



APPROVALS
THE PROPOSED CULVERT DIVERSIONS, EASEMENT, BUILD-OVER AND EXISTING CULVERT ABANDONMENT WORKS ARE SUBJECT TO APPROVAL BY MANCHESTER CITY COUNCIL LEAD LOCAL FLOOD AUTHORITY.

FURTHER SURVEYS
THE CULVERT SURVEY WAS UNABLE TO TRACE THE NORTH EAST SECTION OF CULVERT WITHIN THE SITE DUE TO HEAVY SILTING OF THE CHANNEL. AN INCOMING CHANNEL WAS ALSO IDENTIFIED BENEATH THE EXISTING WAREHOUSE.
PRIOR TO FINALISING THE CULVERT DIVERSION WORK AND BLOCK B FOUNDATION OVERBUILD PROPOSALS, FOR APPROVAL BY THE LEAD LOCAL FLOOD AUTHORITY (LLFA), THE FOLLOWING ADDITIONAL SURVEYS ARE REQUIRED:
- FORM ACCESS, DE-SILT AND FULLY LINE, LEVEL AND CONDITION THE NORTH EAST SECTION OF CULVERT TO A MINIMUM OF 10m BEYOND THE SITE BOUNDARY
- FOLLOWING DEMOLITION OF THE WAREHOUSE LOCALLY EXCAVATE TO EXPOSE THE INCOMING CHANNEL AND FULLY LINE, LEVEL AND CONDITION SURVEY THE FULL LENGTH
AS THE WORKS WILL REQUIRE DEEP EXCAVATION OVER AND AROUND THE CULVERT AND WILL BE INTRUSIVE THE CONTRACTOR IS TO PROVIDE DETAILED METHOD STATEMENTS FOR APPROVAL BY THE LLFA PRIOR TO UNDERTAKING THE WORKS.
THE CLIENT AND CONTRACTOR ARE TO ALLOW SUFFICIENT TIME WITHIN THEIR PROGRAMMES FOR THE ADDITIONAL SURVEYS TO BE UNDERTAKEN. FINDINGS REVIEWED, CULVERT DIVERSION PROPOSALS AND BLOCK B FOUNDATION PROPOSALS UPDATE, AND FORMAL SUBMISSION OF FINALISED DRAWINGS FOR LLFA APPROVAL.

POST CONSTRUCTION SURVEY WORKS
FOLLOWING COMPLETION OF ALL CONSTRUCTION WORKS, THE POSITION (IN PLAN AND ELEVATION) AND CONDITION OF THE DIVERTED CULVERT IS TO BE RE-SURVEYED. THIS SURVEY INFORMATION IS TO BE PROVIDED TO THE CLIENT, ENGINEER AND MANCHESTER CITY COUNCIL LEAD LOCAL FLOOD AUTHORITY

PRECAST CONCRETE CULVERT PERFORMANCE REQUIREMENTS
THE PRECAST CONCRETE SUPPLIER FOR THE CULVERT SECTIONS IS TO COMPLY WITH THE FOLLOWING PERFORMANCE REQUIREMENTS:

USE: THE CULVERT IS TO CONVEY SURFACE WATER
INTERNAL SIZE: BOX CULVERT 1500mm WIDE x 1200mm DEEP
INVERT TYPE: DRY WEATHER CHANNEL AS DETAIL ON DRAWING C-03150
JOINT TYPE: REBATED LAP JOINT TO ALLOW FOR WATERPROOF SEAL
DEPTH OF FILL: CIRCA 2.5-4.2m. REFER TO INVERT LEVELS ON PLAN AND LANDSCAPE ARCHITECT SITE LEVELS
DESIGN LIFE: 120 YEARS
DESIGN LOADINGS: MOST ONEROUS OF HIGHWAY LOADING OR 10kN/m²
DESIGN CODES: PRECAST TO BE DESIGNED TO ALL RELEVANT EUROCODES, ASSOCIATED NATIONAL ANNEXES, BS EN 14844, PD 6894, BS EN 13369, BS EN206 AND BS 8500
CONCRETE GRADE: MINIMUM C45/55
CONCRETE COVER: MINIMUM 40mm BASED ON XD2 EXPOSURE
FINAL CONCRETE GRADE AND COVER TO SUIT FINDINGS OF THE GROUND INVESTIGATION, WHEN UNDERTAKEN.

THE PRECAST CONCRETE SUPPLIERS IS TO PROVIDE DETAILED FABRICATION DRAWINGS AND CALCULATIONS FOR REVIEW BY THE ENGINEER.
THE PRECAST CONCRETE DESIGN WILL BE SUBJECT TO APPROVAL BY THE LEAD LOCAL FLOOD AUTHORITY AND THE CONTRACTOR SHOULD ALLOW FOR EARLY PROCUREMENTS. THE CLIENT AND CONTRACTOR ARE TO ALLOW SUFFICIENT WITHIN THEIR PROGRAMMES FOR THE PROCUREMENT, DESIGN AND APPROVAL PROCESS FOR THE CULVERT.

- KEY**
- INDICATES APPROXIMATE PLANNING BOUNDARY
 - - - INDICATES EXISTING SHOOTERS BROOK CULVERT
 - XXX INDICATES EXISTING SECTION OF SHOOTERS BROOK
 - INDICATES DIVERTED SHOOTERS BROOK CULVERT
 - - - INDICATES BUILDING PROJECTION BEYOND GROUND FLOOR
 - - - INDICATES FOUNDATION PROJECTION BEYOND GROUND FLOOR
 - - - INDICATES EXTENT OF GROUND FLOOR
 - SHOOTERS BROOK CULVERT PROPOSED EASEMENT. EXTENTS TO BE AGREED TO BE THE LLFA
 - EASEMENT AREA OVERSAILED BY PROPOSED BUILDING - REFER TO SECTIONS ON DRAWING STO-REN-XX-XX-DR-C-02160
 - EASEMENT AREA OVERSAILED BY PROPOSED BUILDING REFER TO SECTIONS ON DRAWING STO-REN-XX-XX-DR-C-02160

RIBA STAGE 2
THESE DRAWINGS ARE INTENDED TO COMMUNICATE THE INITIAL CONCEPT FOR THE PROPOSED BUILDINGS AND ARE APPROPRIATE FOR THE RIBA STAGE 2- (CONCEPT). DUE TO CLIENT'S PROGRAMME THESE PROPOSALS HAVE BEEN PRODUCED WITH LIMITED INPUT FROM THE WIDER DESIGN TEAM AND ARE BASED ON WORK IN PROGRESS ARCHITECTURAL FLOOR PLANS AND PLANNING DRAWINGS.

ALL STRUCTURAL SIZES ARE INDICATIVE ONLY AND TO ASSIST WITH HIGH LEVEL COSTING BY THE PROJECT QUANTITY SURVEYOR AND CONTRACTOR. ALL STRUCTURAL SIZES AND REINFORCEMENT RATES ARE INDICATIVE AT THIS STAGE AND ARE SUBJECT TO CHANGE AS THE DESIGN DEVELOPS THROUGH RIBA STAGES 2 (CONCEPT DESIGN), STAGE 3 (SPATIAL CO-ORDINATION) AND STAGE 4 (TECHNICAL DESIGN).

A DESIGN CONTINGENCY OF 15-20% IS RECOMMENDED TO ALLOW FOR DESIGN DEVELOPMENT DURING RIBA STAGE 2+3 AND STAGE 4 AND TO REFLECT INPUT FROM CONTRACTOR DESIGN PACKAGES.

- NOTES:**
- THIS DRAWING IDENTITIES THE ARRANGMENT OF THE EXISTING SHOOTERS BROOK AND PROPOSED DIVERSION THAT EXTENDS BENEATH THE SITE.
 - ALL DIMENSIONS ARE IN mm UNLESS STATED OTHERWISE.
 - ALL LEVELS ARE METERS ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE.
 - THIS DRAWING IS BASED ON THE FOLLOWING SURVEY INFORMATION:
- MG555608 MURPHY GEO-SPATIAL- CULVERT SURVEY - DATED 28.11.23
- LS5025 LAYER SURVEY - TOPOGRAPHICAL SURVEY - DATED 17.10.23
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RENAISSANCE ARCHITECTS, LANDSCAPE ARCHITECTS AND BUILDING SERVICES ENGINEERS DRAWINGS.
 - REFERENCE SHOULD BE MADE TO THE FOLLOWING DRAWING DEFINING THE EXISTING CULVERT ALIGNMENT AND DIVERSION PROPOSALS ASSOCIATED WITH THE EXISTING SHOOTERS BROOK CULVERT:-
- STO-REN-XX-XX-DR-C-01150 - CULVERT LOCATION PLAN
- STO-REN-XX-XX-DR-C-01151 - EXISTING CULVERT PLAN
- STO-REN-XX-XX-DR-C-01152 - PROPOSED CULVERT DIVERSION PLAN
- STO-REN-XX-XX-DR-C-01153 - PROPOSED CULVERT ABANDONMENT PLAN
- STO-REN-XX-XX-DR-C-02160 - PROPOSED CULVERT EASEMENT SECTIONS
- STO-REN-XX-XX-DR-C-03150 - PROPOSED CULVERT DIVERSION DETAILS
 - FOR SITE CONSTRAINTS AND ASSOCIATED RISKS REFER TO DRAWING STO-REN-ZZ-ZZ-DR-C-00100.
 - ANY DISCREPANCIES IN THE DESIGN INFORMATION OR CONDITIONS ON SITE SHOULD BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY.
 - PRIOR TO COMMENCEMENT OF THE DIVERSION WORKS THE EASTERN SECTION OF CULVERT AND ALL INCOMING DRAINAGE CONNECTIONS INTO THE CULVERT WITHIN THE SITE CURTILAGE ARE TO BE SURVEYED BY THE CONTRACTOR.
 - PRIOR TO COMMENCEMENT OF THE DIVERSION WORKS THE CONTRACTOR IS TO CONFIRM THE CULVERT LEVELS AT THE UP AND DOWNSTREAM CONNECTION LOCATIONS AND CONFIRM THESE TO THE ENGINEER. WHERE LEVELS VARY FROM EXISTING SURVEY POINTS THE DIVERTED CULVERT FALLS ARE TO BE ADJUSTED TO MAINTAIN A CONSISTANT FALL ACROSS THE SITE.
 - ANY PART OF THE EXISTING DRAINAGE SYSTEM TO BE RETAINED AS PART OF THE NEW SCHEME SHALL BE CLEANED AND INSPECTED. ANY STRUCTURAL DEFECTS SHALL BE REPAIRED USING APPROPRIATE AND APPROVED TECHNIQUES AGREED WITH THE ENGINEER AND APPROVED BY THE LEAD LOCAL FLOOD AUTHORITY.
 - ALL REDUNDANT DRAINAGE IS TO BE GRUBBED UP TO REMOVE OBSTRUCTION TO FUTURE DRAINAGE WORKS. WHERE THE CONTRACTOR PROPOSES GROUTING THIS IS SUBJECT TO APPROVAL FROM THE ENGINEER AND IS TO NO RESTRICT FUTURE BUILDING WORKS.
 - ALL ADAPTABLE DRAINAGE TO COMPLY WITH THE REQUIREMENTS SEWER SECTOR GUIDANCE APPENDIX C- DESIGN AND CONSTRUCTION GUIDANCE. IF DISCREPANCIES ARE NOTED BETWEEN SSG AND DRAWINGS THESE SHOULD BE BROUGHT TO THE ATTENTION OF RENAISSANCE FOR REVIEW.
 - DESIGN AND CONSTRUCTION OF NEW PERMANENT WORKS SHALL ENSURE THAT NO DAMAGE TO THE EXISTING SEWER SYSTEM OUTSIDE OF THE SITE OCCURS. IN PARTICULAR THE NORTHERN SEWER OVERRUN CONNECTING INTO THE SITE THIS IS TO BE CONFIRMED BY POST CONSTRUCTION SURVEY.
 - THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY WORKS AND CONSTRUCTION PROCEDURES. THE CONTRACTOR SHALL PROTECT THE PIPELINE FROM TEMPORARY CONSTRUCTION LOADS WHICH MAY BE IN EXCESS OF THE SERVIC LOADS.
 - UNLESS INDICATED OTHERWISE ALL PIPES TO BE LAID SOFFIT TO SOFFIT.
 - MANHOLE COVERS ARE TO BE ACCORDANCE WITH BS EN 124 FOR THE RATING INDICATED IN THE MANHOLE SCHEDULE. THE CONTRACTOR IS TO SUBMIT DETAILS FOR THE PROPOSED MANHOLE COVERS TO THE ENGINEER AND ARCHITECT FOR REVIEW PRIOR TO INSTALLATION.
 - COVER SLABS MUST CARRY THE BSI KITEMARK. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LOAD BEARING REDUCING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO REQUIRED SIZE.
 - BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENTS OF THE WATER INDUSTRY SPECIFICATION 4-08092 (TABLE A2).
 - SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVIDING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
 - COVER LEVELS SHOWN ARE APPROXIMATE AND SHALL BE ADJUSTED ON SITE BY THE CONTRACTOR TO SUIT THE FINAL LEVELS. THE CONTRACTOR SHALL PROVIDE WRITTEN CONFIRMATION OF THE FINISHED COVER AND INVERT LEVELS OF ALL MANHOLES.
 - CONTRACTOR TO ARRANGE ALL SEWERS AND DRAINS TO BE FLUSHED OUT BEFORE FINAL CCTV SURVEY IS CARRIED OUT ON COMPLETION OF WORKS.

P03	MINOR UPDATES	09.10.25	AM	AI
P02	NOTES UPDATED	02.10.25	HW	AI
P01	STAGE 2 ISSUE	30.09.25	HW	AI
Rev:	Description:	Date:	By:	Chkd:



Project:
STOCKTONS MANCHESTER

Drawing Title:
PROPOSED CULVERT DIVERSION PLAN

Status:
STAGE 2

Size:	Date:	Drawn by:	Designed by:	Checked by:
A1	SEP 25	HW	HW	AI

Scale: 1:200 Project No: 2301-06

Project - Originator - Volume - Level - Type - Role - Number: Revision:

STO-REN-XX-XX-DR-C-01152 P03