



### General Bid Bulletin No. 19 26 July 2021

## IFB No. 21-031-4

## THE MALOLOS-CLARK RAILWAY PROJECT AND THE NORTH SOUTH RAILWAY PROJECT-SOUTH LINE (COMMUTER) PACKAGE CP NS-03: ROLLING STOCK-LIMITED EXPRESS TRAINSETS

This General Bid Bulletin is issued to amend/clarify certain provisions in the Bidding Documents for the abovementioned project. Please refer to the attached Annexes of this General Bid Bulletin duly approved by the end-user and co-implementer for details:

- 1. Annex "A" Answers to Queries from Prospective Bidders including clarifications to the Bidding Documents;
- 2. Annex "B" Revisions to the Bidding Documents; and
- 3. Annex "B 1" Revised pages/amendments and final form as revised/amended.

All other portions of the Bidding Documents affected by these revisions, amendments and/or clarifications shall be made to conform to the same.

Revisions/amendments/clarifications made herein shall be considered an integral part of the Bidding Documents for this project.

For your information and guidance.

For the Bids and Awards Committee IV: SIGNATURE REDACTED JOSEPH 🖉 ONRAD D. DUEÑAS Chairperson

General Bid Bulletin No.19 IFB No. 21-031-4 THE MALOLOS-CLARK RAILWAY PROJECT AND THE NORTH SOUTH RAILWAY PROJECT-SOUTH LINE COMMUTER PACKAGE CP NS-03: ROLLING STOCK-LIMITED EXPRESS TRAINSETS

# Annex A

|                             | PACKAGE CP NS-03: ROLLING STOCK - LIMITED EXPRESS TRAINSETS  |  |   |  |  |  |  |  |
|-----------------------------|--|--|---|--|--|--|--|--|
| General Bid Bulletin No. 19 |  |  |   |  |  |  |  |  |
|                             | Annex A  |  |   |  |  |  |  |  |
| ltem<br>No.                 | Volume Section No.<br>Page No.<br>Clause No. / Title<br>Reference Text   | Clarification Request  | Proposed Revised Text<br>(if any)   | Response   |  |  |  |  |
| 1.                          | Volume II/III -<br>Part 2<br>Section VI ERT<br>Chapter 1.9<br>Clause 1.9.1<br>155/355<br>(ERT-10)<br>System Requirements -<br>Environmental Conditions | Maximum wind velocity at which train<br>operations will be stopped: 25 m/sec<br>90km/h<br>The maximum wind speed should be<br>computed following the European<br>standard EN-14067-6:2018.   | Maximum wind velocity at<br>which train operations will<br>be stopped: <del>25 m/sec</del><br><del>90km/h 24.7 m/sec. This</del><br><u>maximum wind velocity shall</u><br><u>be computed using the</u><br><u>European standard EN-</u><br><u>14067-6:2018, with no</u><br>lateral acceleration.   | Bidder request for amendment<br>is rejected. Please see Annex<br>B on the updated wind velocity<br>requirement at which train<br>operations will be stopped. |  |  |  |  |
| 2.                          | Volume II/III -<br>Part 2<br>Section VI ERT<br>Chapter 2.6<br>Clause 2.6.1<br>175/355<br>(ERT-30)<br>Carbody - General                                 | <ul> <li>Danger of happening overturn shall be calculated as wheel unloading rate according to Japanese standard or any other international equivalent standard, the result shall be submitted for review by the Engineer. Provisions for calculation such as wind speed, cant etc. shall be submitted to Engineer for review.</li> <li>The Bidder will calculate the wheel unloading rate according to European standard EN-14067-6:2018.</li> <li>Please confirm that the calculation method is accepted.</li> </ul> | Danger of happening<br>overturn shall be calculated<br>as wheel unloading rate<br>according to Japanese<br>standard or any other<br>international equivalent<br>standard, the result shall be<br>submitted for review by the<br>Engineer. Provisions for<br>calculation such as wind<br>speed, cant etc. shall be<br>submitted to Engineer for<br>review.<br><u>This maximum wind velocity</u><br>shall be computed using the | Bidder request for amendment<br>is rejected. Please see<br>response on item 1.   |  |  |  |  |

|  | European standard EN-                  |  |
|--|--|--|
|  |  |  |
|  | <u>14067-6:2018. The</u>               |  |
|  | maximum wind speed shall               |  |
|  | be above the following                 |  |
|  | values for a train speed of            |  |
|  | <u>140km/h and 160 km/h with</u>       |  |
|  | a lateral acceleration aq of           |  |
|  | <u>° 25.5 m/s and 24.7 m/s for</u>     |  |
|  | aq = 0.0 m/s2                          |  |
|  | ° 23.7 m/s and 22.7 m/s for            |  |
|  | <u>aq = 0.5 m/s2</u>                   |  |
|  | <sup>°</sup> 21.3 m/s and 20.3 m/s for |  |
|  | <u>aq = 1.0 m/s2</u>                   |  |

# Annex B

| PACKAGE CP NS-03: ROLLING STOCK - LIMITED EXPRESS TRAINSETS |                                |  |  |  |  |  |
|---|--------------------------------|--|--|--|--|--|
| General Bid Bulletin No. 19                                 |                                |  |  |  |  |  |
| Annex B   |                                |  |  |  |  |  |
| ITEM NO.  | REFERENCE/CLAUSE/<br>SECTION   | REVISIONS / AMENDMENTS   |  |  |  |  |
| Volume II Part II – Employer's Requirement                  |                                |  |  |  |  |  |
| 1   | ERT-10<br>1.9.1 (Item 6 and 7) | Updated clause 1.9.1 item 6 and 7:   |  |  |  |  |
|   |                                | 6) Maximum wind velocity : Approx. 60m/sec   |  |  |  |  |
|   |                                | 7) Maximum wind velocity at which train operations will be stopped: 27.8 m/sec (100km/h) |  |  |  |  |

# Annex B – Attachment 1

- 1.8.4 Vertical Curve
- 1.8.4.1 For NSCR-N1:
  - 1) 3000 m
  - 2) 4000 m (where curve radius less than 800 m)
  - 3) Vertical curve is required for more than 10/1000 of gradient change
- 1.8.4.2 For NSCR-N2:
  - 1) 5,000 m (Section with the operation speed of more than 120km/h);
  - 2) 3,000 m (Section with the operation speed of under 120km/h,
  - 3) 4,000m apply to the radius of less than 800m)
  - 4) Vertical curve is required for more than 10/1,000 of gradient change
- 1.8.4.3 For NSCR-SC:
  - 1) 3,000m (4,000m where curve radius is less than 600m)
  - 2) 2,000m (6,000m where curve radius is less than 600m) (absolute maximum)
  - 3) Vertical curve is required for more than 10/1,000 of gradient change
- 1.8.5 Distance between track Centers
- 1.8.5.1 4.0 m (Main line), more than 4.0 m (Station), 4.0 m (Stabling track) (for NSCR-N1, NSCR-N2 and NSCR-SC)
- 1.8.6 Width of Structure Gauge
- 1.8.6.1 Width of Structure Gauge: 3.8m
- 1.8.7 Station Platform
  - 1) Length : 180m (8-car)
  - 2) Width : 8m (Standard)
  - 3) Platform height must be lower than train floor at W2 on all including curved platform
  - 4) UK standard GIRT7020 clause 2.3.1
- 1.8.7.1 The usable width of a new single face platform, and alterations (as defined) to existing single face platforms, shall not be less than:
  - 1) 3000 mm where the permissible or enhanced permissible speed on the line adjacent to the platform exceeds 100 mph (160 km/h).
  - 2) 2500 mm at other platforms.
- 1.8.8 Signaling System
- 1.8.8.1 European Train Control System (ETCS)-Level 2 signaling system shall be adopted for the MCRP, NSCR and NSRP-S Project (Clark Calamba). Provision for ATO over ETCS shall be included.

#### 1.9 Environmental Conditions

1.9.1 The general environmental conditions in the Manila area are as follows:

| 1) | Ambient temperature | : Min. + 15°C | - Max. +4 <u>0</u> 5 °C |  |
|----|---------------------|---------------|-------------------------|--|
| 2) | Relative humidity   | : Min. 60%    | - Max. 100%             |  |
|    |                     |               |                         |  |

- 3) Maximum rainfall : 60 min. rating 120 mm/h
- 4) 30 min. rating : 180 mm/h
- 5) 10 min. rating : 270 mm/h
- 6) Maximum wind velocity : Approx. <u>6</u>70m/sec (based on DPWH standard) <u>252km/h.</u>
- Maximum wind velocity at which train operations will be stopped: 27.85 m/sec (10090km/h)
- 1.9.2 The Contractor is reminded that the alignment is near to sea coast line and runs through relatively polluted air environment which may present mildly corrosive atmosphere. Also, because of the generally long dry season, the air has high dust content.
- 1.9.3 The Contractor shall ensure that all equipment will operate satisfactorily under the above conditions and in a high level of air pollution and dusty conditions.

### 1.10 Weight limits

- 1.10.1 General
- 1.10.1.1 The vehicles shall be designed on the following definitions of vehicle loading.
- 1.10.1.2 A train consist of eight (8) car/vehicles shall have a passenger capacity of around minimum 800 passengers (seating plus standees). Weight of 70 kg (including 10 kg for luggage) has been considered per passenger for arriving at gross weight of Train. The capacity mentioned above is indicative and the Contractor shall submit to Engineer for review the proposed car interior and seating layouts optimizing on the space available for passengers and equipment ensuring weight balancing in each Car subject to maximum axle design load of 16,000 kg.
  - 1) W0 : Tare weight
  - 2) W1 : W0 + Seated Passenger
  - 3) W2 : W0 + Seated Passengers + Standing passengers
  - 4) W3 : W2+ dynamic load and safety margin
- 1.10.1.3 W2 load is defined as the limit of static weight for the Rolling Stock structure before the introduction of dynamic effects and safety margin. Dynamic load and safety margin shall be added in accordance with JIS E7106 or other equivalent standards. The design structural strength shall be based on W3 load calculations.

### 1.10.2 Weight Penalties

- 1.10.2.1 The maximum weight of the 8 vehicles trainset (tare weight) will be: 315T.
- 1.10.2.2 In the event that trainset are heavier than the indicated maximum weight, a penalty will be imposed to the Contractor per trainset at the rate of:
  - 1) 0.1% of trainset price (as determined by the Engineer based on the price quoted for respective Milestones in Sub-Section Rolling Stock) per every 100kg above maximum weight, for each trainset.
  - 2) If the mass of the trainset is more than 2000kg, above the indicated maximum weight, the Employer has the right to refuse the acceptance of the trains.
- 1.10.2.3 The Contractor shall design the passenger loading capacity to be minimum of 800 pax which a combination of seated and standing passenger per train. The floor area and the

- 3) 4,000m apply to the radius of less than 800m)
- 4) Vertical curve is required for more than 10/1,000 of gradient change
- 1.8.4.3 For NSCR-SC:
  - 1) 3,000m (4,000m where curve radius is less than 600m)
  - 2) 2,000m (6,000m where curve radius is less than 600m) (absolute maximum)
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### 1.9 Environmental Conditions

- 1.9.1 The general environmental conditions in the Manila area are as follows:
  - 1) Ambient temperature : Min. + 15°C Max. +40 °C
  - 2) Relative humidity : Min. 60% Max. 100%
  - 3) Maximum rainfall : 60 min. rating 120 mm/h
  - 4) 30 min. rating : 180 mm/h
  - 5) 10 min. rating : 270 mm/h
  - 6) Maximum wind velocity : Approx. 60m/sec
  - Maximum wind velocity at which train operations will be stopped: 27.8 m/sec (100km/h)
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