ABSTRACT PRICE SCHEDULE: CONSTRUCTION OF 6KM "SMART ROADS" IN SHILLONG			
SUMMARY SHEET			
Sr No.	Item Description	Amount in figure (Rs.)	Amount in Words (Rupees)
1	ROAD WORKS		
2	COMBINED ELECTRICAL DUCT WITH STORM WATER DRAIN & PEDESTRIAN PATH		
3	ROAD SIGNAGES WORKS		
4	LANDSCAPE WORKS		
5	ELECTRICAL WORKS		
	TOTAL OF CIVIL AND ELECTRICAL WORKS		
6	PROVISIONAL SUM @ 7.5%		
	GRAND TOTAL		

PRICE SCHEDULE								
ROAD WORKS								
S No.	**ITEM NO/MORTH**	**Descriptions of Item**	**Quantity**	**Unit**	**Rate in Figure (Rs.)**	**Rate in Words (Rupees)**	**Amount in Figure (Rs.)**	**Amount in Words (Rupees)**
		DISMANATLING						
1	**2.5 / 202**	Dismantling of Structures.						
		Dismantllng of existing structures like culverts,bridges, retaining walls and other structures comprising of Lime Concrete, Cement Concrete, Reinforced Cement Concrete, etc.including T&P and scaffolding when ever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and of 1000 m as per Technical Specification Clause 202 .						
		A. By Manual Means :						
		II. Cement Concr ete.	**165.00**	**cum**				
		Iii. Reinforced Cement Concrete.	**163.00**	**cum**				
		B. By Mechanical Means :						
		I. Cement Concrete :	**274.00**	**cum**				
		ii. Reinforced Cement Concrete.	**340.00**	**cum**				
2	**2.14/ 202**	Dismantling of Flexible Pavements :						
		Dismantling of flexible pavements and disposal of dismantled material upto a lead of 100 m stacking of serviceable and unserviceable materials seperately as per Technical Specification Clause 202.						
		By Manual Means						
		(A)Bituminous Courses	**59.00**	**cum**				
		(B)Granular Courses	**74.00**	**cum**				
		By Mechanical Means						
		(A) Bituminous Courses	**93.00**	**cum**				
		(B) Granular Courses	**80.00**	**cum**				
3	**2.22 / 202.3**	Removal of Cement Concrete Pipe of Sewer Gutter .						
		Removal of cement concrete pipe of sewer gutter 1500 mm dia under the supervision of concerned department Including disposal with all lifts and upto a lead of 1000 m and stacking of serviceable and unserviceable materia l seperately but excluding earth excavation and dismantling of masonry works as per Technical Specification Clause 202.3.	**525.00**	**Rm**				
		Note : The rate analysis does not include any excavation in earth or dismantling of masonry works which are to be measured and paid seperately.						
4	**2.23 / 202.3**	Removal of Telephone/Electric Poles and Lines.						

		Removal of telephone/electric poles with wires including excavation and dismantllng of foundation concrete and lines under the supervision of concerned department disposal with all lifts and upto a lead of 1000 m and stacking the serviceable and unserviceable material seperately as per Technical Speciflcation Clause 202.3.						
			140.00	**each**				
		EARTHWORK						
5	**3.5/302**	(iii)Excavation in Soll using Hydraulic Excavator and Tippers with disposal upto 1000 m.						
		Excavation for roadway in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading In tippers, trimming bottom and side slopes, in accordance with requirement of lines, grades and cross-sections and transporting to the embankment location with a lift upto 1.5 m and lead upto 1000 m as per Technical Speiclfcatlon Clause 302.3.						
			1523.00	**cum**				
6	**3.8 / 302.3.5**	(i)Excavation In Ordinary Rock by Manual Means.						
		Excavation for roadway in ordinary rock using manual means including loa ding In a truck and carrying of excavated material to embankment site with a lift upto 1.5 m and lead upto 50 m as per Technical Specification Clause 302.3 .5.	**1429.00**	**cum**				
7		Excavation for roadway in ordinary rock with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, transporting to embankment site with a lift upto 1.5 m and lead upto 1000 m, trimming the bottom and side slopes in accordance with the requirement of lines, grades and cross-sections as per Technical Specification Clause 302.3.5	**1311.00**	**cum**				
8	**3.9/ 302.3.5**	Excavation for roadway In hard rock (blasting prohibited) with rock breakers In eluding breaking rock, loading in tippers and disposal with a lift upto 1.S m and lead upto 1000 metres, trimming bottom and side slopes in accordance with the requirement of lines, grades and cross-sections as per Technical Speclflcation Clause 302..3 .5 .						
		(A) Manual Means.	**140.00**	**cum**				
		(B) Mechanical Means.	**140.00**	**cum**				
9	**4.1/401**	**Granular Sub-base with Well Graded Material (Table 400.1)**						
		(A) By Mix In Place Method						

		Construction of granular sub-base by providing well graded materialspreading in uniform layers with motor grader on prepared surface, mixing by mix In place method with rotavator at OMC and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.						
		(II) For Grading II Material.	**1514.00**	**cum**				
10	**4.9/ 406**	**Wet Mix Macadam**						
		Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification Including premixing the material with water at OMC in mechanical mixer (Pug Mill), carriage of mixed material by tipper to site, laying In uniform layers in sub-base/base course on a well prepared sub base and compacting with smooth wheel roller of 80-100 kN weight to achieve the desired density including lighting, barricading and maintenance of diversion, etc. as per Tables 400.11 & 400.12 and Technical Specification Clause 406						
		By Mechanical Means with 1 km lead.	**1892.00**	**cum**				
11	**5.1/ 502**	**Prime Coat**						
		(i) Low porosity						
		Providing and applying primer coat with bitumen emulsion (SS-1) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.70 - 1.00 kg/sqm using mechanical means as	**14048.00**	**sqm**				
		(ii) Medium porosity						
		Pro viding and applying primer coat with bitumen emulsion (SS-1) on preparedsurface of granular base including cleaning of road surface and spraying primer at the rate of 0.90 -1.20 kg/sqm using mechanical means as per Technical Soecification clause 502.	**6848.00**	**sqm**				
		(iii) High porosity						
		Providing and applying primer coat with bitumen emulsion (SS-1) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 1.20 - 1.50 kq/sqm using mechanical means as per Technical Soecification Clause 502.	**7568.00**	**sqm**				
12	**5.2/ 503**	**Tack Coat**						
		Tack Coat with Bitumen Emulsion						

	(ii)	Providing and applying tack coat with bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.25 to 0.30 kq/sqm on the dry and hungry bituminous surface cleaned with hydraulic broom as per Technical Specification Clause 503.	**22344.00**	**sqm**				
	(iv)	Providing and applying tack coat with bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.30 to 0.35 kq/sqm on the prepared non- bituminous surfaces (cement concrete pavement) cleaned with hydraulic broom as per Technical Specification Clause 503.	**22704.00**	**sqm**				
	(v)	Providing and applying tack coat with bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.35 to 0.40 kq/sqm on the granular base not primed surfaces cleaned with hydraulic broom as per Technical Soecification Clause 503.	**7568.00**	**sqm**				
13	**5.4 / 504**	**Bituminous Macadam**						
		Providing and applying bituminous macadam with hot mix plant using crushed aggregates of grading as per Table 500.4 premixed with bituminous binder, transported to site upto a lead of 1000 m laid over a previously prepared surface with paver finisher to the required grade, level and alignment and rolled to achieve the desired compaction as per Technical Specification Clause 504						
		USING PENETRATION GRADE GRADE BITUMEN 80/100						
		B. With Anti-Stripping Agent						
		40 MM NOMINAL SIZE GRADING	**1787.52**	**cum**				
14	**5.5 / 508**	**Bituminous Concrete**						
		Providing and laying semi dense bituminous concrete with Hot Mix plant using crushed aggregates of specified grading as per Table 500.14 (MORT&H Specification) premixed with bituminous binder, transported to site upto a lead of 1000 m, laid over a previously prepared surface with paver finisher to the required grade, level and alignment and rolled to achieve the desired compaction as per Technical MORT&H Specification clause 508						
		USING PENETRATION GRADE GRADE BITUMEN 80/100						
		B. With Anti-Stripping Agent						
		10 MM NOMINAL SIZE GRADING	**893.76**	**cum**				
15	**5.14 / 510**	**Seal Coat Type A**						

		Providing and laying seal coat sealing the voids in a bituminous surface laid to the specified levels, grade and cross fall using Type A, Type B and Type C as per Technical Specificatlon Clause 510						
		By Mechanical Means						
		With Anti-Stripping Agent						
		(II) Bitumen 60/70 grade	**22344.00**	**sqm**				
15		**MASTIC ASPHALT**						
	16.37 CPWD SOR 2016	Providing and laying bitumen mastic wearing course (as per specifications) with industrial bitumen of grade 85/25 conforming to IS : 702, prepared by using mastic cooker and laid to required level and slope, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of approved size at the rate of 0.005 cum per 10 sqm and at approximate spacing of 10 cm centre to centre in both directions, pressed into surface protruding 1 mm to 4 mm over mastic surface, including cleaning the surface, removal of debris etc. all complete. (Considering bitumen using 10.2% as per MORTH specification).						
		25 mm thick	**22344.00**	**sqm**				
		TOTAL						

PRICE SCHEDULE								
COMBINED ELECTRICAL DUCT WITH STORM WATER DRAIN & PEDESTRIAN PATH								
S No.	ITEM NO/MORTH		Quantity	Unit	Rate in Figure (Rs.)	Rate in Words (Rupees)	Amount in Figure (Rs.)	Amount in Words (Rupees)
		Excavation						
1	**MePWD 11.1/ 302 & 304**	Earthwork in excavation for structures as per drawing and Technical Specification Clause 305.1 including setting out construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m dressing of sides and bottom and backfilling trenches with excavated suitable material						
		By Manual Means						
		Ordinary Soil upto 3 m depth	**1145.68**	**CuM**				
		Ordlnary rock (not requiring blastingl	**1281.23**	**CuM**				
		Hard rock (blasting prohibhitedl	**445.92**	**CuM**				
		By Mechanical Means						
		Ordinary Soil upto 3 m depth	**9689.79**	**CuM**				
		Ordlnary rock (not requiring blastingl	**7928.87**	**CuM**				
		Backfilling of foundotion trenches sholl normally be done with excovoted earth. The cost ol this operation is included in item 11.1 Only in case the excavoted earth is not of suitable quality (Marshy soil etc) sand filling or backfitling with carted earth may be resorted to.						
		FILLING						
2	**MePWD 11.2/ 300 &1200**	Supplying and filling in foundation trenches as per drawing and technical Specification clause 305.3.9						
			1808.52	**CuM**				
		Plain Cement Concrete M-10						
3	**MePWD 11.4 / 800 & 1200**	Providing and laying plain/reinforced concrete concrete in open foundations complete as per drawing and Technical Specification Clauses 802' 803, 1202 & 1203 (1500,1700 & 2100 MORT&H Specification)						
		PCC Grade M 10 Nominal Mix 1:2:4	**1244.94**	**CuM**				
		Cement Concrete M-25(Duct)						
4	**MePWD 11.4 / 800 & 1200**	Providing and laying plain/reinforced concrete concrete in open foundations complete as per drawing and Technical Specification Clauses 802' 803, 1202 & 1203 (1500,1700 & 2100 MORT&H Specification)						
		RCC M 25 Grade						
		Total quantity of M25 Concrete	**4388.59**	**CuM**				
		Reinforcement						

5	**MePWD 11.8**	Supplying, fitting and placing TMT bar reinforcement in foundation complete as per drawings and Technlcal Specification Clause 1000 and 1202						
		Total Weight of steel in Tonne						
			396.18	**Tonne**				
		Kerb Stone						
6	**DSR 2016 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). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).						
			817.05	**CuM**				
		Interlocking Concrete Block Pavement						
7	**MePWD 6.7**	1) Providing and laying of interlocking concrete block pavement having thickness 80 mm as per drawings and Technical specification Clause 1504.						
			1935.00	**SqM**				
8		2) Providing and laying of interlocking concrete block pavement having thickness 60 mm as per drawings and Technical specification Clause 1504.						
			15157.65	**SqM**				
9	**DSR 19.27**	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design : 19.27.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5						
			981.0	**Each**				
10	**MePWD(B) 34.36**	Supplying, fitting and fixing PVC pipes/bends/ Junctions etc. of Supreme/Prince or other ISI approved make, including joining ,fitting and fixing with clamps etc. as necessary complete at all levels including below G.L as directed and specified.						
		PVC pipes of 6 Kg/cm2 as directed and specified.						
		110mm dia.	**1962.0**	**each**				

11	**DSR 2016 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 450mm long with 150x150x6mm M.S. plate welded at bottom and embedded 150mm in cement concrete 1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size), including necessary excavation of size 250x250x450mm deep for the same in bitumen/concrete pavement at specified spacing.						
			217.0	**each**				
12	**NON SOR**	Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x60 mm 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.-						
			3104.8	**SqM**				
13	**DSR 2016 11.20**	Chequerred precast cement concrete tiles 22 mm thick in footpath & courtyard, jointed with neat cement slurry mixed with pigment to match the shade of tiles, including rubbing and cleaning etc. complete, on 20 mm thick bed of cement mortar 1:4 (1 cement: 4 coarse sand).						
			319.9	**SqM**				
		TOTAL						

PRICE SCHEDULE								
ROAD SIGNAGES								
S No.	ITEM NO/MORTH SPECS	Descriptions of Item	Quantity	Unit	Rate in Figure (Rs.)	Rate in Words (Rupees)	Amount in Figure (Rs.)	Amount in Words (Rupees)
		Traffic Signs						
		A. RetroReflectorised Traffic Signs						
1	**10.2 / 1700, 300 & 800**	Supportcd on mild steel angle iron post 75 mm x 75 mm x 6 mm,providing and fixing of retro-reflectorised cautionary, mandatory and Informatory sign as per IRC:67 made of enscapulated lens type reflective sheeting vide clause 1701.2.3 fixed over Aluminium Sheeting 1.5 mm thick supported on a Mlld Steel Angle Post 75 mm x 75 mm x 5 mm firmly fixed to the ground by means of properly designed foundation with M-15 grade cement concrete 450 mm x 450 mm x 600 mm, 600 mm below ground level as per drawing and Technical Specification Clause 801.						
		900 mm equilateral triangle	**82.00**	**Nos**				
		800 mm x 600 mm rectangular	**72.00**	**Nos**				
		Painting lines, dashes, arrows etc						
2	**Me PWD SOR 10.9 / 1700**	Painting lines, dashes, arrows etc on roads in two coats on new work with ready mixed road marking paint conforming to IS:164 on bituminous surface, including cleaning the surface of all dirt, dust and other foreign matter, demarcation at site and traffic control as per relevant clauses of section-800 & I.R.C.-67 including cost of paint etc. complete.	**577.50**	**Sqm**				
3	**Me PWD SOR 2015 - 16 10.14**	Construction of Speed Breaker by providing BUSG of 75 mm nominal thickness along with 20 mm thick premix carpet and seal coat including printing lines and dashes with 2 coats off new work with redimix road marking paints conforming to IS 164 on bituminous suface complete as directed						
			480.00	**Sqm**				
		Road Marking						
4	**Me PWD SOR 18.17**	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 gms per sqm area, thickness of 2.5 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 and as per relevant clauses of section-800.						
		Solid Lines in White Colour	**1155.00**					
		Brocken Lines in White Colour	**577.50**					
		Stop Lines in White Colour	**231.00**					
		Applying Zebra Crossing	**480.00**					
		Total Quantity	**2443.50**	**Sqm**				

5	**DSR 16.65**	Providing and fixing post delineators made of ABS round body fitted with 2 nos 100 mm dia high reflective reflectors and mounted on MS pipe of 65 mm dia duly powder coated anti-rust and anti theft steel to be installed as per direction of Engineer-incharge.						
			600.00	**each**				
6	**DSR 16.50**	Providing and fixing Glow studs of size 100x20 mm made of heavy duty body shall be moulded ASA (Acrylic styrene Acryloretrite) or HIP (High impact polystyrene) or ABS having electronically welded micro- prismatic lens with abrasion resistant coating as approved by Engineer in charge. The glow stud shall support a load of 13635 kg tested in accordance with ASTM D4280. The slope of retro- reflective surface shall be 35 (+/-5) degress to base .The reflective panels on both sides with at least 12 cm of reflective area up each side. The luminance intensity should be as per the specification and shall be tested as described in ASTM I: 809 as recommended in BS: 873 part 4 : 1973. The studs shall be fixed to the Road surface using the adhesive conforming to IS, as per procedure recommended by the manufacturer complete and as per direction of Engineer-in-charge.						
			1500.00	**each**				
		TOTAL						

PRICE SCHEDULE								
LANDSCAPE WORKS								
S No.	ITEM NO/MORTH	Descriptions of Item	Quantity	Unit	Rate in Figure (Rs.)	Rate in Words (Rupees)	Amount in Figure (Rs.)	Amount in Words (Rupees)
1	DSR (HORT) (HORT) 2.1	Trenching in ordinary soil up to a depth of 60 cm including removal and stacking of serviceable materials and then disposing of surplus soil, by spreading and neatly levelling within a lead of 50 m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or / and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure).	1800.00	CUM				
2	DSR (HORT) (HORT) 2.2	Supplying and stacking of good earth at site including royalty and carriage upto 5 km lead complete (earth measured in stacks will be reduced by 20% for payment).	900.00	CUM				
3	DSR (HORT) (HORT) 2.3	Supplying and stacking sludge at site including royalty and carriage upto 5 km lead complete (sludge measured in stacks will be reduced by 8% for payment).	900.00	CUM				
4	DSR (HORT) (HORT) 2.4	Supplying and stacking at site dump manure from approved source, including carriage upto 5 km lead complete (manure measured in stacks will be reduced by 8% for payment) :						
	2.4.1	Screened through sieve of I.S. designation 20 mm	900.00	CUM				
5	DSR (HORT) (HORT) 2.5	Rough dressing the trenched ground including breaking clods.	1800.00	SQM				
6	DSR (HORT) (HORT) 2.6	Uprooting Weeds From the trenched Area after 10 to 15 Days of its Flooding with water including Disposal of Uprooted Vegetation.	1800.00	SQM				
7	DSR (HORT) (HORT) 2.8	Spreading of Sludge ,Dump manure & good earth in required thickness (cost of sludge, dump manure or And good earth to be paid separately)	1800.00	CUM				
8	DSR (HORT) (HORT) 2.8	Mixing earth & sludge or manure in proportion Specified or directed.						
		Adding the quantity of earth, sludge and manure	2700.00	CUM				

9	**MePWD(B) 20.1**	**LAWN MAKING BY DIBBLING :** 20.1 Supplying and dibbling of selected lawn grass after preparing the land by ploughing/ working to a depth of 40-45 cm, removing of all unwanted debris (rubbles, pebbles, plant roots etc.), mixing of organic manure (10- 15kg/sq.m), levelling the surface and initial maintenance by proper and periodic rolling, mowing and irrigation etc. (as specified) including the application of recommended dose of fertilizers (N:P:K) mixture as specified and directed by the department.						
		Carpet grass (Axonopus affinis)	**750.00**	**SQM**				
10	**DSR (HORT) (HORT) 2.13**	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m, lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately)	**1800.00**	**CUM**				
11	**DSR (HORT) (HORT) 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)						
		Holes 90 cm dia and 90 cm deep	**150**	**EACH**				
		Holes 60 cm dia and 60 cm deep	**300**	**EACH**				
		Holes 45 cm dia and 45 cm deep	**300**	**EACH**				
12	**MePWD(B) 20.16**	Half brick circular tree guard internal diameter 1.25m and height 1.2m above ground and 0.02m below ground bottom two courses laid dry and top three courses in cement mortar 1:6 and the intermediate courses being in dry honey comb masonry as per design complete.	**750.00**	**EACH**				

15	**MePWD(B) 20.9**	Supplying and planting of ornamental trees (30cm height sapling) including pit making (60cm x 60cm x 60cm), filling the pit with appropriate soil media, manure and fertilizers as per specification and necessary maintenance complete as specified and directed .						
		SHADE TREE (i) Neem / Mahaneem / Beef wood / Bakul / Acacia / Siris / Devils tree / Kadam / Palash / Pink Cassia / peepal / Silver oak / Simalu / Ajar	**80.00**	**EACH**				
		Kanchan / Nahar / Arjun	**120.00**	**EACH**				
		Bottle Brush / Nil Gulmohar / Debadaru / Weeping Willow	**90.00**	**EACH**				
		Christmas tree / Kuki	**90.00**	**EACH**				
16	**MePWD(B) 20.10**	Supplying and planting of ornamental shrub (below 30cm height) including pit making (60cm x 60cm x 60cm), filling the pit with appropriate soil media, manure and fertilizers as per specification and necessary maintenance complete as specified and directed .						
		(a) Radhachura / Krishnachura / Rat ki rani / Ixora / Jetuka	**200.00**	**EACH**				
		Allmanda / Khorika zai / May flower / Kamini / Kathanda / Tecoma / Acalypha / Bougainvillea / Dracaena / Togor / Nilakantha / Mussaenda	**180.00**	**EACH**				
		Korobi / Azalea	**100.00**	**EACH**				
17	**NON SOR**	Providing and laying 500x500x40 mm thick Turf paver (Turfpave XD) on 150 mm thick sub grade of compacted bed of 20 mm thick nominal size stone aggregate and base course and filling with 150 mm thick local sand, including spreading, well ramming, consolidating and finishing smooth etc. all complete as per direction of Engineer-in-charge.						
			50.00	**SQM**				
18	**NON SOR**	Supplying, fitting and fixing Stone Benches fully complete at site with all accessories, labours, power supply etc. as per the approved design and specification and as per direction of Engineer in Charge						
			35.00	**Nos**				
		Total						

PRICE SCHEDULE
ELECTRICAL WORKS

S.No	Item Code	Description of Items	Qty	Unit	Rate in Figure (Rs.)	Rate in Words (Rupees)	Amount in Figure (Rs.)	Amount in Words (Rupees)
		Ring Main Unit (RMU)						
1	**Non SOR**	Supply, Installation, Testing and Commissioning of Out Door RMU (Ring Main Unit), 12KV, Non- Extensible type, Motorised, **3 way Type (2 LBS + 1 VCB),** 630A, 21KA for 3 Sec STC, SF6 insulated Ring Main unit with structure required for erection for supplying ring feeders for 11KV, with o/c, s/c and e/f protection. The RMU shall meet the criteria for compact, metal-enclosed indoor switchgear in accordance with IEC 62271-1 and IEC 62271-200. SF6 gas used for the filling of the RMU shall be in accordance with IEC 60376. RMU manufacturer should have NABL accredited lab for routine tests and IP67 degrees of protection in accordance with recommendation IEC 60529. RMU should include FPI and FRTU as per the Specification; 1. FRTU shall have adequate cyber security features as per IEEE P1686, IEC62351. 2. IEC 60870-5-101/104 protocol to communicate with the Master station(s) & Modbus over RS 485 for communication with MFTs. 3. The FRTU shall support IEC 61131-3 PLC programming for incorporation of automation logics. 4. - The FRTU shall support remote firmware updates. 24V DC battery & Charger 12Ah Capacity - 1 No. Digital Inputs 32 Nos. , DI card 16 Channels - 2 Nos. - 1 Set Digital Outputs 13 Nos. , DO card 8 Channels - 2 Nos. - 1 Set Datapoints - 15 Nos. approx. - 1 Set Dual SIM Modem - 1 No.	15	Nos.				
2	**Non SOR**	**SITC of Ring Main Unit (04 Way)** having 01 no. vacuum circuit breaker 630 amp rating and 03 nos. load break isolators with Earth switch suitable for termination of 11KV cable on each isolator. The RMU shall meet the criteria for compact, metal-enclosed indoor switchgear in accordance with IEC 62271-1 and IEC 62271-200. RMU manufacturer should have NABL accredited lab for routine tests and IP67 degrees of protection in accordance with recommendation IEC 60529. RMU should include FPI and FRTU as per the Specification; 1. FRTU shall have adequate cyber security features as per IEEE P1686, IEC62351. 2. IEC 60870-5-101/104 protocol to communicate with the Master station(s) & Modbus over RS 485 for communication with MFTs. 3. The FRTU shall support IEC 61131-3 PLC programming for incorporation of automation logics. 4. - The FRTU shall support remote firmware updates. 24V DC battery & Charger 12Ah Capacity - 1 No. Digital Inputs 32 Nos. , DI card 16 Channels - 2 Nos. - 1 Set Digital Outputs 13 Nos. , DO card 8 Channels - 2 Nos. - 1 Set Datapoints - 15 Nos. approx. - 1 Set Dual SIM Modem - 1 No.	12	Nos.				
		Package Sub-station (630 KVA)						
		SITC 11kV, 630KVA, Outdoor Package / compact Sub-Station (in compliance IEC 62271-202) shall be consisting of following (Make: Siemens /ABB / Schnieder / CGL/Voltamp)						
		HT SWITCHGEAR - 1 Nos.						
		11kV 630Amps 21KA/3 sec. Non-Extensible Ring Main Unit Compact switchgear with Copper busbar (Type CCCV) consisting of Three Nos. Fixed Motorized Load Break switches and One No. Fixed Motorized Vacuum Circuit Breaker in robotically welded having IP67 in SF6 encapsulated stainless steel enclosure of thickness 2.5mm . with series trip, self powered micropro- cessor based numerical over current and earth fault relay protection.						

		Relay shall be of Ashida make of Model No: ADR241S - 1 No. Protection CT shall be 40/1A 2.5VA 5P10. - 3 Nos. Fault Passage Indicator for LBS with Short Circuit and Earth Fault Indication - 2 No. Manometer and signal (1NO) from pressure indicator - 1 No. Voltage Presence Indicator (L1, L2, L3) for each Module - 3 Nos. Operating Handle - 1 No. Pls refer the attached BOM of FRTU - 1 No. Space Heater in HT compartment - 1 No.						
		TRANSFORMER - 01 Nos.						
		630 KVA 11KV/433V DYn11 Oil filled BIS level-2 Transformer as per 1108 Part-I:2014 and IS 2026. Class of Insulation: Class-A, Winding: Copper, Type of Cooling: ONAN Range: +5% to - 5% @ 2.5%, No. of Steps: 4, On HV: Yes, Tap Changer type: OCTC Temp rise of Oil / Winding over design ambient temp. of 50(° C): 40 / 45(° C) Bushing Standard: IS 2099 & IS 3347 Make: Schneider/ABB/Siemens/Raychem/Voltamp						
		LVS PANEL - 1000AMPS ALUMINUM BUSBAR (100% FOR PHASE & 50% FOR NEUTRAL, CURRENT DENSITY- 0.8AMP/SQMM)						
		INCOMER FROM TRANSFORMER - 01 No.						
		1000 Amps 433V 50KA 4P **Electrical Draw Out (EDO) Air Circuit breaker(ACB)** with microprocessor based release for over current, short circuit and earth fault protection.- PR 121 .						
3	**Non SOR**	Digital Multifunction Meter with Class 1.0 Accuracy with RS 485 port (Make: Rishabh/Secure/Elmeasure) - 01 Set	12	Each				
		R,Y,B,ON/OFF/TRIP Indications. 1 Set						
		OUT GOING						
		400Amps 36 kA, 433V, 3P+ N Fixed manual Molded Case Circuit breaker (MCCB) with microprocessor based release for over current ,short circuit and earth fault protection.Digital Multifunction Meter with Class 1.0 Accuracy with RS 485 port (Make: Rishabh/Secure/Elmeasure) - 04 Nos.						
		OUTDOOR ENCLOSURE - 01 Set						
		Outdoor type enclosure having construction of Galvanised Sheet Steel with combination of 2mm thickness for load bearing member and 1.5mm with Non Load bearing member with 4mm HRCA base frame. The Enclosure shall have IP54 degree of protection for HT & LT switchgear compartment & IP23 degree of protection for Transformer compartment. The enclosure shall be Powder Coated (Colour Light Gray & D.A.Gray). Each compartment will be provided with the door and pad locking arrangement. The Compartment illumination lamp with door operated switch shall be provided for MV & LV compartment.						
		INTERCONNECTION AND EARTHING - 01 Set						
		Interconnection Between HT switchgear & Transformer using 1Cx3x95 Sq.mm XLPE Single core Aluminium cable & Interconnection between Transformer & LT switchgear using AL. Busbars. Internal earthing connections by using 50 x 6mm GI strips including Transformer neutral.						
		FRTU for SCADA						
		RMU should include FPI and FRTU as per the Specification; 1. FRTU shall have adequate cyber security features as per IEEE P1686, IEC62351. 2. IEC 60870-5-101/104 protocol to communicate with the Master station(s) & Modbus over RS 485 to communicate with MFTs. 3. The FRTU shall support IEC 61131-3 PLC programming for incorporation of automation logics. 4. - The FRTU shall support remote firmware updates. 24V DC battery & Charger 12Ah Capacity - 1 No. Digital Inputs 32 Nos. , DI card 16 Channels - 2 Nos. - 1 Set Digital Outputs 16 Nos. , DO card 8 Channels - 2 Nos. - 1 Set Datapoints - 15 Nos. approx. - 1 Set Dual SIM Modem - 1 No.						
		Package Sub-station (315 KVA)						
		SITC 11kV, 315 KVA, Outdoor Package / compact Sub-Station (in compliance IEC 62271-202) shall be consisting of following (Make: Siemens /ABB / Schnieder / CGL)						

4	**Non SOR**	**HT SWITCHGEAR - 1 Nos.** 11kV 315 Amps 21KA/3 sec. Non-Extensible Ring Main Unit Compact switchgear with Copper busbar (Type CCCV) consisting of Three Nos. Fixed Motorized Load Break switches and One No. Fixed Motorized Vacuum Circuit Breaker in robotically welded having IP67 in SF6 encapsulated stainless steel enclosure of thickness 2.5mm . with series trip, self powered micropro- cessor based numerical over current and earth fault relay protection. Relay shall be of Ashida make of Model No: ADR241S - 1 No. Protection CT shall be 40/1A 2.5VA 5P10. - 3 Nos. Fault Passage Indicator for LBS with Short Circuit and Earth Fault Indication - 2 No. Manometer and signal (1NO) from pressure indicator - 1 No. Voltage Presence Indicator (L1, L2, L3) for each Module - 3 Nos. Operating Handle - 1 No. Pls refer the attached BOM of FRTU - 1 No. Space Heater in HT compartment - 1 No. **TRANSFORMER - 01 Nos.** 315 KVA 11KV/433V DYn11 Oil filled BIS level-2 Transformer as per 1108 Part-I:2014 and IS 2026. Class of Insulation: Class-A, Winding: Copper, Type of Cooling: ONAN Range: +5% to - 5% @ 2.5%, No. of Steps: 4, On HV: Yes, Tap Changer type: OCTC Temp rise of Oil / Winding over design ambient temp. of 50(° C): 40 / 45(° C) Bushing Standard: IS 2099 & IS 3347 Make: Schneider/ABB/Siemens/Raychem/Voltamp **LVS PANEL - 1000AMPS ALUMINUM BUSBAR (100% FOR PHASE & 50% FOR NEUTRAL, CURRENT DENSITY- 0.8AMP/SQMM)** INCOMER FROM TRANSFORMER - 01 No. 1000Amps 433V 50KA 4P **Electrical Draw Out (EDO) Air Circuit breaker(ACB)** with microprocessor based release for over current, short circuit and earth fault protection.- PR 121 . Digital Multifunction Meter with Class 1.0 Accuracy with RS 485 port (Make: Rishabh/Secure/Elmeasure) - 01 Set R,Y,B,ON/OFF/TRIP Indications. 1 Set **OUT GOING** 250 Amps 433V 36KA 3P+ N Fixed manual Molded Case Circuit breaker (MCCB) with thermal Magnetic based release forover current & short circuit fault protectionDigital Multifunction Meter with Class 1.0 Accuracy with RS 485 port (Make: Rishabh/Secure/Elmeasure).- 04 Nos. **OUTDOOR ENCLOSURE - 01 Set** Outdoor type enclosure having construction of Galvanised Sheet Steel with combination of 2mm thickness for load bearing member and 1.5mm with Non Load bearing member with 4mm HRCA base frame. The Enclosure shall have IP54 degree of protection for HT & LT switchgear compartment & IP23 degree of protection for Transformer compartment. The enclosure shall be Powder Coated (Colour Light Gray & D.A.Gray). Each compartment will be provided with the door and pad locking arrangement. The Compartment illumination lamp with door operated switch shall be provided for MV & LV compartment. **INTERCONNECTION AND EARTHING - 01 Set** Interconnection Between HT switchgear & Transformer using 1Cx3x95 Sq.mm XLPE Single core Aluminium cable & Interconnection between Transformer & LT switchgear using AL. Busbars. Internal earthing connections by using 50 x 6mm GI strips including Transformer neutral. **FRTU for SCADA**	6	Each				

		RMU should include FPI and FRTU as per the Specification; 1. FRTU shall have adequate cyber security features as per IEEE P1686, IEC62351. 2. IEC 60870-5-101/104 protocol to communicate with the Master station(s) & Modbus over RS 485 to communicate with MFTs. 3. The FRTU shall support IEC 61131-3 PLC programming for incorporation of automation logics. 4. - The FRTU shall support remote firmware updates. 24V DC battery & Charger 12Ah Capacity - 1 No. Digital Inputs 32 Nos. , DI card 16 Channels - 2 Nos. - 1 Set Digital Outputs 16 Nos. , DO card 8 Channels - 2 Nos. - 1 Set Datapoints - 15 Nos. approx. - 1 Set Dual SIM Modem - 1 No.						
		Feeder Pillar Panels						
5	**Non SOR**	Supply, installation, testing and commissioning of **Feeder Pillar panels** suitable for AC 440 V , 50 HZ supply, fabricated with 14 gauge galvanised steel sheet duly pre-treated and pure polyester thick powder coated 80 micron thickness using Siemens grey colour shade no. RAL-7032 / any other colour if required by client. The feeder pillar shall be double door in cubical formation, compartmentalized in form with front open able doors. The door shall be provided with concealed hinges and with brazing wherever required to avoid deformation and shall be earthed. All the door shall have heavy duty door locks, and shall be sealed with neoprene gaskets. The feeder pillar shall be IP 55, outdoor type weather , dust and vermin proof having canopy type tapered roof self-standing type as per approved GA diagram. Location for Timer Switch for Street light control inside the panel.	100	Each				
		The feeder pillar shall be Compact in size with complete with bus bars, wiring, cabling of proper ratings (not less than 1.5 times the rating of respective switchgears, control gear etc.) for inter connection between switch gear, control gear, metering , safety relays, indicators etc. as per the approved single line diagram. The feeder pillar shall have proper arrangement for termination of all incoming and out goings cables. All the bus bars shall be supported on epoxy supports and shall be insulated with colour coded heat shrinkable sleeves. Feeder pillar shall be as per the space available at site. It shall have earthing bolts at both sides inter connected with 50x5 mm Al earthing bus along the width of feeder pillar. Note:-The GA drawing for panel should be approved by consultant / engineer in charge before fabrication. The feeder pillar shall have space and proper arrangements for installation of incoming and outgoing MCCBs with R,Y,B LED type indicating lamps. With facility for smart energy meters and GSM Dual sim Modem.						
		MCBs etc. complete with interconnection provisions with providing wiring and bus bars with required hardware, sleeves, ferrules, supporters, locks etc. Panel shall have proper space and arrangements for termination of incomer loop in loop out cables, outgoing service cables, with proper offsets in bus bars for cable terminations. Feeder Pillar shall be comprising of following items:						
		Rating of incomer **MCCB TPN 150 A, 35KA** (Adjustable thermal O/L with Ics = 100% Icu).						
		Outgoing MCB , 80KA, of 32A SP -30 nos,						
		Supply, installation, testing and commissioning of **Feeder Pillar panels** suitable for AC 440 V, 50 HZ supply, fabricated with 14 gauge galvanised steel sheet duly pre-treated and pure polyester thick powder coated 80 micron thickness using Siemens grey colour shade no. RAL-7032 / any other colour if required by client. The feeder pillar shall be double door in cubical formation, compartmentalized in form with front open able doors. The door shall be provided with concealed hinges and with brazing wherever required to avoid deformation and shall be earthed. All the door shall have heavy duty door locks, and shall be sealed with neoprene gaskets. The feeder pillar shall be IP 55, outdoor type weather , dust and vermin proof having canopy type tapered roof self-standing type as per approved GA diagram. Location for Timer Switch for Street light control inside the panel.						

6	**Non SOR**	The feeder pillar shall be Compact in size with complete with bus bars, wiring, cabling of proper ratings (not less than 1.5 times the rating of respective switchgears, control gear etc.) for inter connection between switch gear, control gear, metering , safety relays, indicators etc. as per the approved single line diagram. The feeder pillar shall have proper arrangement for termination of all incoming and out goings cables. All the bus bars shall be supported on epoxy supports and shall be insulated with colour coded heat shrinkable sleeves. Feeder pillar shall be as per the space available at site. It shall have earthing bolts at both sides inter connected with 50x5 mm Al earthing bus along the width of feeder pillar. Note:-The GA drawing for panel should be approved by consultant / engineer in charge before fabrication. The feeder pillar shall have space and proper arrangements for installation of incoming and outgoing MCCBs with R,Y,B LED type indicating lamps. With facility for smart energy metersand GSM Dual sim Modem.	80	Each				
		MCBs etc. complete with interconnection provisions with providing wiring and bus bars with required hardware, sleeves, ferrules, supporters, locks etc. Panel shall have proper space and arrangements for termination of incomer loop in loop out cables, outgoing service cables, with proper offsets in bus bars for cable terminations. Feeder Pillar shall be comprising of following items:						
		Rating of incomer **MCCB TPN 100 A, 35KA** (Adjustable thermal O/L with Ics = 100% Icu).						
		Outgoing MCB , 80KA, of 32A SP - 24 nos,						
7	**Non SOR**	Supply, installation, testing and commissioning of **Feeder Pillar panels** suitable for AC 440 V , 50 HZ supply, fabricated with 14 gauge galvanised steel sheet duly pre-treated and pure polyester thick powder coated 80 micron thickness using Siemens grey colour shade no. RAL-7032 / any other colour if required by client. The feeder pillar shall be double door in cubical formation, compartmentalized in form with front open able doors. The door shall be provided with concealed hinges and with brazing wherever required to avoid deformation and shall be earthed. All the door shall have heavy duty door locks, and shall be sealed with neoprene gaskets. The feeder pillar shall be IP 55, outdoor type weather , dust and vermin proof having canopy type tapered roof self-standing type as per approved GA diagram. Location for Timer Switch for Street light control inside the panel.	40	Each				
		The feeder pillar shall be Compact in size with complete with bus bars, wiring, cabling of proper ratings (not less than 1.5 times the rating of respective switchgears, control gear etc.) for inter connection between switch gear, control gear, metering , safety relays, indicators etc. as per the approved single line diagram. The feeder pillar shall have proper arrangement for termination of all incoming and out goings cables. All the bus bars shall be supported on epoxy supports and shall be insulated with colour coded heat shrinkable sleeves. Feeder pillar shall be as per the space available at site. It shall have earthing bolts at both sides inter connected with 50x5 mm Al earthing bus along the width of feeder pillar. Note:-The GA drawing for panel should be approved by consultant / engineer in charge before fabrication. The feeder pillar shall have space and proper arrangements for installation of incoming and outgoing MCCBs with R,Y,B LED type indicating lamps. With facility for smart energy meters and GSM Dual sim Modem.						
		MCBs etc. complete with interconnection provisions with providing wiring and bus bars with required hardware, sleeves, ferrules, supporters, locks etc. Panel shall have proper space and arrangements for termination of incomer loop in loop out cables, outgoing service cables, with proper offsets in bus bars for cable terminations. Feeder Pillar shall be comprising of following items:						
		Rating of incomer **MCCB TPN 63 A, 35KA** (Adjustable thermal O/L with Ics = 100% Icu).						
		Outgoing MCB , 80KA, of 32A SP -24 nos,						
		STREET LIGHT & POLES						

8		Fabricating, supplying and erection of 12 Mtrs long **Hot dip Galvanized PU painted Octagonal pole** with BSEN 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangements, including suitable boards, Bakelite sheet and MCBs for street light control as per IS specifications suitable to withstand the wind speed of 47 m/sec for 12 Mtrs pole in single section and single joint welded as per IS 9595/IS 10178AWS having dimensions bottom 270/300 mm, top 90/100 mm with 4mm thick, suitable base plate and 4Nos of 750 long J / Anchor bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65micron as per ASTM-A123 and 153 etc., (excluding foundation) as per drawing appended. The pole shall consist of 2 Nos. of cross Arm 500mm each fixed with galvanised 'D' iron clamps for holding Aerial Bunch HT and LT Cable at a height of 12 mtrs and 9 mtrs respectively	150	Each				
9		Fabricating, supplying and erection of 09 Mtrs long H**ot dip Galvanized PU painted Octagonal pole** with BSEN 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangements, including suitable boards, Bakelite sheet and MCBs for street light control as per IS specifications suitable to withstand the wind speed of 47 m/sec for 12 Mtrs pole in single section and single joint welded as per IS 9595/IS 10178AWS having dimensions bottom 270/300 mm, top 90/100 mm with 4mm thick, suitable base plate and 4Nos of 750 long J / Anchor bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65micron as per ASTM-A123 and 153 etc., (excluding foundation) as per drawing appended. The pole shall consist of 01 No. of cross Arm 500mm fixed with galvanised 'D' iron clamps for holding Aerial Bunch LT Cable at a height of 9 mtrs.	60	Each				
10	**NON SOR**	Supplying and fixing street light with high power LED of 1 to 3 W each assembled on single MCPCB, system lumens output with efficacy>90 lm/W. luminiare having color temp 6500K & 50000 burning hrs life with minimum @ L 70, The colour rendering index of LED light should be more than 70. Luminiare comprises of driver, PF 0.95 & surge protection 3KV. Housing made of pressure die cast aluminium with heat resistant flat glass / Lens type, IP65 protection. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer manadatory i/c 50mm.dia G.I. Pipe bracket upto 2 mtr. long in required angle/shape, connection lead, testing etc to complete the job. 2 Yrs Guarantee certificate from manufacturer. **40W / 48 Watt**	150	Each				
11	**NON SOR**	Supplying and fixing street light with high power LED of 1 to 3 W each assembled on single MCPCB, system lumens output with efficacy>90 lm/W. luminiare having color temp 6500K & 50000 burning hrs life with minimum @ L 70, The colour rendering index of LED light should be more than 70. Luminiare comprises of driver, PF 0.95 & surge protection 3KV. Housing made of pressure die cast aluminium with heat resistant flat glass / Lens type, IP65 protection. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer manadatory i/c 50mm.dia G.I. Pipe bracket upto 2 mtr. long in required angle/shape, connection lead, testing etc to complete the job. 2 Yrs Guarantee certificate from manufacturer. **60 Watt**	80	Each				
12	**NON SOR**	Supplying and fixing street light with high power LED of 1 to 3 W each assembled on single MCPCB, system lumens output with efficacy>90 lm/W. luminiare having color temp 6500K & 50000 burning hrs life with minimum @ L 70, The colour rendering index of LED light should be more than 70. Luminiare comprises of driver, PF 0.95 & surge protection 3KV. Housing made of pressure die cast aluminium with heat resistant flat glass / Lens type, IP65 protection. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer manadatory i/c 50mm.dia G.I. Pipe bracket upto 2 mtr. long in required angle/shape, connection lead, testing etc to complete the job. 2 Yrs Guarantee certificate from manufacturer. **90 watt**	40	Each				

13	**NON SOR**	Fabricating, supplying and erection of …Mtrs long **Hot dip Galvanized Conical pole** with BSEN 10025 grade S355JO steel plate for shaft, IS 2062 for base plate with door opening arrangements, including suitable boards, Bakelite sheet and MCBs as per IS specifications suitable to withstand the wind speed of 47 m/sec for …….Mtrs pole in single section and single joint welded as per IS 9595/IS 10178AWS having dimensions bottom …..mm, top….mm with 3mm thick, suitable base plate and 4Nos of ..... long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65micron as per ASTM-A123 and 153 etc.,(excluding foundation) as per drawing appended. Include single arm decorative bracket- 350-500mm 0**6 meters - Top 75mm and bottom 135 mm dia**	120	Each				
14	**DSR Item No. 2.21**	Providing and fixing M.V. danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	10	Each				
15	**DSR Item No. 2.22**	Providing and fixing H.T. danger notice plate of 250 mm X 200 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	10	Each				
		EARTHING and LIGHTNING						
16	**DSR Item No. 5.2**	Earthing with G.I. earth pipe 4.5 meter long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	220	Each				
16	**DSR Item No. 5.6**	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. with charcoal/ coke and salt as required.	110	Each				
17	**DSR Item No. 5.7**	Supplying and laying 6 SWG G.I. wire at 0.50 meter below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	7,000	Mtrs				
18	**DSR Item No. 5.9**	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 meter below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50 mm)	800	Mtrs				
19	**DSR Item No. 5.18**	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	200	Mtrs				
20	**DSR Item No. 6.2**	Providing and fixing of lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	150	Each				
21	**DSR Item No. 6.7**	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or on surface of wall for lightning conductor complete as required.(For horizontal run)	1,500	Mtrs				
22	**DSR Item No. 6.8**	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or on surface of wall for lightning conductor complete as required. (For vertical run)	1,000					
23	**MePDCL Item No. 15**	Fitting and fixing of Danger Plates as directed	30	Each				
		POWER CABLES - HT AND LT						
24	**Non SOR Price list receive from MePDCL**	Supply of approved High-Tension XLPE cable (conforming IS-7098/II/85) as per ISI standard 3 core Armoured with Alu. Solid/stranded conductor ISI MARKED as required. 3 CORE XLPE CABLE 33 KV GRADE 33KV HT XLPE Cable - 3Cx300 sqmm	3,200	Mtrs				
25	**Non SOR Price list receive from MePDCL**	Supply of approved High-Tension XLPE cable (conforming IS-7098/II/85) as per ISI standard 3 core Armoured with Alu. Solid/stranded conductor ISI MARKED as required. 3 CORE XLPE CABLE 11 KV GRADE	4,300	Mtrs				
26	**Non SOR Price list receive from MePDCL**	Supply of approved High-Tension XLPE cable (conforming IS-7098/II/85) as per ISI standard 3 core Armoured with Alu. Solid/stranded conductor ISI MARKED as required. 3 CORE XLPE CABLE 11 KV GRADE 11KV HT XLPE Cable - 3Cx150 sqmm	1,800	Mtrs				

27	**Non SOR Price list receive from MePDCL**	Supply of approved High-Tension XLPE cable (conforming IS-7098/II/85) as per ISI standard 3 core Armoured with Alu. Solid/stranded conductor ISI MARKED as required. 3 CORE XLPE CABLE 11 KV GRADE 11KV HT XLPE Cable - 3Cx120 sqmm	1,500	Mtrs				
28	**Non SOR Price list receive from MePDCL**	Supply of approved High-Tension XLPE cable (conforming IS-7098/II/85) as per ISI standard 3 core Armoured with Alu. Solid/stranded conductor ISI MARKED as required. 3 CORE XLPE CABLE 11 KV GRADE 11KV HT XLPE Cable - 3Cx95 sqmm	1,000	Mtrs				
29	**Non SOR Price list receive from MePDCL**	Supply of XLPE Insulated power cable (confirming IS-7098 Part-I) 1100 Volt grade, 1 core /2 core /3½ core/4 core ISI MARKED with Alu. Stranded /solid conductor 3½ CORE ARMOURED						
		4C x 16 Sq.mm	6,500	Mtrs				
		3.5C x 25 Sq.mm	200	Mtrs				
		3.5C x 50 Sq.mm	500	Mtrs				
		3.5C x 70 Sq.mm	500	Mtrs				
		3.5C x 95 Sq.mm	1,500	Mtrs				
		3.5C x 120 Sq.mm	2,500	Mtrs				
		3.5C x 150 Sq.mm	1,500	Mtrs				
30	**Non SOR**	Supplying & drawing / laying of PVC insulated XLPE Aerial bunch power cable conductor H2 / H4 grade Aluminium Solid/stranded confirming to IS-7098 Part-II, Alu. Alloy messenger of approved make in Air with necessary material as per specification of required size as mentioned below – 11KV grade Arial Bunch Cable						
		3 x70 + 1 x 70 sq.mm.	400	Mtrs				
		3 x95 + 1 x 80 sq.mm.	1,200	Mtrs				
		3 x150 + 1 x 120 sq.mm.	4,500	Mtrs				
31	**Non SOR**	Supplying & drawing / laying of PVC insulated XLPE Aerial bunch power cable conductor H2/H4 grade Aluminium Solid/stranded confirming to IS-14255- 1995, Alu. Alloy insulated messenger 1100 volts grade cable of approved make in Air with necessary material as per specification of required size as mentioned below – Single Core cable(Insulated neutral messenger)						
		3x50 Sq.mm, 1x16(St.Light), 1x35(Insulated neutral messenger)	500	Mtrs				
		3x70 Sq.mm, 1x16(St.Light), 1x35 (Insulated neutral messenger)	500	Mtrs				
		3x95 Sq.mm, 1x16(St.Light), 1x50 (Insulated neutral messenger)	1,500	Mtrs				
		3x120 Sq.mm, 1x16(St.Light), 1x70 (Insulated neutral messenger)	2,500	Mtrs				
		3x150 Sq.mm, 1x35(St.Light), 1x95 (Insulated neutral messenger)	1,500	Mtrs				
32	**DSR Item No. 7.1**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.						
	DSR Item No. 7.1.1	Upto 35 Sqmm.	100	Mtrs				
	DSR Item No. 7.1.2	Above 35 sq. mm and upto 95 sq. mm	100	Mtrs				
	DSR Item No. 7.1.3	Above 95 sq. mm and upto 185 sq. mm	100	Mtrs				
	DSR Item No. 7.1.4	Above 185 sq. mm and upto 400 sq. mm	100	Mtrs				
33	**DSR Item No. 7.5**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.						
	7.5.1	Upto 35 Sqmm.	6,500	Mtrs				
	7.5.2	Above 35 sq. mm and upto 95 sq. mm	100	Mtrs				
	7.5.3	Above 95 sq. mm and upto 185 sq. mm	100	Mtrs				
	7.5.4	Above 185 sq. mm and upto 400 sq. mm	100	Mtrs				
34	**DSR Item No. 7.7**	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.						
	7.7.1	Upto 35 Sqmm. (clamped with 1mm thick saddle)	100	Mtrs				
	7.7.2	Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)	1,000	Mtrs				

	7.7.3	Above 95 sq. mm and upto 185 sq. mm (clamped with 25/40x3mm MS flat clamp)	2,000	Mtrs				
	7.7.4	Above 185 sq. mm and upto 400 sq. mm (clamped with 40x3mm MS flat clamp)	2,000	Mtrs				
35	**DSR Item No. 8.1**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.						
	8.1.1	Upto 120 sq. mm	1,000	Mtrs				
	8.1.2	Above 120 sq. mm and upto 400 sq. mm	6,500	Mtrs				
36	**DSR Item No. 8.3**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing RCC / HUME / METAL pipe as required.						
	8.3.1	Upto 120 sq. mm	300	Mtrs				
	8.3.2	Above 120 sq. mm and upto 400 sq. mm	100	Mtrs				
37	**DSR Item No. 8.4**	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing masonry open duct as required.						
	8.4.1	Upto 120 sq. mm	2,000	Mtrs				
	8.4.2	Above 120 sq. mm and upto 400 sq. mm	4,000	Mtrs				
38	**DSR Item No. 8.5**	Laying of one number XLPE power cable of 33 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.						
	8.5.1	Upto 120 sq. mm	100	Mtrs				
	8.5.2	Above 120 sq. mm and upto 400 sq. mm	3,000	Mtrs				
39	**DSR Item No. 8.8**	Laying of one number XLPE power cable of 33 KV grade of following size in the existing masonry open duct as required.						
	8.8.1	Upto 120 sq. mm	100	Mtrs				
	8.8.2	Above 120 sq. mm and upto 400 sq. mm	100	Mtrs				
		CABLE JOINTING & END TERMINATION - HT AND LT						
30	**DSR Item No. 9.2**	Supplying and making **outdoor end termination** with cast resin compound including aluminium lugs and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.						
	9.2.17	3½ X 25 sq. mm	4	Each				
	9.2.19	3½ X 50 sq. mm	4	Each				
	9.2.20	3½ X 70 sq. mm	100	Each				
	9.2.21	3½ X 95 sq. mm	120	Each				
	9.2.22	3½ X 120 sq. mm	40	Each				
	9.2.23	3½ X 150 sq. mm	60	Each				
41	**DSR Item No. 9.4**	Supplying and making **straight through joint with heat shrinkable kit** including ferrules and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.						
	9.4.6	3½ X 25 sq. mm	4	Each				
	9.4.8	3½ X 50 sq. mm	4	Each				
	9.4.9	3½ X 70 sq. mm	10	Each				
	9.4.10	3½ X 95 sq. mm	12	Each				
	9.4.11	3½ X 120 sq. mm	30	Each				
	9.4.12	3½ X 150 sq. mm	20	Each				
42	**DSR Item No. 10.5**	Supplying and making **outdoor cable end termination** with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required :						
	10.5.2	120 sq. mm	20	Each				
	10.5.3	240 sq. mm	30	Each				
	10.5.4	300 sq. mm	42	Each				
43	**DSR Item No. 10.6**	Supplying and making **straight through cable jointing** with heat shrinkable jointing kit complete with all accessories including ferrules suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required :						
	10.6.2	120 sq. mm	12	Each				
	10.6.3	240 sq. mm	30	Each				
	10.6.4	300 sq. mm	20	Each				
44	**DSR Item No. 10.8**	Supplying and making **outdoor cable end termination** with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of **33 KV** grade as required :						

	10.8.2	120 sq. mm	1	Each				
	10.8.3	240 sq. mm	2	Each				
45	**10.9**	Supplying and making **straight through cable jointing** with heat shrinkable jointing kit complete with all accessories including ferrules suitable for following size of 3 core, XLPE aluminium conductor cable of **33 KV** grade as required :						
	10.9.2	120 sq. mm	1	Each				
	10.9.3	240 sq. mm	4	Each				
46	**DSR Item No. 11.3**	Erection of metallic pole of following length in **cement concrete 1:3:6** (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.						
	11.3.1	Above 4.5 metre and upto 6.5 metre	125	Each				
	11.3.3	Above 8.0 metre and upto 10.0 metre	60	Each				
	11.3.4	Above 10.00 metre and upto 12.00 metre	150	Each				
		Dismantling Works						
47	**12.4**	**Dismantling of over head lines** comprising of copper/ aluminium over head conductor, G.I. wire, cross arms, insulators etc. as required.	2,000	Kg				
	12.4.2	Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required.	30	Each				
48	**MePDCL Item No. 1.0**	Opening out of Channels Cross arm "V" or "Y" cross arm, clamps brackets sets of disc insulators string, pin insulator, structure supporting channelsetc, if any:						
		(C) for 11 KV line cross arm double circuit:						
		(iii) Double pole Structure (Tension Point)	30	Per Location				
		(iv) double pole Structure (Pin Point)	20	Per Location				
		(vi) Single pole Structure (Pin Point)	50	Per Location				
		(D) for 11 KV line cross arm Single circuit:						
		(iii) Double pole Structure (Tension Point)	10	Per Location				
		(iv) double pole Structure (Pin Point)	25	Per Location				
		(v) Single pole Structure (Tension Point)	15	Per Location				
		(vi) Single pole Structure (Pin Point)	250	Per Location				
		LT Line Cross Arm						
49	**MePDCL Item No. 3.0**	(I) Opening out of LT Cross Arm and other related fittings	250	Each				
		(II) Dismantling of shacklee / pin insulators with / without hardware fittings	3,000	Each				
		Up rooting of poles with the base plate without cutting / damaging the (A) Steel Tabular Pole:						
50	**MePDCL Item No. 4.0**	(I) 14.0 Mtrs long	10	per pole				
		(II) 12.0 Mtrs Long (H/D)	50	per pole				
		(IV) 9.5 mtrs long	300	per pole				
		Opening out of conductors from the old line and recoiling without damaging the conductor surface and strands.						
51	**MePDCL Item No. 5.0**	C) A.C.S.R. Raccon Conductor	20	KM				
		D) A.C.S.R. Rabbit Conductor	4	KM				
		E) A.C.S.R. Weasel Conductor	28	KM				
52	**MePDCL Item No. 7.0**	Removal of Transformer: Works include disconnection of all connected terminals, dragging of transformer without causing any damage, loading on the department vehicle / handing over to the department						
		(i) Floor Mounted Transformer	12	Each				
		(n) 11/0.4 KV, 500KVA Transformer	4	Each				
		(p) 11/0.4 KV, 200 KVA Transformer						
		(ii) Pole Mounted Transformer						
		(c) 11/0.4 KV, 200 KVA Transformer	2	Each				

53	**MePDCL Item No. 8.0**	Dismantling of Sub station except transformer involving disconnecting the transformers, removal of jumpers, cables, channels, angles, D.O. sets, L.A. sets, Main switches, busbar etc and taking out all items and handling over to the store / departmental vehicle including loading. B. 11/0.4/0.244 KV Sub-Station having L.T. Out going feeders:						
		(b) 2 feeder (1 unit)	4	Each				
		(c) 3 feeder (1 unit)	4	Each				
		(d) 4 feeder (1 unit)	10	Each				
54	**MePDCL Item No. 9.0**	Dismantling of cables without causing any damages to the cables						
		(i) Dismantling and opening of Underground HT cable after complete digging out the trenches	300	Mtrs				
		(ii) Dismantling and opening of Underground HT cable which remain exposed in the air	500	Mtrs				
55	**MePDCL Item No. 10.0**	Dismantling of stay wire from the uprooted poles and re-fitting the same to the newly erected in same location:						
		a) HT Stay Set	300	Per set				
		b) LT Stay Set	1,200	Per set				
56	**MePDCL Item No. 11**	Dismantling of street light fitting and bracket complete						
		a) HPSV / HPMV lamps / metal halide fitting upto 250W	120	Per set				
		a) Flourescent tube 40W	50	Per set				
		a) CFL	50	Per set				
57	**MePDCL Item No. 17**	Dismantling of feeder pillar Panel including disconnection of all connection (upto 800 A I/C)						
		6 way up to 32 way	50	Each				
58	**MePDCL Item No. 18**	Dismantling of transformer panel including disconnection of all						
		upto 500KVA Transformer upto 3 O/G	18	Each				
59	**MePDCL Item No. 19**	Dismantling of CT / PT set including disconnection of all	18	Set				
60	**DSR**	Providing and laying in position cement concrete 1:2:4 (1 cement : 2 coarse sand : 4	10	Cum				
61	**DSR Item No. 14.13**	Providing, laying and fixing following dia G.I. pipe (medium class) in ground complete with G.I. fittings including trenching (75 cm deep)and re-filling etc as required						
	14.13.2	80 mm dia	400	Mtrs				
	14.13.3	100 mm dia	400	Mtrs				
	14.13.4	150 mm dia	400	Mtrs				
62	**DSR Item No. 14.16**	Supplying and laying of following size **DWC HDPE pipe** ISI marked along with all accessories like socket, bend, couplers etc.co nforming to IS 14930, Part II complete with fitting and cutting, jointing etc.direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required.						
	14.16.1	63 mm dia (OD-63 mm & ID-51 mm nominal)	6,000	Mtrs				
	14.16.2	90 mm dia (OD-90 mm & ID-76 mm nominal)	300	Mtrs				
	14.16.3	120 mm dia (OD-120 mm & ID-103 mm nominal)	300	Mtrs				
	14.16.4	160 mm dia (OD-160 mm & ID-135 mm nominal)	300	Mtrs				
63	**DSR Item No. 15.4.3**	Supplying,installation,testing and commissioning of **Astronomical time switch** of following configuration to be mounted in feeder pillars / Lighting DBs for automatic switching On & OFF of street lights at sun set & sun rise or twilight(Auto ON, Auto OFF, Auto modes) with manual facility with 12/24 hour display format with suitable battery and indication for relay status i/c programming at site complete as required. 3 output (1output per phase) and suitable for three phase supply	25	Each				

64	**Non SOR**	Smart Energy Meters for street light as per standard IS 16444, Energy Meters should have Accuracy class of Class 1 or better. Meters could be either three phase whole current or CT operated for LT as may be required based on the load connected to the feeder panel. The space to be created in the feeder panel for housing the meters should consider the same. Energy Meters should be capable of logging parameters for each 15 minute time block with stamping of date and time. Such data logs should be retained in the energy meters for a period of 60 days or more. Such Energy Meters should record the following minimum parameters: I. Phase to neutral voltages II. Phase-wise current III. Phase-wise power factor and frequency IV. Total active power V. Total reactive power VI. Total active energy VII. Total reactive energy VIII. Total KVAH energy	25	Each				
65	**Non SOR**	40MM 7 WAY MULTI DUCT PIPES (7way 40mm Multi ducts with silicon lubricated inner layer with straight ribs and external sheath shall be in orange colourThe colour of the seven PLB ducts shall be Green, Blue, Yellow, Brown, Violet, Grey & Red for differentiation)	5,000	Mtrs				
Total								