Technical Note: Surface Water Modelling for Medmerry Park, Chichester.



Author(s): N. West BSc MCIWEM

Checked by: S. Maiden-Brooks BSc. (Hons) MSc. C.Eng C.WEM MCIWEM

Project: 3341 - Medmerry Park

Date:	09 August 2023
Revision:	2 nd ISSUE

1. Background Information

- 1.1. Herrington Consulting has been commissioned to undertake numerical flood modelling for Medmerry Park Holiday Village. The purpose of the modelling is to support a Flood Risk Assessment (FRA) and planning application for modernisation of the Park, which includes landscaping to raise the replacement units above the tidal flood level. No additional units have been proposed as part of the post-development scenario. The location of the site is shown in Figure 1.
- 1.2. This technical note details the setup of the model representing the existing and postdevelopment scenarios, for the purpose of refining the risk of flooding from surface water and the field drains that run both through the park and nearby (separate modelling of tidal risks have been considered in a corresponding report).



Figure 1 – Site location

1.3. The Park is situated in low-lying coastal hinterlands between Medmerry Managed Realignment (MMR), Bracklesham, and Earnley. The sea defences in the region consist of natural shingle

Herrington Consulting Limited

Canterbury Office: Unit 6 & 7, Barham Business Park, Elham Valley Road, Barham, Canterbury, Kent, CT4 6DQ *London Office:* Unit 52.11, Woolyard, 52 Bermondsey Street, London, SE1 3UD

ridge to the rear of a variable width beach and engineered earthen embankments around the perimeter of the MMR. The main risk of surface water flooding to the Park is from a field drain, referred to as the Park Rife, that drains the fields immediately to the north of the Park. Secondary risks for surface water flooding come from the Earnley Rife that passes the Park to the west and south. The Park Rife and Earnley Rife merge to the south of the park near the RSBP Stilt Pools before exiting to the sea via a flap-valve controlled culvert beneath the MMR sea defence.

- 1.4. Historically, Earnley Rife had a large catchment that reaches north approximately 5 km to Birdham. However, this catchment is now subject to Earnley Flood Alleviation Scheme (FAS) which diverts the majority of run-off from the catchment along a large, engineered channel that runs north of the Park before exiting to the sea through the MRR. This diversion leaves only a small flow of water entering the historic route of Earnley Rife through an orifice plate north of Earnley Village. Therefore, Earnley Rife now only drains a much-reduced area including Earnley village and Bracklesham.
- 1.5. The Park Rife itself drains the fields immediately to the north and northeast of the Park, and little else. A watershed in the ditch just south of Earnley village, that runs adjacent to Drove Lane, marks the northern limit of the Park Rife's catchment. Observations during previous site visits identified that the Park Rife has been modified to retain water levels for ornamental purposes. This indicates that flows in the Park rife are typically very low, which is commensurate with the limited size catchment.
- 1.6. A topographic survey of the site and bespoke watercourse survey of the local rifes has previously been undertaken in 2019 and has been made available to inform this modelling study. A copy of the topographic survey drawing has been enclosed with this technical note.

2. Numerical Flood Model - Technical Methodology

- 2.1. The model has been constructed using the TUFLOW 2-dimensional (2D) numerical flood modelling system, version TUFLOW 2023-03-AA_iSP_w64. The model has a full 1-dimensional (1D) channel network model incorporated into the 2D domain; this has been constructed in ESTRY (TUFLOW's 1D channel and pipe flow model). The most recent version of TUFLOW has been used to take advantage of TUFLOW's Highly Parallelised Computation (HPC) using Graphical Processing Unit (GPU). This approach uses the latest advances in the TUFLOW software to ensure the detail is captured and capitalises on improved model run times to allow the entire catchment to be modelled in detail.
- 2.2. The 2D Digital Elevation Model (DEM) uses a grid resolution of 2 m and 4 m to represent important features requiring high detail. The resolution reduces to 8 m and 16 m away from the

Herrington Consulting Limited



rifes and on the wider floodplain and fields. The ground elevations of the DEM are based upon the EA's 1 m LiDAR composite Digital Terrain Model (DTM) from 2022, which is shown in Figure 2.

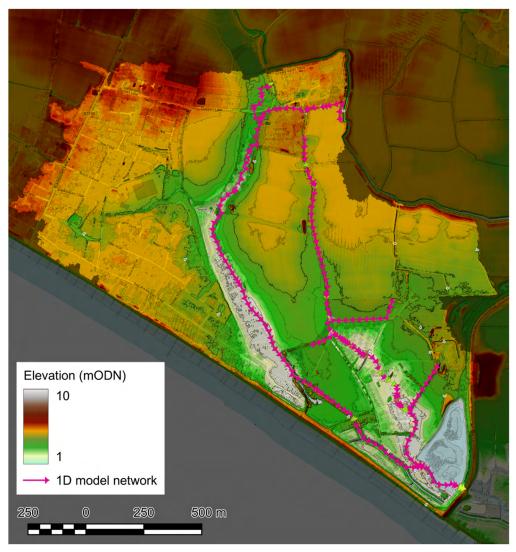


Figure 2 – Model active area and DTM

- 2.3. The LiDAR levels have been verified with the site-specific topographic survey levels and found to represent ground elevations well. Therefore, no modification of the model DEM has been undertaken using the topographic survey levels.
- 2.4. Although the LiDAR represents the bank levels well, it does not represent the invert level of the wetted bed of the river accurately. Following a precautionary approach, no modification has been made to the DEM to represent the level of the riverbed. Instead, the DEM represents more

Herrington Consulting Limited



closely the water's surface in the river on the day of the LiDAR flight in March 2019. This approach will cause over-prediction of the water level in all extreme events simulated.

- 2.5. The model uses Sub-Grid Scale (SGS) sampling approach (automatically sampling at 1 m) to overcome any sensitivity to model grid size and negate any requirement to increase the model resolution higher than the 8 to 16 m in the wider floodplain areas.
- 2.6. The model uses a time-varying water level boundary to represent the tide at the rife exit into the sea at the MMR. The tide has been derived from the Selsey tidal timeseries used in the Environment Agency Emsworth to Littlehampton 2014 Coastal model. High tide has been timed to coincide with the peak in flow from the rifes reaching the flap-valve culvert through the sea defence.
- 2.7. The model applies a spatially varying Manning's *n* roughness values following the land use types of the Ordnance Survey MasterMap and standard values from Chow 1959.

Feature Code	Description	Manning's <i>n</i>
10021	Buildings	0.1 (2023 TUFLOW engine auto- adjusts to this value)
10053	General land surfaces	0.05
10054	General land surfaces	0.025
10056	General land surfaces	0.04
10089	Inland water	0.03
10096	Manmade embankments (ponds)	0.03
10111	Thick vegetation	0.08
10123	Roads, tracks, and paths	0.03
10172 & 10183	Roads, tracks, and paths	0.025
10185	Roads, tracks, and paths	0.03
10203	Foreshore	0.035
10210	Tidal waters	0.03
10217	Hardstanding	0.035

Table 1 – List of material types and the corresponding roughness values adopted from Chow 1959

- 2.8. Three extreme flow events, with climate change variations, have been simulated using the model, including:
 - 1 in 30 year return period event (3.3%AEP, Annual Exceedance Probability) with and without climate change adjustments of plus 40% in peak rainfall rate;
 - 1 in 100 year return period event (1%AEP) with and without climate change adjustments of plus 45% in peak rainfall rate; and
 - 1 in 1,000 year return period event (0.1%AEP) without climate change.

Herrington Consulting Limited

Canterbury Office: Unit 6 & 7, Barham Business Park, Elham Valley Road, Barham, Canterbury, Kent, CT4 6DQ *London Office:* Unit 52.11, Woolyard, 52 Bermondsey Street, London, SE1 3UD

- 2.9. The model has been driven with direct-to-grid rainfall where the hyetographs have been derived from FEH online and ReFH2.3. A sensitivity test of rainfall durations has been undertaken which demonstrated that the worst case condition with respect to flooding at the Park was an event of 6 hours duration. Events of 1, 3, 9, and 12 hour durations all lead to reduced depth/extent of flooding compared to the 6 hour event.
- 2.10. The catchment over which the rainfall hyetographs have been applied to the model has been determined using QGIS and the LiDAR elevation data following a method by Van der Kwast & and Menke (2019). The catchment is used as the model rainfall boundary and is shown in Figure 2.
- 2.11. The rainfall applied to the model is the total rainfall, with no sewer losses, or attenuation applied to the rainfall hyetograph. However, the model applies an estimated infiltration rate 'continuous loss' of 8 mm/hr. No initial losses have been applied. The rate of 8 mm/hr has been derived by iterative testing using a 50%AEP (1 in 2 year return period event) where the target is to achieve no significant out-of-bank flooding. The 8 mm/hr continuous losses rate has then applied to all other events and scenarios.
- 2.12. The post-development scenario has been represented in the model by the exclusion of the drained areas from the rainfall boundary to represent the attenuation by the proposed drainage systems. These drainage systems include several ornamental and activity lakes which have sufficient freeboard to attenuate the surface water run-off from the total of the site.
- 2.13. The post-development scenario has been modelled using the DTM surfaces supplied directly by the client's engineers. The are four areas which are proposed to be landscaped and which are already located in the areas of higher ground elevations. Generally, the areas immediately adjacent to the Park Rife are proposed to remain as per their existing elevations. In addition to these areas the engineer's drawings include several strategically located bunds, ditches, and landscaped gradients which have been modelled iteratively to optimise their positions, heights, and slopes to ensure no material off-site impacts result due to the proposed scheme. Please refer to the engineer's drawings which have been enclosed as part of the submission pack as they are too large to reproduce within this document.
- 2.14. Table 2 lists the models run for the TUFLOW baseline and post-development scenarios. All simulations use the TUFLOW control file 3341_MedP_~s1~_~e1~_~s2~.tcf. All baseline simulations are designated A3 while post-development simulations are designated B5 (A1 is an early iteration of the model which has been used for the sensitivity testing of rainfall duration prior to the provision of the post-development scheme designs and the final refinement of the grid resolution required by those designs).

Herrington Consulting Limited

Canterbury Office: Unit 6 & 7, Barham Business Park, Elham Valley Road, Barham, Canterbury, Kent, CT4 6DQ *London Office:* Unit 52.11, Woolyard, 52 Bermondsey Street, London, SE1 3UD

NSULTING

Technical Note Project: 3341 – Medmerry Park, Chichester

Scenario	s1	e1	s2	Comment
		P30	-	3.3%AEP
E vietie e		P30cc40		3.3%AEP + 40% climate change
Existing Post- development	A3	P100cc45		1%AEP + 45% climate change
		P1000		0.1%AEP
	55	P30	- 000	3.3%AEP
		P30cc40		3.3%AEP + 40% climate change
	B5	P100cc45		1%AEP + 45% climate change
		P1000		0.1%AEP
	A1		##h	Rainfall duration tests
Sensitivity tests		P100	nUP	Manning's n roughness +20%
	A2		nDN	Manning's n roughness -20%

Table 2 – List of model simulations with corresponding events

2.15. Table 3 lists and describes the files used in the TUFLOW model setup, including geometry files, boundary files for both 2D and 1D.

File name	Description
2d_code_3341MedP_Active_Area_A1_R.SHP	2D active area of the model
2d_loc_3341MedP_Grid_A_L.SHP	2D origin and orientation of the grid
3341_MedT_SZ89nw_compDTM_1m_C_filled.ASC 3341_MedT_SZ89nw_compDTM_1m_B.ASC 3341_Proposed_2nd_v4.ASC	The base Composite LiDAR tiles applied to the model grid. The client supplied landscaping surfaces applied to the model grid for the post-development scenario.
2d_qnl_3341MedP_Grid_Res_B_R.SHP	2D grid resolution control within the active area
2d_mat_3341MT_MMmaterials_A_R.SHP	OS MasterMap materials spatial layer
2d_zsh_3341MedP_missingFootbridge_R 2d_zsh_3341_MarshBnDrain_A_L.SHP 2d_zsh_3341_MarshBnDrain_A_P.SHP	A footbridge crossing the Park Rife that is absen from the LiDAR data
2d_zsh_3341_OptiScaping_A_R.SHP 2d_zsh_3341_OptiScaping_A_P.SHP 2d_zsh_3341_OptiScaping_B2_LSHP 2d_zsh_3341_BundStamp_A_L.SHP 2d_zsh_3341_LongDitch_A_L.SHP 2d_zsh_3341_LongDitch_A_P.SHP 2d_zsh_RoadGrad_A_R.SHP 2d_zsh_RoadGrad_A_P.SHP	Proposed development landscaping details and mitigation features
2d_bc_3341MedP_HXCN_A1_L.SHP	1D – 2D boundary interface connection between the channel network and the 2D floodplain
2d_rf_Proposed_Rainfall_A_R	The rainfall boundary applied to the post- development scenarios which excludes the drain site.
1d_nwke_3341MedP_A1_L 1d_xs_RIVER_2340_medmerry_A_Mar2023	1D channel network and cross section definition file
1d_bc_3341_MedP_BNDs_A_P	The boundary conditions applied to the 1D channel network.
1d_WLL_3341MedP_outputs_A_L	The output definition file covering the 1D channe network

Table 3 – TUFLOW model files

Herrington Consulting Limited

Canterbury Office: Unit 6 & 7, Barham Business Park, Elham Valley Road, Barham, Canterbury, Kent, CT4 6DQ London Office: Unit 52.11, Woolyard, 52 Bermondsey Street, London, SE1 3UD

3. Sensitivity Testing

- 3.1. Several sensitivity tests have been undertaken to ensure a full understanding of model behaviour. These have included:
 - Manning's n roughness value +20%; and
 - Manning's n roughness value -20%.
- 3.2. Manning's n values ±20% the surface roughness in the model represents typical conditions with respect to seasonal vegetative growth. However, vegetation can change significantly between summer and winter, and therefore greatly affect the speed at which flood water may transit through an area.
 - 3.2.1. The spatially varying roughness values applied in the model represent the mean values suggested by Chow 1959. However, it is recognised that there is variation for any of these values, typically representing seasonal changes, for example. To represent the potential seasonal variation, the Manning's n value has been varied by ±20% in two separate simulations.
 - 3.2.2. The results show that the variance of Manning's n by +20% and -20% results in flood levels varying at the centre of the Park by -0.011 m and +0.017 m, respectively.
 - 3.2.3. Both sensitivity tests show very slight differences in the extent of flooding. However, this slight variation in level and extent is not considered to be significant and therefore, no further adjustment has been made or investigated.

4. Simulation Messages

- 4.1. The model simulation reports several checks and warnings which have been investigated and found not to have any implications for the model results. These checks and warnings are discussed subsequently.
 - 4.1.1. The following message warns that the high Manning's n values applied to the buildings is higher than the most recent 2023 TUFLOW model engine will allow to prevent mis-calculation of viscosity; No adverse impact to the model results is anticipated:
 - WARNING 2583 Material ID 10021 has a manning's n value (0.300) greater than Wu n limit (0.100) n value will be limited in Wu formulation.
 - 4.1.2. The following messages warn of the auto-adjustment of the SGS samping distance to match the smallest grid resolution while using the latest version of the TUFLOW engine; No

Herrington Consulting Limited

negative impact to the model results is anticipated as the higher sampling distance represents an improvement in SGS operation:

- CHECK 3548 Setting SGS Sample Distance Target to minimum grid zpt resolution of 1.
- WARNING 3526 SGS Sample Distance command is ignored in SGS Approach == Method C.
- 4.1.3. The following warning indicates a re-read of the cached model setup during a re-run of a model scenario and can be ignored:
 - WARNING 2330 XF file has incorrect location and/or dimensions. XF file not read.
- 4.1.4. The following messages are associated with the setup and interpolation of the 1D channel network and are expected:
 - CHECK 1037 Channel "ER2c" interpolated from XS 00001 (53%) and XS 00002 (47%).
 - CHECK 1034 No XS line data at downstream end or downstream of channel "ST26c". Using upstream end cross-section.
 - WARNING 1100 Structure ST3 crest/invert (2.430) is below bed (2.694) of primary downstream channel ER2d.
- 4.1.5. The following warning recorded nine times indicates wetting and drying in the 1D channel network, which can reasonably be anticipated in a direct-to-grid rainfall model where some field ditches are initialised in a 'dry' state; These negative deeps do not lead to model instability and therefore do not impact the model results:
 - WARNING 1991 2:44:44: Negative depth at Node DL24d.1: y = -0.10 Bed = 0.21 Iter =1

5. Results

5.1. The graphical model results are appended to this technical report and are listed in Table 4.

Model result no.	Scenario	Event	Output	Figure No.
1	Existing & post-	2 20/ AED present day	Max depth, Max level	A.1
2	development	3.3%AEP, present day	Level difference	A.2

Herrington Consulting Limited

Canterbury Office: Unit 6 & 7, Barham Business Park, Elham Valley Road, Barham, Canterbury, Kent, CT4 6DQ *London Office:* Unit 52.11, Woolyard, 52 Bermondsey Street, London, SE1 3UD

Technical Note Project: 3341 – Medmerry Park, Chichester

3	3.3%AEP plus 40% climate	Max depth, Max level	A.3
4	change	Level difference	A.4
5		Max depth, Max level	A.5
6	1%AEP plus 45% climate change	Level difference	A.6
7		Max depth, Max level	A.7
8	0.1%AEP, present day	Level difference	A.8

Table 4 - List of appended figures

6. Enclosed Documents

- 6.1. The following documents have been enclosed with this technical note:
 - Topographic survey; and
 - Modelling results.

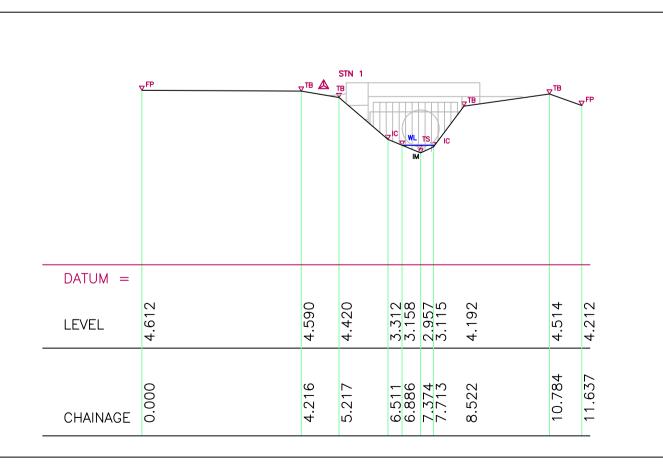
Canterbury Office: Unit 6 & 7, Barham Business Park, Elham Valley Road, Barham, Canterbury, Kent, CT4 6DQ *London Office:* Unit 52.11, Woolyard, 52 Bermondsey Street, London, SE1 3UD

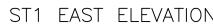


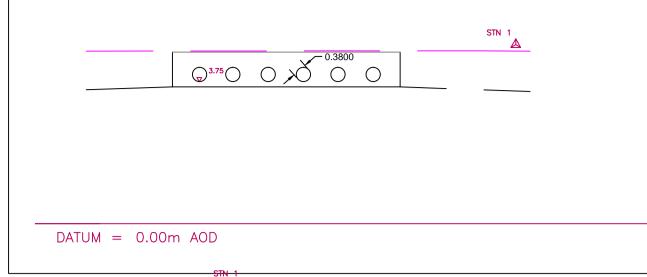
KEY

<u>KEY</u>	
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid—point
Applies to	o Arch, Culvert or Head Wall
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH	Fire hydrant
GY	Gulley
IC	Inspection cover
MH	Manhole
SMP	Service marker post
GSV	Gas stop valve
WSV	Water stop valve
DK	Drop kerb
EP	Electricity pole
KB	Kerb
OSBM	OS bench mark
RS	Road sign
TP	Telegraph pole
B/W	Barbed wire fence
C/B	Close boarded fence
C/L	Chain link fence
C/P	Chestnut paling fence
I/W	Interwoven fence
I/R	Iron railing
L/B	Lapboard fence
P/R	Post and rail fence
P/W	Post and wire fence
W/M	Wire mesh fence
RTW	Retaining wall
SSF	Steel security fence
	,

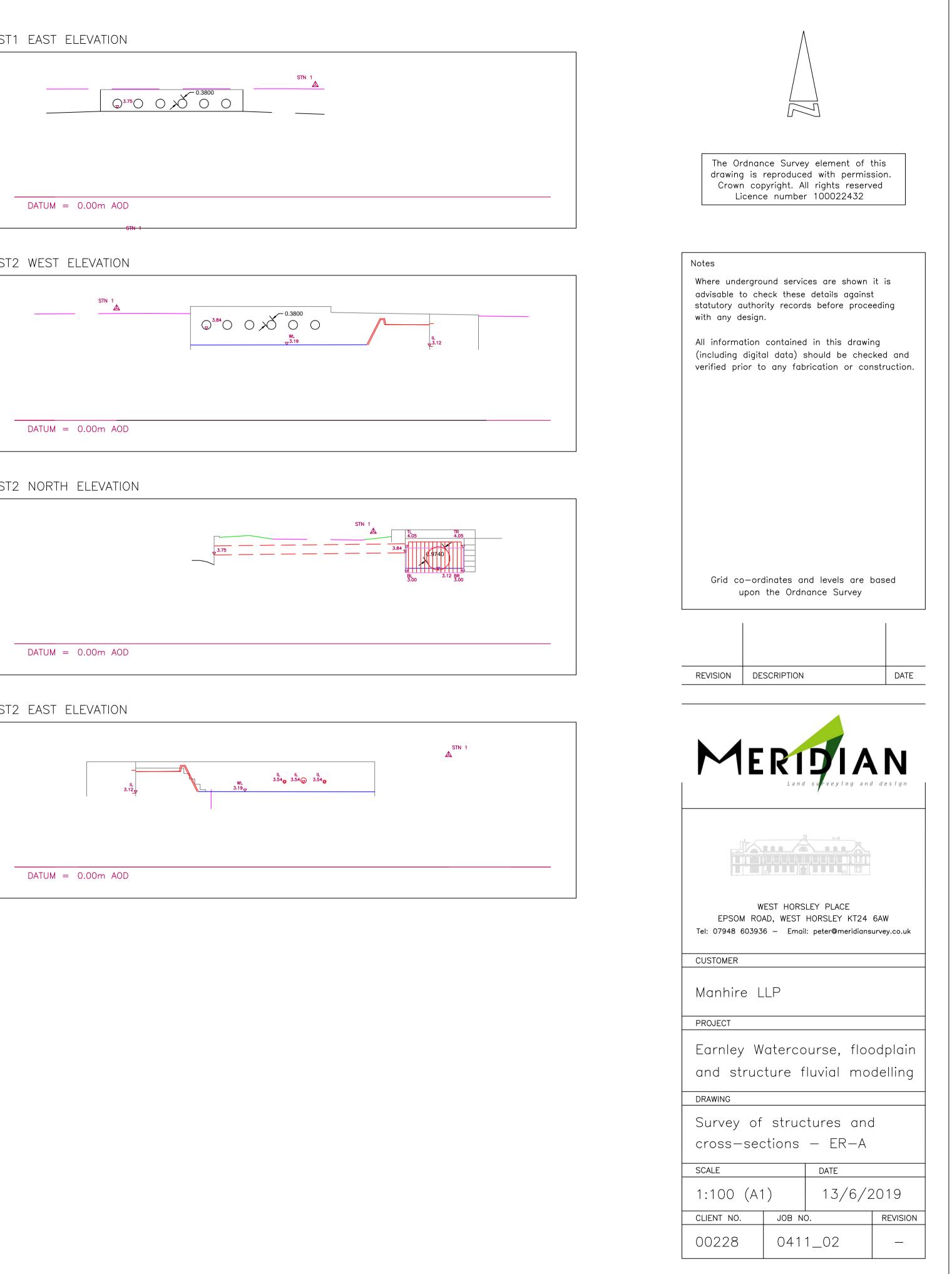
ER1 - CROSS-SECTION

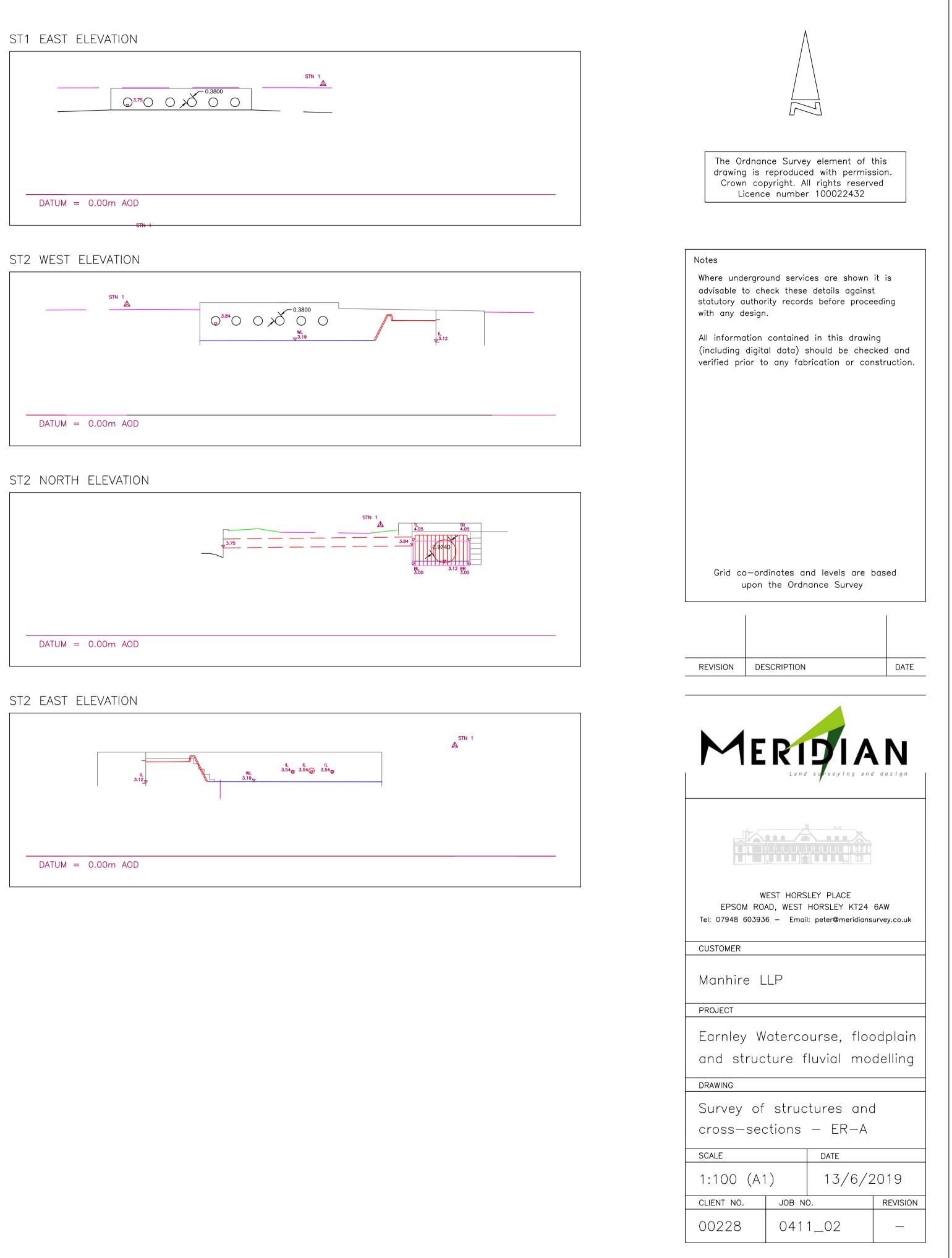


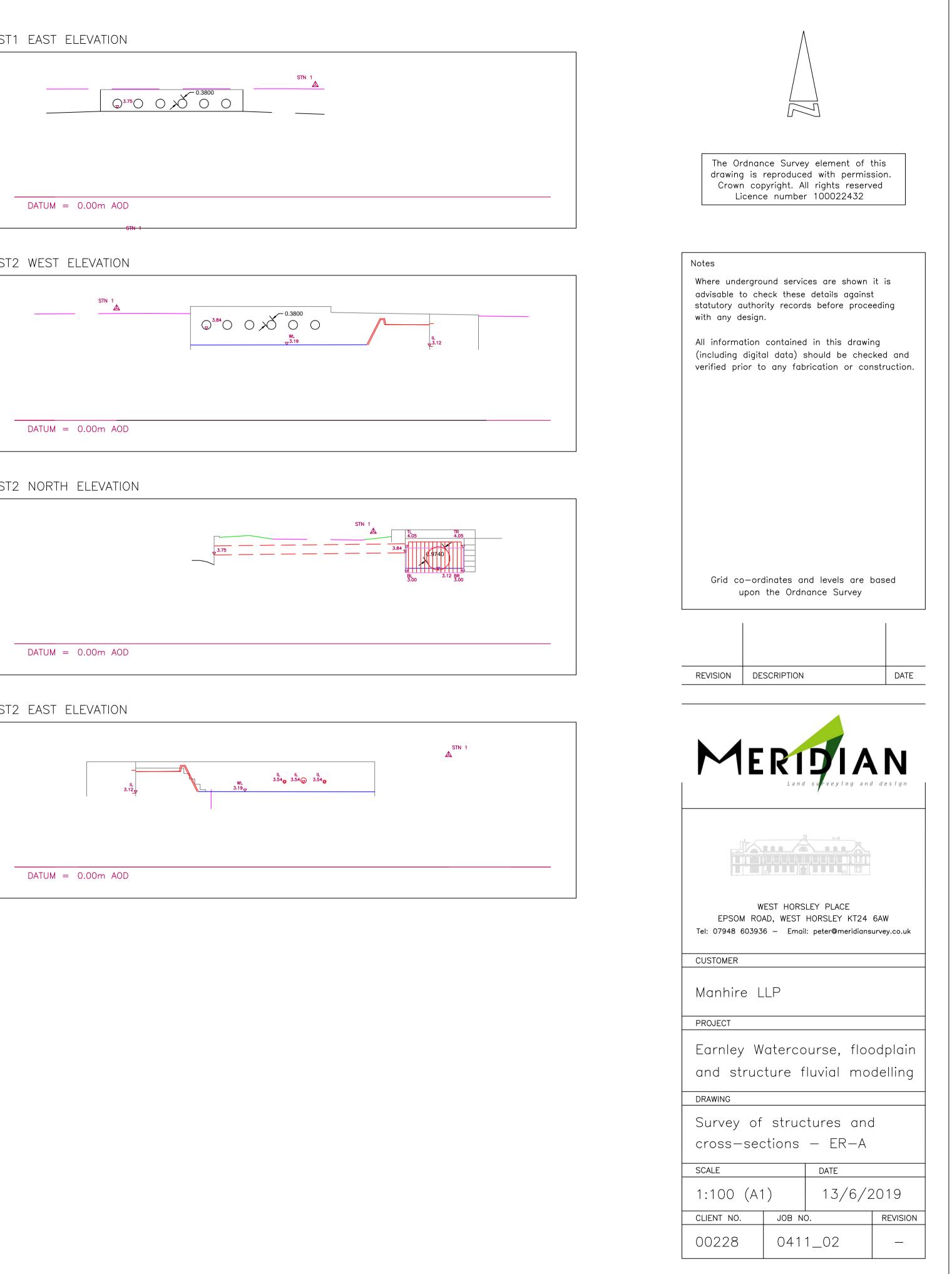




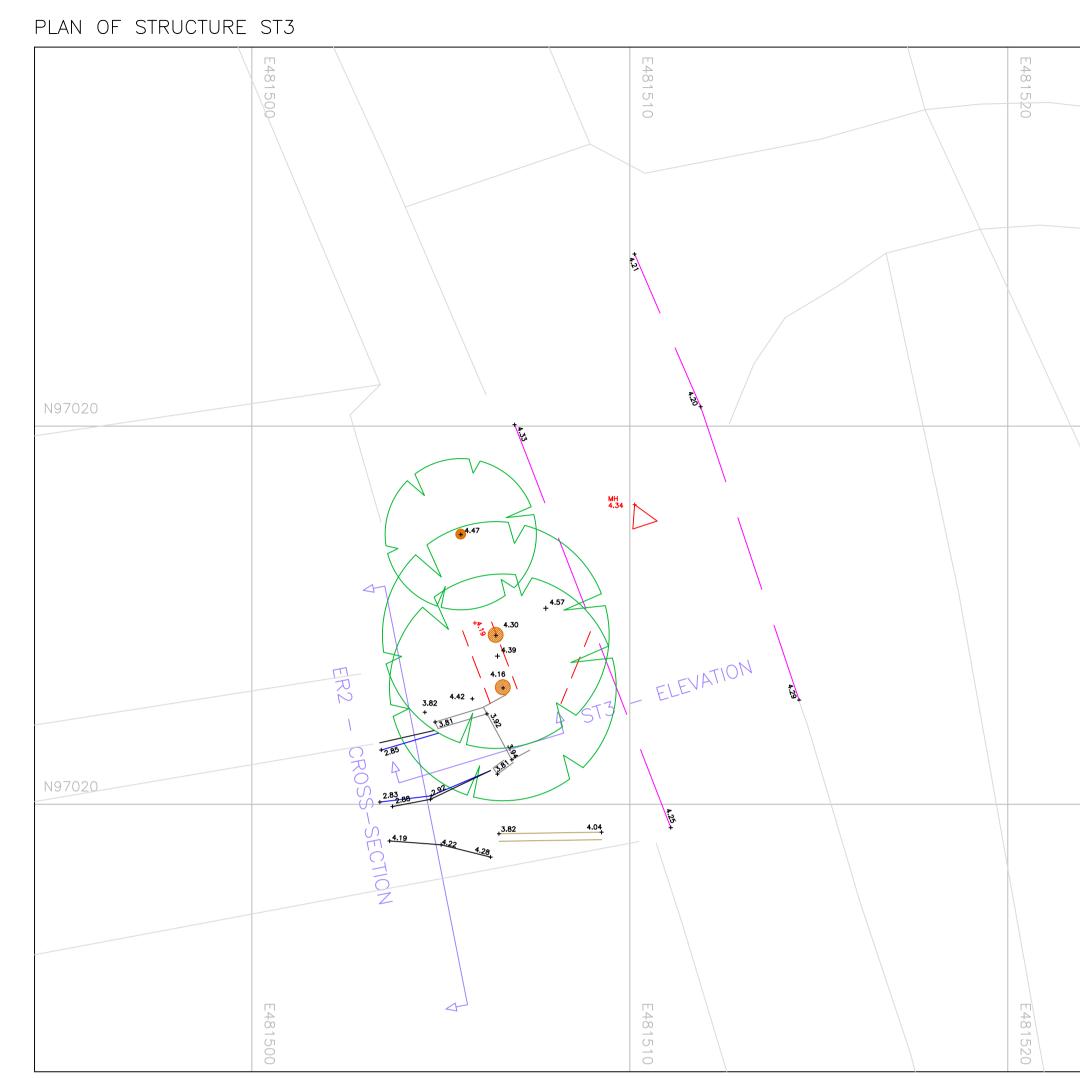
ST2 WEST ELEVATION







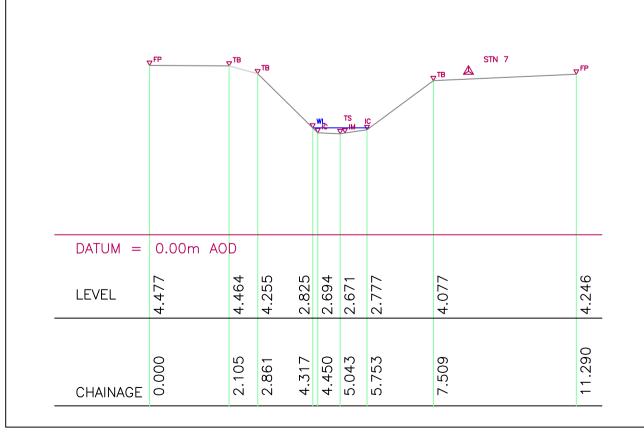


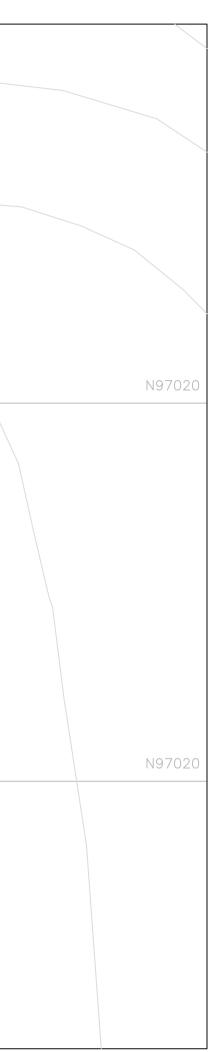


|--|

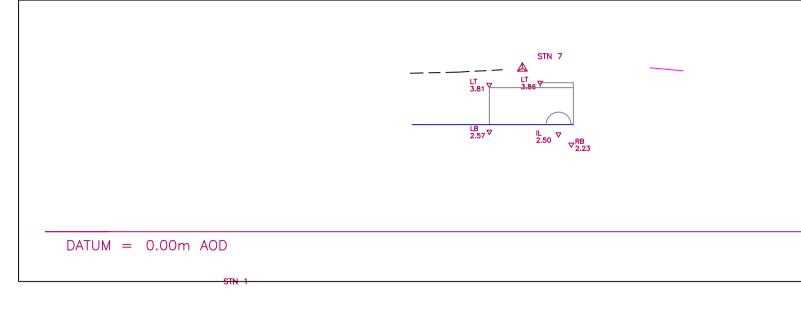
<u>KEY</u>	
FP BB TB WL IC IM	Flood Plain Bottom of Bank Top of Bank Water Line In Channel In Channel mid—point
Applies	to Arch, Culvert or Head Wall
SL LT RT LB RB BL IL TS	Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level Top of Silt
FH GY IC MH SMP GSV WSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W C/B C/L C/P I/W	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence
I/R	Iron railing
L/B P/R	Lapboard fence Post and rail fence
P/R P/W	Post and wire fence
W/M	Wire mesh fence
RTW SSF	Retaining wall Steel security fence
JJF	Steel Security Tence

ER2 - CROSS-SECTION





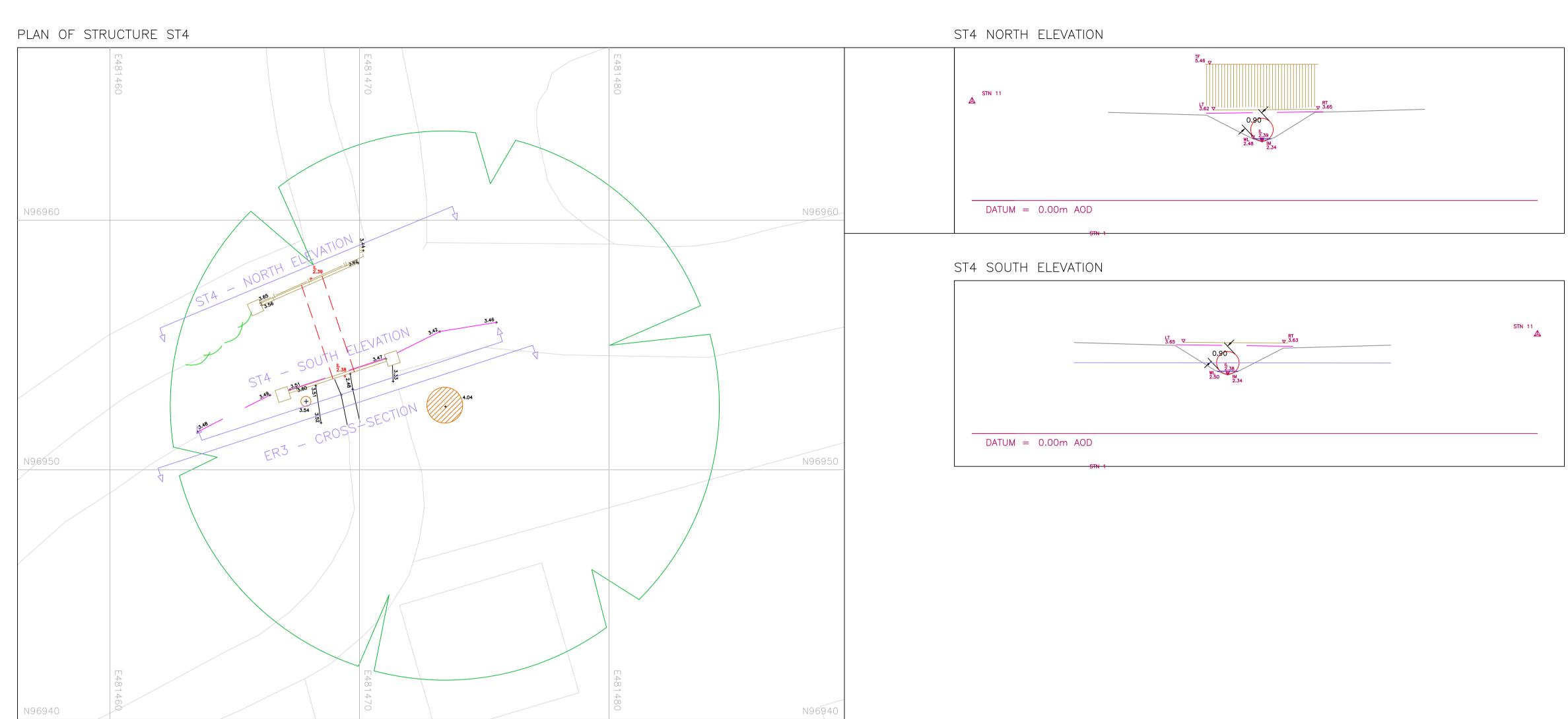
ST3 EAST ELEVATION





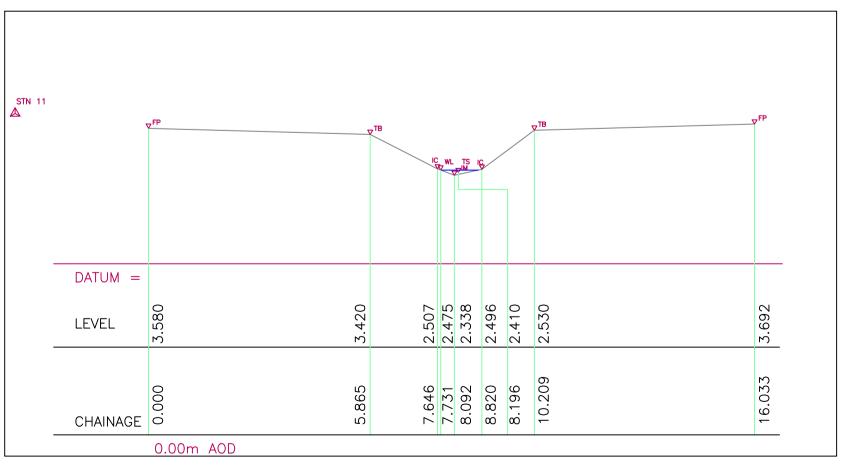
The Ordnance Survey element of this drawing is reproduced with permission. Crown copyright. All rights reserved Licence number 100022432

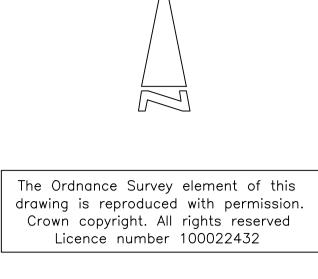
Notes Where underground services are shown it is advisable to check these details against statutory authority records before proceeding with any design. All information contained in this drawing (including digital data) should be checked and verified prior to any fabrication or construction. Grid co-ordinates and levels are based upon the Ordnance Survey FP LEVEL (0.000) AMENDED 5/7/19 А DATE DESCRIPTION REVISION MERIDIAN eying and design WEST HORSLEY PLACE EPSOM ROAD, WEST HORSLEY KT24 6AW Tel: 07948 603936 — Email: peter@meridiansurvey.co.uk CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodplain and structure fluvial modelling DRAWING Survey of structures and cross-sections - ER-B SCALE DATE 1:100 (A1) 13/6/2019 JOB NO. REVISION CLIENT NO. 00228 0411_03 А



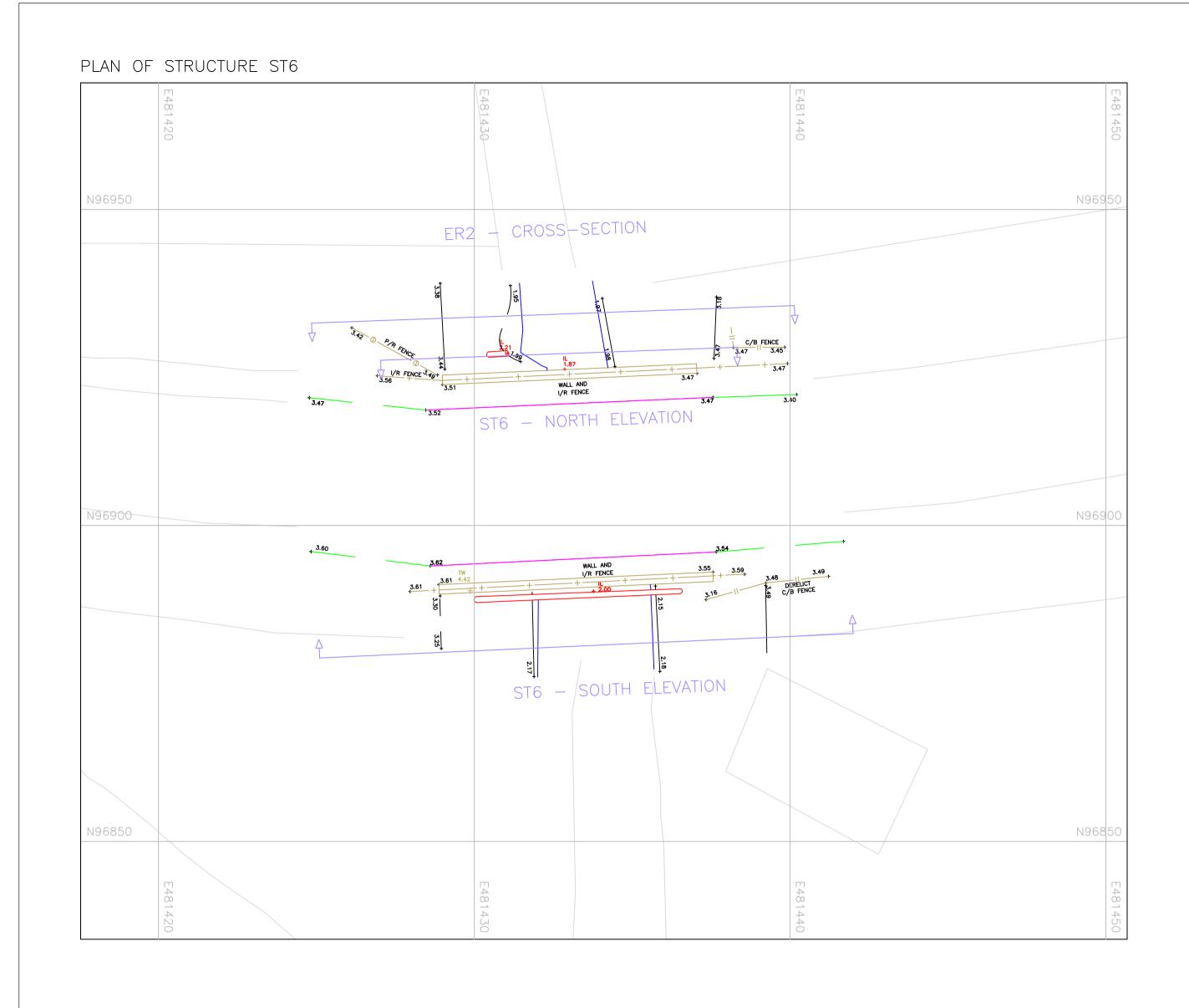
FP BB TB WL IC IM	Flood Plain Bottom of Bank Top of Bank Water Line In Channel In Channel mid-point
Applies SL LT RT LB RB BL IL TS	to Arch, Culvert or Head Wall Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level Top of Silt
FH GY IC MH GSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall
SSF	Steel security fence

ER3 - CROSS-SECTION

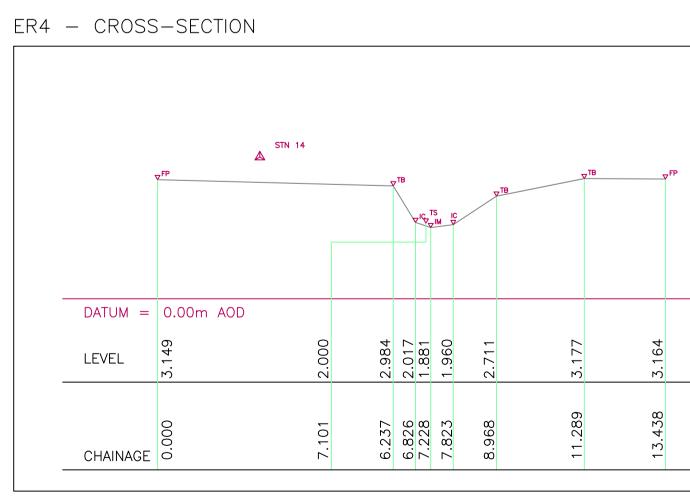




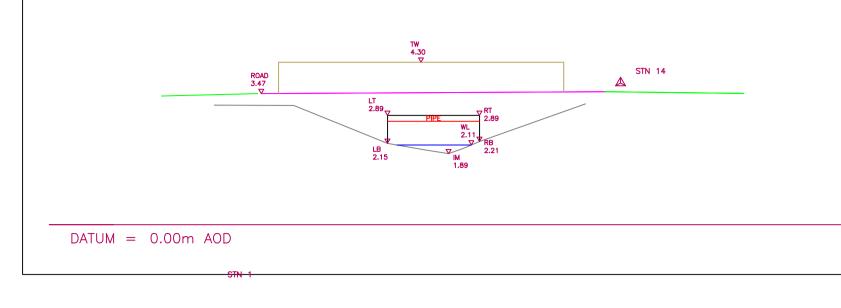
Notes				
advisable to ch	und services are shown eck these details agains ity records before proce	t		
All information (including digite	All information contained in this drawing (including digital data) should be checked and verified prior to any fabrication or construction.			
	linates and levels are I the Ordnance Survey	based		
REVISION DE	SCRIPTION	DATE		
ME	RIDIA Land surveying and	l design		
	EST HORSLEY PLACE			
	AD, WEST HORSLEY KT24 6 — Email: peter@meridians			
CUSTOMER				
Manhire L	LP			
PROJECT	PROJECT			
Earnley Watercourse, floodplain				
and struc	ture fluvial mo	delling		
DRAWING				
	Survey of structures and cross-sections - ER-C			
SCALE				
1:100 (A1	, ,	Γ		
CLIENT NO.	JOB NO.	REVISION		
	0411_04	ı —		



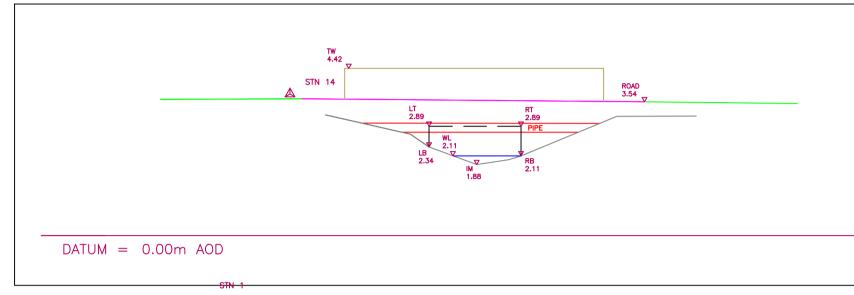
<u>KEY</u>	
FP BB TB WL IC IM	Flood Plain Bottom of Bank Top of Bank Water Line In Channel In Channel mid—point
Applies to SL LT RT LB RB BL IL TS	Arch, Culvert or Head Wo Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level Top of Silt
FH GY IC MH GSV WSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W C/B C/L I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence



ST6 NORTH ELEVATION



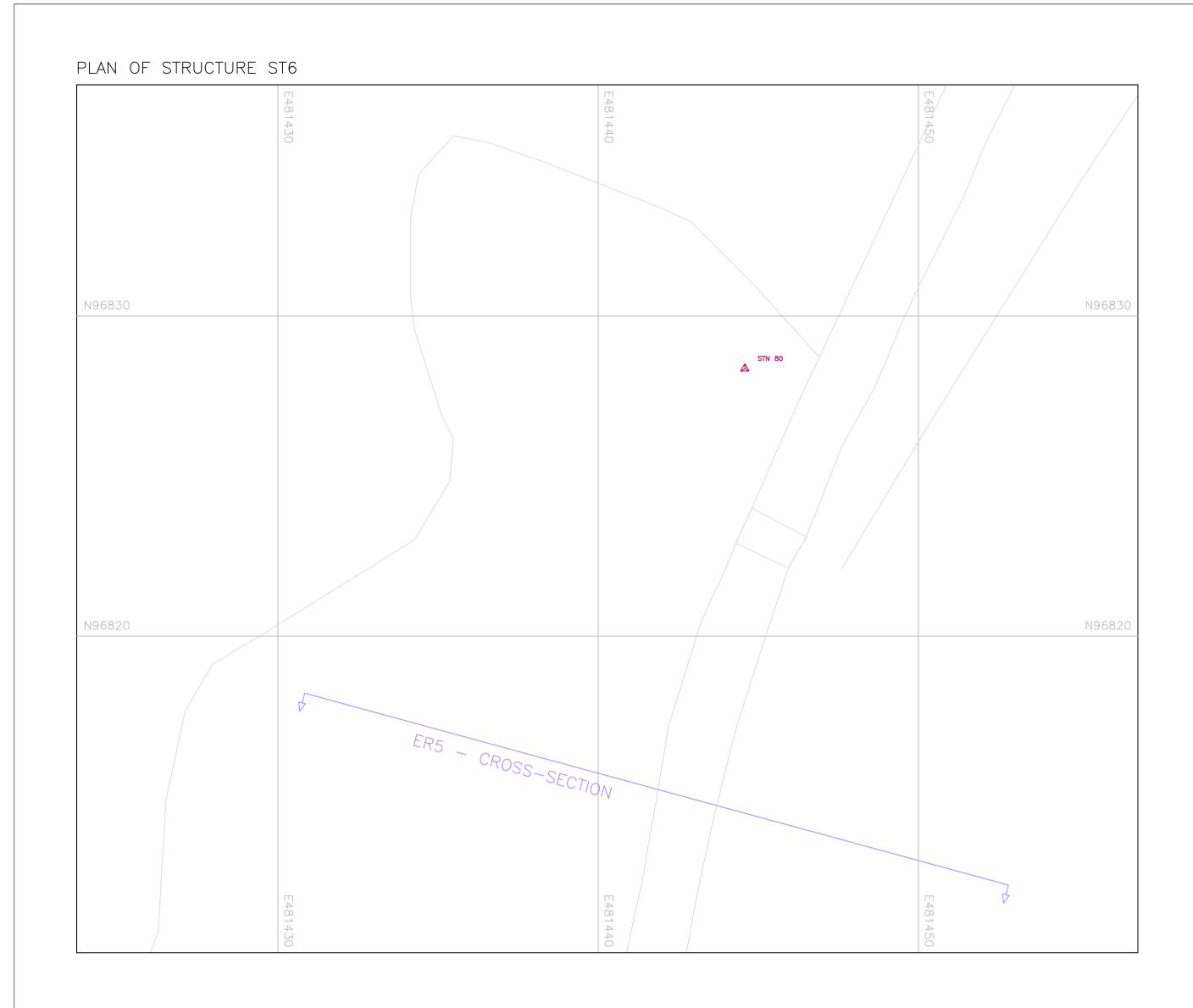
ST6 SOUTH ELEVATION





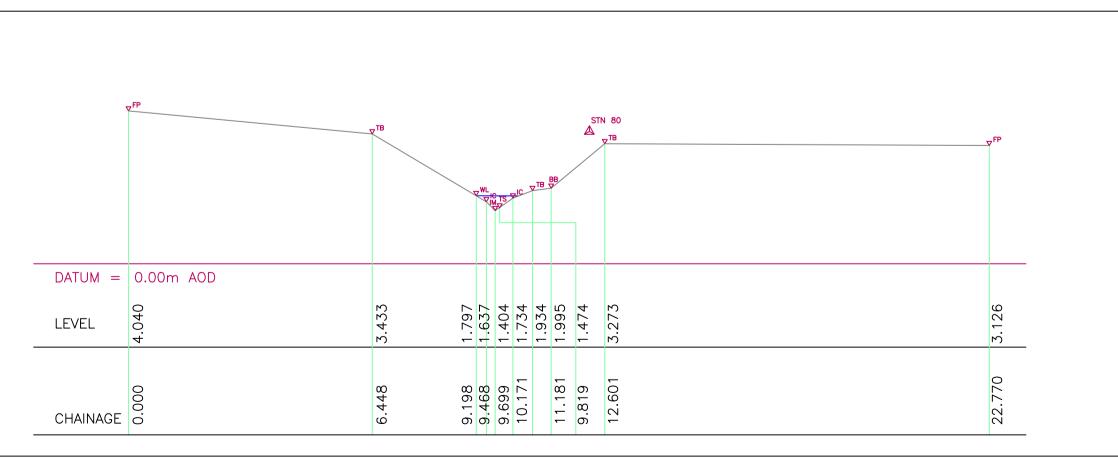
The Ordnance Survey element of this drawing is reproduced with permission. Crown copyright. All rights reserved Licence number 100022432

	erground services are show	
advisable t	o check these details aga	
statutory a	uthority records before pr	
with any d	-	
	ition contained in this dro digital data) should be c	-
	or to any fabrication or	
	o-ordinates and levels ar	
	ipon the Ordnance Surve	у
REVISION	DESCRIPTION	DATE
M	ERIDI Land surveying	
M	ERIDI Land surveying	
M		
M		
	WEST HORSLEY PLACE	and design
EPSON	Land surveying	and design
EPSON	WEST HORSLEY PLACE	and design
EPSON Tel: 07948 6 CUSTOMER	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT: 503936 – Email: peter@meridi	and design
EPSON Tel: 07948 6	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT: 503936 – Email: peter@meridi	and design
EPSON Tel: 07948 6 CUSTOMER	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT: 503936 – Email: peter@meridi	and design
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT: 503936 – Email: peter@meridi	and design 24 6AW iansurvey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT: 503936 - Email: peter@meridi e LLP	and design 24 6AW iansurvey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT: 503936 – Email: peter@meridi	and design 24 6AW iansurvey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st DRAWING	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT: 503936 - Email: peter@meridi e LLP Watercourse, fl ructure fluvial m	and design 24 6AW iansurvey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT 503936 - Email: peter@meridi e LLP Watercourse, fl ructure fluvial m of structures a	and design 24 6AW iansurvey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT: 503936 - Email: peter@meridi e LLP Watercourse, fl ructure fluvial m	and design 24 6AW iansurvey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT 503936 - Email: peter@meridi e LLP Watercourse, fl ructure fluvial m of structures a	and design 24 6AW iansurvey.co.uk
EPSON Tel: 07948 d CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey cross-	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT 503936 - Email: peter@meridi e LLP Watercourse, fl ructure fluvial m of structures a sections - ER- DATE	and design 24 6AW iansurvey.co.uk
EPSON Tel: 07948 d CUSTOMER Manhird PROJECT Earnley and st DRAWING Survey cross— SCALE	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT 503936 - Email: peter@meridi e LLP Watercourse, fl ructure fluvial m of structures a sections - ER- DATE	and design 24 6AW iansurvey.co.uk loodplain hodelling nd D



<u>KEY</u>	
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid-point
Applies	to Arch, Culvert or Head Wall
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH	Fire hydrant
GY	Gulley
IC	Inspection cover
MH	Manhole
SMP	Service marker post
GSV	Gas stop valve
WSV	Water stop valve
DK	Drop kerb
EP	Electricity pole
KB	Kerb
OSBM	OS bench mark
RS	Road sign
TP	Telegraph pole
B/W	Barbed wire fence
C/B	Close boarded fence
C/L	Chain link fence
C/P	Chestnut paling fence
I/W	Interwoven fence
I/R	Iron railing
L/B	Lapboard fence
P/R	Post and rail fence
P/W	Post and wire fence
W/M	Wire mesh fence
RTW	Retaining wall
SSF	Steel security fence





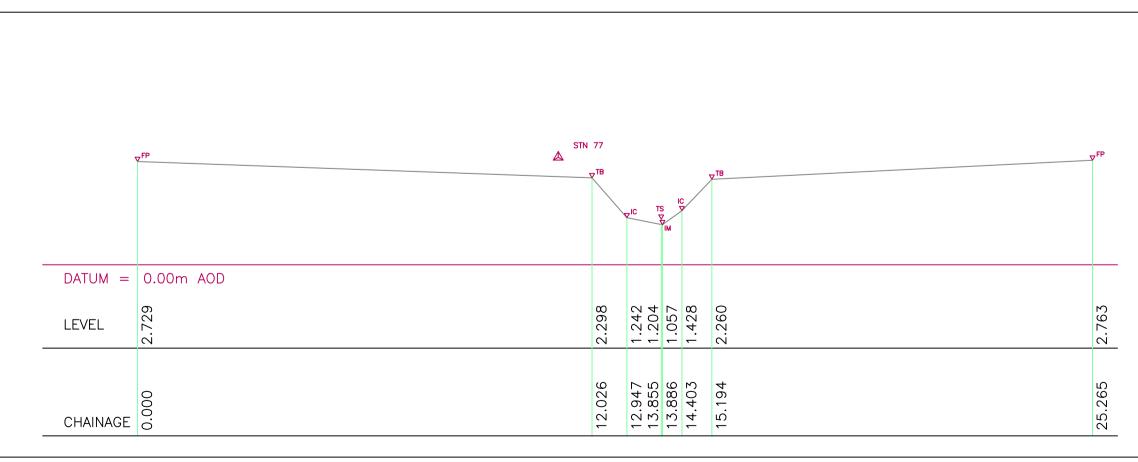


Notes		
	ground services are shown	it is
advisable to	check these details agains	t
statutory aut with any des	hority records before proce sign.	eeding
	-	
	on contained in this drawi gital data) should be cheo	-
verified prior	to any fabrication or co	nstruction.
	ordinates and levels are on the Ordnance Survey	based
up,		
REVISION	DESCRIPTION	DATE
M	ERIDIA Land surveying an	
M		
M		
	WEST HORSLEY PLACE	d design
EPSOM	Land surveying an	d design
EPSOM Tel: 07948 60.	WEST HORSLEY PLACE ROAD, WEST HORSLEY KT24	d design
EPSOM	WEST HORSLEY PLACE ROAD, WEST HORSLEY KT24	d design
EPSOM Tel: 07948 60.	WEST HORSLEY PLACE ROAD, WEST HORSLEY KT24 3936 - Email: peter@meridians	d design
EPSOM Tel: 07948 603 CUSTOMER Manhire	WEST HORSLEY PLACE ROAD, WEST HORSLEY KT24 3936 - Email: peter@meridians	d design
EPSOM Tel: 07948 603 CUSTOMER Manhire PROJECT	Land surveying an WEST HORSLEY PLACE ROAD, WEST HORSLEY KT24 3936 – Email: peter@meridians	6AW survey.co.uk
EPSOM Tel: 07948 603 CUSTOMER Manhire PROJECT	WEST HORSLEY PLACE ROAD, WEST HORSLEY KT24 3936 - Email: peter@meridians	6AW survey.co.uk
EPSOM Tel: 07948 603 CUSTOMER Manhire PROJECT Earnley	Land surveying an WEST HORSLEY PLACE ROAD, WEST HORSLEY KT24 3936 – Email: peter@meridians	6AW survey.co.uk
EPSOM Tel: 07948 603 CUSTOMER Manhire PROJECT Earnley	WEST HORSLEY PLACE ROAD, WEST HORSLEY KT24 3936 - Email: peter@meridians	6AW survey.co.uk
EPSOM Tel: 07948 603 CUSTOMER Manhire PROJECT Earnley and stru DRAWING	WEST HORSLEY PLACE ROAD, WEST HORSLEY KT24 3936 - Email: peter@meridians	6AW survey.co.uk
EPSOM Tel: 07948 60. CUSTOMER Manhire PROJECT Earnley and stru DRAWING Survey	WEST HORSLEY PLACE ROAD, WEST HORSLEY KT24 3936 - Email: peter@meridians LLP Watercourse, floo ucture fluvial mo of structures and	6AW survey.co.uk
EPSOM Tel: 07948 60. CUSTOMER Manhire PROJECT Earnley and stru DRAWING Survey	WEST HORSLEY PLACE ROAD, WEST HORSLEY KT24 3936 - Email: peter@meridians	6AW survey.co.uk
EPSOM Tel: 07948 60. CUSTOMER Manhire PROJECT Earnley and stru DRAWING Survey	WEST HORSLEY PLACE ROAD, WEST HORSLEY KT24 3936 - Email: peter@meridians LLP Watercourse, floo ucture fluvial mo of structures and	6AW survey.co.uk
EPSOM Tel: 07948 603 CUSTOMER Manhire PROJECT Earnley and stru DRAWING Survey cross—s	WEST HORSLEY PLACE ROAD, WEST HORSLEY KT24 3936 - Email: peter@meridians LLP Watercourse, floo ucture fluvial mo of structures and ections - ER-E DATE	6AW survey.co.uk
EPSOM Tel: 07948 60. CUSTOMER Manhire PROJECT Earnley and stru DRAWING Survey cross—s SCALE	WEST HORSLEY PLACE ROAD, WEST HORSLEY KT24 3936 - Email: peter@meridians LLP Watercourse, floo ucture fluvial mo of structures and ections - ER-E DATE	6AW survey.co.uk

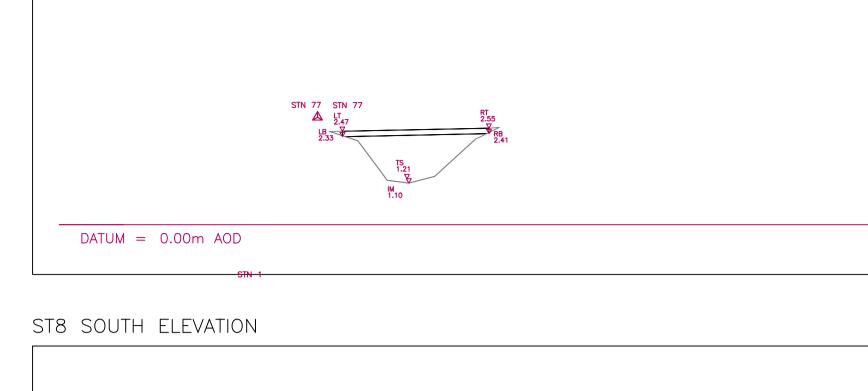


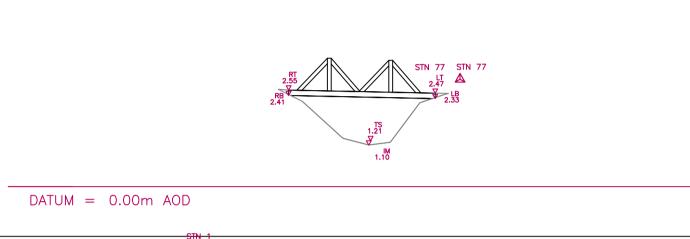
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid-point
Applies	to Arch, Culvert or Head Wall
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH	Fire hydrant
GY	Gulley
IC	Inspection cover
MH	Manhole
SMP	Service marker post
GSV	Gas stop valve
WSV	Water stop valve
DK	Drop kerb
EP	Electricity pole
KB	Kerb
OSBM	OS bench mark
RS	Road sign
TP	Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

ER6 - CROSS-SECTION



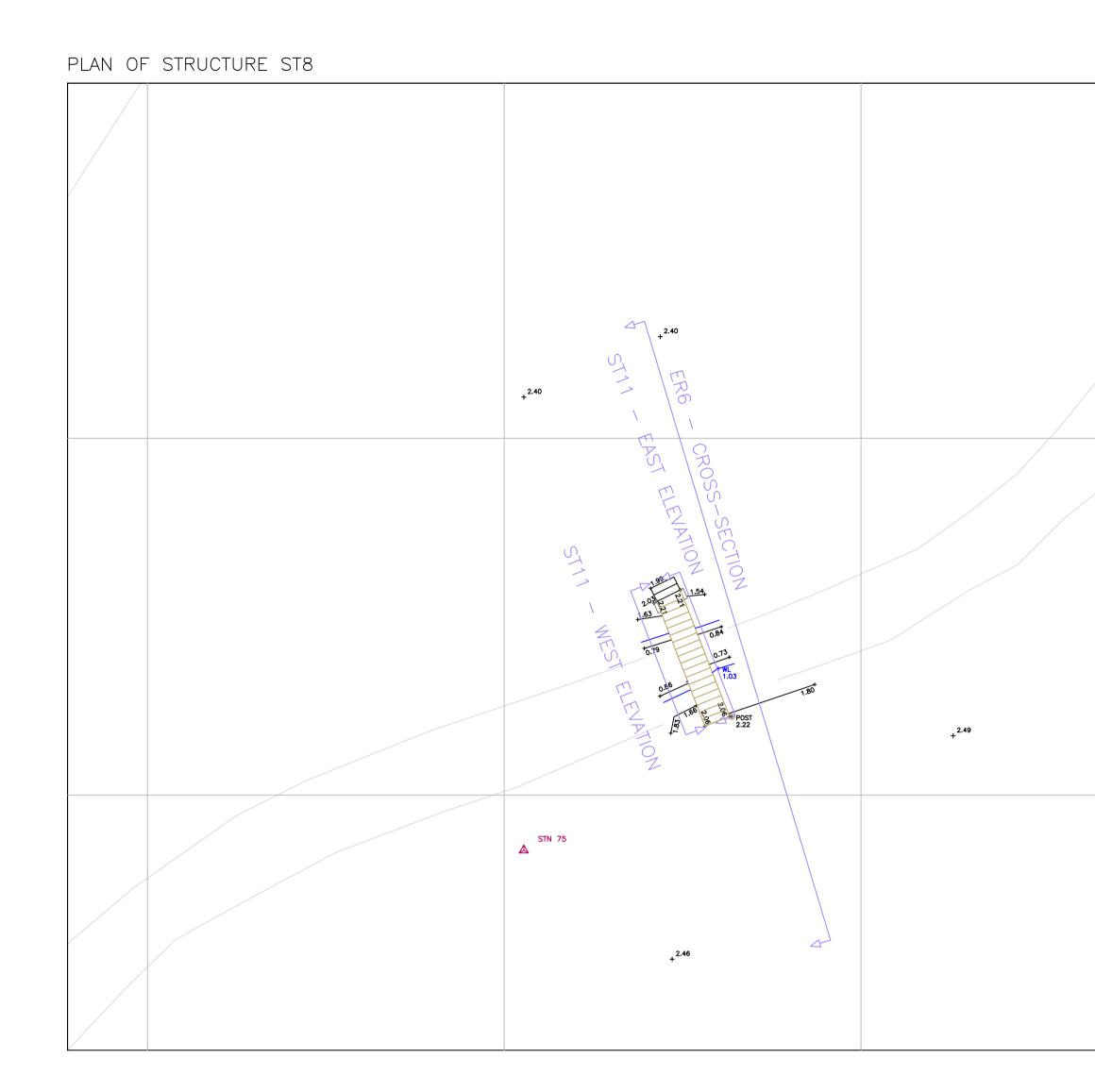






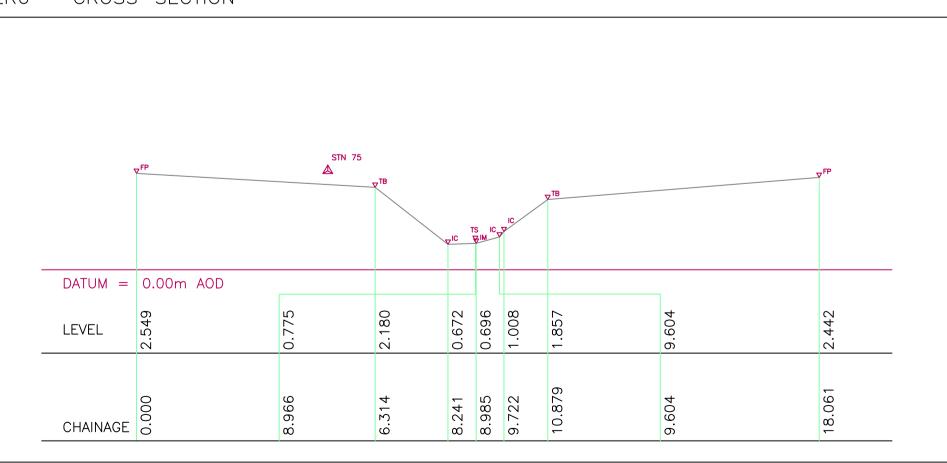


Notes			
	•	vices are shown	
		se details agains ords before proce	
with any d	-		5
All informo	ntion contain	ed in this drawi	ng
(including	digital data)	should be chec	ked and
verified pri	ior to any f	abrication or cor	nstruction.
		and levels are dnance Survey	based
		andrice Survey	
	l		1
REVISION	DESCRIPTIC	DN .	DATE
	L a	nd surveying and	d design
Γ			
FROM		RSLEY PLACE T HORSLEY KT24	6 A W
		nail: peter@meridians	
CUSTOMER			
Manhire	e LLP		
PROJECT			
Faralo	Water	ouroo flo	odolain
-		course, floo	
and st	ructure	fluvial mo	delling
DRAWING			
Survey	of stru	ictures and	4
		ictures and	d
		ictures and s — ER—F	Ŀ
			b
cross-	sections	s – ER–F	
Cross—	sections (A1)	5 — ER—F <u>date</u> 17/6/2	
cross- scale 1:100	sections (A1)	5 — ER—F <u>date</u> 17/6/2	2019

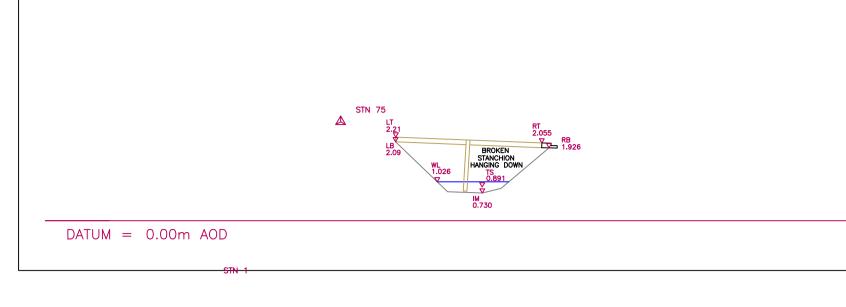


<u>KEY</u>	
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid-point
Applies	to Arch, Culvert or Head Wall
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH GY IC MH GSV WSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W	Barbed wire fence
C/B	Close boarded fence
C/L	Chain link fence
C/P	Chestnut paling fence
I/W	Interwoven fence
I/R	Iron railing
L/B	Lapboard fence
P/R	Post and rail fence
P/W	Post and wire fence
W/M	Wire mesh fence
RTW	Retaining wall
SSF	Steel security fence

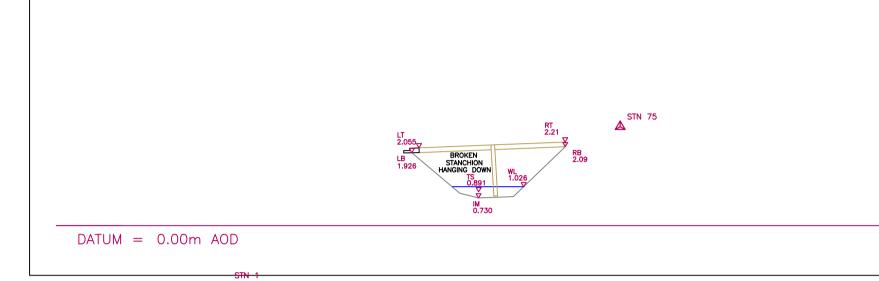
ER6 - CROSS-SECTION

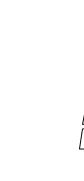






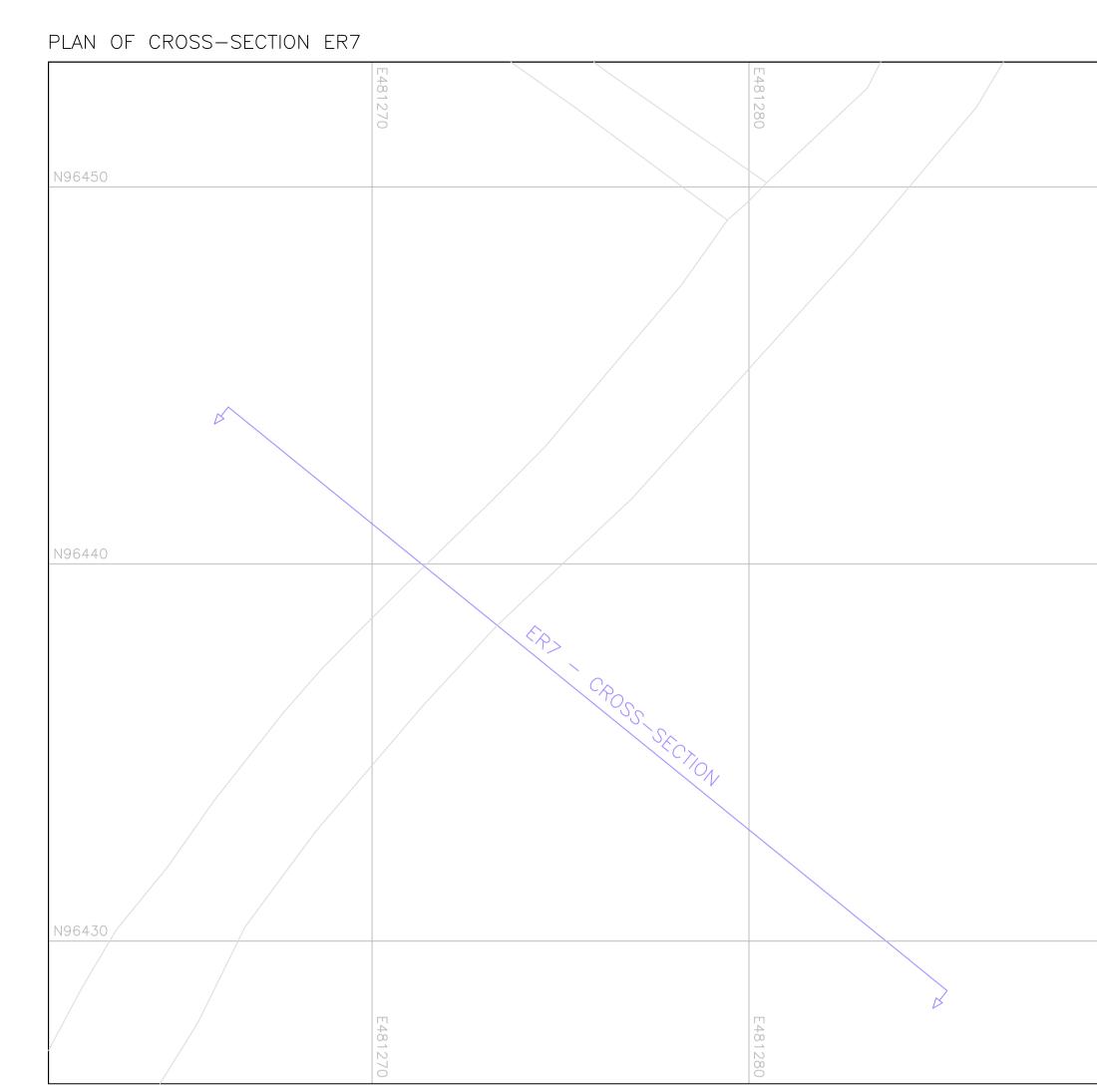






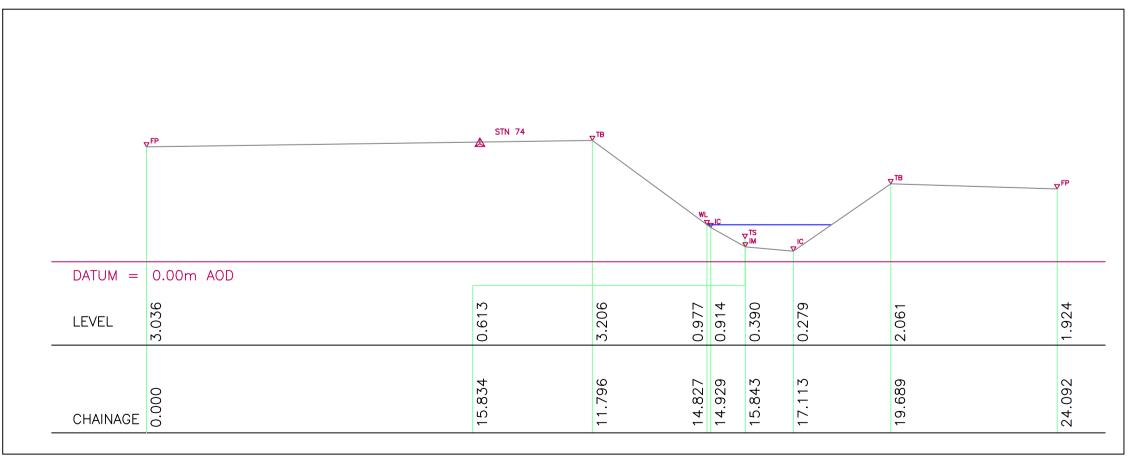
The Ordnance Survey element of this drawing is reproduced with permission. Crown copyright. All rights reserved Licence number 100022432

Where underground services are shown it advisable to check these details against statutory authority records before procee with any design.	
All information contained in this drawing (including digital data) should be check verified prior to any fabrication or cons	ed and
Grid co-ordinates and levels are bo upon the Ordnance Survey	sed
REVISION DESCRIPTION	DATE
MERIDIA Land surveying and	
WEST HORSLEY PLACE	
WEST HORSLEY PLACE EPSOM ROAD, WEST HORSLEY KT24 6 Tel: 07948 603936 – Email: peter@meridiansur	
EPSOM ROAD, WEST HORSLEY KT24 6	
EPSOM ROAD, WEST HORSLEY KT24 6 Tel: 07948 603936 — Email: peter@meridiansur	
EPSOM ROAD, WEST HORSLEY KT24 6 Tel: 07948 603936 — Email: peter@meridiansur CUSTOMER	
EPSOM ROAD, WEST HORSLEY KT24 6 Tel: 07948 603936 - Email: peter@meridiansur CUSTOMER Manhire LLP	vey.co.uk
EPSOM ROAD, WEST HORSLEY KT24 6 Tel: 07948 603936 - Email: peter@meridiansur CUSTOMER Manhire LLP PROJECT	dplain
EPSOM ROAD, WEST HORSLEY KT24 6 Tel: 07948 603936 - Email: peter@meridiansur CUSTOMER Manhire LLP PROJECT Earnley Watercourse, flood and structure fluvial mod DRAWING	dplain
EPSOM ROAD, WEST HORSLEY KT24 6 Tel: 07948 603936 - Email: peter@meridiansur CUSTOMER Manhire LLP PROJECT Earnley Watercourse, flood and structure fluvial mod DRAWING Survey of structures and	dplain
EPSOM ROAD, WEST HORSLEY KT24 6 Tel: 07948 603936 - Email: peter@meridiansur CUSTOMER Manhire LLP PROJECT Earnley Watercourse, flood and structure fluvial mod DRAWING Survey of structures and cross-sections - ER-G	dplain
EPSOM ROAD, WEST HORSLEY KT24 6 Tel: 07948 603936 - Email: peter@meridiansur CUSTOMER Manhire LLP PROJECT Earnley Watercourse, flood and structure fluvial mod DRAWING Survey of structures and cross-sections - ER-G SCALE DATE	dplain elling
EPSOM ROAD, WEST HORSLEY KT24 6 Tel: 07948 603936 - Email: peter@meridiansur CUSTOMER Manhire LLP PROJECT Earnley Watercourse, flood and structure fluvial mod DRAWING Survey of structures and cross-sections - ER-G	dplain elling



<u>KEY</u>	
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid-point
Applies to	Arch, Culvert or Head Wa
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH	Fire hydrant
GY	Gulley
IC	Inspection cover
MH	Manhole
SMP	Service marker post
GSV	Gas stop valve
WSV	Water stop valve
DK	Drop kerb
EP	Electricity pole
KB	Kerb
OSBM	OS bench mark
RS	Road sign
TP	Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

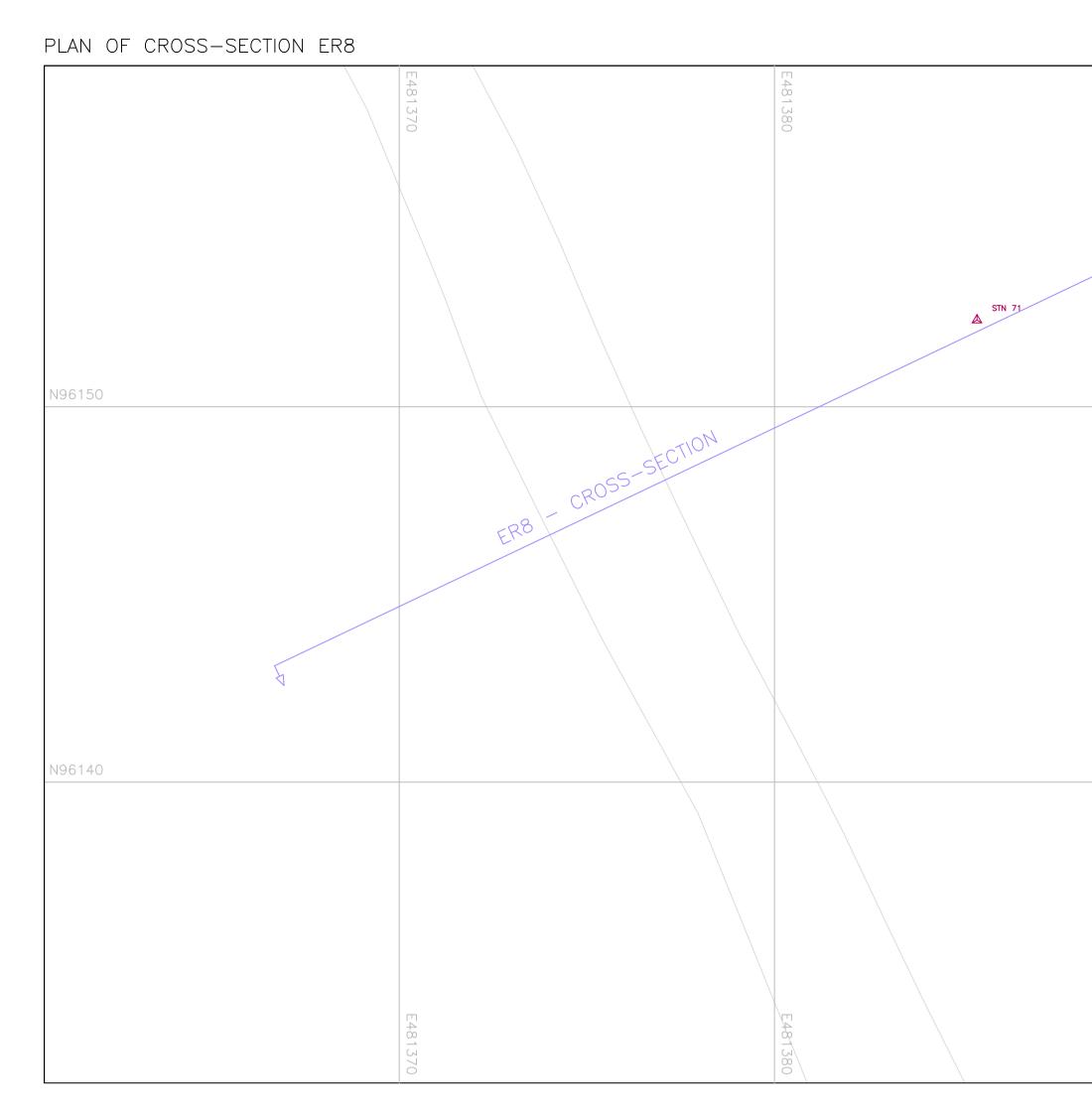




E481290	
	N96450
	N96440
	N96430
E481290	



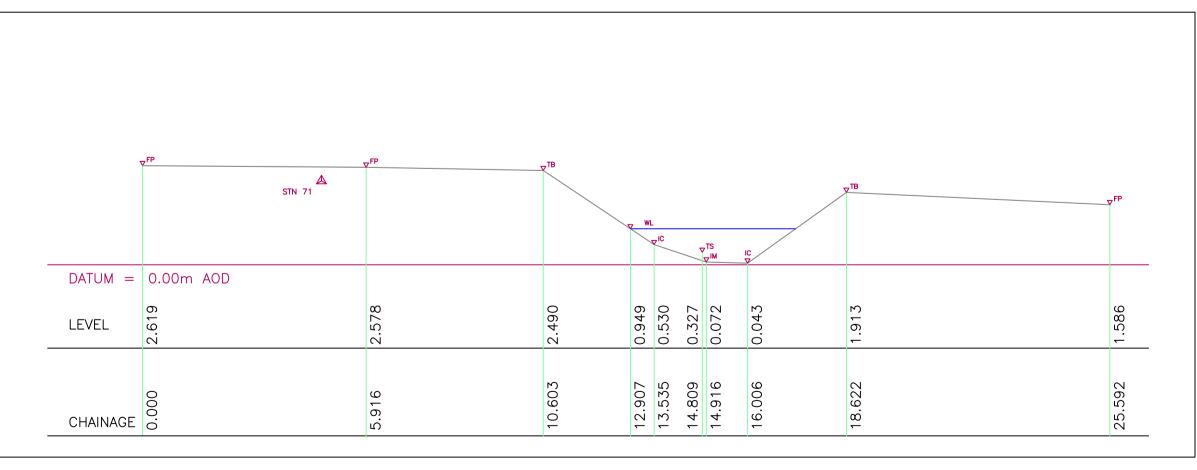
advisable t	erground services are shown o check these details agair uthority records before pro- esign.	nst
(including	ition contained in this draw digital data) should be ch or to any fabrication or c	ecked and
	-ordinates and levels are pon the Ordnance Survey	based
А	RH2 FP REINSTATED XYZ I	FILE 5/7/19
REVISION	DESCRIPTION	DATE
M	ERIDI	
M	ERIDIA Land surveying a	
	Land surveying a	
EPSON		nd design
EPSON	WEST HORSLEY PLACE	nd design
EPSON Tel: 07948	Land surveying a WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 – Email: peter@meridia	nd design
EPSON Tel: 07948 C CUSTOMER	Land surveying a WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 – Email: peter@meridia	nd design
EPSON Tel: 07948 d CUSTOMER Manhire PROJECT	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 – Email: peter@meridia	4 6AW nsurvey.co.uk
EPSON Tel: 07948 d CUSTOMER Manhire PROJECT Earnley	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 - Email: peter@meridia	4 6AW nsurvey.co.uk
EPSON Tel: 07948 CUSTOMER Manhire PROJECT Earnley and st	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 – Email: peter@meridia	4 6AW nsurvey.co.uk
EPSON Tel: 07948 of CUSTOMER Manhiro PROJECT Earnley and st DRAWING	VEST HORSLEY PLACE WEST HORSLEY PLACE A ROAD, WEST HORSLEY KT24 503936 - Email: peter@meridia e LLP Watercourse, floo ructure fluvial me	4 6AW nsurvey.co.uk
EPSON Tel: 07948 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 303936 - Email: peter@meridia e LLP w Watercourse, flo ructure fluvial mail of structures ar	4 6AW nsurvey.co.uk
EPSON Tel: 07948 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey	VEST HORSLEY PLACE WEST HORSLEY PLACE A ROAD, WEST HORSLEY KT24 503936 - Email: peter@meridia e LLP Watercourse, floo ructure fluvial me	4 6AW nsurvey.co.uk
EPSON Tel: 07948 d CUSTOMER Manhird PROJECT Earnley and st DRAWING Survey cross- SCALE	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 - Email: peter@meridia e LLP watercourse, floor ructure fluvial me of structures ar sections - ER-H DATE	4 6AW nsurvey.co.uk
EPSON Tel: 07948 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey cross	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 - Email: peter@meridia e LLP watercourse, floor ructure fluvial me of structures ar sections - ER-H DATE	4 6AW nsurvey.co.uk
EPSON Tel: 07948 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey cross- SCALE	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 - Email: peter@meridia e LLP watercourse, floor ructure fluvial me of structures ar sections - ER-H DATE	4 6AW nsurvey.co.uk



K	ΕY
<u> </u>	

FPFlood PlainBBBottom of BankTBTop of BankWLWater LineICIn ChannelIMIn Channel mid-pointApplies to Arch, Culvert or Head WallSLSoffit LevelLTLeft TopRTRight TopLBLeft BottomRBRight BottomBLBase LevelILInvert LevelTSTop of SiltFHFire hydrantGYGulleyICInspection coverMHManholeSMPService marker postGSVGas stop valveWSVWater stop valveDKDrop kerbEPElectricity poleKBKerbOSBMOS bench markRSRoad signTPTelegraph poleB/WBarbed wire fenceC/LChain link fenceC/PChestnut paling fenceI/WInterwoven fenceI/RIron railingL/BLapboard fenceP/WPost and rail fenceP/WPost and wire fenceRTWRetaining wallSSFSteel security fence	<u>KEY</u>	
SLSoffit LevelLTLeft TopRTRight TopLBLeft BottomRBRight BottomBLBase LevelILInvert LevelTSTop of SiltFHFire hydrantGYGulleyICInspection coverMHManholeSMPService marker postGSVGas stop valveWSVWater stop valveDKDrop kerbEPElectricity poleKBKerbOSBMOS bench markRSRoad signTPTelegraph poleB/WBarbed wire fenceC/LChain link fenceC/PChestnut paling fenceI/WInterwoven fenceI/RIron railingL/BLapboard fenceP/WPost and rail fenceP/WPost and wire fenceRTWRetaining wall	BB TB WL IC	Bottom of Bank Top of Bank Water Line In Channel
GYGulleyICInspection coverMHManholeSMPService marker postGSVGas stop valveWSVWater stop valveDKDrop kerbEPElectricity poleKBKerbOSBMOS bench markRSRoad signTPTelegraph poleB/WBarbed wire fenceC/BClose boarded fenceC/LChain link fenceC/PChestnut paling fenceI/WInterwoven fenceI/RIron railingL/BLapboard fenceP/WPost and wire fenceW/MWire mesh fenceRTWRetaining wall	SL LT RT LB RB BL IL	Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level
C/BClose boarded fenceC/LChain link fenceC/PChestnut paling fenceI/WInterwoven fenceI/RIron railingL/BLapboard fenceP/RPost and rail fenceP/WPost and wire fenceW/MWire mesh fenceRTWRetaining wall	GY IC MH SMP GSV WSV DK EP KB OSBM RS	Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign
RTW Retaining wall	C/B C/L I/W I/R L/B P/R P/W	Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence
	RTW	Retaining wall

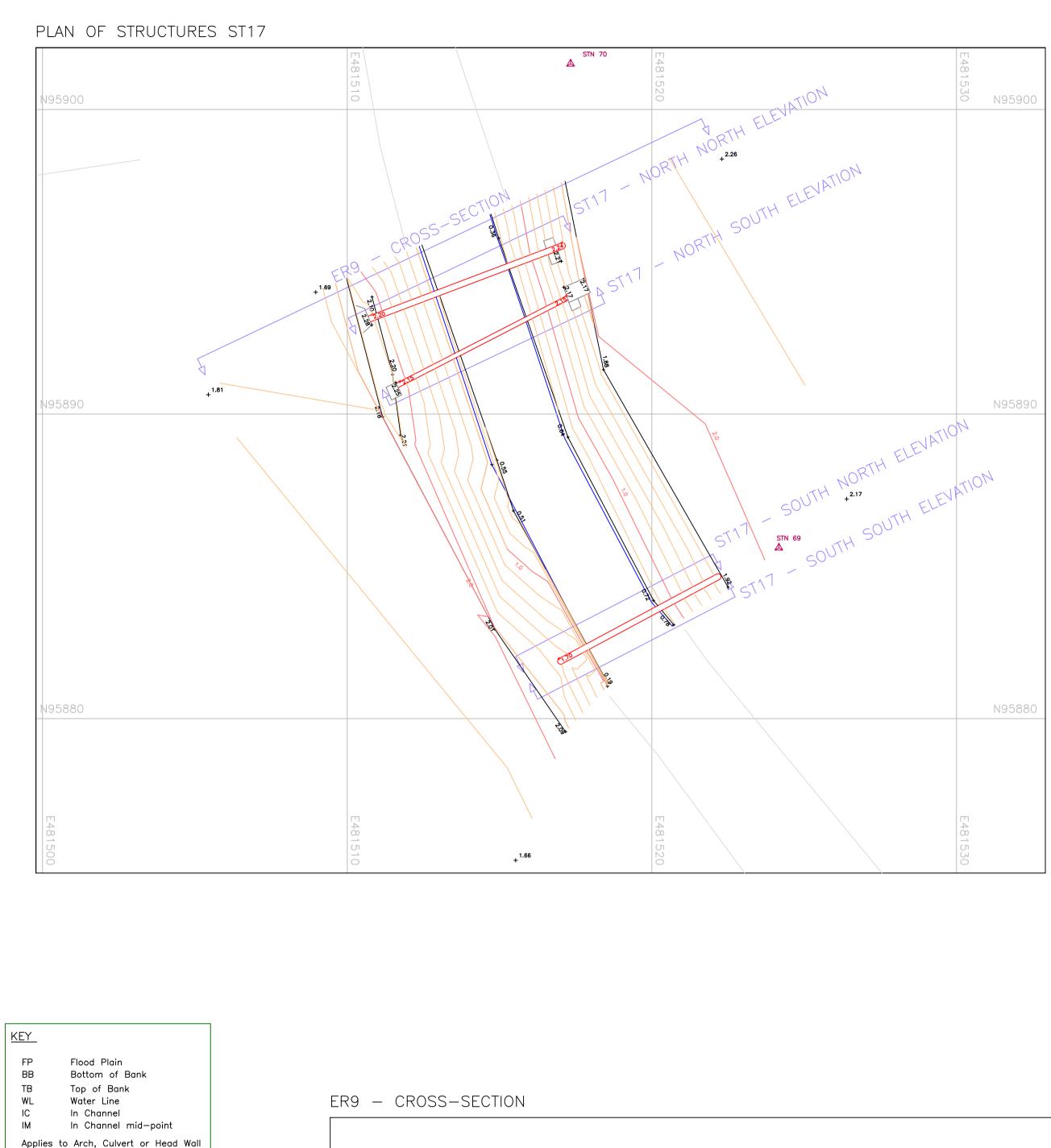
ER8	_	CROSS-SECTION

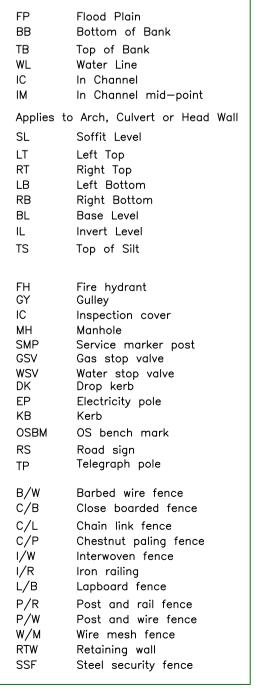


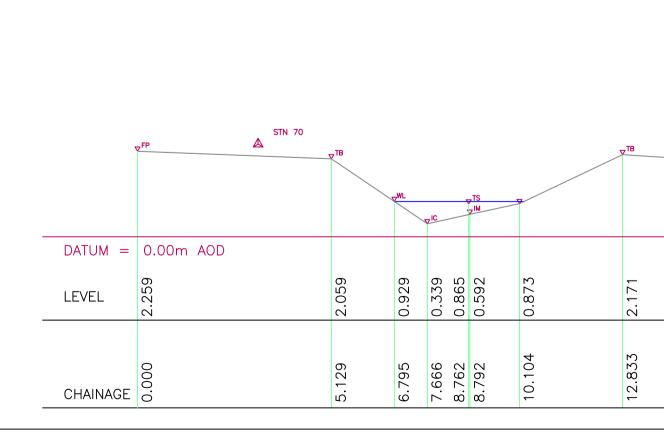
	E481390	
7	1	
		N96150
		N96140
	E481390	
	<u> </u>	

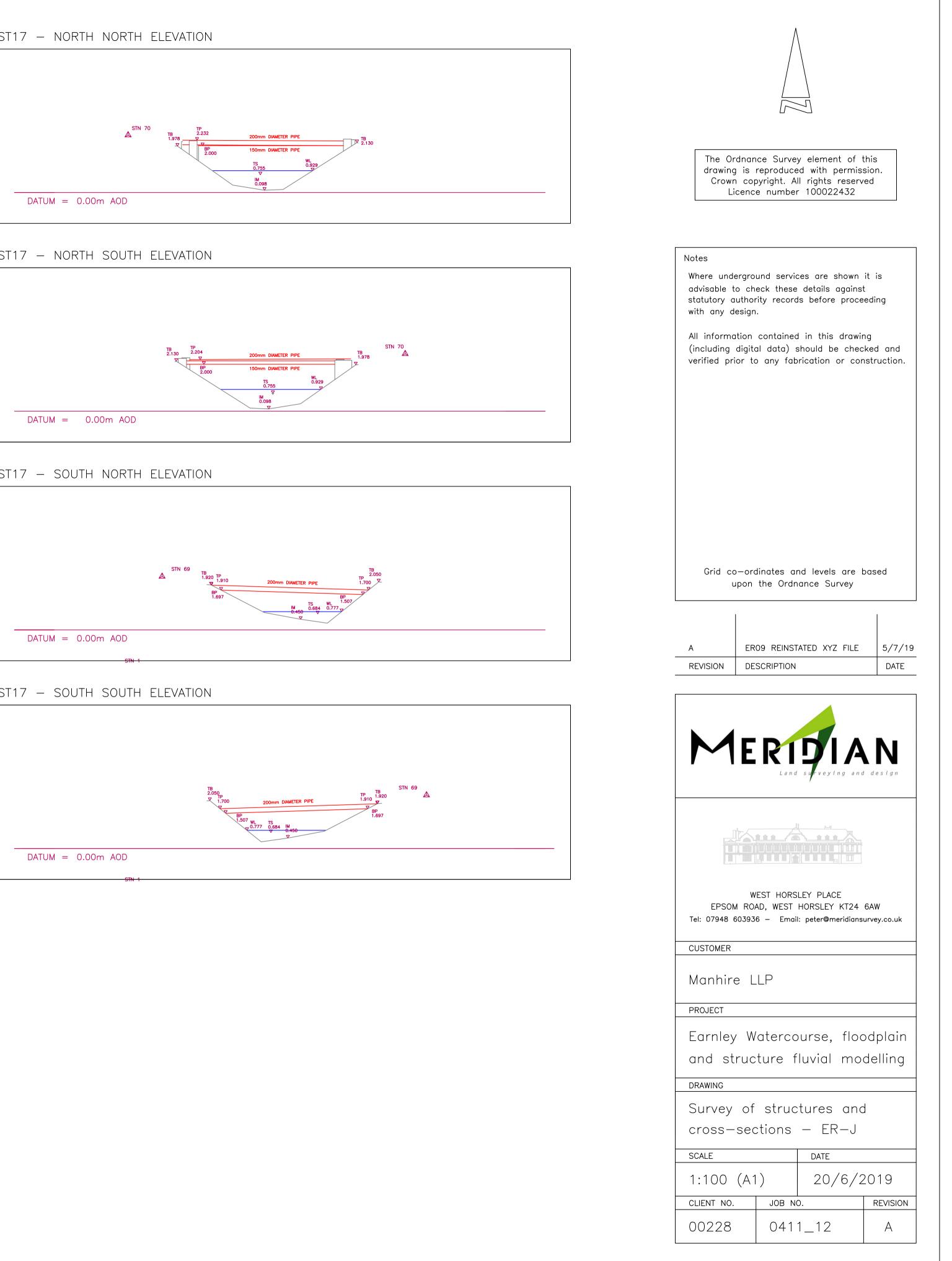


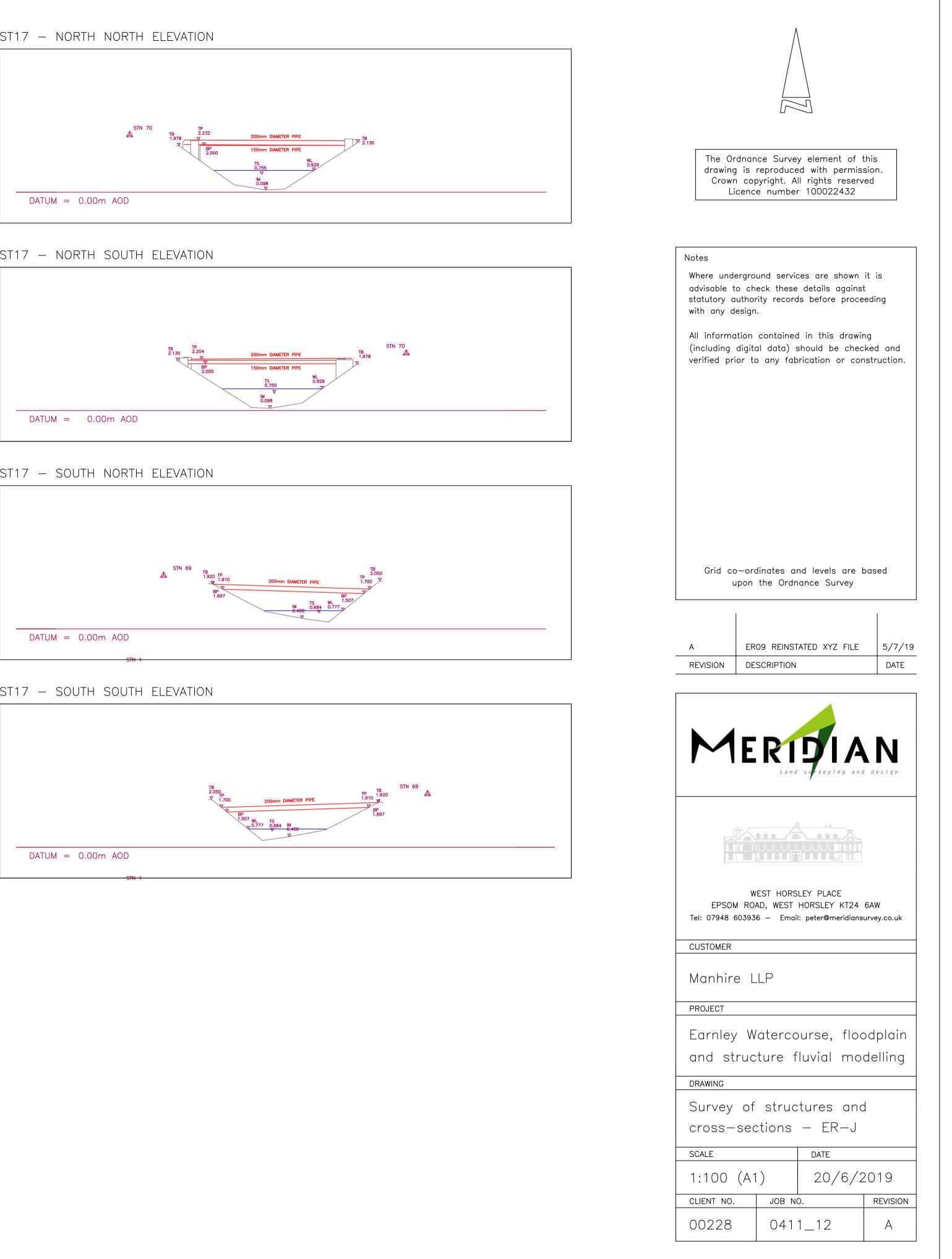
Notes		
advisable	erground services are shown to check these details agains authority records before proc lesign.	st
All informo	ation contained in this draw digital data) should be che ior to any fabrication or co	cked and
	p—ordinates and levels are upon the Ordnance Survey	based
REVISION	DESCRIPTION	DATE
M	ERIDIA Land surveying an	
M		
	Land surveying an	d design
EPSO Tel: 07948	Land surveying an	d design
EPSO	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24	d design
EPSO Tel: 07948	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian	d design
EPSOI Tel: 07948 CUSTOMER	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian	d design
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridians e LLP / Watercourse, flo	6AW survey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian:	6AW survey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridians e LLP / Watercourse, flo	6AW survey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey	WEST HORSLEY PLACE WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 - Email: peter@meridian: e LLP / Watercourse, flo ructure fluvial mo of structures and	6AW survey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey cross-	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 - Email: peter@meridian: e LLP / Watercourse, flo ructure fluvial mo of structures and sections - ER-I	6AW survey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey cross- SCALE	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 - Email: peter@meridians e LLP / Watercourse, flo ructure fluvial mo of structures and sections - ER-1 DATE	6AW survey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey cross-	WEST HORSLEY PLACE WEST HORSLEY PLACE WROAD, WEST HORSLEY KT24 603936 - Email: peter@meridian: e LLP Watercourse, flo ructure fluvial mc of structures and sections - ER-1 DATE (A1) 19/6/2	6AW survey.co.uk

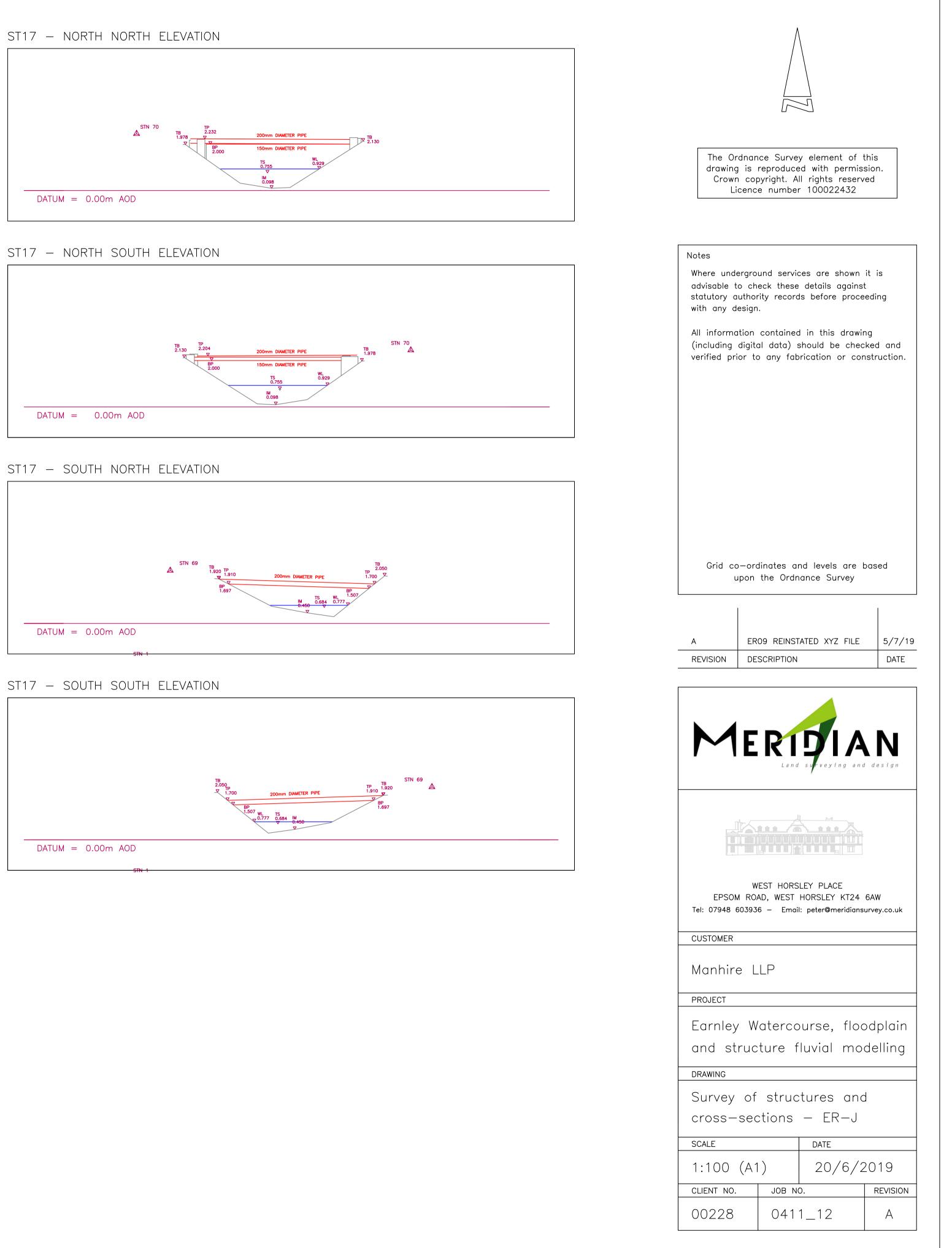


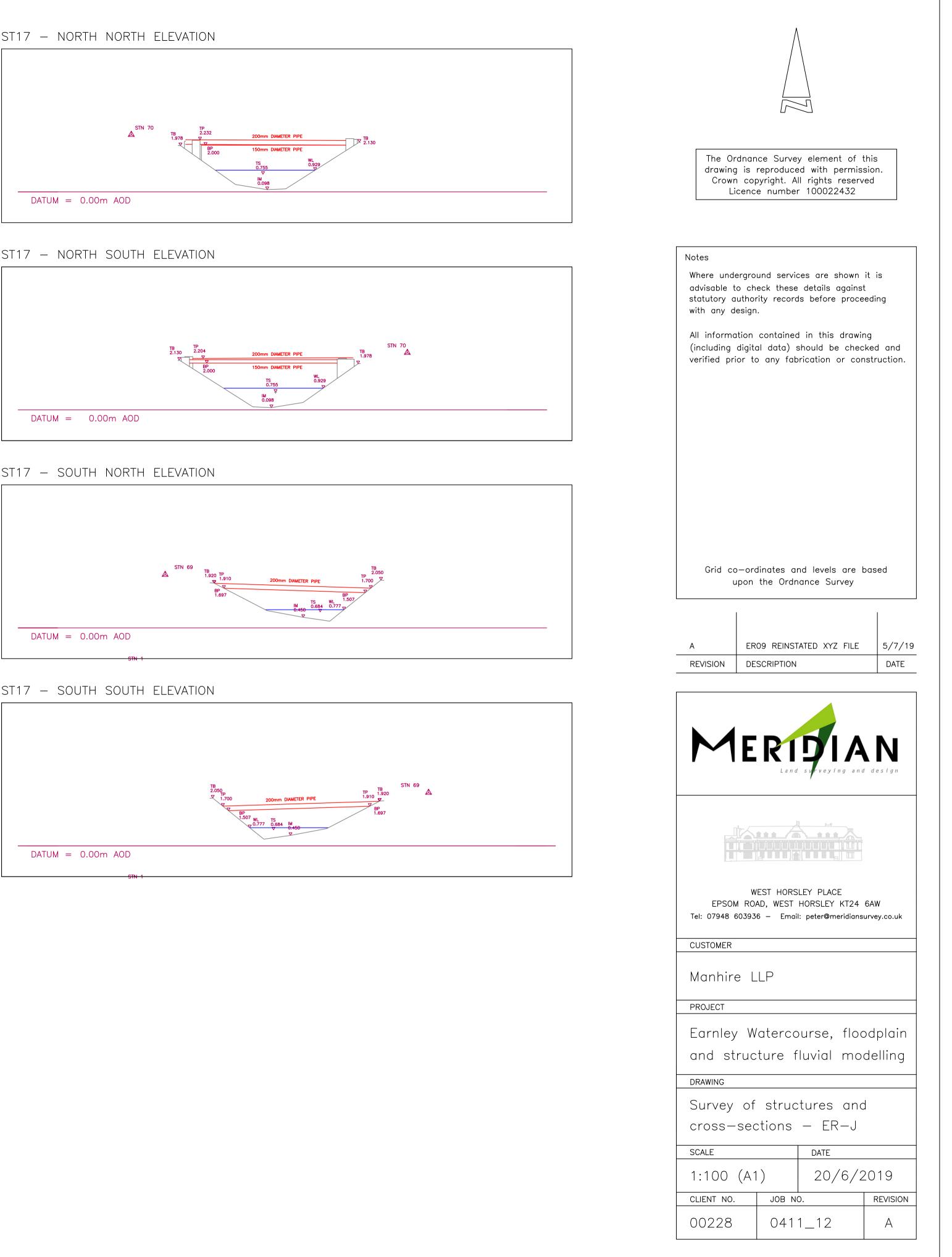


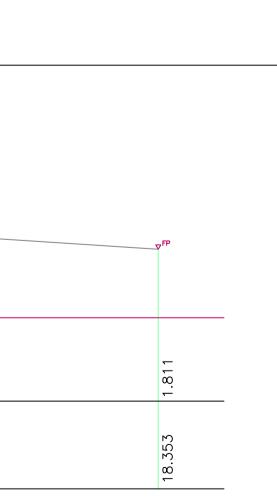


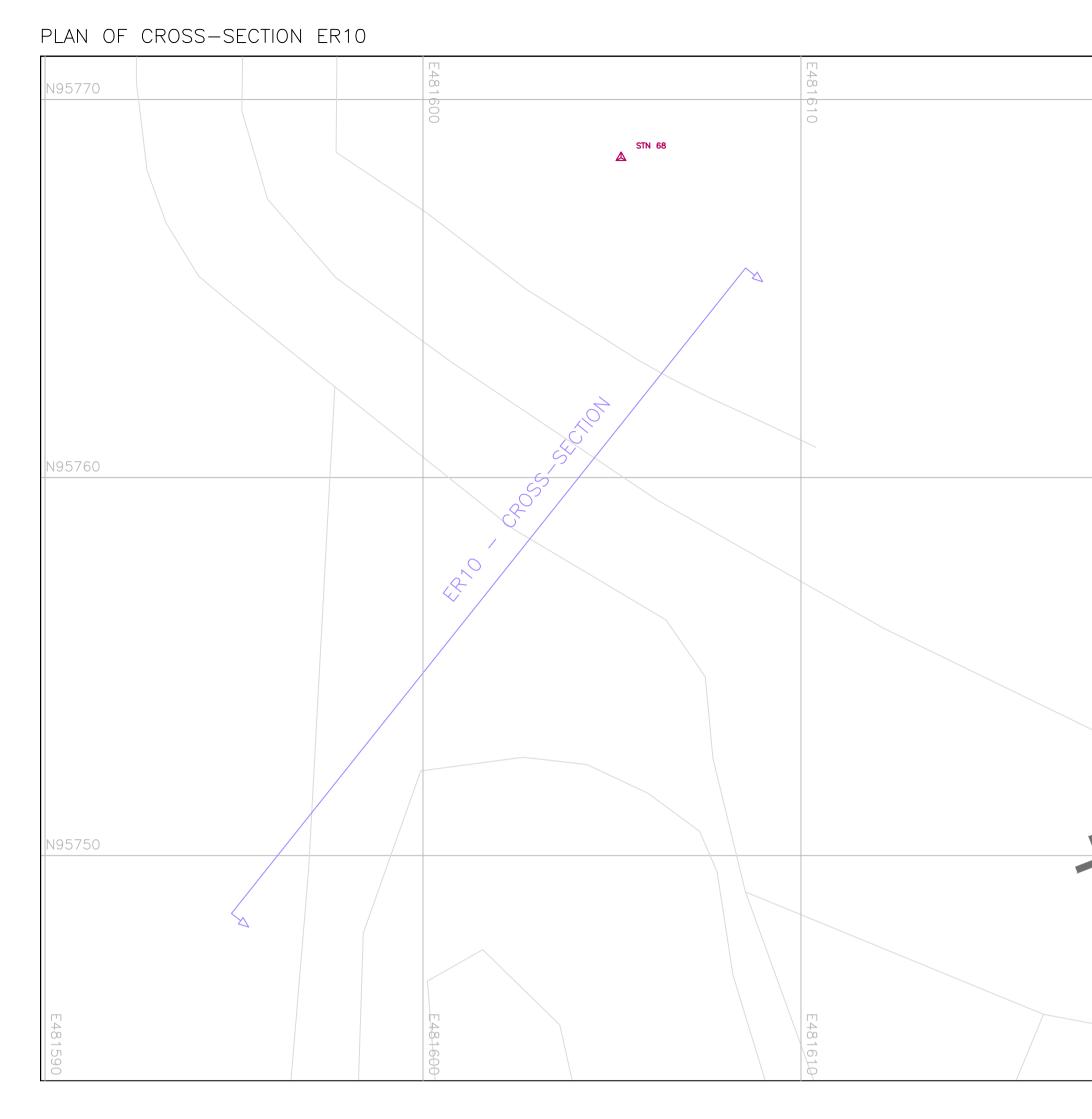






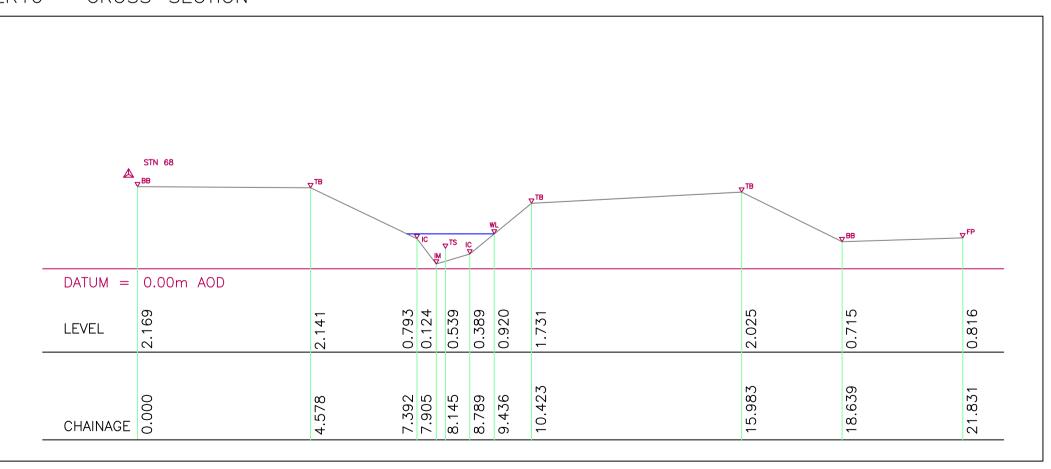


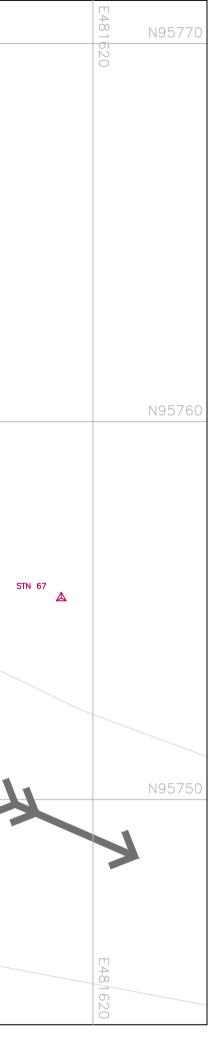




<u>NLI</u>	
FP BB TB WL IC IM	Flood Plain Bottom of Bank Top of Bank Water Line In Channel In Channel mid-point
Applies SL LT RT LB RB BL IL TS	to Arch, Culvert or Head Wall Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level Top of Silt
FH GY IC MH SMP GSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

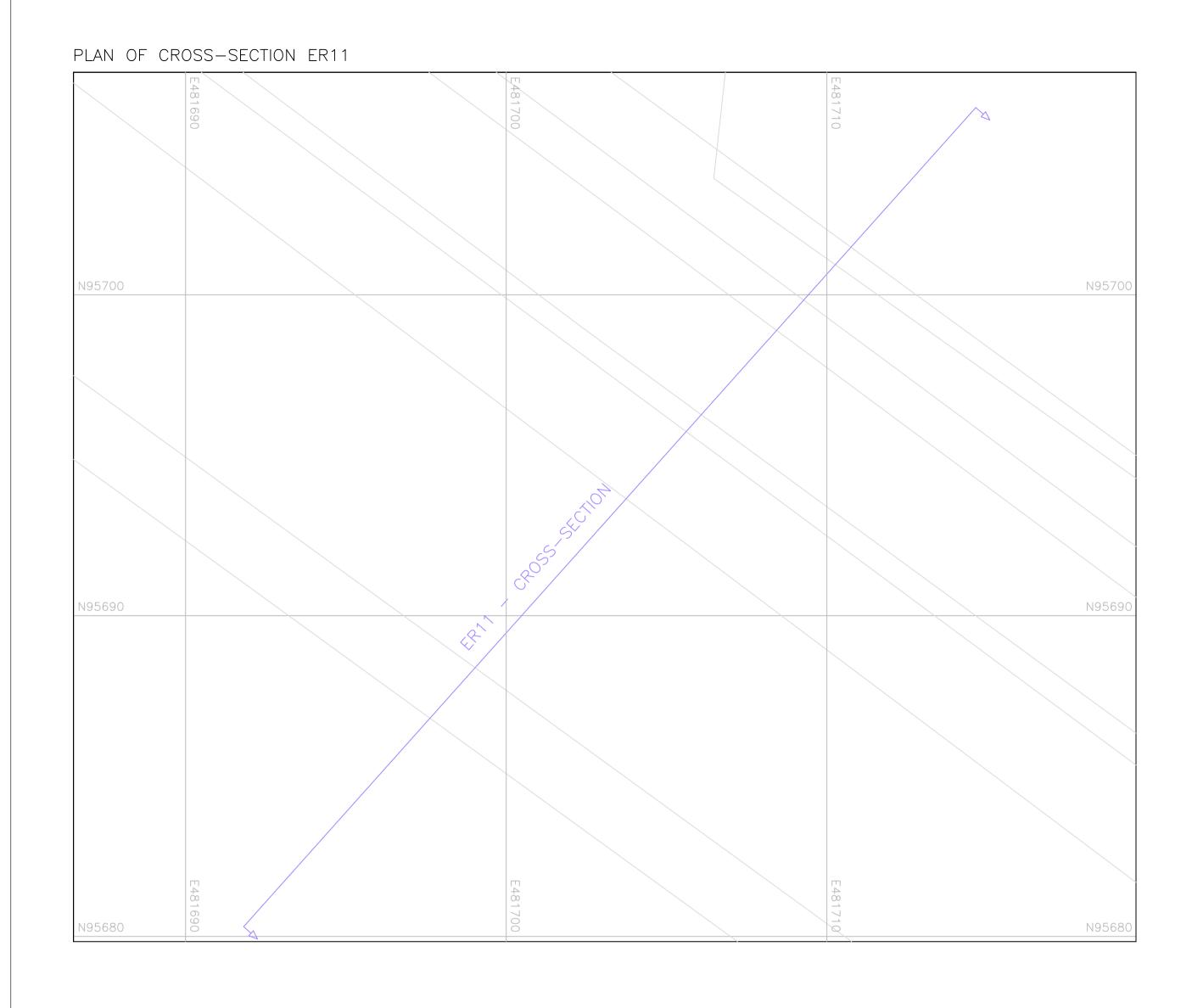
ER10 - CROSS-SECTION





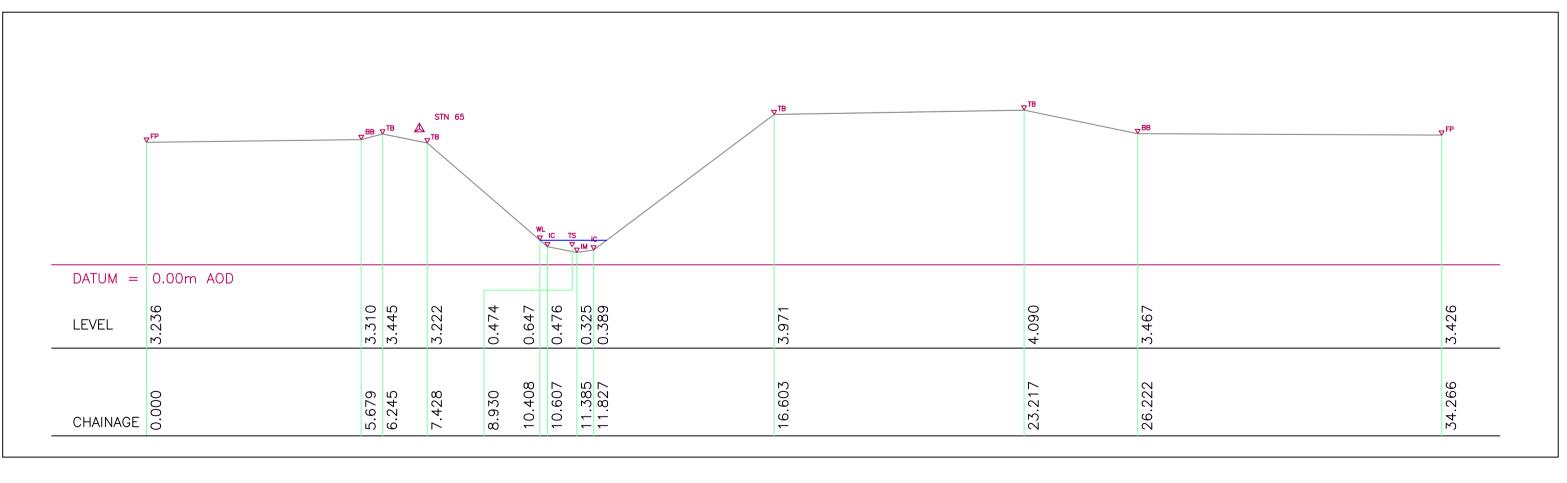


Notes			
	-	ervices are shown nese details against	
		cords before proce	
with any c	esign.		
All inform	ntion conto	iined in this drawir	na
		a) should be chec	-
	•	fabrication or cor	
Grid c	o-ordinate:	s and levels are b	based
	upon the (Ordnance Survey	
			DATE
REVISION	DESCRIPT	HUN	DATE
M		1DIA	
M		Land surveying and	
M			
M			
M			
	WEST H	ORSLEY PLACE	l design
EPSO	WEST H M ROAD, WE	ORSLEY PLACE	design 6AW
EPSO	WEST H M ROAD, WE	ORSLEY PLACE	design 6AW
EPSO	WEST H M ROAD, WE	ORSLEY PLACE	design 6AW
EPSO Tel: 07948 CUSTOMER	WEST H M ROAD, WE 603936 -	ORSLEY PLACE	design 6AW
EPSO Tel: 07948	WEST H M ROAD, WE 603936 -	NORSLEY PLACE	design 6AW
EPSO Tel: 07948 CUSTOMER	WEST H M ROAD, WE 603936 -	NORSLEY PLACE	design 6AW
EPSO Tel: 07948 CUSTOMER Manhir PROJECT	WEST H M ROAD, WE 603936 – e LLP	ORSLEY PLACE EST HORSLEY KT24 Email: peter@meridians	6AW urvey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley	WEST H M ROAD, WE 603936 - H e LLP / Water	ORSLEY PLACE EST HORSLEY KT24 Email: peter@meridians	6AW urvey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley	WEST H M ROAD, WE 603936 - H e LLP / Water	ORSLEY PLACE EST HORSLEY KT24 Email: peter@meridians	6AW urvey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley	WEST H M ROAD, WE 603936 - H e LLP / Water	ORSLEY PLACE EST HORSLEY KT24 Email: peter@meridians	6AW urvey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING	WEST H M ROAD, WE 603936 - e LLP / Water ructure	PORSLEY PLACE EST HORSLEY KT24 Email: peter@meridians	6AW urvey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey	WEST H M ROAD, WE 603936 - e LLP / Water ructure of str	PORSLEY PLACE EST HORSLEY KT24 Email: peter@meridians	6AW urvey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey	WEST H M ROAD, WE 603936 - e LLP / Water ructure of str	PORSLEY PLACE EST HORSLEY KT24 Email: peter@meridians	6AW urvey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey	WEST H M ROAD, WE 603936 - e LLP / Water ructure of str	PORSLEY PLACE EST HORSLEY KT24 Email: peter@meridians	6AW urvey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey cross-	WEST H M ROAD, WE 603936 - e LLP / Water ructure of str section	PORSLEY PLACE EST HORSLEY KT24 Email: peter@meridians rcourse, floc e fluvial mod	6AW urvey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey cross- SCALE 1:100	WEST H M ROAD, WE 603936 - e LLP / Water ructure of str section (A1)	PORSLEY PLACE EST HORSLEY KT24 Emoil: peter@meridians course, floc e fluvial mode fuctures and ns - ER-K DATE 20/6/2	6AW urvey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey Cross- SCALE	west H M ROAD, WE 603936 - M e LLP / Water ructure of str section (A1)	PORSLEY PLACE EST HORSLEY KT24 Email: peter@meridians	6AW urvey.co.uk



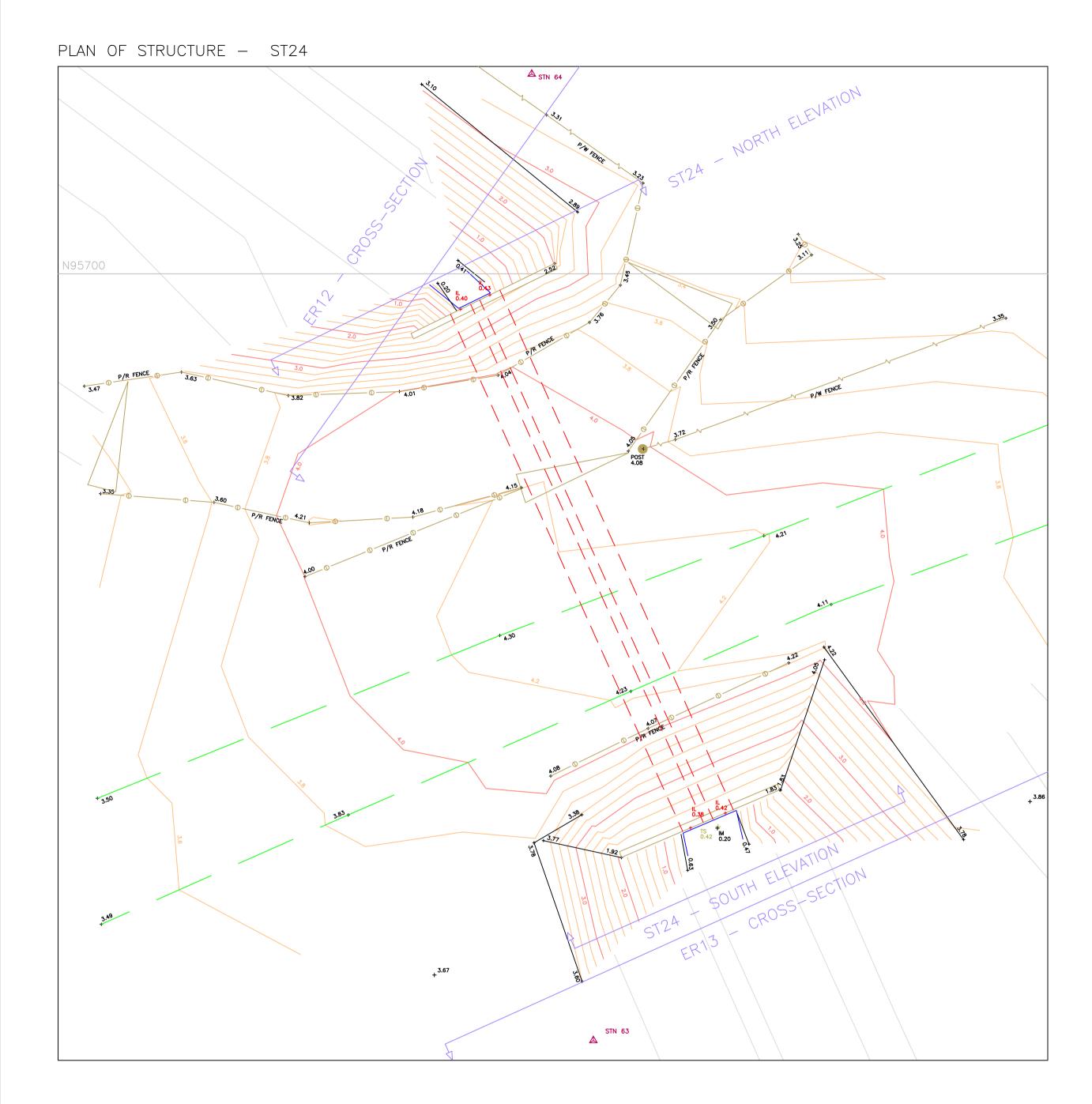
FP BB TB WL IC IM	Flood Plain Bottom of Bank Top of Bank Water Line In Channel In Channel mid-point
Applies SL LT RT LB RB BL IL TS	to Arch, Culvert or Head Wall Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level Top of Silt
FH GY IC MH GSV WSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

ER11 - CROSS-SECTION

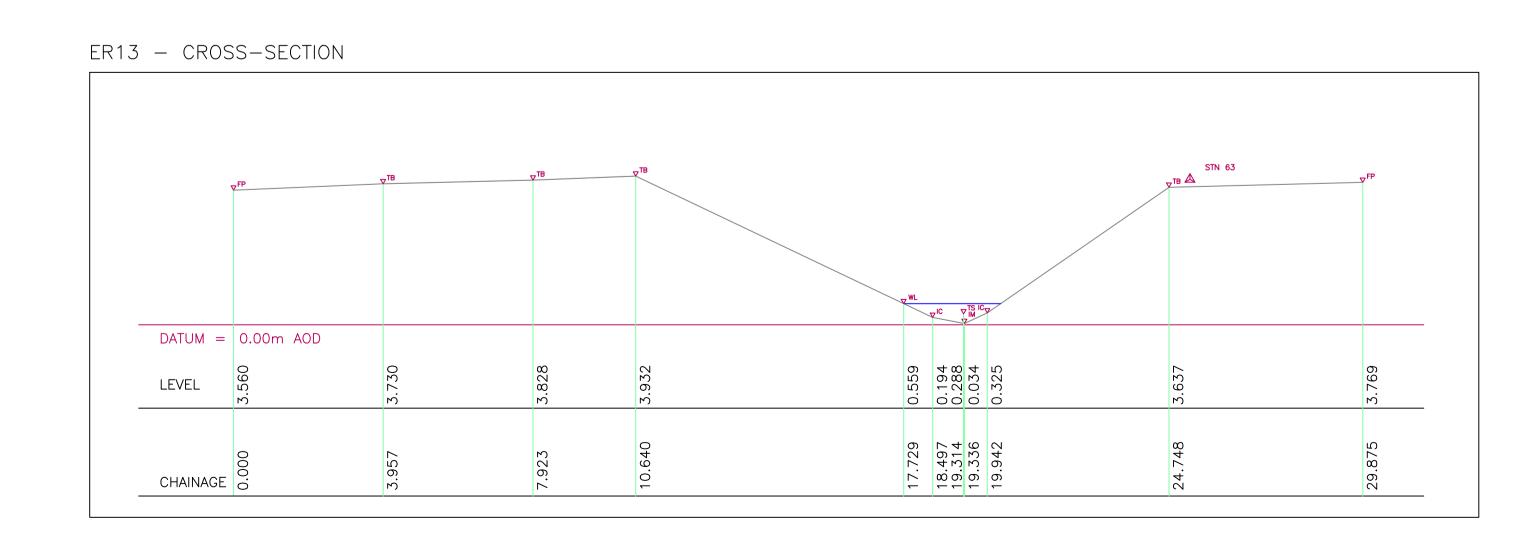




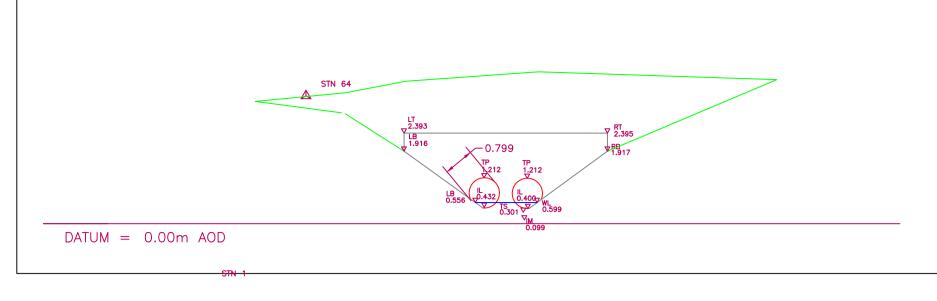
Notes			
	raround ser	vices are shown	it is
advisable to	check the	se details agains	st
statutory a with any de	-	rds before proce	eeding
All informa	tion contain	ed in this drawi	na
		should be chea	-
verified pri-	or to any fo	abrication or co	nstruction.
	-ordinata-	and levels are	based
		and levels are dnance Survey	nasea
REVISION	DESCRIPTIC	N	DATE
M			
M		nd surveying an	
M			
M			
M			
	La	nd surveying an	
EPSOM	WEST HOF ROAD, WES	nd surveying an RSLEY PLACE T HORSLEY KT24	d design 6AW
EPSOM	WEST HOF ROAD, WES	nd surveying an	d design 6AW
EPSOM	WEST HOF ROAD, WES	nd surveying an RSLEY PLACE T HORSLEY KT24	d design 6AW
EPSOM Tel: 07948 6 CUSTOMER	WEST HOF ROAD, WES 03936 – Em	nd surveying an RSLEY PLACE T HORSLEY KT24	d design 6AW
EPSOM Tel: 07948 6	WEST HOF ROAD, WES 03936 – Em	nd surveying an RSLEY PLACE T HORSLEY KT24	d design 6AW
EPSOM Tel: 07948 6 CUSTOMER	WEST HOF ROAD, WES 03936 – Em	nd surveying an RSLEY PLACE T HORSLEY KT24	d design 6AW
EPSOM Tel: 07948 6 CUSTOMER Manhire PROJECT	WEST HOF ROAD, WES 03936 – Em	RSLEY PLACE T HORSLEY KT24 hail: peter@meridians	d design 6AW survey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley	WEST HOF ROAD, WES 03936 - Em e LLP Watero	RSLEY PLACE T HORSLEY KT24 hail: peter@meridians	6AW survey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley	WEST HOF ROAD, WES 03936 - Em e LLP Watero	RSLEY PLACE T HORSLEY KT24 hail: peter@meridians	6AW survey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley	WEST HOF ROAD, WES 03936 - Em e LLP Watero	RSLEY PLACE T HORSLEY KT24 hail: peter@meridians	6AW survey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and stu DRAWING	WEST HOF ROAD, WES 03936 - Em e LLP Waterco ructure	RSLEY PLACE T HORSLEY KT24 hail: peter@meridians	6AW survey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and stu DRAWING Survey	west Hop ROAD, Wes 03936 - Em e LLP Watero ructure of stru	RSLEY PLACE T HORSLEY KT24 hail: peter@meridians	6AW survey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and stu DRAWING Survey	west Hop ROAD, Wes 03936 - Em e LLP Watero ructure of stru	RSLEY PLACE T HORSLEY KT24 hail: peter@meridians course, floo fluvial mo ctures and s - ER-L	6AW survey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and sta DRAWING Survey cross— SCALE	west hop ROAD, west 03936 - Em e LLP Waterco ructure of stru sections	RSLEY PLACE T HORSLEY KT24 mail: peter@meridians course, floo fluvial mo ctures and course and course and	6AW survey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and sti DRAWING Survey cross- SCALE 1:100	WEST HOF ROAD, WES 03936 - Em e LLP Waterc ructure of stru sections (A1)	RSLEY PLACE T HORSLEY KT24 mail: peter@meridians course, floo fluvial mo ctures and ctures and call and ctures and bate 20/6/2	6AW survey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and sta DRAWING Survey cross— SCALE	west hop ROAD, west 03936 - Em e LLP Waterco ructure of stru sections	RSLEY PLACE T HORSLEY KT24 mail: peter@meridians course, floo fluvial mo ctures and ctures and call and ctures and bate 20/6/2	6AW survey.co.uk



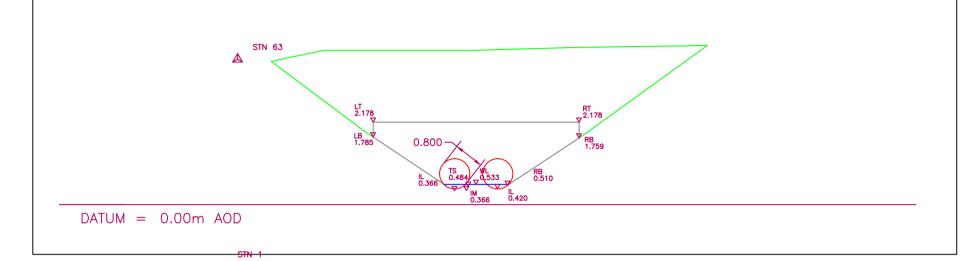
<u>KEY</u>	
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid-point
Applies to	Arch, Culvert or Head Wall
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH GY IC MH GSV WSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W	Barbed wire fence
C/B	Close boarded fence
C/L	Chain link fence
C/P	Chestnut paling fence
P/R	Post and rail fence



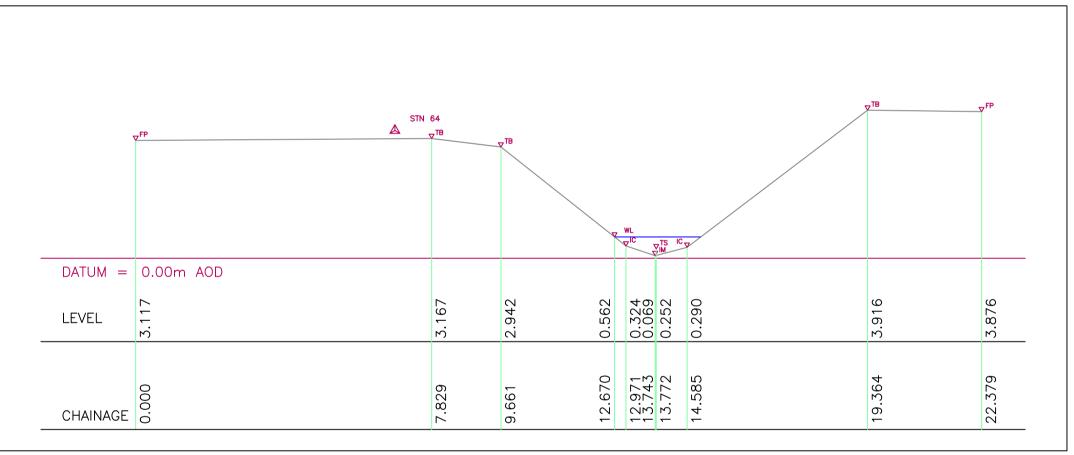
ST24 – NORTH ELEVATION



ST24 – SOUTH ELEVATION



ER12 - CROSS-SECTION





The Ordnance Survey element of this drawing is reproduced with permission. Crown copyright. All rights reserved Licence number 100022432

Notes

Where underground services are shown it is advisable to check these details against statutory authority records before proceeding with any design.

All information contained in this drawing (including digital data) should be checked and verified prior to any fabrication or construction.

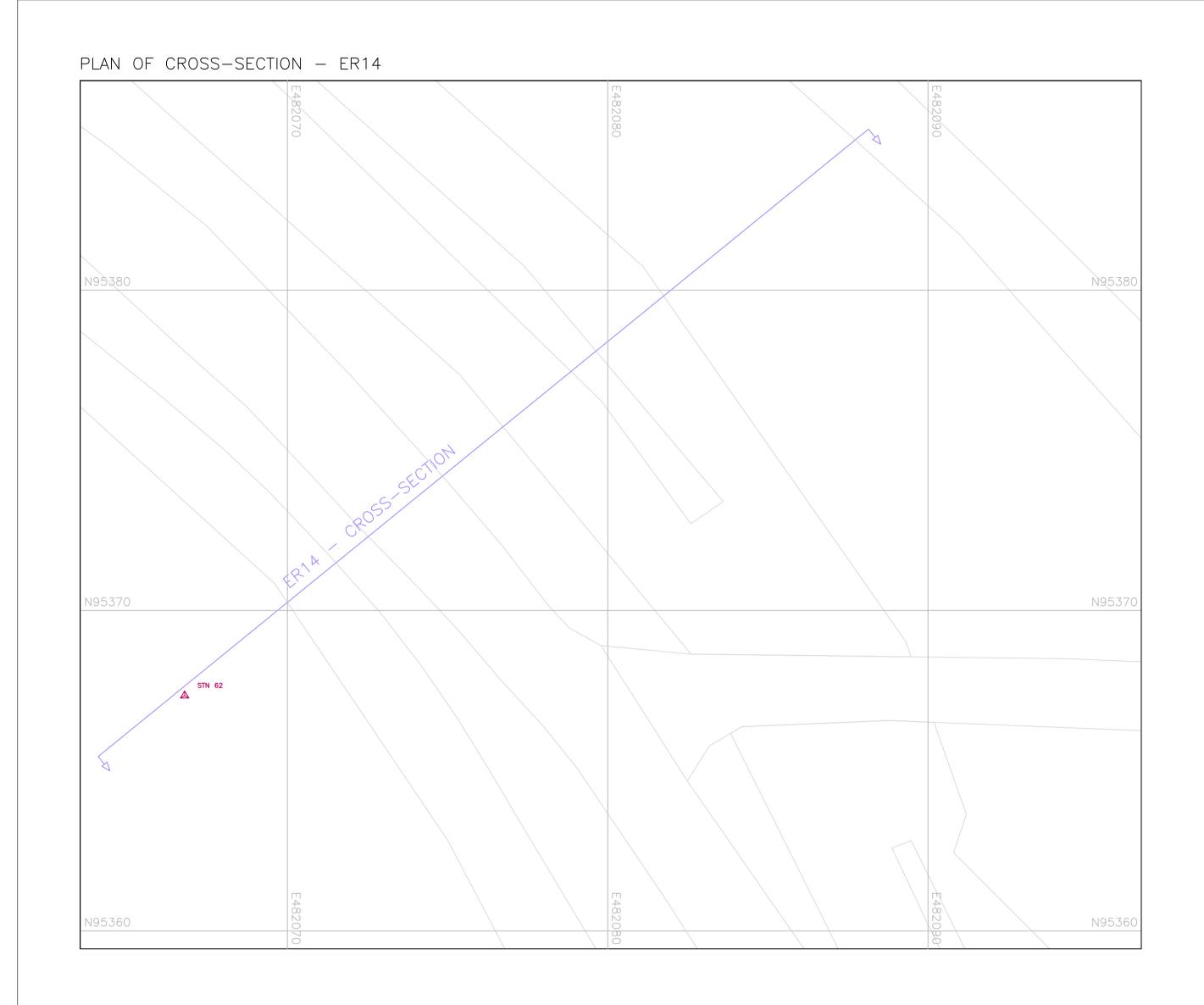
Grid co—ordinates and levels are based upon the Ordnance Survey

REVISION	DESCRIPTION	DATE
M	ERIDIA Land surveying an	
	WEST HORSLEY PLACE 1 ROAD, WEST HORSLEY KT24 603936 — Email: peter@meridian	
CUSTOMER		
Manhire	e LLP	
PROJECT		

Earnley Watercourse, floodplain and structure fluvial modelling DRAWING

Survey of structures and cross-sections - ER-M

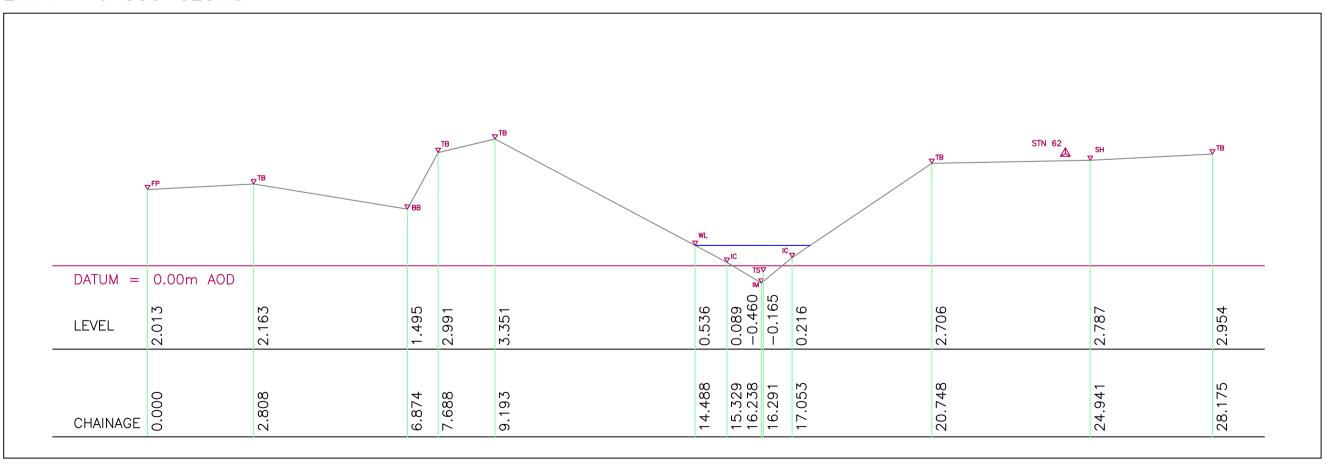
SCALE		DATE	
1:100 (A1)		20/6/2	2019
CLIENT NO.	JOB N	Э.	REVISION
00228	041	1_15	_



Κ	ΕY
_	

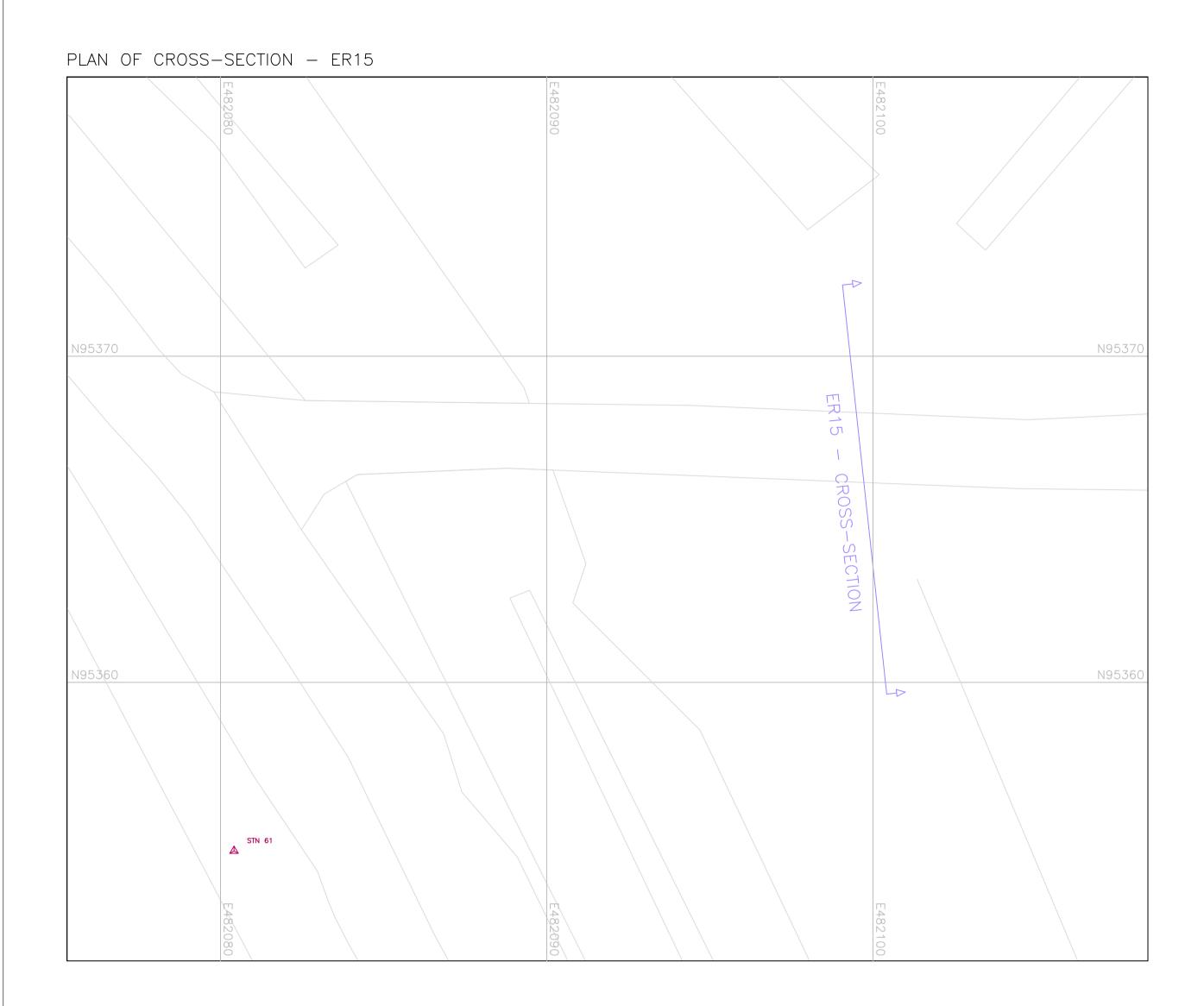
FPFlood PlainBBBottom of BankTBTop of BankWLWater LineICIn ChannelIMIn Channel mid-pointApplies to Arch, Culvert or Head WallSLSoffit LevelLTLeft TopRTRight TopLBLeft BottomBLBase LevelILInvert LevelTSTop of SiltFHFire hydrantGYGulleyICInspection coverMHManholeSMPService marker postGSVGas stop valveWSVWater stop valveDKDrop kerbEPElectricity poleKBKerbOSBMOS bench markRSRoad sign	<u>KEY</u>	
SLSoffit LevelLTLeft TopRTRight TopLBLeft BottomRBRight BottomBLBase LevelILInvert LevelTSTop of SiltFHFire hydrantGYGulleyICInspection coverMHManholeSMPService marker postGSVGas stop valveWSVWater stop valveDKDrop kerbEPElectricity poleKBKerbOSBMOS bench markRSRoad sign	BB TB WL IC	Bottom of Bank Top of Bank Water Line In Channel
LT Left Top RT Right Top LB Left Bottom RB Right Bottom BL Base Level IL Invert Level TS Top of Silt FH Fire hydrant GY Gulley IC Inspection cover MH Manhole SMP Service marker post GSV Gas stop valve WSV Water stop valve DK Drop kerb EP Electricity pole KB Kerb OSBM OS bench mark RS Road sign	Applies to	Arch, Culvert or Head Wall
GYGulleyICInspection coverMHManholeSMPService marker postGSVGas stop valveWSVWater stop valveDKDrop kerbEPElectricity poleKBKerbOSBMOS bench markRSRoad sign	SL LT RT LB RB BL IL	Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level
TP Telegraph pole	GY IC MH SMP GSV WSV DK EP KB OSBM	Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark
B/WBarbed wire fenceC/BClose boarded fenceC/LChain link fenceC/PChestnut paling fenceI/WInterwoven fenceI/RIron railingL/BLapboard fenceP/RPost and rail fenceP/WPost and wire fenceW/MWire mesh fenceRTWRetaining wallSSFSteel security fence	C/B C/L C/P I/W I/R L/B P/R P/W W/M RTW	Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall





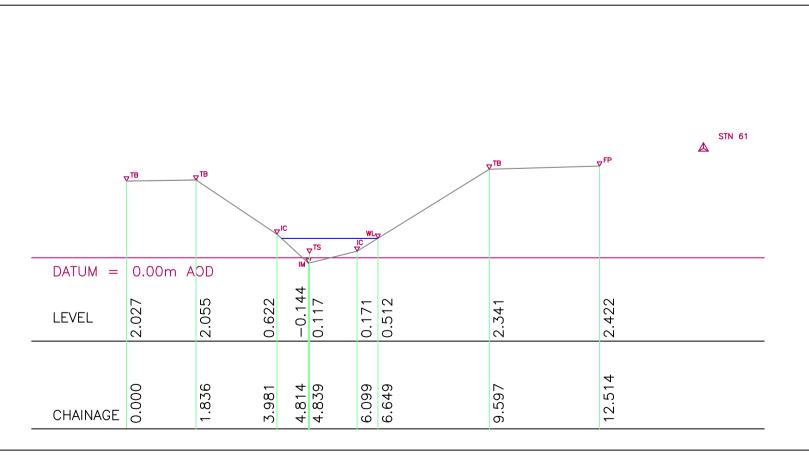


Notes		
advisable	erground services are shown to check these details again authority records before proc lesign.	st
(including	ation contained in this draw digital data) should be che ior to any fabrication or co	cked and
	o—ordinates and levels are upon the Ordnance Survey	based
REVISION	DESCRIPTION	DATE
M	ERIDIA	
M	ERIDIA Land surveying ar	
EPSO	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24	d design
EPSO Tel: 07948	WEST HORSLEY PLACE	d design
EPSOI Tel: 07948 CUSTOMER	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian	d design
EPSO Tel: 07948	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian	d design
EPSOI Tel: 07948 CUSTOMER	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian	d design
EPSO Tel: 07948 CUSTOMER Manhir PROJECT	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian	6AW survey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian	6AW survey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian	6AW survey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian	6AW survey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 - Email: peter@meridian e LLP / Watercourse, flo :ructure fluvial mo	6AW survey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 - Email: peter@meridian e LLP V Watercourse, flo cructure fluvial ma of structures an	6AW survey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey cross-	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 - Email: peter@meridian e LLP / Watercourse, flo ructure fluvial mo of structures an -sections - ER-N DATE	6AW survey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey cross- SCALE	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 - Email: peter@meridian e LLP y Watercourse, flo cructure fluvial mo of structures an -sections - ER-N DATE (A1) 21/6/	6AW survey.co.uk



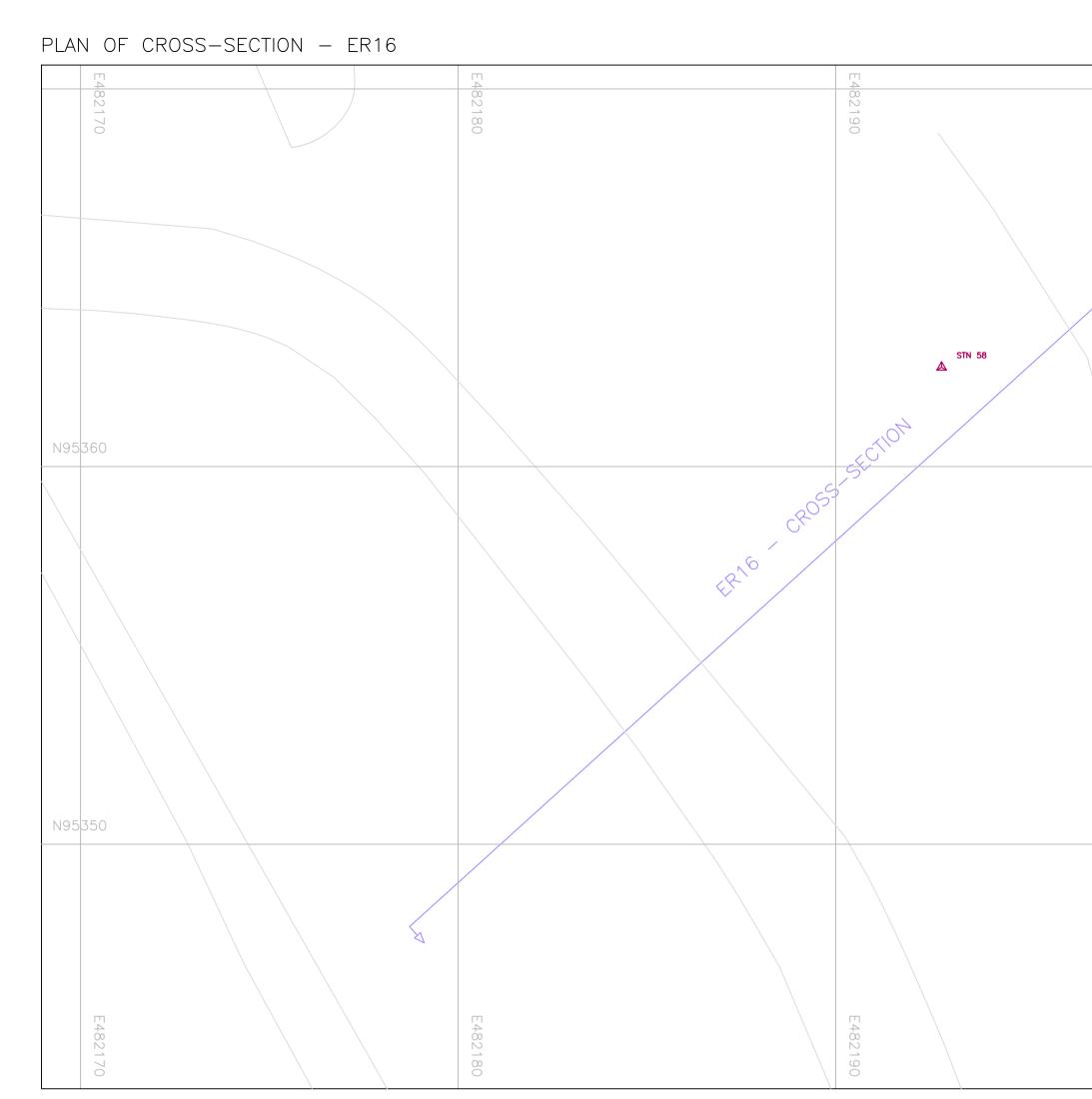
<u>NLI</u>	
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid—point
Applies	to Arch, Culvert or Head Wall
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH	Fire hydrant
GY	Gulley
IC	Inspection cover
MH	Manhole
SMP	Service marker post
GSV	Gas stop valve
WSV	Water stop valve
DK	Drop kerb
EP	Electricity pole
KB	Kerb
OSBM	OS bench mark
RS	Road sign
TP	Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

ER15 - CROSS-SECTION



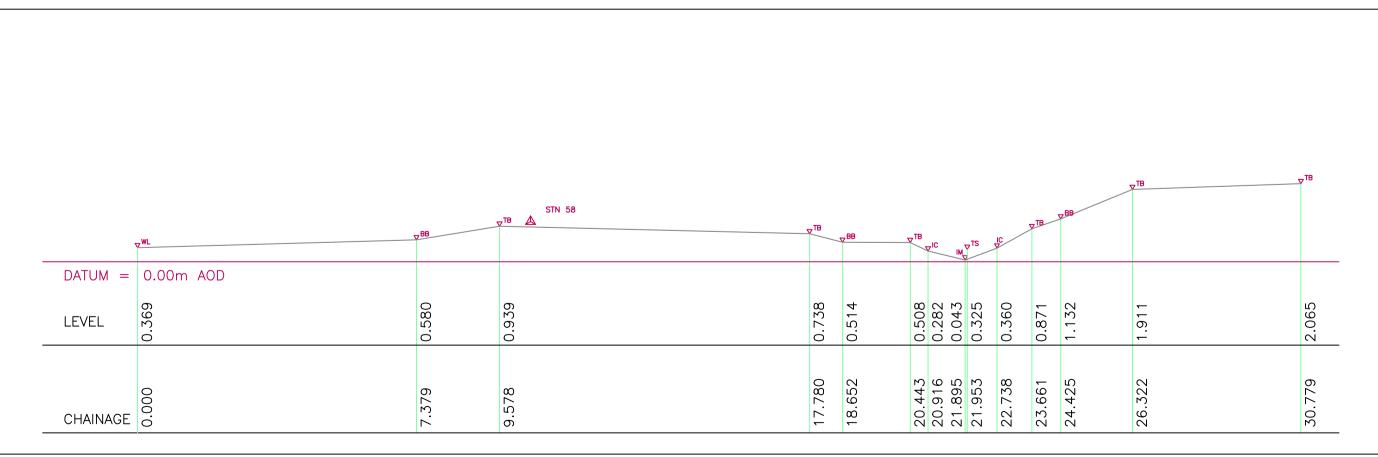


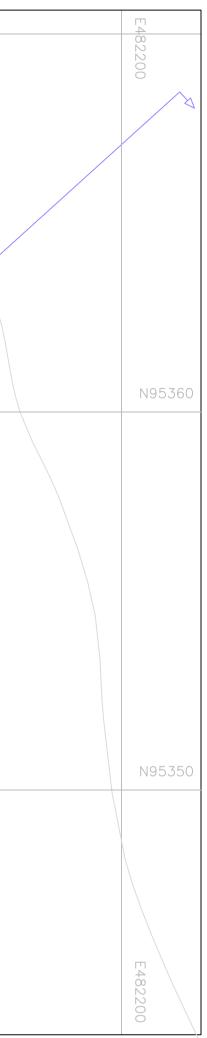
Notes		
	erground services are shown it i to check these details against	S
	authority records before proceeding	ng
with any c	lesign.	
All inform	ation contained in this drawing	
(including	digital data) should be checked	
verified pr	ior to any fabrication or constr	uction.
Grid c	o-ordinates and levels are bas	ed
I	upon the Ordnance Survey	
REVISION	DESCRIPTION	DATE
	ERIDIA	Ν
	ERIDIA Land surveying and de	esign
		N esign
		esign
		N esign
		N esign
		N esign
	Land surveying and de	
EPSO	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 6AW	V
EPSO	Land surveying and de	V
EPSO	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 6AW	V
EPSO Tel: 07948 CUSTOMER	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 6AW 603936 – Email: peter@meridiansurve	V
EPSO Tel: 07948	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 6AW 603936 – Email: peter@meridiansurve	V
EPSO Tel: 07948 CUSTOMER	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 6AW 603936 – Email: peter@meridiansurve	V
EPSO Tel: 07948 CUSTOMER Manhir PROJECT	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 6AW 603936 – Email: peter@meridiansurve	V y.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 6AW 603936 – Email: peter@meridiansurve	y y.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 6AW 603936 – Email: peter@meridiansurve	y y.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 6AW 603936 – Email: peter@meridiansurve	y y.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 6AW 603936 – Email: peter@meridiansurve e LLP / Watercourse, flood cructure fluvial mode	y y.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 6AW 603936 - Email: peter@meridiansurve e LLP V Watercourse, flood cructure fluvial mode of structures and	y y.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 6AW 603936 – Email: peter@meridiansurve e LLP / Watercourse, flood cructure fluvial mode	y y.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 6AW 603936 - Email: peter@meridiansurve e LLP V Watercourse, flood cructure fluvial mode of structures and	y y.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey Cross- SCALE	Vest HorsLey PLACE M ROAD, WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 6AW 603936 – Email: peter@meridiansurve e LLP V Watercourse, flood cructure fluvial mode of structures and -sections – ER–O DATE	y y.co.uk plain lling
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey cross- SCALE 1:100	Land surveying and de WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 6AW 603936 - Email: peter@meridiansurve e LLP V Watercourse, flood cructure fluvial mode of structures and -sections - ER-0 DATE (A1)	y y.co.uk plain lling 19
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey Cross- SCALE	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 6AW 603936 - Email: peter@meridiansurve e LLP V Watercourse, flood cructure fluvial mode of structures and -sections - ER-0 DATE (A1) 21/6/20	y y.co.uk plain lling

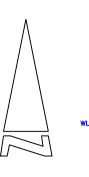


BB E TB T WL N	Flood Plain Bottom of Bank Fop of Bank Water Line n Channel n Channel mid—point
SL S LT L RT F LB L RB F BL E IL I	Arch, Culvert or Head Wall Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level nvert Level Top of Silt
GY C IC I MH N SMP S GSV C WSV N DK I EP I KB I OSBM C RS I	Fire hydrant Gulley nspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb DS bench mark Road sign Felegraph pole
C/B (C/L (C/P (I/W I I/R I L/B I P/R I	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence nterwoven fence ron railing _apboard fence Post and rail fence Post and wire fence
W/M N RTW F	Wire mesh fence Retaining wall Steel security fence

ER16 - CROSS-SECTION

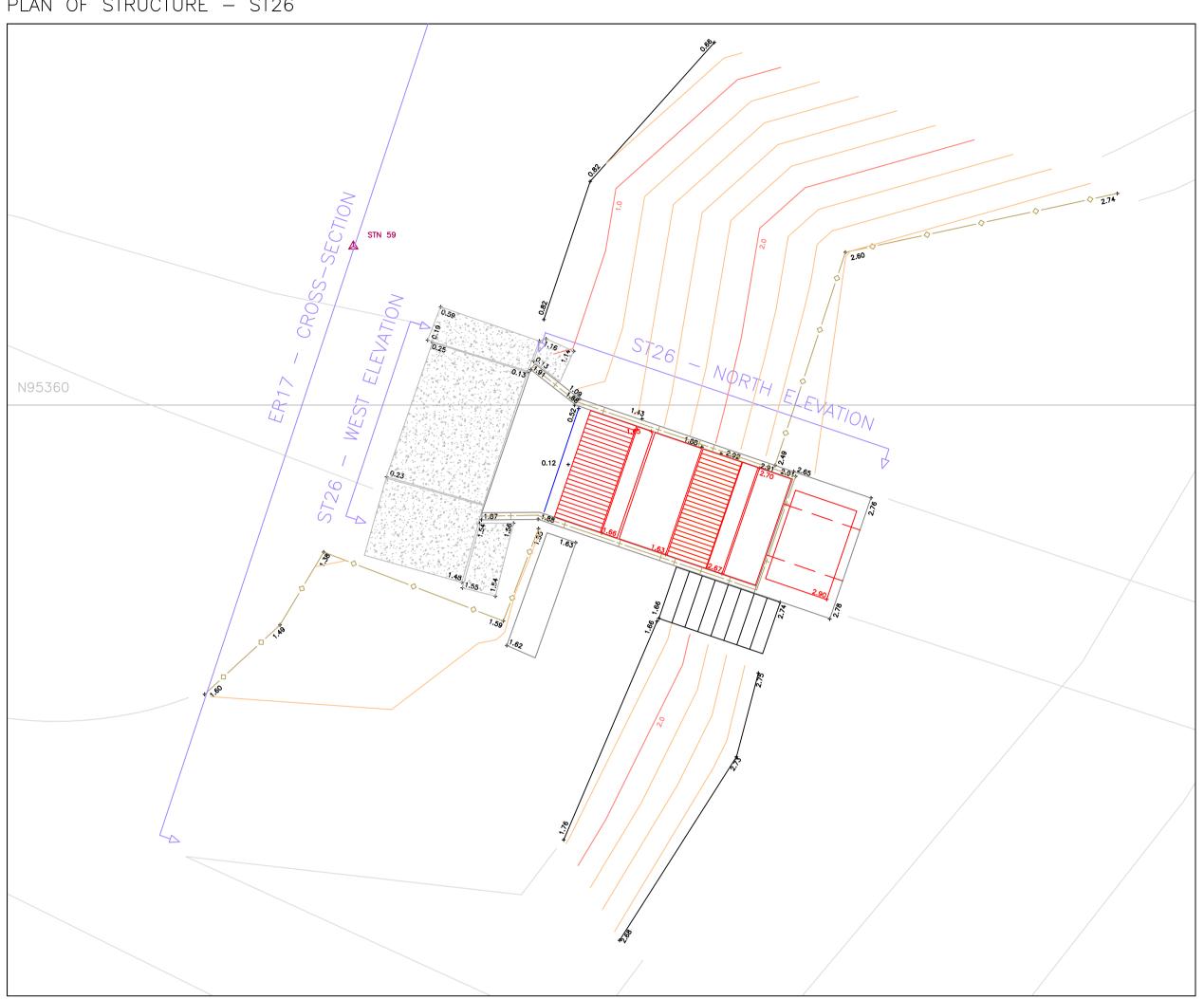






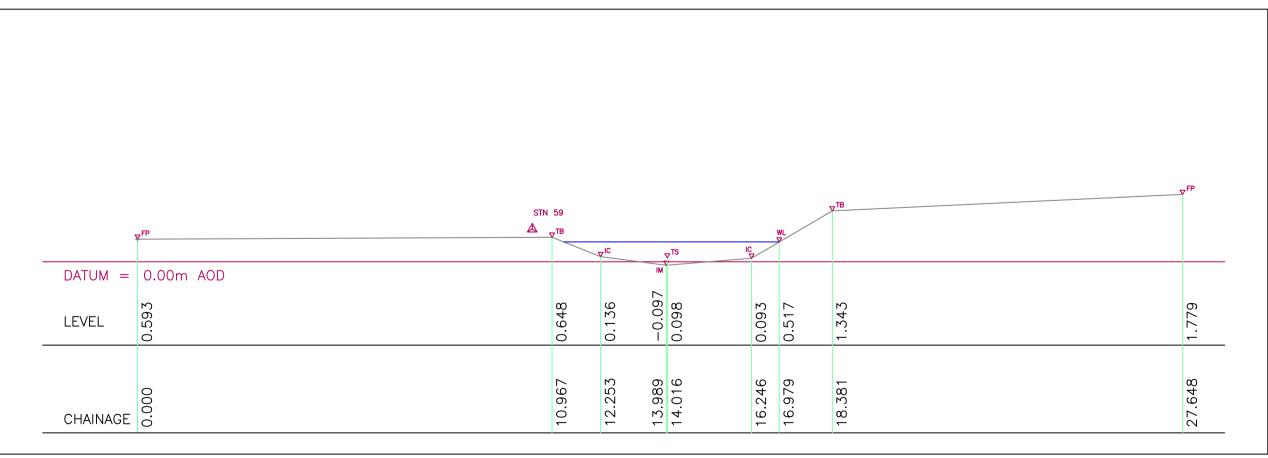
Notes					
Where und advisable statutory of with any of	to check authority	these	details a	gainst	
All inform (including verified pr	digital d	lata) s	should be	check	ked and
vermed pr		iy ide			
Grid c	o–ordina	tes ai	nd levels	are b	ased
	upon the	ordn	ance Sur	vey	
A	CORRE	CTED	46mm IN	HEIGHT	5/7/19
REVISION	DESCR	IPTION			DATE
		Luma	surveyin	<i>y u n u</i>	
FDSA			LEY PLACE HORSLEY		2 4 14/
Tel: 07948					
CUSTOMER					
Manhir	e LLF)			
PROJECT					
	()//~+	0 5 0 0		floo	dolaio
Earnley and st					•
DRAWING		+	+		
Survey	OT S				
0055-	- contin	nne	_ LP	<u> </u>	
CO.41 E	-sectio	ons		— I	
SCALE		ons	DATE		010
1:100	(A1)		date 21/		
	(A1)	JOB NO	date 21/		019 revision A



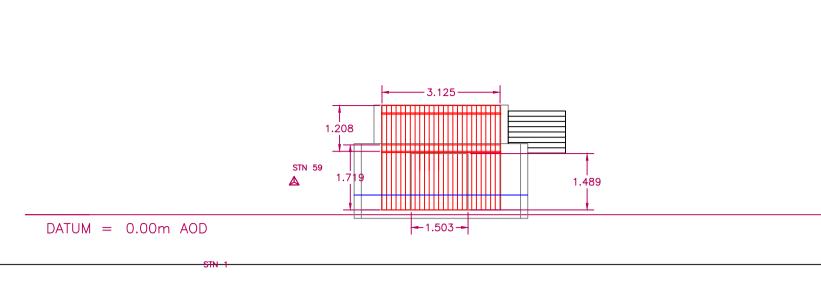


<u>KEY</u>	
FP BB TB WL IC IM	Flood Plain Bottom of Bank Top of Bank Water Line In Channel In Channel mid—point
Applies to SL LT RT LB RB BL IL TS	Arch, Culvert or Head Wal Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level Top of Silt
FH GY IC MH GSV WSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W C/B C/P I/W I/R L/B P/R	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence
P/W W/M RTW SSF	Post and vire fence Wire mesh fence Retaining wall Steel security fence

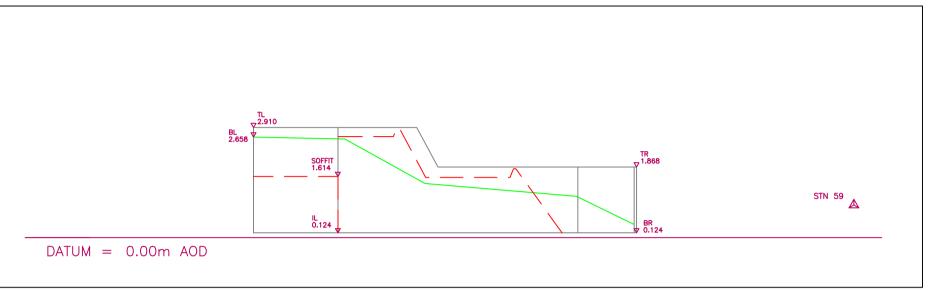
ER17 - CROSS-SECTION

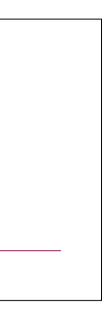


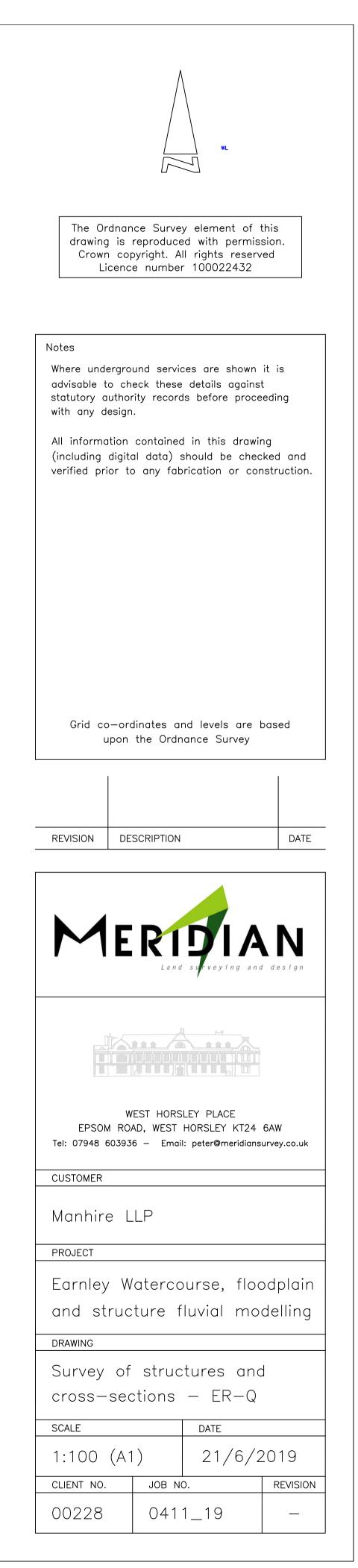
ST26 WEST ELEVATION













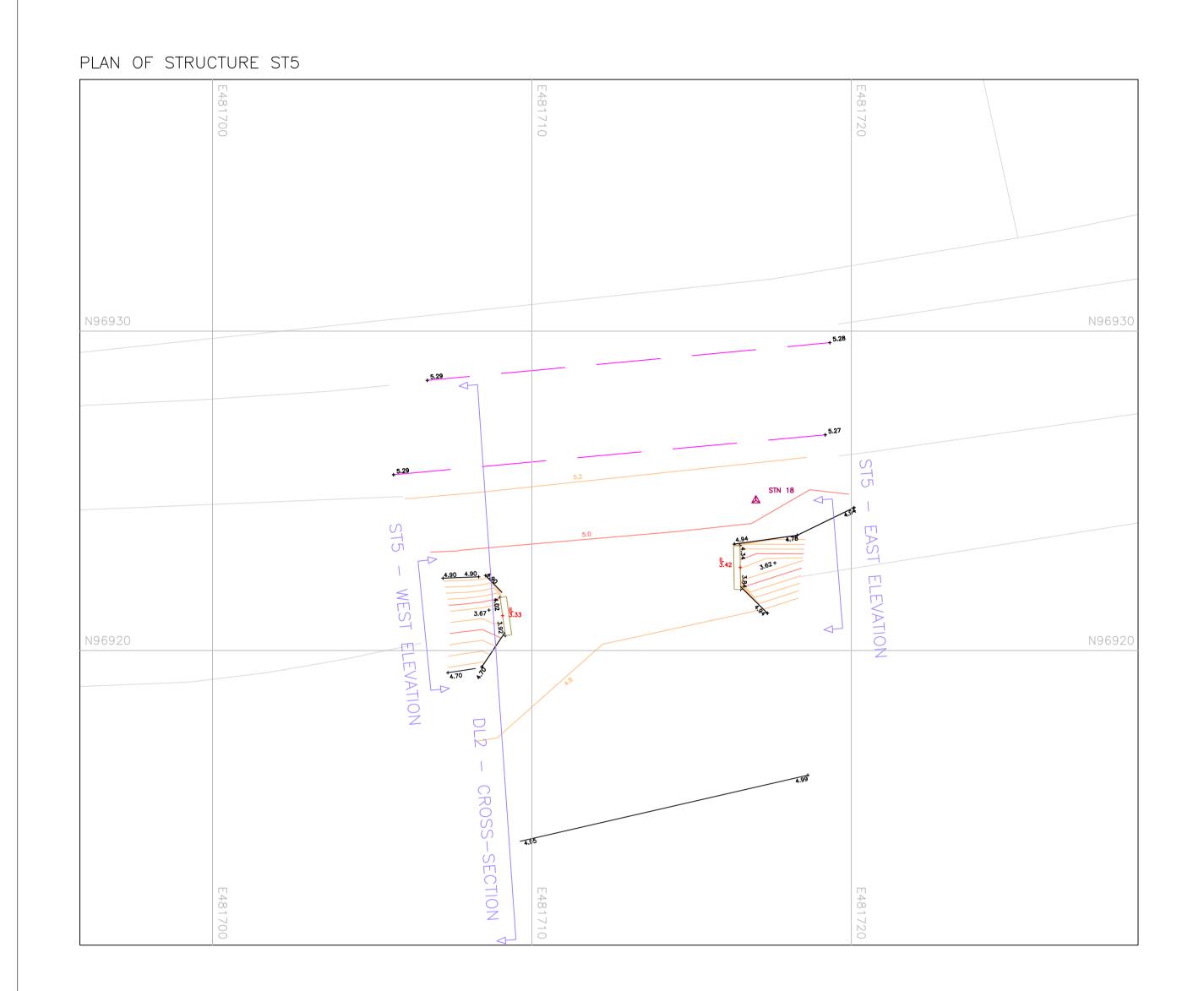
<u>KEY</u>	
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid-point
Applies to	Arch, Culvert or Head Wall
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH	Fire hydrant
GY	Gulley
IC	Inspection cover
MH	Manhole
SMP	Service marker post
GSV	Gas stop valve
WSV	Water stop valve
DK	Drop kerb
EP	Electricity pole
KB	Kerb
OSBM	OS bench mark
RS	Road sign
TP	Telegraph pole
B/W C/B C/L I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

DL1 - CROSS-SECTION





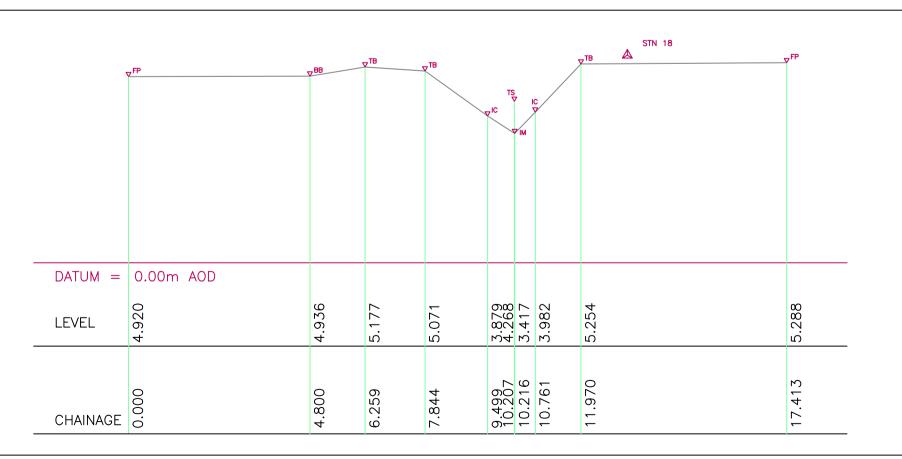
Notes			
Where und advisable	to check these authority recor	ices are shown i e details against ds before procee	
(including	digital data)	d in this drawin should be checl brication or con	ked and
	o—ordinates o upon the Ordi	ind levels are b nance Survey	ased
REVISION	DESCRIPTION	1	DATE
M		DIA	
M		DIA surveying and	
EPSO	WEST HORS M ROAD, WEST		design 6AW
EPSO	WEST HORS M ROAD, WEST	d surveying and SLEY PLACE HORSLEY KT24	design 6AW
EPSO Tel: 07948	WEST HORS M ROAD, WEST 603936 – Ema	d surveying and SLEY PLACE HORSLEY KT24	design 6AW
EPSO Tel: 07948 CUSTOMER	WEST HORS M ROAD, WEST 603936 – Ema	d surveying and SLEY PLACE HORSLEY KT24	design 6AW
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley	WEST HORS M ROAD, WEST 603936 - Ema e LLP V Waterco	SLEY PLACE HORSLEY KT24 e il: peter@meridiansu	6AW Irvey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st	WEST HORS M ROAD, WEST 603936 - Ema e LLP V Waterco	d surveying and SLEY PLACE HORSLEY KT24 (il: peter@meridiansu	6AW Irvey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING	WEST HORS M ROAD, WEST 603936 - Ema e LLP v Waterco ructure	SLEY PLACE HORSLEY KT24 e il: peter@meridiansu	6AW Irvey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey	WEST HORS M ROAD, WEST 603936 - Ema e LLP V Waterco ructure - of struc	SLEY PLACE HORSLEY KT24 e il: peter@meridiansu	6AW Irvey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey	WEST HORS M ROAD, WEST 603936 - Ema e LLP V Waterco ructure - of struc	SLEY PLACE HORSLEY KT24 of il: peter@meridiansu	6AW Irvey.co.uk
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey cross-	WEST HORS M ROAD, WEST 603936 - Ema e LLP V Waterco ructure of struc sections	SLEY PLACE HORSLEY KT24 of il: peter@meridiansu	6AW Irvey.co.uk odplain delling
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey Cross- SCALE 1:100 CLIENT NO	WEST HORS M ROAD, WEST 603936 - Ema e LLP Waterco ructure of struc sections (A1)	SLEY PLACE HORSLEY KT24 of il: peter@meridiansu purse, floo fluvial mod ctures and — DL—A DATE 22/6/2	6AW Irvey.co.uk odplain delling
EPSO Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey cross- SCALE 1:100	WEST HORS M ROAD, WEST 603936 - Ema e LLP Waterco ructure of struc sections (A1)	SLEY PLACE HORSLEY KT24 e il: peter@meridiansu purse, floo fluvial mod ctures and - DL-A DATE 22/6/2	6AW Irvey.co.uk dplain delling .019



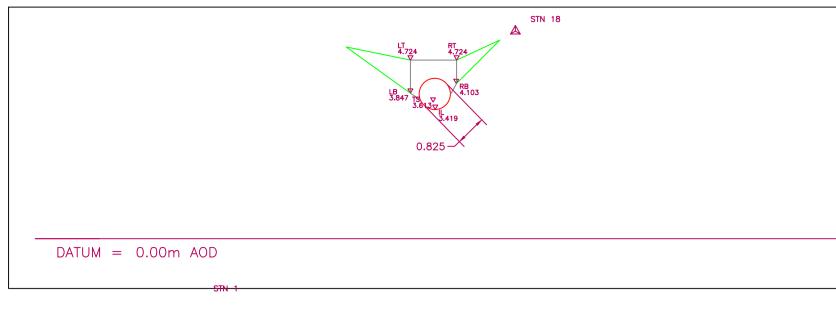
KEY

KET	
FP BB TB WL IC IM	Flood Plain Bottom of Bank Top of Bank Water Line In Channel In Channel mid-point
Applies	to Arch, Culvert or Head Wall
SL LT RT LB RB BL IL	Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level
TS	Top of Silt
FH GY IC MH GSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W C/B C/L C/P I/W I/R L/B P/R	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence
P/W	Post and wire fence
W/M	Wire mesh fence
RTW	Retaining wall Staal accurity fance
SSF	Steel security fence

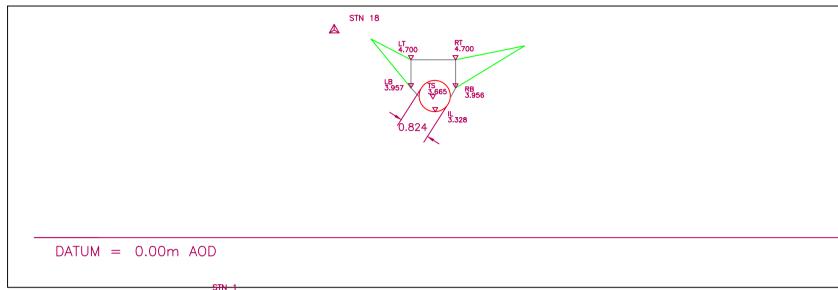
DL2 - CROSS-SECTION



ST5 EAST ELEVATION



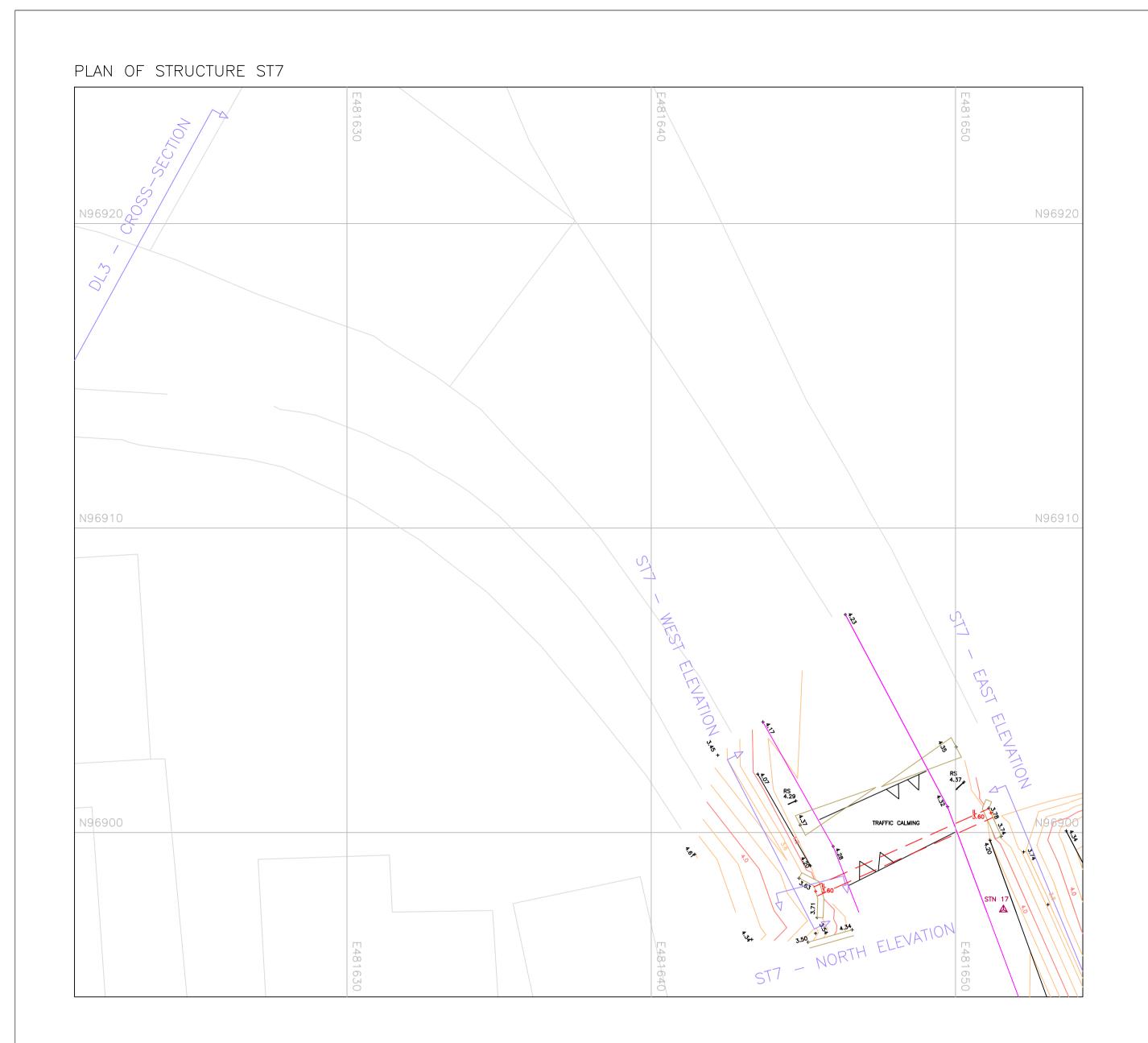
ST5 WEST ELEVATION





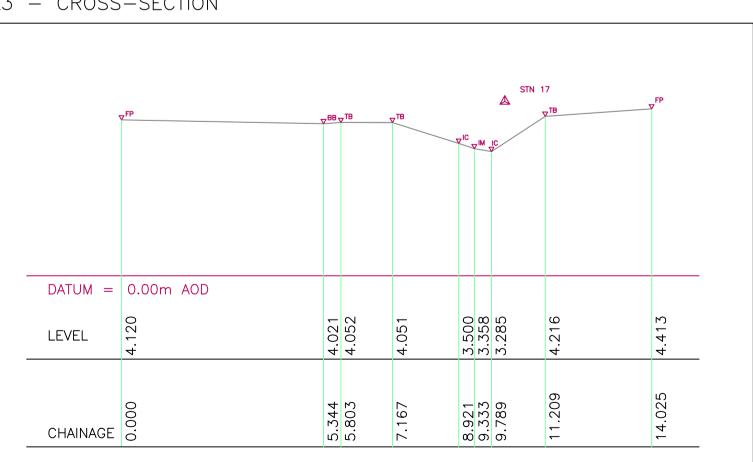
The Ordnance Survey element of this drawing is reproduced with permission. Crown copyright. All rights reserved Licence number 100022432

Notes		
	ground services are shown i check these details against	
statutory au	thority records before procee	
with any de	sign.	
	ion contained in this drawin igital data) should be checl	-
	r to any fabrication or con	
Grid co-	-ordinates and levels are b	ased
up	on the Ordnance Survey	
REVISION	DESCRIPTION	DATE
		_
	ERIDIA	N
	Land surveying and	
	,	
FPSOM	WEST HORSLEY PLACE ROAD, WEST HORSLEY KT24 (6AW
	3936 — Email: peter@meridiansu	
CUSTOMER		
Manhire	LLP	
PROJECT		
-	Watercourse, floo	•
and str	ucture fluvial mod	delling
DRAWING		
Survey	of structures and	
cross-s	sections - DL-B	
SCALE	DATE	
1:100 (019
		REVISION
CLIENT NO.	JOB NO.	REVISION
00228	0411_21	

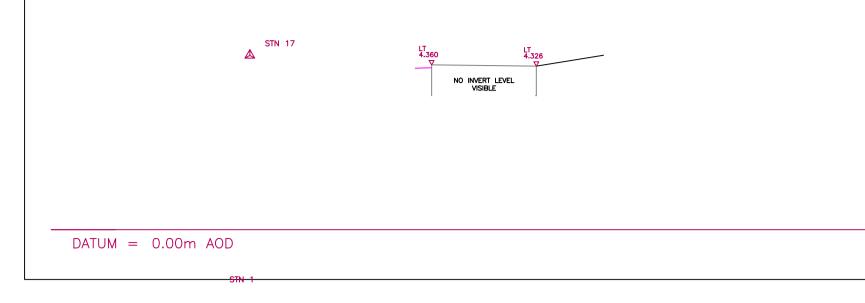


<u>KEY</u>	
FP BB TB WL IC IM	Flood Plain Bottom of Bank Top of Bank Water Line In Channel In Channel mid-point
Applies SL LT RT LB RB BL IL TS	to Arch, Culvert or Head Wall Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level Top of Silt
FH GY IC MH GSV WSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

DL3 - CROSS-SECTION



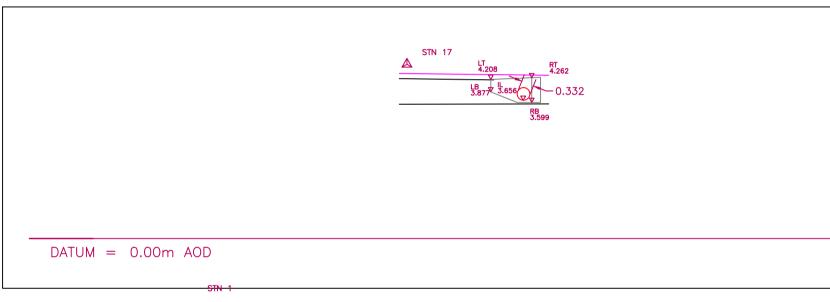
ST7 NORTH ELEVATION



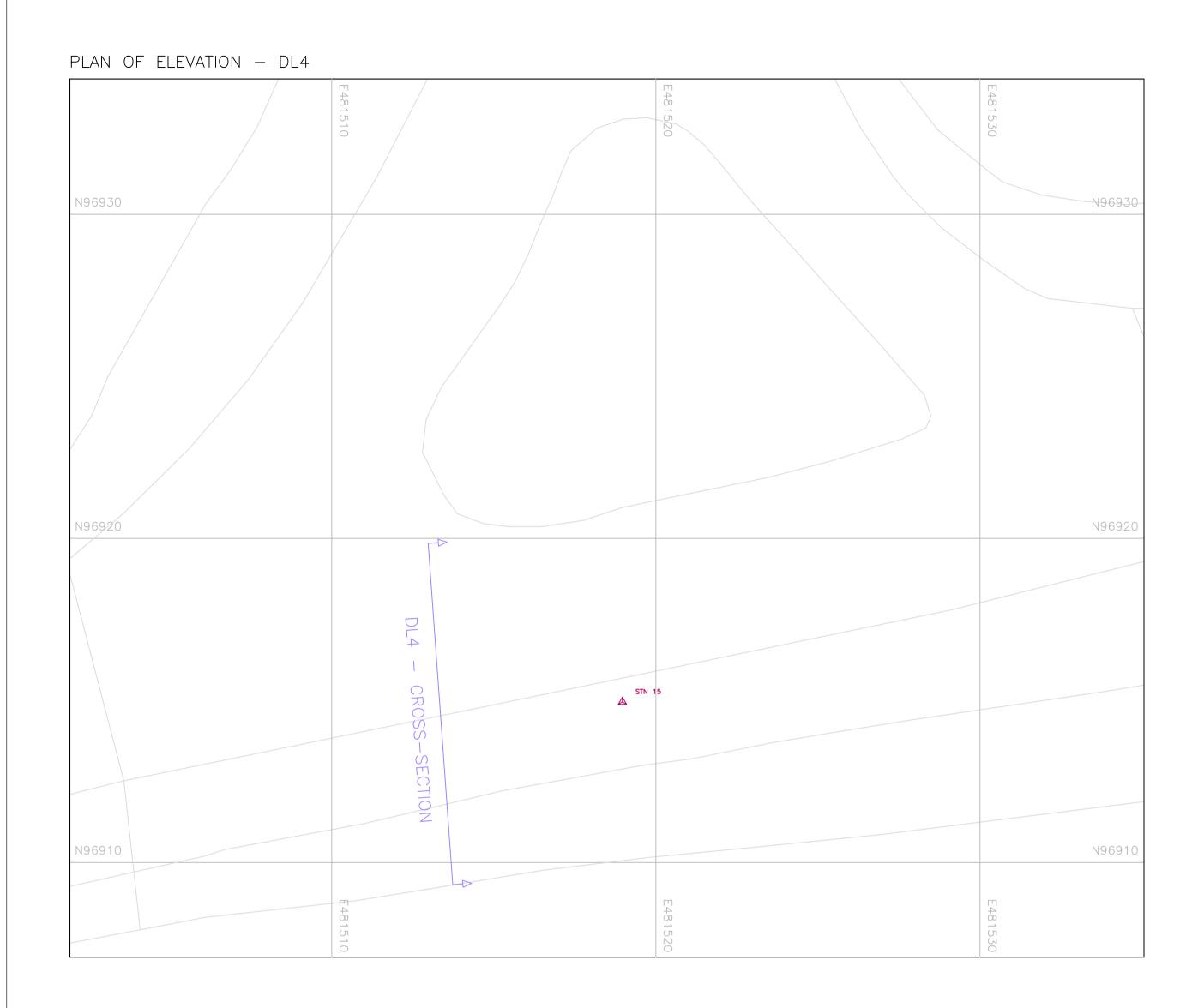
ST7 WEST ELEVATION

	LB 3.618 LB 3.618 LB 3.600 LB 3.713 LB 3.713 LB 3.713 LB 3.713 LB 3.713 LB 3.713 LB 3.713
DATUM = 0.00m AOD	
STN 1	

ST7 EAST ELEVATION



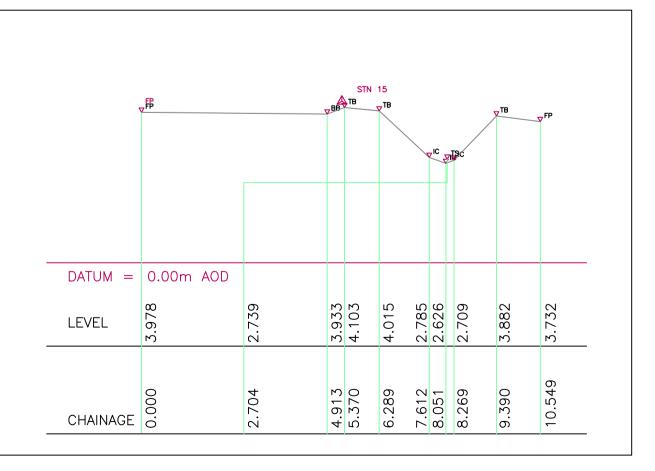




Κ	ΕY

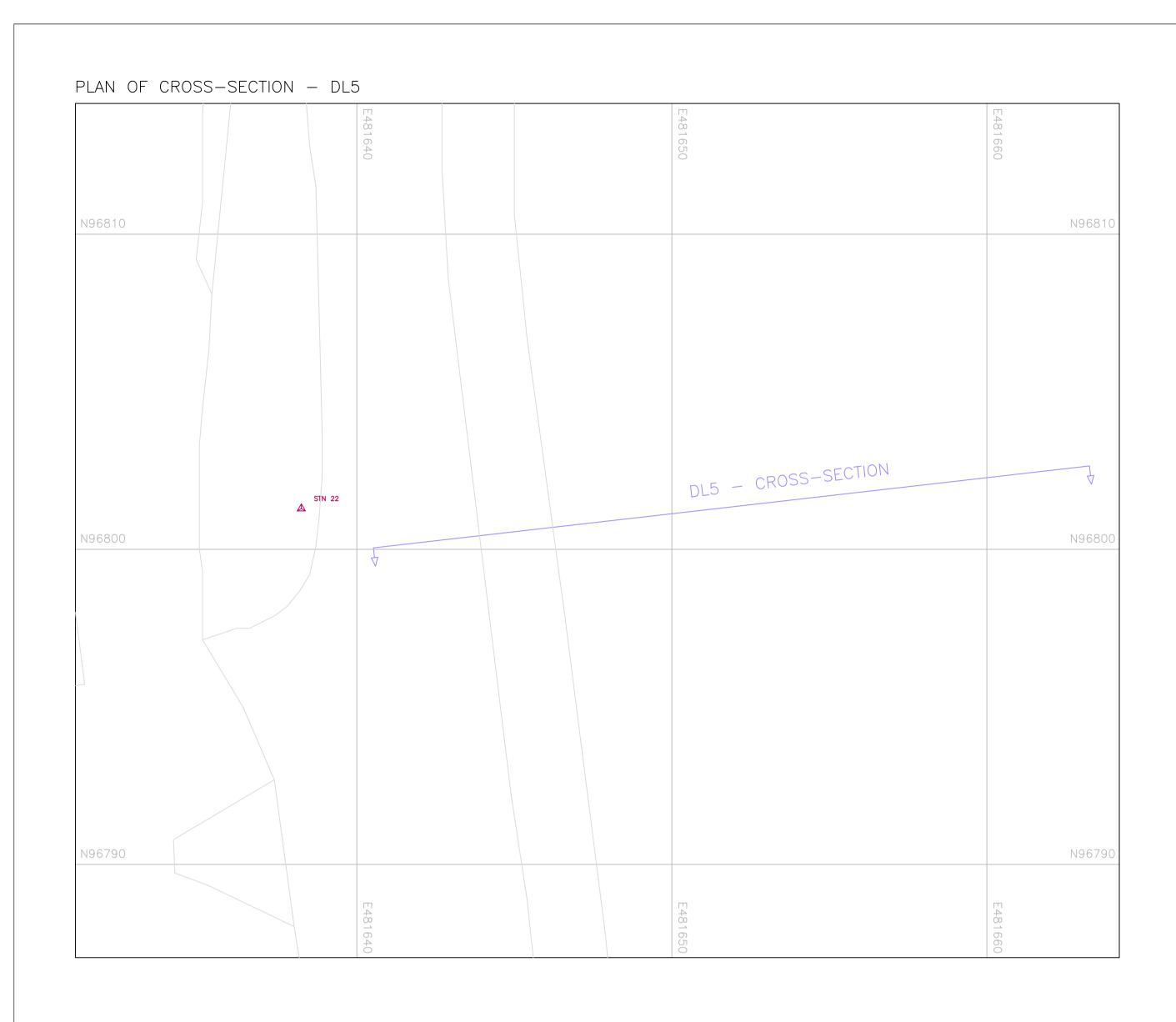
KET	
FP BB TB WL IC IM	Flood Plain Bottom of Bank Top of Bank Water Line In Channel In Channel mid-point
SL LT RT LB RB BL IL	to Arch, Culvert or Head Wall Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level
TS FH	Top of Silt
FH GY IC MH GSV WSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

DL4 - CROSS-SECTION





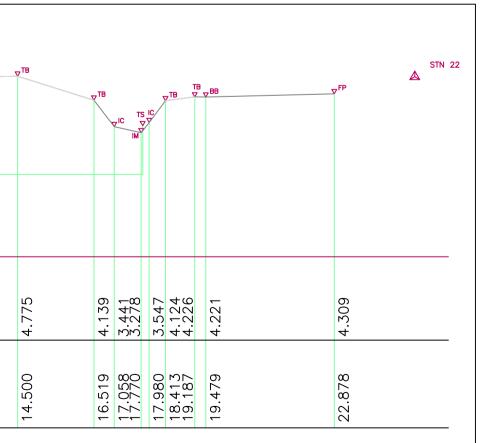
Notes		
Where unde advisable t	erground services are shown o check these details again: uthority records before proc esign	st
All informa (including	ition contained in this draw digital data) should be che	cked and
verified pri	or to any fabrication or co	onstruction.
	o-ordinates and levels are upon the Ordnance Survey	based
	······································	
REVISION	DESCRIPTION	DATE
M	ERIDIA Land surveying ar	
M		
EPSON		d design
EPSON	WEST HORSLEY PLACE	d design
EPSON Tel: 07948 6	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 – Email: peter@meridian	d design
EPSON Tel: 07948 6 CUSTOMER	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 – Email: peter@meridian	d design
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 – Email: peter@meridian	6AW survey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 – Email: peter@meridian	6AW survey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 – Email: peter@meridian	6AW survey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st DRAWING	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 – Email: peter@meridian	6AW survey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 - Email: peter@meridian e LLP Watercourse, flo ructure fluvial mo	6AW survey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 - Email: peter@meridian e LLP watercourse, flo ructure fluvial ma of structures an	6AW survey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey cross—	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 - Email: peter@meridian e LLP Watercourse, flo ructure fluvial mo of structures an sections - DL-D DATE	6AW survey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey cross— SCALE	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 503936 - Email: peter@meridian e LLP Watercourse, flo ructure fluvial mo of structures an sections - DL-D DATE	6AW survey.co.uk



<u>KEY</u>	
FP BB TB WL IC IM	Flood Plain Bottom of Bank Top of Bank Water Line In Channel In Channel mid-point
Applies to SL LT RT LB RB BL IL TS	Arch, Culvert or Head Wall Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level Top of Silt
FH GY IC MH GSV WSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W C/B C/L I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

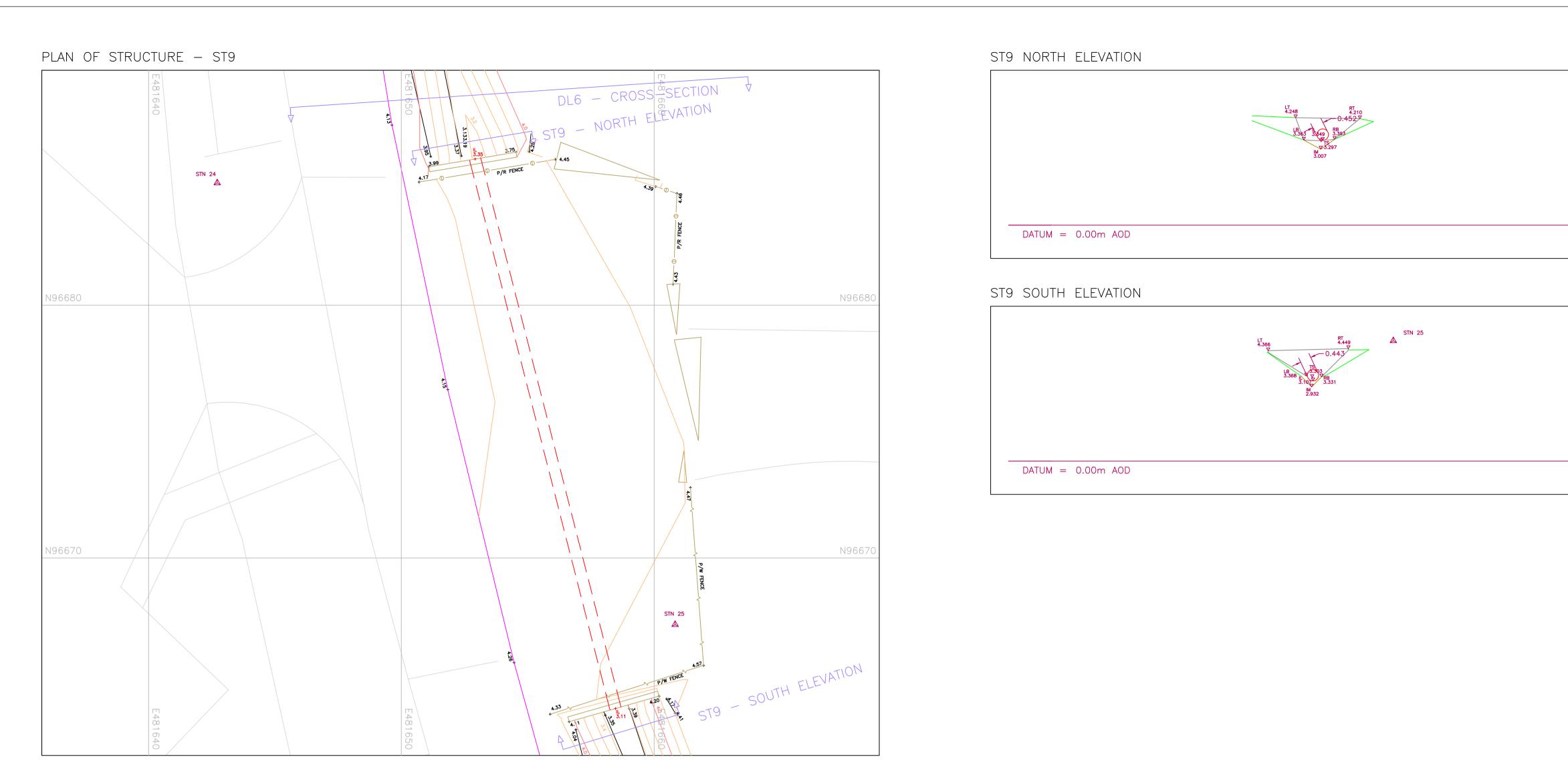
DL5	_	CROSS-SECTION

	¬¬FP	7 ⁸⁸ 1	7 ^{TB}	
DATUM =	0.00m AOD			
	Ω.	2 2	Q	4
LEVEL	4.565	4.625	4.666	3.464
	N	7	7	• /
				0
	0.000	5.103	6.751	17.810
CHAINAGE	0	<u>.</u>	0.	





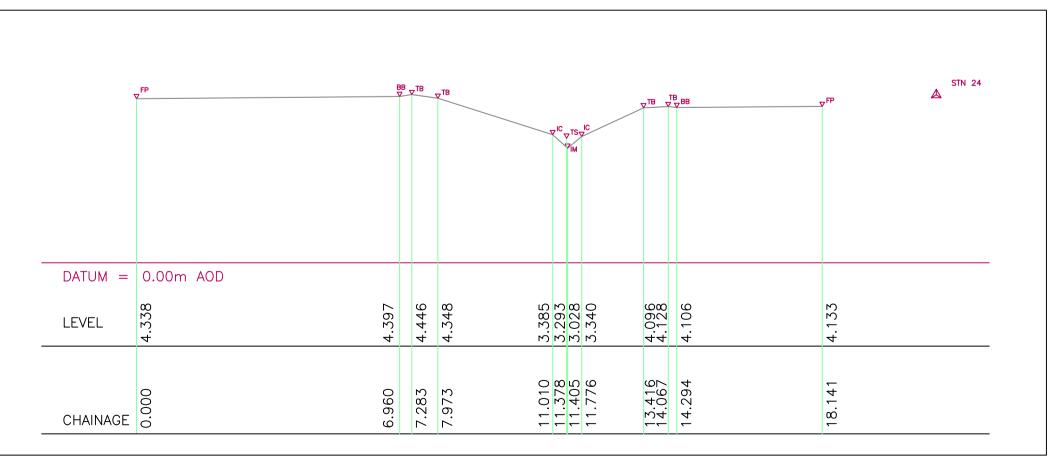
Where underground services are shown it is advisable to check these details against statutory authority records before proceedin with any design. All information contained in this drawing (including digital data) should be checked verified prior to any fabrication or construct A CORRECTED 99mm HEIGHT REVISION DESCRIPTION EPSOM ROAD, WEST HORSLEY PLACE EPSOM ROAD, WEST HORSLEY KT24 6AW Tel: 07948 603936 - Emoil: peter@meridionsurvey CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodg and structure fluvial model DRAWING	
statutory authority records before proceedin with any design. All information contained in this drawing (including digital data) should be checked verified prior to any fabrication or constru- Grid co-ordinates and levels are base upon the Ordnance Survey A CORRECTED 99mm HEIGHT REVISION DESCRIPTION CORRECTED 99mm HEIGHT REVISION DESCRIPTION WEST HORSLEY PLACE EPSOM ROAD, WEST HORSLEY KT24 6AW Tel: 07948 603936 - Emoil: peter@meridionsurvey CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodp and structure fluvial model DRAWING	g
All information contained in this drawing (including digital data) should be checked verified prior to any fabrication or constru- a corrected and levels are base upon the Ordnance Survey A CORRECTED 99mm HEIGHT REVISION DESCRIPTION	
Grid co-ordinates and levels are base upon the Ordnance Survey A CORRECTED 99mm HEIGHT REVISION DESCRIPTION CORRECTED 99mm HEIGHT DESCRIPTION REVISION DESCRIPTION VEST HORSLEY PLACE EPSOM ROAD, WEST HORSLEY KT24 6AW Tel: 07948 603936 - Email: peter@meridiansurvey CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodge DRAWING	
Grid co-ordinates and levels are base upon the Ordnance Survey A CORRECTED 99mm HEIGHT REVISION DESCRIPTION DESCRIPTION DESCRIPTION VEST HORSLEY PLACE EPSOM ROAD, WEST HORSLEY KT24 6AW Tel: 07948 603936 - Email: peter@meridiansurvey CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodg DRAWING	
A CORRECTED 99mm HEIGHT REVISION DESCRIPTION A CORRECT Manhire LLP PROJECT Earnley BRAWING DESCRIPTION	
A CORRECTED 99mm HEIGHT REVISION DESCRIPTION Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and description Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and servery	uction.
A CORRECTED 99mm HEIGHT REVISION DESCRIPTION Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and description Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and servery	
A CORRECTED 99mm HEIGHT REVISION DESCRIPTION Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and description Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and servery ing and servery ing and description of the servery ing and servery ing and description of the servery ing and se	
A CORRECTED 99mm HEIGHT REVISION DESCRIPTION Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and description Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and structure fluxial model DRAWING	
A CORRECTED 99mm HEIGHT REVISION DESCRIPTION Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and description Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and servery ing and servery ing and description of the servery ing and servery ing and description of the servery ing and se	
A CORRECTED 99mm HEIGHT REVISION DESCRIPTION Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and description Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and servery ing and servery ing and description of the servery ing and servery ing and description of the servery ing and se	
A CORRECTED 99mm HEIGHT REVISION DESCRIPTION Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and description Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and servery ing and servery ing and description of the servery ing and servery ing and description of the servery ing and se	
A CORRECTED 99mm HEIGHT REVISION DESCRIPTION Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and description Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and servery	
A CORRECTED 99mm HEIGHT REVISION DESCRIPTION Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and description Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and servery	
A CORRECTED 99mm HEIGHT REVISION DESCRIPTION Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and description Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and structure fluxial model DRAWING	
A CORRECTED 99mm HEIGHT REVISION DESCRIPTION Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and description Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and structure fluxial model DRAWING	
A CORRECTED 99mm HEIGHT REVISION DESCRIPTION Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and description Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and structure fluxial model DRAWING	
A CORRECTED 99mm HEIGHT REVISION DESCRIPTION Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and description Image: Construction of the servery ing and description Image: Construction of the servery ing and description of the servery ing and structure fluxial model DRAWING	
A CORRECTED 99mm HEIGHT REVISION DESCRIPTION Image: Construction of the second seco	ed
REVISION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION Land surveying and de Land surveying and de Merry Notest Horsley PLACE EPSOM ROAD, WEST HORSLEY KT24 6AW Tel: 07948 603936 - Email: peter@meridiansurvey CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodp and structure fluvial model DRAWING	
REVISION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION Land surveying and de Land surveying and de Meridiansurvey CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodp and structure fluvial model DRAWING	
REVISION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION Land surveying and de Land surveying and de Merry Notest Horsley PLACE EPSOM ROAD, WEST HORSLEY KT24 6AW Tel: 07948 603936 - Email: peter@meridiansurvey CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodp and structure fluvial model DRAWING	
REVISION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION Land surveying and de Land surveying and de Merry Notest Horsley PLACE EPSOM ROAD, WEST HORSLEY KT24 6AW Tel: 07948 603936 - Email: peter@meridiansurvey CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodp and structure fluvial model DRAWING	5/7/1
EXPERIENCE Control of the servery ing and de the servery ing and the	DATE
Land surveying and de WEST HORSLEY PLACE EPSOM ROAD, WEST HORSLEY KT24 6AW Tel: 07948 603936 - Email: peter@meridiansurvey CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodp and structure fluvial model DRAWING	DATE
EPSOM ROAD, WEST HORSLEY KT24 6AW Tel: 07948 603936 - Email: peter@meridiansurvey CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodp and structure fluvial model DRAWING	
EPSOM ROAD, WEST HORSLEY KT24 6AW Tel: 07948 603936 - Email: peter@meridiansurvey CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodp and structure fluvial model DRAWING	
EPSOM ROAD, WEST HORSLEY KT24 6AW Tel: 07948 603936 - Email: peter@meridiansurvey CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodp and structure fluvial model DRAWING	
EPSOM ROAD, WEST HORSLEY KT24 6AW Tel: 07948 603936 - Email: peter@meridiansurvey CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodp and structure fluvial model DRAWING	
EPSOM ROAD, WEST HORSLEY KT24 6AW Tel: 07948 603936 - Email: peter@meridiansurvey CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodp and structure fluvial model DRAWING	
Tel: 07948 603936 - Email: peter@meridiansurvey CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodp and structure fluvial model DRAWING	
CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodp and structure fluvial model DRAWING	
Manhire LLP PROJECT Earnley Watercourse, floodp and structure fluvial model DRAWING	-
PROJECT Earnley Watercourse, floodp and structure fluvial model DRAWING	
PROJECT Earnley Watercourse, floodp and structure fluvial model DRAWING	
Earnley Watercourse, floodp and structure fluvial mode DRAWING	
Earnley Watercourse, floodp and structure fluvial mode DRAWING	
and structure fluvial model	
DRAWING	blain
DRAWING	Ilina
Survey of etrustures and	
SUIVEV OF STRUCTURES ANA	
cross-sections - DL-E	
SCALE DATE	
1.100 (11) 27/6/201	
1:100 (A1) 23/6/201	1 0
CLIENT NO. JOB NO. RI	19
00228 0411_24	19 evision

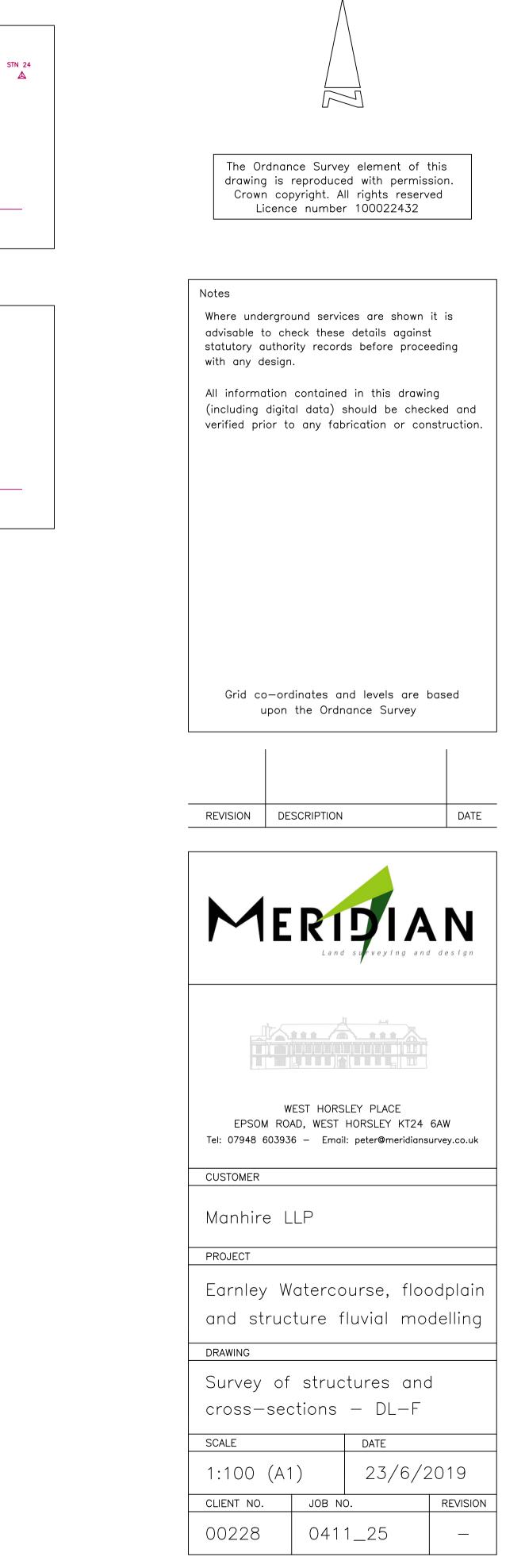


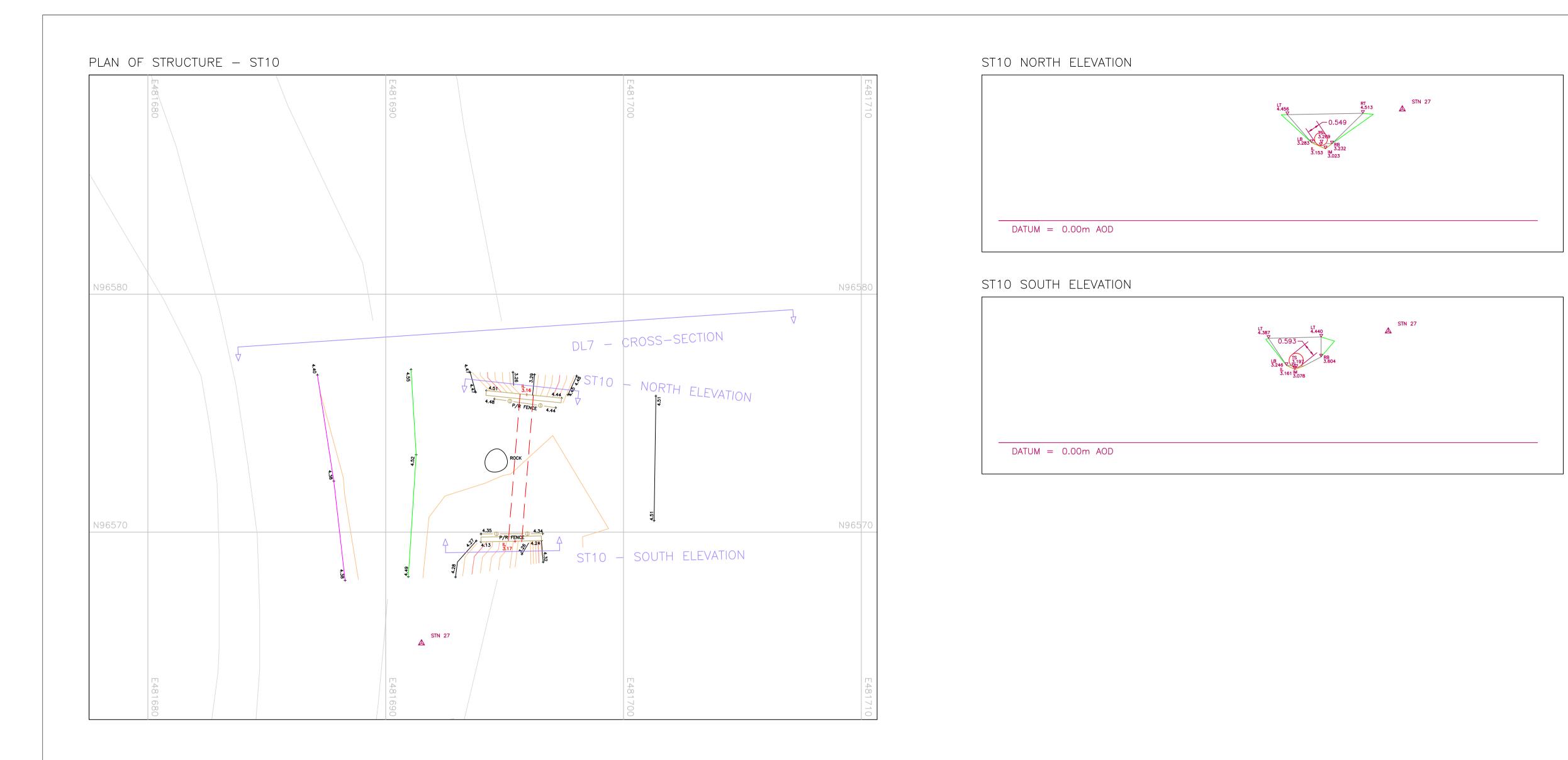
KEY

<u>NEI</u>	
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid-point
Applies	to Arch, Culvert or Head Wall
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH	Fire hydrant
GY	Gulley
IC	Inspection cover
MH	Manhole
SMP	Service marker post
GSV	Gas stop valve
WSV	Water stop valve
DK	Drop kerb
EP	Electricity pole
KB	Kerb
OSBM	OS bench mark
RS	Road sign
TP	Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

DL6 - CROSS-SECTION

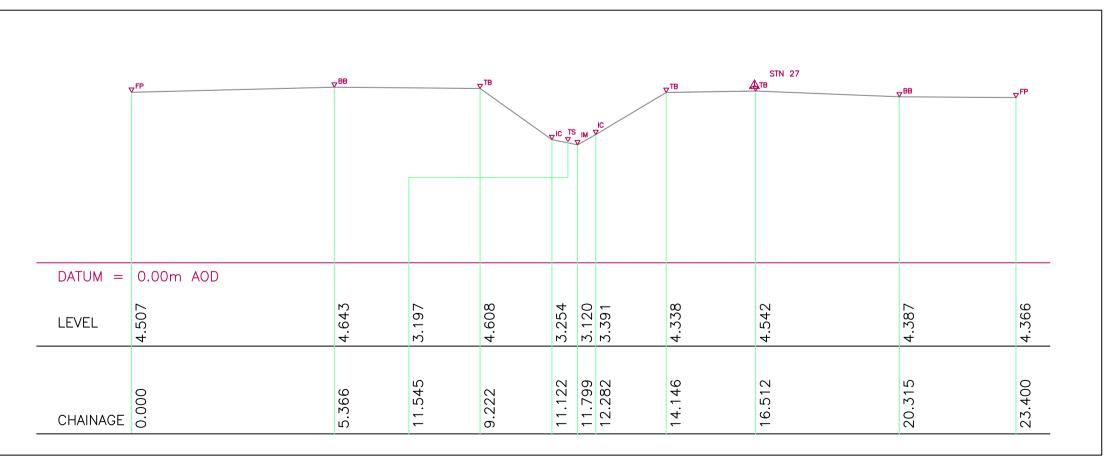






FP BB TB WL IC IM	Flood Plain Bottom of Bank Top of Bank Water Line In Channel In Channel mid—point
Applies SL LT RT LB RB BL IL TS	to Arch, Culvert or Head Wall Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level Top of Silt
FH GY IC MH SMP GSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

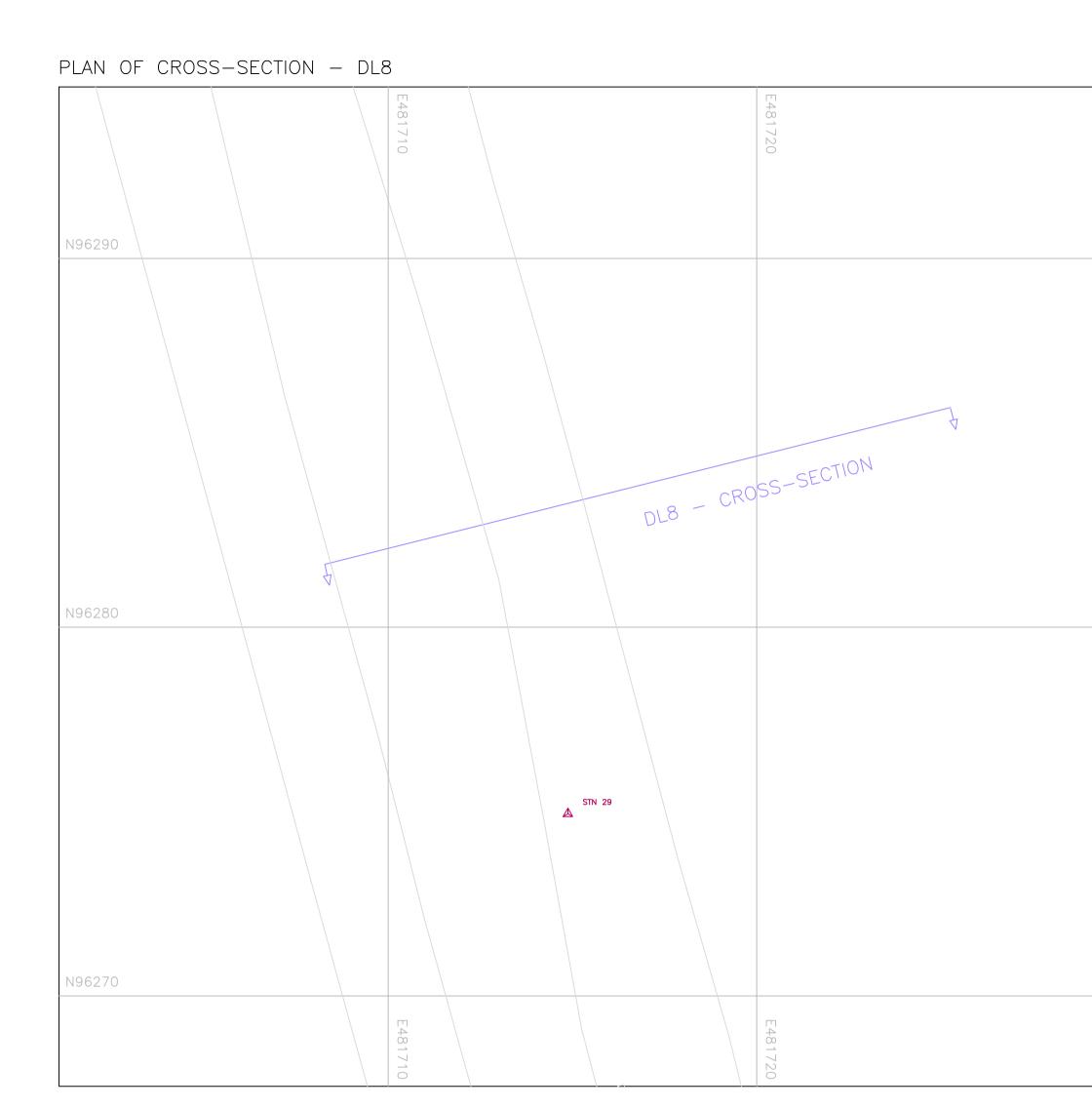
DL7 - CROSS-SECTION





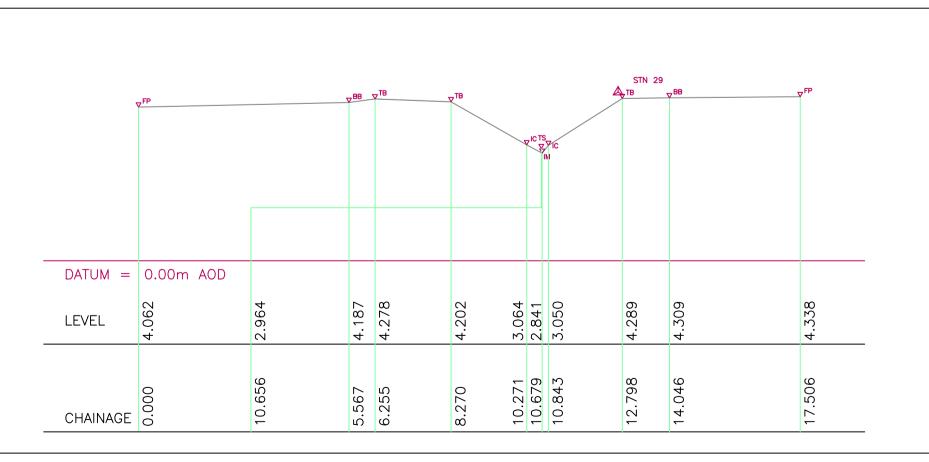
The Ordnance Survey element of this drawing is reproduced with permission. Crown copyright. All rights reserved Licence number 100022432

Notes		
advisable t	erground services are shown to check these details agains authority records before proc	st
with any d	esign.	
(including	ation contained in this draw digital data) should be che ior to any fabrication or co	cked and
	p-ordinates and levels are upon the Ordnance Survey	based
REVISION	DESCRIPTION	DATE
	Land surveying an	
	WEST HORSLEY PLACE	
	M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian	
CUSTOMER		
Manhir	e LLP	
PROJECT		
Earnley	/ Watercourse, flo	odplain
	ructure fluvial mo	
DRAWING		
	of structures an	d
	sections - DL-G	~
SCALE	DATE	
		2010
1:100		-1
CLIENT NO.	 О411_26	REVISION



<u>KEY</u>	
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid—point
Applies to	Arch, Culvert or Head Wall
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH GY IC MH GSV WSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W	Barbed wire fence
C/B	Close boarded fence
C/L	Chain link fence
C/P	Chestnut paling fence
I/W	Interwoven fence
I/R	Iron railing
L/B	Lapboard fence
P/R	Post and rail fence
P/W	Post and wire fence
W/M	Wire mesh fence
RTW	Retaining wall
SSF	Steel security fence

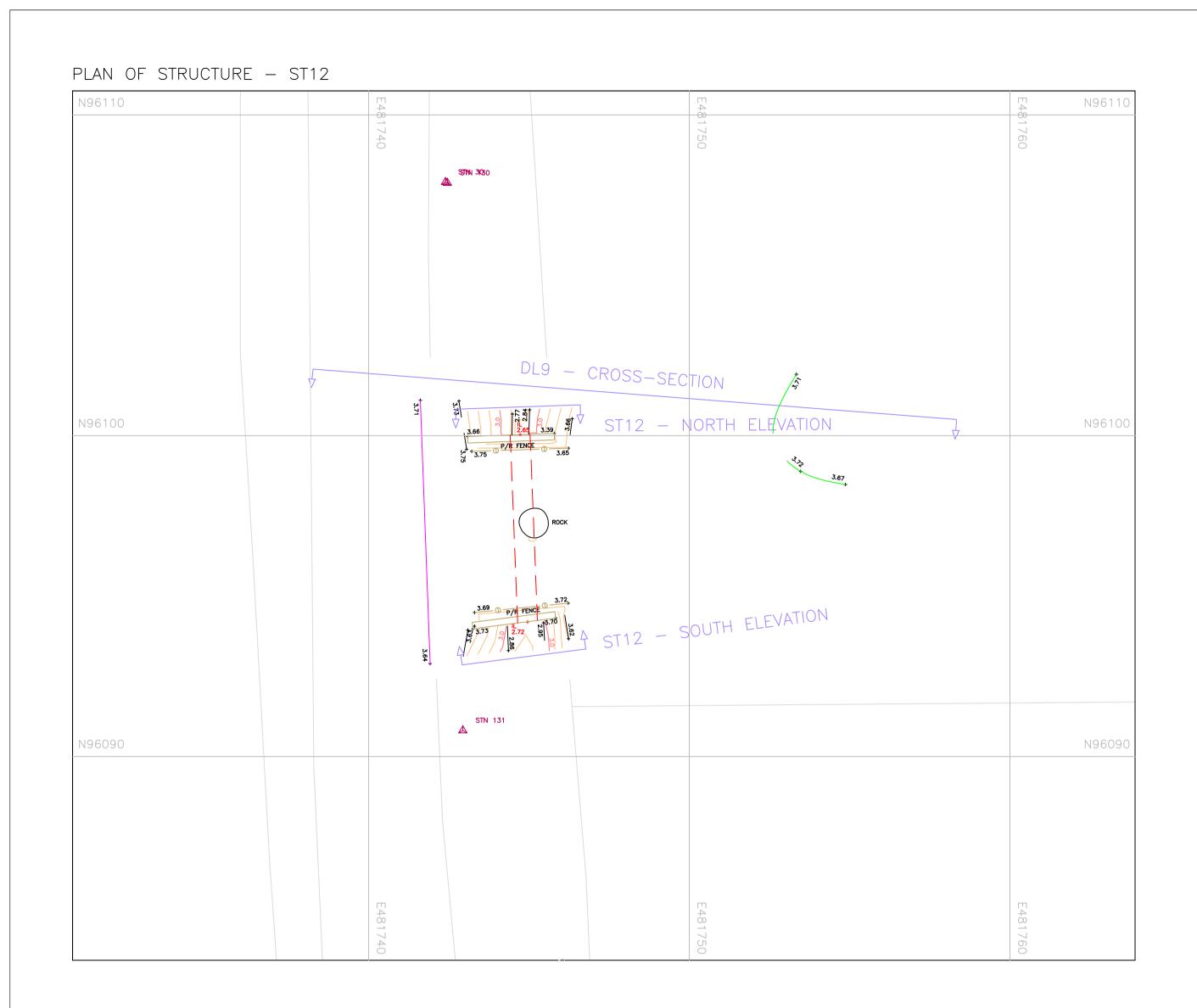
DL8	_	CROSS-SECTION
		CHOOD CLOHON



E481730	
	N96290
	N96280
	N96270
E481730	
0	

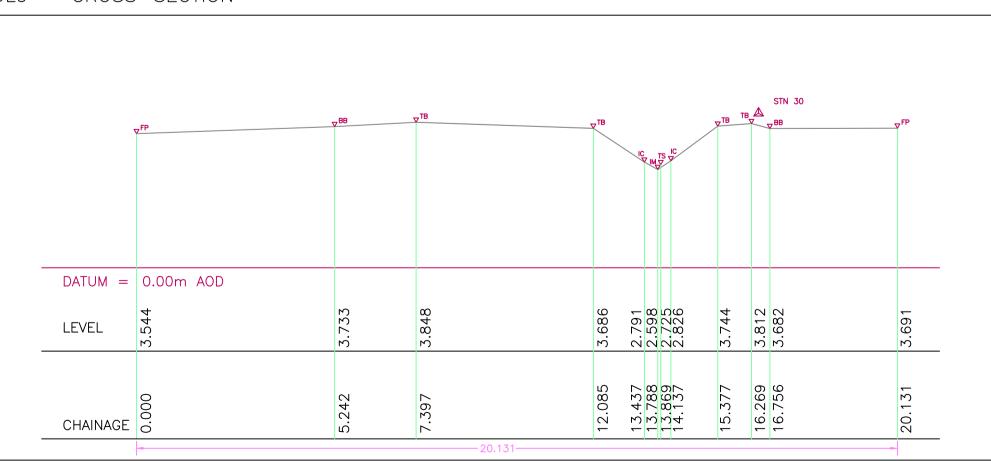


advisable t	erground services are shown to check these details again authority records before proc	st
with any d	lesign.	
(including	ation contained in this draw digital data) should be che ior to any fabrication or co	cked and
	p-ordinates and levels are upon the Ordnance Survey	based
REVISION	DESCRIPTION	DATE
, 1		
, 1	Land surveying an	
	Land surveying an	
EPSOM		6AW
EPSOM	WEST HORSLEY PLACE	6AW
EPSON Tel: 07948 6	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian	6AW
EPSON Tel: 07948 (CUSTOMER	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian	6AW
EPSON Tel: 07948 d CUSTOMER Manhird PROJECT	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian	6AW survey.co.uk
EPSON Tel: 07948 (CUSTOMER Manhire PROJECT Earnley	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian	6AW survey.co.uk
EPSON Tel: 07948 (CUSTOMER Manhire PROJECT Earnley	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian	6AW survey.co.uk
EPSON Tel: 07948 (CUSTOMER Manhire PROJECT Earnley and st DRAWING	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian	6AW survey.co.uk
EPSON Tel: 07948 (CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridian e LLP / Watercourse, flo ructure fluvial mo	6AW survey.co.uk
EPSON Tel: 07948 (CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey	WEST HORSLEY PLACE WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 - Email: peter@meridian e LLP Watercourse, flo ructure fluvial ma of structures an	6AW survey.co.uk
EPSON Tel: 07948 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey cross—	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 - Email: peter@meridian e LLP / Watercourse, flo ructure fluvial mo of structures an sections - DL-H DATE	6AW survey.co.uk
EPSON Tel: 07948 d CUSTOMER Manhird PROJECT Earnley and st DRAWING Survey cross— SCALE	WEST HORSLEY PLACE WEST HORSLEY PLACE WROAD, WEST HORSLEY KT24 603936 - Email: peter@meridian e LLP Watercourse, flo watercourse, flo ructure fluvial ma of structures an sections - DL-H DATE (A1) 24/6/	6AW survey.co.uk

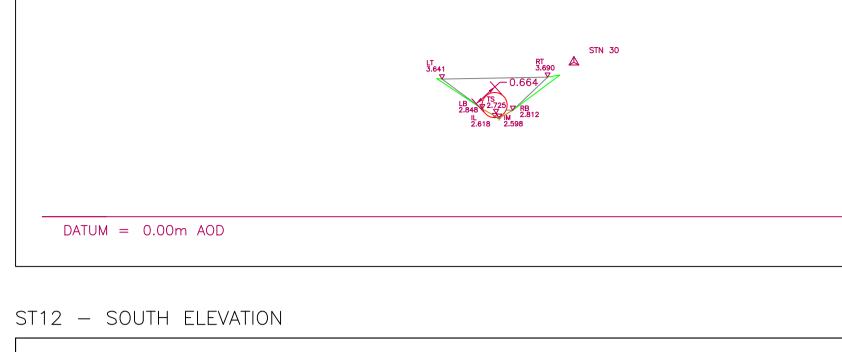


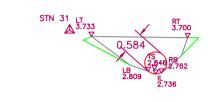
FPFlood PlainBBBottom of BankTBTop of BankWLWater LineICIn ChannelIMIn Channel mid-pointApplies to Arch, Culvert or Head WallSLSoffit LevelLTLeft TopRTRight TopLBLeft BottomRBRight BottomBLBase LevelILInvert LevelTSTop of SiltFHFire hydrantGYGulleyICInspection coverMHManholeSMPService marker postGSVGas stop valveWSVWater stop valveDKDrop kerbEPElectricity poleKBKerbOSBMOS bench markRSRoad signTPTelegraph poleB/WBarbed wire fenceC/LChain link fenceC/PChestnut paling fenceI/WInterwoven fenceI/RIron railingL/BLapboard fenceP/WPost and rail fenceP/WPost and wire fenceRTWRetaining wallSSFSteel security fence	<u>KEY</u>	
Applies to Arch, Culvert or Head WallSLSoffit LevelLTLeft TopRTRight TopLBLeft BottomRBRight BottomBLBase LevelILInvert LevelTSTop of SiltFHFire hydrantGYGulleyICInspection coverMHManholeSMPService marker postGSVGas stop valveWSVWater stop valveDKDrop kerbEPElectricity poleKBKerbOSBMOS bench markRSRoad signTPTelegraph poleB/WBarbed wire fenceC/LChain link fenceC/PChestnut paling fenceI/RIron railingL/BLapboard fenceP/WPost and rail fenceP/WPost and wire fenceRTWRetaining wall	BB TB WL IC	Bottom of Bank Top of Bank Water Line In Channel
GYGulleyICInspection coverMHManholeSMPService marker postGSVGas stop valveWSVWater stop valveDKDrop kerbEPElectricity poleKBKerbOSBMOS bench markRSRoad signTPTelegraph poleB/WBarbed wire fenceC/BClose boarded fenceC/LChain link fenceC/PChestnut paling fenceI/RIron railingL/BLapboard fenceP/WPost and wire fenceP/WWost and wire fenceRTWRetaining wall	SL LT RT LB RB BL IL	to Arch, Culvert or Head Wall Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level
C/BClose boarded fenceC/LChain link fenceC/PChestnut paling fenceI/WInterwoven fenceI/RIron railingL/BLapboard fenceP/RPost and rail fenceP/WPost and wire fenceW/MWire mesh fenceRTWRetaining wall	GY IC MH GSV WSV DK EP KB OSBM RS	Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign
5	C/B C/L C/P I/W I/R L/B P/R P/W W/M	Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence
		-

DL9	_	CROSS-SECTION	
DL9	_		1



ST12 – NORTH ELEVATION



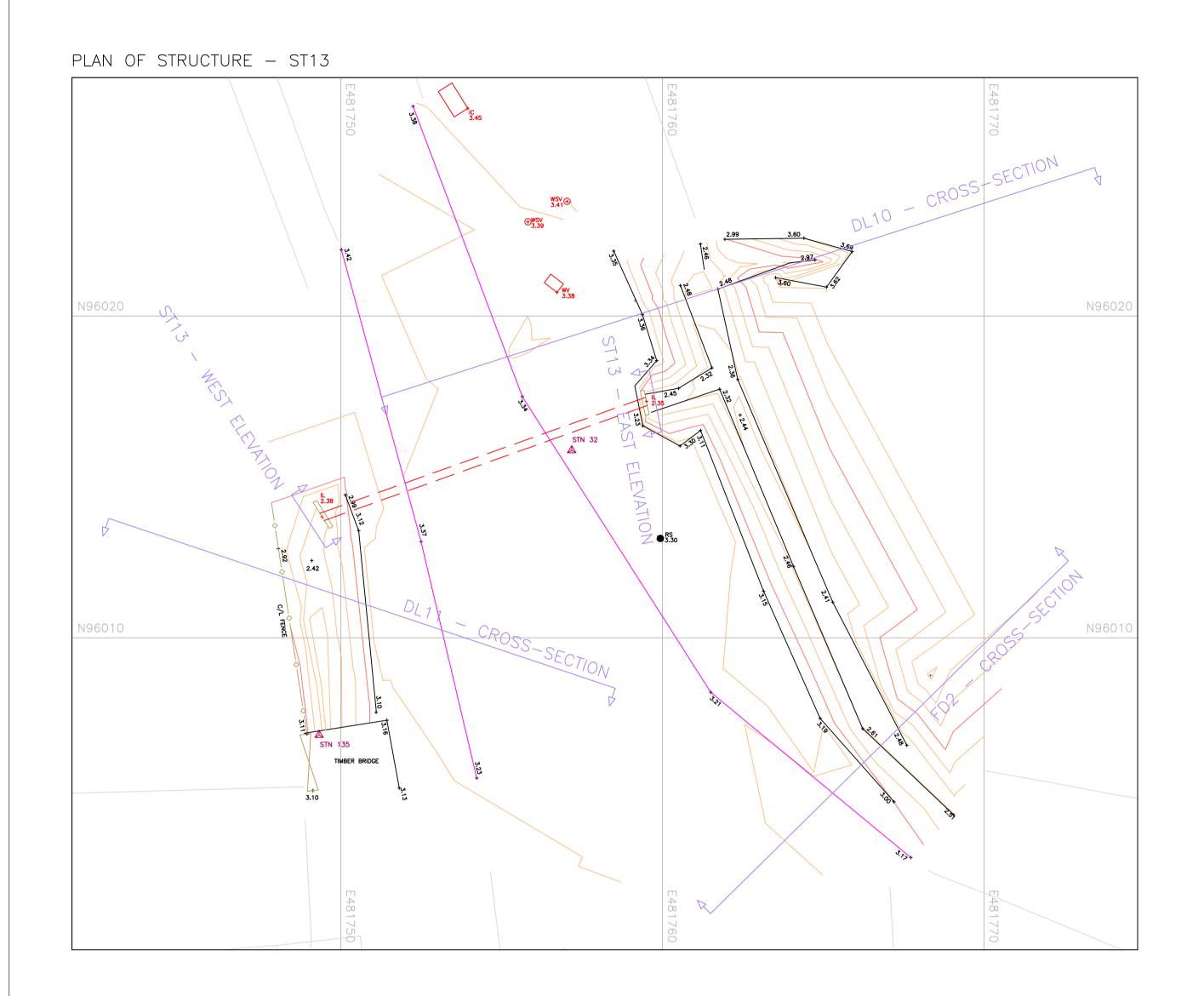


DATUM = 0.00m AOD





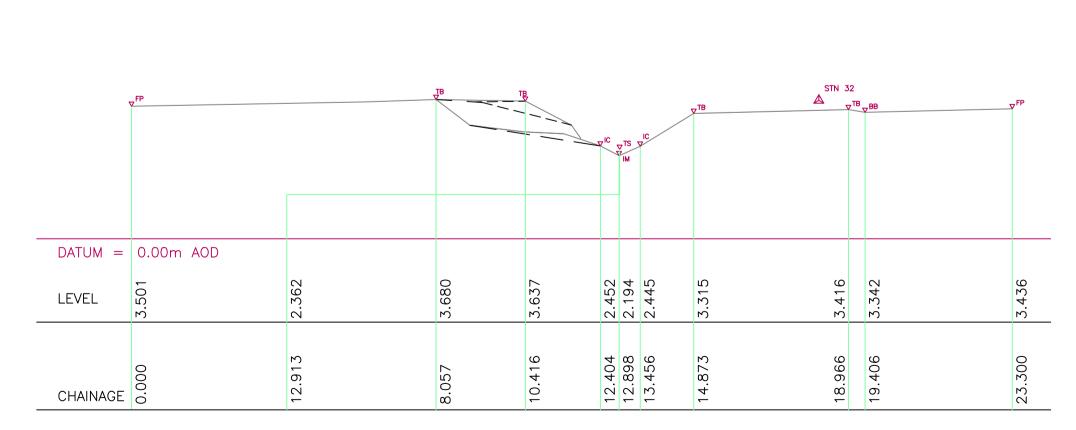
Notes				
	0		ces are shown	
			e details agains [.] Is before proce	
with any d	esign.			
All informa	ition c	ontainea	d in this drawir	ng
	-		should be chec prication or cor	
· · · · · · · · · · · · · · · · · · ·				
Grid on	-ordi	nates a	nd levels are l	ased
			na levels are i nance Survey	
REVISION	DES	CRIPTION		DATE
				I
				N .
	Ł	K	DIA	N
			surveying and	
	WE	ST HORS	LEY PLACE	
			HORSLEY KT24	
Tel: 07946 C	009900	– Emai	l: peter@meridians	urvey.co.uk
CUSTOMER				
Manhire	e LL	_P		
PROJECT				
	, \\/_			
Earnley Watercourse, floodplain and structure fluvial modelling				
and st	ruct	ure f	luvial mo	delling
DRAWING				
Survev	of	struc	tures and	
			– DL–I	
01033				
SCALE			DATE	
JUALL			DATE	
1:100	(A1))	24/6/2	2019
	(A1)) JOB N	24/6/2	2019 REVISION
1:100	(A1)	JOB N	24/6/2	

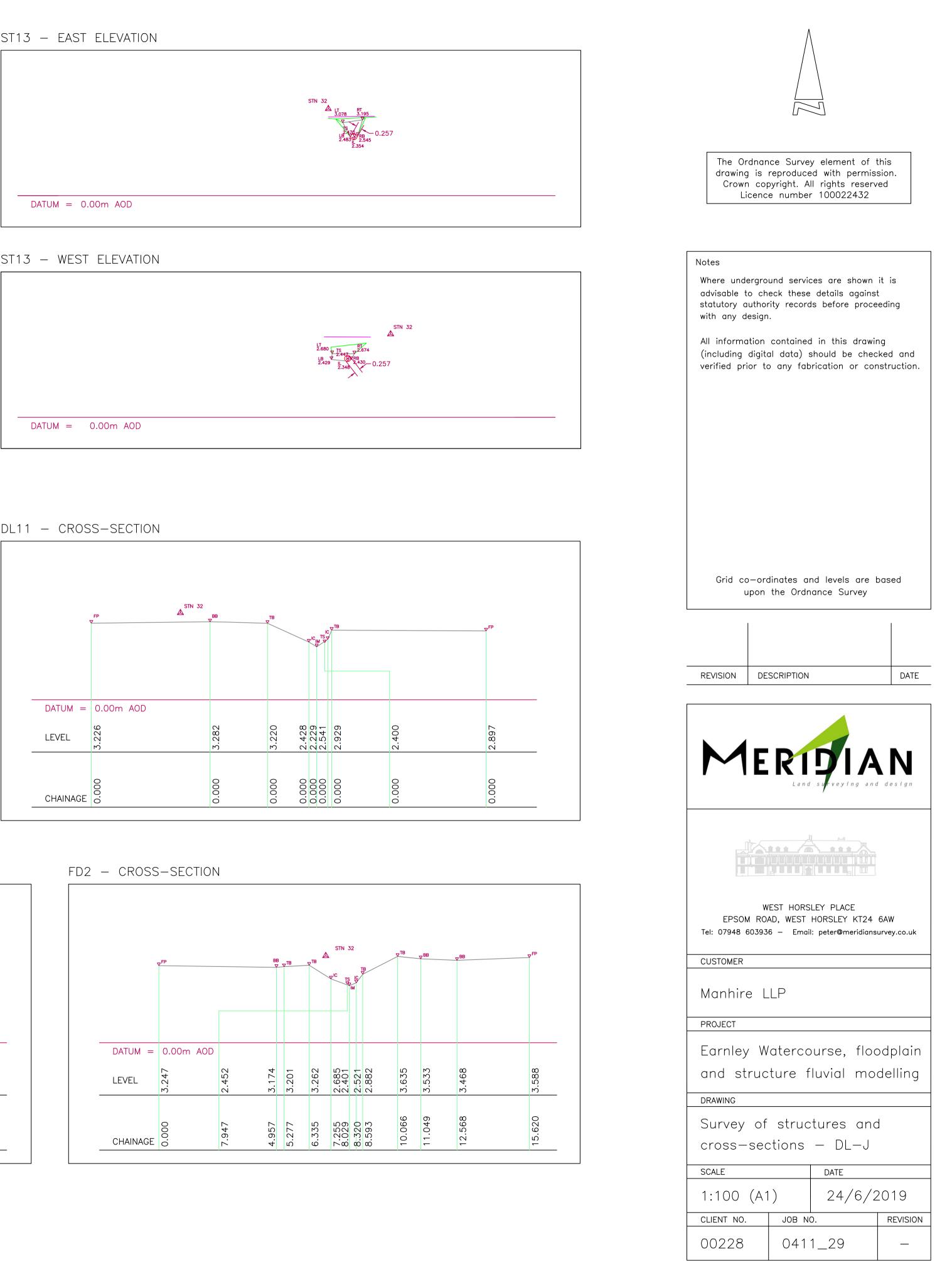


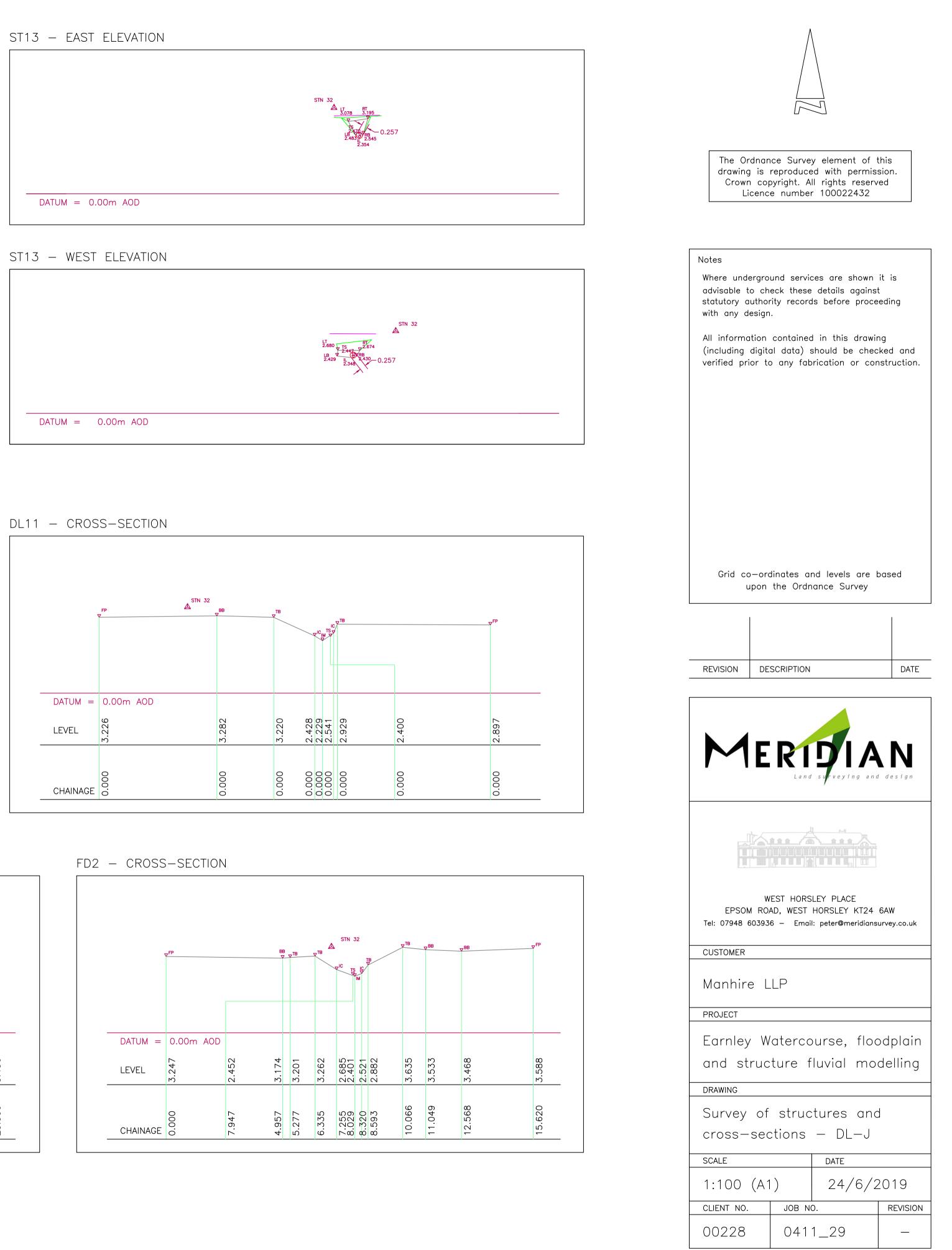
Κ	ΕY
-	

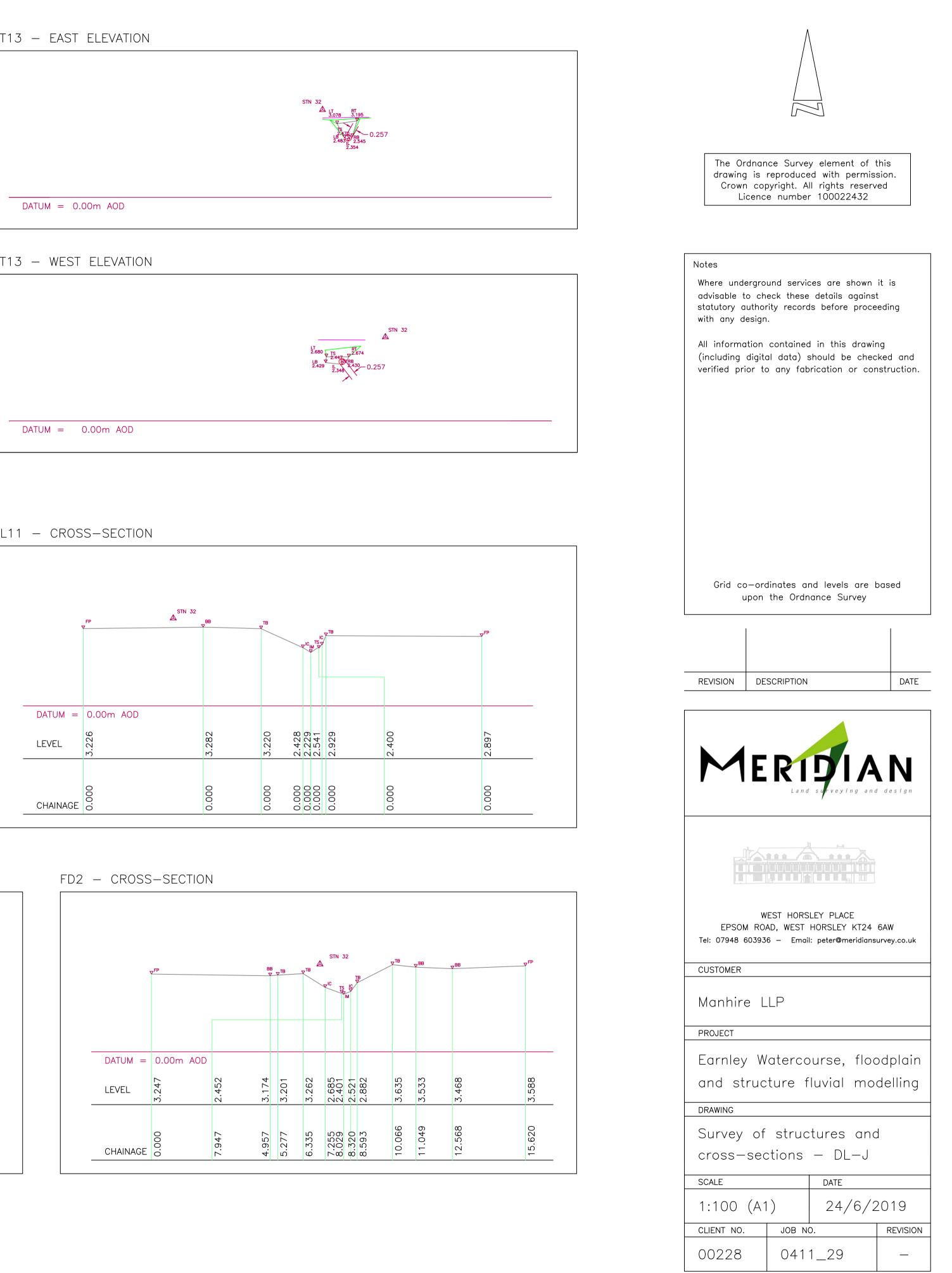
<u>KEY</u>	
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid-point
Applies	to Arch, Culvert or Head Wall
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH GY IC MH SMP GSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W	Barbed wire fence
C/B	Close boarded fence
C/L	Chain link fence
C/P	Chestnut paling fence
I/W	Interwoven fence
I/R	Iron railing
L/B	Lapboard fence
P/R	Post and rail fence
P/W	Post and wire fence
W/M	Wire mesh fence
RTW	Retaining wall
SSF	Steel security fence

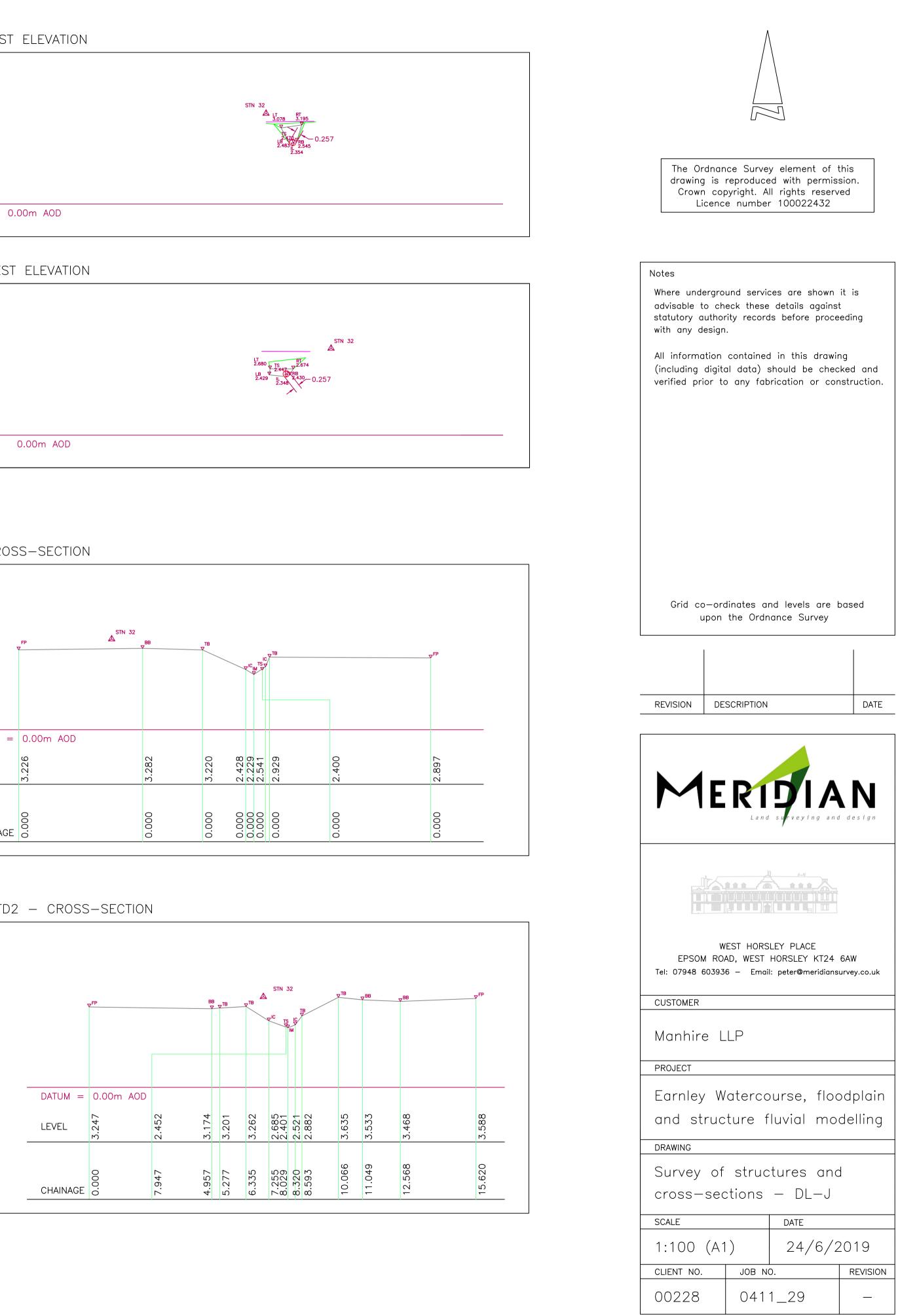
DL10 - CROSS-SECTION

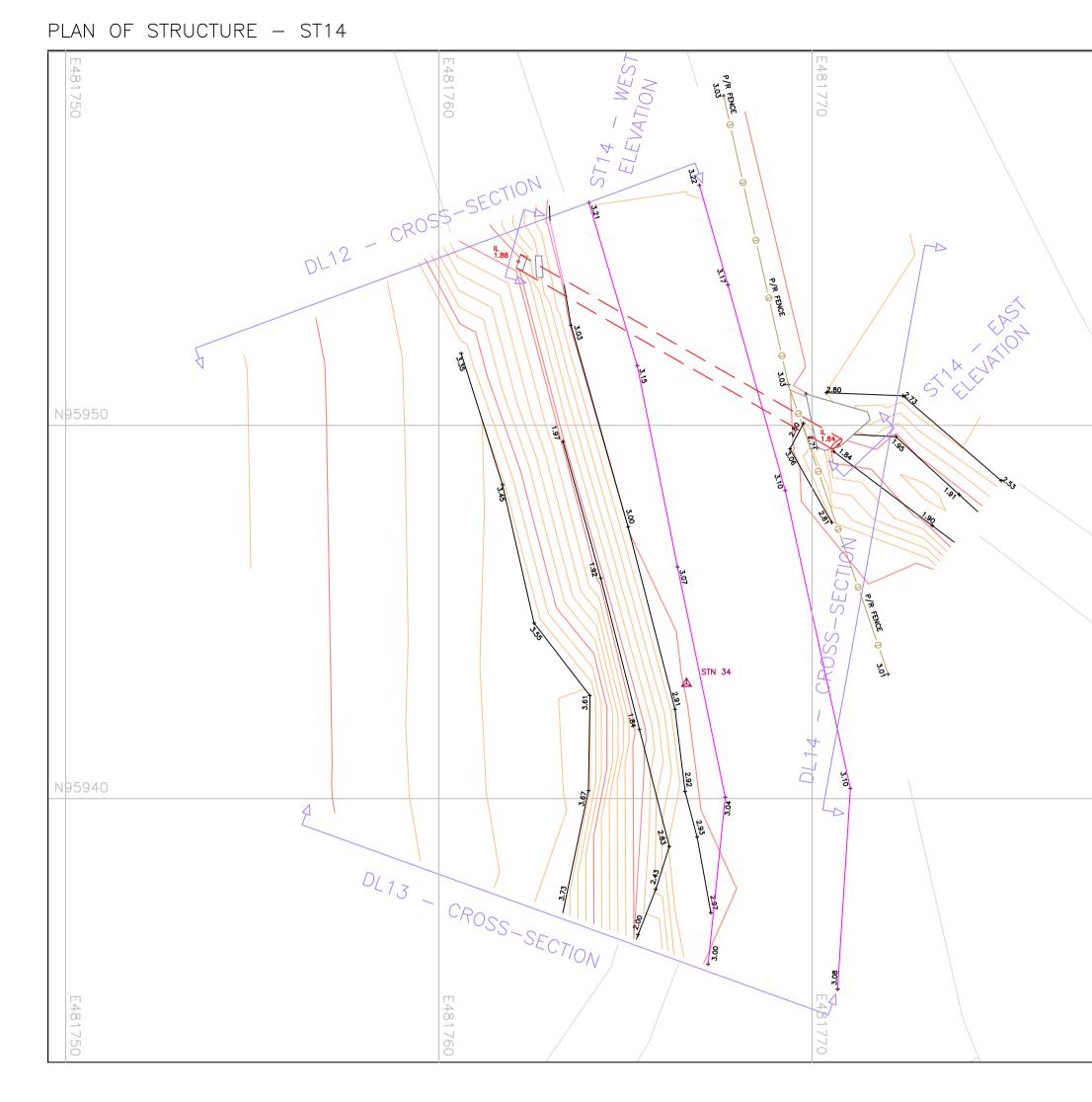






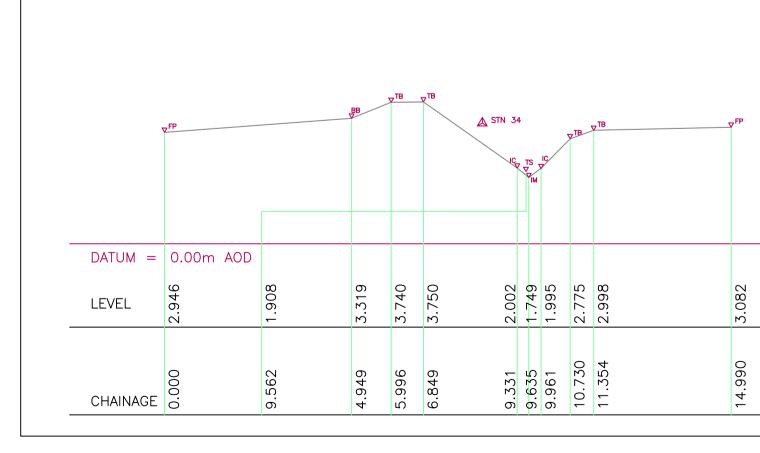


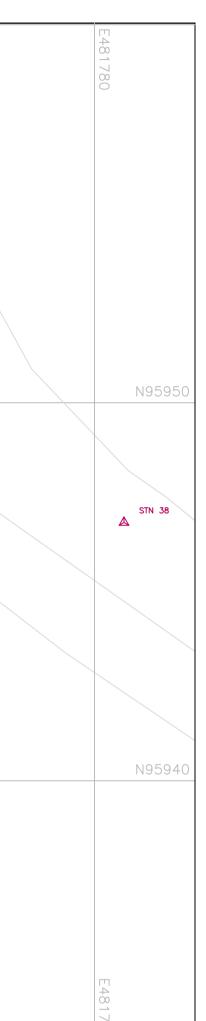




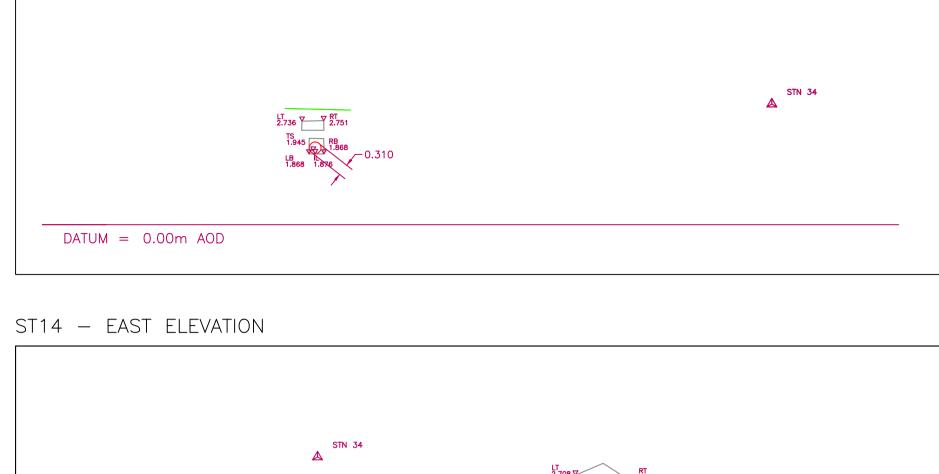
<u>KEY</u>	
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid—point
Applies t	o Arch, Culvert or Head Wall
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH	Fire hydrant
GY	Gulley
IC	Inspection cover
MH	Manhole
SMP	Service marker post
GSV	Gas stop valve
WSV	Water stop valve
DK	Drop kerb
EP	Electricity pole
KB	Kerb
OSBM	OS bench mark
RS	Road sign
TP	Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

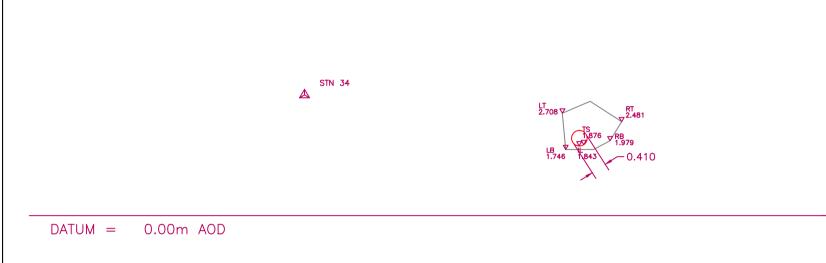
DL13 - CROSS-SECTION



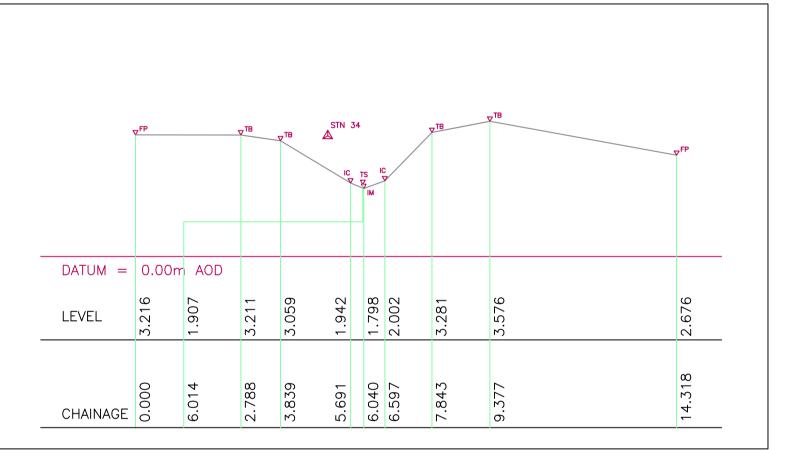


ST14 – WEST ELEVATION

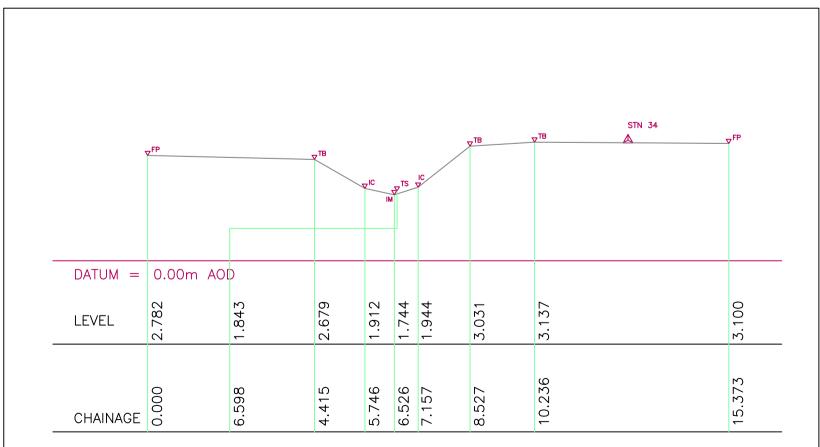




DL12 - CROSS-SECTION









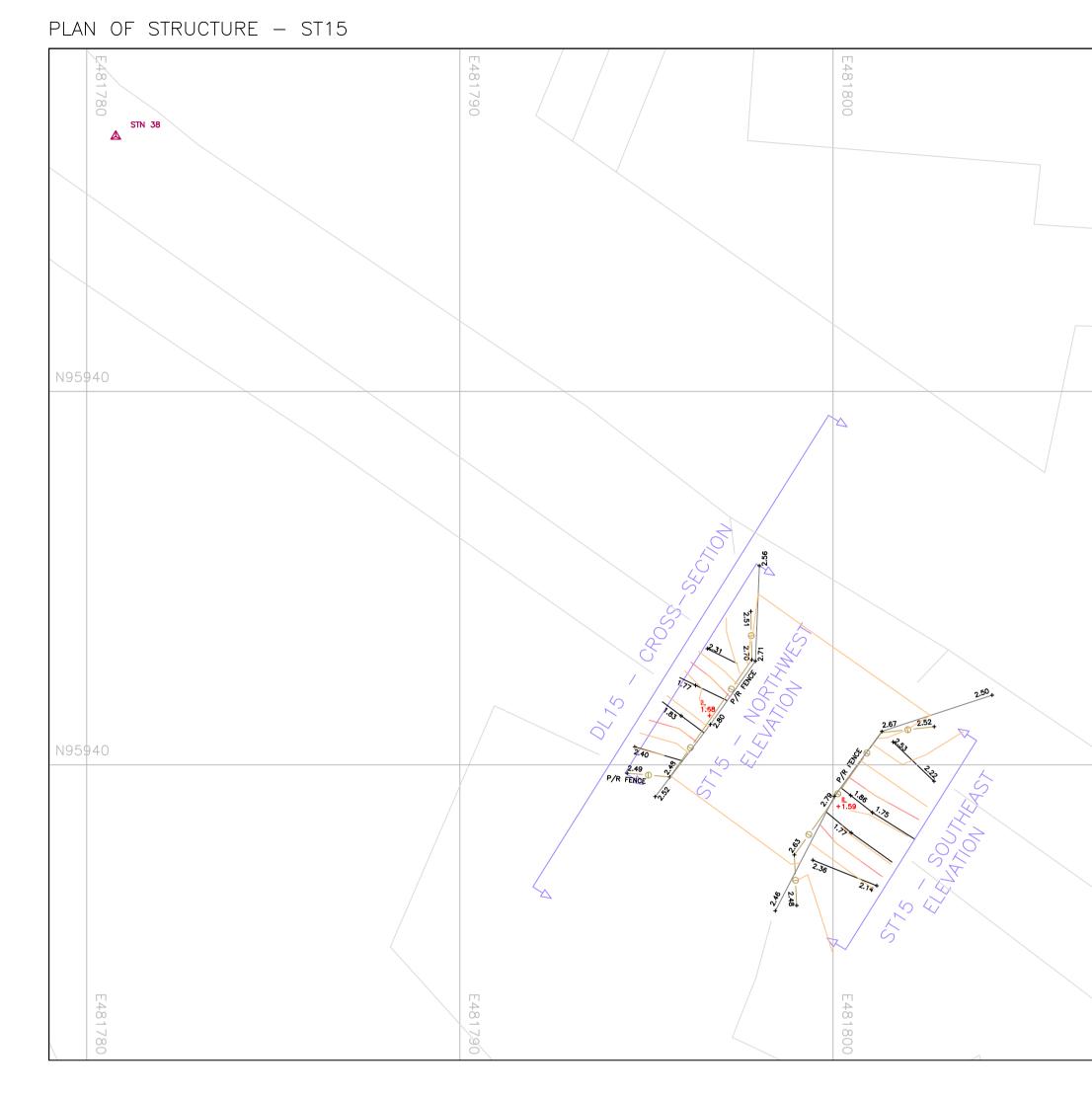
The Ordnance Survey element of this drawing is reproduced with permission. Crown copyright. All rights reserved Licence number 100022432

Notes						
advisable t	o check these uthority recor	ices are shown it e details against ds before proceedi				
(including	digital data)	d in this drawing should be checked brication or constr				
		ind levels are bas nance Survey	ed			
REVISION	DESCRIPTION	1	DATE			
M		DIA d surveying and d	N esign			
	I ROAD, WEST	SLEY PLACE HORSLEY KT24 6AV il: peter@meridiansurve				
CUSTOMER						
Manhire	e LLP					
PROJECT						
Earnley Watercourse, floodplain						
and structure fluvial modelling						
DRAWING						
Survey of structures and						
	cross-sections - DL-K					
	(\ 1)	DATE	10			
1:100 CLIENT NO.		25/6/20				

00228

0411_30

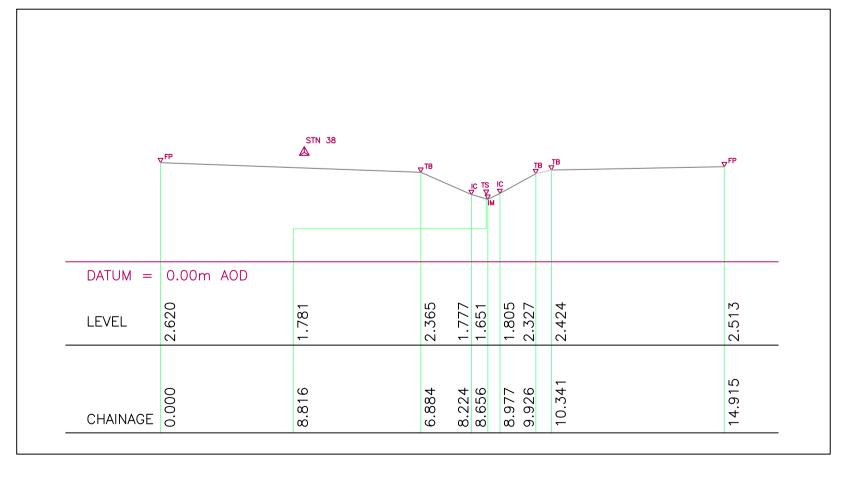
—

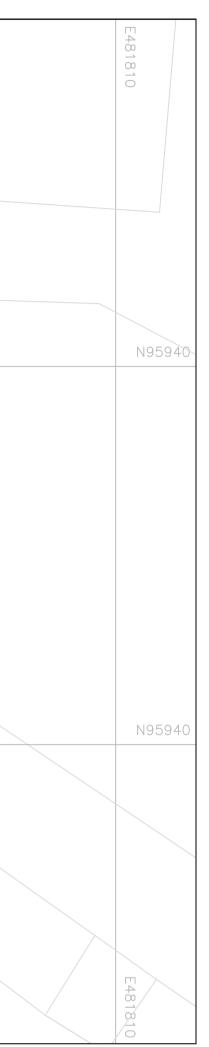


<u>KEY</u>

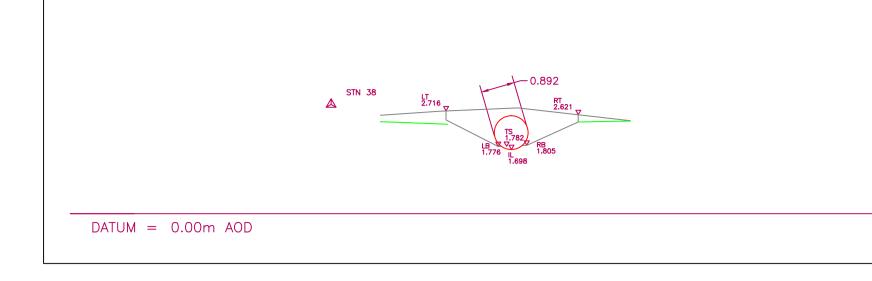
FP BB TB WL IC IM	Flood Plain Bottom of Bank Top of Bank Water Line In Channel In Channel mid-point
Applies SL LT RT LB RB BL IL TS	to Arch, Culvert or Head Wall Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level Top of Silt
FH GY IC MH SMP GSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

DL15 - CROSS-SECTION

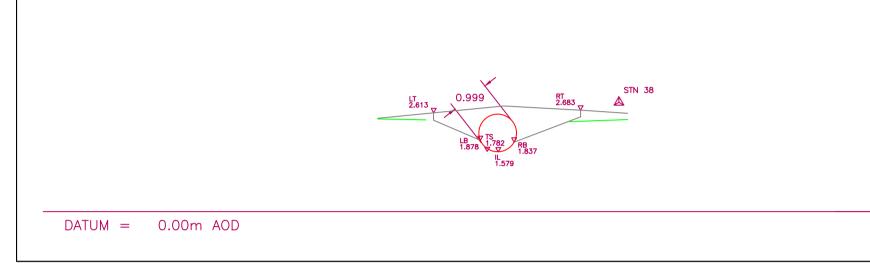




ST15 – NORTHWEST ELEVATION

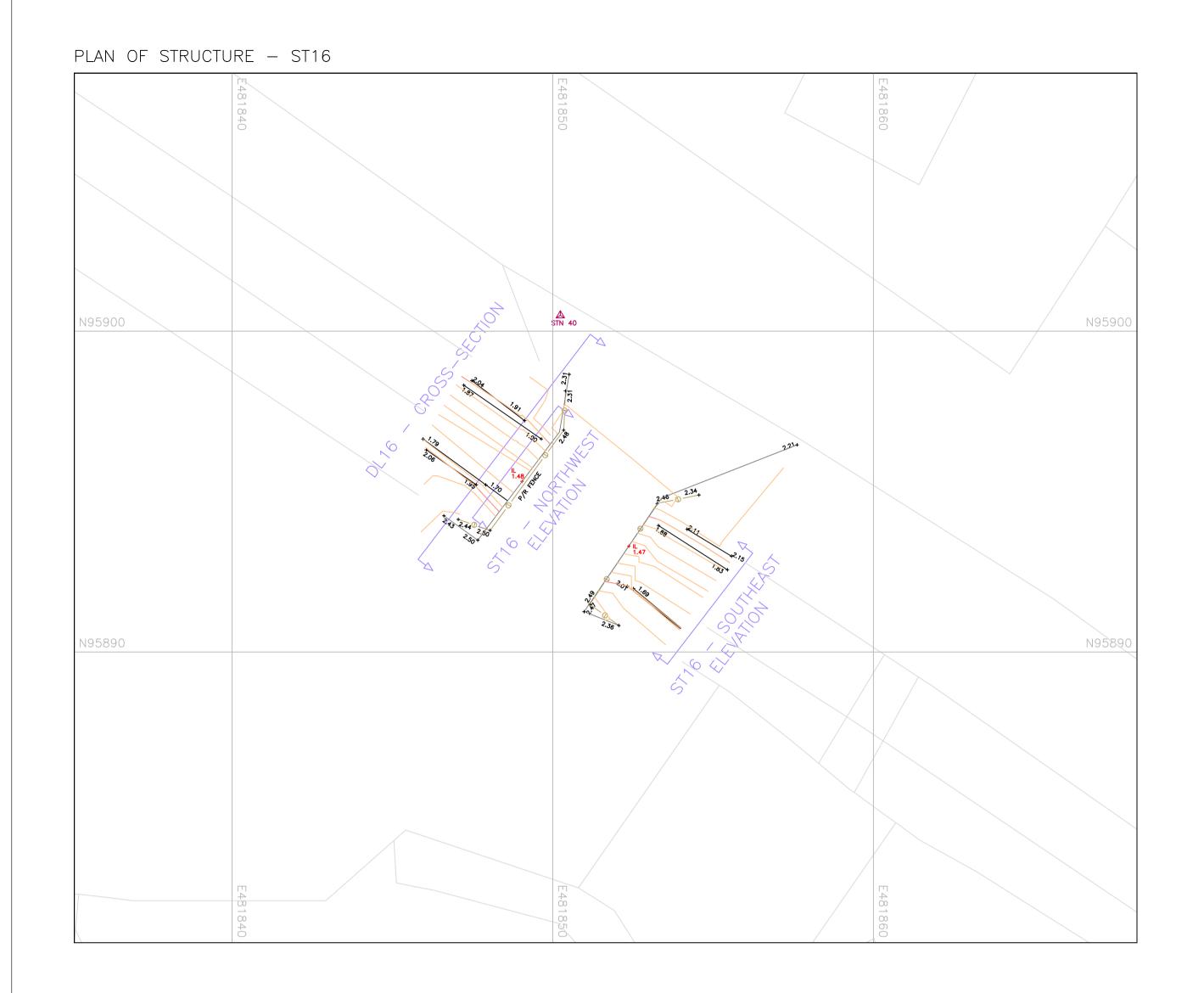






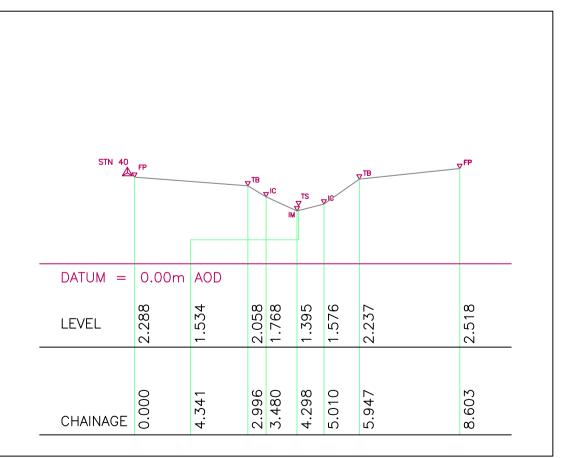


Notes					
advisable t	o check thes	ices are shown e details agains ds before proce	t		
-	statutory authority records before proceeding with any design.				
(including	All information contained in this drawing (including digital data) should be checked and verified prior to any fabrication or construction.				
Grid co	o-ordinates d	and levels are l	based		
l i	ipon the Ord	nance Survey			
	CORRECTED		5/7/19		
REVISION	DESCRIPTION	N	DATE		
		d surveying and			
EPSON		SLEY PLACE HORSLEY KT24	6AW		
EPSOM ROAD, WEST HORSLEY KT24 6AW Tel: 07948 603936 — Email: peter@meridiansurvey.co.uk					
CUSTOMER					
Manhir	Manhire LLP				
PROJECT	PROJECT				
Farnley	Earnley Watercourse, floodplain				
	and structure fluvial modelling				
			1		
		ctures and	t l		
cross-	sections	- DL-L			
SCALE		DATE			
1:100	1:100 (A1) 25/6/2019				
CLIENT NO. JOB NO. REVISION					
	JOB N	١0.	REVISION		

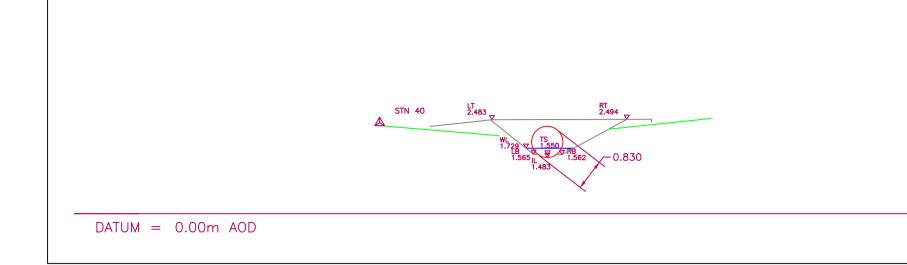


<u>KEY</u>	
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid—point
Applies to	Arch, Culvert or Head Wall
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH	Fire hydrant
GY	Gulley
IC	Inspection cover
MH	Manhole
SMP	Service marker post
GSV	Gas stop valve
WSV	Water stop valve
DK	Drop kerb
EP	Electricity pole
KB	Kerb
OSBM	OS bench mark
RS	Road sign
TP	Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

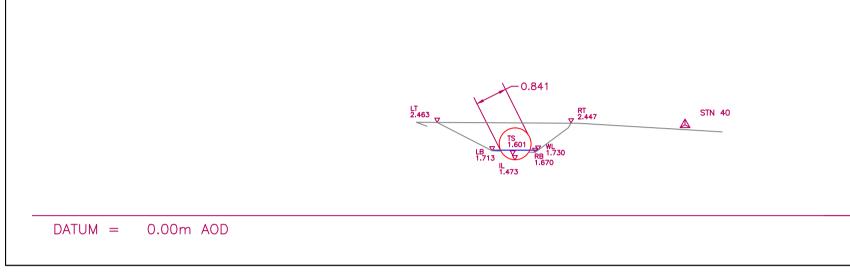
DL16 - CROSS-SECTION



ST16 – NORTHWEST ELEVATION

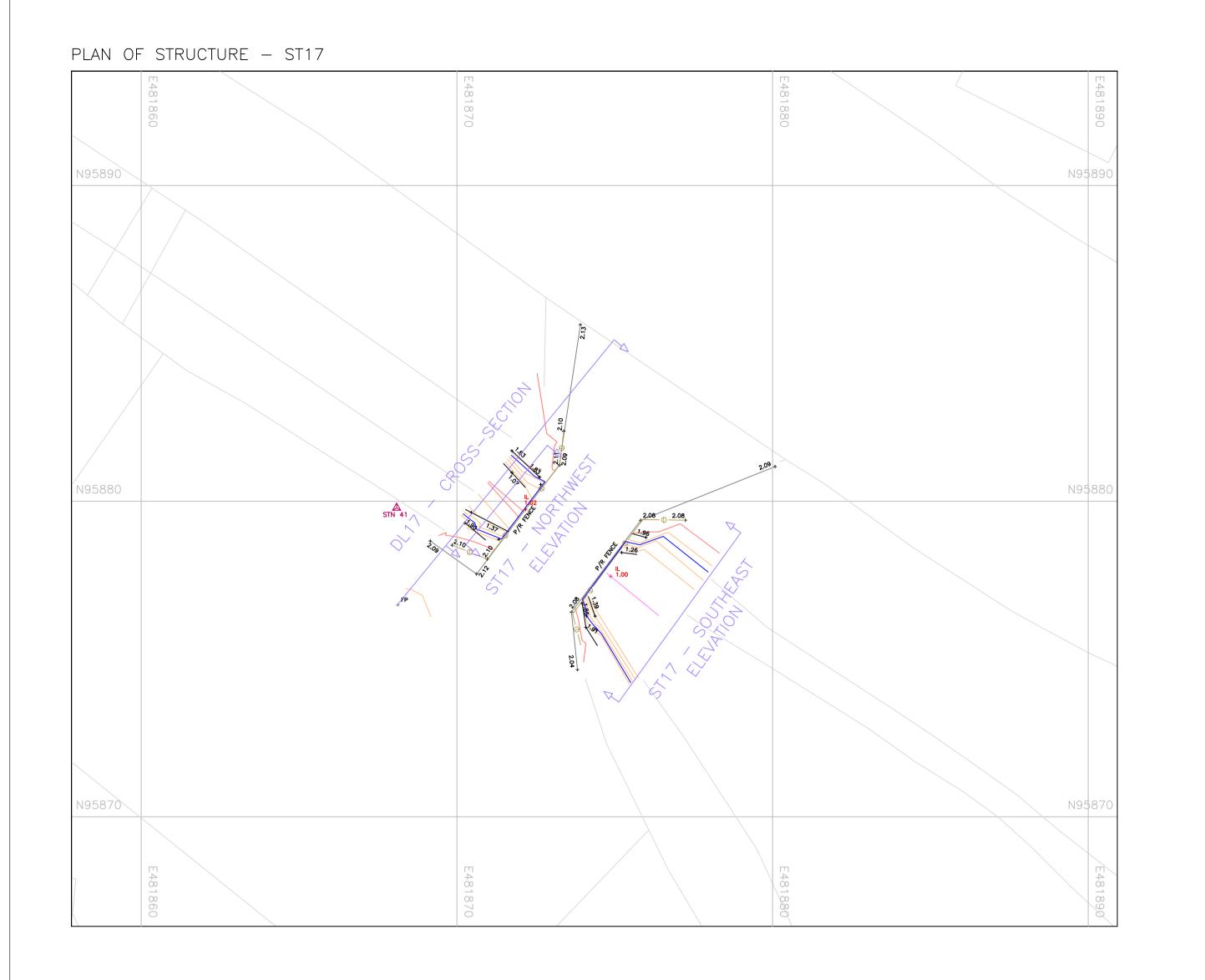








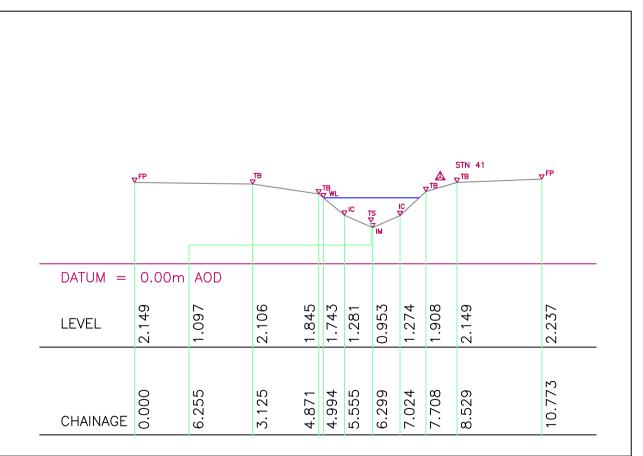
Notes					
Where underground services are shown it is advisable to check these details against					
statutory authority records before proceeding with any design.					
	0	ontainer	d in this drawi		
(including	digital	data) s	should be chec	ked and	
verified pr	ior to	any fab	prication or cor	istruction.	
			nd levels are l	based	
l	upon t	he Ordr	ance Survey		
A		UM AMEN		5 /7 /10	
REVISION				5/7/19 DATE	
		Land	surveying and	1 design	
H					
WEST HORSLEY PLACE EPSOM ROAD, WEST HORSLEY KT24 6AW					
Tel: 07948 603936 — Email: peter@meridiansurvey.co.uk					
CUSTOMER					
Manhir	Manhire LLP				
PROJECT					
Earnley Watercourse, floodplain					
and structure fluvial modelling					
DRAWING					
	ح ۲			4	
	Survey of structures and cross-sections - DL-M				
	Sec	uons			
SCALE		<u></u>	DATE		
1:100	(A1))	25/6/2	2019	
CLIENT NO.	CLIENT NO. JOB NO. REVISION				
00228		\frown	1_32	A	



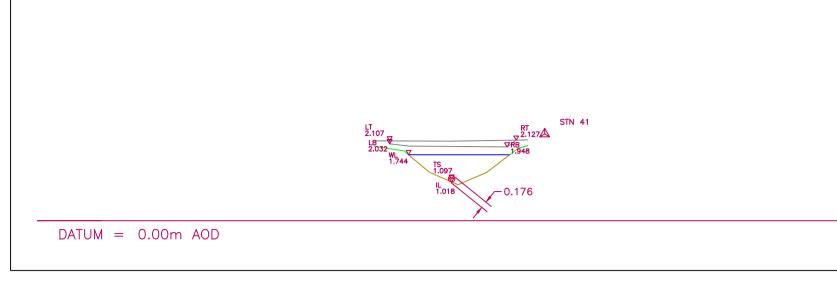
<u>KEY</u>

<u>NEI</u>	
FP BB TB WL IC IM	Flood Plain Bottom of Bank Top of Bank Water Line In Channel In Channel mid—point
Applies SL LT RT LB RB BL IL TS	to Arch, Culvert or Head Wall Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level Top of Silt
FH GY IC MH GSV GSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

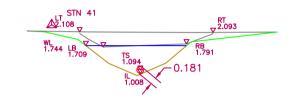
DL17 - CROSS-SECTION



ST17 – NORTHWEST ELEVATION







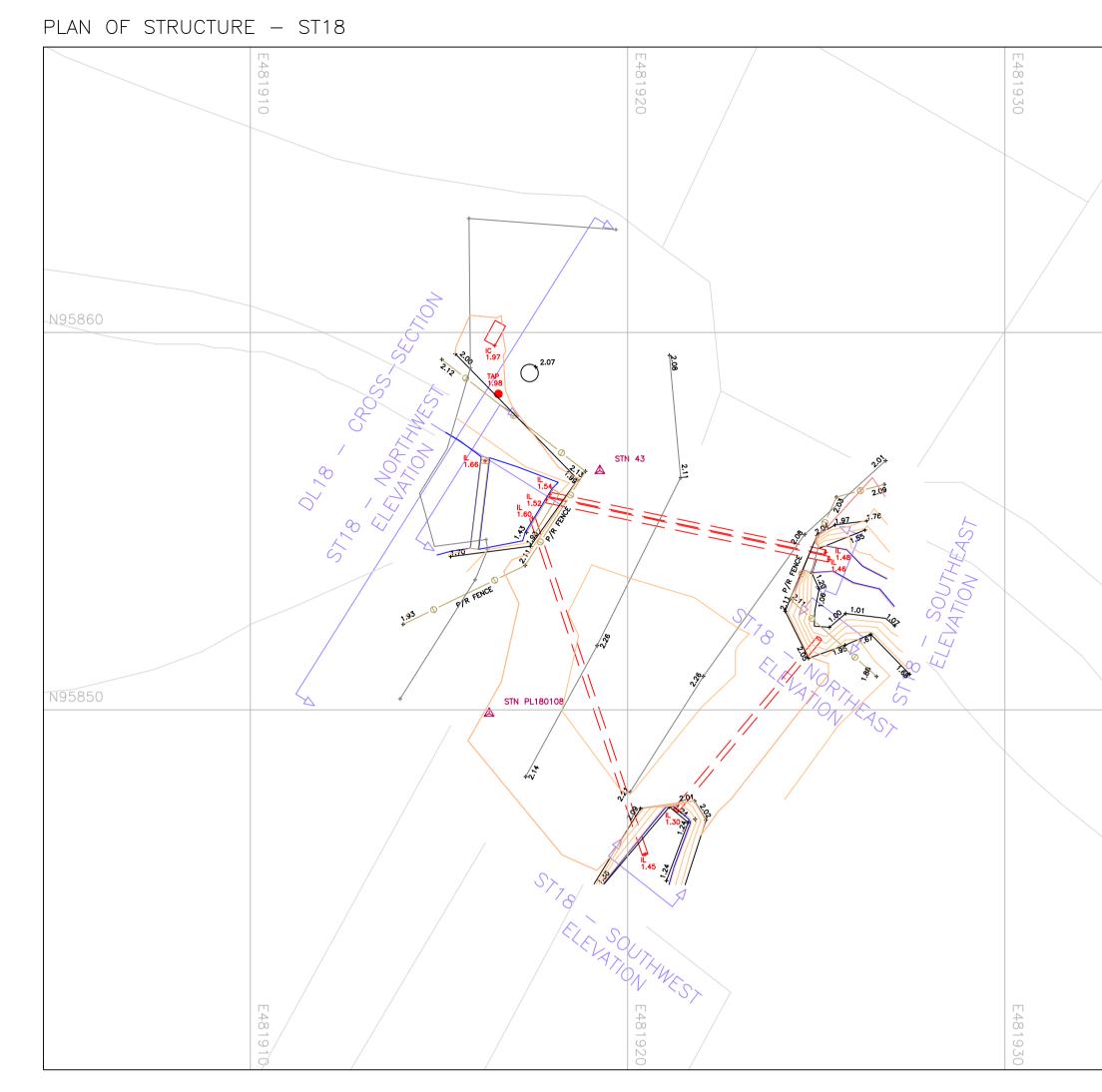
_____ DATUM = 0.00m AOD





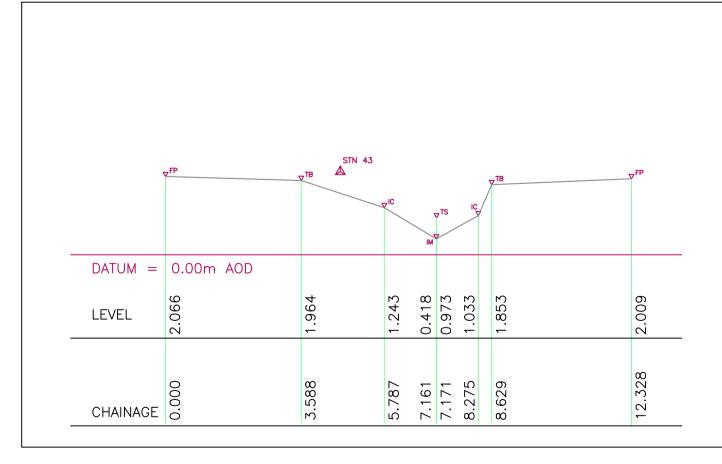
The Ordnance Survey element of this drawing is reproduced with permission. Crown copyright. All rights reserved Licence number 100022432

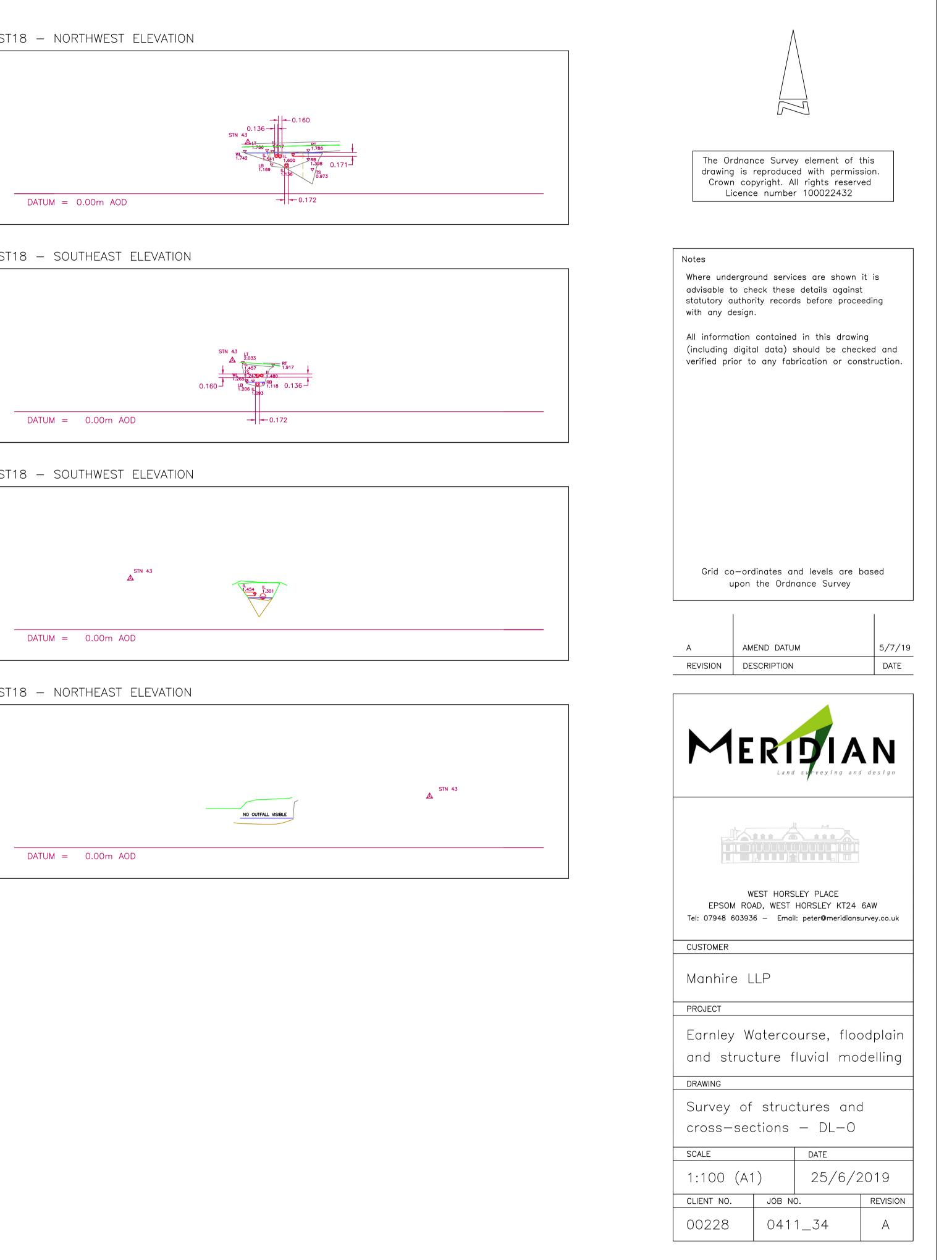
Notes					
advisable to ch	und services are shown eck these details again: rity records before proc n.	st			
(including digite	contained in this draw al data) should be che o any fabrication or co	cked and			
	dinates and levels are the Ordnance Survey	based			
REVISION DE	SCRIPTION	DATE			
MF	RIDIA	N NI			
	Land surveying an				
w	/EST HORSLEY PLACE				
EPSOM RO.	AD, WEST HORSLEY KT24 6 — Email: peter@meridian				
CUSTOMER					
Manhire L	LP				
PROJECT					
-	atercourse, flo				
and struc	ture fluvial mo	odelling			
DRAWING					
-	structures an	d			
	ctions – DL–N				
SCALE	DATE	0.0.1.5			
1:100 (A1) 25/6/2019					
CLIENT NO.	JOB NO.	REVISION			
00228	0411_33	-			

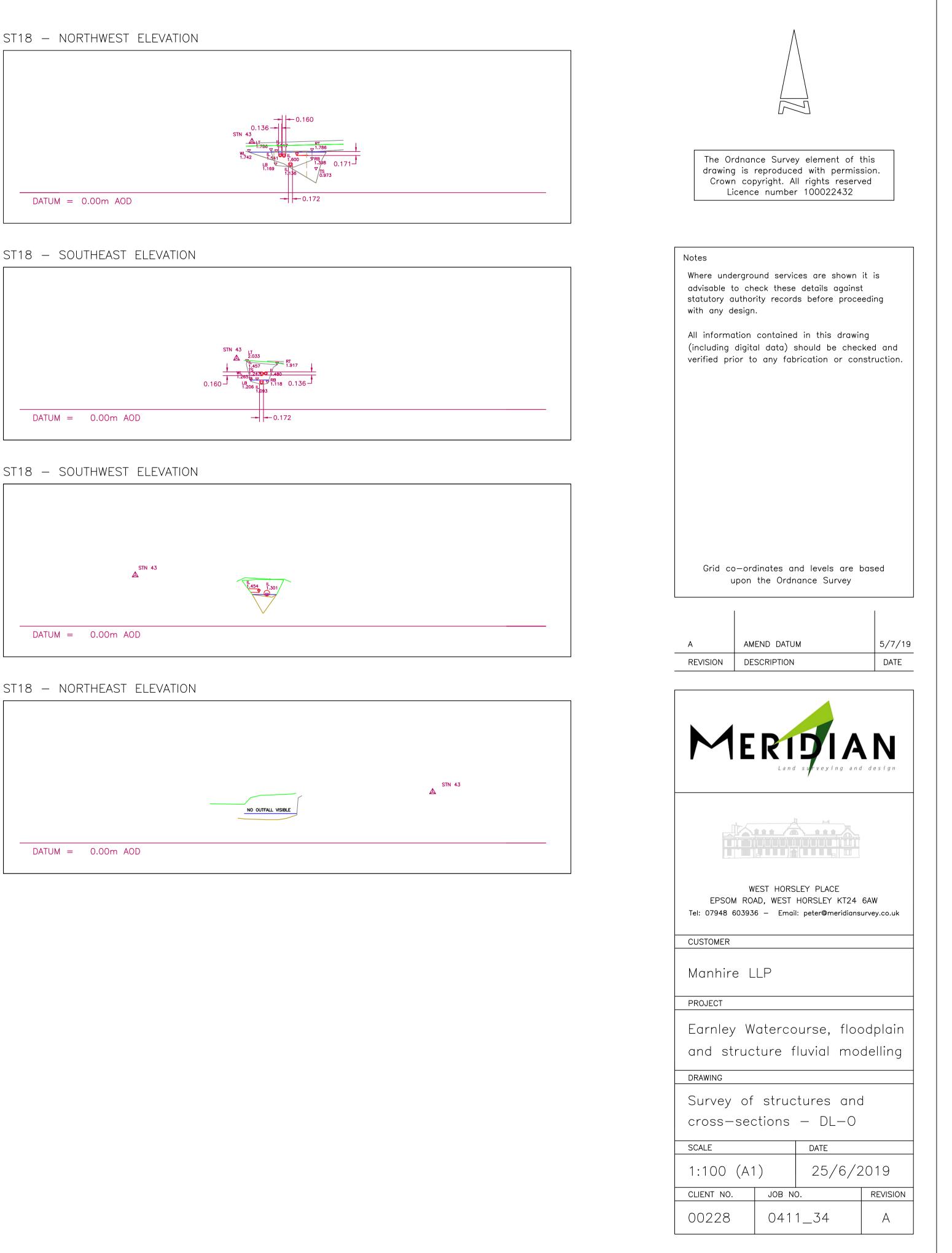


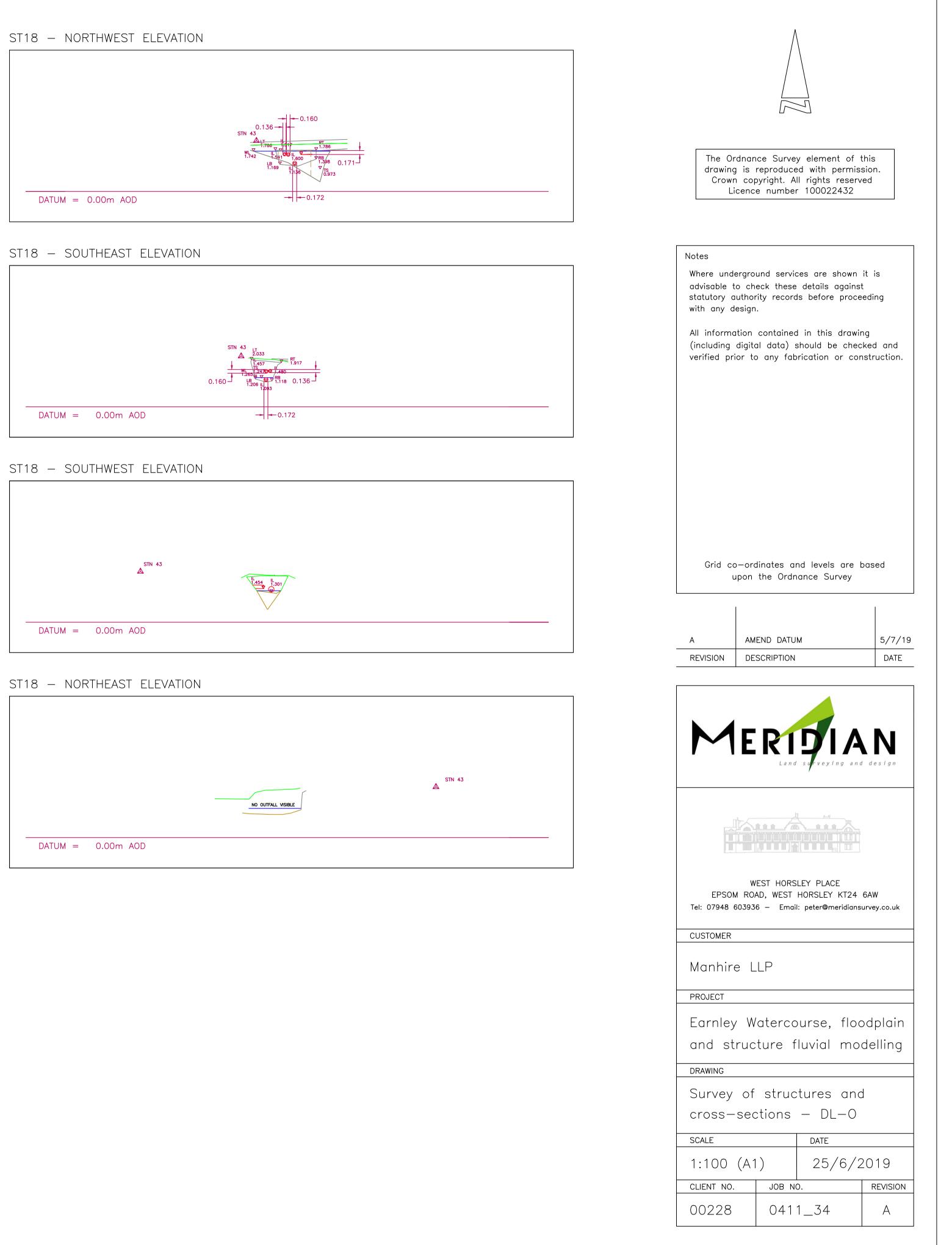
FPFlood PlainBBBottom of BankTBTop of BankWLWater LineICIn ChannelIMIn Channel mid—pointApplies to Arch, Culvert or Head WallSLSoffit LevelLTLeft TopRTRight TopLBLeft BottomRBRight Bottom	
SL Soffit Level LT Left Top RT Right Top LB Left Bottom	
LT Left Top RT Right Top LB Left Bottom	1
BL Base Level IL Invert Level TS Top of Silt	
FHFire hydrantGYGulleyICInspection coverMHManholeSMPService marker postGSVGas stop valveWSVWater stop valveDKDrop kerbEPElectricity poleKBKerbOSBMOS bench markRSRoad signTPTelegraph pole	
B/WBarbed wire fenceC/BClose boarded fenceC/LChain link fenceC/PChestnut paling fenceI/WInterwoven fenceI/RIron railingL/BLapboard fenceP/RPost and rail fenceP/WPost and wire fenceW/MWire mesh fenceRTWRetaining wall	
SSF Steel security fence	

DL18 - CROSS-SECTION

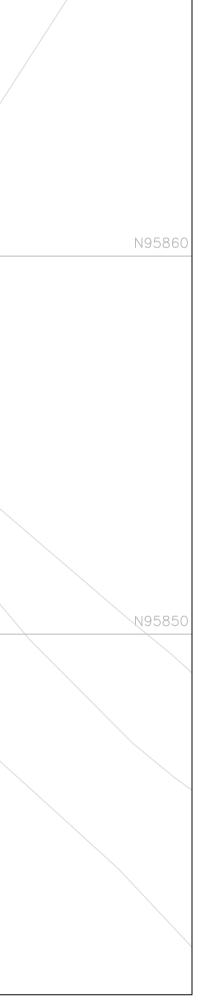


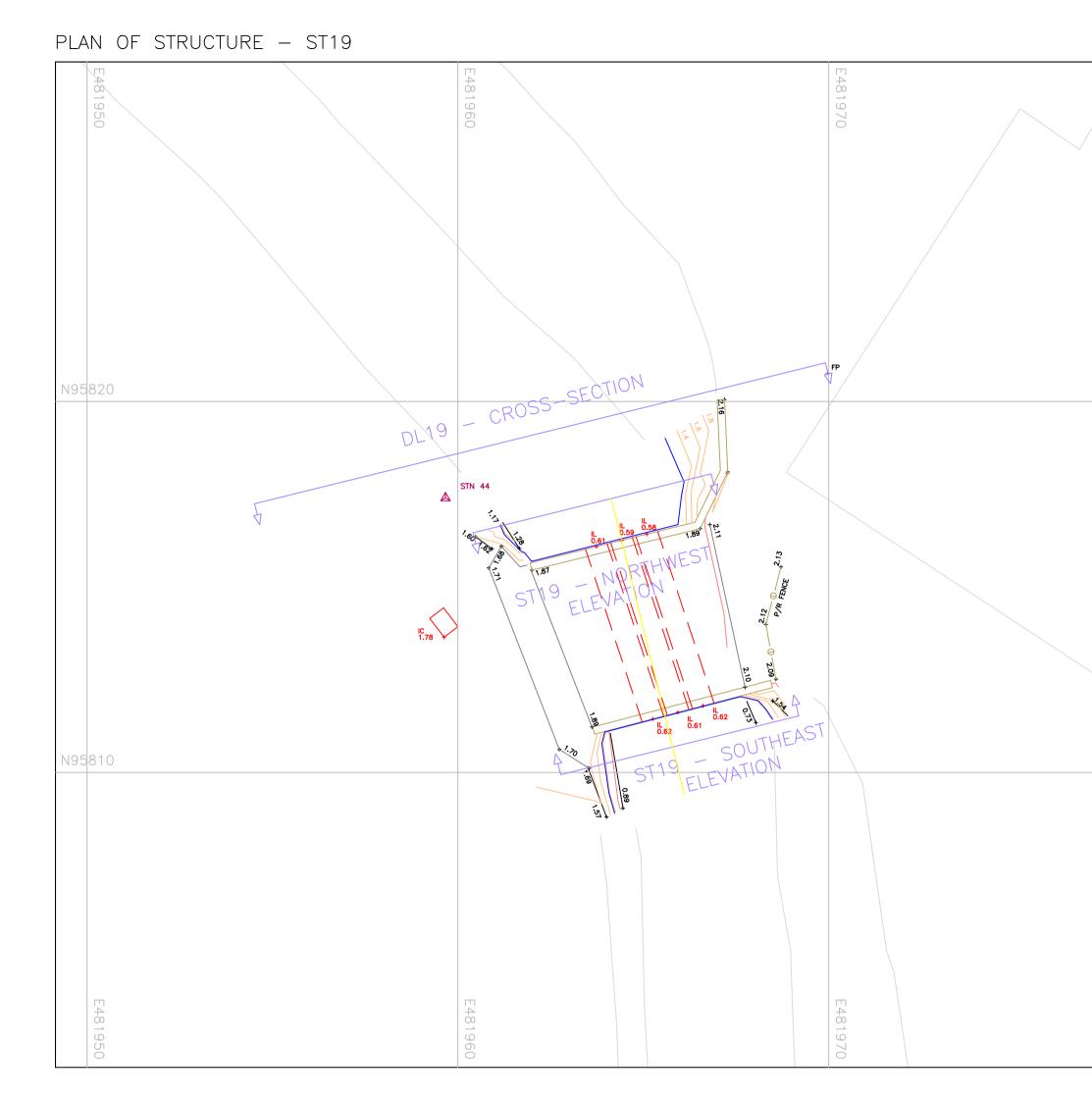






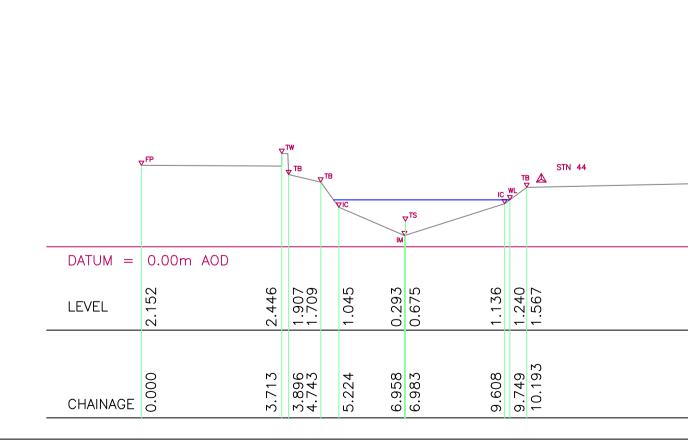
			NO OU	ITFALL VISIBLE		STN 43	
-	DATUM =	0.00m AOD					

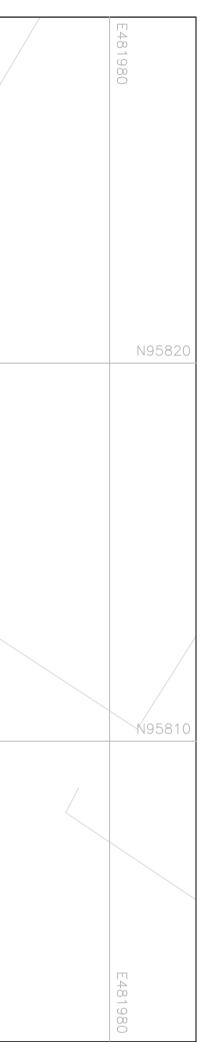




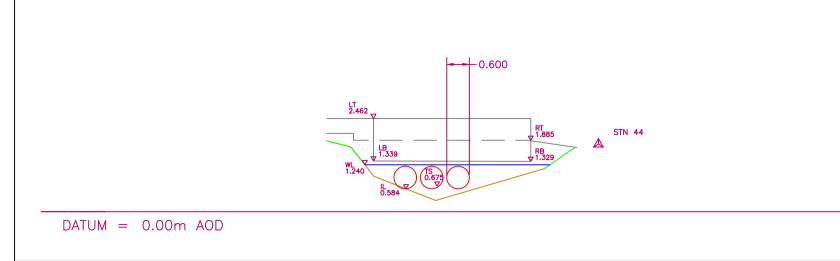
KI	<u> </u>	
	FP BB TB WL IC IM	Flood Plain Bottom of Bank Top of Bank Water Line In Channel In Channel mid-point
	Applies to SL LT RT LB RB BL IL TS	Arch, Culvert or Head Wall Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level Top of Silt
	FH GY IC MH SMP GSV WSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
	B/W C/B C/L I/W I/R L/B P/R P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

DL19 - CROSS-SECTION

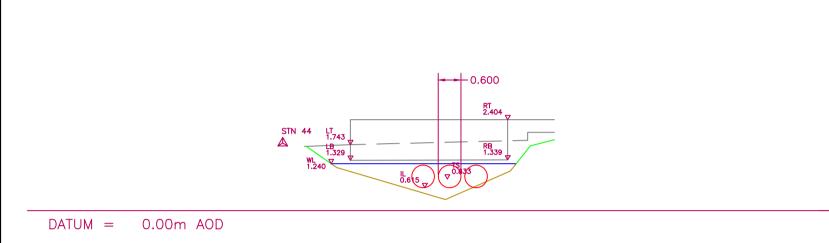


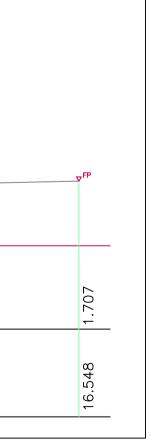


ST19 – NORTHWEST ELEVATION



ST19 – SOUTHEAST ELEVATION









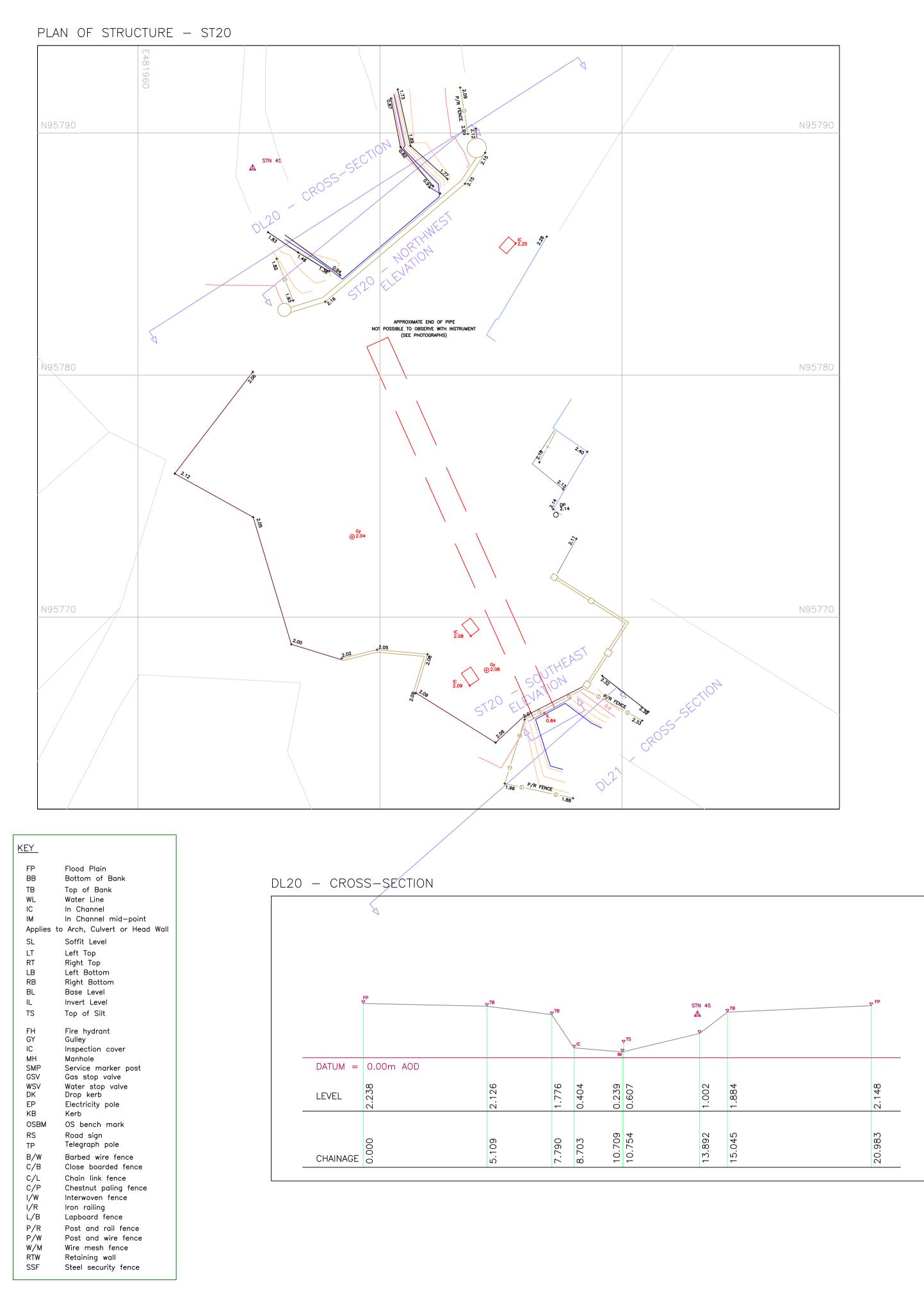
The Ordnance Survey element of this drawing is reproduced with permission. Crown copyright. All rights reserved Licence number 100022432

Notes			
	•	ces are shown • details agains [.]	
statutory a	uthority record	ds before proce	
with any d	esign.		
		d in this drawin should be chec	-
, J	. ,	prication or cor	
Grid or	-ordinates a	nd levels are l	ased
	pon the Ordr		Juseu
REVISION	DESCRIPTION		DATE
		_	. _
	FR1	DIA	N
, ,		surveying and	
		,	
Г			
EPSON	WEST HORS / ROAD, WEST	LEY PLACE HORSLEY KT24	6AW
Tel: 07948 (303936 — Emai	l: peter@meridians	urvey.co.uk
CUSTOMER			
COSTOMER			
Manhir	e LLP		
PROJECT			
Earnlev	/ Waterco	burse, floo	odplain
		luvial mo	
			uenny
DRAWING			
			1
Survey	of struc	tures and	k
-	of struc sections	tures and - DL-P	ł
cross-		- DL-P	Ŀ
-			
cross-	sections	- DL-P	

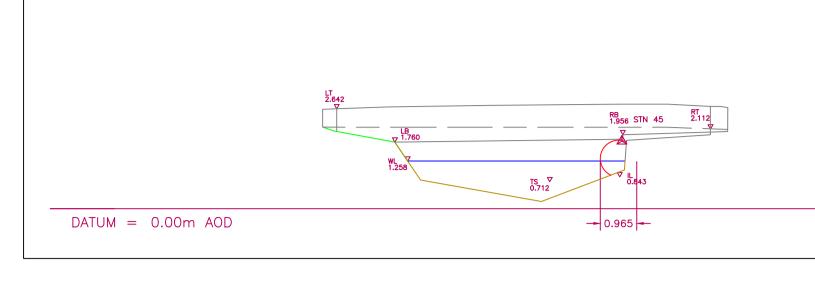
00228

0411_35

—





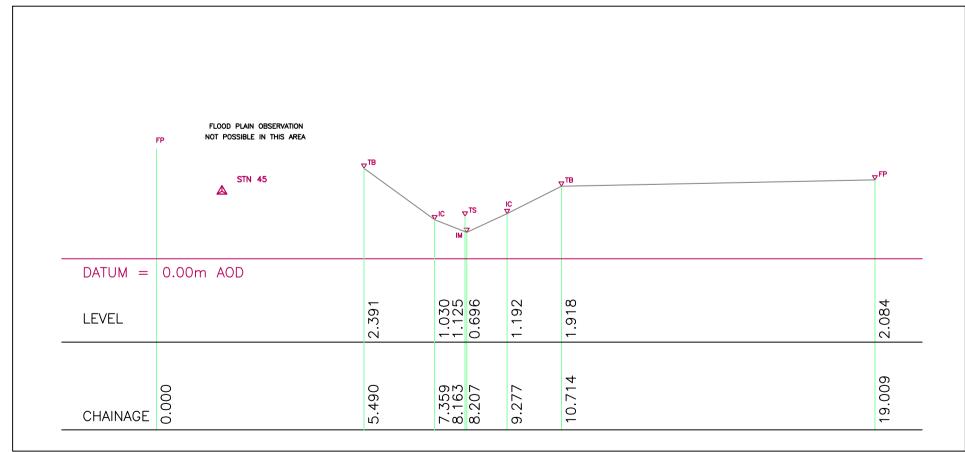


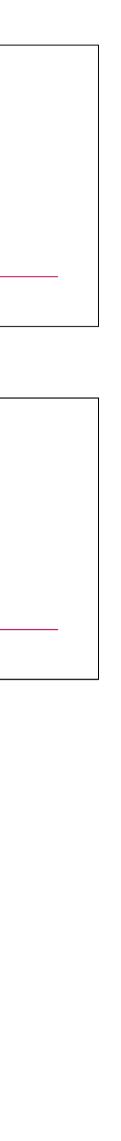
ST20 – SOUTHEAST ELEVATION



CHECK XYZ	FILE /	AGAINST DL21 C	ROSS-SECTION		
ID Number	Code	Eastings	Northings	Height	Check
DL210000	YYFP	481,969.9654	95,757.8323	2.0836	\checkmark
DL210001	YYTB	481,976.6718	95,762.8109	1.9176	\checkmark
DL210002	YYIC	481,977.4140	95,764.1182	1.1923	\checkmark
DL210003	YYIM	481,978.0750	95,764.9772	0.6957	\checkmark
DL210004	YYIC	481,978.5896	95,765.6673	1.0302	\checkmark
DL210005	YYTB	481,979.7976	95,767.1099	2.3911	\checkmark

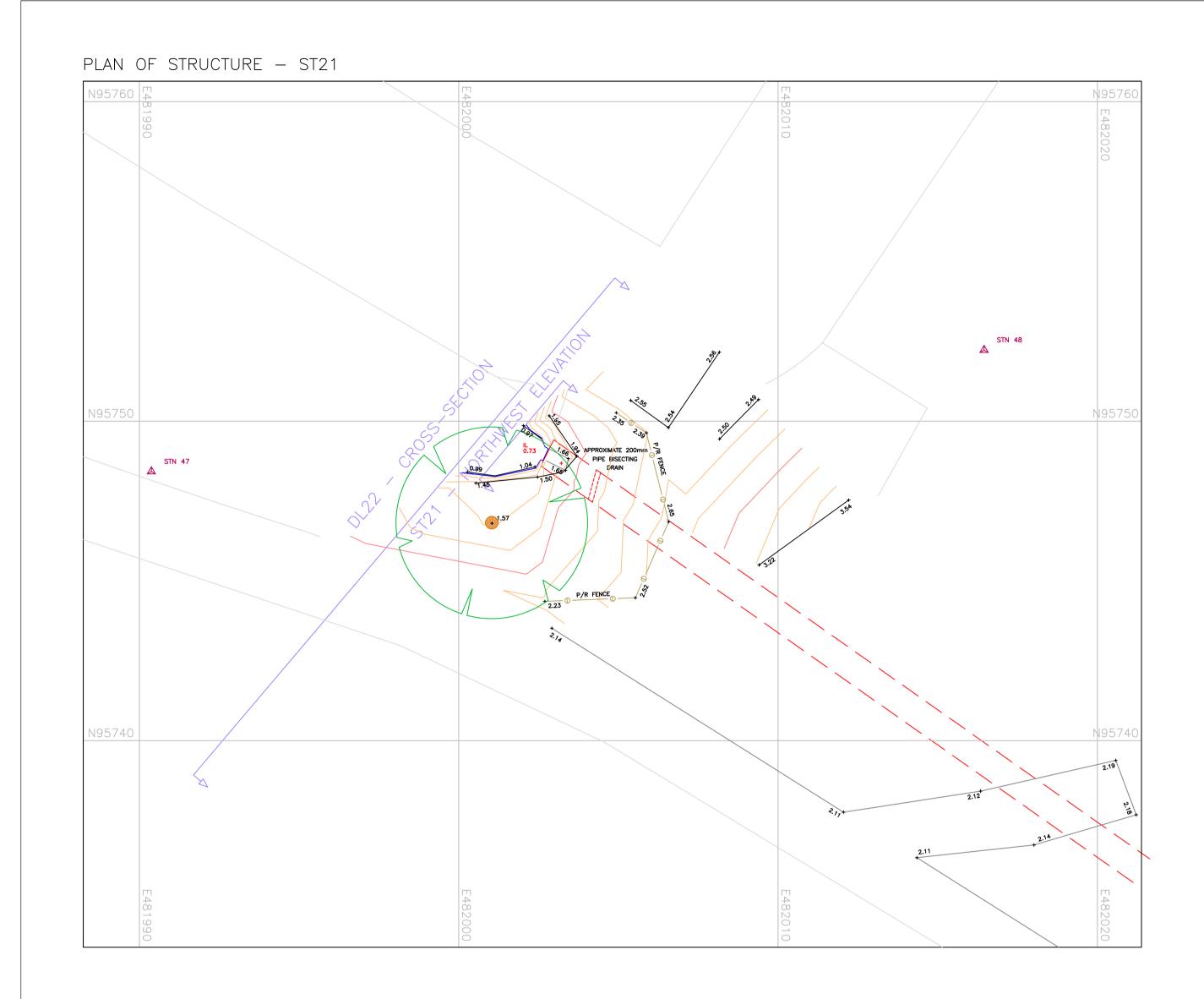






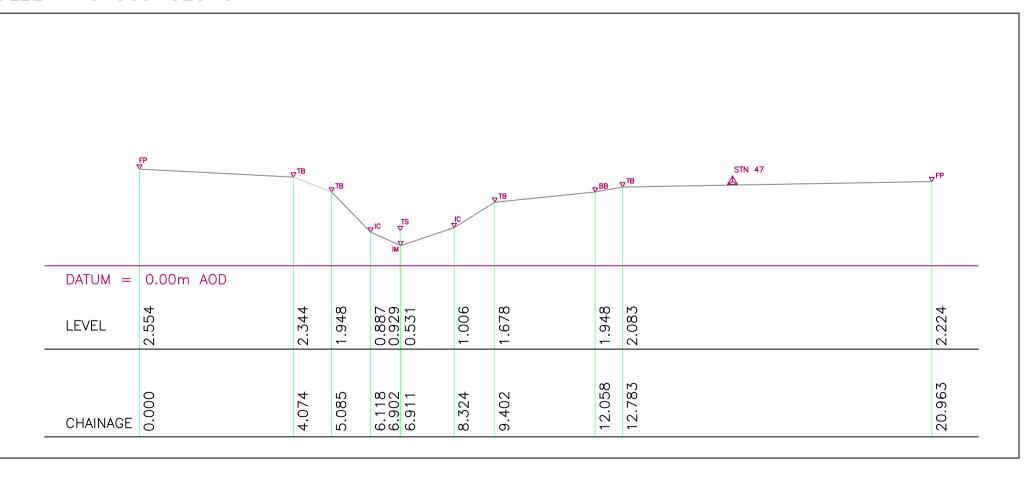


Notes Where undergro						
advisable to check these details against statutory authority records before proceeding with any design.						
(including digit	All information contained in this drawing (including digital data) should be checked and verified prior to any fabrication or construction.					
		nd levels are b ance Survey	based			
]			
A DA	ta in Xyz	FILE REVISED	9/7/19			
REVISION DE	SCRIPTION		DATE			
	RI	DIA	N			
	Land	surveying and	l design			
		_				
		LEY PLACE	GAW			
		HORSLEY KT24 I: peter@meridians				
CUSTOMER						
Manhire L	<u>.</u> LP					
PROJECT						
Earnley W						
and struc	ture f	luvial mo	delling			
DRAWING						
Survey of cross-sec			t			
SCALE						
1:100 (A ²)	26/6/2	2019			
CLIENT NO.	JOB NO		REVISION			
00228	041	1_36	А			

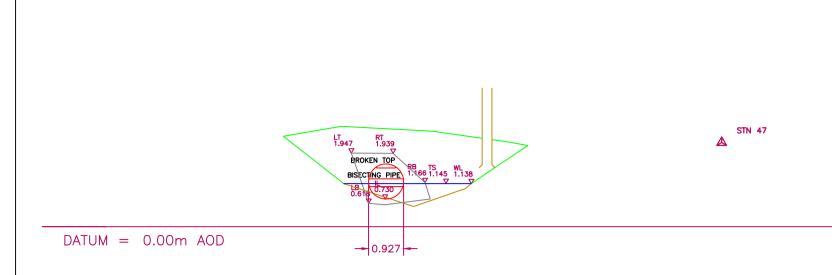


<u>NLI</u>	
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid-point
Applies	to Arch, Culvert or Head Wall
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH GY IC MH GSV WSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W	Barbed wire fence
C/B	Close boarded fence
C/L	Chain link fence
C/P	Chestnut paling fence
I/W	Interwoven fence
I/R	Iron railing
L/B	Lapboard fence
P/R	Post and rail fence
P/W	Post and wire fence
W/M	Wire mesh fence
RTW	Retaining wall
SSF	Steel security fence

DL22 - CROSS-SECTION



ST21 – NORTHWEST ELEVATION

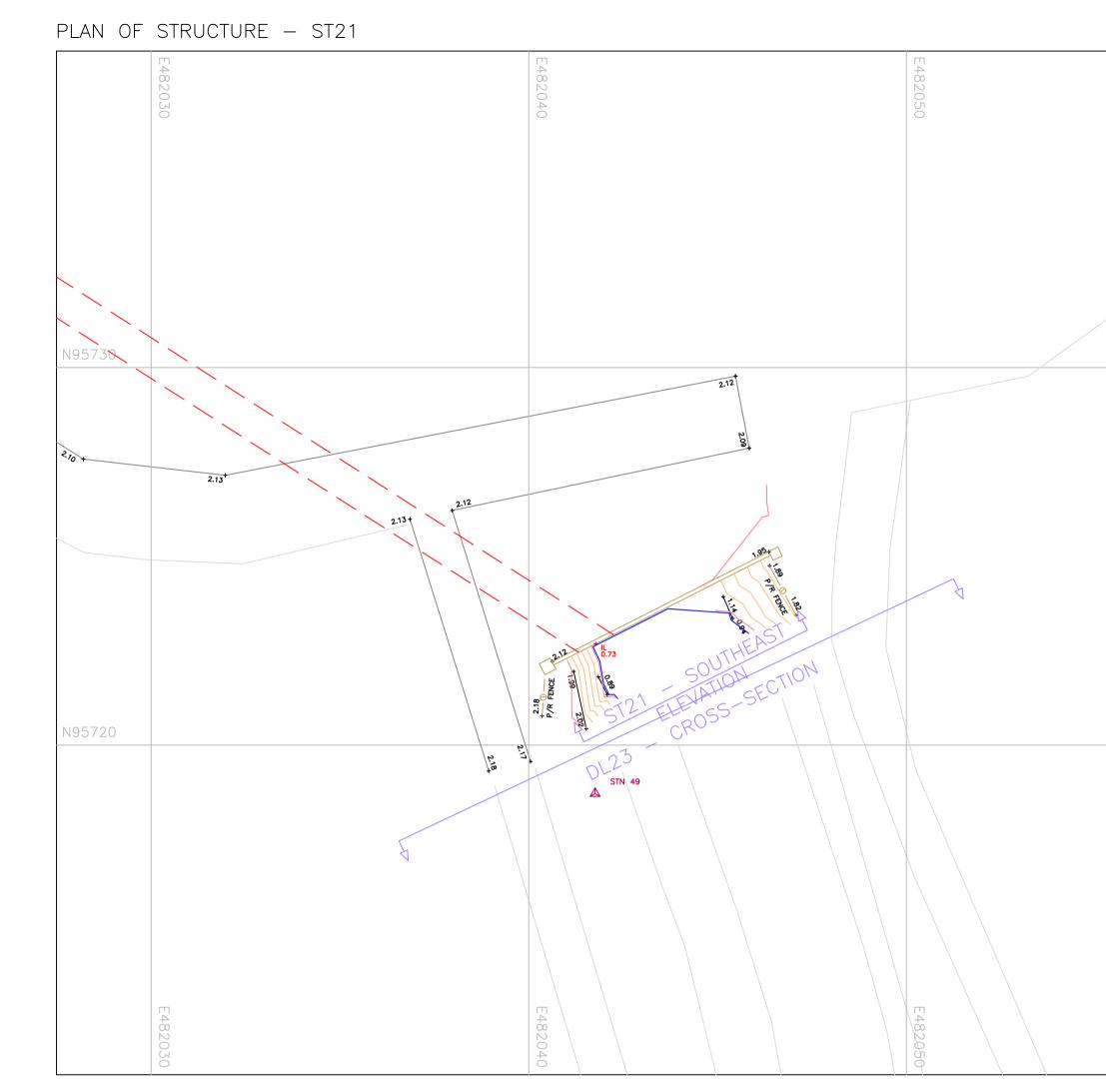




The Ordnance Survey element of this drawing is reproduced with permission. Crown copyright. All rights reserved Licence number 100022432

Notes Where underground services are shown it is advisable to check these details against statutory authority records before proceeding with any design. All information contained in this drawing (including digital data) should be checked and verified prior to any fabrication or construction. Grid co-ordinates and levels are based upon the Ordnance Survey XYZ FILE DATA REINSTATED 6/7/19 Α DATE DESCRIPTION REVISION Land surveying and design WEST HORSLEY PLACE EPSOM ROAD, WEST HORSLEY KT24 6AW Tel: 07948 603936 — Email: peter@meridiansurvey.co.uk CUSTOMER Manhire LLP PROJECT Earnley Watercourse, floodplain and structure fluvial modelling DRAWING

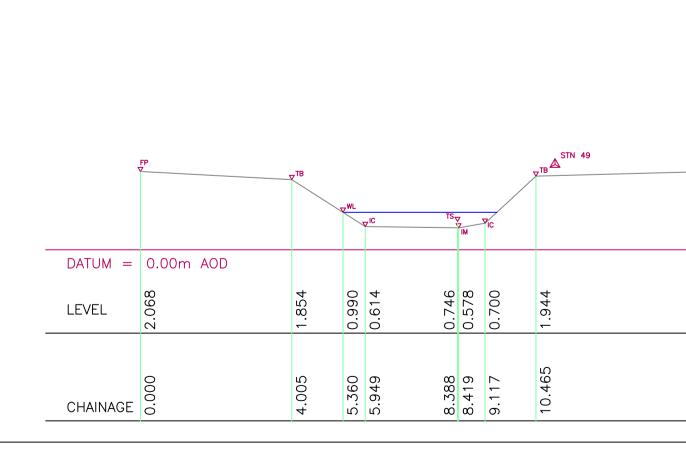
Survey of structures and
cross—sections — DL—R (NW)SCALEDATE1:100 (A1)26/6/2019CLIENT NO.JOB NO.002280411_37A



<u>KEY</u>

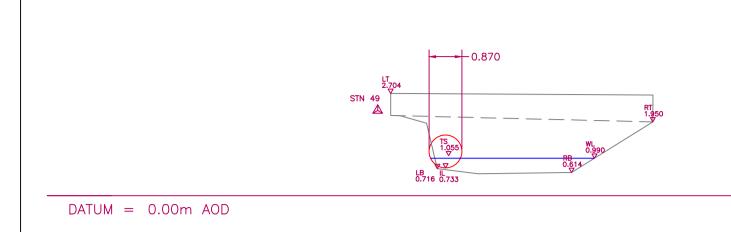
<u>NEI</u>	
FP BB TB WL IC IM	Flood Plain Bottom of Bank Top of Bank Water Line In Channel In Channel mid-point
Applies to	Arch, Culvert or Head Wall
SL LT RT LB RB BL IL	Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level
TS	Top of Silt
FH GY IC MH SMP GSV WSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

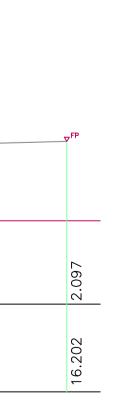
DL23 - CROSS-SECTION









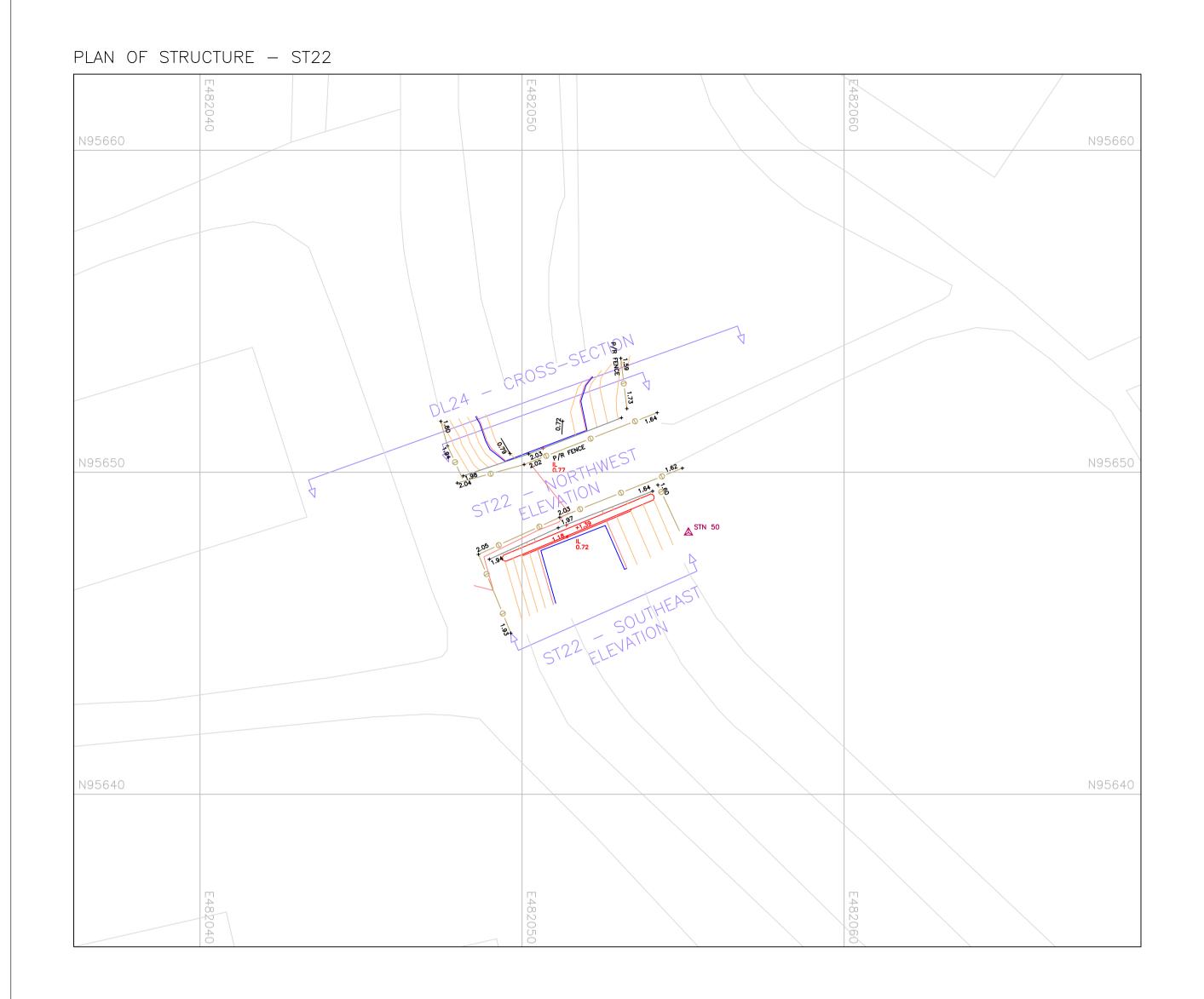




The Ordnance Survey element of this drawing is reproduced with permission. Crown copyright. All rights reserved Licence number 100022432

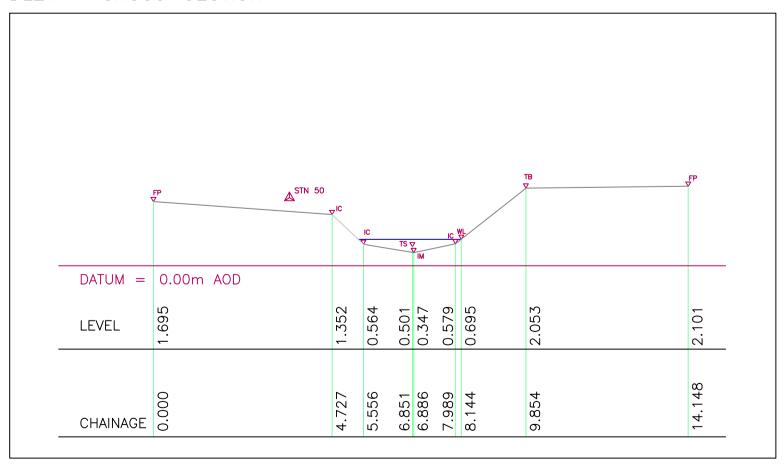
Notes

Where undergro advisable to ch statutory author with any design	eck these rity records	details against	t
All information (including digite verified prior to	al data) sł	nould be chec	ked and
		d levels are b nce Survey	based
REVISION DE	SCRIPTION		DATE
ME	DI		NI
		surveying and	
		ORSLEY KT24	
CUSTOMER			
Manhire L	LP		
PROJECT		C I	
Earnley W and struc			
DRAWING			
Survey of	struct	ures and	1
cross-sec			
SCALE		DATE	
1:100 (A1)	26/6/2	2019
CLIENT NO.	JOB NO		REVISION
00228	0411	_38	_

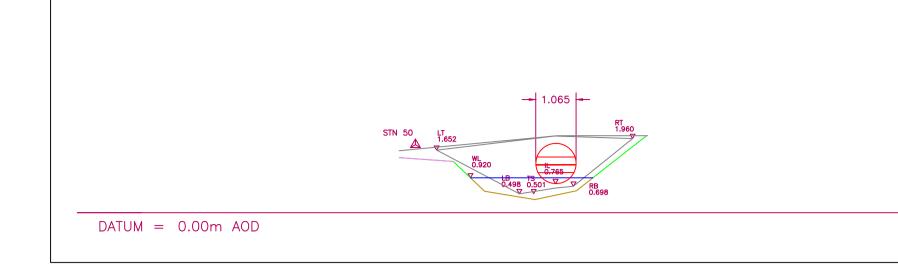


<u>KEY</u>	
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid-point
Applies to	o Arch, Culvert or Head Wall
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH	Fire hydrant
GY	Gulley
IC	Inspection cover
MH	Manhole
SMP	Service marker post
GSV	Gas stop valve
WSV	Water stop valve
DK	Drop kerb
EP	Electricity pole
KB	Kerb
OSBM	OS bench mark
RS	Road sign
TP	Telegraph pole
B/W C/B C/L C/P I/W I/R L/B P/R P/R P/W W/M	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence
RTW	Retaining wall
SSF	Steel security fence

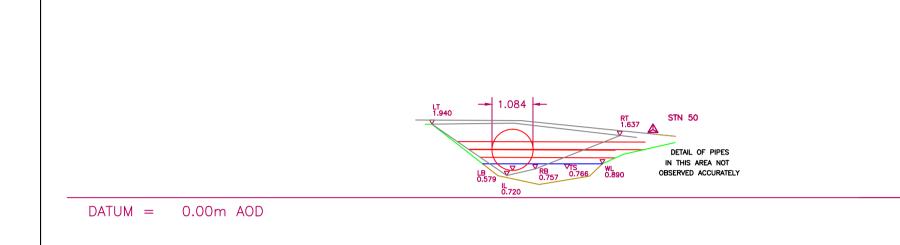
DL24 - CROSS-SECTION





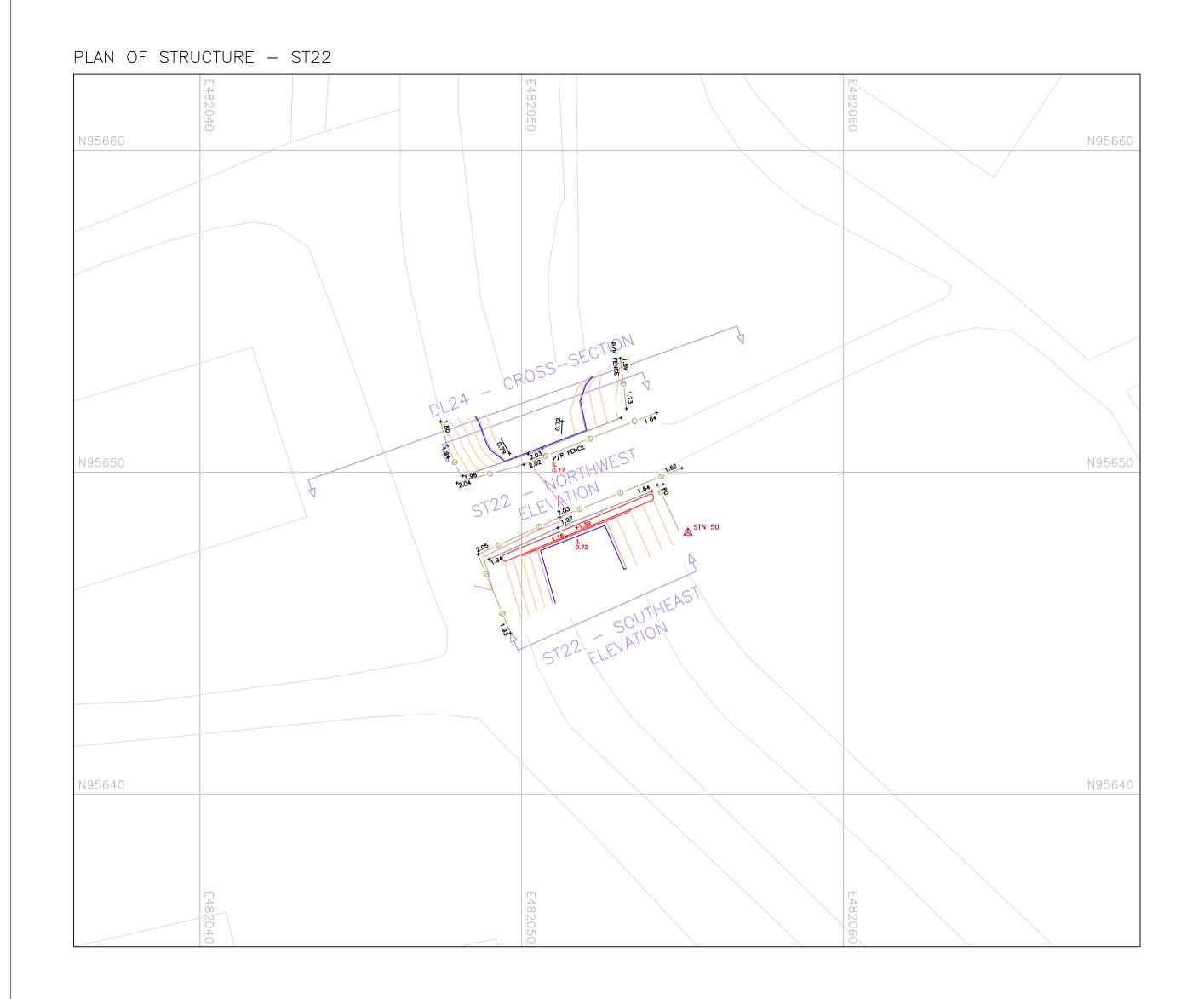






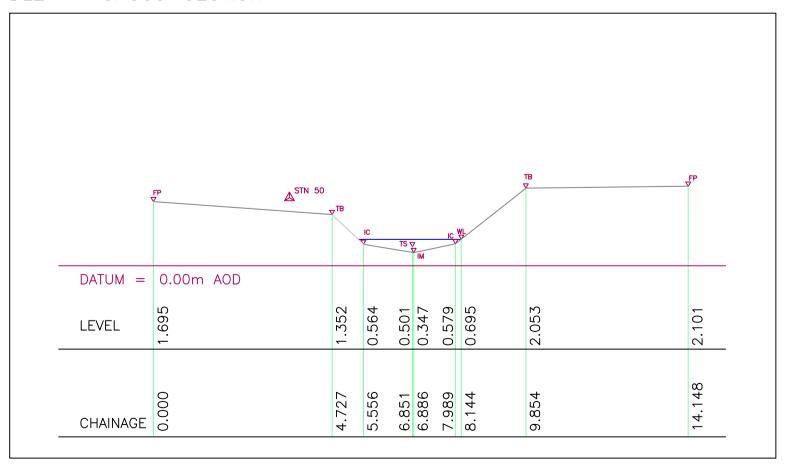


	erground services are showr	
	to check these details again authority records before proc	
with any d	lesign.	-
(including	ation contained in this draw digital data) should be che ior to any fabrication or co	ecked and
Grid co	o-ordinates and levels are	based
ι	upon the Ordnance Survey	
	1	I
А	CROSS-SECTION AMENDED	5/7/19
REVISION	DESCRIPTION	DATE
M	ERIDI/	
M	ERIDI/	
M		
	WEST HORSLEY PLACE	nd design
EPSO	Land surveying a	nd design
EPSO Tel: 07948	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24	nd design
EPSO	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24	nd design
EPSO Tel: 07948	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridiar	nd design
EPSO Tel: 07948 CUSTOMER	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridiar	nd design
EPSON Tel: 07948 CUSTOMER Manhir PROJECT	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridiar	6AW hsurvey.co.uk
EPSON Tel: 07948 CUSTOMER Manhir PROJECT Earnley	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 – Email: peter@meridiar	6AW hsurvey.co.uk
EPSON Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 - Email: peter@meridiar e LLP / Watercourse, flo	6AW hsurvey.co.uk
EPSON Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 - Email: peter@meridiar e LLP / Watercourse, flo ructure fluvial ma	e 6AW hsurvey.co.uk
EPSON Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 - Email: peter@meridian e LLP V Watercourse, flo cructure fluvial ma of structures an	e 6AW hsurvey.co.uk
EPSON Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 - Email: peter@meridiar e LLP / Watercourse, flo ructure fluvial ma	e 6AW hsurvey.co.uk
EPSON Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 - Email: peter@meridian e LLP V Watercourse, flo cructure fluvial ma of structures an	e 6AW hsurvey.co.uk
EPSON Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey cross	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 - Email: peter@meridian e LLP / Watercourse, flo ructure fluvial mo of structures an sections - DL-S DATE	e 6AW hsurvey.co.uk
EPSON Tel: 07948 CUSTOMER Manhir PROJECT Earnley and st DRAWING Survey cross- SCALE	WEST HORSLEY PLACE M ROAD, WEST HORSLEY KT24 603936 - Email: peter@meridian e LLP / Watercourse, flo ructure fluvial mo of structures an -sections - DL-S DATE (A1) 26/6/	e 6AW hsurvey.co.uk

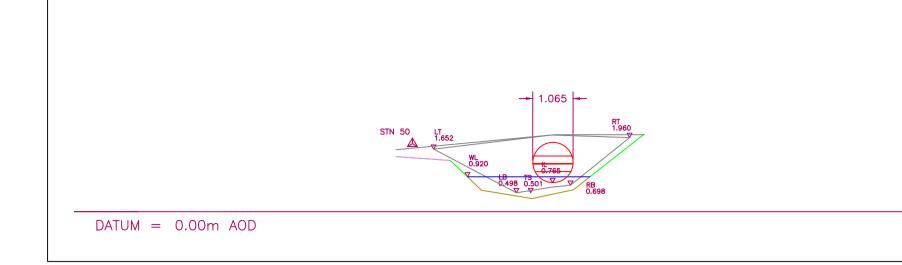


<u>KEY</u>	
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid-point
Applies to	o Arch, Culvert or Head Wall
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH	Fire hydrant
GY	Gulley
IC	Inspection cover
MH	Manhole
SMP	Service marker post
GSV	Gas stop valve
WSV	Water stop valve
DK	Drop kerb
EP	Electricity pole
KB	Kerb
OSBM	OS bench mark
RS	Road sign
TP	Telegraph pole
B/W C/B C/L C/P I/W I/R L/B P/R P/R P/W W/M	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence
RTW	Retaining wall
SSF	Steel security fence

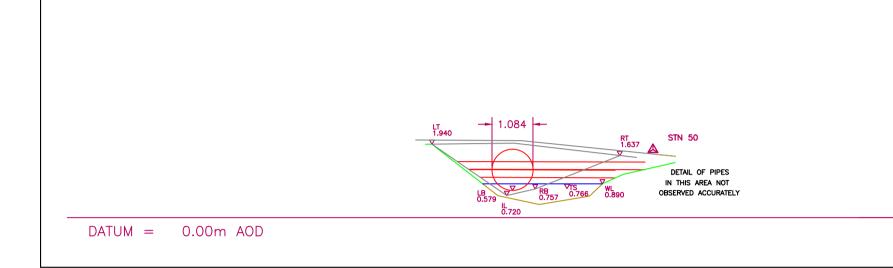
DL24 - CROSS-SECTION



ST22 – NORTHWEST ELEVATION



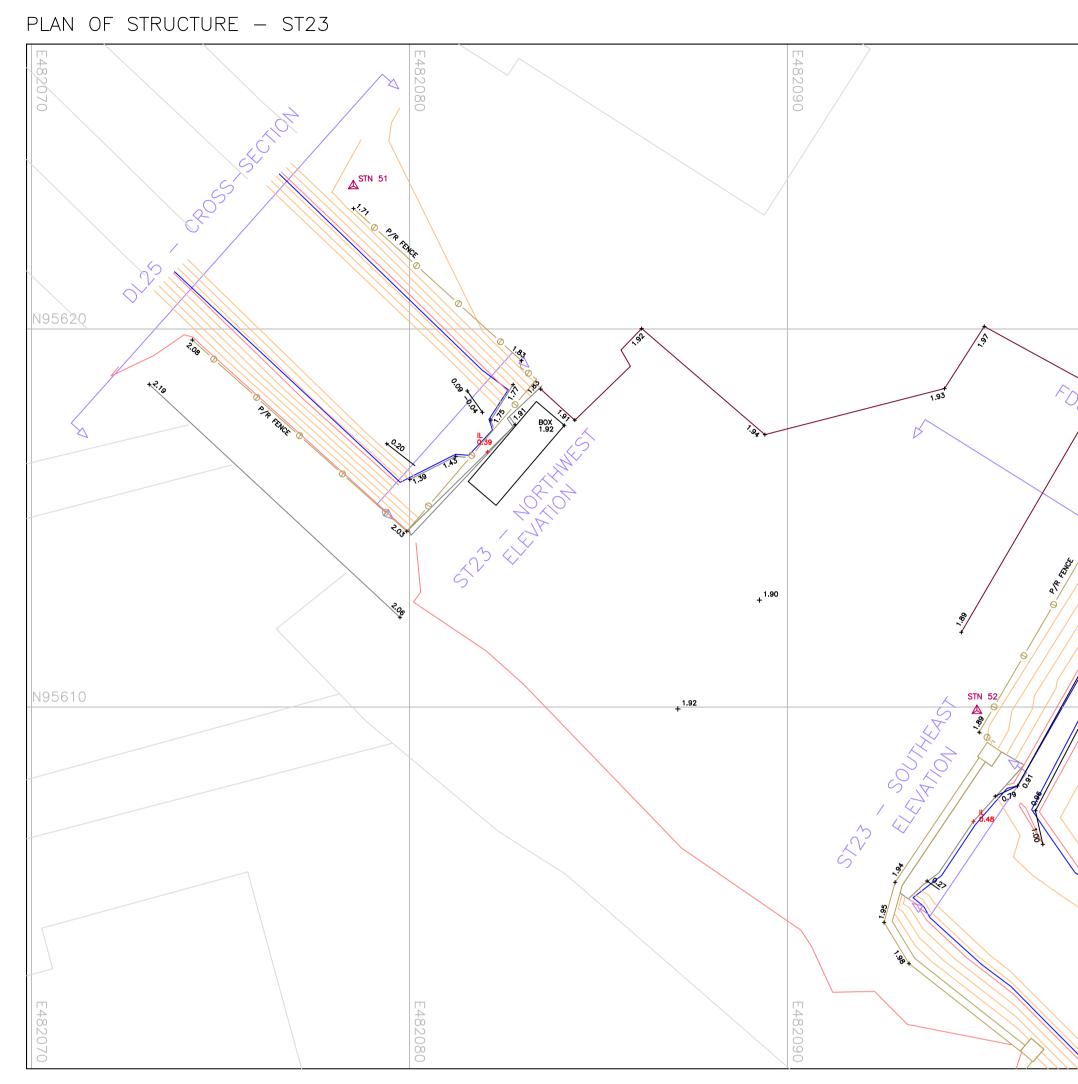
ST22 – SOUTHEAST ELEVATION



CHECK XYZ FILE AGAINST DL24 CROSS-SECTION ID Number Code Eastings Height Check Northings DL240000 YYFP 482,043.3720 95,649.7620 2.1010 \checkmark DL240001 YYTB 482,047.5460 95,650.8430 2.0530 DL240003 YYIC 482,049.1700 95,651.8410 0.5790 DL240004 YYIM 482,050.2680 95,652.0470 0.3470 DL240006 YYIC 482,051.4980 95,652.5570 0.5640 1.3520 DL240007 YYTB 482,052.2970 95,652.7850 DL240008 YYFP 482,056.6890 95,654.5400 1.6950 √

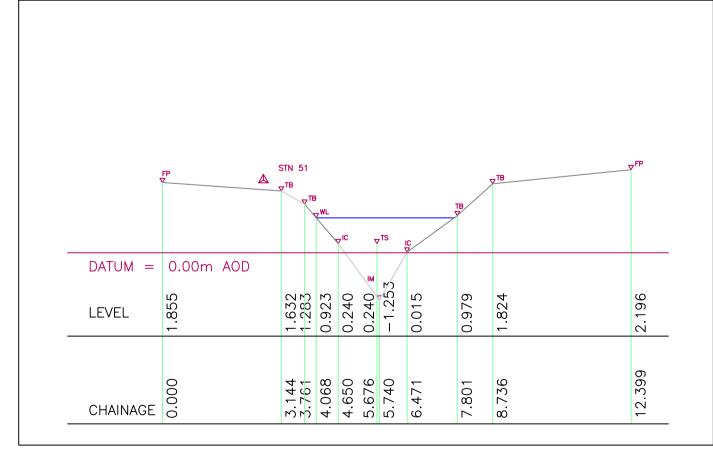


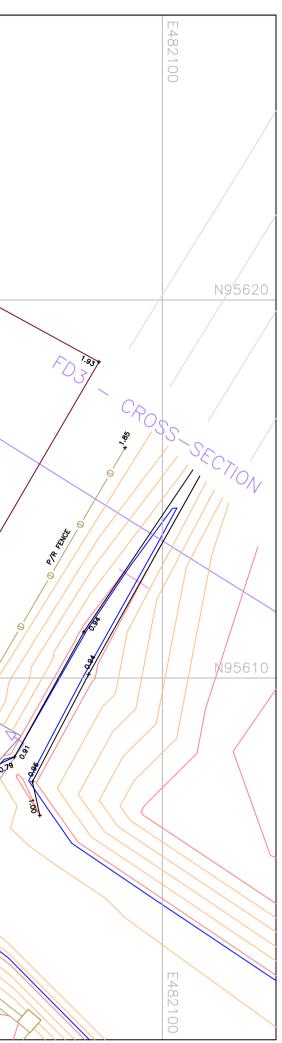
Notes			
Where und	erground servi	ices are shown	it is
		e details against	
statutory a with any d		ds before proce	eaing
		d in this drawir	•
•	-	should be chec brication or cor	
venned pri	or to uny fu	brication of cor	istruction.
Grid co	o-ordinates c	and levels are t	based
		nance Survey	
			1
В	CHECKED &	CONFIRMED XYZ	9/7/19
A		TION AMENDED	5/7/19
REVISION	DESCRIPTION	١	DATE
	L		
		d surveying and	
		11	
	Kan la		
FPSON		SLEY PLACE HORSLEY KT24	6AW
		iil: peter@meridians	
CUSTOMER			
Manhire	e LLP		
PROJECT			
Famle	$\sqrt{1}$	ouroo flor	dolain
,		ourse, floc	•
and st	ructure	fluvial mo	delling
DRAWING			
Survey	of struc	ctures and	1
		– DL–S	
SCALE		1	
JUALÉ		DATE	
1:100	$(\Delta 1)$	26/6/2	$\sim 1 \circ$
			2019
CLIENT NO.			REVISION
CLIENT NO.	JOB N		



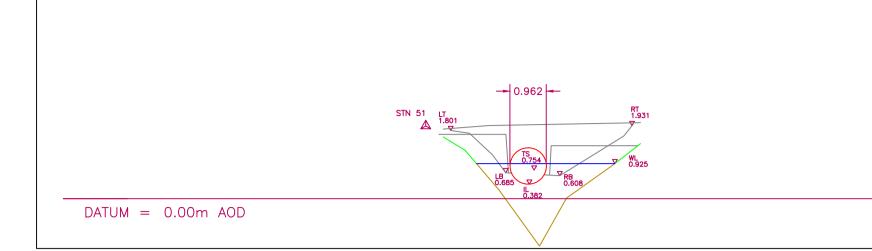
KET	
FP BB TB WL IC IM	Flood Plain Bottom of Bank Top of Bank Water Line In Channel In Channel mid—point
Applies	to Arch, Culvert or Head Wall
SL LT RT LB RB BL IL	Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level
TS	Top of Silt
FH GY IC MH GSV WSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

DL25 - CROSS-SECTION

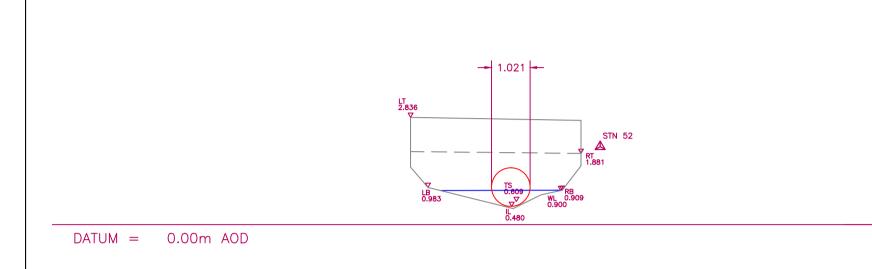




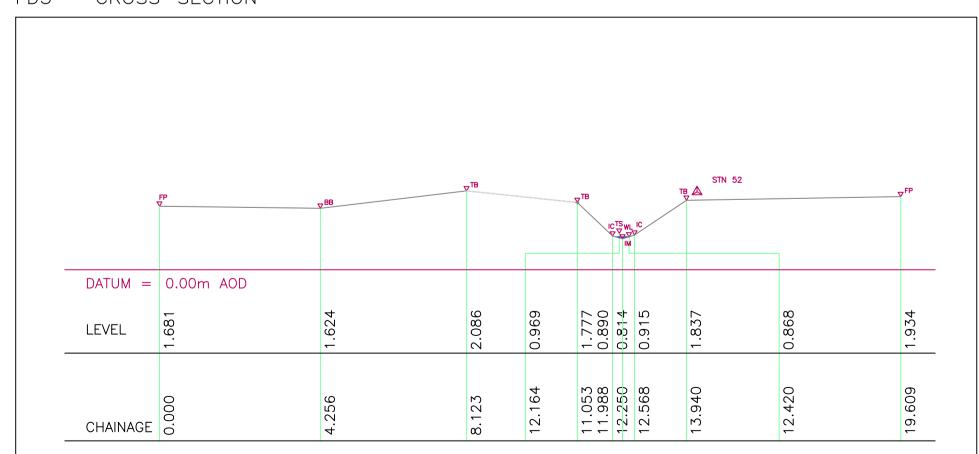
ST23 – NORTHWEST ELEVATION



ST23 – SOUTHEAST ELEVATION

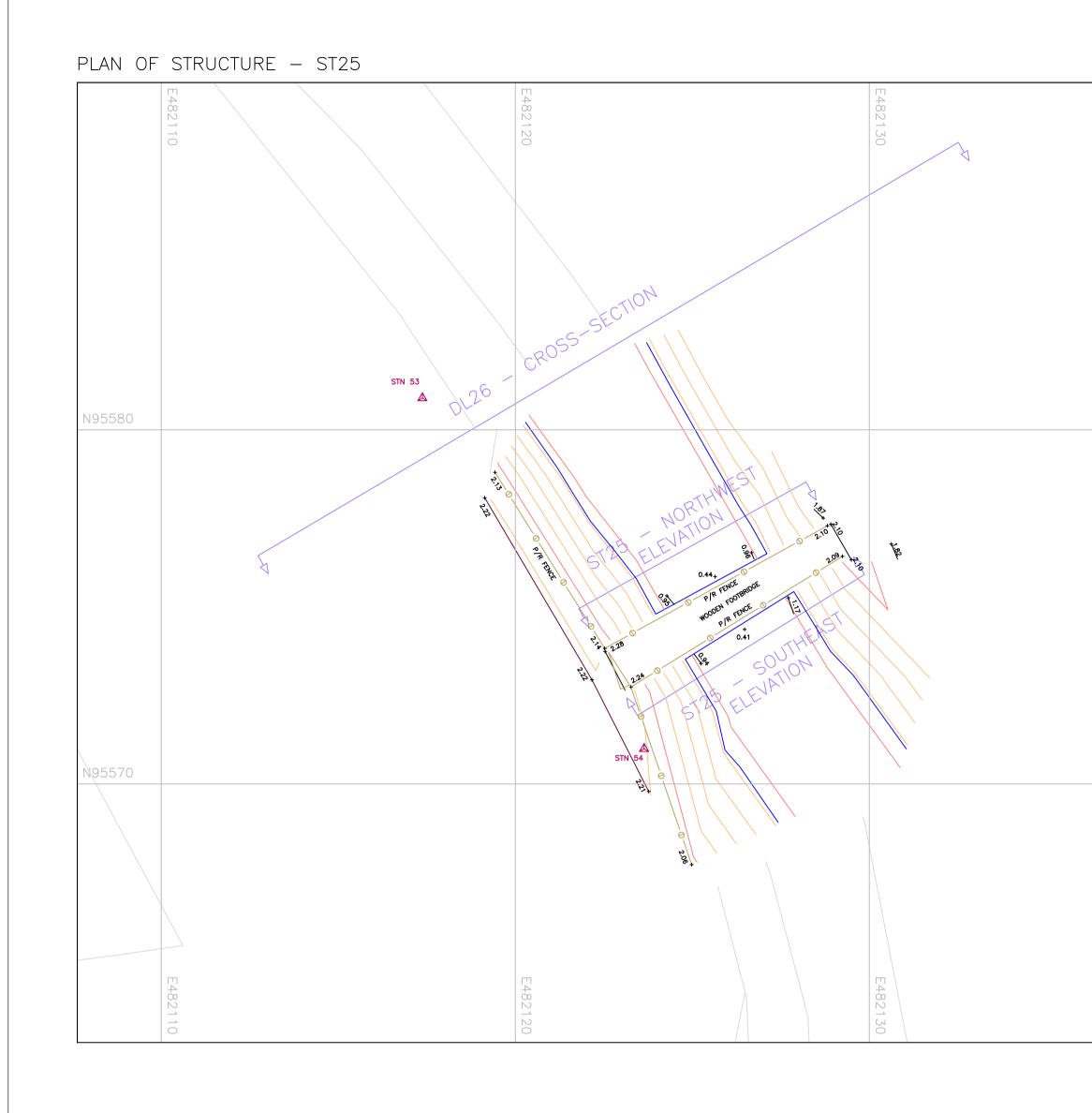


FD3 - CROSS-SECTION



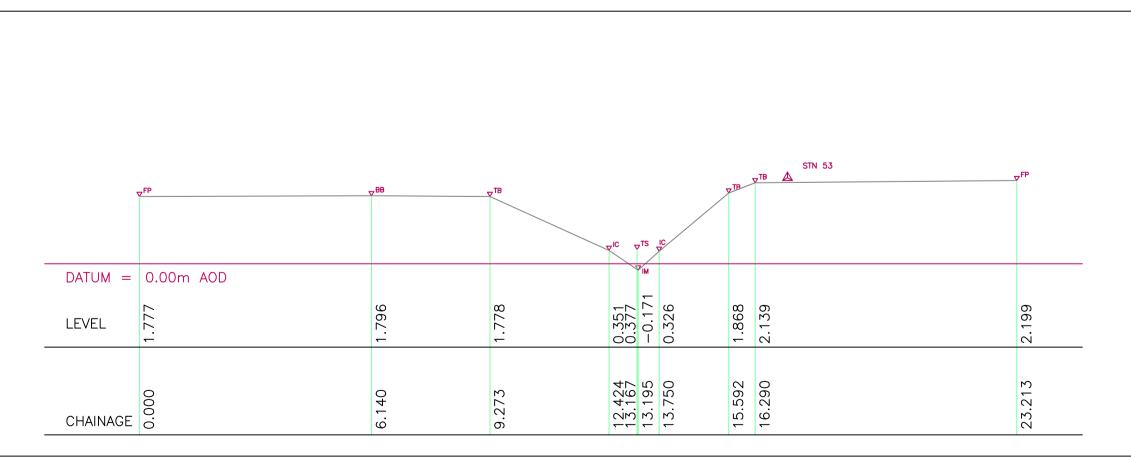


Notes				
	0		ces are shown • details agains	
statutory a	author	ity record	s before proce	
with any d	esign			
			d in this drawi	0
	-		should be che prication or co	
			nd levels are nance Survey	based
•				6 /7 /10
A REVISION		SCRIPTION	S AMENDED	6/7/19 DATE
			surveying an	
FRSON			LEY PLACE HORSLEY KT24	6AW
			l: peter@meridians	
CUSTOMED				
CUSTOMER				
Manhire	e L	LP		
PROJECT				
Earnley	/ W	aterco	burse, flo	odplain
and st	ruc	ture f	luvial mo	delling
DRAWING				
Survoy	of	otruc	turos an	4
,			tures and	
cross-	sec	tions	- DL-T	
00415				
SCALE			DATE	
1:100	(A1)	date 27/6/2	2019
	`) Job N	27/6/2	2019 REVISION
1:100	`	JOB N	27/6/2	1

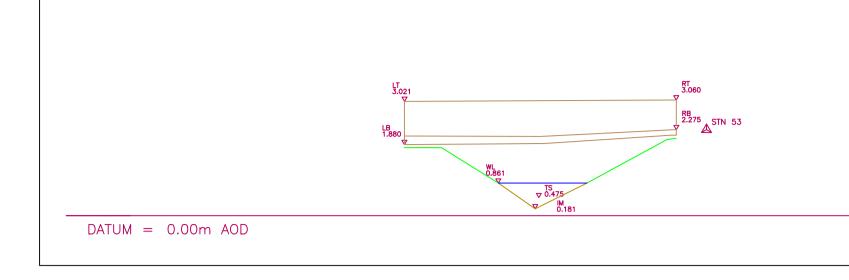


<u>KEY</u>	
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid-point
Applies to	Arch, Culvert or Head Wall
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH	Fire hydrant
GY	Gulley
IC	Inspection cover
MH	Manhole
SMP	Service marker post
GSV	Gas stop valve
WSV	Water stop valve
DK	Drop kerb
EP	Electricity pole
KB	Kerb
OSBM	OS bench mark
RS	Road sign
TP	Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence
RTW	Retaining wall
SSF	Steel security fence

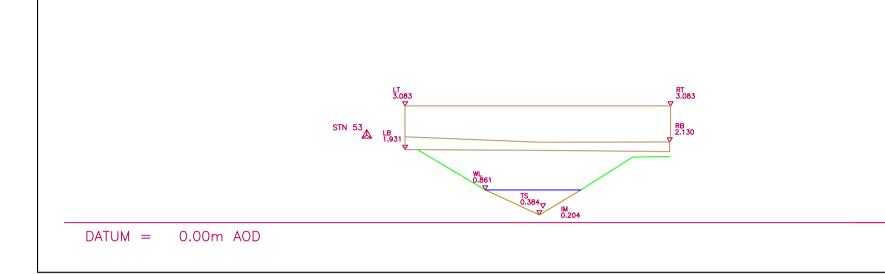
Ν
1



ST25 – NORTHWEST ELEVATION



ST25 – SOUTHEAST ELEVATION



N95570

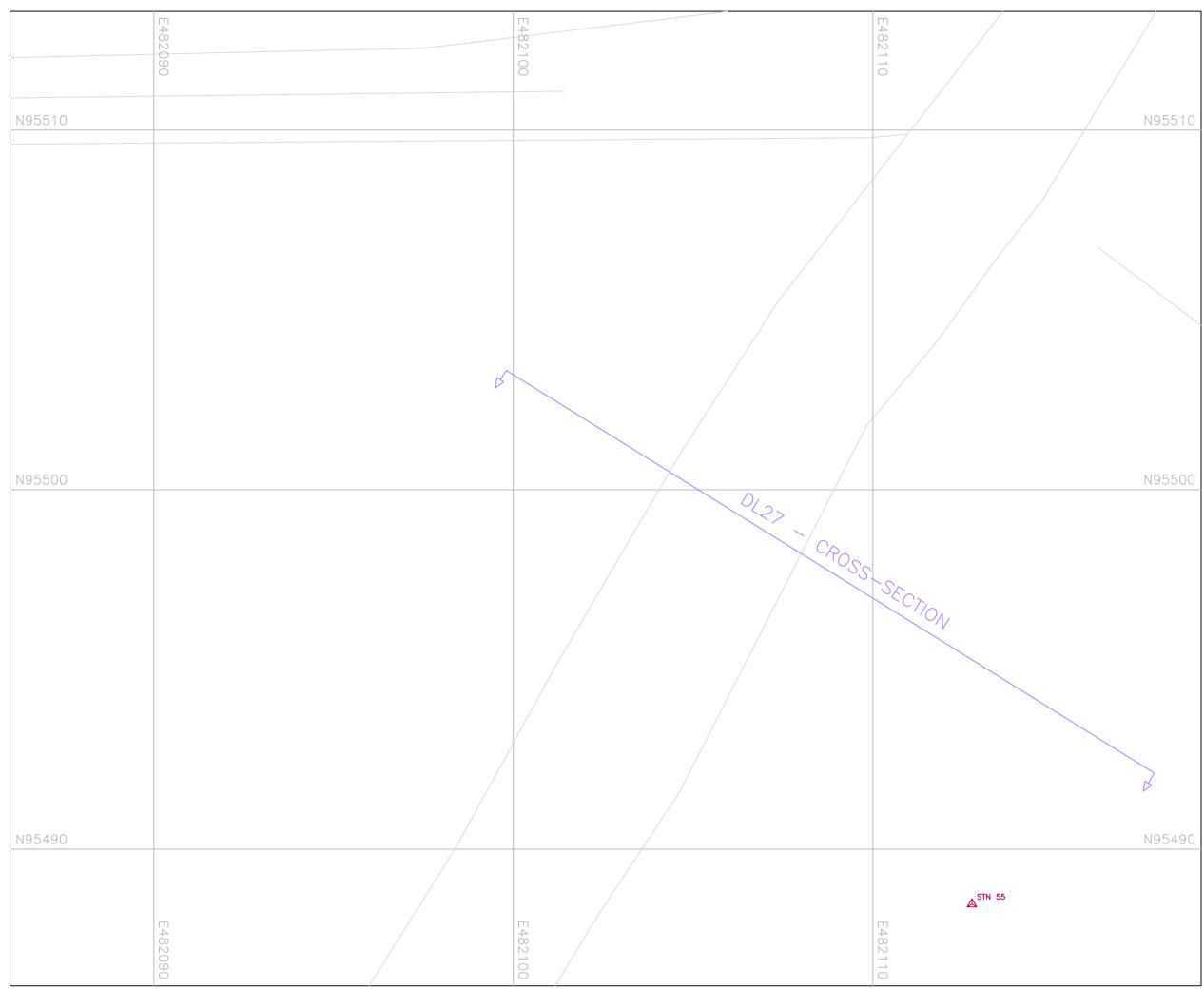
N95580

CHECK XYZ	FILE	GAINST DL26 CR	OSS-SECTION		
ID Number	Code	Eastings	Northings	Height	Check
DL260009	YYFP	482,133.8865	95,585.9945	1.7767	\checkmark
DL260008	YYBB	482,128.7776	95,582.3899	1.7956	\checkmark
DL260007	YYTB	482,125.7970	95,581.3769	1.7778	\checkmark
DL260006	YYIC	482,122.0451	95,582.0289	0.3513	\checkmark
DL260004	YYIM	482,121.3320	95,581.7359	-0.1710	\checkmark
DL260003	YYIC	482,120.9605	95,581.2093	0.3264	\checkmark
DL260002	YYTB	482,119.4796	95,580.0140	1.8685	\checkmark
DL260001	YYTB	482,119.2785	95,578.7613	2.1391	\checkmark
DL260000	YYFP	482,112.7300	95,576.4423	2.1985	\checkmark



Notes					
Where und advisable t statutory a with any d	o chea uthorit	ck these	e details	agains	t
with any a	esign.				
All informo (including verified pri	digital	data)	should b	e chec	ked and
Grid cr	-ordi	nates a	nd level	s are l	ased
			nance Si		Juseu
A			ED & C(ONFIRME	
REVISION	DES	CRIPTION			DATE
			survey		
	I ROAD	D, WEST	LEY PLA HORSLE	′ KT24	
Tel: 07948 (603936	— Ema	l: peter@r	neridians	urvey.co.uk
CUSTOMER					
Manhire	e LL	P			
PROJECT					
	\ \ / -			61 -	
Earnley					
and st	ruct	ure 1	Tuvial	mo	delling
DRAWING					
Survey					1
cross-	sect	tions	— D	L-U	
SCALE			DATE		
1:100	(A1))	27	/6/2	2019
CLIENT NO.		JOB N	0.		REVISION
		~	1_41		

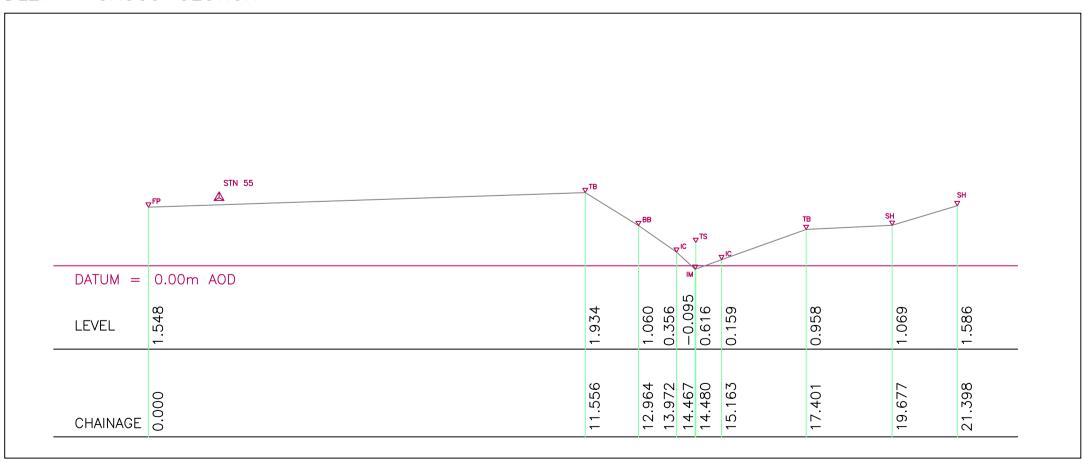
PLAN OF CROSS-SECTION - DL27



1/	
n	L I

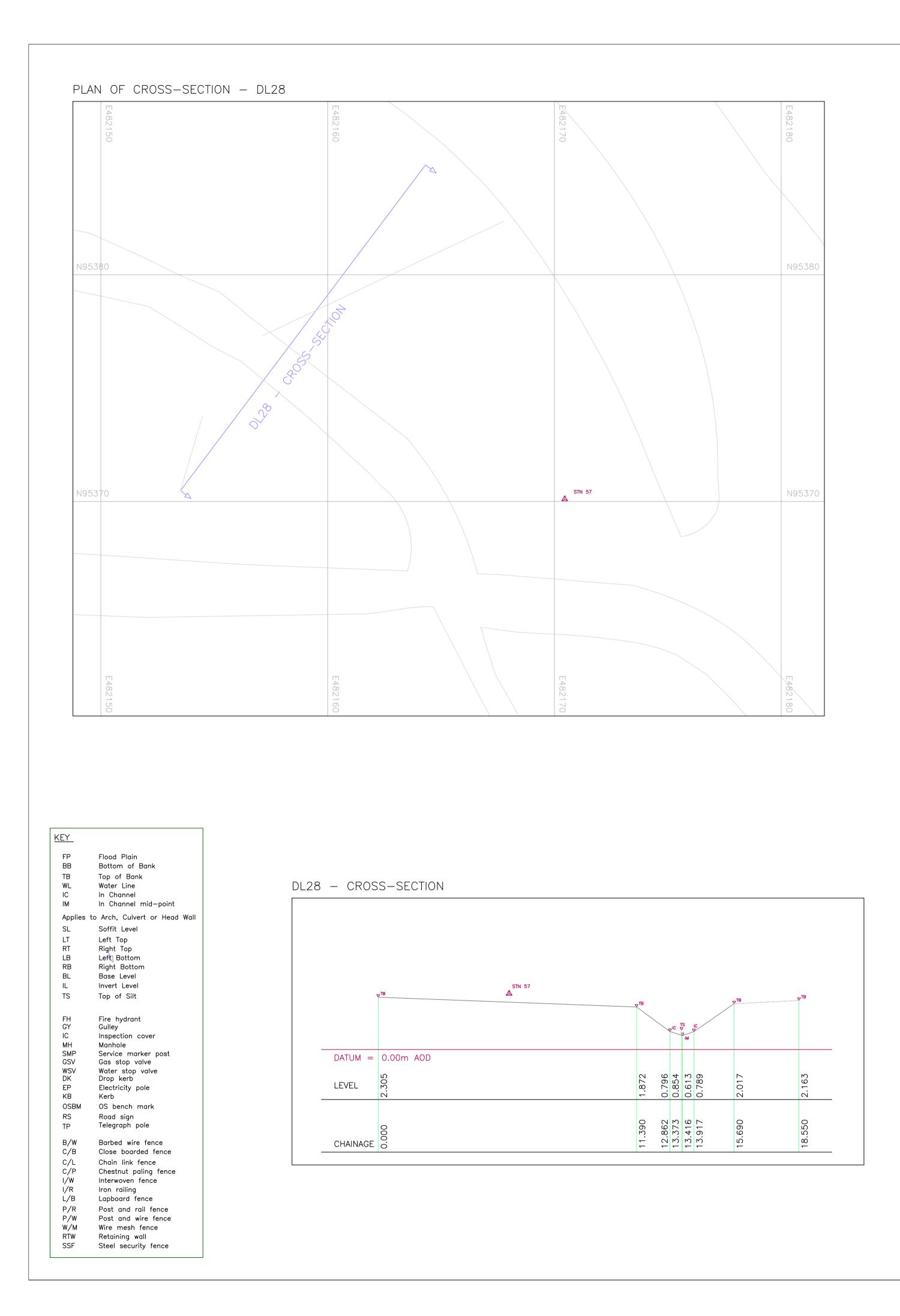
<u>KEY</u>	
FP BB TB WL IC IM	Flood Plain Bottom of Bank Top of Bank Water Line In Channel In Channel mid—point
Applies to	Arch, Culvert or Head Wall
SL LT RT LB RB BL IL TS	Soffit Level Left Top Right Top Left Bottom Right Bottom Base Level Invert Level Top of Silt
FH GY IC MH SMP GSV WSV DK EP KB OSBM RS TP	Fire hydrant Gulley Inspection cover Manhole Service marker post Gas stop valve Water stop valve Drop kerb Electricity pole Kerb OS bench mark Road sign Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

DL27 - CROSS-SECTION



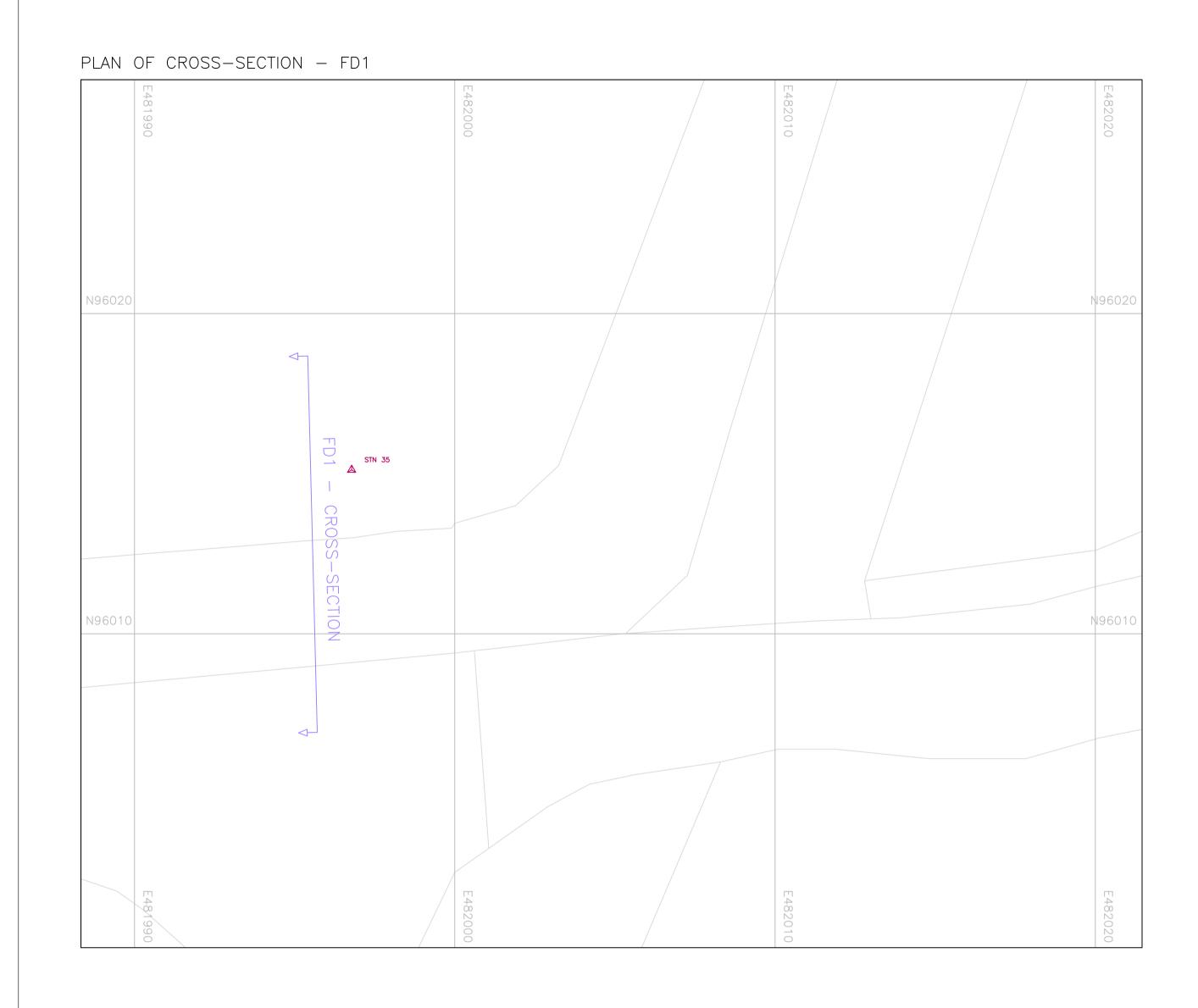


Notes				
Where und	-		ces are shown • details against	
	uthority		de de dans de dans de before proce	
(including	digital	data) s	d in this drawir should be chec prication or cor	ked and
vernied pr		uny luc		
			nd levels are b nance Survey	based
REVISION	DESC	RIPTION		DATE
				N -
M	E	R 1	DIA	N
M	E		DIA surveying and	
M	E			
M	E			
M				
		Land	surveying and	
EPSON	WES M ROAD	ST HORS	SLEY PLACE HORSLEY KT24	design
EPSON Tel: 07948	WES M ROAD	ST HORS	surveying and	design
EPSON	WES M ROAD	ST HORS	SLEY PLACE HORSLEY KT24	design
EPSON Tel: 07948	WES M ROAD 603936	ST HORS , WEST – Emai	SLEY PLACE HORSLEY KT24	design
EPSON Tel: 07948 (CUSTOMER	WES M ROAD 603936	ST HORS , WEST – Emai	SLEY PLACE HORSLEY KT24	design
EPSON Tel: 07948 CUSTOMER Manhire PROJECT	WES M ROAD 603936 e LL	ST HORS , WEST – Emai	SLEY PLACE HORSLEY KT24	6AW urvey.co.uk
EPSON Tel: 07948 CUSTOMER Manhire PROJECT Earnley	WES M ROAD 603936 e LL / Wa	ST HORS ST HORS , WEST - Emai P terco	SLEY PLACE HORSLEY KT24 I: peter@meridians	6AW urvey.co.uk
EPSON Tel: 07948 CUSTOMER Manhire PROJECT Earnley	WES M ROAD 603936 e LL / Wa	ST HORS ST HORS , WEST - Emai P terco	SLEY PLACE HORSLEY KT24 I: peter@meridians	6AW urvey.co.uk
EPSON Tel: 07948 0 CUSTOMER Manhiro PROJECT Earnley and st DRAWING	wes M ROAD 603936 e LL / Wa ruct	ST HORS ST HORS , WEST - Emai .P tercc ure f	SLEY PLACE HORSLEY KT24 I: peter@meridians	6AW urvey.co.uk
EPSON Tel: 07948 C CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey	wes M ROAD 603936 e LL V Wa ructu	ST HORS ST HORS , WEST - Emai P tercc ure f struc	ELEY PLACE HORSLEY KT24 I: peter@meridiansc ourse, floc	6AW urvey.co.uk
EPSON Tel: 07948 C CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey	wes M ROAD 603936 e LL V Wa ructu	ST HORS ST HORS , WEST - Emai P tercc ure f struc	SLEY PLACE HORSLEY KT24 I: peter@meridians ourse, floc fluvial mod	6AW urvey.co.uk
EPSON Tel: 07948 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey cross	WES M ROAD 603936 e LL V Wa ructu of sect	ST HORS , WEST - Emoi P tercc ure f struc ions	SLEY PLACE HORSLEY KT24 I: peter@meridians ourse, floc fluvial mod	6AW urvey.co.uk
EPSON Tel: 07948 0 CUSTOMER Manhiro PROJECT Earnley and st DRAWING Survey cross- SCALE	WES M ROAD 603936 e LL V Wa ructu of sect (A1)	ST HORS , WEST - Emoi P tercc ure f struc ions	ELEY PLACE HORSLEY KT24 I: peter@meridians ourse, floc fluvial mod tures and - DL-V DATE 27/6/2	6AW urvey.co.uk



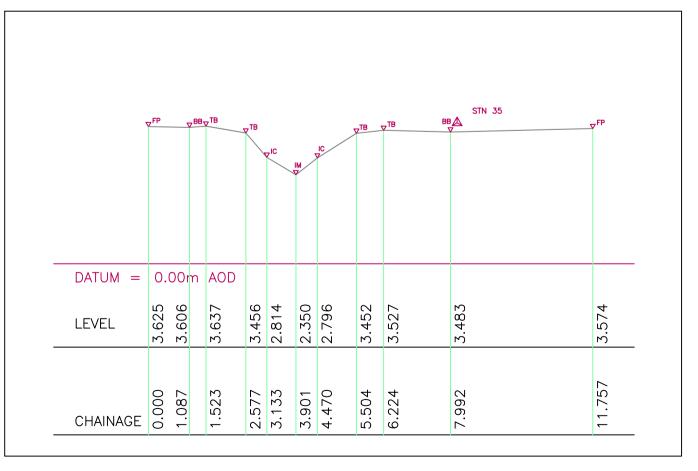


Notes			
	erground se	rvices are shown	it is
	uthority rec	ese details agains ords before proce	
(including	digital data	ned in this drawir) should be chec fabrication or cor	ked and
		and levels are t rdnance Survey	based
А			
	XYZ FILE	DATA REINSTATED	6/7/19
REVISION	DESCRIPTI	ON	6/7/19 DATE
	DESCRIPTI		DATE
	DESCRIPTI		DATE
	DESCRIPTI ER L	ON	DATE
EPSOM	UESCRIPTI ER L	ON	DATE DATE
EPSOM	UESCRIPTI ER L	ON	DATE DATE
EPSON Tel: 07948 6	UESCRIPTI ER WEST HC M ROAD, WES 503936 - EI	ON	DATE DATE
EPSON Tel: 07948 6 CUSTOMER	UESCRIPTI ER WEST HC M ROAD, WES 503936 - EI	ON and surveying and ORSLEY PLACE ST HORSLEY KT24	DATE DATE
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT	DESCRIPTI ER WEST HC M ROAD, WES 503936 - EI e LLP	ON and surveying and ORSLEY PLACE ST HORSLEY KT24	6AW urvey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley	ER WEST HC M ROAD, WES 503936 - EN e LLP	ON	6AW urvey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley	ER WEST HC M ROAD, WES 503936 - EN e LLP	ON COURSE, floc	6AW urvey.co.uk
EPSON Tel: 07948 C CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey	ER WEST HC M ROAD, WES 003936 - EN e LLP water v Water ructure	ON I Surveying and ORSLEY PLACE ST HORSLEY KT24 mail: peter@meridiansu course, floc fluvial mod	6AW urvey.co.uk
EPSON Tel: 07948 C CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey	ER WEST HC M ROAD, WES 003936 - EN e LLP water v Water ructure	ON I Surveying and ORSLEY PLACE ST HORSLEY KT24 mail: peter@meridianse course, floc fluvial mod	6AW urvey.co.uk
EPSON Tel: 07948 d CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey cross— SCALE	DESCRIPTI	ON	6AW urvey.co.uk
EPSON Tel: 07948 (CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey cross- SCALE 1:100	DESCRIPTI ER WEST HC M ROAD, WES 503936 - En e LLP Water v Water ructure of stru section (A1)	ON I SURVEYING AND ORSLEY PLACE ST HORSLEY KT24 mail: peter@meridianse course, floc fluvial mod uctures and s - DL-W DATE 28/6/2	6AW urvey.co.uk
EPSON Tel: 07948 d CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey cross— SCALE	ER ER WEST HO MOAD, WES 03936 - EN Water Water Vater Vater Vater Section	ON	6AW urvey.co.uk



<u>KEY</u>	
FP	Flood Plain
BB	Bottom of Bank
TB	Top of Bank
WL	Water Line
IC	In Channel
IM	In Channel mid-point
Applies to	Arch, Culvert or Head Wall
SL	Soffit Level
LT	Left Top
RT	Right Top
LB	Left Bottom
RB	Right Bottom
BL	Base Level
IL	Invert Level
TS	Top of Silt
FH	Fire hydrant
GY	Gulley
IC	Inspection cover
MH	Manhole
SMP	Service marker post
GSV	Gas stop valve
WSV	Water stop valve
DK	Drop kerb
EP	Electricity pole
KB	Kerb
OSBM	OS bench mark
RS	Road sign
TP	Telegraph pole
B/W C/B C/P I/W I/R L/B P/R P/W W/M RTW SSF	Barbed wire fence Close boarded fence Chain link fence Chestnut paling fence Interwoven fence Iron railing Lapboard fence Post and rail fence Post and wire fence Wire mesh fence Retaining wall Steel security fence

FD1 - CROSS-SECTION





Notes				
	eraround	d servi	ces are shown	it is
advisable t	o check	these	e details agains	t
statutory a with any d	-	record	ds before proce	eding
	-	ntaina	d in this drawin	
			d in this drawir should be chec	-
verified pri	or to a	ıny fab	prication or cor	nstruction.
			nd levels are b nance Survey	based
REVISION		RIPTION		DATE
	DESCI			DAIL
M	EI		DIA surveying and	
M	EI		DIA surveying and	
M	Eſ			
M	EI			
M	E			
	WEST	Land	surveying and	l design
EPSOM	WEST 1 ROAD,	L a n a	surveying and	design 6AW
EPSON Tel: 07948 6	WEST 1 ROAD,	L a n a	SLEY PLACE HORSLEY KT24	design 6AW
EPSOM	WEST 1 ROAD,	L a n a	SLEY PLACE HORSLEY KT24	design 6AW
EPSON Tel: 07948 6	WES1 1 ROAD, 503936 -	Land HORS WEST - Emai	SLEY PLACE HORSLEY KT24	design 6AW
EPSOM Tel: 07948 6 CUSTOMER	WES1 1 ROAD, 503936 -	Land HORS WEST - Emai	SLEY PLACE HORSLEY KT24	design 6AW
EPSOM Tel: 07948 6 CUSTOMER	WES1 1 ROAD, 503936 -	Land HORS WEST - Emai	SLEY PLACE HORSLEY KT24	design 6AW
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT	WEST 1 ROAD, 503936 -	Land HORS WEST - Emai	SLEY PLACE HORSLEY KT24	6AW urvey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley	WEST 1 ROAD, 503936 - E LLF	Land HORS WEST - Emai	SLEY PLACE HORSLEY KT24 in: peter@meridians	6AW urvey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st	WEST 1 ROAD, 503936 - E LLF	Land HORS WEST - Emai	SLEY PLACE HORSLEY KT24 II: peter@meridians	6AW urvey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st DRAWING	WEST 1 ROAD, 503936 - E LLF Wat ructu	Land Land HORS WEST - Emai	SLEY PLACE HORSLEY KT24 il: peter@meridians	6AW urvey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st DRAWING	WEST 1 ROAD, 503936 - E LLF Wat ructu	Land Land HORS WEST - Emai	SLEY PLACE HORSLEY KT24 in: peter@meridians	6AW urvey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey	WEST N ROAD, 503936 e LLF Wat ructu	Land Land HORS WEST - Emai	SLEY PLACE HORSLEY KT24 il: peter@meridians	6AW urvey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey	WEST N ROAD, 503936 e LLF Wat ructu	Land Land HORS WEST - Emai	SLEY PLACE HORSLEY KT24 It peter@meridians	6AW urvey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey cross— SCALE	WEST M ROAD, 503936 - e LLF Wat ructu of s secti	Land Land HORS WEST - Emai	SLEY PLACE HORSLEY KT24 it peter@meridians ourse, floc fluvial mod ctures and - FD-A DATE	6AW urvey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey cross- SCALE 1:100	WEST MROAD, 503936 - E LLF Wat ructu of s secti (A1)	THORS WEST - Emai	SLEY PLACE HORSLEY KT24 in peter@meridians burse, floc fluvial mod ctures and - FD-A DATE 28/6/2	6AW urvey.co.uk
EPSON Tel: 07948 6 CUSTOMER Manhire PROJECT Earnley and st DRAWING Survey cross— SCALE	WEST (A ROAD, 1003936	T HORS WEST - Emai - Emai - Emai 	SLEY PLACE HORSLEY KT24 in peter@meridians burse, floc fluvial mod ctures and - FD-A DATE 28/6/2	6AW urvey.co.uk

