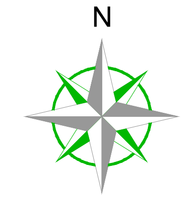
RIVER COLE SECTIONS



Note:

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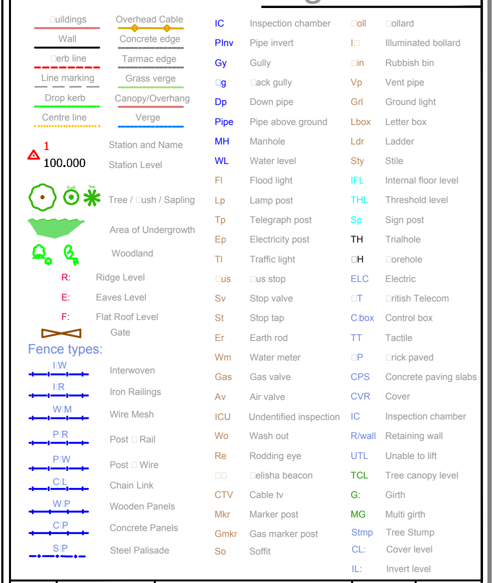
Legend:



Rev	Date	Description	Drawn	Q. Ref

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- Utility / CCTV Surveys
- Measured Building Surveys
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CLIENT
Peter Brett Associates

PROJECT
Eastern Villages Swindon

TITLE
Section Survey

SCALE	DATE
A2@ 1: 1000	Oct 2013
DRAWN	QUALITY REF
SS	

Level datum	OS GNSS
Grid orientation	OS GNSS
Job number	18442

Drawing No.	Rev.
18442_SECTIONS	0

Comments
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Notes:

Brook A

Brook B

N

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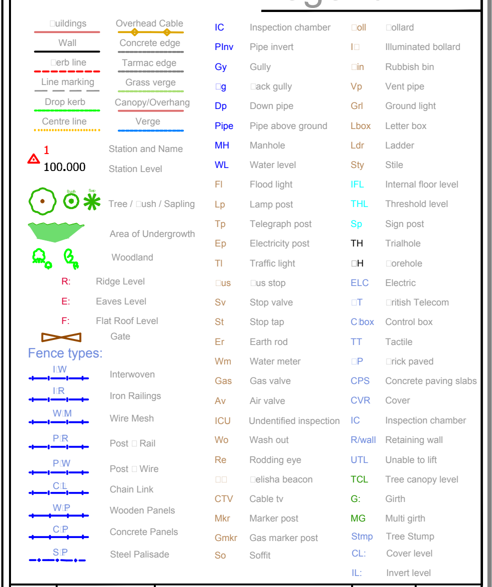

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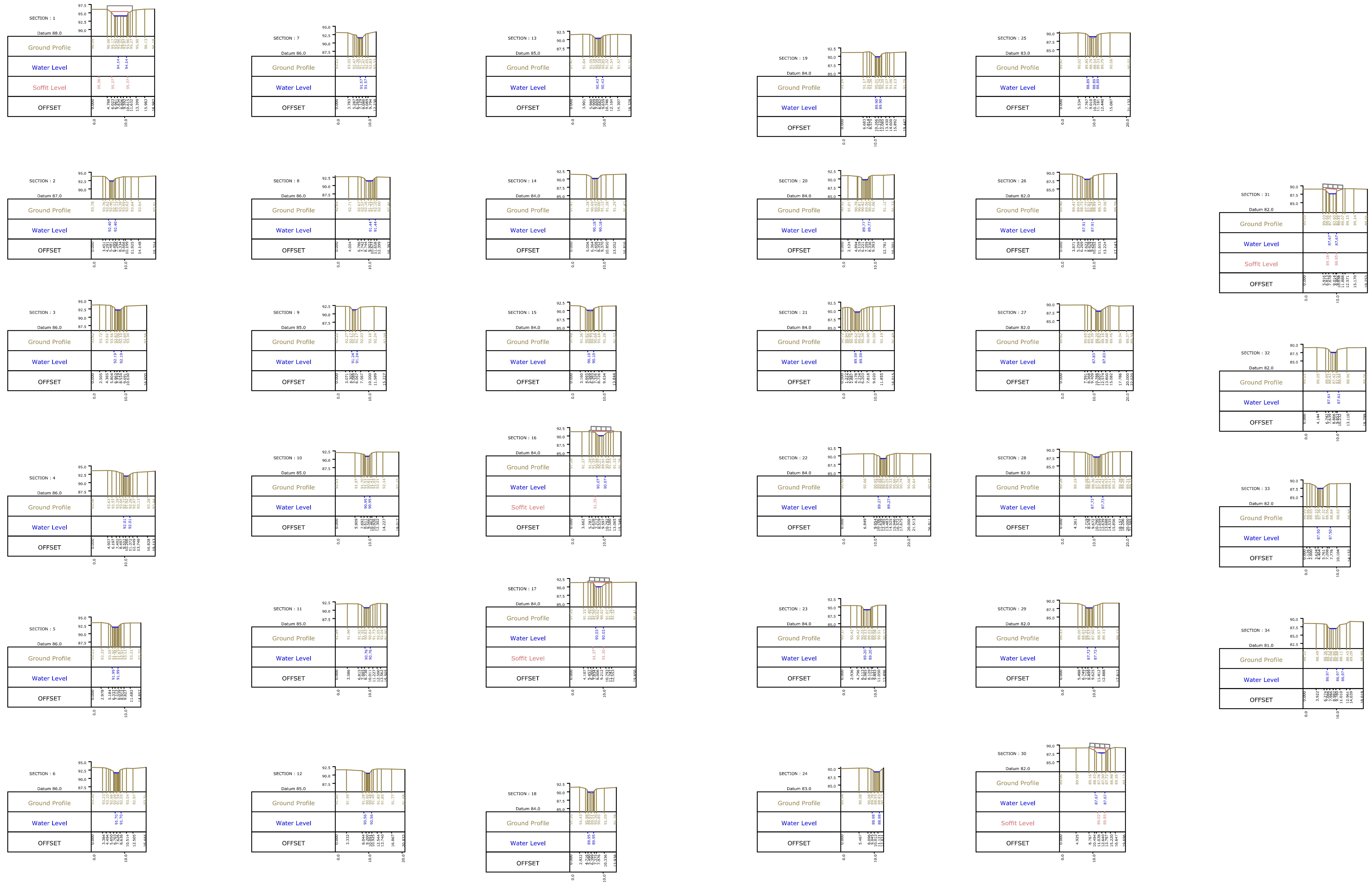
LIDEN BROOK SECTION



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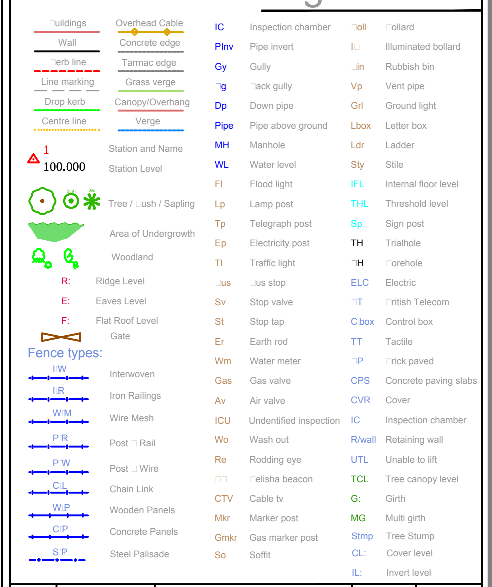

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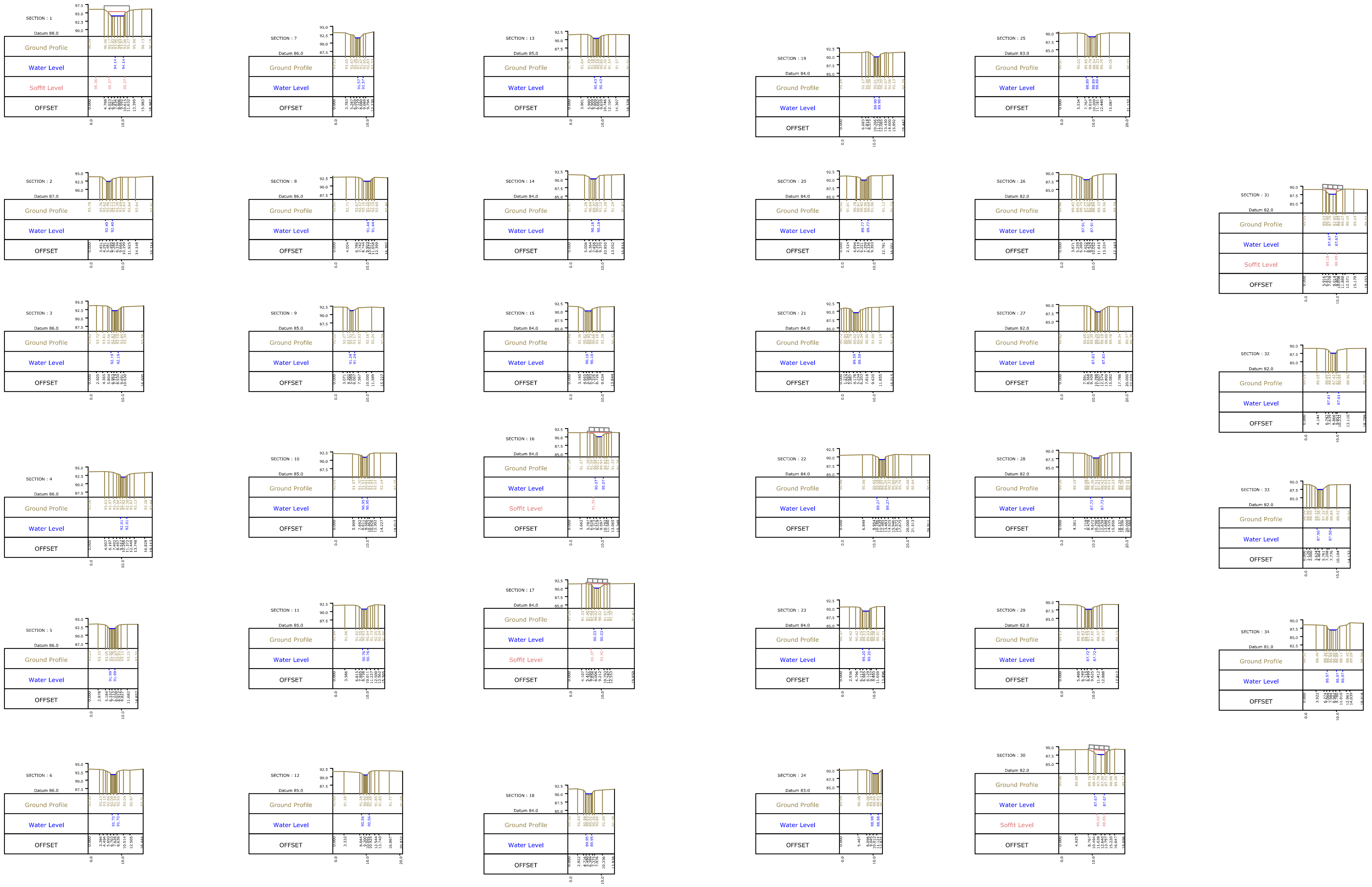

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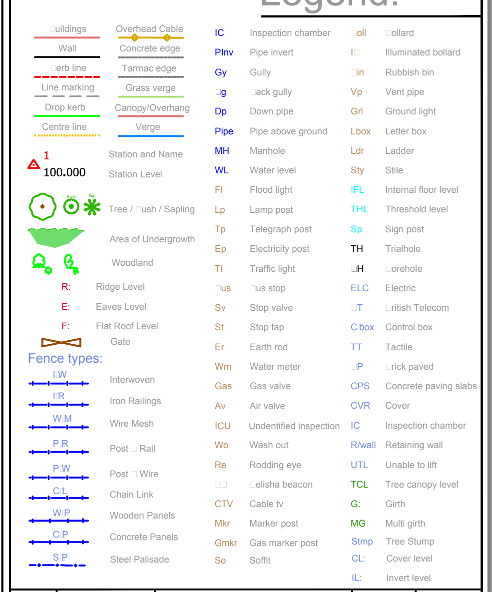

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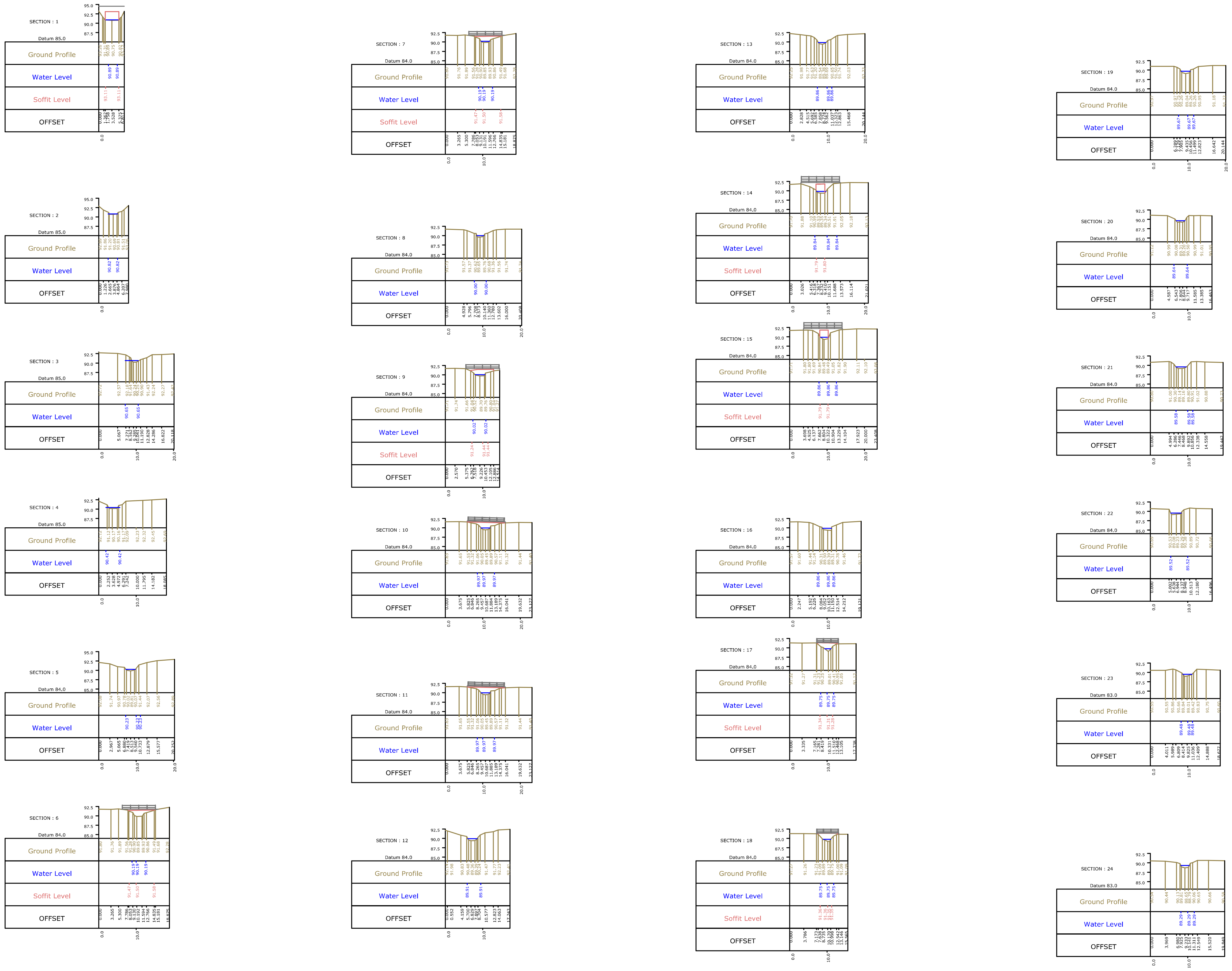
Notes:

DORCAN STREAM



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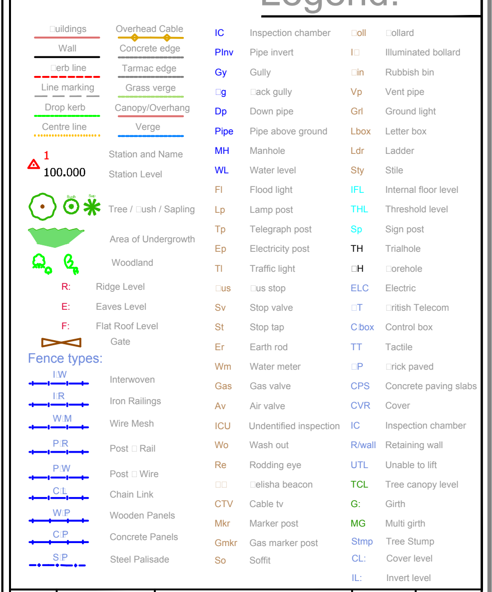

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Appendix C Stakeholder Correspondence

EA Product 4 Data - EA ref *THM102057,* dated October 2018

EA Product 4 Data - EA ref *OX_0327_01,* dated June 2013

Product 4 (Detailed Flood Risk) for Site East of Swindon, SN4 0UY
Our Ref: THM102057

Product 4 is designed for developers where Flood Risk Standing Advice FRA (Flood Risk Assessment) Guidance Note 3 Applies. This is:

i) "all applications in Flood Zone 3, other than non-domestic extensions less than 250 sq metres; and all domestic extensions", and

ii) "all applications with a site area greater than 1 ha" in Flood Zone 2.

Product 4 includes the following information:

Ordnance Survey 1:25k colour raster base mapping;
Flood Zone 2 and Flood Zone 3;
Relevant model node locations and unique identifiers (for cross referencing to the water levels, depths and flows table);
Model extents showing *defended* scenarios;
FRA site boundary (where a suitable GIS layer is supplied);
Flood defence locations (where available/relevant) and unique identifiers; (supplied separately)
Flood Map areas benefiting from defences (where available/relevant);
Flood Map flood storage areas (where available/relevant);
Historic flood events outlines (where available/relevant, not the Historic Flood Map) and unique identifiers;
Statutory (Sealed) Main River (where available within map extents);

A table showing:

i) Model node X/Y coordinate locations, unique identifiers, and levels and flows for *defended* scenarios.

ii) Flood defence locations unique identifiers and attributes; (supplied seperately)

iii) Historic flood events outlines unique identifiers and attributes; and

iv) Local flood history data (where available/relevant).

Please note:

If you will be carrying out computer modelling as part of your Flood Risk Assessment, please request our guidance which sets out the requirements and best practice for computer river modelling.

This information is based on that currently available as of the date of this letter. You may feel it is appropriate to contact our office at regular intervals, to check whether any amendments/ improvements have been made. Should you re-contact us after a period of time, please quote the above reference in order to help us deal with your query.

This information is provided subject to the enclosed notice which you should read.

This letter is not a Flood Risk Assessment. The information supplied can be used to form part of your Flood Risk Assessment. Further advice and guidance regarding Flood Risk Assessments can be found on our website at:

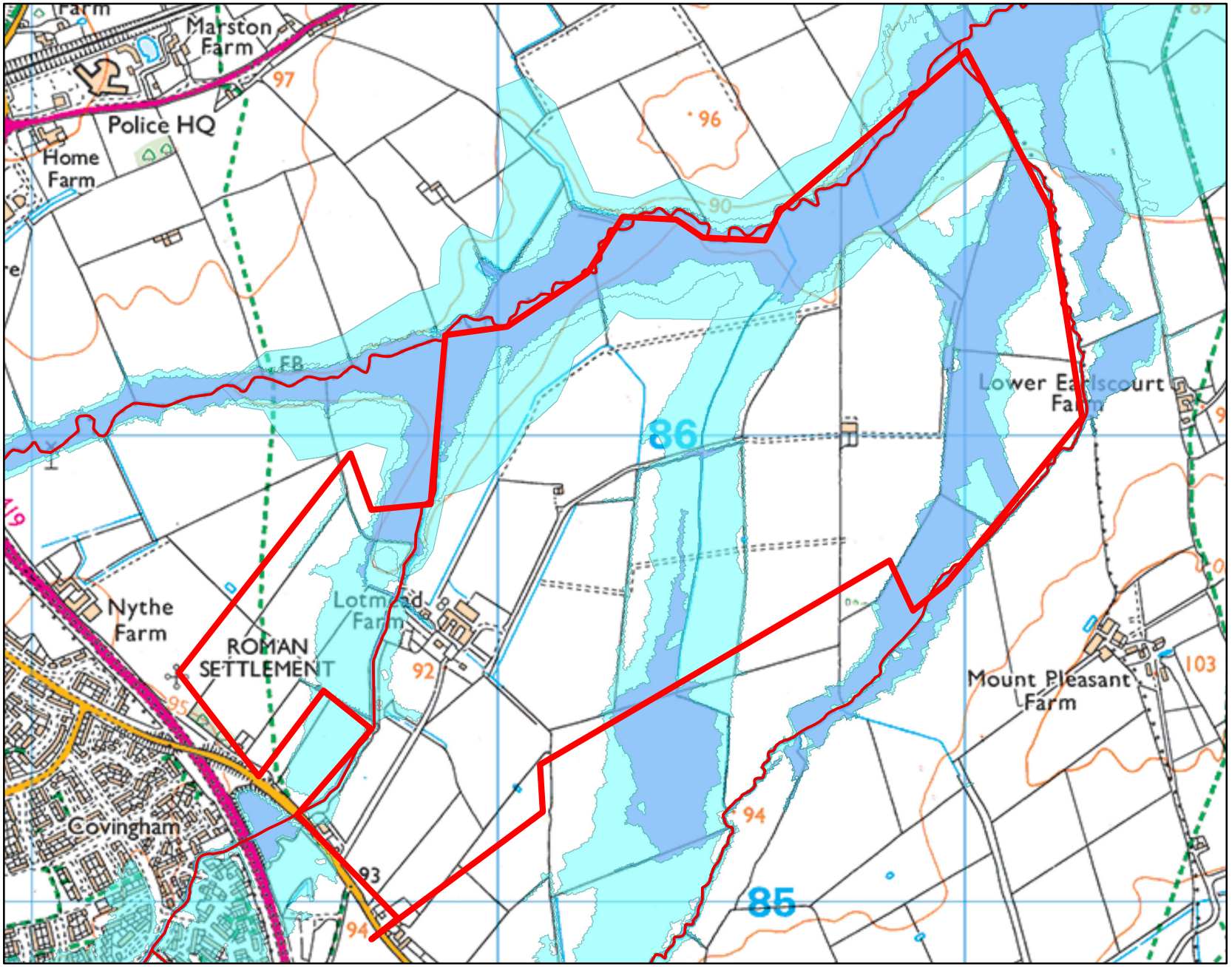
https://www.gov.uk/guidance/flood-risk-assessment-local-planning-authorities

If you would like advice from us regarding your development proposals you can complete our pre application enquiry form which can be found at:

https://www.gov.uk/government/publications/pre-planning-application-enquiry-form-preliminary-opinion

Red Kite House, Howbery Park, Wallingford, Oxon OX10 8BD
Customer services line: 08708 506 506
Email: WTenquiries@environment-agency.gov.uk

Flood Map for Planning centred on SN4 0UY
Created on 18/10/18 REF:THM102057



Environment Agency

Kilometres

0 0.3 0.6

Legend

- Main River
- Flood defences
- Areas benefiting from flood defences
- Flooding from rivers or sea (FZ3)
- Extent of extreme flood (FZ2)
- Flood Map - flood storage areas

Flooding from rivers or sea without defences (Flood Zone 3) shows the area that could be affected by flooding:
- from the sea with a 1 in 200 or greater chance of happening each year
- or from a river with a 1 in 100 or greater chance of happening each year.

The Extent of an extreme flood (Flood Zone 2) shows the extent of an extreme flood from rivers or the sea with up to a 1 in 1000 chance of occurring each year.

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 03708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

Defence information

THM102057

Defence Location:	No defences on Main River
Description:	This location is not currently protected by any formal defences and we do not currently have any flood alleviation works planned for the area. However we continue to maintain certain watercourses and the schedule of these can be found on our internet pages.

Model information

THM102057

Model: Cole (MRL to Acorn Bridge) 2007

Description: The information provided is taken from the Upper Cole (MR Limit to Acorn Bridge) Flood Mapping Study completed in March 2007. The study was carried out using 1D modelling software (ISIS). This model has been partially superceeded below the A419 by the Cole EDA (A419 to South Marston Brook) 2011 model.

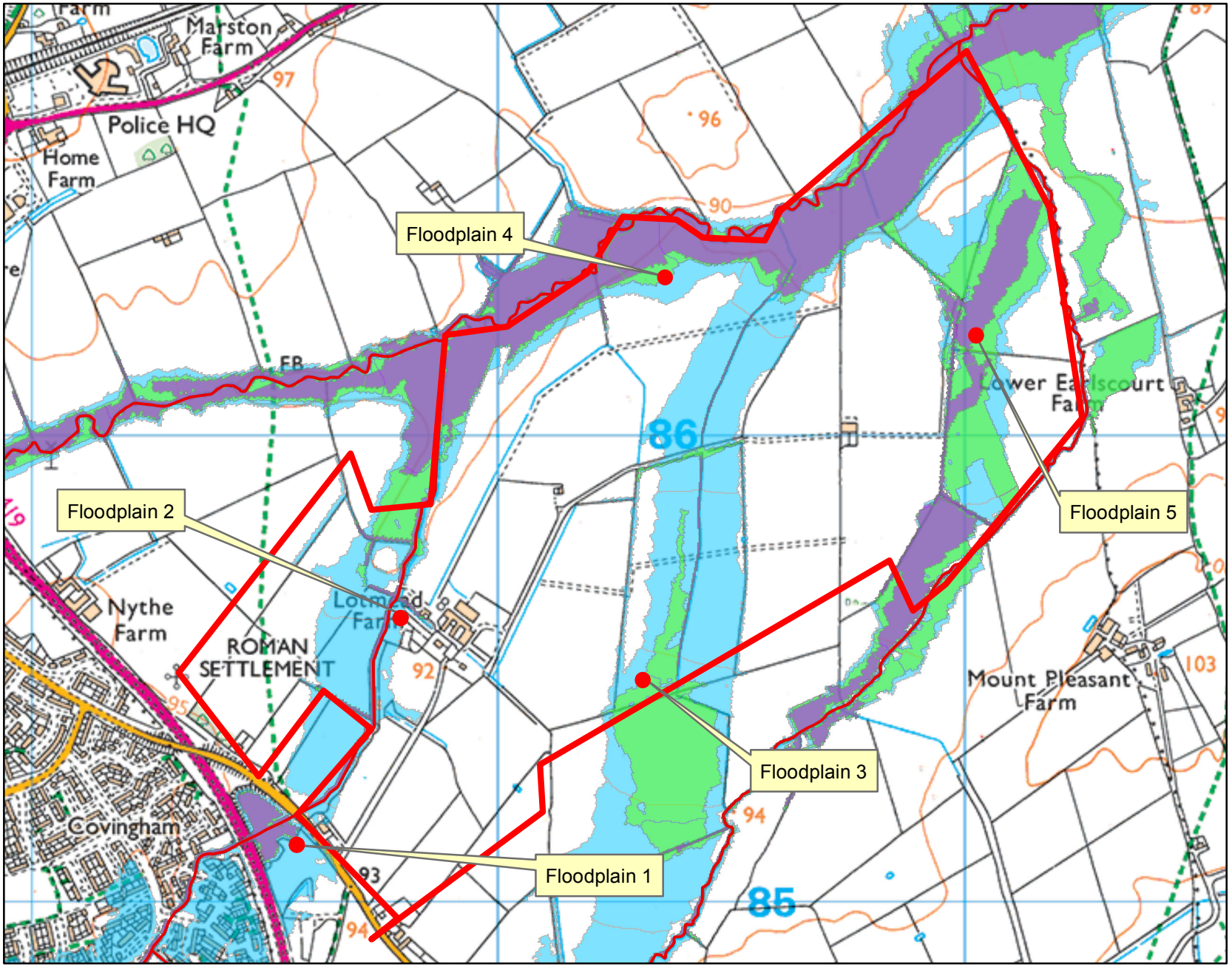
The confidence in the hydrological and hydraulic models could be improved in the future. There is some uncertainty in the modelling due to the lack of hydrometric data and the difficulty in reconciling water levels at the upper gauges and Acorn Bridge. Furthermore the 3 calibration events are very small and the model is untested during large flood events. Despite the limited calibration and uncertainty in levels, it has been found that much of the upper reaches are well defined channels where very high flows can remain within bank, particularly along the Dorcan Brook. It is therefore unlikely that this uncertainty impacts on the flood extents.

Model design runs:
1 in 5 / 20% Annual Exceedance Probability (AEP); 1 in 20 / 5% AEP; 1 in 50 / 2% AEP; 1 in 100 / 1% AEP and 1 in 100+20% / 1% AEP plus 20% increase in flows

Mapped Outputs:
1 in 5 / 20% AEP; 1 in 20 / 5% AEP and 1 in 100 / 1% AEP

Model accuracy:
Levels ± 250mm

Detailed FRA Map centred on SN4 0UY
Created on 18/10/18 REF:THM102057



Environment Agency

Kilometres

0 0.3 0.6

Legend

- Main River
- 5% AEP Modelled Flood Extent
- 1% AEP Modelled Flood Extent
- 0.1% AEP Modelled Flood Extent

AEP = Annual Exceedance Probability
The probability of a flood of a particular magnitude, or greater, occuring in any given year

Where available climate change extents have been calculated with an additional flow added to an AEP event. An example of how this is written is 1%+20% AEP.

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