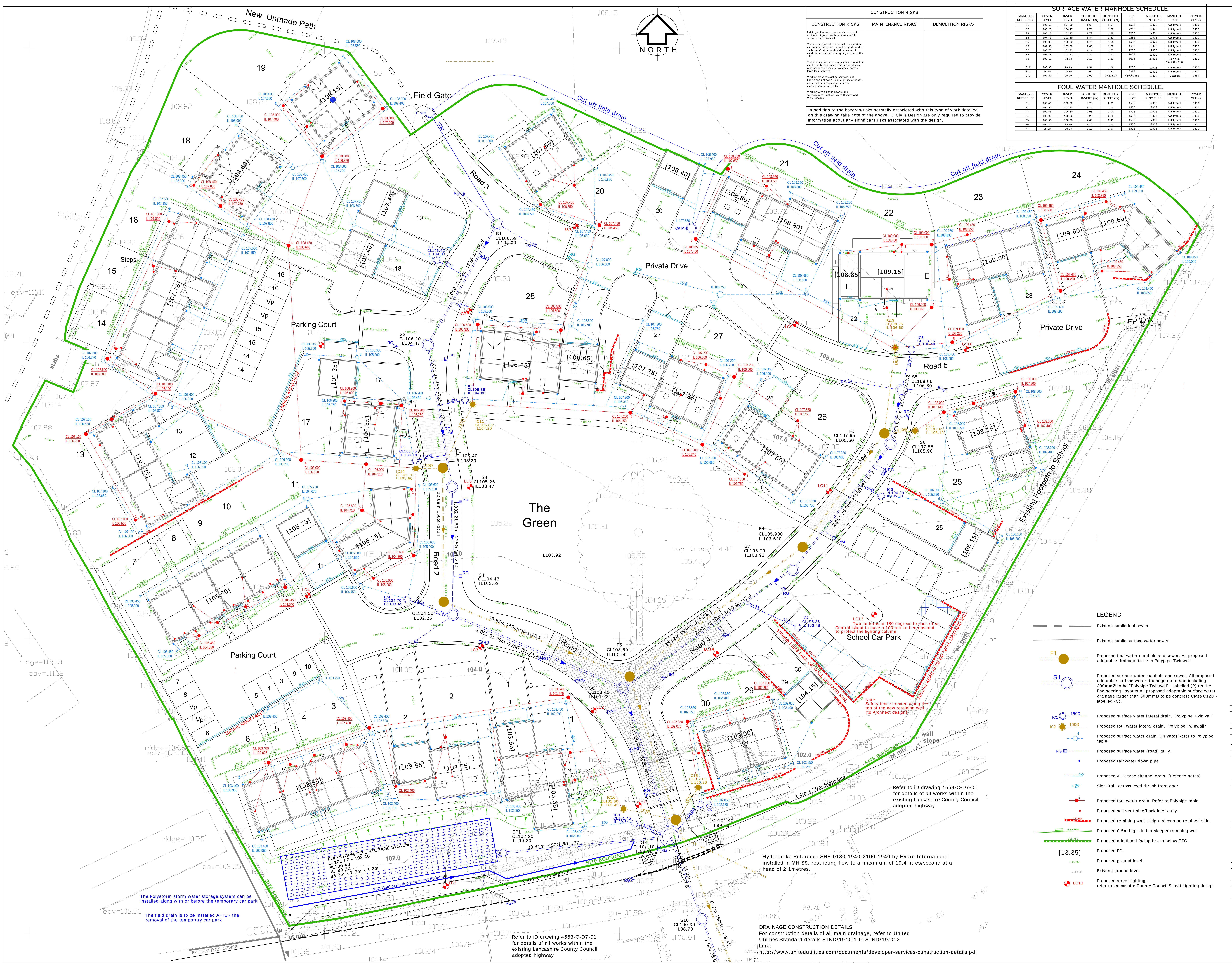

CONSTRUCTION RISKS

CONSTRUCTION RISKS	MAINTENANCE RISKS	DEMOLITION RISKS
Public gaining access to the site, - risk of accidents, injury, death. ensure site fully fenced off and secured. The site is adjacent to a school, the existing car park is the current school car park, and as such, the Contractor should be aware of children and parents attempting access to ths site. The site is adjacent to a public highway risk of conflict with road users. This is a rural area, road users could include livestock, horses, large farm vehicles. Working close to existing services, both known and unknown - risk of injury or death. ensure all services located prior to commencement of works. Working with existing sewers and watercourses - risk of Lymes Disease and Weils Disease		

In addition to the hazards/risks normally associated with this type of work detailed on this drawing take note of the above. iD Civils Design are only required to provide information about any significant risks associated with the design.

SURFACE WATER MANHOLE SCHEDULE.

MANHOLE REFERENCE	COVER LEVEL	INVERT LEVEL	DEPTH TO INVERT (m)	DEPTH TO SOFFIT (m)	PIPE SIZE	MANHOLE RING SIZE	MANHOLE TYPE	COVER CLASS
S1	106.59	104.90	1.69	1.54	150Ø	1200Ø	UU Type 1	D400
S2	106.20	104.47	1.73	1.50	225Ø	1200Ø	UU Type 1	D400
S3	105.25	103.47	1.78	1.55	225Ø	1200Ø	UU Type 1	D400
S4	104.43	102.59	1.84	1.61	225Ø	1200Ø	UU Type 1	D400
S5	108.00	106.30	1.70	1.55	150Ø	1200Ø	UU Type 1	D400
S6	107.55	105.90	1.65	1.50	150Ø	1200Ø	UU Type 1	D400
S7	105.70	103.92	1.78	1.55	225Ø	1200Ø	UU Type 1	D400
S8	103.45	101.23	2.22	1.92	300Ø	1200Ø	UU Type 1	D400
S9	101.10	98.98	2.12	1.82	300Ø	2700Ø	See drg. 4663-C-D4-03	D400
S10	100.30	98.79	1.51	1.28	225Ø	1200Ø	UU Type 1	D400
S11	94.40	92.36	2.04	1.81	225Ø	1200Ø	UU Type 1	D400
CP1	102.20	99.20	3.00	2.55/2.77	450Ø/225Ø	1200Ø	Catchpit	C250

FOUL WATER MANHOLE SCHEDULE.

MANHOLE REFERENCE	COVER LEVEL	INVERT LEVEL	DEPTH TO INVERT (m)	DEPTH TO SOFFIT (m)	PIPE SIZE	MANHOLE RING SIZE	MANHOLE TYPE	COVER CLASS
F1	105.40	103.20	2.20	2.05	150Ø	1200Ø	UU Type 1	D400
F2	104.50	102.25	2.25	2.10	150Ø	1200Ø	UU Type 1	D400
F3	107.65	105.60	2.05	1.90	150Ø	1200Ø	UU Type 1	D400
F4	105.90	103.62	2.28	2.13	150Ø	1200Ø	UU Type 1	D400
F5	103.50	100.90	2.60	2.45	150Ø	1200Ø	UU Type 1	D400
F6	101.40	99.70	1.70	1.55	150Ø	1200Ø	UU Type 1	D400
F7	98.90	96.78	2.12	1.97	150Ø	1200Ø	UU Type 1	D400

Health and Safety Notes/CDM Regulations 2015

In line with the above regulations we are obliged to inform the Contractor of the abnormal risks that may be encountered in the construction of these works. As part of the design process all the salient health & safety aspects are given full consideration and these are observed within the designs viewed on this document. Although considerable effort is undertaken to eliminate risks, the very nature of the project gives rise to some hazards and risks.

Significant risks that cannot be eliminated by design and could not be foreseen by a competent contractor are noted in the risk assessment boxes on the drawings.

NOTES.

1. Manholes, sewers etc. and any other part of the works intended for adoption under a Section 104 Agreement or gullies etc. intended for adoption as Highway Drainage are to be constructed in accordance with the W.A.A specification "Sewers for Adoption" 6th Edition, and to any requirements of the Adopting Authority and the Local Council.
2. Unadopted FW and SW drainage is to be constructed in accordance United Utilities standard details (see separate note and link below)and with the Building Regulations, BS. 8301 and relevant Agreement Certificates.
3. All private drainage to be 100mmØ unless indicated otherwise. All connections from private to adoptable manholes/sewers to be 150mmØ(min).
4. Private drainage with less than 0.9m of cover in drives and car parking areas to have minimum 150mm concrete bed and surround.
5. Private Drains are to be constructed using uPVC Building Drainage system pipe work to EN 1401-1, bedded and back filled in accordance with the manufacturers instructions and the specifications listed in Note 2.
6. Backfilling of drain trenches adjacent to dwellings or other structures to be in accordance with BS. 8301-Fig.9.
7. Access fittings and inspection chambers less than 1m deep are to be clayware or pre-formed polypropylene as appropriate to the depth and number of connections. Chambers greater than 2.0m deep are to be of pre-cast concrete construction with 150mm in-situ concrete surround, or polypropylene reduced access system. Inspection chamber sizes are to be in accordance with Table 8 of BS.8301.
8. Cover levels indicated on the drawing are nominal and may be adjusted to suit finished ground levels as necessary. Private inspection chamber covers should be Grade B in areas accessible to wheeled vehicles and Grade C elsewhere.
9. Rainwater down pipes to be connected direct to drain using an appropriate adapter and removable section of down pipe to permit rodding access.
10. Where drains pass through foundations or other rigid structures, a lintel or sleeve is to be used and provision for flexibility is to be made with "rocker pipes".
11. The positions of SVPs, stub-stacks, W.C. outlets etc. and rainwater down pipes are to be accurately located from the house-type working drawings.
12. Gullies situated in areas accessible to wheeled vehicles are to be of suitable construction. Typically Hepworth square gully ref. SG2/1 with driveway grating ref. 1H2C for a single private drive. For communal parking areas refer to the detail shown on iD Civils Design drawing number 4663-C-D3-01.
13. Drains within areas of "made ground" to be constructed by first making up the area to approx. finished level and then excavating through the fill material into undisturbed ground. The drain trench is then to be back filled to formation level using suitable granular fill material well-compacted in layers not exceeding 225mm.
14. Drains to be constructed under dwellings with suspended floor slabs should either be installed using a proprietary hanger system where "beam and pot" or similar construction is used, or should be cast into local slab thickening where reinforced concrete ground slabs are to be poured in-situ.
15. Finished ground levels have been prepared assuming that the level threshold to the building, is in accordance with part M of the building regulations, is at the front of the property unless otherwise stated.
16. For all details of fences/walls and enclosures refer to architect for details.
17. ACO type drainage to all car parking areas serving more than two cars to be ACO Multidrain MD, 200mm wide channel with min. C250 covers with "heelguard" type openings. ACO type drainage to private garages to be minimum 150mm wide channels and to door threshes minimum 100mm wide channels. SHALLOW DEPTH CHANNELS SHALL NOT BE USED
18. The surface water storage system is based upon the heavier duty Polystorm range, not Polystorm Lite.

ALL FOUL AND SURFACE WATER DRAINAGE TO BE 110mmØ UNLESS OTHERWISE STATED

MINIMUM GRADIENTS:-
110mm FOUL WATER 1:80
110mm SURFACE WATER 1:100
160mm FOUL WATER 1:150
160mm SURFACE WATER 1:150

- FOUL DRAIN
- SURFACE WATER DRAIN
- SOIL PIPE / WC CONNECTION
- RAINWATER PIPE
- WASTE GULLY
- RODDING EYE
- 320Ø SHALLOW INSP. CHAMBER UG437 - 3 x 110mm INLETS MAX. 600mm DEEP
- 320Ø SHALLOW INSP. CHAMBER UG537 - 5 x 110mm INLETS MAX. 600mm DEEP

460mm DIA. INSPECTION CHAMBERS
- 110mm I.C. BASE UG440 WITH 3 RISERS MAX. 800mm DEEP
- 150mm /160mm I.C. BASE P5670 / UG670 WITH 3 RISERS MAX. 800mm DEEP
- 110mm I.C. BASE UG440 WITH 4 RISERS MAX. 1.0m DEEP
- 150mm /160mm I.C. BASE P5670 / UG670 WITH 4 RISERS MAX. 1.0m DEEP
- 110mm I.C. BASE UG440 WITH 5 RISERS MAX. 1.2m DEEP
- 150mm /160mm I.C. BASE P5670 / UG670 WITH 5 RISERS MAX. 1.2m DEEP
- 110mm NON-MAN ENTRY INSPECTION CHAMBER (ICDB3 BASE UNIT) 1.2m TO 4.0m DEEP
- 150mm/160mm NON-MAN ENTRY INSP. CHAMBER (ICDB1/ICDB2 BASE UNIT) 1.2m TO 4.0m DEEP
- PRECAST CONC. RING MH

LEGEND

- Existing public foul sewer
- Existing public surface water sewer
- F1 — Proposed foul water manhole and sewer. All proposed adoptable drainage to be in Polypipe Twinwall.
- S1 — Proposed surface water manhole and sewer. All proposed adoptable surface water drainage up to and including 300mmØ to be "Polypipe Twinwall" - labelled (P) on the Engineering Layouts All proposed adoptable surface water drainage larger than 300mmØ to be concrete Class C120 - labelled (C).
- IC1 150Ø — Proposed surface water lateral drain. "Polypipe Twinwall"
- IC2 150Ø — Proposed foul water lateral drain. "Polypipe Twinwall"
- Proposed surface water drain. (Private) Refer to Polypipe table.
- RG — Proposed surface water (road) gully.
- Proposed rainwater down pipe.
- Proposed ACO type channel drain. (Refer to notes).
- Slot drain across level thresh front door.
- Proposed foul water drain. Refer to Polypipe table
- Proposed soil vent pipe/back inlet gully.
- Proposed retaining wall. Height shown on retained side.
- Proposed 0.5m high timber sleeper retaining wall
- Proposed additional facing bricks below DPC.
- [13.35] Proposed FFL.
- +00.00 Proposed ground level.
- +99.09 Existing ground level.
- LC13 Proposed street lighting - refer to Lancashire County Council Street Lighting design

Rev	Description	By	Date
F	Missing detail reinstated (retaining walls). Safety fence noted	AH	29:08:17
E	Front door drain annotated a Slot Drain	AH	11:07:17
D	ISSUED FOR CONSTRUCTION Under instruction from CPUK. ACO to all level thresholds and all garage doors	AH	05:07:17
C	Attenuation and off site sewers revised	AH	19:06:17
B	Street lighting added, omissions & erratta corrected	AH	29:03:17
A	Plot drainage adjusted to clear landscaping, some omissions corrected	AH	06:12:16

Client:
HILLCREST HOMES

Project Title:
WHALLEY ROAD, HURST GREEN

Drawing Title:
1:200 ENGINEERING LAYOUT

Scale	Date
1:200 @ A0	OCTOBER 2016

Drawing No	Revision	Status
4663-C-D1-02	F	Constr.

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