SITE COMMENTS

D1 EXISTING GRASS PLAY, HARD PLAY, NURSERY AND CARETAKERS PROPERTY AREAS TO REMAIN. EXISTING DRAINAGE TO REMAIN IN PLACE TO AVOID THE NEED FOR ANY NEW DRAINAGE OR WORKS IN THESE AREAS.

D2 ALL EXISTING DRAINAGE TO BE ABANDONED THAT CURRENTLY SERVES THE EXISTING SCHOOL IS TO REMAIN IN PLACE UNTIL THE NEW SCHOOL BUILDING IS IN USE AND THE OLD BUILDING IS BEING DEMOLISHED.

D3 ANY PROPOSED TREES WITHIN EXISTING PUBLIC SEWER EASEMENT AREA TO BE RELOCATED OUTSIDE OF REQUIRED EASEMENT TO ALLOW UNITED UTILITIES ACCESS FOR MAINTENANCE PURPOSES.

D4 CCTV SURVEYS INDICATE THAT THE EXISTING COMBINED WATER OUTFALL PIPELINE WHICH IS TO BE RE-USED IS HEAVILY SILTED AND HAS A RELATIVELY FLAT GRADIENT. ALLOWANCE TO BE MADE FOR REMEDIATION WORKS TO BE UNDERTAKEN TO JET, CLEAR AND MAKE GOOD THE EXISTING OUTFALL PIPELINE. SHOULD THE OUTFALL PIPELINE NOT BE SUITABLE FOR RE-USE THE PROPOSED RISING MAINS SHOULD DISCHARGE FURTHER ALONG THE EXISTING ACCESS ROAD, TO THE SOUTH-EAST CORNER OF THE SITE WHERE THEY WOULD DISCHARGE INTO A NEW PRIVATE COMBINED WATER MANHOLE PRIOR TO DISCHARGING VIA GRAVITY INTO THE EXISTING PUBLIC COMBINED WATER SEWER.

ASSUMED THAT ANY EXISTING DRAINAGE SERVING THE LANDSCAPED AREAS TO THE NORTH OF THE SITE TO REMAIN AND CONTINUE TO DISCHARGE AS PER THE EXISTING SCENARIO.

GRASS PLAY AREAS TO DRAIN AS PER EXISTING SCENARIO.

PROPOSED CELLULAR STORAGE TANK TO ACCOMMODATE VOLUME REQUIRED BY DCG TO ALLOW FOR EMERGENCY MAINTENACE OF THE SURFACE WATER PUMP. (5m x 16m x 1.075m DEEP) TOTAL VOLUME = 81.7m³ TANK INVERT LEVEL: 26.420mAOD TOP OF TANK LEVEL: 27.495mAOD

PROPOSED CELLULAR STORAGE TANK HAS A MINIMUM COVER OF 805mm TO TOP OF TANK. TANK SUPPLIER TO CONFIRM IF THIS IS SUITABLE OR IF A CONCRETE COVER SLAB IS REQUIRED FOR PROTECTION. TEMPORARY CONSTRUCTION TRAFFIC LOADING SHOULD ALSO BE CONSIDERED DURING THIS PROCESS.

PROPOSED SW17 MANHOLE TO HAVE HIGH LEVEL OVERFLOW WITH NON-RETURN VALVE IN LOWER PIPE, TO ALLOW FOR HIGH LEVEL OVERFLOW INTO ADDITIONAL STORAGE TANK AS REQUIRED BY DCG. EXACT DETAILS TO BE CONFIRMED THROUGH DETAILED DESIGN PROCESS.

PROPOSED SURFACE WATER PUMP COMPOUND AREA. EXACT DETAILS OF COMPOUND AREA TO BE CONFIRMED. PUMP DISCHARGE RATE SET AT 23.0 L/s. ALL PUMP DETAILS TO BE CONFIRMED BY PUMP SUPPLIER.

LOCATION AND DEPTHS OF ALL EXISTING SERVICES TO BE IDENTIFIED AND CONFIRMED ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORKS. ANY POTENTIAL CLASHES BETWEEN EXISTING SERVICES AND PROPOSED DRAINAGE TO BE HIGHLIGHTED TO ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS.

NEW 1500Ø PIPE FROM BREAK MH INTO BACK OF EXIST COMBINED MH - ALLOW FOR RE-BENCHING IF REQUIRED

Rising Mains to be kept below min depth advised in table within general notes - until connection CO1. Allow for 150mm concrete encasement to be extended around the rising main locally as it enters MH

PROPOSED CELLULAR ATTENUATION TANK (5m x 16m x 1.075m DEEP) TOTAL VOLUME = 81.7m³ TANK INVERT LEVEL: 26.920mAOD TOP OF TANK LEVEL: 27.575mAOD

PROPOSED CELLULAR ATTENUATION TANK HAS A MINIMUM COVER OF 825mm TO TOP OF TANK. TANK SUPPLIER TO CONFIRM IF THIS IS SUITABLE OR IF A CONCRETE COVER SLAB IS REQUIRED FOR PROTECTION. TEMPORARY CONSTRUCTION TRAFFIC LOADING SHOULD ALSO BE CONSIDERED DURING THIS PROCESS.

PROPOSED DRAINAGE CONNECTIONS TO DISCHARGE INTO EXISTING PUBLIC COMBINED WATER SEWER VIA AN EXISTING PRIVATE COMBINED WATER OUTFALL PIPELINE.
SHOULD EXISTING OUTFALL PIPELINE NOT BE SUITABLE RISING MAINS WOULD NEED TO CONTINUE ALONG ACCESS ROAD TO A NEW PRIVATE COMBINED WATER MANHOLE WHICH WOULD THEN DISCHARGE VIA GRAVITY INTO THE EXISTING PUBLIC COMBINED WATER SEWER TO THE SOUTH-EAST CORNER OF THE SITE. PROPOSED CONNECTION IS ALSO SUBJECT TO DETAILED DRAINAGE DESIGN AND UNITED UTILITIES AND LLFA APPROVALS.

ARCHITECT TO CONFIRM IF THRESHOLD DRAINAGE IS REQUIRED. GIVEN LEVEL ACCESS IT IS CURRENTLY ASSUMED THAT IT IS REQUIRED.

PROPOSED FOUL PACKAGE PUMP STATION. PACKAGE PUMP STATION TO BE SIZED TO ACCOMMODATE 24 HOUR STORAGE TO ALLOW FOR PUMP FAILURE/EMERGENCY MAINTENANCE PACKAGE PUMP CHAMBER DETAILS TO BE CONFIRMED ONCE FOUL FLOW RATES FROM THE PROPOSED BUILDING HAVE BEEN CONFIRMED.

CCTV SURVEYS INDICATE THAT THE EXISTING COMBINED WATER OUTFALL PIPELINE WHICH IS TO BE RE-USED IS HEAVILY SILTED AND HAS A RELATIVELY FLAT GRADIENT. ALLOWANCE TO BE MADE FOR REMEDIATION WORKS TO BE UNDERTAKEN TO JET, CLEAR AND MAKE GOOD THE EXISTING OUTFALL PIPELINE. SHOULD THE OUTFALL PIPELINE NOT BE SUITABLE FOR RE-USE THE PROPOSED RISING MAINS SHOULD DISCHARGE FURTHER ALONG THE EXISTING ACCESS ROAD, TO THE SOUTH-EAST CORNER OF THE SITE WHERE THEY WOULD DISCHARGE INTO A NEW PRIVATE COMBINED WATER MANHOLE PRIOR TO DISCHARGING VIA GRAVITY INTO THE EXISTING PUBLIC COMBINED WATER SEWER.

CARETAKERS PROPERTY AREA TO DRAIN AS PER EXISTING SCENARIO.

OUTLINE OF EXISTING SCHOOL BUILDINGS TO BE DEMOLISHED ONCE NEW BUILDING HAS BEEN CONSTRUCTED AND IS OPERATIONAL.

HARD PLAY AREA TO DRAIN AS PER EXISTING SCENARIO.

MINIMUM OF 400mm GRANULAR DRAINAGE BLANKET BELOW AREAS OF PERMEABLE PAVING OR PERMEABLE MACADAM TO PROVIDE ADDITIONAL ATTENUATION STORAGE.

AREA OF NON-INFILTRATION PERMEABLE PAVING OR PERMEABLE MACADAM WITH PERFORATED UNDERDRAIN TO BE USED TO DRAIN ENTIRE CAR PARK AREA. THEREFORE, PROPOSED CAR PARK AREA TO CROSSFALL TO PERMEABLE AREAS.

EXISTING PRIVATE DRAINAGE TO REMAIN IN PLACE AND IN USE UNTIL DEMOLITION OF EXISTING SCHOOL BUILDING. AFTER DEMOLITION OF EXISTING SCHOOL BUILDING PRIVATE DRAINAGE WITHIN PROPOSED SITE BOUNDARY CAN BE ABANDONED AND GRUBBED UP.

PROPOSED SITE BOUNDARY.

CCTV SURVEYS HAVE CONFIRMED THAT THE EXISTING COMBINED OUTFALL PIPELINES DISCHARGE INTO THE ADJACENT PUBLIC COMBINED WATER SEWERS.

CCTV SURVEYS HAVE CONFIRMED THAT THE EXISTING COMBINED OUTFALL PIPELINES DISCHARGE INTO THE ADJACENT PUBLIC COMBINED WATER SEWERS.

EXISTING UNITED UTILITIES COMBINED WATER SEWER TO REMAIN. WITH REQUIRED 3.0m SEWER EASEMENT.

PROPOSED FOOTPATH AREAS TO DRAIN INTO ADJACENT LANDSCAPING AREAS VIA EITHER FLUSH KERBS OR RAISED KERBS WITH GAPS. DUE TO MINIMAL AREA OF FOOTPATHS COMPARED TO THE LANDSCAPED AREAS, IT IS ASSUMED THAT NO POSITIVE DRAINAGE IS REQUIRED TO THESE AREAS.

Delkeries & Service access
Cycle shelter 10 cycles
Retained caretakers property
Outdoor canopy
Car park
Grass mound
Grass mound
Grass mound
Hard Outdoor PE, existing macadam surface retained
Existing cycle shelter
existing fencing retained
existing relocated gate
existing gate removed
WENDOVER ROAD
WENDOVER ROAD

GENERAL NOTES

1. SETTING OUT SHALL BE UNDERTAKEN USING ONLY THE INFORMATION GIVEN. DISTANCES SHOULD NOT BE SCALED FROM THIS DRAWING.
2. ALL SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SEWERS FOR ADOPTION 7TH EDITION AND UNITED UTILITIES DETAILS & GUIDELINES.
3. THE MINIMUM GRAVITY PIPE DIAMETER UNDER ADOPTABLE HIGHWAYS SHALL BE 150mm
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL INFORMATION GIVEN WITH REGARDS TO EXISTING SERVICES AND DRAINAGE CONNECTIONS ETC. PRIOR TO COMMENCING THE WORKS. THE RATES SHALL INCLUDE DIG AROUND SERVICES WHERE NECESSARY. THE CONTRACTOR SHALL ADHERE TO THE CDM REGULATIONS AT ALL TIMES
5. THE OUTSIDES OF ALL SEWERS SHALL BE A MINIMUM OF 1.0m FROM KERB LINES AND THE OUTSIDE OF MANHOLES SHALL BE A MINIMUM OF 0.5m FROM KERB LINES
6. EXISTING FLOWS IN WATERCOURSES, SEWERS AND LAND DRAINS SHALL BE MAINTAINED AT ALL TIMES
7. ONLY TRAINED PERSONNEL SHALL BE PERMITTED TO ENTER CONFINED SPACES
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
9. 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 THE NETWORK OPERATOR AS APPLICABLE.
10. WHERE "ULTRA RIB" UPVC PIPES (OR SIMILAR APPROVED) ARE USED IN ADOPTABLE DRAINAGE THEY SHALL STILL BE HANDLED AND LAID IN ACCORDANCE WITH THE SPECIFICATION AND GUIDANCE ISSUED BY THE HIGH PERFORMANCE PIPE ASSOCIATION.
11. A CLASS S BED AND SURROUND MUST BE USED FOR SUCH PIPES. TRENCH BACKFILL IN HIGHWAYS TO WITHIN 1M OF HIGHWAY SHALL, AS DIRECTED BY THE HIGHWAY AUTHORITY BE A SUITABLE GRANULAR MATERIAL ALL IN ACCORDANCE WITH SEWERS FOR ADOPTION CL. 4.3.4.
12. SLAB LEVELS SHALL NOT BE VARIED WITHOUT REFERENCE TO THE ENGINEER FOR GUIDANCE
13. ALL GULLY CONNECTIONS TO BE 150mm VITRIFIED CLAY UNLESS NOTED OTHERWISE
14. ALL MANHOLE COVERS TO BE RECESSED TO ACCEPT FINISH AS DETAILED BY LANDSCAPE ARCHITECT
15. SLOW REST BENDS TO BE USED IN ALL LOCATIONS MADE UP FROM 2No. 45 DEG BENDS (600mm TO INVERT FROM FFL)
16. MANHOLE POSITIONS AND ACCESS COVERS TO BE ACCURATELY SET-OUT BY LANDSCAPE ARCHITECT TO SUIT EXTERNAL FINISHES
17. ALL DRAINS CAST THROUGH FOUNDATIONS TO HAVE ROCKER PIPES ON BOTH SIDES OF FOUNDATION
18. ALL POP UP POSITIONS TO BE CONFIRMED SET OUT DIMENSIONS TO BE AGREED & PROVIDED BY OTHERS
19. ALL FW DISCHARGE RATES TO BE CONFIRMED BY M&E DESIGNER
20. ALL SURFACE WATER COLLECTION FEATURES TO BE CONFIRMED BY THE LANDSCAPE ARCHITECT
21. STORAGE HAS BEEN PROVIDED IN A CELLULAR STORAGE TANK AND UP-SIZED MANHOLES AND PIPES.
22. EXISTING SEWER DEPTHS HAVE BEEN APPROXIMATED FROM LIMITED INFORMATION. NEW CONNECTIONS TO BE CONFIRMED PRIOR TO CONSTRUCTION OF ANY DRAINAGE WORKS.
23. LANDSCAPE ARCHITECT TO CONFIRM GULLY AND DRAINAGE CHANNEL LOCATIONS TO LANDSCAPED AREAS.
24. FOUL NETWORK TO BE CONFIRMED FOLLOWING CONFIRMATION OF BRANCH CONNECTION POINTS FROM BUILDING M&E DESIGNER
25. CCTV SURVEY OF EXISTING SITE DRAINAGE REQUIRED PRIOR TO THE COMMENCEMENT OF ANY WORKS STARTING ON SITE
26. MINIMUM COVER TO DRAINAGE SOFFIT LEVEL & ACCESS CHAMBERS ;

	LANDSCAPING	TRAFFICKED AREAS	HIGHWAYS
	0.600m	0.900m	1.200m

CLASS 'S' BEDDING AND SURROUND TO BE USED WHERE MINIMUM COVER IS ACHIEVED. WHERE MINIMUM COVER IS NOT ACHIEVED CLASS 'Z' BEDDING AND SURROUND (CONCRETE ENCASEMENT) IS TO BE USED.

LEGEND

- PROPOSED SURFACE WATER MANHOLE
- PROPOSED FOUL WATER MANHOLE
- PROPOSED ADOPTABLE COMBINED WATER MANHOLE
- PROPOSED SURFACE WATER PPIC
- PROPOSED FOUL WATER PPIC
- PROPOSED FOUL WATER DRAINAGE
- PROPOSED SURFACE WATER DRAINAGE
- PROPOSED FOUL WATER RISING MAIN
- PROPOSED SURFACE WATER RISING MAIN
- ACO — PROPOSED LINEAR DRAINAGE (ACO) CHANNEL WITH ACCESS UNIT
- TD — PROPOSED THRESHOLD DRAIN
- PROPOSED CELLULAR ATTENUATION TANK
- VP — VENT PIPE
- PROPOSED AREA OF NON-INFILTRATION PERMEABLE PAVING/PERMEABLE MACADAM WITH PERFORATED UNDERDRAIN
- RE — PROPOSED RODDING EYE
- RG — PROPOSED ROAD GULLY
- YG — PROPOSED YARD GULLY
- EXISTING PRIVATE SURFACE WATER DRAINAGE TO REMAIN
- EXISTING PRIVATE FOUL WATER DRAINAGE TO REMAIN
- EXISTING PRIVATE COMBINED WATER DRAINAGE TO REMAIN
- EXISTING PRIVATE DRAINAGE TO BE ABANDONED (AFTER DEMOLITION OF EXISTING SCHOOL BUILDING)
- EXISTING PUBLIC (UNITED UTILITIES) COMBINED WATER DRAINAGE TO REMAIN
- EXISTING UNITED UTILITIES SEWER EASEMENT
- EXISTING BUILDING OUTLINE (TO BE DEMOLISHED ONCE NEW BUILDING IS IN USE)
- SITE BOUNDARY

PRELIMINARY SUBJECT TO CONFIRMATION OF LANDSCAPE ARCHITECTS PROPOSED SITE LEVELS AND ALL FOUL WATER POP UP AND RAINWATER DOWNPIPE LOCATIONS AND FLOW RATES

ALL EXISTING DRAINAGE IS TO BE REMAIN LIVE UNTIL THE NEW SCHOOL BUILDING IS LIVE AND EXISTING BUILDINGS HAVE BEEN DEMOLISHED

ALL RWP/SVP/SS CONNECTIONS ARE TO BE PROVIDED BY OTHERS

ALL SS/SVP'S ARE TO HAVE RODDABLE ACCESS FROM ABOVE GROUND

ALL PPIC'S ARE TO BE 600Ø & MINIMUM 750mm DEEP UNLESS NOTED OTHERWISE

ARCHITECT TO CONFRM IF MANHOLE COVERS IN PAVED AREAS ARE TO BE RECESSED TO ACCEPT SURFACE FINISHES

ALL 'POP-UP' AND 'RWP' SETTING OUT IS PROVIDED BY THE ARCHITECT

PRELIMINARY SUBJECT TO CONFIRMATION OF UNITED UTILITIES AND LLFA ACCEPTANCE OF DISCHARGE CONNECTION LOCATIONS AND FLOW RATES

REV	DATE	DESCRIPTION	BY	CHK	APP
P04	25.09.2023	RISING MAIN CONNECTION POINT AMMENDED AS CLOUDED	JJR	JRS	KOB
P03	12.07.2023	RIBA STAGE 4 ISSUE	JJR	JRS	KOB
P02	25.05.2023	RIBA STAGE 3 ISSUE	JRS	PL	KOB
P01	04.04.2023	PRELIMINARY ISSUE	MO	PL	KOB

DRAWING STATUS: **PRELIMINARY**

CLIENT: TILBURY DOUGLAS

ARCHITECT: ELLIS WILLIAMS ARCHITECTS

PROJECT: SANDILANDS COMMUNITY PRIMARY SCHOOL

TITLE: BELOW GROUND DRAINAGE OUTLINE DRAINAGE STRATEGY

STATUS:	PROJECT No.	PROJECT	ORIGINATOR	VOL/SYS/ LEVEL	TYPE	ROLE	DRAWING No.	REV:
S2	222-171	SRP1034	AJP	ZZ	00	D	C - 1000	P04

SCALE @ A0:	DESIGNED:	DRAWN:	CHECKED:	APPROVED:	DATE:
1:200	LS	KB	PL	KOB	MARCH 2023

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