

TENDER SPECIFICATION

NO: BHE/PW/PUR/MANUT-ENB/1447

DEVELOPMENT OF OPEN STORAGE YARD, ROADS, HARD SURFACING BY MORRUM, FENCING, DRAINAGE, CONSTRUCTION OF CONCRETE PLATFORM, CONSTRUCTION OF MESS BUILDING AND ITS ELECTRIFICATION, APPROACH ROAD OF OFFICE/SHED COMPLEX, INCLUDING EXTERNAL ELECTRIFICATION OF OPEN STORAGE YARD AREAS.

AT

4X 270 MW BHADRADRI TPS, MANUGURU

TELANGANA STATE

VOLUME – II

PRICE BID SPECIFICATION



Bharat Heavy Electricals Limited

(A Government of India Undertaking)

Power Sector - Western Region

345-Kingsway, Nagpur-440001

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4X 270 MW BHADRADRI TPS, MANUGURU

TELANGANA STATE

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For Bharat Heavy Electricals Limited

AGM (Purchase)
Place: Nagpur
Date

NAME OF WORK: DEVELOPMENT OF OPEN STORAGE YARD, ROADS, HARD SURFACING BY MURUM, FENCING, DRAINAGE, CONSTRUCTION OF CONCRETE PLATFORM, APPROACH ROAD OF OFFICE/SHED COMPLEX, INCLUDING EXTERNAL ELECTRIFICATION OF OPEN STORAGE YARD AREAS AT 4X270 MW BHADRADI TPS, Managuru, Telangana.							
SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	ITEM RATE IN Figure (In Rs)	ITEM RATE IN WORDS (In Rs)	Total AMOUNT (In Rs)
Section A - DEVELOPMENT OF OPEN STORAGE YARD, ROADS, DRAINS AND FENCING (105,000 sqm.)							
Sec. A	1	GRADING & LEVELLING :-LEVELLING AND GRADING OF OPEN STORAGE YARD(STORAGE BLOCKS) INCLUDES CUTTING upto a depth of 300 MM AND DISPOSAL OF ALL GRASS, VEGETATION, BUSHES, ETC (IF ANY),SPREADING OF REQUIRED QUANTITY OF SURPLUS EXCAVATED EARTH FROM ROAD AND DRAINS UNIFORMLY OVER SPECIFIED AREA , GRADING & LEVELLING OF OPEN STORAGE BLOCKS UPTO REQUIRED LEVELS,SLOPE & GRADES AS SPECIFIED BY ENGINEER INCHARGE FOR DRAINING OUT THE RAIN WATER AND COMPACTING THE GRADED SURFACE BY MECHANICAL MEANS(10-12 MT VIBRO ROLLER), DISPOSAL OF UPROOTED GRASS,VEGETATION,BUSHES WITHIN A LEAD OF 2 KM ETC AS PER SPECIFICATION, DRAWING AND AS DIRECTED BY THE ENGINEER.	M2	105000			
Sec. A	2	SUPPLYING AND FILLING WITH SELECTED GOOD EARTH OF COHESIVE NON SWELLING SOIL OF APPROVED QUALITY IN LAYERS NOT EXCEEDING 300 mm LOOSE USING BORROWED SOIL (BORROWED SOIL TO BE ARRNGED BY THE BIDDER) AND COMPACTED TO ACHIEVE AT LEAST 95% DRY DENSITY AS PER IS-2720 (BROUGHT FROM CONTRACTOR'S OWN SOURCE (OUTSIDE OF PLANT) IN LAYERS NOT EXCEEDING 150 mm OF OPEN STORAGE YARD WHEREVER REQUIRED TO BE DEVELOPED INCLUDING CONSOLIDATING, ROYALTY ETC. COMPLETE AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.	M3	23040			
Sec. A	4	EXCAVATION /CUTTING OF EARTH BEYOND INITIAL 300 MM THICK WHICH IS COVERED UNDER ITEM NO.(1) ABOVE IF REQUIRED AND SPREADING THE SAME IN LOW LYING AREA, WATERING, COMPACTION BY MEANS OF 10-12 MT CAPACITY POWER/VIBRO ROLLER FOR DEVELOPMENT OF OPEN STORAGE YARD AS PER INSTRUCTION OF BHEL ENGINEER.	M3	100			
Sec. A	5	PROVIDING & FILLING OF 300 MM COMPACTED THICK GRANULAR HARD MURUM/IN LAYERS (THICKNESS OF EACH LAYER SHOULD NOT EXCEED 150 MM) FOR PREPARING HARD SURFACE FOR STORAGE OF YARD as the available land is of black cotton soil", WATERING AND COMPACTION WITH 8-10 T POWER/VIBRO ROLLER COMPLETE. RATE SHALL INCLUDE TRANSPORTATION INCLUDING ALL LEADS,ROYALTY, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.	M3	23040			
Sec. A	6	EXCAVATION FOR ROADWAY IN ALL TYPES OF SOILS, SAND AND GRAVEL OR SOFT MURAM INCLUDING DRESSING OF SECTION TO THE REQUIRED GRADE, CAMBER & SIDE SLOPES AND SPREADING OF SURPLUS EXCAVATED EARTH UNIFORMLY OVER THE SPECIFIED AREA FOR SITE LEVELING & DEVELOPMENT OF REQUIRED DEPTH TO MAINTAIN UNIFORM GROUND LEVEL AS DIRECTED BY THE BHEL & CONSOLIDATION OF THE SURFACE INCLUDING SUB- BASE BY ROLLING THE SURFACE WITH 8 - 10 MT CAPACITY POWER/VIBRO ROLLER, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE AS PER DRAWINGS & SPECIFICATIONS.	M3	2131			
Sec. A	7	EXCAVATION FOR SIDE DRAIN/DRAINS AND CULVERTS IN ALL KINDS OF SOILS, TO THE SPECIFIED SECTION AS PER DRAWINGS & SPECIFICATIONS, INCLUDING SPREADING OF SURPLUS EXCAVATED EARTH UNIFORMLY OVER THE SPECIFIED AREA FOR SITE LEVELING & DEVELOPMENT OF REQUIRED DEPTH TO MAINTAIN UNIFORM GROUND LEVEL , DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE. DIRECTED BY THE BHEL ENGINEER.					
Sec. A	A	IN ORDINARY SOIL	M3	2413			
Sec. A	8	BACK FILLING THE SIDES OF DRAINS, CULVERTS WITH GOOD EXCAVATED SOIL AVAILABLE FROM WORK IN LAYERS NOT EXCEEDING 15 CM THICKNESS INCLUDING WATERING AND CONSOLIDATING ETC. COMPLETE AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.	M3	100			
Sec. A	9	DISPOSAL OF EXCAVATED EARTH/ROCK (NOT SUITABLE FOR BACK FILLING) UPTO A MAXIMUM LEAD OF 4 KM OR PART THEREOF INCLUDING LOADING,UNLOADING ,CONVEYING AND SPREADING AS PER DIRECTION OF ENGINEER INCHARGE,AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.	M3	10			
Sec. A	10	PROVIDING & FILLING OF 300MM COMPACTED THICK GRANULAR MURUM IN LAYERS (THICKNESS OF EACH LAYER SHOULD NOT EXCEED 150MM) IN SUB-BASE OF ROAD BELOW SOLING, WATERING AND COMPACTION WITH 8-10 T POWER ROLLER COMPLETE. RATE SHALL INCLUDE TRANSPORTATION INCLUDING ALL LEADS, ROYALTY, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE ETC.	M3	6393			
Sec. A	11	PROVIDING AND LAYING SOLING 300 MM COMPACTED THICK(THICKNESS OF EACH LAYER SHOULD NOT EXCEED 150MM) WITH 63 mm -45 MM THICK BOULDER SIZE AND FILLING OF VOIDS WITH HAND BROKEN METAL OF SIZE 40-60 MM , SPREADING & PACKING MURRUM , ROLLING AND COMPACTION INCLUDING WATERING, WITH 8 - 10 MT CAPACITY ROAD ROLLER. RATE SHALL INCLUDE ,TRANSPORTATION INCLUDING ALL LEADS, ROYALTY, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.	M3	6393			
Sec. A	12	PROVIDING 150 MM COMPACTED THICK WATER BOUND MACADAM (WBM) IN TWO LAYERS OF EACH 75 MM , WITH 40MM TO 60MM METAL (STONE AGGREGATE) INCLUDING SUPPLYING AND SPREADING GRAVEL/MURRUM OVER THE SOLING/CONSOLIDATED BASE, COMPACTING THE SAME WITH POWER ROLLER INCLUDING NECESSARY LABOUR, WATERING, MATERINGS ETC. COMPLETE, ALL AS PER RELEVANT SPECIFICATIONS AND DIRECTIONS OF BHEL ENGINEER (RATE SHALL BE INCLUSIVE OF ALL LABOUR, MATERIALS ETC. COMPLETE).	M3	3197			
Sec. A	13 (A)	PROVIDING AND LAYING OF PLAIN CEMENT CONCRETE OF MIX 1:4:8 USING 20MM & DOWN SIZE HARD BROKEN GRANITE STONE JELLY FOR DRAINS, CULVERTS ETC. INCLUDING SHUTTERING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M3	336			
Sec. A	13 (B)	PROVIDING AND LAYING OF PLAIN CEMENT CONCRETE OF MIX 1:3:6 USING OPC GRADE 43/53, 20 MM DOWN SIZE HARD BROKEN GRANITE STONE JELLY WITH TROWEL FINISH FOR RAISED PLATFORM , WALK WAY / FOOT PATH OF BUNK HOUSE AND WHEREVER REQUIRED ETC. INCLUDING SHUTTERING, FINISHING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M3	17			

NAME OF WORK: DEVELOPMENT OF OPEN STORAGE YARD, ROADS, HARD SURFACING BY MURUM, FENCING, DRAINAGE, CONSTRUCTION OF CONCRETE PLATFORM, APPROACH ROAD OF OFFICE/SHED COMPLEX, INCLUDING EXTERNAL ELECTRIFICATION OF OPEN STORAGE YARD AREAS AT 4X270 MW BHADRADI TPS, Managuru, Telangana.							
SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	ITEM RATE IN Figure (In Rs)	ITEM RATE IN WORDS (In Rs)	Total AMOUNT (In Rs)
Sec. A	14	PROVIDING AND LAYING OF RCC OF MIX 1:2:4 USING 20MM DOWN SIZE HARD BROKEN GRANITE STONE AGGREGATE FOR RCC SLAB OF CULVERT, RCC COPING OVER BRICK WALL OF DRAIN INCLUDING MECHANICAL MIXING, VIBRATION, CURING, FORM WORK AND CENTERING AS PER DRAWING AND SPECIFICATION AND AS DIRECTED BY BHEL ENGINEER	M3	120			
Sec. A	15	PROVIDING AND FIXING OF REINFORCEMENT INCLUDING CUTTING, BENDING AND FABRICATION OF REINFORCEMENT USING HIGH TENSILE TOR STEEL (Fe-415) AS PER DRAWING AND SPECIFICATION AND AS DIRECTED BY BHEL ENGINEER INCLUDING COST OF ALL LEADS, LIFT AND MATERIALS, LABOUR AND MS BINDING WIRE 18/20 GAUGE ETC. COMPLETE.	MT	10			
Sec. A	16	PROVIDING BRICK WORK IN CM 1:6 (1 CEMENT & 6 COARSE SAND) USING OPC GRADE 43/53 WITH FLY ASH LIME BRICKS (FAL - MIN STRENGTH 35 KG/CM²) AS PER DRAWING AND SPECIFICATION FOR DRAINS, CULVERTS AND WHERE REQUIRED INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, CURING, AT ALL ELEVATIONS AND LEVELS, RAKING OUT JOINTS ETC. COMPLETE AND AS DIRECTED BY ENGINEER.	M3	2151			
Sec. A	17	PROVIDING AND PLASTERING WITH CEMENT MORTAR 1:6 (12MM THICK) OVER BOTH INTERNAL AND EXTERNAL FACES OF BRICKWORK AND CONCRETE SURFACES ETC. OF ALL HEIGHTS INCLUDING PREPARING THE SURFACE, RAKING JOINTS, SCAFFOLDING, CURING, COST OF ALL MATERIALS, LABOUR ETC. COMPLETE.	M2	13656			
Sec. A	18	40MM THICK COPING OVER THE DRAIN WALL TOP USING MIX - 1:2:4	M3	37			
Sec. A	19	PROVIDING 2 MM THICK NEAT CEMENT FINISH OVER CONCRETE BASE FOR FLOORING PAVING AND INTERNAL SURFACE OF BRICK DRAINS ETC.	M2	13656			
Sec. A	20	PROVIDING & FIXING OF WEEP HOLES WITH 75MM DIA. AC PIPES AT 3M C/C ON BOTH SIDES OF DRAIN WALL WITH FILTER MEDIA USING 40MM SIZE STONE GRIT OF SIZE (300X300X300MM).	RM	3118			
Sec. A	21	SUPPLYING & FIXING IN POSITION OF RCC HUME PIPE OF NP2 WHEREVER DRAIN CROSSES THE ROADS INCLUDING ALIGNING, LEVELLING ETC. COMPLETE AS PER THE DIRECTION OF ENGINEER. INCLUDING P.C. & INCLUDING COLLAR JOINTS, ENCASEMENT WITH CONCRETE 1:3:6 OF 300 MM DIA, ENCASING SHALL BE PAID EXTRA UNDER RESPECTIVE ITEMS OF CONCRETE..					
Sec. A	A	450mm dia	RM	588			
Sec. A	B	600mm dia	RM	27			
Sec. A	22	PROVIDING AND FIXING BARBED WIRE FENCING AROUND OPEN STORAGE YARD AS PER BHEL DRAWING. POSTS SHALL BE SPACED AT 3M CENTRES AND STRUTS AT 30M CENTRES AND AT ALL TURNINGS WITH FOUNDATIONS, SUPPLYING AND FIXING GI BARBED WIRES, 10 HORIZONTAL LINES, TWO DIAGONALS BETWEEN POSTS BY MEANS OF GI STAPLES AS PER STANDARD PRACTICE. THE BARBED WIRE SHALL CONFORM TO IS 278 AND BE MADE OF TWO STRANDS OF GALVANISED TWISTED 2.5MM DIA (12.5 GAUGE) STEEL WIRE WITH FOUR POINT BARS. RATE QUOTED SHALL BE INCLUSIVE OF EXCAVATION, DISPOSAL OF SURPLUS EARTH, CONCRETE (1:3:6), FORM WORK AND ALL MATERIALS, COST OF POSTS, BARBED WIRES, TRANSPORTING, FIXING IN POSITION ETC. INCLUDING COST OF ALL LABOUR AND TWO COATS OF ENAMEL PAINT OF APPROVED SHADE WITH A SHOP COAT OF PRIMER IN ALL STRUCTURAL MEMBERS ETC COMPLETE.	RM	1300			
Sec. A	23	REMOVAL OF WILD GROWTH , BUSHES VEGETATIONS AND DISPOSAL AS PER INSTRUCTION WITHIN THE PLANT BOUNDARY (SIZE OF STEM FROM 150MM TO 600MM DIA.)	NOS	10			
Sec. A	24	SUPPLY FABRICATION, AND FIXING IN POSITION OF MS GATES WITH STRUCTURAL/TUBULAR STEEL FRAMES AS PER BHEL DRAWING INCLUDING COST OF FOUNDATION & POSTS, PAINTING TWO COATS BY SYNTHETIC ENAMEL PAINT OF APPROVED COLOUR AND QUALITY OVER ONE COAT OF RED OXIDE PRIMER, COST OF ALL MATERIALS, LABOUR, TRANSPORT ETC. COMPLETE.	MT	6			
Sec. A	25	SUPPLYING AT SITE OF WORK, TRENCHING, CARRYING TO TRENCHES AND LOWERING INTO TRENCHES AND ON WALLS, FLOORS ETC., LAYING TO PROPER ALIGNMENT, GRADE, LEVEL AND JOINTING WITH ALL NECESSARY SPECIALS, TEES, ELBOWS, UNIONS AND APPURTENANCES AND INCLUDING PRESSURE TESTING OF THE FOLLOWING SIZES OF GI PIPE LINES INCLUDING REFILLING OF TRENCHES WITH EXCAVATED EARTH IN LAYERS, WATERING AND RAMMING AND RESTORATION OF GROUND, ALL COMPLETE AS PER SPECIFICATIONS. RATE TO INCLUDE EARTH WORK EXCAVATION IN ALL SOILS, EXCEPT HARD ROCK REQUIRING BLASTING, SHORING, BALLING OR PUMPING OUT OF WATER WHEREVER REQUIRED, REMOVAL OF SLUSH ETC. REMOVING AND DEPOSITING SURPLUS EARTH AS DIRECTED BY THE BHEL ENGINEER INCLUDING ALL LEADS AND LIFTS AS PER SITE CONDITIONS.					
Sec. A	A	40MM DIA GI PIPE LINE WITH ALL SPECIALS	RM	400			
Sec. A	B	25MM DIA GI PIPE LINE WITH ALL SPECIALS	RM	200			
		CONSTRUCTION OF RAISED CONCRETE PLATFORM OF SIZE 30M X 40M -- 1NO.					
Sec. A	27	PROVIDING & FILLING OF 300MM COMPACTED THICK GRANULAR MURUM IN LAYERS (THICKNESS OF EACH LAYER SHOULD NOT EXCEED 150MM) IN THE BASE OF SOLING INCLUDING WATERING AND COMPACTION WITH 8-10 T POWER ROLLER COMPLETE. RATE SHALL INCLUDE TRANSPORTATION INCLUDING ALL LEADS, ROYALTY, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE ETC.	M3	360			
Sec. A	28	PROVIDING AND LAYING SOLING 250 MM COMPACTED THICK WITH 63 MM -45 MM THICK BOULDER SIZE AND FILLING OF VOIDS WITH HAND BROKEN METAL OF SIZE 40-60 MM, SPREADING & PACKING MURRUM, ROLLING AND COMPACTION INCLUDING WATERING, WITH 10-12 MT CAPACITY ROAD ROLLER.	M3	300			

NAME OF WORK: DEVELOPMENT OF OPEN STORAGE YARD, ROADS, HARD SURFACING BY MURUM, FENCING, DRAINAGE, CONSTRUCTION OF CONCRETE PLATFORM, APPROACH ROAD OF OFFICE/SHED COMPLEX, INCLUDING EXTERNAL ELECTRIFICATION OF OPEN STORAGE YARD AREAS AT 4X270 MW BHADRADI TPS, Managuru, Telangana.							
SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	ITEM RATE IN Figure (In Rs)	ITEM RATE IN WORDS (In Rs)	Total AMOUNT (In Rs)
Sec. A	29	PROVIDING AND LAYING OF 150MM THICK PLAIN CEMENT CONCRETE OF MIX 1:3:6 BY USING OPC GRADE 43/53, 20 MM DOWN SIZE HARD BROKEN GRANITE STONE JELLY WITH TROWEL FINISH & REQUIRED CAMBER/SLOPE FOR RAISED CONCRETE PLATFORM ETC. INCLUDING SHUTTERING, FINISHING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M3	180			
PROVIDING 6" DIABOREWELL WITH SUBMERSIBLE PUMP OF 3HP CAPACITY -- 2Nos.							
SEC A	30	PROVIDING 6" DIA. BORING UPTO DEPTH OF 150 FT. WITH TRUCK MOUNTED MECHANICAL RIG MACHINE WITH YIELD TEST OF WATER.	Each	2			
SECA	31	EXTRA FOR BORING OVER 150 FT. DEPTH FOR EVERY ADDITIONAL 10 FT. OR PART THEREOF.	Per ft	50			
SEC A	32	SUPPLY & FIXING 6" DIA PVC HEAVY DUTY (8-10 KG PRESSURE) CASING PIPE OF STANDARD MAKE (KISHANKASTA OR EQUIVALENT.) WITH APPROVAL OF BHEL IN BOTH THE BORINGS.	Per ft.	120			
SEC A	33	SUPPLY AND INSTALLATION OF ELECTRICAL SUBMERSIBLE PUMP (MINIMUM 3 HP) OF STANDARD MAKE (CROMPTON GREAVES/RI PUMPS OR EQUIVALENT) AS PER APPROVAL OF BHEL WITH ALL ACCESSORIES, CONSOLE PANEL, PVC COATED SLING WIRE, SUBMERSIBLE CABLE OF REQUIRED LENGTH & 1/4" DIA HDPE SUCTION PIPE 120FT. LENGTH.	Each.	2			
SEC A	34	EXTRA OVER INITIAL LENGTH OF HDPE SUCTION PIPE BEYOND 120 FT.	Per ft.	30			
Sec. A		TOTAL VALUE OF SECTION-A IN Rs.					
RATE SCHEDULE, SECTION - B							
NAME OF WORK- ILLUMINATION OF OPEN STORAGE YARD AT 4X270 MW BHADRADI TPS, Managuru, Telangana.							
Sec. B	1	SUPPLYING, INSTALLATION & COMMISSIONING OF SODIUM VAPOUR LAMP STREET LIGHT FITTING 150 WATT SSG-2315 IH OF CROMPTON OR SIMILAR PHILIPS MAKE, COMPLETE WITH ONE PIECE CANOPY, INTEGRAL CONTROLGEAR COMPRISING OF COPPER WOUND CHOKE , IGNITOR , HPF CAPACITOR, HPSV LAMP AND SUITABLE FOR DIRECTLY SLIPPING OVER LIGHT MOUNTING BRACKET MADE OUT OF 40 MM OD PIPE AND SUITABLE FOR LAMPS, CONTROL GEAR BOX CABLING & TERMINATION OF ITEMS SUPPLIED (TO BE MOUNTED ON 9 MTR POLE - ITEM NO. 2).	NOS.	120			
Sec. B	2	SUPPLY AND ERECTING STEEL TUBULAR SWAGED POLES, 9 MTR LONG MADE OF SHEET STEEL HAVING ULTIMATE TENSILE STRENGTH 42 AND 150MM COMPRISES TO BIS 2713 IMPARTIAL COMPLETE WITH 30X30X3MM THICK M.S. BASE PLATE FOR WELDING AT SITE AND SIZE AS PER CONFIGURATION GIVEN IN BIS FOR 410 SP-28 (113 KG-POLE WEIGHT) WITH 1.5 MTR. DEEP EXCAVATION, CONCRETING IN 1:4:8 RATIO SIZE 45 CMS X 45 CMS X 150 CMS AND POLE PLINTH IN 1:3:6 CEMENT CONCRETING HAVING 300 MM HEIGHT AND 300 MM DIA. INCLUDING DOUBLE EARTHING OF POLE WITH SUITABLE ARRANGEMENT, DILY PAINTED WITH TWO COATS OF RED OXIDE PAINT AND ONE COAT OF ALUMINIUM PAINT TO BE APPLIED AFTER ERECTION. THE LENGTH OF POLE BELOW GROUND TO BE PAINTED WITH TWO COATS OF BLACK BITUMINUM PAINT. THE POLE SHALL BE COMPLETE WITH IS, FUSE AND MINOR FABRICATION AS BELOW. i) DRILING 20 MM DIA HOLE AT ABOUT 2.5 MTR FROM GROUND LEVEL FOR WIRE LEADS FROM JUNCTION BOX TO LIGHT FIXTURE. ii) DRILING 15MM DIA HOLES AT ABOUT 0.7 AND AT 2.5 MTR FROM GROUND LEVEL AND WELDING 12 MM NUTS FOR USING A 12 MM G.I BOLT FOR FASTENING EARTH CONDUCTORS. iii) WELDING REQUIRORED HOLES FOR FIXING POLE CAP OF STREET LIGHT BRACKET. iv) WELDING DIAMETRELLY 10 MM M.S. ROUND 30 MM BELOW POLE TOP EDGE FOR CLIPPING WIRE LEADS.	NOS.	120			
Sec. B	3	SUPPLY OF WEATHER PROOF FLOOD LIGHT LUMINIARIES OF CROMPTON MAKE (FBD 1425/40-WITH HIGH PRESSURE SODIUM VAPOUR LAMP 1X 400 WATT ALONG WITH NON- INTEGRAL TYPE CONTROL GEAR BOX HAVING ADEQUATE NUMBER OF TERMINAL CONNECTORS FOR TERMINATING TWO CABLE OF 3X 10 SQMM AL AND SUITABLE FOR OUT DOOR APPLICATION) OR EQUIVALENT IN BAJAJ, PHILLIPS ONLY , INCLUDING SUPPLY & FIXING CABLES BETWEEN THE CONTROL GEAR BOX AND LIGHT LUMINIARIES AND MOUNTING FIXTURE WITH HARDWARE FOR MOUNTING OF LIGHT LUMINIARIES AND CONTROL GEAR BOX ON POLE TYPE 410 SP-28.	NOS.	5			
Sec. B	4	INSTALLATION & COMMISSIONING OF FLOOD LIGHT LUMINIARIES, CONTROL GEAR BOX , CABLING & TERMINATION FOR SR.NO.03 (ITEMS SUPPLIED ABOVE)	NOS.	5			
Sec. B	5	ENGINEERING , SUPPLY AND INSTALLATION OF LATTICE TYPE STRUCTURAL TOWER OF HEIGHT 15M. TOWER SHALL BE FABRICATED IN THREE SECTION OF EQUAL LENGTH OF 5 METER EACH.PREPARATION OF FABRICATION DRAWING & ITS APPROVAL FROM BHEL. BRIEF DETAILS ARE AS GIVEN BELOW: TOWER SHALL BE ADEQUATELY STRONG TO WITHSTAND HEAVY WIND. NO STAY/GUY ROPES SHALL BE TIED WITH IT. AT TOP OF THE TOWER, ADEQUATE SIZE OF PLATFORM SHALL BE PROVIDED WITH RAILING AROUND THE PLATFORM FOR MOUNTING OF LIGHTING LUMINIARIES(TENTATIVELY TWELVE FITTING ON EACH TOWER) AND MAINTENANCE PURPOSE . FLOOR OF PLATFORM SHALL BE COVERED WITH CHEQURED PLATE. A LADDER ALONG WITH PROTECTIVE CAGE SHALL BE PROVIDED ALONG THE HEIGHT OF TOWER. IT SHOULD BE PAINTED WITH ONE COAT RED OXIDE PRIMER, AND TWO COATS OF ALUMINIUM PAINT AFTER INSTALLATION. EACH TOWER SHALL BE PROVIDED WITH POWER DISTRIBUTION BOX OUT DOOR TYPE AND SHOULD HAVE PROVISION OF TERMINATING ONE NUMBER INCOMING AND EIGHT OUT GOING CABLE. ERECTING AT SITE INCLUDING ALL CIVIL WORKS LIKE EXCAVATION, CASTING OF FOUNDATION OF REQUIRED SIZE AND DEPTH WITH CONCRETE OF GRADE 1:2:4 WITH BASE PLATES, GROUTING OF LATTICE STRUCTURE, ONE EARTH PIT AS PER BIS STANDARD IS TO BE MADE NEAR THE TOWER AND EARTHING OF THE TOWER INCLUDING SUPPLY OF MATERIAL ETC. COMPLETE.	NOS.	15			
Sec. B	6	SUPPLY, INSTALLATION & COMMISSIONING OF FLOOD LIGHT LUMINIARIES OF BAJAJ MAKE TYPE BGENF 22 OR EQUIVALENT IN CROMPTON , PHILIPS ONLY. EACH LUMINIARIES SHALL BE WITH TWO NUMBER 400 WATT HPSV LAMPS AND CONTROL GEAR BOX INTEGRAL/ NON ITEGRAL TYPE INCLUDING CABLES FOR INTERCONNECTION. (THESE FITTING SHALL BE MOUNTED ON LIGHTING MAST /TOWER , ON EACH TOWER 8 SUCH FITTING SHALL BE MOUNTED).	NOS.	120			
Sec. B	7	SUPPLY OF CABLES 3-1/2 CORE X 95 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE (THREE AND HALF CORE) CONFIRMING TO IS 1554 (PART -I) (TO BE USED FORM SHEDS AS WELL AS OPEN STORAGE YARD WHEREVER REQUIRED)	M	1000			
Sec. B	8	INSTALLATION OF CABLES 3 -1/2 CORE X 95 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I) INCLUDING LAYING OF CABLE BELOW GROUND, EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL. TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGS, PROVIDING SAND LAYER BELOW THE CABLE, BRICK LAYING BOTH SIDE (ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC COMPLETE. CABLES ARE TO BE LAID FROM 415 VOLT AC DISTRIBUTION BOARD TO FEEDER PILLAR BOARD , FEEDER PILLAR BOARD TO LIGHTING MAST / TOWER & FOR SHEDS .	M	1000			
Sec. B	9	SUPPLY OF CABLES 2 CORE X 10 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I)	M	5200			

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SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	ITEM RATE in Figure (In Rs)	ITEM RATE IN WORDS (In Rs)	Total AMOUNT (In Rs)
Sec. B	10	INSTALLATION OF CABLES 2 CORE X 10 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I) INCLUDING LAYING OF CABLE BELOW GROUND , EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC COMPLETE. CABLES ARE TO BE LAID FROM 415 VOLT AC POWER FEEDER PILLAR BOARD TO LIGHTING POLES & POLE TO POLE	M	5200			
Sec. B	11	SUPPLY OF CABLES 3 -1/2 COREX 185 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE (THREE AND HALF CORE) CONFIRMING TO IS 1554 (PART -I)	M	450			
Sec. B	12	INSTALLATION OF CABLES 3 -1/2 COREX 185 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I) INCLUDING LAYING OF CABLE BELOW GROUND , EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC. CABLES ARE TO BE LAID FROM TRANSFORMER SUB STATION TO 415 VOLT AC DISTRIBUTION BOARD.	M	450			
Sec. B	13	SUPPLY OF CABLES 3 -1/2 COREX 35 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE (THREE AND HALF CORE) CONFIRMING TO IS 1554 (PART -I)	M	1000			
Sec. B	14	INSTALLATION OF CABLES 3 -1/2 COREX 35 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I) INCLUDING LAYING OF CABLE BELOW GROUND , EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC. CABLES ARE TO BE LAID FROM TRANSFORMER SUB STATION TO 415 VOLT AC DISTRIBUTION BOARD TO STORE YARD & SHEDS	M	1000			
Sec. B	15	SUPPLY & INSTALLING 3 PHASE METERING AND POWER DISTRIBUTION BOARD COMPLETE WITH: (1) INCOMING SFU TPN 400 AMPS- 1NO. (2) OUTGOING SFU TPN 200 AMPS-2NOS. (3) OUTGOING SFU TPN 100 AMPS-2NOS. (4) OUTGOING SFU TPN 32 AMPS-2NOS. 3 PHASE ELECTRONIC ENERGY METERS: BHEL/L&T /GEC MAKE. AMMETER, VOLTMETER AND SELECTOR SWITCHES FOR BOTH -AE AND KAYCEE MAKE. PHASE INDICATION LAMPS, HRC FUSES FOR IC AND O/G FEEDERS, CABLE GLANDS, POWER TERMINALS FOR CABLES TERMINATION, CABLE LUGS AND PROVISION FOR DOUBLY EARTHING THE PANEL ENCLOSURE. PANEL ENCLOSURE SHALL BE MADE OF SHEET METAL THICKNESS NOT LESS THAN 1.6 MM AND SUITABLE FOR OUT DOOR INSTALLATION. MODULAR CONSTRUCTION, HINGED DOOR WITH LOCKING ARRANGEMENT, BASE FRAME, SHOULD HAVE SLOPPED CANOPY, DULY PAINTED WITH FIRST COAT OF PRIMER AND TWO COATS OF SYNTHETIC ENAMEL PAINT (INTERIOR WITH WHITE PAINT AND EXTERIOR WITH LIGHT GREY) INTERNAL POWER DISTRIBUTION TO DEVICES SHALL BE WITH AL BUSBARS OR COPPER FLEXIBLE SINGLE CORE PVC CABLES OF 1.1 KV GRADE, CONTROL WIRING WITH 1.5 SQMM SUITABLE STOOL MADE OUT OF MS STRUCTURE OF 1.2 METER HIGH FOR MOUNTING OF PANEL WITH ANCHORING ARRANGEMENT AT FOUNDATION, SUITABLE FOR BOTTOM ENTRY OF CABLES.	NO	2			
Sec. B	16	PROVIDING SUITABLE FOUNDATION FOR MOUNTING AC DISTRIBUTION BOARD AS SPECIFIED IN SL. NO.15 , INSTALLATION & COMMISSIONING OF PANEL	NO	2			
Sec. B	17	SUPPLY OF 415 VOLT AC , 3 PHASE /FOUR WIRE POWER FEEDER PILLAR BOARD , BOARD SHALL BE COMPRISES OF THREE NUMBER AND ONE NUMBER ALUMINIUM BUS BAR FOR PHASE & NEUTRAL RESPECTIVELY. BUS BAR RATING SHALL BE 200 AMPS AND SHALL BE MOUNTED ON EPOXY INSULATOR OF 1.1 KV GRADE. EACH BUS BAR SHALL HAVE DRILLED HOLE FOR CONNECTING INCOMING / OUT GOING CABLES. PROVISION FOR EARTHING THE PANEL ENCLOSURE. PANEL ENCLOSURE SHALL BE MADE OF SHEET METAL THICKNESS NOT LESS THAN 1.6 MM AND SUITABLE FOR OUT DOOR INSTALLATION. HINGED DOOR WITH LOCKING ARRANGEMENT , BASE FRAME, SHOULD HAVE SLOPPED CANOPY, DULY PAINTED WITH FIRST COAT WITH PRIMER AND TWO COATS OF SYNTHETIC ENAMEL PAINT (INTERIOR WITH WHITE PAINT AND EXTERIOR WITH SMOKE GREY AS PER IS). SUITABLE STOOL MADE OUT OF MS STRUCTURE OF 1.2 METER HIGH FOR MOUNTING OF PANEL WITH ANCHORING ARRANGEMENT AT FOUNDATION .	NO	5			
Sec. B	18	PROVIDING SUITABLE FOUNDATION FOR MOUNTING 415 VOLT AC POWER FEEDER PILLAR BOARD AS SPECIFIED IN SL. NO.12 , INSTALLATION & COMMISSIONING OF PANEL	NO	5			
Sec. B	19	SUPPLY AND INSTALLATION SUITABLE ELECTRICAL PUMP FOR MINIMUM HEAD OF 10M (BUT NOT LESS THAN 2 H.P.) OF REPUTED MANUFACTURER LIKE SUGUNA/ CRI/ KILOSKAR/ SHAKTI/SHARP/ CROMPTON INCLUDING ALL ACCESSORIES, STARTER, D.B., ETC. AND TO BE CONNECTED TO OVER HEAD TANK FROM WATER STORAGE TANK BELOW G.L. GURRANTY/WARRANTY CARD TO BE SUBMITTED TO BHEL. SUCTION, DISCHARGE GI PIPES SHALL BE PAID SEPERATLY UNDER RELEVANT ITEMS.	NO	1			
Sec. B		TOTAL VALUE OF SECTION-B IN Rs.					
SEC-C		SECTION C: NAME OF WORK CONCRETE SLEEPER(3000 NOS)					
SEC-C		Description	UNIT	QTY.			
SEC-C	1	PROVIDING AND LAYING OF PRE CAST RCC OF MIX 1:2:4 USING 20MM DOWN SIZE HARD BROKEN GRANITE STONE AGGREGATE FOR CONCRETE SLEEPER INCLUDING MECHANICAL MIXING, VIBRATION, CURING, FORM WORK AND CENTERING AS PER DRAWING AND SPECIFICATION AND AS DIRECTED BY BHEL ENGINEER	CUM	68			
SEC-C	2	Providing, straightening, cutting, bending and placing in position of steel reinforcements of TMT steel of grade Fe-500 MT confirming to IS: 1786 including cost of binding wire, labour, scaffolding, transportation to and from stores etc. complete all as per specifications, drawings and as directed by Engineer.	MT	8			
SEC-C	3	Providing and fixing including fabrication of 20mm nominal bore GI pipes class B medium class to be embedded in sleeper at both ends for lifting purpose(250 mm length on either sides)	MT	3			
		TOTAL VALUE OF SECTION-C IN Rs.					
CONSTRUCTION OF SECURITY CABIN(2.5MX2.5M) 4 NOS AT 4 X270 MW BHADRADI TPS							
SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.			

NAME OF WORK: DEVELOPMENT OF OPEN STORAGE YARD, ROADS, HARD SURFACING BY MURUM, FENCING, DRAINAGE, CONSTRUCTION OF CONCRETE PLATFORM, APPROACH ROAD OF OFFICE/SHED COMPLEX, INCLUDING EXTERNAL ELECTRIFICATION OF OPEN STORAGE YARD AREAS AT 4X270 MW BHADRADI TPS, Managuru, Telangana.

SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	ITEM RATE IN Figure (In Rs)	ITEM RATE IN WORDS (In Rs)	Total AMOUNT (In Rs)
Sec.D	1(A)	EARTH WORK EXCAVATION FROM 0 (ZERO) TO 2 M DEPTH IN ALL KINDS OF SOIL (EXCEPT SOFT ROCK AND HARD ROCK) FOR FOUNDATIONS, SOAK PIT, RAMPS ETC., AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	M3	27.00			
Sec.D	1(B)	EARTH WORK EXCAVATION FROM 0 (ZERO) TO 2 M DEPTH FOR SOFT ROCK AND HARD ROCK (BY MANUAL CHISELING OR BY MECHANICAL MEANS BUT WITHOUT BLASTING) FOR FOUNDATIONS, SOAK PIT, RAMP ETC., AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	M3	7.00			
Sec.D	1(C)	SUB GRADE PREPARATION: CUTTING LEVELLING, FILLING WITH EXCAVATED EARTH, WATERING AND CONSOLIDATION FOR MESS BUILDING AREA AND PLINTH PROTECTION AROUND THE BUILDING AREA WITH ALL T&P, LABOURS, MATERIALS ETC. COMPLETE.	M2	25.00			
Sec.D	2	BACKFILLING OF FOUNDATION FLOORS AND PLINTH IN LAYERS NOT EXCEEDING 150MM THICK INCLUDING WATERING AND CONSOLIDATING ETC. COMPLETE AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.					
Sec.D	A	WITH GOOD EXCAVATED SOIL AVAILABLE FROM THE EARTH WORK.	M3	30.00			
Sec.D	B	WITH GRANULAR MURUM IN LAYERS (THICKNESS OF EACH LAYER SHOULD NOT EXCEED 150MM) BELOW FLOORING, AND RAMP ETC AS PER STANDARD SPECIFICATION, RELEVANT DRAWINGS AND INSTRUCTED BY BHEL ENGINEER INCLUDING ROYALTY, CONTRACTOR HAS TO SUBMIT ROYALTY CERTIFICATE FROM CONCERNED STATE GOVT. MINING DEPARTMENT TRANSPORTATION INCLUDING ALL LEADS,ROYALTY, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.	M3	20.00			
Sec.D	C	WITH GOOD EARTH BROUGHT FROM OUTSIDE FROM CONTRACTOR'S OWN SOURCE INCLUDING ROYALTY ETC.	M3	10.00			
Sec.D	3(A)	PROVIDING AND LAYING OF PLAIN CEMENT CONCRETE OF MIX 1:4:8 USING OPC GRADE 43/53, 20 MM DOWN SIZE HARD BROKEN GRANITE STONE JELLY FOR FOUNDATION, FLOORING, COLUMN ETC. INCLUDING SHUTTERING, FINISHING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M3	10.00			
Sec.D	4(B)	PROVIDING AND LAYING OF 100 MM THICK PLAIN CEMENT CONCRETE OF MIX 1:3:6 USING OPC GRADE 43/53, 20 MM DOWN SIZE HARD BROKEN GRANITE STONE JELLY WITH TROWEL FINISH FOR PLINTH PROTECTION WITH TROWEL FINISH INCLUDING SHUTTERING, FINISHING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M3	11.00			
Sec.D	5	PROVIDING AND LAYING OF RCC MIX 1:2:4 USING OPC GRADE 43/53, 20MM DOWN SIZE HARD BROKEN GRANITE STONE AGGREGATE INCLUDING MECHANICAL MIXING, VIBRATION, CURING, FORM WORK & CENTERING AS PER DRAWING AND SPECIFICATION AND DIRECTED BY BHEL ENGINEER BUT EXCLUDING COST OF REINFORCEMENTS.	M3	4.00			
Sec.D	6	PROVIDING AND LAYING DPC (DAMP PROOF COURSE) 50MM THICK IN 1:2:4 CEMENT CONCRET LAYER USING OPC GRADE 43/53AND WITH 6MM DOWN AGGREGATE, INCLUDING FORMWRK, BITUMEN FELT USING CEMENT WITH WATER PROOFING COMPOUND ETC. COMPLETE	M2	9.00			
Sec.D	7	PROVIDING , CUTTING, BENDING AND FIXING IN POSITION REINFORCEMENT OF VARIOUS DIA. USING HIGH TENSILE TOR STEEL (Fe - 415/500). AS PER DRAWING AND SPECIFICATION AND AS DIRECTED BY BHEL ENGINEER INCLUDING COST OF ALL MATERIALS, LEADS, LIFT, LABOURS, MS BINDING WIRE 18/20 GAUGE, TACK WELDING AND SUPPORTING IF REQUIRED COMPLETE.	MT	1.00			
Sec.D	8 (B)	PROVIDING BRICK WORK IN CM 1:6 (1 CEMENT & 6 COARSE SAND) USING OPC GRADE 43/53 AND FLY ASH LIME BRICKS (FAL - MIN STRENGTH 35 KG/CM ²) AS PER DRAWING AND SPECIFICATION FOR FOUNDATION, WALL ETC. INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, CURING , AT ALL ELEVATIONS AND LEVELS , RAKING OUT JOINTS ETC. COMPLETE AND AS DIRECTED BY ENGINEER EXCLUDING PLASTERING & PAINTING.	M3	9.00			
Sec.D	9	PROVIDING AND FIXING OF BEST QUALITY COUNTRY WOOD DOORS COMPRISING OF FRAME 95 X 70MM AND 38/40MM THICK FLUSH SHUTTERS OF SOLID CORE TYPE USING COMMERCIAL PLY INCLUDING HOLD FASTS, WIND APPLIANCES, HANDLES, TOWER BOLTS AND ALDROPS, MORTISE OR SUITABLE LOCKS ETC. AS PER THE STANDARD PRACTICE AND APPLYING TWO COATS OF SYNTHETIC ENAMEL PAINT OF APPROVED SHADE &COLOR OVER A COAT OF PRIMER AS DIRECTED BY BHEL ENGINEER.	M2	10.00			
Sec.D	10	SUPPLING, MANUFACTURING AND FIXING IN POSITION OF STEEL WINDOWS AND VENTILATORS INCLUDING FRAMES & IRON BARRED (GUARD BAR OF SQUARE SECTION @ 100 MM C/C) AND GLAZED WITH 4MM PLAIN GLASS AS PER STANDARD SPECIFICATIONS & RELEVANT IS CODE AND INSTRUCTIONS OF BHEL ENGINEER. THE COST SHALL BE INCLUSIVE OF ALL ACCESSORIES FITTINGS, HOLD FASTS, PAINTING TWO COATS OF SYNTHETIC ENAMEL PAINT OF APPROVED COLOUR AND QUALITY OVER ONE COAT OF RED OXIDE PRIMER ETC. COMPLETE.					
Sec.D	A	STEEL WINDOWS	M2	13.00			
Sec.D	B	STEEL LAUVERED VENTILATORS :-	M2	4.00			
Sec.D	14	PROVIDING PLASTERING WITH FOLLOWING CEMENT MORTAR AND GIVEN THICKNESS USING OPC GRADE 43/53 OVER BOTH INTERNAL AND EXTERNAL FACES OF BRICKWORK AND CONCRETE SURFACES, PARTITION WALLS ETC. AT ALL LEVELS INCLUDING PREPARING THE SURFACE, RAKING JOINTS, SCAFFOLDING, CURING, COST OF ALL MATERIALS, LABOUR ETC. COMPLETE.					
Sec.D	A	EXTERNAL PLASTERING - 18MM THICK - -1:6 (1 CEMENT & 6 COARSE SAND)	M2	45.00			
Sec.D	B	INTERNAL PLASTERING -12MM THICK - -1:6 (1 CEMENT & 6 COARSE SAND)	M2	45.00			
Sec.D	C	CEILING PLASTERING - 6MM THICK - -1:3 (1 CEMENT & 3 FINE SAND)	M2	25.00			

NAME OF WORK: DEVELOPMENT OF OPEN STORAGE YARD, ROADS, HARD SURFACING BY MURUM, FENCING, DRAINAGE, CONSTRUCTION OF CONCRETE PLATFORM, APPROACH ROAD OF OFFICE/SHED COMPLEX, INCLUDING EXTERNAL ELECTRIFICATION OF OPEN STORAGE YARD AREAS AT 4X270 MW BHADRADI TPS, Managuru, Telangana.							
SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	ITEM RATE in Figure (In Rs)	ITEM RATE IN WORDS (In Rs)	Total AMOUNT (In Rs)
Sec.D	11(A)	PROVIDING & APPLYING COLOUR WASH -THREE COATS ON NEWLY PLASTERED EXTERNAL SURFACE OF WALL BY USING BEST SHALE LIME TO GIVE AN EVEN SHADE INCLUDING PREPARING THE SURFACE LIKE CLEANING AND BRUSHING & BROOMING OF WALLS AND IN ACCORDANCE WITH STANDARD SPECIFICATION. RATE INCLUDE COST OF ALL MATERIALS : COLOURING AGENT, BASE COAT OF WHITE WASH,APPROVED ADDESSIVE, SCAFFOLDING AT ALL LEVEL, BRUSH ETC. COMPLETE.	M2	94.00			
Sec.D	13	ALL ELECTRICAL FITTING INCLUDING ONE TUBE LIGHT,ONE CEILING FAN,ONE 5AMP POINT SWITCH BOARD ETC FOR SECURITY CABIN	LUMPSUM P	4.00			
Sec.D		TOTAL VALUE OF SECTION-D IN Rs.					
RATE SCHEDULE, SECTION - E							
SECTION E: CONSTRUCTION OF MESS BUILDING (7.5MX14M) AT 4 X 270 MW Bhadradi PROJECT							
SECTION E	SL.NO	DESCRIPTION OF WORK	UNIT	QTY			
SEC-E	1(A)	EARTH WORK EXCAVATION FROM 0 (ZERO) TO 2 M DEPTH IN ALL KINDS OF SOIL (EXCEPT SOFT ROCK AND HARD ROCK) FOR FOUNDATIONS, SOAK PIT, RAMPS ETC. AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	M3	53.00			
SEC-E	1(B)	EARTH WORK EXCAVATION FROM 0 (ZERO) TO 2 M DEPTH FOR SOFT ROCK AND HARD ROCK (BY MANUAL CHISELING OR BY MECHANICAL MEANS BUT WITHOUT BLASTING) FOR FOUNDATIONS, SOAK PIT, RAMP ETC. AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	M3	10.00			
SEC-E	1(C)	SUB GRADE PREPARATION: CUTTING LEVELLING, FILLING WITH EXCAVATED EARTH, WATERING AND CONSOLIDATION FOR MESS BUILDING AREA AND PLINTH PROTECTION AROUND THE BUILDING AREA WITH ALL T&P, LABOURS, MATERIALS ETC. COMPLETE.	M2	133.00			
SEC-E	2	DISPOSAL OF EXCAVATED EARTHROCK (NOT SUITABLE FOR BACK FILLING) BEYOND INITIAL LEAD OF 50M AND UPTO A MAXIMUM LEAD OF 2 KM OR PART THEREOF INCLUDING LOADING, UNLOADING , TRANSPORTING AND SPREADING AS PER DIRECTION OF BHEL ENGINEER .	M3	48.00			
SEC-E	3	BACKFILLING OF FOUNDATION FLOORS AND PLINTH IN LAYERS NOT EXCEEDING 150MM THICK. INCLUDING WATERING AND CONSOLIDATING ETC. COMPLETE AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.					
SEC-E	A	WITH GOOD EXCAVATED SOIL AVAILABLE FROM THE EARTH WORK.	M3	16.00			
SEC-E	B	WITH GRANULAR MURUM IN LAYERS (THICKNESS OF EACH LAYER SHOULD NOT EXCEED 150MM) BELOW FLOORING , AND RAMP ETC AS PER STANDARD SPECIFICATION, RELEVANT DRAWINGS AND INSTRUCTED BY BHEL ENGINEER INCLUDING ROYALTY. CONTRACTOR HAS TO SUBMIT ROYALTY CERTIFICATE FROM CONCERNED STATE GOVT. MINING DEPARTMENT TRANSPORTATION INCLUDING ALL LEADS,ROYALTY, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.	M3	31.50			
SEC-E	C	WITH GOOD EARTH BROUGHT FROM OUTSIDE FROM CONTRACTOR'S OWN SOURCE INCLUDING ROYALTY ETC.	M3	9.00			
SEC-E	D	PROVIDING & FILLING IN SOAK PIT WITH BRICK BATS 40-80MM INCLUDING SAND PACKING ETC. COMPLETE, AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.	M3	16.00			
SEC-E	4(A)	PROVIDING AND LAYING OF PLAIN CEMENT CONCRETE OF MIX 1:4:8 USING OPC GRADE 43/53, 40 MM DOWN SIZE HARD BROKEN GRANITE STONE JELLY FOR FOUNDATION, FLOORING, COLUMN ETC. INCLUDING SHUTTERING, FINISHING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M3	20.00			
SEC-E	4(B)	PROVIDING AND LAYING OF 100 MM THICK PLAIN CEMENT CONCRETE OF MIX 1:3:6 USING OPC GRADE 43/53, 20 MM DOWN SIZE HARD BROKEN GRANITE STONE JELLY WITH TROWEL FINISH FOR PLINTH PROTECTION WITH TROWEL FINISH INCLUDING SHUTTERING, FINISHING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M3	7.00			
SEC-E	5	PROVIDING AND LAYING OF RCC MIX 1:2:4 USING OPC GRADE 43/53 , 20MM DOWN SIZE HARD BROKEN GRANITE STONE AGGREGATE INCLUDING MECHANICAL MIXING, VIBRATION, CURING, FORM WORK & CENTERING AS PER DRAWING AND SPECIFICATION AND DIRECTED BY BHEL ENGINEER BUT EXCLUDING COST OF REINFORCEMENTS.	M3	28.00			
SEC-E	6	PROVIDING AND LAYING DPC (DAMP PROOF COURSE) 50MM THICK IN 1:2:4 CEMENT CONCRET LAYER USING OPC GRADE 43/53AND WITH 6MM DOWN AGGREGATE. INCLUDING FORMWRK, BITUMEN FELT USING CEMENT WITH WATER PROOFING COMPOUND ETC. COMPLETE	M2	15.07			
SEC-E	7	PROVIDING , CUTTING, BENDING AND FIXING IN POSITION REINFORCEMENT OF VARIOUS DIA. USING HIGH TENSILE TOR STEEL (Fe - 415/500) . AS PER DRAWING AND SPECIFICATION AND AS DIRECTED BY BHEL ENGINEER INCLUDING COST OF ALL MATERIALS, LEADS, LIFT, LABOURS, MS BINDING WIRE 18/20 GAUGE, TACK WELDING AND SUPPORTING IF REQUIRED COMPLETE.	MT	4.00			
SEC-E	8 (B)	PROVIDING BRICK WORK IN CM 1:6 (1 CEMENT & 6 COARSE SAND) USING OPC GRADE 43/53 AND FLY ASH LIME BRICKS (FAL - MIN STRENGTH 35 KG/CM ²) AS PER DRAWING AND SPECIFICATION FOR FOUNDATION, WALL ETC. INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, CURING , AT ALL ELEVATIONS AND LEVELS , RAKING OUT JOINTS ETC. COMPLETE AND AS DIRECTED BY ENGINEER , EXCLUDING PLASTERING & PAINTING.	M3	83.00			
SEC-E	9	PROVIDING AND FIXING OF BEST QUALITY COUNTRY WOOD DOORS COMPRISING OF FRAME 95 X 70MM AND 38/40MM THICK FLUSH SHUTTERS OF SOLID CORE TYPE USING COMMERCIAL PLY INCLUDING HOLD FASTS, WIND APPLIANCES, HANDLES, TOWER BOLTS AND ALDROPS, MORTISE OR SUITABLE LOCKS ETC. AS PER THE STANDARD PRACTICE AND APPLYING TWO COATS OF SYNTHETIC ENAMEL PAINT OF APPROVED SHADE &COLOR OVER A COAT OF PRIMER AS DIRECTED BY BHEL ENGINEER.	M2	4.00			
SEC-E	10	PROVIDING AND FIXING OF 18 GUAGE M.S. SHEET DOOR WITH FRAME WORK 40 X 40 X 6 MM M.S. ANGLE INCLUDING LOCKING ARRANGEMENTS, HOLD FAST , APPLYING ANTICORROSSIVE PRIMER COAT OF RED LEAD PAINT AND 2 COATS OF SYNTHETIC ENAMEL PAINT OF APPROVED COLOUR COMPLETE. AS DIRECTED BY BHEL ENGINEER.	M2	4.00			

NAME OF WORK: DEVELOPMENT OF OPEN STORAGE YARD, ROADS, HARD SURFACING BY MURUM, FENCING, DRAINAGE, CONSTRUCTION OF CONCRETE PLATFORM, APPROACH ROAD OF OFFICE/SHED COMPLEX, INCLUDING EXTERNAL ELECTRIFICATION OF OPEN STORAGE YARD AREAS AT 4X270 MW BHADRADI TPS, Managuru, Telangana.							
SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	ITEM RATE in Figure (In Rs)	ITEM RATE IN WORDS (In Rs)	Total AMOUNT (In Rs)
SEC-E	11	SUPPLYING, MANUFACTURING AND FIXING IN POSITION OF STEEL WINDOWS AND VENTILATORS INCLUDING FRAMES & IRON BARRED (GUARD BAR OF SQUARE SECTION @ 100 MM C/C) AND GLAZED WITH 4MM PLAIN GLASS AS PER STANDARD SPECIFICATIONS & RELEVANT IS CODE AND INSTRUCTIONS OF BHEL ENGINEER. THE COST SHALL BE INCLUSIVE OF ALL ACCESSORIES FITTINGS, HOLD FASTS, PAINTING TWO COATS OF SYNTHETIC ENAMEL PAINT OF APPROVED COLOUR AND QUALITY OVER ONE COAT OF RED OXIDE PRIMER ETC. COMPLETE.					
SEC-E	A	STEEL WINDOWS	M2	18.00			
SEC-E	B	STEEL LAUVERED VENTILATORS :-	M2	1.00			
SEC-E	12	PROVIDING AND LAYING OF 5.5 MM THICK CERAMIC TILES OF REQUIRED SIZE LAID OVER THE BED OF CM - 1:4 (1 CEMENT & 4 COARSE SAND) USING OPC GRADE 43/53.TILES FROM REPUTED MANUFACTURER LIKE JONSON OR EQUIVALENT INCLUDING ALL MATERIALS COMPLETE AS PER STANDARD PRACTICE AND SPECIFICATION.					
SEC-E	A	FLOORING -600MM X600MM	M2	74.00			
SEC-E	B	FLOORING -300MM X300MM	M2	31.00			
SEC-E	C	SKIRTING - 300MM X 150MM	M2	12.00			
SEC-E	13	SUPPLYING AND FIXING OF WHITE GLAZED VITRIFIED TILES OF REQUIRED SIZES LAID OVER THE BED OF CM - 1:4 (1 CEMENT & 4 COARSE SAND) USING OPC GRADE 43/53 , DADO IN TOILET & PANTRY ROOM UP TO 1.5 M ELEVATIONS INCLUDING PEREPARATION OF BASE LAYING UNDERBED, FINISHING AND ROUNDING CORNERS AND JUNCTIONS, CURING ETC. COMPLETE AS PER DRAWINGS AND SPECIFICATIONS.					
SEC-E	A	FLOORING (5.0MM TO 6.0MM THICK OF SIZE 300MM X 300MM)	M2	15.00			
SEC-E	B	DADO (5MM TO 6MM THICK OF SIZE 150MM X 150MM) - 1.5M HEIGHT FROM FINISHED FLOOR LEVEL	M2	22.00			
SEC-E	14	PROVIDING PLASTERING WITH FOLLOWING CEMENT MORTAR AND GIVEN THICKNESS USING OPC GRADE 43/53 OVER BOTH INTERNAL AND EXTERNAL FACES OF BRICKWORK AND CONCRETE SURFACES, PARTITION WALLS ETC. AT ALL LEVELS INCLUDING PREPARING THE SURFACE, RAKING JOINTS, SCAFFOLDING, CURING, COST OF ALL MATERIALS, LABOUR ETC. COMPLETE.					
SEC-E	A	EXTERNAL PLASTERING - 18MM THICK - -1:6 (1 CEMENT & 6 COARSE SAND)	M2	184.00			
SEC-E	B	INTERNAL PLASTERING -12MM THICK - -1:6 (1 CEMENT & 6 COARSE SAND)	M2	261.00			
SEC-E	C	CEILING PLASTERING - 8MM THICK - -1:3 (1 CEMENT & 3 FINE SAND)	M2	105.00			
SEC-E	15(A)	PROVIDING & APPLYING COLOUR WASH -THREE COATS ON NEWLY PLASTERED EXTERNAL SURFACE OF WALL BY USING BEST SHALE LIME TO GIVE AN EVEN SHADE INCLUDING PREPARING THE SURFACE LIKE CLEANING AND BRUSHING & BROOMING OF WALLS AND IN ACCORDANCE WITH STANDARD SPECIFICATION. RATE INCLUDE COST OF ALL MATERIALS , COLOURING AGENT, BASE COAT OF WHITE WASH,APPROVED ADDESSIVE, SCAFFOLDING AT ALL LEVEL, BRUSH ETC. COMPLETE.	M2	111.00			
SEC-E	15(B)	PROVIDING & APPLYING WHITE WASH - THREE COATS ON NEWLY PLASTERED INTERNAL SURFACE OF WALL BY USING BEST SHALE LIME TO GIVE AN EVEN SHADE INCLUDING PREPARING THE SURFACE LIKE CLEANING AND BRUSHING & BROOMING OF WALLS AND IN ACCORDANCE WITH STANDARD SPECIFICATION. RATE INCLUDE COST OF ALL MATERIALS , APPROVED ADDESSIVE, SCAFFOLDING AT ALL LEVEL, BRUSH ETC. COMPLETE.	M2	73.00			
SEC-E	15(C)	PROVIDING & APPLYING TO INTERIOR SURFACES OF MESS BUILDING BY TWO COATS OF OIL BOUND DISTEMPER (OBD) OF APPROVED SHADE COLOR AND MAKE CONFIRMING TO IS : 428 TO OBTAIN A EVEN FINISH AND UNIFORM COLOR OVER A COAT OF PRIMER AS PER MANUFACTURE RECOMMENDATION INCLUDING COST OF PAINT, SURFACE PREPARATION LIKE CLEANING AND BRUSHING & BROOMING OF WALLS , SCAFFOLDING AT ALL LEVEL ETC. COMPLETE. SURFACE PREPARATION SHALL BE DONE BY APPLYING PUTTY/PLASTER OF PARISH (POP) INCLUDING COST OF MATERIAL, LABOUR ETC. COMPLETE.	M2	261.00			
SEC-E	16	PROVIDING AND FIXING OVER HEAD HYDRAULIC DOOR CLOSER (HEAVY DUTY) OF APPROVED BRAND AND SIZE ON NECESSARY DOORS AS DIRECTED BY BHEL ENGINEER.	NO.	3.00			
SEC-E	17	PROVIDING AND FIXING WHITE GLAZED VITREOUS CHINA WASH HAND BASIN OF 55 CM X 40 CM SIZE INCLUDING COLD WATER PILLER TAP, BRACKETS, STOP TAP, CHROMIUM PLATED BOTTLE TRAP AND NECESSARY PIPE CONNECTIONS INCLUDING UPVC WASTE PIPE AND TRAP UPTO THE OUT SIDE FACE OF THE WALL, MAKING GOOD THE DAMAGED SURFACE, TESTING ETC. COMPLETE. PRIOR APPROVAL OF SAMPLE AND BRAND BY BHEL ENGINEER IS NECESSARY BEFORE USE.	NO	2.00			
SEC-E	18	PROVIDING AND FIXING IN POSITION OF HIGH CLASS BELGIUM OR SUPERIOR MAKE BEVELLED EDGE MIRROR OF SIZE 450MM X 550MM X 6MM WITH 16 MM DIA & 550MM LENGTH NICKEL PLATED TOWEL ROD MOUNTED ON 6 MM THICK PLYWOOD OR PLASTIC FOLDER SHEET. RATE TO INCLUDE COST OF ALL MATERIALS, LABOUR FOR FIXING THE WOODEN PLUGS WITH CP BRASS SCREWS AND WASHERS ETC. COMPLETE	NO	2.00			
SEC-E	19 (A)	PROVIDING AND FIXING IN POSITION OF 15 MM DIA NOMINAL SIZE SCREW DOWN TYPE CHROMIUM PLATES BRASS BIB COCKS OF STANDARD TYPE OF APPROVED MAKE AND QUALITY (LEADER MAKE OR EQUIVALENT) AS PER STANDARD SPECIFICATION.RATE INCLUDES JOINTING MATERIALS,SOCKETS,UNION NUT,TESTING, LABOURS FOR CARRYING AND FIXING ETC. COMPLETE	NO	3.00			
SEC-E	19(B)	PROVIDING AND FIXING IN POSITION OF 25 MM DIA GATE VALVE,INCLUDING ALL NECESSARY FITTING & FIXTURE ETC. COMPLETE AS PER STANDARD SPECIFICATION.	NO	3.00			
SEC-E	19 (C)	PROVIDING AND FIXING IN POSITION OF 40 MM DIA GATE VALVE,INCLUDING ALL NECESSARY FITTING & FIXTURE ETC. COMPLETE AS PER STANDARD SPECIFICATION.	NO	3.00			
SEC-E	20	PROVIDING AND FIXING IN POSITION OF 15 MM DIA NOMINAL SIZE SCREW DOWN TYPE CHROMIUM PLATES BRASS STOP COCKS OF APPROVED MAKE AND QUALITY (LEADER MAKE OR EQUIVALENT) AS PER STANDARD SPECIFICATION.RATE INCLUDES COST OF JOINTING MATERIALS, SOCKETS,UNION NUT,TESTING, LABOURS FOR CARRYING AND FIXING ETC. COMPLETE	NO	3.00			

NAME OF WORK: DEVELOPMENT OF OPEN STORAGE YARD, ROADS, HARD SURFACING BY MURUM, FENCING, DRAINAGE, CONSTRUCTION OF CONCRETE PLATFORM, APPROACH ROAD OF OFFICE/SHED COMPLEX, INCLUDING EXTERNAL ELECTRIFICATION OF OPEN STORAGE YARD AREAS AT 4X270 MW BHADRADI TPS, Managuru, Telangana.							
SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	ITEM RATE in Figure (In Rs)	ITEM RATE IN WORDS (In Rs)	Total AMOUNT (In Rs)
SEC-E	21	PROVIDING AND FIXING IN POSITION OF 100MM X 50MM HCI "NAHANI" TRAP WITH HCI GRATINGS, BENDS, CONNECTING PIECES OF CI PIPE UPTO OUTSIDE FACE OF THE WALL. MAKING GOOD THE DAMAGED SURFACE,TESTING ETC COMPLETE AS PER STANDARD SPECIFICATIONS. RATE TO BE ALL INCLUSIVE.	NO	3.00			
SEC-E	22	PROVIDING AND FIXING IN POSITION OF 150MM SALT GLAZED STONE WARE GULLY TRAP WITH HCI GRATINGS AND CI COVER OF SIZE 300X300 MM OF APPROVED MAKE (WEIGHT NOT LESS THAN 2 KG) AND QUALITY AS PER STANDARD SPECIFICATIONS. RATE TO BE ALL INCLUSIVE.	NO	3.00			
SEC-E	23	PROVIDING AND LAYING WITH REQUIRED GRADING & LEVELING IN TRENCHES MEDIUM GRADE (TYPE) GALVANISED IRON (G I) PIPE HAVING EMBOSSED ISI MARK ON IT, OF REQUIRED DIAMETER WITH SCREWED, SOCKETS, JOINTS, NECESSARY GALVANISED IRON FITTINGS SUCH AS SOCKETS, BACK NUTS, ELBOWS, BENDS, TEES, REDUCERS, ENLARGERS, PLUGS, CLAMPS ETC. INCLUDING ALL NECESSARY EXCAVATION, BACK FILLING, FIXING WITH CLAMPS, TESTING ETC. COMPLETE. (PRIOR APPROVAL OF SAMPLE AND BRAND BY BHEL ENGINEER IS NECESSARY BEFORE USE.)					
SEC-E	A	40MM DIA	RM	73.00			
SEC-E	B	25MM DIA	RM	36.00			
SEC-E	C	20MM DIA	RM	36.00			
SEC-E	D	15MM DIA	RM	36.00			
SEC-E	24	PROVIDING AT WORKING SITE, CARRYING AND LOWERING INTO TRENCHES, LAYING TO PROPER ALIGNMENT, LEVEL AND GRADE, JOINTING WITH CM (1:1) AND TESTING OF JOINTS ETC. OF THE FOLLOWING SIZE OF SALT GLAZED STONEWARE PIPE INCLUSIVE OF ALL NECESSARY SPECIALS TARRER HEMP YARN AND ALL JOINTING MATERIALS COMPLETE AS PER STANDARD SPECIFICATIONS INCLUDING ALL NECESSARY EXCAVATION ,BACKFILLING,DISPOSAL OF SURPLUS EARTH ,LEAD AND LIFT AS PER SITE CONDITIONS, RATE SHALL INCLUDE COST OF ALL MATERIALS, LABOUR CHARGES AND INCIDENTAL CHARGES ETC. COMPLETE.					
SEC-E	A	100MM DIA STONEWARE PIPELINE INCLUDING ALL SPECIALS COMPLETE.	RM	73.00			
SEC-E	25	PROVIDING AND FIXING IN POSITION OF PVC OVERHEAD WATER TANK OF SYNTEX OR ANY APPROVED MAKE OF FOLLOWING CAPACITY WITH PROVISION FOR OVERFLOW ARRANGEMENT VALVES, INLET AND OUTLET ETC. COMPLETE. SUPPORTING STEEL STRUCTURE FOR FIXING THE TANK SHALL BE PAID IN THE RELEVANT ITEM.					
SEC-E	A	1000 LITRE	NO	1.00			
SEC-E	26	CONSTRUCTION OF 230MM THICK BURNT CLAY / FLY ASH LIME BRICK CHAMBER (USING OPC GRADE 43/53) OF THE FOLLOWING DIMENSIONS (INNER DIMENSION) WITH 20MM THICK INTERNAL & EXTERNAL CEMENT PLASTER OF MIX CM 1:5 (1 CEMENT & 5 COARSE SAND) , NEAT CEMENT FINISH , TOP CI - COVER AND CONNECTORS FOR SEWER LINES. RATE SHALL BE INCLUSIVE OF ALL NECESSARY EXCAVATION & FILLING, PCC-100 MM THICK OF 1:3:6 FOR BEDDING ON 100MM THICK OVERSIZER SOLING WITH 80 MM METAL ETC. COMPLETE.					
SEC-E	A	600X450X450 WITH C.I COVER	NO	1.00			
SEC-E	B	900X600X450 WITH C.I. COVER	NO	1.00			
SEC-E	27	PROVIDING AND FIXING OF PRECAST 80 MM THICK RCC COVER OF MIX 1:1.5:3 FOR MAN HOLES OF VARIOUS SIZES WITH REINFORCEMENT OF 10 MM DIA BOTH WAY TIED WITH TACK WELDING @ 150 MM C/C WITH 2 HOOKS OF 12 MM DIA BARS ETC.COMPLETE.					
SEC-E	A	750MM x 600MM	Nos.	1.00			
SEC-E	B	1050MM x 750MM	Nos.	1.00			
SEC-E	28	PROVIDING AND FIXING CHROMIUM PLATED TOWEL ROD 16 MM DIA. AND 75CM. IN LENGTH INCLUDING ALL ACCESSORIES COMPLETE. (PRIOR APPROVAL OF SAMPLE AND BRAND BY BHEL ENGINEER IS NECESSARY BEFORE USE).	NO.	2.00			
SEC-E	29	PROVIDING & FIXING OF LIQUID SOAP DISPENSER AT ALL WASH BASIN LOCATION.	NO.	2.00			
SEC-E	30	PROVIDING AND FIXING OF METALLIC DECORATIVE TYPE HEAVY DUTY PELMET ROD FOR DOORS AND WINDOWS. RATE TO INCLUDE ALL NECESSARY FITTING & FIXTURE, LABOUR ETC. AS APPROVED BY BHEL ENGINEER.	EACH	9.00			
SEC-E	31	PROVIDING AND FIXING OF AQUA-GUARD OR EQUIVALENT WATER PURIFIER, ALONG WITH ALL FITTINGS. RATE TO INCLUDE ALL NECESSARY FITTINGS & FIXTURES, LABOUR ETC.AS APPROVED & DIRECTED BY BHEL ENGINEER.	NOS.	2.00			
SEC-E	32	PROVIDING AND FIXING OF 1 No. 18"x24" SIZE STAINLESS STEEL SINK WITH ALL FITTINGS LIKE DRAIN PIPE, STOP VALVE ETC.RATE TO INCLUDE ALL NECESSARY FITTING & FIXTURE, LABOUR ETC.AS APPROVED & DIRECTED BY BHEL ENGINEER.	NOS.	1.00			
SEC-E	33	PROVIDING AND FIXING 40MM THICK BEST QUALITY KADDAPPA SLAB OF REQUIRED SHAPE FOR FIXING SS SINK FOR KITCHEN COUNTER AND RACKS FOR KITCHEN STORE AREA ETC.COST INCLUSIVE OF MAKING OPENING AND FINISHING COMPLETE.	Sqm.	22.00			
SEC-E	34	SUPPLYING AND INSTALLATION OF 4 SEATER INDUSTRIAL TYPE SS (STAINLESS STEEL) DINNING TABLE WITH SS STOOL (FOLDING/ ADUSTABLE TYPE) FROM STANDARD MANUFACTURER (APPROVAL OF BHEL IS REQUIRED BEFORE PROCUREMENT).	LS	4.00			
SEC-E		TOTAL VALUE OF SECTION-E IN Rs.					
RATE SCHEDULE, SECTION - F							
SECTION F: ELECTRIFICATION OF MESS BUILDING (7.5MX14M) AT 4 X 270 MW Bhadradi PROJECT							
SECTION F	SL.NO	DESCRIPTION OF WORK	UNIT	QTY			
SECTION F	1	SUPPLY OF 415 VOLT AC , 3 PHASE /FOUR WIRE POWER FEEDER PILLAR BOARD , BOARD SHALL BE COMPRISES OF THREE NUMBER AND ONE NUMBER ALUMINIUM BUS BAR FOR PHASE & NEUTRAL RESPECTIVELY. BUS BAR RATING SHALL BE 200 AMPS AND SHALL BE MOUNTED ON EPOXY INSULATOR OF 1.1 KV GRADE, EACH BUS BAR SHALL HAVE DRILLED HOLE FOR CONNECTING INCOMING / OUT GOING CABLES. PROVISION FOR EARTHING THE PANEL ENCLOSURE. PANEL ENCLOSURE SHALL BE MADE OF SHEET METAL THICHNESS NOT LESS THAN 1.6 MM AND SUITABLE FOR OUT DOOR INSTALLATION, HINGED DOOR WITH LOCKING ARRAGEMENT , BASE FRAME , SHOULD HAVE SLOPPED CANOPY , DULY PAINTED WITH FIRST COAT WITH PRIMER AND TWO COATS OF SYNTHETIC ENAMEL PAINT (INTERIOR WITH WHITE PAINT AND EXTERIOR WITH SMOKE GREY AS PER IS), SUITABLE STOOL MADE OUT OF MS STRUCTURE OF 1.2 METER HIGH FOR MOUNTING OF PANEL WITH ANCHORING ARRAGEMENT AT FOUNDATION .	Set	1.00			

NAME OF WORK: DEVELOPMENT OF OPEN STORAGE YARD, ROADS, HARD SURFACING BY MURUM, FENCING, DRAINAGE, CONSTRUCTION OF CONCRETE PLATFORM, APPROACH ROAD OF OFFICE/SHED COMPLEX, INCLUDING EXTERNAL ELECTRIFICATION OF OPEN STORAGE YARD AREAS AT 4X270 MW BHADRADI TPS, Manauguru, Telangana.							
SECTION	SL.NO	DESCRIPTION OF WORK	UNIT	QTY.	ITEM RATE in Figure (In Rs)	ITEM RATE IN WORDS (In Rs)	Total AMOUNT (In Rs)
SECTION F	2	PROVIDING AND INSTALLING WIRING USING 2.5 SQ.MM COPPER CONDUCTOR THROUGH PVC CONDUIT OF REQUIRED SIZE WITH ACCESSORIES AND FIXTURES .WIRING SHALL BE CONCEALED TYPE FOR WHREVER REQUIRED AS PER INSTRUCTED BY BHEL ENGINEER IN PVC CONDUIT OF REQUIRED SIZE.	PER POINT	20.00			
SECTION F	3	PROVIDING AND INSTALLING WIRING FOR USING 4.0 SQ.MM COPPER CONDUCTOR THROUGH PVC CONDUIT OF REQUIRED SIZE WITH ACCESSORIES AND FIXTURES .WIRING SHALL BE CONCEALED TYPE FOR WHREVER REQUIRED AS PER INSTRUCTED BY BHEL ENGINEER IN PVC CONDUIT OF REQUIRED SIZE.	PER POINT	4.00			
SECTION F	4	PROVIDING AND INSTALLING WIRING FOR USING 6.0 SQ.MM COPPER CONDUCTOR THROUGH PVC CONDUIT OF REQUIRED SIZE WITH ACCESSORIES AND FIXTURES .WIRING SHALL BE CONCEALED TYPE FOR WHREVER REQUIRED AS PER INSTRUCTED BY BHEL ENGINEER IN PVC CONDUIT OF REQUIRED SIZE.	PER POINT	4.00			
SECTION F	5	PROVIDING AND INSTALLING WIRING FOR USING 16.0 SQ.MM COPPER CONDUCTOR THROUGH PVC CONDUIT OF REQUIRED SIZE WITH ACCESSORIES AND FIXTURES .WIRING SHALL BE CONCEALED TYPE FOR WHREVER REQUIRED AS PER INSTRUCTED BY BHEL ENGINEER IN PVC CONDUIT OF REQUIRED SIZE.	PER POINT	4.00			
SECTION F	6	POVIDING AND INSTALLATION OF PLUG POINT OF 5A SOCKET (ANCHOR OR EQUIV.) OUTLET FOR WHREVER REQUIRED AS PER INSTRUCTED BY BHEL ENGINEER INCLUDING WIRING TERMINATION.	NO	4.00			
SECTION F	7	POVIDING AND INSTALLATION OF PLUG POINT OF 15A SOCKET (ANCHOR OR EQUIV.) OUTLET FOR WHREVER REQUIRED AS PER INSTRUCTED BY BHEL ENGINEER INCLUDING WIRING TERMINATION.	NO	4.00			
SECTION F	8	PROVIDING AND FIXING ORDINARY TUBELIGHT WITH FRAME OF STANDARD MANUFACTURER LIKE PHILIPS/BAJAJ OR EQUIVALENT AS APPROVED BY BHEL. THIS INCLUDES TUBE LIGHT FITTINGS , ALL NECESSARY ELECTRICAL FITTINGS (STARTER AND CHOCK ETC) ETC. COMPLETE.	NO.	12.00			
SECTION F	9	PROVIDING AND FIXING EXHAUST FANS 12" DIAMETER WITH FRAME OF STANDARD MANUFACTURER LIKE CROMPTAN GREEVES OR EQUIVALENT AS APPROVED BY BHEL.	NO.	2.00			
SECTION F	10	PROVIDING AND FIXING CEILING FAN 48" DIAMETER OF APPROVED COMPANY SUCH AS CROMTAN GREEVES OR ANY OTHER STANDARD MANUFACTURER AS DIRECTED BY BHEL.	NO	8.00			
SECTION F	11	PROVIDING AND FIXING CALLING BELLS WITH INDICATOR LIGHT OF STANDARD MANUFACTURER OR EQUIVALENT AS APPROVED BY BHEL. INCLUDING ALL FITTINGS .	NO	1.00			
TOTAL VALUE OF SECTION-F IN Rs.							
TOTAL SUMMARY			Total Amount (In Rs)				
Total of Section A - DEVELOPMENT OF OPEN STORAGE YARD, ROADS, DRAINS AND FENCING (105,000 sqm.)			-				
Total of Section B - ELECTRICAL & ILLUMINATION FOR THE ABOVE			-				
Total of section-C -Concrete sleeper			-				
Total of section-D-Security CABIN			-				
Total of Section-E- Construction Of Mess Building			-				
Total of Section-F- Electrification Of Mess Building			-				
Grand Total (Section-A + Section-B + Section-C + Section-D+Section-E+Section-F) In Rs			-				