

Policy for the Planning and Development of Buildings



November 2021



Table of Contents

1. INTRODUCTION	3
2. PURPOSE.....	3
3. OBJECTIVES.....	3
4. DEVELOPMENT CONSENT APPLICATION REQUIREMENTS	3
4.1. SITE PLAN	3
4.1.1. Title.....	6
4.1.2. North Arrow (True North).....	6
4.1.3. Property Boundaries and Easements.....	6
4.1.4. Proposed Building Footprint.....	6
4.1.5. Setbacks.....	6
4.1.6. Existing Buildings and Features on and around site.....	8
4.1.7. Site Coverage	8
4.1.9. Drainage.....	10
4.1.11. Sanitation.....	11
4.1.10. Other Characteristics to Include.....	13
4.2. LAND OWNERSHIP DOCUMENTATION	14
Freehold Land	14
4.2.1. Computer Folio Certificate	14
4.2.2. Land Deed with Stamp Duty.....	14
Government Land	15
4.2.3. MNRE Lease Agreement.....	15
4.2.4. Endorsement from CEO	15
Private or Other Type of Leased Land	15
4.2.5. Copy of Lease Agreement.....	15
4.2.6. Consent Letter	15
Customary (Traditional/Cultural) Land	15
4.2.7. Consent Letter	16
4.2.8. Signed Consent in DCA Form	16
4.3. DESIGN DRAWINGS (DESIGN PLAN).....	16
4.3.1 Floor Plan	17
4.3.2 Front Elevations.....	17
4.3.3 Side Elevations	17
4.3.1.1. Height of Buildings.....	17
4.3.4 Rear Elevations	19
4.3.5 Other Characteristics to Include in the design plans	20
4.4. ENVIRONMENTAL IMPACT ASSESSMENT REPORTS.....	20
4.4.1 Preliminary Environmental Assessment Report (PEAR)	21
4.4.2 Comprehensive Environmental Assessment Report (CEAR).....	21
5. GENERAL REQUIREMENTS.....	22
5.1 PARKING PLAN	22
5.2 LANDSCAPING DESIGN PLAN.....	23
5.3 BURIAL SITES AND GRAVES – CONDITIONS APPLY	24
5.4 ACCESSIBILITY.....	25
6. GLOSSARY	27



1. INTRODUCTION

This policy is an important tool to use for the essential stage in the planning and design of any new building. A building is defined as a structure with enclosed or open walls and a roof, for either residential, commercial, industrial, religious, educational or special use purposes. These include family homes, shops, warehouses, multi-use complexes, factories etc. The policy puts in place provisions to balance social and economic needs along with environmental protection. The Policy has been prepared by the Planning and Urban Management Agency (PUMA) to guide the planning for a building to ensure a sustain balance between the development and its surrounding physical and social environment. This policy applies to all building type developments for all areas of Samoa. This document will also refer to the standards set in other legal documents such as National Building Code 2017 as well as other PUMA planning documents such as the Urban Design Standards 2018 and the Vaitele Sustainable Management Plan 2012.

This Policy is a key document that should be used in the planning stage of constructing a building as it provides information on what the developer needs to comply with when designing and planning a building.

2. PURPOSE

The purposes of this Policy are to.

1. To provide details on the Development Consent Requirements for any type of building development.
2. To provide the development standards for each of the specific elements required for the Development Consent Application.

3. OBJECTIVES

The objectives of this Policy are to.

1. Provide a resource document which addresses social and environmental concerns at the individual site level for building. They will ensure that acceptable standards for planning and development are maintained for the benefit of the community now and in the future.
2. ensuring reasonable levels of safety; health and amenity are provided for in the planning process for building developments.
3. promote good land planning and all building developments within a framework that: responds to site plan; seeks to obtain more consistency and certainty in the planning process at the local site and village level.
4. enhance the quality of life and health of the community and environment; and
5. Support the aims and objectives of the *PUM Act 2004* and the *Urban Design Standards 2018*.

4. Development Consent Application Requirements

4.1. Site Plan

A site plan—sometimes called a layout plan/site layout/site analysis/plot plan—is an architectural document that functions as a readable map of a building site, giving all the details that is needed



Policy for Building Development

to know about how the structure will be oriented on the lot. An architect, draftsman, engineer, builder or contractor can create Site Plans that shows the plot of land and its property lines, along with its landscape features, structural elements, setbacks, driveways, utility poles and power lines, fencing, and on-site structures (see example: figure 1 &2).

The Site Plan must be based on a survey drawing produced by a qualified surveyor and contain a reference number and date including an analysis of existing environmental, physical and socio-cultural features. A Site Plan ensures that.

Importance of Site Plan

- To ensure that the proposed building development is supported by an appropriate level of site plan.
- To site buildings with regards to the physical, environmental and cultural features of the site and external surrounds including natural hazards.
- To ensure the design of the building development responds to the physical, environmental, social and cultural features of the site including any external influences; and
- To ensure other existing plans and policies are considered in the site plan process including Community Integrated Management Plans which identify natural hazards such as flooding, erosion, landslip and areas sensitive to coastal hazards.
- Should consider the assistance from the Watershed section in the Ministry of Natural Resources and Environment (MNRE) to ensure that all water catchment areas are well secured.

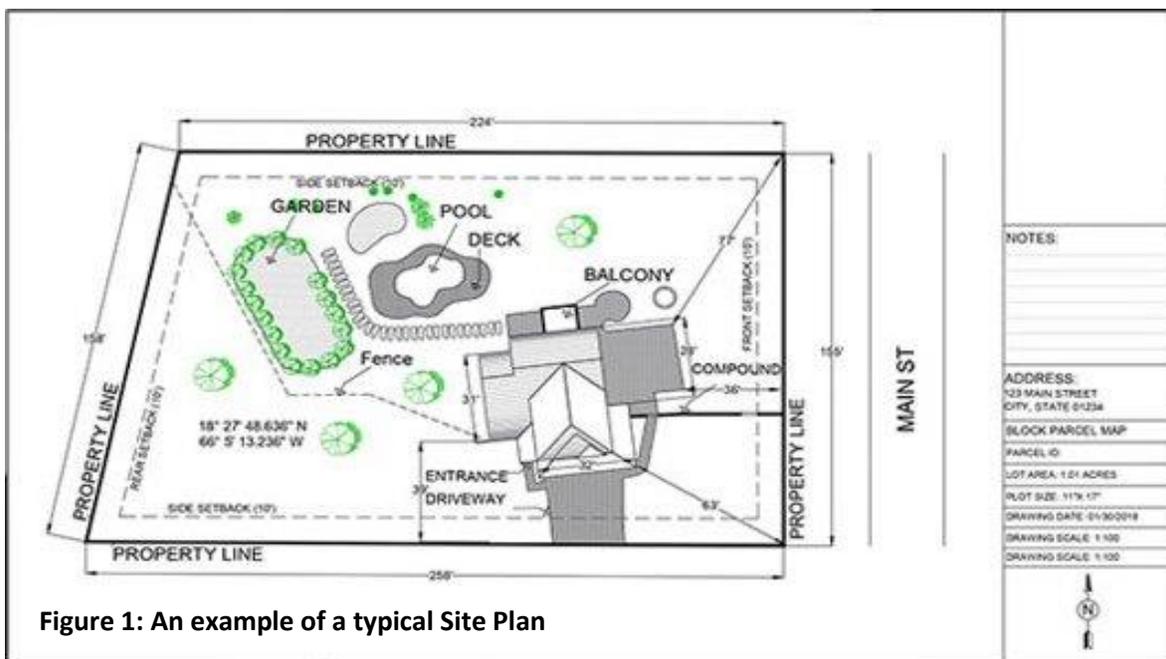


Figure 1: An example of a typical Site Plan

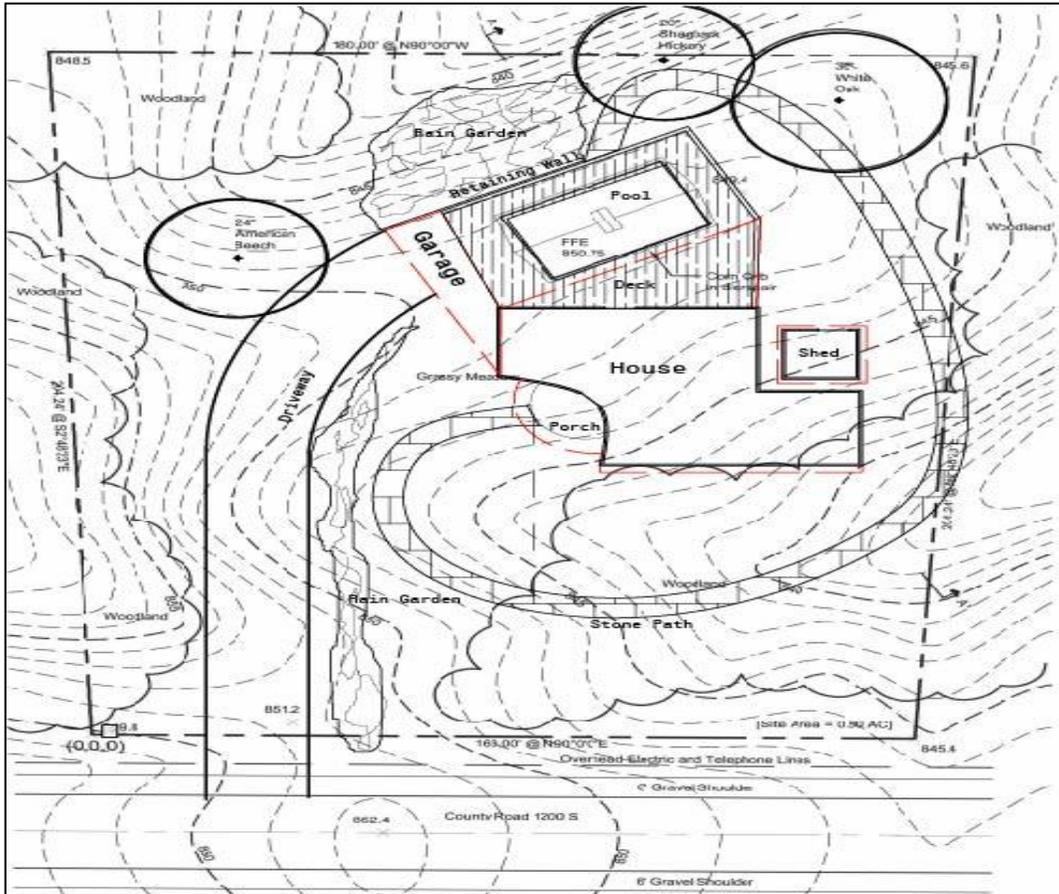
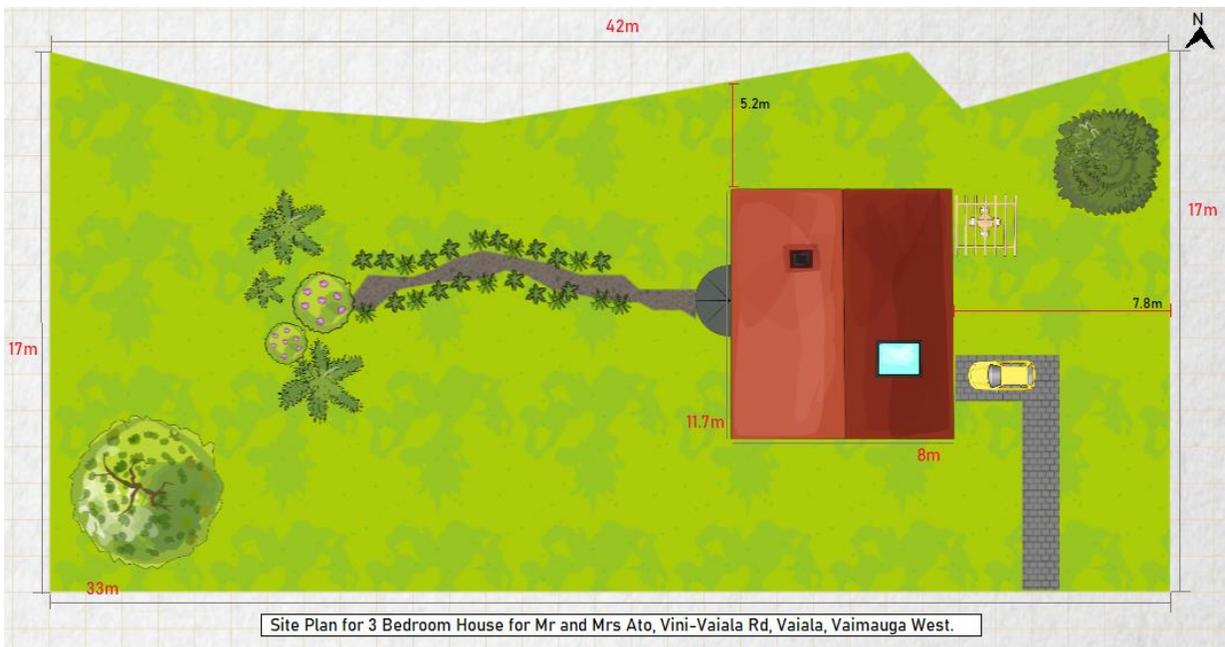


Figure 2: Another example of a Site Plan showing the contour lines of the site



Site Plan for 3 Bedroom House for Mr and Mrs Ato, Vini-Vaiala Rd, Vaiala, Vaimauga West.

Figure 3: Another Example of a Site Plan



DEVELOPMENT STANDARDS FOR A SITE PLAN

4.1.1. Title

The Site Plan must have a title to explain what the proposed development is, the developers and location of proposed development (E.G Site Plan for New 2 Bedroom Residential house for Mr. and Mrs. Ato, Vaiala, Vaimauga West.)

4.1.2. North Arrow (True North)

The Site Plan must be accurately orientated to True North in order to determine the layout of the proposed building on the site. The True North must be indicated by a North Arrow on the top right hand of the Site Plan.

4.1.3. Property Boundaries and Easements

The Site Plan must be scaled and provide accurate dimensions of the legal (or surveyed) property boundaries and easements (right of way access into the property). The property boundary and easements must use Metric Measurement Units. For customary land where there are no formal boundaries its site plan may not include boundaries but must provide clear proposed setbacks from existing features (including buildings) on the land. See 4.1.5 for more information.

4.1.4. Proposed Building Footprint

The Site Plan must also include a scaled overview of the proposed building footprint and the location where the proposed building will be built within the property boundaries. The building footprint measurements must use the Metric Measurement Units.

4.1.5. Setbacks

A setback is the minimum distance which a building must be located from the property line, street or road, a river or other stream, a shore or flood plain, or any other place/structure which is deemed to need protection. This setback distance is measured from the legal property boundary line to the outermost eaves of the building or where there are no eaves then the exterior wall of the building will be used.

The Site Plan must clearly show the setback distances using metric units (meters) for the proposed development against the property boundaries and existing features on the land.

The setbacks of a development whether residential or commercial would vary accordingly to the height of the development (see also Section 4.3.1.5) or building which varies the setbacks stated in the Urban Design Standards, 2018 shown below.



Policy for Building Development

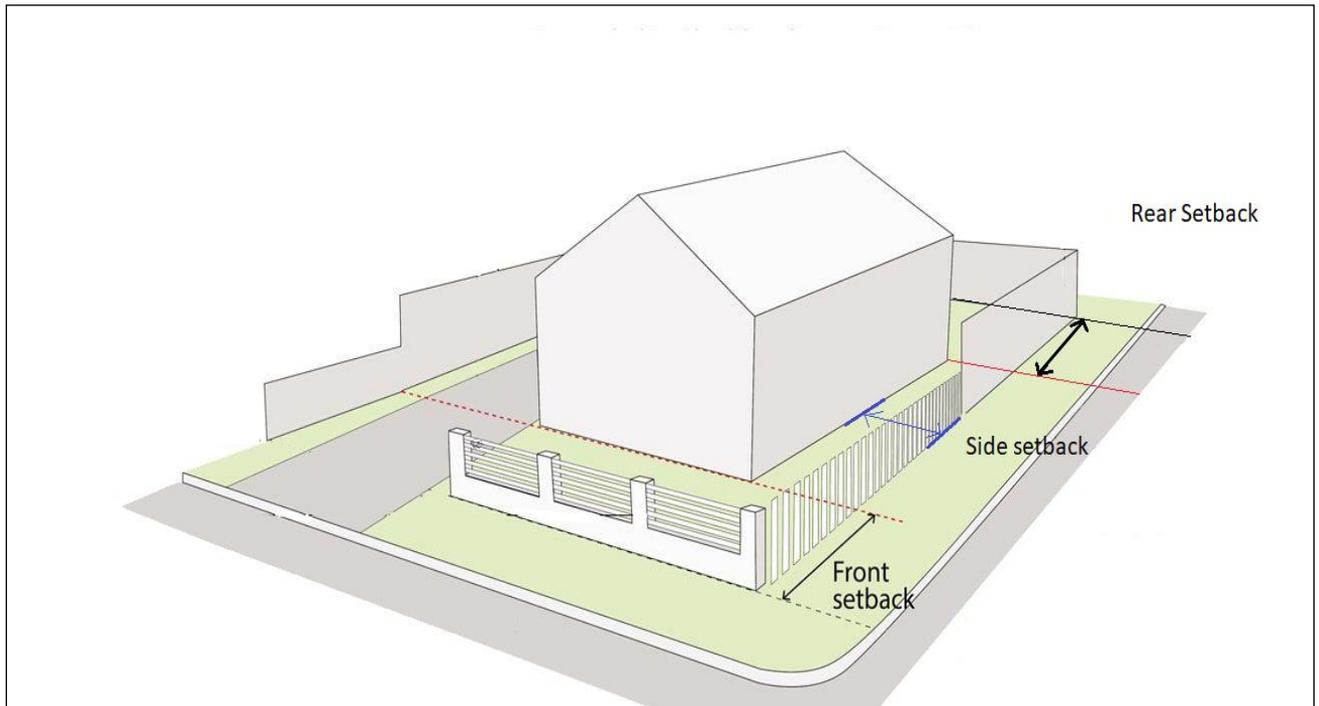
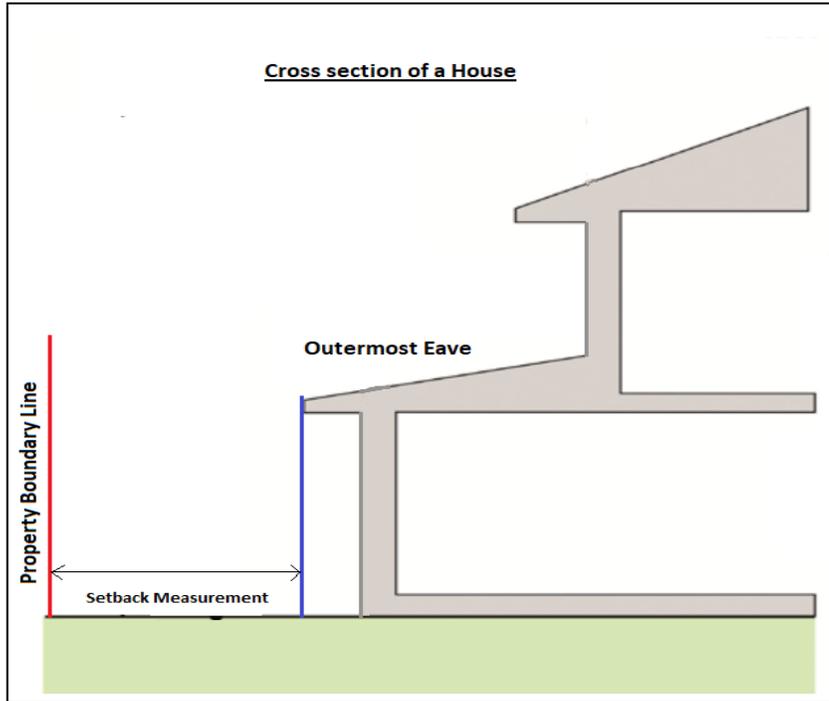


Figure 4: Illustration of where setbacks are measured in a property.



Table 1: The table below states the approved minimum set back distances for buildings.

Proposed Building Use	Adjacent Building Use	Minimum required setback (m)		
		Front	Side	Rear
Residential	Residential	3	3	3
Retail or mixed – use	Residential	3	3	3
Retail or mixed – use	All other non-residential	0** or 2	0** or 1.5	2.5
Industry (light industry only)	Residential	5	5	5
Industry (light industry only)	All other non-residential	5	2	5
Entertainment, Recreation, Religious Institution, Transport	All	5	5	5

****This applies only to Convent Street, Vaea Street, Saleufi Street, Beach Road, Fugalei Street, Matautu Street as stated in the Urban Design Standards 2018 and this is subject to additional conditions.**

Please also see 4.3.1.5 for additional setback distance conditions based on height.

4.1.6. Existing Buildings and Features on and around site

The Site Plan should also show and identify the key land features on and around the site such as existing buildings and structures, main roads, drainage paths (see Figure 2 below).

4.1.7. Site Coverage

Site coverage is the proportion or ratio of a site or land that is covered by buildings and the proportion of the land reserved for open space. The maximum built area site coverage for all areas in Samoa **must be 60% of the land and 40% of open space**. Site coverage includes all built surfaces (for example, houses or other structures such as garages, gazebos etc.) including driveways and concrete surfaces.

The exception to this is the

- Vaitele Commercial and Industrial Area
- Apia Central Business District and
- Waterfront areas where the maximum site coverage is provided in table 2.

Importance of Site Coverage

- To ensure that the extent of housing development on site has regard to residential amenity, street and village character; and



Policy for Building Development

- To ensure that on-site environmental concerns such as the degree of excavation and disturbance of vegetation and mature trees, are minimized in the site development process; and
- To ensure that housing development responds to the features of the site.

How to Calculate Site Coverage

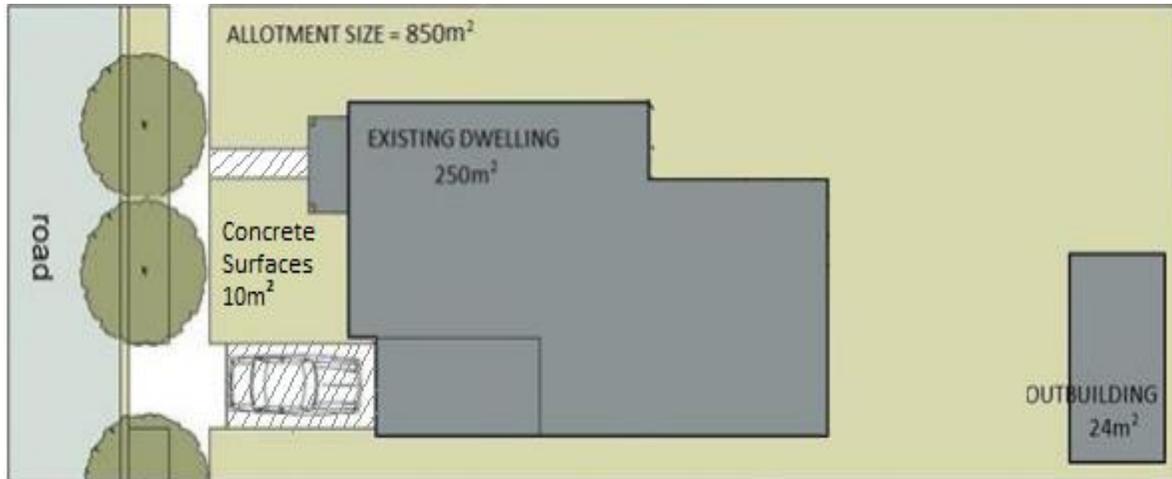


Figure 5: An example of site coverage of a property lot.

Existing Allotment of 850m²

To find out what the built area site coverage percentage is,

1. First you add the area of all the buildings and the concrete or impermeable surfaces on the plot to get the **total built area**.

In this example it's the Existing dwelling plus the outbuilding plus the concrete surfaces
 $= 250\text{m}^2 + 24\text{m}^2 + 10\text{m}^2$

Total Built Area = 284m²

2. To find the percentage of the Total Built Area, divide the Total Built Area by the Allotment Size or Lot Area first, then multiply the answer by 100 to get the percent.

$= (284\text{m}^2 \div 850\text{m}^2) \times 100$

Built Area Site Coverage = 33.41%

In this example the maximum built area site coverage is 60% or 510m², with the existing dwelling (250m²), outbuilding (24m²) and concrete surfaces (10m²) already occupying 284m² of the site, there is an additional 226m² of potential build area available before the maximum site coverage is exceeded.



Table 2: Site Coverage for the Vaitele Commercial/Industrial Area, Apia Central Business District and Waterfront Areas

LOT SIZE	MAXIMUM SITE COVERAGE
Up to 2,000sqm	90%
2,001-4,000sqm	80%
4,001sqm and over	75%

The table above applies only to developments on freehold lands excluding customary lands, leased lands and government lands.

4.1.9. Drainage

What to include in Drainage.

Any new proposed development/building must be adequately drained so that damage to subject and neighboring properties resulting from storm water flows and flooding is minimized. On-site changes to natural landform for housing such as site excavation, tree and vegetation clearance as well as changes to levels for roads and bridges often results in alteration of drainage patterns. Thus, drainage systems must be designed with capacity to accommodate the appropriate storm flows. Where possible, downstream flows should reflect flow rates that do not exceed levels prior to development. Importantly, the environmental values and physical characteristics of receiving streams, waterways and inshore marine waters should be protected from degradation resulting from changes to the quality and quantity of runoff from building development. Drainage systems need to be designed as part of the **Site plan and Design plan**, utilizing on-site open space for runoff infiltration and storm water retention where possible.

Importance of Drainage

- To minimize increases in storm water runoff.
- To prevent local nuisance flows and storm water damage to property and people.
- To contain drainage flows to levels which are acceptable to the community.
- To provide for drainage systems which are economical, and which utilize open space and on-site undeveloped land for infiltration as far as possible.
- To protect where possible from runoff the soil resources and village amenity including physical characteristics of receiving streams; and
- To enhance the environmental values of the site where possible through the integration of storm water management.

What to consider when building

The drainage plans shall reflect that:

- The on-site drainage system be designed to ensure that existing downstream flows are restricted to predevelopment levels unless otherwise agreed by PUMA or other referral agencies.
- The drainage system shall be accessible and designed for easy maintenance with no hidden flow paths.



Policy for Building Development

- The drainage system shall be designed to minimize potential for accumulation of silt and debris by including traps for collection and removal at accessible locations.
- The drainage system shall be designed so that any on-site overflow will be directed to the major drainage system, thus minimizing damage to property and village safety.
- Where soil permeability allows, soak pits in terms of size and spacing shall be strategically provided on site for infiltration of storm water.
- Storm water must be prevented as far as possible from entering on-site sanitation systems. For any new building have no drainage for water should consider having gutters to alleviate and avoid flooding from storm water.
- Soak pit to be mandatory for wastewater for any development.
- Outside drainages must reveal on site plan.
- Drainage should not end up on street/roads.

4.1.11. Sanitation

On-site sanitation systems for housing such as septic tanks and pit latrines need to be located appropriately and function properly. Inappropriate siting of pit latrines and septic tanks in the Apia urban area has meant that some on-site systems drain directly into adjoining streams and rivers, some are located adjacent to housing and food preparation areas, while some are in close proximity to wells or are placed directly on side and rear boundaries.

In low lying areas where the water table is high, on-site systems (especially pit latrines) are subject to flooding and inundation, making it hard for effective anaerobic and aerobic decomposition to take place and effluent to be properly absorbed. If not properly designed and maintained, septic tanks can often smell because either the absorption trenches or soak pits for effluent disposal are blocked, or the soil and hence the design of the soak pit or absorption trench is not suitable to absorb the effluent, or desludging of the tank is not carried out on a regular basis. There is good public health and environmental reasons for promoting the effective siting of pit latrines and septic tanks in all housing areas.

Importance of Sanitation

- To promote good public health practices with regard to the siting of on-site sanitation systems.
- To minimize the impact of effluent from on-site systems on the environment, especially in low-lying, high-water table areas.
- To promote good design and layout of on-site sanitation systems which have regard to the prevailing environment, including the results of the site plan and relationship to external surrounds; and
- To ensure that where a reticulated sewage system does exist, development will be required to connect to it.

What to consider when building

The choice of on-site sanitation system should be developed after consideration of the physical, environmental, social and cultural features of the site and external surrounds. The plan for the on-site sanitation system shall indicate:



Policy for Building Development

- The siting of the main chamber(s) of the septic tank, pit latrine or other approved system and the location.
- The extent of effluent disposal areas in relation to the dwelling house(s) and plot boundaries.
- The siting of any on-site wells used for potable water supply in relation to the location of the sanitation system including effluent areas.
- Absorption trenches to be no closer than 15 meters from a stream or river.
- Septic tanks and Soak pits to be no closer than 30 meters from a stream, river or any other water source as well as marine protected areas
- Absorption trenches and soak pits shall not be located within the designated setbacks for front and side boundaries.
- No discharge] to adjoining properties, stream, river, drain, or public space.
- No unlined pit latrine to be provided in low lying flood prone areas of Apia unless otherwise approved by PUMA.
- Compliance with the National Building Code including any amendments.
- The comments of the Samoa Water Authority, Ministry of Health or any other referral authority.

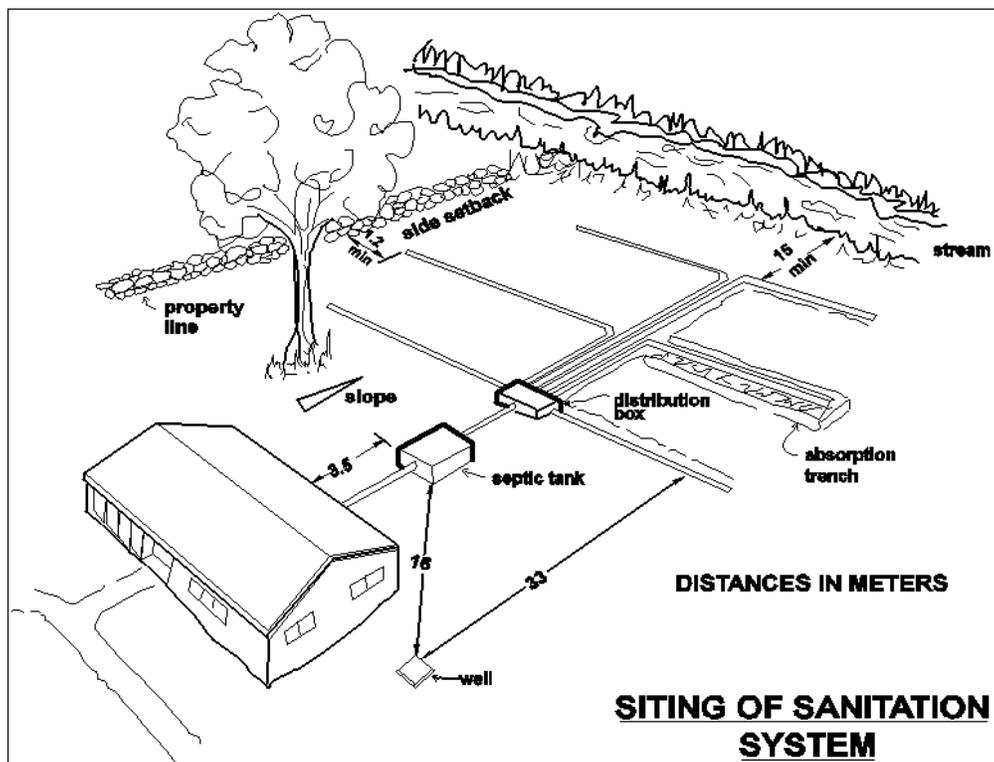


Figure 6: Siting of Sanitation System

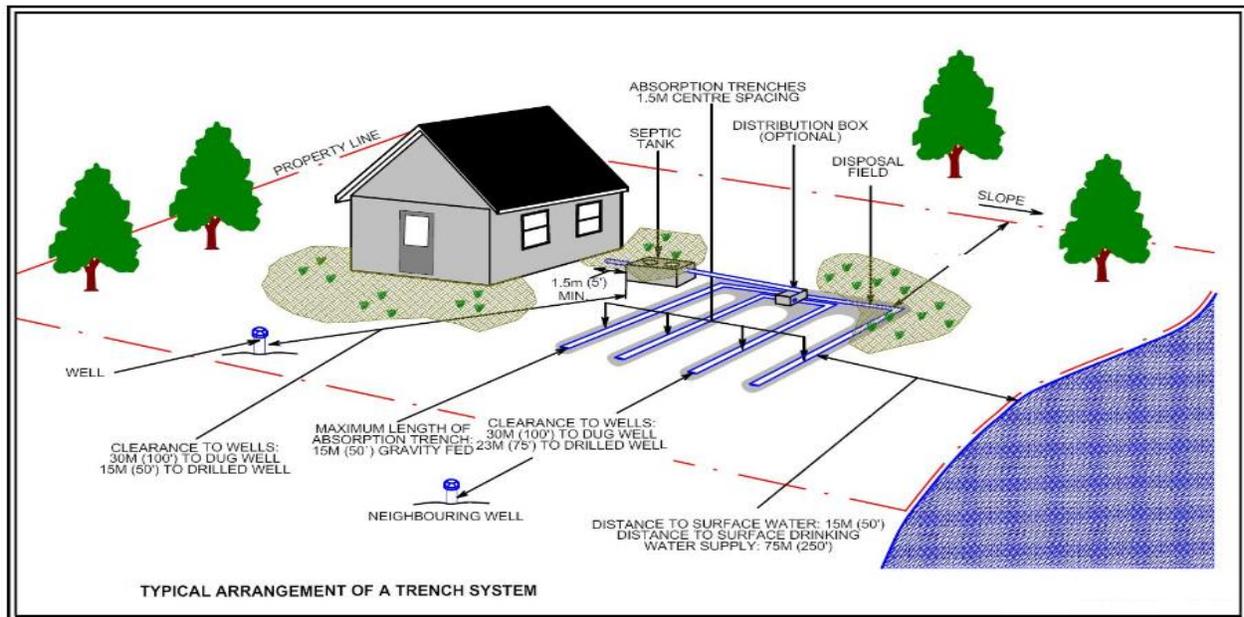


Figure 7: typical arrangement of a Trench System for wastewater management.

4.1.10. Other Characteristics to Include

The list below provides detailed components that must be considered when applying for a new development/building.

A. Physical Characteristics

- Property lines with dimensions to show size and shape of site (in meters).
- Existing buildings and other improvements on or near the site.
- Existing land uses of site and adjacent properties.
- Existing roads, footpaths, signs, etc. on or near the site.
- Existing utility lines on or near the site (telecommunications, water, electricity).
- Topography including slope of the site; and
- Soil conditions and geology.

B. Environmental Characteristics

- Existing plantation areas including any crops.
- Existing cover of trees, and any vegetation removed in last 12 months.
- Significant habitats and movement corridors.
- Location of any rare or threatened species.
- Solar orientation.
- Prevailing winds.
- Views.
- Drainage patterns.
- Potential for natural hazards such as flooding, erosion and landslip.
- Reserves / protected areas.



- Waterways, streams or coastal areas; and
- Water catchments.

C. Socio-Cultural Characteristics

- Archeological sites.
- Burial grounds.
- Predominant surrounding land uses; and
- Recreational / park areas.

4.2. Land Ownership Documentation

The Development Consent Application also requires evidence of land ownership of where the proposed building will be built. The Samoan Land Tenure system consists of three main types of land ownership; Freehold or Privately owned Land, Government (or State) owned Land and Customary Owned Land (Also known as Traditional or Cultural Land). The DCA requires legal documentation or proof of land ownership and the consent of the landowners for the development.

Freehold land includes privately owned land, co-owned land, estates, corporation or company owned land and Church Owned Land. Freehold lands that are leased are also included in this type of land ownership.

Customary Land are traditional lands under the custodianship of the Paramount chief (Matai Sa'o) and/or Chiefs and the Village Council (Alii & Faipule)

The Development Standards below give details on the correct and accepted types of land ownership documentation specific to each type of land ownership type that must be provided in the Development Consent Application.

DEVELOPMENT STANDARDS FOR LAND DOCUMENTATION

Freehold Land

4.2.1. Computer Folio Certificate

This is the land registry which registers titles and properties, and the computer folio shows the name of the owner. It shows details of other person's rights over the land such as mortgages/charges easements and other rights. It is a document to prove rightful owner/s of a land and it is issued from the Ministry of Natural Resources and Environment.

4.2.2. Land Deed with Stamp Duty

A property deed is a legal document that transfers the ownership of real estate from a seller to a buyer. For a deed to be legal it must state the name of the buyer and the seller, describe the property that is being transferred, and include the signature of the party that is transferring the property.



Government Land

4.2.3. MNRE Lease Agreement

A copy of the formal and current Lease Agreement between the Landowners (Government Land is administered by the Ministry of Natural Resources and Environment 'MNRE') and the Lessee (who must be the developers that are signing off in the DCA).

4.2.4. Endorsement from CEO

For land under the ownership of Samoa Land Corporation or are registered to a specific Government Agency or State-Owned Enterprise a consent letter from the head of the respective Government agency must be provided and must clearly state

- The date (no less than 14 days older than the date when the DCA is lodged)
- the name of the landowner(s)
- their consent for the developer (state the name)
- the location of the land
- legal land parcel details
- survey plan number
- Stamped with the Common Seal of the office
- Signature of Head of the Agency

Private or Other Type of Leased Land

4.2.5. Copy of Lease Agreement

A copy of the formal and current Lease Agreement between the Landowners and the Lessee (who must be the DCA applicant/developers that are signing off in the DCA).

4.2.6. Consent Letter

In the absence of a formal lease, the applicant may provide a Letter of Consent (preferably typed and if handwritten then the writing must be legible) it must clearly state

- The date (no less than 14 days older than the date when the DCA is lodged)
- the name of the landowner(s)
- their consent for the developer (state the name)
- the location of the land
- legal land parcel details
- survey plan number
- Signature of the Owner

Customary (Traditional/Cultural) Land

Customary Land are administered and are under the custodianship of the Paramount Chief (Matai Sa'o) and/or Chiefs either individually or through the Village Council (Alii and Faipule).



Policy for Building Development

4.2.7. Certification Document(s) from Land & Title Court Division of the Ministry of Justice and Court Administration.

The Applicant MUST provide certification from the Land & Title Courts (LTC) with the official Courts stamp/seal, of the recognized Matai Title and also the registered person(s) under that Matai title that has authority to make decisions for the land in the application.

The provided document(s) from the LTC will confirm the rightful matai title and also the current registered person holding that matai title associated with the land in the development application and will ensure that there will be minimal disputes. The certification from LTC will also provide confirmation on

- the title for land in question is vacant and who can make decisions pertaining to the land and its uses, in the interim
- customary lands or titles are under legal disputes
- registered and uncontested person holding the matai title.
- Any other related issues to the land title.

4.2.8. Consent Letter

The Applicant may provide a Letter of Consent (preferably typed and if handwritten then the writing must be legible) from the Paramount Chief (Matai Sa'o) who is the known custodian of the customary land for the proposed development. In the absence of the Paramount Chief two (2) or more Family Chiefs may provide their written consent. The Consent letter must clearly state.

- The date (no less than 14 days older than the date when the DCA is lodged)
- the name of the true land custodians (the Sa'o who land is under)
- their consent for the developer (state the name)
- their consent for the proposed building (clearly state the proposed development)
- the location of the land
- Must be signed with an ink pen

The applicant must submit the original signed Consent Letter together with the DCA.

4.2.9. Signed Consent in DCA Form

The applicant may also have the landowner(s) sign and date the section on Land Ownership within the PUMA Development Consent Application form.

4.3. Design Drawings (Design Plan)

Design drawings or design plans are the drawings that provides the aesthetic and structural detail of the buildings. These drawings must be drawn by a certified architect or Institute of Professional Engineers Samoa (IPES) registered and approved professionals. These drawing must provide the metric dimensions and be scaled. The sections below detail the specific drawings needed and the required elements.



Standard design plans are provided by the Assets Management Building Division (AMB) of the Ministry of Works Transport Infrastructure for single storey residential buildings (Open and 1-4 bedroom).

DEVELOPMENT STANDARDS

4.3.1 Floor Plan

Floor plans are scale drawings that show the relationship between rooms, spaces and physical features viewed from above. They provide a way to visualize how people will move through the space.

A floor plan should show the following:

- Exterior walls
- Interior walls and hallways.
- Restrooms.
- Windows and doors.
- Appliances such as stoves, refrigerators, water heater etc.
- The use of all rooms.

4.3.2 Front Elevations

This is the entry point to the house, and it shows home features such as the entry door(s), windows, front porch or any other items that protrude from the home.

4.3.3 Side Elevations

Side elevations is a directional notation such as the right and left side elevations of a building and this determines the directions of where the building will be facing. This will also help shows the building height depth and size of the building. The elevations should show the material used for the outer walls, the roofing, guttering and down pipes (if any).

4.3.1. Height of Buildings

Height can adversely affect street and village character in combination with other design elements such as building setbacks. Excessive height results in detriment to privacy and daylight as well as excessive visual bulk. Height can become a significant concern when the height of the building exceeds the prevailing scale and bulk of surrounding buildings. Building height is defined as the vertical distance between existing ground level and the topmost part of the building (see Figure s 1). The measurement of building height includes all roofs, but excludes communications devices, antennae, satellite dishes, masts, flagpoles, chimneys, flues or the like. The exception is where the existing ground level has been lowered through excavation.

Height and mass of a building are important factors to consider in the design as tall or bulky buildings can overshadow adjacent lots and block sunlight and natural breezes.

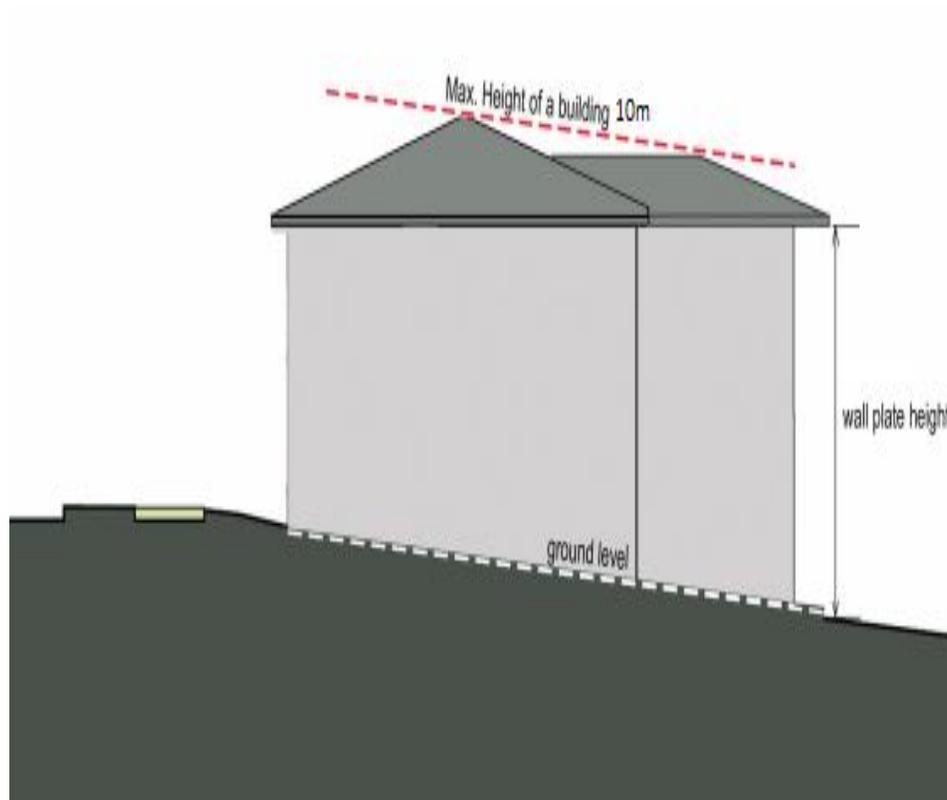


Figure 8: The building height is calculated from the highest point of the roof (see the dotted red line) to the ground level (grey dotted line).

Height and Mass Standards

- 4.3.1.1** A residential building shall not exceed 3 storeys (up to a maximum of 10 meters).
- 4.3.1.2** A commercial building shall not exceed a maximum of 15 meters. The only exception are the Core and Central Business District areas in Apia Town Area which have different height standards as set in the Urban Design Standards, 2018.
- 4.3.1.3** A special use building (schools, hospitals, government building) must not exceed 25 meters unless they are within the Core and Central Business District areas in Apia Town Area which have different height standards as set in the Urban Design Standards, 2018.
- 4.3.1.4** Any proposed building heights that exceed the maximum limits must be accompanied by supporting documentation for consideration by PUMA as a special exception to these standards.



Policy for Building Development

Special Setback based on height

4.3.1.5 Taller Buildings (3 Storeys or more or taller than 10m) should minimize shadows cast on adjacent residential houses and should allow a minimum separation distance of 6 meters from a three-storey building to any adjacent single residential houses. Increase this distance a further 1.5 meters for each storey thereafter.

Table 3: Special setback conditions based on height of building

Buildings – Up to 2 storey and less than 10 m	Follow setbacks as given in Table 1
Buildings 3 storey and 10m or higher	Minimum 6 meters setback from all boundaries.
Every extra storey from the 3 rd storey	Add an extra 1.5m to the setback

4.3.2 Rear Elevations

This will show the back side of the house, and this is another straight on view of the house.





Figure 9: Typical Design Drawings (Design Plan)

4.3.3 Other Characteristics to Include in the design plans

- Proposed uses.
- Location of proposed development including local *fale* / *faleo'o* buildings, excavations and any fill, out-buildings, burial place (grave or tomb), rainwater tanks, *umu* (traditional kitchen), landscaping, pig sty (*sai pua'a*), fences and walls, shown to scale with dimensions and distances from property lines, utilities and nearby structures (in meters).
- Impact on adjacent land uses including maintenance of privacy, particularly for outside private spaces such as outdoor cooking and washing areas.
- Availability of street access and utilities.
- Preservation of large trees, significant vegetation areas, and plantation crops.
- Impact on waterways, streams and coastal areas.
- Size, shape and bulk of proposed structures.
- Any alterations to existing vegetation and natural habitats.
- Proposed access and egress.
- Any features for special needs groups.
- Proposed parking / vehicle storage.
- Proposed utility extensions (water, telecommunications, electricity).
- Proposed sanitation including the siting of the main chamber(s) of the septic tank, pit latrine or other approved system and the location; the extent of effluent disposal areas in relation to the dwelling house(s) and plot boundaries; and location of absorption trenches; and
- How balance of land could be subdivided if there is future development potential.

Special Requirement for Large Scale Buildings

4.4. Environmental Impact Assessment Reports

An EIA is a systematic assessment of likely environmental impacts resulting from a proposed development. It predicts the impacts and recommends mitigation measures to assure that the environment is not degraded beyond acceptable limits. It addresses impacts on the physical, social and economic environment of an area. It not only considers the predicted impacts of the proposed development, but also the current state of the environment, and the sustainability of a proposed development. It is carried out in a holistic approach and should be bias free to enable the Agency and the whole community to understand the impacts of your proposed development. It is also important to note that a developer is encouraged to consult with PUMA the details of the development in order to



Policy for Building Development

determine if an EIA is required and if yes, what type of EIA report is appropriate for the development. Please refer to the EIA regulations 2007 and the PUMA EIA Guidelines for more details.

There are two (2) types of Environmental Impact Assessment (EIA) reports, and the Agency determines which is suitable for the assessment of the proposed development according to the significance of its impacts towards the surrounding environment.

4.4.1 Preliminary Environmental Assessment Report (PEAR)

A PEAR is required when the Agency considers the proposed building is not likely to have a significant adverse impact on the environment. This report is less detailed and will be based on an initial assessment of the environment, considering the environmental impacts of the proposed building and providing mitigation measures to reduce these impacts. Consultation of the neighboring property owners and affected person is a must for PEAR and the outcomes, discussions as well as evidence of attendance of these people must be well documented within the PEAR.

A PEAR should have the following.

- a brief description of the proposed building.
- a brief description of the area to be affected and the nature of the proposed change to the area (including a location map and site plan).
- a brief justification for the proposed building.
- a summary of the stakeholder consultation undertaken, the general issues raised, and responses to those issues.
- an assessment of all reasonably foreseeable adverse and positive environmental impacts, including long-term and short-term, primary and secondary consequences.
- an indication of possible alternatives to mitigate any identified adverse environmental impacts; and
- an indication of measures that the proponent intends to take to mitigate or avoid identified adverse environmental impacts

4.4.2 Comprehensive Environmental Assessment Report (CEAR)

If the proposed building development is deemed to generate significant environmental impacts, then it will require a CEAR. A Comprehensive Environmental Assessment Report (or CEAR), otherwise known as a full EIA, is a more detailed investigation report which will clearly list and reflects all the possible impacts of the proposed development on people and the environment. A full study of all the environmental, social and economic impacts both positive and negative must be thoroughly investigated and reported. The CEAR will provide possible solutions and measures to reduce negative impacts on all the different aspects of the environment and to ensure sustainability for the proposed building development at all levels. Consultations are also a key component of the CEAR.

Environmental consequences.

- a review of direct and indirect environmental effects, their significance, and risks.



Policy for Building Development

- a consideration of any potential cumulative environmental impacts that might arise in conjunction with other activities in the location.
- a consideration of the environmental effects of alternatives.
- an assessment of the likely need for additional infrastructure, including energy and public utilities.
- an assessment of impacts on the area's physical locality and amenity (including visual quality), its historic and cultural resources, and the design of the built environment.
- an assessment of social impacts on the local population and its uses of the land.
- an assessment of the implications of the use of potential environmental pollutants.
- a review of options proposed to mitigate adverse environmental impacts.
- a description of any unavoidable adverse environmental impacts, including any permanent change in the physical, biological, social or cultural characteristics of the affected environment or in the possible future use of that environment.
- an analysis of the costs and benefits that may result from the development proposal.
- the identification of any irreversible or irretrievable commitments of resources required for the development proposal.

Mitigation and Conditions

- identify any significant environmental impacts that cannot be avoided.
- identify appropriate mitigation measures to minimize any significant environmental impacts arising from the preferred alternative; and
- Recommend any proposed conditions.

5. General Requirements

5.1 Parking Plan

The absence of adequate parking requirements for building developments (excluding private residential type buildings) have led to adverse impacts on environmental (land degradation) and aesthetic (visual clutter) values. Whilst commercial land uses in Apia continue to expand and car ownership increases, it is important that the applicant provides for adequate parking on-site. Provision of off-street parking is an important component of creating a safe streetscape and ensuring improved traffic flow. For Building types that require parking for its intended users and customers a parking plan must be submitted with a DCA, and it must conform with the standards in the PUMA Parking Policy 2006.

Importance of a Parking Plan

- To ensure that car parking is adequate for needs of the building's users and the general public.
- To improve the environmental amenity of those areas which are affected adversely by parking.
- To protect environmental and streetscape characteristics of the locality; and
- To improve visual aesthetics and neighborhood character.

What to consider when building



- Please refer to the PUMA Parking Policy 2006 for the standards to consider when planning parking spaces to complement a building development.

5.2 Landscaping Design Plan

A landscaping design plan is more like a floor plan for an outdoor area. This can create a visual representation of a site using scaled dimensions. This plan includes natural elements (e.g., flowers, trees, grass) and man-made elements around the building.

What to include in Landscaping.

The Policy requires a minimum of 40% of the site to be reserved for open space. Landscaping of the open space and non-built areas including road reserves, plays a major role in contributing to residential amenity, street and village character in both urban and rural areas of Samoa. The retention of existing vegetation including plantation areas and fruit trees as well as the planting of new vegetation can address on-site considerations such as provision of food sources, reducing visual intrusion, minimizing site disturbance, stabilizing drainage flows, provision of noise buffer and other local amenity concerns.

Importance of Landscaping

- To ensure that landscaping takes advantage of the natural features of the site.
- To ensure that both existing and proposed landscaping considers the impact on adjacent properties including privacy, earth instability, erosion, overshadowing and root damage; and
- To ensure that landscaping does not interfere with service and utility lines.
- Retention of significant trees on the site.

What to consider for Landscaping

The Design plan shall indicate any mature trees and vegetation to be removed. The landscaping plan shall indicate:

- Maintenance of on-site vegetation and tree cover including schedule of trees to be removed and schedule of trees to be replanted.
- Protection of neighboring fences and property from tree root damage and overhanging tree branches.
- Restrict safe sight distances for drivers approaching the corner adjoining any property.
- Treatment of on-site wet areas including any effluent disposal areas.
- Landscaping of the front setback area with plants that reflect the natural streetscape and enhance the appearance of the locality.

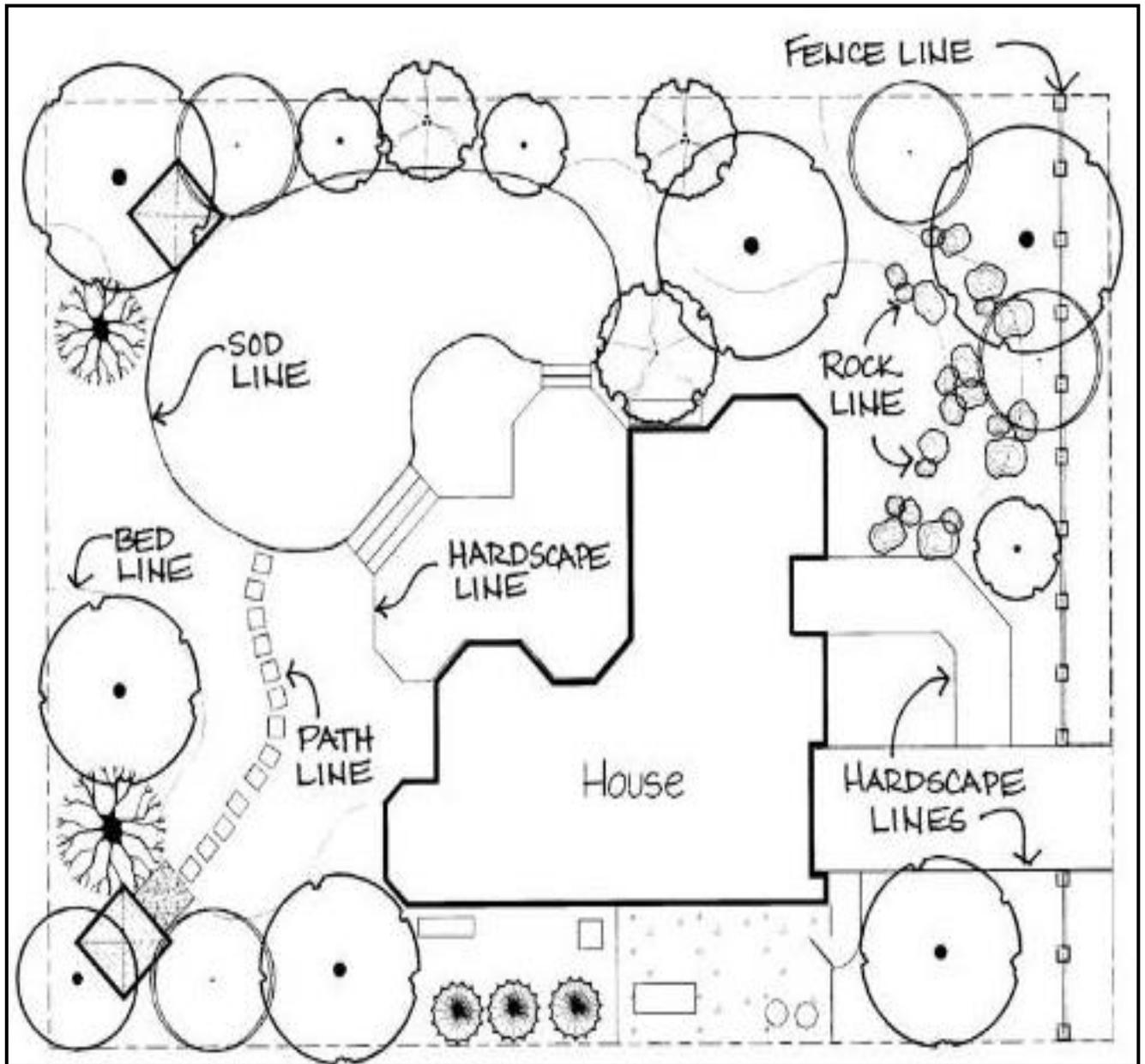


Figure 10: Landscape Design and Plan

5.3 Burial Sites and Graves – Conditions Apply

What to include in the Burial Sites and Graves.

Family Burial Sites and Graves in residential lots need to be located appropriately and constructed properly. Inappropriate siting or construction of graves in the Apia urban area could cause health issues, land disturbances and negative drainage and run-off effects.



Graves and tombs sited in the coastal hazard zones are highly susceptible and are at risk from erosion. In low lying areas where the water table is high, graves may be subject to flooding and inundation. If graves are poorly designed and maintained, they are likely to deteriorate and wear away by coastal processes. There are public health and environmental reasons for promoting the effective siting of burial sites and graves in all housing areas. Alternative locations of burial sites such as cemeteries should be encouraged in areas where there is a high-water table. Where a nearby cemetery does exist, development proposals will be encouraged to locate their burial sites within it.

The Importance of Burial Sites and Graves are.

- To promote best public health practices with regard to siting of burial sites and graves.
- To ensure that where a nearby cemetery exists, its use will be encouraged for the location of graves.

What to consider when building

The plan for the burial site and grave shall indicate:

- The siting of the graves or burial site.
- The construction of the grave, including the depth and proposed materials.
- Compliance with the Burials Ordinance including any amendments.
- The comments of any referral authority.

5.4 ACCESSIBILITY

What to include for Accessibility.

New housing development should consider accessibility for those in wheelchairs, visually impaired, the elderly, pregnant women, and parents with prams or people with mobility problems. Accessibility factors need to be considered in the design of houses and outlined as part of the **Site Plan and Design Plan**. Further detail should be presented as part of the building permit application.

Importance of Accessibility

- To ensure building development provides adequately for those with mobility impairments.
- To ensure space is provided for adequate maneuvering of a wheelchair, pram or other mobility assistance in building development.
- To provide an accessible and continuous path of travel within the site with minimal slope.

What to consider for Accessibility.

The following performance criteria should be adhered to when designing housing developments.

General

- Development should avoid abrupt vertical changes of level (kerbs, steps, ruts, gutters etc) to ensure a continuous accessible path of travel.
- Development should avoid excessive slope (camber) across the direction of travel on a footpath (which makes control of a wheelchair difficult).



Policy for Building Development

- Buildings should provide adequate forward reach and available clearance under basins, tables and benches to allow access for a person in a wheelchair as well as their wheelchair footrests and front wheels.
- Buildings should provide adequate space into doorways and within rooms to allow for wheelchair dimensions and turning circles.
- Development should avoid surface finishes which hamper wheelchair mobility (e.g., gravel, grass or deep-pile carpet) and surfaces that do not provide sufficient traction (e.g., polished surfaces).

External Access: Pathways/Ramps

- All pathways and ramps should be a minimum width of 1000mm (1200mm recommended).
- The full length of the pathway/ramp should have an overhead clearance of 2000mm.
- The pathway/ramp should have a firm, level and slip-resistant surface in all weather conditions.
- A ramp should have a slope gradient where the ratio is 1:14 or greater.
- A 1:14 ramp should have a landing every 9 metres. (Recommended landings every 6 metres).
- The landings should be 1200mm in length or greater.

Entrances

- The minimum clear opening of a doorway required is 800mm (preferred 850mm).
- The door handles should be at a height of 800mm – 1100mm.
- The door should ideally be threshold level. If there is a threshold at the entrance or doorway, a step ramp of not more than 450mm in length, less than 56mm in height and greater than 1:8 should be installed.
- There needs to be adequate wheelchair circulation space on both sides of the entrances/doorway.

Interiors

- Internal walkways should be a minimum of 1 meter wide (1.2 meter is recommended). If there are stairs, each step should be of equal height and less than 190mm



6. GLOSSARY

<i>Amenity</i>	The status of the living environment at the site, street and district level as reflected in the prevailing levels of site facilities, standards of built development, daylight, open space, visual privacy, noise, site coverage and the like
<i>Building</i>	A fixed structure which includes carports, garages, eaves and down pipes
<i>Commercial use</i>	Commercial uses means activities carried out on property developed for industry, commerce, trade, recreation, or business or being developed to be occupied for such purposes, for profit or non-profit.
<i>PUM Act 2004</i>	This Act establishes a Planning and Urban Management Agency to implement a framework for planning the use, development, management and protection of land in Samoa in the present and long-term interests of all Samoans and for related purposes.
<i>Residential</i>	relating to houses where people live and occupied by private houses.
<i>Storm flows</i>	storm runoff resulting from storm precipitation involving both surface and through flow and the maximum discharge that a particular river channel is capable of carrying without flooding.
<i>Storm water runoff</i>	Storm water runoff is rainfall that flows over the ground surface. It is created when rain falls on roads, driveways, parking lots, rooftops and other paved surfaces that do not allow water to soak into the ground.
<i>Streetscape</i>	<i>The visual elements of a street, including the road, adjoining buildings, street furniture, trees and open spaces and is used to describe the natural and built fabric of the street, and defined as the design quality of the street and its visual effect.</i>