

# SECOND RIVER NIGER BRIDGE

## Progress Report November 15<sup>th</sup> 2019

### Main Works Contract (MW)

#### 1. Scope of Works:

Comprises 1.6 km long River Niger Bridge and 10.3 km Highway inclusive Owerri Interchange and Toll Station.

#### 2. Contractual:

Letter of Award:	July 25, 2018
Contract Signed:	August 14, 2018
Commencement:	September 1, 2018
Contract Period:	42 Months

#### 3. Construction Works completed (approx. 28%):

##### a) Niger bridge

- Piling Works axes 100 to 330
- Pile Caps Axes 130 to 240, 260 + 280 and 330,
- Scour protection axis 240
- Pier shaft Axes 130 to 240 and 260 and 280
- Pier head Axes 130 to 230
- Western Approach – Incremental Launching: Casting Station and mobilisation of equipment

##### b) Secondary Bridges:

- Piling Works: Amakon and Atani Bridge
- Pile Caps: Amakon and Atani Bridge
- Abutments: Amakon and Atani Bridge
- Precast Production I-beams: Amakon and Atani Bridge
- Installation of bearing and I-beams: Atani Bridge
- Concrete deck slab: Atani Bridge - superstructure south

##### c) Access Roads

- Bush Clearing CH 23+000 to 33+500
- Removal of Unsuitable Material: CH 23+000 to 33+000, except at Atani Bridge
- Working Platform for PVD and GEC installation up to CH 33+075
- PVD's: 27+835 to 30+100 and 30+850 to 32+000, except areas of no possession
- Geotextile
  - Lower layer CH 27+838 to 27+900, 28+350 to 28+605, 28+900 to 29+330, 29+360-29+490, 29+530 to 30+100 and 30+850-31+750
  - Upper layer CH 28+375 to 28+575, 29+535 to 29+750 and 29+860 to 30+090
- Geogrid 30+175 to 30+300
- Box Culverts 23+097, 23+660, 28+826, 29+340 and pipe culvert 28+100

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### 4. Ongoing Site Works:

#### a) Niger bridge

- Western Approach
  - Substructure: Pier Head axis 240 north
  - Superstructure – casting station:
    - Installation of incremental launching nose and launching equipment
    - Segment 1 - Preparation of casting of bottom part: Rebar works, formwork, post tensioning ducts
    - Installation of lateral guide Axis 130 - 180
- Main Bridge
  - Substructure: Pier Table axes 260 and 280
  - Superstructure – Free Balanced Cantilever:
    - Pre-assembly of formwork travellers
- Eastern Approach
  - Substructure:
    - Axis 330 abutment wall reinforcement and formwork
    - Axes 340 to 370 pilecap reinforcement
  - Superstructure
    - Casting station: bored piles on-going
    - Mobilisation of equipment and formwork

#### b) Secondary Bridges

- Amakon Bridge: Transport of precast I-beams and slabs, installation of bearings and precast I-beams and slabs
- Atani Bridge: Superstructure north: Rebar and formwork
- Owerri interchange: production of I-beams, production of reinforcement cages for piles

#### c) Access Roads

- Earthworks
  - Hydraulic dredging into alignment CH 25+000 to 25+150
  - Working platform for GEC installation 32+930 to 33+200
  - Sandfill protection layer on top of geotextile and geogrid
  - Toll station road embankment cutting and shaping on-going
- Soil Improvement:
  - PVD: CH 32+000 to 32+930
  - Geotextile CH 31+400 onward, currently at 31+750
  - Geogrid CH 30+100 to 30+850
  - GEC: CH 30+175 onward
- Culverts:
  - Precast and Rebar Production:
    - CH 30+700, CH 30+918, CH 31+550
  - Construction of box culvert at CH 29+800
  - Preload sand fill on box culvert CH 30+200

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### d) Procurement

- Bridge gullies, bridge bearings, bridge expansion joints, cement, aggregates, reinforcement, geotextile, vertical drains, GEC

### 5. Total Manpower on Site: 1201

### 6. Progress Photographs: See attachment

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Earthworks CH 25+000 to 25+100 – Hydraulic dredging into alignment



Amakon bridge – Installation of precast I beams





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Western approach –Casting station – Web and bottom reinforcement for Segment 1



Western Approach Axis 110 - 150 – Installation of lateral guide



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Western Approach Axis 240 – Pier head completed



Niger Bridge Axis 260 – Pier table – Bottom part (North and South) completed





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Eastern Approach – Axis 330 – Installation of wall reinforcement



Eastern Approach – Casting station – Installation of reinforcement for pile cap





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Single Box Culvert CH 29+800 – Formwork and reinforcement



Soil Improvement CH 30+175 – Installation of GECs





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Soil Improvement CH 31+750 – Laying of geotextile



Soil Improvement CH 32+100 LHS – Installation of PVD



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Earthworks CH 33+200 – Working platform for GEC

