

# Lower Thames Crossing

## 6.3 Environmental Statement Appendices

### Appendix 10.5 - Ground Model

APFP Regulation 5(2)(a)

Infrastructure Planning  
(Applications: Prescribed Forms and Procedure)  
Regulations 2009  
Volume 6

DATE: October 2022

Planning Inspectorate Scheme Ref: TR010032  
Application Document Ref: TR010032/APP/6.3

VERSION: 1.0





REFER TO DRAWING  
HE540039-CJV-HGT-SZP\_ML000000\_Z-DR-CE-00020

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HE540039-CJV-HGT-SZP\_ML000000\_Z-DR-CE-00018

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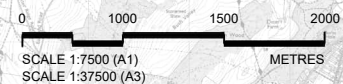
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Rev	Status	Rev. Date	Purpose of revision	Drawn	Checked	Apprv'd
P01	S8	16/04/2020	ISSUED FOR DCO APPLICATION	SDP	AB	ELA
P02	S8	26/08/2020	GEOLOGICAL INTERPRETATION REVISED	SDP	ELA	CA
P03	S8	19/10/2022	DESIGN UPDATED FOR DCO APPLICATION	AAB	MW	CA

GENERAL NOTES  
1. DO NOT SCALE FROM THIS DRAWING.  
2. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.  
3. ALL LEVELS ARE IN METRES RELATIVE TO ORDNANCE DATUM.

Client

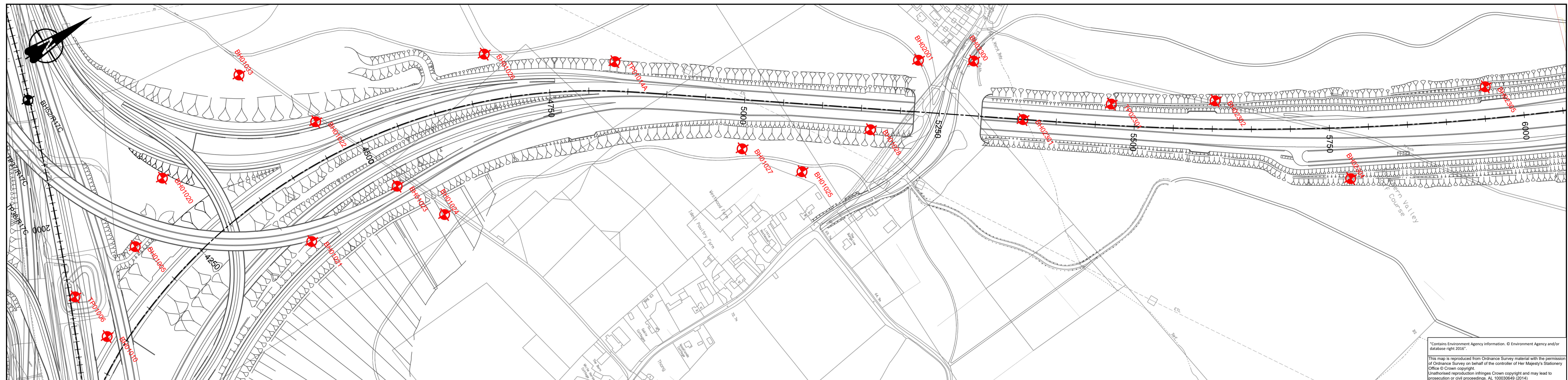
**LOWER THAMES CROSSING**  
5th Floor Beaufort House  
15 St Botolph Street  
London EC3A 7DT

Project **LOWER THAMES CROSSING DEVELOPMENT PHASE**

Drawing title **GEOLOGICAL LONG SECTION DRAWING LOCATION PLAN**

Status	S8	DCO Application	Original Size	A3	Revision	P03
Scale	AS SHOWN		Date	19/10/2022		
Drawn	AAB		Date	19/10/2022		
Checked	MW		Date	19/10/2022		
Approved	CA		Date	19/10/2022		
Drawing number	HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00002					

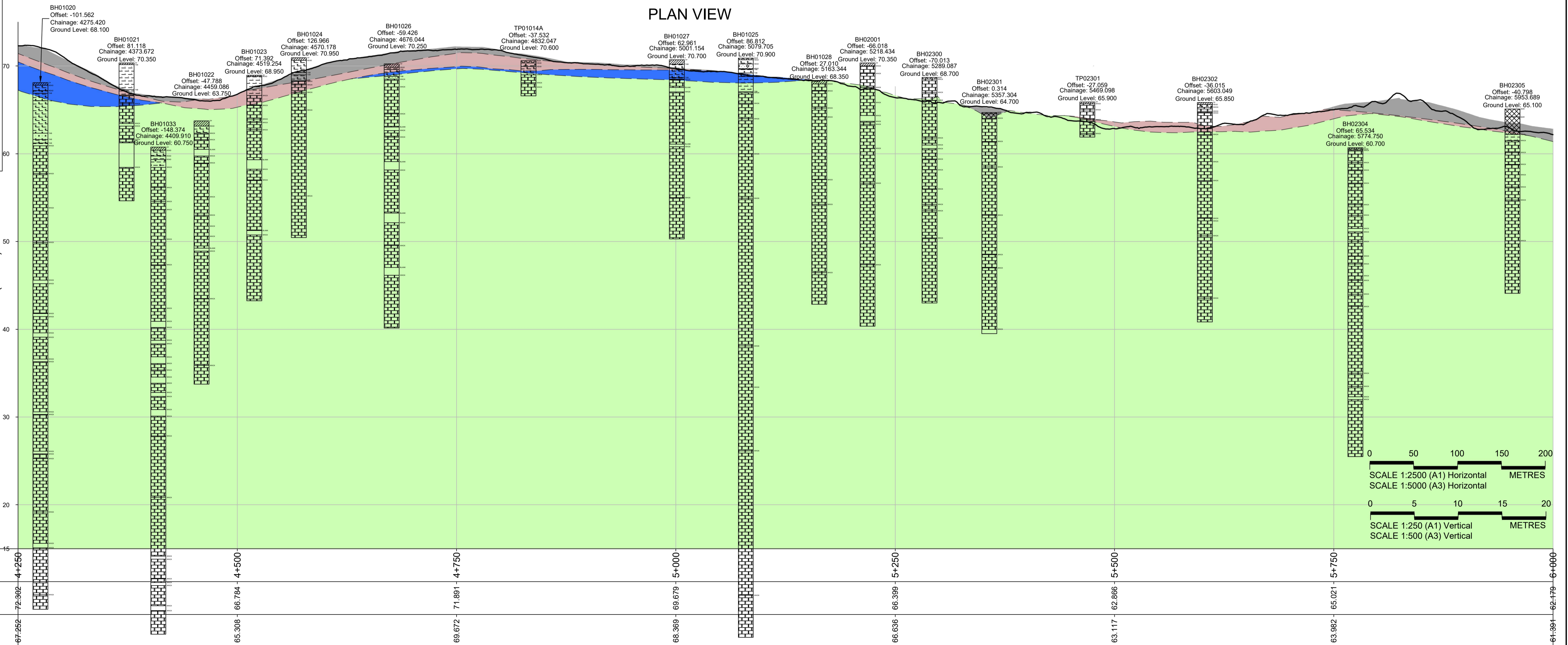




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- KEY:
- ARTIFICIALLY MODIFIED GROUND (ARTU)
  - HEAD (HEAD)
  - THANET FORMATION (TAB)
  - SEAFORD CHALK FORMATION (WHCK)
  - HISTORICAL EXPLORATORY HOLE
  - PHASE 1 EXPLORATORY HOLE (AS-BUILT)
  - PHASE 2 EXPLORATORY HOLE (PRELIMINARY AS-BUILT AVAILABLE IN AGS)
  - PROPOSED HIGHWAY LAYOUT
  - PROJECT REFERENCE LINE ALIGNMENT (PRL)

PLAN VIEW



SECTION VIEW

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprvd
P01	S8	17/04/2020	ISSUED FOR DCO APPLICATION	SDP	AB	ELA
P02	S8	26/08/2020	GEOLOGICAL INTERPRETATION REVISED	SDP	ELA	CA
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Client

**LOWER THAMES CROSSING**

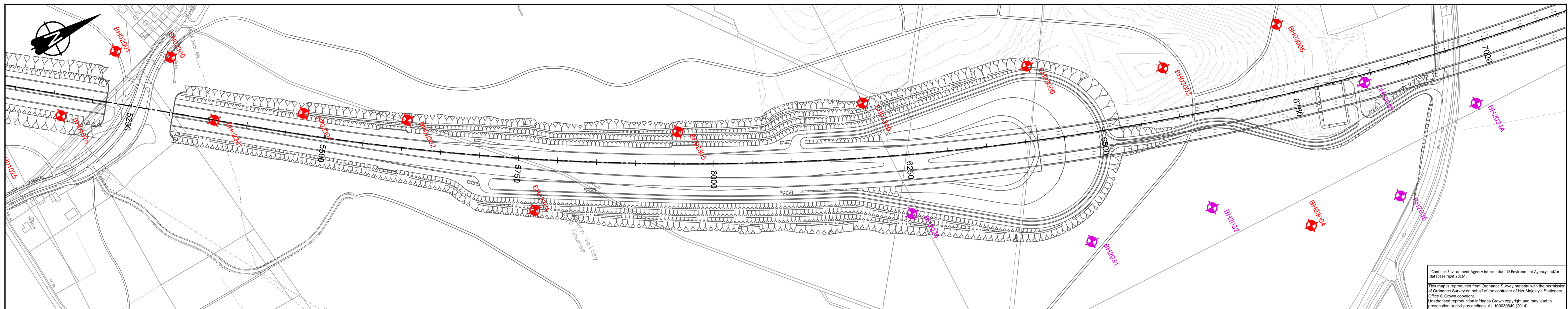
5th Floor Beaufort House  
 15 St Botolph Street  
 London EC3A 7DT

Project **LOWER THAMES CROSSING DEVELOPMENT PHASE**

Drawing title **GEOLOGICAL LONG SECTION SHEET 1 OF 22**

Status	S8	DCO Application	Original Size	A1	Revision	P03
Scale	1:2500		Date	19/10/2022		
Drawn	AAB		Date	19/10/2022		
Checked	MW		Date	19/10/2022		
Approved	CA		Date	19/10/2022		
Drawing number	HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00003					



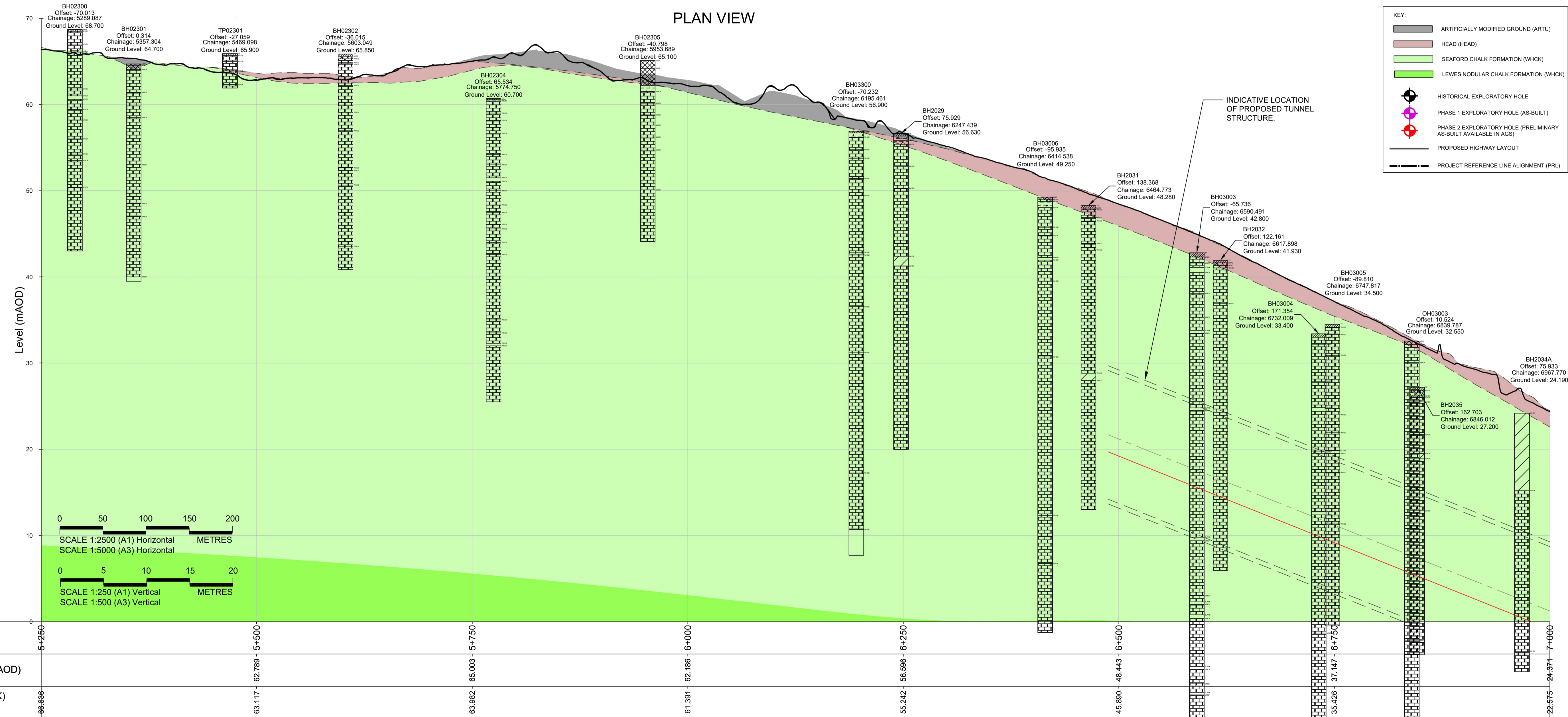


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PLAN VIEW

KEY:

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- PROPOSED HIGHWAY LAYOUT
- PROJECT REFERENCE LINE ALIGNMENT (PRL)



SECTION VIEW

PRL Chainage (m)	5+250	5+500	5+750	6+000	6+250	6+500	6+750	7+000
Existing Ground Levels (mAOD)		62.789	65.003	62.186	66.596	48.443	37.147	24.871
Top of Chalk Strata (WHCK) Levels (mAOD)	66.696	63.117	63.982	61.391	55.242	45.890	35.426	26.575

P01	S8	17/04/2020	ISSUED FOR DCO APPLICATION	SDP	FK	ELA
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Client

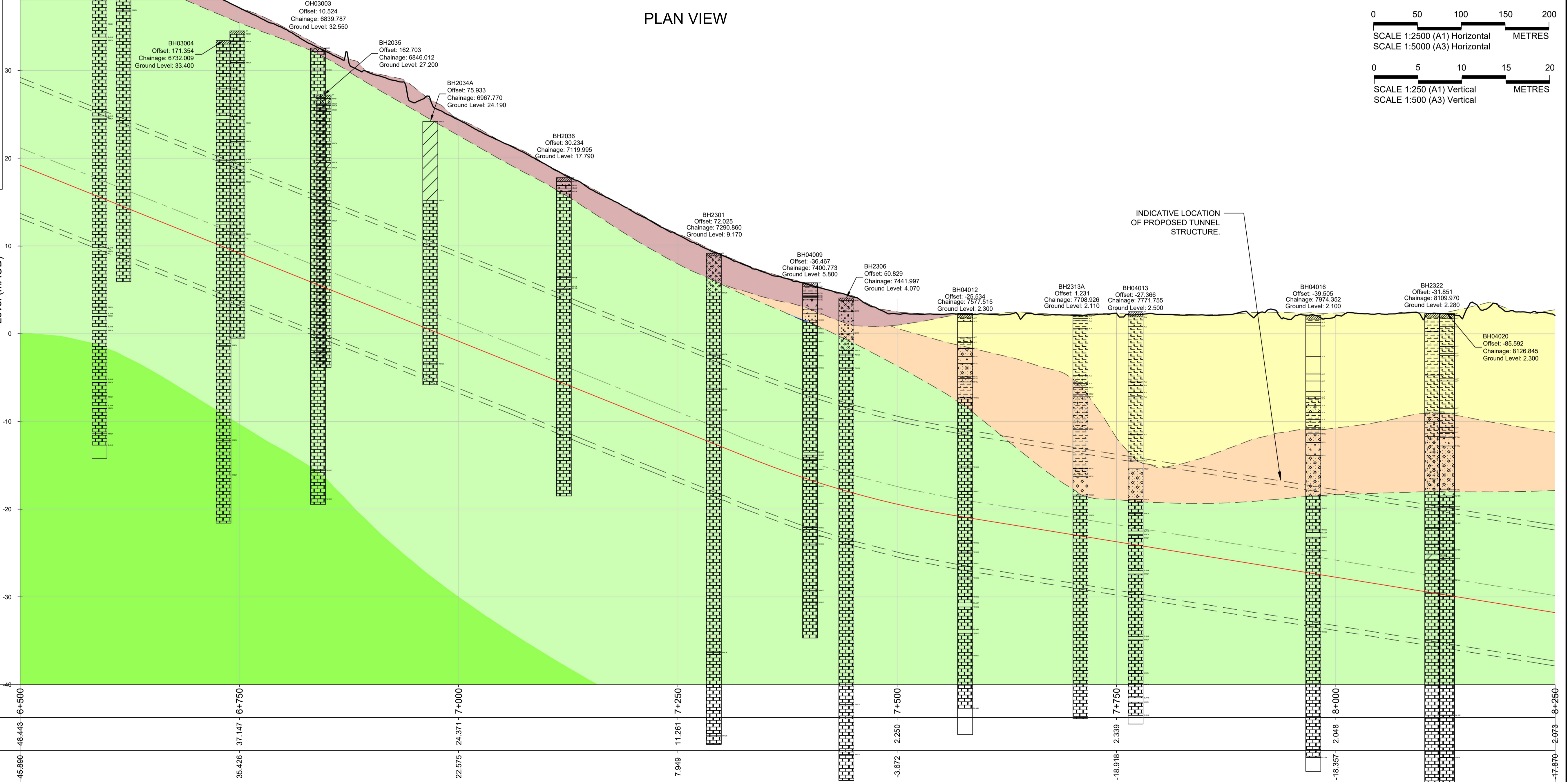
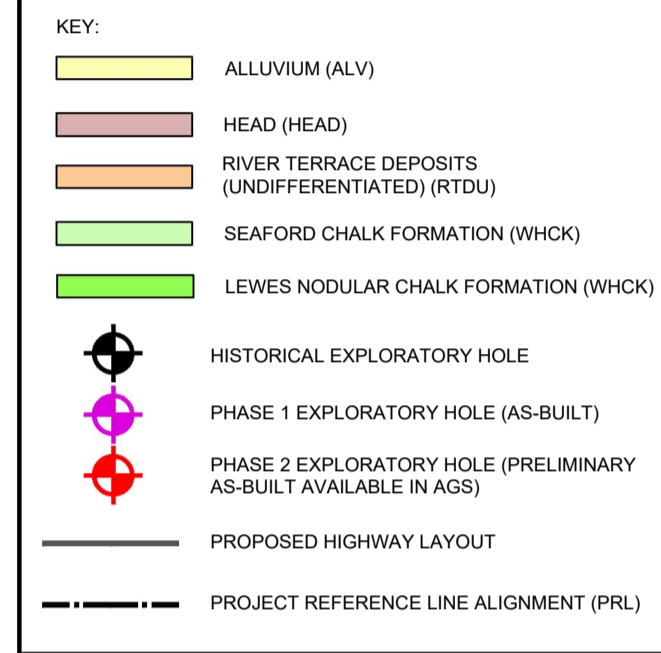
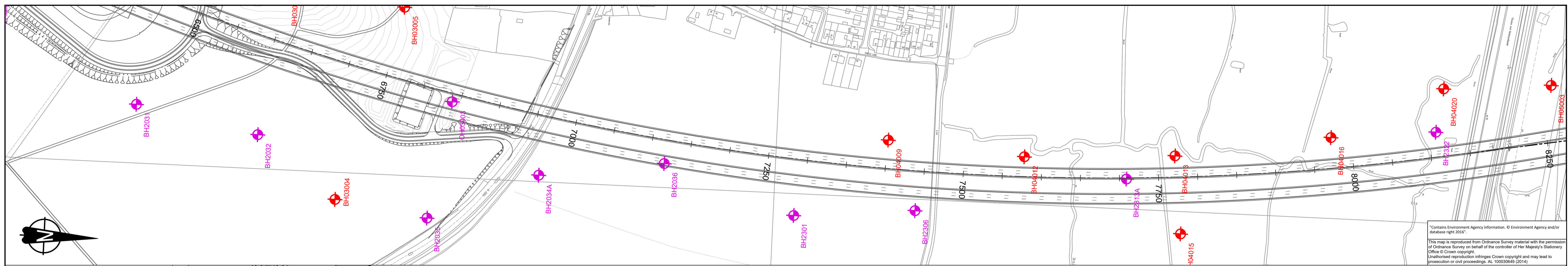
LOWER THAMES CROSSING  
 5th Floor Beaufort House  
 15 St Botolph Street  
 London EC3A 7DT

Project LOWER THAMES CROSSING DEVELOPMENT PHASE

Drawing title GEOLOGICAL LONG SECTION SHEET 2 OF 22

Status	S8	DCO Application	Original Size	A1	Revision	P03
Scale	1:2500		Date	19/10/2022		
Drawn	AAB	Date	19/10/2022			
Checked	MW	Date	19/10/2022			
Approved	CA	Date	19/10/2022			
Drawing number	HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00004					





PRL Chainage (m)	6+500	6+750	7+000	7+250	7+500	7+750	8+000	8+250
Existing Ground Levels (mAOD)	46.443	37.147	24.371	11.261	2.250	2.339	2.048	2.073
Top of Chalk Strata (WHCK) Levels (mAOD)	46.696	35.426	22.975	7.949	-3.672	-18.918	-17.570	-17.570

SECTION VIEW

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chk'd	Apprv'd
P01	S8	17/04/2020	ISSUED FOR DCO APPLICATION	SDP	AB	ELA
P02	S8	26/08/2020	GEOLOGICAL INTERPRETATION REVISED	SDP	ELA	ELA
P03	S8	19/10/2022	DESIGN UPDATED FOR DCO APPLICATION	AAB	MW	CA

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Client

**LOWER THAMES CROSSING**

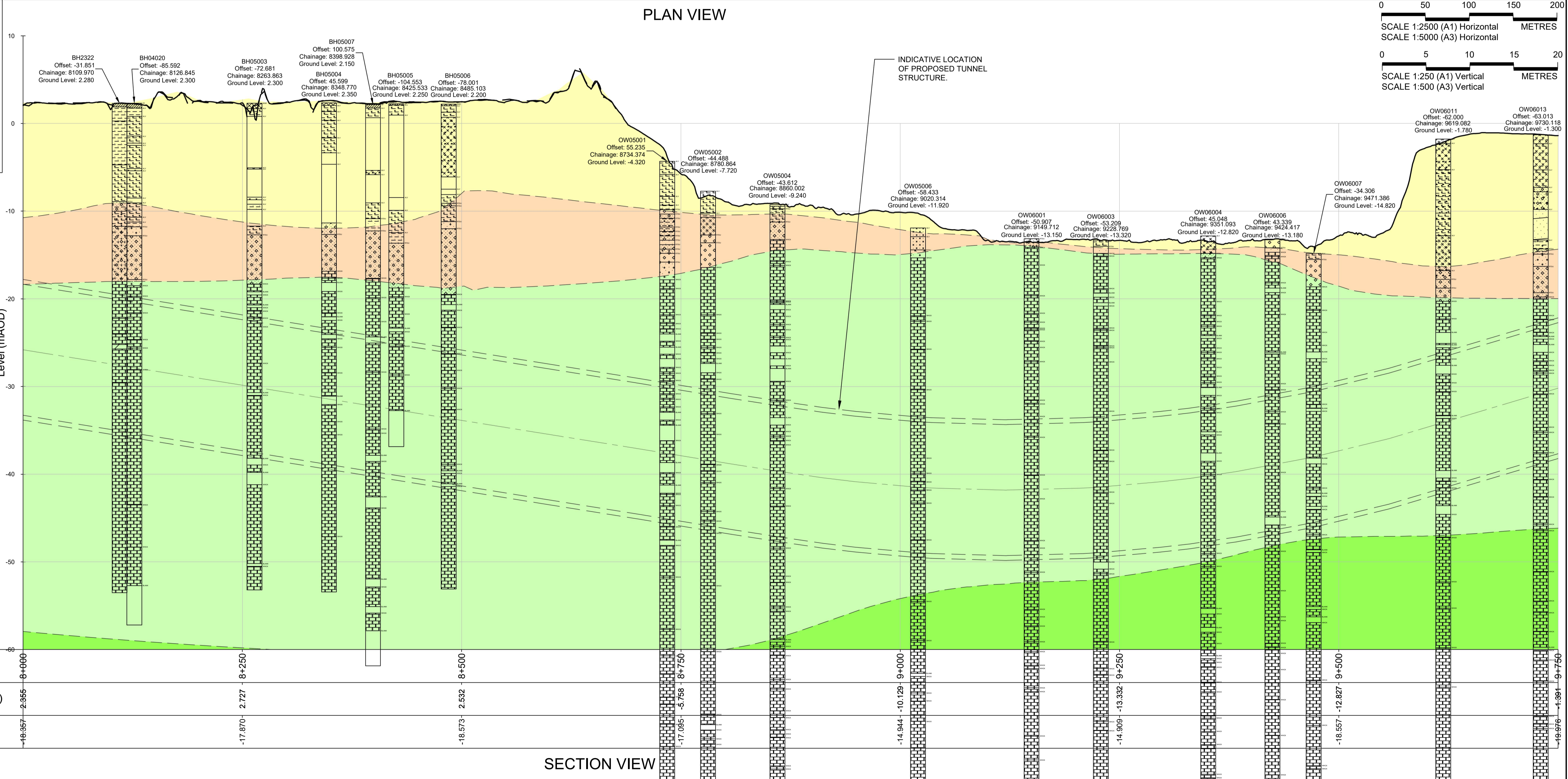
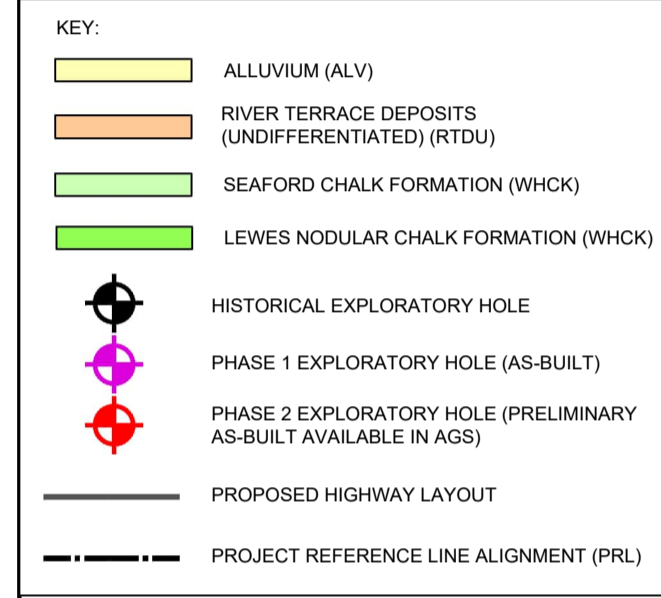
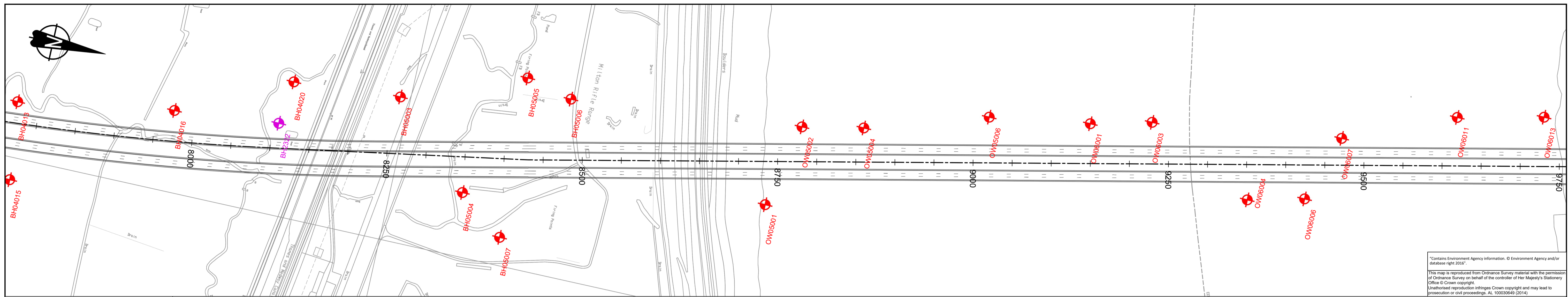
5th Floor Beaufort House  
15 St Botolph Street  
London EC3A 7DT

Project **LOWER THAMES CROSSING DEVELOPMENT PHASE**

Drawing title **GEOLOGICAL LONG SECTION SHEET 3 OF 22**

Status	S8	DCO Application	Original Size	A1	Revision	P03
Scale	1:2500		Date	19/10/2022		
Drawn	AAB	Checked	MW	Date	19/10/2022	
Approved	CA	Date	19/10/2022			
Drawing number	HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00005					





Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprv
P01	S8	17/04/2020	ISSUED FOR DCO APPLICATION	SDP	AB	ELA
P02	S8	26/08/2020	GEOLOGICAL INTERPRETATION REVISED	SDP	ELA	CA
P03	S8	19/10/2022	DESIGN UPDATED FOR DCO APPLICATION	AAB	MW	CA

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Client

**LOWER THAMES CROSSING**

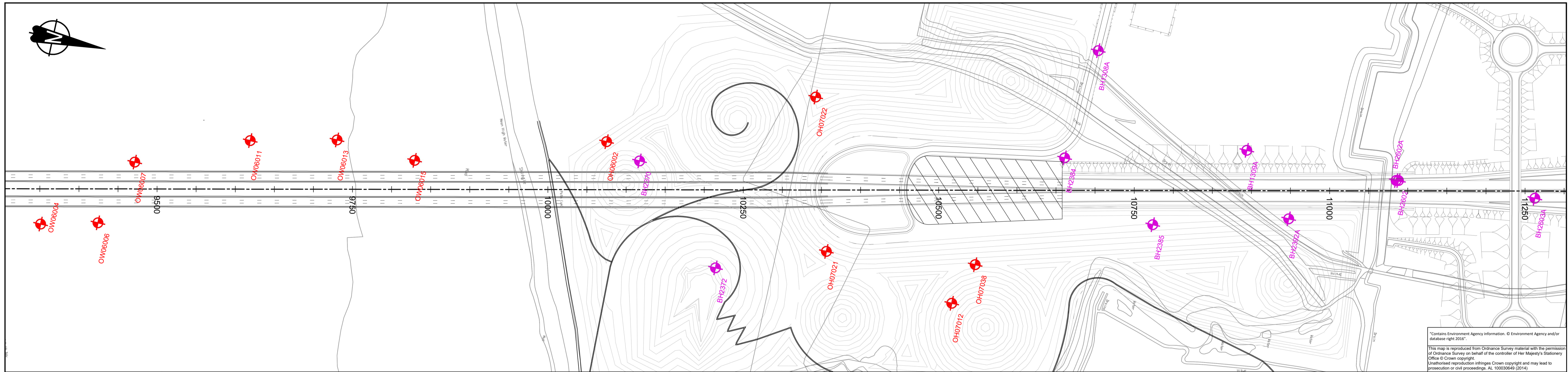
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15 St Botolph Street  
London EC3A 7DT

Project **LOWER THAMES CROSSING DEVELOPMENT PHASE**

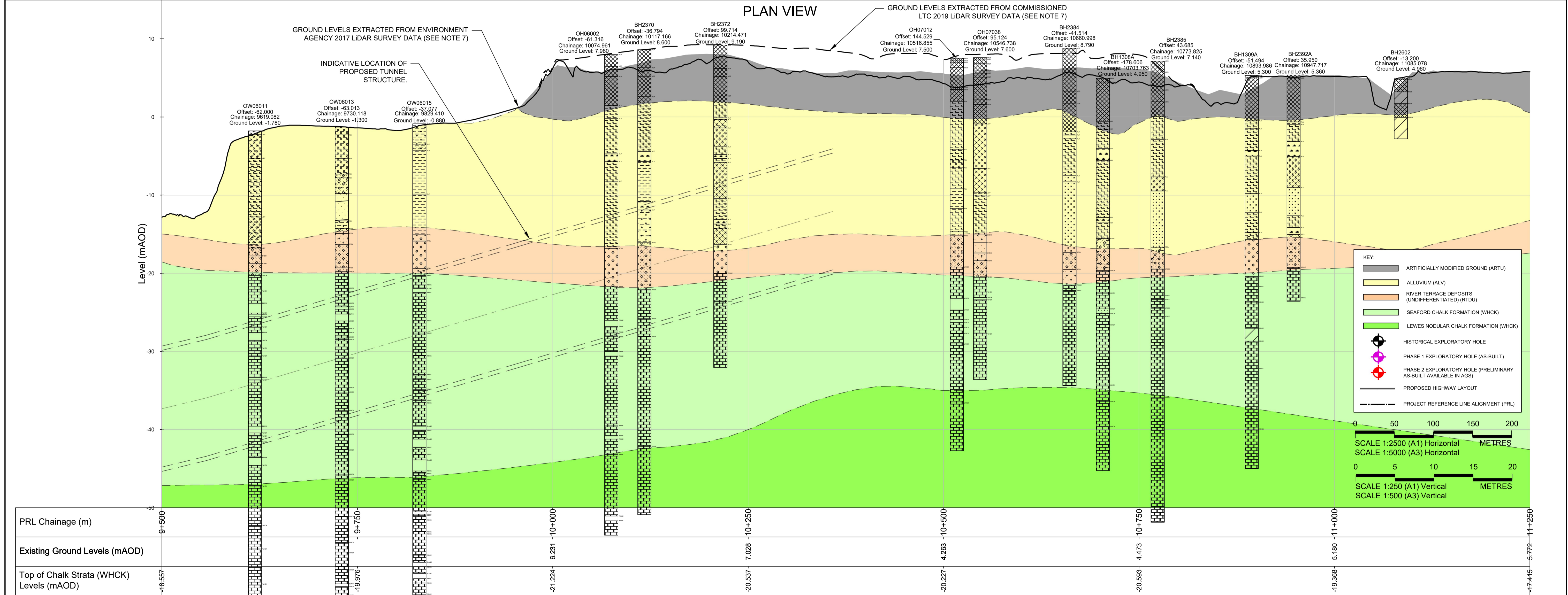
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Status	Original Size	Revision
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Scale 1:2500	Date - 19/10/2022	Date - 19/10/2022
Drawn AAB	Checked MW	Approved CA
Drawing number <b>HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00006</b>	Date - 19/10/2022	



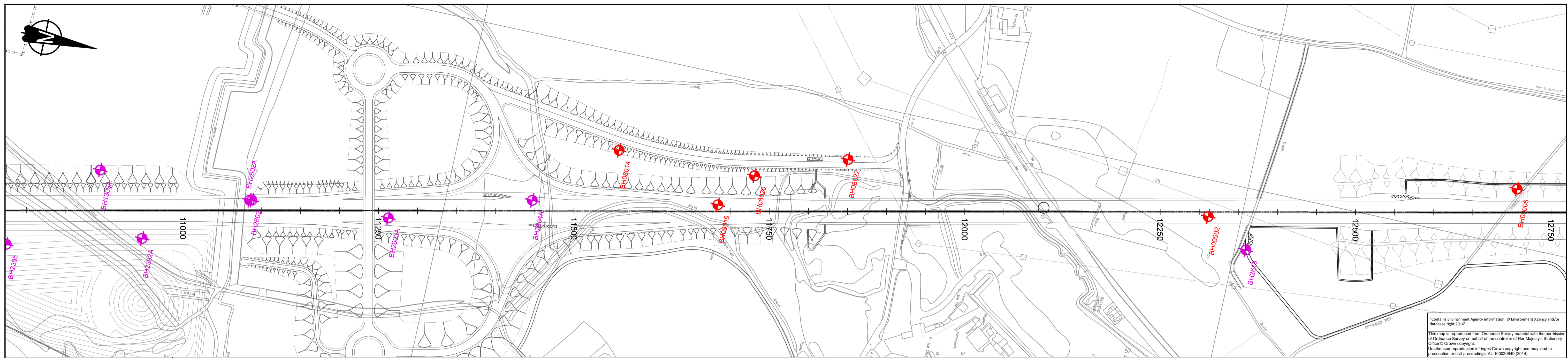


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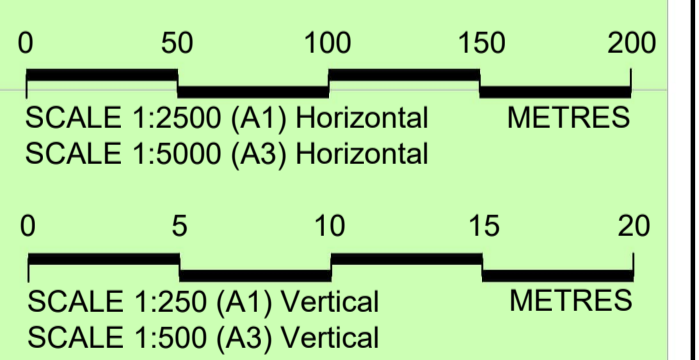
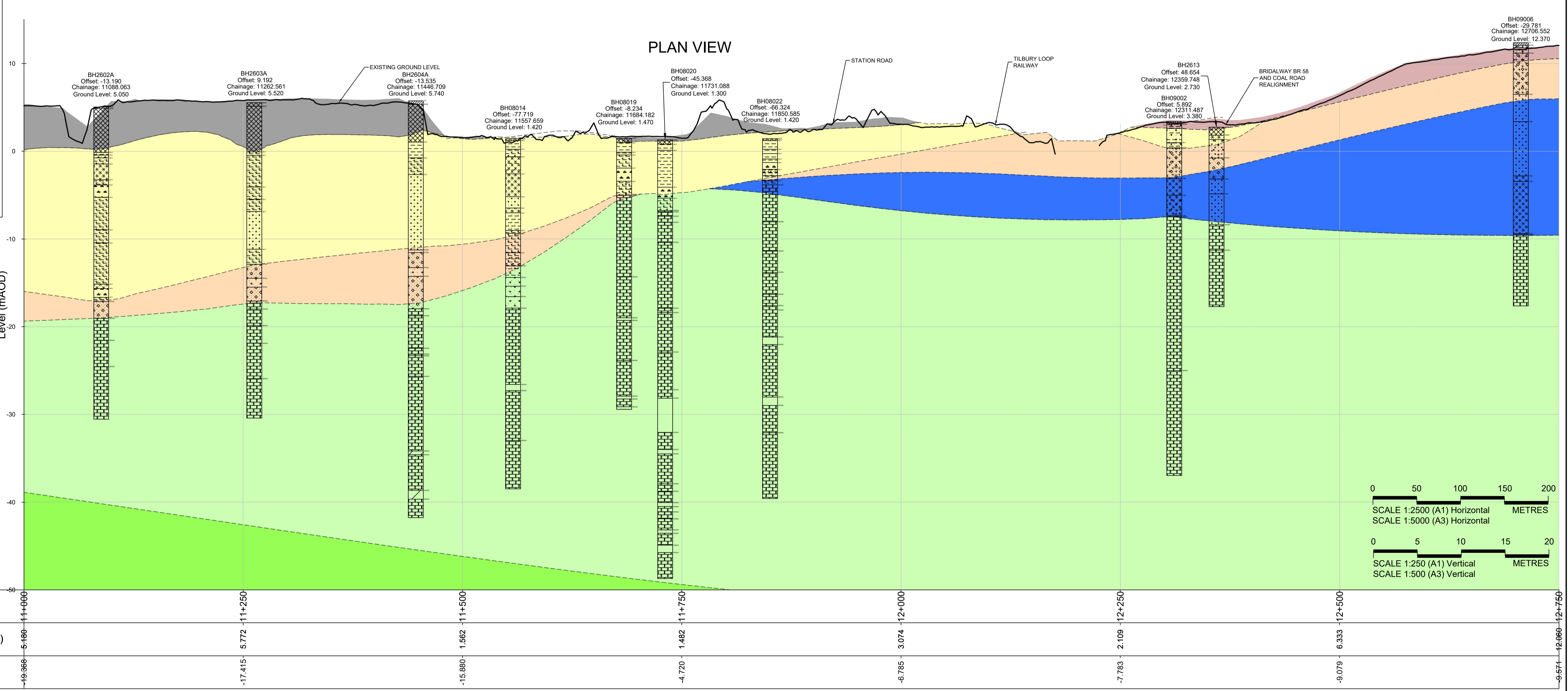
<p>1. ALL MEASUREMENTS ARE IN METRES UNLESS NOTED OTHERWISE.</p> <p>2. ALL LEVELS ARE IN METRES RELATIVE TO ORDNANCE DATUM.</p> <p>3. HISTORICAL EXPLORATORY HOLES WERE OBTAINED FROM THE BGS NATIONAL GEOSCIENCE DATA CENTRE, AVAILABLE UNDER OPEN GOVERNMENT LICENCE.</p> <p>4. THE GEOLOGICAL BOUNDARIES SHOWN IN THE SECTION ARE INDICATIVE. THIS REPRESENTS AN INTERPRETATION BASED ON HISTORICAL GROUND INVESTIGATION DATA AND LTC PHASE 1 AND PHASE 2 GROUND INVESTIGATION DATA AVAILABLE AS OF JUNE 2020.</p> <p>5. ABBREVIATIONS IN PARENTHESES SHOWN IN THE SECTION AND THE KEY INDICATE AGS (GEOL_GEOL) CODES FOR THE MAIN GEOLOGICAL UNITS.</p> <p>6. PHASE 2 EXPLORATORY HOLES SHOWN ARE THE AVAILABLE AS-BUILT LOCATIONS FROM THE PROJECT'S AGS DATA. PHASE 1 CONE PENETRATION TESTS AND PHASE 2 WINDOW SAMPLES, GRAB SAMPLES, CONE PENETRATION TESTS AND SURFACE WATER SAMPLES ARE NOT SHOWN.</p>		<p>7. GROUND LEVELS SHOWN ON THESE DRAWINGS ARE BASED ON EXTRACTED 2017 ENVIRONMENT AGENCY LIDAR SURVEY DATA. ADDITIONAL GROUND LEVELS SHOWN BETWEEN CHAINAGES CH+0+000 TO CH+10+775 ARE BASED ON COMMISSIONED 2019 LTC LIDAR SURVEY DATA. THE LEVELS WERE SUBSEQUENTLY CORRELATED AGAINST PORT OF LONDON AUTHORITY 2019 UNMANNED AERIAL SURVEY DATA. THIS ALSO CORRELATES THE LEVELS RECORDED IN THE PHASE 2 EXPLORATORY HOLES.</p>		<p>Client</p> <p>LOWER THAMES CROSSING</p> <p>5th Floor Beaufort House 15 St Botolph Street London EC3A 7DT</p>	<p>Project</p> <p>LOWER THAMES CROSSING DEVELOPMENT PHASE</p> <p>Drawing title</p> <p>GEOLOGICAL LONG SECTION SHEET 5 OF 22</p>	<p>Status</p> <p>S8 DCO Application</p> <p>Drawn AAB</p> <p>Checked MW</p> <p>Approved CA</p> <p>Drawing number</p> <p>HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00007</p>	<p>Original Size</p> <p>A1</p> <p>Revision</p> <p>P03</p> <p>Scale 1:2500</p> <p>Date 19/10/2022</p> <p>Date 19/10/2022</p> <p>Date 19/10/2022</p>
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- KEY:
- ARTIFICIALLY MODIFIED GROUND (ARTU)
  - ALLUVIUM (ALV)
  - HEAD (HEAD)
  - RIVER TERRACE DEPOSITS (UNDIFFERENTIATED) (RTDU)
  - THANET FORMATION (TAB)
  - SEAFORD CHALK FORMATION (WHCK)
  - LEWES NODULAR CHALK FORMATION (WHCK)
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  - PHASE 1 EXPLORATORY HOLE (AS-BUILT)
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  - PROPOSED HIGHWAY LAYOUT
  - PROJECT REFERENCE LINE ALIGNMENT (PRL)



PRL Chainage (m)	11+000	11+250	11+500	11+750	12+000	12+250	12+500	12+750
Existing Ground Levels (mAOD)	5.160	5.772	1.562	1.482	3.074	2.109	6.333	12.960
Top of Chalk Strata (WHCK) Levels (mAOD)	-19.968	-17.415	-15.880	-4.720	-6.785	-7.783	-9.079	-9.574

SECTION VIEW

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P01	S8	17/04/2020	ISSUED FOR DCO APPLICATION	SDP	AB	ELA
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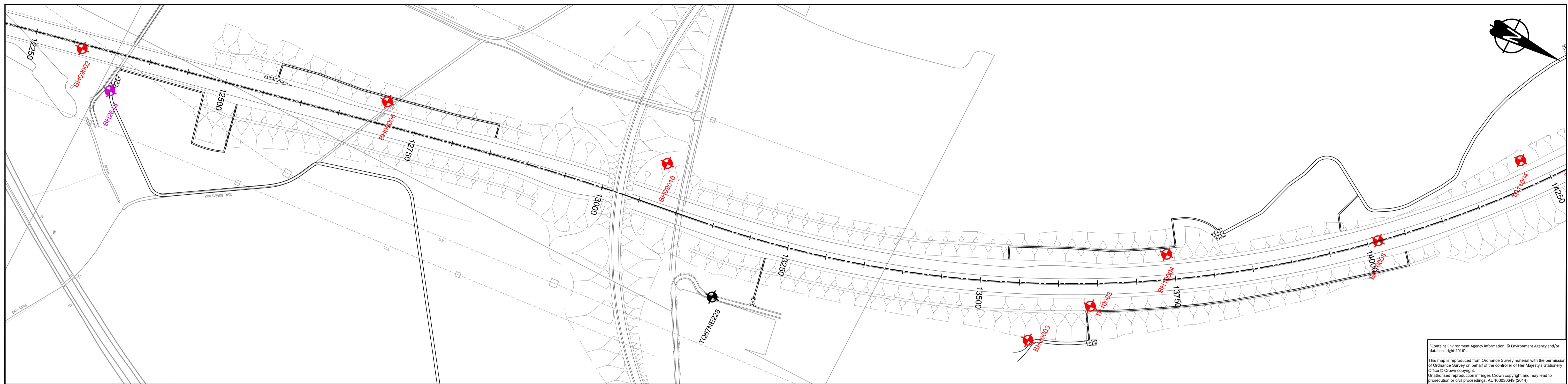
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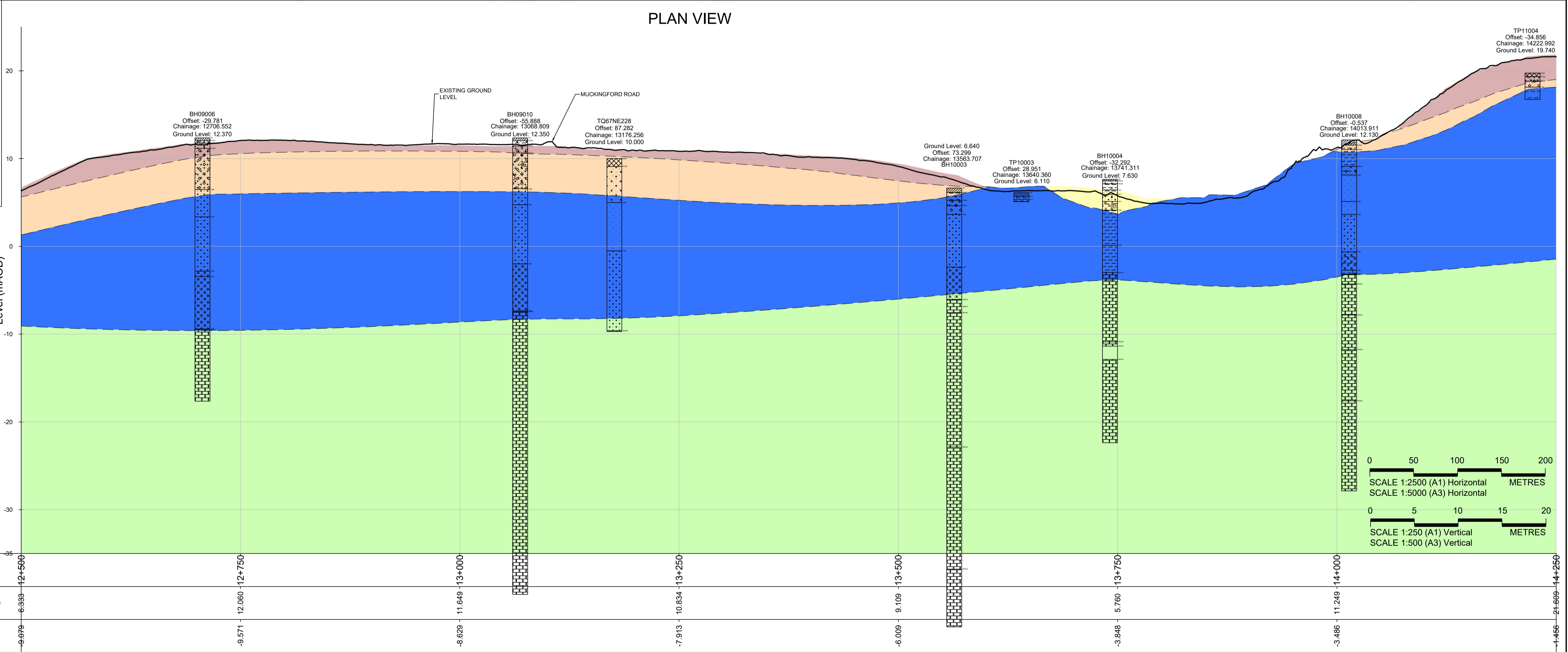
Drawing title **GEOLOGICAL LONG SECTION SHEET 6 OF 22**

Status	S8	DCO Application	Original Size	A1	Revision	P03
Scale	1:2500		Date	19/10/2022		
Drawn	AAB	Date	19/10/2022			
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Approved	CA	Date	19/10/2022			
Drawing number	HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00008					





- KEY:**
- ALLUVIUM (ALV)
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  - PHASE 1 EXPLORATORY HOLE (AS-BUILT)
  - PHASE 2 EXPLORATORY HOLE (PRELIMINARY AS-BUILT AVAILABLE IN AGS)
  - PROPOSED HIGHWAY LAYOUT
  - PROJECT REFERENCE LINE ALIGNMENT (PRL)



**SECTION VIEW**

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprvd
P01	S8	17/04/2020	ISSUED FOR DCO APPLICATION	SDP	AB	ELA
P02	S8	26/08/2020	GEOLOGICAL INTERPRETATION REVISED	SDP	ELA	CA
P03	S8	19/10/2022	DESIGN UPDATED FOR DCO APPLICATION	AAB	MW	CA

1. ALL MEASUREMENTS ARE IN METRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES RELATIVE TO ORDNANCE DATUM.
3. HISTORICAL EXPLORATORY HOLES WERE OBTAINED FROM THE BGS NATIONAL GEOSCIENCE DATA CENTRE, AVAILABLE UNDER OPEN GOVERNMENT LICENCE.
4. THE GEOLOGICAL BOUNDARIES SHOWN IN THE SECTION ARE INDICATIVE. THIS REPRESENTS AN INTERPRETATION BASED ON HISTORICAL GROUND INVESTIGATION DATA AND LTC PHASE 1 AND PHASE 2 GROUND INVESTIGATION DATA AVAILABLE AS OF JUNE 2020.
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Client

**LOWER THAMES CROSSING**

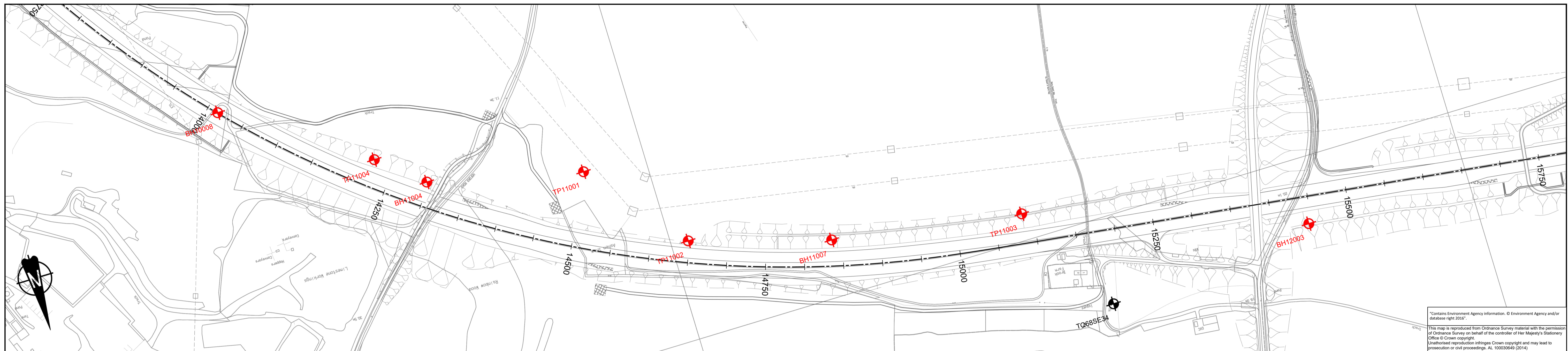
5th Floor Beaufort House  
15 St Botolph Street  
London EC3A 7DT

Project **LOWER THAMES CROSSING DEVELOPMENT PHASE**

Drawing title **GEOLOGICAL LONG SECTION SHEET 7 OF 22**

Status	Original Size	Revision
S8 DCO Application	A1	P03
Scale 1:2500	Date - 19/10/2022	Date - 19/10/2022
Drawn AAB	Checked MW	Approved CA
Drawing number <b>HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00009</b>		

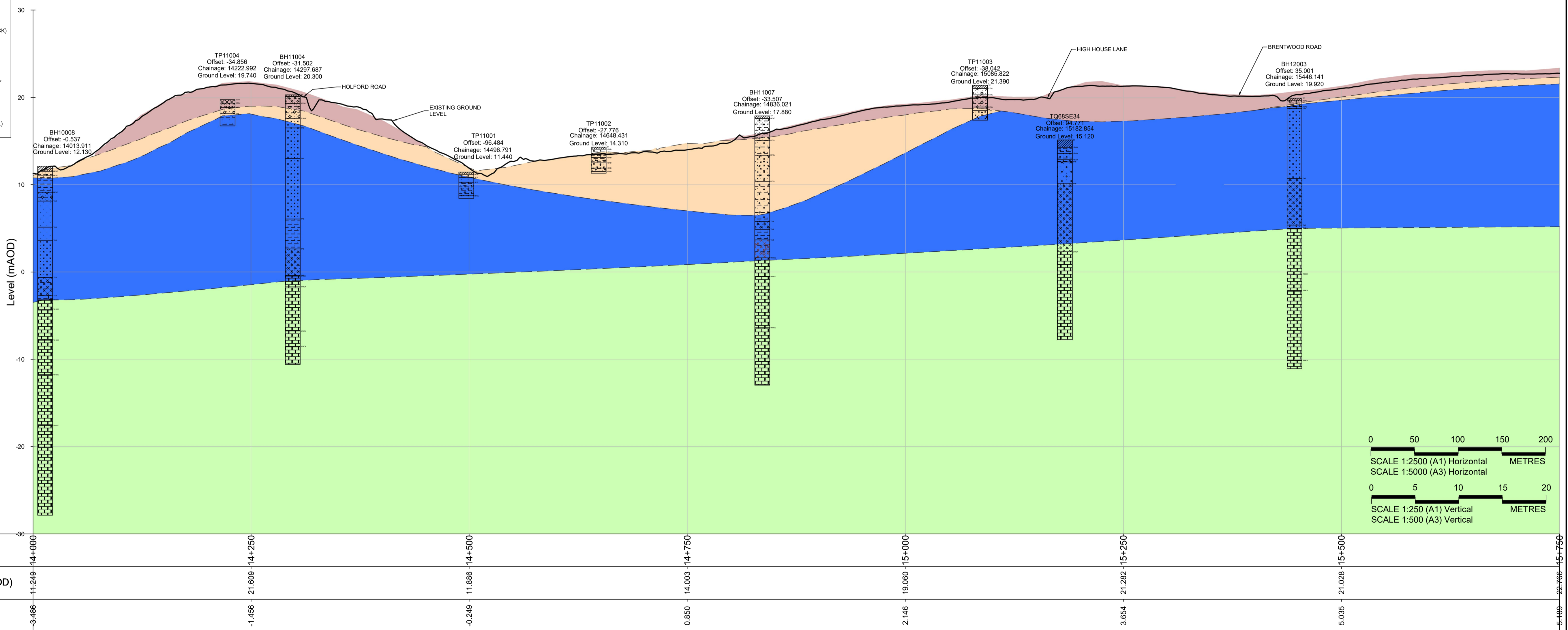




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- KEY:**
- HEAD (HEAD)
  - RIVER TERRACE DEPOSITS (UNDIFFERENTIATED) (RTDU)
  - THANET FORMATION (TAB)
  - SEAFORD CHALK FORMATION (WHCK)
  - LEWES NODULAR CHALK FORMATION (WHCK)
  - HISTORICAL EXPLORATORY HOLE
  - PHASE 1 EXPLORATORY HOLE (AS-BUILT)
  - PHASE 2 EXPLORATORY HOLE (PRELIMINARY AS-BUILT AVAILABLE IN AGS)
  - PROPOSED HIGHWAY LAYOUT
  - PROJECT REFERENCE LINE ALIGNMENT (PRL)

**PLAN VIEW**



**SECTION VIEW**

PRL Chainage (m)	14+000	14+250	14+500	14+750	15+000	15+250	15+500	15+750
Existing Ground Levels (mAOD)	11.249	21.609	11.886	14.003	19.060	21.282	21.028	22.766
Top of Chalk Strata (WHCK) Levels (mAOD)	-3.486	-1.456	-0.249	0.850	2.146	3.654	5.035	6.489

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprvd
P01	S8	27/03/2020	ISSUED FOR DCO APPLICATION	SDP	FK	ELA
P02	S8	26/08/2020	GEOLOGICAL INTERPRETATION REVISED	SDP	ELA	CA
P03	S8	19/10/2022	DESIGN UPDATED FOR DCO APPLICATION	AAB	MW	CA

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**national highways**

**LOWER THAMES CROSSING**

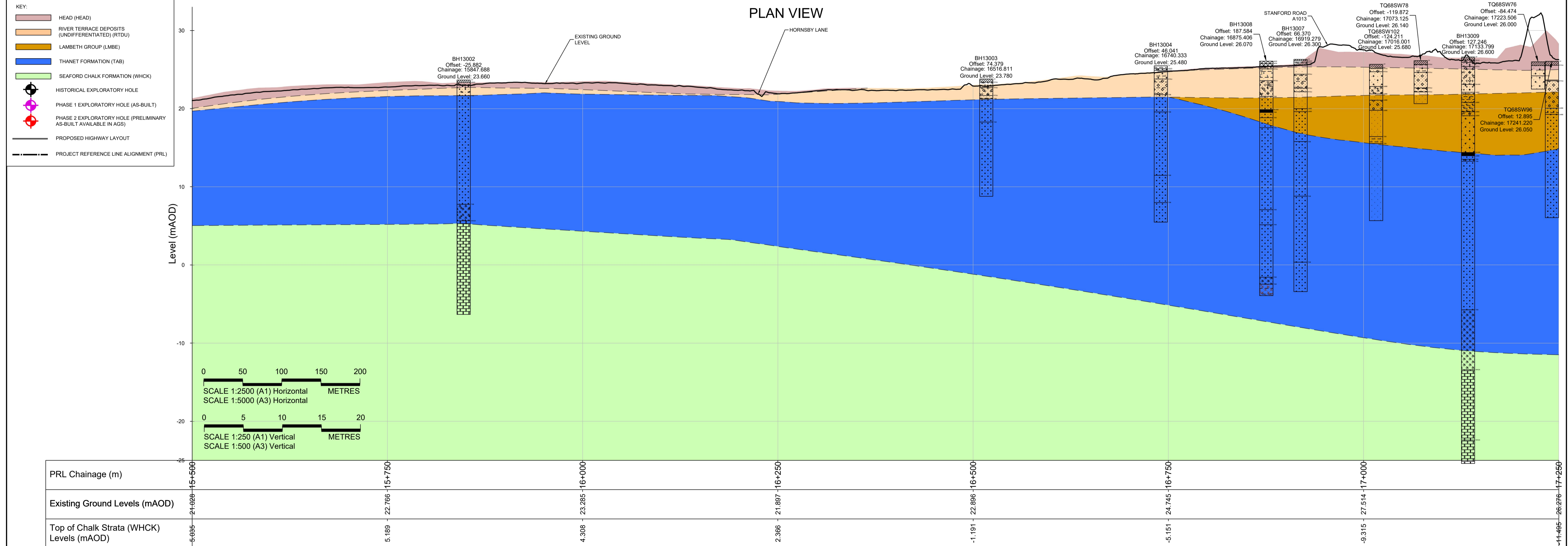
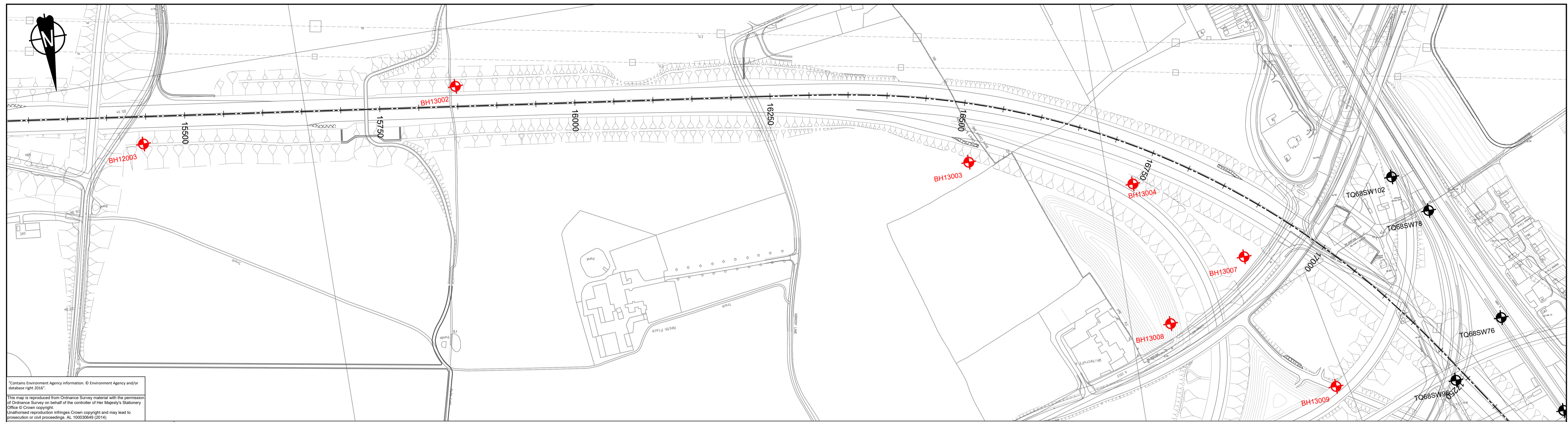
5th Floor Beaufort House  
15 St Botolph Street  
London EC3A 7DT

**Project** LOWER THAMES CROSSING DEVELOPMENT PHASE

**Drawing title** GEOLOGICAL LONG SECTION SHEET 8 OF 22

<b>Status</b> S8	DCO Application	<b>Original Size</b> A1	<b>Revision</b> P03
<b>Scale</b> 1:2500		<b>Date</b> 19/10/2022	
<b>Drawn</b> AAB		<b>Date</b> 19/10/2022	
<b>Checked</b> MW		<b>Date</b> 19/10/2022	
<b>Approved</b> CA		<b>Date</b> 19/10/2022	
<b>Drawing number</b> HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00010			





PRL Chainage (m)		Existing Ground Levels (mAOD)		Top of Chalk Strata (WHCK) Levels (mAOD)	
15+500	15+750	21.028	22.766	5.189	5.189
16+000	16+250	23.285	21.897	4.308	2.366
16+500	16+750	22.896	22.896	-1.191	-1.191
17+000	17+250	27.514	27.514	-9.315	-5.151
17+500	17+750	26.276	26.276	-11.465	-5.151

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprvd
P01	S8	17/04/2020	ISSUED FOR DCO APPLICATION	SDP	FK	ELA
P02	S8	26/08/2020	GEOLOGICAL INTERPRETATION REVISED	SDP	ELA	CA
P03	S8	19/10/2022	DESIGN UPDATED FOR DCO APPLICATION	AAB	MW	CA

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Client

**LOWER THAMES CROSSING**

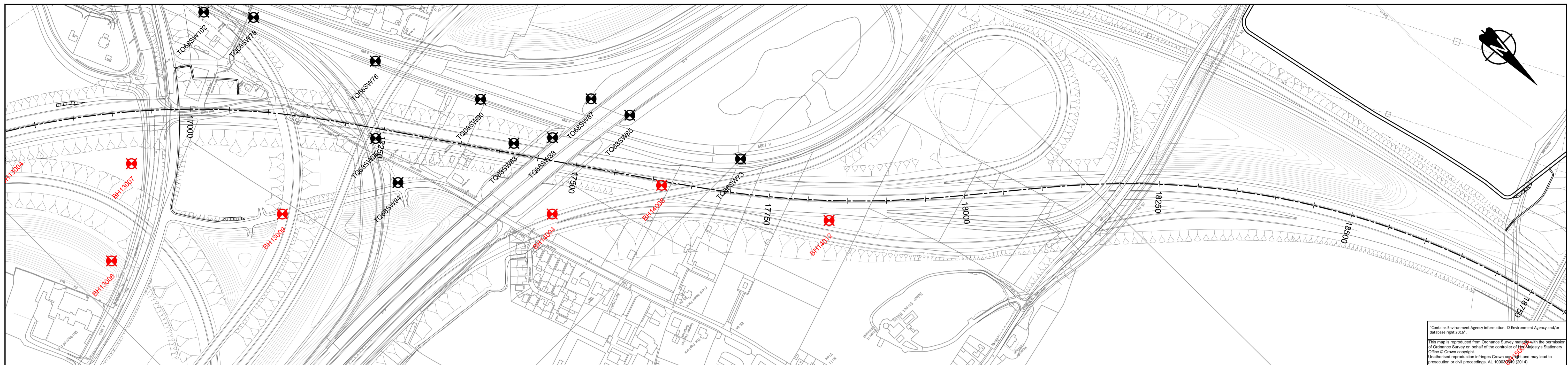
5th Floor Beaufort House  
15 St Botolph Street  
London EC3A 7DT

Project **LOWER THAMES CROSSING DEVELOPMENT PHASE**

Drawing title **GEOLOGICAL LONG SECTION SHEET 9 OF 22**

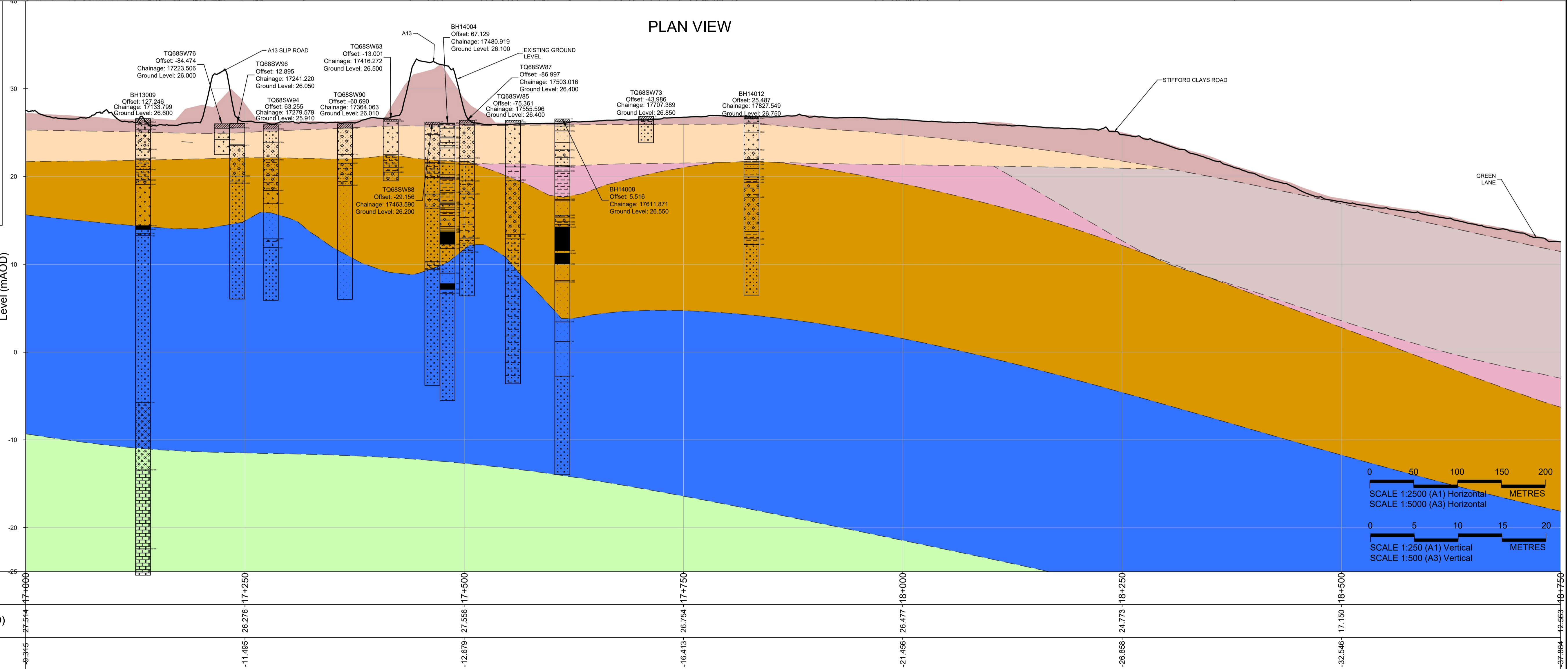
Status	Original Size	Revision
S8 DCO Application	A1	P03
Scale 1:2500	Date - 19/10/2022	Date - 19/10/2022
Drawn AAB	Checked MW	Approved CA
Drawing number <b>HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00011</b>		





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- KEY:**
- HEAD (HEAD)
  - RIVER TERRACE DEPOSITS (UNDIFFERENTIATED) (RTDU)
  - LONDON CLAY FORMATION (LC)
  - HARWICH FORMATION (HWH)
  - LAMBETH GROUP (LMBE)
  - THANET FORMATION (TAB)
  - SEAFORD CHALK FORMATION (WHCK)
  - HISTORICAL EXPLORATORY HOLE
  - PHASE 1 EXPLORATORY HOLE (AS-BUILT)
  - PHASE 2 EXPLORATORY HOLE (PRELIMINARY AS-BUILT AVAILABLE IN AGS)
  - PROPOSED HIGHWAY LAYOUT
  - PROJECT REFERENCE LINE ALIGNMENT (PRL)



SECTION VIEW

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chk'd	Apprv'd
P01	S8	17/04/2020	ISSUED FOR DCO APPLICATION	SDP	AB	ELA
P02	S8	26/08/2020	GEOLOGICAL INTERPRETATION REVISED	SDP	ELA	CA
P03	S8	19/10/2022	DESIGN UPDATED FOR DCO APPLICATION	AAB	MW	CA

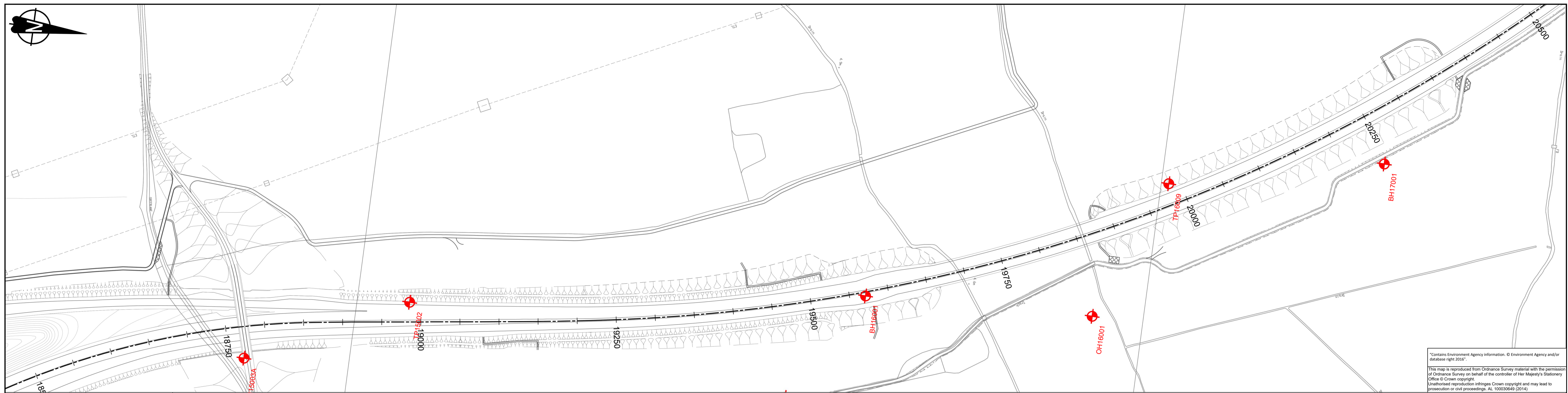
1. ALL MEASUREMENTS ARE IN METRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES RELATIVE TO ORDNANCE DATUM.
3. HISTORICAL EXPLORATORY HOLES WERE OBTAINED FROM THE BGS NATIONAL GEOSCIENCE DATA CENTRE, AVAILABLE UNDER OPEN GOVERNMENT LICENCE.
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**LOWER THAMES CROSSING**  
 5th Floor Beaufort House  
 15 St Botolph Street  
 London EC3A 7DT

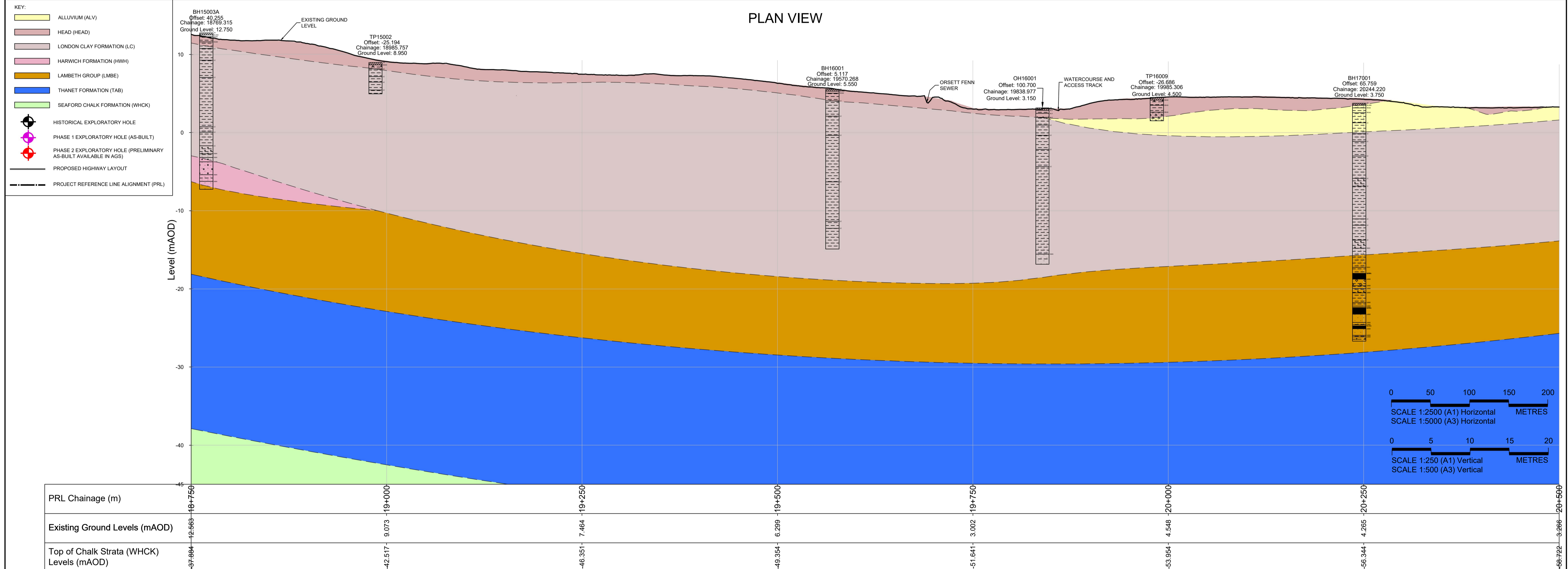
**LOWER THAMES CROSSING**  
 DEVELOPMENT PHASE  
 Drawing title  
**GEOLOGICAL**  
**LONG SECTION**  
**SHEET 10 OF 22**

Status	S8	DCO Application	Original Size	A1	Revision	P03
Scale	1:2500		Date	19/10/2022		
Drawn	AAB	Date	19/10/2022			
Checked	MW	Date	19/10/2022			
Approved	CA	Date	19/10/2022			
Drawing number	HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00012					





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SECTION VIEW

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprvd
P01	S8	17/04/2020	ISSUED FOR DCO APPLICATION	SDP	FK	ELA
P02	S8	26/08/2020	GEOLOGICAL INTERPRETATION REVISED	SDP	ELA	CA
P03	S8	19/10/2022	DESIGN UPDATED FOR DCO APPLICATION	AAB	MW	CA

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Client

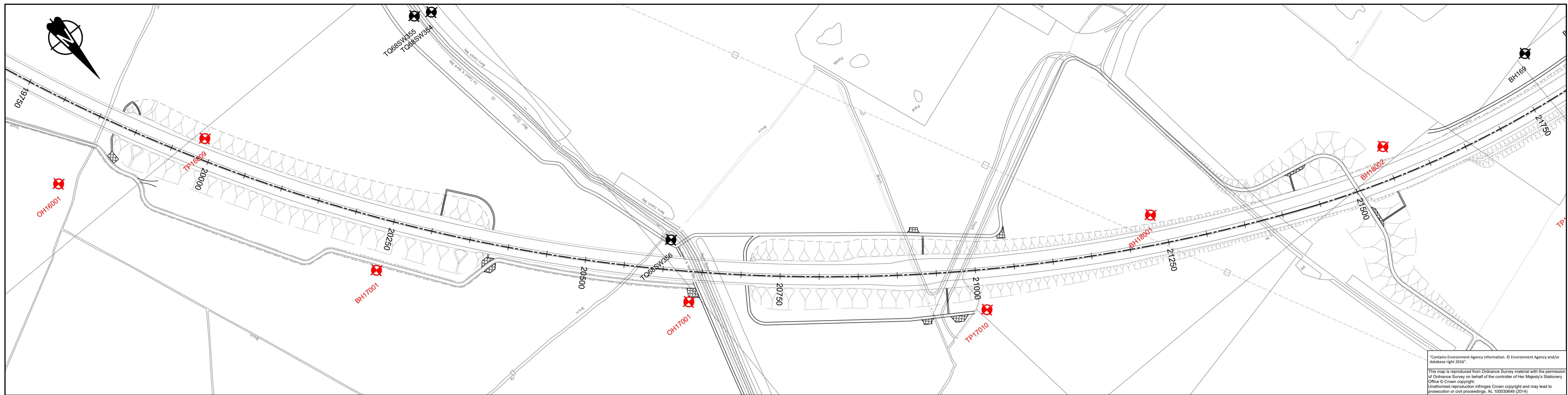
**LOWER THAMES CROSSING**  
 5th Floor Beaufort House  
 15 St Botolph Street  
 London EC3A 7DT

Project **LOWER THAMES CROSSING DEVELOPMENT PHASE**

Drawing title **GEOLOGICAL LONG SECTION SHEET 11 OF 22**

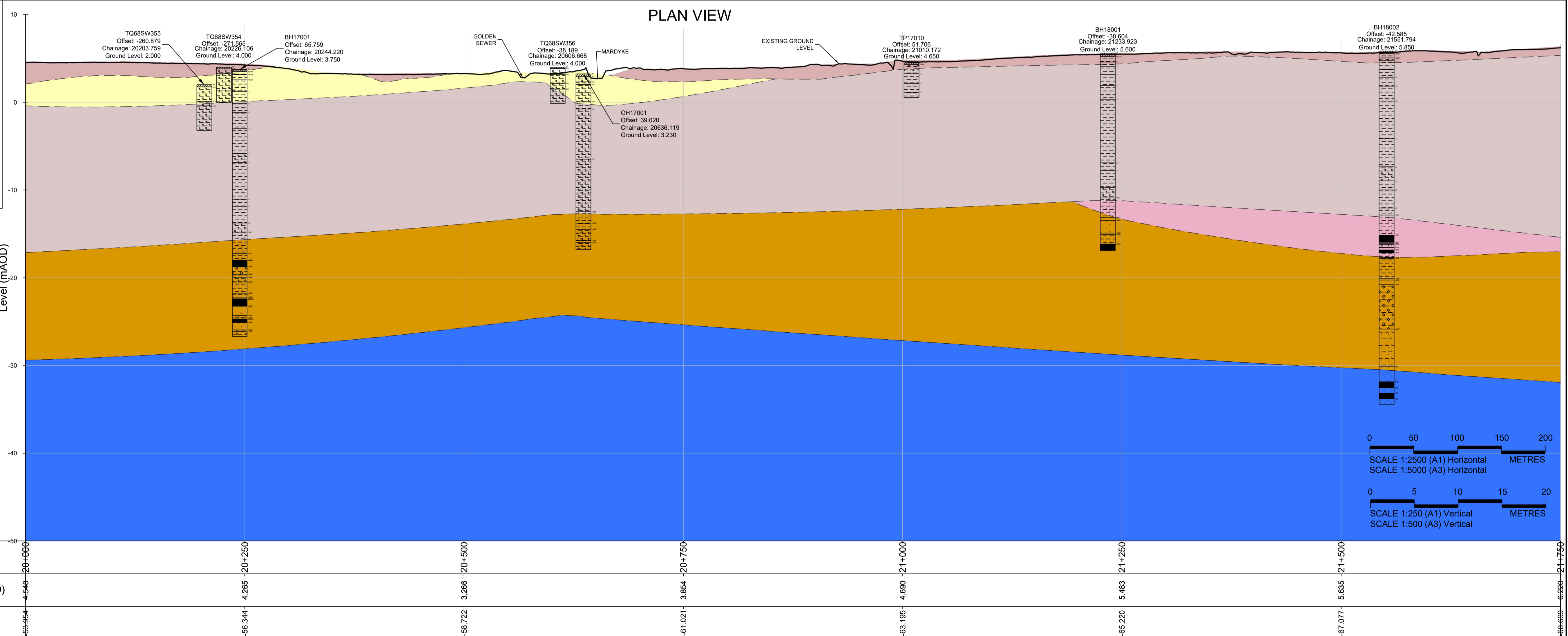
Status	S8	DCO Application	Original Size	A1	Revision	P03
Scale	1:2500		Date	19/10/2022		
Drawn	AAB	Date	19/10/2022			
Checked	MW	Date	19/10/2022			
Approved	CA	Date	19/10/2022			
Drawing number	HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00013					





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- KEY:
- ALLUVIUM (ALV)
  - HEAD (HEAD)
  - LONDON CLAY FORMATION (LC)
  - HARWICH FORMATION (HWH)
  - LAMBETH GROUP (LMBE)
  - THANET FORMATION (TAB)
  - HISTORICAL EXPLORATORY HOLE
  - PHASE 1 EXPLORATORY HOLE (AS-BUILT)
  - PHASE 2 EXPLORATORY HOLE (PRELIMINARY AS-BUILT AVAILABLE IN AGS)
  - PROPOSED HIGHWAY LAYOUT
  - PROJECT REFERENCE LINE ALIGNMENT (PRL)



0 50 100 150 200  
 SCALE 1:2500 (A1) Horizontal METRES  
 SCALE 1:5000 (A3) Horizontal  
 0 5 10 15 20  
 SCALE 1:250 (A1) Vertical METRES  
 SCALE 1:500 (A3) Vertical

PRL Chainage (m)	20+000	20+250	20+500	20+750	21+000	21+250	21+500	21+750
Existing Ground Levels (mAOD)	4.548	4.285	3.286	3.884	4.680	5.483	5.685	6.220
Top of Chalk Strata (WHCK) Levels (mAOD)	-59.954	-56.344	-58.722	-61.021	-63.195	-65.220	-67.077	-68.699

SECTION VIEW

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprvd
P01	S8	17/04/2020	ISSUED FOR DCO APPLICATION	SDP	FK	ELA
P02	S8	26/08/2020	GEOLOGICAL INTERPRETATION REVISED	SDP	ELA	CA
P03	S8	19/10/2022	DESIGN UPDATED FOR DCO APPLICATION	AAB	MW	CA

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Client

**LOWER THAMES CROSSING**  
 5th Floor Beaufort House  
 15 St Botolph Street  
 London EC3A 7DT

Project **LOWER THAMES CROSSING DEVELOPMENT PHASE**

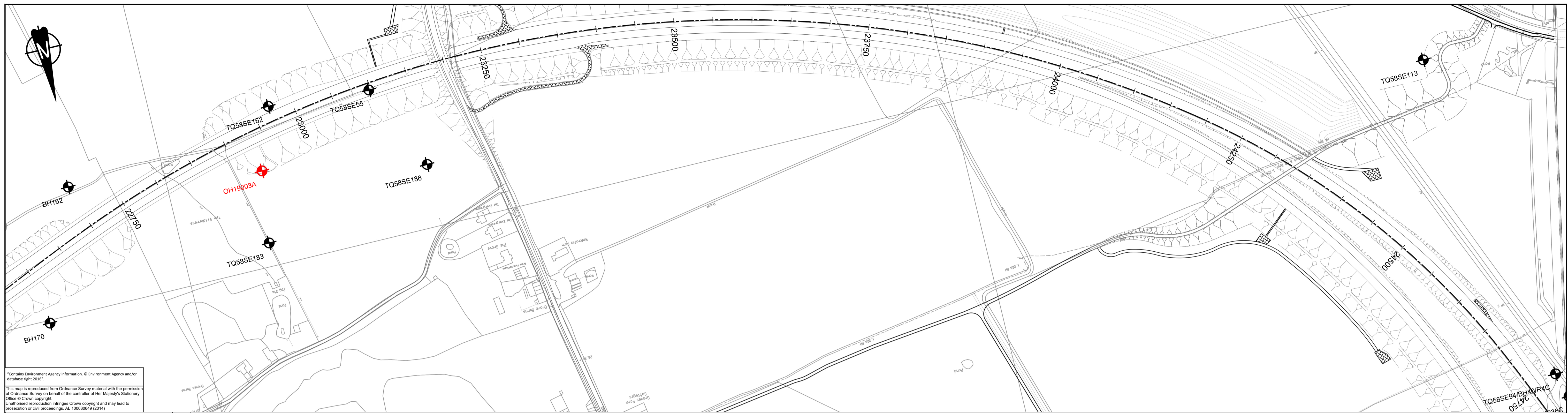
Drawing title **GEOLOGICAL LONG SECTION SHEET 12 OF 22**

Status	S8	DCO Application	Original Size	A1	Revision	P03
Scale	1:2500		Date	19/10/2022		
Drawn	AAB	Date	19/10/2022			
Checked	MW	Date	19/10/2022			
Approved	CA	Date	19/10/2022			
Drawing number	HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00014					





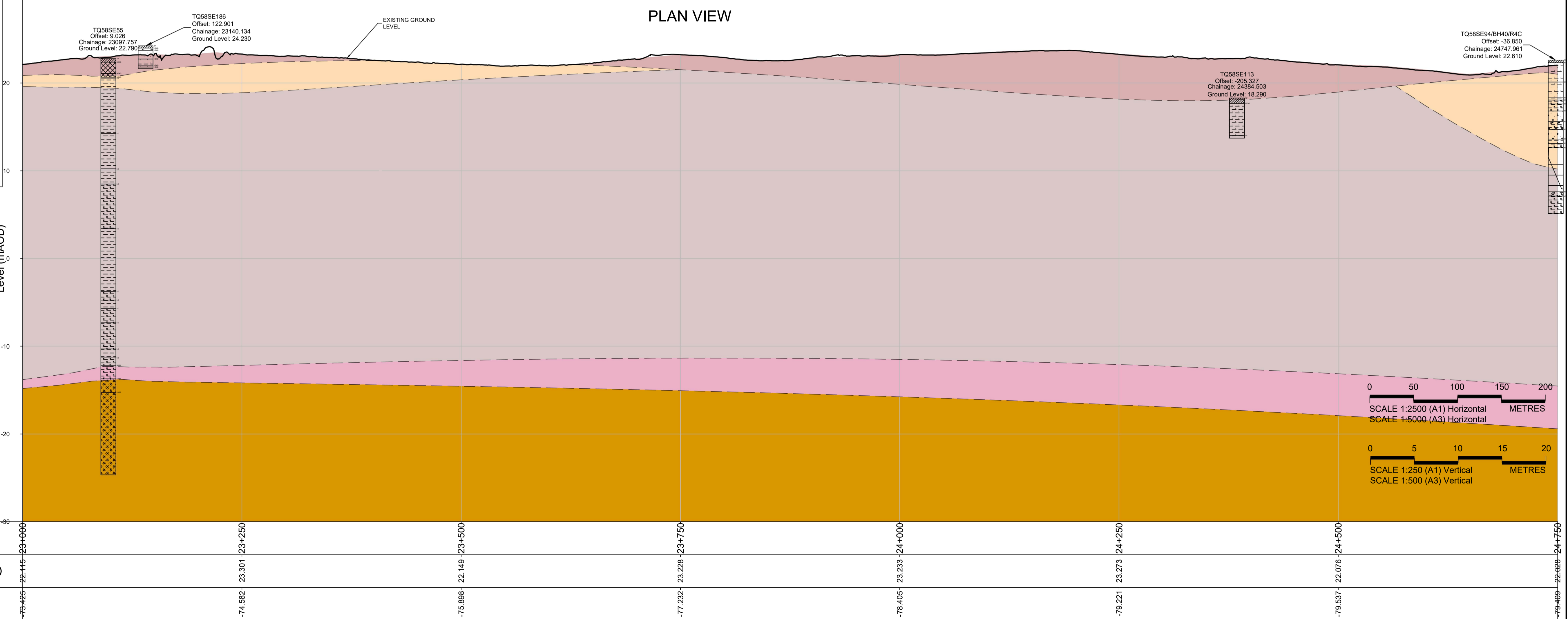




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KEY:

	HEAD (HEAD)
	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED) (RTDU)
	LONDON CLAY FORMATION (LC)
	HARWICH FORMATION (HWH)
	LAMBETH GROUP (LMBE)
	HISTORICAL EXPLORATORY HOLE
	PHASE 1 EXPLORATORY HOLE (AS-BUILT)
	PHASE 2 EXPLORATORY HOLE (PRELIMINARY AS-BUILT AVAILABLE IN AGS)
	PROPOSED HIGHWAY LAYOUT
	PROJECT REFERENCE LINE ALIGNMENT (PRL)



SECTION VIEW

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chk'd	Apprv'd
P01	S8	17/04/2020	ISSUED FOR DCO APPLICATION	SDP	FK	ELA
P02	S8	26/08/2020	GEOLOGICAL INTERPRETATION REVISED	SDP	ELA	CA
P03	S8	19/10/2022	DESIGN UPDATED FOR DCO APPLICATION	AAB	MW	CA

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Client

**LOWER THAMES CROSSING**

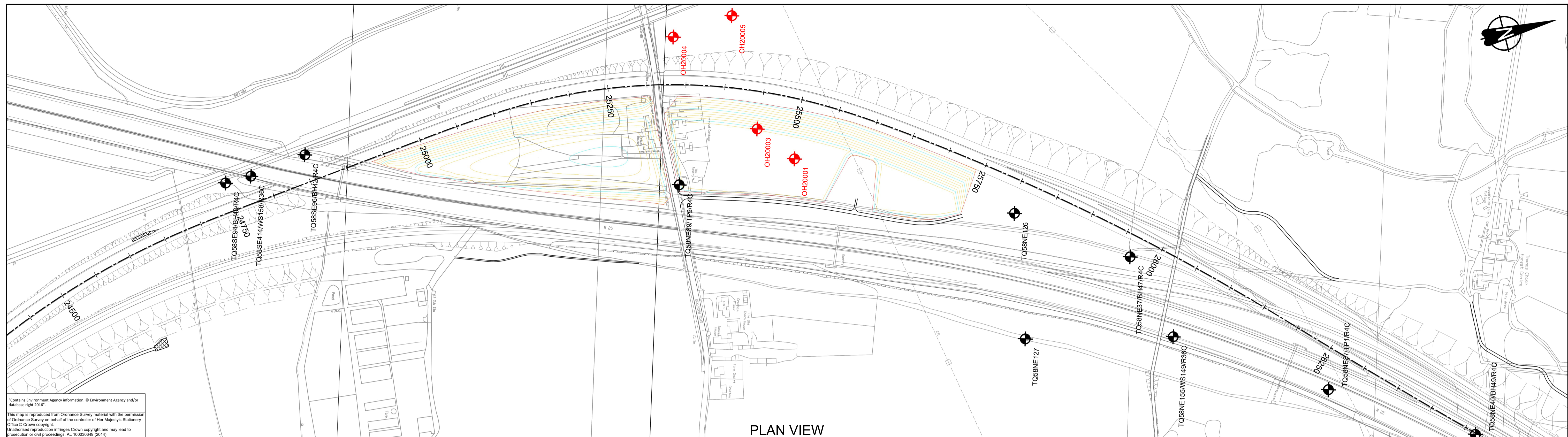
5th Floor Beaufort House  
15 St Botolph Street  
London EC3A 7DT

Project **LOWER THAMES CROSSING DEVELOPMENT PHASE**

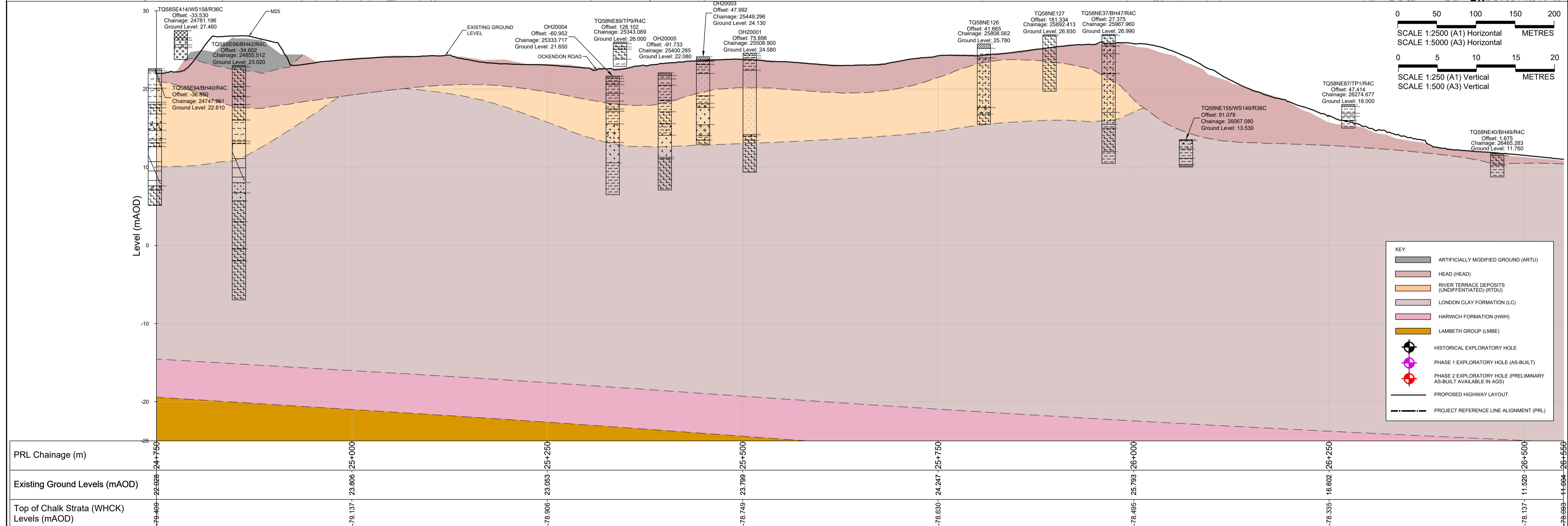
Drawing title **GEOLOGICAL LONG SECTION SHEET 14 OF 22**

Status	S8	DCO Application	Original Size	A1	Revision	P03
Scale	1:2500		Date	19/10/2022		
Drawn	AAB	Checked	MW	Date	19/10/2022	
Approved	CA	Date	19/10/2022			
Drawing number	HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00016					





PLAN VIEW



SECTION VIEW

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprvd
P01	S8	17/04/2020	ISSUED FOR DCO APPLICATION	SDP	FK	ELA
P02	S8	26/08/2020	GEOLOGICAL INTERPRETATION REVISED	SDP	ELA	CA
P03	S8	19/10/2022	DESIGN UPDATED FOR DCO APPLICATION	AAB	MW	CA

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Client

**LOWER THAMES CROSSING**

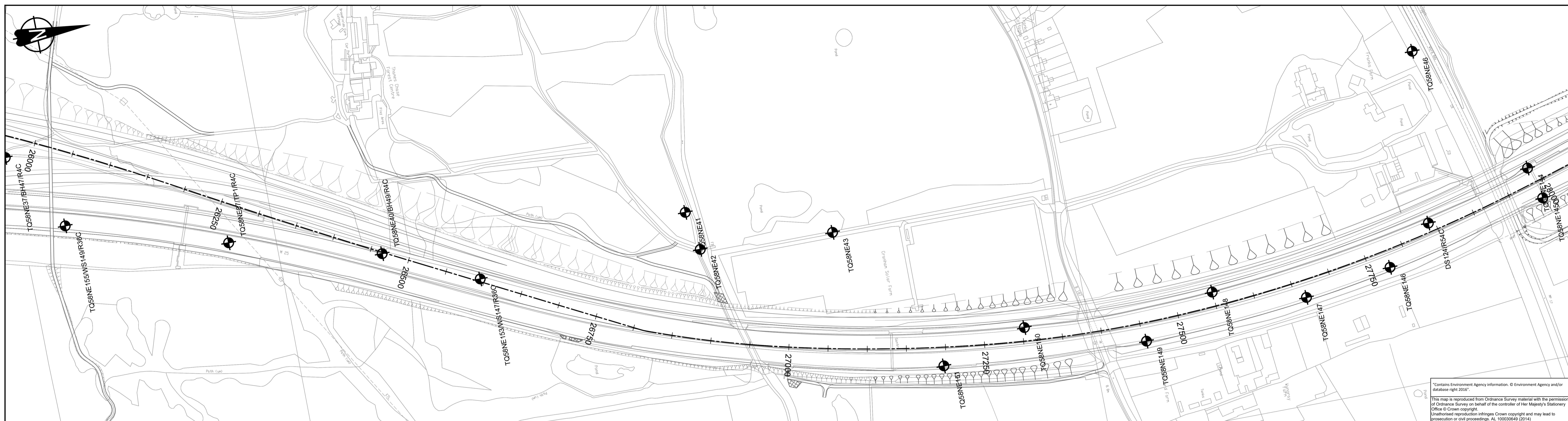
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15 St Botolph Street  
London EC3A 7DT

Project **LOWER THAMES CROSSING DEVELOPMENT PHASE**

Drawing title **GEOLOGICAL LONG SECTION SHEET 15 OF 22**

Status	Original Size	Revision
S8 DCO Application	A1	P03
Scale: 1:2500	Date: 19/10/2022	Date: 19/10/2022
Drawn: AAB	Checked: MW	Approved: CA
Drawing number: HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00017		



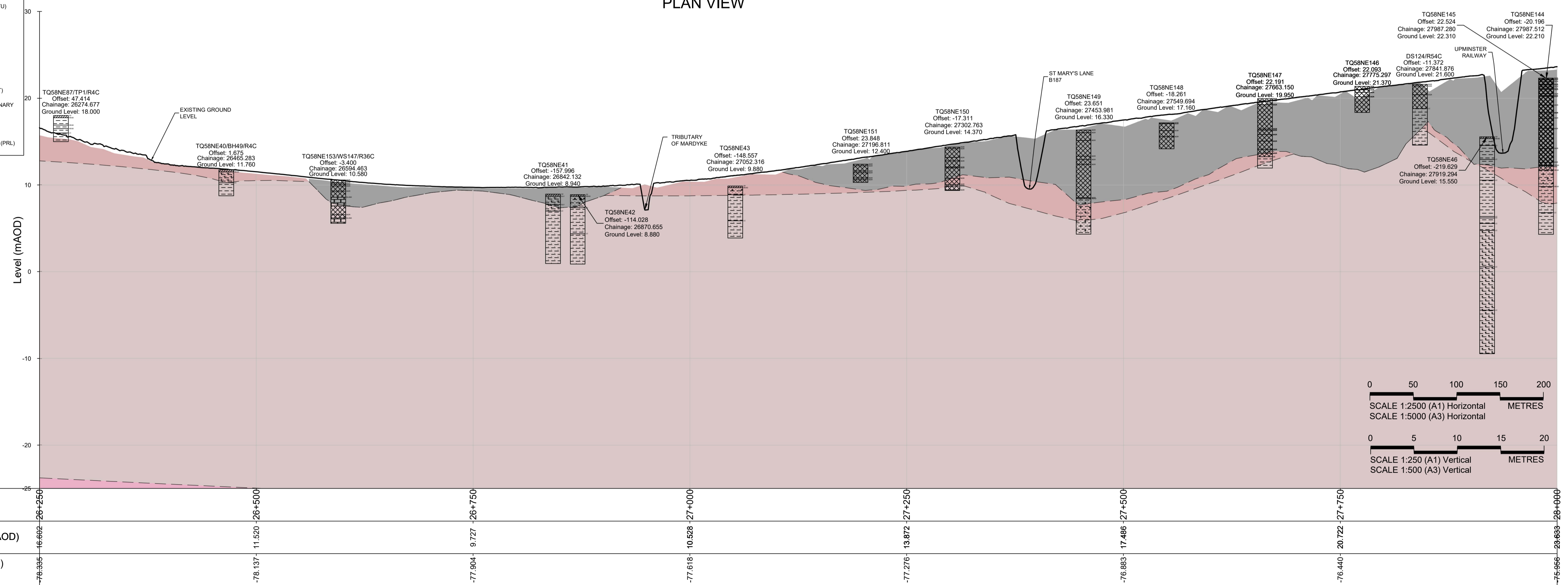


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KEY:

- ARTIFICIALLY MODIFIED GROUND (ARTU)
- HEAD (HEAD)
- LONDON CLAY FORMATION (LC)
- HARWICH FORMATION (HWH)
- HISTORICAL EXPLORATORY HOLE
- PHASE 1 EXPLORATORY HOLE (AS-BUILT)
- PHASE 2 EXPLORATORY HOLE (PRELIMINARY AS-BUILT AVAILABLE IN AGS)
- PROPOSED HIGHWAY LAYOUT
- PROJECT REFERENCE LINE ALIGNMENT (PRL)

PLAN VIEW



SECTION VIEW

PRL Chainage (m)	26+250	26+500	26+750	27+000	27+250	27+500	27+750	28+000
Existing Ground Levels (mAOD)	16.662	11.520	9.727	10.628	13.872	17.486	20.722	23.638
Top of Chalk Strata (WHCK) Levels (mAOD)	-78.935	-78.137	-77.904	-77.618	-77.276	-76.883	-76.440	-75.956

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprvd
P01	S8	17/04/2020	ISSUED FOR DCO APPLICATION	FK	AB	ELA
P02	S8	26/08/2020	GEOLOGICAL INTERPRETATION REVISED	SDP	ELA	CA
P03	S8	19/10/2022	DESIGN UPDATED FOR DCO APPLICATION	AAB	MW	CA

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Client

**LOWER THAMES CROSSING**

5th Floor Beaufort House  
15 St Botolph Street  
London EC3A 7DT

Project

**LOWER THAMES CROSSING DEVELOPMENT PHASE**

Drawing title

**GEOLOGICAL LONG SECTION SHEET 16 OF 22**

Status

**S8 DCO Application**

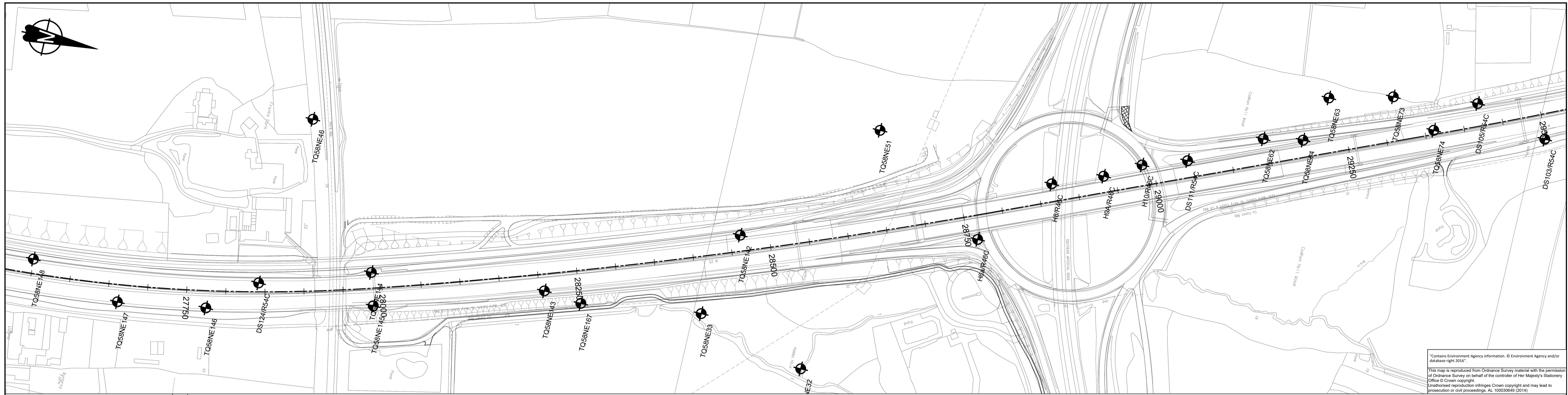
Drawn: AAB  
Checked: MW  
Approved: CA

Drawing number

**HE540039-CJV-HGT-SZP\_ML000000\_Z-DR-CE-00018**

Original Size	Revision
A1	P03
Scale: 1:2500	Date: 19/10/2022
Date: 19/10/2022	Date: 19/10/2022

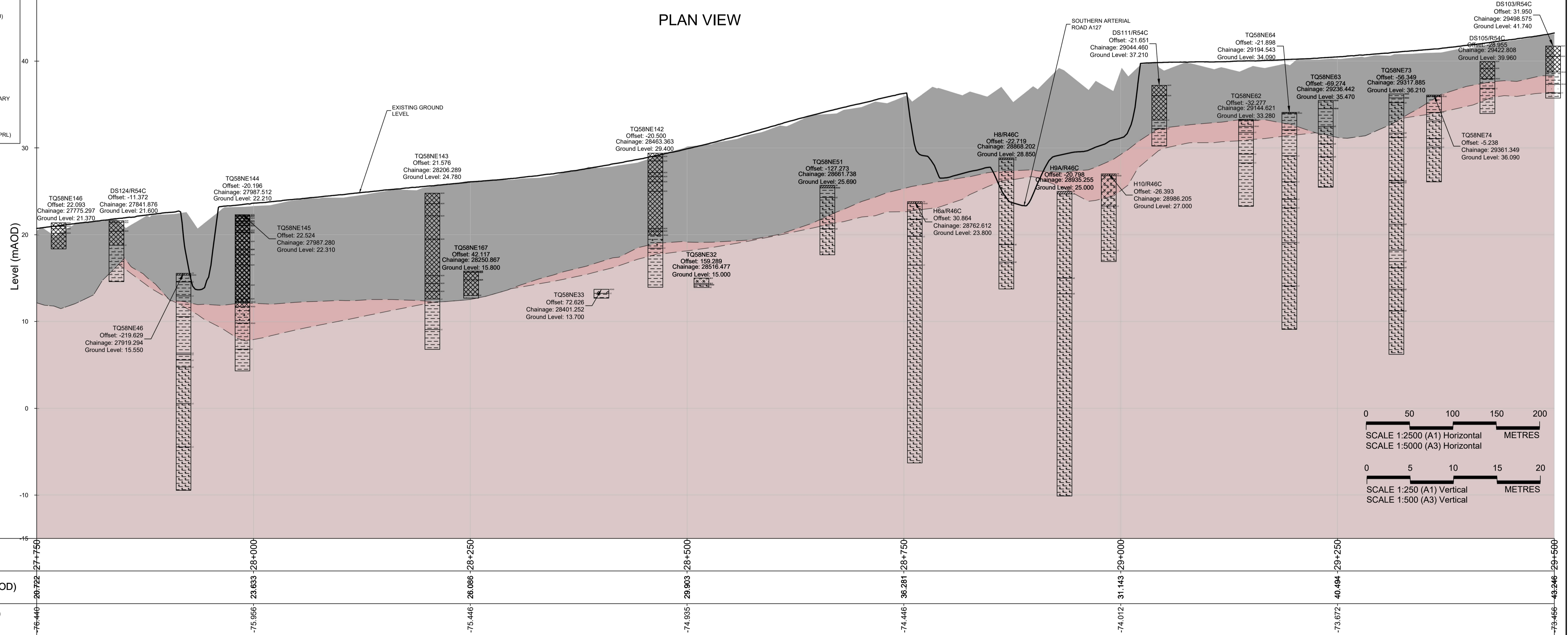




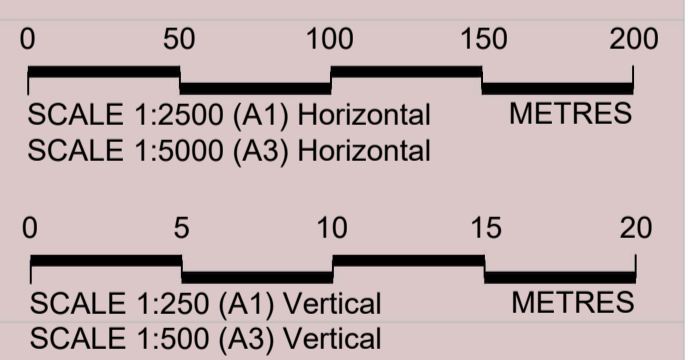
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  - PROPOSED HIGHWAY LAYOUT
  - PROJECT REFERENCE LINE ALIGNMENT (PRL)

PLAN VIEW



SECTION VIEW



Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprvd
P01	S8	17/04/2020	ISSUED FOR DCO APPLICATION	SDP	FK	ELA
P02	S8	26/08/2020	GEOLOGICAL INTERPRETATION REVISED	SDP	ELA	CA
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Client

**LOWER THAMES CROSSING**

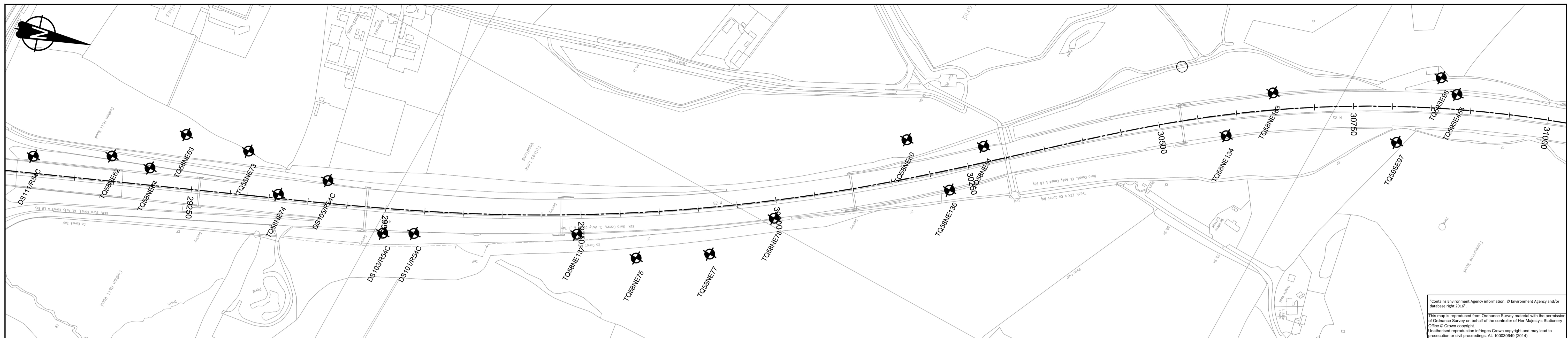
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15 St Botolph Street  
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Project **LOWER THAMES CROSSING DEVELOPMENT PHASE**

Drawing title **GEOLOGICAL LONG SECTION SHEET 17 OF 22**

Status	S8	DCO Application	Original Size	A1	Revision	P03
Scale	1:2500		Date	19/10/2022		
Drawn	AAB	Date	19/10/2022			
Checked	MW	Date	19/10/2022			
Approved	CA	Date	19/10/2022			
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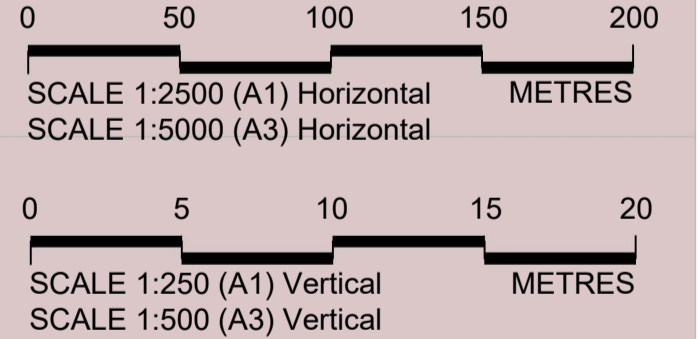
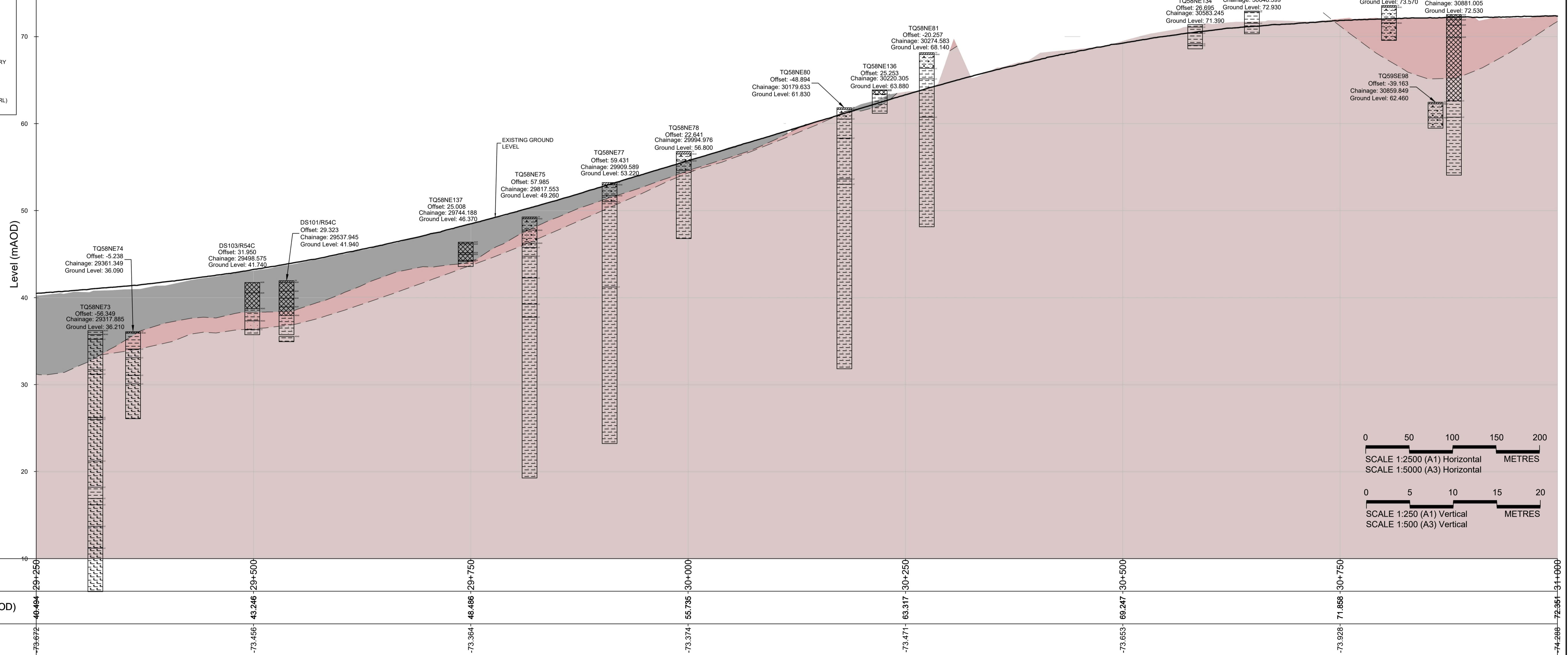




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  - PROPOSED HIGHWAY LAYOUT
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PLAN VIEW



SECTION VIEW

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprvd
P01	S8	17/04/2020	ISSUED FOR DCO APPLICATION	SDP	FK	ELA
P02	S8	26/08/2020	GEOLOGICAL INTERPRETATION REVISED	SDP	ELA	CA
P03	S8	19/10/2022	DESIGN UPDATED FOR DCO APPLICATION	AAB	MW	CA

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Client

**LOWER THAMES CROSSING**

5th Floor Beaufort House  
15 St Botolph Street  
London EC3A 7DT

Project **LOWER THAMES CROSSING DEVELOPMENT PHASE**

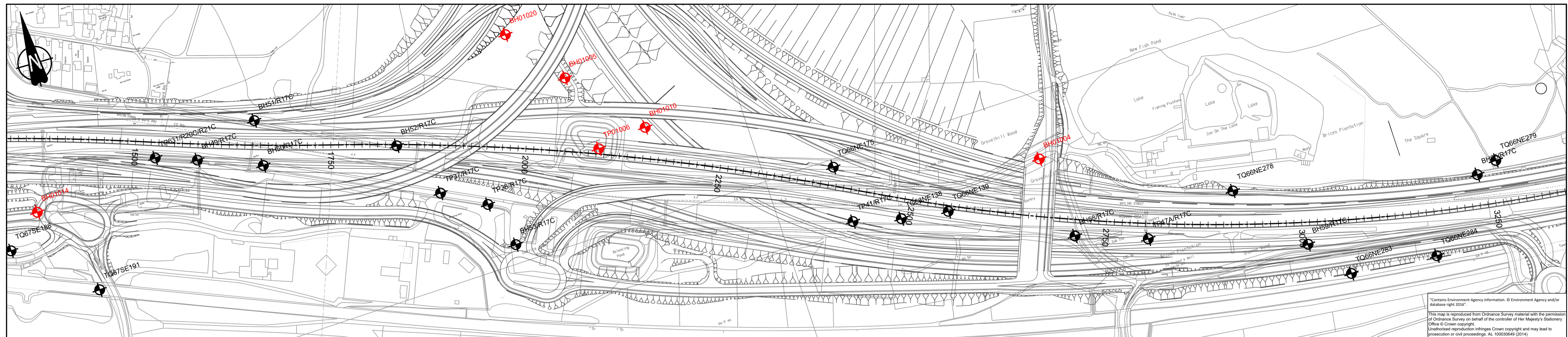
Drawing title **GEOLOGICAL LONG SECTION SHEET 18 OF 22**

Status	Original Size	Revision
S8 DCO Application	A1	P03
Scale 1:2500		
Drawn AAB	Date - 19/10/2022	
Checked MW	Date - 19/10/2022	
Approved CA	Date - 19/10/2022	
Drawing number <b>HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00020</b>		

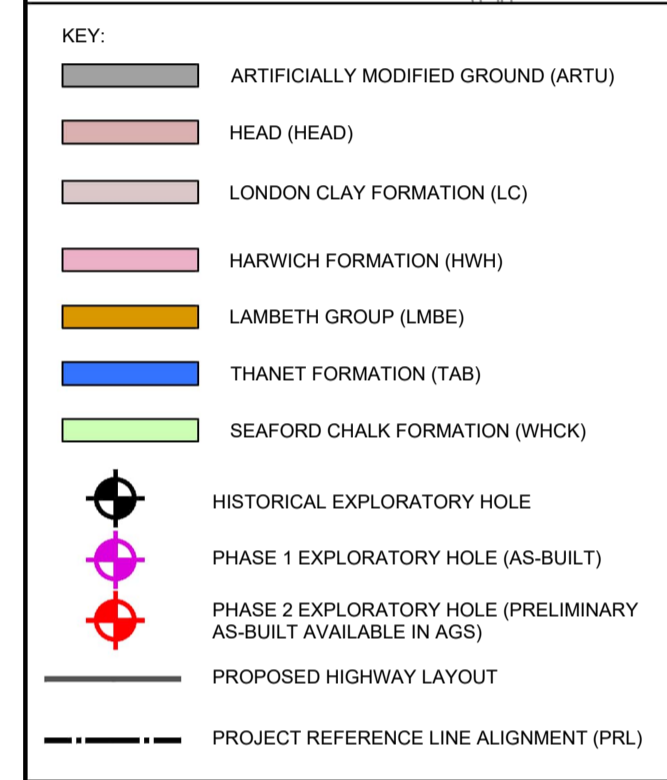




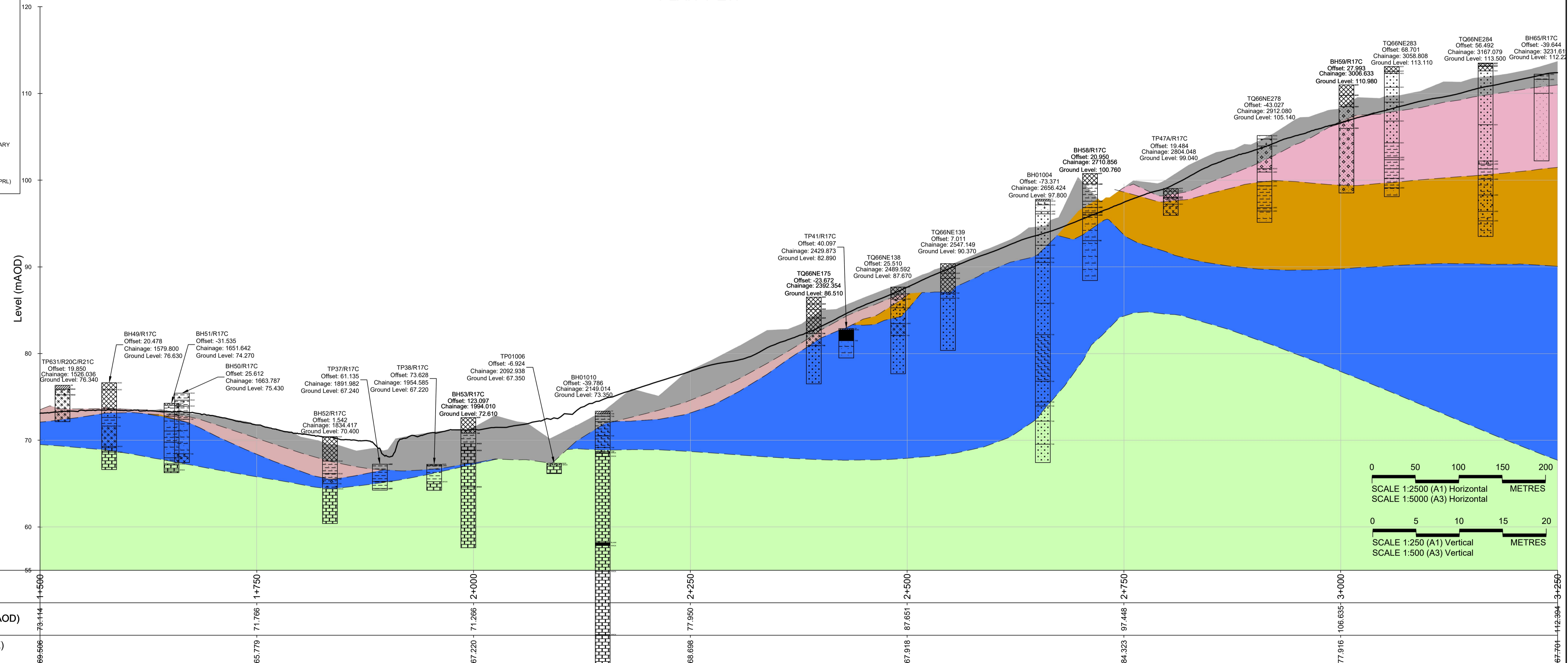




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PLAN VIEW



SECTION VIEW

A2/M2 Chainage (m)	1+500	1+750	2+000	2+250	2+500	2+750	3+000	3+250
Existing Ground Levels (mAOD)	73.114	71.766	71.266	77.950	87.651	97.448	106.635	112.984
Top of Chalk Strata (WHCK) Levels (mAOD)	69.666	65.779	67.220	68.698	67.918	64.323	77.916	67.701

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chkd	Apprvd
P01	S8	17/04/2020	ISSUED FOR DCO APPLICATION	SDP	FK	ELA
P02	S8	26/08/2020	GEOLOGICAL INTERPRETATION REVISED	SDP	ELA	CA
P03	S8	19/10/2022	DESIGN UPDATED FOR DCO APPLICATION	AAB	MW	CA

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Client

**LOWER THAMES CROSSING**

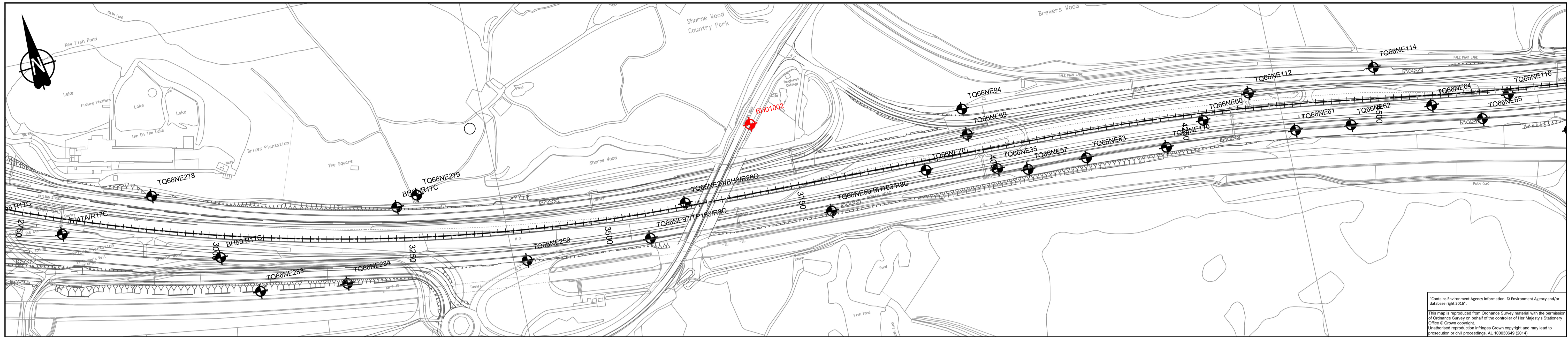
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Project **LOWER THAMES CROSSING DEVELOPMENT PHASE**

Drawing title **GEOLOGICAL LONG SECTION SHEET 20 OF 22**

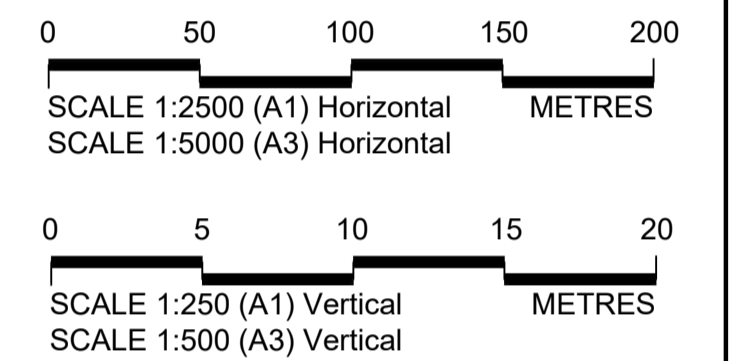
Status	S8	DCO Application	Original Size	A1	Revision	P03
Scale	1:2500		Date	19/10/2022		
Drawn	AAB	Checked	MW	Date	19/10/2022	
Approved	CA	Date	19/10/2022			
Drawing number	HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00022					



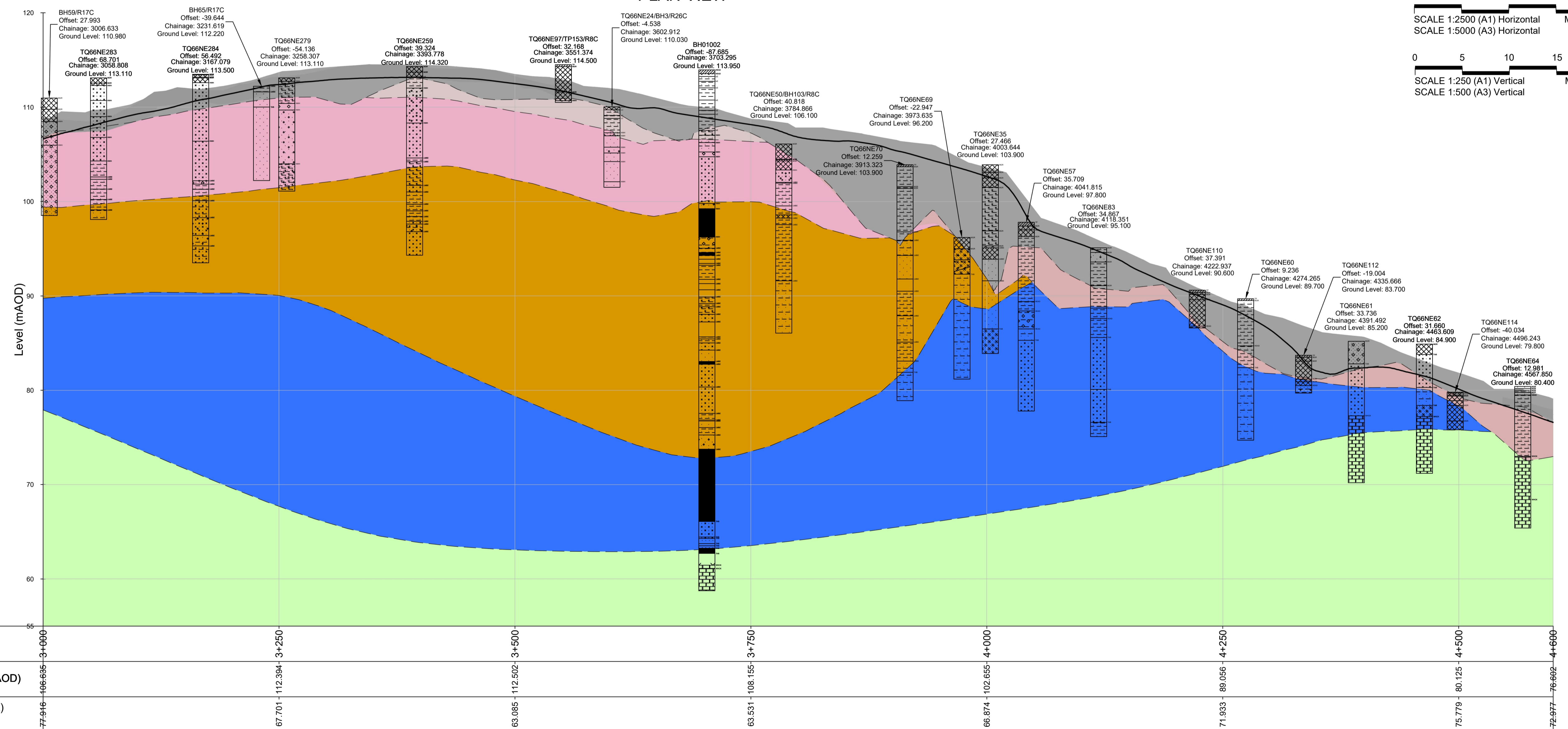


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  - HARWICH FORMATION (HWH)
  - LAMBETH GROUP (LMBE)
  - THANET FORMATION (TAB)
  - SEAFORD CHALK FORMATION (WHCK)
  - HISTORICAL EXPLORATORY HOLE
  - PHASE 1 EXPLORATORY HOLE (AS-BUILT)
  - PHASE 2 EXPLORATORY HOLE (PRELIMINARY AS-BUILT AVAILABLE IN AGS)
  - PROPOSED HIGHWAY LAYOUT
  - PROJECT REFERENCE LINE ALIGNMENT (PRL)



**PLAN VIEW**



**SECTION VIEW**

A2/M2 Chainage (m)	Existing Ground Levels (mAOD)	Top of Chalk Strata (WHCK) Levels (mAOD)
3+000	106.635	77.916
3+250	112.394	67.701
3+500	112.502	63.085
3+750	108.155	63.531
4+000	102.655	66.874
4+250	89.066	71.933
4+500	80.125	75.779
4+600	76.602	74.977

Rev	Status	Rev. Date	Purpose of revision	Drawn	Chk'd	Apprv'd
P01	S8	17/04/2020	ISSUED FOR DCO APPLICATION	SDP	FK	ELA
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Project **LOWER THAMES CROSSING DEVELOPMENT PHASE**

Drawing title **GEOLOGICAL LONG SECTION SHEET 21 OF 22**

Status	Original Size	Revision
S8 DCO Application	A1	P03
Scale 1:2500	Date - 19/10/2022	Date - 19/10/2022
Drawn AAB	Checked MW	Approved CA
Drawing number <b>HE540039-CJV-HGT-SZP_ML000000_Z-DR-CE-00023</b>	Date - 19/10/2022	Date - 19/10/2022







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