contractor.

For those changes where design details have been finalised Variations have been issued and these are described in section 30 of this report. Identification numbers have been allocated to other anticipated future variations. Issues that remain to be finalised are briefly described below.

9.2 Betio Causeway

A survey on the condition of the causeway revetment was reported in August 2013 and identified a number of small voids which required immediate attention before road pavement works were carried out. Accordingly, appropriate remedial works to repair the voids identified below the existing concrete revetment protection were instructed under Variation No.03, and completed in October 2013. Some additional voids that were subsequently discovered by the Contractor have also been repaired.

King tides at the beginning and end of February 2014 did cause further damage to sections of the causeway concrete revetment protection (outside of the 'repair' areas). Emergency temporary repairs, to washouts (3 No.) in early February, were undertaken by the Contractor but more substantial repairs are needed if these are to last (the MPWU have undertaken to action these). Damage at the end of February (to a separate but nearby section) was more substantial and necessary remedial works are being undertaken by the MPWU.



Ch 2+950 (lagoon side) - start of February 2014



Ch 2+880 (lagoon side) - end of February 2014

Damage to Betio causeway revetment protection during 'king' tides at start/end February 2014

The Engineer has encouraged the MPWU to seek further design input, from specialist coastal engineers (either the KAP specialist or the International Consultant engaged in 2013 to undertake a condition survey of the causeway revetment), for the resulting remedial works that became necessary. The Engineer is aware that the KAP coastal engineer was tasked with carrying out another condition survey of the causeway revetment protection (together with options for remedial actions) but it is understood the inspection and report were never finalised (and the KAP engineer has since completed his contract and departed Kiribati).

Notwithstanding any intermediate repairs that might be carried out the Engineer has expressed concern over the overall condition of the causeway revetment and suggested to the Government that a longer term solution (ie >30 years) might now be considered as a high priority. Without the longer term remedial works in place the works being carried out under the KRRP would be at risk of early damage from on-going deterioration (and potential further sudden collapses). To safeguard current investments the MPWU were therefore asked to consider a deferral of pavement works, across the causeway, in the interests of overall infrastructure asset management.

The above position was reinforced by the Donors during the March 2014 mission. Required action has subsequently been endorsed by Cabinet and appropriate instruction, through contract variation no.10 (deferring pavement works across the causeway), has been issued to the Contractor.

9.3 Coastal Protection

The Employer had advised, in a letter to the Engineer dated 31st May 2013 (ref KRRP:19/42), that “The investments in seawalls are postponed until further notice subject to revisions to the designs based on further analyses through the KAP-III project.”

A separate consultancy was subsequently arranged, with Tonkin & Taylor (T&T), to review currently scheduled works (under both the KRRP & KAP and which had been prepared on the basis of KAP-II design philosophy), in light of the changed design philosophy being developed under KAP-III, and formulate designs based on a more detailed analysis of existing site circumstances and conditions.

Out of the list of coastal sites that T&T were commissioned to review, four of the sites (sites 1, 5, 10 and 11) were deemed to be priorities for works under the KRRP and hence were to be actioned by the KRRP contractor. During the November (2013) Donor Mission there was discussion about two additional sites for coastal protection works that are required as part of the airport upgrade (sites 15 east and 15 north). The Donors subsequently confirmed a preference for these sites to be implemented under the KRRP contract.

The sites that are now under consideration for inclusion in the KRRP works therefore include:

- Site 1; Betio-Temaiku road ~Ch 5+350 (flank protection each end of existing wall)
- Site 5; Betio-Temaiku road ~Ch 12+600 (Ambo causeway)
- Site 10; Temaiku road ~Ch 2+400
- Site 11; Temaiku road ~Ch 1+500, and
- Site 15; Airport runway, ocean end, 2 locations (transfer from KAIP)

During the mission in November 2013 the Donors advised the MPWU that a Donor ‘No objection’ must be sought before the Contractor is formally instructed on any contract variation associated with any related coastal works. In seeking such ‘no objection’ the MPWU would need to provide details of expected costs.

The Engineer has appraised the MPWU of the contractual procedures related to ‘Variations’ (ie instruct and agree pricing under GCC clause 13.1 or obtain a priced proposal under GCC clause 13.3) and recommended that, unless financing is seen as being problematic, the Engineer should be tasked with finalising and issuing required variations at the earliest opportunity to mitigate the risk of delay and disruption to the Contractor. Following an approach to the Donors the MPWU confirmed that prices must first be obtained, for the proposed works, before any variation is issued.

The Engineer has pointed out to the MPWU that seeking a priced proposal, from the Contractor, will provide an 'upper ceiling' price that could then be presented to the Donors for the required 'no objection'. Contract procedures would however then still need to be applied with the final valuation being determined, in due course, using procedures set out under GCC clause 12. The Engineer is obliged to adhere to the procedures under the Contract and if an agreement is not reached on price then the Engineer will determine the price. This may then lead to a dispute which would be passed on to the dispute board. This process could take a considerable length of time to conclude.

In December 2014 the Employer advised that the following sites, along the main Betio-Temaiku road, were to be deleted from the KRRP works:

- Chainage 5+100 Bairiki Causeway Ocean side
- Chainage 9+800 Banreaba Lagoon Side
- Chainage 14+220 Taborio Lagoon Side

As the Contractor had been granted 'possession of site' for a section of works from Ch 4+700 to Ch 10+000 on the Betio-Temaiku road a contract variation has been issued, following direction from the Employer, formally deleting coastal protection works scheduled for Ch 5+100 (ocean side) from the works.

During the 'king' tides experienced at the start and end of February 2014, and the subsequent heavy storms/surges experienced throughout March 2014, there has been some worsening of the existing conditions at sites identified for coastal works together with erosion in other areas where additional works will now be required. For the more major sites (as listed above):

- the extent (length) of works needed at sites 1 & 5 has increased, since the time of the T&T site assessment (July 2013), through gradual attrition as a result of on-going coastal processes. It is to be noted that, although the overall length of the coastal works does now remain much the same as when the sites were visited during the Donor mission in November 2013, the extent of the erosion towards the existing road has worsened, and
- the extent (length) of works needed at sites 10, 11 & 15 has remained much the same as that envisaged following the T&T site assessment (July 2013). It is to be noted that, although the overall length of the coastal works does remain much the same as when the sites were visited during the Donor mission in November 2013, the extent of damage to the existing coastal protection works has worsened.



Betio-Temaiku road, Ch 5+200 (lagoon side erosion)



Temaiku road, Ch 1+500 (ocean side damage)

Further erosion and damage during 'king' tides at start/end February 2014

Additional areas where coastal protection works are now considered to be required are along the main Betio-Temaiku road at ~Ch's 4+950 (~80m lagoon side), Ch 6+850 (~60m lagoon side) and a few other localised areas (generally ~20-30m in length lagoon side, sometimes at stopping areas).



Betio-Temaiku road, Ch 4+950 (lagoon side)



Betio-Temaiku road, Ch 9+260 (lagoon side)

Further erosion during heavy storms/surges in March 2014

9.3.1 Coastal Sites 1 & 5 (precast concrete blocks)

Following receipt of final designs from T&T, and subsequent discussions/communications, the MPWU instructed the Engineer, on 24th February 2014, to request a priced proposal from the Contractor.

In order to evaluate the priced proposal, once received from the Contractor, the Contract requires that contract rates will be applied in so far as possible. The use of applicable rates is fundamental to the contract procedures for valuation, but the information put forward by Tonkin and Taylor in their Bill of Quantities (BoQ) for the works was in a significantly different format from the one used for the method of measurement in the KRRP contract. Furthermore, the Specification provided for the proposed works did not contain any directions on how the works were to be measured and valued.

The Engineer proceeded to transcribe the BoQ, prepared by T&T, into a format that more aligned with that prepared for the KRRP. Quantities scheduled in the BoQ were also adjusted to reflect the more extensive works that are now envisaged. Subsequently, the Contractor was asked, on 25th February 2014, to provide a priced proposal prior to any formal instruction being issued for any Contract variation.

The Contractor submitted indicative pricing informally on 13th March 2014 although, after review by the Engineer (during which quantities were determined to be in error), the prices offered did increase in the formal priced proposal that was submitted on 19th March 2014.

A summary of the Contractor pricing, for the physical works only, is tabulated below together with T&T cost estimates, for comparison, provided during submission of concept designs. It is noted that the T&T detailed design information/report contains no further update on pricing nor a detailed priced bill of quantities.

Table 9-1: Costs for Coastal Works (Sites 1 & 5)

Location & Details			Costs (AUD) for physical works		
Site	Length (m)		T&T		McCD
	(1)	(2) ¹	(1) ²	(2) ³	(2) ⁴
1	166	206	265-350,000	450,000	1,099,907
5	105	225	175-230,000	500,000	1,075,520

¹ – Lengths adjusted to reflect requirements at March 2014

² – Price range prepared by T&T (following discussion with Contractor?)

³ – Costs adjusted (pro-rata for upper cost limit) for updated length

⁴ – Costs as received, based on updated length and BoQ adapted to KRRP method of measurement

It is to be noted that, in addition to the direct costs tabulated above, the Contractor is requesting an extension of time of ~5 months leading to associated time related overhead charges of AUD 2,686,835 which, when included with the physical works costs of AUD 2,175,427, results in a total cost (for sites 1 & 5) of AUD 4,862,262.

From examination of the prices it is clear that there is a large disparity between the estimated (concept) costs and the costs now received from the Contractor. The Contractor had advised that the costs were based on amended design details (to those provided for pricing) that were discussed with T&T directly. The Engineer asked the Contractor to provide prices for the 'conforming' designs provided to him, these were provided but showed direct costs (for physical works) to be higher at AUD 2,544,848.

As T&T were actively involved, with the Contractor, in the design and cost estimate process the Engineer requested that the MPWU provide T&T with a copy of the Contractors' priced proposal and be invited to comment in respect of the alternative design details offered and prices received. It is understood this request was made, by MPWU, to T&T.

The prices provided by the Contractor still have to be evaluated, by the Engineer, pursuant to clause 12 of the Conditions of Contract (where rates for work will largely be dictated by rates available in the Contract for works of the same or similar nature). This may result in lower costs but if such costs are not accepted by the Contractor this will result in a 'dispute' that would then be dealt with by the Dispute Board.

Following an initial examination of the proposal the Contractor has been asked, on 28th March 2014, to provide further detail and/or clarification on certain aspects of the direct cost component only. Receipt of the information requested from both T&T and the Contractor is awaited.

9.3.2 Coastal Sites 10 & 11 (rock boulders?)

Following confirmation to T&T, by the Employer, that the preferred concept design should be either precast concrete 'Samoa Stones' or 'Seabees' the Contractor was asked, by the Engineer on 23rd January 2014, to provide an indicative cost comparison so that necessary design work could be finalised.

Following discussions with the Contractor, during which he indicated that following an assessment of what might be required the cost of constructing protection works using rock boulders was turning out to be the most cost effective option, the rock boulder option was reintroduced to the pricing comparison that had been requested. The Contractor, on 21st March 2014, submitted the following indicative prices:

Table 9-2: Unit Rates for Coastal Works (Sites 10 & 11)

Item Ref	Description	Cost (AUD)
		Rate per m ²
1	Samoa Stones, 600mm diameter	1,289.84
2	Seabees, D = 0.28m, R = 0.35m	1,252.86
3	Rock armour, 300-1,400kg range	1,068.47

It is to be noted that the above costs are indicative prices for the major physical works components only (i.e. no miscellaneous or indirect costs).

9.3.3 Coastal Sites 15 (rock boulders)

A preferred option of rock boulders for site 15 east, and precast concrete blocks for site 15 north, has been confirmed for this location and detailed design information is awaited from T&T.

9.4 Valve Chambers (KAP Water Supply)

Initial discussions with PUB in April/May 2013 focused on the requirement for various chambers, along and within the new road, that were now being identified by both the Kiribati Adaptation Project (KAP-III – associated with fresh water supply) and the South Tarawa Sanitation Improvement Sector Project (STSISP – associated with sewers and salt water mains in Betio, Bairiki & Bikenibeu).

The KAP leak detection engineer had highlighted the potential need, due to timing issues, for some chambers to be constructed around existing valves so that they could readily be replaced, if necessary, following leak detection surveys that were scheduled to commence late 2014 or 2015. A total of 23 chambers were mentioned at the time. During the June (2013) Donor mission there was some commitment made to incorporating required chambers into the KRRP (along the main roads but not the feeder roads).

It subsequently transpired that the chambers being discussed were part of the leak detection programme which required the installation of new chambers incorporating new flow meters and air valves, which would also conflict with the road. It has been provisionally agreed by the Donors and the Employer that these new chambers, and those required to allow existing valves to be replaced at a later date, should be constructed under KRRP to avoid excavation of the new road at a later date. The valves and associated pipework for the leak detection work will be constructed at a later date through KAP-III.

Although details were made available to the MPWU in December 2013 further work was needed to refine the details in order to deliver suitable documentation which could be prepared into a Contract variation for issuing to the Contractor. The MPWU, Donor representatives, and the KAP Engineer liaised on these matters throughout January and February 2014.

Prior to finalising BoQ requirements the Engineer, MPWU, KAP/PUB, Donor representative and Contractor met to discuss the various types of chamber required and the preferred form of construction to mitigate any disruption the works will have on the KRRP works programme (and notably the critical path pavement activities). Following those discussions there was a clear indication, from the Contractor that:

- For the 'medium to large' chambers an insitu concrete base and walls would most likely offer the best practical option, and
- For the 'small' chambers an insitu base with reinforced concrete block walls would offer the greater flexibility when working around existing pipes/valves (which are to remain in place).

Both of the above would require precast concrete or preformed steel covers/lids.

Following deliberations between the MPWU, KAP and Donors it is understood that final details were provided to the MPWU in late March 2014 and it is expected that the Engineer will be requested, in early April 2014 to seek a priced proposal, from the Contractor, for the scheduled works. It is understood the works comprise the construction of ~256 No. chambers (of 6 different sizes) using a combination of insitu concrete and reinforced concrete block wall/base construction with precast concrete or preformed steel covers/lids. With pavement works becoming increasingly imminent it is crucial that a decision on a scope of works is finalised and providing details to the Contractor must be considered a matter of priority.

The Engineer is likely to be tasked with finalising structural design requirements however this is anticipated to have only minor impact on the proposals put forward and the associated quantities. The Engineer has not yet been provided with a 'design brief' but a request for a proposal is expected in early April 2014. The Engineer has therefore informally suggested that the Contractors' inputs into the priced proposal run in parallel with the Engineers' inputs into finalising the design. Appropriate adjustment to quantities/costs will be made once final designs are available.

As previously advised any variation will constitute a substantial body of work, much larger than the earlier discussions had indicated, that will have a significant impact on the KRRP Contractor's programme and a substantial claim for extension of time should be anticipated. The financial impact, as now assessed by the KAP-III engineer, will be an increase of about AUD 1,000,000 for the physical works plus costs for any agreed extension of time.

9.5 Valve Chambers (STSISP Sanitation upgrade)

A key part of the South Tarawa Sanitation Improvement Sector Project (STSISP) is the rehabilitation of the salt water mains in the town areas of Betio, Bairiki and Bikenibeu.

Presently, the actual location of the existing saltwater mains is uncertain, but they are expected to lie within, or adjacent to, the road corridors which are being rehabilitated as part of the KRRP. Part of the STSISP work scope will be to rehabilitate the existing saltwater infrastructure, including pressure testing and repairs, with the aim of minimising leakage in the system. It is anticipated that the majority of leakage problems will be at existing hydrant/valve locations (whose condition is uncertain).

Following discussions between the MPWU, PUB and the STSISP consultants it has been deemed impractical to complete the expected repairs and pressure test the saltwater system (that will be within the KRRP road rehabilitation areas), prior to the commencement of the KRRP pavement works.

Given that large scale repairs to the road infrastructure is unlikely to occur again for many years, MPWU and other stakeholders are concerned that areas identified (under STSISP) as needing repair will result in the excavation of the newly constructed road. Consequently, MPWU have had on-going discussions with STSISP stakeholders, and other KRRP stakeholders, and a scope of works is understood to be close to being finalised.

Works will likely include the installation of small chambers (as is needed to accommodate KAP needs) and advance purchase of some materials in an effort to prevent the KRRP contractor from being delayed. The purchase and delivery of materials will take many weeks to be delivered to Tarawa, and hence decisions on material requirements are needed prior to being able to identify the services. Whilst every effort will be made to minimise the purchase of surplus materials, should there be surplus materials these will then be provided free of charge to the PUB, who may make them available for the STSISP rehabilitation contractor if the materials are appropriate.

9.6 Ambo causeway

The PUB has expressed some concern over the existing services that are exposed due to on-going coastal erosion along the lagoon side of the Ambo causeway. The PUB have been appraised of the works currently being done to review coastal protection measures and that relocation of exposed services was expected to be carried out, under the KRRP, in conjunction with any works that are undertaken.

9.7 Betio and Bairiki Roads

A suggestion from the Donors to use some of the savings from the reduced scope on Buota to finance additional works to Bairiki Roads was not taken up by Government. However, continuing deterioration of the existing sealed roads in both Betio and Bairiki may lead to further discussions on what work might be carried out under the KRRP while the Contract is ongoing and the asphalt plant is available.



Betio – roundabout area



Betio – entrance to Moel store

Deterioration of Betio roads following heavy rains during first quarter of 2014

It is to be noted that heavy rains during the first quarter of 2014, and particularly those experienced throughout March 2014, has seen the roads deteriorate with the following consequences:

- previously scheduled 'spot repairs' in Betio becoming more extensive with more distressed areas developing in other areas, and
- sections of the Bairiki (north & south) feeder roads, together with the wharf access, have deteriorated to the extent that a second coat seal is no longer a practical option for some sections and the length of 'rework' sections will need to increase accordingly. Potholes are also starting to develop along the main road with notably localised 'bad' sections in a couple of areas (outside the KAP and TSKL offices) and the road around the Bairiki 'square' now in very poor condition.



Bairiki 'square' (front of ANZ bank)



Bairiki north feeder road (behind TSKL)

Deterioration of Bairiki roads following heavy rains during first quarter of 2014

As there is still 14 months to go until the currently scheduled completion date, and likely longer given pending/instructed variations, it does seem likely that the roads will have deteriorated significantly by the project completion date if nothing is done. Given the current poor progress on the 'main' works any instruction/variation issued to the Contractor to effect any works, within the KRRP timeframe, will disrupt scheduled activities and hence result in a contractual claim for additional time (with associated costs).

Given that there is a roadworks contractor mobilised to Tarawa, and set up to carry out asphalt operations, there is scope for the Government (through self or alternate financing) to take advantage of this opportunity before the contractor demobilises. The various roads that might be considered for improvement, and their approximate length, are listed below:

Table 9-3: Candidate Rehabilitation Roads (Betio & Bairiki)

Town	Description	Length (km)
Betio	Main 'loop' road (from toll booth)	6.5
	Cross road (to link with wharf road)	0.4
	Wharf road	0.6
	Feeder road north (past high court)	0.4
	Total (1)	7.9
Bairiki	Main 'through' road	1.4
	Square road	0.1
	Feeder road north + wharf	1.0
	Feeder road south	1.0
	Total (2)	3.5

Adopting KRRP rates, and assuming an average road width of 9m, the cost of providing a 30mm asphalt surfacing alone would be ~AUD 450,000 /km and hence the following costs would be incurred:

Table 9-4: Potential Costs for Asphalt Surfacing (Betio & Bairiki)

Town	Description	Length (km)	Cost (AUD) ¹
Betio	Main roads	6.5	2,925,000
	Minor roads	1.4	630,000
	Total (1)	7.9	3,555,000
Bairiki	Main roads	1.5	675,000
	Minor roads	2.0	900,000
	Total (2)	3.5	1,575,000
Betio & Bairiki	Main roads	8.0	3,600,000
	Minor roads	3.4	1,530,000
	TOTAL (1)+(2)	11.4	5,130,000

1 – These costs are for asphalt surfacing only

There would need to be some drainage improvements, other preparatory works, and possibly road furniture/footpaths/lighting, and together with 'preliminary & general' costs the above costs would increase. Apart from the asphalt surfacing works other works would be subject to design considerations and Employer requirements (as would a decision on the road lengths to be included). A worst case scenario might be to double the above costs for approximate 'costs to complete' for the various road sections.

The above costs are provided to give an indication of the general 'order of costs' for consideration and further discussion if warranted. The Engineer will discuss options for necessary action with the Employer although the extent of any works will be dependent on available financing.

10. MATERIAL SUPPLY

10.1 Environmentally Safe Aggregates for Tarawa (ESAT)

The Environmentally Safe Aggregates for Tarawa (ESAT) project is being undertaken by the Government of Kiribati with assistance from the South Pacific Applied Geoscience Commission (SOPAC) under funding from the European Union (EU). The main purpose of the project is to deliver construction aggregates to the people of Tarawa in a sustainable and environmentally sensitive manner and to discourage the current practice of uncontrolled 'beach mining' and hence inhibit the on-going coastal erosion that is taking place. Under the auspices of the ESAT project a 'local' company, Te Atinimarawa Co. Ltd. (TACL), has been established to carry out implementation of the arising commercial activities.

During the design phase, and preparation of bid documentation, there was much discussion and communication on the use of local materials (colloquially referred to as 'reef-mud') and whether or not such materials could be obtained from 'borrow' and used in the Works. The initial position, due to the environmental categorisation of the project, was that such use could not be permitted. Subsequently this was relaxed and the Bid documents were prepared on the basis that the Contractor was not allowed to carry out any 'borrow' under the KRRP contract but would be able to use 'local' materials supplied by others (who had the requisite environmental licences in place).

At the time of tender it was envisaged that material would be available from 'local' suppliers (as previously reported). Attempts have previously been made to have the KRRP contractor enter into separate contract arrangements for excavation of the main access channel but, apart from some limited activities on a smaller 'docking' channel (primarily for bedding sand), these have not resulted in any firm commitment or contractual agreement.

TACL, for its own operational purposes, needs a channel and a basin excavating through the reef so that the dredger has 24hr-access to the shoreline. However, TACL does not have the equipment to carry out this work and, without financial assistance, has no prospect of purchasing equipment in the near future due to financial constraints.

The Employer continues to have discussions with TACL in regards to the likelihood that materials, suitable for use on the KRRP, will be available in the foreseeable future. Government has also been exploring other options to excavate the channel for TACL although, at the end of March 2014, there is still no agreement in place.

During December 2013 the Contractor's Regional Manager visited the site and, although previous discussions had led the Contractor to steer away from any separate contract arrangement, gave an indication that this position might be reconsidered subject to certain conditions. The main conditions were that the Contractor would be paid for all the material that is extracted (whether used in the road or not), that there would be some revision of environmental licence conditions to suit the proposed extraction methodology and that the arrangement will not be subject to tax.

The Contractor subsequently submitted a proposal, to the MPWU on 11th February 2014, for consideration. A timeframe of ~12 months has been estimated as being required for the required excavation. The proposed rate for excavation is AUD 63.41/m³ and, in discussions, the Engineer has advised the MPWU to seek confirmation that this rate also includes any subsequent processing to ensure compliance with requirements for the various roadworks materials (noting that the proposal does state that lease of the TACL yard is for stockpiling and processing).

It is understood that separate proposals have also been provided by the Plant Vehicle Unit (PVU) although the resources, available to the PVU (and their reliability) must be questioned if adverse contractual consequences, as a result of non-performance, are to be avoided (it is unlikely that the PVU

have any 'processing' equipment available). A decision on how to procure the required works has not been reached as Government and TACL continue to vacillate on the way forward.

Given current timings it now seems unlikely that sufficient material will become available to replace imported base course and offer savings (say ~AUD 2m). Given the slow start to the project the Government has, up to now, had some leeway in the time needed to firm up arrangements. However, the current situation now dictates that decisions are required in weeks, not months, as there will still be considerable lead time (if the KRRP contractor is to undertake the required works) for procurement and mobilisation of equipment to the site.

This was the position at the end of the period under review and the issue of the supply of local material would still appear to be some way off from being resolved. The financial implications if material does not become available will be an increase, depending on circumstances, of the contract price of about AUD 2-4 million (as previously reported).

10.2 Imported Crushed Stone Basecourse

The Contractor requested, on 8th November 2013 (with additional information on 2nd December 2013), that the Engineer consider a change to the specification for crushed stone basecourse to allow the use of the TNZ M4 specification that is used in New Zealand (together with other supporting technical documentation). No specific reason was given for this request but, based on supporting statements and information provided by the Contractor, it appeared that the source rock of the quarry in Fiji (from which the Contractor hopes to obtain material) is hard and hence the material being produced is deficient in generated fines (the finer material is screened off and it is only the coarser material that is then crushed). As a consequence the Contractor has been experiencing some difficulties in achieving required grading requirements.

Following various discussions, communications and further support information the Engineer recommended to the Employer that the proposed specification be adopted (on the understanding that there would be no additional cost implications as a direct result of the change) and this was accepted by the Employer. The Contractor was subsequently instructed on the required contract variation on 29th March 2014. The Variation effectively replaces section 3500; *Crushed Stone Base* of the Specification with the following documents:

- Transit New Zealand (TNZ) 'M/4':2006 (for basecourse aggregate),
- accompanying 'notes' to Transit New Zealand (TNZ) 'M/4':2006, and
- associated TNZ B/2:2005 (for construction of unbound granular pavement layers)

The Variation did stipulate that certain aspects of the 'original' specification be retained and aspects of the 'new' specification needed addressing. The Contractor has been asked to formally 'accept' the various items that had been highlighted, prior to the variation becoming effective, and this is currently awaited.

10.3 Supply of Material from MPWU

In February 2014 the MPWU was requested, by the Engineer, to consider if it would be possible to provide some local coralline material to the Contractor from the borrow sites operated by the MPWU (and for which Environmental Licences has been issued). This was initially agreed to although the mechanism of how such an arrangement might be managed required further discussion and agreement.

The Contractor had advised that he required a supply rate of ~100 m³/day whereas the MPWU had indicated they could produce raw material at a maximum of ~60 m³/day. The Engineer did provide comment that material (ex MPWU) could be used to supplement other material that the Contractor could obtain from the existing road (as is provided for in the Bill of Quantities) a stockpile is what is required so that the Contractor can draw from it.

11. WEATHER

11.1 Automatic Extension of Time for Wet Weather

Specification clause 1215 provides a formula for calculating the 'Extension of Time' (EoT) associated with weather conditions that differ from the average conditions (based on available historical records). The EoT is an automatic entitlement that can go up and down during the course of the Contract but the Contract period cannot be reduced if the overall EoT becomes negative. A detailed listing of monthly weather conditions, and EoT entitlements (in calendar days), is presented at Appendix B.

During the design of the works rainfall data was collected from the Metrological Office, Betio and used to determine the 'fixed' elements in a formula established to calculate any extension of time (EoT) entitlement for weather conditions that differ from the historical 'norm'.

Data is being collected from the same station to determine the quantum of any associated EoT.

For the report period weather conditions have been wetter than average although the computed EoT currently remains negative (as a result of the drier conditions experienced during preceding months). The Contract does not permit the overall Contract duration to be reduced but negative figures can be used to off-set against those times when conditions are wetter than average and additional time does become due to the Contractor. To date the current EoT, due to rainfall, stands at 'zero' calendar days.

12. RESETTLEMENT

The Government have been initiating the various requirements of the RP and payment of compensation to Affected Parties has been on-going since late-May 2013. The Engineer has met with the various parties involved in the implementation of the RP and has and continues to liaise with, and assist, the Employer in their dealings with the Lands Management Division (LMD).

During the Donor mission in March 2014 LMD gave a presentation of the current status with respect to compensation payments. At that stage the whole process was deemed to be ~92% complete. The LMD have generally been dealing with issues in a manner that reflects the Contractors programmed needs and sections of the works are available should the Contractor request them.

There are a few areas where LMD are unable to effect payments and these primarily relate to locations where there are on-going ownership or boundary disputes (which are subject to court proceedings).

The Contract does make provision for the extent of the physical works to be set-out two weeks ahead of any construction activity so that LMD have opportunity to ensure, through site inspection, that all affected property has been properly compensated for. During this process it has become evident that additional trees/crops have had to be included (those leaning into the roadway, newly planted, small and not surveyed, or missed) and this is being managed so that entitlements are compensated.

From the Engineers' discussions with Lands Department it is evident that some of those people who had previously 'agreed' to 'stopping' areas have now had a change of mind. The Engineer has been working with officers from Lands Department in regards to identifying alternative positions. In some instances this is possible, in others the 'stopping' area will just have to be deleted. The general outcome will be that some of the 'stopping' areas may not necessarily be as convenient (for 'travellers') as they might otherwise have been. This may result in vehicles stopping on-road (causing blockage to traffic) or in poorly controlled areas off-road (impacting adjacent properties). All required changes to stopping places will be confirmed with Lands Department, at the time Possession of Site is granted (section by section basis), and appropriate instruction provided to the Contractor.

13. POSSESSION OF SITE

The Contractor has requested, and the Employer has granted, Possession of Site for the following locations.

Table 13-1: Details of 'Possession of Site' Requests

Component	Location / Chainage	Date		Comments
		Requested	Granted	
Office and laboratory facilities within the MPWU civil works yard in Betio.	MPWU yard in Betio	8 May 2013	3 June 2013	The Contractor accepted this as fulfilment of the Employers' obligations prior to the Engineer issuing the Contractor with an instruction to 'Commence the Works'.
Betio-Temaiku road	Ch 0+000 to 3+250	10 October 2013	10 October 2013	Contractor application dated 27 September 2013
	Ch 4+700 to 10+000	10 February 2014		Contractor withdrew his request 5 February 2014
	Ch 4+700 to 10+000	27 February 2014	14 March 2014	Contractor application dated 29 January 2014
	Ch 19+000 to 23+900	17 April 2014		Contractor application dated 27 February 2014
Airport Road	Ch 0+000 to 2+230	10 October 2013	10 October 2013	Contractor application dated 27 September 2013
Temaiku Road	Ch 5+000 to 6+100	10 October 2013	10 October 2013	Contractor application dated 27 September 2013
	Ch 0+000 to 5+000 (exc Ch 2+200-2+450)	11 November 2013	11 November 2013	Contractor application dated 4 November 2013. Ch 2+200 to 2+450 was excluded as a possible realignment of the road was under consideration
	Ch 2+200 to 2+450	11 November 2013	4 December 2013	Contractor application dated 4 November 2013.
Bikenibeu Feeder roads	Link 04 Link 05 Link 07	20 January 2014	27 January 2014	Contractor application dated 20 January 2014

It is to be noted that clause 2.1 of the Conditions of Contract requires the Contractor to apply for 'Possession of Site' at least 14 days in advance of the actual date needed.

14. PROJECT COORDINATION

14.1 Service & Utility Providers

Clause 1202 of the Specification requires the Contractor to ‘*work in close cooperation with private owners or public authorities controlling (existing) services*’. The Contractor is working with the owners of the utilities but there are sometimes constraints to getting representatives of the utilities to site when required due to different working hours and transport constraints. Following meetings between MPWU, PUB, Engineer and Contractor this has largely been overcome (with only odd occasions when difficulties arise).

14.1.1 Public Utilities Board

A number of issues have been discussed during meetings with the MPWU and PUB and the current status of these is described hereunder:

Existing chambers across the Betio causeway; During meetings, PUB have confirmed that existing concrete chambers, and associated cabling, along the ocean side are now redundant and no longer needed. The Engineer issued the Contractor with an instruction on how to deal with the redundant chambers.

Existing services; The Contractor continues to express concern over the poor information available in regards to existing services and the impact this might have on safety and programme. The Contract does make provision for the Contractor to search for existing services, where there is some uncertainty, and the Contractor has assigned a team to undertake required investigative work.

The Contractor has been asked to make the results of such investigation available to the Engineer as these works proceed. To date the Engineer has been provided with details for the following sections:

- Temaiku road (Ch 4+600 to 6+100) – this showed a range of services to be at shallow depth (within the roadway) and road levels were raised by 100-150mm to ensure reasonable cover was available, and
- Betio-Temaiku road (Ch 4+700 to 8+000) – this shows some conflict across existing causeways and greater conflict through the more ‘urbanised’ areas (although much of the conflict related to the ‘smaller’ domestic service lines and not the main transmission lines)

Meetings have taken place with the PUB who have offered to assist, wherever possible and practicable, with isolating sections of the works (during times when the Contractor is working through particular sections) and providing on-site assistance.

During the Donor mission (November) issues relating to service providers not having materials available to effect repairs/relocation was highlighted. There was general agreement, at that time, that the Engineer should liaise with the various providers to prepare an initial schedule of materials that could be drawn on to effect repairs etc without there being any great disruptive effect on the works (through lack of such materials). The Engineer has met and communicated with PUB and a list of materials was provided (power and water) in December 2013. Despite reminders on a number of occasions the Contractor has not yet provided the required pricing information.

Road crossings; The Engineer has carried out a joint site inspections, with PUB (and TSKL). Locations for duct crossings (for future services) were agreed and instruction provided to Contractor in the following areas:

Temaiku road,	Ch 4+600 to 6+100 (letter issued 18 th November 2013)
	Ch 0+000 to 4+600 (ITC issued 17 th February 2014)

Airport road, Ch 0+000 to 2+200 (ITC issued 5th December 2013)

14.1.2 Telecom Services Kiribati Ltd

Existing chambers across the Betio causeway; during meetings with the Employer and TSKL it has been agreed that existing covers/lids, which now have lids fused together by rust, will be replaced. The Contractor has been instructed to procure the necessary lids (for incorporation into the covers) and these are now with the Contractors' supplier of precast concrete products (in Fiji) pending confirmation of cover details. Design of the lids, by the Engineer, awaits necessary design brief and formal contract arrangements.

14.2 Kiribati Adaptation Project

14.2.1 Coastal Protection

Issues related to coastal protection works are currently limited to confirmation of Work Scope requirements and these have been reported on at section 9.3.

14.2.2 Water Supply (KAP)

Issues related to water supply works, as reported on at section 9.4 herein, are being coordinated through the Employer with assistance from PUB and KAP-III as appropriate.

14.3 Kiribati Aviation Investment Project

A number of issues have been raised with respect to works that are being proposed under the Bonriki airport upgrade project, notably:

- Fencing (along the south side of runway)
- Stormwater provisions (primarily around the terminal/apron areas)
- Road realignment (western end of runway)
- Coastal works (eastern end of runway – 2 sites)

The Engineer and Employer have liaised with personnel from KAIP on the above matters and mutually acceptable arrangements have been accommodated. The Engineer still requires formal contract arrangements for road realignment works (at the western end of the runway) and final designs for the coastal works (at the eastern end of the runway) are understood to be close to being finalised by T&T.

14.4 South Tarawa Sanitation Improvement Sector Project

On-going developments on the South Tarawa Sanitation Improvement Sector Project (STSISP) have raised issues relating to the proposed replacement of existing valves (and other fittings) and sections of existing pipeline (where leaks are detected). These have been reported on at section 9.5.

PROGRESS ON PHYSICAL WORKS

15. BETIO-TEMAIKU ROAD

15.1 General

15.1.1 Possession of Site

The Contractor currently has 'possession of site' for the following sections of road:

- Ch 0+000 to Ch 3+300, and
- Ch 4+700 to 10+000

15.1.2 Existing Services

Investigations to assess existing underground services have been completed in the following areas:

- Ch 0+000 to Ch 3+300 (necessary instructions provided to Contractor), and
- Ch 4+700 to 6+100 (information currently under review)

15.1.3 Entry upon Land

A separate exercise is undertaken, to inspect 'general' requirements along the existing road (ie primarily resettlement issues but also other aspects which might impact on the works), prior to commencing clearing activities and this has been completed in the following areas:

- Ch 0+000 to Ch 3+300 (necessary instructions provided to Contractor), and
- Ch 4+700 to 5+700 (information currently under review)

15.1.4 Clearing and Grubbing

Clearing and grubbing has, to the limited extent required, been completed from Ch 0+000 to 3+300 (LHS, across the Betio causeway) but has yet to commence in other areas.

15.1.5 Road Maintenance

Road maintenance, in the areas where 'possession of site' has been granted, is being carried out on a routine basis. A grader is being utilised where the road no longer has any bituminous surfacing (for whatever reason) and a gang of manual labour is available to fill in potholes, within surfaced sections, when conditions require.

15.2 Drainage

15.2.1 Ducting

Although not specifically needed for 'drainage' the main focus of works to date has been to install fibre optic ducting along the section of road from Ch 0+000 to 3+300 (across the Betio causeway). To date installation has been completed over a total length of ~3,370m being the full length of the Betio causeway (excluding 50m at the bridge crossing) plus some extension back towards Betio (~120m through the 'toll booth area').

The Contractor has been reminded that test results for trench backfill, provided by the Contractor, do not meet specified requirements and remedial works will be needed before 'covering up' with any pavement works.

15.2.2 Stormwater

Stormwater u-drains, and the outlet structure, have been installed to the 'outfall' at ~Ch 6+450 (~35m).



U-drain outfall



U-drain outlet structure

Betio-Temaiku road - installing u-drain at ~Ch 5+640

15.2.3 Kerbing and Edge strips

No works to date.

15.3 Earthworks

15.3.1 Bulk Earthworks

No works to date.

15.4 Pavement

15.4.1 Sub-base

No works to date.

15.4.2 Basecourse

No works to date

15.5 Surfacing

No works to date.

15.6 Ancillary Works

Repairs to the Betio causeway revetment protection (significant voids beneath the revetment) have been completed. This includes those identified in the T&T report and others that have developed, post report, and become apparent.

16. TEMAIKU ROAD

16.1 General

16.1.1 Possession of Site

The Contractor currently has 'possession of site' for the following sections of road:

- Ch 0+000 to Ch 6+100

16.1.2 Existing Services

Investigations to assess existing underground services have been completed in the following areas:

- Ch 0+000 to Ch 6+100 (necessary instructions provided to Contractor)

16.1.3 Entry upon Land

A separate exercise is undertaken, to inspect 'general' requirements along the existing road (ie primarily resettlement issues but also other aspects which might impact on the works), prior to commencing clearing activities and this has been completed in the following areas:

- Ch 1+300 to Ch 6+100 (necessary instructions provided to Contractor)

16.1.4 Clearing and Grubbing

Clearing and grubbing has been completed from Ch 3+200 to 6+100 but has yet to commence in other areas.

16.1.5 Road Maintenance

Road maintenance, in the areas where 'possession of site' has been granted, is being carried out on a routine basis. A grader is being utilised where the road has no bituminous surfacing and a gang of manual labour is available to fill in potholes, within surfaced sections, when conditions require.

16.2 Drainage

16.2.1 Ducting

Ducts for future fibre optic cable (including jointing chambers), and cross-road ducts, have been installed from Ch 5+000 to 6+100 (RHS).

16.2.2 Stormwater

Stormwater culverts have been installed within the section from Ch 5+000 to 6+000. Inlet/outlet structures are still required.



Stormwater pipes – concrete encased, Ch 5+840



Edge strips – slip formed, Ch 5+450

Temaiku road - installing culverts and kerbs

16.2.3 Kerbing and Edge strips

Concrete edge strips (flush with the road surface) have been installed from Ch 5+400 to 5+600 (RHS)

16.3 Earthworks

16.3.1 Bulk Earthworks

Excavation of unsuitable material, and backfill with approved fill, has been completed from Ch. 5+950 and 6+040 where it was necessary to widen the existing road in an areas of soft/swampy ground conditions.



Treatment of soft ground prior to fill – Ch 5+950



Basecourse – Contractor 'trial', Ch 5+600

Temaiku road – Earthworks & Pavement Activities

16.4 Pavement

16.4.1 Sub-base

The Contractor has prepared sub-base from Ch 5+400 to 5+700 and, following satisfactory inspection and testing, the section has been approved to 'cover up' with basecourse.

16.4.2 Basecourse

The Contractor has placed imported basecourse material (type AP/20 material, as provided for under the new specification) as a trial, from Ch 5+400 to 5+700, to satisfy themselves that specification requirements can be achieved with respect to:

- Material quality, and
- Performance of the basecourse layer

Following installation of the concrete edge strips the Contractor was observed to be backfilling the 'trench', formed each side of the kerb as access for the slip-form machine, in an incorrect manner (wrong material type resulting in inadequate thickness of the imported basecourse layer). Appropriate instruction was provided to the Contractor to effect remedial works and this was actioned with subsequent tests confirming adequate thickness was now available.

16.5 Surfacing

No works to date.

16.6 Ancillary Works

No works to date.

17. AIRPORT ROAD

17.1 General

17.1.1 Possession of Site

The Contractor currently has 'possession of site' for the following sections of road:

- Ch 0+000 to Ch 2+300

17.1.2 Existing Services

Investigations to assess existing underground services have been completed in the following areas:

- Ch 0+000 to Ch 2+300 (necessary instructions provided to Contractor)

17.1.3 Entry upon Land

A separate exercise is undertaken; to inspect 'general' requirements along the existing road (ie primarily resettlement issues but also other aspects which might impact on the works), prior to commencing clearing activities and this has been completed in the following areas:

- Ch 0+000 to Ch 2+300 (necessary instructions provided to Contractor)

17.1.4 Clearing and Grubbing

Clearing and grubbing has been completed from Ch 0+000 to Ch 2+300.

17.1.5 Road Maintenance

Road maintenance, in the areas where 'possession of site' has been granted, is being carried out on a routine basis. A gang of manual labour is available to fill in potholes, within surfaced sections, when conditions require.

17.2 Drainage

17.2.1 Ducting

Ducts for future fibre optic cable (including jointing chambers), and cross-road ducts, have been installed from Ch 0+000 to 1+335 (LHS).

17.2.2 Stormwater

Stormwater culverts have been installed at Ch 2+000. Inlet/outlet structures are still required.

17.2.3 Kerbing and Edge strips

Concrete edge strips (flush with the road surface) have been installed from:

- Ch 0+050 to 0+700 (RHS), and
- Ch 1+050 to 1+200 (RHS)

17.3 Earthworks

17.3.1 Bulk Earthworks

No works to date.

17.4 Pavement

17.4.1 Sub-base

No works to date.

17.4.2 Basecourse

No works to date.

17.5 Surfacing

No works to date.

17.6 Ancillary Works

No works to date.



Airport road – Kerbing Activity, slip-formed edge strips

18. BUOTA ROAD

18.1 General

No works to date.

18.2 Drainage

No works to date.

18.3 Earthworks

No works to date.

18.4 Pavement

No works to date.

18.5 Surfacing

No works to date.

18.6 Ancillary Works

No works to date.

19. BETIO FEEDER ROADS

19.1 General

No works to date.

19.2 Drainage

No works to date.

19.3 Earthworks

No works to date.

19.4 Pavement

No works to date.

19.5 Surfacing

No works to date.

19.6 Ancillary Works

No works to date.

20. BAIRIKI FEEDER ROADS

20.1 General

No works to date.

20.2 Drainage

No works to date.

20.3 Earthworks

No works to date.

20.4 Pavement

No works to date.

20.5 Surfacing

No works to date.

20.6 Ancillary Works

No works to date.

21. BIKENIBEU FEEDER ROADS

21.1 General

21.1.1 Possession of Site

The Contractor currently has 'possession of site' for the following road links:

- Link (04),
- Link (05), and
- Link (07)

Following initial setting out there was some discrepancy with the new road centreline over the first 400m of link 04 (total length ~1,200m). The issue has been resolved and the Contractor has been provided with revised setting out information.

21.2 Drainage

No works to date.

21.3 Earthworks

No works to date.

21.4 Pavement

No works to date.

21.5 Surfacing

No works to date.

21.6 Ancillary Works

No works to date.

22. BETIO REPAIRS

22.1 General

No works to date.

22.2 Repair Area 1

No works to date.

22.3 Repair Area 2

No works to date.

22.4 Repair Area 3

No works to date.

22.5 Repair Area 4

No works to date.

22.6 Repair Area 5

No works to date.

22.7 Repair Area 6

No works to date.

22.8 Repair Area 7

No works to date.

23. BETIO CAUSEWAY BRIDGE

23.1 General

No works to date.

23.2 Sub-structure

No works to date.

23.3 Super-structure

No works to date.

24. COASTAL PROTECTION WORKS

24.1 General

24.2 Betio-Temaiku Road

No works to date.

24.3 Temaiku Road

No works to date.

24.4 Airport Road

Coastal protection works consisting of sand cement bags has been completed from:

- Ch 0+400 to 0+435 (LHS), and
- Ch 0+800 to 1+580 (LHS)



Airport road – Coastal protection works at ~Ch 1+400

25. WATER SUPPLY

25.1 General

25.2 Pipeline

The new 200mm water main has been installed along the main Betio-Temaiku road from Ch 0+000 to 3+050 (across the Betio causeway). To date installation has been completed over a total length of ~3,120m being the full length of the Betio causeway (excluding 50m at the bridge crossing) plus some extension back towards Betio (~120m through the 'toll booth area').

The Contractor has been reminded that test results for trench backfill, provided by the Contractor, do not meet specified requirements and remedial works will be needed before 'covering up' with any pavement works.

25.3 Valves and Chambers

No works to date.

25.4 Testing and Commissioning

Testing of the water main has been completed from Ch 0-120 (ie ~120m to the Betio side of Ch 0+000) to Ch 0+560 with satisfactory results.



Trench installation – Betio causeway



Pressure testing of section of 'completed' main

Betio-Temaiku road – installation & testing of water transmission main

ISSUES RESULTING FROM THE WORKS

26. HEALTH & SAFETY

26.1 General Works

The Contractor has provided a formal document outlining the procedures that will be put in place to provide for the health and safety of its' employees and other visitors to areas where work activities are on-going. Issues related to safety are dealt with in a number of ways, notably through:

- Site safety inductions (278 to date),
- Pre-start meetings (549 held to date),
- Toolbox meetings (339 to date), and
- Safety inspections (44 to date)
- Job Safety & Environmental Hazard Analysis (15 to date)

The Contractor has advised that many of the documents used in the safety inductions are in the process of being translated into the local language. A 'Safety Committee' has been established by the Contractor, from within his own workforce, and the committee has met on 3 occasions to date. The Contractors procedures are subject to 'internal' audit of which there have been 2 to date. The Contractor has advised that he will make the audit reports available to the Engineer and these are awaited.

There have been a number of minor incidents/accidents to date although none have resulted in serious injury. The Contractor has arranged, with the Kiribati Red Cross, to conduct 'work place' First Aid training courses for selected members of the senior workforce (the Engineer has been invited to send selected members of his staff).

26.2 HIV/AIDS Campaign

The Contractor has an agreement with the Kiribati Family Health Association (KFHA), in regards to required awareness campaigns for HIV/AIDS. The KFHA are a Government 'approved' supplier of such services, as set out at clause 6.7 of the Conditions of Contract (Particular Conditions) and campaigns have been established to conform to World Bank requirements. There had been some confusion over what is to be included in the IEC campaigns (as explained at section 2.2.13) and although this was thought to have been resolved the KFHA continue to underperform in regards to the production of required information and reports.

Campaigns have been conducted during the report period (being run bi-monthly) with the programmes being well attended and received. To date there has been a total of 5 IEC campaigns undertaken.

26.3 Unexploded Ordnance

The Contractor has not yet concluded negotiations with 'History Flight', an American organisation searching for 'lost' servicemen, for activities associated with UXO surveys. History Flight have been active in Tarawa for a number of years and, apart from their involvement in searching for lost servicemen, do have the capability and capacity to undertake services associated with UXO detection surveys and disposal. The Engineer has so far not been appraised of any formal agreement but a copy of a 'Standard Safety Operating Procedures' document, prepared by History Flight', has been informally provided.

27. ENVIRONMENT

27.1 Environmental Management Plans

The latest Environmental Management Plan (EMP rev 4), prepared by the 'Design & Supervision Consultant' (DSC), was approved by the Donors and Employer in December 2013 and remains current. The Employer uploaded the document to their own web-site, as part of the disclosure exercise, and distributed a copy to ECD and Donors for them to do likewise.

The Contractor has provided their Contractors' Environmental Management Plan (CEMP) as reported at section 2.2.12. There have been a number of versions of the CEMP, during the preparation and review process, and CEMP (rev H) was approved, for the purposes of commencing the works, by the Employer and Engineer in October 2013.

The Contractor had been advised that the following key issues needed to be addressed in future updates:

- Coastal Protection Works; to provide measures needed once final design details become available,
- Asphalt facility; to address general requirements (needed to facilitate ECD approval for operations)
- UXO identification & storage; to address issues related to handling and risk mitigation, and
- Betio causeway bridge works; environment and health risks (working at height over open water)

The Contractor has provided the following documentation in respect to environmental management:

- Details of the asphalt plant and an explanation of its' operation; 14th January 2014,
- Updated CEMP (rev I); 13th February 2014, and
- Details of managing water quality issues; 13th March 2014 (in response to ECD request)

The Engineer has reviewed the latest CEMP and provided comments to the Contractor on 11th March 2014. Not all of the issues that have been identified as being in need of further action have been implemented but the Contractor has advised that these will be attended to in future updates. There is general acknowledgement that the CEMP is a 'living' document that will be amended and developed, to cater for specific activities as appropriate, as the Works progress. The CEMP is supported by other documentation, notably:

- Job Safety & Environmental Hazard Analysis (JSEA), and
- Environmental Protection Instructions (EPI)

27.2 Imported Materials

The Contractor has, to date, imported 'processed aggregates' to Tarawa (5 shipments), notably:

- sands & aggregates for temporary works, and
- aggregates for trialling as basecourse

Prior to commencing transshipment of such materials the Engineer discussed biosecurity issues, with the Contractor, to ensure proper procedures were in place. A suggestion was made that officers from Kiribati visit the source(s) of material (at the country of origin) and place(s) of any pre-treatment prior to shipment.

The Contractor did make such arrangements, for materials to be sourced from Fiji, immediately prior to the first shipment being made. Supply sources were inspected and the fumigation process explained and observed. The Biosecurity Service from the Agriculture and Livestock Department, MELAD subsequently prepared a report of the visit (29th August to 8th September 2013). In accordance with Biosecurity Act 2011, MELAD have issued a 'Permit to Import Soil, Sand & Gravel' (No.05/13) for aggregates needed for various uses (totalling ~78,000 t). Prior to departing Fiji each shipment is treated and provided with a 'Fumigation

Certificate'. On arrival in Kiribati the importer is required to provide the Customs and Port officials with the necessary certification prior to being allowed to offload any materials.

During the March 2014 Donor mission the above was briefly outlined and it was explained that the Contractor had been asked to provide copies of the relevant certificates (they were not available at that time although it is to be noted that the procedures in place do offer safeguards against unauthorised import). Subsequently the Contractor has provided the various certificates and copies are included at Appendix C together with the import permit issued by MELAD.

27.3 Incidents

Few 'environmental' incidents have been reported by the Contractor to date. Recently (March 2014) there were 2 occasions where there was some spillage of hydraulic fluid (burst hoses) and spill kits were promptly deployed to the areas in question and any hazardous material (including contaminated material) was collected, secured and is now stored to be disposed of 'off island' at a later date.

28. QUALITY CONTROL

The Contractor has provided a Quality Control Plan (QCP) but, as reported at section 2.2.12, the Engineer considers that some update will need to be carried out to align the document with particular requirements of the Contract. The Engineers QA Engineer is liaising with the Contractor on this matter.

The Contractor has now engaged a 'laboratory manager (March 2014) and has advised that he will be preparing a 'Laboratory Management Plan' (LMP) that will be specific to the requirements of the KRRP. The LMP has not yet been submitted.

The Contractor is proceeding with some permanent works activities but it has been made clear to him that works cannot be 'covered up' until such time as proper quality control has been exercised and the works are considered acceptable. The Engineer has emphasised to the Contractor, on a number of occasions, the need to provide:

- Laboratory/field test result data sheets on a routine basis, and
- Certificates for materials delivered to the site

29. TRAFFIC MANAGEMENT

The Contractor has provided a Traffic Management Plan (TMP), as reported at section 2.2.12. Some provisions of the TMP have been utilised for works of a 'temporary' nature (ie single and dual lane controls during piloting for existing services, some 'trimming' of overhanging trees and certain road maintenance activities) and appear to be working well with public traffic complying with measures that have been initiated.

The Contractor is utilising the services of a local 'security' firm for traffic safety personnel and, to date, they have generally demonstrated a good command of requirements and satisfactory performance levels.

30. VARIATIONS

A summary of all Contract variations (and their status) is provided at Appendix D, together with formal communications relating to instructed variations during the report period. Each has been assigned a 'variation' number for future reference, including expected variations that are under discussion but have not yet been finalised and authorised.

30.1 Variation No.1 - Work Scope (1) Changes

The variation order was issued on 9th September 2013 and covers various work scope changes as previously reported.

The financial impact of this variation is estimated to be a reduction of AUD 1.35 million

30.2 Variation No.2 - ESAT Materials for pavement

A potential contract variation to cover issues discussed at section 10.1.

The schedule in the KRRP Bill of Quantities (BoQ) was prepared on the basis that only 'some' material would be available from ESAT (or other local suppliers) and this would have to be supplemented with material 'won' from the existing road (primarily for regulating areas of existing coral basecourse) and 'imported' aggregates. This offered some flexibility in the event that more, or less, material from ESAT became available.

Once there is clarity on the ESAT situation the Engineer will reassess the situation and prepare necessary documentation (together with an assessment of cost implications), for consideration and approval by the Employer, before issuing the same to the Contractor.

In the event that the current situation with ESAT changes (now or in the future) further instruction can be given to the Contractor. The Contractor can be expected to raise a number of contractual issues associated with any subsequent changes and these will be dealt with, in accordance with the Contract, as and when received.

The financial impact of this variation cannot be determined until such time as clarity can be provided on whether material is available or not (potential implications are however reported on separately at section 10.1).

30.3 Variation No.3 - Betio Causeway Repairs

The variation order was issued on 9th September 2013 and covers remedial works needed to the existing concrete revetment protection across the Betio Causeway as previously reported.

Estimated financial impact is to increase the contract price by 80,000 AUD

Given the on-going deterioration of the causeway revetment protection consideration does now need to be given towards a longer term solution in order to ensure continuing stability of the causeway (as reported at section 9.2). The Donors have indicated that any such work will not be carried out under KRRP.

30.4 Variation No. 4 - Coastal Protection Works

Issues are as reported at section 9.3 and, due to timing issues, the proposed changes will now be issued under more than one variation (as sub-components). It is likely that separate variations will be needed for:

- Amended works at coastal protection sites 1 & 5,
- Amended works at coastal protection sites 10 & 11,
- Extra works at sites coastal protection sites 15 east & 15 north, and
- Deletion of works at some sites where works are no longer required (under KRRP)

Variation 4a, Amended works at coastal protection sites 1 & 5; issues are as reported at section 9.3.1 and advice from the Employer, in regards to the Donors 'no objection', is required before appropriate action can be taken by the Engineer. A priced proposal has been received from the Contractor and amounts are as follows:

Direct costs (associated with physical costs)	AUD 2,175,427.34
Indirect costs (for prolongation of ~5 months)	AUD 2,686,835.22

The proposal is under review by the Engineer (further details have been requested) and, if agreement cannot be reached, a dispute will arise that will be dealt with in accordance with Contract provisions.

Variation 4b, Deletion of Works - Betio-Temaiku Road Ch 5+100 (lagoon side); issues are as reported at section 9.3 and covers the deletion of works that are no longer required (the beach has replenished at this location).

There is no significant financial impact from this variation (directly there will be a resultant small reduction in cost however it is likely that this will be outweighed by the increased work scope in other areas and/or other works that are being considered for other coastal work components under this variation).

30.5 Variation No 5 - Water Valve Fittings

The variation order was issued on 9th September 2013. Its purpose is to standardise valves that will be installed under KRRP water supply items with those being planned for installation under KAP-III.

The financial impact will be an increase of AUD 11,575.

30.6 Variation No. 6 - Solar Street Lighting - LED lighting

The variation order was issued on 4th December 2013 and covers the change in type of street lighting from 'sodium' based to 'LED' based technology, as previously reported.

There is no financial impact from this variation.

30.7 Variation No. 7 - Valve Chambers (KAP)

Issues are as reported at section 9.4 and advice from the Employer is required before appropriate action can be taken by the Engineer. The scope of work now being put forward for execution under this variation is significantly higher than initial indications when it was first brought up.

The Employer should anticipate a significant claim for extension of time as well as extra costs when the final variation is issued. Any such claim will be reviewed and dealt with under the terms of the contract.

30.8 Variation No. 8 - Valve Chambers (STSISP)

Originally intended as a part of VO 7, the lack of progress with identifying the scope and details of this proposed variation, to cover issues discussed in section 9.5, will now be treated as a separate matter.

The Employer should anticipate a claim for extension of time as well as extra costs when the final variation is issued. Any such claim will be reviewed and dealt with under the terms of the contract.

30.9 Variation No. 9 – Basecourse Specification

The variation order was issued on 29th March 2014, to cover a change in basecourse specification as reported at section 10.2, subject to the Contractors' acceptance of various conditions. Such acceptance as yet to be received.

There is no financial impact from this variation.

30.10 Variation No. 10 – Deferral of Betio Causeway Pavement

The variation order was issued on 31st March 2014 and covers the deferral of pavement works, across the Betio causeway, as reported at section 9.2.

The Employer should anticipate a significant claim for extension of time as well as extra costs when the Contractor resubmits a revised Works programme. Any such claim will initially be reviewed by the Engineer and dealt with under the terms of the contract.

31. CLAIMS

31.1 Potential

There are a number of Contract variations pending, as reported at section 30, and if/when they are issued to the Contractor there is a likelihood that some will attract Contractual claims (for additional time and associated costs).

Additional costs associated with 'delays' are provided for under Specification clause 1303 and specifically Pay Item 13.01 (b) 'Maintenance of the Contractors Establishment' which stipulates that *"In the event of an extension of the Contract period being granted by the Engineer (excluding any extension for which the Contractor is not entitled to costs, eg. extensions pursuant to Clause 1215 of the Specification) then payment shall be due at the lump sum rate per month for an extension not exceeding three months. Thereafter, costs associated with time extension shall be determined as provided for by the contract."*

The amount assigned, by the Contractor, against Pay Item 13.01(b) is Australian Two Hundred and Ninety Thousand Nine Hundred and Five Dollars and Seventy-Nine Cents (AUD 290,905.79) per month ie an amount of ~\$10,000/day (for each day of delay). It is to be noted that such amount would need to be re-negotiated with the Contractor for delays beyond the three (3) month time span stipulated.

A summary of Contract 'claims', and their status, is provided at Appendix E.

31.1.1 Material supply by ESAT

The nature of the Contract variation that is likely to be considered is such that a Contractual claim from the Contractor can be expected and that this will be for additional time and costs (time and works related). The quantum of any claim cannot be assessed until such time as details can be confirmed.

31.1.2 Coastal Protection

The nature of the Contract variation that is being finalised is such that a Contractual claim from the Contractor can be expected and that this will be for additional time and costs (time and works related).

31.1.3 Valve Chambers (KAP)

The nature of the Contract variation that is being finalised is such that a Contractual claim from the Contractor can be expected and that this will be for additional time and costs (time and works related).

31.1.4 Valve Chambers (STSISP)

The nature of the Contract variation that is likely to be considered is such that a Contractual claim from the Contractor can be expected and that this will be for additional time and costs (time and works related).

31.2 Notices

The Contractor has provided notice of additional claims during the report period.

For future reference all contractual 'claims' will be assigned a 'claim number' with the following being a summary of those received to date:

31.2.1 Claim No.01; Work Scope (1)

Issues of a changed work scope, leading to the Contractor providing notice of a claim on this issue (NTC 047 dated 7th June 2013) have now been finalised (under variation no.01). At this time the Contractor has provided no indication that this claim will be pursued.

31.2.2 Claim No.02; Betio Causeway Remedial Works

Issues related to remedial works required to damage of the concrete revetment protection along the causeway, leading to the Contractor providing notice of a claim on this issue (NTC 029 dated 22nd August 2013), have now been finalised (under variation no.03). At this time the Contractor has provided no indication that this claim will be pursued.

31.2.3 Claim No.03; Damage to Betio Causeway

Issues related to three localised failures in the Betio causeway concrete revetment protection, leading to the Contractor providing notice of a claim on this issue (NTC 103 dated 3rd February 2014) have largely been dealt with, through works undertaken by the Contractor and the MPWU, but the MPWU have yet to complete more robust repairs as a 'follow up' (there are signs of further scour now taking place). At this time the Contractor has provided no indication that this claim will be pursued.

31.2.4 Claim No.04; Deferral of Pavement Works across Betio Causeway

Issues related to deferral of pavement works across the Betio causeway, instructed as variation no.10, has led to the Contractor providing notice of a claim on this issue (NTC 132 dated 25th March 2014). Whilst this is a recent emerging situation it should be expected that there will be some merit in any Contractor claim for additional time and this will be assessed, in accordance with Contract provisions, once an updated programme (that has been requested) is made available. A claim will likely only eventuate if the Contractors' updated programme shows a prolongation of the Contract period that is deemed not acceptable.

31.3 Under Consideration

To date there are no Contractual claims under 'consideration' (ie under a review process).

31.4 Approved

To date no Contractual claims have been 'approved'.

32. DISPUTE BOARD

Issues relating to the establishment of a Dispute Board (DB) are as reported at section 2.2.9. Mr Firth (the appointed candidate) has visited the site (from 18th to 21st January 2014) to familiarise himself with the site and to meet with the Employer, Engineer and Contractor. The Engineer has provided Mr Firth with copies of relevant site correspondence (on DVD) and Mr Firth has submitted a brief report on his visit to the project.

At the time of the first visit there were no specific issues that needed to be addressed. Mr Firth is next scheduled to visit the site in April/May 2014 (TBC).

33. PAYMENTS

33.1 General

The KRRP Contract was awarded for the '*Accepted Contract Amount*' of Australian Forty-Eight Million One Hundred and Ninety-Seven Thousand Nine Hundred and Fifty-Seven Dollars and Twenty Cents (AUD 48,197,957.20) and it is to be noted that such sum was derived using unit rates and prices that excluded local taxes and duties. It is also to be noted that such amount is not a 'Lump Sum' and the final 'Contract Price' will be determined according to the actual works undertaken and measured and evaluated in accordance with the provisions of clause 12 of the Conditions of Contract.

Clause 14.3 of the Conditions of Contract does make provision for amounts to be deducted for Retention. Such amounts are based on ten percent (10%) of the amount due, under any Certificate (excluding the Advance Payment), to a maximum amount of five percent (5%) of the '*Accepted Contract Amount*'. Retention is repaid on Practical Completion (50% on issue of the Taking Over Certificate) and Contract Completion (50% on issue of the Performance Certificate) with provision for the Contractor to provide a 'Bond', in lieu of Retention, for the 50% still held after Practical Completion.

Although amounts due to the Contractor will be certified entirely in Australian Dollar (AUD) payments to the Contractor will be made in the various currencies, and at the designated exchange rates, nominated by the Contractor in their Bid.

As highlighted by the Engineer, during the November-13 and March-14 Donor missions, the Government of Kiribati intends to introduce 'Value Added Tax' (on 1st April 2014). Exactly how this might be enacted, and the implications with respect to the KRRP, are currently uncertain. Guidance from the Employer will likely be needed on this issue.

33.2 Interim Payment Certificates

In accordance with clause 14.3 of the Conditions of Contract the Contractor has submitted eleven (11) statements as an Application for Interim Payment Certificate (No.12 is due at the start of April 2014). The Engineer, pursuant to clause 14.6 of the Conditions of Contract, has subsequently issued Interim Payment Certificate (IPC) Nos. 01 to 11 for amounts that have been deemed to be fairly due to the Contractor, in accordance with the Contract, for activities carried out. Notwithstanding issues that delayed payment on IPC No.01 subsequent IPC's (Nos. 02 to 10) have, apart from some delay to IPC No.04, generally been processed with no apparent difficulties. A summary of all IPC's issued to date, together with copies of IPC's issued during the report period, is included at Appendix F.

33.3 Cost Fluctuation

Cost Fluctuation adjustment is allowed under clause 13.8 of the General Conditions of Contract and the Particular Conditions state that the first adjustment is due 6 months after the closing date for bids, with adjustment factor amended every three months thereafter.

There are no schedules bound into the Contract Documents although the Contractor did supply indices during pre-Contract Award negotiations. Despite being reminded to do so, the Contractor has so far presented no indices for review and approval although this can be expected (possibly once it has been compiled). There are no time limitations (other than that mentioned above) on applying price adjustment to payments due (and can be back-dated, to past certificates, as they do only represent interim assessments which can be 'corrected' by subsequent certificates).

34. OVERALL STATUS

34.1 General

Giving due regard to the various issues reported on herein, some of which still require further action, the KRRP project does continue to progress forward albeit not at the rate that had been anticipated. Following the establishment of a formal Contract 'Commencement Date' of 1st July 2013, the Contractor has proceeded to confirm contracts for material supplies. The particular circumstances of working in Kiribati do involve certain logistical difficulties and 'lead' time for delivery of materials is generally of the order of two (2) to three (3) months.

34.2 Physical Works

There have been limited permanent physical works to date (due to reasons reported herein). There are signs of improvement in general progress and, once works have progressed sufficiently, schematic diagrams (actual and scheduled works) and progress graphs (actual vs scheduled works) will be prepared to show the status of the various road works activities, for the separate road components, together with general summaries of the percentage completion for key work activities on a section-by-section basis. Such information will be included as an Appendix in subsequent reporting.

34.3 Financial Position

The quantum of Interim Payment Certificates issued to date amounts to Australian Ten Million Six Hundred and Sixty-Eight Thousand Seven Hundred and Eighty-Four Dollars and Thirty-Five Cents (AUD 10,668,784.35). The amount certified includes deductions for Retention which currently stands at Australian Six Hundred and Twenty-Two Thousand Eight Hundred and Sixty Dollars and Seventy-Four Cents (AUD 622,860.74).

It is to be noted that the Contract Conditions do allow payment for certain 'Materials on Site', as reported at section 5.5.1, and currently this amounts to Australian Two Hundred and Forty-Three Thousand Two Hundred and Forty-One Dollars and Ninety-Four Cents (AUD 243,241.94).

Following the issue of instructions to the Contractor in respect of 'approved' variations, as described at section 30, the Contract Price has been adjusted and currently stands at Australian Forty-Six Million Eight Hundred and Fifty-Eight Thousand Seven Hundred and Fifty-Five Dollars and Fifty-Two Cents (AUD 46,858,755.52).

Although there are a number of other Contract variations pending, as set out at section 30, these have so far not been formally prepared and issued. Once clarifications have been provided the various issues will be assessed and the cost implications associated with the various variations reported on. Likewise, although the Contractor has provided due 'notice' of potential Contractual claims, as reported on at section 31, full and detailed particulars are not available at present and issues will be assessed and reported on in due course.

34.4 Completion Date

The automatic Extension of Time (EoT) that arises from weather conditions, as reported at section 11.1, will be calculated from the Commencement Date that has been established as 1st July 2013. To date the EoT due to adverse weather conditions stands at 'zero' calendar days. There have been no other causes that currently warrant an EoT so the date for Practical Completion (issue of the Taking Over Certificate) stands at 22nd May 2015 and, following the Defects Notification Period, for Contract Completion (issue of the Performance Certificate) stands at 21st May 2017.

34.5 Completion of Physical Works vs Elapsed Time

Following receipt by the Contractor, of an instruction from the Engineer, the Commencement Date has been established as 1st July 2013. Issues related to the Contractors' proposed asphalt subcontractor (Blacktop) entering receivership have had an impact on scheduled commencement of asphalt works. Logistics surrounding the supply of materials has also impacted on the Contractors' ability to proceed with pavement

works. A Commencement Date has however been established and this allows an assessment to be made of the status of the physical works against the elapsed time. Assessment of physical works, together with the progress graphs, will provide a good indicator of the overall status of the project.

34.5.1 Physical Works

The current status of physical works (on a financial basis), excluding General, Dayworks and Provisional Sums, and adjusted for instructed variations, is set out at Table 34-1.

Table 34-1: Status of Physical Works

Bill Series	Amounts (AUD)				Completion %
	As Bid	Variations	To Complete	To Date	
Drainage	4,930,764.15	-132,624.00	4,798,140.15	138,538	2.9
Earthworks	613,730.00	0.00	613,730.00	15,814	2.6
Pavement	7,901,230.00	-132,624.00	7,716,081.40	0.00	0
Surfacing	14,987,282.20	-1,544,828.00	13,442,454.20	0.00	0
Ancillary	4,596,370.77	511,824.22	5,108,194.99	8,826	0.2
Structures	1,106,239.54	0.00	1,106,239.54	287,479	26.0
Water	1,008,230.35	11,574.70	1,019,805.05	102,063	10.0
Totals(1)	35,143,847.01	-1,286,677.08	33,804,645.33	552,720	1.6
Materials on Site				243,242	
Totals(2)				795,962	2.4

The 'totals to date' include amounts certified through to end of February 2014 and amounts applied for, by the Contractor, for March 2014 (excluding pavement works which have not yet been approved).

34.5.2 Elapsed Time

The current status of elapsed time is set out at **Error! Reference source not found..**

Table 34-2: Elapsed Time

Period	Description	Date	Time (calendar days)
To Complete	Contract Period		690
	Extensions of Time		0
	Revised Contract Period		690
To Date	Commencement Date	1 st July 2013	
	Effective Report Date	31 st March 2014	
	Elapsed Time		273
	Elapsed time less 90 day mobilisation		183
Completion (%) – elapsed time			40
Completion (%) – elapsed time less 90 day mobilisation			26

The adjustment for 90 day mobilisation is made to reflect the lack of 'General' items in the assessment of physical works.

34.5.3 Cumulative Record

An overview of the cumulative status of the KRRP is presented at **Error! Reference source not found..**

Table 34-3: Overview of Project Status

	Percentage Completion (%)								
	2013			2014				2015	
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Physical Works									
Exc Materials on Site	0	0	0.2	1.6					
Inc Materials on Site				2.4					
Elapsed Time									
Elapsed time	0	13	22	40					
Elapsed time – 90 days				26					

There is obvious concern over the poor progress to date and this is an issue that has been taken up with the Contractor. The Contractor accepts that issues with his asphalt subcontractor have delayed specific construction activities however he is taking steps to improve performance and continues to advise that completion of the Works is still being targeted for the scheduled time in May 2015.

35. PROJECTED COST TO COMPLETION

The KRRP Contract is an 'add-measure' contract based on a Bill of Quantities prepared at the time of inviting bids. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment (and hence final cost) will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer and valued at the rates and prices tendered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix within the terms of the Contract.

Depending on site conditions and circumstances instructions may need to be issued that will either increase or decrease quantities (and hence costs) as works are progressed. It is not anticipated that quantities will be reassessed for every instruction that is issued however the Engineer will monitor the progress of the works and, when required, will review outstanding remaining works (in conjunction with completed works) in order to keep the Employer apprised of the potential final cost to complete the Works.

Given the limited progress to date on physical works, the expectation remains that the current quantities in the Bill of Quantities, as may have been revised by formal contract variations, will not change significantly. To overcome difficulties with existing underground services along the Temaiku road (lack of cover) it has been necessary to instruct the Contractor to raise finished road levels by 100-150mm (throughout the section from ~Ch 4+700 to 6+100 ie the section which runs parallel to the adjacent airport runway) requiring additional fill/sub-base of ~2,500 m³ at a cost of around AUD 20-25,000 (assuming coral materials are available from a local supplier). There has also been a need to instruct the installation of some stormwater culverts along the Temaiku and Airport roads, in the vicinity of the airport runway/terminal (to accommodate pending improvements under KAIP), at a projected cost of ~AUD 25,000.

Detailed below are projected 'costs to completion' on the basis that Variations currently pending are eventually instructed:

Table 35-1: Projected Costs to Completion

Ref	Details	Amount (AUDx10 ⁶)	Comments
1	Current estimated cost at completion	47.0	Includes instructed Variations
2	Potential Variations		
2.1	KAP issues		
	Coastal works, Sites 1 & 5	2.2	Based on Contractor price proposal (for physical works only)
	Coastal works, Sites 10 & 11	1.5	Based on T&T range of estimates.
	Chambers	1.0	KAP estimate
	Sub-total (2.1)	4.7	
2.2	KAIP issues		
	Coastal works, Site 15	1.0	KAIP budget provision
	Road realignment	0.2	Estimate using KRRP rates (type of basecourse material to be confirmed)
	Sub-total (2.2)	1.2	
2.3	ESAT/TACL (coral) material supply	4.0	If 'local' coral materials do not become available.
	Sub-total (2.3)	4.0	

2.4	STSISP issues		
	Chambers	0.3	Estimate – work scope not yet defined
	Sub-total (2.4)	0.3	
2.5	Extensions of Time		
	4 to 6 months	2.0	For Variations instructed without seeking price proposal. Say 5 months EoT; 3 months @ \$300k and 2 months @ \$500k Completion would be Nov/Dec 2015
	3 months	1.5	Impact of seeking price proposal prior to instructing Variation Completion would be Feb/Mar 2016
	Sub-total (2.5)	3.5	
2.6	Price Adjustment	3.0	This is an entitlement rather than a Variation (based on ~5% of final Contract Value)
	Sub-total (2.6)	3.0	
3	TOTAL	63.7	
4	Accepted Contract Amount	48.1	At time of Contract Award
5	Additional Cost	15.6	

It is very important that the Employer appreciates that there are likely to be increases in the contract price that, unless alternative arrangements are made, will require financing by the Government of Kiribati. The amendment to coastal protection designs, if formalised by proposed Variations, is likely to lead to cost increases that will significantly exceed the amount of additional funding that is available from KAP III for this purpose (USD 980,000). The situation with cost and funding from KAP for the water supply chambers is as yet not known but it is unlikely that costs will be less than the available funds. There has been no mention to date of funding being transferred from STSISP to cover construction of chambers under KRRP. The worst case scenario with supply of local material from ESAT (ie no local material supply) will require additional financing of about AUD 4m. The impacts of any price fluctuation (as set out under Contract provisions) and costs associated with approved extensions of time resulting from variations or claims (the 'order of cost' of which will be at least AUD 300,000/month) will all be to the Government's account.

Appendix A: Key Materials & Material Suppliers

Schedule of Suppliers of Key Materials and Providers of Services:

[illegible]

Appendix B: Weather

KIRIBATI ROAD REHABILITATION PROJECT - Contract KIR-12/01

WEATHER CONDITIONS : As recorded at the BETIO metrological station

$$V = (N_w - N_n) + \frac{(R_w - R_n)}{X}$$

V - Extension of Time (calendar days)

X - constant (20)

N_w - Actual number of days with >= 10 mm rainfall

N_n - Historical average number of days with >= 10 mm rainfall

R_w - Actual total monthly rainfall

R_n - Historical average total monthly rainfall

DAY	YEAR MONTH	2013						2014												2015					
		J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J
1			8.2	16.0	2.5																				
2			6.6	1.2	29.8					11.2															
3			0.6		8.2		0.2			5.0															
4		0.6					0.4																		
5			2.1		2.2			10.8																	
6								17.6	TCE	6.4															
7		1.5		0.4				23.0	0.6	1.5															
8		2.9			18.3			1.2																	
9					2.3			11.3		19.8															
10							10.9	43.8		4.2															
11		0.5		17.8				24.0	7.0	3.9															
12				2.7	0.2		2.2	18.6	2.4	61.1															
13		0.4		30.0						0.3															
14		18.8		1.9		3.9				0.6															
15		2.8	TCE			0.6			TCE	2.7															
16					0.4		0.9		22.0	80.7															
17		0.3			2.8			10.8	143.9	5.5															
18			0.6	0.8	0.3				0.4	1.5															
19					68.5				3.1	28.4															
20		0.4					4.1			0.2															
21		0.8			2.3		1.4	3.7	0.1																
22		0.1			6.3		1.5	23.7	0.4																
23		TCE					12.6	35.6																	
24		5.1		19.2	8.0	0.1	5.6			4.1															
25		0.1				0.5	0.5			0.2															
26				7.8		4.3		2.5		1.5															
27		3.9			9.1		14.9			9.6															
28							14.0	2.7		25.2															
29			0.2		2.4		45.8	6.1																	
30		11.2	6.8	14.3			24.4	2.1		0.9															
31					2.2					36.4															
Nw		3	1	5	3		6	10	4	7															
Nn		4.5	4.9	3.5	4.0	3.0	5.7	5.3	4.6	6.0	5.2	5.0	4.5	4.5	4.9	3.5	4.0	3.0	5.7	5.3	4.6	6.0	5.2	5.0	4.5
Rw		49.4	25.1	112.1	165.8	9.4	139.4	237.5	179.9	310.9															
Rn		146.7	164.6	122.6	167.5	110.2	205.0	225.7	179.5	205.7	203.3	168.0	160.7	146.7	164.6	122.6	167.5	110.2	205.0	225.7	179.5	205.7	203.3	168.0	160.7
Extension of Time		-4.5	-4.9	1.0	-1.1	-3.0	-3.0	5.3	-0.6	6.3															

TOTAL EoT : -4.5 Days

If the total is negative the time for completion shall not be reduced

Appendix C: Import Permit & Certificates

KIRIBATI GOVERNMENT



MINISTRY OF ENVIRONMENT, LANDS & AGRICULTURE DEVELOPMENT
AGRICULTURAL DIVISION

BIOSECURITY ACT 2011

PERMIT TO IMPORT SOIL, SAND & GRAVEL

TO: McConnell Dowell Construction
P. O B 426
Tarawa
Phone: 9019

Permit Number: 05/13
Type: Multiple

Subject to the provision of the Biosecurity Act 2011, and to the conditions endorsed below, permission is granted to you to import sand and gravel.

Name of Item	Amount in tonnes	Country of Origin
Aggregate (for road pavement)	6500	Fiji
Aggregate (40 mm crushed)	47500	
Sand	15000	
Aggregate (crushed builders mix for concrete)	9000	

Import requirements:

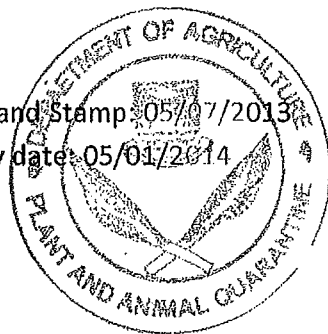
1. The contractor/importer should apply for an import permit to the Division of Agriculture & Livestock (ALD), Ministry of Environment, Lands and Agricultural Development (MELAD) prior to placing an order to a supplier from the country of origin.
2. Upon receipt of the application form, the import permit will be issued to the applicant
3. The contractor/importer should send a copy of the import permit to the supplier at the country of origin who will be responsible in complying with import conditions stated on the permit
4. Upon arrival at the port of entry, the consignment will be inspected to be free from invasive species (pests and seeds of weeds) that have a high risk status prior to release
5. The consignment could only be released once a Biosecurity Officer is satisfied that it is free from contaminants and invasive species

Specific conditions:

1. The sand and aggregates should be taken from a quarry or inland source.
2. They should be taken from a depth of at least 10 - 15 meters deep from the ground level.
3. The consignment should be free from roots, seeds of weeds and insect pests.
4. **Certification** of the location from which the consignment is sourced should be provided from the exporting company with confirmation from Biosecurity Authority or NPPO of the country of origin.
5. Sand & aggregates must be fumigated with Methyl bromide by rate of fumigation:

a) Sand	0 degree Celsius	150g per cubic meter	72 hours
b) Aggregate	0 degree Celsius	70g per cubic meter	72 hours
6. Fumigation should be done at least 1 – 2 weeks prior to shipment.
7. The consignments must be accompanied by an **Original Fumigation certificate**.
8. Sand & aggregates must be **closed** and **sealed** after fumigation has been done.
9. Failure to comply will result in the destruction or re – export of the consignment at the importer's expense.

Date and Stamp: 05/07/2013
Expiry date: 05/01/2014



Signature:.....*RGS*.....
for Director of Agriculture



WG GENERA PACIFIC LTD

SUVA - 82 HARRIS ROAD
P.O. BOX 79, SUVA
PH: (679) 3312 633
FAX: (679) 3236 336

LAUTOKA - LOT 9 ROYAL PALM ROAD, NAVUTU
P.O. BOX 226 LAUTOKA
PH: (679) 666 4090
FAX: (679) 666 3470

WAILEKUTU - LAMI
P.O. BOX 79, SUVA
PH: (679) 3681 190
FAX: (679) 3681 191

Web: www.wgfiji.com.fj

Email: genera@wgfiji.com.fj

FUMIGATION CERTIFICATE

Article Details		Certificate No: 29225	
Description of goods: 1 X BARGE FUMIGATION - AGGREGATES/SAND/CEMENT & PALLETS			
Container/Distinguish markings: 1 X BARGE FUMIGATION			
Country of origin: KIRIBATI	Port of loading: KIRIBATI		
Country of destination: TARAWA	Vessel: MV MAYCON		
Client: PACIFIC MARINE & CIVIL SOLUTION P O BOX 2611 GOVT BUILDING SUVA FIJI ISLANDS		Name and address of consignee McCONNELL DOWELL CONSTRUCTION P O BOX TARAWA	
Treatment Details			
Fumigation standards: Fiji Quarantine Standards	Place of fumigation: ANCHORAGE OUT AT SEA		
Name of fumigant: Methyl Bromide	Total Volume M³ : 1128.9		
Date of fumigation: 4/09/2013	Duration of fumigation: 72Hours	Dosage rate: 150g/m3	
Time of fumigation: 1700	Minimum temp: 21°C	Actual gas reading after release: 5ppm	
Fumigation officer: Alfraz Mohammad	Bio security officer: RONAL PRASAD		
			
Tabuaki Teikabua QUANTITY SURVEYOR & PROJECT ADMINISTRATOR Pacific Marine & Civil Solutions +679 336 3315 P +679 336 3316 F +679 908 7645 M 9-12 Nukunatu St, Lami, Suva: FIJI ISLANDS A PBS GROUP COMPANY		Signature.....	
Fumigation was carried out at ANCHORAGE OUT AT SEA			



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Email: fumigation@wgfiji.com.fj

WAILEKUTU - LAMI
P.O. BOX 79, SUVA
PH: (679) 3681 190 FAX: (679) 3681 191

FUMIGATION CERTIFICATE

Article Details

Certificate No: 29363

Description of goods: BAGS OF SANDS

Container markings: N/A

Country of origin: FIJI ISLANDS

Port of loading: SUVA, FIJI ISLANDS

Country of destination: KIRIBATI

BARGE: M Y CON

Name and address of consignor:

Name and address of consignee:

PACIFIC MARINE & CIVIL SOLUTION

MACONNELL DOWELL

P O BOX 2611

TARAWA

GOVT BUILDING

KIRIBATI

SUVA

FIJI ISLANDS

Treatment Details

Name of fumigant: METHYL BROMIDE

Total Volume: 41.91m3

Place of fumigation: S.C.I.L, YARD

Date of fumigation: 27/10/2013

Duration of fumigation: 72Hours

Dosage rate: 150g/m3@21°C

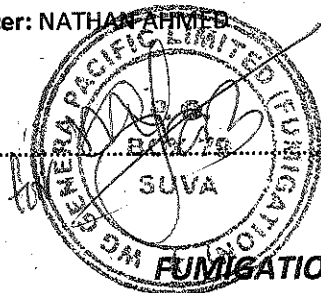
Time of fumigation: 2PM

Actual gas reading after release: 5ppm

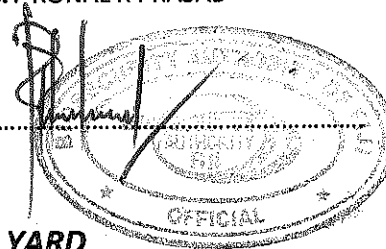
Fumigator officer: NATHAN AHMED

Bio security Officer: RONAL R PRASAD

Signature:



Signature:



FUMIGATION WAS CARRIED AT S.C.I.L, YARD.



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WAILEKUTU - LAMI
P.O. BOX 79, SUVA
PH: (679) 3681 190 FAX: (679) 3681 191

FUMIGATION CERTIFICATE

Article Details

Certificate No: 29378

Description of goods: 1 X STACK ON BARGE - (KERB MIX 584 TONNES)

Container markings: N/A

Country of origin: FIJI ISLANDS

Port of loading: SUVA, FIJI ISLANDS

Country of destination: KIRIBATI

BARGE: MYCON

Name and address of consignor:

Name and address of consignee:

PACIFIC MARINE & CIVIL SOLUTION

MACONNELL DOWELL

P O BOX 2611

TARAWA

GOVT BUILDING

KIRIBATI

SUVA

FIJI ISLANDS

Treatment Details

Name of fumigant: METHYL BROMIDE

Total Volume: 570 m3

Place of fumigation: AT SEA FUMIGATION BAY

Date of fumigation: 6/11/2013

Duration of fumigation: 72 Hours

Dosage rate: 150g/m3@21°C

Time of fumigation: 8.30PM

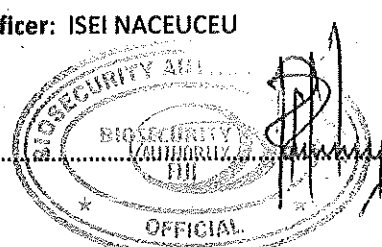
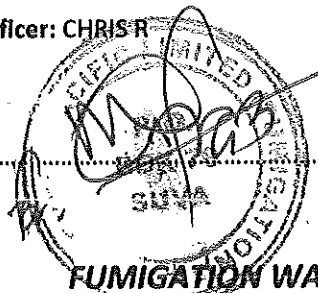
Actual gas reading after release: 5ppm

Fumigator officer: CHRIS R

Bio security Officer: ISEI NACEUCEU

Signature:

Signature:



FUMIGATION WAS CARRIED AT SEA FUMIGATION BAY, SUVA



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FAX: (679) 3681 191

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Email: genera@wgfiji.com.fj

Article Details

Certificate No: 29536

Description of goods: 1 X STACK AP 20 - AGGREGATE

Container/Distinguish markings: 1 X STACK

Country of origin: FIJI ISLANDS

Country of destination: KIRIBATI

Client:

PACIFIC MARINE & CIVIL SOLUTION
FIJI ISLANDS

Port of loading: SUVA, FIJI ISLANDS

Vessel: BARGE : TAMA

Name and address of consignee

MACONNELL DOWELL
TARAWA
KIRIBATI

Treatment Details

Fumigation standards: Fiji Quarantine Standards

Name of fumigant: Methyl Bromide

Date of fumigation: 8/01/2014 Duration of fumigation:

Time of fumigation: 2130 Minimum temp: 21°C

Fumigation officer: Nathaniel Ahmed

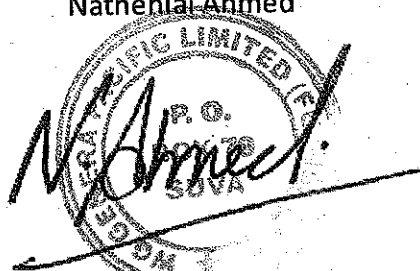
Place of fumigation: AT SEA FUMIGATION BAY

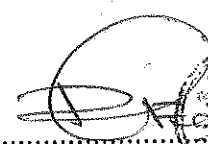

Total Volume M³: 960

72Hours Dosage rate: 150g/m3

Actual gas reading after release: 5ppm

Bio security officer: ISEI NACEUCEU


P.O. BOX 79
SUVA
WG GENERA PACIFIC LTD

For 
Signature.....
14/01

BIO SECURITY AUTHORITY OF FIJI
OFFICIAL

Fumigation was carried out at AT SEA FUMIGATION BAY



WG GENERA PACIFIC LTD

SUVA - 82 HARRIS ROAD
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PH (679) 3681 190
FAX (679) 3681 191

Web: www.wgfiji.com.fj

Email: genera@wgfiji.com.fj

FUMIGATION CERTIFICATE

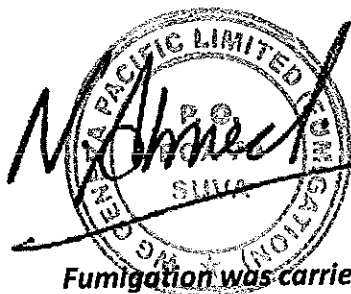
Article Details

Certificate No: 29655

Description of goods: AGGREGATES (7MM/10MM-CRUSHER DUST)
Container/Distinguish markings: N/A
Country of origin: FIJI ISLANDS
Country of destination: KIRIBATI
Client: PACIFIC BUILDING SOLUTIONS
9 - 12 NUKUWATU STREET
LAMI, SUVA
FIJI ISLANDS
Port of loading: SUVA, FIJI ISLANDS
Vessel: VIKING STAR (MY CON)
Name and address of consignee
MACONNELL DOWELL
TARAWA
KIRIBATI

Treatment Details

Fumigation standards: Fiji Quarantine Standards
Name of fumigant: Methyl Bromide
Date of fumigation: 19/02/2014
Duration of fumigation: 72Hours
Time of fumigation: 1700
Minimum temp: 21°C
Fumigation officer: Nathenial Ahmed
Place of fumigation: SEA FUMIGATION BAY
Total Volume M³: 908.293
Dosage rate: 70g/m3
Actual gas reading after release: 5ppm
Bio security officer: JIMILAI TAKAPE



Fumigation was carried out at SEA FUMIGATION BAY



SHIP SANITATION CONTROL EXEMPTION
SHIP SANITATION CONTROL CERTIFICATE
SHIP SANITATION CONTROL EXEMPTION CERTIFICATE EXTENSION - VALID TO

Date of issue: 24/2/2014
Date of Expiry: 24/8/2014

Port of Issue SUVA Name of Ship MV Viking Star

Country of Registry Fiji Registration/IMO No 7747976

At the time of inspection the holds were unladen/laden with.....NIL.....tonnes of.....cargo

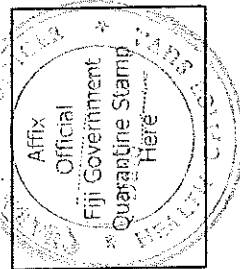
Name of Inspecting Officer L. Lane Office Suva Quarantine Office.....

Areas Inspected	Vector Indicators and Reservoirs		Comments	Control Measures Applied	Re-inspection Date	Comments on Conditions Found
	Rodents	Mosquitoes				
Galley						
Pantry						
Stores						
Hold(s)/Cargo						
Quarters:						
- crew						
- officers						
- Passengers						
Deck						
Engine Room						
Medical Facilities						
Standing Water						
Solid & Medical Waste						

Facility Review	Documents Sighted	Comments	Control Measures Applied	Comments
Ballast Tanks	Ballast Log	OK		
Potable Water	IMO Documentation	OK		
Sewage	ISPP Certificate	OK		

Name of Issuing Officer SOFAIA WHIPPY Designation : Quarantine Officer In Charge

Signature



Information provided on this certificate reflects the condition of the ship at the time of inspection and the date of issue of the certificate. Sanitation Control Exemption Certificates and Sanitation Control Certificates are valid for a maximum of six months, but the validity period may be extended by one month if inspection cannot be carried out at the port and there is no evidence of infection or contamination.



WG GENERA PACIFIC LTD

SUVA - 82 HARRIS ROAD
P.O. BOX 79, SUVA
PH: (679) 3312 633
FAX: (679) 3236 336

LAUTOKA - LOT 9 ROYAL PALM ROAD, NAVUTU
P.O. BOX 228 LAUTOKA
PH: (679) 666 4090
FAX: (679) 666 3470

WAILEKUTU - LAMI
P.O. BOX 79, SUVA
PH: (679) 3681 190
FAX: (679) 3681 191

Web: www.wgfiji.com.fj

Email: genera@wgfiji.com.fj

FUMIGATION CERTIFICATE

Article Details

Certificate No: 29720

Description of goods: AGGREGATES GRAVEL

Container/Distinguish
markings: 1 X BARGE

Country of origin: FIJI ISLANDS

Country of destination: KIRIBATI

Client:

PACIFIC BUILDING SOLUTIONS
9 - 12 NUKUWATU STREET
LAMI, SUVA
FIJI ISLANDS

Port of loading: SUVA, FIJI ISLANDS

Vessel: TAMA

Name and address of consignee

MACONNELL DOWELL
TARAWA
KIRIBATI

Treatment Details

Fumigation standards: Fiji Quarantine Standards

Name of fumigant: Methyl Bromide

Date of fumigation: 7/03/2014 Duration of
fumigation:

Time of fumigation: 1900 Minimum
temp:

Fumigation officer: Alfraz Mohammad

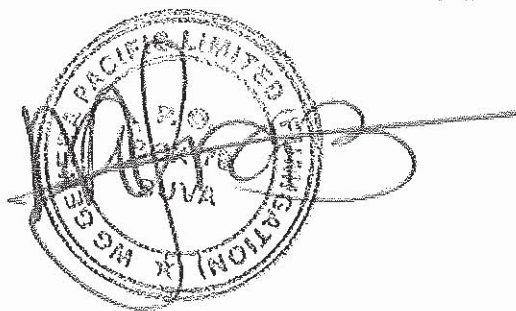
Place of
fumigation: SUVA HARBOUR

Total Volume
M³: 1568

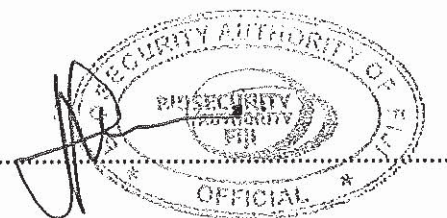
72Hours Dosage rate: 128g/m3

21°C Actual gas reading after
release: 5ppm

Bio security
officer: JIMILAI



Signature.....



Fumigation was carried out at SUVA HARBOUR

Appendix D: Contract Variations

Schedule of Variations:

Details		Status				Cost Implications		
Ref	Description	Potential	Preparation	Review	Approved	Increase	Decrease	Amount (AUD)
1	Work scope (1)				X		X	-1,350,776.38
2	Material supply by ESAT	X						TBC
3	Betio causeway remedial works				X	X		TBC
4	Coastal protection works							
a	Coastal sites 1 & 5	X				Yes		TBC
b	Deletion of works, Betio-Temaiku road Ch 5+100				X			
5	Standardisation of Water Supply Fittings				X	X		11,574.80
6	Solar Street Lighting – LED proposal	X				None	None	0.00
7	Valve chambers (KAP)	X				Yes		TBC
8	Valve chambers (STSISP)	X				Yes		TBC
9	Basecourse specification change				X	None	None	
10	Deferral of Betio causeway pavement works				X	Yes		TBC
								-1,339,201.58

Appendix E: Contract Claims

Schedule of Claims:

[illegible]

Appendix F: Payments

Kiribati Road Rehabilitation Project

Contract No. KIR-12/01

Interim Payment Certificate No. IPC 09

Period Ending: 31 December 2013

Bill Group		Amounts(Au\$) As Bid	Certified		
Series	Work Item Variations		Previous	Current	To Date
1000	General	12,827,618.89	4,601,132.47	320,024.68	4,921,157.14
2000	Drainage ¹	4,798,140.15	13,161.09	48,065.66	61,226.75
3000	Earthworks	613,730.00	9,727.67	0.00	9,727.67
3000	Pavement ¹	7,716,081.40	0.00	0.00	0.00
4000	Surfacing ¹	13,442,454.20	0.00	0.00	0.00
5000	Ancillary ¹	5,108,194.99	0.00	0.00	0.00
6000	Structures	1,106,239.54	46,043.13	61,718.19	107,761.32
8000	Water ⁵	1,058,305.05	0.00	0.00	0.00
9000	Dayworks ³	237,991.30	41,994.19	1,697.58	43,691.77
Total Bid Price Exclusive of local taxes and duties		46,908,755.52	4,712,058.54	431,506.11	5,143,564.65
Adjustments (1)				0.00	
Changes in Legislation				0.00	
Changes in Cost				0.00	
Total Adjustments (1)				0.00	
Totals after Adjustments (1)			4,712,058.54	431,506.11	5,143,564.65
Adjustments (2)				0.00	
Retention (@10%)			-471,205.85	-43,150.61	-514,356.47
Advance			4,819,795.72	0.00	4,819,795.72
Advance Repayment				0.00	
Materials on Site			93,810.06	0.00	93,810.06
Total Adjustments (2)			4,442,399.93	-43,150.61	4,399,249.31
Totals after adjustments (1) & (2)			9,154,458.47	388,355.50	9,542,813.97
Amount of this Certificate				388,355.50	

I hereby certify that the foregoing is a true and proper statement of amounts due to McConnell Dowell (Aust) Pty Ltd. as at 31 December 2013



John McFarlane
Engineer
on behalf of Roughton International Ltd

10/01/2014

Kiribati Road Rehabilitation Project

Contract No. KIR-12/01

Interim Payment Certificate No. IPC 10

Period Ending: 31 January 2014

Bill Group Series	Work Item Variations	Amounts(Au\$) As Bid	Certified		
			Previous	Current	To Date
1000	General	12,827,618.89	4,917,857.14	529,364.08	5,447,221.22
2000	Drainage ¹	4,798,140.15	61,226.75	8,754.69	69,981.44
3000	Earthworks	613,730.00	9,727.67	2,728.04	12,455.71
3000	Pavement ¹	7,716,081.40	0.00	0.00	0.00
4000	Surfacing ¹	13,442,454.20	0.00	0.00	0.00
5000	Ancillary ¹	5,108,194.99	0.00	6,372.96	6,372.96
6000	Structures	1,106,239.54	107,761.32	61,169.26	168,930.58
8000	Water ⁵	1,058,305.05	0.00	59,170.18	59,170.18
9000	Dayworks ³	237,991.30	43,691.77	4,283.64	47,975.41
Total Bid Price Exclusive of local taxes and duties		46,908,755.52	5,140,264.65	671,842.85	5,812,107.50
Adjustments (1)				0.00	
Changes in Legislation				0.00	
Changes in Cost				0.00	
Total Adjustments (1)				0.00	
Totals after Adjustments (1)			5,140,264.65	671,842.85	5,812,107.50
Adjustments (2)				0.00	
Retention (@10%)			-514,026.47	-67,184.28	-581,210.75
Advance			4,819,795.72	0.00	4,819,795.72
Advance Repayment				0.00	
Materials on Site			93,810.06	149,431.88	243,241.94
Total Adjustments (2)			4,399,579.31	82,247.59	4,481,826.91
Totals after adjustments (1) & (2)			9,539,843.97	754,090.44	10,293,934.41
Amount of this Certificate				754,090.44	

I hereby certify that the foregoing is a true and proper statement of amounts due to McConnell Dowell (Aust) Pty Ltd. as at 31 January 2014

Ian Archer

Ian Archer
Resident Engineer
on behalf of Roughton International Ltd

Date:

27th February 2014

Kiribati Road Rehabilitation Project

Contract No. KIR-12/01

Interim Payment Certificate No. IPC 11

Period Ending: 28 February 2014

Bill Group Series	Work Item Variations	Amounts(Au\$) As Bid	Certified		
			Previous	Current	To Date
1000	General	12,827,618.89	5,447,221.22	339,052.93	5,786,274.15
2000	Drainage ¹	4,798,140.15	69,981.44	12,763.07	82,744.51
3000	Earthworks	613,730.00	12,455.71	3,358.46	15,814.17
3000	Pavement ¹	7,716,081.40	0.00	0.00	0.00
4000	Surfacing ¹	13,442,454.20	0.00	0.00	0.00
5000	Ancillary ¹	5,108,194.99	6,372.96	2,453.44	8,826.40
6000	Structures	1,106,239.54	168,930.58	0.00	168,930.58
8000	Water ⁵	1,058,305.05	59,170.18	12,422.09	71,592.27
9000	Dayworks ³	237,991.30	47,975.41	46,449.96	94,425.36
Total Bid Price Exclusive of local taxes and duties		46,908,755.52	5,812,107.50	416,499.94	6,228,607.44
Adjustments (1)				0.00	
Changes in Legislation				0.00	
Changes in Cost				0.00	
Total Adjustments (1)				0.00	
Totals after Adjustments (1)			5,812,107.50	416,499.94	6,228,607.44
Adjustments (2)				0.00	
Retention (@10%)			-581,210.75	-41,649.99	-622,860.74
Advance			4,819,795.72	0.00	4,819,795.72
Advance Repayment				0.00	
Materials on Site			243,241.94	0.00	243,241.94
Total Adjustments (2)			4,481,826.91	-41,649.99	4,440,176.91
Totals after adjustments (1) & (2)			10,293,934.41	374,849.95	10,668,784.35

Amount of this Certificate

374,849.95

I hereby certify that the foregoing is a true and proper statement of amounts due to McConnell Dowell (Aust) Pty Ltd. as at 28 February 2014

Ian Archer

Ian Archer
Resident Engineer
on behalf of Roughton International Ltd

28th March 2014

Date: