

GENERAL

- ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION AND ANY OTHER WRITTEN INSTRUCTIONS ISSUED.
- WHERE APPROVAL IS REQUIRED, THIS SHALL BE OF THE SUPERINTENDENT OR HIS REPRESENTATIVE.
- ANY AMBIGUITY OR DISCREPANCY SHALL BE REFERRED FOR CLARIFICATION BEFORE WORK PROCEEDS.
- DIMENSIONS ARE PRESENTED IN MILLIMETERS WITH EQUIVALENT FOOT/INCH VALUE SHOWN IN BRACKETS.
EXAMPLE: 1000mm [3'-3 3/8"]
- REFER TO THE DRAWING DIMENSIONS FOR SETTING OUT THE WORKS. HOWEVER, ALL EXISTING DIMENSIONS AND LEVELS ARE APPROXIMATE AND SHALL BE CONFIRMED BY THE CONTRACTOR ON SITE.
- UNLESS NOTED OTHERWISE, ALL LEVELS ARE IN METRES (m).
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STABILITY OF THE STRUCTURE UNTIL ITS COMPLETION AND SHALL ENSURE THAT NO PART OF THE STRUCTURE IS OVERSTRESSED DURING THE WORKS.
- WHERE STANDARDS ARE REFERRED TO, THEY SHALL BE THE LATEST EDITION.
- PROPRIETARY ITEMS, PROPOSED BY THE CONTRACTOR, ARE TO BE REVIEWED AND APPROVED BY THE DESIGNING ENGINEER PRIOR TO USE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING WORK AREAS.
- ALL DEMOLITION SHALL BE IN AN ACCEPTABLE MANNER UNDER THE OCCUPATIONAL HEALTH AND SAFETY REGULATIONS 2009. ALL SURPLUS MATERIAL SHALL BE DISPOSED OF OFF SITE IN A LEGAL MANNER.

CONCRETE

- CONCRETE SHALL COMPLY WITH THE FOLLOWING SPECIFICATION:
 - MINIMUM CONCRETE COVER TO REINFORCEMENT CONCRETE SPRAY LAYER
EXTERNAL FACE = 40mm. [1 1/2"]
 - MINIMUM CONCRETE STRENGTH AT SERVICE F'c
UNDERMINED AREA MASS INFILL = 28 MPa [4000PSI]
CONCRETE SPRAY PROTECTIVE LAYER = 20 MPa [3000PSI]
- INTERNAL FACES OF THE UNDERMINED AREA SHALL BE PREPARED TO ALLOW FOR CLEAR FLOW OF CONCRETE TO FILL ALL AREAS AND PREVENT FORMATION OF INTERNAL VOIDS
- ALL FORMWORK, SHORING AND RESHORING SHALL BE THE RESPONSIBILITY OF AND DESIGNED BY THE CONTRACTOR
- CONCRETE MIX DESIGNS TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
- NO ADDITIVES TO BE USED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
- CAST IN ITEMS WITH LESS THAN 25mm COVER TO ATMOSPHERE SHALL BE HOT DIPPED GALVANISED IN ACCORDANCE WITH ASTM A153.
- CONCRETE SHALL BE TESTED FOR SLUMP ON SITE. THE TEST CYLINDERS SHALL BE TAKEN FOR 3, 7 AND 28 DAY STRENGTHS.

EXCAVATION AND EARTHWORKS

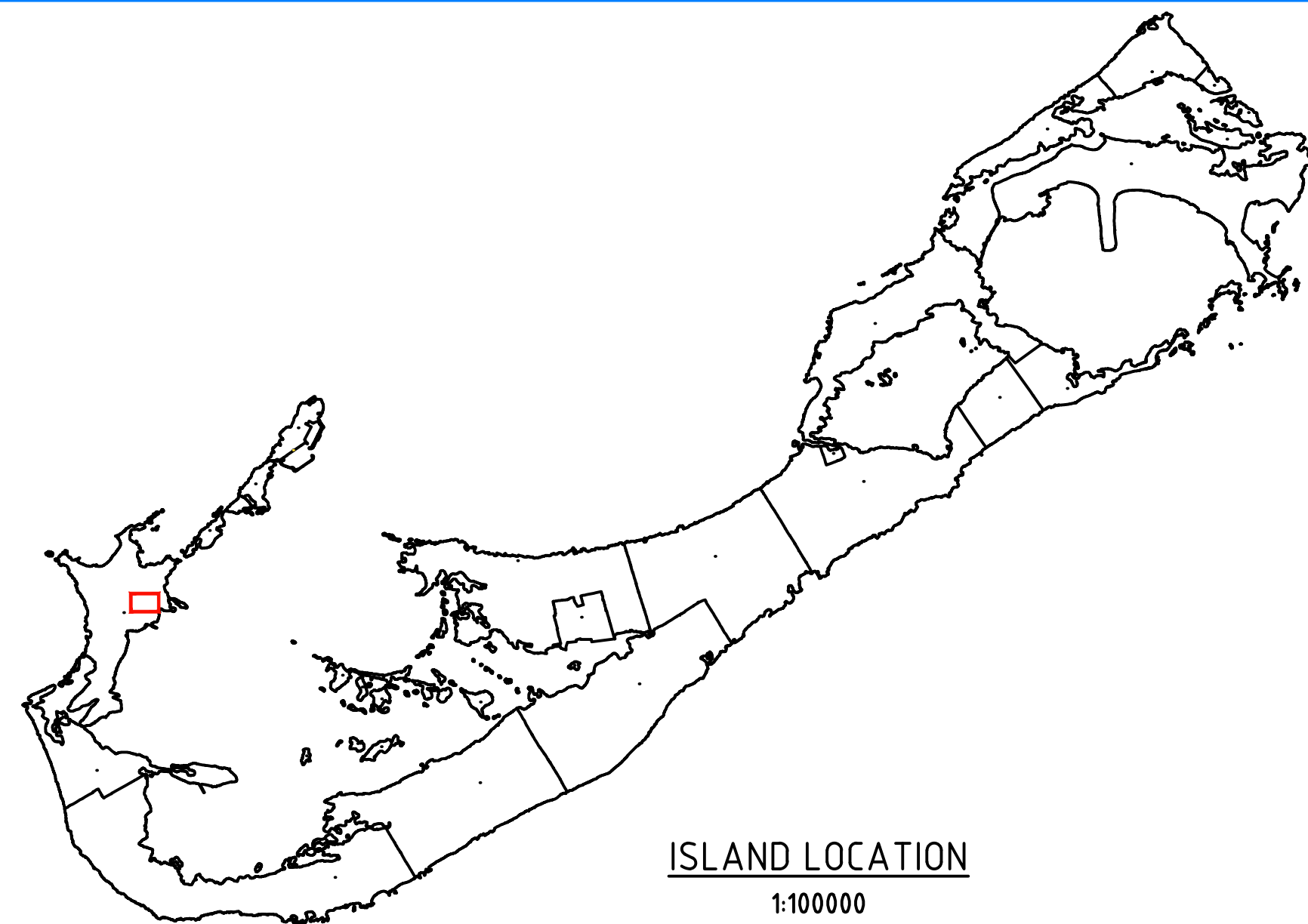
- CONTRACTOR TO TAKE CARE IN EXCAVATION OF ROCK FACE AND IN GENERAL TO NOT CAUSE ADDITIONAL ROCK COLLAPSE
- EXCAVATION BEHIND EXISTING BLOCKWORK WALL TO BE CARRIED OUT BY HAND AND/OR LIGHT TOOLS
- ALL SHORING, SHEETING AND DE-WATERING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR
- THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT ALL EXISTING AND SURROUNDING INFRASTRUCTURE
- ANY SOFT AREAS IN ROCK FACE ARE TO BE SCOURED AND REMOVED. TO BE FILLED WITH SPRAY CONCRETE OF MINIMUM STRENGTH 20 MPa.
- EXISTING VEGETATION WITHIN THE EXTENTS OF THE WORKS ARE TO BE REMOVED BY CUT-STUMP METHOD AND TREATED WITH SYSTEMIC HERBICIDE
- IF UNEXPECTED MECHANICAL, ELECTRICAL OR STRUCTURAL ELEMENTS ARE ENCOUNTERED, THE CONTRACTOR SHALL SUBMIT DETAILS OF SUCH TO THE ENGINEER.

REINFORCEMENT

- WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS. IF SHOWN/PERMITTED, WELDS SHALL DEVELOP THE FULL STRENGTH OF THE REINFORCING ELEMENT.
- ALL REINFORCING STEEL TO HAVE A MINIMUM YIELD STRENGTH OF 410 MPa AND SHALL BE TYPE 2 DEFORMED BARS
- ALL REINFORCING STEEL SHALL BE CLASS II GALVANISED IN ACCORDANCE WITH ASTM A767. TIE WIRE SHALL ALSO BE GALVANISED.
- REINFORCEMENT SPACING NOT SHOWN SHALL BE TAKEN AS EQUAL.
- REINFORCING CHAIRS ARE TO BE CONCRETE AND AS SMALL AS PRACTICABLE. PROPRIETARY PLASTIC COVER SUPPORTS MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
- REINFORCING BARS SHOWN ON THESE DRAWINGS ARE DIAGRAMMATIC ONLY.
- BARS SHOWN MAY REPRESENT MORE THAN ONE LENGTH AND/OR PROFILE.
- BARS MAY NOT BE SHOWN IN TRUE POSITION FOR CLARITY. ALL HOOKS, BENDS AND COGS ARE STANDARD AND SHALL BE IN ACCORDANCE WITH ACI 318 UNLESS NOTED OTHERWISE.
- LAP SPLICES TO ALTERNATE AND NO MORE THAN 50% OF SPLICES SHALL BE IN ANY ONE SECTION.
- BARS SHALL NOT BE CUT NOR BENT ON SITE WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
- BARS SHALL BE BENT COLD BY MACHINE OR OTHER APPROVED MEANS PRODUCING A GRADUAL AND EVEN MOTION. BARS INCORRECTLY BENT SHALL NOT BE RE-BENT AND INCORPORATED IN THE WORKS AND NO REINFORCEMENT SHALL BE BENT WHEN IN POSITION IN THE WORKS, WHETHER OR NOT IT IS PARTIALLY EMBEDDED IN HARDENED CONCRETE.
- CONTRACTOR TO PROVIDE 24 HOURS NOTICE FOR THE INSPECTION OF ALL REINFORCING PRIOR TO POURING CONCRETE.
- LAP LENGTHS SHALL BE AS TABULATED (SHOWN BELOW) UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

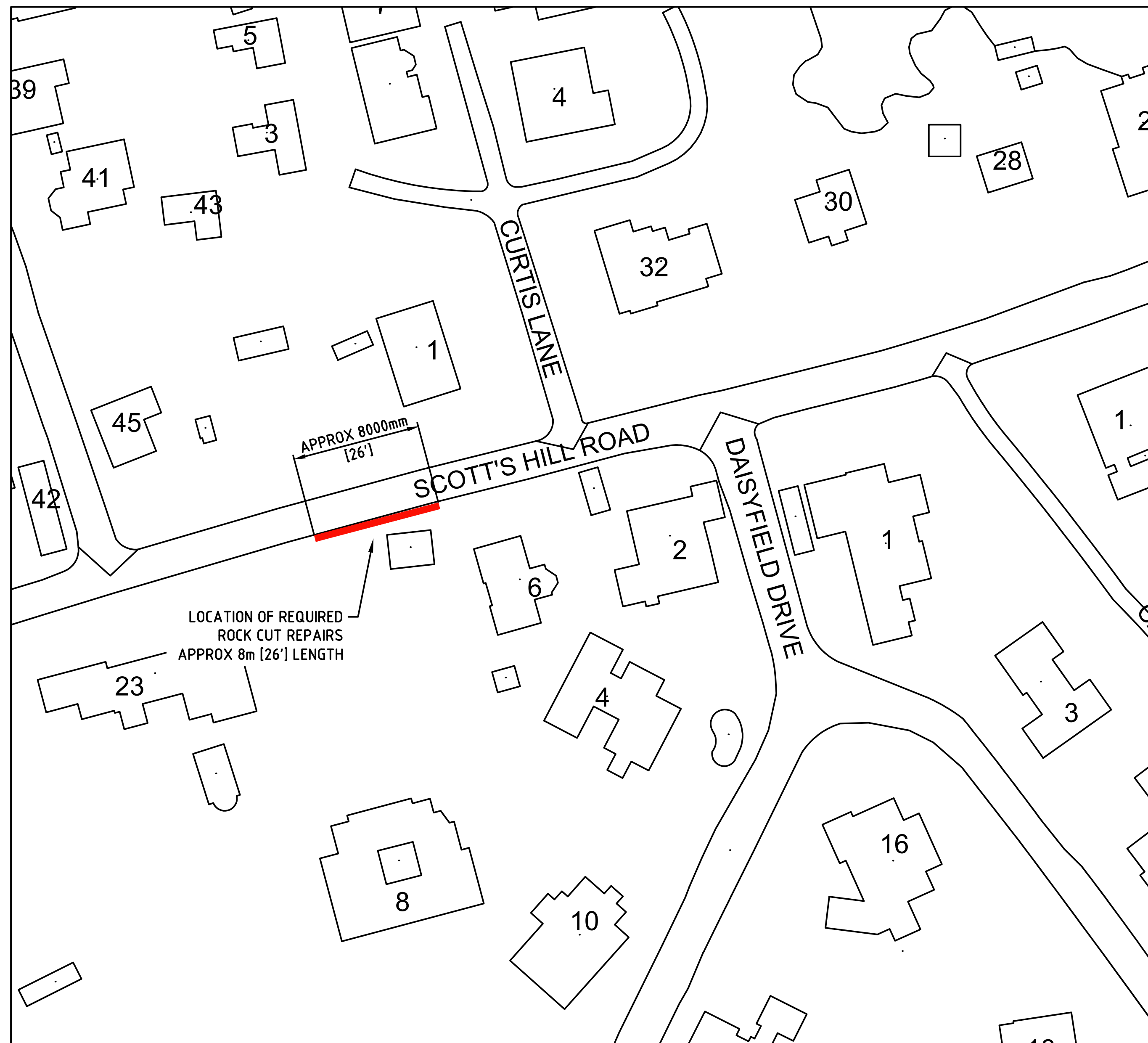
MINIMUM ALLOWABLE LAP LENGTHS	
BAR DIAMETER	MIN LAP LENGTH
T10	460mm [18"]
T12	600mm [24"]
T16	760mm [30"]
T20	900mm [36"]
T25	1500mm [60"]

ALTERNATIVE BAR SIZES		
METRIC BAR SIZE (mm)	IMPERIAL EQUIVALENT (")	FORMER IMPERIAL DESIGNATION
T10	3/8"	#3
T12	1/2"	#4
T16	5/8"	#5
T20	3/4"	#6
T25	1"	#8



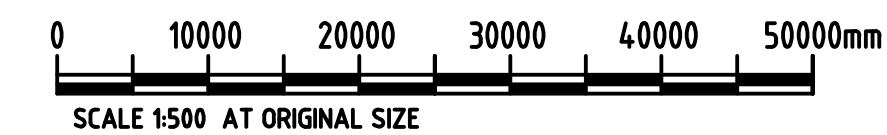
ISLAND LOCATION

1:100000



LOCATION PLAN

1:500



THE MINISTRY OF PUBLIC WORKS

P.O. Box HM525
Hamilton HMCX Bermuda
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DEPARTMENT OF WORKS AND ENGINEERING

Fax: (441) 295-5658

ISSUED FOR: TENDER

AMENDMENTS:

NO	REVISION	BY	APP	DATE
A	FOR TENDER	CF	AK	12/12/23

SCALE: AS SHOWN AT ANSI D

SURVEY PREPARED BY: - DATE: -

DESIGN PREPARED BY: C.FRASER DATE: 11/12/23
CHECKED BY: A.KENNY DATE: 12/12/23

DRAWING PREPARED BY: C.FRASER DATE: 11/12/23
CHECKED BY: A.KENNY DATE: 12/12/23

APPROVED BY: A.KENNY DATE: 12/12/23

PROJECT NUMBER: 41-107-100

PROJECT NAME:

SCOTTS HILL ROAD ROCK CUT REPAIRS

SCOTTS HILL ROAD SANDY'S

SHEET TITLE: **LOCATION PLAN & GENERAL NOTES**

SHEET NUMBER: S000 REVISION: A

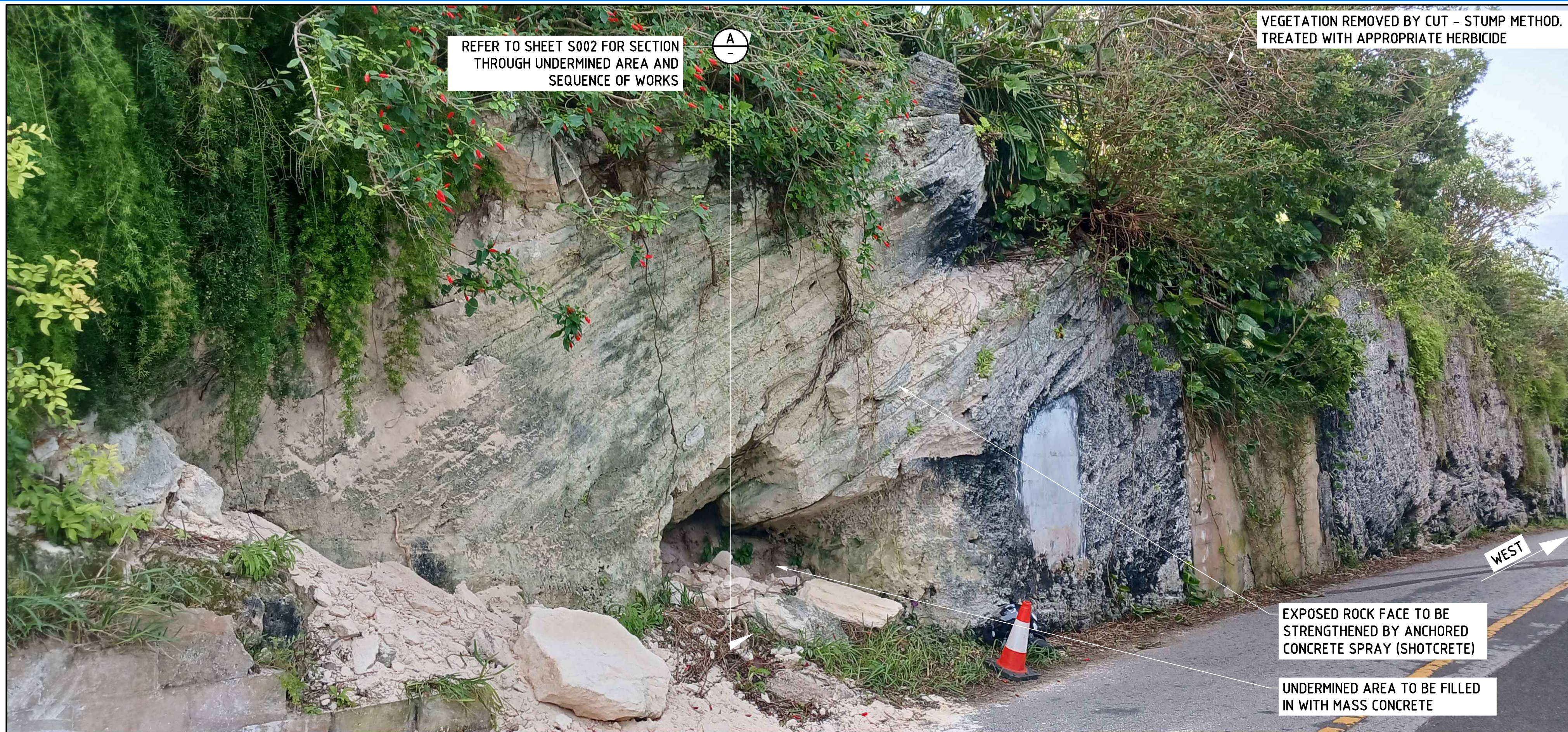
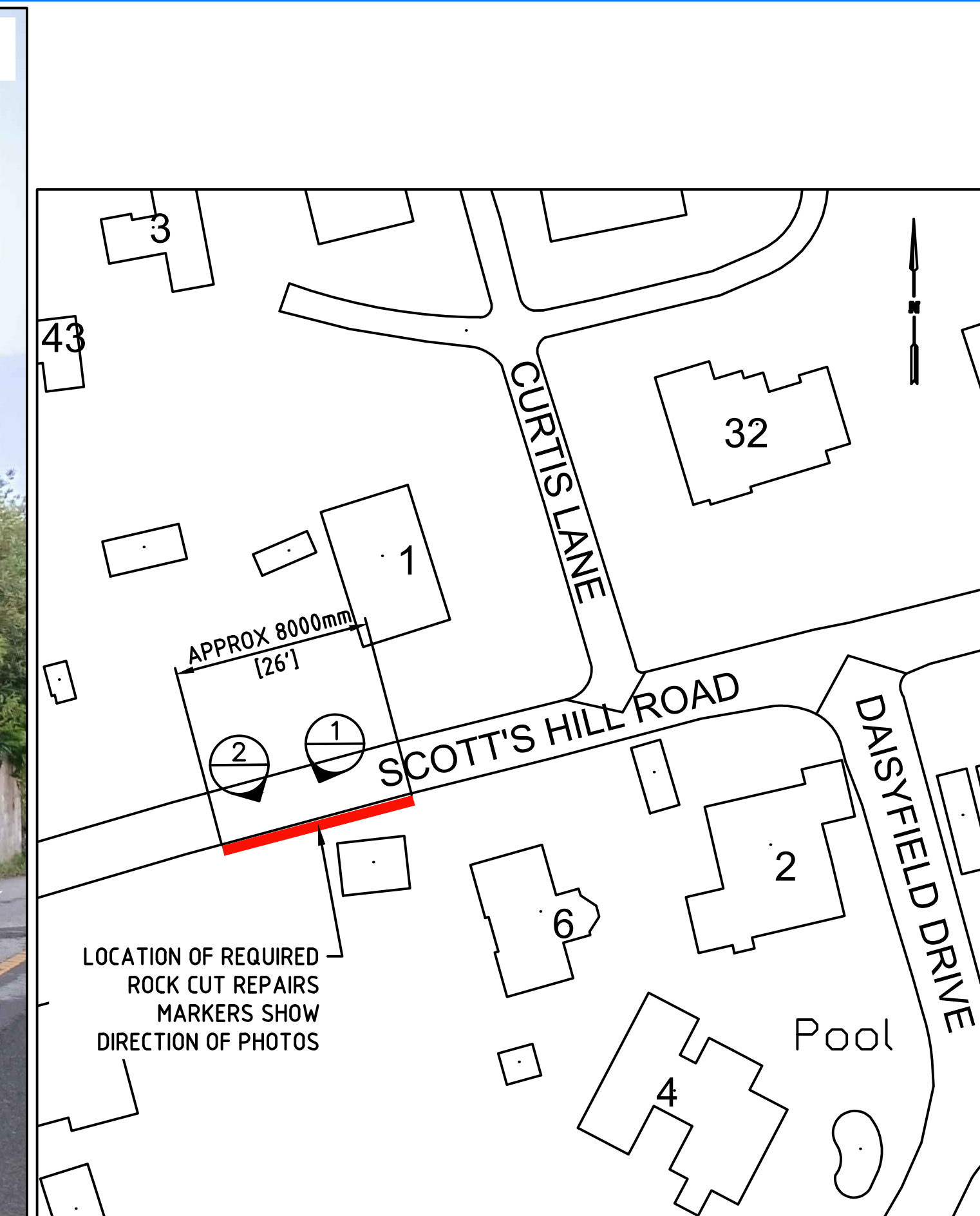


FIGURE 1



LOCATION PLAN
1:500

THE MINISTRY OF
PUBLIC WORKS

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PROJECT NUMBER:
41-107-100

PROJECT NAME:
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ROCK CUT REPAIRS**

SCOTT'S HILL ROAD
SANDY'S

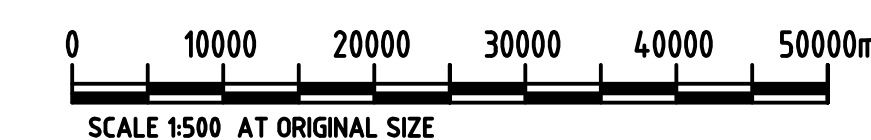
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SITE DESCRIPTION

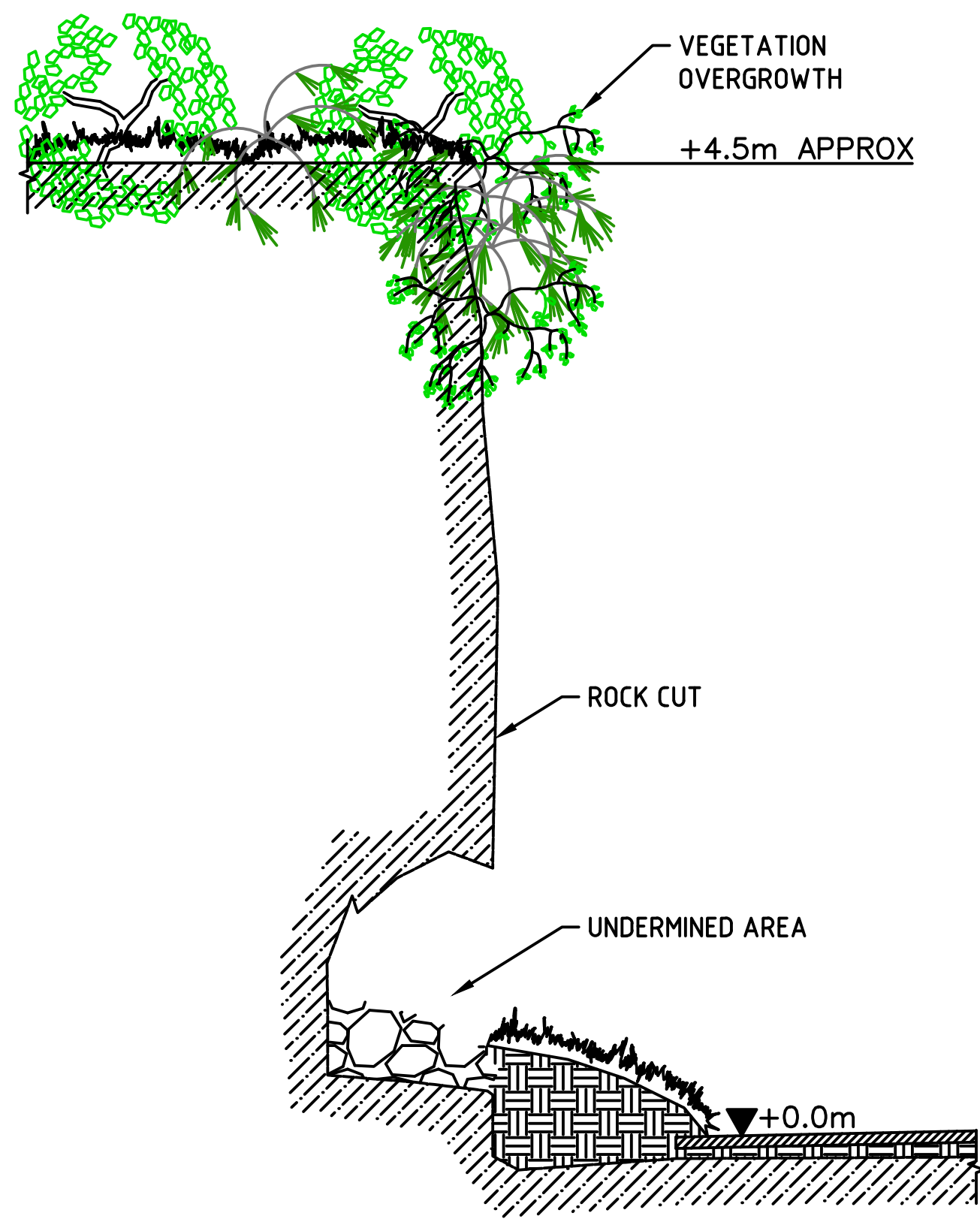
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REVISION
A

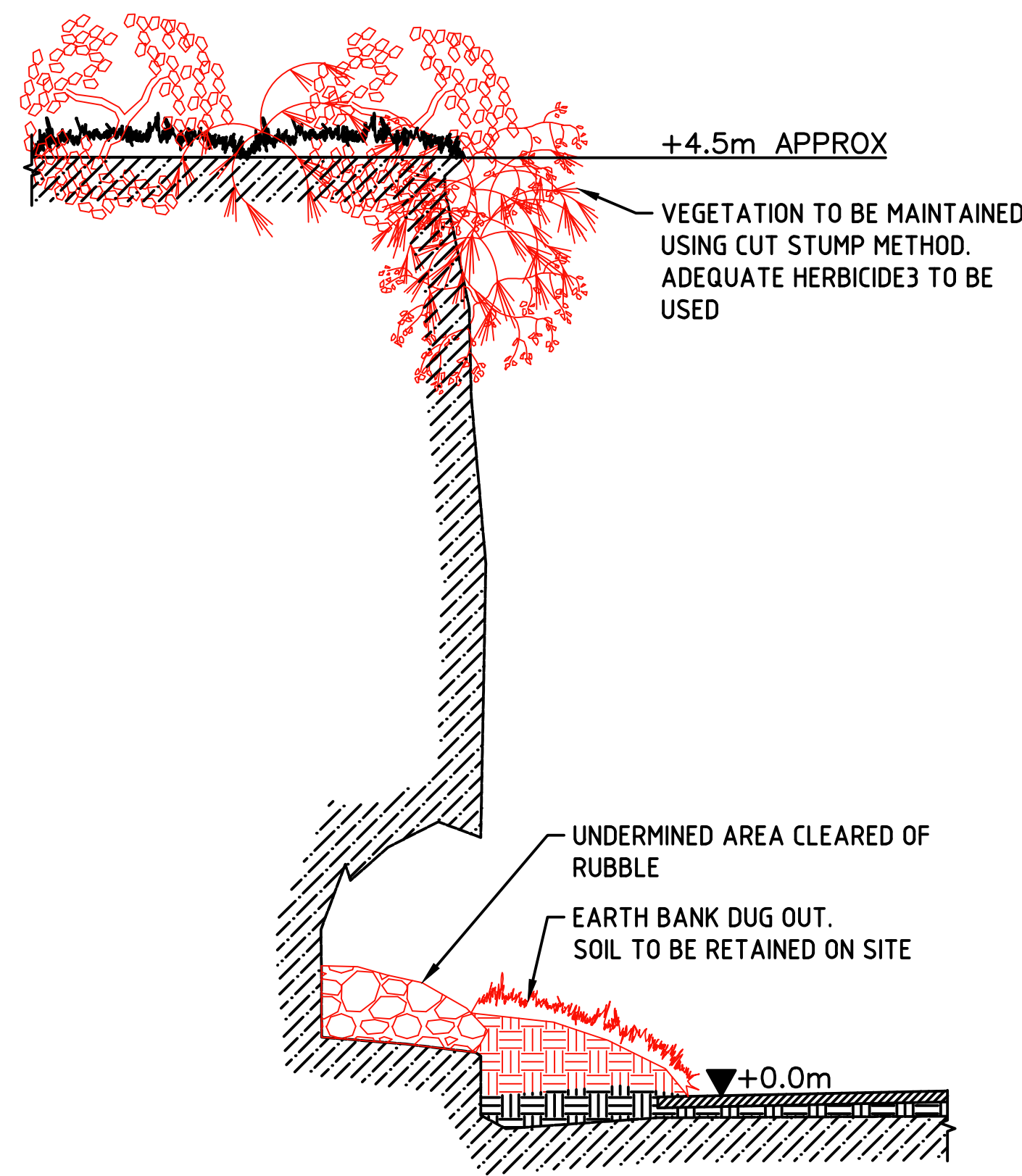


FIGURE 2

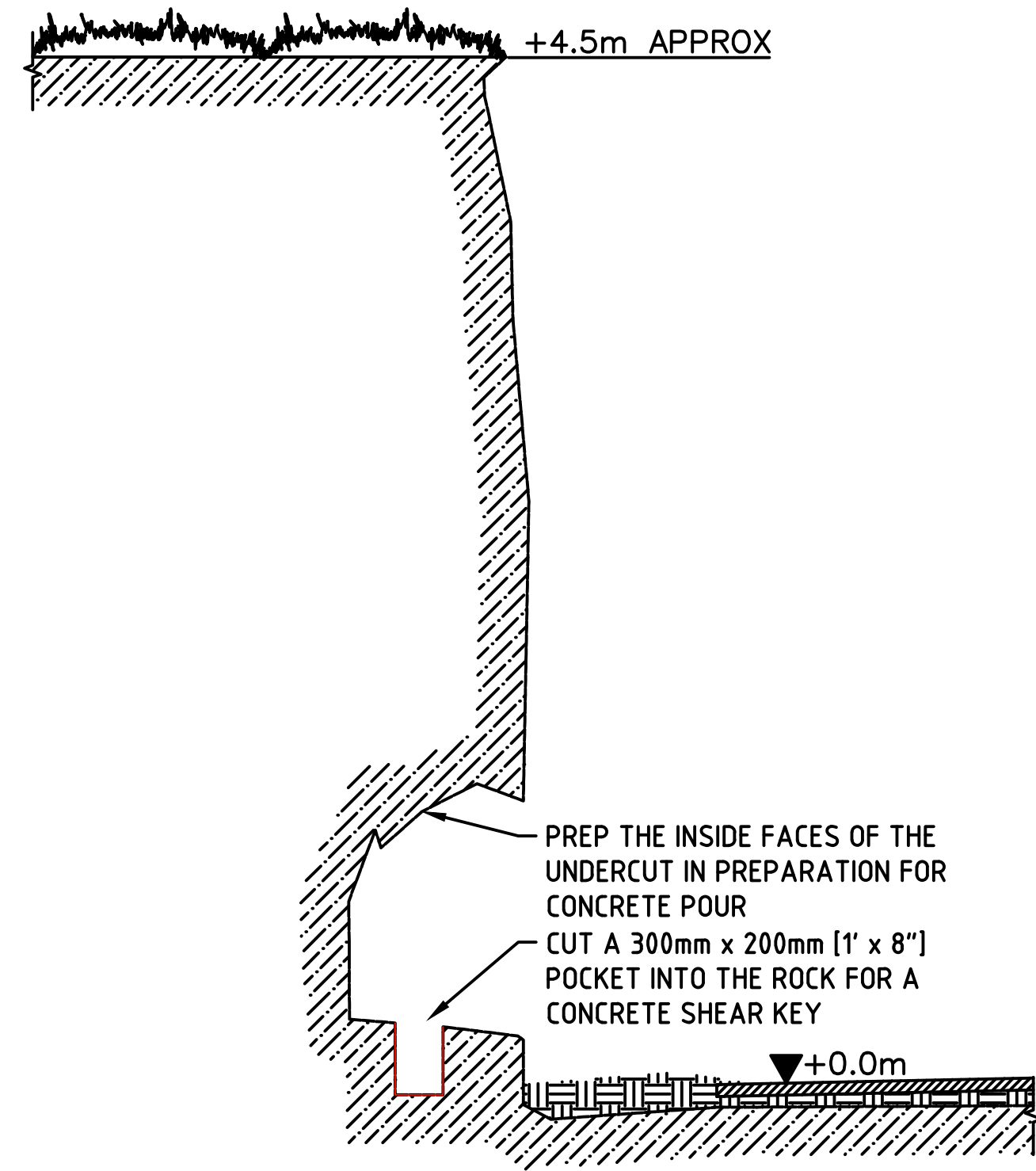




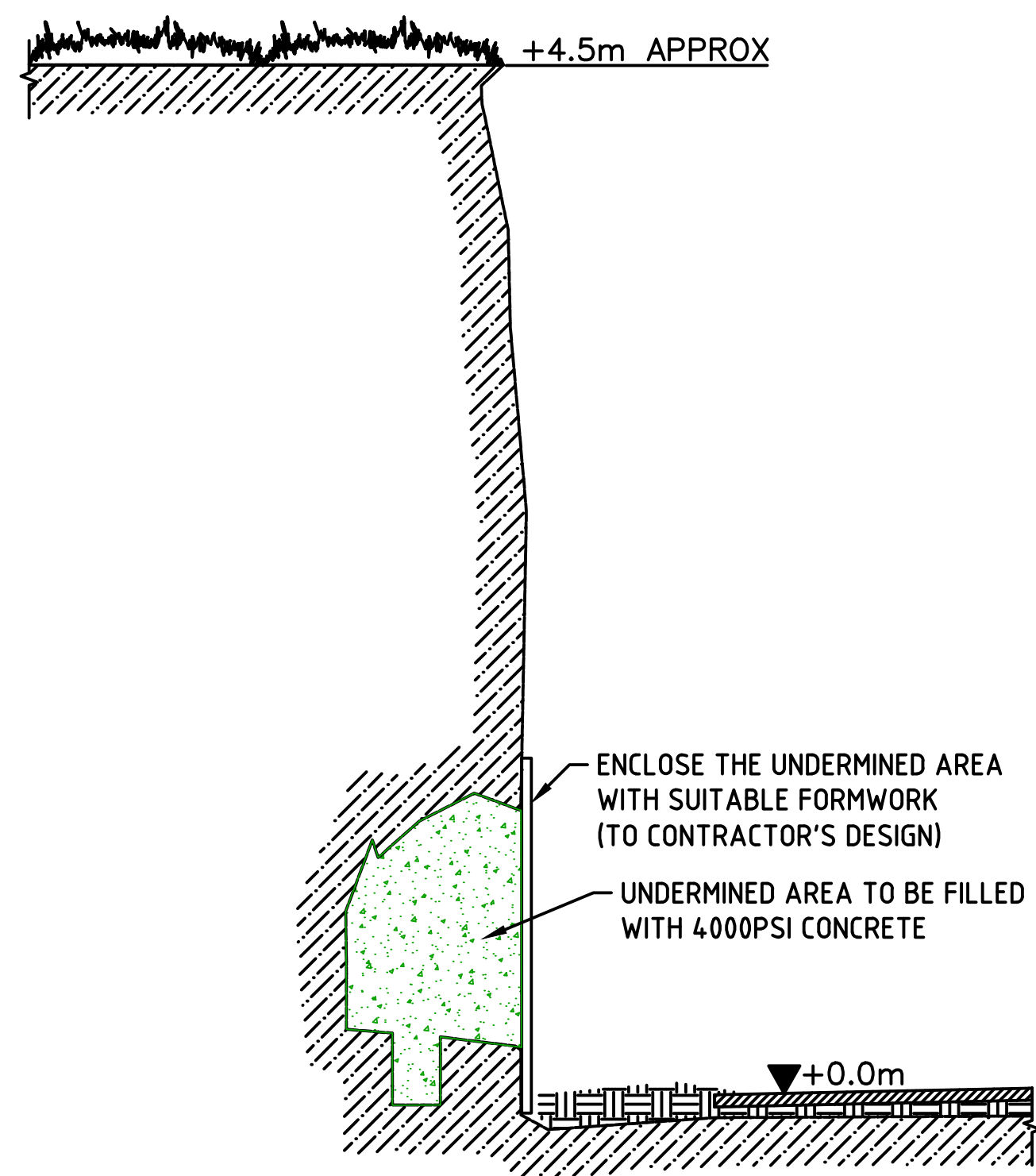
**UNDERMINED ROCK CUT
EXISTING CONDITION**
1:25



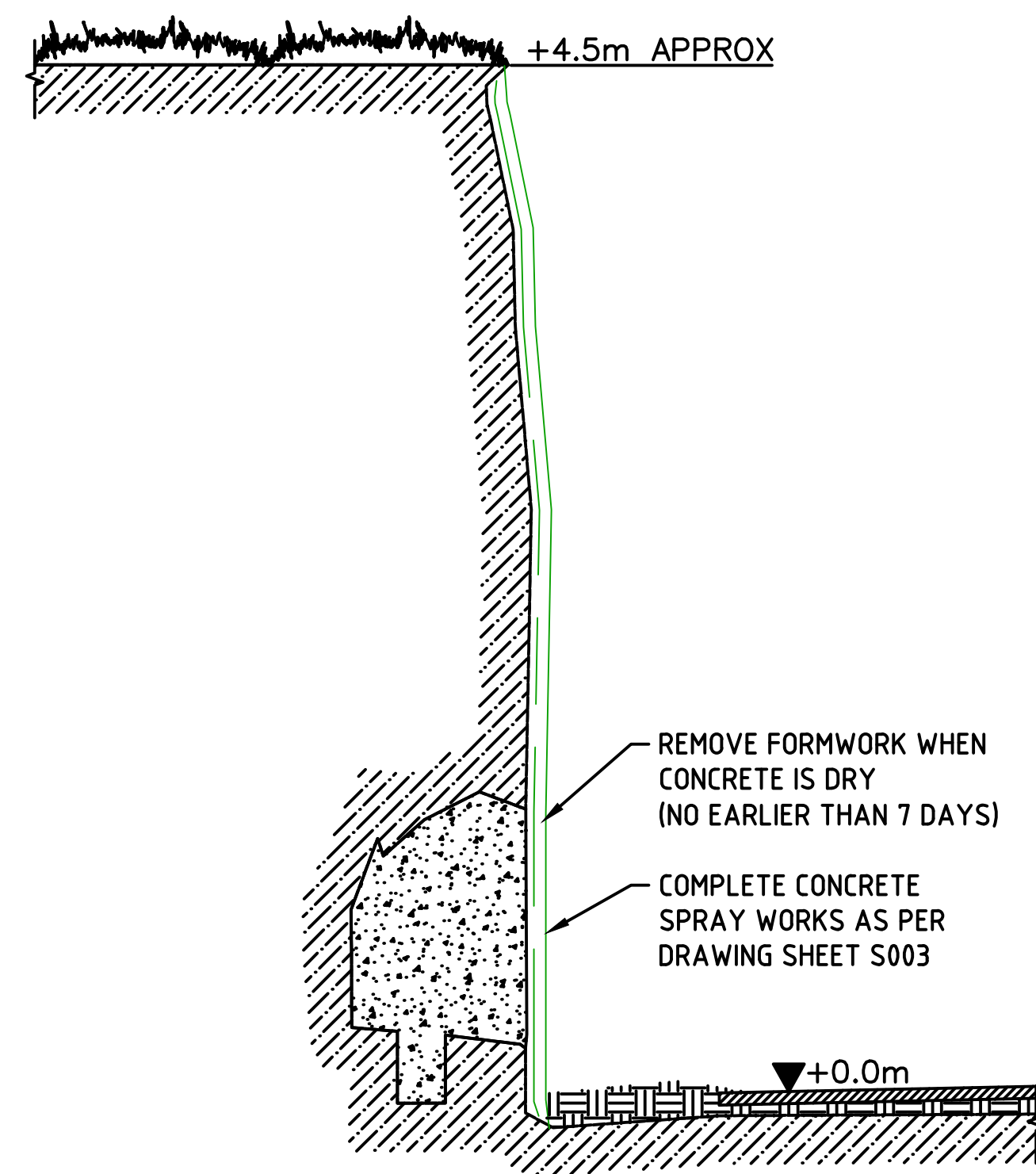
**UNDERMINED ROCK CUT
STEP 1**
1:25



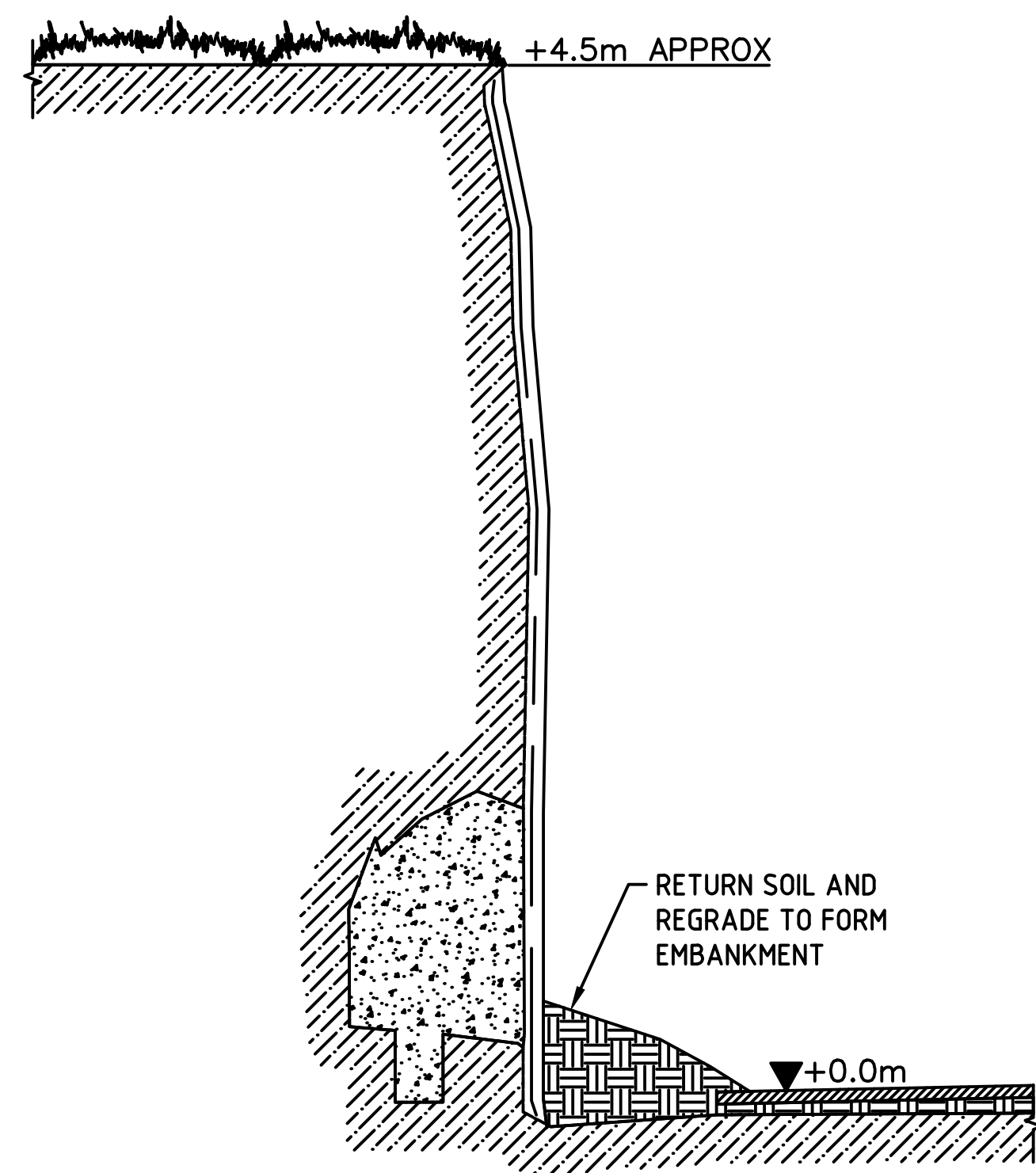
**UNDERMINED ROCK CUT
STEP 2**
1:25



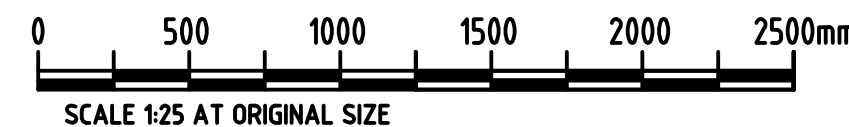
**UNDERMINED ROCK CUT
STEP 3**
1:25



**UNDERMINED ROCK CUT
STEP 4**
1:25



**UNDERMINED ROCK CUT
STEP 5**
1:25



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SURVEY

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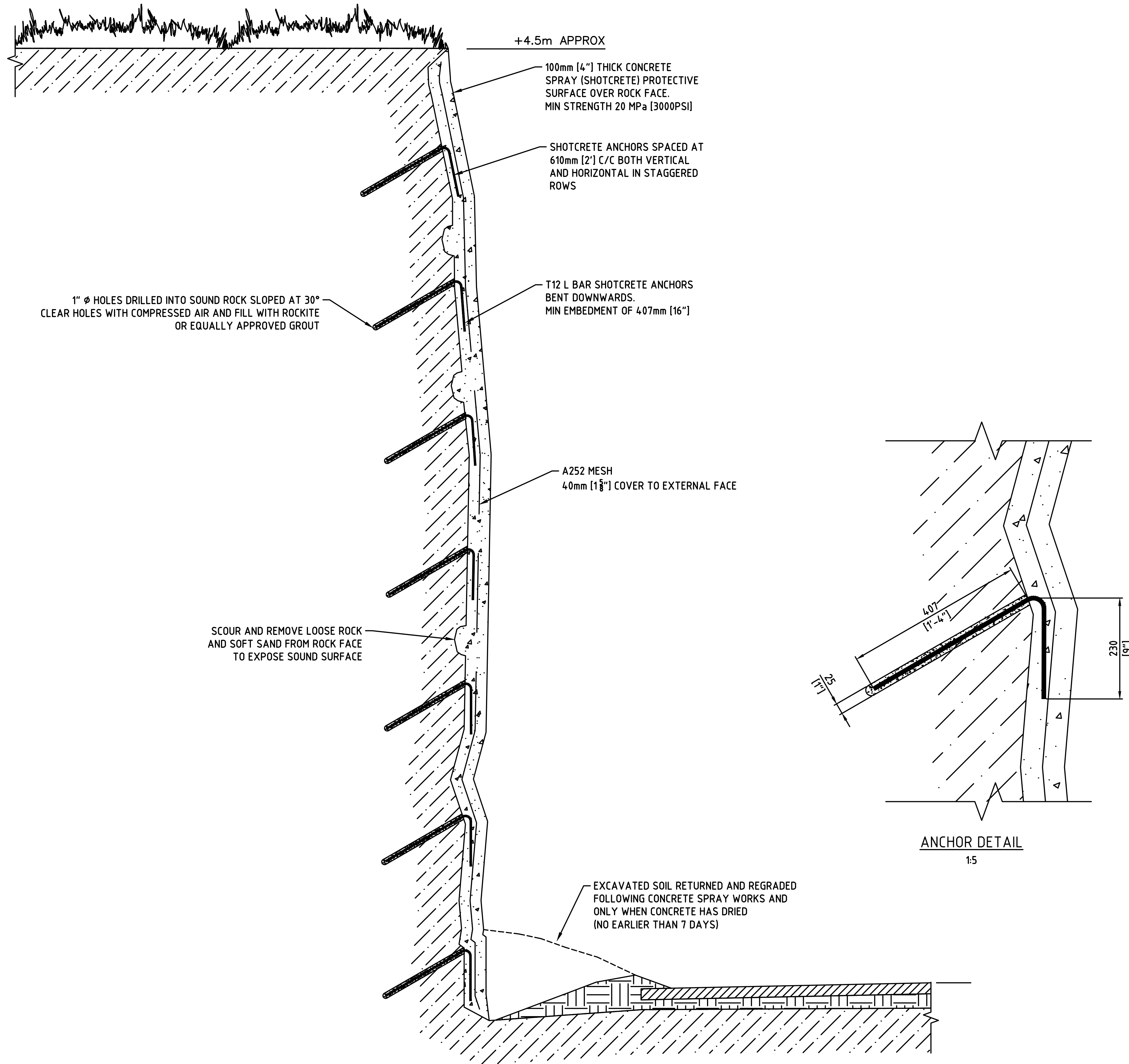
PROJECT NUMBER:
41-107-100

PROJECT NAME:
**SCOTTS HILL ROAD
ROCK CUT REPAIRS**

SCOTTS HILL ROAD
SANDY'S

SHEET TITLE:
**CONSTRUCTION
SEQUENCE**

SHEET NUMBER: **S002** REVISION: **A**



ISSUED FOR: TENDER

AMENDMENTS:

NO	REVISION	BY	APP	DATE
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SURVEY
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DESIGN
PREPARED BY: C.FRASER DATE: 11/12/23
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DRAWING
PREPARED BY: C.FRASER DATE: 11/12/23
CHECKED BY: A.KENNY DATE: 12/12/23

APPROVED BY: A.KENNY DATE: 12/12/23

PROJECT NUMBER:
41-107-100

PROJECT NAME:
**SCOTT'S HILL ROAD
ROCK CUT REPAIRS**

**SCOTT'S HILL ROAD
SANDY'S**

SHEET TITLE:
**CONCRETE SPRAY
STRENGTHENING WORKS**

SHEET NUMBER: **S003** REVISION: **A**



CONCRETE SPRAY
PROTECTIVE COAT
1:10

ANCHOR DETAIL
1:5