



APPROXIMATE NATIONAL GRID COORDINATES:
341696, 702609

This plan is based on the Ordnance Survey map with the permission of the controller of His Majesty's Stationary Office. Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings.

Rev.	Date	Description	Drawn	Checked	Approved
------	------	-------------	-------	---------	----------

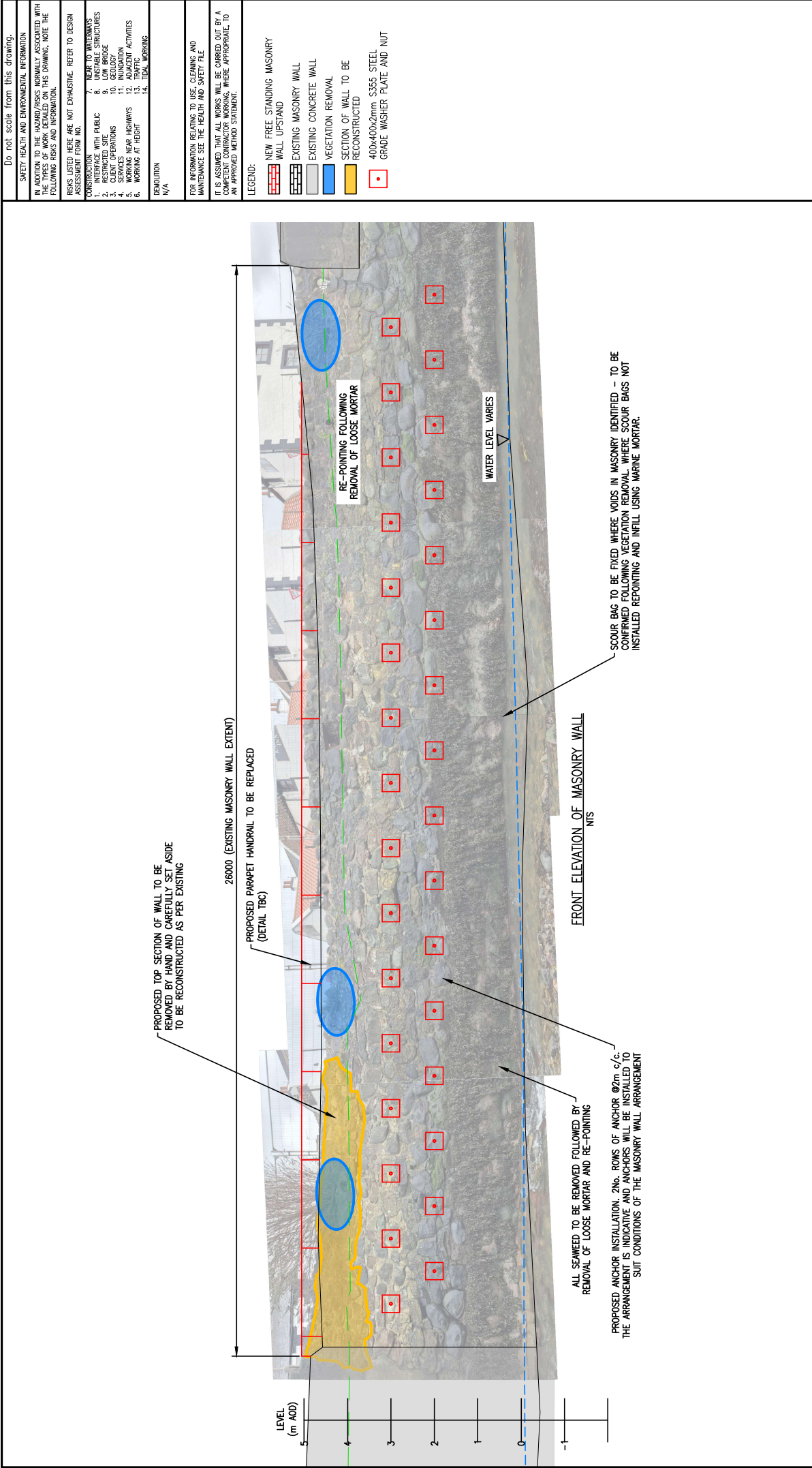


Project Title:
**LOWER LARGO RETAINING WALL,
WARBOUR WYND, LOWER LARGO,
FIFE**

Drawing Title:
SITE LOCATION PLAN

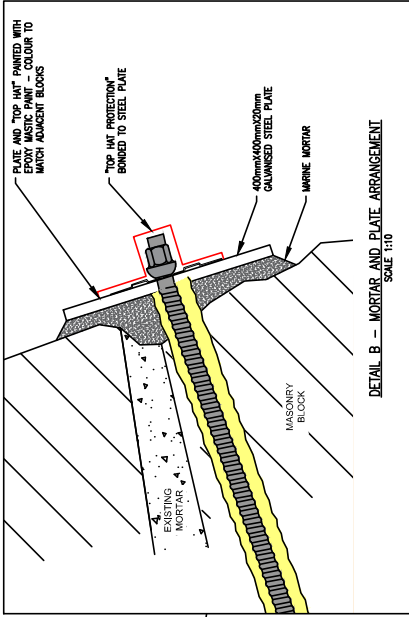
FAIRHURST 4 th Floor, 300 Bath Street, GLASGOW, G2 4JR Tel: 0141 204 8800		
Scale at A4: NTS	Status: For Information	
Drawn: AC	Checked: JT	Approved: AB
Date: 02/04/26	Date: 02/04/26	Date: 02/04/26
Drawing No.: 400428/9001		Revision: —

Do not scale from this drawing. SAFETY HEALTH AND ENVIRONMENTAL INFORMATION IN ADDITION TO THE HAZARD/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING RISKS AND INFORMATION. RISKS LISTED HERE ARE NOT EXHAUSTIVE. REFER TO DESIGN ASSESSMENT FORM NO. CONSTRUCTION 1. INTERFERENCE WITH PUBLIC 2. UNSTABLE STRUCTURES 3. CLIENT OPERATIONS 4. SERVICES NEAR HIGHWAYS 5. UNSTABLE ADJACENT ACTIVITIES 6. WORKING AT HEIGHT 7. NEAR TO WATERWAYS 8. UNSTABLE STRUCTURES 9. UNSTABLE BRIDGES 10. GEOLOGY 11. INUNDATION 12. ADJACENT ACTIVITIES 13. TRAFFIC 14. TOTAL WORKING DEMOLITION N/A FOR INFORMATION RELATING TO USE, CLEANING AND MAINTENANCE SEE THE HEALTH AND SAFETY FILE IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT PERSON OR PERSONS WHOSE COMPETENCE IS TO AN APPROVED METHOD STATEMENT. LEGEND: APPROXIMATE EXTENT OF WALL REMEDIAL WORKS APPROXIMATE EXTENT OF PROPOSED TEMPORARY COFFERDAM APPROXIMATE EXTENT OF TRAFFIC MANAGEMENT ZONE SERVICES: ELECTRICITY CABLE HIGH VOLTAGE ELECTRICITY CABLE GAS PIPE COMBINED SEWER SEWER SURFACE WATER BRITISH TELECOM UNIDENTIFIED GPR OR ELECTRO LOCATION TRACE WATER PIPE		FAIRHURST 4th Floor, 300 Bath Street, GL1 1JH, GL1 1JH, GL1 1JH Tel: 01454 204 5500 Scale at A3: 1:250 Status: For Information Drawn: AC Checked: JT Approved: JT Date: 02/04/26 Date: 02/04/26 Drawing No.: 400428/9003	
PHOTO 1: POTENTIAL ACCESS TO SITE NO. 1 NOTE: REQUIRES CONSIDERABLE UPGRADE WORKS PHOTO 2: LOW BRIDGE FOR SITE PLANT ACCESS HEIGHT RESTRICTION AT LOW BRIDGE FOR SITE PLANT ACCESS EXISTING SLIPWAY FOR SITE ACCESS POINT 2 EXTENT OF PROPOSED TEMPORARY COFFERDAM EXTENT OF WALL REMEDIAL WORKS EXTENT OF TRAFFIC MANAGEMENT ZONE TRAFFIC MANAGEMENT SCALE: 1:250 SITE OVERVIEW		Project Title: LOWER LARGO RETAINING WALL, HARBOUR WYND, LOWER LARGO, FIFE Client: Notes: 1. TOPOGRAPHICAL SURVEY IS BASED ON DRAWING RECEIVED FROM MALCOLM HUGHES CHARTERED LAND SURVEYORS, DRAWING NO. 61688, REV. A, DATED: 01/05/24. 2. UTILITY MAPPING SURVEY IS BASED ON DRAWING RECEIVED FROM MALCOLM HUGHES CHARTERED LAND SURVEYORS, DRAWING NO. 61688_UC_01_01, REV. 00, DATED: MAY 2024.	
Rev. Date Description Drawn Checked Approved		Fife C O U N C I L	

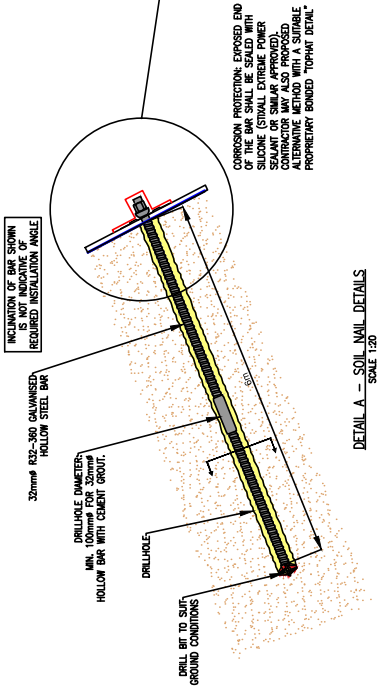


Rev.	Date	Description	Drawn	Checked	Approved
Notes:					
1. TO BE READ IN CONJUNCTION WITH DRAWING NO. 400428/ 9005 FOR DETAILS OF ANCHOR AND WALLING BEAM SYSTEM.					
2. TO BE READ IN CONJUNCTION WITH DRAWING NO. 400428/ 9006 FOR DETAILS OF REMEDIAL WORKS.					
Client:					
Fife W A C O U N C I L					
Project Title:					
LOWER LARGO RETAINING WALL, HARBOUR WYND, LOWER LARGO, FIFE					
Drawing Title:					
PROPOSED REMEDIAL WORKS ELEVATION AND LAYOUT					
Scale at A3:					
AS SHOWN FOR INFORMATION					
Status:					
4th Floor, 300 Bath Street, GLASGOW, G2 4JR Tel: 0141 204 8800					
FAIRHURST					
Drawing No:					
400428/9004					
Revision:					
—					

Do not scale from this drawing.
SAFETY HEALTH AND ENVIRONMENTAL INFORMATION
IN ADDITION TO THE HAZARD/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING RISKS AND INFORMATION.
RISKS LISTED HERE ARE NOT EXHAUSTIVE. REFER TO DESIGN ASSESSMENT FORM NO.
CONSTRUCTION
1. INTERFACE WITH PUBLIC
2. UNSTABLE STRUCTURES
3. UNSTABLE GROUND
4. CLIENT OPERATIONS
5. SERVICES
6. WORKING NEAR HIGHWAYS
7. NEAR TO WATERWAYS
8. UNSTABLE STRUCTURES
9. UNSTABLE GROUND
10. GEOLOGY
11. INUNDATION
12. ADJACENT ACTIVITIES
13. TRAFFIC
14. TIDAL WORKING
DEMOLITION
N/A
FOR INFORMATION RELATING TO USE CLEANING AND MAINTENANCE SEE THE HEALTH AND SAFETY FILE
IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT.
INDICATIVE SERVICES KEY
ELECTRIC
TELECOMMS
GAS
WATER
WATER SEWER



DETAIL A - SOIL NAIL DETAILS
SCALE 1:20



24. THE GROUT PUMP REQUIRED FOR THE OPERATION MUST BE CAPABLE OF:
- 6) THOROUGHLY MIXING THE GROUT
 - 6) DELIVERY OF A CONTINUOUS VOLUME - TO ENSURE CONSISTENT GROUTING WITHIN THE BOREHOLE
 - 6) MAINTAINING THE REQUIRED PRESSURE - MAXIMUM PRESSURE OF 100PSI
25. THROUGHOUT THE GROUTING OPERATION PUMPING PRESSURES SHALL BE MONITORED TO ENSURE THAT THE GROUT IS PLACED AT THE REQUIRED DEPTH AND TO AVOID OVERSTRESSING THE SURROUNDING GROUND.
27. GROUT CIRCULATION SHALL BE MAINTAINED AT ALL TIMES WITH ONLY A SLIGHT RETURN AT THE MOUTH OF THE BOREHOLE.
28. GROUTING SHALL BE DISCONTINUED IF THE AMBIENT TEMPERATURE FALLS BELOW 5°C OR GROUT TEMPERATURE FALLS BELOW 5°C. GROUTING SHALL BE RESUMED WHEN THE AMBIENT TEMPERATURE IS FALLING AND IS ABLE TO FALL BELOW 5°C BEFORE COMPLETION OF THE BAR.
29. WHEN THE GROUT HAS ATTAINED A STRENGTH OF 25 N/mm² AND NOT LESS THAN FOUR DAYS FOLLOWING COMPLETION OF THE GROUTING OPERATIONS, ANY REINFORCED MESH, TENSIONING PLATES, AND END FITTINGS SHALL BE ATTACHED TO THE TOP END OF THE NAIL.
10. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DRAWINGS.
11. THE SOIL NAIL MANUFACTURER'S RECOMMENDATIONS / GUIDANCE, STRENGTHENED/REINFORCED SOILS PART 2: SOIL NAIL DESIGN AND DESIGN HANDBOOK, RECOMMENDATIONS FOR DESIGN INCLUDED IN 68/94 AND 68/94 SOIL NAILING - BEST PRACTICE GUIDANCE.
12. THE FINISHED BAR LENGTH SHALL BE NO GREATER THAN 50mm BEYOND THE EYE NUT.
13. THE FINISHED BAR SHALL BE FITTED WITH A PROPRIETARY CAP AND WRAPPED IN IDEAL TPE TO PREVENT CORROSION AND WATER INGRESS.
14. THE HOLE FOR THE ANCHORS SHALL HAVE A MINIMUM DIAMETER OF 110mm.
15. ANCHORS SHALL BE INSTALLED AT 20° INCLINATION BELOW HORIZONTAL.
16. THE MAXIMUM PERMITTED DEVIATION OF THE DRILL HOLES FROM THE SPECIFIED ALIGNMENT SHALL BE ± 2.5° THE HOLES SHALL BE DRILLED TO THE POSITION SHOWN ON THE CONTRACT DRAWINGS OF ± 75mm.
17. A DRILLING ORIENTATION DEVICE SHALL BE USED TO ENSURE THE INCLINATION OF THE DRILL HOLE IS MAINTAINED.
18. A MINIMUM COVER OF 25mm GROUT TO THE ANCHORS SHALL BE ACHIEVED ALONG THE ENCLOSURE.
19. WHERE AN ALTERNATIVE DRILLING AND GROUTING METHOD IS TO BE USED, THE CONTRACTOR SHALL SUBMIT A METHOD STATEMENT TO THE ENGINEERING SUPERVISOR FOR APPROVAL PRIOR TO COMMENCEMENT OF WORKS.
20. DRILLING AND GROUTING OF THE WALLS SHALL BE UNDERWATERSIMULTANEOUSLY AND SHALL BE PERFORMED AS A CONTINUOUS OPERATION TO FULL DEPTH IF, FOR ANY REASON, DRILLING/GROUTING IS INTERRUPTED OR DELAYED BEYOND THE POINT OF THE DRILL HOLE, THE DRILLING AND GROUTING HOLE AND THE HOLE FLUSHED. THE WALL INSTALLATION AND GROUTING PROCEDURE WILL THEN BE REPEATED.
21. THE GROUT SHALL CONSIST OF ORDINARY PORTLAND CEMENT AND WATER IN ACCORDANCE WITH BS EN 197-1:2011 AND SHALL BE TESTED IN ACCORDANCE WITH BS EN 196-1 (ALL PARTS), HIGH STRENGTH CEMENT SHALL NOT BE USED.
22. THE WATER/CEMENT RATIO SHALL BE AS LOW AS POSSIBLE, CONSISTENT WITH THE NECESSARY WORKABILITY, HOWEVER IT SHALL NOT EXCEED 0.45 BY WEIGHT TO REDUCE LOSS OF GROUT INTO THE SURROUNDING AREA.
23. MINIMUM CHARACTERISTIC GROUT STRENGTH OF 50 N/mm² AND 25 N/mm² PRIOR TO LANDING AND AT 28 DAYS RESPECTIVELY REQUIRED, AS PER BS EN 14480:2010.
- ANCHOR SPECIFICATION
- GENERAL
1. ANCHORS ARE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF BS 8006-2:2011 CODE OF PRACTICE FOR THE DESIGN AND CONSTRUCTION OF SOIL NAIL WALLS AND SOIL NAIL WALLS WITH STRENGTHENED/REINFORCED SOILS PART 2: SOIL NAIL DESIGN AND DESIGN HANDBOOK, RECOMMENDATIONS FOR DESIGN INCLUDED IN 68/94 AND 68/94 SOIL NAILING - BEST PRACTICE GUIDANCE.
 2. SETTING OUT
 3. AREAS REQUIRED TO BE ANCHORED ARE SHOWN ON THE GENERAL ARRANGEMENT DRAWING. THE EXTENTS OF THE WORKS ARE TO BE AGREED ON SITE WITH THE GEOTECHNICAL DESIGNER.
 4. HORIZONTAL AND VERTICAL SPACING OF ANCHORS TO BE 2m C/C.
 5. ANCHORS SHALL BE INSTALLED IN A DIAMOND PATTERN.
 6. MATERIALS
 7. THE CONTRACTOR SHALL SUBMIT TO THE GEOTECHNICAL DESIGNER FOR ACCEPTANCE THE DETAILS OF THE PARTICULAR ANCHORS, INCLUDING ALL AUXILIARY ITEMS, WHICH WILL BE INCORPORATED INTO THE WORKS. DETAILS OF THE SUPPLIERS SHALL BE PROVIDED TO THE GEOTECHNICAL DESIGNER FOR APPROVAL. THE CONTRACTOR SHALL NOT BE CHANGED WITHOUT PRIOR ACCEPTANCE BY THE PROJECT MANAGER.
 8. ANCHORS SHALL BE GALVANNEAL STEEL, THREADED BARS WITH A MINIMUM STRENGTH GRADE OF 300N/mm² IN ACCORDANCE WITH BS 4449. THE BARS SHALL BE HOT DIP GALVANNEAL IN ACCORDANCE WITH BS EN 1461 AND IN/50/07/02 TO PROVIDE THE REQUIRED CORROSION RESISTANCE. THE ANCHORS SHALL BE PROVIDED WITH 88 MORTONS IS REQUIRED BUT IN AGGRESSIVE GROUND THIS SHOULD BE INCREASED TO 140 MORTONS.
 9. ANCHORS SHALL BE HANDLED, TRANSPORTED AND STORED TO AVOID CORROSION OR DAMAGE INCLUDING THAT PRODUCED BY BENDING OR SHAKING OR ENCLOSURE.
 10. THE ANCHORS SHALL BE AS SHOWN ON THE R32-320 HOLLOW BAR. THE TENSILE STRENGTH SHALL BE AS FOLLOWS:
 - a) 32mm R32-320 HOLLOW BAR TYPE SUITABLE FOR SMALL DIAMETER DRILLING AND GROUTING.
 - b) 32mm R32-320 HOLLOW BAR TYPE SUITABLE FOR SMALL DIAMETER DRILLING AND GROUTING.
 - c) 32mm R32-320 HOLLOW BAR TYPE SUITABLE FOR SMALL DIAMETER DRILLING AND GROUTING.
 - d) 32mm R32-320 HOLLOW BAR TYPE SUITABLE FOR SMALL DIAMETER DRILLING AND GROUTING.
 - e) 32mm R32-320 HOLLOW BAR TYPE SUITABLE FOR SMALL DIAMETER DRILLING AND GROUTING.
 11. ANY COUPLERS OR CONNECTORS MUST BE FULLY COMPATIBLE WITH THE BAR AND CORROSION PROTECTION SPECIFICATION.
 12. THE TENSIONING PLATE SHALL BE COMPATIBLE WITH THE ANCHOR. THE TENSIONING PLATE SHALL BE PROVIDED WITH A CORROSION PROTECTANT, ACCESSORIES SUCH AS SPECTRAL NUTS, WASHER PLATES AND THE LIKE SHALL BE OF COMPATIBLE STEEL WITH A COMPATIBLE CORROSION RESISTANCE.

FAIRHURST
4th Floor, 300 Bath Street, GLASGOW, G2 4JR Tel: 0141 204 8800
Status:
Scale at A3:
AS SHOWN
For Information
Check:
Approved:
JB
DF
Date:
02/04/26
Date:
02/04/26
Drawing No:
400428/9005
Revision:
-

Project Title: LOWER LARGO RETAINING WALL, HARBOUR WYND, LOWER LARGO, FIFE		Drawing Title: TYPICAL CROSS SECTION AND ANCHOR DETAIL	
Client: 			
Notes: 1. REFER TO DRAWING 400428/9002 FOR CROSS SECTION LOCATIONS.			

