

SCHEDULE-B: CONVERSION OF OVERHEAD TO UNDERGROUND

“Site survey including underground utility verification using (GPR & EPL), Engineering, Procurement, Supply, Loading, Transportation, Unloading, Insurance, Delivery at Site, Handling, Storage, Installation, Testing, Commissioning Including Documentation of All Items/Material required to complete works for Turnkey Based Contract For Conversion of Existing LT Line Network Including Consumer Service Lines Into Under Ground Cable Network using FSP/MSP & Ring Main System at Lalbaug-GIDC Sub Divion of Lalbaugh Division Baroda City under MGVL with GIS Mapping / Geo Urja Mapping (Developed by GUVNL) and Asset Tagging under Gujarat Wire Free City Mission ”.

Sr No	Particulars of Item	Unit	SUPPLY PORTION			ERECTION PORTION		
			Quantity	Unit Rate in Rs	Total in Rs	Quantity	Unit Rate in Rs	Total in Rs
1	LT NETWORK(LT XLPE Cable Supply of XLPE (IS:7098) (I) -88 ISI marked Armoured cable multistrand aluminium conductor for 1.1 KV of following Size of Cable)							
A	1C X 400 Sqmm LT Cable (TC TO FSP)	Meter	300	851.7	255510			0
B	1C X 300 Sqmm LT Cable (TC TO FSP)	Meter	50175	670.95	33664916.25			0
C	3.5 CX 400 mm2 Aluminium	Meter	0	2097	0			0
D	3.5 CX 300 mm2 Aluminium	Meter	1519	1886.85	2866125.15			0
E	3.5 CX 240 mm2 Aluminium	Meter	86828	1524.6	132377968.8			0
F	3.5 C X 185 mm2 Aluminium	Meter	1555	1206.45	1876029.75			0
G	3.5 C X 150 mm2 Aluminium	Meter	3090	978.6	3023874			0
H	3.5 C X 120 mm2 Aluminium	Meter	169094	827.4	139908375.6			0
I	3.5 C X 95 mm2 Aluminium	Meter	6615	641.55	4243853.25			0
J	3.5 C X 70 mm2 Aluminium	Meter	18445	478.8	8831466			0
K	3.5 C X 50 mm2 Aluminium	Meter	26600	367.5	9775500			0
L	4 C X 25 mm2 Aluminium	Meter	34755	228.9	7955419.5			0
M	4 C X 16 mm2 Aluminium	Meter	64575	161.7	10441777.5			0
N	4 C X 10 mm2 Aluminium	Meter	821940	124.95	102701403			0
O	4 C X 6 mm2 Aluminium	Meter	0	99.75	0			0
P	2 Core, 4 Sq.mm	Meter		69	0			0
2	LT Cable Termination: Supply of Cable Termination on LT Pole, FSP, LT Distribution Trasformer Box of pole mounted trasformer of LT cable grade as pecified below. LT CABLE including cutting,stripping of cable,insulations,providing compression type terminals,suitable cable glands,crimping lugs with necessary connections.Work carried out up to consumer premises with meter shifting, and provide load side cable as per site conditions and as per EIC. All the accessories in the scope of biddier.							

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A	1C X 400 Sqmm LT Cable (TC TO FSP)	Nos	30	1245	37350	30	45	1350
B	1C X 300 Sqmm LT Cable (TC TO FSP)	Nos	5017.5	1245	6246787.5	5017.5	45	225787.5
C	3.5 CX 400 mm2 Aluminium (FSP TO MSP)	Nos	0	1245	0	0	45	0
D	3.5 CX 300 mm2 Aluminium (FSP TO MSP)	Nos	152	1245	189240	152	45	6840
E	3.5 CX 240 mm2 Aluminium (FSP TO MSP)	Nos	14739	1245	18350055	14739	45	663255
F	3.5 C X 185 mm2 Aluminium (FSP TO MSP)	Nos	155	940	145700	155	45	6975
G	3.5 C X 150 mm2 Aluminium	Nos	105	940	98700	105	45	4725
H	3.5 C X 120 mm2 Aluminium	Nos	16909	889	15032101	16909	45	760905
I	3.5 C X 95 mm2 Aluminium	Nos	2268	889	2016252	2268	45	102060
J	3.5 C X 70 mm2 Aluminium	Nos	6324	889	5622036	6324	45	284580
K	3.5 C X 50 mm2 Aluminium	Nos	9120	889	8107680	9120	45	410400
L	4 C X 25 mm2 Aluminium	Nos	11916	804	9580464	11916	45	536220
M	4 C X 16 mm2 Aluminium	Nos	11916	788	9389808	11916	25	297900
N	4 C X 10 mm2 Aluminium	Nos	22140	788	17446320	22140	25	553500
O	4 C X 6 mm2 Aluminium	Nos	0	679	0	0	25	0
P	2 Core, 4 Sq.mm	Nos	0	679	0	0	25	0
3	<u>FSP (FUSE SECTION PILLER): 4 Way</u> Supplying and erecting 120x100x40 cms. Fuse section pillar fabricated from 4 mm Thermosetting Plastic (moulded in a single piece) i.e Glass Reinforced Polyester sheet Moulding Compound (SMC) or metal body(As per Specification and drawings) with cable clamps to be burried in ground to have appropriate erection on look unifrom unit erected with cement concrete foundation and <u>45 cms high brick masonry internal supported</u> on both side with intrnal and outer side locking arrangement with lock and keys in duplicate .Incoming switchgear SFU of 800A TPN and outgoing HRC SMC fuse base and knife type links 32 Amp to 630 Amp capacity fuse base fitted on 630 Amp current capacity copper Busbar with RYB colour coding and insulated strip with all internal connections and entry for incomming up to 1 core 300/400 sq mm 4 nos and outgoing 3 nos. 31/2 core cables of suitable sizes. (As per Technical specification of FSP) (Erection shall be carried out as per approved drawing and site condition)							
A	800 Amp	Nos	4	101860	407440	4	3233	12932

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B	630 Amp	Nos	378	76566	28941948	378	3233	1222074
C	400 Amp	Nos	241	67213	16198333	241	3233	779153
4	<u>FSP (FUSE SECTION PILLER): 6 Way</u> Supplying and erecting 120x100x40 cms.Fuse section pillar fabricated from 4 mm Thermosetting Plastic (moulded in a single piece) i.e Glass Reinforced Polyester sheet Moulding Compound (SMC) or metal body(As per Specification and drawings) with cable clamps to be burried in ground to have appropriate erection on look unifrom unit erected with cement concrete foundation and 45 cms high brick masonry internal supported on both side with intrnal and outer side locking arrangement with lock and keys in duplicate .Incoming switchgear SFU of Suitable TPN and outgoing HRC SMC fuse base and knife type links 32 Amp to 630 Amp capacity fuse base fitted on 630 Amp current capacity copper Busbar with RYB colour coding and insulated strip with all internal connections and entry for incomming 1 core 300/400 sq mm 4 nos and outgoing 5 nos. 31/2 core cables of suitable sizes. (As per Technical specification of FSP) (Erection shall be carried out as per approved drawing and site condition)(SFU Amp Capcity is as under)							
A	800 Amp	Nos.	0	124269	0	0	3233	0
B	630 Amp	Nos.	25	114850	2871250	25	3233	80825
C	400 Amp	Nos.	25	100820	2520500	25	3233	80825
5	<u>MSP(Mini Section Piller) : 4 Way</u> Supplying and erecting 120x100x40 cms. Mini section pillar fabricated from 4 mm thick Thermosetting Plastic(moulded in a single piece) i.e. Glass Reinforced Polyester Sheet Moulding Compound (SMC) or Metal Body Type Enclouser(As per Specification) with cable clamps to be burried in ground to have appropriate erection on look uniform unit erected with cement concrete foundation and 45 cms high brick masonary internal supported on both side with internal and outer side locking arrangement with lock and keys in duplicate. Incoming HRC SMC fuse base and kinfe type links 32 Amp to 250 Amp. capacity, fuse base fitted on 250 Amp. current capacity copper Busbar with RYB colour coding and insulated strip with all internal connections and entry for incoming up to 3.5 Core 300 Sq.mm 1 Nos. and outgoing 3 nos. 3.5 core cables of suitable sizes.(As per Technical specification of MSP)							
A	400 Amp	Nos.	150	28411	4261650	150	3233	484950
B	250 Amp	Nos.	1355	13225	17919875	1355	3233	4380715
C	125 Amp	Nos.	150	10925	1638750	150	3233	484950
6	<u>MSP(Mini Section Piller) : 6 Way</u> Supplying and erecting 120x100x40 cms. Mini section pillar fabricated from 4 mm thick Thermosetting Plastic(moulded in a single piece) i.e. Glass Reinforced Polyester Sheet Moulding Compound (SMC) or Metal Body Type Enclouser(As per Specification) with cable clamps to be burried in ground to have appropriate erection on look uniform unit erected with cement concrete foundation and 45 cms high brick masonary internal supported on both side with internal and outer side locking arrangement with lock and keys in duplicate. Incoming HRC SMC fuse base and kinfe type links 32 Amp to 250 Amp. capacity, fuse base fitted on 250 Amp. current capacity copper Busbar with RYB colour coding and insulated strip with all internal connections and entry for incoming up to 3.5 Core 300 Sq.mm 1 Nos. and outgoing 5 nos. 3.5 core cables of suitable sizes.(As per Technical specification of MSP)							
A	400 Amp	Nos.	614	42616	26166224	614	3233	1985062

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B	250 Amp	Nos.	150	19838	2975700	150	3233	484950
C	125 Amp	Nos	150	16388	2458200	150	3233	484950
7	<u>MSP(Mini Section Pillar) : 8 Way</u> Supplying and erecting 120x100x40 cms. Mini section pillar fabricated from 4 mm thick Thermosetting Plastic(moulded in a single piece) i.e. Glass Reinforced Polyester Sheet Moulding Compound (SMC) with cable clamps to be buried in ground to have appropriate erection on look uniform unit erected with cement concrete foundation and 45 cms high brick masonry internal supported on both side with internal and outer side locking arrangement with lock and keys in duplicate. Incoming HRC SMC fuse base and knife type links 32 Amp to 250 Amp. capacity, fuse base fitted on 250 Amp. current capacity copper Busbar with RYB colour coding and insulated strip with all internal connections and entry for incoming up to 3.5 Core 300 Sq.mm 1 Nos. and outgoing 7 nos. 3.5 core cables of suitable sizes.(As per Technical specification of MSP)							
A	400 Amp	Nos	0	18400	0	0	3233	0
B	250 Amp	Nos	0	14950	0	0	3233	0
C	125 Amp	Nos	0	12650	0	0	3233	0
8	SFU							
A	Supply, Instalation, Testing, Commissioning switch fuse unit made by SMC Box and capacity of 125 A, Mostaly used in flat/Society area. Installation worked caried out with instruction of EIC. And as per the drawing approved by CA- Minimum 16 Nos. of CKT	Nos	2085	12087	25201395	2085	1150	2397750
B	Supply, Instalation, Testing, Commissioning switch fuse unit made by SMC box and capacity of 200 A, Mostaly used in flat/Society area. Installation worked caried out with instruction of EIC. And as per the drawing approved by CA - Minimum 16 Nos. Of Circuit	Nos	250	18400	4600000	250	1150	287500
C	Supply, Instalation, Testing, Commissioning switch fuse unit made by SMC box and capacity of 400 A, Mostaly used in flat area. Installation worked caried out with instruction of EIC. And as per the drawing approved by CA- Minimum 16 Nos. Of Circuit	Nos	250	20700	5175000	250	1323	330750
9	EARTHING							
A	EARTHING ELECTRODS: Supplying & erecting of maintained free earthing system comprising of Minimum 17 mm dia 3 mtr Long Earthing Electrode of low carbon steel electrode with 250 microns copper coating + carbon based conductive concrete back fill safe Compound(resistivity of less than 0.10 ohm mtr) & copper clamp. (FSP)	Nos	1346	6500	8749000	1346	1000	1346000

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B	EARTHING ELECTRODS: Supplying & erecting of maintained free earthing system comprising of Minimum 17 mm dia 2 mtr Long Earthing Electrode of low carbon steel electrode with 250 microns copper coating + carbon based conductive concrete back fill safe compound(resistivity of less than 0.10 ohm mtr) & copper clamp.(MSP+SFU)	Nos	10308	5500	56694000	10308	1000	10308000
C	EARTHING STRIP: Supply installation & commissioning of earthing conductor 25 x 3mm G.I. strip for pole mounted transformer and up to FSP,RMU as well as connection to be made to the earth pit. Rates inclusive of hot dipped hard wares.	Mtr	116540	91	10605140	116540	52	6060080
10	PRE BONDING TAP: For laying on trench after laying cable on trench to provide indication cable route below land surface in underground trench to protect cable for mechanical injuries.LDPE Material having 250 mm Width (Yellow Color is preferable)	Mtr	617508	14	8645112	617508	7	4322556
11	CABLE TAG: The PVC tag for identification of feeder/PSS/FSP/RMU name of HT/LT cables shall be provided at every 10 MTR LT Feeder : PSS/Transformer/FSP/MSP/SFU	Nos	170101	20	3402020	170101	7	1190707
12	CABLE ROUTE MARKER: Providing and erecting RCC cable route marker as per drawing duly marked with "DANGER" mark, "discom POWER CABLE" and arrow of route of cable.	Nos	2467	300	740100	2467	100	246700
13	CABLE TERMINAL FERRULS: The PVC Cable terminal ferruls for identification of phase sequence and feeder/PSS/FSP name of HT/LT cables shall be provided at every termination of all cables stating detail as under. HT Cable :Feeder name/Phase(R/Y/B) LT Cable : TC/FSP name/Phase(R/Y/B/N)	Nos	170101	24	4082424	170101	8	1360808
14	LAYING WORK							
A	Supply of HDPE/DWC pipe confirming to IS 4984:1955 having diameter 110/100mm or appropriate pipe size of cable and minimum thickness 5mm at a minimum depth 1200mm below the road surface by PUSH through method by drilling the road with HDD machine/manually without breaking the road surface and with laying of any size of LT XLPE insulated aluminium armoured cable through the duct as per the instruction of EIC and specifications. (For LT XLPE Cable above 3.5C/4C* 185 SQMM)	Mtr	44951	361	16227311	44951	495	22250745
B	Supply & Laying of HDPE/DWC pipe confirming to IS 4984:1955 having diameter 90mm or appropriate pipe size of cable with laying of various size of LT XLPE (3.5 Core 95 sq. mm to 3.5 core 150 Sq.mm) PUSH through method by drilling the road with HDD machine/manually without breaking the road surface and with laying of any size of LT XLPE insulated aluminium armoured cable through the duct as per the instruction of EIC and specifications (Single/Double/Bunched)	Mtr	89399.5	224	20025488	89399.5	495	44252752.5

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C	Supply & Laying of HDPE/DWC pipe confirming to IS 4984:1955 having diameter 50/63 mm with laying of various size of LT XLPE (2C 4SQmm to and upto 3.5/4 core 70 Sq.mm) PUSH through method by drilling the road with HDD machine/manually without breaking the road surface and with laying of any size of LT XLPE insulated aluminium armoured cable through the duct as per the instruction of EIC and specifications insulated Aluminium armoured Cable (Single/Double/Bunched)	Mtr	483157.5	76	36719970	483157.5	495	239162962.5
D	Laying (including installation, testing and commissioning) of various size of LT XLPE insulated Aluminium armoured Cable in ground 1200mm deep, 300mm wide trench, providing sand cushioning below (75mm thick layer of sand) and above (75mm thick layer of sand) of the cable and covering it with RCC half round hum pipe (150mm inner dia with thickness of 30mm, 1meter in legnth) before refilling pre warning tap/bonding tap should provide below 700mm from ground level and back filling the same to make the ground level as original. As per specification and drawing of MGVL. (RCC half round hum pipe should be provided throughout on cable without gap).	Mtr	0	0	0	617508	531.3	328082000.4
15	Providing, supplying, laying, fixing and commissioning of Green color Hose Pipe for LT armored service cable protection/saddling work in consumer premises where digging is not possible up to energy meter location, including all accessories such as saddles, clamps, clips, bends, fastening materials etc. complete in all respect as per technical specification.(Saddleing with wall and etc, for this work GI type saddle and nail shall be used)							
A	Hose Pipe of Size 40mm/32mm	Mtr	35000	118.64	4152542.373	35000	17.80	622881.3559
B	Hose Pipe of Size 77mm/63mm	Mtr	5000	364.41	1822033.898	5000	17.80	88983.05085
C	Hose Pipe of Size 90mm/75mm	Mtr	5000	406.78	2033898.305	5000	17.80	88983.05085
D	Green color Hose Pipe of Size 120mm/103.5 mm	Mtr	5000	805.08	4025423.729	5000	17.80	88983.05085
16	DRAWING: Preparing complete drawing of entire network as well as individual feeder map showing joints also in AutoCad and providing the same to MGVL in AutoCad copy as ell as pdf copy and hard copy in six sets. The drawing should be geographical indicating all directions	Per KM			0	124	1000	124000
17	Paint Pointed Letter 2 inchsize (Markingon FSP,MSP,SFU Etc Inany palce). As per directive of Engineer Incharge) with supply of color	Ea			0	87405	5.175	452320.875
18	DISMENTAL							
A	Dismantalling PSC Pole 8 Mtr with cross arm,insulators,hardwares etc.and return it to MGVL store.While dismantalling utmost care shall be taken so that the material so that the same can be reused by MGVL.	Nos				1204	562	676648
B	Dismantalling PSC 10 Mtr/Rail/RSJ pole with cross arm,insulators,hardwares etc.and return it to MGVL store.While dismantalling utmost care shall be taken so that the material so that the same can be reused by MGVL.	Nos				2810	1131	3178110

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C	Dismentalling of existing HT/LT line of 34SQMM to 55SQMM conductor and after making coil and stacking the same at MGVCL store.Conductor has to dismantal from shackle to shackle pole with minimum nos of cut piese as per instruction of EIC	Per Cond/KM				44	715	31460
D	Disment of of single phase AB Cable(3.5 core) including fittings of All Accessories and stacking the same at MGVCL store.Cable has to dismantal from shackle to shackle pole with minimum nos of cut piese as per instruction of EIC	KM				81	8089	655209
E	Disment of of single phase AB Cable(LT 1P2W) including fittings of All Accessories and stacking the same at MGVCL store.Cable has to dismantal from shackle to shackle pole with minimum nos of cut piese as per instruction of EIC	KM				0	3235	0
19	COMPREHENSIVE MAINTENANCE WORK FOR LT UNDERGROUND NETWORK AFTER SUCESSFUL COMPLETION OF PROJECT, For Five years after completion of project,For further detail bidder advice to Read the chapter in STANDARD BIDDING DOCUMENT							
A	Locating Underground Cable Fault of Underground Cable including digging,pin pointing with cable route tracker by using cable fault location equipment like cable fault Van/Vehicle with supportive meters and accessories & doing high pressure testing of cable for checking healthiness of cable with suitable equipment after jointing of the faulty cable (excluding jointing kit) backfilling, and submission of fault location with report of showing distance from main source approx.. Including required manpower.	Per Job				2500	6780	16950000
B	Supply of unskilled/skilled man power to perform day to day activity of maintenance work of LT Under ground Network and all Associated activity etc.These man power deployment meant for activities other than above 19 (A)	MND				16425	650	10676250
	Amount in Rupees (without GST)		869445441			709569023		
	GST @ 18%		156500179			127722424		
	TOTAL Amount (WITH GST)		1025945620			837291447		
	GRAND TOTAL (WITH GST)						1863237067	
	TOTAL COST IN CR						186.32 Crore	