

പതിനാലാം കേരള നിയമസഭ

പതിനൊന്നാം സമ്മേളനം

നക്ഷത്രചിഹ്നമിടാത്ത ചോദ്യം നം. 1811

08.06.2018-ൽ മറുപടിയ്ക്ക്

പാമ്പായിമുഖ ഇന്ദിരാഗാന്ധി റോഡ് ജംഗ്ഷൻ നവീകരണം

<u>ചോദ്യം</u>	<u>ഉത്തരം</u>
<p>ശ്രീ.ജോൺ ഫെർണാണ്ടസ്</p>	<p align="center">ഡോ.കെ.ടി.ജലീൽ തദ്ദേശസ്വയംഭരണവും ന്യൂനപക്ഷക്ഷേമവും വഖഫ് ഹജ്ജ് തീർത്ഥാടനവും വകുപ്പ് മന്ത്രി</p>
<p>(എ) 2017-2018 സാമ്പത്തിക വർഷത്തെ അമൃത് പദ്ധതിയിൽ ഉൾപ്പെടുത്തി അനുവദിച്ച 30 ലക്ഷം രൂപയും ഒരു കോടി രൂപയും വിനിയോഗിച്ചുള്ള കൊച്ചി നഗരസഭയുടെ 15-ാം വാർഡിൽപ്പെട്ട പാമ്പായിമുഖ ഇന്ദിരാഗാന്ധി റോഡ് ജംഗ്ഷൻ നവീകരണ പ്രവർത്തനങ്ങൾ സംബന്ധിച്ച വിശദമായ പ്രോജക്ട് റിപ്പോർട്ട് തയ്യാറാക്കിയിട്ടുള്ളതെന്ന് വ്യക്തമാക്കുമോ;</p>	<p>(എ) & (ബി) കൊച്ചി നഗരസഭയിലെ 15 - ാം ഡിവിഷനിൽ ഉൾപ്പെടുന്ന പാമ്പായിമുഖ ഇന്ദിരാഗാന്ധി റോഡ് ജംഗ്ഷൻ നവീകരണ പ്രവർത്തനങ്ങൾക്കായി വിശദമായ പ്രോജക്ട് റിപ്പോർട്ട് തയ്യാറാക്കിയിട്ടുള്ളത് കൊച്ചി റെയിൽ ലിമിറ്റഡ് ആണ്. പ്രോജക്ട് റിപ്പോർട്ടിന്റെ പകർപ്പ് അനുബന്ധമായി ചേർക്കുന്നു.</p>
<p>(ബി) ഇതിന്റെ ഒരു പകർപ്പ് ലഭ്യമാക്കാമോ;</p>	
<p>(സി) നവീകരണ പ്രവർത്തനങ്ങൾ എന്നത്തേക്ക് ആരംഭിക്കാൻ സാധിക്കുമെന്ന് വ്യക്തമാക്കാമോ;</p>	<p>(സി) 2018 ആഗസ്റ്റ് മാസം 31 - ാം തീയതിയ്ക്ക് മുമ്പായി ടെൻഡർ നടപടികൾ പൂർത്തിയാക്കി വർക്ക് ആരംഭിക്കുവാൻ കഴിയുന്നതാണ്.</p>
<p>(ഡി) എന്തെല്ലാം നടപടി ക്രമങ്ങളാണ് പൂർത്തീകരിക്കേണ്ടതായിട്ടുള്ളത്?</p>	<p>(ഡി) അമൃത് പദ്ധതിയിൽ പ്രസ്തുത പ്രോജക്ടിന് ഭരണാനുമതി ലഭിച്ചിട്ടുണ്ട്. സാങ്കേതികാനുമതി നൽകൽ, ടെൻഡർ നടപടി, വർക്ക് അവാർഡ് ചെയ്യൽ തുടങ്ങിയ കാര്യങ്ങൾ നടത്തുന്നതിനായി കൊച്ചി മെട്രോ റെയിൽ ലിമിറ്റഡുമായി കൊച്ചി കോർപ്പറേഷനും അമൃത് മിഷൻ ഡയറക്ടറും ത്രികക്ഷി കരാർ ഒപ്പു വച്ചിട്ടുണ്ട്. തുടർ നടപടികൾ പൂർത്തീകരിക്കേണ്ടത് കെ.എം.ആർ.എൽ ആണ്.</p>


സെക്ഷൻ ഓഫീസർ

Brom3m/15/20

COST ESTIMATE OF AMRUT PROJECT FOR WALKWAY DEVELOPMENT AT PAMBAYIMOOLA, KOCHI							
BILL OF QUANTITIES							
No.	DSR Item code	Description of work	No. or Qty.	Unit	DSR Rate	Rate + Cost Index @ 48.88%	Amount
SCHEDULE 1- CIVIL WORK FOR WALKWAY-DSR 2016							
SITE CLEARANCE & DISMANTLING WORKS							
1	1	Clearing grass and removal of the rubbish upto a distance of 50 m outside the periphery of the area cleared.	2680.00	Sqm	3.65	5.33	15355.89
2	15.2	Demolishing cement concrete manually/ by mechanical means including disposal of material including all leads and all lifts involved up to contractors dumping yards					
2.1	15.2.1	Nominal concrete 1:3:6 or richer mix (1/3 equivalent design mix)	51	Cum	997.05	1456.49	74281.02
2.2	15.2.2	Nominal concrete 1:4:8 or leaner mix (1/3 equivalent design mix)	2	Cum	615.15	898.61	1797.22
3	15.3	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in-charge.	60	Cum	1454.55	2124.81	127488.40
4	15.6	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	111	Cum	120.55	176.10	19547.04
5	15.9	Demolishing stone rubble masonry manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material and disposal including all leads and all lifts involved up to contractors dumping yards					
	15.9.2	In cement mortar	1.5	Cum	1005.7	1469.13	2203.69
6	16.82	Taking out existing kerb stones of all types from footpath/ central verge including removal of mortar etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material and disposal including all leads and all lifts involved up to contractors dumping yards	540.00	Rm	16.05	23.45	12660.75
7	16.83	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-charge.	780.00	sqm	55.95	78.81	61471.92
BARRICADING WORKS							

COST ESTIMATE OF AMRUT PROJECT FOR WALKWAY DEVELOPMENT AT PAMBAYIMQOLA, KOCHI

BILL OF QUANTITIES							
S.No.	DSR Item code	Description of work	No. or Qty.	Unit	DSR Rate	Rate +Cost Index@44.04%	Amount
8	16.81	Providing and erecting 1.2 metre high temporary barricading at site as per drawing/ direction of Engineer-in-Charge which includes writing and painting, arrangement for traffic diversion such as traffic signals during construction at site for day and night, glow lamps, reflective signs, marking, flags, caution tape as directed by the Engineer-in-Charge. The barricading provided shall be retained in position at site continuously i/c shifting of barricading from one location to another location as many times as required during the execution of the entire work till its completion. Rate include its maintenance for damages, painting, all incidentals, labour materials, equipments and works required to execute the job. The barricading shall not be removed without prior approval of Engineer-in-Charge. <i>(Note: One time payment shall be made for providing barricading from shall remain to be the property of the contractor on completion of the work).</i>	110.00	Rm	946.23	1382.25	152047.81
		EARTH WORK EXCAVATION					
9	2.8	Earth work in excavation by mechanical means (hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm in plan), including dressing of sides and ramming of bottoms, 8ft upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 mt.					
	2.8.1	All kinds of soil.	960.00	Cum	166.4	249.08	239354.04
10	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and 8ft upto 1.5 m.	288.00	Cum	125.75	183.70	52904.33
11	7.1	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 5 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with :					
	7.1.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	1.50	Cum	3965.85	5793.31	8689.97
12	4.1	P.C.C Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:					
12.1	4.1.1	1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	164.00	Cum	4478.15	6541.68	1072835.77
13	4.9	BOLLARDS Precasting and placing in position 125 mm dia Bollards 600 mm high of required shape, including providing M.S. Pipe Sleeve 50 mm dia 300 mm long in the Bollard and M.S. Pipes 40 mm dia and 450 mm long with 150x150x6mm M.S. plate welded at bottom and embedded 150 mm in cement concrete 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), including necessary excavation of size 250 x 250 x 450 mm deep for the same in bitumen/concrete pavement at specified spacing.	120.00	No	516.95	755.16	90619.27
14	5.1	REINFORCED CEMENT CONCRETE 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:					
	5.1.1	1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size)	114.00	Cum	6215.35	9079.38	1035049.69

COST ESTIMATE OF AMRUT PROJECT FOR WALKWAY DEVELOPMENT AT PAMBAYIMOOLA, KOCHI

BILL OF QUANTITIES							
No.	DSR Item code	Description of work	No. or Qty.	Unit	DSR Rate	Rate +Cost Index@48.88%	Amount
15	5.22	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.					
	5.22.6	Thermo-Mechanically Treated bars of grade Fe-500D or more.	9120.00	Kg	56.6	82.68	754093.27
BUS STOP STRUCTURE							
16	10.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	1350.00	Kg	67.7	98.90	133509.82
17	10.25	Steel 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.					
	10.25.2	In grathings, frames, guard bar, ladder, railings, brackets, gates and similar works	980.00	Kg	85.98	125.60	45115.85
18	10.26	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 approved steel primer.					
	10.26.1	M.S. tube	20	Kgs.	92	134.39	2687.87
STAINLESS STEEL SEATS IN BUS STOPS							
19	10.28	Providing and fixing stainless steel (Grade 304) railing made of hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvatures (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners, stainless steel bolts etc., of required size, on the top of the floor or the side of walk slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.)	700.00	Kg	472.4	690.08	483057.34
ROOFING							
20	12.1	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated j or l hooks, bolts and nuts 8 mm diameter with bitumen and G.I. Impet washers or with G.I. Impet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.					
	12.1.1	1.00 mm thick with zinc coating not less than 275 gm/m ²	69.00	sqm	957.95	1399.37	68569.29
21	13.46	Finishing walls with Acrylic Smooth exterior paint of required shade :					
	13.46.1	New work (Two or more coat applied @ 1.67 kg/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	1440	sqm	96.05	140.31	202046.17
22	16.58	made up of 2 mm thick aluminium sheet, face to be fully covered with high intensity encapsulated type heat activated retro reflective sheeting conforming to type -IV of ASTM-D 4956-01 in blue and silver white or other colour combination including subject matter, message (bi-lingual), symbols and borders etc. as per IRC : 67:2001, pasted on substrate by an adhesive backing which shall be activated by applying heat and pressure conforming to class -2 of ASTM-D-4956-01 and fixing the same with suitable sized aluminium alloy rivets @ 20 cm c/c to back support frame of M.S. angle iron of size 25x25x3 mm along with theft resistant measures, mounted and fixed with 2 Nos. M.S. angles of size 35x35x5mm to a vertical post made up to M.S. Tee section ISMT 50x50x6 mm welded with base plate of size 100x100x5 mm at the bottom end and including making holes in pipes, angles flats, providing & fixing M.S. message plate of required size, steel work to be painted with two or more coats of synthetic enamel paint of required shade and of approved brand & manufacture over priming coat of zinc chromate yellow primer (vertical MS-Tee support to be painted in black and white colours). Backside of aluminium sheet to be painted with two or					
	16.59.1	Mandatory/ Regulatory sign boards of 900 mm diameter with support length of 750 mm	12	Nos	4786.95	6991.90	83902.80
PAVER FOR WALKWAY							
23	16.68	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	2448.00	sqm	615.78	899.41	2201766.84
CCKERB							

COST ESTIMATE OF AMRUT PROJECT FOR WALKWAY DEVELOPMENT AT PAMBAYIMOODA, KOCHI							
BILL OF QUANTITIES							
S.No.	DSR Item code	Description of work	No. or Qty.	Unit	DSR Rate	Rate +Cost Index@44.58%	Amount
24	16.69	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete 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 to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment).					
		Type A- Trapezium cross section	123.60	Cum	5012.65	7822.48	905058.42
25	16.88	Providing and laying matt finished vitrified tile of size 100x100x16mm having water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in out door floors such as footpath, court yard multi models etc., laid on 20mm thick base of cement mortar 1:4 (cement: 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as direction of Engineer-in-Charge.	36.00	sqm	842.95	1291.38	44329.73
		TACTILE TILES					
26	16.90	Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x8.8mm having with water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi model location etc., laid on 20mm thick base of cement mortar 1:4 (cement: 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.	432.72	Sqm	1450.45	2118.62	915329.10
27	16.91	Providing and laying factory made chamfered edge Cement Concrete paver blocks in 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 in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of later locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge.					
	16.91.2	80 mm thick C.C. paver block of M-30 grade with approved color design and pattern.	72.00	sqm	638.95	933.38	67203.23
28	19.18	Supplying and fixing C.I. cover without frame for manholes :					
28.1	19.18.1	455x610 mm rectangular C.I. cover (light duty) the weight of the cover to be not less than 23 kg	106	Nos	1227.15	1792.62	190017.80
		TOTAL					9057054.39
		GST RATE 12%					1086846.53
		GRAND TOTAL					10143900.92

COST ESTIMATE OF AMRUT PROJECT FOR WALKWAY DEVELOPMENT AT PAMBAYIMOOLA, KOCHI

BILL OF QUANTITIES								
No.	DSR Item code	Description of work	No.	Length	Width	Height	Qty.	Unit
SCHEDULE 1- CIVIL WORK FOR WALKWAY-DSR 2016								
1		SITE CLEARANCE & DISMANTLING WORKS						
	2.32	Clearing grass and removal of the rubbish upto a distance of 50 m outside the periphery of the area cleared.						
			2.00	720.00	2.00		2880	
							2880	Sqm
2	15.2	Demolishing cement concrete manually/ by mechanical means including disposal of material including all leads and all lifts involved up to contractors dumping yards						
2.1	15.2.1	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	1	255	1	0.2	51	
							51	Cum
2.2	15.2.2	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	1	10	1	0.2	2	
							2	Cum
3	15.3	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - In- charge.						
			1	300	1	0.2	60	Cum
							60	Cum
4	15.60	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.						
			1	255	1	0.2	51	
			1	300	1	0.2	60	
							111	Cum
5	15.9	Demolishing stone rubble masonry manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material and disposal including all leads and all lifts involved up to contractors dumping yards						
	15.9.2	In cement mortar	1	3	1	0.5	1.5	
							1.5	Cum
6	16.82	Taking out existing kerb stones of all types from footpath/ central verge including removal of mortar etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material and disposal including all leads and all lifts involved up to contractors dumping yards						
			1	540.00			540.00	
							540.00	Rm
7	16.83	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.						
			1	390.00	2.00		780.00	
							780.00	Sqm
8		BARRICADING WORKS						
	15.81	Providing and erecting 1.2 metre high temporary barricading at site as per drawing/ direction of Engineer-in-Charge which includes writing and painting, arrangement for traffic diversion such as traffic signals during construction at site for day and night, glow lamps, reflective signs, marking, flags, caution tape as directed by the Engineer-in- Charge. The barricading provided shall be retained in position at site continuously i/c shifting of barricading from one location to another location as many times as required during the execution of the entire work till its completion. Rate include its maintenance for damages, painting, all incidentals, labour materials, equipments and works required to execute the job. The barricading shall not be removed without prior approval of Engineer-in-Charge.						
		(Note :- One time payment shall be made for providing barricading from shall remain to be the property of the contractor on completion of the work).						
			1.00	110.00			110.00	
							110.00	Rm

9		EARTH WORK EXCAVATION							
	2.2	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 mt.							
	2.2.1	All kinds of soil.	2	800.00	2.00	0.30	960.00		
							960.00		Cum
10	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.							
			2	720.00	1.00	0.20	288.00		
							288.00		Cum
11	7.1	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) upto plinth level with :							
	7.1.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	1	3	1	0.5	1.50		
							1.50		Cum
		P.C.C							
12	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :							
12.1	4.1.6	1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)							
			2	410.00	2.00	0.10	164.00		
							164.00		Cum
		BOLLARDS							
13	4.9	Precasting and placing in position 125 mm dia Bollards 600 mm high of required shape, including providing M.S. Pipe Sleeve 50 mm dia 300 mm long in the Bollard and M.S. Pipes 40 mm dia and 450 mm long with 150x150x6mm M.S. plate welded at bottom and embedded 150 mm in cement concrete 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), including necessary excavation of size 250 x 250 x 450 mm deep for the same in bitumen/concrete pavement at specified spacing.							
			120.00	1.00			120.00		
							120.00		No
		REINFORCED CEMENT CONCRETE							
14	5.1	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 :							
	5.1.2	1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size)							
		Precast slabs Top	2	380.00	1.00	0.15	114.00		
		R C C FOR BUS SHELTER	1	4.00	3.00	0.30	3.60		
							114.00		
15	5.22	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.							
	5.22.6	Thermo-Mechanically Treated bars of grade Fe-500D or more.	1		114.00	80.00	9120.00		kg
							9120.00		
		BUS STOP STRUCTURE							
16	10.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	1	135	10		1350.00		
							1350.00		Kg
17	10.25	Steel 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.							
	10.25.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	90.00		4.00		360.00		
							360.00		Kg
18	10.26	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 approved steel primer.							

COST ESTIMATE OF AMRUT PROJECT FOR WALKWAY DEVELOPMENT AT PAMBAYIMOODLA, KOCHI							
BILL OF QUANTITIES							
S.No	DSR Item code	Description of work	No. or Qty.	Unit	DSR Rate	Rate +Cost Index@46.08 %	Amount
SCHEDULE 2- LANDSCAPING-DSR 2016-HORTICULTURE							
1	2.2	Supplying and stacking of good earth at site including royalty and carriage up to 1 km (earth measured in stacks will be reduced by 20% for payment)(15 cm removal) 40%	96.00	cum	332.55	485.79	46635.75
2	2.3	Supplying and stacking sludge/finesand at site including royalty and carriage up to 1 km (sludge measured in stacks will be reduced by 8% for payment).40%	148.00	cum	235.55	344.09	50925.53
3	2.4	Supplying and stacking at site dump manure from approved source, including carriage up to 1 km (manure measured in stacks will be reduced by 8% for payment) : 20%					
	2.4.2	Screened through sieve of I.S. designation 16 mm	140.00	cum	192.05	280.55	39276.53
4	2.9	Mixing earth and sludge or manure in the required proportion specified or directed	140.00	cum	21.35	31.19	4366.33
5	2.14	Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1 part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any, with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately) :					
	2.14.2	Holes 90 cm dia, and 90 cm deep	130.00	Nos	101.4	148.13	19256.27
6	2.20	Filling mixture of earth and sludge or manure in the desired proportion in trenches, flooding with water and leveling (cost of supplying earth and sludge or manure and mixing excluded).	140.00	Cum	10.70	15.63	2188.2784
7	2.33	Providing and laying Neelgiri/Mexican grass turf with earth 50mm to 60mm thickness of existing ground prepared with proper level and ramming with tools wooden (Dhumros) and than rolling the surface with light roller make the surface smoothen and light watering with sprinkler and-maintenance for 30 days or more till the grass establish properly, as per direction of officer-in-charge	820.00	Sqm	203.90	297.86	244242.8384
		TOTAL					406891.52
		GST RATE 12%					48826.98
		GRAND TOTAL					455,718.51

	10.26.1	M.S. tube	1	2	10		20	
							20	Kg
		STAINLESS STEEL SEATS IN BUS STOPS						
19	10.28	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, 1/2 fixing the railing with necessary accessories & stainless steel dash fasteners, stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.)	1	70	10		700.00	
							700.00	Kg
20		ROOFING						
	12.6	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. Impet washers or with G.I. Impet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.						
20.1	12.6.1	1.00 mm thick with zinc coating not less than 275 gm/m ²	1	7	7		49.00	
							49.00	Sqm
21	13.46	Finishing walls with Acrylic Smooth exterior paint of required shade :						
	13.46.1	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)						
			2	720	1		1440	
							1440	Sqm
22	16.59	of 2mm thick aluminium sheet, face to be fully covered with high intensity encapsulated type heat activated retro reflective sheeting conforming to type -IV of ASTM-D 4956-01 in blue and silver white or other colour combination including subject matter, message (bi-lingual), symbols and borders etc. as per IRC ; 67:2001, pasted on substrate by an adhesive backing which shall be activated by applying heat and pressure conforming to class -2 of ASTM-D- 4956-01 and fixing the same with suitable sized aluminium alloy rivets @ 20 cm c/c to back support frame of M.S. angle iron of size 25x25x3 mm along with theft resistant measures, mounted and fixed with 2 Nos. M.S. angles of size 35x35x5mm to a vertical post made up to M.S. Tee section ISMT 50x50x6 mm welded with base plate of size 100x100x5 mm at the bottom end and including makingholes in pipes, angles flats, providing & fixing M.S. message plate of required size, steel work to be painted with two or more coats of synthetic enamel paint of required shade and of approved brand & manufacture over priming coat of zinc chromate yellow primer (vertical MS-Tee support to be painted in black and white colours). Backside of aluminium sheet to be painted with two or more coats of epoxy paint over and including appropriate priming						
	16.59.1	Mandatory/ Regulatory sign boards of 900 mm diameter with support length of 3750 mm	12				12	
							12	Nos
23		PAVER FOR WALKWAY						
	16.68	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.						
			2	720	1.7		2448	
							2448	Sqm
24		CC KERB						
	16.69	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete 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 to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment).						
		Type A- Trapezium cross section	2	1030.00	0.10	0.60	123.60	
							123.60	Cum

25	16.88	Providing and laying matt finished vitrified tile of size 100x100x16mm having water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in out door floors such as footpath, court yard multi modals etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as direction of Engineer-in-Charge.						
			1	6.00	6.00		36.00	
							36.00	Sqm
26		TACTILE TILES						
	16.90	Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.						
			2	720.00	0.30		432.00	
							432.00	sqm
27		Providing and laying factory made chamfered edge Cement Concrete paver blocks in 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 in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand, complete all as per direction of Engineer-in-Charge.						
	16.91.2	80 mm thick C.C. paver block of M-30 grade with approved color design and pattern.	2	12	3		72	
							72	Sqm
28	19.18	Supplying and fixing C.I. cover without frame for manholes :						
28.1	19.18.1	455x610 mm rectangular C.I. cover (light duty) the weight of the cover to be not less than 23 kg						
			106				106	
							106	Nos.

COST ESTIMATE OF AMRUT PROJECT FOR WALKWAY DEVELOPMENT AT PAMBAYIMOOLA, KOCHI

BILL OF QUANTITIES								
S.No.	DSR Item code	Description of work	No.	Length	Width	Height	Qty.	Unit
SCHEDULE 2- LANDSCAPING-DSR 2016- HORTICULTURE								
1	2.2	Supplying and stacking of good earth at site including royalty and carriage up to 1 km (earth measured in stacks will be reduced by 20% for payment)(15 cm removal) 40%						
			1	320	1	0.3	96.00	
			1	120	2	0.3	72.00	
							96.00	Cum
2	2.3	Supplying and stacking sludge/finesand at site including royalty and carriage up to 1 km (sludge measured in stacks will be reduced by 8% for payment).40%						
			1	148	2.00	0.50	148.00	
							148.00	Cum
3	2.4	Supplying and stacking at site dump manure from approved source, including carriage up to 1 km (manure measured in stacks will be reduced by 8% for payment) : 20%						
	2.4.2	Screened through sieve of I.S. designation 16 mm	1	140	2.00	0.50	140.00	
							140.00	Cum
4	2.9	Mixing earth and sludge or manure in the required proportion specified or directed						
			1	140	2.00	0.50	140.00	
							140.00	Cum

5	2.14	Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1 part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any, with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately) :						
	2.14.2	Holes 90 cm dia, and 90 cm deep	130				130.00	Nos
							130.00	
6	2.20	Filling mixture of earth and sludge or manure in the desired proportion in trenches, flooding with water and levelling (cost of supplying earth and sludge or manure and mixing excluded).	1	140	2.00	0.50	140.00	
							140.00	Cum
7	2.33	Providing and laying Neelgiri/Mexican grass turf with earth 50mm to 60mm thickness of existing ground prepared with proper level and ramming with tools wooden (Dhurmos) and then rolling the surface with light roller make the surface smoothen and light watering with sprinkler and maintenance for 30 days or more till the grass establish properly, as per direction of officer-in-charge.	1	180	3		540.00	
			1	120	2		240.00	
			1	40	1		40.00	
							820.00	Sqm

COST ESTIMATE OF AMRUT PROJECT FOR WALKWAY DEVELOPMENT AT PAMBAYIMOOLA, KOCHI

BILL OF QUANTITIES								
S.No.	DSR Item code	Description of work	No.	Length	Width	Height	Qty.	Unit
SCHEDULE 2- NON DSR ITEMS								
1		WASTE BIN						
		Arihant/Nilkamal or similar Type waste Bins 120-240 ltr as per the direction of Engineer-in-charge	6				6.00	Nos
							6.00	
2		Supply of tree saplings at site of Height avg 150 cm height with Providing and supplying Ornamental Circular Steel Tree Guard with Welded mesh as per Item 11.17 of the IRC:SP:21-2009 (Guidelines on Landscaping and Tree Plantation - Indian Road Congress)	130				130.00	Nos
							130.00	
3		For providing street furnitures like benches and other seating ,waiting arrangements as per the direction of Engineer-in-charge..	4				4	Nos
							4	
4		Providing and planting of shrubplants and ground cover of the genus: Bacopa, Wedelia, Melanthera, Pilea, Hopea, Pellonia, Plectranthus, Hemigraphis and other Western Ghats endemic genus as per the concept plan of the bidder all inclusive of the soft scape and hardscape work	1200				1200.00	Nos
							1200.00	

COST ESTIMATE OF AMRUT PROJECT FOR WALKWAY DEVELOPMENT AT PAMBAYIMOOLA,KOCHI						
BILL OF QUANTITIES						
S.No.	DSR Item code	Description of work	No. or Qty.	Unit	Rate	Amount
		SCHEDULE 3-NON DSR ITEMS				
		WASTE BIN				
1		Arihant/Ntkamal or similar Type waste Bins 120-240 ltr as per the direction of Engineer-in-charge	6.00	Nos	15364	92184.00
2		Supply of tree saplings at site of Height avg 150 cm height with Providing and supplying Ornamental Circular Steel Tree Guard with Welded mesh as per Item 11.17 of the IRC:SP:21-2009 (Guidelines on Landscaping and Tree Plantation - Indian Road Congress)	130.00	Nos	1900	247000.00
3		For providing street furntiures like benches and other seating ,waiting arrangements as per the direction of Engineer-in-charge..	4	Nos	18000	72000
4		Providing and planting of shrubplants and ground cover of the genus: Bacopa, Wedelia, Melanthera, Pilea, Hopea, Pellionia, Plectranthus, Hemigraphis and other Westerna	1200.00	Nos	200	240000.00
		TOTAL				651184.00
		GST RATE 12%				78142.08
		GRAND TOTAL				729,326.08

COST ESTIMATE OF AMRUT PROJECT FOR WALKWAY DEVELOPMENT AT PAMBAYIMOOLA,KOCHI			
BILL OF QUANTITIES			
S.No.	DSR Item code	Description of work	Amount
SCHEDULE 5-MISCELLANEOUS			
1		ITEMS COVERED IN DSR 2016 BUT NOT MENTIONED IN THE ABOVE SCHEDULE (1 to 4)	100000.00
		Cost Index 46.08%	46080.00
		TOTAL	146080.00
		GST RATE 12%	17529.60
		GRAND TOTAL	163,609.60

**COST ESTIMATE OF AMRUT PROJECT FOR WALKWAY DEVELOPMENT AT
PAMBAYIMOOLA, KOCHI**

BILL OF QUANTITIES

S.No.	DSR Item code	Description of work	No. or Qty.	Unit	Amount
SCHEDULE 4-UTILITY SHIFTING					
1		Utility Shifting	1	LS	146080.00
		Total			146080.00
		GST RATE 12%			17529.60
		GRAND TOTAL			163,609.60

COST ESTIMATE OF AMRUT PROJECT FOR WALKWAY DEVELOPMENT AT PAMBAYIMOOLA, KOCHI		
ABSTRACT OF ALL SCHEDULE		
S.No	Schedule	BOQ Amount
1	Schedule -1 : Civil Works of Walkway DSR 2016	10,143,900.92
2	Schedule -2 : Landscaping DSR 2016	455,718.51
3	Schedule -3 : Non DSR Items	729,326.08
4	Schedule -4 : Miscellaneous	163,609.60
5	Schedule -5 : Utility Shifting	163,609.60
	TOTAL	11,656,164.70
	SAY	₹ 11,656,165

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