

GENERAL SPECIFICATION

MIG House

▪ FOR BUILDING WORK

1. Building Details: The bidder is to construct the MIG building as per following details:-

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| (i) | Location | Bandhi, Teh- Pendra, Distt Gourella Pendra Marwhi (CG) |
| (ii) | No of Houses | 07 Nos (The House Numbers will be decided by the board) |
| (iii) | Built up Area | As per attached Building permission drawing approved by T&C.
(77.15 Sqm including half area of verandah & porch) |
| (iv) | Boundary wall | MIG plot size outer boundary as per elevation & drawing approved by T&C. |
| (v) | Opening Size | The size of Door, window and other openings to be as per drawing or decided by the board. |

2. Scope of Soil Testing & Structural design:

Soil testing and R.C.C. framed Structural design to be done by contractor on his own cost. The approval of structural design will be done by any N.I.T or any government engineering college, it will also be done by contractor on his own cost.

Requirements are given below:-

- a. **Foundation:** The foundations for building shall be R.C.C. column –footing foundation up to required depth below natural ground level or on Geo–technical report of soil strata and design requirement. The Foundation & Plinth Beam shall be RCC.
- b. **Super Structure:** As per design R.C.C. Framed Structure with nominal mix M20 grade grades shall be adopted.
- c. **Reinforcement** – Fe 415/500D of TMT. All steel shall be procured from 'Original producers' who manufacture billets directly from iron ores and roll the billets to produce steel conforming to IS:1786, No re-rolled steel shall be incorporated in the works."

3. Furnished Model House 01 unit to be constructed within 7 months of agreement .(Complete in all respect i/c all necessary electrical,water supply ,Sanitary Fittings,Sofa,Bed,Tea Table,Fan,Lights etc as per direction of Engineer in Charge).

If contractor fails to construct model house within 7 months then Rs 10.00 Lacs will be withheld from Running Bill.

4. General specification:

1	Plinth work	:	Base Work- Base concrete 1:4:8, 10cm thick below footing as per approved drawing. RCC Work- As per design R.C.C. frame structure with nominal mix M20 grade concrete as designed shall be adopted for different components
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		:	<ul style="list-style-type: none"> • R.C.C. Foundation as per approved design. • R.C.C. Beams & column in Superstructure above Plinth level • Reinforcement - FE 415/400D of TMT category (Make:- GOEL/ MSP/ Shrishtii/ Nakoda/ Nandan/ GK) <p>Plinth height –</p> <p>Minimum 0.60 mtr. from finished top road level in front of house and adequate steps to be provided as per requirement for front and back entry as per design.</p> <p>Plinth filling – Hard Moorum/sand/stone dust should be filled at plinth, wash area, rear stair and porch area (Extra excavated stuff can be used when useful otherwise will have to be disposed out.) Plot shall also be leveled up to required depth below plinth level from borrow pit soil or from excavated stuff is seemed to be good for filling.</p> <p>Damp proof course – Damp proof course of 1:2:4 cement concrete 50mm thick (with 10mm to 20 mm grade hard metal) and Applying a coat of hot bitumen VG-10 using @ 1.7kg/ sqm on damp proof course</p> <p>Approach slab- RCC 1:1.5:3 in 120mm thickness from existing road edge to entrance gate approach slab to be done as per direction of Engineer in charge.</p> <p>Anti Termite Work- Surface treatment by spreading emulsion under floor, over the plinth area before laying base concrete for Anti termite treatment should be done in each-houses (chemical used-chlorpyrifos/lindane) with recommended diluting (with water) by manufacturer (05 year service guarantee) and should be done as directed by Engineer-in-Charge.</p>
2	Superstructure	:	<p>As per drawing & Designs Approved by Engineer in charge</p> <hr/> <p>RCC frame structure with M-20 concrete as per approved structural drawing ,Grade of concrete should not be less than M-20 including all related work (ACC / AMBUJA / ULTRATECH CEMENT),</p>

			<p>All R.C.C. sun shade (chhajjas) shall be casted with plain face and bottom surface with drip mould and smooth quarter round cement concrete (haller) at top with cement concrete M-20, cement concrete haller at corner of Roof slab should also be provided as per Engineer-in-Charge.</p> <p>Masonry work in plinth & foundation with Fly Ash bricks in cement mortar 1:6 (1- cement : 6-fine aggregate) crushing strength of bricks should not be less than 35Kg./sqcm. & plastered all exposed side in cement mortar 1:5 (1-cement:5-Sand 12 mm & 15 mm thick wherever required as per Engineer-in-Charge</p> <p>Parking (Porch) height – Miniumn 0.30 mtr. From finished road top level and adequate steps/ramp (should be of R.C.C) be provided to facilitate two/four wheeler parking in front side from road as per design to be decided by Engineer-in-charge.</p>
3	Masonry Work	:	<p>A) 20cm thick Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation, plinth , Super Structure & Boundary Wall in: Cement Mortar 1:6 (1 cement : 6 coarse sand) as per Drawing.</p> <p>B) Half brick thick brick masonry with fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in superstructure above plinth level upto plinth level: Cement Mortar 1:4 (1 cement : 4 coarse sand)</p> <p>C)</p> <p>RCC bend of 10 cm thick with main bar of 8mm 2 bars and 8 mm dia Pin @ 20 mm C/C at Window sill, RCC bend of 10 cm thick with main bar of 8mm 2 bars and 8 mm dia Pin @ 20 mm C/C for half brick complete wall at sill level .Lintel beam as per drawings should be provided at lintel level at all brick masonry work Walls. chhajjas as per design and drawings shall be provide by Engineer-in-Charge.</p> <p>Parapet wall with One or half brick thick (as per elevation) Fly ash bricks or MS grills height up to 0.90 mtr and 50mm thick CC copping (1:2:4:) at top.</p>
3	Slab	:	<p>As per R.C.C. design (min 125 cm thick) approved by N.I.T or any other government engineering college for roofing with reinforcement. For grading of roof slab 40mm thick cement concrete flooring with cement concrete 1:2:4 finished with a floating coat of neat cement with water proofing compound at the top of the roof shall be done.</p>
4	Ceiling Height	:	<p>3.0 meter clear height from finished floor top to ceiling bottom.</p>
5	Joinery	:	<p>Door Frame (Excluding WC/Bath)– Providing and fixing Wood frames of doors Sal, bijasal, benteak, khair, haldu with section size 0.125 x 0.075 m (Double Ptam for all outer door) all door opening including fixing of necessary</p>

		<p>Hole fast,butt hinges and screws and applying a priming coat of approved steel primer.</p> <p>Door Shutters –</p> <p>(1) All doors:- 30mm thick flush door shutters, flush door shutters, core of block board construction with frame of first class hard wood and well matched first class Indian teak ply veneering on one face and commercial ply veneering on the other face of the shutter .</p> <p>(Make:-Kothari/National/Green/Century/Archid/cghb aproved)</p> <p>Stainless steel Door Fittings for one door-</p> <p>Entrance Flush door-</p> <p>i. Sliding bolt (L- Drop) : 1 no. 250 × 16X 2.5mm. ii. Door stopper double : 1 no. iii. Handle : 2 nos. 125 mm (Clear) iv. Latch : 1 no. 250x12x2.5mm. v. Tower bolt (barrel type) : 1 no.250x10mm vi. SS Butt hinges : 3 no. heavy 125x2.5mm upto 0.90 mtr door opening and 4 no heavy 125x2.5mm for more than 0.90 mtr door opening</p> <p>PVC Door aluminium fittings for one door-</p> <ul style="list-style-type: none"> • Door Handle: 2 nos. 100 mm • Latch: 2 no. 250 × 12 mm <p>Door Frame and shutter for WC / Bath-</p> <p>Providing and fixing 25mm thick factory made panel PVC door shutter in all Toilets ,baths PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762mm X 25mm or less as per requirement with an average wall thickness of 1mm ± 0.3mm. PVC foam end cap of size 23x10mm are provided on both vertical edges to ensure the overall thickness of 25mm. An M.S. tube having dimensions 19mm x 19mm is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25mm X 11mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufactures' specification.</p> <p>P.V.C. door frame of size 50x47mm with a wall thickness of 5mm i/c all aluminum Doors fittings as per approved by Engineer in charge. (Make : - Sintex/CGHB Approved)</p> <p>Railling-</p> <p>SS railing of SS Grade 304 in Entrance stair and M.S. Grill minimum 12 mm dia bar in Window/Ventilation/balcony of multi sections to be provided as per Approved Design & direction of Engineer in charge.</p>
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6	Window & Ventilator	:	<p>Grill-</p> <p>M.S. Grill of 12 mm sq bar vertical @ 125mm c/c and 12mm sq bar horizontal 6 nos and frame of M.S. flats 35x5 mm welded to steel frame of windows etc. including applying a priming coat of primer to be approved by Engineer-in-charge.</p> <p>Window-</p> <p>Window, Ventilator frame & Shutter : Providing and fixing aluminum work Three track windows, two track ventilators and fixed partitions made out of extruded aluminum standard section minimum thickness 1.2 mm with powder coating conforming to IS: 733, IS: 1285 mitred and jointed mechanically including aluminum cleats, neoprene weather stripping gasket beveled edge beading, screws duly fixed in wall/ floor with fixing clips or hold fasteners or bolts and nuts as required aluminum sections shall be anodized transparent or dyed to approved shade according to IS: 1868 i/c Glazing With float glass panes of 5 mm thickness and fixing wire gauge of average width of aperture 1.56mm with wire of 0.35mm at three track window.</p> <p>For shutter of doors, windows & ventilators including providing and making provision for fixing of fitting wherever required including the cost of PVC/ neoprene gasket required including all fittings and Glazing With float glass panes of 5 mm thickness.(Aluminum Window Make-Jindal/Hindalco/cghb approved make),(Glass make-saint-Gobain/modi/ cghb approved make)</p> <p>Nominal mix C.C. 1:2:4 50mm thick at all window and ventilation sills.</p>
7	Flooring	<p>A</p> <p>Providing and laying DOUBLE/MULTI CHARGE (minimum 2.0 mm thick layer) vitrified floor tiles with water absorption less than 0.5% and conforming to IS : 15622 of approved make in all colours and shades and size mentioned below (+/- 10mm), laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc. complete.. Size 600x600 mm thickness 9 to 10 mm G.F Bedrooms ,Dining , Drawing Room, kitchen , Verandah, . all area should be provided with 100 mm skirting all around of same tiles. As per drawing or as approved by Engineer-in- charge .(Make :kajaria / RAK/Varmora)</p> <p>B</p> <p>Providing and Fixing rectified glazed ceramic floor tiles of 1st quality conforming to IS: 15622-2017 of approved make,in all colours shade over 20mm thick bed of cement mortar 1:3 (1 cement:3 coarse sand) and joining with grey cement slurry @ 3.3kg per sqm. including pointing in white cement mixed with matching pigment complete. Size 400x400 mm In Toilet, Bath & Open Wash Area As per drawing or as approved by Engineer-in- charge . (Make :kajaria / RAK/Varmora)</p> <p>C</p> <p>Providing and fixing Rectified ceramic glazed wall tiles conforming to IS : 15622 of approved make, colours, shades and size on wall and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm</p>	

			<p>including pointing in white cement mixed with matching pigment complete. size 300x450mm</p> <ul style="list-style-type: none"> • Toilet/Bathroom Wall ht- 2.10 Mtr • Wash Area ht - 1.20 Mtr <p>. As per drawing or as approved by Engineer-in- charge .(Make :kajaria / RAK/Varmora)</p>
		D	15 mm thick Table rubbed polished Grey/Pink Granite stone slab in risers and treads of steps skirting dado and pillars laid on 12mm (Average) thick base of cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry including rubbing and polishing etc. complete in Entrance stair,back stair and steps as per approved drawing or as directed By Engineer in Charge . Moulding & Polishing as per requirement
		E	Providing & laying 60mm thick precast interlocking concrete blocks of approved size Pigment Coloured precast interlock concrete blocks in All Front, Side And Back Set Back Area As per drawing or as approved by Engineer-in- charge .(Area upto 35.00 sqm) Plain/ normal coloured precast interlock concrete block
8	Kitchen Platform	:	15mm thick Black Granite work (machine cut, table rubbed & mirror polished) for kitchen platform, vanity counters, Door sills and similar locations of required size laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) including joints treated with white cement mixed with matching pigment including rubbing and polishing to edge moulding to give high gloss finish. Granite stone black with full Moulding & polishing in 60 cm wide Kitchen platform ,kitchn patta 125 mm ht all around & Door Sill or as approved by Engineer-in- charge.
9	Dado Kitchen	:	Rectified Ceramic glazed wall tiles Size 300 x 450 mm upto 0.60 meter height above kitchen platform to be provided.(Make :kajaria / RAK/Varmora)
10	Plaster	:	<p>a) 6mm thick plaster in cm 1:4 on ceiling, chhajjas and RCC work as required shall be done.</p> <p>b) 12mm/15 mm inner wall, outer wall in CM 1:5 and parapet wall surface as required shall be done.</p> <p>c) According to the building elevation the contractor will have to develop the elevation (like groove, moulding, patta, projection and others) in the building.</p>
11	Drip Course ,Concrete Gola & Parapet coping	:	Drip course 5.00 cm x 1.3 cm. to be done on exposed R.C.C. work and concrete gola 7.50cm x 7.50cm also to be done at junctions of wall slab & chhajjas shall be done. Nominal mix C.C. 1:2:4 40mm thick parapet coping to be done. Neat Cement punning over chajja
12	Painting	:	<p>Inner Surface -</p> <p>1) Providing and applying 2mm thick ready mix exterior grade approved make putty (like Birla wall care, Asian, J.K. wall putty) to make the surface smooth and even at all inner surface including porch, balcony, verandah & chajja bottom.</p>


			<p>2) Acrylic premium emulsion (plastic) paint two or more coat at all inner surface over putty work, shade and pattern approved by Engineer-in-charge.</p> <p>(Make:- Asian/Dulux/Nerolac/Berger only)</p> <p>Outer Surface (Including Compound & Parapet wall) -</p> <p>1) Providing and applying 2mm thick ready mix exterior grade approved make putty (like Birla wall care, Asian, J.K. wall putty) to make the surface smooth and even</p> <p>2) Painting two or more coat exterior surface with PREMIUM ACRYLIC SMOOTH exterior paint of required shade as per manufacturer's specifications to give protective and decorative finish including priming coat of exterior primer. Shade & Make as directed by Engineer-in-charge. (Make:- Asian apex ultima/Dulux Weathersheid/Nerolac Excel)</p> <p>Wood & Grill -</p> <p>Synthetic Enamel Paint of approved make two or more coat coats including priming coat for doors Shutter,frame,Window & Ventilator,Main Gate & Parapet grill</p> <p>Door Shutter one side French spirit polish & other side syntetic enamel paint. Shade & Make as directed by Engineer-in-charge. (Make:- Dulux/Asian/Nerolac)</p>
13	Chicken Mesh	:	Chicken Mesh will be provided at each junction of brick masonry and RCC work to be provided and as per instruction of Engineer-in-Charge.
14	Boundary/Compound wall		<p>Boundary wall with R.C.C. column ,footing and 20 cm brick masonry, plastering painting and 50 mm Rcc coping etc complete should be constructed as per drawing as approved by Engineer-in-Charge .</p> <p>Height of Boudary wall from Ground level of building, should be not less than 1.80 mtr & 5 cm. thick CC coping at top of wall, 12mm/ 15mm cement plaster in cement mortar 1:5 including developing groove, patta, projections etc. Painting & priming as per attached design and instruction of Engineer-in-Charge</p> <p>Main Gate width 2.70 m and height 1.80 mtr with M.S.angle 50x50x5mm frame and inside MS 50x25x3.2mm Hollow flat pipe in each house as per Elevation & Drawing as approved by Engineer-In-Charge.</p>
15	Water Proofing		<p>For WCs, bathroom, kitchen-</p> <p>Providing and laying water proofing treatment in sunken portion of WCs, bathroom, kitchen etc., by applying cement slurry mixed with water proofing cement compound consisting of following applications including surface preparation in superstructure of 15mm</p>

		<p>ms dia drain pipe</p> <p>i) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours.</p> <p>ii) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.</p>
16	Internal Water Supply	<p>A) Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required in kitchen, Utility, wash, bath & toilet with Chlorinated Polyvinyl Chloride (CPVC) pipes of size 15 mm, 20 mm, 25 mm, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per required & direction of Engineer in Charge. The pipeline work will have to be connected to the external water supply line. (Make:- Supreme/Finolex/Astral)</p> <p>In each house as required Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:</p> <ul style="list-style-type: none"> • Bib cock (400 grams) - 3 nos • Long nose bib cock (500 grams) for Kitchen - 2 nos • Piller Cock (400 grams) - 3nos • Angle valve for basin mixer and geyser points (450gms) - 12 nos • Stop cock (concealed) (600 grams)-wherever required • Providing and fixing in position. (Each House) chromiun shower bath 100 X 15 mm casted or sheet pressed with ri complete including gasket joint at any floor. – 2 nos • Health foscet (hand jet) with flexible connection pipe (for WC) – 2 nos • CP brass water jet to be fixed in seat cover of WC with flexible connection pipe – 2 nos • Brass Ferrule 15/20 mm nominal bore <p>Unions and other fittings are to be provided as per requirement and as directed by Engineer In charge for easy maintenance.</p> <ul style="list-style-type: none"> • Supplying, fitting & fixing (Each House) wall mixture single control recessed bath and shower valve in polished

			<p>chrome with folia recessed bath and shower faucet trim with lever handle - 2nos</p> <p>(Make:- Jaquar/ Hindware/ Kohler)</p> <p>B) As per requirement in each house Providing and fixing in position 100 mm PVC nahani trap & SS strain jail with hinged perforated cover complete with gasket and cement caulked joints including making necessary chases and holes in floors and walls and repairing the same to original condition with providing and fixing chromium plated Nahani Trap grating/CP Squar Jali.</p>
17	Kitchen Sink		<p>Providing and fixing Stainless Steel of size 560x410x215 mm A ISI 304 (18/8) kitchen sink without drain board as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required with fixing of flexible P.V.C. waste pipe up to nahani trap etc. all complete as approved by Engineer In charge.</p> <p>(Make:- Nirali/Zayna/Sincore)</p>
18	Wash hand basins		<p>Providing and fixing in position 02 nos White Oval or Round size 550x400 mm flat back with pedestal comprising of glazed vitreous china of specified size with central slot for single valve, only and enamel of aluminum paint, cast iron brackets, 32 mm dia G.I. Waste coupling with C.P. chain & bottle trap set with extension pipes and hard rubber plug, 15mm lead inlet connection not less than 375mm in length with 15mm dia CP brass heavy angle cock (450 grams) location decided by Engineer-in-charge.</p> <p>(Make:- Jaquar/ Hindware/ Kohler)</p>
19	Water closet		<ol style="list-style-type: none"> 1. Providing and fixing 01 nos vitreous china water closet (European type W.C. pan) with white ISI marked plastic seat and lid, 10 litre low level white P.V.C. flushing cistern (same colour), conforming to IS : 7231, with all fittings and fixtures & Providing. White wall hung type 2. Providing and fixing 01 no. water closet pan (Indian type W.C. pan), 100mm P or S trap, 10 litre low level P.V.C. flushing cistern (same colour) conforming to IS : 7231, with flush bend and other fittings and fixtures of size White Orissa pattern W.C. pan of size 580x440 mm. location decided by Engineer-in-charge. <p>(Make:- Jaquar/ Hindware/ Kohler)</p>
20	Valves		<p>As per requirement Providing and fixing in position best Indian make gun metal high pressure full way or Gate valve (peets Pattern) with iron wheel head complete.</p>

		<p>a) 20 mm Dia</p> <p>b) 25 mm dia</p> <p>Location and size of valve as per decided by Engineer-in-charge. As per requirement in each house Providing and fixing in position G.M. heavy ferrule 15/20mm dia including making holes of Pipes line and making gasket joints etc. complete inclusive of clamps.</p>
21	Water storage tanks	<p>Providing and hoisting and fixed 1000 liters capacity in each house water polyethylene water storage tank made out of F.D.A. approved as per IS 1270-1996 HDPE materials suitable for rotational molding vertical type and capable of holding required capacity of water with in the permissible tolerance limit for HDPE materials with provision for inlet, outlet, cleaning and overflow connection with heavy duty nipple socket drain plug etc. to facilitate inter connection and providing overflow brass cock at any height & Standard weight. Including float valve and PVC gate valve required nos. and size.</p> <p>Cement concrete base is to be done below the tank. Location and make decided by Engineer-in-charge.</p> <p>(Make:- Sintex/Supreme/Astral/Plasto)</p>
22	Internal Sanitary and Collecting Chamber	<p>A) As per requirement Providing and fixing in position SQUARE MOUTH gully trap grade "A" complete with C.I. grating brick masonry chamber with well burnt modular clay bricks crushing strength not less than 35kg/cm² water tight rec cover as per standard design (100x100mm size P type)</p> <p>B) Sewage disposal from WC with 75 / 100 mm SWR PVC pipe & waste water from kitchen & Bathroom with 75 /100 mm SWR PVC pipe & fittings as required & as directed by Engineer – in – charge. It shall be responsibility of contractor to make essential arrangements for disposal of rain water from terrace (roof slab) by providing proper slope in roof slab and by providing appropriate SWR PVC pipes and fittings all complete as directed as Engineer-in-charge.</p> <p>(Make:- Supreme/Finolex/Astral/)</p> <p>C) The sewer pipeline work will have to be connected to external sewer line with required size of 150 mm dia PVC SWR pipe and 450x600 mm brick masonry chamber with 75 mm thick R.C.C. Precast cover with M.S. bar handle where ever required.</p> <p>150mm dia Pvc Pipe</p> <p>Note:-As per Site condition Final decision of water supply and sewerage work/system giving by Engineer-in-charge .</p>
	Special Note	<p>All Work Mentioned In General Specification Must be Done By Contractor & If Any Work Is Omitted In General Specification UnKnowingly And Is present In Technical Sanction of the project, Those Work Must be Done By Contractor As directed By Engineer In Charge Without Any Litigation</p>
		<p>All Material should confirming to latest IS Specification Code</p>


 Assistant Engineer
 Chhattisgarh Housing Board
 Sub Division-GPM


 Executive Engineer
 Chhattisgarh Housing Board
 Division-Korba

GENERAL SPECIFICATION OF INTERNAL ELECTRIFICATION WORK FOR 01 NOS. MIG TYPE HOUSE

01	Internal Electrification Work	<p>1. POINT WIRING :- 33 points Wiring for Light/ Fan/ Exhaust Fan/ Call Bell Point with 3 x 1.5 Sqmm FRLS PVC Insulated standard copper conductor wire for phase, neutral and earth in concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) with 5/6 amp modular switch, modular base and cover plate, Suitable Size G.I. box, fan hook box, two module size stepped type fan regulator, ceiling rose, connector, holder, dummy plates, phenolic laminated sheet cover of 180 mm dia 3 mm thick etc.</p> <p>2. TWIN CONTROL :- 06 Point Wiring for twin control light point with 3 x 1.5 sqmm FRLS PVC insulated stranded copper conductor wire in concealed FRLS PVC conduit (heavy duty, thickness of pipe should be 2 mm) with 5/6 amp modular Two way switch, modular base and cover plate, suitable size G.I. box, ceiling rose, connector, holder, dummy plates etc.</p> <p>3. Moduler type 3 Pin 5/6 Amps Socket Outlet & 5/6 Amps Switch Including cost of base and cover plate and G.I. Box etc - 11 point.</p> <p>4. SEPARATE BOARD :- 09 point Wiring for light plug Point with 3 x 2.5 Sqmm FRLS PVC Insulated standard copper conductor wire for phase, neutral and earth in concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) along with 6 amps modular switch & 3 pin 6 amps socket outlet with modular base and cover plate, suitable size G.I. box etc.</p> <p>5. POWER PLUG POINT :- 07 point Wiring for power plug Point with 3 x 4.00 Sqmm FRLS PVC Insulated standard copper conductor wire for phase, neutral and earth in concealed FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) along with 15/16 amps modular switch & 6 pin 16 amps modular socket outlet with modular base and cover plate, suitable size G.I. box etc.</p> <p>6. CIRCUIT & SUBMAIN WIRING :- Wiring for Circuit wiring with 3 x 2.5 sqmm FRLS PVC insulated copper conductor wire of in concealed FRLS 20 mm, 25 mm and 32 mm dia PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) and Submain wiring of 6 x 10.00 Sqmm of FRLS PVC insulated copper conductor wire in concealed FRLS 40 mm dia PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) etc. Length of Circuit & Submain wiring is as per required of the work and Electrical Drawing.</p> <p>7. MCB DB & MCBS :- Blanking Plate required in remaining space of MCB DB as required</p>
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- (A) 6 way double door TPN, MCB DB - 01 Nos.
 (B) 63 amps, 440 volts, 'C' curve TP&N MCB - 01 Nos.
 (C) 6 to 32 amps, 240 volts, 'C' curve SP MCB - 18 Nos.

8. EARTHING :-

Providing maintenance free earthing with With 2 metre long GI Pipes and 25 kg back filling compound size GI pipe including making bore pit of minimum 150 mm dia, providing and laying approved make Earthing Electrode of Pipe-in-Pipe technology as per IS 3043(R 2016) -1987 made of corrosion free G.I. Pipes having outer pipe of 80 mm dia and inner pipe of 50 mm dia and filling with specified qty highly conductive compound around pipe and above that with soft soil in bore pit complete and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. as per specification.- 01 Nos. including 6 SWG G.I. Wire from earth pit to MCB DB in PVC Conduit as per required of the work.

9. T.V. WIRING :- 02 Nos.

Supplying, drawing and Testing of RG-6 grade co-axial TV wire FRLS PVC insulated, shielded with fine tinned copper braid and protected with PVC sheath With concealed, FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) along with T.V. Antenna Socket Outlet With 75mm x 75mm (1/2 Moudule) G.I. box, Modular base & cover plate etc Complete. (Separate Cable For Each Connection)

10. LAN WIRING :- 01 Nos.

Supplying, drawing and Testing of UTP 4 pair cat 6 LAN wire With concealed, FRLS PVC Conduit (Heavy duty, thickness of pipe should be 2 mm) of 25mm along with Computer outlet jack and 75mm x 75mm (1/2 Moudule) G.I. box along With Modular base & cover plate etc Complete.

11. INVERTER WIRING :-

Inverter wiring with 1 x 2.5 Sqmm and 1 x 4.0 Sqmm FRLS PVC insulated copper conductor wire in existing concealed FRLS PVC conduit of 20 mm, 25 mm and 32 mm (Heavy duty, thickness of pipe should be 2 mm) along with 15/16 amp modular switch, 6 pin 15/16 amp modular socket outlet and 3 pin 16 amps power plug top etc. Length of inverter wiring is as per required of the work and Electrical Drawing.

12. SERVICE CABLE :-

Supplying, laying and testing of 4 x 10 sqmm size FRLS PVC insulated, PVC sheathed, steel armoured, aluminum conductor power cable of 1.1 KV grade on existing RCC Hume pipe/ Surface/ air and erection of G.I. guard wire of size 8 SWG to 4 SWG including binding at required angle/channel iron cross arms/bracket with galvanized D Iron Complete with shackle insulator size 75mm x 90mm, G.I. Bolts & nuts. as per specification. for service connection from LT pole to meter

		<p>board. (01 No. connected cable for each meter)</p> <p>13. Providing and fixing wooden board of size (18" x 24") with 03 Nos. 63 amp 415 volt re-wireble fuse carrier and base unit & 01 No. Neutral link etc as required.</p> <p>Note:- As Per Site Condition Final Decision of Internal Electrification Work giving by Engineer-in-charge/EE (Electrical), Electrical division-Bilaspur.</p>
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Sub Engineer (Elect.)
Chhattisgarh Housing Board
Electrical Sub Dn.-Bilaspur

Assistant Engineer (Elect.)
Chhattisgarh Housing Board
Electrical Sub Dn.-Bilaspur

Executive Engineer (Elect.)
Chhattisgarh Housing Board
Electrical Division-Bilaspur