

Tel: 0495 - 2371046

# KERALA WATER AUTHORITY

Office of the Superintending Engineer, P.H. Circle, Kozhikode, Malaparamba P.O, Pin – 673 009.

No. 1920/D6/2022/PHC-KKD Dated: 15.10.2022

From

Superintending Engineer

То

M/s. Novel Constructions, 34/1163/D6 Roopa Plaza Building, Malaparamba, Kozhikode-673009.

Sir,

Sub:- JJM - Phase 3- Providing FHTC in Perambra Grama Panchayath in Kozhikode District from WSS in Permabra Panchayath - Work Order Issuing -Reg-

Ref:- 1. AS Order Number:- GO(Rt) No.134/2022/WRD,Dated:23-02-2022,Rs.2570 Lahks.

- 2. ORDER No. TS/2022-2023/2022/9712 Dated: 07-07-2022,Reg .No. 9463/2022-2023,dtd:-07/07/2022, of CE,NR,KKD for Rs. 2418Lakhs.
- 3. e tender no:- SE/PHC/KKD/12/2022-23,dtd:- 07/07/2022.
- 4. Tender Approval Proceedings No:-KWA/CE/NR/D3-9712/2022(JJM), dtd:-13/10/2022 of CE,NR,KKD.

### **WORK ORDER**

With reference to the above, you are hereby informed that your tender for the above work is accepted at an amount of ₹ 22,64,41,333.42/- (Rupees Twenty Two Crore Sixty Four Lakh Forty One Thousand Three Hundred & Thirty Three and Paisa Forty Two Only) which is 6.21% Above the tendered PAC of ₹ 21,31,93,798.00/-

You are directed to attend this office on or before 29/10/2022 with required Kerala Stamp paper worth ₹ 1,00,000/- (0.1% of accepted PAC, max of One Lakh) to execute agreement and to start the work after getting necessary instructions from the Executive Engineer, Project Division, Kozhikode.



- 1. Before Executing the agreement you should provide Performance guarantee of ₹ 67,93,500/- (Rupees Sixty Seven Lakh Ninety Three Thousand Five Hundred Only) Atleast fifty percent (50%) of this shall be in the form of Treasury Fixed Deposit and the balance in the form of Bank Guarantee and produce the pass book duly pledged in favour Superintending Engineer, PH Circle, Kozhikode for fulfillment of contract. It is informed that no interest shall be payable by KWA upon the security deposit or amount payable to the contractor under the contract. The EMD furnished along with tender will be released on receipt of the Performance guarantee and written request. You are not allowed to convert the EMD submitted by you as Performance Guarantee.
- 2. The Contractor shall also provide an Additional Performance guarantee for ₹70,000/- (Rupees Seventy Thousand Only) before execution of agreement. Fifty percent (50%) of this shall be in the form of Treasury Fixed Deposit and rest in the form of Bank Guarantee issued from any Nationalized Bank/Scheduled Bank/Kerala Financial Corporation or any other forms prescribed in the Kerala PWD Manual.
- 3. Any failure in this direction will be liable to result in the forfeiture of your offer, Permanent Earnest Money and the cancellation of the proposed contract and the contractor shall be liable to pay the Authority the entire loss that may be caused to Authority by the re-tender or the rearrangement of the work or otherwise consequent on the contractor's failure to execute the agreement or execute the work as provided for in the clause of the Notice Inviting Tender and all such loss shall be recovered from the contractor under the provision of the Revenue Recovery Act or otherwise.
- 4. It must be understood that on no account the rates once fixed will be increased. Payment will be made as per the availability of funds for the scheme.
- 5. The work should be completed in all respects within **9** *Months* from the date of work order. The commissioned scheme shall be maintained for a further period of 24 months from the date of commissioning of the work.
- 6. All the terms and conditions of the NIT and Special conditions shall be binding on the Contract.
- 7. The contractor shall take over charge of the site within 10 days after executing agreement and commence the work.
- 8. The Contractor should complete the work in all respect as per scope of work within the accepted PAC of ₹ 22,64,41,333.42/-
- 9. The contractor shall engage a licensed plumber to lay service lines in FHTCs as per the judgement in WPC18399/2020 dated 08/09/2020 of the High Court of Kerala.
- 10. Payment will be made to the contractor for the total value of the work plus applicable GST.
- 11. 10% of Accepted PAC is to be secured by beneficiaries. This can be in the form of cash, kind, labour or materials. Hence if beneficiaries contribution is in any form other



than cash such items will be accounted accordingly. In such case measurements will be made separately and the contractor will be entitled for payments of such measurements.

- 12. In NIT Vol-1 "The additional special conditions (regarding pipe supply) mentioned are not relevant to this work. The trenching width given in NIT Vol-1 & NIT Vol-2 are miss matching, these are to be ignored. The quantities given in schedule and approved estimate have precedence.
- 13. Clause 5 of Government order No. G.O(P)No.54/2019/Fin dated:-04/05/2019 will be applicable to this work.
- 14. In case you desire to file any appeal on this order, you may approach the following higher authorities in succession. (1) Chief Engineer (Northern Region), KWA, Kozhikode, (P.O). Malapparamba. 673019 (2) Managing Director, KWA, Jalabhavan, (P.O) Vellyampalam, Thiruvananthapuram.

Yours faithfully,
Dr.Gireesan P
Superintending Engineer

### Copy To

- 1) Chief Engineer (NR), Kerala Water Authority, Kozhikode for favour of information
- 2) Executive Engineer, Project Division, KWA, Kozhikode for necessary action. The date of handing over the site to the contractor shall be reported to this office. The cost for geo tagging (@ Rs.20), Statutory fees for water connection(@Rs.578/-) and Additional Connection Fee (@ Rs.500/-)should be recorded in the measurement book.
- 3) RAO.

#### Encl:

- 1. Accepted Schedule.
- 2. Additional Performance Guarantee Calculation Sheet.



#### KERALA WATER AUTHORITY, P.H. CIRCLE, KOZHIKODE **Accepted Schedule** JJM - Phase 3- Providing FHTC in Perambra Grama Panchayath in Kozhikode District from WSS in Permabra Panchayath e-Tender No: SE/PHC/KKD/12/2022-23 Tendered PAC: Rs. 213,193,798.00 Name of Contractor:- M/s.Novel Constructions, Accepted PAC: Rs. 226,441,333.42 34/1163/D6 Roopa Plaza Building, Malaparamba, Kozhikode-673009. Time of Completion 9 Months Sl. **Item Description** Quantity Units BASIC RATE In TOTAL AMOUNT TOTAL AMOUNT With All Taxes(Except No. Figures To be entered In Words by the **Bidder** in GST) Rs. P in Rs. 5 13 53 55 Appendix A: Supplying Laying Testing and Commissioning of CWPM from Chilambuvalavu to the Proposed GLSR at to Cheramala 1.001 Supply of DI K9 Pipe Conforming to IS 8329/2000, 350mm 1648.000 metre 6007.00 9899536.00 INR Ninety Eight Lakh Ninety Nine Thousand Five Hundred & Thirty Six Only Supply of CI Air Valve with Flanges, Conforming to IS INR One Lakh Thirty Four Thousand Three Hundred 1.002 10.000 No 13439.00 134390.00 14845 - 2000, Kinetic Air Valve Type DS1, Size 80mm. & Ninety Only INR Sixty Eight Thousand Eight Hundred & Ninety 1.003 Supply of CI Double Flanged Sluice Valve Conforming to 10.000 No 6889.00 68890.00 IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 80mm. Only Supply of CI Double Flanged Sluice Valve Conforming to INR Forty Nine Thousand Three Hundred & Forty 1.004 2.000 No 24672.00 49344.00 IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size Four Only

2.000 No

100.000 metre

48318.00

8200.00



1.005

1.006

PN 1.0,

conforming to IS: 8329:

CI Non Return Valve, Conforming to IS 5312 Part I - 1984,

Providing and laying Double Flanged ( Screwed / Welded )

Centrifugally (Spun) Ductile Iron Pipes of Class K - 9

96636.00

820000.00

INR Ninety Six Thousand Six Hundred & Thirty Six

INR Eight Lakh Twenty Thousand Only

1.007	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidatingeach deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :All kinds of soil (Ref. Item No. 2.10.1 of DSR)	1830.401	cum	581.00	1063462.98	INR Ten Lakh Sixty Three Thousand Four Hundred & Sixty Two and Paise Ninety Eight Only
1.008	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidatingeach deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m: "Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)	343.201	cum	844.00	289661.64	INR Two Lakh Eighty Nine Thousand Six Hundred & Sixty One and Paise Sixty Four Only
1.009	Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m2 on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m.Medium Rock (blasting prohibited)New Data derived from Item No.2.9.3	114.401	cum	1000.00	114401.00	INR One Lakh Fourteen Thousand Four Hundred & One Only
1.01	Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)	900.000	metre	20.00	18000.00	INR Eighteen Thousand Only
1.011	Dismantling manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer -in-Charge:Bituminous road	200.000	sqm	91.97	18394.00	INR Eighteen Thousand Three Hundred & Ninety Four Only
1.012	Demolishing cement concrete manually / by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in-Charge.Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix) for road work	160.000	cum	919.66	147145.60	INR One Lakh Forty Seven Thousand One Hundred & Forty Five and Paise Sixty Only
1.013	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 350 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.20 in DAR	1600.000	metre	284.43	455088.00	INR Four Lakh Fifty Five Thousand & Eighty Eight Only



1.014	Providing and laying D.I specials of class K - 12 suitable for push - on jointing as per IS : 9523 :	32.000	quintal	21057.61	673843.52	INR Six Lakh Seventy Three Thousand Eight Hundred & Forty Three and Paise Fifty Two Only
1.015	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:350 mm dia pipes	320.000	joint	458.00	146560.00	INR One Lakh Forty Six Thousand Five Hundred & Sixty Only
1.016	Labour for cutting D.I. pipe with steel saw.350 mm diameter D.I pipe	30.000	Each Cut	783.00	23490.00	INR Twenty Three Thousand Four Hundred & Ninety Only
1.017	Testing 350mm DI/CI pipeline with potable water to the required test pressure. 350 mm dia Observed Data derived from item no.1024 of PHED DATA	1600.000	metre	70.00	112000.00	INR One Lakh Twelve Thousand Only
1.018	Fabricating MS pipes of size 350mm (ID) using 8 mm thick MS plate including cost and conveyance charges of MS plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under coat of primer etc. complete: For pipes fabricated with 8mm thick MS plates.	16.000	metre	9169.71	146715.36	INR One Lakh Forty Six Thousand Seven Hundred & Fifteen and Paise Thirty Six Only
1.019	Fabricating MS flanges of diameter 350 mm using 12 mm thick MS plate including cost and conveyance charges of MS plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under coat of primer etc. complete: For pipes fabricated with 8mm thick MS plates.	12.000	No	3731.69	44780.28	INR Forty Four Thousand Seven Hundred & Eighty and Paise Twenty Eight Only
1.02	Cutting 350 mm (ID) MS pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.	36.000	No	375.25	13509.00	INR Thirteen Thousand Five Hundred & Nine Only
1.021	Welding 350 mm (ID) MS pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods, all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.	48.000	No	1435.79	68917.92	INR Sixty Eight Thousand Nine Hundred & Seventeen and Paise Ninety Two Only
1.022	Grinding cut and weld edges of 350 mm (ID) MS pipes during fabrication work including all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.	36.000	No	269.18	9690.48	INR Nine Thousand Six Hundred & Ninety and Paise Forty Eight Only
1.023	"Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) :350 mm diameter. Class I"Observed Data derived from item no.18.31.of DAR	2.000	Nos	3625.70	7251.40	INR Seven Thousand Two Hundred & Fifty One and Paise Forty Only



1.024	"Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately):200 mm diameter. Class I"Data derived from item no.18.31.4.1 of DAR	2.000	Nos	1630.12	3260.24	INR Three Thousand Two Hundred & Sixty and Paise Twenty Four Only
1.025	Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 80 mm Double acting Air Valve Data derived from item no.18.59.2 of DAR	10.000	Nos	229.80	2298.00	INR Two Thousand Two Hundred & Ninety Eight Only
1.026	Providing, laying spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in mechanical mix plant, carriage of mixed material by tipper to site, for all leads & lifts, laying in uniform layers with mechanical paver finisher in sub - base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and directions of Engineer - in- Charge.	80.000	cum	3253.79	260303.20	INR Two Lakh Sixty Thousand Three Hundred & Three and Paise Twenty Only
1.027	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed. All kinds of soil	40.828	cum	223.98	9144.66	INR Nine Thousand One Hundred & Forty Four and Paise Sixty Six Only
1.028	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement: 4 coarse sand: 8 graded stone aggregate 40 nominal size)	3.001	cum	7131.91	21402.86	INR Twenty One Thousand Four Hundred & Two and Paise Eighty Six Only
1.029	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size)	46.555	cum	8988.00	418436.34	INR Four Lakh Eighteen Thousand Four Hundred & Thirty Six and Paise Thirty Four Only
1.03	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete	274.790	sqm	350.92	96429.31	INR Ninety Six Thousand Four Hundred & Twenty Nine and Paise Thirty One Only
1.031	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete above plinth level.Thermo - Mechanically Treated bars of grade Fe-500D or more	1293.600	kg	102.88	133085.57	INR One Lakh Thirty Three Thousand & Eighty Five and Paise Fifty Seven Only



2	APPENDIX: B - CONSTRUCTION OF GLSR OF CAPACITY 18 LL AT CHERAMALA					
2.001	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared	1600.000	sqm	15.46	24736.00	INR Twenty Four Thousand Seven Hundred & Thirty Six Only
2.002	Felling trees of the girth (measured at a height of 1 m above ground level) including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material. Beyound 30 cm girth up to and including 60 cm girth	12.000	No	468.83	5625.96	INR Five Thousand Six Hundred & Twenty Five and Paise Ninety Six Only
2.003	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed. All kinds of soil	716.250	cum	235.00	168318.75	INR One Lakh Sixty Eight Thousand Three Hundred & Eighteen and Paise Seventy Five Only
2.004	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.Ordinary rock	187.500	cum	434.14	81401.25	INR Eighty One Thousand Four Hundred & One and Paise Twenty Five Only
2.005	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.Hard rock (blasting prohibited	93.750	cum	1251.82	117358.13	INR One Lakh Seventeen Thousand Three Hundred & Fifty Eight and Paise Thirteen Only
2.006	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:	54.000	cum	7938.00	428652.00	INR Four Lakh Twenty Eight Thousand Six Hundred & Fifty Two Only
2.007	Laterate masonry with neatly dressed laterate stone of size 40x20x15cm or nearest size in cement mortar 1:6 for foundation and basement including all cost of materials, labour charges etc.	60.000	cum	7800.00	468000.00	INR Four Lakh Sixty Eight Thousand Only
2.008	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	91.144	cum	8000.00	729152.00	INR Seven Lakh Twenty Nine Thousand One Hundred & Fifty Two Only



2.009	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately. All work upto plinth level	265.679	cum	10750.00	2856049.25	INR Twenty Eight Lakh Fifty Six Thousand &Forty Nine and Paise Twenty Five Only
2.01	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately. All work above plinth level upto floor V level	227.400	cum	12100.00	2751540.00	INR Twenty Seven Lakh Fifty One Thousand Five Hundred & Forty Only
2.011	Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).	405.844	cum	85.45	34679.37	INR Thirty Four Thousand Six Hundred & Seventy Nine and Paise Thirty Seven Only
2.012	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	14.938	cum	8764.00	130916.63	INR One Lakh Thirty Thousand Nine Hundred & Sixteen and Paise Sixty Three Only
2.013	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete	74.830	sqm	350.92	26259.34	INR Twenty Six Thousand Two Hundred & Fifty Nine and Paise Thirty Four Only
2.014	Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	914.466	sqm	750.57	686370.75	INR Six Lakh Eighty Six Thousand Three Hundred & Seventy and Paise Seventy Five Only



2.015	Centering and shuttering including strutting, etc. and removal of form for:	167.120	sqm	680.05	113649.96	INR One Lakh Thirteen Thousand Six Hundred & Forty Nine and Paise Ninety Six Only
2.016	Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts	73.000	sqm	903.81	65978.13	INR Sixty Five Thousand Nine Hundred & Seventy Eight and Paise Thirteen Only
2.017	Centering and shuttering including strutting, etc. and removal of form for:Stairs, (excluding landings ) except spiral - staircases)	9.240	sqm	766.60	7083.38	INR Seven Thousand & Eighty Three and Paise Thirty Eight Only
2.018	Centering and shuttering including strutting, etc. and removal of form for:	578.533	sqm	853.73	493910.98	INR Four Lakh Ninety Three Thousand Nine Hundred & Ten and Paise Ninety Eight Only
2.019	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more	50208.000	kilogram	102.88	5165399.04	INR Fifty One Lakh Sixty Five Thousand Three Hundred & Ninety Nine and Paise Four Only
2.02	Providing & Applying polymer modified, flexible cementatious negative sidewaterproofing coating with elastic waterproofing polymers on interior wall plastersurface in three coats @14.35 kg /10 sqm. one coat of self priming of cementatiouswaterproofing polymer(dilution with water in the ratio of 1:1) and two coats ofcementatious waterproofing polymer (dilution with water in the ratio of 3:1) afterscrapping and properly cleaning the surface to remove pre-existing paint film &loose particles till plaster is visible, complete in all respect as per the direction ofEngineer-in-Charge.	864.793	sqm	547.93	473846.03	INR Four Lakh Seventy Three Thousand Eight Hundred & Forty Six and Paise Three Only
2.021	12 mm cement plaster finished with a floating coat of neat cement of mix:	1652.918	sqm	419.88	694027.21	INR Six Lakh Ninety Four Thousand &Twenty Sever and Paise Twenty One Only
2.022	12 mm cement plaster of mix:	1523.514	sqm	575.00	876020.55	INR Eight Lakh Seventy Six Thousand &Twenty and Paise Fifty Five Only
2.023	Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture including applying additional coats wherever required, to achieve even shade and colour.Two coats	1523.514	sqm	131.61	200509.68	INR Two Lakh Five Hundred & Nine and Paise Sixty Eight Only
2.024	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content. With water thinnable cement primer on walls surface having VOC content less than 50 grams / litre	1523.514	sqm	73.93	112633.39	INR One Lakh Twelve Thousand Six Hundred & Thirty Three and Paise Thirty Nine Only



2.025	Filling water with 5000 litre tankers fited in lorry and conveying water from a distance of 5 km (average) to the reservoir site and pumping the water into the reservoir of height not less than 3 m using 5 HP diesel engine pump set , hire for tanker lorry, tools and other appliences and cost of water etc. complete."(Ref. No. 000, Technical Circular)"	1830.610	Kilo litre	200.00	366122.00	INR Three Lakh Sixty Six Thousand One Hundred & Twenty Two Only
2.026	Providing and fixing PVC moulded fittings/ accessories for Rigid PVC pipes, including jointing with PVC solvent cement - 75 mm dia Vent cowl	16.000	Nos	90.57	1449.12	INR One Thousand Four Hundred & Forty Nine and Paise Twelve Only
2.027	Providing and laying Double Flanged ( Screwed / Welded ) Centrifugally (Spun) Ductile Iron Pipes of Class K - 9 conforming to IS: 8329 :	4.000	metre	5322.00	21288.00	INR Twenty One Thousand Two Hundred & Eighty Eight Only
2.028	Providing and laying Double Flanged ( Screwed / Welded ) Centrifugally (Spun) Ductile Iron Pipes of Class K - 9 conforming to IS: 8329 :	2.000	metre	8600.00	17200.00	INR Seventeen Thousand Two Hundred Only
2.029	Providing and laying Double Flanged ( Screwed / Welded ) Centrifugally (Spun) Ductile Iron Pipes of Class K - 9 conforming to IS: 8329 :	5.000	metre	1163.00	5815.00	INR Five Thousand Eight Hundred & Fifteen Only
2.03	Providing and laying D.I Specials of Class K - 12 suitable for mechanical jointing as per IS: 9523:	2.000	quintal	22128.93	44257.86	INR Forty Four Thousand Two Hundred & Fifty Seven and Paise Eighty Six Only
2.031	Supplying and fixing 500mm dia CI manhole cover with frame( medium duty) charges including all cost, labour charges etc complete.	8.000	Nos	8248.00	65984.00	INR Sixty Five Thousand Nine Hundred & Eighty Four Only
2.032	Filling with excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge	160.000	cum	270.60	43296.00	INR Forty Three Thousand Two Hundred & Ninety Six Only
2.033	Item Shifted to head 14 as item 14.74Steel work welded in built up sections/framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.	420.000	kg	161.34	67762.80	INR Sixty Seven Thousand Seven Hundred & Sixty Two and Paise Eighty Only
2.034	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approves steel primer.	972.000	kg	194.69	189238.68	INR One Lakh Eighty Nine Thousand Two Hundred & Thirty Eight and Paise Sixty Eight Only
2.035	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade:Two or more coats on new work	291.540	sqm	149.70	43643.54	INR Forty Three Thousand Six Hundred & Forty Three and Paise Fifty Four Only
2.036	Lettering with black Japan pint of approved brand and manufacture	4050.000	Letterxcm ht	5.81	23530.50	INR Twenty Three Thousand Five Hundred & Thirty and Paise Fifty Only



2.037	Laying at or near ground level old kerb stones of all types in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints, except at sharp curve, shall not be more than 5 mm), including making drainage opening wherever required etc. complete as per direction of Engineer-in-charge. (Length of finished kerb edging shall be measured for payment). (Old kerb stones shall be supplied by the department free of cost)	132.000	metre	102.17	13486.44	INR Thirteen Thousand Four Hundred & Eighty Six and Paise Forty Four Only
2.038	Providing and laying factory made chamfered edge Cement Concrete paver blocksin footpath, parks, lawns, drive ways or light traffic parking etc, of required strength,thickness & size/ shape, made by table vibratory method using PU mould, laid inrequired colour & pattern over 50mm thick compacted bed of sand, compacting andproper embedding/laying of inter locking paver blocks into the sand bedding layerthrough vibratory compaction by using plate vibrator, filling the joints with sand andcutting of paver blocks as per required size and pattern, finishing and sweepingextra sand. complete all as per direction of Engineer-in-Charge.60mm thick cement concrete paver block of M-35 grade with approved colour, design& pattern.	372.000	sqm	1089.92	405450.24	INR Four Lakh Five Thousand Four Hundred & Fifty and Paise Twenty Four Only
2.039	Supplying and fixing mechanical water level indicator	1.000	L.S	12079.60	12079.60	INR Twelve Thousand &Seventy Nine and Paise Sixty Only
2.04	Provision for Lightning Arrestor br>	100000.000	L.S	1.04	104000.00	INR One Lakh Four Thousand Only
2.041	Supply and Fixing Solar Street Light 30Watt with MPPT Controller	4.000	No	23788.45	95153.80	INR Ninety Five Thousand One Hundred & Fifty Three and Paise Eighty Only
3	APPENDIX -C - DISTRIBUTION SYSTEM FROM CHRAMA	LA				
3.001	Supply of DI K9 Pipe Conforming to IS 8329/2000, 450mm Dia.	1545.000	metre	8694.00	13432230.00	INR One Crore Thirty Four Lakh Thirty Two Thousand Two Hundred & Thirty Only
3.002	Supply of DI K9 Pipe Conforming to IS 8329/2000, 250mm Dia.	515.000	metre	3849.00	1982235.00	INR Nineteen Lakh Eighty Two Thousand Two Hundred & Thirty Five Only
3.003	Supply of DI K9 Pipe Conforming to IS 8329/2000, 200mm Dia.	2575.000	metre	2868.00	7385100.00	INR Seventy Three Lakh Eighty Five Thousand One Hundred Only



3.004	Supply of PE Pipe, PE100, PN10, 90mm dia, conforming to IS 4984/2016.	50000.000	metre	295.04	14752000.00	INR One Crore Forty Seven Lakh Fifty Two Thousand Only
3.005	Supply of PE Pipe, PE100, PN10, 110mm dia, conforming to IS 4984/2016.	15000.000	metre	439.57	6593550.00	INR Sixty Five Lakh Ninety Three Thousand Five Hundred & Fifty Only
3.006	Supply of PE Pipe, PE100, PN10, 140mm dia, conforming to IS 4984/2016.	2000.000	metre	708.61	1417220.00	INR Fourteen Lakh Seventeen Thousand Two Hundred & Twenty Only
3.007	Supply of PE Pipe, PE100, PN10, 160mm dia, conforming to IS 4984/2016.	1500.000	metre	924.51	1386765.00	INR Thirteen Lakh Eighty Six Thousand Seven Hundred & Sixty Five Only
3.008	Cost of PE specials @ 5% of the total PE pipe cost	21762375.000	L.S	0.05	1088118.75	INR Ten Lakh Eighty Eight Thousand One Hundred & Eighteen and Paise Seventy Five Only
3.009	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Large Orifice Type S2, Size 50mm.	30.000	No	6355.08	190652.40	INR One Lakh Ninety Thousand Six Hundred & Fifty Two and Paise Forty Only
3.01	Supply of CI Air Valve with Flanges, Conforming to IS 14845 - 2000, Kinetic Air Valve Type DS1, Size 80mm.	10.000	No	13439.76	134397.60	INR One Lakh Thirty Four Thousand Three Hundred & Ninety Seven and Paise Sixty Only
3.011	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 80mm.	30.000	No	6889.01	206670.30	INR Two Lakh Six Thousand Six Hundred & Seventy and Paise Thirty Only
3.012	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 100mm.	10.000	No	9364.11	93641.10	INR Ninety Three Thousand Six Hundred & Forty One and Paise Ten Only
3.013	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 125mm.	2.000	No	11509.42	23018.84	INR Twenty Three Thousand &Eighteen and Paise Eighty Four Only
3.014	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 150mm.	1.000	No	13932.62	13932.62	INR Thirteen Thousand Nine Hundred & Thirty Two and Paise Sixty Two Only
3.015	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.	2.000	No	24672.60	49345.20	INR Forty Nine Thousand Three Hundred & Forty Five and Paise Twenty Only
3.016	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 450mm.	1.000	No	115737.08	115737.08	INR One Lakh Fifteen Thousand Seven Hundred & Thirty Seven and Paise Eight Only
3.017	80mm GI pipe medium	3000.000	metre	832.31	2496930.00	INR Twenty Four Lakh Ninety Six Thousand Nine Hundred & Thirty Only



3.018	Supply of 100mm GI pipe medium	1500.000	metre	1395.19	2092785.00	INR Twenty Lakh Ninety Two Thousand Seven Hundred & Eighty Five Only
3.019	Supply of 125 mm GI pipe medium	100.000	metre	1828.85	182885.00	INR One Lakh Eighty Two Thousand Eight Hundred & Eighty Five Only
3.02	Add 5% forGI Specials	3642763.000	L.S	0.05	182138.15	INR One Lakh Eighty Two Thousand One Hundred & Thirty Eight and Paise Fifteen Only
3.021	Supplying an electro - magnetic flow meter for pipe of size 400 mm bore dia conforming to protection level of IP68 for Flow Sensor and IP- 67 for transmitter and having an accuracy level of 0.5% with LED/LCD Display unit. The flow meter should have the housing (flow sensor) to be made of SS 304/ Carbon Steel with anti-corrosive protection and inside liner to be made up of Hard Rubber / neoprene all confirming to drinking water standards. The flow meter should be coupled with HART for data acquisition and transfer, with provision for wireless transfer through GSM. The manufacturers should have the calibration standards as per ISO 17025 and the product shall have sufficient warranty provisions (Minimum 3 years)	1.000	No	214412.90	214412.90	INR Two Lakh Fourteen Thousand Four Hundred & Twelve and Paise Ninety Only
3.022	Supplying and fixing 500mm dia CI manhole cover with frame( medium duty) charges including all cost, labour charges etc complete.	27.000	Nos	7856.31	212120.37	INR Two Lakh Twelve Thousand One Hundred & Twenty and Paise Thirty Seven Only
3.023	Cutting the bituminous / concrete roads with cutting machine for a minimum depth of 200mm along the sides of proposed alignment of the pipe to be laid without causing any damage to other utilities, including the charges for hire and conveyance of tools and plant, cost of consumables and charges for lighting, watching, ribbon fencing, caution boards, traffice diversion, and as per the direction of departmental officers etc. complete, before carrying out the demolition of bituminous / concrete road by mechanical means and carrying out the excavation.	11000.000	metre	31.86	350460.00	INR Three Lakh Fifty Thousand Four Hundred & Sixty Only
3.024	Dismantling manually / by mechanical means and disposal of material within 50 metres lead as per direction of Engineer -in-Charge:Bituminous road	2500.000	sqm	91.97	229925.00	INR Two Lakh Twenty Nine Thousand Nine Hundred & Twenty Five Only
3.025	Demolishing cement concrete manually / by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in-Charge. Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	675.000	cum	919.66	620770.50	INR Six Lakh Twenty Thousand Seven Hundred & Seventy and Paise Fifty Only



3.026	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidatingeach deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :All kinds of soil (Ref. Item No. 2.10.1 of DSR)	34152.001	cum	581.33	19853582.74	INR One Crore Ninety Eight Lakh Fifty Three Thousand Five Hundred & Eighty Two and Paise Seventy Four Only
3.027	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidatingeach deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m: "Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)	6403.500	cum	844.29	5406411.02	INR Fifty Four Lakh Six Thousand Four Hundred & Eleven and Paise Two Only
3.028	Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m2 on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m.Medium Rock (blasting prohibited)New Data derived from Item No.2.9.3	2134.501	cum	1109.21	2367609.85	INR Twenty Three Lakh Sixty Seven Thousand Six Hundred & Nine and Paise Eighty Five Only
3.029	Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)	30400.000	metre	29.24	888896.00	INR Eight Lakh Eighty Eight Thousand Eight Hundred & Ninety Six Only
3.03	Fencing 1.50m high with two rows of casuarina poles (girth 15cm to 24cm) tied with coir yarn on vertical casuarina pole (girth 15cm to 24cm) fixed at 1.5m intervals.NEW DATA (Prepared based on PWD SDB - Item No.1009	1500.000	metre	100.64	150960.00	INR One Lakh Fifty Thousand Nine Hundred & Sixty Only
3.031	Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete.NEW DATA (Prepared based on PHED SDB - Item No.1070	500.000	Kwh	38.67	19335.00	INR Nineteen Thousand Three Hundred & Thirty Five Only



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3.032	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 200 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.17 in DAR	2500.000	metre	127.15	317875.00	INR Three Lakh Seventeen Thousand Eight Hundred & Seventy Five Only
3.033	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 250 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.18 in DAR	500.000	metre	170.63	85315.00	INR Eighty Five Thousand Three Hundred & Fifteen Only
3.034	"Laying HDPE pipes (IS: 4984)on land portion including conveying within initial lead and aligning the pipes, electrofusion welding using automatic or semi automatic electrofusion machines, testing the pipe line thus fabricated to suit the hydrulic working pressure and after testing, aligning the pipeline, lowering the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings. 90 mm OD HDPE pipe"	50000.000	metre	97.62	4881000.00	INR Forty Eight Lakh Eighty One Thousand Only
3.035	Laying HDPE pipes (IS: 4984)on land portion including conveying within initial lead and aligning the pipes, electrofusion welding using automatic or semi automatic electrofusion machines, testing the pipe line thus fabricated to suit the hydrulic working pressure and after testing, aligning the pipeline, lowering the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings.110 mm OD HDPE pipeNEW DATA	15000.000	metre	132.39	1985850.00	INR Nineteen Lakh Eighty Five Thousand Eight Hundred & Fifty Only
3.036	Laying HDPE pipes (IS: 4984)on land portion including conveying within initial lead and aligning the pipes, electrofusion welding using automatic or semi automatic electrofusion machines, testing the pipe line thus fabricated to suit the hydrulic working pressure and after testing, aligning the pipeline, lowering the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings. 140 mm OD HDPE pipeNEW DATA	2000.000	metre	188.58	377160.00	INR Three Lakh Seventy Seven Thousand One Hundred & Sixty Only



3.037	Laying HDPE pipes (IS: 4984)on land portion including conveying within initial lead and aligning the pipes, electrofusion welding using automatic or semi automatic electrofusion machines, testing the pipe line thus fabricated to suit the hydrulic working pressure and after testing, aligning the pipeline, lowering the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings. 160 mm OD HDPE pipe NEW DATA	1500.000	metre	225.19	337785.00	INR Three Lakh Thirty Seven Thousand Seven Hundred & Eighty Five Only
3.038	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 450 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.22 in DAR	1500.000	metre	402.77	604155.00	INR Six Lakh Four Thousand One Hundred & Fifty Five Only
3.039	Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc. excluding the cost of air valve(the tail pieces if required will be paid seperately):50 mm Double acting Air Valve Data derived from item no.18.59.1 of DAR	30.000	Nos	229.80	6894.00	INR Six Thousand Eight Hundred & Ninety Four Only
3.04	Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc. excluding the cost of air valve(the tail pieces if required will be paid seperately): 80 mm Double acting Air Valve Data derived from item no.18.59.2 of DAR	10.000	Nos	229.80	2298.00	INR Two Thousand Two Hundred & Ninety Eight Only
3.041	"Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately):80 mm diameter. Class I"Observed Data derived from item no.18.31.of DAR	30.000	Nos	615.34	18460.20	INR Eighteen Thousand Four Hundred & Sixty and Paise Twenty Only
3.042	"Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately):100 mm diameter. Class I"Data derived from item no.18.31.1.10f DAR	10.000	Nos	927.79	9277.90	INR Nine Thousand Two Hundred & Seventy Seven and Paise Ninety Only
3.043	"Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately):125 mm diameter. Class I"Data derived from item no.18.31.2.1 of DAR	2.000	Nos	1035.22	2070.44	INR Two Thousand &Seventy and Paise Forty Four Only



3.044	Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately):150 mm diameter. Class I"Data derived from item no.18.31.3.1 of DAR	1.000	Nos	1256.57	1256.57	INR One Thousand Two Hundred & Fifty Six and Paise Fifty Seven Only
3.045	"Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) :200 mm diameter. Class I"Data derived from item no.18.31.4.1 of DAR	2.000	Nos	1630.12	3260.24	INR Three Thousand Two Hundred & Sixty and Paise Twenty Four Only
3.046	"Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately):250 mm diameter. Class I"Data derived from item no.18.31.5.1 of DAR	1.000	Nos	2310.81	2310.81	INR Two Thousand Three Hundred & Ten and Paise Eighty One Only
3.047	Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately): 450 mm diameter. Class I"Observed Data derived from item no.18.31.of DAR	1.000	Nos	5925.29	5925.29	INR Five Thousand Nine Hundred & Twenty Five and Paise Twenty Nine Only
3.048	Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:	5.000	quintal	15533.24	77666.20	INR Seventy Seven Thousand Six Hundred & Sixty Six and Paise Twenty Only
3.049	Providing and laying D.I specials of class K - 12 suitable for push - on jointing as per IS : 9523 :	32.000	quintal	21057.61	673843.52	INR Six Lakh Seventy Three Thousand Eight Hundred & Forty Three and Paise Fifty Two Only
3.05	Labour for cutting CI/DI pipe with steel saw.200 mm diameter CI/DI pipe	50.000	Each Cut	450.77	22538.50	INR Twenty Two Thousand Five Hundred & Thirty Eight and Paise Fifty Only
3.051	Labour for cutting CI/DI pipe with steel saw.250 mm diameter CI/DI pipe	10.000	Each Cut	560.57	5605.70	INR Five Thousand Six Hundred & Five and Paise Seventy Only
3.052	Labour for cutting CI/DI pipe with steel saw. 450 mm diameter CI/DI pipe	30.000	Each Cut	1005.75	30172.50	INR Thirty Thousand One Hundred & Seventy Two and Paise Fifty Only
3.053	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:200 mm dia pipes	500.000	joint	270.82	135410.00	INR One Lakh Thirty Five Thousand Four Hundred & Ten Only
3.054	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:250 mm dia pipes	100.000	joint	330.69	33069.00	INR Thirty Three Thousand &Sixty Nine Only



3.055	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:450 mm dia pipes	300.000	joint	820.74	246222.00	INR Two Lakh Forty Six Thousand Two Hundred & Twenty Two Only
3.056	Testing 200mm DI/CI pipeline with potable water to the required test pressure 200 mm dia Observed Data derived from item no.1020 of PHED DATA	2500.000	metre	41.75	104375.00	INR One Lakh Four Thousand Three Hundred & Seventy Five Only
3.057	Testing 250mm DI/CI pipeline with potable water to the required test pressure . 250 mm dia Observed Data derived from item no.1022 of PHED DATA	500.000	metre	53.25	26625.00	INR Twenty Six Thousand Six Hundred & Twenty Five Only
3.058	Testing 450mm DI/CI pipeline with potable water to the required test pressure. 450 mm dia Observed Data derived from item no.1027 of PHED DATA	1500.000	metre	98.65	147975.00	INR One Lakh Forty Seven Thousand Nine Hundred & Seventy Five Only
3.059	Providing and fixing G.I. pipes complete with G.I fittings including trenching and refilling etc. External work80 mm dia nominal bore	3000.000	metre	1067.28	3201840.00	INR Thirty Two Lakh One Thousand Eight Hundred & Forty Only
3.06	Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 100 mm dia nominal bore Observed Data derived from item no.18.12 of DAR	1500.000	metre	246.13	369195.00	INR Three Lakh Sixty Nine Thousand One Hundred & Ninety Five Only
3.061	"Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 125 mm dia nominal bore Observed Data derived from item no.18.12 of DAR	100.000	metre	275.70	27570.00	INR Twenty Seven Thousand Five Hundred & Seventy Only
3.062	Fabricating MS pipes of size 150mm (ID) using 8 mm thick MS plate including cost and conveyance charges of MS plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under coat of primer etc. complete: For pipes fabricated with 8mm thick MS plates.	64.000	metre	5188.06	332035.84	INR Three Lakh Thirty Two Thousand & Thirty Five and Paise Eighty Four Only
3.063	Fabricating MS flanges of diameter 150 mm using 12 mm thick MS plate including cost and conveyance charges of MS plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under coat of primer etc. complete: For pipes fabricated with 8mm thick MS plates.	48.000	No	1559.75	74868.00	INR Seventy Four Thousand Eight Hundred & Sixty Eight Only
3.064	Cutting 150mm (ID)MS pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.	144.000	No	170.21	24510.24	INR Twenty Four Thousand Five Hundred & Ten and Paise Twenty Four Only



3.065	Welding 150mm (ID) MS pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods ,all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.	192.000	No	651.16	125022.72	INR One Lakh Twenty Five Thousand &Twenty Two and Paise Seventy Two Only
3.066	Grinding cut and weld edges of 150mm (ID) MS pipes during fabrication work including all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.	144.000	No	122.11	17583.84	INR Seventeen Thousand Five Hundred & Eighty Three and Paise Eighty Four Only
3.067	Fabricating MS pipes of size 450mm (ID) using 8 mm thick MS plate including cost and conveyance charges of MS plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under coat of primer etc. complete: For pipes fabricated with 8mm thick MS plates.	16.000	metre	11158.19	178531.04	INR One Lakh Seventy Eight Thousand Five Hundred & Thirty One and Paise Four Only
3.068	Fabricating MS flanges of diameter 450 mm using 16 mm thick MS plate including cost and conveyance charges of MS plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under coat of primer etc. complete: For pipes fabricated with 8mm thick MS plates.	12.000	Nos	5810.84	69730.08	INR Sixty Nine Thousand Seven Hundred & Thirty and Paise Eight Only
3.069	Cutting 450 mm (ID) MS pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.	36.000	No	477.77	17199.72	INR Seventeen Thousand One Hundred & Ninety Nine and Paise Seventy Two Only
3.07	Welding 450mm (ID) MS pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods ,all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.	48.000	No	1828.07	87747.36	INR Eighty Seven Thousand Seven Hundred & Forty Seven and Paise Thirty Six Only
3.071	Grinding cut and weld edges of 450 mm (ID) MS pipes during fabrication work including all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.	36.000	No	342.75	12339.00	INR Twelve Thousand Three Hundred & Thirty Nine Only
3.072	Supplying and fixing 150mm CI surface box embeded with RCC slab of size 0.6x0.6x0.15 and 160mm or above size PVC 10Kg/cm2 pipe acting as protection tube with including all cost of conveyance, labour charges etc.complete	50.000	No	2970.14	148507.00	INR One Lakh Forty Eight Thousand Five Hundred & Seven Only
3.073	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed. All kinds of soil	46.546	cum	223.98	10425.37	INR Ten Thousand Four Hundred & Twenty Five and Paise Thirty Seven Only



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3.074	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)	5.421	cum	1931.91	10472.88	INR Ten Thousand Four Hundred & Seventy Two and Paise Eighty Eight Only
3.075	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size	245.621	cum	9507.77	2335307.98	INR Twenty Three Lakh Thirty Five Thousand Three Hundred & Seven and Paise Ninety Eight Only
3.076	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete	1418.236	sqm	350.92	497687.38	INR Four Lakh Ninety Seven Thousand Six Hundred & Eighty Seven and Paise Thirty Eight Only
3.077	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more	2400.000	kilogram	102.88	246912.00	INR Two Lakh Forty Six Thousand Nine Hundred & Twelve Only
3.078	Brick work with common burnt clay F.P.S (non modular) bricks of class designation 7.5 in foundation and plinth in:	76.512	cum	7854.60	600971.16	INR Six Lakh Nine Hundred & Seventy One and Paise Sixteen Only
3.079	12 mm cement plaster of mix:	3092.360	sqm	328.70	1016458.73	INR Ten Lakh Sixteen Thousand Four Hundred & Fifty Eight and Paise Seventy Three Only
3.08	Providing 15mm (1/2 inch) house connection with 15mm water meter from existing PVC / HDPE mains up to 110 mm dia., up to a length of 5m using 20mm (1/2 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers, PVC Service Saddle of suitable size etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.	2000.000	Nos	7281.91	14563820.00	INR One Crore Forty Five Lakh Sixty Three Thousand Eight Hundred & Twenty Only



Providing 15mm (1/2 inch) house connection with 15mm	1188.000	LINOS	7378.01	8765075.88	
water mater from existing DVC / HDDE mains from 140		1,05	7570.01	0703073.00	INR Eighty Seven Lakh Sixty Five Thousand &Seventy Five and Paise Eighty Eight Only
water meter from existing PVC / HDPE mains from 140mm to 200mm dia., up to a length of 5 m using 20mm ( 1/2 inch					and Paise Eighty Eight Only
1 2 11 1					
water meter, lighting, watching, providing caution boards,					
traffic control etc. complete including cost of materials, hire					
for tools, cost of consumables and labour charges, including					
the cost of tested Class B Multijet water meter with ISI mark					
and weather resistant PP / PE meter box of minimum size					
cutting the concrete / tarred / bituminous roads etc, and as					
per the direction of the departmental officers.					
	<b>5</b> 4.000.000				
	51000.000	metre	181.14	9238140.00	INR Ninety Two Lakh Thirty Eight Thousand One
					Hundred & Forty Only
and the department officers.					
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
	3188.000	No	341.01	1087139.88	INR Ten Lakh Eighty Seven Thousand One Hundred
					& Thirty Nine and Paise Eighty Eight Only
cement concrete					
Providing 15mm PVC Tap in the water meter assembly for	3188.000	Nos	608.96	1941364.48	INR Nineteen Lakh Forty One Thousand Three
15mm connection, using 20mm Indian Standard Class 6					Hundred & Sixty Four and Paise Forty Eight Only
uPVC pipes and specials including cost of materials,					
consumables, hire charges for tools and labour charges etc.					
complete and as per the direction of departmental officers.					
	) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers, PVC Service Saddle of suitable size etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.  Providing additional length of house connection pipe using 20 mm (1/2 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PN16 specials and testing the joints etc., by trenching and refilling in all kinds of soil with trench of average cross section 0.3m x 0.75m for laying of connection pipe and service pipe, lighting, watching, providing caution boards, traffic control etc., including cost of materials, hire for tools, cost of consumables and labour charges etc. complete, but excluding the cost of cutting of concrete / tarred / bituminous roads etc., and as per the directions of the department officers.  Providing and Fixing Water Tap post using 75 mm PVC pipe 6 Kg/cm2, end cap, filling sand, fixing in position with cement concrete  Providing 15mm PVC Tap in the water meter assembly for 15mm connection, using 20mm Indian Standard Class 6 uPVC pipes and specials including cost of materials, consumables, hire charges for tools and labour charges etc.	) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers, PVC Service Saddle of suitable size etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.  Providing additional length of house connection pipe using 20 mm (1/2 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PN16 specials and testing the joints etc., by trenching and refilling in all kinds of soil with trench of average cross section 0.3m x 0.75m for laying of connection pipe and service pipe, lighting, watching, providing caution boards, traffic control etc., including cost of materials, hire for tools, cost of consumables and labour charges etc. complete, but excluding the cost of cutting of concrete / tarred / bituminous roads etc., and as per the directions of the department officers.  Providing and Fixing Water Tap post using 75 mm PVC pipe 6 Kg/cm2, end cap, filling sand, fixing in position with cement concrete  Providing 15mm PVC Tap in the water meter assembly for 15mm connection, using 20mm Indian Standard Class 6 uPVC pipes and specials including cost of materials, consumables, hire charges for tools and labour charges etc.	) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers, PVC Service Saddle of suitable size etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.  Providing additional length of house connection pipe using 20 mm (1/2 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PN16 specials and testing the joints etc., by trenching and refilling in all kinds of soil with trench of average cross section 0.3m x 0.75m for laying of connection pipe and service pipe, lighting, watching, providing caution boards, traffic control etc., including cost of materials, hire for tools, cost of consumables and labour charges etc. complete, but excluding the cost of cutting of concrete / tarred / bituminous roads etc., and as per the directions of the department officers.  Providing and Fixing Water Tap post using 75 mm PVC pipe 6 Kg/cm2, end cap, filling sand, fixing in position with cement concrete  Providing 15mm PVC Tap in the water meter assembly for 15mm connection, using 20mm Indian Standard Class 6 uPVC pipes and specials including cost of materials, consumables, hire charges for tools and labour charges etc.	) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. Drass Ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers, PVC Service Saddle of suitable size etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.  Providing additional length of house connection pipe using 20 mm (1/2 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PN16 specials and testing the joints etc., by trenching and refilling in all kinds of soil with trench of average cross section 0.3m x 0.75m for laying of connection pipe and service pipe, lighting, watching, providing caution boards, traffic control etc., including cost of materials, hire for tools, cost of consumables and labour charges etc. complete, but excluding the cost of cutting of connection traff / bituminous roads etc., and as per the directions of the department officers.  Providing 15mm PVC Tap in the water meter assembly for 15mm connection, using 20mm Indian Standard Class 6 uPVC pipes and specials including cost of materials, consumables, hire charges for tools and labour charges etc.	PEP Pipe, PESO, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers, PVC Service Saddle of suitable size etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a deepth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding learges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.  Providing additional length of house connection pipe using 20 mm (1/2 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PN16 specials and testing the joints etc., by trenching and refilling in all kinds of soil with trench of average cross section 0.3m x 0.75m for laying of connection pipe and service pipe, lighting, watching, providing caution boards, traffic control etc., including cost of materials, hire for tools, cost of consumables and labour charges etc. complete, but excluding the cost of cutting of concrete / tarred / bituminous roads etc., and as per the directions of the department officers.  Providing and Fixing Water Tap post using 75 mm PVC pipe 6 Kg/cm2, end cap, filling sand, fixing in position with ement concrete  Providing 15mm PVC Tap in the water meter assembly for 15mm connection, using 20mm Indian Standard Class 6 uPVC pipes and specials including cost of materials, hire charges for tools and labour charges etc.



3.085	Providing 20mm (1/2 inch) PVC Air Valve in the water meter assembly for 15mm water connection, using 20mm (1/2 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression specials including cost of materials, consumables, hire for tools and labour charges etc. complete and as per the directions of the department officers.	1000.000		603.96	603960.00	INR Six Lakh Three Thousand Nine Hundred & Sixty Only
3.086	Statutory fees for water connection	1688.000		578.00		
3.087	Statuary chargers for water connection beyond 30m	1500.000		500.00		
3.088	Cost for Geo tagging connections  Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size)	3188.000 675.000		20.00 8988.00	6066900.00	INR Sixty Lakh Sixty Six Thousand Nine Hundred Only
3.09	LS Providing Road crossing using Push through method	1.000	L.S	624000.00	624000.00	INR Six Lakh Twenty Four Thousand Only
3.091	Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location within all lifts and lead up to 1000 m	4650.000	cum	91.97	427660.50	INR Four Lakh Twenty Seven Thousand Six Hundred & Sixty and Paise Fifty Only
3.092	Construction of granular sub- base by Providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, Carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in- Charge. With material conforming to Grade-II (size range 53 mm to 0.075 mm) having CBRValue-25	2557.500	cum	3248.81	8308831.58	INR Eighty Three Lakh Eight Thousand Eight Hundred & Thirty One and Paise Fifty Eight Only
3.093	Providing, laying spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in mechanical mix plant, carriage of mixed material by tipper to site, for all leads & lifts, laying in uniform layers with mechanical paver finisher in sub - base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and directions of Engineer - in- Charge.	2325.000	cum	3253.79	7565061.75	INR Seventy Five Lakh Sixty Five Thousand &Sixty One and Paise Seventy Five Only



3.094	5.1.1a.Prime Coat :-Low porosity Providing and applying primer coat with bitumen emulsion (SS-1) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.70-1.0 kg/sqm using mechanical means as per Technical Specification Clause 502	15500.000	sqm	70.04	1085620.00	INR Ten Lakh Eighty Five Thousand Six Hundred & Twenty Only
3.095	5.2.3a Tack Coat Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.25 to 0.30 kg per sqm on the prepared granular surfaces treated with primer & cleaned with Hydraulic broom as per Technical Specification Clause 503	24800.000	sqm	12.64	313472.00	INR Three Lakh Thirteen Thousand Four Hundred & Seventy Two Only
3.096	:5.9.1.2a 20mm thick Open-Graded Premix Carpet using Bitumen Section 1.2 Bitumen 1.2 Bitum	24800.000	sqm	165.57	4106136.00	INR Forty One Lakh Six Thousand One Hundred & Thirty Six Only
3.097	5.12.A.3.2a Seal Coat - Manual Means - Type C - Bitumen S-65 Providing and laying seal coat sealing the voids in a bituminous surface laid to the specified levels, grade and cross fall using Type A,Type B and Type C as per Technical Specification Clause 510 A.By Manual Means:-Case - III: TypeC (II)Bitumen (S-65)	24800.000	sqm	65.67	1628616.00	INR Sixteen Lakh Twenty Eight Thousand Six Hundred & Sixteen Only
4	PWD Road Restoration					
4.001	For road work - Loosening and re compacting the trench for a depth of 30 cm including all cost and labour charges	3300.000	cum	275.90	910470.00	INR Nine Lakh Ten Thousand Four Hundred & Seventy Only
4.002	Conveying the excavated earth from the site up to 1 KM distance by Mechanical transport including loading, unloading and stacking -(As per DSR 2021-Spec No 1.1.2	3300.000	cum	169.19	558327.00	INR Five Lakh Fifty Eight Thousand Three Hundred & Twenty Seven Only
4.003	Construction of granular sub-base by providing graded material, spreading in uniform layers With a motor grader on a prepared surface, mixing by mix in-place method with rotavator at OMC, and compacting with a vibratory roller to achieve the desired density, complete as per clause 401. Grading-III -For lower sub-base - Mix in Place Method (PWD 4.2.A.1)	2250.000	cum	3131.90	7046775.00	INR Seventy Lakh Forty Six Thousand Seven Hundred & Seventy Five Only



4.004	Providing, laying, spreading and compacting graded stone aggregate to Wet Mix Macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density. as per specification 4.12 MORTH	1650.000	cum	3223.18	5318247.00	INR Fifty Three Lakh Eighteen Thousand Two Hundred & Forty Seven Only
4.005	Providing and applying primer coat with bitumen emulsion (SS) on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.70 - 1.0 kg/sqm using mechanical means. as per specification 5.1.a MORTH	11000.000		57.17	628870.00	INR Six Lakh Twenty Eight Thousand Eight Hundred & Seventy Only
4.006	Providing and applying tack coat with bitumen emulsion (RS) using emulsion pressure distributor at the rate of 0.20 - 0.30 kg per sqm on the prepared bituminous surface cleaned with mechanical broom. As per specification 5.2.a MORTH	19000.000	sqm	10.96	208240.00	INR Two Lakh Eight Thousand Two Hundred & Forty Only
4.007	Providing and laying bituminous macadam with 80-100 TPH hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading premixed with bituminous binder (VG 30), transported to site, laid over a previously prepared surface with paver finisher to the required grade, level and alignment and rolled as per clauses 501.6 and 501.7 to achieve the desired compaction. For Grading II - (19 mm nominal size). as per specification 5.3.2.a MORTH	375.000	cum	8107.57	3040338.75	INR Thirty Lakh Forty Thousand Three Hundred & Thirty Eight and Paise Seventy Five Only
4.008	Providing and laying bituminous concrete with 80-100 TPH hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder( NRMB) @ 5.4 per cent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respectsGrading - II (13.2 mm Nominal Size)grading, premixed with a bituminous binder( NRMB) @ 5.4 percent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level, and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects For Grading -II (13.2 mm Nominal Size) as per specification 5.6.2.a MORTH	225.000	cum	11101.11	2497749.75	INR Twenty Four Lakh Ninety Seven Thousand Seven Hundred & Forty Nine and Paise Seventy Five Only



Quoteu Mate III V	TT VEWS	1 wenty 1 wo	Twenty Two Crore Sixty Four Lakh Forty One Thousand Three Hundred & Thirty Three and Paise Forty Two Only							
Total in Figures  Ouoted Rate in V	Words	Twonty Two	Croro Sir	ty Four Lakh For	226441333.42	Twenty Two Crore Sixty Four Lakh Forty One Thousand Three Hundred & Thirty Three and Paise Forty Two Only  Three Hundred & Thirty Three and Paise				
4.011	(Studs)- Providing and Fixing reflective road studs (raised pavement marker) made out of ASA/HIPS ABS moulded body with shanks and conforming to ASTM D 4280,reflective panel conforming to ASTM D 788,and reflectivity conforming to clause 804.4,including installation,drilling,fixing with adhesive etc with two tears wararanty for the road stud as well as for in field performance as per clause 804.7.3 <:br>:Road Marker/Road stud with Lense ReflecorSpecification code: 8.35 of PWD	1000.000	No	198.52	198520.00	INR One Lakh Ninety Eight Thousand Five Hundred & Twenty Only				
4.01	Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beeds on bituminous surface @250 gms per sqm area ,the thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC :35. the finished surface to be level ,uniform,and free from streaks and holesSpecification code: 8.13 of PWD	1350.000	sqm	501.11	676498.50	INR Six Lakh Seventy Six Thousand Four Hundred & Ninety Eight and Paise Fifty Only				
4.009	Providing, laying and rolling of close-graded premix surfacing material of 20 mm thickness composed of 11.2 mm to 0.09 mm (Type-A) aggregates using viscosity grade bitumen (VG - 30) to the required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable HMP of appropriate capacity not less than 75 tonnes/hour., laying and rolling with a Smooth wheeled roller 8-10 tonne capacity, and finishing to required level and grade. as per specification 5.7.1 MORTH	9000.000	sqm	194.49	1750410.00	INR Seventeen Lakh Fifty Thousand Four Hundred & Ten Only				

Note:- Item No.3.086,3.087 & 3.088 are not included in Boq Schedule But should be recorded in the measurement book.



 $\mathsf{JJM}$  - Phase 3- Providing FHTC in Perambra Grama Panchayath in Kozhikode District from WSS in Perambra Panchayath

# List of AHQR and ALQR items

Sl. No	Sl. No. as per BoQ	Specification
		AHQR items
1	2.022	12 mm cement plaster
		ALQR items
1	1.01	Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)
2	2.029	Providing and laying Double Flanged (Screwed / Welded) Centrifugally (Spun)  Ductile Iron Pipes of Class K - 9 conforming to IS: 8329:
3	3.074	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)



#### JJM - Phase 3- Providing FHTC in Perambra Grama Panchayath in Kozhikode District from WSS in Permabra Panchayath

#### **Additional Performance Guarantee Calculation Sheet**

Contract No: SE/PHC/KKD/12/2022-23

SI. No.	Item Description	Quantity	Units	Estimated Rate in	Amount	Quoted Rate of L1	10% Below Quoted (X)	(X-10)%	(X-10)%	Additional Performance Guarantee
1.01	Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)	900.000	metre	28.12	25308.00	20	-29	0.189	0.189	4783
2.029	Providing and laying Double Flanged ( Screwed / Welded ) Centrifugally (Spun) Ductile Iron Pipes of Class K - 9 conforming to IS: 8329 :	5.000	metre	10666.33	53332.00	1163	-89	0.791	0.791	42186
3.074	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)	5.421	cum	6857.61	37175.00	1931.91	-72	0.618	0.618	22974

Total Amount 69943

Roundoff Amount 70000



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# GOVERNMENT OF KERALA

## <u>Abstract</u>

Finance Department – Calculation of Additional Performance Guarantee – Clarification – Modified Orders issued

# FINANCE (INDUSTRIES & PUBLIC WORKS - B) DEPARTMENT

G.O.(P) No.168/2019/Fin.

Dated, Thiruvananthapuram, 07.12.2019

Read :-1) G.O.(P) No.19/2016/Fin dated 03.02.2016

- 2) G.O.(P) No.124/2016/Fin dated 29.08.2016
- 3) G.O.(P) No.01/2019/Fin dated 10.01.2019
- 4) Letter No. CE/Admin/IT/General/2018-19 dated 02.11.2019 from the Chief Engineer, PWD (NH & Admin)
- 5) U.O.(f) No. PWD-H3/344/2019-PWD

## ORDER

As per rules, Additional Performance Guarantee will be required if works quoted amount falls below 10% of estimated PAC. As per Government Order read as 1<sup>st</sup> paper above, if the quoted amount of L1 is @ X% below estimated PAC, the Additional Performance Guarantee Amount will be @ (X-10)% of the quoted amount. As per Government Order read as 2<sup>nd</sup> paper above, Government also lifted the restrictions stipulated in Kerala PWD Manual 2012 to award of works if quoted amount is less than 75% of estimated PAC. As per the Government Order read as 3<sup>rd</sup> paper above, guidelines regarding the mode of remittance of Additional Performance Guarantee were issued.

2) Now, vide letter read as 4<sup>th</sup> paper above, the Chief Engineer, PWD (NH & Admin) has pointed out that in the case of item rate contracts, the stipulation that the bidder has to quote for each and every item of work in the bid of the application of the above rule, as such, does not serve the required purpose and hence suggested certain modifications to the existing rules on calculation of Additional Performance Guarantee.



3) Government have examined the matter in detail and are pleased to modify the Government Orders read as 1<sup>st</sup> and 2<sup>nd</sup> papers above, as follows:-

(i) For Percentage Rate Contracts – If the quoted amount of lowest bidder (L1) is X% below Estimated PAC, the Additional Performance Guarantee amount

shall be (X-10)% of Estimated PAC.

(ii) For Items Rate Contracts – If the rate quoted by the bidder for an Item of work is "X%" below estimate cost where 'X' lies above 10%, the Additional Performance Guarantee for that item of work is equal to (X-10)% of the estimate amount for that Item of work. The total of Additional Performance Guarantee for the whole work is the total of individual Additional Performance Guarantee for each item of work calculated as above.

By Order of the Governor, MANOJ JOSHI IAS Additional Chief Secretary (Finance)

To

The Principal Accountant General (A&E) Kerala, Thiruvanathapuram
The Principal Accountant General (G&SSA) Kerala, Thiruvanathapuram

The Accountant General (E&RSA) Kerala, Thiruvanathapuram
The Principal Accountant General (Audit) Kerala, Thiruvanathapuram

All Heads of Departments and Offices

The Secretary to Governor

All Departments of Secretariat

All Private Secretaries to Ministers

Private Secretary to Chief Minister

Private Secretary to the Leader of Opposition

All Secretaries to Government

The Registrar, High Court of Kerala

The Secretary, Kerala Human Rights Commission, Thiruvananthapuram

The Election Commissioner, State Election Commission, Thiruvananthapuram

The Registrar, University of Kerala/Cochin/Kozhikode/Kottayam

The Nodal Officer, www.finance.kerala.gov.in

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Hey Cover

Section Officer

