

## Priced Bill of Quantities (BOQ)

Tender/Proposal Document

## Tender/Proposal Detail

|                          |                                                                                                     |                            |                          |
|--------------------------|-----------------------------------------------------------------------------------------------------|----------------------------|--------------------------|
| Tender/Proposal ID :     | 805362                                                                                              | Invitation Reference No. : | 46.05.0000.433.07.004.23 |
| Closing Date and Time :  | 17-Apr-2023 11:00                                                                                   | Opening Date and Time :    | 17-Apr-2023 11:00        |
| Procuring Entity :       | Office of the EE, Pagla Sewage Treatment Plant Division, Dhaka WASA                                 |                            |                          |
| Brief :                  | Construction of RCC Road at North-East side of PSTP office compound (Ch. 0+000 km. - Ch. 0+133 km). |                            |                          |
| Tender/Proposal Status : | Contract Awarded                                                                                    |                            |                          |

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## Lot Detail

|                   |                                                                                                    |
|-------------------|----------------------------------------------------------------------------------------------------|
| Lot No. :         | PSTP 2022-2023 G revised 4                                                                         |
| Lot Description : | Construction of RCC Road at North-East side of PSTP office compound (Ch. 0+000 km. - Ch. 0+133 km) |

## Unit Rate Basis

Table Name : Estimate by the Procuring Entity

| Item No. | Group | Item Code (if any) | Description of Items of Works (specifications preferably built-in)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit | Quantity | Unit rates or prices (in figures) (BDT) | Unit rates or prices (in words) (BDT) | Amount (in figure) (BDT) | Amount (in words) (BDT) | I have seen              |
|----------|-------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-----------------------------------------|---------------------------------------|--------------------------|-------------------------|--------------------------|
| 1        | N/A   | N/A                | Earthwork in box cutting in all types of soil. Removing soil to a safe distance, maintaining proper alignment, camber and grade including leveling, dressing and compacting the sub grade as per drawing and accepted by the Engineer-in-charge. Depth up to 300 mm                                                                                                                                                                                                                                                                                                                                       | sqm  | 452.200  | 66.001                                  | Sixty y-                              | 29845.65                 | Twenty-                 | <input type="checkbox"/> |
| 2        | N/A   | N/A                | Earth work in road embankment up to a lift of 1.5 m in all kinds of soil including cutting and throwing earth in layers not exceeding 150 mm in thickness, breaking clods up to 40mm size in each layer, ramming, leveling and dressing as per required side-slope and alignment with earth borrowed from the road side govt. acquired land for any leads and maintaining the embankment true to level and side slopes as per profiles for one year from the date of completion including making dug, bailing, profiling etc. complete and accepted by the Engineer-in-charge. For initial lift of 1.5 m  | cum  | 31.920   | 201.001                                 | Two Hun                               | 6415.952                 | Six Thou                | <input type="checkbox"/> |
| 3        | N/A   | N/A                | Sand filling in foundation trenches and plinth with sand having F.M. 0.5 to 0.8 in 150 mm layers including leveling, watering and compaction to achieve minimum dry density of 95% with optimum moisture content (Modified proctor test) by ramming each layer up to finished level as per design supplied by the design office only, all complete and accepted by the Engineer-in-charge.                                                                                                                                                                                                                | cum  | 67.830   | 1088.001                                | One Tho                               | 73799.10                 | Seventy-                | <input type="checkbox"/> |
| 4        | N/A   | N/A                | Providing compacted sub-base course with well graded material of crushed well burnt picked jhama 1st class brick bats and sand (FM 0.8) with mixing proportion 2 : 1 having compacted thickness made as per specification including local handling, spreading uniformly to proper grade camber and super elevation, packing, rolling properly with 8 to 10 ton capacity power driven road roller and watering properly for compaction of 100% MDD (standard) blinding with sand including cost of fuel, lubricants, spares, maintenance, driver etc. all complete and accepted by the Engineer-in-charge. | cum  | 113.050  | 5449.001                                | Five Tho                              | 616009.5                 | Six Lakh                | <input type="checkbox"/> |
| 5        | N/A   | N/A                | Mechanical compaction of earth beyond plinth area, required for pre-approved specific engineering purpose in 150 mm layers including levelling, watering and consolidation each layer with chain dozer, grader, roller etc. to achieve minimum dry density of 95% with optimum moisture content (modified proctor test) up to finished level all complete and accepted by the engineer-in-charge subjected to submission of the method statement.                                                                                                                                                         | cum  | 284.890  | 222.001                                 | Two Hun                               | 63245.86                 | Sixty-Three             | <input type="checkbox"/> |
| 6        | N/A   | N/A                | Supplying and laying of single layer polythene sheet weighing one kilogram per 6.5 square meter in floor or any where below cement concrete complete in all respect and accepted by Engineer-in-charge.                                                                                                                                                                                                                                                                                                                                                                                                   | sqm  | 486.780  | 47.001                                  | Fort y-                               | 22879.14                 | Twenty-                 | <input type="checkbox"/> |
| 7        | N/A   | N/A                | Mass concrete (1:2:4) in foundation or in floor with cement, sand (F.M. 1.2) and picked jhama brick chips including breaking of chips, screening, mixing, laying, compacting to required level and curing for at least 7 days including the supply of water, electricity, costs of tools & plants and other. Mass concrete in foundation (1:2:4) with brick chips and local sand of F.M. 1.2.                                                                                                                                                                                                             | cum  | 6.780    | 8886.001                                | Eigh t                                | 60247.08                 | Sixty Thou              | <input type="checkbox"/> |
| 8        | N/A   | N/A                | Brick works with first class bricks with cement sand (F.M. 1.2) mortar (1:6) in foundation and plinth, filling the joints/interstices fully with mortar, racking out the joints, cleaning and soaking the bricks at least for 24 hours before use and curing at least for 7 days etc. all complete including cost of water, electricity and other charges and accepted by the Engineer-in-charge. (Cement: CEM-I/A-M)                                                                                                                                                                                     | cum  | 33.250   | 7529.001                                | Sev en                                | 250339.2                 | Two Lakh                | <input type="checkbox"/> |
| 9        | N/A   | N/A                | *Minimum 12 mm thick cement sand (F.M. 1.2) plaster (1:4) with fresh cement to both inner-and outer surface of wall, finishing the corner and edges including washing of sand, cleaning the surface, curing at least for 7 days, cost                                                                                                                                                                                                                                                                                                                                                                     | sqm  | 199.500  | 299.001                                 | Two Hun                               | 59650.65                 | Fifty-Nine              | <input type="checkbox"/> |

|    |     |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |     |          |           |               |          |            |   |
|----|-----|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------|-----------|---------------|----------|------------|---|
|    |     |     | of water, electricity, scaffolding and other charges etc. all complete in all respect as per drawing and accepted by the Engineer-in-charge. (Cement: CEM-II/A-M) ground floor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |          |           |               |          |            |   |
| 10 | N/A | N/A | Reinforced cement concrete works from Ready-Mix concrete with minimum cement content relates to approved mix ratio having minimum $f_{cr} = 33.5$ MPa, satisfying a specified compressive strength $f_{c'} = 25$ MPa at 28 days on standard cylinders as per standard practice of Code ACI/BNBC/ASTM, Cement conforming to BDS EN-197-1-CEM-I, 52.5N (52.5 MPa) / ASTM-C 150 Type I, best quality Sylhet sand or coarse sand of equivalent F.M. 2.2 and 20 mm down wellgraded stone chips conforming to ASTM C-33 (Aggregate grading as per table shown in appendix), High-range water reducing chemical admixture Type-G under ASTM C494 (Doses to be applied as per Manufacturer's Guideline) making and placing shutter in position and maintaining true to plumb, making shutter water-tight properly, placing reinforcement in position; using machine batched and machine mixed concrete using cement content as per approved design mix (minimum 385 kg/ cum), carrying to the site of laying using Transit Mixer (considering setting time of concrete from plant to the site), including pumping of concrete using line pump or boom placer to site of laying, maintaining allowable slump of 100mm to 150mm (measured at site), casting in forms, compacting by vibrator machine and curing at least for 28 days, removing centering-shuttering after specified time approved; including cost of water, electricity, cost of all materials and other charges etc. all complete, approved and accepted by the Engineer-in-charge. (Rate is excluding laboratory test fees, the cost of reinforcement and its fabrication, placing, binding etc. and the cost of shuttering & centering). (Foundation to 4th floor) Note: The mix design shall be done from PWD testing laboratory or other recognized laboratories and be consulted with concerned design office. | cum | 60.810   | 14267.001 | Four teen     | 867576.3 | Eight Lakh | . |
| 11 | N/A | N/A | Grade 400 (RB 400 /RB 400W: complying BDS ISO 6935-2:2006) ribbed or deformed bar produced and marked according to Bangladesh standard, with minimum yield strength, $f_y$ ( $R_{eH}$ )= 400 MPa but $f_y$ not exceeding 450 MPa and whatever is the yield strength within allowable limit as per BNBC/ ACI 318, the ratio of ultimate tensile strength $f_u$ to yield strength $f_y$ , shall be at least 1.25 and minimum elongation after fracture and minimum total elongation at maximum force is 16% and 8% respectively : up to ground floor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | kg  | 3672.140 | 100.001   | One Hun       | 367217.6 | Three Lakh | . |
| 12 | N/A | N/A | RCC-Gpost: Providing, fitting and fixing 200mm dia round RCC Guide Post 1.70m long as per standard drawing enumerated in Appendix-6 (type design for Guide Post) with Reinforced Cement Concrete (1:2:4) with 20mm down well graded brick chips casting, curing for requisite period, including cost of providing 4nos. of 12mm dia. Rod of length 1.65m as main reinforcement and 12 nos. of round shaped 8mm dia rods used as binders; including two coats of painting with best quality synthetic enamel paint over a prime coat of approved brand of different colour and grade to form 6 nos. horizontal alternate bands in white/yellow and red to 90 cm making hole in ground of 800mm depth and 300mm minimum dia, fixing the guard posts in the same holes and repacking the earth properly so as to keep the guard posts standing properly erect in correct position true to line and length including carriage of RCC Guide Post with due care to the site including loading into the truck and unloading at site complete in all respect as per approved drawing, specification and direction of the Engineer-in-charge. Rate is inclusive of cost of all materials, labour and all incidental charges in this connection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | nos | 20.000   | 1496.901  | One Tho       | 29938.02 | Twen ty-   | . |
| 13 | N/A | N/A | RS-Plate: Supplying, fitting and fixing of Road Sign plates (Precautionary/Mandatory/ Informative/ Direction) made of 18 BWG M.S. sheet of equilateral triangle/Circular/Rectangular plates of different sizes as per standard drawing enumerated in Appendix-6 fitted with MS triangular/Rectangular frame of same size as plates by point welding (frames made by thorough welding of 25mmX25mmX3mm MS angle covering all sides of the plates and maximum 150mm center to center in the middle of frames in each vertical & horizontal directions), Plates are fitted with 50mm dia & 2.90mm thick GI pipes by continuous welding, including cutting of MS angle touched with GI pipe and 200mm long 4 nos. 12mm dia anchor bars be fitted at the lower part of the MS pipes by welding, making finishing, grinding and carrying to the working sites, etc. all complete in all respect as per design, specification and direction of the Engineer-in-charge. (Rate excludes the material cost of 50mm dia MS pipes & 4 nos. 12mm dia anchor bar)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | nos | 1.000    | 3582.661  | Thre e        | 3582.661 | Three Thou | . |
| 14 | N/A | N/A | Providing expansion joints across the R.C.C. road pavement with 20 mm gap between the adjacent panels. Supplying dowel bars of size 12 mm dia and 600 mm long M.S rod placed @ 750 mm c/c. 300 mm of the bar being fixed within one slab keeping remaining portion the bar free within the adjacent slab being inserted in 20 mm dia and 300 mm long P.V.C. pipe embedded in the slab, inside of pipe fully greased, filling the gap between the slabs (with admixture) of hot bitumen and coarse sand (F.M. 2.2) in proportion of 2:1, finishing the top with bitumen, spreading coarse sand over the joint, all complete as per plan, drawing and accepted by the Engineer-in-charge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | rm  | 66.000   | 415.001   | Four Hun      | 27390.06 | Twen ty-   | . |
| 15 | N/A | N/A | Earth filling in foundation trenches and plinth in 150 mm layer with earth available within 90 m of the building site to achieve minimum dry density of 95% with optimum moisture content (Modified proctor test) including carrying, watering, leveling, dressing and compacting to a specified percentage each layer up to finished level etc. all complete and accepted by Engineer-in-charge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | cum | 29.930   | 207.001   | Two Hun       | 6195.540 | Six Thou   | . |
|    |     |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |     |          |           | Grand Total : | 2484332  |            |   |