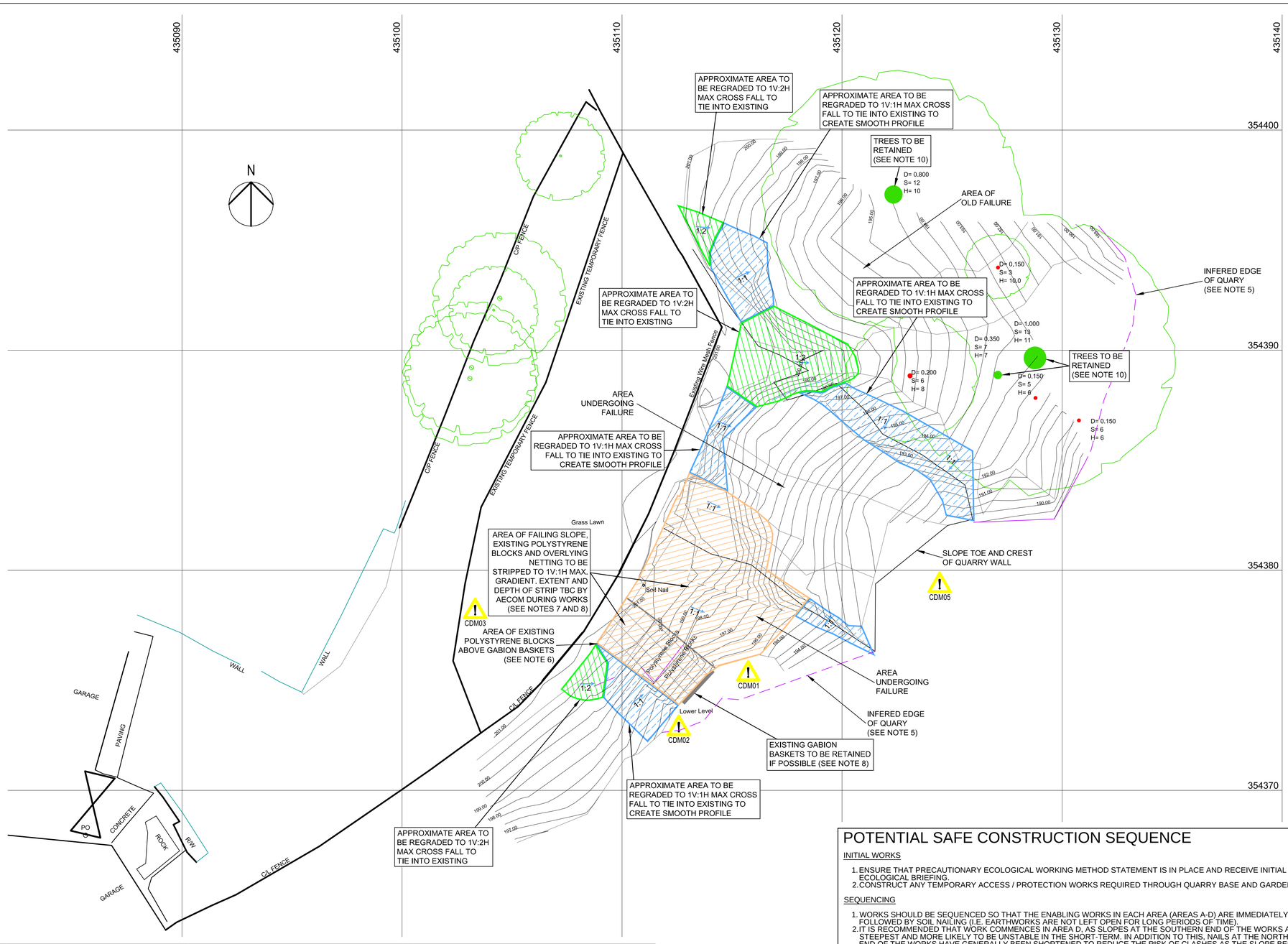
ISO A1 594mm x 841mm



CDM RISKS

REF.	FEATURE, ELEMENT, PROCESS OR WORK ACTIVITY.	CONSTRAINTS AND SIGNIFICANT HAZARDS IDENTIFIED	DESIGNER'S INTERVENTIONS TO ELIMINATE OR REDUCE HAZARDS	INFORMATION TO BE PROVIDED TO ENABLE PROJECT PARTNERS TO MANAGE HAZARDS
CDM01	REMOVAL OF FAILING MATERIAL AND GRADING OF SLOPE	RISK OF FALLS FROM HEIGHT DUE TO WORKING ON OR AT CREST OF STEEP SLOPE AND QUARRY WALL. RISK OF FALLS FROM HEIGHT DUE TO FURTHER FAILURE OF SLOPE DURING WORKS. RISK OF INJURY TO PLANT OR PERSONNEL AT QUARRY BASE FROM FALLING MATERIAL.	PLANT TO BE KEPT CLEAR DISTANCE FROM SLOPE CREST WHEREVER POSSIBLE. SPECIFICATION THAT FAILING MATERIAL IS REMOVED FROM THE CREST DOWN TO PREVENT REMOVAL AND TOE MATERIAL LEADING TO SUDDEN FAILURES. SPECIFICATION THAT AREA IS DEMARCATED AT QUARRY BASE TO PREVENT FALLING MATERIAL FROM STRIKING PLANT OR PERSONNEL.	CONTRACTOR TO DETERMINE MOST SUITABLE METHOD OF REMOVAL OF FAILING MATERIAL. CONTRACTOR TO DEMARCATE AREA AT QUARRY BASE WHERE NO PLANT OR PERSONNEL ACCESS IS PERMITTED WHILE WORKS ARE UNDERTAKEN ON THE SLOPE.
CDM02	REMOVAL OF POLYSTYRENE BLOCKS	RISK OF FALLS FROM HEIGHT DUE TO WORKING ON OR AT CREST OF STEEP SLOPE AND QUARRY WALL. RISK OF FURTHER FAILURE IF REMOVAL OF BLOCKS CAUSES ADDITIONAL INSTABILITY IN SLOPE. RISK OF INJURY TO PLANT OR PERSONNEL AT QUARRY BASE FROM FALLING MATERIAL.	PLANT TO BE KEPT CLEAR DISTANCE FROM SLOPE CREST WHEREVER POSSIBLE. SPECIFICATION THAT WHERE POSSIBLE, EXISTING SOIL NAILS AND NETTING TO REMAIN IN SITU. SPECIFICATION THAT AREA IS DEMARCATED AT QUARRY BASE TO PREVENT FALLING MATERIAL FROM STRIKING PLANT OR PERSONNEL.	CONTRACTOR TO DETERMINE MOST SUITABLE METHOD OF REMOVAL OF POLYSTYRENE BLOCKS. CONTRACTOR TO DEMARCATE AREA AT QUARRY BASE WHERE NO PLANT OR PERSONNEL ACCESS IS PERMITTED WHILE WORKS ARE UNDERTAKEN ON THE SLOPE.
CDM03	ACCESS TO CREST OF FAILURE	RISK OF INJURY TO SITE PERSONNEL OR PEDESTRIANS DURING MOVEMENT OF PLANT THROUGH CONSTRAINED PRIVATE RESIDENTIAL AREA TO CREST OF FAILURE.	SPECIFICATION THAT SITE COMPOUND IS LOCATED IN QUARRY BASE TO LIMIT MOBILISATION IN PRIVATE RESIDENTIAL AREA.	CONTRACTOR TO ENSURE THAT SUITABLE PLANT IS SELECTED FOR WORK AT THE SLOPE CREST.
CDM04	GABION WALL CONSTRUCTION	RISK OF INJURY TO PLANT OR PERSONNEL AT QUARRY BASE FROM FALLING GABION FILL. RISK OF INJURY TO SITE PERSONNEL OR PEDESTRIANS DURING TRANSPORT OF FILL MATERIAL TO SLOPE CREST.	LIMITED SCOPE TO REDUCE HAZARDS.	CONTRACTOR TO ENSURE SAFE SYSTEM OF WORK IS IN PLACE FOR WORKING AT CREST OF SLOPE.
CDM05	MOBILISATION AT QUARRY FLOOR LEVEL	RISK OF DAMAGING LANDFILL CAPPING DURING REMOVAL OF MATERIAL AT BASE OF QUARRY WALL OR DURING CONSTRUCTION OF ROADWAYS, WHICH COULD LEAD TO LEAKING OF LANDFILL MATERIAL. RISK OF DAMAGING STANDPIPES LOCATED AROUND QUARRY BASE POTENTIALLY LEADING TO LEAKING OF LANDFILL MATERIAL.	SPECIFICATION THAT NO MATERIAL IS TO BE TAKEN FROM THE EXISTING QUARRY FLOOR LEVEL.	ROLLS-ROYCE TO CHECK LANDFILL CLOSURE PERMIT AND LIAISE WITH RELEVANT PARTIES FOR WHAT ACTIVITIES ARE ACCEPTABLE ON REMEDIATED LANDFILL. CONTRACTOR TO ENSURE SAFE SYSTEM OF WORK IS IN PLACE FOR WORKING ON REMEDIATED LANDFILL. CONTRACTOR TO IDENTIFY AND PROTECT STANDPIPES IN PROXIMITY TO WORK AREA PRIOR TO MOBILISATION OF PLANT AT QUARRY BASE.

POTENTIAL SAFE CONSTRUCTION SEQUENCE

INITIAL WORKS

1. ENSURE THAT PRECAUTIONARY ECOLOGICAL WORKING METHOD STATEMENT IS IN PLACE AND RECEIVE INITIAL ECOLOGICAL BRIEFING.
2. CONSTRUCT ANY TEMPORARY ACCESS / PROTECTION WORKS REQUIRED THROUGH QUARRY BASE AND GARDEN.

SEQUENCING

1. WORKS SHOULD BE SEQUENCED SO THAT THE ENABLING WORKS IN EACH AREA (AREAS A-D) ARE IMMEDIATELY FOLLOWED BY SOIL NAILING (I.E. EARTHWORKS ARE NOT LEFT OPEN FOR LONG PERIODS OF TIME).
2. IT IS RECOMMENDED THAT WORK COMMENCES IN AREA D, AS SLOPES AT THE SOUTHERN END OF THE WORKS ARE STEEPEST AND MORE LIKELY TO BE UNSTABLE IN THE SHORT-TERM. IN ADDITION TO THIS, NAILS AT THE NORTHERN END OF THE WORKS HAVE GENERALLY BEEN SHORTENED TO REDUCE THE RISK OF CLASHES AS THE SLOPE BENDS ROUND TO THE WEST. IF THESE NAILS ARE INSTALLED LAST, ANY LOCALISED CLASHES WILL RESULT IN ONLY A SHORT LENGTH OF THE NAIL BEING OBSTRUCTED, REDUCING THE IMPACT OF SUCH CLASHES.

ENABLING WORKS

1. CONDUCT TREE FELLING / COPPICING WORKS.
2. REMOVE EXISTING MESH FACING WHERE SPECIFIED. CARE SHOULD BE TAKEN AS MESH MAY BE SUPPORTING FAILING AREA ADJACENT TO POLYSTYRENE BLOCKS.
3. WORKING FROM THE TOP DOWN USING ROPE ACCESS TECHNIQUES, CONDUCT REGRADING WORKS. CAUTION IS TO BE TAKEN WHEN WORKING ON POTENTIALLY UNSTABLE SECTIONS OF SLOPE. MATERIAL IS TO BE ALLOWED TO FALL INTO QUARRY BASE, WITH SUITABLE PROTECTION TO PREVENT ACCESS TO THIS AREA OF THE QUARRY FLOOR.

SOIL NAILING WORKS

1. SET OUT GABION AND SOIL NAIL FACING SOPS.
2. CONFIRM SUITABILITY OF REGRADE WITH AECOM ENGINEER.
3. SET OUT NAIL LOCATIONS BY MEASURING OFFSETS ALONG CONTOUR LEVELS, USING DRAWING 60638839-GEO-DR-203 AS A GUIDE.
4. CONFIRM SUITABILITY OF SETTING OUT WITH AECOM ENGINEER.
5. INSTALL SACRIFICIAL NAILS, CONDUCT TESTS AND PROVIDE RESULTS FOR REVIEW.
6. INSTALL SOIL NAILS IN MANNER RECOMMENDED BY SPECIALIST CONTRACTOR AND AGREED WITH DESIGNER.
7. INSTALL MESH AND HEAD PLATES AS RECOMMENDED BY SPECIALIST AND AGREED WITH DESIGNER.
8. CONDUCT PRODUCTION NAIL TESTS AS AND WHEN NAILS BECOME AVAILABLE.
9. FINISH AREA WITH TOPSOIL AND SEED.

GABION WALL

1. SET OUT PROPOSED GABION WALL RELATIVE TO ORIGINAL FENCE LINE.
2. STRIP EXISTING TOPSOIL AND TURF AND PLACE IN STORAGE.
3. BENCH OUT EXCAVATION OF CREST OF SLOPE BEHIND LINE OF WALL.
4. DIG OUT FOUNDATION AND FORM CONCRETE FOUNDATION, CASTING MESH REINFORCEMENT , TIE BARS AND DRAINAGE PIPES IN PLACE.
5. AFTER FOUNDATION HAS SET, PLACE GABIONS ON FOUNDATION AND TIE TOGETHER AS PER MANUFACTURER'S INSTRUCTIONS.
6. FILL BY HAND PLACING STONE TO ACHIEVE GOOD FINISH.
7. PLACE CONCRETE BEHIND GABIONS TO PREVENT WATER INGRESS AT BACK OF FOUNDATION.
8. BACKFILL BEHIND GABIONS WITH HAND COMPACTION.
9. REPLACE TOPSOIL AND TURF
10. RE-ERECT FENCE

AECOM

PROJECT

CRICH QUARRY STABILISATION

CLIENT

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NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
2. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
3. ALL DIMENSIONS IN MILLIMETRES, ALL CHAINAGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE PROJECT HEALTH & SAFETY FILE FOR ANY IDENTIFIED POTENTIAL RISKS.
5. SEE DRAWING 210 FOR CONSTRUCTION DETAILS. SEE DRAWING 211 FOR CROSS SECTIONS.
6. POLYSTYRENE BLOCK STRUCTURE IS UNDERSTOOD TO COMPRISE POLYSTYRENE BLOCKS BACKED WITH NO FINES CONCRETE BACKFILL AT THE CREST OF THE WALL.
7. THE EXISTING NETTING FACING IS TO BE REMOVED IN THE AREA OF WORKS ONLY AND RETAINED IMMEDIATELY TO THE SOUTH OF THE WORKS. THE MESH TO BE REMOVED IS TO BE SEPARATED FROM THE MESH TO BE RETAINED AT THE EDGE OF A PANEL, AND THE NEW FACING SYSTEM CLIPPED TO IT IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
8. THE EXISTING POLYSTYRENE BLOCKS AND ANY ASSOCIATED CONCRETE ARE TO BE REMOVED ENTIRELY. ANY STEPS IN THE RESULTING PROFILE ARE TO BE GRADED SMOOTH PRIOR TO SOIL NAILING. THE EXISTING GABIONS THAT SUPPORT THE BLOCKS ARE PROVISIONALLY TO BE LEFT IN PLACE, BUT WILL REQUIRE ASSESSMENT BY AECOM AT THE TIME OF THE WORKS.
9. SMALL TREES (LESS THAN 0.3 m DIAMETER) ARE TO BE FELLED TO GROUND LEVEL AND THEIR STUMPS TREATED WITH HERBICIDE PLUGS TO PREVENT REGROWTH.
10. LARGE TREES (GREATER THAN 0.3 m DIAMETER) ARE TO BE POLLARDED TO 1.5 TO 2.0 m ABOVE GROUND LEVEL AND ALLOWED TO REGROW.
11. WORKS SHOULD BE SEQUENCED SO THAT THE ENABLING WORKS IN EACH AREA (AREAS A-D) ARE IMMEDIATELY FOLLOWED BY SOIL NAILING (I.E. EARTHWORKS ARE NOT LEFT OPEN FOR LONG PERIODS OF TIME).

KEY

- REGRADE TO 1V:2H MAX STEEPNESS
- REGRADE TO 1V:1H MAX STEEPNESS
- AREA TO BE STRIPPED OF FAILED MATERIAL AND POLYSTYRENE BLOCKS. REGRADE TO 1V:1H MAX.
- AREA OF EXISTING POLYSTYRENE BLOCKS
- TREE TO REMAIN (SEE NOTE 10)
- TREE TO BE REMOVED (SEE NOTE 9)
- DIRECTION OF CROSS FALL WITH MAX 1V:1H OR 1V:2H GRADIENT
- CDM05 — CDM RISK

REVISION DETAILS	BY / CHECK	DATE	SUFFIX
First Issue	SDW / TP	06.11.2020	P01

PROJECT MANAGEMENT INITIALS

DESIGNED: TP CHECKED: EB APPROVED: IMS

INTERNAL PROJECT NUMBER 60638839

SCALE 1 : 100

STATUS FOR TENDER

BS1192 SUITABILITY

SHEET TITLE

GENERAL ARRANGEMENT (2 OF 3)
ENABLING WORKS FOR SOIL NAILING

DRAWING NUMBER 60638839-GEO-DR-202

REV P01

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Filename: L:\60616595 CRICH (HILTS) QUARRY ROLLS ROYCE\2-0 PROJ INFO\2-3 DOCS\2-3-1 DRAFT DOCS\CAD DATA\60638839_GEO_DR_202_P01.DWG