

Lower Thames Crossing

Pre-Consultation Scheme Assessment Report
Volume 3: Identification and Description of Shortlist Routes
Section 8: Appendices
Part 1 of 5

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Appendix 3.1

Route 1 Plan and Profile Drawings

Route 1 Layout Plan

Route 1 General Plan Sheet 1 of 7

Route 1 Bridge and Bored Tunnel Plan and Profile Sheet 2 of 7

Route 1 Bridge Plan and Profile Sheet 3 of 7

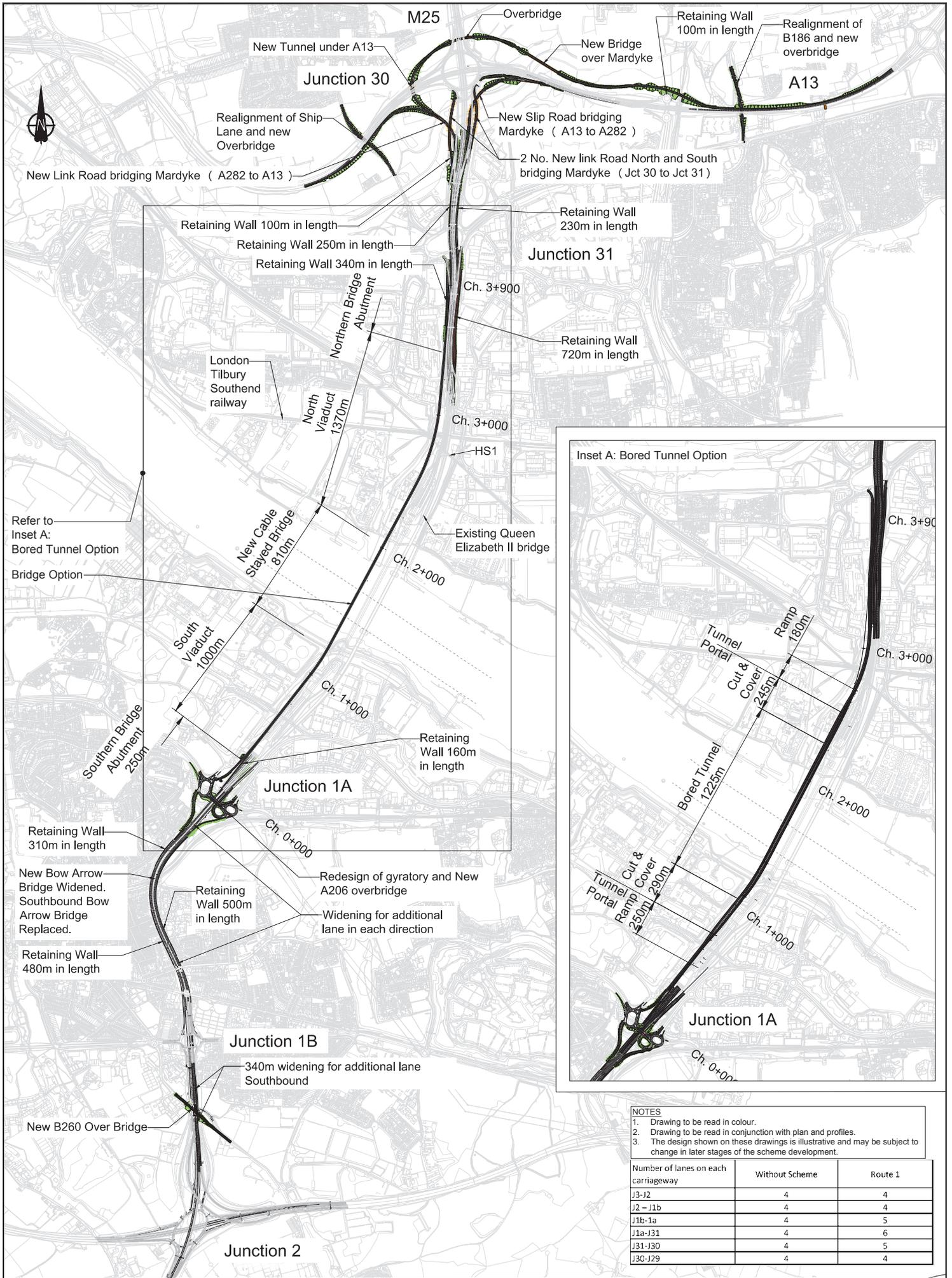
Route 1 Bridge Plan and Profile Sheet 4 of 7

Route 1 Bored Tunnel Plan and Profile Sheet 5 of 7

Route 1 Bored Tunnel Plan and Profile Sheet 6 of 7

Route 1 Bridge and Bored Tunnel Plan and Profile Sheet 7 of 7

Location A Route 1 Junction 30 and 31 General Plan Layout



- NOTES**
1. Drawing to be read in colour.
 2. Drawing to be read in conjunction with plan and profiles.
 3. The design shown on these drawings is illustrative and may be subject to change in later stages of the scheme development.

Number of lanes on each carriageway	Without Scheme	Route 1
J3-J2	4	4
J2-J1b	4	4
J1b-1a	4	5
J1a-J31	4	6
J31-J30	4	5
J30-J29	4	4

P01	SS	15-01-16	SAR Issue	PMN	LG	KC
Rev	Status	Rev. Date	Purpose of revision	Drawn	Checked	Approved

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DESIGN

Client

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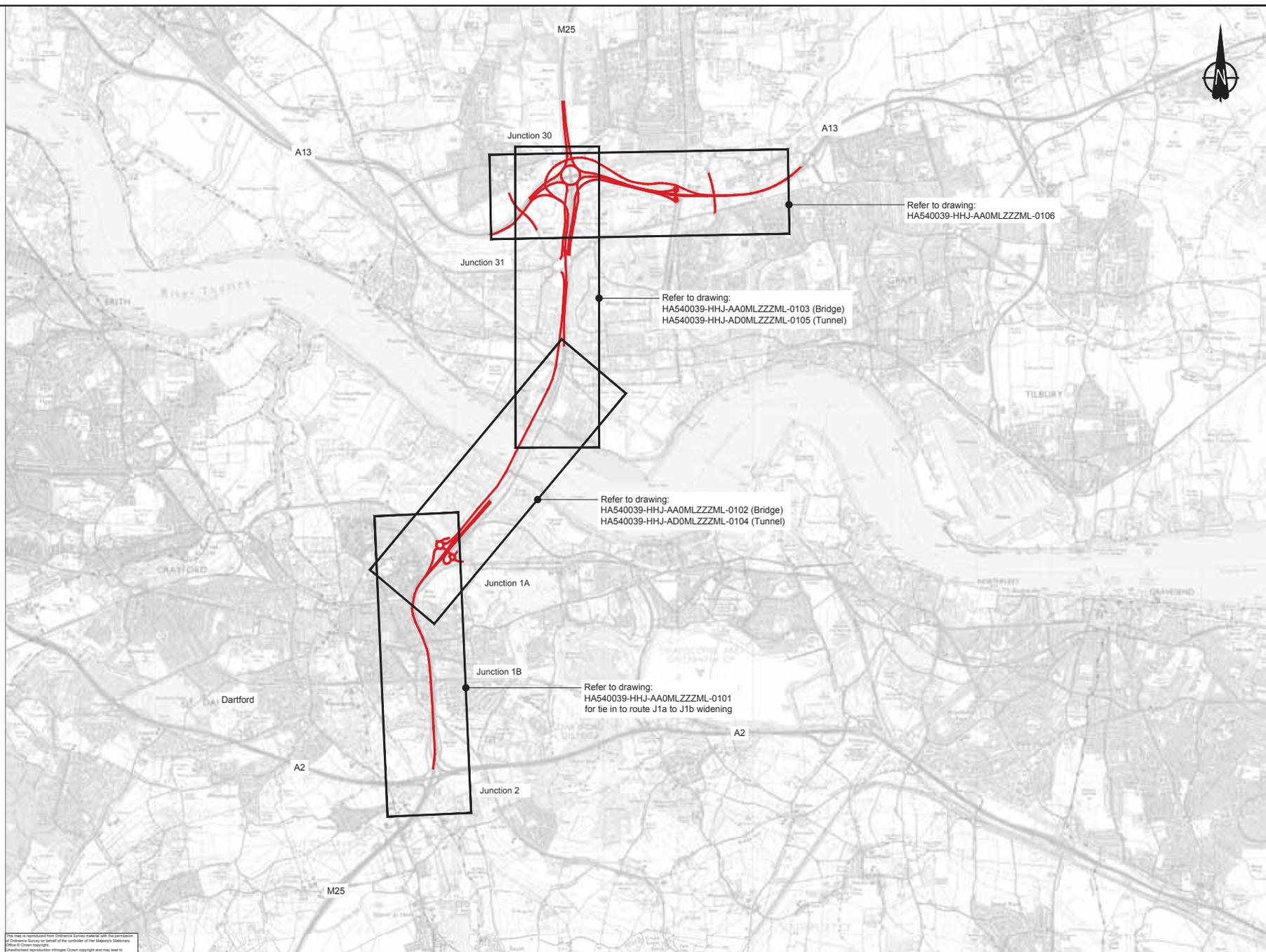
Project

**LOWER THAMES
CROSSING**

Drawing title

**Location A
Route 1 (Bridge)
General Layout Plan**

Status	SS	Revision	P01
Scale	NTS	Date	15-01-16
Drawn By	P. McNulty	Checked By	L. Goodall
Approved By	K. Chapman	Project No.	HA_PN_HAS40039
Original Size	A1	Drawing number	HML-AA0MLZZZML-DR-RD-0092



Refer to drawing:
HA540039-HHJ-AA0MLZZZML-0106

Refer to drawing:
HA540039-HHJ-AA0MLZZZML-0103 (Bridge)
HA540039-HHJ-AD0MLZZZML-0105 (Tunnel)

Refer to drawing:
HA540039-HHJ-AA0MLZZZML-0102 (Bridge)
HA540039-HHJ-AD0MLZZZML-0104 (Tunnel)

Refer to drawing:
HA540039-HHJ-AA0MLZZZML-0101
for tie in to route J1a to J1b widening

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NOTES

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LEGEND
 Route 1 (Tunnel and Bridge)

ILLUSTRATIVE DESIGN

Rev	Status	Rev. Date	Purpose of revision	Drawn	Checked	Approved

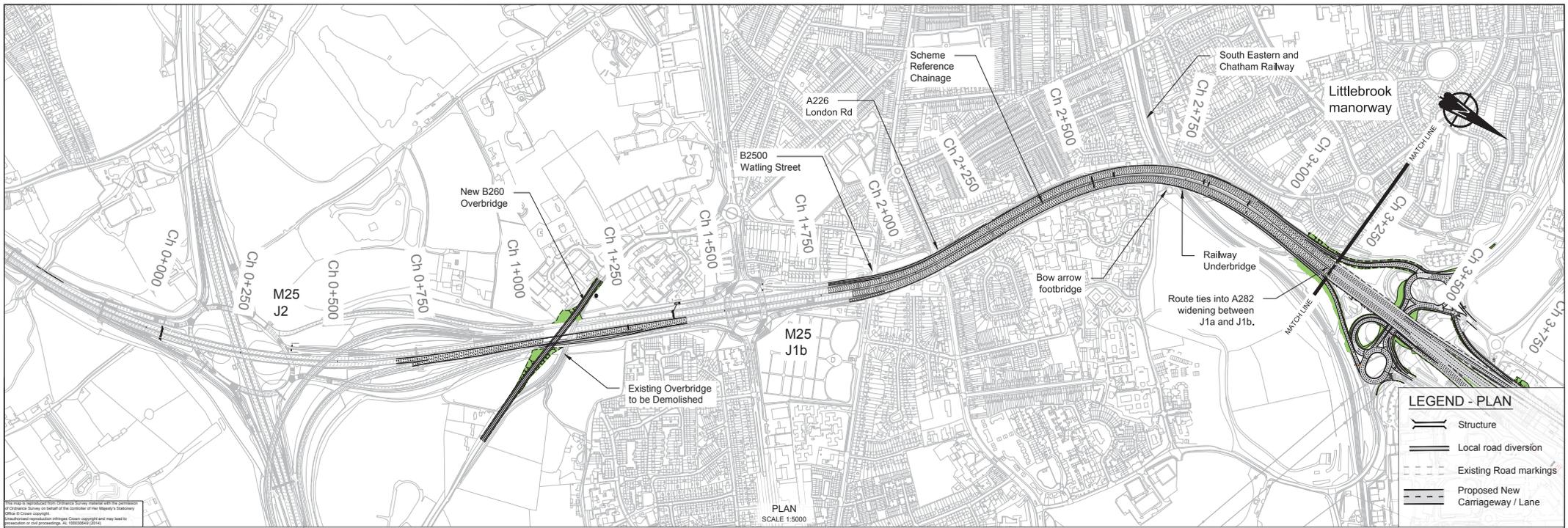
Client

Halcrow Hyder Joint Venture
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 Tel: +44(0)1793 812479

Project **LOWER THAMES CROSSING**

Drawing title **Route 1 General Plan Sheet 1 of 7**

Status	SS	Revision	P01
Scale	AS SHOWN	Date	28-05-15
Drawn By	P. McNulty		
Checked By	L. Goodall		
Approved By	K. Chapman		
Project No.	HA PN I Originator	Original Size	A1
	HA540039 HHJ		
Drawing number	HML-AZZMLZZZML-DR-RD-0100		



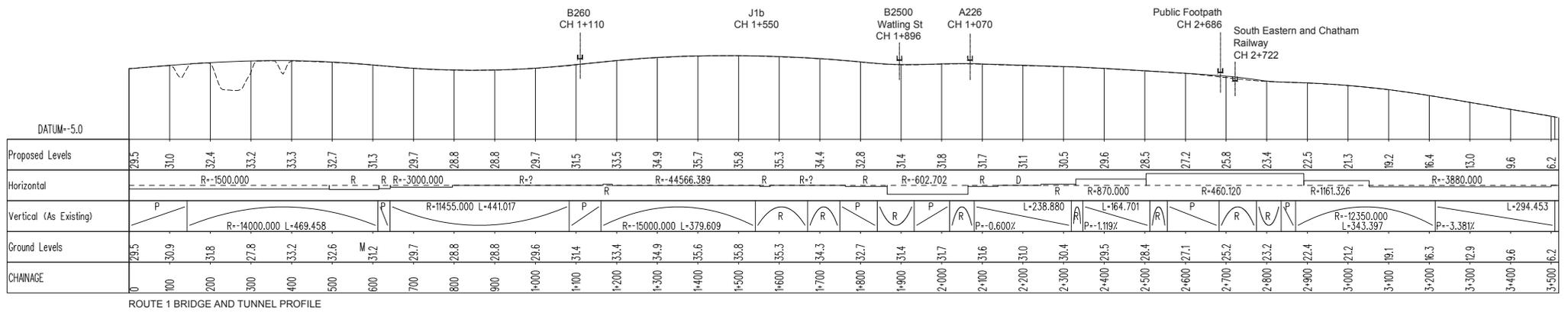
LEGEND - PLAN

- Structure
- Local road diversion
- Existing Road markings
- Proposed New Carriageway / Lane

PROFILE MA00
H.V SCALE 1:5000 - 1:500

LEGEND - PROFILE

- LTC Vertical Alignment
- Existing ground profile
- Structure location

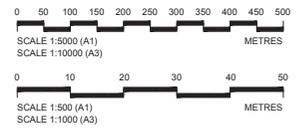


ROUTE 1 BRIDGE AND TUNNEL PROFILE

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NOTES

- For Key Plan refer to drawing HHJ-HML-AZZMLZZZML-DR-RD-0100
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Client: **highways england**

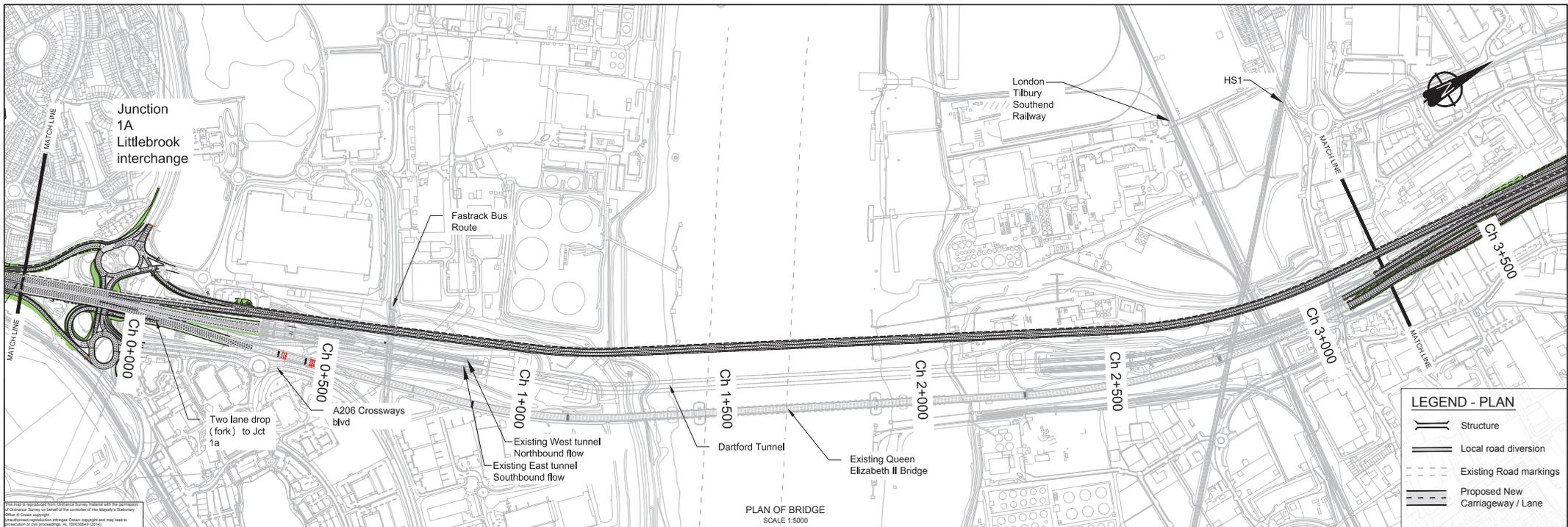
Halcrow Hyder Joint Venture
Burdorpe Park
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Project: **LOWER THAMES CROSSING**

Drawing title: **Route 1 Bridge & Bored Tunnel Plan & Profile Sheet 2 of 7**

Status: SS	Revision: P01
Scale: As Shown	Date: 14-10-15
Drawn By: P. McNulty	
Checked By: L. Gosnell	
Approved By: K. Chapman	
Project No: HA-PIN-I Originator: HAS40039	Original Size: A1
Drawn number: HML-AZZMLZZZML-DR-RD-0101	

PP1	SS	18-01-16	SAR Issue	PMN	LG	KC
Rev	Status	Rev. Date	Purpose of revision	Drawn	Checked	Approved



LEGEND - PLAN

- Structure
- Local road diversion
- Existing Road markings
- Proposed New Carriageway / Lane

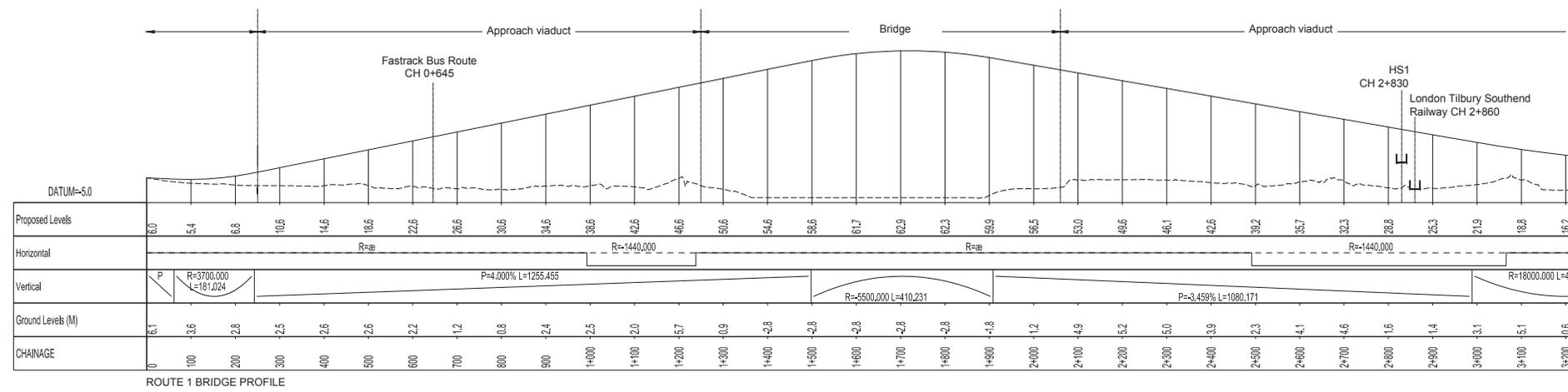
PLAN OF BRIDGE
SCALE 1:5000

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PROFILE
H.V SCALE 1:5000 - 1:500

LEGEND - PROFILE

- LTC Vertical Alignment
- Existing ground profile
- Structure location

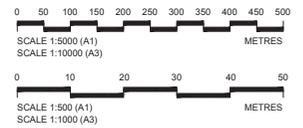


ROUTE 1 BRIDGE PROFILE

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NOTES

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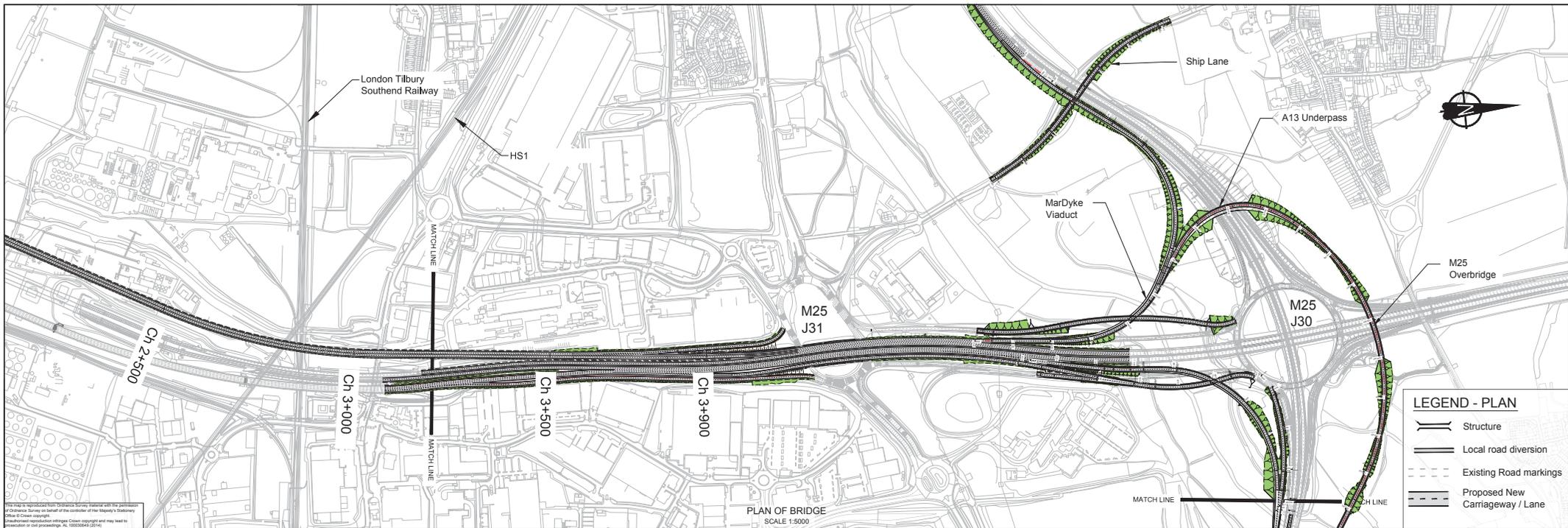
Client: **highways england**

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Project: **LOWER THAMES CROSSING**

Drawing title: **Route 1 Bridge Plan & Profile Sheet 3 of 7**

Status	SS	Revision	P01
Scale	As Shown	Date	14-10-15
Drawn By	P. McNulty		
Checked By	L. Cooch		
Approved By	K. Chapman		
Project No.	HA_P/N HA540039	I Originator	Original Size
Drawing number	HHJ		A1
HML-AA0MLZZZML-DR-RD-0102			



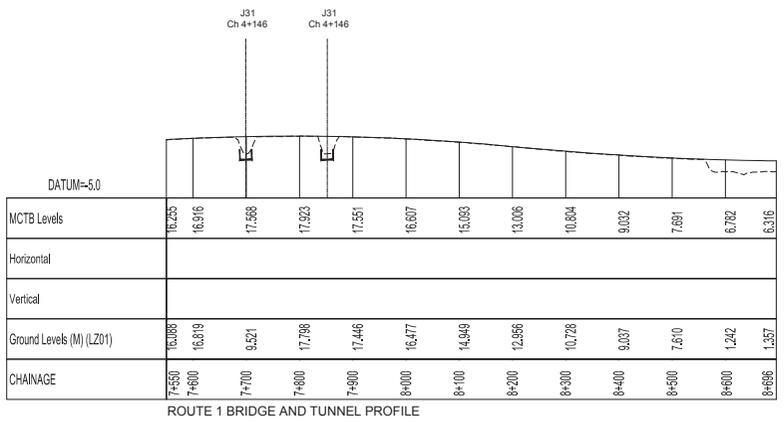
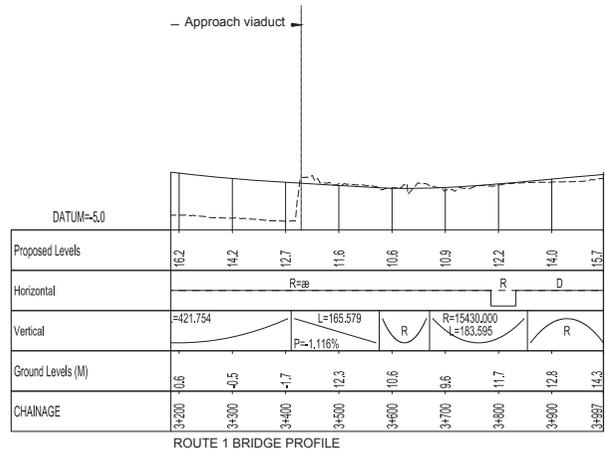
LEGEND - PLAN

- Structure
- Local road diversion
- Existing Road markings
- Proposed New Carriageway / Lane

PROFILE
H/V SCALE 1:5000 - 1:500

LEGEND - PROFILE

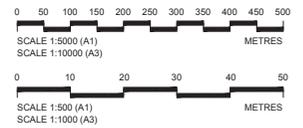
- LTC Vertical Alignment
- Existing ground profile
- Structure location



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NOTES

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Rev	Status	Rev. Date	Purpose of revision	Drawn	Checked	Approved

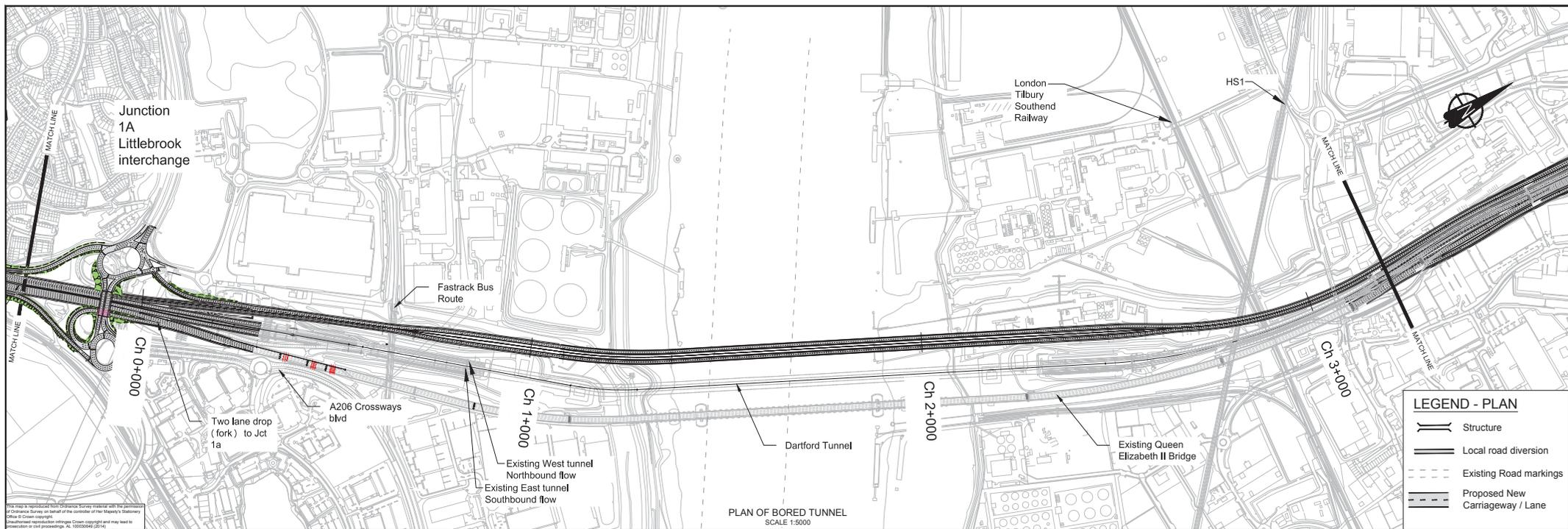
Client: **highways england**

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Project: **LOWER THAMES CROSSING**

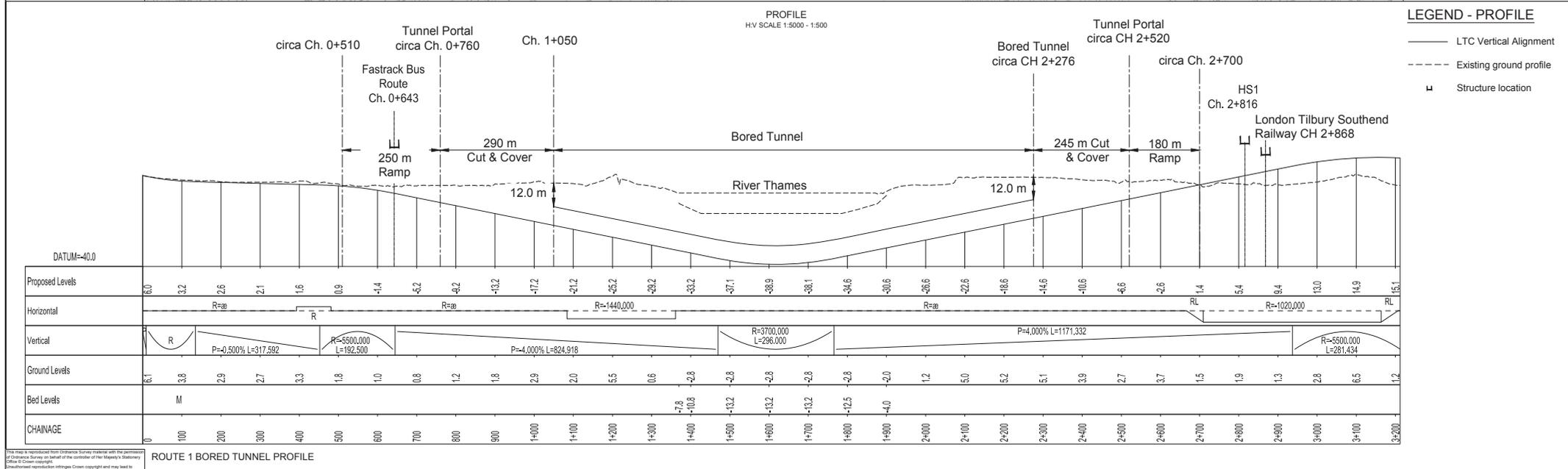
Drawing title: **Route 1 Bridge Plan & Profile Sheet 4 of 7**

Status	SS	Revision	P01
Scale	As Shown	Date	14-10-15
Drawn By	P. McNulty		
Checked By	L. Cocco		
Approved By	K. Chapman		
Project No.	HA / PN / I Originator	Original Size	A1
HA540039	HHJ		
Drawing number	HML-AA0MLZZZML-DR-RD-0103		



LEGEND - PLAN

- Structure
- Local road diversion
- Existing Road markings
- Proposed New Carriageway / Lane



LEGEND - PROFILE

- LTC Vertical Alignment
- Existing ground profile
- Structure location

NOTES

- For Key Plan refer to drawing HHJ-HML-AZZMLZZZML-DR-RD-0100
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SCALE 1:1000 (A3)

SCALE 1:500 (A1)
SCALE 1:1000 (A3)

ILLUSTRATIVE DESIGN

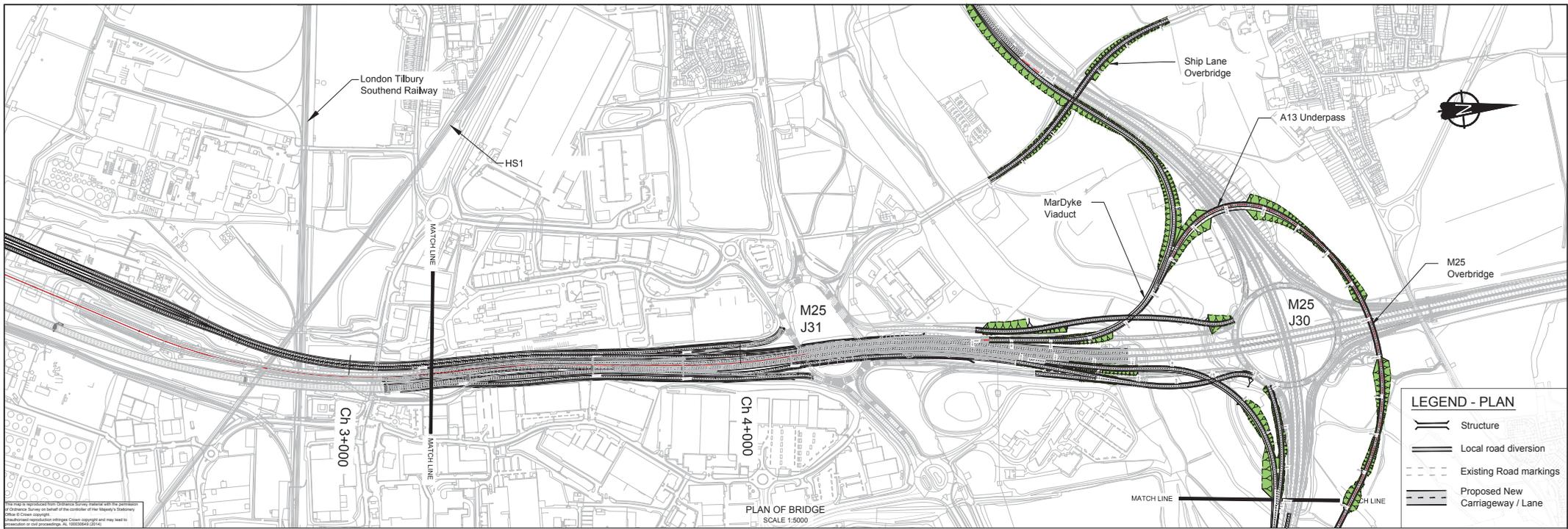
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LOWER THAMES CROSSING

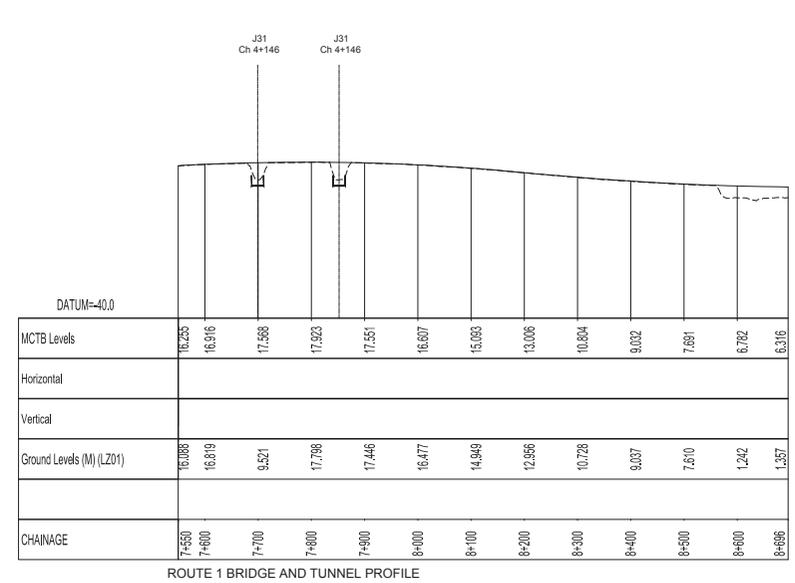
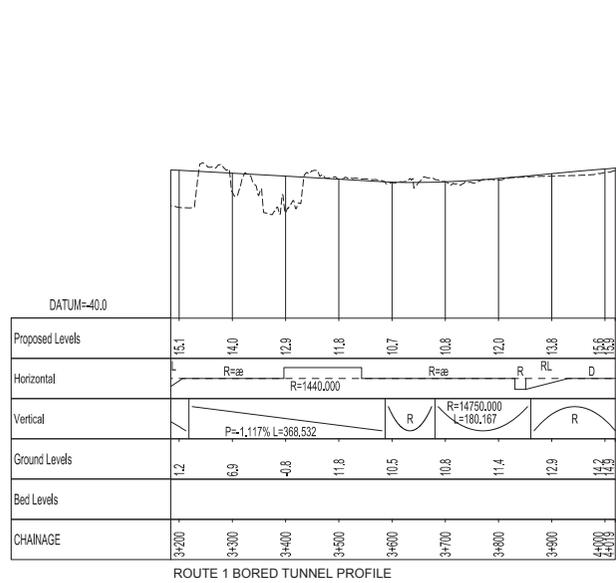
Route 1 Bored Tunnel Plan & Profile Sheet 5 of 7

Project	LOWER THAMES CROSSING	Status	SS	Revision	P01
Drawing title	Route 1 Bored Tunnel Plan & Profile Sheet 5 of 7	Scale	As Shown	Date	14-10-15
Drawn By	L. C. Good	Checked By	K. Chapman	Original Size	A1
Approved By	K. Chapman	Project No.	HA_PN_HA540039	Originator	HHJ
Drawing number	HML-AZZMLZZZML-DR-RD-0104				



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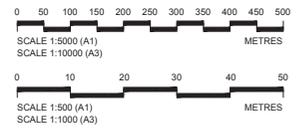
PROFILE
H.V SCALE 1:5000 - 1:500



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NOTES

- For Key Plan refer to drawing HHJ-HML-AZZMLZZZML-DR-RD-0100
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Project: **LOWER THAMES CROSSING**

Drawing title: **Route 1 Bored Tunnel Plan & Profile Sheet 6 of 7**

Status	SS	Revision	P01
Scale	As Shown	Date -	14-10-15
Drawn By	P. McNulty		
Checked By	L. Cocco		
Approved By	K. Chapman		
Project No.	HA / P/N / I Originator	Original Size	A1
HA540039	HHJ		
Drawing number	HML-AD0MLZZZML-DR-RD-0105		

PP1	SS	18-01-18	SAR Issue	PMN	LG	KC
Rev	Status	Rev. Date	Purpose of revision	Drawn	Checked	Approved

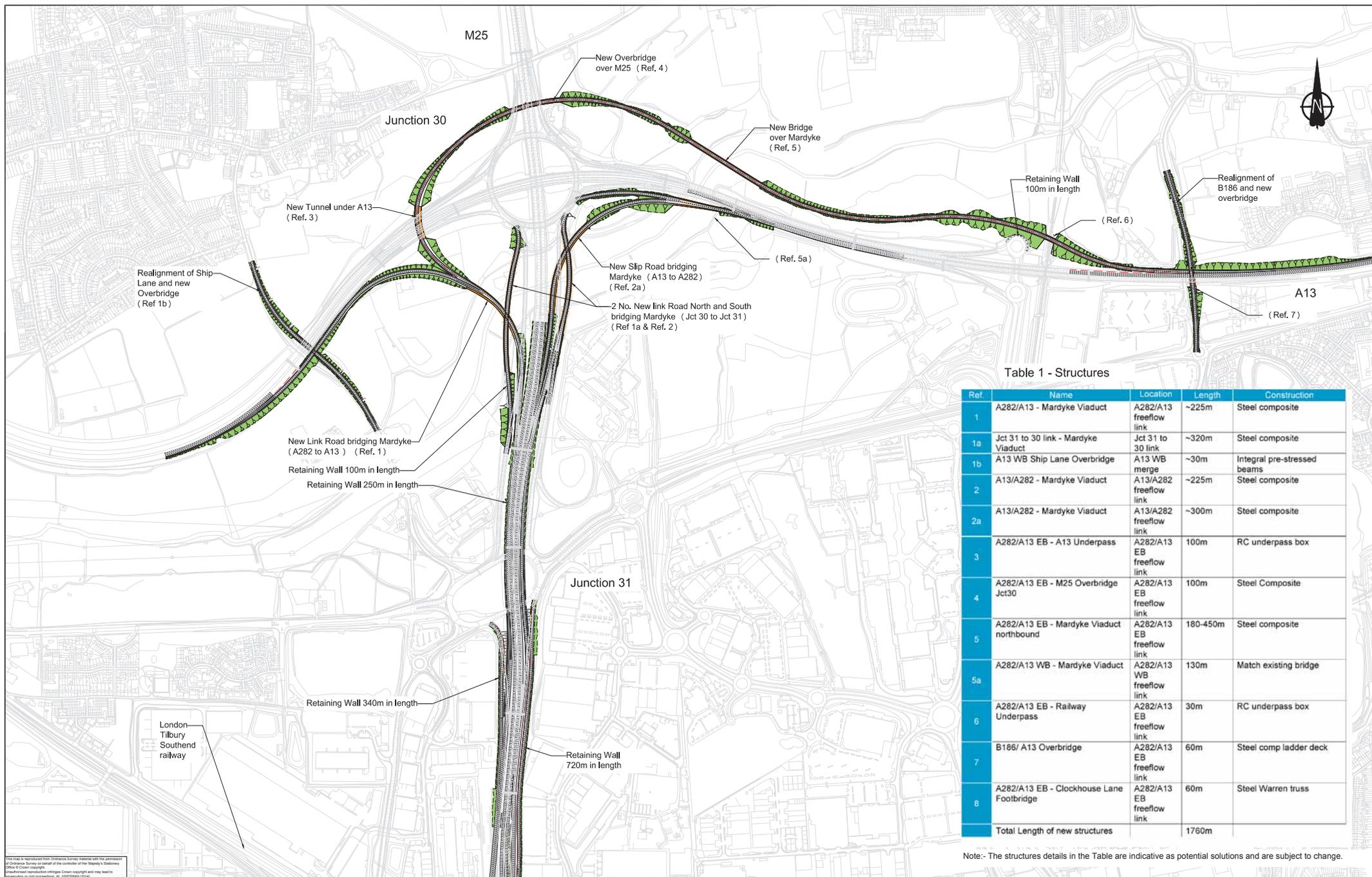


Table 1 - Structures

Ref	Name	Location	Length	Construction
1	A282/A13 - Mardyke Viaduct	A282/A13 freeflow link	~225m	Steel composite
1a	Jct 31 to 30 link - Mardyke Viaduct	Jct 31 to 30 link	~320m	Steel composite
1b	A13 WB Ship Lane Overbridge	A13 WB merge	~30m	Integral pre-stressed beams
2	A13/A282 - Mardyke Viaduct	A13/A282 freeflow link	~225m	Steel composite
2a	A13/A282 - Mardyke Viaduct	A13/A282 freeflow link	~300m	Steel composite
3	A282/A13 EB - A13 Underpass	A282/A13 EB freeflow link	100m	RC underpass box
4	A282/A13 EB - M25 Overbridge Jct30	A282/A13 EB freeflow link	100m	Steel Composite
5	A282/A13 EB - Mardyke Viaduct northbound	A282/A13 EB freeflow link	180-450m	Steel composite
5a	A282/A13 WB - Mardyke Viaduct	A282/A13 WB freeflow link	130m	Match existing bridge
6	A282/A13 EB - Railway Underpass	A282/A13 EB freeflow link	30m	RC underpass box
7	B186/ A13 Overbridge	A282/A13 EB freeflow link	60m	Steel comp ladder deck
8	A282/A13 EB - Clockhouse Lane Footbridge	A282/A13 EB freeflow link	60m	Steel Warren truss
Total Length of new structures			1760m	

Note:- The structures details in the Table are indicative as potential solutions and are subject to change.

NOTES

1. This drawing to be viewed in colour.
2. For Key Plan refer to drawing HHJ-HML-AZZMLZZZML-DR-RD-0100
3. The design shown on these drawings is illustrative and may be subject to change in later stages of the scheme development.

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 Halcrow Hyder Joint Venture Burderop Park Swindon, SN4 0DD Tel: +44(0)1793 612479	Project: LOWER THAMES CROSSING Drawing title: Location A Route 1 Junction 30 and 31 General Plan Layout	Status: SS Scale: NTS Drawn By: P. McNulty Checked By: L. Goccol Approved By: K. Chapman	Revision: P01 Date: 15-01-16	Original Size: A1 HML-AA0JCZZZML-SK-RD-0001
	Project No. HA_P/N I Originator HA540039 HHJ Original Size Drawing number: I I I I			

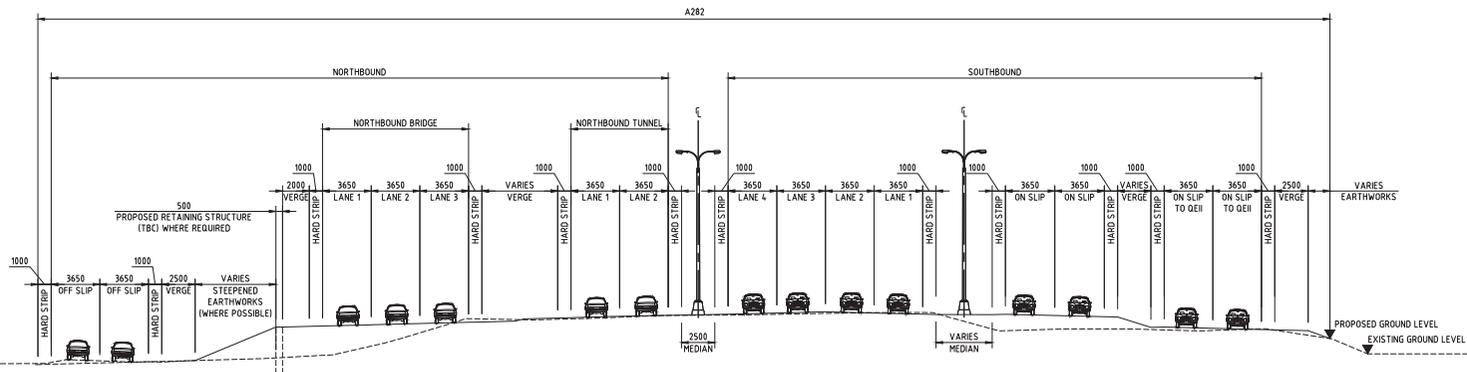
Appendix 3.2

Route 1 Typical Cross Section Drawings

Route 1 Typical Cross sections Sheet 1 of 3

Route 1 Typical Cross sections Sheet 2 of 3

Route 1 Typical Cross sections Sheet 3 of 3



TYPICAL SECTION NORTH OF THE RIVER THAMES APPROACHING JUNCTION 31

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NOTES

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3. This drawing to be read in conjunction with the plan and profile drawings.



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Rev	Status	Rev. Date	Purpose of revision	Drawn	Checked	Approved
P01	SS	18/01/2015	SAR Issue	CLM	LG	KC

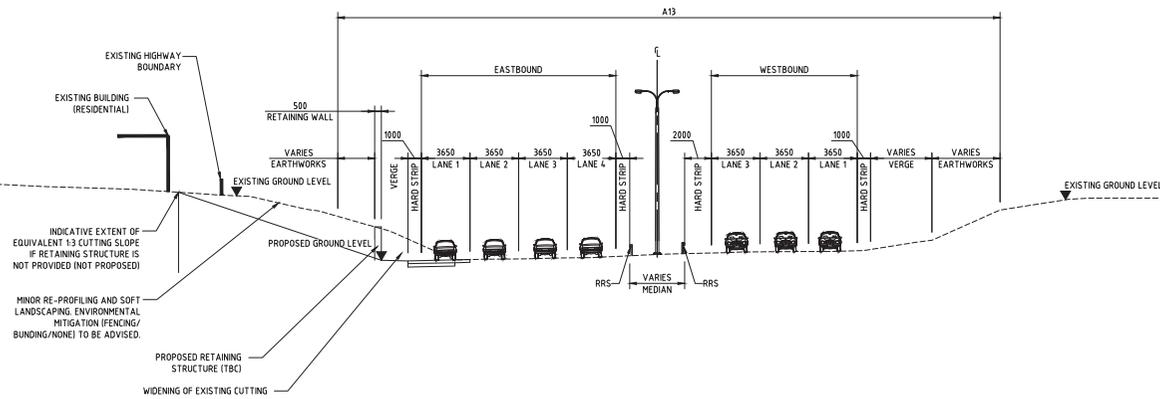
Client

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Project **LOWER THAMES CROSSING**

Drawing title **Route 1 Typical Cross Sections Sheet 2 of 3**

Status	SS	Revision	P01
Scale	1:200	Date	
Drawn By	C. Matthews		
Checked By	L. Goodall		
Approved By	K. Chapman		
Project No.	HA Rev I Originator	Original Size	A1
HA540039	HHJ		
Drawing number	HML-AZZMLZZZML-SK-RD-0002		



TYPICAL SECTION A13 AND PROPOSED A13 EASTBOUND LINK

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NOTES

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Client

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Burderop Park
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Project LOWER THAMES CROSSING

Drawing title Route 1 Typical Cross Sections Sheet 3 of 3

Status	SS	Revision	P01
Scale	1:200	Date	
Drawn By	C. Matthews		
Checked By	L. Goodall		
Approved By	K. Chapman		
Project No.	HA Rev I Originator	Original Size	A1
HA	rev	HHJ	
Drawing number	HML-AZZMLZZZML-SK-RD-0003		

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The Pre-Consultation Scheme Assessment Report details the assessment of options leading up to consultation. A final Scheme Assessment Report will be published post consultation.