Refer to RFI tracker for further design and construction amendments

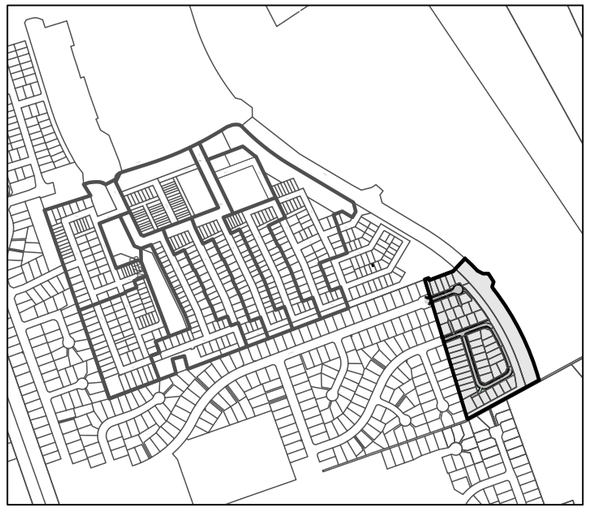
Hamilton City Council
Development Engineering Unit

ACCEPTED ENGINEERING PLANS

Assessed for Related Resource Consent Conditions Only

Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed



19-30410-01-LUK - CHEDWORTH - AREAS L, U & K - STAGE 24 (GREENHILL PARK) ENGINEERING DESIGN

DRAWING NUMBER	DRAWING TITLE	REV
ROADING		
24-30410-24D-R1	ROAD LAYOUT PLAN STAGE 24 OVERVIEW	4
24-30410-24D-R2	RADIATA STREET EXTENSION PLAN AND LONGSECTION	5
24-30410-24D-R3	RADIATA STREET ROW 1 & DRIVEWAY PLANS AND LONGSECTIONS	5
24-30410-24D-R4	RALEIGH AVENUE EXTENSION PLAN AND LONGSECTION	4
24-30410-24D-R5	RALEIGH AVENUE ROW 2 PLAN AND LONGSECTION	4
24-30410-24D-R6	ROAD 3 PLAN AND LONGSECTION (CH 0 - 250)	5
24-30410-24D-R7	ROAD 3 PLAN AND LONGSECTION (CH 250 - 320)	4
24-30410-24D-R8	ROAD 3 ROW 3 PLAN AND LONGSECTION	3
24-30410-24D-R9	PEDESTRIAN FOOTPATH PLAN AND LONGSECTION	5
24-30410-24D-R10	TYPICAL CROSS-SECTIONS	3
24-30410-24D-R11	RADIATA STREET EXTENSION CROSS-SECTIONS (CH 15 - 50)	2
24-30410-24D-R12	RADIATA STREET EXTENSION CROSS-SECTIONS (CH 55 - 75)	2
24-30410-24D-R13	RALEIGH AVENUE EXTENSION CROSS-SECTIONS (CH 10 - 110)	1
24-30410-24D-R14	ROAD 3 CROSS-SECTIONS (CH 0 - 180)	2
24-30410-24D-R15	ROAD 3 CROSS-SECTIONS (CH 190 - 320)	2
~~24-30410-24D-R16~~	~~PEDESTRIAN FOOTPATH CROSS-SECTIONS (CH 0 - 75)~~	4
~~24-30410-24D-R17~~	~~PEDESTRIAN FOOTPATH CROSS-SECTIONS (CH 80 - 100)~~	4

DRAWING NUMBER	DRAWING TITLE	REV
24-30410-24D-R18	SWALE - WEST PLAN AND LONG SECTIPN	6
24-30410-24D-R19	SWALE - WEST CROSS-SECTIONS (CH 0 - 190)	7
24-30410-24D-R20	SWALE - WEST CROSS-SECTIONS (CH 200 - 240)	7
24-30410-24D-R21	CUT & FILL PLAN FOR ROAD WORKS STAGE 24	2
24-30410-24D-R22	PAVEMENT DETAILS	2
24-30410-24D-R23	RADIATA STREET EXTENSION TRACKING 12.5M RIGID TRUCK	3
24-30410-24D-R24	JACQUES TERRACE EXTENSION TRACKING 12.5M RIGID TRUCK	2
STORMWATER		
30410-01-S24-SW0	STORMWATER LOCATION PLAN STAGE 24	3
30410-01-S24-SW1	STORMWATER LAYOUT PLAN STAGE 24	7
30410-01-S24-SW1A	STORMWATER LAYOUT PLAN STAGE 24 (NORTH)	3
30410-01-S24-SW2	STORMWATER LINES H & H4 LONGSECTIONS	5
30410-01-S24-SW2A	STORMWATER LINES H & H4 DETAILS	6
30410-01-S24-SW2B	STORMWATER LINES I & I3 LONGSECTIONS	4
30410-01-S24-SW2C	STORMWATER LINES I4, I6 & I7 LONGSECTIONS	4
30410-01-S24-SW3	STORMWATER LINES J & J7 LONGSECTIONS	4
30410-01-S24-SW3A	STORMWATER LINES J8 & J9 LONGSECTIONS	8
~~30410-01-S24-SW3B~~	~~STORMWATER LINES K & KOF LONGSECTIONS~~	
30410-01-S24-SW4	STANDARD DETAILS STORMWATER	1

DRAWING NUMBER	DRAWING TITLE	REV
30410-01-S24-SW5	STORMWATER STAGE 24 ~ 22 LONGSECTION	12
30410-01-S24-SW6	STORMWATER STAGE 24 ~ 22 CROSS-SECTION	12
30410-01-S24-SW7	STORMWATER STAGE 24 ~ 22 DETAILS OF CONCRETE PAD	3
30410-01-S24-SW8	CULVERT BLOCKED SCENARIO 100 YEAR STORM EVENT	7
30410-01-S24-SW8A	CULVERT BLOCKED SCENARIO 100 YEAR STORM EVENT (NORTH)	1
30410-01-S24-SW8B	SWALES CROSS-SECTIONS	3
30410-01-S24-SW9	STORMWATER EXISTING HCC LINE EXTENSION PLAN	6
30410-01-S24-SW10	STORMWATER EXISTING HCC LINE EXTENSION DETAILS	6
30410-01-S24-SW11	WEST SWALE IMDERDRAIN	3
WASTEWATER		
30410-01-S24-WW1	WASTEWATER LAYOUT PLAN STAGE 24	4
30410-01-S24-WW2	WASTEWATER LINES 3 & 3-2 LONGSECTIONS	4
30410-01-S24-WW3	WASTEWATER LINES 4 & 4-3 LONGSECTIONS	4
30410-01-S24-WW4	WASTEWATER LINES 4-5 & 4-5-3 LONGSECTIONS	4
30410-01-S24-WW5	STANDARD DETAILS WASTEWATER	1
WATER		
30410-01-S24-W1	WATER LAYOUT PLAN STAGE 24	4
30410-01-S24-W2	STANDARD DETAILS WATER	1
30410-01-S24-W3	STANDARD DETAILS WATER	1
OTHER		

DRAWING NUMBER	DRAWING TITLE	REV
~~30410-01-S24-D1~~	~~WASTEWATER & STORMWATER OVERVIEW STAGE 24~~	
30410-01-S24-S1	WASTEWATER, STORMWATER, WATER & ROADING OVERVIEW STAGE 24	1

SHRIMPTON & LIPINSKI
LAND SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

Status: FOR APPROVAL
Date: 07/05/25
Drawing No: 30410-01-S24-COV1
Revision: 7

R:\Project Files\30410-01-19\01 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 7/05/2025

Hamilton City Council
Development Engineering Unit

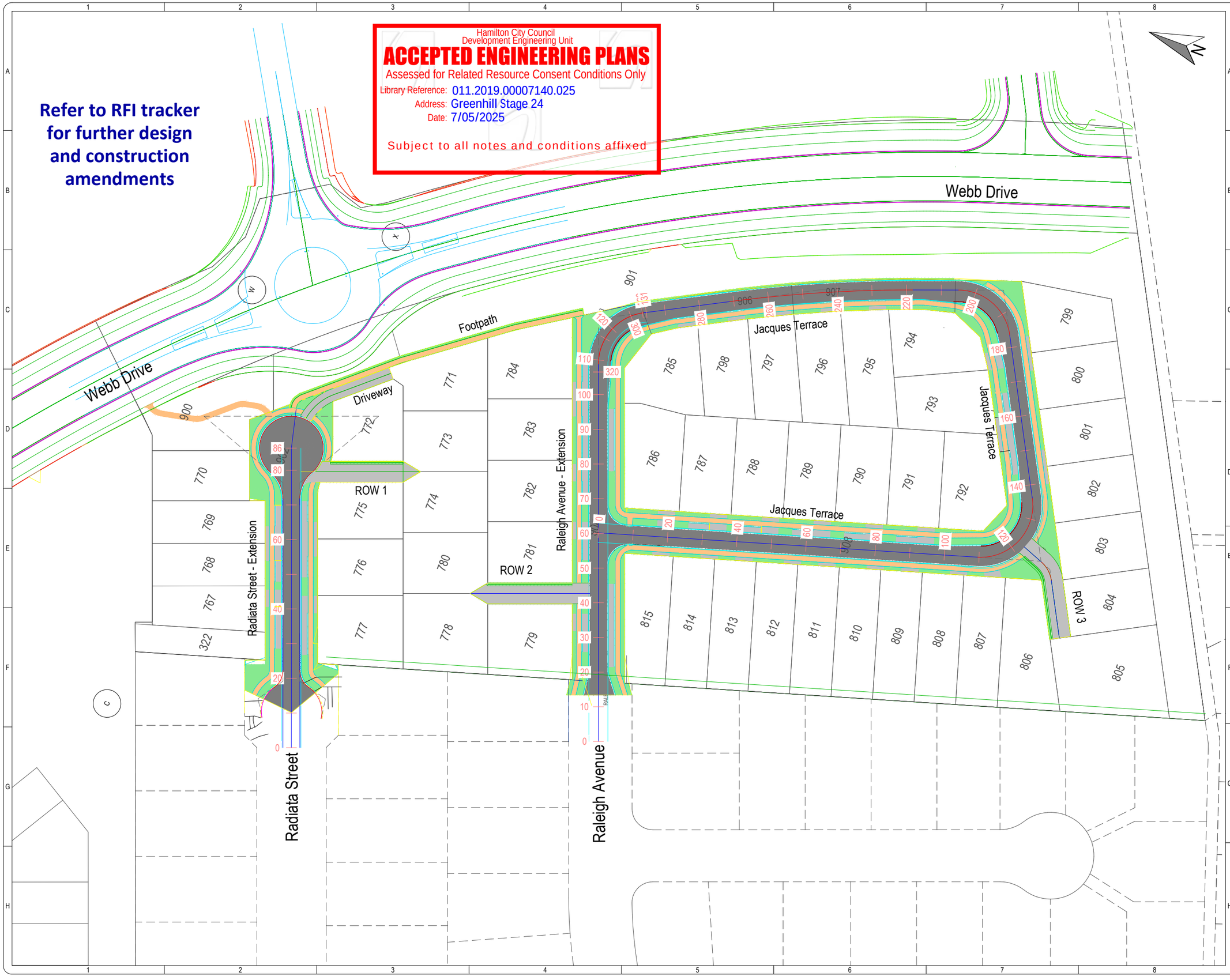
ACCEPTED ENGINEERING PLANS

Assessed for Related Resource Consent Conditions Only

Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed

Refer to RFI tracker for further design and construction amendments



S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

LEGEND:
- ABUTTALS
- BOUNDARIES
- ROAD SURFACE
- PARKING SURFACE
- FOOTPATH
- GRASS

NOTE:
SUBJECT TO FINAL DESIGN,
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminery	GG	BG	PH	29.07.24
1	Layout Update	GG	HB	PH	19.08.24
2	Issued for RFI	GG	HB	PH	31.10.24
3	RFI Response	NW	HB	RH	16/04/25
4	RFI Response	TM	HB		24/04/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

TITLE

GREENHILL PARK STAGE 24 OVERVIEW

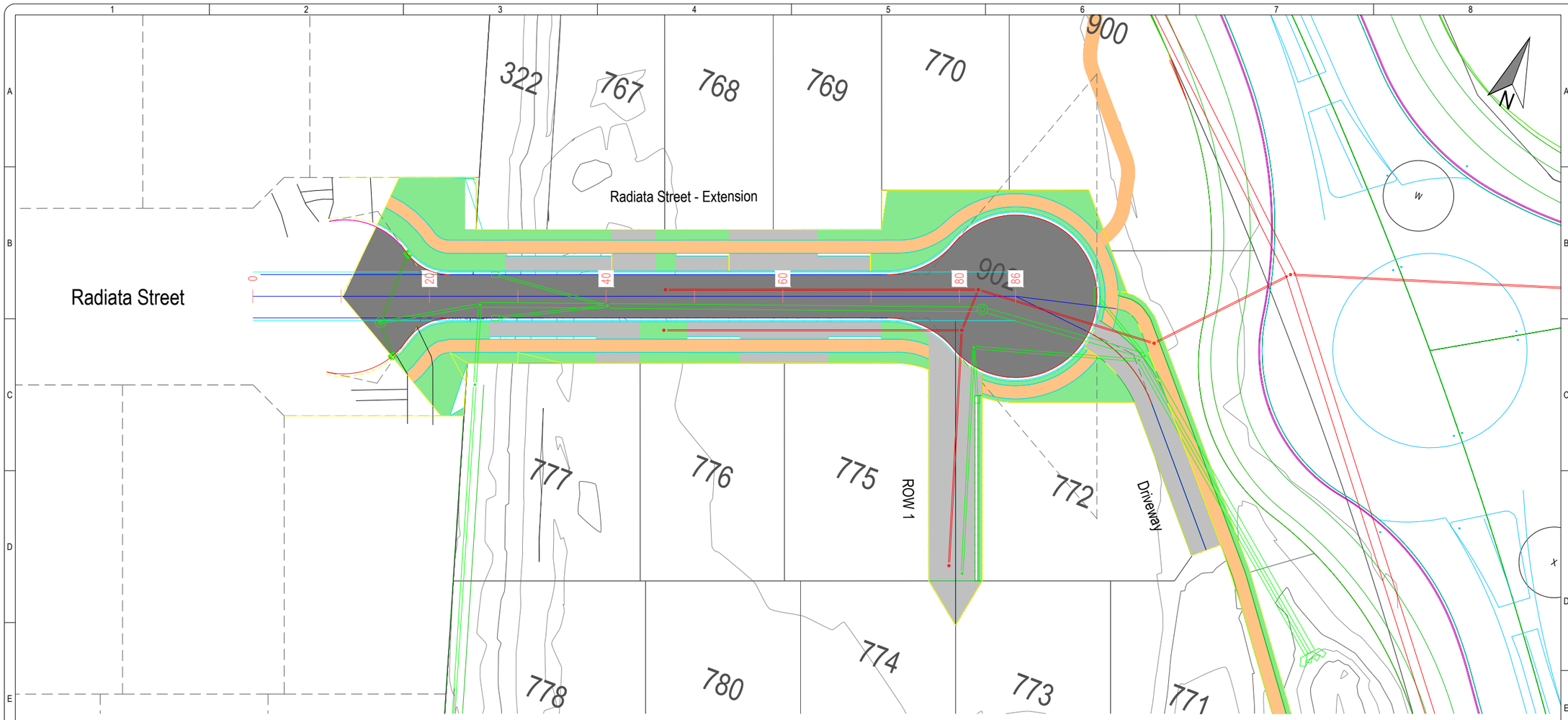
PREPARED FOR

Greenhill Park | Chedworth Properties Limited

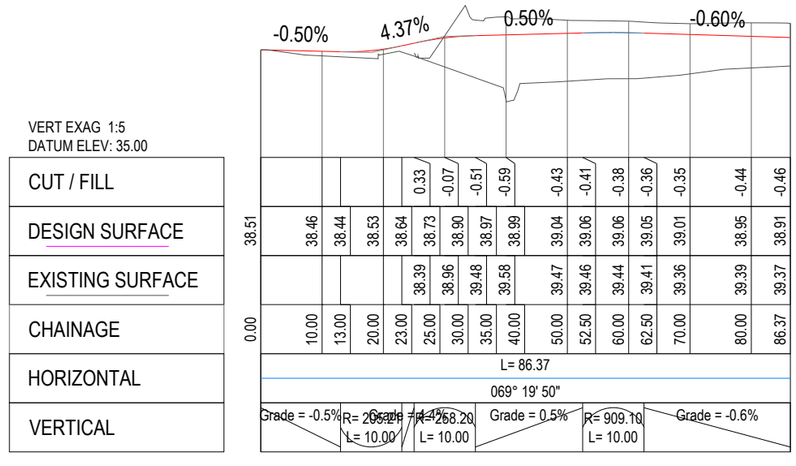
ORIGINAL SCALES @ A3: 1:1000 (DO NOT SCALE DIMENSIONS)
STATUS: APPROVAL

DRAWING NO: 24-30410-24D-R1
REVISION: 4

R:\Project Files\30410-01-19\01 Detail Design\G24-30410-24D_Stage 24_Road Design - West Swale Check.dwg - Plotted: 29/04/2025



RADIATA STREET (EXTENTION) - PLAN
Scale - 1:500



RADIATA STREET (EXTESION) - LONG SECTION
Scale - H: 1:1000 V: 1:200

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

LEGEND:
- ABUTTALS
- BOUNDARIES
- ROAD SURFACE
- PARKING SURFACE
- FOOTPATH
- GRASS
- STORMWATER MANHOLE
- STORMWATER CATCH PIT
- WASTEWATER MANHOLE
- STORMWATER PIPE
- WASTEWATER PIPE

NOTE:
SUBJECT TO FINAL DESIGN.
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminery	GG	BG	PH	29.07.24
1	Layout Update	GG	HB	PH	19.08.24
2	Issued for RFI	GG	HB	PH	31.10.24
3	Issued for RFI (SW Update)	TM		PH	07.04.25
4	RFI Response	NW	HB	RH	16/04/25
5	RFI Response	TM	HB		24/04/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

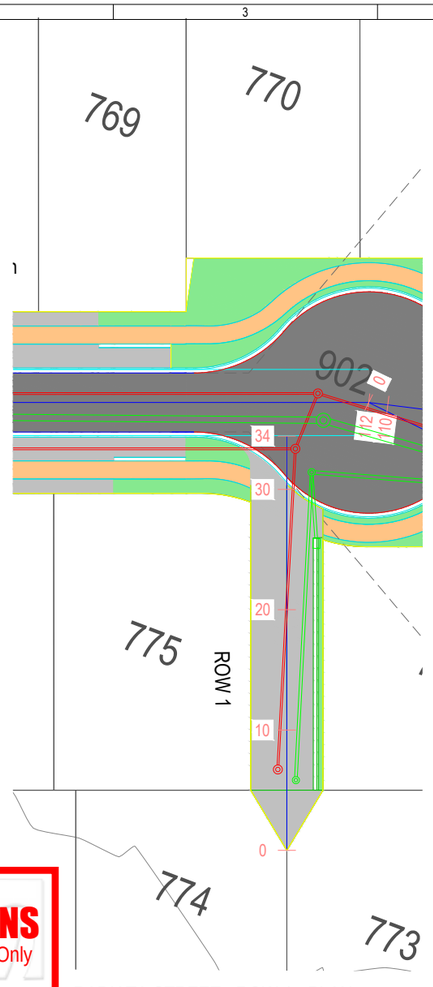
TITLE
RADIATA STREET EXTENTION PLAN AND LONG SECTION

PREPARED FOR
Greenhill Stage
Chedworth Properties Limited

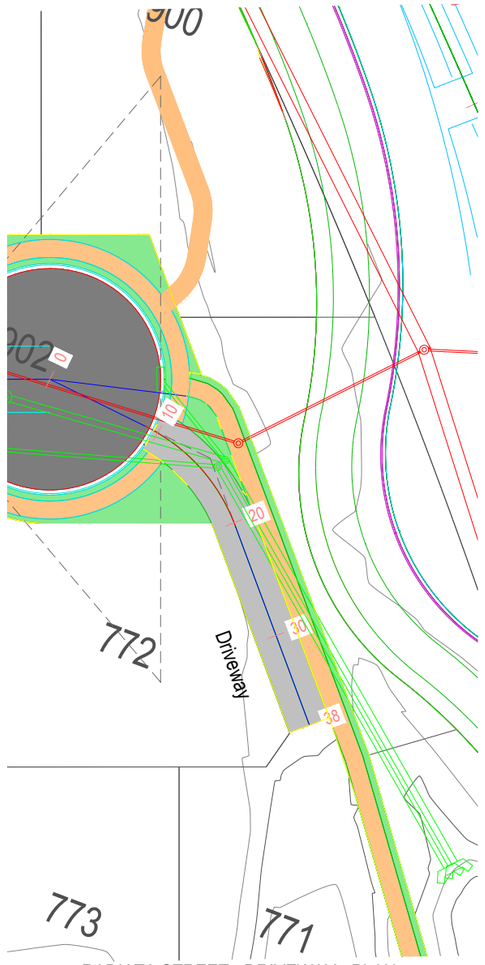
ORIGINAL SCALES @ A3	STATUS
AS SHOWN DO NOT SCALE DIMENSIONS	APPROVAL

DRAWING NO	REVISION
24-30410-24D-R2	5

R:\Project Files\30410-01-19\01 Detail Design\G24-30410-24D_Stage 24_Road Design - West Swale Check.dwg - Plotted: 29/04/2025



RADIATA STREET - ROW 1 - PLAN
Scale - 1:500



RADIATA STREET - DRIVEWAY - PLAN
Scale - 1:500

Refer to RFI tracker for further design and construction amendments

VERT EXAG 1:5
DATUM ELEV: 38.00

-1.39%

CUT / FILL		-0.14	-0.26	-0.44	-0.47	-0.48	
DESIGN SURFACE		39.30	39.16	39.02	38.88	38.87	
EXISTING SURFACE	39.44	39.44	39.43	39.46	39.36	39.35	39.37
CHAINAGE	0.000	0.05	10.00	20.00	30.00	31.03	34.431
HORIZONTAL		L= 34.43					
		339° 19' 33"					
VERTICAL		Grade = -1.4%					

RADIATA STREET - ROW 1 - LONG SECTION
Scale - H: 1:1000 V: 1:200

VERT EXAG 1:5
DATUM ELEV: 38.00

CUT / FILL		-0.56	-0.55	-0.69	-0.68	-0.65	-0.72
DESIGN SURFACE		38.76	38.77	38.93	38.93	39.08	39.20
EXISTING SURFACE	39.37	39.33	39.33	39.32	39.61	39.61	39.73	39.92
CHAINAGE	0.000	8.881	9.20	10.00	20.00	20.231	30.00	37.95
HORIZONTAL		L= 8.88		L= 11.35		L= 17.72		
		095° 32' 38"				138° 54' 53"		
VERTICAL		Grade = 1.5%						

RADIATA STREET - DRIVEWAY - LONG SECTION
Scale - H: 1:1000 V: 1:200

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

LEGEND:
- ABUTTALS
- BOUNDARIES
- ROAD SURFACE
- PARKING SURFACE
- FOOTPATH
- GRASS
- STORMWATER MANHOLE
- STORMWATER CATCH PIT
- WASTEWATER MANHOLE
- STORMWATER PIPE
- WASTEWATER PIPE

NOTE:
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminery	GG	BG	PH	29.07.24
1	Layout Update	GG	HB	PH	19.08.24
2	Issued for RFI	GG	HB	PH	31.10.24
3	Issued for RFI (SW Update)	TM		PH	07.04.25
4	RFI Response	NW	HB	RH	16.04.25
5	RFI Response	NW	HB	RH	29.04.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

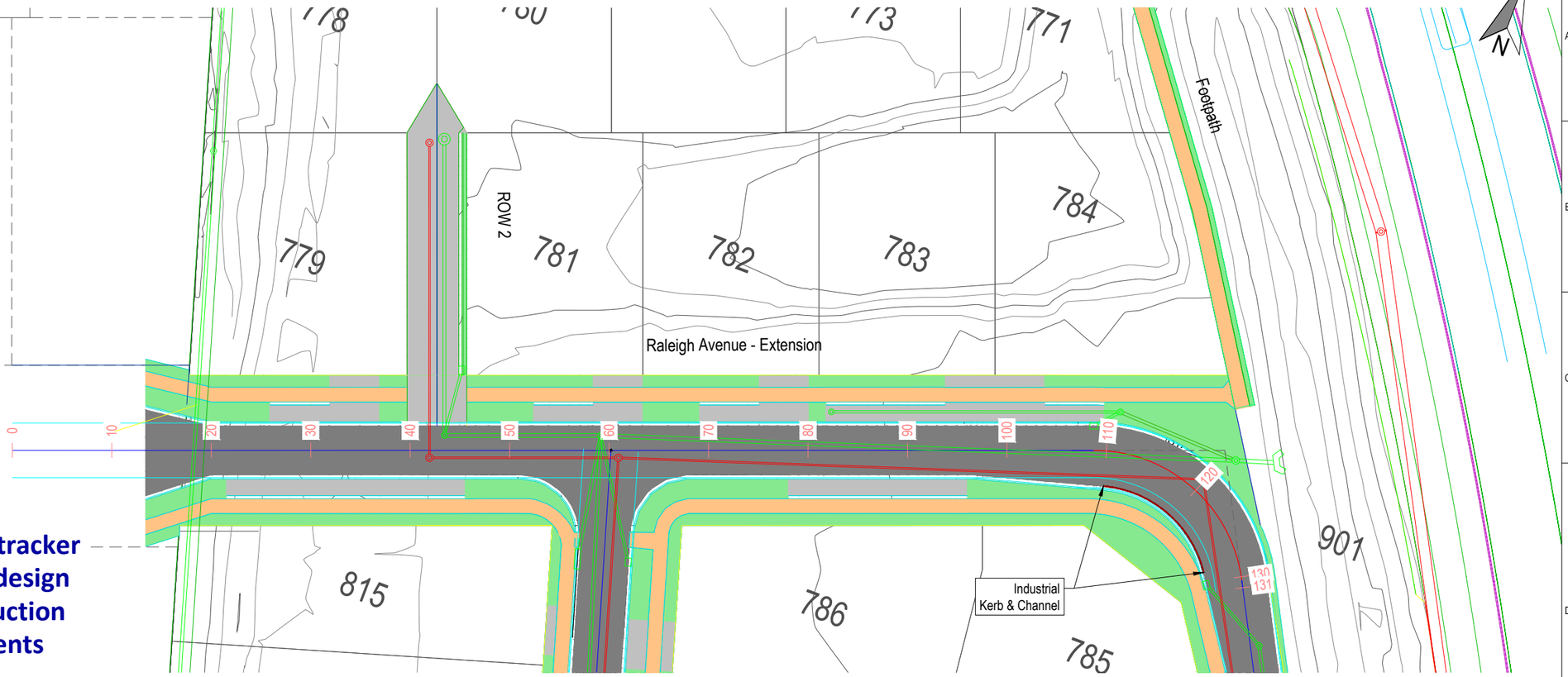
TITLE
RADIATA STREET ROW 1 & DRIVEWAY PLANS AND LONG SECTIONS

PREPARED FOR
GREENHILL
Chedworth Properties Limited

ORIGINAL SCALES @ A3	STATUS
AS SHOWN DO NOT SCALE DIMENSIONS	APPROVAL

DRAWING NO	REVISION
24-30410-24D-R3	5

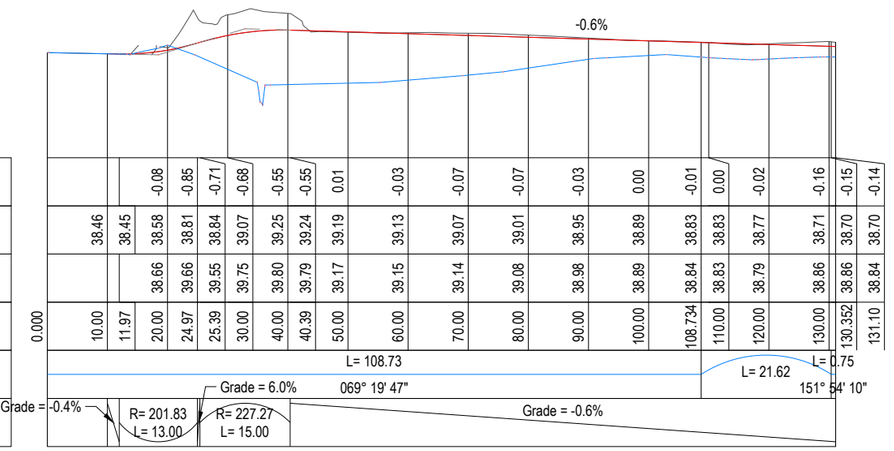
R:\Project Files\30410-01-1901 Detail Design\G24-30410-24D_Stage 24_Road Design.dwg - Plotted: 29/04/2025



Refer to RFI tracker for further design and construction amendments

RALEIGH AVENUE (EXTENTION) - PLAN
Scale - 1:500

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025
Subject to all notes and conditions affixed



S24-RALEIGH EXTENTION LONG SECTION

RELEIGH AVENUE (EXTESION) - LONG SECTION
Scale - H: 1:1000 V: 1:200

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

LEGEND:
- ABUTTALS
- BOUNDARIES
- ROAD SURFACE
- PARKING SURFACE
- FOOTPATH
- GRASS
- STORMWATER MANHOLE
- STORMWATER CATCH PIT
- WASTEWATER MANHOLE
- STORMWATER PIPE
- WASTEWATER PIPE

NOTE:
SUBJECT TO FINAL DESIGN,
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminery	GG	BG	PH	29.07.24
1	Layout Update	GG	HB	PH	19.08.24
2	Issued for RFI	GG	HB	PH	31.10.24
3	Issued for RFI (SW Update)	TM		PH	07.04.25
4	RFI Response	NW	HB	RH	16.04.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

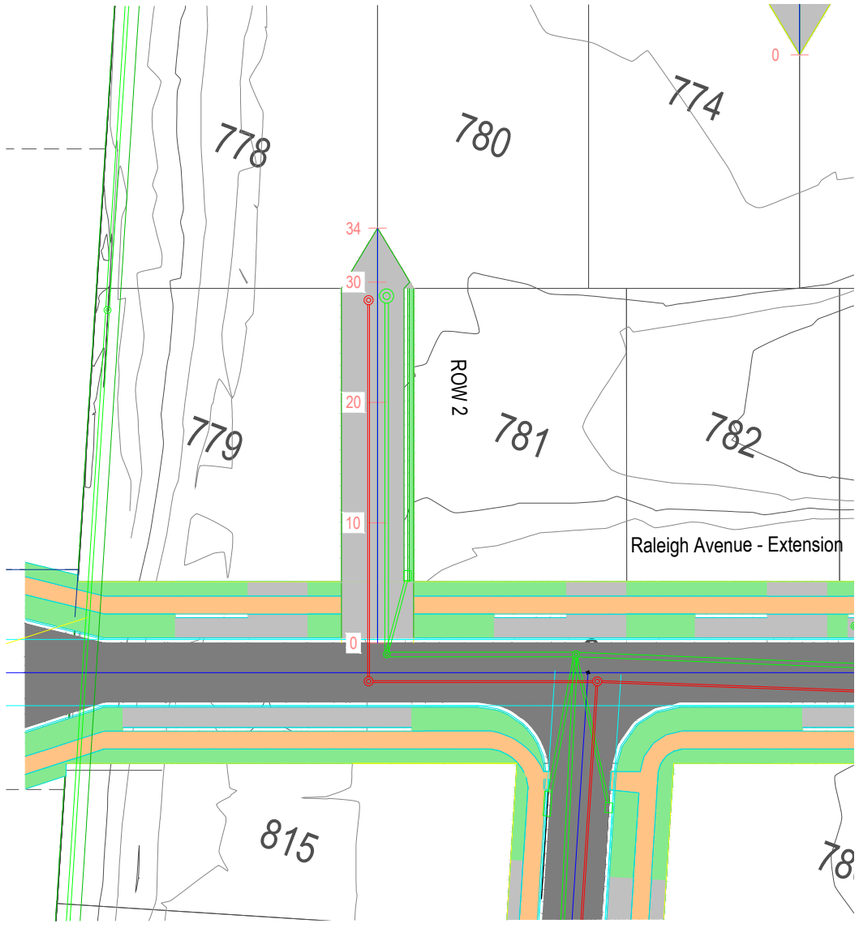
TITLE
RELEIGH AVENUE EXTENTION PLAN AND LONG SECTION

PREPARED FOR
GREENHILL
Chedworth Properties Limited

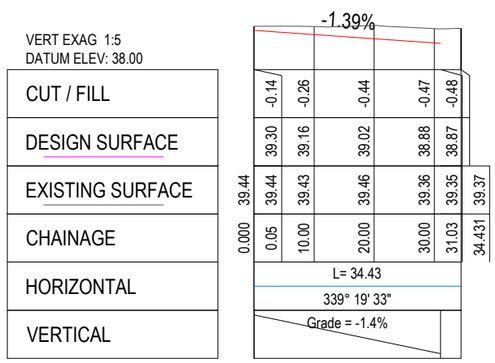
ORIGINAL SCALES @ A3	STATUS
AS SHOWN DO NOT SCALE DIMENSIONS	APPROVAL

DRAWING NO	REVISION
24-30410-24D-R4	4

R:\Project Files\30410-01-19\01 Detail Design\G24-30410-24D_Stage 24_Road Design.dwg - Plotted: 17/04/2025



RALEIGH AVENUE - ROW 2 - PLAN
Scale - 1:500



RALEIGH AVENUE - ROW 2 - LONG SECTION
Scale - H: 1:1000 V: 1:200

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025
Subject to all notes and conditions affixed

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

LEGEND:
- ABUTTALS
- BOUNDARIES
- ROAD SURFACE
- PARKING SURFACE
- FOOTPATH
- GRASS
- STORMWATER MANHOLE
- STORMWATER CATCH PIT
- WASTEWATER MANHOLE
- STORMWATER PIPE
- WASTEWATER PIPE

NOTE:
SUBJECT TO FINAL DESIGN,
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminery	GG	BG	PH	29.07.24
1	Layout Update	GG	HB	PH	19.08.24
2	Issued for RFI	GG	HB	PH	31.10.24
3	Issued for RFI (SW Update)	TM		PH	07.04.25
4	RFI Response	NW	HB	RH	16.04.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

TITLE
RALEIGH AVENUE ROW 2 PLAN AND LONG SECTION

PREPARED FOR
Greenhill / Chedworth Properties Limited

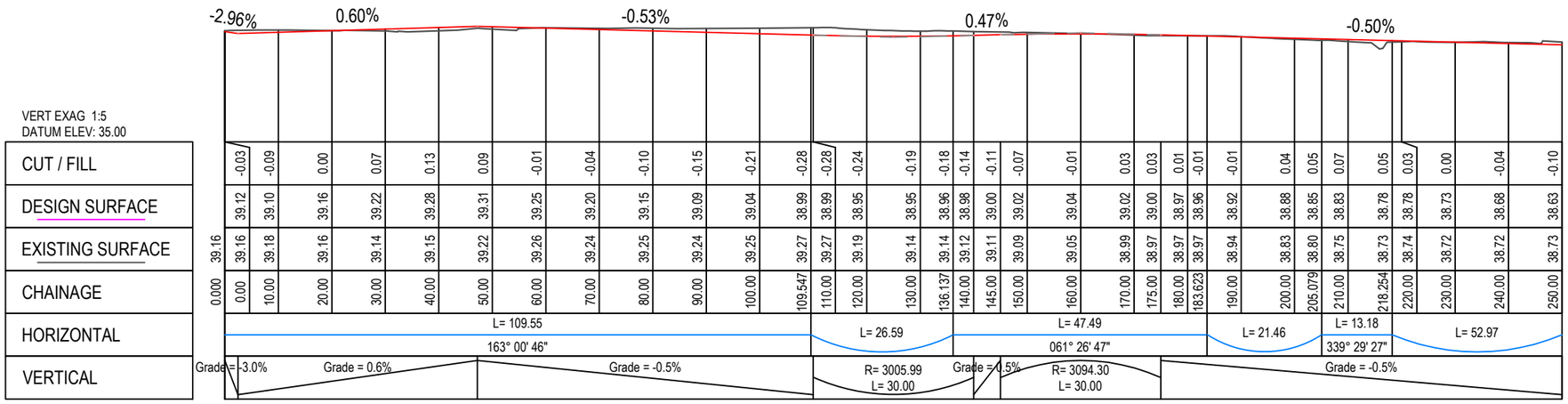
ORIGINAL SCALES @ A3: AS SHOWN (DO NOT SCALE DIMENSIONS)
STATUS: APPROVAL
DRAWING NO: 24-30410-24D-R5
REVISION: 4

R:\Project Files\30410-01-1901 Detail Design\G24-30410-24D_Stage 24_Road Design.dwg - Plotted: 17/04/2025

JACQUES TERRACE - PLAN
Scale - 1:1000

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025
Subject to all notes and conditions affixed



JACQUES TERRACE - LONG SECTION (From CH 0+000 to CH 0+250)
Scale - H: 1:1000 V: 1:200

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

LEGEND:
- ABUTTALS
- BOUNDARIES
- ROAD SURFACE
- PARKING SURFACE
- FOOTPATH
- GRASS
- STORMWATER MANHOLE
- STORMWATER CATCH PIT
- WASTEWATER MANHOLE
- STORMWATER PIPE
- WASTEWATER PIPE

NOTE:
SUBJECT TO FINAL DESIGN.
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminery	GG	BG	PH	29.07.24
1	Layout Update	GG	HB	PH	19.08.24
2	Issued for RFI	GG	HB	PH	31.10.24
3	Issued for RFI (SW Update)	TM		PH	07.04.25
4	RFI Response	NW	HB	RH	16.04.25
5	Low Point Ch.125 Lifted	TM	HB		06/05/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

TITLE

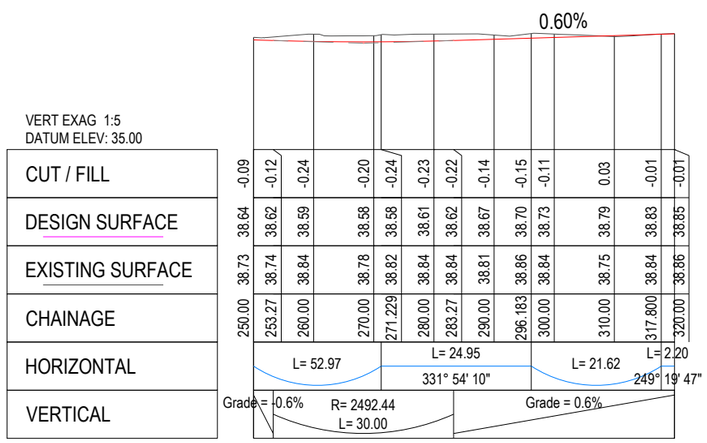
JACQUES TERRACE PLAN AND LONG SECTION (CH 0+000 - CH 0+250)

PREPARED FOR

ORIGINAL SCALES @ A3: AS SHOWN (DO NOT SCALE DIMENSIONS)
STATUS: APPROVAL
DRAWING NO: 24-30410-24D-R6
REVISION: 5

R:\Project Files\30410-01-1901 Detail Design\G24-30410-24D_Stage 24_Road Design.dwg - Plotted: 6/05/2025

JACQUES TERRACE - PLAN
Scale - 1:1000



JACQUES TERRACE - LONG SECTION (From CH 0+250 to CH 0+320)
Scale - H: 1:1000 V: 1:200

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025
Subject to all notes and conditions affixed

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

LEGEND:
- ABUTTALS
- BOUNDARIES
- ROAD SURFACE
- PARKING SURFACE
- FOOTPATH
- GRASS
- STORMWATER MANHOLE
- STORMWATER CATCH PIT
- WASTEWATER MANHOLE
- STORMWATER PIPE
- WASTEWATER PIPE

NOTE:
SUBJECT TO FINAL DESIGN,
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN,

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminery	GG	BG	PH	29.07.24
1	Layout Update	GG	HB	PH	19.08.24
2	Issued for RFI	GG	HB	PH	31.10.24
3	Issued for RFI (SW Update)	TM		PH	07.04.25
4	RFI Response	NW	HB	RH	16.04.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

TITLE

JACQUES TERRACE PLAN AND LONG SECTION (CH 0+250 - CH 0+320)

PREPARED FOR

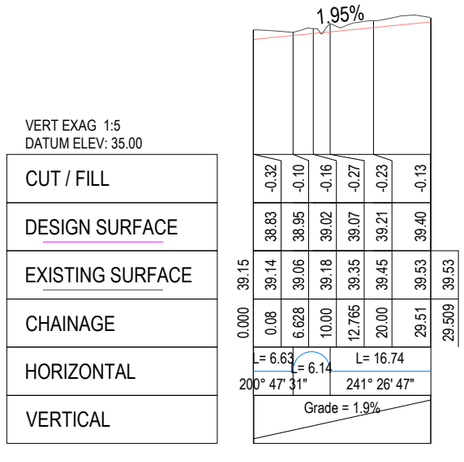
Greenhill Park | Chedworth Properties Limited

ORIGINAL SCALES @ A3	STATUS
AS SHOWN DO NOT SCALE DIMENSIONS	APPROVAL

DRAWING NO	REVISION
24-30410-24D-R7	4

R:\Project Files\30410-01-1901 Detail Design\G24-30410-24D_Stage 24_Road Design.dwg - Plotted: 17/04/2025

JACQUES TERRACE - ROW 3 - PLAN
Scale - 1:500



JACQUES TERRACE - ROW 3 - LONG SECTION
Scale - H: 1:1000 V: 1:200

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

LEGEND:
- ABUTTALS
- BOUNDARIES
- ROAD SURFACE
- PARKING SURFACE
- FOOTPATH
- GRASS
- STORMWATER MANHOLE
- STORMWATER CATCH PIT
- WASTEWATER MANHOLE
- STORMWATER PIPE
- WASTEWATER PIPE

NOTE:
SUBJECT TO FINAL DESIGN.
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminery	GG	BG	PH	29.07.24
1	Layout Update	GG	HB	PH	19.08.24
2	Issued for RFI	GG	HB	PH	31.10.24
3	RFI Response	NW	HB	RH	16.04.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24

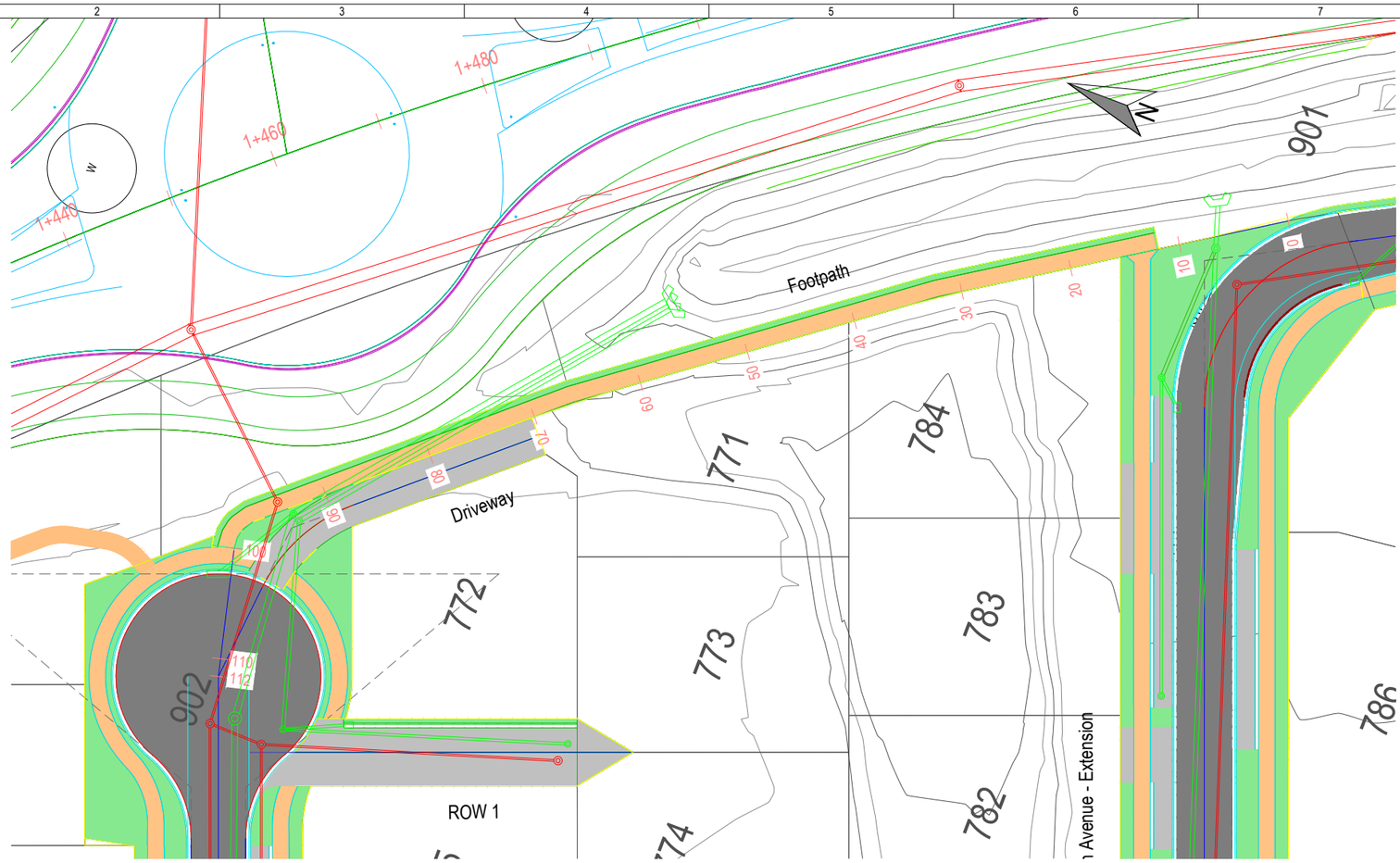
COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

TITLE
JACQUES TERRACE ROW 3 PLAN AND LONG SECTION

PREPARED FOR
Greenhill Chedworth Properties Limited

ORIGINAL SCALES @ A3: AS SHOWN (DO NOT SCALE DIMENSIONS)
STATUS: APPROVAL
DRAWING NO: 24-30410-24D-R8
REVISION: 3

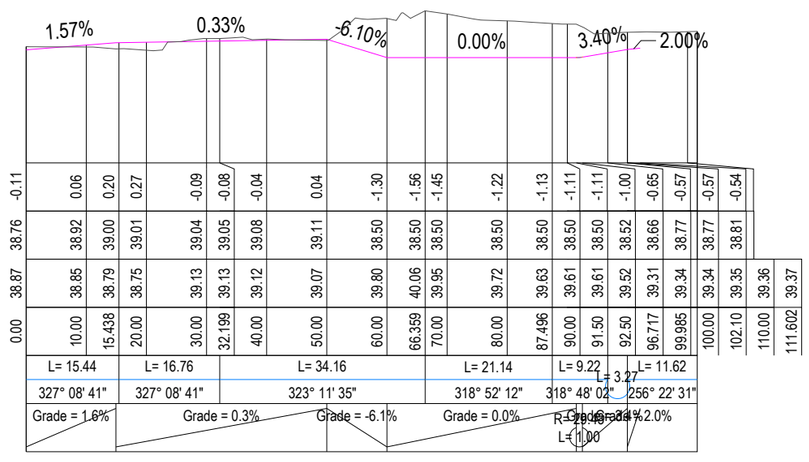
R:\Project Files\30410-01-1901 Detail Design\G24-30410-24D_Stage 24_Road Design.dwg - Plotted: 17/04/2025



PEDESTRIAN FOOTPATH - PLAN
Scale - 1:500

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025
Subject to all notes and conditions affixed



PEDESTRIAN FOOTPATH - LONG SECTION
Scale - H: 1:1000 V: 1:200

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

LEGEND:
- ABUTTALS
- BOUNDARIES
- ROAD SURFACE
- PARKING SURFACE
- FOOTPATH
- GRASS
- STORMWATER MANHOLE
- STORMWATER CATCH PIT
- WASTEWATER MANHOLE
- STORMWATER PIPE
- WASTEWATER PIPE

NOTE:
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminery	GG	BG	PH	29.07.24
1	Layout Update	GG	HB	PH	19.08.24
2	Issued for RFI	GG	HB	PH	31.10.24
3	Issued for RFI	TM		PH	07.04.25
4	RFI Response	NW	HB	RH	16.04.25
5	RFI Responses	NW	HB	RH	29.04.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

TITLE

PEDESTRAIN FOOTPATH PLAN AND LONG SECTION (CH 0+250 - CH 0+320)

PREPARED FOR

Greenhill Chedworth Properties Limited

ORIGINAL SCALES @ A3: AS SHOWN (DO NOT SCALE DIMENSIONS)
STATUS: APPROVAL
DRAWING NO: 24-30410-24D-R9
REVISION: 5

R:\Project Files\30410-01-19\01 Detail Design\G24-30410-24D_Stage 24_Road Design.dwg - Plotted: 29/04/2025

Refer to RFI tracker for further design and construction amendments

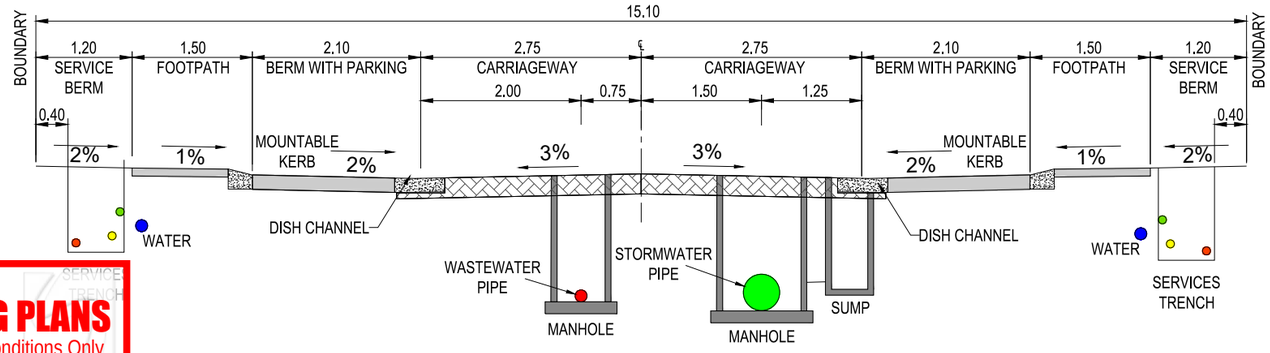
Hamilton City Council
Development Engineering Unit

ACCEPTED ENGINEERING PLANS

Assessed for Related Resource Consent Conditions Only

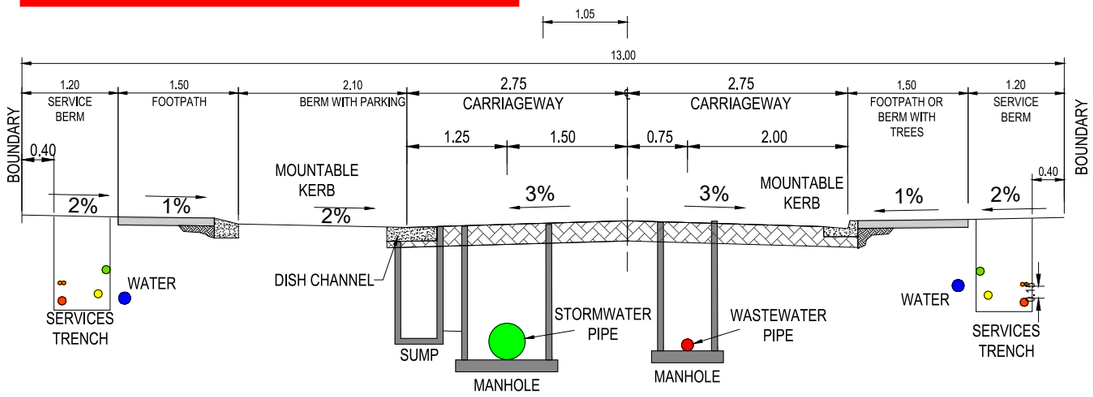
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed



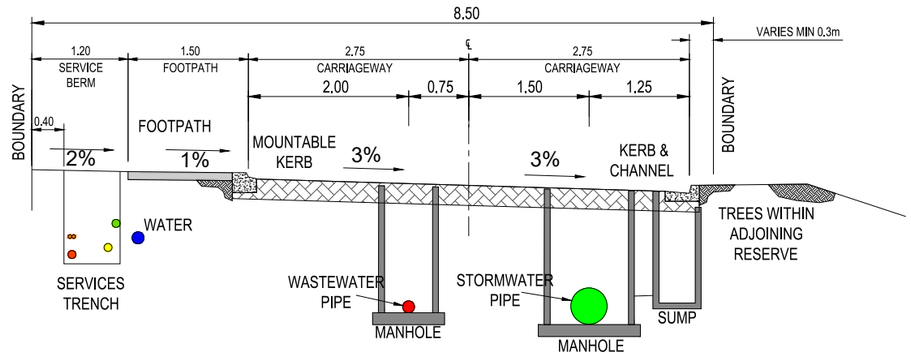
TYPICAL CROSS-SECTION 'A'

FOR THE RADIATA STREET & RALEIGH AVENUE EXTENSIONS



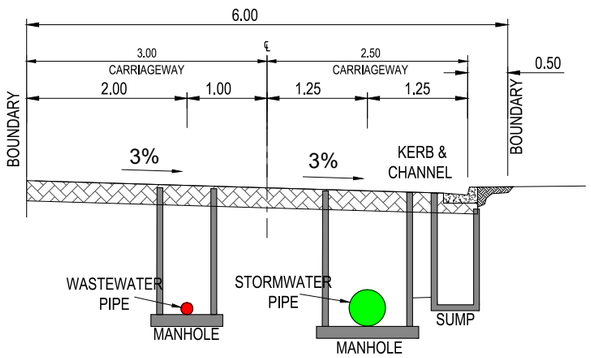
TYPICAL CROSS-SECTION 'B'

FOR THE JACQUES TERRACE FROM CH: 0+000 TO CH:0+206
SCALE 1:75



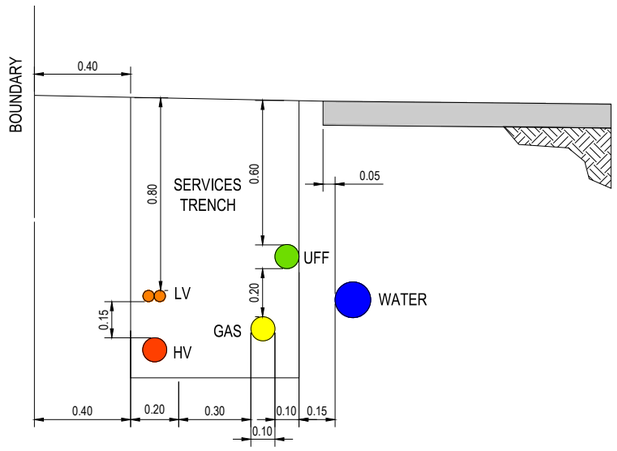
TYPICAL CROSS-SECTION 'C'

FOR THE JACQUES TERRACE FROM CH: 0+206 TO CH:0+300
SCALE 1:75



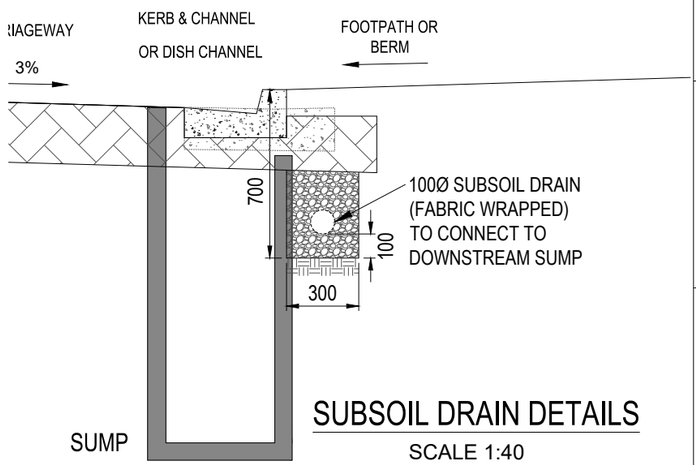
TYPICAL CROSS-SECTION 'D'

FOR THE ROW 1, 2, 3 AND DRIVEWAY
SCALE 1:75



SERVICES TRENCH DETAILS

SCALE 1:40



SUBSOIL DRAIN DETAILS

SCALE 1:40

NOTE:
SUBJECT TO FINAL DESIGN,
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminery	GG	BG	PH	29.07.24
1	Layout Update	GG	HB	PH	19.08.24
2	Issued for RFI	GG	HB	PH	31.10.24
3	RFI Response	NW	HB	RH	16.04.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

TITLE

TYPICAL CROSS-SECTIONS

PREPARED FOR

ORIGINAL SCALES @ A3	STATUS
AS SHOWN DO NOT SCALE DIMENSIONS	APPROVAL

DRAWING NO	REVISION
24-30410-24D-R10	3

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

R:\Project Files\30410-01-19\01 Detail Design\G24-30410-24D_Stage 24_Road Design.dwg - Plotted: 17/04/2025

Refer to RFI tracker for further design and construction amendments

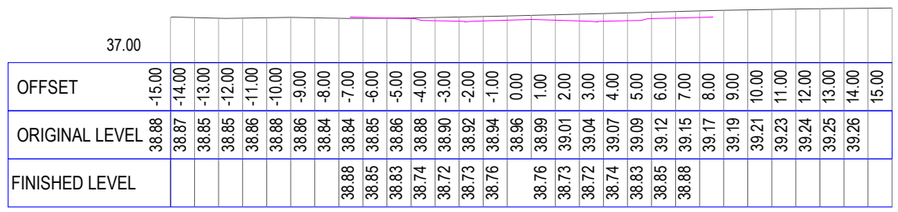
Hamilton City Council
Development Engineering Unit

ACCEPTED ENGINEERING PLANS

Assessed for Related Resource Consent Conditions Only

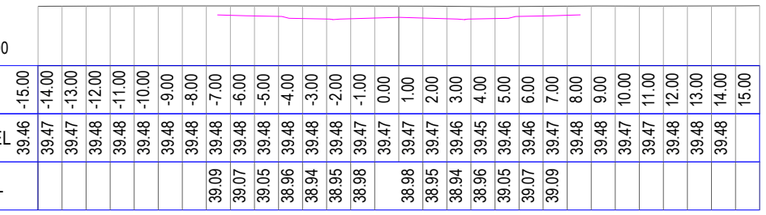
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed



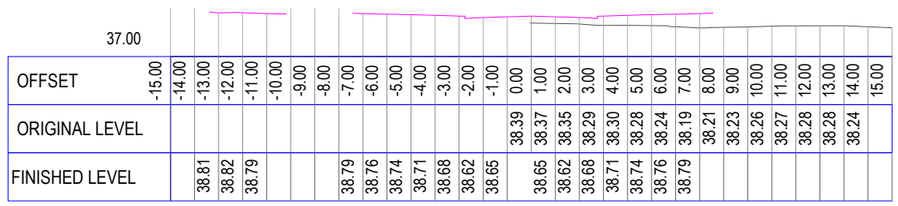
OFFSET	-15.00	-14.00	-13.00	-12.00	-11.00	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00
ORIGINAL LEVEL	38.88	38.87	38.85	38.85	38.86	38.88	38.86	38.84	38.84	38.85	38.86	38.88	38.90	38.92	38.94	38.96	38.99	39.01	39.04	39.07	39.09	39.12	39.15	39.17	39.19	39.21	39.23	39.24	39.25	39.26	
FINISHED LEVEL									38.88	38.85	38.83	38.74	38.72	38.73	38.76		38.76	38.73	38.72	38.74	38.83	38.85	38.88								

SECTION: 30.000



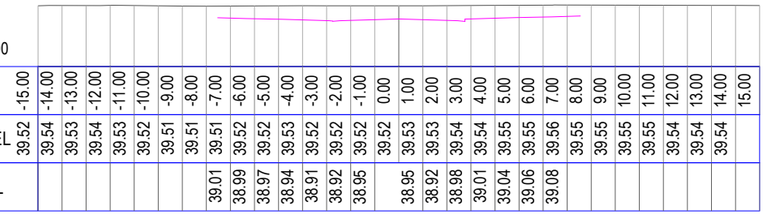
OFFSET	-15.00	-14.00	-13.00	-12.00	-11.00	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00
ORIGINAL LEVEL	39.46	39.47	39.47	39.48	39.48	39.48	39.48	39.48	39.48	39.48	39.48	39.48	39.48	39.48	39.47	39.47	39.47	39.47	39.46	39.45	39.46	39.46	39.47	39.48	39.48	39.47	39.48	39.48	39.48	39.48	
FINISHED LEVEL									39.09	39.07	39.05	38.96	38.94	38.95	38.98		38.98	38.95	38.94	38.96	39.05	39.07	39.09								

SECTION: 50.000



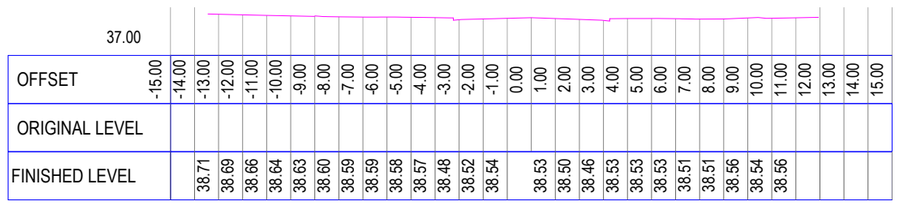
OFFSET	-15.00	-14.00	-13.00	-12.00	-11.00	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00
ORIGINAL LEVEL																38.39	38.37	38.35	38.29	38.30	38.28	38.24	38.19	38.21	38.23	38.26	38.27	38.28	38.28	38.24	
FINISHED LEVEL			38.81	38.82	38.79				38.79	38.76	38.74	38.71	38.68	38.62	38.65		38.65	38.62	38.68	38.71	38.74	38.76	38.79								

SECTION: 25.000



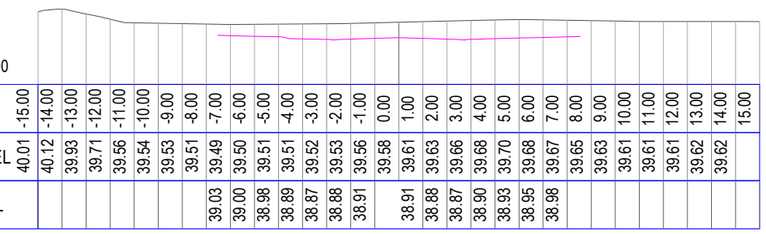
OFFSET	-15.00	-14.00	-13.00	-12.00	-11.00	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00
ORIGINAL LEVEL	39.52	39.54	39.53	39.54	39.53	39.52	39.51	39.51	39.51	39.52	39.52	39.53	39.52	39.52	39.52	39.52	39.53	39.53	39.54	39.54	39.55	39.55	39.56	39.55	39.55	39.55	39.55	39.54	39.54	39.54	
FINISHED LEVEL									39.01	38.99	38.97	38.94	38.91	38.92	38.95		38.95	38.92	38.98	39.01	39.04	39.06	39.08								

SECTION: 45.000



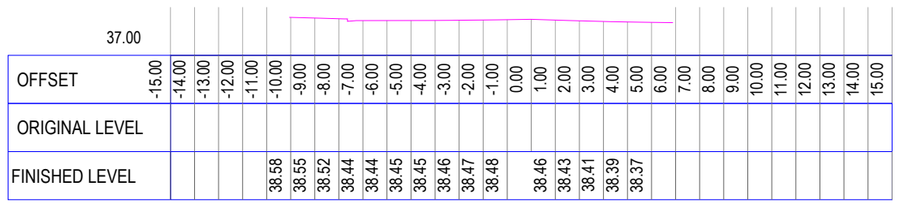
OFFSET	-15.00	-14.00	-13.00	-12.00	-11.00	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00
ORIGINAL LEVEL																															
FINISHED LEVEL		38.71	38.69	38.66	38.64	38.63	38.60	38.59	38.59	38.58	38.57	38.48	38.52	38.54		38.53	38.50	38.46	38.53	38.53	38.53	38.51	38.51	38.56	38.54	38.56					

SECTION: 20.000



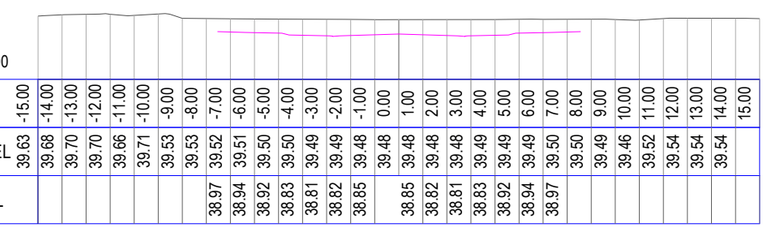
OFFSET	-15.00	-14.00	-13.00	-12.00	-11.00	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00
ORIGINAL LEVEL	40.01	40.12	39.93	39.71	39.56	39.54	39.53	39.51	39.49	39.50	39.51	39.51	39.52	39.53	39.56	39.58	39.61	39.63	39.66	39.68	39.70	39.68	39.67	39.65	39.63	39.61	39.61	39.62	39.62	39.62	
FINISHED LEVEL									39.03	39.00	38.98	38.89	38.87	38.88	38.91		38.91	38.88	38.87	38.90	38.93	38.95	38.98								

SECTION: 40.000



OFFSET	-15.00	-14.00	-13.00	-12.00	-11.00	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00
ORIGINAL LEVEL																															
FINISHED LEVEL					38.58	38.55	38.52	38.44	38.44	38.45	38.45	38.46	38.47	38.48		38.46	38.43	38.41	38.39	38.37											

SECTION: 15.000



OFFSET	-15.00	-14.00	-13.00	-12.00	-11.00	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00
ORIGINAL LEVEL	39.63	39.68	39.70	39.70	39.66	39.71	39.53	39.53	39.52	39.51	39.50	39.49	39.49	39.48	39.48	39.48	39.48	39.48	39.48	39.49	39.49	39.49	39.50	39.50	39.49	39.46	39.52	39.54	39.54	39.54	
FINISHED LEVEL									38.97	38.94	38.92	38.83	38.81	38.82	38.85		38.85	38.82	38.81	38.83	38.92	38.94	38.97								

SECTION: 35.000

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

NOTE:
SUBJECT TO FINAL DESIGN,
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminery	GG	BG	PH	29.07.24
1	Layout Update	GG	HB	PH	19.08.24
2	RFI Response	NW	HB	RH	16.04.24

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

TITLE

RADIATA STREET EXTENSION CROSS-SECTIONS

(CH 0+015 - CH 0+050)

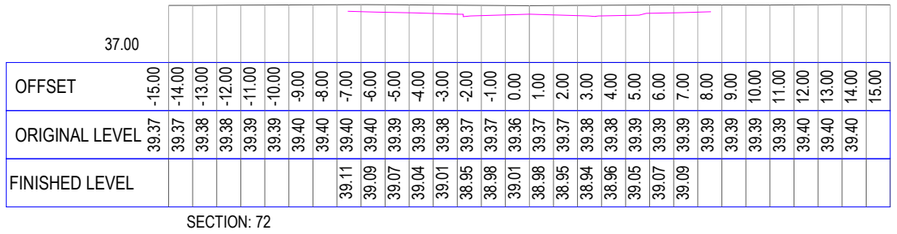
PREPARED FOR

GREENHILL

ORIGINAL SCALES @ A3: 1:250 (DO NOT SCALE DIMENSIONS)
STATUS: APPROVAL

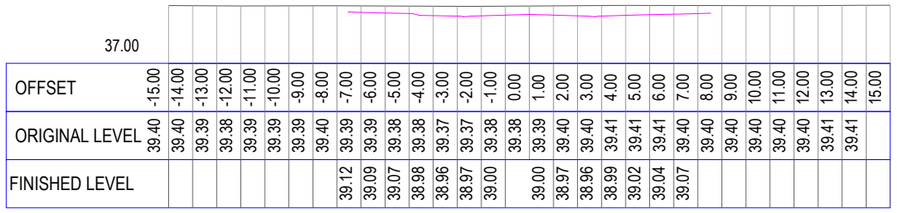
DRAWING NO: 24-30410-24D-R11
REVISION: 2

R:\Project Files\30410-01-1901 Detail Design\G24-30410-24D_Stage 24_Road Design.dwg - Plotted: 17/04/2025



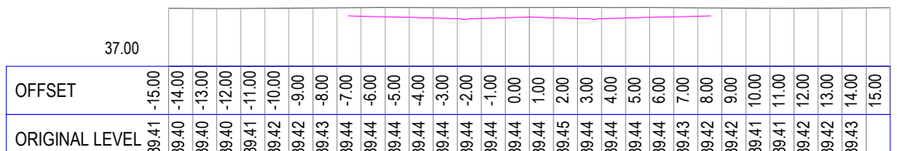
OFFSET	-15.00	-14.00	-13.00	-12.00	-11.00	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00
ORIGINAL LEVEL	39.37	39.37	39.38	39.38	39.39	39.39	39.40	39.40	39.40	39.40	39.39	39.39	39.38	39.37	39.37	39.36	39.37	39.37	39.38	39.38	39.39	39.39	39.39	39.39	39.39	39.39	39.39	39.40	39.40	39.40	
FINISHED LEVEL									39.11	39.09	39.07	39.04	39.01	38.95	38.98	39.01	38.98	38.95	38.94	38.96	39.05	39.07	39.09								

SECTION: 72



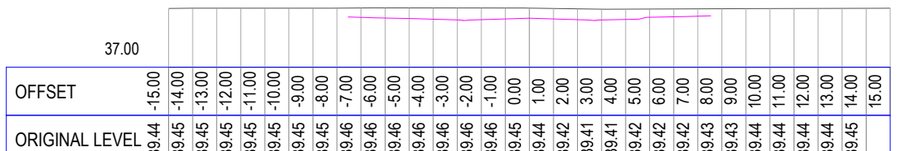
OFFSET	-15.00	-14.00	-13.00	-12.00	-11.00	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00
ORIGINAL LEVEL	39.40	39.40	39.39	39.38	39.39	39.39	39.39	39.40	39.39	39.39	39.38	39.38	39.37	39.37	39.38	39.38	39.39	39.40	39.40	39.41	39.41	39.41	39.40	39.40	39.40	39.40	39.40	39.40	39.41	39.41	
FINISHED LEVEL									39.12	39.09	39.07	38.98	38.96	38.97	39.00		39.00	38.97	38.96	38.99	39.02	39.04	39.07								

SECTION: 65.000



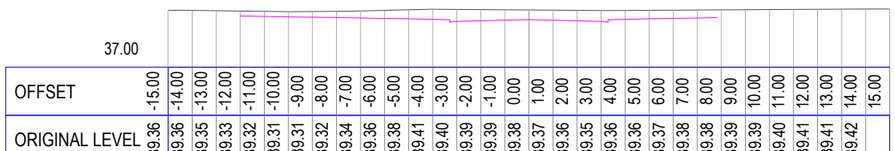
OFFSET	-15.00	-14.00	-13.00	-12.00	-11.00	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00
ORIGINAL LEVEL	39.41	39.40	39.40	39.40	39.41	39.42	39.42	39.43	39.44	39.44	39.44	39.44	39.44	39.44	39.44	39.44	39.44	39.45	39.44	39.44	39.44	39.44	39.43	39.42	39.42	39.41	39.41	39.42	39.42	39.43	
FINISHED LEVEL									39.08	39.05	39.03	39.00	38.97	38.98	39.01	39.04	39.01	38.98	38.97	39.00	39.03	39.05	39.08								

SECTION: 60.000



OFFSET	-15.00	-14.00	-13.00	-12.00	-11.00	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00
ORIGINAL LEVEL	39.44	39.45	39.45	39.45	39.45	39.45	39.45	39.45	39.46	39.46	39.46	39.46	39.46	39.46	39.46	39.45	39.44	39.42	39.41	39.41	39.42	39.42	39.42	39.43	39.43	39.44	39.44	39.44	39.44	39.45	
FINISHED LEVEL									39.07	39.04	39.02	38.99	38.96	38.97	39.00		39.00	38.97	38.96	38.98	39.07	39.09	39.12								

SECTION: 55.000



OFFSET	-15.00	-14.00	-13.00	-12.00	-11.00	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00
ORIGINAL LEVEL	39.36	39.36	39.35	39.33	39.32	39.31	39.31	39.32	39.34	39.36	39.38	39.41	39.40	39.39	39.39	39.38	39.37	39.36	39.35	39.36	39.36	39.37	39.38	39.38	39.39	39.39	39.40	39.41	39.41	39.42	
FINISHED LEVEL			39.13	39.11	39.09	39.08	39.06	39.04	39.03	39.01	38.99	38.90	38.93	38.95	38.95	38.95	38.93	38.90	38.99	39.01	39.03	39.04									

SECTION: 75.000

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit

ACCEPTED ENGINEERING PLANS

Assessed for Related Resource Consent Conditions Only

Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed

NOTE:
SUBJECT TO FINAL DESIGN,
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminery	GG	BG	PH	29.07.24
1	Layout Update	GG	HB	PH	19.08.24
2	RFI Response	NW	HB	RH	16.04.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

TITLE

RADIATA STREET EXTENSION CROSS-SECTIONS

(CH 0+055 - CH 0+075)

PREPARED FOR

ORIGINAL SCALES @ A3: 1:250 DO NOT SCALE DIMENSIONS
STATUS: APPROVAL

DRAWING NO: 24-30410-24D-R12
REVISION: 2

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

Refer to RFI tracker for further design and construction amendments

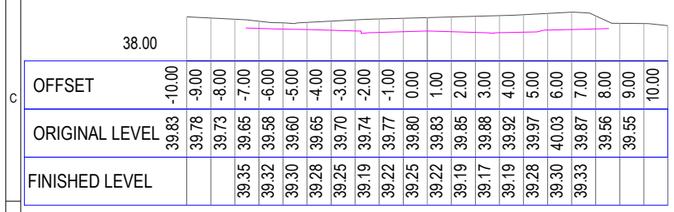
Hamilton City Council
Development Engineering Unit

ACCEPTED ENGINEERING PLANS

Assessed for Related Resource Consent Conditions Only

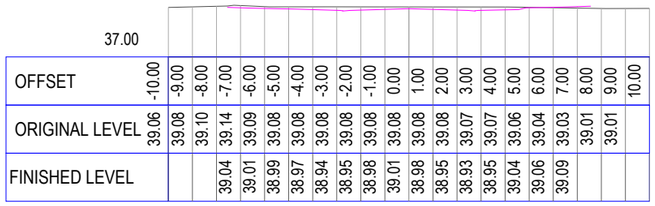
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed



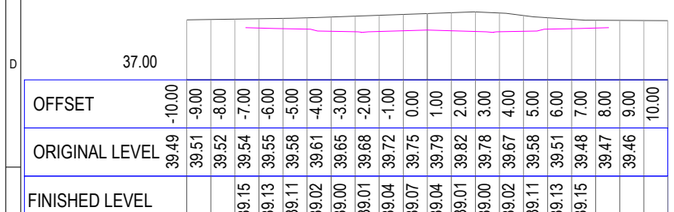
		-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.83	39.78	39.73	39.65	39.58	39.60	39.65	39.70	39.74	39.77	39.80	39.83	39.85	39.88	39.92	39.97	40.03	39.87	39.56	39.55		
FINISHED LEVEL				39.35	39.32	39.30	39.28	39.25	39.19	39.22	39.25	39.22	39.19	39.17	39.19	39.28	39.30	39.33				

SECTION: 0+040.00 (4)



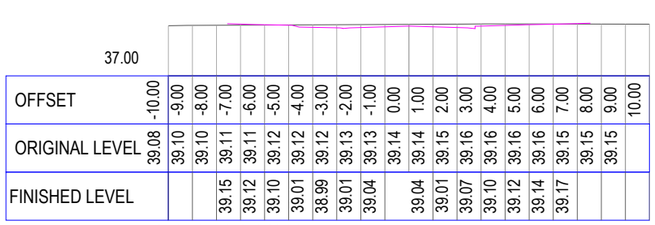
		-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.06	39.08	39.10	39.14	39.09	39.08	39.08	39.08	39.08	39.08	39.08	39.08	39.08	39.08	39.07	39.07	39.06	39.04	39.03	39.01	39.01	
FINISHED LEVEL				39.04	39.01	38.99	38.97	38.94	38.95	38.95	38.98	38.98	38.95	38.98	38.93	38.95	39.04	39.06	39.09			

SECTION: 0+080.00 (8)



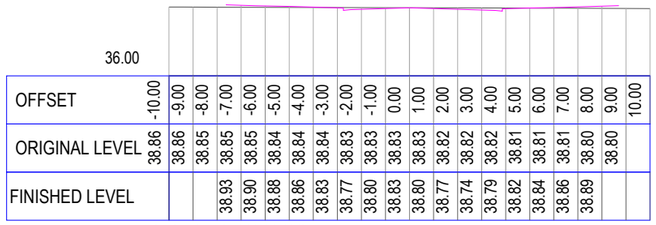
		-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.49	39.51	39.52	39.54	39.55	39.58	39.61	39.65	39.68	39.72	39.75	39.79	39.82	39.78	39.67	39.58	39.51	39.48	39.47	39.46		
FINISHED LEVEL				39.15	39.13	39.11	39.02	39.00	39.01	39.04	39.07	39.04	39.01	39.00	39.02	39.11	39.13	39.15				

SECTION: 0+030.00 (3)



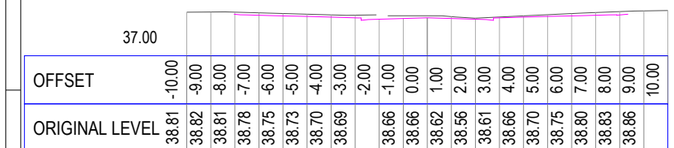
		-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.08	39.10	39.10	39.11	39.11	39.12	39.12	39.12	39.12	39.13	39.13	39.14	39.14	39.15	39.16	39.16	39.16	39.16	39.15	39.15	39.15	
FINISHED LEVEL				39.15	39.12	39.10	39.01	38.99	39.01	39.04		39.04	39.01	39.07	39.10	39.12	39.14	39.17				

SECTION: 0+070.00 (7)



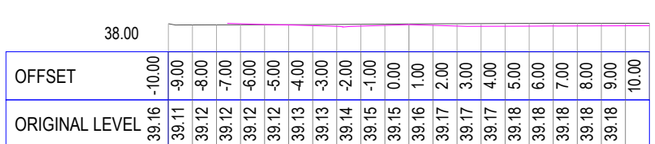
		-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.86	38.86	38.85	38.85	38.85	38.84	38.84	38.84	38.83	38.83	38.83	38.83	38.83	38.82	38.82	38.82	38.81	38.81	38.81	38.80	38.80	
FINISHED LEVEL				38.93	38.90	38.88	38.86	38.83	38.83	38.77	38.80	38.83	38.80	38.77	38.74	38.79	38.82	38.84	38.86	38.89		

SECTION: 0+110.00 (11)



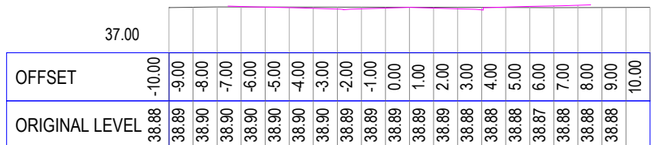
		-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.81	38.82	38.81	38.78	38.75	38.73	38.70	38.69		38.66	38.66	38.62	38.56	38.61	38.66	38.70	38.75	38.80	38.83	38.86		
FINISHED LEVEL			38.72	38.68	38.66	38.64	38.61	38.58	38.52	38.55	38.58	38.55	38.52	38.58	38.61	38.64	38.66	38.68	38.70			

SECTION: 0+020.00 (2)



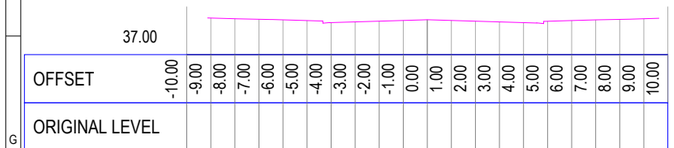
		-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.16	39.11	39.12	39.12	39.12	39.13	39.13	39.14	39.15	39.15	39.16	39.17	39.17	39.17	39.17	39.18	39.18	39.18	39.18	39.18		
FINISHED LEVEL			39.16	39.13	39.11	39.09	39.06	39.07	39.10	39.13	39.10	39.07	39.06	39.06	39.06	39.07	39.07	39.08	39.08			

SECTION: 0+060.00 (6)



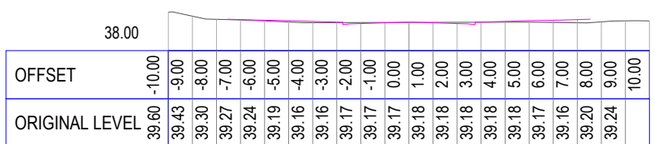
		-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.88	38.89	38.90	38.90	38.90	38.90	38.90	38.90	38.89	38.89	38.89	38.89	38.89	38.89	38.88	38.88	38.88	38.87	38.88	38.88	38.88	
FINISHED LEVEL				38.92	38.89	38.87	38.85	38.82	38.83	38.86	38.89	38.86	38.83	38.86	38.78	38.90	38.93	38.95	38.97			

SECTION: 0+100.00 (10)



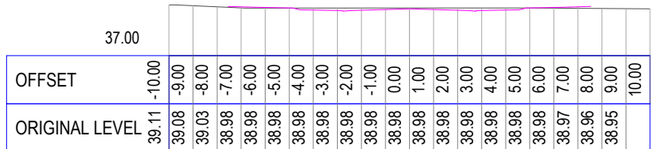
		-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL																						
FINISHED LEVEL	38.52	38.49	38.47	38.45	38.42	38.33	38.36	38.39	38.42		38.42	38.39	38.36	38.33	38.39	38.42	38.45	38.47	38.49			

SECTION: 0+013.50 (1)



		-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.60	39.43	39.27	39.24	39.19	39.16	39.16	39.17	39.17	39.17	39.17	39.18	39.18	39.18	39.18	39.18	39.17	39.16	39.20	39.24		
FINISHED LEVEL			39.29	39.26	39.24	39.22	39.19	39.13	39.16	39.19	39.16	39.13	39.19	39.22	39.24	39.26	39.29					

SECTION: 0+050.00 (5)



		-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.11	39.08	39.03	38.98	38.98	38.98	38.98	38.98	38.87	38.89	38.92	38.98	38.95	38.92	38.89	38.87	38.89	38.98	38.98	39.00	39.03	
FINISHED LEVEL				39.03	39.00	38.98	38.89	38.87	38.89	38.89	38.98	38.98	38.98	38.98	38.98	38.98	38.98	38.98	38.97	38.96	38.95	

SECTION: 0+090.00 (9)

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

NOTE:
SUBJECT TO FINAL DESIGN,
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminery	GG	BG	PH	29.07.24
1	Layout Update	GG	HB	PH	19.08.24

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

TITLE

RALEIGH AVENUE EXTENSION CROSS-SECTIONS

(CH 0+010 - CH 0+110)

PREPARED FOR

Greenhill Chedworth Properties Limited

ORIGINAL SCALES @ A3: 1:250 DO NOT SCALE DIMENSIONS
STATUS: APPROVAL

DRAWING NO: 24-30410-24D-R13
REVISION: 1

R:\Project Files\30410-01-19\01 Detail Design\G24-30410-24D_Stage 24_Road Design.dwg - Plotted: 17/04/2025

Refer to RFI tracker for further design and construction amendments

38.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.20	39.21	39.21	39.21	39.22	39.23	39.25	39.27	39.27	39.27	39.26	39.25	39.23	39.21	39.19	39.17	39.17	39.17	39.18	39.19	
FINISHED LEVEL				39.33	39.30	39.28	39.19	39.17	39.18	39.21	39.24	39.21	39.18	39.24	39.26	39.29					

SECTION: 0+060.00

38.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.17	39.18	39.19	39.20	39.21	39.22	39.23	39.24	39.24	39.23	39.22	39.21	39.20	39.19	39.18	39.18	39.18	39.19	39.19	39.18	
FINISHED LEVEL				39.34	39.31	39.29	39.26	39.23	39.24	39.27	39.30	39.27	39.24	39.30	39.32	39.35					

SECTION: 0+050.00

38.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.17	39.17	39.17	39.17	39.17	39.16	39.16	39.16	39.16	39.16	39.15	39.14	39.14	39.13	39.12	39.12	39.11	39.10	39.10	39.09	
FINISHED LEVEL				39.38	39.36	39.34	39.31	39.28	39.22	39.25	39.28	39.25	39.22	39.21	39.23	39.25					

SECTION: 0+040.00

38.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.14	39.14	39.14	39.13	39.13	39.13	39.13	39.13	39.13	39.14	39.14	39.14	39.14	39.13	39.13	39.12	39.12	39.11	39.17	39.15	
FINISHED LEVEL				39.30	39.28	39.26	39.17	39.15	39.16	39.19	39.22	39.19	39.16	39.15	39.17	39.19					

SECTION: 0+030.00

38.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.16	39.16	39.16	39.16	39.16	39.16	39.16	39.16	39.16	39.16	39.16	39.15	39.15	39.15	39.15	39.16	39.16	39.17	39.17	39.16	
FINISHED LEVEL				39.19	39.17	39.15	39.12	39.09	39.10	39.13	39.16	39.13	39.10	39.09	39.11	39.13					

SECTION: 0+020.00

37.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.15	39.16	39.17	39.17	39.18	39.19	39.19	39.19	39.19	39.18	39.18	39.18	39.18	39.18	39.18	39.17	39.17	39.19	39.21	39.23	
FINISHED LEVEL				39.20	39.18	39.16	39.13	39.10	39.04	39.07	39.10	39.07	39.04	39.10	39.12	39.14					

SECTION: 0+010.00

37.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.22	39.22	39.22	39.22	39.22	39.22	39.22	39.22	39.21	39.20	39.19	39.18	39.17	39.16	39.15	39.15	39.14	39.13	39.13	39.13	
FINISHED LEVEL		39.02	38.99	38.97	38.95	38.92	38.89	38.81	38.84	38.87	38.90	38.87	38.84	38.90	38.92	38.95	38.98	39.01	39.04	39.07	

SECTION: 0+120.00

37.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.23	39.24	39.24	39.25	39.25	39.25	39.26	39.26	39.26	39.26	39.27	39.28	39.29	39.29	39.30	39.31	39.32	39.32	39.33	39.34	
FINISHED LEVEL				39.01	38.99	38.96	38.93	38.85	38.88	38.91	38.94	38.91	38.88	38.94	38.96	38.99					

SECTION: 0+110.00

37.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.24	39.25	39.25	39.25	39.25	39.25	39.25	39.25	39.25	39.25	39.25	39.26	39.26	39.26	39.27	39.27	39.27	39.28	39.28	39.29	
FINISHED LEVEL				39.11	39.08	39.06	39.03	39.00	38.94	38.97	39.00	38.97	38.94	39.00	39.02	39.05					

SECTION: 0+100.00

37.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.21	39.22	39.22	39.22	39.22	39.22	39.23	39.23	39.23	39.24	39.24	39.24	39.25	39.25	39.25	39.26	39.27	39.27	39.28	39.28	
FINISHED LEVEL				39.15	39.12	39.10	39.01	38.99	39.00	39.03	39.06	39.03	39.00	38.99	39.01	39.04					

SECTION: 0+090.00

38.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.20	39.21	39.22	39.23	39.23	39.23	39.24	39.24	39.24	39.25	39.25	39.25	39.25	39.26	39.26	39.25	39.25	39.25	39.26	39.27	
FINISHED LEVEL				39.16	39.13	39.11	39.08	39.05	39.06	39.09	39.12	39.09	39.06	39.05	39.07	39.10					

SECTION: 0+080.00

38.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.22	39.23	39.24	39.25	39.25	39.26	39.26	39.26	39.25	39.25	39.24	39.24	39.24	39.23	39.23	39.23	39.21	39.22	39.22	39.22	
FINISHED LEVEL				39.29	39.26	39.24	39.21	39.18	39.12	39.15	39.18	39.15	39.12	39.18	39.20	39.23					

SECTION: 0+070.00

37.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.95	38.95	38.95	38.96	38.96	38.96	38.96	38.96	38.97	38.97	38.97	38.97	38.97	38.97	38.97	38.98	38.98	38.98	38.98	38.98	
FINISHED LEVEL			39.17	39.14	39.11	39.09	39.06	38.96	39.00	39.03	39.06	39.03	39.00	38.99	39.01	39.03					

SECTION: 0+180.00

37.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.99	38.99	38.99	38.99	38.99	38.99	38.99	38.99	38.99	38.99	38.99	38.99	38.99	38.99	38.99	38.99	38.98	38.97	38.96	38.95	
FINISHED LEVEL				39.18	39.16	39.14	39.11	39.08	39.02	39.05		39.05	39.02	39.08	39.10	39.12					

SECTION: 0+170.00

37.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.07	39.07	39.08	39.08	39.08	39.08	39.07	39.07	39.06	39.06	39.05	39.05	39.04	39.04	39.02	38.99	38.99	39.00	38.99	38.98	
FINISHED LEVEL				39.09	39.07	39.05	39.02	38.99	39.00	39.03	39.06	39.03	39.00	39.06	39.08	39.10					

SECTION: 0+160.00

37.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.13	39.13	39.12	39.09	39.06	39.04	39.02	39.04	39.06	39.08	39.09	39.09	39.08	39.04	38.99	39.01	39.03	38.97	38.92	38.58	
FINISHED LEVEL				39.09	39.06	39.04	38.95	38.93	38.94	38.97	39.00	38.97	38.94	39.00	39.02	39.05					

SECTION: 0+150.00

36.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.18	39.17	39.17	39.16	39.16	39.15	39.14	39.14	39.13	39.13	39.12	39.13	39.14	39.15	39.15	39.16	39.20	39.18	39.07	38.49	
FINISHED LEVEL				39.02	39.00	38.98	38.95	38.85	38.88	38.91	38.94	38.91	38.88	38.87	38.89	38.92					

SECTION: 0+140.00

37.00

OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	39.20	39.20	39.19	39.19	39.18	39.18	39.17	39.17	39.16	39.15	39.14	39.13	39.12	39.10	39.09	39.08	39.23	39.50	39.74	39.16	
FINISHED LEVEL			38.99	38.97	38.95	38.92	38.89	38.81	38.84	38.87		38.87	38.84	38.90	38.92	38.95	38.98	39.01			

SECTION: 0+130.00

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025
Subject to all notes and conditions affixed

NOTE:
SUBJECT TO FINAL DESIGN.
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminary	GG	BG	PH	29.07.24
1	Layout Update	GG	HB	PH	19.08.24
2	RFI Response	NW	HB	RH	16.04.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

TITLE

JACQUES TERRACE CROSS-SECTIONS

(CH 0+000 - CH 0+180)

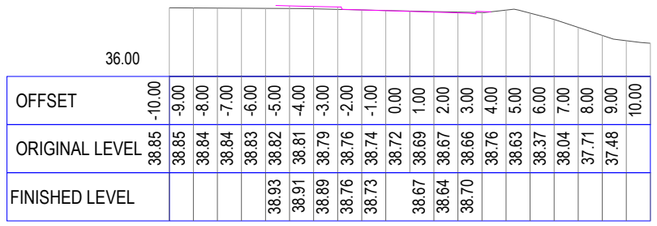
PREPARED FOR

Chedworth Properties Limited

ORIGINAL SCALES @ A3: 1:250
DO NOT SCALE DIMENSIONS
STATUS: APPROVAL

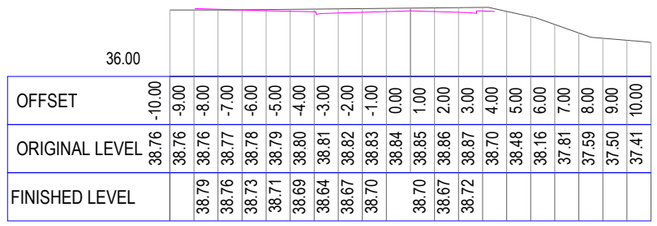
DRAWING NO: 24-30410-24D-R14
REVISION: 2

R:\Project Files\30410-01-19\01 Detail Design\G24-30410-24D_Stage 24_Road Design.dwg - Plotted: 17/04/2025



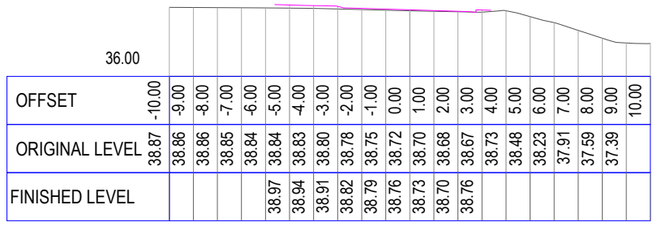
OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.85	38.85	38.84	38.84	38.83	38.82	38.81	38.79	38.76	38.74	38.72	38.69	38.67	38.66	38.63	38.37	38.04	37.71	37.48		
FINISHED LEVEL						38.93	38.91	38.89	38.76	38.73		38.67	38.64	38.70							

SECTION: 0+240.00



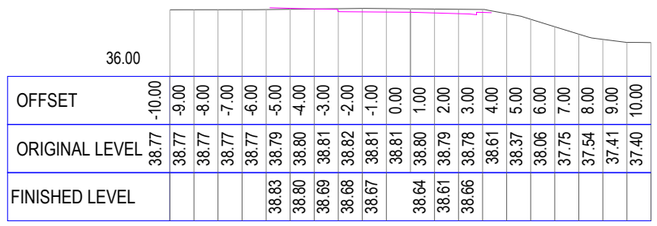
OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.76	38.76	38.76	38.77	38.78	38.79	38.80	38.81	38.82	38.83	38.84	38.85	38.86	38.87	38.70	38.48	38.16	37.81	37.59	37.50	37.41
FINISHED LEVEL			38.79	38.76	38.73	38.71	38.69	38.64	38.67	38.70		38.70	38.67	38.72							

SECTION: 0+300.00



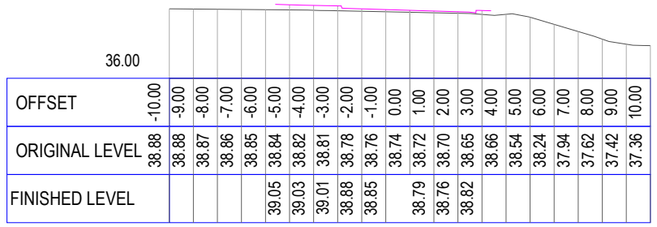
OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.87	38.86	38.86	38.85	38.84	38.84	38.83	38.80	38.78	38.75	38.72	38.70	38.68	38.67	38.48	38.23	37.91	37.59	37.39		
FINISHED LEVEL						38.97	38.94	38.91	38.82	38.79	38.76	38.73	38.70	38.76							

SECTION: 0+230.00



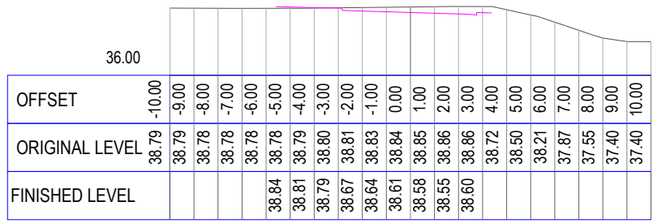
OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.77	38.77	38.77	38.77	38.77	38.79	38.80	38.81	38.82	38.81	38.81	38.80	38.79	38.78	38.61	38.37	38.06	37.75	37.54	37.41	37.40
FINISHED LEVEL						38.83	38.80	38.69	38.68	38.67		38.64	38.61	38.66							

SECTION: 0+290.00



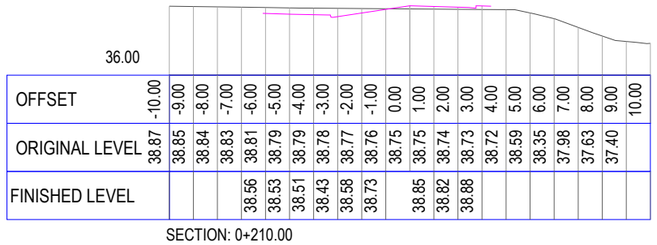
OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.88	38.87	38.86	38.85	38.84	38.82	38.81	38.78	38.76	38.74	38.72	38.70	38.65	38.66	38.54	38.24	37.94	37.62	37.42	37.36	
FINISHED LEVEL					39.05	39.03	39.01	38.88	38.85		38.79	38.76	38.82								

SECTION: 0+220.00



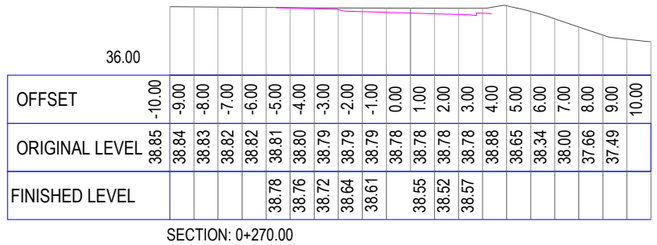
OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.79	38.79	38.78	38.78	38.78	38.78	38.79	38.80	38.81	38.83	38.84	38.85	38.86	38.86	38.72	38.50	38.21	37.87	37.55	37.40	37.40
FINISHED LEVEL						38.84	38.81	38.79	38.67	38.64	38.61	38.58	38.55	38.60							

SECTION: 0+280.00



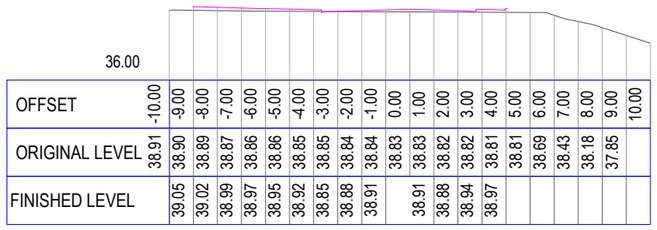
OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.87	38.85	38.84	38.83	38.82	38.79	38.79	38.78	38.77	38.76	38.74	38.75	38.75	38.74	38.73	38.72	38.59	38.35	37.98	37.63	37.40	
FINISHED LEVEL					38.56	38.53	38.51	38.43	38.58	38.73		38.85	38.82	38.88								

SECTION: 0+210.00



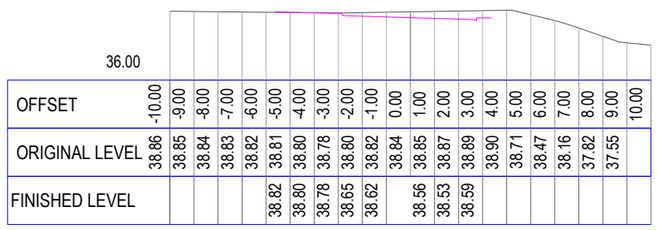
OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.85	38.84	38.83	38.82	38.82	38.81	38.80	38.79	38.79	38.79	38.78	38.78	38.78	38.78	38.88	38.65	38.34	38.00	37.66	37.49	
FINISHED LEVEL						38.78	38.76	38.72	38.64	38.61		38.55	38.52	38.57							

SECTION: 0+270.00



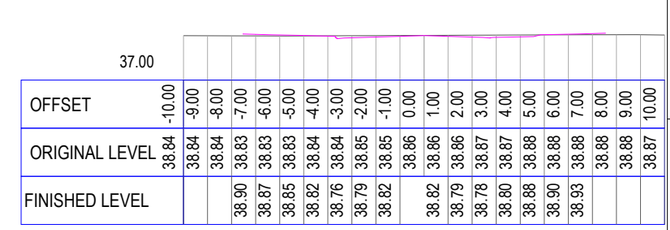
OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.91	38.90	38.89	38.87	38.86	38.86	38.85	38.84	38.84	38.83	38.83	38.82	38.82	38.81	38.81	38.69	38.43	38.18	37.85		
FINISHED LEVEL		39.05	39.02	38.99	38.97	38.95	38.92	38.85	38.88	38.91		38.91	38.88	38.94	38.97						

SECTION: 0+200.00



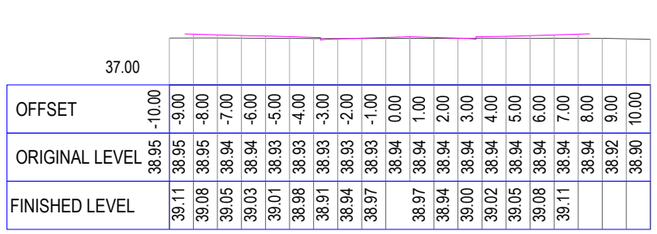
OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.86	38.85	38.84	38.83	38.82	38.81	38.80	38.78	38.80	38.82	38.84	38.85	38.87	38.89	38.90	38.71	38.47	38.16	37.82	37.55	
FINISHED LEVEL					38.82	38.80	38.78	38.65	38.62		38.56	38.53	38.59								

SECTION: 0+260.00



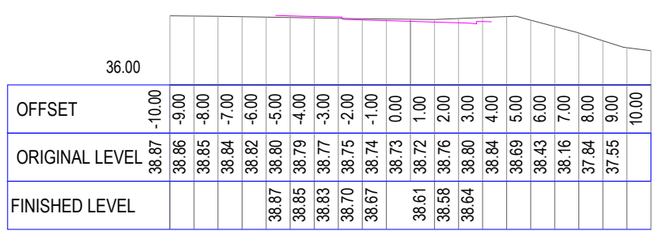
OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.84	38.84	38.84	38.83	38.83	38.83	38.84	38.84	38.85	38.85	38.86	38.86	38.86	38.87	38.87	38.88	38.88	38.88	38.88	38.88	38.87
FINISHED LEVEL			38.90	38.87	38.85	38.82	38.76	38.79	38.82		38.82	38.79	38.78	38.80	38.88	38.90	38.93				

SECTION: 0+320.00



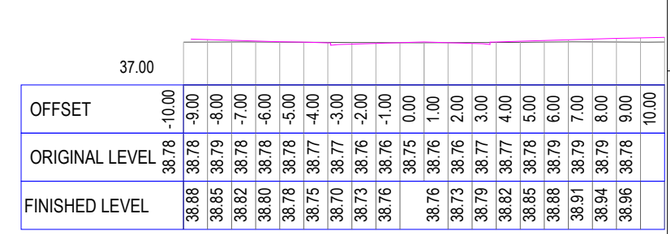
OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.95	38.95	38.94	38.94	38.93	38.93	38.93	38.93	38.93	38.94	38.94	38.94	38.94	38.94	38.94	39.00	39.02	39.05	39.08	39.11	
FINISHED LEVEL		39.11	39.08	39.05	39.03	39.01	38.98	38.91	38.94	38.97		38.97	38.94	38.94							

SECTION: 0+190.00



OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.87	38.86	38.85	38.84	38.82	38.80	38.79	38.77	38.75	38.74	38.73	38.72	38.76	38.80	38.84	38.69	38.43	38.16	37.84	37.55	
FINISHED LEVEL					38.87	38.85	38.83	38.70	38.67		38.61	38.58	38.64								

SECTION: 0+250.00



OFFSET	-10.00	-9.00	-8.00	-7.00	-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
ORIGINAL LEVEL	38.78	38.78	38.79	38.78	38.78	38.78	38.77	38.77	38.76	38.76	38.75	38.76	38.76	38.77	38.77	38.78	38.79	38.79	38.79	38.78	
FINISHED LEVEL		38.88	38.85	38.82	38.80	38.78	38.75	38.70	38.73	38.76		38.76	38.73	38.79	38.82	38.85	38.88	38.91	38.94	38.96	

SECTION: 0+310.00

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

NOTE:
SUBJECT TO FINAL DESIGN.
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminery	GG	BG	PH	29.07.24
1	Layout Update	GG	HB	PH	19.08.24
2	RFI Response	NW	HB	RH	16.04.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

TITLE

JACQUES TERRACE CROSS-SECTIONS

(CH 0+190 - CH 0+320)

PREPARED FOR

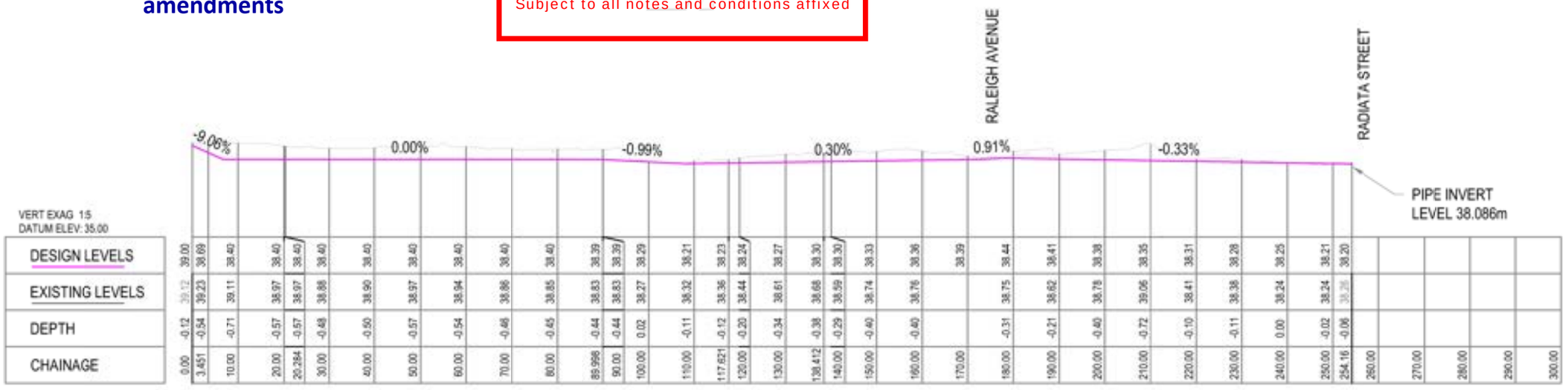
Greenhill Chedworth Properties Limited

ORIGINAL SCALES @ A3: 1:250 DO NOT SCALE DIMENSIONS
STATUS: APPROVAL
DRAWING NO: 24-30410-24D-R15
REVISION: 2

R:\Project Files\30410-01-1901 Detail Design\G24-30410-24D_Stage 24_Road Design.dwg - Plotted: 17/04/2025

SWALE-WEST - PLAN

Refer to RFI tracker for further design and construction amendments



SWALE - WEST - LONG SECTION (From CH 0+000 to CH 0+170 & From CH 0+180 to CH 0+254.16)
Scale - H: 1:1000 V: 1:200

S & L Land Specialists
Ph. 07 577 6069
Email: info@slp.co.nz
P.O. Box 231, Tauranga 3144
www.slls.co.nz

LEGEND:

SWALE DESIGN

NOTE:
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DWN	CKD	APP	DATE
0	Preliminary	GG	BG	PH	29.07.24
1	Layout Update	GG	HB	PH	19.08.24
2	Design Update	TM	RH	PH	25.11.24
3	Issued for RFI	TM		PH	07.04.25
4	RFI Response	NW	HB	RH	16.04.25
5	RFI Response	TM	HB	RH	28.04.25
6	RFI Response Swale 1:2	RH	HB	RH	06.05.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

TITLE

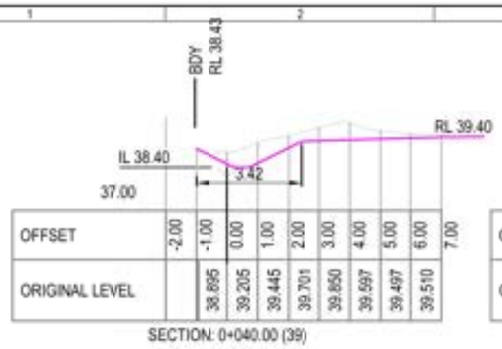
SWALE - WEST PLAN AND LONG SECTION

PREPARED FOR

GREENHILL
Chedworth Properties Limited

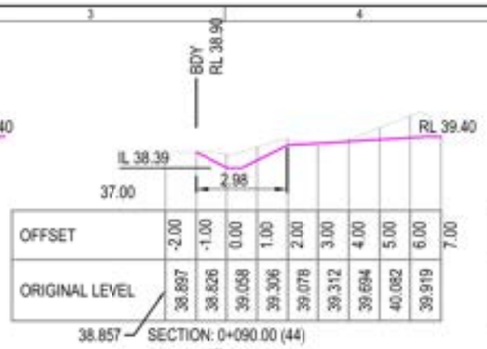
ORIGINAL SCALES @ A3: AS SHOWN (DO NOT SCALE DIMENSIONS)
STATUS: APPROVAL
DRAWING NO: 24-30410-24D-R18
REVISION: 6

R:\Project Files\30410-19\01 Detail Design\G24-30410-24D_Stage 24_Road Design - West Swale Check.dwg - Plotted: 6/05/2025



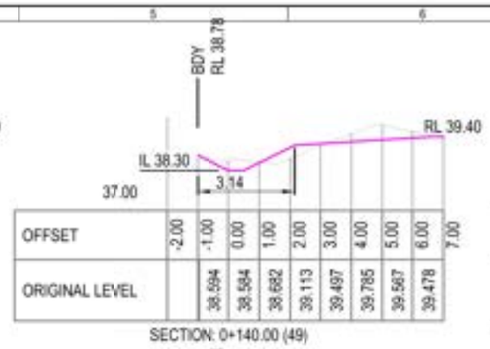
OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.895	39.205	39.445	39.701	39.850	39.597	39.497	39.510	

SECTION: 0+040.00 (39)



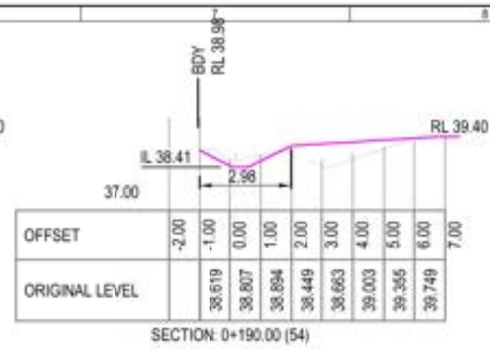
OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.897	38.826	39.058	39.306	39.078	39.312	39.694	40.082	39.919

SECTION: 0+090.00 (44)



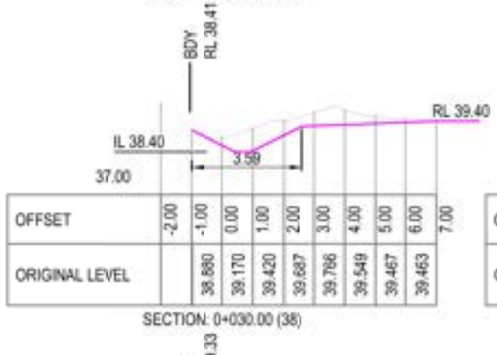
OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.594	38.584	38.682	39.113	39.497	39.785	39.567	39.478	

SECTION: 0+140.00 (49)



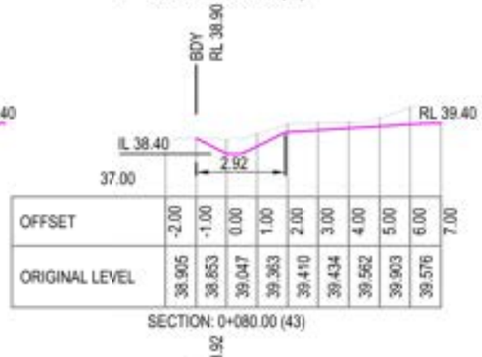
OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.619	38.807	38.894	38.449	38.663	39.003	39.355	39.749	

SECTION: 0+190.00 (54)



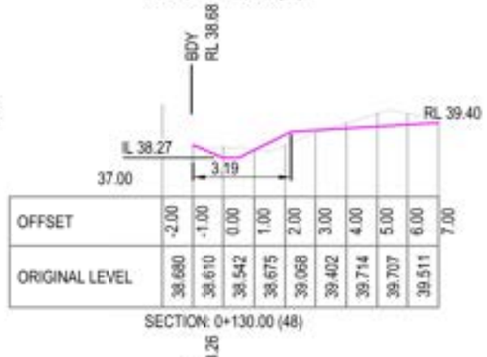
OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.880	39.170	39.420	39.687	39.786	39.549	39.467	39.463	

SECTION: 0+030.00 (38)



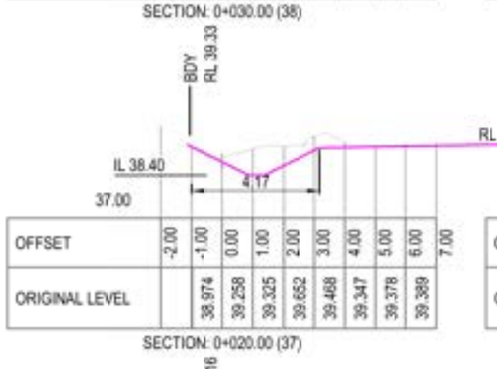
OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.905	38.853	39.047	39.363	39.410	39.434	39.562	39.903	39.576

SECTION: 0+080.00 (43)



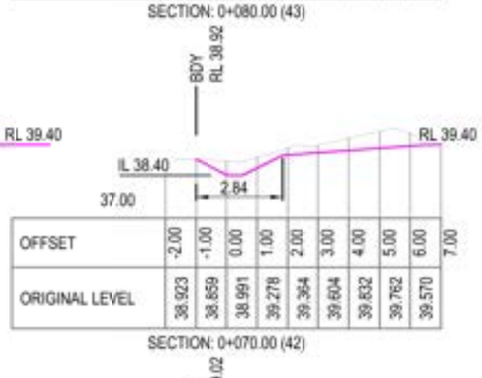
OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.680	38.610	38.542	38.675	39.068	39.402	39.714	39.707	39.511

SECTION: 0+130.00 (48)



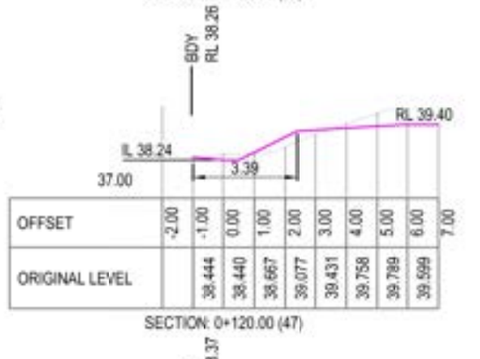
OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.974	39.258	39.325	39.652	39.468	39.347	39.378	39.389	

SECTION: 0+020.00 (37)



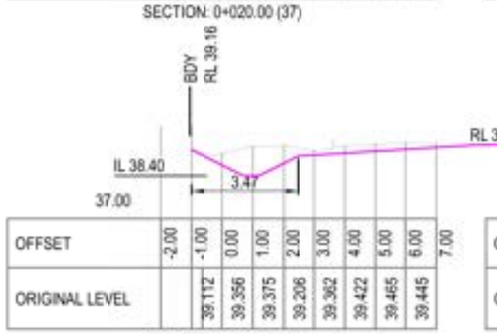
OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.923	38.859	38.991	39.278	39.364	39.604	39.832	39.762	39.570

SECTION: 0+070.00 (42)



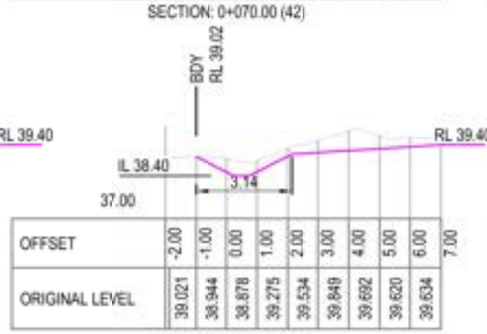
OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.444	38.440	38.667	39.077	39.431	39.758	39.789	39.599	

SECTION: 0+120.00 (47)



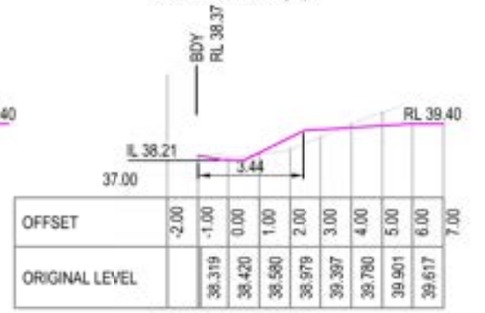
OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		39.112	39.356	39.375	39.206	39.362	39.422	39.465	39.445	

SECTION: 0+010.00 (36)



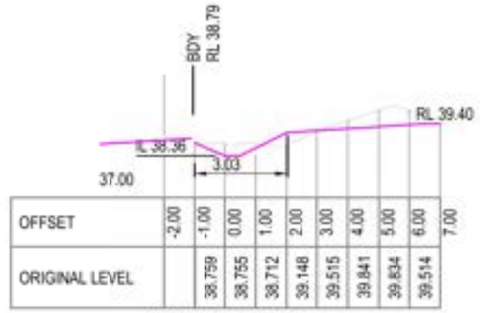
OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		39.021	38.944	38.878	39.275	39.534	39.649	39.692	39.620	39.634

SECTION: 0+060.00 (41)



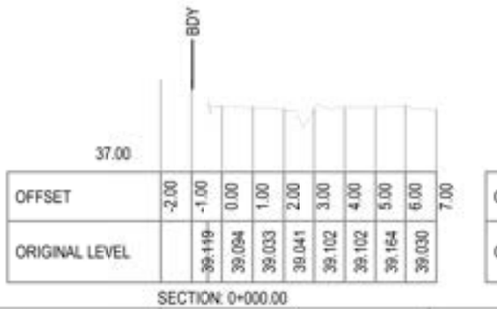
OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.319	38.420	38.580	38.979	39.397	39.780	39.901	39.617	

SECTION: 0+110.00 (46)



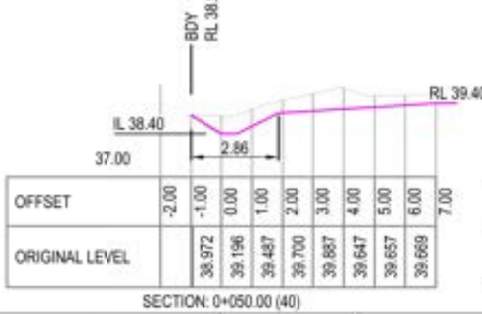
OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.759	38.755	38.712	39.148	39.515	39.841	39.834	39.514	

SECTION: 0+160.00 (51)



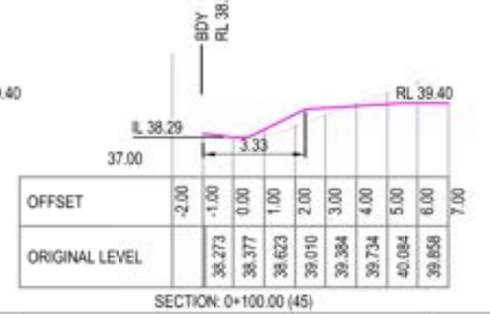
OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		39.119	39.094	39.033	39.041	39.102	39.102	39.164	39.030	

SECTION: 0+000.00



OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.972	39.196	39.487	39.700	39.887	39.647	39.657	39.669	

SECTION: 0+050.00 (40)



OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.273	38.377	38.623	39.010	39.384	39.734	40.084	39.858	

SECTION: 0+100.00 (45)

OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.736	38.677	38.718	39.189	39.600	39.952	39.534	39.483	

SECTION: 0+150.00 (50)

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed

S & L Land Specialists
Ph. 07 577 6069
Email: info@slp.co.nz
P.O. Box 231, Tauranga 3144
www.slls.co.nz

LEGEND:

PROPOSED SURFACE

EXISTING GROUND

NOTE:
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DWN	CKD	APP	DATE
3	Extg GL & Swale IL Added	TM	RH	PH	02.12.24
4	Issued for RFI	TM	HB	PH	07.04.25
5	RFI Responses	TM	RH	PH	16.04.25
6	RFI Responses	TM	HB	RH	28.04.25
7	RFI Responses Swale 1:2	RH	HB	RH	06.05.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24
COORDINATE SYSTEM:					
ORIGIN OF COORDINATES:					
HEIGHT DATUM:					
ORIGIN OF HEIGHT:					

TITLE

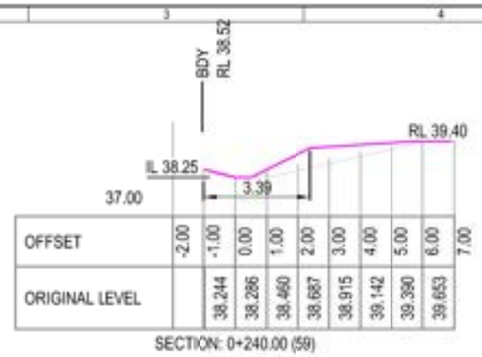
SWALE - WEST CROSS-SECTIONS (From Ch 0+000 tp Ch. 0+190)

PREPARED FOR

Greenhill / Chedworth Properties Limited

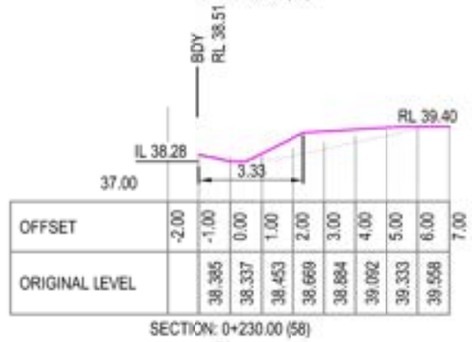
ORIGINAL SCALES @ A3	STATUS
1:200 DO NOT SCALE DIMENSIONS	APPROVAL
DRAWING NO	REVISION
24-30410-24D-R19	7

R:\Project Files\30410-01-19\01 Detail Design\G24-30410-24D_Stage 24_Road Design - West Swale Check.dwg - Plotted: 6/05/2025



OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.244	38.286	38.460	38.687	38.915	39.142	39.390	39.653	

SECTION: 0+240.00 (59)

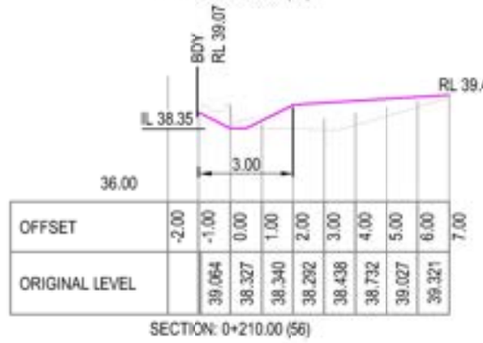


OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.385	38.337	38.453	38.669	38.884	39.092	39.333	39.558	

SECTION: 0+230.00 (58)

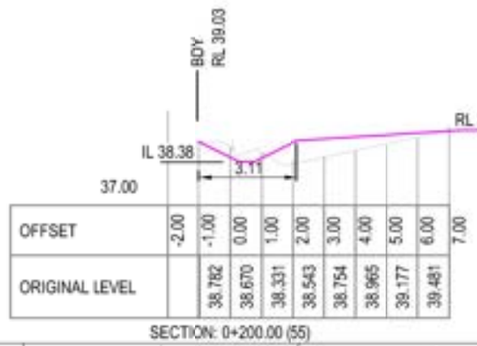
OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.414	38.295	38.290	38.519	38.774	39.030	39.280	39.537	

SECTION: 0+220.00 (57)



OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		39.064	38.327	38.340	38.292	38.438	38.732	39.027	39.321	

SECTION: 0+210.00 (56)



OFFSET	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00
ORIGINAL LEVEL		38.782	38.670	38.331	38.543	38.754	38.965	39.177	39.481	

SECTION: 0+200.00 (55)

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit

ACCEPTED ENGINEERING PLANS

Assessed for Related Resource Consent Conditions Only

Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed

S & L Land Specialists
Ph. 07 577 6069
Email: info@slip.co.nz
P.O. Box 231, Tauranga 3144
www.slip.co.nz

LEGEND:

PROPOSED SURFACE

EXISTING GROUND

NOTE:
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

No.	DESCRIPTION	DRN	CKD	APP	DATE
3	Extg GL & Swale IL Added	TM	RH	PH	02.12.24
4	Issued for RFI	TM	RH	PH	07.04.25
5	RFI Response	TM	RH	PH	16.04.25
6	RFI Response	TM	HB	RH	28.04.25
7	RFI Response Swale 1:2	RH	HB	RH	06.05.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	29.07.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

TITLE

SWALE - WEST CROSS-SECTIONS (From Ch 0+200 tp Ch. 0+240)

PREPARED FOR

Greenhill Trust / Chedworth Properties Limited

ORIGINAL SCALES @ A3: 1:200 (DO NOT SCALE DIMENSIONS)
STATUS: APPROVAL
DRAWING NO: 24-30410-24D-R20
REVISION: 7

Refer to RFI tracker for further design and construction amendments

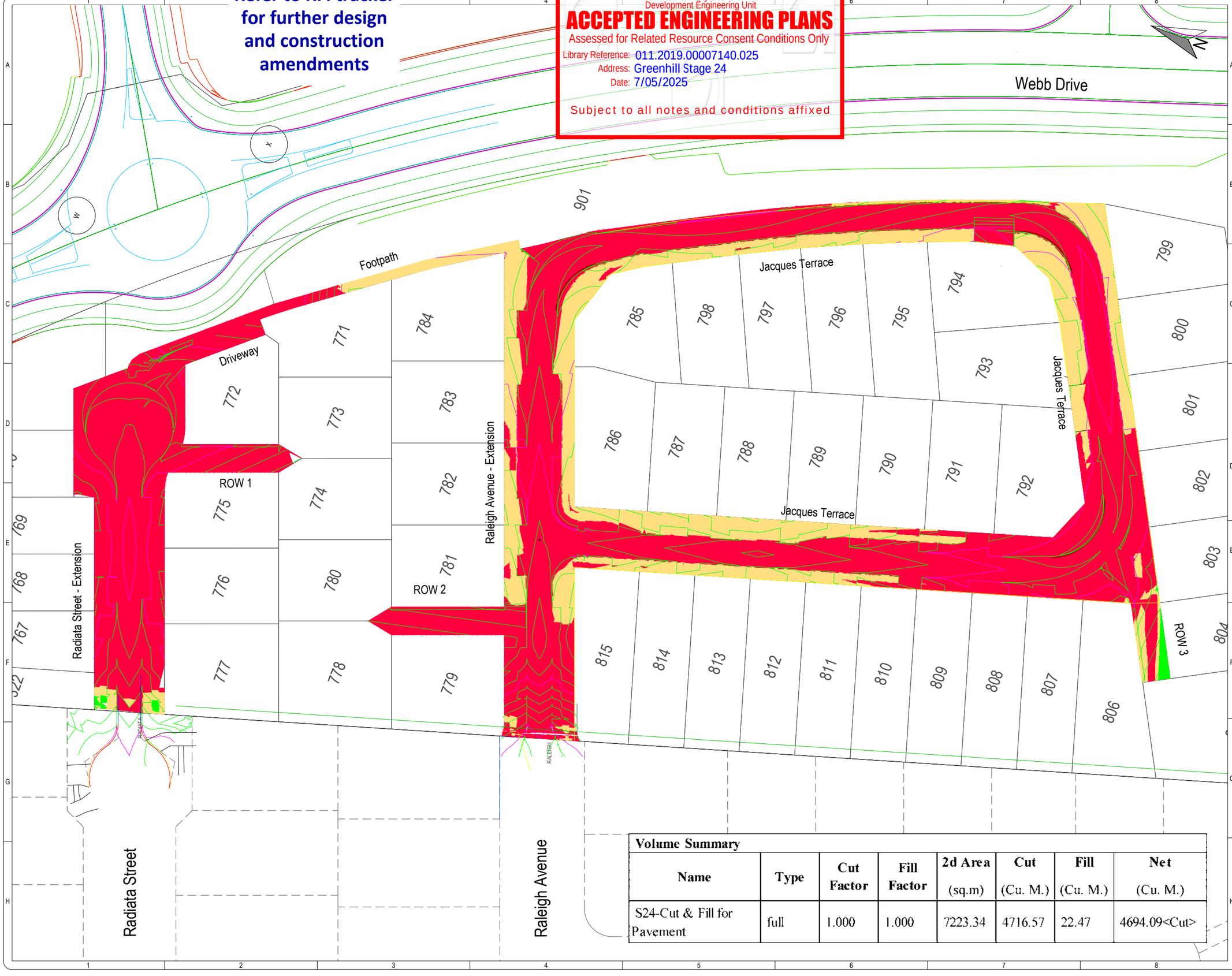
Hamilton City Council
Development Engineering Unit

ACCEPTED ENGINEERING PLANS

Assessed for Related Resource Consent Conditions Only

Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed



Volume Summary

Name	Type	Cut Factor	Fill Factor	2d Area (sq.m)	Cut (Cu. M.)	Fill (Cu. M.)	Net (Cu. M.)
S24-Cut & Fill for Pavement	full	1.000	1.000	7223.34	4716.57	22.47	4694.09<Cut>

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

LEGEND:

- -2.2m ~ -0.3m
- -0.3m ~ 0.3m
- 0.3m ~ 1.8m

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminery	GG	HB	PH	04.10.24
1	Issued for RFI	GG	GG	PH	06.11.24
2	RFI Response	NW	HB	RH	16.04.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	04.10.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

TITLE

CUT & FILL PLAN FOR ROAD WORKS STAGE 24

PREPARED FOR

Greenhill Chedworth Properties Limited

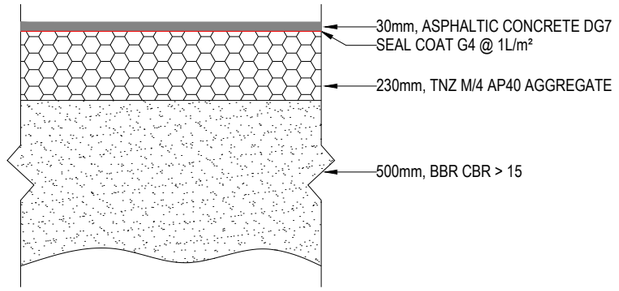
ORIGINAL SCALES @ A3: 1:750 (DO NOT SCALE DIMENSIONS)
STATUS: APPROVAL
DRAWING NO: 24-30410-24D-R21
REVISION: 2

R:\Project Files\30410-01-19\01 Detail Design\G24-30410-24D_Stage 24_Road Design.dwg - Plotted: 17/04/2025

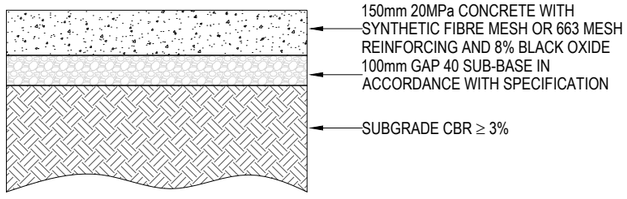
Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

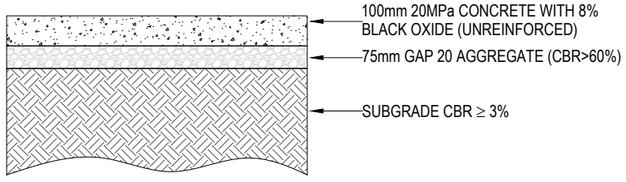
Subject to all notes and conditions affixed



PAVEMENT DETAILS FOR LOCAL ROAD
FOR THE RADIATA STREET EXTENSION & RALEIGH AVENUE EXTENSIONS & JACQUES TERRACE
SCALE 1:20



PAVEMENT TYPE I
PARKING BAY \ DRIVEWAY
COMBINED MAINTENANCE ACCESS
SCALE 1:20



PAVEMENT TYPE H
CONCRETE FOOTPATH & SHARED PATH
SCALE 1:20

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

NOTE:
SUBJECT TO FINAL DESIGN,
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
1	Preliminery	GG	BG	PH	04.10.24
2	Issued for RFI	GG	BG	PH	06.11.24
3	RFI Response	NW	HB	RH	16.04.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	04.10.24

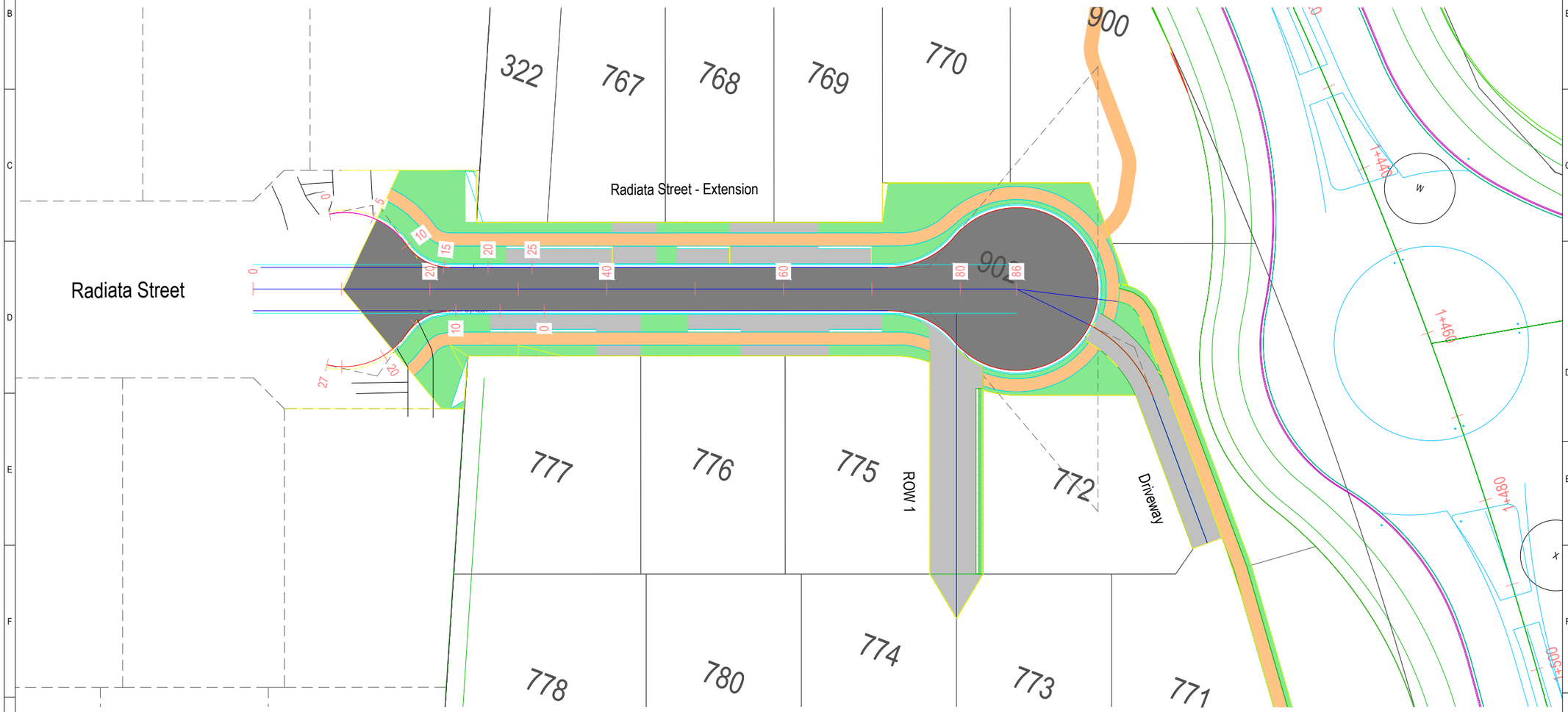
COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

TITLE
PAVEMENT DETAILS

PREPARED FOR
Greenhill Park
Chedworth Properties Limited

ORIGINAL SCALES @ A3: AS SHOWN (DO NOT SCALE DIMENSIONS)
STATUS: APPROVAL
DRAWING NO: 24-30410-24D-R22
REVISION: 2

R:\Project Files\30410-01-19\01 Detail Design\G24-30410-24D_Stage 24_Road Design.dwg - Plotted: 17/04/2025



Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025
Subject to all notes and conditions affixed

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

LEGEND:
- ABUTTALS
- BOUNDARIES
- ROAD SURFACE
- PARKING SURFACE
- FOOTPATH
- GRASS

Note:

According to the Clause 3.3.2.1 under the Section 3 - Transportation of the RITS guidelines, 11.5m long Rigid truck is specified as the design vehicle for tracking on local roads.

NOTE:
ALL DESIGNS TO BE IN ACCORDANCE WITH THE RITS OR SPECIFIED DEPARTURES ON DETAIL DESIGN.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminery	GG	BG	PH	10.07.24
1	Issued for RFI	GG	BG	PH	06.11.24
2	RFI Response	NW	HB	RH	16.04.25
3	RFI Responses	NW	HB	RH	29.04.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	07.10.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

TITLE

RADIATA STREET EXTENTION VEHICLE TRACKING 12.5M RIGID TRUCK

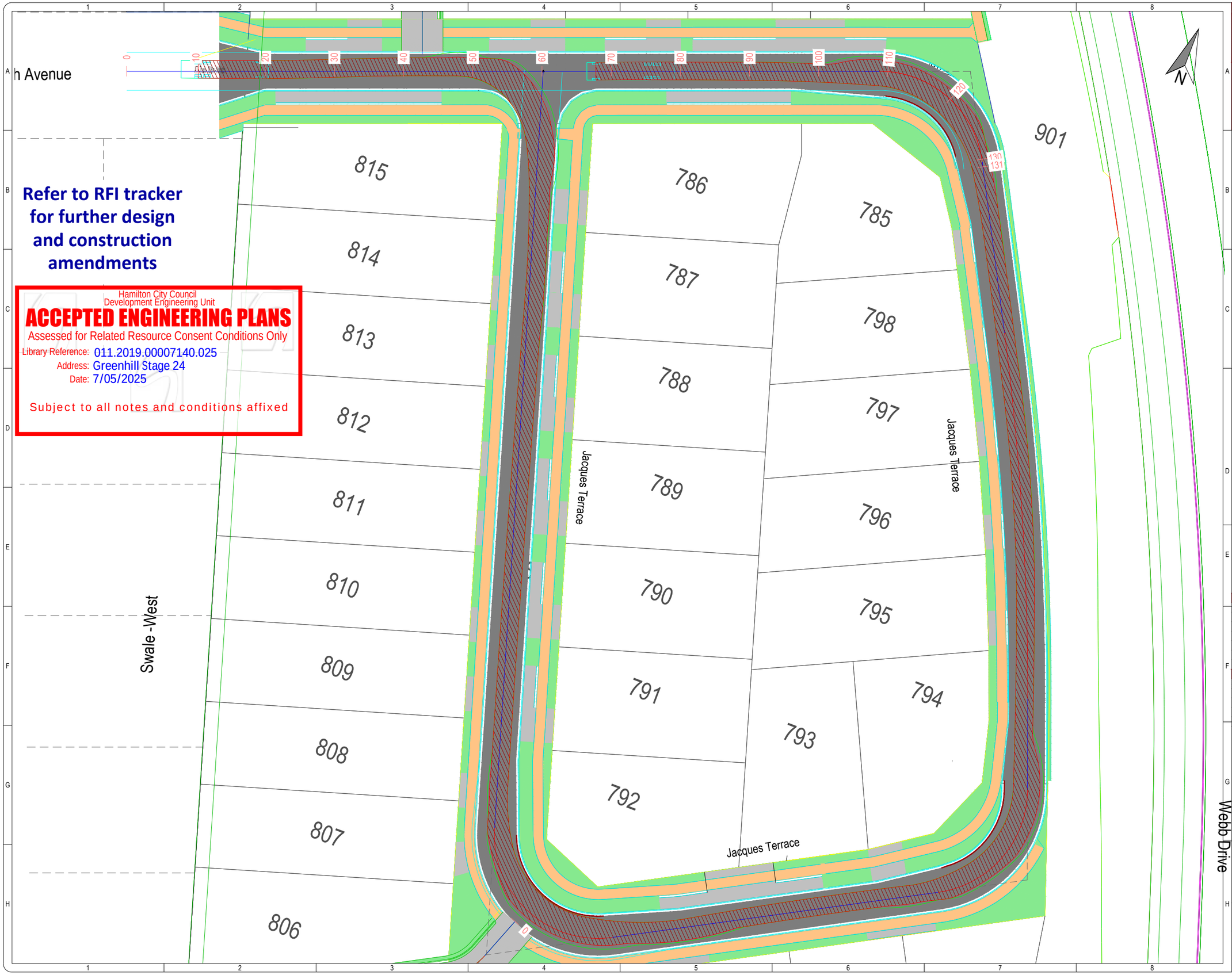
PREPARED FOR

Greenhill Chedworth Properties Limited

ORIGINAL SCALES @ A3	STATUS
1:500 DO NOT SCALE DIMENSIONS	APPROVAL

DRAWING NO	REVISION
24-30410-24D-R23	3

R:\Project Files\30410-01-19\01 Detail Design\G24-30410-24D_Stage 24_Road Design.dwg - Plotted: 29/04/2025



R:\Project Files\30410-01-19\01 Detail Design\G24-30410-24D_Stage 24_Road Design.dwg - Plotted: 17/04/2025

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

LEGEND:
- ABUTTALS
- BOUNDARIES
- ROAD SURFACE
- PARKING SURFACE
- FOOTPATH
- GRASS

Note:

According to the Clause 3.3.2.1 under the Section 3 - Transportation of the RITS guidelines, 11.5m long Rigid truck is specified as the design vehicle for tracking on local roads.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	Preliminery	GG	BG	PH	07.10.24
1	Issued for RFI	GG	BG	PH	06.11.24
2	RFI Response	NW	HB	RH	16.04.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED	GG	07.10.24

COORDINATE SYSTEM:
ORIGIN OF COORDINATES:
HEIGHT DATUM:
ORIGIN OF HEIGHT:

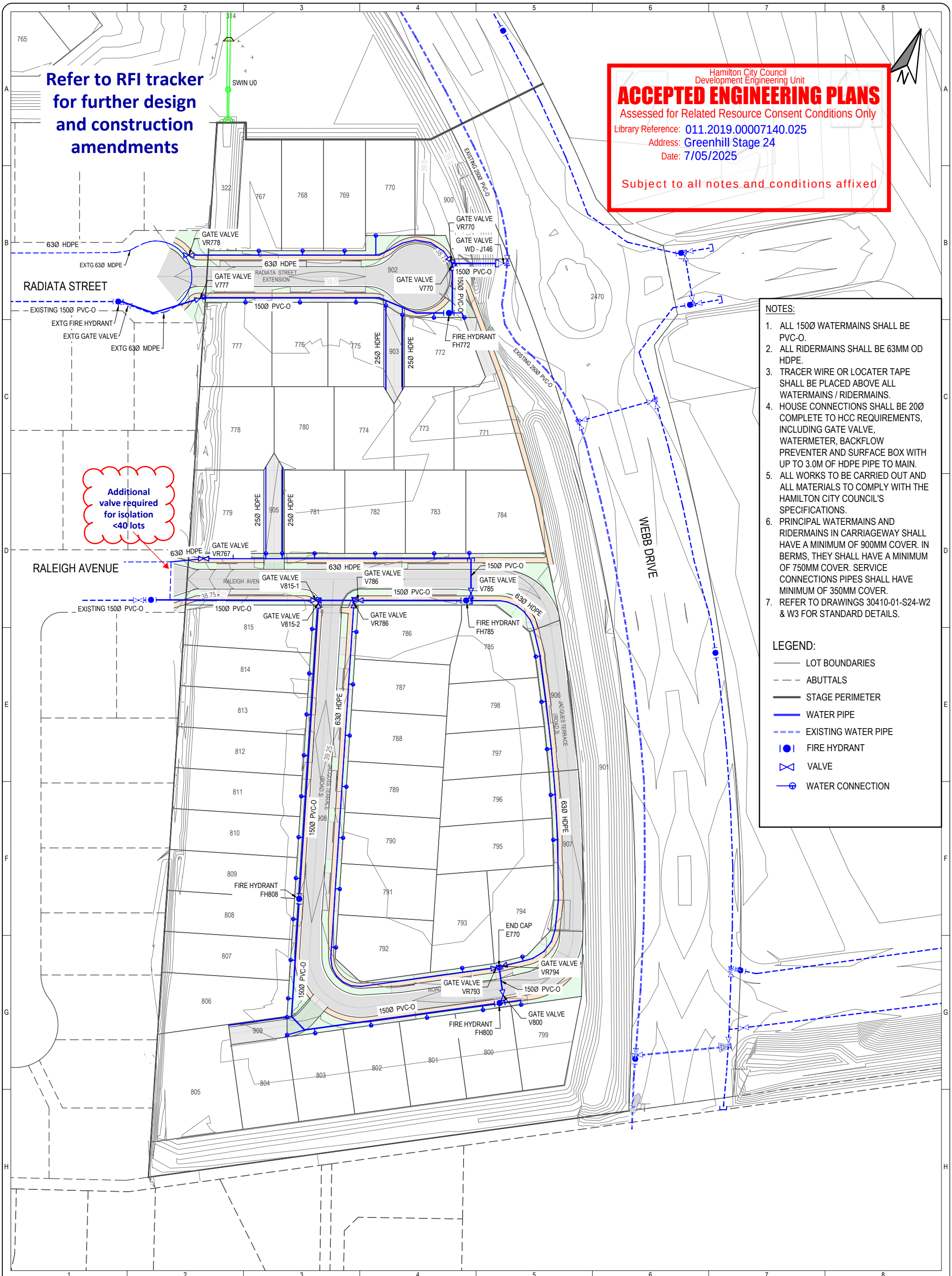
TITLE

JACQUES TERRACE VEHICLE TRACKING 12.5M RIGID TRUCK

PREPARED FOR

Greenhill Park | Chedworth Properties Limited

ORIGINAL SCALES @ A3	STATUS
1:500 DO NOT SCALE DIMENSIONS	APPROVAL
DRAWING NO	REVISION
24-30410-24D-R24	2



R:\Project Files\30410-01-19\01 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 17/04/2025

SHRIMPTON & LIPINSKI
LAND SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

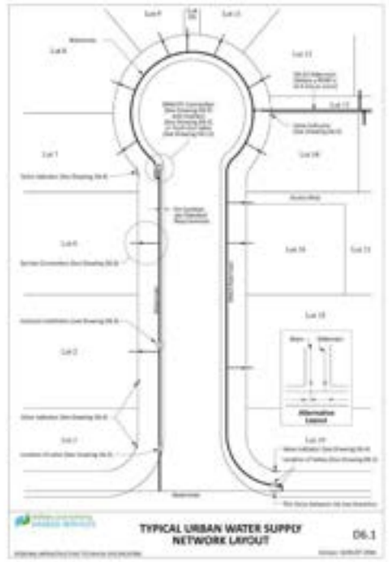
TITLE

WATER LAYOUT PLAN
STAGE 24

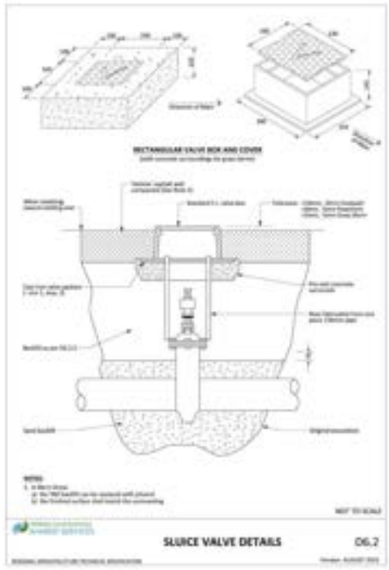
REV	DESCRIPTION	DRN	CKD	APP	DATE
0	PRELIMINARY	NW			14/8/24
1	ISSUED FOR EPA	NW	HB	PH	16/8/24
2	ISSUED FOR RFI	TM	RH	PH	23/10/24
3	ISSUED FOR RFI	TM		PH	07/04/25
4	RFI RESPONSE	NW	HB		16/04/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

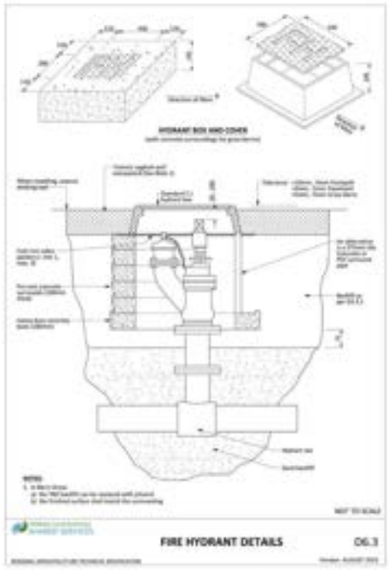
COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451
ORIGINAL SCALES @ A3: 1:1000
DO NOT SCALE DIMENSIONS
STATUS: FOR APPROVAL
DRAWING NO: 30410-01-S24-W1
REVISION: 4



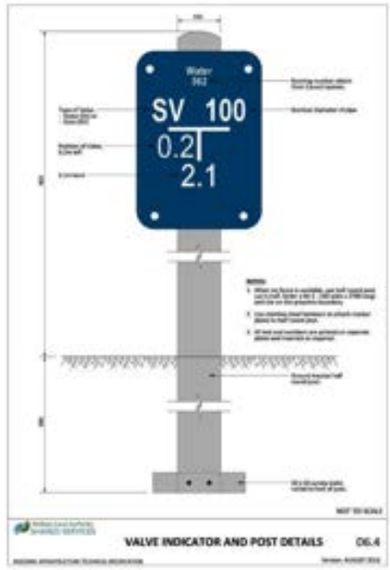
Drawing 6-1: Typical urban water supply network layout



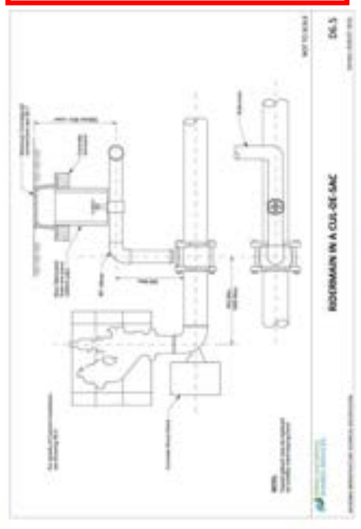
Drawing 6-2: Sluice valve details



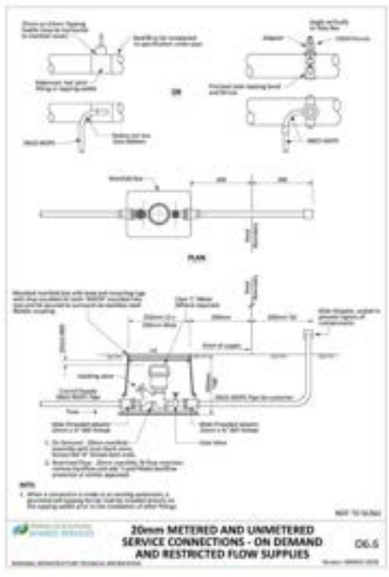
Drawing 6-3: Fire hydrant details



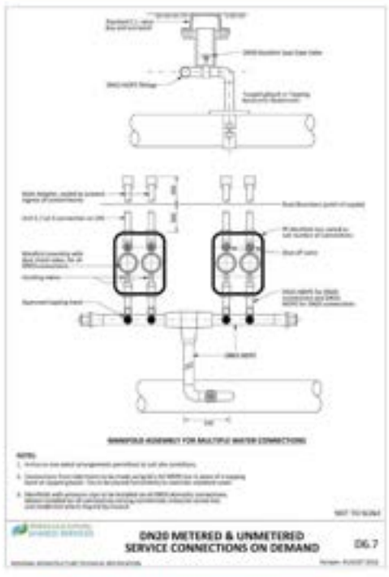
Drawing 6-4: Valve indicator and post details



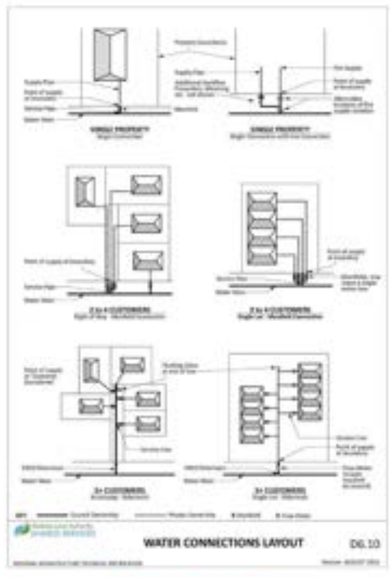
Drawing 6-5: Biofiltration in a cul-de-sac



Drawing 6-6: 20mm metered and unmetered service connections - on demand and restricted flow supplies



Drawing 6-7: DN20 metered and unmetered service connections on demand



Drawing 6-10: Water connections layout

SHRIMPTON & LIPINSKI
LAND DEVELOPMENT & DESIGN SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	PRELIMINARY	NW			14/8/24
1	ISSUED FOR EPA	NW	HB	PH	16/8/24

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

TITLE

STANDARD DETAILS WATER

PREPARED FOR

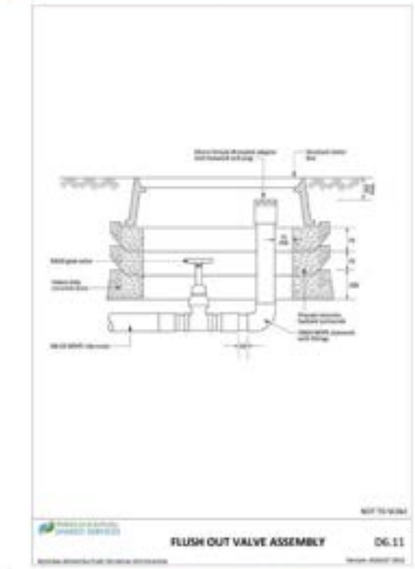
Greenhill Park — Chedworth Properties Limited

AREAS L,U & K

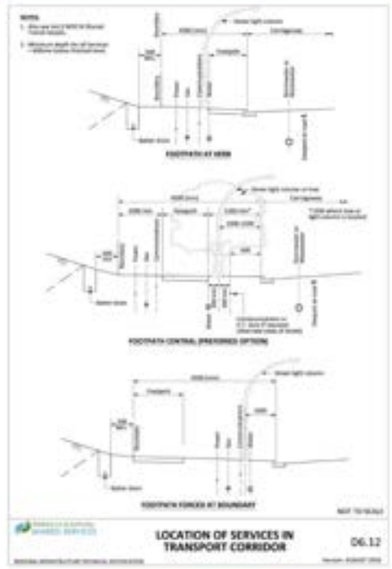
ORIGINAL SCALES @ A3: NOT TO SCALE (DO NOT SCALE DIMENSIONS)
STATUS: FOR APPROVAL

DRAWING NO: 30410-01-S24-W2
REVISION: 1

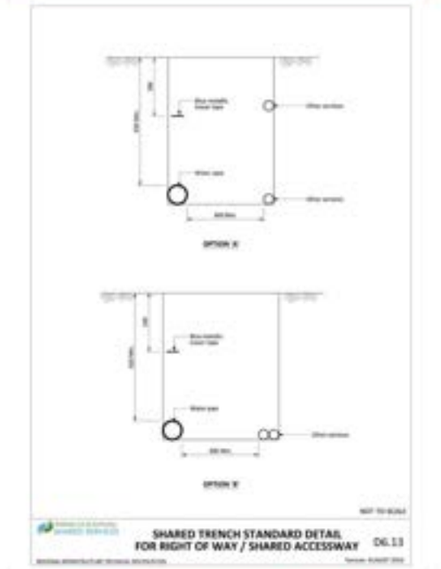
R:\Project Files\30410-01-19\01 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 16/04/2025



Drawing 6-11: Flush out valve assembly



Drawing 6-12: Location of services in transport corridor



Drawing 6-13: Shared trench standard detail for right of way / shared accessway

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025
Subject to all notes and conditions affixed

SHRIMPTON & LIPINSKI
LAND DEVELOPMENT & DESIGN SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	PRELIMINARY	NW			14/8/24
1	ISSUED FOR EPA	NW	HB	PH	16/8/24

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

TITLE

STANDARD DETAILS WATER

PREPARED FOR

Greenhill Chedworth Properties Limited

AREAS L,U & K

ORIGINAL SCALES @ A3: NOT TO SCALE
DO NOT SCALE DIMENSIONS

STATUS: FOR APPROVAL

DRAWING NO: 30410-01-S24-W3

REVISION: 1

R:\Project Files\30410-01-19\01 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 16/04/2025

RADIATA STREET

RALEIGH AVENUE

WEBB DRIVE

JACQUES TERRACE (ROAD 3)

ROAD 4

LEGEND:

- FUTURE LOTS
- ABUTTALS
- STAGE PERIMETER
- WASTEWATER PIPE
- EXISTING WASTEWATER PIPE
- WASTEWATER MANHOLE
- WASTEWATER CONNECTION
- FLOW ARROWS
- STORMWATER PIPE
- STORMWATER MANHOLE
- STORMWATER CONNECTION (RETICULATION DISCHARGE)
- HEADWALL
- CATCHPIT
- DOUBLE CATCHPIT
- FLOW ARROWS
- OVERLAND FLOW ARROWS
- WATER PIPE
- EXISTING WATER PIPE
- FIRE HYDRANT
- VALVE
- WATER CONNECTION
- ROAD SURFACE
- PARKING SURFACE
- FOOTPATH
- GRASS

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025
Subject to all notes and conditions affixed

SHRIMPTON & LIPINSKI
LAND SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

TITLE

WASTEWATER, STORMWATER, WATER & ROADING OVERVIEW PLAN STAGE 24

REV	DESCRIPTION	DRN	CKD	APP	DATE
0	ISSUED FOR RFI	TM		PH	07/04/25
1	RFI RESPONSE	NW	HB		16/04/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

ORIGINAL SCALES @ A3: 1:1000 (DO NOT SCALE DIMENSIONS)
STATUS: FOR APPROVAL

DRAWING NO: 30410-01-S24-S1
REVISION: 1

R:\Project Files\30410-01-1901 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 17/04/2025

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit

ACCEPTED ENGINEERING PLANS

Assessed for Related Resource Consent Conditions Only

Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed

LEGEND:

- FUTURE LOTS
- ABUTTALS
- STAGE PERIMETER
- STORMWATER PIPE
- STORMWATER MANHOLE
- STORMWATER CONNECTION (RETICULATION DISCHARGE)
- HEADWALL
- CATCHPIT
- DOUBLE CATCHPIT
- FLOW ARROWS
- OVERLAND FLOW ARROWS
- CATCHPIT TO CATCHPIT LINE
- OVERLAND FLOW ARROWS - CULVERTS BLOCKED
- STAGE 24

SWALE 4

OVERLAND FLOWPATH (CULVERTS BLOCKED) OVER RADIATA DRAINAGE CULVERT

RADIATA DRAINAGE CHANNEL SEE SW5

WEBB DRIVE

RADIATA STREET

RALEIGH AVENUE

OVERLAND FLOW DIRECTION CULVERTS BLOCKED

SWALE 6C

SWALE 5 TO WRC DRAIN

EXTG CULVERTS 2x1200Ø, 2x1050Ø

SWALE 6B

SWALE 6A

RUAKURA AREA R FUTURE SWALE 5 INLET

STORMWATER LINE1050Ø - 750Ø NOT PART OF STAGE 24

RUAKURA AREA R LOW FLOW 750Ø PIPE DISCHARGE TO EXTG HCC RETICULATION (FAIRVIEW DOWNS)

SHRIMPTON & LIPINSKI
LAND SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

TITLE

STORMWATER LOCATION PLAN STAGE 24

REV	DESCRIPTION	DRN	CKD	APP	DATE
1	ISSUED FOR RFI	TM	RH	PH	31/10//24
2	ISSUED FOR RFI	TM		PH	03/04/25
3	RFI RESPONSE	NW	HB		16/04/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

ORIGINAL SCALES @ A3: 1:2000
DO NOT SCALE DIMENSIONS

STATUS: FOR APPROVAL

DRAWING NO: 30410-01-S24-SW0

REVISION: 3

R:\Project Files\30410-01-19\01 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 17/04/2025

JOINT PLAN SW1A

Refer to RFI tracker for further design and construction amendments

ALL LOTS FINISHED LEVEL MIN. RL 39.20m

V-DRAIN SEE DRAWINGS "R18-20" FOR DETAILS

SWMH U0
SW LINE U INLET
SWMHA0_6
EXTG SWN26010
SWMHA0_5
SWMH H0
SWMH H1
SWMH H5
SWMH H2
SWMH H4
1800Ø JOINT MH
525Ø RCRRJ CLASS 4
525Ø RCRRJ
300Ø PVC
225Ø PVC
3150 PVC
SWOUT H3
SWMHA0_4
SWMH I1
SWMH I2
SWMH I3
SWMH I4-1
SWMH I4-2
SWMH I4
375Ø PVC
SWOUT I5
SWMH I6
SWALE 6C
SWMH I3-1
SWMH I7
SWOUT I8
SWMHA0_3
SWMH J1
SWMH I7-1
SWMHA0_2
SWMH J2
SWMH J5-1
SWMH J4
SWMH J3
SWOUT J6
OVERLAND FLOW DIRECTION CULVERTS BLOCKED
EXTG CULVERTS 2x1200Ø, 2x1050Ø
SWALE 6B
SWMHA0_1
SWMHA1
SWMHA2
SWMHA3
SWMHA0
EXTG 1050
10500 RCRRJ
7500 RCRRJ
7500 RCRRJ EXTG
RALEIGH AVENUE EXTENSION
ROAD 3
JACQUES TERRACE

NOTES:
1. ALL STORMWATER MANHOLES ARE 1050Ø UNLESS NOTED OTHERWISE.
2. ALL STORMWATER MAINS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
3. ALL LEADS TO CATCHPITS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
   - SINGLE CATCHPITS: 225Ø
   - DOUBLE CATCHPITS: 300Ø
4. ALL STORMWATER LOT CONNECTIONS ARE RRJ OPVC SN16 UNLESS NOTED OTHERWISE.
5. ALL LATERALS ARE RRJ OPVC SN16:
   - SINGLE DWELLING: 100Ø.
   - TWO/THREE DWELLINGS: 150Ø.
   - LATERALS BRANCHING OFF 150Ø ARE 100Ø.
6. ALL WORKS TO BE CARRIED OUT AND ALL MATERIALS TO COMPLY WITH THE RITS.
7. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL OF THE FIRST PIPE LAID WHERE PIPES CROSS OVER BEFORE LAYING THE SECOND PIPELINE AND CONFIRM THAT SUFFICIENT CLEARANCE IS AVAILABLE.
8. REFER TO DRAWINGS 30410-01-S24-SW2-SW3 FOR LONGSECTIONS; AND 30410-01-S24-SW4 FOR STANDARD DETAILS.
9. DEPTH OF A STORMWATER CONNECTION TO BE MINIMUM OF 0.9M AND MAXIMUM OF 1.5M (1.2M TYPICAL) UNLESS OTHERWISE INDICATED.
10. ALL CATCHPITS TO INCLUDE STANDARD OUTLET BAFFLE AS PER RITS.
11. LOTS STORMWATER DISCHARGE TO SWALES OUTLET TO BE ROCK PROTECTED, MINIMUM 150mm ALD.

LEGEND:
- 39.2 FINISHED SECTION LEVEL
- FUTURE LOTS
- ABUTTALS
- STAGE PERIMETER
- STORMWATER PIPE
- STORMWATER MANHOLE
- STORMWATER CONNECTION (RETICULATION DISCHARGE)
- HEADWALL
- CATCHPIT
- DOUBLE CATCHPIT
- FLOW ARROWS
- OVERLAND FLOW ARROWS
- OVERLAND FLOW ARROWS - CULVERTS BLOCKED
- SWALE SUBSOIL DRAIN
- CONTOUR MAJOR (1.0)
- CONTOUR MINOR (0.25)

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025
Subject to all notes and conditions affixed

SHRIMPTON & LIPINSKI
LAND SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

TITLE
STORMWATER LAYOUT PLAN STAGE 24

Chedworth Properties Limited

REV	DESCRIPTION	DRN	CKD	APP	DATE
6	RFI RESPONSE	TM	HB		23/04/25
7	RFI RESPONSE	NW	HB	RH	07/05/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451
ORIGINAL SCALES @ A3: 1:1000 (DO NOT SCALE DIMENSIONS)
STATUS: FOR APPROVAL
DRAWING NO: 30410-01-S24-SW1
REVISION: 7

R:\Project Files\30410-01-19\01 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 7/05/2025

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit

ACCEPTED ENGINEERING PLANS

Assessed for Related Resource Consent Conditions Only

Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed

NOTES:
1. ALL STORMWATER MANHOLES ARE 1050Ø UNLESS NOTED OTHERWISE.
2. ALL STORMWATER MAINS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
3. ALL LEADS TO CATCHPITS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
   - SINGLE CATCHPITS: 225Ø
   - DOUBLE CATCHPITS: 300Ø
4. ALL STORMWATER LOT CONNECTIONS ARE RRJ OPVC SN16 UNLESS NOTED OTHERWISE.
5. ALL LATERALS ARE RRJ OPVC SN16:
   - SINGLE DWELLING: 100Ø.
   - TWO/THREE DWELLINGS: 150Ø.
   - LATERALS BRANCHING OFF 150Ø ARE 100Ø.
6. ALL WORKS TO BE CARRIED OUT AND ALL MATERIALS TO COMPLY WITH THE RITS.
7. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL OF THE FIRST PIPE LAID WHERE PIPES CROSS OVER BEFORE LAYING THE SECOND PIPELINE AND CONFIRM THAT SUFFICIENT CLEARANCE IS AVAILABLE.
8. REFER TO DRAWINGS 30410-01-S24-SW2-SW3 FOR LONGSECTIONS; AND 30410-01-S24-SW4 FOR STANDARD DETAILS.
9. DEPTH OF A STORMWATER CONNECTION TO BE MINIMUM OF 0.9M AND MAXIMUM OF 1.5M (1.2M TYPICAL) UNLESS OTHERWISE INDICATED.
10. ALL CATCHPITS TO INCLUDE STANDARD OUTLET BAFFLE AS PER RITS.
11. LOTS STORMWATER DISCHARGE TO SWALES OUTLET TO BE ROCK PROTECTED, MINIMUM 150mm ALD.

LEGEND:
- 39.2 FINISHED SECTION LEVEL
- FUTURE LOTS
- ABUTTALS
- STAGE PERIMETER
- STORMWATER PIPE
- STORMWATER MANHOLE
- STORMWATER CONNECTION (RETICULATION DISCHARGE)
- HEADWALL
- CATCHPIT
- DOUBLE CATCHPIT
- FLOW ARROWS
- OVERLAND FLOW ARROWS
- CATCHPIT TO CATCHPIT LINE
- OVERLAND FLOW ARROWS - CULVERTS BLOCKED
- SWALE SUBSOIL DRAIN
- CONTOUR MAJOR (1.0)
- CONTOUR MINOR (0.25)

SWALE 4
SWOUT U3
WEBB DRIVE
8250 RCRRJ
OLFP CP
SWMH U2
SWMH U1
SWMH U0
SW LINE U INLET
ROAD 9
ROAD 10
AREA L SOUTH BOUNDARY SWALE
50m FROM HIGH POINT
JOINT PLAN SW1
RADIATA STREET
EXTG SWN26010
300mmØ
SWMHA0_6
SWMH H0
SWMH H1
SWMH H2
SWMH H4
SWMH H5
525Ø RCRRJ
300Ø PVC
SWMHA0_5
SWMHA0_4
2250 PVC
3750 PVC
SWOUT H3
SWMH I1
SWMH I2
SWMH I3
SWMH I4-1
SWMH I4-2
225Ø PVC
SWOUT I5
SW8B

R:\Project Files\30410-01-19\01 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 29/04/2025

SHRIMPTON & LIPINSKI
LAND SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

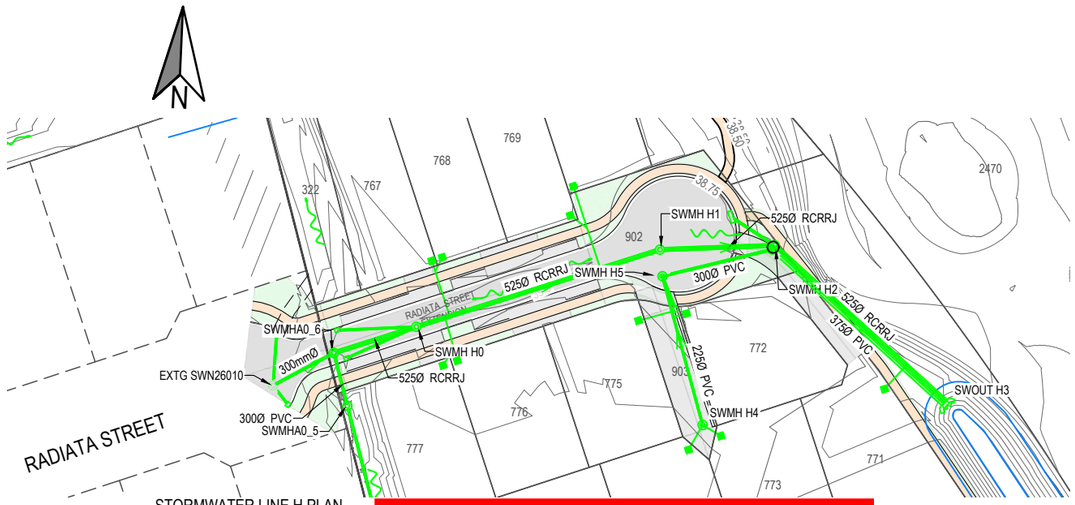
TITLE

STORMWATER LAYOUT PLAN STAGE 24 (NORTH)

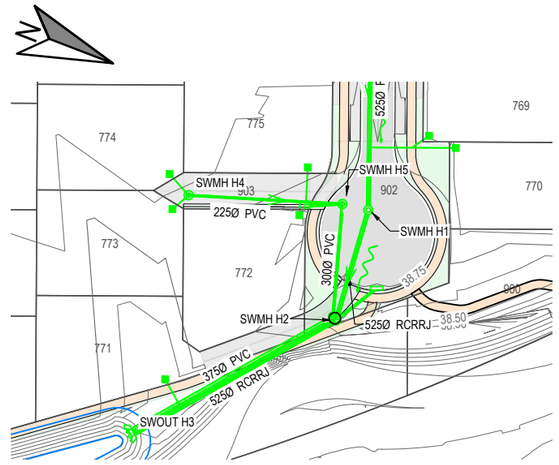
REV	DESCRIPTION	DRN	CKD	APP	DATE
0	ISSUED FOR RFI	NW			26/03/25
1	SWALES DESIGN REVISED	TM		PH	03/04/25
2	RFI RESPONSE	NW	HB		16/04/25
3	RFI RESPONSE	TM	HB		28/04/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451
ORIGINAL SCALES @ A3: 1:1000
DO NOT SCALE DIMENSIONS
STATUS: FOR APPROVAL
DRAWING NO: 30410-01-S24-SW1A
REVISION: 3



STORMWATER LINE H PLAN
SCALE 1:1000



STORMWATER LINE H4 PLAN
SCALE 1:1000

Hamilton City Council
Development Engineering Unit

ACCEPTED ENGINEERING PLANS

Assessed for Related Resource Consent Conditions Only

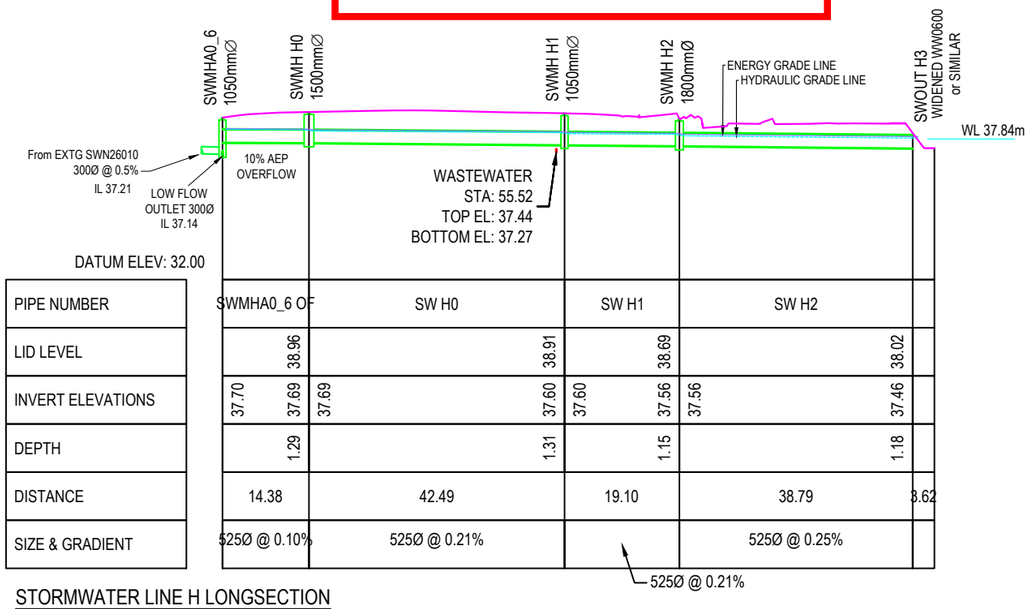
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed

Refer to RFI tracker for further design and construction amendments

LEGEND:

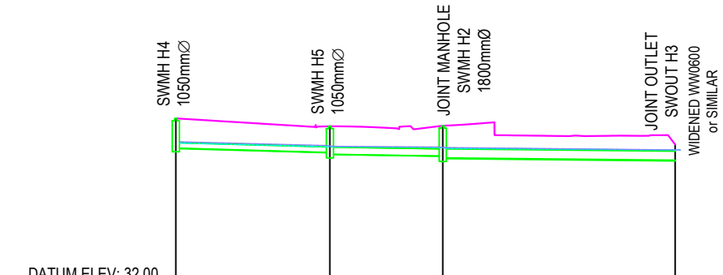
- FUTURE LOTS
- ABUTTALS
- STAGE PERIMETER
- STORMWATER PIPE
- STORMWATER MANHOLE
- STORMWATER CONNECTION (RETICULATION DISCHARGE)
- STORMWATER CONNECTION (SWALE DISCHARGE)
- HEADWALL
- CATCHPIT
- DOUBLE CATCHPIT
- FLOW ARROWS
- OVERLAND FLOW ARROWS
- CONTOUR MAJOR (1.0)
- CONTOUR MINOR (0.25)



PIPE NUMBER	SWMHA0_6 OF		SW H0		SW H1		SW H2		
LID LEVEL		38.96		38.91		38.69		38.02	
INVERT ELEVATIONS	37.70	37.69	37.69	37.60	37.60	37.56	37.56	37.46	
DEPTH		1.29		1.31		1.15		1.18	
DISTANCE	14.38		42.49		19.10		38.79		3.62
SIZE & GRADIENT	525Ø @ 0.10%		525Ø @ 0.21%				525Ø @ 0.25%		

525Ø @ 0.21%

STORMWATER LINE H LONGSECTION



PIPE NUMBER		SW H4		SW H5		SW H2R	
LID LEVEL	39.20	38.87		38.89		37.92	
INVERT ELEVATIONS		37.96	37.78	37.71	37.65	37.63	37.56	37.46
DEPTH	1.24		1.17		1.34		0.71
DISTANCE		25.62		18.77		38.65	
SIZE & GRADIENT		225Ø @ 0.70%		300Ø @ 0.40%		375Ø @ 0.25%	

STORMWATER LINE H4 LONGSECTION

SHRIMPTON & LIPINSKI
LAND DEVELOPMENT & DESIGN SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

NOTES:

1. ALL STORMWATER MANHOLES ARE 1050Ø UNLESS NOTED OTHERWISE.
2. ALL STORMWATER MAINS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
3. ALL LEADS TO CATCHPITS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
   - SINGLE CATCHPITS: 225Ø
   - DOUBLE CATCHPITS: 300Ø
4. ALL STORMWATER LOT CONNECTIONS ARE RRJ OPVC SN16 UNLESS NOTED OTHERWISE.
5. ALL LATERALS ARE RRJ OPVC SN16:
   - SINGLE DWELLING: 100Ø.
   - TWO/THREE DWELLINGS: 150Ø.
   - LATERALS BRANCHING OFF 150Ø ARE 100Ø.
6. ALL WORKS TO BE CARRIED OUT AND ALL MATERIALS TO COMPLY WITH THE RITS.
7. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL OF THE FIRST PIPE LAID WHERE PIPES CROSS OVER BEFORE LAYING THE SECOND PIPELINE AND CONFIRM THAT SUFFICIENT CLEARANCE IS AVAILABLE.
8. REFER TO DRAWING 30410-01-S24-SW4 FOR STANDARD DETAILS.
9. DEPTH OF A STORMWATER CONNECTION TO BE MINIMUM OF 0.9M AND MAXIMUM OF 1.5M (1.2M TYPICAL) UNLESS OTHERWISE INDICATED.
10. ALL CATCHPITS TO INCLUDE STANDARD OUTLET BAFFLE AS PER RITS.
11. LOTS STORMWATER DISCHARGE TO SWALES OUTLET TO BE ROCK PROTECTED, MINIMUM 150mm ALD.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	PRELIMINARY	NW			13/8/24
1	ISSUED FOR EPA	NW	HB	PH	16/8/24
2	ISSUED FOR RFI	TM	RH	PH	23/10/24
3	ISSUED FOR RFI	TM		PH	03/04/25
4	RFI RESPONSE	NW	HB		16/04/25
5	RFI RESPONSE	TM	HB		28/04/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

TITLE

STORMWATER LINES H & H4 LONGSECTION

PREPARED FOR

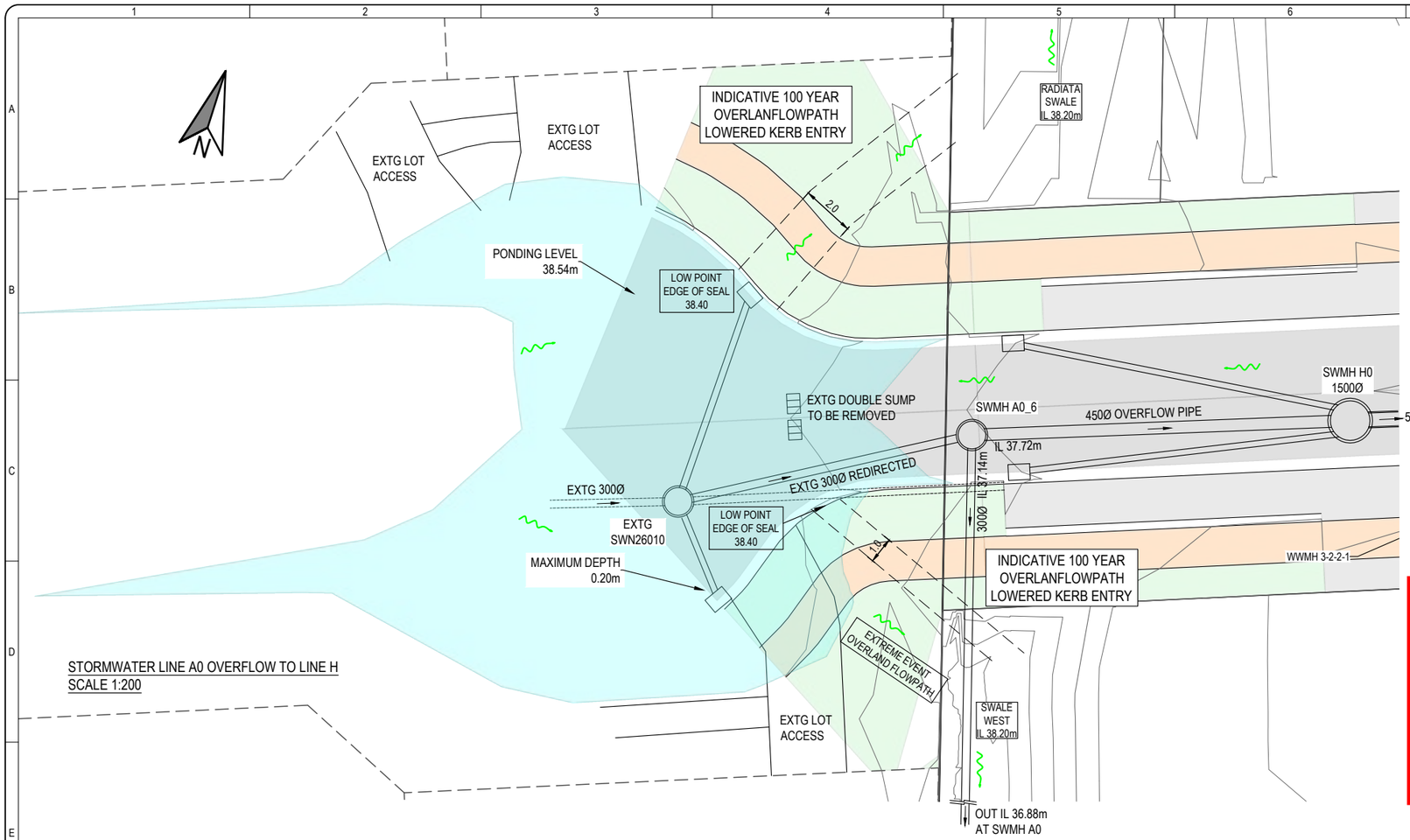
Chedworth Properties Limited

AREAS L,U & K

ORIGINAL SCALES @ A3: H 1:1000 V 1:250 (DO NOT SCALE DIMENSIONS)
STATUS: FOR APPROVAL

DRAWING NO: 30410-01-S24-SW2
REVISION: 5

R:\Project Files\30410-01-19\01 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 29/04/2025



STORMWATER LINE A0 OVERFLOW TO LINE H
SCALE 1:200

Refer to RFI tracker for further design and construction amendments

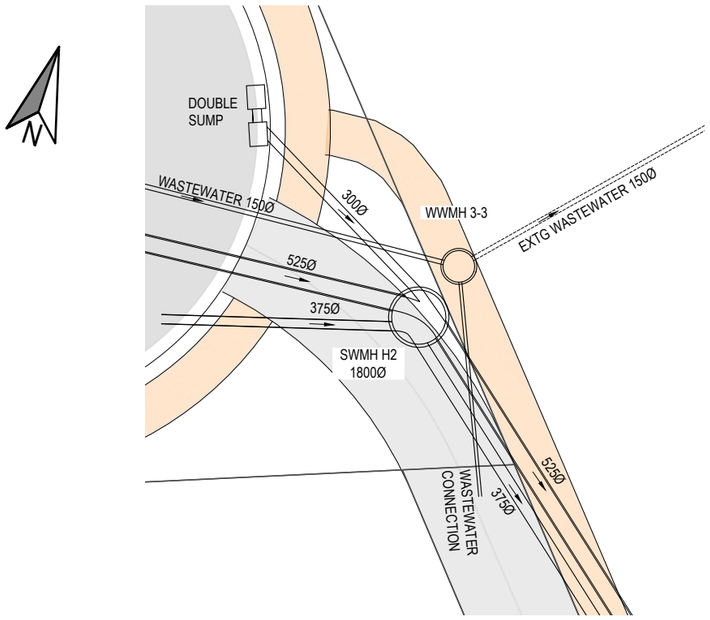
Hamilton City Council
Development Engineering Unit

ACCEPTED ENGINEERING PLANS

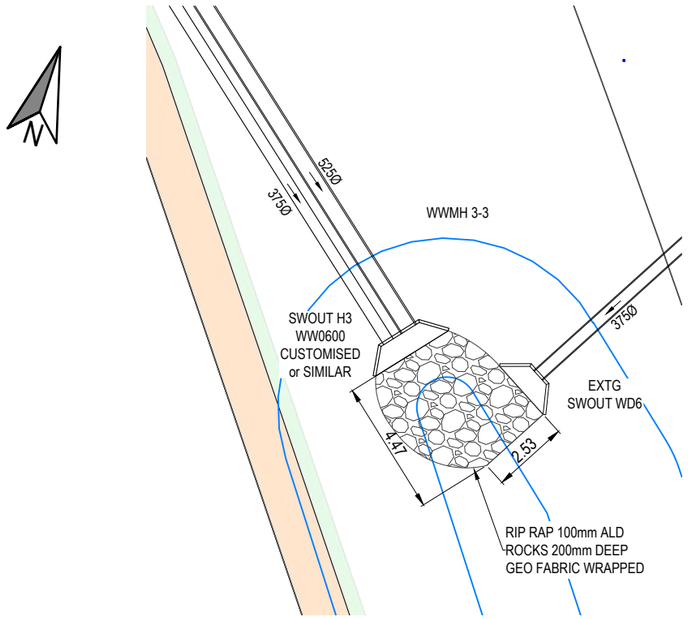
Assessed for Related Resource Consent Conditions Only

Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed



STORMWATER MANHOLE H2
SCALE 1:200



STORMWATER LINE H OUTLET
SCALE 1:200

SHRIMPTON & LIPINSKI
LAND DEVELOPMENT & DESIGN SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

NOTES:

1. ALL STORMWATER MANHOLES ARE 1050Ø UNLESS NOTED OTHERWISE.
2. ALL STORMWATER MAINS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
3. ALL LEADS TO CATCHPITS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
   - SINGLE CATCHPITS: 225Ø
   - DOUBLE CATCHPITS: 300Ø
4. ALL STORMWATER LOT CONNECTIONS ARE RRJ OPVC SN16 UNLESS NOTED OTHERWISE.
5. ALL LATERALS ARE RRJ OPVC SN16:
   - SINGLE DWELLING: 100Ø.
   - TWO/THREE DWELLINGS: 150Ø.
   - LATERALS BRANCHING OFF 150Ø ARE 100Ø.
6. ALL WORKS TO BE CARRIED OUT AND ALL MATERIALS TO COMPLY WITH THE RITS.
7. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL OF THE FIRST PIPE LAID WHERE PIPES CROSS OVER BEFORE LAYING THE SECOND PIPELINE AND CONFIRM THAT SUFFICIENT CLEARANCE IS AVAILABLE.
8. REFER TO DRAWING 30410-01-S24-SW4 FOR STANDARD DETAILS.
9. DEPTH OF A STORMWATER CONNECTION TO BE MINIMUM OF 0.9M AND MAXIMUM OF 1.5M (1.2M TYPICAL) UNLESS OTHERWISE INDICATED.
10. ALL CATCHPITS TO INCLUDE STANDARD OUTLET BAFFLE AS PER RITS.
11. LOTS STORMWATER DISCHARGE TO SWALES OUTLET TO BE ROCK PROTECTED, MINIMUM 150mm ALD.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	PRELIMINARY	NW			13/8/24
1	ISSUED FOR EPA	NW	HB	PH	16/8/24
2	ISSUED FOR RFI	TM	RH	PH	23/10/24
3	ISSUED FOR RFI	TM		PH	03/04/25
4	RFI RESPONSE	NW	HB		16/04/25
5	RFI RESPONSE	TM	HB		23/04/25
6	RFI Response	TM	HB	RH	29.04.25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

TITLE

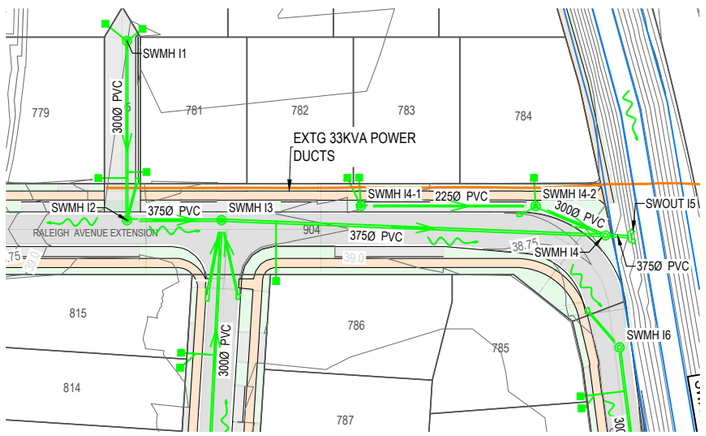
STORMWATER LINES H & H4 DETAILS

PREPARED FOR

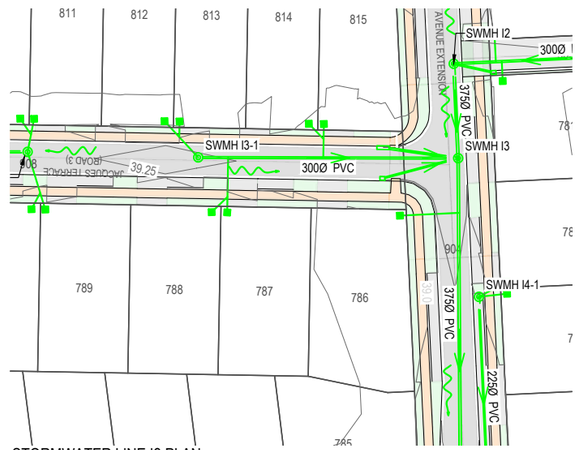
AREAS L,U & K

ORIGINAL SCALES @ A3	STATUS
1:200 DO NOT SCALE DIMENSIONS	FOR APPROVAL

DRAWING NO	REVISION
30410-01-S24-SW2A	6



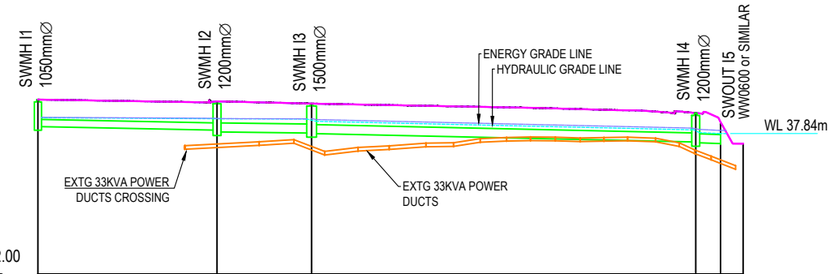
STORMWATER LINE I PLAN
SCALE 1:1000



STORMWATER LINE I3 PLAN
SCALE 1:1000

LEGEND:

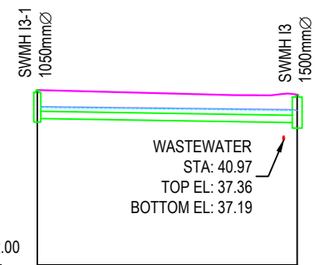
- FUTURE LOTS
- ABUTTALS
- STAGE PERIMETER
- STORMWATER PIPE
- STORMWATER MANHOLE
- STORMWATER CONNECTION (RETICULATION DISCHARGE)
- STORMWATER CONNECTION (SWALE DISCHARGE)
- HEADWALL
- CATCHPIT
- DOUBLE CATCHPIT
- FLOW ARROWS
- OVERLAND FLOW ARROWS
- CONTOUR MAJOR (1.0)
- CONTOUR MINOR (0.25)



DATUM ELEV: 32.00

PIPE NUMBER		SW I1		SW I2		SW I3			SW I4
LID LEVEL	39.25	39.18		39.09		38.69	37.98		
INVERT ELEVATIONS		38.13	37.98	37.91	37.86	37.84	37.49		37.46 37.42
DEPTH	1.12	1.27		1.24		1.23	2.22		
DISTANCE		29.78		15.72		63.89	4.13		
SIZE & GRADIENT		300Ø @ 0.50%		375Ø @ 0.30%		375Ø @ 0.55%	375Ø @ 1.00%		

STORMWATER LINE I LONGSECTION



DATUM ELEV: 32.00

PIPE NUMBER		SW I3-1		
LID LEVEL	39.27	39.09		
INVERT ELEVATIONS		38.09	37.92	37.80
DEPTH	1.18	1.24		
DISTANCE		43.22		
SIZE & GRADIENT		300Ø @ 0.40%		

STORMWATER LINE I3 LONGSECTION

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025
Subject to all notes and conditions affixed

SHRIMPTON & LIPINSKI
LAND DEVELOPMENT & DESIGN SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

NOTES:

1. ALL STORMWATER MANHOLES ARE 1050Ø UNLESS NOTED OTHERWISE.
2. ALL STORMWATER MAINS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
3. ALL LEADS TO CATCHPITS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
   - SINGLE CATCHPITS: 225Ø
   - DOUBLE CATCHPITS: 300Ø
4. ALL STORMWATER LOT CONNECTIONS ARE RRJ OPVC SN16 UNLESS NOTED OTHERWISE.
5. ALL LATERALS ARE RRJ OPVC SN16:
   - SINGLE DWELLING: 100Ø.
   - TWO/THREE DWELLINGS: 150Ø.
   - LATERALS BRANCHING OFF 150Ø ARE 100Ø.
6. ALL WORKS TO BE CARRIED OUT AND ALL MATERIALS TO COMPLY WITH THE RITS.
7. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL OF THE FIRST PIPE LAID WHERE PIPES CROSS OVER BEFORE LAYING THE SECOND PIPELINE AND CONFIRM THAT SUFFICIENT CLEARANCE IS AVAILABLE.
8. REFER TO DRAWING 30410-01-S24-SW4 FOR STANDARD DETAILS.
9. DEPTH OF A STORMWATER CONNECTION TO BE MINIMUM OF 0.9M AND MAXIMUM OF 1.5M (1.2M TYPICAL) UNLESS OTHERWISE INDICATED.
10. ALL CATCHPITS TO INCLUDE STANDARD OUTLET BAFFLE AS PER RITS.
11. LOTS STORMWATER DISCHARGE TO SWALES OUTLET TO BE ROCK PROTECTED, MINIMUM 150mm ALD.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	PRELIMINARY	NW			13/8/24
1	ISSUED FOR EPA	NW	HB	PH	16/8/24
2	ISSUED FOR RFI	TM	RH	PH	23/10/24
3	ISSUED FOR RFI	TM		PH	03/04/25
4	RFI RESPONSE	NW	HB		16/04/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

TITLE

STORMWATER LINES I & I3 LONGSECTION

PREPARED FOR

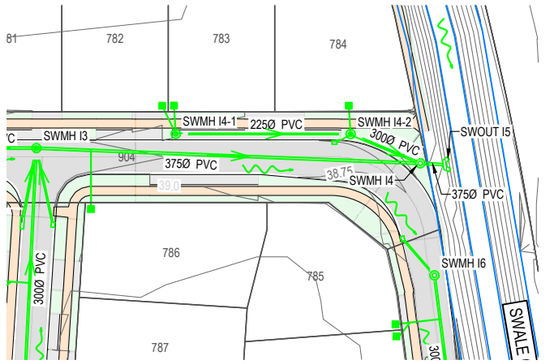
Chedworth Properties Limited

AREAS L,U & K

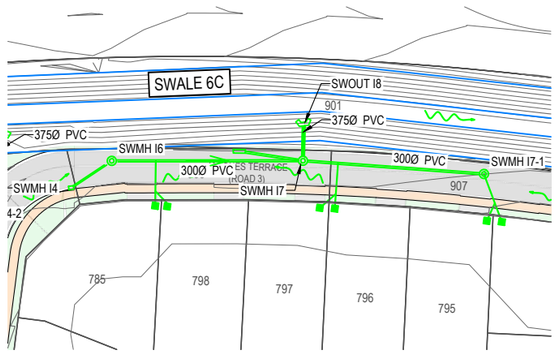
ORIGINAL SCALES @ A3: H 1:1000 V 1:250 (DO NOT SCALE DIMENSIONS)
STATUS: FOR APPROVAL

DRAWING NO: 30410-01-S24-SW2B
REVISION: 4

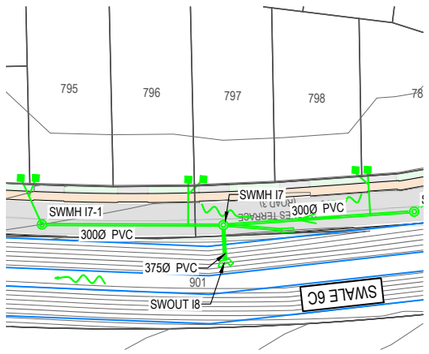
R:\Project Files\30410-01-1901 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 17/04/2025



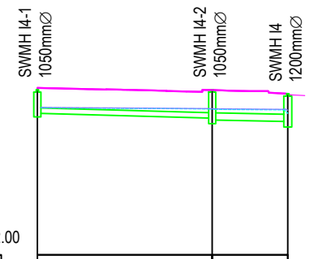
STORMWATER LINE I5 PLAN
SCALE 1:1000



STORMWATER LINE I6 PLAN
SCALE 1:1000



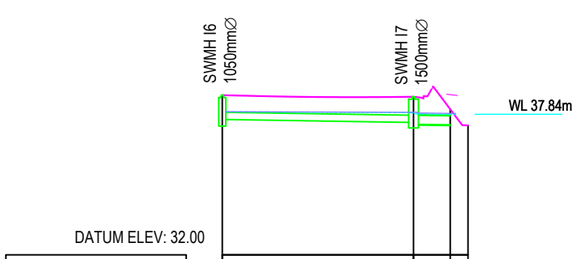
STORMWATER LINE I7 PLAN
SCALE 1:1000



DATUM ELEV: 32.00

PIPE NUMBER		SW I4-1		SW I4-2
LID LEVEL	38.86		38.86	38.69
INVERT ELEVATIONS		37.88	37.68	37.60 37.54
DEPTH	0.98		1.26	1.23
DISTANCE		29.07		12.57
SIZE & GRADIENT		225Ø @ 0.70%		300Ø @ 0.50%

STORMWATER LINE I4 LONGSECTION

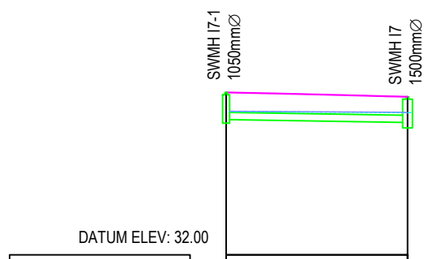


DATUM ELEV: 32.00

PIPE NUMBER		SW I6		SW I7
LID LEVEL	38.64		38.57	37.96
INVERT ELEVATIONS		37.63	37.50	37.43 37.40
DEPTH	1.14		1.14	1.25
DISTANCE		31.80		6.11 2.96
SIZE & GRADIENT		300Ø @ 0.40%		375Ø @ 0.35%

STORMWATER LINE I6 LONGSECTION

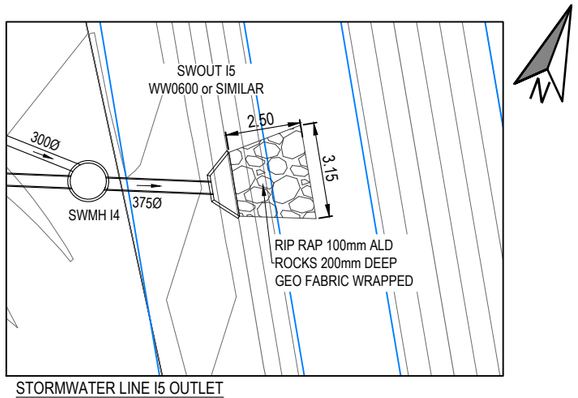
SWOUT I4
WINGWALL



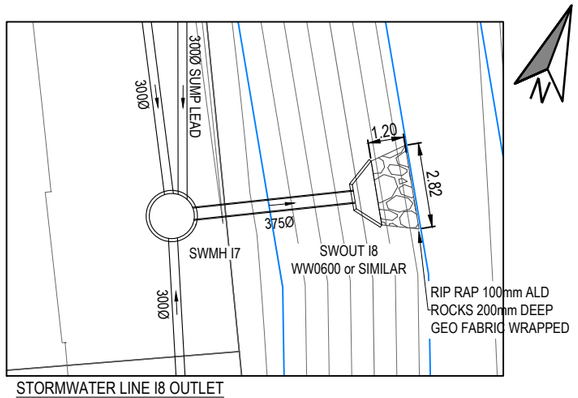
DATUM ELEV: 32.00

PIPE NUMBER		SW I7-1	
LID LEVEL	38.75		38.57
INVERT ELEVATIONS		37.62	37.50
DEPTH	1.13		1.14
DISTANCE		30.18	
SIZE & GRADE		300Ø @ 0.4%	

STORMWATER LINE I7 LONGSECTION



STORMWATER LINE I5 OUTLET
SCALE 1:200



STORMWATER LINE I8 OUTLET
SCALE 1:200

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025
Subject to all notes and conditions affixed

LEGEND:

- FUTURE LOTS
- ABUTTALS
- STAGE PERIMETER
- STORMWATER PIPE
- STORMWATER MANHOLE
- STORMWATER CONNECTION (RETICULATION DISCHARGE)
- STORMWATER CONNECTION (SWALE DISCHARGE)
- HEADWALL
- CATCHPIT
- DOUBLE CATCHPIT
- FLOW ARROWS
- OVERLAND FLOW ARROWS
- CONTOUR MAJOR (1.0)
- CONTOUR MINOR (0.25)

SHRIMPTON & LIPINSKI
LAND DEVELOPMENT & DESIGN SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

NOTES:
1. ALL STORMWATER MANHOLES ARE 1050Ø UNLESS NOTED OTHERWISE.
2. ALL STORMWATER MAINS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
3. ALL LEADS TO CATCHPITS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
   - SINGLE CATCHPITS: 225Ø
   - DOUBLE CATCHPITS: 300Ø
4. ALL STORMWATER LOT CONNECTIONS ARE RRJ OPVC SN16 UNLESS NOTED OTHERWISE.
5. ALL LATERALS ARE RRJ OPVC SN16:
   - SINGLE DWELLING: 100Ø.
   - TWO/THREE DWELLINGS: 150Ø.
   - LATERALS BRANCHING OFF 150Ø ARE 100Ø.
6. ALL WORKS TO BE CARRIED OUT AND ALL MATERIALS TO COMPLY WITH THE RITS.
7. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL OF THE FIRST PIPE LAID WHERE PIPES CROSS OVER BEFORE LAYING THE SECOND PIPELINE AND CONFIRM THAT SUFFICIENT CLEARANCE IS AVAILABLE.
8. REFER TO DRAWING 30410-01-S24-SW4 FOR STANDARD DETAILS.
9. DEPTH OF A STORMWATER CONNECTION TO BE MINIMUM OF 0.9M AND MAXIMUM OF 1.5M (1.2M TYPICAL) UNLESS OTHERWISE INDICATED.
10. ALL CATCHPITS TO INCLUDE STANDARD OUTLET BAFFLE AS PER RITS.
11. LOTS STORMWATER DISCHARGE TO SWALES OUTLET TO BE ROCK PROTECTED, MINIMUM 150mm ALD.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	PRELIMINARY	NW			13/8/24
1	ISSUED FOR EPA	NW	HB	PH	16/8/24
2	ISSUED FOR RFI	TM	RH	PH	23/10/24
3	ISSUED FOR RFI	TM		PH	03/04/25
4	RFI RESPONSE	NW	HB		16/04/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

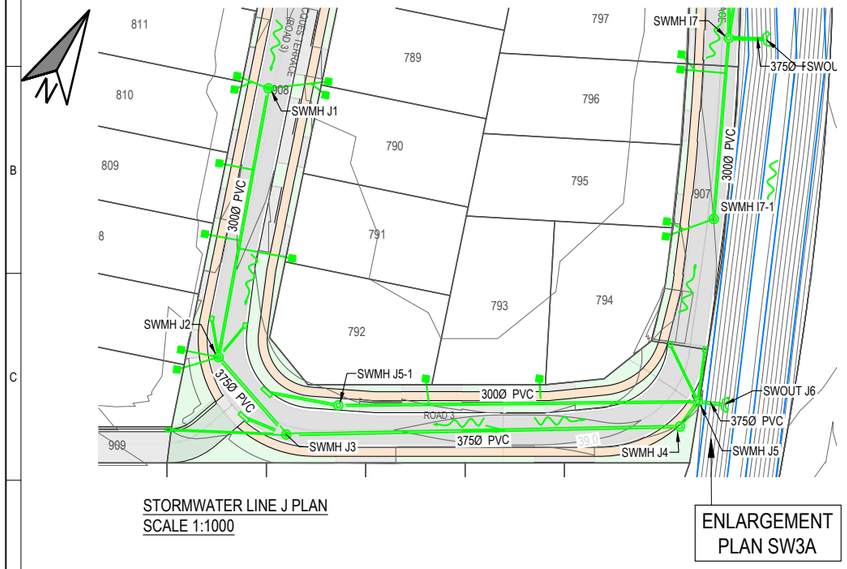
TITLE

STORMWATER LINES I4, I6 & I7 LONGSECTION

PREPARED FOR
Chedworth Properties Limited
AREAS L,U & K

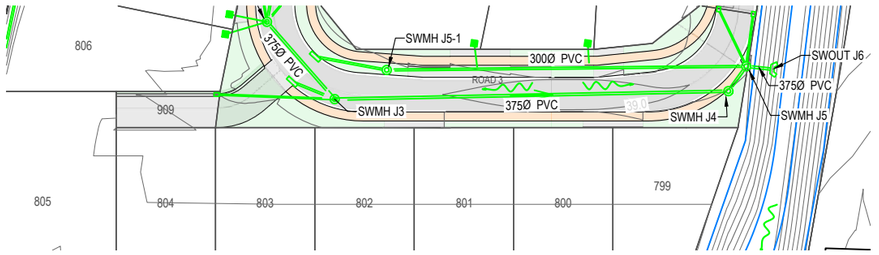
ORIGINAL SCALES @ A3: H 1:1000 V 1:250 (DO NOT SCALE DIMENSIONS)
STATUS: FOR APPROVAL
DRAWING NO: 30410-01-S24-SW2C
REVISION: 4

R:\Project Files\30410-01-19\01 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 17/04/2025



STORMWATER LINE J PLAN
SCALE 1:1000

ENLARGEMENT PLAN SW3A



STORMWATER LINE J7 PLAN
SCALE 1:1000

Hamilton City Council
Development Engineering Unit

ACCEPTED ENGINEERING PLANS

Assessed for Related Resource Consent Conditions Only

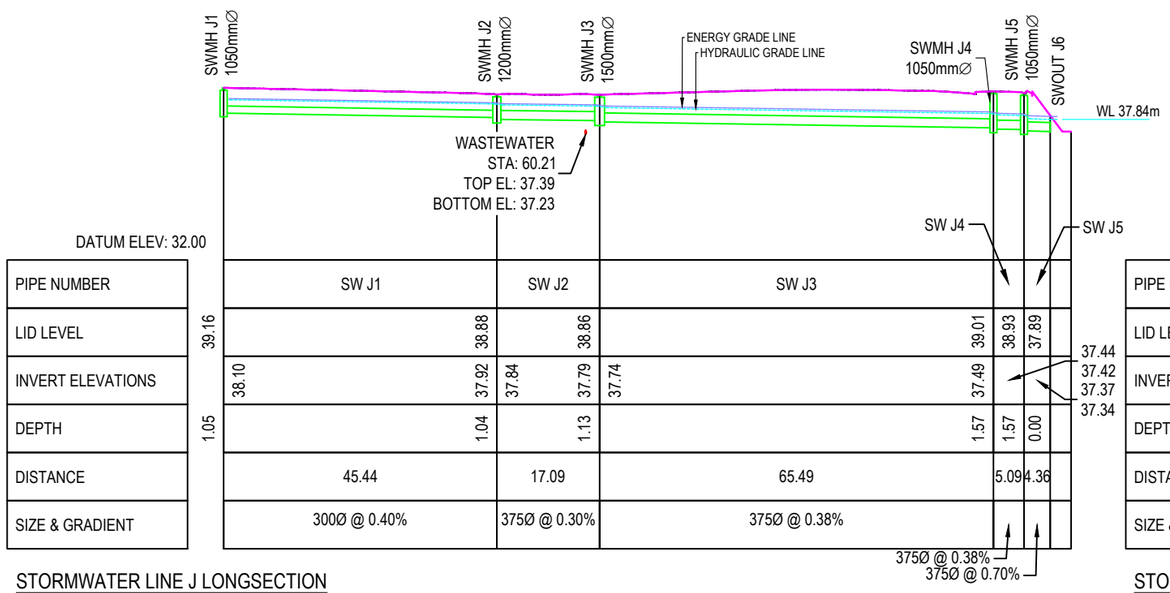
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed

Refer to RFI tracker for further design and construction amendments

LEGEND:

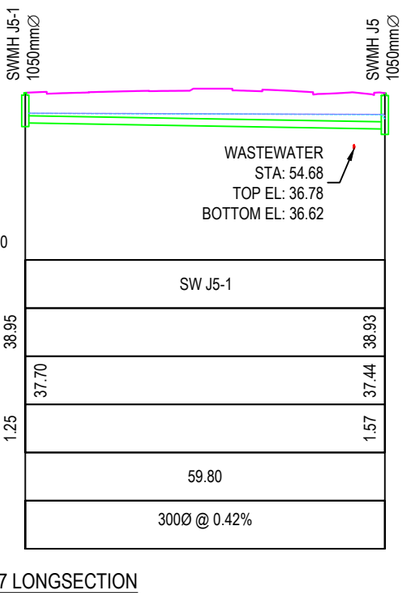
- FUTURE LOTS
- ABUTTALS
- STAGE PERIMETER
- STORMWATER PIPE
- STORMWATER MANHOLE
- STORMWATER CONNECTION (RETICULATION DISCHARGE)
- STORMWATER CONNECTION (SWALE DISCHARGE)
- HEADWALL
- CATCHPIT
- DOUBLE CATCHPIT
- FLOW ARROWS
- OVERLAND FLOW ARROWS
- CONTOUR MAJOR (1.0)
- CONTOUR MINOR (0.25)



DATUM ELEV: 32.00

PIPE NUMBER		SW J1		SW J2		SW J3			
LID LEVEL	39.16	38.88		38.86		39.01	38.93	37.89	
INVERT ELEVATIONS		38.10	37.92	37.84	37.79	37.74	37.49	37.44 / 37.42 / 37.37 / 37.34	
DEPTH	1.05		1.04		1.13		1.57	1.57	0.00
DISTANCE		45.44		17.09		65.49		5.09	4.36
SIZE & GRADIENT		300Ø @ 0.40%		375Ø @ 0.30%		375Ø @ 0.38%		375Ø @ 0.38%	375Ø @ 0.70%

STORMWATER LINE J LONGSECTION



DATUM ELEV: 32.00

PIPE NUMBER		SW J5-1	
LID LEVEL	38.95	38.93	
INVERT ELEVATIONS		37.70	37.44
DEPTH	1.25		1.57
DISTANCE		59.80	
SIZE & GRADIENT		300Ø @ 0.42%	

STORMWATER LINE J7 LONGSECTION

NOTES:

1. ALL STORMWATER MANHOLES ARE 1050Ø UNLESS NOTED OTHERWISE.
2. ALL STORMWATER MAINS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
3. ALL LEADS TO CATCHPITS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
   - SINGLE CATCHPITS: 225Ø
   - DOUBLE CATCHPITS: 300Ø
4. ALL STORMWATER LOT CONNECTIONS ARE RRJ OPVC SN16 UNLESS NOTED OTHERWISE.
5. ALL LATERALS ARE RRJ OPVC SN16:
   - SINGLE DWELLING: 100Ø.
   - TWO/THREE DWELLINGS: 150Ø.
   - LATERALS BRANCHING OFF 150Ø ARE 100Ø.
6. ALL WORKS TO BE CARRIED OUT AND ALL MATERIALS TO COMPLY WITH THE RITS.
7. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL OF THE FIRST PIPE LAID WHERE PIPES CROSS OVER BEFORE LAYING THE SECOND PIPELINE AND CONFIRM THAT SUFFICIENT CLEARANCE IS AVAILABLE.
8. REFER TO DRAWING 30410-01-S24-SW4 FOR STANDARD DETAILS.
9. DEPTH OF A STORMWATER CONNECTION TO BE MINIMUM OF 0.9M AND MAXIMUM OF 1.5M (1.2M TYPICAL) UNLESS OTHERWISE INDICATED.
10. ALL CATCHPITS TO INCLUDE STANDARD OUTLET BAFFLE AS PER RITS.
11. LOTS STORMWATER DISCHARGE TO SWALES OUTLET TO BE ROCK PROTECTED, MINIMUM 150mm ALD.

SHRIMPTON & LIPINSKI
LAND DEVELOPMENT & DESIGN SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	PRELIMINARY	NW			13/8/24
1	ISSUED FOR EPA	NW	HB	PH	16/8/24
2	ISSUED FOR RFI	TM	RH	PH	23/10/24
3	ISSUED FOR RFI	TM		PH	03/04/25
4	RFI RESPONSE	NW	HB		16/04/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

TITLE

STORMWATER LINES J & J7 LONGSECTION

PREPARED FOR

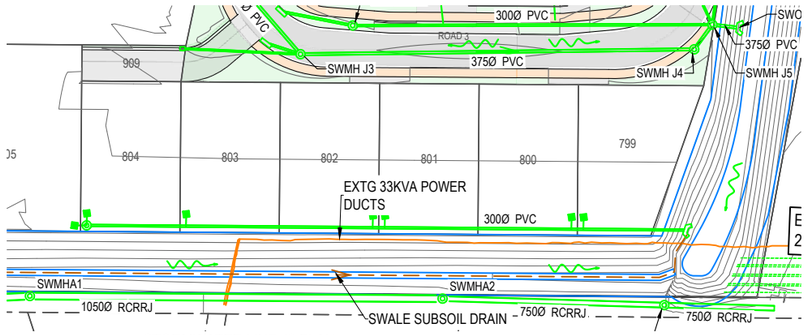
Chedworth Properties Limited

AREAS L,U & K

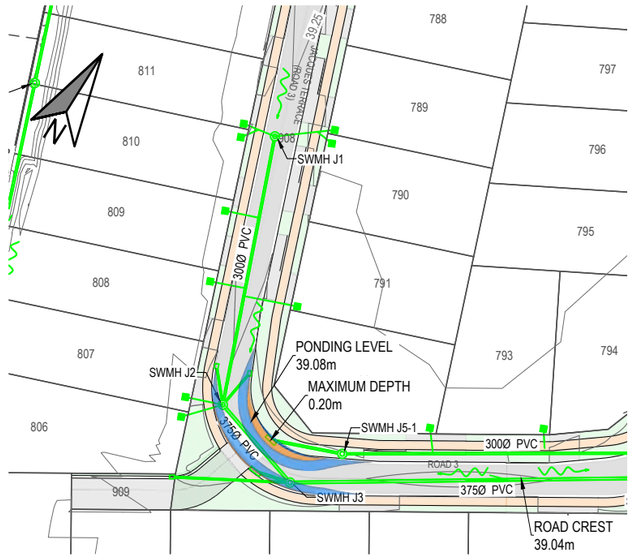
ORIGINAL SCALES @ A3: H 1:1000 V 1:250 (DO NOT SCALE DIMENSIONS)
STATUS: FOR APPROVAL

DRAWING NO: 30410-01-S24-SW3
REVISION: 4

R:\Project Files\30410-01-19\01 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 17/04/2025



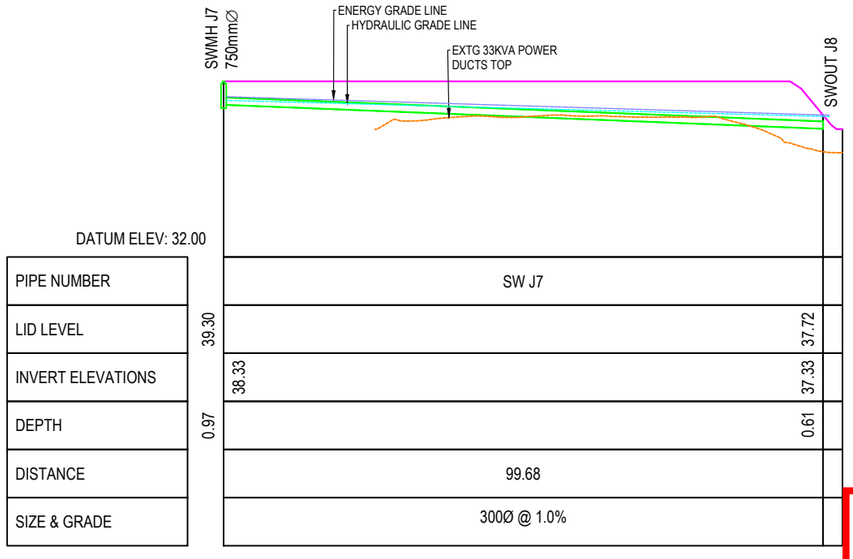
STORMWATER LINE J9 PLAN
SCALE 1:1000



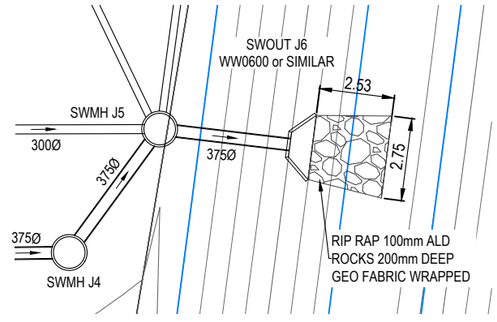
STORMWATER LINE J PONDING (100 YEAR EVENT)
SCALE 1:1000

LEGEND:

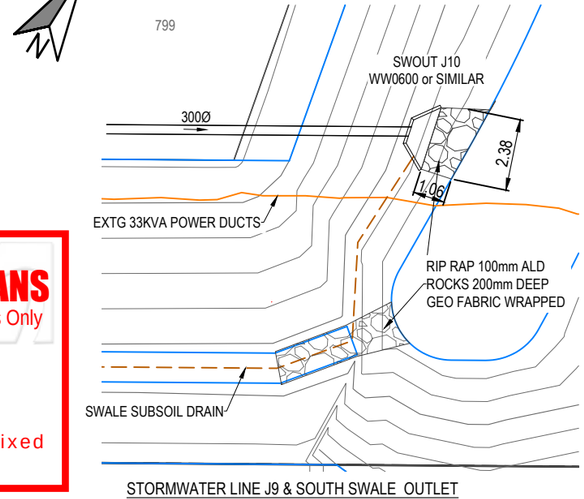
- FUTURE LOTS
- ABUTTALS
- STAGE PERIMETER
- STORMWATER PIPE
- STORMWATER MANHOLE
- STORMWATER CONNECTION (RETICULATION DISCHARGE)
- STORMWATER CONNECTION (SWALE DISCHARGE)
- HEADWALL
- CATCHPIT
- DOUBLE CATCHPIT
- FLOW ARROWS
- OVERLAND FLOW ARROWS
- CONTOUR MAJOR (1.0)
- CONTOUR MINOR (0.25)
- 100YR EVENT PONDING(0.15-0.2mm)
- 100YR EVENT PONDING(0.2mm)



STORMWATER LINE J7 LONGSECTION



STORMWATER LINE J6 OUTLET
SCALE 1:200



STORMWATER LINE J9 & SOUTH SWALE OUTLET
SCALE 1:200

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed

SHRIMPTON & LIPINSKI
LAND DEVELOPMENT & DESIGN SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

NOTES:

1. ALL STORMWATER MANHOLES ARE 1050Ø UNLESS NOTED OTHERWISE.
2. ALL STORMWATER MAINS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
3. ALL LEADS TO CATCHPITS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
   - SINGLE CATCHPITS: 225Ø
   - DOUBLE CATCHPITS: 300Ø
4. ALL STORMWATER LOT CONNECTIONS ARE RRJ OPVC SN16 UNLESS NOTED OTHERWISE.
5. ALL LATERALS ARE RRJ OPVC SN16:
   - SINGLE DWELLING: 100Ø.
   - TWO/THREE DWELLINGS: 150Ø.
   - LATERALS BRANCHING OFF 150Ø ARE 100Ø.
6. ALL WORKS TO BE CARRIED OUT AND ALL MATERIALS TO COMPLY WITH THE RITS.
7. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL OF THE FIRST PIPE LAID WHERE PIPES CROSS OVER BEFORE LAYING THE SECOND PIPELINE AND CONFIRM THAT SUFFICIENT CLEARANCE IS AVAILABLE.
8. REFER TO DRAWING 30410-01-S24-SW4 FOR STANDARD DETAILS.
9. DEPTH OF A STORMWATER CONNECTION TO BE MINIMUM OF 0.9M AND MAXIMUM OF 1.5M (1.2M TYPICAL) UNLESS OTHERWISE INDICATED.
10. ALL CATCHPITS TO INCLUDE STANDARD OUTLET BAFFLE AS PER RITS.
11. LOTS STORMWATER DISCHARGE TO SWALES OUTLET TO BE ROCK PROTECTED, MINIMUM 150mm ALD.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
7	RFI RESPONSE	HB	RH		28/04/25
8	RFI RESPONSE	NW	HB	RH	07/05/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

TITLE

STORMWATER LINES J7 LONGSECTION & DETAILS

PREPARED FOR

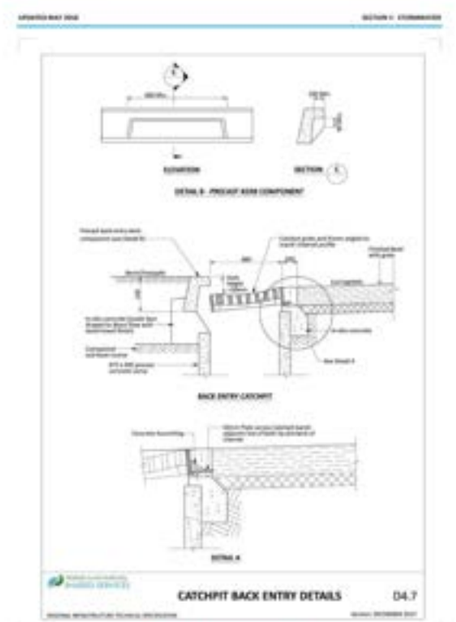
Greenhill Stage 24 — Chedworth Properties Limited

AREAS L,U & K

ORIGINAL SCALES @ A3	STATUS
H 1:1000 V 1:250 DO NOT SCALE DIMENSIONS	FOR APPROVAL

DRAWING NO	REVISION
30410-01-S24-SW3A	8

R:\Project Files\30410-01-19\01 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 7/05/2025



Drawing 4-16: Catchpit back entry details

Refer to RFI tracker for further design and construction amendments

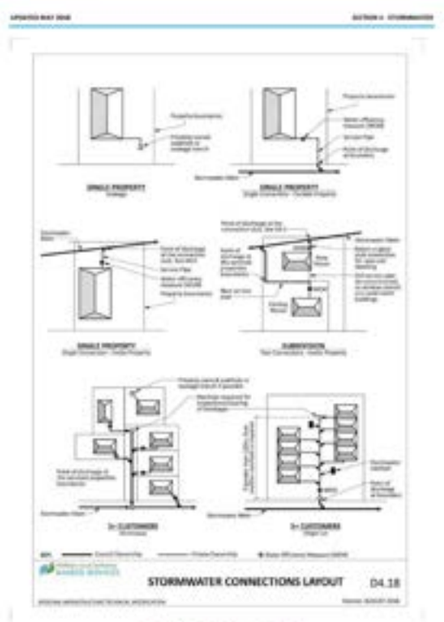
Hamilton City Council
Development Engineering Unit

ACCEPTED ENGINEERING PLANS

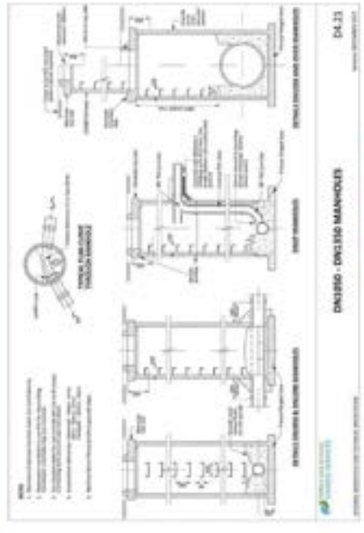
Assessed for Related Resource Consent Conditions Only

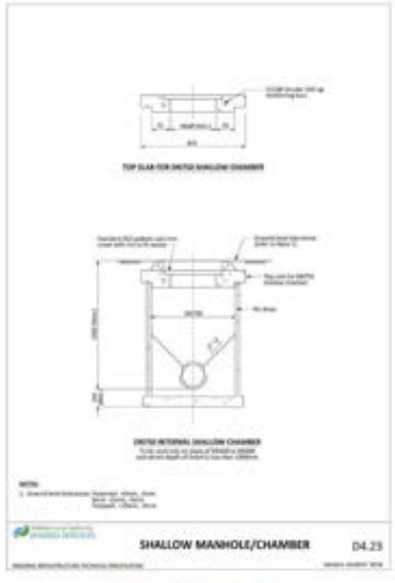
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed

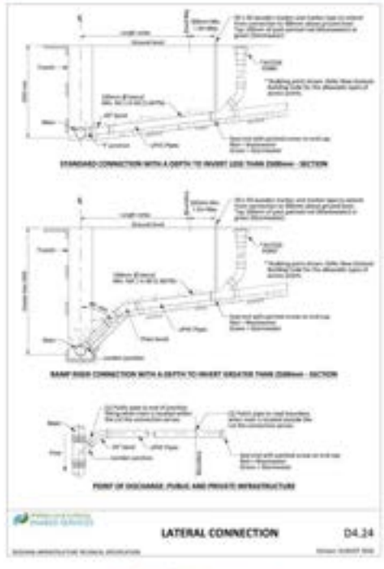


Drawing 4-17: Stormwater connections layout

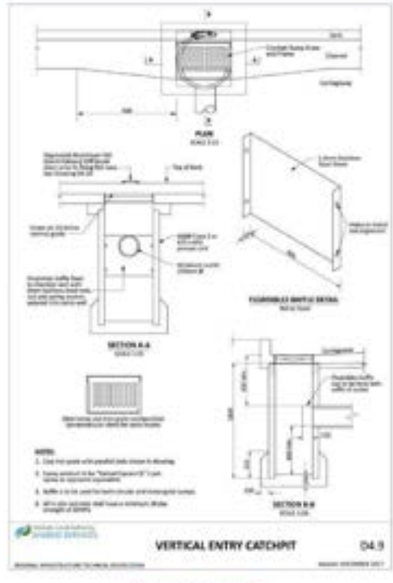




Drawing 4-25: Shallow manhole/chamber



Drawing 4-21: Lateral connection



Drawing 4-18: Vertical entry catchpit

SHRIMPTON & LIPINSKI
LAND DEVELOPMENT & DESIGN SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	PRELIMINARY	NW			13/8/24
1	ISSUED FOR EPA	NW	HB	PH	16/8/24

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

TITLE

STANDARD DETAILS STORMWATER

PREPARED FOR

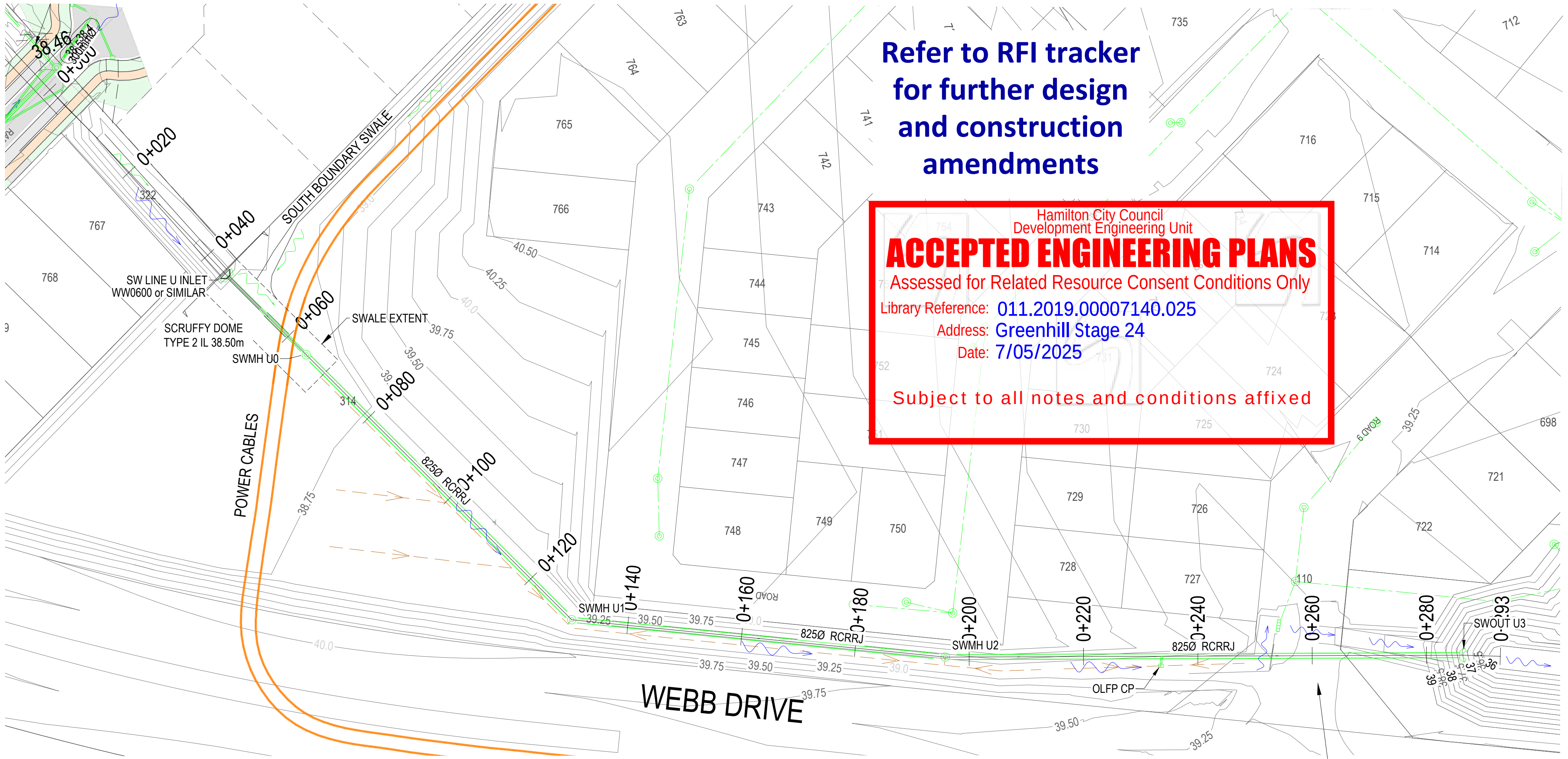
Greenhill Park | Chedworth Properties Limited

AREAS L,U & K

ORIGINAL SCALES @ A3	STATUS
NOT TO SCALE DO NOT SCALE DIMENSIONS	FOR APPROVAL

DRAWING NO	REVISION
30410-01-S24-SW4	1

R:\Project Files\30410-01-1901 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 16/04/2025



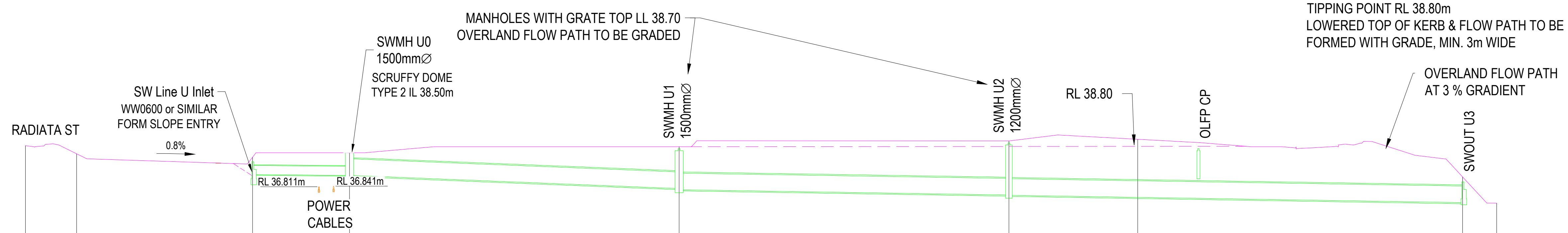
Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025
Subject to all notes and conditions affixed

LEGEND:

- FUTURE LOTS
- ABUTTALS
- STAGE PERIMETER
- STORMWATER PIPE
- STORMWATER MANHOLE
- STORMWATER CONNECTION (RETICULATION DISCHARGE)
- HEADWALL
- CATCHPIT
- DOUBLE CATCHPIT
- FLOW ARROWS
- OVERLAND FLOW ARROWS
- OVERLAND FLOW ARROWS - CULVERTS BLOCKED
- SWALE SUBSOIL DRAIN
- CONTOUR MAJOR (1.0)
- CONTOUR MINOR (0.25)

OVERLAND FLOW
TIPPING POINT RL 38.80m
LOWERED TOP OF KERB & FLOW PATH TO BE FORMED WITH GRADE, MIN. 3m WIDE



DATUM ELEV: 33.00

DESIGN SURFACE LEVEL	38.75	38.45	38.28	38.67	38.80	39.08	39.17	37.30	37.30 36.00	36.00	
LID LEVEL	38.05	38.66	38.70	38.98	38.70	37.05					
INVERT ELEVATIONS	37.41	37.38	37.38	36.72	36.66	36.40	36.39	36.02			
DEPTH	0.95	1.28	2.04	2.60	1.40	1.34					
DISTANCE	10.19	35.03	19.30	65.63	65.67	25.63	64.68	6.79			
SIZE & GRADE	450Ø @ 0.2%	825Ø @ 1.0%	825Ø @ 0.4%	825Ø @ 0.4%							

RADIATA DRAINAGE LONGSECTION

SHRIMPTON & LIPINSKI
LAND DEVELOPMENT & DESIGN SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

NOTES:

1. ALL STORMWATER MANHOLES ARE 1050Ø UNLESS NOTED OTHERWISE.
2. ALL STORMWATER MAINS ARE RCRRJ UNLESS NOTED OTHERWISE:
3. ALL LEADS TO CATCHPITS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
   - SINGLE CATCHPITS: 225Ø
   - DOUBLE CATCHPITS: 300Ø
4. ALL STORMWATER LOT CONNECTIONS ARE RRJ OPVC SN16 UNLESS NOTED OTHERWISE.
5. ALL LATERALS ARE RRJ OPVC SN16:
   - SINGLE DWELLING: 100Ø.
   - TWO/THREE DWELLINGS: 150Ø.
   - LATERALS BRANCHING OFF 150Ø ARE 100Ø.
6. ALL WORKS TO BE CARRIED OUT AND ALL MATERIALS TO COMPLY WITH THE RITS.
7. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL OF THE FIRST PIPE LAID WHERE PIPES CROSS OVER BEFORE LAYING THE SECOND PIPELINE AND CONFIRM THAT SUFFICIENT CLEARANCE IS AVAILABLE.
8. REFER TO DRAWING 30410-01-S24-SW4 FOR STANDARD DETAILS.
9. DEPTH OF A STORMWATER CONNECTION TO BE MINIMUM OF 0.9M AND MAXIMUM OF 1.5M (1.2M TYPICAL) UNLESS OTHERWISE INDICATED.
10. ALL CATCHPITS TO INCLUDE STANDARD OUTLET BAFFLE AS PER RITS.
11. LOTS STORMWATER DISCHARGE TO SWALES OUTLET TO BE ROCK PROTECTED, MINIMUM 150mm ALD.
12. SIDE OF SWALE TO BE MAXIMUM 3 : 1.

LEGEND:

- OVERLAND FLOW ARROWS - CULVERTS BLOCKED

Rev	DESCRIPTION	DRN	CKD	APP	DATE
7	ISSUED FOR RFI	TM	RH	PH	02/12/24
8	ISSUED FOR RFI	TM	RH	PH	13/01/25
9	ISSUED FOR RFI	TM		PH	03/04/25
10	RFI RESPONSE	NW	HB		16/04/25
11	RFI RESPONSE	TM	HB		22/04/25
12	RFI RESPONSE	TM	HB		06/05/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

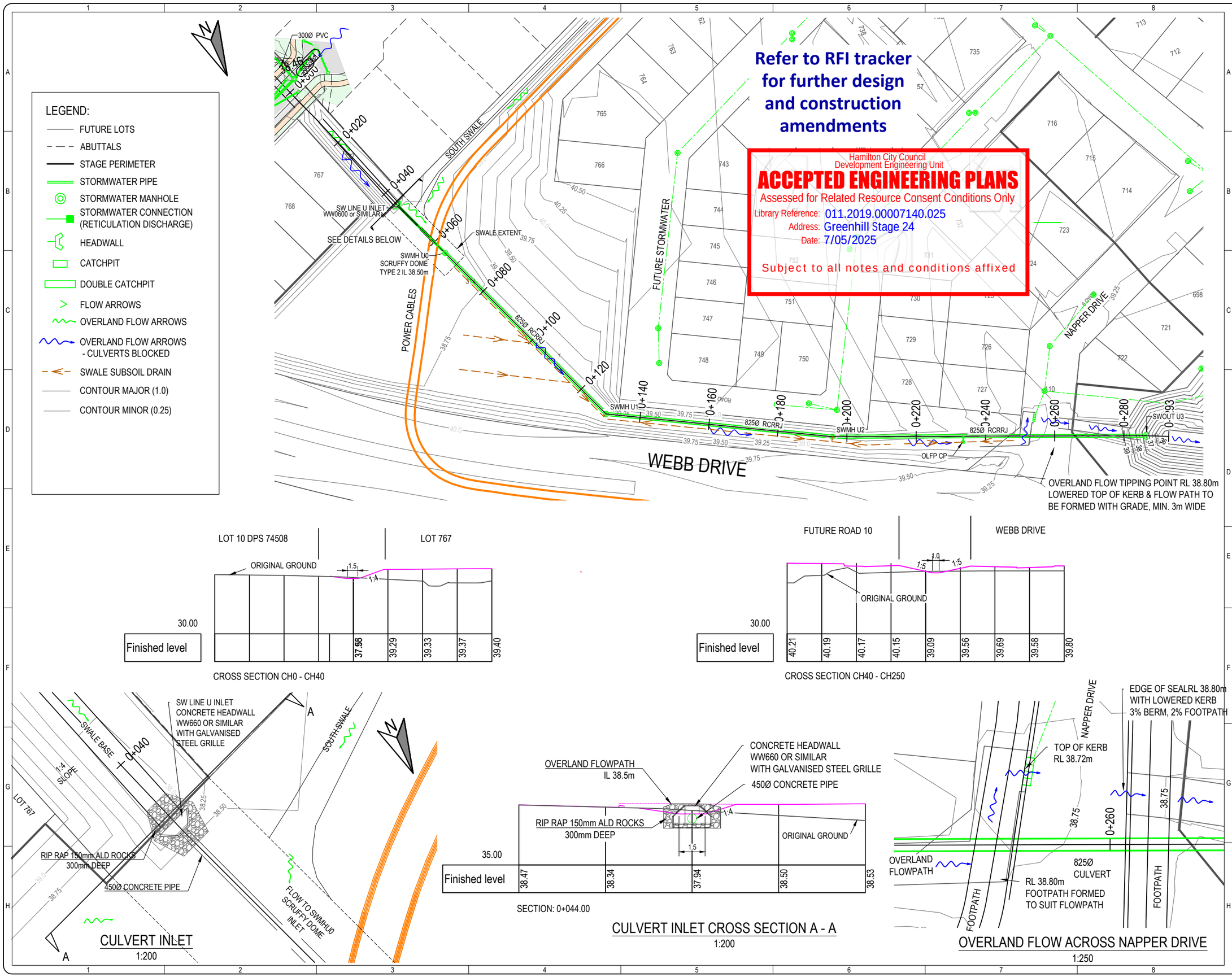
TITLE

STORMWATER STAGE 24 ~ 22 LONGSECTION

PREPARED FOR

ORIGINAL SCALES @ A3: H 1:1000 V 1:250
DO NOT SCALE DIMENSIONS
STATUS: FOR APPROVAL
DRAWING NO: 30410-01-S24-SW5
REVISION: 12

R:\Project Files\30410-01-19\01 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 7/05/2025



CROSS SECTION CH0 - CH40

CROSS SECTION CH40 - CH250

CULVERT INLET
1:200

SECTION: 0+044.00

CULVERT INLET CROSS SECTION A - A
1:200

OVERLAND FLOW ACROSS NAPPER DRIVE
1:250

SHRIMPTON & LIPINSKI
LAND DEVELOPMENT & DESIGN SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

NOTES:
1. ALL STORMWATER MANHOLES ARE 1050Ø UNLESS NOTED OTHERWISE.
2. ALL STORMWATER MAINS ARE RCRRJ UNLESS NOTED OTHERWISE:
3. ALL LEADS TO CATCHPITS ARE uPVC RJ SN16 UNLESS NOTED OTHERWISE:
   - SINGLE CATCHPITS: 225Ø
   - DOUBLE CATCHPITS: 300Ø
4. ALL STORMWATER LOT CONNECTIONS ARE RRJ OPVC SN16 UNLESS NOTED OTHERWISE.
5. ALL LATERALS ARE RRJ OPVC SN16:
   - SINGLE DWELLING: 100Ø.
   - TWO/THREE DWELLINGS: 150Ø.
   - LATERALS BRANCHING OFF 150Ø ARE 100Ø.
6. ALL WORKS TO BE CARRIED OUT AND ALL MATERIALS TO COMPLY WITH THE RITS.
7. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL OF THE FIRST PIPE LAID WHERE PIPES CROSS OVER BEFORE LAYING THE SECOND PIPELINE AND CONFIRM THAT SUFFICIENT CLEARANCE IS AVAILABLE.
8. REFER TO DRAWING 30410-01-S24-SW4 FOR STANDARD DETAILS.
9. DEPTH OF A STORMWATER CONNECTION TO BE MINIMUM OF 0.9M AND MAXIMUM OF 1.5M (1.2M TYPICAL) UNLESS OTHERWISE INDICATED.
10. ALL CATCHPITS TO INCLUDE STANDARD OUTLET BAFFLE AS PER RITS.
11. LOTS STORMWATER DISCHARGE TO SWALES OUTLET TO BE ROCK PROTECTED, MINIMUM 150mm ALD.
12. SIDE OF SWALE TO BE MAXIMUM 3 : 1.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
7	ISSUED FOR RFI	TM	RH	PH	02/12/24
8	ISSUED FOR RFI	TM	RH	PH	13/01/25
9	ISSUED FOR RFI	TM		PH	03/04/25
10	RFI RESPONSE	NW	HB		16/04/25
11	RFI RESPONSE	TM	HB		23/04/25
12	RFI RESPONSE	TM	HB		06/05/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

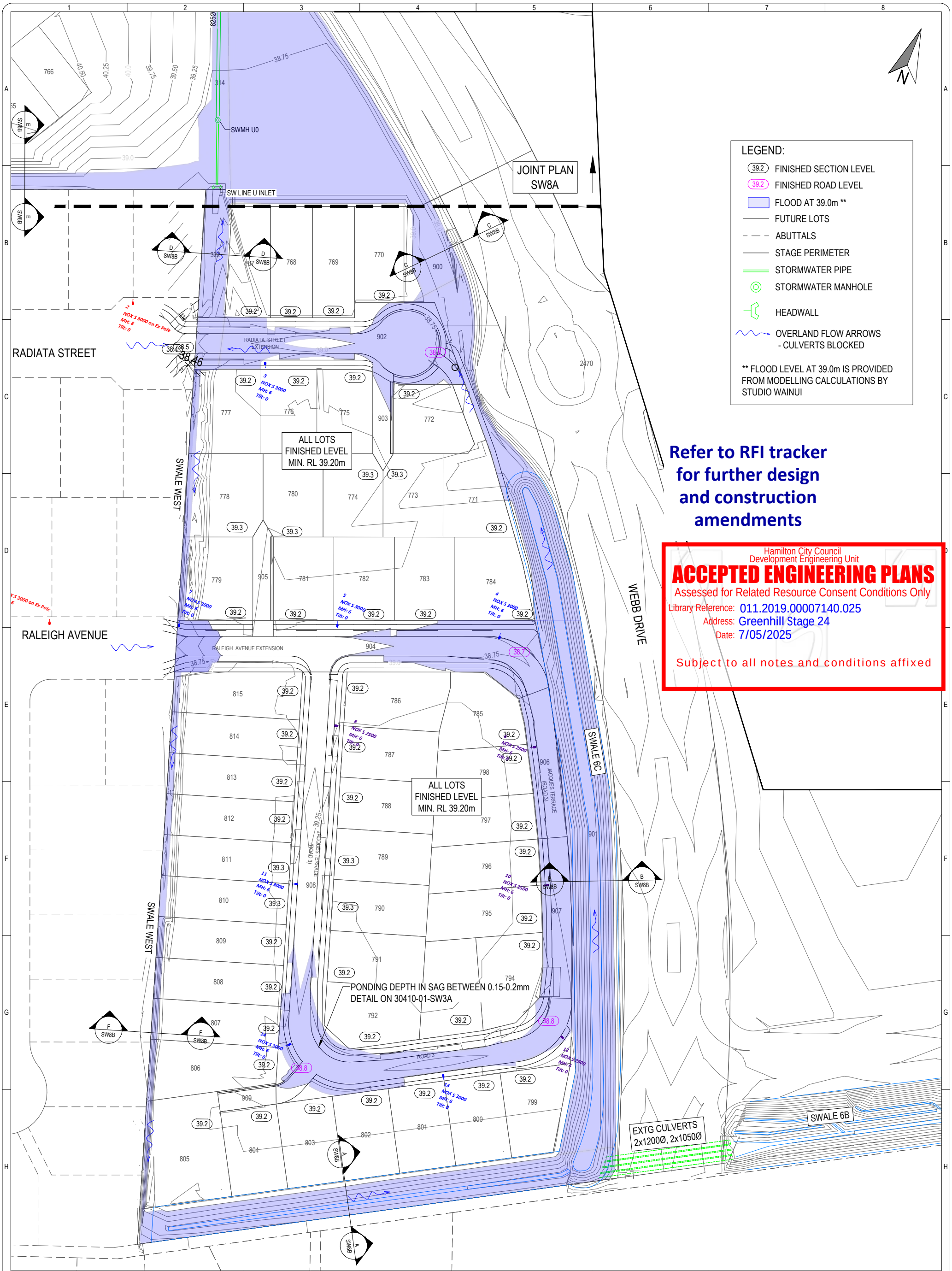
COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451
TITLE

STORMWATER STAGE 24 ~ 22 CROSS-SECTION

PREPARED FOR
Greenhill / Chedworth Properties Limited
AREAS L,U & K

ORIGINAL SCALES @ A3: 1:500 (DO NOT SCALE DIMENSIONS)
STATUS: FOR APPROVAL
DRAWING NO: 30410-01-S24-SW6
REVISION: 12

R:\Project Files\30410-01-19\01 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 7/05/2025



R:\Project Files\30410-01-19\01 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 6/05/2025

SHRIMPTON & LIPINSKI
LAND SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

TITLE

CULVERT BLOCKED SCENARIO
100 YEAR STORM EVENT
STAGE 24

REV	DESCRIPTION	DRN	CKD	APP	DATE
5	RFI RESPONSE	NW	HB		16/04/25
6	RFI RESPONSE	HB	RH		28/04/25
7	RFI RESPONSE	HB	HB	RH	06/05/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451
ORIGINAL SCALES @ A3: 1:1000 (DO NOT SCALE DIMENSIONS)
STATUS: FOR APPROVAL
DRAWING NO: 30410-01-S24-SW8
REVISION: 7

SWALE 4

WEBB DRIVE

ROAD 8

ROAD 9

ROAD 10

FUTURE LOTS
FINISHED LEVEL
MIN. RL 39.20m

Refer to RFI tracker for further design and construction amendments

LEGEND:

- 39.2 FINISHED SECTION LEVEL
- 39.2 FINISHED ROAD LEVEL
- FLOOD AT 39.0m **
- FUTURE LOTS
- ABUTTALS
- STAGE PERIMETER
- STORMWATER PIPE
- STORMWATER MANHOLE
- HEADWALL
- OVERLAND FLOW ARROWS - CULVERTS BLOCKED

** FLOOD LEVEL AT 39.0m IS PROVIDED FROM MODELLING CALCULATIONS BY STUDIO WAINUI

JOINT PLAN BELOW

SWALE HIGH POINT
IL 38.7m

JOINT PLAN SW8

ALL LOTS
FINISHED LEVEL
MIN. RL 39.20m

RADIATA STREET

RADIATA STREET EXTENSION

HALLEY DRIVE

EXISTING STORMWATER
ROAD 2B

BANNERMAN CRESCENT

EXTG SCRUFFY DOME INLET

JOINT PLAN ABOVE

SHRIMPTON & LIPINSKI
LAND SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

TITLE

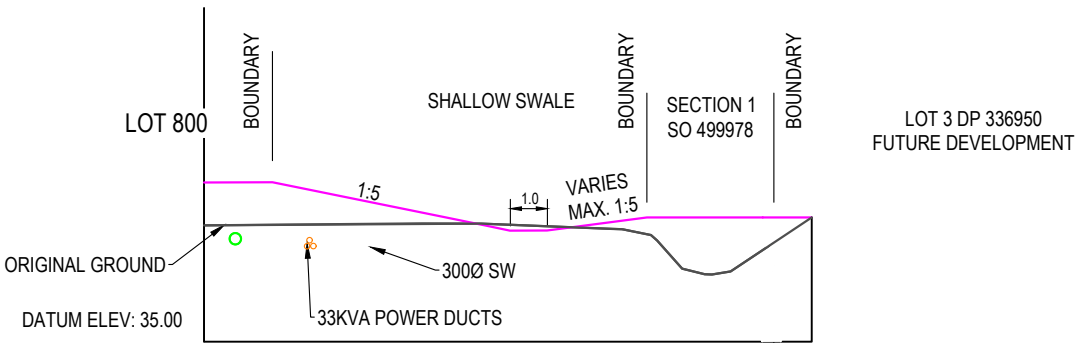
CULVERT BLOCKED SCENARIO
100 YEAR STORM EVENT
STAGE 24 (NORTH)

REV	DESCRIPTION	DRN	CKD	APP	DATE
0	RFI RESPONSE	TM		PH	03/04/25
1	RFI RESPONSE	NW	HB		16/04/25

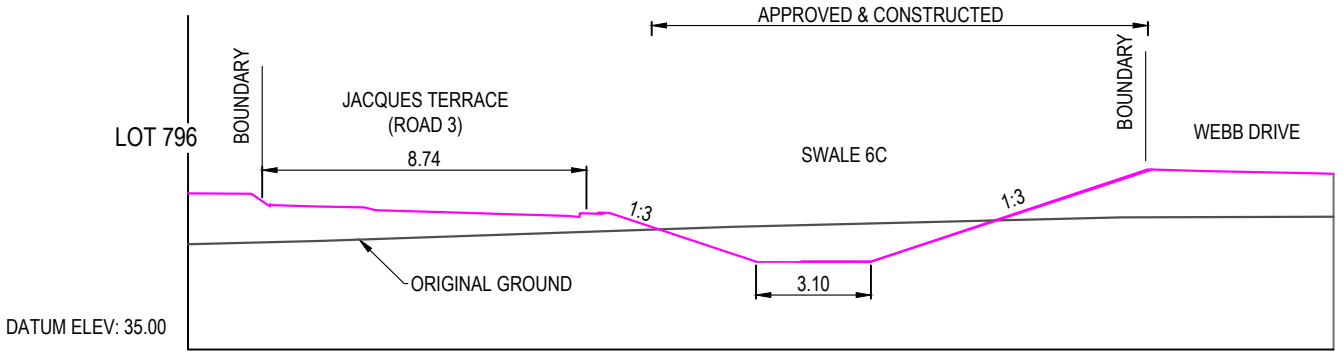
	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451
ORIGINAL SCALES @ A3: 1:1000
DO NOT SCALE DIMENSIONS
STATUS: FOR APPROVAL
DRAWING NO: 30410-01-S24-SW8A
REVISION: 1

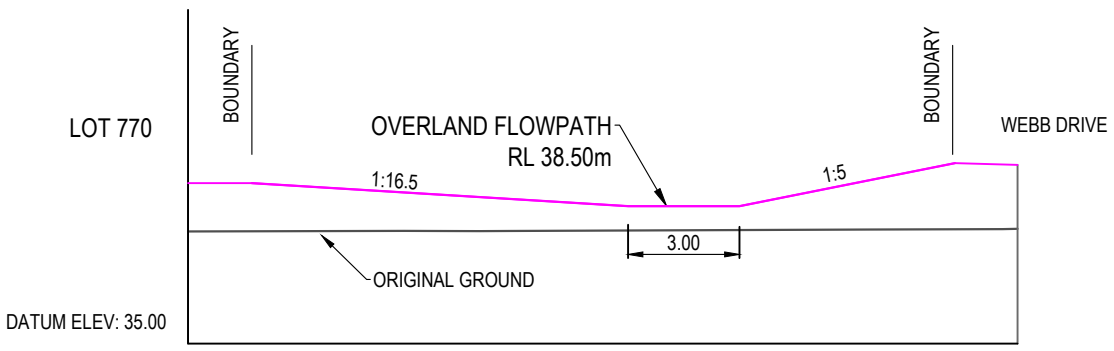
R:\Project Files\30410-01-1901 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 17/04/2025



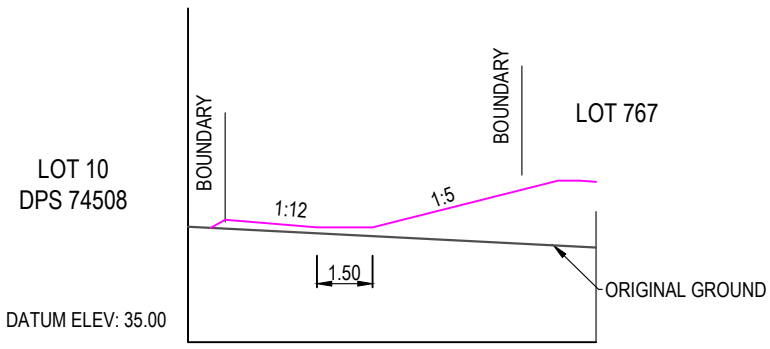
CROSS SECTION A-A
SOUTH SWALE



CROSS SECTION B-B
SWALE 6C



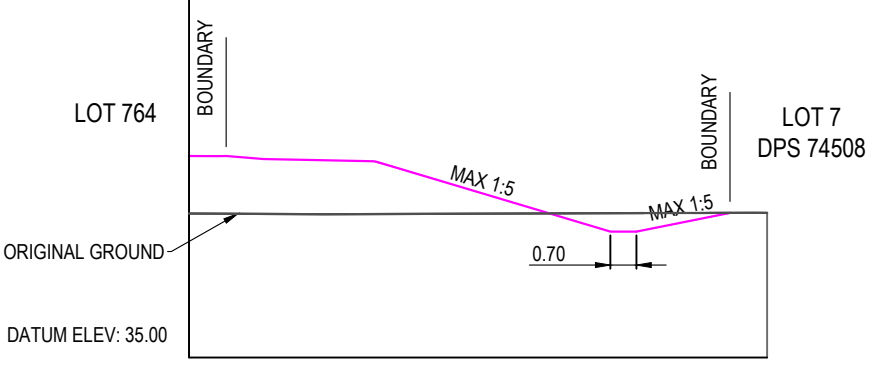
CROSS SECTION C-C
LOT 900



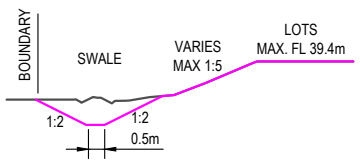
CROSS SECTION D-D
RADIATA SWALE

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025
Subject to all notes and conditions affixed



CROSS SECTION E-E
AREA L SOUTH BOUNDARY SWALE



CROSS SECTION F-F
SWALE WEST
Scale 1:200

SHRIMPTON & LIPINSKI
LAND SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

TITLE
STORMWATER SWALES CROSS-SECTIONS STAGE 24

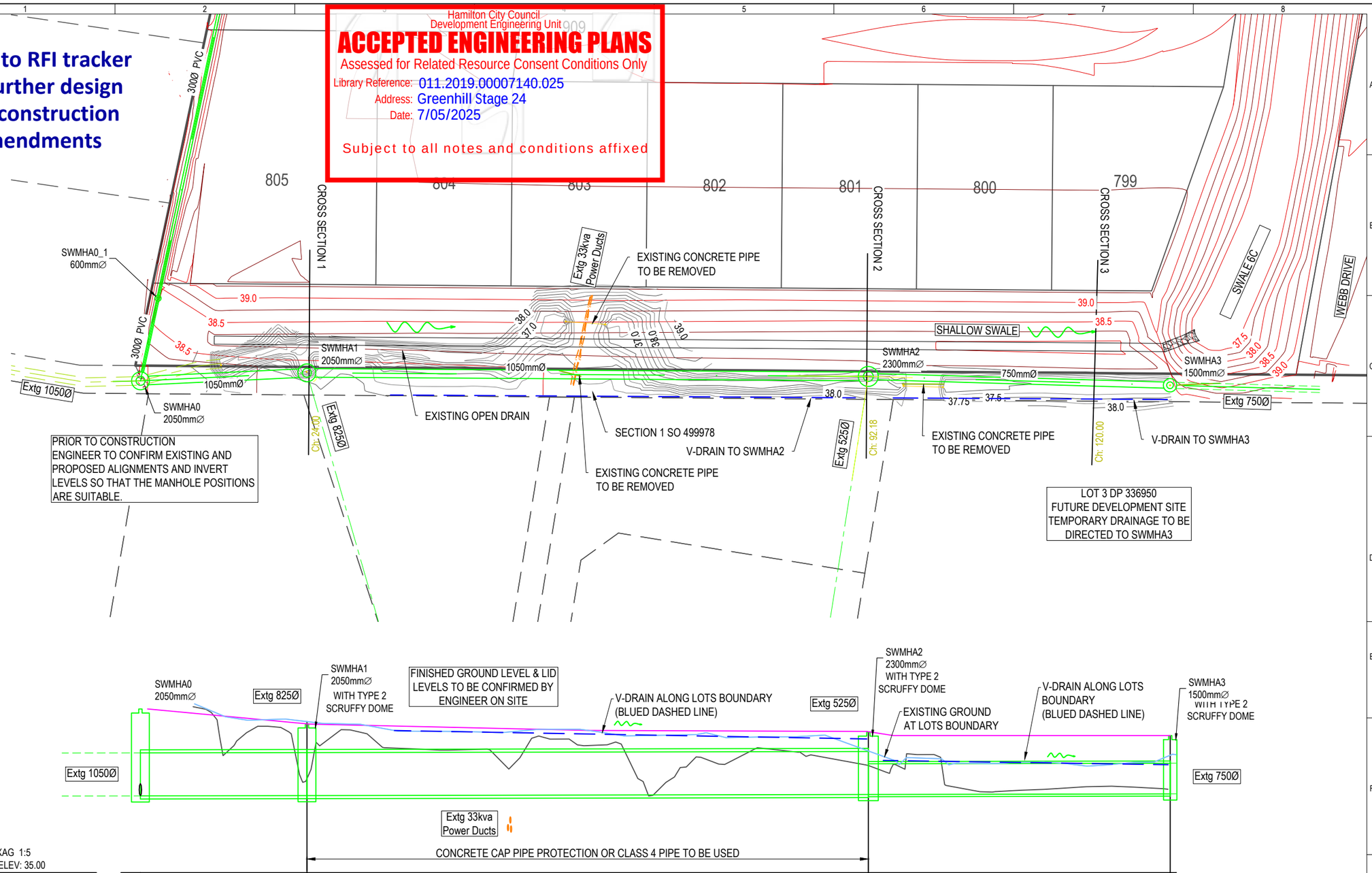
REV	DESCRIPTION	DRN	CKD	APP	DATE
0	ISSUED FOR RFI	NW		PH	03/04/25
1	RFI RESPONSE	NW	HB		16/04/25
2	RFI RESPONSE	HB	RH		29/04/25
3	RFI Response Swale 1:2	HB	HB	RH	06/05/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451
ORIGINAL SCALES @ A3: 1:200 (DO NOT SCALE DIMENSIONS)
STATUS: FOR APPROVAL
DRAWING NO: 30410-01-S24-SW8B
REVISION: 3

Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025
Subject to all notes and conditions affixed



VERT EXAG 1:5
DATUM ELEV: 35.00

CUT TO INVERT	0.53	1.75	1.75			1.53	1.53		1.42
INVERT LEVEL	36.88	36.88	36.88			36.91	36.91		36.93
EXISTING SURFACE		37.29				37.62			
DESIGN SURFACE		38.64				38.44			38.35
DISTANCE	3.38	20.36	23.74	68.63		92.37	36.90		129.27
SIZE & GRADE		1,050 mm Concrete Pipe @ 0.04%		1,050 mm Concrete Pipe @ 0.04%			750 mm Concrete Pipe @ 0.04%		

AREA U SOUTH SW MAIN EXTENSION LONGSECTION

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

NOTES:
1. ALL STORMWATER MANHOLES WITH TYPE 2 SCRUFFY DOME AND SIZES AS SHOWN.
2. ALL STORMWATER MAINS ARE RCRRJ CLASS 4 UNLESS NOTED OTHERWISE:
3. ALL WORKS TO BE CARRIED OUT AND ALL MATERIALS TO COMPLY WITH THE RITS.
4. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL AND ALIGNMENT OF THE FIRST 1050Ø PIPE LAID WHERE THE CONSTRUCTION STARTS APPROPRIATELY.
5. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL AND ALIGNMENT OF OTHER EXISTING PIPES SO THAT THE ALL THE MANHOLES ARE PLACED APPROPRIATELY.
6. THE CONTRACTOR MUST CHECK AND FORM THE FINISHED GROUND TO SUIT EXISTING GROUND SO THE MANHOLE SCRUFFY DOMES TO BE PLACED APPROPRIATELY.
7. THE MANHOLES TO HAVE SEDIMENT COLLECTION SUMP BELOW INVERT LEVEL BY REQUEST FROM THE COUNCIL.

LEGEND:
- FUTURE LOTS
- ABUTTALS
- STORMWATER PIPE
- STORMWATER MANHOLE
- OVERLAND FLOW ARROWS
- EXISTING CONTOURS: 0.25m
- DESIGN CONTOURS: 0.25m
- EXISTING GROUND
- DESIGN SURFACE

Rev	DESCRIPTION	DRN	CKD	APP	DATE
1	ISSUED FOR EPA	TM	HB	PH	12/02/25
2	ISSUED FOR RFI	TM		PH	11/03/25
3	DESIGN REVISED	TM		PH	12/03/25
4	ALIGNMENT SHIFTED	TM		PH	13/03/25
5	ISSUED FOR RFI	TM		PH	03/04/25
6	RFI Response	TM	HB	RH	16/04/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

TITLE

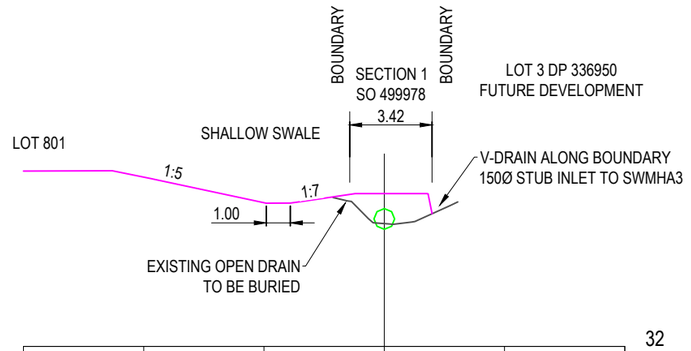
STORMWATER EXISTING HCC LINE EXTENSION PLAN

PREPARED FOR
Chedworth Properties Limited

AREAS L,U & K

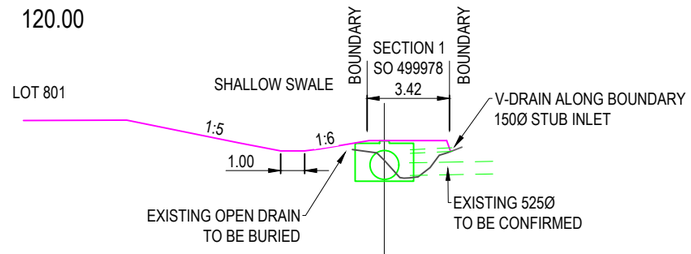
ORIGINAL SCALES @ A3: H 1:500 V 1:100 (DO NOT SCALE DIMENSIONS)
STATUS: FOR APPROVAL
DRAWING NO: 30410-01-S24-SW9
REVISION: 6

R:\Project Files\30410-01-19\01 Detail Design\30410 - Stage 24 South Boundary Stormwater Pipe Line.dwg - Plotted: 16/04/2025



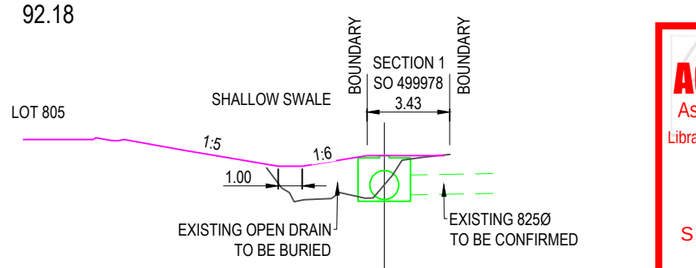
	32				32
ORIGINAL LEVEL	38.88	37.75	38.35		
FINISHED LEVEL	39.03	37.97	38.35		

120.00



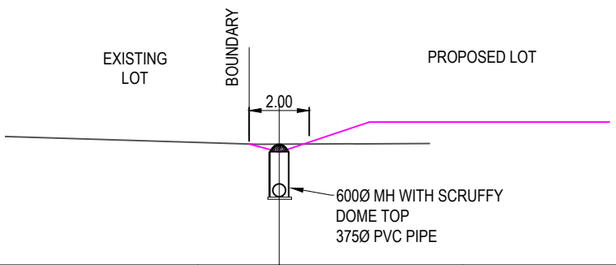
	32				3
ORIGINAL LEVEL			37.63		
FINISHED LEVEL	39.16	38.15	38.45		

92.18



	32				32
ORIGINAL LEVEL			37.42		
FINISHED LEVEL	39.15	38.29	38.64		

24.00

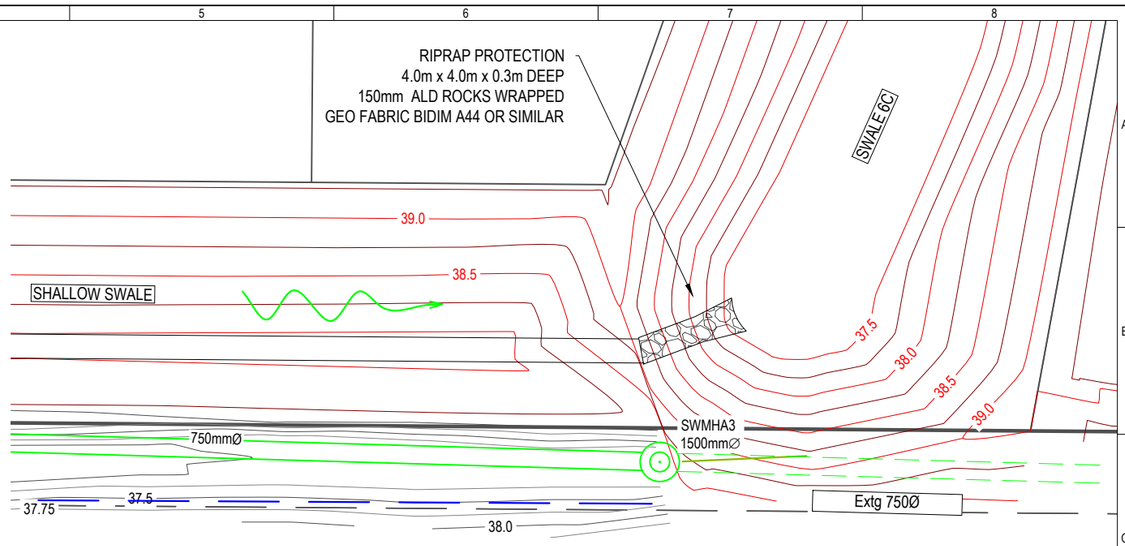


WEST SW DRAIN
TYPYCAL CROSS SECTION
1:200

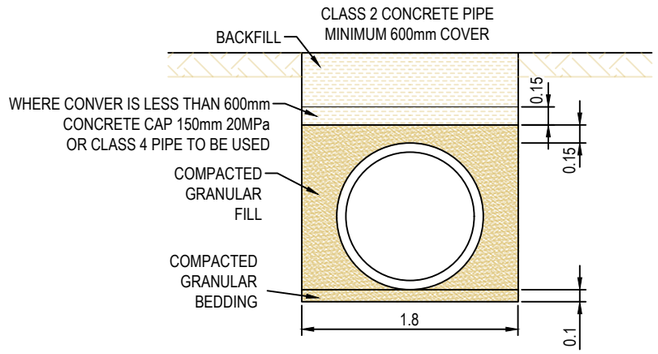
Refer to RFI tracker for further design and construction amendments

Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed

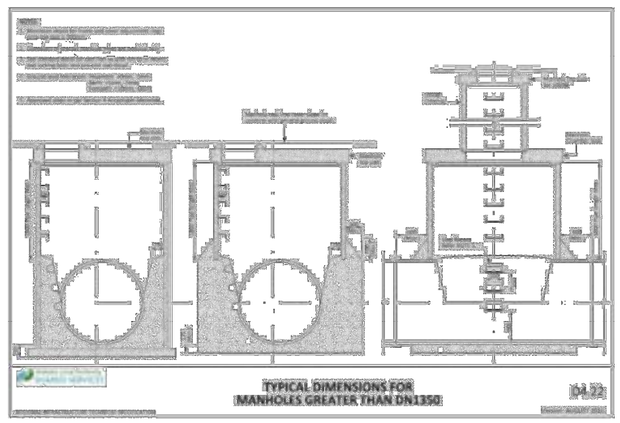


SHALLOW SWALE RIPRAP PROTECTION



H2 BEDDING DETAILS
NTS

UPDATED MAY 2018



Drawing 4-29: Typical dimensions for manholes greater than DN1350

Page 404 of 601

LARGE DIAMETER MANHOLE STANDARD DRAWING

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

Rev	DESCRIPTION	DRN	CKD	APP	DATE
1	ISSUED FOR EPA	TM	HB	PH	12/02/25
2	ISSUED FOR RFI	TM		PH	11/03/25
3	DESIGN REVISED	TM		PH	12/03/25
4	ALIGNMENT SHIFTED	TM		PH	13/03/25
5	ISSUED FOR RFI	TM		PH	03/04/25
6	RFI Response	TM	HB	RH	16/04/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

TITLE

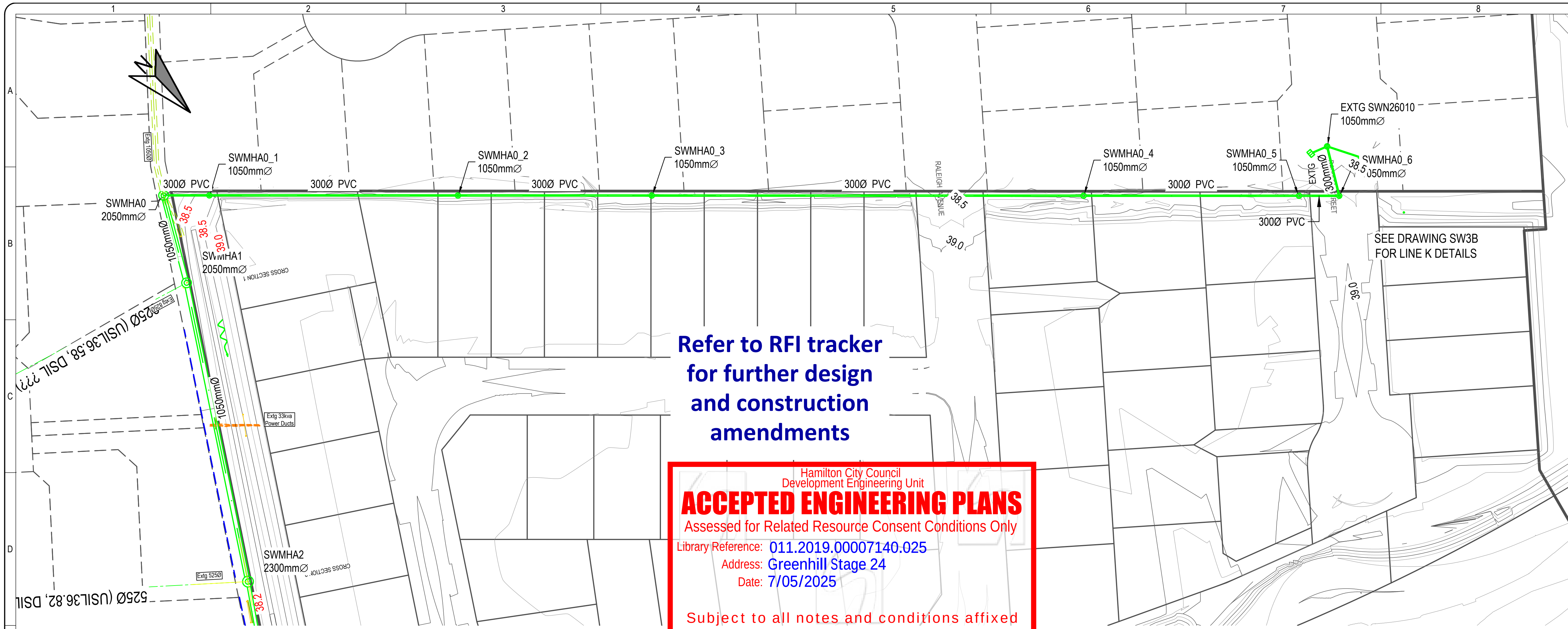
STORMWATER EXISTING HCC LINE EXTENSION DETIALS

PREPARED FOR

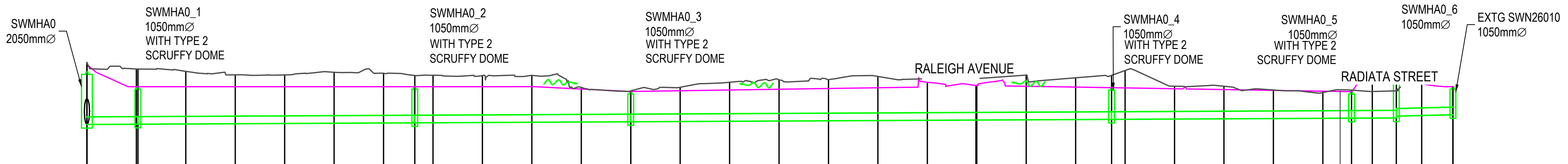
AREAS L,U & K

ORIGINAL SCALES @ A3: 1 : 250 (DO NOT SCALE DIMENSIONS)
STATUS: FOR APPROVAL

DRAWING NO: 30410-01-S24-SW10
REVISION: 6



Hamilton City Council
Development Engineering Unit
ACCEPTED ENGINEERING PLANS
Assessed for Related Resource Consent Conditions Only
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025
Subject to all notes and conditions affixed



VERT EXAG 1:5
DATUM ELEV: 35.00

DISTANCE	CUT TO INVERT	INVERT LEVEL	EXISTING SURFACE	DESIGN SURFACE
0.00	2.50	36.88	39.38	39.38
10.32	1.51 / 1.51	36.89 / 36.89	39.11	38.40
66.32	1.46 / 1.46	36.94 / 36.94	38.85	38.40
110.00	1.22 / 1.22	36.99 / 36.99	38.22	38.21
179.83				38.45
207.27	1.28 / 1.28	37.08 / 37.08	38.86	38.36
255.80	1.07 / 1.07	37.13 / 37.13	38.26	38.20
	1.59	37.14		
264.86	0.31	37.21	38.23	38.73
276.31	0.31	37.27		38.40

Segment	DISTANCE	SIZE & GRADE
0.00 – 10.32	10.32	300 NB UPVC PN @ 0.10%
10.32 – 66.32	56.00	300 NB UPVC PN @ 0.10%
66.32 – 110.00	43.68	300 NB UPVC PN @ 0.10%
110.00 – 179.83	69.83	300 NB UPVC PN @ 0.10%
179.83 – 207.27	27.44	
207.27 – 255.80	48.53	300 NB UPVC PN @ 0.10%
255.80 – 264.86	9.06	300 NB UPVC PN @ 0.10%
264.86 – 276.31	11.45	300 NB UPVC PN @ 0.50%

AREA U WEST SW DRAIN LONGSECTION

R:\Project Files\30410-01-19\01 Detail Design\30410 - Stage 24 South Boundary Stormwater Pipe Line.dwg - Plotted: 7/05/2025

S & L Land Specialists
Ph. 07 577 6069
Email: info@sllp.co.nz
P.O. Box 231, Tauranga 3144
www.sllp.co.nz

NOTES:
1. ALL STORMWATER MANHOLES WITH TYPE 2 SCRUFFY DOME AND SIZES AS SHOWN.
2. ALL STORMWATER MAINS ARE RCRRJ CLASS 4 UNLESS NOTED OTHERWISE:
3. ALL WORKS TO BE CARRIED OUT AND ALL MATERIALS TO COMPLY WITH THE RITS.
4. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL AND ALIGNMENT OF THE FIRST 1050Ø PIPE LAID WHERE THE CONSTRUCTION STARTS APPROPRIATELY.
5. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL AND ALIGNMENT OF OTHER EXISTING PIPES SO THAT THE ALL THE MANHOLES ARE PLACED APPROPRIATELY.
6. THE CONTRACTOR MUST CHECK AND FORM THE FINISHED GROUND TO SUIT EXISTING GROUND SO THE MANHOLE SCRUFFY DOMES TO BE PLACED APPROPRIATELY.
7. THE MANHOLES TO HAVE SEDIMENT COLLECTION SUMP BELOW INVERT LEVEL BY REQUEST FROM THE COUNCIL.

LEGEND:
- FUTURE LOTS
- ABUTTALS
- STORMWATER PIPE
- STORMWATER MANHOLE
- OVERLAND FLOW ARROWS
- EXISTING CONTOURS: 0.25m
- DESIGN CONTOURS: 0.25m
- EXISTING GROUND
- DESIGN SURFACE

Rev	DESCRIPTION	DRN	CKD	APP	DATE
1	ISSUED FOR RFI	TM		PH	03/04/25
2	RFI Response	TM	HB	RH	16/04/25
3	RFI Response	TM	HB		24/04/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

TITLE
STORMWATER STAGE 24 WEST SWALE UNDERDRAIN

PREPARED FOR
Greenhill / Chedworth Properties Limited
AREAS L,U & K

ORIGINAL SCALES @ A3: H 1:1000 V 1:200
DO NOT SCALE DIMENSIONS
STATUS: FOR APPROVAL
DRAWING NO: 30410-01-S24-SW11
REVISION: 3

Lot connections require rodding eye as per D5.4

Hamilton City Council
Development Engineering Unit

ACCEPTED ENGINEERING PLANS

Assessed for Related Resource Consent Conditions Only

Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed

Refer to RFI tracker for further design and construction amendments

NOTES:

1. ALL WASTEWATER MANHOLES ARE 1050Ø UNLESS NOTED OTHERWISE.
2. ALL WASTEWATER MAINS ARE 150Ø OPVC RRJ SN16 UNLESS NOTED OTHERWISE.
3. ALL WASTEWATER LOT CONNECTIONS ARE 100Ø OPVC RRJ SN16 UNLESS NOTED OTHERWISE.
4. LATERAL CONNECTIONS BRANCHING OFF 150Ø ARE 100Ø.
5. ALL WORKS TO BE CARRIED OUT AND ALL MATERIALS TO COMPLY WITH THE RITS
6. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL OF THE FIRST PIPE LAID WHERE PIPES CROSS OVER BEFORE LAYING THE SECOND PIPELINE AND CONFIRM THAT SUFFICIENT CLEARANCE IS AVAILABLE.
7. REFER TO DRAWINGS 30410-01-S24-WW2-WW4 FOR WASTEWATER LONGSECTIONS AND 30410-01-S24-WW5 FOR STANDARD DETAILS.
8. DEPTH OF A WASTEWATER CONNECTION TO BE MINIMUM OF 0.9M AND MAXIMUM OF 1.5M (1.2M TYPICAL) UNLESS OTHERWISE INDICATED OR TO SERVICE LOT.

LEGEND:

- 39.2 FINISHED SECTION LEVEL
- FUTURE LOTS
- ABUTTALS
- STAGE PERIMETER
- WASTEWATER PIPE
- EXISTING WASTEWATER PIPE
- WASTEWATER MANHOLE
- WASTEWATER CONNECTION
- FLOW ARROWS

RADIATA STREET

RALEIGH AVENUE

WEBB DRIVE

ALL LOTS FINISHED LEVEL MIN. RL 39.20m

ALL LOTS FINISHED LEVEL MIN. RL 39.20m

WWMH 3-1 · WWMH 3-2 · WWMH 3-2-2 · WWMH 3-3 · WWMH 3-2-1 · WWMH 4-5-1 · WWMH 4-5-2 · WWMH 4-5-3 · WWMH 4-5-4 · WWMH 4-5-3-1 · WWMH 4-5 · WWMH 4-1 · WWMH 4-2 · WWMH 4-3 · WWMH 4-4 · WWMH 4-3-1 · WWMH W3-2 · WWMH W3-3 · WWMH W3-4

Extg WWN26019 · Extg WWN26020 · Extg WWN26021 · Extg WWN26022

1050Ø REINFORCED CONCRETE · 150Ø PVC

SHRIMPTON & LIPINSKI
LAND SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

TITLE

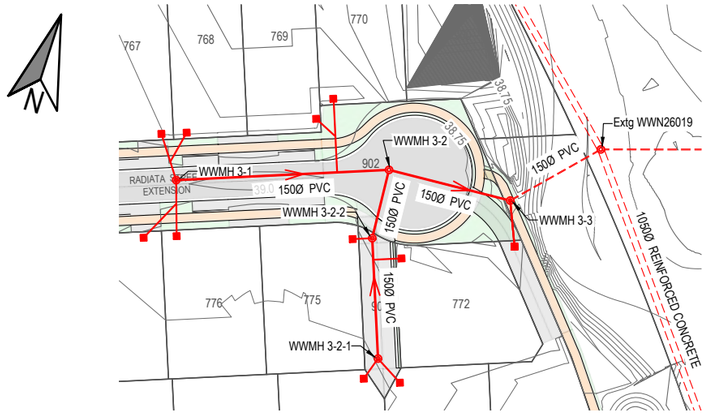
WASTEWATER LAYOUT PLAN STAGE 24

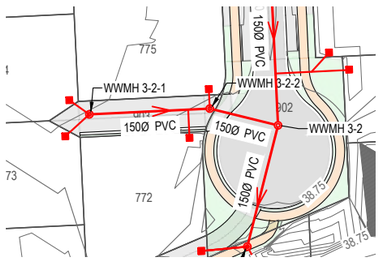
REV	DESCRIPTION	DRN	CKD	APP	DATE
0	PRELIMINARY	NW			13/8/24
1	ISSUED FOR EPA	NW	HB	PH	16/8/24
2	ISSUED FOR RFI	TM	RH	PH	23/10/24
3	ISSUED FOR RFI	TM		PH	07/04/25
4	RFI RESPONSE	NW	HB		16/04/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451
ORIGINAL SCALES @ A3: 1:1000 (DO NOT SCALE DIMENSIONS)
STATUS: FOR APPROVAL
DRAWING NO: 30410-01-S24-WW1
REVISION: 4

R:\Project Files\30410-01-1901 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 17/04/2025





LEGEND:

- FUTURE LOTS
- ABUTTALS
- STAGE PERIMETER
- WASTEWATER PIPE
- EXISTING WASTEWATER
- WASTEWATER MANHOLE
- WASTEWATER CONNECTION
- FLOW ARROWS

Hamilton City Council
Development Engineering Unit

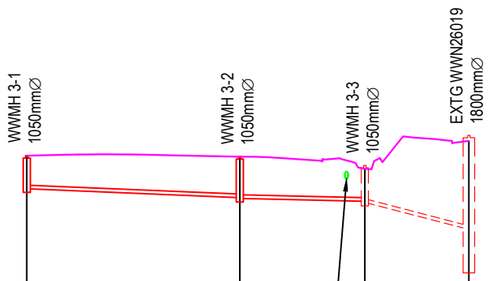
ACCEPTED ENGINEERING PLANS

Assessed for Related Resource Consent Conditions Only

Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed

Refer to RFI tracker for further design and construction amendments



DATUM ELEV: 28.00

PIPE NUMBER		WW 3-1		WW 3-2		WW 3-3
LID LEVEL	38.97	38.92		38.56		39.81
INVERT ELEVATIONS		37.59	37.22	37.19	37.07	37.02	35.90
DEPTH	1.38		1.73		1.54		5.57
DISTANCE		35.42		20.80		17.30
SIZE & GRADIENT		150Ø @ 1.04%		150Ø @ 0.58%		150Ø @ 6.50%

WASTEWATER NETWORK LINE- 3 LONGSECTION

DATUM ELEV: 32.00

PIPE NUMBER		WW 3-2-1		WW 3-2-2
LID LEVEL	39.23	38.95		38.92
INVERT ELEVATIONS		37.65	37.41	37.38	37.26
DEPTH	1.58		1.57		1.73
DISTANCE		20.05		11.69
SIZE & GRADE		150Ø @ 1.2%		150Ø @ 1.0%

WASTEWATER NETWORK LINE- 3-2 LONGSECTION

SHRIMPTON & LIPINSKI
LAND DEVELOPMENT & DESIGN SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

NOTES:

1. ALL WASTEWATER MANHOLES ARE 1050Ø UNLESS NOTED OTHERWISE.
2. ALL WASTEWATER MAINS ARE 150Ø OPVC RRJ SN16 UNLESS NOTED OTHERWISE.
3. ALL WASTEWATER LOT CONNECTIONS ARE 100Ø OPVC RRJ SN16 UNLESS NOTED OTHERWISE.
4. LATERAL CONNECTIONS BRANCHING OFF 150Ø ARE 100Ø.
5. ALL WORKS TO BE CARRIED OUT AND ALL MATERIALS TO COMPLY WITH THE RITS
6. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL OF THE FIRST PIPE LAID WHERE PIPES CROSS OVER BEFORE LAYING THE SECOND PIPELINE AND CONFIRM THAT SUFFICIENT CLEARANCE IS AVAILABLE.
7. REFER TO DRAWING 30410-01-S24-WW5 FOR STANDARD DETAILS.
8. DEPTH OF A WASTEWATER CONNECTION TO BE MINIMUM OF 0.9M AND MAXIMUM OF 1.5M (1.2M TYPICAL) UNLESS OTHERWISE INDICATED OR TO SERVICE LOT.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	PRELIMINARY	NW			14/8/24
1	ISSUED FOR EPA	NW	HB	PH	16/8/24
2	ISSUED FOR RFI	TM	RH	PH	23/10/24
3	ISSUED FOR RFI	TM		PH	07/04/25
4	RFI RESPONSE	NW	HB		16/04/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

TITLE

WASTEWATER LINES 3 & 3-2 LONGSECTION

PREPARED FOR

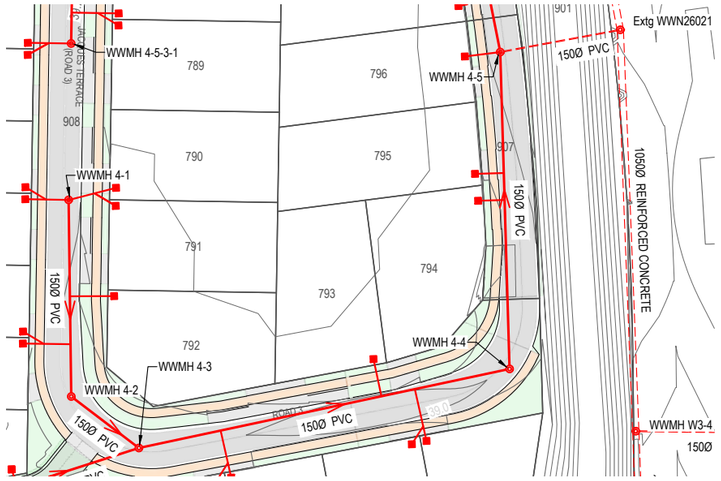
Chedworth Properties Limited

AREAS L,U & K

ORIGINAL SCALES @ A3: H 1:1000 V 1:250 (DO NOT SCALE DIMENSIONS)
STATUS: FOR APPROVAL

DRAWING NO: 30410-01-S24-WW2
REVISION: 4

R:\Project Files\30410-01-19\01 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 16/04/2025



Hamilton City Council
Development Engineering Unit

ACCEPTED ENGINEERING PLANS

Assessed for Related Resource Consent Conditions Only

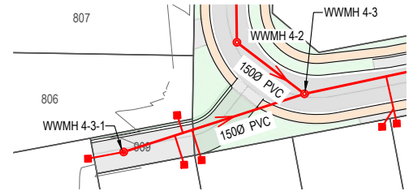
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

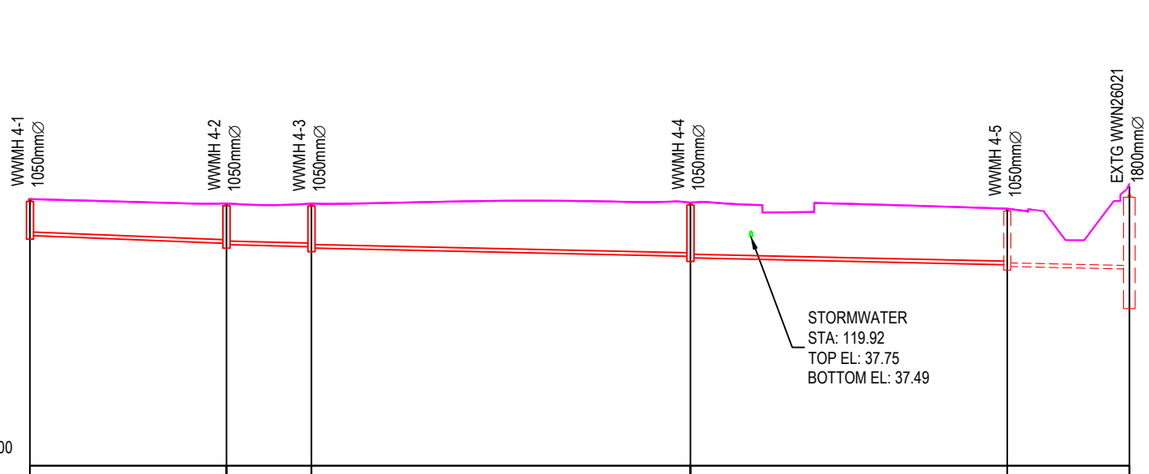
Subject to all notes and conditions affixed

Refer to RFI tracker for further design and construction amendments

LEGEND:

- FUTURE LOTS
- ABUTTALS
- STAGE PERIMETER
- WASTEWATER PIPE
- EXISTING WASTEWATER
- WASTEWATER MANHOLE
- WASTEWATER CONNECTION
- FLOW ARROWS

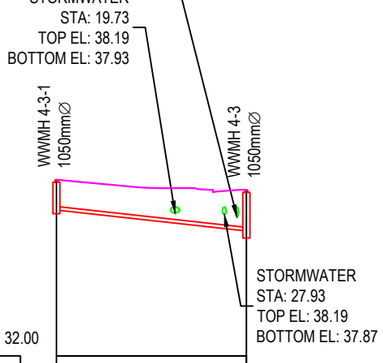




DATUM ELEV: 28.00

PIPE NUMBER		WW 4-1		WW 4-2		WW 4-3		WW 4-4		WW 4-5
LID LEVEL	39.08		38.90		38.89		38.94		38.68	39.26
INVERT ELEVATIONS		37.57	37.24	37.19	37.10	37.05	36.70	36.64	36.35	36.28	36.17
DEPTH	1.52		1.71		1.85		2.30		2.40		4.58
DISTANCE		32.68		14.13		63.03		52.69		20.30	
SIZE & GRADIENT		150Ø @ 1.00%		150Ø @ 0.64%		150Ø @ 0.55%		150Ø @ 0.55%		150Ø @ 0.55%	

WASTEWATER NETWORK LINE- 4 LONGSECTION



DATUM ELEV: 32.00

PIPE NUMBER		WW 4-3-1	
LID LEVEL	39.32		38.89
INVERT ELEVATIONS		38.06	37.19
DEPTH	1.26		1.85
DISTANCE		31.59	
SIZE & GRADE		150Ø @ 2.8%	

WASTEWATER NETWORK - LINE 4-3 LONGSECTION

SHRIMPTON & LIPINSKI
LAND DEVELOPMENT & DESIGN SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

NOTES:

1. ALL WASTEWATER MANHOLES ARE 1050Ø UNLESS NOTED OTHERWISE.
2. ALL WASTEWATER MAINS ARE 150Ø OPVC RRJ SN16 UNLESS NOTED OTHERWISE.
3. ALL WASTEWATER LOT CONNECTIONS ARE 100Ø OPVC RRJ SN16 UNLESS NOTED OTHERWISE.
4. LATERAL CONNECTIONS BRANCHING OFF 150Ø ARE 100Ø.
5. ALL WORKS TO BE CARRIED OUT AND ALL MATERIALS TO COMPLY WITH THE RITS
6. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL OF THE FIRST PIPE LAID WHERE PIPES CROSS OVER BEFORE LAYING THE SECOND PIPELINE AND CONFIRM THAT SUFFICIENT CLEARANCE IS AVAILABLE.
7. REFER TO DRAWING 30410-01-S24-WW5 FOR STANDARD DETAILS.
8. DEPTH OF A WASTEWATER CONNECTION TO BE MINIMUM OF 0.9M AND MAXIMUM OF 1.5M (1.2M TYPICAL) UNLESS OTHERWISE INDICATED OR TO SERVICE LOT.

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	PRELIMINARY	NW			14/8/24
1	ISSUED FOR EPA	NW	HB	PH	16/8/24
2	ISSUED FOR RFI	TM	RH	PH	23/10/24
3	ISSUED FOR RFI	TM		PH	07/04/25
4	RFI RESPONSE	NW	HB		16/04/25

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

TITLE

WASTEWATER LINES 4 & 4-3 LONGSECTION

PREPARED FOR

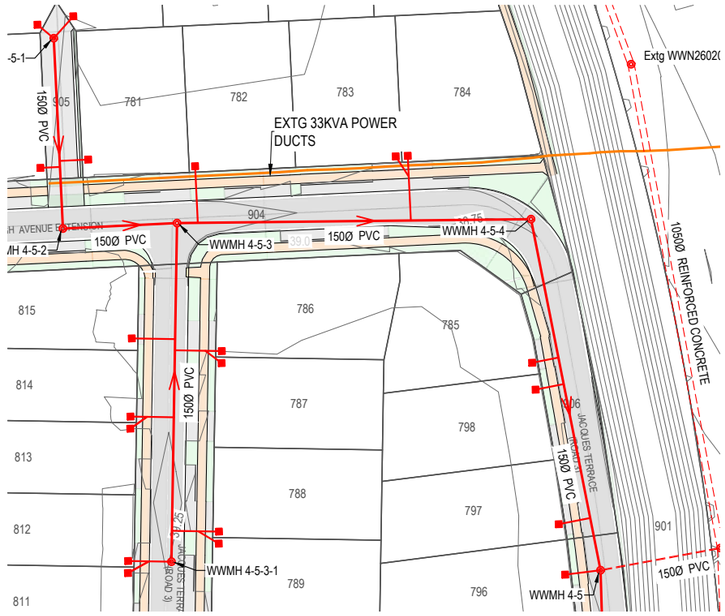
Chedworth Properties Limited

AREAS L,U & K

ORIGINAL SCALES @ A3: H 1:1000 V 1:250 (DO NOT SCALE DIMENSIONS)
STATUS: FOR APPROVAL

DRAWING NO: 30410-01-S24-WW3
REVISION: 4

R:\Project Files\30410-01-1901 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 16/04/2025



Hamilton City Council
Development Engineering Unit

ACCEPTED ENGINEERING PLANS

Assessed for Related Resource Consent Conditions Only

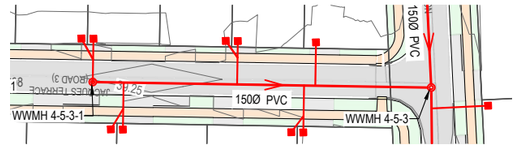
Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

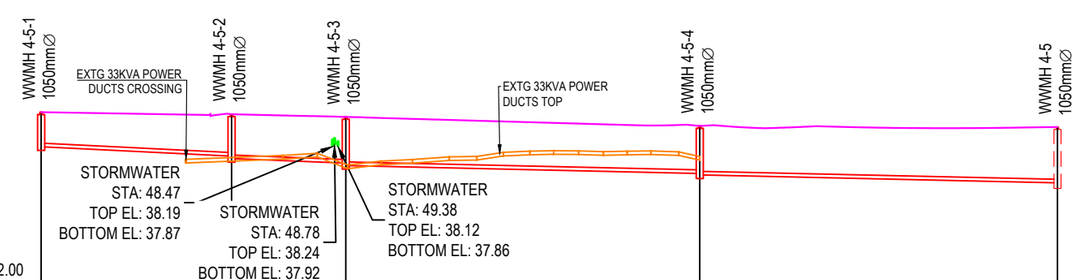
Subject to all notes and conditions affixed

Refer to RFI tracker for further design and construction amendments

LEGEND:

- FUTURE LOTS
- ABUTTALS
- STAGE PERIMETER
- WASTEWATER PIPE
- EXISTING WASTEWATER
- WASTEWATER MANHOLE
- WASTEWATER CONNECTION
- FLOW ARROWS

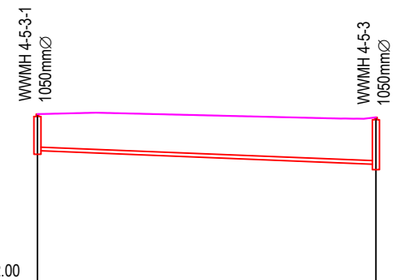




DATUM ELEV: 32.00

PIPE NUMBER		WW 4-5-1	WW 4-5-2	WW 4-5-3	WW 4-5-4
LID LEVEL	39.30	39.21	39.10	38.73	38.68
INVERT ELEVATIONS		37.86 / 37.47	37.37 / 37.18	37.08 / 36.75	36.69 / 36.36
DEPTH	1.44	1.84	2.02	2.04	2.40
DISTANCE		31.67	18.99	58.86	59.49
SIZE & GRADIENT		150Ø @ 1.23%	150Ø @ 1.00%	150Ø @ 0.56%	150Ø @ 0.55%

WASTEWATER NETWORK LINE- 4-5 LONGSECTION



DATUM ELEV: 32.00

PIPE NUMBER		WW 4-5-3-1	
LID LEVEL	39.24		39.10
INVERT ELEVATIONS		37.72	37.15
DEPTH	1.52		2.02
DISTANCE		56.29	
SIZE & GRADE		150Ø @ 1.0%	

WASTEWATER NETWORK LINE- 4-5-3 LONGSECTION

NOTES:

1. ALL WASTEWATER MANHOLES ARE 1050Ø UNLESS NOTED OTHERWISE.
2. ALL WASTEWATER MAINS ARE 150Ø OPVC RRJ SN16 UNLESS NOTED OTHERWISE.
3. ALL WASTEWATER LOT CONNECTIONS ARE 100Ø OPVC RRJ SN16 UNLESS NOTED OTHERWISE.
4. LATERAL CONNECTIONS BRANCHING OFF 150Ø ARE 100Ø.
5. ALL WORKS TO BE CARRIED OUT AND ALL MATERIALS TO COMPLY WITH THE RITS
6. THE CONTRACTOR MUST CHECK THE RELEVANT LEVEL OF THE FIRST PIPE LAID WHERE PIPES CROSS OVER BEFORE LAYING THE SECOND PIPELINE AND CONFIRM THAT SUFFICIENT CLEARANCE IS AVAILABLE.
7. REFER TO DRAWING 30410-01-S24-WW5 FOR STANDARD DETAILS.
8. DEPTH OF A WASTEWATER CONNECTION TO BE MINIMUM OF 0.9M AND MAXIMUM OF 1.5M (1.2M TYPICAL) UNLESS OTHERWISE INDICATED OR TO SERVICE LOT.

SHRIMPTON & LIPINSKI
LAND DEVELOPMENT & DESIGN SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	PRELIMINARY	NW			14/8/24
1	ISSUED FOR EPA	NW	HB	PH	16/8/24
2	ISSUED FOR RFI	TM	RH	PH	23/10/24
3	ISSUED FOR RFI	TM		PH	07/04/25
4	RFI RESPONSE	NW	HB	16/04/25	

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

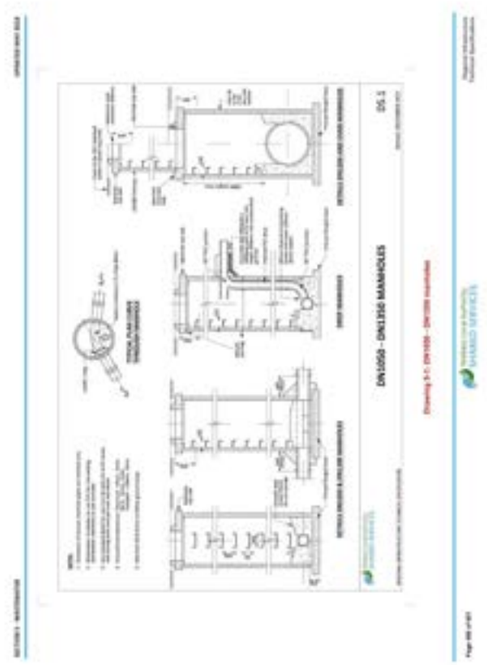
TITLE

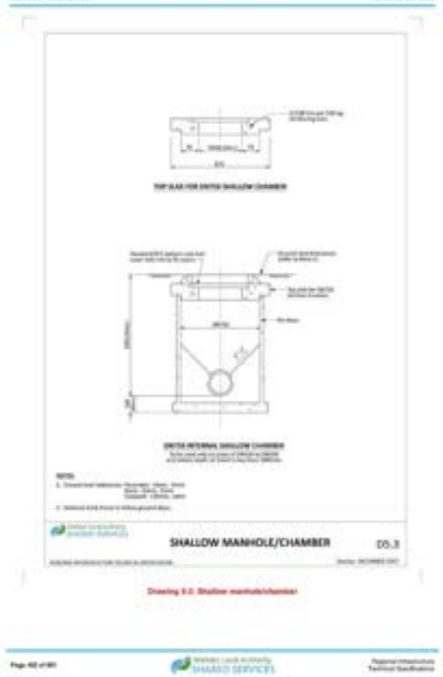
WASTEWATER LINES 4-5 & 4-5-3 LONGSECTION

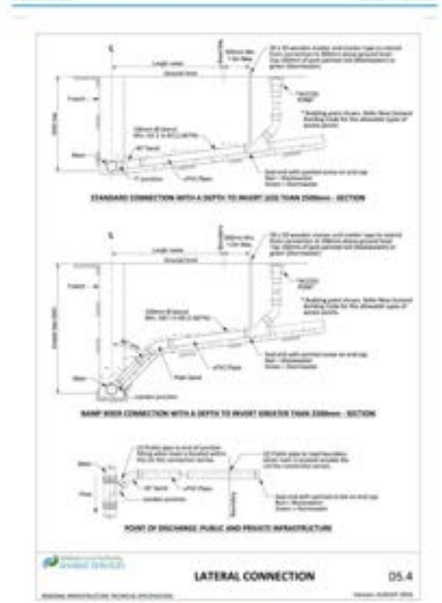
PREPARED FOR

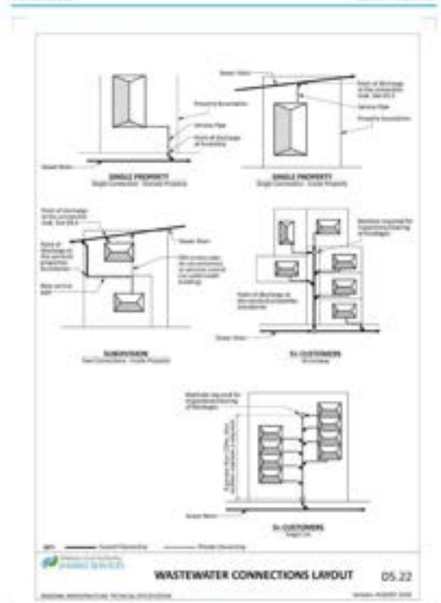
AREAS L,U & K

ORIGINAL SCALES @ A3: H 1:1000 V 1:250 (DO NOT SCALE DIMENSIONS)
STATUS: FOR APPROVAL
DRAWING NO: 30410-01-S24-WW4
REVISION: 4









Hamilton City Council
Development Engineering Unit

ACCEPTED ENGINEERING PLANS

Assessed for Related Resource Consent Conditions Only

Library Reference: 011.2019.00007140.025
Address: Greenhill Stage 24
Date: 7/05/2025

Subject to all notes and conditions affixed

Refer to RFI tracker for further design and construction amendments

SHRIMPTON & LIPINSKI
LAND DEVELOPMENT & DESIGN SPECIALISTS
Ph. 07 577 6069
Email: info@sltga.co.nz
P.O. Box 231, Tauranga 3140
www.sltga.co.nz

Rev	DESCRIPTION	DRN	CKD	APP	DATE
0	PRELIMINARY	NW			14/8/24
1	ISSUED FOR EPA	NW	HB	PH	16/8/24

	NAME	DATE		NAME	DATE
SURVEYED			DESIGNED		

COORDINATE SYSTEM: NZGD 2000 - MT EDEN
ORIGIN OF COORDINATES: BPV DPS 17824
HEIGHT DATUM: MOTURIKI DATUM 1953
ORIGIN OF HEIGHT: SS507 SO 42451

TITLE

STANDARD DETAILS WASTEWATER

PREPARED FOR

Greenhill / Chedworth Properties Limited

AREAS L,U & K

ORIGINAL SCALES @ A3	STATUS
NOT TO SCALE DO NOT SCALE DIMENSIONS	FOR TENDER

DRAWING NO	REVISION
30410-01-S24-WW5	1

R:\Project Files\30410-01-19\01 Drawing Presentation Files\19-30410-01 - Stage 24 Engineering Design Plan Set.dwg - Plotted: 16/04/2025

Number	RFI	Recommended Resolution	S&L Comment	Comment	HCC COMMENTS 11/04/2025	S&L Comment.	HCC Comments 24/04/2025	S&L comments	HCC Comments 05/05/2025	HCC Comments 07/05/20252	S&L comments 08/05/2025
Table 1 – General observation/recommendation s	*The overall level of detail in the documentation isn't considered to be of sufficient detail to support an EPA design.*										
T1.1	Detailed calculations supporting the design are incomplete. Overall, there seems to be significant reliance on conceptual work undertaken by Beca to support the CDP. It is expected that all design calculations would need to be revised to support an EPA design.	Resolution of specific items are included in the tables below. However, it considered that the application should be supported by a more comprehensive stormwater design document – ideally a Water impact Assessment (WIA) prepared for this stage of development.	The Beca reports utilised for this design: - Beca Infrastructure report 2016 - Beca WIA 2016 - Beca SW Design report, 2016 With reference to the WIA, the existing document creates the design philosophy of the development and extends its forecast out to 2028. As with any WIA it is an assessment of the capability for the local infrastructure to accommodate the development, this is still the case. The detailed design supersedes and improves upon the WIA.	Complete.	An overarching stormwater report or WIA is still required. The Beca report was prepared to support resource consent applications and does not provide appropriate detail for Detailed engineering design. The design for Area U (Stage 24) and surrounding stages have also been altered significantly from the Beca report requiring further assessment and analysis to ensure the stormwater management system meets the objectives of the Beca report and do not have adverse effects on the constructed stormwater system or downstream receiving environment. THe report can however be prepared following the EPA approval process. HCC can provide further guidance on this item as required.	As agreed this will be actioned at a later stage	Noted			Closed
T1.2	No O&M plan appears to have been submitted with the EPA package – typically this would be expected.	Please update existing O&M plan to be submitted for review by HCC.	Will be provided. *Complete.*	Complete. Plan provided.	O&M Manual is very generic. HCC to liaise with Mike Safey during construction confirm requirements for specific O&M plan that meets city waters requirements	We await the requirements during construction that meet city waters requirements.	Noted				Closed for EPA We await the requirements during construction that meet city waters requirements.
T1.3	There is very limited detail on how geotechnical & hydrogeological potential issues have been identified incorporated into the design (if necessary). Generally would expect groundwater levels, slope stability, peat management etc to be addressed.	HCC to identify whether sufficient detail has been provided under other applications otherwise supporting geotechnical/hydrogeological design information to be supplied.	HCC to assess.	HCC to confirm.	S&L to provide supporting geotechnical information for Stage 24. Of particular interest is 1. Groundwater levels relative to design levels. 2. Nature of Engineered fill and effect on the on-lot retention measures. 3. Assessment of the slope stability of the various batters around the perimeter of Stage 24.	All fill has bee certified by Core50	Not accepted. Please provide additional response specific to HCC query.	A detailed response, including detail from Core 50 is imminent.	Noted		Closed for EPA. A detailed response, including detail from Core 50 will be provided during construction.
Table 2 – Stages 24 - Area LUK - Stormwater Calculations Check											
T2.1	There doesn't appear to a catchment plan corresponding to the supplied calculation sheet.	SW catchment plan to be included to support calculations.	A catchment drawing will be created.	Complete. Refer drawing SWC1 & SWC2.	Closed						Closed by HCC on 11/04/2025
T2.2	It is not clear what climate scenario is being used for design rainfall inputs. It is noted that the WQ calculation sheet indicates RCP6.0 intensities for the 2031-51 planning horizon have been adopted.	All stormwater calculations should be updated to be based an RCP8.5 climate change scenario (2100 – 2120 planning horizon).	Design completed mid 2024, reference to NIWA. RCP6.0 used. It is noted that the in-depth SW modelling that has been undertaken could be assessed as a sensitivity analysis.	Complete. Updated to RCP 6.0 2100	Closed						Closed by HCC on 11/04/2025
T2.3	Calculations should cover all conveyance elements of the design – pipes, swales, ollps etc.	Update calculations to include all conveyance elements of the design.	Refer T5.18 - Review done with majority of calculations provided, any further updates required will be provided.	Complete. Updated calcualtion provided.							Closed, covered by actions below.
T2.4	Calculations don't include hydraulic grade line information.	Update SW calculations to include hydraulic grad line calculations & associated plots for each pipeline.	In progress, will be added to drawings.	Complete. HGL information provided on drawings.	The new western SW line appears to be significantly undersized (i.e. Q =288% of Qcap). We acknowledge that the higher level 300mm line provides overflow to the north however the combined system should still be designed to convey the 10yr event (without significant surcharge). Please review pipe calculation and update long sections with HGL information.	SW design updated to 300mm dia with 10 year capacity	Refer email Item 5. Detailed calculations are required.	Further calculations issued to HCC	Accepted		Closed by HCC on 05/05/2025
T2.5	There doesn't appear to be consideration of potential impacts of tailwater in the stormwater calculations – all pipe runs in Stage 24 discharge to Swale 6 which has a peak level of 37.84 mRL in the 10y ARI event.	Update calculations to include consideration of correct tailwater levels.	Flood modelling has considered the worst case scenarios for flooding within the development. Worst case, no surcharge will impact any lot.	Tailwater depths have been included in design.							Closed, covered by actions below.
T2.6	No evidence of assessment of flow/ponding depths in roading corridors to demonstrate compliance with RITS.	Update SW calculations to demonstrate consistency with RITS requirements for secondary flow depths in roadways.	Drawing was created and provided to HCC separately, will be included in EPA submission.	Complete. Refer drawing SW8 & SW8A.	SW8 and SW8A show flooding extents in the culvert block event with flood levels at RL39.0m. This information is useful however does not demonstrate consistency with RITS requirements for secondary flow depths in roadways as per original RFI item. Secondary flow on roads shall be in accordance with Section 3 : Transportation (Clause 3.3.14.10). The design must not result in ponding greater than 150mm deep and a velocity greater than 1m/s. Further assessment is required to demonstrate the ponding and flow depths within the road corridors for a local 50 or 100 year storm event. Plans are required to show areas in the road where flood depths exceed the 150mm limit. Of particular interest is the sag point in Road 3 fronting Lots 802-807.	Drawing SW8 has been updated to show flood depths in the road between 0.15 and 0.2m based on a flood level of RL39.0m. We request a relaxation as 0.2m flood depths should not restrict vehicular movement.	Refer email Item 7. Additional assessment required	Further detailing of flood depths and calculations provided, we are asking for a relaxation. There will be no car parking in this vicinity, this ponding situation only occurs during a 100 year event and with all catch pits are 100% blocked. See drawing SW 3A for ponding depths.	Refer email for additional queries. HCC are not convinced the design has been optimised to keep the ponding depth to a minimum.		Closed. Latest design submitted has been agreed. Deepest flooding is 0.2m at the kerb, for a localised position with a the greatest width of 0.9m. This has been accepted during a discussion with HCC.
T2.7					To help with steep batter grades, is there opportunity to lift the Lot 900 OLFP to tie in with the Radiata Street cul-de-sac levels. The roading plans also show a footpath link to the Webb Drive Footpath - how is this to be formed through the OLFP channel?	Swale has been lifted 400mm to RL 38.70 and slope batters maximum of 1:5.	Accepted				Closed by HCC on 24/04/2025
Table 3 – Stage 24 - Stormwater Treatment Design(1.0)-1.0-SW treatm											
T3.1	The supplied calculations only appear to cover a small section of the Stage 24 area – Lots 799 to 805. No calculations are supplied for areas draining to Swale 6C.	Update WQ calculations to include calculations for Swale 6C.	Review completed, assessment done previously. Will provide calculations. These have been based on average retention times.	Calcualtions revised.							Closed, covered by actions below.
T3.2	Supplied WQ calculations don't take into account flow contributions from the western swale – this will influence flow depths for WQ storm calculations.	Update WQ calculations for the shallow swale to account for flows from western swale. Note: Current configuration of western swale is generally not supported.	Flow from the western swale is only to allow for previous, existing developments that were permitted to discharge overland flow onto CPL property. The catchment of this swale is negligible and from grassed areas only.	Complete.	RFI item no longer relevant. Southern reserve 'swale' is to be removed and replaced with a grassed overland flow path.						Closed by HCC on 11/04/2025
T3.3	Design rainfalls quoted in calculations sheets indicate RCP6.0 intensities for the 2031-51 planning horizon have been adopted.	All stormwater calculations should be updated to be based on the RCP8.5 climate change scenario (2100 – 2120 planning horizon).Refer to RITS version 2b available through the CoLab website for additional guidance.	S24 design started early 2024, submitted August 2024, RITS 2B not yet adopted. Suggest utilising the RCP6.0 criteria and use the flood modelling as a sensitivity analysis.	Complete. Updated to RCP 6.0 2100	Noted.						Closed by HCC on 11/04/2025
T3.4	Maximum batter slopes indicated on conceptual cross section in WQ calculation sheets are 1:2. This exceeds RITS specifications.	Update swale design of shallow swale to be consistent with RITS requirements for side slopes – i.e. 1:3 for planted and 1:5 for mowed batters.	Drawing to be updated. Side slopes extended to 1:3.5 - this is the best option considering the adjacent pipelines and flow requirements.	Complete. Batters remain at 1:3 with planting.	Further design required to confirm treatment of batter slopes. Preference is for OLFP's to be grassed with maximum batter slopes of 1V:5H. The design of Swales also needs to ensure access is provided for safe and practical maintenance - this is particularly relevant for the Lot 322 swale. Refer further comments below on channel cross sections.	Grassed swales will have maximum batter slopes of 1V:5H.	Accepted				Closed by HCC on 24/04/2025
					LANDSCAPING - Updated planting plans are required based on the revised design	Landscaping plans immanent.	Noted. Landscaping plans to be provided	Landscaping design will follow, and will be in keeping of the previous Green Hill Park designs.	Noted.		Closed for EPA. Landscaping that will we submitted will be reviewed to ensure no clashes with civil works.
T3.5	Longitudinal slope is given as 0.25% - which would require suitable underdrainage as per RITS.	Update design to include suitably designed under-drainage or provide additional supporting information as to how flat grades are being appropriately managed.	Drawing to be updated.	HCC would like to see this swale planted with a pipeline along the northern edge to collect the adjacent Lots. This pipeline is to flow west and discharge at the western end of the swale. ***New Action: Swale to be planted with an additional SW line to intercept property connections.*** Complete. Flow now to Road 3 reticulation.	Underdrainage has been proposed for the southern OLFP, and the northern OLFP above the 825mm pipe. Area L south swale needs underdrainage to ensure this area does not become a bog in the winter.	Swale has been constructed as agreed on site with S&L engineers and HCC.	Further discussion required. It is essential that the Area L south swale is able to be maintained/mown throughout the winter.	Batter slopes have been revised and access is available.	Recommend this swale/OLFP is provided with underdrainage.		Closed for EPA, providing the following comment is adhered too. The southern shallow swale and radiata as agreed and indicated on the drawings with include underdrainage, also the western swale will also have underdrainage installed.
Table 4 – OLFP Report once flood model response has been provided it will be expected that the report will need updating to reflect											
T4.1	The report title refer to overland flow management, but actually covers multiple aspects of stormwater management.	It is recommended that this report is expanded to cover all reporting requirements of a WIA.	Refer T4.1 - Design work to the WIA provided by Beca. This document should be read in conjunction.	Complete. Existing WIA is suitable.	To be address as part of furtue reporting. HCC to confirm requirements	Noted.					Closed for EPA. To be address as part of furtue reporting. HCC to confirm requirements.
T4.2	The "Stormwater Overland Flow Management Report" provides a number of alternative OLFP's to convey flood flows in the event the Webb Drive culvert became blocked, or capacity exceeded. The recommendations of the report have not however been incorporated into the engineering plans. Missing details include: - Point 2 – details of the OLFP running from the north end of the development to the eastern end of Swale 2 - Point 4 – details of the OLFP extending across Lot 900 - Levels of the northern reserve area to facilitate recommended attenuation.	Update the overall design to be consistent with measures outlined in the OLFP report.	The "Stormwater Overland Flow Management report" was penned in response to the flooding requirements, this can be read in conjunction - drawings will be updated. - Drawing will be provided.. - Drawing will be provided. - As previously discussed, levels of the northern reserve can be managed to suit as per HCC's desired outcome for the land use.	Complete. Please see EPA report section 5.7. As previously discussed, levels of the northern reserve can be managed to suit as per HCC's desired outcome for the land use.	Updated designs include details of the OLFP's recommended in the S&L report. Recommend S&L report is updated to reflect amended EPA design. Further comment on the detailed design of the OLFP and conveyance channels is provided below.	Reports to be provided shotly after EPA submission.	Noted				Closed for EPA. Reports were provided on 29/04/2025
T4.3	The OLFP report identifies multiple on-lot measures that could be applied – it would be expected that	Update reporting to identify preferred on-lot measures & identify what post-construction testing will be undertaken to confirm suitability.		Complete. Please refer to Appendix D of the WIA.							Closed for EPA. We will comply with Appendix D of the WIA. Consent notice 54 from RC0.11.2019.7140.016 will be registered at the time of 223/224 against all relevant lots. This consent notice confirms that any site shall include stormwater management measures indetified in the WIA report.
Table 5 - 24-30410-24 - EPA - GHP Stage 24 - Stormwater Design - 18.02.202	*In general, symbology, labelling etc should be improved.*										
T5.1	Design contour plan should be included – currently very difficult to understand if the SW network is designed correctly – for example, the stormwater line K. It is difficult to determine whether pits on this line are located in a sag or not.	Provide a design contour plan in the drawing set which can clearly be interpreted.	All catchpits correctly positioned. Drawing to be provided.	Complete. Refer drawing SW1.	There appear to be a number of errors in the design contours (i.e. stockpile across Lots 781-784? Irregular contours across Lots 806-815, and 777-779). Can key roading lines also be added to the SW plans (kerb and channel lines, footpaths etc) to provide context. As per RITS, confirm manholes are typically located 2m out form the k&C	Key roading lines added including re-aligned pedestrian crossing in OLFP in lot 900. We have created dwg S2 wich includes 3 waters and roading.	Noted. Additional comments in email.	This footpath has been moved and is accessibility compliant.	Accepted. Post construction review will be undertaken to confirm footpath link provides a sensible connection to Webb Drive. May require a second more direct link with stairs.		Closed for EPA. Post construction review will be undertaken to confirm footpath link provides a sensible connection to Webb Drive. To be constructed to accessibility standards, a second more direct link with stairs may be required.
T5.2	Lot numbers and road names differ between the roading and SW plan sets.	Update plans to be consistent.	Drawings to be updated.	Complete.	Awaiting updated roading plans?	Roading Plans included in latest submission	HCC review still pending				Closed for EPA No further comments from HCC after their comments on 24/04/2025.

T5.3	Overall layout plan should show all SW/drainage works being proposed – currently does not anything to the north of Radiata St extension.	Update layout plan to show al works being proposed, or provide multiple layout plans.	Drawing to be updated.	Complete. Refer drawings SW1 & SW1A.	Accepted - refer further RFI below on Radiata Street drainage.					Closed by HCC on 11/04/2025.
T5.4	The SW layout plan (SW24-SW1) indicates a significant number of kerb connections. Private connections to Swale 6C that run across the roading corridor are also a concern.	The overall design of the SW reticulation network needs to be reviewed/reconsidered. It is likely some kind of detailed workshop with HCC would be useful to clarify expectations.	Substantial discussions have been held with HCC already since August last year including the previous RFI requests. This request is very general and, we believe is covered by other requests from this RFI and previous RFIs.	HCC would now like to reduce the number of kerb connections to a minimum and doesn't want a catchpit-to-catchpit connection. To achieve this HCC is happy to accept pipe gradients at less than RITS, 0.25% was discussed. This exception can be applied to a pipe length to achieve a reduction in kerb connections. ***New action: Design to incorporate gradients less than RITS requirement.*** This section of Rd3 is to have a connector line to pick up property discharges, with proposed discharge at SWOUT6. ***New Action: New SW line to intercept property connections*** Complete. Refer drawings SW1 & SW1A.	Kerb Connections removed which is supported. We understnad further design work is underway by S&L to optimise the drainage layouts.	Please see the updated drainage layout on drawing 30410-01-S24-SW1	Refer email for additional comments on revised drainage layout.	Email comments responded to, in accordance with HCC requirements.	Noted. Refer additional comments in email	Closed for EPA. Radita footpath shown on roading set and will be constructed. Post construction review will be undertaken to confirm footpath link provides a sensible connection to Webb Drive. To be constructed to accessbility standards, a second more direct link with stairs may be required.
T5.5	There are multiple outlets to each treatment swale, including at locations very close to swale outlets. Locations should be rationalised & located such that maximum retention times are achieved.		Refer T3.1 - The site is very flat so SW is limited option regarding outlet location. While others may be available we believe the provided design is applicable.	Complete. Refer drawings SW1 & SW1A.	Latest design represents an improved layout. Line J8-J6 is however grading up.	Line J8-J6 has been corrected	Accepted			Closed by HCC on 24/04/2025.
T5.6	It is not clear whether catch-pit spacing adheres to RITS requirements. – distance between catch-pits on Jacques Tce appears high. 100 m ish vs 90m rits max		Refer T5.1 - Catchpit locations are suitable.	Complete. Refer drawings SW1 & SW1A.	Accepted					Closed by HCC on 11/04/2025.
T5.7	OLFP arrows indicate a road sag near the boundary of Lots 787 & 788, there are no catchpits in this location.		Arrow slightly incorrect. Drawing will be corrected.	Complete. Refer drawings SW1 & SW1A.	Accepted					Closed by HCC on 11/04/2025.
T5.8	Not clear why there is a different approach to SW network layout for the two ROWs – one has a central SW line with lateral connections, the other doesn't		Design is to manage SW capacity constraints.	Complete. Refer drawings SW1 & SW1A.	Accepted					Closed by HCC on 11/04/2025.
T5.9	The SW layout plan indicates that western part of Raleigh Ave is not captured by the reticulation network & discharged to Swale 6C – i.e. is not treated.		Correct. Due to the need to increase the elevation of the lot levels, the road needed to increase in grade. This means a small area of Raleigh Street (extension) will fall to the west.	Complete.	Refer further comments below					Closed for EPA. Covered by actions below.
T5.10	In some locations there are catch-pits connected to catch-pits, rather than laterally connected to a manhole. Location of Jacquis southern catchpits in vehicle crossing.		Correct. This has been previously discussed and agreed with HCC in the previous RFI processes. SW design is constrained by the achievable fall.	Complete. Refer drawings SW1 & SW1A.	Accepted			Noted, and responded to below:		Closed by HCC on 11/04/2025.
T5.11	KnC connections can only service a single lot for clearing purposes, inconsistency of lots being KnC vs mains ie lot 783 vs 782		All lots have been connected to a reticulation system where possible. All kerb connections will be made single connections.	Complete. Refer drawings SW1 & SW1A. Kerb connections removed due to lesser gradient.	Accepted					Closed by HCC on 11/04/2025.
T5.12	Doesn't appear to be any sections through Swale 6C presented – would expect both typical detail sections and detailed sections.	Add relevant details to drawing set.	Drawing will be provided.	Complete. Refer drawings SW1 & SW1A.	The WQ calculations show a base width of 3.1m, however cross section BB shows a reduced width. Calculations need to be updated to reflect the actual base width.	Drawing SWBB has been amended.	Accepted.			Closed by HCC on 24/04/2025.
T5.13	The drawings shows a swale (v-drain) running along the western boundary of the development (swale - west). - Supplied sections indicate up to 1:1 batter slopes which are up to 2m high. - Longitudinal slope of the drain is 0.6% & 0.3%. - No easement is indicated - The long-section shows the southern end of the swale has an invert at RL37.16m. This appears to be approx. 800mm lower than the 'shallow swale' extending along the southern boundary.	The western swale needs to be redesigned to be consistent with RITS requirements.	The purpose of the western swale is solely to capture stormwater runoff from adjacent land that discharges onto CPL property. The swale has no other catchment and is therefore a very low flow swale. This is the same scenario utilised (and accepted) on the southern boundary of Stage 17, which has been successful. Easements provided - please refer to 23-30410-S24-C1. Long section will be adjusted to indicate tie in to swale. To achieve the drainage of the adjacent properties and the flood levels for Stage 24, the swale will need a minor deviation from RITS.	HCC would like more of an 'urban design' review for this section. As part of #6 above, design a SW line along the western boundary flowing to the south with scruffy dome inlets along its length. Review if the swale needs to be planted and possibly have a 'sawtooth' flow. Assess the flood depth from swale 6C and ensure it cannot flow back up into the existing properties. ***New Action: New western SW line.*** Complete. Refer drawings SW1 & SW1A.	Please provide a long section of the updated western swale, and also cross sections at regular intervals. A long section of the 375mm pipe along the western boundary is also required. 11/04/2025 Following meeting today, it is expected thre will be some amendments to the pipe and drain design. The hydraulic capacity iof the western OLFP needs to be checked based on the contributing catchments, and conveyance of the 100 year ARI flows. Also, HCC would prefer a concrete base, say 1m wide, to the western OLFP within private lots to ensure weeds and long grass dont restrict capacity. This will also help to delineate the flow path and enable landowners to maintain the channel easily.	Long Section and sections provided.	Refer email for additional comments on revised drainage layout.	Long section, cross sections and calculations have been provided. The swale is within the lots, and due to site constraints we are proposing, a stepper gradient with no vegetation to maintain. Our methodology to achieve this is to shape the swale, cover with PVC then Coconut matting, please see the drawings R18, R19, R20 SWBB.	Requires further design and assessment. Refer comments in email.	Closed by HCC on 05/05/2025. Also see row T5.27 responses to HCC comments 05/05/2025.
T5.14	No details are provided of erosion protection at pipe outlets. Where erosion protection is shown on plans it is shown with straight edges or angled inwards – rather than flared outwards as appropriate.	Include erosion protection details and supporting calculations.	Pipe outlets are small and rip rap scour protection will be added to notes and can be discussed on site.	Complete. Drawings update to show scour protection.	Dimensions of rip rap pads should be added to the plans and reflect the calculations provided. There also appears to be errors in the calculations provided - length of the riprap pads are not correct with most pads needing to be longer. The riprap pad at SWOUT K2OF has not been designed or shown on the drawings.	Calculations have been corrected and dimensions and extent of riprap added to plans.	Noted. Review of riprap calculations pending			Closed by HCC. Review completed by HCC and informed it has been accepted.
T5.15	No outlet is shown at SWOUT K2 – based on the depth indicated on plan S24-SW3 it looks like this pipeline could be below ground level.	Design of outlet to be updated to interface at ground level with design surface.	SWOUT K2 is designed as a bubble up system. This emulates the existing condition, providing better management.	HCC would like to review if this outlet can be redirected via reticulation to the south and connect into the 1050 line to the south as a primary flow. This discharge was previously undesired. It was thought useful that the bubble up connection remain as a secondary flow. **New Action: New western SW line.** Complete. Refer drawings SW1 & SW1A. Due to a level decrease, this can now be a headwall outlet with a subsoil drain fall back to a MH.	Refer queries above regarding capacity of the 300mm line and requirement for rip rap pad details.	This outlet has now been redirected via reticulation to the south. Riprap pad details have been updated.	Refer email for additional comments on revised drainage layout.	Email comments responded to.	Noted	Closed by HCC on 05/05/2025.
T5.16	Drawing S24-SW6 shows a bund on Lot 767 (chainage +020) – no top width or side slopes indicated. It is unclear to what extent this would affect this lot.	Update design of this drain/swale section to not require bunding.	There is no bund, this is a berm into the swale.	Complete	Noted, however swale slopes of 1:2 are not appropriate.	See section D-D on drawing SWBB.	Accepted			Closed by HCC on 24/04/2025.
T5.17	OLFP above 825mm pipe shown on drawing S24-SW6 shows batter slopes of 1:3, which is steeper than RITS allows for grassed swales.	Update swale design to be consistent with RITS.	To accommodate the OLFP we have kept the invert of the swale as wide as possible. The swale is shallow, so 1:3 should be maintainable.	Complete. Leave at 3:1 due to shallow swale.	Recommend post construction inspection required to confirm ability to maintain the swale with ride-on mower. Remedials may be required.	Noted				Closed for EPA. We will undertake a post construction inspection required to confirm ability to maintain the swale with ride-on mower. Remedials may be required.
T5.18	The overall philosophy of the 825mm pipe is not clear – i.e. what is the rationale of this being piped versus just open channel? If the 825mm is designed as a 100 yr culvert? should the flow from radiata be completely piped without the section of open channel. Why is the 825mm sized thus, could a smaller line be put in for the section connected to Radiata, does 322 need to be a "swale"?	Update design reporting to better outline and justify overall design philosophy.	The depth of the pipeline meant a channel was prohibitive and designed to be capable of coping with future flood volumes. The first section is an open swale to reduce flooding risk to adjacent properties and allow clearence of high voltage cables. Calculations will be provided, although the pipeline has been accepted and constructed.	Complete. The 825 line is design to convey high flows from the Stage 24 area through to Swale 4.	Further justification required to resolve RFI item. What catchment and flows has the 825mm line been designed for? Provide hydrology and hydraulic calculations.	825 pipeline to extend to lot 322 and end with a bubble adjacent to lot 322.	Further information required to resolve RFI item. Please provide hydrology and hydraulic calculations for the 825mm pipe including catchment plan.	Calculations and drawings SW5 and SW6 revised.	Information provided does not appear to have the design calculations of the 825mm (and extended 450mm) lines. Please provide specific calculations	Closed for EPA. Calculation issued on 08/05/2025 prove the design is suitable for 1.8% gradient, we will construct the 450mm dia pipe to 1.8% and locally concrete cap and then apply a 200mm deep top soil. Whilst still maintaing the design ground reduced levels.
T5.19	Stormwater Swale Cross Sections - DWG 3041D-01-S24-SWBB - Rev 0	Cross Section A-A - There appears to be a bund that would block overland flows being conveyed from the south. Also, please confirm the invert of the OLFP is below the level of the southern residential properties				Section A-A updated to demonstrate swale is below boundary level and no interupting of overland flow path.	Accepted			Closed by HCC on 24/04/2025.
T5.20		Cross Section C-C - What is driving the invert level of the OLFP? - can this be lifted to flatten the batter down from Webb Drive to <1:5 so it can be grassed.				Drawing SWBB has been amended.	Accepted			Closed by HCC on 24/04/2025.
T5.21		Cross Section D-D - The cross section shows the right side batter at 1:1.8 slope. The RITS recommends a maximum slope for a planted batter of 1:3. Also, what is the minimum depth of the swale cross section to convey the design flows?				Drawing SWBB has been amended. The minimum depth of the swale 0.210m.	Noted. It is however important that the Lot 322 OLFP is sufficiently deep to avoid flows spilling to the adjacent residential property to the east. Please provide calculations to confirm 100 year flows and associated flow depths within the OLFP.	Calculations provided, and detail on drawing SWBB.	Please confirm where calculations can be found?	Closed for EPA Calculation issued on 08/05/2025, this swale shows a depth of 210mm, this is acheiveble on site and complying with our current submission.
T5.22		Cross Section E-E - Notes show swale slopes up to 1:3.3. Can these batters be flattened to max 1:5 so they can be grassed. If not, prepare a plan showing areas that are steeper than 1:5.				Drawing SWBB updated to show maximum gradiant of 1:5	Accepted			Closed by HCC on 24/04/2025.
T5.23		Cross Section F-F - Require a long section of Swale West and cross sections at regular intervals to understand how this swale works and interfaces with the lots and neighbouring residential land				Cross sections of West swale are on drawings R19 & R20. Long secton is on R18 and can also be viewed on SW11.	There are a number of cross sections that show steep side slopes to the channel. Particularly at the southern end CH0-90. This profile will be challenging to maintain and requires further consideration. Can the channel be widened to enable side slopes to be flattened to 1:3 max? Cross section F-F does not represent the actual design profile.	The swale is within the lots, and due to site constraints we are proposing, a stepper gradient with no vegetation to maintain. Our methodology to achieve this is to shape the swale, cover with PVC then Coconut matting, please see the drawings R18, R19, R20 and SWBB.	Refer additional comments in email	Closed for EPA. PVC capping and cocunut matting was rejected by HCC, however a 1:2 grassed slopes with a flat base was accpected via email on 6th May 2025.
T5.24	WQ Treatment for Western ends of Radiata and Raleigh Street Extensions	The revised design with the 375mm western pipeline results in a significant area of the Stage 24 development not receiving any treatment or peak flow attenuation. This includes Lots 767, 768, 777 and 776.				Lots are now treated through swale 6C via SW line H.	Refer email for additional comments on revised drainage layout.	Email comments responded to. Calculations provided and detail shown on drawing SW2.	Refer additional comments in email	Closed for EPA. Email on 6th May accepting compliance.
T5.25		11/04/2025 - Further to discussions at meeting this morning, consideration needs to be given to conveyance of primary flows into Swale 6C. This will ensure the Beca Stormwater design is impletemented and flows are not directed north to the GHP swale system. This will require reconfiguration of the drainage system on the Ratiata Street extension.				Stormwater line H discharges in to swale 6c. 300mm western line throttled to encourage flows into H line.	Refer email for additional comments on revised drainage layout.	Email comments responded to. Calculations provided and detail shown on drawing SW1 and SW2.	Refer additional comments in email	Closed for EPA. Email on 6th May accepting compliance.
T5.26		If the primary drinage discharge is removed from Lot 322, this channel can be lifted and formed as a grased OLFP. We would also recommned that the 825mm pipe is extended to the south and the drain filled through the reserve area. Overland flows could then enter the 825mm pipe via a scruffy dome inlet.				825 pipeline to extend to lot 322 and end with a bubble adjacent to lot 322.	Refer email for additional comments on revised drainage layout.	Email comments responded to. Detail provided and shown on drawings SW5 and SW6.	Refer additional comments in email	Closed for EPA. With submission of the required update on 7th May, and also refer to comments under T5.29.

T5.27							Western Boundary Swale Drawing R18 shows the swale west long section. The swale has been designed longitudinally flat from CH10-CH90. This channel needs to have positive fall to avoid significant surface ponding. We acknowledge this was not picked up previously. We also recommend that the full length of the western swale is constructed with underdrainage (required under RITS Table 4-28).	Closed for EPA. With construction of the swale base for chainages 10 to 90 of 0.3% falling southwards. Construction for the full length of the western swale to also include underdrainage.
T5.28							Footpath linking Radiata to Webb has been removed from Drawing SW1?	Closed for EPA. Radita footpath shown on roading set and will be constructed. Post construction review will be undertaken to confirm footpath link provides a sensible connection to Webb Drive. To be constructed to accessbility standards, a second more direct link with stairs may be required.
T5.29							825mm SW line Does the section of 825mm pipe between SWMH U0-U1 need to be steepened to 1.0%. Recommend this pipe is extended from SWMHU1 at 0.4% to increase the cover at the upstream end. As per comments provided yesterday, this would assist to lower the overflow level for SWMH U0 to maximise secondary overland flows into the 825mm pipe and keep flood levels to a minimum. Can the scruffy dome and incoming channel ben lowered to RL38.30m say	Closed for EPA. Section U1 to U3 has been approved by HCC and constructed. The top of the 825mm pipe level is constrained by the existing HV cables and maintaining clearance of them. We will construct the scruffy intake level to 38.4m.