DETAILS AND MINIMUM FACILITIES REQUIRED FOR 1 BHK and 2 BHK

6.4.1 Room dimensions : As per NBC (latest standards)

6.4.2 Stairs Riser :Not more than 125 mm

6.4.3 Stairs Tread : Minimum 250 mm

6.4.4 Width of Corridor : Minimum 2000 mm/as per LPA Norms whichever is higher.

6.4.5 Minimum floor to floor height : 3000 mm

6.4.6 Maximum number of dwelling Units per floor in a block : 20 (RGHCL reserves the right to modify).

6.4.7 Housing units and floor : As per local Zonal Regulations,
Plans, Layout : Fire norms and other statutory Requirements.(LPA's)

6.4.8 Number of lifts/stair cases : As per NBC 2016 and LPA's considering four people for 1 BHK and five people for 2 BHK.

6.4.9 Separate Water Closet and Bath : 1 BHK Units

6.4.10 One Attached WC cum Bath : 2 BHK Units
One Separate WC cum Bath

6.4.11 **Carpet area:** Area enclosed within the walls, actual area to lay the carpet. This area does not include the thickness of the inner walls (As per PMAY guidelines of Housing For All).

12. The minimum requirements desired by the contract shall be as below but not limited to:

Table-6.4.1

Sl.No.	Particulars	1BHK	2 BHK
01.	Location wise details of	Muddayyana Palya Sy. No. 28	Muddayyana Palya Sy. No. 28

	number of Dwelling Units.	S+12. 1 BHK - 7488	S+12. 2 BHK - 480
02.	Minimum Carpet Area per Dwelling Unit (Carpet area as defined above)	30 Sqm comprising of 1 Living Room, 1 Bed Room, 1 Kitchen with enclosed Utility, 1 Bath Room and 1 WC.	45 Sqm comprising of 1 Living Room, 1 Bed Room, 1 Bed Room with Attached Toilet, 1 Kitchen with enclosed Utility, 1 Bath Room cum WC.
03.	Foundation Work	Foundation as per approved Design based on SBC	Foundation as per approved Design based on SBC
04.	Type of Structure	RCC Structure as per tenderers own design with latest IS Code and NBC. The structure should be designed for 2 hr. Fire rating	RCC Structure as per tenderers own design with latest IS Code and NBC. The structure should be designed for 2 hr. Fire rating
05.	Lofts in Kitchen and Bed Rooms in Longest wall side only	600 mm wide with RCC 75 mm thick	600 mm wide with RCC 75 mm thick
06.	Chejjas	600 mm wide with RCC 75mm thick with drip moulding over All Windows. 450 mm wide with RCC 75mm thick with drip moulding over All Ventilators.	600 mm wide with RCC 75mm thick with drip moulding over All Windows. 450 mm wide with RCC 75mm thick with drip moulding over All Ventilators.
07.	Corridor	g. Minimum width 2000 mm/ as per LPA Norms whichever is higher h. An Extended corridor in each floor of about 10 sqm to be provided (only for G+3) i. Adequate light and Ventilation to be ensured.	g. Minimum width 2000 mm/ as per LPA Norms whichever is higher h. An Extended corridor in each floor of about 10 sqm to be provided (only for G+3) i. Adequate light and

			Ventilation to be ensured.
08.	Corridor for Fire refuge area	As per NBC/ as per Fire Norms whichever is higher.	As per NBC/ as per Fire Norms whichever is higher.
09.	Minimum distance between two blocks	As per LPA norms	As per LPA norms
10.	Openings: Room shall have for the admission of light and air one or more openings such as windows and Ventilators opening directly to the external air.	Maindoor: 1.20 m X 2.10 m Bedroom: 1.00 m X 2.10 m Bath : 0.75 m X 2.10 m WC : 0.75 m X 2.10 m Kitchen : 1.00 m X 2.10 m Opening : 1.20 m X 2.10 m Passage in Du's Min. width :1.00 m Windows and Ventilators are as per NBC norms Window/Ventilator openings towards corridor are not allowed.	Maindoor: 1.20 m X 2.10 m Bedroom: 1.00 m X 2.10 m Bath : 0.75 m X 2.10 m WC : 0.75 m X 2.10 m Kitchen : 1.00 m X 2.10 m Opening : 1.20 m X 2.10 m Passage in Du's Min. width :1.00 m Windows and Ventilators are as per NBC norms Window/Ventilator openings towards corridor are not allowed.
11.	Finishing		
11.1	Internal Plaster if required based on the technology to be approved by Tender Inviting Authoritry	15mm thick CM 1:6	15mm thick CM 1:6
11.2	Ceiling Plaster if required based on the technology to be approved by Tender Inviting	12mm thick CM 1:4	12mm thick CM 1:4

	Authoritry		
11.3	External Plaster if required based on the technology to be approved by Tender Inviting Authoritry	18mm thick CM 1:6	18mm thick CM 1:6
11.4	Internal Painting	Oil Bound Distemper	Oil Bound Distemper
11.5	External Painting	Acrylic Emulsion	Acrylic Emulsion
12.	Flooring	Vitrified tiles for Living, Bed Room, Kitchen, Passage and Balcony. Antiskid Tiles for Bath and WC.	Vitrified tiles for Living, Bed Room, Kitchen, Passage and Balcony. Antiskid Tiles for Bath and WC.
13.	Ceramic tiles DADOOING in WC and Kitchen	Bath Room up to 2.10 M WC Room up to 1.20M Kitchen up to 0.60 M (above Platform)	Bath Room up to 2.10 M WC Room up to 1.20M Kitchen up to 0.60M (above Platform)
14.	Flooring for Corridor, Staircase Tread & Riser	19 mm thick Hassan Green/ River Pink Granite of width not less than 900 mm.	19 mm thick Hassan Green/ River Pink Granite of width not less than 900 mm.
15.	Provisions in Stilt floor	To be provided in stilt floor of each tower: 5. 2 % of Dwelling Units are to be provided for Physically Challenged with Size of the WC should be as per standard norms for Physically Challenged. 6. At least one shop of 10 Sqm each for every 100 houses with 40mm thick Granolithic flooring. 7. Panel board, Energy	To be provided in stilt floor of each tower: 5. 2 % of Dwelling Units are to be provided for Physically Challenged with Size of the WC should be as per standard norms for Physically Challenged. 6. At least one shop of 10 Sqm each for every 100 houses with 40mm thick Granolithic flooring.

		Meters, DG room, and provision for other utility services as per statutory requirements with 40mm thick Granolithic flooring. 8. Rest of the stilt area should be reserved for car parking with 40mm thick Granolithic flooring.	7. Panel board, Energy Meters, DG room, and provision for other utility services as per statutory requirements with 40mm thick Granolithic flooring. 8. Rest of the stilt area should be reserved for car parking with 40mm thick Granolithic flooring.
16.	Windows & Ventilators with guard bars	Powder Coated Aluminium Two track Sliding/UPVC windows with sofits, sides and top with Marble/Granite.	Powder Coated Aluminium Two track Sliding/UPVC windows with sofits, sides and top with Marble/ Granite.
17.	Doors	5 Nos. Frames: Main Door: Salwood Bed Room/ Kitchen: RCC frame of 125 X 65mm (Non-Monolithic) Bath and WC: GFRP/PVC Shutters: Main Door: 30mm thick Flush Shutters Bed Room/Kitchen: 30 mm thick Flush Shutters Bath and WC: GFRP/PVC Shutters All Door Sills (except bath and WC door frames) with Granite or Marble slab	6 Nos. Frames: Main Door: Salwood Bed Room/ Kitchen: RCC frame of 125 X 65mm (Non-Monolithic) Bath and WC: GFRP/PVC Shutters: Main Door: 30mm thick Flush Shutters Bed Room/Kitchen: 30 mm thick Flush Shutters Bath and WC: GFRP/PVC Shutters All Door Sills (except bath and WC door frames) with Granite or Marble slab
18.	Railing to	1.2 M height M S Railing as	1.2 M height M S

	Balcony	per approved Design	Railing as per approved Design
19.	Staircase Handrails	d. Shall conform to Fire Norms and height shall be minimum 1.2m e. Solid Minimum 1.2 M height. f. MS 50 mm X 50 mm Square pipe Hand rail (main) with 25 X 25 mm MS Square tube inside as per approved drawing for G+3 only.	d. Shall conform to Fire Norms and height shall be minimum 1.2m e. Solid Minimum 1.2 M height. f. MS 50 mm X 50 mm Square pipe Hand rail (main) with 25 X 25 mm MS Square tube inside as per approved drawing for G+3 only.
20.	Parapet	Construction of Parapet wall with the same technology used for construction of building on terrace floor with a minimum height of 1100 mm.	
21.	Sanitary & Water Supply (concealed piping)	All tenements must be provided with Internal Water supply arrangement in Attached Toilet, WC, BATH and Kitchen from the storage tank on terrace floor as per approved Design. The capacity of the storage tank should be sufficient enough to provide as per NBC norms. Taps to be provided in all WC, bathroom, Kitchen and Utility. European Water Closet, Wash Basin, Gully Trap, Floor trap as per designs are to be provided.	
22.	Internal wiring (concealed wiring)	As per the stipulations of BESCOM with approved materials of BIS.	
23.	Lifts Number of lifts shall be provided as per NBC Norms	8 Passenger Capacity: 8 Passenger Speed: 1.5m/s Type of Drive: V3F Drive	Stretcher/Bed escalator Capacity: 15 Passenger Speed: 1.5m/s Type of Drive: V3F Drive

	Cl.4.4, Part-8, Building services, section -5, Installation of lifts and escalators and moving walks; 5A Lift	with ARD System Car Ceiling & Panels: Stainless Steel, Mat finish 304. Car illuminiation: L.E.D. light fittings Landing Entrance Frame: Stainless Steel Mat finish Automatic Center Opening Door frames. Landing Entrance Frames, Car Entrance Doors & Landing Entrance Doors shall be of Stainless Steel Mat finish. Control: Microprocessor Full Collective System. Indicator: Digital Position Indicators and Arrows in all Landings and inside the car with Stainless steel signal fixtures. Features: Top mounted ventilator blower, Alarm bell, Emergency light, Stainless Steel Handrail, Fire man device, Voice announcement and Overload device.	with ARD System Car Ceiling & Panels: Stainless Steel, Mat finish 304. Car illuminiation: L.E.D. light fittings Landing Entrance Frame: Stainless Steel Mat finish Automatic Center Opening Door frames. Landing Entrance Frames, Car Entrance Doors & Landing Entrance Doors shall be of Stainless Steel Mat finish. Control: Microprocessor Full Collective System. Indicator: Digital Position Indicators and Arrows in all Landings and inside the car with Stainless steel signal fixtures. Features: Top mounted ventilator blower, Alarm bell, Emergency light, Stainless Steel Handrail, Fire man device, Voice announcement and Overload device.
24.	Generator	Back-up Generator of required capacity to be provided for common area lighting, Stilt floor, lifts and domestic pumps.	
25.	Fire Fighting System	Shall be of either down commer or wet raisers and as per the NBC requirement. The NOC is to be obtained from Karnataka State Fire and Emergency Services Department.	
26.	Fire Tanks	Required capacity of sump and Fire Tanks are to be provided meeting the requirements of fire fighting system and as per NBC norms	

27.	Lightening Arrester	Lightening arrester with copper / SW plate connection as per NBC Norms
28.	Aviation Lights	Aviation lights have to be provided as per standards and as per requirements of LPA's.
29.	External Water Supply	Bore wells to be sunk to provide ample water supply to the residents as per NBC norms for Drinking and other purposes. Capacity of UG sumps shall be minimum 1 day capacity. Appropriate pumps shall be provided to pump water to overhead tanks on the terrace of individual blocks separately. The permanent connection for Municipal Water Supply/BWSSB/KUWS&DB from statutory authority is to be obtained by the tenderer. All statutory fees / deposits will be reimbursed by RGHCL.
30.	External Electrification	Detailed load calculation is to be submitted to RGHCL. Design for the external electrification to be furnished and got approved by the competent authority. The required load is to be got approved by BESCOM and the adequate capacity of transformers are to be procured, installed and commissioned by the tenderer. The space for provision for electrical sub-station inside the layout is to be provided. Lay out electrification and corridor for common facilities including necessary cabling work with adequate transformers are to be provided. The Energy meter is to be purchased from BESCOM only. The main control panel and distribution panel and cabling work is to be carried out by the Tenderer. Street lights and Corridor lights are with solar lighting and with LED to be provided for maximum lighting of open areas in consultation with local body. Design for street light to be furnished and got approved by the competent Authority. All statutory fees / deposits will be reimbursed by RGHCL.
31.	Road	All the internal road of 7.5m wide, carriage way will be bituminous (minimum intermediate lane width), specification as per MORTH meeting 3 MSA. The road work will be carried out as per approved layout drawing and with IRC Specification.
32.	Drains	Open Box drains on both sides of the road are to be constructed to discharge the rain water into the main drain. The entry point to each block should be of covered drains with minimum offsets. Main drain upto

		the disposal point has to be constructed by the Contractor. For all the main drains the minimum size of opening should be of 45cm X 45cm subjected to design criteria. Box culvert to be designed for Road crossing, if any. Design for drain work to be furnished and got approved by the competent authority. The drains should cater to the draining of rain water taking into consideration of Bengaluru Annual Average Rainfall.
33.	Rainwater Harvesting	Rain water harvesting system to be provided inside each project site for maximum utilisation of rain water as per BWSSB/KUWS&DB/MoEF/any other applicable mandatory guidelines. e. Rain water sump connected to the UG sump is to be provided to collect the rainwater collected from the terrace of each block with necessary filters. f. Adequate Recharge Pits/Percolation Pits.
34.	Arboriculture	Ample number of fruit bearing plants are to be planted of approved species and watered regularly and maintained properly as per MoEF regulations.
35.	Entrance Gate	Minimum 6 m height and 12m wide Entrance gate with guard room of 10 Sqm with attached bath & WC of 3 sqm.(The design to be approved by RGHCL)
36.	Ramp for Physically Challenged persons	Ramp with stainless steel hand rails are to be provided at each entrance in each block as per NBC.
37.	Name board: Tower numbering, House numbers	Should be displayed at the stilt floor with a provision to place the name of the owner. At each floor the flat numbers are to be displayed for each flat/tenement.
38.	Shafts	Shafts for Lift, Electrical, Fire, Water supply and Sanitary to be provided and any other as per NBC norms.
39.	Compound Wall with Security Guard Shed	Construction of 1.80m height Boundary wall using Concrete Block (solid) Masonry/RCC/PSC/RCC Precast materials with entrance arch along with Security Guard Room (with attached WC) as approved by Engineer-in-Charge.
40.	Other requirements	Required capacity RCC Overhead/GLSR (sump) water tank is to be provided as per NBC Norms RCC overhead tanks of required capacity shall be provided above each blocks

		Water tank of required Capacity to be fixed on terrace of each block as per requirement. Terrace and Mumty roof slab thicnkness: minimum of 150mm thick All bore holes for pipes in Bath and Kitchen should be cleanly packed and water proofing to be done and for Bath, WC, Terrace floor & Corridors water proofing should be adopted, with a guarantee of 10(ten) years. Kitchen platform of 600mm wide is to be finished with 40mm thick Granite slab with Granite sink of 600 X 450 mm. Inspection chambers are to be constructed at required points with required size till it is connected to the Sewer/trunk line/ Man hole. Separate CPVC waste water lines are to be provided for bathroom and kitchen waste water disposal. Sewer lines below ground level should be PVC-U pipe (minimum dia 160mm)

6.5 SCHEDULE OF INTERNAL SANITARY, WATER SUPPLY FITTING & FIXTURES

Table-6.5.1

Sl.No.	Particulars	1 BHK	2 BHK
01.	EWS with PVC low level flushing cistern	1	2
02.	Hand wash basins with Piller Cock	1	2
03.	Long body bib cock in Bath & kitchen	2	3
04.	Health Faucet in WC	1	2
05.	Kitchen Sink – 0.60X0.45m of Granite	1	1

Note: The provisions given above are only indicative. The bidder has to provide the fittings and fixtures as per requirement and as per approved drawings. All internal piping (concealed) with CPVC pipes as per NBC.

6.6 Schedule of work for Electrical points for each Flat

Table-6.6.1

Sl.No.	Particulars	1 BHK	2 BHK
01.	Light Points	6	9
02.	Two way light point	1	2
03.	Ceiling Fan Points	2	3
04.	Exhaust fan points	2	3
05.	6A Plug Points (Independent)	4	6
06.	6A Plug Points on same Board	2	2
07.	Call bell	1	1
08.	16A Power socket point	2	3
09.	20A Power Socket	1	1
10.	Telephone socket point	1	1
11.	TV Socket Point	1	1