

SCALES OF ACCOMMODATION 2022



MILITARY ENGINEER SERVICES



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SCALES OF ACCOMMODATION FOR DEFENCE SERVICES

2022

MILITARY ENGINEER SERVICES

SOA 2022

No. A/95533/SoA/Pol/E2W(PPC)/340/D(Works-I)/2022
Government of India
Ministry of Defence

To

New Delhi, dated 14th June, 2022.

The Chief of the Army Staff
The Chief of the Naval Staff
The Chief of the Air Staff

SCALES OF ACCOMMODATION (SoA) FOR DEFENCE SERVICES 2022

Sir,

1. I am directed to convey the sanction of the President to the manual entitled "Scales of Accommodation for Defence Services 2022". This publication incorporates the scales of Married and OTM accommodation including other related provisions.
2. This supersedes the Scales of Accommodation 2009 and as amended from time to time. The revised scales will henceforth be known as Scales of Accommodation 2022 abbreviated as SoA 2022. The SoA 2022 shall come into force from the date of issue of this letter.
3. The revision has been approved subject to the following conditions: -
 - (a) No modification to existing buildings would be done on the basis of revised scales subject to the provisions of Para 1.9 of SoA 2022.
 - (b) The revised scales will come into effect from the date of issue of the letter and shall not have any retrospective effect/authorization for change
 - (c) The revised scales would not constitute evidence of need nor be an authority for the construction of new accommodation or for making improvements/ upgradation to existing accommodations.
4. This Publication shall be quoted as authority for work services of the Defence Services.
5. This issues with the concurrence of the Defence Finance division vide their U.O. No. 42/Fin(Wks-II)/2022 dated 09.06.2022.

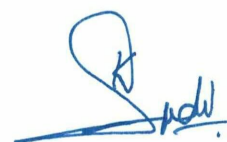
Yours faithfully,


(K. Srinidhi)

Under Secretary to the Government of India

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PREFACE

1. The Scales of Accommodation Manual provides authorisation for creation of infrastructural facilities for the tri-services and the allied forces.
2. With induction of new units, technological faculties, equipment profile and enhanced aspirations of users towards improved living standards, there was an inescapable necessity for revision of the SoA 2009. I am sanguine that there would be considerable improvement in defence infrastructure with the implementation of Scales of Accommodation 2022.
3. It supersedes the authorisation and scales as earlier laid down in the Scales of Accommodation 2009 and other Government letters issued to date in this regard.
4. This publication shall now be quoted as authority for Works Services of the Defence Forces.

Place : New Delhi

Dated : 14 Jun 2022


(Anil Puri)
Lt Gen
Addl Secy, DMA

SOA 2022

PREFACE

1. The Scales of Accommodation for Defence Services serves as a guide for planning of Defence Infrastructure across the country. This document is of immense value to the users, CFA, CEA and Audit Authorities as it lays down authorization for construction facilities for operational, functional, training, administrative, living, and recreational requirements amongst others.
2. These Scales were last published in 2009 and with induction of new units, technological facilities and equipment profile, sustainable development including contemporary industry standards and enhanced aspirations of users for improved living standards, revision of the same was necessitated. The new document has been revised through a long process of deliberations between officials of Ministry of Defence, three Service HQ, HQ IDS, Coast Guard HQ and E-in-C's Branch. SoA 2022 is also aligned with the Government policies on Green Buildings, Renewable Energy, reduction of Carbon Footprint etc.
3. Implementation of SoA 2022 would lead to tremendous improvement in built facilities/ infrastructure, specifications commensurate to contemporary requirements, optimization of Defence land usage by using multistoried construction and ensure better working and living conditions. The numerous innovative features in revised scales, when judiciously applied will enhance the capabilities of the MES in terms of Works Services Support for the Armed Forces.
4. I am sanguine that the new scales will lead to development of sustainable infrastructure for the Armed Forces.

Place: New Delhi

Date : 14 Jun 2022



(Harpal Singh)

Lt Gen

Engineer-in-Chief

SOA 2022

FOREWORD

1. Imperative, as is the need of the hour, was the revision of Scales of Accommodation for Defence Services 2009 (SoA-2009) fuelled by hitherto unprecedented upswing in infrastructure development throughout the country coupled with needs and aspirations of men in uniform.
2. In order to revise SoA-2009, a Tri-Service Committee was set up in the year 2013. Recommendations made by this Committee were scrutinised again by experts at HQ IDS. Ministry of Defence directed for further analysis of each recommendation which was done over a period in time.
3. SoA-2022 has been prepared to define authorised scales of accommodation, fittings and allied services applicable for long term requirement of the Defence Services. It has incorporated new scales for units, enhanced areas and qualitative improvements in specifications and finishes for both Married and OTM accommodation. Optimisation and austerity have been kept in mind whilst provisioning for multi-level parking and combining common-use facilities.
4. The National Building Code, guidelines of National Disaster Management Authority and strictures promulgated by Ministry of Environment and Forests were bracketed in before finalisation of SoA-2022.
5. All in all, I am sanguine that SoA-2022 shall go a long way in improving satisfaction levels of users across tri-services and allied forces which shall put to use the provisions contained within.

Station : New Delhi

Dated : 14 Jun 2022


(Ashok Kumar)
Maj Gen
DGW

SOA 2022

SCALES OF ACCOMMODATION
FOR
DEFENCE SERVICES 2022

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PART I – GENERAL PROVISIONS AND AUTHORISATION

CHAPTER 1

MAIN INTRODUCTORY NOTES

1.1 This publication has been prepared to define authorised scales of accommodation, fittings and allied services applicable for long term requirements of the Defence Services. It has been prepared for the information and guidance of all concerned with the planning of accommodation and Works Services for the Defence Forces. It supersedes existing scales to the extent covered herein.

1.2 The various scales dealt with in this publication have been grouped into five parts. These comprise of general provisions, authorisations and specific scales with Notes and Tables giving areas, special fittings as authorised and other planning remarks applicable to the various types of accommodation.

1.3 Part I contains general provisions and authorisation of scales which are common to the three Services including Coast Guard and have been laid down on a numerical criteria irrespective of any particular unit (regiment, battalion etc). The scales and percentages, wherever applicable are given in this Part and the accommodation should be assessed based on the authorised establishment.

1.4 Part II deals with general scales together with fittings which are common to units or stations of the Defence Services comprising of accommodation for living, working, training, recreational, messes and other miscellaneous facilities.

1.5 Part III gives the specialised accommodation and special fittings required for various formations and units of the Army, Navy, Air Force and Coast Guard. No attempt has been made to deal with specialised requirements of various units/ establishments, e.g. headquarters commands, arsenals, Category 'A' establishments, particular requirements of training schools, centres, base workshops, special communication projects, etc which may be determined on individual need basis by the board of officers for approval of Competent Financial Authority where scales have been laid down for similar/ analogous accommodation/ buildings the same will be adopted.

1.6 Part IV lays down the scales for Electrical and Mechanical Services.

1.7 Part V lays down the scales for married and separated family accommodation for service personnel including Coast Guard and married accommodation for civilians paid from Defence Services Estimates. The provision of Married and /or Single Accommodation will be governed by the Administrative Instructions issued by respective services in respect of family stations/ semi-family/ non-family stations.

1.8 Scales of technical accommodation for hospitals have been covered in a separate publication. Other accommodation not covered in the hospital scales is to be provided as per scales laid down in this manual.

1.9 The scales specified herein are applicable to all new permanent constructions. These may also be applied for re-appropriation, re-construction and repairs of existing permanent structures in which cases these will be regarded as a guide and not as a hard and fast regulation leaving no discretionary powers. It must, however, be understood that the fact of existing building falling short of the recognised standards will not in itself be sufficient to justify the requisition for enlargement, nor for re-appropriation with a view to reduction in the number for which actually re-appropriated, without full consideration of the needs of the case. The existing fitment or a portion of the building can be

replaced with revised specification as specified in the scale under normal maintenance service/ special repair, if it gets worn out due to wear and tear.

1.10 The E&M services are based on the accepted standards and practices necessary for providing essential working and living environment. All buildings and connected infrastructure essential for all internal & external services of B/R, E&M including installations are authorised and shall be based on actual requirements. Building management services, Automation of operation & monitoring of internal & external services, systems/ networks/ plants/ installations & Digitisation of maps, GIS, Services networks & other field data may be resorted to where feasible as authorised works. Bulk meters for industrial establishments, large consumer etc. to be provided. Latest automation & computerisation for meter reading & generating bills for Electronic Energy meters/ prepaid meters for all types of accommodations may be provided. Switching over to prepaid meters in all establishments/ accommodations to be prioritised. As the energy saving systems/ fixtures and water saving systems/ fixtures are now part of authorised works, optimum savings in electrical and water supply on the respective scales given in this documents may be ensured while planning work services.

1.11 The existence of a scale neither constitutes evidence of need nor is an authority for the construction of new accommodation or for making improvements to existing buildings. The need for a Work Service and its scope must be properly examined and justified before the Competent Financial Authority accords sanction. The combining of facilities described in the scales should also be considered as a means of reducing costs and, often of improving convenience. In the ordinary course of events it is to be expected that the information contained in an authorised scale will meet the normal accommodation requirements of the type of station or units specified. This does not mean that proven requirement in excess of those indicated by a scale cannot be met nor does it mean that these will be provided in full where lesser scales are adequate and suitable to the end in view.

1.12 Normal functional requirements and specifications required to be provided on the basis of climate have been indicated. Climatic classification of stations is given at Appendix 'A'. In case of other stations, classification shall be based on average temperature. Cold climate is defined if minimum temperature falls below 5°C for duration at least three months in a year. Hot and dry climate is defined if maximum temperature is above 36°C for duration of at least three months in a year.

1.13 Building designs should be in sync with local practices, traditions and should take into consideration the conditions of climate, availability of material, etc. Specifications, design features, external finishes and normal building practices may be suitably adopted to cater for such requirements. Any marginal increase in the authorised area or cost resulting purely due to adoption of these measures shall be permissible.

1.14 The scales of floor area may be varied or marginally exceeded by Engineers, where imperative, for reasons such as convenience of design and need to evolve an efficient and viable modular plan. Such an increase must be kept to the minimum essential and effort should be made to adjust such increase within the overall admissible plinth area.

1.15 **Governing Provision.** Due to the scarcity of land with Armed Forces for defence infrastructure development and the difficulty in acquiring additional land, it is necessary to ensure optimal utilisation of land by adopting multi-storeyed configuration in all new buildings as a practice rather than exception, wherever permissible and economical. These provisions will apply to all new constructions otherwise constrained by local conditions as recommended by Board of Officers. The planning of multi-storeyed buildings will be governed by following considerations: -

- (a) **Permissible Height.** The maximum permissible height for the building shall be in conformity with local bye-laws applicable in a station/ locality, restriction imposed by aviation

ceilings, CRZ norms, environmental norms and such other statutory provisions. Design of multi-storeyed buildings shall be in conformity with latest provisions in National Building Code (NBC).

(b) **Applicability.** Multi-storeyed configuration of buildings will be adopted for Peace Establishment and Non-Fighting Force (NFF) units of Army and equivalent types of units and establishments of Navy, Air Force and Coast Guard as also Married and Single Living Accommodations.

(c) **Centralisation of Facilities.** Centralisation of facilities and amenities like conference halls, auditoriums, parking facilities, welfare centres, institutes, shopping centres, gymnasiums etc, within a station or units may be resorted to for the purpose of creating multi-storeyed complexes and optimisation of land use as recommended by Board of Officers. Combining of Officers Mess will be explored and adopted where feasible.

(d) **Servant Quarters.** In multi-storeyed configuration servant quarters as per scale will be constructed either attached to each DU or as separate wing or complex as per recommendation of Board of Officers.

(e) **Common Areas.** Scale for common areas like lifts, lobby, staircase, core areas, etc will be as given at relevant chapter/ para/ table of this Scales of Accommodation (SoA). In case of multi-storeyed buildings, norms as per latest NBC and/ or other mandatory, statutory requirement will be adopted.

(f) While planning the construction of multi-storey buildings, design of foundations, where requirement for future vertical expansion is planned, should allow for the construction of additional storeys at a future date.

(g) **Exceptions.** Exception to above can be considered with explicit justification in Board Proceedings based on military, operational, security, equipment, technical seismic zone considerations. Guidelines for deviation from general principles of multi-storeyed buildings will be clearly laid down by respective Service HQ with the approval of MoD to guide the BOO while making their recommendation of MoD to guide the BOO while making their recommendation.

1.16 Scales given herein for the OTM accommodation are in terms of floor area for each facility except where specially indicated otherwise. This is the actual floor area within the finished containing walls, Staircase and lift lobbies wherever provided will be authorised additional area on as required basis, wherever these are not specifically catered for, to the extent of actual provision of area for these items.

1.17 In other than married accommodation, the area which are detailed in scales make no allowance for circulation space, viz entrance halls, lobbies, passages, verandahs, etc., nor the space taken up by walls, partitions, etc. Unless otherwise specified, these are catered for in a space allowance known as 'Area Addition' and shall be allowed for in the conversion factors. The conversion factors shall be assessed as percentage of floor area for different type of buildings including verandahs supported by columns or walls. However, for married and single living accommodation where the scales have been stipulated on plinth area basis the area addition shall only be applicable for items specifically detailed in the respective Tables. Architectural bands cornices etc and projection up to one metre for weather protection will not be counted towards plinth area. The normal authorisation of plinth area after conversion from floor area is based on 230 millimetres brick walls. For thicker walls, cavity walls, stone walls and for other accepted norms, plinth area will be increased to the extent of extra area needed

for such construction. In the case of cantilevers beyond 1 metre, only 50 percent of such areas will be counted towards the covered area.

1.18 It is the responsibility of the administrative authorities to lay down general type of accommodation required. The Engineers will be responsible for the designs and specifications and will be guided by the following principles: -

- (a) Economy of engineer effort in all its aspects simplicity of design in sync with local architecture, economy in material, plant, movement and labour. The operational requirements are of paramount importance.
- (b) Structures must be technically sound, suitable for the purpose for which they are required and provide comfort conditions for living as well as working wherever built for the purpose.
- (c) All Buildings and connected infrastructure including services shall be constructed to comply with GRIHA 3 star rating for Green Buildings Norms, wherever feasible.
- (d) All public buildings shall be provided with suitable ramps/railing etc for convenience of persons with disabilities. Necessary convenience shall be provided in common toilets for disabled people.

1.19 The siting and layout of accommodation is the responsibility of boards convened for the purpose, but it is the duty of the Engineers to advise the board so that maximum economy in essential services, i.e. railway track, roads, drainage, sewage disposal, water supply and electricity distribution is achieved and that individual buildings are oriented in an economical as well as efficient manner.

1.20 For determination of the total extent of accommodation for items indicated on as required basis in the Tables for each item where only per unit scales have been indicated such as cycle-cum-scooter stands, accommodation for records etc, the assessment of the numbers for which such accommodation is to be provided shall be made by the board of officers and the same sanctioned under works procedure in vogue.

1.21 In the case of specialised requirements of certain units, because of the peculiar technical requirements, the facilities to be provided for each unit have only been listed and no scales have been indicated. The information contained in Part III of the book should be used as a guide to assess the requirement for analogous cases. For other items previously sanctioned scales for similar projects shall be followed as applicable.

1.22 In such cases where the specialised requirement has not been assessed for unit, establishment or station but the items of accommodation as applicable to the Service as a whole have been listed for assessment on as required basis, the total requirement of each such unit or establishment or station shall be assessed as a whole. The provision of accommodation shall be generally in accordance with special instructions issued by the Service Headquarters from time to time and in terms of Paras 1.20 and 1.21 above to determine the authority competent to sanction the work under works procedure in vogue. Each such case shall be decided on merits with the approval of Competent Financial Authority not below the GOC-in-C Command or equivalent.

CHAPTER 2

GENERAL PROVISIONS

2.1 Due consideration should be given to bye-laws of the local civil authority wherever any accommodation is built in the areas covered by civil administration. Also any accommodation and related facilities provided for industrial workers should conform to the prevailing laws under Factory Act. Accommodation for explosives, shells and ammunition, etc should be as per existing Magazine regulations and any other instructions issued for the purpose by appropriate authority. Guidelines issued by National Disaster Management Authority will also be considered as applicable to respective disaster-prone areas.

2.2 **Ceiling and Lining.** Ceilings and walls with POP/ Putty finish should be provided in officers living accommodation, messes, offices, amenity buildings, MI rooms, stores where perishable articles are stored and where required to serve a specific purpose. For other living accommodation, Ceilings are authorised where climatically considered necessary by the Station Commander. Ceiling required for acoustical purpose will be provided as required. However, in rooms to be air-conditioned, ceiling may be provided if considered necessary by the engineer authority. Ceiling with RCC roof on technical ground such as heat insulation, air conditioning etc shall be authorised only for top floor in living accommodation/ OTM accommodation. POP ceiling for Operations room and Conference hall shall be provided if considered necessary by Engineer authorities.

2.3 **Ceiling Height.**

2.3.1. Ceiling heights as given below should be followed for normal habitable rooms: -

(a)	Hot and Dry	3.2m
(b)	Hot and humid or Coastal	3.2m
(c)	Cold (Hills)	3.0m
(d)	Room with false ceiling	where false ceiling is authorised, up to 3.6m

Minimum volume of rooms is desirable for air-conditioning and in hills (cold) to ensure thermal economy.

2.3.2. These will be taken as average ceiling heights where sloping roofs or ceilings are provided and due care being taken that ceiling height is not less than 03m at the point where ceiling fan is to be fixed. These may be suitably increased as per functional requirements in cookhouses, large size halls, main rooms of technical and storage accommodation etc, wherever required. Similarly for toilets, dressing rooms, certain stores etc, heights may be reduced if feasible.

2.4 **Colour in Buildings.**

2.4.1 **External Finish.** Exterior emulsion weather proof paint with different colours is authorised for officers living accommodations, administrative blocks, institutes, schools, religious buildings, auditoriums, family welfare centres, officers' messes and MES Inspection Bungalows. All buildings in coastal areas/ high rainfall areas as at Appendix 'F' of SoA may be provided with Exterior emulsion weather proof Anti-fungal paint.

2.4.2 Cement based paint in white/ colour is authorised for all other permanent buildings which must be planned and coordinated to achieve overall harmony in stations. Existing permanent buildings may also be authorised cement based paint wherever it is assessed to be economical as per satisfaction of CFA. Exterior emulsion weatherproof paint in lieu of cement based paint may also be used for other buildings, provided the periodicity of repainting is increased to 4 years instead of 2 years. New multi-storeyed buildings above two storeys including those for living accommodation of all ranks (officers/ JCOs/ OR) may be provided with permanent finish of stone chips/ grit/ granular finish or suitable weather proof paint.

2.4.3 **Internal Finish.** Oil bound distemper will be authorised in all JCO/ OR living accommodation (Married/ Single) including their dining halls. Coloured finishes in the form of Oil Bound Distemper over putty finish (but excluding Plastic Emulsion Paint) will be authorised in all officers living accommodation/ officers Messes/ JCOs Mess and club/ officers institute/ all offices/ lecture cum cinema hall. Plastic emulsion paint over putty finish may be provided to selected main rooms of officers Messes/ officers Institutes/ Inspection Bungalows/ Family Welfare Centres/ MI Room/ education buildings used for training/ labs. All other buildings like cook house, storage accommodation, garages, servant quarters, toilets will be authorised lime colour/ white wash.

2.4.4 Heat resistance/ reflective paint may be applied on concrete water tanks in hot climate zones, where considered necessary by the Station Commander or equivalent.

2.4.5 Anti-corrosive paint shall be authorised on metal surface in all type of accommodation in coastal areas as listed in Appendix 'A'.

2.5 **Fire Precautions.** Occupational fire prevention and the maintenance and/ or replacement of portable fire equipment are not the responsibility of the Work Services. However structural planning and design aspects of important buildings will be co-ordinated with the Fire Advisor at the design stage to ensure adherence to existing Safety Regulations. Suitable provision for housing portable fire equipment in the buildings should be made and glazed in-built cupboards or niches provided as necessary. Suitable plinths with covers should be provided wherever fire points are established in the unit areas. Necessary fire fighting, smoke and fire detection and alarm system may be provided for New and existing building as per authorisation, in adherence to existing Safety Regulations/ National Building Code. Necessary plinth area for fire exits, fire doors, fire staircase, firemen lifts, assembly areas etc and connected specifications as per NBC shall be authorised.

2.6 **Fire Places.** Fire places will be provided only in hill (cold) stations where considered essential by the Station Commander and found economical to operate as compared to electrical heating.

2.7 **Floors and Dado.**

2.7.1 Hard-wearing and easy to maintain floors will be provided in the following accommodations as shown against each: -

(a) **Sanitary Annexe in all Living Accommodation and Wet Areas.** Non Skid Ceramic tile.

(b) **Officers Living Accommodation.** Vitrified tiles in Room, Verandah, Kota Stone with Borders/ Motifs in Marble/ Yellow Jaisalmer Stone/ in Stair Case and Non Skid Ceramic tile in kitchen and toilets.

(c) **JCO/ OR Living Accommodation.** Terrazzo tile with White/ Grey Cement, Polished Kota Stone/ Ceramic tile.

- (d) **Married Accommodation.**
- (i) **Officers Married Accommodation.** Vitrified tiles in all rooms, non-skid vitrified tiles in kitchen & toilet and kota stone in staircase and servant quarters.
- (ii) **JCO/ OR Married Accommodation.** Ceramic tiles in all rooms, non-skid ceramic tiles in kitchen & toilet and kota stone in staircase.
- (e) **Officers Institute and Mess.** Polished Kota Stone /Non Skid Ceramic tile/ /Terrazzo tile with White Cement in Common Area/ Verandah. Vitrified Ceramic tile in Room, Granite/ Marble/ vitrified tile Flooring may be provided in Entrance Hall/ Lobby of Officers Mess/ Institute.
- (f) **Inspection Bungalow/ Conference Room/ Library.** Kota Stone/ Ceramic tile/ in rooms. Granite/marble in Entrance hall/lobby/dinning.
- (g) **Offices of Officer.** Vitrified tile/ Ceramic tile/ Terrazzo tile with White Cement.
- (h) **MI Room.** Polished Kota Stone/ Non Skid Ceramic tile/ Terrazzo tile/ Vitrified tiles.
- (j) **Main Entrance Hall and Stair Case.** Vitrified tile/ Granite in Main Entrance Hall, Kota Stone/ Terrazzo tile in White Cement in Stair Case.
- (k) **Kitchen in all Accommodation Cook House and Cafeteria.** Kota Stone/ Non Skid Ceramic tile/ locally available Natural Hard Stone.
- (l) **Storage Accommodation.** PCC Flooring/ Kota stone/ Shahbad stone.
- (m) **All other Accommodations except Storage Accommodation.** Ceramic tile/ Terrazzo tile in White/ Grey Cement/ Kota stone.
- (n) **Hangar, Labs & Other Technical Areas.** Dust free epoxy flooring or as per technical requirement.

2.7.2 Wherever sound absorption and other special type of flooring is required or specified in the scales, suitable flooring of PVC tiles or PVC sheets/ rubberised flooring or of any other suitable material will be provided. Technical accommodation like annexe to hangars, base operations complex, ATC tower/ offices, Ground support accommodation, crew rooms, technical buildings & OTM Accommodation within 200m of main Runway having high noise factor shall be authorised sound proofing measures and air conditioning, subject to approval of GOC-in-C/ Equivalent.

2.7.3 Dado in glazed ceramic tiles or terrazzo or other material in conformity with floor finish be provided upto door or lintel level based on assessment by Board of Officers for the following: -

- (a) Sanitary annexes in all type of accommodations.
- (b) Kitchen in Married Accommodation of all ranks.

- (c) Serveries and Restaurant of Officers Messes, Officers' Institute/ JCO's Club/ OR institute and ORs cook house/ dining hall.
- (d) MI Room and wherever specified in the Scales.
- (e) Granite slab with stainless steel sink and drainage board shall be provided along with kitchen platform and provision of stone sill below kitchen platform in lieu of PCC sill.

2.8 **Fixtures and Fittings.** The fixtures and fittings detailed as special facility in the Tables of Scales are authorised and will be provided under the Work Services. Also, such fittings and fixtures shall be provided, as are considered necessary for efficient functioning of particular items of accommodation such as counters in all stores where issues are made, picture rails where pictures or instructional charts are to be displayed, etc. Hat and coat pegs will be provided where so required. Drapery rods (decorative type) or pelmet boxes shall be provided in all OTM and Married accommodations.

Kitchen cabinets will be provided for the following: -

(a) **Kitchens in Married Officers Accommodation including Civilians.**

- (i) **Service Officers.** Factory made modular kitchen having sink with double bowl & double draining board, cooking platform and electric chimney of reputed make for officers married accommodation. One wall mounted kitchen fan per DU in hot and humid climatic conditions may also be provided in Officers accommodation. Cooking platform, stainless steel kitchen sink with draining board, covered kitchen cabinets, stainless steel plate rack and shelves with shutters for JCO/ OR Accommodation.
- (ii) **Civilian Officers.** Factory made modular kitchen having sink with double bowl & double draining board, cooking platform and electric chimney of reputed make for Type V and above. Cooking platform, stainless steel kitchen sink with draining board, built in cupboards with prelaminated decorative particle board below cooking platform (with drawers for Type IV) and shelves with shutters upto 2.10m on one wall with prelaminated particle board for Type IV and below.

- (b) **Kitchen in Mess/ Institutes/ Cook House etc.** Commercial type electric chimney to be provided in addition to steel/ wooden cabinets.

2.9 **Furniture Including Built-in Items.** Certain specific requirement of built in furniture have been listed in various Tables of Scales. These are required to be provided subject to omission of equivalent loose items of furniture. Furniture to the approved scales shall be provided to authorised messes. Furniture as listed in Scales for married accommodation of service officers/ JCO/ OR is authorised for equivalent civilian married accommodation also. Modular Office furniture for optimisation of space may be provided in lieu of loose office furniture on as required basis.

2.10 **Glossary of Terms.** The following terms used in this publication are defined as under: -

- (a) **Authorised Establishment.** The authorised establishment of a unit or establishment comprises of the personnel on the sanctioned establishment or borne on the WE or PE, as also any civilian staff authorised on the strength of the unit. It excludes personnel on attachment.

(b) **Dependent Strength.** The strength of officers, troops, families including authorised civilians for whom a particular facility is required to cater for will be taken as dependent strength.

(c) **Equivalent Ranks.** The equivalent ranks in three Services and Coast Guard are given below: -

Army	Navy	Air Force	Coast Guard
Sepoy	Seaman	AC or LAC	Navik
Naik	Leading Seaman	Corporal	Uttam Navik
Havildar	Petty Officer	Sergeant	Pradhan Navik or Uttam Yantrik or Yantrik
Naib Subedar	Chief Petty Officer	Junior Warrant Officer	Adhikari or Sahayak Engineer or Pradhan Yantrik
Subedar	Master Chief Petty Officer – II	Warrant Officer	Uttam Adhikari or Uttam Sahayak Engineer
Subedar Major	Master Chief Petty Officer – I	Master Warrant Officer	Pradhan Adhikari or Pradhan Sahayak Engineer
Lieutenant	Sub Lieutenant	Flying Officer	---
Captain	Lieutenant	Flying Lieutenant	Assistant Commandant
Major	Lieutenant Commander	Squadron Leader	Deputy Commandant
Lieutenant Colonel	Commander	Wing Commander	Commandant (JG)
Colonel	Captain	Group Captain	Commandant
Brigadier	Commodore	Air Commodore	Deputy Inspector General
Major General	Rear Admiral	Air Vice Marshal	Inspector General
Lieutenant General	Vice Admiral	Air Marshal	Director General/ Additional Director General
General	Admiral	Air Chief Marshal	---

(d) **Large Unit and Small Unit.** All units except Coast Guard units with authorised strength of more than 400 personnel will be considered as large units where as those with less than 400 personnel will be considered as small units. Coast Guard units with authorised strength of more than 200 personnel will be considered as large unit and those with less than 200 personnel will be considered as small units.

(e) **Military Station.** All stations with Army, Navy or Air Force units located therein are referred as military stations.

(f) **Sanctioning Authorities.** Wherever a reference is made in the scales of GOC-in-C Command, GOC Area or any other CFA it shall also mean equivalent sanctioning authority of the Navy and Air Force and corresponding authority in Coast Guard.

2.11 **Hygienic Works.** Fly proofing of aluminium wire/ stainless steel wire cloth shall be provided in all officers' living accommodation, dining hall/ cook house of OTM accommodation/ mess/ institutes/ club/ duty rooms on hygienic grounds. Ration, grain stores and cook houses will be rat proofed. All rooms where food is stored, prepared or eaten and latrines should be fly-proofed.

2.12 **Doors/ Windows/ Ventilator.**

(a) All office accommodation, messes, institutes, living accommodation for officers, MI room, guest room and buildings in coastal/high rainfall areas may be provided with UPVC/ aluminium doors and aluminium sliding windows/ ventilator wooden door/ windows and ventilator in place of standard termite treated wood.

(b) All married accommodation to be provided with aluminium windows and pressed steel door frame with flush shutter.

(c) All other accommodation may be provided with steel, windows/ ventilator/ door.

(d) Mosquito proofing may be made integral to doors/windows and ventilators to achieve better aesthetics and comprehensive design.

(e) In large buildings/ sheds and warehouses, Roof Top Air ventilators may be fixed for exhaust purposes as authorised work.

2.13 **Iron Bars or Grills to Windows, Ventilators.** Iron bars or Grills to windows, ventilators will be provided on as required basis as a measure of security where considered essential. In coastal areas guard bars or grills of aluminium/ non-corrosive material suitably treated/ coated against corrosion may be provided in lieu of iron. Stainless steel railing may be provided where considered necessary in the following accommodation: -

(a) Officers Messes and institutes.

(b) MI rooms/ hospital building.

(c) Headquarter buildings of Division and above.

2.14 **Mosquito Proofing.** Mosquito proofing with aluminium/ stainless steel wire cloth to be provided in all living accommodation as well as other critical OTM accommodation. Mosquito proofing may also be provided in buildings where personnel have to work between sunset and sunrise and where advised by medical authority.

2.15 **Refuse Disposal.** Covered Refuse bin enclosures may be provided on as required basis. The site for the refuse bin enclosure to individual buildings must be compatible with the method of local collection of refuse and must conform to the requirements of the local authority for bulk removal. A suitable vehicle access should be provided to the bins where applicable. In new multi-storeyed buildings, integrated disposal chutes may be provided. Solid waste processing technology may be provided for military station in metro cities or stations where population exceeds 1.5 lakh. For other Military Stations, facility to be provided on approval of GoC-in-C or equivalent in other services. Provision of waste processing facility including machinery will be part of works, while collection, handling, conveyance, operation of facility and disposal of solid waste will not be part of works and

shall be done under the administrative arrangements of Station Headquarters. Refuse Disposal bins may be provided with all-round hard standing and drains, with adequate access for collection vehicle.

2.16 Sewerage, Sewage and Waste Water Disposal.

2.16.1 Provision of water borne sanitation and all connected sewage disposal works are authorised. Water borne sanitation may also be provided in operational areas in stations earmarked for provision of built up accommodation to meet the long term requirements.

2.16.2 Where corporation or municipality schemes and facilities for sewerage and sewage disposal already exist and are available, arrangement shall be made for linking with the same. In stations where such facilities are not available, independent and adequate arrangements with technically complete systems for sewerage and sewage disposal may be provided. Latest technology such as bio-digesters/ bio-toilets may be provided where required. Soil and other technical investigations necessary for this purpose are also authorised.

2.16.3 Central/ Package Sewage Treatment Plant for units shall be provided on as required basis. Effluent treatment plants for Industrial Units, Paint Shops, Butchery and Hospitals will be provided as per technical requirements. Efficient systems for collection & use of re-cycled water for arboriculture etc may be provided. Waste water treatment schemes having provision for zero liquid discharge will also be considered and designed accordingly.

2.16.4 **Bio-Gas Plants.** Bio-Gas plants may be provided for effective disposal of bio-degradable waste and generation of energy.

2.17 **Area Drainage.** Contour development/ creation/ reconstruction for effective area drainage and channelizing of rain water overflows are to be treated as authorised work services. Storm water drains may be covered by steel gratings/ concrete slabs where considered essential for safety. Drains connecting building rain water drain pipes may be covered with concrete slabs and integrated with rain water harvesting system.

2.18 **Telephone/ Television/ Data Cable/ DTH Conduits.** If an external aerial is needed to ensure satisfactory reception, the provision of socket and conduits for television/ telephone/ Data Cable/ DTH may be provided in public rooms of buildings where televisions are to be installed such as messes, clubs, institutes, instruction rooms, living and married accommodation of all ranks for ease of subsequent installation of aerials and lead connections.

2.19 **Landscaping and Arboriculture.** Planting of trees, hedges, grass and general landscaping including minor civil works like path, kerbs, cycle track, shelters/ gazebo/ awnings/ pergolas, fences, railings, benches and other architectural features, garden lighting etc, with provision of sprinkler system/ drip irrigation for watering with allied infrastructure to be provided. Water Fountains may be provided in common areas of main administrative buildings and gardens/ parks.

2.20 **Use of Audio Visual Aids.** Wherever visual aids are intended to be used or installed, suitable provision such as ports in walls and booths as also blank wall surface suitably painted to serve as screens may be provided as required.

2.21 **Renewable Energy Efficient Devices.** Infrastructure, Fittings & fixtures to promote use of renewable energy dependant devices may be provided wherever feasible.

2.22 **Green Building Norms.** All new married/ OTM Accommodation shall comply with Green Building Norms and meet a minimum GRIHA 3 Star rating as per Policy.

2.23 **Letter Box.** Letter boxes of suitable size and design be authorised and provided for all married accommodation of officers/ JCOs/ OR and civilian quarters.

2.24 **Lifts.** The area for various lifts shall be considered as on requirement.

2.25 **Underground Cable.** Underground cables will be authorised based on specific technical requirements for military stations and establishments. Necessary cable trench, cable trays may be provided with facilities to route telephone, OFC, electricity etc.

2.26 **Electric Appliances.** All New electrical appliances shall confirm to maximum Energy Efficiency rating as prescribed under ECBC/ BEE/ GRIHA norms/ promulgated by E-in-C's Branch.

2.27 **Rain Water Harvesting.** Provisions for Rain Water Harvesting shall be incorporated in all future projects and in all multi-storeyed buildings to be constructed for married and OTM accommodation, where made mandatory by CGWB/ state/ UT agencies and/ or where there is acute shortage of water and where feasible as per ground conditions. The provision for Rain Water Harvesting may also be incorporated as standalone project in such locations.

2.28 **New and Renewable Energy Generation.**

2.28.1 Buildings having roof area of 200 Sqm or above may be provided (wherever feasible) with roof top mounted solar photo voltaic cells so as to generate renewable energy to the extent possible.

2.28.2 Provision of following items/ facilities based on Non-conventional energy sources be provided in works, if found technically feasible, to be provided only in lieu of items of conventional energy system and not in addition to: -

2.28.2.1 Solar powered street lights and traffic signal lights.

2.28.2.2 Solar space heating system.

2.28.3 Schemes for power generation based on New and Renewable energy sources (like solar power, wind power, tidal power, geo-thermal power, hybrid systems etc) may be initiated, if found technically suitable. Zonal plans shall earmark open area(s) so as to generate grid connected solar power to the extent of 01 MW or more. The area to be left for such SPV projects will be decided in keeping with the latest technical advancements in the fields, as also policy letters issued by MNRE/ MoD/ E-in-C's Branch. Government subsidy may be obtained from MNRE, where available.

2.29 **Bus Shelters.** Provision of bus shelters will be considered as authorised work. These may be provided as per recommendations of BOO and approval of Station Commander.

2.30 **Children's Park, Walking Plaza and Green/ Lung Spaces.** Children park, walking plaza, green lung spaces, including minor civil works like path, kerbs, shelters/ gazebo/ awnings/ pergolas, fences, railings, benches, garden lighting etc and other architectural features, but excluding children play equipment shall be provided.

2.31 **Camouflage and Concealment.** Adequate provision for camouflage and concealment scheme of permanent nature for fixed assets as per ground consideration, requirement of security and recommendation of specialist shall be provided.

2.31.1 Camouflage painting may be provided as per operational necessity with prior approval of GOC-in-C/ equivalent.

CHAPTER 3

GENERAL AUTHORISATION

3.1 The items of accommodation listed in this section are authorised. The assessment of provision of each facility is given in succeeding paragraphs.

3.2 **Assault Course.** Assault course is to be provided at the scale of one per Regimental Training Centre/ equivalent in Navy/ Air Force/ Coast Guard. The standard design should be based on training instructions issued by Service Headquarters. An assault course shall be provided for Brigade/ Divisional Troops/ equivalent in Navy/ Air Force/ Coast Guard.

3.3 **Baggage Room.** Baggage Room of 40 Sqm per 150 personnel shall be authorised in all formations/ units. Baggage room of 6 Sqm per married officer accommodation, 5 Sqm per married JCO accommodation and 4 Sqm per married OR accommodation shall be provided. Heavy duty Storage racks or pallets, as required, may be provided for storing item.

3.4 **Band Accommodation.** Accommodation for band instrument store at the scale of 19 Sqm for large units may be provided wherever bands are sanctioned. Band rehearsal room with sound proofing and air conditioning and instruments rooms may be provided based on merits with the prior approval of GOC-in-C Command or equivalent authority. The total floor area for both these rooms shall not exceed 05 Sqm per musician.

3.5 **Bank.** The accommodation for opening a branch/ ATM by a Nationalised/ Scheduled Bank may be provided at the discretion of Station Commander. The floor area shall be 150 Sqm per 5000 personnel or part thereof for a bank and 12 Sqm for ATM.

3.6 **Battery Charging Shops.**

3.6.1 Battery Charging Shops shall be provided in units as authorised in the Table of Scales, for charging of secondary batteries of telecommunication equipment, vehicles and static engines or equipment. Shops for charging of aircraft and submarine batteries shall be provided on as required basis as per technical requirement.

3.6.2 Floor area for battery charging shop shall be provided for entitled number of batteries at the scale of 23 Sqm for the first 15 batteries and 01 Sqm for every additional battery. Overall floor area authorisation shall be allowed for the following percentages of the total number of batteries authorised: -

(a) <u>Telecommunication Equipment.</u>			
(i)	Large batteries of lead-acid type	-	33%
(ii)	Small scaled batteries ie, nicle cadmium or silver-zinc type etc.	-	10%
(b)	Batteries of vehicles, mobile plant, static engines and equipment.	-	10%

3.6.3 The load assessed for shops of EME field repair workshops and similar establishments of other Services shall include the batteries authorised to such dependent units or establishments which are not provided with their own battery charging shop. For ordnance or engineer stores depots and establishments of other Services, which are responsible for issue of

charged batteries, the load shall be determined from the total number of vehicles or batteries held, as applicable.

3.6.4 The shop may be divided as required into charging rooms, distillation plant room, electrolyte preparation room, etc. Battery charging shops shall be provided with stepped up racks or platforms with acid resistant tile/ covering on floors and walls up to ceiling height.

3.7 **Bicycle cum Scooter Stand and Car Parking.** Sheds for parking of bicycles cum scooters/ cars will be authorised for administrative buildings, defence establishments, depots, base port of ships and other similar military buildings where parking of bicycles and scooters/ cars is required. In case where land is limited, multi-level parking will be authorised. These will be provided to meet the minimum essential requirements and will be built to most economical design and specifications with the following floor areas: -

- | | | | |
|-----|---------|---|---------------------|
| (a) | Bicycle | - | 0.84 Sqm per cycle. |
| (b) | Scooter | - | 02 Sqm per scooter. |
| (c) | Car | - | 12 Sqm per car. |

3.8 **Boxing Rings.** Accommodation for boxing rings of inside dimensions 6.1m x 6.1m platform and extended 0.5m outside the ropes along with steps to be provided at the scale of one per Regimental Training Centre or similar training establishment of other services, Brigade and Divisional Troops. The ring should be complete with ropes, padded corners, posts, seats and floor covering of suitable material, etc. conforming to specifications under boxing rules. Seating gallery may be provided.

3.9 **Camps.**

3.9.1 Rest camps and staging camps or camping grounds may be provided where required. In established camping grounds the maintenance of ancillary facilities viz water points, cook houses, etc if carried out by civil authorities on behalf of MES will be chargeable to MES. Chhapering of tents may be provided in permanent camps and installations on the advice of medical authority.

3.9.2 Accommodation for cook house, latrines and bath rooms, armoury, storage etc. including plinths for tents may be provided for established camping grounds and camps of Training Centres for assessed strength of personnel camping, based on merit by GOC-in-C Command and equivalent.

3.10 **Children's School.**

3.10.1 The accommodation for Children's Schools up to 10+2 may be provided at military stations where such facility is not available or where inadequate education facilities are available when it has not been found feasible by the concerned education authorities to establish a children's school. The decision on accommodation for children school may be taken on merit on case-to-case basis by MoD. The provision of children schools is subject to condition that the administration of the schools is under local military authority/ station commander and no administrative/ educational role of any non-government organisation/ agency/ society, is allowed. Any proposal for opening of new schools and transfer/ allocation of Defence Land requires approval of the Government. Excess land in possession of any existing children school over and above KV norms, shall be taken back.

3.10.2 The floor area and the area of the land for a school shall be as per latest KV/MHRD norms, for assessed numbers based on the average attendance anticipated. This scale is inclusive of the requirement of space for teaching, administrative and other ancillary accommodation.

3.10.3 Number of schools in a station would depend upon the student strength and spread of the station. More than one school can be opened in a station with the specific approval of MoD.

3.10.4 Covered stage with adequate height, lighting & ventilation will be provided in assembly grounds.

3.11 **Civilian Community Hall-cum-Recreation Centre.** These may be provided wherever residential civilian living accommodation is constructed to residential areas on as required basis. The scale of accommodation to be assessed at 0.75 Sqm per person of the authorised civilian complement employed in defence installations and establishments of personnel. The maximum size of hall shall not exceed 350 Sqm. Store rooms and sanitary annexes will be provided. Air-conditioning for main hall may be provided at stations listed in Appendix B.

3.12 **Coal and Coke Yards.** A plinth may be provided with side walls of not more than 1.8m high where coal and coke is required to be stacked at a scale of 1.10 Cum per tonne for coal and 02 Cum per tonne for coke.

3.13 **LPG Gas Depot.** LPG retail supply depot will be authorised within military stations/ cantonments, with the approval of GOC-in-C or equivalent. The accommodation shall be @ 130 Sqm/ 5000 personnel or part thereof and its location/ will be decided as per rules/ regulations and safety norms prescribed for such facilities by relevant authority. The accommodation shall be provided subject to payment of license fee (at commercial rates and the entire amount will be deposited in the consolidated Fund of India) and premium as per rules.

3.13.1 PNG infrastructure will be provided as per existing Government instructions in locations where PNG facilities are available.

3.14 **Confidence Course.** Confidence Course shall be provided in all Infantry Regimental Training Centres/ equivalent in Navy/ Air Force/ Coast Guard at the scale of one per Centre. The standard design shall be based on training instructions issued by Service Headquarters.

3.15 **Dhobi Ghat/ Mechanical Laundry.**

3.15.1 Package type mechanical laundry be authorised for units/ establishments with the approval of GOC Area or equivalent in other Services based on optimisation of manpower. The details of package type mechanical laundry will be given by Chief Engineer Zone in the Board Proceedings. Other units are authorised 1 stone per 75 men for dhobi ghat which is to be provided. Covered sheds over stones in areas of hot climate may be provided.

3.15.2 Facilities may be provided for installation of washing machines centrally in messes, and married accommodation for common use of all. However provision of washing machines will not be a part of works.

3.16 **Drying and Ironing Room.** Drying room will be provided at a scale of 2.4 Sqm per 10 personnel with cloth lines. Ironing room will be provided at a scale of 1.0 Sqm per 12 persons. Minimum room size will not be less than 9 Sqm in each case. Hanging/ stacking arrangement will be provided.

3.17 **Drivers Training Tracks.**

3.17.1 **Training track for 'B' Vehicles.** Training track for 'B' vehicles may be provided at the discretion of GOC-in-C Command. The track of 3.75M wide should be of suitable length not exceeding 8 Km. The track wherever possible should simulate practice in hill and plain driving incorporating features like metalled road, sandy patch, crossings, embankments, defiles, turns, gradients, etc. Various traffic sign posts and signals should be provided as required. Simulator room of 18 Sqm shall be provided for housing driving simulator for drivers training or any other training involving simulator.

3.17.2 **Training Tracks for 'A' Vehicles.** 5.5m wide training track for 'A' vehicles may be provided for mechanised formation at the discretion of GOC-in-C Command. The length of the track to be provided as suitable but not exceeding 04 KMs with features like fording pits, embankments, water obstacle, defiles, etc. Portion of the track may be stone paved if required.

3.18 **External Lighting or Perimeter Lighting and Watch Towers with Rest Rooms.** These should be provided along perimeter walls/ walls, main gates, beach fronts, sea coasts, jetties, technical areas, dumps, depots and installations where valuable stores, equipment, air craft, vehicles and machinery are parked or stored. These may also be provided at other places as per threat perception, round the clock surveillance is considered essential, subject to specific approval of GOC-in-C or equivalent. Integrated Watch Towers with rest rooms and trainable lights may be provided.

3.19 **Family Welfare Centre.** A family welfare centre may be provided at a scale of 200 Sqm for a large unit (more than 400 personnel). The accommodation will normally comprise of a meeting hall and a family planning room, counselling rooms, vaccination rooms etc. The facility of a family welfare centre may be combined at station level if administratively convenient and to meet the service requirements, in which case the area will be assessed at 0.75 Sqm per person on the authorised married complement of the station subject to a maximum size of 500 Sqm.

3.20 **Film Vaults.** Film vaults are authorised for storage of films at Service Headquarters, Command Headquarters, Area Headquarters, Category 'A' and 'B' establishments and at other units or depots where storage of number of films warrant provision of such accommodation. Standard size of film vault of 4.0m x 3.7m x 3.4m with racks to store upto 50 prints each shall be provided. The number of film vaults to be provided shall be based on the assessed stocking. The vaults shall be air-conditioned where technically considered necessary for safe storage of films. Location should be at least 25m away from main road or other buildings.

3.21 **Flag Staff.** These will be provided where flags are authorised. It will include flag base, mast, focus lighting and a suitable paved area around it.

3.22 **Guard at Officers Residences.**

3.22.1 Accommodation for guard at officers residences will be provided for the following officers and their equivalents in other two Services when authorised guards: -

- | | | | |
|-----|-------------------------------|---|------------------------|
| (a) | GOC-in-C | - | 02 NCOs and 06 Rifles. |
| (b) | Corps Commander | - | 02 NCOs and 06 Rifles. |
| (c) | Divisional or Area Commanders | - | 01 NCO and 03 Rifles. |

- (d) General Officers and a Brigadier in Command of a category 'A' establishment, a Brigade and a Sub Area (provided an officer, senior in rank to him and entitled to guard under (a) and (c) above is not located in that station). - 01 NCO and 03 Rifles.

3.22.2 Following items of accommodation will be provided for the guard as per scales:-

- (a) Single living accommodation including verandah on both sides.
- (b) WCs, Bath, Urinals and WHB.

3.22.3 Where two Brigadiers are located in the same station, the GOC-in-C will decide as to which of the two shall be entitled to a guard.

3.22.4 Guard Room along with toilet facilities can be provided in the married accommodation complex, where considered essential by the Station Commander.

3.23 **Helipads.** Helipads with ancillaries may be provided on merit at the discretion of GOC-in-C Command where helicopter landing facilities are required.

3.24 **Holiday Homes.**

3.24.1 Holiday Homes may be provided at hill stations, station of tourist attraction, places of pilgrimage, wherever specialised hospital facilities are available, and at other selected stations for use by the serving and retired defence personnel. The provision of Holiday Homes will be as per Government instructions issued from time-to-time.

3.24.2 Charges for use of holiday homes shall be as per laid down rules.

3.25 **Hutted Accommodation.** Hutted accommodation will be provided when specifically authorised.

3.26 **Incinerators.** These should be provided as required, based on disposable waste. Electric Incinerators shall be provisioned wherever required.

3.27 **Janitor's Closet.** Janitor's closet, 04 Sqm each with 3-tier shelves, should be provided with common sanitary annexes.

3.28 **Labour Camps.**

3.28.1 Accommodation may be provided for Civil Labour Imported from distant areas for employment in defence installations. Single living accommodation will only be provided. Living accommodation will be in shelters or tents with sanitary annexe consisting of latrines, baths and urinals as per authorised scales. Camps will be laid out in rows with 03m clear space between huts and 09m clear space between rows. Camps will accommodate 400-800 persons each and will have at least 12m clear space all around.

3.28.2 Medical inspection room facility shall cater for the provision of medical officer room, treatment room, dispensary, store room and heat stroke room which shall be as per authorised scales for MI rooms corresponding to the appropriate strength.

3.28.3 A camp hospital with bedded accommodation for 5% of the total labour strength with kitchens, ward ancillaries, incinerator and disinfectant shed may also be provided as required.

3.29 **Leave Camps.** Wherever leave camps are authorised, these will have the following accommodation as per authorised scales for the assessed strength of the camps or as given otherwise against each item: -

- (a) Living accommodation with ancillaries including dining halls and cook houses. Hot water supply should be provided.
- (b) Offices for authorised officers and staff.
- (c) MI Room.
- (d) Store rooms and PA equipment room on as required basis.
- (e) Recreation building complex with floor area of 07 Sqm per 08 men. This should include facilities such as canteen, cafeteria, recreation room, games room etc.
- (f) Cinema or theatre at a scale of 400 seats for every 1200 men or proportionate lesser size for lesser strength.
- (g) Swimming pool 25m x 13.5m size for camps with strength of 500 or above.
- (h) Play grounds.

3.30 **MES Inspection Bungalows.** These are authorised primarily for the use of officers and subordinates of the MES. The opening of inspection bungalows requires prior approval of the Engineer-in-Chief, Army Headquarters, as the head of the MES.

3.31 **Meter or Switch House.** Meter or Switch House for electric supply to be provided as required.

3.32 **Motivation Training Hall-cum-Museum.** Motivation Training Hall-cum-Museum of size not exceeding 320 Sqm along with necessary fittings and fixtures as required to be provided at the scale of one per Training Centre of the Army and equivalent training establishments of the other Services. Motivation Hall of smaller size not exceeding 200 Sqm may be provided for unit at the discretion of GOC-in-C Command. Air conditioning will be provided on merit with specific approval of GOC-in-C.

3.33 **Obstacle Course.** Obstacle course may be provided for any unit at the discretion of GOC-in-C Command/ Corps Commander/ Equivalent. One course should serve as many units as possible. The standard design should be based on training instructions issued by Service Headquarters.

3.34 **Post Office.**

3.34.1 The accommodation for a Post Office may be provided at the discretion of GOC Area or equivalent at detached military stations which do not have adjoining civil population where such facility exists and where it has not been found feasible to establish this facility by the Postal Department under their own arrangements.

3.34.2 The floor area should not exceed 67 Sqm. Living accommodation at the scale as applicable may be provided for officer in charge (Post Master) wherever post offices are constructed.

3.34.3 The payment of licence fee shall be as per rules. No licence fee for the accommodation shall be charged where GOC Area or equivalent authority considers that a Post Office is being constructed on grounds of military necessity or convenience and that the Postal Department requires that military building(s) be made available for the office and the officer in charge.

3.35 **Railway Sidings and Platforms.** Work in connection with railway sidings and platform, etc will be provided as required and treated as authorised works.

3.36 **Religious Buildings.**

3.36.1 Religious Buildings may be provided on station basis at the discretion of GOC-in-C Command or equivalent for the assessed strength of personnel of each religious community. These Religious buildings shall cater for all station units sanctioned on PE and other personnel of the station not covered under the provision of religious hall.

3.36.2 The area authorised shall be assessed at 0.5 Sqm per person subject, however, to a maximum of 250 Sqm and a minimum of 75 Sqm for each religious building. The number of religious buildings in a station shall not exceed four in number.

3.37 **Religious Institute Hall.** A hall or halls of total floor area of 200 Sqm is authorised for a large unit or 50 Sqm for a small unit as religious institute. This shall be provided to units on WE, Regimental Training Centres and depots of all three services. One additional hall may be provided in Regimental Training Centres or depots with strength over 1000 personnel.

3.38 **Roads, Hard standings and Paved Area.** The construction, improvement and maintenance of roads, hard standings and paved areas where these are considered necessary. Pathways of cobblestones, concrete or interlocking tiles may be provided, where required is authorised. Dedicated lanes/ tracks for cycles may be provided with prior approval of Station Commander.

3.39 **Road Furniture, External Sign Postings, Cat Eye/ Delineators and Speed Breakers.** External sign posting on roads, requisite road/ street furniture etc may be provided as necessary. Road markings with luminescent/ thermoplastic paints may be provided.

3.40 **Sainik Aramgahs.**

3.40.1 Sainik Aramgahs may be provided at important railway stations, junctions and termini for use of defence personnel and their families in transit. The selection of stations and the strength of transients for which the facility is to be provided shall be approved by the Government.

3.40.2 The accommodation shall comprise living accommodation, a dispensary, canteen, armoury and other ancillary accommodation such as waiting hall, enquiry or booking room, information room, tradesmen shops, cafeteria with kitchen, store, pantry and dining halls for officers, JCOs and OR. Separate living and toilet facilities shall be provided for officers, JCOs and OR.

3.40.3 The office, administrative and living accommodation for officers and staff on the authorised establishment shall be provided as per scale. The scales of accommodation for transient personnel shall be as given below: -

(a)	Married Officers	20 Sqm per family
(b)	Single Officers	10 Sqm

(c)	Married JCOs and equivalents	10 Sqm per family
(d)	Single JCOs and equivalents	4.5 Sqm
(e)	<u>Single/ Married OR and equivalents</u>	
	(i) Single beds	4.2 Sqm per person
	(ii) Two tier beds	3.0 Sqm per person
	(iii) Three tier beds	2.1 Sqm per person
(f)	Ancillary accommodation	1.5 Sqm per person
(g)	Dispensary and Treatment room	18.5 Sqm
(h)	Canteen	20 Sqm
(j)	Armoury	As per scale for assessed number of arms
(k)	<u>Toilet</u>	
	(i) Bath, WC & WHB	10%
	(ii) Urinal	4%

3.41 **School Kindergarten.** Provision of KG Schools in stations where such facility is not available in close vicinity may be considered on merit by GOC Area or equivalent.

3.42 **Shopping Centre.**

3.42.1 Shopping Centre may be provided at Military stations for the Married Accommodation complex with the prior approval of the GOC-in-C or equivalent. The scales for provision shall be as under, based on Station strength in the station: -

1001 to 3000	-	500 Sqm
3001 to 5000	-	750 Sqm
5001 to 10000	-	1000 Sqm
Above 10000	-	1000 Sqm plus 125 Sqm per every increase of 1000 strength.

Notes.

- (i) Station strength for Shopping Complex may be calculated as under: -
 Single Living Accommodation : 01 Person
 Married Accommodation : 02 Person only (1 Person + 1 Spouse)
- (ii) Separate ladies/ gents toilet facilities be authorised at a scale defined in National Building Code.

3.42.2 Provision of Shopping centre in multi-storeyed construction will be adopted where feasible.

3.42.3 Depending on the requirement of the trades, the shops sizes be small (12 Sqm), medium (24 Sqm) or large (48 Sqm). The trades be selected out of the categories like aerated water,

barber, books and stationery, car and scooter repair and service station, cloth, chemist and druggist, cycle, dry cleaner, fuel including gas, furniture, grocery, hardware, meat and poultry, milk dairy and bakery, photographer, restaurant, radio and electrical repairer, shoes, tailor, vegetables and fruits and any other trade or commodities.

3.42.4 Suitable security measures like sliding metal grilles and Steel rolling shutters on all external doors shall be provided. Toilet facilities at the scale of two urinals and one each of WC and WHB for males and one each of WC and WHB for females be provided in a shopping centre. Licence fee and allied charges shall be charged at the scale laid by the Government.

3.43 **Storage Accommodation.** Storage accommodation, as given here-under is per person or animal for large or small unit. Suitable shelving or racks will be provided as required. Counters may be provided in all stores where issues are made. Windows and ventilators will be barred wherever considered necessary. Stores may be divided into compartments to suit the organisation of the unit: -

(a) **Armouries.** Accommodation for weapons which do not form part of vehicles equipment will be provided at the rate of: -

(i)	Rifles	-	01 Sqm for 05 Rifles.
(ii)	Machine Carbine	-	01 Sqm for 05 Machine Carbines.
(iii)	Pistols	-	0.75 Sqm per 16 Pistols
(iv)	LMGs	-	01 Sqm per 04 LMGs.
(v)	MMGs/ HMGs	-	1.5 Sqm per Gun.
(vi)	60 mm or 2" Mor	-	01 Sqm per Mor.
(vii)	81 mm Mor	-	05 Sqm per Mor.
(viii)	106/57 mm RCL Guns	-	16 Sqm per Gun.
(ix)	Rocket Launcher	-	01 Sqm per RL.

(b) **Clothing Store.** 01 Sqm per 08 men.

(c) **Company Store.** 19 Sqm.

(d) **Equipment Store.** 01 Sqm per 10 men or animals (minimum 09 Sqm).

(e) **Explosive Store.** Storage accommodation for the units holding explosives in small quantities (as defined by Magazine Regulations) shall be provided in compartments of 2.4 Sqm for each category or compatible categories of explosives requiring separate storage as per regulations.

(f) **Missile Store.** Storage accommodation for missiles will be provided on as required basis. Suitable air-conditioning of the accommodation will be provided as per technical requirements of the missiles.

(g) **Mobilisation Equipment Store.**

- (i) Large Unit – 65 Sqm.
- (ii) Small Unit – 30 Sqm.

To be provided where mobilisation stores are specifically authorised. In case of small units to be provided where located independently.

(h) **Oil Store (General Purpose).** 09 Sqm.

(j) **Ration Store-cum-Ration Stand.** For ration store 01 Sqm per 15 persons (minimum 9 Sqm) and for ration stand 25 Sqm for large units only. Depending on spread of the station, more than one ration stand can be provided in a station at the discretion of GOC Area or equivalent.

(k) **Reservist Store.**

- (i) Clothing and Accoutrements - 11 Sqm for 100 kits.
- (ii) Arms - As per armouries.

Authorised only for units which equip reservists on mobilisation. The arms store is normally attached to the guard houses.

(l) **SAA Store.** 01 Sqm for 40 rifles, sten machine carbine or pistols and 06 Sqm per 10 light, medium, or heavy machine guns. The room will normally be divided into two compartments ie one for mobilisation and one for practice. It should normally have an external access only.

(m) **Shell Store.** Storage accommodation for ammunition pertaining to armoured fighting vehicles and artillery guns, mortars etc, except missiles, shall be provided at the scale of 02 Sqm per tonne for ammunition upto 100 mm calibre and at 2.75 Sqm per tonne for ammunition above 100 mm calibre.

(n) **Sports Store.**

- (i) Large Unit - 25 Sqm per 500 person
- (ii) Small Unit - 16 Sqm per 200 person

(o) **Station Store.** To be provided on as required basis if station stores are held by the unit.

(p) Store room for gases where authorised (oxygen, acetylene, compressed air, carbon-dioxide and LPG) to be provided with area upto 20 Sqm.

(q) Ramps to be provided for loading/ off-loading of vehicles, wherever required and approved by Station Commander.

3.44 **Telephone Exchange.** Accommodation for Telephone Exchange should be provided as per the technical requirements of the exchange equipment wherever this is authorised to be installed.

3.45 **Computer Server Room.** Server rooms are to be provided where required. The size of Server Rooms will be as per equipment profile with provision for air conditioning, uninterrupted power supply and DG supply.

3.46 **Tradesmen Shops.**

3.46.1 **Armourers Shop.** 23 Sqm (minimum). Additional area at 4.5 Sqm per armourer be provided if more than two armourers are held. Suitable verandah be provided.

3.46.2 **Artificers Workshop including Barber Shop.** These will be provided for such tradesmen as are required to set up working shops and who are not provided with separate technical shops in unit at a scale of 5.6 Sqm per artificer, minimum size of shops to be 12 Sqm with verandah. Similar floor area shall be authorised per barber. Barber shop should also have mirror, shelving, WHB, peg set, towel rail and a small built in cupboard.

3.47 **Drivers Rest Room.** Common rest room for drivers to be provided with minimum size of 15 Sqm at administrative blocks.

3.48 **Unit Shops.** Unit shops may be provided for trades such as tailor, boot maker, cycle/ two-wheeler repairer and grocer etc. The floor area for unit shops of a large unit shall be 60 Sqm. In a military station where a shopping centre does not exist, the floor area of unit shops, however, may be 132 Sqm for a large unit to cater for additional trades such as barber, dhobi, vegetable and fruits, halwai, general store, meat and fish etc. The shops shall be small or medium as per the sizes indicated in the scales for shopping centre. Licence fee and allied charges shall be charged at the scale laid down by the Government.

3.49 **Training Shed.** Training sheds may be provided for basic military training battalions or regiments of all Training Centres of the Army and for all units of basic military training of the other Services for un-interrupted outdoor training during inclement weather open shed with suitable side cover from weather shall be provided. The area of the shed shall be at a scale of 432 Sqm (36m x 12m) for every 100 trainees on the authorised establishment of the basic military training battalion or regiment, etc. Provision will be at the discretion of GOC-in-C Command or equivalent.

3.50 **Verandahs.** Verandahs are required to serve as circulation space in buildings and to provide protection from sun and rain. These will be provided as required to meet such functional and climate requirements. The clear width should normally not exceed 2.1m. Single men barracks however may be provided with 2.5m wide verandah on two sides for sleeping out purposes at stations where at certain times of the year it is preferable for troops to sleep in verandahs. Two side verandahs may also be provided with other buildings such as stores and shops, wherever required.

3.51 **Walls, Gates and Fences.** Walls, gates and fences are to be provided considering the security requirements of the unit/ establishment. The main gates may be so designed to provide covered shelter to security personnel during wet weather. Brass/ steel letters for inscription of name may be provided. The exact requirements may be worked out by a board of officers based on the threat perception as well as well as type and functional role of the unit. The following scales are meant to serve as broad guidelines: -

(a) These will be provided on as required basis. Maximum heights of security walls and fencing should be as specified below: -

(i) High Security Wall - 03m

Notes. Where threat perception demands the requirement of High Security wall with Height more than 03m, the same will be provided on the following basis: -

- (a) **Height between 03m to 05m.** As per ground requirement and duly approved by Formation commander not below the rank of Major General or equivalent.
- (b) **Height greater than 05m.** As per ground requirement and duly approved by GoC-in-C or equivalent.
- (c) All high security walls may be provided with 80cm high surmounted fence with barbed wire and concertina coil.
- | | | | |
|-------|--|---|---|
| (ii) | Security fencing | - | 03m Chain link fencing surmounted with 0.8m of concertina coil on metallic Y/C angle. |
| (iii) | Low Security wall | - | 2.1m (Surmounted with 0.8m high Barbed wire fencing or Concertina coil). |
| (iv) | Cattle fencing
(Chain link fencing) | - | 1.4m (normal) /
1.7m (to meet specific requirement). |
- (b) Perimeter and boundary walls 1.3m to 2.0m high with 0.6m swan neck with barbed wire over it may be provided around living accommodation complexes and sensitive/vulnerable areas as considered necessary to prevent trespassing and occupation by unauthorised settlers. Compound walls may be provided where bungalows or residences are along main roads and where no perimeter wall exists. Other individual residential buildings may however be provided with compound wall of overall height 1.8m (1.2m wall + 0.6m RCC Jali) above ground level.
- (c) In addition concertina coil of barbed wire between inner and outer fencing and punching tape on as required basis may be provided for specific sensitive and vulnerable installations with the approval of GOC-in-C or equivalent in Navy, Air Force and Coast Guard.
- (d) **Power/ Electric Fencing.** Provision of electric fencing as authorised item for sensitive and vulnerable installations with the approval of GOC-in-C/ equivalent may be provided.
- (e) Boundary pillars upto 1.5m height may be provided for demarcation of defence land where required.
- (f) Entry gates will be provided with covered sentry shed, bollards, tyre shredder, boom barrier, vehicle inspection pit etc on as required basis.
- (g) Works services connected with the installation and monitoring of CCTV cameras, other electronic surveillance devices at Admin complexes, entry gates, along perimeter walls/ road, beach fronts, sea coasts, jetties, technical areas, depots and installations where valuable stores, equipment, air craft, vehicles and machinery are parked or stored etc will be considered as authorised works. These may also be provided at other places where essential, subject to specific approval of GOC-in-C or equivalent. However the installation & monitoring of CCTV cameras, other electronic surveillance devices including data/ communication cables shall not be part of work services.
- (h) View cutters may be provided along the boundary wall, wherever necessary.

3.52 **Sentry Boxes.** Covered Sentry boxes will be provided on as required basis if not covered in the tables of scales. The floor area for each sentry box shall not exceed 2.5 Sqm. Elevated sentry boxes may be provided. Drinking water and sanitary annex as per scales may be provided on basis of merit.

3.53 **Water Closet or Latrines, Urinals, Bath and Hand Wash Basins.**

3.53.1 Each toilet or bath room or WC will normally comprise of fittings and fixtures given below. Additions or deletions shall be made if indicated in the table of scales: -

Ser No	Unit	Area (in Sqm)	Fixtures and Fittings
(a)	Toilet	4.0	WC, WHB, urinal, mirror, towel rail, set of pegs, toilet paper rack and ablution tap.
(b)	Bath Room	3.0	Shower with CP Brass mixture type tap for cold and hot water with single lever quarter turns ceramic cartridge, plumbing for geyser, towel rail, set of pegs, soap tray or soap niche.
(c)	Toilet with bath	5.0	All as above (without urinal) with shower, soap tray or soap niche, (medicine cupboard in married, single officer and nursing officer accommodation only).
(d)	Water Closet	2.0	Toilet paper rack with European type WC, niche, ablution tap and Health faucet/ manually operated jet.
(e)	Wash hand basin	1.0	Mirror with glass shelf and soap tray or soap niche with CP Brass mixture type tap for cold and hot water with single lever quarter turns ceramic cartridge.
(f)	Urinal	1.0	

3.53.2 Buildings, training, recreation or work areas for which toilet facilities are not specifically authorised in the scales, may be provided with limited facilities at the scale not exceeding 1% each of WC, WHB, and urinal if in the opinion of the appropriate medical authority, the existing facilities are not located within a reasonable distance.

3.53.3 Toilet facilities as authorised for various types of buildings are given in the respective tables in terms of numbers. Floor area for these facilities will be in addition to the total authorised floor area for the building unless otherwise specified.

3.53.4 Sensor operated fixtures/ fittings may be provided in prestigious buildings, Formation HQ, Messes and Institutes.

3.53.5 Where no scales are given in the table, sanitation facilities for public buildings may be provided as specified in latest NBC norms.

3.54 **Wells/ Borewells.** Wells/ borewells may be provided where conditions render it necessary.

3.55 Cook house and Dining Hall for Transit Camp shall be provided for every 200 to 250 Transients.

3.56 **MES Maintenance Cell.** MES Maintenance Cell and Store for fast moving spares and urgent items shall be provided in Residential Complex. The size of MES Maintenance Cell and Store may be provided at the scales of 70 Sqm for more than 500 DUs and 50 Sqm for less than 500 DUs.

3.57 **Meditation/ Yoga Centre.** Accommodation for Yoga Hall/ Meditation centre will be provided at 0.25 Sqm (floor area) per person based on station strength. Suitable facilities for sanitary annexes shall be provided as per requirement. Adequate arboriculture and landscaping will also be considered for providing serene environment. The plinth area of the Hall shall not be more than 100 Sqm.

SOA 2022

CHAPTER 4

ACCOMMODATION AUTHORISED FOR ALL UNITS

4.1 Accommodation that is generally common and authorised to all units of the Services provided their establishment justifies it as per laid down rules under General Provisions. Authorisations and Scale, is given in Parts I and II. The specialised accommodation authorised to various units in addition to the common items listed below and E&M scales are contained in parts III & IV respectively.

4.2 Thus for example, if total accommodation for an Infantry battalion is to be determined, it would be obtained from the list given below for common items and for specialised items from the relevant section for Infantry units in Part III. Scales for Electrical and Mechanical items as are given in Part IV shall be applicable.

4.3 Accommodation common to all units as authorised is given below: -

Ser No	Items	Scale/ Reference
(a)	Accommodation for Messes and Clubs (for officers, Nursing Officers, JCOs, OR and NCs(E) of AF)	Part II – Accommodation for Messes and Clubs.
(b)	Coal and Coke Yards	Part I – General Authorisation.
(c)	Covered Accommodation for Vehicles and Ancillaries	Part II – Administrative and Working Accommodation.
(d)	Dhobi Ghat	Part I – General Authorisation.
(e)	Drying and Ironing Room	
(f)	Education Building	Part II – Training and Recreational Facilities.
(g)	Family Welfare Centre	Part I – General Authorisation.
(h)	Fire Stations and Static Water Tanks	Part II – Miscellaneous Accommodation.
(j)	Flag Staff	Where Flags are authorised Part I – General Authorisation
(k)	Guard House and Ancillaries	Part II – Administrative and Working Accommodation.
(l)	Incinerators	Part I – General Authorisation.
(m)	Institutes	Part II – Training and Recreational Facilities.
(n)	Janitor's Closet	Part I – General Authorisation.
(o)	Living Accommodation (for Officers, Nursing Officers, JCOs and OR)	Part II – Single Living Accommodation.
(p)	Medical Inspection Rooms	Part II – Administrative and Working Accommodation.
(q)	Meter and Switch House	Part I – General Authorisation.
(r)	Office and Administrative Accommodation	Part II – Administrative and Working Accommodation.

Ser No	Items	Scale/ Reference
(s)	Parade Ground	Part II – Training and Recreational Facilities.
(t)	Recreation Grounds and Courts	
(u)	Religious Institute Hall	Part I – General Authorisation.
(v)	Sentry Boxes	
(w)	<u>Shops Tradesmen</u>	Part I – General Authorisation.
	(i) Armourers	
	(ii) Artificers Workshops including Barber Shop	
(x)	<u>Stores</u>	Part I – General Authorisation.
	(i) Armouries	
	(ii) Clothing	
	(iii) Equipment	
	(iv) Explosive	Part I – General Authorisation For units equipped with small quantities of miscellaneous explosives which, as per magazine Regulations, are not to be stored together or with small arms ammunition.
	(v) Lubricating Oil and Grease	Part II-Covered Accommodation for Vehicles and Ancillaries.
	(vi) Mobilisation Equipment	Part I – General Authorisation.
	(vii) Oil Store (General Purpose)	
	(viii) Petrol	Part II – Covered Accommodation for Vehicles and Ancillaries.
	(ix) Ration Store-cum-Ration Stand	Part I –General Authorisation.
	(x) Reservist	
	(xi) Small Arms Ammunition	Part I – General Authorisation normally attached to Guard Houses.
	(xii) Sports	Part I – General Authorisation.
	(xiii) Station	Part I – General Authorisation. To be provided if Station Stores are held.
(y)	Unit Shops	Part I – General Authorisation.
(z)	Walls, Gates and Fences	
(aa)	Water closets, Latrines, Urinals, Baths and Wash Hand Basins	

PART II – GENERAL SCALES

CHAPTER 5

SINGLE LIVING ACCOMMODATION

5.1 **Service Officers and Nursing Officers.** Scales of single living accommodation for Service Officers and Nursing Officers are contained in Table 5.I. Single living accommodation in Training Establishments for officers deputed for short term courses may be provided based on average peak load strength certified by administrative authorities not lower than commandant of the training establishment.

5.2 **Officer Cadets.**

5.2.1 Scales of single living accommodation for Officer Cadets are laid down in Table 5.II. Separate scales have been indicated for senior and junior officer cadets.

5.2.2 Officer Cadets undergoing pre-commission training in such institutions from where they would graduate as commissioned officers on completion of training are categorised as senior officer cadets. Cadets of other institutions or wings carrying out pre-commission training are termed as junior officer cadets.

5.2.3 Living accommodation shall be built as single rooms with verandah, in-built wardrobe with dressing mirror, Curtain rod with required accessories/ drapery rod of contemporary design may be provided.

5.2.4 Box room and working rooms for orderlies to be provided one each for 50 and 25 cadets respectively. Work services for installation of washing machines in working rooms and necessary covered shelves/ cabinets in box rooms may be provided.

5.2.5 Single living accommodation for foreign trainees will be provided at stations with the approval of GOC-in-C as per scale for single officer accommodation given in Table 5.I. Air conditioning facility may be provided for the accommodation with approval of GOC-in-C/ equivalent.

5.3 **JCOs, NCOs, OR and Equivalent in Other Services and NCs(E) of IAF.**

5.3.1 Scale of single living accommodation for JCOs, NCOs, OR and their equivalent and NCs(E) of IAF are contained in Table 5.III. Single living accommodation in Training Establishments for personnel deputed for short term courses may be provided based on average peak load strength certified by administrative authorities.

5.3.2 The accommodation will normally be provided in self-contained blocks comprising of NCO's rooms and barrack rooms for 20 OR along with sanitary annexe. Barracks may be divided into rooms of various sizes as required. Accommodation for Senior JCOs, NCOs and appointment holders should be provided separately.

5.3.3 In the case of training battalions, 20% additional accommodation in the singlemen's barracks of each company above the authorised establishment of single men will be provided in order to allow for recruits in excess of establishment and parties from absentee battalions. The barrack accommodation of each platoon of training company will be self-contained.

5.3.4 Central entrances, lobby, passages and staircases will be provided as required.

5.3.5 Single living accommodation for foreign trainees will be provided at stations with the approval of GOC-in-C as per scale for single officer accommodation given in Table 5.III. Air conditioning facility may be provided for the accommodation with approval of GOC-in-C/ equivalent.

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TABLE 5.I

**SINGLE LIVING ACCOMMODATION FOR
SERVICE OFFICERS AND NURSING OFFICERS**

Ser No	Description of Items	Plinth Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Main Unit of Accommodation			(a) Staircase of 5.02 Sqm to be provided for double or multi-storey construction.
	(a) Major and above and equivalents	66		(b) Sleeping out balcony of 8.0 Sqm area may be provided for all officers.
	(b) Lt/ Captain and equivalents	56		(c) Box room and orderlies room @ 1.0 Sqm FA per officer.
2.	Servant Quarters			
	(a) Major and above and equivalents	18.58		Staircase of 4.65 Sqm to be provided for double or multi-storey construction. To be provided at 75% for Major and above and equivalents.
	(b) Lt/ Captain and equivalents	18.58		To be provided at 50% for Lt/ Captain and equivalents.
3.	Garages/ Parking			(may be provided as stilt/ basement parking
	(a) Major and above and equivalents	21		To be provided at 100%.
	(b) Captain and equivalents	21		To be provided at 100% as open common shed.
	(c) Lieutenant and equivalent.	21		To be provided at 100% as open common shed.

Note. The scales of staircase given above are on the basis of one brick wall construction. If stone masonry construction is adopted 16% additional plinth area will be allowed. For 1½ brick wall construction the plinth area may be increased by 12.5%.

TABLE 5.II**SINGLE LIVING ACCOMMODATION FOR OFFICER CADETS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale		Special Facilities	Planning Notes
		Senior Officer Cadets	Junior Officer Cadets		
1.	Living Room and Bedroom	16 per cadet	16 per cadet	In built cup boards with dressing mirror	Sitting out balconies of 3.5 Sqm be provided. Area to be divided into living room and bedroom as required.
2.	Box Room	0.40 per cadet	0.40 per cadet	Shelving	---
3.	Working Room for Orderlies	0.65 per cadet	0.65 per cadet	Facilities for installation of washing machine	
4.	Motivation Hall-cum-Common Room	02 per cadets	01 per cadet	---	One hall per company or equivalent subject to maximum of 200 Sqm per company.
5.	Sanitary Annexe	01 per 02 cadets		---	(a) For senior officer cadets: - (i) One attached annexe to be provided to two adjoining rooms. (ii) Bath and WC to be provided separately with wash hand basin in common entrance lobby. No urinals to be provided. (b) For junior officer cadets- One annexe to be provided for 08 cadets.
	(a) Water Closet (WC)	33%	01 per 10 cadets	---	
	(b) Bath Room	40%	01 per 10 cadets	---	
	(c) Wash hand basin (WHB)	25%	01 per 10 cadets	---	
	(d) Urinal	01 per 10 cadets	01 per 10 cadets	---	
	(e) Island Wash	01 per 10 cadets	01 per 10 cadets	---	
6.	Scooter/ Motor Cycle Shed	100% (04 Sqm)	75% (04 Sqm)	---	A combined covered shed open parking may be provided.

TABLE 5.III

**SINGLE LIVING ACCOMMODATION FOR JCOs, NCOs, OR
AND THEIR EQUIVALENTS IN OTHER SERVICES AND NCs(E) OF IAF**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
Single Living Accommodation per JCO				
1.	Living Accommodation	41.2 (Plinth Area)	Desert Cooler in hot climate @ one per JCO.	Staircase of 5.02 Sqm to be provided for double or multi-storey construction.
2.	Scooter Shed	6 (Plinth Area)		To be provided @ 50% as open common shed.
3.	Car Parking	12 (Plinth Area)		50% be provided as open common shed.
Single Living Accommodation Havildars/ OR and NCs(E) of IAF				
4.	Living Accommodation per Havildar	13	(a) Notice board in entrance hall or verandah. (b) Full length mirror in verandah. (c) Clothes lines for hanging clothes outside the barracks and retractable ceiling pulley clothing line in verandah for wet weather drying.	
5.	Living Accommodation per OR and NCs(E) of IAF	10	(d) A writing shelf with chair and in-built book shelf – one per two ORs. (e) Lines for mosquito nets may be provided as required. (f) Desert Cooler in hot climate in stations at Appendix A at the rate of one per six ORs. (g) One fan for two individual.	
6.	Common Room	0.50 Sqm per man	Pelmet with curtain rods or curtain runners.	To be provided at company or equivalent level.

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
7.	Study Room	0.25 per man	Pelmet with curtain rods with required accessories or curtain runners.	To be provided at company or equivalent level.
8.	Store Room	0.25 per man	Cabinets/ shelves. Facility for installation of washing machine.	
9.	Verandah	2.4m wide		To be provided on one side. May be provided on both sides at stations where at certain times of the year it is preferable for troops to sleep outside.
10.	Sanitary Block			
	(a) Baths	25% of authorised strength	(a) Glazed ceramic tile dado upto ceiling level.	Minimum 03 Nos
	(b) WCs	33% of authorised strength	(b) Counter with stone slab with single/ multiple oval type/ WHB and single large mirror with border covering entire width of slab.	Minimum 04 Nos
	(c) Trough type WHB	33% of authorised strength	(c) Hot water supply in each bath.	Minimum 03 Nos
	(d) Urinals	12.5% of authorised strength	(d) Storage tank of capacity as per NBC 2005. Provision of separate tank for WC.	Minimum 02 Nos
11.	Car Sheds	12 Sqm (Plinth Area)		To be provided @ 20% as open common shed.
12.	Scooter Shed	06 Sqm (Plinth Area)		80% be provided as open common shed.

Note.

1. The scales of staircase given above are on the basis of one brick wall construction. If stone masonry construction is adopted 16% additional plinth area will be allowed. For 1½ brick wall construction the plinth area may be increased by 12.5%.

2. Covered parking may be provided in lieu of Scooter sheds, if required.

CHAPTER 6

ACCOMMODATION FOR MESSES AND CLUBS

6.1 Messes for Officers and Nursing Officers.

6.1.1 Scales of accommodation for Officers and Nursing Officers' Messes are contained in Table 6.I.

6.1.2 As a general principle, separate officer's messes should be provided on regimental basis. Combined messes may be constructed if so required to meet the specific requirement of the Services. In the case of small units, however, a separate mess will only be provided where other mess is not conveniently accessible at the station.

6.1.3 Mess should not be provided for less than 05 members.

6.1.4 The following scale will be adopted for messes having strength beyond 40 officers: -

- | | | | |
|-----|--------------------|---|--|
| (a) | 41 to 50 officers | - | Floor area admissible for 40 officers plus 7.5 Sqm per additional officer beyond 40. |
| (b) | 51 to 100 officers | - | Floor area admissible for 50 officers plus 6.3 Sqm per additional officer beyond 50. |
| (c) | 101 and beyond | - | Floor area admissible for 100 officers plus 5.3 Sqm per additional officer beyond 100. |

6.1.5 For messes of strength beyond 40 officers, servants' quarters will be provided as for Messes of 29 to 40 officers plus one additional servant quarter for every 05 officers in excess of 40.

6.1.6 The car sheds and hard standings shall be increased at the rate of one for every 25 officers over and above the number authorised for 29-40 officers. The total authorisation thus worked out shall be provided as open sheds and hard standings in the ratio 2:1 respectively. While calculating this, fractions in excess of 0.5 shall be converted into whole numbers.

6.1.7 The verandah, porch, lobby, entrance hall and toilets would be provided and area found out of area additions.

6.1.8 Reception counter, letter racks and telephone booth may be provided as required. Pelmet and curtain rods, curtain runners or decorative drapery rods should be provided in all main rooms (except stores) and in other rooms viz guest rooms, offices and cloak room.

6.1.9 The scales indicated against each item are intended to serve as a guideline and Service headquarters will be at liberty to place the accommodation for various purposes in any manner they choose, so long as the overall permissible floor area is not exceeded.

6.2 Messes for Officer Cadets.

6.2.1 Scales for Messes for Officer Cadets are contained in Table 6.II.

6.2.2 Verandah 2.5m wide should be provided on one side only. Accommodation for lavatories, store rooms, mess office etc may be provided out of area additions. The number of cook houses may be provided as per the administrative requirement.

6.3 **Messes and Clubs for JCOs and Their Equivalents.**

6.3.1 Scales for Messes and Clubs for JCOs and their equivalent ranks are contained in Table 6.III. Messes (clubs) are not authorised for less than 05 members in which case the JCOs or their equivalents in other Services should be attached to the nearest major unit. Messes (clubs) will normally be provided at unit level, however, combined messes may be provided for smaller units if conveniently accessible.

6.3.2 Scale for messes (clubs) having strength beyond 60 JCOs and equivalents will be adopted at floor area admissible for 60 JCOs plus 02 Sqm per additional JCO. Library and reading room may be provided from within the authorised floor area in messes (clubs) having strength 41 and above of JCOs or their equivalents in other services.

6.3.3 Pelmet with curtain rods or curtain runners will be provided in mess room, club room, recreation and TV room family room and card room.

6.3.4 A lavatory with WC, urinal, WHB and bath shall be provided for use by the staff and suitably located in case one is not available within reasonable distance of the mess (club). The verandah, lobby and cloak room for gents and ladies to be provided out of area addition.

6.4 **Dining Halls and Cook houses for Havildars, OR and their Equivalents.**

6.4.1 Scales for dining halls and cook houses for Havildar and OR and their equivalents are given in Table 6.IV. The number of cook houses and dining halls provided should be the minimum compatible with the organisation of the unit and should be constructed in as few blocks as practicable. In small cook houses it may be considered desirable to combine some accommodation to provide well-proportioned room for working convenience.

6.4.2 Dining halls should be so designed as to provide accommodation for NCOs separate from that for the men. Suitable arrangements in the form of folding or sliding shutters may be provided where considered essential to close the gap over the serving counter when the same is not in use so as to isolate the cook house area from that of the dining hall.

6.4.3 Where adequate latrines, urinals and ablution facilities do not exist within easy reach of cook houses and dining halls these may be provided at a scale of 1% WC, 2% urinals and 2% trough type wash hand basins of dining strength in addition to those authorised in the unit lines.

6.4.4 Height of kitchen shall be 700 mm higher than the rest of accommodation to cater for adequate ventilation. Exhaust fans are to be provided in the cook houses as authorised.

6.4.5 **Store Room with Climate Control Facility.** Provision of store room with climate control facility for all messes having strength of more than 100 personnel may be considered to store fresh rations as considered essential by GOC-in-C/ equivalent. The following scale will be adopted: -

6.4.5.1 Strength 100 to 150 – 12 Sqm.

6.4.5.2 Additional area of 3 Sqm for every increase in strength of 50 personnel.

TABLE 6.I**MESSES FOR SERVICE OFFICERS AND NURSING OFFICERS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale Strength of Officers				Special Facilities	Planning Notes
		5-10	11-18	19-28	29-40		
<u>Main Rooms</u>							
1.	Mess Room	32.00	40.00	58.00	70.00	(a) Ceiling height may be increased by 01m. (b) Air Conditioning may be provided in stations listed at Appendix B.	The mess room should preferably be planned adjoining the ante room and separated by sliding or folding doors.
2.	Ante Room	44.00	49.00	52.00	55.00	(a) Air-conditioning may be provided in stations listed at Appendix B. (b) Display and other shelves.	Includes bar with counter for 5-10 officers.
3.	Bar	---	14.00	16.00	18.00	(a) Air-conditioning may be provided in stations listed at Appendix B. (b) Bar counter with lockable sliding shutter to be provided.	
4.	Library	---	18.00	26.00	30.00	(a) Air-conditioning in Reading room may be provided in stations listed at Appendix B. (b) Cupboard and book racks.	
5.	Indoor Gymnasium	---	20.00	24.00	28.00	Electrical points for Gymnasium equipment.	
6.	Dining Hall	---	18.00	20.00	22.00	Air-conditioning may be provided in stations listed at Appendix B.	
7.	Card Room	---	16.00	16.00	24.00	Cupboard.	
8.	Billiards and Indoor Games Room	---	46.50	46.50	46.50	Cupboard.	

Ser No	Description of Items	Floor Area (Sqm)/ Scale Strength of Officers				Special Facilities	Planning Notes
		5-10	11-18	19-28	29-40		
9.	Kitchen, Preparatory Pantry, Servery and Scullery	35.00	45.00	56.00	66.00	(a) Modular kitchen having sink with double bowl and double drain board, cooking platform and with electrical chimney. (b) Cupboards, racks (c) Glazed ceramic tile dado upto lintel level. (d) Towel rail. (e) Hot closet and serving counter. (f) Hot water provision.	
10.	Larder and Store	10.00	12.00	14.00	16.00	Meat hooks and rail, cabinets/ shelves.	---
11.	Havildar and equivalent Room	10.20	10.20	10.20	10.20	---	---
12.	Cook's Room	6.50	6.50	6.50	6.50	---	---
Other Rooms							
13.	Secretary's Office	---	---	11.00	11.00	---	---
14.	Mess Office	9.00	11.00	11.00	11.00	---	---
15.	Silver Room	---	---	8.00	8.00	---	---
16.	Cloak Room	14.00	16.00	18.00	20.00	(a) Hat and coat pegs. (b) WHB, WC, urinals, mirror and towel rails. (c) Obscured or frosted glass to be used for window panes.	---
17.	Guest Room(s)	---	26.00	34.00	60.00	---	With attached toilets
18.	Wine Store	9.00	9.00	9.00	9.00	---	---
19.	Plate Room	9.00	11.00	15.00	18.00	---	---
20.	Fuel Store	4.00	5.50	6.00	6.00	---	---
21.	Bearer Room	6.50	7.50	7.50	8.50	---	---

Ser No	Description of Items	Floor Area (Sqm)/ Scale Strength of Officers				Special Facilities	Planning Notes
		5-10	11-18	19-28	29-40		
22.	WC and Bath for Havildar and equivalent	01 No each	01 No each	01 No each	01 No each	---	---
23.	WC for Mess Staff	01 No	01 No	01 No	01 No	---	---
24.	Urinal for Mess staff	01 No	01 No	01 No	02 Nos	---	---
<u>Servants Quarters, Covered Facility and Paved Areas</u>							
25.	Servants Quarters	05 Nos	09 Nos	11 Nos	14 Nos	---	---
26.	Car Garages with Apron	02 Nos	04 Nos	06 Nos	08 Nos	---	Open shed
27.	Hard standing for Cars	01 No	01 No	02 Nos	03 Nos	---	Each hard standing to be of 40 Sqm.
28.	Open Paved Area	---	---	---	50	(a) Suitable lighting arrangement. (b) Chequered tiles/ Interlocking PCC tiles.	Suitable area to be found for band stand without Chequered tiles/ Interlocking PCC tiles finish.

TABLE 6.II**MESSES FOR OFFICER CADETS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale Strength of Officers							Special Facilities	Planning Notes		
		5 to 15	16 to 22	23 to 40	41 to 75	76 to 150	151 to 250					
1.	Cook House	40.5	40.5	54.0	67.5	94.5	94.5	(a) Stainless Steel sink with double bowl and double drain board.	For messes having strength more than 250 and upto 2000, scales will be as under: -			
								(b) Hot closet and serving counter.	<u>Strength</u>	<u>Scale</u>		
								(c) Towel rail.	251 to 300	121.2 Sqm		
								(d) Plumbing for Geyser and Water Purifier.	301 to 500	175.2 Sqm		
									501 to 700	229.1 Sqm		
									700 to 1000	296.4 Sqm		
									1001 to 1500	406.0 Sqm		
									1501 to 2000	444.6 Sqm		
		5 to 15	16 to 22	23 to 40	41 to 60	61 to 85	86 to 120	121 to 160	161 to 200	201 to 250		
2.	Mess Room	27	40.5	54	67.5	94.5	121.5	148	175	202	Pelmet with curtain rods/ rails, decorative drapery rods.	For higher strength, the areas may be determined by grouping the sizes indicated for different blocks.

Ser No	Description of Items	Floor Area (Sqm)/ Scale Strength of Officers									Special Facilities	Planning Notes
		5 to 15	16 to 22	23 to 40	41 to 60	61 to 85	86 to 120	121 to 160	161 to 200	201 to 250		
3.	Ante Room	27	40.5	54	67.5	94.5	121.5	148	175	202	(a) Display shelving. (b) Cupboards with book racks. (c) Pelmet with curtain rods/ rails, decorative drapery rods.	For higher strength, the areas may be determined by grouping the sizes indicated for different blocks.

TABLE 6.III**MESSES AND CLUBS FOR JCOs AND THEIR EQUIVALENTS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale Strength of JCOs and Equivalents					Special Facilities	Planning Notes
		5-10	11-15	16-20	21-40	41-60		
1.	Mess Room	20	25	30	44	60		Provision of Air-conditioning/ Central Space Heating System as per climatic conditions at stations as per Appendices B or E.
2.	Club Room	20	25	37	40	50	Display or other shelving and racks.	(a) Provision of Air-conditioning/ Central Space Heating System as per climatic conditions at stations as per Appendices B or E. (b) Club room should adjoin the mess room so that combined use of these rooms is available. (c) Club room to include bar.

Ser No	Description of Items	Floor Area (Sqm)/ Scale Strength of JCOs and Equivalents					Special Facilities	Planning Notes
		5-10	11-15	16-20	21-40	41-60		
3.	Kitchen	13	13	13	15.6	20	(a) Cup boards, racks. (b) Serving platform with locking arrangements. (c) Towel rails. (d) Glazed ceramic tile dado upto lintel level. (e) Sink with double bowl and double drain board, cooking platform and with electrical chimney. (f) Provision of Separate tank as per requirement of dual flushing system. (g) Hot water supply.	
4.	Store	11	11	13	13	13	(a) Cupboard. (b) Meat hooks on rail.	Suitable partition may be provided for storage of fuel.
5.	Servery and Pantry	---	---	09	09	11	(a) Hot closet and serving counter. (b) Towel rail. (c) Plumbing for Water Purifier.	---
6.	Pan Wash	05	05	05	05	6.5	(a) Sink. (b) Towel rail.	---
7.	Cooks Room	6.5	6.5	6.5	08	08	(a) Cupboard. (b) Pegs set.	---
8.	Recreation and TV Room	---	20	20	20	28	(a) Provision of Air-conditioning/ Central Space Heating System as per climatic conditions at stations as per Appendices B or E. (b) Drapery Rods. (c) Cupboards.	---
9.	Family Room	---	---	12	15	18		---
10.	Card Room	---	---	12	12	15		---

Ser No	Description of Items	Floor Area (Sqm)/ Scale Strength of JCOs and Equivalents					Special Facilities	Planning Notes
		5-10	11-15	16-20	21-40	41-60		
11.	Office	---	---	---	09	09	(a) Drapery Rods/ Venetian Blinds. (b) Cupboards.	---

TABLE 6.IV
DINING HALLS AND COOK HOUSES
FOR HAVILDARS/ OR AND THEIR EQUIVALENTS AND NCs(E) OF IAF

Ser No	Description of Items	Floor Area (Sqm)/ Scale Strength of Havildar/ ORs and Equivalents and NCs(E) of IAF						Special Facilities	Planning Notes
		upto 20	21- 50	51- 75	76- 100	101- 150	151- 250		
1.	Dining Hall	0.83 Sqm per man						(a) Curtain rods with required accessories or rails to be provided. (b) Notice and menu boards – two per dining hall. (c) Hat and coat pegs in verandah. (d) One in-built shelf per dining hall. (e) One mirror over each trough WHB subjects to maximum of two per dining hall. (f) Colour washable distemper upto ceiling level – one coat in every year or two coats in every two years. (g) White glazed ceramic tiles lining of trough WHB. (h) Glazed ceramic tiles dado near trough WHB upto lintel height. (j) Easy Chairs 10 per dining hall in a mess of at least 100 OR. (k) Pre-polished Kota stone flooring.	(a) Scale includes floor area for passage. (b) Provision of Air-conditioning/ Central Space Heating System as per climatic conditions at stations as per Appendices B or E. (c) Dining area for NCs(E) of AF shall be provided similar to Dining Hall of OR.
2.	Club/ Ante Room	35	50	60	70	90	115		Provision of Air-conditioning/ Central Space Heating System as per climatic

Ser No	Description of Items	Floor Area (Sqm)/ Scale Strength of Havildar/ ORs and Equivalents and NCs(E) of IAF						Special Facilities	Planning Notes
		upto 20	21-50	51-75	76-100	101-150	151-250		
									conditions at stations as per Appendices B or E.
	Cook Houses								
3.	Kitchen	18.5	18.5	30.5	39	39	55	(a) Cooking range for soft coke and challah where required. (b) Trough type WHB with white glazed ceramic tiles inside lining. (c) Tank for warming water by flue gases with requisite pipes and outlet connections. (d) Double sink and electrical chimney.	(a) Glazed tiles dado up to lintel level. (b) Where cooking is carried out exclusively by the use of cooking gas. (c) Five or additional as required Power points for modern cooking equipment. (d) Suitable cooking platform to be provided. (e) Suitable separate covered and secure enclosure for gas cylinders.
4.	Meat Preparation and Meat Store	---	07	07	07	10	10	(a) White glazed ceramic tiles lining inside Trough type WHB. (b) Meat hooks on rail.	Glazed tiles dado upto lintel level.
5.	Dry Store	08	08	08	08	10	12	(a) Shelving. (b) Cupboards.	Suitably partitioned for storage of fuel if required.

Ser No	Description of Items	Floor Area (Sqm)/ Scale Strength of Havildar/ ORs and Equivalents and NCs(E) of IAF						Special Facilities	Planning Notes
		upto 20	21-50	51-75	76-100	101-150	151-250		
6.	Fresh Store and Larder	14	14	14	14	14	14		---
7.	Fuel Store	---	---	---	07	10	12	---	---
8.	Pan Wash	10	10	10	10	10	12	(a) Water tap alongwith Hot water supply. (b) Shelving. (c) Cupboards. (d) Kota stone flooring.	Glazed tiles dado upto lintel level.
9.	Servery	07	09	12	13	18	26	Combined hot closet and serving counter as required.	---
10.	Cooks Room	07	07	07	07	10	12	(a) Peg set. (b) Towel rail.	---

Note. Continued provision of common mess for MWOs/ WOs, JWO's & Sgt at JCOs Scale for all categories at Air Force stations is in existence vide MoD No Air HQ/375/1/165/W(P&C)/AF/3435/D (Air II) dated 2/18 June 1986.

CHAPTER 7

ADMINISTRATIVE AND WORKING ACCOMMODATION

7.1 Covered Accommodation for Vehicles and Ancillaries.

7.1.1 Scales of garages for 'A', 'B' and 'C' types of vehicles, including specialist vehicles, trailers and ancillaries are laid down in Table 7.I. Vehicle sheds are not authorised for AT carts.

7.1.2 'Plan Area' of a vehicle is the area equal to 'Length x width' of the vehicle, taking the largest dimensions of the vehicle. The floor area as assessed based on the authorisation indicated in the Table gives the total entitlement of covered space. However, the actual sizes of individual garages may be decided to suit the various types of vehicles held in units and depots.

7.1.3 Shed type garages for vehicles should be built in compact group to suit the administrative convenience of the units and effective utilisation of space.

7.1.4 Doors or shutters to garages may not be provided unless considered necessary for security, technical or other administrative reasons. Arrangement for hanging or roller doors shutter for each garage bays. Doors or shutters will, however, be provided to repair bays, specialist vehicles bays and garage shed in depots and also in the areas of extreme climate conditions. Maximum feasible height of doors should be planned with adequate width to facilitate entry of vehicles.

7.1.5 The floors will be designed to withstand the loads likely to be imposed in various bays, apron and assembly area and hard standings.

7.1.6 Technical office accommodation authorised hereunder will be in addition to administrative office accommodation scaled elsewhere.

7.1.7 Security fencing may be provided if considered necessary. Sentry boxes may be provided where special guard is detailed at garage site as considered necessary by the GOC Area or equivalent.

7.2 Guard House and Ancillaries.

7.2.1 Scales for Guard Houses for Army units are given in Table 7.II. The items of accommodation wherever the same are applicable to the Navy, Air Force and Coast Guard will also be as per the scale given herein. Accommodation will be provided as per the authorised strength of units and establishments.

7.2.2 Guard houses should generally be located at main road entrance or approach or vantage point in the unit area so as to give a clear view of the entrance to the unit.

7.2.3 Guard houses are normally planned in conjunction with armourer's shop and small arms & ammunition stores due to inter-related function of each to the other. The guard room may be suitably sub-divided as per the requirements, viz office, rest and dining space for guards. No guard room should be provided unless actually required. If omitted, the remaining guard house accommodation may form a part of another building.

7.2.4 Whenever possible night picket should be accommodated in the guard room. When this is not possible, accommodation may be constructed for the picket, excluding those actually posted as sentries, as per scale authorised for single accommodation.

7.2.5 All windows and ventilators should be barred. Suitable security fencing and perimeter lights should be provided all around the guard houses. One sentry box per guard house may also be provided.

7.3 **Medical Inspection Rooms.**

7.3.1 Scales for MI rooms are given in Table 7.III for different blocks of dependent strength. While assessing the dependent strength, the number of living in families shall be taken into account.

7.3.2 A separate MI room should not normally be provided for units which can conveniently use an existing MI room or hospital. Provision of a common MI room between neighbouring units wherever feasible as also in the case of integrated brigade complexes should be considered. Stand by DG supply and uninterrupted power supply may be provided for life-saving equipment and treatment rooms at MI Rooms/ Station Medicare Centre where such equipment/ treatment/ ward/ bed facilities are established.

7.4 **Office and Administrative Accommodation.**

7.4.1 The scales for office accommodation are contained in Table 7.IV. These also cover the specialised administrative accommodation requirements of headquarters stations and units. These scales will also be applicable to civilian officials of equivalent rank. Office accommodation for the technical personal who are required to work in the specialised accommodation may be constructed within the technical buildings as authorised wherever applicable. Attached toilet may be provided in the Offices of Brigadier and higher rank officers and equivalents in other services.

7.4.2 While planning administrative blocks for formations and station headquarters, a provision of suitable entrance hall with reception console should normally be made. Rooms for duty officer and duty clerk should be planned close to the entrance to enable locking up of the main administrative block separately during off duty hours. Work services necessary for Installation of access control may be provided. However access control devices with monitoring equipment will not be part of work services.

7.4.3 The doors to all offices will be provided with secure locking arrangement. Guard bars or grills for windows and ventilators and security fencing are to be provided as required.

7.4.4 Drapery rods/ window blinds for officers' offices and curtain rods/ window blinds for others shall be provided.

7.4.5 (a) Provision of air conditioning with both hot and cold arrangements is authorised in the offices of General Officers and equivalent rank officers in Navy, Air Force and Coast Guard at all stations.

(b) Hot blowers shall be provided at balance (authorised) stations offices wherever essential.

(c) Desert coolers shall be provided in the offices of other ranks at stations mentioned at Appendix 'D'.

(d) Electrical circuits for call bells, engagement lights and conduits for laying of telephone wire as necessary should be laid.

7.4.6 Where noise level is high, suitable noise reduction measures may be provided on merits.

7.4.7 Aluminium door and window may be provided as per requirement. Front Façade may be finished with suitable stone cladding/ ACP.

7.4.8 Landscaping and arboriculture with allied work services shall be provided for all offices and administrative buildings. Water Fountains may be provided in common areas of main administrative building.

7.4.9 Work Stations with slots for electrical connection to UPS & Computer peripherals shall be provided in all offices as required. Other Furniture shall be provided as per scales.

7.4.10 Suitable Crèche facility may be provided on assessed strength of working mothers in the offices. Common central crèche facility may be provided where feasible.

7.4.11 Office and Administrative accommodation for IFA, LAO and other offices of DAD may be provided as per equivalent scales of office Accommodation.

TABLE 7.I**COVERED ACCOMMODATION FOR VEHICLES AND ANCILLARIES**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
	<u>Unit Lines</u>			
1.	'B' Vehicles and Specialist Trailers			
	(a) Plan area upto 7.5 Sqm	3.00 times the plan area.	Shelving(open)	Garage will be built to following heights: -
	(b) Plan area more than 7.5 Sqm upto 11 Sqm	2.75 times the plan area.	"	(a) 3.20m for 01 ton GS & below including motor cycles.
	(c) Plan area more than 11 Sqm upto 15 Sqm	2.50 times the plan area	"	(b) 3.80m for 01 ton specialist vehicle, 03 ton & above with height upto 3.05m.
	(d) Plan area more than 15 Sqm upto 30 Sqm	2.25 times the plan area	"	(c) For vehicles height above 3.05m height of garage to be determined by adding 0.75m to the highest part of the vehicle rounded off to the next higher 0.50m fraction.
	(e) Plan area more than 30 Sqm	2.00 times the plan area	"	(d) The height of specialist trailer to be assessed either alongwith equipment if same is permanently mounted or of the towing vehicle, whichever is higher).
	(f) Motor Cycles	22.57 per 05 motor cycles or part thereof but no garages would be provided for less than 05 motor cycles.		
2.	Trailers GS	2.25 times the plan area		Garage will be built with the height of 3.2m.
3.	'A' Vehicles			
	(a) Plan area upto 20 Sqm	2.75 times the plan area	Shelving (open)	(a) Garage will be built with heights of 05m.
	(b) Plan area more than 20 Sqm upto 30 Sqm	2.50 times the plan area	"	(b) For vehicles of height more than 3.50m garage will be built with height having a clearance of 1.50m from the top of the vehicle rounded off to the next higher 0.50m fraction if not already 0.50m fraction.
	(c) Plan area more than 30 Sqm	2.25 times the plan area	"	

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
4.	'C' Vehicles			
	(a) Plan area upto 15 Sqm	3.00 times the plan area	Shelving (open)	Garage will be built to the following heights: - (a) 3.80m for vehicles height upto 3.30m. (b) For vehicles height above 3.30m, height of garage to be determined by adding 0.50m to the height of the vehicle rounded off to the next higher 0.50m fraction, if not already 0.50m fraction.
	(b) Plan area more than 15 Sqm upto 20 Sqm	2.75 times the plan area		
	(c) Plan area more than 20 Sqm upto 30 Sqm	2.50 times the plan area		
	(d) Plan area more than 30 Sqm	2.25 times the plan area		
	Depot			
5.	(a) 'B' Vehicles and Specialist Trailers	Same as unit line scale at Serial 1		Shed type multiple parking garage will be built with the following heights: - (a) 3.7m for 01 ton and below including motor cycle and trailers. (b) 4.3m – for 03 ton to 05 ton and 01 ton specialist vehicles. (c) 4.6m – for above 05 ton.
	(b) Motor Cycles	36.6 per 10 motor cycles and part thereof		
	(c) Trailers GS	Same as unit line scale at Serial 2.		
6.	'A' Vehicles and 'C' Vehicles	Same as unit line scale at Serial 3 & 4 respectively.		(a) Shed type multiple parking garages will be built with a height of 05m. (b) For A & C vehicles of heights above 3.50m and 4.25m respectively, the height of shed to be determined as per planning notes against Serials 3 or 4 as applicable.

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
	Ancillaries			
7.	Aprons and Assembly Area	An area not greater than the close area of the garage may be metalled and surfaced according to the local practice. The shape of this area will be designed to allow the vehicles to assemble in parade formations (width of apron should be equal to the depth of the garages).		10m deep apron on the entrance and exit sides of the garage in vehicle depots to be provided.
8.	Hard Standings	(a) Same scale as shown in Serial A for both fit and unfit vehicles. (b) An additional area of 10% shall be provided as circulation area.		(a) To be allowed only if covered accommodation alongwith apron is not provided. (b) Hard standing to be provided in the receipt and issue area of vehicle depot for the assessed number of vehicles.
9.	Repair Bays			
	(a) Wheeled vehicles	One bay for every 10 garage bays of vehicles.	(a) One built in cupboard per 10 'B' vehicles or part thereof.	(a) Each repair bay shall be a closed bay individually.
	(b) Tracked vehicles	One bay for every 05 garage bays of vehicles.	(b) One built in cupboard per 05 'A' & 'C' vehicles or part thereof. (c) 1x1 ton hand operated gantry crane shall be provided to units having tracked or semi - tracked vehicles.	(b) Size of repair bays including height to suit the largest vehicle having same depth as for garage bay with 1.5m clearance on the either sides. Minimum height of 05m and 4.6m for tracked & wheeled vehicle respectively.

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
10.	Inspection Pits	One per 50 wheeled vehicles or part thereof (other than motor cycles).	(a) Covering facility. (b) Two built in shelves (size 0.45 x 0.3 x 0.3m) (c) A floor sump.	To be provided in repair bays.
11.	Ramps	One per every 25 vehicles or part thereof maximum 02 Nos. per unit.		
12.	Washing Platform	One platform for every 10 vehicles excluding motor cycles (size of washing platform equal to garage bay for the largest vehicle)	(a) Separate overhead water tank for 30 vehicles or more. (b) One washing plant comprising of pump and water jet of suitable delivery pressure for each large unit having tracked and towed vehicles. (c) Stand pipe with hose connections. (d) Separation wall 2.4m high between platforms.	
13.	Servicing and Lubricating Bay	Out of entitlement of repair bays.		Additional space for servicing trailer, compressors and greasing pump, etc to be provided adjoining the bay wherever such equipment is authorised.
14.	Painting Bay	Out of entitlement of repair bays.	Exhaust fans to be provided.	Additional space for compressor to be provided adjoining to the bay.
15.	Storage			
	(a) Lubricating Oil and grease store	9.3 Sqm per 25 vehicles (excluding motor cycles). Minimum of 9.3 Sqm	(a) Platform to keep 200 litres barrels in horizontal position to be provided for ease of decanting. (b) Racking and shelving. (c) Issue counter.	With verandah on both sides.

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
	<p>(b) MT Store.</p> <p>(i) Unit with 15 or more vehicles</p> <p>(ii) Unit less than 15 vehicles</p>	<p>15 Sqm per 15 vehicles</p> <p>As required subject to maximum of 15 Sqm.</p>	<p>(a) Racking and shelving.</p> <p>(b) Issue counter.</p>	<p>(a) With verandah on both sides.</p> <p>(b) Also to be provided in vehicle depot for assessed number of stocked vehicles at the following scales: -</p> <p>(i) 01 Sqm per vehicle for 'B' and 'C' vehicles.</p> <p>(ii) 05 Sqm per vehicle for 'A' vehicles.</p>
	(c) Petrol Store	<p>Either</p> <p>One or more tanks and kerb side pumps according to monthly consumption of units concerned.</p> <p>Or</p> <p>Store room at 0.2 Sqm per 05 vehicles upto 100 vehicles, 01 Sqm per 05 motor-cycles subject to a minimum size of 9.3 Sqm.</p>	<p>(a) Platform to keep 200 litres barrels in horizontal position to be provided for ease of decanting (size as on required basis).</p> <p>(b) Flame proof light fitting.</p> <p>(c) Issue counter.</p>	<p>(a) Kerb side pump for units/ station where average monthly issues of either 70 MT gas or DHPP are more than 10 KL may be installed with prior approval of Service headquarters.</p> <p>(b) Units with a small establishment of motor vehicles where possible, should be grouped together for purpose of petrol storage accommodation.</p> <p>(c) Also to be provided for vehicle depots.</p>
16.	Technical Office	9.3 or a convenient size to suit MT accommodation for units holding more than 35 vehicles.		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
17.	Civilian Drivers and Operators Change cum Amenity Room	(a) Upto 10 drives and operators 12 Sqm. (b) More than 10 upto 25 drivers and operators 26 Sqm & 04 Sqm for every 25 additional drivers and operators or part thereof.	Electrified and fitted with fans as per scale authorised in OR dining halls. Fitted with closets for clothes. Attached ablution taps, wash basins trough type at 10% & WCs at 5%.	(a) To be sited with the garage accommodation and adjacent to technical office. (b) This facility only to be provided to the units having civilian drivers and operators.
18.	MT Drivers Standby and Change Room.	10	Lockers on as required basis.	(a) To be sited with the garage accommodation and adjacent to technical office. (b) Authorised for combatant drivers only.
19.	Sanitary Annexe	As per authorisation.	---	---

Note.

1. In depot, covered accommodation for unfit (class IV and V) vehicles will be of single parking having doors on either sides.
2. Armoury for secondary weapons of AFVs will be provided in vehicle depots as per scale of armoury as laid down under "General Authorisation".

TABLE 7.II**GUARD HOUSE AND ANCILLARIES**

Ser No	Description of Items	Floor Area (Sqm)/ Scale Establishment of units in rank and file				Special Facilities	Planning Notes
		Under 100	100-350	351-600	Over 600		
1.	Guard Room	27	54	81	121	(a) Built in duplicate key board. (b) Full size mirror. (c) Glazed show case for trophies. (d) Display and notice board. (e) Safe in-built (Regimental Treasury Chest).	Verandah 2.1m will be provided for full length of block containing guard rooms.
2.	Guard Detention Rooms	10	15	20	27	Attached urinal – 01 No.	Not to be provided if establishment of unit is less than 50.
3.	Single Detention Rooms (9 Sqm each)	01 No	02 Nos	02 Nos	03 Nos	---	(a) One additional single detention room may be provided for every 300 men over 600. (b) Window sills to be provided at least 2.1m above floor level for security reasons.
4.	Toilets	02 Nos	02 Nos	02 Nos	03 Nos	---	One toilet with bath within the enclosure of single detention rooms.
5.	Alarm Posts	04 Nos	04 Nos	04 Nos	04 Nos	Either dug out and lined trenches or 0.9m high and 1.8m long walls.	Numbers may be reduced as per site requirement.
6.	PCC Hard standing	30	30	40	40	Flag staff with base.	---

TABLE 7.III**MEDICAL INSPECTION ROOMS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale Dependent Strength				Special Facilities	Planning Notes
		Upto 1000	1001 to 2500	2501 to 5000	5001 to 10000		
1.	Reception and Documentation	11	11	14	14	(a) Built in reception counter. (b) Built in Almirah large.	May be planned as part of entrance hall.
2.	Waiting Room Officers and Families	12	15	18	21	Attached toilet for men and women.	
3.	Waiting Room JCOs, OR and Families	18	22	24	27	Attached toilet for men and women.	May be suitably divided if required.
4.	MOs Examination Room (17 Sqm)	One per MO	One per MO	One per MO	One Per MO	(a) Built in cupboard of medium size. (b) WHB with peg set and towel rail. (c) Dado with glazed ceramic tiles upto lintel height.	One dressing cubicle 03 Sqm to be provided out of MOs room area.
5.	Treatment Room	15	18.5	23	28	(a) Two built-in cupboards large. (b) One built in cupboard medium. (c) Glazed ceramic tiles dado upto lintel height.	
6.	Dispensary	7.5	9.5	11	13	(a) One built in cupboard of large size for strength upto 1000 and two numbers beyond 1000. (b) Built in shelving wooden panelled with lockers. (c) Laboratory benching.	

Ser No	Description of Items	Floor Area (Sqm)/ Scale Dependent Strength				Special Facilities	Planning Notes
		Upto 1000	1001 to 2500	2501 to 5000	5001 to 10000		
						(d) Stainless Steel sink with double bowl and double drain board with swan neck fitting and shelving. (e) WHB with peg set and towel rail. (f) Glazed ceramic tiles dado upto lintel height.	
7.	Heat Stroke and Single Bedded Detention Room	14	14	14	14	(a) Built in cupboard, top half hanging, bottom half shelved with shoe rack and mirror inside. (b) WHB with peg set and towel rail. (c) Glazed ceramic tiles dado upto lintel height.	(a) One attached toilet from the overall authorisation. (b) Air-conditioner to be provided.
8.	Clinical Test Room	7.5	7.5	7.5	7.5	(a) Built in laboratory bench fittings. (b) Stainless Steel sink with double bowl and double drain board with swan neck tap. (c) Glazed wall cupboard.	To be provided where clinical testing facility is authorised.
9.	Room for Nursing Assistant, Regimental Orderlies and Ambulance drivers.	7.5	7.5	9	9	(a) Storage under laboratory counter. (b) Dado 02m high.	---
10.	Store	09	11	13	15	(a) Two built in cupboards large. (b) Shelving and racking.	---
11.	Toilets	04 Nos	04 Nos	04 Nos	04 Nos	---	One toilet with bath. One toilet without urinal.

Ser No	Description of Items	Floor Area (Sqm)/ Scale Dependent Strength				Special Facilities	Planning Notes
		Upto 1000	1001 to 2500	2501 to 5000	5001 to 10000		
12.	Janitor's Closet	2.5	2.5	2.5	2.5	Three tier shelves for mop, brooms and other material.	To be planned with toilets.
13.	Garage for Ambulance	As per scale	As per scale	As per scale	As per scale	---	---
14.	Cycle cum Scooter Stand	As required	As required	As required	As required	---	---
15.	Minor Surgery	22.5	22.5	22.5	22.5	As per hospital scales for the same.	To be provided only at Air fields if station sick quarters are not provided.
16.	Recovery Room	13	13	13	13	- do -	- do -

Note. All Medical inspections (MI) Rooms for Sl. No. 2 to 8, to be provided with air-conditioning and heating arrangement.

Table 7.IV**OFFICE AND ADMINISTRATIVE ACCOMMODATION**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	General Officers and Equivalent	33	(a) Air-conditioning (Hot and Cold). (b) Window blinds.	(a) For Offices of Officers of Armed Forces at Command HQ and Service HQ, the scales against Ser No 1 & 2 are for guidance purpose only. The areas shall be suitably reduced while planning to ensure provision of functional offices keeping area of individual office room to the minimum. (b) Attached toilet.
2.	Brig/ Cmde/ Air Cmde	30	Window blinds.	Attached toilet (where feasible).
3.	Col/ Capt/ Gp Capt and COs of Major & Minor units	22	Window blinds.	Attached toilet for Indep Appts (COs/ OCs & II I/Cs).
4.	Lt Col/ Maj/ Lt Cdr/ Sqn Ldr	14.5	Window blinds.	---
5.	Other Officers	14.5	---	---
6.	Office cum Rest Room for Duty Officer	18	Air-conditioning based on Stations at Appendix B.	(a) Shall be provided for formation and station HQ and establishments required to maintain duty officers and clerks outside office hours. (b) Attached toilet.
7.	Technical Personnel			
	(a) Draftsman and Surveyor	07 each	---	Minimum size of office shall be 9.3 Sqm.
	(b) Technical Staff	5.5 each	---	
8.	General Duty Appointments			
	(a) Sub Major and equivalent	10	---	---

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
	(b) Other JCOs and equivalent	04	---	---
9.	Ministerial Staff			
	(a) JCO clerks and SPAs	5.5 each	---	(a) Separate room for Head Clerk may be provided if required. (b) An additional area @ 10% be provided for current records. (c) Office accommodation for store man shall be in addition to scale provided for stores. (d) Office accommodation for senior NCOs on specific administrative appointments viz Havildar Major, QMH or equivalent in units or sub units and PAs shall be provided as per scale of 3.5 Sqm each. (e) In case of a single office minimum size of 9.3 Sqm shall be provided.
	(b) Other ministerial staff and store man.	3.5 each	---	
10.	Stationery Room			
	(a) Large unit	11	Built in shelves.	Additional area as required for formation headquarters.
	(b) Independent small unit	09	Built in shelves.	
11.	Planning-cum-Briefing Room	32	Air conditioning with heating arrangement.	Authorised for large units only.
12.	Visitors Room	20	---	To be provided for all formation headquarters of brigade, division, area and sub area, Naval shore establishments, Air Force stations, MES units, depots and all units dealing with civilians.
13.	Kitchenette	7.5	(a) Cooking platform. (b) Stainless Steel Sink with double	Authorised for large units and formation headquarters where separate cafeteria is not authorised.

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
			bowl and double drain board. (c) Power point. (d) Cupboard small.	
14.	Parking Space (a) Cars (b) Cycle-cum-Scooters	As required	---	Open sheds shall be provided.
15.	Sanitary Annexe (WC's, WHB and Urinals)		---	2% additional WC's for female staff for offices with establishments below 30 subject to minimum of one WC in each office for females.
	(a) Officers (separate for women and men)	3% each	---	
	(b) Ladies	3% each	---	
	(c) JCOs & OR	3% each	---	
	(d) Janitor Closet	04 Sqm/ each	---	
16.	Old Records			
	(a) Large Units	20	Compactors storage system/ wall to wall cabinets with locking arrangements.	---
	(b) Formation HQ and other units.	One for 220 recorded files		
17.	Special Requirements on Merits			
	(a) Conference Room	As required	(a) Vitrified tile. (b) Air conditioning with heating arrangement.	Subject to a minimum of 22 Sqm and maximum of 44 Sqm.
	(b) Telephone Exchange	As required	---	
	(c) Canteen and Tiffin Room	0.09/ person	---	The scale is inclusive of kitchen and dining hall. One per unit. A separate Ladies lunch room for civilian employees may be provided where required.

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
	(d) Library	01 SF for 25 books or 01 Sqm for 275 books	(a) Vitrified tile (b) Air conditioning in Reading room	(a) Subject to maximum of 44 Sqm. (b) Room for visitors at gate.
	(e) Class Room	As required		
	(f) Reception and Security Staff	16		Attached toilet with WC.
18.	Staircase/ ramp for D/S Building and above			Suitable size and numbers as per National Building Code.

Notes.

1. Incinerators be provided as required.
2. Following percentage cut shall be imposed for record offices and ordnance depots: -
 - (a) Upto 2700 Sqm - 10%.
 - (b) More than 2700 Sqm - 15%.

CHAPTER 8

TRAINING AND RECREATIONAL FACILITIES

8.1 Auditorium cum Cinema Hall.

8.1.1 Auditoriums-cum-Cinema Halls will be provided on station basis. Auditoriums-cum-Cinema Halls for Cat A training establishments may be provided on as required basis to seat the entire strength of trainees and staff being a peculiar requirement of training. Sizes of halls to cater for the station troop strengths indicated below shall be provided: -

- | | | | |
|-----|------------------------|---|----------------------------------|
| (a) | One hall of 300 seats | – | Troop strength 1000 to 3000. |
| (b) | One hall of 400 seats | – | Troop strength 3001 to 5000. |
| (c) | One hall of 600 seats | – | Troop strength 5001 to 7500. |
| (d) | One hall of 900 seats | – | Troop strength 7501 to 10,000. |
| (e) | One hall of 1200 seats | – | Troop strength 10,001 to 15,000. |

8.1.2 In Naval/ Coast Guard stations with troops strength of 200 and above, one hall of 300 seater will be provided.

8.1.3 In stations with strengths above 15,000, additional halls may be provided for excess personnel on the above basis.

8.1.4 The design should combine facilities for its use as theatre and Lecture hall as well. Suitable acoustic measures are to be provided. Dim lighting may be considered. Parking should be considered in basement/ sub-basement/stilt levels. Arboriculture and landscaping work services with watering arrangements may be provided.

8.1.5 Main auditorium hall, Category ‘A’ and ‘B’ establishment libraries and Station Library may be suitably air-conditioned/ air cooled if climatic conditions as defined at Para 1.11 of Chapter 1 so warrant with the prior approval of Service Chief.

8.1.6 The scales laid down in Table 8.I are in addition to the various educational and instructional buildings authorised elsewhere in the scales.

8.1.7 While according sanction, priorities will be determined on the basis of existing local amenities, if any, besides those provided by services. Sanction of auditorium shall not be accorded below the level of GOC-in-C, Command or equivalent.

8.1.8 The scales indicated against each item are intended to serve as a guide line. Service headquarters may, however, where necessary vary actual utilisation of authorised floor area to evolve functionally efficient and aesthetic architectural designs for this building provided neither the authorised floor areas nor the overall permissible plinth areas are exceeded.

8.1.9 Adequate fire detection, alarm and fighting arrangement shall be provided as per the existing orders.

8.2 Education Buildings.

8.2.1 Accommodation for Education Buildings in the units, formation schools and training establishments will be provided as per scales given in Table 8.II. The total floor area authorised

for class rooms may be suitably divided into rooms of appropriate size as per seating capacity required.

8.2.2 Verandahs shall be provided in education buildings.

8.2.3 Offices for education officers, wherever authorised, shall be provided as per scale.

8.3 **Gymnasium.**

8.3.1 Scales of Gymnasias are given in Table 8.III.

8.3.2 Gymnasias should be provided on station basis according to the station strength as below: -

Upto 500	Class IV
501-1000	Class III
1001 – 2500	Class II
2501 – 5000	Class I

For numbers over 5000 one or more additional gymnasias may be provided according to strength of the station.

8.3.3 All training centres will be provided with a Class I gymnasium. In stations where training centres are located, separate gymnasias shall however may be provided for other troops in the station as per authorisation/ scales.

8.3.4 Gymnastic apparatus are classified as furniture.

8.3.5 Synthetic surfaces may be considered on as required basis.

8.4 **Institutes.**

8.4.1 This covers the provision of Institutes for the defence service personnel. The scales of the officers and OR institutes are given in Table 8.IV.

8.4.2 **Officers Institute.** The officers institute is to be provided on station basis. No institute shall, however, be provided at station where the strength of officers is less than 50. Officers Institute for civilian officers may be provided separately as per scale analogous to service officers as approved by Service HQ, subject to the condition that only one Officer Institute exists in station.

8.4.3 **OR Institute.**

8.4.3.1 Separate OR institutes are authorised for headquarters, regiments, battalions and other units. No institute shall, however, be provided if the strength of a unit is less than 40 men. A combined institute may be provided for two or more units or detachments if administratively convenient and to meet the specific service requirements.

8.4.3.2 The OR institute is to cater for the requirement of all other ranks and should normally provide for a recreation room, information room, games room, canteen and cafeteria.

8.4.3.3 Area may be allotted in the institute to private parties for running of cafeteria. License fee and allied charges, as applicable shall be recovered as per rules. Unit Run Canteen (URC) may be provided separately for the Station and units as per scales given in Table 8.IV.

8.5 **Parade Grounds.**

8.5.1 Parade grounds shall be provided for all units. The scale for units, schools and training establishments are given in Table 8.V. For other static units, parade grounds of appropriate size, based on the strength of combatant personnel, may be provided. In respect of the Navy and Coast Guard, strength of afloat personnel should be also taken into account while assessing the strength. Parade ground for small units may be provided when located independently.

8.5.2 The parade grounds for schools of instructions and training establishments to be black topped. For other units, these may be levelled but not metalled or gravelled or dust proofed except in coastal areas, areas of heavy rainfall, deserts and to meet the specific requirements of the units subject to the prior approval of GOC-in-C or equivalent authority.

8.5.3 A station parade ground including that for mechanised troops may be provided as required at stations where ceremonial parades are to be held.

8.5.4 Parade grounds in respect of Air Force shall be similar to those for the Army units or establishments as applicable. A quarter deck 81 Sqm in size consisting of a stepped and rigged mast with yard and gaff erected on an enclosed raised plinth will be provided on the side of the parade grounds for Navy and Coast Guard.

8.6 **Ranges.**

8.6.1 Scales of Ranges for all arms and services are given in Table 8.VI. The standard design of the ranges shall be in accordance with training instructions issued by Army Headquarters.

8.6.2 Ranges are to be provided on station basis for the specified strength of personnel as indicated in the table. 27m ranges provided to large units should also be utilised to cater for the requirements of other units and in which range shooting carried out is small, if capacity permits.

8.6.3 Works in connection with artillery ranges, field firing or battle practice ranges and tank classification ranges will be provided as required.

8.6.4 **Baffle Range.** Where conventional Classification Range is not possible due to proximity of civilian population/ shortage of land, Baffle Range may be provided at the scales stipulated for Classification Ranges with the approval of Service Chief.

8.7 **Recreation Grounds and Courts.**

8.7.1 The scale of Recreation Grounds and Courts covered in Table 8.VII are to meet the normal requirements of military stations and units, shore establishments including afloat personnel of the Navy, Air Force and Coast Guard stations. Requirement of minor units of strength upto 100 should be grouped to provide a shared facility wherever possible.

8.7.2 For afloat personnel, strength of 50% will be considered for assessing the requirement of play grounds and courts and provided at a scale of large unit for every 1000 personnel.

8.7.3 Sports grounds are to be normally of the size stipulated by National Sports Association/ Sports Authority of India/ SSCB. The sports grounds shall be levelled. Where soil conditions are not suitable, necessary improvement be carried out to provide adequate playing surface.

8.7.4 Regular watering, rolling, maintenance of grass surface and marking of the courts and grounds are excluded from the responsibilities of MES. However, water points for watering of grounds and courts should be provided. Screens, nets, seats, etc will be provided by the user units.

8.7.5 Wherever possible, sports grounds should be sited adjacent to swimming pools, gymnasiums stadia, etc. So that the changing and toilet facilities provided can be fully utilised.

8.7.6 Provision of football and hockey grounds, basketball and volley ball courts be also provided for each training battalion or regiments or equivalent sub units of the training centres as per scale as for a large unit.

8.7.7 Combined station troop strength shall be considered for assessing authorisation of scale for squash, tennis and badminton courts.

8.7.8 Provisioning of indoor courts to be considered where required due to climatic conditions like windy, cold, heavy rainfall are experienced for duration of more than 03 months in an year. Suitable conditioning of indoor space may also be considered if required at stations at Appendices B or E.

8.7.9 Seating gallery may be provided adjacent to the basketball, volleyball & racket games courts on as required basis with the approval of GOC-in-C.

8.8 **Swimming Pools.**

8.8.1 The scales for the provision of Swimming Pools for stations up to strength of 20000 personnel are given in Table 8.VIII. For stations where the strength of all ranks exceeds 20000, number of pools of sizes as indicated be provided. For stations with strength above 20000, swimming pools of large size may be provided in lieu of small size pools. The total numbers of pools to be provided in a station will however not exceed four in number. All regimental centres/ training establishments shall be provided with separate swimming pool.

8.8.2 A separate diving pool of size 16m x 16m may be provided with swimming pool of large size subject to a maximum of one in a station or camp for purpose of diving training.

8.8.3 In case there are any existing swimming pools in stations or camps smaller than 840 Sqm these will be adjusted against pool size 25m x 13.5m. Additional ancillary facilities as authorised herein may be provided.

8.8.4 Filtration and chlorination plant shall be provided in all swimming pools. Facility for night lighting may be provided with the approval of GOC-in-C/ equivalent. Overhead cover may be provided at training establishments at high rainfall areas listed at Appendix 'F', if required with approval of GOC-in-C.

8.8.5 Provision of indoor swimming pool complex with Central Water and Space Heating System shall be provided for stations in cold climatic areas, refer Appendix 'E'.

8.8.6 Covered Spectator gallery with sanitary annexe as required may be provided at selected swimming pools with the prior approval of GOC-in-C or equivalent in other Services.

8.8.7 Perimeter wall and lighting may be provided as required. Facilities for night swimming training such as, underwater lights for safety purposes may be provided with the approval of GOC-in-C/ equivalent.

TABLE 8.I**AUDITORIUMS CUM CINEMA HALL**

Ser No	Description of Items	Floor Area(Sqm)/ Scale					Special Facilities	Planning Notes
		300 seats	400 seats	600 seats	900 seats	1200 seats		
1.	Auditorium	220	294	441	661	882	Emergency lights.	Balcony may be provided in auditorium of size 900 and 1200 seats.
2.	Foyer Including Snack Bar, Ticket Booth	---	---	132	198	265	---	Area to be provided out of the area additions.
3.	Stage	90	100	110	125	135	(a) Appropriate flooring for stage. (b) Supplementary stage lighting. (c) Curtain fixing and lifting arrangement.	---
4.	Dressing Room (Gents)	15	15	20	20	20	(a) Two built-in cup-boards. (b) Two dressing mirrors. (c) Coat pegs as required. (d) Air-conditioning.	---
5.	Dressing Room (Ladies)	12	12	12	15	20	(a) Two built in cupboards (b) Two dressing mirrors. (c) Coat pegs as required. (d) Air-conditioning.	---
6.	Stage Toilet (Ladies)	01 No	01 No	01 No	01 No	01 No	---	---

Ser No	Description of Items	Floor Area(Sqm)/ Scale					Special Facilities	Planning Notes
		300 seats	400 seats	600 seats	900 seats	1200 seats		
7.	Stage Toilet (Gents)	01 No	01 No	01 No	01 No	01 No	---	---
8.	Property Room	18	20	30	45	45	---	---
9.	Managers Room	11	11	11	14	18.50	---	---
10.	Stage Manager's Room	---	---	---	---	10	---	---
11.	Projection Room	16.80	16.80	16.80	16.80	16.80	---	---
12.	Rewinding Room	09	09	09	09	09	---	---
13.	General Toilet							
	(a) Ladies	WC-2 WHB-1	WC-2 WHB-1	WC-4 WHB-1	WC-5 WHB-2	WC-7 WHB-3	Mirror to be provided over each WHB.	---
	(b) Gents	WC-2 Urinal 8 WHB-1	WC-3 Urinal 10 WHB-1	WC-5 Urinal 15 WHB-2	WC-6 Urinal 20 WHB-3	WC-7 Urinal 25 WHB-3	Mirror to be provided over each WHB.	---
14.	Passage Behind Stage	1.5m wide	1.5m wide	1.5m wide	1.5m wide	1.5m wide	---	---
15.	Verandah	2.5m wide on either side	2.5m wide on either side	2.5m wide on either side	2.5m wide on either side	2.5m wide on either side	---	---

TABLE 8.II
EDUCATION BUILDINGS

Ser No	Description of Items	Floor Area (Sqm)/ Scale				Special Facilities	Planning Notes
		Units	Formation Schools		Training Establishments		
			Div/ Bde/ Area/ Sub Area HQ	Corps HQ			
1.	Class Room	2 Sqm per man for assessed strength of trainees based on peak load for the average of three years and approved courses.	Div HQ – 200 Others – 160	400	2 Sqm per man for assessed strength of trainees based on peak load for the average of three years/ anticipated strength as indicated by Service HQs	(a) Raised platform. (b) Glass black board. (c) Desert Coolers/ Hot air blowers at Hot/ Cold at stations as per Appendix B/E. (d) Air conditioning may be considered where equipment training is being conducted. (e) Racks for placement of bags. (f) Cap stand/ Hooks. (g) Mosquito proofing of Doors & Windows.	(a) Floor areas authorised for formation schools include the requirements of headquarters personnel also. (b) For determining floor area for training establishment, additional 20% recruits and 10% reinforcements where applicable, should also be taken into account.
2.	Staff Room	As per scale for offices					(a) Area to be assessed only for education JCOs/ NCOs authorised on the establishment. (b) Minimum size 09 Sqm.

Ser No	Description of Items	Floor Area (Sqm)/ Scale				Special Facilities	Planning Notes
		Units	Formation Schools		Training Establishments		
			Div/ Bde/ Area/ Sub Area HQ	Corps HQ			
3.	Training Aids Store Room	11	15	30	20 per training regiment or battalion.	Racking and shelving.	09 Sqm for small units.
4.	Book Store	25	35	50	35 per training regiment or battalion subject to a minimum of 60 Sqm per training establishment.	Shelving with glazed shutters.	Not authorised for small units.
5.	Assembly cum Examination Hall	---	120	200	200	(a) Raised platform. (b) Glass black boards. (c) Cap stand/ Hooks. (d) Small locker units for bags/ valuables.	---
6.	Science Laboratory	---	80	68 Sqm each – 02 Nos	80	(a) Sink with water taps as required. (b) Vitrified tile/ as per technical requirement.	(a) Includes space for laboratory stores. (b) To be provided as laboratory cum demonstration room in Div/ Bde/ Area/ Sub Area HQ schools and training establishments.
7.	Sanitary Annexe						
	(a) WCs	01 No per two class rooms or part				---	

Ser No	Description of Items	Floor Area (Sqm)/ Scale				Special Facilities	Planning Notes
		Units	Formation Schools		Training Establishments		
			Div/ Bde/ Area/ Sub Area HQ	Corps HQ			
	(b) Urinals	01 No per class rooms or part					To be provided only where toilet facilities are not available nearby.
	(c) WHBs	01 No per two class rooms or part					

TABLE 8.III**GYMNASIUM**

Ser No	Description of Items	Floor Area (Sqm)/ Scale				Special Facilities	Planning Notes	
		Class I	Class II	Class III	Class IV			
1.	Hall	704 (32 x 22)	416 (26 x 16)	250 (25 x 10)	150 (15 x 10)	(a) Wooden flooring/ Synthetic Surface in lieu of wooden flooring. (b) Beams fixed on side walls with stay, pulleys, runners for rope climbing. (c) Wall bars fixed on the walls. (d) Hooks & fixtures on floor and wall for gymnastic apparatus. (e) Lighting as per national sports standards.	The hall to be provided with a clear height of 7m.	
2.	Gallery	180	75	---	---	Fixed tiered seating.	To be provided on sides over entrance lobby and other ancillary rooms.	
3.	Instructors Room	20	20	10	10	Cupboards/ personal lockers and shelving.		
4.	Officers Dressing Room	20	18	---	---	Fixed seats. Personal lockers.	Sanitary annexe consisting of following facilities will be attached: -	
							Class I	Class II and below
							WC 1 Urinal 2 WHB 2	1 1 1
5.	Dressing Room (General)	40	25	---	---	Fixed Seats. Personal lockers.	Sanitary annexe consisting of following facilities will be attached: -	

Ser No	Description of Items	Floor Area (Sqm)/ Scale				Special Facilities	Planning Notes	
		Class I	Class II	Class III	Class IV		Class I	Class II and below
							WC 2 Urinal 3 WHB 3	1 2 2
6.	Store	25	18	12	09	Cupboard and shelving.		
7.	Entrance lobby, Staircases and Lobby to Hall	Out of area addition	---	---	---	---		---

TABLE 8.IV**INSTITUTES**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	<u>Officers Institute</u>			
	(a) 75 to 200 Officers	232	(a) Open paved area with a stage platform and suitable lighting arrangement and terrazzo/ interlocking tile finish. (b) Pelmet and curtain rods. (c) Bar counters External & Internal with lockable sliding shutter and cupboards. (d) Telephone booth. (e) Air-conditioning (Hot and cold) based on climatic condition at station given in Appendices.	For strength above 1000 officers' additional institute may be provided.
	(b) 201 to 1000 Officers	232 plus 01 Sqm per officer above 200 subject to maximum of 700 Sqm.		
2.	<u>OR Institute</u>			
	(a) Upto 500 men	07 per 25 men	(a) Curtain rods. (b) Cupboards. (c) A raised open air platform of 30 Sqm with curtain frame for outdoor activities. (d) Air-conditioning (Hot and cold) based on climatic condition at station given in Appendices.	(a) Subject to a minimum 45 Sqm. (b) For strength upto 250 men area may be enhanced by 50% at the discretion GOC-in-C Command or equivalent.
	(b) 501 to 750 men	180		
	(c) 751 to 1000 men	240		
	(d) Above 1000 men	240 plus 3.5 Sqm per 25 men over 1000.		
3.	<u>URC</u>	(a) 0.25 Sqm per person. (b) Two offices of 22 Sqm each. (c) The maximum permissible overall plinth area for the URC	(a) Toilet facilities to be provided for staff and visitors as per scales. (b) Store room with adequate storage	(a) The area shall be calculated on station/ units dependent strength including families.

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
		may be limited to 1000 Sqm.	shelves shall be provided. (c) Waiting area, display area with racks shall be provided. (d) Facilities at (b) & (c) above will be within the overall area authorised.	(b) Sufficient parking area should be available.

TABLE 8.V**PARADE GROUNDS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	<u>Parade Grounds – Units and Stations</u>			
	(a) Small Unit	5350 (73m x 73m) approx		To be provided for Company Battery and equivalent.
	(b) Large Unit	12500 (137m x 91m) approx	Saluting base with flag mast.	To be provided for Battalions or Regiments, Naval base stations or garrison, Air stations and equivalents.
2.	<u>Parade Grounds- Schools and Training Establishments (less Category ‘A’ Establishments)</u>			
	(a) 300 Trainees	6700 (82 x 82) approx	(a) Saluting base with flag mast.	Separate parade grounds may be provided for the training regiments, battalions as authorised when located at stations different from that of the parent training centre. Black topping of parade grounds for such training regiments or battalions should be restricted within the overall area authorised for the training centres.
	(b) Upto 1000 Trainees	12500 (137 x 91) approx	(b) Quarter deck 81 Sqm for Naval parade grounds.	
	(c) Upto 3000 Trainees	16700 (184 x 91) approx	(c) Black topping.	
	(d) Above 3000 Trainees	19110 (210 x 91) approx	(d) Facility for electrical wiring for concealed microphones for Para Commander.	
			(e) Illumination facility may be provided on required basis.	

TABLE 8.VI**RANGES**

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		No of Targets	Minimum No of troops for which one range may be built	Maximum capacity of the Range		
1.	27m Range	4 - 6	500	2000	(a) Channel with winches and pulley for moving targets. (b) Covered shed 55 Sqm.	---
2.	Classification Range	5-10	900	2000	(a) Electric target range with control room. (b) Covered markers gallery and target frames. (c) Covered shed of minimum size 70 Sqm with power plug.	Shed to be located outside the danger areas.
3.	Close Quarter Battle Range	01 Range	900	2000	---	---
4.	Grenade Range	02 Bays	900	3000	---	---
5.	Artillery Miniature Range	One closed shed 120 Sqm for Artillery Units only wherever authorised.			Stepped up platform for seating.	Also authorised for artillery regimental training centres.

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		No of Targets	Minimum No of troops for which one range may be built	Maximum capacity of the Range		
6.	Field Miniature Range (27/50)	One range per Armoured Corps and Mechanised units only wherever authorised.			(a) Open shed for size 180 Sqm with stone paved standing. (b) Channel with winches and pulleys for moving targets. (c) Suitable power supply for firing system of AFVs/ICVs.	(a) Type of range 27/50m to be provided as per technical requirements of AFVs. (b) Also authorised for armoured and mechanised units regimental training centres. Size of range and shed for firing to be provided as required.
7.	Anti Tank Range	One range				To be provided only to artillery regimental training centres.
8.	Counter Insurgency Range	One range			---	To be provided to infantry regimental training centres only.
9.	Electric Beam firing Military Training Range	165 Sqm			(a) Pulley moving pop-up targets. (b) Firing trenches with covering facility. (c) Power plugs.	(a) Closed covered accommodation with facility for darkening. (b) To be provided only for regimental training centres.

TABLE 8.VII**RECREATION GROUNDS AND COURTS**

Ser No	Description of Items	Scale	Special Facilities	Planning Notes
1.	<u>Foot Ball and Hockey Grounds</u>			
	(a) Small unit	01 No	Goal Posts	Football or hockey.
	(b) Large unit	02 Nos	Goal Posts	For large units, the provision of two grounds be provided for football or hockey or one each.
2.	<u>Basket Ball Courts</u>			
	(a) Small unit	01 No	(a) All-weather synthetic surface. (b) Bracket structure and board. (c) Flood lights.	One court, out of these, per station to be an indoor court with the approval of Service HQ.
	(b) Large unit	03 Nos		
3.	<u>Volley Ball Courts</u>			
	(a) Small unit	01 No	---	---
	(b) Large unit	03 Nos	All-weather synthetic surface.	One court per station to be an indoor court with the approval of Service HQ.
4.	<u>Squash Courts</u>			
	(a) 50 Officers or 1000 troops	01 No	(a) Balcony. (b) Clothes hook. (c) Wooden flooring. (d) Painted walls. (e) Bird proofing. (f) Toughened glass back, Lighting and Wall finishes as per PSA specifications.	For additional 100 officers, or 1500 troops – 01 No Squash Courts subject to maximum of 04 Squash court in a station.
	(b) 100 Officers or 2500 troops or more	02 Nos		

Ser No	Description of Items	Scale	Special Facilities	Planning Notes
5.	<u>Tennis Courts</u>			
	(a) Up to 50 Officers or 1000 troops	01 No	(a) Construction of one practice wall. (b) Standard floor finish.	For every additional 50 officers or 1500 troops – 01 No tennis court subject to maximum of 4 courts.
	(b) 51 to 100 Officers or 2500 troops	02 Nos	(c) Posts and wire netting for enclosing the court and fixed posts for net. (d) Fixtures and appurtenances for hanging screens. (e) Suitable lighting arrangements	
6.	<u>Badminton Courts</u>			
	(a) Upto 50 Officers or 1000 troops	01 No	(a) Suitable lighting arrangement. (b) Surfacing with cement if required.	
	(b) 51 - 100 or 2500 troops	02 Nos	(c) Synthetic/ wooden court.	
	(c) 101 - 500 or 5000 troops	03 Nos		
	(d) 501-1000 or 8000 troops	04 Nos		
7.	Sports stadium (3000 or more troops)	01 No	(a) Athletic track with adequate space outside the track for conduct of minor games. (b) Open and covered stands as required depending on strength of the station.	(a) Changing rooms, sports ground equipment store, first-aid room, commentator's box, records room and technical committee office to be provided as required. (b) Toilet facility: - (i) Upto 10,000 troops – WC, WHB and urinals 06 Nos each. (ii) Above 10,000 troops – 03 Nos additional of each.

Note. For large units Multipurpose Indoor courts (Basket Ball/ Volley Ball) may be constructed for optimal utilisation of Land with the approval of Service HQ.

TABLE 8.VIII
SWIMMING POOLS

Ser No	Description of Items	For 800 to 2000 pers scales (Sqm)	For 2001 to 4000 pers scales (Sqm)	Special Facilities	Planning Notes
1.	Swimming Pool	One No 25m x 13.5m (Small)	One No 50m x 21m (Large)	---	(a) For Stations with 4001 to 8000 strength: - (i) One No of 50m x 21m (Large) (ii) One No of 25m x 13.5m (Small) (b) For Stations from 8001 to 14000 strength: - (i) Two Nos of 50m x 21m (Large) (ii) One No of 25m x 13.5m (Small) (c) For Stations from 14001 to 20000 strength: - (i) Two Nos of 50m x 21m (Large) (ii) Two Nos of 25m x 13.5m (Small)
2.	<u>Side Walks</u>				
	(a) At either end	05m wide	06m wide		
	(b) Other sides	2.5m wide	03m wide		
3.	<u>Diving boards</u>				
	(a) Spring board at 01m	01 No	01 No		Fixed board at 07m and 10m to be provided as special.
	(b) Spring board at 03m	01 No	01 No		

Ser No	Description of Items	For 800 to 2000 pers scales (Sqm)	For 2001 to 4000 pers scales (Sqm)	Special Facilities	Planning Notes
4.	Changing Room	75	100	(a) Benches. (b) Hooks for hanging clothes. (c) Foot mats (d) Shelves with shutters of size 23 cm x 15 cm each to be provided as follows:- (i) Pool size 50m x 21m – 50 Nos. (ii) Pool size 25m x 13.5m – 30 Nos. (e) Non-skid ceramic tiles floor.	(a) The area of changing room to be suitably divided to make separate changing rooms for officers, ladies and other ranks. (b) Partition walls in dressing room upto man's height with provision of curtain to form cubicles for changing on as required basis. (c) To be provided with drapery rods only.
5.	<u>Sanitary Annexe</u>				Separate Sanitary Annexes for Ladies and Gents within the authorised compliment of personnel.
	(a) Shower	07 Nos	10 Nos		
	(b) WCs	04 Nos	08 Nos		
	(c) Urinals	04 Nos	06 Nos		
	(d) WHB with mirror	04 Nos	06 Nos		
	(e) Foot Bath	03 Nos	03 Nos		
6.	Store Room	15	20		

CHAPTER 9

MISCELLANEOUS ACCOMMODATION

9.1 Central Maintenance Stations.

9.1.1 Central Maintenance Stations for mechanical transport of static formations and units may be provided at approved stations. Scales of central maintenance stations are given in Table 9.I.

9.1.2 Central maintenance stations shall be provided as given below. All vehicles sub-depots shall be provided with a type 'A' central maintenance station only.

- (a) Type 'A' - for maintenance of upto 300 vehicles.
- (b) Type 'B' - for maintenance of upto 450 vehicles.
- (c) Type 'C' - for maintenance of upto 600 vehicles.

9.1.3 The floors and ramps will be designed to withstand the loads likely to be imposed in various bays and hard standings.

9.1.4 Water points, drainage for waste water and waste oils will be provided as required. Suitable security fencing is to be provided as required. Suitable security fencing is to be provided all around the maintenance stations.

9.2 Fire Stations and Static Water Tanks.

9.2.1 Scales for Fire Stations and Static Water Tanks are given in Table 9.II for main and sub fire stations.

9.2.2 Designs and layouts for fire stations, hose hoist and drying towers, drying racks and hose washing ramps will be as approved by the Fire Adviser. Also hose hoist and drying tower will only be constructed where specifically advised by the Fire Adviser.

9.2.3 In cases where fire stations and static water tanks are planned together, it should be ensured that a static water tank is located as near the fire station as possible, for enabling the appliances in the fire station to come into action without any loss of time and afford necessary facilities for the testing and the maintenance of the fire appliances and equipment. However, where this is not possible, a static water tank of 50 KL capacity be provided at a distance not more than 60m from the main station for recoupment of the appliances returning from a scene of fire in order to keep them ready for subsequent calls. It may be sited as to provide any additional coverage to hazardous storage if feasible.

9.2.4 For quick manoeuvrability of the appliances and to obviate the chances of getting bogged down in soft terrain, hard standing of sufficient width to facilitate manoeuvring should be provided all around the static tank. Each static tank should be properly linked with an approach road not less than 3.6m in width.

9.2.5 Hydrants for fire-fighting purpose shall be provided wherever recommended by Fire Adviser. The minimum requirement of pressure and output is 20m head and 1150 litres respectively with two numbers hydrants working simultaneously. However, the pressure in the case of ammunition depot shall be planned at not less than 30m head.

TABLE 9.I**CENTRAL MAINTENANCE STATIONS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		Type 'A'	Type 'B'	Type 'C'		
1.	<u>Washing Bay</u>					
	(a) Shed for Hoist	42	42	80	(a) Hoist – 04 Ton (i) Types A&B – 01 No (ii) Type C – 02 Nos	(a) Hoist with shed shall not be provided for vehicle sub-depots stocking only 'A' vehicles and 'B' vehicles of type 03 ton and above.
	(b) Pump Room	12	12	12	(b) 03 HP Twin car washer (i) Types A & B – 01 No (ii) Type C – 02 Nos	(b) Hoist lifting height 1.53m, wheel free type air operated hydraulic lift, 04 ton capacity. Working pressure 9/14 kg/cm ² , complete with ramp, runway and super structure, etc.
	(c) Ramps	01 Nos	02 Nos	02 Nos	(c) Sump (i) Type A – 2500 litres (ii) Type B – 3000 litres (iii) Type C – 3500 litres	(c) Car washer delivery of gun of 13.5 litres per minute for washing and 6.8 litres per minute for spray at maximum operating pressure of 22 kg/cm ² , complete with gun, etc. (d) Ramps should have separate approach on either side for ascent and descent.
2.	Greasing Bay	140	168	223	(a) Hoist – 04 ton (i) Types A & B – 01 No (ii) Type C – 02 Nos (b) Air compressor 05 HP (i) Types A & B – 01 No (ii) Type C – 02 Nos (c) 04 Nos Portable HP grease/ LP oil	(a) Hoist shall not be provided for vehicle sub-depots stocking only 'A' vehicles and 'B' vehicles of type 03 ton and above. (b) Hoist lifting height 1.53m, wheel free type air operated hydraulic lift, 04 ton capacity working pressure 9/14 kg/cm ² complete with ramp, runway and super-structure, etc.

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		Type 'A'	Type 'B'	Type 'C'		
					<p>pumps each for all types of stations.</p> <p>(d) 02 Nos Inspection pits each with ancillary facilities for all types of stations.</p>	<p>(c) Air compressor of 500 litres per minute displacement with maximum pressure for switching off at 15 kg/cm² and switching on 11 kg/cm² and pressure difference of 14 kg/cm², tank capacity 500 litres and complete with tubing and fittings, etc.</p> <p>(d) HP grease/ LP oil pumps of washing pressure of approximate 08 kg/cm². Pressure ratio 40:1 and working pressure 10.5 kg/cm², complete with hoses, etc.</p>
3.	Repair and Inspection Bay	140	168	223	<p>(a) Champion spark plug cleaners</p> <p>(i) Types A & B – 01 No</p> <p>(ii) Type C – 04 Nos</p> <p>(b) 01 No wall mounted tyre inflator each complete with hose etc for all types of stations.</p> <p>(c) 02 Nos inspection pits each with ancillary facilities for all types of stations.</p>	
4.	Hard standing	4100	4450	4900	---	---
5.	<u>Storage</u>					
	(a) Tool and MT store	18.6	18.6	18.6	Racking and shelving.	---
	(b) Paint store	05	05	05	Shelving.	
	(c) FOL store	10	12	15	Racking and shelving.	

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		Type 'A'	Type 'B'	Type 'C'		
6.	Offices for OIC, JCOs and Clerks	As per scale.				
7.	Change Room	10	10	10	Lockers as required	With attached sanitary annexe to include one each of WC, WHB and urinal.

TABLE 9.II**FIRE STATIONS AND STATIC WATER TANKS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	<u>Office cum Control Room</u>			
	(a) Main Fire Station	23.00	---	(a) Includes accommodation for supervisory and clerical staff for which area may be partitioned off. (b) One door should open from this room into fire engine bay.
	(b) Sub Fire Station	11.50	---	
2.	Assistant Fire Master's Office	10.00	---	Authorised for main fire station only.
3.	<u>Store Rooms</u>			
	(a) Main Fire Station	14.50 – 01 No	Shelving 03 tier	Store rooms should be connected with TFP bays and fire engine bay through a suitable corridor.
	(b) Sub Fire Station	11.00 – 01 No		
4.	<u>Crew Rest Room</u> Main or Sub Fire Station			
	(a) For 06 persons	36.30	---	(a) At least one door from this room will be provided for entrance to the fire engine bay. (b) One side verandah may be provided.
	(b) For 12 persons	72.60	---	
5.	Fire Domestic Tender	As per scale	---	(a) The term fire engine stands either for a domestic tender or a trailer fire pump alongwith a 03 tonner as a towing vehicle. (b) Scale given in Table for covered accommodation as for 'C' vehicles for Serial 05 and 'B' vehicles and specialist trailers for Serial 6, 7 and 8 will be followed.
6.	Trailer Fire Pump with 03 ton towing vehicle	As per Scale	---	---
7.	Repair Bay with Inspection Pit	As per Scale	---	03m, one side projection over fire engine bay be provided.
8.	Sanitary Annexe	WC - 2 WHB - 2 Urinal - 2 Bath - 2	---	Separate sanitary annexe enclosure for office to be given out of total authorisation.

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
9.	Hose Hoist and Drying Tower	21.00 (One No)	03m wide paved area all around.	(a) To be 20m high with a smoking chamber 11.5 Sqm in area. (b) At stations where such high structure cannot be built e.g. Air Fields, hose drying racks 3.8 x 1.7m will be provided. (c) If the sub fire station does not hold more than two manned fire engines, only drying racks will be provided. (d) Extra requirements if any for hose hoist and drying towers or hose drying racks will be determined by the sitting board.
10.	Hose Washing Pump	One number	---	---
11.	Static Water Tanks	Capacity	Fire hydrant pumps with overhead filling hydrants as required to be provided.	There should be suitable arrangements for replenishing the water in static water tanks expeditiously. Irrespective of its location and distance from source of water supply it should not take more than 18 hrs to completely refill the tank. Distance from the area under protection should be as under: -
	(a) Ammunition Depots	225 KL		100m to 200m
	(b) Explosive Magazines, Ammunition and Explosive Storage Areas	225 KL		100m to 200m
	(c) POL Depot holding more than 2250 KL of POL	225 KL		100m to 20m
	(d) Installations holding more than 2750 Cum of Timber	225 KL		100m to 150m
	(e) Bomb Dumps	110 KL		100m to 200m
	(f) Explosive Process Areas	110 KL		100m to 200m

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
	(g) POL Depot holding upto 2250 KL of POL	110 KL		100m to 200m
	(h) Installations holding upto 2750 Cum of Timber	110 KL		100m to 150m
	(j) Other store holding Depots	70 KL		60m to 150m
	(k) Other non-explosive areas or units holding comparatively small storage, other depots and detachments.	50 KL		60m to 150m

PART III –SPECIALISED SCALES
SECTION A – SPECIALISED ACCOMMODATION FOR ARMY

CHAPTER 10

FIELD FORMATION HEADQUARTERS

10.1 Specialised accommodation required for Formation Headquarters at Corps, Division and Brigade level will be provided as given in the Table 10.I. The scales contained herein apply also to the Brigades of the supporting arms.

10.2 Offices and additional accommodation for centralised educational and technical training will be provided as per the scales given elsewhere.

10.3 Accommodation for field computers and electronic warfare systems shall be provided, wherever such equipment is authorised, to suit the technical requirements of the equipment.

10.4 For functioning of headquarters during operations, wherever the same is envisaged from permanent location, minimum essential additional underground accommodation may be provided as indicated in the Table, subject to the approval of GOC-in-C Command. All underground accommodation shall be air conditioned. Standby power supply arrangement will also be provided.

10.5 Desert coolers may be provided for the accommodation as indicated in the Table, at authorised stations.

10.6 Suitable security wall or fencing with security lights will be provided all around the formation head-quarters on as required basis. Security bars or grilles should be provided on all windows and ventilators. Accommodation for night pickets shall also be provided.

TABLE 10.I**FIELD FORMATION HEADQUARTERS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		Corps HQ	Divisional HQ	Brigade HQ		
1.	Operations Room	65	50	45	(a) Sliding map boards with roller shutters and locking arrangements. (b) Wall boards for charts. (c) Double door, outer door of iron bars. (d) Lighting for wall boards and sliding map boards. (e) Air-conditioning. (f) Vitrified tile flooring.	Not to be provided when similar accommodation is constructed underground as given at Serial 15 (a).
2.	Conference Room	80	60	Combined with Serial 1	(a) Air-conditioning. (b) Vitrified tile flooring.	
3.	Planning Rooms					
	(a) Intelligence	40	Combined with Serial 1	Combined with Serial 1	Wall boards for maps.	
	(b) 'Q'	28	20	---		
	(c) Engineers	28	---	---		
	(d) Signals	28	---	---		
4.	Sand Model Room	400	350	300	(a) Sand model pit of appropriate size with wooden covering. (b) Stepped up platforms for seating and stage. (c) Rear projection screen.	(a) Includes space for syndicate rooms, sand model stores and projection cabin etc. (b) Sanitary annexe.

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		Corps HQ	Divisional HQ	Brigade HQ		
					(d) Wall boards for maps (e) Supplementary lighting for sand model pit, stage and wall boards. (f) Air-conditioning. (g) Vitrified tiles flooring.	
5.	Visitor's Room	20 each (02 Nos)	As per scale	As per scale	Vitrified tiles flooring.	
6.	Technical Libraries	20 each (04Nos)	20	---	Vitrified tiles flooring.	Technical libraries at Corps HQ are authorised for General Staff, Ordnance, EME, and Legal Branches.
7.	Central Library cum Museum	140	100	56	(a) Counter. (b) Desert Coolers. (c) Air-conditioning in Reading Room only. (d) Vitrified tiles flooring.	Includes space for storage of books, reference cum reading section and office for librarian.
8.	Central Registry	18	15	---	---	Includes office accommodation entitlement of registry clerks.
9.	Map Store	As required	30	20	(a) Racking and shelving. (b) Double doors, outer door being iron bars.	Map store to be authorised based on assessed requirement of Corps HQ or map supply section.
10.	Training Store	As required	80	50	Racking and shelving.	(a) Size of training stores at Corps HQ to be decided based on the assessed requirement.

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		Corps HQ	Divisional HQ	Brigade HQ		
						(b) May be suitably subdivided.
11.	Strong Rooms					
	(a) For Classified Documents	15 each (02 Nos)	15	---	(a) Double doors with outer door of iron bars.	(a) Strong rooms should have only one entry and exit. No windows or ventilators to be provided.
	(b) For Cipher Documents	28	---	---	(b) Inbuilt almirahs with steel door and locking arrangement, as required.	(b) Room for ECL to be provided only where equipment is authorised to be installed.
	(c) For equipment Cipher Line (ECL).	28	15	---		(c) Special facilities as for strong rooms may be provided for Bde HQ in offices where classified documents are held.
12.	Office for Signal Communication Technical Staff	12	---	---		
13.	Room for Reception and Security Staff.	15	10	10	Counter with Granite top with bull nosing.	
14.	Cafeteria	45	30	20	(a) Racking and shelving with inbuilt cupboards in store and pantry. (b) Stainless Steel sink with double bowl and double drain board. (c) Non skid ceramic tiles floor.	(a) Includes space for refreshment room, store and pantry and kitchenette. (b) Attached toilet.

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		Corps HQ	Divisional HQ	Brigade HQ		
15.	Underground Operations Room Complex					
	(a) Operation Room	55	40	---	(i) To be air conditioned. (ii) Sliding map boards with roller shutters and locking arrangements for Serial (a), (b), (c) and (d). (iii) Wall boards for charts. (iv) Lighting for wall boards and sliding map boards. (v) Vitrified tiles floor.	To be provided where specifically sanctioned as stipulated in the chapter notes. Also read planning notes at Ser No 1.
	(b) Intelligence Planning Room	30	Combined with Serial 15 (a)			
	(c) Joint Operations Centre	55	---			
	(d) Joint Air Defence Centre	25	---			
	(e) Offices					
	(i) GOC/ COS	18 each	18			
	(ii) Other Officers	12 each (08 Nos)	12 each (04 Nos)			
	(iii) Clerks	12 each (04 Nos)	12 each (02 Nos)			
	(iv) Draftsmen and Surveyors	15	10			
	(f) Strong Room for ECL Machine	15	10			
	(g) Operational Telephone Exchange Room	12	08			

CHAPTER 11

ARMoured CORPS AND MECHANISED INFANTRY UNITS

11.1 Scales of specialised accommodation in respect of the units of Armoured Corps and Mechanised Infantry are given in Tables 11.I and 11.II.

11.2 Accommodation requirements in respect of other units, e.g. Horsed Cavalry Regiments, etc. other than those items covered elsewhere in the scales, will be treated as special works.

11.3 Training rooms for simulators, including store rooms where applicable, will be provided as per technical requirements of the equipment in the units or formations or regimental training centres, wherever such simulators are authorised.

11.4 Air-conditioning will be provided as per technical requirements of the equipment for store rooms as indicated in the Table. Lightning protection will be provided for shell stores. Wherever operationally considered necessary, shell stores will be provided with suitable protection against air attacks. Suitable approaches and exits will be provided for shell stores for quick loading of tanks.

11.5 Suitable power supply will be provided for operating gunnery and driving systems of tanks and armoured personnel carriers including working training models, in the respective instruction sheds.

11.6 Storage accommodation for missiles will be provided as per scale with suitable air-conditioning as per technical requirements of the missiles. The accommodation should be provided appropriately grouped on a combined basis wherever feasible.

TABLE 11.I**ARMoured CORPS UNITS**

Ser No	Description of items	Floor Area (Sqm)/ Scale			Special Facilities	Planning notes
		Armoured Regiment	Independent Armoured Squadron	HQ Squadron of HQ Armoured Division/ Brigade		
1.	General Store	56	28	28	Racking and shelving.	
2.	Signal Equipment Store	25 per Sqn	25	Combined with Serial 3	(a) Racking and shelving (b) Non dust emitting floor. (c) Inbuilt cupboards.	For Regimental. Training Centres 64 Sqm for stores at Serial 2 and 3.
3.	Optical Instruments and Night Vision Devices Store	12 per Sqn	12	20	(a) Non dust emitting floor. (b) Inbuilt cupboards of 1.8m height, 1.5m width and 0.6m depth, with padded insulation and heating arrangements – 01 No per 04 tanks.	
4.	Technical and Fording Equipment Store	28 per AFV Sqn	28	12	Racking and shelving.	
5.	Store for Rubberised Gas Masks, Regenerative Bottles and Emergency Pellets.	20	---	---	To be air conditioned.	To be provided only where such items are authorised including Regimental Training Centres.
6.	Training Store	56	28	15	Racking and shelving.	May be suitably sub-divided as required.
7.	Paint Store	12	09	---	Shelving.	

Ser No	Description of items	Floor Area (Sqm)/ Scale			Special Facilities	Planning notes
		Armoured Regiment	Independent Armoured Squadron	HQ Squadron of HQ Armoured Division/ Brigade		
8.	Intelligence and Map Room	28	18	--		
9.	Battery Charging Shop	As per scale				
10.	Instruction Room for tactical Training	174	---	---	(a) Sand model pit with wooden covering. (b) Glass black board – 02 Nos. (c) Rear projection screen. (d) Stepped up platforms for seating.	Also caters for tank crew training for which the room may be suitably partitioned as required.
11.	Radio Instruction Room	56	30	---	Glass black board.	56 Sqm for Regimental Training Centres.
12.	Instruction Shed for Gunnery Training	111	---	---	Glass black board – 02 Nos.	(a) To also cater for working training models in Armoured Regiments wherever authorised; in which case area may be suitably increased as required. (b) For Regimental Training Centre 196 Sqm. Additional accommodation to be provided for the authorised working training models on as required basis.

Ser No	Description of items	Floor Area (Sqm)/ Scale			Special Facilities	Planning notes
		Armoured Regiment	Independent Armoured Squadron	HQ Squadron of HQ Armoured Division/ Brigade		
13.	Instruction Shed for Mechanical Training	111	111	---	Glass black boards – 02 Nos.	-do-
14.	Instruction Rooms for Squad Training (25 Sqm each)	04 Nos	02 Nos	01 No	Glass black board.	
15.	Field Miniature Range (27m or 50m)	01 No	01 No	---	(a) Open shed for size 18m x 10m with stone paved standing. (b) Channels with winches and pulleys for moving targets. (c) Suitable power supply for firing system of AFVs.	(a) Type of range 03m or 50m to be provided as per technical requirements of AFVs. (b) Also authorised for Regimental Training Centres. Sizes of range and shed for firing to be provided as required.
16.	Shell Store	As per scale				
17.	Explosive Store	As per scale				

TABLE 11.II**MECHANISED INFANTRY UNITS**

Ser No	Description of items	Floor Area (Sqm)/ Scale	Special facilities	Planning notes
1.	General Store	56	Racking and shelving	
2.	Signal Equipment Store	37	(a) Racking and shelving (b) Non dust emitting floor. (c) Inbuilt cupboards.	For Regimental Training Centres 64 Sqm each for stores at Serial 2 and 3.
3.	Optical Instruments and Night Vision Devices Stores	10 per mechanised company	(a) Non dust emitting floor. (b) Inbuilt cupboards of 1.8m height, 1.5m width and 0.6m depth, with padded insulation and heating arrangement – 01 No per 04 APC's.	
4.	Training Store	56	Racking and shelving.	May be suitably subdivided as required.
5.	Paint Store	12	Shelving.	
6.	Intelligence and Map Room	28		
7.	Battery Charging Shop	As per scale		
8.	Instruction Room for Tactical Training	174	(a) Sand model pit with wooden covering. (b) Glass black board – 02 Nos. (c)Rear Projection screen. (d)Stepped up platforms for seating.	Also caters for APC crew training for which the room may be suitably partitioned as required.
9.	Radio Instruction Room	37	Glass black board.	56 Sqm for Regimental Training Centres.

Ser No	Description of items	Floor Area (Sqm)/ Scale	Special facilities	Planning notes
10.	Instruction Shed for Gunnery Training	111	Glass black board – 02 Nos.	(a) To be provided only where ICVs are authorised. (b) To also cater for working training models where authorised; in which case area may be suitably increased as required. (c) For Regimental Training Centre 196 Sqm. Additional accommodation to be provided for the authorised working training models on as required basis.
11.	Instruction Shed for Mechanical Training.	90	Glass black boards – 02 Nos.	(a) To also cater for working training models wherever authorised; in which case area may be suitably increased as required. (b) For Regimental Training Centre 196 Sqm. Additional accommodation to be provided for the authorised working training models on as required basis.
12.	Field Miniature Range (27m)	01 No	(a) Open shed of size 18m x 10m with stone paved standing. (b) Channels with winches and pulleys for moving targets. (c) Suitable power supply for firing system of ICVs.	
13.	Instruction Room for Mortar Training	37	Stepped up platforms as required.	

Ser No	Description of items	Floor Area (Sqm)/ Scale	Special facilities	Planning notes
14.	Instruction Rooms for Squad Training (03 Nos)	25 each		
15.	Shell Store	As per scale		
16.	Explosive Store	76	Water tank of suitable size alongwith WP ammunition store.	<p>(a) Caters for all explosives and ammunition other than small arms ammunition.</p> <p>(b) May be sub-divided into rooms or small compartments as per regulations for storage of explosives.</p> <p>(c) Verandah or platform to be provided.</p> <p>(d) Earth traverse or other safety arrangements as per technical regulations.</p>

CHAPTER 12

ARTILLERY UNITS

12.1 Scales of specialised accommodation in respect of Artillery units including accommodation for guns, missiles and equipment are given in Tables 12.I to 12.VIII. Accommodation requirements for other units will be treated as special.

12.2 Training rooms for simulators and working training models, including store rooms where applicable, will be provided as per technical requirements of the equipment, in the headquarters artillery brigades, units and training centres, wherever such equipment is authorised.

12.3 Suitable power supply will be provided for the relevant simulators and working training models, wherever authorised. Air-conditioning will be provided for various accommodations as indicated in the Tables, as per technical requirements of the equipment.

12.4 Artillery ammunition stores will be provided, preferably on a combined basis, with lightning protection as well as suitable approaches and exits for quick loading of vehicles. Wherever operationally considered essential, such stores will also be provided suitable protection against air attack.

12.5 Storage accommodation for missiles will be provided as per scale laid down with suitable air-conditioning as per technical requirements of missiles. The accommodation should be provided appropriately on a combined basis. Wherever operationally considered essential, such stores will also be provided with suitable protection against air attack.

12.6 Sizes for storage and training accommodation pertaining to missiles are based on the current generation of equipment. Alteration to these sizes may be made for new equipment subsequently introduced.

12.7 Combining of training facilities at brigade or station level should be considered wherever units are co-located.

12.8 Specialised accommodation for Air OP Squadrons or Flights will be provided to conform to the layout and general specifications of Air Force Flying stations. For Squadrons or Flights located away from Air Force Stations, the accommodation and facilities which are normally the responsibility of Air Force, will be provided for such units as per Air Force scales.

TABLE 12.I**AIR DEFENCE ARTILLERY GROUPS AND REGIMENTS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale		Special Facilities	Planning Notes
		AD Guns (Towed/ SP) and Composite AD Units	AD Missile Units		
1.	General Store	56	56	Racking and shelving.	28 Sqm for Independent or Detached Battery.
2.	Gun and Technical Equipment Store	28 per Battery	90 per Missile Battery	- do -	May be sub-divided.
3.	Radar Equipment Store	28 per Battery	45 each (4 Nos)	(a) Racking and shelving (b) Non-dust emitting floor.	Authorised for Control Battery.
4.	Signal Equipment and Optical Instruments store	37 per Gp HQ/ Regiment HQ/ Battery	HQ/ Regiment	(a) Racking and shelving. (b) Inbuilt almirahs with padded insulation and heating arrangement – 02 Nos. (c) Non-dust emitting floor.	
5.	Intelligence and Map Room	28	28	(a) Shelving. (b) Inbuilt almirahs.	14 Sqm for Independent or Detached Battery.
6.	Training Store	37	37	Racking and shelving	
7.	Storage Shed for Training Missiles	---	15 per Missile	Ceiling height – 04m with shutters.	(a) To be provided only wherever training missiles are authorised. (b) Air conditioning may be provided to meet the technical requirements of missiles, where justified.

Ser No	Description of Items	Floor Area (Sqm)/ Scale		Special Facilities	Planning Notes
		AD Guns (Towed/ SP) and Composite AD Units	AD Missile Units		
8.	Storage Shed for Missile Technological Equipment.	---	64	Ceiling height – 04m with shutters.	
9.	Battery Charging Shop	As per scale			(a) To be provided only for units authorised gun fitters of Arty. (b) May be sub-divided into separate shops for batteries.
10.	Fitters' shop	08 per artificer			
11.	Aircraft Recognition Room.	115	115	(a) Glass black board. (b) Inbuilt glazed cupboards – 02 Nos. (c) Rear projection screen with cabin.	
12.	Instruction Shed for Gun Systems/ Radar/ Mechanical Training.	110	110	Ceiling height – 05m.	
13.	Instruction Sheds for Missile Training.	---	54 each		(a) One shed each to be provided for sectionised missiles, training aids for missiles and electrified training stands for missiles, wherever such equipment is authorised. For new equipment, the accommodation will be provided as per technical requirements of the equipment. (b) Air conditioning may be provided to meet

Ser No	Description of Items	Floor Area (Sqm)/ Scale		Special Facilities	Planning Notes
		AD Guns (Towed/ SP) and Composite AD Units	AD Missile Units		
					technical requirements of the equipment where justified.
14.	Instruction Room for Tactical Training.	--	174 per Gp	(a) Sand model pit with wooden covering. (b) Glass black boards. (c) Stepped up platform for seating.	
15.	Instruction Room for Telephone Exchange	20	20	(a) Glass black board. (b) Raised platform.	
16.	Instruction Rooms for Technical Trades Training (40 Sqm each).	02 Nos	04 Nos	(a) Glass black board. (b) Raised platform	
17.	Artillery Ammunition Store	As per scales of Ammunition Depots			

TABLE 12.II**AIR OBSERVATION POST UNITS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale		Special Facilities	Planning Notes
		Squadron	Independent / Detached Flight		
1.	General Store	28 per Flight	28	Racking and Shelving.	
2.	Signal Equipment Store				
	(a) Squadron HQ	15	---	(a) Racking and Shelving	
	(b) Flight (each)	20	20	(b) Non dust emitting floor. (c) Inbuilt almirahs.	
3.	Battery Charging Shop	As per scale			
4.	TA Equipment Store	15 per Squadron HQ/ Flight	15	Racking and Shelving.	
5.	Hanger for 05 Chetak or Cheetah Helicopters	1550 Sqm per Flight		(a) Ceiling height 10m. (b) Sliding doors on both sides. (c) False ceiling of wire meshing (d) Lights and fans as per scale.	(a) Hangers for new aircraft will be provided on as required basis. (b) Includes space for bays of daily servicing section inside the hanger for different aircraft systems pertaining to air frame electrical, engine, instrument, radio, rotables, ground equipment, hydraulic and office bay for Officer-in-charge daily servicing section.
6.	Air Force Equipment and Technical Flt Stores	100 per Flight	100	Racking and Shelving.	(a) May be sub-divided into separate store rooms. (b) Accommodation at Serials 6 to 11 to be sited side by side along the length of hangers on one or both sides.

Ser No	Description of Items	Floor Area (Sqm)/ Scale		Special Facilities	Planning Notes
		Squadron	Independent / Detached Flight		
7.	FSS Store	15 per Flight	15	Racking and Shelving.	
8.	Air Crew Briefing Room	54 per Flight	54	(a) To be air-conditioned. (b) Lockers and wardrobes. (c) Glass blackboard.	Attached sanitary annexe.
9.	Maintenance and Ground Crew Room	54 per Flight	54	Lockers and wardrobes.	Attached sanitary annexe.
10.	Kitchenette	12	12	(a) Stainless Steel sink with double bowl and double drain board. (b) Cupboard.	One No each to be attached to air crew briefing room and maintenance and ground crew room.
11.	Flight Navigation Room	18 per Flight	18		
12.	Room for Photo Sec	20 per Flight	20		Includes area for a separate dark room.
13.	Instruction Room for Technical Trade Training	40	28	(a) Glass black board. (b) Raised platform.	
14.	Instruction Room for Telephone Exchange	20	---	Glass black board.	
15.	Artillery Miniature Range	120	80	Stepped up platform for seating.	
16.	Shed for POL Refuelling Bowser	64 per Flight	48 per Flight		(a) To be sited at least 365m away from the hanger. (b) Includes space for aircraft oil, dope and other inflammable material.

TABLE 12.III**ARTILLERY GUNS, RADARS AND EQUIPMENT**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Sheds for Towed Guns and Mortars	(a) Floor Area = L x W Where L = Length of gun (with barrel fully powered) or mortar, plus 02m. W = Width of gun (with Open trails) or mortar plus 02m. (b) Height = Height of gun (at 45 degrees elevation or mortar, plus 0.5m (rounded off to next height 0.5m fraction) subject to a minimum of 3.8m.	Sliding or roller shutters of appropriate width and height to facilitate easy entry and exit of towing vehicles.	Doors may be provided on both sides of sheds for such heavy guns for which garaging is not possible without towing with a tractor vehicle.
2.	Sheds for Self-propelled Guns	As per scale for 'A' vehicles		Height of shed should have minimum clearance of 0.5m above the gun at 45 degrees elevation, rounded off to next higher 0.5m fraction.
3.	Sheds for Radars and Vehicle Mounted Equipment	As per scale for 'A' vehicles and specialist vehicles.		Height of ceiling should have minimum clearance of 0.5m above the radar or equipment, rounded off to next higher 0.5m fraction.
4.	Unroofed Park for Guns, Radars and Equipment	110 x 55	(a) Suitable hard standing. (b) Stone paved standing for tracked vehicles.	(a) Should be constructed adjacent to gun, radar and equipment sheds. (b) Dimensions may be altered to suit the local conditions, subject to not exceeding the authorised area.

TABLE 12.IV**ARTILLERY LOCATING UNITS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale		Special Facilities	Planning Notes
		Regt	Div Loc Btys		
1.	General Store	56	28		
2.	Technical Equipment Store	28	15	Racking and Shelving.	
3.	Survey Equipment Store	28 per Survey Troop	20 per Survey Troop	(a) Racking and Shelving. (b) Inbuilt almirah with padded insulation and heating arrangement.	
4.	Sound Ranging Equipment Store	28 per Sound Ranging Troop	40	Racking and Shelving.	May be sub divided for Div Loc Battery.
5.	Radar Equipment Store	28 per Radar Troop	20	(a) Racking and shelving. (b) Inbuilt almirah. (c) Non dust emitting floor.	
6.	Signal Equipment Store	28 per Battery HQ or Troop	45	- do -	
7.	Training Store	37	18	Racking and Shelving.	
8.	Intelligence and Map Room	28	18	(a) Shelving. (b) Inbuilt almirah.	
9.	Battery Charging Shop	As per scale		Acid resistant floor.	
10.	Instruction Rooms for technical trades training (40 Sqm each)	02 Nos	01 No	(a) Glass black board. (b) Raised platform.	
11.	Instruction Room for Telephone Exchange	20	---	Glass black board.	
12.	Tactical Air Defence Integrated Display System (TADIDS) Room	51	---	(a) Non dust emitting floor. (b) Glass black board.	

Ser No	Description of Items	Floor Area (Sqm)/ Scale		Special Facilities	Planning Notes
		Regt	Div Loc Btys		
13.	Class Room Electronic Warfare Simulator (CREWS) Room	51	---	(a) Non dust emitting floor. (b) Glass black board.	
14.	Regiment Technical Equipment Store	28	---	Racks and Shelves.	
15.	Battery Mobility and Deployment Stores	28	---	Racks and Shelves.	

TABLE 12.V**FIELD BRANCH ARTILLERY UNITS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		Regiment	Indep Battery	Light Battery		
1.	General Store	56	28	37	Racking and Shelving.	
2.	Signal Equipment Store	28 per Battery	28	15 per Battery HQ or Troop	(a) Shelving and racking. (b) Inbuilt almirahs – 02 Nos. (c) Non-dust emitting floor.	
3.	Survey and TA Equipment Store	28 per Battery	28	14 per Troop	(a) Shelving and racking. (b) Inbuilt almirahs with padded insulation and heating arrangements – 02 Nos.	
4.	Gun Equipment Store –					
	Heavy and Medium gun units	28 per Gun Battery	28	---	Racking and shelving.	
	Other units	14 per Gun Battery	14	09 per Troop		
5.	Training Store	37	18	28	Racking and shelving.	
6.	Intelligence and Map Room	28	15	20	(a) Shelving. (b) Inbuilt almirah.	
7.	Battery Charging Shop	As per scale			Acid resistant floor.	
8.	Instruction Shed for Gunnery Training	110	60	60	(a) Glass black boards. (b) Height as required.	To also cater for mechanical training.
9.	Instruction Rooms for Technical Trades Training (40 Sqm each)	02 Nos	01 No	01 No	(a) Glass black boards. (b) Raised platform.	

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		Regiment	Indep Battery	Light Battery		
10.	Instruction Room for Telephone Exchange	20	---	20	Glass black board.	
11.	Artillery Miniature Range	120	---	---	Stepped up platform for seating.	
12.	Artillery Ammunition Store	As per scale of Ammunition Depots				

TABLE 12.VI**AIR DEFENCE MISSILE REGIMENTS (AKASH)**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	General Store	56	Racking and shelving.	One each per HQ, Technical and GW Batteries.
2.	Gun and Technical Equipment Store	90	Racking and shelving.	
3.	Radar Equipment Store	45.00	(a) Racking and shelving. (b) Non dust emitting floor.	
4.	Signal Equipment and Optical Instrument Store	37.00	(a) Racking and shelving. (b) Inbuilt almirahs with padded insulation and heating arrangement – 02 Nos. (c) Non dust emitting floor.	
5.	Intelligence and Map Room	28.00	(a) Shelving. (b) Inbuilt almirahs.	01 (One) each per Regiment
6.	Training Store	37.00	Racking and shelving.	
7.	Storage Shed for Training Missiles	15.00	Ceiling height – 04m with shutters.	(a) One each per GW Battery. (b) Air conditioning may be provided to meet the tech requirement of missiles, where justified.
8.	Storage Shed for Missile Technological Equipment	64.00	Ceiling height – 04m with shutters.	01 (One) each per Regiment
9.	Battery Charging Shop	51.00	---	
10.	ACR Room	115.00	(a) Glass black board. (b) Inbuilt glazed cupboard – 02 Nos. (c) Rear projection screen with cabin.	
11.	Instruction Shed for Gun System/ Radar/ Mechanical Training	110.00	Ceiling height – 05m.	01 (One) shed per Regiment for mechanical training purpose.

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
12.	Instruction sheds for Missile Training	54.00	---	(a) 01 (One) each per GW Battery. (b) For new equipment the accommodation will be provided as per technical requirements of the equipment. (c) Air conditioning may be provided to meet technical requirements.
13.	Instruction room for Tactical Training	174.00	(a) Sand model with wooden covering. (b) Glass black boards. (c) Steeped up platforms for seating.	01 (One) room per Regiment.
14.	Instruction Room for telephone exchange	20.00	(a) Glass black board. (b) Raised platform.	
15.	Instruction rooms for technical trades training (40 Sqm each)	40.00	(a) Glass black board. (b) Raised platform.	(a) Quantity 04 (four). (b) Trades (i) TIsFC (ii) OsFC (iii) OPR (iv) DS
<u>Garages for Special Vehicles</u>				
	<u>HQ TP</u>		<u>L x B x H</u>	
16.	Garage for CCC	77.00	14.00 x 5.50 x 8.50	02 (Two) per Regiment.
17.	Garage for RSV	77.00	14.00 x 5.50 x 8.50	
18.	Garage for DCV	77.00	14.00 x 5.50 x 8.50	
19.	Garage for CPSV	77.00	14.00 x 5.50 x 8.50	
20.	Akash Weapon System Simulator Class Room (AWSSC-V)	61.75	9.50 x 6.50 x 8.50	
21.	Garage for CPV	57.50	11.50 x 5.00 x 6.70	
22.	AWSSC- Vehicle Version	57.50	11.50 x 5.00 x 6.70	
23.	Garage for TST	57.50	11.50 x 5.00 x 6.70	

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
<u>Technical Battery</u>				
24.	Garage for TMS	28.00	7.00 x 4.00 x 3.50	Quantity 01 (One)
25.	Garage for BOT	28.00	7.00 x 4.00 x 3.50	Quantity 02 (Two)
26.	Garage for TLV	79.75	14.50 x 5.50 x 5.20	Quantity 04 (Four)
27.	Garage for MHT	28.00	7.00 x 4.00 x 3.50	Quantity 12 (Twelve)
28.	Garage for MTV	74.25	13.50 x 5.50 x 4.85	
29.	Garage for PSV	55.00	11.00 x 5.00 x 5.30	Quantity 02 (Two)
30.	Garage for ATV	55.00	11.00 x 5.00 x 5.30	
31.	Garage for MHTV	55.00	11.00 x 5.00 x 5.30	
<u>GW Battery</u>				
32.	Garage for AAL	91.00	14.00 x 6.50 x 5.20	Quantity 24 (Twenty four)
33.	Garage for TLV	91.00	14.00 x 6.50 x 5.20	Quantity 12 (Twelve)
34.	Generator Set 30 KVA	36.14	7.30 x 2.20 x 2.20	Quantity 10 (Ten)
35.	Garage for CPV	62.50	12.50 x 5.00 x 6.70	Quantity 06 (six)
36.	Garage for TST	62.50	12.50 x 5.00 x 6.70	
37.	Garage for TPSV	62.50	12.50 x 5.00 x 6.70	
38.	Garage for TCV	62.50	12.50 x 5.00 x 6.70	
39.	Garage for RSV	77.00	14.50 x 5.50 x 8.50	
40.	Garage for DCV	77.00	14.50 x 5.50 x 8.50	
41.	Garage for CPSV	77.00	14.50 x 5.50 x 8.50	
42.	Garage for TLR	77.00	14.50 x 5.50 x 8.50	
43.	Garage for TCC	77.00	14.50 x 5.50 x 8.50	

TABLE 12.VII**BRAHMOS MISSILE REGIMENT**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Storage accommodation			
	(a) General Stores	56		
	(b) Signal Equipment Store-03	84 (28 Sqm each)		
	(c) Serve/ TA Equipment Store-03	84 (28 Sqm each)		
	(d) Training Stores	37		
	(e) Intelligence and Map Room	28		
	(f) Instructor Shed For Training	110		
	(g) Instructor Shed for Technical Trade Training-03	120 (40 Sqm each)		
	(h) Instructor Room for Telephone Exchange	20		
	(j) Clothing Stores	20		
	(k) 03 Battery/ Company Store – 03	57 (19 Sqm each)		
	(l) Equipment Store	21		
	(m) Mob Equipment Store	30		
	(n) Oil Store	09		
	(o) Ration Stores	14		
	(p) Sport Store	09		
	(q) Lubricant Stores	19		
2.	Covered area for vehicles (B & C)			
	(a) Jeep/ Mg	231		
	(b) Tank 2.5 Ton	252		
	(c) Lorry 5/7.5 Ton ALS	432		
	(d) ALS W/Bowser 1000 litres	36		
	(e) ALS Kitchen lorry	36		
	(f) Army Bus Long Chassis	82		
	(g) TATA Sumo – 06	115 (19.16 Sqm each)		
	(h) LRV ALS – 01	36		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
	(j) HRV AV 15-01	36		
	(k) Motor Cycle	05 each		
	(l) JCB-01	55		
	(m) Cycles	As per scale		
3.	Apron for vehicles (B & C)	2602		Same as per Area for Garage
4.	Repair bay With apron	471		One No for 10 Garage
5.	Inspection pit	01		One No for 50 vehicles
6.	Storage Accommodation (MT)			
	(a) Lubrication Oil and Grease	40		
	(b) Petrol Store	19		
	(c) Technical Office	16		
	(d) MT Store	107		
	(e) MT Driver Standby and Changing Room	14		
	(f) Sanitary Annexe	05		
7.	Special Storage Accommodation Requirement			
	(a) Technology Article Storage	100		
	(b) Special Communication Equipment Stores	90		
	(c) Missile Replenishment Vehicle Spare Room	100		
	(d) Mobile Autonomous Launcher Spare Store Room	100		
	(e) Integral Test Equipment Store for Mobile Command Post	150		
	(f) Special Deployment Store	90		
	(g) Special Camouflage Equipment Stores	100		

TABLE 12.VIII**ROCKET REGIMENT (PINAKA)**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Storage accommodation			
	(a) General Stores	106		
	(b) Sig Equipment Store – 04	112 (28 Sqm each)		
	(c) Svy/ TA Equipment Store – 04	112 (28 Sqm each)		
	(d) Training Stores	74		
	(e) Intelligence and Map Room	43		
	(f) Instructor Shed for Training	180		
	(g) Instructor Shed for Technical Trade Training – 04	160 (40 Sqm each)		
	(h) Instructor Room for Tele Exchange	20		
	(j) Clothing Stores	40		
	(k) 04 Battery/ Company Store – 03	84 (28 Sqm each)		
	(l) Equipment Store	31		
	(m) Mob Equipment Store	50		
	(n) Oil Store	12		
	(o) Ration Stores	18		
	(p) Sport Store	12		
	(q) Lubricant Stores	28		
2.	Covered area for vehicles (B & C)			
	(a) Jeep/ MG	462		
	(b) Tank 2.5 Ton	576		
	(c) Lorry 5/7.5 Ton ALS	504		
	(d) ALS W/Bowser 1000 litres	144		
	(e) ALS Kitchen Lorry	144		
	(f) Army Bus Long Chassis	82		
	(g) HMV 6x6 – 03	108 (36 Sqm each)		
	(h) LRV ALS – 01	36		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
	(j) HRV AV 15 – 01	36		
	(k) Motor cycle	05 each		
	(l) JCB-03	165 (55 Sqm each)		
	(m) Tatra 8x8 – 58	1703 (29.36 Sqm each)		
	(n) Miscellaneous	330		
3.	Apron for vehicles (B & C)	7955		Same as per Area for Garage.
4.	Repair bay With apron	942		One No for 10 garages.
5.	Inspection pit	03		One No for 50 vehicles.
6.	Storage Accommodation (MT)	297		
	(a) Lubrication Oil and Grease	78		
	(b) Petrol Store	38		
	(c) Technical Office	30		
	(d) MT Store	214		
	(e) MT Driver Standby & Changing Room	28		
	(f) Sanitary Annexe	As authorised		
7.	Telecom, Instruments, Missile and Electro medical			
	(a) Pocket Shop	28		
	(b) Small Arms	23		
	(c) Refrigeration	28		
8.	Ancillary Shop			
	(a) Welder Shop	23		
	(b) Carpenter Shop	56		
	(c) Painter Shop	46		
	(d) Electrician Shop	23		
	(e) Battery Charging Shop @ 33% of 200 (66 Nos)	78	Acid resistant floor tiles	

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
9.	Special Storage Accommodation Requirement			
	(a) Technology Article Storage	100		
	(b) Special Communication Equipment Stores	90		
	(c) Pocket Replenishment Vehicle Spare Room	100		
	(d) Mobile Autonomous Launcher Spare Store Room	100		
	(e) Integral Test Equipment Store for Mobile Command Post	150		
	(f) Special Deployment Store	90		
	(g) Special Camouflage Equipment Stores	100		

TABLE 12.IX**ROCKET REGIMENT (SMERCH)**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Storage accommodation			
	(a) General Stores	106		
	(b) Signal Equipment Store – 04	112 (28 Sqm each)		
	(c) Svy/ TA Equipment Store – 04	112 (28 Sqm each)		
	(d) Training stores	74		
	(e) Intelligence and Map Room	43		
	(f) Instructor Shed for Training	180		
	(g) Instructor Shed for Tech Trade Training – 04	160 (40 Sqm each)		
	(h) Instructor Room for Tele Exchange	20		
	(j) Clothing Stores	40		
	(k) 04 Battery/ Company Store – 03	84 (28 Sqm each)		
	(l) Equipment Store	31		
	(m) Mobile Equipment Store	50		
	(n) Oil Store	12		
	(o) Ration Stores	18		
	(p) Sport Store	12		
	(q) Lubricant Stores	28		
2.	Covered area for vehicles (B & C)			
	(a) Jeep/ MG	443		
	(b) Tank 2.5 Ton	432		
	(c) Lorry 5/7.5 Ton ALS	504		
	(d) ALS W/Bowser 5000 litres	144		
	(e) ALS Kitchen lorry	144		
	(f) HMTV (10x10) Lr & LTV – 03	864 (288 Sqm each)		
	(g) LRV ALS	36		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
	(h) Ammunition Replacement Vehicles	1188		
	(j) Motor Cycle	05		
	(k) JCB	165 (55 Sqm each)		
	(l) Tatra 6x6	308 (for total strength of vehicles)		
	(m) Miscellaneous	330		
3.	Apron for vehicles (B & C)	8504		Same as per area for garage.
4.	Repair bay With apron	942		One No for 10 garages.
5.	Inspection pit	03		One No @ 50 vehicles.
6.	Storage Accommodation (MT)			
	(a) Lubrication Oil & Grease	78		
	(b) Petrol Store	38		
	(b) Technical Office	30		
	(c) MT Store	214		
	(d) MT Driver Standby & Changing Room	28		
	(e) Sanitary Annexe	As per authorisation		
7.	Telecom, Instruments, Missile and Electro medical			
	(a) Pocket Shop	28		
	(b) Small Arms	23		
	(c) Refrigeration	28		
8.	Special Storage Accommodation Requirement			
	(a) Technology Article Storage	100		
	(b) Special Communication Equipment Store	90		
	(c) Pocket Replenishment Vehicle Spare Room	100		
	(d) Mobile Autonomous Launcher Spare Store Room	100		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
	(e) Integral Test Equipment Store for Mobile Command Post	150		
	(f) Special Deployment Store	90		
	(g) Special Camouflage Equipment Stores	100		

CHAPTER 13

ENGINEER UNITS

13.1 Scales of specialised accommodation for Engineer Units, units of Military Engineering Service and for bulk storage of Engineers stores are given in Tables 13.I to 13.III. Specialised accommodation for other specialist units, accommodation for sector stores and equipment as well as additional accommodation for Engineer Store Depots and Parks, other than the items indicated in the Table, will be provided on as required basis depending on merits.

13.2 Training rooms for simulators and working training models including store rooms, where applicable, will be provided as per technical requirements of the equipment.

13.3 Storage accommodation in Military Engineering Service and Engineers Works units for cement, timber, retrieved stores, paints and construction stores, etc shall be provided on as required basis. Accommodation for laboratory shall be provided on as required basis wherever the same in sanctioned.

13.4 For accommodation required in respect of MES establishment sanctioned for construction projects, the scales of specialised accommodation shall be followed as a guide for the items as applicable. Essential single living accommodation may also be provided for MES construction staff and DAD staff employed on audit and accounting of construction work. The single accommodation shall be provided as per scales applicable for equivalent combatant personnel at stations where neither the existing Government accommodation can be utilised nor any civil accommodation is available for hire at the station or at any station within reasonable distance. The necessity shall be accepted in each case by the Competent Financial Authority. All such accommodation shall be constructed to temporary specification.

13.5 Accommodation for MES sub-divisions (including BSO offices) and its staff including offices, stores, yards, parking, complaint cell, DEL detailing room/ rest room, toilets etc will be provided on analogous scales of administrative, technical & storages accommodation.

13.6 MES staff welfare room may be provided as per requirement not exceeding 30 Sqm.

13.7 Office accommodation for representative of CDA including his staff attached with MES establishment will be provided on analogous scales of administrative accommodation.

TABLE 13.I**ENGINEER UNITS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale		Special Facilities	Planning Notes
		Regiments	Indep Coys		
1.	General Store	56	28	Racking shelving.	
2.	Field Engineering Stores	RHQ – 80, Aslt – 40 each Bridging Coy or Sqn	50	(a) Racking and shelving. (b) Inbuilt cupboard in RHQ store with padded insulation and heating arrangement.	(a) Store of RHQ may be sub-divided as required. (b) For specialist bridging regiments and companies the floor area shall be proportionately reduced and provided as assessed for actual quantities of stores authorised.
3.	Signal Equipment Store	37	20	(a) Racking and shelving. (b) Non dust emitting floor. (c) Inbuilt cupboard.	Not to be provided for Engineer Plant Coy.
4.	Workshop Expendable Stores	50	20	Racking and shelving.	Store room for gas to be provided in a separate building.
5.	Paint Store	12	07		
6.	FP and TG Stores	50	20		
7.	Bridging Stores	---	As per scale		
8.	Defence Stores	---	As per scale		
9.	Battery Charging Shop	---	As per scale		
10.	Dark Room	11	As per scale		
11.	Instruction Room for Tactical Training	110	---	(a) Sand model pit with wooden covering.	

Ser No	Description of Items	Floor Area (Sqm)/ Scale		Special Facilities	Planning Notes
		Regiments	Indep Coys		
				(b) Glass black boards – 02 Nos. (c) Stepped up platform for seating.	
12.	Instruction Room for Mechanical Training	50	---	(a) Glass black board. (b) Raised platform.	Authorised only for Assault Engineer Regiment and the Engineer Regiment integral to Armoured Division.
13.	Radio Instruction Room	30	---	(a) Glass black board. (b) Raised platform.	---
14.	Unit Workshop for Draftsmen and Surveyors.	60	20	---	---
15.	Unit Technical Workshop for– Engine Fitters Engine Artificers Machinists Fitters Electricians Blacksmiths Metal smiths Welders Carpenters & Joiners Sawyer Painters & Decorators	5.6 per tradesman for tradesmen of workshop platoon and for 50% of remainder tradesmen on authorised establishment, subject to a minimum of 100 Sqm and maximum of 400 Sqm.		(a) Fittings and fixtures as required. (b) 03 phase A/C power and electric supply with MCB connected socket outlet with wiring.	May be provided as a single workshop with suitable partitions to divide into separate bays for different tradesmen shops.
16.	Instruction Room for Telephone Exchange	20	---	Glass black board.	
17.	Explosive Stores	50	20		(a) May be sub-divided into rooms or small compartments as per regulations for storage of explosives.

Ser No	Description of Items	Floor Area (Sqm)/ Scale		Special Facilities	Planning Notes
		Regiments	Indep Coys		
					(b) To be provided only for such units which are authorised explosives.

Note. Accommodation for Mobile Plant Equipment as well as storage accommodation for connected MT stores shall be provided as per scales for 'C' vehicles. Accommodation for vehicles mounted with bridging equipment shall be provided as per scales for 'B' vehicles.

TABLE 13.II**ACCOMMODATION FOR BULK STORAGE OF ENGINEER STORES**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Bridging Stores			
	(a) Krupman Bridging Equipment	800 per set	(a) Separate room of 180 Sqm for floats with suitable temperature control as per technical requirements of items of equipment. (b) Covered shed with proper racking of 420 Sqm size per set. (c) Open PCC hard standing of 200 Sqm size per set.	(a) To be provided only for such units holding relevant bridging equipment as per the authorised quantities. (b) May be suitably sub-divided for different categories of items as required. (c) Floor area authorised for Folding Boats and Pontoons caters for 03 high stacks. In units or depots or parks, where cranes are not available, 02 high stacks may be made with manual labour and floor area for Pontoons only provided at 8.62 Sqm per pontoon.
	(b) PMP and PMS Bridging Equipment	200 per set	(a) Covered shed with proper racking of 120 Sqm size per set. (b) Open PCC hard standing of 80 Sqm size per set.	
	(c) Other Bridging Equipment viz Bailey or EW Bailey, etc		Hard standing with covered open sheds be provided as per actual requirement.	
	(i) Covered Storage	2.8 per tonne		
	(ii) Open Storage	1.9 per tonne		
	(d) Waterman-ship stores			
	(i) Assault Boats including Outboard Motors	26 per set of 08 Boats or part	For Ser No (d) (ii) and (iii) with suitable temperature control as per technical requirements of items of equipment.	
	(ii) BAPLW	02 Sqm per BAPLW		
	(iii) 03 Men Recce Boat	1.5 Sqm per boat		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
	(iv) Folding Boats	8.1 Sqm per Boat		
	(v) Pontoons	8.4 Sqm per Pontoon		
	(e) ATW Cl-12 per KM			
	(i) Covered Storage	25 Sqm per KM		
	(ii) PCC plinth with 01m width and 0.3m height	40m per KM		
	(f) ATW Cl-30	01 Sqm PCC hard standing per 0.6 Ton		
2.	Defence Stores			
	(a) Covered Storage	2.8 per tonne	(a) Covered or open shed may be provided as justified.	
	(b) Open Storage	1.9 per tonne	(b) Also authorised for Engineer Regiments authorised to hold bulk defence stores such as defence bricks, training bricks etc.	
3.	Engineer Stores			
	(a) Covered Storage	2.8 per tonne	(a) Covered or open shed may be provided as justified.	
	(b) Open Storage	1.9 per tone	(b) Scales for storage accommodation on the basis of stacking upto 1.82m height and include allowance for dispersal against fire risk only. (c) For dispersal against air attack, where operationally necessary, the scales for open storage may vary from 07 Sqm to 20 Sqm per tonne according to the circumstances.	

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
4.	Spare Parts for Plant and Machinery.	3.65 per tonne	(a) Covered or open shed may be provided as justified. (b) PCC hard standing may be provided for heavy stores such as justified.	
5.	Salvage Stores (Only for ESDs and Engineer Parks)	500 Sqm PCC hard standing	(a) Covered and open shed may be provided as justified. (b) PCC hard standing may be provided for heavy stores such as justified.	
6.	PET/ WET Stores	2800 Sqm	(a) Covered shed – 1200 Sqm. (b) PCC hard standing – 1600 Sqm.	

Note.

1. Above-mentioned scales are applicable to all Engineer units including Combat Engineer Training Camps holding bulk engineer stores.
2. For Engineer Stores Depots, Engineer Parks and Combat Engineer Training Camps, specialised accommodation such as receipt and issue sheds, workshops, conference room, orderly officer's room, time keeper's office, battery charging shop, armoury store, control store, ticket boards shelter for industrial personnel, gate keepers' office, rigorous search rooms, electric siren, workers' room, covered washing centres, vehicle inspection pit, bicycle cum scooter sheds and accommodation/ facilities for security arrangements, as assessed, may be provided based on analogous scales for these items as laid down for Ordnance Depots.
3. High mast lights at receipt/ issue and ARF area at ESDs may be provided as justified.
4. Weighing bridge upto 40 tonne may be provided at ESD.
5. Rackings/ shelves and documents storage room of size 4m x 4m to be planned inside the shed as per requirement.
6. Hard standing for mounting of machineries, Gantry crane and partitions for work area, storage of raw materials and storage of completed packing boxes may be provided as per technical requirements.

TABLE 13.III
MILITARY ENGINEERING SERVICE AND ENGINEER WORKS UNITS

Ser No	Description of Items	Floor Area (Sqm)/ Scale		Special Facilities	Planning Notes
		CE	CWE/ GE		
1.	Conference Room	44	CWE – 32 GE – 28	(a) Air conditioning. (b) Vitrified tile flooring.	Wherever the administrative offices of CWE and GE are located in the same complex, only one conference room of 32 Sqm shall be provided.
2.	Technical Library	28	CWE – 21 GE – 15	(a) Shelving with glazed shutters. (b) Vitrified tile.	
3.	Room for Old Records and Drawings	93	48	Racking and Shelving.	
4.	Ferro Printing Room	36	24	(a) Exhaust fan. (b) Power points. (c) Sink.	
5.	Model cum Sample Room	90	45	(a) Shelves.	
6.	Tradesmen Shop for trades such as Carpenters, Painters, Polishers and Blacksmiths, Electricians, Instrument Repairers, etc.	5.6 per trades man subject to a minimum of 12 Sqm.			Separate Shops to be provided in sub-divisions for each category in respect of the authorised No of tradesmen.
7.	Complaint Cell	---	20		Authorised for GE only.
8.	Canteen Tiffin Room	0.09 Sqm per person		(a) Sink and shelving in kitchen and pantry. (b) Wash hand basin – 01 No.	(a) Includes area for kitchen and pantry. (b) Attached toilet without bath.
9.	Gate Office cum Night Duty Room	10	10		Authorised only for sub-divisions holding stores.
10.	Ladies' Rest Room	27	17		Attached toilet without bath.

Note. Accommodation for visitor's room, stationery room and parking space for cycles cum scooters shall be provided as per scales for Office and Administrative Accommodation. Scales for these items of accommodation as authorised for formation headquarters shall be applicable to Zonal Chief Engineers and of large units for the CWEs and Ges.

CHAPTER 14

SIGNAL UNITS

14.1 The Scales of specialised accommodation required for Corps of Signal units and Signal Centres upto Division and Area level have been covered in Tables 14.I and 14.II. The requirement of accommodation for the Signal Centres at Corps and above including other signal installations will be treated as special works.

14.2 The scales for signal centres at division or equivalent level cater for the needs of a standard division. For any additional brigade or equivalent of four major units being located in the same station, the area for the specific rooms as indicated in the Table will be increased by 25%.

14.3 Non-dust-emitting floors to meet the technical requirements of the installed equipment should be provided in the signal centres and in stores of telecommunication equipment in units as required. Covered ducts may be provided in the floors for laying of cables.

14.4 External electric supply connections should be laid underground to the signal installations. Stabilised power supply to suit the technical specifications relating to voltage, current frequency, etc of the equipment will be provided. Concealed electric wiring would be provided within the signal centres. Rooms as indicated in the Table will be air-conditioned. Suitable lightning protection should also be provided.

14.5 Garages for vehicles may be provided in the complex of signal installations, from within the authorised scales. Bicycle and scooter sheds may be provided in the signal installations as required.

14.6 Wherever operationally considered essential, subject to the approval of the GOC-in-C Command, suitable protection works against air attacks may be undertaken for the signal centres. Security bars or grills to be provided on all windows and ventilators with wire mesh as required in the signal centres. Security fencing and security lights should also be provided all round the signal installations.

TABLE 14.I
SIGNAL UNITS

Ser No	Description Of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	General Store	56 per regiment	Shelving.	For Independent company not forming part of a regiment – 28 Sqm.
2.	Technical Equipment Stores			
	(a) Signal Companies	74	Shelving.	(a) Not to be provided for companies having section technical stores. (b) For HQ signal Training Centre and Companies of Technical Training Regiments – 20 Sqm each. (c) Applicable to multi-core or coaxial cables only.
	(b) Technical Equipment Sections	37 each		
	(c) Cable Stores	1.5 Sqm per KM cable length		
3.	Strong Room for Cipher Documents.	15	(a) Double doors with independent locking facilities. (b) Outer door to be of iron bars. (c) Built-in almirahs large – 03 Nos.	To be provided only for regiments not having integral signal centres.
4.	Unit Telecommunication Equipment Workshop			
	(a) Regiments	5.6 Sqm per artificer	(a) Built-in cupboards.	(a) To be also authorised for Signal Training Centres. (b) For Signal Regiments maximum area of 60 Sqm only. (c) For independent and detached signal companies only.
	(b) Companies	12	(b) Rubber matting for work benches.	
5.	Battery Charging Shop	As per scale		

Ser No	Description Of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
6.	Technical Training Facilities			4.5 Sqm per trainee for 30% of total authorised trainees strength of Signal Training. Centres to be provided for Technical Training Regiments, which will also cater for accommodation given at Serial 6 (c).
	(a) Telephone Exchange Room	20 per regiment		
	(b) Practical Training Laboratories	As per requirement		
	(i) Regiments		(a) Raised Platform. (b) Glass blackboards.	
	2 Room	56 Sqm each		
	1 Room	28 Sqm		
	(ii) Independent and Detached Signal Companies	37		
	(c) Trades Training Shops		Built-in glazed cupboards.	
	(i) Regiments	37		
	(ii) Independent and Detached Companies	12		
	(d) Training Store	20 Sqm per regiment	Shelving.	

TABLE 14.II**SIGNAL CENTRES**

Ser No	Description Of Items	Floor Area (Sqm)/ Scale		Special Facilities	Planning Notes
		Brigade/ Equivalent level	Division/ Equivalent level		
1.	OIC Signal Centre Room	17	18		
2.	OIC Clerk and Stationery Room	13	18	Racking.	
3.	DSO Room	09	11	Glazed partition with adjacent rooms.	
4.	Signal Centre	18	34	Racking and Shelving.	Increment allowed as given in chapter notes.
5.	AWAN Room	28	28	Counter(s) with communication hatches or windows.	- do -
6.	Server Room	09	09		(a) Suitable flooring, ceiling, etc to be provided for reduction of noise. (b) Increment allowed as given in chapter notes.
7.	Line Telegraph and Radio Telegraph Room	14	28		Increment allowed as given in chapter notes. To be provided only at Stations where line telegraph and radio telegraph is functioning.
8.	Radio Receiver Room	---	24		- do -
9.	OC Cipher Room	13	13	(a) Built-in almirah large – 01 No. (b) Double door for entrance and exit, the outer door being of iron bars.	Entrance to cipher complex only through this room, opening into the counter room.

Ser No	Description Of Items	Floor Area (Sqm)/ Scale		Special Facilities	Planning Notes
		Brigade/ Equivalent level	Division/ Equivalent level		
10.	Strong Room	09	13	(a) Double door, outer door being of iron bars. (b) Built-in almirah large with steel door locking arrangement – 02 Nos.	
11.	Key Management room	---	4.5	(a) Communication hatch or window with counter room. (b) Built-in almirah large with steel door locking arrangement – 01 No.	Increment allowed as given in Chapter notes.
12.	Crypto Centre	7.5	7.5		- do -
13.	Exchange Room	17	23	(a) Ceiling height 4.3m. (b) Air conditioned.	
14.	Fault Control	7.5	09		
15.	Trunk or automatic Manual Room (a) Upto 03 Boards (b) 3 to 05 Boards (c) 5 to 10 boards	27 35 50	27 35 50	Air-conditioned.	Suitable flooring ceiling, etc. to be provided for reduction of noise.
16.	Main Distribution Frame Room	13	24	(a) Plinths as required. (b) Ceiling height 4.3m. (c) Air-conditioned.	
17.	Battery Room	14	28	(a) Raised platforms. (b) Ventilators. (c) Exhaust fan. (d) Water tap with wash basin and tray. (e) Acid resistant floor, platform and walls upto 02m height.	
18.	Power Room	09	09		

Ser No	Description Of Items	Floor Area (Sqm)/ Scale		Special Facilities	Planning Notes
		Brigade/ Equivalent level	Division/ Equivalent level		
19.	Workshop Room	17	25		Increment allowed as given in chapter notes.
20.	Store Room	---	21		- do -
21.	P & T Office and Store Room	---	18		- do -
22.	Glass Room	---	27	Wall glass board and a raised platform.	
23.	Officers' Rest Room	---	09		
24.	Rest Room	07	15		
25.	Toilets	03 Nos	04 Nos		
26.	Incinerator	01 No	01 No		
27.	Hard standing for parking DR Vehicles and motor cycles	30	54		
28.	Generator Room	---	24	---	Drive in cap traverse/ Blast pen for generator shed.

CHAPTER 15

INFANTRY UNITS

15.1 Scales of specialised accommodation in respect of Infantry Units are given in Table 15.I. Additional accommodation requirements in respect of other units e.g. Para, Para Commando, Motorised, Scout Battalions as well as Guided Missile Battalions will be treated as special.

15.2 Instructional accommodation for practical training of specialist sub units of infantry battalions will be provided on centralised basis as per scales given in Table 15.II. Instruction rooms for infantry battalions shall normally be provided on brigade basis. Where the infantry battalions of a brigade are located in different stations, the accommodation may be provided on station basis, depending on merits, to serve maximum possible infantry battalions in the station. Additional accommodation as necessary may be provided for specialised training models or aids when authorised, as per technical requirements of the equipment.

15.3 Training rooms for simulators and working training models, including store rooms where applicable, will be provided with suitable air conditioning as per technical requirements of the equipment in the Guided Missile Battalions and Regimental Training Centres, wherever such equipment are authorised.

15.4 Storage accommodation for missiles should be provided as required with suitable air conditioning as per the technical requirements of missiles. The accommodation should be provided appropriately on a combined basis.

15.5 Lightning protection will be provided for explosive store and magazine. Wherever operationally considered necessary, explosive store and magazine will be provided with suitable protection against air attack.

TABLE 15.I
INFANTRY BATTALIONS

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	General Store	56	Racking and shelving	
2.	Signal Equipment Store	28	(a) Racking and shelving. (b) Non dust emitting floor. (c) Inbuilt cupboards.	
3.	Training Store	45	Racking and shelving.	To be suitably sub-divided as required.
4.	Drums and Music Instruments Store	19	(a) Racking and shelving. (b) Inbuilt almirah.	
5.	Intelligence and Map Room	28	(a) Racking and shelving. (b) Inbuilt almirah.	
6.	Instruction Room for Tactical Training	110	(a) Sand model pit with wooden covering. (b) Glass black boards – 02 Nos. (c) Stepped up platform for seating.	
7.	Instruction Room for Telephone Exchange	20	Glass black board.	
8.	Training Shed	140	---	(a) Open shed with adequate side cover from weather. (b) To be provided only in hot and dry regions and areas of heavy rainfall, subject to prior approval of GOC-in-C.
9.	Range Small Arms – 27m	01 No	Channels with winches and pulleys for moving targets.	
10.	Explosive Store	76	Water tank of suitable size alongwith WP ammunition store.	(a) Caters for all explosive and ammunition other than small arms ammunition. (b) May be sub-divided into rooms or small compartments as per regulations for storage of explosives.

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
				(c) Verandah or platform to be provided. (d) Earth traverse or other safety arrangements as per technical regulations.

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TABLE 15.II**INSTRUCTIONAL ACCOMMODATION FOR INFANTRY UNITS**

Ser No	Description Of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Instruction Room for Mortars	60	(a) Glass black board. (b) Raised platform. (c) Projection screen. (d) Tiered platform for seating. (e) Model platform or pit. (f) Dark from arrangements.	Accommodation listed at Serials 1 to 8 is authorised for infantry mountain and parachute brigades, or stations as per the provisions given in chapter notes.
2.	Instruction Room for RCL Guns and Rocket Launchers	72	- do -	
3.	Instruction Room for Medium Machine Guns	60	- do -	
4.	Instruction Room for Infantry Pioneers	37	(a) Glass black board. (b) Raised platform. (c) Projection screen.	
5.	Radio Instruction Room	37	- do -	
6.	Training Store	30	Racking and shelving.	
7.	Sanitary Annexe	As required		
8.	27m Range	01 No	(a) Channel with winches and pulley for moving targets. (b) Covered shed 55 Sqm.	To be found from within the entitlement of station strength and located adjacent to instruction room at Serial 2.

CHAPTER 16

ARMY SERVICE CORPS UNITS

16.1 Specialised accommodation for the Army Service Corps units will be provided as given in this chapter. The scales for Depots and other ASC units such as Butcheries, Bakeries and Transportation Units are given in Tables 16.I to 16.VII. Offices and other than administrative accommodation will be provided as per authorised scales wherever the same are indicated in the Table of Scales. Telephone exchange room should be provided wherever internal telephone exchange is authorised.

16.2 The POL stocks may be held in bulk at discretion of the Director Supplies and Transports. The lay-out of bulk POL storage accommodation will be decided at the board stage taking into account the various technical considerations such as the lie of the ground, type of storage tanks (underground or semi buried or above ground), the number of batteries and the safety distance etc. A part of packed fuel stocks may be kept in open plinths at stations where extreme climatic conditions do not exist at the discretion of MGASC or BASC.

16.3 All storage sheds in supply depots should be provided with security grills and roller shutter type of doors. Separate rooms should preferably be provided for oil hydrogenated. The floors should be designed to withstand the loads imposed during storage. The floors in filling and decanting sheds should be in level with the loading and unloading platforms. Sheds with bagged supplies should be rat and bird proof.

16.4 Stores and POL filling sheds wherever possible should be served by railway sidings. Railway sidings, platforms and ramps will be provided on as required basis for direct loading and unloading of wagons, vehicles and trailers. Provision should be made for manual handling at the platforms.

16.5 Suitable security walls, fencing with perimeter lightings should be provided all round the depots and within other units on as required basis. Watch towers fitted with search lights, sentry posts and chowkidars huts will also be provided on as required basis. Maximum of one guard house should be provided in the POL depots.

16.6 For POL depots, the electric lighting including street lights should be flame proof type and should be provided on as required basis. POL storage sheds should be fitted with exhaust fans and lightning protection. Standby generator will be provided for fuel engine operated pumps, as required, which should also cater for the essential loads of security lighting.

TABLE 16.I**AIR DESPATCH UNITS**

Ser No	Description Of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Parachute Packing Room for Number of Parachutes as indicated below: -		(a) Built in long tables. (b) Built in side Size 11.9m x 1.2m tables (One number each).	
	(a) 250	247	06 Nos 18.0m x 0.9m	
	(b) 300	282	07 Nos 20.6m x 0.9m	
	(c) 350	318	08 Nos 23.2m x 0.9m	
	(d) 400	354	09 Nos 25.8m x 0.9m	
	(e) 450	389	10 Nos 28.3m x 0.9m	
	(f) 500	460	12 Nos 33.5m x 0.9m	
			(c) Shelf of size 12.8m x 1.1m in each room. (d) 10 Nos anchor hooks fitted on two side walls in each room.	
2.	Parachute Room for Drying and Cleaning	116	Ceiling height 12.2m	For hanging 25 parachutes at a time.
3.	Packing Store Room			Floor area may be sub-divided into various store rooms, each room to be 18 to 27m apart for fire safety.
	(a) Upto 50 Parachute	46		
	(b) Every 03 additional Parachute	02		
4.	Packed Store Room			
	(a) Upto 4000 Packs	56		
	(b) Every 100 additional Packs or fraction thereof	0.5		

Ser No	Description Of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
5.	Storage Accommodation for Supply Dropping Equipment			
	(a) Upto 10,000 Sets	116		
	(b) Every 100 additional sets	01		
6.	Sorting Out Room for Fresh Vegetables and Abortive Stores	96 Sqm per air dispatch company		
7.	Covered Accommodation for Packing/ Storage of Supply Dropping Equipment and Food Stuff.	315		Accommodation will be provided for each air dispatch coy, divided into three blocks each of 105 Sqm, to be built adjacent to basic, fresh and necessary groups.
8.	Toilet Block	As per authorisation		

TABLE 16.II**ANIMAL TRANSPORT UNITS**

Ser No	Description Of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Mangers	<u>Width</u> 0.6m (Outer) <u>Scale</u> For Horses – 1.4m per horse in two separate compartments. For Mules – Running manger on both sides of covered accommodation with a passage in between.	(a) Mangers be made of RCC finish. (b) Separate mangers one each for watering and segregated animals.	
2.	Watering Trough	One trough of 15m for every 100 animals.	Continuous running water supply.	
3.	Boiling House			
	(a) Boiling Room	07	Boiler of capacity 400 litres per Coy and 100 litres for Bn HQ be provided.	Wherever boiler is authorised to units.
	(b) Fuel Store	09		
4.	Saddler Shop	5.6 Sqm per saddler		
5.	Carpenter Shop	15 Sqm per AT Company		
6.	Sand Pit	40 Sqm per 100 animals	(a) 0.44 deep sand layer. (b) Fibre & wooden side railings.	Also authorised for independent units.
7.	Dana Preparation Room	30 Sqm per 100 animals	(a) 08 ft x 06 ft Dana mixing trough made of Kota Stone. (b) Wire mesh cover for the dana mixing trough.	

Ser No	Description Of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
			(c) Continuous water facility. (d) Proper drainage to be ensured.	
8.	Clipping Shed	15 Sqm per 100 animals	Wire mesh enclosure @ 02 per troop.	Carry out clipping of animals.
9.	Harness Store Room	40 Sqm per 100 saddler		For storage and maintenance of 150 saddler.
10.	Farrier Shop	15 Sqm per AT Coy		
11.	Segregation Bay	30 Sqm per 100 animals		Required for segregated animal under observation.
12.	Ramp for loading & unloading of animals	07 Sqm per 100 animals	(a) Height – 1m. (b) Width – 2m. (c) Side railing.	
13.	Provision of AT cart parking Shed	12 Sqm per 100 animals	(a) Overhead protection. (b) RCC Flooring.	
14.	Toilet Block	As per authorisation		

Note. Covered accommodation for animals, covered accommodation for sick animals, pharmacy, grain store, fodder preparation room, hay and bhoosa store, harness block (harness, saddle room and store room), forge and shoeing shop, animal loading ramps and urinals will be provided as per authorised scales.

TABLE 16.III
BAKERIES

Ser No	Description of Items	Floor Area (Sqm)/ Scale Bakery Feeding Strength of					Special Facilities	Planning Notes
		10000	5000	2500/3000	1000	500		
1.	Flour Store	75	59	50	25	25	To be fly proofed.	
2.	Kneading Room	125	75	50	25	25		
3.	Scaling and Moulding Room	180	75	50	25	25		
4.	Proving Room	50	25	25	25	25		
5.	Oven Shed	216	125	63	50	25		
6.	Bread Store	134	67	50	33	33		
7.	Office	14	14	14	14	14		
8.	Yeast Room	25	25	16	Combined with flour store	Combined with flour store		
9.	Store Room	50	25	Combined with flour store		---		
10.	Baker's Changing and Wash up Room	50	25	20	12	10	Fitted with closets for each staff for keeping clothes, water taps and wash basins trough type at a scale of 10%.	
11.	Toilets	4%						
12.	Ovens	09 Nos	04 Nos	02 Nos	01 No	01 No	Capacity of each oven will be 200 Kg except for feeding strength of 500 men which will be of 100 Kg.	
13.	Covered Passage	Out of area additions.						

TABLE 16.IV**BUTCHERIES**

Ser No	Description of Items	Floor Area (Sqm)/ Scale Area for a Daily Output of			Special Facilities	Planning Notes
		225-675 Kg (25-75) animals	676-1125 Kg (76-125) animals	1126-1575 Kg (126-175) animals		
1.	Covered Holding Shed	0.465 Sqm per animal			(a) 1.80m high wall all-around. (b) 03m long water troughs with water tap to be provided as follows:- (i) 25-75 animals – 01 No. (ii) 76-125 animals – 02 Nos. (iii) 126-175 animals – 03 Nos. (c) No of Steel hangers based on the quantum & load. (d) Loading & unloading ramp for fowls.	(a) Ceiling height 2.4m. (b) Well ventilated. (c) Floor area will be calculated at scale for the number of animals required which will be based on the number of days for which the reserve has to be maintained permanently.
2.	Shed for Holding Animals Tendered for Passing by the Contractor	0.465 Sqm per animal			(a) Desert cooler. (b) Water channels for feeding/ watering of animals.	(a) 25% of the area will be covered. Covered accommodation may be increased to 50% of total area if climatic conditions so warrant. (b) Floor area will be calculated for 03 days requirement (c) Well ventilated. (d) Ceiling height 2.4m.
3.	Shed for Holding Broilers	02 Sq ft per bird			(a) Ventilation. (b) Adequate water distribution.	

Ser No	Description of Items	Floor Area (Sqm)/ Scale Area for a Daily Output of			Special Facilities	Planning Notes								
		225-675 Kg (25-75) animals	676-1125 Kg (76-125) animals	1126-1575 Kg (126-175) animals										
					(c) Humidity Control. (d) Heating during winters. (e) Trough feeders. (f) Rat proof.									
4.	Segregation Pen	0.465 Sqm per animal			(a) Same as Serial 1(a). (b) Same as Serial 1(b). (c) 1.8m high wall with door in the middle of segregation pen for separating male/ female animals.	(a) Covered accommodation. (b) Floor area will be calculated at the scale for 02 days requirements. (c) Well ventilated. (d) Ceiling height 2.4m.								
5.	Slaughter Room	28	51	93	(a) To be fly proof. (b) Impervious or non-absorbent floor and walls upto 1.4m. (c) One blood pit each will be provided as follows: - <table border="1"><thead><tr><th>Capacity</th><th>Size</th></tr></thead><tbody><tr><td>25-75 animals</td><td>0.6m x 0.6m x 1.0m</td></tr><tr><td>76-125 animals</td><td>0.6m x 1.2m x 1.0m</td></tr><tr><td>126-175 animals</td><td>0.6m x 1.8m x 1.0m</td></tr></tbody></table> (d) Overhead runway and flying rail with two water taps having continuous running water.	Capacity	Size	25-75 animals	0.6m x 0.6m x 1.0m	76-125 animals	0.6m x 1.2m x 1.0m	126-175 animals	0.6m x 1.8m x 1.0m	(a) Ceiling height 4.3m. (b) To be divided into separate rooms for jhatka and halal meat. (c) Separate slaughter room for poultry may be provided from within the authorised floor area.
Capacity	Size													
25-75 animals	0.6m x 0.6m x 1.0m													
76-125 animals	0.6m x 1.2m x 1.0m													
126-175 animals	0.6m x 1.8m x 1.0m													

Ser No	Description of Items	Floor Area (Sqm)/ Scale Area for a Daily Output of			Special Facilities	Planning Notes
		225-675 Kg (25-75) animals	676-1125 Kg (76-125) animals	1126-1575 Kg (126-175) animals		
6.	Hanging Room	56	93	116	(a) To be fly proof (b) Impervious or non-absorbent floor and walls upto 1.4m. (c) Ceiling fans 1400 mm sweep – 02 Nos. (d) Inspection table glazed top 250-750 Kg – 01 No. (1.5m x 0.6m) 751-1250 Kg – 01 No. (2.3m x 0.76m) 1251-1750 Kg – 01 No. (3.0m x 0.76m) (e) Hanging rails with ‘S’ hooks 250-750 Kg – 75 Nos hooks. 751-1250 Kg – 125 Nos hooks. 1251-1750 Kg – 150 Nos hooks. (f) Offal rails with ‘S’ hooks. 250-750 Kg 60 Nos hooks. 751-1250 Kg 100 Nos hooks. 1251-1750 Kg 150 Nos hooks. (g) Weight bridge – 01 No. (h) Water taps as required. (j) Aluminium/UPVC extruded	(a) Ceiling height 4.3m. (b) To be divided into separate rooms for Jhatka and halal meat.

Ser No	Description of Items	Floor Area (Sqm)/ Scale Area for a Daily Output of			Special Facilities	Planning Notes
		225-675 Kg (25-75) animals	676-1125 Kg (76-125) animals	1126-1575 Kg (126-175) animals		
					doors, windows and ventilators. (k) Lighting as per standards.	
7.	Condemned Meat and Offal Rooms	09	09	09	(a) Water tap. (b) To be fly proof. (c) Impervious or non-absorbent floor & walls upto 1.4m.	Ceiling height 3.7m.
8.	Staff Rest Room	09	09	09		
9.	Covered Passage	Out of area additions			To be fly proof.	Ceiling height 3.7m.
10.	Changing and Wash-up Room	10	12	13.5	Fitted with closets to keep clothes and washbasins trough type.	
11.	Toilet	01 No	01 No	01 No	---	Urinals will be provided in butcheries, 01 No for butchery with daily output of 25 – 75 animals and, 02 Nos for butcheries with higher daily output.
12.	Laboratory cum office for Veterinary Officer	13.7	13.7	13.7	With verandah and attached toilet.	
13.	Incinerator	01 No	01 No	01 No	Electric Incinerator.	

Ser No	Description of Items	Floor Area (Sqm)/ Scale Area for a Daily Output of			Special Facilities	Planning Notes
		225-675 Kg (25-75) animals	676-1125 Kg (76-125) animals	1126-1575 Kg (126-175) animals		
14.	Waiting Lounge	15	20	24	(a) Notice board. (b) Full length mirror in verandah. (c) Attached toilet. (d) Powder coated or anodised aluminium/UPVC extruded doors, window & ventilators.	
15.	Sentry Post cum Guard Room	As per scale				
16.	OIC Butchery Office	14.5	14.5	14.5	(a) Notice board. (b) Attached toilet.	

Note. Effluent Treatment Plant as per standard laid down by State/ National Pollution Control Board will be provided.

TABLE 16.V**MECHANICAL TRANSPORT UNITS**

Ser No	Description Of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Oil Store	09	(a) Flame proof lights. (b) Fire fighting arrangements.	
2.	Inspection Pits	One per 36 vehicles excluding motor cycles.	(a) Generator. (b) Adequate hidden lights for focusing on vehicles and high powered electric operated dragon lights for ease of inspection during the nights.	In addition to inspection pits located in workshop.
3.	Ramps	One per 36 vehicles excluding motor cycles.	Adequate high powered electric lights for night repair.	Ramps of suitable size to be capable of taking two vehicles with separate approach on either side for ascent and descent.
4.	MT Stores	48 Sqm per 36 vehicle	(a) Iron gate of adequate width and height. (b) Racks & bins. (c) Vehicle washing/ servicing points.	For MT companies having a HQ and 04 platoons.
5.	Lecture Hall cum Demonstration Room	128 Sqm per company		For MT companies only.
6.	Battery Charging Shop	As per scales.	One per MT company.	Will be provided to those units only which are authorised static battery charging equipment.
7.	Hard standings	As per scales		In tank transporter platoons one additional hard standing of size 107m x 34m with 2m high ramp on either end of width will be provided.

Ser No	Description Of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
8.	Sanitary Annexe	As required		
9.	Tube Repairing Room	12	Automatic pressurised air filling machine.	---
10.	Painting Room	12		---
11.	Rest/ Tea Room	20		
12.	Training complex – Simulator Room	40 Sqm per Coy	Air conditioning.	
13.	Driver Training Track	(a) Track width – 3.75m. (b) Total length – 08 KM.	(a) Black Top. (b) Gravel track. (c) Sand track. (d) Obstacles consisting of:- (i) Tunnel – 01. (ii) Bridge – 02. (iii) Sharp U Turn – 02. (iv) Sharp Bend – 02. (v) Mud track. (vi) Intersection –01. (vii) T Junction – 01.	Only where driver training facility is authorised as per Administrative instructions.

Note. Garages for vehicles, repair bays, washing platforms, petrol store and lubricating oil stores will be provided as per scales.

TABLE 16.VI**POL DEPOTS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Sheds for Packed Stocks, other than Lubricants	375 Sqm per 100 KL	Bottom ventilation and adequate openings all around will be provided for free air circulation.	(a) Based on 50% stocks being held in 200 litres barrels and 50% in 20 litres jerricans. (b) Ceiling height 5.5m. (c) Doors 03m wide.
2.	Sheds for Packed Stocks, Lubricants	400 Sqm per 100 KL	Bottom ventilation.	(a) Based on 100% stocks being held in barrels. (b) Ceiling height 5.5m. (c) Doors 03m wide.
3.	Sheds for Cased Supplies eg Greases and Hygienic Chemicals	167 Sqm per 100 tonnes	Bottom ventilation.	(a) Ceiling height 5.5m. (b) Doors 03m wide.
4.	Bulk Tanks for POL Stocks	100 KL tankages for every 70 KL stocks to be held in bulk.	(a) Pipelines including pipeline fittings. (b) RTW or BPL filling and decanting points, container fillings points, pump house and other BPI ancillaries will be provided on as required basis.	(a) To be provided only for depots which are authorised to hold bulk stocks of POL. (b) Number of tanks to be computed in terms of the nearest whole number.
5.	Empty POL Containers		(a) Non-skid & non-absorbent floor.	(a) To be provided for authorised WMR containers and the containers required to hold 50% of the authorised packed stock. (b) Ceiling height 5.5m.
	(a) For Barrels (200 litres)	10 Sqm per 100 barrels	(b) Adequate ventilation.	
	(b) For Jerricans (20 litres)	20m per 1000 jerricans		
6.	Container Repair Workshop	As required		To be decided on individual merits.

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
7.	BPI Filling and Decanting Gantry	A covered BPL gantry capable of filling and decanting 04 BPLs at a time alongwith its traffic circuit for every 20 BPLs being received and dispatched per day. Every increment of gantry will be decided on individual merits.		The gantry may have pipe line connections to handle more than one product handled in bulk by the depot.
8.	Container Filling Sheds			
	(a) Upto four points or less	170		
	(b) Every additional point	40		
9.	Decanting Sheds			May be provided in one or two sheds as required.
	(a) POL Depots holding 1000 KL or below	72		
	(b) POL Depots holding over 1000 KL	90		
10.	Open Stacking Plinths	375 Sqm per 100 KL	Plinth height should allow direct loading and unloading of vehicles and trailers.	
11.	Technical Stores	3 Sqm per tonne		
12.	Sample Room	24	Shelving.	
13.	Model Room	54		
14.	Local Issue Platform	100	It should be provided for direct loading and unloading of vehicles and trailers.	May be covered in areas of extreme climate conditions.

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
15.	BPL Dipping Plinths	150	Separate plinths may be provided.	
16.	MI Room	As per scale	(a) Attached Toilet for Officers (b) Toilet for Gents (c) Toilet for Ladies	To be provided in depots commanded by Majors and above where existing facilities of MI rooms or hospitals cannot be utilised.
17.	Labourer's Amenity Room	38 Sqm upto 100 labourers and 04 Sqm for every 25 additional labourers or part thereof.	Electrified and fitted with ceiling fans as per scales authorised to OR's dining halls. Fitted with closets for each labourer to keep his clothes. Attached shower baths and wash basins trough type at a scale of 10% and WC, at a scale of 5%.	This accommodation will cater for the requirements of labourer's tiffin and smoking and changing rooms.
18.	Bicycle and Scooter Shed	0.84 Sqm per bicycle and 02 Sqm per scooter		Bicycle shed for 50% and Scooter shed for 30% of the permanent labourer strength.
19.	Toilets	As per scale		To be provided also for labourers and other civilian staff employed by depot.
20.	LPG Godown	10 Sqm per 100 cylinder	(a) Mastic floor. (b) Bay for defective cylinders. (c) Lower ventilation. (d) Natural light. (e) Integrated fire detection, fire alarm and fire fighting system.	To be provided where LPG Godown is not provided as per table 16.VII (Ser. No. 25)
21.	Container Loading Ramp	10 Sqm per 100 KL	(a) Conveyor belt for loading of barrels. (b) 05 ft in height.	---

Note. The accommodation for R&D offices, group offices, central fire station, static water tanks, fire fighting equipment and water coolers will be provided as per authorised scales.

TABLE 16.VII
SUPPLY DEPOTS

Ser No	Description of Items	Floor Area (Sqm)/ Scale Holding of Supplies in Tonnes					Special Facilities	Planning Notes
		Upto 400	401 to 800	801 to 1200	1201 to 1600	Every additional 100 tonnes increase in capacity		
1.	Covered Accommodation for Cased and Bagged Supplies.	1.67 Sqm per tonne					(a) Raised sloping platform of size 0.5m x 03m x 01m as required and 01m high glazed tiles on walls of oil hydrogenated room. (b) One wall glass type black board of size 03m x 01m in each shed or room.	
2.	Sorting out and Layout Sheds for Fresh Supplies							
	(a) Sorting out shed	37	56	74	92	3.1	(a) Terrazzo flooring in stack bins.	Will be located away from the rest of depot to avoid mixing of rejected stocks.
	(b) Inspection Shed	37	56	74	92	3.1	(b) Ozone washing facility with tiled pits.	
	(c) Layout and Issue Shed	56	84	111	138	4.1	(c) Fly and Rodent proof. (d) Tiled platforms for sorting out. (e) 0.2m high partition walls as required. (f) Air conditioning (g) Cold storage/ Cool rooms/ walk-in coolers for leafy and soft varieties.	
3.	Issue Shed – Dry Supplies	30	40	50	60	4.1		

Ser No	Description of Items	Floor Area (Sqm)/ Scale Holding of Supplies in Tonnes					Special Facilities	Planning Notes
		Upto 400	401 to 800	801 to 1200	1201 to 1600	Every additional 100 tonnes increase in capacity		
4.	R&D Inspection Shed and Office							
	(a) R&D Office	As per scales						
	(b) Inspection Shed – Dry Rations	30	40	50	60	03		
5.	Fumigation Chamber	01 No	01 No	02 Nos	02 Nos	---		(a) Additional 01 No for higher capacity depots. (b)Each fumigation chamber of 21 Sqm.
6.	Room for Match Safety	09	17	22	28	1.3		
7.	Room for Costly Items	09	17	22	28	1.3		
8.	Packing Material Shed						(a) Exhaust fan and Dehumidifier. (b) Raised slopping platform of size 0.5m x 03m x 01m as required and 01m high glazed tiles on walls of edible oil room. (c) One wall glass type black of size 03m x 01m in each shed or room. (d) Adequate ventilation. (e) Rodent and bird proof.	May be provided in two combined sheds as required.
	(a) Shed for tins	45	50	56	70	4.5		
	(b) Shed for bags (all types)	28	35	42	56	2.2		
	(c) Shed for cases of sorts	19	28	37	56	2.0		

Ser No	Description of Items	Floor Area (Sqm)/ Scale Holding of Supplies in Tonnes					Special Facilities	Planning Notes
		Upto 400	401 to 800	801 to 1200	1201 to 1600	Every additional 100 tonnes increase in capacity		
9.	Plinth for sieving and Sun drying of Supplies	74	74	111	111	5.7	Rodent proof.	
10.	Room for Storage – Salt	1.67 Sqm per tonne						To be found out of total area calculated at Serial 1.
11.	Room for Storage – Sugar	1.67 Sqm per tonne						-do-
12.	Shed for Auctioned Stores	28	40	50	70	1.5		
13.	One Room for Ice	09	09	14	14	0.7	(a) 0.75m high platform of size as required with serrated surface. (b) Door width 03m.	
14.	Coal Bins	25.8 Sqm for every 40 tonnes					01m wall height of bin.	(a) Each bin to have adequate drainage for rain water. (b) No of bins to be provided based on actual requirement of authorised holding of coal and coke.
15.	Segregation Room for Infested Stores	17	19	22	28	1.3	(a) Rodent and bird proof. (b) Dehumidifiers. (c) Natural light with 10% transparent sheets.	

Ser No	Description of Items	Floor Area (Sqm)/ Scale Holding of Supplies in Tonnes					Special Facilities	Planning Notes
		Upto 400	401 to 800	801 to 1200	1201 to 1600	Every additional 100 tonnes increase in capacity		
							(d) Heavy duty modular rack for storage of infested bagged supplies.	
16.	Shed for Petrol, Oil, Greases and Lubricants							To be provided only if POL group is part of supply depot.
	(a) Shed for petrol, oil, greases other than lubricants	3.75 Sqm per 01 KL						
	(b) Shed for lubricants	4 Sqm per 01 KL						
	(c) Office	As per scales						
17.	Shed for POL Packing Material						(a) Natural light. (b) Non-skid & non-absorbent floor.	To be provided only if POL group is part of supply depot.
	(a) Barrels (200 litres)	10 Sqm per 100 barrels						
	(b) Jerricans (20 litres)	20 Sqm per 1000 jerricans						
18.	Meat Issue Room	28	37	46	56	2.7		Accommodation authorised at Serials 18 to 21 may be provided at Butchery if required.
19.	One Room for Fish	09	11.5	14	22	0.9		
20.	One Room for Chicken	09	11.5	14	22	0.9		

Ser No	Description of Items	Floor Area (Sqm)/ Scale Holding of Supplies in Tonnes					Special Facilities	Planning Notes																					
		Upto 400	401 to 800	801 to 1200	1201 to 1600	Every additional 100 tonnes increase in capacity																							
21.	One Room for Egg Testing	09	09	09	09	---		Additional 03 Sqm only for depots with holding capacity beyond 2400 tonnes.																					
22.	Room for Hygiene Chemicals	20	20	30	30	2.5																							
23.	Shed for Retail Issue Shop (a) Office (b) Cashier's Room (c) Ration Issue Counter-Dry Supplies. (d) Ration Issue Counter-Fresh Supplies (e) Shed for storage of supplies including fuel. (f) Customers Waiting Room	For Dependent Payment Rations Strength					Deep freezers of assessed capacity.																						
		<table><tr><td><u>Upto 500</u></td><td><u>500-1000</u></td><td><u>Above 1000</u></td></tr><tr><td colspan="3">As per scales</td></tr><tr><td>09</td><td>14</td><td>18</td></tr><tr><td>28</td><td>37</td><td>50</td></tr><tr><td>28</td><td>37</td><td>50</td></tr><tr><td>19</td><td>37</td><td>46</td></tr><tr><td>09</td><td>14</td><td>21</td></tr></table>							<u>Upto 500</u>	<u>500-1000</u>	<u>Above 1000</u>	As per scales			09	14	18	28	37	50	28	37	50	19	37	46	09	14	21
		<u>Upto 500</u>	<u>500-1000</u>	<u>Above 1000</u>																									
		As per scales																											
		09	14	18																									
		28	37	50																									
		28	37	50																									
		19	37	46																									
		09	14	21																									

Ser No	Description of Items	Floor Area (Sqm)/ Scale Holding of Supplies in Tonnes					Special Facilities	Planning Notes
		Upto 400	401 to 800	801 to 1200	1201 to 1600	Every additional 100 tonnes increase in capacity		
24.	Labourer's Amenity Room	38 Sqm upto 100 labourers and 04 Sqm for every 25 additional labourers of part thereof					Electrified and fitted with ceiling fans as per scales authorised to ORs dining halls. Fitted with closets for each labourer to keep his clothes. Attached shower baths and wash basins trough type at a scale of 10% and WCs at a scale of 5%.	This accommodation will cater for the requirements of labourer's tiffin, rest and changing room.
25.	LPG Godown	10 Sqm per 100 cylinder					(a) Mastic flooring. (b) Bay for defective cylinders. (c) Adequate lower ventilation. (d) Integrated fire detection, fire alarm and fire fighting system.	---

CHAPTER 17**ARMY MEDICAL CORPS UNITS**

17.1 Army Medical Corps provides medical services as well as assistance for health and hygiene to the troops.

17.2 Scales of specialised accommodation required for Field Ambulances, Corps Dental Units Health Organisations. Medical Stores Depots, School and Hostel accommodation for Probationer Nurses are given in the Tables 17.I to 17.V. Accommodation for Medical Inspection rooms wherever authorised will be provided as per scales laid down scales for hospitals are given in a separate publication.

17.3 Office accommodation, other than administrative offices, will be provided wherever indicted in the Table of Scales. Office accommodation in medical depots for the authorised technical and clerical staff required to work in the accommodation for storage, receipt, packing and dispatch, should be provided as per authorised scales, in addition to the areas indicated in the Table of such accommodation. Suitable sliding doors, with sloping ramps and corridors for movement of trolleys will be provided in the storage sheds as required.

17.4 Telephone exchange room should be provided wherever internal telephone exchange is authorised. Railway siding with platforms and ramps will be provided as required.

17.5 All storage accommodation should be provided with security grills or bars. Suitable security walls or fencing with perimeter lighting will be provided all around the medical depots. Accommodation for central fire station and static water tanks will be provided as per authorised scales.

TABLE 17.1

**ARMED FORCES/ ADVANCED AND
FORWARD MEDICAL STORES DEPOTS (AFMSD/ AMSD AND FMSD)**

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		AFMSD	AMSD	FMSD		
1.	Bulk Storage	05 Sqm per tonne				(a) To be divided into separate stores for Groups I to V. (b) Separate room to be provided for rubber items and reserve stores.
2.	Cold Storage	1320	40	30		
3.	Cool Storage	To be found out of authorisation of cold storage area.	100	70	Temperature control as per technical storage needs.	May be divided into two rooms as required.
4.	Receipt Section	2800	170	70		
5.	Repair & Salvage Section	Combined with Serial 4.	90	25		
6.	Central Packing Section	1500	115	40	Raised platform for packing	
7.	Dispatch Section	To be found out of authorised area for serial 6.	50	20		
8.	Tradesmen Shop and Crated Box Room	300	60	25		
9.	Strong Room	120	15	15	Double doors with outer door of iron bars.	

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		AFMSD	AMSD	FMSD		
10.	Acid Room	120	15	15		
11.	Gas Cylinders Room	450	55	25	(a) Verandah on both sides. (b) Exhaust fans. (c) False ceiling.	To meet the requirement as per Factories Act.
12.	Inflammable Stores Room	200	55	25		
13.	Stores Preservation Room	70	17	11		
14.	Sanitary Annexe	4%	4%	4%		
15.	Workshop for Asst Technical Engineer Officer	45	---	---		
16.	Technical Training Room	37	---	---	Glass black board.	
17.	Technical Library	37	---	---	Vitrified tiles flooring.	
18.	Room for Duty Officer	20	---	---		
19.	Room for Duty JCO	15	---	---		
20.	Gate Office with search Cubicles	50	20	20		
21.	Labourers Amenity Room	38 Sqm upto 100 labourers and 04 Sqm for every 25 additional labourers or part thereof.			Electrified and fitted with ceiling fan as per scale authorised to ORs dining halls. Fitted with closets for each labourer to keep his clothes. Attached shower baths and wash basins trough type with water taps at the scale of 10%, WCs at the scale of 5% and Urinals at the scale of 4%.	(a) This accommodation will cater for the requirements of labourer's canteen, changing and tiffin and rest room. (b) Sanitary blocks will be built separately for male and female worker.

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		AFMSD	AMSD	FMSD		
22.	Health Centre for families	46	---	---		
23.	Bicycle/ Motor Cycle Shed	0.84 per bicycle/ 02 Sqm per Bike				To be provided maximum for 40% of the permanent labourer strength and 40% for motorcycles.
24.	Accommodation for Blood – Transfusion Section comprising of: -		As authorised	As authorised	Air-conditioned.	To be provided only where blood transfusion section is authorised to AMSD and FMSD.
	(a) Reception Room	15				
	(b) Medical Screening Room	11				
	(c) Bleeding Room	17				
	(d) Recovery Room	14				
	(e) Laboratory	15				
	(f) Blood Storage Room	15				
	(g) Toilet	01 No				

TABLE 17.II
CORPS OF DENTAL UNITS

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Dental Surgery	17 per dental chair	(a) Wash hand basin. (b) Vitrified tiles flooring. (c) Emulsion paint on walls.	
2.	Recovery Room	11.00	(a) Vitrified tiles flooring. (b) Emulsion paint on walls.	
3.	Room for Dental Hygienist	19.5	(a) Wash hand basin. (b) Vitrified tiles flooring. (c) Emulsion paint on walls.	Includes office area for the dental hygienist.
4.	Store Room	16.7		
5.	Waiting Room	33.5		(a) Attached toilet. (b) May be divided into suitable rooms.
6.	Office for Dental Officer	As per scale		
7.	Processing Room for Dental X-Ray	5.6		
8.	Plaster Room	7.4		
9.	Dental Mechanics Laboratory	15.00		
10.	Casting and Processing Room	13.00		
11.	Packing and Issuing Room	7.4		
12.	Dental Stores	09		

Note. In case of any revision of scale for Dental Units, the same will be followed.

TABLE 17.III**FIELD AMBULANCES**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Medical Stores (6 Nos.)	17.5 each	Refrigerators – 02 Nos 300 litres each, for drugs storage.	One additional cold storage room to be provided to store lifesaving medicines/ stores in controlled temperature.
2.	Gas Cylinders Store	14		
3.	Tentage Store	17.5		
4.	General Store	20.5		
5.	Patients Clothing Store	14		
6.	Medical Training Room	56	Glass black board	
7.	Accommodation for Dental Sections			
	(a) Dental Surgery	17	(a) Wash hand basin. (b) Vitrified tiles flooring except for store room.	(a) Includes office area for the dental hygienist. (b) Attached toilet.
	(b) Recovery Room	11		
	(c) Room for Dental Hygienist	13.2		
	(d) Store Room	7.5		
	(e) Waiting Room	11.2		

TABLE 17.IV**FIELD AND STATION HEALTH ORGANISATIONS (FHOs/ SHOs)**

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		FHO/ SHO (Large)	SHO (Medium)	SHO (Small)		
1.	Office for Health Inspector, Health Superintendent and Sanitary Assistant	15.5	12	10		
2.	Laboratory	12	12	12	Stainless Steel Sink with double bowl and double drain board.	
3.	Museum	84	84	84		
4.	Lecture Hall	56	37	37	(a) Raised platform. (b) Glass Black board.	
5.	Hygiene Chemicals Store	46	28	22		
6.	POL Stores and DDT Preparation Room	46	28	22	Covered verandah.	
7.	Tin-smith Shop	11	11	---		
8.	Changing and Wash up Room	19	17	17	(a) Closets. (b) Wash hand basin.	For FHOs 10 Sqm only.
9.	Demonstration Open Area	840	840	840	Sufficient open passages.	

TABLE 17.V**SCHOOL AND HOSTEL FOR PROBATIONER NURSES**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Accommodation for School			
	(a) Lecture-cum-Teaching Hall	140	(a) Raised platform. (b) Glass black board.	
	(b) Tutorial Class Room	46	Glass black board.	
	(c) Demonstration Room	56	-do-	
	(d) Cookery Room	37	-do-	
	(e) Library	56	-	
	(f) Science Laboratory	56	(a) Glass black board. (b) Sinks as required.	
	(g) Museum	56	---	
	(h) Office for Sister Tutor	13.6	---	
	(j) Clerk-cum-Record Room	As per scale	Racking.	
	(k) Store Room	28	Shelving.	
	(l) Film Stocking Room	17	---	
	(m) Toilets	4%	---	
2.	Accommodation for Hostel			
	(a) Living Room			With Verandah
	(i) First Year student	7.4 per student		Three seater rooms
	(ii) Second Year Student	8.4 per student		Two seater rooms
	(iii) Third Year student	9.3 per student		Single room
	(b) Bath	01 No per 04 students		
	(c) WC	01 No per 04 students		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
	(d) Common Room	74		Area includes space for indoor games, library and common sitting room.
	(e) Visitors' Room	21		Room also cater for telephone and enquiry Office.
	(f) Cleaners' Room	05		
	(g) Mess Accommodation	3.7 per student		Includes kitchen and pantry also.
	(h) Washing and Ironing Room	14 per hostel	Power points – 02 Nos.	---

CHAPTER 18

ORDNANCE UNITS

18.1 Scales of specialised accommodation in respect of Ordnance Depots and units are given in Table 18.1.

18.2 Office accommodation for technical staff, such as store men, etc should be provided as per authorised scales and may be built as part of the storage accommodation complex. For personnel employed in technical branches in depots, as indicated in the note to the Table, office accommodation will be provided as per scales applicable to technical staff.

18.3 Bulk storage sheds as well as sheds for complete guns, vehicles and equipment should generally be designed as large sheds with dimensions as per actual requirement. Separate storage sheds should be provided for oils, paints, chemicals and industrial gases. Roller or shutter doors of appropriate height and width will be provided to permit easy entry and exit of vehicles on as required basis.

18.4 Clear height of storage shed should be planned to give a minimum 01m clearance above store height. Where mechanical handling equipment is to be used, over-all clear height should normally be 06m and, where this equipment is not used it should not be less than 04m. While deciding the clear height, consideration be also given to use of gantry or EOT cranes. Gantry and EOT crane may be provided for heavy lift items wherever justified.

18.5 The floors should have hardened surface and be designed to meet the load requirements. Specific environmental requirements pertaining to dust and humidity will be treated as special.

18.6 Open plinths may be constructed for salvage stores. Covered sheds may be provided for valuable and retrievable salvage stores only. Similarly, for ammunition depots and companies, covered accommodation for returned empty cartridges and shell cases may also be provided at the scales for salvage stores.

18.7 Storage accommodation should have adequate vehicular access from the main entrance. Hard standing for receipt and issue area should be provided for parking and turning large vehicles. Adequate hard standing for vehicles should also be provided outside the main gate for the assessed number of vehicles visiting the depots for collection of stores.

18.8 Air-conditioned accommodation for storage of missiles, secondary batteries, rubberised items and optical equipment as also deep freeze stores for dry batteries and cells are authorised if technical requirements justify.

18.9 Railway sidings, platforms and ramps including provision for overhead cover will be provided for storage sheds on as required basis for direct loading and unloading of wagons and vehicles.

18.10 In ammunition depots and companies, the accommodation for ammunition repair workshop and laboratory, proof yard and demolition facility will be provided in accordance with the technical regulations as applicable.

18.11 Accommodation for computer terminals, wherever authorised, should be provided as per the technical requirements.

18.12 Suitable security walls and fencing with perimeter lights should be provided all around the depots as well as inside, where necessary, on as required basis. Adequate watch towers fitted with swivelling search lights and sentry posts will also be provided. Guard room may be provided at scales as applicable for depots. Living accommodation for the dispersed guards and chowkidars will be provided as per scales of single living accommodation for other ranks.

TABLE 18.I**ORDNANCE DEPOTS/ INSTALLATIONS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		CODs/ ODs	ABODs/ FODs/ Other Units	CADs/ ADs/ FADs/ Amn Coys/ Other Units		
1.	Bulk Storage Sheds (Sqm per tonne)					
	(a) General Stores	3.25	4.50	---		<p>(a) Scales for ABODs and FOD is applicable for a maximum overall holding of 5000 tonnes. In case of excess holdings beyond 5000 tonnes, scales as given for CODs or ODs shall apply.</p> <p>(b) For such equipment and weapons which can be stacked one above the other, a single 'plan area' shall be taken to meet the requirement of all items in one stack.</p> <p>(c) For timber, only open hard standing will be provided.</p>
	(b) Clothing Stores	4.10	7.00	---		
	(c) Armament and Engineer Equipment Stores	3.35	4.50	---		
	(d) Telecommunication and Electronic Stores	2.00	4.50	---		
	(e) MT Stores	2.50	3.00	---		
	(f) Weapons, Guns and Equipment	Twice the plan area of respective gun and equipment.		---		
	(g) Vehicles	As per scales				
	(h) Salvage Stores	3.25	3.25	3.25		
2.	Bulk Storage Sheds for Ammunition (Sqm per tonne)					
	(a) Upto 100 mm calibre	---	---	2.00	Water storage tank of size 03 Sqm with 01m depth for WP ammunition – 01 No.	
	(b) Above 100 mm calibre	---	---	2.75		
	(c) Missiles	---	---	As required		

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		CODs/ ODs	ABODs/ FODs/ Other Units	CADs/ ADs/ FADs/ Amn Coys/ Other Units		
3.	Receipt and Issue Sheds	3% of authorised floor area under Serial 1.	5% of authorised floor area under Serial 1.	3% of authorised floor area under Serial 2.		May be suitably sub-divided as per functional requirements.
4.	A-in-U Stores	18.6 Sqm per Sub Depot or Group				Serial 4 and 5 may be co-located for each sub-Depot or Group.
5.	Workshop Accommodation: - (a) Artificers of Workshops in RSSD and ESG.	Floor Area = a + k (N – n) Where ‘a’ is basic minimum area ‘n’ is number of tradesmen of the particular trade who can operate in area ‘a’ ‘N’ is total number of tradesmen of the particular trade working in the shop as a whole ‘k’ is increase in area per tradesmen. Note. If ‘N’ is less than ‘n’, area of the shop will be taken equal to ‘a’ Value of the above symbols for:				
		Shop	Minimum area authorised ‘a’ (Sqm)	No of tradesmen ‘n’ who can work in area ‘a’	Increase in area (Sqm) per tradesman (k) for establishment over ‘n’	
		Black Smith, Tin & Copper Smith, Hammer Man and Moulders	23	02	4.6	
		Welder	23	02	5.6	
		Carpenter, Sawyer, Saw Mach operator	56	04	09	
		Painter, Pattern Maker and Polisher	46	03	09	
		Upholsterer, Boot maker, Leather Sticher, Tent Mender, Weaver and Tailor	23	02	4.6	

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes	
		CODs/ ODs	ABODs/ FODs/ Other Units	CADs/ ADs/ FADs/ Amn Coys/ Other Units			
		OTRP			18.6	01	4.6
		Machine Shop, Turner, Fitter Bench, Fitter MV, Instrument Mech, Armourer and Vehicle Mech			28	03	07
		Electrician			23	03	3.7
		(b) Other Artificers			5.6 per Artificer		
6.	Accommodation for Preservation	2% of total storage area authorised at Serial 1			Dipping tanks		
7.	Bond Room	As required					To be found out of total area authorisation of depots.
8.	Sample Cum Model Room	300	150	100			
9.	Central Registry	2.7 per clerk					Authorised in addition to normal office accommodation entitlement.
10.	Cash Room	7.5	7.5	7.5	(a) Double doors, outer door being of iron bars. (b) Cash counter with iron grills or bars. (c) Inbuilt safe.		(a) Authorised only for depots. (b) Authorised in addition to normal office accommodation entitlements.
11.	Unit Location Cell	10	10	10	(a) Double doors, outer door being of iron bars. (b) Inbuilt steel almirah.		

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		CODs/ ODs	ABODs/ FODs/ Other Units	CADs/ ADs/ FADs/ Amn Coys/ Other Units		
12.	Bradma Machine Room	9.3 for first machine				(a) For every additional machine 06 Sqm. (b) To be provided only where such machines are authorised.
13.	Conference Room	02 Sqm per officer			Vitrified tiles flooring	Authorised for 50% strength of officers for depots only.
14.	Orderly Officers' Room	13.5 per depot				Attached toilet.
15.	Orderly JCOs/ Room	11	11	11		Common toilet to be provided for Serial 15 and 16.
16.	Orderly NCOs' Room	11	11	11		
17.	Time Keepers' Office	7.5 per Sub Depot				
18.	Escorts' Waiting Room	17	17	17		
19.	Battery Charging Shop	As per scale				Authorised only for depots and units stocking and issuing vehicle batteries.
20.	Ticket Board Shelter for Industrial Personnel	20 per Sub Depot			10 Counters for every 2000 personnel.	
21.	Gate Keepers' Office	09 per entry gate				

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		CODs/ ODs	ABODs/ FODs/ Other Units	CADs/ ADs/ FADs/ Amn Coys/ Other Units		
22.	Rigorous Search Rooms (06 Sqm each)	02 Nos	02 Nos	02 Nos		(a)One room each to be provided at entry gate and mustering in gate for industrial personnel. (b)Wherever female workers are employed, 02 Nos additional rooms may be provided. (c)One room for each additional entry gate.
23.	Electric Siren	01 No per 06 Sq KM				
24.	Accommodation for Civil Post Office					
	(a) Post Office	46.5	46.5	46.5	Counter and service windows as required.	(a) Authorised only for depots where a civil post office is to be established by the Postal department. (b) Toilet without bath.
	(b) Store Room	06	06	06		
25.	Workers' Amenity Room	38 Sqm upto 100 industrial workers and 04 Sqm for every 25 additional workers or part thereof.			Electrified and fitted with ceiling fans as per scales authorised to OR dining halls. Fitted with closets for each worker to keep his clothes. Attached shower baths and wash basins trough type at a scale of 10% and WC at a scale of 5%.	This accommodation will cater for the requirements of workers Tiffin and rest and changing room.

Ser No	Description of Items	Floor Area (Sqm)/ Scale			Special Facilities	Planning Notes
		CODs/ ODs	ABODs/ FODs/ Other Units	CADs/ ADs/ FADs/ Amn Coys/ Other Units		
26.	Covered Washing Centres	2.2 Sqm area per tap				Ablution taps at 4%.
27.	Vehicle Inspection Pit	01 No per entry gate				
28.	Bicycle and Scooter Shed	0.84 per bicycle 02 per Scooter				
29.	Small Arms Range-100m	---	---	01 No		Authorised only for ammunition depots and companies.

Notes.

- Accommodation for Visitors' Room, Fire Stations, Static Water Tanks and Incinerators will be provided as per scale.
- Accommodation as per scales for technical staff is to be provided in the following: -
 - Control Branch - Unit pad registry and amendment section.
 - Provision Branch - PC & P section, review section and dues in progressing section.
 - Accounts Branch - Ledger section and filling section.
 - Sub Depots - Dues out control section.
 - Vehicle Depots - Log book and VMR section.
- Bulk Storage of Missiles/ Rockets/ Other Ammunition.** Storage accommodation will be based on type of accommodation given in the Ammunition Placement Plan of the ammunition stocking echelons. The type of accommodation and allied facilities will be as per design parameters approved by CFEEs from time to time.
- Other allied facilities and equipment including Generator/ infrastructure for ammunition technical activities will be provided on as required basis as per design/ specification approved by CFEEs.
- Fire Fighting Arrangements.** To be provided based on actual requirements - both external/ internal eg water tanks, hydrants, fire alarm/ suppression systems etc.

CHAPTER 19**ELECTRICAL AND MECHANICAL ENGINEERS UNITS**

19.1 Corps of Electrical and Mechanical Engineers has a variety of units which carry out repair and maintenance of all weapons, vehicles and equipment. In different echelons, classified under light, field and base repair. Depending upon the roles, the units are designated as base, field and light repair workshops.

19.2 Scales for field and light repair workshops are given in Table 19.I. Accommodation for specialist workshop of Army for base repair and overhaul of army warlike equipment will be provided as specified in Table 19.II.

19.3 Industrial type buildings with north lighting will be provided for main shops, armament and radar shops, for field repair of vehicles and mobile engineering equipment. Normal construction will be provided in main shops for light repairs of vehicles and mobile engineering equipment. Sizes of doors and height of shops will be sufficient to permit easy entry and exist of vehicles and equipment. The height of the shops where cranes are to be installed shall be decided such that clear lift heights of 6.0m and 7.5m are available for cranes upto 02 tonnes capacity and for cranes of higher capacities respectively. Roller shutter type doors will be provided in all main shops, armament and radar shops and stores sections. Turbo vent will be provided at a scale of one per 30 Sqm of floor area.

19.4 The floors will be designed to withstand the loads likely to be imposed in various workshops and hard standings. Dust proofing will be provided in the shops as specified to meet the technical requirements of the equipment.

19.5 Iron bars on windows and ventilators will be provided in small arms component, stores section and in tool and expense stores. Double security door consisting of one door of steel bars will be provided in small arms component. Suitable security fencing will be provided all around the workshops.

TABLE 19.1**EME LIGHT AND FIELD REPAIR WORKSHOPS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes												
1.	Main shop for Repair of 'A' vehicles (including Mobile Engineer Equipment) and 'B' Vehicles.	<p>Light and Field Repair Workshop, Floor area will be calculated as per formula: -</p> $\frac{L \times RT \times S}{D}$ <p>Where</p> <p>L – No of vehicles or equipment on maintenance charge.</p> <p>RT – repair time per vehicle in number of days in a year, as per values given below: -</p> <table><tr><th>Type of Repair</th><th>'A' Vehicle or Mob Engineer Equipment</th><th>'B' Vehicle</th></tr><tr><td>Light</td><td>10</td><td>8</td></tr><tr><td>Field</td><td>24</td><td>18</td></tr><tr><td>Combined (Light & Field)</td><td>28</td><td>18</td></tr></table> <p>S = standing per vehicle or equipment as per values given below :-</p> <p>'A' Vehicle or Mob Engineer Equipment 84 Sqm</p> <p>'B' Vehicle or Trailers Specialist 04 wheeled 42 Sqm</p> <p>Trailers specialist 18.6 Sqm</p> <p>2 Wheeled Trailers GS 9.3 Sqm</p> <p>Motor cycles 9.3 Sqm</p> <p>D = 365 days in a year</p>	Type of Repair	'A' Vehicle or Mob Engineer Equipment	'B' Vehicle	Light	10	8	Field	24	18	Combined (Light & Field)	28	18	<p>(a) Pneumatic lines with provision for compressed air stations as per user requirements.</p> <p>(b) Modular furniture for work stations in lieu of loose furniture for optimisation of space.</p> <p>(c) Epoxy flooring (impact resistant) as per user requirement.</p> <p>(d) Cranes capacity as per user requirement.</p> <p>(e) Special facilities for forced air heating in cold areas.</p>	<p>(a) In the case of main shop for 'B' vehicles, wherever floor area exceeds 929 Sqm, a 10% cut on the calculated area will be made, subject to the area being not reduced below 929 Sqm.</p> <p>(b) Floor area of intermediate field repair workshops will be assessed as under: -</p> <p>No of Vehicle/ Equipment Mechs authorised for Intermediate Workshops x No of Vehicle or Equipment Mechs authorised in affiliated Field workshop.</p> <p>Calculated floor area of Affiliated field workshop.</p>
Type of Repair	'A' Vehicle or Mob Engineer Equipment	'B' Vehicle														
Light	10	8														
Field	24	18														
Combined (Light & Field)	28	18														
2.	Inspection Pits in Main Shop	<p>(a) Industrial type building – 02 per bay.</p> <p>(b) Garage type repair bays – 02 per shop, i.e. 'A' Vehicle, 'B'</p>	<p>(a) Covering facility when not in use.</p>													

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
		Vehicle, Engineer Equipment Repair shop.	(b) Two built-in shelves each 0.45m x 0.3m x 0.3m. (c) Floor sump.	
3.	Fuel Injection Equipment Room	28 Sqm	(a) To be dust-proof and air conditioned. (b) Epoxy Flooring (Impact Resistant).	Out of area of main shop at Serial 1.
4.	Armament and Radar Component Shops	<p>1. <u>Armament</u> (a) Number of standings = $\frac{\text{Number of tradesmen}}{2}$ (b) Standing per equipment (i) Medium guns – 149 Sqm (130mm/ 5.5 inch) (ii) Field guns – 93 Sqm (100 mm/ 1051 FG, 25 Pdr) (iii) Mountain – 56 Sqm guns, light guns and tank guns (c) Recuperator Room - 28 Sqm</p> <p>2. <u>Radar</u> (a) Number of Standings = $\frac{\text{No of tradesmen}}{4}$ (b) Standing per equipment = Existing Radars except Radar P-15 93 Sqm Radar P-15 100 Sqm</p>	<p>To be dust-proof and air-conditioned.</p> <p>(a) In radar shop, rooms of 34 Sqm each to be air conditioned in analog computer room, radar circuit testing room and test room for gun control equipment. (b) For shops of P-15 Radar, a minimum of 10m ceiling height will be provided.</p>	<p>In armament and radar shops, fraction of a standing equivalent to or more than 0.5 will be treated as one standing.</p> <p>Standing and height of shops for new radars will be provided on as required basis.</p>

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes																
5.	Specialist shops – Tele-communication, instrument, Small Arms, Refrigeration, Missile and Electro Medical Equipment Shop.	<p>Floor area of any particular component =a + k (N-n), where ‘a’ is basic minimum area ‘n’ is number of tradesmen who can operate in area ‘a’</p> <p>‘N’ is total number of tradesmen of the trade concerned.</p> <p>‘k’ is increase in area per tradesman</p> <p>Note: If ‘N’ is less than ‘n’ floor area will be ‘a’.</p> <p>Values of above symbols for the respective trades are given below: -</p> <table><tr><th>Specialist Component</th><th>Min area authorised (Sqm)</th><th>No. of trades-men who can operate in area ‘a’</th><th>Increase in area (Sqm) per tradesman for establishment over ‘n’</th></tr><tr><td>Small arms</td><td>23</td><td>02</td><td>4.5</td></tr><tr><td>Refrigerati on</td><td>28</td><td>02</td><td>4.5</td></tr><tr><td>Telecom, Instruments Missile and Electro medical Equipment</td><td>28</td><td>03</td><td>09</td></tr></table>	Specialist Component	Min area authorised (Sqm)	No. of trades-men who can operate in area ‘a’	Increase in area (Sqm) per tradesman for establishment over ‘n’	Small arms	23	02	4.5	Refrigerati on	28	02	4.5	Telecom, Instruments Missile and Electro medical Equipment	28	03	09	<p>(a) Instrument, telecom and missile shop to be dust-proof and air conditioned.</p> <p>(b) In field repair workshops for testing and repairing IR devices, an area of 28 Sqm of the Instrument of telecommunication shop will be a dark room.</p>	
Specialist Component	Min area authorised (Sqm)	No. of trades-men who can operate in area ‘a’	Increase in area (Sqm) per tradesman for establishment over ‘n’																	
Small arms	23	02	4.5																	
Refrigerati on	28	02	4.5																	
Telecom, Instruments Missile and Electro medical Equipment	28	03	09																	
6.	Ancillary Shops (less Battery Charging Shop)	<p>Area of Ancillary Shop = a + k (N-n)</p> <p>Where, ‘a’ is basic minimum area, ‘n’ is number of tradesmen of the particular trade who can operate in area ‘a’.</p> <p>‘N’ is total number of tradesman of the particular trade working in the shop as a whole.</p> <p>‘k’ is increase in area per tradesman.</p>	Hot ancillaries and OTRP will be provided cement water tanks of size 1.2m x 1.2m x 0.5m with base at floor level.	For shops of welders and machinists and turners where vehicle or trailer mounted welding equipment or machinery lorry or trailers are authorised, the floor area will be calculated at 56 Sqm per																

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes																																				
		<p>Note. If ‘N’ is less than ‘n’, area of the shop will be taken equal to ‘a’.</p> <p>Values of the above symbols for various trades are given below: -</p> <table><tr><th><u>Ancillary Shop</u></th><th><u>Min area authorised ‘a’ (Sqm)</u></th><th><u>No of tradesmen who can work in area ‘a’</u></th><th><u>Increase in area (Sqm) per tradesman for establishment over ‘n’</u></th></tr><tr><td>Metal-smith</td><td>23</td><td>02</td><td>4.6</td></tr><tr><td>Welders</td><td>23</td><td>02</td><td>5.6</td></tr><tr><td>Carpenters</td><td>56</td><td>04</td><td>09</td></tr><tr><td>Painter</td><td>46</td><td>03</td><td>09</td></tr><tr><td>Upholsterer</td><td>23</td><td>02</td><td>4.6</td></tr><tr><td>OTRP</td><td>18.6</td><td>01</td><td>4.6</td></tr><tr><td>Machine shop or Turners</td><td>28</td><td>03</td><td>07</td></tr><tr><td>Electricians</td><td>23</td><td>03</td><td>3.7</td></tr></table>	<u>Ancillary Shop</u>	<u>Min area authorised ‘a’ (Sqm)</u>	<u>No of tradesmen who can work in area ‘a’</u>	<u>Increase in area (Sqm) per tradesman for establishment over ‘n’</u>	Metal-smith	23	02	4.6	Welders	23	02	5.6	Carpenters	56	04	09	Painter	46	03	09	Upholsterer	23	02	4.6	OTRP	18.6	01	4.6	Machine shop or Turners	28	03	07	Electricians	23	03	3.7		machinery or welding truck or trailer. No separate or additional covered accommodation will be provided for the welder, machinists, turners and for garaging the above vehicles.
<u>Ancillary Shop</u>	<u>Min area authorised ‘a’ (Sqm)</u>	<u>No of tradesmen who can work in area ‘a’</u>	<u>Increase in area (Sqm) per tradesman for establishment over ‘n’</u>																																					
Metal-smith	23	02	4.6																																					
Welders	23	02	5.6																																					
Carpenters	56	04	09																																					
Painter	46	03	09																																					
Upholsterer	23	02	4.6																																					
OTRP	18.6	01	4.6																																					
Machine shop or Turners	28	03	07																																					
Electricians	23	03	3.7																																					
7.	Battery Charging Shop	As per scales		Will be provided in field repair workshops only.																																				
8.	Cranage – Electric Overhead Travelling Cranes			Cranes will be provided in field repair workshops only.																																				
	<u>Type of Shop</u>																																							
	(a) ‘A’ Vehicles	01 x 10 or 15 tonnes (depending upon the type of AFV maintained)																																						
	(b) Mobile Engineer Equipment	01 x 05 tonnes		To be provided in workshops maintaining mobile engineer equipment and ‘B’ Vehicles or																																				

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
				mobile engineer equipment only.
	(c) 'B' Vehicles	01 x 02 tonnes		Will not be provided in FRI (armoured regiment) and plant workshop company.
	(d) Radar	01 x 02 tonnes		To be provided only where radar shop is located separately.
	(e) Armament	01 x 02 or 05 tonnes (depending upon the type of guns maintained)		To be provided only where armament shop is located in a separate bay.
9.	Stores Section (to include Technical Stores, Paint, Acid and Gas Stores)	Floor area = 15% of main shop area	(a) Vertical shelving with cat walk. (b) Servicing hatches with 0.5m wide ledges will be provided in the XPM partition between main shop and the technical stores.	(a) Store rooms for paint, acid and gas will be provided in a separate building. (b) Paint store will not be provided for light repair workshops.
10.	Tool and Expense Stores			
	(a) Floor area for Tools	0.5 Sqm per artisan for 40% of sanctioned establishment.	Servicing hatches	(a) Floor area will be the sum of floor areas for tools technical staff and expense stores. (b) Floor areas to be minimum 19 Sqm and maximum 111 Sqm.
	(b) Technical Staff	As per authorised scales (i.e. 5.5 Sqm per staff) 2% of total floor area of all shops.		
	(c) Expense Stores			

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
11.	<u>R and I Office</u>			
	(a) Field Repair Workshops at Corps level, Maintaining both A & B Vehicles, Maintaining Armament and A or B Vehicles of more than one unit and Station Workshop Type K and above.	40		Will not be provided in FRI (armoured regiment).
	(b) Field Repair Workshops maintaining more than one unit, Maintaining Armament and Vehicles of one unit and Station Workshops Type H & J.	30		
	(c) Field Repair Workshop maintaining one unit and Station Workshop Type G.	20		
	(d) Field Repair Workshop Section, Station Workshop Type A to F and Light Repair Workshop.	15		
12.	Servicing Bay	41.40	Shed with one ramp	To be provided in the R & I area of armoured, artillery static workshops and station Workshops above type J.

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
13.	Hard Standing in R & I Area (To include hard standings for A and B Vehicles, Armament and Radars).	<p>Floor area will be calculated as per formula: -</p> $\frac{L \times S \times 1.5}{100}$ <p>Where, L = number of vehicles or equipment on maintenance charge. S = standing per vehicle and equipment as for main shop of A and B Vehicles, armament and radars. Subject to minimum area of hard standing for 'A' vehicles for workshops indicated below: - Workshop Minimum Size (Sqm) FRI (Armoured Regiment) and Independent LRW (Armoured Regiment) – 111 Field Workshop (AD) group SP) – 139 LRW (HQ Armoured Division, Armoured – 84 Brigade and Independent Armoured Regiment Brigade)</p>		
14.	Ramps in R & I Area			
	(a) Field Repair Workshop Maintaining B Vehicle of Single Unit and Station Workshop Type A to G	01 No		(a) Will not be provided for FRI (armoured regiments). (b) Ramps should have separate approach on either side for ascent and descent.
	(b) Field Repair Workshop Maintaining B Vehicle and Radars of Single Unit, all other Field Repair Workshops and Station Workshop Type H and above	02 Nos		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
15.	Washing Platform in R and I Area.	Size – 45 Sqm Scale		Will not be provided for FRI (armoured regiment).
	(a) Field Repair Workshops Maintaining A Vehicle/ Mob Engineer Equipment and B Vehicle.	02 Nos		
	(b) Field Repair Workshop Maintaining B Vehicle.	01 No		
16.	Hard Standing for Shop and Store Section			
	(a) In Dispersed Location			
	(i) A and C Vehicle Shops	12m wide on two sides along the length.		
	(ii) B Vehicle Shops	7.6m wide on two sides along the length.		
	(iii) Stores Section	06m wide in front and 3.6m wide along the width on either side.		
	(iv) Specialist Shops/ Components	06m wide in front along the length.		
	(v) Ancillary Shops	7.6m wide in front along the length.		
	(b) In Buildings of Integrated Type			
	(i) Units Repairing A Vehicle besides B Vehicle	12m wide along the length on both sides and 7.6m wide along the width on both sides.		
	(ii) Unit Repairing B Vehicle only	7.6m wide all around the building.		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
17.	Technical Training Lecture Room For Field Repair Workshop having Establishment of Technical Tradesmen as under: -		(a) Raised platform. (b) Glass black board.	(a) May be suitably sub-divided to meet the functional requirements. (b) Will not be provided in FRI (armoured regiment).
	(a) Upto 30	19		
	(b) Between 31 and 50	28		
	(c) Between 51	37		
	(d) Between 76 and 125	46		
	(e) Between 126 and 175	56		
	(f) Above 175	93		
18.	Technical Library			
	(a) Field Repair Workshop at Corps level, Maintaining both A& B Vehicles, Maintaining Armament and B Vehicles of more than one Unit and Station Workshops Type K and above.	28	Vitrified tiles flooring.	
	(b) Field Repair Workshop Maintaining more than one Units, Maintaining Armament and B Vehicles of one Unit and Station Workshop Type D to J.	21		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
19.	(c) Field Repair Workshop Maintaining one Unit, Station Workshop Type A to C and Light Repair Workshop.	15		Will not be provided in FRI (armoured regiment).
20.	<u>Gate Office</u>	Floor area – 9.3 Sqm each scale		To be provided in Field Repair Workshop only except FRI (armoured regiment).
	(a) Workshop Maintaining both A Vehicles/ Mob Engineer equipment and B Vehicles.	02		
	(b) Other Workshops	01		

TABLE 19.II**CORPS ZONE WORKSHOPS AND ARMY BASE WORKSHOPS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Main Shop	As required	(a) Compressed air. (b) Captive power supply. (c) Rails for carriage of hulls.	Base Workshops laminar flow in room and other facilities as per user requirements.
2.	Cranage – Electric Overhead Travelling Cranes	Upto 50 Tonnes as per requirement		
3.	Hard standing	As required		
4.	Storage Accommodation to include MT Store, Petrol and Diesel Store, Lubricating Oil and Grease Store, Acid and Gas Store, Paint Store etc	20% of Main Shop area	Kerbside pumps to be provided wherever required	
5.	MT Accommodation	As per scale		
6.	Battery Charging Room	As per scale	Acid resistant tiles	
7.	Guard Room	As per scale		
8.	Mustering shed with Time Keeper's office	As per scale		
9.	Incinerator	As per scale		
10.	Inspection pit	As per technical requirement		
11.	Painting Bay	As per requirement		
12.	Ramps	As per scale		
13.	Sanitary Annexes	As per scale		
14.	Technical Training and Lecture Room	As per scale		
15.	Observation cum Lookout Post and Search Tower	(a) Building of a suitable height to provide unobstructed view. (b) Electronic and Visual aids display facility as per		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
		technical specification of equipment fitted.		
16.	GM (Works) Complex to include following Sub Groups: - (a) GM (Works) Office. (b) R&I Cell. (c) WSG. (d) Methodisation Cell and Drawing Section. (e) WI Cell including QA. (f) MCO Cell. (g) MPO and LPO and related office. (h) Tool store and ESS (Engineering Store Section).	As per technical requirement		
17.	Engineering Shops/ Groups to include: - (a) Machining Group. (b) Engine Repair Group. (c) Foundry Section (Ferrous& Non-ferrous). (d) Stripping and Caustic Wash Shop. (e) Galvanising and Electroplating Shop. (f) Dynamic Engine Test Facility. (g) Special Vehicle Repair Group. (h) Combat Vehicle Repair Group. (j) Engineer Equipment Repair Group. (k) Weapon System Repair Group. (l) Radar Group (509 ABW only) (m) Aviation Group (515 ABW only). (n) Component Engineering Division. (o) Department of Engineering Projects. (p) Special Equipment Repair Group (TI and optical inst).	As per technical requirement		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
18.	Weapon Sub system shops to include: - (a) Gyro Shop. (b) Stab and Control System Shop (Hull Assembly facility). (c) Instrument Shop, PCB Repair Shop. (d) Calibration Cell, Radioactive Material Test facility (505 ABW & 512 ABW). (e) Component Level Repair facility of 'A' Vehicle (T-90 at 505 ABW)	As per technical requirement		
19.	Construction and Fabrication Shops to include: - (a) Sheet Metal Shop. (b) Welding Shop. (c) Steel Fabrication Shop. (d) Moulding Shop. (e) Rubber Moulding Shop. (f) Upholstery Shop. (g) Painting Shop. (h) Paint and Coating shop. (j) Wood Working Shop.	As per technical requirement		
20.	OSS Complex to include:- (a) OC OSS Office. (b) Overhaul Store Room. (c) Expendable Store Room. (d) Demand and Traffic Section.	As per user requirement		OC Office as per scale
21.	QC Det Office Complex	As per user requirement		
22.	LAO Office Complex	As per user requirement		

TABLE 19.III**MEDIUM REPAIR WORKSHOPS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Medium Repair Shed	8100	(a) Ceiling height – 15m. (b) Ironite flooring for 60 Tonne dynamic load. (c) Overhead cranes of capacity 10 Ton and 05 Ton. (d) 24V DC power supply point for each repair bay. (e) Wall mounting isolating fans and desert coolers. (f) Air circulator on roof top.	(a) It will have 12 repair bays. (b) Underground inspection pit of size 1.35m x 7.2m with lighting facility.
2.	Associated Sections			
	(a) Fuel Injection Equipment and Hydraulic Laboratory	270	Ceiling height – 05m	A double storey building adjacent to medium repair shed.
	(b) Armament Section and SA Section	150		
	(c) Air Compressor Plant	60		
	(d) Stair case	15		
	(e) Office of OIC AFV Group	84		
	(f) Office of OIC ICV Group	84		
	(g) Crew Lounge	182		
3.	Associated Sections			
	(a) Carpenter shop	40	Ceiling height – 05m	02 Nos three phase power points.
	(b) Upholster shop	50		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
	(c) Welding shop	80		05 Nos three phase power points.
	(d) Machine shop	50		- do -
	(e) Electric system with battery charging shop	80		Acid resistant flooring.
4.	Associated Sections for Medium Repair	530		
	(a) TSS	300	(a) Ceiling height – 05m.	Double storey building adjacent to medium repair shed.
	(b) Tool Store	210	(b) Three tier shelves.	
	(c) Office for OC	24		
	(d) Workshop Office	35		
	(e) Technical Library cum Class Room	35		
	(f) Conference Hall with attached Toilet	105		
	(g) Technical Cell	35		
	(h) Office for Workshop Officer	16		
	(j) Office for OIC TSS	16		
	(k) Rotable Section	170		
	(l) Instrument/ Opto-electronic Section	100		
	(m) Telecom/ GCE Section	100		
5.	Store Room & Sentry Post	35		
6.	‘A’ Vehicle Waiting Area	750	Ceiling height – 08m.	
7.	Inspection Shed	390	Ceiling height – 08m.	
8.	A Vehicle Stowage Store	216	Ceiling Height – 05m.	
9.	Washing Chamber		Water Reservoir with Hydrant System & Water Recycling Plant.	
10.	Bulk Store for Tools/ Spares	450		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
11.	Paint Booth	270		
12.	'B' Vehicle Repair Section and SA Section	1000		
13.	Testing Track	600m long and 08m wide		
14.	Driving Track	1072m long and 08m wide		

CHAPTER 20**REMOUNT VETERINARY CORPS UNITS**

20.1 Specialised accommodation for Central Military Veterinary Laboratories, Field Veterinary Laboratories, Military Veterinary Hospital, Mobile Field Veterinary Hospital, Advanced Field Veterinary Hospital and Unit Sick Lines will be provided as per Tables 20.I and 20.II.

20.2 For veterinary hospitals hospital providing cover to army dogs, accommodation for dogs comprising of dog rooms with verandah, courtyard and central covered passage will be provided as per authorised scales for 10% of dependent dogs.

TABLE 20.1**FIELD VETERINARY LABORATORIES**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Forage Store	14	(a) Racks for forage. (b) Rat/ Rodent proof. (c) Fan and Exhaust Fan.	For FVL/ CMVL
2.	Grain Store	08	(a) Racks for grains and storage of PM. (b) Rodent proofing around the building. (c) Feed preparation area with water supply and wash basin. (d) Fan, Exhaust Fan and Dehumidifiers as required. (e) Refrigerators and electric connection for storage of fresh ration.	For FVL/ CMVL
3.	Laboratory Building			
	(a) Main Room (for FVL)	180	(a) Glazed tile top work bench on two sides. (b) Tile dado on walls upto window sill. (c) Inbuilt cupboards and covered shelves. (d) Wash hand basins and sinks with elbow operated taps. (e) Air-conditioning in Bacteriology and Mycology Room. (f) Geyser.	May be sub-divided into two portions: - (i) R&D. (ii) Haematology – 21 Sqm. (iii) Serum Biochemistry – 21 Sqm. (iv) Bacteriology and Mycology - 21 Sqm. (v) Histopathology – 21 Sqm. (vi) Nutrition - 21 Sqm. (vii) Virology and Serology – 21 Sqm. (viii) Molecular and PCR Lab – 21 Sqm. (ix) Preparation room for PCR Lab – 21 Sqm. (x) Toilets – 12 Sqm.
	(b) Media Room	21	(a) Granite/ marble top work bench on two sides.	For FVL/ CMVL
	(c) Sterilisation Room	21		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
	(d) Washing Room	21	(b) Tile dado on walls upto window sill. (c) Inbuilt cupboards and covered shelves. (d) Wash hand basins and Stainless Steel Sink with double bowl and double drain board with elbow operated taps. (e) Exhaust fan. (f) Dehumidifier and air tight doors and windows.	
	(e) Chemical and store room	21	(a) Inbuilt cupboards and covered shelves. (b) Glazed tile dado on walls upto window sill. (c) Dehumidifier and air tight doors and windows. (d) Exhaust fan. (e) Fire Fighting arrangement.	For FVL/ CMVL.
	(f) Packing Room	28	(a) Glazed tile top work bench on two sides. (b) Glazed tile dado on walls upto window sill. (c) Inbuilt cupboards. (d) Wash hand basins and Stainless Steel Sink with double bowl and double drain board. (e) Exhaust fans.	For FVL/ CMVL.
4.	Experimental House			For FVL/ CMVL.
	(a) Boxes for Horses (15.6 Sqm each)	03 Nos		
	(b) Guinea Pigs	11	(a) Additional wire netting enclosure of size 11 Sqm. (b) Wash basin with elbow operated tap. (c) Racks and cages as required.	
	(c) Rabbits	11		
	(d) White Rats and Mice	11		
	(e) Pigeons	11		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
	(f) Experimental Boxes (16 Sqm each)	04 Nos	(a) To be fly proof. (b) Double doors.	
5.	Library and museum	21	(a) Steel Almirah and Racks. (b) Air-conditioning in Reading Room only.	
6.	Incineration Facility	28	Electric Incinerator.	For FVL/ CMVL.
7.	Changing/ bathing Room	21	---	For FVL/ CMVL.

TABLE 20.II

FIELD VETERINARY HOSPITALS,
MOBILE VETERINARY SECTIONS AND UNIT SICK LINES

Ser No	Description of Items	Floor Area (Sqm)/ Scale Veterinary Hospitals			Special Facilities	Planning Notes
		Class I/ Adv Fd Vet Hosp	Class II/ Mob Vet Section	Class III		
1.	Stalls Veterinary	(a) 10.4 per animal for 10% of dependent animals. (b) Independent mangers for mules instead of running manger.			(a) Tethering ring (b) Mangers of following dimensions: - Inner width – 0.45m Depth - 0.3m <u>Height</u> Rear wall - 1.0m Front Curb - 0.75m <u>Scales</u> Horse - 1.4m per horse in two separate compartments Mules - running manger (c) Water point with running water in one end stall to serve as irrigation stand. (d) One ceiling fan per 02 animals and exhaust fans as required. (e) Rubberised flooring.	(a) Also authorised for unit sick lines. (b) Floor area of stall to be clear of manger and exclusive of passages.
2.	Loose Boxes Ordinary	Horse or Pony or Mule MA – 15.6 each Mules GS – 13.4			(a) One ceiling fan per 02 animals and exhaust fans as required. (b) Rubberised flooring.	(a) Authorised for 1% of dependent animals. (b) Also authorised for unit sick lines.

Ser No	Description of Items	Floor Area (Sqm)/ Scale Veterinary Hospitals			Special Facilities	Planning Notes
		Class I/ Adv Fd Vet Hosp	Class II/ Mob Vet Section	Class III		
3.	Loose Boxes (Colic) (18 Sqm each)	02 Nos	01 No	01 No	(a) Ceiling height – 04m. (b) Well ventilated. (c) Wooden walls. (d) Unpaved floor. (e) Soft padded wall instead of wooden wall. (f) Light points, ceiling and exhaust fan and detachable SS water trough 01 No per box. (g) Box should have an attached covered observation point for night/ rainy season. It is to be 03 Sqm and 1.5m raised from ground.	(a) May be circular box. (b) 01 No also authorised for unit sick lines.
4.	Loose Boxes (Sling) (15.6 Sqm each)	02 Nos	01 No	01 No	(a) Slings bar with hook. (b) Water point with running water in one loose box to serve as irrigation stand. (c) Electric motor fitted pulley system on slinging bar (d) Each box to have running water facility. (e) Rubberised flooring. (f) Wall mounted fans and exhaust fans.	

Ser No	Description of Items	Floor Area (Sqm)/ Scale Veterinary Hospitals			Special Facilities	Planning Notes
		Class I/ Adv Fd Vet Hosp	Class II/ Mob Vet Section	Class III		
5.	Isolation Boxes (18.5 Sqm each)	03 Nos	02 Nos	02 Nos	(a) Mangers as per Serial 1. (b) Tethering ring. (c) Rubberised flooring. (d) One for dogs also. (e) Ceiling and exhaust fans.	For dogs- Tiles upto dado, ceramic tile flooring, water supply, geyser, wash basin, feed preparation room and attendant room with toilet facility
6.	Stores for Isolation Boxes (3.2 Sqm each)	03 Nos	02 Nos	02 Nos		To be provided in verandah of isolation box. 01 x for dog isolation kennel.
7.	Attendants' Room	12.5	08	08		(a) Authorised for attendant of animals in isolation boxes. (b) Attached sanitary annexe.
8.	Watering Trough	13.5 per 100 animals			(a) 03m wide non-slip type floor all around. (b) Continuous running water supply. (c) Independent watering trough for mules.	
9.	Open Standing	Mules MA – 3.0m x 2.1m Mules GS – 3.0m x 1.7m Standing Horses/ HLPP – 12 Sqm			(a) Mangers. (b) Tethering ring. (c) Running water. (d) Drainage.	(a) Authorised for 10% dependent animals. (b) Area authorised is clear of mangers. (c) Also authorised for unit sick lines.

Ser No	Description of Items	Floor Area (Sqm)/ Scale Veterinary Hospitals			Special Facilities	Planning Notes
		Class I/ Adv Fd Vet Hosp	Class II/ Mob Vet Section	Class III		
10.	Accommodation for Pharmacy Complex				Ceiling and exhaust fans and wash basin/ sink to be provided.	
	(a) Office	21	15	15	(a) Shelving. (b) Wash hand basin. (c) Ceiling and exhaust fans. (d) Rubberised flooring at Large Animal Clinics. (e) Stainless Steel Sink with double bowl and double drain board/ wash basin.	(a) 11 Sqm also authorised for unit sick lines. (b) Separate office area for Vet officer I/C of pharmacy. (c) Shelving.
	(b) Pharmacy	40	30	20	(a) Shelving. (b) Stainless Steel Sink with double bowl and double drain board. (c) 150 Sqm with central monitoring room of size 25 Sqm with provision of platform, shelves, wash basin, sinks, geyser, built in cupboards and air conditioning.	09 Sqm authorised for unit sick lines also.
	(c) Open Treatment Shed	150	150	150	(a) Crush with leather paddings. (b) Tethering ring. (c) Shelf with terrazzo top, sink and geyser in an enclosed portion.	24 Sqm authorised for unit sick lines also. For large animal clinics 04 x collapsible GI pipe crushes to be provided alongwith all accessories.

Ser No	Description of Items	Floor Area (Sqm)/ Scale Veterinary Hospitals			Special Facilities	Planning Notes
		Class I/ Adv Fd Vet Hosp	Class II/ Mob Vet Section	Class III		
	(d) Duty Room (12 Sqm)	02 Nos	02 Nos	02 Nos	(a) 02 x Duty rooms of size 12 Sqm each (01 x duty officer room and 01 x duty NA Vet room) with attached toilet (b) Ceiling and exhaust fan.	Attached toilet.
	(e) Store Room	38	28	20	(a) 02 x Store room of equal size for electro-magnetic equipment and general store). (b) Racking and shelving.	
	(f) Drug Store	42	42	42	(a) Shelving. (b) Double door with outer door of iron bars. (c) Ceiling and exhaust fans.	
11.	Forage Store	38	25	19		
12.	Boiling House					
	(a) Boiling Room	07	07	07	(a) Exhaust fans. (b) Geyser. (c) Wash basin/ sink.	Floor area caters for two boilers.
	(b) Expense Grain Store	09	09	09		
	(c) Wood Store	09	09	09		
13.	Liberty Paddock	5000	1800	1800	(a) Water trough and drainage. (b) GI pipe enclosure, 1.5m high with entry/ exist gates.	(a) To be enclosed (b) May be divided into two portions, if required.

Ser No	Description of Items	Floor Area (Sqm)/ Scale Veterinary Hospitals			Special Facilities	Planning Notes
		Class I/ Adv Fd Vet Hosp	Class II/ Mob Vet Section	Class III		
14.	Small Animal Surgical Complex					
	(a) Preparation Room	09	09	09	(a) Geyser, foot operated wash basin and sink in Surgeons' Scrub Room and Instrument Sterilisation Room. (b) Cupboard and platform in Gloving and Gowning Room and Instrument Sterilisation Room. (c) Sanitary Annexe. (d) Vitrified tiles flooring and glazed ceramic tiles upto lintel height. (e) Air-conditioning. (f) Air curtains in OT.	(a) Connecting passage with operation theatre. (b) Rooms to be inter-connected.
	(b) Surgeons' Scrub Room	09	09	09		
	(c) Gloving and Gowning Room	09	09	09		
	(d) Operation Theatre	50	50	50		
	(e) ICU I & II	09	09	09		
	(f) Recovery Room	09	09	09		
	(g) Instrument Sterilisation Room	12	12	12		
	(h) Store	09	09	09		
15.	Equine Surgical Complex				(a) Rubberised mats flooring and soft padding on walls upto lintel height in Preparation Room and Recovery Room. (b) Cupboard and platform in Gloving and Gowning Room and Instrument Sterilisation Room. (c) Water trough and manger in Recovery Room. (d) Sanitary Annexe.	(a) Connecting passage with operation theatre. (b) Rooms to be inter-connected.
	(a) Preparation Room	100	100	100		
	(b) Surgeons' Scrub Room	09	09	09		
	(c) Gloving and Gowning Room	09	09	09		
	(d) Operation Theatre	174	174	174		
	(e) Recovery Room	100	100	100		

Ser No	Description of Items	Floor Area (Sqm)/ Scale Veterinary Hospitals			Special Facilities	Planning Notes
		Class I/ Adv Fd Vet Hosp	Class II/ Mob Vet Section	Class III		
	(f) Instrument Sterilisation Room	09	09	09	(e) Air-conditioning. (f) Air curtains in OT.	
	(g) Store	09	09	09		
16.	Sterilisation Room	21	21	21	Ceiling and exhaust fans, wash basin/ Stainless Steel sink with double bowl and double drain board, geyser.	To be provided only where sterilisation equipment (autoclave) is authorised.
17.	Post Mortem Installation	75	75	75	(a) Fly proofing. (b) Sink with running water supply. (c) Inbuilt cupboard. (d) Water tap – 01 No. (e) Ceiling and exhaust fans. (f) Geyser.	
18.	Stock	01 No	01 No	01 No		May be covered where justified.
19.	Laboratory	50	50	50	(a) Fly proofing. (b) 0.75m wide glazed tiled top work bench on two sides. (c) Tile dado on walls upto window sill. (d) Inbuilt cupboards and covered shelves. (e) Wash hand basin and Stainless Steel sink with double bowl and double drain board. (f) Geyser.	

Ser No	Description of Items	Floor Area (Sqm)/ Scale Veterinary Hospitals			Special Facilities	Planning Notes
		Class I/ Adv Fd Vet Hosp	Class II/ Mob Vet Section	Class III		
20.	X-Ray Block					
	(a) X-Ray plant Room	58 Sqm each			Non-skid type floor.	To be provided in such hospitals only where X-ray unit is authorised. To be connected to X-Ray plant room with a hatch or window.
	(b) Films and Chemicals Store	09 Sqm each			(a) Shelving. (b) Inbuilt cupboards.	
	(c) Dark Room	06 Sqm each			(a) Exhaust fan. (b) Power point.	
	(d) USG Room	58	58	58	(a) 03 phase electric connection. (b) Ceiling fans. (c) Rubberised mats flooring & soft padding on wall upto lintel height. (d) Shelving. (e) Inbuilt cupboards (f) Exhaust fans. (g) Dehumidifier in film and chemical store. (h) Air conditioning (Hot and cold).	
21.	Physiotherapy Room	30	30	30	(a) Non-skid type floor. (b) Power points. (c) Ceiling and exhaust fans. (d) Air conditioning. (e) Geyser. (f) Fly proofing.	To be provided in such hospitals only where physiotherapy equipment is authorised.

Ser No	Description of Items	Floor Area (Sqm)/ Scale Veterinary Hospitals			Special Facilities	Planning Notes
		Class I/ Adv Fd Vet Hosp	Class II/ Mob Vet Section	Class III		
22.	Ramp for Loading and Unloading Animals.	01 No	01 No	01 No	(a) Height – 01m. (b) Width – 02m. (c) Side railing. (d) Soft padding in front of ramp where vehicle contact/ attached and rubberised mats flooring.	---
23.	Hydrotherapy room	100				Central pool of 12 Sqm, 1.5m deep.
24.	Cool/ Hot room	30			(a) Water trough. (b) Air conditioning.	
25.	Bathing platform	45			Sprinkler with electric motor.	Non slippery floor.
26.	Trotting bay	12			(a) WHB. (b) Covered inspection platform.	
27.	Specialised sick line/ ward (a) 10 Equines Skin/ Post-operative ward. (b) Disability/ skeletal/ orthopaedic/ neurology ward	Brick wall of 3' height and XPM 12' above that			(a) Rubberised mats flooring. (b) Soft padding on walls of manger. (c) Water trough in 50% area. (d) Soft guard in remaining 50% area. (e) Detachable electric pulley system with OH sling bar.	
28.	Sick Line Attendant Room	09				Attached toilet.

Ser No	Description of Items	Floor Area (Sqm)/ Scale Veterinary Hospitals			Special Facilities	Planning Notes
		Class I/ Adv Fd Vet Hosp	Class II/ Mob Vet Section	Class III		
29.	Smoke pits	01 Sqm for 16 Nos in sick lines				
30.	Raised hard platform	04			Raised hard platform with provision of GI pipe bar/ hooks to dry jhools, nose bag, saddle and harness.	PCC flooring.
31.	Harness Block					
	(a) Harness Room	09			(a) Shelving. (b) Verandah.	PCC flooring.
	(b) Store Room	33.5				
32.	Forge and shoeing Shed -	08			(a) Ceiling and exhaust fans as applicable. (b) 02 Nos Collapsible GI pipe traxis. (c) Water tank (1.2m x 1.2m x 0.5m) at Ground level. Non slippery floor with rubberised matting. (d) Rubberised matting floor.	
33.	Artificer's Shop for Saddler	12			Ceiling and exhaust fans	With stone flooring
34.	Forage Block					
	(a) Grain Store	01 Sqm per 07 horses or 20 mules			(a) To be rat proof.	

Ser No	Description of Items	Floor Area (Sqm)/ Scale Veterinary Hospitals			Special Facilities	Planning Notes
		Class I/ Adv Fd Vet Hosp	Class II/ Mob Vet Section	Class III		
	(b) Shed for Hay and Bhoosa	09 Sqm per 10 horses or 07 Sqm per 10 Mules				
(c) Expense Grain Store	09 Sqm per 100 animals or part thereof					
35.	Clipping Shed	15 Sqm per 100 animals			(a) Power point. (b) Ceiling fan in the shed. (c) Collapsible GI pipe travis.	Non slippery floor
36.	Sand Pit	40 Sqm per 100 animals			(a) 0.3m deep sand layer. (b) GI pipe side railing.	

Note. Garages for ambulances and incinerators shall be provided as per authorised scales.

CHAPTER 21**CORPS OF MILITARY POLICE UNITS**

21.1 Specialised accommodation for Military Police Units for Army, Navy and Air Force will be provided as given in Table 21.I. Permanent traffic check posts may be provided, wherever justified. Living and other ancillary accommodation shall be as per authorised scales.

21.2 The scales of Military Prisons are given in Table 21.II.

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TABLE 21.I**MILITARY POLICE UNITS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Desk NCO's Office	09		
2.	Unclaimed Property Store	09	Racking and shelving.	
3.	Signal Equipment Store	09	(a) Racking and shelving. (b) Non dust emitting floor.	
4.	Store Room for Traffic Control Equipment, Day Sign Boards and Night Sign Post	19	Racking and shelving.	
5.	Timber Store	09		
6.	Paint Store	06		
7.	TCP Sentry Post	01 No		Wooden sentry post.

TABLE 21.II**MILITARY PRISONS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Prisoners' Cells			Floor area may be reduced to 05 Sqm per prisoner for structural reasons.
	(a) 07 Sqm each	01 No per prisoner for 75% prisoners	03m high walls	
	(b) 13.5 Sqm each	01 No per three prisoners for 25% prisoners	03m high walls	
2.	Sanitary Annexe	Latrines – one seat per 10 cells. Urinals – 0.60m long trough per 20 cells. Ablution – as per scale Sheds		Attached to block of prisoner cells.
3.	Clothing Store	13.5 per 100 prisoners	Racking and shelving	
4.	Ration Store		Racking and shelving	(a) Includes space for ration stand. (b) Serials 4 to 7 to be provided in one building with verandah.
	(a) Upto 100 prisoners	13.5		
	(b) 101-300	27.0		
	(c) 301-600	40.5		
	(d) Above 600	54.0		
5.	Packing Material Store	13.5		
6.	Equipment Store	13.5 per 300 prisoners		
7.	Prisoners' Private Property Store	13.5 per 300 prisoners		
8.	Oil Store	09		
9.	Wood Store	09		
10.	Office for Quarter Master	As per scale		Serials 10 to 13 to be provided in one building with verandah.
11.	MI Room and Dispensary	20	Vitrified tile	
12.	MO's Office	13.5		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
13.	Detention Ward (08 Sqm per bed)	01 bed per 20 prisoners' cells		For prisoners strength exceeding 300, a separate detention ward block to be provided as per scales for hospitals.
14.	Medical Orderly's Quarters	13.5		
15.	Treatment Room	27		For 100 cells or more.
16.	Workshop			
	(a) Upto 300 Prisoners	116		
	(b) Above 300 Prisoners	186		
17.	Gate Lodge	13.5		Inside the Main gate.
18.	Main Gate	01 No	3.7m wide double gate of iron.	
19.	Armoury	As per scale		Authorised at the scale of rifles – 01 No per two prisoners, LMGs – 06 Nos, 02 inch Mortars – 02 Nos, and Sten Guns – 06 Nos.
20.	Assistant Commandants' Quarters	27		
21.	Magazine	3.5		
22.	Short Range – 27m	01 No		Four firing points.
23.	Parade Ground (93m x 93m each)	02 Nos per 300 prisoners		

Note.

- Accommodation listed in the table shall be enclosed by a 4.6m high wall.
- Baths and cook houses for prisoners will be provided inside the enclosure wall of prison, as per scales for other ranks.
- Accommodation for prison staff such as Commandants' quarters, JCOs, and ORs' quarters, sanitary annexe, cook houses, dining halls, institute, instruction rooms, shall be provided as per authorised scales. The accommodation will be built outside the enclosure wall of prison and as near as possible to the prison main gate.
- In addition to the accommodation authorised for institute, one barbers' shop will be provided in a single room with floor area at the scale of 5.6 Sqm per barber.

CHAPTER 22

ARMY POSTAL SERVICE UNITS

22.1. The units of Army Postal Service are organised for handling of private as well as official mail.

22.2. Scales of Section Base, Field Post Offices (SBPOs) and FPOs) and Scheduled Dispatch Offices (SDOs) are given in the Table 22.I. Single residential accommodation alongwith toilet facility may be provided as per the authorised scales alongside SBPO or FPO or SDO as applicable, for one JCO or WO in respect of FPO or SDO and for two JCOs or WOs in respect of SBPO or SDO. Built-in counters as required should be provided in SBPOs, FPOs and SDOs. The building should be provided with a verandah on one side. For SDOs functioning alongside SBPOs or FPOs, the accommodation will be built alongside the SBPO or FPO.

22.3. The basic scales for Central Base Post Office (CBPOs) given in the Table 22.II cater for the needs of CBPOs serving upto 04 Lakh troops or upto 150 dependent FPOs. For further increases in the strength of troops served, involving a corresponding increase in the number of dependent FPOs, additional areas may be provided as indicated. Residential accommodation for officers may be constructed as authorised within the CBPOs complex.

22.4. The floor area for the Scheduled Dispatch Service units (SDS units) carrying out central sorting of official mail and working in conjunction with CBPOs or independently, will be provided at 75% of the scales authorised to CBPOs for sorting halls and at 30% for traffic records rooms, postal forms store and postal equipment store. The area as calculated from the Table of authorisation for the CBPOs will cater upto 150 dependent SDOs. With the increase in number of dependent SDOs, additional floor area can be provided pro rata of the increment shown in the Table for CBPOs as applicable.

22.5. The technical JCOs working in the CBPOs or SDS units carrying out supervision and other specialist functions should be provided office accommodation as for technical staff wherever authorised in the Table.

22.6. Scales for technical accommodation required for base censor is included in the Table of CBPOs, although this is a separate non postal unit as it may be functionally located with CBPO. This accommodation is to be constructed within CBPO only if the base censor unit is to be actually located in the same complex.

22.7. For postal and SDS units serving field and static formations, a store room of size 18.0 Sqm should be provided for storage of postal or SDS equipment and forms.

TABLE 22.1**SECTION BASE/ FIELD POST OFFICES AND
SCHEDULED DISPATCH OFFICES**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Post Master, Supervisor In-charge or Supervisor (each)	---		
2.	Clerks Postal or Operators SDS Havildars or Naiks (each)	---		
3.	Postmen (each)	1.9		Applicable only to SBPOs and FPOs.
4.	Packers (each)	1.9		
5.	Working space for Operators SDS or Packers SDS	25% or areas authorised for Serials 2 & 4	Smoke outlet chimney	Applicable only to SDOs.
6.	Space for Opening Bags (each)	4.7 Sqm per bag		Applicable to SBPOs and FPOs only.
7.	Space for Closing of Bags	0.28 Sqm per bag	Smoke outlet chimney	(a) Applicable only to SBPOs and FPOs. (b) Subject to a minimum of 1.9 Sqm and a maximum of 27.8 Sqm.
8.	Store Room for			
	(a) Postal Forms and Records	11.3		
	(b) SDS Forms and Records	11.3		
	(c) SDOs of Army or Command HQ	18		
9.	Store Room for Unit Clothing, Ordnance and MT Stores.	15		For store holding SBPOs FPOs and SDOs only.

TABLE 22.II**CENTRAL BASE POST OFFICE**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Sorting Hall	465 Sqm with increase of 30 Sqm per 10 additional FPOs	Smoke outlet chimney	
2.	Traffic Records Room	186 Sqm with increase of 12 Sqm per 10 additional FPOs		
3.	Postal Forms Store	186 with increase of 12 Sqm per every 10 additional FPOs		
4.	Postal Equipment Store	46 with increase of 03 Sqm per every 10 additional FPOs		
5.	Forces Letters Forms Store	226 for upto 168 Lakh forms		Additional 1.3 Sqm will be provided for every 01 Lakh forms.
6.	Empty Bags Store	186 for upto 10,000 canvas bags and 7,500 cotton bags		Additional 6.9 Sqm per 500 canvas or 1000 cotton bags.
7.	Treasury and Accounts Branch			
	(a) Strong Room	46.5		
	(b) Working Space			
	(i) Treasurer	13.9	Suitable cage for cash counters.	
	(ii) Asst Treasurers	4.6 Sqm each		
	(iii) Others	As per scale		
8.	Postal Training Section			
	(a) Store Room for Equipment and Records	09		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
	(b) Deposit Articles Room	09		
	(c) Working Space for Clerks	As per scale		
9.	Savings Bank			When Saving Bank is authorised.
	(a) Working Space	As per scale		
	(b) Space for Records	06 Sqm per SBCO clerk		
	(c) Space for Ledgers	04 Sqm per ledger clerk		
10.	Philatelic Bureau	93		When the Philatelic Bureau is authorised.
11.	Rest Room	93		
12.	Bradma Machine Room	9.3 for first machine		For every additional machine – 06 Sqm
13.	Bag De-dusting Machine Room	46.5		When the de-dusting machine is authorised.
14.	Base Censor Unit			
	(a) Dark Room	15	(a) Air inlet ducts (b) Exhaust fans	Provision to be governed as given in chapter notes.
	(b) Working Space	As per scale	(c) Light proof fittings (d) Light proof double doors. (e) Marble finished cement wash basin 2.7m x 0.9m x 0.2m deep fixed at 0.9m height.	

CHAPTER 23

REGIMENTAL TRAINING CENTRES

23.1 Regimental Training Centres for Army, Navy and Air Force shall be authorised accommodation as laid down for all units in Part I except where otherwise stipulated in the provisions given herein. Specialised items of accommodation scaled for units and also authorised to Regimental Training Centres of the various Arm or Service are incorporated in respective Table of Scales. Other specialised accommodation commonly applicable to all Regimental Training Centres is given below. Additional specialised accommodation peculiar to each Regimental Training Centre will be assessed based on technical requirements and provided on as required basis.

23.2 Station facilities such as swimming pools and auditorium cum-cinema hall may be provided in the centres if the same is not located within 04 KM radius. Drivers training tracks may be provided if considered essential as per scale subject to approval of GOC-in-C/ equivalent. Parade ground may be provided in Centre, if the same is not located within 04 KM radius.

23.3 Accommodation for cook houses, latrines and bath rooms, armoury, etc. including tent plinths may be provided for camps of Regimental Training Centres for assessed strength of personnel with the approval of GOC-in-C Command. Squad posts in company training areas will be provided on an as required basis.

23.4 Specialised accommodation commonly applicable and authorised to all Regimental Training Centres, except where otherwise indicated, is as under: -

Ser No	Item	Scale/ Reference
(a)	Assault Course	Part I – General Authorisation.
(b)	Baggage Room	Part I – General Authorisation.
(c)	Band Accommodation	Part I – General Authorisation.
(d)	Boxing Rings	Part I – General Authorisation.
(e)	Confidence Course	Part I – General Authorisation (Authorised for Infantry and Mechanised Infantry Regimental Training Centres only).
(f)	Motivation Training Hall-cum-Museum	Part I – General Authorisation.
(g)	Obstacle Course	Part I – General Authorisation.
(h)	Sports Store	Part I – General Authorisation (to be provided to each battalion or regiment as per scale for large units).
(j)	Training Shed	Part I – General Authorisation.
(k)	Unit Shops	Part I – General Authorisation (to be provided to each battalion or regiment as per scale for large units).
(l)	Gymnasium	Part II – Training and Recreational facilities.
(m)	Weapon Training Aid Store	37 Sqm per Centre.

Ser No	Item	Scale/ Reference
(n)	Ranges	
	(i) 27m Range	Two per Centre.
	(ii) Classification Range	One per Centre.
	(iii) Electric Beam Firing Military Training Range	One per Centre.
	(iv) Artillery Miniature Range	One per Artillery Regimental Training Centre.
	(v) Field Miniature Ranges (27/50)	One per Armoured and Mechanised units Regimental Training Centres.
	(vi) Anti-Tank Range	One each for Artillery Regimental Training Centres only.
	(vii) Counter Insurgency Range	One each for Infantry Regimental Training Centres only.

CHAPTER 24**SERVICES SELECTION CENTRES AND RECRUITING OFFICES**

24.1 **Service Selection Centres.** Specialised accommodation for the Services Selection Centres for Army, Navy and Air Force will be provided as per Table 24.I. Scales for living/ Mess/ Office accommodation shall be followed as given in respective chapters of this Scales of Accommodation.

24.2 **Recruiting Offices.**

24.2.1 Specialised accommodation for Recruiting Offices will be provided as per Table 24.II.

24.2.2 One ground for physical efficiency testing of recruits, equal to the size of a football ground, should be provided for each recruiting office.

24.2.3 One volleyball court (small unit) and one basketball court (small unit) will be provided for each Services Selection Centre.

TABLE 24.1**SERVICES SELECTION CENTRES**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Testing Hall	112	(a) Raised platform (b) Glass black boards (c) Projection screen	(a) Verandah and attached toilet without bath. (b) One hall authorised for upto 02 SSBs. One additional hall will be provided for selection centre having more than 02 SSB.
2.	Store Room for Classified Testing Material	30 Sqm per testing hall	(a) Inbuilt cupboards (b) Shelving	May be suitably sub-divided as required.
3.	Planning Rooms (60 Sqm each)	04 Nos per SSB	(a) Sand model pit (b) Glass black boards (c) Supplementary lighting for sand model	
4.	GTO Ground	16,000		(a) 2.5m high screen or wall may be provided wherever necessary to block public view only. (b) One ground authorised for upto 02 SSBs. One additional ground to be provided for selection centres having more than 02 SSBs. (c) Urinals – 02 Nos.
5.	Open Sheds (60 Sqm each)	04 Nos per GTO ground		
6.	Store Room	60 Sqm per SSB		
7.	Conference Room	56	(a) Air conditioning. (b) Standby power supply.	(a) Verandah and attached toilet without bath. (b) One room authorised for upto 02 SSBs. One additional conference room will be provided for selection centre having more than 02 SSBs.

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
8.	Candidates Waiting Room	18 Sqm per each SSB		Attached toilet without bath.
9.	Candidates' Living Accommodation	As per scales of single living accommodation for officer cadets (Junior)	Sanitary block as authorised	(a) One living room unit with verandah per four candidates. (b) 15 living room units (for 60 candidates) authorised per SSB.
10.	Candidates' Mess	As per scales of messes for officer cadets		Only one mess building to be provided for a selection centre
11.	Canteen and Tea Bar	28		

Note. Any new requirements of these service selection centres may be assessed by Board of Officers and be sanctioned on a case to case basis as special items of works.

TABLE 24.II**RECRUITING ZONES/ RECRUITING OFFICES**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Recruit Medical Inspection and MO's Room	22 Sqm per MO		Attached toilet without bath and verandah.
2.	Information cum Enquiry Room	30		
3.	Living Accommodation			
	(a) Barrack	100	Shelves in Janitor closet	To cater for 20 candidates.
	(b) Sanitary annexe	12.5		
4.	Parade-cum-Enrolling Shed	83		
5.	Store Room for Stationery, Expendable Stores, Amenity Stores, Publicity and Miscellaneous Store.	70	Racking and shelving	May be suitably sub-divided.
6.	Office of Assistant Recruiting Officers.	11		Caters for two AROs, Extra floor area at 5.5 Sqm for every additional ARO.
7.	Documents and Records Room	11	Racking and Shelving	Authorised over and above the normal office entitlement of clerical staff.
8.	Computer Based Entrance Test (CBET) Hall	100	(a) Adequate power points. (b) Air conditioning. (c) Standby power supply.	Attached toilet without bath and verandah.
9.	Class Room	30	(a) Raised platform. (b) Glass black boards. (c) Projection screen.	
10.	Evaluation Room	18		
11.	Publication cum Information Hall	45		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
12.	Strong Room for Question Paper	30		
13.	Visitor's Room	20		
14.	Conference Room	22		
15.	Kitchenette	7.5		
16.	Telephone & IVRS Room	10		
17.	Examination cum Trade Allocation Test Hall.	100		
18.	Canteen and Tea Bar	28		
19.	Old Record Room	22		

Note. Additional storage space and parking space for rallies stores and visitors vehicles will be provided as per requirement.

CHAPTER 25**CONVALESCENT DEPOT**

25.1 Administrative living, working and storage accommodation including provision of messes and ancillaries for Convalescent Depots shall be as per authorised scales. Living accommodation will be provided in barracks and not in wards. Central hot water facility in the living accommodation for JCOs and OR may be authorised at the discretion of GOC-in-C Commands.

25.2 Lecture hall as authorised will also be used for occupational therapy. The gymnasium shall be provided for Depots accommodating 500 or more men. Other accommodation authorised to convalescent depots is as under: -

Ser No	Item	Scales/ References
(a)	Institute Officers	Part II – Training and Recreational facilities.
(b)	Institute OR	Part II – Training and Recreational facilities
(c)	Gymnasium	Part II – Training and Recreational facilities (for strength below 1000 men, the size of Gymnasium to be proportionately reduced).
(d)	MI Room	Part II – Administrative and Working Accommodation.
(e)	Lecture Hall	162 Sqm (for strength below 1000 men, the size of lecture hall to be proportionately reduced).
(f)	Recreational grounds and Courts	Part II – Training and Recreational facilities (for assessment of entitlement of Grounds, strength over 400 and upto 1000 men to be taken as a large unit. Part below 400 as small unit).

CHAPTER 26**ACCOMMODATION FOR ANIMALS**

26.1. Specialised accommodation for animals viz horses, ponies, mules MA and mules GS, including dog kennels will be provided as per scales given in Table 26.I. These scales will be applicable to all animal holding units.

26.2. Covered accommodation for animals should be provided in blocks to suit the organisation of the unit. Stalls should be arranged in two rows facing each other with 1.2m wide passage in between. Mangers, as indicated in the Table, shall be provided as part of the accommodation for animals.

26.3. Non-slip type flooring should be provided in the accommodation for animals with a slope towards the drain. Ridge ventilation should be provided continuous along the whole length of the stables. Tethering rings will be provided both in the front and rear in covered accommodation as well as in the open standings of animals. Drains with suitable soakage pits should be provided all around the stables and open standings.

26.4. Storage accommodation as well as the accommodation authorised for harness and forage blocks may be appropriately sub-divided to suit the organisation of the unit concerned.

26.5. Tick channels should be provided all around the dog kennels.

26.6. Water supply requirements are to be provided as necessary. Suitable lighting should be provided for the stalls. General lighting for the area covered by open standings may be provided where essential.

TABLE 26.I**ACCOMMODATION FOR ANIMALS**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Stalls Ordinary	Horses – 4.3m x 2.3m Ponies – 3.7m x 2.1m Or Mules MA Mules - 3.7m x 1.7m GS	(a) Mangers of following dimensions: - Inner width - 0.45m Depth - 0.3m Height Rear wall - 1.0m Front curb - 0.75m Scale Horses or Ponies - 1.4m per horse or pony in two separate compartments. Mules - running Manger (b) Water points and pressure water cleaning hose. (c) Electric heavy duty water heating geysers. (d) Exhaust and ceiling fans.	(a) Floor area authorised for stalls is to be clear of mangers and exclusive of passages. (b) In places at high altitudes, the stalls should be partially enclosed from sides with exist and entrance doors to cut out direct wind draught. (c) Adequate side cover below eaves for protection from rain where required.
2.	Open Standings	Horses - 3.7m x 2.3m Ponies or - 3m x 2.1m Mules MA Mules GS – 03m x 1.7m	Mangers and water points as at Serial 1.	Floor area authorised to be clear of mangers.
3.	Watering Trough for Mules	13.5 M per 100 animals	(a) 03m wide non-slip type surface all around the trough. (b) Continuous trough with running water supply.	May be sub-divided as required.
4.	Harness Block			
	(a) Harness Room	01 per 10 animals	Shelving.	With verandah.
	(b) Store Room	33.5 per 100 animals		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
5.	Forge and Shoeing Shed			
	(a) Open Forge Room	08	(a) Electric Hearth. (b) Water tank of size 1.2m x 1.2m x 0.5m with base at floor level. (c) Unpaved floor.	01 No authorised per 100 animals or part thereof for independent small units.
	(b) Store	06	---	---
	(c) Open Shoeing Shed	24	Unpaved floor.	
6.	Artificer's Shops for Blacksmiths, Saddlers and Carpenters.	5.6 per artificer	Electric Hearth and a water tank of size 1.2m x 1.2m x 0.5m with base at floor level to be provided for blacksmith shop.	(a) To be provided only for the authorised artificers. (b) Minimum size of each shop – 12 Sqm.
7.	Forage Block			
	(a) Grain Store	01 per 07 horses or 20 mules	To be rat proof.	Subject to a minimum of 09 Sqm
	(b) Shed for Hay/ Bhoosa	09 per 10 horses	High ceiling.	
	(c) Expense Grain Store	09 per 100 animals or part thereof	Kota stone floors.	
8.	Boiling House			To be provided only where necessity for pre-boiling of grain feed is justified.
	(a) Boiling Room	07 per unit		
	(b) Wood Store	09 per unit		
9.	Clipping Shed	15 Sqm per 100 animals		Also authorised for independent small units.
10.	Manages	1000 Sqm		(a) Rectangular or circular as required.

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
				(b) Also caters for riding school. (c) 01 No authorised for all units holding horses. For large units, 01 No authorised for every 250 horses or part, subject to a maximum of 05 Manages.
11.	Sand Pit	40 Sqm per 100 animals	(a) 0.3m deep sand layer. (b) Wooden side railing.	Also authorised for independent units.
12.	Ramp for Loading and Unloading of Animals	01 No per unit	(a) Height – 01m. (b) Width – 02m. (c) Side railing.	
13.	Bio Gas Plant	01 No		Capacity for using 16000 Kg dung every day.
14.	Dog Kennels			
	(a) Rooms for Dogs	3.5 each	(a) 03m deep courtyard. (b) Ceiling fan 1200 mm sweep – 01 No per 02 dogs at authorised stations.	(a) Verandah in front of 1.5m width and 02m height.
	(b) Cook house	7.5 per 50 dogs		(b) Covered central passage of 03m height to be provided for every 08 dog rooms. Doors to be provided on either ends of passage. 01 No authorised for 11 to 50 dogs.
	(c) Fuel store	3.7 per 50 dogs		
	(d) Meat and Grain Store	7.5		

Note. Accommodation for the unit sick lines will be provided as per the authorised scales. The accommodation for unit sick lines is authorised only for such units where a veterinary officer is authorised on the unit establishment.

PART III – SPECIALISED SCALES

SECTION B - SPECIALISED ACCOMMODATION FOR NAVY AND COAST GUARD

CHAPTER 27

ACCOMMODATION FOR NAVY AND COAST GUARD

27.1. This section defines and authorises the scales of accommodation and allied services peculiar to units and establishments of the Navy and Coast Guard. The scales of accommodation as applicable to the Army shall continue to apply to the Navy and Coast Guard except wherever otherwise specified. The accommodation for Naval Commands and Area Headquarters shall be considered separately and specialised facilities not covered in the scales are required, the scale for same may be provided with the approval of Service HQs. Such facilities will however be provided as per analogous scales where available.

27.2. Single Accommodation.

27.2.1 Single living accommodation for all ranks will be provided for authorised sanctioned complement of the station including the personnel manning ships and submarines who are permitted to live ashore by competent authority. Additional accommodation not exceeding 30% of the authorised complement of ships undergoing refit may also be constructed.

27.2.2 For officers and sailors in transit 5% additional single living accommodation over and above the authorised complement may be provided at such naval stations where ships are based. Single living accommodation for officers and sailors deputed for short term courses and attachments may be provided based on average peak load strength certified by administrative authorities.

27.2.3 MCPOs and CPOs will normally be provided accommodation in single quarters. The POs will be provided rooms to accommodate 02 per room. Junior sailors will be accommodated in barracks. However, if considered necessary these barracks may be sub-divided for accommodating 06 to 08 junior sailors.

27.2.4 Single living accommodation for foreign trainees will be provided at stations authorised and approved by FOC-in-C/ equivalent as per scale for single officer/ sailor accommodation given in Tables 5.I and 5. III. Air conditioning facility may be provided for the accommodation with approval of FOC-in-C/ equivalent.

27.3. Messes.

27.3.1 Officer's messes will be provided with accommodation for the authorised station complement and for the personnel manning ships and submarines and permitted to live ashore by Competent Authority. Additional provision not exceeding 15% of the authorised complement of ships undergoing refit may also be provided.

27.3.2 Personnel baggage rooms for afloat strength of officers may be provided in station messes at 67 Sqm for afloat strength upto 200 officers plus 6 Sqm for every additional 20 officers. Personnel baggage rooms for afloat strength of sailors may be provided in station messes at 34 Sqm for afloat strength up to 200 plus 3 Sqm for every additional 20 sailors. Inbuilt racks may be provided as on required basis.

27.3.3 Mess rooms and club rooms for MCPOs and CPOs are separate from those for POs and are to be provided as per scale. However, common kitchen, store etc may be provided wherever possible.

27.4. **Institutes.** As far as possible Institutes will be provided on station basis. The basis of assessment of number of personnel will be the strength of the station plus an estimate of likely number of personnel coming ashore from ships and crafts.

27.5. **Drying Room.** 01 Sqm per 10 men.

27.6. **Offices and Administrative Accommodation.** This accommodation will be provided in all establishments for the authorised complement as per laid down scales. However, accommodation for draftsmen to be employed on design and preparation of ships drawings will be provided at 09 Sqm per draftsmen.

27.7. **Storage Sheds.** Storage sheds for various depots namely naval and air stores, weapons equipment stores, armament and explosive or non-explosive stores, clothing and victualing stores shall be authorised on an as required basis. These stores will be provided with overhead electrical or hand operated cranes on merit for heavy lift and bulky items by Competent Financial authority.

27.8. **Ships Lay Apart Stores.** Lay apart stores of area not less than 200 Sqm each are to be provided for 50% of the ships based at a station. Additional area for 25% of the compliment of ships temporarily based at a station for a period of at least six months is to be provided at the discretion of FOC-in-C. Air conditioning is to be provided for stores requiring environmental control on the basis of merit.

27.9. **NBCD Hard.** NBCD hard consisting of hard standing, fire wall, water sump, drainage system and any other requirement as assessed by a Board of Officers may be provided on station basis for DC and FF training.

27.10. **Boat Yard.** These will be provided for those establishments where pulling, sailing and motorised boats are authorised and will consist of a boat pen, hard standing, boat jetty, workshop and store.

27.11. **Swimming Pool.** Swimming pools will be provided at Naval Stations as per the scales given below. In Naval training establishments located at stations where a swimming pool is not otherwise available within an administratively convenient distance not less than 8 km, may be provided separately with the prior approval of Service Headquarters. Naval establishments/ Units located in the same station more than 8 km apart, be treated as separate entities for the purposes of planning authorised pools.

Ser No	Sanctioned Strength	Swimming pool proposed
(a)	Naval training establishments	01 large (50m x 21m)
(b)	400 to 800 (new category)	01 small
(c)	800 to 2000	01 large or 02 small
(d)	2001 to 4000	01 large and 01 small
(e)	4001 to 7000	01 large and 02 small
(f)	7001 to 12000	02 large and 02 small or 01 large and 04 small
(g)	12001 to 20000	02 large and 03 small or 01 large and 05 small

27.11.1 Swimming pool for Coast Guard station will be provided as per scale given below: -

- (a) Upto 200 strength - 01 small swimming pool.
- (b) Above 200 strength - 01 large or 02 small swimming pools.

27.12. **Indian Naval Canteen Service.** The provision of accommodation for INCS will be made at Naval Stations at par with authorised scales for CSD as assessed by a Board of Officers.

27.13. **Fleet Mail Office.** The accommodation for Fleet Mail Office authorised for port stations shall be determined based on laid down scales for Section. Base and Field Post Office for the Army.

27.14. **Planning-cum-Briefing Room.** These are authorised in shore establishments meeting the criteria of a large unit.

27.15. **Conference Rooms.** Conference rooms with suitable furniture for Dockyard, Depots, and Training establishments/ shore establishments may be provided subject to prior approval of the Competent Financial Authority. Conference rooms in other Administrative offices may be provided on merit with the approval of CFA not lower than FOC-in-C. Standby power supply may also be provided.

27.16. **Visitors Room.** Visitor's room will be provided in shore establishments and NOIC complex as per the authorised scale.

27.17. **Air-conditioning.** Air-conditioning may be provided for rooms in technical accommodation where equipment is operated, stored or repaired, provided the technical specifications of the equipment justify such provision in accordance with authorisation contained in Part IV.

27.18. **Accommodation for Civilian Employees.** Civilian industrial workers will be provided facilities viz change and rest room, cafeteria, canteen etc in their respective establishments as per stipulations under the Factory Act. Non-industrial workers may also be provided with facilities such as tiffin room and cafeteria based on merit by the Flag Officer Commanding-in Chief. Inbuilt lockers of suitable size may also be provided.

27.19. The provision of family welfare centre, civilian community hall, bank, post and telegraph office, children and KG schools may be provided wherever applicable as per scales.

27.20. Integrated Security Watch towers, Security walls or fencing and gates shall be provided wherever essential for units and establishments as per laid down scales. The main gates may be so designed to provide covered shelter to security personnel during wet weather. Brass/ steel letters for inscription of name of unit/ crest may be treated under authorised works. For Dockyards, Depots, technical support units, Flotilla/ support units and other establishments where valuable stores, vehicles, equipment and machinery, etc are stored, gate office and search rooms shall be provided as per scales for ASC or Ordnance Depots.

27.21. In cases where land is limited, multi-level parking will be provided.

27.22. Accommodation for the following shore facilities is authorised to the Navy and Coast Guard. The scales of technical accommodation shall be determined in the manner given in Part I of Manual and as assessed by Board of Officers. The authorisation of accommodation and other facilities is given separately in the subsequent chapters: -

- (a) Harbour and Operating Facilities.
- (b) Naval Officer-in-charge Complex.
- (c) Maritime Operation Room.
- (d) Shore Establishment.

- (e) Naval Air Station.
- (f) Naval Dockyard Complex.
- (g) Base Repairs Organisation.
- (h) Base Maintenance Unit.
- (j) Naval Stores Depot.
- (k) Naval Armament Depot.
- (l) Weapon Equipment Depot.
- (m) Naval Armament Inspectorate.
- (n) Base Victualing Yard.
- (o) Technical Position.
- (p) Naval Coast and Examination Battery.
- (q) Naval Missile Battery.
- (r) Naval Radar Station.
- (s) Naval Signal Units.
- (t) Command Transport Pool and Workshops.
- (u) Meteorological office and Observatory.
- (v) Central Reference Library.
- (w) Naval Distributing Authority and Chart Depot.
- (x) Naval Clearance Diving Team Accommodation.
- (y) Naval Detachments.
- (z) War Watching/ Mine Watching Posts.
- (aa) Fleet Maintenance Unit.
- (ab) Naval Marine Commando Unit.
- (ac) Naval Command/ Fleet HQ.
- (ad) Submarine Base Organisation.
- (ae) Joint Operation Centre.
- (af) Naval Detachments.
- (ag) Maritime Warfare Centre.
- (ah) Waterman Ship Training Centre.
- (ai) Base Logistics Office.
- (aj) Hydrographic Survey Unit complex.
- (ak) Naval Ship Repair Yard.
- (al) Afloat Support Complex wherever applicable.
- (am) Naval Aircraft Yard.
- (an) Aircraft Quality Organisation.

CHAPTER 28

HARBOUR AND OPERATING FACILITIES

28.1 The scales of Harbour and Operating Facilities shall be assessed according to the type of harbour and the number of ships based. Technical services for docking and berthing structures such as salt and fresh water, compressed air and gas supply, fuelling pipe lines, telephone cable, crane tracks and E&M items peculiar to the Navy and Coast Guard are authorised and shall be determined based on the technical requirement of each project. Repair and technical support workshops may be authorised where Dockyard facilities are not available.

28.2 The items given below will generally be provided as operating facility for Naval Ships/ Coast Guard Ships/ Shore establishment in Ports and Harbours: -

- (a) Quays and Wharves.
- (b) Jetties.
- (c) Breakwater or piers.
- (d) Sea walls.
- (e) Wet basin.
- (f) Dry Docks and Synchro lifts.
- (g) Slipways.
- (h) Boat pens.
- (j) Boat House.
- (k) Dredging or Desilting.
- (l) Davits.
- (m) Bitts, Bollards.
- (n) Capstans or Winches.
- (o) Navigation aids e.g. Buoys, Floating lights.
- (p) Mooring Buoys.
- (q) Fuel, Oil and Lubricant storage tanks.
- (r) Painting Shed.
- (s) Pontoons, Catamarans and Brows.
- (t) Works connected with Underwater Harbour Protection Devices.
- (u) Souzies and Fenders.
- (v) Refit office for ships.
- (w) Storage for ships ready use stores.
- (x) Shore galleys and WCs for ships.
- (y) Refuse disposal bins.
- (z) Compressed air lines for submarines.
- (aa) Sludge barges for disposal of dirty oil to prevent harbour pollution.
- (ab) Anti-sea pollution equipment/ gadgets.
- (ac) Conduits and wiring for telephone lines and cable TV.
- (ad) Blank.
- (ae) Floats pan to be provided.
- (af) Hover Craft Berthing & Hangar Facilities.

CHAPTER 29**NAVAL OFFICER-IN-CHARGE COMPLEX**

29.1 Authorisation and scales of accommodation to be provided for a Naval Officer-in-Charge Complex is given in Table 29.I. The accommodation for Naval Officer-in-Charge Complex will be provided in Stations where such organisation is specifically sanctioned.

TABLE 29.I**SCALE OF NAVAL OFFICER-IN-CHARGE COMPLEX**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Office	As per authorised scale	---	---
2.	Harbour Defence HQ and Operation Room	60	---	(a) Glazed wall display boards with suitable lighting arrangements. (b) Built in cupboards. (c) Electronic display board.
3.	Intelligence-cum-Briefing Room	35	---	---
4.	Communication Equipment Room	40	---	---
5.	Visitors Room	20	---	---
6.	Store Room	11	---	---
7.	Duty Officer Rest Room	18	---	Attached sanitary annexe.
8.	COPs and POs Rest Room	10	---	Attached sanitary annexe.
9.	Night Duty Personnel Rest Room	36	---	To be provided only where single living accommodation is not available. Should be within the same complex.
10.	Scare Charge Storage Magazine	As required	---	---
11.	Small Arms Armoury and Store	As per scale	---	---
12.	Equipment and Webbing Store	As per scale	---	---
13.	Signal Office	20	---	---
14.	Strong room/ vault with necessary fittings for Storage	20	---	---
15.	Garages	As per authorised scale	---	---

CHAPTER 30**MARITIME OPERATIONS CENTRE**

30.1 The accommodation for Maritime Operations Centre shall be provided as per Table 30.I. These will be constructed with the prior approval of Chief of the Naval Staff at stations from where independent control of forces is to be exercised. Suitable protection work against air attacks may be provided for the Operations Centre. For joint operations, accommodation authorised for the Army/ IAF/ Coast Guard/ Civil Maritime Agencies personnel will also be provided. Operation Centres should be without intermediate columns to provide unobstructed view. These may be sub-divided into cubicles by providing dwarf walls fitted with glass panes.

30.2 Where operationally considered necessary, essential accommodation may be constructed underground with the approval of Chief of the Naval Staff. All underground accommodation should be air-conditioned. Air-conditioning of accommodation constructed above ground shall be decided on merit. Any facility in future for ante nuclear protection (Citadel facility) and treated as “special”. Standby power supply arrangements will also be provided.

30.3 Office cum rest room accommodation including toilet facilities shall be provided as per scale for officers, CPOs, POs and sailors including their equivalent from the other two Services for the assessed numbers required to be on duty.

30.4 Covered ducts for power cables, telephone lines, etc should also be provided as required. Adequate fire fighting facilities, security fencing, etc shall be provided.

TABLE 30.I**MARITIME OPERATIONS CENTRE**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Maritime Operation Room	150	Wall display boards, glazed board, built in chart tables to be provided with suitable lighting arrangements.	
2.	Army Operation Centre	30		To be provided only for joint operations.
3.	Air Operation Centre	30		
4.	Joint Intelligence Room	30		
5.	Coast Defence Section	20		
6.	Shipping Section	18		
7.	Sand Model Room	54		To be provided only for joint operations.
8.	Combined Signal Traffic Room	25		
9.	Crypto Centre	18		
10.	Air-to-ground communication Centre	25		
11.	Computer Room	As required		Where computer is sanctioned.
12.	Telephone Exchange	As required		
13.	Office cum Rest Rooms			
	(a) C-in-C and Chief of Staff	18 each (2 Nos)	With toilet.	One additional room of 14 Sqm for joint operations.
	(b) Duty Officer	14 each (3 Nos)		
14.	Duty Sailor Rest Room	18 each (2 Nos)		One additional room of 18 Sqm for joint operations.
15.	Garages for Vehicles	As per scale		
16.	Kitchenette	7.5		

CHAPTER 31**SHORE ESTABLISHMENT**

31.1. The accommodation to be provided for a Shore Establishment will be based on authorised strength and holding of equipment and stores. The sizes and number of rooms actually required will be based on the functional requirement of each establishment.

31.2. The support facilities for ships shall be provided in only one main establishment in the station. As far as possible, domestic, recreational and other miscellaneous accommodation will be provided on pooled basis for the station at authorised scale.

31.3. In Training establishments, the provision of accommodation should also cater for the assessed strength of trainees based on average peak load of trainees during a period of 03 years or approved training course strength at a given time, whichever is maximum. Accommodation required for specialised technical training shall be assessed based on the type of training to be imparted.

31.4. Suitable wiring for installation of ships reproduction equipment or public address system may be provided.

31.5. The accommodation for a Shore Establishment commissioned as an Indian Naval Ship is given below: -

Ser No	Items	Scale/ References
(a)	<u>Training and Instructional Accommodation</u>	
	Instruction Offices, Class rooms, Instruction room, Library.	As per Scale.
	Equipment and Model rooms, Training aid stores, Laboratories, Strong room.	As per item or equipment to be installed or stored.
(b)	<u>Regulating Accommodation</u> Offices, OOD (Duty Officer) Office cum Rest Room, Duty CPOs (Duty Clerk) Office cum Rest Room, Duty personnel sleeping accommodation (Guard Room), Quick Reaction Team.	As per scale.
(c)	<u>Pay and Store Accommodation</u> Supply office, Victualing office, Naval stores office, Clothing office.	As per scale.
(d)	<u>Stores</u>	
	Victualing store, Naval stores, Clothing store, Riggering store, General equipment store, Maintenance store.	Based on analogous scale applicable to ASC, Ordnance and Engineer store,
	Sport Store	As per scale.
(e)	<u>Band Accommodation</u>	As per scale. To be provided only where bands are sanctioned.

Ser No	Items	Scale/ References
(f)	<u>Photo Section</u> Offices, Photo bay, Darkroom, Training room, Processing room, Reproduction room, Store room for chemicals and photo material.	As per scale or as required. To be provided if equipment and personnel are authorised.
(g)	<u>Sports and Miscellaneous</u> Swimming pool, Recreation ground and Courts.	As per scale.
	Film vault Signal Centre, Short Range, Parade Ground, Quarter deck with mast, Drill Shed, Gymnasium, Auditorium-cum-cinema hall, Fire station, Scooter and cycle shed, Static tanks, Dhobi ghat and mechanical laundry for all major establishments.	As per scale. (To be provided based on station authorisation)
(h)	<u>Provost and Security</u> Gate office, Search room (Ladies and Gents), Visitors waiting room.	As per authorised scale for Depots.
	Sentry post, Security wall or fences.	As per scale.
(i)	MI Room	As per scale.
(j)	MT Accommodation	As per scale.
(k)	<u>Boats</u>	
	Jetty, Boat pen, Slipway, Boat store.	Will be authorised only if boats are sanctioned.
	Boat maintenance workshop	As per scale for artificers shops.
(l)	<u>Domestic Accommodation</u> Living accommodation officers CPOs, POs and Sailors.	As per scale.
(m)	<u>Messes and Institutes</u> Officers messes, Officers institutes, CPOs messes/ clubs, Sailors institute, POs mess, Cook house and Dining hall for junior sailors.	As per scale. To be based on station authorisation.
(n)	Unit shops	As per scale.
(o)	Civilian workers amenity accommodation	As per scale for Depots.

CHAPTER 32

NAVAL AIR STATION

32.1 The office and administrative, sports and storage accommodation etc for the Naval Air Station will be provided as per the laid down scales for a Shore Establishment. The scales for technical accommodation shall be determined on as required basis depending on the type and number of aircrafts for the station and those attached thereto. The technical accommodation provided for Air Force stations shall be followed wherever applicable.

32.2 Following standard sizes of hangars for aircrafts shall normally be adopted. The number and type of hangars shall be determined at board stage.

- | | | | |
|-----|---------------|---|------------------------------|
| (a) | Hangar large | - | 60m x 60m x 15m |
| (b) | Hangar medium | - | 48m x 48m x 12.5m |
| (c) | Hangar small | - | 48m x 48m x 9m |
| (d) | Other hangar | - | As applicable for Air Force. |

32.3 Offices, conference room, crew room and hangars may be provided separately on squadron basis. Repair, maintenance and technical office accommodation should as far as possible be provided alongwith hangars. Accommodation for Air Defence Radar, Air ordinance/ weapons and Base Complex may be provided underground if operationally considered necessary by the Flag Officer Commanding-in-Chief Command. Covered ducts shall be provided for runways, taxi tracks etc for laying of electric cables and pipes. Separate ducts shall be provided for telephone and signal cables. Adequate slopes for drainage shall be catered for runways and taxi tracks. Bird proofing and Camouflage painting of hangars may be provided as authorised work services.

32.4 The technical accommodation such as hangars, taxi tracks, dispersal, storages, communication and repair facilities etc as required for a Forward Air Operating Base or Naval Aviation Enclave will be authorised as per operational requirement with prior approval of the Chief of the Naval Staff. Similarly, for Advance Landing Ground, the facilities viz helipad, hangars etc may be authorised by the Chief of the Naval Staff where these are considered essential to meet the operational requirements.

32.5 Accommodation for following facilities, as assessed by a Board of Officers may be provided with prior approval of Service HQs: -

- (a) Wind breaker.
- (b) Ground running pad.
- (c) Vintage aircraft and Maintenance/ Machinery centre.

32.6 Technical equipment rooms and other operational flying accommodation shall be air-conditioned as authorised.

32.7 Security fencing with provision for electric Power fencing (with the approval of FoC-in-C), gates, watch towers, security lights and sentry posts shall be provided as considered essential. The requirements of bombing practice firing ranges are to be considered separately.

32.8 Facilities generally authorised for a Naval Air Station are listed below. These facilities may however be supplemented or reviewed due to technical requirement and to cater for new acquisitions:-

Ser No	Items	Scale/ References
(a)	Runway	As required
(b)	Taxi Track	
(c)	Dispersals	
(d)	Shoulders and Dumb-bells	
(e)	Runway and Dispersal Lighting	
(f)	Current Control Regulator accommodation for control of Runway Lighting.	
(g)	Radars and Navigational Aid Accommodation	
(h)	<u>Air Traffic Control Complex</u>	As per Air Force
(i)	ATC Officers Office	
(ii)	Air Traffic Control Tower	
(iii)	Night Flying Equipment store	
(iv)	Accommodation for Safety Services	
(v)	Accommodation for Crash and Salvage Service	
(vi)	P & T Equipment room	
(vii)	Crash Fire Tender, Fire Crew Rest Room	
(j)	<u>Base Operation Complex</u>	As required
(i)	Base operation room	
(ii)	Briefing and debriefing room	
(iii)	Intelligence room Map store room, Signal receiving room, Equipment room	As per scale
(k)	<u>Air Defence Radar Complex</u>	
(i)	Office, Duty officers rest room, Crew rest room.	As per scale
(ii)	Briefing room, ADR control room, Radar room, Repair room	
(l)	Common or Receiving Centre	As required
(m)	<u>Meteorological Office</u> Data Computation and Briefing room, Hydrogen gas store, Balloon filling room and Observatory	

Ser No	Items	Scale/ References
(n)	<u>Fleet Requirement Unit and Operational Flying Training Units</u>	
	(i) Offices	As per scale
	(ii) Hangar, Rotables, Issue centre, POL stores, Regulating office, Ordnance bay, AL section, AR section, Flying clothing safety equipment, Officers crew room, AE Section, Aircrew diver/ FE/ FS/ FG room Officer Flying clothing locker space, Briefing room, Senior sailors crew room, Junior sailors crew room, Kitchenette	As per technical requirement
(o)	<u>Photo Section</u> Offices, Photo bay, Dark room, Printing room, Processing room, Sensitive materials optical, MR film auto-printing room, Interpretation room, Negative viewer cum enlarger room, Chemical store and preparation room, Reproduction room and Sailors crew room and Drying room. Air conditioning to be provided to all rooms except sailors crew room	As per technical requirement
(p)	<u>Safety Equipment Section</u>	
	(i) Office	As per scale
	(ii) Parachute maintenance and storage room, Flying clothing maintenance and storage room, Life raft maintenance and storage room, Parachute airing and drying room, Safety equipment general store, Survival training bay and Sailors crew room. Air conditioning to be provided to all rooms except sailors crew room	As per technical requirement
(q)	<u>Air Engineering Division and Air Electrical Division</u>	
	(i) Offices, Instruction room (Technical), Technical Library	As per scale or analogous scales
	(ii) Hangar, General air engineering workshop, Hydraulic bay, Wood workshop, Dope shop, Welding shop, Engine repair shop, Air ordnance workshop, General engineering store room, Wood store, Tool room, Second line store, Second line cell, Ground equipment store, Air radio workshop, Instrument repair shop, Electrical workshop, Battery shop, Power room, Son buoy testing room, AL store room, Conversion machinery room, Engine component repair shop, Ejection seat bay, Tyre and wheel repair shop, Ground equipment repair workshop,	As per technical requirement

Ser No	Items	Scale/ References
	Salt bath, Chromium/ Nickel plating workshop, Raw material store, Raw material store.	
(r)	Aircraft and Engine Holding Unit Hangar.	As required (To be located only where the EHU reserve are held)
(s)	<u>Storage Accommodation</u> General store, Aircraft spares store, Sonobuoy store, Oil and grease store, Paint store, Chemical store, R&D section, Clothing store, Electronic store	As per technical requirement
(t)	<u>Ammunition Dump</u> Magazines, Pyrotechnics magazines, Ready use storage for ammunition and armament.	As required
(u)	MI Room or SSQ with beds	As per scale
(v)	MT Accommodation and Workshop	
(w)	Fire Station	
(x)	Short Range	As per the requirement of weapon system
(y)	Sirens	As per scale

CHAPTER 33

NAVAL DOCKYARD COMPLEX

33.1 The accommodation of specialist workshops of Naval Dockyard shall be provided taking into consideration the functional requirement and better workflow and control. Office accommodation for officer-in-charge, foreman or supervisor including a record room shall be provided shop wise as per scale. Industrial type of buildings shall be constructed for workshops. Flooring with adequate load bearing capacity and suitable for handling of heavy equipment will be provided in shops where necessary. Height of shops will be provided to cater for requirement of mobile and overhead cranes.

33.2 Power supply, lights for workshops for working during night, ventilation and water supply shall be provided as per authorised scale. Soundproofing, dust proofing and other environmental control for shops wherever required will be provided as authorised scale. Lightning conductors shall be provided as necessary. Electric sirens are also authorised for the Dockyard Complex. In addition, covered conduits for laying of cables will also be provided.

33.3 All round security wall, street lights gates, gate offices, sentry posts and search rooms, time keeper's office, mustering shed etc should be provided as per scale for Ordnance Depots.

33.4 The facilities authorised for a Naval Dockyard Complex and Ship Repair Yards are to be provided as required based on the technical requirements are listed below. These facilities may, however, require be supplementing or reviewing due to future changes in technology.

Ser No	Items	Scale/ References
(a)	<u>Engineering Shops</u> Machine shop, Engine fitting shop, Pipe fitting shop, ICE shop, Air-conditioning shop, Refrigeration shop, Foundry shop ferrous and non-ferrous, Lagging shop, Boiler erection shop, Auxiliary machinery shop, Forging shop, Galvanising and Electroplating shop. Welding shop, Chain testing shop, Valve repair shop, Propeller and Shafting shop, Rubber moulding shop, Economizer and heat exchange shop, Flight deck machinery shop, Fitting shop, M/D Auxiliary and compressors repair shop, Hydraulic machinery and underwater repair shop, Heavy steam machinery repair shop, Gas turbine shop, Test house for gas turbine, Test house for ICE shop, Test house for refrigerating equipment, Test house for hydraulic machinery, Test house for Auxiliary machinery, Oxygen plant room, Heat treatment room, Machinery control room, Chemical cleaning facility room, Mould loft, High Pressure Hydraulic Workshop, High Pressure Pneumatic Workshop, Machinery Control Shop, Pump & Hydraulic Test Facility, Prime Mover Test Facility, Material Testing Lab, Pipe Bending Facility, Stainless Steel & Titanium Workshops, Chemical & physical equipment cleaning facilities.	As per technical requirement
(b)	<u>Electrical Shops</u> Heavy electrical shop, Light electrical shop, Electrical wiring shop, Battery shop, Electro- plating shop, Auto control shop, Test houses, Calibration Facility, Cable preparation and Storage facility.	

Ser No	Items	Scale/ References
(c)	<u>Weapon Shops</u> Gyro shop, W/T and Radar shop, Weapon control shop, Optical shop, Instrument shop, Weapons fitting shop, Weapons workshop, Torpedo workshop, Missile repair shop, Test equipment standard room, Mine sweeping gear shop, PCB Repair shop.	
(d)	<u>Constructive Shops</u> Blacksmith and Chain testing ship, Sheet Metal shop, Welding shop, Galvanising shop, Steel fabrication shop, Boat building shop, Mould loft, Ship fitting shop, Paint shop, Paint preparation and manufacture ship, Paint testing Lab, Sail loft shop and Tailoring shop, Rigging shop, Pipe shop, Shipwright shop, Hull assembly shop, Epoxy coating shop, Life raft shop, Timber conversion facility, Heat treatment facility, Environment controlled Blasting and painting bays, Storage of steel and other yard materials and timber docking gear store.	As per technical requirement
(e)	<u>Maintenance Shops</u> Millwright shop, Crane repair shop, Electrical repair shop. Transport repair shop, Civil and Conservancy section.	
(f)	<u>Support Facilities</u>	
	Marshalling of yard facilities, Utilities and services facilities. Yard craft repair facilities, Store houses, Ships lay apart store, Provider store (for ships), Dockyard and Apprentice School and workshop.	As required
	MI Room, Fire station, Static tanks, MT accommodation, Telephone exchange, incinerators.	As per scale
(g)	<u>Water Front Support Facility</u> Office, Workshop	Analogous Scale where available. For other areas as per technical requirement
(h)	<u>Dockyard Apprentice School</u> DAS Hostel, DAS Reference Library, Seminar Hall, Training cum Examination Hall	
(j)	<u>Shiplift Related Workshop</u> Shiplift platform Workshop and Store, TTS Workshop and Store, Shiplift Control Tower, Dry Berth, Packing Bag, Dock Block Storage	

CHAPTER 34**BASE REPAIR ORGANISATION**

34.1 The facilities of Base Repair Organisation will be established in Ports where the same is sanctioned. The exact requirement of each Base Repair Organisation will be provided on the lines similar to that of a Dockyard to the extent applicable. Provision of slipway for smaller ships shall be made wherever required. Office accommodation for foreman and supervisor including a record room shall be provided for each shop as per scale. Office accommodation for the Planning and Quality Control section should be provided separately.

34.2 The accommodation authorised for a Base Repair Organisation is listed below: -

Ser No	Items	Scale/ Reference
(a)	<u>Engineering Shops</u> Foundry and Smithy shop, Fitting, Refrigeration and Air-conditioning shop, Machine shop and tool room, internal combustion engine and instrument repair shop, Ancillary machine repair shop	As per technical requirement
(b)	<u>Electrical and Weapon Shop</u> Electronic shop, Instrument and Gyro shop, Underwater equipment shop and afloat wiring shop, Weapon repair shop, Welding and impregnating shop, Electrical machinery overhaul shop, Mine sweeping gear inspection and repair shop	
(c)	<u>Constructive Shop</u> Hull assembly shop, Shipwright shop, Sails loft and tailoring section, Paint shop, Pipe repair shop, Welding shop, Boat repair shop	
(d)	<u>Storage Accommodation</u> Main store, Ready use and tool stores for Engineering, Electrical, Weapons, Construction and Maintenance, Issue, Receipt and dispatch section	As required

CHAPTER 35**FLEET MAINTENANCE UNIT**

35.1 The accommodation for Fleet Maintenance Unit will only be provided in stations where such units are sanctioned. Offices alongwith space for installation of test equipment will be provided for ships trial group, planned and preventive maintenance units and support teams.

35.2 Authorisation of accommodation to be provided is listed below: -

Ser No	Items	Scale/ Reference
(a)	<u>Engineering Shops</u> Machine Shop, Engine fitting shop, Pipe fitting shop, Air Conditioning & Refrigeration shop, Lagging shop, Welding shop, Valve repair shop, Economizer and heat exchange shop, Fitting shop, M/D auxiliary shop, Test house for auxiliary machinery, Chemical cleaning facility and mould shop	As per technical requirements
(b)	<u>Electrical Shops</u> Light electrical shop, Electrical wiring shop, Battery shop, PCB repair shop	As per technical requirements
(c)	<u>Constructive Shops</u> Welding shop, Fabrication shop, Ship fitting shop, Boat maintenance workshop, Paint shop, Shipwright shop, Epoxy coating shop, Storage of steel and other yard materials and timer docking gear store	As per technical requirements
(d)	<u>Maintenance Shops</u> Transport repair shop, Civil and Conservancy section, covered hard standing for boats with chocks	---
(e)	<u>Support Facilities</u> MT accommodation, Civilian workers amenity accommodation, Officers & Sailors lunch room, MI room, Telephone exchange, Time keepers office with covered token board, bicycle and scooter shed, Laboratory, Unit technical library, Central old record room, Store houses	As per analogous scale

CHAPTER 36

NAVAL STORES DEPOT

36.1 The office accommodation in Naval Stores Depot for technical staff such as Foreman, Store house staff etc should be provided as per authorised scale and may be built as part of the storage accommodation complex. Bulk storage houses shall be provided similar to those authorised for Weapon Equipment Depot. Open plinths with both side ramps may be provided for heavy engineering items, steel, wood, empty drums etc. Covered hard standing with weighing platform may also be provided. Railway sidings, platforms and ramps including provision of overhead cover will be provided for storage sheds on as required basis for direct loading and unloading of wagons and vehicles. For safe and speedy movement of stores, overhead cranes of suitable type and capacity and conveyer/ roller belt system be provided in store houses, covered and uncovered hard standings. Compactors to be provided in store houses on as required basis for storage of sophisticated, attractive and high value stores/ spares. Adequate hard standing area will be provided in front of Store Houses to unload/ load stores.

36.2 Provision of adequate lighting, fans shall be made to include facilities for working during night. Air-conditioning of store houses required to store electronics, air stores, rubberised items may be authorised if technical requirements justify. Lighting conductors will be provided as considered essential.

36.3 Suitable security walls and fencing with perimeter lights should be provided all round the depot as well as inside, where necessary, on as required basis. Adequate watch towers and sentry posts will also be provided. Fittings for fire fighting facilities and first aid post will be provided as required. Guard room may be provided at scale as applicable for Depots. Living accommodation for the dispersed Guards will be provided as per scales of single living accommodation.

36.4 The accommodation authorised for Naval Store Depot is listed below: -

Ser No	Items	Scale/ Reference
(a)	<u>Bulk Store Houses</u> Air store, General naval store, Perishable and attractive items store, Engineering store, Electronic store, Rubberised item store, Acid and dangerous chemical store, Gas cylinder store, Paint store, Paint store, Stationery and forms store, POL store, Oil and Lubricant store.	(a) As per analogous scale as applicable or as required. (b) Storage racks. (c) To be located closer to ships, depending on land being available.
(b)	Repairable Naval Store House	As per analogous scale as applicable or as required.
(c)	Repairable Air store House	
(d)	Auction and Disposal store House	
(e)	Survey Store House	
(f)	Packing and Unpacking House	As per scale.
(g)	Provider Store House	As required.
(h)	Repair Workshops	
(j)	Carpentry Shop	As per scale.
(k)	Miscellaneous tradesmen Shops	

Ser No	Items	Scale/ Reference
(l)	Water Front Storage House	As per technical requirement
(m)	Kerb side petrol pump	As per scale.
(n)	Mustering shed	As per scales for Ordnance Depot.
(o)	Time keeper's office with covered token board.	
(p)	Electric Siren	
(q)	Bicycle and Scooter shed	As per scale.
(r)	MT Accommodation	
(s)	MI Room	
(t)	Telephone Exchange	
(u)	Covered Hard Standing for steel plates/ rods for steel plate/ rods (This facility may be provided at Mumbai, Kochi and Visakhapatnam)	(a) As required. (b) Vertical storage units be provided.
(v)	Covered Hard Standing for Boats	(a) As required. (b) Chocks be provided.
(w)	Covered Hard Standing for Lubricating Oil drums	As required.
(x)	Radioactive items store house	
(y)	Fumigated store house	
(z)	Laboratory	30 Sqm.
(aa)	Unit Technical Library	As required.
(ab)	Central old record room	70 Sqm – As required with the approval of CFA.
(ac)	Planning cum briefing	Following three ie AA/ AB & AC (Planning cum briefing room, office cum rest room for duty personnel and visitor's room) Facilities may be combined and area of 32 Sqm be provided.
(ad)	Office cum rest room for duty personnel	
(ae)	Visitor's room	
(af)	EDP Centre	20 Sqm.
(ag)	Weigh Bridge	As per requirement.

CHAPTER 37

NAVAL ARMAMENT DEPOT

37.1 Office accommodation in Naval Armament Depot for technical staff such as magazine staff store men and workshop supervisors etc should be provided as per authorised scales and may be built as part of the magazines, storage accommodation and workshop complexes. Magazines of standard types should normally be constructed based on the quantity of ammunition and explosives to be stored. Separate magazines should be provided for small arms, ammunition and detonators etc. Safety regulations as laid down under Magazine and Explosive Regulations and other technical publications should be followed. Bomb, gun and demolition grounds may be provided in accordance with the applicable technical regulations.

37.2 The floors should have hardened surface and designed to meet the loading stipulations. The floors in ammunition workshop rooms should be covered anti-static/ conductive material. All pathways connecting magazines and workshops should be of smooth levelled surface such as concrete. Specific environmental requirements pertaining to dust, humidity may be provided. Provisions of air-conditioning for specific accommodation shall be assessed based on the technical specification of the equipment, stores and ammunition justifying the same.

37.3 Office and other administrative accommodation will be provided in non-explosive area as per authorised scale based on the sanctioned complement of the Depot. A strong room for CBs and cash will also be authorised. Railway sidings, platforms and ramps including provision for overhead cover should be provided on as required basis for direct loading and unloading of wagons and vehicles.

37.4 All electrical installations in the magazines and in other buildings where explosives are handled will be of flame-proof or other specified type. Lightning conductors and fittings for fire fighting arrangements will be provided as authorised.

37.4.1 Standby power supply should be provided for all Missiles/ Torpedoes/ Mines/ Targets/ Air conditioned magazines/ stores, fire stations and security lights on perimeter/ gates/ watch towers/ guard rooms and railway sidings.

37.4.2 Suitable smoke/ fire detection system will be fitted in storages and inspection/ preparation workshops as required basis.

37.5 Suitable security walls and fencing with perimeter lights should be provided all around the depots as well as inside, where necessary, on as required basis. Adequate watch towers with search lights and sentry posts will also be provided. In addition, a motor able road will be provided.

37.6 The accommodation authorised for Naval Armament Depot to be provided on as required basis is listed below: -

Ser No	Items	Scale/ References
(a)	Magazines 600 tonnes	(a) Vertical inner face traverse. (b) EOT crane as required.
(b)	Magazines 300 tonnes	(a) Vertical inner face traverse. (b) EOT crane as required.
(c)	Magazines 120 tonnes	(a) With or without traverse as necessary. (b) EOT crane as required.

Ser No	Items	Scale/ References
(d)	Heavy Traverse Room	(a) Non-dust-emitting floor. (b) Glass panes for doors and windows to be shatter proof. (c) All fittings to be of non-ferrous material. (d) Exhaust fans to be provided as required. (e) Special Instrument Earthing.
(e)	Waiting position	Non-ferrous material fittings.
(f)	Light Traverse Rooms	Non-dust emitting floor.
(g)	Untraversed Rooms	Exhaust fans to be provided.
(h)	Transfer Magazine	(a) VIFT. (b) Flame proof fittings.
(j)	Explosive component store	
(k)	Non-explosive component store.	Inbuilt lockers or cupboards.
(l)	Shifting Room	Workers lockers and washing and bathing taps.
(m)	Ready paint store	
(n)	Article in store	Shelves.
(o)	Gauge Room	Racking and shelving.
(p)	Ammunition Workshop (Laby Office)	Shelves with locking arrangements.
(q)	Proof House	
(r)	Inert Filling shed.	
(s)	<u>Repair Workshops</u> Mine repair shop, Fuse repair shop, Missile workshop, Torpedo workshop, Gun repair shop, DC pistol shop, Machine shop, Joiner/ Carpenter shop, Tinsmith shop, Blacksmith shop, Paint shop, Welding shop, Woodworking shop, Granodising/ Phosphate shop. Central maintenance stations, targets and decoy shop, equipment repair shop, fitting shop, heat treatment and electroplating shop, tool room, Oxygen/ Nitrogen plant room, battery charging shop and Guided Weapon Workshops.	As per technical requirements.
(t)	<u>Storage Sheds</u> Ready use oil and grease store, Main store (non-explosive), Rubber and Textile store, Paint store, Acid store, Timber and misc store.	(a) Based on analogous scales. (b) With verandahs.

Ser No	Items	Scale/ References
(u)	Main gate office including guard room, 02 search rooms (one each for Gents and Ladies) and Mustering shed.	As per scale for Ordnance Depot.
(v)	MI Room	As per scale.
(w)	Electric Siren	
(x)	MT Accommodation	
(y)	First Aid Post	As required.
(z)	Garages for handling equipment	As per technical requirement.
(aa)	Non-explosive Store House	
(ab)	POL Bunk	
(ac)	Telephone Exchange	As per analogous scales.
(ad)	Civilian Training Centre	As per analogous scales.
(ae)	Administrative Accommodation	As per scales of Ordnance Depots.

CHAPTER 38

WEAPON EQUIPMENT DEPOT

38.1 Bulk storage sheds of a Weapon Equipment Depot shall generally be designed as large sheds as per actual requirements. Separate storage sheds shall be provided for equipment, paints and chemicals etc. Roller or shutter doors of appropriate height and width shall be provided to permit entry and exit of lifting appliances on as required basis. Clear height of storage shed should be planned to give a minimum of one metre clearance above store height. Where mechanical handling equipment is to be used, overall clear height should normally be 06m and where this equipment is not used it should not be less than 4 metres. Gantry, EOT cranes shall be provided for heavy lift and bulky items. The floor should have hardened surface and designed to meet the loading stipulations.

38.1.1 Covered hard standing fitted with EOT/ HOT of suitable type and capacity to be provided on as required basis.

38.1.2 Anti-static flooring will be provided for the air conditioned store housekeeping electrical/ electronic stores.

38.2 Air-conditioned accommodation for storage of submarine batteries, rubberised items and test equipment and other technical accommodation shall be provided if technical requirements justify. Lightning protection shall be authorised as necessary including security watch towers. All wiring should be through conduits.

38.2.1 A suitable intruder alarm system should be provided in all store houses as required.

38.2.2 Suitable smoke/ fire detection system will be fitted in storages and inspection/ preparation workshops as required basis.

38.3 Railway sidings platforms and ramps including provision of overhead cover shall be provided for storage sheds on as required basis for direct loading and unloading of wagons and vehicles.

38.4 Suitable security wall and fencing with perimeter lights and watch towers shall be provided all around the Depot as well as inside on as required basis. Sentry posts shall be provided as required. Gate office including guard room shall be provided as per scales authorised for Ordnance Depot.

38.5 The accommodation authorised for a Weapon Equipment Depot is listed below: -

Ser No	Items	Scale/ References
(a)	<u>Bulk Storage Sheds</u> (i) Storage of units, sub-units and assemblies. (ii) Storage of light weight electronic components and rubberised store. (iii) For storing valuable and attractive items like test equipment.	(a) As required. (b) Built in racks to be provided wherever considered essential.
(b)	Maintenance Workshops	As required.
(c)	Shipping and Provider Cell	
(d)	Paint Store	As per analogous scale.
(e)	Inflammable and Lubricant Store	
(f)	Carpenter and Packing Shed	As per scale.
(g)	MT Accommodation	
(h)	Covered Hard Standing	As required.

CHAPTER 39**NAVAL ARMAMENT INSPECTORATE**

39.1 The scales and authorisation of technical accommodation for major Naval Armament Inspection Organisation is given in the Table 39.I. As far as possible the accommodation will be provided in non-explosive area of Naval Armament Depot.

39.2 The air-conditioning shall be authorised for such rooms where technical requirement of the equipment installed or to be tested justifies the same. Dark and printing room may be provided if photo printing is authorised.

TABLE 39.I**SCALE OF NAVAL ARMAMENT INSPECTORATE ORGANISATION**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Calibration Room	46		Refer Para 40.2
2.	Firing Analysis and Test Evaluation.	19		
3.	Metrology Room	46		
4.	Control Environment and Test Room	23		
5.	Gauge and Sample Storage Room	28		
6.	Store Room for Tools	11		
7.	Drawing cum Reprographic Room	37		If drawing staff is authorised.
8.	Dark Room	As required		Serials 8 and 9 are to be provided only where photo printing is authorised.
9.	Printing Room	As required		
10.	Server Room	As required		Refer Para 40.2
11.	Static Proof Facility	As per technical requirement		Refer Para 40.2
12.	Motivation cum Training Hall			As per scale
13.	Equipment Bay	As per technical requirement		Refer Para 40.2
14.	Environmental Conditioning and Research wing and Intensified Standard Alternating Trails (ISAT) Facility	60 Sqm	Rest room facilities for operators	Refer Para 40.2
15.	Radiography facility	As required basis		
16.	Explosive Test Facility	70 Sqm	Storage rooms for various explosives	Refer Para 40.2
17.	Non Explosive Test Facility	50 Sqm		Mechanical Test Room to be provided separately
18.	Rubber test lab	80 Sqm		

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
19.	Facility for automation of design , documentation , drawings and distribution	45 Sqm		
20.	Test Sample Storage	50 Sqm		
21.	Miniature Proof Sample Test Facility	90 Sqm		

CHAPTER 40

BASE VICTUALING YARD

40.1 The specialised accommodation for a Base Victualing Yard will be provided as per scale for the ASC Depot of the Army for common items as applicable to the Navy. The scales of Butcheries and Bakeries as laid down will also be applicable.

40.2 All storage sheds should be provided with security grills and roller shutter type of doors. Separate room should preferably be provided for oil hydrogenated. The floors should be designed to withstand the loads imposed during storage. Storage sheds wherever required should be rat and bird proof. The roof over-hanging should also be made bird proof. Storage sheds should be fitted with exhaust fans wherever authorised and lighting protection. Offices located in storage sheds should be made dust proof using transparent panelling.

40.2.1 All storage sheds should be termite free.

40.3 The capacity of cold and cool rooms will be assessed at Board stage. These rooms shall be provided with suitable standby power supply arrangements. Humidity control measures wherever required in storage sheds shall be decided on merit and provided as special.

40.4 Suitable security walls, fencing with perimeter lights should be provided all around the yard. Sentry posts will also be provided on as required basis.

40.5 The additional facilities authorised for a Base Victualing Yard for the Navy are listed below:-

Ser No	Items	Scale/ References
(a)	Storage of Dry Masala	To be found out of total area assessed on tonnage holding.
(b)	Masala Grinding Room	25 Sqm.
(c)	Storage for Clothing	As per scale for General Stores of Ordnance Depots.
(d)	Storage for Naval Stores, Mess Traps, Rubberised Items and Footwear	
(e)	Cold Room	As required.
(f)	Cool Room	
(g)	Incinerator	As per scale.
(h)	MT Accommodation	
(j)	Fumigation Room	As required.

CHAPTER 41

TECHNICAL POSITION

41.1 The facilities enumerated in this chapter pertain to an Operational Technical Positions only and do not cover the requirements of an Independent Technical Position unit. The accommodation for an Independent Technical Position including repair workshops for missiles and specialist vehicles shall be treated as “special”. Buildings for the Operational Technical Position will be constructed in accordance with the safety regulations laid down in Naval Magazine/ CFEES and other Regulations applicable to the Defence Establishments. The accommodation authorised to a Shore Establishment shall also be provided for a Technical Position as applicable. Where essential, domestic accommodation for the authorised complement may be built close to the Technical Position.

41.2 Suitable hard standing for container shed, marriage and fuelling facilities shall be authorised. Accommodation for specialised vehicles shall also be provided as authorised.

41.3 Air-conditioning shall be authorised for such rooms where technical requirement of the equipment installed justifies the same. Provision of standby power supply shall be made, for essential technical accommodation on merit.

41.4 All round security wall and security lights, gates and sentry posts will be provided as considered essential.

41.5 The Technical accommodation for an Operational Technical Position to be provided on as required basis is listed below: -

Ser No	Items	Scale/ References
(a)	Examination and Preparation shop	As per technical requirements.
(b)	Explosive Element Shop	
(c)	Missile Store	
(d)	Ground Equipment Store	
(e)	Dispensable Material Store	
(f)	Warhead Store	
(g)	Integrated Explosive and Propellant Store	
(h)	Booster and Power Store	
(j)	Pro cartridges and Igniters Store	
(k)*	‘O’ Fuelling Store	
(l)*	‘G’ Fuelling Store	
(m)	Container shed	Covered shed.
(n)*	‘O’ Fuelling point	
(o)*	‘G’ Fuelling point	
(p)	Special Fuel Laboratories	
(q)*	Washing points and First Aid Post	Water taps with bathing facilities.

Ser No	Items	Scale/ References
(r)	MT accommodation for specialised Vehicles and ancillary.	As per scale.
(s)	Bicycle and Scooter shed	
(t)	Electric Siren	
(u)	Mustering shed with Time Keeper's office	As per scale for Depot.
(v)	Provisioning of external fire fighting equipment to cater 300 metre Area around Technical position	As per technical requirement subject to recommendation of CFEES.

***Note.** Auto/ manual sprinkling to be provided for Serial Nos (k), (l), (n), (o) & (q) above subject to recommendation of CFEES.

CHAPTER 42**NAVAL COAST AND EXAMINATION BATTERY**

42.1 The accommodation authorised to a Shore Establishment shall also be provided for a Naval Coast and Examination Battery as applicable. Where essential, domestic accommodation for the authorised complement may be built close to the Battery.

42.2 Standby power generating capacity to cater for electric supply to port war signal station, search light towers, gun positions and magazines will be provided.

42.3 The construction of magazines and shell rooms shall be in accordance with the safety regulations laid down in Naval Magazine and Explosive Regulations and other Regulations applicable to Defence Establishments. Suitable security wall and fencing with perimeter lights should be provided all around the Battery. Watch tower with sentry posts will be provided on as required basis. Fire fighting arrangements will be provided as authorised.

42.4 The technical accommodation authorised for a Naval Coast and Examination Battery is listed below: -

Ser No	Items	Scale/ References
(a)	Port war signal station with Observation Post consisting of: - (a) Radar room (b) Plotting Room (c) Communication Equipment Room. (d) Observation Post.	(a) The size to suit the technical specifications of Radar. (b) Buildings of suitable height to provide unobstructed view. (c) Radar aerial and flag mast to be provided on roof.
(b)	Search Light Towers	The number and height towers to be decided depending on area to be covered.
(c)	Magazines	As required.
(d)	Shell Room	As per analogous scale.
(e)	Gun and Crew Shelter with ready use lockers	As per scale.
(f)	Gun mounting platform	01 No concrete platform each per gun.
(g)	Gun Control Equipment Room	As required.
(h)	Repair and Storage Accommodation for gun items	
(j)	Workshop	As per technical requirement.
(k)	Weapon store, Gun wharf store, Equipment store, Naval store, clothing store, Boats wain store, Boat store and Oil and Lubricant store.	As per analogous scale.
(l)	Armoury and Small Arms Ammunition store.	As per scale.
(m)	MT Accommodation	
(n)	Guard Room	
(o)	Missile storage and operation space	

CHAPTER 43**NAVAL MISSILE BATTERY**

43.1 The accommodation authorised to a Shore Establishment shall also be provided for a Naval Missile Battery as applicable. Where essential, domestic accommodation for the authorised complement may be built close to the Battery.

43.2 Air-conditioning shall be authorised for such rooms where technical requirement of the equipment installed justifies the same. Provision of standby power generating capacity for electric supply to essential technical positions only shall be provided.

43.3 The construction of missile magazines, explosives and other technical equipment rooms shall be in accordance with the safety regulations laid down in Naval Magazine and Explosive Regulations and other Regulations as applicable to Defence Establishments and suiting the special to type technical requirements of the weapon system. Suitable security wall and fencing with perimeter lights and sentry posts shall be provided as essential. Facilities for fire fighting will be provided as authorised.

43.4 The accommodation for Naval Missile Battery shall be provided, where such a Battery is authorised to be established. The technical accommodation to be provided on as required basis for a Missile Battery is listed below: -

Ser No	Item	Scale/ References
(a)	Launching Pads	(i) To suit technical requirements. (ii) To be provided with blast deflectors as per technical specifications.
(b)	Missile Storage Room	Size of room to suit the number of reloads required as decided by Operational Authority.
(c)	Observation cum Lookout Post and Search Tower.	(i) Building of a suitable height to provide unobstructed view. (ii) Electronic and Visual aids display facility as per technical specification of equipment fitted. (iii) Aerial and flag mast to be provided.
(d)	Fire Control Room	---
(e)	Missile test and repair workshop	As per technical requirements.
(f)	Operations Room consisting of: - (i) Radar equipment room and display positions. (ii) Missile Plotting and control room. (iii) Computer Room (iv) Communication equipment room.	As required to suit the technical specification of the equipment.
(g)	Missile Magazine	With special tow type facilities for handling of missile.

Ser No	Item	Scale/ References
(h)	Storage accommodation for Weapon store, equipment store, Naval store, Boatswain store, Oil and Lubricant store and Clothing stores.	As per analogous scale.
(j)	Small Arms Armoury and SAA Store	As per scale.
(k)	Battery charging shop	
(l)	Guard Room	

CHAPTER 44

NAVAL RADAR STATION

44.1 The technical accommodation authorised for a Naval Radar Station shall be provided where such a station is authorised to be established. The provision of facilities, equipment and aerial, etc shall be provided as per the technical requirement. Domestic and other accommodation for the authorised complement may be built as per scale close to the radar station located away from other naval establishments.

44.2 Security wall and fencing shall be provided as authorised.

44.3 The technical accommodation authorised for a Naval Radar Station on as required basis is listed below: -

Ser No	Items	Scale/ References
(a)	Observation cum Lookout Post	(a) Building of suitable height to provide unobstructed view. (b) Flag mast to be provided.
(b)	Radar Room	To include facilities for computer, plotting and radar display.
(c)	Communication Equipment Room	As per technical requirements.
(d)	Repair and Maintenance Workshop	As required.
(e)	Aerial Park	
(f)	Battery Charging Room	As per scale.
(g)	<u>Storage Accommodation</u> Naval stores, Equipment store, Oil and Lubricant store.	As per analogous scale.
(h)	MT Accommodation	As per scale.
(j)	Guard Room	

CHAPTER 45**NAVAL SIGNAL UNITS**

45.1 The accommodation to be provided for Naval Signal Units will be determined for type and number of equipment and personnel sanctioned to that unit. Specific technical accommodation required for Satellite Communication System will be authorised as per technical requirement on as required basis.

45.2 Non dust emitting floors to meet the technical requirements of the installed equipment should be provided in the signal units and in stores of telecommunication equipment as required. Covered ducts may be provided in the floors for laying of cables. Wherever complement may be built close to the unit.

45.3 The air-conditioning shall be authorised and sanctioned by Competent Financial Authority for such rooms where technical requirement of the equipment installed so justifies. Provision of stabilised power supply including standby arrangements shall also be made.

45.4 Security grills to be provided on all windows and ventilators with wire mesh as required in the Signal Units. Security fencing and security lights should also be provided all around the installation.

45.5 The technical accommodation authorised for Receiving Station, Transmission Station, Communication Centre, HF and DF Station and Wireless Experimental Units is given below. Scales of accommodation except where indicated shall be decided based on the technical and functional requirements.

45.6 **Receiving Station.**

Ser No	Item	Scale/ References
(a)	Receiving Rooms (i) CW reception (ii) RATT reception (iii) Diversity reception	Non dust emitting floor.
(b)	Tele printer Room	As per technical requirement.
(c)	Aerial Exchange Room	
(d)	Workshop for Receiver Servicing	To be provided with rubber sheeting for floor covering.
(e)	Workshop for TP Servicing	
(f)	Ready Use and Spare Equipment Store	As per technical requirement.
(g)	Battery Charging Room	As per scale.
(h)	Rigging Store	28 Sqm.
(j)	Class Room	40 Sqm.
(k)	General Store Room	As per technical requirement.
(l)	Operator Rest Room	27 Sqm with sanitary annexe.
(m)	Aerial Masts	(i) With cement concrete base. (ii) Mast obstruction lights.

Ser No	Item	Scale/ References
(n)	Flag Mast	As per scale.
(o)	MT Accommodation	As per scale.
(p)	Incinerator	As per scale.

45.7 **Naval Transmitting Station.**

Ser No	Items	Scales/ References
(a)	Transmitting Rooms	As per technical requirement.
(b)	Relay Room	
(c)	Electronic Workshop and Stores	(i) As per technical requirement. (ii) Non dust emitting floors.
(d)	Control Room	
(e)	Monitor and Emergency Room	
(f)	Blower Room	
(g)	Distribution Hut	
(h)	Battery Charging Room	As per scale.
(j)	Rigging Store	28 Sqm.
(k)	Aerials and Feeder Poles	(i) As per technical requirement. (ii) With platforms.
(l)	Rest Room for Operators	27 Sqm with sanitary annexe.
(m)	MT Accommodation	As per scale.
(n)	Incinerator	As per scale.
(o)	Flag Mast	As per scale.

45.8 **Communication Centre.**

Ser No	Items	Scales/ References
(a)	Machine Cipher Room	
(b)	Special Cryptographic Office (SCYO)	(i) Double door with independent locking facilities. (ii) Outer door to be of iron bars. (iii) Built in almirahs.
(c)	Traffic Centre Room	As per technical requirement.
(d)	Transmission Office (MWO)	To have bays as required.
(e)	Crypto Centre	As per technical requirement.
(f)	Broadcast Room	
(g)	Fixed Service Room	
(h)	RATT Broadcast Room	

Ser No	Items	Scales/ References
(j)	RATT and TP Room	As per technical requirement.
(k)	V/ UHF Room	
(l)	Portable Room	
(m)	VFT Room	
(n)	Perforator Room	
(o)	Hand and General Message Office (HMO)	
(p)	Typing and Duplicating Room	
(q)	Distribution, filling and query office	
(r)	Record Room	As per scale.
(s)	Electrical workshop	As per technical requirement.
(t)	Electrical and Electronic Store Room	
(u)	Stationery Store Room	22 Sqm.
(v)	General Store Room	As per technical requirement.
(w)	Battery Charging Room	As per scale.
(x)	DSCO's Duty and Rest Room	As per scale.
(y)	Duty personnel Rest Room	27 Sqm with sanitary annexe.
(z)	Class Room	40 Sqm.
(aa)	Aerial Park	As required.
(ab)	Postal Telephone Exchange Room	To be provided if authorised as per the Postal scale.
(ac)	Postal Operator Rest Room	To be provided if authorised as per the Postal scale.
(ad)	Naval Signal Station (Tower)	To be provided for visual signalling with facilities of flag mast for hoisting flags etc.
(ae)	Incinerator	As per scale.

45.9 **HF and DF Station.**

Ser No	Items	Scales/ References
(a)	HF and DF Hut	Wooden hut free of magnetic and other static electrical interferences. Wooden trellis 25m radius, 01m high with platform.
(b)	Repair Room	As per technical requirement.
(c)	Mast and Feeder Poles	25m high mast.

Ser No	Items	Scales/ References
(d)	Rigging Store	28 Sqm.

45.10 **Wireless Experimental Unit.**

Ser No	Items	Scales/ References
(a)	Transmitting Room	As per technical requirement.
(b)	Monitoring Hall – VHF	
(c)	Monitoring Hall – UHF	
(d)	Tape Recorder Room	
(e)	Monitoring Hall – HF	
(f)	Tele printer Room	
(g)	Operation Room	
(h)	DF Station	
(j)	Workshop	
(k)	Equipment Store Room	
(l)	General Store Room	
(m)	MT Accommodation	As per scale.
(n)	Class Room	27 Sqm.
(o)	Aerial Mast and Park	As per technical requirement.
(p)	Battery Charging Room	As per scale.

CHAPTER 46**COMMAND/ UNIT TRANSPORT POOL AND WORKSHOP**

46.1 The scale of accommodation for Naval Command Transport Pool shall be as applicable for MT accommodation and Ancillaries. Other Ancillary repair shops will be provided for the tradesmen sanctioned for the Transport pool. The facilities for civilian workers will be as authorised for industrial workers.

46.2 Industrial type of sheds for repair workshops shall be provided. All around security fencing or wall with gate office and sentry posts will be provided as required.

46.3 The accommodation authorised for a Naval Command Transport Pool and Workshop is given below:-

Ser No	Items	Scales/ References
(a)	Command Transport Pool and Workshop covered accommodation for vehicle and Ancillary.	As per authorisation.
(b)	Apron and Assembly area.	As per scale.
(c)	Hard standing	As required.
(d)	Main repair shop including garage.	(i) As per EME scale. (ii) Pollution testing equipment to be provided.
(e)	Ancillary and Tradesmen shop	As per scale for authorised tradesmen.
(f)	Battery Charging Shop	As per scale.
(g)	<u>Storage Accommodation</u> Technical office, MT store, Petrol and Diesel store, Lubricating oil and grease store, Acid and gas store, Paint store	(i) As per scale. (ii) Kerbside pumps to be provided wherever justified.
(h)	Tool and Expense Store	As per scale for EME repair workshops.
(j)	Servicing and Lubricating Bay	(i) One bay for upto 50 vehicles. (ii) Hydraulically operated hoist of suitable capacity to be provided. (iii) Servicing trailer compressor and greasing pump to be provided adjoining the bay.
(k)	Washing platform	(i) As per scale. (ii) Hydraulically operated hoist of suitable capacity to be provided.
(l)	Ramps	As per scale.

Ser No	Items	Scales/ References
(m)	Painting bay	One - Size to suit largest vehicle
(n)	Hard standing for shops and store section	As per scale for EME workshop.
(o)	Inspection pit.	As per scale.
(p)	Standby Drivers Room	
(q)	Technical Training and Lecture Room	
(r)	Civilian Drivers Change cum Amenity Room	
(s)	Sanitary Annexes	
(t)*	Instrument Calibration Shop	As required.
(u)*	Motor winding shop	20 Sqm.
(v)*	Wheel alignment and balancing shop	As required.
(w)*	OTRP Shop	28 Sqm.
(x)*	Fuel injector equipment spark plug testing shop	20 Sqm.
(y)*	Welding and electroplating shop	As required.

Note.

* The items (t) to (y) to be provided where EME Workshop is not available. The accommodation authorised for a Unit Transport Pool and Workshop is given below:-

Ser No	Item	Scale/ References
(a) *	Covered accommodation for vehicles and ancillary	As per authorisation.
(b) *	Hard standing	As required.
(c) *	Inspection pits	01 for 25 vehicles or part thereof (excluding motor cycles).
(d) *	Ramps	As per authorised scale.
(e) *	Repair bays	As per authorised scale Arc & gas welding, compressor and spark Plug testing equipment to be provide.

Ser No	Item	Scale/ References
(f) *	Washing Platform	(i) As per authorised scale. (ii) Hydraulically operated hoist, serving trailer, compressor and greasing pump to be provided. (iii) Washing platform with ramp for 20 or more than 20 vehicles.
(g) *	Battery Charging Shop	As per scale.
(h) *	Pollution Testing Equipment	As required.
(j) *	Storage accommodation – MT Store, petrol & diesel store, lubricating oil & grease store.	(i) As per scale. (ii) Kerbside pumps to be provided wherever justified.

Note.

* The authorisation of the items from (a) to (j) are subject to the condition laid down in Table 7.I.

CHAPTER 47**METEOROLOGICAL OFFICE AND OBSERVATORY**

47.1 The scales of specialised accommodation for Meteorological Office and Observatory are given in the Table 47.I. The accommodation will be authorised in accordance with general stipulations as laid down by the Indian Meteorological Department. Weather and surface observatories and pilot balloon observatory will be authorised for Naval Air Stations.

47.2 Air-conditioning will be provided as per the technical requirements of the installed equipment for rooms where requirements so justified this provisioning. Open level area duly fenced with one light and water point should also be available to set up surface observatory.

TABLE 47.I**METEOROLOGICAL OFFICE AND OBSERVATORY**

Ser No	Description of Item	Floor Area (Sqm)/ Scales	Special Facilities	Planning Notes
1.	Display and RATT Room	54	---	
2.	Automatic Picture Transmission equipment and facsimile weather Room.	36	---	
3.	Meteorological Store Room	18	Inbuilt cupboards or shelves for stores.	
4.	Pilot Balloon Observatory for upper winds, Balloon filling and Hydrogen cylinders Stores Room.	37	(a) Louvers in the wall. (b) Shutter doors in the front. (c) Rubber sheet flooring. (d) Special Safety lights and switches.	

CHAPTER 48**CENTRAL REFERENCE LIBRARY**

48.1 The accommodation for the Central Library shall be provided for the Command to cater for the requirement of all personnel of ships and establishments. Unit technical libraries, however, will be sanctioned based on assessed requirement at stations, where it is not possible to utilise the facilities of Central Library.

48.2 The facilities authorised for a Central Reference Library are given in Table 48.I. Air Conditioning may be provided with specific approval of FOC-in-C Command.

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TABLE 48.I**SCALE OF CENTRAL REFERENCE LIBRARY**

Ser No	Description of items	Floor area (Sqm)/ Scale	Special facilities	Planning notes
1.	Library	70	Racks, Display boards, Notice boards etc to be provided.	
2.	Reading-cum-Information Room	70	Fitted racks for newspapers to be provided.	May be suitably divided if required.
3.	Group Study cubicles	40		04 Cubicles of 10 Sqm each.
4.	Cyber Room/ Computer cell	25		
5.	Audio Visual Room	25	Special screen to be provided.	
6.	Reprographic/ Document Reproduction Room	14		
7.	Display space at entrance	20	Display boards/ notice boards/ presto graphs etc to be provided.	
8.	Catalogue Room	11	Steel catalogue cabinets to be provided.	
9.	Office	18		
10.	Repair and Binding Room	11		
11.	Store Room	11		
12.	Sanitary Annexe	WCs – 02 Nos		One each for gents & ladies.
		WHB – 04 Nos		Two each for gents & ladies.
		Urinal – 02 Nos		One each for gents & ladies.

CHAPTER 49**DISTRIBUTING AUTHORITY AND CHART DEPOT**

49.1 The accommodation authorised for Distributing Authority and Chart Depot to be provided on as required basis is given below. The strong rooms should be provided with double doors, with outer doors of iron bars including independent locking device and built in shelves and almirahs. Separate strong rooms should be provided for CBs and BRs.

49.2 Air-conditioning of any technical accommodation shall be assessed on merit and treated as special.

49.3 Accommodation authorised for a Distribution Authority is as under: -

- (a) Strong Rooms.
- (b) Codification Room.
- (c) Publication Comparison and Mustering Hall.
- (d) Reprographic Room.
- (e) Store Room for Bags.
- (f) Packing and Dispatch Room.

49.4 Accommodation authorised for Chart Depot is as under: -

- (a) Drawing Hall for chart work.
- (b) Storage Accommodation for charts.
- (c) Storage Accommodation for navigational publications.
- (d) Storage Accommodation for chronometers and instruments.
- (e) Workshop for repair of navigational instruments.
- (f) Store Room for stationery.
- (g) Packing and Dispatch Room.
- (h) Reprographic Room.

CHAPTER 50**NAVAL CLEARANCE DIVING TEAM ACCOMMODATION**

50.1 The accommodation authorised for a Shore Establishment shall be provided for Naval Clearance Diving Team as applicable. Domestic accommodation for the authorised complement may be built close to the complex if not provided on station basis.

50.2 Air-conditioning shall be provided for such rooms where technical requirement of the equipment installed or stored justifies the same.

50.3 The technical accommodation authorised for a Naval Clearance Diving Team to be provided on as required basis is listed below: -

Ser	Items	Scale/ References
(a)	<u>Storage Accommodation</u> Diving stores, Boat stores, Gemini craft stores, Gases, Ordnance store, Salvage equipment store, Naval store, Clothing store, Ready use store and POL store.	(a) For authorised equipment, and as per analogous scales as applicable. (b) Separate room for each type of Gas store.
(b)	Workshop-cum-Maintenance Room	As required.
(c)	Machinery Repair Shop	As required. Stowage space for OBM's to be provided as per technical requirements.
(d)	Compression Chamber	As per technical requirements.
(e)	Photo Section	To be provided with dark and development room.
(f)	Drying Room	With diving suit hangars.
(g)	Laboratory for Gas analysis	As required.
(h)	Explosive Magazine	As per scale.
(j)	Battery Charging Room	As per scale.
(k)	Divers Briefing and Rest Room	As required. With attached sanitary annexes.
(l)	Accommodation for night stay	One room for five persons and lockers for 15 persons with attached toilet and kitchenette to be provided.
(m)	Washing point	Water point with 2000 litre capacity tank to be provided.
(n)	Diving tank	03m x 03m tank of 07m depth to be provided with necessary pumping facility.
(o)	Sanitary annexe	4 showers and one WC to be provided.
(p)	Dog kennels for Dog Squad	For 03 dogs as per scale.

Note. The items (k) to (n) may be agreed as per scale wherever team is authorised.

CHAPTER 51

NAVAL MARINE COMMANDO UNIT

51.1 The accommodation authorised for Naval Marine Commando (MARCOS) Unit will be provided as applicable. The office and administrative and storage accommodation for the Naval Marine commando Force Units will be provided as per authorised scale.

51.2 Additional training facilities as required are to be provided at Naval Special Warfare Training and Tactical Centre. The charter of duties and the procedures and tactics of special operations as adopted by MARCOS are different from the Infantry and Army SF. Hence, the scales of accommodation for MARCOS units and NSWTTTC are given separate authorisation.

51.3 The MARCOS units are categorised based on the strength of the unit as follows:-

- (a) Category A - more than 01 company.
- (b) Category B - more than ½ company but less than 01 company.
- (c) Category C - less than ½ company.

Note. Standard 01 Company = 29 officers and 246 sailors.

51.4 Separate firing range as per authorised scale will be provided for MARCOS unit to impart mandatory firing training.

51.5 Air conditioning shall be provided where technical requirement of the equipment/ store justifies.

51.6 The essential and singular facilities other than firing ranges critically required for a Naval Marine Commando unit are listed below. These facilities may however be supplemented or reviewed on required basis, due to technical requirements and to cater for new acquisitions subsequently: -

Ser No	Items	Scales/ References	Special Facilities
(a)	Integrated Armoury Complex with Centralised AC for Specialised Weapon	As required	(a) Racks. (b) Air compressor for pressurised cleaning.
(b)	Conference Room	As per analogous scale	
(c)	Motivation Hall cum History Cell	As per analogous scale	Only for Cat 'A'.
(d)	Water work-up Station	50 x 20 x 6m	For Cat 'A' & 'B' only.
(e)	Covered work-up Station	As required	For Cat 'A' & 'B' only.
(f)	Integrated Special Forces Operations Complex	As required	

Ser No	Items	Scales/ References	Special Facilities
(g)	Integrated Firing and Demolition Range	900 metres	01 for each Command.
(h)	Reflex Firing Technical Centre	08-10 CQB rooms, driveways, roads and associated facilities	To be provided in varying scales for different category of units.
(j)	Rappelling and Slithering tower	22m (minimum)	(a) Lift/ elevator facility. (b) At least four strong points for rappelling and slithering. (c) Facilities of climbing wall on one side.
(k)	Storage Room for Parachutes and Air Stores.	As required	(a) For Cat 'A' only. De-Humidifier, Drying Bay Packing Bay and Fire fighting arrangements.
(l)	Explosive Stores	As required	Necessary safety arrangements.
(m)	Helipad and Heli Hanger	As required	For Cat 'A' & 'B' only.
(n)	Battle Obstacle Course	As required	For Cat 'A' & 'B' only.
(o)	Integrated Boat Yard with covered Boat Pen	As required	(a) For Cat 'A' & 'B' only. (b) Stowage facilities including Hangar, slipway, maintenance and repair workshops
(p)	Quick Reaction Team Complex	As required	Additional rooms for night shelter should be factored.
(q)	MI Room	As per scale	Varying size depending upon the category of the unit.
(r)	Physical Work-up Station	As required	
(s)	Gymnasium	As per scale	
(t)	<u>Messes and Institutes</u> Officers' messes, Officers' institutes, CPOs messes/ clubs, Sailors institute, POs mess, Single living accommodation, cook house and Dining hall for junior sailors.	As per scale	

Note. Wherever 'as required' has been specified, guidelines for scaling will be laid down by the Service HQs.

CHAPTER 52**NAVAL COMMAND/ FLEET HEADQUARTERS**

52.1 Specialised accommodation required for Naval Headquarters at Command and Fleet level will be provided as per authorised scale. Offices and technical accommodation for Naval Command/ Fleet HQ will be provided as per authorised scale.

52.2 Accommodation for field computers and electronic warfare systems shall be provided, wherever such equipment is authorised, as per technical requirements of the equipment.

52.3 For functioning of headquarters during operations, wherever the same is envisaged from permanent location, minimum essential additional underground accommodation may be provided as indicated in the Table 10.I, subject to the approval of GOC-in-C Command or equivalent. All underground accommodation shall be air conditioned. Standby power supply arrangement will also be provided.

52.4 Desert coolers may be provided for the accommodation at authorised stations as indicated in the Table at Appendix 'D'.

52.5 Suitable security wall or fencing with security lights will be provided all around the Formation Headquarters as per authorised scale. Security bars or grills should be provided on all windows and ventilators. Accommodation for night pickets shall also be provided.

CHAPTER 53

SUBMARINE BASE ORGANISATION

53.1 The accommodation for Submarine Base Organisation shall be provided as per Table 53.I. The office, administrative, sports and storage accommodation for the Submarine Base Organisation will be provided as per the laid down scales for a Shore Establishment.

53.2 Where operationally considered necessary, essential accommodation may be constructed underground with the approval of Chief of the Naval Staff. All underground accommodation should be air-conditioned. Air-conditioning of accommodation constructed above ground shall be decided on merit. Any facility in future for anti-nuclear protection (Citadel facility) shall be treated as “special”. Standby power supply arrangements will also be provided.

53.3 Covered ducts for power cables, telephone lines, etc should also be provided as required. Security fencing, gates, watch towers, security lights and sentry posts shall be provided as considered essential.

53.4 Suitable smoke/ fire detection system will be fitted in storages and inspection/ preparation workshops on as required basis. Industrial type of sheds for repair workshops shall be provided.

53.5 All storage sheds should be provided with security grills and roller shutter type of doors. Storage sheds wherever required should be rat proof. Storage sheds should be fitted with lighting protection. The cold and cool rooms will be provided with suitable standby power supply arrangements. Humidity control measures wherever required in storage sheds shall be decided on merit and provided as special.

TABLE 53.I**ACCOMMODATION FOR SUBMARINE BASE ORGANISATION**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Planning Notes/ Special Facilities
1.	Submarine Operation Centre	150	Wall display boards, Glass glazed board with suitable lighting arrangements.
2.	Visitors Room	20	---
3.	Battery Charging Room	As per scale	---
4.	Intelligence-cum-Briefing Room	32	---
5.	Communication Equipment Room	40	---
6.	Workshop	As per technical requirement	---
7.	Small Arms Armoury and Store	As per scale	---
8.	Equipment and Webbing Store	As per scale	---
9.	Signal Office	20	---
10.	Strong room	20	---
11.	Garages	As per scale	---
12.	<u>Training and Instructional Accommodation</u> Instruction Offices, Class rooms, Instruction room, Library, Equipment and Model rooms, Training aid stores, Laboratories, Strong room.	As per Scale	As per item or equipment to be installed or stored.
13.	Regulating Accommodation	As per scale	---
14.	<u>Pay and Store Accommodation</u> Supply office, Victualing office, Naval stores office, Clothing office.	As per scale	---
15.	<u>Stores</u> Victualing store, Naval stores, Clothing store, Rigging store, General equipment store, Maintenance store, Sport Store	As per scale	Based on analogous scale applicable to ASC, Ordnance and Engineer store.
16.	Band Accommodation	As per scale	To be provided only where bands are sanctioned.
17.	<u>Photo Section</u> Offices, Photo bay, Darkroom, Training room, Processing room, Reproduction room, Store room for chemicals and photo material.	As per scale or as required	To be provided if equipment and personnel are authorised.
18.	Store Rooms	As per scale	

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Planning Notes/ Special Facilities
19.	Computer Room	As per scale	
20.	Telephone Exchange	As per scale	
21.	<u>Sports and Miscellaneous</u> Swimming pool, Recreation ground and Courts. Film vault, Signal Centre, Short Range, Parade Ground, Quarter deck with mast, Drill Shed, Gymnasium, Auditorium-cum-cinema hall, Fire station, Static tanks, Dhobi ghat and mechanical laundry for all major establishments.	As per scale	
22.	<u>Provost and Security</u> Gate office, Search room (Ladies and Gents), Visitors waiting room. Sentry post, Security wall or fences.	As per scale	As per authorised scale for Depots.
23.	MI Room	As per scale	
24.	MT Accommodation	As per scale	
25.	Unit shops	As per scale	
26.	First Aid Post	As required	
27.	Garages for handling equipment	As required	
28.	Covered Hard Standing for Lubricating Oil drums	As required	
29.	Central old record room	70	With approval of CFA.
30.	Magazines	As required	
31.	Bicycle, Scooter and car shed	As per scale	
32.	Missile storage and operation space	As per scale	
33.	Compression Chamber	As per technical requirements	
34.	Drying Room	As required	With diving suit hangars.

CHAPTER 54**JOINT OPERATIONS CENTRE**

54.1 The accommodation for Joint Operations Centre shall be provided as per Table 54.I. These will be constructed with the prior approval of GOI. Suitable protection work against air attacks may be provided for the Operations Centre. For joint operation, accommodation authorised for the Army/ Coast Guard/ State Maritime police and other central and state agencies personnel as approved by GOI will also be provided. Operation Centre should be without intermediate column to provide unobstructed view and may be sub-divided into cubicles.

54.2 Where operationally considered necessary, essential accommodation may be constructed underground with the approval of Chief of the Naval Staff. All underground accommodation should be air-conditioned and standby power supply arrangement will also be provided.

54.3 Office cum rest room accommodation including toilet facilities shall be provided as per scale for officers, CPOs, POs and sailors including their equivalent in Army/ Air Force for the assessed numbers required to be on duty.

54.4 Covered ducts for power cables, telephone lines, etc should also be provided as required. Adequate fire fighting facilities, security fencing, etc shall be provided.

TABLE 54.I**JOINT OPERATIONS CENTRE**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Joint Operation Centre	150	Wall display boards, glazed board, built in chart tables with suitable lighting arrangements.	
2.	Army Operation Centre	30	- do -	Only for joint operations.
3.	Air Operation Centre	30	- do -	
4.	Joint Intelligence section	30		
5.	Coast Defence Section	20		
6.	Shipping Section	18		
7.	Sand Model Room	54		Only for joint operations.
8.	Combined Signal Traffic Room	25		
9.	Crypto Centre	18		
10.	Air-to-ground communication Centre	25		
11.	Computer Room	As per scale		Where computer is authorised.
12.	Telephone Exchange	As per scale		
13.	Garage	As per scale		
14.	Kitchen/ Pantry	7.5		

CHAPTER 55**NAVAL DETACHMENTS**

55.1 The accommodation to be provided for a Naval detachments will be based on authorised strength and holding of equipment and stores. The sizes and number of rooms actually required will be based on the functional requirement.

55.2 The accommodation for Naval Detachments is given below: -

Ser No	Items	Scale/ References
(a)	<u>Regulating Accommodation</u> Offices, OOD (Duty Officer) Office cum Rest Room, Duty CPOs (Duty Clerk), Guard Room.	As per scale
(b)	<u>Pay and Store Accommodation</u> Supply office, Victualing office, Naval stores office, Clothing office.	As per scale
(c)	<u>Stores</u> Victualing store, Naval stores, Clothing store, Rigging store, General equipment store, Maintenance store, Sport Store.	As per scale based on analogous scale applicable to ASC, Ordnance and Engineer stores
(d)	<u>Sports and Miscellaneous</u> Recreation ground and Courts. Short Range, Parade Ground, Quarter deck with mast, Drill Shed, Gymnasium, Fire station, Scooter and cycle shed, Static tanks, Dhobi ghat and mechanical laundry.	As per scale
(e)	<u>Provost and Security</u> Gate office, Search room (Ladies and Gents), Visitors waiting room, Sentry post, Security wall or fences.	As per scale for Depots
(f)	MI Room	As per scale
(g)	MT Accommodation	As per scale
(h)	<u>Boats</u> Jetty, Boat pen, Slipway, Boat store. Boat maintenance workshop	Will be authorised only if boats are sanctioned
(i)	<u>Domestic Accommodation</u> Living accommodation officers, CPOs, POs and Sailors.	As per scale
(j)	<u>Messes and Institutes</u> Officers messes, Officers institutes, CPOs messes/ clubs, Sailors institute, POs mess, Cook house and Dining hall for junior sailors.	As per scale
(k)	Unit shops	As per scale
(l)	Civilian workers amenity accommodation.	As per scale for Depots

CHAPTER 56**MARITIME WARFARE CENTRE**

56.1 The accommodation for Maritime Warfare Centre shall be provided as per Table 56.I. These will be constructed with the prior approval of Government. Suitable protection work against air attacks may be provided for the Operations Centre. Operation Centres should be without intermediate columns to provide unobstructed view and may be sub-divided into cubicles.

56.2 Where operationally considered necessary, essential accommodation may be constructed underground with the approval of Chief of the Naval Staff. All underground accommodation should be air-conditioned and standby power supply arrangements will also be provided.

56.3 Office cum rest room accommodation including toilet facilities shall be provided as per scale for officers, CPOs, POs and sailors including their equivalent from Army/ Air Force for the assessed numbers required to be on duty.

56.4 Covered ducts for power cables, telephone lines, etc should also be provided as required. Adequate fire fighting facilities; security fencing, etc shall be provided.

TABLE 56.I**MARITIME WARFARE CENTRE**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Conference room	150	Wall display boards, glazed board, built in chart with suitable lighting arrangements.	
2.	Auditorium	150	-do-	
3.	Class rooms – 05 Nos	30 Sqm each	- do -	
4.	Dir and Directing staff cabins – 10 Nos	15 Sqm each		
5.	Gaming cubicles – 16 Nos	15 Sqm each		
6.	Coast Defence Section	20		
7.	Office space	18		
8.	Library	54		
9.	Game control room	25		
10.	Ante room	18		
11.	Store	18		
12.	Computer Room and server room	As per scale		Where computer is authorised.
13.	Battery room	As per scale		
14.	Office cum Rest Rooms (a) Duty Officer-02 Nos (b) Duty sailor- 02 Nos	14 Sqm each 10 Sqm each		With separate Ladies toilet.
15.	CB Room	18 each		
16.	Garages for Vehicle	As per scale		
17.	Kitchen	7.5		

CHAPTER 57**WATERMANSHIP TRAINING CENTRE**

57.1 The accommodation for Waterman Ship Training Centre shall be provided as per Table 57.I. These will be constructed with the prior approval of Service HQ and administrative accommodation for waterman ship training centre shall be provided as per authorised scale.

57.2 Covered ducts for power cables, telephone lines, etc should also be provided as required. Adequate fire fighting facilities, security fencing shall be provided.

57.3 Separate changing room for ladies and gents will be provided as required.

TABLE 57.I**WATERMANSHIP TRAINING CENTRE**

Ser No	Description of Items	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Class room 50 personnel	As per scale	Glass black board and raised platform.	
2.	AV room/ Briefing room/ Events room (for 100 personnel)	As per scale		
3.	Communication room	20		
4.	Observation room	20		
5.	Server room	As per scale		
6.	Media room	30		
7.	POL Store	30		
8.	Duty room	20		
9.	Battery charging room	As per scale		
10.	OBM Store	30		
11.	Boat Work shed	300		
12.	Boat stowage Shed	90		
13.	Boat shed	450		
14.	GRP Work shop	40		
15.	Smith Work shop	40		
16.	Boat ramp	375		
17.	Sail Loft	180		
18.	Lay apart store	90		
19.	RU Boat store	90		
20.	Boat Jetty	As required		
21.	Car Parking Staff Officers	As per scale		
22.	Ambulance Type 'B' Vehicle			
23.	Two Wheeler Parking-Staff Sailors and civilians			
24.	Car Parking Officers			
25.	Two wheeler Parking – Sailors			
26.	Lounge room			

PART III – SPECIALISED SCALES
SECTION C – SPECIALISED ACCOMMODATION FOR AIR FORCE

CHAPTER 58

**ACCOMMODATION FOR AIR FORCE UNITS,
ARMY AVIATION UNITS AND ESTABLISHMENTS**

58.1 The scales of accommodation and general provisions laid down in Part I, II and IV will apply to Air Force as well, except where otherwise specified in this Chapter. In addition, Air Force units, Army Aviation Units and establishments are authorised specialised accommodation as given in this Chapter, which is peculiar to the Air Force and Army Aviation. For scales applicable both to Army and Air Force, the Air Force equivalent of a “battalion” of 800 personnel, be treated as Independent Station/ Unit.

58.2 No general scale can be laid down to cover all projects, but provisions will generally be in accordance with E-in-C’s Pamphlet No 01 and technical and administrative instructions to be issued by Air Headquarters/ Integrated Headquarters of MoD (Army).

58.3 **Administrative Accommodation.** The following administrative accommodation as per authorised scales may be provided for Air Force, Army Aviation Units establishments: -

- (a) Administrative Control Centre.
- (b) Education Block.
- (c) Fire Tanks (Static Water Tanks).
- (d) Fire Hut (Fire Stations).
- (e) Guard Room.
- (f) Mail Sorting Room.
- (g) Group Headquarters Office.
- (h) Wing Headquarters Office.
- (j) Station Headquarters Office.
- (k) Squadron Headquarters Office
- (l) Flight Headquarters Office.
- (m) Salvage Yards - As required.
- (n) Stores – Non Technical.
- (o) Air Force Selection Boards – As per analogous scale or as required as applicable.
- (p) Drill Shed (To cater for all weather requirements). Area to be decided on the basis of the strength of the unit with the prior approval of the Air Headquarters.

(q) Sub Guard Room. Due to large area of AF Stations, additional guard rooms of smaller sizes are necessary. Provision for waiting room for officer and visitors with toilet facilities to be provided, in all major guard rooms upto 27 Sqm of area.

(r) Visiting Squadron Operations Room. Briefing room, Rest room with bath and toilet and cafeteria are required for visiting squadrons camping at Stations for flying and range firing operations to be provided as per authorised scale.

(s) Transit Accommodation for Air crew in Officers and SNCO's Messes. Frequent movement of air crew at all times require fully furnished accommodation for their rest. 5% of single living accommodation on over and above authorised where transit accommodation is approved by Air HQ.

(t) A dining room with plate washing facility for NCs (E) be built as annex to all airmen messes. Single NCs(E) have no separate place to dine in AF Station. Therefore, a separate dining room is needed for NCs(E) and a floor area of 0.83 per person is to be provided.

(u) Unit Computer Cell. Local Area Network Cell, wide area network cell, with air-conditioning facility with false ceiling, UPS provision and computer training room is to be provided.

(v) Facilities for night servicing, loading and unloading should be provided at all flying stations. Facilities may include portable flood lights and portable standby power supply. Similar facilities may be provided at Engine Bay, R & D Bay, POL Bay and Compressed Gases stores as these are active during night flying and night operations.

(w) Cafeterias. To be authorised for Station HQs, Operation Complexes, Engineering Complexes in major independent sections with the approval of AOC-in-C.

58.4 **Medical.** Where authorised, the following medical buildings or facilities are to be provided at Air Force establishments: -

(a) Station Slick Quarters.

(b) Station Health Organisation

(c) Medical Inspection Room

(d) Air Force Dental Centres

(e) **Crash Ward.** One crash ward per airfield sited as part of the MI room complex and consisting of one room of 40.4 Sqm with verandah. An additional crash ward, size as above, is required at airfields where MI room is located more than 3.2 KM from the runway.

(f) **Mortuary.** This is to be provided only at air field sites at a scale of 01 room of 9.3 Sqm with verandah.

58.5 **Ration Stores.** Size of ration store to be determined by the total number of all personnel entitled to draw rations at 9.3 Sqm per 20 men.

58.6 **Technical and Operational Facilities.** Technical and operational buildings and facilities, peculiar to the Air Force and Army Aviation to be provided on as required basis, are given in Table 58.I.

58.7 **Army Aviation Squadron.** Administrative Accommodation for Army Aviation Squadron will be provided as per scale authorised. The technical accommodation will be provided as per requirement specified for particular type of aircraft or equivalent facilities provided for Air Force units/establishments. However, the provisions given under the sub-clauses will also be used as guidelines.

58.7.1 Technical accommodation for Bay servicing facilities for Army Aviation Squadron will be provided as given in Table 58.II.

58.7.2 Ancillary facilities for each Flight in Army Aviation Squadron will be provided as per scale given in Table 58.III.

58.7.3 Technical accommodation for Air Traffic Control (ATC), Crash Bay and MET observatory for Army Aviation Squadron will be provided as per scale given in Table 58.IV.

TABLE 58.I**AIR FORCE, ARMY AVIATION TECHNICAL AND
OPERATIONAL BUILDINGS AND FACILITIES**

1. Aerial Mast.
2. Aircraft and Avionic Workshop (all types).
3. Aircraft Apron.
4. Aircraft Picketing Block.
5. Aircraft Servicing Bays (all types).
6. Aircrew and Ground Crew Operational Readiness.
7. Aircrew Rest Room (including Crew and Locker Room).
8. Air Field Lighting Installation.
9. Air Raid Shelters (for Forward Air Bases).
10. Air Stores Park (all types).
11. Antenna, Antenna Foundation and Antenna Tower.
12. Armament Workshop.
13. Armoury.
14. Arrestor Barrier with necessary Pavements.
15. Automatic Message Switching Station.
16. Air Craft Specialist Vehicle Bay.
17. Battery Charging Room.
18. Bird Watcher's Hut.
19. Blast Pen.
20. Bomb Disposal Site.
21. Bomb Dump, Igloo, WSI.
22. Bombing Range and Ancillary Buildings.
23. Briefing Room.
24. Bulk Petrol Installation.
25. Camera Obscure.
26. Combat Air Patrol Controller Tower.
27. Compass Swinging Base.
28. Constant Current Regulation Building for Air Field Lighting.
29. Control Buildings (all types).
30. Cypher Room.
31. Debriefing Room.
32. Direction Finding Stations (all types).
33. Electronic Equipment Complex of Tropo and Line of Sight (all types).
34. Engine Test Bench.
35. Feeder Poles (all types).
36. Filter.
37. Forward Supply Sections.
38. Gas Cleaning Centre.

39. Gas Defence Centre.
40. Garages (Specialist vehicles).
41. Ground Control Approach Complex.
42. Ground Crew Rest Room.
43. Ground Ranges (all types).
44. Ground Running Point with Deflector.
45. Hangar.
46. Hangarette.
47. Hard Standing.
48. Helipad.
49. Incendiary Bombs Storage and Preparation Complex.
50. Instrument Landing System Complex.
51. Link Trainer Room and Simulator Buildings (all types).
52. Liquid Oxygen Complex.
53. Logistics Section.
54. Maintenance Control Centre.
55. Marker Beacon Complex.
56. Master Control Centre Building.
57. Mechanical Transport Section and Mechanical Transport Repair and Inspection Section.
58. Meteorological Section.
59. Missile Air Borne and Component Testing Sites.
60. Missile Complex (all types).
61. Missile Deployment Pads.
62. Missile Explosives Testing Sites.
63. Missile Preparation Shed.
64. Missile Storage Sites.
65. Mobile Missile Preparation Complex.
66. Mooring Points.
67. Navigation Block.
68. Operational Readiness Platforms.
69. Operation Rooms (all types).
70. Photo Section.
71. Power House Complex (all types).
72. Power Station and Sub-Station.
73. Practical Training Rooms (all types)
74. Prepared Missile Sheds.
75. Private Branch Exchange.
76. Radar Buildings (all types)
77. Radio and Radar Workshops.
78. Receipt and Unpacking Building
79. Receiving Stations.
80. Runways.

81. Runway Controller Cabin.
82. Safety Equipment Section.
83. Signals Block.
84. Stop Butts, Shooting in Butts (all types).
85. Stores Technical.
86. Surface to Air Missile Operations Complex (all types).
87. Sub Control Centre Building.
88. Specialist power supply section.
89. Specialist Scientific Laboratory for Aircraft and Early Warning System.
90. Tyre Checker Room.
91. Tape Relay Centre.
92. Tarmac Duty Crew Room.
93. Taxi Tracks (all types).
94. Tele printer Block.
95. Transmitting Station (all types).
96. Unmanned Aerial Vehicle Complexes (all types).
97. Voice Switching Building.
98. Weather Shelter.
99. Fuel Storage Facility.

TABLE 58.II**BAY SERVICING FACILITIES**

Ser	Facility	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	<u>Avionics Bay</u>			
	(a) Communication Bay	24		
	(b) Navigation Bay	24		
	(c) Radar Bay	24		
2.	<u>Instrument Bay</u>			
	(a) Air Day Instrument Bay	24		
	(b) Engine Instrument Bay	24	(a) Air Conditioning.	
	(c) Miscellaneous Instrument Bay	24	(b) Sound proofing.	
	(d) AFCS Bay	24	(c) Compressed air line with Industrial compressor to compress air at 12 Kg/cm ² (For instrument bay only).	
3.	<u>Electrical Bay</u>		(d) Workshop tables with swivel stools.	
	(a) Battery Charging & CT Bay (Ni Cd)	24	(e) Power supply to include 28V DC, 26V, Single phase 400Hz AC, 115V, Single Phase, 400Hz AC, 200V, three phase, 400 Hz AC (only for Electric Bay), Domestic power supply (220V, Single Phase, 50Hz AC).	
	(b) DC Servicing Bay	24	(f) Bird proofing and dust free anti-static flooring of hangars where required may be provided.	
	(c) AC Servicing Bay	24		
	(d) Battery Charging Bay (Lead Acid)	24		
4.	<u>Electrical Bay</u>			
	(a) Composite Repair Bay	24		
	(b) Hydraulics Bay	24		
	(c) Soap Analysis Bay	24		
	(d) CD & Wear Check Bay	24		
5.	<u>Aero-engine Bay</u>			
	Accessories Testing Bay	24		
6.	<u>Armament Bay</u> (for LANCER Hepters)	120		
7.	NVG Bay	120		
8.	GSE/ GHE Repair Bay	120		
9.	Carpenter Section	24		
10.	Bulk Store	120		
11.	Hard Standing	1008		

TABLE 58.III**ANCILLARY FACILITIES**

Ser No	Accommodation	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	Generator Shed	72		
2.	Garages for Bowsers	160		
3.	Garages for Hepttr Towing Tractor	75		
4.	Garages for Fork Lift Truck	75		
5.	Aircrew Operational Readiness Room	72	Air-conditioning.	
6.	Ground Crew Operational Readiness Room	72	Air-conditioning.	
7.	Bird Watchers Hut	09		
8.	Tarmac Duty Crew Room	24	Air-conditioning.	
9.	Visitors Lounge with attached toilet and kitchen	24		

TABLE 58.IV**ATC, CRASH BAY AND MET OBSERVATORY**

Ser No	Accommodation	Floor Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	ATC Room	30	Air-conditioning and Sound proofing.	
2.	Flt Coord Centre	24		
3.	Met Section	36		
4.	Signal Section	12		
5.	Radio Room	12		
6.	Navigator Section	12		
7.	Briefing Room	48		
8.	CCR Building for Airfield Lighting	48		
9.	Remote Switching Room for CCR	12		
10.	Night Flying Store	12		
11.	Battery Charging Room	12		
12.	Crash Fire Tender Parking	120		
13.	SAR Jeep	18		
14.	Met Observatory	48		
15.	AFVR Section	24		
16.	CADF Section	24		

PART IV – ELECTRICAL AND MECHANICAL SERVICES

CHAPTER 59

AIR-CONDITIONING

59.1 Air-conditioning shall be authorised for such accommodation as specified in the various Tables of Scales and in the buildings and installations as given hereunder. Air-conditioning shall however be provided only in such accommodation where the equipment installed or stored including the functional requirements so justify this provisioning.

59.2 Air-conditioning in other technical accommodation and storages may also be authorised with the approval of the Competent Financial Authority for such items where the same is specified by the appropriate technical authorities to be essential for safe functioning and storage of sensitive equipment. Air-conditioning will be authorised in all Operations Room.

59.3 Stations listed at Appendix 'E' are authorised where minimum temperature below 5°C for at least three months in a year, Central Space Heating System is authorised. Following services/ specifications are authorised to provide & maintain Central Space Heating System for all OTM Accommodation less non-specialised stores in High Altitude Areas: -

- (a) Central Space Heating System.
- (b) Central/ Solar Hot Water.
- (c) Special Piping System.
- (d) Double Glazed Special Joinery with Thermal Break/ Insulation.
- (e) Special Waste/ Sewage Disposal System.
- (f) False Ceiling.
- (g) Electric Chimney.
- (h) Thermal insulation/ Superior specifications as per technical requirement.

59.4 For all covered accommodation other than OTM Accommodation for Stations listed at Appendix 'E', all items listed at Para 59.3 except CHS is authorised.

59.5 Provision will be made for standby reserve air-conditioners at the rate of 10% of total number of sets of each size and type. Minimum one standby set of each size shall be provided.

59.6 Air-conditioning in hospitals is not covered in this Chapter and has been authorised separately.

59.7 Air-conditioning is authorised in buildings and installations listed below: -

- (a) **Automatic Telephone Exchange with Capacity 100 Lines and Over.**
 - (i) Automatic switch room.
 - (ii) Main distribution frame room.
 - (iii) Trunk/ automatic manual room.

(b) **Workshops.**

- (i) Fuel injection equipment and recuperator rooms.
- (ii) Telecommunication, instrument and missile shops.
- (iii) Armament and radar components rooms.
- (iv) Jig boring and profile grinding rooms.
- (v) Calibration and accurate measurement rooms.
- (vi) Aircraft rotables repair workshops.
- (vii) Periscope repair and inspection bays.
- (viii) Central radio and radar workshops.
- (ix) Laser and IR devices workshops and laboratories.

(c) **Communications and Radar Installations.**

- (i) Transmitting and receiving station rooms including similar rooms in other signal installations.
 - (ii) HF and DF huts.
 - (iii) Air traffic control cabins.
 - (iv) Tropo scatter stations.
 - (v) RATT and TP rooms.
 - (vi) Instrument landing systems rooms
 - (vii) Electronic service centres.
 - (viii) Radar equipment rooms.
 - (ix) Weather picture transmission room.
- (d) Ground Control Approach (GCA), Surveillance Radar Equipment (SRE) and Precision Approach Radar (PAR) buildings
- (e) Computer Installations/ Server Rooms/ CCTV Monitoring Stations/ LAN switch rooms/ Simulators are to be provided with Air Conditioning.
- (f) Simulator, Link Trainer Buildings and Specialised Electronic Training Models.
- (g) Aircraft Safety Equipment Section.
- (h) Missiles, Rockets, Torpedoes and Specialised Armament Inspection, Repair, Testing, Assembly and Preparation Workshops.
- (j) Film Vaults and Specialised Photo Sections.
- (k) Band Rehearsal Rooms.

- (l) Audio/ Video Recording Rooms.
- (m) **Storages.**
 - (i) Missiles.
 - (ii) Specialised armament and ammunition.
 - (iii) Secondary batteries (in depots).
 - (iv) Special rubberised items
 - (v) Precision and sensitive optical electronic and electrical items.
- (n) Base Operations Complex, Aircrew Briefing Room, Aircrew Rest Rooms and Operational Readiness Rooms.
- (o) Operations room, War centres and underground working accommodation.
- (p) **Offices.** Offices of Officers as given in Table 7.IV including equivalent civilian officers. Conference Room, Reading Room in Library etc in Offices will be also provided with air-conditioning.
- (q) Specialised clothing store.
- (r) **MES Inspection Bungalows.** Two suites in MES inspection bungalows having more than three suites and four in IBs with six suites at authorised stations given in Appendix 'B'.
- (s) Dental Surgery Room.
- (t) Heat Stroke Room.
- (u) Blood Transfusion Section.
- (v) MI Rooms.
- (w) Photo section in Naval Air Stations.
- (x) **Radar Complex including Electronic stores.** To be provided wherever technically required as approved by service HQ.
- (y) COMCEN & receiving centre.
- (z) Ammunition Dump as per technical specifications.
- (aa) **Officers Mess.** Ante Room, Bar Room, one Guest Room, Dining Hall.
- (ab) **JCOs/ ORs Mess.** Ante Room, Club Room, Dining Hall.
- (ac) **Sainik Institute/ Civilian Community Hall.** Lounge, Dining Hall.
- (ad) Any other location as specified in relevant scale/ table/ clause.

Note. Air-conditioning in Offices, Officer Mess, JCOs/ ORs Mess, Sainik Institute, Civilian community hall will be provided at stations/ locations listed at Appendix 'B'.

CHAPTER 60

ELECTRIC SUPPLY

60.1 Electric Supply.

60.1.1 Military engineering services will be responsible for supply of electricity to all defence establishments either by obtaining from outside sources or through own generation. All Services for receipt of power supply, its transformation and distribution, etc are authorised.

60.1.2 Stabilised power supply at standard voltages shall be provided as specified in the Tables of Scales and for precision equipment requiring the same. Voltage stabilisers, of appropriate size, preferably inbuilt, are also authorised for water coolers, refrigerators and air-conditioners.

60.1.3 Provision of underground electric supply cables for military stations and establishments shall be provided based on specific technical requirements on recommendation of Station Commander.

60.2 Operations Rooms. Focused illumination is to be provided in Operations room of all major/minor units/ Formations.

60.3 Electric Lighting.

60.3.1 Provision of electric lighting is authorised in permanent and temporary buildings and all defence assets including tented and hutted accommodation and wherever authorised in Table 60.I. The drawing room, dining room, bed rooms & kitchen of all married accommodation to be provided with one fluorescent tube light or CFL/ LED light.

60.3.2 General lighting standard in other accommodation not specifically listed in the Table shall be provided as per the illumination level indicated for similar type of buildings. Supplementary lighting may also be provided in addition to general lighting where it is necessary to provide adequate light for precision work. High Mast lights may be provided for purpose of general lighting in specific areas viz Traffic junctions, Main gates and central areas.

60.3.3 Requirement of providing spot illumination over the black boards, display boards, mirror of the wash hand basin, dressing tables, mirrors of guard room, offices, messes and barracks and other areas should be catered from within the stipulated scale.

60.3.4 Wherever the fluorescent lighting is authorised use of incandescent lighting/ LED in other than technical buildings where the safety aspects are involved may be made subject, however, to the reduction, in illumination level to nearly 50% for illumination level of 200 Lux and above. The wattage per square metre as specified shall be reassessed and proportionately modified.

60.3.5 Specialised lights for airfields, docking and berthing structures is authorised as per technical requirements.

60.3.6 Small CFL/ LED lights shall be provided as required in offices, entrances, passages, lifts, stables and accessory buildings etc.

60.3.7 All internal/ external lighting should be LED based wherever feasible.

60.3.8 All solar powered lighting shall be having efficient luminaries such as LED/ T-5 and comply with National Lighting Code.

60.3.9 All new works to incorporate LED lights.

60.4 **Electric Power Supply and Socket Outlets.** Provision of light and power socket outlets are authorised as given in Table 60.II. Electric supply shall be provided to these socket outlets. Electric power supply is also authorised for all other buildings where power consuming apparatus is to be used. Conduits along with multipurpose cable lead and socket outlet to be provided for TV Cable and telephone connections as per Table 60.II. Modular switches and sockets may be provided for new works. Wiring to be concealed to the extent possible.

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TABLE 60.I
ELECTRIC LIGHTING

Ser No	Description of items	Scale watts/ Sqm	Special facilities	Planning notes
	<u>INTERNAL</u>			
1.	<u>Living Accommodation</u>			
	Domestic Accommodation Officers, JCOs and OR and equivalent including Trainees			
	(a) Living Room and Barracks	2.8 (LED)	(a) For Sqm Barracks of OR one CFL/ LED light with conical shade over writing shelf-one per 02 OR. (b) Each OR will be provided with a CFL/ LED based table lamp with 05 Amp Mobile Charging point on the reading table.	The drawing room, dining room, bed rooms & kitchen of all married accommodation to be provided with one fluorescent tube light or LED.
	(b) Bed Room and Study Room	2.8 (LED)		
	(c) Kitchen	1.6 (LED)		Light on cooking platform.
	(d) Garage	0.6 (LED)		
	(e) Servant Quarters, Class IV Civilians and equivalents.	0.8 (LED)		For married accommodation of NCsE and NCsUE in the Army and un-enrolled Class IV civilians of the Air-Force light points 03 Nos.
2.	<u>Messes, Clubs, Institutes and MES IBs</u>			
	(a) Mess Room	2.8 (LED)		
	(b) Ante Room	2.8 (LED)		

Ser No	Description of items	Scale watts/ Sqm	Special facilities	Planning notes
	(c) Billiard Room	1.2 (LED)	Supplementary lighting on the table as required.	Modular switches shall be provided for lighting and powers.
	(d) Preparation, Pantry, serverly and Scullery	1.8 (LED)		
	(e) Kitchen and Cook houses	2.8 (LED)		
	(f) Card Room	2.8 (LED)		
	(g) Dining Hall	2.8 (LED)		
3.	<u>Amenity Buildings</u>			
	(a) Lecture-cum-Cinema-Hall		Supplementary stage lighting as required.	
	(i) Auditorium and Gallery	1.8 (LED)		
	(ii) Stage and Foyer	2.8 (LED)		
	(b) Swimming pool, Dressing and Bath Places	1.8 (LED)		
	(c) Squash and Racket Courts	4.6 (LED)		
	(d) Gymnasium Hall.	4.6 (LED)		
4.	<u>Offices and Administrative Buildings</u>			
	(a) Offices, Operation rooms and Control rooms.	5.5 (LED)		Gate lights may be provided in all unit and office complexes and VIP bungalows
	(b) Library	5.5 (LED)		
	(c) Guard Room			
	(i) Guard Room	2.8 (LED)		
	(ii) Detention Room	0.6 (LED)		
	(d) Instruction Room	5.5 (LED)		
	(e) Armouries	1.2 (LED)		
	(f) Training Sheds and Artillery Miniature Range	1.2 (LED)		
5.	<u>Technical and Working Accommodation.</u>			
	(a) Technical Buildings, Hangars Repair shops, Armourer's Shop, Laboratories, Battery	2.8 (LED)	Supplementary lighting over machines and	Note. Flame proof lighting should be provided for POL, Aero lubes, paints &

Ser No	Description of items	Scale watts/ Sqm	Special facilities	Planning notes
	Charging Room and Technical Stores, etc		work benches as required.	cleaning material stores to avoid fire hazard.
	(b) Signal Installations and Telephone Exchange	5.5 (LED)	Supplementary lighting in operation theatre.	
	(c) MT Accommodation.			
	(i) Garages for Vehicles, Guns and Equivalent	1.3 (LED)		
	(ii) Repair Bays	2.8 (LED)		
	(d) Benches	One 10 Watt (LED) lamp per bench		
	(e) Workshops			
	(i) Workshops	2.8 (LED)		
	(ii) Specialised Repair Shop and Testing Rooms	5.5 (LED)		
	(iii) Fuel Injection Equipment	7.8 (LED)		
	(f) <u>Storage Sheds.</u>			
	Ordnance, Supply, Engineers, Medical Depot and similar Establishment			
	(i) General Storage Sheds	1.3 (LED)		
	(ii) Receipt and Issue Areas.	2.8 (LED)		
	(g) Fire Station	1.8 (LED)		
	(h) Veterinary Laboratory	5.5 (LED)		
	(j) Dog Kennels	One 04 Watt (LED) bulb per kennel.		
	(k) MI Room	1.8 (LED)		
	(l) <u>Miscellaneous Buildings</u>			Suitable combination of (F) and (I) may be adopted as required.
	(i) Bakeries.	2.8 (LED)		
	(ii) Butcheries	1.8 (LED)		
	(iii) Sanitary Annexes.	1.0 (LED)		
	(iv) Toilets.	2.5 (LED)		
	(v) Change Room, Dressing Room and Other Rooms.	1.8 (LED)		

Ser No	Description of items	Scale watts/ Sqm	Special facilities	Planning notes
	(vi) Verandahs.	1.0 (LED)		
	(vii) General Store Room and other Ancillary Rooms.	1.0 (LED)		
	Note. Calculation of lighting load for the type of accommodation not covered above, the relevant IS on the subject be referred.			
	EXTERNAL LIGHTING			
6.	General	<p>(a) As required in location where there is a danger to security of stores from theft or sabotage. Flood Lights may be provided if considered essential.</p> <p>(b) Storage shed, technical buildings, armouries as well as garages will be provided water tight brackets with 100W incandescent lamps at each corner and in addition one light per 15m length or width of long buildings.</p>	<p>(a) Solar lights may also be considered for the purpose, if technically found feasible and economical.</p> <p>(b) 02 x 11W paramount CFL/ LED type light fitting may be suggested for storage sheds, technical building, armouries as well as garage.</p> <p>(c) One CFL/ LED light point for stair case and one CFL/ LED light point for parking area in front of the garage.</p>	
7.	Perimeter and Watch Tower	<p>(a) All stores depot, installations where valuable stores, equipment, vehicles and machinery are stocked.</p> <p>(b) Important and Main E&M installations where outdoor equipment is installed.</p> <p>(c) Ground level water supply</p>		

Ser No	Description of items	Scale watts/ Sqm	Special facilities	Planning notes
		sumps and storage tanks in the main water supply installation.		
8.	LED Street Lighting	To be designed for: - (a) 04 Lux on road surface. (b) 15 Lux at road intersection. (c) For street light fittings, the Wattage of CFL/ FTL/ T5 fittings should be multiplied by a factor of 0.72 to arrive at the appropriate or equivalent wattage of LED fittings.		(a) Street lighting will be provided on all military roads except where these are to be provided by cantonment board as per cantonment act. (b) CFL/ LED light for street and road be incorporated. (c) Solar lights may be considered for the purpose, if technically found feasible and economical.
9.	Garden Lighting Post Top.	Dull lighting as required.		

TABLE 60.II**LIGHT AND POWER SOCKET OUTLETS**

Ser No	Description of items	Scale	Special facilities	Planning notes
<u>SOCKET OUTLETS (5 AMPS)</u>				
1.	Offices Messes, Institutes, Technical Buildings	As required		No plug socket will be provided in clerk's rooms, store rooms, living room of servants, cook and mess havildar room, verandah, sanitary annex, garages and other subsidiary rooms.
2.	Officer Cadets	Two plug socket		
3.	Single Officers and Nursing Officers Accommodation	Four plug socket		One AC power point with MCB connected socket with wiring.
4.	Single JCOs Accommodation	Two sockets per JCO/ equivalent	One 15 Amp switch/ socket.	
5.	Single OR Accommodation	One socket per OR		
6.	Married Accommodation (a) Married accommodation for officers and their equivalent (b) Married accommodation for JCOs and equivalent (c) Married accommodation for Havildars, NCOs, OR and their equivalent in other Services and un-enrolled class IV civilians	14* 09* 08*		Additional 05 amp point at bedside. Adequate 5/15 amp points may be provided for modern cooking & washing appliances.
7.	MT Repair Bays and Vehicle Inspection Pits	One plug socket each		One 60 Watts (I) inspection lamp for each inspection pit.

Ser No	Description of items	Scale	Special facilities	Planning notes
8.	Tradesmen Shops including Barber Shop	One plug socket for each work bench or one per 11 Sqm. Extra plug sockets may be provided if required		
9.	Single NCOs and OR and equivalent Ranks Study Rooms and Common Room	Two plug sockets per room and extra plug socket may be provided if required		
10.	MI Room			
11.	Class Room			
<u>SOCKET OUTLETS (15 AMPS)</u>				
12.	Offices, Messes, Institutes, Kitchenettes, Officer's Quarters, Nursing Officer's Quarters, Education Buildings, MI Room and other buildings in which Authorised Power Consuming Apparatus is used	As required		09* per Married accommodation for officers and Nursing officers.
13.	Washing and Ironing Room in Hostel for Probationer Nurses	As required		
14.	Married accommodation for JCOs and OR and their equivalent in other Services	02*		
<u>SOCKET OUTLETS (15 Amps/ 2000 Watt)</u>				
15.	Married accommodation for officers and Nursing officers	06*		Inclusive of AC and Geyser points.
16.	Married accommodation for JCOs and OR and their equivalent in other Services	02*		
17.	Offices, Messes, Institutes, Education Buildings, MI Rooms etc	As required		
<u>CABLE CONNECTION</u>				
18.	TV Rooms of all Messes, clubs, institutes, instruction rooms etc	One socket outlet (with multipurpose cable lead in conduit)		
19.	Single living Accommodation (Officers)			
20.	Single Living Accommodation (JCO's)			

Ser No	Description of items	Scale	Special facilities	Planning notes
21.	<u>Married Accommodation</u> (a) Officers including separated family accommodation (b) JCO and OR	02* 02*		
<u>CONDUITS FOR TELEPHONE WIRING</u>				
22.	All Offices	As required		
23.	Guest rooms, suites of inspection bungalows, all messes, bar rooms of officers mess	One Number per room		
24.	Single living accommodation (Officers)	One Number		
25.	<u>Married Accommodation</u>			
	(a) Officers including separated family accommodation	02*		
	(b) JCOs and OR	---		

* These Norms and Scales will be revised as and when revised norms/ scales are issued by MoHUA/ MAP.

CHAPTER 61**LIFTS**

61.1 Electric Lifts as given in Table 61.I are authorised for residential and administrative buildings having four or more storeys. Lifts with automatic doors or gates shall be provided. Luggage-cum-passenger lifts may be provided in multi-storeyed residential buildings.

61.2 Electric lifts for movement of luggage stores, etc are authorised for technical buildings. Each case will, however, be considered on its merits by Service HQ for determining the number and capacity of lifts to be provided.

61.3 Air Traffic Control Tower may be provided lifts on as required basis.

61.4 In multi-storey buildings where lifts are necessary, additional areas over and above the standard plinth area for different types will be allowed for provision of one or more lifts and lift landings.

61.5 Fireman lifts as per NBC & fire safety requirements and of suitable specifications shall be provided for multi-storeyed buildings.

TABLE 61.I**LIFTS**

<u>Ser No</u>	<u>Type of accommodation</u>	<u>4, 5 and 6 Storeys</u>		<u>7 and 10 storeys</u>		<u>11 and 12 Storeys</u>		<u>Above 12 storeys</u>	
		<u>No of Lifts</u>	<u>Capacity (Passenger)</u>	<u>No of Lifts</u>	<u>Capacity (Passenger)</u>	<u>No of Lifts</u>	<u>Capacity (Passenger)</u>	<u>No of Lifts</u>	<u>Capacity (Passenger)</u>
1.	Single Living Accommodation	01	08	02	08	02	08	02	08
2.	Admin Accommodation								
	(a) upto 50 personnel per floor	02	13	03	13	03	13	04	13
	(b) 51 to 100 personnel	03	13	04	13	04	13	04	13
3.	Married Accommodation	01	13	02	1 x 8 1 x 13	02	1 x 8 1 x 13	03	2 x 8 1 x 13

Notes.

1. For building with 08 or more quarters on each floor, No of lifts/ capacity may be proportionately increased.
2. For building with less than 04 quarters on each floor, number of lifts may be reduced, subject to minimum number as per local Bye-laws.
3. In case of high rise buildings, number of lifts, size and capacity will be provided as per design in consonance with provision of NBC and/ or guidelines/ manuals.

CHAPTER 62

REFRIGERATORS, DEEP FREEZERS AND ELECTRIC WATER COOLERS

62.1 Refrigerators and Deep Freezers.

62.1.1 Refrigerators and Deep Freezers are authorised in accommodation as given in Table 62.I. In addition refrigerators or deep freezers of assessed capacity shall be provided wherever authorised in the Tables of Scales.

62.1.2 Refrigerators for officers' messes may, if available, in station hiring pool, be issued upto authorised scale on payment of the stipulated charges.

62.1.3 Combination of refrigerators and deep freezers may be provided in messes where the total authorised refrigeration capacity is 560 litres or more. In such case, however, minimum of 50% of the authorised capacity will be utilised as refrigerators. The balance refrigeration capacity can be converted to deep freezer by applying a reduction factor of 2/3 to arrive at the capacity of the deep freezer provided.

62.2 Electric Water Coolers.

62.2.1 Provision of electric water coolers, hot/ cold water dispensers and their installations is authorised for units, formations, establishments and installation. These will generally be provided in the following accommodation: -

- (a) Administrative working and office buildings.
- (b) Technical buildings.
- (c) Dining hall and messes of officer cadets, JCOs, NCOs and OR and their equivalents.
- (d) Living accommodation for officers, cadets, JCOs, NCOs and OR and equivalents provided the water coolers in messes cannot be conveniently used.
- (e) Institutes, auditoriums, training and recreational accommodation.
- (f) Lunch, Tiffin and rest rooms of civilian employees in defence establishments.
- (g) Dining halls of messes of officers and nursing officers and schools.
- (h) Main guard building of all units.
- (j) Independent MI Room/ MI Room of the units.
- (k) Kitchenettes.
- (l) Children Schools

62.2.2 Water coolers will not be provided at cold (hills) stations.

62.2.3 Provision of water coolers will be at the discretion of the Competent Financial Authority. The size, type, location and the number of water coolers to be provided shall be assessed on as required basis.

TABLE 62.I**REFRIGERATORS AND DEEP FREEZERS**

Ser No	Description of Items	Scale	Special Facilities	Planning Notes
		Refrigeration Capacity in Litres		
1.	Messes of Officers, Nursing Officers, Cadets, JCOs and other Equivalent in Navy, Air Force and Coast Guard			
	Strength			
	Upto 20 Members	400		
	21 to 30 Members	500		
	31 to 50 Members	700		
	51 to 100 Members	1000		
	101 to 150 Members	1300		
	151 to 200 Members	1500		
	201 to 300 Members	2000		
	Over 300 Members	2000 plus 01 of 300 Litres refrigeration capacity per additional 50 members or part thereof		
2.	Messes of OR and their Equivalent in the Navy, Air Force and Coast Guard			
	Strength			
	Upto 20 Members	230		
	21 to 50 Members	400		
	51 to 100 Members	400		
	101 to 150 Members	800		
	151 to 200 Members	1000		
	201 to 300 Members	1200		

Ser No	Description of Items	Scale	Special Facilities	Planning Notes
		Refrigeration Capacity in Litres		
	Over 300 Members	1200 plus 230 Litres refrigeration capacity per additional 50 members or part over 230		
3.	Independent MI Rooms	286		To be provided for storage of medicines only and will not be provided at stations which do not warrant this amenity by virtue of their climatic condition.
4.	MES Inspection Bungalows	286		
5.	Advance Field Veterinary Hospitals	286		
6.	Dental Units	286		
7.	Offices of the rank of Major and Above and equivalent in Navy, Air Force & Coast Guard and Civilians	165 per 15 Officers		

TABLE 62.II**ICE MAKING MACHINE**

Ser No	Description of Items	Scale
<u>OFFICERS MESSES & INSTITUTES</u>		
1.	CAT 'A' Establishment	02 x 25 Kg per hour
2.	Command HQs	01 x 25 Kg per hour
3.	Army, Navy & Air HQs	02 x 25 Kg per hour
4.	Battalion/ Regiment	02 x 25 Kg per hour

CHAPTER 63

STANDBY GENERATING SETS

63.1 Standby power requirements together with load for lighting and ventilation including air-conditioning where authorised in respect of the services indicated below will be treated as authorised and provided by appropriate Competent Financial Authority: -

- (a) Signal installations.
- (b) Radar stations.
- (c) Computer installations, Server Rooms, Simulator buildings.
- (d) Water supply installations.
- (e) Flying control.
- (f) Runway lighting.
- (g) Navigation aids.
- (h) Arrestor barrier.
- (j) Base Operations Complex.
- (k) Underground and semi-underground accommodation where continuous operation is envisaged.
- (l) Butcheries
- (m) Naval Coast battery, missile battery and technical position.
- (n) Cold and cool rooms.
- (o) Sewage pumping installations.
- (p) Security lighting/ perimeter lighting
- (q) Auditorium, Conference Hall, Operations Room.
- (r) Classrooms with Video Projection Units/ Electronic Training aids/ technical equipment for training requiring air conditioning.
- (s) Electrically operated security barriers and fencing.
- (t) MOC & JOC.

63.2 For working of functional systems in technical accommodation, fire fighting system and for essential lifts in multi-storey buildings, provision of standby power supply is authorised on merits by Competent Financial Authority.

63.3 Separate standby sets for tactical and geographical reasons may be considered and decided on their merits. For emergency requirements, mobile stand by generator sets may be provided up to a maximum of 10% of total generator supply authorised for the unit.

63.4 However, in view of the special nature of the standby requirements of signal installations, these will always be provided with independent emergency equipment.

63.5 For other standby requirements, Government sanction would be necessary.

CHAPTER 64**VENTILATION**

64.1 Fans are authorised as per the scales laid down in Table 64.I. These shall be provided in living and administrative accommodation at all stations and for hill stations also based on the approval of the service HQ. Fans shall also be provided in specialised accommodation wherever authorised in Tables of Scales. In technical accommodation, however, the fans may be provided with prior approval of Competent Financial Authority at hill (cold) stations also. The entitlement will be worked out as per this Table and where no fan size has been mentioned a 1200 mm ceiling fan shall be provided. Cabin fans of sizes 450 mm or 600 mm may be provided in small rooms or low ceiling areas. For other accommodation a minimum of one 1200 mm fan shall be provided in the entitled accommodation. Provision of fans in storage accommodation shall be decided on merits, except, however, for office space for technical staff such as store man, etc where same is provided as part of storage accommodation for which fans shall be provided as authorised.

64.2 Fans of suitable types are also authorised in air-conditioned spaces. In other than technical air-conditioned accommodation, the provision will be limited to half the normal scale subject to a minimum of one fan. In case of air-conditioned accommodation in technical buildings, the number and size of the fans will be provided based on technical considerations as decided by Competent Financial Authority.

64.3 The area to be ventilated by each fan as given in the Table has been based on the fan height of 2.6 metres above floor level. In technical buildings where the fan height has to be increased due to technical or functional requirements, the authorisation of fans should be increased by 25% for fan height at 3.6 metres and by 50% for fan height of 4.6 metres. The mounting height of the fans should not exceed 4.6 metres.

64.4 Table fans and pedestal fans may be provided in technical accommodation in lieu of ceiling or cabin fans, where considered necessary. All toilets of Married and OTM accommodation must be provided with Exhaust Fan for better hygiene.

64.5 For hot area, central air cooling may be provided in lieu of desert coolers at stations listed at Appendix 'D'. Electric Chimney may be provided in Kitchens of messes and Cook Houses in addition to Exhaust Fan.

64.6 Suitable means of mechanical ventilation shall be ensured for basements/ underground spaces wherever required.

TABLE 64.1**VENTILATION**

Ser No	Description of Items	Scale	Special Facilities	Planning Notes
1.	Domestic Accommodation			
	(a) Messes, Hostels, Institutes, Amenity, Welfare Buildings, Clubs, Cinemas and Inspection Bungalows	One 1500 mm dia sweep ceiling fan per 22 Sqm or OR One 1400 mm dia sweep ceiling fan per 18 Sqm or OR One 1200 mm dia sweep ceiling fan per 14 Sqm.		
	(b) Single Officer Quarters			
	(c) Single JCOs Quarters			
	(d) Single OR, NCOs, Havildars in Barracks Sleeping Quarters	One 1400 mm diameter sweep ceiling fan for 02 persons		
	(e) Dining hall of NCOs and OR and Equivalent	One 1500 mm dia sweep ceiling fan per 22 Sqm or OR One 1400 mm dia sweep ceiling fan per 18 Sqm or OR One 1200 mm dia sweep ceiling fan per 14 Sqm.		
	(f) Married Accommodation			
	(i) Brigadier, Colonel, Lieutenant Colonel, Major and equivalent in Navy, Air Force and Coast Guard	1200 mm dia sweep ceiling fan – 07 Nos*		At stations where civil scales of accommodation are applicable, same number of fans and fan points will be provided in married officers' quarters as are authorised in accommodation for corresponding categories of officers on civil sides.
	(ii) Captain and equivalent in Navy, Air Force and Coast Guard	1200 mm dia sweep ceiling fan – 06 Nos*		
	(iii) Lieutenant and equivalent in Navy, Air Force and Coast Guard	1200 mm dia sweep ceiling fan – 06 Nos*		
	(iv) JCOs and equivalent in Navy, Air Force and Coast Guard	1200 mm dia sweep ceiling fan – 04 Nos*		
	(v) NCOs, OR and equivalent in Navy, Air Force and Coast Guard	1200 mm dia sweep ceiling fan – 03 Nos*		

Ser No	Description of Items	Scale	Special Facilities	Planning Notes
	(vi) Servant Quarter attached to Officers married accommodation	One* 1200 mm dia sweep ceiling fan in each room		
2.	<u>General</u>			
	(a) Guard Room	One 1500 mm dia sweep ceiling fan per 22 Sqm		
	(b) Barber Shop	OR One 1400 mm dia sweep ceiling fan per 18 Sqm OR One 1200 mm dia sweep ceiling fan per 14 Sqm.		
	(c) Garages			
	(i) Garage area	Nil		
	(ii) Repair area	One 1500 mm sweep ceiling fan per 22 Sqm and one plug socket per bay (in addition to plug socket for lighting) one cabin fan per bay in which an inspection pit occurs.		
	(d) Living Accommodation Animals	01 No for 02 animals		
	(e) Dog Kennels	One bracket fan for each dog kennel located upto 1500 metres above MSL		
	(f) Veterinary Buildings	One 1500 mm sweep ceiling fan per 22 Sqm OR One 1400 mm sweep ceiling fan per 18 Sqm OR One 1200 mm sweep ceiling fan per 14 Sqm		
3.	<u>Administrative and Technical Buildings</u>			
	(a) Office accommodation, educational buildings instructional rooms and library	One 1500 mm sweep ceiling fan per 22 Sqm		To meet the functional requirements

Ser No	Description of Items	Scale	Special Facilities	Planning Notes
	(b) Technical buildings such as signal installations, hangars, instrument repair shops, workshops, laboratories, technical stores, drawing offices, mobilisation store rooms and battery charging rooms, Operations rooms, MI-rooms, sickliness for animals, technical bays and tradesmen shops	OR One 1400 mm sweep ceiling fan per 18 Sqm OR One 1200 mm sweep ceiling fan per 14 Sqm		where it is not desirable to provide ceiling fans, Air-circulators in lieu may be provided.
4.	<u>Accommodation Requiring Exhaust Fans</u>			
	(a) Cook houses of JCOs/ NCOs and OR	20 Air changes per hour		The following number of Exhaust fans will be provided in Married Accommodation:- Officers - 03 Nos* JCOs/ OR - 03 Nos*
	(b) Dining hall of JCOs/ NCOs and OR	10 Air Changes per hour		
	(c) Kitchen of Officers messes	10 Air changes per hour		
	(d) Kitchens of all married accommodation	8* Air changes per hour		
	(e) Toilets of Office Accommodation	4 Air changes per hour		
	(f) Toilets of Married Accommodation in multi-storeyed buildings	4 Air changes per hour		
	(g) Spray painting rooms	20 Air changes per hour		
	(h) Battery charging rooms	30 Air changes per hour		
	(j) Workshops	Exhaust and fume extraction as required		
	(k) Common users toilets (WCs and Urinals)	8 Air changes per hour		
	(l) Cinemas	To conform to the requirement of cinematograph act in force.		To be provided when attached with main buildings and if users are more than 25. One exhaust fan in each toilet of single men barracks meant for 15 to 20 men.
	(m) Technical Accommodation			

Ser No	Description of Items	Scale	Special Facilities	Planning Notes
	(i) Laboratories and dark rooms	8 Air changes per hour		Should be flameproof.
	(ii) POL Storage	As required		
	(iii) Gas cylinders stores	As required		
	(iv) Paint stores and ration stores	As required by the Service HQ		
	(v) Salvage stores			
	(vi) Any other Accommodation considered necessary by CFA.			

* These Norms and Scales will be revised as and when revised norms/ scales are issued by MoHUA/ MAP.

CHAPTER 65**WATER SUPPLY AND HOT WATER SUPPLY****65.1 Water Supply.**

65.1.1 Water supply will be provided as per Table 65.I. The scales for consumption of water are laid down in Appendix 'C'. All external water supply works necessary for provision, treatment (where required), storage and distribution of water are authorised.

65.1.2 Provision of overhead storage and ground water sump shall be assessed to suit the technical aspects of water supply scheme. The total storage capacity of the ground water sump and overhead storage shall not exceed one day's water requirements. Wherever additional storage capacity is required prior approval of the Competent Financial Authority will be obtained.

65.1.3 All drinking water should be sterilised by chlorination. For this purpose, automatic chlorinating plants supplemented by manual dosers should be provided on as required basis.

65.1.4 For the purposes of designing scheme at any station, expansion factor at 100% maximum for the source of supply and 50% maximum for the distribution system should be taken into consideration. Expansion factor at source of supply will not, however, be allowed in cases where water supply has to be provided by sinking tube wells or shallow wells.

65.2 Hot Water Supply. Provision of Hot Water Supply is authorised in the accommodation as per Table 65.II. Use of Solar and solar-cum-electric heating may also be considered if technically found feasible.

TABLE 65.I**WATER SUPPLY**

Ser No	Description of Items	Scale/ Supply Points	Special Facilities	Planning Note
	Water supply will be provided to the following accommodation: -			
1.	<u>Administrative and Technical Buildings</u>			
	(a) Offices, Education Buildings, Instructional Rooms, Guard Room, Gymnasias, Unit Shops, Barber Shops, Changing Rooms and Amenity room, Shopping Centres, Kitchenettes and Toilets	Lavatory, wash hand basins (WHB), water closet (WC) and urinals. Fire hydrants and system.		
	(b) Technical Buildings, e.g. Signal Installations, Hangers, Repair Shops, Laboratories, Battery Charging Rooms, Fire fighting, Ancillary Shops, servicing Bays, Butcheries, Bakeries, Workshops, Wharfs, Jetties, Technical Buildings and Installations	Lavatory, urinals, WHB, WC and Stainless Steel Sink with double bowl and double drain board and taps or connections for individual machine, technical equipment and washing stands, Fire hydrants and system.		
	(c) Garages	One pressure tap at each location of washing platform ramps.		
	(d) Garden, Lawns and Sport Grounds	Required number of ground level taps, capable of supplying authorised quantity of water.		
2.	<u>Other Accommodation</u>			
	(a) All Living Accommodation and Messes or Clubs, Cafeterias, MI Rooms, Sick Lines, Cinemas, Institutes and Toilets etc	(a) Wherever a WC, lavatory, WHB, Stainless Steel Sink with double bowl and double drain board, urinal, bath and fire hydrant or system is authorised water supply connection shall be provided.	(a) One bib tap for each WC, Stainless Steel Sink with double bowl and double drain board, WHB and bathing cubicles.	

Ser No	Description of Items	Scale/ Supply Points	Special Facilities	Planning Note
		(b) One drinking water tap per 25 OR may be provided in single men living barracks. (c) A garden tap in domestic accommodation for officers. (d) Tap/ connection for washing machine.	(b) Each bathroom and bath cubicle will be provided with a shower control by stop cock. (c) In kitchen one bib cock will be provided extra over and above the sink.	
	(b) Swimming Pool	(a) Pool. (b) Bath, lavatory, WC, WHB and urinal.		
	(c) Stable and Dhobi Ghat	One tap per trough or one per 02m length of long trough.		

TABLE 65.II**HOT WATER SUPPLY**

Ser No	Description of Items	Scale/ Geyser's Capacity	Special Facilities	Planning Note
1.	Officers and Nursing Officers Single Living Accommodation and Guest Rooms in Officers Messes	25 Litres		Supply connection to all Bath and WHB.
2.	Married Family Accommodation			
	(a) Officers/ Nursing Officers	02* x 25 litres		
	(b) JCOs/ NCOs/ OR	01* x 25 Litres		
	(c) Defence Civilian Officers	01* x 25 Litres		
3.	Officers, Nursing Officers, JCOs Messes and Officers Institutes			
	(a) Upto 04 WHBs	01 x 25 Litres		
	(b) Above 04 WHBs	02 x 25 Litres		
	(c) Upto 02 sinks	01 x 25 Litres		
	(d) More than 02 sinks	02 x 25 Litres		
4.	OR Cook Houses			Supply connection to WHBs and sinks.
	(a) Upto 75 OR	01 x 25 Litres		
	(b) 76 to 150 OR	02 x 25 Litres		
	(c) More than 250 OR	03 x 25 Litres		
5.	Inspection Bungalows			
	(a) Each suite	01 x 25 Litres		
	(b) Kitchen	01 x 25 Litres		
6.	JCOs and OR Single Living Accommodation	(a) A central hot water supply provision in stations as mentioned in Appendix 'E' and other stations with similar cold conditions prevailing during winter. (b) Geysers/ Centralised Hot Water Supply in toilets and bathrooms of JCOs/ OR/ Civilian accommodation.		Supply connection to all Baths.

Ser No	Description of Items	Scale/ Geyser's Capacity	Special Facilities	Planning Note
7.	Veterinary Hospitals and Unit Sick Lines	As required with the approval of Service HQ		Supply connection to WHBs and Sinks.

Note. A connection from the geysers may be taken to other bath rooms and sinks in married officer's quarters, and also in quarters of separated families of officers.

* These Norms and Scales will be revised as and when revised norms/ scales are issued by MoHUA/ MAP.

CHAPTER 66

E&M SERVICES : MISCELLANEOUS ITEMS

66.1 **Cathodic Protection.** The provision of cathodic protection to underground tanks, pipe lines, where necessary will be made at permanent bulk petroleum installations on the recommendations of the Defence Research Laboratory (Material), Kanpur or other technical authorities.

66.2 **Chemical Earthing.** Provision of chemical earthing with earthing strips to facilities/ equipment may be provided if technically required.

66.3 **Desert Coolers.** Desert coolers in summer seasons be authorised to the stations given at Appendix 'D' and mentioned below: -

- (a) All offices of all ranks.
- (b) Dining halls of JCOs/ OR messes.
- (c) Veterinary Units (on as required basis).
- (d) Living Barracks of single JCOs/ OR.
- (e) Single living Officers Accommodation.
- (f) Quarter Guard of all major/ minor units.

66.4 **Electric Bells.**

66.4.1 Call bells are authorised for officers' messes, inspection bungalows. One call bell will be provided at the entrance of each married quarters of Captains and above and equivalent ranks in the other two Services. One call bell be provided in married accommodation of JCOs/ OR and equivalent. Also one additional call bell be authorised in officers married accommodation for calling servants.

66.4.2 Provision of conduits in the offices of officers for subsequent installation of call bells under arrangement of users is authorised. Call bell as required to be provided in all offices.

66.5 **Electric Sirens.**

66.5.1 Electric sirens are authorised in depots, Air bases, Naval air stations and Naval dockyards and wherever specifically authorised in Table of Scales.

66.5.2 One siren shall be provided to cover an area of 06 Sq Km.

66.6 **Engagement Lights.** Engagement lights may be provided for offices of commanding officers and officers of the rank of Brigadier and above and equivalent.

66.7 **Heating Services.**

66.7.1 Provision of central space heating services as given at Para 60.3.

66.7.2 Provision of space heating services for drying of parachutes, flying clothes is also authorised including for other items specified in the Table of Scales.

66.7.3 In all other cases, provision of central heating services shall need the sanction of the Government.

66.8 **Ice Plant.** Each case will be treated on its own merits and special authorisation obtained from the Government of India for the provision of ice plant.

66.9 **Lightning Protection.**

66.9.1 Lightning protection is authorised to defence installations as indicated below. Lightning protection may be waived in forward area if the explosives storages are in wooded jungles, deep valleys, or protected by adjoining cliffs or hills. In exceptional cases, lightning protection system may be provided on merits even when the quantity involved are less than those specified.

(a) All magazines and explosives store houses in KLP area including explosive buildings in ordnance factories and allied establishments having a net explosives content of 250 kg or over or 05 tonnes gross whichever is less, all explosive process buildings and ammunition workshops and buildings storing 5000 litres or more of petrol or other highly inflammable liquids held in explosive installations.

(b) All buildings in non-KLP areas including field and forward areas having a net explosive content of 500 kg or 10 tonnes gross whichever is less or 10,000 litres of petrol or more or other inflammable liquids held in explosive installations.

(c) All open stacks and dumps of ammunition and explosives content of 500 kg or over or 10 tonnes gross whichever is less or 10,000 litres or more petrol or other highly inflammable liquids, when stored other than in tanks duly earthed, which are intended to be retained for more than 01 year.

(d) Signal and computer installations, aircraft hangars, ATC buildings and missile accommodation.

(e) Other important buildings and tall structures as per provisions of Indian Standard Specifications.

66.9.2 Cases for providing lightning protection for defence installations not covered herein including other non-explosives buildings within the explosives area should be examined by the Services or branch, etc with reference to various relevant factors i.e. nature of the structure and its use, value of stores, equipment and machinery, lightning risk in the region and the risk to adjacent utilities, etc.

66.9.3 The type of lightning protection system to various categories of explosive buildings with different types of risks and also non-explosive buildings in explosive areas, etc shall be provided as per regulations in force.

66.9.4 In case where it is not possible to comply with laid down stipulations, necessary deviation may be accorded by the appropriate Service Authorities.

66.10 **Obstruction Lights.** Obstruction lights will be provided on high rise structures for aircraft warning wherever considered essential.

66.11 **Electrification for Civilians.** In buildings built to Ministry of Housing and Urban Affairs scales electric fittings and fans will be provided in accordance with the prevalent Ministry of Urban Development scales as given in Table 66.I except for building built at Mumbai and Kolkata.

TABLE 66.I**ELECTRIFICATION FOR CIVILIANS**

Ser No	Description of Items	Scales							Planning Notes
		Type I	Type II	Type III	Type IV	Type V	Type VI	Type VII	
1.	Power plugs	06	08	08	12 02*	15 02*	17 02*	22 02*	These Norms and Scales will be deemed to be revised as per the latest Norms/ scales issued by MoHUA.
2.	Fans with points	03	03	04	06 01*	06 01*	12 01*	14 01*	
3.	Call bell Points	01	01	01	02	03	03 (one with image display system)	04 (one with image display system)	
4.	Power meter	01	01	01	01	01	01	01	This will be provided only at stations where there are different tariff for electricity and power supply.
5.	Electrical meter	01	01	01	01	01	01	01	
6.	Type of wiring	Concealed conduit pipe							
7.	Telephone connection	1	1	1	1	02	04	04	These Norms and Scales will be deemed to be revised as per the latest Norms/ scales issued by MoHUA.
8.	Light points	06	06	08	17	29	35	43	
9.	Plug points	04	05	05	07 02*	08 02*	09 02*	12 02*	
10.	LED light fittings	03	04	04	06	06	07	09	
11.	Exhaust fan with point	One each in kitchen, bath, WC, Toilets 02*							
12.	AC Power points	One in each room except kitchen and toilets							
13.	Geyser Point	01 (bath)		01 each in bath & Toilet) 01*			01 in kitchen 01 each in each toilet 01*		

Ser No	Description of Items	Scales							Planning Notes
		Type I	Type II	Type III	Type IV	Type V	Type VI	Type VII	
14.	Cable TV Point				01 in living room & 01 in each bedroom 01*		01 in each bedroom 01 in dining room 01 in each bedroom 01*		

Note. These Norms and Scales will be revised as and when revised norms/ scales are issued by MoHUA.

* Provision in each servant quarter.

PART V**CHAPTER 67****MARRIED AND SEPARATED FAMILY ACCOMMODATION****67.1 General.**

67.1.1. The scales are given in plinth area standards and shall be applicable to the construction of residential accommodation in all places in India. The percentage indicated at Clause 68.2, 68.3 and 68.4 are the maximum limits permitted at stations which are declared as family/ semi-family/ non-family stations for provision of Married Accommodation/ Separated Family Accommodation by the respective Services. However, the provision will be governed as per actual requirement of respective stations and within the laid down percentage for different ranks.

67.1.2. Plinth areas proposed in the Table of Scales are based on the wall thickness achieved with the standard bricks size 9" x 4.5" x 3" (nominal). When standard size bricks are replaced by modular bricks 20 cm x 10 cm in course of time, the plinth areas specified in the Table of Scales will not change. Where wall thickness has to be more for technical reasons, plinth area may be suitably increased. In places where stone construction is more economical and is normally adopted, the plinth areas may be suitably increased by 16% to allow for additional thickness of walls. In areas where local specifications permit use of thinner walls such as "Accra" walling or timber construction, the plinth areas would be reduced suitably.

67.1.3. Sleeping out balconies to be provided as given in respective table.

67.1.4. Areas of sleeping and sitting out balconies may vary with the type of design, depending on architectural and structural constructions. The areas stipulated, however, are maximum that will be allowed.

67.1.5. In the case of upto three storeyed construction, scooter sheds may be provided as per scales. In the case of construction of four storeys and above, scooter sheds where authorised to be provided separately or stilt/ basement parking options may be considered. In cases where land is limited, multi-level parking will be provided as on required basis.

67.1.6. Area for staircase given in the Table of Scales is based on the assumption that on each floor a minimum number of two quarters will be built. If due to unavoidable circumstances construction of odd numbers of quarters is necessitated, area of staircase as authorised for the additional quarters may be included in the approximate estimates in the planning stage and provided in the construction although the additional quarters may be built at a later date.

67.1.7. In case of main buildings, areas for staircase circulation are based on a stair width of 1.22m. For 1.22m wide stairs, areas for staircase shall be 6.5 Sqm. Where local bye-laws require, additional area for fire escape staircase will be allowed.

67.1.8. In multi-storey flats where lifts are necessary additional areas over and above the standard plinth area for different types will be allowed for provision of one or more lifts and lift landings.

67.1.9. Areas required for services, such as garbage chutes, electric sub-stations, switch boards, meter rooms, pump rooms etc where necessary, will be allowed over and above the

standard plinth areas. Sanitary pipe shafts, open to the sky, wherever provided are not to be included in the standard plinth areas.

67.2 **Married and Separated Family Accommodation for Service Officers and Nursing Officers including Indian Coast Guard Service Officers.**

67.2.1 The scales of accommodation for Married and Separated Family accommodation for Service officers and Nursing officers are given in Table 67.I. Same scales would apply for Married and Separated Family accommodation.

67.2.2 The following percentage should generally be followed as a guide only for planning Married/ Separated Family accommodation for officers: -

(a) **Army.**

(i)	Major and above	100%
(ii)	Captains	80%
(iii)	Lieutenant and below	33-1/3%

(b) **Navy.**

(i)	Lieutenant Commander and above	100%
(ii)	Lieutenant (including SD list)	83%
(iii)	Sub Lieutenant (including SD list)	63%

(c) **Air Force.**

<u>Ser No</u>	<u>Particular</u>	<u>Flying/ Non Flying Station</u>
(i)	Squadron Leader and above	100%
(ii)	Flight Lieutenant	80%
(iii)	Flying Officer and below	63%

67.2.3 Married accommodation for Nursing officers is to be provided at the scale of 70% of the authorised Nursing officers in PE hospitals.

67.2.4 The ratio to be adopted in respect of stroke appointments in the Navy is to be as given below: -

(a)	Lieutenant Commander/ Lieutenant/ Sub Lieutenant (General)	38 : 50 : 12
(b)	Lieutenant Commander/ Lieutenant/ Sub Lieutenant (SD)	11 : 51 : 38
(c)	Lieutenant Commander/ Lieutenant(General)	33 : 67
(d)	Lieutenant Commander/ Lieutenant (SD)	25 : 75
(e)	Lieutenant/ Sub Lieutenant (SD)	33 : 67

67.2.5 The Temporary Duty Leave Reserve (TDLR) strength is also to be added as per the percentage laid down by the Government. The TDLR for officers is restricted to the rank of Lieutenant Commander, Lieutenant and Sub Lieutenant. In evaluating the deficiencies in respect of stroke appointments, the sanctioned complement of each rank is to be worked out on the basis of the percentage in Para 68.2.4 above. Thereafter the TDLR element is to be added as per following percentage to get the total sanctioned strength: -

(a)	General list officers	25%
(b)	SD list officers	12%
(c)	Education officers	15%
(d)	Sailors	25%

67.3 Married and Separated Family Accommodation for JCOs, Havildars, OR and their Equivalent including Indian Coast Guard EPs and SOs.

67.3.1 The scales of accommodation for Married and Separated Family accommodation for JCOs, Havildars, OR and their equivalent in the Navy, Air Force and Coast Guard are given in Table 67.II. Same scales would apply for Married and Separated Family accommodation.

67.3.2 Married/ Separated Family accommodation will be provided to the following percentage: -

(a) **Army.**

(i)	JCOs	100 percent. But 75 percent married and 25 percent single accommodation should be allowed when planning projects. Any increase in the percentage of married accommodation, if required, is to be approved by the Service Headquarters.
(ii)	Quartermaster and Troops Defaders of Animal Transport units	100 percent
(iii)	Artificers (Asstt. Foreman and charge hand only)	
(iv)	Havildars of Postal Services and those of ASC Supply (including clerks GD / GD (SD) and Havildar clerks of AEC	
(v)	Havildars of AOC, EME and Defaders / clerks of RVFC	
(vi)	Religious Teachers	
(vii)	NCO Instructors, AEC and APTC Havildars and Combatant Clerks of Recruiting Organisation	
(viii)	All non-combatants (enrolled) and only those of non-combatants (un-enrolled) who are borne on authorised establishment and are	

	required to live near their place of work	
(ix)	Artificers other than those mentioned at (iii) above	60 percent
(x)	NCOs and OR of all training centers/ establishments	50 percent
(xi)	NCOs & OR of all Army Units	35 percent

(b) **Navy.** Family accommodation for authorised complements (excluding sailors undergoing initial training, boys and apprentices and also sailors undergoing courses of instructions or training of less than 26 weeks duration) of Ships or Establishments in Navy: -

- | | | | |
|-------|---------------------------|---|------|
| (i) | MCPOs and CPOs | - | 100% |
| (ii) | POs | - | 75% |
| (iii) | Leading, Sea I and Sea II | - | 50% |

(c) **Air Force.**

- | | | | |
|-------|--------------|---|--|
| (i) | MWOs and WOs | - | 100% |
| (ii) | JWOs | - | 100% (But 75% married and 25% Single Accommodation should be allowed when planning projects. Any increase in the percentage of married accommodation, if required, is to be approved by the Service Headquarters.) |
| (iii) | NCOs | - | 75% |
| (iv) | Aircraftmen | - | 35% |
| (v) | NCsE | - | 75% |

67.4 **Married Accommodation for Civilians.**

67.4.1 The scales of married accommodation for civilians paid from Defence Services Estimates and Indian Coast Guard civilian personal are given in Table 67.III. These scales will be considered for New Accommodation only.

67.4.2 Married accommodation for Defence Civilians will be provided at all the stations where MES cover exist.

67.4.3 It is proposed that 60% of Group 'A' and 'B' civilian employees and 35% of Group 'C' civilians in KLP and non-KLP units in the station will be taken as the ceiling provided the accommodation is likely to remain occupied for more than five years. No New Type-I accommodation shall be constructed. The existing Type-I accommodation shall be upgraded to higher class accommodation (Type-II or Type-III) where required and technically feasible.

67.4.4 The accommodation for civilians at Andaman & Nicobar Islands, L&M Islands, Karwar and Tirunelveli be provided at 60% for all employees of authorised establishment.

67.4.5 Married accommodation for key personnel including MES personnel will be provided at 100% at all stations. MES constructional staff will be provided accommodation to temporary specifications.

67.4.6 Married accommodation for civilian cooks, washer men, female sweepers and ayahs employed in Military Hospitals will be provided at 50% of the sanctioned strength.

67.4.7 In areas where adequate married accommodation is not available and alternative accommodation is also not available for hiring in civil areas, hostel type of accommodation for group 'A' & 'B' personnel be sanctioned as special case to be projected by Service HQ to MoD.

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TABLE 67.I

MARRIED AND SEPARATED FAMILY ACCOMMODATION
FOR SERVICE OFFICERS AND NURSING OFFICERS

Ser No	Description of Items	Plinth Area (Sqm)/ Scale		Special Facilities	Planning Notes
		Married Accommodation	Separated Family Accommodation		
1.	Main unit of Accommodation				
	(a) Major General and above and equivalent	198.00		(a) Balcony - 11.00 Sqm (b) Staircase - 6.00 Sqm	
	(b) Major to Brigadier and equivalent	139.35		(a) Balcony – 4.925 Sqm (b) Staircase - 6.04 Sqm	
	(c) Captain and below and equivalent	83.61		(a) Balcony – 3.90 Sqm (b) Staircase - 6.04 Sqm	
2.	Servant Quarters				
	(a) Major General and above and equivalent	25.00		(a) Balcony - 5.00 Sqm (b) Staircase - 4.50 Sqm	
	(b) Major to Brigadier and equivalent	22.30			
	(c) Captain and equivalent	22.30			
	(d) Lieutenant and below and equivalent	---			
3.	<u>Garages</u>				
	(a) Major General and above and equivalent	20.90			
	(b) Major to Brigadier and equivalent	18.00			

Ser No	Description of Items	Plinth Area (Sqm)/ Scale		Special Facilities	Planning Notes
		Married Accommodation	Separated Family Accommodation		
	(c) Captain and equivalent	18.00			
	(d) Lieutenant and below and equivalent	18.00			

Notes.

1. These scales will be considered for New Accommodation only.
2. These Norms and Scales will be revised as and when revised norms/ scales are issued by MoHUA/ MAP.

TABLE 67.II

**MARRIED AND SEPARATED FAMILY ACCOMMODATION FOR
JCOs, HAVILDARS, OR AND THEIR EQUIVALENT IN OTHER SERVICES**

Ser No	Description of Items	Plinth Area (Sqm)/ Scale		Special Facilities	Planning Notes
		Married Accommodation	Separated Family Accommodation		
1.	<u>Main unit of Accommodation</u>				
	(a) JCOs and equivalent	78.535	(a) Balcony - 3.715 Sqm (b) Staircase - 5.50 Sqm	(a) Electric circuit for inverter. (b) One EWC to be provided.	
	(b) Havildars/ NCOs/ OR and equivalent	55.835	(a) Balcony - 3.715 Sqm (b) Staircase - 5.50 Sqm		
2.	<u>Car/ Scooter Shed</u>				
	(a) JCOs and equivalent	16.00 for car 6.00 Sqm for scooter		JCOs @ 75% for Car/ 25% for Scooter Shed.	
	(b) Havildars/ NCOs/ OR and equivalent	16.00 for car 6.00 Sqm for scooter		ORs @ 50% for Car/ 50% for Scooter Shed.	
3.	Space for washing machine (Dry Balcony)	05 Sqm		(a) Power point. (b) Water connection. (c) Drain out pipe.	

Notes.

1. Scooter sheds for JCOs and equivalents should be so designed and constructed that if these are to be converted in to garages either at the time of construction for use on shared basis, or later for using as garages if the authorised percentage of garages is enhanced, it would be possible to combine them.
2. Covered parking areas may be provided in lieu of scooter sheds, if required.
3. These scales will be considered for New Accommodation only.
4. These Norms and Scales will be revised as and when revised norms/ scales are issued by MoHUA/ MAP.

TABLE 67.III**MARRIED ACCOMMODATION FOR CIVILIANS**

Ser No	Description of Items	Plinth Area (Sqm)/ Scale	Special Facilities	Planning Notes
1.	<u>Main unit of Accommodation</u>			
	(a) Type VIII (Fixed Pay Rs 80,000 and above)	403.00	(a) Staircase/ Circulation 7.00 Sqm (b) Balcony 45.00 Sqm (c) Utility area/ balcony 12.00 Sqm	
	(b) Type VII (Fixed pay Rs 75,500 and above)	287.00	(a) Staircase/ Circulation 7.00 Sqm (b) Balcony 35.00 Sqm (c) Utility area/ balcony 9.00 Sqm	
	(c) Type VI (Grade Pay Rs 10,000 and above)	203.50	(a) Staircase/ Circulation 7.00 Sqm (b) Balcony 21.50 Sqm (c) Utility area/ balcony 4.50 Sqm	
	(d) Type V (Grade Pay Rs 7,600 and above)	145.00	(a) Staircase/ Circulation 7.00 Sqm (b) Balcony 12.00 Sqm (c) Utility area/ balcony 4.50 Sqm	
	(e) Type IV (Special) (Grade Pay Rs 6,600/- and above)	106.00	(a) Staircase/ Circulation 7.00 Sqm (b) Balcony 12.00 Sqm (c) Utility area/ balcony 3.50 Sqm	
	(f) Type IV (Grade Pay Rs 5,400 and above)	86.00	(a) Staircase/ Circulation 7.00 Sqm (b) Balcony 12.00 Sqm (c) Utility area/ balcony 3.50 Sqm	
	(g) Type III (Grade Pay Rs 4,200 and above)	63.00	(a) Staircase/ Circulation 7.00 Sqm (b) Balcony 6.50 Sqm (c) Utility area/ balcony 3.50 Sqm	

Ser No	Description of Items	Plinth Area (Sqm)/ Scale	Special Facilities	Planning Notes
	(h) Type II (Grade Pay Rs 1,900 and above)	54.00	(a) Staircase/ Circulation 7.00 Sqm (b) Balcony 6.50 Sqm (c) Utility area/ balcony 2.50 Sqm	
	(j) Type I (Grade Pay Rs 1,300 and above)	40.80	(a) Staircase/ Circulation 7.00 Sqm (b) Balcony 6.50 Sqm (c) Utility area/ balcony 2.50 Sqm	
2.	<u>Servant Quarters</u>			
	(a) Type VIII (Fixed Pay Rs 80,000 and above)	4 x 21.50	(a) Staircase/ Circulation 3.50Sqm (b) Balcony 4.00 Sqm	(a) Independent servant Quarter having Room, Kitchen, Toilet and separate staircase being shared by four Servant quarters. (b) 04 Servant quarters for Type VIII
	(b) Type VII (Fixed pay Rs 75,500 and above)	2 x 21.50	(a) Staircase/ Circulation 7.00 Sqm (b) Balcony 4.00 Sqm	(a) Independent servant Quarter having Room, Kitchen, Toilet and separate staircase being shared by two Servant quarters. (b) 02 Servant quarters for Type VII
	(c) Type VI (Grade Pay Rs 10,000 and above)	21.50	(a) Staircase/ Circulation 7.00 Sqm (b) Balcony 3.50 Sqm	(a) Independent servant Quarter having Room, Kitchen, Toilet and separate staircase being shared by two Servant quarters. (b) 01 Servant quarters for Type VI
	(d) Type V & above (Grade Pay Rs 7,600 and above)	21.50	(a) Staircase/ Circulation 7.00 Sqm (b) Balcony 3.50 Sqm	(a) Independent servant Quarter having Room, Kitchen, Toilet and separate staircase being shared by two Servant quarters. (b) 01 Servant quarters for Type V

Ser No	Description of Items	Plinth Area (Sqm)/ Scale	Special Facilities	Planning Notes
	(e) Type IV (Special) (Grade Pay Rs 6,600 and above)	17.00	Balcony 2.50 Sqm	Servant Room shall be part of the house without provision of separate staircase, however Kitchenette & Toilet be provided within the unit area specified for servant room.
	(f) Type IV (Grade Pay Rs 5,400 and above)	17.00	Balcony 2.50 Sqm	Servant Room shall be part of the house without provision of separate staircase, however Kitchenette & Toilet be provided within the unit area specified for servant room.
3.	<u>Garages</u>			
	(a) Type VIII	4 x ECS		The value of ECS shall be taken as under:- (a) For open parking 18.0 Sqm (b) For ground floor covered parking 23.00 Sqm (c) For basement parking 28.0 Sqm
	(b) Type VII	3 x ECS		
	(c) Type VI	3 x ECS		
	(d) Type V	2 x ECS		
	(e) Type IV & IV (Special)	2 x ECS		
	(f) Type III	1.25 x ECS		
	(g) Type II	1.0 x ECS		
	(h) Type I	0.5 x ECS		

Notes.

- Common covered parking areas may be provided in lieu of scooter sheds, if required.
- Pay range indicated above as per VIth Pay Scales. However, the same shall be taken from the latest letter of Ministry of Urban Development (Dte of Estates), New Delhi as amended from time to time. This plinth area norms are based on Government of India, Ministry of Urban Development (Work Division) Office Memorandum F. No. 22011/01/2008-W.3 dated 07 August 2013.
- These Norms and Scales will be revised as and when revised norms/ scales are issued by MoHUA/ MAP.
- Geysers will be provided in civilian officers married accommodations.
- These scales will be considered for New Accommodation only.

**CATEGORISATION OF STATIONS ON
THE BASIS OF CLIMATIC CONDITIONS**

<u>HOT AND HUMID</u>			
1.	Agartala	44.	Hasimahara
2.	Allahabad/ Manouri	45.	Hempur
3.	Arda	46.	Ishapur
4.	Arkonam	47.	Itarasi
5.	Avadi	48.	Izatnagar
6.	Bagdogra/ Siliguri	49.	Jalpaiguri
7.	Bagrakot	50.	Jorahat
8.	Balasore/ Puri	51.	Kalikunda/ Midnapore
9.	Bareilly/ Banbasa/ Tanakpur	52.	Kamorta/ Nicobar Island
10.	Barrackpore/ Kanchrapara	53.	Kankinara
11.	Basista/ Borjai/ Pandu	54.	Karanja
12.	Bengdubi	55.	Karimganj
13.	Bhanbdup	56.	Katihar/ Bhagalpur
14.	Bhubneshwar	57.	Khaprail
15.	Binaguri	58.	Kishanganj
16.	Bombay (Now Mumbai)/ Colaba/ Santa Cruz/ Karanja/ Hamla	59.	Kochi
17.	Bongaigaon	60.	Kolkata
18.	Borjar	61.	Kumbhigram
19.	Burdwan	62.	Laccadiv Island
20.	Calicut	63.	Lakka Bali
21.	Cannanore	64.	Lakshadweep Islands
22.	Car Nicobar Islands	65.	Leimakhong
23.	Chabua	66.	Lekha Pani
24.	Charduar	67.	Lohitpur/ Tezu
25.	Chheoki	68.	Lonavala
26.	Chilka	69.	Madhukarai
27.	Chloavaram	70.	Madras (Now Chennai)/
28.	Cooch Behar	71.	Mangalore
29.	Cuttack	72.	Margoa
30.	Dambolium	73.	Mariani
31.	Daporijo	74.	Meenambakkam/ Pollavaram/ Avadi
32.	Dibrugarh	75.	Midnapore
33.	Dimapur/ Rangapahar	76.	Misa/ Nowgaon
34.	Dinjan/ Panitola	77.	Missamari
35.	Ernakulam	78.	Mohan Bari
36.	Ezhimala	79.	Mumbai
37.	Farraka/ Bhagalpur	80.	Murshidabad/ Behrampur
38.	Gauhati/ Narangi	81.	New Mal/ Dam Dim
39.	Goa	82.	North Lakhimpur
40.	Gopalpur-on-Sea	83.	Nowgong
41.	Great Nicobar	84.	Okha
42.	Haflong	85.	Panagarh
43.	Haldia	86.	Panaji

87.	Paradeep	99.	Suryalanka
88.	Phaphamau	100.	Tambaran
89.	Ponda/ Margoa/ Vasco-De-Gama/ Panaji Vehguruh	101.	Tejpur/ Shaloni
90.	Port Blair/ Andaman Island	102.	Teloamura
91.	Pulgaon	103.	Tinsukia
92.	Purnea	104.	Trichinapally
93.	Rangapara	105.	Trivandrum
94.	Rangiya/ Sangsari	106.	Tulihal
95.	Sairang/ Longpai	107.	Tuticorin
96.	Sevoke Raod	108.	Verum
97.	Silchar	109.	Vishakapatnam
98.	St. Thomas Mount		

Note. Station having maximum temperature above 33°C and humidity more than 75% for duration of 03 months will be considered as 'Hot and Humid'.

Coastal Areas	
1.	Arkonam
2.	Balasore/ Puri
3.	Bombay (Now Mumbai)/ Colaba/ Santa Cruz/ Karanja/ Hamla
4.	Calicut
5.	Cannanore
6.	Car Nicobar Islands
7.	Cuttack
8.	Ernakulam
9.	Ezhimala
10.	Goa
11.	Gopalpur-on-Sea
12.	Great Nicobar
13.	St. Thomas Mount
14.	Suryalanka
15.	Tambaran
16.	Kamorta/ Nicobar Island
17.	Karanja
18.	Kochi
19.	Kolkata
20.	Laccadiv Island
21.	Lakshadweep Islands
22.	Madras (Now Chennai)/
23.	Mangalore
24.	Margoa
25.	Mariani
26.	Meenambakkam/ Pollavaram/ Avadi
27.	Panaji
28.	Paradeep
29.	Ponda/ Margoa/ Vasco-De-Gama/ Panaji Vehgurr
30.	Port Blair/ Andaman Island
31.	Trivandrum
32.	Tuticorin
33.	Vishakapatnam

Note. Other Stations within 20km of coast line shall also be considered as falling within coastal areas.

Cold (Hills)			
1.	Aijal	41.	Kiari
2.	Almora	42.	Kupwara
3.	Along	43.	Lansdowne
4.	Awantipur	44.	Leh
5.	Bakloh	45.	Leimakong
6.	Balnoi	46.	Lungleh
7.	Bandipur	47.	Mandi
8.	Banihal	48.	Mendhar
9.	Baramula	49.	Moko Kehung/ Tuensang
10.	Barapani/ Umroi	50.	Mount Abu
11.	Batote	51.	Mussorie
12.	Belgaum	52.	Nainital
13.	Bhimbargali	53.	Palampur
14.	Chaka Bama	54.	Partapur
15.	Chakrata	55.	Patnitop
16.	Chalonsu	56.	Pattan
17.	Chauvatia	57.	Pedong
18.	Chumatang	58.	Pithoragarh
19.	Chowkibal	59.	Poonch
20.	Coonoor	60.	Quazikund
21.	Darjeeling/ Jalapahar	61.	Rajauri
22.	Dalhousie	62.	Ramban
23.	Derbuk	63.	Rampur
24.	Dhangu	64.	Ranikhet
25.	Dhansal	65.	Sapper Camp
26.	Dharachula	66.	Sela
27.	Dharamsala	67.	Shillong
28.	Drangmala	68.	Simla
29.	Gaik	69.	Srinagar/ BB Cantt/ Air Field/ Tatoo Ground/ Haft Chinar/ Sharifabad
30.	Gangtok	70.	Stations of 36 Sector
31.	Gulmarg	71.	Surankot
32.	Hamirpur	72.	Tangdhar
33.	Jaranwaligali	73.	Tenga Velly
34.	Joshimath	74.	Trehgan
35.	Jutogh	75.	Tuensang
36.	Kalimpong	76.	Vairangte
37.	Kasauli/ Dagshai/ Solan/ Sabathu	77.	Wellington
38.	Katapahar/ Lebong/ Ghoom	78.	Yol
39.	Kaushani	79.	Zakhama
40.	Karu		

APPENDIX 'B'**LIST OF STATIONS WHERE AIR-CONDITIONING IS TO BE INSTALLED IN THE OFFICES OF THE OFFICERS AS GIVEN IN TABLE 7.IV**

1.	Ahmedabad	33.	Meerut
2.	Akhnoor	34.	Mhow
3.	Allahabad	35.	Nagpur
4.	Ambala	36.	Palam
5.	Amritsar	37.	Panitola
6.	Bareilly	38.	Pathankot
7.	Bhatinda	39.	Patiala
8.	Bhopal	40.	Port Blair
9.	Bikaner	41.	Pune
10.	Binaguri	42.	Rajouri
11.	Mumbai	43.	Ranchi/ Ramgarh
12.	Kolkatta	44.	Rangia
13.	Chandigarh	45.	Saugor
14.	Kochi	46.	Secunderabad
15.	Dehradun	47.	Siliguri
16.	Delhi Cantt	48.	Tezpur
17.	Dundigal/ Hyderabad	49.	Udhampur
18.	Ferozapore	50.	Vishakapatnam
19.	Ganganagar	51.	Thiruvananthapuram
20.	Hissar	52.	Rambili
21.	Jabalpur	53.	Jamnagar
22.	Jammu	54.	L&M Islands
23.	Jhansi	55.	A&N Islands
24.	Jodhpur	56.	Porbandar
25.	Jalandhar	57.	Karwar
26.	Khadakwasla	58.	Paradip
27.	Kirkee	59.	Ezhimala
28.	Kotah	60.	Chilka
29.	Lucknow	61.	Goa
30.	Madras (Chennai)	62.	Ramnad
31.	Masimpur/ Silchar	63.	Okha
32.	Mathura		

Note. Other Stations, whose climatic conditions of temperature and humidity at 0830 hrs (Morning) and 1730 hrs (evening) are similar to those of Delhi, will also be provided with air-conditioning in their offices. Delhi conditions adopted are as follows: -

0830 hrs	1730 hrs
31.5°C	39.3°C
80°F	103°F
31% RH	18% RH

APPENDIX 'C'**WATER CONSUMPTION (IN LITRES/ PER HEAD PER DAY)**

Ser No	Class	Married		Single		Military Area				Civilians outside Military area		Additional for Garden conservancy in litres per day	Remarks
		No of family members	Servants and families	No	Servants	With water borne sanitation		Without water borne sanitation		Plain	Hill		
						Plain	Hill	Plain	Hill				
1.	Officers Military/ Civilian	05	05	01	01	225	160	160	90	225	160	225 litres per married officer and 135 litres for single officer	
2.	JCOs, Civilians and their equivalent in Navy, Air Force and Coast Guard	05	-	01	-	205	145	145	80	205	145	115 litres per married JCO and 70 litres per single JCO	
3.	NCOs and Civilian and equivalent	05	-	01	-	205	145	145	80	205	145	45 litres for married and single	
4.	OR and Civilian and equivalent	05	-	01	-	205	145	145	80	205	145		
5.	Followers (Non – Combatants)	05	-	01	-	205	145	145	80	205	145	-	
6.	Unit Shops and shopping Centre	-	-	-	-	70	45	45	45	-	-	Scale per head working in ships authorised scale of water supply to be worked out at 42 persons per 1000 troops (WE)	

Ser No	Class	Married		Single		Military Area				Civilians outside Military area		Additional for Garden conservancy in litres per day	Remarks
		No of family members	Servants and families	No	Servants	With water borne sanitation		Without water borne sanitation		Plain	Hill		
						Plain	Hill	Plain	Hill				
7.	Cafeterias and Canteens	-	-	-	-	1135	910	910	680	-	-		
8.	Bazar Population	-	-	-	-	160	115	90	70	-	-	Authorised scale of water supply for bazaar population to be worked out at 180 persons per 1000 troops (WE)	
9.	Animals	-	-	-	-	-	-	-	-	-	-	70 Animals strength to be worked out as per PE/ WE of the unit	
10.	Vehicles and Aircrafts	-	-	-	-	-	-	-	-	-	-	45	
11.	Company Gardens											22460 Litres/ hectares/ day hot weather rate	Consider 6.73 hectares per 1000 troops strength (WE of military units)
12.	Irrigation and Sports Grounds	-	-	-	-	-	-	-	-	-	-		
13.	Dhobi Ghat	-	-	-	-	-	-	-	-	-	-	1365 litres per day per stone	Consider one stone per 75 men
14.	Fire Exercise	-	-	-	-	-	-	-	-	-	-	4545 litres per day	Caters for one exercise per 500 troops

Ser No	Class	Married		Single		Military Area				Civilians outside Military area		Additional for Garden conservancy in litres per day	Remarks
		No of family members	Servants and families	No	Servants	With water borne sanitation		Without water borne sanitation		Plain	Hill		
						Plain	Hill	Plain	Hill				
15.	Fire purpose	-	-	-	-	-	-	-	-	-	-	3015 litres per 1000 troops per day	Take into account 2% evaporation losses in case of static tanks
16.	Labour Employed in Depots and Installations	-	-	01	-	45	15	35	15	-	-	-	Authorised scale of water supply to be worked out at 94 persons per 1000 troops strength of unit (WE)
17.	Offices and Schools where water borne sanitation exists	-	-	01	-	45	25	25	15	-	-	45 litres per officer/ Clerk/ Student	
18.	Cinemas	-	-	-	-	-	-	-	-	-	-	15 litres per seat	
19.	Swimming Pools	-	-	-	-	-	-	-	-	-	-	As required depending on the capacity of the pool	The requirement of water may be taken as under:- (a) 2% of the capacity to make up evaporation losses. (b) Complete change once in 06 months when filtration plant is provided

LIST OF STATION WHERE DESERT COOLERS ARE AUTHORISED

1.	Abohar	47.	Faridkot
2.	Adampur	48.	Fatehgarh
3.	Agra	49.	Fazilka
4.	Ahmedabad	50.	Ferozpur
5.	Ahmednagar	51.	Ganganagar
6.	Ajmer	52.	Gaya
7.	Akhnoor	53.	Gorakhpur
8.	Allahabad	54.	Gurdaspur/ Tibri
9.	Alwar	55.	Gwalior
10.	Ambala	56.	Hakimpet
11.	Amla	57.	Haldwani
12.	Amritsar/ Chaharta	58.	Halwara
13.	Aurangabad	59.	Hempur
14.	Babina	60.	Hindon
15.	Babugarh	61.	Hissar
16.	Baddowal	62.	Hyderabad
17.	Bakshi ka Talab	63.	Itarasi
18.	Balasore	64.	Jabalpur
19.	Banbassa	65.	Jaipur
20.	Barabanki	66.	Jaisalmer
21.	Bareilly	67.	Jamshedpur
22.	Barmer	68.	Jammu
23.	Barnala	69.	Jassal/ Jalpa
24.	Baroda	70.	Jaurian
25.	Kasauli/ Janglot	71.	Jhansi
26.	Beas	72.	Jindrah
27.	Begumpet	73.	Jodhpur
28.	Bharatpur	74.	Jalandhar/ Suranasi
29.	Bhatinda	75.	Kalaikunda
30.	Bhopal	76.	Kaluchak
31.	Bhubaneshwar	77.	Kamptee
32.	Bhuj	78.	Kanpur
33.	Bhusawal	79.	Kanraghat
34.	Bidar	80.	Kapurthala
35.	Bikaner	81.	Khadakwasala
36.	Chandigarh	82.	Kirkee
37.	Chheoki	83.	Kota
38.	Damana	84.	Lalgarh Jatan
39.	Dehradun	85.	Lalru
40.	Dehu Road	86.	Lucknow
41.	Delhi Cantt/ New Delhi/ Shakurbasti	87.	Ludhiana
42.	Derababa Nanak	88.	Maharajpur
43.	Dharangdhera	89.	Manauri
44.	Dimapore	90.	Mathura
45.	Faizabad	91.	Muzaffarpur
46.	Faridabad	92.	Meerut

93.	Memaura	115.	Rajokari
94.	Mhow	116.	Rakhmuthi
95.	Miransahib	117.	Ramgarh
96.	Moga	118.	Ratnuchak
97.	Nabha	119.	Roorkee
98.	Nagpur	120.	Saharanpur
99.	Nagrota	121.	Samba
100.	Nal	122.	Sangrur
101.	Nalia	123.	Sarsawa
102.	Nasirabad	124.	Saugor/ Dhana
103.	Naushera	125.	Secunderabad
104.	Nowgong	126.	Shahjahanpur
105.	Palam/ Gurgaon	127.	Sirsa
106.	Pallanwalla	128.	Sunderbani
107.	Pathankot	129.	Suratgarh
108.	Patiala	130.	Talbehat
109.	Patna	131.	Tiruchirapally
110.	Pokharan	132.	Udaipur
111.	Pulgaon	133.	Unchibassi
112.	Pune	134.	Varanasi
113.	Raipur	135.	Warrangal
114.	Raiwala	136.	Any station with comparable ambient temperature to Delhi-New Delhi (110° F and 20% RH).

LIST OF STATIONS AUTHORISED FOR HEATING SERVICES

2. Leh
3. Patnitop
4. Srinagar
5. Gulmarg
6. Baramula/ Pattan
7. Simla/ Jatogh
8. Dalhousie
9. Partapur
10. Khumbathang
11. Bandipur
12. Khanabal
13. Joshimath
14. Menchuka
15. Tawang
16. Chunthang
17. Other stations (as approved by MoD/ DMA) with equivalent extreme winter climatic conditions.

LIST OF HIGH RAINFALL STATIONS

1. Daman and Diu	33. Haridwar
2. Silvassa	34. Raulkela
3. Mumbai	35. Bokaro
4. Panaji	36. Jamshedpur
5. Thiruvananthapuram	37. Durgapur
6. Pondichery	38. Haldia
7. Chennai	39. Kharagpur
8. Raipur	40. Kozhikode
9. Bhubaneswar	41. Thrissur
10. Kolkata	42. Mangalore
11. Agartala	43. Belur
12. Aizawl	44. Udupi
13. Imphal	45. Devnagore
14. Kohima	46. Belgaum
15. Itanagar	47. Hubli
16. Guwahati	48. Ratnagiri
17. Shilong	49. Dadar & Nagar Haveli
18. Gangtok	50. Tezu
19. Kochi	51. Dispur
20. Port Blair	52. Ranchi
21. Dibrugarh	53. Ezhimala
22. Tezpur	54. Lonavla
23. Cuttack	55. Goa
24. Pathankot	56. Jorhat
25. Dehradun	57. Yol
26. Darjiling	58. Dharamshala
27. Bhilai	59. Palampur
28. Bilaspur	60. Cherapunji
29. Gulmarg	61. Along
30. Jammu	62. Daporijo
31. Dharmshala	63. Likabali
32. Nainital	64. Lansdowne

Note. Stations experiencing a minimum 1000mm of cumulative rainfall for the duration of three consecutive months in a year will be considered in high rainfall station category.

REGISTER OF AMENDMENTS

Amendment Number	Date of Amendment	Page Referred to	Dated Initials of Person by whom corrected

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