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E4 Emu Heights – Blue Mountains Eastern Escarpment

Part A – Preliminary

4.1 Introduction

In an area as sensitive as the Blue Mountains Eastern Escarpment, development proposals must be responsive to a wide range of concerns regarding the preservation of the natural and cultural environment.

The following Siting, Design and Management section sets out in full the type of development which is acceptable with respect to the preservation of the visual, topographic, vegetative and cultural features which make the Escarpment unique. All applications to Council must respond to these guidelines and development shall be allowed to proceed only

If it is in accordance with the requirements set out in the guidelines.

In areas of moderate and moderate to high bushfire hazard, all development proposals will be required to comply with the section relating to bushfire hazard. In these situations an acceptable compromise between controls relating to visual amenity and those relating to fire hazard must be reached.

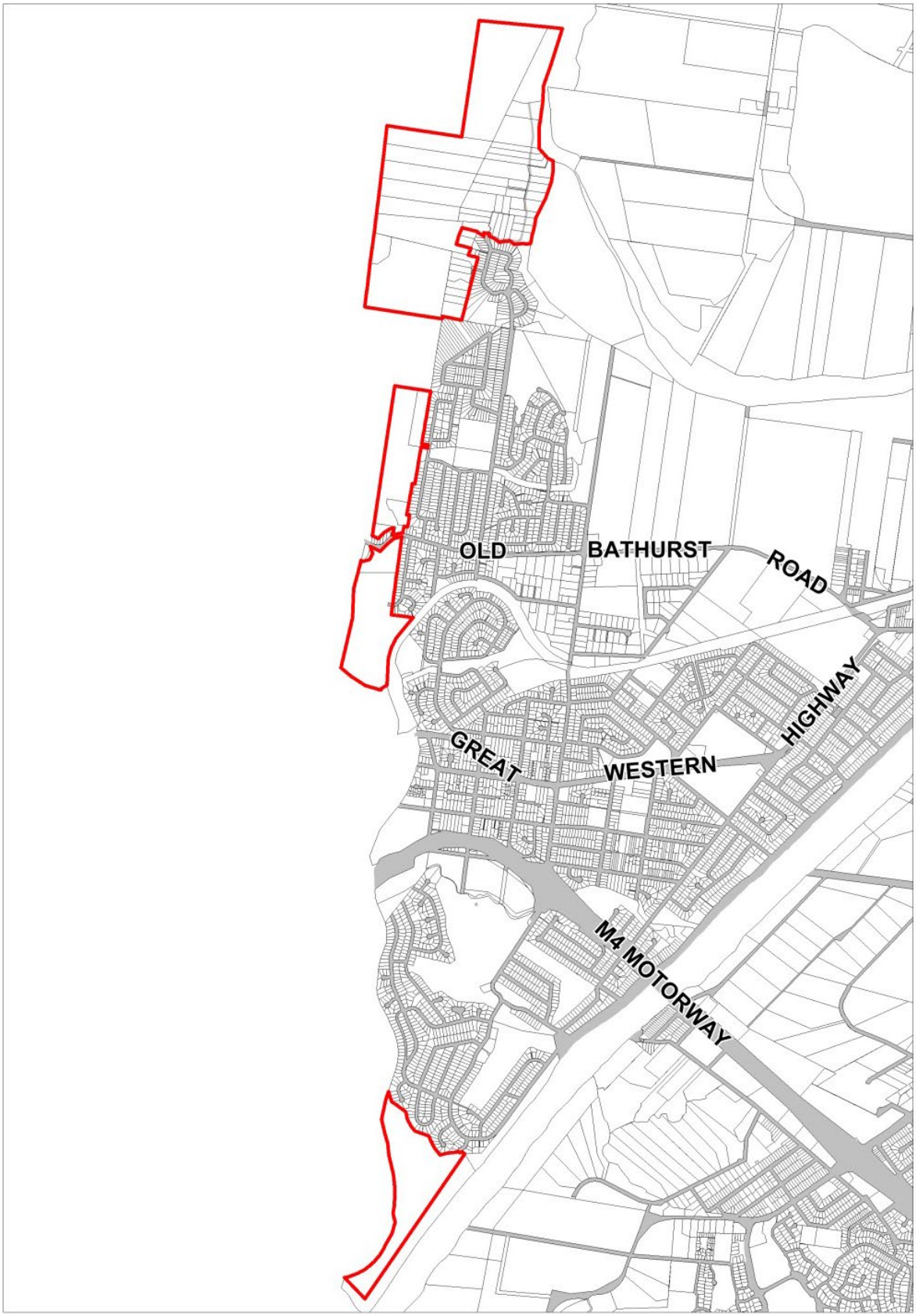
Any application must satisfactorily address development principles, objectives and policies, and must justify any variation, as well as address how the development complies with this section.

Subdivision Applications must be in accordance with the allotment layout contained in the plans accompanying this Section, as shown in Figures E4.4 – E4.8.

4.1.1 Land to which this Section applies

This section applies to the land shown in Figure E4.1.

Figure E4.1: Land to which this Section applies



4.1.2 Purpose of the Section

The purpose of this section is to give detailed guidance to people wishing to carry out development on the Blue Mountains Eastern Escarpment, and to provide Council's policies and controls with respect to development.

4.1.3 Aims and Objectives of this Section

a) To provide detailed guidelines and controls for development on the Blue Mountains Eastern Escarpment lands.

b) To provide Council's policies to assist those people wishing to carry out development on the Blue Mountains Eastern Escarpment lands.

c) To ensure that such development does not compromise the environmental qualities of the Blue Mountains Eastern Escarpment.

d) To identify lands for environment protection and to strictly control development within these lands.

e) To ensure that the tree covered natural appearance of the escarpment is retained.

f) To ensure that in any development of the land, regard is had to physical constraints including bushfire hazard, slopes, soil erosion hazards, flooding and access difficulties, as well as archaeological issues.

g) To ensure that in any development of the land, regard is had to the visual prominence of the area.

h) To ensure that in any development of the land, provision is made for an adequate water supply and environmentally acceptable waste water disposal system, drainage systems and electricity supply systems.

4.1.4 Special Requirements

1) **Easements and Rights-of-Way:** Where indicated on accompanying Figure E4.4 – Map 3, all easements and rights-of-way are to be formally negotiated and registered. A formal fire fighting easement is to be provided in accordance with the accompanying Figure E4.4 – Map 3. It is to be 5m in width, with turning bays in some cases, and is to involve the removal of undergrowth and, where necessary, the removal of trees to allow for the passage of fire fighting vehicles. The fire fighting easement must be grassed and appropriately drained to prevent erosion.

2) **Plantings:** Replanting is to be carried out using suitable species. On lots so marked on accompanying Figure E4.4 – Map 3, as 'lots marked as such to be planted with fire resistant species', fire resistant species are to be used. This requirement does not imply the removal of all trees on site and replacement with fire resistant species, it relates only to replanting following completion of works on site.

3) **Protected Lands:** Some of the lands may be subject to the Protected Lands provisions of the *Soil Conservation Act 1938*. Applicants are required to check with the Office of Environment and Heritage about the applicability of those provisions to their proposal. If relevant, Council is required to be notified.

4) **Siting, Design and Management Guidelines:** The following guidelines set out the detailed controls on development in the area covered by this Section. They aim to minimise impacts on the natural environment of the Escarpment and all development proposals must address the provisions contained within them.

Part B – Controls

4.2 Siting

A. Background

Visual impact, energy efficiency, and access to views and privacy are largely dependent upon where a building is located and how it is oriented. In environmentally sensitive areas particularly, the site selection process must involve consideration of the orientation, direction of views and slopes, relationship to the landscape and retention of existing vegetation.

Building forms must stay below the ridge lines so as to retain the visual character of the escarpment.

B. Controls

1) A position on a mid-slope bench where the topography provides a natural enclosure, and where existing vegetation can provide screening, is preferable.
2) Buildings must be on slopes less than 1:5 (vertical: horizontal).
3) Where possible, and having due regard for the bushfire hazard, orientation of buildings is to be towards the north.
4) Generally, a setback minimum of 15m from roads is required. Parking areas are not permitted within this setback.
5) A setback of 80m from the Nepean River bank is required.

4.3 Construction and Earthworks

A. Background

On steeper slopes, earthworks will be highly visible and there may be stability problems. Thus, site disturbance is to be minimised so as to retain the visual character of the escarpment.

Details of erosion and sediment control are required for inclusion in a subdivision and development application when site disturbance is proposed.

B. Controls

1) Where relevant, proposals for the following erosion control measures must be included in any application:
    a) Effective sediment traps in drainage courses prior to construction.
    b) Provision of overland flow diversions above and below development sites.
    c) Vehicular traffic to be confined to sealed roads or parking bays.
    d) Suitable ground and/or shrub cover to be established in all landscaped areas as soon as construction is completed.
    e) Site and excavation works is to be limited to the immediate building envelope.
    f) Maintenance of control measures.
    g) Rehabilitation techniques.

    These proposals are to be included in an erosion and sediment control plan.

2) Surplus excavated material is to be removed from the site.
3) Restoration of all site disturbances is required prior to occupation of buildings.
4) Cut and fill depth is to be minimised.
5) Slab on ground construction is inappropriate on slopes steeper than 1:10. Elevated floors are required on these slopes. Caution must be taken here in areas of bushfire risk.

4.4 Building Design

A. Introduction

Thorough site analysis and planning is essential to ensure that the building responds to the site rather than trying to modify the site to fit the building. This will ensure that the bushland character of the Escarpment is maintained.

Particular attention should be paid to the visual prominence of the buildings. Buildings which have their main lines at right angles to the natural ground slope appear obtrusive. The strong triangular geometry, of for instance an A-frame or a gable, gives an unacceptable vertical emphasis to the building.

B. Controls

1) Facades and roof lines should be broken into small elements. No single plane or element is to exceed 10m in any dimension. Walls can be relieved in elevation by use of bays and recesses.
2) The longer facades of the building are to be parallel to the contours.
3) Horizontal emphasis is to be given to the composition of building elements such as wall panels, windows, roof and verandah lines.
4) Verandahs, wide eaves, pergolas and trellises serve to relate structures to natural ground level and to vegetation.
5) Split level buildings, which step up and down the slopes, will avoid cutting and filling, and will avoid the need for high walls.
6) To avoid piers, stilts and poles, build load bearing structures directly from the ground.
7) Tanks, sheds, carports and garages are to be screened by vegetation and walls, and are to be built to link to the main buildings or form part of a group of buildings and should be of similar colours to the dwelling house.
8) Round or curved buildings (either in plan or elevation) can be compatible with the landscape.
9) Dual occupancy development must be designed in accordance with the provisions of this Section and those of the Residential Development Section of this Plan.

4.4.1 Roof form

A. Background

Roof forms which bring the roof line down towards the earth, blend better with the landscape. Steeply pitched roofs usually appear obtrusive because their slopes are greatly in excess of the natural slope of the ground.

However, in hill country, it is most unusual to see a flat or low pitched roof that reflects and blends with the landform. Hipped roofs are very effective in leading the eye back down to ground level and hence are preferred.

B. Controls

1) The roofline is to be below tree canopy level.
2) Roof pitch is to be generally parallel to the surrounding ground slope with a minimum pitch of 10 degrees and a maximum of 30 degrees.
3) No single plane or element of a pitched roof should exceed 10m in any direction.
4) Top edges of roofs are to return at the same pitch rather than terminate in a skillion form.
5) It is preferable to finish the roof with wide eaves or verandahs and bring the roof edge as close to the ground as possible.
6) Solar energy collector panels are to be non-reflective.

4.4.2 Building Height

A. Background

Height restrictions apply in order to avoid loss of the visual qualities of the area. Generally, a height of more than one level is considered unsuitable.

B. Controls

1) Building heights are limited to one level (including garage) except in cases where unacceptable site disturbance will result. Split level development is preferable in such cases.
2) Where height is limited to one level, enclosed under house storage will be permitted. In moderate and moderate to high bushfire risk areas, this storage area must be enclosed.

4.4.3 Doors and Windows

A. Controls

To minimise undesirable impacts caused by the use of reflective materials, the following guidelines are appropriate:

1) Doors and window openings are to be vertical in proportion.
2) Timber construction is appropriate, subject to acceptable treatment to reduce the bushfire hazard potential.
3) Aluminium windows and doors are acceptable, provided that the frames are of acceptable colours (brown, green, cream etc.).

4.4.4 Fences

A. Background

To minimise impact on the bushland character of the area, minimal or no fencing may be appropriate in some locations. However, appropriate fencing will be required to assist with bushland management.

B. Controls

1) In general, fences are to be unpretentious and simple. Timber post and rail style is appropriate.
2) Masonry, brick block work, stone, and light colours, are inappropriate for fences.
3) Natural colours are to be used. Natural timber, colours in the green range (excepting bright greens), and grey to light browns are appropriate for fencing.
4) Fences are to avoid the “No Development” areas, as identified in Figure E4.4 (Map 3).
5) Fences along the boundary of the E2 Environmental Conservation and E3 Environmental Management zones should be of the type which does not allow the passage of domestic animals.

4.5 Building Materials

A. Background

Natural textures and materials are less obtrusive in a bushland setting and are therefore more appropriate. Generally, those which most closely resemble the natural materials in colour and texture are the most appropriate.

Large, flat expanses of reflective materials are best avoided, as are highly textured, variegated or brightly coloured bricks. Consideration must also be given however to the types of materials most suitable in bushfire prone areas.

B. Controls

1) Suitable wall materials, subject to bushfire hazard rating, are:
    a) timber (treated or stained);
    b) weatherboard;
    c) treated concrete blocks;
    d) brick / brick veneer;
    e) stone;
    f) steel.
2) For rooves,:
    a) Tile;
    b) corrugated steel, and
    c) painted steel decking

    are appropriate.
3) Large flat areas of glass and sheet metal are not permitted, particularly on eastern elevations.
4) Stained and other treated timber materials are to be regularly maintained to reduce the bushfire hazard potential.

4.6 Building Colours

A. Background

The situation and setting of buildings should be considered when selecting materials and colours. Hence, recessive colours which are derived from, and blend with, the landscape and which are natural earthy tones of low reflective quality should be used. Particular care must be taken when the development can be viewed from public places.

B. Controls

1) Roof colours – Colours in the green range, except bright greens are acceptable; as are any of the ochre range, and the grey to brown colours.
2) Walls and other external surfaces - Natural timber and stone and bricks of the light brown colour range are appropriate. Large facades of dark bricks, even brown, accentuate the size of the structure and are inappropriate. Dark surfaces are permitted only as a plane or element which does not exceed 5m in any direction.
3) Minor features - Colour detail is appropriate on minor features such as window frames and doors.
4) Fences – Natural timber, colours in the green range (excepting bright greens), grey to light browns are appropriate for fencing.

4.7 Services

A. Controls

1) Locate electricity and telephone wires underground.
2) Services to be screened by walls and vegetation.
3) An easement for access to the transmission lines will need to be created on some allotments.
4) All necessary easements shall be created in favour of the relevant servicing authority at no cost to Council or the servicing authority.
5) Provisions for subdivisional drainage are to be devised in consultation with, and to the satisfaction of, Council's Engineering Services Manager. Proposals which would result in the pollution of the Nepean River will not be approved. On-site detention of stormwater may be required.
6) All cabling and excavations for services are to be undertaken in a manner which will allow bushland rehabilitation.
7) All dwellings and other buildings containing toilets are to be connected to the Water Board sewerage system when capacity exists within the system. In the interim, applications are required to stipulate the means of treating and disposing of effluent. This must occur in a manner that does not lead to pollution of the river.

4.8 Access

A. Background

Driveways should follow natural contours or run gently across steep slopes. Drainage lines and areas requiring extensive cut and fill should be avoided for access construction. Informal access can be more appropriate in sensitive areas.

B. Controls

1) Roads and rights-of-way are to be constructed in accordance with the plans accompanying this section and to Council's standards in consultation with, and to the satisfaction of, Council's Engineering Services Manager.
2) New roads and rights-of-way shall be created at no cost to Council.
3) Driveways are to follow natural contours and to avoid damming gullies and streams. Driveways are to be located to retain as much natural vegetation as practicable.
4) Slopes and banks of roads and driveways must be stabilised during construction.
5) To maintain a 'low key' feeling, narrow roads and driveways are to be constructed.
6) Gravel or crushed sandstone surfaces are preferable on low slope driveways. On steeply sloping land, paving or sealing is to be in a dark colour to give a more natural effect.
7) Access tracks may be constructed in 'No Development' areas, but only in accordance with the plans accompanying these guidelines.
8) It will be necessary for the method of treating and minimising runoff from roads, driveways and sediment control and restoration of all earthworks to be addressed as part of any development application.
9) The location of the road pavement within the reservation is subject to detailed survey.
10) All accessways, roads, tracks and driveways are to be constructed in such a manner that the disturbance of adjacent areas is to be minimised. This is particularly critical where access is through areas of bushland and across and adjacent to creeks and drainage lines.

4.9 Landscaping

A. Background

It is vitally important that the tree canopy and bushland vistas remain. Species chosen for landscaping purposes should be chosen with the following criteria in mind:

a) Appropriateness for location
b) Suitability for purpose e.g. for screening
c) Fire and drought resistance
d) Ease of maintenance
e) Attractiveness

Weeds should be eradicated from natural vegetation, using proven bush regeneration techniques.

A comprehensive list of suitable species is available on Council's website or by contacting Council.

B. Controls

1) Permission will not be given to remove natural vegetation from the areas marked as 'No Development' zones. Through the application of these controls, existing indigenous vegetation will be retained wherever possible.
2) Local native plant species are preferred.
3) The use of fire resistant local native species is appropriate for all allotments, but must be used on certain specified allotments.
4) Existing low plants and leaf litter are to be retained as groundcover, except where subject to specific controls in areas of moderate and moderate to high bushfire hazard areas.
5) Native grasses are more appropriate than bright green lawns.
6) Natural rock features are to be retained.
7) Random planting and groups of trees are more in keeping with the natural landscape than formal plantings.
8) Landscaping plans, to be prepared in accordance with plans included within this section, are required for all developments.
9) Bushland regeneration, using approved bushland regeneration techniques, is to be incorporated where necessary as part of a landscaping plan, and is to be carried out to the satisfaction of Council's Engineering Services Manager.
10) All mulching material is to originate from clean native vegetation from the site, to avoid the introduction of exotic species.
11) Retain/add habitat for fauna, e.g. logs for reptiles.

4.10 Bushfire Hazard

A. Background

Bushfire risks in bushland settings can be lessened by both safety measures and management measures. The aim is to reduce the use of environmentally unacceptable hazard reduction methods such as controlled burning, by paying attention to building design and siting.

B. Controls

1) All allotments must comply with the requirements of *Planning for Bush Fire Protection 2006* and the Australian Standard for the Construction of bush-fire prone areas AS3959-2009 and the guidelines as identified on Figure E4.4 – Map 3. Advice from Council's Development Services Department should be sought prior to lodging an application with Council.
2) In order to maintain the firebreak and fuel reduced zones, a 5m wide access-way for fire fighters is to be provided within allotments and registered as fire prevention easements. The final location is to be subject to survey. This access-way is to provide for vehicular movement and may require removal of trees and undergrowth. In all cases, the access-way is to be grassed and appropriately drained to prevent erosion.

3) Preferably, houses are to be located on, or at the base of, gentle south or south east facing slopes. These slopes are more damp and usually on the downslope side of a fire.
4) When building on slopes, it is safer to build the house on a ‘cut in’ bench rather than have it perched on the slope on stilts.
5) Ensure that there are at least 2 ways out from the site, with one preferably to the south east, so that in the event of fire, escape is away from the primary fire danger zone.
6) When siting buildings, consideration should be given to possible uses of existing trees for wind break protection. Eucalypts are preferable for windbreaks as they are capable of regeneration. Firebreak trees should be cleared of branches to a height of 2m above ground level to prevent ground fires climbing the trees.
7) Most fire resistant vegetation is that with high leaf moisture content, low resin content and minimal dead matter during the fire danger period. When choosing appropriate species consider:
    a) The amount of water the trees will receive;
    b) How trees burn once set alight; and
    c) Likely regeneration or recovery rate after fire.
8) Trees should not touch walls and roofs. Plantings nearer buildings should be of the low hazard type. Fruit trees and vegetable gardens can serve as fire breaks on the fire approach side. Low ground covers should be planted and kept well watered in summer.
9) A well protected property still requires annual maintenance to maximise safety in the event of fire.

Appendix 1: Maps of Blue Mountains Escarpment Area

Figure E4.2: Map 1 – Landscape Context

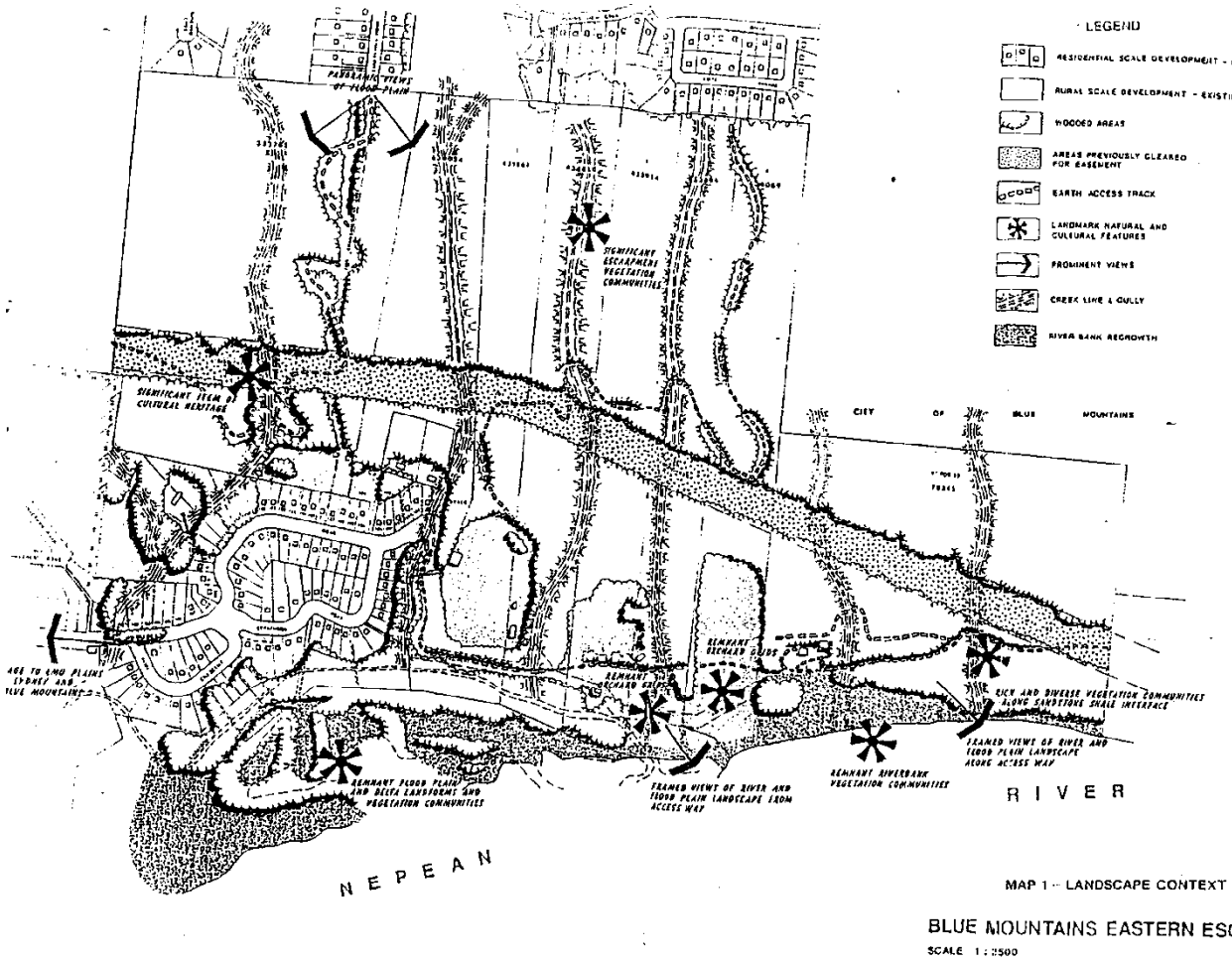


Figure E4.3: Map 2 – Physical Constraints

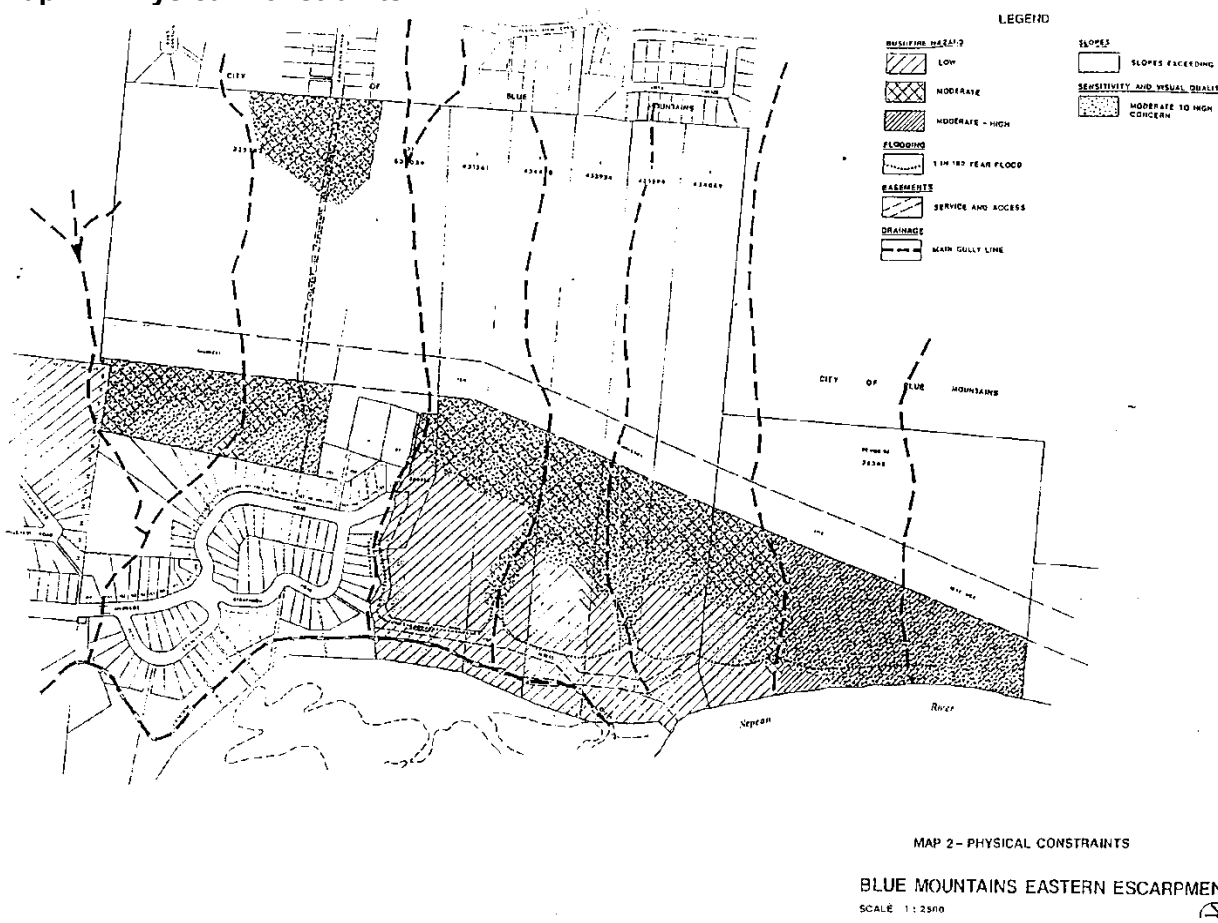
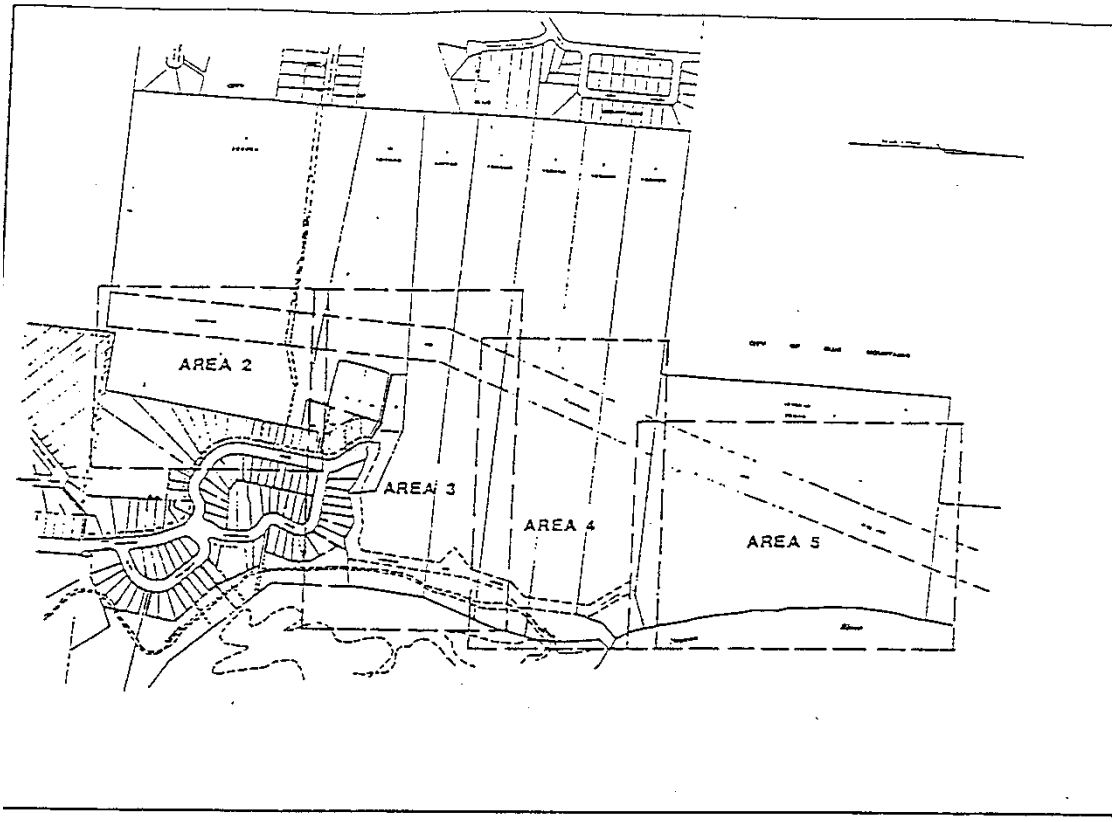


Figure E4.4: Map 3 – Subdivision Pattern and Development Controls



LEGEND

FIRE FIGHTING EASEMENT 5m WIDE TO BE CREATED

RESTRICTION TO USE (NO DEVELOPMENT)

DEVELOPMENT PERMITTED (SUBJECT TO PROVISIONS OF SITING DESIGN & MANAGEMENT GUIDELINES D.C.P.)

LOTS MARKED AS SUCH TO BE PLANTED WITH FIRE RESISTANT SPECIES

TRACK

RIGHT OF CARRIAGEWAY AND EASEMENT FOR SERVICES

BRIDGE

EXISTING BUILDINGS

MAP 3 – SUBDIVISION PATTERN AND DEVELOPMENT CONTROLS

BLUE MOUNTAINS EASTERN ESCARPMENT

Figure E4.5: Area 2

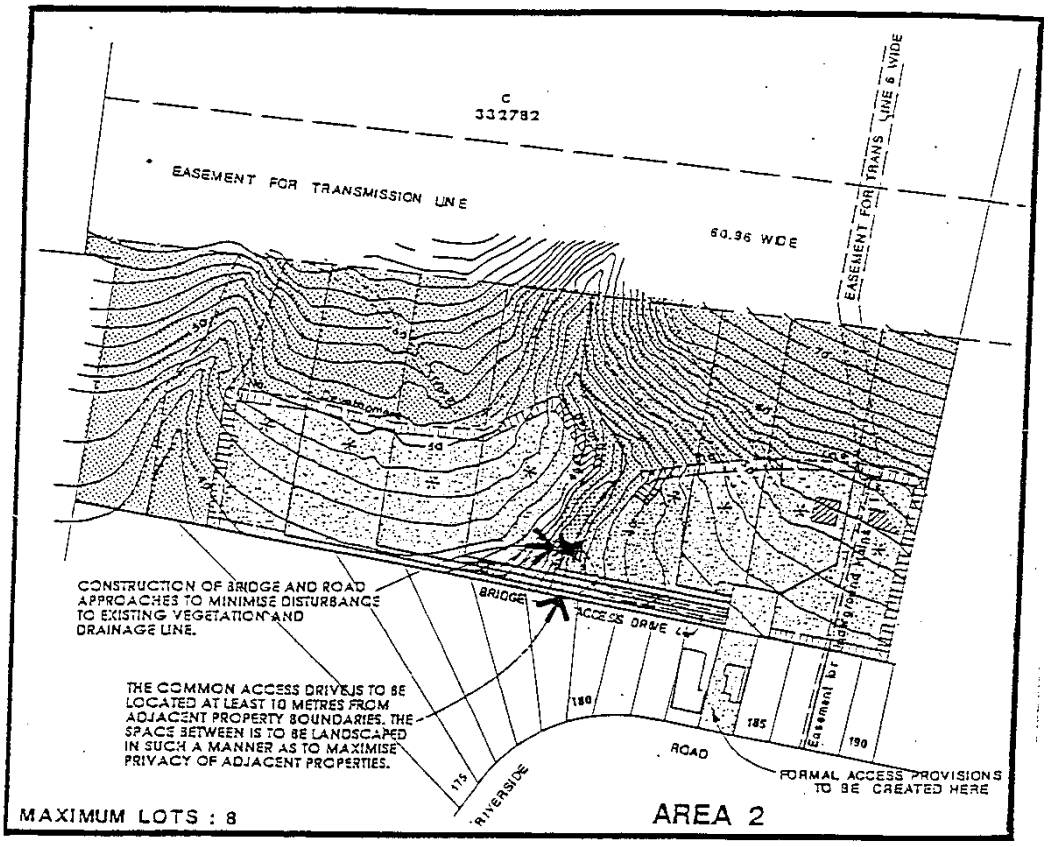


Figure E4.6: Area 3

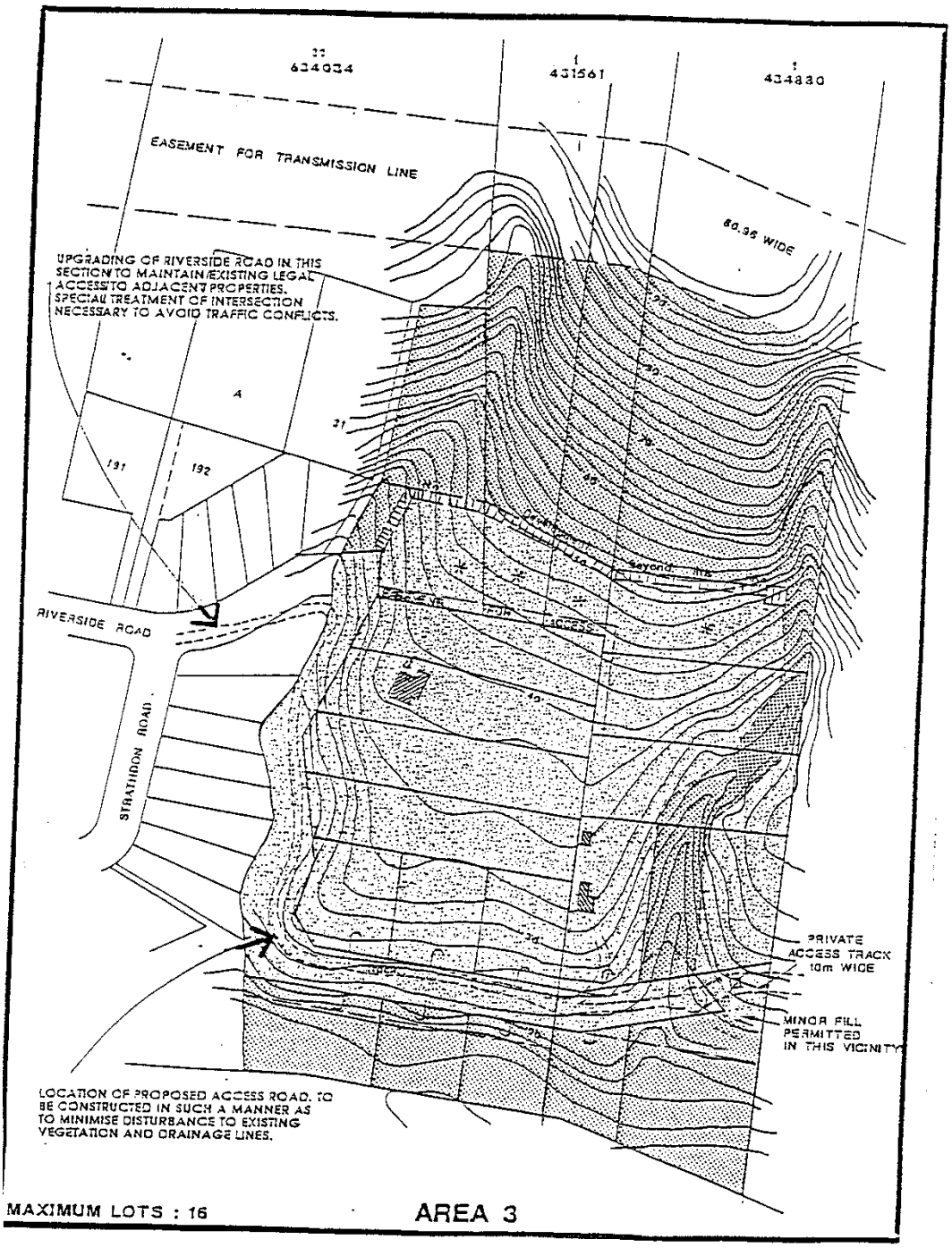


Figure E4.7: Area 4

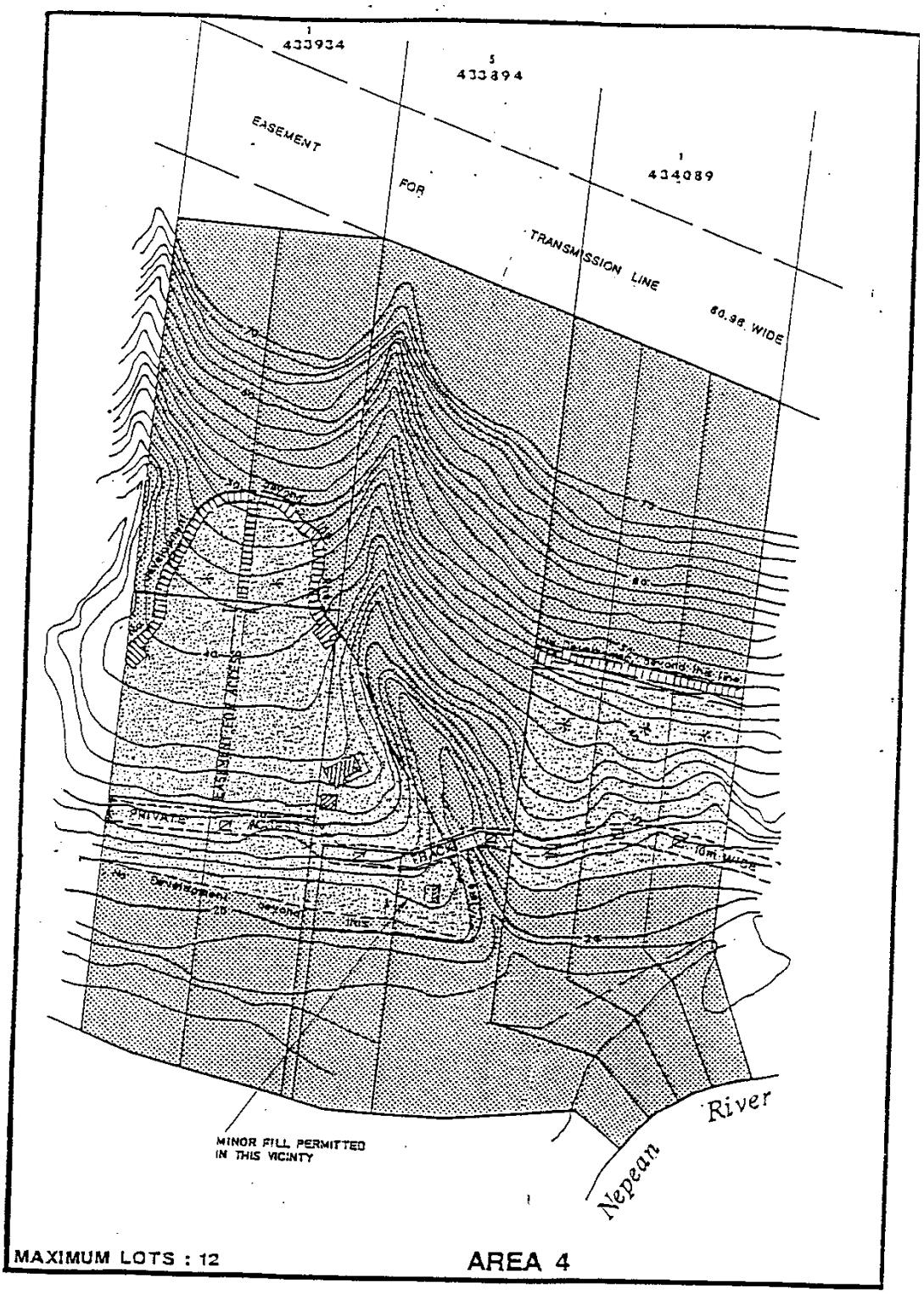


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Figure E4.8: Area 5