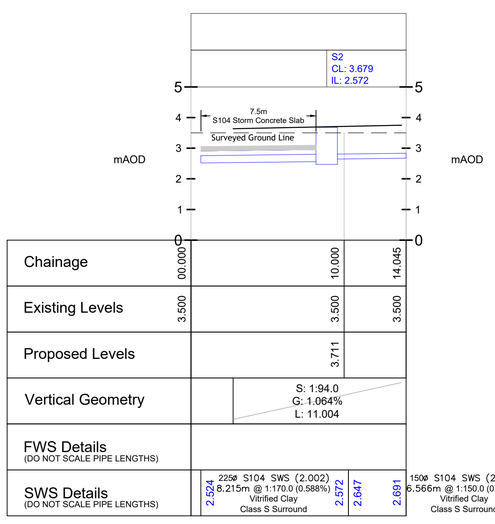


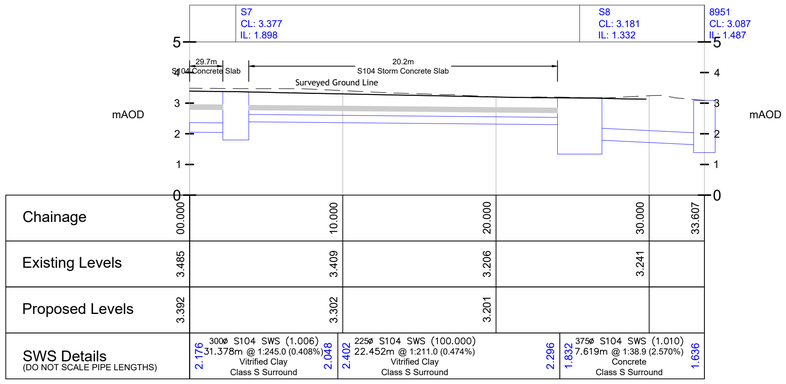

## Road 1

Horiz. 1:200, Vert. 1:100




## Road 2

Horiz. 1:200, Vert. 1:100




## S7-S8 Emergency Bypass

Horiz. 1:200, Vert. 1:100

**S104 Adoptable Manhole Schedule**

| MH Ref. | Cover Level | Invert Level | Pipe Dia. (mm) | Depth to Soffit (m) | MH Type | MH Size (mm) | Frame | Cover | Easting (m) | Northing (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| 8951 | 3.087 | 1.487 | 525 | 1.075 | Existing | Existing | Existing | Existing | 542845.080 | 322888.568 |
| S1 | 3.664 | 2.560 | 225 | 0.879 | D | 900x675 | 675x675x150mm | D400 | 542770.188 | 322988.327 |
| S2 | 3.679 | 2.572 | 225 | 0.882 | D | 900x675 | 675x675x150mm | D400 | 542760.652 | 322980.157 |
| S3 | 3.681 | 2.449 | 300 | 0.932 | D | 900x750 | 675x675x150mm | D400 | 542768.568 | 322982.353 |
| S4 | 3.779 | 2.376 | 300 | 1.103 | E | Ø1200 | 600x600x150mm | D400 | 542780.874 | 322969.238 |
| S5 | 3.849 | 2.299 | 300 | 1.250 | E | Ø1500 | 600x600x150mm | D400 | 542797.082 | 322959.548 |
| S6 | 3.684 | 2.176 | 300 | 1.208 | E | Ø1200 | 600x600x150mm | D400 | 542815.757 | 322935.938 |
| S7 | 3.377 | 1.898 | 450 | 1.029 | E(S) | Ø1500 | 600x600x150mm | D400 | 542823.921 | 322905.641 |
| S8+ | 3.181 | 1.332 | 375 | 0.975 | Special | Ø2700 | 600x600x150mm | D400 | 542837.504 | 322887.763 |

\+ Denotes Flow Control chamber with 500mm sump [level shown is to sump invert]

**S104 Adoptable Pipe Schedule**

| Pipe Ref. | Upstream IL | Downstream IL | Diameter (mm) | Distance (m) | Fall (m) | Pipe Gradient 1:X | Pipe Gradient % | Pipe Material | Pipe Bedding |
|---|---|---|---|---|---|---|---|---|---|
| CS Out - S8 | 1.855 | 1.832 | 450 | 9.781 | 0.023 | 1:425.7 | 0.235% | Concrete | Class S |
| S1 - S3 | 2.560 | 2.524 | 225 | 6.190 | 0.036 | 1:170.0 | 0.588% | Vitrified Clay | Class S |
| S2 - S3 | 2.572 | 2.524 | 225 | 8.215 | 0.048 | 1:170.0 | 0.588% | Vitrified Clay | Class S |
| S3 - S4 | 2.449 | 2.376 | 300 | 17.985 | 0.073 | 1:245.1 | 0.408% | Vitrified Clay | Class S |
| S4 - S5 | 2.376 | 2.299 | 300 | 18.883 | 0.077 | 1:245.1 | 0.408% | Vitrified Clay | Class S |
| S5 - S6 | 2.299 | 2.176 | 300 | 30.103 | 0.123 | 1:245.0 | 0.408% | Vitrified Clay | Class S |
| S6 - S7 | 2.176 | 2.048 | 300 | 31.378 | 0.128 | 1:245.0 | 0.408% | Vitrified Clay | Class S |
| S7 - CS In | 1.898 | 1.875 | 450 | 9.262 | 0.023 | 1:410.0 | 0.244% | Concrete | Class S |
| S8 - 8951 | 1.832 | 1.636 | 375 | 7.619 | 0.196 | 1:38.9 | 2.570% | Concrete | Class S |

**Note:** All pipe lengths, slopes and gradient percentages are based on centre of chamber to centre of chamber. Drainage contractor is responsible to check this information for construction purposes prior to any works

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General Notes

1. DO NOT SCALE.
2. This drawing is to be read in conjunction with all other relevant drawings and details.
3. Should there be any conflict between the details indicated on this drawing and those on other drawings the Engineer should be informed PRIOR to construction on site.
4. Until technical approval has been obtained from the relevant Authority, it should be understood that all drawings issued are Preliminary and NOT for construction. Should the Contractor commence site work prior to such approval being given it is entirely at their own risk.
5. Sketch proposals are for illustrative purposes only and as such are subject to detailed site investigation including ground conditions / contaminants, drainage, design and planning / density negotiations.
6. All dimensions are in millimetres unless otherwise stated.
7. The Farrow Walsh Consulting Designers Risk Assessments for this project must be reviewed PRIOR to the commencement of any works on site.

**Table A: Approved Pipes Types**

| Material | Sizes mm |
|---|---|
| Wavin Ultrarib or Polypipe Polysewer | 150, 225 and 300 |
| Polypipe Rigisewer | 400, 450, 500, 600, 750 and 900 |
| Concrete | 375, 450, 525, 600, 675, 750, 825, 900, 975, 1050, 1125, 1200, 1350, 1500, 1800 and 2100 |

***PIPE STRENGTH CALCULATIONS***

| *PIPE REFERENCE* | *PIPE dia* | *DEPTH OF COVER* | | *BEDDING* | *DESIGN* | *We x 1.25* | *REQ PIPE STR.* |
|---|---|---|---|---|---|---|---|
| | *mm* | *MIN m* | *MAX m* | *FACTOR* | *LOAD* | *Bedding Factor* | |
| | | | | | *We Kn/m* | *Kn/m* | |
| *S1 - S3* | *225* | *0.88* | *0.93* | *2.2* | *25.33* | *14.39* | *Vitrified Clay* |
| *S2 - S3* | *225* | *0.88* | *0.93* | *2.2* | *25.33* | *14.39* | *Vitrified Clay* |
| *S3 - S4* | *300* | *0.93* | *1.10* | *2.2* | *32.16* | *18.27* | *Vitrified Clay* |
| *S4 - S5* | *300* | *1.10* | *1.25* | *2.2* | *31.23* | *17.74* | *Vitrified Clay* |
| *S5 - S6* | *300* | *1.21* | *1.25* | *2.2* | *31.23* | *17.74* | *Vitrified Clay* |
| *S6 - S7* | *300* | *1.03* | *1.21* | *2.2* | *31.23* | *17.74* | *Vitrified Clay* |
| *S7 - S8* | *225* | *0.97* | *1.03* | *2.2* | *23.54* | *13.38* | *Vitrified Clay* |
| *S8 - Existing* | *375* | *0.97* | *1.08* | *2.2* | *23.54* | *13.38* | *Concrete* |
| *F1 - F2* | *375* | *3.77* | *3.85* | *2.2* | *37.07* | *21.06* | *Concrete* |
| *F2 - F3* | *375* | *3.77* | *4.04* | *2.2* | *37.10* | *21.08* | *Concrete* |
| *F3 - F4* | *375* | *4.04* | *4.24* | *2.2* | *37.40* | *21.25* | *Concrete* |
| *F4 - F5* | *375* | *4.24* | *4.39* | *2.2* | *37.16* | *21.11* | *Concrete* |
| *F5 - F6* | *375* | *4.39* | *4.55* | *2.2* | *37.21* | *21.14* | *Concrete* |
| *F6 - F7* | *375* | *4.50* | *4.55* | *2.2* | *37.21* | *21.14* | *Concrete* |
| *F7 - F8* | *375* | *4.30* | *4.50* | *2.2* | *37.21* | *21.14* | *Concrete* |
| *F8 - F9* | *375* | *4.19* | *4.30* | *2.2* | *37.14* | *21.10* | *Concrete* |
| *F9 - F10* | *375* | *4.19* | *4.56* | *2.2* | *37.21* | *21.14* | *Concrete* |
| *F10 - AW 8802* | *375* | *4.30* | *4.56* | *2.2* | *37.21* | *21.14* | *Concrete* |

| Rev | Description of updates | Drawn | Checked | Appvd | Date |
|---|---|---|---|---|---|
| T7 | Drawing updated to suit AW comments dated 03.10.2019. | CB | BM | JD | 04.10.19 |
| T6 | Pipes revised from Plastic to Vitrified Clay following AW comments | JR | BM | JD | 02.10.19 |
| T5 | Adoptable drainage has been updated following an increased discharge rate. Drawing has been updated to suit. | JR | BM | JD | 30.09.19 |
| T4 | Adoptable pipe gradients revised to show actual falls, not rounded as per AW request | JD | BM | DM | 24.09.19 |
| T3 | Bypass Long Section added to suit Anglian Water comments. Concrete cover slab show for clarity. | JD | BM | DM | 30.08.19 |
| T2 | Long Sections amended to suit Anglian Water comments. Split into 104 & 185. Headwalls 1 & 2 labelled and existing Anglian SWMH shown. | CC | BM | JD | 19.07.19 |
| T1 | Issued for Tender. | CC | BM | JD | 04.06.19 |

Revision Schedule

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**FOR TENDER**

Client:
GEDA Construction Ltd.

Project:
Station Road
Long Sutton

Title:
Long Sections (Section 104)
Sheet 1 of 2

| Drawn: | Checked: | Approved: | Date: | Scale: |
|---|---|---|---|---|
| CC | BM | JD | June 2019 | 1:200 @ A1 |

Drawing No.
**FW1733-D-404-01**

Revision:
**T7**