

SCHEDULE B

BILL OF QUANTITIES

Name of Work : Up-gradation of Parking Yard near West Gate No. 2 inside Cargo Jetty Area.

Item No.	Description of Item	Qty.	Rate	Unit		Amount
	Part - A (RCC Drain & Culvert)					
1	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 getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge.					
a	All kinds of soil / GSB filled area / Ashphalted surface	2386.57		M ³	One Cubic Meter	
2	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	226.42		M ³	One Cubic Meter	
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :					
a	1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size).	169.78		M ³	One Cubic Meter	

4	Providing and laying design mix reinforced cement controlled concrete of M30 grade consisting of ingredients of cement , sand crushed graded trap stone metal etc., including weigh batching, mixing , placing, vibrating, levelling, curing, in foundations, footings, bases for columns, etc including necessary form work complete as directed.					
a	All works upto plinth level for					
(i)	Raft	318.03		M ³	One Cubic Meter	
(ii)	Wall	413.00		M ³	One Cubic Meter	
(iii)	Slab any thickness	39.00		M ³	One Cubic Meter	
5	Providing, laying and fixing in position upto 1 km lead design mix reinforced cement controlled concrete for RCC Precast slab / RCC Precast curbing of design mix M-30 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping / placing of concrete to site of laying including the cost of centering,shuttering, finishing as per direction of Engineer-in-charge. (Rate is exclusive of cost of reinforcement)	451.73		M ³	One Cubic Meter	
6	Steel reinforcement for R.C.C. work including straightening, cutting,bending, placing in position and binding all complete upto plinth level.					
a	Thermo-Mechanically Treated bars of grade Fe- 500D or more.	189795.00		KG	One Kilogram	

7	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.	596.64		M ³	One Cubic Meter	
8	Extra rate for conveying the excavated stuff by motor - truck					
a	Lead upto 3.50 BEYOND 3.00 KM	1790.00		M ³	One Cubic Meter	
9	Plastering with cement mortar 1 : 4 including racking out joints, scrubbing & cleaning, finishing smooth curing including racking out joints etc. complete for interior plastering upto floor two level.					
a	8 mm cement plaster of mix : 1:4 (1 cement: 4 fine sand)	5759.00		M ²	One Square Meter	
10	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :					
a	Water thinnable cement primer	8026.00		M ²	One Square Meter	
11	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :					
a	Two or more coats on new work	8010.00		M ²	One Square Meter	
12	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete.					
a	40 mm thick with 20 mm nominal size stone aggregate	103.20		M ²	One Square Meter	

13	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.	2733.70		KG	One Kilogram	
14	Collection and spreading of manure (Goat dropping & cow dung dried) free from foreign materials subject to the approval of Engineer-in-Charge including loading, unloading, transport & stacking at site of work.	12.10		M ³	One Cubic Meter	
15	Collection and spreading of sweet earth including cost of excavation, royalty, loading, unloading, transport & stacking at site of work.	145.40		M ³	One Cubic Meter	
16	supplying and fixing (Planting) green trees in said position including digging the soil for planting and providing necessary support to plant and watering the plant till the completion of work and ensure the survival of plant till then	299.22		Each	Each	
17	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) etc. complete including Excavation 750 mm wide and 1200 mm deep and same should be filled with CC-1:1.5:3 up to road top level after laying of R.C.C. pipe and PCC 1:4:8 at bottom.					
a	300 mm dia. R.C.C. pipe	60.00		Mtr.	One Running Meter	

18	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :					
a	300 mm dia. R.C.C. pipe including excavation as directed and sypplying and filling sand at bottom of 10 cm thickness.	1225.00		Mtr.	One Running Meter	
19	Providing and laying 60mm thick faciory 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.	3956.10		M ²	One Square Meter	
Part - B (Alphalted Plot)						
20	Removal of Garbage/debries by mechanical means (Hydraulic excavator)/manual means over areas including getting out and disposal of stuff lead beyond 3.50 km upto 3.00 Km outside cargo jetty area, as directed by Engineer-in-charge.	20297.70		M ³	One Cubic Meter	
21	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 getting out and disposal of excavated earth upto lead of 3.50 km beyind 3.00 km and lift upto 1.5 m, and after preparing surface consolidation with Power vibratory roller including cost of wattering etc complete as directed by Engineer-in-Charge:					

a	All kinds of soil / GSB filled / Ashphlated surface	16914.75		M ³	One Cubic Meter	
22	Construction of granular sub - base by providing, laying, spreading and compacting CLOSE/ COARSE GRADED MATERIAL spreading in uniform layers with motor grader on prepared surface and compacting with power vibratory roller of required type and capacity to achieve the desired density including all labour, wattering, material , machinery, lighting, guarding, barricading complete as directed.(Mix in place method).					
a	With material conforming to Grade-I (size range 75 mm to 0.075 mm) having CBR Value-30	47361.30		M ³	One Cubic Meter	
23	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 for all leads & lifts, laying in uniform layers with Grader in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achievethe desired density, complete as per specifications and directions of Engineer-in-Charge.	16914.75		M ³	One Cubic Meter	
24	Providing and applying tack coat using bitumen emulsion conforming to IS: 8887, using emulsion pressure distributor including preparing the surface & cleaning with mechanical broom.					
a	With medium setting bitumen emulsion (On W.B.M / W.M.M. @ 0.75 kg/sqm)	67659.00		M ²	One Square Meter	

25	Providing and laying Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equipped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in-Charge.					
a	40/50 mm compacted thickness with bitumen of grade PMB-40 @ 6.00 % (percentage by weight of total mix) and lime filler @ 3% (Percentage by weight of Aggregate) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.	6013.00		MT	One Mtric Tonne	
26	Providing and applying 2.5 mm thick road marking strips (retro-reflective) of specified shade/ colour using hot thermoplastic material by fully/ semi automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-in- charge and accordance with applicable specifications.	206.61		M ²	One Square Meter	

27	Manufacturing, supplying and fixing retro reflective sign boards 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 35x35x5 mm 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 more coats of epoxy paint over and including appropriate priming coat including all leads and lifts etc. complete as per drawing , specification and direction of Engineer-in-charge.					
a	Cautionary /warning sign boards of equilateral triangular shape having each side of 900 mm with support length of 3650 mm.	21.60		M ²	One Square Meter	
					Total Rs.	

Contractor

**Executive Engineer
Deendayal Port Authority**