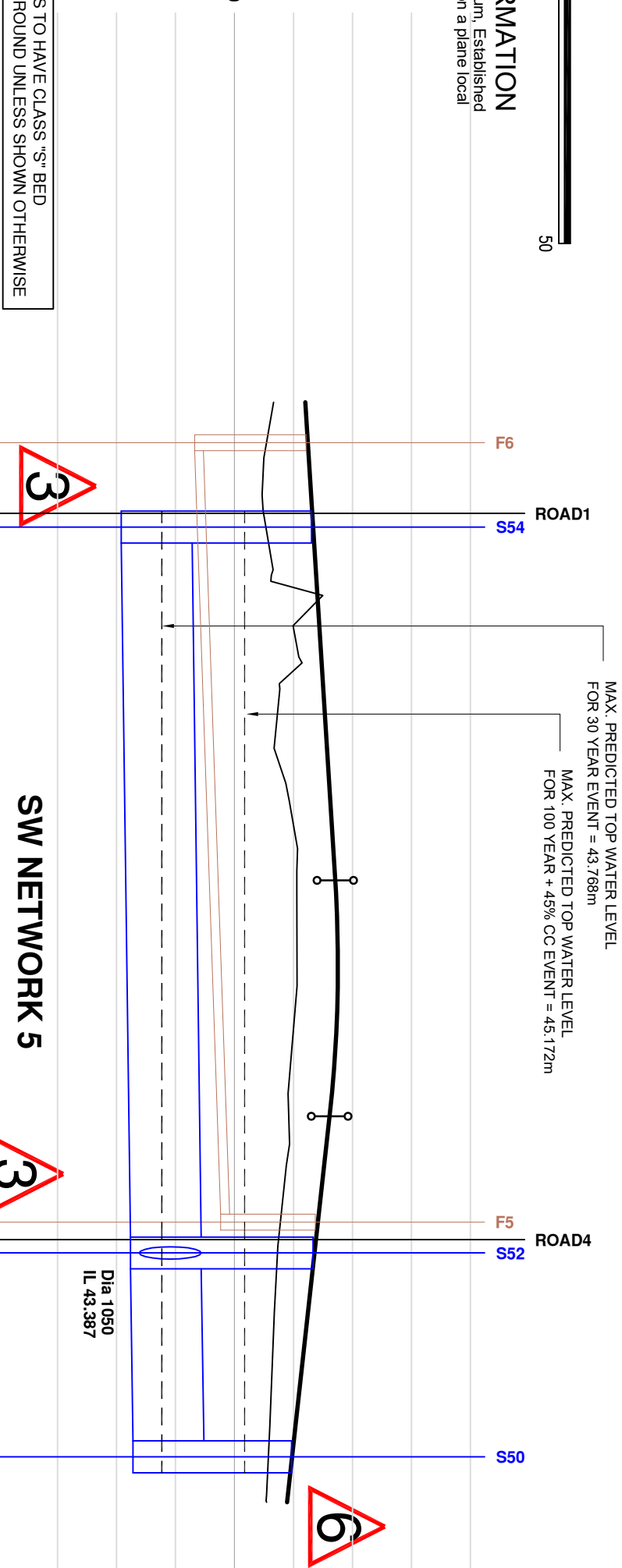
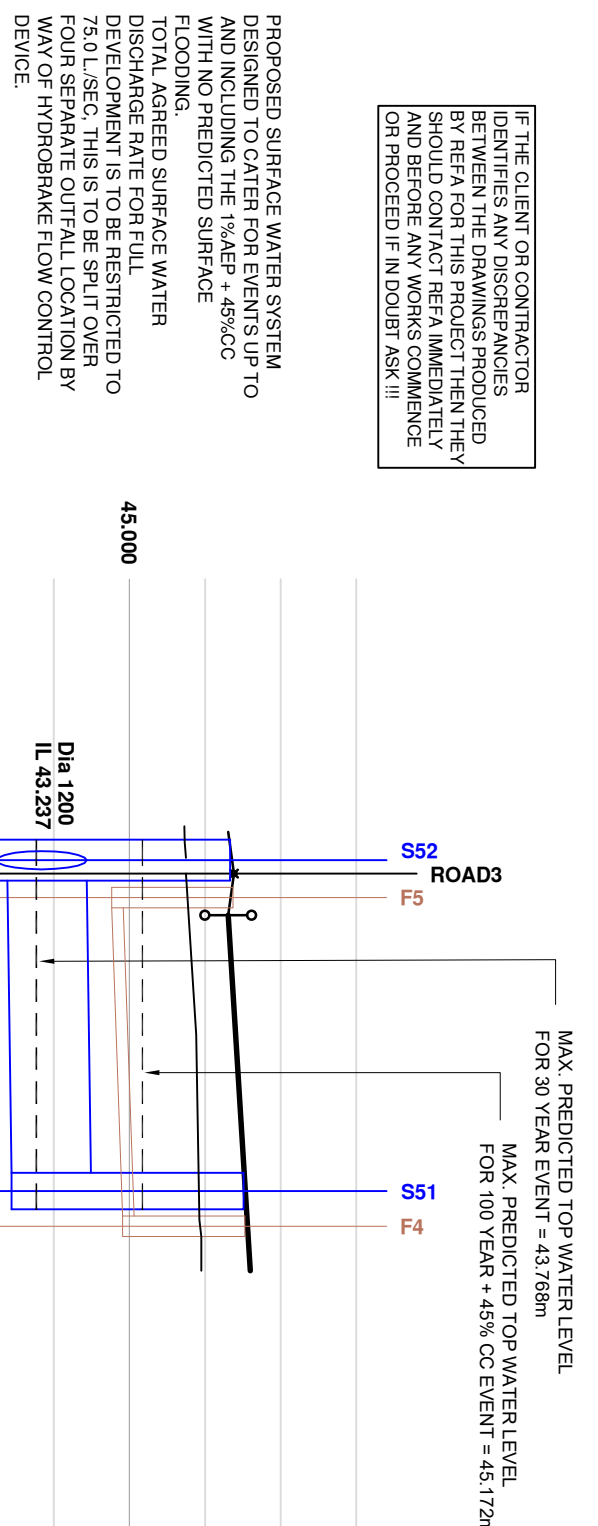


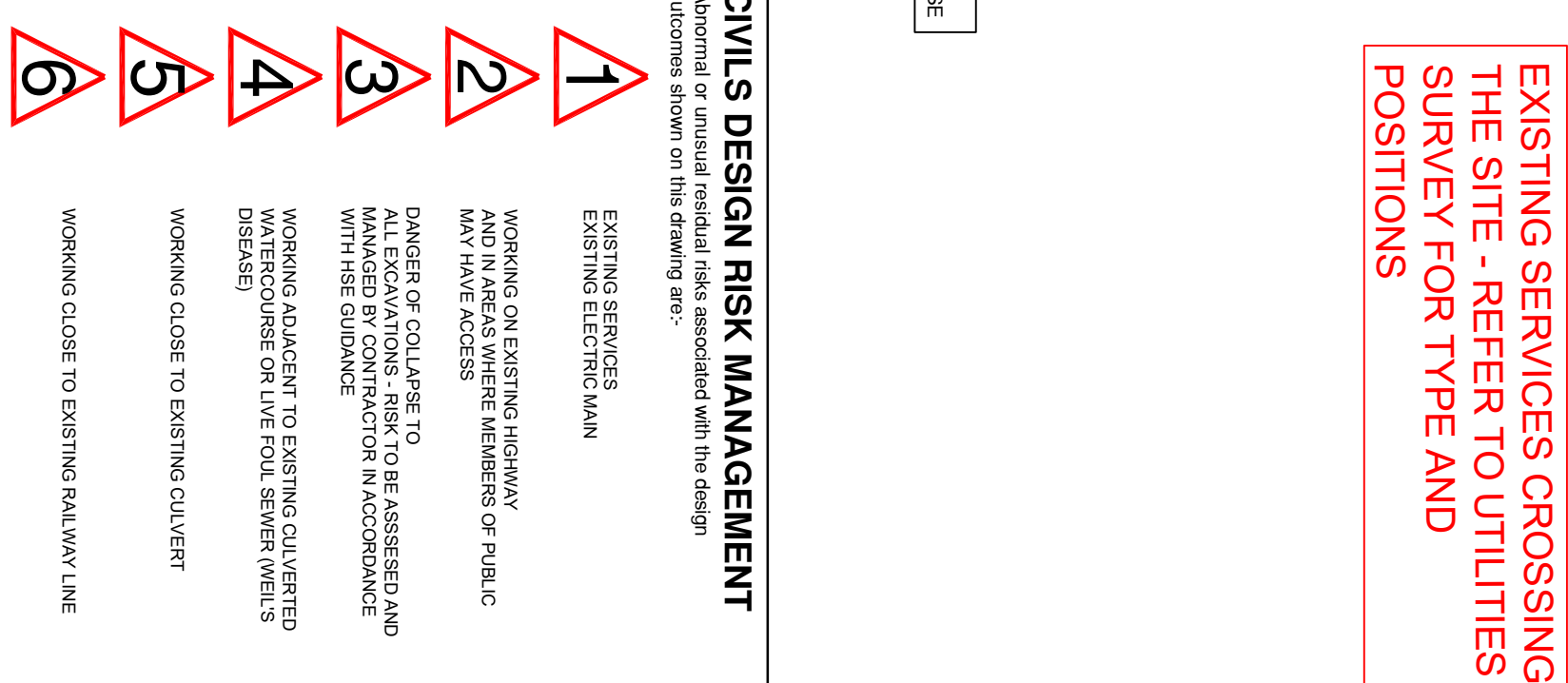


BENCHMARK INFORMATION

All levels relate to U.S. (Newlyn) Datum, Established using network RTK. Survey plotted on a plane local grid, orientated to National Grid.

[illegible]

EXISTING GROUND LEVEL	45.746		45.675		45.914		45.950	
	46.306		46.397		46.522		46.600	
ALIGNMENT LEVEL								
VERTICAL ALIGNMENT			G+ 1.250%					
			1: 60.0					
HORIZONTAL ALIGNMENT								
STORMWATER DETAILS	CL 46.333		Pipe 2,000 Dia 1050 Circular CONIC 21.685		CL 46.511 IL 43.442			
	IL 43.387							
FOULWATER DETAILS	CL 46.371		Pipe 2,000 Dia 150 Circular CONIC 21.743		CL 46.527 IL 44.911			
	IL 44.766							
CHANNELAGE	0.000							
	2.750							
	10.000							
	20.000							
	26.271							

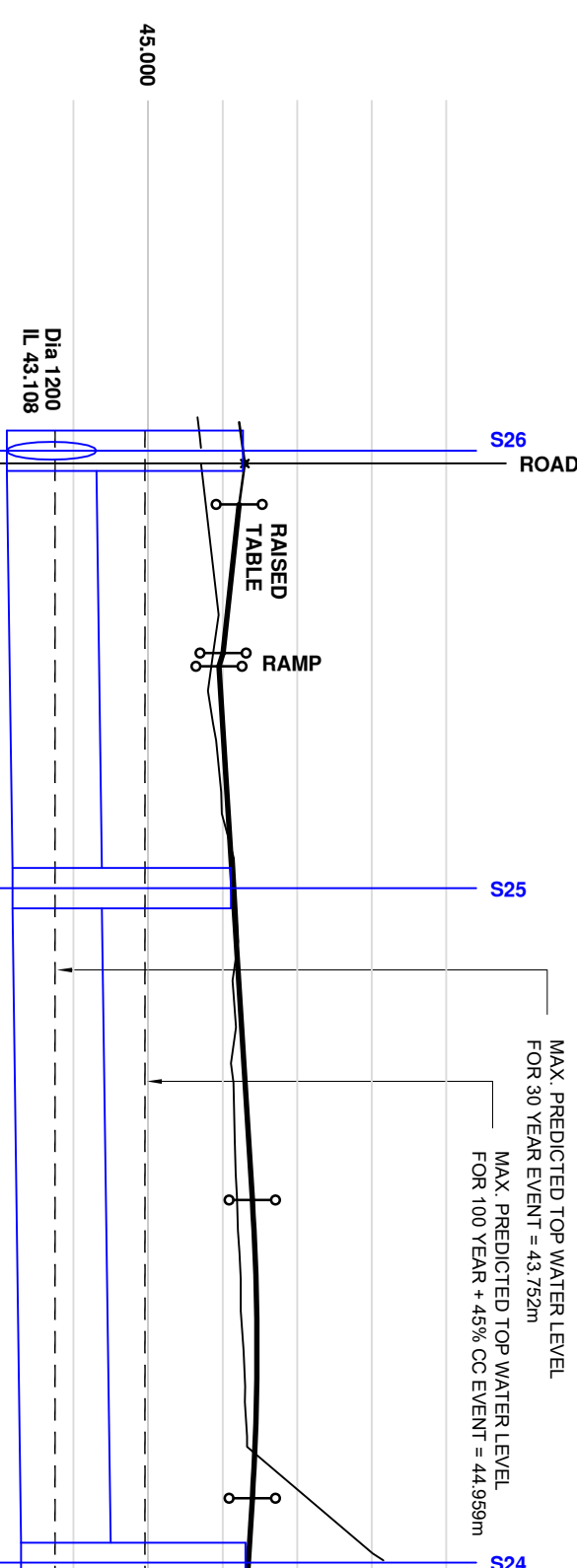
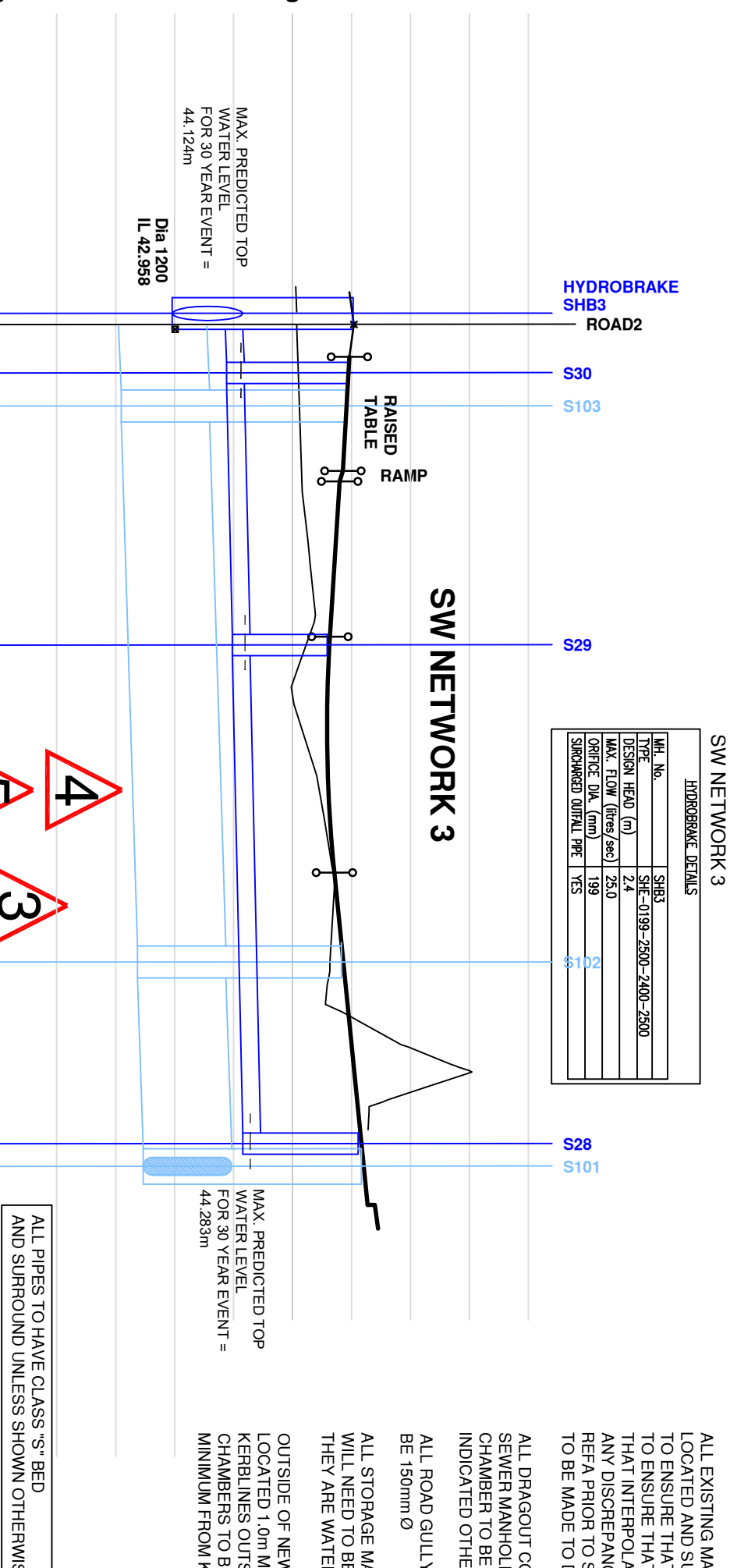


CIVILS DESIGN RISK MANAGEMENT

Abnormal or unusual residual risks associated with the design outcomes shown on this drawing are:-

- 1 EXISTING SERVICES
EXISTING ELECTRIC MAIN
- 2 WORKING ON EXISTING HIGHWAY
AND IN AREAS WHERE MEMBERS OF PUBLIC
MAY HAVE ACCESS
- 3 DANGER OF COLLAPSE TO
ALL EVALUATIONS - RISK TO BE ASSESSED AND
MANAGED BY CONTRACTOR IN ACCORDANCE
WITH THE GUIDANCE
- 4 WORKING ADJACENT TO EXISTING CULVERTED
WATERCOURSE OR LIVE POOL SEWER (WELLS
DISEASE)
- 5 WORKING CLOSE TO EXISTING CULVERT
- 6 WORKING CLOSE TO EXISTING RAILWAY LINE

Elimination and Risk reduction in developing the designs shown on this drawing. Abnormal or unusual residual risks may be shown above where it is considered that such risk may not normally be expected by competent persons engaged on work of this nature or type



EXISTING GROUND LEVEL	45.069	45.137	45.290	45.029	45.471	45.682	46.460	
	45.964	45.882	45.854	45.798	45.715	45.634	45.600	45.586
ALIGNMENT LEVEL		45.882	45.854	45.798	45.715	45.634	45.600	45.586
		45.882	45.854	45.798	45.715	45.634	45.600	45.586
VERTICAL ALIGNMENT		45.882	45.854	45.798	45.715	45.634	45.600	45.586
		45.882	45.854	45.798	45.715	45.634	45.600	45.586
HORIZONTAL ALIGNMENT		45.882	45.854	45.798	45.715	45.634	45.600	45.586
		45.882	45.854	45.798	45.715	45.634	45.600	45.586
STORMWATER DETAILS		45.882	45.854	45.798	45.715	45.634	45.600	45.586
		45.882	45.854	45.798	45.715	45.634	45.600	45.586
CHANNEL		45.882	45.854	45.798	45.715	45.634	45.600	45.586
		45.882	45.854	45.798	45.715	45.634	45.600	45.586

[illegible]

PLEASE NOTE THAT THIS DRAWING IS ISSUED FOR INFORMATION/TENDER PURPOSES ONLY UNTIL TECHNICAL APPROVAL HAS BEEN GRANTED. ANY WORK UNDERTAKEN PRIOR TO TECHNICAL APPROVAL BEING GRANTED IS AT THE CLIENTS RISK.

GENERAL

1. All adoptable signs and associated works are subject to approval by the Design and Construction Unit.
2. All highway works to be of adoptable standards and to comply fully with the road authority specification.
3. All work on the footways or pavements must comply with part 8 of the Building Regulations (July 2006).
4. All existing street lights to be checked by the appropriate notified to HSE registered surveyors.
5. All materials to bear the relevant BS/NENK and comply fully with the specifications.
6. All highways notices etc. as required under the Highways Act 1980 must be obtained prior to any works being carried out. A copy must be submitted to the Design and Construction Unit investigation report proves that suitable offset from salts and granular material will occur)
7. All highway notices etc. as required under the Highways Act 1980 must be obtained prior to any works being carried out. A copy must be submitted to the Design and Construction Unit
8. All works to be inspected by LA, NHBC or Relevant Water Authority as applicable.

C.D.M. REGULATIONS 2015

In line with the above regulations we are obliged to inform the Client of their responsibilities under section 3(1) and section 3(2) of the Act. It may be noted that the Client's obligations under the Act do not extend to the Client's employees. All design work has been carried out with Health and Safety aspects given full consideration. Wherever possible risks have been eliminated from the design, however, due to the very nature of this type of work it is not possible to remove all the risks from the design.

Notwithstanding, the Client is required to ensure that they fulfil their responsibilities under the Act by obligating them to take all reasonable steps in ensuring that any competent Contractors who have a valid safety policy are employed.

They should also provide satisfactory responses at tender stage also to the manner in which they will deal with the elements of risk moved in this type of work and in particular those highlighted by REFA below:-

1. Support / treatment for ALL excavation work.
2. Guarding to edges of excavations to prevent people/machinery and vehicles falling into excavations.
3. Guarding / unobstructed access to working hours to prevent unauthorised access.
4. Underpinning to adjacent roads or structures.
5. Defined space operators.
6. Working with existing services.
7. Traffic management on existing highways.
8. Procedure to be followed in event of accident or emergency.
9. Method of working where contaminated ground is present.
10. Conformity will be required that all operatives are adequately trained, copies of relevant training certificates to be supplied.

The above list is by no means exhaustive but it does highlight options that present a risk to contractors and the general public.

For clarification on any item please contact REFA.

1. Supply / attend for all excavation work.
 2. Guarding / edge protection to prevent people, materials and vehicles falling into excavation.
 3. Guarding of excavations outside working hours to prevent unauthorised access.
 4. Undermining to adjacent roads or structures.
 5. Confined space operations.
 6. Dealing with existing services.
 7. Traffic management on existing highways.
 8. Procedure to be followed in event of accident or emergency.
 9. Method of working where contaminated ground is present on site.
 10. Confirmation will be required that all operatives are adequately trained, copies of relevant training certificates to be supplied.
- The above list is by no means exhaustive but it does highlight operations that present a risk to contractors and the general public.
- For clarification on any item please contact BREFA.

[illegible]

Drawing Stage		Drawing Status	
☐	Draft	☐	● Tender
●	Issued	☐	Construction
☐		● Approval	As Built

Client

**KELLEN HOMES
LIMITED**

Job title
BENNETT STREET
MANCHESTER

Drawing title

**LONGITUDINAL
SECTIONS 3**

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החדשה

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CONSULTING ENGINEERS
CIVIL • STRUCTURAL

DRAWING No	22122/100/5	Rev	E
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