PRELIMINARY ONLY

R.A.B. ENGINEERING DESIGN LTD
21 BURNCROSS DRIVE
SHEFFIELD S35 1DJ
TEL.(0114)2570576

Strata Homes

Haddon Cl / Bamford Cl
Dodworth
Longitudinal sections

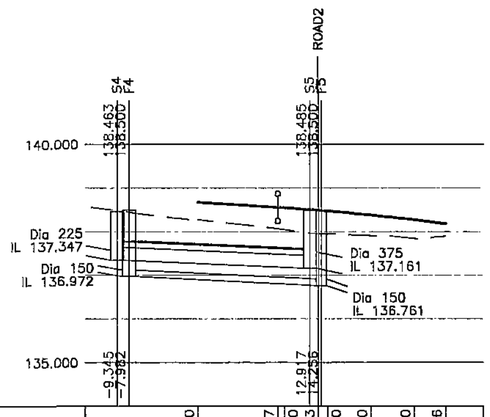
DRAWN BY rab

SCALE H1:500 V1:100 DATE June 12

DRAWING No 965-12 REV A

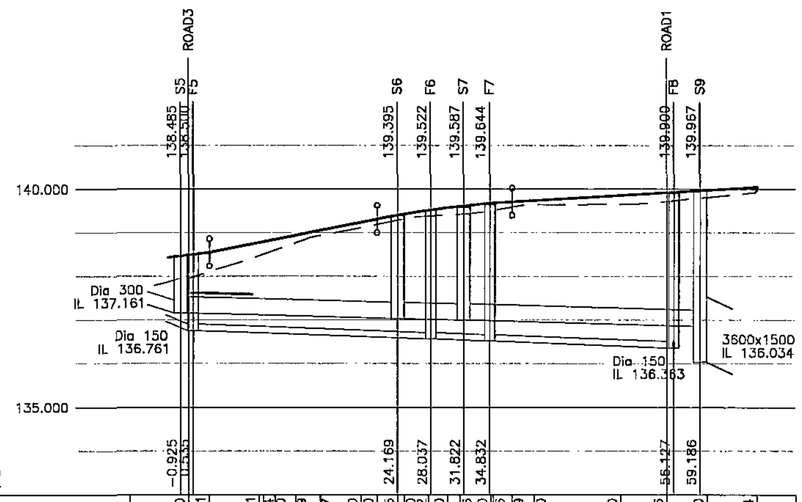
A. Ramp positions to roads 1 & 4 revised 16-7-12

2 3 JUL 2012



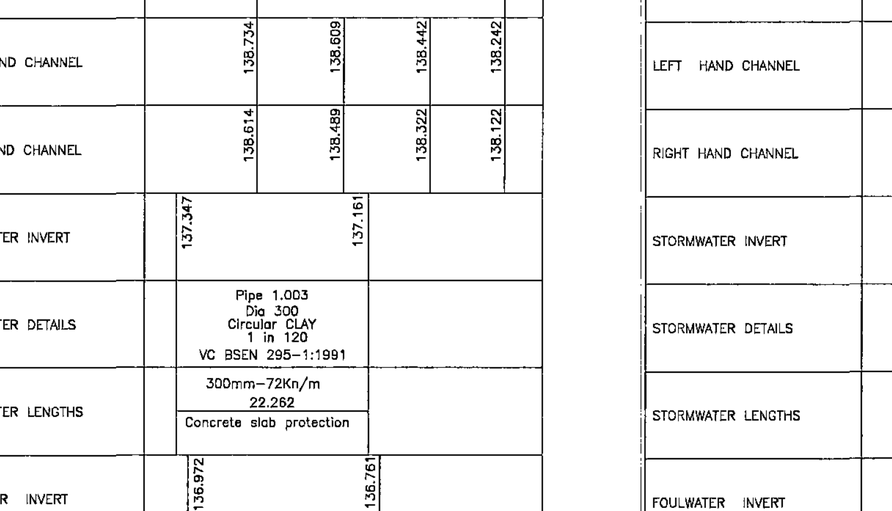
ROAD3

CHAINAGE	0.000	9.197	10.000	13.913	15.000	20.000	25.000	28.636
EXISTING GROUND LEVEL	138.278	138.044			137.912		137.899	
ALIGNMENT LEVEL	138.674	138.559	138.549	138.474	138.382		138.273	138.182
VERTICAL ALIGNMENT		G= -1.250% 1: -80.0			L= 19.439 KF= -14.05212			
HORIZONTAL ALIGNMENT								
LEFT HAND CHANNEL	138.734	138.609			138.442		138.242	
RIGHT HAND CHANNEL	138.614	138.489			138.322		138.122	
STORMWATER INVERT	137.347				137.161			
STORMWATER DETAILS	Pipe 1.003 Dia 300 Circular CLAY 1 in 120 VC BSEN 295-1:1991							
STORMWATER LENGTHS	300mm-72Kn/m 22.262 Concrete slab protection							
FOULWATER INVERT	136.972				136.761			
FOULWATER DETAILS	Pipe 1.003 Dia 150 Circular CLAY 1 in 105 VC BSEN 295-1:1991							
FOULWATER LENGTHS	150mm-40Kn/m 22.237 Type S granular surround							



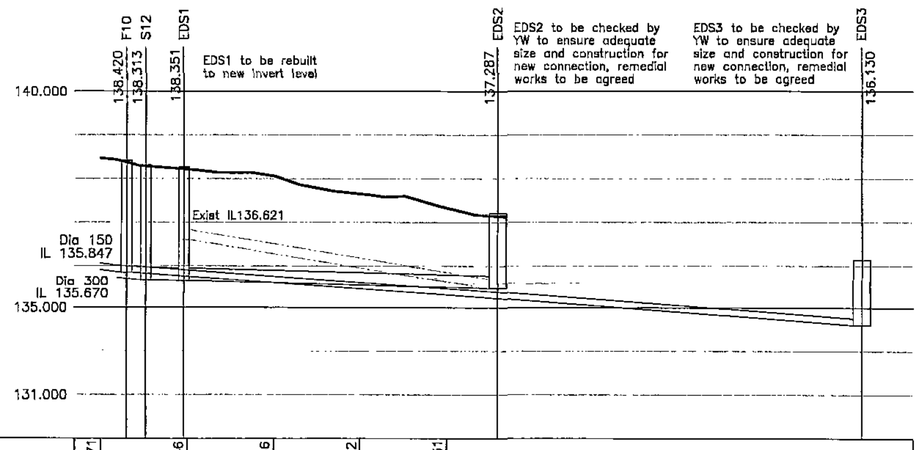
ROAD2

CHAINAGE	0.000	2.401	8.181	8.824	10.000	12.419	15.287	20.000	21.830	24.235	25.000	27.772	30.000	31.396	35.000	35.256	37.429	40.000	50.000	55.346	60.000	65.784
EXISTING GROUND LEVEL	137.959		138.601			139.116							139.408				139.640		139.654		139.810	139.971
ALIGNMENT LEVEL	138.551		138.850			139.243	139.314			139.430			139.576	139.678		139.712	139.742		139.859		139.976	140.044
VERTICAL ALIGNMENT			G= 3.929% 1: 25.5							L= 15.599 KF= -5.65503							G= 1.170% 1: 85.5					
HORIZONTAL ALIGNMENT					R= 20.000					R= 6.000				R= 5.000								
LEFT HAND CHANNEL	138.847		138.916			139.311				139.645				139.811					139.928		140.045	140.113
RIGHT HAND CHANNEL	138.727		138.781			139.174				139.508				139.673					139.790		139.907	139.975
STORMWATER INVERT	137.161									137.035			137.035	136.999		136.999				136.859		
STORMWATER DETAILS	Pipe 1.004 Dia 375 Circular CONC 1 in 200 Concrete Class 120									Pipe 1.005 Dia 375 Circular CONC 1 in 200 Concrete Class 120				Pipe 1.006 Dia 375 Circular CONC 1 in 200 Concrete Class 120								
STORMWATER LENGTHS	BSEN 1917:2002 25.102 9m concrete slab protection to SW granular surround									BSEN 1917:2002 7.396				BSEN 1917:2002 27.867 Type S granular surround								
FOULWATER INVERT	136.761									136.568			136.568	136.516		136.516				136.353		
FOULWATER DETAILS	Pipe 1.004 Dia 150 Circular CLAY 1 in 140 VC BSEN 295-1:1991									Pipe 1.005 Dia 150 Circular CLAY 1 in 140				Pipe 1.006 Dia 150 Circular CLAY 1 in 140 VC BSEN 295-1:1991								
FOULWATER LENGTHS	150mm-40Kn/m 27.034 Type S granular surround									7.298				150mm-40Kn/m 21.384 Type S granular surround								



ROAD1
HADDON CLOSE

CHAINAGE	0.000	4.875	6.867	10.000	15.813	17.813	20.000	25.802	28.396	30.000	33.671	35.000	40.000	45.000	50.000	53.560	53.671	62.310				
EXISTING GROUND LEVEL	138.462		138.786		138.731			138.873				139.134			139.389			139.657	139.719			
ALIGNMENT LEVEL	138.540		138.692		138.780	138.880	138.913		139.065		139.120	139.141	139.238	139.361	139.511		139.638	139.853				
VERTICAL ALIGNMENT			G= 1.515% 1: 66.0			G= 1.515% 1: 66.0			KF= 9.33563 L= 20.000								G= 3.657% 1: 27.3					
HORIZONTAL ALIGNMENT					R= 27.250							R= 27.750										
LEFT HAND CHANNEL	138.590		138.760			138.982			139.078			139.169			139.442		139.565					
RIGHT HAND CHANNEL	138.490		138.623			138.844			139.051			139.306			139.579		139.702					
STORMWATER INVERT	135.670	135.670			135.738	135.738	135.760	135.760										136.034				
STORMWATER DETAILS	Pipe 1.009 Dia 300 Circular CLAY 1 in 200 VC BSEN 295				Pipe 1.008 Dia 375 CONC 1 in 200 Concrete Class 120			Pipe 1.007 Inv-soff 1500 Conduit 1 in 200															
STORMWATER LENGTHS	72Kn/m 13.612 Type S granular surround				4.509			54.729														
FOULWATER INVERT	135.847	135.847			135.976	135.976												136.363				
FOULWATER DETAILS	Pipe 1.008 Dia 150 Circular CLAY 1 in 140 VC BSEN 295-1:1991							Pipe 1.007 Dia 150 Circular CLAY 1 in 140 VC BSEN 295-1:1991														
FOULWATER LENGTHS	150mm-40Kn/m 18.118 Type S granular surround							150mm-40Kn/m 54.148 Type S granular surround														



GROUND LEVEL	138.471	137.946	138.056	137.652	137.331	
STORMWATER INVERT		135.670 135.648	135.648	Existing 225mm drain to be relaid as 300mm diameter at 1:200 sewer not shown on sewer records therefore assumed not to require section 185 diversion.	135.467	
STORMWATER DETAILS	Pipe 1.010 Dia 300 Circular CLAY 1 in 200 VC BSEN 295-1:1991		Pipe 1.011 Dia 300 Circular CLAY 1 in 201 VC BSEN 295-1:1991			
STORMWATER LENGTHS	300mm-72Kn/m 4.413 Type S granular surround		300mm-72Kn/m 36.296 Type S granular surround			
FOULWATER INVERT		135.847			134.601	134.536
FOULWATER DETAILS	Pipe 1.009 Dia 150 Circular CLAY 1 in 68 VC BSEN 295-1:1991					
FOULWATER LENGTHS	150mm-40Kn/m 84.966 Type S granular surround					

Manhole construction - refer to CPA technical bulletin Sept 2001 outlining changes to relevent Britishe Product Standards BS5911-200:1994. All precast concret products are to be kitemarked or they will be rejected as part of an adoptable system. Manhole cover slabs to BS5911
Manhole covers to have a clear opening of 600 x 600mm and shall be class D400 to BSEN124 with 150mm deep frames.
Filled ground must be filled and consolidated under the supervision of YW before any sewer works are carried out.
All adoptable sewers to be BSI kitemarked, (certified to WIS-4-35-01)

Plastic channels are not acceptable

All custom built ironwork to be hot dipped galvanised prior to final fitting.

Adoptable sewer pipes to be laid in max 3m lengths unless there is a specific operational need to lay longer lengths.

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Sulphate resistant cement (C20-DC2) and precast concrete productes must be used or a laboratory report provided proving that such precautions are not nessesary.

Sewers to be laid in class S bedding (150mm grouler bed and surround. Where depth of cover is less then 1.2m in highways and verges (or less then 900mm in non vehile access areas) then a concrete slab should be provided above the granular bed and surround.

The chamber size of manholes with more then one connection in them may need to be increased one increment to accomodate the connection and bends.

Yorkshire Water policy is not to accept type C brick manholes and 1050mm diameter manhole rings. Instead it is prefered to use a type B manhole construction with a 1200 or 1500mm cover slab with the opening sited over the channel where the depth of cover to pipe soffit is 1.0-1.5m.

Contractors should be aware of significantly large diameter pipes and manhole chamber rings proposed in this design and precautions should be taken in movement and placing of such items. Also to be considered is the depth of excavation of the drainage works especially the large diameter components up to 8m deep excavations.

All adoptable sewer works and materials to be in accordance with Sewers for Adoption 6th edition. The relevant British / European anf Yorkshire Water standards / requirements / addendum & kitemarked

The adoptable sewers shall be a min 1.0m and manholes 0.5m from the kerb and service margins

Sewers must have 5m clearance from trees and hedges see SfA8 for restrictions on tree planting / types

Bedding and backfill material to conform with the Water Industry specification 4-08-02 (table A2)



North

pm am noon

All work to be carried out in accordance with the requirements of the Building Regulations, Water Authority and the Construction (Design and Management) Regulations currently in force.

Do not scale from this drawing. Architect to be notified of any discrepancies.

Verify relevant dimensions on site before commencing work or preparing shop drawings. This drawing is copyright.

Rev:	Date:	Action:	Init:

Legend

Single Storey Garage

2 Storey Dwelling

2 Storey + room in the roof Dwelling

Note: All detached/attached garages are single storey

23 JUL 2012

homes by strata

strata homes limited quay point lakeside doncaster DN4 5PL
T 01302 308508 F 01302 308501 www.homesbystrata.co.uk

scale: 1/500 | drawn by: ikc | date: 12-02-12

Project: Bamford Close/Haddon Close Dodworth

Drawing: Dwelling Massing Plan

Drawing Number: BC/MAP/01 | Revision -

NOTES

PROTECTION OF EXISTING VEGETATION

Existing vegetation to be retained on site shall be protected where necessary during works by 2300mm high mesh panel fencing secured to a scaffold tubing framework with flourescent tape to the top rail. Protective fencing shall be erected on the canopy drip line wherever possible. Laminated, waterproof A4 signs shall be fixed to the fence posts at 10m intervals bearing the words 'PROTECTED TREE ZONE - NO STORAGE OR OPERATIONS WITHIN FENCED AREA'.
Tracking of machinery, storage of chemicals and building materials shall not be permitted within the protected area. Leaks or spills should be removed immediately and the contaminated soil replaced. No bonfires shall be lit within 5m of the canopy spread. Any excavation work beneath the canopy spread shall be carried out by hand.
All works affecting trees within the development shall be subject to BS 5837:2005. Reference shall be made to Tree Report by JCA (June 2012).

TREE PLANTING

Extensive planting of heavy standard and selected standard trees throughout the development will create a structure to the site and an extensive canopy on maturity, breaking up the building line from outside the site. Planting of extra heavy standard trees within the POS, at focal points through the development and along the boundary with the cemetery will give early structure and maturity to the scheme.
Foundation design of new buildings shall accommodate proposed tree planting in accordance with NHBC guidelines.

Species to be chosen from:

Acer campestre (Ac)
Acer campestre 'Streetwise' (AcS)
Acer platanoides 'Laciniata' (ApL)
Alnus cordata (Alc)
Alnus glutinosa (Ag)
Amelanchier lamarckii (Al)
Betula pendula (Bp)
Betula utilis var. jaquemontii (Bj)
Carpinus betulus 'Frans Fontaine' (CbFF)
Malus tschonoskii (Mt)
Prunus cerasifera 'Nigra' (PcN)
Prunus subhirtella 'Autumnalis Rosea' (PsA)
Pyrus calleryana 'Chanticleer' (PcC)
Sorbus aria (Sa)
Sorbus aucuparia 'Embley' (Se)
Sorbus aucuparia 'Sheerwater Seedling' (SaS)
Sorbus 'Joseph's Rock' (Sj)

SHRUB PLANTING

A mix of evergreen and deciduous shrubs will be planted throughout the site to give enclosure and structure to the development.
Medium/large species will be planted against screen fences and walls and medium/low mixes will be planted into front gardens, cul de sacs and around parking areas.

Species to be selected from: ( ) density/m2
Berberis frikartii 'Amstelveen'(5), Berberis thunbergii 'Atropurpurea Nana'(5), Bergenia cordifolia 'Silberlicht'(6), Buddleia davidii 'Lochinch'(2), Ceanothus thrysiflorus repens(4), Chaenomeles superba 'Jet Trail'(4), Cornus alba 'Spaethii'(2), Cornus stolonifera 'Flaviramea'(2), Cotoneaster consplcuus 'Decorus'(6), Cotoneaster lacteus(2), Cytisus 'Allgold'(4), Elaeagnus pungens 'Maculata'(3), Escallonia 'Apple Blossom'(4), Euonymous fortunell 'Emerald Gaiety'(6), Euphorbia griffithhii 'Fireglow'(5), Festuca spp(6), Geranium 'Johnson's Blue'(4), Hebe albicans 'Red Edge'(4), Hebe 'Autumn Glory'(4), Hypericum x moserianum(4), Juniperus sabina 'Tamariscifolia' (3), Lavandula 'Hidcote'(6), Lonicera 'Maygreen'(4), Lonicera 'Silver Beauty'(4), Nepeta faasenii(4), Perovskia 'Blue Spire'(6), Phormium var, Potentilla 'Red Ace'(5), Prunus laurocerasus 'Zabelliana'(3), Pyracantha 'Orange Charmer'(3), Rubus x 'Betty Ashburner'(4), Spiraea 'Gold Flame'(4), Spiraea 'Shirobana'(4), Viburnum tinus 'Eve Price'(3)

HEDGE PLANTING

Planting of ornamental flowering hedges to frontages in selected areas will create 'character' zones and a sense of place within the development. Hedges will be planted as 60-80 cm hedging plants as specified on the detailed design drawings.

NATIVE SPECIES HEDGE

The existing hedgerow on the southern boundary will be gapped up with sections of 'instant' hedging to create a continuous boundary and wildlife corridor. Within the site sections of new native hedgerow will be planted along suitable sections of boundary. Native species shrub planting will strengthen the existing boundary of the POS and northern boundary.

PUBLIC OPEN SPACE

A small Amenity Space will be created at the entrance off Haddon Close. This will be planted with groups of trees, native species shrubs and wildflower meadow seed mix. A mown edge of amenity grass will create a 'tidy' edge to the space.

KEY

Existing vegetation to be retained (see Tree Report by JCA)
Existing vegetation to be removed (see Tree Report by JCA)
Existing hedge to be retained
Proposed extra heavy standard (14-16cm girth)and heavy standard (12-14cm girth) trees (left to right)
Proposed selected standard (10-12cm girth) and light standard (6-8cm girth) trees (left to right)
Proposed evergreen, flowering hedge
Proposed ornamental shrub planting
Proposed native species shrub mix
Proposed native species hedgerow to be planted as instant hedge to gap up existing
Proposed native species hedgerow
Proposed turf to plot frontages
Proposed species rich meadow grass seed mix
Proposed 1800mm high screen wall
Proposed 1800mm high close boarded fence
Proposed 1500mm high close boarded fence
Proposed black asphalt surfacing to drives
Proposed brindle block paving to roads to BMBC specification
Proposed brindle block paving to hard margin to BMBC specification
Proposed block paving to ramp crossing in contrasting colour to BMBC specification
Proposed tarmac road and footpaths to BMBC specification
Proposed 450x450mm buff pcc paving flags to Strata specification

Sue Farmer BA MALD MLI
Landscape Architect

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www.fdalandscape.co.uk

25 JUL 2012

client: Strata Homes Ltd

project: Residential Development

BAMFORD CLOSE, DODWORTH, BARNSLEY

drawing title: LANDSCAPE MASTERPLAN

scale	date	drwn by	drawing no
1:500	July 12	SF	R/1342/1

PRELIMINARY ONLY

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Strata Homes

Haddon Cl / Bamford Cl
Dodworth
Engineering layout

DRAWN BY rab

SCALE 1:200 DATE June 12

DRAWING No 965-1 REV A

A. Revised in line with current Strata layout, private drainage added, additional Haddon Close survey added 16-7-12

Surface water discharge to EDS2 existing surface water sewer. Discharge rates 1year=5 lts/sec 30year=7 lts/sec, 100year=9.1 lts/sec design includes 30% allowance for climate change. Greenfield discharge 1.4Ha x 5lts/sec x 30% = 9.1 lts/sec

Hydrobrake flow control 5XH101
Head 1.45m Flow 7 lts/sec

Levels and and orientation taken from GPS

Floor levels are preliminary and subject to part M and and private drainage check

Manhole construction – refer to CPA technical bulletin Sept 2001 outlining changes to relevent Britishe Product Standards BS5911-200:1994. All precast concret products are to be kitemarked or they will be rejected as part of an adoptable system. Manhole cover slabs to BS911 Manhole covers to have a clear opening of 600 x 600mm and shall be class D400 to BSEN124 with 150mm deep frames. Filled ground must be filled and consolidated under the supervision of YW before any sewer works are corried out. All adoptable sewers to be IBSI kitemarked, (certified to WIS-4-35-01)

Plastic channels are not acceptable

All custom built ironwork to be hot dipped galvanised prior to final fitting.

Adoptable sewer pipes to be laid in max 3m lengths unless there is a specific operational need to lay longer lengths.

Yorkshire water are not obliged to accept filter drain / land drainagerunoff into the public sewer network or adoptable drainage network (directly or indirectly). An alternative method of disposal of land drainage runoff will therefore be required.

Cover slabs must carry the BSI kitemark or will be rejected by YW inspector. Where the clear opening of a kitmarked product is different to that of the cover and frame a seal bearing slab should be fitted below the cover slab to bring the size down to 600x600mm for YWA specified cover size. Please refer to CPSA technical bulliton Autumn 2004 for kitemarked cover slab opening sizes.

Sulphate resistant cement (C20-DC2) and precast concrete productes must be used or a laboratory report provided proving that such precautions are not nessesary.

Sewers to be laid in class S bedding (150mm grouiar bed and surround. Where depth of cover is less then 1.2m in highways and verges (or less then 900mm in non vehile access areas) then a concrete slab should be provided above the granular bed and surround.

The chamber size of manholes with more then one connection in them may need to be increased one increment to accomodate the connection and bends.

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Contractors should be aware of significantly large diameter pipes and manhole chamber rings proposed in this design and precautions should be taken in movement and placing of such items. Also to be considered is the depth of excavation of the drainage works especially the large diameter components up to 8m deep excavations.

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The adoptable sewers shall be a min 1.0m and manholes 0.5m from the kerb and service margins

Sewers must have 5m clearance from trees and hedges see SIAS for restrictions on tree planting / types

Bedding and backfill material to conform with the Water Industry specification 4-08-02 (table A2)

FOUL SEWER OUTFALL

EDS3
CL136.13
IL134.536

EDS2
CL137.287
IL135.467

EDS4
CL138.351
IL136.621

BAMFORD CLOSE
HADDON CLOSE
EYAM CLOSE
BRIERY CLOSE
ROAD1
ROAD2
ROAD3
ROAD4
ROAD5
ROAD6
ROAD6A
SERVICE STRIP
SEWER EASEMENT
5m from culvert center line
3600x1500 high box culvert 1:200
EXISTING 225mm SURFACE WATER SEWER
EXISTING 375mm SURFACE WATER SEWER
Block paved Driveway
Tarmac Driveway
Concrete Driveway
Unmade footpath
Metal fence, Ht. 1.40
Hedge Ht. 2.00
Top of bank
Bottom of bank

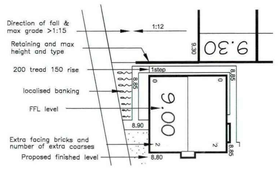
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Strata Homes

Haddon Cl / Bamford Cl
Dodworth
External works

DRAWN BY rab
SCALE 1:200 DATE June 12
DRAWING No 965-11 REV



RETAINING STRUCTURE STANDARD DETAILS

SD10–01A	MR	450–1050 masonry retaining
SD10–02	FOE	Flag on edge max 450mm
SD10–03	RP	600–1200 ret'g pole conc foundation
SD10–04	RPB	Ret'g pole and 30deg bank, figure shown refers to the pole ret'g hieght
SD10–05	RP	0–600 retaining pole conc foundation
SD10–06	RP	Max. 600 retaining pole rammed earth
SD10–07	MR	0–675 masonary retaining
SD10–08C	MR	675–1000 masonry retaining
SD10–09C	MR	1000–1450 masonry retaining
SD10–10C	MR	1450–1800 masonry retaining
SD10–11	CR	0–1800 concrete retaining
SD10–12A	CR	1800–2100 concrete retaining
SD10–13	CR	2100–2400 concrete retaining
SD10–14	GR	0–1000 gabion retaining
SD10–15	GR	1000–1500 gabion retaining
SD10–16	GR	1500–2000 gabion retaining
SD10–17	GR	2000–2500 gabion retaining

REFER TO Drg 50014/BTP FOR BOUNDARY TREATMENTS

Flag on edge
Masonry retaining
Retaining poles

This layout is based on part M of the building regs and as such ALL levels are critical. The relationship between the level threshold and the point of access to the highway should be checked prior to setting the FFL.
Tanking due to the level threshold should be to Strata Homes standard detail
Fencing, paving and drive construction is in line with the site specification unless indicated otherwise unless indicated otherwise.
Drive demarkation to be 150mm pin kerb at either end, drive construction to 50500

Guarding is required for ramps and steps giving direct access to the dwellings where there is a drop of 600mm or more. Handrails are required to stepped approach where the flight comprises 3 or more risers.

This design has very little flexibility for error therefore care should be taken when setting drainage, external works and floor levels.

EYAM CLOSE
HADDON CLOSE
BRIERY CLOSE

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Do not scale from this drawing. Architect to be notified of any discrepancies.

Verify relevant dimensions on site before commencing work or preparing shop drawings. This drawing is copyright.

Rev:	Date:	Action:	Initls







homes by strata

strata homes limited quay point lakeside doncaster DN4 5PL
T 01302 308508 F 01302 308501 www.homesbystrata.co.uk

scale: 1/150 | drawn by: iKC | date: 12-02-12

Project: Bamford Close
Dodworth

Drawing: Street Scenes
Sheet 1

23 JUL 2012

Drawing Number: BC/SS/01 | Revision -

PRELIMINARY ONLY

Manhole construction – refer to CPA technical bulletin Sept 2001 outlining changes to relevent Britishe Product Standards BS5911-200:1994.
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Sewers to be laid in class S bedding (150mm graular bed and surround. Where depth of cover is less then 1.2m in highways and verges (or less then 900mm in non vehile access areas) then a concrete slab should be provided above the granular bed and surround.

The chamber size of manholes with more then one connection in them may need to be increased one increment to accomodate the connection and bends.

Yorkshire Water policy is not to accept type C brick manholes and 1050mm diameter manhole rings. Instead it is prefered to use a type B manhole construction with a 1200 or 1500mm cover slab with the opening sited over the channel where the depth of cover to pipe soffit is 1.0-1.5m.

Contractors should be aware of significantly large diameter pipes and manhole chamber rings proposed in this design and precautions should be taken in movement and placing of such items. Also to be considered is the depth of excavation of the drainage works especially the large diameter components up to 8m deep excavations.

All adoptable sewer works and materials to be in accordance with Sewers for Adoption 6th edition. The relevant British / European anf Yorkshire Water standards / requirements / addendum & kitemarked

The adoptable sewers shall be a min 1.0m and manholes 0.5m from the kerb and service margins

Sewers must have 5m clearance from trees and hedges see SfA6 for restrictions on tree planting / types

Bedding and backfill material to conform with the Water Industry specification 4-08-02 (table A2)

R.A.B. ENGINEERING DESIGN LTD
21 BURNCROSS DRIVE
SHEFFIELD S35 1DJ
TEL.(0114)2570576

Strata Homes

Haddon Cl / Bamford Cl
Dodworth
Longitudinal sections

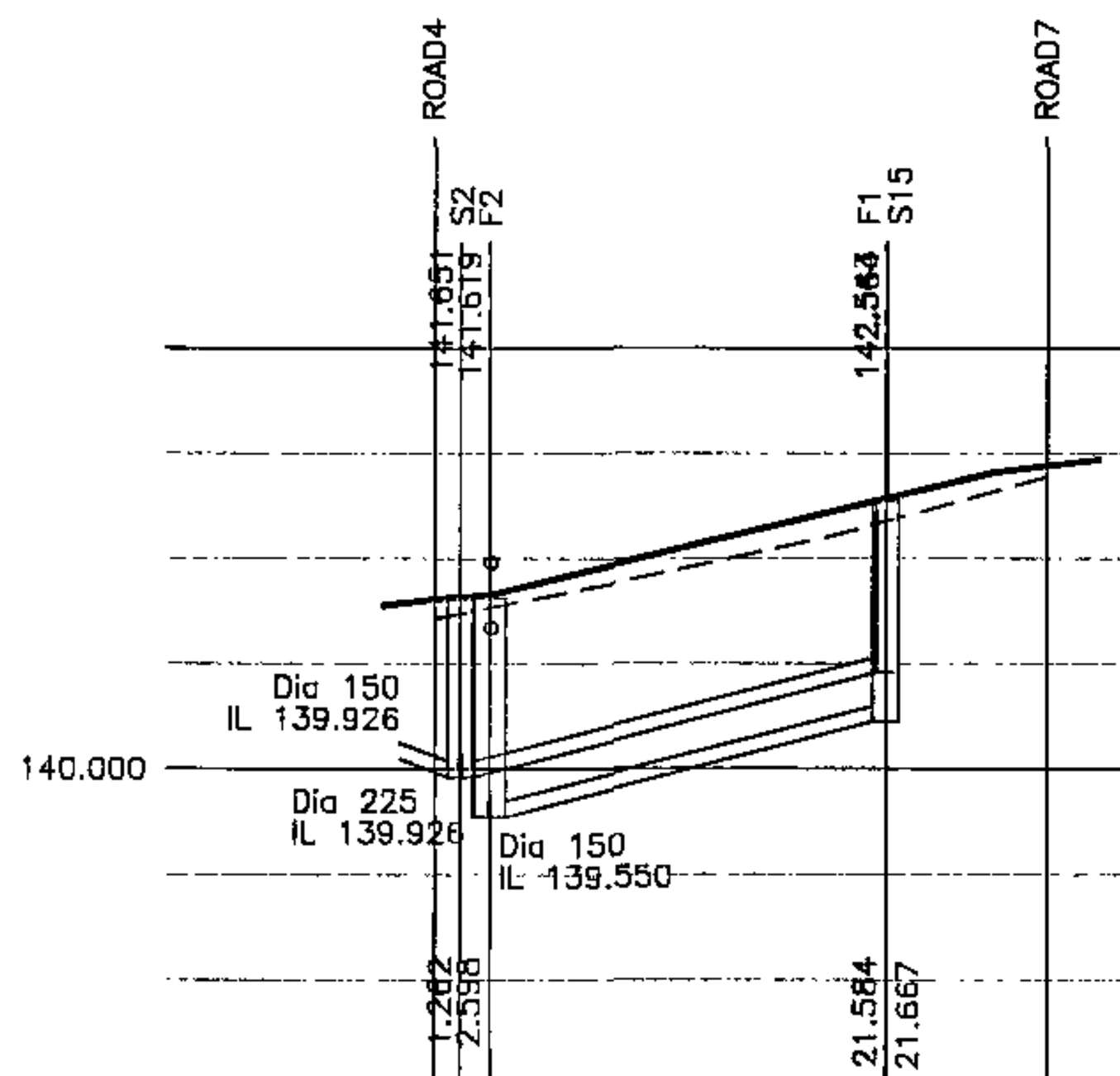
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SCALE H1:500 V1:100 DATE June 12

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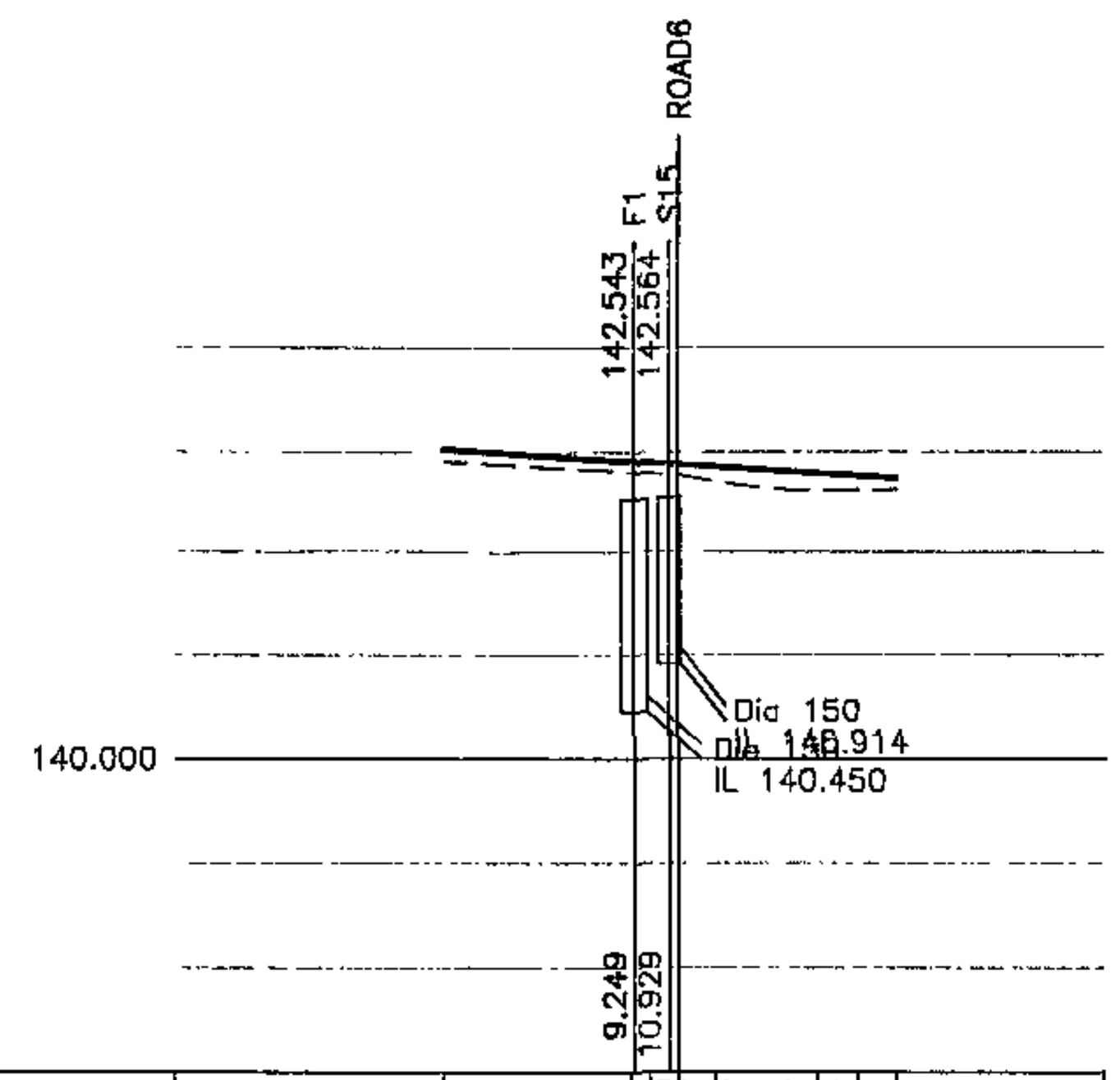
A. Ramp positions to roads 1 & 4 revised 16-7-12

2 3 JUL 2012



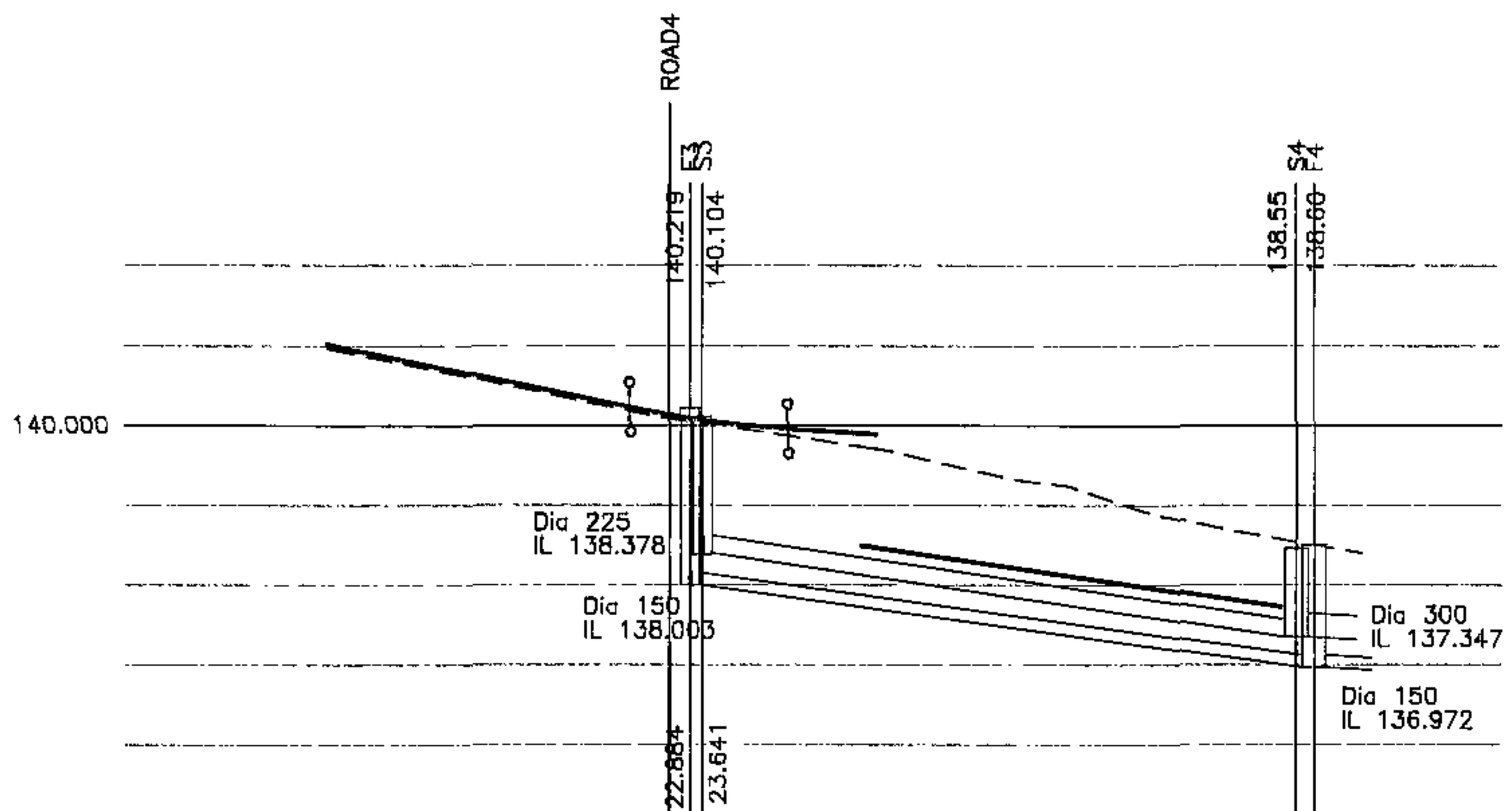
ROAD6

CHAINAGE	0.000, 2.658, 6.006, 10.000, 11.243, 15.524, 18.022, 20.000, 22.131, 22.982, 29.345
EXISTING GROUND LEVEL	141.423, 141.822, 142.267, 142.781
ALIGNMENT LEVEL	141.651, 142.006, 142.489, 142.823
VERTICAL ALIGNMENT	G= 4.836% 1: 20.7
HORIZONTAL ALIGNMENT	R= 6.000
LEFT HAND CHANNEL	142.006, 142.213, 142.450, 142.575
RIGHT HAND CHANNEL	141.873, 142.066, 142.128, 142.333
STORMWATER INVERT	139.926, 140.914
STORMWATER DETAILS	Pipe 2.000 Dia 150 Circular CLAY 1 in 21 VC BSEN 295-1:1991
STORMWATER LENGTHS	150mm-40Kn/m 20.515 Type S granular surround
FOULWATER INVERT	139.550, 140.450
FOULWATER DETAILS	Pipe 1.000 Dia 150 Circular CLAY 1 in 22 VC BSEN 295-1:1991
FOULWATER LENGTHS	150mm-40Kn/m 20.081 Type S granular surround



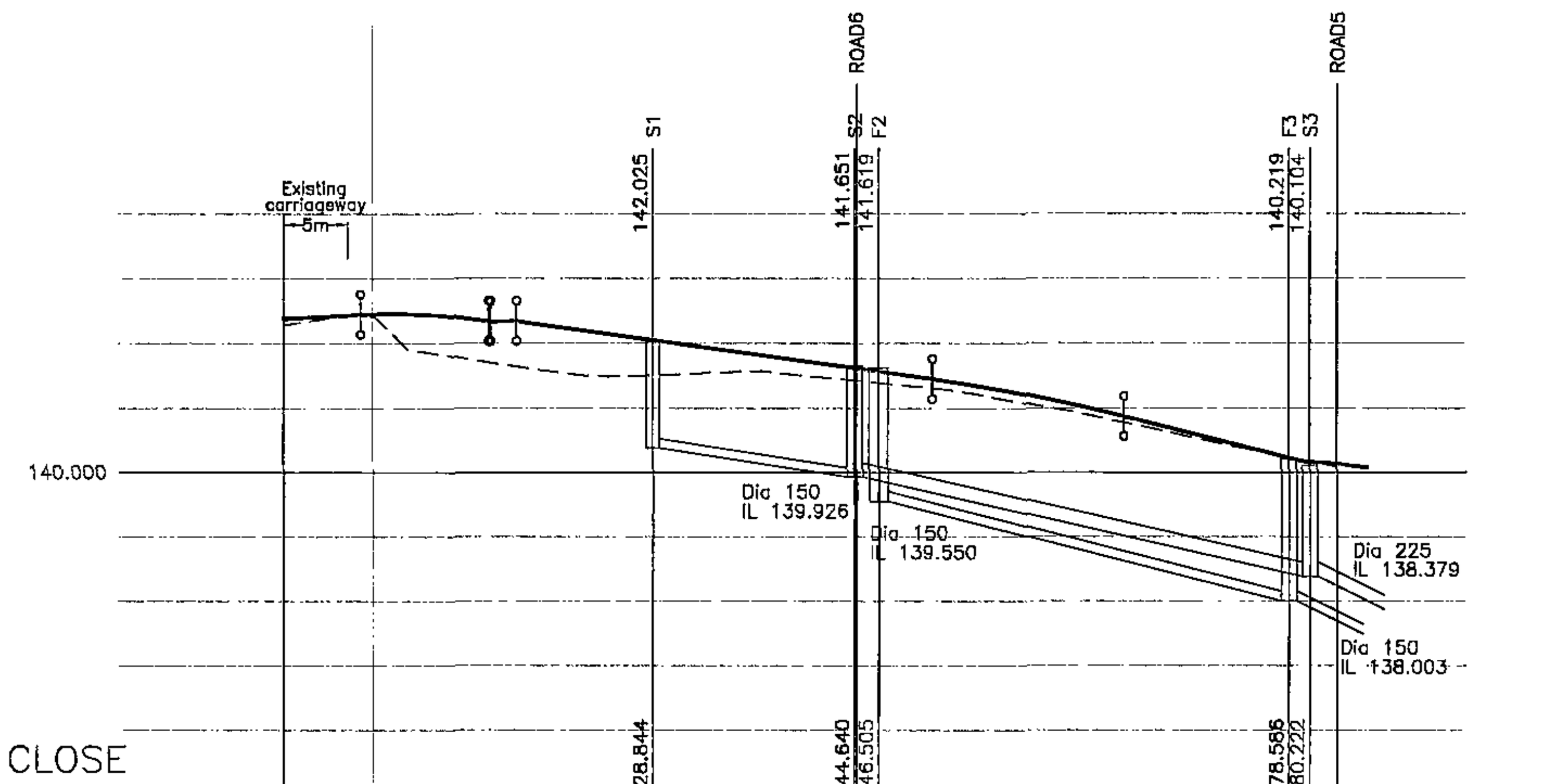
ROAD7

CHAINAGE	0.000, 9.112, 10.000, 11.349, 13.117, 13.177, 18.077, 20.000, 21.887
EXISTING GROUND LEVEL	142.911, 142.798, 142.629, 142.636
ALIGNMENT LEVEL	143.026, 142.901, 142.776, 142.752
VERTICAL ALIGNMENT	G= -1.250% 1: -80.0
HORIZONTAL ALIGNMENT	R= 6.000
LEFT HAND CHANNEL	143.086, 142.972, 142.961, 142.924, 142.838, 142.815
RIGHT HAND CHANNEL	142.966, 142.852, 142.840, 142.799, 142.713, 142.690



ROAD5

CHAINAGE	0.008, 10.000, 19.061, 19.797, 20.000, 21.550, 21.700, 25.000, 29.061, 30.000, 34.589
EXISTING GROUND LEVEL	140.959, 140.557, 140.139, 139.842, 139.702, 139.475, 139.031, 138.581
ALIGNMENT LEVEL	141.010, 140.597, 140.224, 140.186, 140.029, 139.955, 139.943, 139.886
VERTICAL ALIGNMENT	G= -4.127% 1: -24.2; KF= 3.47541 L= 10.000; G= -1.250% 1: -80.0
HORIZONTAL ALIGNMENT	R= 6.000
LEFT HAND CHANNEL	140.657, 140.246, 140.003, 139.946
RIGHT HAND CHANNEL	140.537, 140.126, 139.883, 139.826
STORMWATER INVERT	138.379, 137.347
STORMWATER DETAILS	Pipe 1.002 Dia 225 Circular CLAY 1 in 36 VC BSEN 295-1:1991
STORMWATER LENGTHS	225mm-45Kn/m 36.947 Type S granular surround; 28m concrete slab protection to SW
FOULWATER INVERT	138.003, 136.972
FOULWATER DETAILS	Pipe 1.002 Dia 150 Circular CLAY 1 in 38 VC BSEN 295-1:1991
FOULWATER LENGTHS	150mm-40Kn/m 39.385 Type S granular surround



ROAD4
BAMFORD CLOSE

CHAINAGE	0.000, 6.000, 8.464, 10.000, 15.000, 16.000, 16.181, 18.181, 19.731, 20.000, 20.416, 28.719, 30.000, 40.000, 44.776, 50.000, 50.718, 51.194, 54.647, 55.000, 60.000, 65.000, 65.718, 70.000, 70.717, 74.211, 82.352
EXISTING GROUND LEVEL	142.295, 141.889, 141.588, 141.517, 141.513, 141.324, 141.001, 140.592, 140.178, 140.083
ALIGNMENT LEVEL	142.386, 142.446, 142.458, 142.454, 142.372, 142.343, 142.338, 142.342, 142.292, 142.018, 141.744, 141.470, 141.450, 141.319, 141.130, 140.905, 140.869, 140.655, 140.164
VERTICAL ALIGNMENT	G= 1.000% 1: 100.0; L= 10.000 KF= -2.46370; G= -2.743% 1: -36.5; L= 15.000 KF= -6.64530; G= -5.000% 1: -20.0
HORIZONTAL ALIGNMENT	R= 22.250; R= 10.000
LEFT HAND CHANNEL	142.338, 142.385, 142.224, 142.234, 141.991, 141.956, 141.681, 141.407, 141.068, 140.593, 140.557
RIGHT HAND CHANNEL	142.338, 142.454, 142.388, 142.368, 142.116, 142.081, 141.806, 141.532, 141.193, 140.718, 140.682, 140.507
STORMWATER INVERT	140.375, 139.926, 139.926, 138.378
STORMWATER DETAILS	Pipe 1.000 Dia 150 Circular CLAY 1 in 36 VC BSEN 295-1:1991; Pipe 1.001 Dia 225 Circular CLAY 1 in 23 VC BSEN 295-1:1991
STORMWATER LENGTHS	150mm-40Kn/m 15.976 Type S granular surround; 225mm-45Kn/m 35.597 Type S granular surround
FOULWATER INVERT	139.550, 138.003
FOULWATER DETAILS	Pipe 1.001 Dia 150 Circular CLAY 1 in 21 VC BSEN 295-1:1991
FOULWATER LENGTHS	150mm-40Kn/m 32.460 Type S granular surround