

A. Financial Bid – PART-II BoQs (Annexure-1)

SMART CITY PROJECT- KAKINADA, ANDHRA PRADESH

Name of the work: "Construction of Two Lane Road Bridge at Pratap Nagar, Kakinada "

BILL OF QUANTITIES

Sl. No	Description of Item	Unit	Rate in Rs	Quantity	Amount in Rs
100-RCC T-Beam Bridge of 14 m effective span X 2 Nos. Super structure & Sub structure					
100-1	Boring, providing and installing bored cast-in-situ reinforced cement concrete pile of specified diameter using approved drilling method to the required depth up to the cut -off level in pile cap in RCC M 35 grade with a minimum cement content of 419 kg/cum using Blue metal of 20mm and down gauge to carry a safe working load not less than the specified, excluding the cost of steel reinforcement but including the cost of boring with casing from natural/formed ground level, bentonite mud circulation of approved specific gravity and the length of the pile to be embedded in the pile cap. The cost shall include the cost of dismantling of laitance/week concrete as per BIS norms, removal of dismantled debris and waste bore mug from the site with all lift and leads up to 1000 mm - as directed by the Engineer-in-charge. The rate shall include all machineries required for boring, genset, skilled labor etc. (length of pile for payment shall be measured up to the bottom of pile cap) - pile diameter 1200 mm (using concrete mixer).	RM		792	
100-2	Dynamic Pile Load Test on single vertical pile in accordance with ASTM D including all testing arrangements such as pile head preparation for conducting the test, supply and fixing of ply wood cushion of required thickness and hardness, S&F of mild steel cap plate, hire charges for hydra/power winch with tripod, hire charges for driving hammer all incidental charges etc. complete, necessary gauges installation, conducting the test and submission of report with two hard copies and one soft copy - Initial or Routine load test.	Nos.		4	
100-3	Hire and operational charges of vacuum dewatering system including power generator of not less than 35 kVA capacity driving 110 to 120 number of filter points for constructing pile cap all-round pit of the size for pile cap regular intervals in to the ground to keep the pit in dry condition connecting the filter points to the PVC pipes and then to the suction motors including labor charges for driving the points, delivering the discharge water to the nearest outlet etc. complete as directed by the Engineer-in-charge.	Day		30	
100-4	Earthwork excavation in soils upto SDR by mechanical means for foundations of structures as per drawing and technical specification including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing sides of bottom, back filling the excavation earth to the extent required etc., complete for finished item of work as per MoRT&H specification 304(5th Revision)	cum		1073	
100-5	PCC (1:3:6) Nominal mix in foundation with crushed stone aggregate 40 mm nominal size mechanically mixed placed in foundation and compacted by vibration including curing complete as per MoRth Spn no.2100.	cum		18	
100-6	Vibrated Reinforced cement concrete M 30 Grade Concrete using 40mm , 20mm and 10mm size HBG crushed stone aggregate (Coarse aggregate conforming to table 1000-1 and fine aggregate conforming to table 1000-2) including cost, and conveyance of all materials to site and all labour charges for machine mixing, laying in position, Compacting , Vibrating and curing including all other incidental and all other operational charges of T&P required etc., complete as per MoRT&H Specification 1500, 1700, 2100 (5th Revision) for Pile Caps.	cum		514	
100-7	Vibrated cement concrete M 30 Grade Concrete using 40mm , 20mm and 10mm size HBG crushed stone aggregate (Coarse aggregate conforming to Table 1000-1 and fine aggregate conforming to Table 1000-2) including cost, and conveyance of all materials to site and all labour charges for machine mixing, laying in position, compacting, Vibrating and curing including all other incidental and all other operational charges of T&P required etc., complete as per MoRT&H Specification 1500, 1700, 2200 (5th Revision) for Sub-structure for Piers etc.	cum		67	

Sl. No	Description of Item	Unit	Rate in Rs	Quantity	Amount in Rs
100-8	Vibrated reinforced cement concrete M 30 grade using 20mm & 10mm HBG crushed stone aggregate (Coarse aggregate conforming to table 1000-1 and fine aggregate conforming to table 1000-2) including cost, conveyance of all materials to site and labour charges, centering, machine mixing, laying, vibrating, curing etc., including other incidental hire and operational charges of all T&P as per approved drawings and as directed during execution but excluding cost of steel and its fabrication charges for finished item as per MoRT&H specification 1500,1600,1700 & 2200 (5th revision) and as directed by the Engineer-in-Charge for Sub-structure for Abutments, Fly wings, Bed blocks and backing walls	cum		174	
100-9	Vibrated reinforced cement concrete M 30 grade using 20mm & 10mm HT crushed stone aggregate (Coarse aggregate conforming to table 1000-1 and fine aggregate conforming to table 1000-2) including cost, conveyance of all materials to site and labour charges, centering, machine mixing, laying, vibrating, curing etc., including other incidental hire and operational charges of all T&P etc., complete as per approved drawings and as directed during execution but excluding cost of steel and its fabrication charges for finished item as per MoRT&H specification 1500,1600,1700 and as per M.O.S.T DRG No No.SD/157 for Deck Slab and Beams	cum		205	
100-10	Vibrated cement concrete M 30 Grade Concrete using 40mm, 20mm and 10mm size HBG crushed stone aggregate (Coarse aggregate conforming to table 1000-1 and fine aggregate conforming to table 1000-2) including cost, and conveyance of all materials to site and all labour charges for machine mixing,laying in position, Compacting , Vibrating and curing including all other incidental and all other operational charges of T&P required etc., complete as per MoRT&H Specification 1500,1700, 2100 (5th Revision) for Levelling course below approach slab.	cum		6	
100-11	Vibrated reinforced cement concrete M 30 grade using 20mm & 10mm HBG crushed stone aggregate (Coarse aggregate conforming to table 1000-1 and fine aggregate conforming to table 1000-2) including cost, conveyance of all materials to site and labour charges, centering, machine mixing, laying, vibrating, curing etc., including all other incidental and operational charges of all T&P etc., complete for finished item of work as per approved drawing,excluding cost of steel and its fabrication charges as per MoRT&H specification 1500, 1600,1700, & 2704 and as per MOST Drg.No.SD/157 for Approach slab.	cum		20	
100-12	Vibrated reinforced cement concrete M 30 grade using 20mm & 10mm HBG crushed stone aggregate (Coarse aggregate conforming to table 1000-1 and fine aggregate conforming to table 1000-2) including cost, conveyance of all materials to site and labour charges, centering, machine mixing, laying, vibrating, curing etc., including all other incidental and operational charges of all T&P etc., complete for finished item of work but excluding cost of steel and its fabrication charges as per MoRT&H specification 1500, 1600,1700, & 2702 for wearing coat over Deck slab.	cum		21	
100-13	Providing HYSD bars (Fe-415) of different diameters, wrought and put up bars of all diameters including cost and conveyance of steel to site and all labour charges for fabrication of reinforcement including cutting, bending, binding rods, tying grills, placing them in position etc., complete including cost and conveyance of binding wire and all handling charges and operational charges etc., and including over lapping welding if required etc., complete for all R.C.C items for finished item of work as per standard drawings, as per the directions of the Engineer-in-Charge and as per MoRT&H specification 1600 &2200 (5th revision) and as per I.S.1786 of 1985 for Super structure of R.C.C items.	M.T		39	
100-14	Providing HYSD bars (Fe-415) of different diameters, wrought and put up bars of all diameters including cost and conveyance of steel to site and all labour charges for fabrication of reinforcement including cutting, bending, binding rods, tying grills, placing them in position etc., complete including cost and conveyance of binding wire and all handling charges and operational charges etc., and including over lapping welding if required etc., complete for all R.C.C items for finished item of work as per standard drawings, as per the directions of the Engineer-in-Charge and as per MoRT&H specification 1600 &2200 (5th revision) and as per I.S.1786 of 1985 for Sub structure of R.C.C items.	M.T		29	

Sl. No	Description of Item	Unit	Rate in Rs	Quantity	Amount in Rs
100-15	Providing HYSD bars (Fe-415) of different diameters, wrought and put up bars of all diameters including cost and conveyance of steel to site and all labour charges for fabrication of reinforcement including cutting, bending, binding rods, tying grills, placing them in position etc., complete including cost and conveyance of binding wire and all handling charges and operational charges etc., and including overlapping welding if required etc., complete for all R.C.C items for finished item of work as per standard drawings, as per the directions of the Engineer-in-Charge and as per MoRT&H specification 1600 & 2200 (5th revision) and as per I.S.1786 of 1985 for foundations of R.C.C items.	M.T		141	
100-16	Providing weep holes in VCC Abutments, Return walls and wing walls with 100mm Diameter AC pipe extending through the full width of the structure at 1.00m C/C in both horizontal and vertical direction so that the weep holes in each horizontal direction is staggered from the weep holes laying above and below lines as shown in drawing including cost and conveyance of the A.C pipes and labour charges for cutting to required length, placing the pipe with a slope of about 1V : 20H towards stream side face etc., complete for finished item of work for weep holes as per MoRT&H specification 2706 & 2200 (5th Revision)	RM		113	
100-17	Supplying and fixing of GI drainage spouts complete as per MoRT&H Specification No.2705 and as per MOST drawing No.SD /205	Nos.		12	
100-18	Providing and laying of a strip seal expansion joint to maximum horizontal movement upto 70 mm, including cost, conveyance of all materials and charges for cutting, fixing & painting exposed surfaces of MS angles with anti corrosive paints etc., complete as per approved drawings and standard specifications to be installed by the manufacturer/supplier or authorized representative ensuring compliance to the manufacturer's instructions for installation and directed by the Engineer-in-charge.	RM		36	
100-19	Supplying, fitting and fixing in position true to line and level elastomeric neoprene bearings conforming to IRC: 83 (Part-II) section IX and clause 2005 of MoRTH specifications complete including all accessories as per drawing and Technical Specifications and as per MoRT&H Specification No.2000 & 2200.	Nos.		16	
100-20	Vibrated reinforced cement concrete M 30 grade using 20mm & 10mm HBG crushed stone aggregate (Coarse aggregate conforming to Table 1000-1 and fine aggregate conforming to Table 1000-2) including cost, conveyance of all materials to site and labour charges, centering, machine mixing, laying, vibrating, curing etc., including other incidental hire and operational charges of all T&P as per approved drawings and as directed during execution but excluding cost of steel and its fabrication charges for finished item as per MoRT&H Specification 1500, 1600, 1700 & 2200 (4th revision) and as directed by the Engineer-in-Charge for Bearing Pedestal.	cum		0.3	
100-21	Providing 160mm PVC conduits for services in the footpaths as per the DRG,No:SD/104.	RM		176	
100-22	Construction of precast VRCC railing of M 30 grade using HBG crushed stone aggregate of size not exceeding 12 mm and fine aggregate conforming to Table 1000-2 true to line and grade, tolerance of vertical RCC post not to exceed 1 in 500, centre to centre spacing between vertical posts not to exceed 2000mm, leaving adequate space between vertical posts for expansion including cost, conveyance of all materials to site and labour charges, centering, machine mixing, laying, vibrating, curing etc., including other incidental hire and operational charges of all T&P as per approved drawings and as directed during execution, excluding cost of steel and its fabrication charges as per approved drawings and technical specifications for finished item of work as per MoRT&H Specification 2703, 1500, 1600, 1700 (4 th Revision) as per drawing SD/305 of RCC T beam and slabs.	RM		59	
100-23	Soil Investigation as per IS: 1904 including trial bore hole of 25 m depth, collection of UDS and collection of SPT and conducting necessary laboratory tests as applicable including submission of Soil Investigation Report for Confirmatory boreholes	Nos.		3	
100-24	Painting to Hand Railing, Road Signs Marking	RM		56	

Sl. No	Description of Item	Unit	Rate in Rs	Quantity	Amount in Rs
100-25	Temporarry shifting and relaying of existing 2 Nos.. of 200 mm diameter GI water supply pipelines	Job		1	
100-26	Structural and Foundation Designs - Proof Checking (vetting) Consultancy Charges	Job		1	
100-27	Laying New Water Supply Main 300 mm Diameter x 2 Nos..	RM		50	
100-28	Dismantling of Existing Bridge of 4 m width carriage way 14 m span x 2 Nos., RCC T-beam bridge and deck slab with two RCC abutments and one pier with shaft and footings, foundation raft concrete and all PCC etc. complete including removal of debris from site of construction.	Job		1	
200-Construction of Retaining Wall on Pile Foundation					
200-1	Boring, providing and installing bored cast-in-situ reinforced cement concrete pile of specified diameter using approved drilling method to the required depth up to the cut -off level in pile cap in RCC M-35 grade with a minimum cement content of 419 kg/cum using Blue metal of 20mm and down gauge to carry a safe working load not less than the specified, excluding the cost of steel reinforcement but including the cost of boring with casing from natural/formed ground level, bentonite mud circulation of approved specific gravity and the length of the pile to be embedded in the pile cap. The cost shall include the cost of dismantling of laitance/week concrete as per BIS norms, removal of dismantled debris and waste bore mug from the site with all lift and leads up to 1000 mm - as directed by the Engineer-in-chare. The rate shall include all machineries required for boring, genset, skilled labor etc. (length of pile for payment shall be measured up to the bottom of pile cap) - pile diameter 500 mm (using concrete mixer).	RM		660	
200-2	Dynamic Pile Load Test on single vertical pile in accordance with ASTM D including all testing arrangements such as pile head preparation for conducting the test, supply and fixing of ply wood cushion of required thickness and hardness, S & F of mild steel cap plate, hire charges for hydra/power winch with tripod, hire charges for driving hammer all incidental charges etc. complete, necessary gauges installation, conducting the test and submission of report with two hard copies and one soft copy - Initial or Routine load test.	Nos.		1	
200-3	Hire and operational charges of vacuum dewatering system including power generator of not less than 35 kVA capacity driving 110 to 120 number of filter points for constructing pile cap all-round pit of the size 19. m x 5.6 m x 1.6 m at regular intervals in to the ground to keep the pit in dry condition connecting the filter points to the PVC pipes and then to the suction motors including labor charges for driving the points, delivering the discharge water to the nearest outlet etc. complete as directed by the Engineer-in-charge.	Days		10	
200-4	Earthwork excavation in soils up to SDR by mechanical means for foundations of structures as per drawing and technical specification including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing sides of bottom, back filling the excavation earth to the extent required etc., complete for finished item of work as per MoRT&H Specification 304 (5th Revision).	cum		109	
200-5	P.C.C (1:3:6) Nominal Mix in foundation with crushed stone aggregate 40mm nominal size mechanically mixed placed in foundation and compacted by vibration including curing complete as per MoRT&H Specification No.2100.	cum		13	
200-6	Vibrated Reinforced Cement Concrete M 30 Grade concrete using 40mm, 20mm and 10mm size HBG crushed stone aggregate (Coarse aggregate conforming to Table 1000-1 and fine aggregate conforming to Table 1000-2) including cost and conveyance of all materials to site and all labor charges for machine mixing, laying in position, compacting, vibrating and curing including all other incidental and all other operational charges of T&P required etc., complete as per MoRT&H Specification 1500, 1700, 2100 (5th Revision) for Pile Cap.	cum		59	
200-7	Vibrated Reinforced Cement concrete M 30 grade using 20mm & 10mm HBG crushed stone aggregate (Coarse aggregate conforming to Table 1000-1 and fine aggregate conforming to Table 1000-2) including cost, conveyance of all materials to site and labor charges, centering, machine mixing, laying, vibrating, curing etc., including other incidental hire and operational charges of all T&P as per approved drawings and as directed during execution but excluding cost of steel and its fabrication charges for finished item as per MoRT&H Specification 1500, 1600, 1700 & 2200 (5th revision) and as directed by the Engineer-in-Charge for Substructure for Retaining Wall Stem.	cum		64	

Sl. No	Description of Item	Unit	Rate in Rs	Quantity	Amount in Rs
200-8	Construction of Precast VRCC railing of M 30 grade using HBG crushed stone aggregate of size not exceeding 20mm and fine aggregate conforming to Table 1000-2 true to line and grade, tolerance of vertical R.C.C post not to exceed 1 in 500, centre to centre spacing between vertical posts not to exceed 2000mm, leaving adequate space between vertical posts for expansion including cost, conveyance of all materials to site and labor charges, centering, machine mixing, laying, vibrating, curing etc., including other incidental hire and operational charges of all T&P as per approved drawings and as directed during execution, excluding cost of steel and its fabrication charges as per approved drawings and technical specifications for finished item of work as per MoRT&H Specification 2703, 1500, 1600, 1700 (5th Revision).	RM		60	
200-9	Furnishing and placing reinforced cement concrete VRCC M 25 grade as per approved drawings and technical specifications as per MoRT&H specification 1500,1600,1700 (4 th revision) and as per M.O.T DRG No SD/200 ,241,243, to 245 excluding cost of steel and fabrication charges for VRCC M-25 for	cum		15	
200-10	Providing HYSD bars (Fe-415) of different diameters, wrought and put up bars of all diameters including cost and conveyance of steel to site and all labour charges for fabrication of reinforcement including cutting, bending, binding rods, tying grills, placing them in position etc., complete including cost and conveyance of binding wire and all handling charges and operational charges etc., and including over lapping welding if required etc., complete for all R.C.C items for finished item of work as per standard drawings, as per the directions of the Engineer-in-Charge and as per MoRT&H Specification 1600 & 2200 (5th revision) and as per IS: 1786 of 1985 for Super structure of R.C.C items.	M.T		42	
200-11	Providing Grouted Revetment with rough stone (HBG) of not less than 300 mm size grouted with 0.20 cum of CC (1:4:8) including cost, and conveyance of materials to site and including labor charges for packing the stones for revetment etc., complete for finished item of work as per MoRT&H Specification 2504 (5th revision) and as directed by the Engineer-in-Charge for quadrantal revetment.	cum		31	
200-12	Pitching with 300 mm size rough stone including cost, and conveyance of materials to site and including labor charges for packing the stones for revetment etc., complete for finished item of work as per MoRT&H Specification 2504 (5th revision) and as directed by the Engineer-in-Charge for Pitching of Slopes for Toe Wall.	cum		10	
200-13	Providing and laying filter material with Gravel (selected earth) underneath pitching in slopes including cost, and conveyance of materials to site including labor charges etc., complete for finished item of work as per MoRT&H Specification 2504 (5th Revision) and as directed by the Engineer-in-Charge under Revetment.	cum		16	
200-14	Back filling behind Abutments with gravel (selected earth) including cost, conveyance of all materials to site etc., complete as per Clause 710.1.4 of IRC: 78 and as per MoRT&H Specification No. 2200 and as per CI 710.1.4 of IRC :78.	cum		389	
200-15	Providing and laying of filter media using 50% of 150 mm IRC soling stone and 50 % of 40 mm HBG metal satisfying the requirements laid down in clause 2504.2.2 of MoRT&H specifications to thickness of not less than 600mm with smaller size towards the soil and bigger size towards the wall and provided over the entire surface behind the abutment, wing wall and return wall to the full height compacted to a firm condition including cost and conveyance of all metal seignorage charges ,and all labor charges as directed by the departmental officers as per drawing and Technical specifications as per clause 710.1.1 of IRC:78 and Clause 2200 of MoRT&H (5th Revision) for finished item of work.	cum		48	
200-16	Providing weep holes in VCC Abutments, Return walls and wing walls with 100mm Diameter AC pipe extending through the full width of the structure at 1.00m C/c in both horizontal and vertical direction so that the weep holes in each horizontal direction is staggered from the weep holes laying above and below lines as shown in drawing including cost and conveyance of the A.C pipes and labor charges for cutting to required length, placing the pipe with a slope of about 1V : 20H towards stream side face etc., complete for finished item of work for weep holes as per MoRT&H Specification 2706 & 2200 (5th Revision).	RM		25	

Sl. No	Description of Item	Unit	Rate in Rs	Quantity	Amount in Rs
200-17	Provision for mastic pads and expansion joints	Job		1	
300-Construction of approaches					
300-1	Forming embankment with borrowed useful earth from outside road boundary by mechanical means upto SDR with all leads and lifts including pre-watering of soil at borrow area, removal of top soil, excavation of soils at borrowed area, conveyance of soil, depositing the soil on the embankment, spreading soil, breaking clods, sectioning, grading and consolidation with 8 to 10 Tonnes Vibratory Road Roller @ OMC to meet requirement of table 300-2 of MoRT&H, including all hire and operational charges of T&P and charges, complete for finished item of work as per MoRT&H specification 305 (5th revision) (Payment will be made based on level for finished item of work).	cum		917	
300-2	Construction of Granular sub-base by providing HBG material conforming to Grading -V of MoRT&H Table 400-1 including cost, charges and conveyance of all materials to work site and spreading in uniform layers with motor grader or by approved means, on prepared surface mixing by mix in place method with Rotavator / approved means at OMC and compacting with vibratory roller to achieve the desired density etc., complete for finished item of work as per MoRT&H Specification 401 (5th revision) and as directed by the Engineer-in-charge. (Payment will be made based on levels for finished item of work).	cum		69	
300-3	Providing, Laying, Spreading and compacting graded HBG crushed stone aggregate to Wet Mix Macadem specification including cost,seignorage of all materials and 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 base courses on well prepared surface and compacting with Vibratory roller to acheive the desired density etc., as directed by the Engineer-in-Charge and as per MoRT&H specification.406 (5th revision) for finished item of work (Payment based on levels for finished item of work).	cum		59	
300-4	Providing and applying primer coat with bitumen emulsion (SS1) on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.70 kg/Sq.m using mechanical means as per MoRT&H specification clause No.502 and as directed by the Engineer-in-Charge.	sq.mt		225	
300-5	Providing and applying tack coat with bitumen 80/100 VG10 (Bulk) using Bitumen pressure distributor at the rate of 0.25 kgs per sqm on the prepared bituminous/granular surface cleaned with mechanical broom for finished item of work as per MoRT&H Specification 503 (5 th revision) and as directed by the Engineer-in-Charge.	sq.mt		225	
300-6	Providing and laying of 50mm thick Bituminous Macadam with 100 -120 TPH hot mix plant producing an average output of 75 tonnes per hour using hard blasted granite crushed aggregates of Grading -II as per table 500-7 of MoRT&H Specificaion 504 (5th Revision) premixed with bituminous binder of VG-30 grade @ 3.4% by weight of total mixture, transported to site, laid over a previously prepared surface with Mechanical paver finisher with sensor control to the required grade, level and alignment and rolled as per Clauses 501.6 and 501.7 to achieve the desired compaction for finished item of work as directed by the Engineer-in-Charge including hire and opeational charges all T&P and all other contingent charges necessary, complete and as per MoRT&H Specification No. 504 (5th Revision).	cum		12	
300-7	Providing and applying tack coat with bitumen 80/100 VG10 (Bulk) using Bitumen pressure distributor at the rate of 0.20 kgs per sqm on the prepared bituminous/granular surface cleaned with mechanical broom for finished item of work as per MoRT&H Specification 503 (5 th revision) and as directed by the Engineer-in-Charge.	sq.mt		225	
300-8	Providing , laying of close graded premix surfacing material (Mixed seal surfacing) of 20 mm thickness by hot mix plant using hard blasted granite crushed aggregates of 13.2 mm to 0.09 mm (Type 'B') as per table 500-19 of specification 508 of MoRT&H (5th Revision), premixed with bituminous binder VG-30 (60/70) grade @ 19.00 Kg per 10 Sqm area, including cost of all materials and transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled roller 8 to 10 Tonnes as per MoRT&H (5th Revision) Specification No. 508 complete for finished item of work in all respects as directed by Engineer-in-charge.	sq.mt		225	

Sl. No	Description of Item	Unit	Rate in Rs	Quantity	Amount in Rs
300-9	Construction of Gravel shoulders (Selected Earth) including cost, and conveyance of all materials to work site and spreading in uniform layers by approved means, on prepared surface and compacting with vibratory roller to achieve the desired density at OMC etc., complete for finished item of work as per MoRT&H Specification 401& 407 (5th Revision) and as directed by the Engineer-in-charge. for Gravel Shoulders and Grading of canal bunds (Payment will be made based on levels for finished item of work).	cum		68	
400-Cross Bund for diversion of Drain Water					
400-1	Forming cross bund with borrowed useful earth outside road boundary by mechanical means up to SDR with all leads and lifts including pre-watering of soil at borrow area, removal of top soil, excavation of soils at borrowed area, conveyance of soil, depositing the soil on the embankment, spreading soil, conveyance of soil, depositing the soil on the embankment, spreading soil, breaking clods, sectioning, grading and consolidation with 8 to 10 tones road roller at OMC including all hire charges and operational charges of T & P etc. complete for finished item of work as per MoRT&H Specification 305 (4th Revision) (Payment will be made based on levels for finished item of work).	cum		3000	
400-2	Providing laying reinforced cement concrete Hume pipes of 1000 mm dia. NP3 class for pipe culverts including cost and conveyance of pipes etc. complete and labor charges for laying, jointing of 1000 mm dia. RCC Hume pipes in position including lifting, aligning, lowering and hoisting etc. as per drawing and as per MoRT&H Specification 2900, 2905 and 2906 (4th Revision) and IRC Special Publication No.13 and as directed by the Engineer-in-charge for finished item of work.	RM		150	
400-3	Providing casuarinas ballies props 4" to 5" dia. 20'-0" height vertical posts and 3" to 4" dia. 12'-0" height horizontal posts including cost and conveyance of casuarina posts and labor charges and fixing the casuarina posts including all labor charges such as cutting the casuarinas posts to the required size and shape and bottom of the post in position including cost of nails for fixing etc., for all operations such as unloading and tacking at site of work for verification etc., complete (Typical drawing is enclosed).	RM		280	
400-4	Laying sand bags in the stipulated places including cost of empty cement bag, sand, threads, stitching charges and labor charges with 10% overhead charges and contractor profits.	NOS.		22261	
400-6	Supply an fixing double layer of bamboo matting tarred on both sides including cost and conveyance and labor charges for all operations such as unloading and stacking at site of work for verification etc. complete.	Sq.mt		1260	
400-7	Removing of cross bunds, filling trench etc. after completion	Job		1	
Total Amount in Rs					
Total Amount in words:					