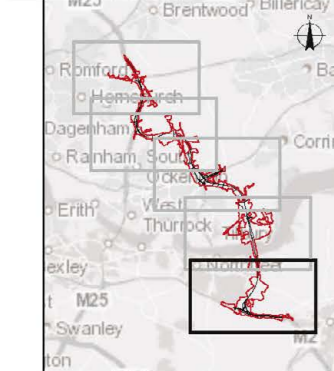
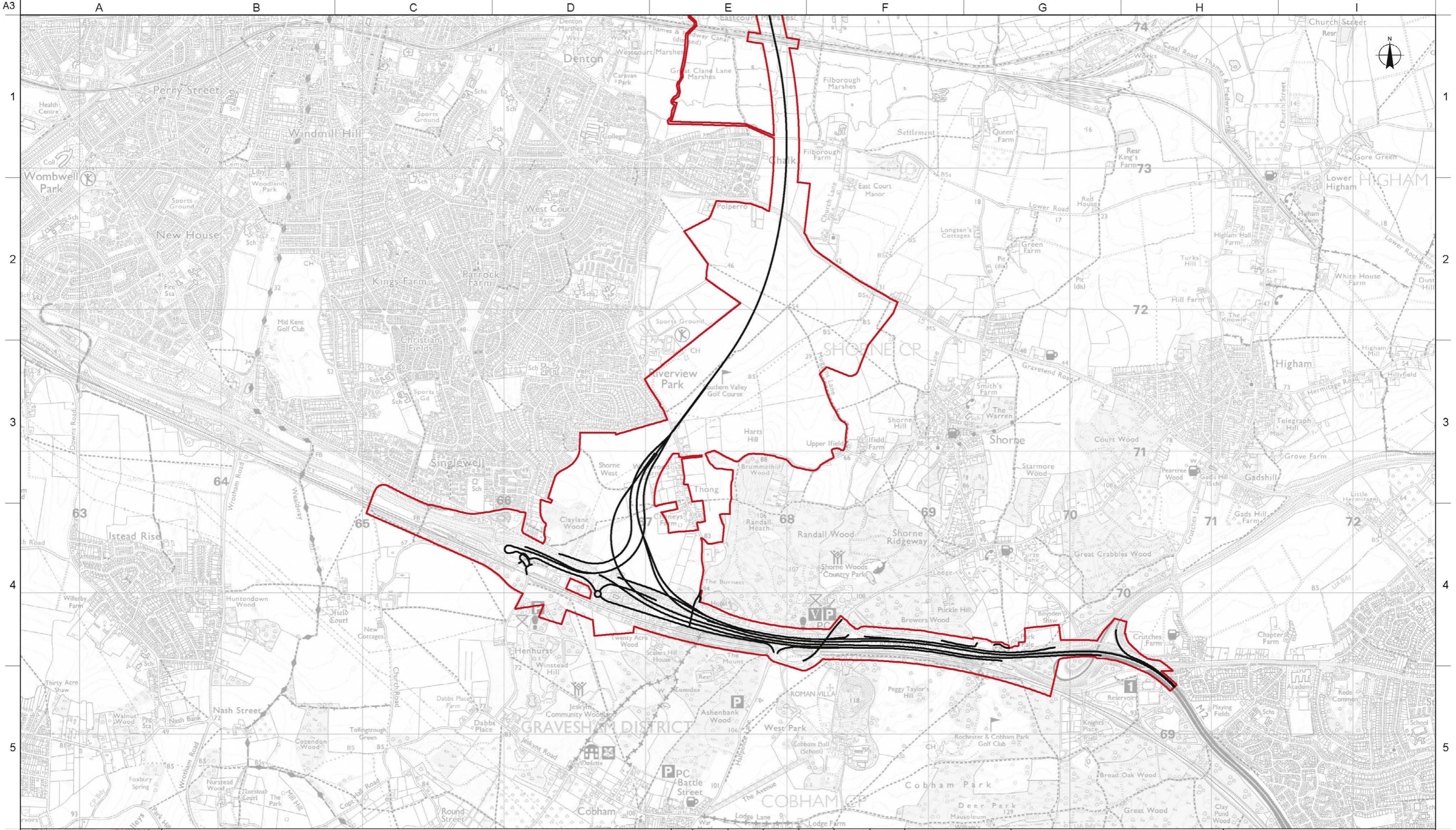


Lower Thames Crossing  
**Preliminary Environmental  
Information Report**  
Figures

## List of figures

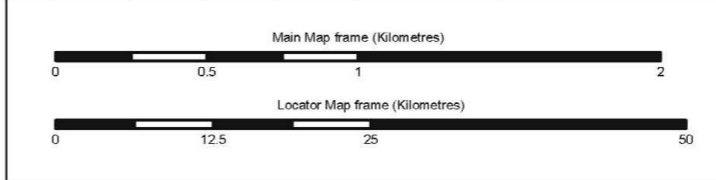
Figure	Chapter	Title
2.1	Project Description	Proposed Development Boundary
2.2a	Project Description	Indicative South Portal Compound Layout
2.2b	Project Description	Indicative North Portal Compound Layout
2.2c	Project Description	Example of an Indicative Highways Compound Layout
2.3	Project Description	Major Utility Diversions
2.4	Project Description	Outline Environmental Masterplan



**Legend**

- LTC Route Alignment
- Development Boundary

Rev	Drawn By	Drawn Date	Checked By	Checked Date	Approved By	Approved Date	Revision Purpose
P01	RM	09/08/2018	SR	17/08/2018	CSS	17/08/2018	For Information



Client

Project Title  
**LOWER THAMES CROSSING  
STATUTORY CONSULTATION**

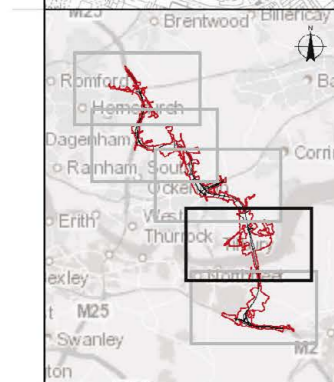
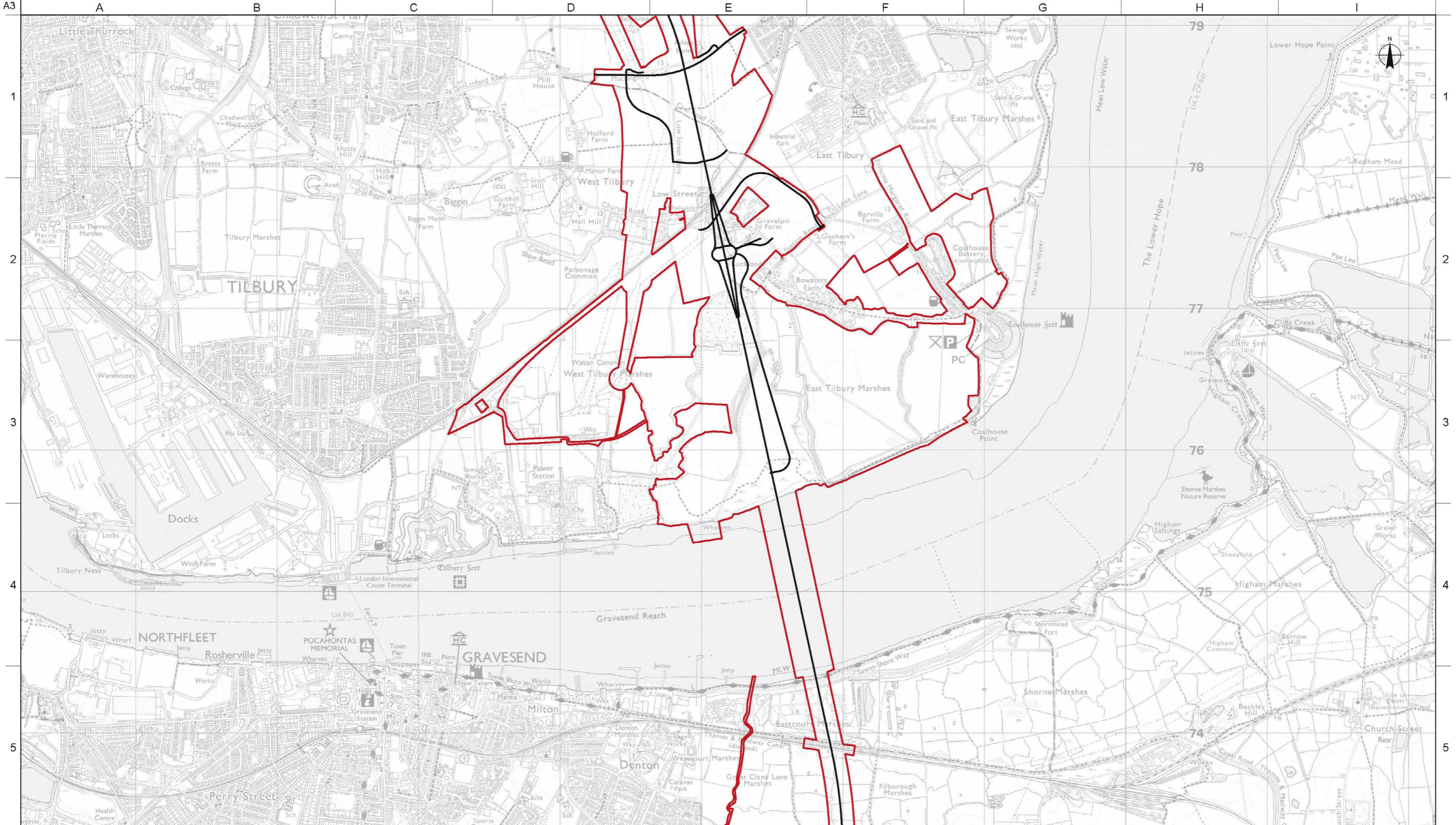
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Boundary  
Sheet 1 of 5**

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Suitability	Status	Revision
For Information	S2	P01

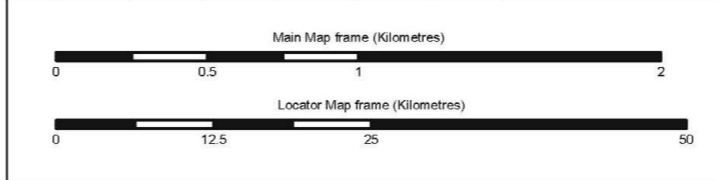
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**Legend**

- LTC Route Alignment
- Development Boundary

Rev	Drawn By	Drawn Date	Checked By	Checked Date	Approved By	Approved Date	Revision Purpose
P01	RM	09/08/2018	SR	17/08/2018	CSS	17/08/2018	For Information



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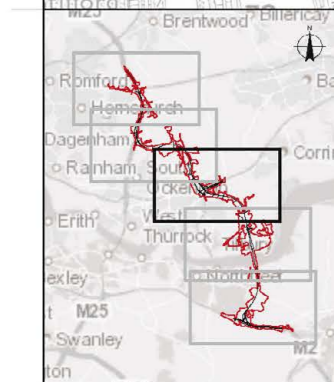
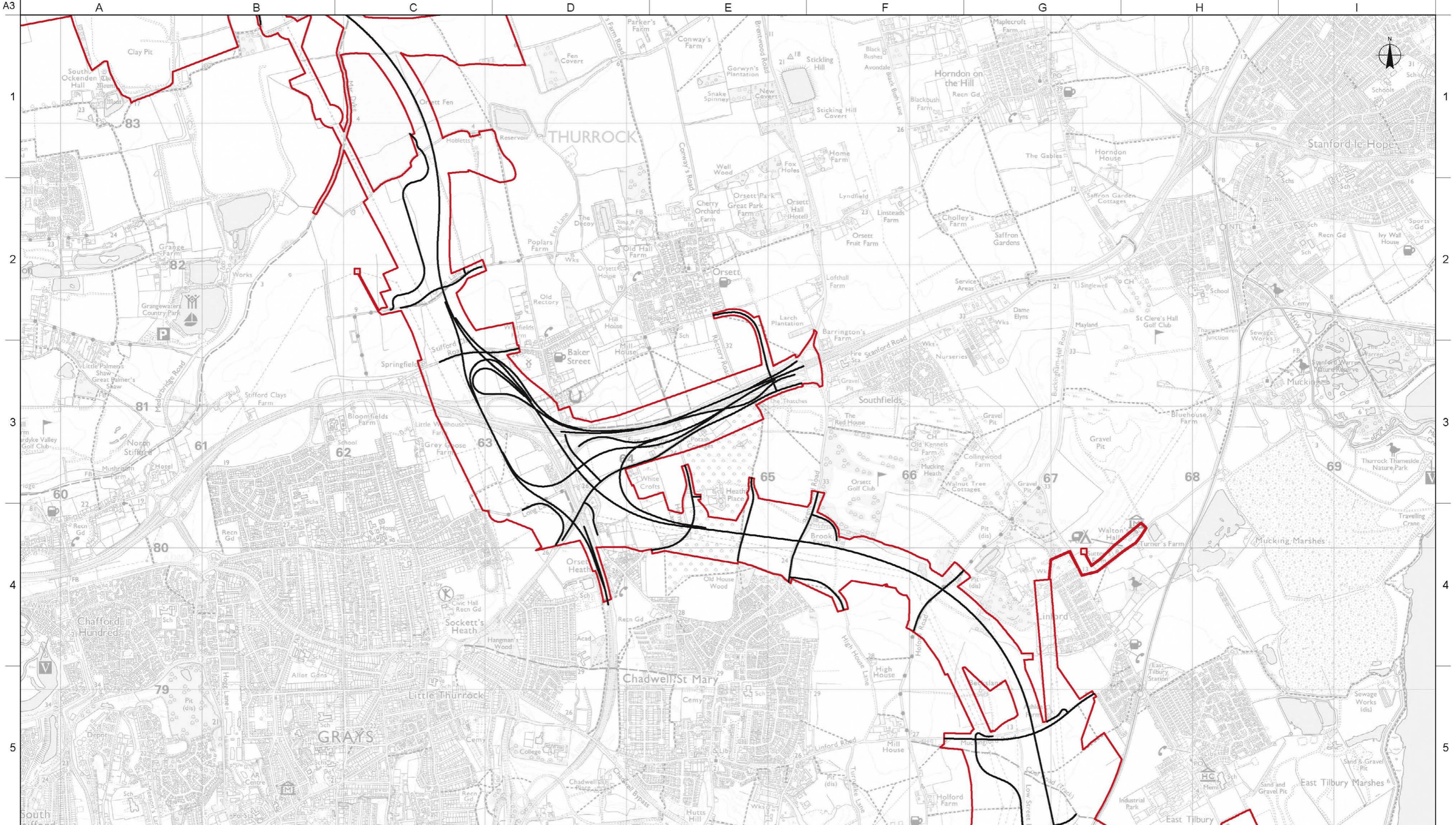
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Boundary  
Sheet 2 of 5**

Suitability	Status	Revision
<b>For Information</b>	<b>S2</b>	<b>P01</b>

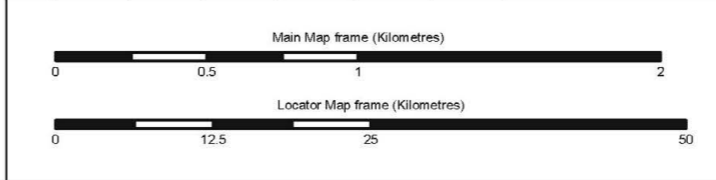
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**Legend**

- LTC Route Alignment
- Development Boundary

Rev	Drawn By	Drawn Date	Checked By	Checked Date	Approved By	Approved Date	Revision Purpose
P01	RM	09/08/2018	SR	17/08/2018	CSS	17/08/2018	For Information



Client

Project Title  
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STATUTORY CONSULTATION**

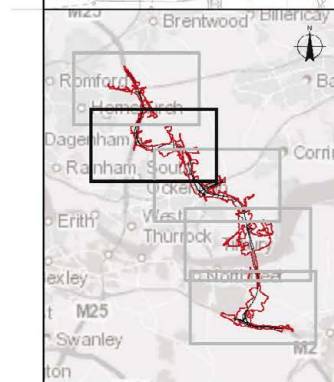
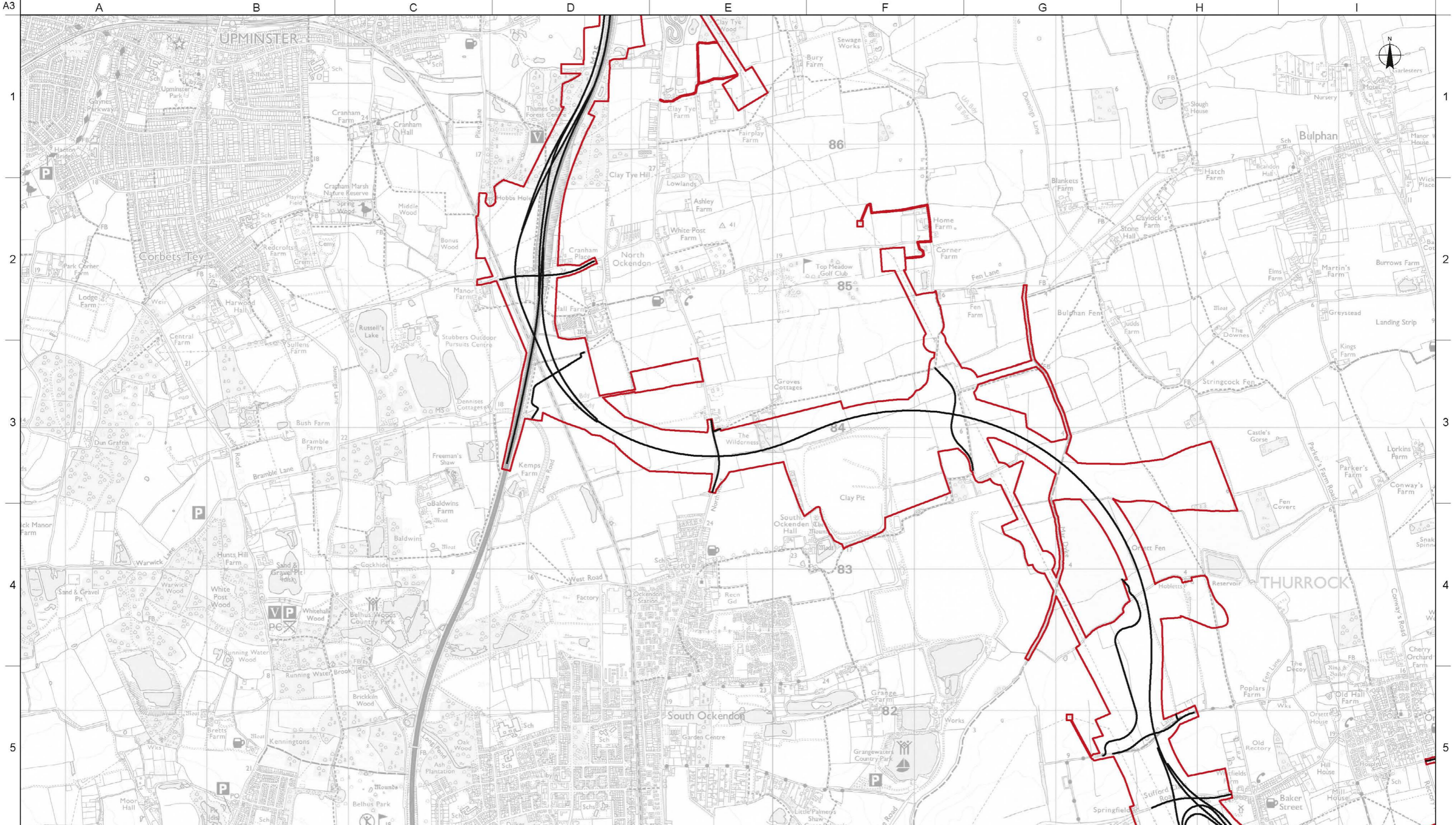
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Sheet 3 of 5**

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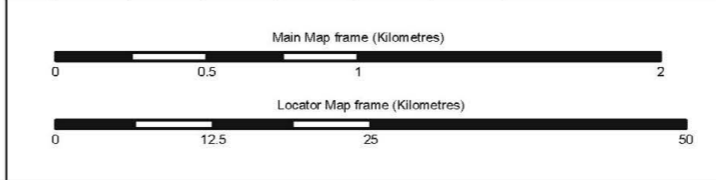
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**Legend**

- LTC Route Alignment
- Development Boundary

Rev	Drawn By	Drawn Date	Checked By	Checked Date	Approved By	Approved Date	Revision Purpose
P01	RM	09/08/2018	SR	17/08/2018	CSS	17/08/2018	For Information



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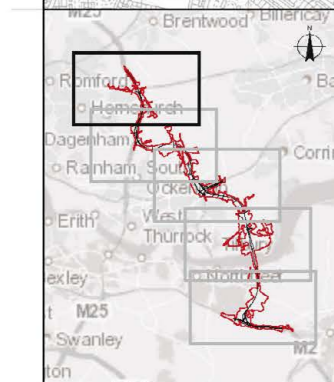
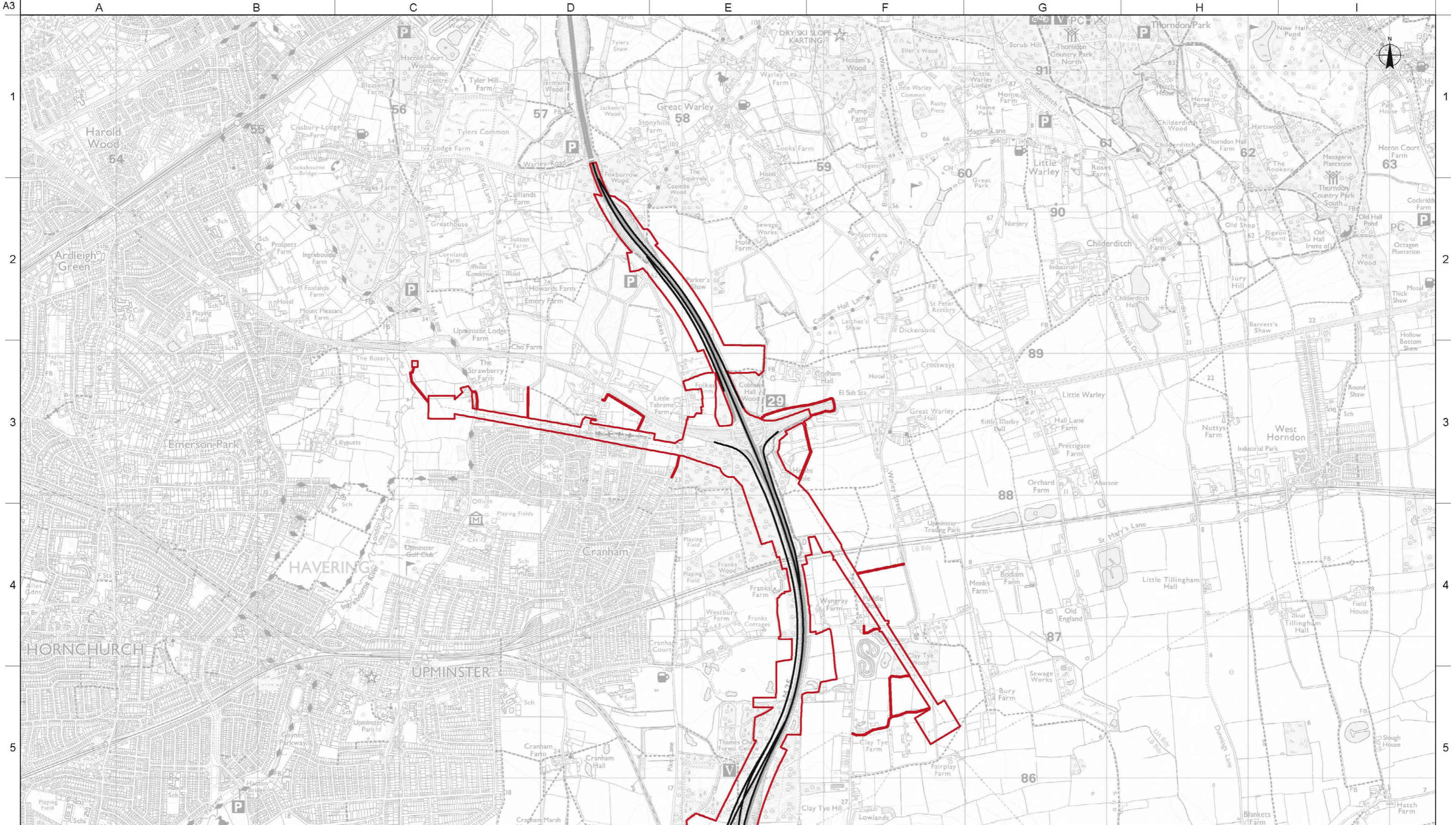
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Sheet 4 of 5**

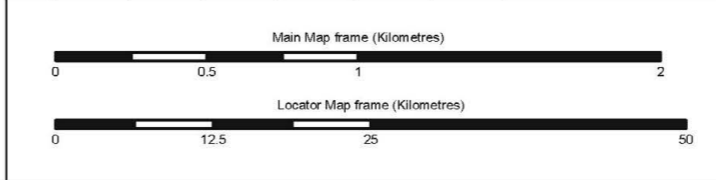
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**Legend**

- LTC Route Alignment
- Development Boundary

Rev	Drawn By	Drawn Date	Checked By	Checked Date	Approved By	Approved Date	Revision Purpose
P01	RM	09/08/2018	SR	17/08/2018	CSS	17/08/2018	For Information



Client

Project Title  
**LOWER THAMES CROSSING  
STATUTORY CONSULTATION**

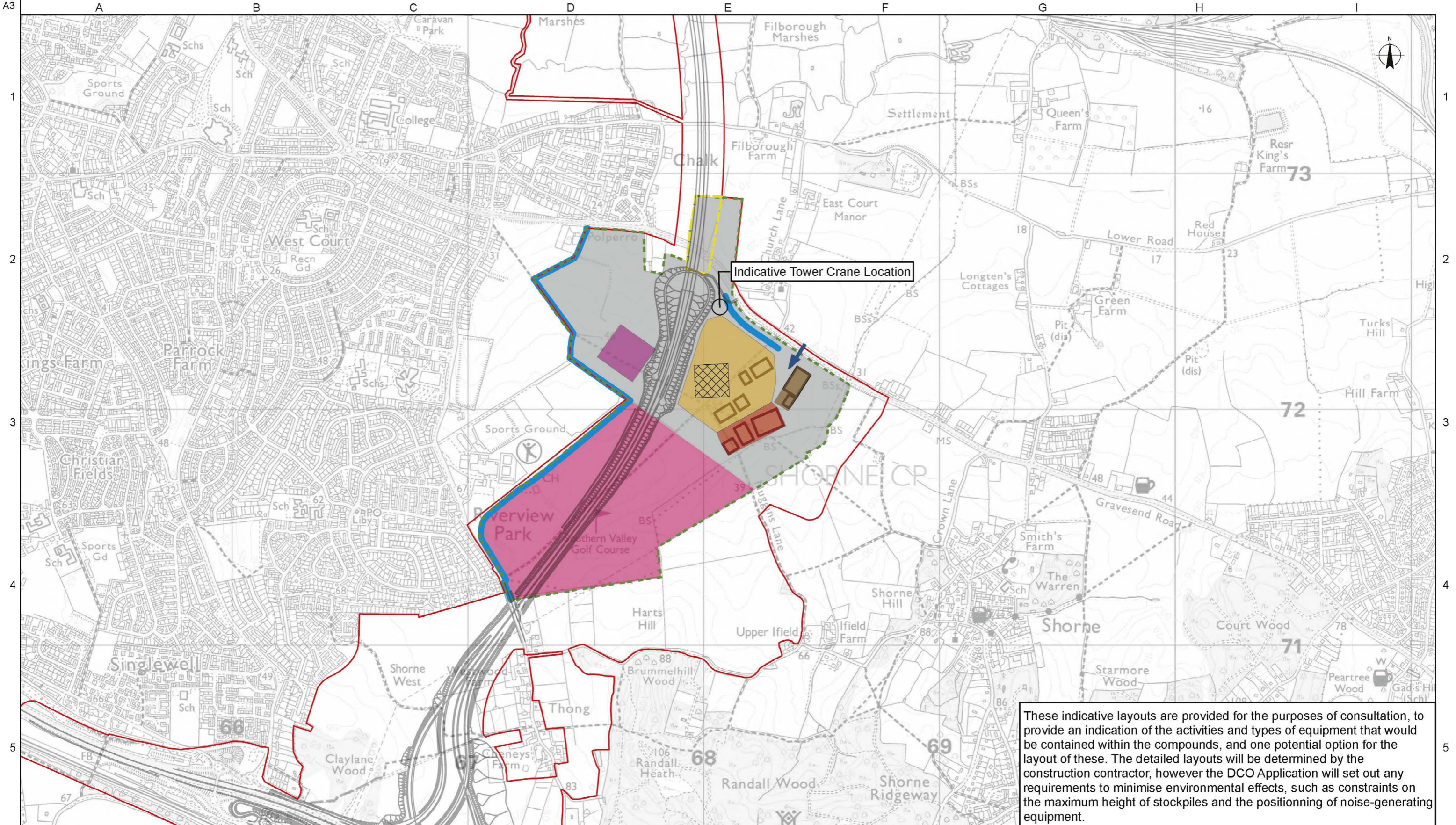
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Boundary  
Sheet 5 of 5**

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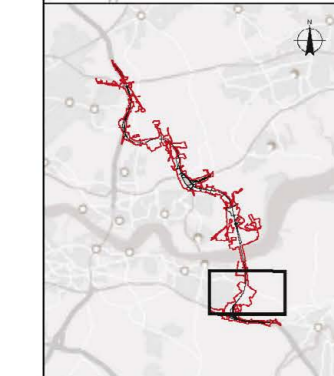
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For Information	S2	P01

Drawing Number  
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These indicative layouts are provided for the purposes of consultation, to provide an indication of the activities and types of equipment that would be contained within the compounds, and one potential option for the layout of these. The detailed layouts will be determined by the construction contractor, however the DCO Application will set out any requirements to minimise environmental effects, such as constraints on the maximum height of stockpiles and the positioning of noise-generating equipment.



Legend			
	LTC Detailed Route Alignment		Indicative Building Location
	Development Boundary		Indicative Highways Construction Compound
	Indicative Compound Extent		Indicative South Portal Compound
	Indicative Acoustic Bund		Indicative Site Reception, Security and Wheel Wash Area
	Indicative Access		Indicative Tunnel Support Including Workshops Welfare and Waste Management Area
	Indicative Ground Treatment for Tunnel Boring Machine Reception		Indicative Plant, Equipment, Goods and Materials Storage Area
	Indicative Laydown Area		Indicative Temporary Excavated Material Storage Area

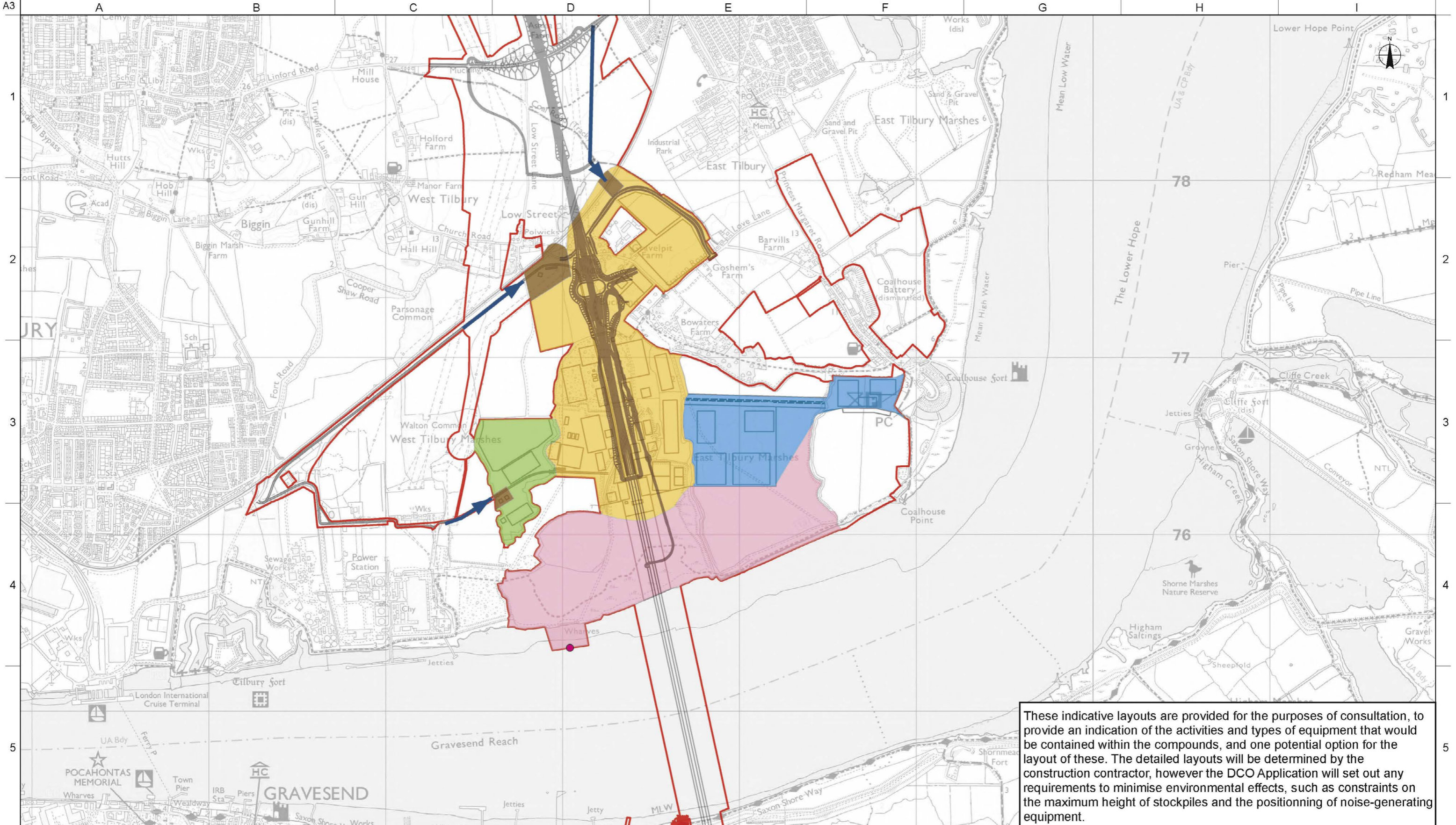
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P01	EP	17/08/2018	SR	17/08/2018	CSS	17/08/2018	For Information

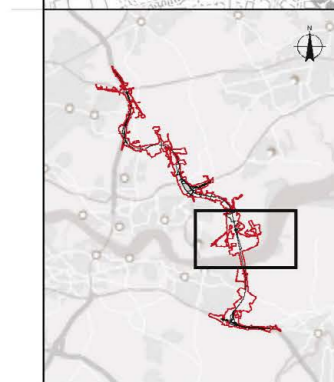
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Project Title					
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Drawing Title		Suitability	Status	Revision	
<b>Figure 2.2a - Indicative South Portal Compound Layout Sheet 1 of 1</b>		<b>For Information</b>	<b>S2</b>	<b>P01</b>	
Drawing Number					
HE540039-CJV-EGN-SZP_EGNE0000000-DR-LE-40053					





These indicative layouts are provided for the purposes of consultation, to provide an indication of the activities and types of equipment that would be contained within the compounds, and one potential option for the layout of these. The detailed layouts will be determined by the construction contractor, however the DCO Application will set out any requirements to minimise environmental effects, such as constraints on the maximum height of stockpiles and the positioning of noise-generating equipment.



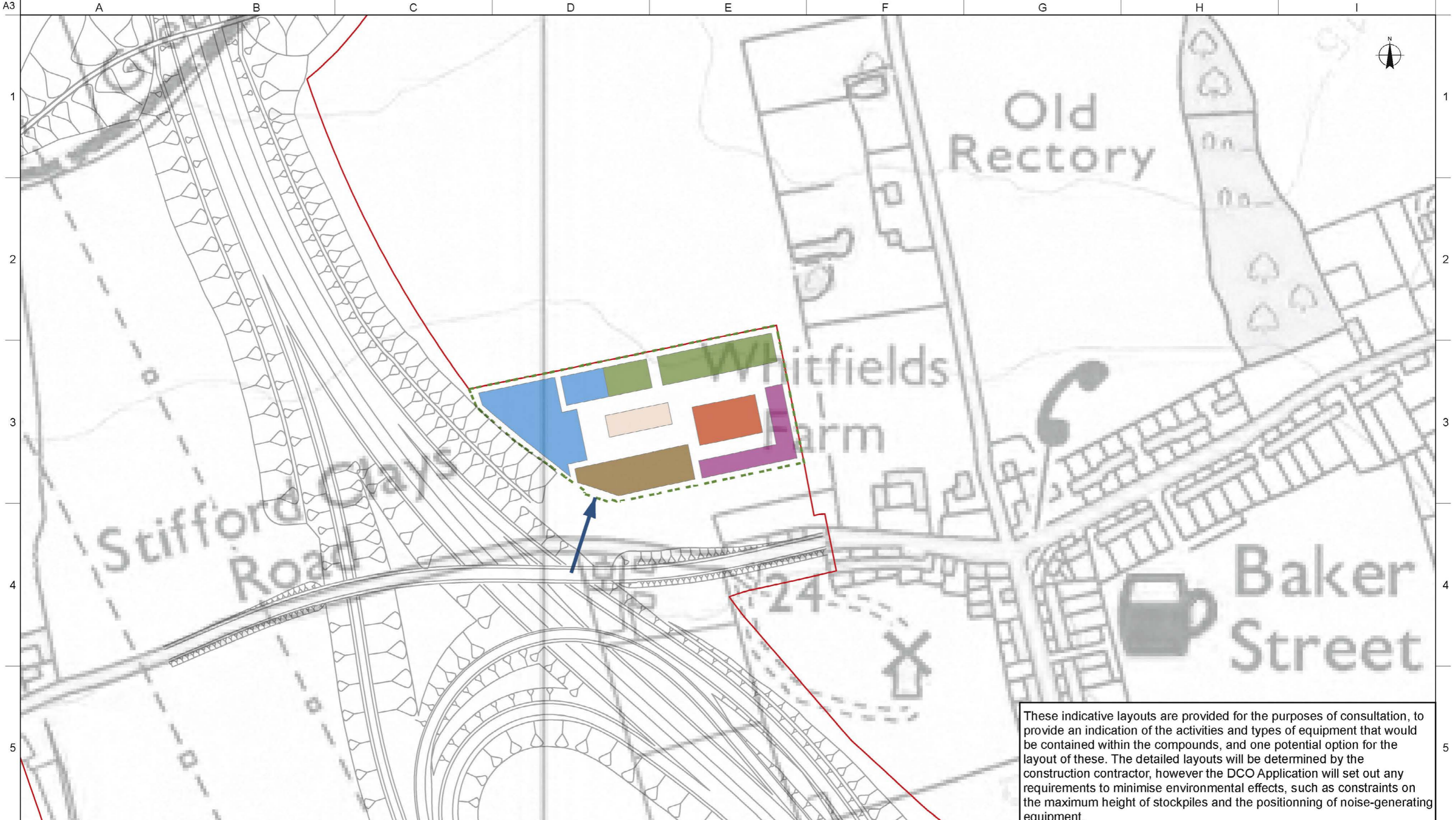
Legend					
	LTC Detailed Route Alignment		Indicative Spoil Remediation Area		Indicative Buildings Location
	Indicative Jetty Location		Indicative Landscaped Excavated Material Area		Indicative Project Management and Car Parking Area
	Indicative Access		Indicative Site Reception, Security and Wheel Wash Area		
	Indicative Tunnel Support Area Including Segment Casting Facilities				

Rev	Drawn By	Drawn Date	Checked By	Checked Date	Approved By	Approved Date	Revision Purpose
P01	EP	17/08/2018	SR	17/08/2018	CSS	17/08/2018	For Information

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Project Title					
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Drawing Title		Suitability	Status	Revision	
<b>Figure 2.2b - Indicative North Portal Compound Layout Sheet 1 of 1</b>		<b>For Information</b>	<b>S2</b>	<b>P01</b>	
Drawing Number					
<b>HE540039-CJV-EGN-SZP_EGNE0000000-DR-LE-40052</b>					



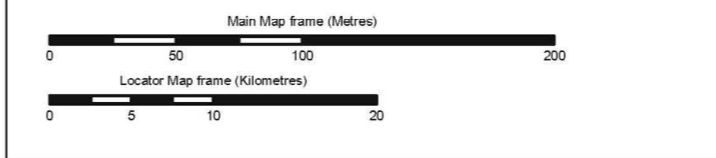
These indicative layouts are provided for the purposes of consultation, to provide an indication of the activities and types of equipment that would be contained within the compounds, and one potential option for the layout of these. The detailed layouts will be determined by the construction contractor, however the DCO Application will set out any requirements to minimise environmental effects, such as constraints on the maximum height of stockpiles and the positioning of noise-generating equipment.



**Legend**

- LTC Detailed Route Alignment
- Development Boundary
- Indicative Compound extent
- Indicative Access
- Indicative Site Reception, Security and Wheel Wash Area
- Indicative Workshop, Waste Store and Welfare Area
- Indicative Goods and Materials Storage Area
- Indicative Plant and Equipment Area
- Indicative Temporary Excavated Material Storage Area
- Indicative Project Management and Car Parking Area

Rev	Drawn By	Drawn Date	Checked By	Checked Date	Approved By	Approved Date	Revision Purpose
P01	EP	17/08/2018	SR	17/08/2018	CSS	17/08/2018	For Information



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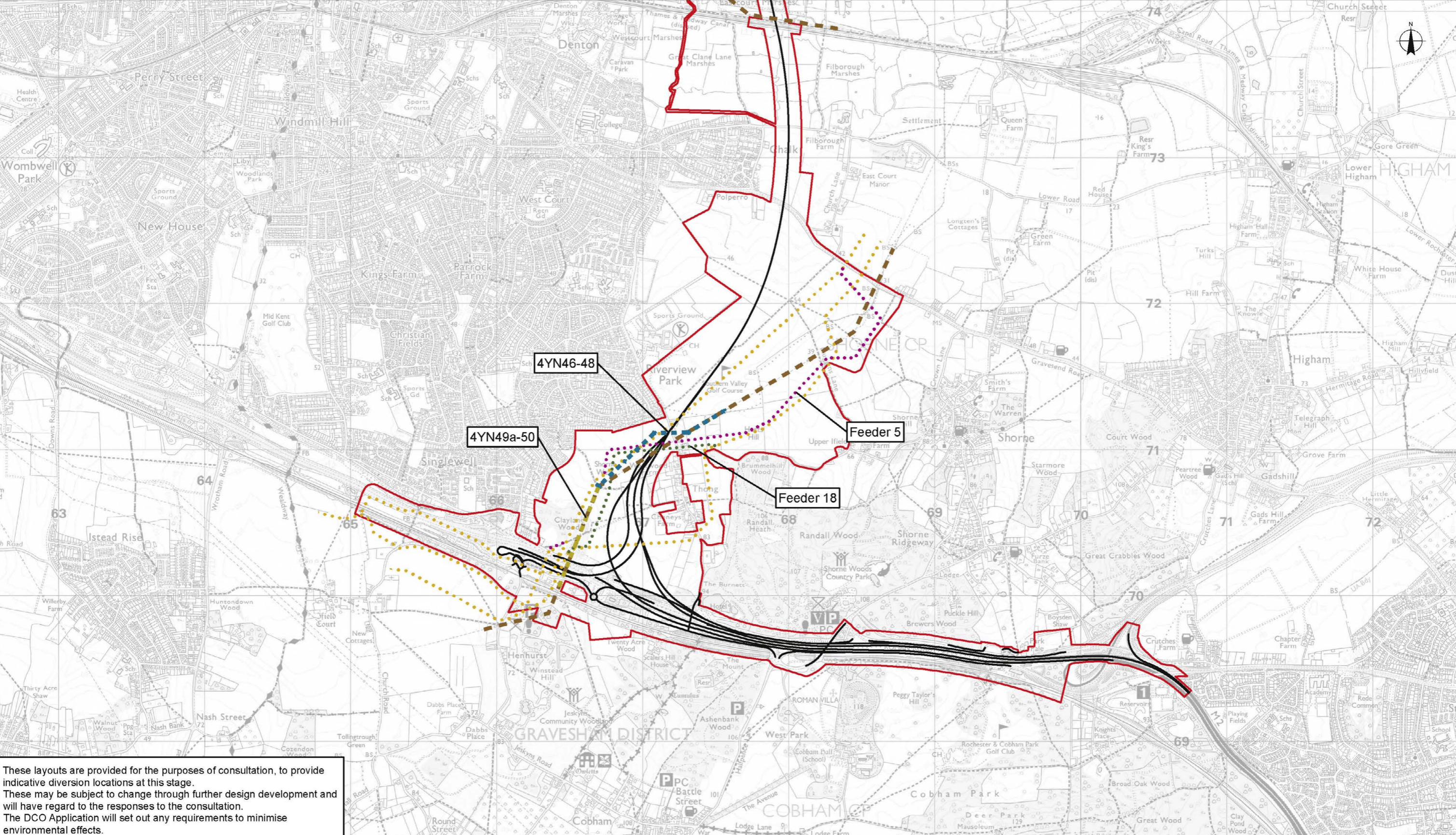
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Drawing Title  
**Figure 2.2c - Example of an Indicative Highways Compound Layout Sheet 1 of 1**

Suitability	Status	Revision
For Information	S2	P01

Drawing Number  
HE540039-CJV-EGN-SZP\_EGNE0000000-DR-LE-40054



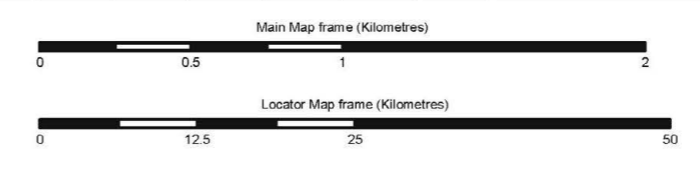
These layouts are provided for the purposes of consultation, to provide indicative diversion locations at this stage. These may be subject to change through further design development and will have regard to the responses to the consultation. The DCO Application will set out any requirements to minimise environmental effects.



**Legend:**

- LTC Route Alignment
- Development Boundary
- Existing National Grid Overhead Electricity Line
- Existing National Grid Transmission Pipeline
- Indicative Diversion for 4YN46-48
- Indicative Diversion for 4YN49a-50
- Indicative Diversion for Feeder 5
- Indicative Diversion for Feeder 18

Rev	Drawn By	Drawn Date	Checked By	Checked Date	Approved By	Approved Date	Revision Purpose
P01	RM	03/08/2018	MMW	17/08/2018	CSS	17/08/2018	For Information

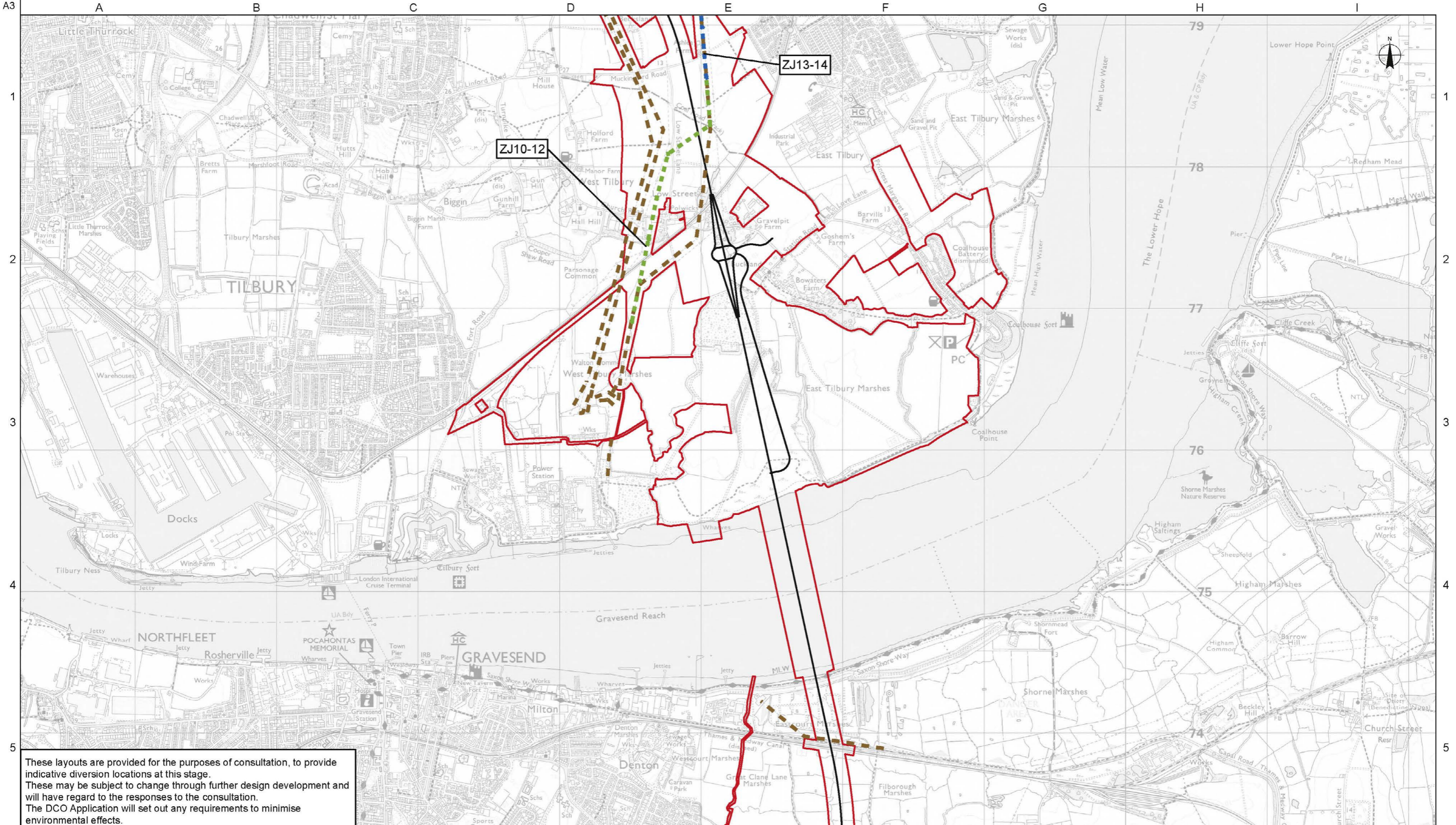


Client

Project Title **LOWER THAMES CROSSING STATUTORY CONSULTATION**

Drawing Title **Figure 2.3 - Major Utility Diversions Sheet 1 of 5**

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Suitability	Status	Revision
For Information	<b>S2</b>	<b>P01</b>
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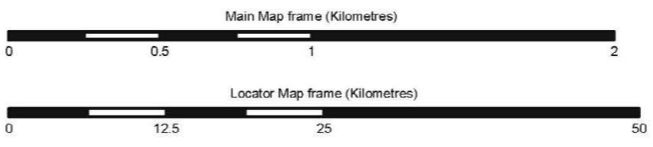


These layouts are provided for the purposes of consultation, to provide indicative diversion locations at this stage. These may be subject to change through further design development and will have regard to the responses to the consultation. The DCO Application will set out any requirements to minimise environmental effects.



- Legend:**
- LTC Route Alignment
  - Development Boundary
  - Existing National Grid Overhead Electricity Line
  - Indicative Diversion for ZJ10-12
  - Indicative Diversion for ZJ13-14

Rev	Drawn By	Drawn Date	Checked By	Checked Date	Approved By	Approved Date	Revision Purpose
P01	RM	03/08/2018	MW	17/08/2018	CSS	17/08/2018	For Information



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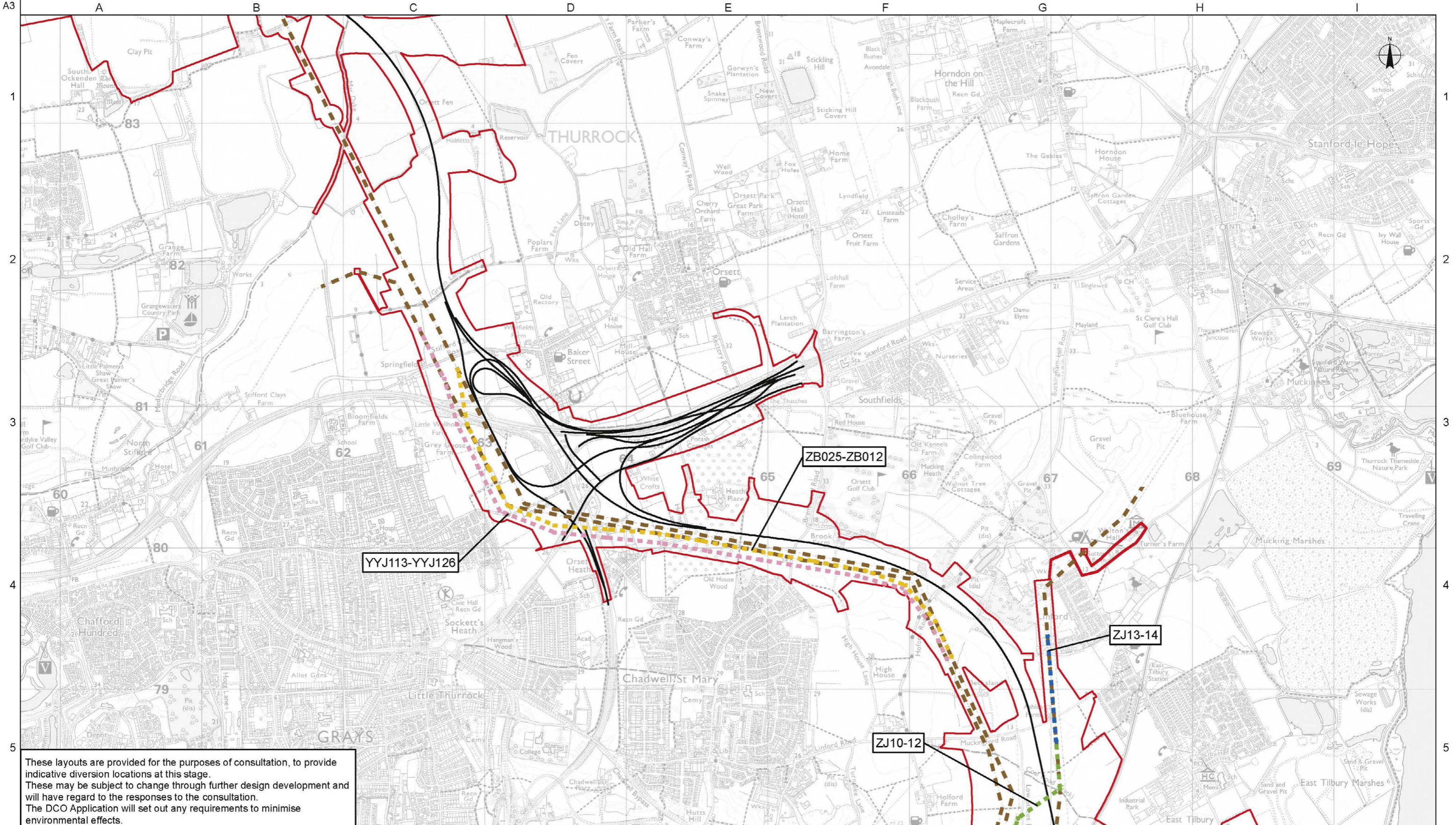
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Drawing Title  
**Figure 2.3 - Major Utility Diversions Sheet 2 of 5**

Suitability	Status	Revision
For Information	S2	P01

Drawing Number  
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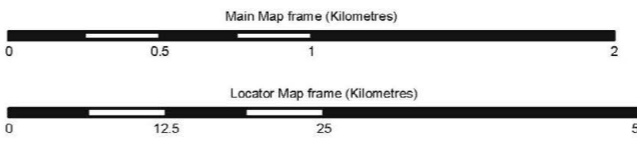


These layouts are provided for the purposes of consultation, to provide indicative diversion locations at this stage. These may be subject to change through further design development and will have regard to the responses to the consultation. The DCO Application will set out any requirements to minimise environmental effects.



- Legend:**
- LTC Route Alignment
  - Development Boundary
  - Existing National Grid Overhead Electricity Line
  - Indicative Diversion for YYJ113-YYJ126
  - Indicative Diversion for ZB025-ZB012
  - Indicative Diversion for ZJ10-12
  - Indicative Diversion for ZJ13-14

Rev	Drawn By	Drawn Date	Checked By	Checked Date	Approved By	Approved Date	Revision Purpose
P01	RM	03/08/2018	MW	17/08/2018	CSS	17/08/2018	For Information



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**LOWER THAMES CROSSING STATUTORY CONSULTATION**

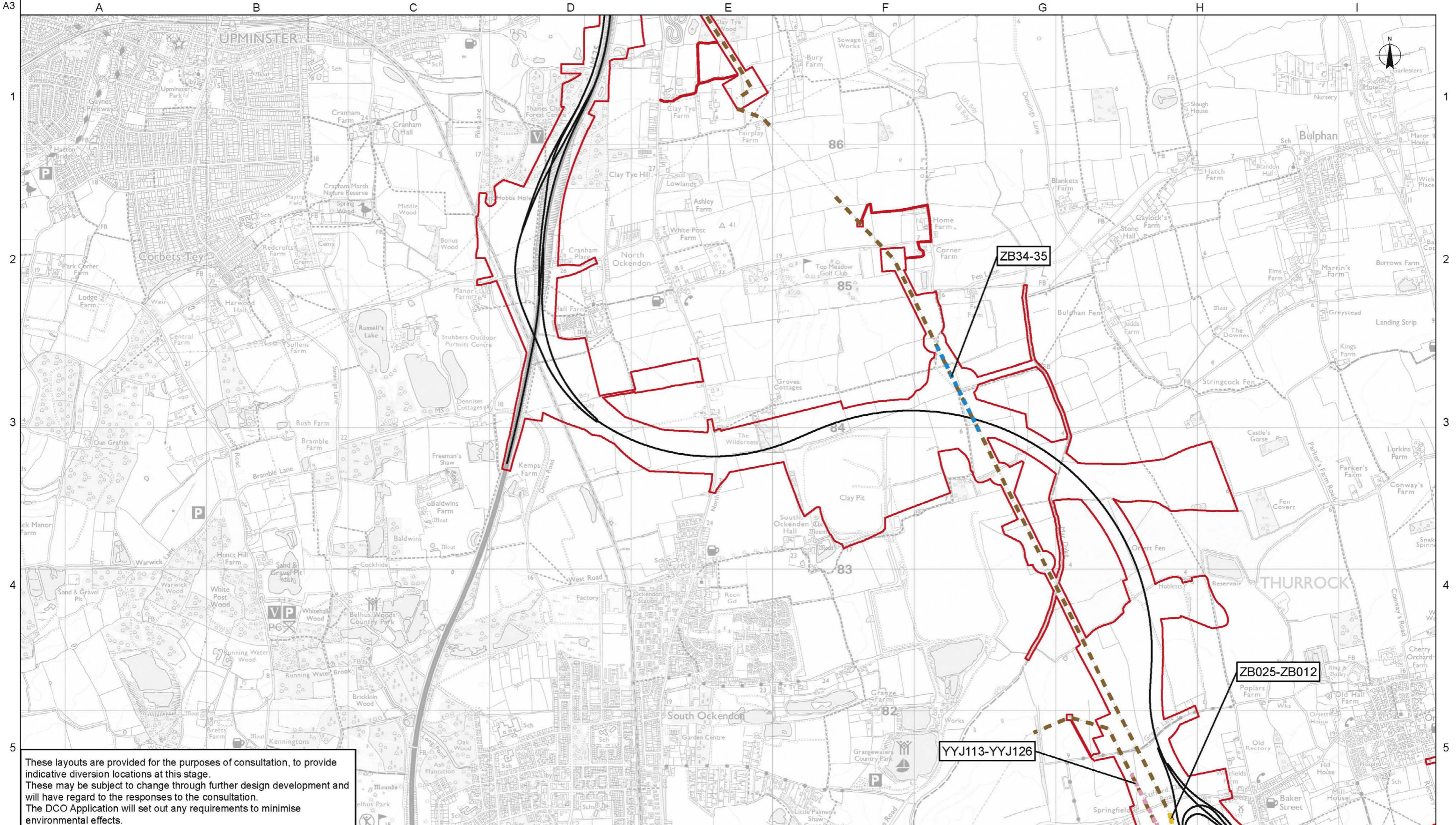
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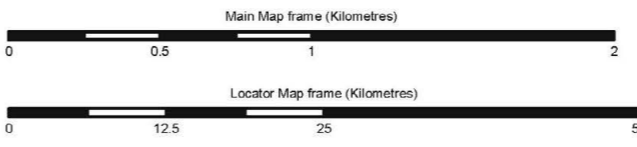
Suitability	Status	Revision
For Information	S2	P01

Drawing Number  
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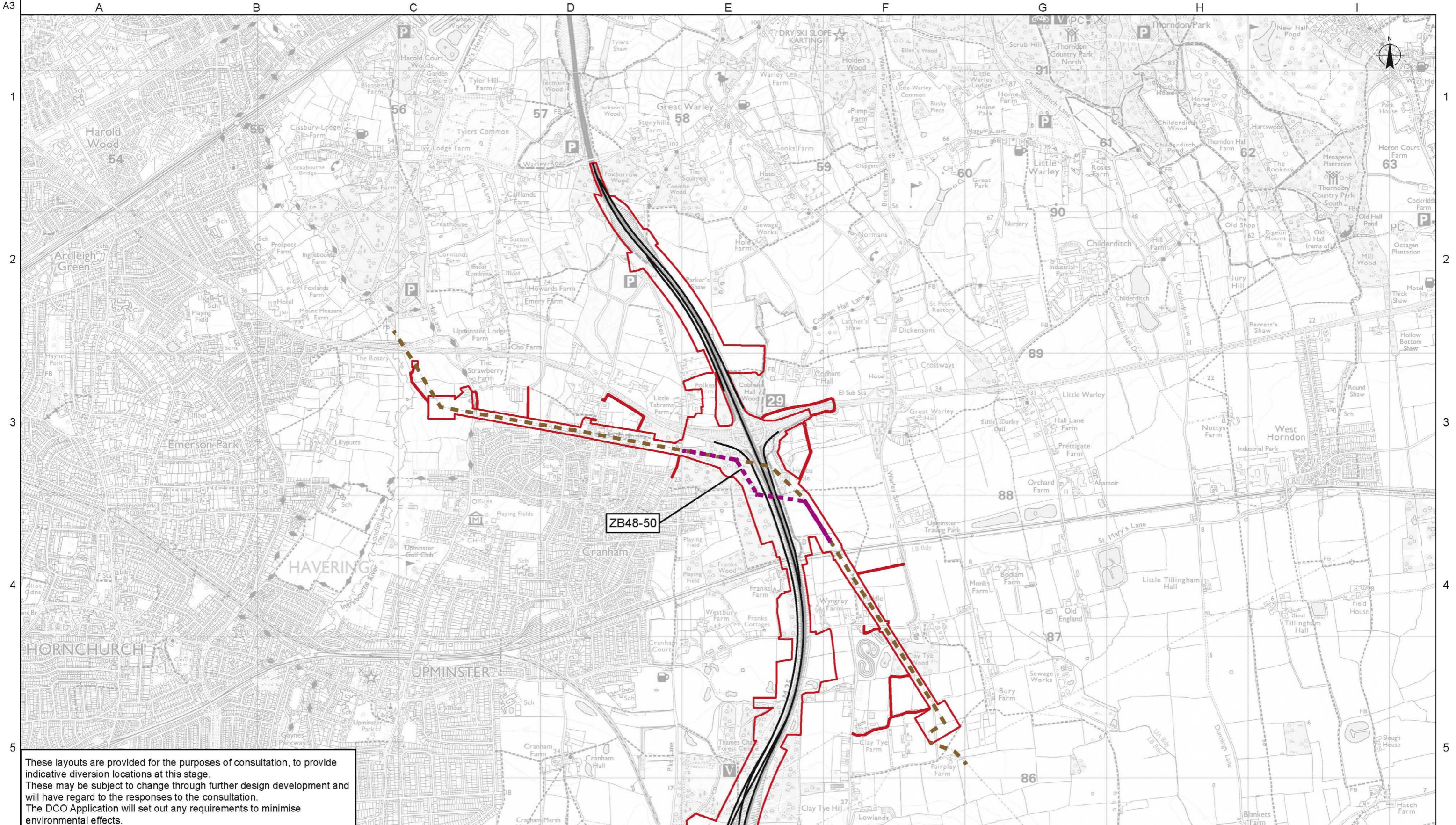


- Legend:**
- LTC Route Alignment
  - Development Boundary
  - Existing National Grid Overhead Electricity Line
  - Indicative Diversion for YYJ113-YYJ126
  - Indicative Diversion for ZB025-ZB012
  - Indicative Diversion for ZB34-35

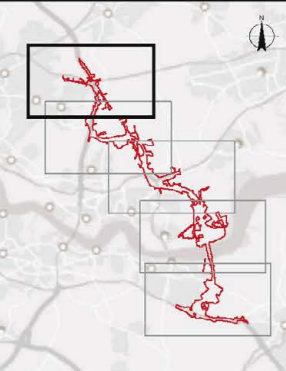
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P01	RM	03/08/2018	MW	17/08/2018	CSS	17/08/2018	For Information



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Drawing Title <b>Figure 2.3 - Major Utility Diversions Sheet 4 of 5</b>		Suitability <b>For Information</b>	Status <b>S2</b>
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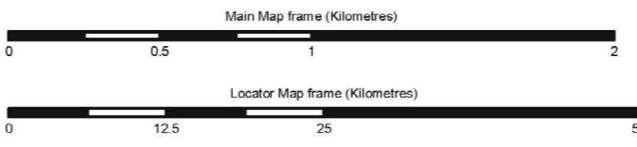


These layouts are provided for the purposes of consultation, to provide indicative diversion locations at this stage. These may be subject to change through further design development and will have regard to the responses to the consultation. The DCO Application will set out any requirements to minimise environmental effects.



- Legend:**
- LTC Route Alignment
  - Development Boundary
  - Existing National Grid Overhead Electricity Line
  - Indicative Diversion for ZB48-50

Rev	Drawn By	Drawn Date	Checked By	Checked Date	Approved By	Approved Date	Revision Purpose
P01	RM	03/08/2018	MW	17/08/2018	CSS	17/08/2018	For Information



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Project Title  
**LOWER THAMES CROSSING STATUTORY CONSULTATION**

Drawing Title  
**Figure 2.3 - Major Utility Diversions Sheet 5 of 5**


Scale at A3  
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Inset **1:600,000**

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Suitability	Status	Revision
For Information	S2	P01




Drawing Number  
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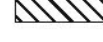

-  Proposed Development Boundary
-  Proposed National Grid Overhead Line Diversion

**EXISTING/ BASELINE**

**Environmental Features**





-  Water Features, Ponds, Rivers & Watercourses
-  Woodland
-  Hedgerows

**Primary Planning and Policy Considerations**

-  Area of Outstanding Natural Beauty (AONB)
-  Site of Special Scientific Interest (SSSI)
-  Special Protection Areas (SPA)
-  Ramsar Sites
-  Ancient Woodland
-  Open Access Land
-  Conservation Area
-  Listed Buildings



**PROPOSED ELEMENTS**

**General Environmental**


-  Potential receptor site for excavated material/landscape enhancement
-  Potential receptor site for ancient woodland compensation
-  Replacement land allocated for Open Access Land
-  Replacement land allocated for Community Open Space

**Environmental Elements**

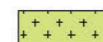




**Water**

-  Proposed Flood Compensation Area
-  Indicative Watercourse Diversions

**Nature Conservation and Biodiversity**

-  Potential receptor site for translocation of protected species/Ecological Improvement works

**Landscape Elements**

-  Grassland (\*1)
-  Planting (\*2)
-  Hedgerows (\*3)
-  Land to be Returned to Agriculture
-  Reinforced Hedgerows



**Trees**

-  Individual Trees

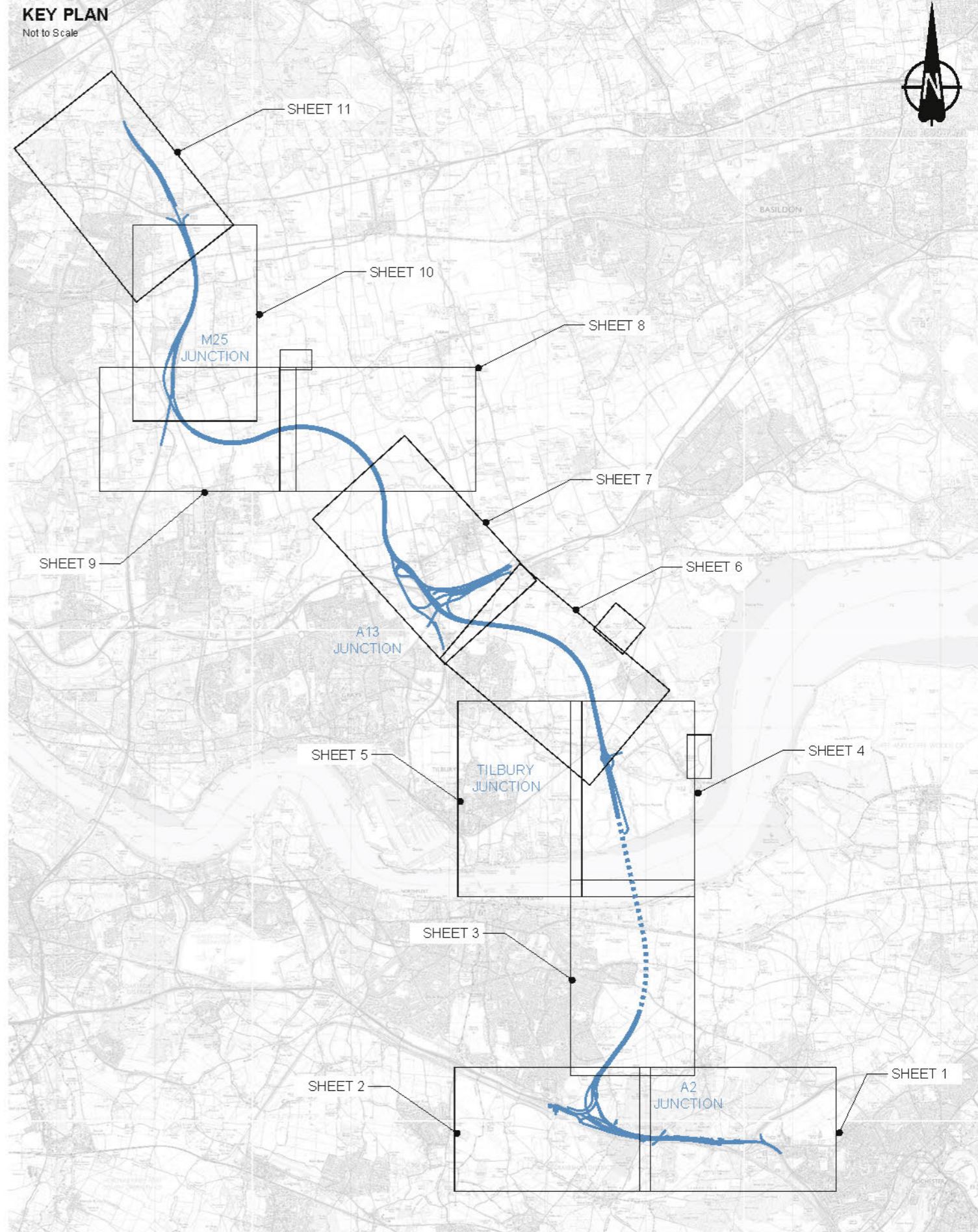
**Wetland Habitats**

-  Water Bodies and Associated Plants

**Hard Landscape Features**

-  Green Wall
-  Green Bridge/Structure

**KEY PLAN**  
Not to Scale



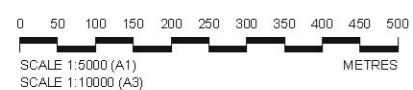
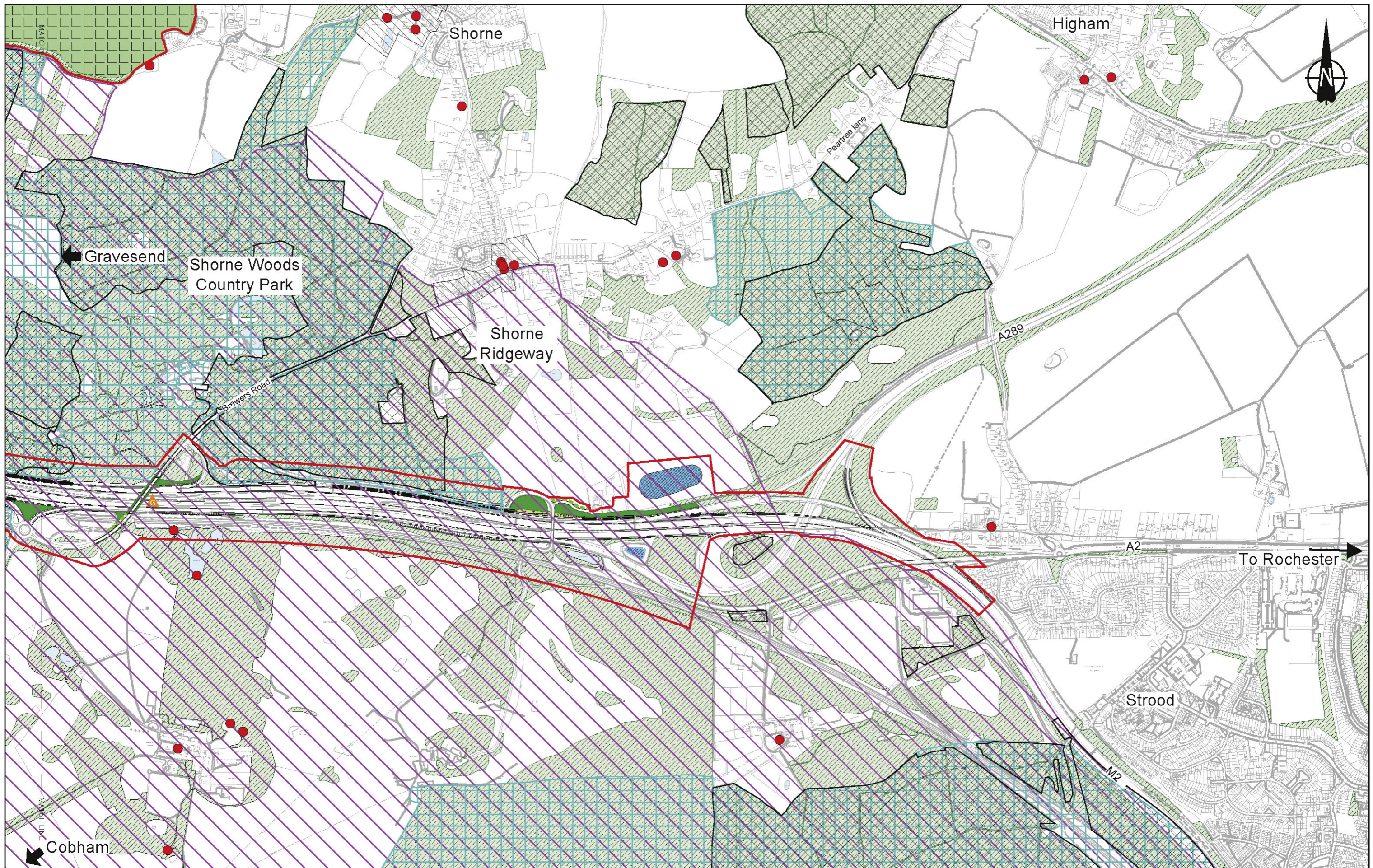
**NOTES:**

1. \*1 - Detailed grassland design will consist of: Amenity Grassland (LE1.1), Grassland with Bulbs (LE1.2), Species Rich (LE1.3), Rock and Sore (LE1.4), and Open Grassland (LE1.5).
2. \*2 - Detailed planting design will consist of: Woodland (LE2.1), Woodland Edge LE2.2, Linear Belts of Shrubs and Trees (LE2.4), Shrubs with Intermittent Trees (LE2.5), Shrubs (LE2.6), Scattered Trees (LE2.7), and Scrub (LE2.8).
3. \*3 - Detailed Hedgerow design will consist of: Ornamental Species Hedges (LE4.1), Native Species Hedges (Trimmed, LE4.2), Native Species Hedgerows (Untrimmed, LE4.3), and Native Hedgerows with Trees (LE4.4)
4. \*4 - The Outline Environmental Masterplan identifies a number of different options for ecological mitigation and/or compensation areas based on the current state of the design development and understanding of the potentially significant ecological impacts from survey data collected to date. The mitigation and compensation areas shown in this document will be further refined once survey work is completed and the design and construction requirements are finalised.
5. 'LE' coding shown in notes a, b and c are from Highways England 'Design for Roads and Bridges, Volume 10 - Environmental Design'

  
**PROPOSALS FOR CONSULTATION**

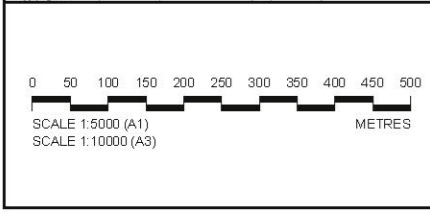
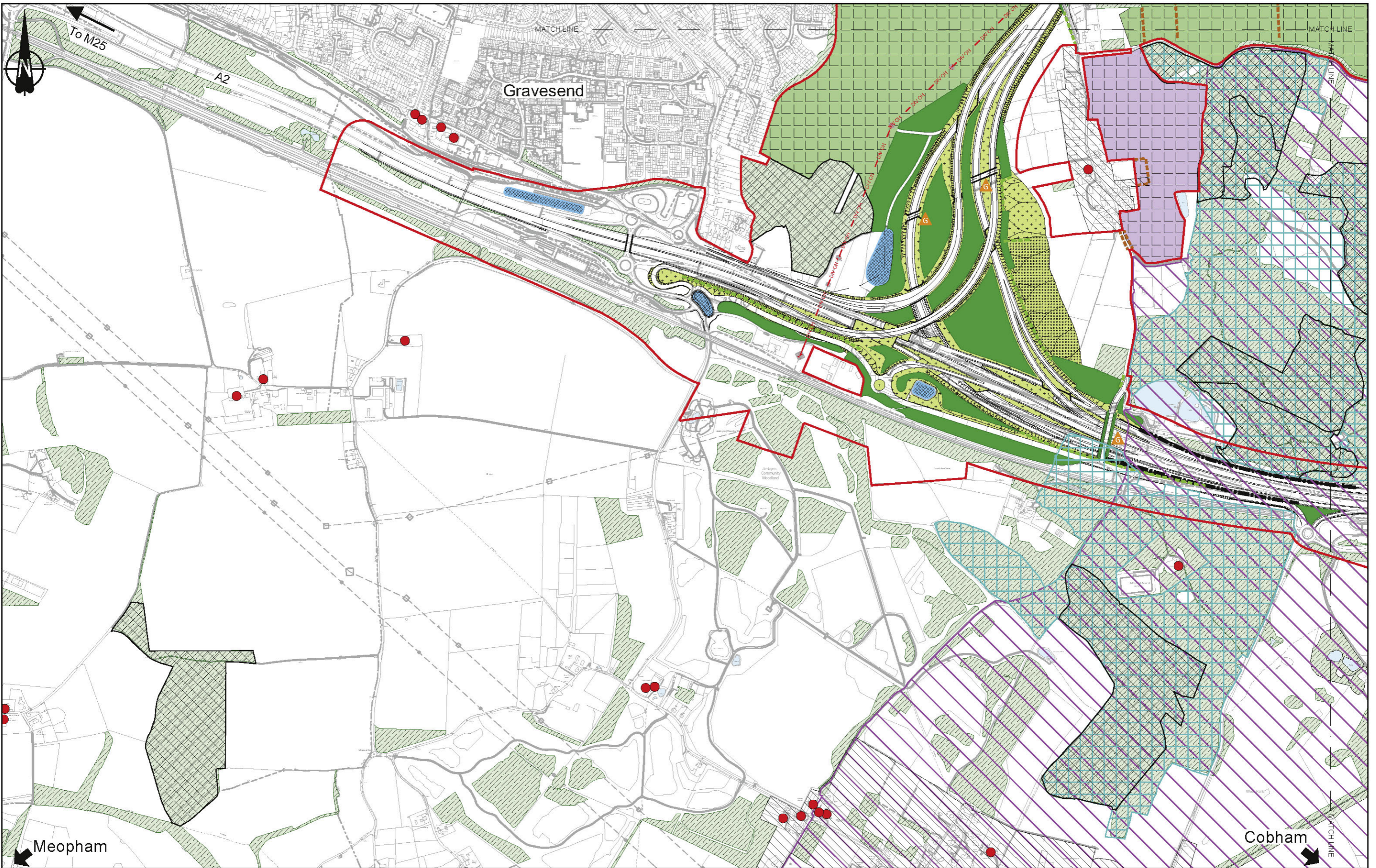
Project LOWER THAMES CROSSING STATUTORY CONSULTATION  
Drawing title **FIGURE 2.4 - OUTLINE ENVIRONMENTAL MASTERPLAN OVERVIEW**





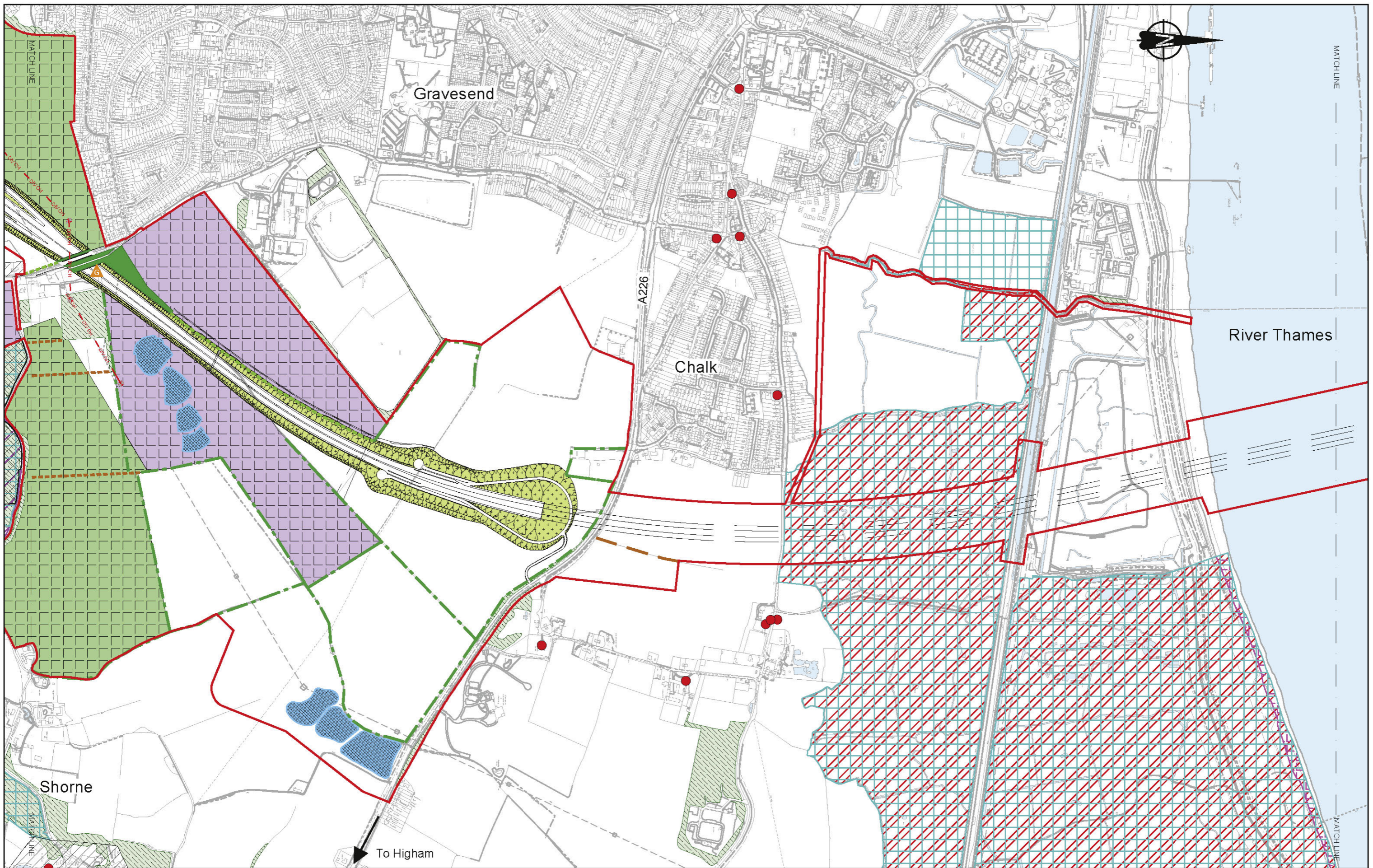
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**PROPOSALS FOR CONSULTATION**

Project LOWER THAMES CROSSING STATUTORY CONSULTATION  
 Drawing title **FIGURE 2.4 - OUTLINE ENVIRONMENTAL MASTERPLAN SHEET 1 OF 11**



  
**PROPOSALS FOR CONSULTATION**

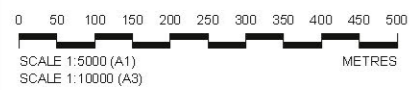
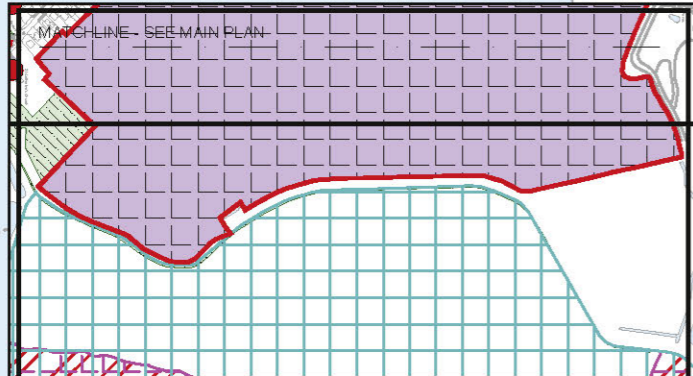
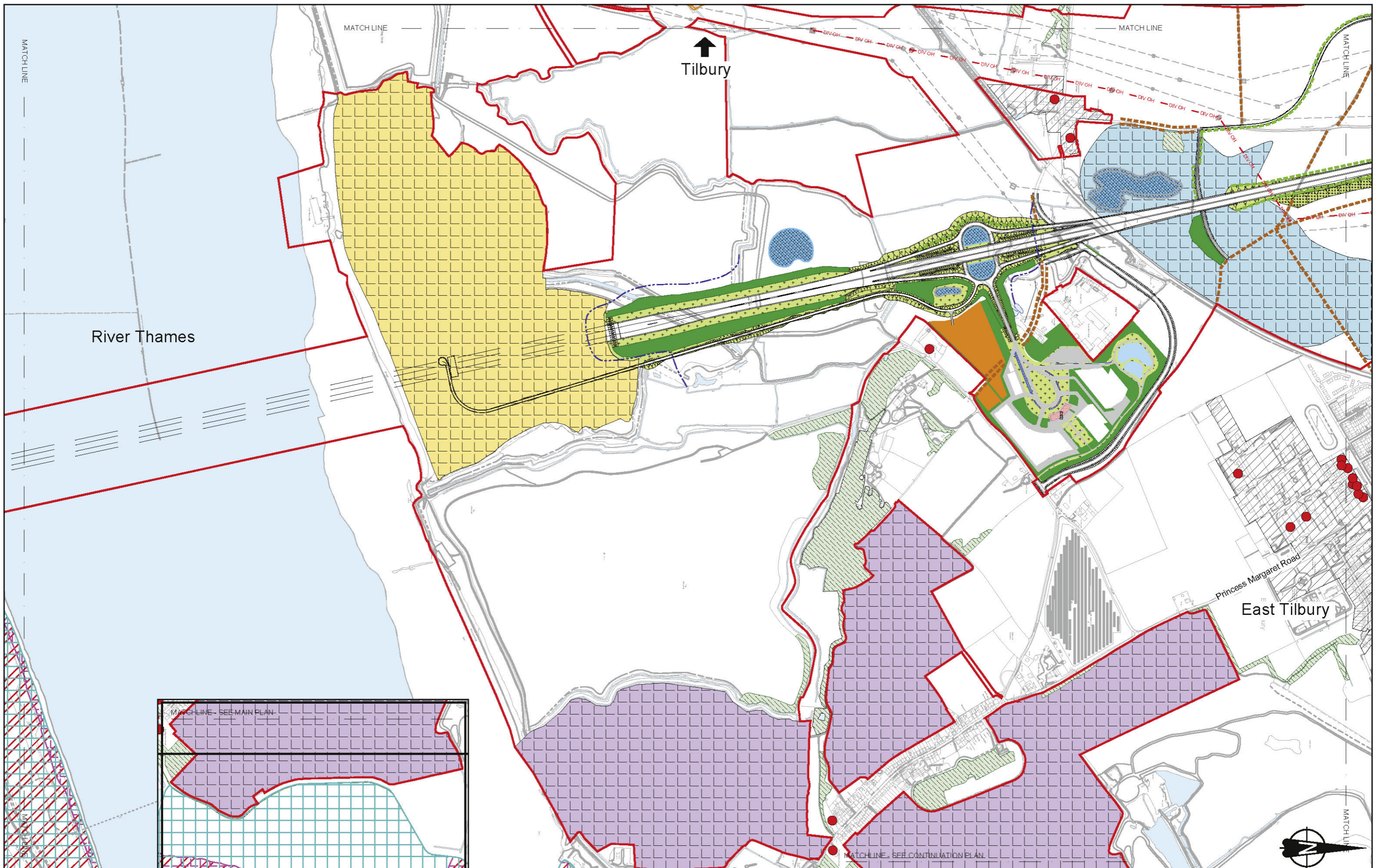
Project LOWER THAMES CROSSING  
 STATUTORY CONSULTATION  
 Drawing title  
**FIGURE 2.4 - OUTLINE ENVIRONMENTAL MASTERPLAN**  
 SHEET 2 OF 11




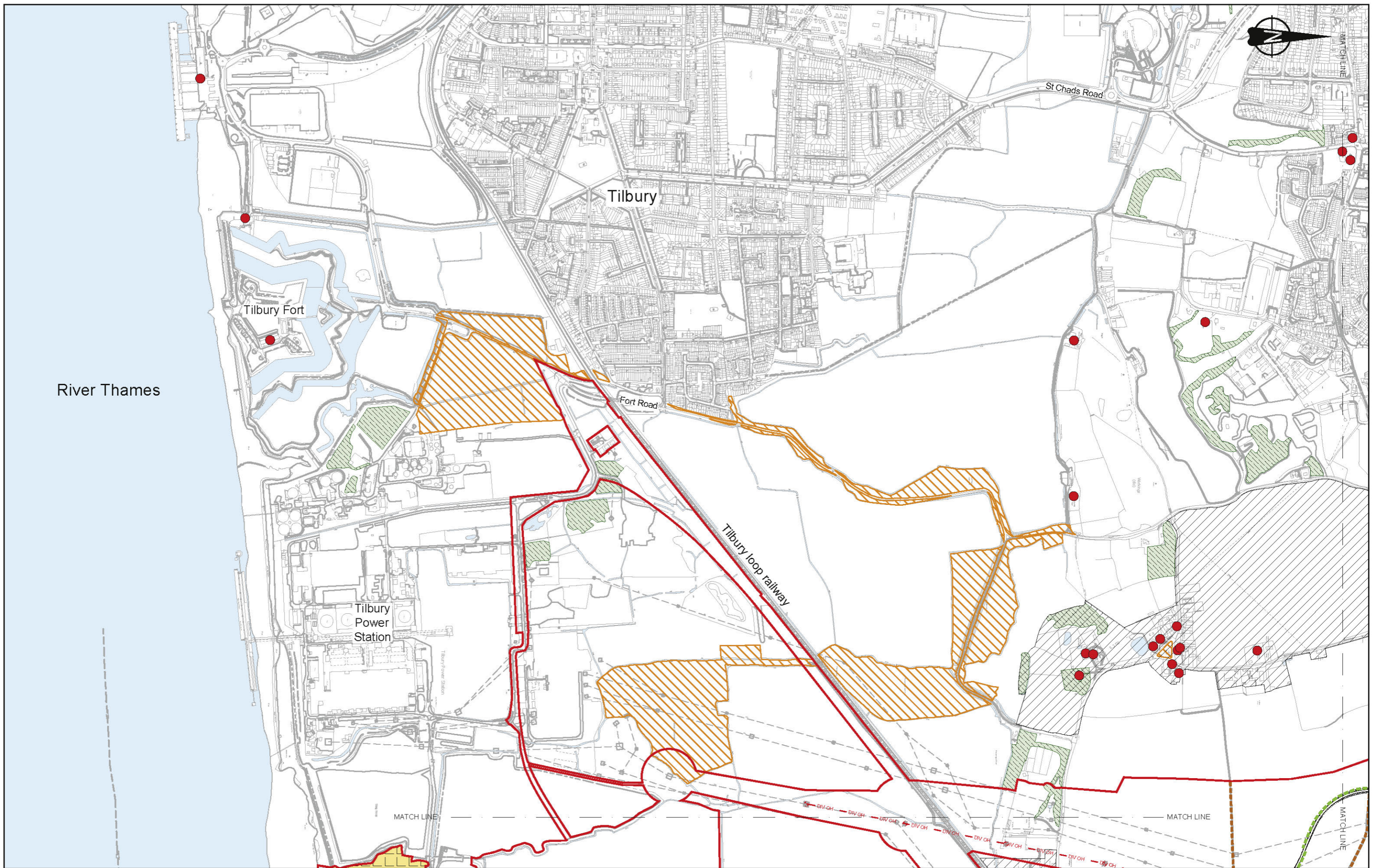
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Client  
  
**PROPOSALS FOR CONSULTATION**

Project LOWER THAMES CROSSING STATUTORY CONSULTATION  
 Drawing title  
**FIGURE 2.4 - OUTLINE ENVIRONMENTAL MASTERPLAN SHEET 3 OF 11**



 <b>PROPOSALS FOR CONSULTATION</b>	Project LOWER THAMES CROSSING STATUTORY CONSULTATION
	Drawing title <b>FIGURE 2.4 - OUTLINE ENVIRONMENTAL MASTERPLAN SHEET 4 OF 11</b>



River Thames

Tilbury

Tilbury Fort

Fort Road

St Chads Road

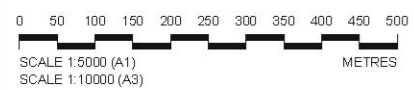
Tilbury Power Station

Tilbury loop railway

MATCH LINE

MATCH LINE

MATCH LINE

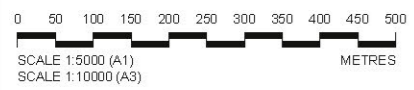
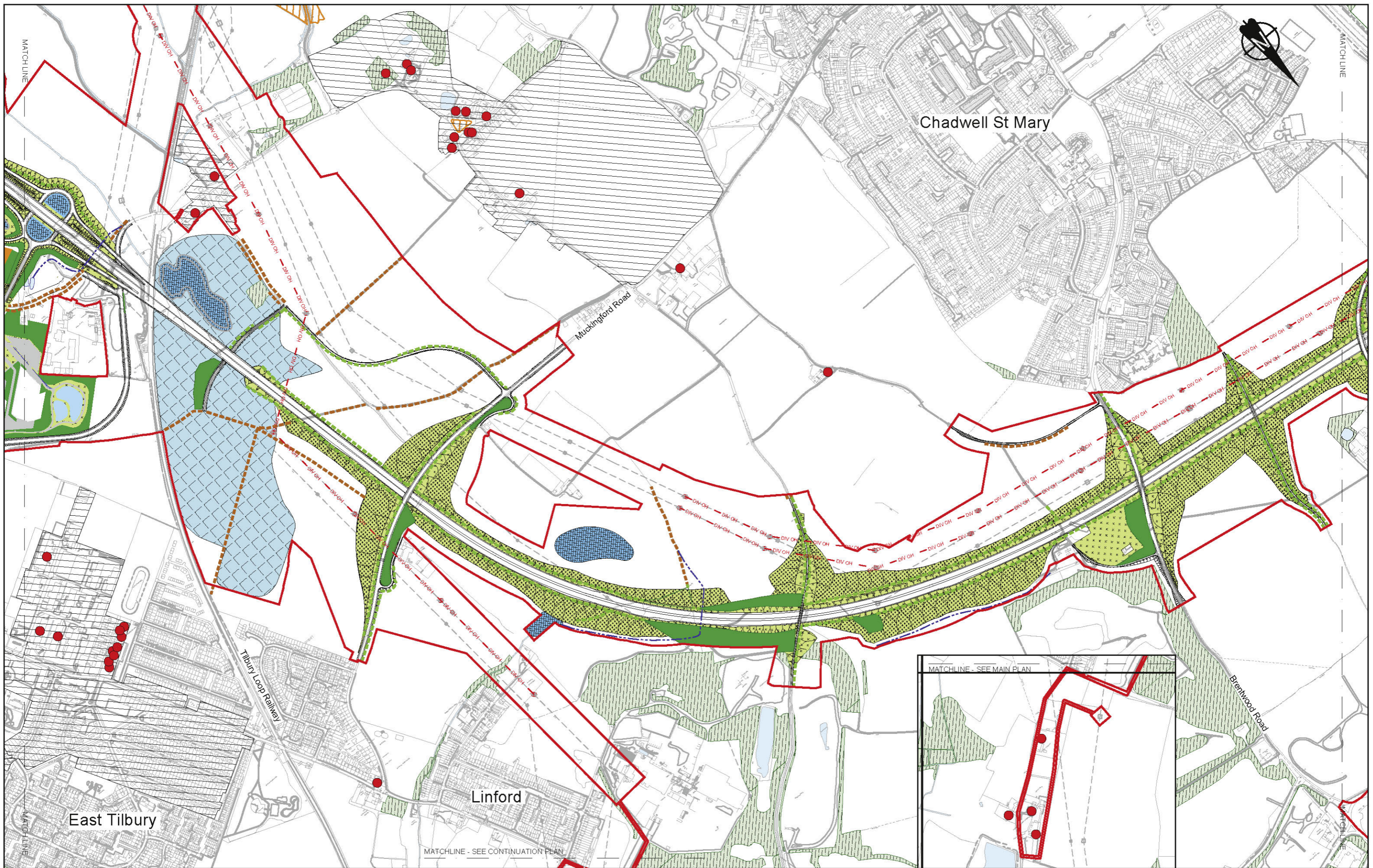


highways  
england

**PROPOSALS FOR  
CONSULTATION**

Project LOWER THAMES CROSSING  
STATUTORY CONSULTATION

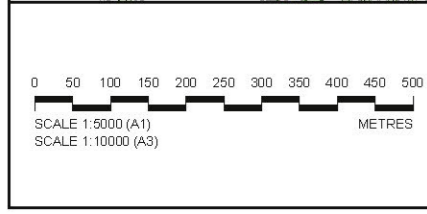
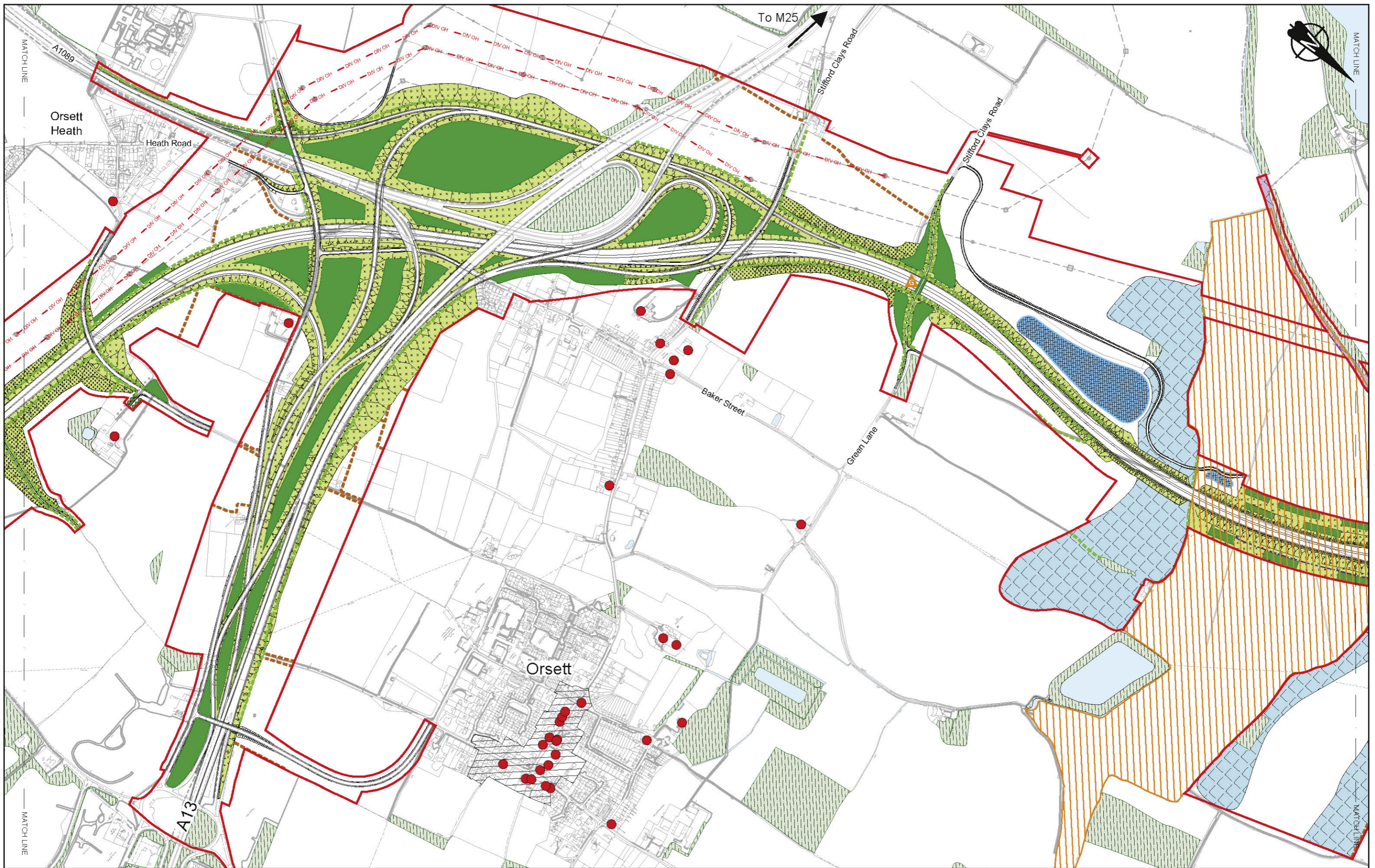
Drawing title **FIGURE 2.4 - OUTLINE  
ENVIRONMENTAL MASTERPLAN  
SHEET 5 OF 11**



Client

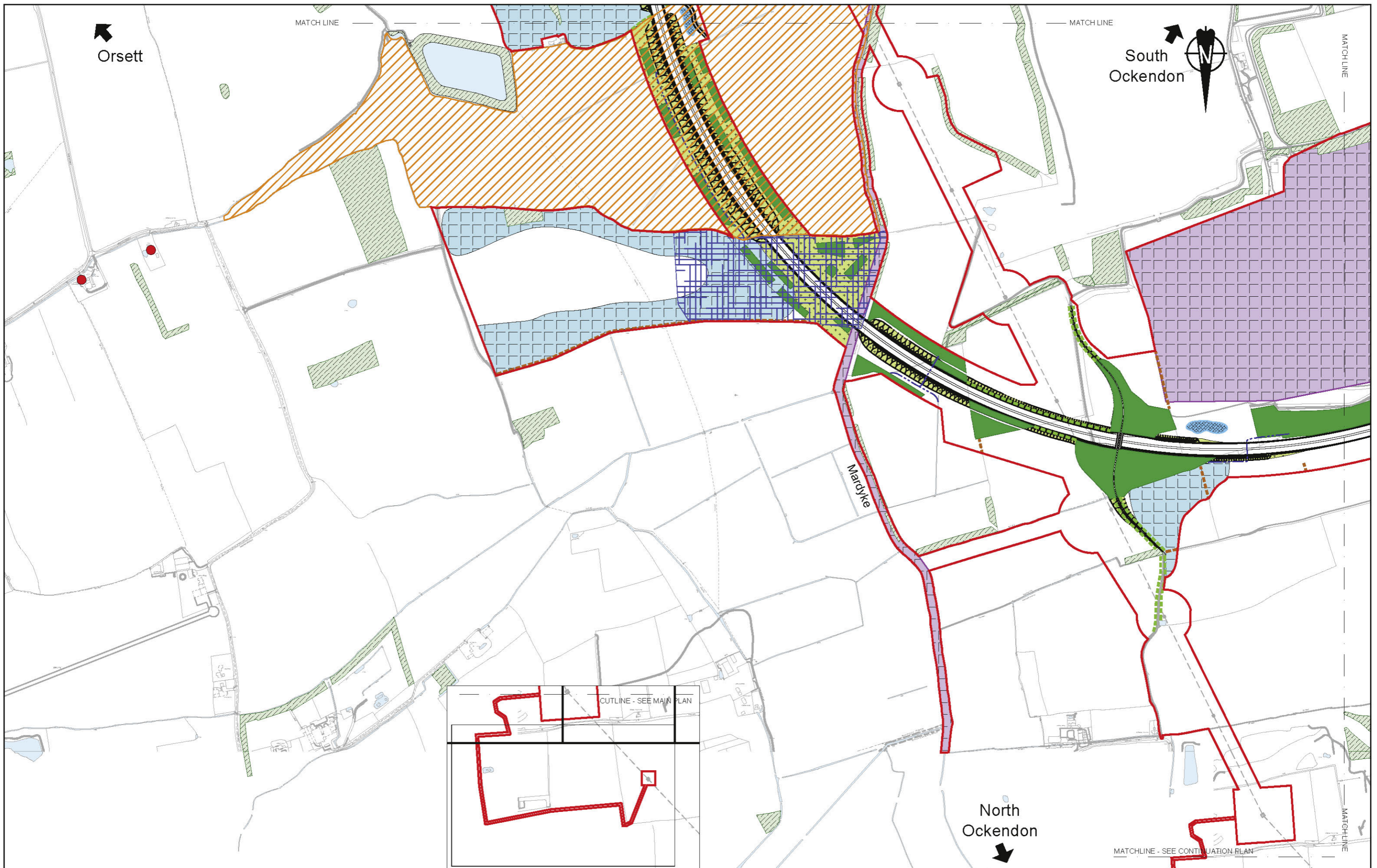
**PROPOSALS FOR CONSULTATION**

Project LOWER THAMES CROSSING STATUTORY CONSULTATION  
 Drawing title **FIGURE 2.4 - OUTLINE ENVIRONMENTAL MASTERPLAN SHEET 6 OF 11**



Client  
  
**PROPOSALS FOR CONSULTATION**

Project LOWER THAMES CROSSING STATUTORY CONSULTATION  
 Drawing title **FIGURE 2.4 - OUTLINE ENVIRONMENTAL MASTERPLAN SHEET 7 OF 11**



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Client

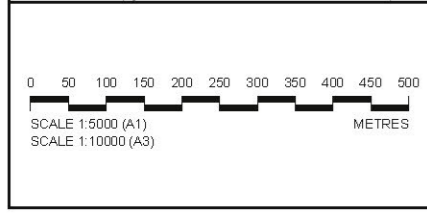
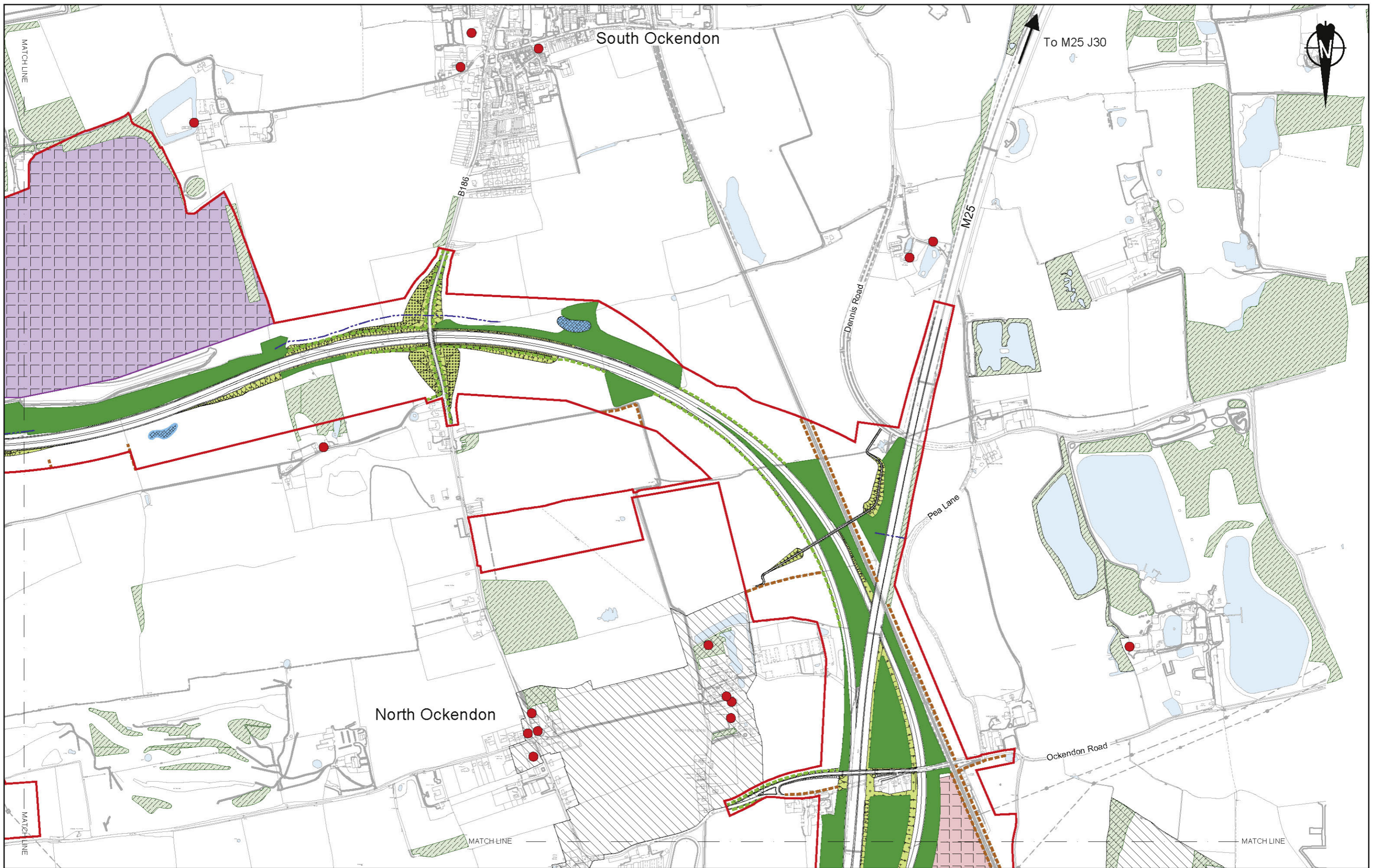


**PROPOSALS FOR CONSULTATION**

Project LOWER THAMES CROSSING STATUTORY CONSULTATION

Drawing title **FIGURE 2.4 - OUTLINE ENVIRONMENTAL MASTERPLAN SHEET 8 OF 11**





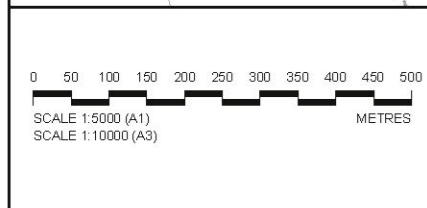
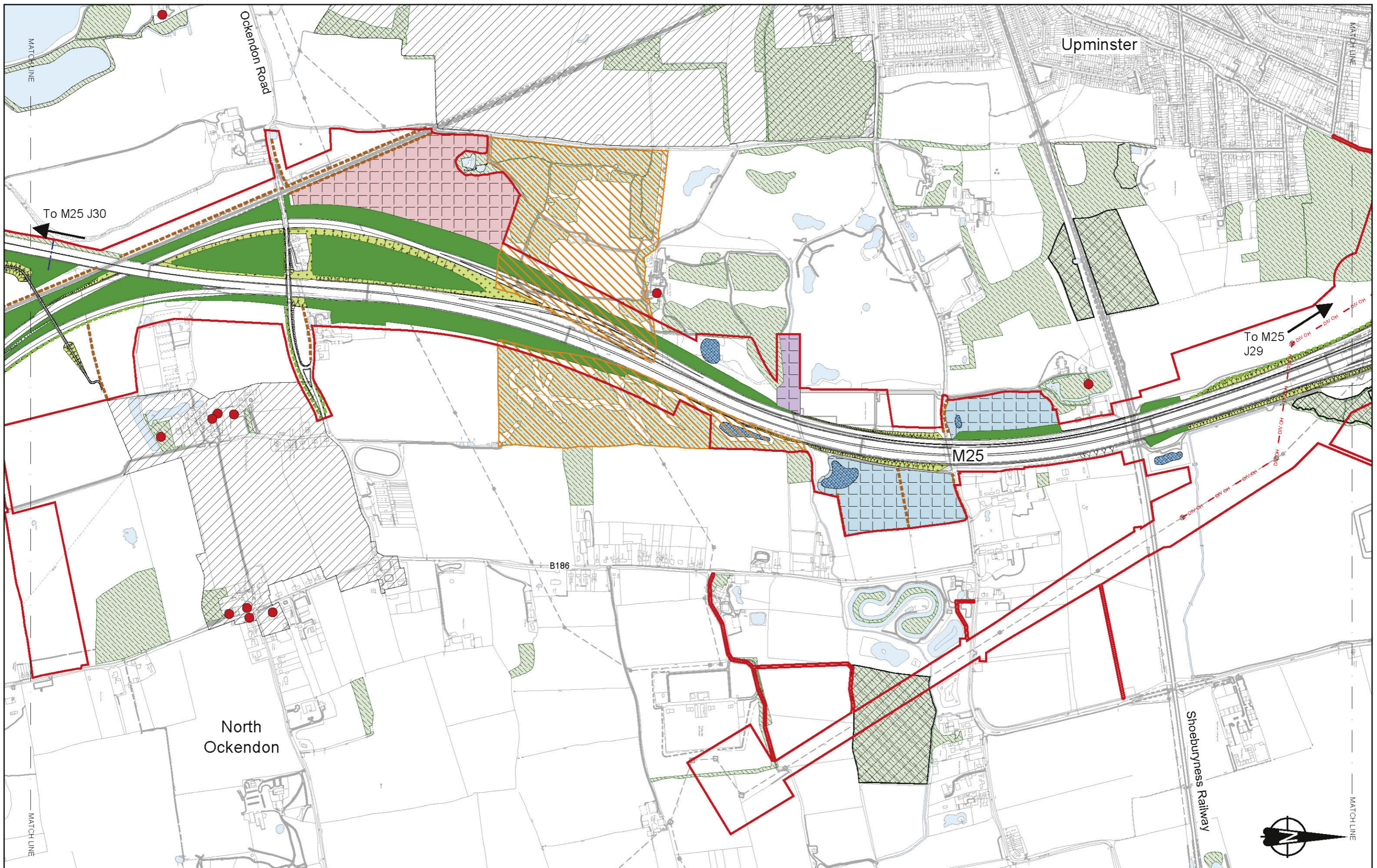
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**PROPOSALS FOR CONSULTATION**

Project LOWER THAMES CROSSING STATUTORY CONSULTATION

Drawing title **FIGURE 2.4 - OUTLINE ENVIRONMENTAL MASTERPLAN SHEET 9 OF 11**

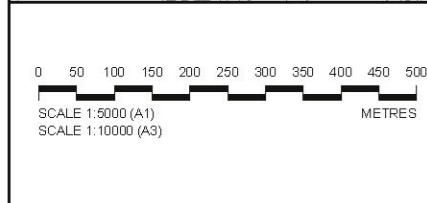
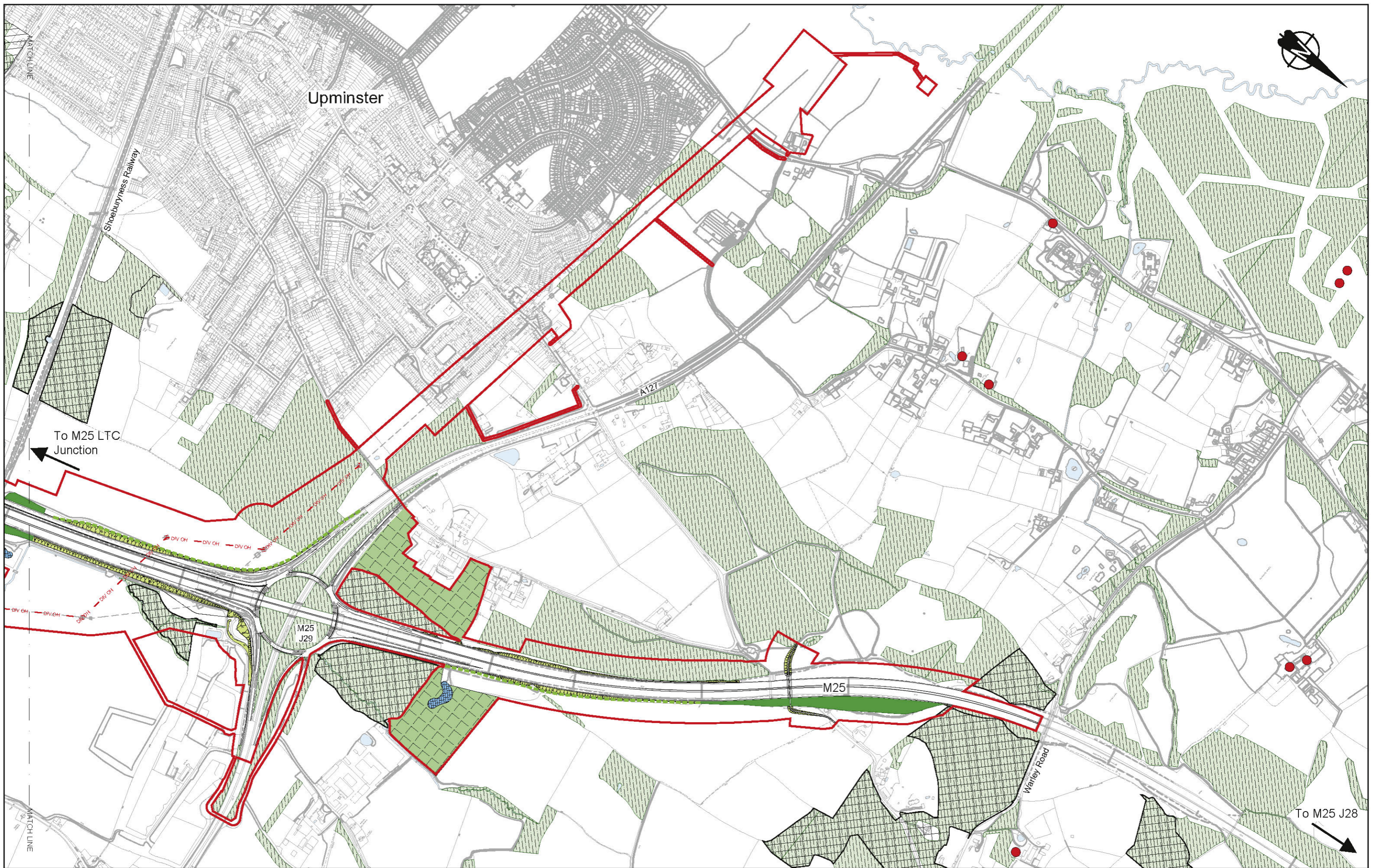


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**PROPOSALS FOR CONSULTATION**

Project LOWER THAMES CROSSING STATUTORY CONSULTATION

Drawing title **FIGURE 2.4 - OUTLINE ENVIRONMENTAL MASTERPLAN SHEET 10 OF 11**



Client 

**PROPOSALS FOR CONSULTATION**

Project LOWER THAMES CROSSING STATUTORY CONSULTATION  
 Drawing title **FIGURE 2.4 - OUTLINE ENVIRONMENTAL MASTERPLAN SHEET 11 OF 11**