



High Groundwater and Trench Instability

Deep Made Ground present within area of proposed detention basin and plots 13-22 (exact extents of Made Ground unknown). Constant inflow of groundwater and excavation collapse encountered in this area during ground investigations. There is also the risk of trench instability and high groundwater across the site. Excavations have been limited where possible by raising site levels.

Geogrid required - design to be undertaken by a specialist. Allowance to also be made for removal of Made Ground.

Prior to commencing works the Contractor is to familiarise themselves with the ground conditions detailed within the Elemental Q1 Ltd Phase II Geo-Environmental Investigation Report (Jan 2022, Ref: E2142/2/1) and the findings of JPP Geotechnical additional ground investigations undertaken in February 2023. The Contractor is to ensure suitable safe working practices are followed in accordance with current best practice. The Contractor is to ensure the excavations are suitably managed with supports or benched to prevent collapse, and de-watering / pump equipment in place where required. Excavations are not to be left open for long periods.

Site Wide Build-Up

Levels across the site have been lifted significantly above existing ground levels to allow for the following:

- To allow surface water drainage to drain to the existing ditch at the southern side of the site by gravity.
- To avoid deep foul drainage required to allow the site to drain to the existing AW manhole by gravity (alternative solution is to pump foul fluids via a rising main).
- To limit excavations required for drainage and services in the unstable ground and Made Ground, where high groundwater is present.

A geogrid will be required under all road, footway, parking areas and patios due to low strength soils (CBR values have been shown to range from 5.2% to 0.3%) and deep Made Ground. Geogrid to be designed by a specialist.

Allowance to be made for Geogrid to extend below all manholes and inspection chambers, and also to cover FOS and garden areas where there is a risk of future settlement. Fill material specification also to be advised by Geotechnical Engineer to reduce risk of settlement - allowance to be made for removal of Made Ground material.

General Notes

- All dimensions are in metres unless otherwise stated.
- All levels are in metres.
- This drawing is to be read in conjunction with all relevant Engineers and Architect's drawings, Specifications, Reports and Engineering Details.
- Do not scale from this drawing.

Drawing Key

- Site Boundary - Taken from site layout referenced
- Adoptable Section 38 works
- Highway boundary (best fit overlay)
- Section 38 easement
- Section 38 adoptable linear kerb drainage system
- Section 38 adoptable swale inlet
- Finished floor level
- FFL=4.300
- Section 104 adoptable surface water drainage with pipe and manhole details
- Section 104 adoptable foul water drainage with pipe and manhole details
- Private foul water drainage lateral
- Private surface water drainage lateral
- Private surface water drainage run with 450mmØ inspection chamber, 600mmØ inspection chamber required for 225mmØ and 300mmØ pipework.
- Private foul water drainage run with 450mmØ inspection chamber
- Private foul water drainage run with private access chamber < 0.6m deep 225mmØ
- Section 104 Headwall
- Tactile paving at crossing point
- Junction visibility splay (2.4m x 25m)
- Existing ground level

Section 38 Notes

- All buildings shall be kept 1.0m clear of any adoptable highway.
- Provide positive means of preventing surface water from private properties discharging onto adoptable areas
- Two street name signs will be provided at the entrance to a street. Informative traffic signs to Diagram 815. Two through road for vehicular traffic should be included on the street name plate where appropriate.
- All adoptable highway works must be in accordance with Lincolnshire County Council's Development Road and Sustainable Drainage Specification and Construction.
- All service strips shall be demarcated with a continuous line of PCC edging.
- All surfaces within 5m of the highway boundary shall be hard surfaced, loose gravel is not acceptable.
- Gullies shall not be placed within the limits of a dropped kerb crossing used by either pedestrians or vehicles
- All trenches within the adoptable area shall be backfilled with type 1 or material specified in clause 6.17.
- Stopcock and meter covers shall not be located within the vehicular crossing.
- Any planting within the highway or within 2.5m of the highway boundary must be approved by the highway authority.
- All works within the highway must comply with current health & safety standards. All signing to comply with chapter 8 Traffic Safety Measures and Signs for Road Works and Temporary Situations of the Traffic Manual.
- The proposed road will be married into the existing road and footway with all respects.
- All accommodation work considered necessary to provide a satisfactory link between the existing and new works are to be undertaken by the developer.
- It is within the terms of the Lincolnshire County Council adoption agreement under Section 38 of the Highway Act 1980, that a road will not be adopted as a public highway until such a time as foul and surface water sewers are adopted by the appropriate authority.
- Gully connections to be bedded on and surrounded in grade S75 concrete, 150mm thick throughout their length and irrespective of depth.
- Each gully shall have its own separate connection to the surface water sewer, drain or chamber. No connection should be made from gully to gully, no gully connection should be greater than 8m in length, unless the gully connects directly to a chamber, then the maximum length should not be greater than 16m.
- Road opening licence required for excavation within existing highway land
- All signs and markings to be agreed on site with Area Highways Manager.
- CBR Tests to be carried out on site and consulted with Highway Authority Clerk of Works.
- Sub-base thickness to be revised to reflect CBR site results.
- Before traffic signs are to be put into operation, Contractor to ensure visibility plays shown can be met on site. Other existing vegetation and street furniture that are not outlined may be present on site. Measures (agreed with Highway Authority) are to be taken on site to ensure adequate visibility is provided.
- The specification in all respects shall be in accordance with the current Development Road and Sustainable Drainage Specification and Construction publication in force in the county at the time of construction
- The minimum longitudinal fall for highways, without channel blocks shall be 1 in 150, and with channel blocks 1 in 250.
- General deterioration of the existing highway/footway/verges created through construction of the new Section 38 Development will be resistant to the Development Road and Sustainable Drainage Specification and Construction at the developers' own cost at the agreement of the inspecting Highway and Flood Authority Officer.
- No private surface water shall discharge onto the adoptable highway.
- No private structural features shall overhang the adoptable highway.

Health, safety & the environment

In accordance with the Construction (Design and Management) Regulations 2015, the designs and details on this drawing have been the subject of a Designers' Risk Assessment, to identify risks in the construction, use, or demolition of the scheme.

It is not considered necessary for Designers to highlight obvious and/or common risks (such as deep excavations, manual handling and working around heavy plant) which Contractors should be familiar with, and be able to control by good management and site practice.

So far as is reasonably practicable, the risks inherent in the design have been eliminated. Where it has been considered that elimination of a risk (or part of a risk) is not reasonably practicable, it has been reduced.

This drawing has been based/developed using the following external drawings					
Type	Company	Drawing date	Drawing title	Date received	Rev
Site Layout	IGA Architects	04.05.2022	202001001-P06 Proposed Site Layout-Model Space	04.01.2023	P06
Topographical survey	EMP Surveys LTD	July 2022	1023_Pinchbeck Topographical Survey_Final	04.01.2023	P05

Agreement	Approval Granted
S23 (Land drainage consent)	NOT APPROVED
S104 (Adoption of sewers)	NOT APPROVED
S278 (Works in existing highway)	NOT APPROVED
S106 (Foul connection)	NOT APPROVED

DRAWINGS HAVE NOT BEEN APPROVED, UNTIL THE DRAWINGS ARE APPROVED THE DESIGNS AND DETAILS SHOWN ON THIS DRAWING ARE SUBJECT TO CHANGE.

ANY WORKS UNDERTAKEN PRIOR TO TECHNICAL APPROVAL IS ENTIRELY AT THE CONTRACTORS' RISK.

ALL WORKS WITHIN THE ADOPTABLE PUBLIC HIGHWAY SHALL CONFORM TO THE CURRENT "LINCOLNSHIRE DEVELOPMENT ROADS & SUSTAINABLE DRAINAGE DESIGN GUIDE" AND "DEVELOPMENT ROAD AND SUSTAINABLE DRAINAGE SPECIFICATION AND CONSTRUCTION" PUBLICATIONS IN FORCE IN THE COUNTY AT THE TIME OF CONSTRUCTION.

ALL ADOPTABLE DRAINAGE WORKS TO BE IN ACCORDANCE WITH CODES FOR ADOPTION DESIGN & CONSTRUCTION GUIDANCE

- ☐ Northampton
4 Isopodden Way, Brinkworth,
Northampton, NN16 5UD
T: 01604 782811
- ☐ Warwick
Unit 326, Warwick Innovation Centre,
Warwick Technology Park, Gallows Hill, Warwick, CV34 6JW
T: 02476 100539
- ☒ Milton Keynes
Suite 219, Zetland Business Park, 23 First Avenue,
Donagh, Milton Keynes, MK1 1DQ
T: 01908 893433
- ☐ Poole
Suite 8, Brookstone Park House, Brookstone Business Park,
Bosme Valley Road, Poole, Dorset, BH12 3ED
T: 01302 390888

E: mail@jppuk.net
W: jppuk.net

- Infrastructure Design
- Geotechnical & Environmental
- Structural Engineering
- Surveying
- Development Planning
- Professional Advice

Drawn By: AD Client: Burnor Construction

Chkd By: LC Project: Land East of Surfleet Road Pinchbeck

Scale @ AD: 1:250

Date: February 2023 Title: Section 38 Layout

Status: FOR TECHNICAL APPROVAL

Project No.: 26043 Drawing No: 106

Rev: -

