ANZ

Australian and New Zealand Banking Group Limted (ANZ)

STAMP DUTY PAID

HONIARA, SOLOMON ISLANDS

DATE 05 03 20 (D D M M Y Y)

PAY AZIMUTH SURVEYS OR BEARER

THE SUM OF SEVENTY FOUR THOUSAND EIGHT HUNDRED AND THIRTEEN DOLLARS 60/100 ONLY

SBD 74,813.60

NOT NEGOTIABLE

PLEASE SIGN ABOVE THIS LINE

PLEASE SIGN ABOVE THIS LINE

SPORTS SOLOMONS FUND
5070830

№ 1425966

PAYMENT VOUCHER

Cheque No: 1425966

Voucher No: NHA/79/20

Payment to: Azimuth Surveys

Date: 05-Mar-20

Address: Honiara

GL Codes		FULL DETAILS OF CLAIM	Amount (SBD)
MOFT	NHA		
2004	6-2004	Surveys Fees for Topographical Surveys of SINU Panatina Land	$ 93,517.00
		as required by NHA	
		Less WHT (20%)	-$ 18,703.40
		Total:-	$ 74,813.60

Amount in Word: Seventy Four Thousand Eight Hundred Thirteen Dollars 60/100 Only

Cheque Signatories:

Signature:	
Dr Jimmie Rodgers	NHA Chair/SPM

Signature:	
Mckinnie P Dentana	PS Finance

Signature:	
Christian Nieng	Executive Director (Ag)

Procurement Checklist:

No: of Quatations:	Non
Purchase Order #	0162
GRN #	

Please indicate the type of payment:

PAYMENT IN ADVANCE	
PAYMENT IN ARREARS	√
RENTAL	
PERDIEM	
CONTRACT INSTALLMENT	
UTILITIES	
MISC/OTHER	

Received By
Name & Sign

Prepared By
Finance Officer

Approval By
Financial Controller

5/3/20

OFFICIAL PURCHASE ORDER

NHA/SOL2023 Pacific Games
PO Box 2443
Honoria, Solomon Islands

Phone: (677)7308800
Email: Accounts@sol2023.com.sb

PACIFIC GAMES SOLOMON ISLANDS

PO # **NHA-PO-** 0162

DATE: 2/03/2020

Supplier:	Azimuth Surveys	**Delivery to:**	NHA
Address:	P.O. BOX 595	**Attention:**	Leeroy Bird
Mobile:	7510428	**Mobile:**	7308800
		Delivery Date:	

Item	Description	Qty	Price (excl Tax)	Total
	SURVEY Fees for Topographical			$93,517.00
	Survey of SINU PANATINA			
	Land as required by			
	NHA.			

PLEASE INCLUDE PO NUMBER ON ALL INVOICES

	Subtotal	$93,517.00
20% WH	**TAX**	18,703.40
	TOTAL	$74,813.60

NHA Account Name: Consultancy Fees	***NHA Account Code:*** 6-2004
MOFT Account Name: Consultancy Fees.	***MOFT Account Code:*** 2004
Approved by: ***Signature:*** [signature]	***Date:*** 2/3/20
[Financial Controller]	
Signature: [signature]	***Date:*** 4/3/20
[CEO/EXECUTIVE DIRECTOR]	

Copy 1 White *Supplier*
Copy 2 Pink *Ordering Department*
Copy 3 Yellow *Finance*

OFFICIAL PURCHASE ORDER

NHA/SOL2023 Pacific Games
PO Box 2443
Honoria, Solomon Islands

Phone: (677)7308800
Email: Accounts@sol2023.com.sb

PACIFIC GAMES SOLOMON ISLANDS

PO # **NHA-PO-** 0162

DATE: 2/03/2020

Supplier:	Azimuth Surveys	**Delivery to:**	NHA
Address:	P.O Box 595	**Attention:**	Leeroy Bird
Mobile:	7510428	**Mobile:**	7308800
		Delivery Date:	

Item	Description	Qty	Price (excl Tax)	Total
	SURVEY Fees for Topographical Survey of SINU Pawaiian Land to be required by NHA.			$93,517.00

PLEASE INCLUDE PO NUMBER ON ALL INVOICES

	Subtotal	$93,517.00
20% WH	**TAX**	18,703.40
	TOTAL	$74,813.60

NHA Account Name: Consultancy Fees
MOFT Account Name: Consultancy Fees.

NHA Account Code: 6-2004
MOFT Account Code: 2004

Approved by: **Signature:** .....
[Financial Controller]

Date: 2/3/20

Signature: .....
[CEO/EXECUTIVE DIRECTOR]

Date: 21/3/20 3/3/20

Copy 1 White	Supplier
Copy 2 Pink	Ordering Department
Copy 3 Yellow	Finance

Original

RECEIPT

97

DATE 6/3/20

RECEIVED FROM NHA 2023

THE SUM OF SEVENTY FOUR THOUSAND EIGHT HUNDRED AND THIRTEEN DOLLARS AND 60/100

BEING FOR SURVEY FEES – SINU LAND TOPO SURVEY

CHQ# 1425966 ANZ.

AZIMUTH SURVEYS
CONSULTING SURVEYORS
PLANNERS & ENGINEERS
TEL [illegible]039

$ 74,813-60

SIGNATURE

AZIMUTH SURVEYS

AZIMUTH SURVEYS
Lot 936/III/H
Mbumburu Terrace
Honiara, Solomon Islands
Telephone: 23039
Mobile: 7510428

Postal address:
PO Box 595,
Honiara, Solomon Islands
azimuthsurveys@gmail.com
asoaki@solomon.com.sb

Invoice No: 3/2020

Date: 24 February 2020

To: Christian Nieng
DSPM
NHA2023
C/- Prime Minister's Office
PO Box G1
Honiara

INVOICE – TOPOGRAPHICAL SURVEY SINU LAND

We are pleased to submit our invoice for the payment for the topographical survey of the SINU Land at Panatina Campus.

Item 1.0: Survey fee	SBD	93,517.00
TOTAL THIS INVOICE	**SBD**	**93,517.00**

For electronic or payment by T/T, our account details are as follows:

Name of Account: : Azimuth Surveys

Bank: : Bank South Pacific

Account No: : 139366 0101

Swift Code: : BOSPSBSB

NATIONAL HOSTING AUTHORITY
FINANCIAL CONTROLLER
SOL2023 PACFIC GAMES

2/3/20

Raise Payment of $93,517.00 to Azimuth Surveys as per attached approval from TEC.

PACIFIC GAMES
SOLOMON ISLANDS

TECHNICAL EVALUATION COMMITTEE
National Hosting Authority

To: GTB Chair/NHA Chair

From: ED (Ag)

Date: 25th February 2020

Subject: REQUEST TO APPROVE PAYMENT FOR SINU LAND SURVEY

Action	Yes/No
Request granted	Yes
Request not granted	

Comments: Approval granted to waive tender requirement on the basis that:
(i) this work is continuation of work already ~~undertaken~~ undertaken by the firm on part of the land and
(ii) a tender would also delay the execution of the work

Signature:

GTB Chairman, NHA

02/3/20

PACIFIC GAMES
SOLOMON ISLANDS

TECHNICAL EVALUATION COMMITTEE
National Hosting Authority

Ref: NHA2.02/19 Date: 25th February 2020

The Chairman
National Hosting Authority
P.O Box 2443
HONIARA

Mr Sam
Chm NHA.
2/3/20

Dear Sir,

REQUEST TO APPROVE PAYMENT FOR SINU LAND SURVEY

The TEC met and deliberated on the urgent need to conduct topographical survey of SINU land at Panatina. It was agreed that due to the urgency of the matter, Azimuth Surveys should be engaged as it is an expansion of the works that they have already done.

It has been agreed that Azimuth Surveys be contracted for the works at a cost of $93,571.00. This committee is of the understanding that should a restricted tender be put out for the works and awarded to another firm, it will take longer to complete the works as this any other firm would need to set up reference marks and points in order to carry out the survey. By choosing Azimuth Surveys to conduct the survey, it will ensure completion of the works by the required deadline.

On this note Sir, I am hereby requesting you to waive requirement under FI in compliance to the CTB Chairman's memorandum reference 479/5/1 dated 26th February 2016 regarding Granting of Bid Weaver.

Approval is hereby sought for waiver of the three quote requirement under FI's and kindly request that you grant this payment.

Thank you in advance for your consideration and/or approval.

Christian Nieng
Acting Executive Director NHA Secretariat
For: GTB Chairman, NHA

ED: Approval is hereby granted to waive the 3 quote requirement on the basis that this is a continuation of work already done on another part of the land & a tender would delay the works.
Mr Sam/Chm NHA
2/3/20.

Minutes

To: Executive Director

From: Project Coordinator

Date: 25/02/20

Location: SIRUF Building, Town Ground

Dear ED,

Find attached is the survey report and payment documents for Azimuth Surveys for the works of a Topographical Survey of SINU land at Panatina.

This firm was selected to conduct the survey on the basis that it is an expansion of the works that they had already done. This means that they already have reference marks to expand the survey works as required by the National Hosting Authority.

Approval is hereby sought to raise payment as per attached herein.

Yours Sincerely

Project Coordinator

P.C,
Please facilitate
Board Chairmans approval
for ware due to the
reasons you provided.

ED
26/2/20

NATIONAL HOSTING AUTHORITY
EXECUTIVE DIRECTOR
SOL2023 PACIFIC GAMES

Pauline Tovua

From: Christian Nieng
Sent: Monday, 24 February 2020 3:50 PM
To: Azimuth Surveys
Cc: Pauline Tovua; Barbara Miller
Subject: RE: SINU Land Topo Survey

Azimuth,

Thanks. Pauline please raise payment.

Regards
Christian

From: Azimuth Surveys [mailto:azimuthsurveys@gmail.com]
Sent: Monday, 24 February 2020 3:49 PM
To: Christian Nieng <CNieng@sol2023.com.sb>
Cc: Pauline Tovua <PTovua@sol2023.com.sb>; Barbara Miller <BMiller@sol2023.com.sb>
Subject: Re: SINU Land Topo Survey

Chris,

Attached is the invoice for the survey work.

Regards

On Mon, Feb 24, 2020 at 3:26 PM Azimuth Surveys <azimuthsurveys@gmail.com> wrote:

> Hi Christian,
>
> I send you the site plan in pdf format, survey data in dwg and dxf formats and survey report in pdf for the topographical survey of SINU land.
>
> I shall send you the invoice next.
>
> Regards
>
> --
> **Alfred Soaki,**
> **Principal**
>
> **AZIMUTH SURVEYS**
> **Lot 936/III/H Mbumburu Terrace**
> **PO Box 595, Honiara, Solomon Islands**
> **Phone: 23039 Mobile: 7510428**
> **Email: azimuthsurveys@gmail.com**

--

Alfred Soaki,
Principal

AZIMUTH SURVEYS
Lot 936/III/H Mbumburu Terrace
PO Box 595, Honiara, Solomon Islands
Phone: 23039 Mobile: 7510428
Email: azimuthsurveys@gmail.com

Leeroy Bird

From: Azimuth Surveys <azimuthsurveys@gmail.com>
Sent: Friday, 13 December 2019 22:38
To: Leeroy Bird
Cc: Pauline Tovua
Subject: Re: SINU Panatina Survey
Attachments: Panatina KG VI Site 13122019.jpg

Hi Leeroy,

We can carry out the additional survey work you require. Please indicate on the map attached the additional areas for survey.

I shall send a surveyor to see you on Monday 16/12 for further discussion.

Regards

On Fri, Dec 13, 2019 at 4:10 PM Leeroy Bird <LBird@sol2023.com.sb> wrote:

> Hi Alfred,
>
> Can you expand you survey scope for the SINU Panatina fields to the southward section of the land? Since you already have reference points and markers of the land, we want to engage you to expand this just a bit further up to where the slope starts and run it adjacent, coming down near King George Sixth school.
>
> Please do not hesitate to contact us for further clarification on this.
>
> **Kind Regards**
>
> Leeroy Bird
>
> **Mobile: +677 7849476**
>
> 2023 PACIFIC GAMES SOLOMON ISLANDS CHALLENGE • CELEBRATE • UNITE
>
> NATIONAL HOSTING AUTHORITY | P.O Box 2443
> Honiara | SOLOMON ISLANDS.
> info@sol2023.com.sb +677 7308800

--

Alfred Soaki,
Principal

AZIMUTH SURVEYS
Lot 936/III/H Mbumburu Terrace
PO Box 595, Honiara, Solomon Islands
Phone: 23039 Mobile: 7510428
Email: azimuthsurveys@gmail.com


tina/KG VI
Venue
Legend
MapInfo Saved
Earth
100 m

Solomon Islands Government

2023 PACIFIC GAMES

P.O. Box 2443

Honiara

Solomon Islands

Phone:

677 7496408

Our Ref: NHA 2.02/19 Date:31/01/20

SCOPE OF WORK, TOPOGRAPHIC SURVEY OF THE VARIOUS PROPOSED PG2023 GAMES VENUES, HONIARA, SOLOMON ISLANDS

23rd January 2020.

Conduct a TOPOGRAPHICAL survey according to the Standard survey procedures and requirements.

1.0.0 Background

Solomon Islands is preparing to host the 2023 Pacific Games in Honiara and the National Hosting Authority (NHA) is preparing sites to prepare sporting facilities within Honiara. The plan is to prepare venues to host 24 sports altogether and up to 4,000 athletes and officials are expected to come from 24 countries in the Pacific Region including Australia and New Zeland. The games are scheduled to take place in July 2023 and preparations is now well underway.

NHA is now seeking suitably qualified firms or individuals to do Topographical survey on identified locations within Honiara.

Survey required would include establishment of controls, cadastral, boundary and topographical survey referenced to required National mapping system of Solomon Islands for this project. The work has to be presented in the form of reports both hard and soft copies as final output.

2.0.0 Project Information

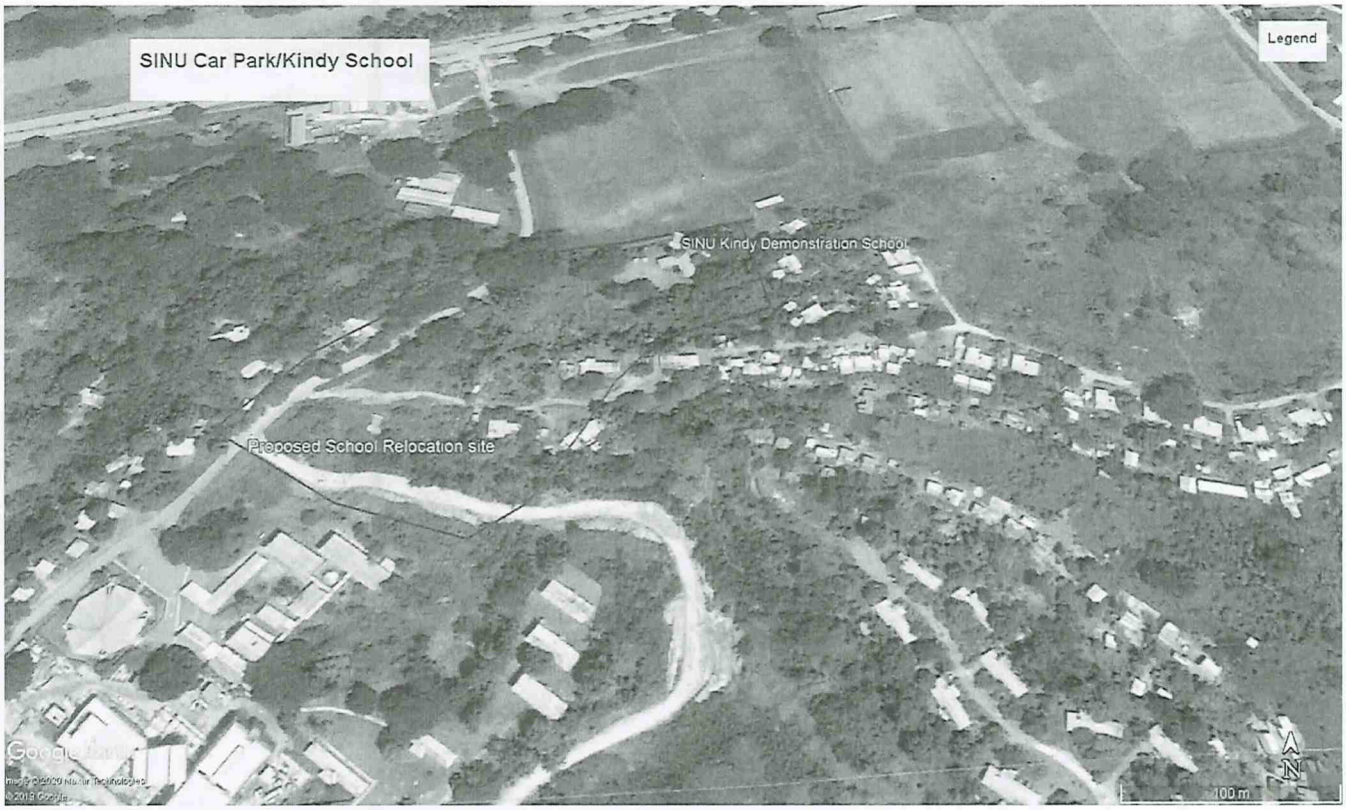
(Refer to table on the next page)

Land Update: Project Sites	Perpetual Estate (PE)Title owner	Land	NHA REF NO#
SINU Land	COL	FTE-192-002-0218	

2.0.0 Propose Project Sites

The area marked in green line (Refer to attached maps) is an estimated perimeter of less than 1.00km.

Area to be surveyed is the line marked in Green line.



3.0.0 Objectives

The NHA invites suitably qualified and registered surveyor firms or qualified individual contractors to carry out the followings:

I. Develop survey plans for the project site area identified as per the invitation to bidders.
II. Manage and oversee survey work to completion as per survey standards.
III. Provide a Survey report to the NHA on the progress of all works relating to survey work requirements.
IV. Carryout Land Survey including Cadastral – boundary identification and topographic survey,

4.0.0 Scope of Works

The scope of work to be carried out by the Contractor is expected to include, but is not limited to, the following:

1. Reconnaissance of the project site area, site visit and collection of information on permanent survey marks - control marks and traverse control points to start.

2. Use National standard control known marks in the 1st, 2nd and 3rd order only as reference point for the whole survey works.

3. Use Total stations and other related instruments which is acceptable to carry out the required survey work.

4. Carry out Topographical survey, by picking up all man made, natural, road, drain spot heights and vegetation features that were required to take note of by this project including contours heights calculated to the MSL.

5. Presentation of reports must be in hard and soft copies (DXF, DWG, ASSCI, PDF) and ensure the maps must be in standard scale.

5.0.0 Deliverables & Output Requirements

The task is expected to start on the 27th **December 2019**. Outlined below are the proposed Deliverables, Dates for the Survey works.	**Output**
1. RFQ	Submitted by 6thFebruary 2020
2. Contract Signed	Contract work begins – 7th February 2020
3. Provide detail work schedule	Monitoring progress
4. Full Survey report	Includes topographical map with all contours. 28th January 2020.

6.0.0 Reporting

Name	**Phone / Email**	**Role**
Christian Nieng	CNieng@pmc.gov.sb Phone: +677 7496408	DSPM

PACIFIC GAMES
SOLOMON ISLANDS

Solomon Islands Government

2023 PACIFIC GAMES

P.O. Box 2443
Honiara
Solomon Islands

Phone:
677 7496408

Our Ref: NHA 2.02/19 Date:31/01/20

MINOR CONSULTANCY CONTRACT

TO: Azimuth Survey
.....
.....
.....

Contract No: NHA 2.02/19

Dear Sir/Madam,

RE: NHA 2.02/19 – SINU Land Topo/Cadastral Survey

You are hereby invited to participate in our procurement of goods and services through the scrutiny of three quotations system according to SIG procurement procedures.

Please find attached are:

I. Standard form to assist you in providing your quote.
II. Note to all bidders.
III. TOR

If you do not wish to Bid, please return these forms and advise this office of your decision to decline from participating on this procurement process.

Bidders must complete the quotations in full, in ink and return it with their fully completed quotations and schedule stating their completion date in the appropriate places.

Bidders must comply with all labour requirements and terms of workers compensation, HCC Business License, other requirements and proof that such insurances are held and will be required before signing of the contract.

Bidders must submit their bids in a sealed A4 envelope and shall be returned to the undersigned no later than 4:00pm – Monday 3rd February 2020.

Nieng

Christian Nieng
Deputy Secretary to Prime Minister
For 2023 Pacific Games

Our Ref: NHA 2.02/19 Date:31/01/20

QUOTATION FORM FOR KGVI SCHOOL TOPOGRAPHICAL SURVEY

Project Number: NHA 02.02/19

Project Name: SINU Land TOPOGRAPHICAL SURVEY

PACIFIC GAMES
SOLOMON ISLANDS

Solomon Islands Government

2023 PACIFIC GAMES

(Hereinafter referred to as the employer) the undersigned (Hereby after referred to as the contractor) hereby OFFERS to carry out the TOPOGRAPHICAL SURVEY works described and scheduled hereafter in accordance with the terms and conditions set our below:

P.O. Box 2443
Honiara
Solomon Islands

Phone:
677 7496408

For the lump sum of $ 93,517-00

At the rates set out in the Schedule.

Dated this 31 day of Jan. 2020

Witness Alfred Sore Signature of Contractor

Title and Address Managing director.

The above tender is accepted by me on behalf of the National Hosting Authority on behalf of the Government of the Solomon Islands

Title and Address Christian Nieng - ED- NHA.

Dated this 31 day of January 2020

(Contractor to attach detailed quotation using business letter head to show breakdown of costs)

AZIMUTH SURVEYS

SURVEY REPORT TOPOGRAPHICAL SURVEY OF SINU LAND FOR PACIFIC GAMES 2023



Prepared for:
National Hosting Authority 2023
SIRUF Rugby Stadium
Town Ground
Honiara
Solomon Islands
Tel: (677) 7496408
Email: CNieng@Sol2023.com.sb

Prepared by:
Azimuth Surveys
Lot 936/III/H, Mbumburu Terrace
P O Box 595
Honiara
Solomon Islands
Tel: (677) 23039
Email: azimuthsurveys@gmail.com

FEBRUARY 2020

Disclaimer

The sole purpose of this report and the associated services performed is in accordance with the scope of services set out between Azimuth Surveys Limited (herewith called 'Azimuth Surveys') and the National Hosting Authority 2023 (herewith called 'Client').

Azimuth Surveys was engaged by the client to carry out the topographical surveying of the site that derived the data in this report. The passage of time, a manifestation of latent conditions or impacts of future events may require further exploration of the site and subsequent data analysis, re-evaluation of the findings, observations and conclusions expressed in this report.

The report has been prepared on behalf of and for the exclusive use of the Client, and is subject to and issued concerning with the provisions of the agreement between Azimuth Surveys and the Client. Azimuth Surveys accepts no liability or responsibility whatsoever for or in respect of any use of or reliance upon this report by any third party.

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1.0 INTRODUCTION.

Azimuth Surveys is engaged by the National Hosting Authority 2023 (NHA2023) to carry out the topographical survey of the proposed car park site and the relocation site for the current SINU Kindergarten. These are establishment facilities for the upcoming Pacific Games that shall be hosted on July 14th to 28th 2023.

The site will be an addition to the site surveyed previously including the King George IV sports fields, the SIFF Academy and the Panatina Solomon Islands National University (SINU) playing fields. The area topographical surveyed is approximately 3 hectares and more and is part of Parcel 192-002-218 owned by the Solomon Islands National University.

The survey data and site plan from this topographical survey will be used for master the planning for the proposed site. Refer to **Appendix 1** for the Site Topographical Survey Plan.

The field survey was carried out over the period 11th to 15th February 2020.

2.0 PURPOSE.

The sole purpose of this topographical survey is for the Pacific Games facilities, is to produce a site topographical survey plan of the existing natural features such as trees, spot heights or ground surface, man-made features such as buildings, fence, Manholes, etc. within the survey periphery. All data collected will be portraying onto a site topographical survey plan and into AutoCAD dwg format for Master Planning for the car park.

3.0 SURVEY DATUM.

The GUX1 ASTRO Coordinate System on the Universal Traverse Mercator Zone 57L was adopted for this survey.

Survey Datum used is adopted from two controls previously established by Azimuth Surveys. These two controls are fixed from a National Trig Control Pillar GUY 2 which is located Panatina Ridge East Honiara. The accuracies for these type of Control Pillars are in the First order as recognised by the Ministry of Lands. The two control marks were established using GPS static techniques and post processed using Magnet Office software. The control marks established are labelled as AZ1 and AZ2 respectively.

The GPS Control stations AZ1 and AZ2 were used in establishing additional controls within the survey periphery site to have good coverage for the topographical survey. Height used for this survey is the mean sea level (MSL).

Detail Information of the survey control stations

STATION	EASTINGS	NORTHINGS	HEIGHT (m)	REMARKS
GUY 2	609634.22	8957927.01	44.400	Trig Control pillar
AZ1	610981.272	8958305.363	4.801	Iron rod in concrete
AZ2	610922.369	8958460.027	5.207	Iron rod in concrete
AZ3	611382.110	8958594.721	5.509	Iron rod in concrete
AZ4	611415.029	8958470.726	4.763	Iron rod in concrete

Detail Information of the additional survey traverse stations

STATION	EASTINGS	NORTHINGS	HEIGHT (m)	REMARKS
TR1	610915.852	8958266.574	9.207	Roofing Nail in Ground
TR2	610812.158	8958184.625	24.009	Roofing Nail in Ground
TR3	610780.612	8958146.339	24.758	Roofing Nail in Ground
P1	610976.052	8958270.929	5.852	Roofing Nail in Ground
P2	611024.512	8958295.028	5.061	Roofing Nail in Ground
PV4	610887.473	8958101.601	22.118	Roofing Nail in Ground
PV5	610900.783	8958133.423	12.845	Roofing Nail in Ground
TRAV1	611025.581	8958225.649	15.152	Roofing Nail in Ground
TRAV2	610983.305	8958212.275	19.107	Roofing Nail in Ground
TRAV3	610949.078	8958174.724	23.363	Roofing Nail in Ground
TRAV4	610867.286	8958180.444	24.538	Roofing Nail in Ground
TRAV5	610914.78	8958154.464	22.211	Roofing Nail in Ground
TRAV6	610942.424	8958280.008	6.441	Roofing Nail in Ground
TRAV7	610925.171	8958110.67	12.351	Roofing Nail in Ground
TRAV8	610861.037	8958236.799	18.020	Roofing Nail in Ground
TRAV9	610882.272	8958187.822	24.662	Roofing Nail in Ground
TRAV10	610834.351	8958213.108	22.360	Roofing Nail in Ground
TRAV11	610992.941	8958191.99	19.352	Roofing Nail in Ground

4.0 TOPOGRAPHICAL SURVEY.

4.1 SCOPE OF WORKS.

The scope of work includes the following:

- Pickups of existing significant trees in the survey periphery.
- Pickups of road networks in the survey periphery.
- Pickups of all existing structures in the survey periphery (Existing building positions, existing fence line, etc.).
- All stormwater drainage in the survey periphery.
- Solomon water pipes in the survey periphery.
- Solomon water underground sewage network.
- All spot heights in the survey periphery.
- Electric poles and wiring in the survey periphery.
- Solomon Telecom ducts pit poles etc.
- 2-meter pickups outside of the subject boundary.
- Major contour of 1m and minor contour of 0.5m intervals.
- Representation of Site pegs (showing road access).
- Contours and labels.
- Site levels and or any falls in level.
- Pickups of road networks in the survey periphery, existing access road and car parks.
- Locate power poles (Solomon power).
- Trees and flowerbeds.
- Drainages.
- Septic Tanks and soak way.
- Tank.

4.2 METHODOLOGY.

A network of survey control stations was established within the survey periphery, which are all fixed using the Total Station equipment from Primary Controls mark AZ1 and AZ2.

At AZ1, reference orienting to AZ2 and continue with the establishment of minor control stations by radiation and trigonometric height. Features surveyed are all radiated from traverse control station TR1, TR2, TR3, TR4, TR5 and TR6. All features are radiated from these control stations.

The survey periphery area is provided by NHA2023 to survey team.



Figure 1. AZ1 permanent control established by GPS PP static method.

4.2.1 RECORDING OF DATA.

The survey data is electronically stored and recorded within the Sokkia SET 5 and Topcon OS Total stations used for this topographical survey, both equipment used are in good working conditions and configured electronically to surveying standards.

Survey prisms used have -30mm prism constant offsets used with standard survey ranging poles and bipods to reduce systematic errors that may affect the surveys integrity, ranging poles used are constantly checked with a steel measuring tape before taking measurements.

Raw survey data is extracted from both survey equipment and uploaded on to a computer and processed using Magnet Office Site software, and further exported to dwg AutoCAD for submission.

4.2.2 NATURAL SURFACE & SPOT HEIGHTS.

Point heights are surveyed on the ground surface within the survey periphery are coded as natural surface (NS) and at intervals of 10 meters intervals and at intervals which surveyors on site see and judged fit to better represent changes in the surface grades change so as to better represent the original ground level when contouring. The natural surface is mainly coral rocky outcrop (coronus soil) and clay soil.

Spots heights (SH) are point heights surveyed on features such as concrete slab pavement.

4.2.4 POWER POLES.

The team surveyed fourteen electric power poles, which have overhead cables linking each other within the survey periphery. One of the power poles in particular (figure 2) has overhead lines and an underground PVC conduit which the survey team believes to have underground power cables. This might pose a threat to any earthworks. Any construction works on-site should consult Solomon Power for further queries on this underground cable conduit line (See survey site plan on appendix 1).

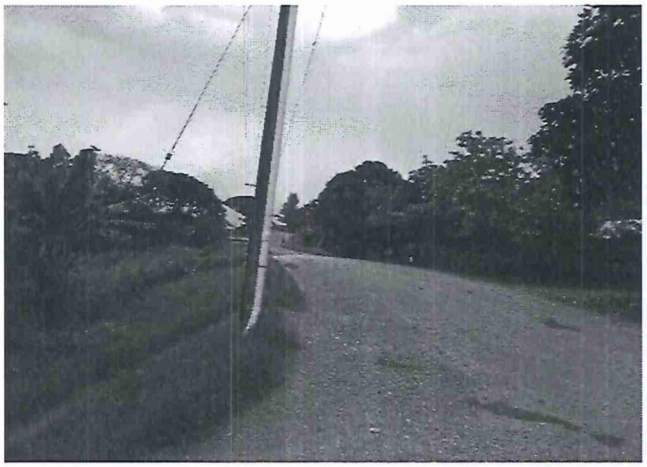


Figure 2. Power pole with overhead cables and an underground conduit.

4.2.5 TREES.

The surveyed trees within the survey periphery were large trees of a canopy of approximately 10 m to 20 m diameter canopy covering.

4.2.6 TELEKOM INSPECTION DUCT PIT.

The team surveyed only one (1) Telekom manhole that is located along with the main access to SINU Panatina Campus east (opposite) from the old School Directors residence, which has underground conduits. The length of its underground conduit line and location needs confirmation from Solomon Telekom ltd.

4.2.7 ROAD ACCESS AND ROAD NETWORKS.

Road access to the site is off the main Prince Phillipe High Way Ranadi via the SINU Panatina Road.

There are three (3) feeder roads surveyed by the team and represented on the Survey Site. (See attached plan provided in Appendix 1).

4.2.8 BUILDINGS.

The team surveyed a total of five residential building, one Kindergarten school building, and three old building foundation and surveyed two informal squatter building within the periphery (ref to survey site plan on Appendix 1). Only part of the informal settlement buildings is surveyed which is located east of the survey periphery.

4.2.9 SEPTIC TANKS AND SEWERAGE SYSTEM.

There are ten septic pits surveyed within the survey periphery (refer to survey site plan provided in appendix 1). There is no underground sewer system surveyed within the survey site but any construction or earthworks should consult Solomon Water before construction.

4.2.10 CULVERT AND STORMWATER DRAINAGE.

There are four culverts surveyed within the survey periphery area. Two newly built culverts along the new diversion road and two along with the main Panatina Campus road access, which has concrete headwalls and wing walls.

Also surveyed along both sides of the main access road to Panatina Campus is concrete stormwater drainage, which has no proper water discharge outlet. Water outlet from the stormwater drainage discharges straight on to Panatina playing field (refer to survey plan provided in appendix 1).

4.2.11 SOLOMON WATER PIPELINE.

Partially surveyed is a Solomon Water main service pipeline to the SINU staff residential buildings on East of the survey site periphery. The survey team only surveyed part of the exposed pipes. Any earthworks during construction should consult Solomon Water on its pipeline location beforehand.

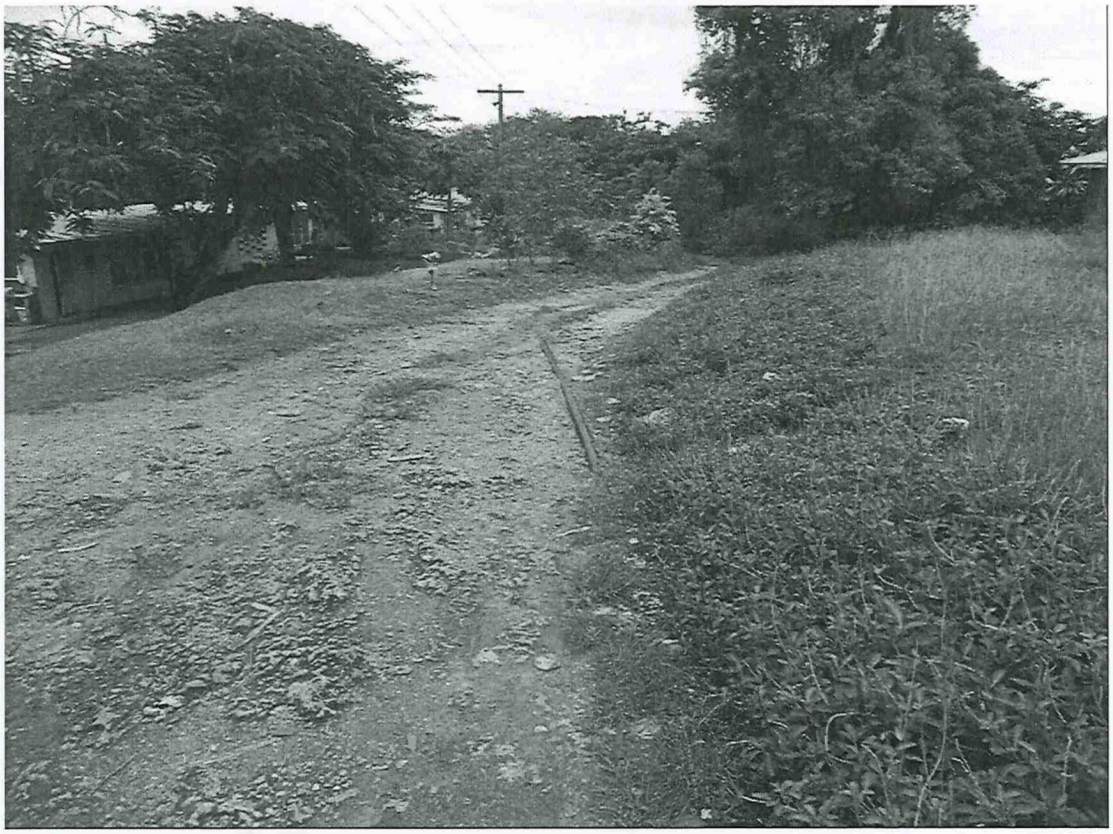


Figure 3.Part of exposed water pipeline surveyed.

4.2.12 FENCING.

Panatina Kindergarten School and Old University Directors residential building is protected by a fence line, which is surveyed the team and depicted in the survey plan.

5.0 CADASTRAL INFORMATION.

The area surveyed was under parcel 192-002-218, owned by the Solomon Island National University,

The plan number for the parcels are XK1055812, XK105580, XK107582, XK107580, XK110582, XK110580, XK112582, XK112580 XK 115585, XK115582 and XK115580.

6.0 SITE TOPOGRAPHICAL SURVEY PLAN.

6.1 PLAN SCALE.

The Site Topographical Survey Plan Scale is 1:1000

6.2 CONTOURS AND INTERVALS.

Major contour is 1 meter and minor contour interval is 0.5 meters to better represent the ground levels for engineering design purposes.

7.0 SUBMISSION AND DELIVERABLES.

The submission and deliverables for the topographical survey are:

1. NHA2023 Topographical Survey SINU Land 24022020.pdf @ scale 1:1000
2. NHA2023 Topographical Survey SINU Land 24022020.dwg AutoCAD editable format
3. NHA2023 Topographical Survey SINU Land 24022020_LTYPE
4. NHA2023 Topographical Survey SINU Land 24022020.dxf AutoCAD editable format
5. Survey Report Topographical Survey SINU Land 24022020.pdf

8.0 RECOMMENDATIONS.

These are the recommendations that arose from the survey.

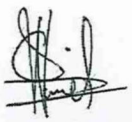
1. Underground electric conduit needs proper consultations with Solomon power on its location.
2. Underground water service pipelines buried and not represented completely by this topographical survey. Consult Solomon Water before earthworks and construction.

3. Underground telecommunication cable conduits not surveyed and represented on the survey plan. Solomon Telekom ltd should be consulted before earthworks and construction.
4. Informal settlements are gradually encroaching into marked survey periphery. This situation needs to be addressed, because it may have some effect on any future developments proposed around the current SINU Kindergarten area.

9.0 CONCLUSION.

On completing this Topographical survey project, the team is confident that all scope of work required from client is meet and that surveying best practice standards and methodology were done appropriately and adequate field and office checks were exhausted on completing this National Project.

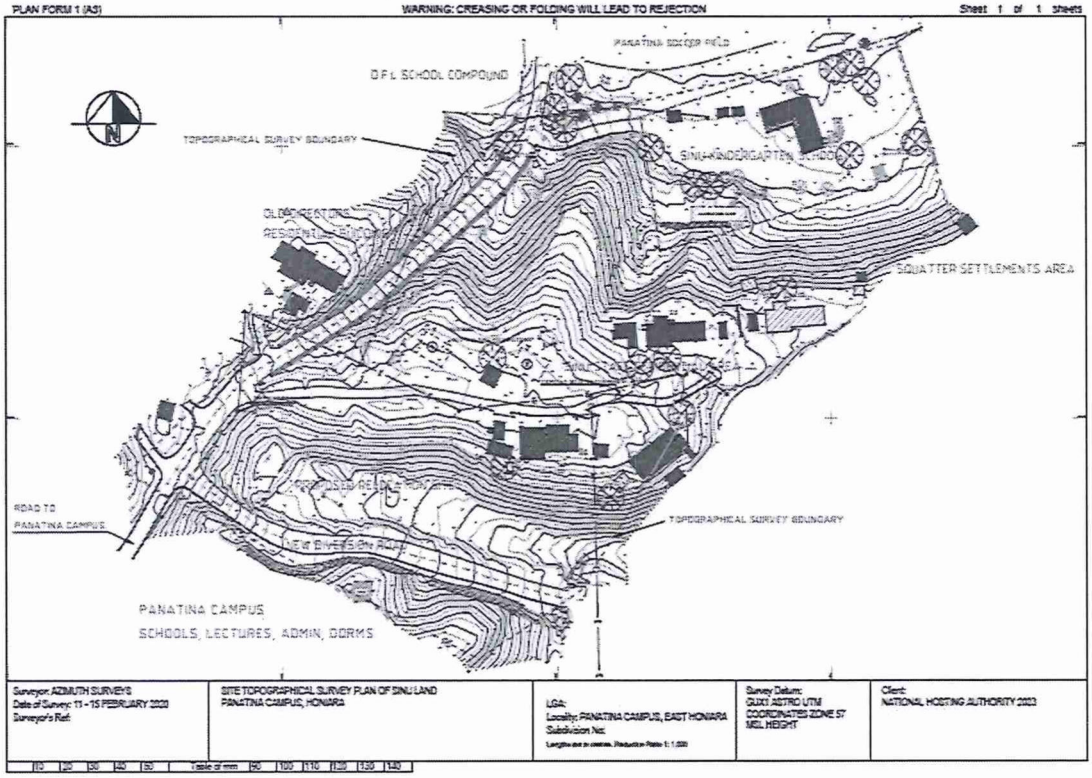
The team is confident all the requirements for the job were carried out.



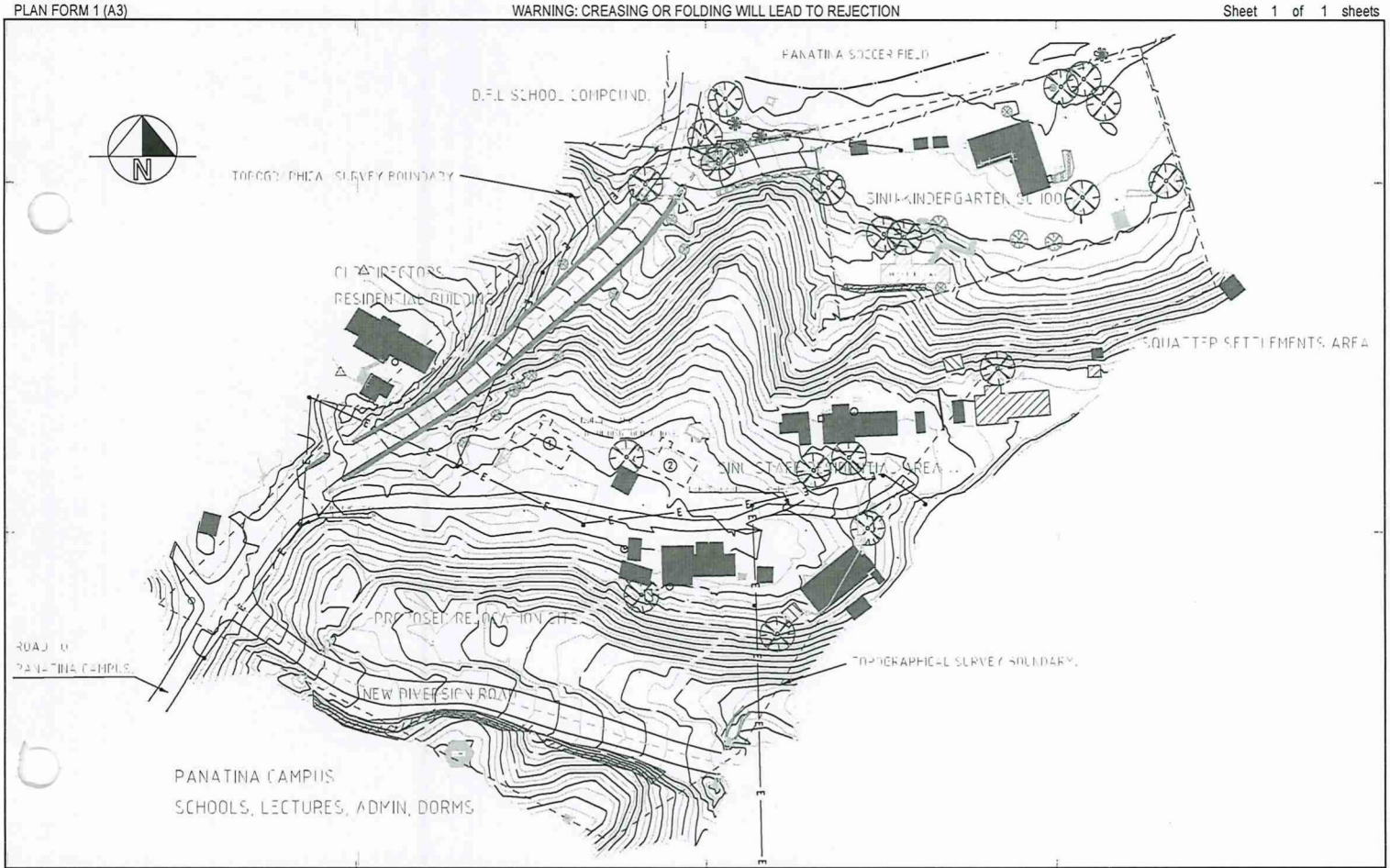
Vincent Melanoli
Survey Technician

20th February 2020.

10.0 APPENDIX 1: Site Topographical Survey Plan



PLAN FORM 1 (A3) WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION Sheet 1 of 1 sheets



Surveyor: AZIMUTH SURVEYS Date of Survey: 11 - 15 FEBRUARY 2020 Surveyor's Ref:	SITE TOPOGRAPHICAL SURVEY PLAN OF SINU LAND PANATINA CAMPUS, HONIARA	LGA: Locality: PANATINA CAMPUS, EAST HONIARA Subdivision No: Lengths are in metres. Reduction Ratio 1: 1,000	Survey Datum: GUX1 ASTRO UTM COORDINATES ZONE 57 MSL HEIGHT	Client: NATIONAL HOSTING AUTHORITY 2023

10 20 30 40 50 Table of mm 90 100 110 120 130 140