

**IN THE fourth SESSION OF THE SEVENTH
PARLIAMENT OF THE FOURTH REPUBLIC OF
GHANA**

**REPORT OF THE COMMITTEE ON ROADS AND
TRANSPORT**

ON THE

**DESIGN-BUILD CONTRACT AGREEMENT
BETWEEN THE GOVERNMENT OF THE
REPUBLIC OF GHANA (REPRESENTED BY THE
MINISTRY OF ROADS AND HIGHWAYS
[GHANA HIGHWAY AUTHORITY]) AND GRINER
ENGINEERING GH LIMITED FOR AN AMOUNT
OF FIFTY-EIGHT MILLION, ONE THOUSAND,
ONE HUNDRED AND THIRTY-EIGHT EUROS
AND EIGHTY CENTS (€58,001,138.80) FOR
THE DESIGN AND CONSTRUCTION OF THREE
BRIDGES OVER SWEET RIVER AT ITURE,
RIVER ANKOBRA AT ANKOBRA AND BLACK
VOLTA RIVER AT DIKPE**

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REPORT OF THE COMMITTEE ON ROADS AND TRANSPORT ON THE DESIGN-BUILD CONTRACT AGREEMENT BETWEEN THE GOVERNMENT OF THE REPUBLIC OF GHANA (REPRESENTED BY THE MINISTRY OF ROADS AND HIGHWAYS [GHANA HIGHWAY AUTHORITY]) AND GRINER ENGINEERING GH LIMITED FOR AN AMOUNT OF FIFTY-EIGHT MILLION, ONE THOUSAND, ONE HUNDRED AND THIRTY-EIGHT EUROS AND EIGHTY CENTS (€58,001,138.80) FOR THE DESIGN AND CONSTRUCTION OF THREE BRIDGES OVER SWEET RIVER AT ITURE, RIVER ANKOBRA AT ANKOBRA AND BLACK VOLTA RIVER AT DIKPE

1. INTRODUCTION

On Monday, 3rd August, 2020 the Design-Build Contract Agreement between the Government of the Republic of Ghana (represented by the Ministry of Roads and Highways {Ghana Highway Authority}) and Griner Engineering GH Limited for an amount of Fifty-Eight Million, One Thousand, One Hundred and Thirty-Eight Euros and Eighty Cents (€58,001,138.80) for the design and construction of three bridges over Sweet River at Iture, River Ankobra at Ankobra and Black Volta River at Dikpe was presented to Parliament by the Majority Leader and Minister for Parliamentary Affairs, Hon. Osei Kyei-Mensah-Bonsu.

The Speaker referred the Contract Agreement to the Committee on Roads and Transport for consideration and report in accordance with Article 181 of the 1992 Constitution and Order 189 of the Standing Orders of Parliament.

The Committee met the two Deputy Ministers of the Ministry of Roads and Highways, Hon. Anthony N-Yoh Puowele Karbo and Hon. Kwabena Owusu-Aduomi and Officials from the Sector Ministry. The Committee is grateful to the Officers for assisting the Committee in its deliberations.

2. REFERENCE DOCUMENTS

- i. The 1992 Constitution of Ghana
- ii. The Standing Orders of Parliament
- iii. The Contract Agreement on the Design and Construction of Three Bridges over the Sweet River, River Ankobra and the Black Volta Riveer at Iture, Ankobra and Dikpe respectively amounting to €58,001,138.00 between the

Government of Ghana (represented by the Ministry of Roads and Highways) and Griner Engineering Ghana Limited.

3. BACKGROUND

The Ministry of Roads and Highways is currently implementing a programme to improve the country's road network, under the programme, road agencies particularly the Ghana Highway Authority is rehabilitating and upgrading weak or broken bridges across the country to reduce the bottlenecks on the trunk road network.

Governments over the years have implemented and continue to implement a number of road infrastructure projects to connect districts to municipalities and from municipalities to metropolitan areas. This project is a continuation of such programmes.

The Ghana Highway Authority's National Bridge inventory indicates a current data of 350 bridges. These consist of 100 steel bridges with the remaining 250 bridges of concrete and composite make. Of the 350 bridges, seventy-six (76%) are in fair to poor condition.

Over the last few years, defects such as cracks, depression, spalling and fatigue failure of decks and corrosion of steel members, due to water leakages through deck slab joints have been observed from inspections carried out on the bridges. The situation has had profound serious implications as the deterioration of the bridges come with eminent risk of the bridges becoming impassable.

4. OBJECTIVES

The main objectives of the project are:

- To replace obsolete and deteriorated bridges across the mainstream rivers and provide improved movement of goods and people within the areas of influence.

- To satisfy basic human needs by increasing and safeguarding accessibility to hospitals, schools and socio-cultural facilities in the project communities.
- To contribute to economic development and poverty alleviation.

5. SCOPE OF PROJECT

The scope of the work for the design and construction are:

▪ Iture Bridge

This consist of the design and construction of 110 metres reinforced concrete bridge to span the channel at Iture. This involves:

- Carriageway of 3.65m x 2
- Shoulder of 0.6m
- Walkway. Guardrail and parapet of 2.0m x 2
- Approach road of 90km

▪ Ankobra Bridge

A design and construction of a 230 metres reinforced concrete bridge to span the river channel at Ankobra with

- Carriageway of 365m x 2
- Shoulder of 0.6m
- Walkway, guardrail and parapet of 2.0m x 2
- Approach road of 1.15km

▪ Dikpe Bridge

The design and construction of a 275 metres long bridge spanning the river channel at Dikpe with

- Carriageway of 3.65m x 2
- Shoulder of 0.6m
- Walkway, guardrail and parapet of 2.0m x 2

d. Approach road of 2.25 km

Associated Roads and By-Pass

The design and construction of the approaches to the three bridges as well as 12km Lawra Town roads and by-pass.

6. OBSERVATIONS

6.0 State of Current Project Bridge

6.1.1 Iture Bridge

The Committee took cognisance that the Iture bridge which is located between Cape Coast and Elmina is in a deplorable state. The proximity of the bridge to the sea exposes the bridge elements to severe weather conditions as the constant splashing of sea water onto the bridge elements causes the aggregate of the concrete to undergo chemical reaction. This leads to damage to both the concrete and steel members. The Committee was further told that the Iture bridge has severe deterioration of the substructure which has resulted in the loss of its load carrying capacity. Currently, a support system consisting of steel props has been added on as a temporal solution to allow for the passage of normal traffic on the bridge.

The Committee noted that some of the defects on the bridge include exposed and corroded reinforcements, cracks at the soffit of the beams with corroded reinforcements vertical and diagonal cracks in the abutments, deep cracks on the piers and pier cap width of 40mm, as well as the palled concrete on the side of the pier cap.

6.1.2 Ankobra Bridge

The Committee was informed by the Deputy Minister that with the Ankobra bridge, there has been severe deterioration of the substructure resulting in the loss of its load bearing capacity. The Deputy Minister opined that the synthetic corrosion protective cord that surrounds the pile columns have all been damaged and that the exposed steel casings of the piles have also severely

corroded leaving in its wake pockets of cracks and air pockets on the reinforced concrete beams.

It is significant to note that the synthetic corrosion linings have also reached their life services/span and therefore unable to provide the protection required thereof against atmospheric corrosion to the pile.

The Committee is of the conviction that the extent and severity of the damage to the bridge necessitates an immediate replacement.

6.1.3 Dikpe Bridge

The Committee observed that presently there is no bridge over the location earmarked for the construction of the 275 metres span bridge over the Black Volta River at Dikpe on the Lawra-Dikpe road.

The mode of travel available over the river is a canoe service which does not meet the transportation demands of the people within that geographical confine, exposing users to the dangers that come with such travel.

The Committee noted that the bridge when constructed would open up communities in the area and enhance regional integration, reduce travel-time and make movement of people from place to place less perilous, increase accessibility to schools, hospitals and other socio-cultural facilities as well as contributing to agricultural growth and overall economic development.

6.2 Project Description

The contract agreement before the Committee involves the design and construction of three bridges over rivers Sweet, river Ankobra and the Black Volta located at Iture, Ankobra and Dikpe respectively and Associated roads to the approaches to the locations of the three bridges and also the Lawra Town roads and a by-pass.

6.2 Project Cost

The contract sum for the design and the construction of the three bridges and its associated road works under review is €58,001,158.80.

6.4 Design and Build Contract

The Committee noted that the project for the construction of the three bridges at Iture, Ankobra and Dikpe and the construction of approach roads at the locations and Lawra is a Design and Build contract and that the contractor Griner Gh takes full responsibility for performance and the quality of work.

6.5 Project Benefits

The Committee was apprised on the benefits to be derived from the implementation of the projects, these include:

- Facilitating transport services with the construction of the bridges over crossing points and rendering goods and passenger services easy.
- Facilitating all year-round access to schools, hospitals and markets.
- Long detours will be reduced and same as in transport cost and travel time.
- Accessibility to markets will increase and also enhance the elimination of traffic bottlenecks. This will result in significant increase in incomes of people living along and within the project areas.
- Further the project will positively impact on the socio-economic lives and wellbeing of the local population.

6.6 Project Duration

The Committee was informed that the time for the completion of the project would be 24 months from the commencement date.

6.7 Advance Payment

The advance payment on this project is 20% of the amount less the provisional sums and contingencies. The Committee noted that this advance payment is effected through obtaining and submitting a valid advance payment guarantee

in a form acceptable to the employer and from a reputable bank. If the bank is foreign based, it shall have a corresponding bank located in Ghana.

6.8 Performance Guarantee

The Committee noted that to ensure that the contractor performs on schedule and to specification, the contractor is expected to provide a performance guarantee to be secured in the form of a bank guarantee. This amount is 10% of the accepted contract, or to provide a surety bond of 30% of the contract sum. The performance security should be from a bank or a financial institution acceptable to the employer. If the bank is foreign based, it shall have a corresponding bank located in Ghana.

This Committee noted that this gives the needed security guarantee to the contract agreement.

6.9 Insurance Guarantee

The Committee noted that under the contract a maximum amount of €5000 is fixed as insurance for the Employer's risks as deductible. For third party insurance, €50,000.00 is the amount earmarked as per occurrence, and the number is unlimited.

6.10 Retention Money

The Committee noted that under the contract agreement, the limit of retention money is 5% of the accepted contract sum or 10% of the Interim Payment Certificate (IPC) until the limit of retention is reached.

6.11 Variation

The Committee noted that under the contract, the contractor is entitled to review the prices in the Bill of Quantities if there is a review in the original contract quantities and the said variation is plus or minus 25%.

6.12 Sub-Contract

The Committee took note that under the contract agreement, sub-contracting of works should not exceed 40% of the accepted contract amount.

6.13 Local Content

The Committee noted that provisions in the agreement cater for the engagement of local staff with the requisite qualification and experience within the country.

6.14 Life Span of the Three Bridges

The Committee was told that the design life span of the three (3) bridges is One Hundred (100) years.

6.15 Construction of Rest Stops along the Roads

The Committee impressed upon the Ministry to ensure that rest areas are provided for drivers travelling along the route to be able to stop and take a break without exiting the highway. This would offer another avenue to create employment for the indigenes of the town.

The Committee was told that the contract has already catered for the construction of a rest stop in the design for Dikpe.

6.16 Payment of Compensation

The Committee was informed that the Ministry was taking care of the alignment of the roads so that impact on the stretch would be minimal in order not to create traffic disruptions.

The Committee was also told that the Government of Ghana would handle the payment of compensation should the issue arise during construction of work.

6.17 Value for Money Audit

The Committee noted that a value for money audit report had not been inputted to the contract agreement, however it is part of the conditions precedent for the contract to come into full force and effect. The Committee urged the Sector Minister to ensure that a value for money report be done and incorporated to the final design and the Committee furnished with a copy.

6.18 Arbitration

The Committee was given the information that under the agreement, arbitration shall be by the Alternative Dispute Mechanism under the Alternative Dispute Resolution Act 2010 (Act 79) of Ghana.

7. CONCLUSION

The Committee carefully scrutinised the Contract Agreement and is of the view the project would be of immense benefit to the people of beneficial communities and will help reduce travel times and facilitate the transportation of goods and passengers over crossing points all year-round. The project will go a long way eliminate detours.

The Committee unanimously recommends to the House to adopt its report and approve the Contract Agreement between the Government of Ghana and Griner Engineering GH Limited for the construction of three bridges over Sweet River at Iture, the River Ankobra and the Black Volta River at Dikpe.

Respectfully submitted.



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HON. SAMUEL AYEH-PAYE
CHAIRMAN, COMMITTEE ON ROADS AND
TRANSPORT



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MR. ASANTE AMOAKO-ATTA
CLERK, COMMITTEE ON ROADS
AND TRANSPORT