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| **S.No** | **Job Description for Reinforcement of Green houses** | **Qty.** | **Make** | **Unit Cost** | **Total Cost** |
| 1 | Fixing of Mesh 40 x 40 SS non magnetic 304 grade in existing Net house number 1 and 2 (Total area ~4000 sq ft) with total 16 additional GI pipe (50 mm x 50 mm) structural supports. | 1 Job |  |  |  |
| 2 | Water proofing of pit number 1 and 2 in Green house number 11. | 1 Job |  |  |  |
| 3 | Construction of soil storage tank (size – 10 ft x 18 ft) 1.5 ft above and 1 ft below the ground level, open from all sides with tin roofing 76 mm GI round pillars should be provided | 1 Job |  |  |  |
| 4 | Pot washing tanks (Total size- 10 ft x 18 ft), made of RCC having cement plaster on inner and outer surface with water proofing treatment, two nos of washing tank size 3 ft x 2 ft x 2 ft, both have common wall with proper water connection with taps and water outlet drainage made of RCC. Roof should be covered with tin and all the pillars made of 76 mm GI round pipe for proper supporting and floor should be PCC with proper water slope. | 1 Job |  |  |  |
| 5 | Providing and fixing of one aluminium sliding door and one exhaust fan and 4 x 70 W LED lights in each existing space between Green house no 1 & 2 and 3 & 4. | 2 Jobs | LED -Standard make  Exhaust fan -Crompton Greaves / GEC |  |  |
| 6 | Construction of approach way (cemented slanted staircase; 5 ft wide) with SS 304 grade railing from the existing pot filling area to space between Green House no 1 & 2 and provide polycarbonate cover of pot filling area from 3 sides | 1 Job |  |  |  |
| 7 | Installation of two Sintex 1000 L water storage tanks with two Pressure Pumps (2 HP each) and one 5000 L water storage tank with one Pressure Pump (2 HP). | 1 Job | Sintex/  Sheetal  Sintex/  Sheetal  Kirloskar/ Crompton |  |  |
| 8 | Modular frames made of SS 38 mm x 38 mm squire pipe top made of SS Sheet of 1 mm thickness with proper drainage (SS should be 304 grade non magnetic). [SS Pot keeping benches (20 nos size 9 x 4 ft and 32 nos, size 8 x 3 ft). | 1 Job |  |  |  |
| 9 | Wall repairing, plastering and Painting (both inside and outside) of Green house no 1 - 11. Paint should be water and weather shield | 1 Job | Apex Ultima / Asian |  |  |
| 10 | Fixing and providing of Tiles (size 600 mm x 600 mm) polished glazed vitrified (anti skid) thickness 8 to 9 mm in Green house no -1, 2, 3, 4 & 11 and main corridor area between Green house 1, 2, 4 approx 310 sq m. Resurfacing and water proofing of roof top (area 45 ft x 20 ft) and false ceiling (area 6 x 74 ft). | 1 Job | Kajaria /  Nitco /  Johnson |  |  |
| 11 | Outside of main entry to Green house no 1 to 4, Green house no 6 to 9, Green house no 10 and 11 should be roofed (10 ft long and 10 ft wide) with GI pipe 50 mm x 50 mm, Glazing with 8 mm thick polycarbonate sheet fixed with aluminium 1-3/4 inch profile with proper ceiling should be provided. | 1 Job | Lexan /  Ultralite (Bayer) |  |  |
| 12 | Construction of concrete outdoor path flooring connecting all green houses (area ~185 sq m long, 5 ft wide and 6 inches high) for easy movement of trolleys. Path should be made by doing proper compaction. | 1 Job |  |  |  |
| 13 | Corridor should be level between Green house no 6,7,8 &9. | 1 job |  |  |  |
| 14 | Construction of One no of Green House Annexe size – 65 ft x 45 ft made of GI 38 mm x 38 mm squire pipe fixed with 40 mesh non magnetic 304 grade SS with aluminium strip all side, base made of cement bricks 9 ft base kick 1 ft below and 1 ft above the ground level inside 10 ft x 10 ft x 6 ft deep of 16 no of pit made of cement concrete. All the pits should be duly constructed using brick partition wall 6 ft below the ground level duly plastered and covered with water proof cement slury to avoid water seepages. Drip irrigation system having 12 inches X 12 inches crop to crop distance individual to all pits should be provided with complete plumbing arrangements | 1 Job | Drip irrigation – Netafim make |  |  |
| 15 | Microprocessor control panel for automation (CE certified, user friendly) for Temperature, Humidity and Light duly fixed L&T make contactors and miniature circuit breakers with rigid standard of safety (separate controlling for individual green houses) should be provided for all green houses (number 1,3,4,5,6,7,8,9,10,& 11) with wiring and plumbing | 10 |  |  |  |
| 16 | Supply and installation of 35 sq mm 4 core XLPE insulated aluminium armoured cable (150 m) from main Green house incomer panel to required green house facility | 150 m | Polycap/  Finolex/  Havells |  |  |
| 17 | Supply and installation of 04 double door horizontal distribution Box 16 way with a 63 A TPN MCB | 4 | Havells |  |  |
| 18 | Providing mechanical soil mixture of 100 kg capacity | 1 | Standard make |  |  |
| 19 | Removing and fixing of 82-84% natural light transmission polycarbonate sheet (Lexan make) which is with 8mm multiwall both side UV with aluminium locking profile 1 inch with EPDM rubber in Green houses 1,2 3,4,5,6,7,8, 9,10 & 11 including sliding or static false ceiling (approx total 2500 sq m). The already installed smoke detectors will have to be reinstalled below the false ceiling.  Exhaust fans (size according to green house) should be provided above the false ceiling in each green house for removing hot air as specified below:  (one each in GH 1,3,4,6,7,9); (two in GH 11); (three each in GH 5,10) |  | Lexan/ Ultralite (bayer)  Crompton/Havells |  |  |
| 20 | Providing and fixing of artificial light source for maintaining 20,000 Lux light (for each green house) intensity uniformly distributed throughout the green house and throughout the year in Green houses 1,3,4,5,6,7,8,9,10&11 by providing and installing LED Lights warm with cool combination. | 10 jobs | Philips or  equivalent |  |  |
| 21 | Providing and fixing of Netlon Shade on roof top (Net 75%) with manual rolling system Green house no -1,3,4,5,6,7,8,9,10&11 | 10 jobs | Netlon |  |  |
| 22 | Roofing of Green house no 2 with puff panel with two partitions (total size 120 sq ft.) made of 60 mm puff panel and wall with aluminium doors with provision for fan and tube light with electric wiring and four power points. | 1 job |  |  |  |
| 23 | Providing heavy duty Turbo cooling mist Humidifiers (10 L each) along with supply of RO (one RO, 8L capacity in each green house as mentioned) grade water to the humidifiers to maintain 80% relative humidity uniformly distributed within the green house and maintained throughout the year in Green house no -1, 3, 4, 5, 6, 7, 8, 9, 10 &11. [2 units humidifiers in each GH 1,3,4,6,7,8,9 and 4 units humidifiers in each GH 5,10,11]  Drain for collecting the discard water from the RO machine for garden irrigation should be provided. |  | Kent RO  Humidifier – standard make |  |  |
| 24 | Providing and fixing of wall mounted Heating system heavy duty Paralytic technique to maintain 26-28 degree Celsius throughout the year in Green house no 1,3,4, 5,10,11. [2 units in each GH 1,3,4,11 and 4 units in each GH 5,10] |  |  |  |  |
| 25 | Removal of existing Fan & Pad cooling system in green house no 5,6,7,9 &10 and providing and fixing of heavy duty window Air conditioners (2 ton each, 5 star rating) with proper stabilizers to maintain temperature between 26-28 degree Celsius all round the year in Green house no 5, 6, 7, 8, 9 &10 with proper wiring from control panels to all accessories. [4 units AC each in GH 6, 7, 9 and 8 units AC each in GH 5,10].  Termination boxes, MCBs as required have to be provided and installed. |  | Hitachi/  Carrier  (V-guard stabilizer)  (Finolex/  Havells wiring) |  |  |
| 26. | One year CMC cover after the defect liability period. |  |  |  |  |
| 27. | Value for scrap arising out of the above mentioned work. | 1 lot |  |  |  |

**Note:**

1. One year CMC Cover after passing the period of one year defect liability. The CMC will include repair and replacement, as appropriate, of any defective and or irreparable component of the Green Houses including consumables like LED lights etc., of the finally functional facilities, at no additional cost to ICGEB.
2. All items of scrap to be listed in detail and to be certified by the official in-charge of the project.

Green House 1,2, 3 & 4 (640 sq ft each)

Green house 5,11 (945 sq ft each)

Green House 6, 7&8 (500 sq ft each)

Green house 9 (315 sq ft)

Green House 10 (1400 sq ft)