GUIDELINES FOR THE RECONSTRUCTION AND REHABILITATION OF WAR AFFECTED HOUSING IN THE GAZA STRIP

Shelter Sector
GAZA STRIP

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Introduction:

The shelter reconstruction group established this guidelines to be as a reference for all agencies that members in the shelter sector and active in the reconstruction and shelter assistance.
This guideline is not binding for the actors, who have shelter project specially, the sector members agree that every agency has a special condition regarding to the donors and the procedure for implementing its projects.
It is very important for the agencies that have reconstruction projects to coordinate with the shelter cluster or any other members directly to avoid the duplications and insure the eligibility of the nominated cases in addition to save time, efforts and resources.
The shelter sector lead agency is very happy to provide any support or assistance regarding to the coordination, consultation and information management.

Executive Summary

The Shelter Reconstruction Guidelines for the Gaza Strip were first developed by the Shelter Reconstruction Working Group soon after the Gaza 2008/9 war, with the overall objective to improve Humanitarian Response to shelter needs. They were later revised in August 2009.

This third edition aims to address specific technical issues related to rehabilitation and reconstruction, drawing on key lessons learnt from existing policies and standards from the past and current practices.

The guidelines aim to fulfill the following objectives:

- Establish the key **principles** to guide reconstruction of war affected **individual housing** in Gaza;
- Establish new and appropriate standards for the designs habitable buildings and spaces and related costs, with minimum thresholds and ceilings to ensure dignity, equity , and "do no harm" while providing durable shelter solutions; .
- Establish clear principles related to technical and practical level coordination for all actors involved in reconstruction;

Every actor planning to be engaged in the reconstruction of Gaza is encouraged to use these Guidelines.

1. Key principles to guide reconstruction in Gaza

1.1. Avoid displacement

When planning interventions or receiving requests for shelter assistance, displacement options should be avoided where ever possible. Major projects with housing, infrastructure and public facilities should be built only when there is no alternative option, for example, when destroyed shelters were built without permits on public land.

While there should be flexibility for beneficiaries to rebuild on site or on an alternative piece of land that they own, providing all legal requirements are met, ReWG members share a common goal not to depopulate border areas and, in these areas, to limit reconstruction away from the original sites of the destroyed shelters to those cases where it is clearly established that the security situation makes rebuilding and living on the original site unsustainable, also the family who will build the new house on an alternative land is requested to submit the proper permit from the proper authority.

1.2. Flexible approach – opportunistic planning

Every approach must be sensitive to cultural practices and endorsed by all major players to avoid "doing harm" while giving assistance. But in the context of Gaza, where different players need to respond to a sequence of crisis and support longer term solutions simultaneously, where access to cash and materials is so fluctuating, flexible approaches must also show opportunism:

- Include a range of options that are ready for implementation at any given time to fit the unstable context.
- Allow for the simultaneous implementation of different options without conflict (without doing harm). To do so, all options must have harmonized standards.
- Identify the presence of the slimmest "humanitarian space" and make full use of it while it lasts, using all resources available at any given time with the maximum efficiency.
- Develop and experiment unconventional solutions exploring available resources, as long as it is culturally accepted and cost effective.

Under these Guidelines, a series of options are presented to meet the different needs of the beneficiaries in regards to shelter reconstruction.

1.3 Compensation

As much as possible, people should be compensated for what they lost. But to help ensure equity and building back a better shelter, these Guidelines establish a minimum and maximum in compensation (see section 2).

Beneficiaries receiving compensation are able to build the type of shelter that they wish, or according to donor agency policies, as long as they meet a set of minimum technical and environmental standards, and as long as the total estimated construction cost is not below the amount to be received as compensation. Beneficiaries choosing to reconstruct the shelter on their private land are required to present their land ownership title.

1.4 Cash transfer to beneficiaries

This is the fastest way of rebuilding, as beneficiaries often have better access to resources than any external actor. Cash Transfer enables families to, within given technical and environmental standards, control the housing reconstruction process. They may undertake building works by themselves, with external financial and technical assistance. Families are in this way empowered to rehabilitate or reconstruct their houses according to their own ideas, possibilities and needs. They may self-build or pay a contractor. This approach also contributes to social and economical recovery.

Under this option, a cash amount within the standards agreed in section 2 is transferred to the beneficiaries in installments that are bound to the actual construction progress, for rehabilitating or reconstructing their housing unit on land that they legally own. Additional costs to meet private designs are incurred by the beneficiary.

Each Agency will decide on the size and sequencing of installments.

In all cases, Agencies / actors will seek to provide technical guidance and support to beneficiaries.

1.5 Contractor-driven In Situ or on alternative land owned by the beneficiary

"In Situ" means in the same site occupied before destruction, or on another piece of land legally owned by the beneficiary. Beneficiaries choosing this option are required to present their land ownership title in addition to submit the proper permit from the proper authority. The housing unit is to be rebuilt as per the standard designs provided either provided by the donor agency, or according to approved designs presented by the beneficiary. Costs in addition to the beneficiary's entitlement will be covered by the beneficiary.

This option involves direct tendering by each Actor / Agency and contracting professional contractor(s) to build the houses in the beneficiary property. Local resources should be explored as much as possible. This option is often found to be most appropriate when individuals or families don't have the capacity of support mechanisms to manage cash transfer and self-help.

1.6 Contractor-driven In Resettlement

This option should only be used as a last resort when displacement cannot be avoided. It is planned primarily for families whose destroyed shelters were built without permits on public lands or in certain congested areas of refugee camps, or for families whose destroyed shelters are located in very dangerous areas where it is clearly established that the security situation makes rebuilding and living on the original site unsustainable.

The shelters are to be rebuilt in housing projects with infrastructure and public facilities, normally located on new governmental land, according to the standards proposed in these Guidelines. This option involves designing for the new resettlement area, tendering procedures and tasking professional contractors to build the various elements of the complex in new governmental land. Local resources should still be explored as much as possible.

1.7 Purchasing existing shelters

Also known as the "subsidiary housing approach", in this case agencies do not engage directly in housing reconstruction. Instead, they adopt a facilitator role, providing beneficiaries with already existing housing units. Beneficiaries choosing this option will be provided with their entitlement on condition that they purchase a shelter that costs no less than the amount received. Beneficiaries will be given freedom to choose, which means that no massive displacement will occur or will occur voluntarily.

Although inflation on the housing market may be a main disadvantage, this option has been requested by beneficiaries and would have the advantages of decongesting some shelters and allowing some families to quickly find a dignified roof even before the siege is lifted.

???Summary of shelter assistance options

S/N	Type of Shelters	Recommended Intervention	Shelter assistance Options
1	Demolished shelters inside camps (narrow area)	Reconstruction In Situ or Major Housing projects as per Guideline standards on new governmental land with infrastructure and public facility buildings.	– Cash Transfer – Contractor-driven In Situ
2	Demolished shelters built illegally on public land	Major Housing projects as per Guideline standards on new governmental land with infrastructure and public facility buildings.	– Contractor-driven In Resettlement – *Purchasing existing shelter*
3	Unlicensed demolished shelters constructed on private lands	Reconstruction on private land as per the Standards provided under these guidelines.	– Cash Transfer – Contractor-driven In Situ – Alternative building techniques – *Purchasing existing shelter*
4	Licensed demolished shelters constructed on private land for which drawings are available.	Families are compensated on the basis of the number of sqm of their destroyed shelter (cost of each sqm calculated according to Guideline standards).	– Cash Transfer – Contractor-driven In Situ – *Purchasing existing shelter*
5	All shelter types	Purchase of an already existing shelter through cash transfer in the value of the entitlement (within Guideline standards).	– Purchasing existing shelter

2. Harmonized standards

In order to "do no harm" while assisting beneficiaries in building back better shelters, it is important to have a set of agreed standards.

2.1. Design standards[1]

The standard design should be used to carry out reconstruction or to estimate the entitlement of families for whom the drawings of the destroyed shelter are not available, or in case the value of a shelter is less than the minimum standards provided under these guidelines. The shelter design standards will be as follows (based on current UNRWA technical standards):

The shelter consists of Kitchen + bathrooms + living / guest room + rooms, with the number of rooms depending on the family size, with one room added for every two family members.

	ReWG agreed criteria
Max compensation Threshold	90,000 USD
Minimum intervention in terms of family size	- as per family size (for families of 1 to 2 persons with members above reproductive age) - 4 persons (for young couples)
Master bed room	15 to 20 sqm
Room size	15 sqm
Living / guest room	30 sqm
Kitchen	10 sqm
Bathrooms	5 sqm + toilet 2.5 sqm, or two bathrooms 5 sqm each, at the discretion of each agency
Balcony/mini garden/external terrace	At the discretion of each agency, minimum 3 sqm

Consideration is to be give to the provision of court yards and common balconies and housing clusters.

2.2. Costs: threshold and ceiling

The minimum intervention will be the standard design as per 2.1 above.[2] The maximum intervention per housing unit will be USD 90,000 (equivalent to the cost of two average housing units as per the criteria detailed in 2.1 above).

[1] The necessary adaptations should be taken into consideration in units destined to persons with disabilities.

[2] Unless the destroyed housing is an alternate (not inhabited) summer house / agricultural shelter, in which case compensation provided should reflect actual losses even if they are below the standard.

3. Principles governing coordination

3.1. Eligibility

To be entitled to shelter assistance, affected families must own the destroyed shelter(s). Other basic technical eligibility criteria are left to the discretion of each Agency involved in the reconstruction effort.

3.2. Identifying gaps and preventing overlap

All implementing agencies members are committed to equitable service delivery and to avoiding duplication. To this end, actors commit to regularly providing data to the Shelter Sector lead agency to enable the Unified Shelter Sector Database (USSD), available at www.sheltergaza.org. to be up-dated. The Shelter Sector lead will assist with crosschecking of lists of potential beneficiaries in order to prevent duplication. All actors will also actively seek to identify and address priority gaps in the reconstruction effort.

All actors involved in the reconstruction process commit to respect each others' mandate when deciding on their targeting. For example, UNRWA is mandated by the General Assembly to serve the reconstruction needs of all refugees in Gaza, their places of residence notwithstanding. In case UNRWA is unable to support certain refugee families, other actors may fill the gap after coordination with UNRWA in each case.

3.3. Public outreach and beneficiary participation

Implementing agencies agree to priorities responses equally addressing the shelter needs of men, women, boys and girls and to include beneficiaries and communities in project design.

4. Structural design requirements for reinforced concrete buildings

4.1 Introduction

This part discusses the structural design requirements for different elements of concrete buildings. Generally, the design shall be based on the Limit State Design Method and the ACI 318-08 code requirements. The UBC1997 code shall be used for the Static analysis and design for Seismic and Wind forces, and the design of water structures shall be based on the Working Stress Design Method / Non-crack section design.

4.2 Design loads and loads combinations

The following basic design loads shall be taken into consideration: Dead loads, Live loads, Wind loads, Seismic loads, Earth pressures, Ground water pressures, and temporary loads during different construction stages. The various combinations of the load cases for which the structure needs to be designed and the design strength are those detailed in the ACI 318-08 sections 9.2 and 9.3.

4.3 Structural modeling and analysis

Where appropriate structural modeling and analysis shall be done using computer software such as SAFE, ETABS, PROKON, SAP,…etc.

4.4 Design considerations for earthquake and wind forces

In general, Static analysis and design for Seismic and Wind forces shall be done according to UBC 1997. Dynamic analysis shall be done when the building height is 100m or more or when the ratio of the building height to the building short width is 5 or more. The Seismic zone factor shall be based on the geological map prepared by Annajah University and the design Wind speed shall be based on the recommendations of the Palestinian meteorological station.

4.5 Soil investigation

Earth pressures, ground water pressures, soil type factor, and foundation design factors shall be determined based on the soil investigation data. Soil investigation shall be based on observation and any necessary tests of the materials disclosed by borings, test pits or other subsurface exploration made in appropriate locations. The number and depth of boreholes shall be based on building height and built area.

5. Main requirements of the environmental and energy efficient building design

All actors agree to respect the existing legal and regulatory framework as well as international best practices concerning safety and environmental issues linked with reconstruction. In order to help prevent/limit the impact of natural disasters, degradation and further displacement, all actors will where possible always ensure adequate protection and provide durable solutions. Environmental sensitivity should be integrated into all reconstruction activities. The term environmental sensitivity is understood broadly to include mitigation, adaptation and disaster risk reduction measures and considerations, which should specifically be addressed by each agency.

It is recommended that the standard shelter incorporates a series of features that ensure improved energy efficiency such as double walling (external masonry wall with 15cm followed by 5cm void and a 12 cm interior wall to increase thermal insulation); proper roof insulation (plasticized bitumen roofing over a layer of foam concrete), ground floor insulation and installing canopies on all windows and provision of shading over flat roof and external terraces. Use of reasonably sized balconies for lighting, ventilation and plant/vegetation growth.

During the design stage, building direction shall be studied carefully to control lightening and ventilation effectively and efficiently. The angles of the sunlight shall be studied vertically and horizontally during the design stages. Internal partitioning shall be analyzed to ensure good ventilation and good lightening for all spaces. They should also consider flexibility and adoptability for extendable family. Careful location of ventilation and manually controllable openings within windows for effective cross ventilation. In addition, isolation of the slabs and external walls shall be taken into consideration. All materials used in building construction shall be studied and analyzed to comply with building environment and shall be environmental friendly and energy efficient. Adequate measures for recycling of natural resources including water. Finally, the designer shall consider harmony with the existing facilities, economy, and ability for future expansion and alterations to suite the changing condition of families.
In all cases of design extensive consideration is to be given to elements of self built.
Choice of materials and construction of internal partitions as well as adjustable and adoptable elements of buildings are to be design for user alterations.

6. The entitlements of housing rights

One of the barriers to achieving housing rights has been the absence of a universally recognized definition of the set of entitlements comprising this norm. This hurdle was perhaps more the result of perception than genuine legal analysis. In recent times, a number of steps have been taken to refine legal approaches to this matter. Most notably, General Comment No. 4, of the Committee on Economic, Social and Cultural Rights, on the Right to Adequate Housing defines this right as being comprised of a variety of specific concerns. Viewed in their entirety, these entitlements form the core guarantees which, under international law, are legally vested in all persons.

All actors commit to seek harmonizing approaches within other actors when confronted by problematic issues that may distort assistance between different groups of beneficiaries.
All actors are committed to respecting key humanitarian principles.

6.1 Legal security of tenure

All persons should possess a degree of security of tenure which guarantees legal protection against forced eviction, harassment and other threats. Governments should consequently take immediate measures aimed at conferring legal security of tenure upon those households currently lacking such protection. Such steps should be taken in genuine consultation with affected persons and groups.

6.2 Availability of services, materials and infrastructure

All beneficiaries of the right to adequate housing should have sustainable access to natural and common resources, including individual or collective garden, clean drinking water, energy for cooking, heating and lighting, sanitation and washing facilities, food storage facilities, refuse disposal, site drainage and emergency services.

6.3 Affordable housing

Personal or household costs associated with housing should be at such a level that the attainment and satisfaction of other basic needs are not threatened or compromised. Housing subsidies should be available for those unable to obtain affordable housing, and tenants should be protected from unreasonable rent levels or rent increases. In societies where natural materials constitute the chief sources of building materials for housing, steps should be taken by States to ensure the availability of such materials.

6.4 Habitable housing

Adequate housing must be habitable. In other words, it must provide the inhabitants with adequate space and protect them from cold, damp, heat, rain, wind or other threats to health, structural hazards and disease vectors. The physical safety of occupants must also be guaranteed.

6.5 Accessible housing

Adequate housing must be accessible to those entitled to it. Disadvantaged groups must be accorded full and sustainable access to adequate housing resources. Thus, such disadvantaged groups as the elderly, children, the physically disabled, the terminally ill, HIV-positive individuals, persons with persistent medical problems, the mentally ill, victims of natural disasters, people living in disaster-prone areas and other vulnerable groups should be ensured some degree of priority consideration in the housing sphere. Both housing law and policy should take fully into account the special housing, needs of these groups.

6.6 Location

Adequate housing must be in a location which allows access to employment options, health care services, schools, child care centers and other social facilities. Housing should not be built on polluted sites nor in immediate proximity to pollution sources that threaten the right to health of the inhabitants.

6.7 Culturally adequate and responsive housing

The way housing is constructed, the layout of the spaces, the building materials used and the policies underlying these must appropriately enable the expression of cultural identity and diversity. Activities geared towards development or modernization in the housing sphere should ensure that the cultural dimensions and sensitivities towards cultural daily practices of housing are not sacrificed.

These extensive entitlements reveal some of the complexities associated with the right to adequate housing. They also show the many areas which must be fully considered by States with legal obligations to satisfy the housing rights of their population. Any person, family, household, group or community living in conditions in which these entitlements are not fully satisfied, could reasonably claim that they do not enjoy the right to adequate housing as enshrined in international human rights law.

7 The process of getting municipalities approval for constructing new buildings:

7.1 The beneficiary should go to the municipality with all ownership documents to ask for the general and particular site layout.

The ownership documents should include all the chain of the ownership documents from the owner that this piece of land is registered in Land Registration Authority up to the document proves that he owns this piece of land.

7.2 After he gets this general and particular site layout, the beneficiary should go to engineering office for preparing the drawing set.

7.3 The drawing set includes:

a. Architectural plans
b. Civil designs plans
c. Mechanical plans
d. Electrical plans
e. Energy efficiency diagrams

7.4 The engineering office will prepare all the drawings (architect, civil, mechanical and electrical) after the family agreed on the architectural plans.

7.5 Then the family should take two copies approved by the engineering office to be submitted to the engineering syndicate for approval.

7.6 After the two copies approved by engineering syndicate, the beneficiary should take these two copies to the municipality for getting the approval, license and the no objection to start the construction process.

7.7 In this case the beneficiary should take one approved copy of the drawings set and the municipality keep the second in the file at its end.

7.8 When the beneficiary gets the approval from the municipality to start the reconstruction, he can contract any company or contractor to implement the reconstruction of the house.

7.9 It is necessary for the beneficiary to contract the engineering office or any other engineer to supervise the process of implementation the works at least for the structural elements.

7.10 In case of the reconstruction will be through organizations, the beneficiary has to provide and work to do the first six points.

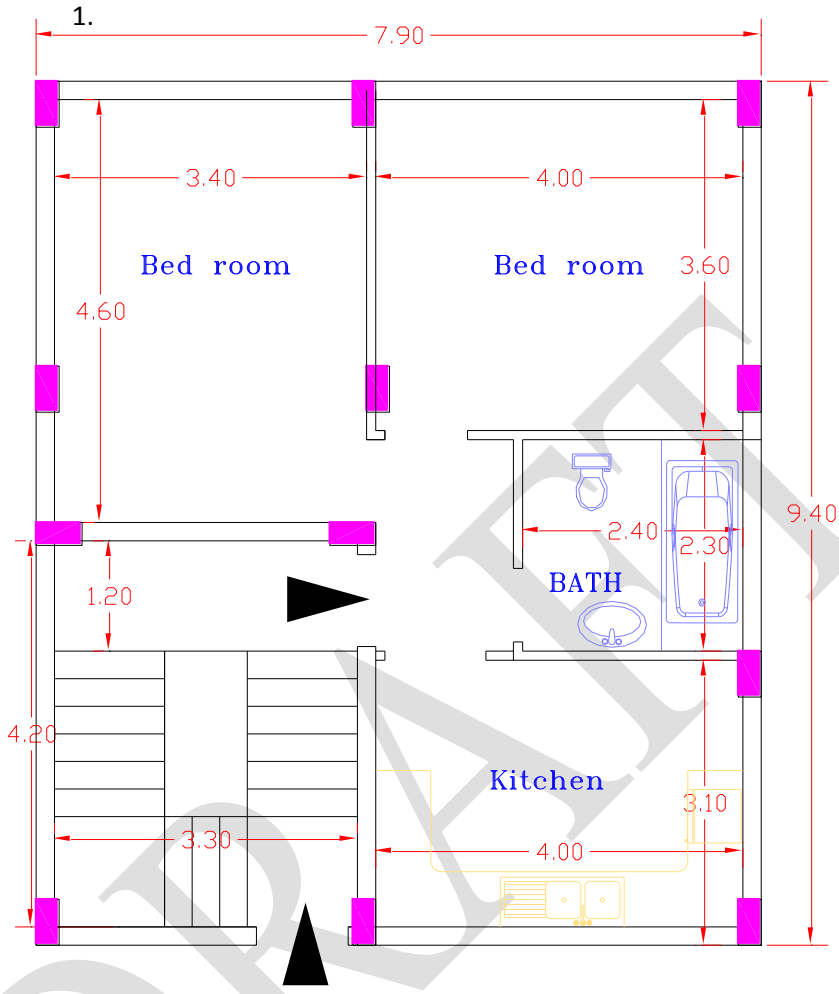
7.11 Page | **11**Some organizations may prepare the design and choice of materials in close collaboration with the family and produce the drawings set for the family.

8 Some proposed plans for different land pieces:

Agencies/Actors involved in the reconstruction efforts are encouraged to develop more designs that are energy efficient and in line with section 2.

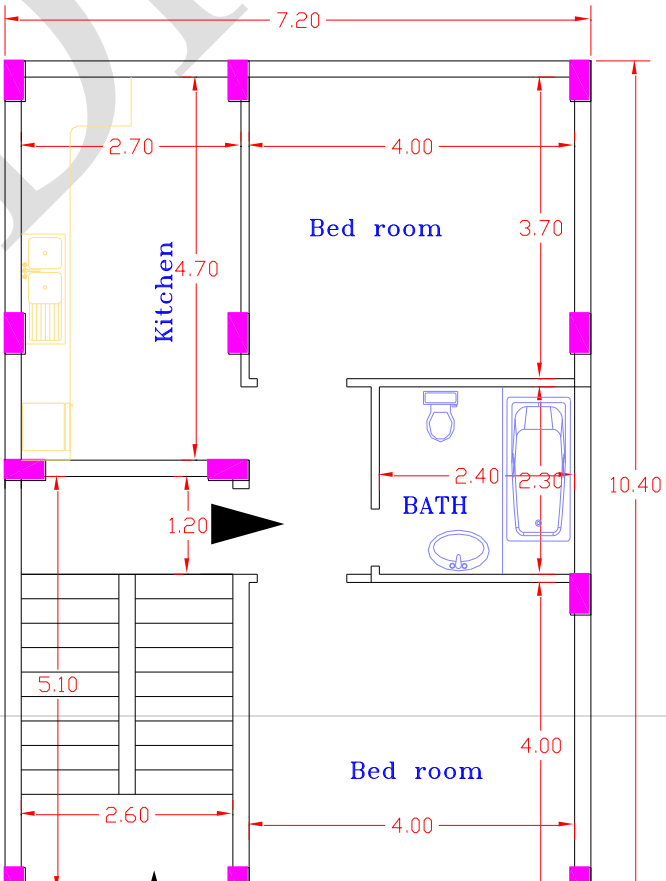
a) For 74 m^2

1.



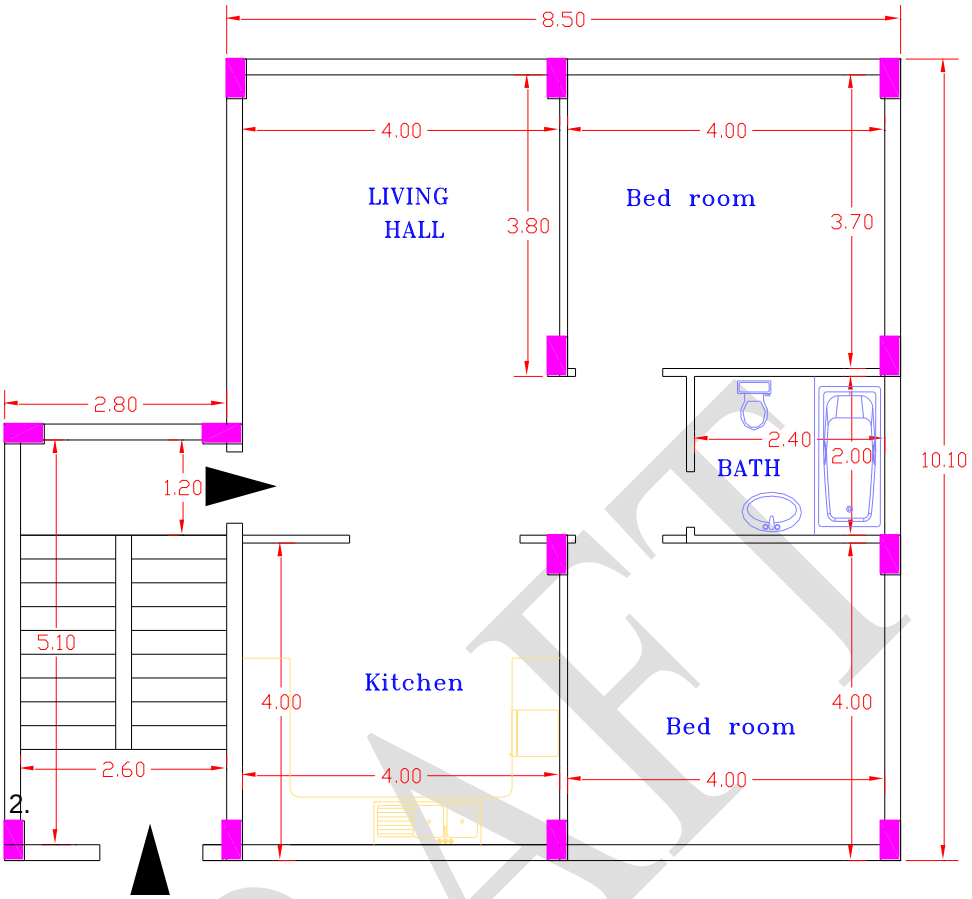
74 m2 PLAN

2.



b) For 100 m^2

1.



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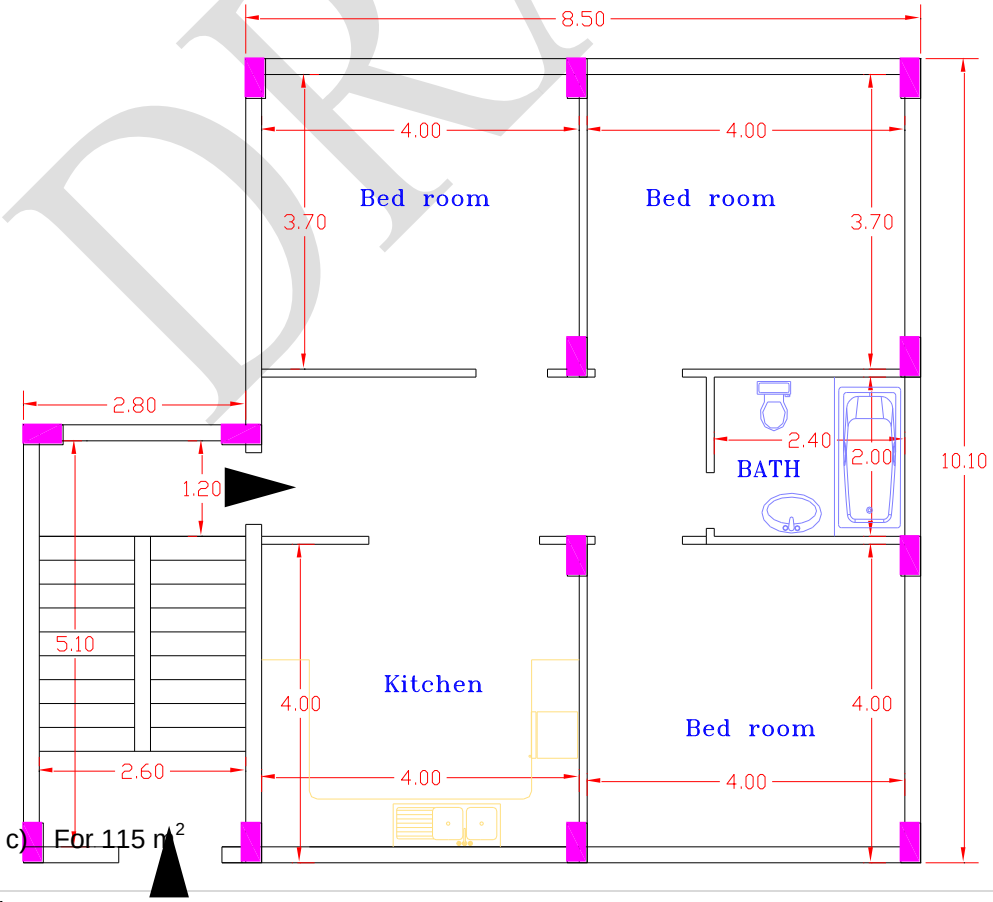
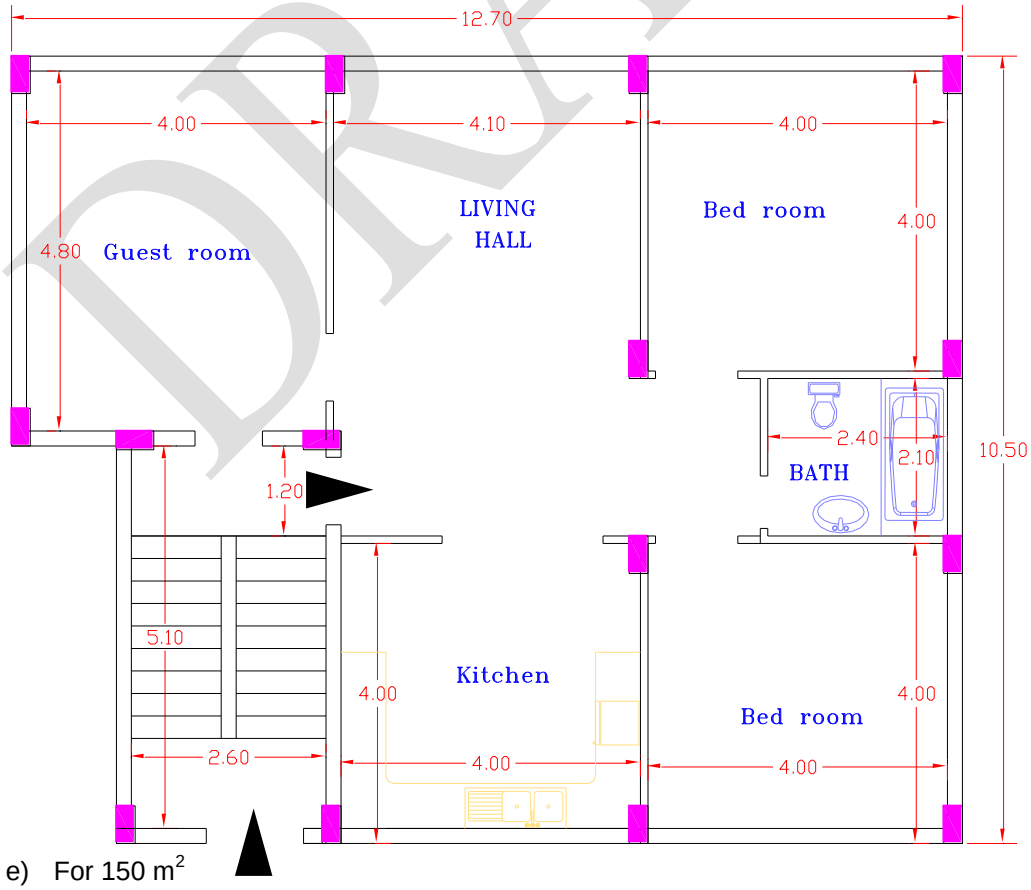
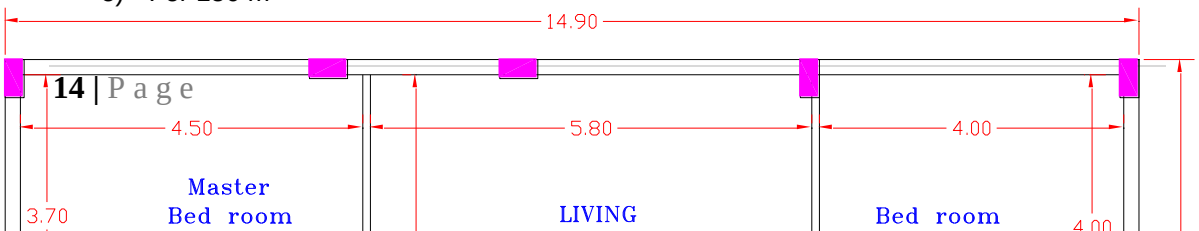


c) For 115 m^2

d) For 125 m^2



e) For 150 m^2



f) For 175 m^2