

Norwich Western Link

Drainage Strategy Report

Appendix 14 :

Ground Investigation Reports

Part 4 of 8

Author: Ramboll

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Version Number: 00

Date: March 2024

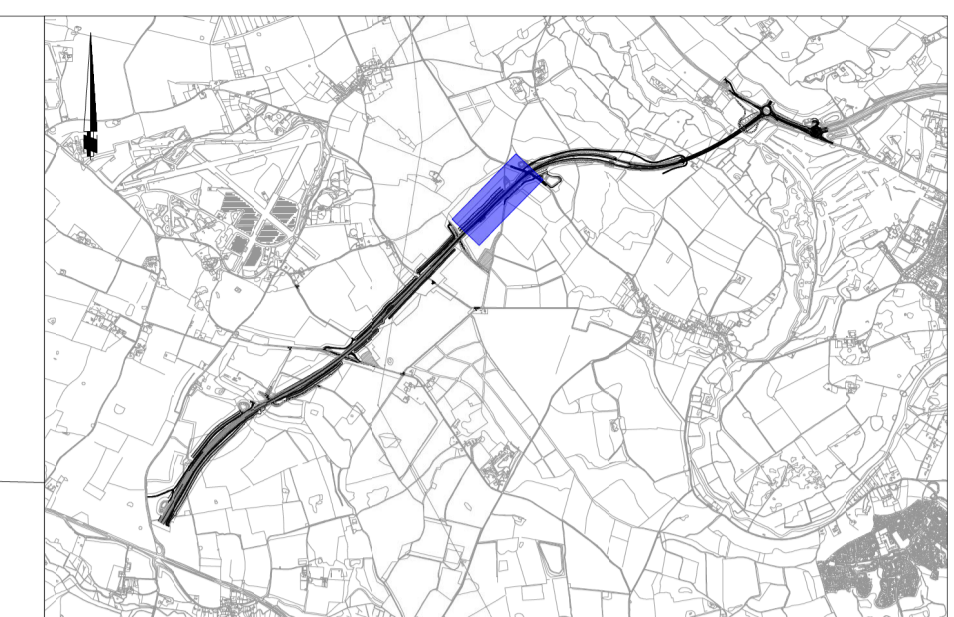
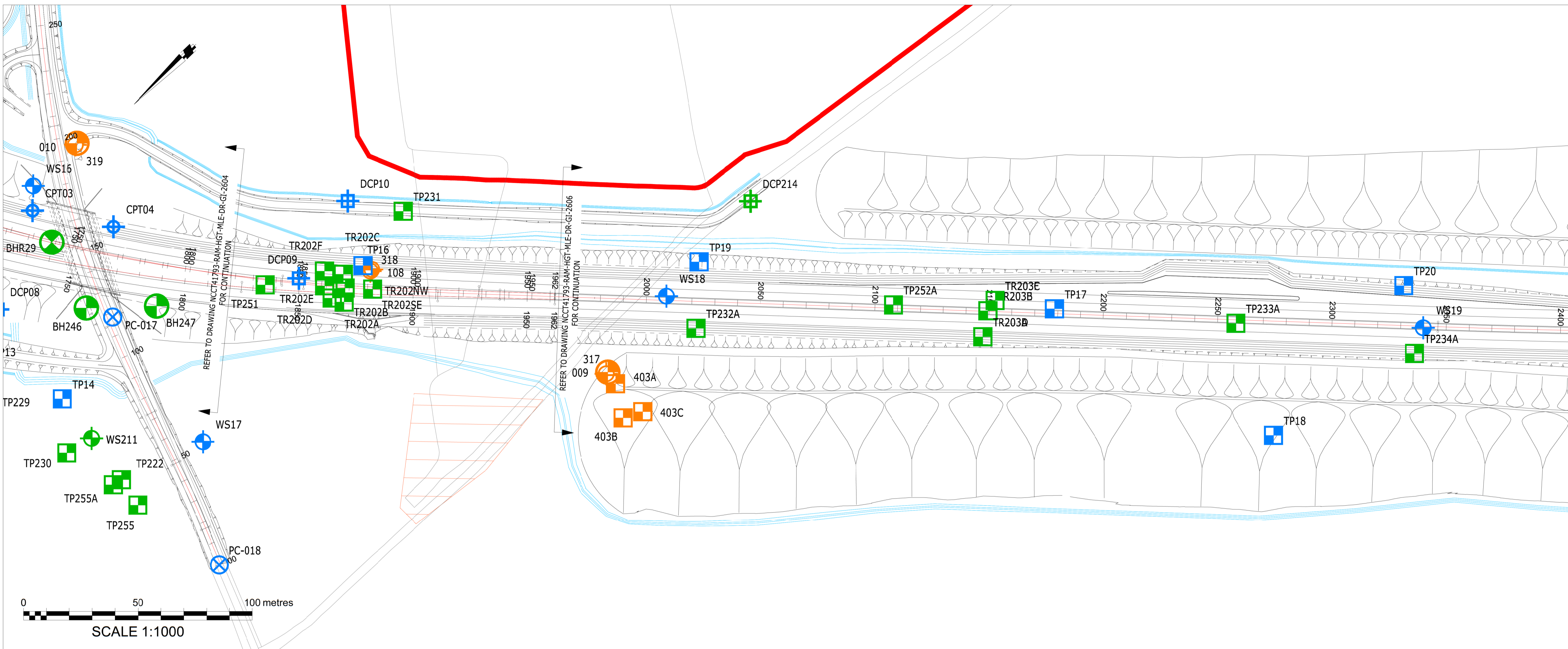


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1 Introduction

- 1.1.1 This document contains geotechnical long section drawings that are part of the Ramboll Ground Investigation report. The geotechnical long sections show the different soil types with depth across the scheme and are intended to provide evidence of the existing ground conditions that are stated within the Drainage Strategy Report.
- 1.1.2 We have included a summary of key information shown in this document in an accessible format. However, some users may not be able to access all technical details. If you require this document in a more accessible format please contact: norwichwesternlink@norfolk.gov.uk



- Notes:**
- DO NOT SCALE FROM THIS DRAWING.
 - ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
 - THE DESIGN IS BASED ON THE HE LOCAL GRID.
 - ZONES OF NO RECOVERY AND AREAS OF CORE LOSS WERE RECORDED WITHIN THE CHALK STRATUM. THESE HAVE BEEN IDENTIFIED AS DRILLING/IN-SITU TESTS INDUCED OR DUE TO PRESENCE OF FLINT COBBLES AND BOULDERS. THE FACTUAL REPORT AND GROUND INVESTIGATION REPORT SHOULD BE REFERRED TO FOR FURTHER DETAILS.

- GEOLOGY LEGEND**
- Topsoil
 - Flexible Pavement
 - Made Ground (Granular)
 - Made Ground (Cohesive)
 - Concrete
 - Peat
 - Alluvium (Granular)
 - Alluvium (Cohesive)
 - Glacial Deposits (Granular)
 - Glacial Deposits (Cohesive)
 - No Recovery
 - Head Deposits (Granular)
 - Head Deposits (Cohesive)
 - River Terrace Deposits
 - Lowestoft Formation (Granular)
 - Lowestoft Formation (Till)
 - Sheringham Cliffs Formation (Cohesive)
 - Sheringham Cliffs Formation (Granular)
 - Structureless Chalk
 - Structured Chalk

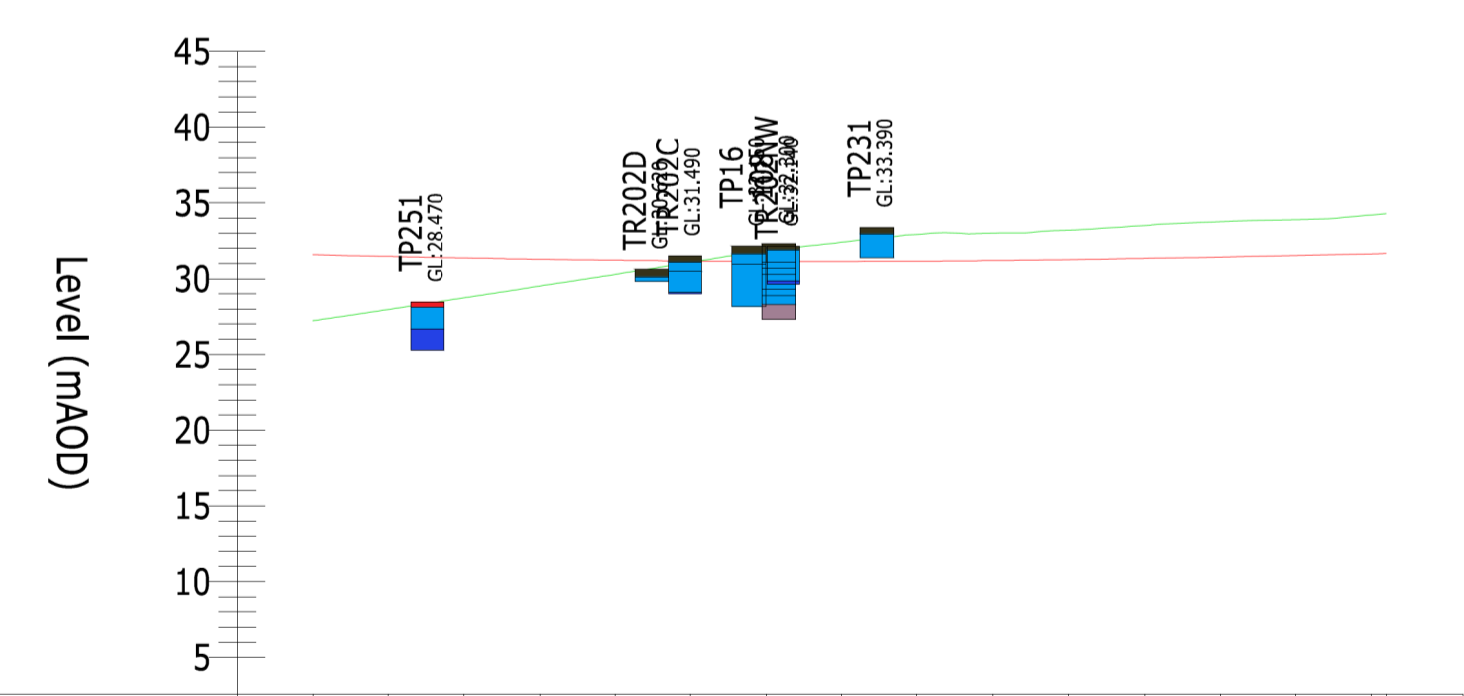
- EXPLORATORY HOLE LEGEND**
- ① 1' N
 - ② 3' N
 - ③ BH ID
 - ④ Ground Level
 - ⑤ Uncorrected SPT 'N' Value
 - ⑥ Undrained Shear Strength Value (kPa)
 - ⑦ Cl' ④
 - ⑧ P_u' ⑦
 - ⑨ Water Strike
 - ⑩ Water level recorded following strike
 - ⑪ Menard Limit Pressure (MPa)

- GROUND INVESTIGATION PHASES**
- 2022 ALIGNMENT REFINEMENT GROUND INVESTIGATION
 - 2021 SUPPLEMENTARY STAGE 1 GROUND INVESTIGATION
 - 2019/20 PRELIMINARY GROUND INVESTIGATION

- PLAN LEGEND**
- SITE EXTENTS BOUNDARY
 - CABLE PERCUSSION BOREHOLE
 - ROTARY OPEN HOLE BOREHOLE
 - CABLE PERCUSSION WITH ROTARY FOLLOW ON BOREHOLE
 - WINDOWLESS SAMPLE
 - DYNAMIC PROBE
 - TRIAL PIT/TRENCH
 - CPT LOCATION
 - DYNAMIC CONE PENETROMETER
 - PAVEMENT CORE

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NWL-MAINLINE NORTH-(SHEET 5)
SCALE: H 1:1000,V 1:500. DATUM: 5.000

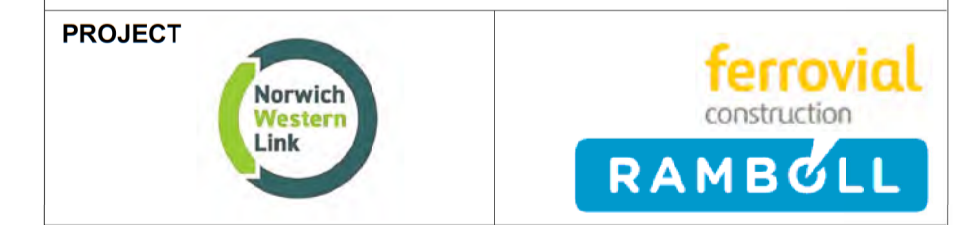


Chainage	Existing Levels	Proposed Levels	Level Difference
1+820		31.573	4.355
830	27.968	31.470	3.502
840	28.730	31.388	2.657
1+850	29.508	31.281	1.773
860	30.286	31.216	0.929
870	31.050	31.171	0.081
880	31.851	31.147	-0.704
890	32.604	31.144	-1.260
1+900	32.924	31.160	-1.764
910	33.003	31.197	-1.807
920	33.196	31.255	-1.941
930	33.543	31.333	-2.219
940	33.771	31.431	-2.340
1+950	33.881	31.533	-2.357
1+960	34.204	31.637	-2.567

REVISION	DRAWN	CHECKED	APPROVED	DATE
P01	DH	JS	AR	02/02/23

CLIENT

Norfolk County Council
Tom McCabe
Executive Director of
Community and Environmental Services
Norfolk County Council
County Hall, Martineau Lane
Norwich NR1 2SG



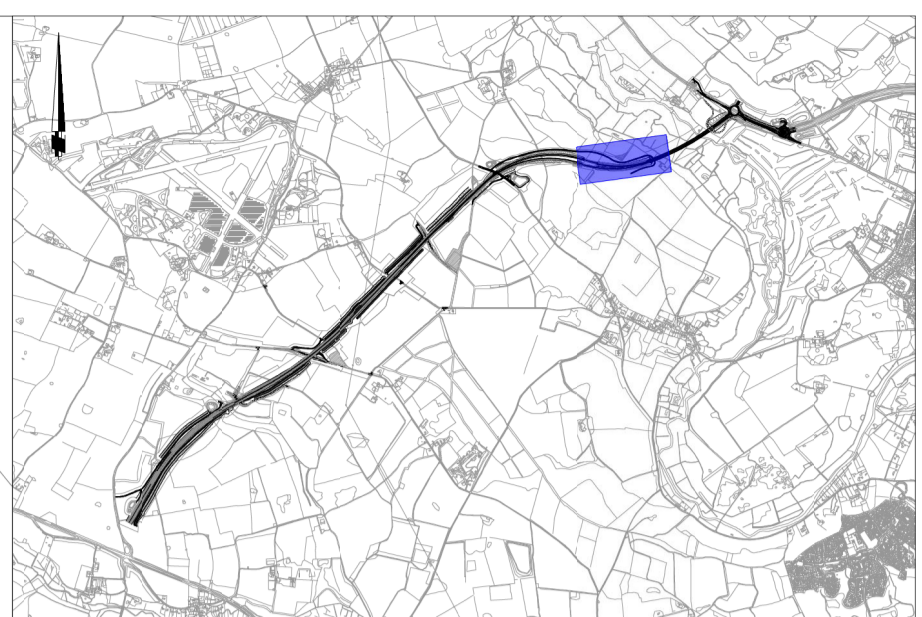
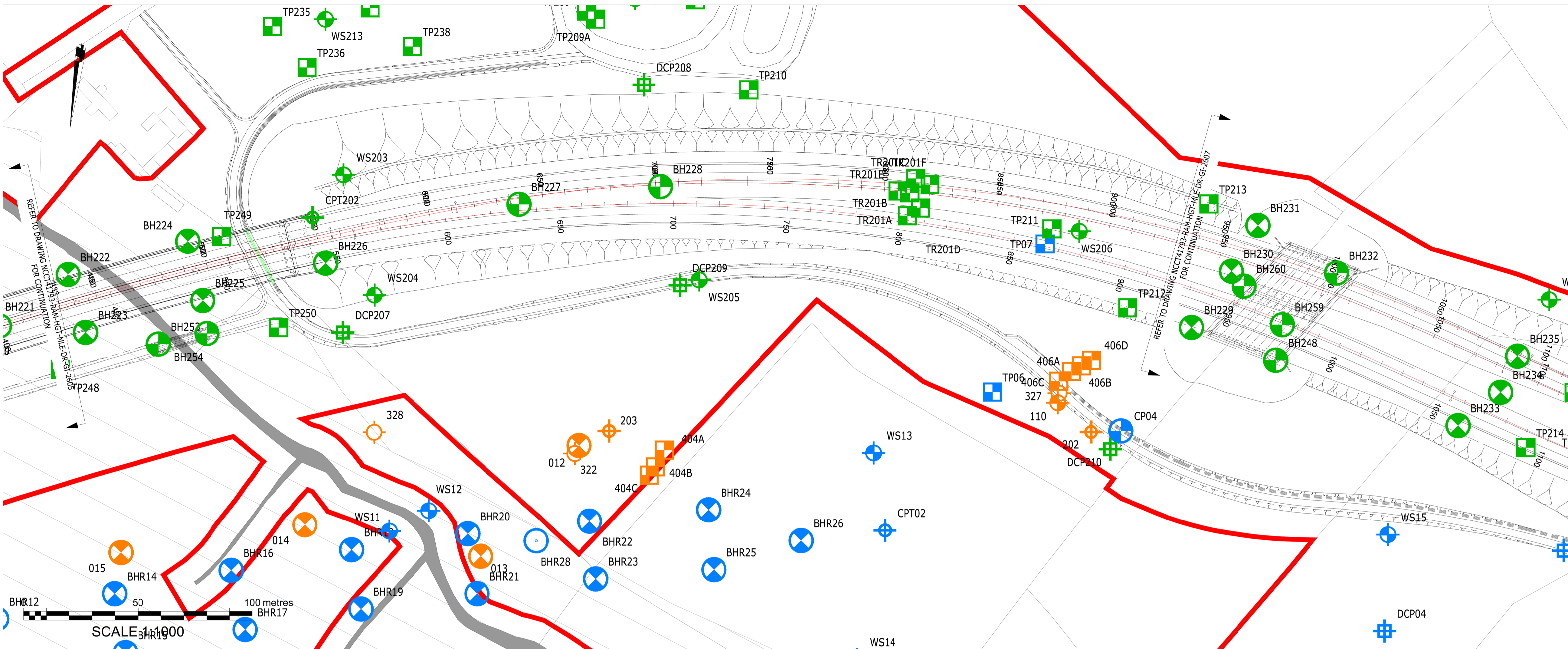
DRAWING TITLE
NORWICH WESTERN LINK
GEOLOGICAL LONG SECTION
SHEET 5
NORTHBOUND

DRAWING STATUS
S5 SUITABLE FOR REVIEW AND ACCEPTANCE

DRAWN	CHECKED	APPROVED	AUTHORISED
DH	JS	AR	---

SCALE @ A1 SIZE 1:1000
DATE 02/02/23
REVISION P01

DRAWING NUMBER
NCCT41793-RAM-HGT-MLE-DR-GI-2605



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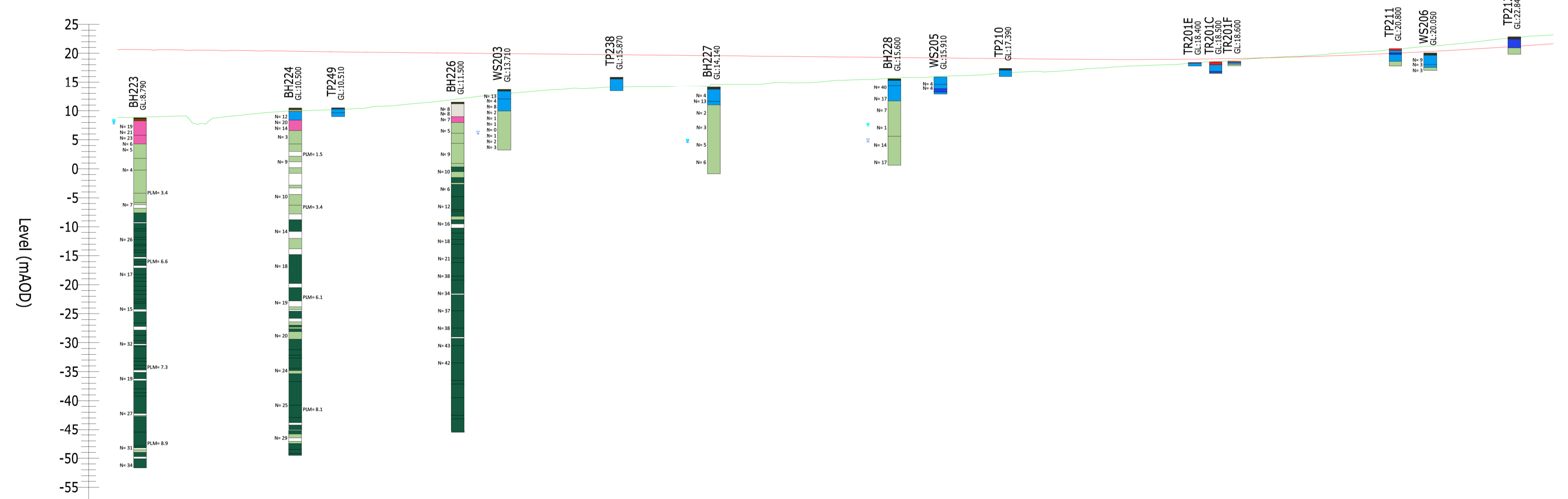
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- PAVEMENT CORE

NORTH MAINLINE SOUTH (SHEET 5)
SCALE: H 1:1000, V 1:500. DATUM: -55.000



Chainage	0+433	440	0+450	460	470	480	490	0+500	510	520	530	540	0+550	560	570	580	590	0+600	610	620	630	640	0+650	660	670	680	690	0+700	710	720	730	740	0+750	760	770	780	790	0+800	810	820	830	840	0+850	860	870	880	890	0+900	910	920	0+930						
Existing Levels	11.775	11.794	11.572	12.769	11.503	10.993	8.061	10.985	10.209	10.554	10.949	11.374	11.568	12.802	13.088	13.496	13.857	14.000	14.144	14.179	14.267	14.892	14.624	14.876	14.915	15.230	15.439	15.662	15.843	16.059	16.212	16.585	16.857	16.990	17.385	17.682	17.912	18.062	18.495	18.796	19.193	19.479	19.773	19.889	20.119	20.408	20.908	21.324	21.788	22.182	22.374	22.849	21.647				
Proposed Levels	20.613	20.654	20.604	20.554	20.434	20.454	20.029	19.990	19.920	19.930	19.860	19.830	19.790	19.730	19.660	19.620	19.530	19.479	19.429	19.380	19.329	19.279	19.220	19.160	19.129	19.060	18.990	18.927	18.862	18.796	18.730	18.662	18.595	18.527	18.460	18.393	18.326	18.259	18.192	18.125	18.058	17.991	17.924	17.857	17.790	17.723	17.656	17.589	17.522	17.455	17.388	17.321	17.254	17.187	17.120	17.053	16.986
Level Difference	11.775	11.794	11.572	12.769	11.503	10.993	8.061	10.985	10.209	10.554	10.949	11.374	11.568	12.802	13.088	13.496	13.857	14.000	14.144	14.179	14.267	14.892	14.624	14.876	14.915	15.230	15.439	15.662	15.843	16.059	16.212	16.585	16.857	16.990	17.385	17.682	17.912	18.062	18.495	18.796	19.193	19.479	19.773	19.889	20.119	20.408	20.908	21.324	21.788	22.182	22.374	22.849	21.647				

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First Issue

P01	DH	JS	AR	02/02/23
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REVISION DRAWN CHECKED APPROVED DATE

Norfolk County Council
 Tom McCabe
 Executive Director of
 Community and Environmental Services
 Norfolk County Council
 County Hall, Martineau Lane
 Norwich NR1 2SG

PROJECT

DRAWING TITLE
 NORWICH WESTERN LINK
 GEOLOGICAL LONG SECTION
 SHEET 6
 SOUTHBOUND

DRAWING STATUS
 S5 SUITABLE FOR REVIEW AND ACCEPTANCE

DRAWN	CHECKED	APPROVED	AUTHORISED
DH	JS	AR	---
SCALE @ A1 SIZE	DATE	REVISION	
1:1000	02/02/23	P01	

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 NCCT41793-RAM-HGT-MLE-DR-GI-2606

