



Australian Government

**Department of Infrastructure, Transport,
Regional Development, Communications and the Arts**

Shire of Christmas Island Housing Support Program - Stream One



Calmy Planning & Design



DWA
David Wills and Associates
Consulting Engineers

JBS&G

APD
ENGINEERING

Planning Regulatory Framework

The Draft Structure Plans at Silver City and Phosphate Hill have to adhere to the manner and form of preparation expected by the Western Australian Planning Commission (WAPC) taking into account the following regulatory documents and policies:

- Schedule 2, Part 4 Planning and Development (Local Planning Scheme) Regulations 2015;
- WA Planning Manual Guidance for Structure Plans;
- State Planning Policy 7.0 - Design of the Built Environment;
- State Planning Policy 7.2 - Precinct Design Guidelines:
- Planning for Liveable Neighbourhoods
- State Planning Policy 7.3 - Residential design Codes Volumes 1 & 2
- Operational Policy 1.1 Subdivision of Land – General Principles
- Christmas island Local Planning Strategy and Scheme No. 2

Environmental Regulatory Framework

Environment protection and Biodiversity Conservation Act 1999

Shire Local Planning Strategy – Endorsed by the WAPC May 2015

- A – DEVELOPMENT SUBJECT TO FURTHER STRUCTURE PLANNING
- B – DEVELOPMENT SUBJECT TO PREPARATION OF STRUCTURE PLAN
- C – MAINTAIN AND CONSOLIDATE LONG TERM PORT CAPABILITIES
- D – UPGRADE SECOND PORT FACILITY TO SECOND STANDARD

- COMMUNITY INFRASTRUCTURE
- HORTICULTURE & AQUACULTURE
- ENVIRONMENTAL CORRIDOR
- NATIONAL PARK
- PROPOSED NATIONAL PARK
- LIGHT INDUSTRIAL AREA
- COMMERCIAL CENTRE
- URBAN
- ECO-TOURISM
- TOURISM SITE
- POTENTIAL ENVIRONMENTAL OFFSET AREA
- KEY INTERSECTION
- POTENTIAL FUTURE MINING AREAS

- GAZE ROAD TOURISM AND COMMERCIAL PRECINCT:
- SHORT STAY ACCOMMODATION
 - COMMERCIAL
 - MIXED USE
 - ENHANCED FORESHORE

- KAMPONG AND SMITH POINT:
- PROGRESSIVE TRANSITION OF HOUSING TO SAFER AREAS
 - CONSOLIDATION OF COMMERCIAL HUB

- TAI JIN HOUSE HERITAGE PRECINCT:

- DRUMSITE:
- RELOCATION OF PARKS AUSTRALIA
 - ESTABLISH LOCAL COMMERCIAL CENTRE

- CONSOLIDATION OF UTILITIES INFRASTRUCTURE

- SETTLEMENT:
- MIXED USE RESIDENTIAL AND TOURISM
 - INCREASE RESIDENTIAL DENSITIES

- POTENTIAL TOURISM DEVELOPMENT SITE

- POTENTIAL GOLF COURSE EXPANSION

- POON SAAN:
- URBAN CONSOLIDATION OPPORTUNITIES
 - MURRAY ROAD ENHANCEMENT

- DEVELOPMENT SUBJECT TO ENHANCED WASTE MANAGEMENT PRACTICES AND SITE REMEDIATION

- POSSIBLE TOURISM RESORT AND SHORT STAY ACCOMMODATION

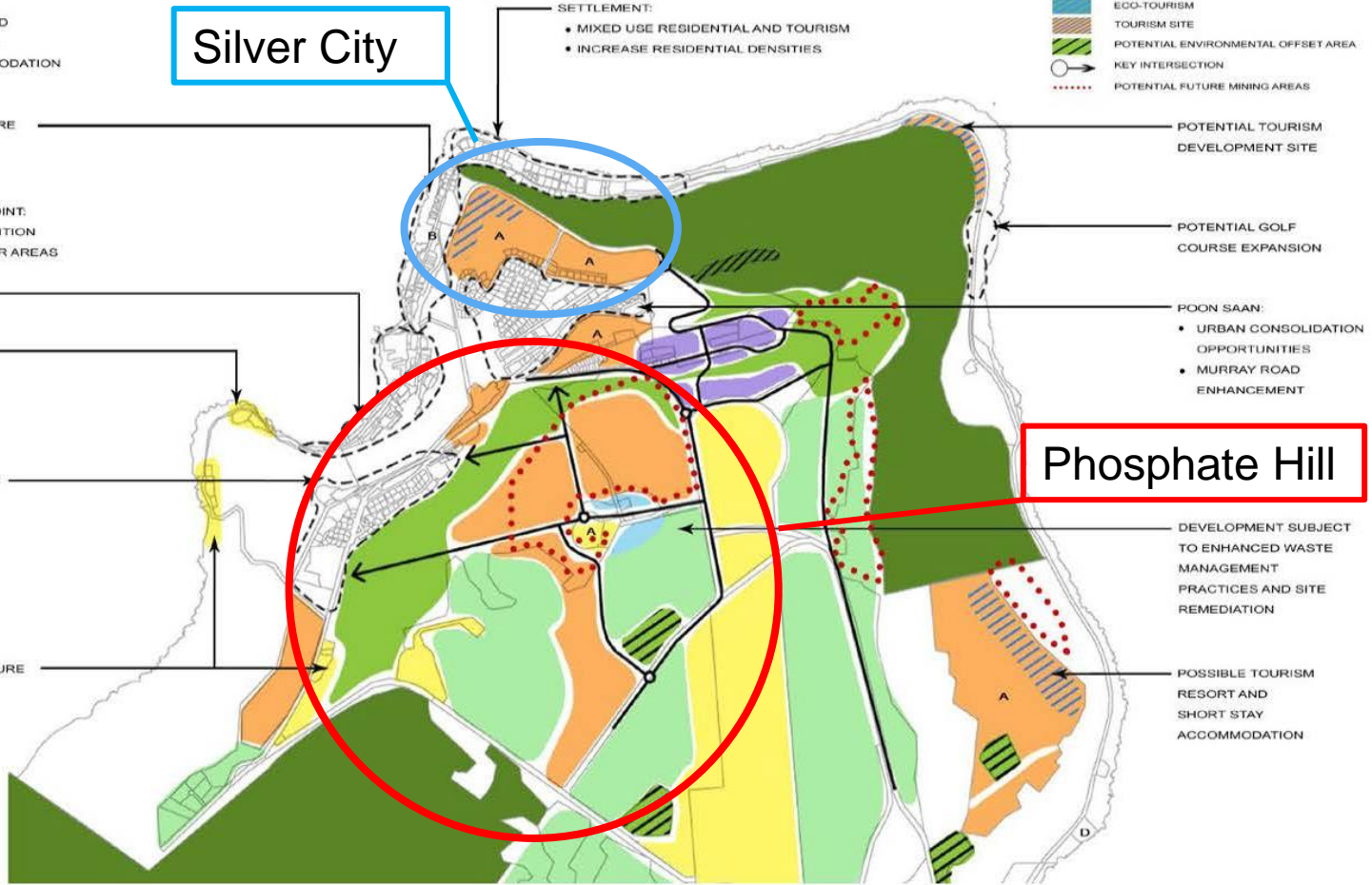













Figure 13: Strategic Land Use Plan - North East

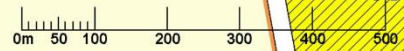
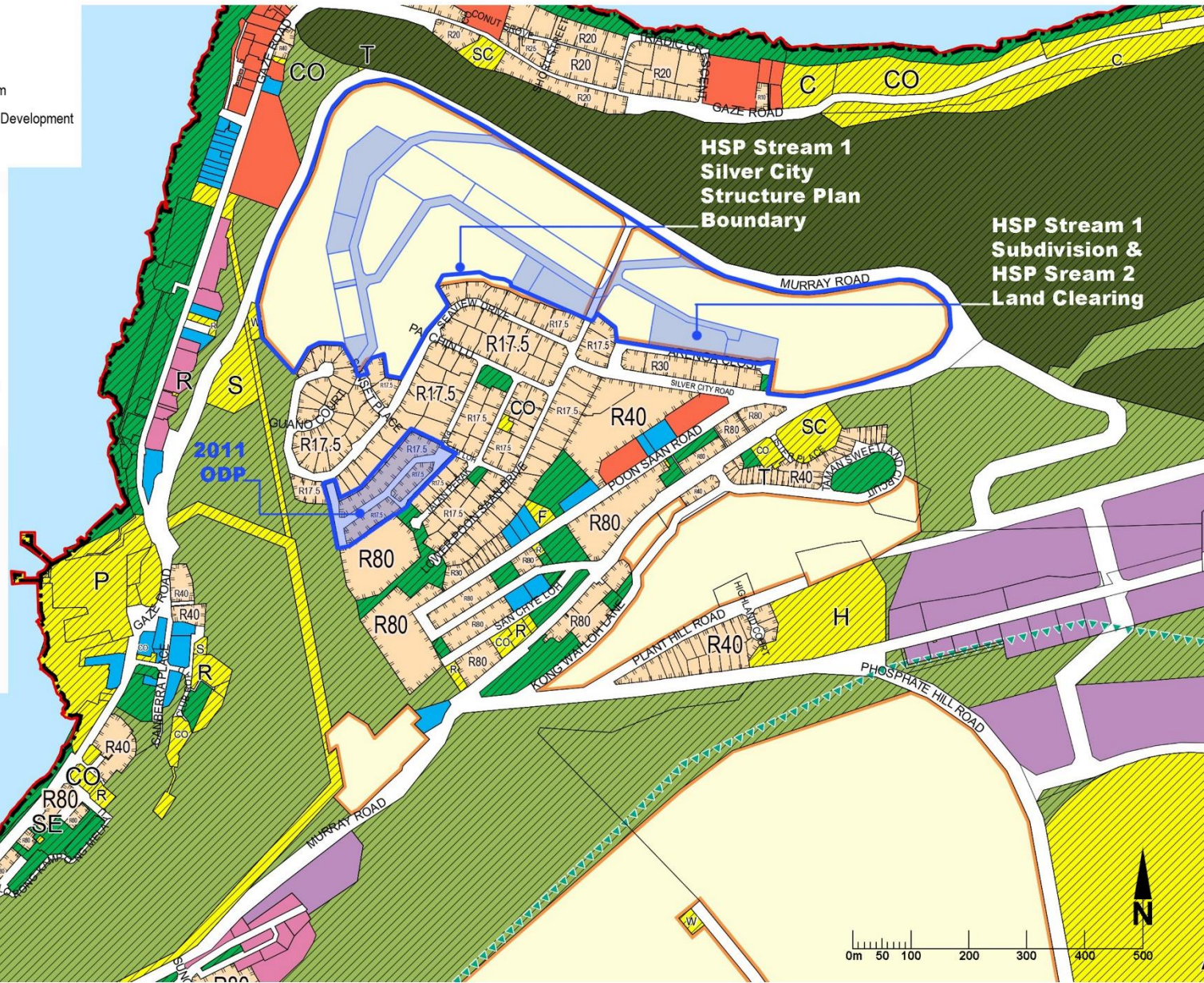
Silver City Proposed Structure Plan - TPS No.2 Map Context

LOCAL SCHEME ZONES

- | | | | |
|--|-------------|---|-------------------|
|  | Commercial |  | Rural |
|  | Industrial |  | Tourism |
|  | Mixed Use |  | Urban Development |
|  | Residential | | |

LOCAL RESERVES











- | | |
|--|--------------------------------------|
|  | Crown Reserve |
|  | National Park |
|  | Public Open Space |
|  | Public Purposes |
| | Public Purposes : Airport |
| | Public Purposes : Cemetery |
| | Public Purposes : Commonwealth |
| | Public Purposes : Community Purposes |
| | Public Purposes : Fire Station |
| | Public Purposes : Fuel Storage |
| | Public Purposes : Hospital |
| | Public Purposes : Port |
| | Public Purposes : Power Station |
| | Public Purposes : Religious |
| | Public Purposes : Rubbish Tip |
| | Public Purposes : School |
| | Public Purposes : Sewerage |
| | Public Purposes : Shire |
| | Public Purposes : Telecommunications |
| | Public Purposes : Water |




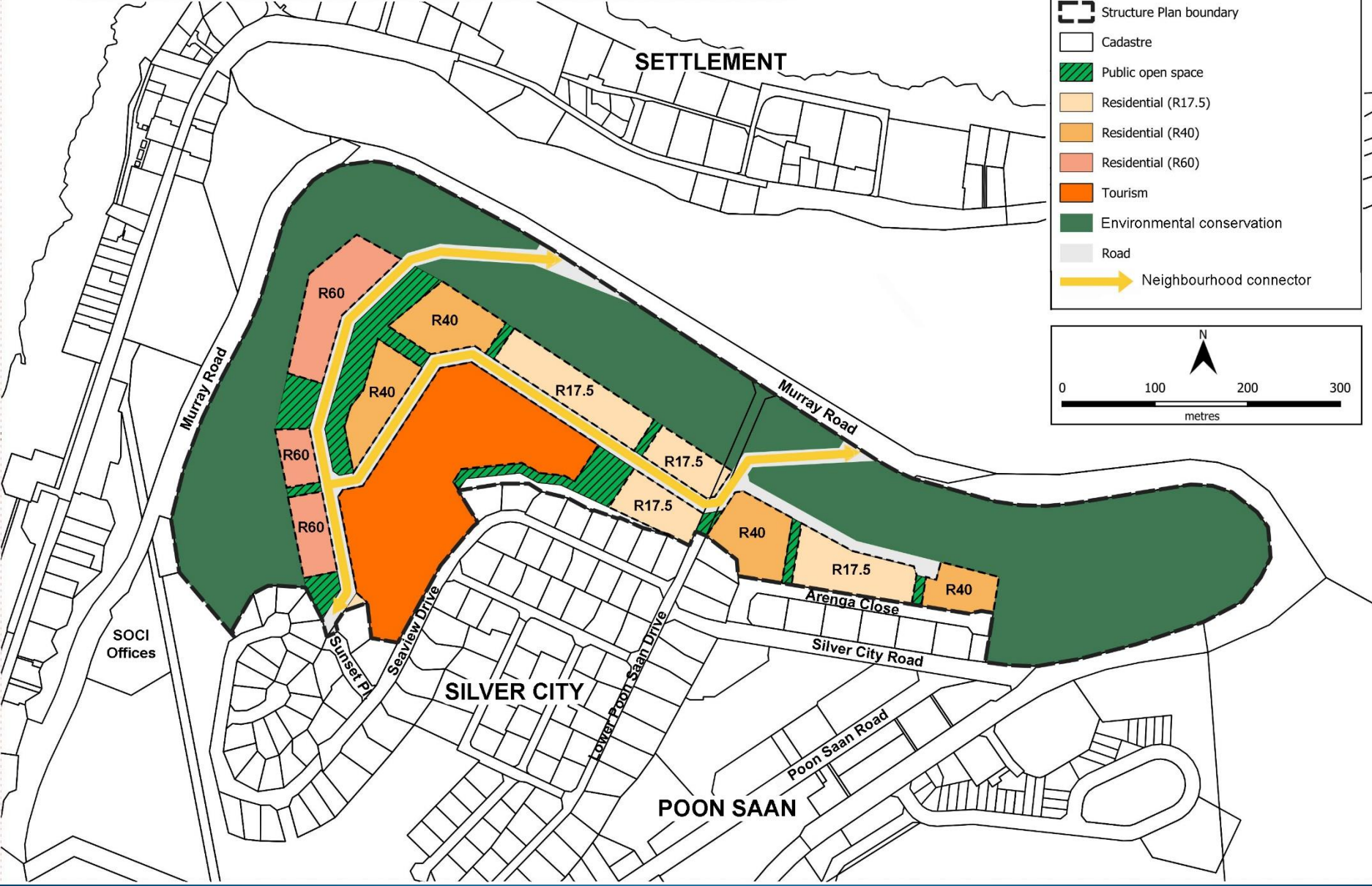
Silver City Proposed Structure Plan

as per the WAPC’s Manner and Form for the preparation of Structure Plan maps

Legend

-  Structure Plan boundary
-  Cadastre
-  Public open space
-  Residential (R17.5)
-  Residential (R40)
-  Residential (R60)
-  Tourism
-  Environmental conservation
-  Road
-  Neighbourhood connector

0 100 200 300 metres

SOCI Offices

SETTLEMENT

SILVER CITY

POON SAAN

Murray Road

Murray Road

Seaview Drive

Lower Poon Saan Drive

Poon Saan Road

Arenga Close

Silver City Road

R60

R40

R40

R17.5

R17.5

R17.5

R60

R60

R17.5

R40

R17.5

R40




Land considered for Vegetation Clearing Application in 2nd quarter of 2025



Silver City Field Survey - Flora & Fauna traverses 10-17 Sep.2024

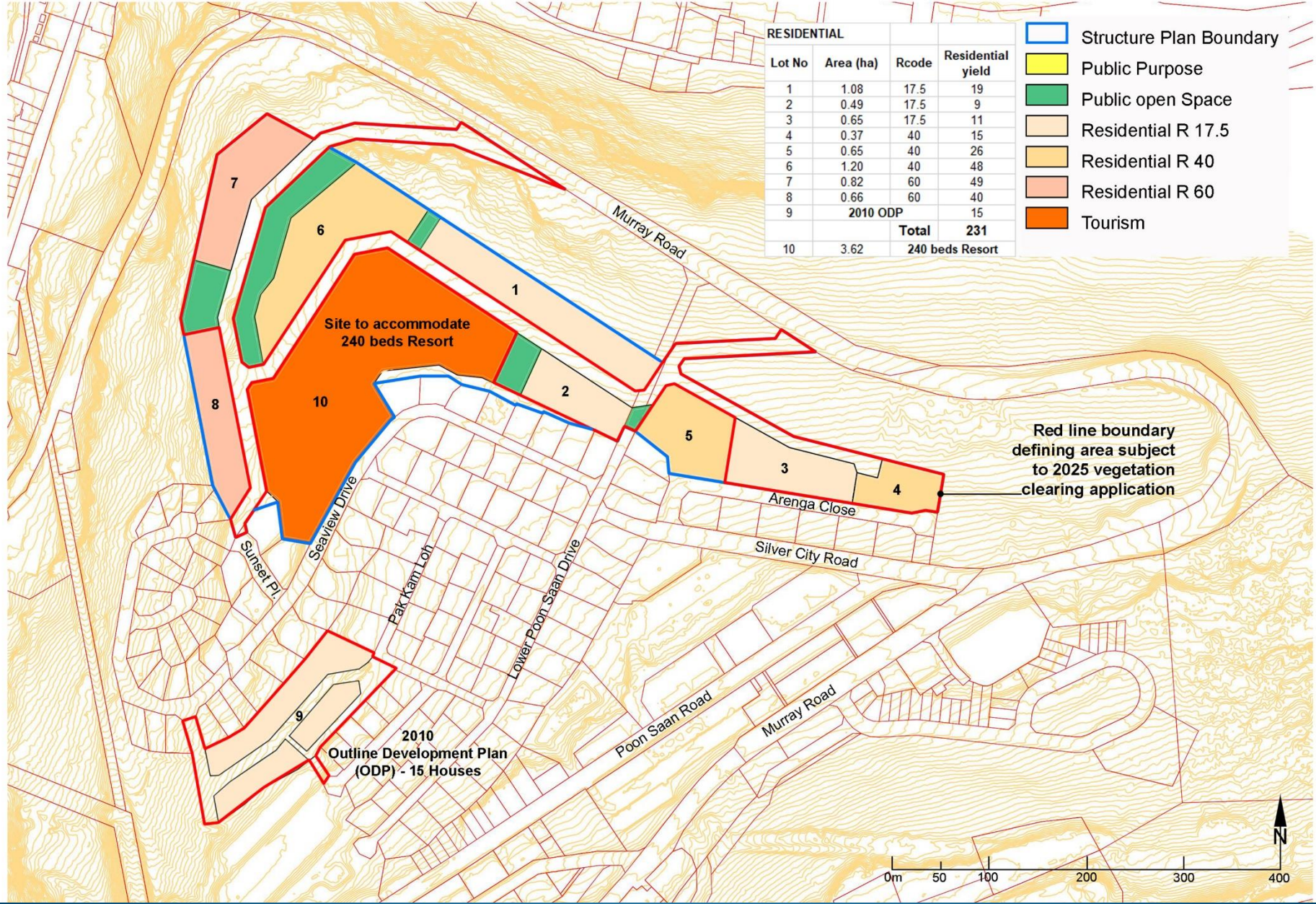


Legend

-  Silver City survey area
-  Fauna traverses
-  Flora and vegetation traverses

Scale: 200m grid

Silver City - Residential Yield Estimate



RESIDENTIAL			
Lot No	Area (ha)	Rcode	Residential yield
1	1.08	17.5	19
2	0.49	17.5	9
3	0.65	17.5	11
4	0.37	40	15
5	0.65	40	26
6	1.20	40	48
7	0.82	60	49
8	0.66	60	40
9	2010 ODP		15
Total			231
10	3.62		240 beds Resort

- Structure Plan Boundary
- Public Purpose
- Public open Space
- Residential R 17.5
- Residential R 40
- Residential R 60
- Tourism

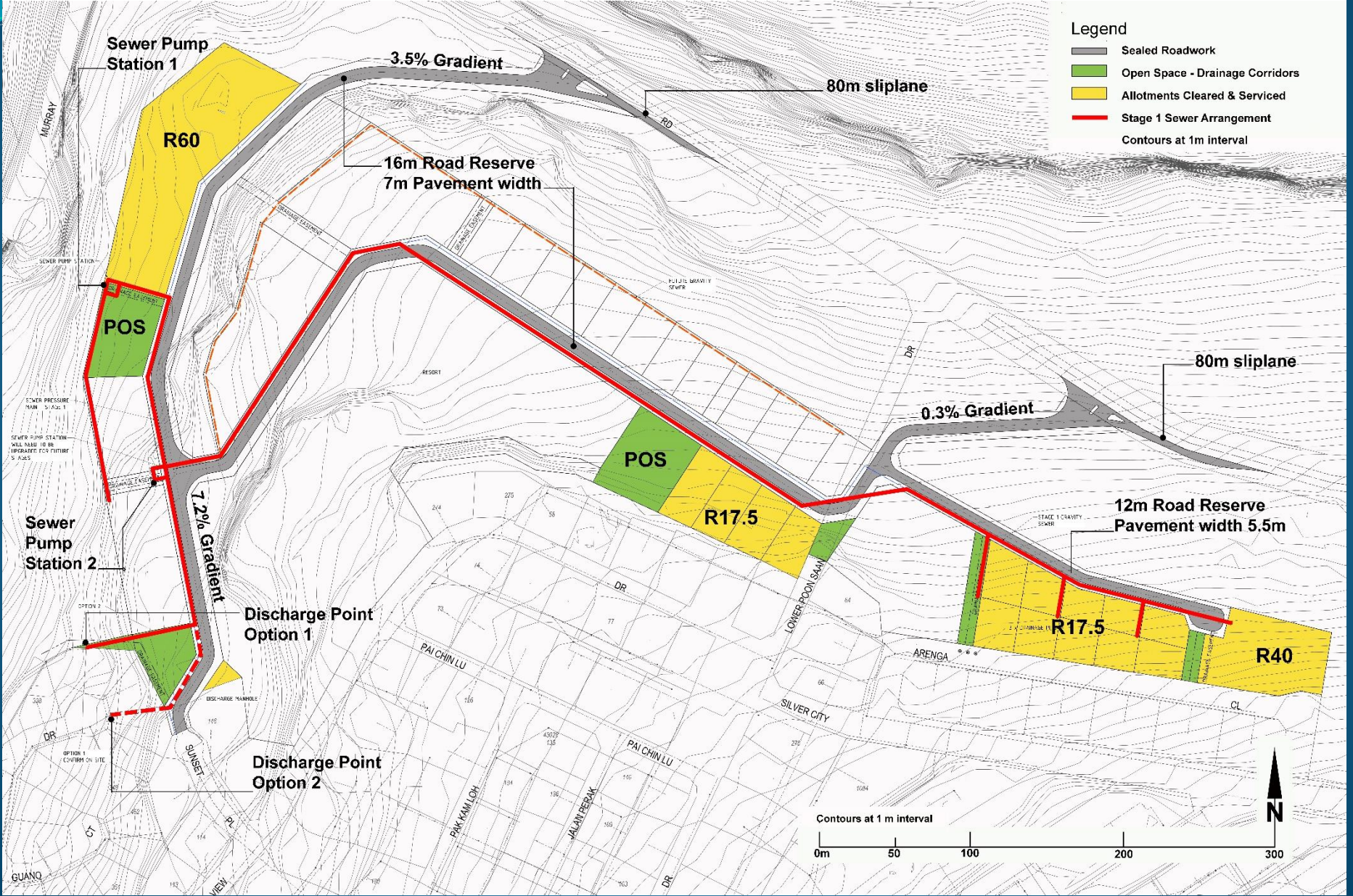
Red line boundary defining area subject to 2025 vegetation clearing application

2010 Outline Development Plan (ODP) - 15 Houses

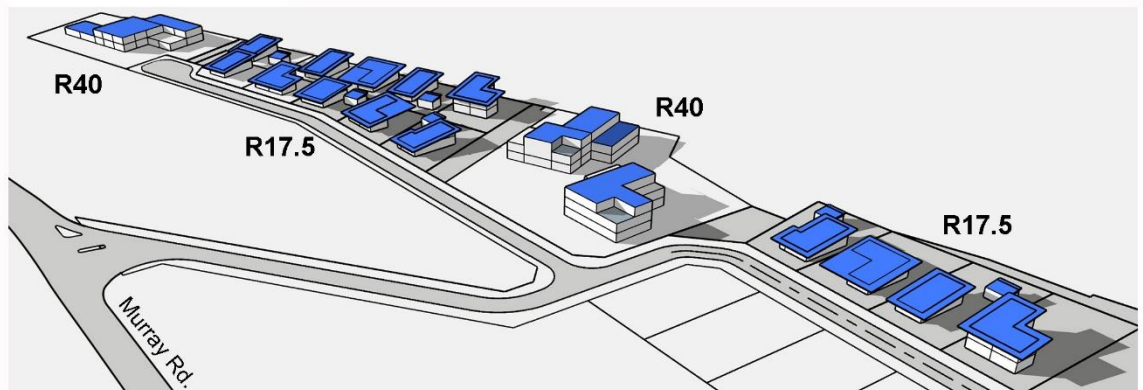
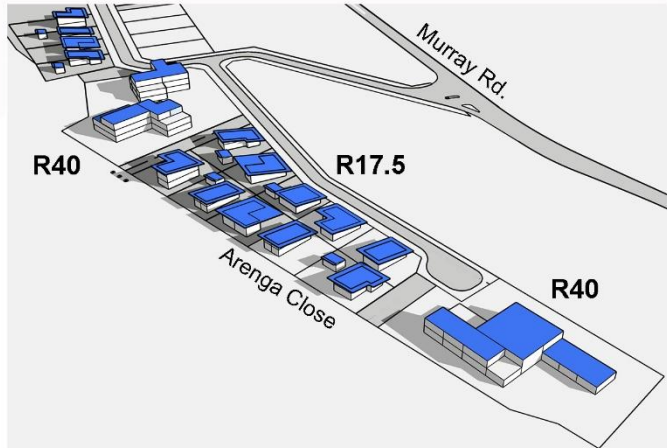
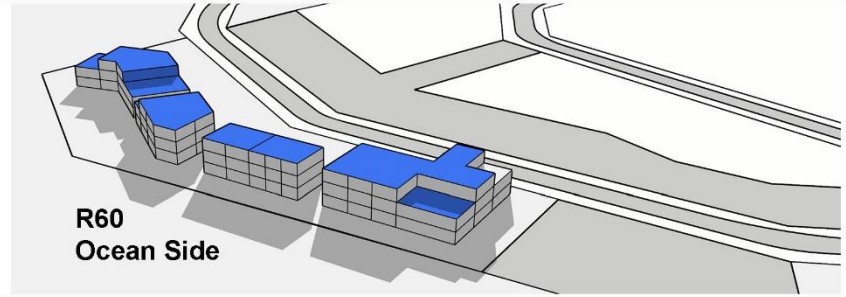
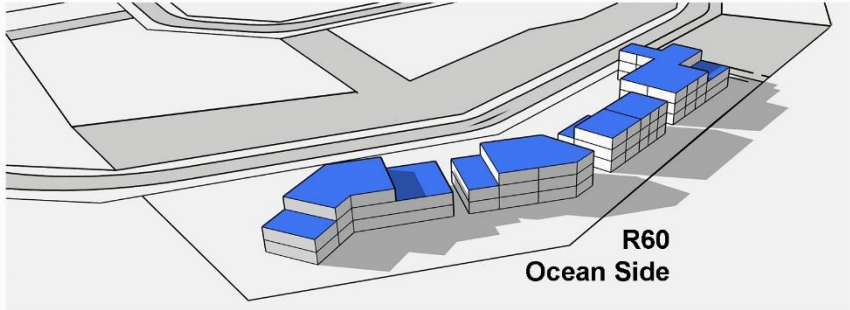
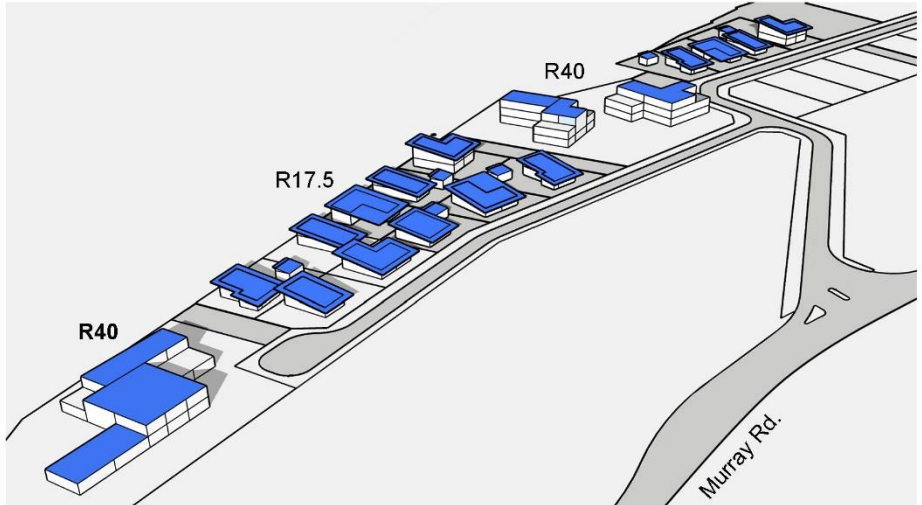
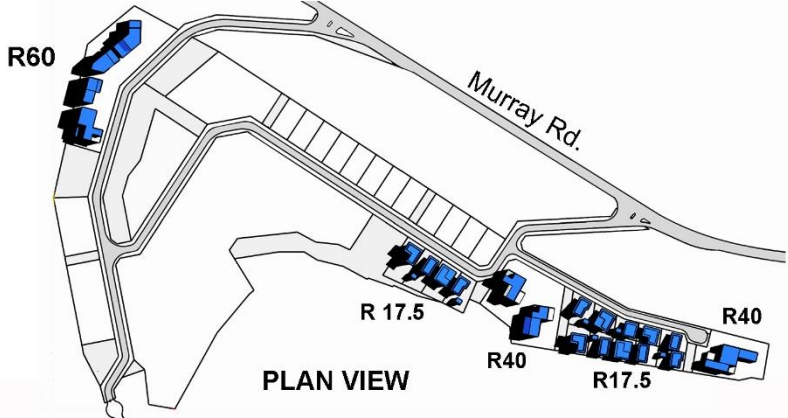
Site to accommodate 240 beds Resort



Civil Engineering and Subdivision parameters – Stage 1



Silver City - Preliminary Built Form Modeling



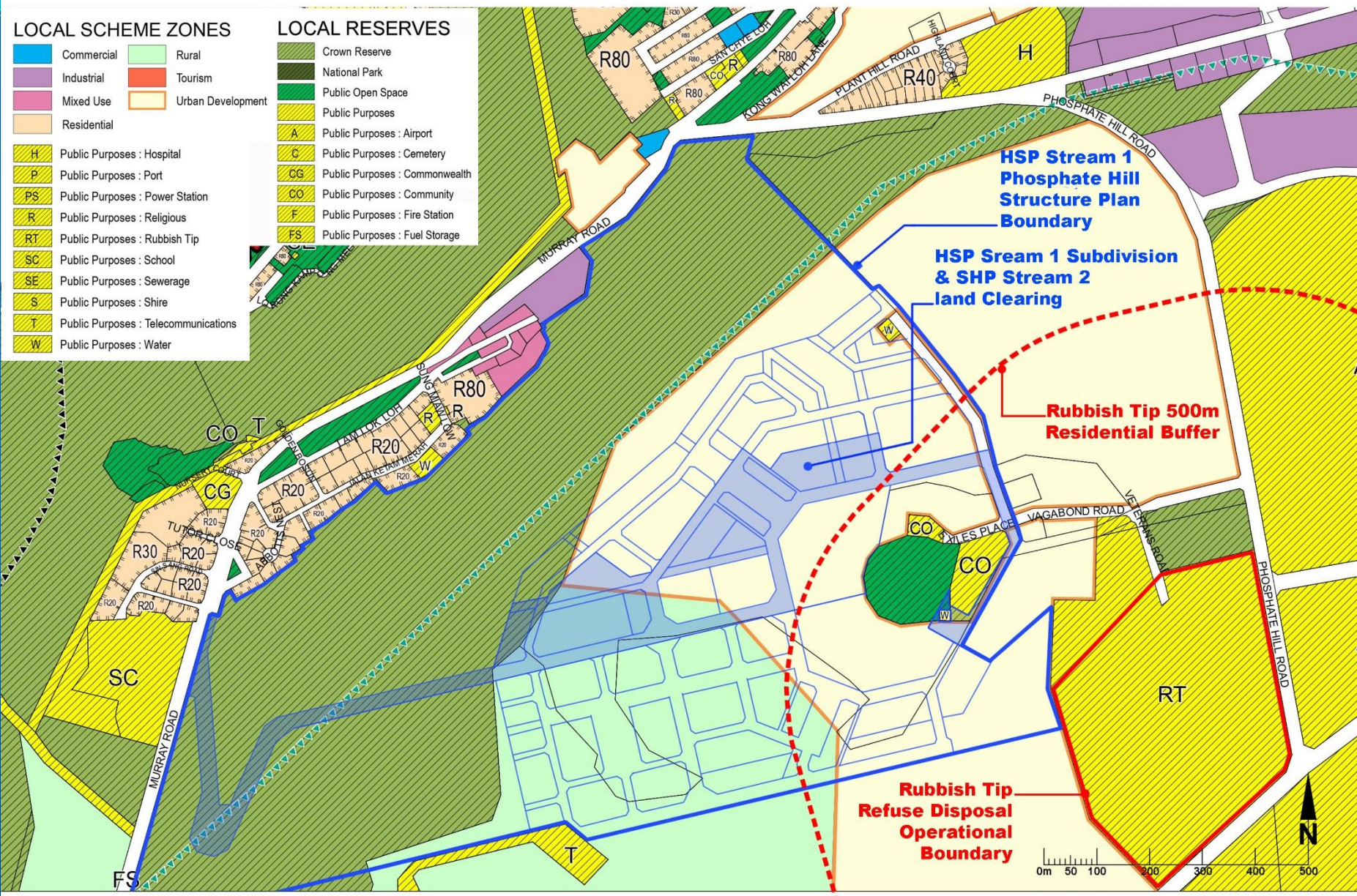
Phosphate Hill Proposed Structure Plan - TPS No.2 Map Context

LOCAL SCHEME ZONES

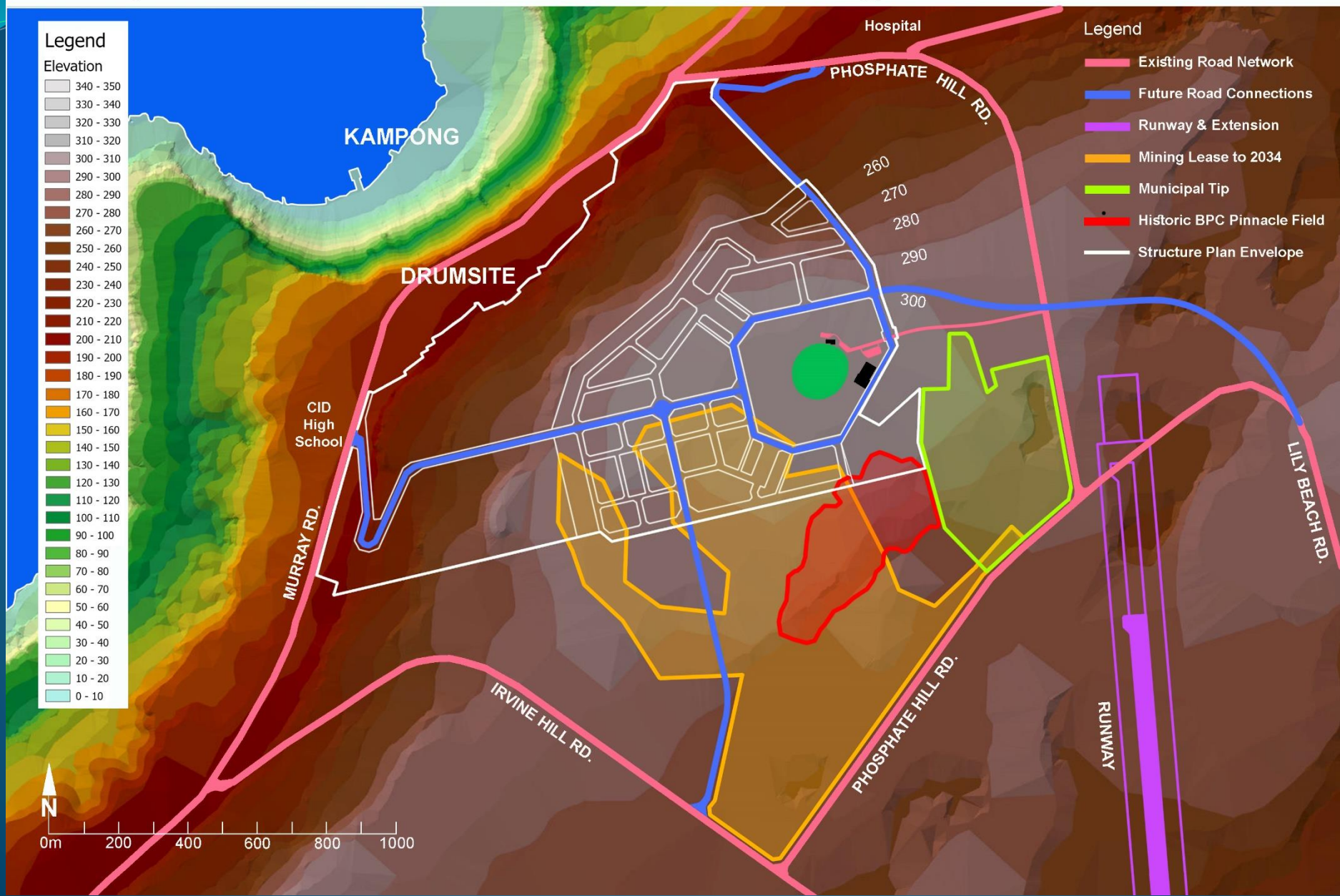
- Commercial
 - Industrial
 - Mixed Use
 - Residential
 - Rural
 - Tourism
 - Urban Development
-
- H Public Purposes : Hospital
 - P Public Purposes : Port
 - PS Public Purposes : Power Station
 - R Public Purposes : Religious
 - RT Public Purposes : Rubbish Tip
 - SC Public Purposes : School
 - SE Public Purposes : Sewerage
 - S Public Purposes : Shire
 - T Public Purposes : Telecommunications
 - W Public Purposes : Water

LOCAL RESERVES

- Crown Reserve
- National Park
- Public Open Space
- Public Purposes
- A Public Purposes : Airport
- C Public Purposes : Cemetery
- CG Public Purposes : Commonwealth
- CO Public Purposes : Community
- F Public Purposes : Fire Station
- FS Public Purposes : Fuel Storage

















Phosphate Hill Draft Structure Plan Influencing Parametres

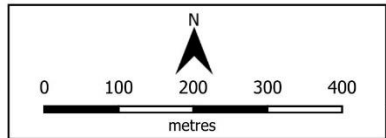
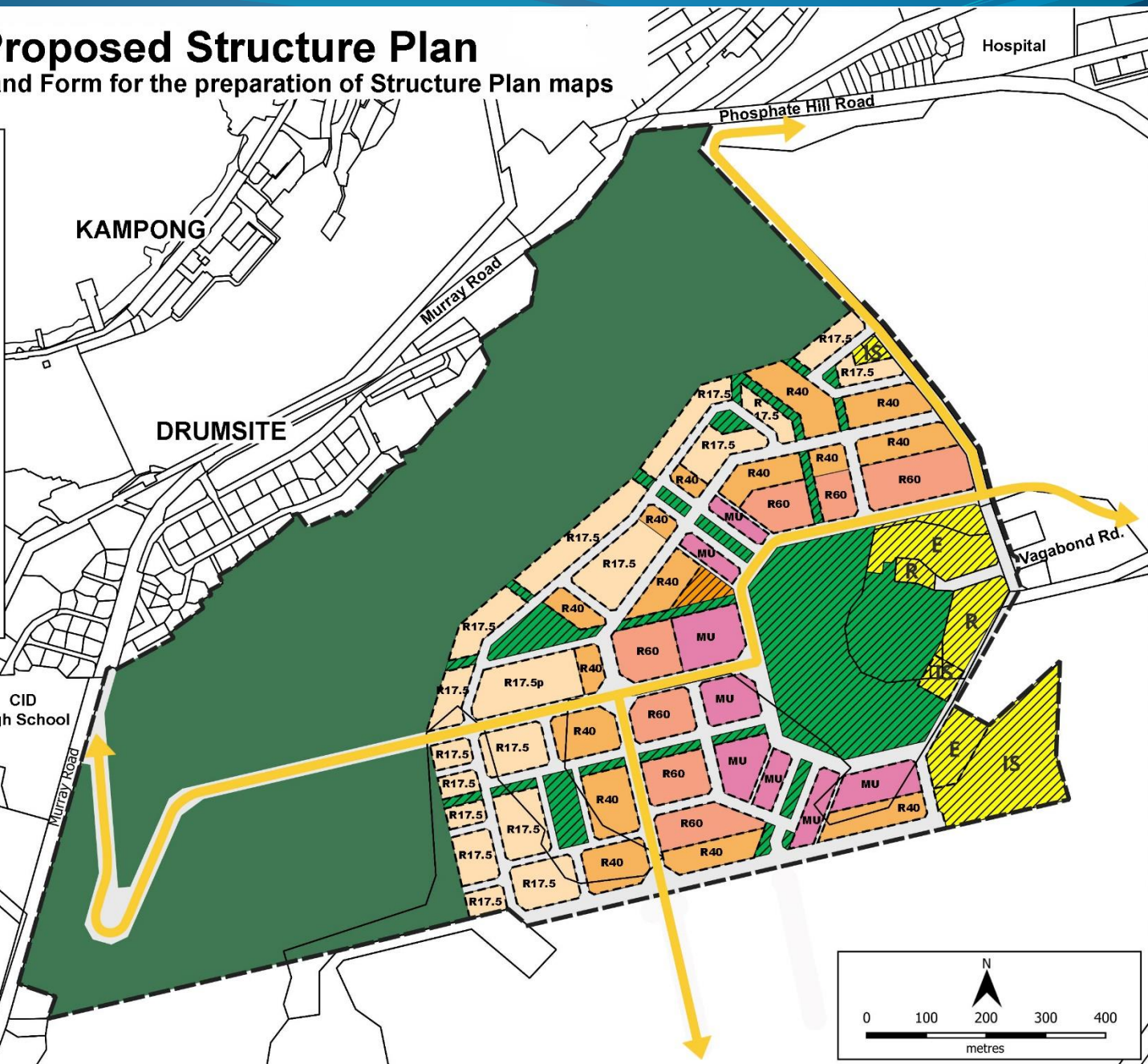


Phosphate Hill Proposed Structure Plan

as per the WAPC's Manner and Form for the preparation of Structure Plan maps

Legend

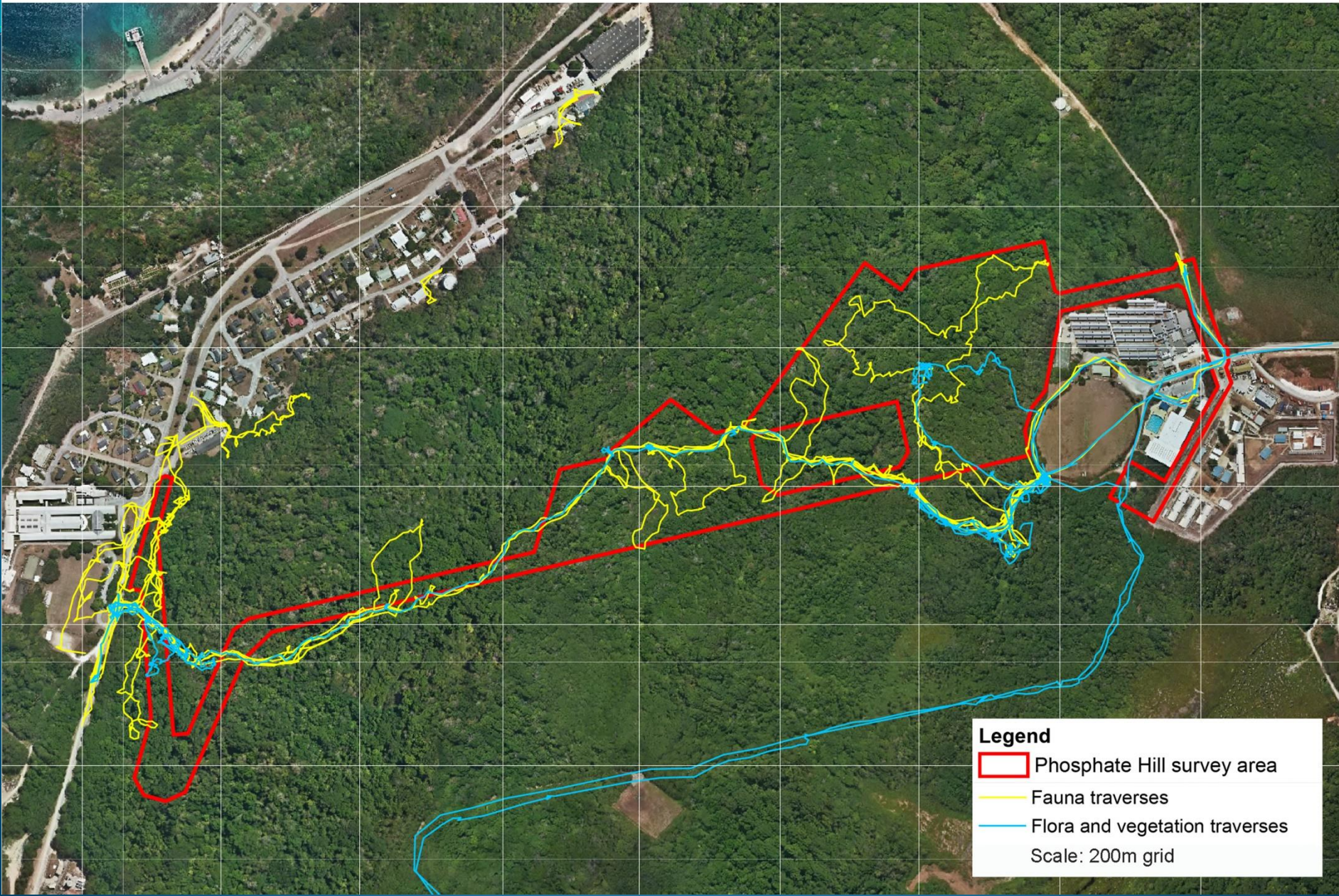
-  Structure Plan boundary
-  Cadastre
-  Civic and community
-  Mixed use (R80)
-  Public open space
-  Residential (R17.5)
-  Residential (R40)
-  Residential (R60)
-  Public purposes - education
-  Public purposes - infrastructure services
-  Public purposes - recreation
-  Environmental conservation
-  Road
-  Neighbourhood connector



Land considered for Vegetation Clearing Application in 2nd quarter of 2025



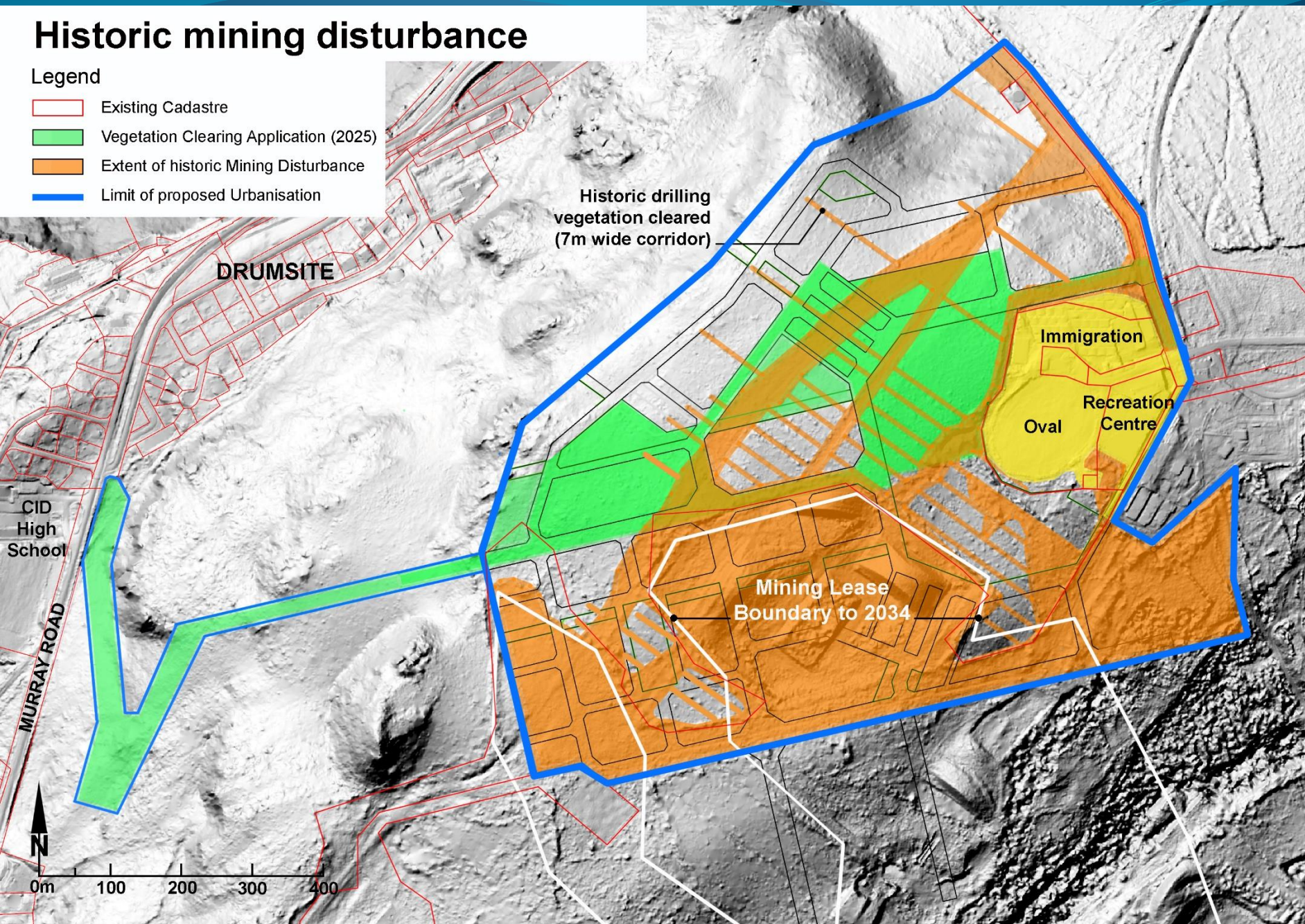
Phosphate Hill Field Survey - Flora & Fauna traverses 10-17 Sep.2024



Historic mining disturbance

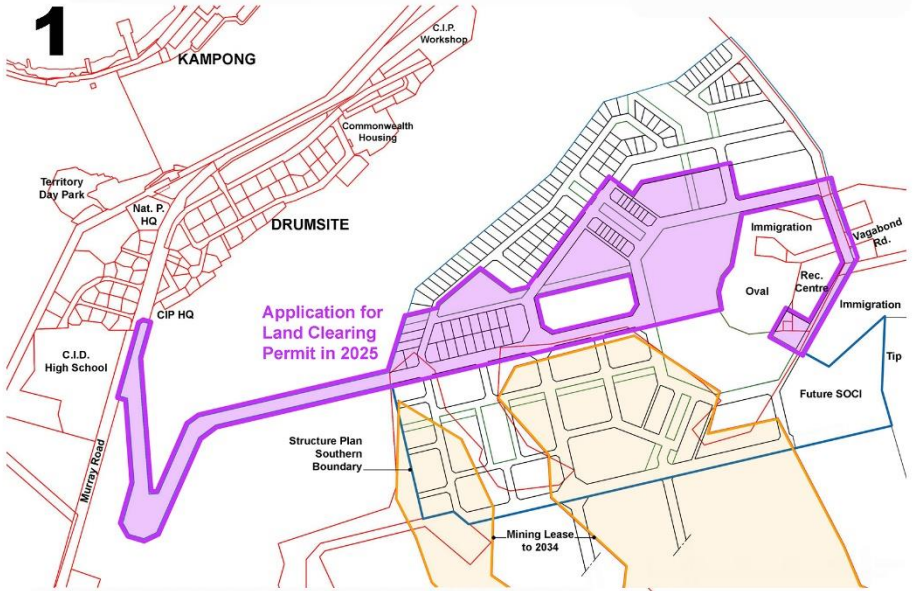
Legend

- Existing Cadastre
- Vegetation Clearing Application (2025)
- Extent of historic Mining Disturbance
- Limit of proposed Urbanisation

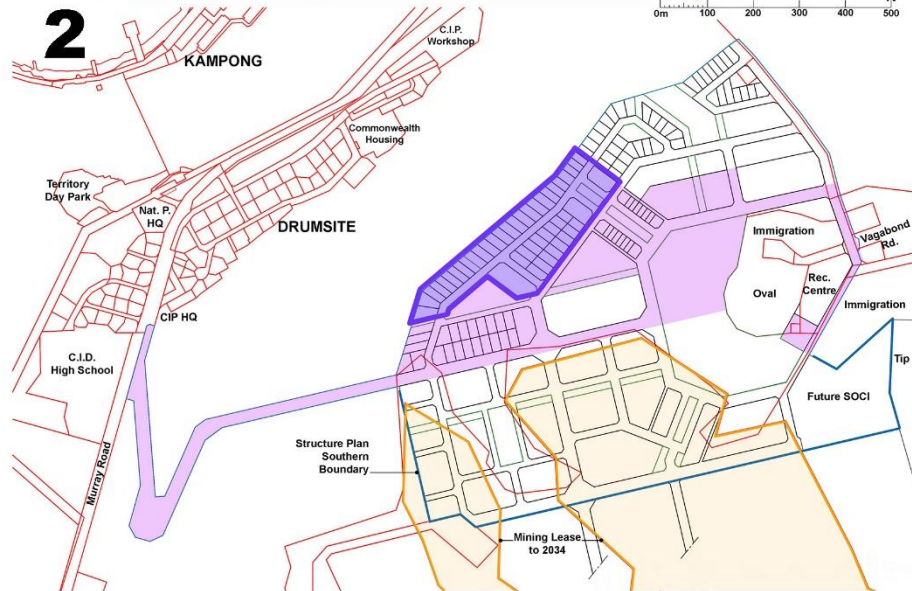


Phosphate Hill Development Stages

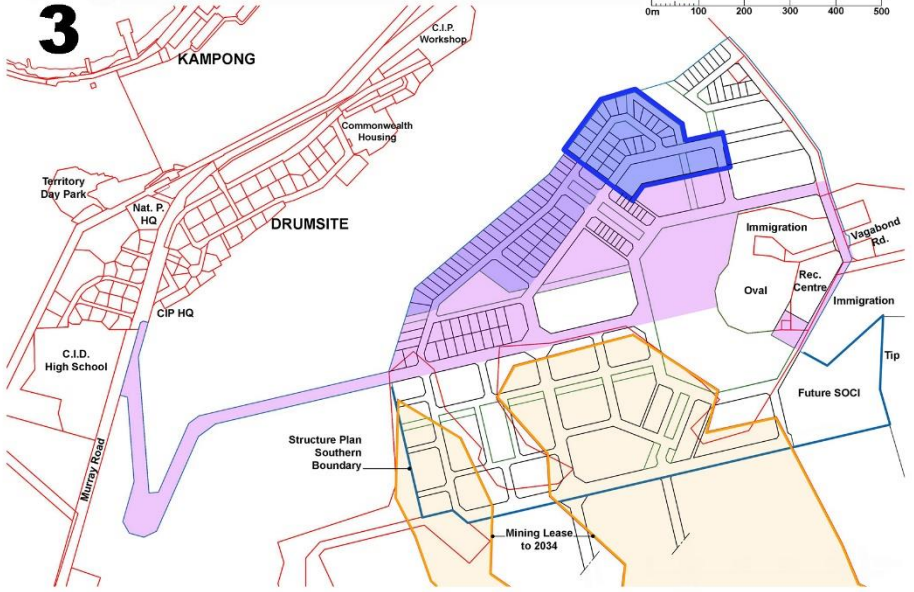
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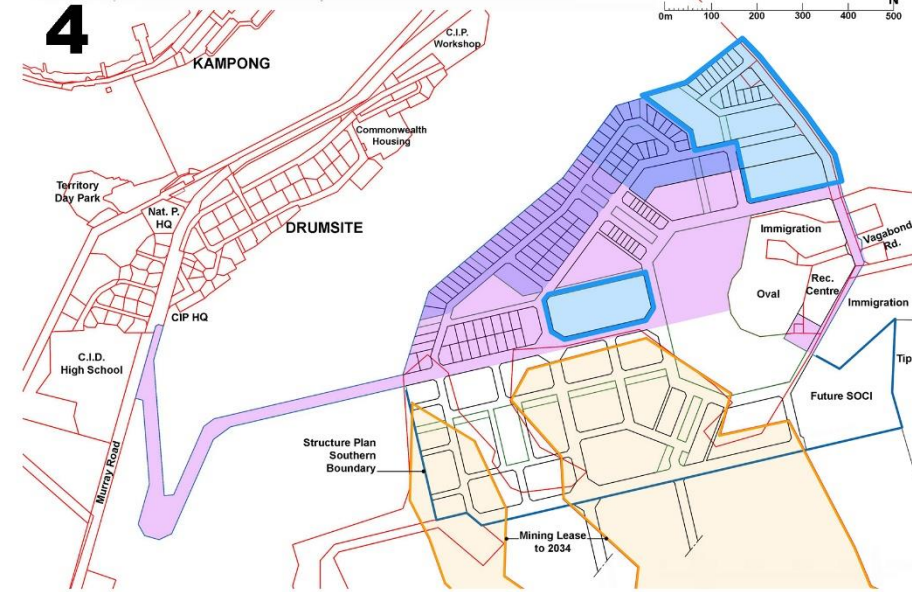
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3



4



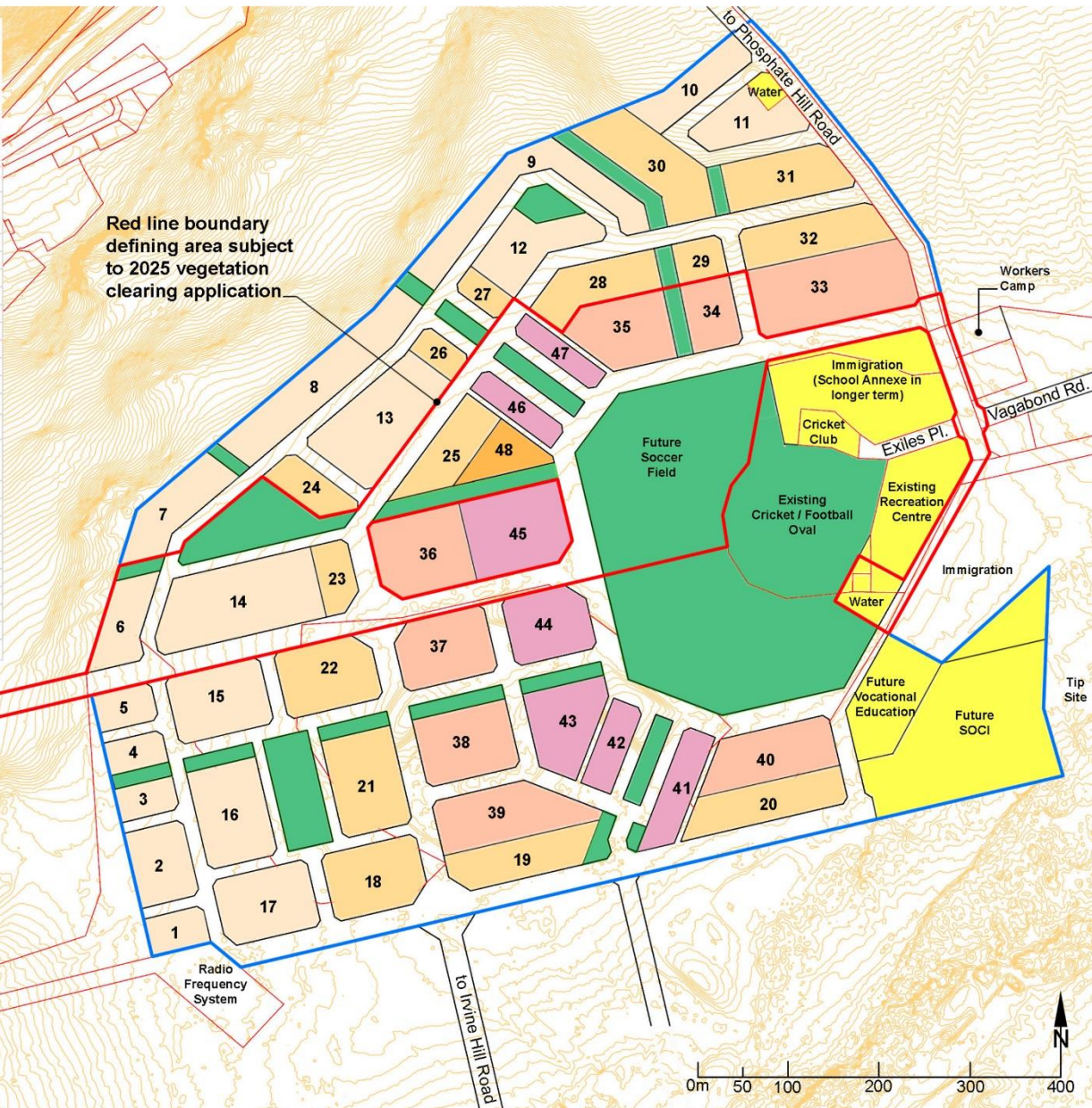
Phosphate Hill - Residential & Commercial Yield Estimate

- Structure Plan Boundary
- Public Purpose
- Civic / Community
- Public Open Space
- Residential R 17.5
- Residential R 40
- Residential R 60
- Mixed Use

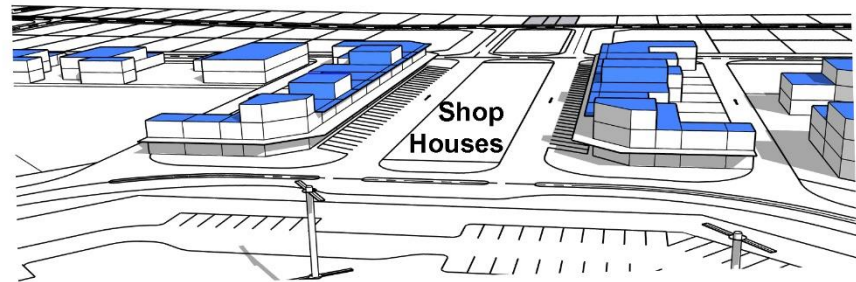
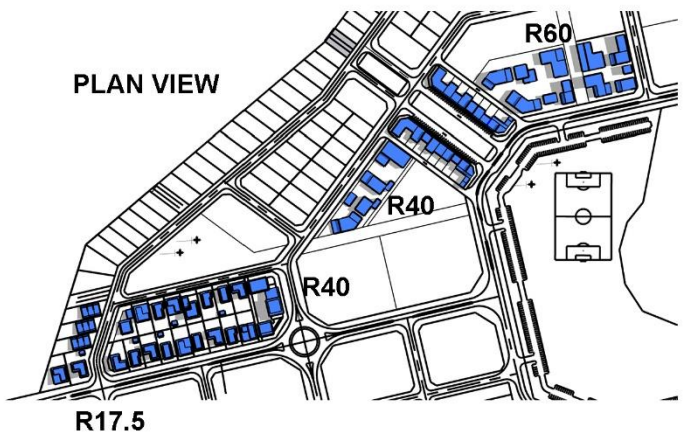
MIXED USE						
Lot No	Area (ha)	40% Parking & Landscape Area (ha)	20% Commercial Area m2	40% Residential Area (ha)	Rcode	Residential yield
41	0.48	0.19	953	0.19	80	15
42	0.35	0.14	695	0.14	80	11
43	0.70	0.28	1403	0.28	80	22
44	0.67	0.27	1336	0.27	80	21
45	1.01	0.40	2021	0.40	80	32
46	0.30	0.12	609	0.12	80	10
47	0.27	0.11	546	0.11	80	9
Total			7564			121

RESIDENTIAL				RESIDENTIAL			
Lot No	Area (ha)	Rcode	Residential yield	Lot No	Area (ha)	Rcode	Residential yield
1	0.28	17.5	5	33	1.36	60	82
2	0.56	17.5	10	34	0.43	60	26
3	0.25	17.5	4	35	0.75	60	45
4	0.24	17.5	4	36	0.93	60	56
5	0.28	17.5	5	37	0.77	60	46
6	0.49	17.5	9	38	0.80	60	48
7	0.65	17.5	11	39	0.91	60	54
8	1.16	17.5	20	40	0.78	60	47
9	1.01	17.5	18				
10	0.54	17.5	9				
11	0.63	17.5	11				
12	0.68	17.5	12				
13	1.14	17.5	20				
14	1.40	17.5	25				
15	0.80	17.5	14				
16	0.86	17.5	15				
17	0.79	17.5	14				
Sub Total			206				404
							963

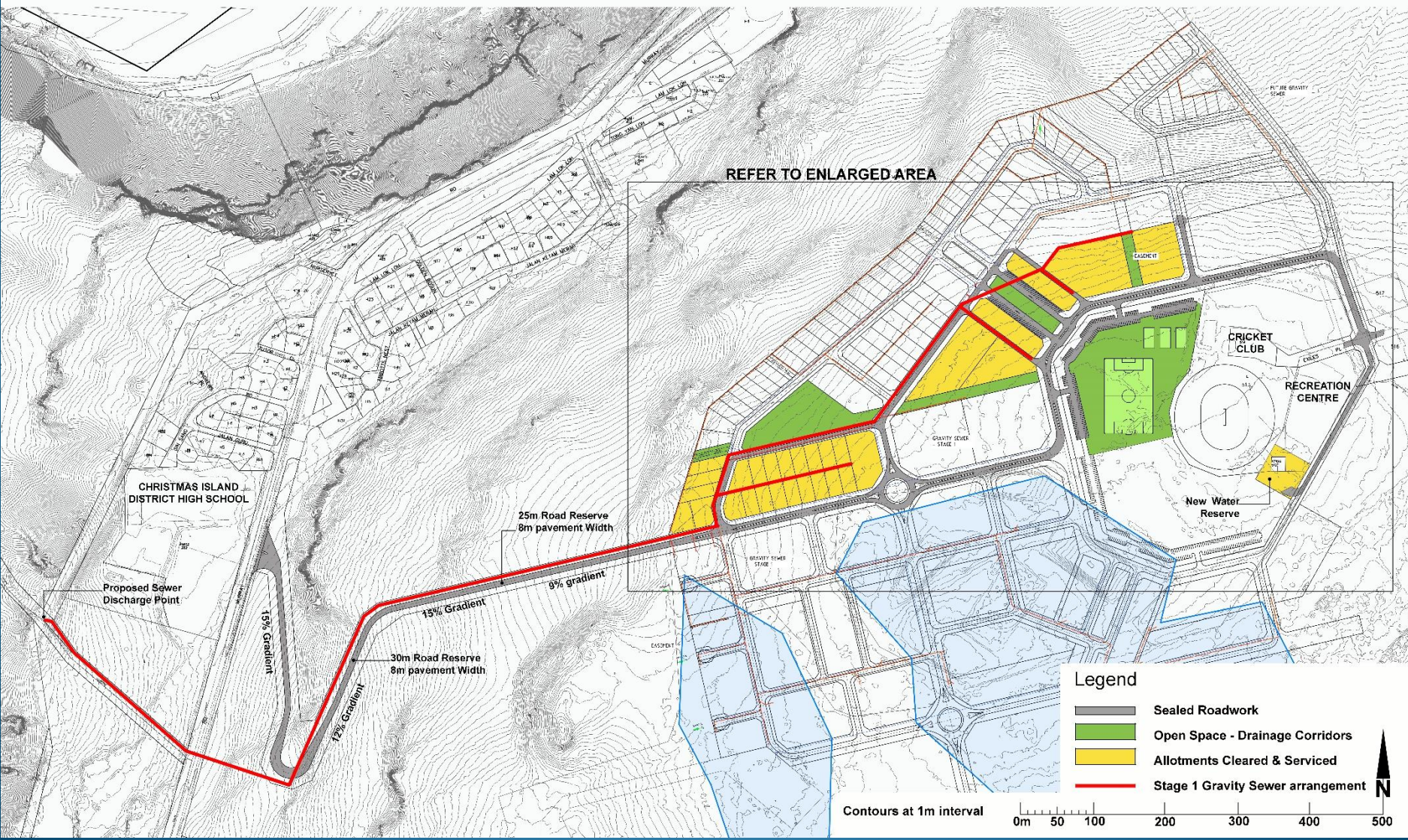
18	0.79	40	31				
19	0.70	40	28				
20	0.77	40	31				
21	0.86	40	34				
22	0.79	40	31				
23	0.30	40	12				
24	0.36	40	15				
25	0.63	40	25				
26	0.20	40	8				
27	0.18	40	7				
28	0.65	40	26				
29	0.24	40	10				
30	0.90	40	36				
31	0.73	40	29				
32	0.72	40	29				
Sub Total			353				



Phosphate Hill - Preliminary Built Form modeling



Phosphate Hill Civil Engineering Scoping Area - Stage 1 Overall

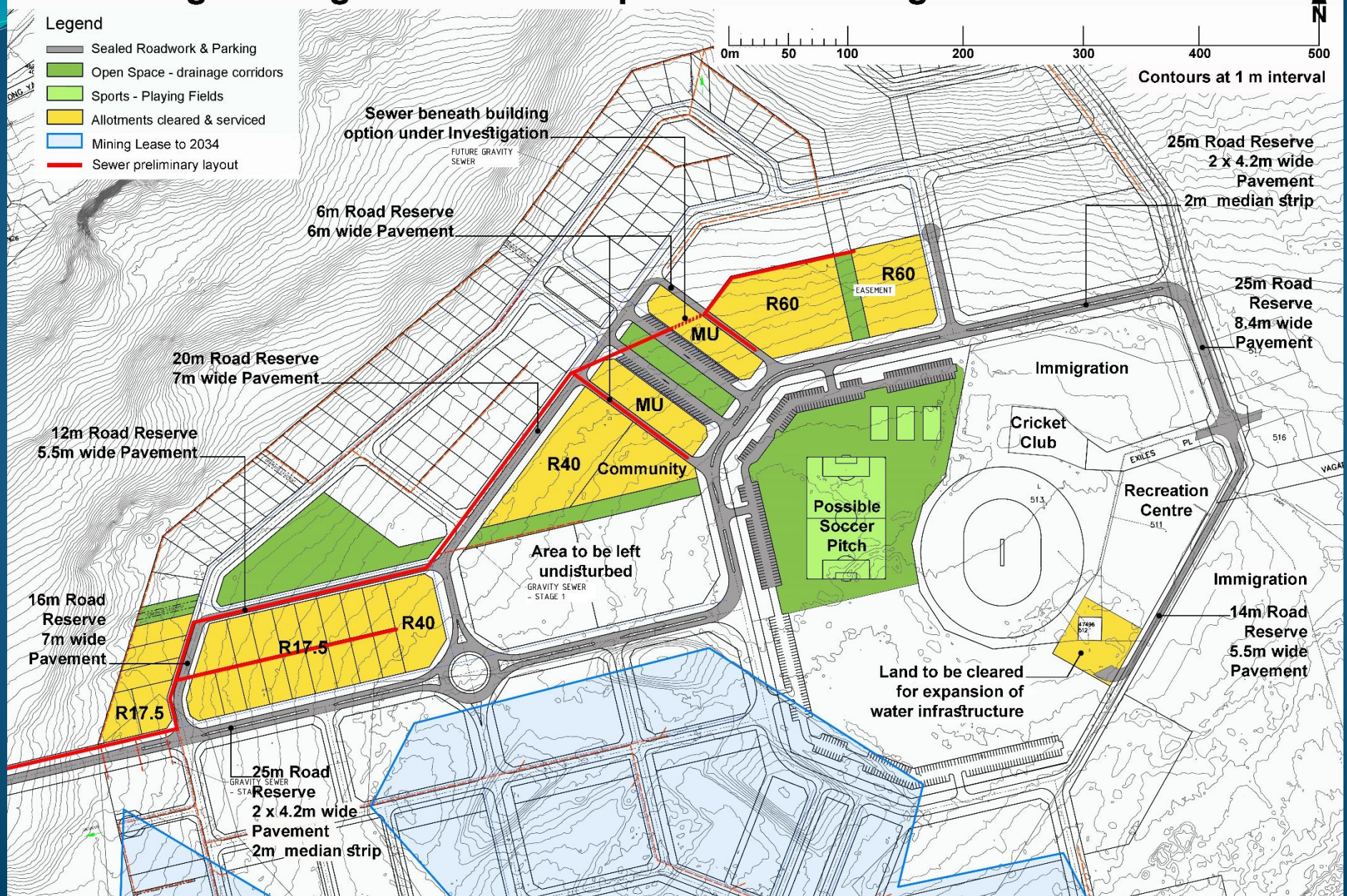


Civil Engineering & Subdivision parametres - Stage 1

- Legend**
- Sealed Roadwork & Parking
 - Open Space - drainage corridors
 - Sports - Playing Fields
 - Allotments cleared & serviced
 - Mining Lease to 2034
 - Sewer preliminary layout



Contours at 1 m interval



Planning for Green Energy

Potential Partnership with Flinders University & VAWT-X



Gary Andrews
Managing Director, VAWT-X Energy





"Quiet off-grid power close to the end user"

Pilot Project funded by DITRDCA

Telecommunications Disaster Resilience Innovation Program:

- Design and Modelling at Flinders Uni
- Assembly at the University's Factory of the Future (Old Mitsubishi Plant)
- Field Deployment February 2025

Turbine Characteristics:

- Total weight 580 Kg
- Turbine in Steel Column base
- Blades in carbon & glass composites
- Installed Power 80 kW

