

**BOQ for Construction of 6-lane 400m World Athletics Standards Synthetic Athletic Track
+ D Area + 1.5 m Walkway**

5826					
No.	Item Description	Units	Quantity	Rate	Amount
1	Sub base and Base for Synthetic Area				
1.1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5m, disposed earth to be levelled and neatly dressed. All kinds of soil.	cum	1,747.80		
1.2	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres	sqm	5,826.00		
1.3	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 mechanical paverfinisher 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.	cum	1,165.20		
1.4	Providing and applying tack coat using bitumen emulsion conforming to IS:8887, using emulsion pressure distributor including preparing the surface & cleaning with mechanical broom. On W.B.M / W.M.M. @ 0.4kg/sqm	sqm	5,826.00		
1.5	Providing and applying tack coat using bitumen emulsion conforming to IS:8887, using emulsion pressure distributor including preparing the surface & cleaning with mechanical broom. On bituminous surface @ 0.25kg/sqm	sqm	5,826.00		
1.6	Providing and laying bituminous macadam using crushed stone aggregates of specified grading premixed with bituminous binder, transported to site by tippers, laid over a previously prepared surface with paver finisher equipped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specifications and directions of Engineer-in-Charge. 50 mm compacted thickness with bitumen of grade VG-30 @ 3.50% (percentage by weight of total mix) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	291.30		

1.7	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. 30 mm compacted thickness with bitumen of grade VG-30 @ 4.5% (percentage by weight of total mix) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	174.78		
2	Kerbing (Around the Track and in 'D' Area)				
2.1	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 m. All kinds of soil.	cum	57.24		
2.2	Centering and shuttering including strutting, propping etc. and removal of form work for: in Foundations, footings, bases for columns	sqm	95.40		
2.3	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 (zone-III) : 8 gradedstone aggregate 40 mm nominal size	Cum	14.31		
2.4	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). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	cum	21.47		
3	Synthetic Athletic Track Surface				
	Providing and laying of cast in-situ Synthetic Athletic Track Sandwich System (VOC free) with a minimum thickness of 15mm (having a World Athletics approved product certified for minimum 15mm thickness) including markings on the surface all complete as per requirements/ specifications/ standards laid down by World Athletics (IAAF) from a firm who has supplied and installed at least two Sandwich System World Athletics (IAAF) Certified cast in-situ Synthetic Athletic Track with the same proposed product/brand including complete sub base during the last five years in India in their individual capacity and not as a joint venture. The country of origin of should be Amercian/European/Australian only. Colour of the track: Terracotta	Option 1			

	Providing and laying Synthetic Athletic Track of Full PUR System (VOC free) with a minimum thickness of 15mm (having a World Athletics approved product certified for minimum 15mm thickness) including markings on the surface all complete as per requirements/specifications/ standards laid down by World Athletics (IAAF) from a firm who has supplied and installed at least two World Athletics (IAAF) Certified cast in-situ Synthetic Athletic Track Full PUR System with the same proposed product/brand including complete sub base during the last five years in India in their individual capacity and not as a Joint Venture. The country of origin of should be Amercian/European/Australian only. Colour of the track: Terracotta	Option 2			
3.1	Normal Stress Areas. The thickness of finished track surface should not be less than 15mm	sqm	5,686.00		
3.2	High Stress Areas with a minimum thickness of 20mm of finished track surface.	sqm	120.00		
3.3	High Stress Areas with a minimum thickness of 25mm of finished Track Surface	sqm	20.00		
4	Track & Field Event				
4.1	Construction of Long Jump & Triple jump pits incl. sand filling as per IAAF drawing incl. cost and carriage	each	2.00		
4.2	Construction of Steeplecase pit inside North D portion as per IAAF drawings	each	1.00		
4.3	Providing & laying minimum 15 cm thick cement concrete slab over the existing sub base with a nominal mix of 1:1.5:3 (1 cement: 1.5 Coarse :3 Graded stone aggregate 20 mm nominal size) for fixing throwing circles for discus/Hammer/Shotput in required diameter/size including cost of cutting the base and sub base wherever necessary cost of fixing the required throwing circle rings for discus/Hammer/Shot-put with necessary fixing arrangements as per direction of Engineer-incharge. The finished surface of concrete base slab have required non skid/non slippery finish and gradient as per requirements/ specifications laid down by IAAF and as per directions of Engineer-in-charge (the cost of throwing circle rings is not included in this item and shall be paid as part of competition equipment.	cum	16.00		
5	1.5 m Walkway				
5.1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5m, disposed earth to be levelled and neatly dressed. All kinds of soil.	cum	211.50		
5.2	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres	sqm	705.00		

5.3	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 mechanical paverfinisher 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.	cum	141.00		
5.4	Providing and applying tack coat using bitumen emulsion conforming to IS:8887, using emulsion pressure distributor including preparing the surface & cleaning with mechanical broom. On W.B.M / W.M.M. @ 0.4kg/sqm	sqm	705.00		
5.5	Providing and applying tack coat using bitumen emulsion conforming to IS:8887, using emulsion pressure distributor including preparing the surface & cleaning with mechanical broom. On bituminous surface @ 0.25kg/sqm.	sqm	705.00		
5.6	Providing and laying bituminous macadam using crushed stone aggregates of specified grading premixed with bituminous binder, transported to site by tippers, laid over a previously prepared surface with paver finisher equipped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specifications and directions of Engineer-in-Charge. 50 mm compacted thickness with bitumen of grade VG-30 @ 3.50% (percentage by weight of total mix) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	35.25		
5.7	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. 30 mm compacted thickness with bitumen of grade VG-30 @ 4.5% (percentage by weight of total mix) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	21.15		
5.8	Supply and installation of Acrylic cushion sports flooring having one coat of acrylic primer, One Coat of Synthetic Resurfacer, Three Layers of Rubber Cushion, One layer of Pre - Coating, One coat of Top Coat, One Coat of Acrylic line marking as per requirements.	sqm	705.00		
6	Outer kerbing for the Pathway				
6.1	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 m. All kinds of soil	cum	58.20		

6.2	Centering and shuttering including strutting, propping etc. and removal of form work for: in Foundations, footings, bases for columns	sqm	48.50		
6.3	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 (zone-III) : 8 gradedstone aggregate 40 mm nominal size	cum	14.55		
6.4	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). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	rm	485.00		
7	Lights				
7.1	Supply, Installation, testing & commissioning of 1000W LED Flood Light – Bajaj make. 12 Lights X 6Nos. Poles – 72Lights				
7.2	Supply, Installation, testing & commissioning of 22.5Mtrs. High Mast Stadium Pole 20 Sided Polygon - Bottom Dia 550mm x 5mm Thick and Top Dia 200mm x 5mm thick with 1000W Flood Light Luminaries Carriage, Manual Ladder with Safety Monkey Guard Ladder, Hand Grill with Frame & Platform provision. (Walkway path) 750 Dia, 30mm Thick Base Plate, Foundation Bolts M30 x 1000mm - 12No's.				
7.3	Supply, Installation, testing & commissioning of Feeder Pillar Time Control Panel 3Ph with 16Amps MCB & Power Contactor, Installation of 12 Light fixtures interlink connection cable for Lights up to control panel.				
	Note: Vendor to include all related civil works in his scope.				
8	Supplying and installation of competition equipment				
	Supplying and installation of competition equipment as per requirements / specifications laid down by World Athletics and as per direction of the Engineer-in-charge.				
a	Aluminium Kerbing	nos.	1		
b	Discus cum Hammer Throwing cage	nos.	1		
c	Shot Put Ring	nos.	2		
d	Pole Vault Box	nos.	2		
e	Cover for Pole Vault Box	nos.	2		
f	Take off Board for Long Jump	nos.	4		
g	Take off Board for Triple Jump	nos.	4		
h	Stop Board for Shotput	nos.	2		
i	Supply and installation of basketball nets & poles	Pair	1		
j	Supply and installation of pickleball nets & poles	nos.	1		
	TOTAL				
	GST @ 18%				
	GRAND TOTAL				