

Coal & Allied

NORTHERN ESTATES

MINMI - LINK ROAD

APPENDIX A ■ CONCEPT PLAN DESIGN GUIDELINES

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PREPARED BY ■ CONICS and JMD

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Introduction

This Concept Plan forms the basis of a major project application by Coal & Allied for the future development of land at Minmi in the Lower Hunter. It forms Appendix A to the Environmental Assessment (EA) prepared by Urbis, which provides a review of the Concept Plan in relation to relevant planning provisions and other general requirements.

Appendix A is structured as follows:

A.1 Urban Design Concept Plan

Summarises the key design elements and principles. The concept plan describes the development footprint, defined by the site boundaries and existing site attributes.

The concept plan is divided into the urban precincts. Each precinct is defined by a mix of urban characters. Urban characters delineate detailed street and lot layouts.

A.2 Landscape Concept Plan

The landscape strategy plan identifies the salient features found on the site and highlights these as the primary referents for the design of the broad scale planning issues down to material and plant treatment of individual streets and parks.

A.3 Development Staging Plan

Describes the intended development staging and timing for the proposed township and its precincts.



A.1 Urban Design Concept Plan

A.1.1 Background

The Minmi/Link Road site (the subject land) is positioned within both Lake Macquarie and Newcastle Council areas in the Lower Hunter Region of New South Wales. The subject land includes land to the north and south of the Link Road, is situated to the east of the F3 Freeway and is located immediately west of Blue Gum Hills Regional Park.

The subject land surrounds the existing township of Minmi and adjoins the existing residential estates of Cameron Park, The Outlook, Highland Country and Kingston Fletcher.

Development of the subject land has been identified as future urban area within the Lower Hunter Regional Strategy. In finalising the Strategy, the NSW Government reached an agreement with Coal & Allied for the dedication of 3,322ha (80%) of their land for conservation corridors upon receipt of development rights on 849 ha (20%). This agreement is set out in a Memorandum of Understanding (MOU) between Coal & Allied and the NSW Government.

The original development footprint of approximately 526ha was prescribed in the documentation supporting the MOU. The development footprint was modified from that originally prescribed, following a detailed analysis of the opportunities and constraints associated with the subject site. In particular, the visual impact of the development on the adjacent existing Minmi settlement was one of the key factors influencing the final development footprint, as well as ecological, flooding and geotechnical constraints.

The Concept Plan has been developed on the basis of five distinct precincts; which link the existing Minmi Township and the neighbouring residential estates of Cameron Park, The Outlook, Highland Country and Kingston Fletcher. The key features and characteristics of these precincts are discussed in detail in the following sections of this document.

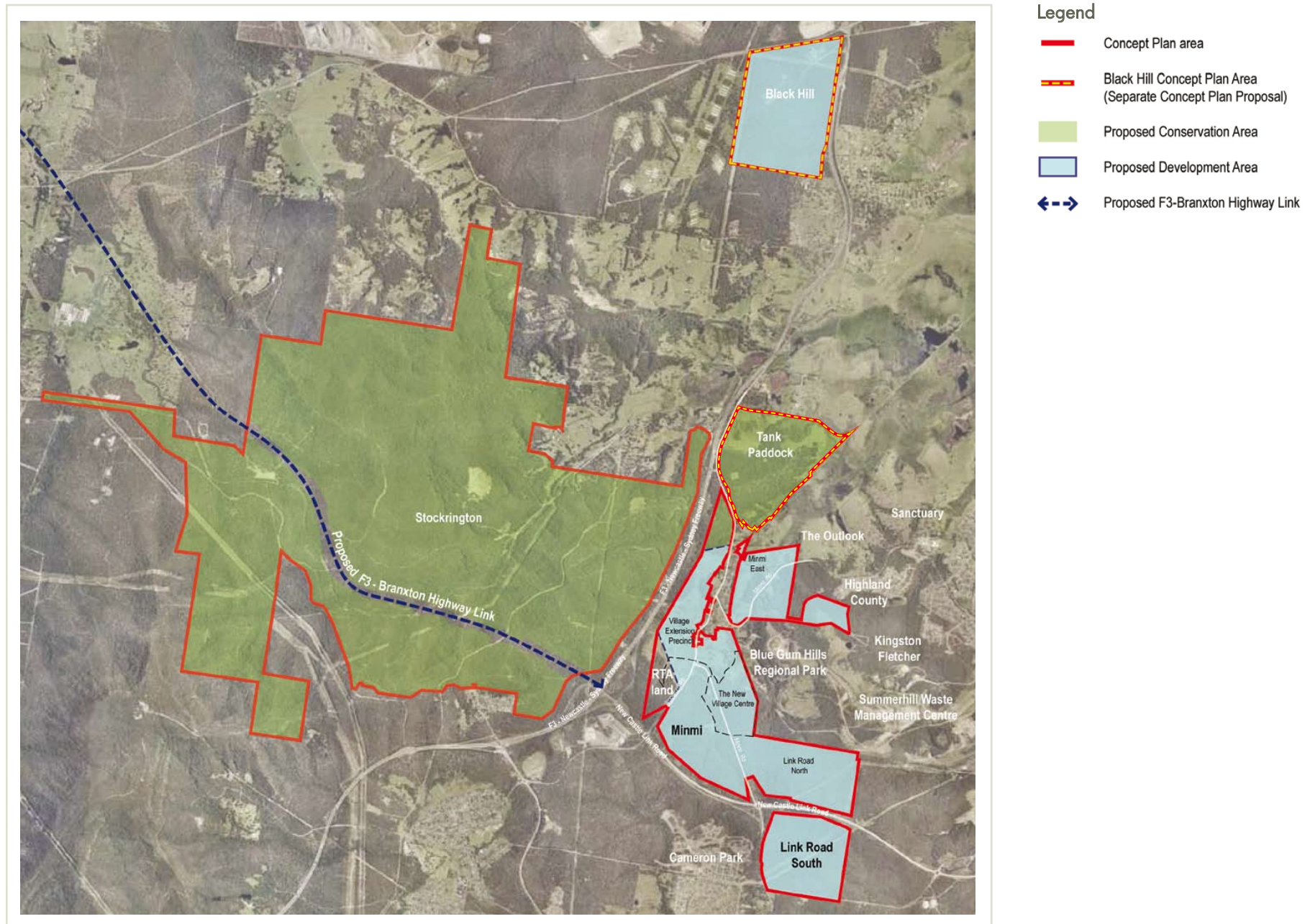


Figure A.1.1. Minmi and Link Road Conservation and Development Area

A.1.2 Site Constraints and Opportunities

A.1.2.1 Site Opportunities

There are a number of key constraints and opportunities associated with the site that have been identified throughout the concept planning process.

Opportunities

- Create open space areas on lands constrained by past mining activities;
- Include local vegetation and landscape elements in the urban form;
- Establish wildlife corridors across the site, encompassing riparian corridors, linking Blue Gum Hills Regional Park and Hexham Swamp;
- Improve existing public transport services by providing more accessible and frequent bus services;
- Improve existing road access by upgrading and increasing access points, and providing cycle and pedestrian facilities;
- Increase and improve social infrastructure such as sporting facilities, outdoor recreational facilities and the interpretation of Minmi's mining heritage to meet demands associated with additional population;
- Enhance the economic vitality of the existing township which currently has limited services.

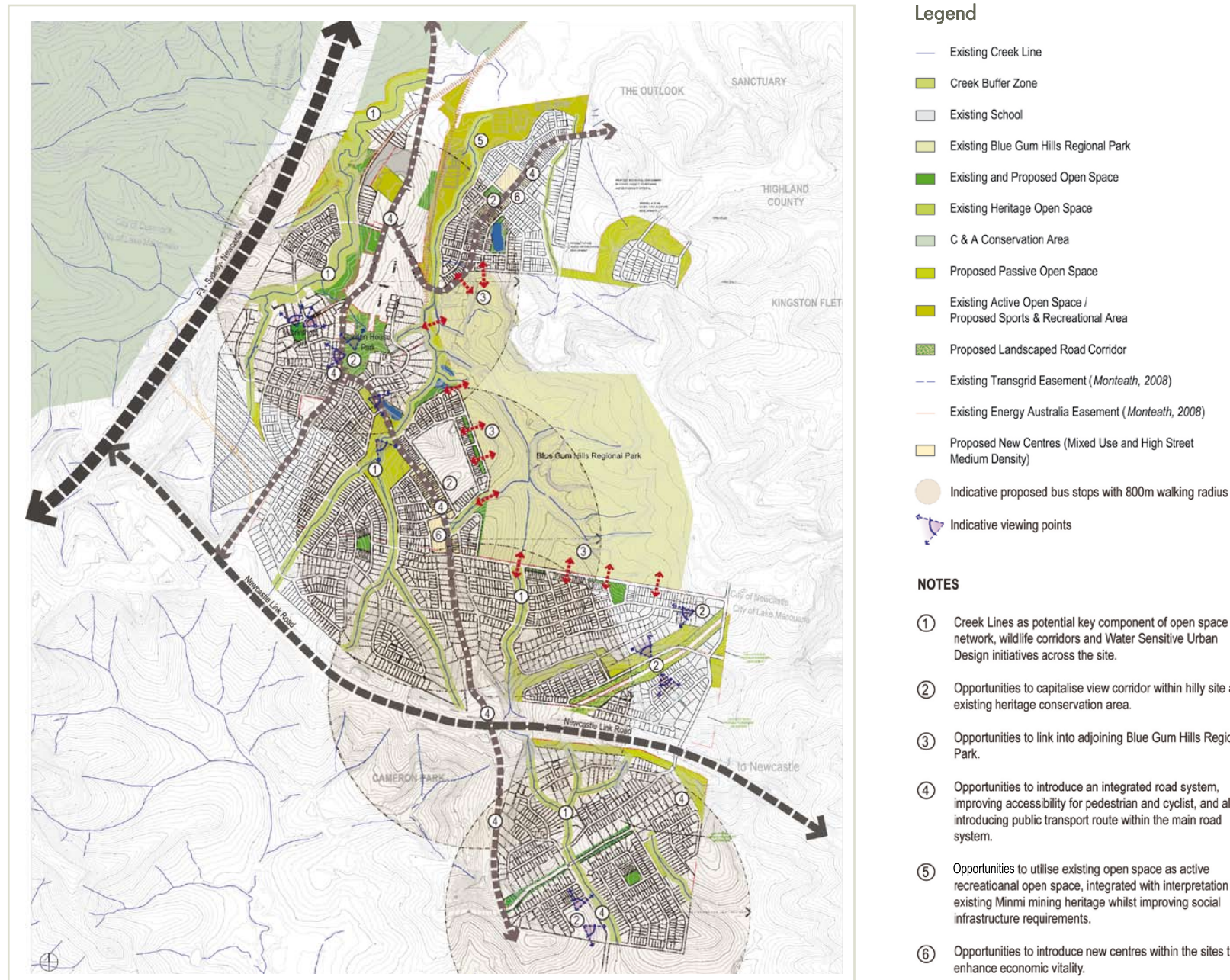


Figure A.1.2.1. Indicative Site Opportunities

A.1.2.1 Site Constraints

Constraints

- Past mining activities that impact on the development potential of the land, constraining development footprints, buildings, building heights and structure type;
- Management and planning for riparian zones and flood prone land;
- Noise buffering and mitigation along the F3 Freeway and Newcastle Link Road;
- Electricity transmission easements across Link Road North and Link Road South;
- Development on slopes of greater than 20% gradient;
- Heritage conservation requirements and view corridors;
- Bushfire impacts.

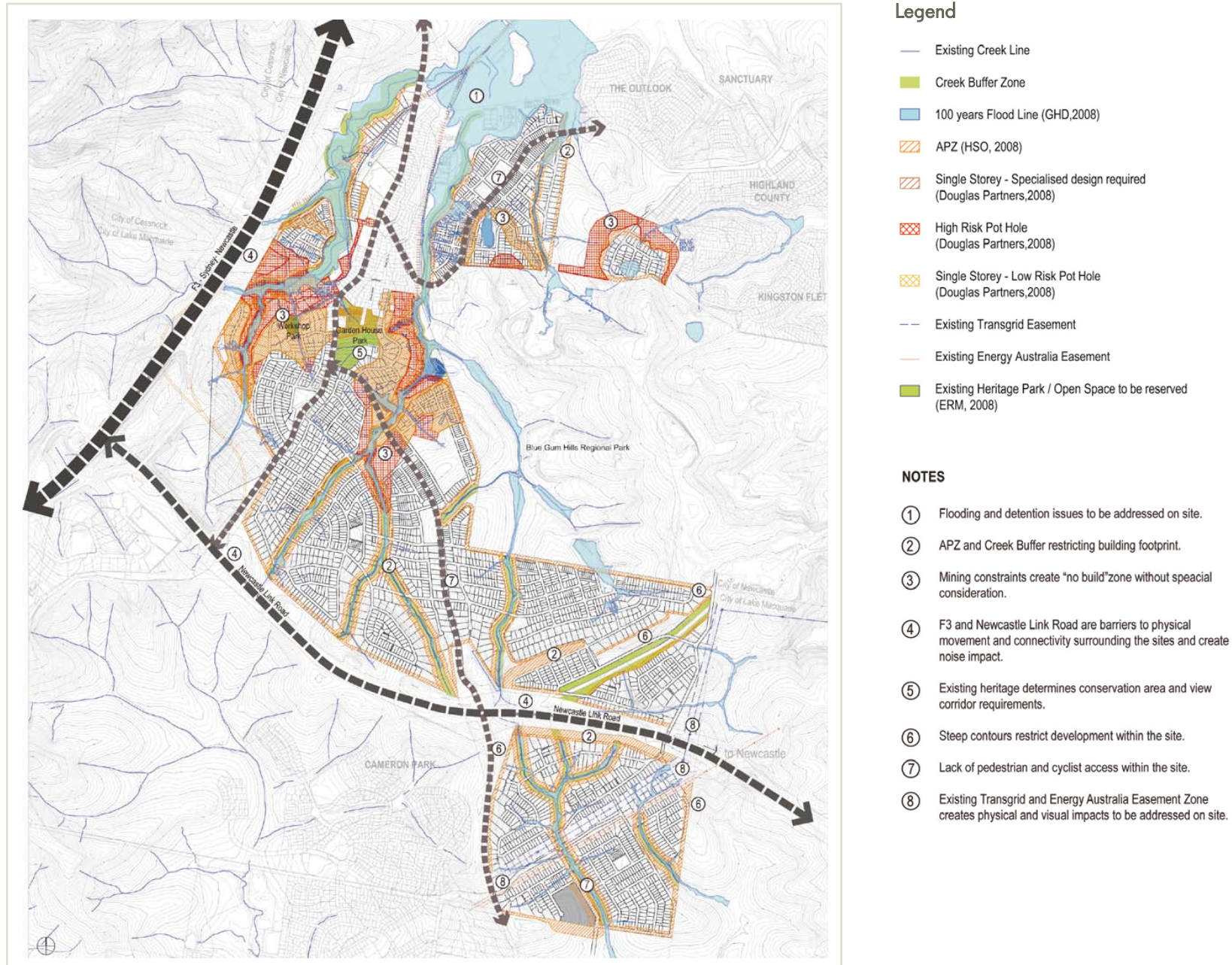


Figure A.1.2.2. Indicative Site Constraints

A.1.3 Concept Plan Overview

The Concept Plan has been developed in response to the opportunities and constraints of the site. The final urban structure has been significantly influenced by the proximity of the site to the existing Minmi township and the need to integrate the future settlement with the existing township, particularly in relation to heritage.

Key principles used to guide preparation of the Concept Plan were developed in the early phases of the project and include:

- Protecting creeks and drainage lines with riparian corridors;
- Protecting the scale and character of housing within the Minmi Village Catchment;
- Incorporating heritage items and places of significance within the overall concept design;
- Ensuring a permeable network of streets and pathways;
- Ensuring that the majority of dwellings are within a 400m radius of a local park or recreation area and local public transport;
- Providing mixed-use residential and higher densities around the existing township of Minmi and proposed school;

- Minimising potential stress on existing education infrastructure through the introduction of a new school precinct outside of Minmi;
- Retaining Woodford Street and Minmi Road as the 'main streets' servicing the area;
- Minimising cut and fill through inclusion of street and block patterns that follow contour lines;
- Ensuring a range of housing types are provided within precincts.

This has translated into a Concept Plan that achieves a balance between environmental, social and economic issues. Key features of the Concept Plan include the following:

Urban Precincts and Characters

Five unique precincts have been identified within the development footprint. These precincts have been defined based on their relationship with existing development and the surrounding environment. The urban structure and form of these precincts has been developed such that key attributes and features of the existing landscape will be reflected and enhanced in any future development.

1. **Minmi East:** located between existing Minmi township and The Outlook, to act as a "gateway" with the east.

2. **Minmi Extension:** located west of existing Minmi township incorporating existing Garden House and Workshop heritage parks.
3. **Village Centre:** located in the centre of the site, and proposed as a new activity hub for the area.
4. **Link Road North:** located along the northern boundary of the Newcastle Link Road, acting as a "gateway" to existing and future development to the north.
5. **Link Road South:** only precinct located south of the Newcastle Link Road, including a connector road linking the proposed development with Cameron Park and other future developments.

Connectivity, Access and Movement

The main access to the proposed development will be via the proposed Minmi Boulevard, which links Newcastle Link Road at the southern end and Woodford Street at the northern end. Minmi Boulevard will cater for the majority of north-south through traffic.

The proposed intersection of Newcastle Link Road and Minmi Boulevard will provide access points for both Link Road North and Link Road South Precincts.

Open Space Network

A large proportion of the 543 ha site will be new public parkland comprising:

- Four neighbourhood parks located within precincts;
- Two historically significant parks located in the Minmi Extension Precinct adjacent to the existing village, identified on the Concept Plan as “Workshop Park” and “Garden House Park”;
- A linear park incorporating the heritage walk that aligns with the former railway line located west of the existing Minmi township;
- Open space network including riparian corridors;
- Garden House Park located along Woodford Street in an existing clearing and including public art that interprets the mining history of the area;
- Bushland reserves dedicated in periphery areas around the development footprint, combining buffer zones, conservation lands and bushfire asset protection zones.

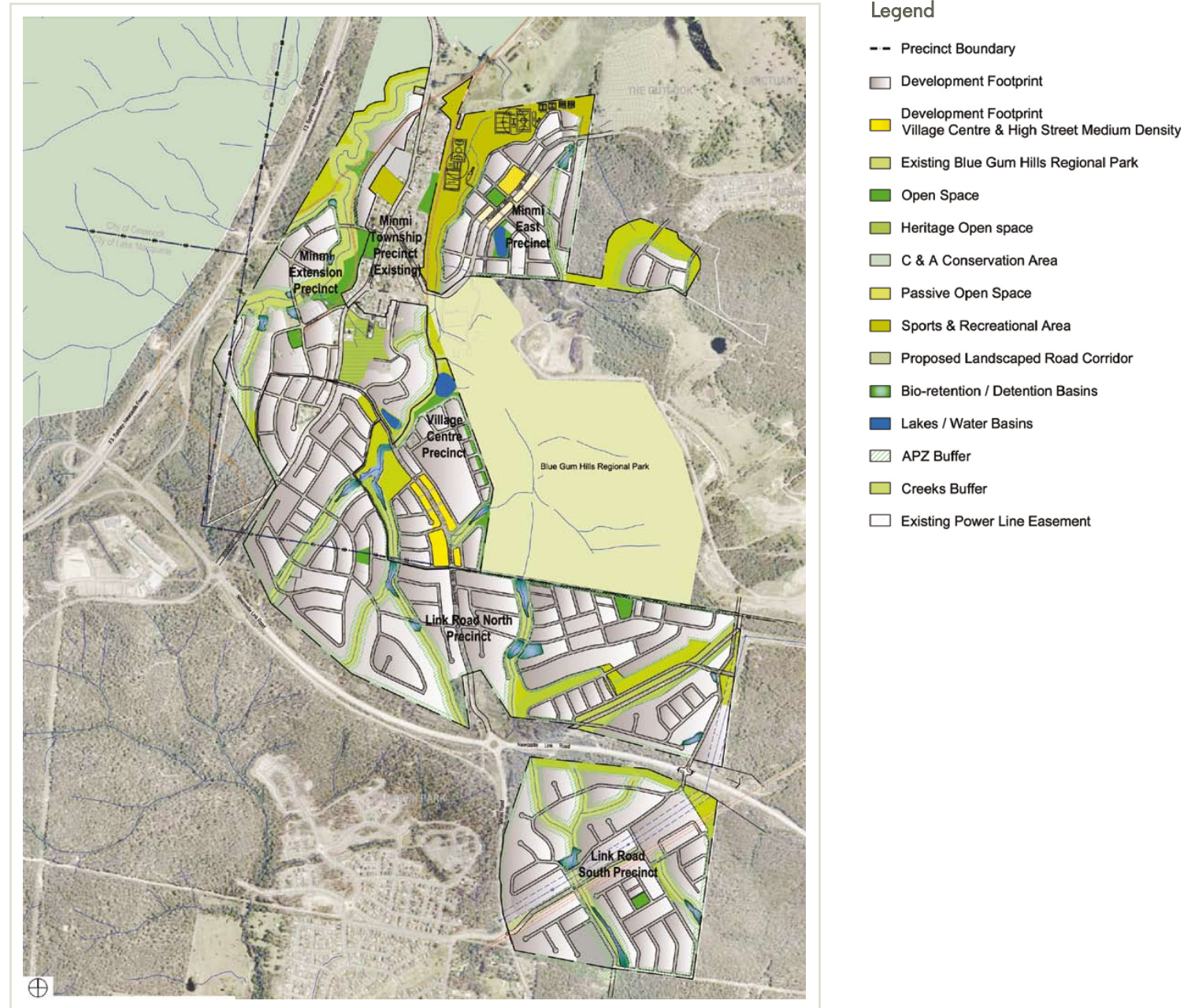


Figure A.1.3. Illustrative Concept Plan

A.1.4 Indicative Lot Layout

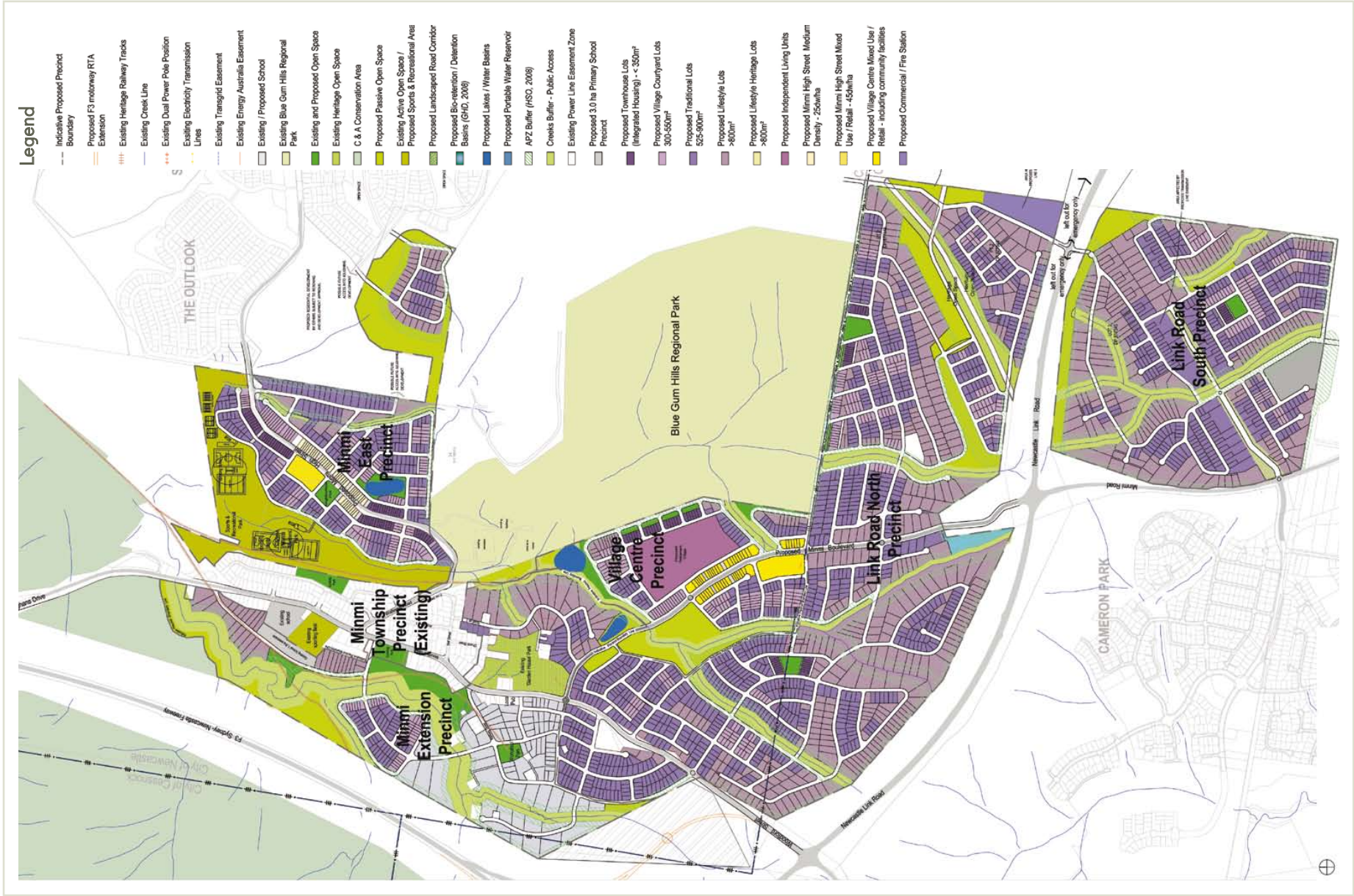


Figure A.1.4. Indicative Lot Layout

A.1.5 Lot Typologies

The following lot typologies have been developed in response to the natural characteristics of the site, the existing built form evident within the Minmi township and nearby heritage items. Each precinct will accommodate a variety of lot typologies, which will facilitate a diverse range of housing. Housing diversity will assist in creating vibrant and sustainable communities, and will also promote housing choice and affordability.

The indicative controls identified for these lots aim to ensure that future housing responds to the desired character of the overall development. Further discussion in relation to desired future character is provided in the following chapters.

Lot Typology	Lot Size	Housing	Minimum Frontage	Storeys	Vehicle Access
Townhouse	280-350m ²	attached (up to 3 storey on High Street)	8m	two (3 storey on High Street)	rear lane
Small Courtyard	300 - 470m ²	attached / detached	10.5m	single or two	front or rear lane
Large Courtyard	470 - 550m ²	attached / detached	13.5m	single or two	front
Traditional	525 - 900m ²	detached	typically 15m	single or two	front
Lifestyle Lots	>800m ²	detached	typically 17.5m	single or two	front
Lifestyle Heritage	>800m ²	detached	typically 17.5m	single	front

A.1.6 Building Heights

The adjacent plan and table below identify maximum building height limits for development on the site. These building heights are a response to the geotechnical and topographical/slope constraints affecting the site.

Urban design principles in relation to bulk and scale have also been considered in establishing the final plan. In this regard, the prescribed heights aim to:

- ensure houses are designed in proportion to allotment area;
- allow house designs that optimise cross ventilation and solar access;
- minimise overshadowing of private open space within lots and on adjacent lots;
- ensure solar access to principal living areas and facilitate energy-efficient design;
- distribute building heights across the site to maximise solar access having regard to lot orientation and topographical slope.

Development	Height (from lowest finished floor level to ridge)
Single	4.5m
Two	9m
Three	12m
Ancillary Structures	3.5m

Building height means the vertical distance between existing ground level at any point to the highest point of the building



Legend

- Single Storey - Brick veneer
(Douglas Partners, August 2008)
- Single Storey - Specialised design required
(Douglas Partners, August 2008)
- Single Storey - High Risk Pot Hole
(Douglas Partners, August 2008)
- Single Storey - Low Risk Pot Hole
(Douglas Partners, August 2008)
- Two Storeys - Brick veneer
(Douglas Partners, August 2008)
- Proposed 2 Storeys
- Proposed 3 Storeys

Figure A.1.6. Indicative Building Heights

A.1.7 Proposed Precincts

The Concept Plan divides the subject area into five precincts: Minmi East, Minmi Extension and Village Centre, Link Road North and Link Road South. The precincts consist of a balanced mix of urban characteristics, which will assist in the delivery of a cohesive but diverse built landscape that will define the new township of Minmi.

The natural features of the landscape, including topography, riparian zones and significant vegetation formed the basis for the identification of each of the five precincts. The layout and design of each precinct has been directly influenced by the physical attributes of the land and consideration has been given to the relationship between future development and these attributes.

The following sections provide an overview of the defining characteristics of each of the precincts

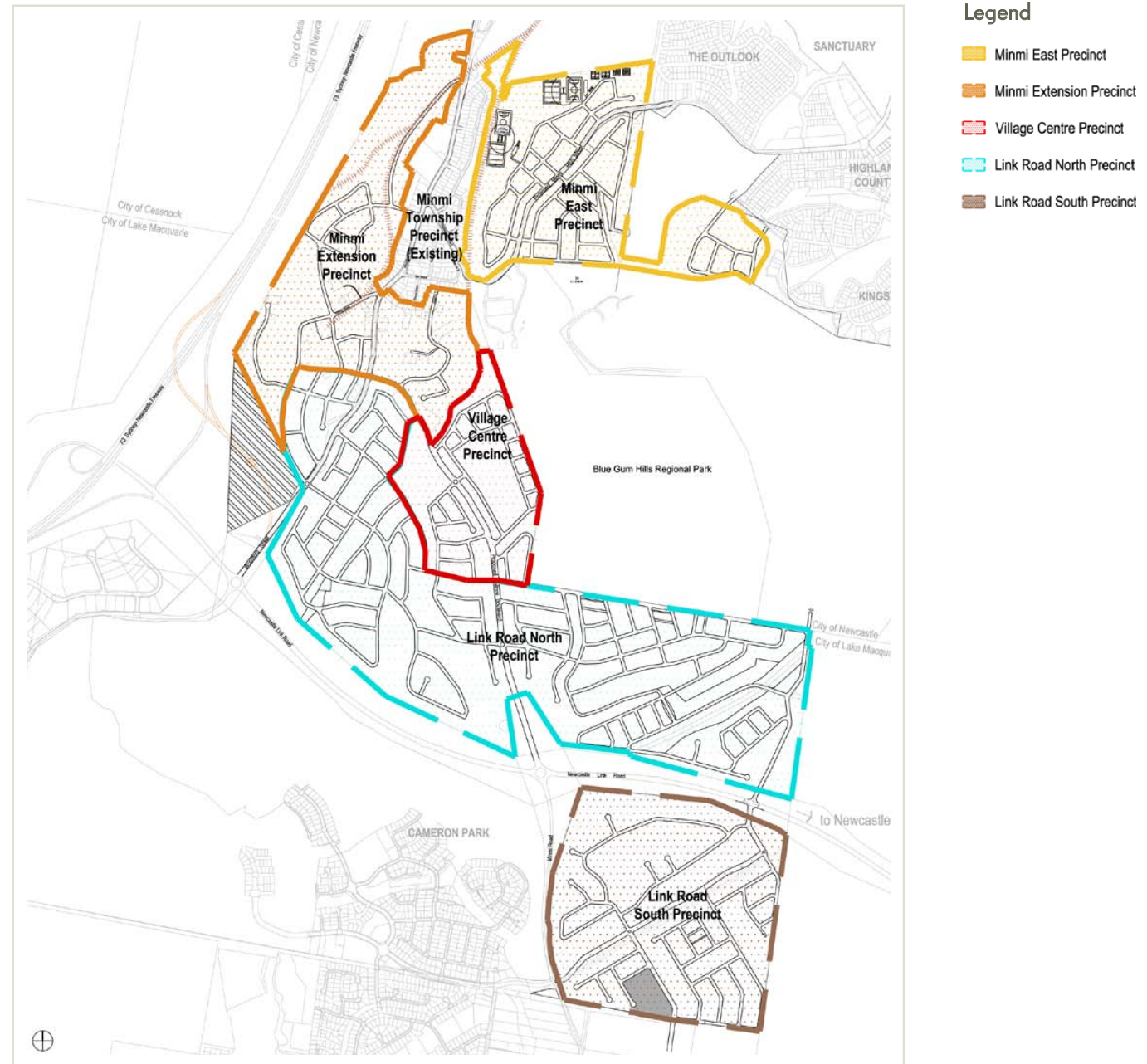


Figure A.1.7. Indicative Proposed Precincts Plan