

Notes:

- 1.All levels are in metres above Ordnance Datum.
- 2.All Highway works to be undertaken shall be to the satisfaction of the Highway Authority Inspector and in accordance with the Specification for Highway Works. Works on or adjacent to existing public highway shall be executed in accordance with the Traffic Safety Code for Roadworks and Chapter 8 of the Traffic Signs Manual.
- 3.At the commencement of works on site the contractor is to carry out trial pits and liaise with Utility Companies in order to establish the exact position of all existing statutory utility plant in the vicinity of works and take adequate precautions or their protection.
- 4.The Contractor is to comply fully with the CDM Regulations in the course of constructing the works.
- 5.Any highway or drainage works constructed prior to issue of Technical Approval is entirely at the risk of the Contractor/Client.
- 6.Highways in the vicinity of the works must be kept free from mud, debris and dust falling from vehicles or the wheels of vehicles connected with the works.
- 7.The Contractor shall ascertain the CBR of the subgrade in order to determine the required sub-base / capping thickness.
- 8.Prior to laying any material the subgrade must be inspected and any soft spots removed and filled with F62 capping material.
- 9.Prior to construction of any drainage works, the Contractor is to confirm the invert levels of existing manholes and sewers. Any variations from the designed levels shown on the drawings shall be reported to the Engineer in advance of construction works commencing.
- 10.All excavation and backfilling work in the existing highway to be in accordance with the provisions of the New Street Works Act 1991 or that specified within the Working Drawings.
- 11.All adoptable drainage works must comply with 'Sewers for Adoption 7th Edition' and to the satisfaction of Southern Water.
- 12.All adoptable drainage pipes shall have 300' Class S granular bed and surround. However, any pipes below the adoptable carriageway with less than 1.2m of cover (300mm in verge and untrafficked areas), shall be Class Z surrounded with 150mm of ST4 concrete with flexible joints.
- 13.All drain and sewer pipes to be laid softfill, unless shown otherwise.
- 14.Sewer trench backfill to be in accordance with the Adoptable Drainage Details.
- 15.Gullies, gully connections, drains, manholes, catchpits, soakways, headwalls, and other drainage structures intended to convey only highway water are to be constructed in accordance with the specifications of West Sussex County Council and to the satisfaction of the Highway Inspector. Gullies/ACO/flushed channels to be used on all driveways and unadopted parking areas which fall towards the highway to intercept surface water run off and connected to the domestic surface water system. Where block paved areas fall towards building a 100mm filter stip perforated drain is to be connected to private drainage system.
- 16.Minimum gradient for 100d SW is 1:100 and 100d FW is 1:80 with one WC connected otherwise 1:40. Bedding for domestic drainage Class B. All pipe runs near buildings to comply with the Building Regulations 2002 Part H1.
- 17.All private lateral connections to public sewers shall be 150mm unless shown otherwise.
- 18.Position of soil pipes, standing wastes, wc outlets etc. are shown on the Architect's working drawings. Rainwater downpipes to be checked against Architects details to ensure compatibility. Rainwater downpipes to have rodding access facilities where surface water drainage passes under buildings.
- 19.All concrete and concrete products to be in accordance with BRE 363 for sulphates.
- 20.All slab levels shown are for guidance only and may need to be adjusted on site, subject to approval by the engineer.
- 21.Do not scale from this drawing, work only from stated dimensions or setting out details.
- 22.For manhole type and covers refer to manhole schedule and standard details.

Drainage Legend:

- Existing Surface Water Sewer
- Existing Foul Water Sewer
- Section 104-Surface Water Sewer and PCC Manhole
- Section 104-Surface Water Sewer and Brick Manhole
- Section 38 Adaptable Gully and 150 dia connection
- Section 104-Foul Water Manhole and Sewer
- TYPE 4 - Foul Inspection Chamber and Invert Level (not greater than 3 properties)
- TYPE 3 - Foul Inspection Chamber and Invert Level
- TYPE 3 - Surface Water Inspection Chamber and Invert Level
- Surface/Water rodding eye and Invert Level (invert 450mm below ground level unless noted otherwise)
- Domestic surface plastic drain, gradient and pipe diameter shown, (not adoptable)
- Domestic surface plastic drain, gradient and pipe diameter shown, (adoptable)
- Domestic surface water road gully with 150dia connection
- Domestic surface water yard gully with 100dia connection

Internal drainage points:

- soil & Vent Pipe
- Toilet
- Sink Waste
- Basin Waste
- Floor Socket

Symbol Legend:

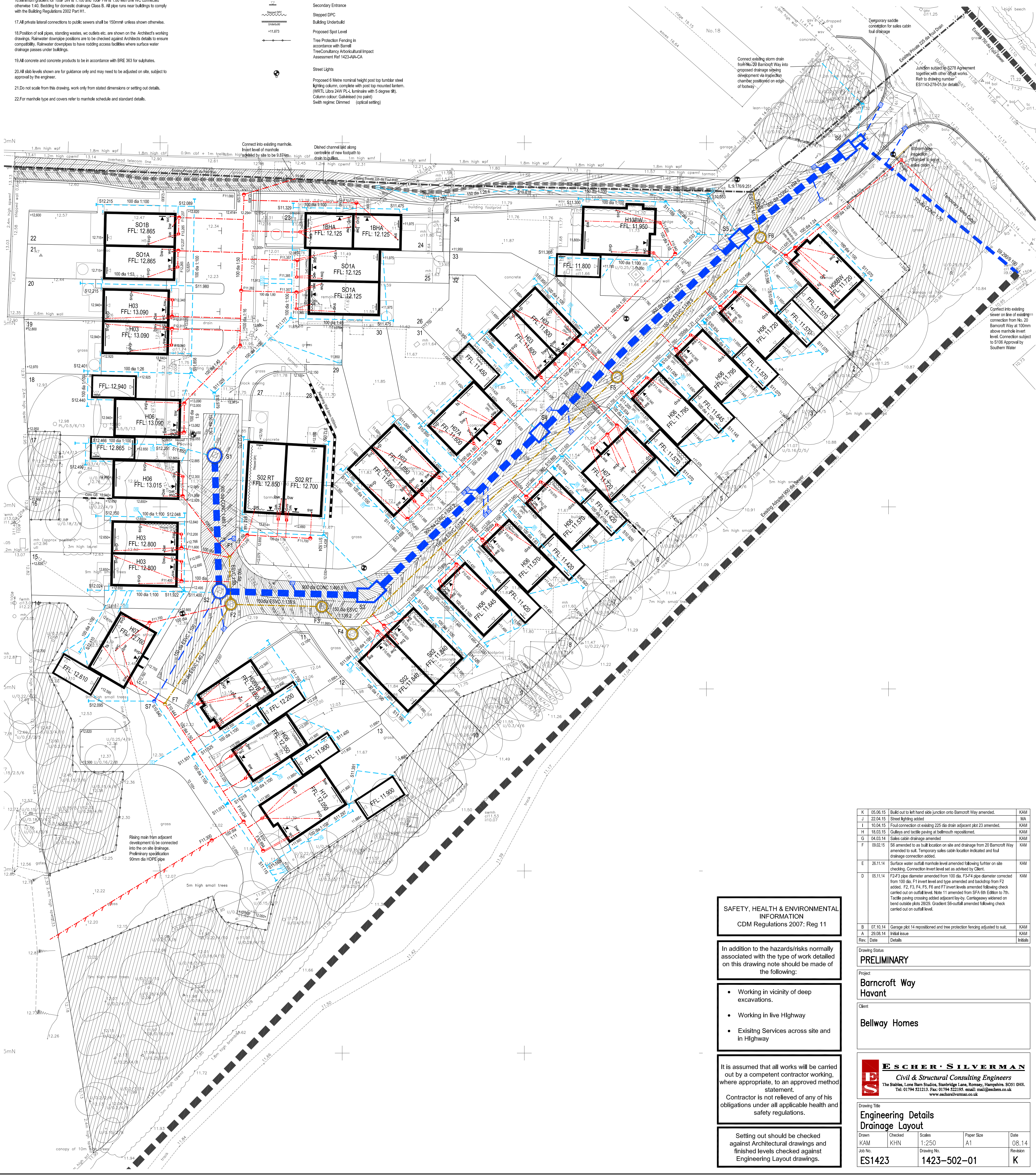
- Part M Entrance
- Secondary Entrance
- Stepped DPC
- Building Underbuild
- Proposed Spot Level
- Tree Protection Fencing in accordance with Barrell Tree/Consultancy Arboricultural Impact Assessment Ref 1423-AIA-CA
- Street Lights
- Proposed 6 Metre nominal height post top luminaire steel lighting column, complete with post top mounted lantern. (WELL) Ultra 24W P.L.C. luminaire with 5 degree beam. Column colour: Galvalume (no paint) Switch regime: Dimmed (optical setting)

SECTION 104 SURFACE WATER MANHOLE SCHEDULE

| REFERENCE | Cover Level (m) | Invert Level (m) | Depth to soffit (m) | Size (mm)         | Type |
|-----------|-----------------|------------------|---------------------|-------------------|------|
| S1        | 12.84           | 9.951            | 1.989               | 1800 diameter     | B    |
| S2        | 12.44           | 9.913            | 1.627               | 1800 diameter     | B    |
| S3        | 11.72           | 9.871            | 0.949               | Special           |      |
| S4        | 11.54           | 9.807            | 0.833               | Special           |      |
| S5        | 11.54           | 9.730            | 0.910               | Special           |      |
| S6        | 11.30           | 9.685            | 0.715               | Special           |      |
| S7        | 12.70           | 10.840           | 1.760               | 450 dia (minimum) | 3    |

SECTION 104 FOUL WATER MANHOLE SCHEDULE

| REFERENCE | Cover Level (m) | Invert Level (m) | Depth to soffit (m) | Size (mm)         | Type |
|-----------|-----------------|------------------|---------------------|-------------------|------|
| F1        | 12.45           | 10.994           | 1.356               | 450 dia (minimum) | 3    |
| F2        | 12.39           | 9.984            | 2.256               | 1200 diameter     | 2    |
| F3        | 11.95           | 9.895            | 1.905               | 1200 diameter     | 2    |
| F4        | 11.89           | 9.855            | 1.885               | 1200 diameter     | 2    |
| F5        | 11.65           | 9.493            | 2.007               | 1200 diameter     | 2    |
| F6        | 11.50           | 9.297            | 2.053               | 1200 diameter     | 2    |
| F7        | 12.68           | 10.444           | 2.136               | 450 dia (minimum) | 3    |



SAFETY, HEALTH & ENVIRONMENTAL INFORMATION

CDM Regulations 2007: Reg 11

In addition to the hazards/risks normally associated with the type of work detailed on this drawing note should be made of the following:

- Working in vicinity of deep excavations.
- Working in live Highway
- Existing Services across site and in Highway

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement.

Contractor is not relieved of any of his obligations under all applicable health and safety regulations.

Setting out should be checked against Architectural drawings and finished levels checked against Engineering Layout drawings.

|      |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |          |
|------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| K    | 05.06.15 | Build out to left hand side junction onto Barncroft Way amended.                                                                                                                                                                                                                                                                                                                                                                                                        | KAM      |
| J    | 22.04.15 | Street lighting added                                                                                                                                                                                                                                                                                                                                                                                                                                                   | MA       |
| I    | 10.04.15 | Foul connection of existing 225 dia drain adjacent plot 23 amended.                                                                                                                                                                                                                                                                                                                                                                                                     | KAM      |
| H    | 18.03.15 | Gullies and tactile paving at bottom of road amended.                                                                                                                                                                                                                                                                                                                                                                                                                   | KAM      |
| G    | 04.03.14 | Sales cabin drainage amended                                                                                                                                                                                                                                                                                                                                                                                                                                            | KAM      |
| F    | 09.02.15 | S6 amended to be built location on site and drainage from 20 Barncroft Way amended to suit. Temporary sales cabin location indicated and foul drainage connection added.                                                                                                                                                                                                                                                                                                | KAM      |
| E    | 26.11.14 | Surface water outfall manhole level amended following further on site checking. Connection Invert level set as advised by Client.                                                                                                                                                                                                                                                                                                                                       | KAM      |
| D    | 06.11.14 | F2-F3 pipe diameter amended from 100 dia. F3-F4 pipe diameter connected from 100 dia. F1 invert level and type amended and backdrop from F2 added. F2, F3, F4, F5, F6 and F7 invert levels amended following check carried out on outfall level. Note F1 amended from SPA 6th Edition to 7th. Tactile paving crossing added adjacent lay-by. Carriageway widened on bend outside plots 28/29. Gradient S6 outfall amended following check carried out on outfall level. | KAM      |
| B    | 07.10.14 | Garage plot 14 repositioned and tree protection fencing adjusted to suit.                                                                                                                                                                                                                                                                                                                                                                                               | KAM      |
| A    | 29.08.14 | Initial issue                                                                                                                                                                                                                                                                                                                                                                                                                                                           | KAM      |
| Rev. | Date     | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Initials |

Drawing Status

PRELIMINARY

Project

Barncroft Way Havant

Client

Bellway Homes

ESCHER SILVERMAN

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|                                     |             |        |            |
|-------------------------------------|-------------|--------|------------|
| Drawing Title                       |             |        |            |
| Engineering Details Drainage Layout |             |        |            |
| Drawn                               | Checked     | Scales | Paper Size |
| KAM                                 | KHN         | 1:250  | A1         |
| Job No.                             | Drawing No. | Date   |            |
| ES1423                              | 1423-502-01 | 08.14  |            |
| Revision                            |             |        | K          |