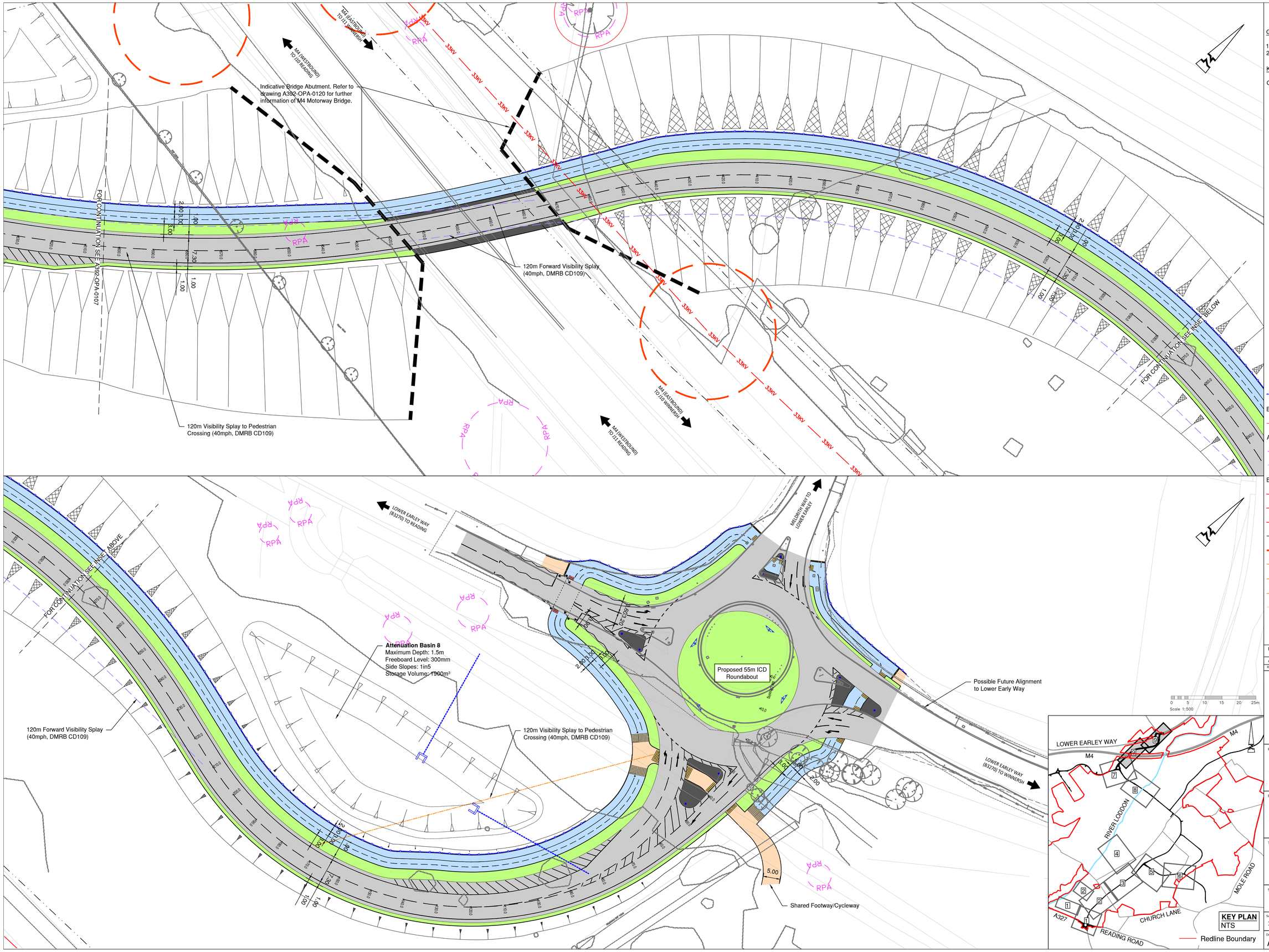

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GENERAL NOTES:

1. Do not scale.
2. Refer to all other Project Drawings and supporting notes.

KEY:

General:

- Uncontrolled Blister Tactile Paving at Dropped Crossing
- Controlled Blister Tactile Paving at Signalised Crossing
- Segregated Footway / Cycleway Corduroy Tactiles
- Indicative Traffic Signal
- Proposed Bollard Diag. 956 & 957
- Proposed Traffic Sign and Sign Post
- Proposed Reflective Bollard
- Proposed Timber Fenceline
- Proposed 5m Segregated Footway / Cycleway
- Proposed 3m Shared Footway / Cycleway
- Proposed 2m Footway
- Proposed Verge
- Proposed Carriageway
- Proposed Hard Standing
- Proposed Mown Path Route
- Proposed Hoggin Route
- Proposed Batter Slope 1in5
- Proposed Batter Slope 1in3
- Proposed Headwall
- Proposed Culvert

Ecology Survey - Received by EPR on 16/05/25:

- Veteran Tree Buffer

Arboricultural Survey - Received by FLAC on 15/05/25:

- RPA — Root Protection Area
- VTB — Veteran Tree Protection Area

Existing Utilities

- 33KV — Existing 33KV Overhead HV Cable
- 132KV — Existing 132KV Overhead HV Cable
- HV–OH — Unspecified Overhead HV Cable
- Overhead HV 15m Clearance
- Pylon 20m Clearance
- HP — Existing High Pressure Gas
- MP — Existing Medium Pressure Gas
- IP — Existing Low Pressure Gas
- Existing Gas 3m Clearance

Refer to Drawing A392-OPA-0101 for Typical Footway Cycleway Junction Details.

Rev	Date	Description	Drawn	Checked
B	07.25	UPDATED TO REFLECT RSA2 COMMENTS AND KEYPLAN REDLINE UPDATED	RG	CS
A	06.25	FIRST ISSUE	RG	CS

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Client
UNIVERSITY OF READING

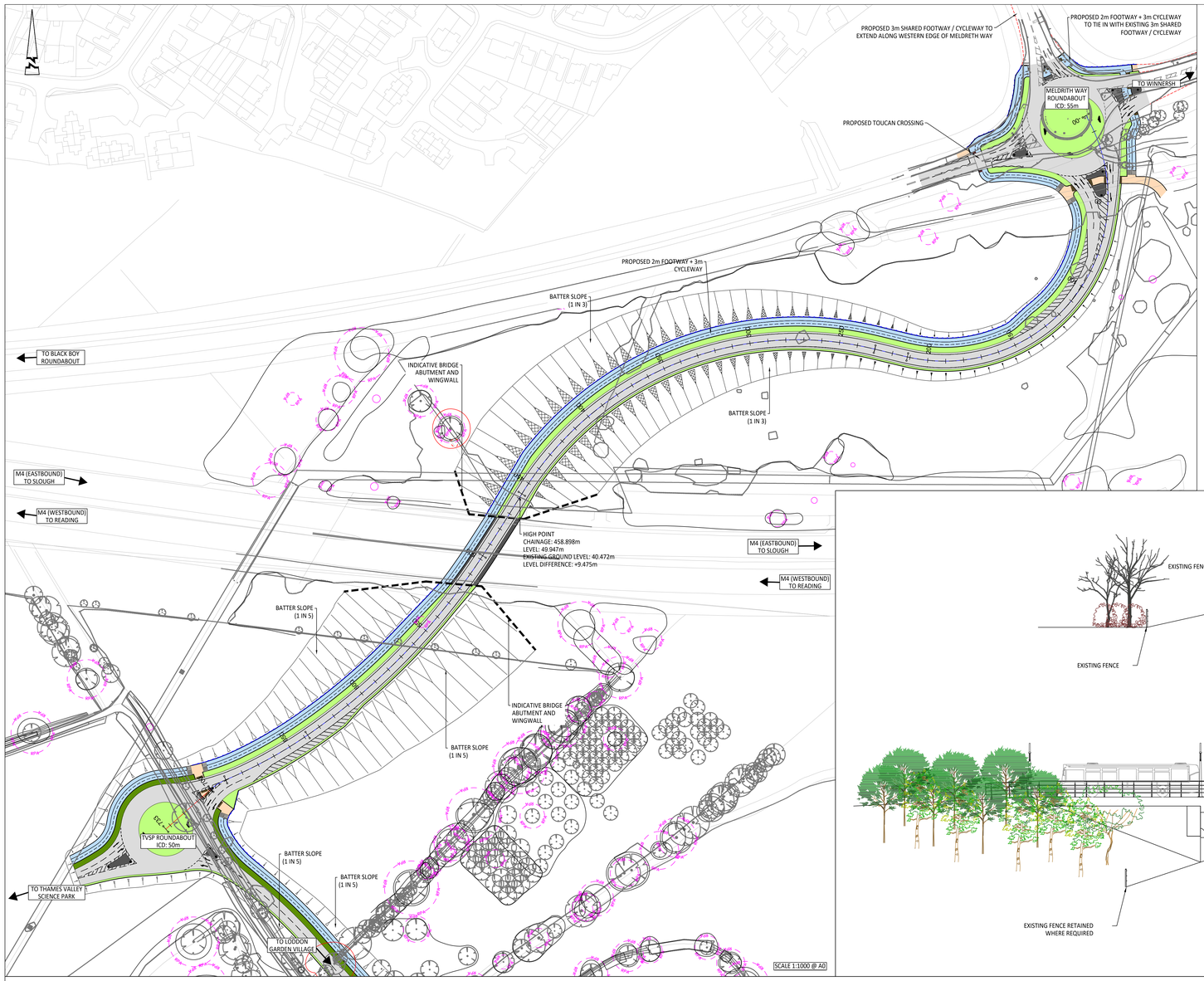
Project
LODDON GARDEN VILLAGE

Title
GENERAL ARRANGEMENT SHEET 9 OF 9

Status

Scale	Date	Drawn	Checked
1:500 @ A1	JUN 2025	RG	CS

Drawing No: A392-OPA-0109
Revision: B



GENERAL NOTES:

1. Do not scale.
2. Refer to all other Project Drawings and supporting notes.

KEY:

General:

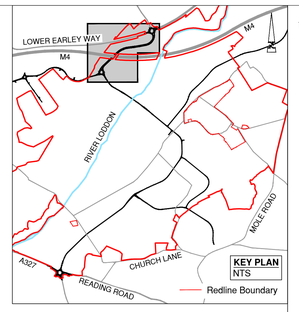
- Uncontrolled Blister Tactile Paving at Dropped Crossing
- Controlled Blister Tactile Paving at Signalised Crossing
- Segregated Footway / Cycleway Corduroy Tactiles
- Proposed 5m Segregated Footway / Cycleway
- Proposed 3m Shared Footway / Cycleway
- Proposed 2m Footway
- Proposed Verge
- Proposed Carriageway
- Proposed Hard Standing
- Proposed Batter Slope 1in5
- Proposed Batter Slope 1in3

Ecology Survey - Based on information received from EPR dated 16/05/25:

- Veteran Tree Buffer

Arboricultural Survey - Based on information received from FLAC dated 15/05/25:

- Root Protection Area



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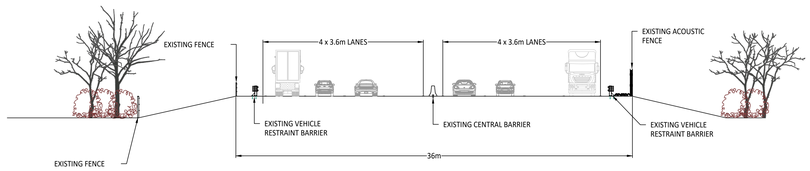
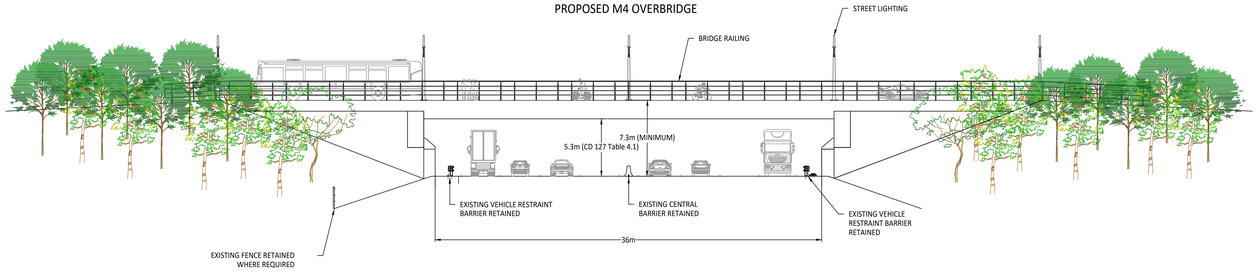
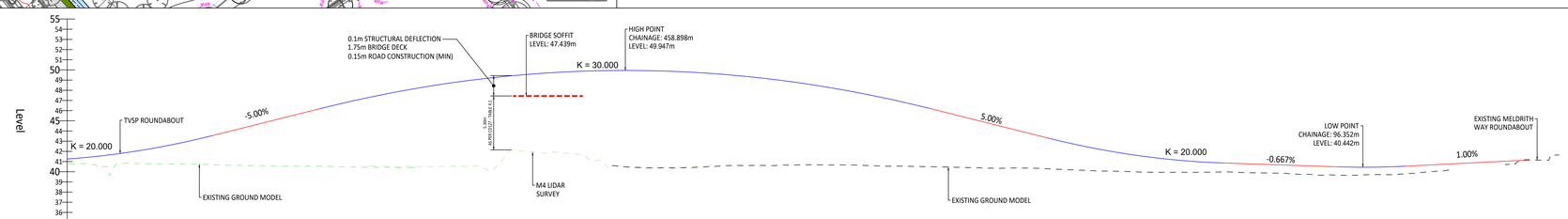
ILLUSTRATIVE CROSS SECTION OF EXISTING M4 CORRIDOR



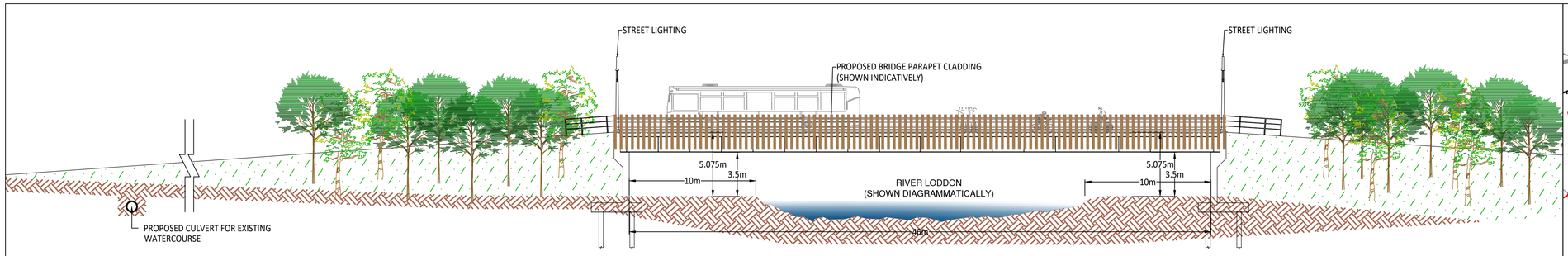
ILLUSTRATIVE CROSS SECTION OF PROPOSED M4 OVERBRIDGE



NOT TO SCALE

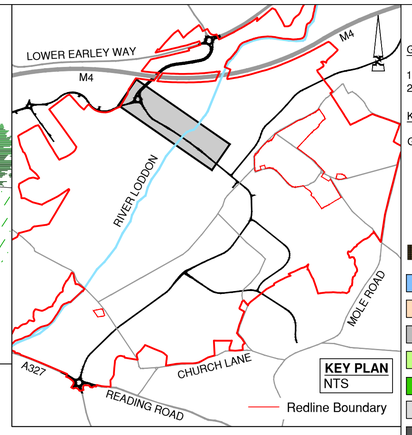


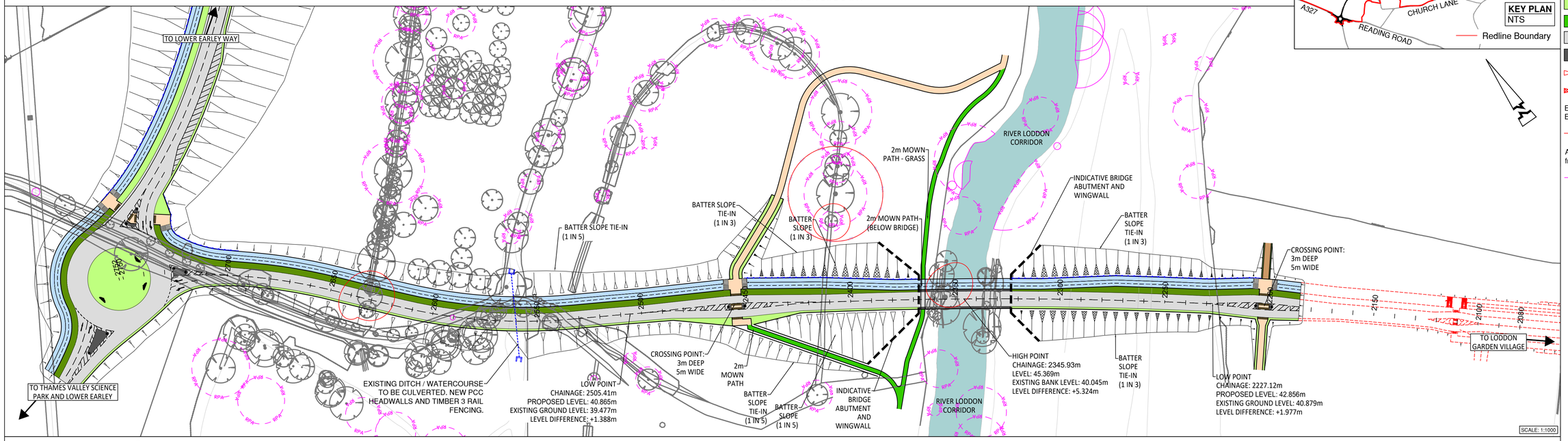
Chainage	733.220	720.000	710.000	700.000	690.000	680.000	670.000	660.000	650.000	640.000	630.000	620.000	610.000	600.000	590.000	580.000	570.000	560.000	550.000	540.000	530.000	520.000	510.000	500.000	490.000	480.000	470.000	460.000	450.000	440.000	430.000	420.000	410.000	400.000	390.000	380.000	370.000	360.000	350.000	340.000	330.000	320.000	310.000	300.000	290.000	280.000	270.000	260.000	250.000	240.000	230.000	220.000	210.000	200.000	190.000	180.000	170.000	160.000	150.000	140.000	130.000	120.000	110.000	100.000	90.000	80.000	70.000	60.000	50.000	40.000	30.000	20.000	10.000	0.000
Existing Levels	40.776	40.762	40.678	40.587	41.719	40.819	40.772	40.742	40.678	40.634	40.605	40.554	40.562	40.561	40.486	40.452	40.437	40.399	40.481	40.525	40.555	40.517	40.485	42.076	41.825	41.870	41.681	41.081	40.493	40.384	40.378	40.392	40.471	40.583	40.651	40.613	40.667	40.675	40.660	40.662	40.614	40.537	40.533	40.496	40.455	40.405	40.353	40.353	40.351	40.273	40.186	40.108	40.053	39.996	39.946	39.942	39.862	39.862	39.693	39.861	39.773	39.651	39.672	39.658	39.715	39.738	39.868	40.050			40.992	41.141	41.652
Proposed Levels	41.390	41.390	41.485	41.719	42.004	42.338	42.723	43.157	43.641	44.141	44.641	45.141	45.641	46.141	46.628	47.082	47.502	47.889	48.243	48.563	48.850	49.104	49.324	49.511	49.665	49.785	49.872	49.926	49.946	49.934	49.887	49.808	49.695	49.548	49.369	49.156	48.909	48.630	48.317	47.970	47.591	47.178	46.731	46.252	45.752	45.252	44.752	44.252	43.752	43.252	42.784	42.365	41.996	41.677	41.408	41.189	41.021	40.902	40.828	40.761	40.684	40.594	40.561	40.494	40.447	40.450	40.502	40.587	40.697	40.797	40.897	40.997	41.097	
Level Difference	0.537	0.627	0.807	1.132	1.185	1.566	1.964	2.415	2.863	3.507	4.037	4.587	5.089	5.580	6.132	6.629	7.085	7.490	7.762	8.038	8.296	8.587	8.840	7.435	7.840	7.915	8.192	8.845	9.454	9.549	9.509	9.415	9.224	8.965	8.718	8.542	8.252	7.954	7.656	7.308	6.977	6.641	6.199	5.746	5.297	4.847	4.399	3.889	3.401	2.880	2.598	2.256	1.943	1.681	1.462	1.250	1.079	0.939	0.865	0.868	0.834	0.854	0.910	0.922	0.790	0.734	0.764	0.729	0.647			0.105	
Vertical Geometry		R =2000.000 K =20.000 L =71.311			G =-5.000% L =53.006													R =3000.000 K =30.000 L =300.011																					G =5.000% L =57.056							R =2000.000 K =20.000 L =86.667							G =-0.667% L =55.792					R =2000.000 K =20.000 L =33.333				G =-1.000% L =61.138				
Horizontal Geometry		R: 30.000 L =33.541			R: 255.000 L: 51.959													R: 360.000 L: 140.288									R: 1500.000 L: 40.703													R: 180.000 L: 226.820																		

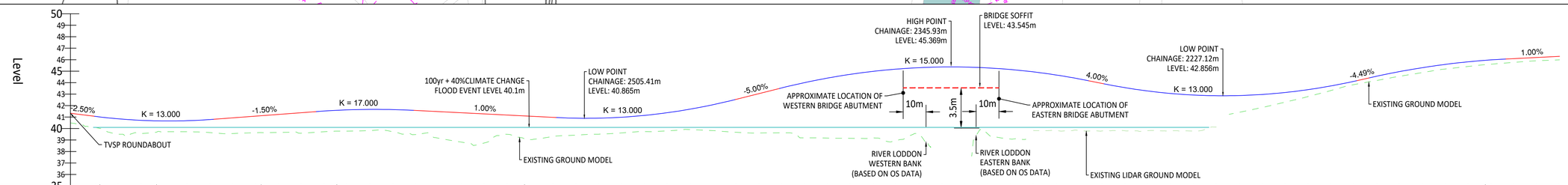


ILLUSTRATIVE CROSS SECTION OF PROPOSED
BRIDGE OVER RIVER LODDON

SCALE: 1:200







Chainage	Existing Levels	Proposed Levels	Level Difference
2730.000	40.472	41.308	0.836
2720.000	40.077	41.058	0.980
2710.000	39.500	40.848	1.348
2700.000	39.560	40.716	1.155
2690.000	39.707	40.660	0.953
2680.000	39.720	40.682	0.962
2670.000	39.649	40.780	1.131
2660.000	39.565	40.929	1.364
2650.000	39.629	41.079	1.450
2640.000	39.658	41.229	1.571
2630.000	39.590	41.379	1.789
2620.000	39.720	41.526	1.806
2610.000	39.777	41.627	1.850
2600.000	39.821	41.668	1.847
2590.000	39.723	41.651	1.929
2580.000	39.478	41.576	2.098
2570.000	39.159	41.476	2.317
2560.000	38.818	41.376	2.558
2550.000	38.741	41.276	2.535
2540.000	39.495	41.176	1.681
2530.000	39.038	41.076	2.038
2520.000	39.305	40.976	1.671
2510.000	39.420	40.903	1.484
2500.000	39.507	40.906	1.399
2490.000	39.620	40.986	1.366
2480.000	39.731	41.143	1.412
2470.000	39.801	41.377	1.576
2460.000	39.907	41.688	1.781
2450.000	39.818	42.076	2.258
2440.000	39.676	42.541	2.865
2430.000	39.611	43.041	3.429
2420.000	39.629	43.540	3.911
2410.000	39.188	44.001	4.813
2400.000	39.169	44.395	5.226
2390.000	39.142	44.722	5.580
2380.000	39.190	44.982	5.792
2370.000	38.951	45.176	6.225
2360.000	39.549	45.303	5.754
2350.000		45.363	
2340.000		45.357	
2330.000	39.546	45.284	5.738
2320.000	39.139	45.145	6.057
2310.000	39.821	44.939	5.118
2300.000	39.832	44.666	4.834
2290.000	39.849	44.326	4.477
2280.000	39.786	43.932	4.145
2270.000	39.806	43.564	3.758
2260.000	39.817	43.272	3.455
2250.000	39.799	43.058	3.258
2240.000	39.778	42.920	3.142
2230.000	40.130	42.860	2.729
2220.000	41.413	42.876	1.463
2210.000	41.833	42.969	1.136
2200.000	42.297	43.139	0.843
2190.000	42.783	43.386	0.604
2180.000	43.310	43.710	0.400
2170.000	43.823	44.111	0.288
2160.000	44.187	44.557	0.370
2150.000	44.549	44.960	0.411
2140.000	44.880	45.303	0.423
2130.000	45.186	45.588	0.402
2120.000	45.411	45.814	0.403
2110.000	45.609	45.881	0.373
2100.000	45.762	46.093	0.331
2090.000	45.904	46.193	0.290
2080.000	45.990	46.293	0.303

Vertical Geometry

- G =-2.500% L =10.538
- R =1300.000 K =13.000 L =52.000
- G =-1.500% L =44.908
- R =1700.000 K =17.000 L =42.500
- G =-1.000% L =62.476
- R =1300.000 K =13.000 L =78.000
- G =-5.000% L =19.479
- R =1500.000 K =15.000 L =135.000
- G =-4.000% L =6.814
- R =1300.000 K =13.000 L =110.434
- G =-4.495% L =5.681
- R =1700.000 K =17.000 L =59.414
- G =-1.000% L =23.590

Horizontal Geometry

- R: 104.571 L: 12.856
- L =24.791
- R: 255.000 L: 45.697
- R: 1500.000 L: 33.076
- R: 255.000 L: 82.053
- R: 2147.039 L: 419.921
- L =32.434

LGV - RIVER LODDON CROSSING - LONGSECTION
SCALE: H 1:1000,V 1:200. DATUM: 35.000

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GENERAL NOTES:

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KEY:

General:

- Uncontrolled Blister Tactile Paving at Dropped Crossing
- Controlled Blister Tactile Paving at Signalised Crossing
- Segregated Footway / Cycleway Corduroy Tactiles
- Proposed 5m Segregated Footway / Cycleway
- Proposed 3m Shared Footway / Cycleway
- Proposed 2m Footway
- Proposed Verge
- Proposed Mown Path
- Proposed Carriageway
- Proposed Hard Standing
- Proposed Batter Slope 1in5
- Proposed Batter Slope 1in3

Ecology Survey - Based on information received from EPR dated 16/05/25:

- Veteran Tree Buffer

Arboricultural Survey - Based on information received from FLAC dated 15/05/25:

- Root Protection Area

Rev	Date	Description	Drawn	Checked
B	07/25	KEY PLAN REDLINE UPDATED	CS	LPA
A	06/25	FIRST ISSUE	CS	LPA

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Client
UNIVERSITY OF READING

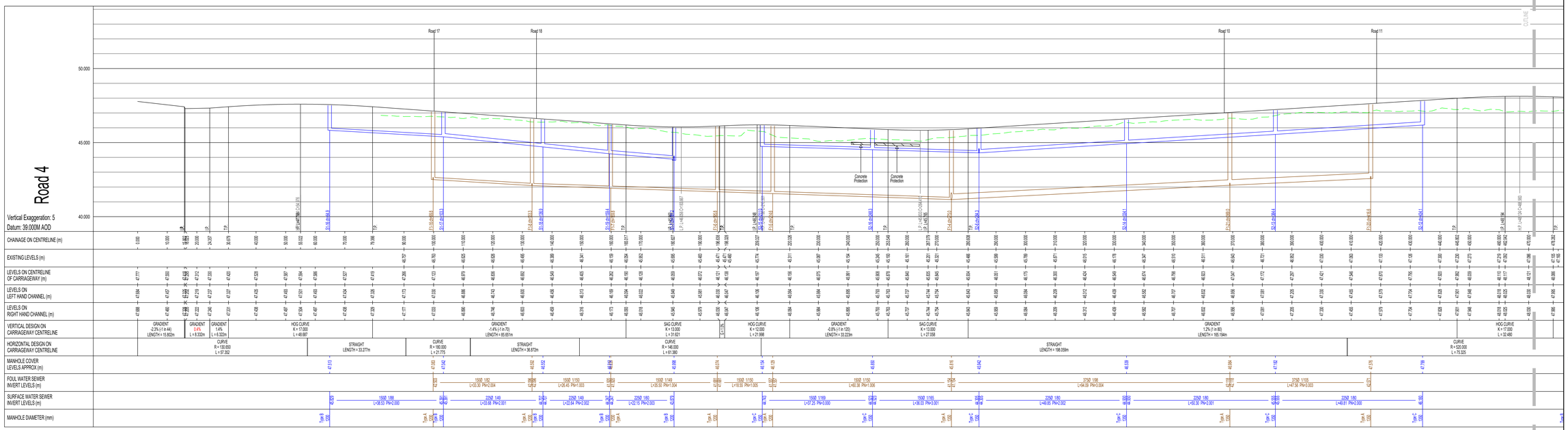
Project
LODDON GARDEN VILLAGE

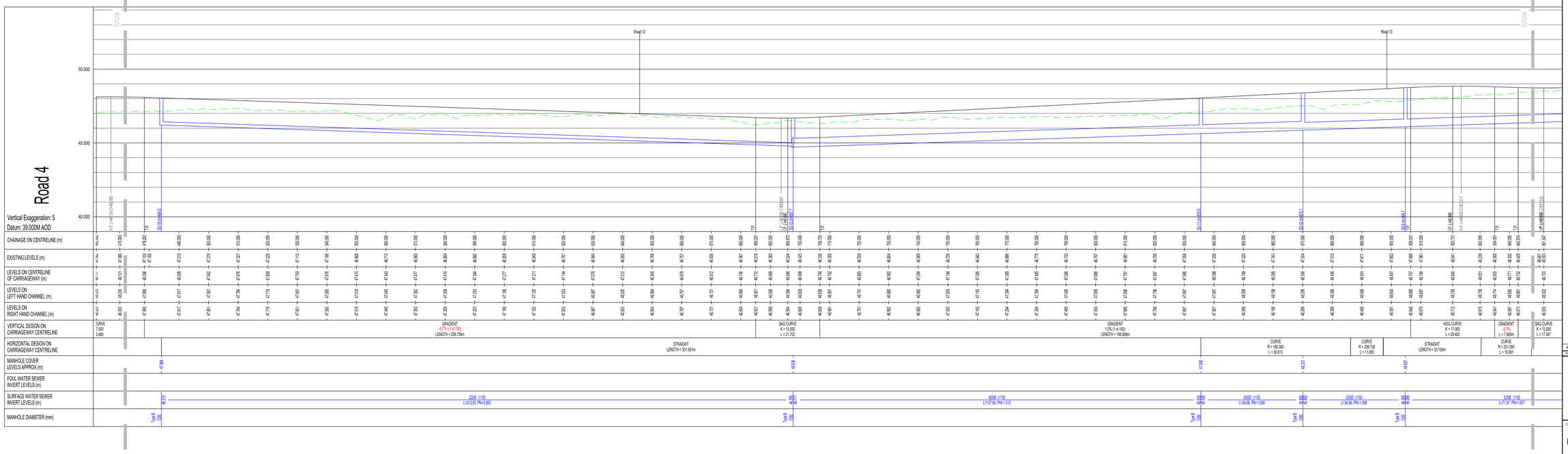
Title
RIVER LODDON CROSSING
PLAN AND PROFILE

Status

Scale	Date	Drawn	Checked
AS SHOWN @ A1	JUN 2025	CS	LPA

Drawing No: A392-OPA-0121
Revision: B





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Manhole Schedule/Longsection:

1. Do not scale.
2. This drawing is to be read in conjunction with and checked against all other drawings, Engineering details, Specification and any structural, Geotechnical or other specialist document provided.
3. Site layout shown for context only, refer to other project drawings for details.
4. All adoptable drainage works to be constructed as detailed in design and construction guidance or as stipulated in the water authorities addendum.
5. All public sewers are to be the subject of a section 104 agreement of the water industry act 1991.
6. Invert levels of existing manholes and sewers are to be checked on site before construction commences and results reported to engineers.
7. The contractor is responsible for maintaining continuity of flow for all existing sewers within the site boundary and limit of works for the duration of the project.
8. All drainage ironworks to comply with bs en124, and be stamped with bsi kitemark. covers to suit loading as below;
   - -carriageways and roads - d400
   - -driveways and verges - c250
   - -footways and pedestrian areas - b125
   - -gardens/landscaping - a15
9. All sewer pipes, up to, and including 225mm are to be vitrified clay to BS EN295. All sewer pipes 300mm diameter and above to be concrete pipes to BS EN1916. Where agreed with adopting authority pipes up to and including 600mm diameter can be PVC-U to BS EN1404.
10. All drainage shall be installed and tested strictly in accordance with the manufacturers' printed instructions, bs en 752, bs en 1601, local water authority requirements and the building regulations.
11. All bedding shall be class s unless noted otherwise.
12. All trenches under existing and proposed public highways are to be backfilled with thoroughly compacted type 1 granular sub-base material.
13. Drainage laid beneath roads and areas of vehicular access (car parking etc) with less than 1200mm of cover shall be encased in concrete bed and surround with associated movement joints. drainage laid beneath paths, footways and pedestrian areas with less than 900mm of cover shall be similarly treated.
14. Chambers with outgoing pipes greater than 600mm diameter shall be fitted with guard bars, safety chains or other approved safety devices.
15. The use of precast concrete products made with sulphate resisting cement is mandatory, unless a laboratory report proves such precautions are not necessary.
16. All sewers to be abandoned must be surveyed to identify any lateral connections that are still live with any found to be reported to the engineer.
17. All foul and storm water drains which are not to be adopted as public sewers shall be in accordance with document h of the building regulations, together with mbc standards chapter 5.3 and bs8301.
18. Where pipes pass through footings, retaining or screen walls, lintels to be provided over drains.
19. Where inverts are less than 0.6m deep inspection chambers (min dia. 190mm) or access fittings (225 x 100mm) to be used, elsewhere proprietary plastic, brick or pcc is to be used and sized in accordance with table 11 of document h of the building regulations (<0.6m to invert min dn300, >0.6m to invert min dn475).
20. Where required 1m deep root barrier of an approved type to be installed vertically along the back edging kerb of all areas of footway/ demarcation to protect from both proposed and future plantation.
21. Construction details subject to refinement through detailed design/technical approval process.

ALL PIPE BEDDING TO BE CLASS 'S' GRANULAR SURROUND UNLESS NOTED OTHERWISE ON THE DRAWING

Manhole diagrams are indicative and do not show every incoming sewer/gully connection. Refer to Engineering Layouts for additional information.

Manhole cover levels are derived from a 3D digital terrain model, final cover levels to suit finished surfaces onsite.

Manhole covers to be located wholly within one surface i.e grass or hard standing/road. Manhole covers are to be fully accessible to users.

KEY:

- EXISTING GROUND PROFILE
- PROPOSED CENTRELINE PROFILE
- PROPOSED FOUL SEWER
- PROPOSED STORM SEWER

Scale 1:-500

Rev	Date	Description	Drawn	Checked
A	06.25	FIRST ISSUE	JJS	CS

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Project
LODDON GARDEN VILLAGE

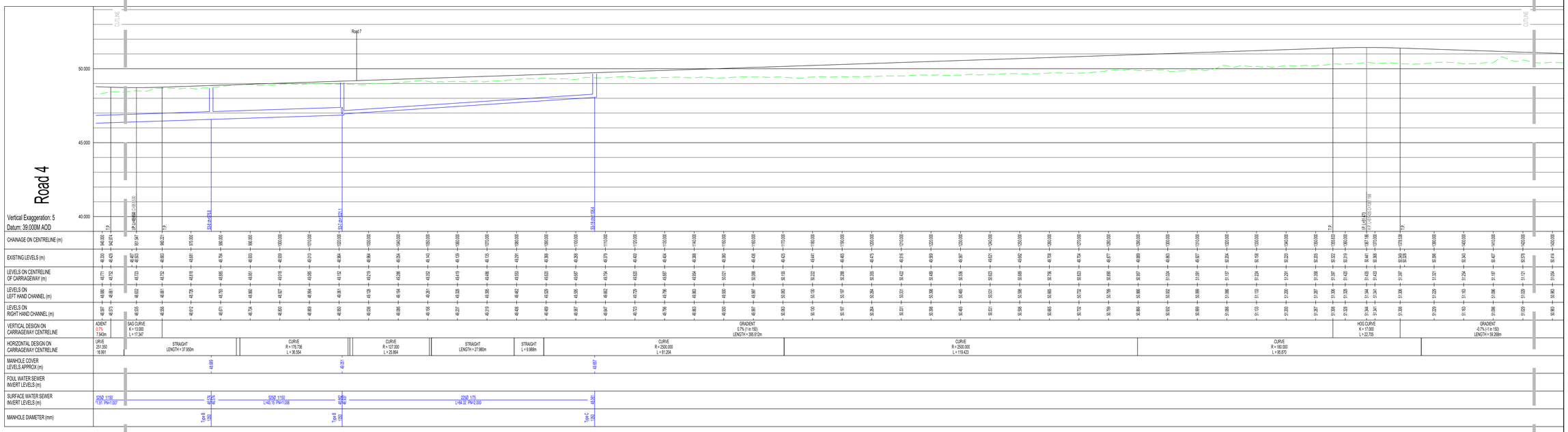
Title
LONGITUDINAL SECTIONS SHEET 1 OF 6

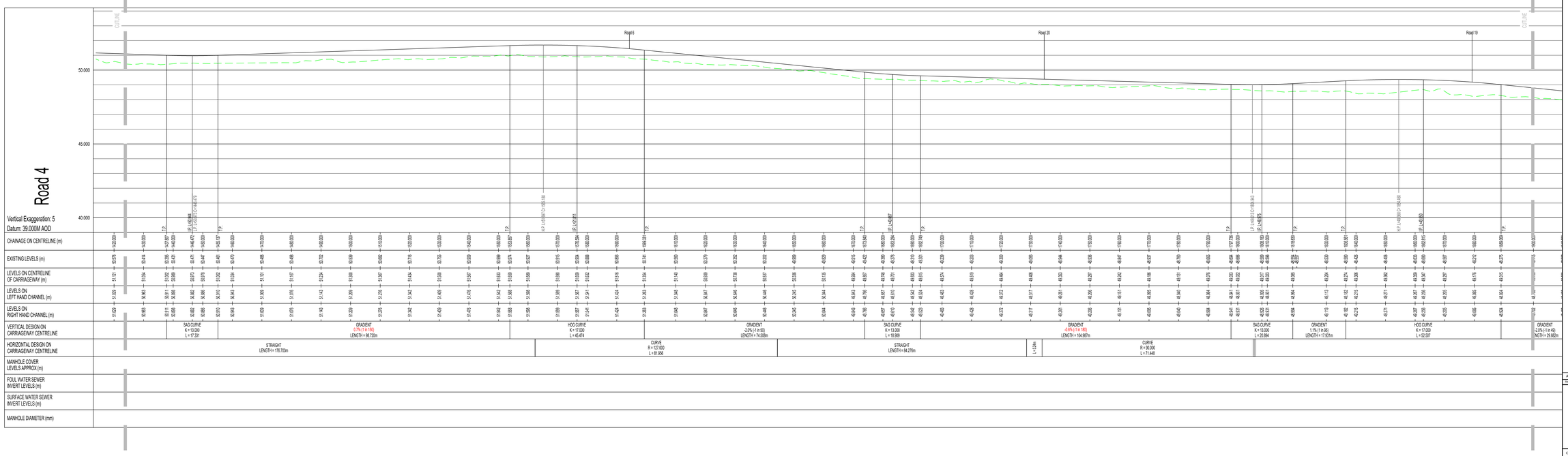
Status

Scale	Date	Drawn	Checked
1:500 H @ A0 1:100 V	JUNE 2025	JJS	CS

Drawing No: A392-OPA-0130

Revision: A





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6. Invert levels of existing manholes and sewers are to be checked on site before construction commences and results reported to engineers.
7. The contractor is responsible for maintaining continuity of flow for all existing sewers within the site boundary and limit of works for the duration of the project.
8. All drainage ironworks to comply with bs en124, and be stamped with bsi kitemark. covers to suit loading as below;
   - -carriageways and roads - d400
   - -driveways and verges - c250
   - -footways and pedestrian areas - b125
   - -gardens/landscaping - a15
9. All sewer pipes, up to, and including 225mm are to be vitrified clay to BS EN295. All sewer pipes 300mm diameter and above to be concrete pipes to BS EN1916. Where agreed with adopting authority pipes up to and including 600mm diameter can be PVC-U to BS EN1404.
10. All drainage shall be installed and tested strictly in accordance with the manufacturers' printed instructions, bs en 752, bs en 1610, local water authority requirements and the building regulations.
11. All bedding shall be class s unless noted otherwise.
12. All trenches under existing and proposed public highways are to be backfilled with thoroughly compacted type 1 granular sub-base material.
13. Drainage laid beneath roads and areas of vehicular access (car parking etc) with less than 1200mm of cover shall be encased in concrete bed and surround with associated movement joints. drainage laid beneath paths, footways and pedestrian areas with less than 900mm of cover shall be similarly treated.
14. Chambers with outgoing pipes greater than 600mm diameter shall be fitted with guard bars, safety chains or other approved safety devices.
15. The use of precast concrete products made with sulphate resisting cement is mandatory, unless a laboratory report proves such precautions are not necessary.
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KEY:

- EXISTING GROUND PROFILE
- PROPOSED CENTRELINE PROFILE
- PROPOSED FOUL SEWER
- PROPOSED STORM SEWER

0 5 10 15 20 25m
Scale 1:500

Rev	Date	Description	Drawn	Checked
A	06.25	FIRST ISSUE	JJS	CS

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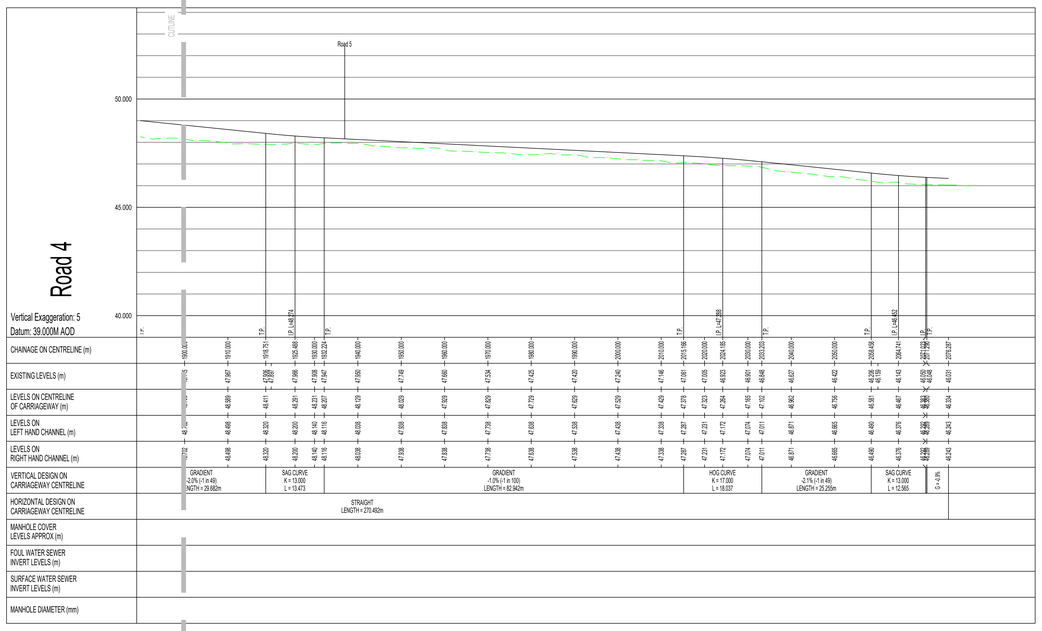
Project
LODDON GARDEN VILLAGE

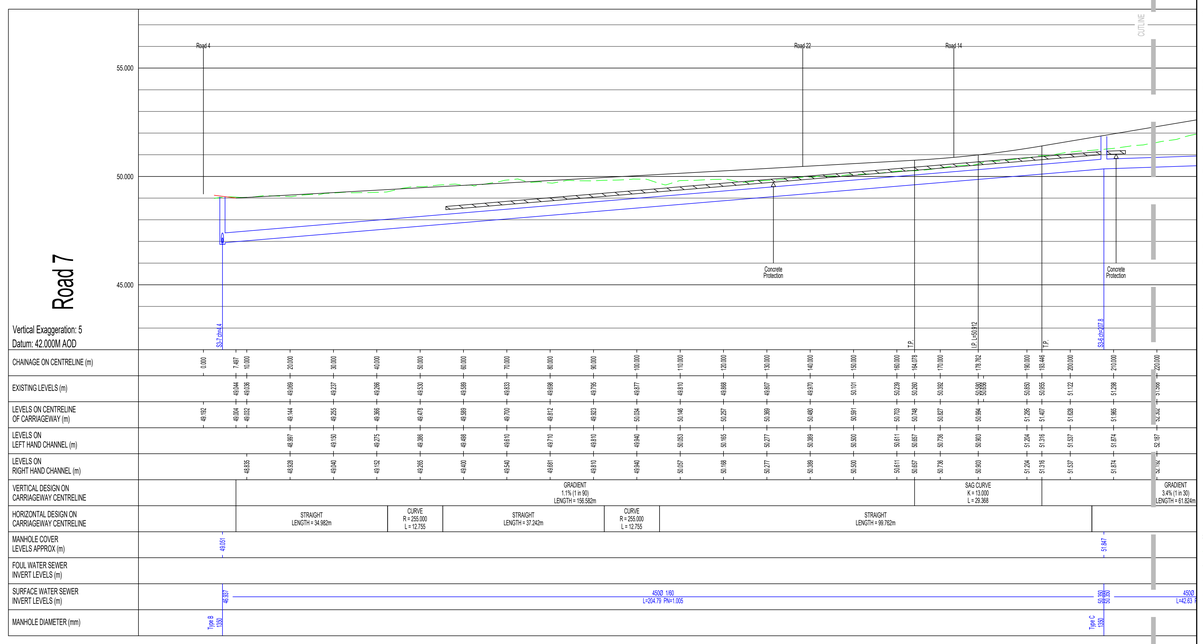
Title
LONGITUDINAL SECTIONS SHEET 2 OF 6

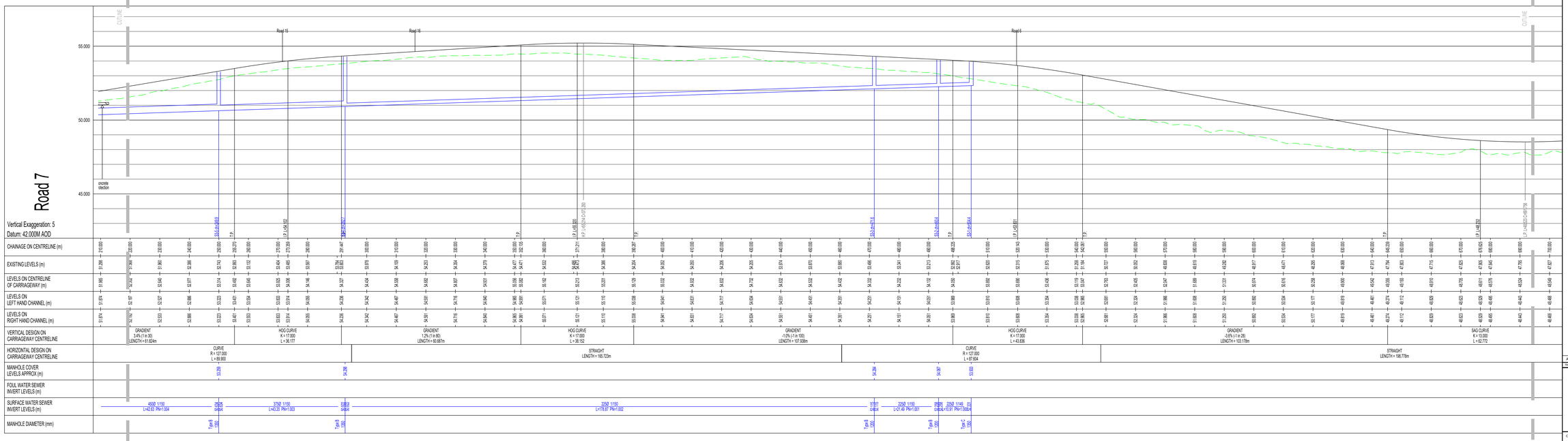
Status

Scale	Date	Drawn	Checked
1:500 H @ A0 1:100 V	JUNE 2025	JJS	CS

Drawing No: A392-OPA-0131
Revision: A







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- PROPOSED FOUL SEWER
- PROPOSED STORM SEWER

Scale 1:500

Rev	Date	Description	Drawn	Checked
A	06.25	FIRST ISSUE	JJS	CS

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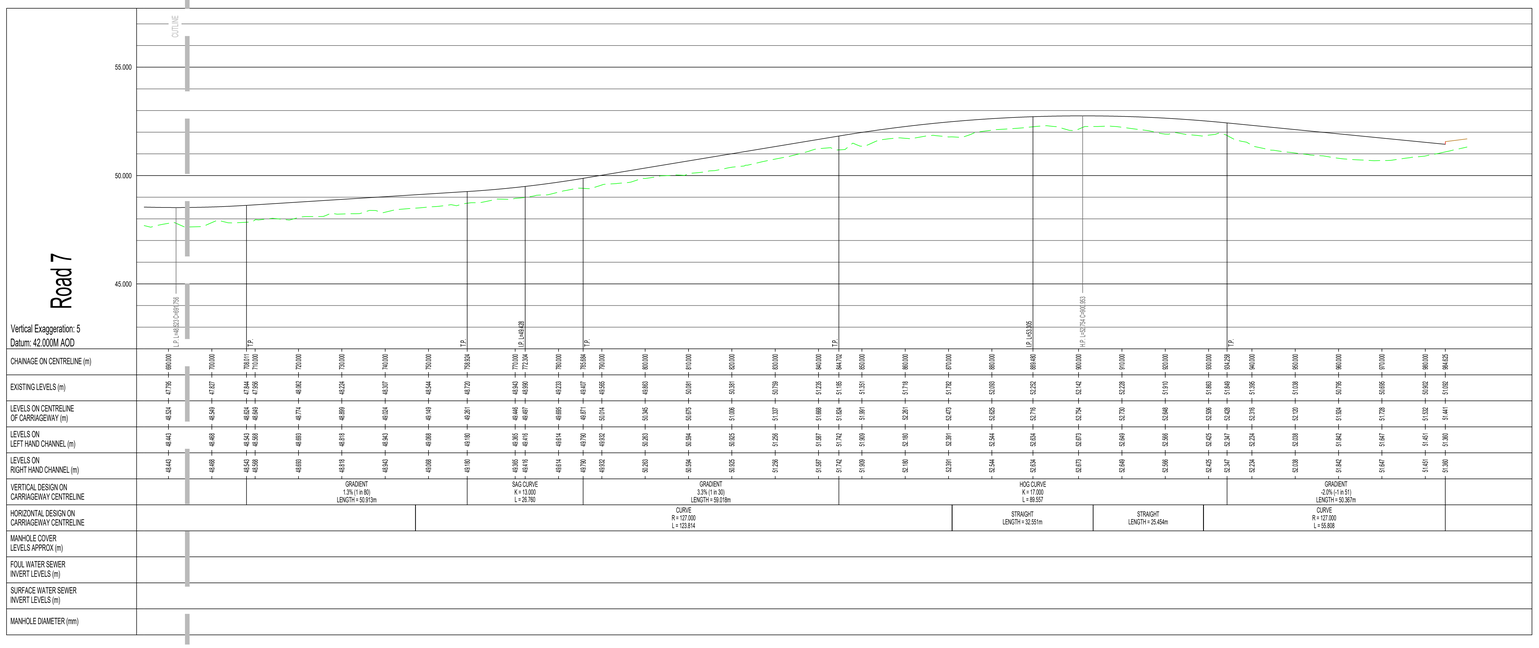
Project
LODDON GARDEN VILLAGE

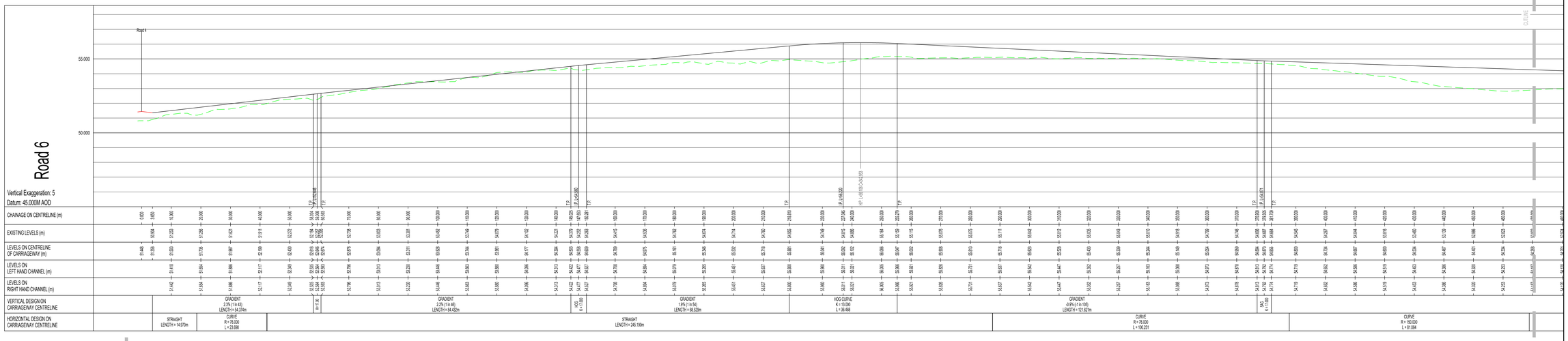
Title
LONGITUDINAL SECTIONS SHEET 3 OF 6

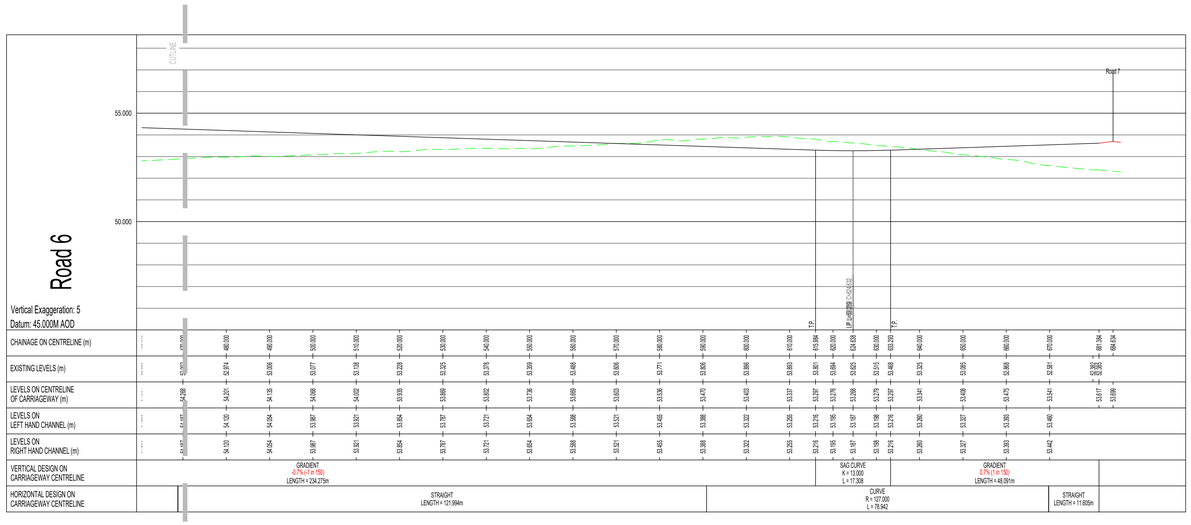
Status

Scale	Date	Drawn	Checked
1:500 H @ A0 1:100 V	JUNE 2025	JJS	CS

Drawing No. A392-OPA-01302 | Revision A







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   - -gardens/landscaping - a15
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- PROPOSED FOUL SEWER
- PROPOSED STORM SEWER

Scale 1:500

Rev	Date	Description	Drawn	Checked
A	06.25	FIRST ISSUE	JJS	CS

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Client: UNIVERSITY OF READING

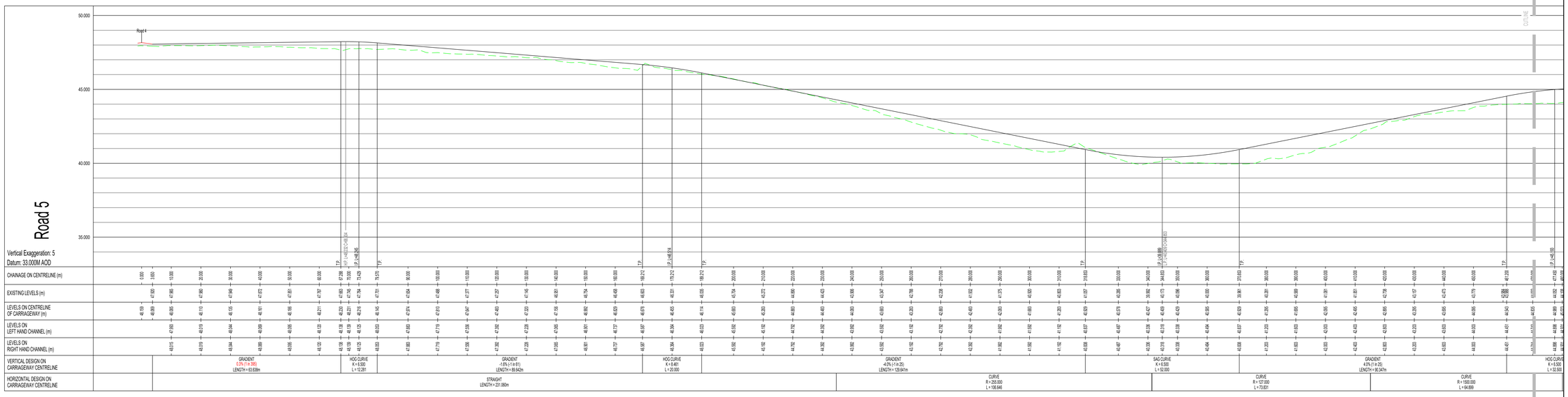
Project: LODDON GARDEN VILLAGE

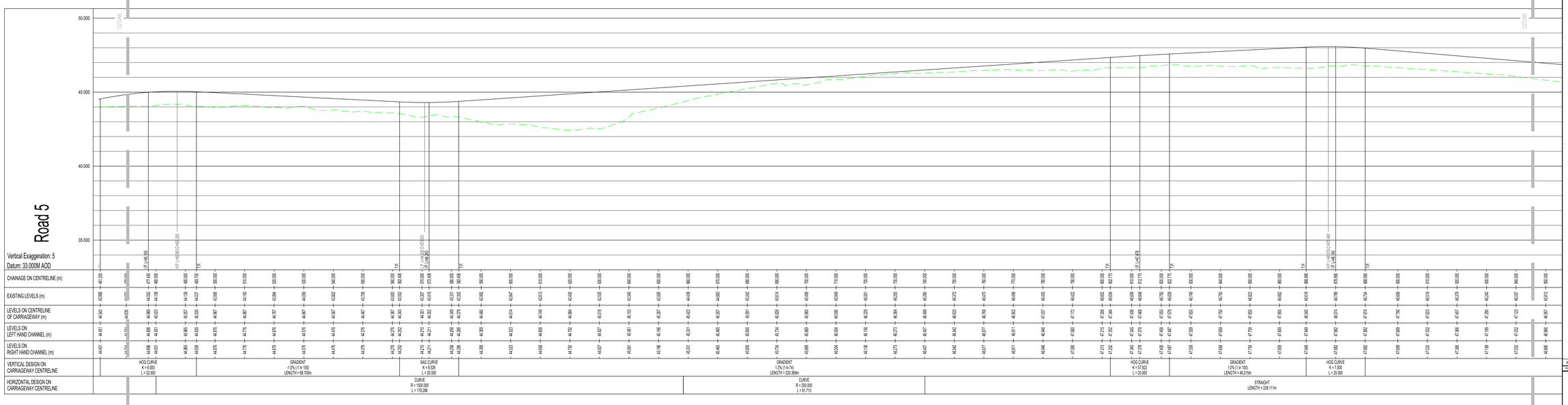
Title: LONGITUDINAL SECTIONS SHEET 4 OF 6

Status:

Scale	Date	Drawn	Checked
1:500 H @ A0 1:100 V	JUNE 2025	JJS	CS

Drawing No	Revision
A392-OPA-0133	A





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Scale 1:500

Rev	Date	Description	Drawn	Checked
A	06.25	FIRST ISSUE	JJS	CS

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Project
LODDON GARDEN VILLAGE

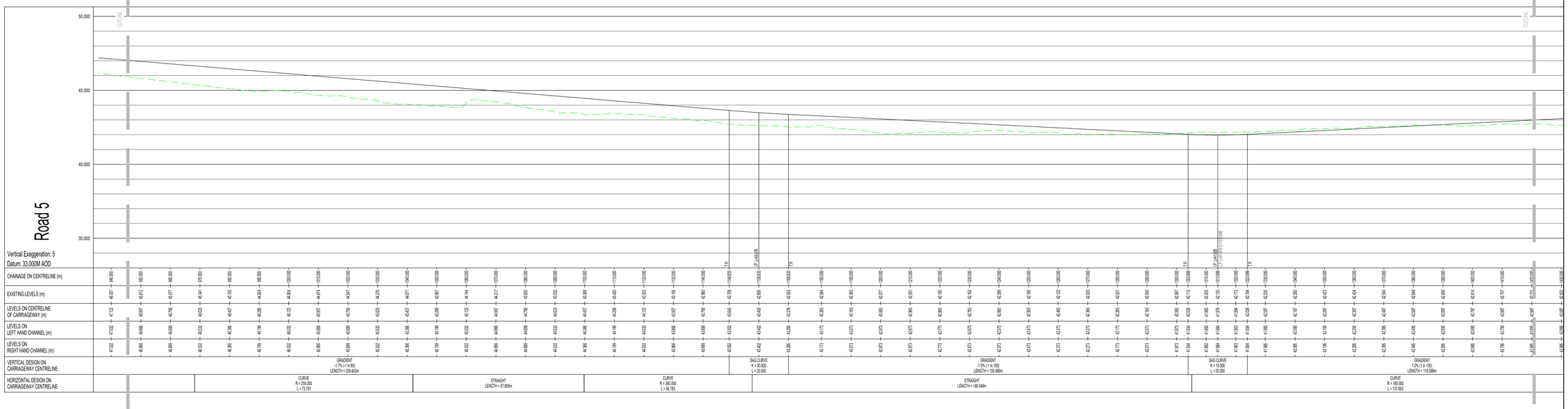
Title
LONGITUDINAL SECTIONS SHEET 5 OF 6

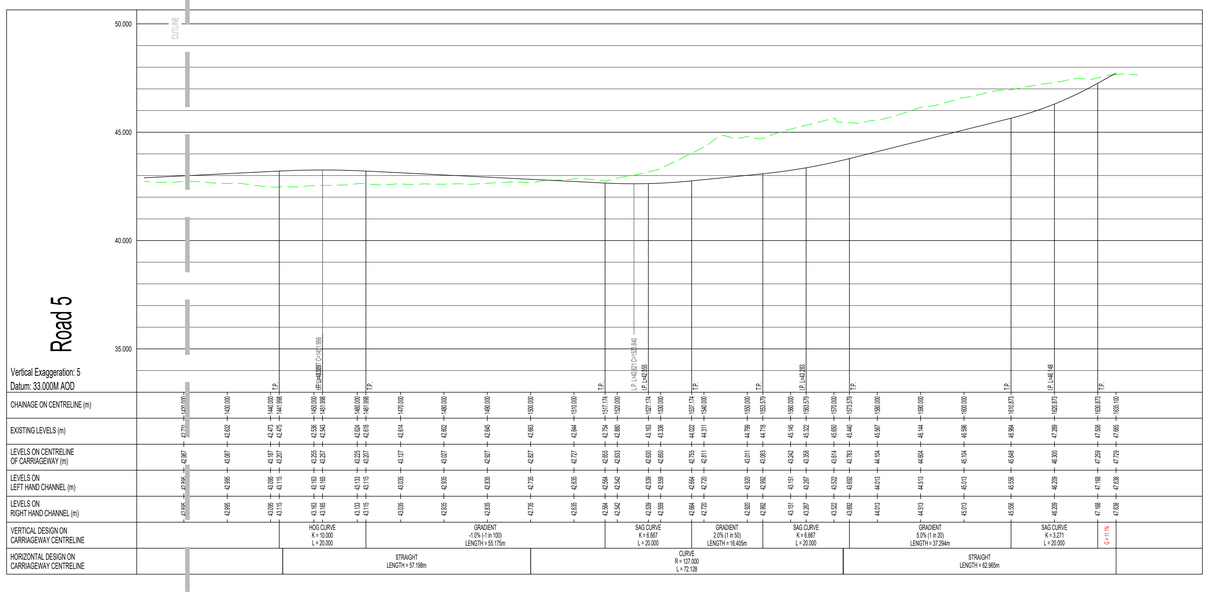
Status

Scale	Date	Drawn	Checked
1:500 H @ A0 1:100 V	JUNE 2025	JJS	CS

Drawing No: A392-OPA-0134

Revision: A





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Scale 1:500

Rev	Date	Description	Drawn	Checked
A	06.25	FIRST ISSUE	JJS	CS

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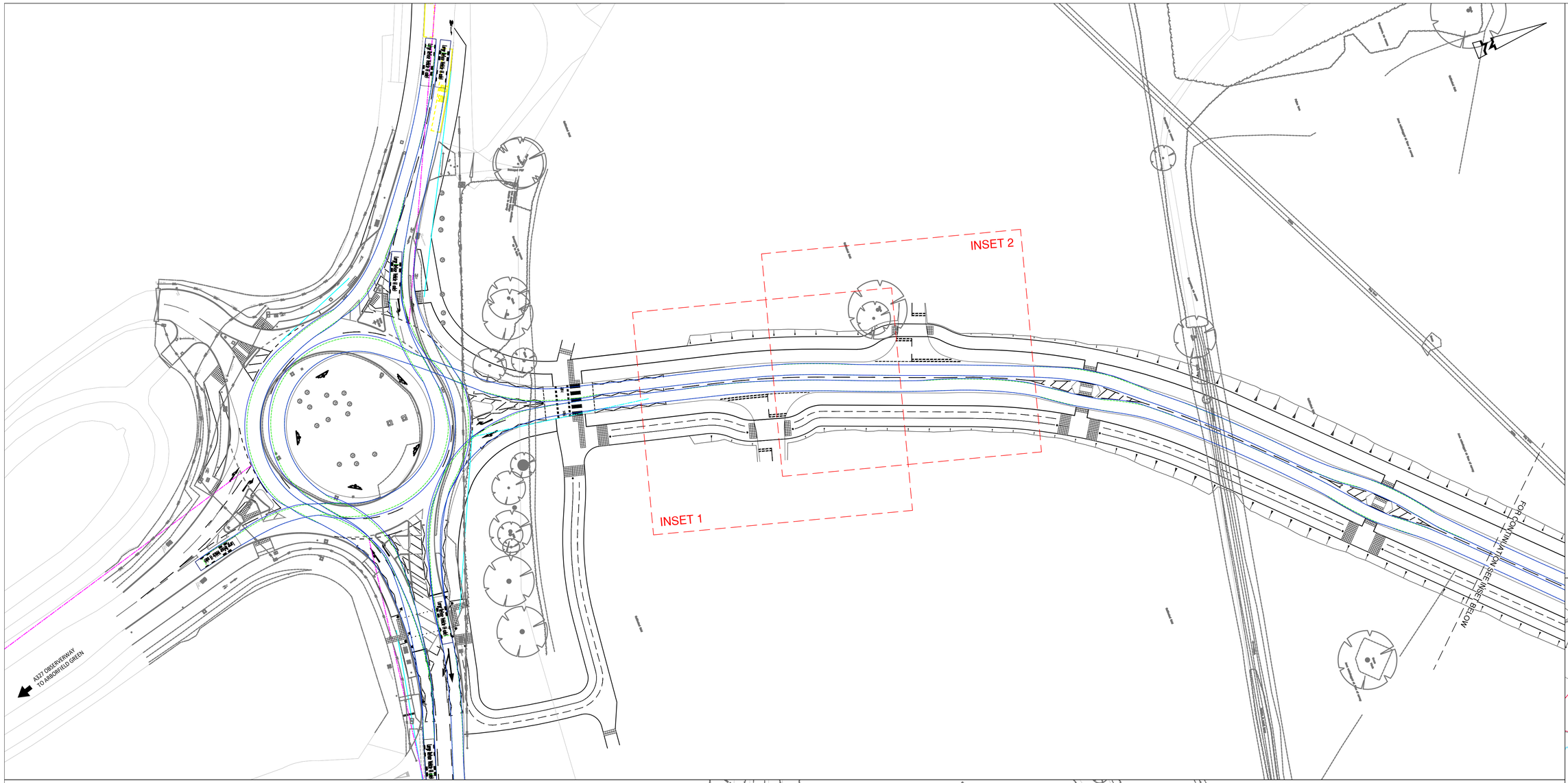
Project
LODDON GARDEN VILLAGE

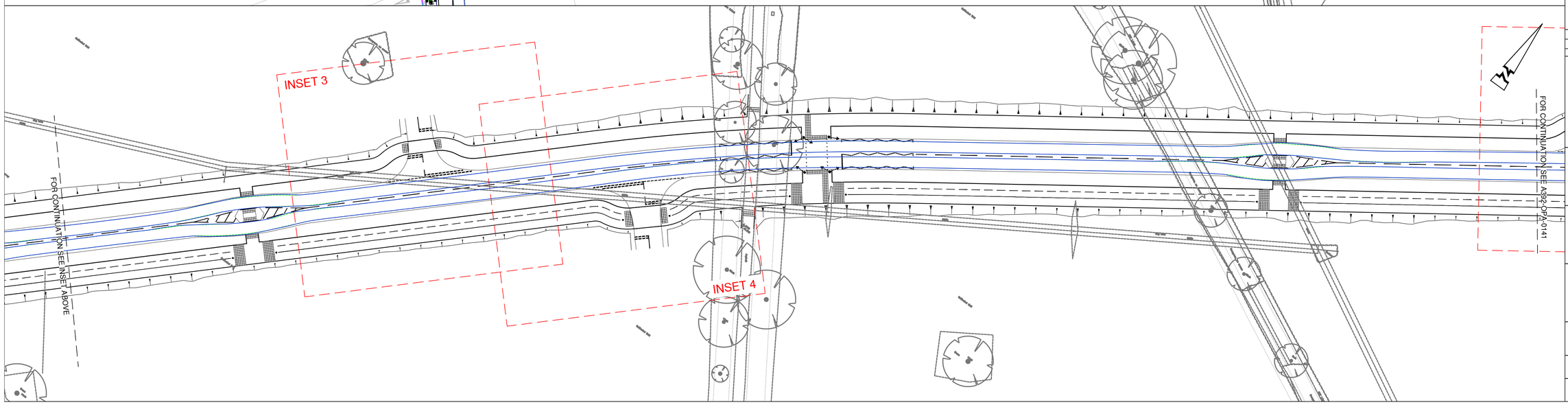
Title
LONGITUDINAL SECTIONS SHEET 6 OF 6

Status

Scale	Date	Drawn	Checked
1:500 H @ A0 1:100 V	JUNE 2025	JJS	CS

Drawing No	Revision
A392-OPA-0135	A





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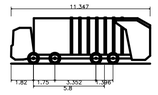
VEHICLE DIMENSIONS AND SPECIFICATIONS:



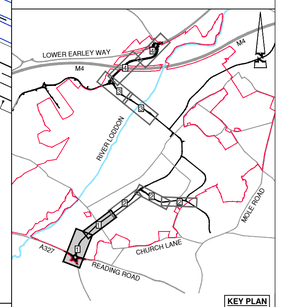
Large Refuse Vehicle (4 axle)	
Overall Length	11.347m
Overall Width	2.500m
Overall Body Height	2.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	6.00s
Wall to Wall Turning Radius	11.330m

Standard Design Vehicle (SDV)	
Overall Length	4.800m
Overall Width	2.000m
Overall Body Height	1.950m
Min Body Ground Clearance	0.100m
Track Width	2.000m
Lock to lock time	4.00s
Wall to Wall Turning Radius	6.000m

KEY:

- Approach Sightlines to Junction
- 120m Roundabout Visibility Splay (40mph, DMRB CD109)
- 43m Roundabout Visibility Splay (30mph, MfS)

0 5 10 15 20 25m
Scale 1:500



KEY PLAN
NTS
Redline Boundary

Rev	Date	Description	Drawn	Checked
B	07.25	KEY PLAN REDLINE BOUNDARY UPDATED	CS	LPA
A	06.25	FIRST ISSUE	RG	CS

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Client
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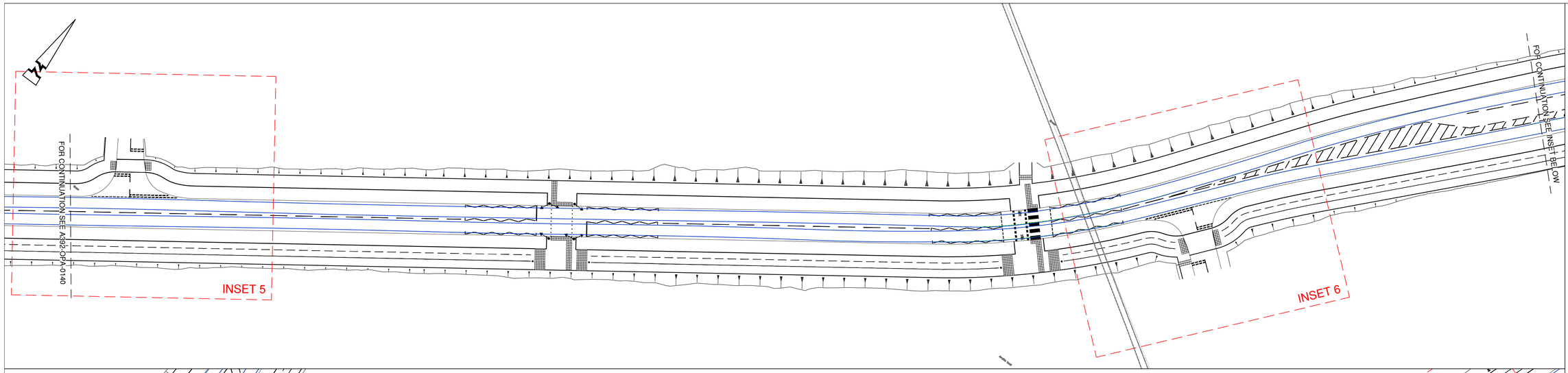
Project
LODDON GARDEN VILLAGE

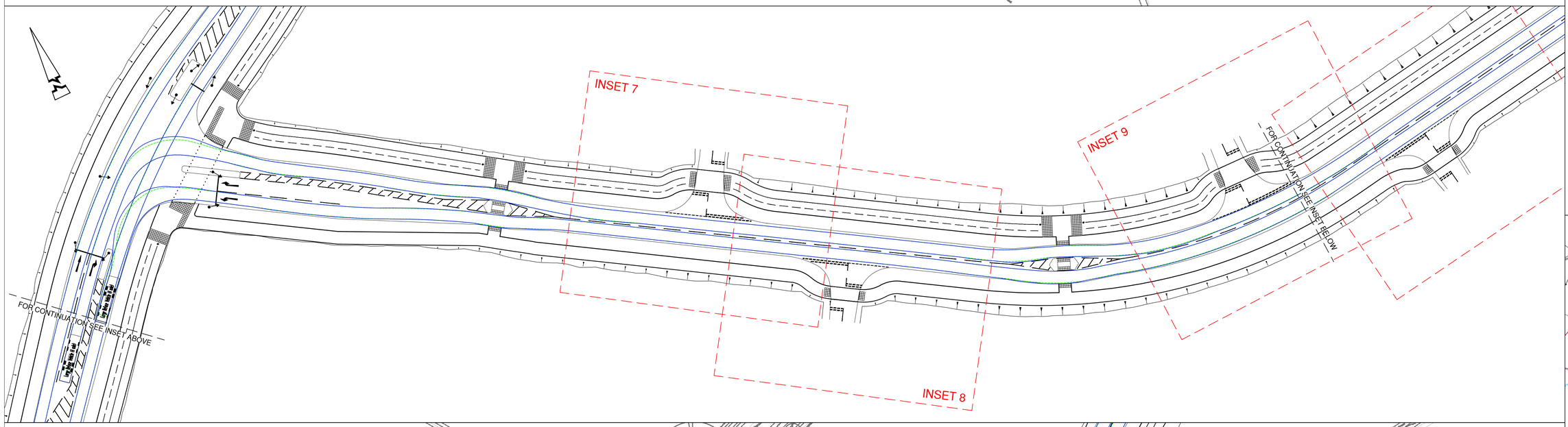
Title
REFUSE VEHICLE AND FIRE TENDER SWEPT PATHS SHEET 1 OF 6

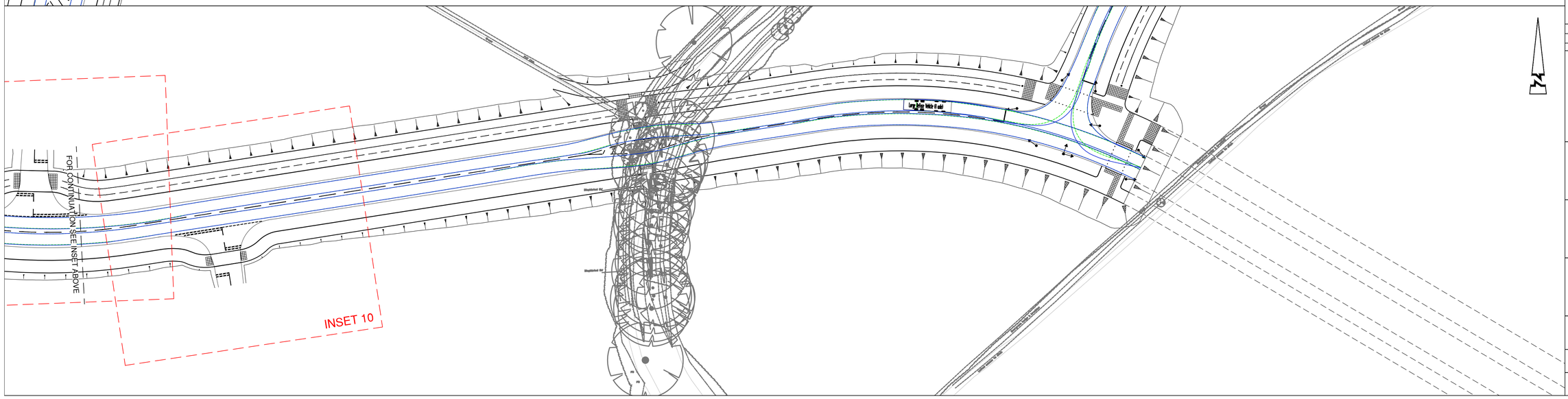
Status

Scale	Date	Drawn	Checked
1:500 @ A1	JUN 2025	RG	CS

Drawing No	Revision
A392-OPA-0140	B







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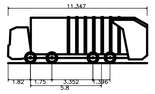
1. Do not scale.
2. Refer to all other Project Drawings and supporting notes.

VEHICLE DIMENSIONS AND SPECIFICATIONS:



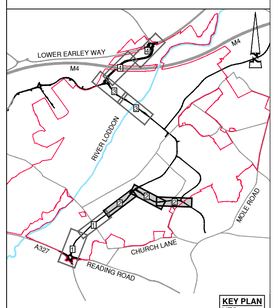
Large Refuse Vehicle (4 axle)	
Overall Length	11.347m
Overall Width	2.500m
Overall Body Height	4.351m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	6.00s
Wall to Wall Turning Radius	11.330m

Standard Design Vehicle (SDV)	
Overall Length	4.800m
Overall Width	2.000m
Overall Body Height	1.950m
Min Body Ground Clearance	0.100m
Track Width	2.000m
Lock to lock time	4.00s
Wall to Wall Turning Radius	6.000m

KEY:

- Approach Sightlines to Junction
- 120m Roundabout Visibility Splay (40mph, DMRB CD109)
- 43m Roundabout Visibility Splay (30mph, MfS)

0 5 10 15 20 25m
Scale 1:500



KEY PLAN
NTS
Redline Boundary

Rev	Date	Description	Drawn	Checked
B	07.25	KEY PLAN REDLINE BOUNDARY UPDATED	CS	LPA
A	06.25	FIRST ISSUE	RG	CS

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Project
LODDON GARDEN VILLAGE

Title
REFUSE VEHICLE AND FIRE TENDER SWEPT PATHS SHEET 2 OF 6

Status

Scale	Date	Drawn	Checked
1:500 @ A1	JUN 2025	RG	CS

Drawing No	Revision
A392-OPA-0141	B