Schedule -A		
NAME OF WORK : FORMATION OF APPROACH ROAD FROM KM 143/4 OF NH-44 TO SIPCOT INDUSTRIAL PARK, DHARMAPURI		
Section	**Description of work**	**Amount (Rs.)**
I	**Road Work**	
II	**Providing CC Kerbs for Traffic Island in the proposed Junction Improvements at Km 0/0 of Approach road to Dharmapuri Industrial Park**	
III	**Construction of Single Cell Box Culvert (1x2.00x2.00) at Ch 200, 630 of Approach road**	
IV	**Construction of Triple Cell Box Culvert (3x2.00x2.00) at Km 0/10 of Approach road**	
V	**Providing for Street Lights Arrangements at 30 m intervals including High Mast Lights etc**	
VI	**Providing Lane Marking, Road Studs and Road Safety Measures at Km 0/0 - 1/3 of Approach road**	
	GST 18% on Sub Total	
	GRAND TOTAL	
(Rupees_____only)		

CONTRACTOR

No. of Corrections....
No of Overwritings...

Sl. No.	Qty	Description of item	TNPB No.	Rate both in figure and in words	Unit	Amount
I) Road Work						
1	9.84 Acres (Nine point Eight Four acres Only)	Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned, up to a lead of 1000 metres including removal and disposal of top organic soil not exceeding 150 mm in thickness etc., as per standard specification and as directed by SIPCOT Officials.			1 Ac. (One Acre)	
2	17950.00 Cum (Seventeen thousand nine hundred and fifty Cubic Metre Only)	Earth work excavation for cutting work in all class of soils such as hard stiff clay, stiff black cotton soil, etc., as per SS20-A (HGS ss.20A) and deposting the same to the road side as directed by Engineer in charge etc., as per standard specification and as directed by SIPCOT Officials.			1 Cum (One Cubic metre)	
3	19235.00 Cum (Nineteen thousand two hundred and thirty five Cubic Metre Only)	Forming embankment by conveying earth from borrowed area outside the complete with a lead of 20km having CBR value not less then 8% which has to compacted properly and form a stable embankment including cost , loading and unloading and labour for proper setting out, stripping and storing the top soil, if necessary compacting the original ground by vibratory roller to have a relative compaction of required proctor density, spreading the materials uniformly over the entire width of embankment in layers of not exceeding 250 mm compacted thickness, breaking clods, watering with all leads for water, compacting to 95% proctor density for the soil below the top of 0.5 meter height of subgrade under optimum moisture content with moisture content adjusted in the range of one per cent (1 %) above and two percent (2%) below the optimum moisture content determined as per IS. 2720 (Part VII) with power roller rolling and other construction equipments approved by engineer-in-charge and finishing the embankment at 95% proctor density including compaction to specified requirement, working in narrow width of embankment including hire and fuel charges for all tools and plants and all other incidental charges etc. Complete as per MORTH standard specification for road embankment with a lead of 20 Km (Forming Embankment at 95% Compaction) and as directed by SIPCOT officials.			1 Cum (One Cubic metre)	

CONTRACTOR

No. of Corrections....
No of Overwritings...

4	19199.00 Cum (Nineteen Thousand One Hundred and ninety nine Cubic Metre Only)	Forming Subgrade and embankment by conveying earth from borrowed area outside the complete with a lead of 20km having CBR value not less then 8% which has to compacted properly and form a stable embankment including cost , loading and unloading and labour for proper setting out, stripping and storing the top soil, if necessary compacting the original ground by vibratory roller to have a relative compaction of required proctor density, spreading the materials uniformly over the entire width of embankment in layers of not exceeding 500 mm compacted thickness, breaking clods, watering with all leads for water, compacting to 97% proctor density for the soil 0.5 meter height of sub grade under optimum moisture content with moisture content adjusted in the range of one per cent (1 %) above and two percent (2%) below the optimum moisture content determined as per IS. 2720 (Part VII) with power roller rolling and other construction equipments approved by engineer-in-charge and finishing the embankment at 97% proctor density including compaction to specified requirement, working in narrow width of embankment including hire and fuel charges for all tools and plants and all other incidental charges etc. Complete as per MORTH standard specification for road embankment with a lead of 20 Km (Forming Subgrade and Embankment at 97% Compaction) and as directed by SIPCOT officials.			1 Cum (One Cubic metre)	
5	4894.00 Cum (Four Thousand Eight Hundred and Ninety four Cubic Metre Only)	Construction of Granular Sub - Base (GSB) to the required compacted thickness (Drainage layer) by providing approved Coarse graded material conforming to Grading- V of Table 400 - 1 and satisfying the physical requirement for material for GSB as per Table 400 - 2 of MORTH Rev.-5 including screening, spreading in uniform layers with motor grader on prepared surface, watering and premixing by mix in place method with rotavator at OMC, and compacting with Vibratory roller 80 to 100 KN static weight to achieve the desired density and fine dressing to required grade and cross slope as directed by the SIPCOT officers etc., complete including obtaining and transporting all materials from approved quarry site to work site with all lift and lead by mechanical transport, head load or any other mode of transporation including cost and conveyance of all materials, labour charges,hire charges and fuel charges for loader, water tanker with sprinkler,motor grader, vibratory road rollers and all other equipments, tools and plants, safety measures, testing required including all other incidental charges, etc., complete as per the standard specification as per clause 401 of MORTH Rev.-5 and as directed by the SIPCOT officers.			1 Cum (One Cubic metre)	

CONTRACTOR

No. of Corrections....
No of Overwritings...

6	3724.00 Cum (Three Thousand Seven hundred and twenty four Cubic Metre Only)	Construction of Granular Sub - Base (GSB) to the required compacted thickness (Drainage layer) by providing approved Coarse graded material conforming to Grading- III of Table 400 - 1 and satisfying the physical requirement for material for GSB as per Table 400 - 2 of MORTH Rev.-5 including screening, spreading in uniform layers with motor grader on prepared surface, watering and premixing by mix in place method with rotavator at OMC, and compacting with Vibratory roller 80 to 100 KN static weight to achieve the desired density and fine dressing to required grade and cross slope as directed by the SIPCOT officers etc., complete including obtaining and transporting all materials from approved quarry site to work site with all lift and lead by mechanical transport, head load or any other mode of transporation including cost and conveyance of all materials, labour charges,hire charges and fuel charges for loader, water tanker with sprinkler,motor grader, vibratory road rollers and all other equipments, tools and plants, safety measures, testing required including all other incidental charges, etc., complete as per the standard specification as per clause 401 of MORTH Rev.-5 and as directed by the SIPCOT officers.			1 Cum (One Cubic metre)	
7	7125.00 Cum (Seven thousand one hundred and twenty five Cubic Metre Only)	Providing and laying, spreading and compacting graded stone aggreates to Wet Mix Macadam Base Course of 250mm compacted thickness specification in two layers of 150mm thick each or else as specified on the prepared sub base by providing approved Coarse graded material conforming to Table 400 - 13 and satisfying the physical requirement for material for WMM as per Table 400 - 12 of MORTH Rev.-5, including pre-mixing the materials with water at OMC in mechanical mix plant carriage of mixed matrerial by tipper to site laying in uniform layers with favours in subbase/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density including cost of material, labour charges, rental for machinery, fuel and all other incidental charges etc., complete as per clause 406 of MORTH Rev.-5 and as directed by SIPCOT Officers.			1 Cum (One Cubic metre)	
8	28497.00 Sqm (Twenty eight thousand four hundred and ninety seven Square Metre Only)	Providing and laying Prime coat over wet mix macadam surface using 7.00 Kg bitumen emulsion (SS1) for 10 sqm area including cost and conveyance of bitumen binder including labour charges for preparing the surface and applying the required quantity as tack coat by bitumen sprayer etc.complete as per clause 502 of MORT & H specifications and as directed by SIPCOT Officers.			1 Sqm (One Square metre)	

CONTRACTOR

No. of Corrections....
No of Overwritings...

9	28497.00 Sqm (Twenty eight thousand four hundred and ninety seven Square Metre Only)	Providing and laying Tack coat over treated wet mix macadam surface using 2.50 Kg bitumen emulsion (SS1) to cut back for 10 sqm area including cost and conveyance of bitumen binder including labour charges for preparing the surface and applying the required quantity as tack coat by bitumen sprayer etc.complete as per clause 503 of MORT & H specifications and as directed by SIPCOT Officers.			1 Sqm (One Square metre)	
10	2708.00 Cum (Two Thousand Seven Hundred and Eight Cubic Metre Only)	Providing and laying to 95mm thickness dense bituminous macadam using 0.40 cum of 37.50 -13.20 mm IRC size graded metal 0.35 cum of 13.20 - 2.36mm IRC graded metal and 0.36 cum of 2.36mm and below IRC size HBG metal with 71.30 kg of VG40 bitumen for premixing for 10 Sq.meter including cost and conveyance of all materials to CMP site including cost and conveyance of bitumen and other materilas to CMP site heating the bitumen and aggregates to required temperature and mixing them in required temperature in central hot mix plant 20-30 tonnes capacity, conveying the mix by tipper trucks to paver site, spreading the mix in required temperature for uniform thickness of 95 mm with mechanical paver to the specified grades and cross sections and compaction by vibratory Pneumatic Roller to the required density etc., including labour charges for loading the bitumen in bitumen tank and metal to feeder unit, labour for attending to paver site etc., including hire,fuel charges for 20-30 tonnes capacity CMP unit bitumen boiler, tipper trucks, paver finisher/9 m paver finisher, vibratary/Pneumatic Roller, and all other tools & plants required including fuel and all other incidental charges etc., complete asper specification using CMP as per clause 505 MORTH REV. V Specification and as per directed SIPCOT Officers.			1 Cum (One Cubic metre)	

CONTRACTOR

No. of Corrections....
No of Overwritings...

11	198.00 Cum (One Hundred and Ninety Eight Cubic Metre Only)	Providing and laying to 50mm thickness dense bituminous macadam using 0.24 cum of 26.50 -13.20 mm IRC size graded metal 0.25 cum of 13.20 - 2.36mm IRC graded metal and 0.23 cum of 2.36mm and below IRC size HBG metal with 53.20 kg of VG40 bitumen for premixing for 10 Sq.meter including cost and conveyance of all materials to CMP site including cost and conveyance of bitumen and other materilas to CMP site heating the bitumen and aggregates to required temperature and mixing them in required temperature in central hot mix plant 20-30 tonnes capacity, conveying the mix by tipper trucks to paver site, spreading the mix in required temperature for uniform thickness of 50 mm with mechanical paver to the specified grades and cross sections and compaction by vibratory Pneumatic Roller to the required density etc., including labour charges for loading the bitumen in bitumen tank and metal to feeder unit, labour for attending to paver site etc., including hire,fuel charges for 20-30 tonnes capacity CMP unit bitumen boiler, tipper trucks, paver finisher/9 m paver finisher, vibratary/Pneumatic Roller, and all other tools & plants required including fuel and all other incidental charges etc., complete asper specification using CMP as per clause 505 MORTH REV. V Specification and as per directed SIPCOT Officers.			1 Cum (One Cubic metre)	
12	974.00 Cum (Nine Hundred and Seventy Four Cubic Metre Only)	Providing and laying 30mm compacted thickness bituminous concrete using 0.13 cum of 19.0 - 9.5 mm graded IRC size HBG metal 0.17 cum of 9.5-2.36mm IRC graded metal and 0.26 Cum. of 2.36 mm and below size graded metal with 50.30 of bitumen grade VG 40 confirming to IS 73 for pre mixing for 10 Sq. meter and using materials as per table 500 - 17 and staifying the physical requirement for material for course aggregates for BC as per table 500 - 16 of MORTH REV-V including cost and conveyance of all materials to CMP site , heating the bitumen andaggregates to required temperature and mixing them in required temperature in central hot mix plant 20-30 tonnes capacity, conveying the mix by tipper trucks to paver site spreading the mix in required temperature for uniform thickness of 30mm with mechanical paver to the specified grades and cross sections and consolidation 80-100 KN vibratory/Pneumatic road roller to the required density etc., includinglabour charges for loading the bitumen in bitumen tank and metal to feeder unit, labour for attending to paver site etc., including hire, fuel charges for 20-30 tonnes capacity CMP unit bitumen boiler, tipper trucks, paver finaisher/9 m paver finisher /Vibratory/Pneumatic road roller , and all other tools and plants requried, including fuel and all other incidental charges etc., complete as per specification using CMP as per clause 507 OF MORTH REV. specification and as directed by SIPCOT Officers.			1 Cum (One Cubic metre)	

CONTRACTOR

No. of Corrections....
No of Overwritings...

13	518.00 Cum (Five Hundred and Eighteen Cubic Metre Only)	Filling the Traffic Island and Centre Median with Excavated earth from roadway cutting with a initial lead of 1 Km including labour charges for filling, levelling the same to the correct grade and lines etc, complete as per standard specification and as directed by SIPCOT Officials (Labour only)			1 Cum (One Cubic metre)	
14	1303.00 Rm (One Thousand Three Hundred and Three Running Metre Only)	Providing Centre Median of 1.20 m wide with Cast - in - situ Barrier type Kerbs having bottom width of 165 mm and top width of 115 mm and to a height of 325 mm size (with 20 mm chamfered edges at top) on both sides with Vibrated cement concrete of M 20 using 20 mm ISS metal and filling with excavated earth in between the kerbs including cost and conveyance of all materials to work site including labour charges for mixing, laying, curing etc including Form work charges for kerbs and including rendering smoothing the exposed surfaces with 10kg of cement for 10 sq.m including Painting two coats over the CC surfaces with approved Synthetic Enamel Paint including primer etc, including all labour charges ,hire and fuel charges for the tools and plants employed and as per the standard specification and in accordance with the drawings appended etc., complete and as directed by SIPCOT Officials			1 Rm (One Running metre)	
	Section - I (Fourteen items Only) (14 Items Only)			**Sub total**		
II) Providing CC Kerbs for Traffic Island in the proposed Junction Improvements at Km 0/0 of Approach road to Dharmapuri Industrial Park						
1	347.00 Rm (Three Hundred and Forty Seven Running Metre Only)	Cast in Situ Cement Concrete Kerb: With Cast - in situ Barrier type kerbs having bottom width of 165 mm and top width of 115 mm and to a height of 325 mm size (with 20 mm chamfered edges at top) with Vibrated cement concrete of M20 using 20mm ISS metal and including cost and conveyance of all materials to work site including labour charges for mixing, layig, curring etc., including Form work charges for kerbs and including Painting two coats over the CC surfaces with approved Synthetic Enamel Paint including primer etc, including all labour charges, hire and fuel charges for the tools and plants employed and as per the standard specification and in accordance with the drawings complete etc., and as directed by SIPCOT Officials.			1 Rm (One Running metre)	
	Section - II (One item Only) (1 Item Only)			**Sub total**		

CONTRACTOR

No. of Corrections....
No of Overwritings...

III) Construction of Single Cell Box Culvert (1x2.00x2.00) at Ch 200, 630 of Approach road						
1	47.00 Cum (Forty Seven Cubic Metre Only)	Earth work excavation in all classes of soil except hard rock requiring blasting and depositing on bank as per SS20B with all leads and lifts and all other incidental charges such as bailing out water shoring, strutting, walling and forming protective bunds wherever necessary etc., complete complying with standard specification for dressing the bed up to sill level and as directed by SIPCOT officers.			1 Cum (One Cubic metre)	
2	219.00 Cum (Two hundred and Nineteen Cubic Metre Only)	Earthwork excavation in all classes of soil except soft rock not requiring blasting and hard rock requiring blasting and depositing on bank with all leads and lifts as per SS20B, including cost of all labour, equipments and all incidental charges such as baling out water, providing and maintaining necessary cofferdams, sheeting, shoring bracing and their subsequent removal, removal of all logs, stumps, grubs and other deleterious matter and obstructions, trimming bottom of excavation backfilling, and clearing the site and disposal of all surplus materials etc., complete as per relevant standard specification for foundation and as directed by SIPCOT officers.			1 Cum (One Cubic metre)	
3	31.00 Cum (Thirty one cubic metre only)	Vibrated Cement concrete in M 15 using 40mm ISS HBG including cost and conveyance of all materials to site and cost of cement at site including soft water, labour charges for mixing, transporting, laying and curing concrete, tools and plants and incidental charges as baling out water, maintaining of protective bunds, cofferdams, shorting, strutting etc., complete complying with standard specification and as directed by SIPCOT officers. For foundation.			1 Cum (One Cubic metre)	
4	163.00 Cum (One hundred and Sixty three cubic metre Only)	Vibrated Reinforced Cement concrete in M25 (1:1 1/2:3) using ISS graded HBG metal (20mm & 12mm) including cost and conveyance of all materials to site and cost of cement at site including soft water, labour charges for form work, centering, mixing, transporting, laying and curing concrete, tools and plants and incidental charges excluding cost of steel etc., complete complying with standard specification and as directed by SIPCOT officers. For Cell Box			1 Cum (One Cubic metre)	
5	11.00 MT (Eleven Metric Ton Only)	Supply and fabrication of Fe-500 steel with high strength corrosion resistant rebar (TMT her Grade M) required for all RCC items of works involved in the schedule cost of steel at site fabrication, labour charges for cleaning the rods, straightening, cutting, bending, tying grills, hoisting and placing the reinforcement in position before concreting, including overlapping to the required length whenever necessary, including cost of binding wire, provision of spacer bars, cover blocks and all other incidental charges etc. complete complying with standard specifications and as directed by "SIPCOT" officers.			1 MT (One Metric ton)	

CONTRACTOR

No. of Corrections....
No of Overwritings...

6	4.00 Nos (Four Numbers Only)	Supplying and fixing GI DRAINAGE SPOUTS 100mm dia as per MOST drawing SD/205 with grating arrangements at top as shown in the drawing and 100mm dia drainage spout projecting atleast 300mm beyond the bottom of deck slab as shown in the drawing, including cost and conveyance of Galvanised iron pipes and flats and fixing them in position, etc., complete complying with standard specification and as directed by SIPCOT Officers.			1 No (Each)	
7	100.00 Sqm (One Hundred Square Metre only)	Vibrated Reinforced Cement Concrete of grade M30 (Design Mix) using 25mm, 11.2mm,6mm ISS Graded HBG stone Jelly including cost and conveyance of all materials to site and cost of cement at site including cost of formwork, soft water, labour charges for mixing, transporting, laying and curing concrete and incidental charges such as bailing out water, the cost excluding steel etc., and as per relevant standard specification as per MORT&H Rev. V specifications etc., complete and as directed by SIPCOT Officers. For wearing coat of 75mm uniform thickness over deck slab and approach slab			1 Sqm (One Square metre)	
8	83.00 Cum (Eighty three cubic metre only)	Vibrated Cement concrete in CC M 20 using 40mm ISS HBG stone Jelly including cost and conveyance of all materials to site and cost of cement at site including cost of form work, soft water, labour charges for mixing, transporting, laying and curing concrete, working depths, tools and plants and other incidental charges, maintaining of protective bunds, cofferdams, shoring, strutting etc., complete complying with standard specification and as directed by SIPCOT officers. For Wing walls & Parapet wall.			1 Cum (One Cubic metre)	
	Section - III (Eight items Only) (8 Items Only)			**Sub total**		

CONTRACTOR

No. of Corrections....
No of Overwritings...

IV) Construction of Triple Cell Box Culvert (3x2.00x2.00) at 0/10 of Approach road						
1	83.00 Cum (Eighty three Cubic Metre Only)	Earth work excavation in all classes of soil except hard rock requiring blasting and depositing on bank as per SS20B with all leads and lifts and all other incidental charges such as bailing out water shoring, strutting, walling and forming protective bunds wherever necessary etc., complete complying with standard specification for dressing the bed up to sill level and as directed by SIPCOT officers.			1 Cum (One Cubic metre)	
2	418.00 Cum (Four hundred and Eighteen Cubic Metre Only)	Earthwork excavation in all classes of soil except soft rock not requiring blasting and hard rock requiring blasting and depositing on bank with all leads and lifts as per SS20B, including cost of all labour, equipments and all incidental charges such as baling out water, providing and maintaining necessary cofferdams, sheeting, shoring bracing and their subsequent removal, removal of all logs, stumps, grubs and other deleterious matter and obstructions, trimming bottom of excavation backfilling, and clearing the site and disposal of all surplus materials etc., complete as per relevant standard specification for foundation and as directed by SIPCOT officers.			1 Cum (One Cubic metre)	
3	61.00 Cum (Sixty one cubic metre only)	Vibrated Cement concrete in M 15 using 40mm ISS HBG including cost and conveyance of all materials to site and cost of cement at site including soft water, labour charges for mixing, transporting, laying and curing concrete, tools and plants and incidental charges as baling out water, maintaining of protective bunds, cofferdams, shorting, strutting etc., complete complying with standard specification and as directed by SIPCOT officers. For foundation.			1 Cum (One Cubic metre)	
4	203.00 Cum (Two hundred and three cubic metre only)	Vibrated Reinforced Cement concrete in M25 (1:1 1/2:3) using ISS graded HBG metal (20mm & 12mm) including cost and conveyance of all materials to site and cost of cement at site including soft water, labour charges for form work, centering, mixing, transporting, laying and curing concrete, tools and plants and incidental charges excluding cost of steel etc., complete complying with standard specification and as directed by SIPCOT officers. For Cell Box			1 Cum (One Cubic metre)	
5	56.00 Cum (Fifty Six Cubic metre only)	Vibrated Reinforced Cement concrete in M30 using ISS graded HBG metal including cost and conveyance of all materials to site and cost of cement at site including soft water, labour charges for form work, centering, mixing, transporting, laying and curing concrete, tools and plants and incidental charges excluding cost of steel etc., complete complying with standard specification and as directed by SIPCOT officers. For APPROACH SLAB.			1 Cum (One Cubic metre)	

CONTRACTOR

No. of Corrections....
No of Overwritings...

6	20.00 MT (Twenty Metric Ton only)	Supply and fabrication of Fe-500 steel with high strength corrosion resistant rebar (TMT her Grade M) required for all RCC items of works involved in the schedule cost of steel at site fabrication, labour charges for cleaning the rods, straightening, cutting, bending, tying grills, hoisting and placing the reinforcement in position before concreting, including overlapping to the required length whenever necessary, including cost of binding wire, provision of spacer bars, cover blocks and all other incidental charges etc. complete complying with standard specifications and as directed by "SIPCOT" officers.			1 MT (One Metric ton)	
7	40.00 Rm (Forty running metre only)	Supplying and fixing PVC EXPANSION JOINT in between deck slabs over abutent and pier as shown in the drawing including cost and conveyance of expansion joints including shalimar pad and joint sealant and fixing them in position etc.,complete complying with standard specification and as directed by SIPCOT Officers.			1 Rm (One Running metre)	
8	6.00 Nos (Six Numbers only)	Supplying and fixing GI DRAINAGE SPOUTS 100mm dia as per MOST drawing SD/205 with grating arrangements at top as shown in the drawing and 100mm dia drainage spout projecting atleast 300mm beyond the bottom of deck slab as shown in the drawing, including cost and conveyance of Galvanised iron pipes and flats and fixing them in position, etc., complete complying with standard specification and as directed by SIPCOT Officers.			1 No (Each)	
9	274.00 Sqm (Two Hundred and seventy four Square Metre only)	Vibrated Reinforced Cement Concrete of grade M30 (Design Mix) using 25mm, 11.2mm,6mm ISS Graded HBG stone Jelly including cost and conveyance of all materials to site and cost of cement at site including cost of formwork, soft water, labour charges for mixing, transporting, laying and curing concrete and incidental charges such as bailing out water, the cost excluding steel etc., and as per relevant standard specification as per MORT&H Rev. V specifications etc., complete and as directed by SIPCOT Officers. For wearing coat of 75mm uniform thickness over deck slab and approach slab			1 Sqm (One Square metre)	
10	183.00 Cum (One Hundred and Eighty three cubic metre only)	Vibrated Cement concrete in CC M 20 using 40mm ISS HBG stone Jelly including cost and conveyance of all materials to site and cost of cement at site including cost of form work, soft water, labour charges for mixing, transporting, laying and curing concrete, working depths, tools and plants and other incidental charges, maintaining of protective bunds, cofferdams, shoring, strutting etc., complete complying with standard specification and as directed by SIPCOT officers. For Wing walls & Parapet wall.			1 Cum (One Cubic metre)	
	Section - IV (Ten items Only) (10 Items Only)			**Sub total**		

CONTRACTOR

No. of Corrections....
No of Overwritings...

V) Providing for Street Lights Arrangements at 30 m intervals including High Mast Lights etc						
1		Supplying and erection of 10m Free Standing Double Arm Bracket 8 sided Octogonally continously tapered structured pole with 175mm bottom A/F & 70mm at top A/F made up of 3mm thick HT sheet along with base plate of size 275x275x16mm thick including 4 Nos of M24X750mm high "J" type EN8 grade foundation bolts along with template and 1mtr long hot dip galvanized double arm bracket made up of 40NB dia GI pipe suitable to mount on pole having top of 70mm A/F and including bakelite sheet with 1 No 6A SP MCB and stud type connector suitable for 4CX16Sqmm cable etc., complete complying with standard specifications and as directed by SIPCOT officers.				
	45.00 Nos (Forty Five Numbers Only)	For Double Collar Poles			1 No (One Number)	
2	90.00 Nos (Ninety Numbers Only)	Supply, installation, testing and commisioning of light 120W LED street light luminaries complete made of pressuered die casting aluminium having toughened glass in out voltage range of 100-270V Ac and in put frequency range of 47-64 HZ, PF>0.90 lag led should be high power led 1W of NICHIA having not less than 90 lummens / watt and junction temperature arranged in combination of series and parallel connection, power electronics circuits havening protection for over current and over temperatre thickness of the fixtures not exceeding 70 mm weight of fixture etc., complete complying with standard specifications and as directed by SIPCOT officers.			1 No (One Number)	
3		Providing foundation arrangements to the street light poles as per following specifications.				
a	41.00 Cum (Forty one Cubic metre Only)	Earth work excavation for foundation in all classes of soils and sub-soils and to full depth as may be directed except in hard rock requiring blasting inclusive of shoring shuttering, bailing out water wherever necessary and depositing the surplus earth within the compound in places shown by the departmental officers with an initial lead of 10 mts and initial lift of 2 mts. and clearing and levelling the site, etc., complete complying with standard specification and as directed by SIPCOT officers.			1 Cum (One Cubic metre)	
b	3.00 Cum (Three Cubic metre Only)	Supplying and filling in foundation with stone dust in layers of not more than 10 cm thick well rammed watered and consolidated etc., complete complying with standard specification and as directed by SIPCOT officers			1 Cum (One Cubic metre)	
c)	3.00 Cum (Three Cubic metre Only)	Providing Plain Cement Concrete 1:4:8 (One cement, four M.sand and eight Jelly) using 40mm size Hard broken granite stone jelly laid in required thickness including dewatering wherever necessary, well rammed, consolidated etc. including cost and conveyance of all materials and labour to work site for mixing, laying, compacting etc. complete complying with standard specifications and as directed by "SIPCOT" officers			1 Cum (One Cubic metre)	

CONTRACTOR

No. of Corrections....
No of Overwritings...

d)	22.50 Cum (Twenty two point five zero Cubic metre Only)	Providing Reinforced Cement Concrete 1: 1 1/2 : 3 (One cement, One and a half M.sand and three jelly) using 20mm size Hard Broken granite stone Jelly including cost and conveyance of all materials to work site excluding cost of centering, shuttering, strutting and cost of MS / RTS Reinforcement grills placed in position but including machine mixing of concrete, laying, vibrating with mechanical vibrators, finishing,with cement mortar 1:3 (One cement and Three sand) and kraft paper laid over it without claim for extra and and all labour charges for mixing concrete, laying, curing, vibrating charges, hire charges for all tools and plants and all other incidental charges etc. complete complying with standard specifications and as directed by "SIPCOT" officers.			1 Cum (One Cubic metre)	
e)	165.00 Sqm (One Hundred and Sixty Five Square metre Only)	Supplying and erecting form work for (vertical surfaces) steel centering for sides and soffits including supports and strutting upto a height of 3.90m in all floors for RCC street light pedestal concrete pillars etc., with all cross bracings using mild steel BG 10 sheets of required size stiffened with welded mild steel angles of size 25mm x 25mm x 3mm laid over silver oak (country wood) joists of size 10cm x 6.5cm at required spacing and supported by casurina props of 10 cm to 13cm dia at required spacing etc., Complete complying with standard specification and as directed by SIPCOT Officers.			1 Sqm (One Square metre)	
f)	19.00 Qtl (Nineteen Quintal Only)	Supplying, Fabricating and placing in position steel reinforcement grills using M.S. / R.T.S. rods of required sizes of reinforcement for all Reinforced cement concrete works (for pedestal pillar concrete) including cost and conveyance of steel, binding wire,spacer bars, cover blocks, labour charges for unbending of rods, straighteing, cutting, fabricating, tying, lifting, placing in position, overlaping to the required length whereever necessary cover blocks and all other incidental charges etc. complete complying with standard specifications and as directed by "SIPCOT" officers. (The steel rods must be Fe 415 grade of any brand with ISI marking and necessary test certicate to be produced before using it at site)			1 Qtl (One Quintal)	
4	2.00 Nos (Two Number Only)	Fabrication, supply, instalation of out -door street lighting distribution pillar box made out of 16 SWG sheet steel metal incorporated with 1No. 100amps TNP rewirable fuse switch and 32A 4 way fuse DB provided with 63A capacitor copper bus bars for fuses and 1 No. 63Amps Tp contactor with 230V coil and 1No 24hrs. Timer of L&T make with its control wiring , power interconnection with 7/16 copper wire from main switch to contactor and contactor to fuse DB. The pillar fabricated with front double door arrangements with one coat of primer and 2 coats of aluminium finish. The pillar to be erected with suitable angle iron frame pedestal with concrete grouting etc., complete complying with standard specifications and as directed by SIPCOT officers.			1 No (One Number)	

CONTRACTOR

No. of Corrections....
No of Overwritings...

5	2.00 Nos (Two Number Only)	Fabrication, supply and installation of TNEB service connection feeder pillar box outdoor type made out of 16SWG MS sheet steel with lockable door, provisional for TNEB sealing with 1No. Teak wood plank fitted inside the pillar with 3 Nos. 200A porcelain fuse cut outs with 1No. copper earth link and neutral link and space for fixing TNEB energy meter. the pillar painted with one coat of red oxide and 2 coats of alumnium finish as required by TNEB iron frame pedestal with concrete grouting etc., complete complying with standard specifications and as directed by SIPCOT officers.			1 No (One Number)	
6		Supplying and laying of the following armoured under ground cable aluminium conductor in the trench to be excavated at depth of 0.75m and refilling with earth and as per specification. The price shall be inclusive of all end termination jointing as required at the site. Necessary cable brackets shall also be taken into account for the cables to be taken into the feeder pillars and lighting cubicle etc., complete complying with standard specifications and as directed by SIPCOT officers.				
a.	100.00 Rm (One Hundred Running metre Only)	3 1/2 core x 70sq.mm UG cable			1 Rm (One Running metre)	
b.	1620.00 Rm (One Thousand Six Hundred and twenty Running metre Only)	4 core x 16sq.mm UG cable			1 Rm (One Running metre)	
7	900.00 Rm (Nine Hundred Running metre Only)	Supply, laying and testing of 2 core x 1.50 sq.mm PVC insulated SC unsheathed Cu.cable conductor cable of 1100 V grade with necessary jointing materials etc., complete including cost and conveyance of cable and labour charges for laying the cable etc., complete complying with standard specifications and as directed by SIPCOT officers.			1 Rm (One Running metre)	
8	2.00 Nos (Two Numbers Only)	Earthing as per PWD standard with an electrode of 2.10 metre class 'B' GI pipe of dia not less than 40mm with copper earth plate of size 125mmx50mmx6mm with necessary funneling arrangements and masonry works and 38mm RCC Cover slab for brick masonry etc., complete complying with standard specifications and as directed by SIPCOT officers.			1 No (One Number)	
9	45.00 Nos (Forty five Numbers Only)	Coil earth to street light poles with No.8SWG GI wire of 11.5 metres of length in which 10 metres of total length compressed into a coil of one meter length (75mmto100mmdia) connected suitable with hexagonal earth bolt of size 8mm in to 25mm welded on the pole at one end with a coil position fixed on the earth etc., complete complying with standard specifications and as directed by SIPCOT officers.			1 No (One Number)	
10	1740.00 Rm (One Thousand Seven hundred and forty Running metre Only)	Supplying, delivery and laying of 90mm dia HDPE pipe including cost and conveyance charges into trenches etc., complete complying with standard specifications and as directed by SIPCOT officers.			1 Rm (One Running metre)	
	Section -V (Ten items Only) (10 Items Only)			**Sub total**		

CONTRACTOR

No. of Corrections....
No of Overwritings...

VI) Providing Lane Marking, Road Studs and Road Safety Measures at Km 0/0 - 1/3 of Approach road						
1	1230.00 Sqm (One thousand two Hundred and thirty Square Metre Only)	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising GLass Beads on Bituminous surface: Providing and laying of Road marking with hot applied Thermo plastic compound 2.5 mm thick including refletorising glass beads @ 250 gms per Sq.m. area, thickness of 2.50 mm is exclusive of surface applied glass beads as per IRC : 35. The finished surface to be level, uniform and free from streaks and holes etc., complete as per MORTH Specification No. 803 and as directed by SIPCOT officers.			1 Sqm (One Square metre)	
2	1440.00 Nos (One thousand Four Hundred and Forty Numbers Only)	Road Markers/ Road Stud with Lens Reflector: Providing and fixing reflective Road studs of category 'A' Raised pavement markers made out of poly carbonate / methyl methercrylate/ABS moulded body conbfirming to ASTM - D 788 and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face with retro-reflectance and chromaticity values conforming to ASTM D4280. The reflective raised pavement markers shall also confirm to the MORTH circular No.RW / NH. 33023/10/97- DO.III dt.11.06.97. The height, width and length shall not be less than 15mm, 90mm and 100mm and with minimum relective area of 13 sq.cm on each side and slope to the basec shall be 35 + //- 5 degree. Each reflector shall have a CIL not less than values specified in table 2 of said MORT &H circular. The strength of detachment of the integrated cylindrical Shanks, (of diameter not less than 19 +/- 2mm and height not lewss than 30 +/ 2mm) from the body is to be a minimum value of 500 kgf. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the enginer. The marker shall support a load of 13635 Kg tested in accordance with ASTM D4280 and confirming to IRC 35- guidelines and MORT&H specification 804 etc.,, complete and as directed by SIPCOT officers.			1 No (One Number)	
3	272.00 Nos (Two Hundred and Seventy two Numbers Only)	Rigid Median Marker: Providing fixing of Median marker double sided made of polycarbonate for impact resistance and good weather ability. Polycarbonate used for molding the median marker shall have a minimum Izod impact strength value of 600 J/m at room temperature. The impact strength of the poly carbonate should not decrease to less than 70% of its initial value on being subjected to UV weathering as per ASTM G 155 for 1000 hours or exposure to 2 years of natural weathering. The body of the median marker shall be in the form of an isosceles trapezoidal structure of length 15 cm height and width of 10 x 10 cm. The median marker shall have fluorescent yellow retro - reflective sheeting confirming to Tpe XI specifications as per ASTM D 4956.Area of reflective sheeting should not be less than 70 cm2 .Edge of retro reflective shall be concealed using a grill/mesh/similar mechanism to prevent vandalism and sheeting pilferage. The logo of the manufacturer shall be embossed and painted in contrasting colour on both side of median marker for distinct identification and as directed by SIPCOT officers.(@5m intervals)			1 No (One Number)	

CONTRACTOR

No. of Corrections....
No of Overwritings...

4	800.00 Rm (Eight Hundred Running metre Only)	Metal Beam Crash Barrier Type- A, "W" Double Guard: Providing and erecting Single sided Double Guard Metal Beam Crash Barrier System 1.70m high, comprising of 3mm thick wall "W" beams posts and spacer channels shall be made by cold roll forming using HR confirm to IS 5986 Fe 410/360 and dip galvanized having zinc Mass of 550 gms/sqm, minimum 950mm above road/ground level fixed on ISMC series channel vertical post 150x75x5mm spaced 2m center to center 312mm x 83mm flange width x 3mm thick, 4318mm long post directly embedded in the concrete (M15) pit size 350x350x800mm for a depth of 750mm below ground. All fixing bolts and nuts hot dip galvanized conforming to IS:1367 clause 4.60 all complete as per Technical Specification and as directed by the by SIPCOT officers			1 Rm (One Running metre)	
5		SAFETY, CAUTION AND MANDATORY SIGN BOARDS : Providing and erecting of Retro - Reflectorised Cautionary, Mandatory and Informatory signs (without definition board) made out of High Intensity Prismatic Grade Sheeting confirming to Type-IV standards of IRC-67: 2012 and ASTM D 4956 -09, specification and fixed over 2mm thick Aluminium sheet fixed over a back supporting frame of 25mmx25mmx 3mm Mild Steel angle and supported on a mild steel angle post 75X75X6mm with a clear height of not less than 2.10m from the ground level to the bottom of the sign board and 0.60m below ground level. The sign post should be painted as per IRC 67-2012 and firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45cmX45cmxX60cm size including cost and conveyance of all materials, equipment, Machinery and labour with all leads and lifts, loading charges necessary for satisfactory completion of the work as directed by the engineer in charge. High intensity Retro - Reflectro sheet shall consist of minimum coefficient of Retro-reflection as per Table 6.6 of IRC 67-2012. The retro - reflective | sheeting shall be covered under 7 year warranty issued for field performance and a certified | copy of three years outdoor exposure report shall be obtained as per IRC 67:2012 . (as per | MORT&H Specification No.801) as directed by the SIPCOT Officers.				
a)	10.00 Nos (Ten Numbers Only)	90CM Equilateral Triangle shape (Pedistrian crossing, Other sign boards)			1 No (One Number)	
b)	2.00 Nos (Two Numbers Only)	60 CM Equilateral Triangle (Triangular)			1 No (One Number)	
c)	6.00 Nos (Six Numbers Only)	60 CM Circular (No overtaking, Speed limit)			1 No (One Number)	

CONTRACTOR

No. of Corrections....
No of Overwritings...

d)	4.00 Nos (Four Numbers Only)	80x60 CM Rectangular (Bus stop village Boards)			1 No (One Number)	
e)	8.00 Nos (Eight Numbers Only)	60x45 CM Rectanglar (Chevron Sign)			1 No (One Number)	
f)	4.00 Nos (Four Numbers Only)	60x60 CM Square			1 No (One Number)	
g)	6.00 Nos (Six Numbers Only)	90 CM High Octogonal			1 No (One Number)	
6	6.48 Sqm (Six point Four Eight Square metre Only)	Direction and Place Identification Signs - Type - XI (For location of black spot, curve, sharp bend, junction, ghat roads and critical zone application) : Providing and erecting Direction and Place Identification Retro - reflectorised Signs made out of Cube Corner Prismatic Grade sheeting confirming to Type - XI standards of IRC-67: 2012 and ASTM D 4956-09, specification and fixed over 2mm thick Aluminium sheet fixed over a back supporting frame of 25mm x 25mm x 3mm Mild steel angle and supported on a mild steel angle post 75x75x6mm with clear height of not less than 2.10m from the ground level to the bottom of the sign board and 0.60m below ground level. The sign post should be painted as per IRC 67 - 2012 and firmly fixed to the ground by means of properly designed foundation with M15 Grade cement concrete 45cm x 45cm x 60cm size including cost and conveyance of all materials, equipment, Machinery and labour with all leads and lifts, loading charges necessary for satisfactory completion of the work as directed by the engineer in charge. Micro Prismatic grade Retro Reflectro sheet shall consist of minimum coefficient of Retro-reflection as per Table 6.9 of IRC 67 - 2012. The retro-reflective sheeting shall be covered under 10 year warrantee issued for field performance and a certified copy of three years outdoor exposure report shall be obtained as per IRC 67:2012. (as per MORT&H Specification No.801) (For location of black spot, curve, sharp bend, junction, ghat roads and critical zone applications) (for sign having area more than 0.9 sqm) Type - IV etc., complete complying with standard specifications and as directed by SIPCOT officers.			1 Sqm (One Square metre)	

CONTRACTOR

No. of Corrections....
No of Overwritings...

7		Digitally Printed Retro-Reflectorized Overhead Cantilever Gantry Information Sign Board: Providing and fixing of Digitally Printed Retro Reflectorized Overhead Gantry Informatory sign made of cube corner Micro Prismatic grade sheeting conforming to Type XI standards of IRC67 - 2012 and ASTMD4956 – 09, specification, Digitally Printed using Latex Printer for Traffic color logos/text and laminated with clear electro cutable film and applied to properly prepared sign substratesm, fixed over 2mm thick aluminum sheet with back supporting frame of size 50mm x 50mm x 6mm MS Angle and supported on 2 numbers of vertical posts of 300NB (Nominal Bore) MS Pipe of 12mm thick with a ground clearance of 6 meters along with 80NB (Nominal Bore) MS Pipe with 4mm thick and 40NB (Nominal Bore) MS Pipe with 3.20mm thick support posts. The sign board should be painted as per IRC 67-2012 and firmly fixed to the ground by means of properly designed substructure and foundation with Reinforced cement concrete M20 grade column (1.25m x 1.25m x 1.90m) and footing (1.80mx1.80mx0.30m) with Fe 500 steel over Plain cement concrete M15 grade levelling course of 100mm thick. The minimum depth of foundation shall not be less than 2.00m. 1 number of MS Base plate of size 1200mm x 1200mm x 25mm with anchor bolts of 25mm dia and 1000mm length, 2 numbers of MS Top plate of size 900mm x 900mm x 16mm with suitable bolts, nuts and washers, suitable numbers of MS stiffner plates of 8mm thick are to be used to hold the sign board at the bottom and top respectively including cost and conveyance of all materials, euipment, machinery and labour with all leads and lifts, loading charges and fixing the overhead sign board in position etc., for satisfactory completion of the work as per structural and foundation drawings approved by the competent authourity and as directed by the Engineer-in-charge The micro-prismatic grade reflector sheet should have minimum co-efficient of retro-reflection values as per the table 6.9 of IRC 67-2012. The retro-reflective sheeting shall be covered under 10 years warranty issued for field performance and a certified copy of three years Outdoor exposure report shall be obtained. The warranty shall be inclusive of digitally printed logos/texts/legends and their bonding to the retro-reflective sheeting (as per MoRT&H Specification No.801). The latex printer used for digital printing should be used with inks of low VOC emissions and should have green guard, eco logot certificates as per UL 2801 standards. Complete and as directed by SIPCOT officers.				
a)	2.00 Nos (Two Numbers Only)	Digitally Printed Retro-Reflectorized Overhead Gantry Information Sign Board of Size 12.00 m x 1.80 m			1 No (One Number)	
b)	2.00 Nos (Two Numbers Only)	Digitally Printed Retro-Reflectorized Overhead Gantry Information Sign Board of Size 5.00 m x 1.80 m			1 No (One Number)	
	Section - VI (Seven items Only) (7 Items Only)			**Sub total**		
	TOTAL - SECTION I + II + III + IV + V + VI					

CONTRACTOR

No. of Corrections....
No of Overwritings...