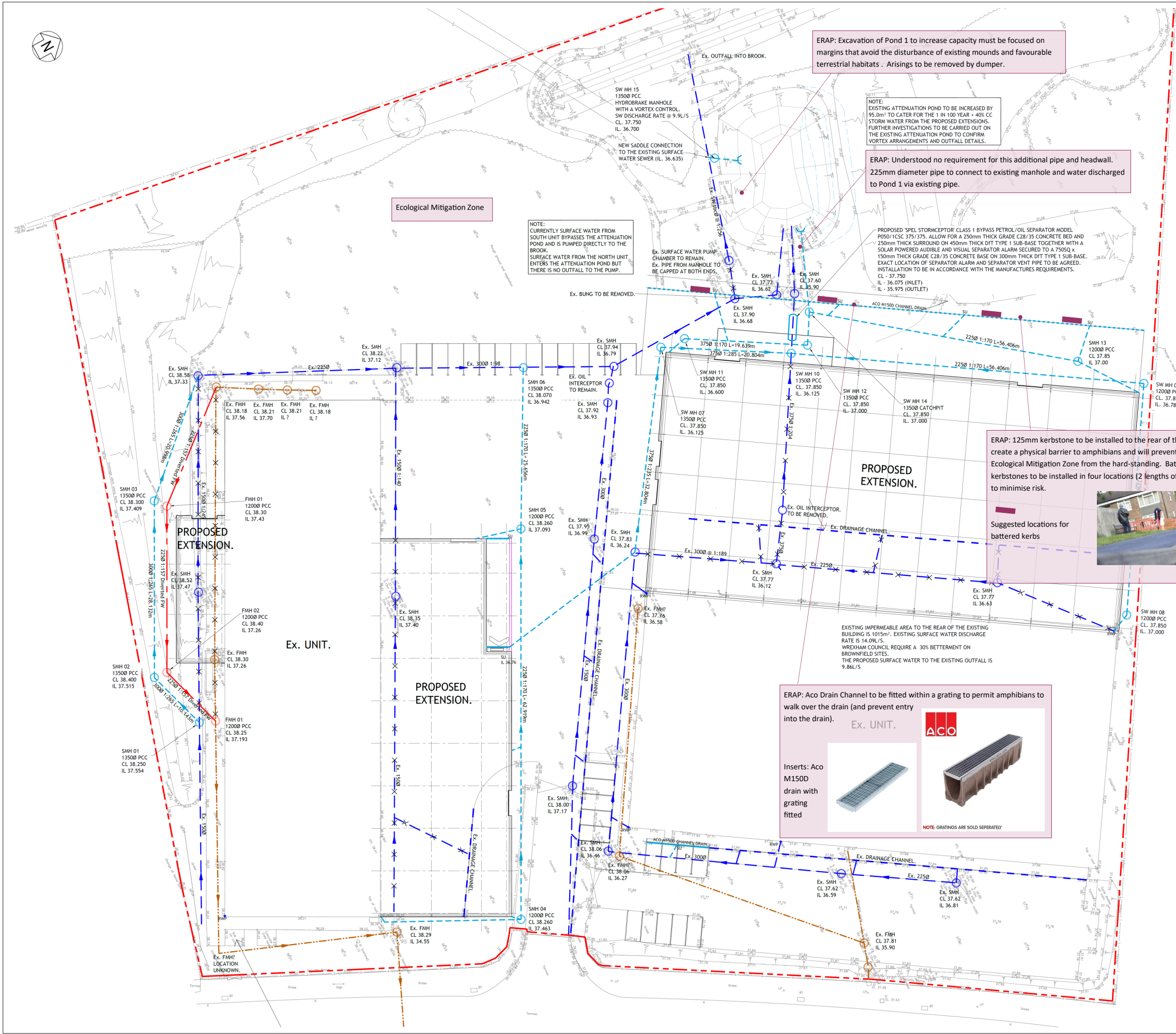




ERAP: Excavation of Pond 1 to increase capacity must be focused on margins that avoid the disturbance of existing mounds and favourable terrestrial habitats. Arisings to be removed by dumper.

NOTE:
EXISTING ATTENUATION POND TO BE INCREASED BY 95.0m³ TO CATER FOR THE 1 IN 100 YEAR + 40% CC STORM WATER FROM THE PROPOSED EXTENSIONS. FURTHER INVESTIGATIONS TO BE CARRIED OUT ON THE EXISTING ATTENUATION POND TO CONFIRM VORTEX ARRANGEMENTS AND OUTFALL DETAILS.

ERAP: Understood no requirement for this additional pipe and headwall. 225mm diameter pipe to connect to existing manhole and water discharged to Pond 1 via existing pipe.

NOTE:
CURRENTLY SURFACE WATER FROM SOUTH UNIT BYPASSES THE ATTENUATION POND AND IS PUMPED DIRECTLY TO THE BROOK. SURFACE WATER FROM THE NORTH UNIT ENTERS THE ATTENUATION POND BUT THERE IS NO OUTFALL TO THE PUMP.

PROPOSED SPEL STORMCEPTOR CLASS 1 BYPASS PETROL/OIL SEPARATOR MODEL P050/1CSC 375/375. ALLOW FOR A 250mm THICK GRADE C28/35 CONCRETE BED AND 250mm THICK SURROUND ON 450mm THICK DIT TYPE 1 SUB-BASE TOGETHER WITH A SOLAR POWERED AUDIBLE AND VISUAL SEPARATOR ALARM SECURED TO A 75050 x 150mm THICK GRADE C28/35 CONCRETE BASE ON 300mm THICK DIT TYPE 1 SUB-BASE. EXACT LOCATION OF SEPARATOR ALARM AND SEPARATOR VENT PIPE TO BE AGREED. INSTALLATION TO BE IN ACCORDANCE WITH THE MANUFACTURES REQUIREMENTS. CL - 37.750 IL - 36.075 (INLET) IL - 35.975 (OUTLET)

ERAP: 125mm kerbstone to be installed to the rear of the hard-standing will create a physical barrier to amphibians and will prevent any migration to the Ecological Mitigation Zone from the hard-standing. Battered / dropped kerbstones to be installed in four locations (2 lengths of 900mm = 1800mm) to minimise risk.



ERAP: Aco Drain Channel to be fitted within a grating to permit amphibians to walk over the drain (and prevent entry into the drain).



- Notes
1. THIS DRAWING IS THE COPYRIGHT OF TIER CONSULT LTD AND CANNOT BE REPRODUCED IN ANY FORM WITHOUT WRITTEN CONSENT FROM THE COMPANY.
 2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECTS', ENGINEERS' AND SPECIALISTS' DRAWINGS TOGETHER WITH THE APPROPRIATE SPECIFICATION.
 3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED. DIMENSIONS SHOWN ON THIS DRAWING MUST NOT BE SCALED AND ONLY WRITTEN DIMENSIONS USED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION AND ANY DISCREPANCIES TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER IN WRITING.
 4. ALL LEVELS ARE IN METRES UNDO & TO OS DATUM.
 5. THE WORKS SHALL BE IN ACCORDANCE WITH THE NATIONAL BUILDING SPECIFICATION.
 6. THE LOCATION LINE & LEVEL OF ALL KNOWN EXISTING DRAINAGE PIPEWORK INDICATED ON THE DRAWINGS ARE APPROXIMATE AND FOR GUIDANCE PURPOSES ONLY.
 7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXACT LINE AND LEVEL, BY WAY OF HAND EXCAVATED TRIAL PITS, PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION WORKS ON SITE. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS AND MAINTAIN THE STRUCTURAL INTEGRITY OF ALL ABOVE AND BELOW GROUND SERVICE INSTALLATIONS.
 8. THE CONTRACTOR SHALL MAKE ADEQUATE PROVISION FOR DEALING WITH AND DISPOSING OF GROUND/SURFACE WATER ENCOUNTERED DURING EXCAVATIONS.
 9. ALL SOFT / HARD PAVED AREAS AFFECTED BY THE WORKS SHALL BE FULLY REINSTATED FOLLOWING THE INSTALLATION OF ALL DRAINAGE WORKS. ALL SURFACE MARKINGS AFFECTED BY THE WORKS SHALL BE FULLY REINSTATED.
 10. UPON COMPLETION OF THE WORKS THE CONTRACTOR SHALL PROVIDE AS BUILT SETTING OUT CO-ORDINATE AND LEVEL INFORMATION.
 11. PIPEWORK WITH LESS THAN 750mm OF COVER IN TRAFFICED AREAS TO BE CONCRETE ENCASED (BEDDING CLASS 2).
 12. PIPEWORK WITH MORE THAN 750mm OF COVER TO HAVE CLASS 5 GRANULAR BED AND SURROUND.
 13. POLYPROPYLENE INSPECTION CHAMBERS OF 5000 x 1.2m DEEP TO BE FITTED WITH A REDUCED ACCESS FITTING.
 14. SWP CONNECTIONS TO BE 100mm DIA UNDO.
 15. ALL FO AND RWP LOCATIONS TO BE TO BE COMPLETE WITH A LOW LEVEL ACCESS PLATE FOR ROADING.
 16. WHERE PROPOSED DRAINAGE PIPEWORK RUNS ARE IN CLOSE PROXIMITY TO THE NEW FOUNDATIONS, THE CONTRACTOR SHALL ALLOW FOR EXTENDING THE DEPTH OF NEW FOUNDATIONS IN LEAN AND CONCRETE DOWN TO THE PROPOSED PIPE BEDDING LEVEL.
 17. PRECAST MANHOLES TO COMPLY WITH BS EN 1917:2002.
 18. POLYPROPYLENE CHAMBERS TO COMPLY WITH BS EN 12598-1:2010.
 19. CLAY PIPES TO COMPLY WITH BS EN 295-1:2013.
 20. CONCRETE PIPES TO COMPLY WITH BS EN 1916:2002.
 21. ELASTIC PIPE ALTERNATIVES:
IF THE CONTRACTOR INTENDS TO USE PLASTIC PIPEWORK IN ACCORDANCE WITH BS EN 12598-1:2010 - THE FOLLOWING STANDARDS WILL BE REQUIRED:
DRAINAGE CONNECTIONS OF LESS THAN 1500 SHALL BE SOLID WALL UPVC PIPES COMPLYING WITH BS EN 14011:2009.
PIPE SIZES 150-900 (TO BE USED IN FOUL OR COMBINED FLOW DRAINAGE SYSTEMS) SHALL BE THERMOPLASTIC STRUCTURED WALL PIPES COMPLYING WITH BS 435-01.
PIPE SIZES 150-900 (TO BE USED IN SURFACE WATER DRAINAGE SYSTEMS) SHALL BE THERMOPLASTIC STRUCTURED WALL PIPES WITH BBA & HAPAS ACCREDITATION.
THE CONTRACTOR SHALL SUBMIT DETAILS OF THE PROPOSED PLASTIC PRODUCTS FOR APPROVAL BY THE ENGINEER.

- Notes
- S— SITE BOUNDARY.
 - S— SURFACE WATER DRAIN.
 - S— SURFACE WATER DRAIN TO BE ABANDONED.
 - S— PROPOSED SURFACE WATER DRAIN (TYPICALLY 1000 FROM RWP AND 1500 FROM R/SU UNDO).
 - S— PROPOSED SURFACE WATER PRECAST CONCRETE MANHOLE.
 - S— PROPOSED SURFACE WATER POLYPROPYLENE INSPECTION CHAMBER.
 - S— PROPOSED LINEAR DRAINAGE CHANNEL AND ASSOCIATED SUMP OUTFALL.
 - S— PROPOSED TRAPPED ROAD GULLY.
 - S— PROPOSED RAINWATER DOWN SPOUT.
 - S— PROPOSED FOUL DRAIN (TYPICALLY 1000 UNDO).
 - S— PROPOSED FOUL PRECAST CONCRETE MANHOLE.
 - S— PROPOSED FOUL POLYPROPYLENE INSPECTION CHAMBER.
 - S— PROPOSED FOUL OUTFALL.

01	03.04.2020	CCP	ISSUED FOR COMMENT	10	P.18
02	10.04.2020	CCP	ISSUED FOR COMMENT	10	P.18
PRELIMINARY					
		TIER CONSULT: Richmond House, Sandpiper Court, Chester Business Park, Chester CH4 9JZ T: 01244 684 900			
Client		 TENSION CONTROL BOLTS			
Project TCB BUILDING EXTENSION, WREXHAM INDUSTRIAL ESTATE.					
Title PROPOSED DRAINAGE LAYOUT.					
Scale 1:2000/840	Drawn C.C. FITTON	Checked J. HALE	Revision P1		
Drawing No T_19_2265-55-01					