

Appendix (ix) – Structure Plans

(a) Katikati

(i) Park Road East Esplanade

An additional width esplanade is to be set aside along the foreshore to the east of Park Road, Katikati as indicated on the Structure Plan and shown on the Planning Maps.

The purpose of the esplanade is to mitigate the impact of the proximity of residential development on the ecological values of the wetland.

The esplanade will have a walkway adjacent to the Residential Zone boundary. A 1.8m chain mesh type of boundary fence with a cap to prevent cats climbing over will be constructed between the walkway and the remainder of the conservation area which will be planted to form an appropriate habitat for wildlife associated with the estuary. The ecological financial contribution shall be doubled for subdivision and development occurring within this specific catchment.

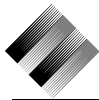
The location of the boundary fence and the planting of the esplanade shall generally be in accordance with the Wildland Report “Landscape Design for Park Road Residential Extension” April 2003.

Pedestrian access is to be provided to the proposed esplanade walkway from any future roading created to serve each of Lot 1 DPS 57974 (Still property) and Pt Lot 3 DP 30659 (Napier property).

(ii) Waterford Industrial Zone

A close-boarded wooden fence shall be constructed on the boundary of the zone with Flat 1 DPS 31079 and Lot 2 DPS 30458. The fence shall be 2.0m in height with a wooden cap.

The fence is to be constructed prior to Lot 2 DP 30458 being used for industrial purposes.



(iii)

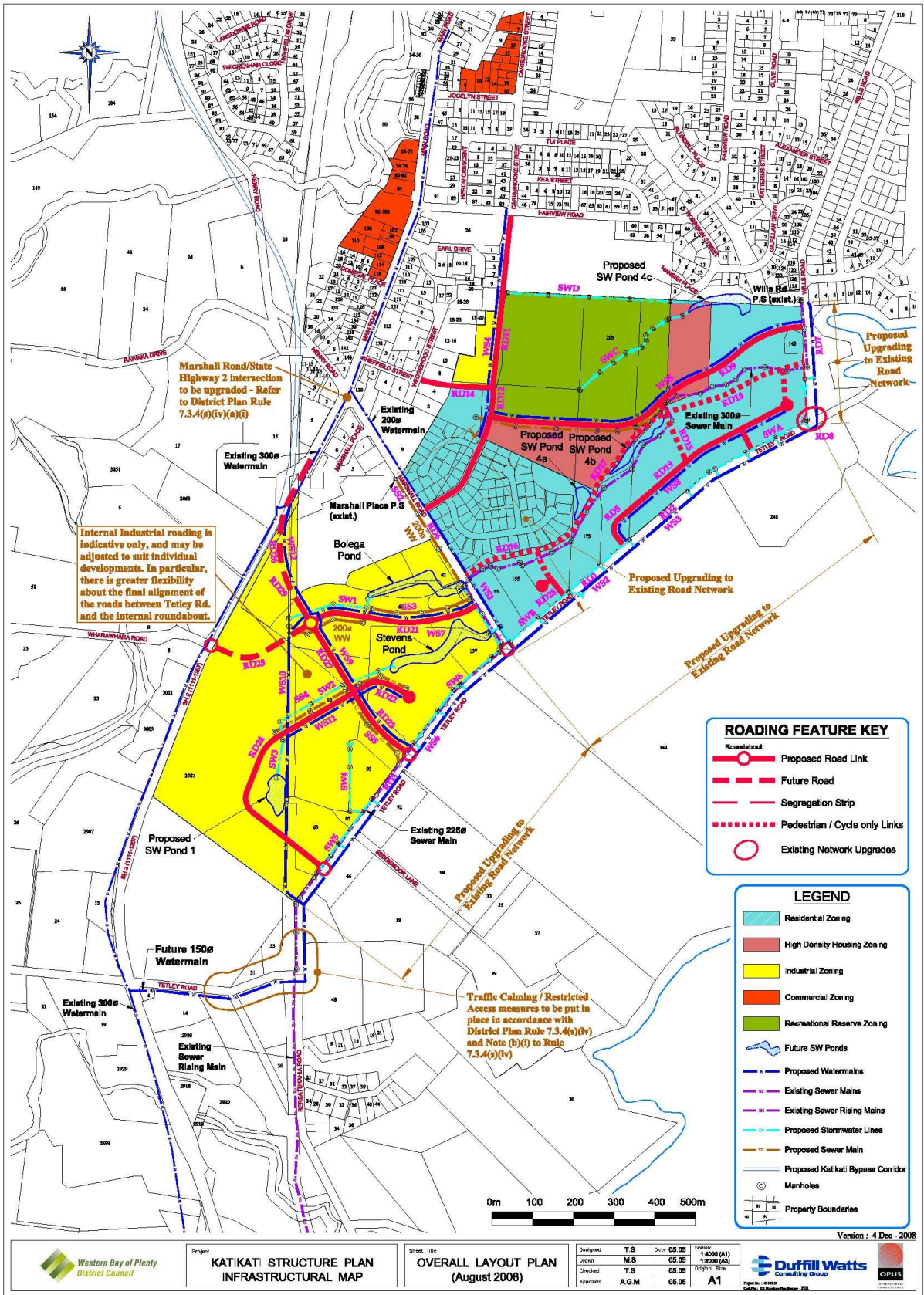
Katikati Financial Contributions (for all new development)

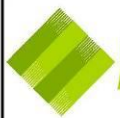
	TOTAL	Res Growth Portion	Existing Res Portion	INDUSTRIAL COSTS	DIF Calculation Costs	Rate for 1391 du's	Industrial Costs
PROJECT	PROJECT COST	% of total project cost	% of total project cost	% of total project cost			
Year							
Population							
Dwelling Units							
New Greenfields du's (780du's to 2021)							
Infill & Existing Greenfields du's (416 & 195 respectively to 2021)							
STORWATER							
Church St East	-	100	0	0	-		-
Marshall Industrial - pond	121,000	0	0	100	-		121,000
Moore Park South - pond	209,000	100	0	0	209,000		-
Wills Road East - pond	157,000	100	0	0	157,000		-
Park Road East - pond	225,000	85	15	0	191,250		-
SMA's - Land Purchase (12.26ha)	-	83.5	0	16.5	-		-
Total					557,250	400.61	
ROADING							
Church St East	126,635	50	50	0	63,318		-
Tetley Rd West	106,400	70	0	30	74,480		31,920
Tetley Rd East	285,760	100	0	0	285,760		-
Wills Rd	237,120	100	0	0	237,120		-
Park/Beach Roundabout	300,000	50	50	0	150,000		-
Total					810,678	582.80	
WATER							
Boyd St 150dia	28,500	75	25	0	21,375		-
Wihara/Tetley 150dia	40,700	25	0	75	10,175		30,525
Tetley Rd 150dia	98,050	80	0	20	78,440		19,610
Wills Rd 150dia	55,440	100	0	0	55,440		-
Park Rd 150dia	124,120	100	0	0	124,120		-
Bulk Supplies, Mains, Reservoir Upgrades	5,755,000	13.85	57.29		797,068	573.02	-
Total		(Katik growth only)			1,086,618	781.18	
SEWERAGE							
Levley to Binnie P/S	30,712	75	25	0	23,034		-
Binnie P/S Upgrade	68,000	100	0	0	68,000		-
Park Rd East Rising Main	22,932	100	0	0	22,932		-
Tetley (West of Marshall)	63,360	0	0	100	-		63,360
Tetley to Wills P/S	149,312	70	0	30	104,518		44,794
P/S at Marshall Industrial	98,690	0	0	100	-		98,690
P/S at Tetley	98,690	100	0	0	98,690		-
Treatment Plant, Disposal Upgrades	1,956,000	30	70		586,800	421.85	-
Total					903,974	649.87	
							409,899
							26.76ha
							=17,585.43ha
Dwelling Units (du)							
1 Church St East	2.7ha Conventional=2.7@10du/ha = 27du						
2 Marshall Industrial	26.76ha						
3 Moore Park South	Recreation 12.17ha; High Density Res 6.95ha @ 15du/ha=104du; Conv Res 25.78ha @ 10du/ha = 258du						
4 Wills Rd East	13.3ha @ 10du/ha = 133du						
5 Park Road East	25.63ha @ 10du/ha = 256du						
Notes							
1	Total Residential Portion of 'Council Funded Works' has been divided by total number of new dwelling units to 2021.						
2	Industrial Costs have been apportioned roughly on an area basis, or cost of services particularly attributable to that area. (not on a 'weighted' basis for say an equiv 800m2 residential lot)						

(iv)

Consultation requirements for the Tetley Road/State Highway 2 intersection

1. Prior to the Council carrying out the works referred to in Rule 7.3.4(s)(iv)(a)(ii) and Note (B)(i) to Rule 7.3.4(s)(iv) (even if the layout of the internal roading network within the Katikati Industrial Area has not been determined) the Council will consult with NZTA, the Te Rereatukahia Marae Tribal Committee and the Katikati community with regard to:
 - (a) Whether those works should still be required before more than 12.64 hectares of the industrial area is developed;
 - (b) Whether alternative measures should be pursued;
 - (c) If the works should still be required, the design of those works.
3. The parties acknowledge that if, following such consultation, the Council forms the view that the works referred to in Rule 7.3.4(s)(iv)(a)(ii) and Note (B)(i) to Rule 7.3.4(s)(iv) should not be required before more than 12.64 hectares of the industrial area is developed, the then Council would need to initiate the process to amend Rule 7.3.4(s)(iv)(a)(ii) and Note (B)(i) to Rule 7.3.4(s)(iv) of its District Plan under Schedule 1 to the Act.





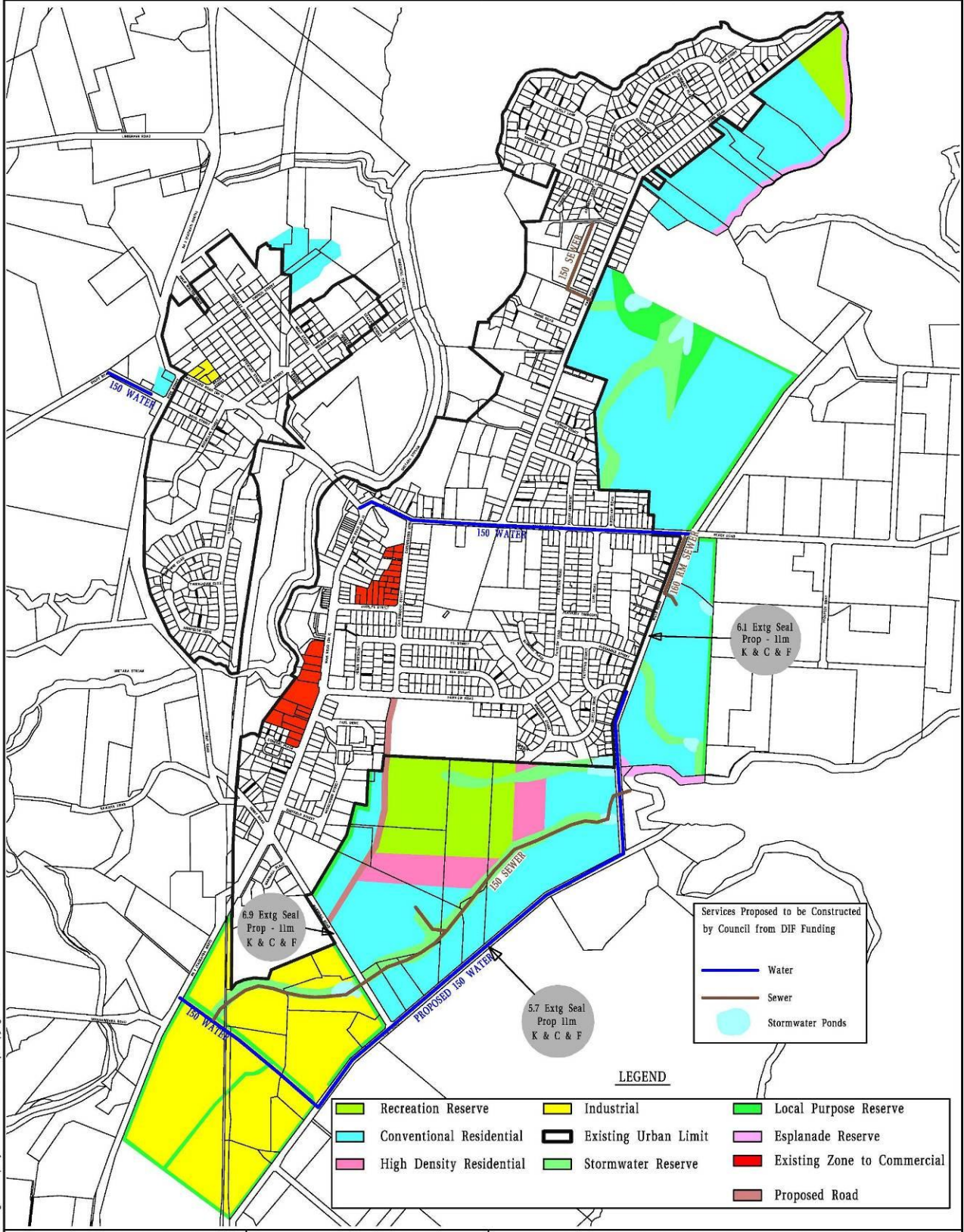
Western Bay of Plenty District Council

KATIKATI STRUCTURE PLAN

27 August 2002

Scale : N.T.S.

Operator : MLB

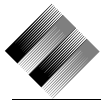


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(b) Waihi Beach, Island View and Athenree Structure Plans

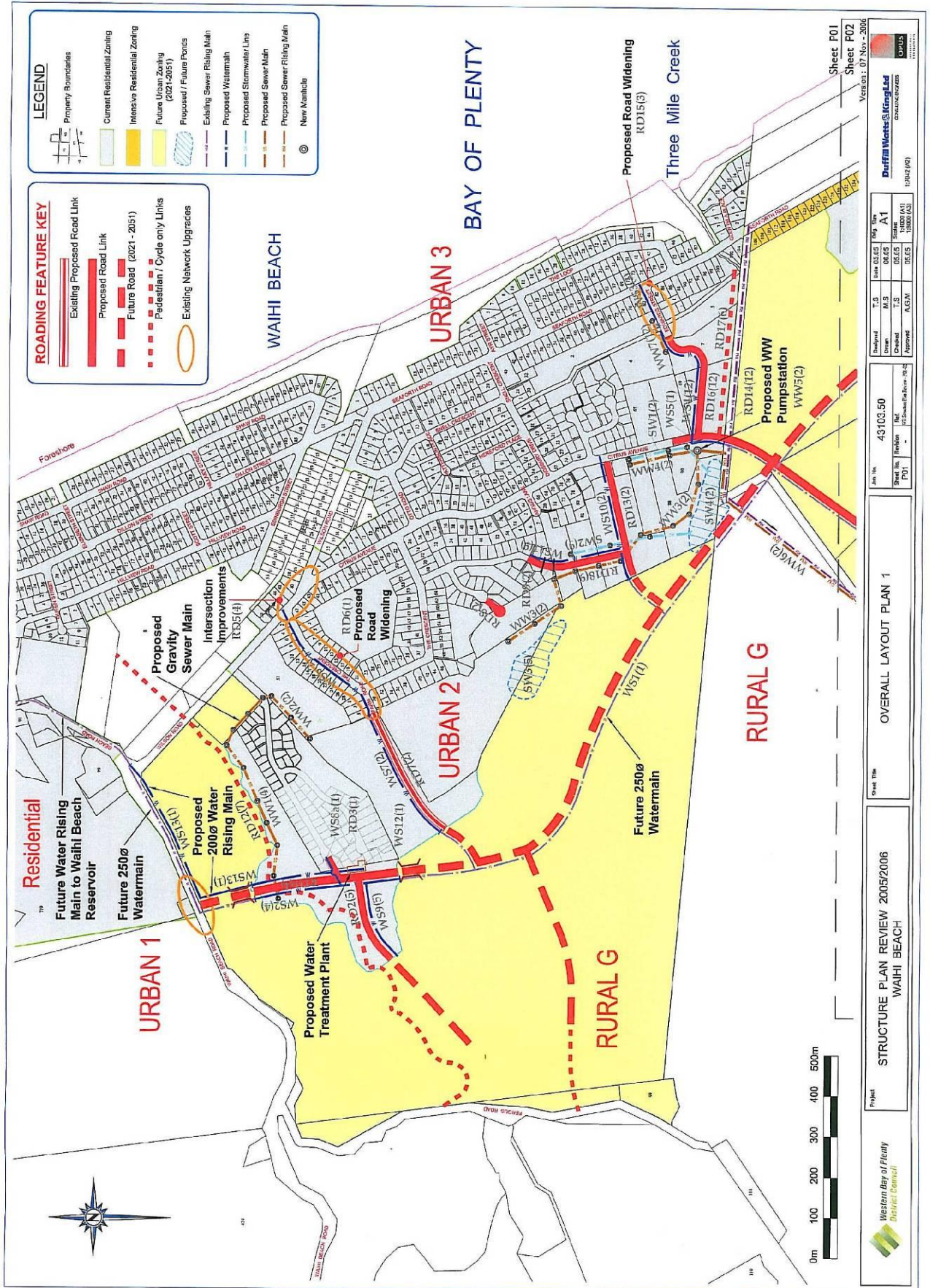
Athenree Ecological Protection Requirements

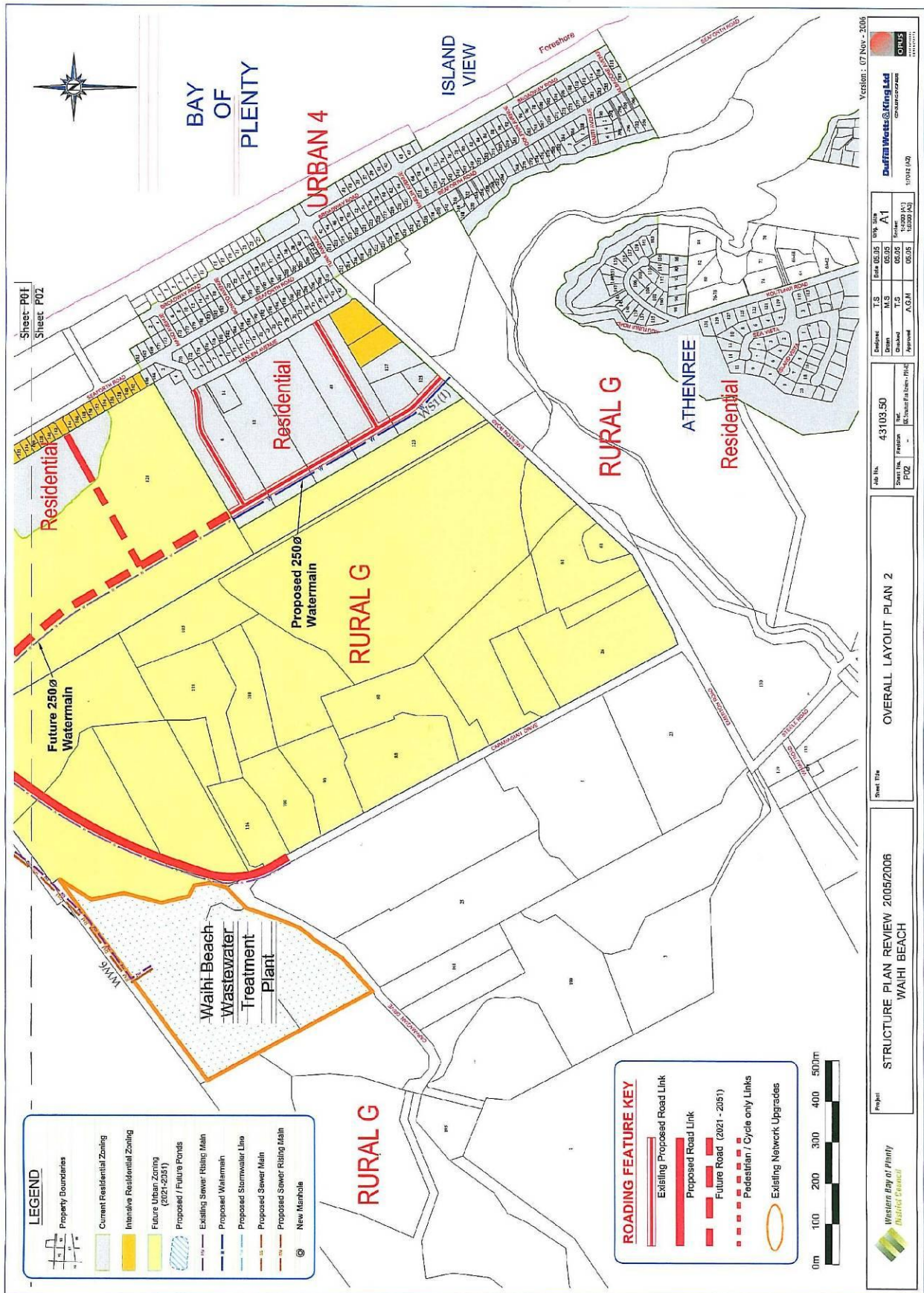
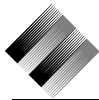
To assist in protecting and maintaining the ecological values of Tauranga Harbour adjoining the Athenree foreshore, properties in the structure plan area and which adjoin the Tauranga Harbour or Esplanade Reserve are required to have a minimum area of 2000m².

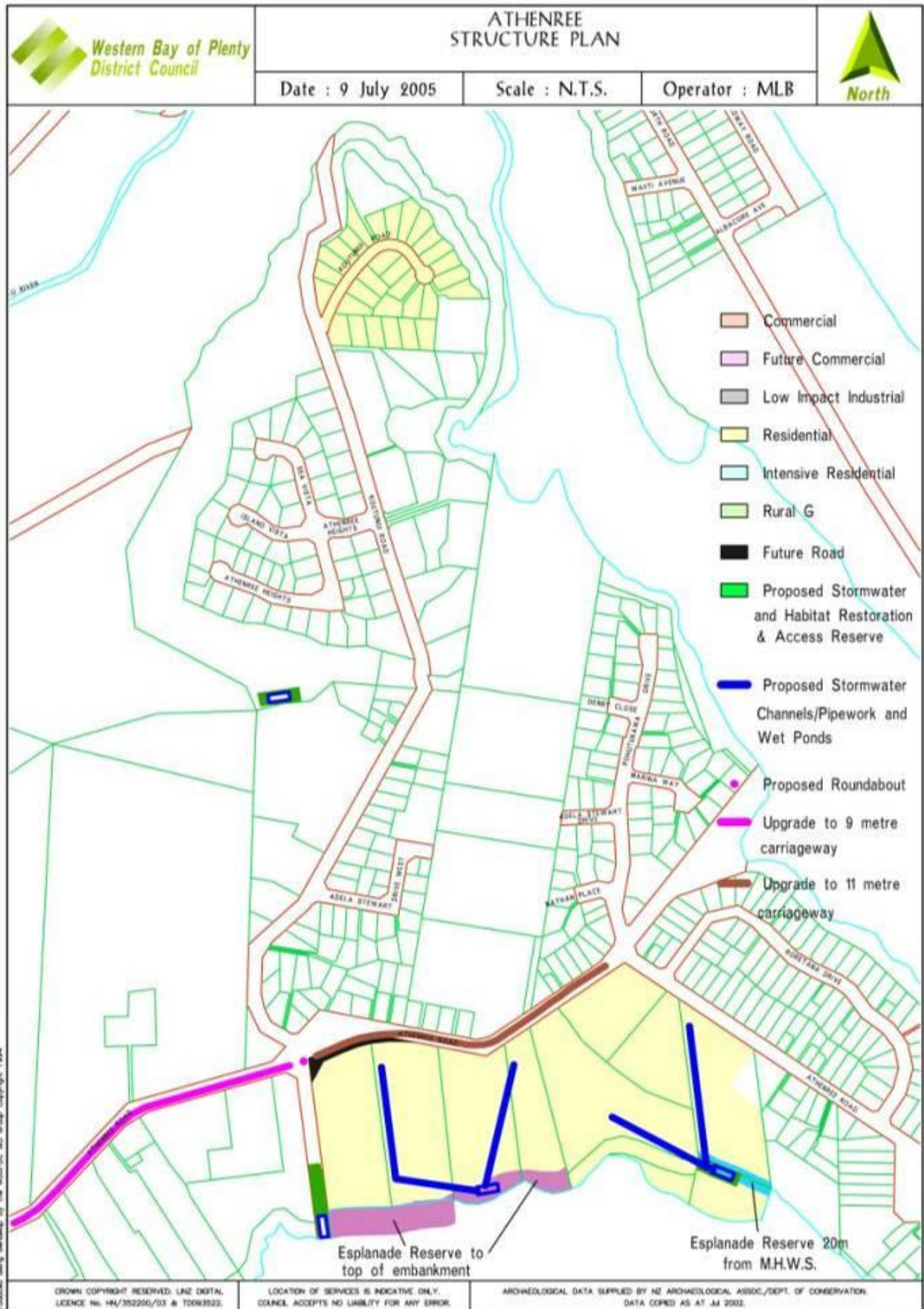
An additional width Esplanade Reserve is to be set aside along the foreshore to the South of Athenree Road. The reserve is to generally follow the top of the escarpment. On the eastern most property (Lots 4 & 8, DP35041) the esplanade reserve is to be 20 metres from mean high water spring.

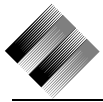
Provision shall be made by the Western Bay of Plenty District Council for a future walkway within the esplanade reserve and its specific location and design shall be supported by an ecological assessment carried out by a suitably qualified and experienced Ecologist. Suitable fencing (1.2 metres high) generally located along the harbours edge and planting of the embankment shall be implemented as part of any future subdivision development to assist in reducing the potential for people and domestic pets from venturing on to the harbour edge.

Waihi Beach Structure Plan – Indicative Finance Contributions (August 2006)	
Revised Financial Contribution Costs – estimate only	
Costs based on desktop study figures subject to +30%-15%	
Activity	Indicative – Structure Plan costs ex DWK 10 January 2006
Average lot price	200,000
Reserves	5.01%
Reserves	10,020
Waihi Beach Wastewater	5,824
Western Water	3,711
Roading Urban – growth Waihi Beach	7,057
Waihi Beach Stormwater	2,349
Ecological	433
Total financial contributions	\$29,395
Percentage of lot price	14.70%
Notes:	
Lot numbers for 2006-2026 are as per SmartGrowth.	
Costs per DWK – 10 January 2006	
Detailed costings for infrastructure are contained in the background report.	









(c) Omokoroa

Infrastructure Schedule

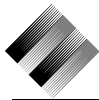
Project	Funding Source(%)				
	Developer	Council	Council	Other	
		Financial Contributions	Rates		
Water Supply		72.6%	27.4%		
Wastewater	Reticulation		73.0%	11.0%	16.0%
Stormwater	Ponds		93.4%	6.6%	
	Reticulation	100.0%			
Transport	Roads	1.0%	96.0%	4.0%	
	Walk/cycleways	100.0%			
	Park n Ride	100.0%			

Note: This schedule is a summary only. Refer to Council for the full schedule. This Schedule is updated annually through the LTCCP/Annual Plan process to reflect changes in costs and timing.

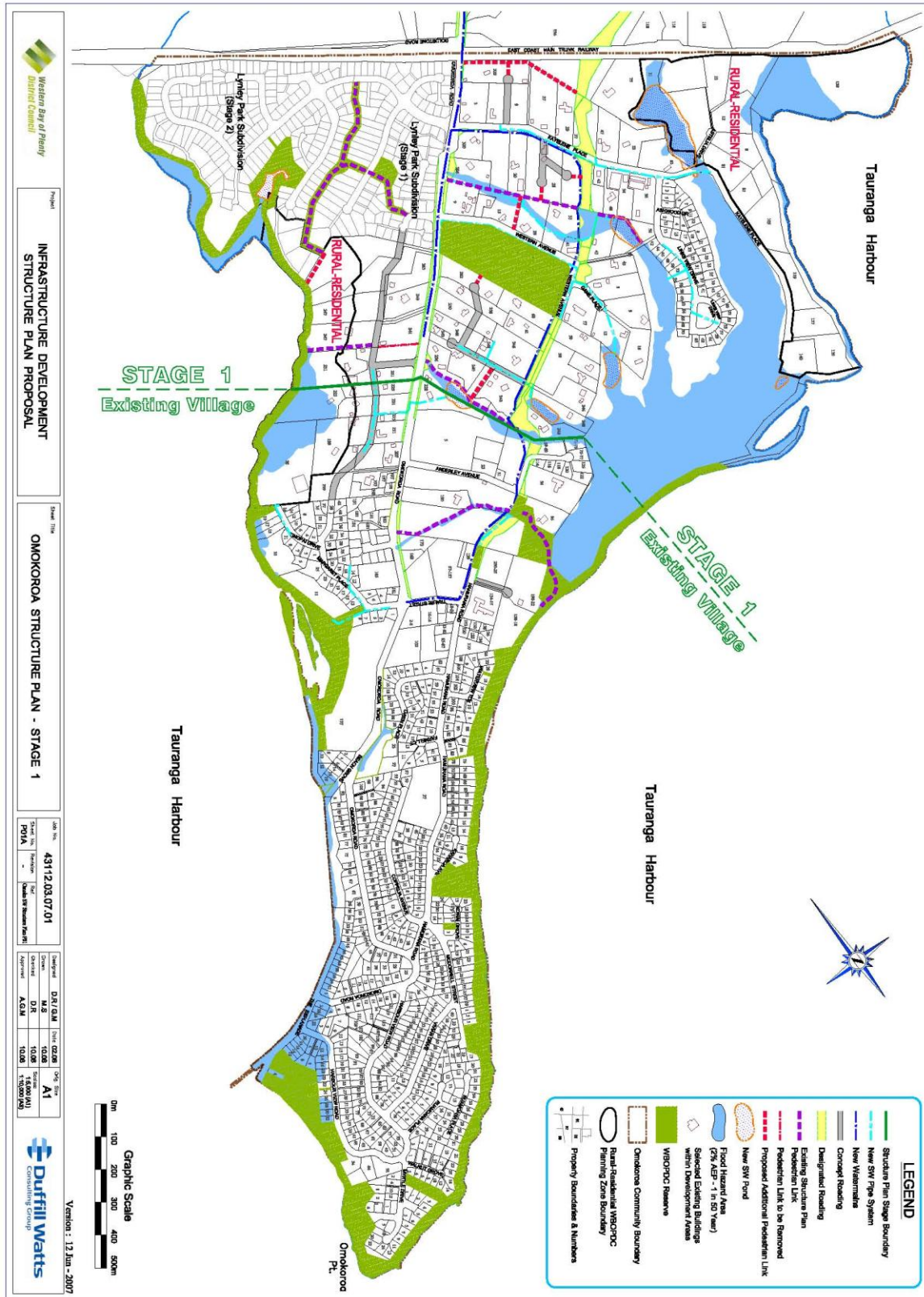
Reserve Area Requirements for Pt Allot 63 SO 423:

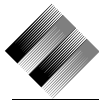
Attributes for the final location of the reserve are:

- Outlook
- Sunny aspect
- Generally level
- Central location to the catchment (approximately 2000m² area).

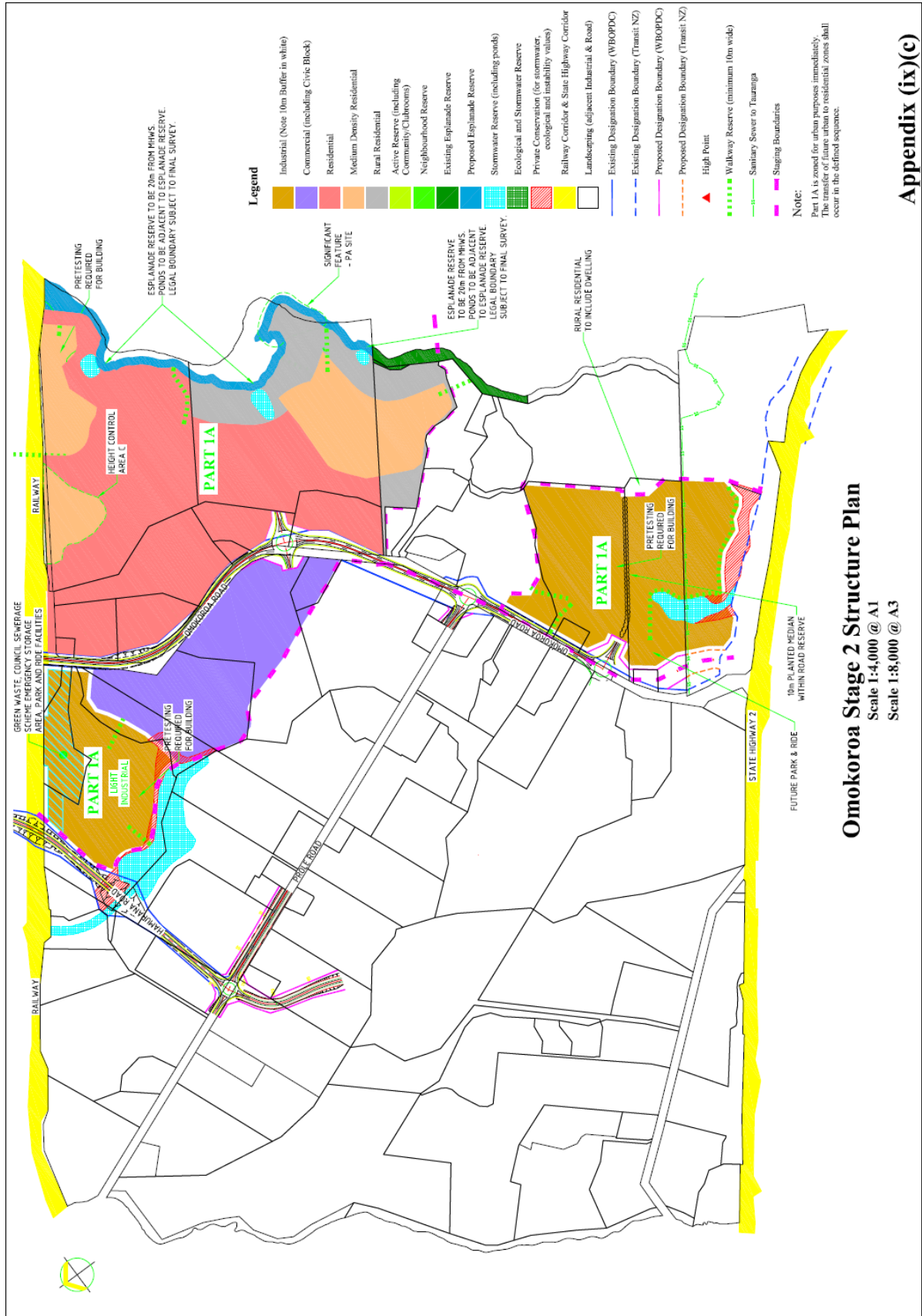


Stage 1 Omokoroa Structure Plan Map

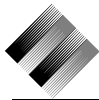




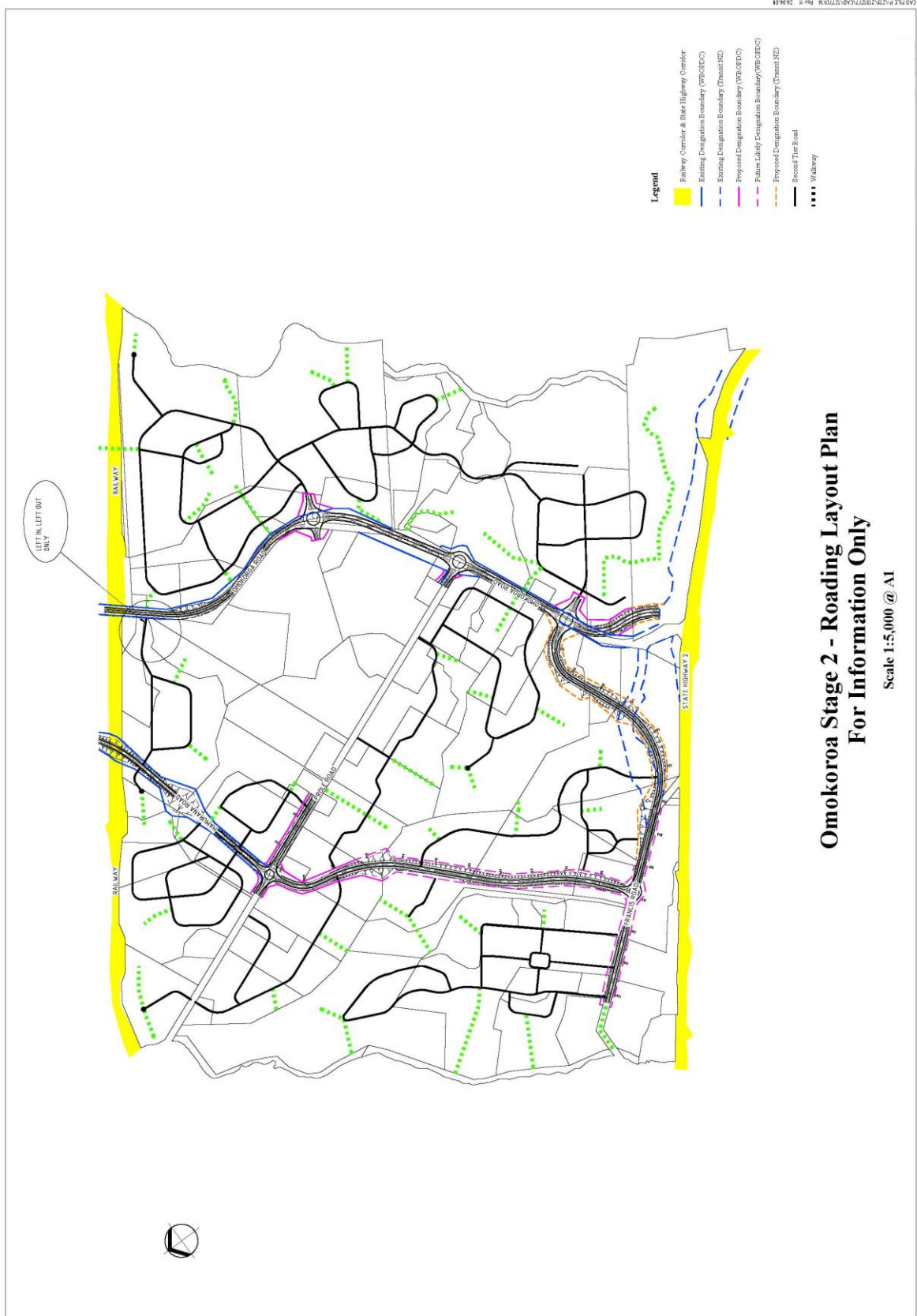
Stage 2 Omokoroa Structure Plan Map

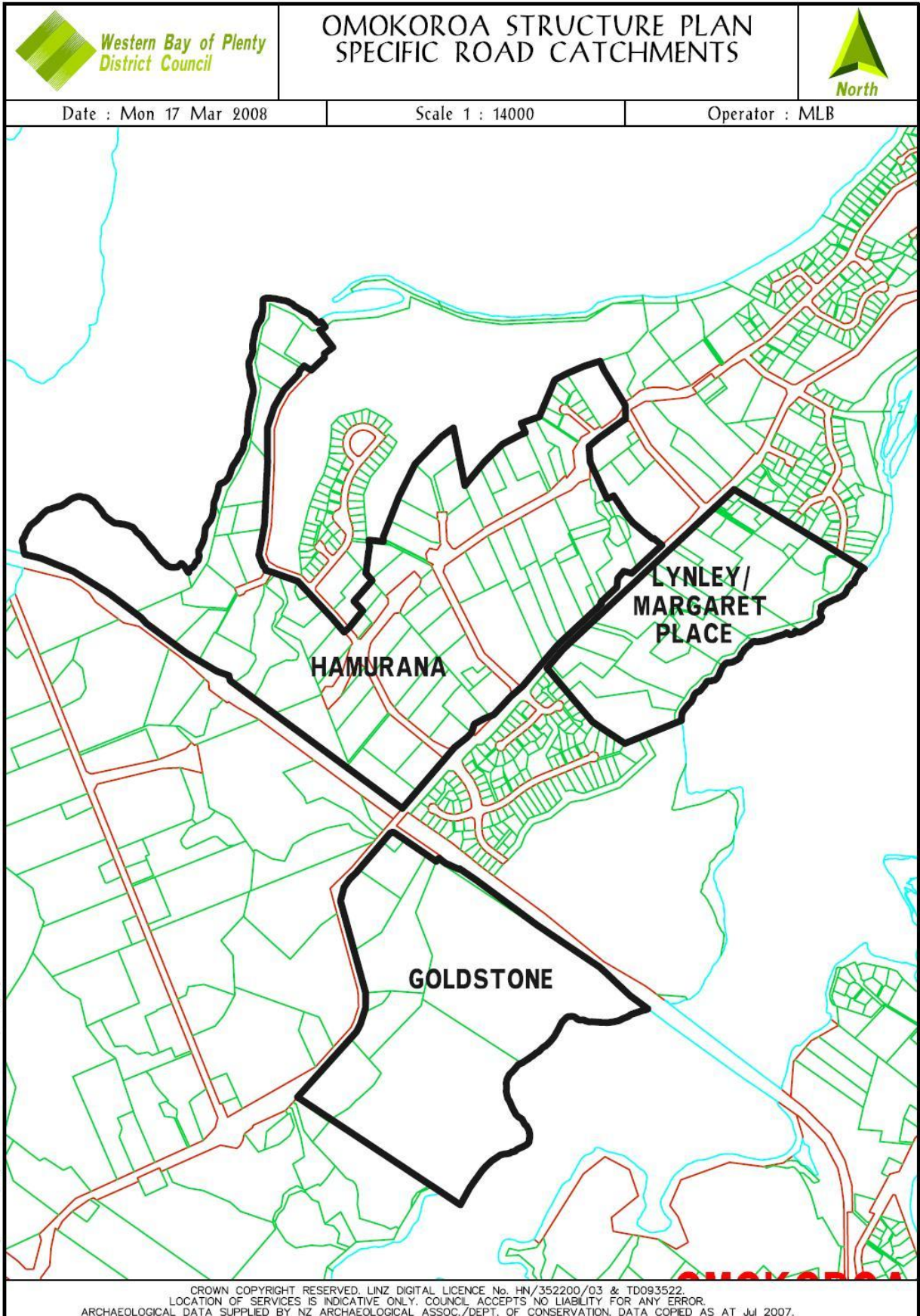


Appendix (ix)(c)

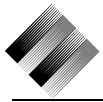


Omokoroa Stage 2 Rooding Layout





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Omokoroa Stage 2 Earthworks Procedures

The following information is provided to give land developers information on good earthworks practise in the Omokoroa Stage 2 Structure plan area.

Generally

1. Contractors involved in earthmoving or who disturb earth as part of their development need to consult with Pirirakau so all parties are aware of protocols surrounding archaeological sites.

Consultation

2. Specifically, at least four weeks prior to significant earthworks on site Pirirakau is to be informed of the upcoming earthworks.

Earthworks

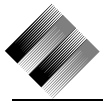
3. Prior to the works starting Pirirakau should be invited to carry out a blessing of the site.
4. All earthworks are to be monitored by a representative of Pirirakau and to this end an agreement between Pirirakau and the developer should be formed to enable site access for monitoring. It will be the developers responsibility to ensure all Occupational Safety and Health requirements and other legal obligations are able to be met by the Pirirakau representative.
5. On discovery of any unrecorded sites of archaeological importance work shall cease immediately until an assessment can be made by a hapu representative. Pirirakau will retain an archaeologist for further opinion or recommendation when or if one is required.

Archaeological

6. On discovering any archaeological find the following process will be instigated:

Koiwi (human remains)

- Site work will stop, and the designated Pirirakau representative will be notified and inspection/ assessment carried out.
- Rahui will be imposed on the site and immediate surrounds.
- Pirirakau and contractors to meet and assess implications and constraints.
- Pirirakau to notify relevant authorities.
- Koiwi site and location to be recorded and inspected by archaeologist.
- Exhumation to be carried out according to tikanga and kawa.
- Construction Work may continue in another area until site has been made safe to continue.



Stone Artefacts

- Work in the immediate area will stop and Pirirakau representative to be notified.
- Rahui will be imposed for duration of assessment.
- Location to be recorded.
- Relevant authorities notified.
- Artefacts to be dated and removed from site by Pirirakau.
- Taonga to be vested under mana of Pirirakau.
- Investigation of immediate vicinity to be carried out.
- Work may continue in another area until site has been made safe to continue.

Wooden Artefacts

- Work in immediate area will stop and Pirirakau representative to be notified.
- Rahui will be imposed for duration of assessment.
- Location to be recorded.
- Relevant authorities notified.
- If dry, artefact will need to be protected vacuum-packed and protected from deterioration.
- If wet, artefact needs to be submerged at the site. Artefact cannot be removed until a safe curing process is confirmed.
- Investigation of immediate vicinity to be carried out.
- Work may continue in another area until site has been made safe to continue.

Habitation/Midden/Cooking Sites

- Work in immediate area to stop and Pirirakau representative to be notified.
- Rahui will be imposed for duration of assessment.
- Location to be recorded.
- Relevant authorities to be notified.
- Surface investigation/excavation to determine extent of the site.
- Archaeological investigation to be carried out because of number of artefact remains which may be found.
- If wet, artefact needs to be submerged at the site. Artefact cannot be removed until a safe curing process is confirmed.
- Any significant find to be stored and recorded.
- Work may continue in another area until site has been made safe to continue.

Naming Rights

Pirirakau, as Tangata Whenua of the area, has the right to suggest names to Council and reasons for such suggestions for any areas or roads resulting from development.



(d) Te Puna



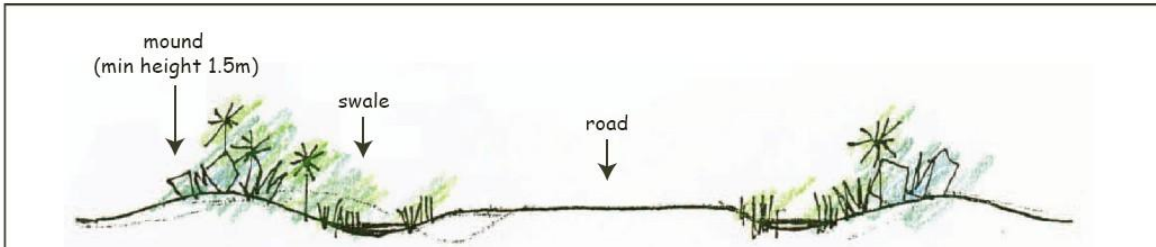
TE PUNA RURAL BUSINESS PARK
STRUCTURE PLAN

SHEET 1 OF 2 Scale 1:4000 at A3



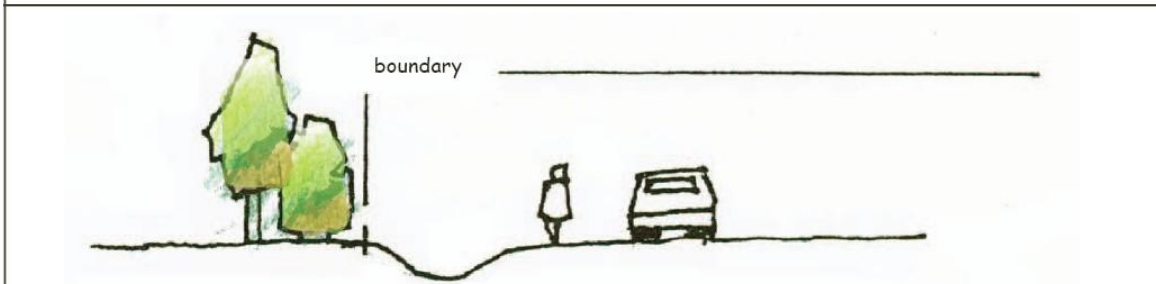
TE PUNA STATION ROAD PLANTING SECTIONS

(Planting to comply with sightline requirements at access points onto Te Puna Station Road)



CENTRAL ROADSCAPE (20m SETBACK FROM TE PUNA STATION ROAD)

- Mound and swale relates to new ponds and open space pattern
- Wider roadscape contrasts with east and west roadscares



EAST AND WEST ROADSCAPES (20m SETBACK FROM TE PUNA STATION ROAD)

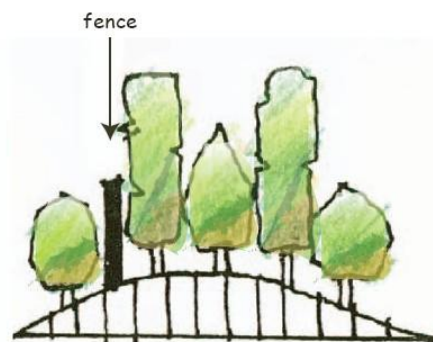
- Linear planting reinforces local character

ACOUSTIC EARTH BUNDS



2.0 metre high earth bund (landscaped)
above finished ground level

DETAIL 1

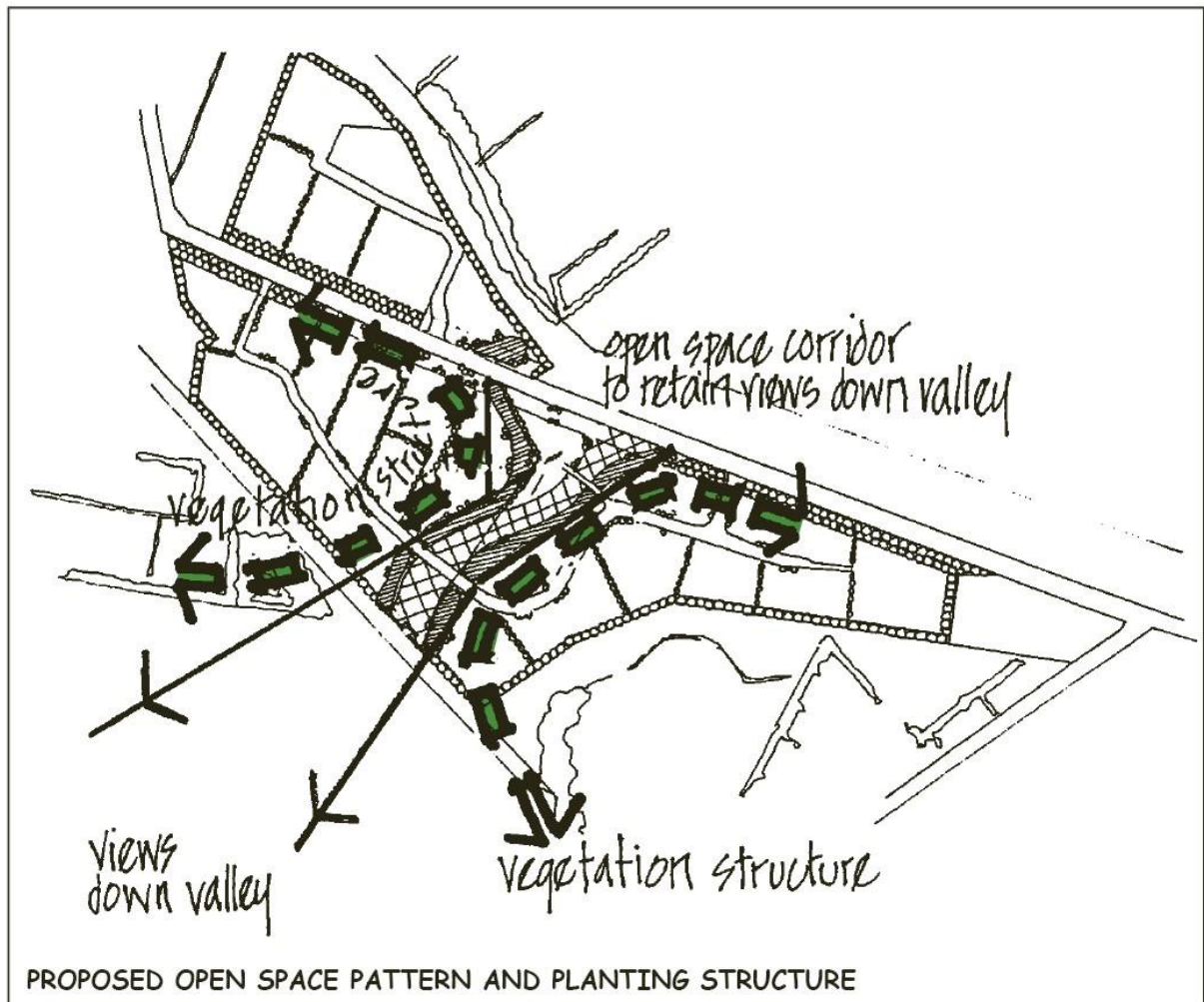


1.5-2.0 metre high earth bund with 1.5-2.0 metre
high fence (landscaped) (total height not less than
3.0m above finished G.L.)

DETAIL 2

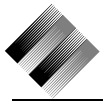


PERIMETER PLANTING



TE PUNA RURAL BUSINESS PARK STRUCTURE PLAN

SHEET 3 OF 3



(e) Rangiuru Business Park

As required by Rule 15.3.5.1(c), in Section 15 Subdivision and Land Use Development, all subdivision, use and development in the Rangiuru Business Park Zone shall be in accordance with the Structure Plans in this Appendix (which comprises seven separate plans).

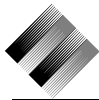
- Rooding and layout
- Intersection plans
- Stormwater and amenity reserves
- Water supply
- Wastewater
- Off-site infrastructure (water supply and wastewater)
- Finished contours

The structure plans identify the trunk infrastructure required to give effect to the overall development of the Rangiuru Business Park Zone, as set out in the attached "Financial Contribution Schedule".

The calculations used to determine the trunk infrastructure costs are included in a separate report "Metroplex Rangiuru - Financial contributions" (November 2005) which was included in Appendix 6, Volume 1 of the Plan change documentation which led to the inclusion of this zone in the district plan. This is available on request from Council.

The total net developable area within the Rangiuru Business Park Zone (148 hectares) is derived from the total area of the zone (243 hectares) less the reserves, collector roads and other trunk infrastructure as shown on the structure plans (95 hectares).

The total trunk infrastructure costs from the attached "financial contribution schedule" has been divided by the total net developable area within the zone to come up with a financial contribution that is payable per square metre of site area. This is set out in Rule 16.3.9. For the Seeka site being Lots 1 & 2 DPS 3521, the developable area shall be that shown on Plan 011318-S-R400 Rev A in Appendix 6 - Financial Contribution Calculations of the Private Plan Change Request - Metroplex Rangiuru Business Park Volume 1 November 2005.



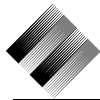
Metroplex Rangiuru Financial Contribution Schedule

November 2005

Rates include allowance for land purchase, contingencies plus design and supervision

Based on June 2005 costs

Item	Description	Unit	Quantity	Rate	Amount Total Construction	Percentage of Public/ Network Benefit	Rangiuru Contribution
1.00	ROADING INFRASTRUCTURE						
1.01	Eastern Arterial Interchange	LS	1	9,788,000	9,788,000	0%	9,788,000
1.02	SH2/Pah Road Intersection Upgrade	LS	1	2,217,000	2,217,000	0%	2,217,000
1.03	Young Road/Pah Road Roundabout	LS	1	364,000	364,000	0%	364,000
1.04	Young Road Upgrade Within Site	m	1850	2,350	4,347,500	0%	4,347,500
1.05	Young Road Upgrade Outside Site	m	850	700	595,000	0%	595,000
1.06	Pah Road Upgrade	m	1250	800	1,000,000	0%	1,000,000
1.07	Entrance Road	m	520	1,450	754,000	0%	754,000
1.08	Collector roads	m	2420	1,000	2,420,000	0%	2,420,000
1.09	Roundabouts	ea	3	600,000	1,800,000	0%	1,800,000
	Young Road Bylaw		1	10,000	10,000		10,000
					23,295,500		23,295,500
2.00	STORMWATER						
2.01	Stormwater Pond 1 (Carrs)	LS	1	4,996,000	4,996,000	0%	4,996,000
2.02	Stormwater Pond 2 (Diagonal)	LS	1	361,000	361,000	0%	361,000
2.03	Walkways/Boardwalks	m	1500	65	97,500	0%	97,500
2.04	Stormwater Reticulation						
	(a) 900 dia	m	330	460	151,800	0%	151,800
	(b) 1050 dia	m	305	545	166,225	0%	166,225
	(c) 1350 dia	m	170	670	113,900	0%	113,900
	(d) 1500 dia	m	397	750	297,750	0%	297,750
	(e) 1650 dia	m	662	830	549,460	0%	549,460
	(f) 1800 dia	m	165	950	156,750	0%	156,750
2.05	Roading related Stormwater Type 3 < 500m	m	2850	330	940,500	0%	940,500
2.06	Open Channel Drainage						
2.06.1	Type A (4m base width)	m	470	1,040	488,800	0%	488,800
2.06.2	Type B1 (9m base width, south of TEA)	m	940	1,240	1,165,600	0%	1,165,600
2.06.3	Type B2 (9m base width north of TEA)	m	180	320	57,600	0%	57,600
2.06.4	Type C (13m base width)	m	250	1,530	382,500	0%	382,500
2.06.5	Type D (35m base width, north of TEA)	m	440	740	325,600	0%	325,600
2.07	Multiple Culverts under TEA						
	7 x 1.5m x 1.5m box culverts	m	595	1,000	595,000	0%	595,000
	2 x 1.2m x 1.2m box culverts	m	170	900	153,000	0%	153,000
2.08	Culverts under internal roads						
	2 x 2m dia	m	170	1,250	212,500	0%	212,500
2.09	Investigation and Preliminary design	LS	1	31,500	31,500	0%	31,500
					11,242,985		11,242,985



Metroplex Rangiuru Financial Contribution Schedule (cont)

Item	Description	Unit	Quantity	Rate	Amount Total Construction	Percentage of Public/ Network Benefit	Rangiuru Contribution
3.00	SANITARY SEWER						
3.01	Sanitary Sewer Pumping Stations	ea	3	250,000	750,000	0%	750,000
3.02	Major Pump Station	ea	1	800,000	800,000	0%	800,000
3.03	Emergency Generator	ea	1	190,000	190,000	0%	190,000
3.04	Emergency Storage, major pumpstation	ea	1	280,000	280,000	0%	280,000
3.05	Emergency Storage, minor pumpstation	ea	3	75,000	225,000	0%	225,000
3.06	Sanitary Sewer Rising Main (400 dia)	m	5800	400	2,320,000	0%	2,320,000
3.07	Kaituna River Thrust	LS	1	380,000	380,000	0%	380,000
3.08	Waiari River Thrust	LS	1	170,000	170,000	0%	170,000
3.09	Internal Trunk Main (225dia)	m	350	145	50,750	0%	50,750
3.10	Internal Trunk Main (300dia)	m	760	160	121,600	0%	121,600
3.11	Internal rising mains (150 dia)	m	910	95	86,450	0%	86,450
3.12	Internal rising mains (200 dia)	m	430	140	60,200	0%	60,200
3.13	Fencing along rising main route	m	900	16	14,400	0%	14,400
3.14	Replace trench spoil with on-site sand	LS	1	38,500	38,500	0%	38,500
3.15	Metal Race on Vercoe property	LM	930	36	33,480	0%	33,480
3.16	Te Puke STP capacity upgrade	LS	1	8,500,000	8,500,000	0%	8,500,000
3.17	Investigation and Preliminary design	LS	1	37,400	37,400	0%	37,400
					14,057,780		14,057,780
4.00	WATER RETICULATION						
4.01	Supply and lay 450mm DI/CLMS Gravity Trunk	m	7850	400	3,140,000	0%	3,140,000
4.02	Supply and lay 225mm uPVC pumped main	m	9000	175	1,575,000	0%	1,575,000
4.03	Primary Water Supply Bores adjacent to site	ea	1	1,400,000	1,400,000	0%	1,400,000
4.04	Secondary Water Supply Bores adjacent to site	ea	0	1,000,000	0	0%	-
4.05	Temporary Pump Stage 1	ea	1	300,000	300,000	0%	300,000
4.06	Primary Water Supply Bores adjacent to Rangiuru Road	ea	1	1,400,000	1,400,000	0%	1,400,000
4.07	Secondary Water Supply Bores adjacent to Rangiuru	ea	1	1,000,000	1,000,000	0%	1,000,000
4.08	Treatment Plant adjacent to Rangiuru Road	ea	1	1,500,000	1,500,000	0%	1,500,000
4.09	Reservoir Rangiuru Road 5500m ³	ea	1	2,000,000	2,000,000	30%	1,400,000
4.10	Supply and lay 375mm uPVC	m	5250	350.00	1,837,500	0%	1,837,500
4.11	Supply and lay 300mm uPVC	m	3000	235.00	705,000	0%	705,000
4.12	Investigation and Preliminary design	LS	1	47,200.00	47,200	0%	47,200
4.13	Proof testing of supply bore	LS	1	250,000.00	250,000	0%	250,000
					15,154,700		14,554,700
5.00	RESERVES						
	LP Reserves and Cycleways						
5.01	Landscaping	ha	3.96	80,000	316,800	0%	316,800
5.02	Walkways/Cycleways	m	820	65	53,300	0%	53,300
5.03	Fencing (Timber board and batten)	m	420	65	27,300	0%	27,300
5.04	Fencing (Post and Wire)	m	6900	15	103,500	0%	103,500
5.05	Land Purchase	ha	4.04	300,000	1,212,000	0%	1,212,000
					1,712,900		1,712,900
TOTAL					65,463,865		64,863,865

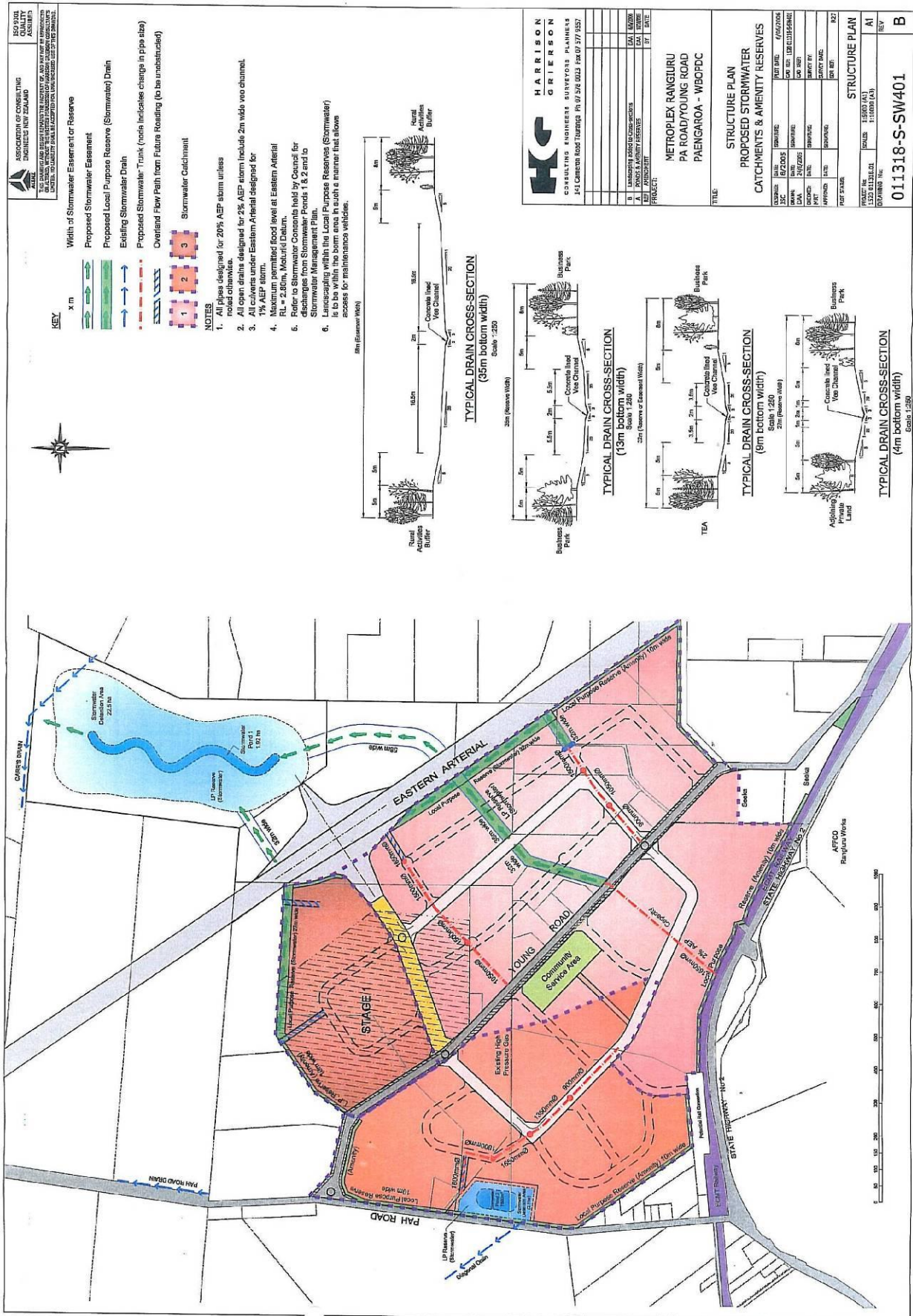
Development Area (ha) 148.60

Advice Note

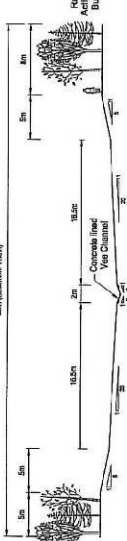
The cost per square meter is based on June 2005 cost

The contributions listed are as at June 2005

For current values refer to Councils current Annual Plan



- KEY**
- x m
 - Width of Stormwater Easement or Reserve
 - Proposed Stormwater Easement
 - Proposed Local Purpose Reserve (Stormwater) Drain
 - Existing Stormwater Drain
 - Proposed Stormwater Trunk (veins indicates change in pipe size)
 - Overland Flow Path from Future Roadway (to be unobstructed)
 - Stormwater Catchment
- NOTES**
1. All pipes designed for 20% AEP storm unless stated otherwise.
 2. All stormwater designed for 2% AEP storm include 2m wide weed channel.
 3. All culverts under Eastern Arterial designed for 1% AEP storm.
 4. Maximum permitted flood level at Eastern Arterial RL = 2.80m, Mokuhi Datum.
 5. Refer to Stormwater Consents held by Council for discharges from Stormwater Ponds 1 & 2 and to Stormwater Management Plan.
 6. Landscaping within the Local Purpose Reserve (Stormwater) shall include a minimum that allows access for maintenance vehicles.

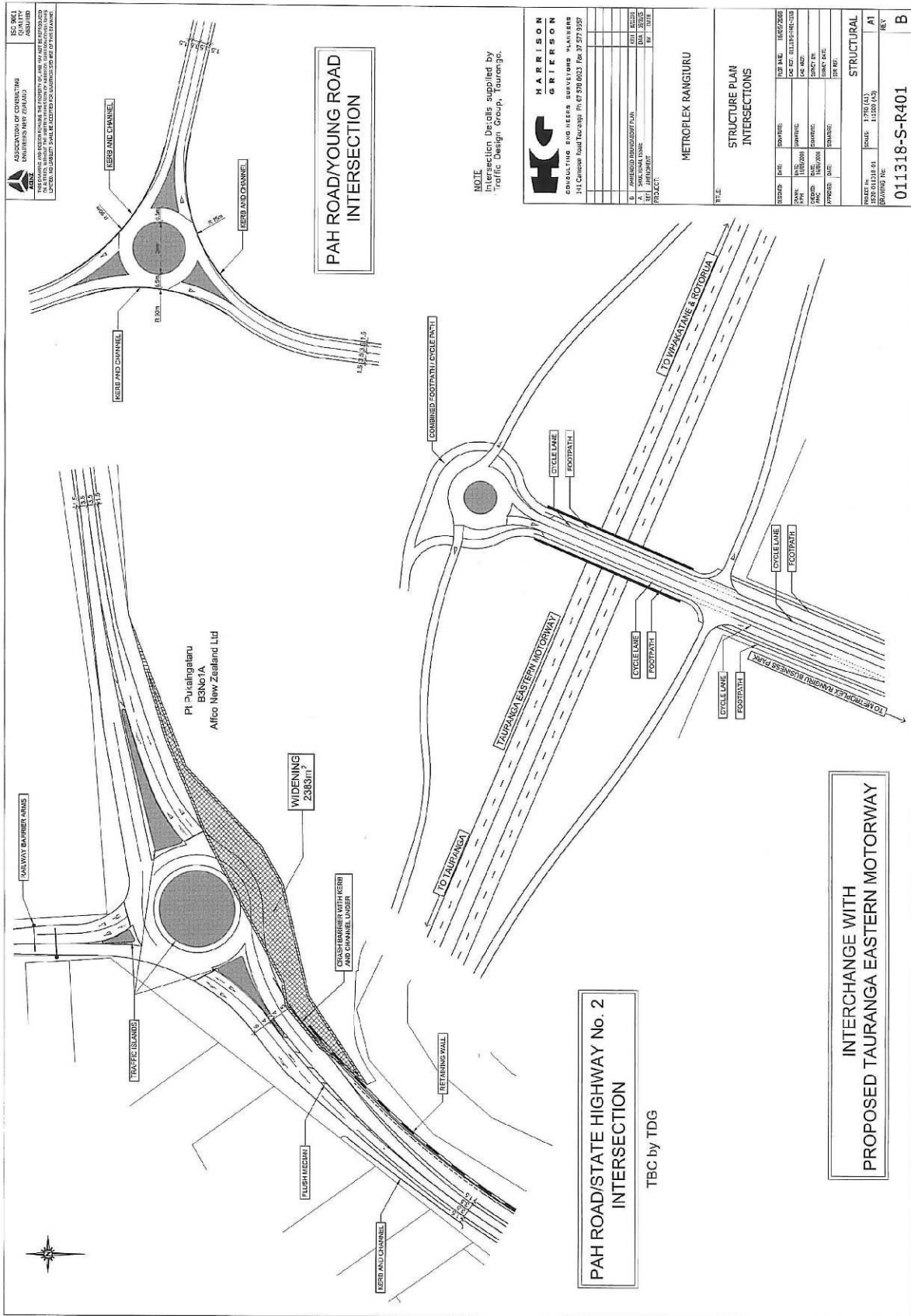
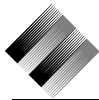


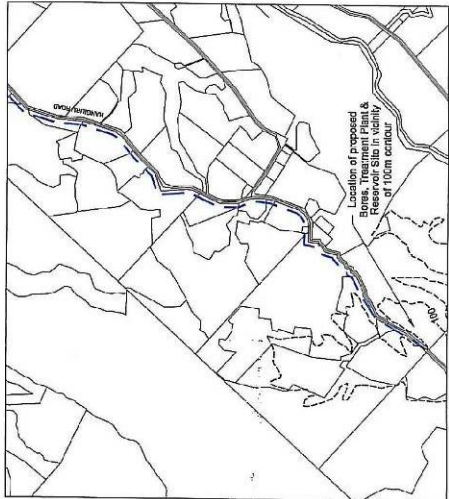
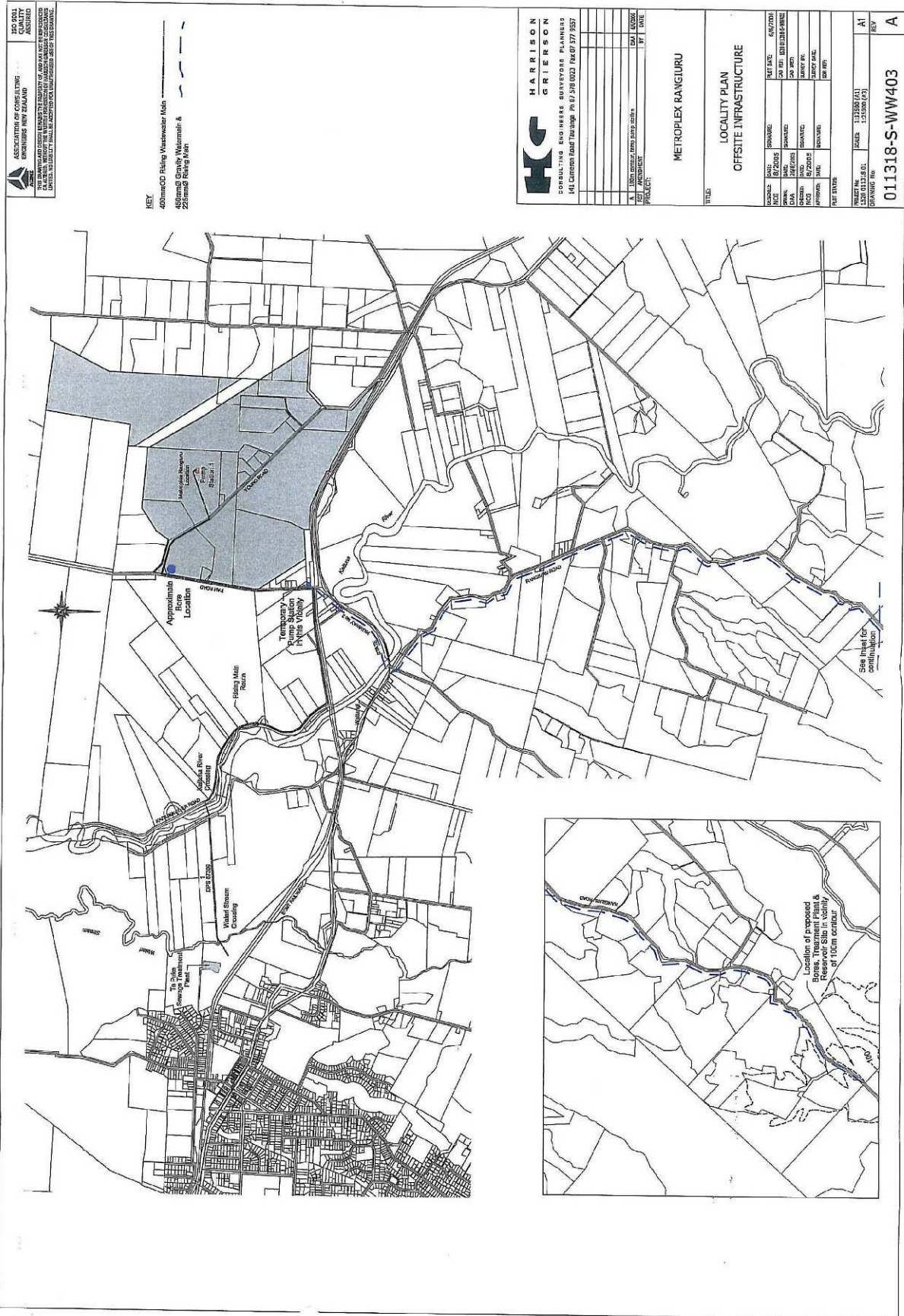
HARRISON GRIERSON
CONSULTING ENGINEERS SURVEYORS PLANNERS
1-1 Cameron Road Tauranga Ph 07 376 8033 Fax 07 377 1557

PROJECT:	METROPLEX RANGIRU PA ROAD/YOUNG ROAD PAENGAROA - WBOPDC
DATE:	15/03/2010
BY:	15/03/2010
CHECKED:	15/03/2010
APPROVED:	15/03/2010
SCALE:	AS SHOWN
PROJECT NO.:	1503 01318.01
REV.:	11/03/2010 (A)
REV.:	01/13/18-S-SW401
REV.:	B

STRUCTURE PLAN
PROPOSED STORMWATER
CATCHMENTS & AMENITY RESERVES

DATE:	15/03/2010	BY:	15/03/2010
DATE:	15/03/2010	BY:	15/03/2010
DATE:	15/03/2010	BY:	15/03/2010
DATE:	15/03/2010	BY:	15/03/2010
DATE:	15/03/2010	BY:	15/03/2010
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DATE:	15/03/2010	BY:	15/03/2010
DATE:	15/03/2010	BY:	15/03/2010
DATE:	15/03/2010	BY:	15/03/2010





ASSOCIATION OF CONSULTING ENGINEERS NEW ZEALAND
 CIVIL ENGINEERS
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KEY:
 40mm OD Rising Wastewater Main
 450mm OD Gravity Wastewater &
 225mm OD Rising Main

HARRISON GRIERSON
 CONSULTING ENGINEERS SURVEYORS PLANNERS
 141 Cameron Road Tauranga Ph 07 378 0023 Fax 07 377 9577

PROJECT NO.	
DATE OF PREPARATION	13/03/10
DATE OF REVISION	
BY	
DATE	
PROJECT	
BY	
DATE	

METROPLEX RANGURU

**LOCALITY PLAN
 OFFSITE INFRASTRUCTURE**

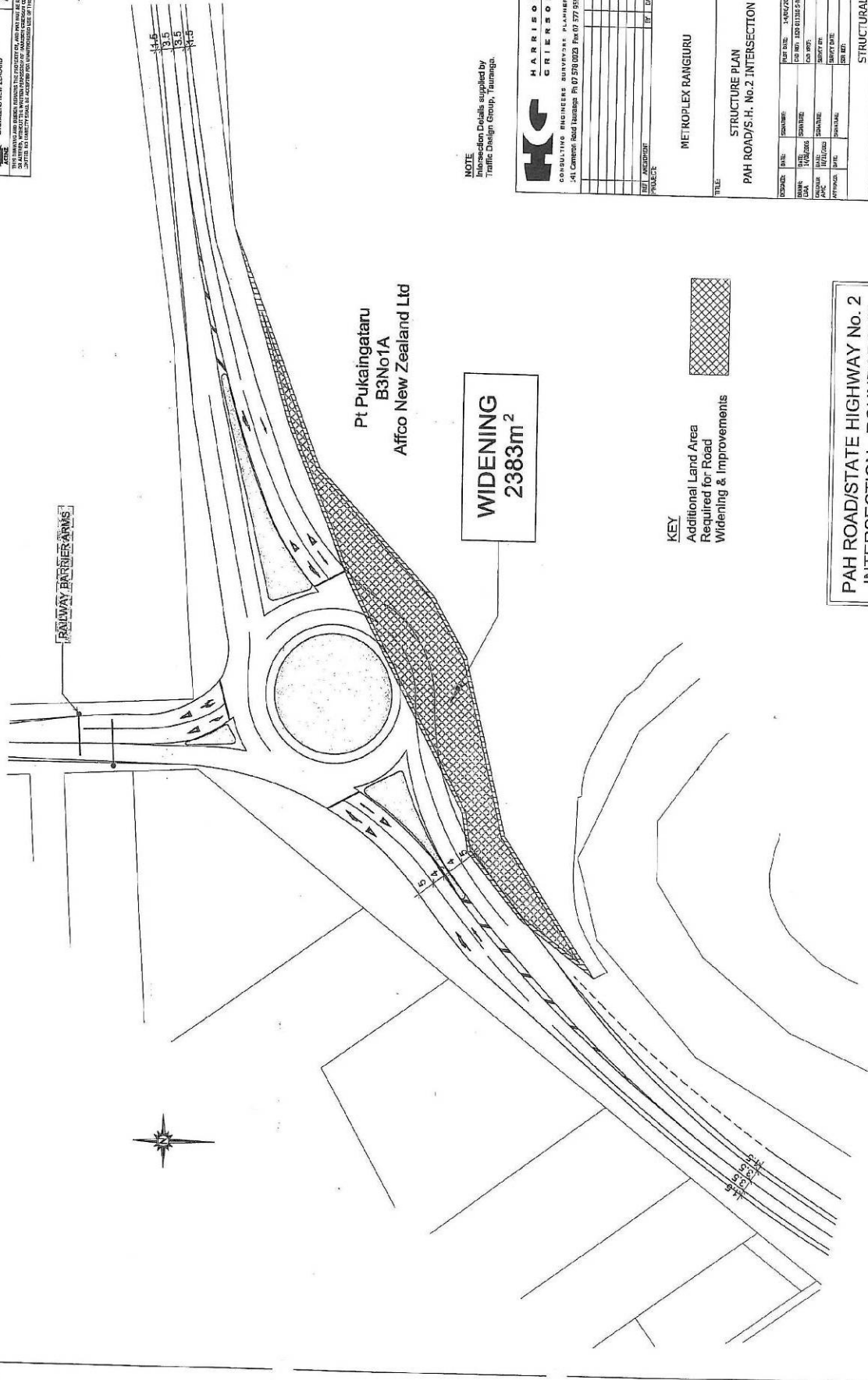
NO.	DATE	BY	DESCRIPTION
1	13/03/10	AG	ISSUED FOR PERMIT

SCALE: 1:1000 (A1)
 1:2500 (A2)
011318-S-WW403
 A1
 A

See sheet for continuation





ASSOCIATION OF CONSULTING ENGINEERS OF NEW ZEALAND
 THE QUALITY ASSURE
 PART OF THE QUALITY ASSURANCE SYSTEM
 AN ISO 9001 CERTIFIED SYSTEM OF QUALITY MANAGEMENT
 REGISTERED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ISO 9001:2000 STANDARD



WIDENING
2383m²

Pt Pukaingataru
 B3N01A
 Affco New Zealand Ltd

KEY

 Additional Land Area
 Required for Road
 Widening & Improvements

PAH ROAD/STATE HIGHWAY No. 2
INTERSECTION - ROUNDABOUT

NOTE
 Intersection Details supplied by
 Traffic Design Group, Taumanga.


HARRISON
CRIBBSON
 CONSULTING ENGINEERS SURVEYORS PLANNERS
 44 Cannon Road Taumanga Pk 07 578 0022 Fax 07 577 9557

REV	DESCRIPTION	BY	DATE

METROPLEX RANGIORU
STRUCTURE PLAN
PAH ROAD/S.H. No.2 INTERSECTION

ISSUED	DATE	ISSUANCE	PROJECT NO.

PROJECT NO.	SCALE	DRAWN BY	CHECKED BY	DATE	REV

011318-S-R403



ASSOCIATION OF CONSULTING ENGINEERS NEW ZEALAND
 THE ASSOCIATION STANDS BEHIND THE QUALITY OF THE SERVICES PROVIDED BY ITS MEMBERS AND IS NOT RESPONSIBLE FOR THE CONTENTS OF ANY REPORTS OR DOCUMENTS PREPARED BY ANY OF ITS MEMBERS OR FOR THE CONSEQUENCES OF ANY SUCH REPORTS OR DOCUMENTS.

NOTE

1. The site and structure design and submittal modelling has been prepared on the basis of the information provided by the client. The client is responsible for ensuring that the information provided is accurate and complete. The client is also responsible for ensuring that the information provided is up to date and reflects the current status of the site and structure.
2. The client is responsible for ensuring that the information provided is up to date and reflects the current status of the site and structure.

SITE	CUT/FILL VOLUMES		DEFICIT (m³)
	CUT (m³)	REQUIRED FILL (m³)	
A	62382	85318	22937
B	20230	94011	63781
C	70074	251260	431514
D	340638	734004	393440
E	119723	471	119262
F	107728	0	107728
G	167	0	167
H	107468	11	107459
I	16928	0	16928
J	20084	0	20084
K	20108	0	20108
L	21708	0	21708
M	30888	1167	29721
N	167	481	314
O	44511	5631	38880
P	28232	57564	29332
Q	28232	57564	29332
TOTALS	2281868	2331084	177142



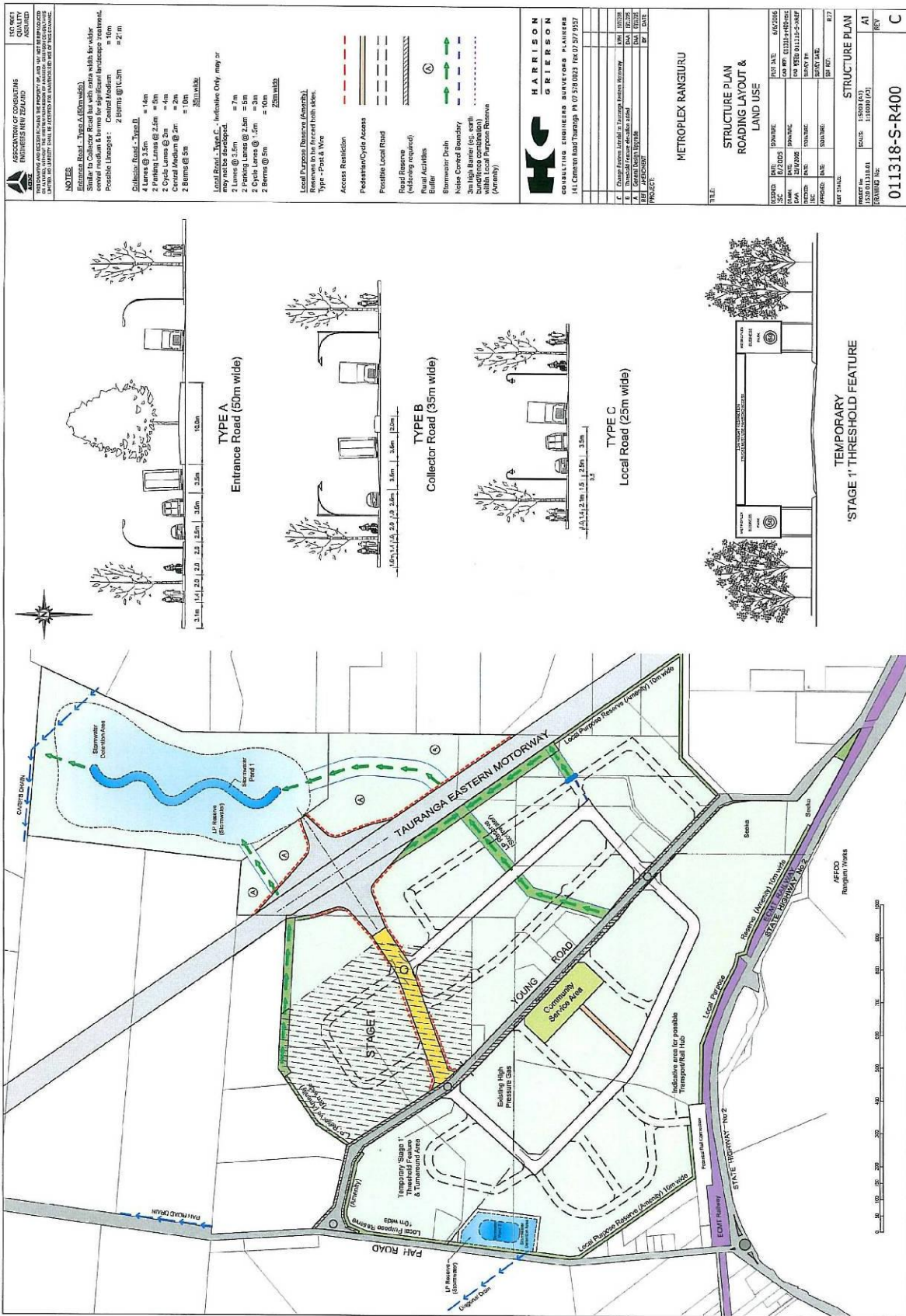
HARRISON GRIERSON
 CONSULTING ENGINEERS SURVEYORS PLANNERS
 141 Cannon Road Paungā Pa, PO Box 10021 Paungā Pa, Tairāwhiti
 TEL: 06 765 1234 FAX: 06 765 1235
 WWW: www.harrisongrierson.co.nz

METROPLEX RANGIURU
PA ROAD/YOUNG ROAD
PAENGAROA - WBOPDC

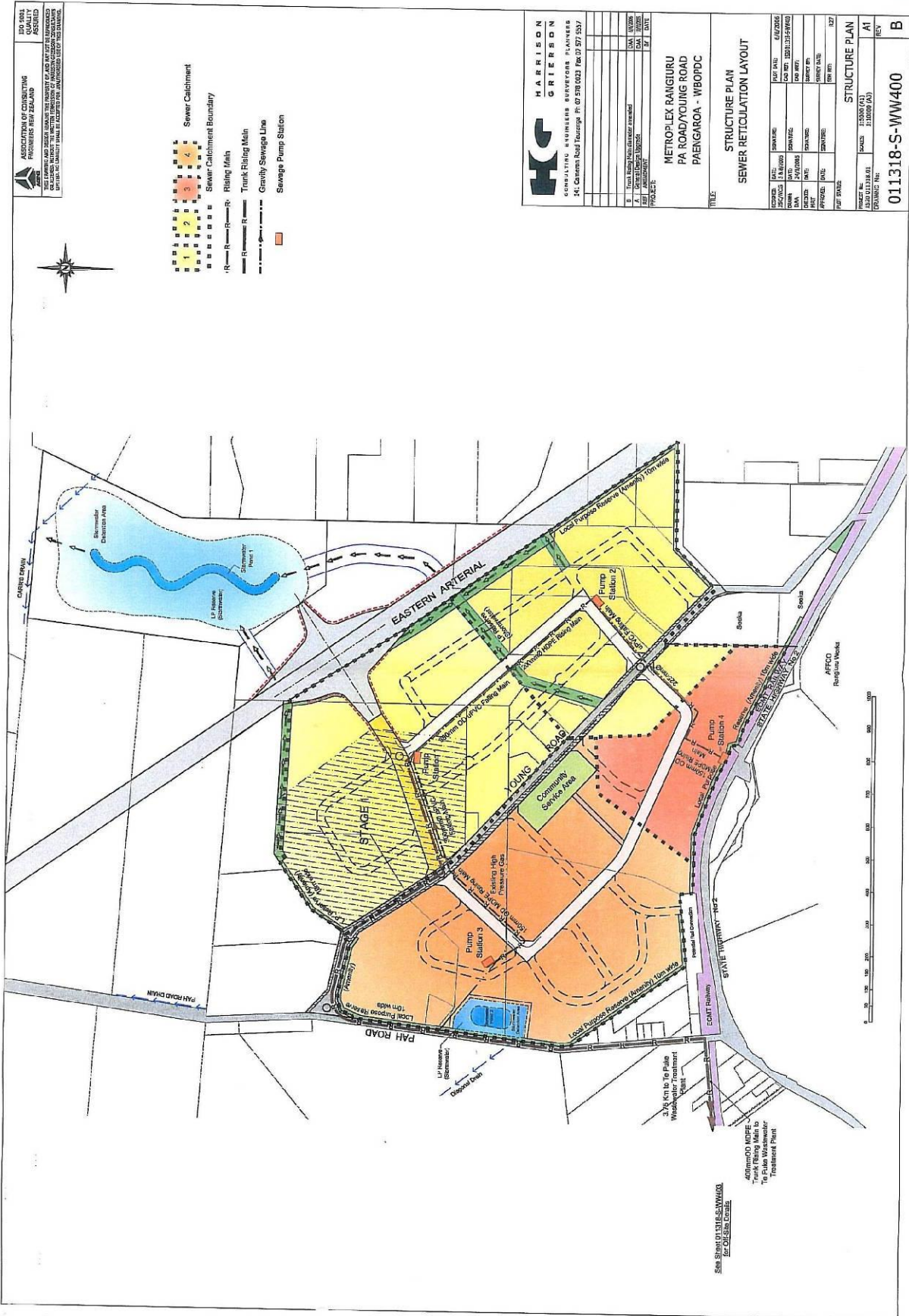
STRUCTURE PLAN
PROPOSED CONTOURS
WITH PROPOSED LAYOUT DETAILS

DATE: 17/06/2010
SCALE: 1:1000 (PLAN)
PROJECT NO.: 011318-C-204

STRUCTURE
NO.: A1
REV: B



ASSOCIATION OF CONSULTING ENGINEERS (ACE) REGISTERED ENGINEERS		NO. 1001	QUALITY ASSURED
<p>NOTES</p> <p>Entrance Road - Type A (60m wide). Similar to Collector Road but with extra width for wider shoulders and more trees and landscaping treatment. Possible Landings - 2 Bays @ 11.5m = 2.7m</p> <p>Collector Road - Type B 4 Lanes @ 3.5m = 14m 2 Parking Lanes @ 2.5m = 5m 2 Cycle Lanes @ 3m = 6m Central Median @ 2m = 2m 2 Berms @ 5m = 10m 20m wide</p> <p>Local Road - Type C - Indicated Only may or may not be developed. 2 Lanes @ 3.5m = 7m 2 Cycle Lanes @ 2.5m = 5m 2 Cycle Lanes @ 1.5m = 3m 2 Berms @ 5m = 10m 20m wide</p> <p>Local Purpose Reserve (Amorohi). Reserves in the Forest Bath Act. Type - Post & Wire</p> <p>Access Restriction</p> <p>Pedestrian/Cycle Access</p> <p>Possible Local Road</p> <p>Road Reserve (vehicling required)</p> <p>Rural Facilities</p> <p>Stormwater Drain</p> <p>Noise Control Boundary</p> <p>2m High Barrier (to earth with Local Purpose Reserve (Amorohi))</p>			
<p>HARRISON GRIERSON CONSULTING ENGINEERS SURVEYORS PLANNERS 141 Colman Road Tauranga Ph 07 578 0923 Fax 07 577 9957</p> <p>PROJECT: METROPLEX RANGIURU</p> <p>DATE: 10/03/10</p> <p>SCALE: 1:1000 (A3)</p> <p>REVISIONS:</p>			
<p>STRUCTURE PLAN</p> <p>ROADING LAYOUT & LAND USE</p> <p>DATE: 10/03/10</p> <p>SCALE: 1:1000 (A3)</p> <p>REVISIONS:</p>			
<p>PROJECT NO: 10011318-S-R400</p> <p>REV: A1</p> <p>011318-S-R400</p> <p>C</p>			



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- 1 Sewer Catchment
- 2 Sewer Catchment Boundary
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HARRISON GRIERSON
 CONSULTING ENGINEERS SURVEYORS PLANNERS
 14 Coromandel Road Tauranga P.O. Box 538 0033 Fax 07 577 537

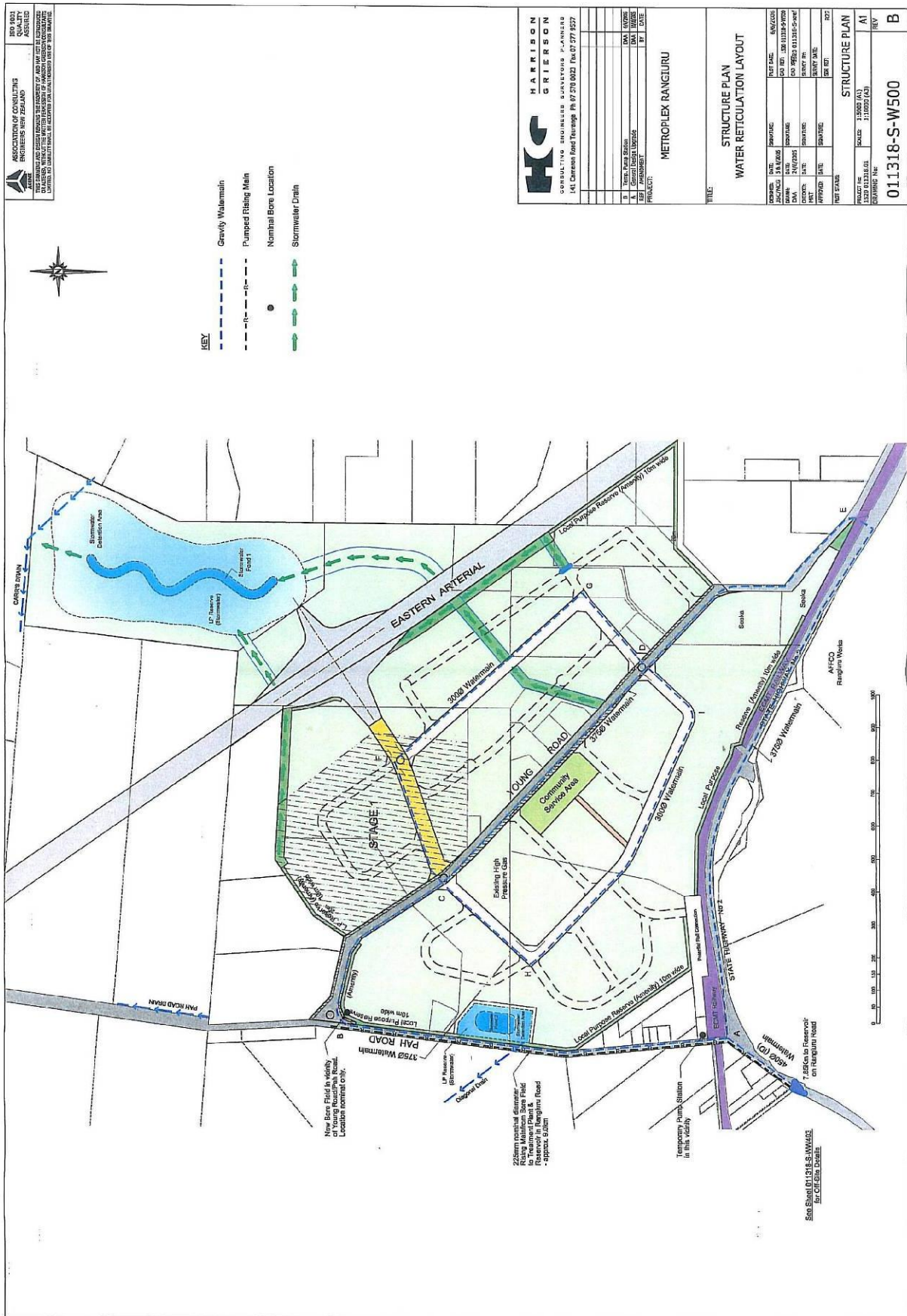
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PROJECT NO.	1377
DATE	24/07/03
SCALE	AS SHOWN
PROJECT NO.	1377
DATE	24/07/03
SCALE	AS SHOWN
PROJECT NO.	1377

STRUCTURE PLAN
SEWER RETICULATION LAYOUT

DATE	24/07/03
SCALE	AS SHOWN
PROJECT NO.	1377
DATE	24/07/03
SCALE	AS SHOWN
PROJECT NO.	1377

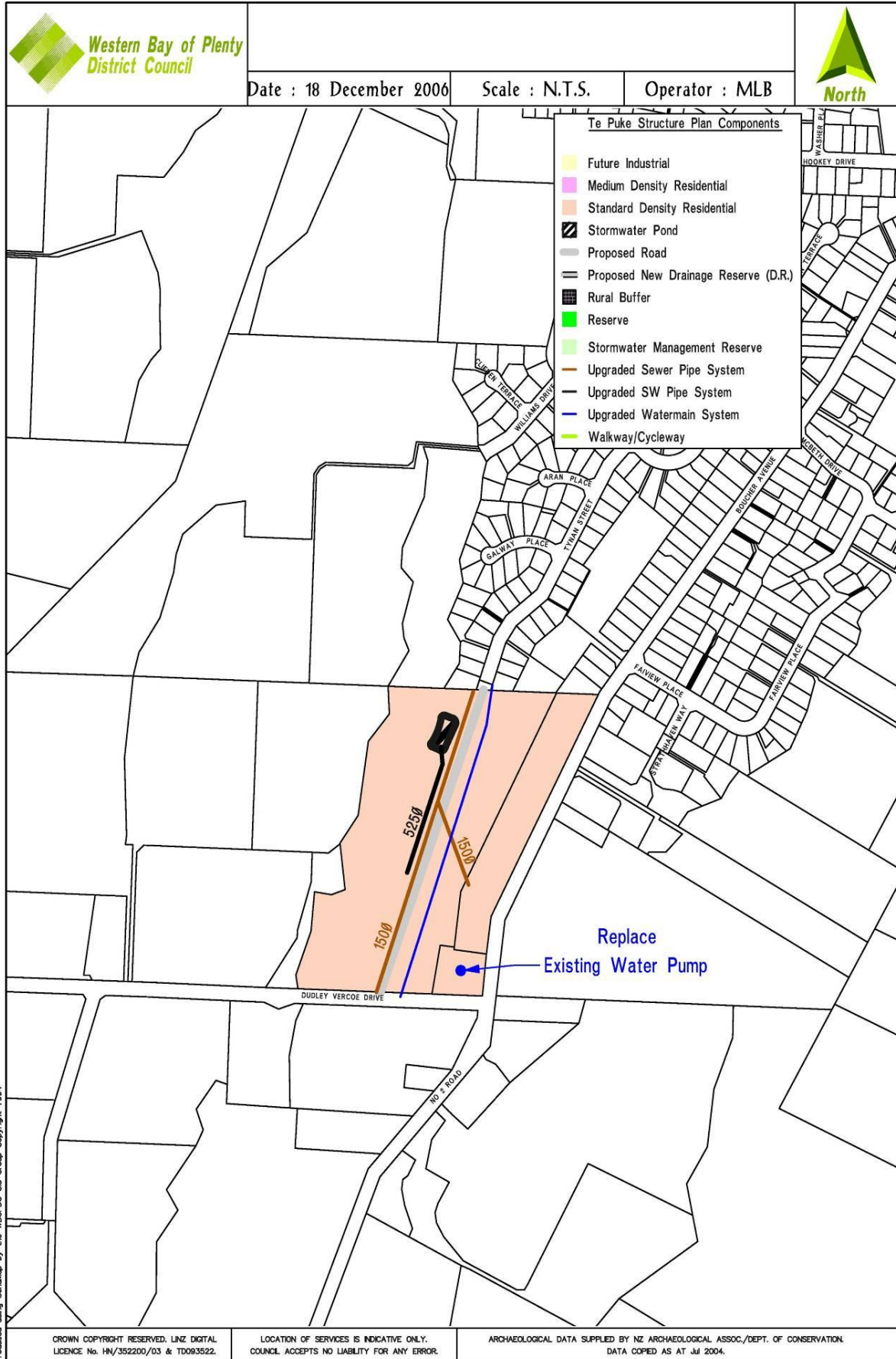
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SEWER RETICULATION LAYOUT

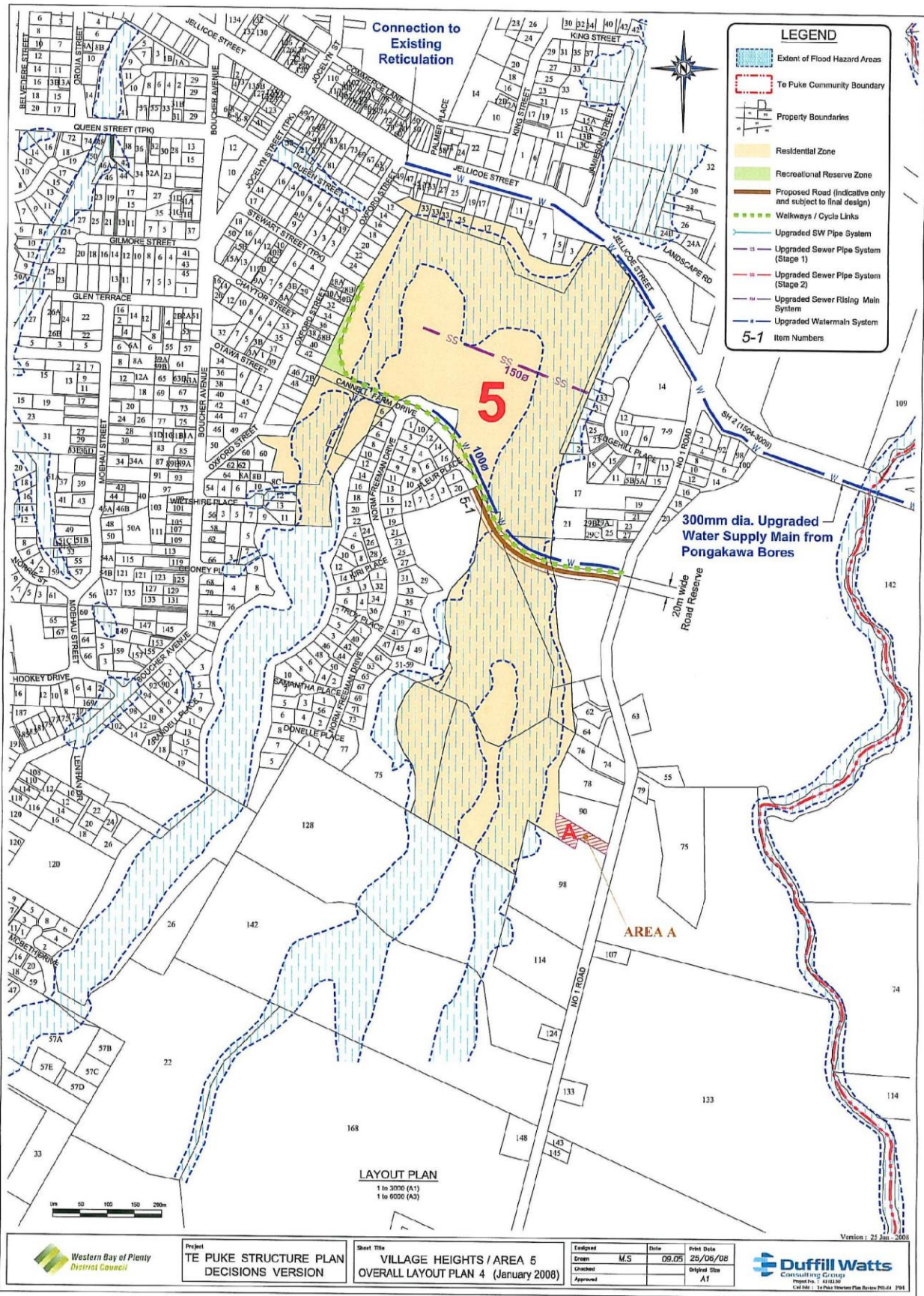
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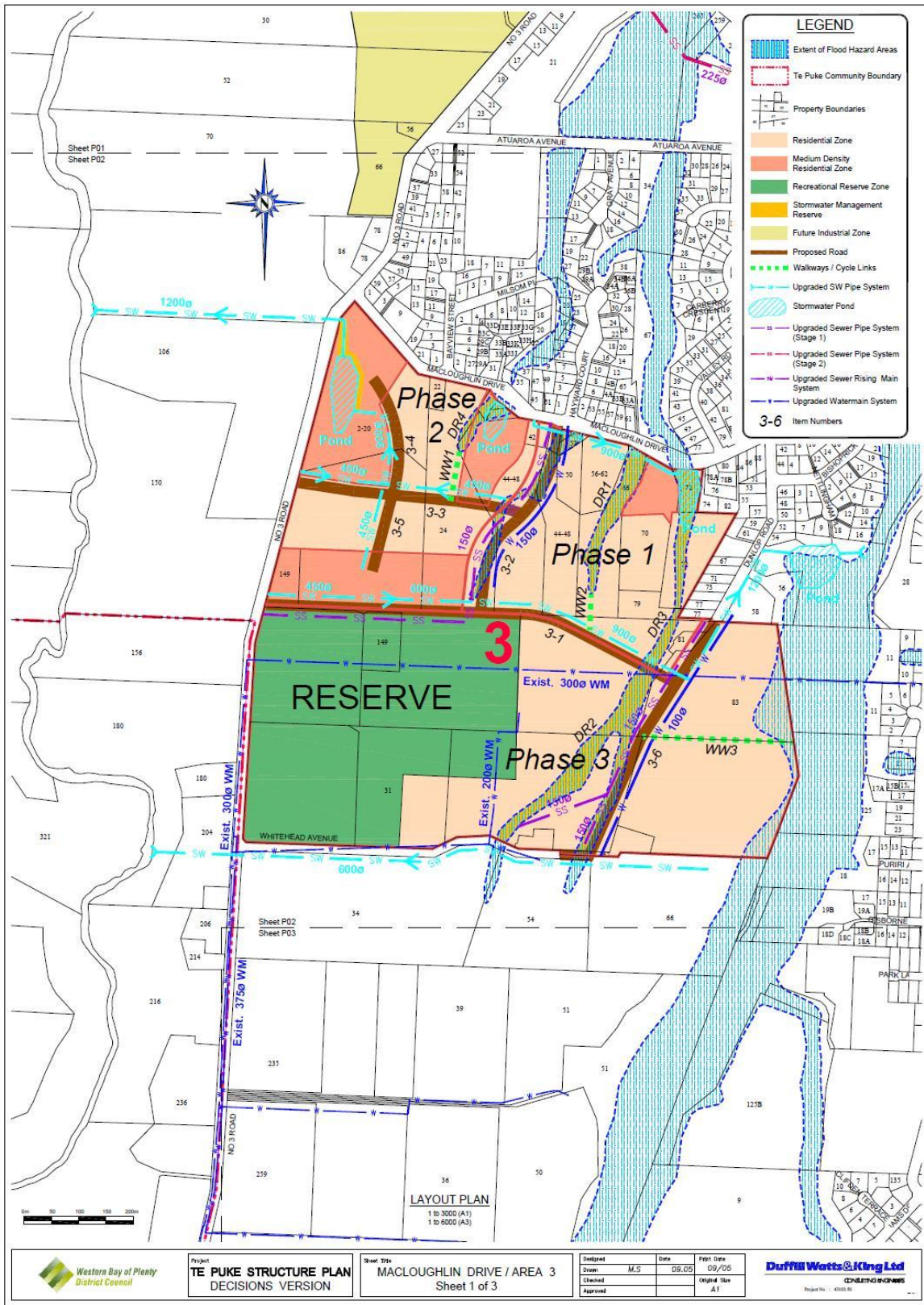




(f) Te Puke





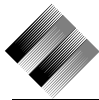


Project: **TE PUKE STRUCTURE PLAN DECISIONS VERSION**

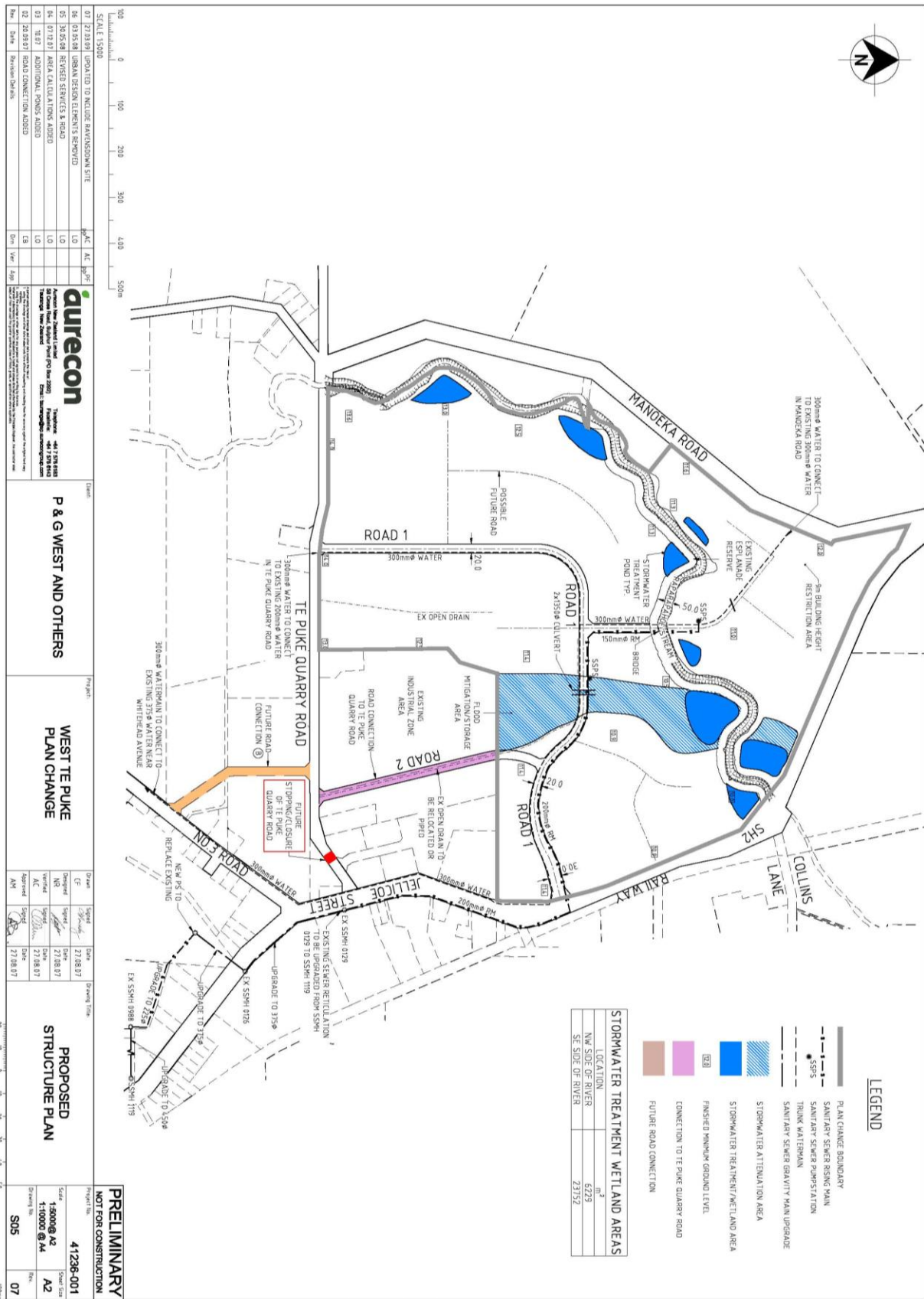
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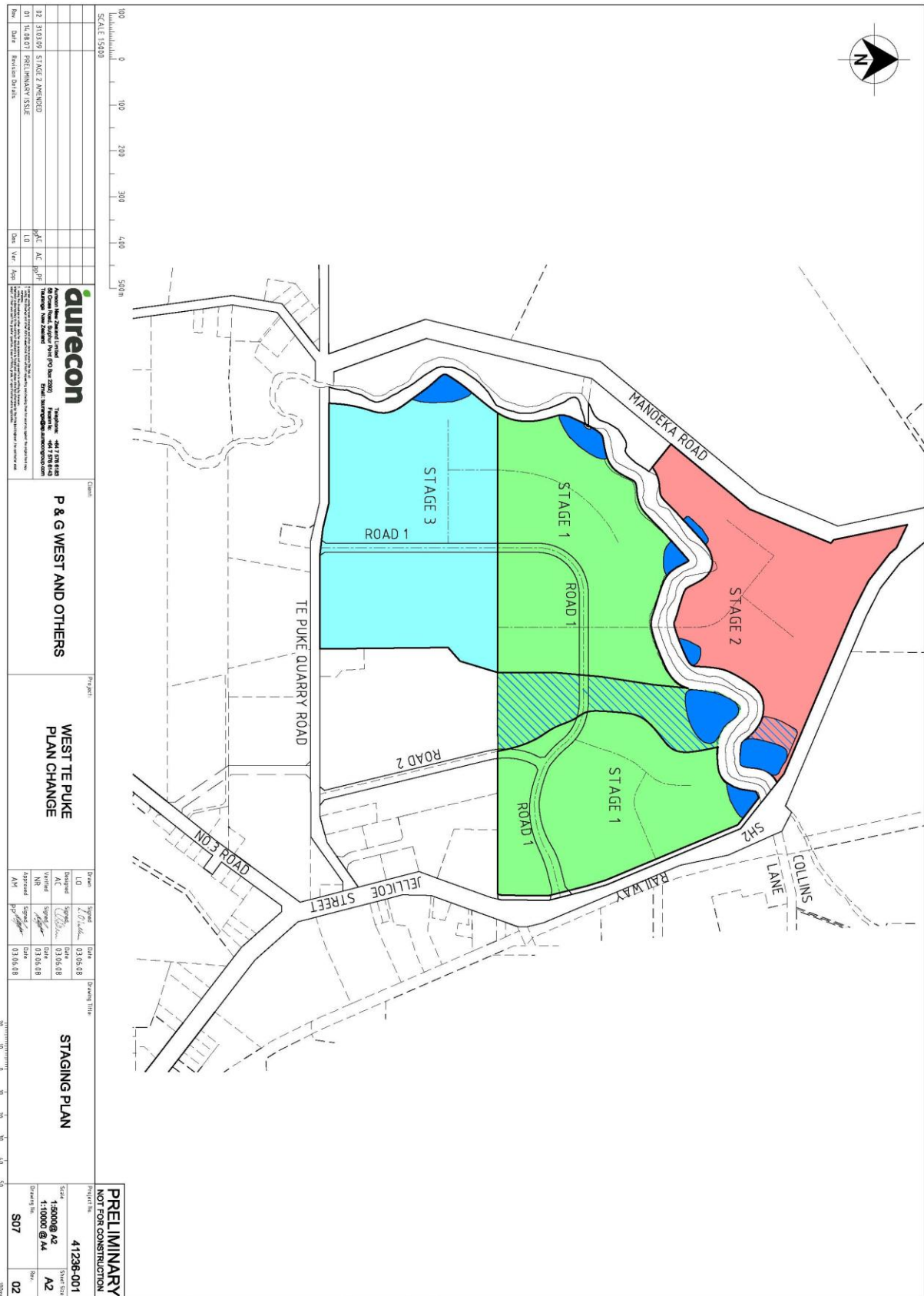
Designed	Date	Print Date
Drawn	M.S	09/05
Checked		
Approved		

Duffell Watts & King Ltd
CONSULTANTS

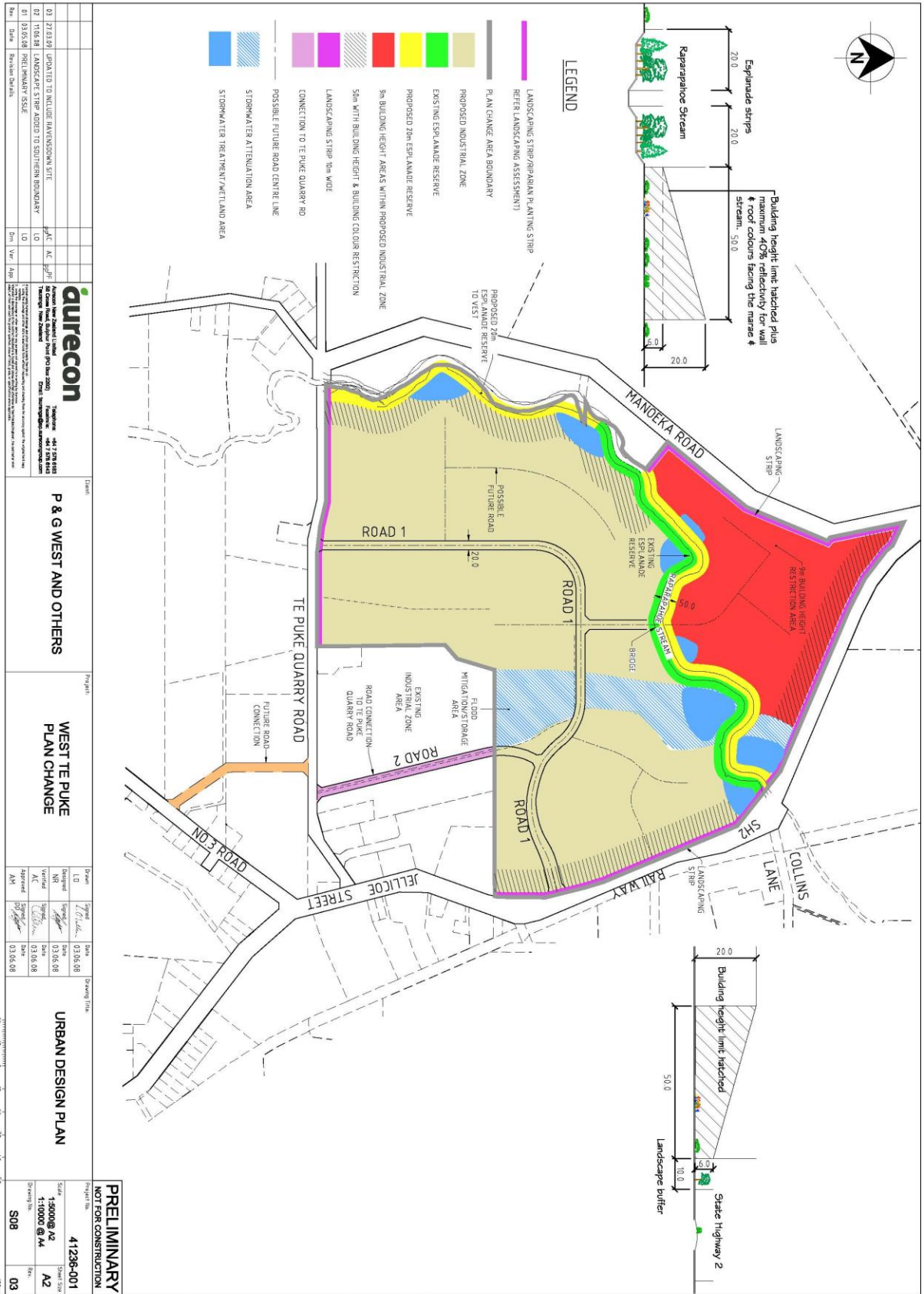
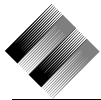


(g) Te Puke West

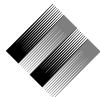




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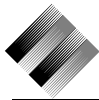


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**Te Puke West Industrial Area Financial Contributions
Schedule of Capital works**

		TOTAL	Industrial
		PROJECT	Land Costs
	PROJECT	COSTS	
STORMWATER			
	Roading Runoff	313,246	313,246
	Stormwater mitigation area	128,380	128,380
	Stormwater treatment areas (for roads)	59,467	59,467
	Upstream catchment pipes	1,272,010	1,272,010
	Raparapahoe widening	1,017,870	1,017,870
	Raparapahoe landscaping	176,850	176,850
	Land Purchase	1,820,340	1,820,340
	Total	4,788,163	4,788,163
	Financial Contributions per m2		\$ 10.64
ROADING			
	Roundabout at SH2 / Entrance Road	2,607,891	2,607,891
	Entrance Road to Link to Te Puke Quarry Road	130,067	130,067
	Link to Te Puke Quarry Road	693,690	693,690
	Roundabout at SH2 / No. 3 Road	2,668,882	0
	Median Island on SH2 between Roundabouts	196,996	0
	Internal Roding	2,445,256	2,445,256
	Bridge over Raparapahoe Stream	1,698,000	1,698,000
	Land Purchase (excl SH2 roading)	1,349,600	1,349,600
	Road stopping Te Puke Quarry Road	30,000	0
	New Link Road between Te Puke Quarry Road and No3 Road	1,000,000	200,000
	Total	12,820,381	9,124,503
	Financial Contributions per m2		\$ 20.28
WATER			
	No. 3 Road Upgrade to 300 dia	850,773	850,773
	Internal trunk main 300 dia	536,655	536,655
	Total	1,387,428	1,387,428
	Financial Contributions per m2		\$ 3.08
SEWERAGE			
	Centennial P/S replacement	1,059,500	1,059,500
	Rising Main Upgrade P/S to Aturoa	93,665	93,665
	Gravity Upgrade - Aturoa to Treatment Plant	137,709	137,709
	Gravity Upgrade - MH 0129 to Centennial P/S	268,450	268,450
	Internal Pumpstation in stage 1 for full development incl rising main	705,062	705,062
	Internal Pumpstation in stage 2 incl rising main	301,574	301,574
	Total	2,565,960	2,565,960
	Financial Contributions per m2		\$ 5.70
TOTAL FINANCIAL CONTRIBUTIONS PER SQUARE METRE			\$ 39.70



Appendix IX(g) Te Puke West Industrial Zone Infrastructure Staging Prerequisites

Stage as shown on Staging Plan

Stage 1A (defined as up to 20ha of stage 1 net developable area on the Puke West Staging Plan included in Appendix IX(f))

Prerequisite to subdivision 224 certificate being granted or to any land use or building consent activity being established

Roading and Access

- Internal structure road linking Te Puke Quarry Road with SH2 (comprising part of Road 1 and all of Road 2) completed.
- A two-lane roundabout at the intersection of SH2 and internal structure Road 1 to the standards and approval of NZTA completed.
- A two-lane roundabout at the intersection of SH2 and No.3 Road to the standards and approval of NZTA completed.
- Solid median between the foregoing two roundabouts to the standards and the satisfaction of NZTA completed.
- Stopping of Te Puke Quarry Road no further than 100m west of SH2 completed.

Stormwater

- Raparapahoe Stream flood width channel widening completed.
- Internal flood mitigation / storage area provided.
- Internal stormwater treatment areas completed.
- Open drain along Road 2 alignment completed.

Water

- 300 mm dia bulk supply watermain from Road 1 to existing 375mm dia in No. 3 Road (at Whitehead Ave) completed.
- 300 mm dia internal watermain within Road 1 corridor completed.

Sewerage

- Upgrade of gravity reticulation from existing MH 0129 to Centennial Park pumpstation to 375mm diameter completed.
- Upgrade / Replacement Centennial Park pumpstation completed.
- 225mm diameter sewer rising main replacement from Centennial Park pumpstation to MH 0988 completed.
- Upgrade of gravity reticulation from existing MH 0988 to existing MH 1119 to 450mm diameter completed.
- Internal sewage pumpstation and 200mm diameter rising main to existing MH 0129 completed including storage.

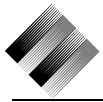
Landscaping

- Extension of esplanade reserve along Raparapahoe Stream established.
- 10m Planted Buffer Strip at SH2 established.

Compliance with all prerequisites for Stage 1A above.

Roading and Access

- Link road between No. 3 Road and Te Puke Quarry Road completed
- or



Stage 1B (defined as the balance area of stage 1 on the Puke West Staging Plan included in Appendix IX(f))

- Tauranga Eastern Motorway (TEM) operational or alternative State Highway improvement works being undertaken to create State Highway 2 capacity, as agreed with NZTA at that time.

Stage 2

Roading and Access

- Link road between No. 3 Road and Te Puke Quarry Road completed
- or
- Structure Road formed and vested in Council for Stage 1.
- TEM operational or alternative State Highway improvement works being undertaken to create State Highway 2 capacity, as agreed with NZTA at that time.
- Raparapahoe Stream bridge completed.

Stormwater

- Internal stormwater treatment areas completed.

Water supply

- 300 mm dia internal watermain extended from Stage 1 and connected to existing Manoeka Road watermain.
- Additional water supply bore No. 5 completed.

Sewerage

- Internal sewage pumpstation and 150mm diameter rising main to existing Stage 1 completed including storage.

Landscaping

- 10m landscape strip at SH2, Manoeka Road and adjacent Rural land to be established.
- Esplanade reserve along Raparapahoe Stream established.

Stage 3

Roading and Access

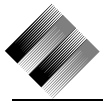
- Link road between No. 3 Road and Te Puke Quarry Road completed
- Structure road for Stage 2 formed and vested in Council.
- TEM operational or alternative State Highway improvement works being undertaken to create State Highway 2 capacity, as agreed with NZTA at that time.

Stormwater

- Internal stormwater treatment areas completed.
- Open drain from Te Puke Quarry Road piped or relocated prior to bulk earth filling.

Water supply

- 300 mm dia internal watermain extended from Stage 2 and connected to existing Te Puke Quarry Road watermain.



- Additional water supply bore No. 5 to be completed.

Landscaping

- Esplanade reserve along Raparapahoe Stream established.