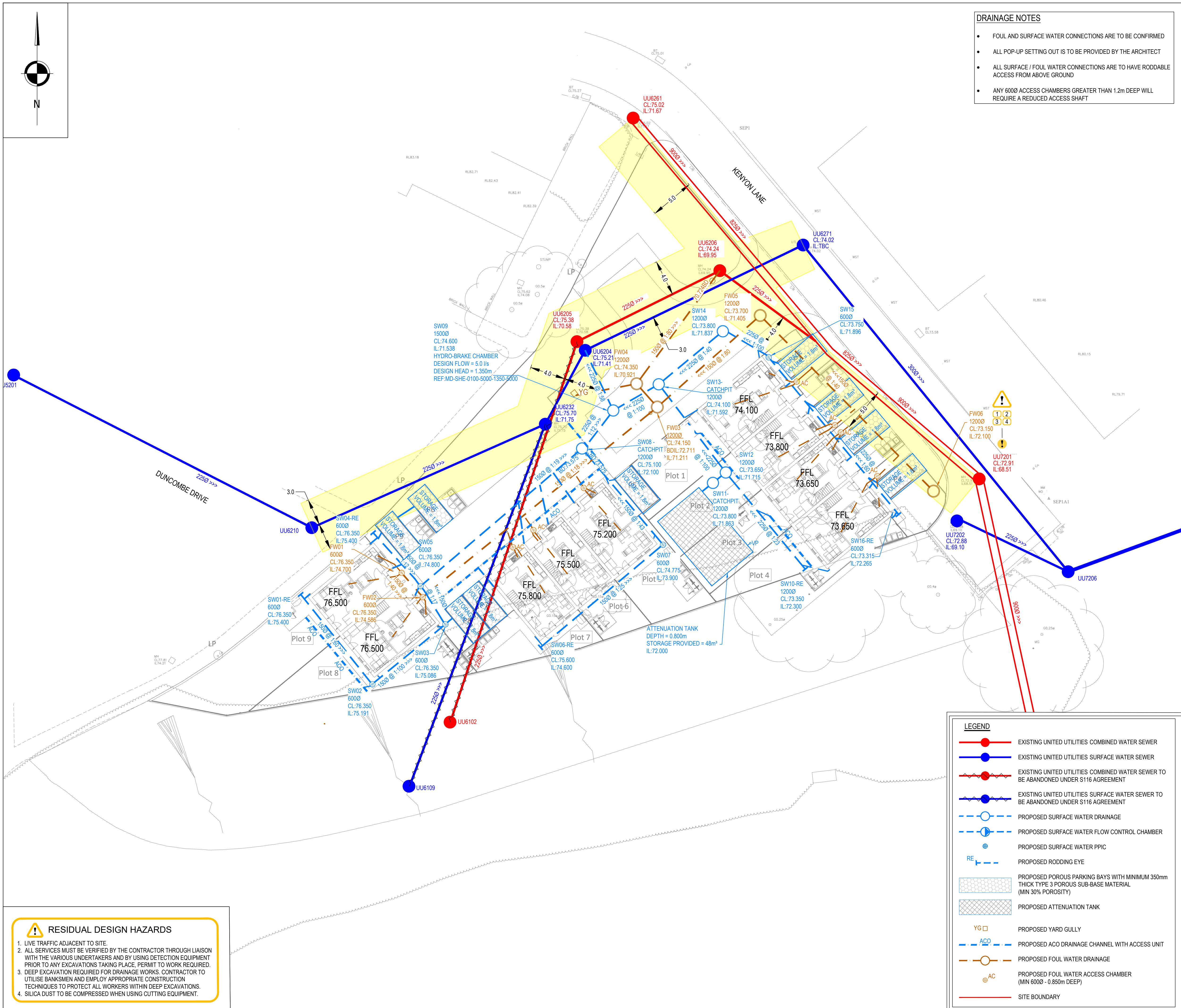
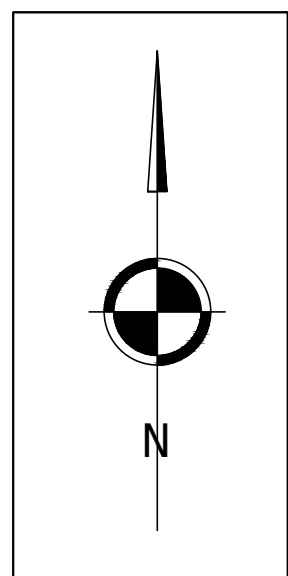




- FOUL AND SURFACE WATER CONNECTIONS ARE TO BE CONFIRMED
- ALL POP-UP SETTING OUT IS TO BE PROVIDED BY THE ARCHITECT
- ALL SURFACE / FOUL WATER CONNECTIONS ARE TO HAVE RODDABLE ACCESS FROM ABOVE GROUND
- ANY 600Ø ACCESS CHAMBERS GREATER THAN 1.2m DEEP WILL REQUIRE A REDUCED ACCESS SHAFT

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS, ARCHITECTS AND SPECIALISTS DRAWINGS AND SPECIFICATIONS.
2. ALL RELEVANT DIMENSIONS TO BE OBTAINED/CHECKED AGAINST ARCHITECT'S DRAWINGS AND BY SITE MEASUREMENT PRIOR TO THE COMMENCEMENT OF WORKS OR ORDERING OF MATERIALS. DISCREPANCIES BETWEEN THE DRAWINGS AND SITE CONDITIONS TO BE NOTIFIED TO THE ENGINEER.
3. DO NOT SCALE FROM THIS DRAWING.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION OF ALL UNDERGROUND SERVICES THAT MAY EXIST AND TO DIVERT THEM IF NECESSARY PRIOR TO THE COMMENCEMENT OF THE WORKS
5. MATERIALS OR WORKMANSHIP NOT COMPLYING WITH THE ENGINEERS DRAWINGS AND SPECIFICATION SHALL BE DEEMED UNACCEPTABLE AND REMOVED FROM SITE AND REPLACED WITH WORK CORRECTLY MANUFACTURED, DELIVERED AND ERECTED.
6. ALL EXISTING INVERT LEVELS TO BE CHECKED BY THE CONTRACTOR AT THE START OF WORKS AND ANY OTHER DISCREPANCIES NOTIFIED TO THE ENGINEER. ALL LEVELS ARE BASED ON TOPOGRAPHICAL SURVEY INFORMATION PROVIDED BY OTHERS.
7. ALL OPENING NOTICES ETC. AS REQUIRED UNDER HIGHWAYS ACTS ETC. ARE TO BE OBTAINED PRIOR TO COMMENCEMENT OF WORKS. ALL WORKS ARE TO BE INSPECTED BY L.A., NHBC OR YORKSHIRE WATER AS APPLICABLE.
8. ALL MATERIALS TO BEAR THE RELEVANT B.S. KITEMARK AND COMPLY FULLY WITH THE SPECIFICATIONS. ALL CONCRETE & CONCRETE PRODUCTS MUST USE SULPHATE RESISTANT CEMENT (UNLESS THE SITE INVESTIGATION REPORT PROVES THAT SULPHATE ATTACK FROM SOILS AND GROUNDWATER WILL NOT OCCUR TO WITHSTAND A CLASS 3 CONDITION).
9. WHERE "ULTRA RIB" UPVC PIPES (OR SIMILAR APPROVED) ARE USED IN ADAPTABLE DRAINAGE THEY SHALL STILL BE HANDLED AND LAID IN ACCORDANCE WITH THE SPECIFICATION AND GUIDANCE ISSUED BY THE HIGH PERFORMANCE PIPE ASSOCIATION. A CLASS S BED AND SURROUND MUST BE USED FOR SUCH PIPES.
10. TRENCH BACKFILL IN HIGHWAYS / CAR PARKS TO WITHIN 1M OF HIGHWAY SHALL BE A SUITABLE GRANULAR MATERIAL ALL IN ACCORDANCE WITH SEWERS FOR ADOPTION CL. 3.3.4. BACKFILL MATERIAL IN OTHER AREAS SHALL BE SELECTED EXCAVATED MATERIAL FREE FROM STONES LARGER THAN 40mm, LUMPS OF CLAY OVER 100mm, TIMBER, FROZEN MATERIAL OR VEGETABLE MATTER.
11. UPVC PIPES AND FITTINGS SHALL COMPLY WITH WIS 4-35-01. CLAY PIPES AND FITTINGS SHALL BE EXTRA STRENGTH TO BS EN 295 AND BS 65. CONCRETE PIPES AND FITTINGS SHALL COMPLY WITH BS 5911. PIPES SHALL BE CLASS H.
12. A CLASS S BED MUST BE PROVIDED TO UPVC PIPES , A CLASS B BED MAY BE USED FOR V.C. AND CONCRETE PIPES.
13. BACKFILL TO DRAINAGE TRENCHES ABOVE PIPE BEDDING AND SURROUND WITHIN ROAD AND CAR PARK AREAS TO BE GRANULAR FILL COMPLYING WITH CLASS 6F2 OR DOT TYPE 1 OR QUARRY SCALPING GRADED FROM 75mm DOWN.
14. A CONCRETE SURROUND IS NOT NORMALLY REQUIRED TO MANHOLES UNLESS INSTALLED IN AREAS OF UNSTABLE GROUND. UNDER CONDITIONS OF FLOATATION OR WHERE SUBJECTED TO EXCEPTIONAL OR ECCENTRIC LOADS. IN WHICH CASE A 150mm SURROUND OF AT LEAST 20N/mm2 CONCRETE SHOULD BE PROVIDED. ANY JOINTS SHOULD BE STAGGERED WITH THE PRECAST CONCRETE JOINTS.
15. DOUBLE STEPS SHALL BE PLASTIC ENCAPSULATED CARBON TO BS EN 1247-2 MANHOLE STEPS. STEP IRONS AT 300ctrs. HORIZONTALLY & VERTICALLY MAY BE USED AS AN ALTERNATIVE TO DOUBLE STEPS.
16. ALL WORK TO BE IN ACCORDANCE WITH "DESIGN AND CONSTRUCTION GUIDANCE" AND UNITED UTILITIES STANDARD CONSTRUCTION DETAILS.
17. TOP OF FOUNDATIONS ARE TO BE A MIN 450mm FROM FINISHED EXTERNAL LEVELS.
18. FOUNDATIONS WITHIN CLOSE PROXIMITY TO PROPOSED DRAINAGE WILL NEED TO BE AT THE SAME DEPTH AS DRAINAGE TO AVOID THE POTENTIAL FOR UNDERMINING.

P#	DATE	DESCRIPTION	BY	CHK	APP
P08	27.12.2014	SW08 INVERT LEVEL AMENDED TO SUIT HYDRAULIC CALCULATIONS	JPR	KOB	KO
P07	26.11.2014	DRAINAGE UPDATED TO SUIT LATEST FINISHED LEVELS PLAN	JPR	KOB	KO
P06	25.11.2014	DRAINAGE AMENDED TO AROUND PLOTS 8 & 9	JPR	KOB	KO
P05	25.11.2014	AMENDED TO SUIT LATEST SITE DRAINAGE MARK UP SKETCH	JPR	KOB	KO
P04	22.11.2014	AMENDED TO SUIT LATEST SITE DRAINAGE MARK UP SKETCH	JPR	KOB	KO
P03	30.10.2014	AMENDED TO SUIT LATEST ARCHITECTS' PLAN	JPR	KOB	KO
P02	24.10.2014	UPDATED TO SUIT NEW DRAINAGE OUTFALL	JPR	KOB	KO
P01	31.11.2013	PRELIMINARY ISSUE	JPR	KOB	KO
REV	DATE	DESCRIPTION	BY	CHK	APP

CLIENT: _____

PROJECT: _____

TITLE: _____

STATUS:	PROJECT No.	PROJECT	ORIGINATOR	VOL/SS/LEVEL	TYPE	ROLE	DRAWING No.	REV:
S2	222-100	KLM - AJP - ZZ - 00 -DR - C - 0900						P08
SCALE @ A1: 1 : 200		DESIGNED: JP	DRAWN: JP	CHECKED: KOB	APPROVED: KOB		DATE: OCT 23	