Project Summary for the Construction of Aggregate Facility

Project Type:	Construction of Aggregate Facility
Project's Address:	Plot A, Block X, Plantation Eccles, East Bank Demerara
Name of Developer:	Mr. Timur Mohamed
Developer's Address:	1 Croal St., Stabroek, Georgetown, Guyana
Tel:	+592-619-9577
E-mail:	timur@rocksolidinternational.com

Table of Contents

1.0 Introduction

Rock Solid International Inc. (RSI) is a Barbados-registered company wholly owned by Mr. Timur Mohamed, a Guyanese citizen. RSI has been awarded a contract to supply the Government of Guyana (GoG) with aggregates. RSI is preparing to construct an aggregates facility on a 10-acre riverfront property owned by Mr. Mohamed at Eccles, East Bank Demerara. A copy of the survey plan can be observed in **Appendix 3**. The project involves construction of a steel sheet pile revetment along the western and southern boundaries, sand filling, grading, compacting, and finishing with a concrete surface. Enclosed are the detailed plans and drawings illustrating the revetment design.

All clearances have since been given by the Guyana Sea & River Defence Division for the development; however, it was advised that the developer also seek approval from the Environmental Protection Agency (EPA), with regard to the necessary Environmental Authorisations/Permits, prior to the commencement of construction activities. The following therefore provides a synopsis of the proposed project for consideration. Attached also is an application for Environmental Authorisation.

1.1 Location of Project

The project will be located on a 10-acre riverfront property owned by Mr. Timur Mohamed by the company Rock Soild Inc. (See **Appendix 4** for a copy of the transport). The actual location of the property is given as Plot A, Block X, Plantation Eccles East Bank Demerara. A location map depicting the project site can be found in **Appendix 5.**

1.2 Description of the General Project Site and Land Uses

As noted above, the project will be located on private lands which are currently under secondary vegetation. To the west of the property lies the Demerara River, while to the immediate north is the Nobel House Seafood Limited, followed by Massy Gas Products Limited further north. To the immediate east of the property, lies a cemetery, which is followed by a mixture of residential and large and small businesses which would also describe the land uses to the south of the project area. A land use map is provided in **Appendix 6**.

2.0 Project Description

The project is geared towards the construction of a steel sheet pile (SSP) Bulkhead, to fortify the land, to accommodate the Eccles Aggregate Depot – Phase 1, at Plot 'A', Block 'X' Eccles, East Bank Demerara. The proposed structure was deisgned by C.B. & Associates Inc.(CBA), a recognized engineering and management consulting firm. CBA has designed a hydraulically efficient solution for the protection of the land and facilities to be constructed, at the said plot of land in Eccles. The main project deliverables were the detailed design of two (2) revetments inclusive of anchor systems; Revetment A which shall be located adjacent to the Demerara River and approximately 300m long and Revetment B, 109m in length, will form protection at the outfall channel at Eccles (South of the proposed land) which is perpendicular to the Demerara River. The following were the key consideration of the design:

(1) A surcharge load of 25Kpa;
(2) Finish level of 18mGD; and
(3) Dredge levels of 7m GD and 10m GD respectively.

The proposed river defense works will also includes an anchored sheet pile wall system which will provide lateral restraint to the revetment. The poposed revetment layout of the aggregate facility can be found in **Appendix 7. Annex 1** provides the detailed design drawings and technical report for the proposed revetment.

Prior to and during the construction phase, temporary on-site facilities will be constructed for the contractor's working area and onsite washroom facility. These will all be temporary and will be located at the north-eastern corner of the property. All toilet facilities will be equipped with portable septic systems, which will be emptied by a private company, and will be located well away from any major water source, as well as neighboring facilities.

2.1 Raw Materials

Raw materials will mainly include sand, concrete, stone, steel sheet piles, steel channels, tie rods, bearing plates, steel reinforcement, etc.

2.2 Buildings

No permanent buildings will be constructed at the location during this time. However, there will be temporary work sheds and mobile offices established throughout the construction phase.

2.3 Water Supply

Water will be supplied mainly by Guyana Water Inc. (GWI), but will be supplemented by the Noble House Seafoods well which is located next door to the construction site.

2.4 Energy

The main source of power will come directly from the national grid, through the Guyana Power and Light Inc. (GPL). This will be supplemented during periods of power outages by a 10,000-running watts portable generator.

2.5 Project's Capital Investment

The capital investment for the project is expected to be in excess of USD 7,000,000. Funds for the project will come directly from a combination of the company's financing and loans from commercial banks. Annual turnovers cannot be stated

currently as the company is in its infrantry. However, investment cost for the proposed development is as indicated in **Table 1**, which illustrates a breakdown for the revetment construction.

Table 1: Investment Cost Breakdown/Estimate

Investment Cost Breakdown (Estimate)		
Item	**Description**	**Cost (USD)**
	PILING	
1.1	Steel Sheet Pile Revetment	**$3,200,000**
1.2	Steel channels	**$135,000**
1.3	Tie Rods	**$93,000**
1.4	Walers	**$159,000**
	FABRICS	
1.5	Geotextile fabric	**$97,000**
	WASTE DISPOSAL	
1.6	Waste disposal	**$656,000**
1.7	**PERIMETER FENCE**	**$350,000**
1.8	**LAND DEVELOPMENT, ACCESS ROADS AND DRAINAGE**	**$2,000,000**
1.9	**BUILDINGS**	**$67,000**
	Sub-total	**$6,751,000**
	Add VAT (14%)	**$945,140**
	TOTAL Inc. VAT	**$7,696,140**

3.0 Possible Environmental Impacts and Mitigation Measures

Table 2 below provides a synopsis of impacts and mitigation measures that can be implemented to minimize negative impacts, and enhancement measures for those impacts that are positive.

3.1 Possible Impacts and Mitigation Measures

Table 2: Possible Impacts and Mitigation Measures

Impacts	Mitigation Measures
Increase noise levels	• Avoid night activities. • Ensure noisy equipment has an adequate muffler device installed. • Noisy equipment, such as a generator, will be enclosed using soundproofing materials, if necessary. • Protective equipment such as ear muffs or plugs will be provided to employees exposed to high noise levels.
Increase in particulate matter and Greenhouse Gas Emissions	• Sand stockpiles for construction will be soaked regularly during dry and windy conditions. • All workers will be provided with dust masks as part of their personal protective equipment (PPE). • Reduce load on the generator by using energy-efficient fixtures and equipment.
Increase pressure on the solid waste system	• Removable septic systems will be for all temporary toilets. • Arrangements will be put in place for regular emptying of all septic systems by a private company. • Adequate receptacles will be put in place in strategic areas. • All construction waste and garbage will be collected by a private company for disposal at the Eccles Dumpsite.
Improved aesthetics and infrastructure	• Regular maintenance
Increased employment	• Provide both direct and indirect means of employment. • Regular training. • Nationwide advertisement of employment opportunities through popular mediums. • Work with the University of Guyana to create internship programs.
Increased opportunities for local businesses/suppliers	• Create linkages with service providers e.g., transportation. • Create direct linkages with local construction groups. • Create direct linkages with other such businesses for the sharing of technologies.

3.2 Air Quality

During the construction phase, the following are identified as possible sources and risks as it relates to the air quality:

- Dust emanating from the grading of land for infrastructural works, mixing of concrete, and transporting of materials to the site.
- Smoke, soot (particulate matter), CO, CO_2, NO, SO_2, and volatile organic compounds present in the exhaust fumes coming from heavy-duty construction equipment used at the site will affect the quality of the air in the immediate surroundings. This can present potential risks for persons, particularly those with breathing challenges.
- If combustible construction wastes (cement bags, wood chips, form boards, etc.) are burnt on-site this can also release smoke which will present the same risks stated above.
- The on-site generator which will be used in the event of blackouts, may release smoke, presenting the same risks and impacts as discussed above.

Mitigation

There is the possibility for dust pollution to occur as a result of construction activities. Dust pollution can have a significant health impact, particularly to employees since these impacts will be mostly localised. As such, there is a need to implement measures to prevent and minimize dust levels within the project area. The following measures will be executed to reduce the impacts of dust:

- There is a variety of Personal Protective Equipment (PPE) available to combat dust nuisance. Workers will be equipped with the necessary PPE based on the type of work environment they are operating within. Personnel working within dusty environments will be required to use dust masks or respirators;
- During dry periods it will be necessary to soak the construction zone and routes where vehicles and equipment traverse in order to reduce dust pollution;
- Dry materials for land preparation will not be stockpiled for long periods, and will also be covered to prevent particles from becoming airborne;
- All vehicle loads transporting loose materials will be covered to minimize dust emissions;
  and
- Burning of waste onsite will be prohibited. This will reduce the amount of emissions into the atmosphere from burning.

3.3 Noise

Heavy-duty machinery and equipment will be utilized during the construction phase of the project, this can result in an increase in noise levels. Although the project will result in increased levels of noise, the impacts will be localized and will not pose harm to any nearby community, since there is none within close proximity to the actual project site. It is also important to note that the project sits within an area that is quickly developing into shore-based industrial activities and as such, will carry a higher noise level threshold to that of a residential community. Nevertheless, measures will be implemented to reduce noise levels to that recommended by the GNBS Guidelines for Noise Emission into the Environment specific to construction and industrial sites.

Mitigation

As discussed above, the impact of noise from construction activities is not expected to be significant since there is minimal residence within close proximity, particularly downwind of the project. The need still exists to implement measures to prevent and minimize noise, especially as it relates to impacts on workers and other operations within the immediate surroundings. Compliance with the GNBS limits is therefore necessary to ensure the impacts on the environment and human health, particularly for workers, are reduced. The following measures will be implemented to reduce the impacts of noise:

- The provision and monitoring of the use of Personal Protective Equipment (PPE) is critical. Workers will be equipped with the necessary PPE to mitigate noise pollution. Hearing protection for employees exposed to high noise levels: ear muffs and earplugs for employees who operate heavy-duty machines/equipment will be provided;
- Control of noise levels at the source will be done through the installation of mufflers and silencers on the exhaust system, particularly for generators;
- Noisy equipment such as generators will be sited away from work sites and also be enclosed if needs be. This would reduce the amount of noise escaping into the environment and the impacts on workers;
- Warning signs will be erected in areas of high noise levels instructing employees to wear earmuffs or earplugs as required;

3.4 Soil

Impacts on soil will be unavoidable but would not cause any impact on the environment, but would rather enhance the area by the prevention of erosion. No mitigation measures will therefore be required.

3.5 Water Resources

- Discharge of wastewater from operations into the external drainage systems can pose risks to the environment.
- Dissolved nutrients in wastewater may cause eutrophication in these water bodies, which can lead to a proliferation of weeds, algae bloom, and ultimately depletion of dissolved oxygen in the water and impeded drainage capacity.
- There will be less interception and percolation of rainfall water as a result of the structure and other concrete and bituminous surfaces and therefore increased surface run-off. This will lead to more surface water entering the drainage canals at a higher rate, requiring more rapid discharge capacity.
- The operational phase is likely to produce high levels of oil and grease which, if entered into the main drainage system can cause some amount of degradation.

Mitigation

All wastewater will be collected via internal concrete drains. Oil and grease traps will be installed at each outlet point. Where necessary, soakaway systems will be built to drain both black and gray waters. Other measures to reduce the associated impacts on the water resources will include the following:

- No dumping of solid waste into the drainage system. All waste will be managed in an acceptable manner.

- Ensuring that fuel is managed and stored in a recommended manner;
- Ensuring that waste oil, hydraulic fluid, and other oil base substances are collected using drip trays and other spill prevention mechanisms so as to prevent spills that can lead to water contamination.
- Ensuring that all oil and grease base substances are stored in sealed containers which are then kept in an enclosed environment with an impermeable base.

3.6 Fuel, Lubricants and Chemicals Management

Improper handling and management of fuel and lubricants can result in soil and water contamination. Fuel and lubricants are classified as hazardous materials and require special consideration in terms of transportation, storage, and handling. In addition to contamination, the improper use, storage, and handling of these substances can pose various threats to the workers on-site as well as surrounding communities.

Due to the nature of the project, minimal amounts of fuel would be required per day, as such, these will be brought to the site regularly, as needed. The project is not expected to require the use of lubricants and chemicals. Lubricants that are required for heavy-duty machines and equipment will be provided during servicing. Nevertheless, if these are to be stored on-site, for any reason, it is important for them to be stored properly, as they can ignite and release dangerous fumes. All fuel, lubricants, and chemicals (if used) will be clearly labeled and easily identified to reduce the chances of misuse. In addition, all workers handling these substances will be required to wear the necessary PPE to prevent any unwanted contact with these hazardous substances.

Mitigation

Fuel, lubricants, and chemicals can have serious impacts on the surrounding environment if special consideration is not given to the transportation, handling, and storage of these substances. To reduce the risks to the environment and human health, preventative actions will be taken and/or mitigation measures implemented. The contractor and subcontractors will therefore be required to implement the following measures to prevent and or reduce the impacts of these hazardous substances on the environment, in particular, contamination of soil and water from accidents and/or spills:

- Efforts will be made to transport fuel to the work area as needed. This would minimize the need to store large quantities of fuel onsite. Small quantities of fuel onsite will minimize the possibility of spillage and also minimize the impacts if spillage does occur;
- If required, the storage of fuel, lubricants, and chemicals onsite will be done at a safe distance from drains, offices, and work zones and will be placed higher than ground level to detect any leaks. Storage will also be done within a bunded area with an impervious surface and a secondary containment with the capacity of 110% of the largest storage container. Such measure is important as the containment berm would prevent any spill from getting into the surrounding environment and the elevated storage would allow for easy and early detection of leaks in the storage container;
- Preventative measures such as adequate signage, fire extinguishers, and/or sand buckets will be placed in and around the fuel storage area. The type of fuel stored in containers will be indicated and signage will include

'No Smoking' and Highly Flammable'. This would warn persons of the dangers of the substances as well as how they should handle these substances

3.7 Waste Management

This project will generate a fair amount of construction waste. If such wastes are not managed properly, they can end up in the Demerara River. The disposal of hazardous substances such as waste oil, hydraulic fluid, etc. is also important as these can contaminate the work site and also affect workers' health and safety.

Mitigation

As mentioned above, proper waste handling and disposal is important during the project's construction phase. Several waste streams will exist, including domestic garbage which usually consists of a mix of bottles, bags, cans, boxes, plant residues, excess food and packaging material, and paper. In addition, liquid waste will also be generated including sewage waste and wastewater from sanitary facilities. Finally, hazardous waste may also be present in the project area. These include used batteries, waste oil, filters, oil containers, and contaminated soils.

Outlined below are various techniques that will be implemented to properly dispose of waste associated with the project. These measures will be considered in the preparation of a Waste Management Plan which will be developed for the general construction of the facility:

- Liquid Waste – As noted, all liquid waste will be collected via PVC pipes and channeled to a series of soakaways to prevent direct discharge into the external drainage system or most importantly, the Demerara River.
- Solid Waste:
    i. All solid waste generated onsite will be disposed of at the Eccles approved landfill site by a waste disposal company.
    ii. The Company will ensure that the work area is kept tidy at all times, preventing waste from accumulating and polluting the surroundings;
    iii. Excavated materials will be properly stored and covered where possible.
- Hazardous Waste: Waste oil generated from the equipment repairs or servicing will be collected and stored in sealed containers or drums in a designated area and disposed of in a safe and acceptable manner.

4.0 General Health and Safety Concerns

Like any other undertaking, the project is likely to have several health and safety concerns both during construction and during operation. Related activities can impact the health and safety of workers and the general public. The operations will involve the use of several pieces of heavy-duty equipment. Given this type of operation, health and safety is always a major concern. Workers would be exposed to situations that can result in serious accidents, some of which can be fatal. Risks can involve accidents from the use of heavy-duty equipment, exposure to noisy equipment or general improper use of equipment, etc.

4.1 Health and Safety Measures

The following measures will be implemented as best as possible so as to ensure that the health and safety of workers and other personnel or land users are not compromised:

- The company will comply with industrial and international best practices standards so as to ensure that health and safety issues are prevented.
- An Occupational Health and Safety Officer will be employed to oversee health and safety matters through the construction phase.
- Adequate safety gear and PPE relevant to the job will be provided to all workers.
- Required warning signs will be installed at the facility.
- Workers will be trained regarding their work, especially those working in hazardous conditions.
- Emergency response equipment/measures to respond to emergencies including fire, accidents, spills, etc., will be provided.
- An emergency boat will be provided on site at all times, in case persons accidentally fall into the river while working on the revetment.

5.0 Environmental Compliance

The developer intends to comply with all regulations and guidelines prescribed by the EPA as well as, those prescribed by other governmental entities, in all efforts to ensure that good environmental and industrial practices are maintained throughout the various phases of this operation. Outlined in **Appendix 1** is a copy of RSI's certificate of registration and in **Appendix 2** is a copy of Mr. Timur Mohamed's identification.

Appendices

Appendix 1

Copy of Certificate of Incorporation

Company No. 900 F

COMPANIES ACT OF GUYANA

EXTERNAL COMPANY

CERTIFICATE OF REGISTRATION

ROCK SOLID INTERNATIONAL INC.

I hereby certify that the above-mentioned Company was registered as an external company under the Companies Act of Guyana on the 21st day of July 2023.

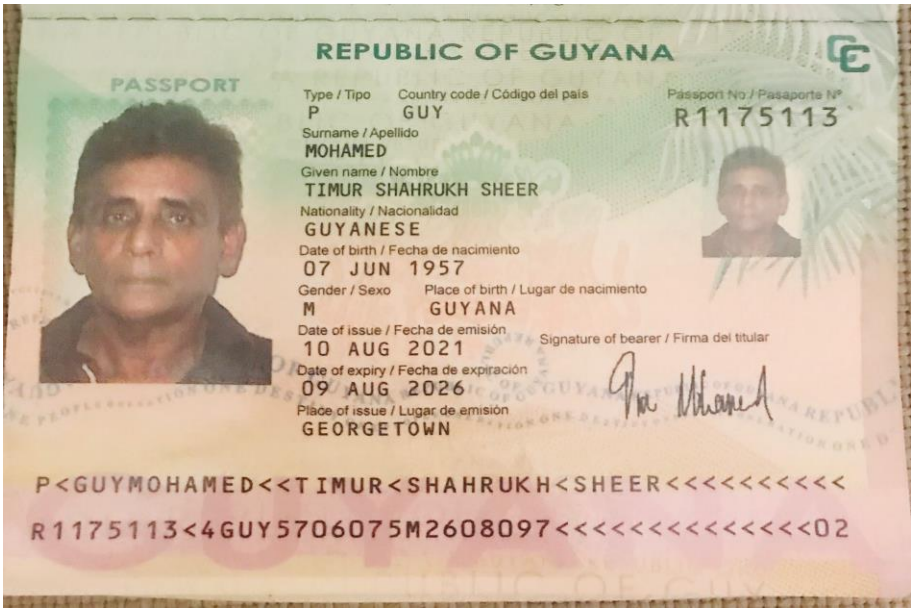
REGISTRAR OF COMPANIES GUYANA

Registrar of Companies

Dated this 28th day of July 2023

Appendix 2

Copy of Timur Mohamed's Identification Card



REPUBLIC OF GUYANA

PASSPORT

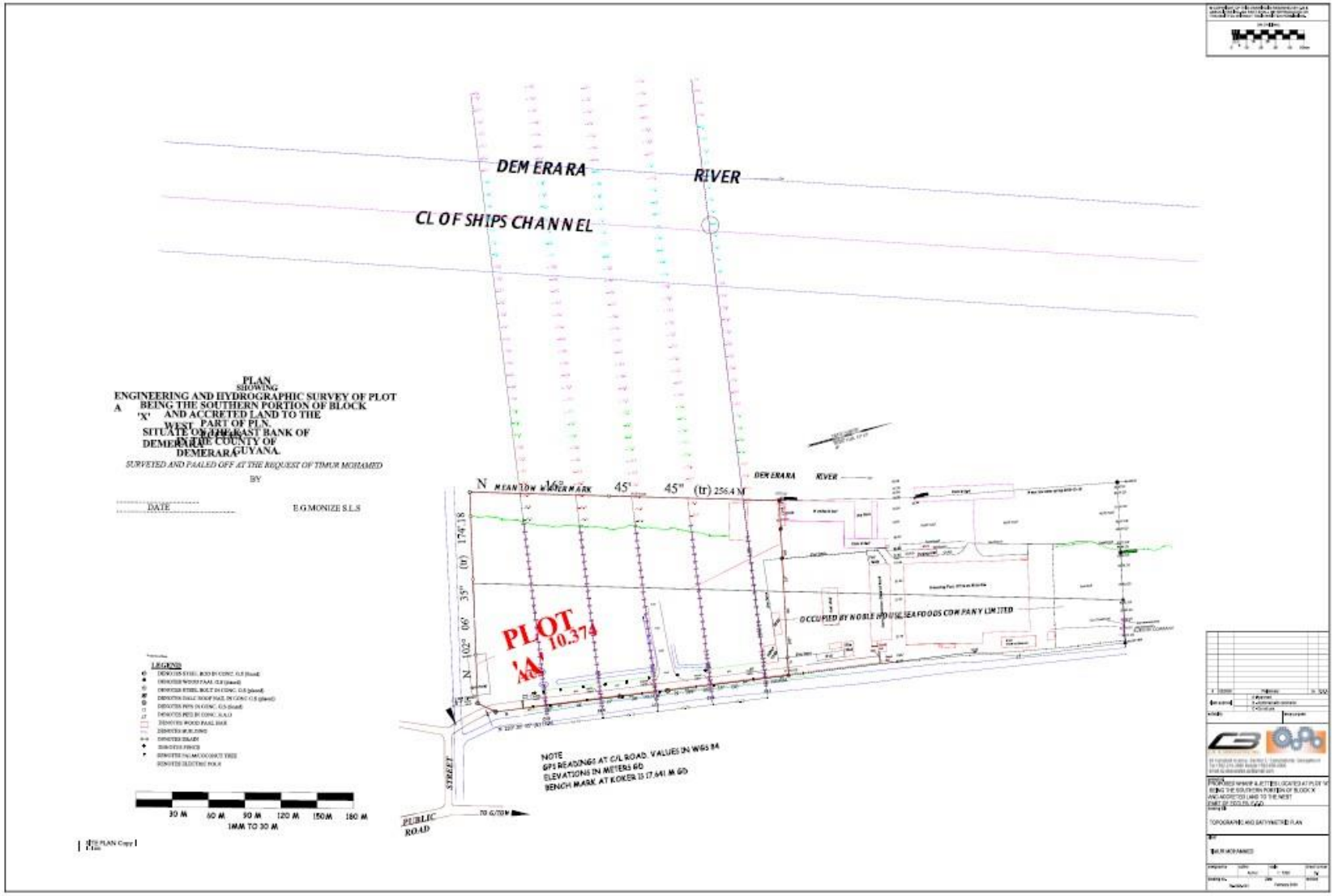
Type / Tipo: P
Country code / Código del país: GUY
Passport No / Pasaporte Nº: R1175113
Surname / Apellido: MOHAMED
Given name / Nombre: TIMUR SHAHRUKH SHEER
Nationality / Nacionalidad: GUYANESE
Date of birth / Fecha de nacimiento: 07 JUN 1957
Gender / Sexo: M
Place of birth / Lugar de nacimiento: GUYANA
Date of issue / Fecha de emisión: 10 AUG 2021
Signature of bearer / Firma del titular
Date of expiry / Fecha de expiración: 09 AUG 2026
Place of issue / Lugar de emisión: GEORGETOWN

P<GUYMOHAMED<<TIMUR<SHAHRUKH<SHEER<<<<<<<<<<

R1175113<4GUY5706075M2608097<<<<<<<<<<<<<<02

Appendix 3

Copy of the Survey Plan


DEMERARA RIVER
CL OF SHIPS CHANNEL
PLAN
SHOWING
ENGINEERING AND HYDROGRAPHIC SURVEY OF PLOT
A BEING THE SOUTHERN PORTION OF BLOCK
'X' AND ACCRETED LAND TO THE
WEST, PART OF PLN.
SITUATE ON THE EAST BANK OF
DEMERARA
DEMERARA
GUYANA.
SURVEYED AND PAILED OFF AT THE REQUEST OF TIMUR MOHAMED
BY
DATE
E.G.MONIZE S.L.S
N
MEAN LOW WATER MARK
45"
45"
(tr) 256.4 M
DEMERARA RIVER
174.18
(tr) 35"
06'
102°
N
PLOT
'A'
10.374
Ac's
OCCUPIED BY NOBLE HOUSE SEAFOODS COMPANY LIMITED
LEGEND
30 M
60 M
90 M
120 M
150M
180 M
1MM TO 30 M
NOTE
GPS READINGS AT C/L ROAD. VALUES IN WGS 84
ELEVATIONS IN METERS GD
BENCH MARK AT KOKER IS 17.641 M GD
STREET
PUBLIC
ROAD
TOPOGRAPHIC AND BATHYMETRIC PLAN

Appendix 4

Copy of Transport

297/2018

Receipt No. 184214

Fee $385,000.00

Duty $1,540,000.00

Transport.

13.

4. 11. 2017.

Guyana,

County of DEMERARA

Before Zanna Frank, Deputy *Registrar of Deeds of Guyana aforesaid*

Be it known that on this day the 5th *day of* March *in the Year Two Thousand and* Eighteen *appeared*

TIMUR SHAHRUKH SHEER MOHAMED also known as Timur Mohamed of Lot 1 Courida Park, East Coast Demerara, Guyana.

Assistant Sworn Clerk

GUYANA

which appearer declared by these presents to Cede, Transport, and in full and free property to make over to and in favour of TKK PROPERTIES INC., a company incorporated under provisions of the Companies Act, No. 29 of 1991, with its registered office situate at Lot 1 Croal Street, Stabroek, Georgetown, Guyana, its representatives and assigns.

Plot lettered "A" being the southern portion of block lettered "X" and accreted land to the west being part of Plantation Eccles, in the Eccles-Ramsburg Neighbourhood Democratic Council, situate on the East Bank of the Demerara River, in the County of Demerara and in the Republic of Guyana, the said Block lettered "X" containing an area of 9.155 (nine decimal one five five) acres being shown on a plan by E.G. Thompson, Sworn Land Surveyor, dated the 16th November, 1973 and deposited in the Deeds Registry at Georgetown on the 3rd December, 1973, the said plot containing an area of 5.6076 (five decimal six nought seven six) acres being shown on a plan by Hugh A. Howard, Sworn Land Surveyor, dated the 28th April, 2000 and recorded at the Department of Lands and Surveys as Plan No. 30000 and deposited in the Deeds Registry aforesaid on the 17th July, 2000, the said Plot 'A' resurveyed and now containing an area of 10.374 (ten decimal three seven four) acres as shown on a Plan by G. Samaroo, Sworn Land Surveyor, dated the 17th March, 2017 and recorded at the Guyana Lands and Surveys Commission on the 23rd March, 2017 as Plan No. 66196 and deposited in the Deeds Registry on the 20th July, 2017, no building thereon, together with and subject to the easements, rights, benefits, stipulations, restrictions and obligations with intent that the same shall run with and be binding on Plantation Eccles, cum annexis and the said Plot lettered "A" and every part thereof into whosesoever hand the same may come namely:

(a) The Proprietor or Proprietors for the time being of the property hereby sold, (hereinafter called "the Property Proprietor") shall have the right to construct at their own expense a road leading to the northern part of the property and running immediately South of lot 174 (one hundred and seventy-four) as shown on the said plan by E.G. Thompson and shall also have the right to paal off such part of the northern bank of the adjacent canal as is necessary for the protection of the road and shall have the right of ingress to and egress from the property over the said road.

(b) The Property Proprietor shall be responsible for the internal drainage of the property and shall have the right of drainage through the main drainage system of the estate and through the drainage system of such adjoining lands as belongs to the Estate Proprietor for as long as they continue to operate the same (which they shall not be under any obligation to do) PROVIDED ALWAYS that the Estate Proprietors shall not be liable for any loss or damage suffered as a result of the insufficiency or discontinuance of or any interruption of or breakdown in the said system howsoever the same may be caused and even if caused by the wilful default or negligence of the Estate Proprietors or their agents, servants, tenants, invitees or licensees and that nothing herein contained shall be deemed or construed as imposing on the Estate Proprietors any obligation to provide any means or system of drainage whatsoever for the benefit of the property or for any other purposes or any liability whatever in respect of damage from flooding arising from any breach or inadequacy in any dam or River wall.

(c) The right in perpetuity of the Property Proprietor to use the foreshore of the property and to enjoy all riparian rights formerly enjoyed by the Estate Proprietors and to erect gates on the River defence dam forming part of the property and to construct jetties, mooring dolphins and other facilities required PROVIDED ALWAYS that such rights shall not interfere with the right of the Estate Proprietor to construct a repass along the said River dam for the purpose of River defence or drainage of the other parts of Plantation Eccles and that any such construction shall be in accordance with and comply with all statutory or other regulations or the directions of the Competent Authorities and PROVIDED FURTHER that the property proprietor shall keep and maintain in good order and condition the said River dam and shall provide all other necessary River defences and in particular shall effect and complete such repairs and work as the Estate proprietor may by notice in writing call upon the Property Proprietor to effect and complete for the purpose of keeping and maintaining the said dam and River defences in good condition within such period as may be specified in such notice PROVIDED ALWAYS that if the property proprietor shall fail or neglect to effect and complete such repairs or works the Estate Proprietor shall be at liberty and are hereby expressly authorized to effect and complete the same and to recover the cost thereof from the property proprietor.

Being of the value of **SEVENTY SEVEN MILLION**

Dollars of the current money of Guyana aforesaid

transported on the **13th September, 2000 - No. 1746**

The appearer *acknowledging to be fully paid and satisfied for the same*

And appeared at the same time Rangela Persaud (Director), for and on behalf of TKK Properties Inc. by resolution

who declared to accept the foregoing Transport and to be satisfied therewith.

In testimony whereof the parties have hereunto set their hands and I, the said Registrar of Deeds, together with the Transport Clerk, have countersigned the same, the day and year first above written. The seal of the Court being affixed hereto

Deputy

for Timur Mohamed

TKK Properties Inc

Director

Certified a True Copy

Assistant Senior Clerk

9th March 2018

CERTIFICATE OF REGISTRAR

I hereby certify that I have examined, checked and satisfied myself as to the sufficiency of the title of the within named transporter to pass the within mentioned transport.

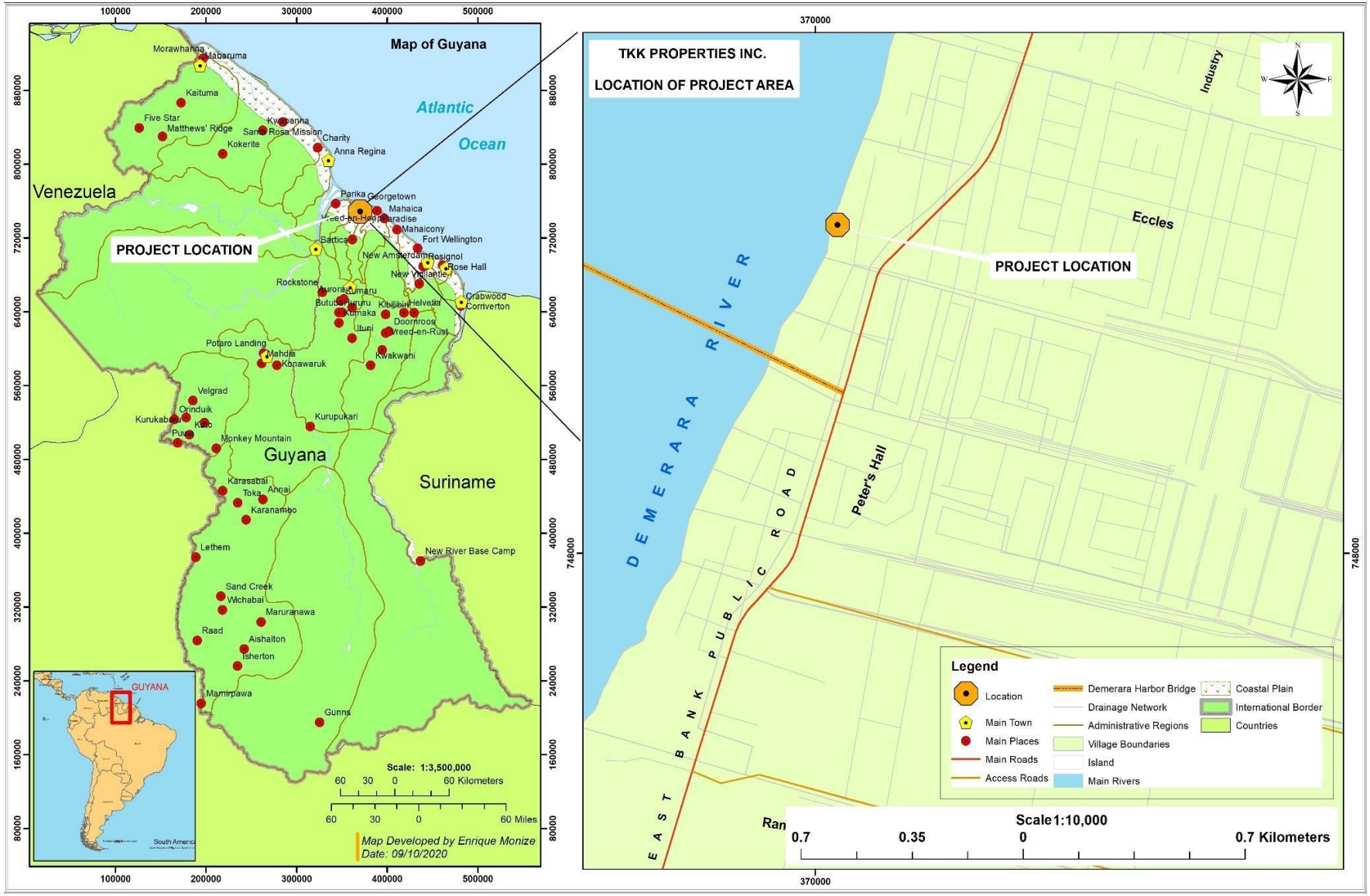
Dated at Georgetown this 28 *day of* February 2018

Dep. Registrar of Deeds

TKK PROPERTIES INC., a company incorporated under provisions of the Companies Act, No. 29 of 1991, with its registered office situate at Lot 1 Croal Street, Stabroek, Georgetown, Guyana

Appendix 5

Location Map


Map of Guyana
TKK PROPERTIES INC.
LOCATION OF PROJECT AREA
PROJECT LOCATION
PROJECT LOCATION
Venezuela
Guyana
Suriname
Atlantic
Ocean
Morawhanna
Mabaruma
Kaituma
Five Star
Matthews' Ridge
Kokerite
Charity
Anna Regina
Parika
Georgetown
Mahaica
Paradise
Mahaicony
Fort Wellington
Battica
New Amsterdam
Rosignol
Rose Hall
New Vigilantie
Rockstone
Aurora
Kumaru
Crabwood Corriverton
Helvetia
Doornroos
Kwakwani
Potaro Landing
Mahdia
Konawaruk
Velgrad
Orinduik
Kurupukari
Monkey Mountain
Karasabai
Toka
Ahnai
Karanambo
Lethem
New River Base Camp
Sand Creek
Wichabai
Maruranawa
Raad
Aishalton
Isherton
Mamirpawa
Gunns
GUYANA
South America
Scale: 1:3,500,000
60 30 0 60 Kilometers
60 30 0 60 Miles
Map Developed by Enrique Monize
Date: 09/10/2020
DEMERARA RIVER
EAST BANK PUBLIC ROAD
Peter's Hall
Eccles
Industry
Ran
Scale1:10,000
0.7 0.35 0 0.7 Kilometers
Legend
Location
Main Town
Main Places
Main Roads
Access Roads
Demerara Harbor Bridge
Drainage Network
Administrative Regions
Village Boundaries
Island
Main Rivers
Coastal Plain
International Border
Countries

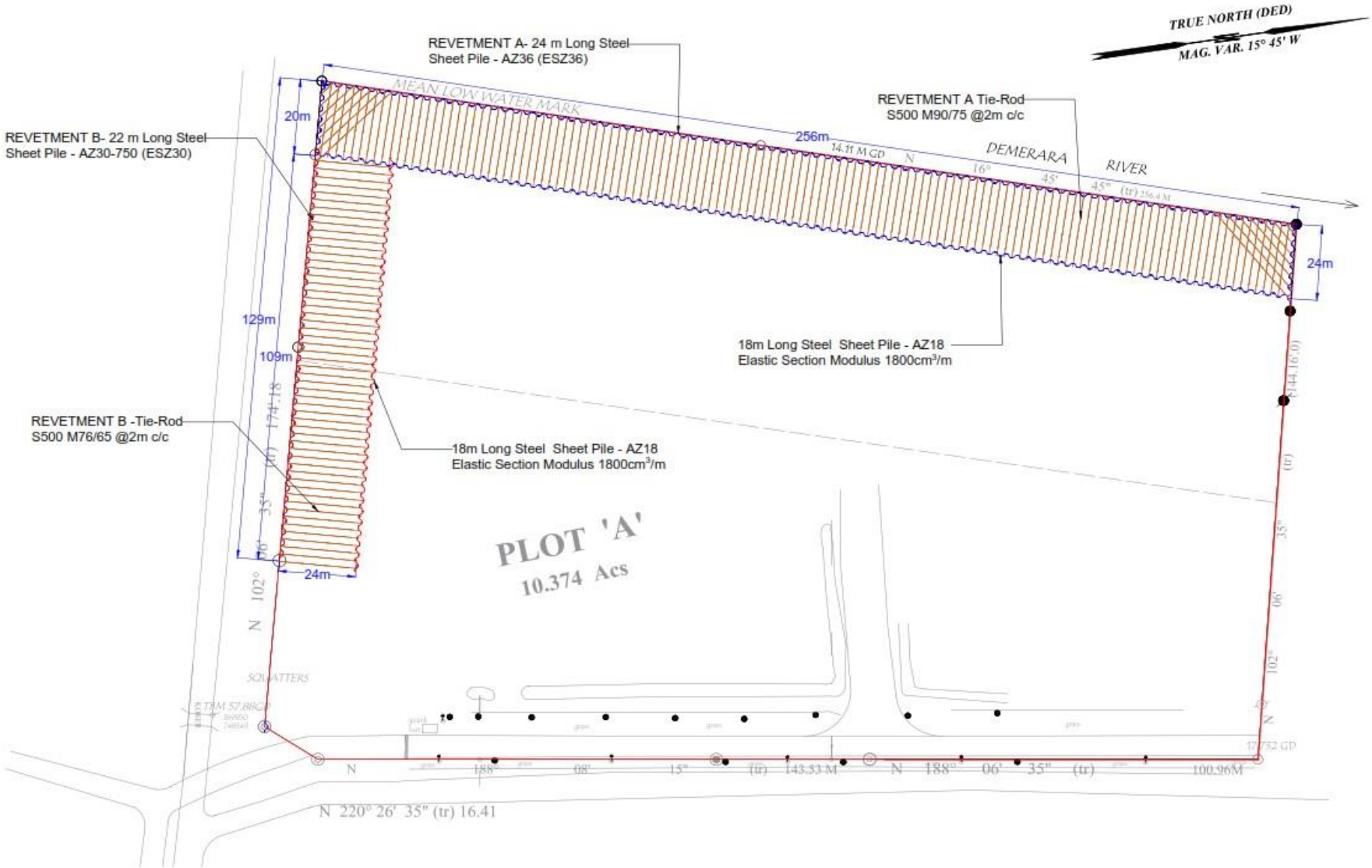
Appendix 6

Major Land Uses Surrounding the Project Area


TKK PROPERTIES INC.
MAJOR LAND USES SURROUNDING PROJECT AREA
Massy Gas Products Guyana Limited
Eccles Primary School
Residential
Noble House Seafoods Limited
Mixed Land Uses
Project Area
Cemetery
Eccles
Peter's Hall
1:5,000
Map Developed by Enrique Monize
Date: 24 November, 2020
0
0.25
0.5
1 Kilometers
DEMERARA RIVER
369400
369600
369800
370000
370200
370400
370600
370800
371000
371200
371400
749600
749400
749200
749000
748800
Legend
Main Roads
Land Uses
Main River
Cemetery
Eccles Primary School
Massy Gas Products Guyana Limited
Mixed Land Uses
Noble House Seafoods Limited
Project Area
Residential

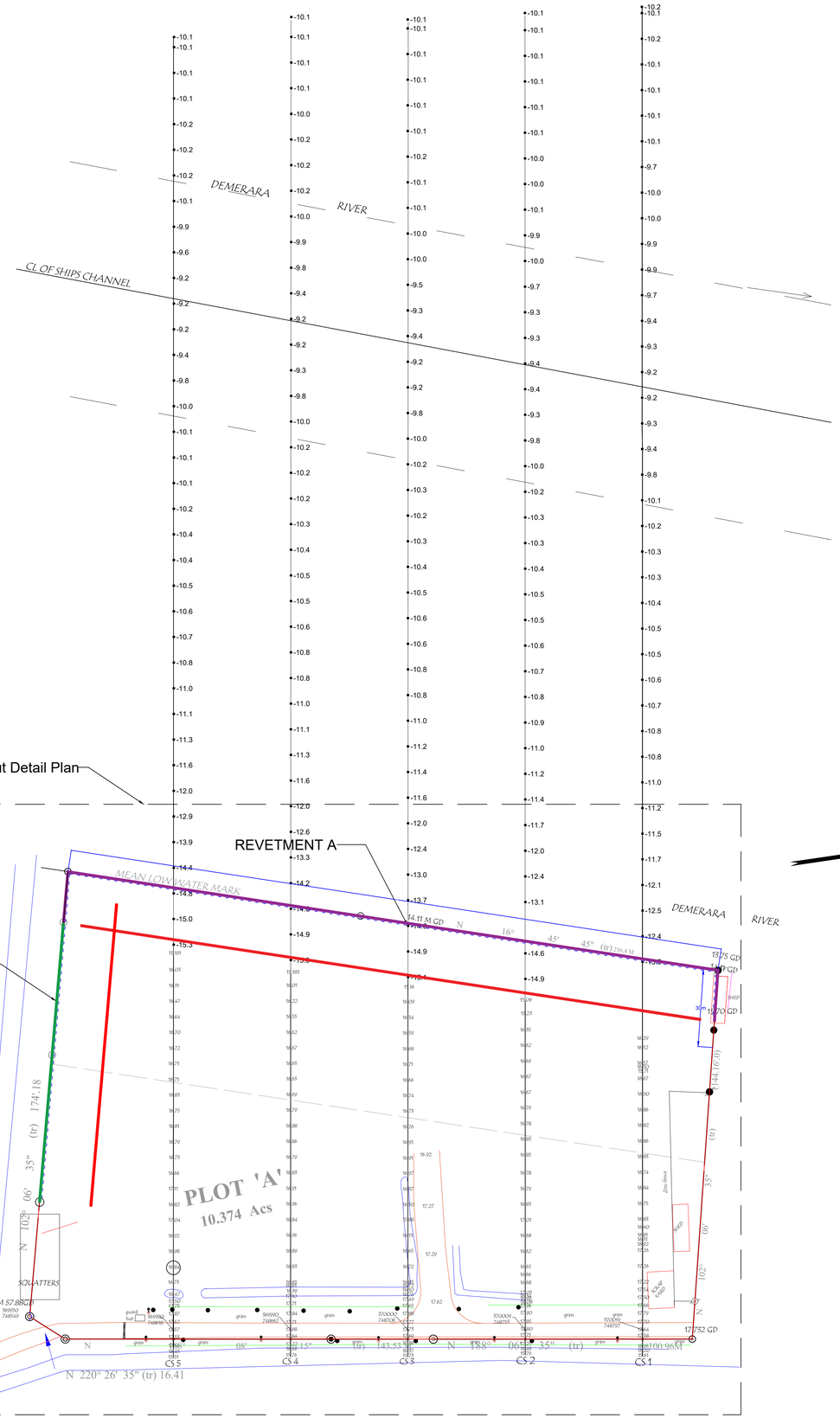
Appendix 7

Proposed Revetment Layout of the Aggregate Facility


TRUE NORTH (DED)
MAG. VAR. 15° 45' W
REVETMENT A- 24 m Long Steel
Sheet Pile - AZ36 (ESZ36)
REVETMENT A Tie-Rod
S500 M90/75 @2m c/c
REVETMENT B- 22 m Long Steel
Sheet Pile - AZ30-750 (ESZ30)
MEAN LOW WATER MARK
20m
256m
14.11 M GD
N 16° 45' 45" (tr) 256.4 M
DEMERARA RIVER
24m
129m
109m
18m Long Steel Sheet Pile - AZ18
Elastic Section Modulus 1800cm³/m
REVETMENT B -Tie-Rod
S500 M76/65 @2m c/c
18m Long Steel Sheet Pile - AZ18
Elastic Section Modulus 1800cm³/m
PLOT 'A'
10.374 Acs
24m
N 102° 35' 06" (tr) 174.18
SQUATTERS
N 188° 08' 15" (tr) 143.53 M
N 188° 06' 35" (tr) 100.96M
N 220° 26' 35" (tr) 16.41

Annex 1

Detailed Project Drawings



LEGEND

- DENOTES STEEL ROD IN CONC. G.S (found)
- DENOTES WOOD PAAL G.S (placed)
- DENOTES STEEL BOLT IN CONC. G.S (placed)
- DENOTES GALC ROOF NAIL IN CONC G.S (placed)
- DENOTES PIPE IN CONC. G.S (found)
- DENOTES PIPE IN CONC. H.A.H
- DENOTES WOOD PAAL HAH
- DENOTES BUILDING
- DENOTES DRAIN
- DENOTES FENCE
- DENOTES PALM/COCONUT TREE
- DENOTES ELECTRIC POLE
- PROPOSED REVETMENT

client approval	A - Approved	
	B - Approved with comments	
	C - Do not use	
suitability		issue purpose

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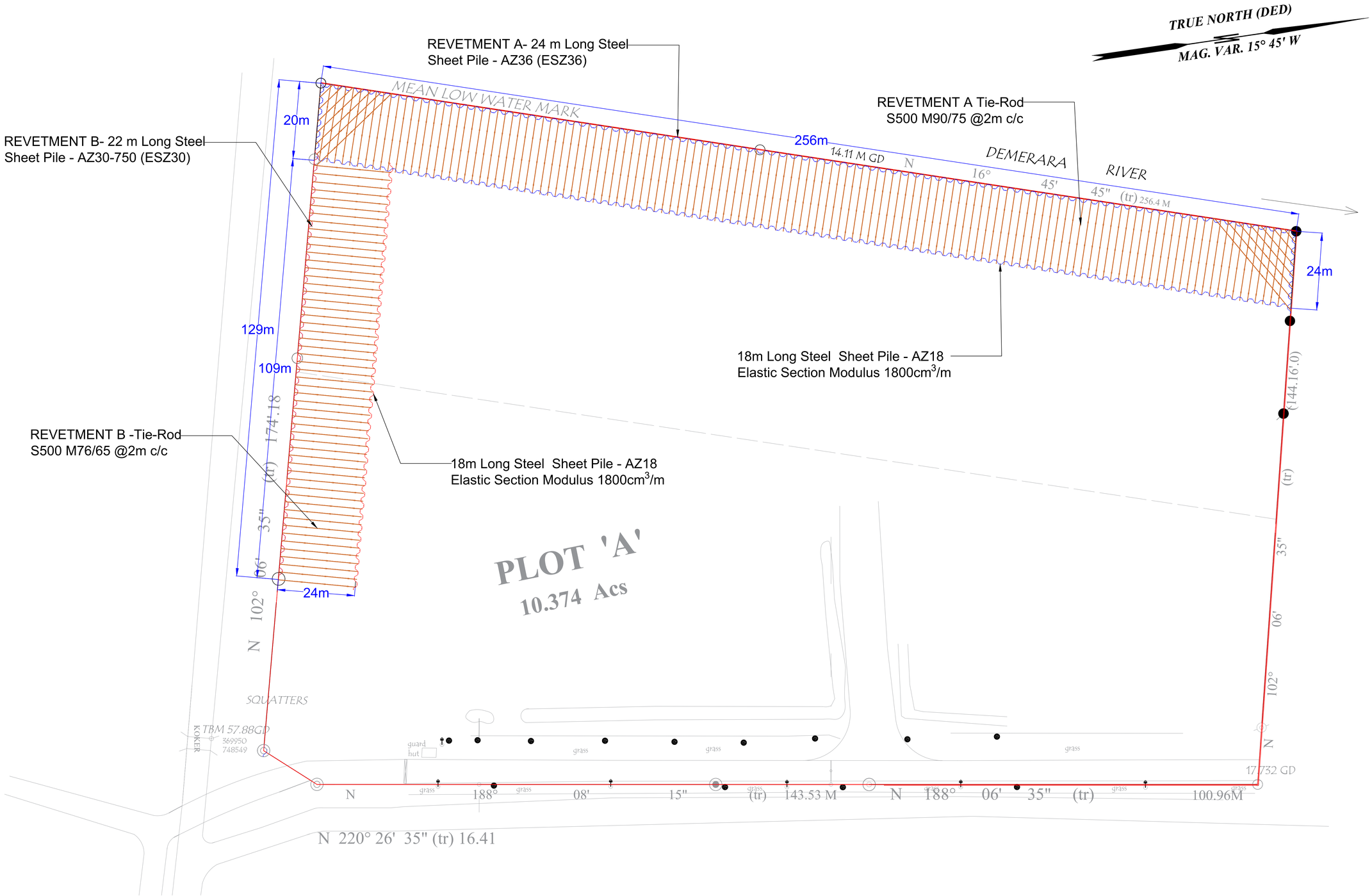
drawing title

GENERAL SITE PLAN

client

TIMUR MOHAMMED

designed by	author	scale	sheet number
C.B.A	S.KASSIM	-	S.1.
drawing no.	Date:		revision
TM-CBA-001	AUGUST 2023		



client approval	A - Approved	
	B - Approved with comments	
	C - Do not use	
suitability		issue purpose

C.B. & ASSOCIATES INC.
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drawing title

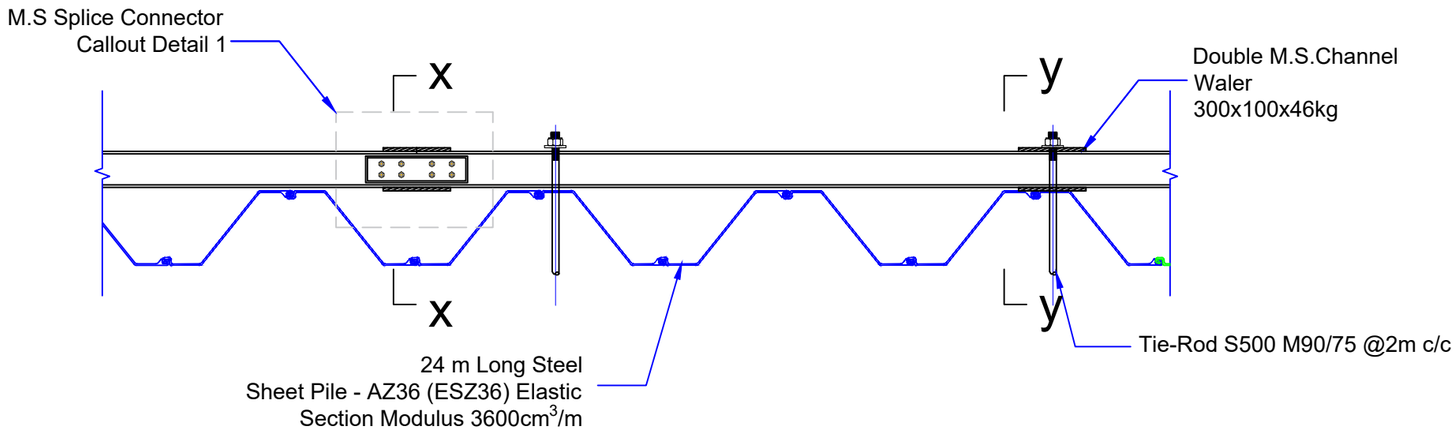
SITE - PROPOSED REVETMENT PLAN

client

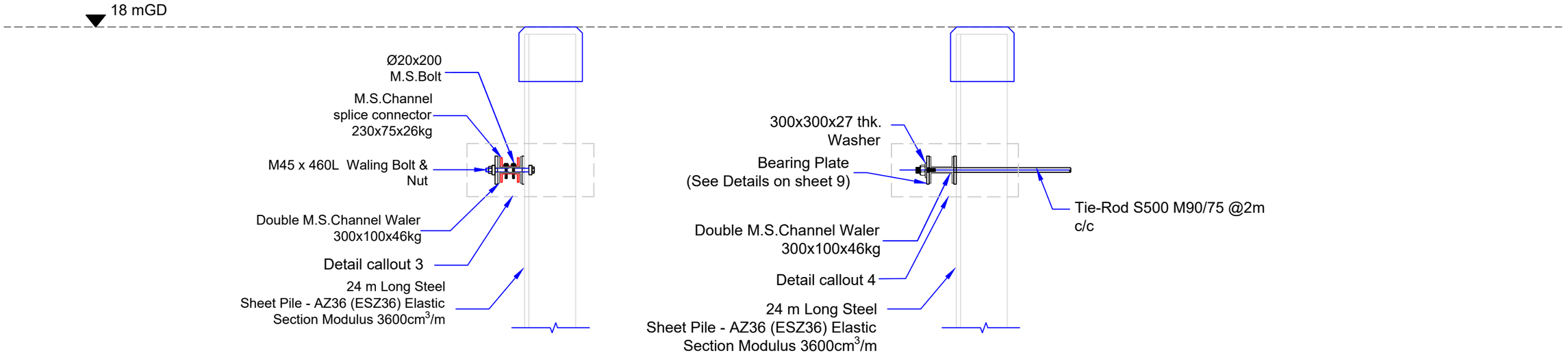
TIMUR MOHAMMED

designed by	author	scale	sheet number
C.B.A	S.KASSIM	-	S.2.

drawing no.	Date:	revision
TM-CBA-001	AUGUST 2023	



REVETMENT A - TIE ROD TO SSP REVETMENT@ SHEET PILE WALL-DETAIL



SECTION x-x

SECTION y-y

N0.	Revision	Date	Initials

Notes

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4. ALL ELEVATIONS ARE TO BE FIELD VERIFIED BEFORE CONSTRUCTION.

Legend

Drawn	S.Kassim
Designed	-
Checked	C.B.A
Approved	-

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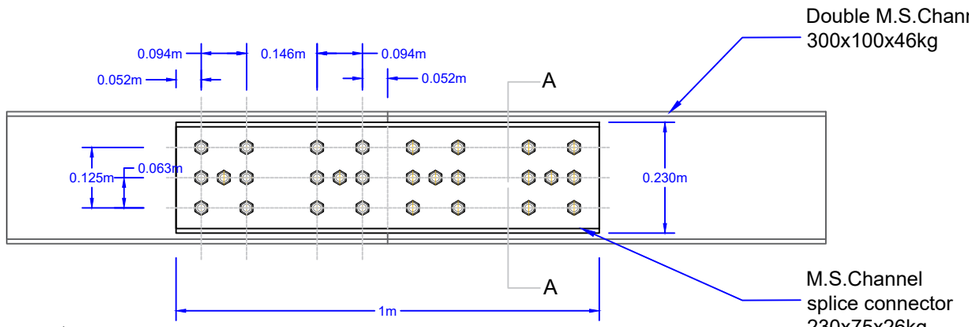
Client: TIMUR MOHAMED

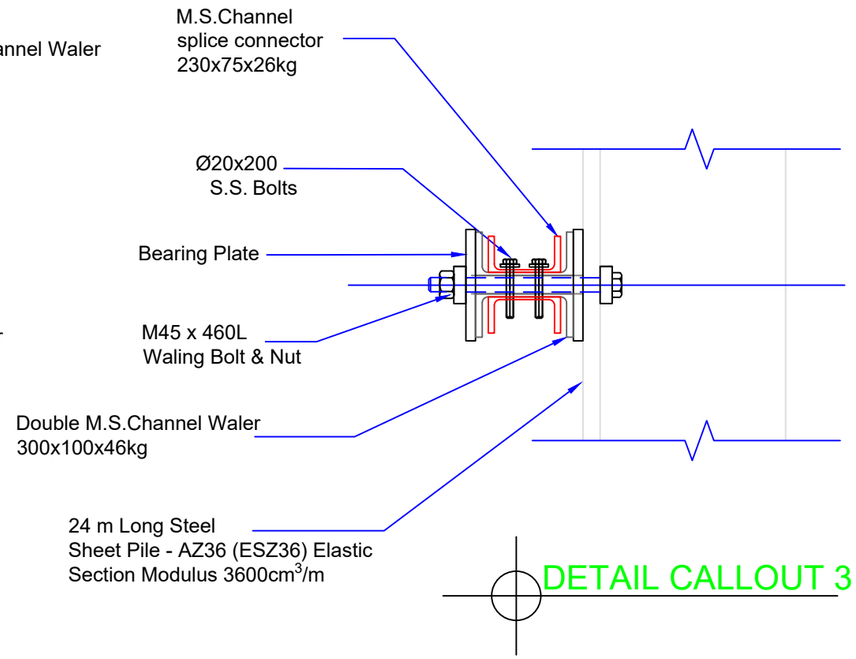
Project: REVETMENT DESIGN FOR PLOT A

Title: STEEL SHEET PILE DETAILS-REVETMENT A

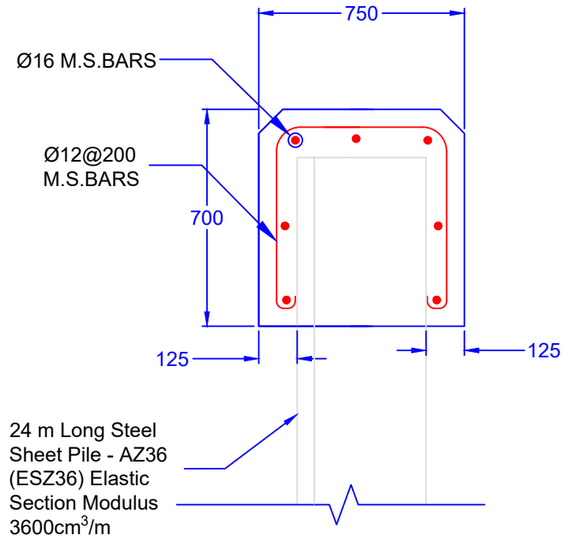
Date:	Dwg. No.:	Scale:	Sheet:
AUG-2023	-	NOT TO SCALE	S.3.



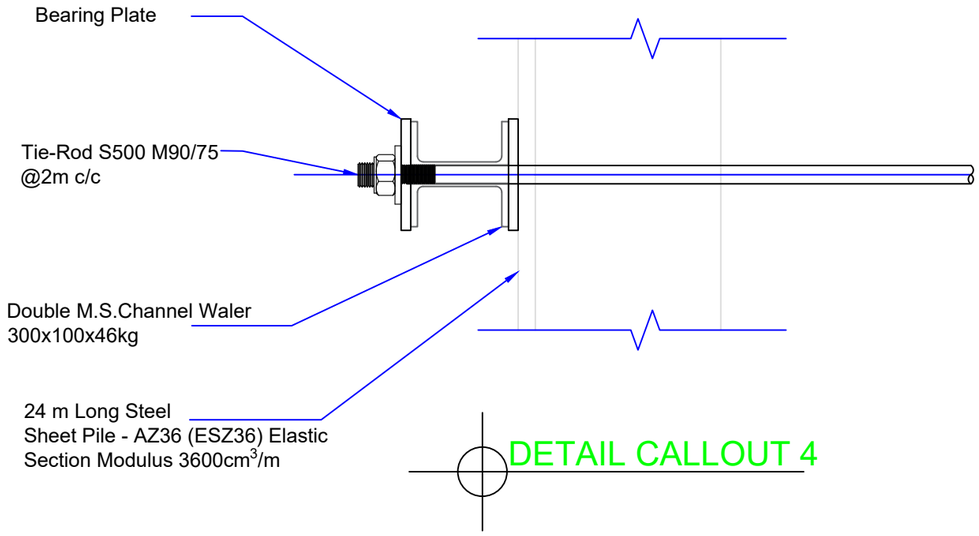
SPLICE DETAIL CALLOUT DETAIL 1



DETAIL CALLOUT 3



TYPICAL CAPPING BEAM DETAIL@ SECTION STEEL SHEET REVETMENT WALL



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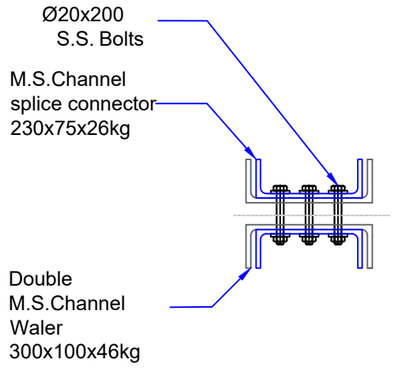

SECTION A-A

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Legend

Drawn	S.Kassim
Designed	-
Checked	C.B.A
Approved	-

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Client: TIMUR MOHAMED

Project: REVETMENT DESIGN FOR PLOT A

Title: STEEL SHEET PILE CALLOUT DETAILS-REVETMENT A

Date:	Dwg. No.:	Scale:	Sheet:
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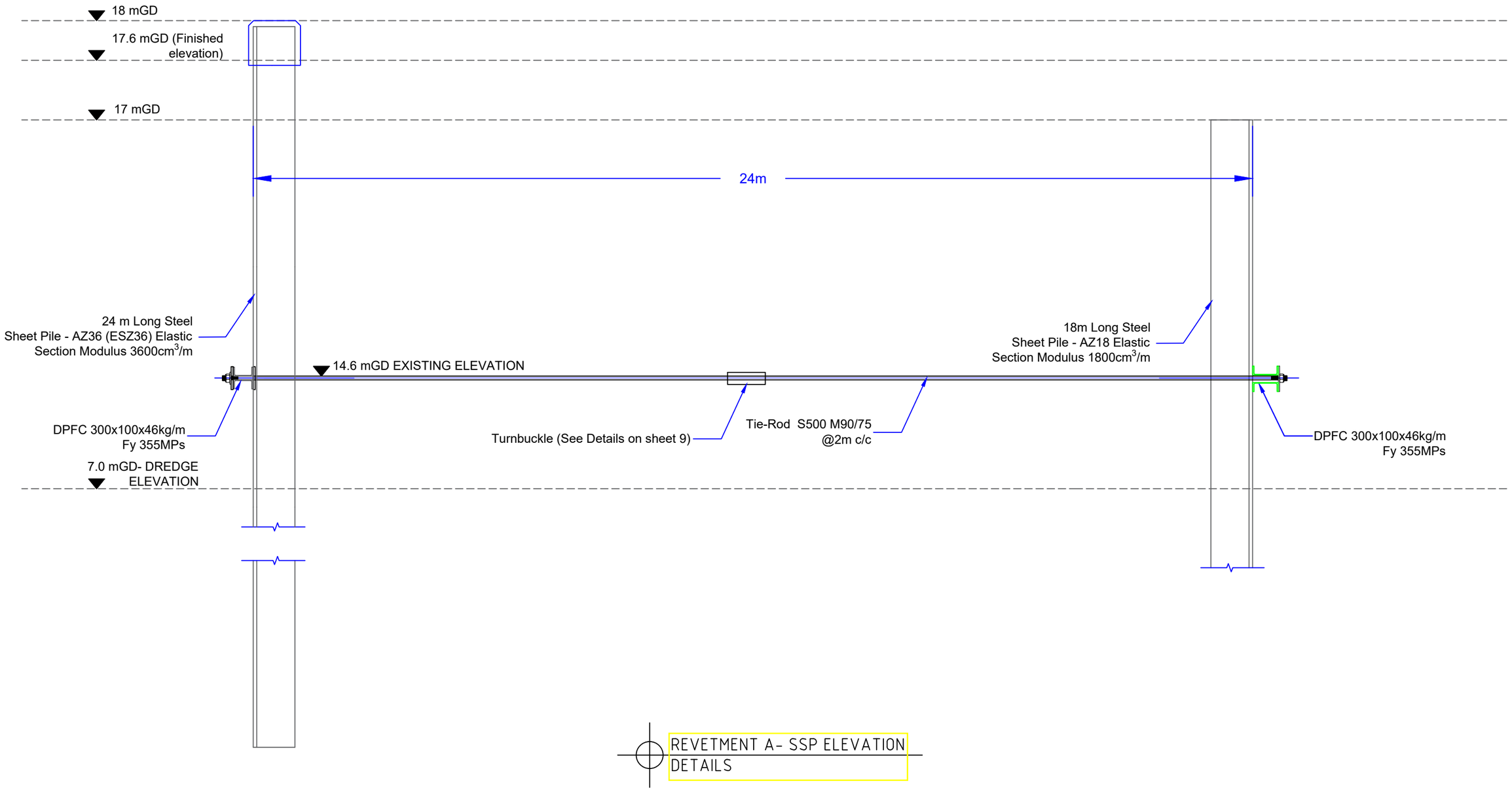

REVETMENT A- SSP ELEVATION DETAILS

NO.	Revision	Date	Initials

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Designed	-
Checked	C.B.A
Approved	-

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Client:	TIMUR MOHAMED
Project:	REVETMENT DESIGN FOR PLOT A
Title:	STEEL SHEET PILE SECTION DETAILS-REVETMENT A

Date:	Dwg. No.:	Scale:	Sheet:
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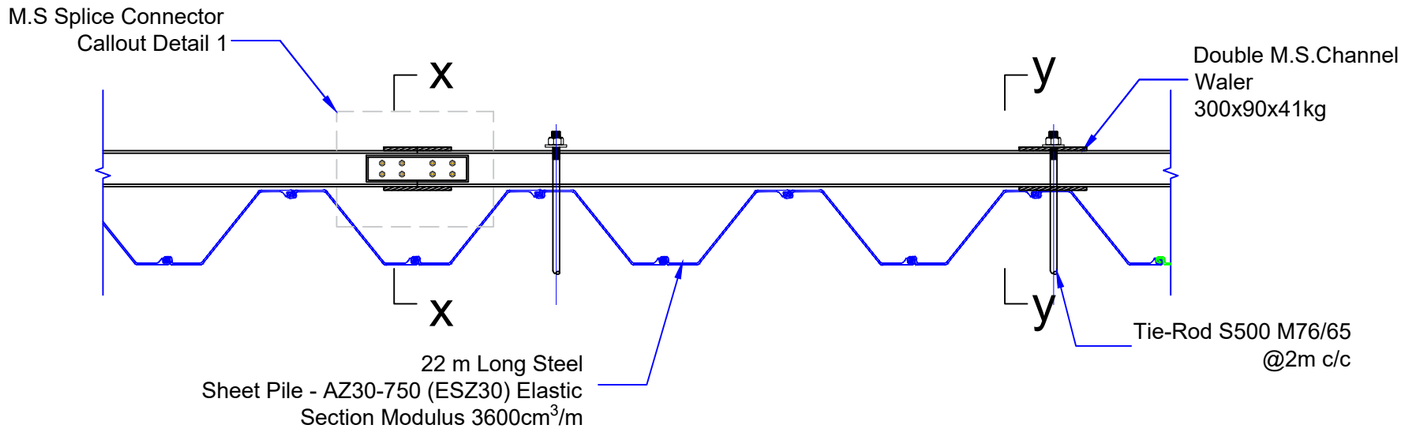
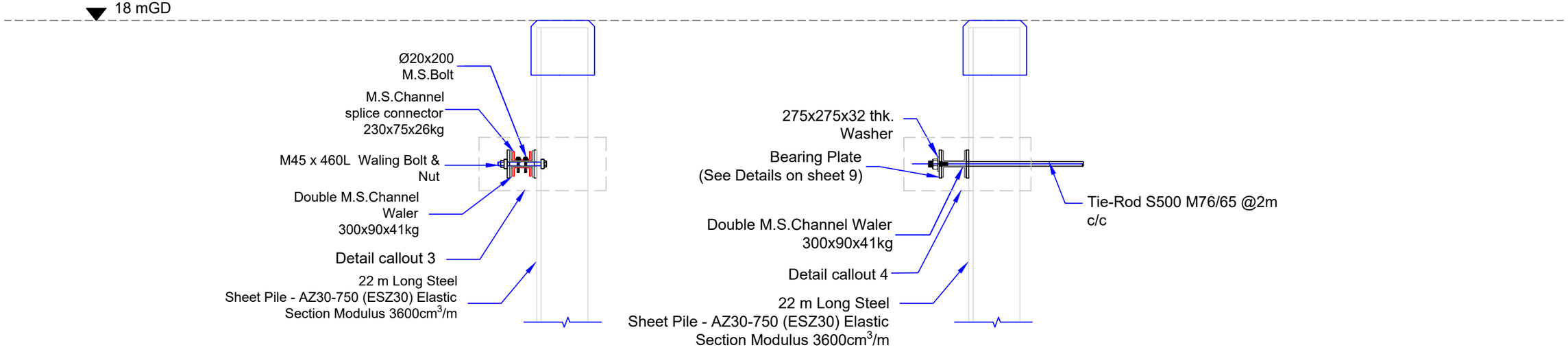


REVETMENT B - TIE ROD TO SSP REVETMENT@ SHEET PILE WALL-DETAIL



SECTION x-x

SECTION y-y

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Title: STEEL SHEET PILE DETAILS-REVETMENT B

Date:	Dwg. No.:	Scale:	Sheet:
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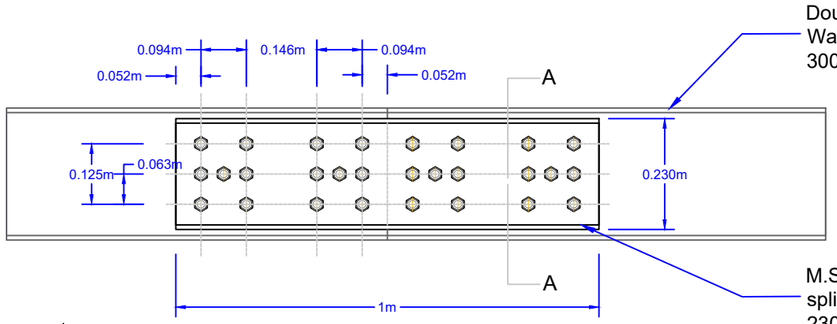
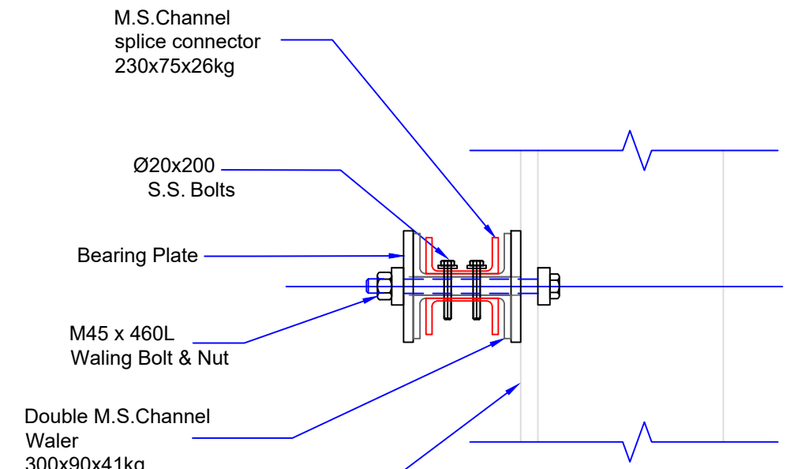


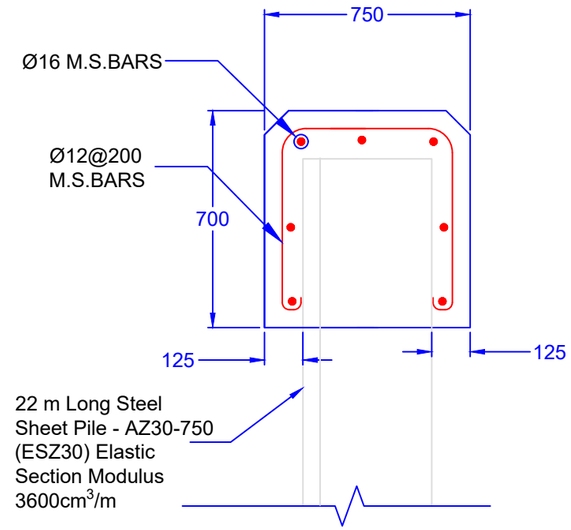
Double M.S.Channel
Waler
300x90x41kg

M.S.Channel
splice connector
230x75x26kg

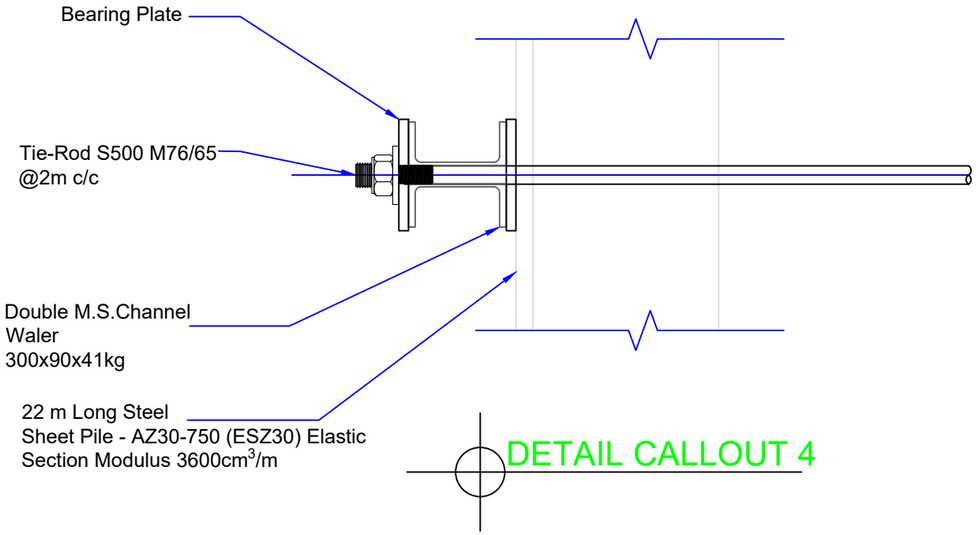
SPLICE DETAIL CALLOUT DETAIL 1



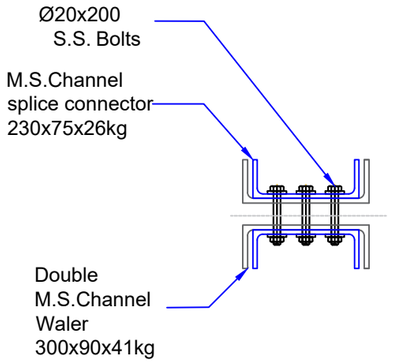
DETAIL CALLOUT 3



TYPICAL CAPPING BEAM DETAIL@ SECTION STEEL SHEET REVETMENT WALL



DETAIL CALLOUT 4



SECTION A-A

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Legend

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Designed	-
Checked	C.B.A
Approved	-

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Title: STEEL SHEET PILE CALLOUT DETAILS-REVETMENT B

Date:	Dwg. No.:	Scale:	Sheet:
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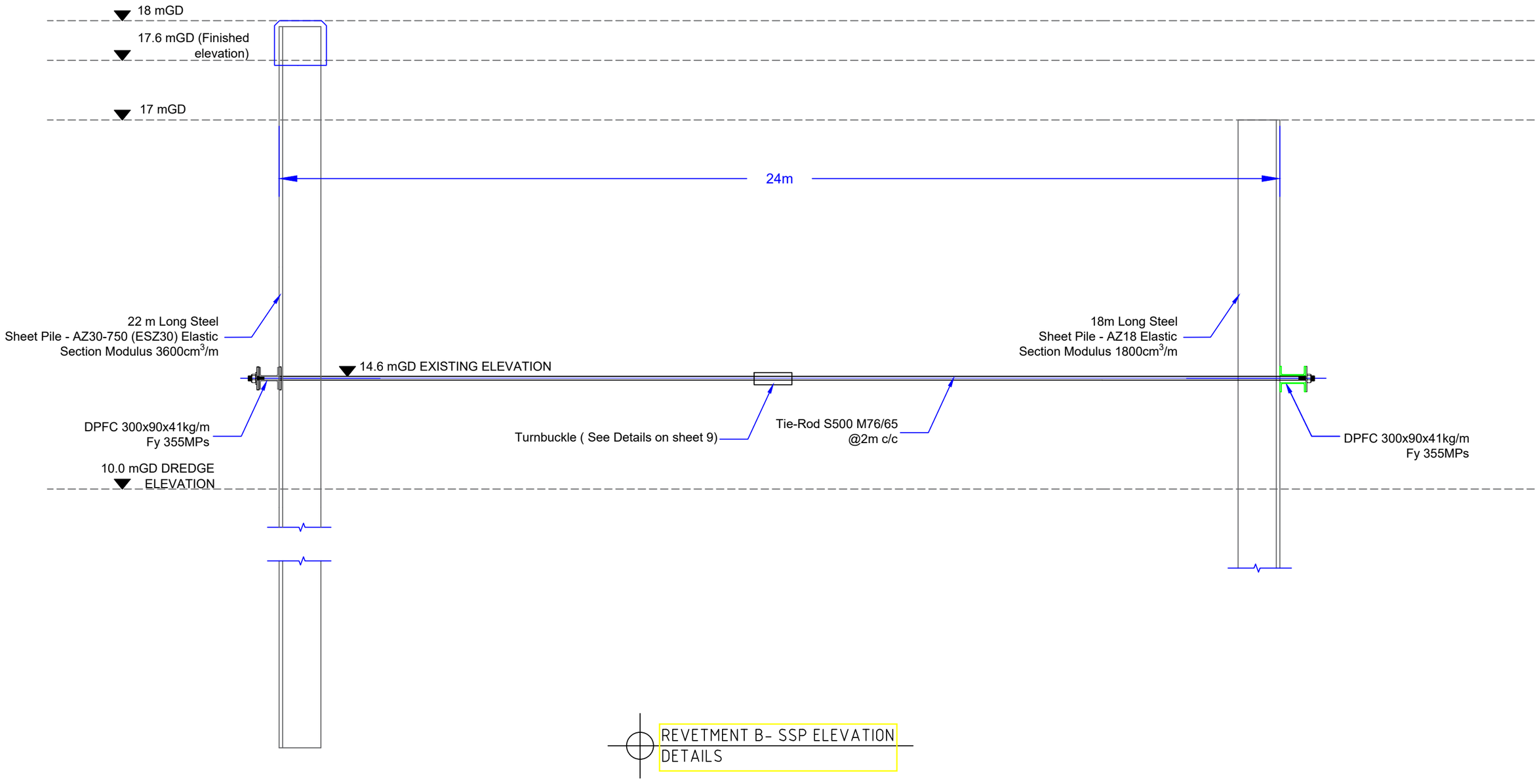

REVETMENT B- SSP ELEVATION DETAILS

NO.	Revision	Date	Initials

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Title:	STEEL SHEET PILE SECTION DETAILS-REVETMENT B

Date:	Dwg. No.:	Scale:	Sheet:
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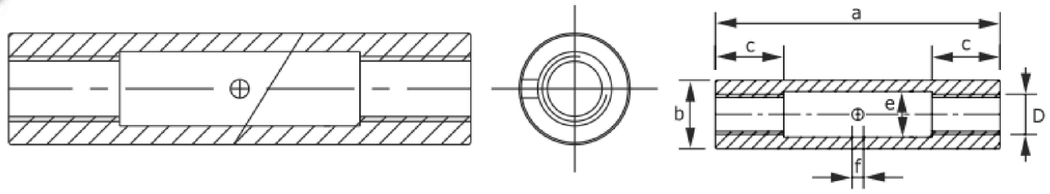


Turnbuckles

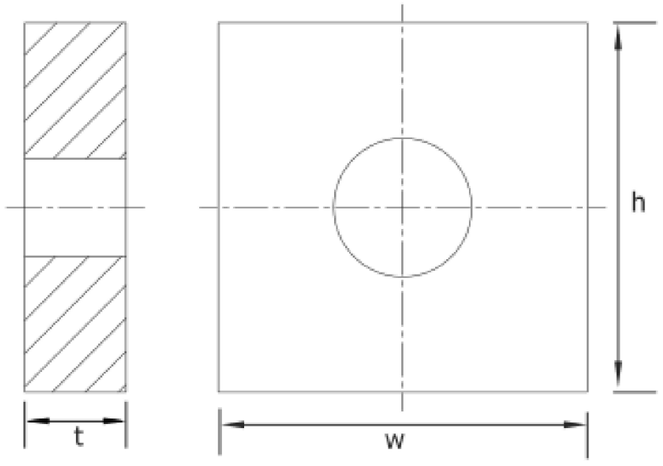
ØD	metric	M90
a	mm	550
b	mm	133
c	mm	90
e	mm	96
f	mm	25
	kg	32.5

TURNBUCKLE DETAILS

ØD	metric	M76
a	mm	550
b	mm	11.3
c	mm	75
e	mm	80
f	mm	25
	kg	24.7

REVETMENT A TURNBUCKLE DETAILS

REVETMENT B TURNBUCKLE DETAILS



Bearing plate

ØD	metric	M90
a	mm	U380
b	mm	120
c	mm	260
e	mm	180
f	mm	40
	kg	14.7

BEARING PLATE DETAILS

ØD	metric	M72
a	mm	U300
b	mm	100
c	mm	220
e	mm	160
f	mm	30
	kg	8.3

REVETMENT A BEARING PLATE DETAILS

REVETMENT B BEARING PLATE DETAILS

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Checked	C.B.A
Approved	-

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email: cb.associates.gy@gmail.com

Client: TIMUR MOHAMED

Project: REVETMENT DESIGN FOR PLOT A

Title: TURNBUCKLE AND BEARING PLATE DETAILS

Date:	Dwg. No.:	Scale:	Sheet:
AUG-2023	-	NOT TO SCALE	S.9.