

DRAINAGE NOTES
- ALL SURFACE / FOUL WATER CONNECTIONS ARE TO HAVE RODDABLE ACCESS FROM ABOVE GROUND - ALL POP-UP AND RWP SETTING OUT IS TO BE PROVIDED BY THE ARCHITECT - LANDSCAPE ARCHITECT TO CONFIRM IF RECESSED MANHOLE COVERS ARE REQUIRED - MANHOLES WITH INCOMING SIPHONIC RAINWATER PIPES ARE TO HAVE A VENTED MANHOLE COVER IN ACCORDANCE WITH BS EN 124 - SIPHONIC RAINWATER PIPE FLOW RATES IS BASED ON INFORMATION PROVIDED BY FULLFLOW. - INTERNAL, FOUL MANHOLES WILL REQUIRE DOUBLE SEALED & LOCKABLE MANHOLE COVERS

- ALL SURFACE / FOUL WATER CONNECTIONS ARE TO HAVE RODDABLE ACCESS FROM ABOVE GROUND
- ALL POP-UP AND RWP SETTING OUT IS TO BE PROVIDED BY THE ARCHITECT
- LANDSCAPE ARCHITECT TO CONFIRM IF RECESSED MANHOLE COVERS ARE REQUIRED
- MANHOLES WITH INCOMING SIPOHIC MANHOLE PIPES ARE TO HAVE A VENTED MANHOLE COVER IN ACCORDANCE WITH BS EN 124
- SIPOHIC MANHOLE PIPE FLOW RATES IS BASED ON INFORMATION PROVIDED BY FULLFLOW.
- INTERNAL DUAL MANHOLES WILL REQUIRE DOUBLE SEALED & LOCKABLE MANHOLE COVERS

1. LIVE TRAFFIC ADJACENT TO SITE.
2. ALL SERVICES MUST BE VERIFIED BY THE CONTRACTOR THROUGH LIAISON WITH THE VARIOUS UNDERTAKERS AND BY USING DETECTION EQUIPMENT PRIOR TO ANY EXCAVATIONS TAKING PLACE. PERMIT TO WORK REQUIRED.
3. SILICA DUST TO BE COMPRESSED WHEN USING CUTTING EQUIPMENT
4. DEEP EXCAVATION REQUIRED FOR DRAINAGE WORKS. CONTRACTOR TO UTILISE BANKSMEN AND EMPLOY APPROPRIATE CONSTRUCTION TECHNIQUES TO PROTECT ALL WORKERS WITHIN DEEP EXCAVATIONS.
5. INSTALLATION OF ATTENUATION TANK IN CLOSE PROXIMITY TO EXISTING BUILDING FOUNDATIONS.



- SETTING OUT SHALL BE UNDERTAKEN USING ONLY THE INFORMATION GIVEN. DISTANCES SHOULD NOT BE SCALED FROM THIS DRAWING.
- ALL SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DESIGN CONSTRUCTION GUIDANCE AND UNITED UTILITIES DETAILS & GUIDELINES.
- THE MINIMUM GRAVITY PIPE DIAMETER UNDER ADAPTABLE HIGHWAYS SHALL BE 150mm.
- 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 FOR HAND DIG AROUND SERVICES WHERE NECESSARY. THE CONTRACTOR SHALL AGREE TO THE COM REGULATIONS AT ALL TIMES.
- THE OUSTIDES 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.
- EXISTING FLOWS IN WATERCOURSES, SEWERS AND LAND DRAINS SHALL BE MAINTAINED AT ALL TIMES.
- ONLY TRAINED PERSONNEL SHALL BE PERMITTED TO ENTER CONFINED SPACES.
- ALL MATERIALS TO BE REUSE THE RELAYANT 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.
- ALL OPENING NETWORKS ETC. AS REQUIRED UNDER HIGHWAYS ACTS ETC. ARE TO BE OBTAINED PRIOR TO COMMENCEMENT OF WORKS. ALL WORKS ARE TO BE INSPECTED BY I.A., NHC OR THE NETWORK OPERATOR AS APPLICABLE.
- WHERE "ULTRA RIP" (UPVC) PIPES (OR SIMILAR) APPROVED ARE USED IN ADAPTABLE DRAINAGES THEY SHALL STILL BE HANDED 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. TRENCH BACKFILL IN HIGHWAY FORM 1M OF HIGHWAY SHALL BE DIRECTED BY THE HIGHWAY AUTHORITY TO BE A SUITABLE GRANULAR MATERIAL ALL IN ACCORDANCE WITH SEWERS FOR ADOPTION CL. 4.34.
- SUB LABELS SHALL NOT BE VARIED WITHOUT REFERENCE TO THE ENGINEER FOR GUIDANCE
- ALL GULLY CONNECTIONS TO BE 150mm VITRIFIED CLP UNLESS NOTED OTHERWISE
- ALL MANHOLE COVERS TO BE RECEIVED TO ACCEPT FINISH AS DETAILD BY LANDSCAPE ARCHITECT.
- SLOW REST BENDS TO BE USED IN ALL LOCATIONS MADE UP FROM 2%+ 45 DEG BENDS (450mm TO INFROM FFL)
- MANHOLE POSITIONS AND ACCESS COVERS TO BE ACCURATELY SET-OUT BY LANDSCAPE ARCHITECT TO SUIT EXTERNAL FINISHES.
- ALL DRAINS CAUT THROUGH FOUNDATIONS TO HAVE ROCKER PIPS ON BOTH SIDES OF FOUNDATION.
- ALL POP UP POSITIONS TO BE CONFIRMED SET OUT DIMENSIONS TO BE AGREED & PROVIDED BY OTHERS
- ALL FW DISCHARGE RATES TO BE CONFIRMED BY M&E DESIGNER.
- ALL SURFACE WATER COLLECTION FEATURES TO BE CONFIRMED BY THE LANDSCAPE ARCHITECT.
- STORAGE HAS BEEN PROVIDED IN A CELLULAR STORAGE TANK AND UP-SIZED MANHOLES AND PIPES.
- EXISTING SEWER DEPTHS HAVE BEEN APPROXIMATED FROM LIMITED INFORMATION, NEW CONNECTIONS TO BE CONFIRMED PRIOR TO CONSTRUCTION OF ANY DRAINAGE WORKS.
- LANDSCAPE ARCHITECT TO CONFIRM GULLY AND DRAINAGE CHANNEL LOCATIONS TO LANDSCAPED AREAS.
- FOUL NETWORK TO BE CONFIRMED FOLLOWING CONFIRMATION OF BRANCH CONNECTION POINTS FROM BUILDING M&E DESIGNER.
- CCTV SURVEY OF EXISTING SITE DRAINAGE REQUIRED PRIOR TO THE COMMENCEMENT OF ANY WORKS STARTING ON SITE.
- MINIMUM COVER TO DRAINAGE SOFFIT LEVEL & ACCESS CHAMBERS :
LANDSCAPING TRAFFICED AREAS HIGHWAYS
 0.60m 0.90m
CLASS S BEDDING AND SURROUND TO BE USED WHERE MINIMUM COVER IS ACHIEVED.
WHEN MINIMUM COVER IS NOT ACHIEVED CLASS Z BEDDING AND SURROUND (CONCRETE ENCLOSURE) IS TO BE USED.

	PROPOSED SURFACE WATER MANHOLE
	PROPOSED FOUL WATER MANHOLE
	PROPOSED COMBINED WATER MANHOLE
	PROPOSED SURFACE WATER PVC
	PROPOSED FOUL WATER PVC
	PROPOSED SURFACE WATER DRAINAGE
	PROPOSED FOUL WATER DRAINAGE
	PROPOSED BELOW GROUND CELLULAR ATTENUATION TANK WITH VENT PIPE, VENT PIPE LOCATION TO BE CONFIRMED BY LANDSCAPE ARCHITECT
	ACO DRAINAGE CHANNEL WITH ACCESS UNIT
	ROAD GULLY
	THRESHOLD DRAIN WITH ACCESS UNIT
	FLOOR GULLY
	YARD GULLY
	PROPOSED RAINWATER DOWNPipe
	PROPOSED SPHONIC RAINWATER DOWNPipe BY FULLFLOW
	PROPOSED RAIN GARDEN
	AREAS TO DRAIN AS PER EXISTING
	EXISTING PRIVATE SURFACE WATER DRAINAGE
	EXISTING PRIVATE FOUL WATER DRAINAGE
	EXISTING PRIVATE COMBINED WATER DRAINAGE
	EXISTING UNITED UTILITIES COMBINED WATER SEWER
	EXISTING UNITED UTILITIES COMBINED WATER SEWER TO BE ABANDONED SUBJECT TO S116 AGREEMENT
	EXISTING PRIVATE DRAINAGE TO BE ABANDONED
	SITE BOUNDARY

PS	DATE	DESCRIPTION	JLR	PT	PT
07	07/28/2004	SURFACE WATER FLOW RATE UPDATED	JLR	PT	PT
09	07/28/2004	EXISTING VEHICLE DRIVEWAY TO BE ABANDONED/AMENDED TO BE SHOWN AS IN THE LEGEND & LAYOUT/UPDATED TO LATEST CANOPY MARKET AND SITE LAYOUT	JLR	PT	PT
P98	07/28/2004	UPDATED TO SHOW NEW CANOPY ARRANGEMENT	JLR	PT	PT
P99	07/28/2004	UPDATED TO SHOW NEW POP LOCATIONS IN CAFE/BAR AREA	JLR	PT	PT
P99	06/17/2003	UPDATED TO SUIT SITE COMMENTS	JLR	PT	PT
P99	26/06/2003	RBIA STAGE 4 (TECHNICAL DESIGN)	JLR	JRS	PT
P99	24/04/2003	RBIA STAGE 3 UPDATE	JLR	JRS	PT
P99	22/03/2003	RBIA STAGE 3 UPDATE	JLR	JRS	PT
P99	16/02/2003	RBIA STAGE 3 DEVELOPED DESIGN	JLR	JRS	PT
P99	06/01/2003	RBIA STAGE 3 DEVELOPED DESIGN	JLR	JRS	PT
	DATE	DESCRIPTION	JLR	CHK	APP

DRAWING STATUS: **STAGE 4**

ARCHITECT: JUST H ARCHITECTS

BELOW GROUND DRAINAGE
OUTLINE DRAINAGE STRATEGY

STATUS:	PROJECT No.	PROJECT	ORIGINATOR	VOLYSYS	LEVEL	TYPE	ROLE	DRAWING No.	REV:
S2	221-144	BURMAR-AJP-V2-ZZ-DR - C - 0001							P10
SCALE @ A1:		DESIGNED:	DRAWN:	CHECKED:	APPROVED:		DATE:		
1:200		JJR	JJR	JRS	JRS		AUG 2022		