Appendix A. Flood Alleviation Scheme Construction Drawings

Document Issue Sheet

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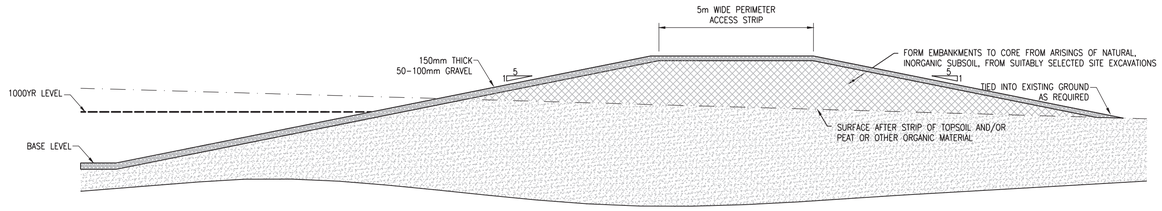
Project 22396 - Global Fort Augustus SUDS
Issue No 028
Date 18 Aug 2022
Issued By Holly Robertson (McGregor McMahon Consulting Engineers
Notes Drawings 121-147 amended to as built

Documents

Title	Description	Version	Media	Size	Copies	Issue Reason
22396-121 Border	Formation of SUDS Basin East	02	Email	-	0	As Built
22396-122 Border	SUDS Basin Setting Out	02	Email	-	0	As Built
22396-131 Border	Realigned Water Course 3 Sections	02	Email	-	0	As Built
22396-140 Border	Outflow Control Culvert with Bund	02	Email	-	0	As Built
22396-141 Border	Flood Mitigation Bund Details	02	Email	-	0	As Built
22396-142 Border	Overflow Control Culvert Inlet / Outlet & Section Details	02	Email	-	0	As Built
22396-143 Border	Spillway Apron & Reno Mattress Details	02	Email	-	0	As Built
22396-145 Border	Upstream Culvert General Arrangement Plan	02	Email	-	0	As Built
22396-146 Border	Upstream Culvert RC Culvert & Inlet Details	02	Email	-	0	As Built
22396-147 Border	Upstream Culvert, Watercourse Sections & Details	02	Email	-	0	As Built

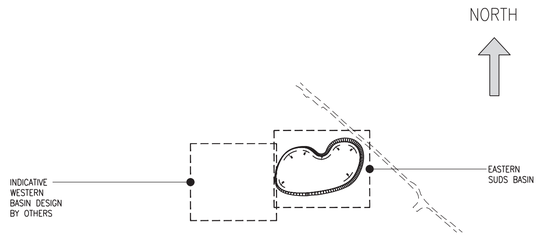
Recipients

Recipient Name	Role
Craig Robb (Global Infrastructure (Scotland) Ltd)	



TYPICAL SECTION THROUGH FILL EMBANKMENT TO SUDS BASINS

SCALE 1:100



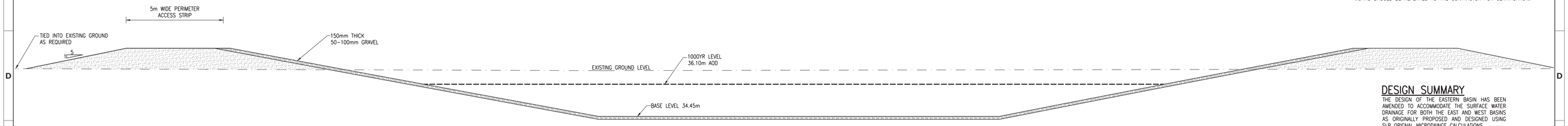
KEY SITE PLAN

SCALE 1:5000

AS BUILT DRAWING ISSUE

THE AS BUILT INFORMATION ON THIS DRAWING WAS SUPPLIED BY GLOBAL UNDER COVER OF AN EMAIL DATED 05.07.22.

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SECTION G-G - EASTERN SUDS BASIN

SCALE 1:100

DESIGN SUMMARY

THE DESIGN OF THE EASTERN BASIN HAS BEEN AMENDED TO ACCOMMODATE THE SURFACE WATER DRAINAGE FOR BOTH THE EAST AND WEST BASINS AS ORIGINALLY PROPOSED AND DESIGNED USING SLR ORIGNAL MICRODAINGE CALCULATIONS.

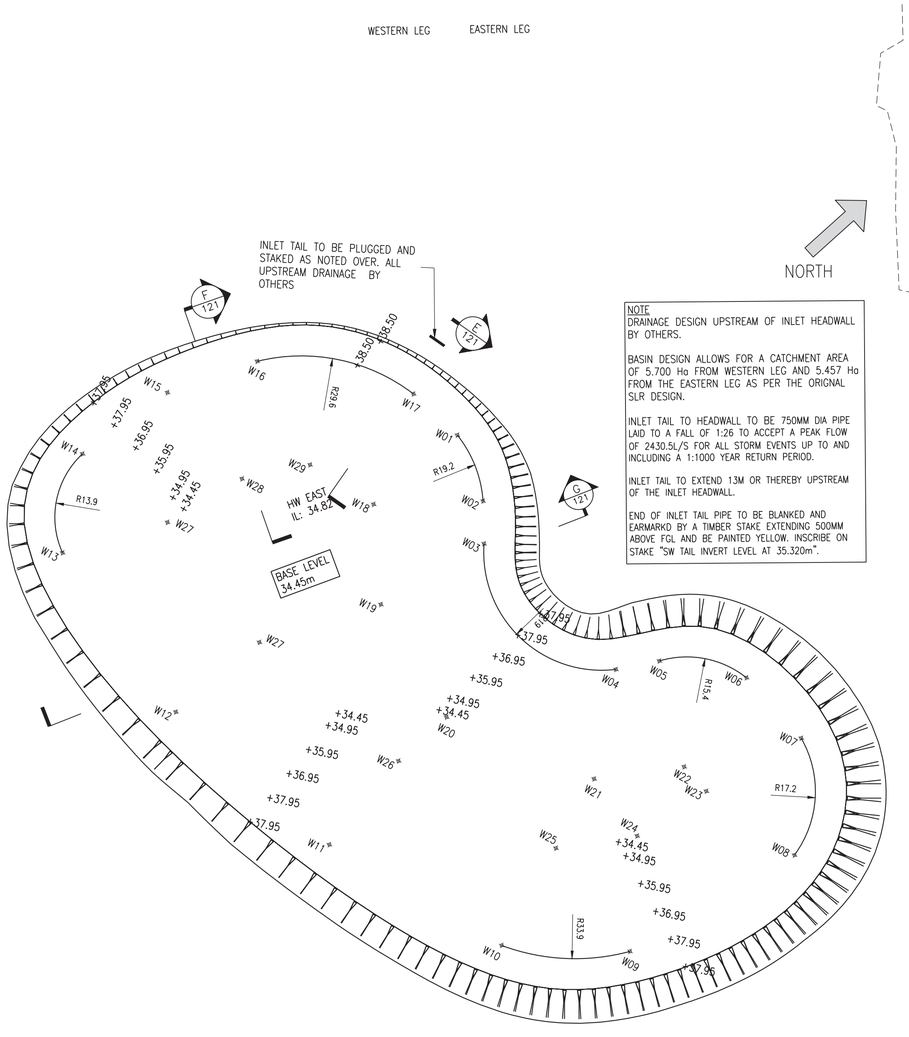
THE PERCOLATION RATE USED IS AS PER THAT NOTED FOR THE EAST BASIN WITHIN THE ORIGNAL SLR MICRODRAINAGE CALCULATIONS.

ACCORDINGLY, NO LIABILITY IS ASSUMED WHATSOEVER FOR ANY ERROR AND/OR OMISSION ARSING FROM THE RELIANCE OF SUCH DATA PROVIDED BY OTHERS.

THE ANALYSIS AND DESIGN OF THE AMENDED BASIN UTILISED THE CAUSEWAY MODELLING SOFTWARE. A COPY OF THE CALCULATIONS HAVE BEEN PROVIDED WITHIN THE ASSOCIATED REPORT REFERENCED 22396 AND ENTITLED "SURFACE WATER DRAINAGE REPORT"

NOTES

REFER TO DRAWING 22396/141/- FOR GENERAL NOTES AND EARTHWORKS SPECIFICATION



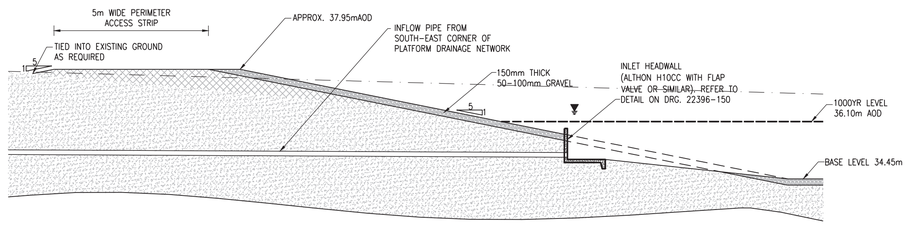
NOTE
DRAINAGE DESIGN UPSTREAM OF INLET HEADWALL BY OTHERS.

BASIN DESIGN ALLOWS FOR A CATCHMENT AREA OF 5.700 Ha FROM WESTERN LEG AND 5.457 Ha FROM THE EASTERN LEG AS PER THE ORIGNAL SLR DESIGN.

INLET TAIL TO HEADWALL TO BE 750MM DIA PIPE LAID TO A FALL OF 1:26 TO ACCEPT A PEAK FLOW OF 2430.5L/S FOR ALL STORM EVENTS UP TO AND INCLUDING A 1:1000 YEAR RETURN PERIOD.

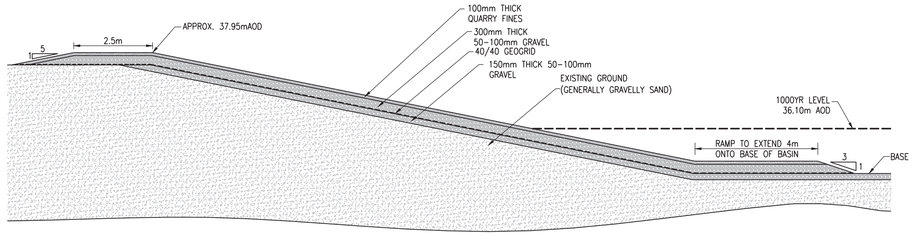
INLET TAIL TO EXTEND 13M OR THEREBY UPSTREAM OF THE INLET HEADWALL.

END OF INLET TAIL PIPE TO BE BLANKED AND EARMARKD BY A TIMBER STAKE EXTENDING 500MM ABOVE FGL AND BE PAINTED YELLOW. INSCRIBE ON STAKE "SW TAIL INVERT LEVEL AT 35.320m".



SECTION E-E - EASTERN SUDS BASIN

SCALE 1:100



SECTION F-F - EASTERN SUDS BASIN (RAMP)

SCALE 1:100



HW 200 LARGE PRECAST CONCRETE HEADWALL BY FP McCANN

1. ALL HEADWALLS SHALL BE MANUFACTURED AS A MONOLITHIC PRECAST UNIT
2. ALL HEADWALLS SHALL BE MANUFACTURED TO A QUALITY MANAGEMENT SYSTEM ACCREDITED TO ISO 9001:2008 WITH ALL CONSTITUENT PRODUCTS SUBJECT TO REGULAR QUALITY INSPECTION.
3. ALL HEADWALLS SHALL BE MANUFACTURED TO MINIMUM STRUCTURAL CLASSES XD2.
4. FOR PIPES BETWEEN GREATER THAN 450MM DIAMETER, BUT LESS THAN 900MM DIAMETER, USE FPMCCANN HW200 LARGE HEADWALLS OR SIMILAR AND EQUAL APPROVED.

OUTLINE METHOD STATEMENT

ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION RECOMMENDATIONS. THE FOLLOWING IS AN INDICATIVE METHOD STATEMENT AND NO LIABILITY CAN BE ASSUMED BY MCGREGOR MCMAHON FOR ITS RELIANCE DURING CONSTRUCTION.

1. CUT AND INSTALL THE LAST SECTION OF PIPE THAT THE HEADWALL WILL COVER. ENSURE THAT THE PIPE IS FULLY FITTED LEAVING EITHER THE FIRST (OR LAST) SECTION OF PIPE FREE FROM BACKFILL TO ATTACH TO THE HEADWALL.
1. EXCAVATE TO FORMATION LEVEL, PLACE AND COMPACT A 300MM BED OF 50MM CLEAN DRAINAGE STONE OR SIMILAR FREE DRAINING AGGREGATE.
2. PLACE THE HEADWALL UNIT ONTO THE BEDDED SURFACE AND SUCH THAT THE HEADWALL IS ALIGNED WITH THE CENTRE OF THE PIPE.
3. INSTALL THE HEADWALL ONTO THE END OF THE PIPELINE.
4. USING A CEMENT GROUT SUITABLE FOR USE UNDER WATER, OR AN EPOXY RESIN, FILL IN THE VOID BETWEEN THE REINFORCED CONCRETE HEADWALL AND THE PIPE TO ENSURE ENSURE A FIRM FIT.
5. BACKFILL THE PIPE SECTION BETWEEN THE HEADWALL AND EMBANKMENT WITH 300MM SURROUND OF 50MM OR SIMILAR FREE DRAINAGE AGGREGATE

HEALTH AND SAFETY

THE DESIGN HAS HIGHLIGHTED ONLY COMMON HAZARDS, WHICH ARE CONSIDERED TO BE WITHIN THE NORMAL EXPERIENCE OF A COMPETENT CONTRACTOR.

ISSUE	02	REMARKS:
DATE	11/08/22	DRAWING STATUS AMENDED TO AS BUILT AS PER EMAIL FROM GLOBAL (ROBB/HENDERSON) DATED 05.07.22
DRAWN	HR	
CHKD 1	IH	
APPD	IH	
ISSUE	01	REMARKS:
DATE	21/09/20	FIRST ISSUE
DRAWN	CW	
CHKD 1	IH	
APPD	IH	

BIM CODE:

CIRCUIT:

Scottish & Southern Electricity Networks

(CLIENT) DRAWING NUMBER: 0039-FAUG400KV-DET-0804-1022-01	FORMAT: ACAD
(CLIENT) CONTRACT NUMBER: 35222	SIZE: A1

TITLE:

FORMATION OF SUDS BASIN EAST

DATE	21/02/2020	CHKD	IH
DRAWN	CW	APPD	IH

SITE: GLOBAL INFRASTRUCTURE
FORT AUGUSTUS SUBSTATION
SUDS / FLOODING MITIGATION

PROJECT CODE:

C:\Users\williamsc\Desktop\Temp files\Apply to Local Microsoft Windows\Web\Clients\Outlook\WSSCP\Drifts Logo Stacked.png

SCALE: AS SHOWN | SHEET: 1 OF _

DRAWING No. 22396-121 | ISSUE: 02

Scottish & Southern Electricity Networks

DRAWING STATUS : AS BUILT

SSEN CONTRACT NUMBER	35222	
SSEN MDR NUMBER	0039-FAUG400KV-DET-0804-1022-01	
SSEN REVISION	DATE	HISTORY
01	21/09/20	FIRST ISSUE
02	11/08/22	DRAWING STATUS AMENDED TO AS BUILT

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EAST BASIN SETTING OUT		
REF	EASTING	NORTHING
001-01	329971.3718	694873.1005
001-02	329978.9668	694873.1005
001-03	329978.9668	694864.2705
001-04	329971.3718	694864.2705
002-01	329960.1200	694871.0486
002-02	329967.2070	694871.0485
002-03	329967.2070	694861.2706
002-04	329960.1200	694861.2706
003-01	329956.8411	694880.2526
003-02	329965.6945	694881.8137
003-03	329964.7689	694887.0610
003-04	329955.9164	694885.4967
004-01	329963.8652	694892.1586
004-02	329955.0169	694890.5963
005-01	329962.9405	694897.4027
005-02	329954.0871	694895.8416
006-01	329962.5645	694899.5649
006-02	329953.7111	694898.0038
006-03	329961.6389	694904.8122
006-04	329952.7864	694903.2458
007-01	329960.7372	694909.9102
007-02	329951.8840	694908.3470
008-01	329959.8356	694915.0060
008-02	329950.9819	694913.4427
009-01	329958.9109	694920.2501
009-02	329950.0575	694918.6890
010-01	329958.1975	694922.3583
010-02	329949.6759	694920.8558
010-03	329957.1844	694928.1035
010-04	329948.6629	694926.6010

TOPOGRAPHICAL SURVEY DATED FEBRUARY 2019. THE SURVEY IS ORIENTATED TO ORDNANCE SURVEY NATIONAL GRID PLAN AND HEIGHT DATUM DERIVED FROM THE ORDNANCE SURVEY ACTIVE NETWORK; OSGB36(OSGM15/OSTN15).

AS BUILT DRAWING ISSUE

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DATE	11/08/22	
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CHKD 1	IH	
APPD	IH	
ISSUE	01	REMARKS: FIRST ISSUE
DATE	21/09/20	
DRAWN	CW	
CHKD 1	IH	
APPD	IH	

BIM CODE:

CIRCUIT:

Scottish & Southern Electricity Networks

(CLIENT) DRAWING NUMBER: 0039-FAUG400KV-GA-0804-1023-01	FORMAT: ACAD
(CLIENT) CONTRACT NUMBER: 35222	SIZE: A3

TITLE:

SUDS BASIN SETTING OUT POINTS

DATE	29/01/20	CHKD	IH
DRAWN	CW	APPD	IH

SITE:

GLOBAL INFRASTRUCTURE
FORT AUGUSTUS SUBSTATION
SUDS / FLOODING MITIGATION

PROJECT CODE:

[redacted]

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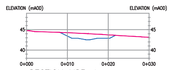
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Scottish & Southern Electricity Networks

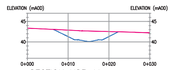
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SSEN MDR NUMBER	0039-FAUG400KV-GA-0804-1023-01	
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01	21/09/20	FIRST ISSUE
02	11/08/22	DRAWING STATUS AMENDED TO AS BUILT

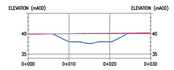
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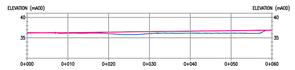
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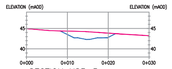
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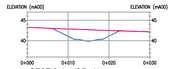
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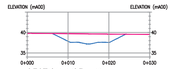
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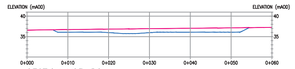
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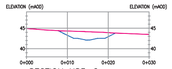
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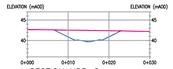
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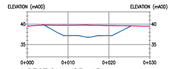
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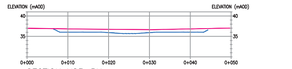
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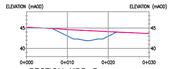
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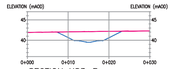
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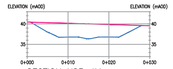
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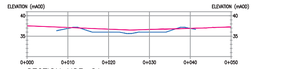
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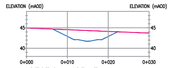
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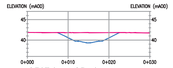
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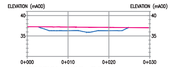
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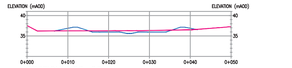
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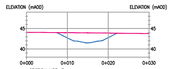
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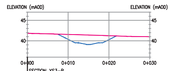
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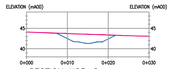
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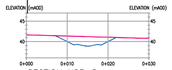
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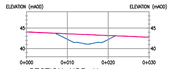
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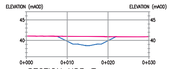
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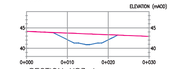
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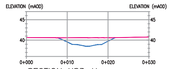
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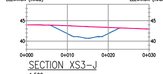
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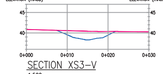
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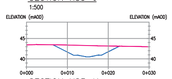
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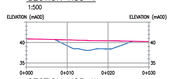
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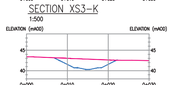
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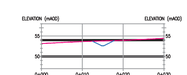
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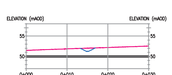
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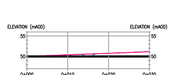
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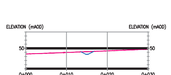
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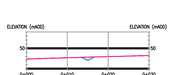
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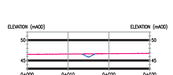
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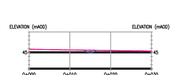
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SECTION XS6–E
1:500



SECTION XS6–F
1:500



SECTION XS6–G
1:500

SECTION XS6–H
1:500

SECTION XS6–I
1:500

SECTION XS6–J
1:500

SECTION XS6–K
1:500

WATERCOURSE 3 CROSS SECTIONS LOW FLOW CHANNEL

WATERCOURSE 3 CROSS SECTIONS

WATERCOURSE 3 LONG SECTION (DOWNSTREAM OF NEW CULVERT D)

1:1000H
1:250V

WATERCOURSE 3 SECTION G–G' (REACH 1)

SCALE 1:100

WATERCOURSE 3 SECTION H–H' (REACH 2)

SCALE 1:100

WATERCOURSE 3 SECTION I–I' (REACH 3)

SCALE 1:100

WATERCOURSE 3 SECTION I–I'

SCALE 1:100

LEGEND

- PROPOSED GROUND LEVELS
- EXISTING GROUND LEVEL

AS BUILT DRAWING ISSUE

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HEALTH AND SAFETY

THE DESIGN HAS HIGHLIGHTED ONLY COMMON HAZARDS, WHICH ARE CONSIDERED TO BE WITHIN THE NORMAL EXPERIENCE OF A COMPETENT CONTRACTOR.

ISSUE	02	REMARKS: DRAWING STATUS AMENDED TO AS BUILT AS PER EMAIL FROM GLOBAL (ROBINHENDERSON) DATED 05.07.22
DATE	11/08/22	
DRAWN	HR	
CHKD 1	IH	
APPD	IH	
ISSUE	01	REMARKS: FIRST ISSUE
DATE	21/09/20	
DRAWN	CW	
CHKD 1	IH	
APPD	IH	
BIM CODE:		
CIRCUIT:		

Scottish & Southern Electricity Networks

(CLIENT) DRAWING NUMBER: 0039-FAUG400KV-DET-0804-1025-01	FORMAT: ACAD
(CLIENT) CONTRACT NUMBER: 35222	SIZE: A0

TITLE:

REALIGNED WATER COURSE 3 SECTIONS

DATE	03/02/2020	CHKD	IH
DRAWN	CW	APPD	IH

SITE:
GLOBAL INFRASTRUCTURE
FORT AUGUSTUS SUBSTATION
SUDS / FLOODING MITIGATION

PROJECT CODE:

SCALE: 1:1000 | SHEET: 1 OF 1

DRAWING No. 22329-131 | ISSUE: 02

Scottish & Southern Electricity Networks

DRAWING STATUS :	AS BUILT	
SSEN CONTRACT NUMBER	35222	
SSEN WORK NUMBER	0039-FAUG400KV-DET-0804-1025-01	
SSEN REVISION	DATE	HISTORY
01	21/09/20	FIRST ISSUE
02	11/08/22	DRAWING STATUS AMENDED TO AS BUILT

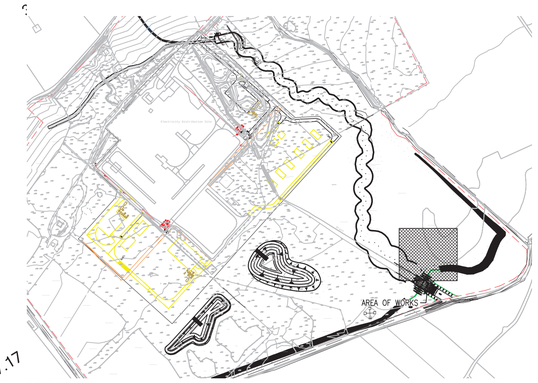
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KEY	
SYMBOL	DESCRIPTION
37.11	EXISTING GROUND LEVEL
38.023m ✦	PROPOSED GROUND LEVEL
	DENOTES GROUND FALL (MAXIMUM 1:3)
	SITE BOUNDARY

AS BUILT DRAWING ISSUE

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SITE PLAN
SCALE1:5000

ISSUE	02	REMARKS:	DRAWING STATUS AMENDED TO AS BUILT AS PER EMAIL FROM GLOBAL (ROBB/HENDERSON) DATED 05.07.22
DATE	11/08/22		
DRAWN	HR		
CHKD 1	IH		
APPD	IH		
ISSUE	01	REMARKS:	FIRST ISSUE
DATE	21/09/20		
DRAWN	CW		
CHKD 1	IH		
APPD	IH		

BIM CODE:

CIRCUIT:

Scottish & Southern Electricity Networks

(CLIENT) DRAWING NUMBER: 0039-FAUG400KV-DET-0804-1027-01	FORMAT: ACAD
(CLIENT) CONTRACT NUMBER: 35222	SIZE: A1

TITLE:

FLOOD MITIGATION OUTFLOW CONTROL CULVERT WITH BUND

DATE	10/04/2020	CHKD	IH
DRAWN	JW	APPD	IH

SITE: GLOBAL INFRASTRUCTURE FORT AUGUSTUS SUBSTATION SUDS / FLOODING MITIGATION

PROJECT CODE:

SCALE: 1:100 | SHEET: 1 OF _

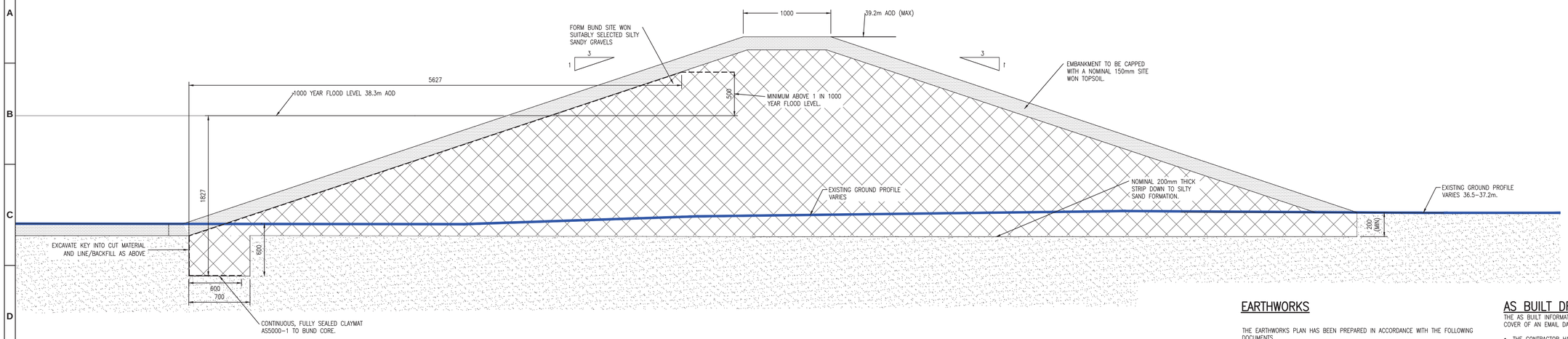
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Scottish & Southern Electricity Networks

DRAWING STATUS : AS BUILT

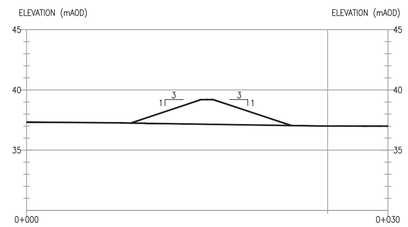
SSEN CONTRACT NUMBER		35222
SSEN MDR NUMBER		0039-FAUG400KV-DET-0804-1027-01
SSEN REVISION	DATE	HISTORY
01	21/09/20	FIRST ISSUE
02	11/08/22	DRAWING STATUS AMENDED TO AS BUILT

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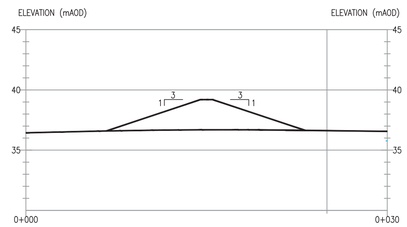
TYPICAL CROSS SECTION THROUGH BUND

SCALE 1:25



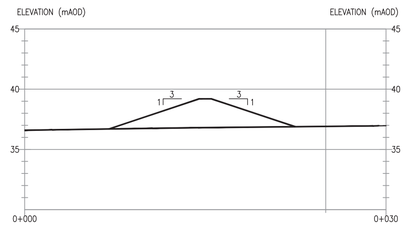
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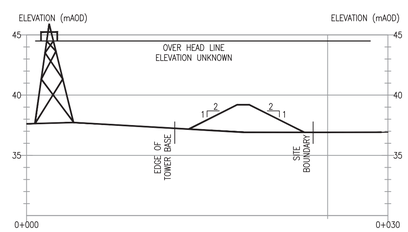
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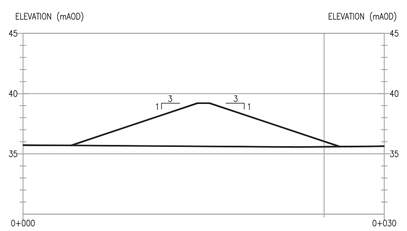
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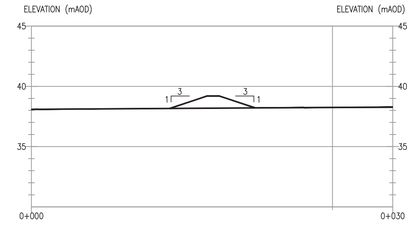
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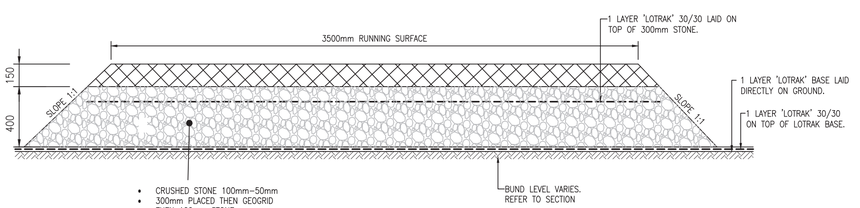
SECTION D–D

1:250



SECTION F–F

1:250



HAUL ROUTE : BUND PROTECTION DETAIL

1:20

EARTHWORKS

THE EARTHWORKS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE FOLLOWING DOCUMENTS.

- McGREGOR McMAHON SITE INVESTIGATION REPORT
  Ref: 13973G PHASE I/II SITE INVESTIGATION REPORT – REV A.
  Date: 18/08/14
- DESIGN MANUAL FOR ROADS AND BRIDGES SPECIFICATION FOR HIGHWAY WORKS (SHW).

ANTICIPATED PLATFORM FORMATION LEVEL IS BASED ON THE REMOVAL OF ALL MADE GROUND, TOP-SOIL/PEAT AND SHOULD BE VERIFIED BY INSPECTION WHERE GROUND CONDITIONS DICTATE.

IN ACCORDANCE WITH THE SITE INVESTIGATION UNDERTAKEN BY MCGREGOR MCMAHON, THE SUB SOILS ARE DEFINED AS BEING NATURAL LOOSE TO COMPACT SANDS AND GRAVELS WITH GRADING CURVES GENERALLY COMPLIANT WITH A CLASS 6F1 MATERIAL.

ALL TURF/TOPSOIL TO BE EXCAVATED AND SET ASIDE FOR FINISHING TO SLOPES. LOOSE SANDS CAN BE SET ASIDE AND RELAID AS A 6F1 MATERIAL.

ORGANIC, SILTS AND MADE GROUND SHALL BE DEEMED AS UNSUITABLE FOR USE AS FILL TO THE BUND AND ASSOCIATED FLOOD MITIGATION STRUCTURES.

CONTRACTOR SHALL COMPACT 6F1/6F2 MATERIAL AND COMPACT IN LAYERS. ALL IN ACCORDANCE WITH TABLE 6/4 OF SERIES 600 SHW.

ALL IMPORTED MATERIAL SHALL BE 6F4, MATERIAL CERTIFICATION SHALL BE IN ACCORDANCE WITH TABLE 6/1 OF SHW SERIES 600.

CONTRACTOR SHALL COMPACT TYPE 1 SUB-BASE (TABLE 8/2 OF SHW REFERS) AND LAY AND COMPACT IN ACCORDANCE WITH TABLE 8/1 OF THE SHW.

ALL VERGES AND EMBANKMENTS TO BE DRESSED IN 150 TOPSOIL PREVIOUSLY SET ASIDE. WHERE POSSIBLE EXISTING TURF TO BE RELAID, SEEDED WITH :

TOPSOIL & SEEDING
SPECIAL SPECIES RICH SCOTTISH PROVENANCE MIX COMPRISING
10.6% BROWNTOP BENT
12.8% ROUGH STALKED MEADOW GRASS
21.2% CHEWING FESCUE
26.5% SLENDER CREEPING RED FESCUE
13.6% SMOOTH STALKED MEADOW GRASS
3% OXEYE DAISY
2.5% RIB GRASS PLANTAIN
1% COMMON KNAPWEED
1% COMMON VETCH
1.25% SAINFOIN
1.25 SALAD BURNET
1.2% BIRDSFOOT TREFOIL
1% YARROW
0.75% SHEEPS PARSLEY
0.75% RED CAMPION
0.75% LADYS BEDSTRAN
0.3% BLACK MEDICK
0.25% WHITE CLOVER DEMAND

DESIGN SPECIFICATION FILL EMBANKMENT TO FLOOD MITIGATION BUND

- HEIGHT OF EMBANKMENT IS NOT TO EXCEED 5m MEASURED FROM THE CREST TO THE EXCAVATION LEVEL.
- UPSTREAM AND DOWNSTREAM SLOPES MAX GRADIENT – 1 VERTICAL: 3 HORIZONTAL. UNO.
- CREST WIDTH OF EMBANKMENT TO BE A MINIMUM OF 1m.
- CREST SHOULD CAMBER AT 5% OF EMBANKMENT WIDTH
- PROVIDE AN IMPERMEABLE MEMBRANE TO THE FLOOD SIDE OF THE BUND. MEMBRANE SHALL BE APPLIED TO ANY PART OF THE EMBANKMENT THAT SHALL BE FORMED IN AREAS OF FILL. MEMBRANE SHALL COMPRISE CLAYMAT AS 500-1 LINER, OR SIMILAR AND EQUAL APPROVED, TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- EMBANKMENT TO BE FOUNDED ON NATURAL SANDY GRAVELS INCUT. ALL MADE GROUND, ORGANIC CLAY / PEAT AND SILTS MATERIAL IS TO BE REMOVED.

GENERAL NOTES

1. THE CONTRACTOR'S ATTENTION IS DRAWN TO THE USE OF BES 6001 – FRAMEWORK STANDARD FOR THE RESPONSIBLE SOURCING OF CONSTRUCTION PRODUCTS, BY BRE, WHEN PROCURING MATERIALS AND PRODUCTS FOR THE CONSTRUCTION OF THE DEVELOPMENT, SUBJECT TO THE AGREEMENT OF THE CLIENT.

2. THESE NOTES SHOULD BE READ IN CONJUNCTION WITH THE ENGINEERING DRAWINGS, AND ARCHITECTURAL DRAWINGS AND SPECIFICATION. ANY DISCREPANCY OR CONFLICT BETWEEN THE DRAWINGS / SPECIFICATION SHOULD BE REFERRED TO EITHER PARTY BEFORE PROCEEDING WITH THE WORKS.

3. ALL WORKS SHOULD BE IN ACCORDANCE WITH THE RELEVANT EUROCODES AND UK NATIONAL ANNEX CODES OF PRACTICE, WHERE NOT SUPERSEDED BRITISH STANDARD CODES OF PRACTICE AND SCOTTISH BUILDING STANDARDS.

4. DO NOT SCALE FROM THESE DRAWINGS. ALL DIMENSIONS ARE TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO COMMENCEMENT OF WORK ON SITE OR ANY FABRICATION OR MATERIALS ORDERING.

5. THE CONTRACTOR'S ATTENTION IS DRAWN TO THEIR RESPONSIBILITY TO ENSURE THE SAFETY AND WELL BEING OF BOTH SITE OPERATIVES AND THE PUBLIC DURING THE COURSE OF WORKS.

AS BUILT DRAWING ISSUE

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THIRD PARTY INFORMATION

THE LAYOUT OF THE BASIN IS IN ACCORDANCE WITH THE FOLLOWING INFORMATION

- SLR TOPOGRAPHICAL SURVEY
  Ref: 001
  Date: FEBRUARY 2019
- SLR SITE DRAINAGE LAYOUT
  Ref: C8-9-002
  Date: APRIL 2019

McGREGOR McMAHON ACCEPT NO LIABILITY / RESPONSIBILITY WHATSOEVER FOR THE LOST ARISING FROM ERRORS IN SUCH THIRD PARTY INFORMATION

HEALTH AND SAFETY

THE DESIGN HAS HIGHLIGHTED ONLY COMMON HAZARDS, WHICH ARE CONSIDERED TO BE WITHIN THE NORMAL EXPERIENCE OF A COMPETENT CONTRACTOR.

ISSUE	02	REMARKS: DRAWING STATUS AMENDED TO AS BUILT AS PER EMAIL FROM GLOBAL (ROBB/HENDERSON) DATED 05.07.22
DATE	11/08/22	
DRAWN	HR	
CHKD 1	IH	
APPD	IH	
ISSUE	01	REMARKS: FIRST ISSUE
DATE	21/09/20	
DRAWN	CW	
CHKD 1	IH	
APPD	IH	

BIM CODE:

CIRCUIT:

Scottish & Southern Electricity Networks

(CLIENT) DRAWING NUMBER: 0039-FAUG400KV-DET-0804-1028-01
FORMAT: ACAD

(CLIENT) CONTRACT NUMBER: 35222
SIZE: A1

TITLE:

FLOOD MITIGATION BUND CONSTRUCTION DETAILS SPECIFICATION AND SECTIONS

DATE	03/02/2020	CHKD	IH
DRAWN	CW	APPD	IH

SITE:
GLOBAL INFRASTRUCTURE
FORT AUGUSTUS SUBSTATION
SUDS / FLOODING MITIGATION

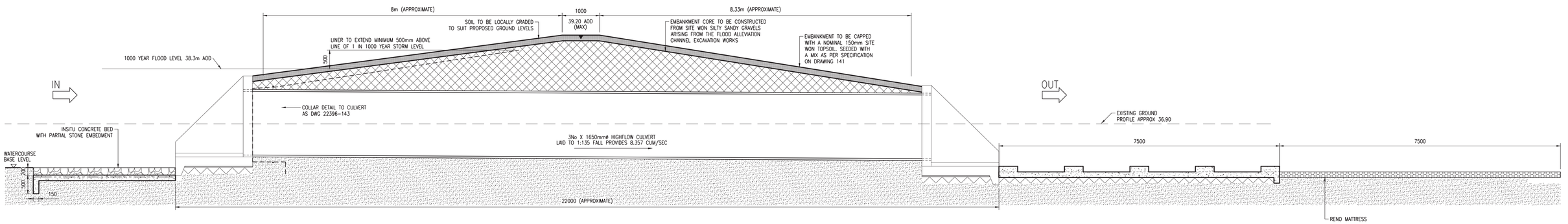
PROJECT CODE:

Scottish & Southern Electricity Networks

DRAWING STATUS :	AS BUILT	
SSEN CONTRACT NUMBER	35222	
SSEN MDR NUMBER	0039-FAUG400KV-DET-0804-1028-01	
SSEN REVISION	DATE	HISTORY
01	21/09/20	FIRST ISSUE
02	11/08/22	DRAWING STATUS AMENDED TO AS BUILT

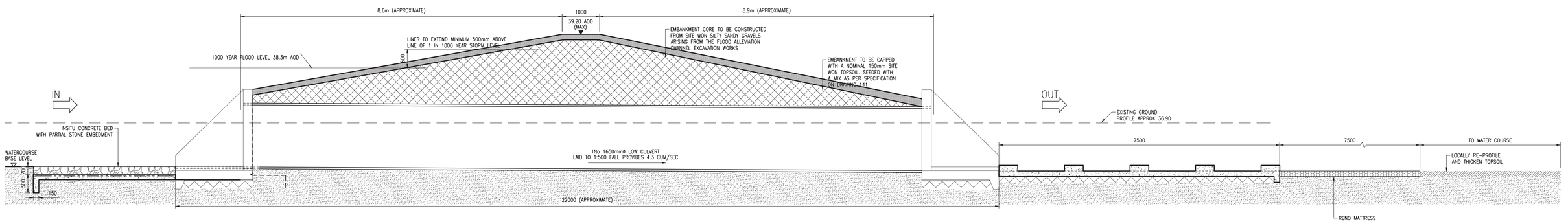
SCALE: AS SHOWN
SHEET: 1 OF _
DRAWING No. 22396-141
ISSUE: 02

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TYPICAL SECTION THROUGH OVERFLOW CULVERT

SCALE 1:50 - (REFER TO DWG 22396-141 FOR BUND CONSTRUCTION)



TYPICAL SECTION THROUGH LOW CULVERT

SCALE 1:50 - (REFER TO DWG 22396-141 FOR BUND CONSTRUCTION)

PIPE CULVERT SPECIFICATION

PIPES SHALL WHERE POSSIBLE BE OF SINGLE SECTION LENGTH HDPE PIPES BY WEHOLITE (OR SIMILAR AND EQUAL APPROVED)

PIPES SHALL BE MANUFACTURED AND CERTIFIED TO MEET THE MATERIAL AND PERFOMANCE REQUIREMENTS OF BS EN 13476, PLASTIC PIPING SYSTEMS FOR NON-PRESSURED UNDERGROUND DRAINAGE AND SEWERAGE

ALL PIPES TO BE INSTALLED STRCITLY IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS

CONCRETE SPECIFICATION

CONCRETE SPECIFICATION

THE GENERAL SPECIFICATION FOR CONCRETE SHALL BE AS PER SHE-T TRANSMISSION SUBSTATION CONCRETE SPECIFICATION (SP-PS-412) REVISON 1.02.

PARTICULAR SPECIFICATION FOR THE WORKS SHALL BE AS FOLLOWS.

WHERE THERE IS AN OMISSION WITHIN THE PARTICULAR SPECIFICATION OF A CLAUSE, THE CLAUSES WITHIN THE GENERAL SPECIFICATION SHALL PREVAIL.

WHERE THERE IS A CONFLICT BETWEEN THE PARTICULAR AND GENERAL SPECIFICATION, THE LATTER SHALL PREVAIL.

MIXES SHALL BE AS FOLLOWS;

BLINDING

DESIGNATED MIX: GEN 3

CLASS FINISH: F1

CONCRETE SPILLWAYS

DESIGNATED MIX: RC40

CLASS FINISH: F2

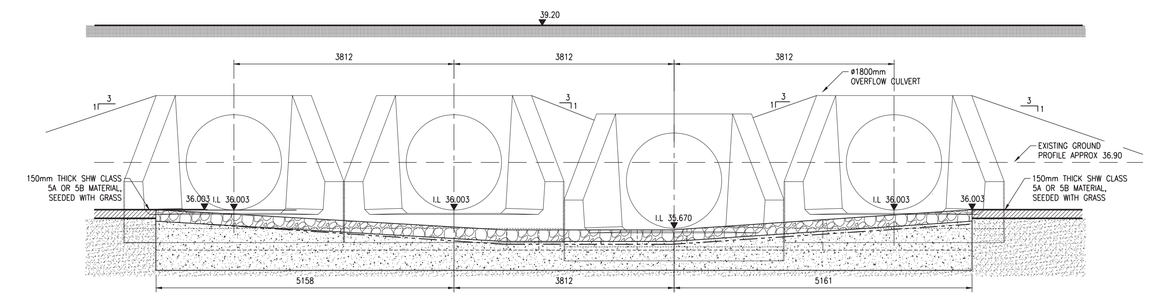
PRECAST CONCRETE HEADWALLS SPECIFICATION

1. ALL HEADWALLS SHALL BE MANUFACTURED AS PRECAST UNITS
2. ALL HEADWALLS SHALL BE MANUFACTURED TO A QUALITY MANAGEMENT SYSTEM ACCREDITED TO ISO 9001:2008 WITH ALL CONSTITUENT PRODUCTS SUBJECT TO REGULAR QUALITY INSPECTION.
3. ALL HEADWALLS SHALL BE MANUFACTURED TO MINIMUM STRUCTURAL CLASSES XD2 AND/OR XD3/4 DEPENDING ON ACTUAL UNIT AND USE REQUIRED.
4. HEADWALLS SAHLL BE FPMCCANN OR SMILIAR AND EQUAL APPROVAED, CAPABLE OF OF ACCEPTING A PIPE OF 1760 OUTSIDE DIAMETER.

OUTLINE METHOD STATEMENT

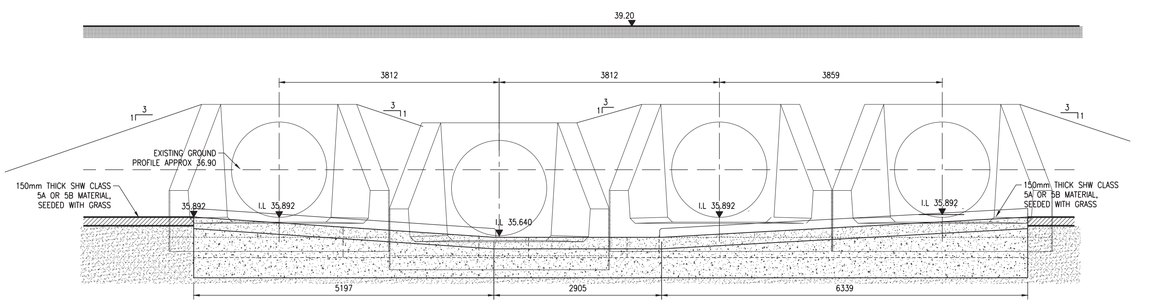
ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION RECOMMENDATIONS. THE FOLLOWING IS AN INDICATIVE METHOD STATEMENT AND NO LIABILITY CAN BE ASSUMED BY MCGREGOR MCMAHON FOR ITS RELIANCE DURING CONSTRUCTION.

1. CUT AND INSTALL THE LAST SECTION OF PIPE THAT THE HEADWALL WILL COVER. ENSURE THAT THE PIPE IS FULLY FITTED LEAVING EITHER THE FIRST (OR LAST) SECTION OF PIPE FREE FROM BACKFILL TO ATTACH TO THE HEADWALL.
1. EXCAVATE TO FORMATION LEVEL, PLACE AND COMPACT A 300MM BED OF 50MM CLEAN DRAINAGE STONE OR SIMILAR FREE DRAINING AGGREGATE.
2. PLACE THE HEADWALL UNIT ONTO THE BEDDED SURFACE AND SUCH THAT THE HEADWALL IS ALIGNED WITH THE CENTRE OF THE PIPE.
3. INSTALL THE HEADWALL ONTO THE END OF THE PIPELINE.
4. USING A CEMENT GROUT SUITABLE FOR USE UNDER WATER, OR AN EPOXY RESIN, FILL IN THE VOID BETWEEN THE REINFORCED CONCRETE HEADWALL AND THE PIPE TO ENSURE ENSURE A FIRM FIT.
5. BACKFILL THE PIPE SECTION BETWEEN THE HEADWALL AND EMBANKMENT WITH 300MM SURROUND OF 50MM OR SIMILAR FREE DRAINAGE AGGREGATE



SECTION THROUGH INLET OF CULVERT

SCALE 1:50



SECTION THROUGH OUTLET OF CULVERT

SCALE 1:50

AS BUILT DRAWING ISSUE

THE AS BUILT INFORMATION ON THIS DRAWING WAS SUPPLIED BY GLOBAL UNDER COVER OF AN EMAIL DATED 05.07.22.

- THE CONTRACTOR HAS CONFIRMED THAT IS AN ACCURATE REPRESENTATION OF THE WORKS COMPLETED AS AT THE DATE OF THE EMAIL NOTED ABOVE.
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- ANY DISCREPANCY BETWEEN THIS AS BUILT DRAWING AND THE COMPLETED WORKS SHOULD BE REFERRED TO THE CONTRACTOR FOR CLARIFICATION.

HEALTH AND SAFETY

THE DESIGN HAS HIGHLIGHTED ONLY COMMON HAZARDS, WHICH ARE CONSIDERED TO BE WITHIN THE NORMAL EXPERIENCE OF A COMPETENT CONTRACTOR.

ISSUE	02	REMARKS:
DATE	11/08/22	DRAWING STATUS AMENDED TO AS BUILT AS PER EMAIL FROM GLOBAL (ROBB/HENDERSON) DATED 05.07.22
DRAWN	HR	
CHKD 1	IH	
APPD	IH	
ISSUE	01	REMARKS:
DATE	21/09/20	FIRST ISSUE
DRAWN	JW	
CHKD 1	IH	
APPD	IH	

BIM CODE:

CIRCUIT:

Scottish & Southern Electricity Networks

(CLIENT) DRAWING NUMBER: 0039-FAUG400KV-DET-0804-1029-01	FORMAT: ACAD
(CLIENT) CONTRACT NUMBER: 35222	SIZE: A1

TITLE:

FLOOD MITIGATION OVERFLOW CONTROL CULVERT INLET / OUTLET & SECTION DETAILS

DATE	10/04/2020	CHKD	IH
DRAWN	JW	APPD	IH

SITE: GLOBAL INFRASTRUCTURE FORT AUGUSTUS SUBSTATION SUDS / FLOODING MITIGATION

PROJECT CODE:

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SCALE: AS SHOWN | SHEET: 1 OF _

DRAWING No. 22396-142 | ISSUE: 02

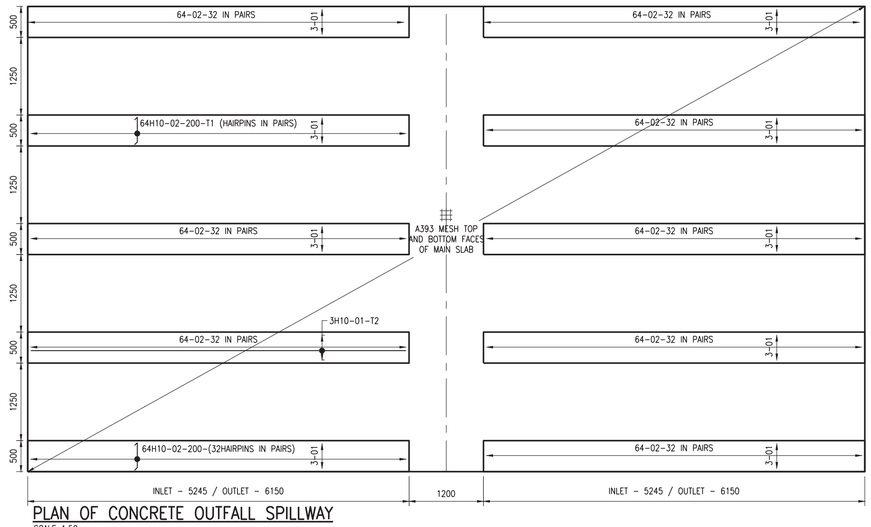
Scottish & Southern Electricity Networks

DRAWING STATUS : AS BUILT

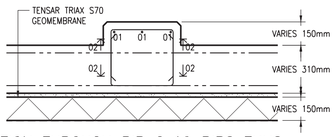
SSEN CONTRACT NUMBER	35222
SSEN MDR NUMBER	0039-FAUG400KV-DET-0804-1029-01

SSEN REVISION	DATE	HISTORY
01	21/09/20	FIRST ISSUE
02	11/08/22	DRAWING STATUS AMENDED TO AS BUILT

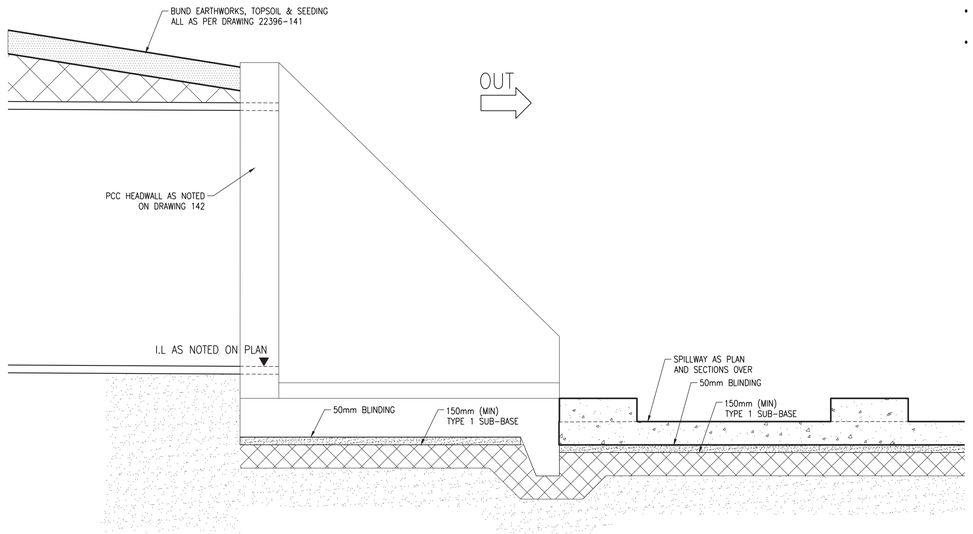
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PLAN OF CONCRETE OUTFALL SPILLWAY
SCALE 1:50



SECTION THROUGH RIB 2x10 RIBS THUS
SCALE 1:20



OUTFALL CULVERT: SECTION THROUGH OUTLET APRON / HEADWALL
SCALE 1:20

AS BUILT DRAWING ISSUE

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REINFORCEMENT NOTES

1. REFER TO SEPARATE BAR BENDING SCHEDULES IN ACCORDANCE WITH BS8666-2005.

2. COVER TO REINFORCEMENT SHALL BE 40mm.

3. ALL BARS AND MESH SHALL BE HIGH YIELD DEFORMED STEEL TYPE 2.

4. NO BAR SHALL BE CUT OR WELDED UNLESS NOTED ON THE DRAWINGS OR BY OTHER PRIOR AGREEMENT.

5. REINFORCEMENT SHALL BE HELD IN PLACE BY THE ADEQUATE USE OF APPROVED SPACERS AND MALLEABLE IRON TYING WIRE. SPACERS ARE NOT SCHEDULED.

6. BARS ARE LABELLED IN THE FORM DESCRIBED IN THE 'STANDARD METHOD OF DETAILING REINFORCED CONCRETE' E.G. 9H10-56-200NF DENOTES: NINE 10MM DIAMETER DEFORMED HIGH YIELD BARS MARK 56 AT 200MM CENTRES TO THE NEAR FACE.

7. ABBREVIATIONS ARE AS FOLLOWS:
NF MEANS BARS IN NEAR FACE
FF MEANS BARS IN FAR FACE
T MEANS BARS IN TOP LAYER
B MEANS BARS IN BOTTOM LAYER
EF MEANS EACH FACE
AB MEANS ALTERNATE BARS.

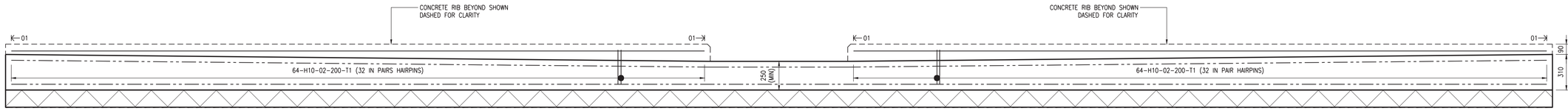
8. BAR LAPS SHALL BE AS SHOWN AND NO LESS THAN 38 TIMES THE DIAMETER OF THE SMALLER BAR LAPPED.

I.E H10 LAP = 380mm

MESH LAPS SHALL BE 400mm

HEALTH AND SAFETY

THE DESIGN HAS HIGHLIGHTED ONLY COMMON HAZARDS, WHICH ARE CONSIDERED TO BE WITHIN THE NORMAL EXPERIENCE OF A COMPETENT CONTRACTOR.



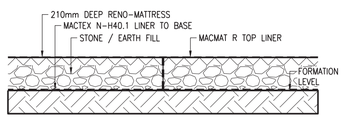
SECTION THROUGH SPILLWAY
SCALE 1:20

OUTLINE METHOD STATEMENT: RENO MATTRESS

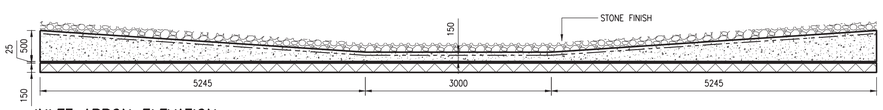
RENO MATTRESS SHOULD BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. THE FOLLOWING PROVIDES A BRIEF SUMMARY AND DOSE NOT SUPERSEDE SUCH INSTRUCTION.

1. UNFOLD EACH MATTRESS AND LACE UP PANELS TO FORM OPEN BOX PANELS.
2. LIFT AND LAY PANELS INTO POSITION.
3. LAY MACTEX N-H 401 MEMBRANE TO BASE.
4. FILL PANELS FROM THE BOTTOM OF A SLOPE TO THE TOP. EACH PANEL MUST BE FILLED PRIOR TO COMMENCING THE NEXT ADJACENT PANEL.
5. SLIGHTLY OVERFILL TO ALLOW FOR SETTLEMENT.
6. INFILL VOIDS WITH SOILS TO PROMOTE GROWTH.
7. LAY MACMAT R MEMBRANE.
8. LACE LIDS TO CLOSE OFF MATTRESS.

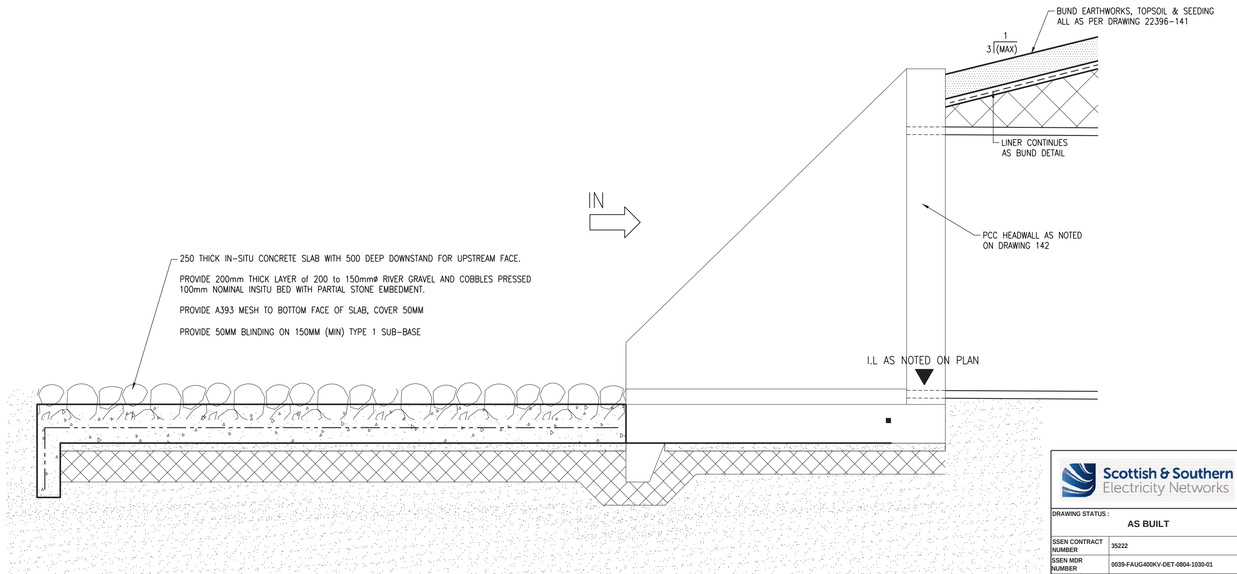
STONE FILL: TO BE 50-150mm STONE



SECTION THROUGH RENO-MATTRESS
SCALE 1:20



INLET APRON ELEVATION
SCALE 1:50



OUTFALL CULVERT: SECTION THROUGH INLET APRON / HEADWALL
SCALE 1:20

ISSUE	02	REMARKS: DRAWING STATUS AMENDED TO AS BUILT AS PER EMAIL FROM GLOBAL (ROBB/HENDERSON) DATED 05.07.22
DATE	11/08/22	
DRAWN	HR	
CHKD 1	IH	
APPD	IH	
ISSUE	01	REMARKS: FIRST ISSUE
DATE	21/09/20	
DRAWN	CW	
CHKD 1	IH	
APPD	IH	

BIM CODE:

CIRCUIT:

Scottish & Southern Electricity Networks

(CLIENT) DRAWING NUMBER: 0039-FAUG400KV-DET-0804-1030-01 | FORMAT: ACAD

(CLIENT) CONTRACT NUMBER: 35222 | SIZE: A1

TITLE:

FLOOD MITIGATION SPILLWAY APRON AND RENO MATTRESS DETAILS

DATE	10/04/2020	CHKD	IH
DRAWN	JW	APPD	IH

SITE: GLOBAL INFRASTRUCTURE FORT AUGUSTUS SUBSTATION SUDS / FLOODING MITIGATION

PROJECT CODE:

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SCALE: AS SHOWN | SHEET: 1 OF _

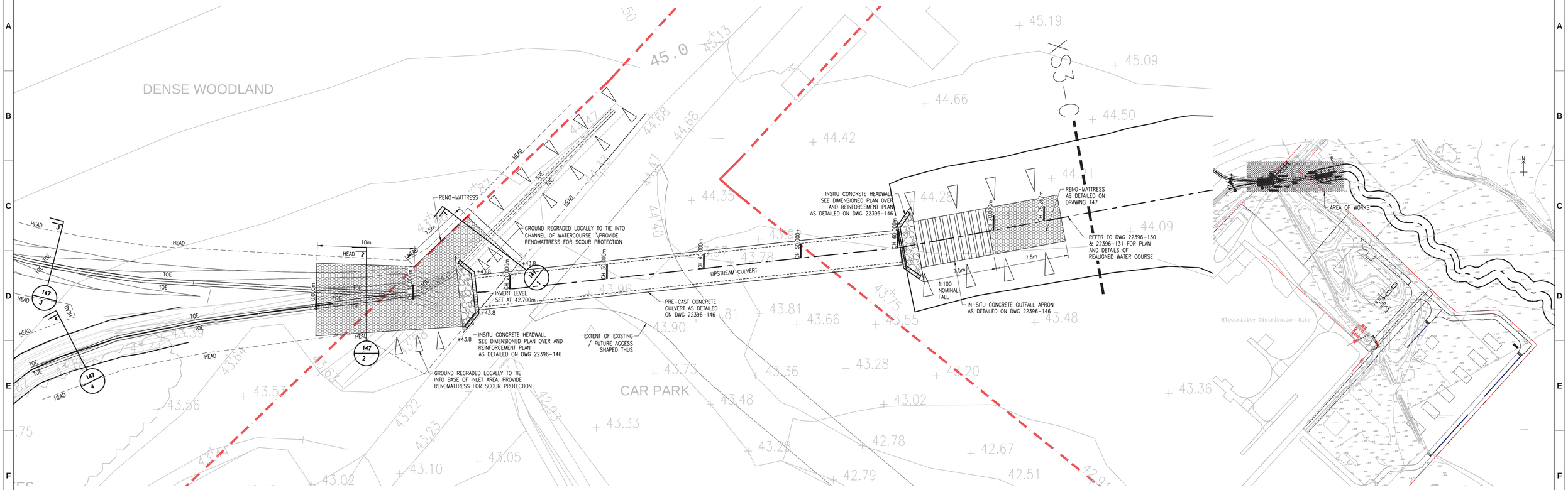
DRAWING No. 22396-143 | ISSUE: 02

Scottish & Southern Electricity Networks

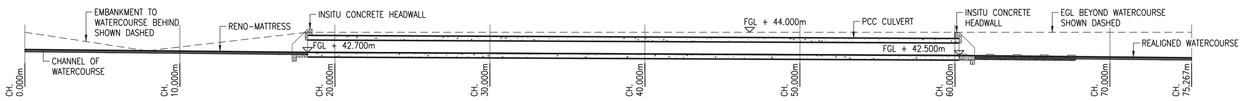
DRAWING STATUS : AS BUILT

SSEN CONTRACT NUMBER	35222	
SSEN MDR NUMBER	0039-FAUG400KV-DET-0804-1030-01	
SSEN REVISION	DATE	HISTORY
01	21/09/20	FIRST ISSUE
02	11/08/22	DRAWING STATUS AMENDED TO AS BUILT

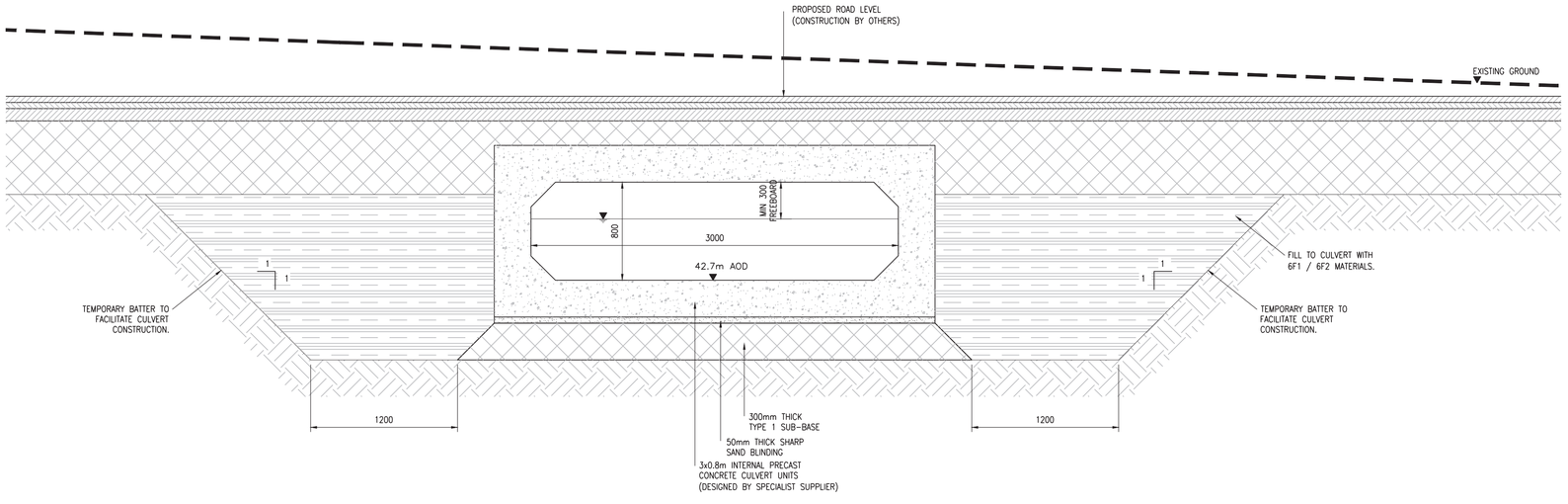
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SITE PLAN
SCALE 1:2000



LONGITUDINAL SECTION THROUGH CULVERT
SCALE1:100



SECTION THROUGH UPSTREAM CULVERT
SCALE 1:25

DRAWING REFERENCES
FOR EARTHWORKS SPECIFICATION – REFER TO DRAWING 22396-141
FOR CONCRETE SPECIFICATION – REFER TO DRAWING 22396-142
FOR RENO MATTRESS SPECIFICATION – REFER TO DRAWING 22396-147

AS BUILT DRAWING ISSUE
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HEALTH AND SAFETY
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OUTLINE METHOD STATEMENT OF INSTALLATION OF PCC CULVERT EXCAVATE DOWN TO FORMATION LEVEL
LAY WELL-COMPACTED GRANULAR MATERIAL OVER THE FULL WIDTH OF THE TRENCH TO A MINIMUM DEPTH OF 200MM, HAVING FIRST REMOVED ANY PROTECTIVE LAYER
BLIND THE SURFACE WITH FINE MATERIAL TO ASSIST LEVELLING IMMEDIATELY BEFORE LIFTING AND PLACING A UNIT,
CLEAN AND PRIME THE INNER AND SLOPING FACES BOTH SPIGOT AND SOCKET AND ALLOW TO DRY
APPLY A CONTINUOUS JOINTING STRIP, IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, TO THE INTERNAL CORNER OF THE SOCKET
LAY THE BOX CULVERT LINE FROM THE DOWNSTREAM END WITH SOCKETS FACING UPSTREAM TO RECEIVE THE NEXT BOX CULVERT.
APPLY HEAT, AS RECOMMENDED, TO SOFTEN BITUMEN BASED STRIP WHEN THE WEATHER IS VERY COLD
FIT THE UNITS TOGETHER AND CLOSE THE JOINT TO THE SPECIFIED NOMINAL GAP
MAKE GOOD ANY HOLES USED FOR LIFTING AND LAYING
INTERNALLY SEAL JOINTS USING A MASTIC MATERIAL SUITABLE FOR USE WITHIN A WET ENVIRONMENT. APPLY A PRIMER OR BOND BREAK MATERIAL AS REQUIRED.
BACKFILL AT THE EARLIEST OPPORTUNITY FOLLOWING THE LAYING OF SECTIONS OF THE CULVERT.
FILL THE TRENCH TO THE LEVEL OF THE TOP OF THE BOX CULVERT WORKING EVENLY ON EACH SIDE USING SUITABLY SELECTED SITE WON MATERIAL COMPLIANT WITH 6F1/6F2 MATERIAL AS SPECIFIED WITH THE DMRB, SPECIFICATION FOR HIGHWAY WORKS.
BACKFILL MATERIAL TO BE WELL COMPACTED IN LAYERS NOT EXCEEDING 200MM
DO NOT USE HEAVY VIBRATORY EQUIPMENT
BACKFILL OVER THE BOX CULVERT IN NON-TRAFFICKED AREAS AS PER THE ABOVE.
BACKFILL OVER THE CULVERT IN TRAFFICKED AREAS TO ROAD FORMATION LEVEL USING TYPE 1 MATERIAL AS SPECIFIED WITH THE DMRB, SPECIFICATION FOR HIGHWAY WORKS.
DO NOT RUN HEAVY ROLLERS OR CONSTRUCTION PLANT OVER THE BOX CULVERT WITHOUT PROTECTION

Scottish & Southern Electricity Networks

DRAWING STATUS :	AS BUILT
SSEN CONTRACT NUMBER	35222
SSEN MDR NUMBER	0039-FAUG400KV-GA-0804-1031-01

SSEN REVISION	DATE	HISTORY
01	21/09/20	FIRST ISSUE
02	11/08/22	DRAWING STATUS AMENDED TO AS BUILT

ISSUE	02	REMARKS:	DRAWING STATUS AMENDED TO AS BUILT AS PER EMAIL FROM GLOBAL (ROBB/HENDERSON) DATED 05.07.22
DATE	11/08/22		
DRAWN	HR		
CHKD 1	IH		
APPD	IH		
ISSUE	01	REMARKS:	FIRST ISSUE
DATE	21/09/20		
DRAWN	JW		
CHKD 1	IH		
APPD	IH		

BIM CODE:

CIRCUIT:

Scottish & Southern Electricity Networks

(CLIENT) DRAWING NUMBER: 0039-FAUG400KV-GA-0804-1031-01 — FORMAT: ACAD

(CLIENT) CONTRACT NUMBER: 35222 — SIZE: A1

TITLE:

FLOOD MITIGATION UPSTREAM CULVERT GENERAL ARRANGEMENT PLAN

DATE	10/04/2020	CHKD	IH
DRAWN	JW	APPD	IH

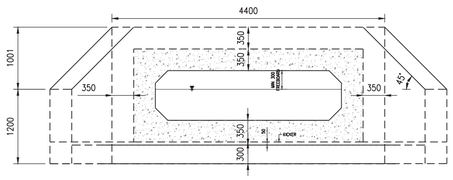
SITE:
GLOBAL INFRASTRUCTURE
FORT AUGUSTUS SUBSTATION
SUDS / FLOODING MITIGATION

PROJECT CODE:

SCALE: AS SHOWN — SHEET: 1 OF _

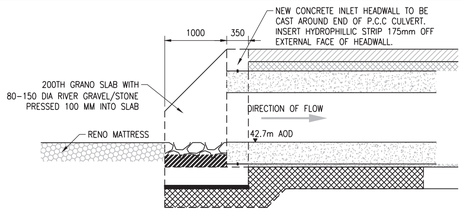
DRAWING No. 22396-145 — ISSUE: 02

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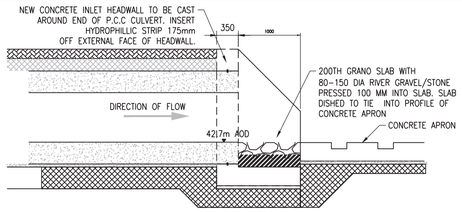
UPSTREAM CULVERT INLET AND OUTLET HEADWALLS FRONT ELEVATION

SCALE 1:50



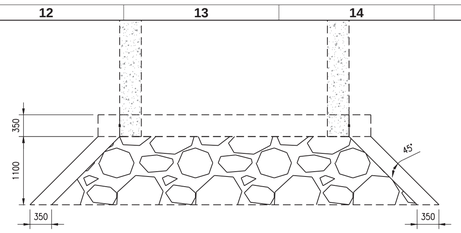
UPSTREAM CULVERT SECTION THROUGH INLET HEADWALL

SCALE 1:50



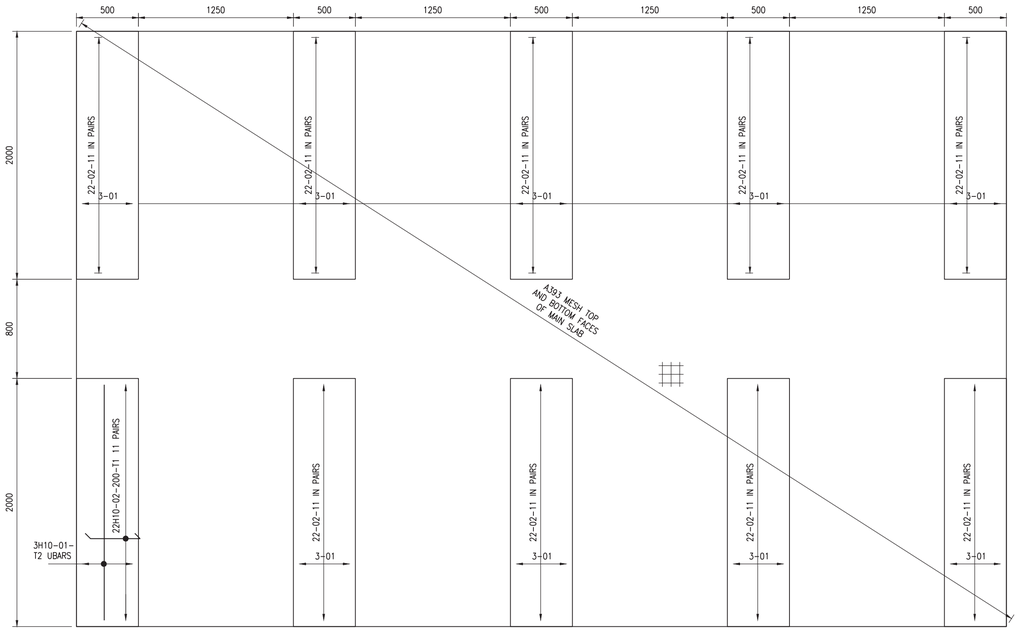
UPSTREAM CULVERT SECTION THROUGH OUTLET HEADWALL

SCALE 1:50



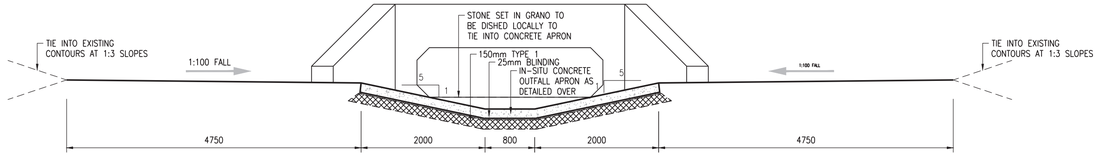
UPSTREAM CULVERT INLET AND OUTLET HEADWALLS ON PLAN

SCALE 1:50



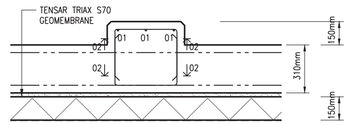
PLAN OF UPSTREAM CULVERT CONCRETE SPILLWAY TO OUTFALL

SCALE 1:25



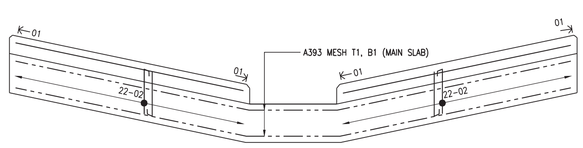
SECTION 4-4: THROUGH OUTFALL CONCRETE APRON

SCALE 1:50



SECTION THROUGH RIB 2x10 RIBS THUS

SCALE 1:20



SECTION THROUGH SPILLWAY

SCALE 1:25

HEALTH AND SAFETY

THE DESIGN HAS HIGHLIGHTED ONLY COMMON HAZARDS THAT ARE CONSIDERED TO BE WITHIN THE NORMAL EXPERIENCE OF A COMPETENT CONTRACTOR.

AS BUILT DRAWING ISSUE

THE AS BUILT INFORMATION ON THIS DRAWING WAS SUPPLIED BY GLOBAL UNDER COVER OF AN EMAIL DATED 05.07.22.

- THE CONTRACTOR HAS CONFIRMED THAT IS AN ACCURATE REPRESENTATION OF THE WORKS COMPLETED AS AT THE DATE OF THE EMAIL NOTED ABOVE.
- MCGREGOR MCMAHON HAVE RELIED SOLELY ON THE CONTRACTOR FOR THE PROVISION OF THIS INFORMATION AND THEREFORE ACCEPT NO RESPONSIBILITY FOR THE ACCURACY OF THE AS BUILT INFORMATION PROVIDED.
- ANY DISCREPANCY BETWEEN THIS AS BUILT DRAWING AND THE COMPLETED WORKS SHOULD BE REFERRED TO THE CONTRACTOR FOR CLARIFICATION.

REINFORCEMENT NOTES

1. REFER TO SEPARATE BAR BENDING SCHEDULES IN ACCORDANCE WITH BS8666-2005.

2. COVER TO REINFORCEMENT SHALL BE 40mm.

3. ALL BARS AND MESH SHALL BE HIGH YIELD DEFORMED STEEL TYPE 2.

4. NO BAR SHALL BE CUT OR WELDED UNLESS NOTED ON THE DRAWINGS OR BY OTHER PRIOR AGREEMENT.

5. REINFORCEMENT SHALL BE HELD IN PLACE BY THE ADEQUATE USE OF APPROVED SPACERS AND MALLEABLE IRON TYING WIRE. SPACERS ARE NOT SCHEDULED.

6. BARS ARE LABELLED IN THE FORM DESCRIBED IN THE 'STANDARD METHOD OF DETAILING REINFORCED CONCRETE' E.G. 9H10-56-200NF DENOTES: NINE 10MM DIAMETER DEFORMED HIGH YIELD BARS MARK 56 AT 200MM CENTRES TO THE NEAR FACE.

7. ABBREVIATIONS ARE AS FOLLOWS:
NF MEANS BARS IN NEAR FACE
FF MEANS BARS IN FAR FACE
T MEANS BARS IN TOP LAYER
B MEANS BARS IN BOTTOM LAYER
EF MEANS EACH FACE
AB MEANS ALTERNATE BARS.

8. BAR LAPS SHALL BE AS SHOWN AND NO LESS THAN 38 TIMES THE DIAMETER OF THE SMALLER BAR LAPPED.

I.E H10 LAP = 380mm

MESH LAPS SHALL BE 400mm

ISSUE	02	REMARKS: DRAWING STATUS AMENDED TO AS BUILT AS PER EMAIL FROM GLOBAL (ROBB/HENDERSON) DATED 05.07.22
DATE	11/08/22	
DRAWN	HR	
CHKD 1	IH	
APPD	IH	
ISSUE	01	REMARKS: FIRST ISSUE
DATE	21/09/20	
DRAWN	JW	
CHKD 1	IH	
APPD	IH	

BIM CODE:

CIRCUIT:

Scottish & Southern Electricity Networks

(CLIENT) DRAWING NUMBER: 0039-FAUG400KV-DET-0804-1032-01	FORMAT: ACAD
(CLIENT) CONTRACT NUMBER: 35222	SIZE: A1

TITLE:

FLOOD MITIGATION UPSTREAM CULVERT INLET AND OUTLET HEADWALL DETAILS

DATE	10/04/2020	CHKD	IH
DRAWN	JW	APPD	IH

SITE:

GLOBAL INFRASTRUCTURE
FORT AUGUSTUS SUBSTATION
SUDS / FLOODING MITIGATION

PROJECT CODE:

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SCALE: AS SHOWN | SHEET: 1 OF _

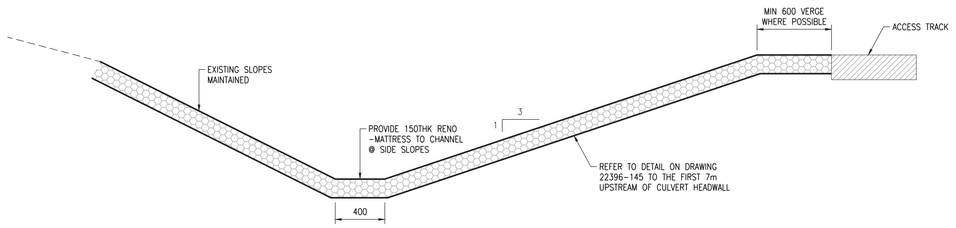
DRAWING No. 22396-146 | ISSUE: 02

Scottish & Southern Electricity Networks

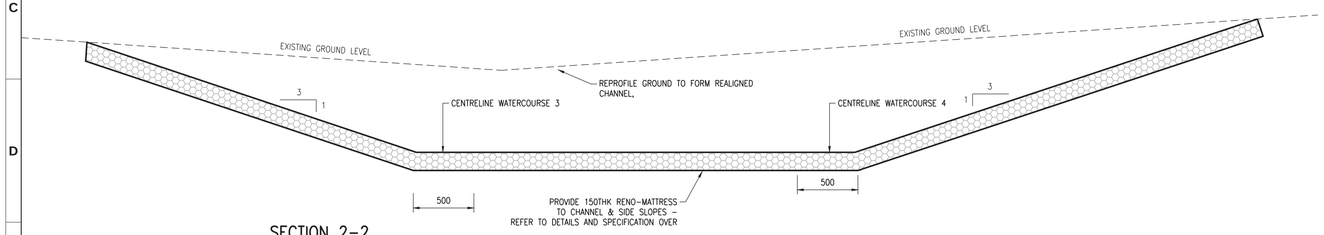
DRAWING STATUS : AS BUILT

SSEN CONTRACT NUMBER	35222	
SSEN MDR NUMBER	0039-FAUG400KV-DET-0804-1032-01	
SSEN REVISION	DATE	HISTORY
01	21/09/20	FIRST ISSUE
02	11/08/22	DRAWING STATUS AMENDED TO AS BUILT

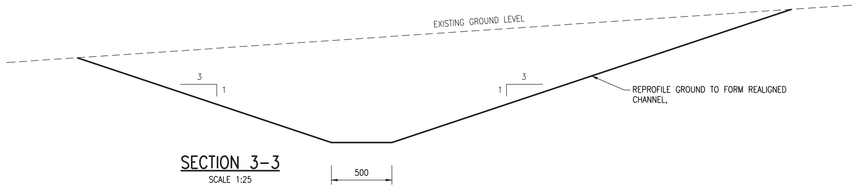
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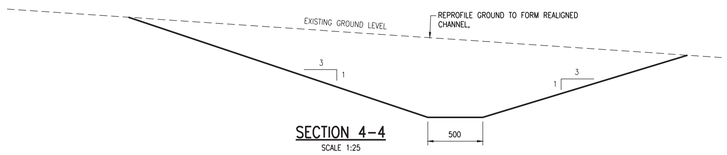
SECTION 1-1
SCALE 1:25



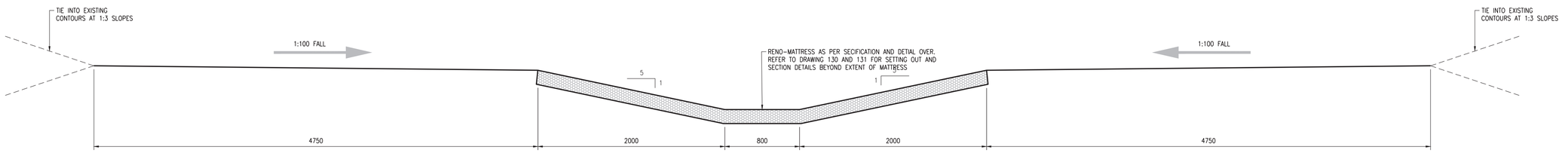
SECTION 2-2
SCALE 1:25



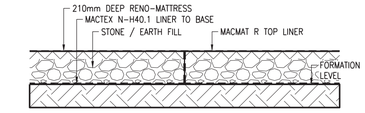
SECTION 3-3
SCALE 1:25



SECTION 4-4
SCALE 1:25



SECTION 5-5: THROUGH OUTFALL RENO-MATTRESS
SCALE 1:25



SECTION THROUGH RENO-MATTRESS
SCALE 1:20

AS BUILT DRAWING ISSUE
THE AS BUILT INFORMATION ON THIS DRAWING WAS SUPPLIED BY GLOBAL UNDER COVER OF AN EMAIL DATED 05.07.22.

- THE CONTRACTOR HAS CONFIRMED THAT IS AN ACCURATE REPRESENTATION OF THE WORKS COMPLETED AS AT THE DATE OF THE EMAIL NOTED ABOVE.
- MCGREGOR MCMAHON HAVE RELIED SOLELY ON THE CONTRACTOR FOR THE PROVISION OF THIS INFORMATION AND THEREFORE ACCEPT NO RESPONSIBILITY FOR THE ACCURACY OF THE AS BUILT INFORMATION PROVIDED.
- ANY DISCREPANCY BETWEEN THIS AS BUILT DRAWING AND THE COMPLETED WORKS SHOULD BE REFERRED TO THE CONTRACTOR FOR CLARIFICATION.

OUTLINE METHOD STATEMENT: RENO MATTRESS
RENO MATTRESS SHOULD BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. THE FOLLOWING PROVIDES A BRIEF SUMMARY AND DOSE NOT SUPERSEDE SUCH INSTRUCTION.

1. UNFOLD EACH MATTRESS AND LACE UP PANELS TO FORM OPEN BOX PANELS.
2. LIFT AND LAY PANELS INTO POSSITION.
3. LAY MACTEX N-H 401 MEMBRANE TO BASE.
4. FILL PANELS FROM THE BOTTOM OF A SLOPE TO THE TOP. EACH PANEL MUST BE FILLED PRIOR TO COMMENCING THE NEXT ADJACENT PANEL.
5. SLIGHTLY OVERFILL TO ALLOW FOR SETTLEMENT.
6. INFILL VOIDS WITH SOILS TO PROMOTE GROWTH.
7. LAY MACMAT R MEMBRANE.
8. LACE LIDS TO CLOSE OFF MATTRESS.

STONE FILL: TO BE 50-150mm STONE

HEALTH AND SAFETY
THE DESIGN HAS HIGHLIGHTED ONLY COMMON HAZARDS THAT ARE CONSIDERED TO BE WITHIN THE NORMAL EXPERIENCE OF A COMPETENT CONTRACTOR.

ISSUE	02	REMARKS: DRAWING STATUS AMENDED TO AS BUILT AS PER EMAIL FROM GLOBAL (ROBB/HENDERSON) DATED 05.07.22
DATE	11/08/22	
DRAWN	HR	
CHKD 1	IH	
APPD	IH	
ISSUE	01	REMARKS: FIRST ISSUE
DATE	21/09/20	
DRAWN	IH	
CHKD 1	IH	
APPD	IH	

BIM CODE:

CIRCUIT:

Scottish & Southern Electricity Networks

(CLIENT) DRAWING NUMBER: 0039-FAUG400KV-DET-0804-1033-01	FORMAT: ACAD
(CLIENT) CONTRACT NUMBER: 35222	SIZE: A1

TITLE:

FLOOD MITIGATION UPSTREAM CULVERT WATERCOURSE SECTIONS AND DETAILS

DATE	10/04/2020	CHKD	IH
DRAWN	IH	APPD	IH

SITE: GLOBAL INFRASTRUCTURE FORT AUGUSTUS SUBSTATION SUDS / FLOODING MITIGATION

PROJECT CODE:

C:\Users\ianhe\Desktop\Fort Augustus\Microsoft Teams\Archive\Archive Contents\Screen Version\CTP Print Logic Stamp.png

SCALE: AS SHOWN | SHEET: 1 OF _

DRAWING No. 22396-147 | ISSUE: 02

Scottish & Southern Electricity Networks

DRAWING STATUS : AS BUILT

SSEN CONTRACT NUMBER	35222	
SSEN MDR NUMBER	0039-FAUG400KV-DET-0804-1033-01	
SSEN REVISION	DATE	HISTORY
01	21/09/20	FIRST ISSUE
02	11/08/22	DRAWING STATUS AMENDED TO AS BUILT

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Appendix B. Infiltration Test Data

35 36

09 09

Scottish & Southern Electricity Networks
TRANSMISSION

FATP01 FAB01 FATP02 FAB02 FATP04 FAB03 FAB04 FATP07 FATP05 FATP03 FAB05 FATP08 FATP06 FAB06 FAB08 FAB07 FATP09 FAB09 FATP10 FATP14 FATP11 FAB10 FATP12 FAB11 FATP15 FATP17 FATP16 FATP18 FAB12 FATP13

08 08

N

Scale @ A3: 1:5,000

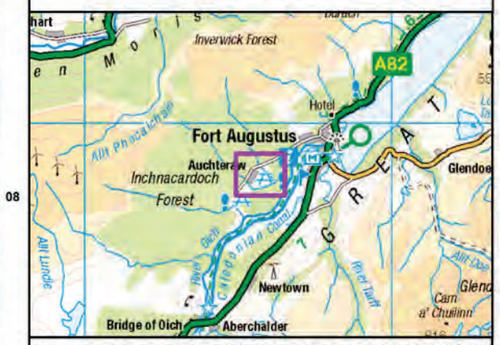
0 0.03 0.06 0.12 0.18 0.24 0.3 km

Maxar, Microsoft

35 36

Legend

- Trial Pits
- Boreholes
- SSE Current Ownership
- PHASE 1 - LT92
- PHASE 2 - LT94
- PHASE 2 ALTERNATIVE - LT94
- OPERATIONAL BOUNDARY
- EXISTING PLATFORM BOUNDARY



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Project No:	LT000519
Project:	Fort Augustus 400kV Upgrade
Title:	Borehole Locations
Drawn by:	BC
Date:	25/07/2023
Drawing:	LT000519_ENV_001_Boreholes

TERRA TEK
Site Investigation & Laboratory Services

Site	LT519 FORT AUGUSTUS 400K V UPGRADE	Contract No	26491
		Test Pit No	FATP10
Client	SHE - Transmission	Test Run No	1
Engineer	Jacobs	Date of Test	24.08.23

Time (minute)	Depth to Water (m)
0	0.45
0.5	0.46
1	0.47
1.5	0.49
2	0.51
2.5	0.53
3	0.54
3.5	0.55
4	0.56
4.5	0.56
5	0.58
6	0.61
7	0.63
8	0.66
9	0.68
10	0.70
12	0.73
14	0.77
16	0.80
18	0.83
20	0.86
25	0.93
30	0.99
40	1.11
50	1.20
60	1.28
70	1.35

Weather Conditions
Sunny with mixed showers

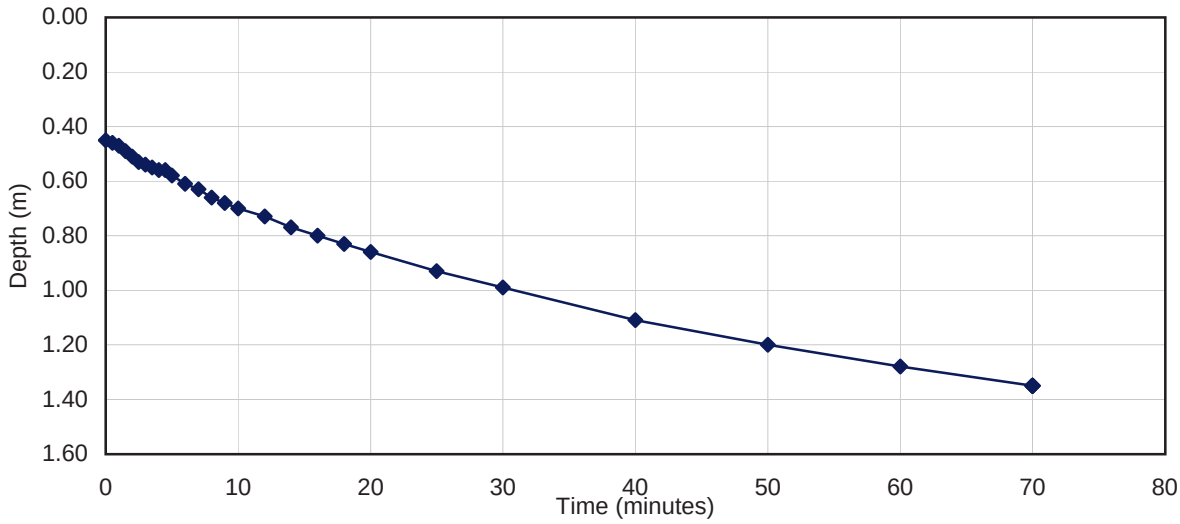
Non Engineering Strata Description
Orangish brown and light brown SAND and GRAVEL

Test Pit Dimensions		
Length	m	2.00
Width	m	1.00
Depth	m	1.45

Test Parameters		
Maximum Effective Depth	m	0.45
75% Effective Depth	m	0.70
25 % Effective Depth	m	1.20
Effective Storage Volume	m^3	1.00
Surface Area a_{p50}	m^2	5.00
Time for 75%	min	10
Time for 25%	min	50
t_{p75-25}	min	40

Soil Infiltration Rate
8.3E-05 m/s

Comments
~



Originator	Checked & Approved
JD	29/09/2023

SOAKAWAY
BRE 365

62 Rochsolloch Road, Airdrie, ML6 9BG
Lab Project No A14979-1 : 09/29/2023 16:25:45

TERRA TEK
Site Investigation & Laboratory Services

Site	LT519 FORT AUGUSTUS 400K V UPGRADE	Contract No	26491
		Test Pit No	FATP10
Client	SHE - Transmission	Test Run No	2
Engineer	Jacobs	Date of Test	24.08.23

Time (minute)	Depth to Water (m)
0	0.45
0.5	0.46
1	0.48
1.5	0.49
2	0.51
2.5	0.53
3	0.54
3.5	0.55
4	0.55
4.5	0.56
5	0.56
6	0.57
7	0.58
8	0.59
9	0.61
10	0.62
12	0.64
14	0.67
16	0.70
18	0.73
20	0.75
25	0.80
30	0.84
40	0.93
50	0.99
60	1.07
70	1.13
80	1.19
90	1.26
100	1.31
110	1.37

Weather Conditions
Sunny with mixed showers

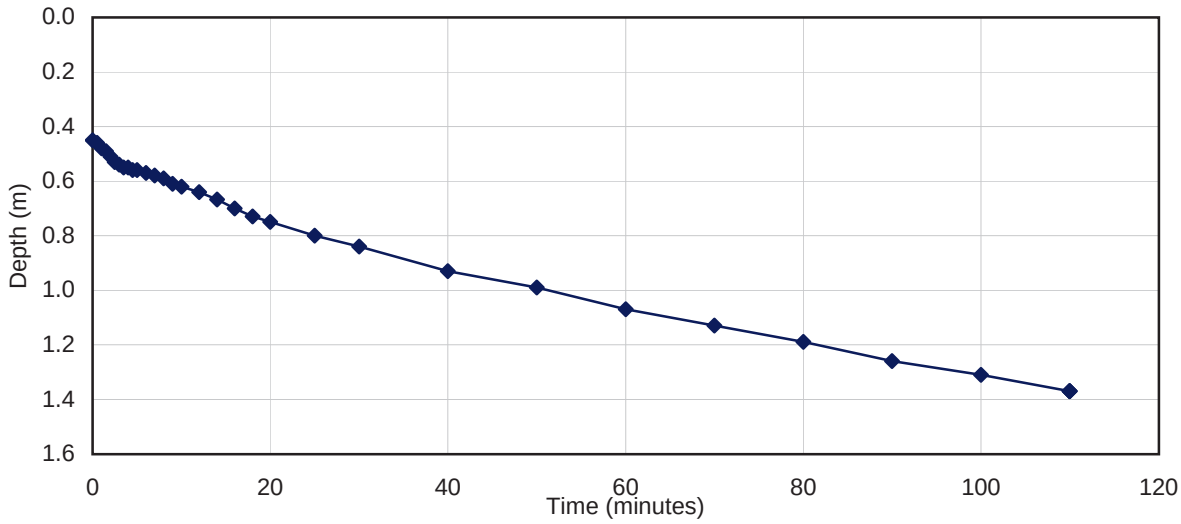
Non Engineering Strata Description
Orangish brown and light brown SAND and GRAVEL

Test Pit Dimensions		
Length	m	2.00
Width	m	1.00
Depth	m	1.45

Test Parameters		
Maximum Effective Depth	m	0.45
75% Effective Depth	m	0.70
25 % Effective Depth	m	1.20
Effective Storage Volume	m^3	1.00
Surface Area a_{p50}	m^2	5.00
Time for 75%	min	16
Time for 25%	min	81
t_{p75-25}	min	65

Soil Infiltration Rate
5.1E-05 m/s

Comments
~



Originator	Checked & Approved
JD	29/09/2023

SOAKAWAY
BRE 365

62 Rochsolloch Road, Airdrie, ML6 9BG
Lab Project No A14979-1 : 09/29/2023 16:26:05

TERRA TEK
Site Investigation & Laboratory Services

Site	LT519 FORT AUGUSTUS 400K V UPGRADE	Contract No	26491
		Test Pit No	FATP10
Client	SHE - Transmission	Test Run No	3
Engineer	Jacobs	Date of Test	24.08.23

Time (minute)	Depth to Water (m)
0	0.45
0.5	0.46
1	0.46
1.5	0.46
2	0.47
2.5	0.47
3	0.48
3.5	0.48
4	0.49
4.5	0.50
5	0.51
6	0.52
7	0.53
8	0.54
9	0.56
10	0.58
12	0.62
14	0.64
16	0.66
18	0.67
20	0.69
25	0.73
30	0.79
40	0.84
50	0.91
60	0.98
70	1.05
80	1.11
90	1.16
100	1.21
110	1.25
120	1.30

Weather Conditions
Sunny with mixed showers

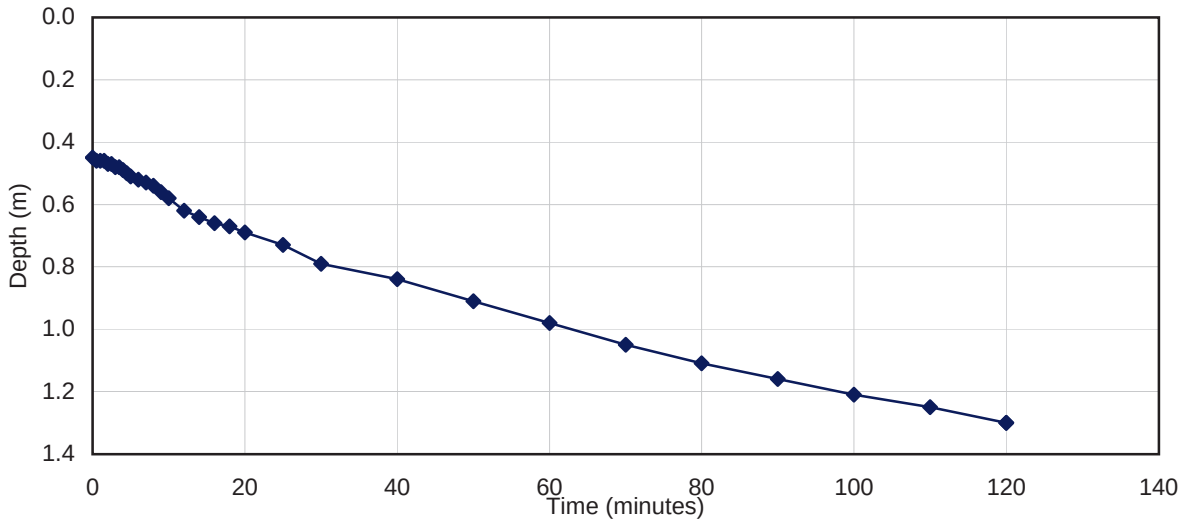
Non Engineering Strata Description
Orangish brown and light brown SAND and GRAVEL

Test Pit Dimensions		
Length	m	2.00
Width	m	1.00
Depth	m	1.45

Test Parameters		
Maximum Effective Depth	m	0.45
75% Effective Depth	m	0.70
25 % Effective Depth	m	1.20
Effective Storage Volume	m^3	1.00
Surface Area a_{p50}	m^2	5.00
Time for 75%	min	21
Time for 25%	min	98
t_{p75-25}	min	77

Soil Infiltration Rate
4.3E-05 m/s

Comments
~



Originator	Checked & Approved
JD	29/09/2023

SOAKAWAY
BRE 365

62 Rochsolloch Road, Airdrie, ML6 9BG
Lab Project No A14979-1 : 09/29/2023 16:26:47

TERRA TEK
Site Investigation & Laboratory Services

Site	LT519 FORT AUGUSTUS 400K V UPGRADE	Contract No	26491
		Test Pit No	FATP12
Client	SHE - Transmission	Test Run No	1
Engineer	Jacobs	Date of Test	24.08.23

Time (minute)	Depth to Water (m)
0	0.25
1	0.27
2	0.29
3	0.30
4	0.32
5	0.33
6	0.34
7	0.34
8	0.35
9	0.36
10	0.37
12	0.38
14	0.41
16	0.41
18	0.42
20	0.43
25	0.48
30	0.50
40	0.55
50	0.61
60	0.66
70	0.71

Weather Conditions
Sunny with mixed showers

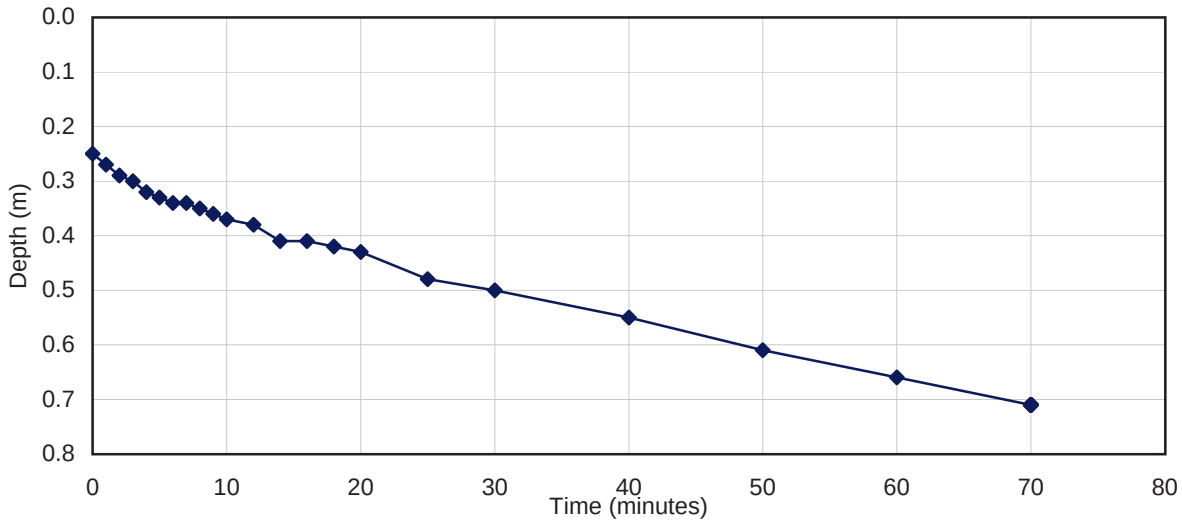
Non Engineering Strata Description
Orangish brown and light brown SAND

Test Pit Dimensions		
Length	m	1.80
Width	m	0.70
Depth	m	0.75

Test Parameters		
Maximum Effective Depth	m	0.25
75% Effective Depth	m	0.38
25 % Effective Depth	m	0.63
Effective Storage Volume	m^3	0.32
Surface Area a_{p50}	m^2	2.51
Time for 75%	min	12
Time for 25%	min	54
t_{p75-25}	min	42

Soil Infiltration Rate
5.0E-05 m/s

Comments
~



Originator	Checked & Approved
JD	29/09/2023

SOAKAWAY
BRE 365

62 Rochsolloch Road, Airdrie, ML6 9BG
Lab Project No A14979-1 : 09/29/2023 16:27:07

TERRA TEK
Site Investigation & Laboratory Services

Site	LT519 FORT AUGUSTUS 400K V UPGRADE	Contract No	26491
		Test Pit No	FATP12
Client	SHE - Transmission	Test Run No	2
Engineer	Jacobs	Date of Test	24.08.23

Time (minute)	Depth to Water (m)
0	0.25
1	0.25
2	0.25
3	0.26
4	0.26
5	0.27
6	0.28
7	0.29
8	0.30
9	0.30
10	0.31
12	0.32
14	0.33
16	0.34
18	0.35
20	0.36
25	0.38
30	0.40
40	0.44
50	0.47
60	0.51
70	0.54
80	0.59
90	0.63
100	0.66

Weather Conditions
Sunny with mixed showers

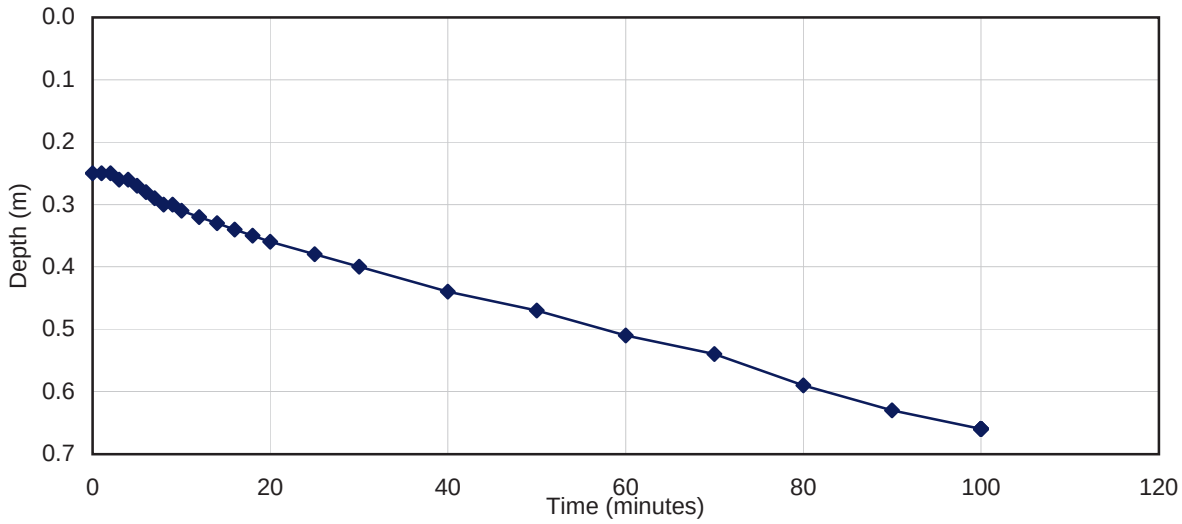
Non Engineering Strata Description
Orangish brown and light brown SAND

Test Pit Dimensions		
Length	m	1.80
Width	m	0.70
Depth	m	0.75

Test Parameters		
Maximum Effective Depth	m	0.25
75% Effective Depth	m	0.38
25 % Effective Depth	m	0.63
Effective Storage Volume	m^3	0.32
Surface Area a_{p50}	m^2	2.51
Time for 75%	min	25
Time for 25%	min	90
t_{p75-25}	min	65

Soil Infiltration Rate
3.2E-05 m/s

Comments
~



Originator	Checked & Approved
JD	29/09/2023

SOAKAWAY
BRE 365

62 Rochsolloch Road, Airdrie, ML6 9BG
Lab Project No A14979-1 : 09/29/2023 16:27:23

TERRA TEK
Site Investigation & Laboratory Services

Site	LT519 FORT AUGUSTUS 400K V UPGRADE	Contract No	26491
		Test Pit No	FATP12
Client	SHE - Transmission	Test Run No	3
Engineer	Jacobs	Date of Test	24.08.23

Time (minute)	Depth to Water (m)
0	0.25
1	0.25
2	0.26
3	0.26
4	0.27
5	0.27
6	0.28
7	0.28
8	0.29
9	0.29
10	0.30
12	0.31
14	0.31
16	0.32
18	0.33
20	0.34
25	0.35
30	0.38
40	0.41
50	0.44
60	0.47
70	0.52
80	0.54
90	0.57
100	0.59
110	0.61
120	0.64

Weather Conditions
Sunny with mixed showers

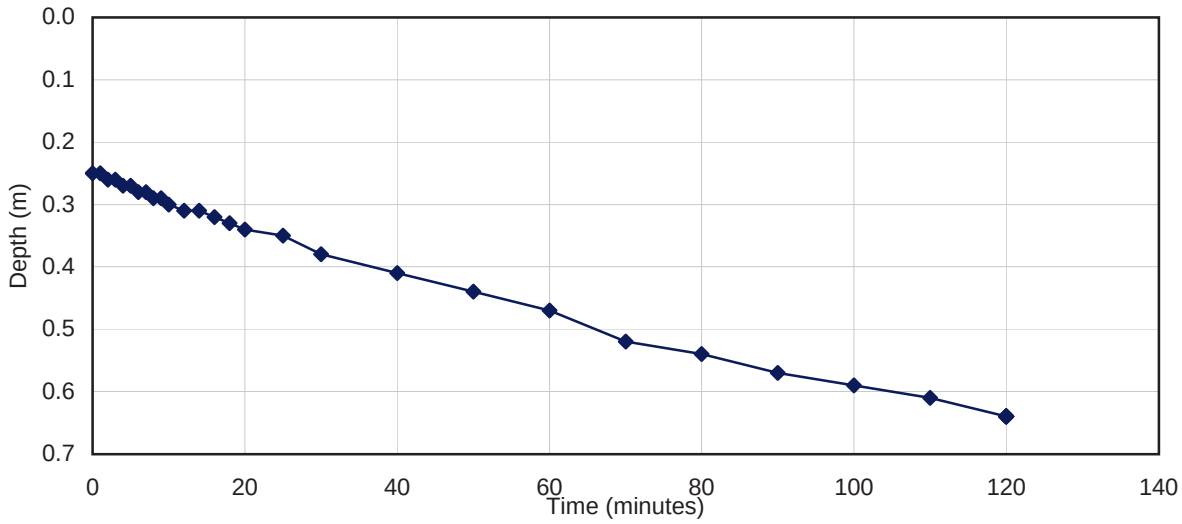
Non Engineering Strata Description
Orangish brown and light brown SAND

Test Pit Dimensions		
Length	m	1.80
Width	m	0.70
Depth	m	0.75

Test Parameters		
Maximum Effective Depth	m	0.25
75% Effective Depth	m	0.38
25 % Effective Depth	m	0.63
Effective Storage Volume	m^3	0.32
Surface Area a_{p50}	m^2	2.51
Time for 75%	min	30
Time for 25%	min	116.5
t_{p75-25}	min	87

Soil Infiltration Rate
2.4E-05 m/s

Comments
~



Originator	Checked & Approved
JD	29/09/2023

SOAKAWAY
BRE 365

62 Rochsolloch Road, Airdrie, ML6 9BG
Lab Project No A14979-1 : 09/29/2023 16:27:38

TERRA TEK
Site Investigation & Laboratory Services

Site	LT519 FORT AUGUSTUS 400K V UPGRADE	Contract No	26491
		Test Pit No	FATP15
Client	SHE - Transmission	Test Run No	1
Engineer	Jacobs	Date of Test	23.08.23

Time (minute)	Depth to Water (m)
0	1.00
0.5	1.02
1	1.04
1.5	1.07
2	1.08
2.5	1.09
3	1.10
3.5	1.12
4	1.14
4.5	1.15
5	1.16
6	1.19
7	1.22
8	1.23
9	1.26
10	1.28
12	1.31
14	1.36
16	1.39
18	1.41
20	1.45
25	1.52
30	1.58
35	1.63
40	1.69
50	1.78
60	1.86

Weather Conditions
Sunny with mixed showers

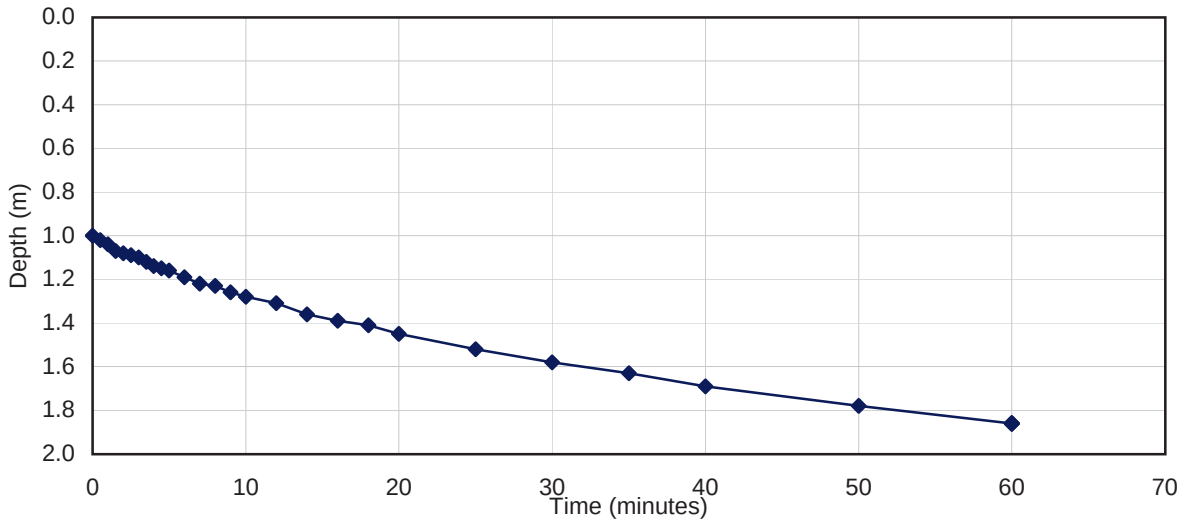
Non Engineering Strata Description
Orangish brown and light brown SAND and GRAVEL

Test Pit Dimensions		
Length	m	2.60
Width	m	0.90
Depth	m	2.00

Test Parameters		
Maximum Effective Depth	m	1.00
75% Effective Depth	m	1.25
25 % Effective Depth	m	1.75
Effective Storage Volume	m^3	1.17
Surface Area a_{p50}	m^2	5.84
Time for 75%	min	8.7
Time for 25%	min	46.5
t_{p75-25}	min	38

Soil Infiltration Rate
8.8E-05 m/s

Comments
~



Originator	Checked & Approved
JD	29/09/2023

SOAKAWAY
BRE 365

62 Rochsolloch Road, Airdrie, ML6 9BG

TERRA TEK
Site Investigation & Laboratory Services

Site	LT519 FORT AUGUSTUS 400K V UPGRADE	Contract No	26491
		Test Pit No	FATP15
Client	SHE - Transmission	Test Run No	2
Engineer	Jacobs	Date of Test	23.08.23

Time (minute)	Depth to Water (m)
0	0.95
0.5	0.96
1	0.97
1.5	0.98
2	0.98
2.5	0.98
3	0.99
3.5	0.99
4	1.00
4.5	1.01
5	1.02
6	1.04
7	1.05
8	1.06
9	1.08
10	1.10
12	1.13
14	1.16
16	1.18
18	1.22
20	1.24
25	1.28
30	1.33
40	1.43
50	1.50
60	1.57
70	1.64
80	1.72
90	1.75
100	1.78
120	1.81

Weather Conditions
Sunny with mixed showers

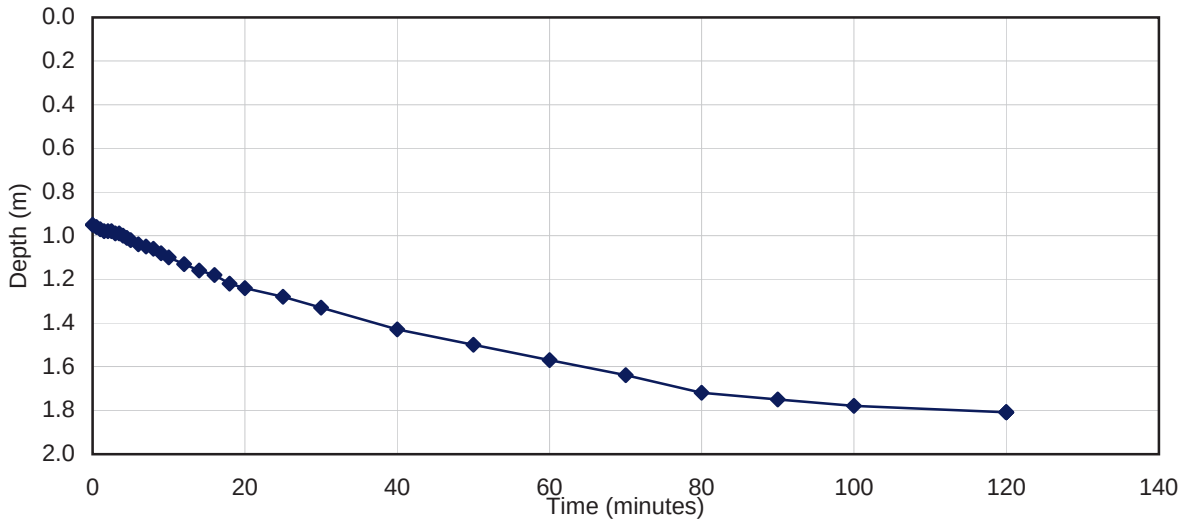
Non Engineering Strata Description
Orangish brown and light brown SAND and GRAVEL

Test Pit Dimensions		
Length	m	2.60
Width	m	0.90
Depth	m	1.95

Test Parameters		
Maximum Effective Depth	m	0.95
75% Effective Depth	m	1.20
25 % Effective Depth	m	1.70
Effective Storage Volume	m^3	1.17
Surface Area a_{p50}	m^2	5.84
Time for 75%	min	17
Time for 25%	min	77
t_{p75-25}	min	60

Soil Infiltration Rate
5.6E-05 m/s

Comments
~

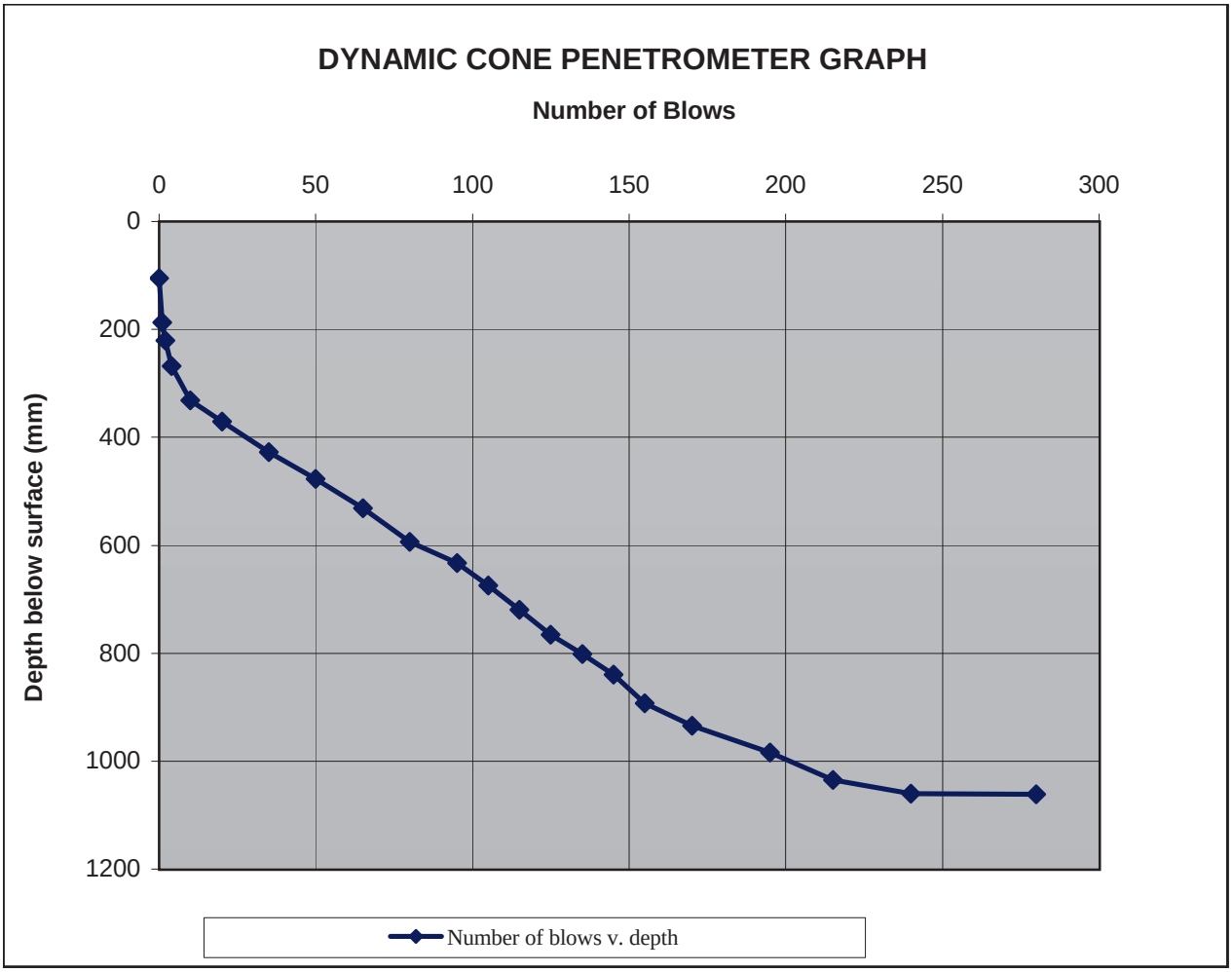


Originator	Checked & Approved
JD	29/09/2023

SOAKAWAY
BRE 365

igne	Site: LT519 FORT AUGUSTUS 400K V UPGRADE Client: SHE - Transmission Engineer: Jacobs	**Contract No. 26491**

Date tested	24.08.23	Test Location	FATP 5
Tested by	JD	DCP No.	1
Weather	Dry, sunny	Zero Error (mm)	105



Start Depth (mm)	Finish Depth (mm)	No. of Blows	Blows per Layer	Material	DCP mm/blow	Estimated average CBR over depth range (%)
105	268	4	4	Topsoil	40.75	6
268	331	10	6	Unknown	10.50	25
331	633	95	85	Unknown	3.55	79
633	893	155	60	Unknown	4.33	64
893	1060	240	85	Unknown	1.96	148
1060	1061	280	40	Unknown	0.03	14907

Remarks:

Cone Angle 60° UKAS accredited test - No

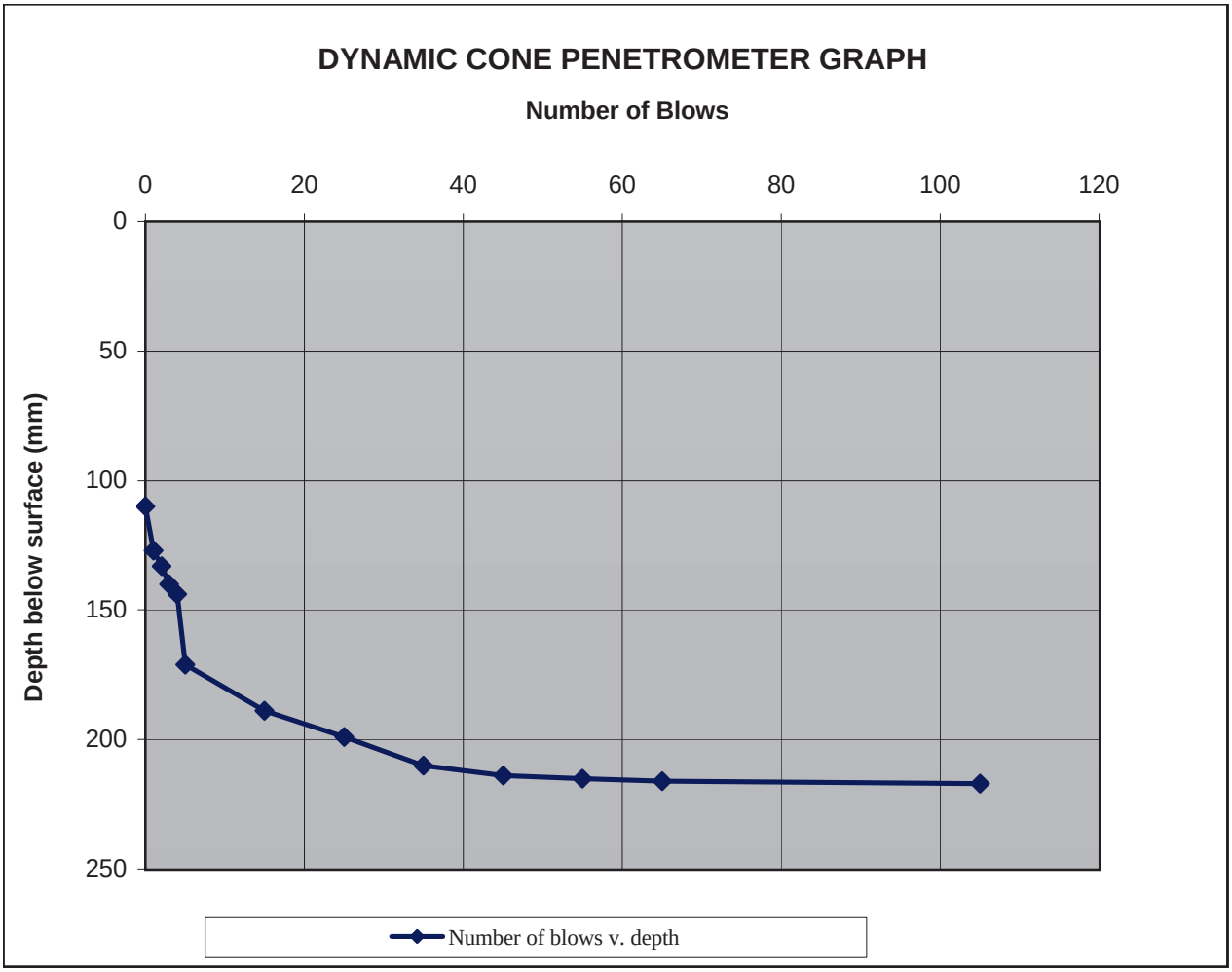
Test stopped to add extension rods at a depth of 877mm

Test stopped at 1061mm due to refusal of equipment to further penetration

Originator	Checked & Approved	Dynamic Cone Penetrometer	
IM	IM 29/09/2023	In-house procedure TP166 with reference to CS 229 cl 6 of the DMRB	Sheet 1 of 1

igne	Site: LT519 FORT AUGUSTUS 400K V UPGRADE	
	Client: SHE - Transmission	
	Engineer: Jacobs	

Date tested	23.08.23	Test Location	FATP 4
Tested by	JD	DCP No.	3
Weather	Dry, sunny	Zero Error (mm)	110



Start Depth (mm)	Finish Depth (mm)	No. of Blows	Blows per Layer	Material	DCP mm/blow	Estimated average CBR over depth range (%)
110	144	4	4	Topsoil	8.50	31
144	171	5	1	Unknown	27.00	9
171	210	35	30	Unknown	1.30	229
210	216	65	30	Unknown	0.20	1655
216	217	105	40	Unknown	0.03	14907

Remarks:

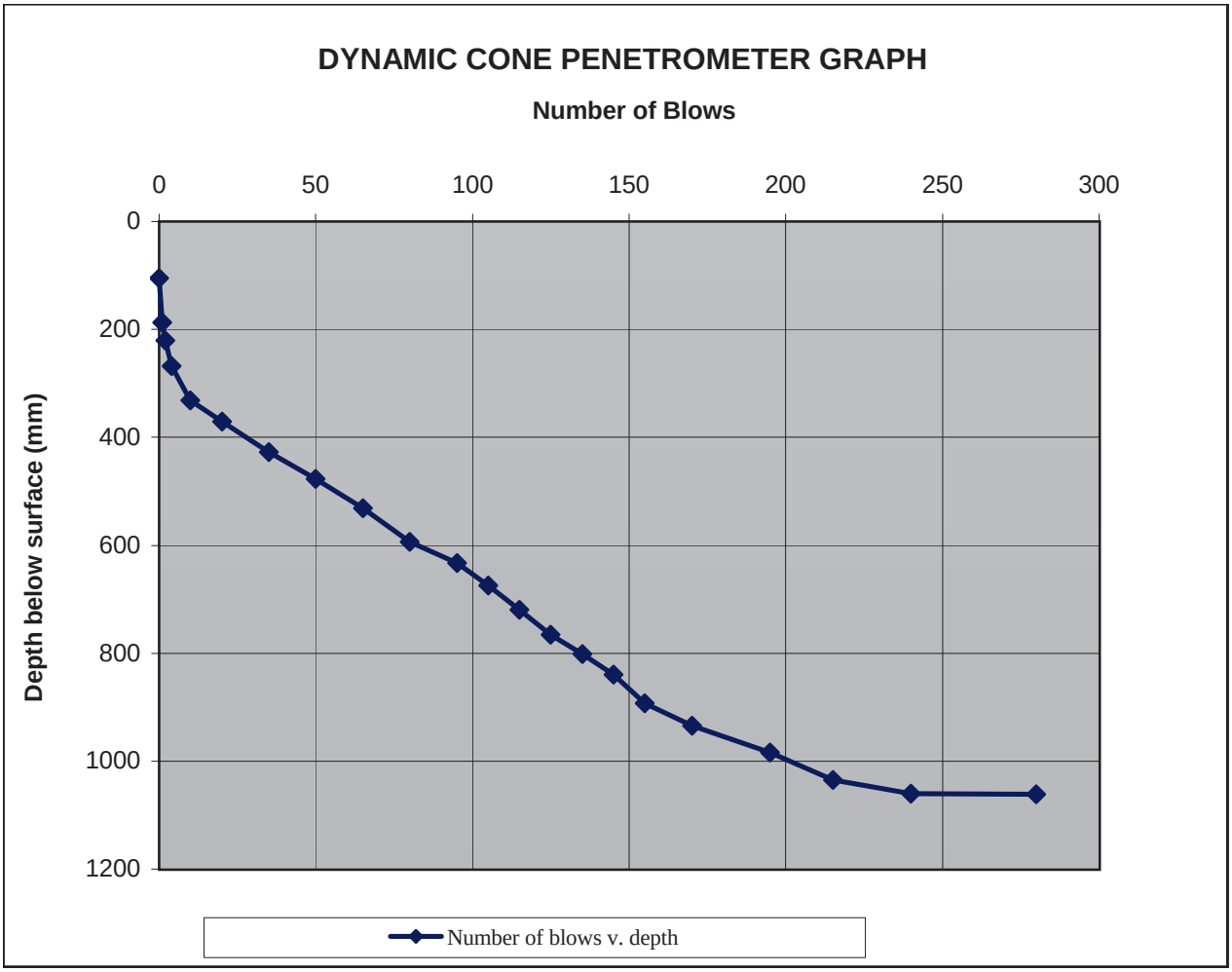
Cone Angle 60° UKAS accredited test - No

Test stopped at 217mm due to refusal of equipment to further penetration

Originator	Checked & Approved	Dynamic Cone Penetrometer	
IM	IM 29/09/2023	In-house procedure TP166 with reference to CS 229 cl 6 of the DMRB	Sheet 1 of 1

igne	Site: LT519 FORT AUGUSTUS 400K V UPGRADE	
	Client: SHE - Transmission	
	Engineer: Jacobs	

Date tested	24.08.23	Test Location	FATP 5
Tested by	JD	DCP No.	1
Weather	Dry, sunny	Zero Error (mm)	105



Start Depth (mm)	Finish Depth (mm)	No. of Blows	Blows per Layer	Material	DCP mm/blow	Estimated average CBR over depth range (%)
105	268	4	4	Topsoil	40.75	6
268	331	10	6	Unknown	10.50	25
331	633	95	85	Unknown	3.55	79
633	893	155	60	Unknown	4.33	64
893	1060	240	85	Unknown	1.96	148
1060	1061	280	40	Unknown	0.03	14907

Remarks:

Cone Angle 60° UKAS accredited test - No

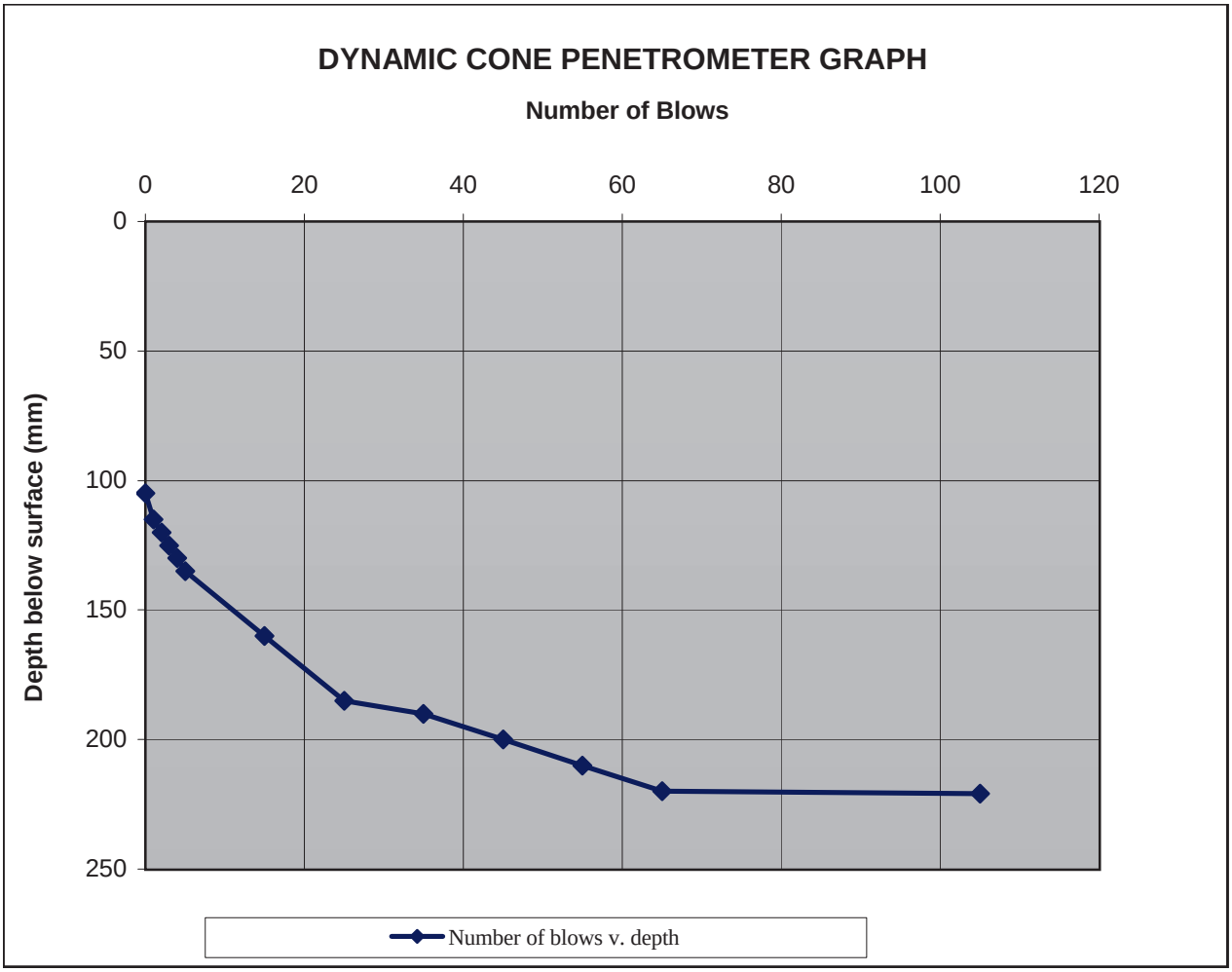
Test stopped to add extension rods at a depth of 877mm

Test stopped at 1061mm due to refusal of equipment to further penetration

Originator	Checked & Approved	Dynamic Cone Penetrometer	
IM	IM 29/09/2023	In-house procedure TP166 with reference to CS 229 cl 6 of the DMRB	Sheet 1 of 1

igne	Site: LT519 FORT AUGUSTUS 400K V UPGRADE	
	Client: SHE - Transmission	
	Engineer: Jacobs	

Date tested	23.08.23	Test Location	FATP 7
Tested by	JD	DCP No.	4
Weather	Dry, sunny	Zero Error (mm)	105



Start Depth (mm)	Finish Depth (mm)	No. of Blows	Blows per Layer	Material	DCP mm/blow	Estimated average CBR over depth range (%)
105	135	5	5	Brown SAND and GRAVEL	6.00	45
135	185	25	20	Unknown	2.50	115
185	190	35	10	Unknown	0.50	628
190	220	65	30	Unknown	1.00	302
220	221	105	40	Unknown	0.03	14907

Remarks:

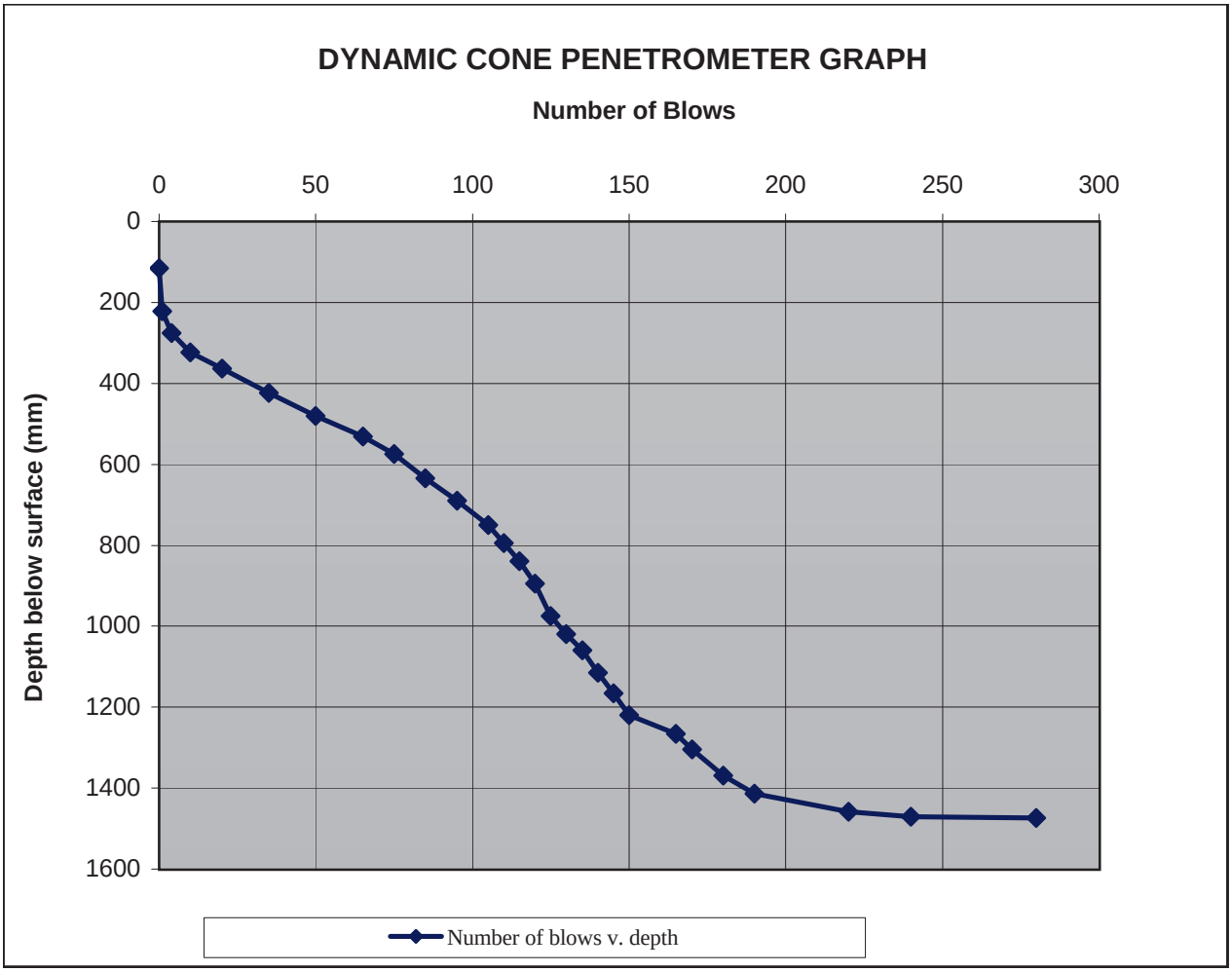
Cone Angle 60° UKAS accredited test - No

Test stopped at 221mm due to refusal of equipment to further penetration

Originator	Checked & Approved	Dynamic Cone Penetrometer	
IM	IM 29/09/2023	In-house procedure TP166 with reference to CS 229 cl 6 of the DMRB	Sheet 1 of 1

igne	Site: LT519 FORT AUGUSTUS 400K V UPGRADE	
	Client: SHE - Transmission	
	Engineer: Jacobs	

Date tested	23.08.23	Test Location	FATP 11
Tested by	JD	DCP No.	2
Weather	Dry, sunny	Zero Error (mm)	115



Start Depth (mm)	Finish Depth (mm)	No. of Blows	Blows per Layer	Material	DCP mm/blow	Estimated average CBR over depth range (%)
115	275	4	4	Topsoil	40.00	6
275	575	75	71	Unknown	4.23	66
575	750	105	30	Unknown	5.83	47
750	1220	150	45	Unknown	10.44	25
1220	1266	165	15	Unknown	3.07	92
1266	1414	190	25	Unknown	5.92	46
1414	1471	240	50	Unknown	1.14	263
1471	1474	280	40	Unknown	0.08	4667

Remarks:

Cone Angle 60° UKAS accredited test - No

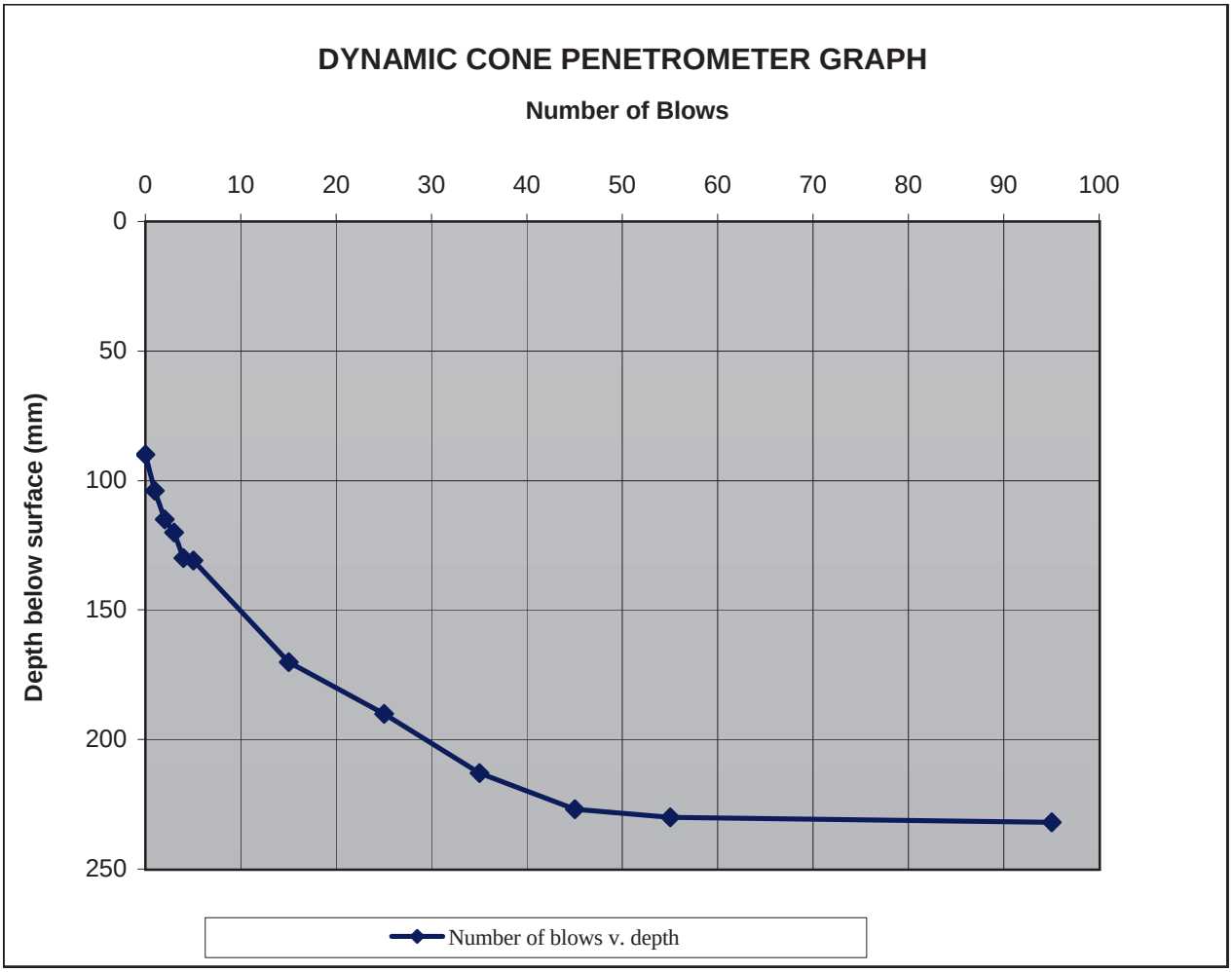
Test stopped to add extension rods at a depth of 895mm

Test stopped at 1474mm due to refusal of equipment to further penetration

Originator	Checked & Approved	Dynamic Cone Penetrometer	
IM	IM 29/09/2023	In-house procedure TP166 with reference to CS 229 cl 6 of the DMRB	Sheet 1 of 1

igne	Site: LT519 FORT AUGUSTUS 400K V UPGRADE	
	Client: SHE - Transmission	
	Engineer: Jacobs	

Date tested	23.08.23	Test Location	FATP 14
Tested by	JD	DCP No.	5
Weather	Dry, sunny	Zero Error (mm)	90



Start Depth (mm)	Finish Depth (mm)	No. of Blows	Blows per Layer	Material	DCP mm/blow	Estimated average CBR over depth range (%)
90	130	4	4	Brown SAND and GRAVEL	10.00	26
130	131	5	1	Unknown	1.00	302
131	170	15	10	Unknown	3.90	72
170	213	35	20	Unknown	2.15	134
213	227	45	10	Unknown	1.40	212
227	230	55	10	Unknown	0.30	1078
230	232	95	40	Unknown	0.05	7165

Remarks:

Cone Angle 60° UKAS accredited test - No

Test stopped at 232mm due to refusal of equipment to further penetration

Originator	Checked & Approved	Dynamic Cone Penetrometer	
IM	IM 29/09/2023	In-house procedure TP166 with reference to CS 229 cl 6 of the DMRB	Sheet 1 of 1

Appendix C. Stakeholder Consultation

C.1 Consultation with SEPA

September 2023

Scottish Environment Protection Agency
(By email: serviceonsepa sepa.org.uk)

Project Name: Fort Augustus
Project Number: B2413736

Subject: Fort Augustus Data Re uest

Dear Sir/Madam

We are currently undertaking a Flood Risk Assessment (FRA) on behalf of SSE, in support of a project to extend an existing substation in Fort Augustus.

The FRA is being prepared to appraise the impacts of the extension to the substation. The approximate location of the substation at Fort Augustus is NH 35233 08277.

Consequently, we are seeking any information that SEPA hold on flooding and drainage in the vicinity of the site, to inform our assessment of flood risk.

Specifically, we are seeking information on flooding and drainage at and near the above area (NH 35233 08277 – Fort Augustus). The site and areas of interest are attached to this letter (Figure 1).

We note from SEPA flood map risk information, and given the location of the site, that the site is at high risk of fluvial flooding, including the area where the extension is proposed.

We would be grateful for the following information:

- Confirmation of whether any part of the project site is considered a Critical Drainage Area
- Previous studies of flood risk in the area of interest, if available
- Details of flood defences which may affect the flood risk at the site including crest heights, associated standard of protection, and condition on last inspection. For the flood defences, please provide any available information on breach modelling outputs such as breach locations and local impacts downstream. If applicable, please provide details of improvements to these flood defenses.
- Any information related to groundwater (i.e., groundwater rebound, etc.) and groundwater flooding in this area. If possible, please provide borehole locations and levels, groundwater abstraction sites, and details of the strata monitored. Where the site lies within Groundwater Source Protection ones (GSP s) please provide plans showing these.
- Mapping of historical flood events on site, from all sources (i.e., fluvial, surface water, groundwater, sewer, reservoir, canal, etc.). Where available, could you please include flood levels, estimated return periods, photographs and reports and other such data as may be relevant to our flood risk assessment.
- Details about drainage within the area of interest/ local area including any known drainage problems
- Details to assist us in assessing whether collected surface water generated by the site can be discharged to soakaway or infiltration, in accordance with regulatory requirements. For example, details of sensitive aquifers in the area, known ground /groundwater contamination issues, soakage tests etc.

- Guidance on any surface water discharge requirements including: runoff rates, waterbody(-ies) to be discharged to, and any Sustainable Drainage System (SuDS) / bridge or culverting requirements that you may have
- An outline of any mitigation requirements, for example compensation storage, that you may have for the site

Please provide any other information that you think may be of use to help us produce an FRA for this development.

ours sincerely

James Buckley

Graduate Hydrologist

James.Buckley1 jacobs.com

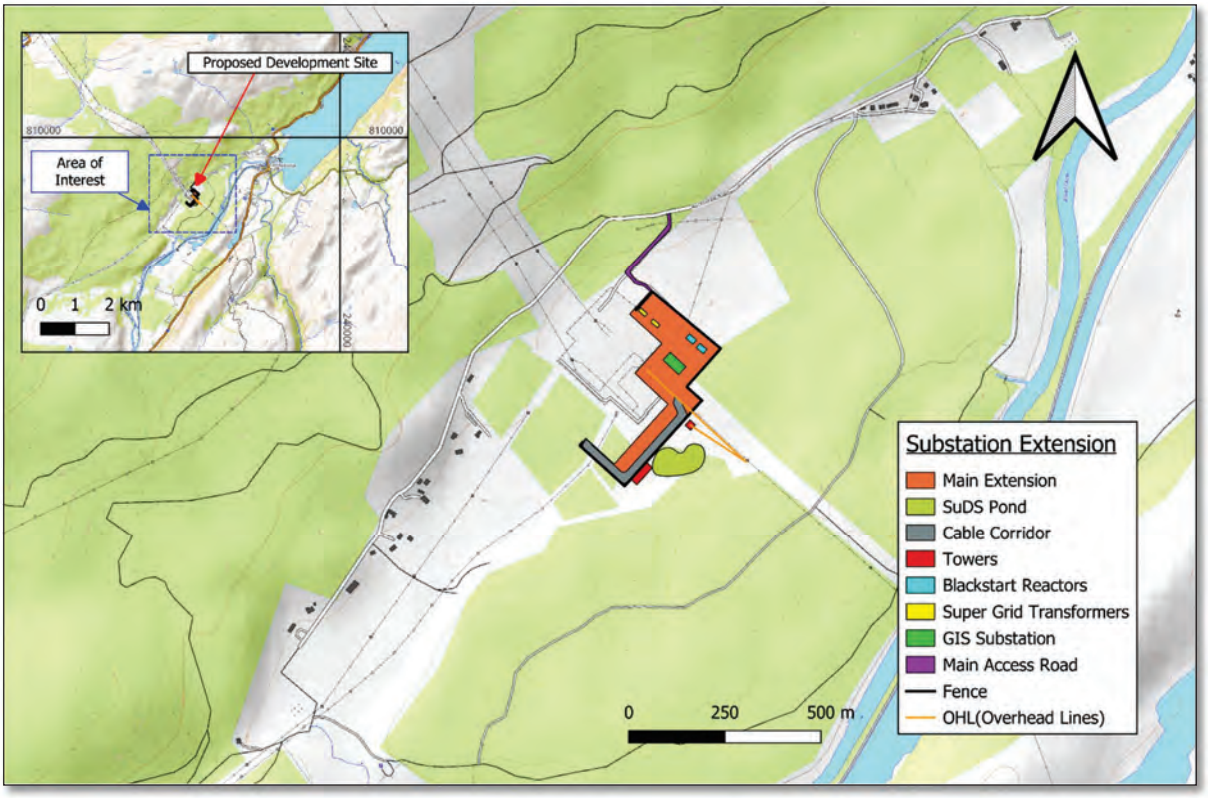


Figure 1. The area of interest for the Fort Augustus Flood Risk Assessment as well as an inlet map showing details of the proposed substation extension.

RESPONSE TO F0196126

Request Timeline

Date	Status
10/10/2023	EIR Request received [statutory deadline 07/11/2023]
08/11/2023	Late request update issued
13/11/2023	EIR Response issued

Requested Information

[…] Flood Risk Assessment (FRA) […]

The approximate location of the substation at Fort Augustus is NH 35233 08277.

Specifically, we are seeking information on flooding and drainage at and near the above area (NH 35233 08277 – Fort Augustus). The site and areas of interest are attached to this letter (Figure 1).

We would be grateful for the following information:

1. Confirmation of whether any part of the project site is considered a Critical Drainage Area

2. Previous studies of flood risk in the area of interest, if available

3. Details of flood defences which may affect the flood risk at the site including crest heights, associated standard of protection, and condition on last inspection. For the flood defences, please provide any available information on breach modelling outputs such as breach locations and local impacts downstream. If applicable, please provide details of improvements to these flood defenses.

4. Any information related to groundwater (i.e., groundwater rebound, etc.) and groundwater flooding in this area. If possible, please provide borehole locations and levels, groundwater abstraction sites, and details of the strata monitored. Where the site lies within Groundwater Source Protection Zones (GSPZs) please provide plans showing these.

5. Mapping of historical flood events on site, from all sources (i.e., fluvial, surface water, groundwater, sewer, reservoir, canal, etc.). Where available, could you please include flood levels, estimated return periods, photographs and reports and other such data as may be relevant to our flood risk assessment.

6. Details about drainage within the area of interest/ local area including any known drainage problems

7. Details to assist us in assessing whether collected surface water generated by the site can be discharged to soakaway or infiltration, in accordance with regulatory requirements. For example, details of sensitive aquifers in the area, known ground / groundwater contamination issues, soakage tests etc.

8. Guidance on any surface water discharge requirements including: runoff rates, waterbody(-ies) to be discharged to, and any Sustainable Drainage System (SuDS) / bridge or culverting requirements that you may have

9. An outline of any mitigation requirements, for example compensation storage, that you may have for the site

10. Please provide any other information that you think may be of use to help us produce an FRA for this development.

Response

We confirm that we have handled your request under the terms of the Environmental

Information (Scotland) Regulations 2004 (EIRs).

We apologise for the delay in providing this response.

Q	Response	Data Reuse
[1]	**Confirmation of whether any part of the project site is considered a Critical Drainage Area** We are not involved in determining whether an area is a “Critical Drainage Area”. This is an Environment Agency term which is not routinely used by SEPA. Exceptions/Regulations Applied: **Regulation 10(4)(a) – Information not held**	In cases where no information is held, data reuse does not apply.
[2]	**Previous studies of flood risk in the area of interest, if available** We are not aware of, nor do we hold, any information on previous flood studies. **General Flood Risk Advice** Development within an area at risk of flooding is generally unacceptable, however, exceptions to this include essential infrastructure uses as outlined within Policy 22a of the National Planning Framework 4 www.gov.scot/publications/national-planning-framework-4/pages/1/ and SEPA’s Land Use Vulnerability Guidance. www.sepa.org.uk/media/143416/land-use-vulnerability-guidance.pdf In such cases, it will be demonstrated by the applicant that: • all risks of flooding are understood and addressed;	In cases where no information is held, data reuse does not apply.

Q	Response	Data Reuse
	• there is no reduction in floodplain capacity, increased risk for others, or a need for future flood protection schemes; • the development remains safe and operational during floods; • flood resistant and resilient materials and construction methods are used; and • future adaptations can be made to accommodate the effects of climate change For essential infrastructure we also refer you to our Flood Risk Standing Advice, www.sepa.org.uk/media/534740/sepa-flood-risk-standing-advice-for-planning-authorities-and-developers.pdf particularly section 5 on essential infrastructure and water compatible uses. All the advice in that section should be followed. We still recommend that lower risk locations be considered first, and the layout is designed to avoid the highest risk areas of the site. It should be noted that the development should result in no reduction in floodplain capacity e.g. through landraising. Any parts of the development that need to be protected from flooding should therefore be located outside the areas at risk. SEPA's Future Flood Maps indicate which areas are at risk of flooding and they can be used in development design to avoid flooding as far as possible. Please note the above links have been provided under Regulation 9. We are currently updating all our guidance to bring it in line with National Planning Framework (NPF4). Guidance issued after 13 February has been updated. Whilst any guidance issued	

Q	Response	Data Reuse
	before this date will still contain relevant and useful information, you should be aware that some parts may be out of date. As a result, our planning consultation responses may not match the information set out in this guidance. Exceptions/Regulations Applied: **Regulation 9 – Advise and Assist** **Regulation 10(4)(a) – Information not held**	
[3]	**Details of flood defences which may affect the flood risk at the site including crest heights, associated standard of protection, and condition on last inspection. For the flood defences, please provide any available information on breach modelling outputs such as breach locations and local impacts downstream. If applicable, please provide details of improvements to these flood defenses.** Information on flood defences in Scotland can be accessed through the Scottish Flood Defence Asset Database (SFDAD), which you can register to access here: https://www.scottishflooddefences.gov.uk/. While this contains most defences, in some instances there are some for which information is not available. However, we can confirm that we are not currently aware of any additional defences to those listed in the SFDAD.	External link: please refer to terms and conditions on website. SEPA cannot advise about third party data re-use.

Q	Response	Data Reuse
	We recommend that you contact the Flood Risk Management team at Highland Council, who are the local flood risk management authority and are responsible for flood defences for that area. They will be able to provide further details on flooding and flood alleviation in this area, contact details provided in 'Application of Regulation/Exceptions' section below. Exceptions/Regulations Applied: **Regulation 9 – Advise and Assist** **Regulation 10(4)(a) – Information not held** **Regulation 14(1)(b) – Other Authority**	
[4]	**Any information related to groundwater (i.e., groundwater rebound, etc.) and groundwater flooding in this area. If possible, please provide borehole locations and levels, groundwater abstraction sites, and details of the strata monitored. Where the site lies within Groundwater Source Protection Zones (GSPZs) please provide plans showing these.** **Ground water flooding** We do not routinely comment on groundwater flood risk. Groundwater Flood Maps can be found on our website here map.sepa.org.uk/floodmap/map.htm	**SEPA Flood maps**: This data is licenced under the current Open Government Licence: www.nationalarchives.gov.uk/doc/open-government-licence/version/3/

Q	Response	Data Reuse
	Abstractions **There are no abstractions within the search area.** Please find attached a spreadsheet containing the authorisations within a 1km radius from the National Grid Reference (NGR) NH 35233 08277. The spreadsheet does not contain details for authorisation CAR/S/1195027. We have included a copy of the licence which may be of interest. • **F0196126 – 18-10-2023** • **CAR_S_1195027_Licence_Land_SW_Whitebridge_Cottage_Auchteraw_Fort_AugustusRR** Please note: • SEPA's Public Register remains impacted by the cyber-attack and we are rebuilding in phases. We are providing you with the best information we currently have available but cannot confirm it is complete or accurate. Any use you make of this information will be at your own risk. • Private drinking water supply abstractions of 10m^3 or less are covered by a General Binding Rule (GBR). As compliance with the GBR is mandatory and no formal SEPA authorisation or registration is required, we do not hold a record of these. It is the responsibility of the local authority to maintain a register of private drinking water supplies and we suggest you contact Highland Council for this	**Abstractions spreadsheet:** This data is licenced under the current Open Government Licence: www.nationalarchives.gov.uk/doc/open-government-licence/version/3/

Q	Response	Data Reuse
	information, contact details provided in 'Application of Regulation/Exceptions' section below. • In the interest of public safety, we cannot disclose the locations of public drinking water supply abstractions. **Groundwater Monitoring** There are no SEPA groundwater level monitoring locations within the area of interest. **Groundwater Source Protection Zones (GSPZs)** Source protection zones have not been defined in Scotland. However, all of Scotland's groundwater bodies have been designated as Drinking Water Protected Areas (DWPA) and require protection for their current use or future potential as drinking water resources. www.sepa.org.uk/environment/water/monitoring/protected-areas/ DWPA in the Scotland River Basin District are defined by The Water Environment (Drinking Water Protected Areas) (Scotland) Order 2013. www.legislation.gov.uk/ssi/2013/29/made Maps of the DWPA have been published by the Scottish Government.	

Q	Response	Data Reuse
	www.gov.scot/publications/drinking-water-protected-areas-scotland-river-basin-district-maps/ Exceptions/Regulations Applied: **Regulation 9 – Advise and Assist** **Regulation 10(4)(a) – Information not held** **Regulation 11(2) – Personal Data** **Regulation 10(5)(a) – International relations, national security, public safety** **Regulation 14(1)(b) – Other Authority**	External link: please refer to terms and conditions on website. SEPA cannot advise about third party data re-use.
[5]	**Mapping of historical flood events on site, from all sources (i.e., fluvial, surface water, groundwater, sewer, reservoir, canal, etc.). Where available, could you please include flood levels, estimated return periods, photographs and reports and other such data as may be relevant to our flood risk assessment.** SEPA's Observed Flood Event database currently holds no records of flooding affecting your site of interest. SEPA's Observed Flood Event database is a collection of flood event records known to SEPA at this time and does not constitute a complete record of all flooding that may have occurred in the area.	In cases where no information is held, data reuse does not apply.

Q	Response	Data Reuse
	If we do not hold any records of flooding for an area, this does not mean it has never flooded, simply that we do not have a record of it. Exceptions/Regulations Applied: **Regulation 10(4)(a) – Information not held**	
[6]	**Details about drainage within the area of interest/ local area including any known drainage problems** We do not routinely provide comments or advice on drainage issues. This is better answered by the Local Authority (The Highland Council) or Scottish Water who have a duty to manage surface water runoff and drainage, their contact details are provided in 'Application of Regulation/Exceptions' section below. Exceptions/Regulations Applied: **Regulation 10(4)(a) – Information not held** **Regulation 14(1)(b) – Other Authority**	In cases where no information is held, data reuse does not apply.
[7]	**Details to assist us in assessing whether collected surface water generated by the site can be discharged to soakaway or infiltration, in accordance with regulatory requirements. For example, details of sensitive aquifers in the area, known ground / groundwater contamination issues, soakage tests etc.**	In cases where no information is held, data reuse does not apply.

Q	Response	Data Reuse
	We do not hold any records of land contamination issues at the site. The site is not identified as Contaminated Land under Part IIA of the Environmental Protection Act 1990. The local authority is in most instances to lead agency for land contamination under Part IIA of the Environmental Protection Act 1990 and should be contacted for information, The Highland Council's contact details are provided in 'Application of Regulation/Exceptions' section below. Exceptions/Regulations Applied: **Regulation 10(4)(a) – Information not held** **Regulation 14(1)(b) – Other Authority**	
[8]	**Guidance on any surface water discharge requirements including: runoff rates, waterbody(-ies) to be discharged to, and any Sustainable Drainage System (SuDS) / bridge or culverting requirements that you may have** We have a variety of guidance pages and documents that are publicly available on our website. Please refer to the CAR (Controlled Activities Regulations) Practical Guide www.sepa.org.uk/media/dw5de0kh/car-a-practical-guide.pdf which gives guidance regarding discharge (Section 3) and engineering works (Section 6).	Not applicable

Q	Response	Data Reuse
	For SuDS (sustainable urban drainage systems) you can look at the relevant page on the website www.sepa.org.uk/regulations/water/diffuse-pollution/diffuse-pollution-in-the-urban-environment/ If more guidance is still needed, then answers may be found on our guidance page www.sepa.org.uk/regulations/water/guidance/ Exceptions/Regulations Applied: **Regulation 6(1)(b) - Publicly Available**	
[9]	**An outline of any mitigation requirements, for example compensation storage, that you may have for the site** Pre-application advice can be sought from our Planning colleagues. They would consult relevant teams in SEPA for comment. We would then be able to provide advice regarding the application and what is likely to be acceptable under Scottish Planning Guidance/Policy in regard to flood risk as well as outline any requirements, like mitigation in this case. There is a section on our website that summarises what SEPA can provide planning advice on - www.sepa.org.uk/environment/land/planning/ and includes a link to a Word document with the relevant planning email addresses.	Not applicable

Q	Response	Data Reuse
	Exceptions/Regulations Applied: **Regulation 9 – Advise and Assist**	
10	**Please provide any other information that you think may be of use to help us produce an FRA for this development.** We do not hold any further information that may be of use in a Flood Risk Assessment (FRA). **Regulation 10(4)(a) – Information not held**	In cases where no information is held, data reuse does not apply.

Application of Regulations and Exceptions

Section 39(2)

The information you are requesting is environmental information. We have applied Section 39(2) of the Freedom of Information (Scotland) Act 2002 (FOISA). We are therefore handling your request under the Environmental Information (Scotland) Regulations 2004 (EIRs).

Regulation 6(1)(b) Publicly Available and Easily Accessible

Where we have advised above that information is publicly available & easily accessible Regulation 6(1)(b) applies, the text of which is reproduced below;-

6(1) Where an applicant requests that environmental information be made available in a particular form or format, a Scottish public authority shall comply with that request unless- (b) the information is already publicly available and easily accessible to the applicant in another form or format.

Regulation 9 – Advice and assistance

Where we have issued additional information or advice this is provided in line with SEPA's duty to advise and assist under Regulation 9 of The Environmental Information (Scotland) Regulations 2004.

Regulation 10(4)(a) – Information not held

Where we have advised above that SEPA does not hold this information it is excepted under Regulation 10(4)(a) of the Environmental Information Regulations 2004. The text of which is reproduced below;

(4) A Scottish public authority may refuse to make environmental information available to the extent that;- (a) it does not hold that information when an applicant's request is received.

The exception in regulation 10(4)(a) is subject to the public interest test in regulation 10(1)(b) of the EIRs. As SEPA does not hold the information in question there is no conceivable public interest in requiring that the information be made available.

Regulation 10(5)(a) – International relations, national security, public safety

The locations of public drinking water supply abstractions are withheld from release under the terms of Regulation 10(5)(a) of the EIRs. The text of which is reproduced below.

10 (5) A Scottish public authority may refuse to make environmental information available to the extent that its disclosure would, or would be likely to, prejudice substantially, (a) international relations, defence, national security or public safety;

The Public Interest Test was carried out in relation to the information which is to be withheld under Regulation 10(5)(a) of the EIRs. It is acknowledged that there are public interest arguments in favour of disclosure of the subject information. However, there is a stronger public interest in withholding information that if disclosed would likely to prejudice substantially public safety in providing the locations of the public's drinking water supplies.

Regulation 11(2) – Personal data

Personal data relating to SEPA staff and private individuals has been redacted from the released documents in accordance with Regulation 11(2) of the EIRs and Data Protection Principles. SEPA has not withheld complete documents which contain such personal data and have released all other information within the document.

Regulation 14(1)(b) – Other authority

As confirmed above SEPA does not hold this information. In accordance with the terms of the EIRs regulation 14(1)(b), The text of which is reproduced below.

14(1) Where a Scottish public authority has received a request to make environmental information available and does not hold that information but believes that another public authority holds the information requested then it shall (b) supply the applicant with the name and address of that other authority,

We advise that you contact:

Freedom of Information Officer

The Highland Council
Headquarters
Glenurquhart Road
Inverness
IV3 5NX
www.highland.gov.uk/info/704/data_protection_and_freedom_of_information/340/freedom_of_information

Scottish Water
The Bridge
6 Buchanan Gate
Stepps
Glasgow
G33 6FB
Email: foi@scottishwater.co.uk

www.scottishwater.co.uk/help-and-resources/access-to-information

What to expect when making a Request for Information

Each request for information, under The Environmental Information (Scotland) Regulations 2004 or the Freedom of Information (Scotland) Act 2002, is formally logged by the authority. The request falls within a process that has two internal stages carried out by the authority; a right of appeal to the Scottish Information Commissioner followed by an appeal to the Court of Session on a point of law only.

•Stage 1 – Request for information
•Stage 2 – Formal Review
•Stage 3 – Appeal for decision by Scottish Information Commissioner (OSIC)
•Stage 4 – Appeal to the Court of Session on a point of law only.

Each enquiry will have a unique Reference Number which should be quoted when you contact us.

How you will be kept informed

You will receive an acknowledgement for your request and Formal Review. We aim to reply to all enquiries promptly, within 20 working days. You will receive a response along with the requested information and/or an explanation regarding any withheld information. We may also contact you if we require clarification or if we are issuing a fees notice.

What happens once your enquiry has been responded to?

If you are not happy with the response or have failed to receive a response, you have the right to request a Formal Review from SEPA.

Guidance on your rights and how to ask for a review is on the Scottish Information Commissioner's website; http://itspublicknowledge.info/YourRights/Askingforareview.aspx

We will ensure that all personal data is processed, recorded and retained in accordance with the requirements of the Data Protection Act 2018 throughout the handling of each request. You have a right to see information about yourself via submitting a Subject Access Request under the Data Protection Act 2018.

What to do if you are not happy with how your enquiry and review were handled

If you are unsatisfied with our Formal Review response or have failed to receive a response, you can then appeal to the Scottish Information Commissioner via the links below.

www.itspublicknowledge.info/appeal
http://www.itspublicknowledge.info/home/ContactUs/ContactUs.aspx

Should you wish to appeal against the Scottish Information Commissioner's decision, you have the right to appeal to the Court of Session on a point of law only. Any such appeal must be made within 42 days after the date of intimation of the decision.

SCOTTISH ENVIRONMENT PROTECTION AGENCY

WATER ENVIRONMENT AND WATER SERVICES (SCOTLAND) ACT 2003
WATER ENVIRONMENT (CONTROLLED ACTIVITIES) (SCOTLAND) REGULATIONS 2011 ("THE REGULATIONS")

WATER USE LICENCE

Licence Number:	CAR/S/1195027
Responsible Person:	Global Infrastructure Scotland Limited
Site or Location of Activity/Activities	Land 325m SW of Whitebridge Cottage Auchteraw Fort Augustus PH32 4BT

The Scottish Environment Protection Agency, in accordance with regulations 8 and 15 of the Regulations, hereby authorises the carrying on of the controlled activity or activities set out in Schedule 1 of this licence, at or near or in connection with the site or location set out above, subject to the requirements of the Regulations and to the conditions contained in the schedules attached to and forming part of this licence.

The person responsible for securing compliance with this licence and its conditions ("the responsible person") shall be Global Infrastructure Scotland Limited, company registration number SC289013, having its registered office at Beauly Quarry, Wester Balblair, Beauly, Inverness-Shire, Scotland, IV4 7BG.

This licence and its conditions shall, except where otherwise provided in any of those conditions, take effect on 15 December 2020.

Signed: [redacted]..... Date: 15 December 2020

Authorised to sign on behalf of the
Scottish Environment Protection Agency

Right of Appeal

You are entitled to appeal to the Scottish Ministers, within three months of the date of this licence, if you have been granted a form of authorisation which is different from the form of authorisation which you believe ought to have been granted (under regulation 50(b) of the Regulations) or against any condition or conditions of this licence (under regulation 50(c) of the Regulations). The bringing of an appeal against a condition will not have the effect of suspending the operation of the condition. The procedures for the making of an appeal are set out in Schedule 9 of the Regulations.

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INTERPRETATION OF TERMS

For the purposes of this licence, and unless the context requires otherwise, the following definitions shall apply:

Generic

"the Act" means the Water Environment and Water Services (Scotland) Act 2003;

"controlled activity" means an activity to which the Regulations apply, in accordance with regulation 3(1) of the Regulations;

"incident" means:

- any accident which has had or could have an adverse impact on the water environment; or
- any malfunction, breakdown or failure of plant or techniques which has had or could have an adverse impact on the water environment; or
- any event, such as force majeure or action taken to save human life or limb, which results, or is likely to result, in a breach of any condition of this licence;

"pollution", in relation to the water environment, means the direct or indirect introduction, as a result of human activity, of substances or heat into the water environment, or any part of it, which may give rise to any harm, and "harm" shall have the same meaning as in the Act;

"responsible person" means the person who is responsible for securing compliance with the terms of this licence and has been identified as such by SEPA in accordance with regulation 8(6) of the Regulations, and in this context 'person' includes a body corporate, limited liability partnership and Scottish partnership;

"the Regulations" means the Water Environment (Controlled Activities) (Scotland) Regulations 2011;

"SEPA" means the Scottish Environment Protection Agency;

"SEPA officer" means a person authorised by SEPA under regulation 31(4) of the Regulations or, pursuant to paragraph 6(c) of Schedule 10 of the Regulations, under regulation 27(4) of the Water Environment (Controlled Activities) (Scotland) Regulations 2005;

"the water environment" means all surface water, groundwater and wetlands; and "surface water", "groundwater" and "wetlands" shall have the same meanings as in the Act;

"body of inland surface water" means a body of surface water which is also inland water; and "body of surface water" and "inland water" shall have the same meanings as in the Act;

"watercourse" shall have the same meaning as in the Act;

Impounding works

"fish pass" means any fish pass, ladder, fish way, lift or other device which facilitates the free passage, upstream or downstream, of fish around, over or through an impounding works;

"height", in relation to an impounding works, means the height as measured from the downstream toe of the impounding works to the crest or top of the spillway;

"impounding works" means, in relation to surface water -

- any dam, weir or other works by which water may be impounded,
- any works diverting the flow of water in connection with the construction or alteration of any dam, weir or other works falling within paragraph a);

"natural reasons" means any reason which is not related to (a) the operation of an impounding works or (b) the abstraction of surface water by the operator of an impounding works or (c) the abstraction of surface water for a purpose for which an impounding works was constructed or is being used;

"normal operation" means the operation of an impounding works under normal operating rules and management agreements without incidents or major maintenance works;

Engineering works

"bankfull" means the highest point on the bank of any watercourse at which flowing water is held within the channel of the watercourse before spilling over onto the floodplain;

"bank height" means the height of the bank of any body of inland surface water measured vertically from the bank toe to the bank top, excluding any artificial heightening of the bank (e.g. embankments, retaining walls);

"bank toe" means the lowest point on the bank of any body of inland surface water where the bank meets the bed of the body of inland surface water;

"bank top" means the first major break in the slope of the bank of any body of inland surface water, beyond which cultivation or development would be possible;

"channel" means the bankfull cross-section that any watercourse occupies, including any exposed bars and vegetated islands;

"channel width" means the straight line distance that is between opposite bank toes of a watercourse and which spans the bed of the watercourse, including any exposed bars and vegetated islands;

"destabilise" means significantly disturb the natural state of balance between sediment erosion and deposition;

"existing" means existing prior to any works authorised by this licence being carried out;

"hydraulic drop" means any sudden change in the water level of any watercourse;

"left" or "right", in relation to the bank of any watercourse, shall be determined when facing downstream;

"substrate" means the material making up the bed of any body of inland surface water

Any reference to a numbered Condition, numbered Paragraph, group of Conditions, group of Paragraphs, Schedule, Table, Appendix or Figure or is a reference to the condition, paragraph, group of conditions, group of paragraphs, schedule, table, appendix or figure bearing that number in this licence.

Except where specified otherwise in this licence:

- "day" means any period of 24 consecutive hours,
- "week" means any period of 7 consecutive days,
- "month" means a calendar month,
- "quarter" means a calendar quarter,
- "year" means any period of 12 consecutive months;

and any derived words (e.g. "monthly", "quarterly") shall be interpreted accordingly.

Except where specified otherwise in this licence, any reference to an enactment or statutory instrument includes a reference to it as amended (whether before or after the date of this licence) and to any other enactment, which may, after the date of this licence, directly or indirectly replace it, with or without amendment.

SCHEDULE 1. CONTROLLED ACTIVITIES

1.1. Specification of the Authorised Activities

1.1.1. This licence authorises the controlled activities set out in the first column of Table 1.1 below that are carried on at the national grid reference (NGR) given for each of them in the second column of that table.

1.1.2. The location of each of those activities is referred to throughout this licence by the name or reference given for it in the fourth column of Table 1.1 below.

1.1.3. The activities specified above ("the Authorised Activities") are authorised subject to the general conditions contained in Schedule 2.

1.1.4. Each of the Authorised Activities is authorised subject also to the particular conditions contained in the numbered schedule or schedules of conditions given for it in the fifth column of Table 1.1 below.

1.2. Purpose of the Authorised Activities

1.2.1. The Authorised Activities are for the primary purpose of realignment of a watercourse and flood defence to enable reinforcement of electrical substation assets.

Table 1.1: Authorised Activities

Controlled Activity	NGR	Affected Waters	Name/Reference	Applicable Schedule(s) of Conditions
Construction and operation of impounding works for flood defence	NH 3608 0809	Unnamed tributary of Auchteraw Burn	Fort Augustus Substation Dev, Eng Wks, Flood Defence on U/T of Auchteraw Burn	Schedule 3 & 4
Realignment of a watercourse	NH 3574 0834	Unnamed tributary of Auchteraw Burn	Fort Augustus Substation Dev, Eng Wks, Realignment on U/T of Auchteraw Burn	Schedule 3 & 5

SCHEDULE 2. GENERAL CONDITIONS

2.1. Responsible person

2.1.1. The responsible person to whom this licence is issued shall secure compliance with the conditions contained within it.

2.2. Environmental harm

2.2.1. Other than as specifically permitted or limited by any condition of this licence, none of the Authorised Activities shall have a significant adverse impact on, or cause pollution of, the water environment.

2.3. Incidents

2.3.1. In the event of an incident, SEPA shall be **notified** without delay and in any case by the next working day after identification of the incident, such notification to include:

(a) the time and duration of the incident,

(b) a description of the cause of the incident,

(c) any effect on the environment as a result of the incident and

(d) any measures taken to minimise or mitigate the effect and prevent a recurrence.

2.3.2. Where requested by SEPA, a written **report** shall be made following any incident, containing such further information as SEPA reasonably requires.

2.4. Records

2.4.1. A copy of this licence and, subject to Condition 2.4.2 below, of every record made in compliance with a condition of this licence shall be:

(a) kept on site or at another location agreed with SEPA in writing, such that they are readily accessible for examination by all relevant persons, and

(b) made available to a SEPA officer on request.

2.4.2. Unless otherwise specified in a condition of this licence, every such record shall be:

(a) preserved for not less than five years from the date of its being made; and

(b) kept as set out in Condition 2.4.1 for not less than one year from the date of its being made and thereafter at a location previously **notified** to SEPA in writing, if that location is not the site or other location agreed as above.

2.4.3. All such records shall be legible, and any amendment made to any record shall be made in such a way as to leave the original entry clear and legible, with the reason for each amendment explained in the said record.

2.5. Notifications

2.5.1. Where any condition of this licence requires SEPA to be **notified**, the notification shall be made using the contact details for notifications given in the explanatory notes attached to this licence, unless the condition in question requires otherwise.

2.6. Reports and submissions

2.6.1. Where any condition of this licence, as specified in the second column of Table 2.1 below, requires information to be **reported** or **submitted**, the following shall apply:

(a) The report or submission shall be forwarded to SEPA at the address for reports given in the explanatory notes attached to this licence, unless otherwise agreed in writing with SEPA.

(b) The report or submission shall be in a format agreed with SEPA or, failing such agreement, in a format specified by SEPA.

(c) The report or submission shall be forwarded by the date(s) or within the period or at the frequency specified in the third column of Table 2.1 below, as applicable.

(d) Where applicable, the first such report shall be due on the date specified in the fourth column of that table.

(e) The report or submission shall include the reference number of this licence and the name of the responsible person.

Table 2.1: Summary of Reporting and Submission Requirements

Summary of information to be reported/submitted	Licence Condition	Date by / period within / frequency at which to be reported/submitted	Date first report due
Incident follow-up	2.3.2	Within 14 days of SEPA's request	N/A
Method Statement	3.2.1 and 3.2.3	No less than 4 weeks prior to the proposed date of commencement and if any change proposed.	N/A

2.7. Construction Phase

2.7.1. All reasonable steps shall be taken to prevent the transport of sediment or other matter disturbed by the works into waters beyond the worked stretch.

2.7.2. Vegetation shall be removed only to the extent necessary to carry out the activities. Any vegetation that is removed shall not be disposed of into any inland surface water.

2.7.3. The activity should be undertaken in accordance with the method statement to prevent the spread of invasive non-native species

2.7.4. During the activities all reasonable steps shall be taken to ensure that work does not result in increased erosion of the bed or banks of the inland surface water.

2.7.5. Any vehicle, plant or other equipment used in connection with the Authorised Activities shall only be operated in surface water or wetlands where it is impracticable for it to be operated on dry land.

2.7.6. Any such vehicle, plant or other equipment used in or near any surface water or wetland shall be maintained and/or bunded so as to prevent spillage of any oil, fuel or other matter liable to cause pollution of the water environment.

2.7.7. The refuelling and/or washing of any such vehicle, plant or other equipment shall be undertaken at least 10 metres from any surface water, wetland or any groundwater abstraction point, and water from such washing shall be prevented from entering any surface water, wetland or groundwater abstraction point.

2.7.8. Any such vehicle, plant or other equipment shall not be operated in surface water if there is a reasonable likelihood that, within 50 metres of such an operation, there are freshwater pearl mussels.

2.7.9. Any static plant or equipment used temporarily within 10 metres of any surface water or wetland shall be positioned on a suitably sized and maintained impervious drip tray with a capacity equal to 110% of the capacity of the fuel tank which is supplying the said plant or equipment.

SCHEDULE 3. FURTHER GENERAL CONDITIONS APPLYING TO THE ACTIVITIES LISTED IN TABLE 1.1

3.1. Timing of works

3.1.1. No construction works authorised by this licence shall be commenced until SEPA has approved the required method statement for that works in terms of Condition(s) 3.3.2.

3.1.2. The activities shall be completed by 04 May 2021, proposed changes to the completion date shall be submitted in writing for approval by SEPA.

3.1.3. The activities shall not be undertaken during periods in which fish are likely to be spawning in the inland surface water nor in the period between any such spawning and the emergence of juvenile fish[1].

3.2. Drawing(s)

3.2.1. The activities shall be carried out in accordance with the drawing(s) 22396-130 Rev 03, 22396-131 Rev 01, 22396-132 Rev 02, 22396-140 Rev 05, 22396-141 Rev 06, 22396-142 Rev 05, 22396-143 Rev 05, 22396-145 Rev 02, 22396-146 Rev 04, 22396-147 Rev 02, as submitted with the application for this licence. Where any licence condition conflicts with the drawing(s), the licence condition shall take precedence over the drawing(s).

3.2.2. Proposed changes to the drawing(s) shall be submitted in writing to SEPA and the proposed changes shall not be implemented until SEPA has given its written agreement.

3.3. Method statement

3.3.1. No less than 4 weeks prior to the proposed date of commencement of the activities, a method statement shall be submitted to SEPA for approval detailing the method of construction of each said activity.

3.3.2. Following adjustment, if necessary, and written approval by SEPA of each method statement, construction of the activities shall be carried out in accordance with the approved method statement(s).

3.3.3. No changes shall be made to any approved method statement(s) without SEPA's prior written approval.

[1] For advice on the presence of fish please consult with NatureScot (www.nature.scot) and Fisheries Management Scotland (www.fms.scot)

SCHEDULE 4. CONDITIONS APPLYING TO IMPOUNDING WORKS LISTED IN TABLE 1.1

4.1.1. The height of the impoundment structure described in Table 1.1 shall not exceed 3.56 metres.

4.1.2. Four pipe culverts shall be installed.

4.1.3. The culverts shall extend no more than 19 metres along the length of the inland surface water.

4.1.4. The diameter of the culverts shall be no less than 1650 millimetres.

4.1.5. The total length of bank reinforcement and bed reinforcement required for the construction of the culverts shall not exceed 15.5 metres.

4.1.6. The impoundment shall not destabilise the bed or banks of the inland surface water.

SCHEDULE 5. CONDITIONS APPLYING TO CHANNEL MODIFICATION ACTIVITY LISTED IN TABLE 1.1

5.1. Channel modification at NH 3574 0834

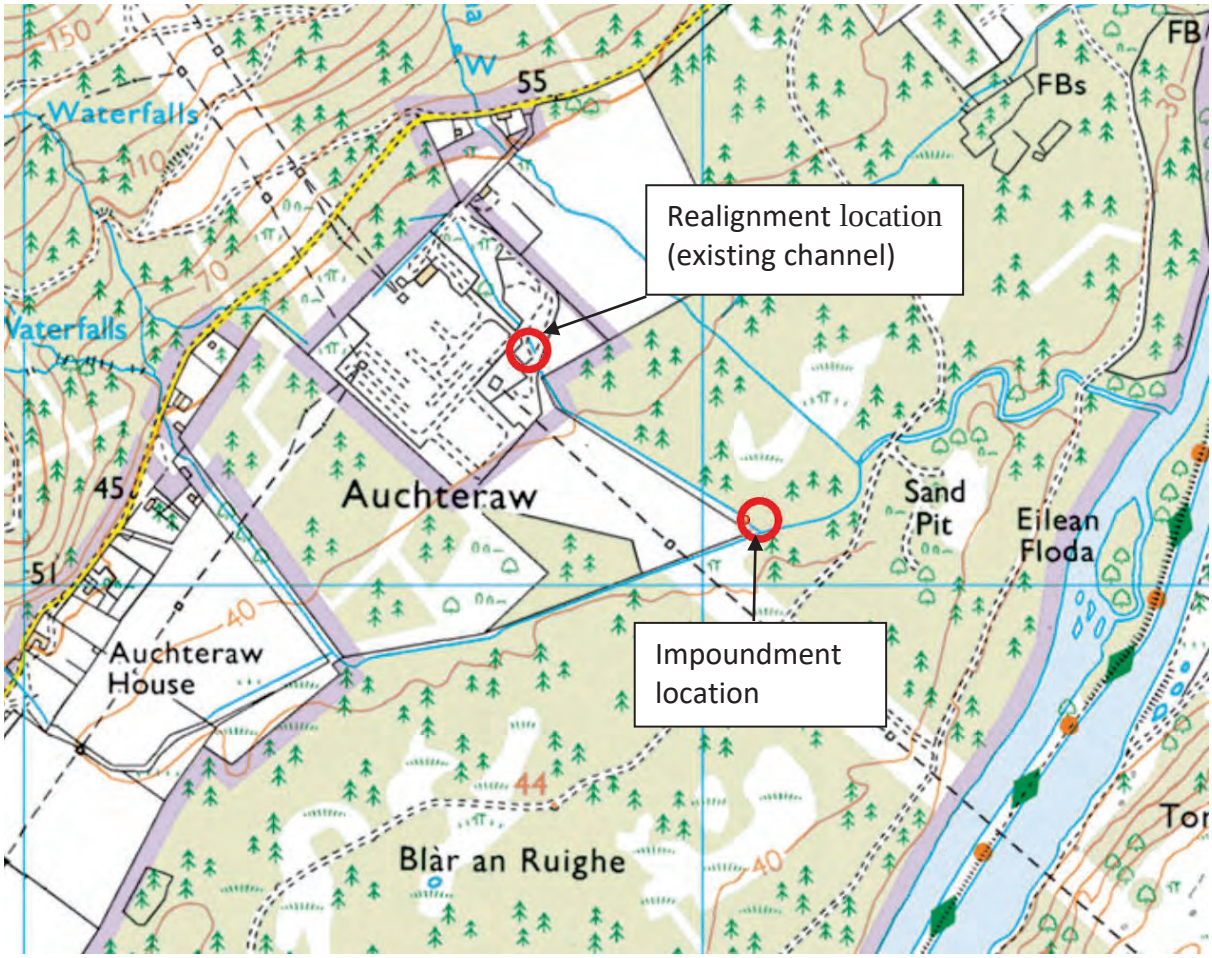
5.1.1. The length of the unnamed tributary of Auchteraw Burn to be realigned ("the original channel") shall not exceed 683 metres.

5.1.2. The length of the new channel shall not exceed 808 metres.

5.1.3. Realignment of the unnamed tributary of Auchteraw Burn shall only be undertaken between upstream NGR NH 3563 0854 and downstream NH 3608 0809.

5.1.4. Areas of bare earth shall be planted with native vegetation and/or lined with a biodegradable geotextile.

APPENDIX A CONTROLLED ACTIVITIES LOCATION



EXPLANATORY NOTES

(These explanatory notes do not form part of the licence)

1. THE WATER FRAMEWORK DIRECTIVE

The Water Framework Directive (WFD) is a wide-ranging piece of European environmental legislation which became law in Scotland at the end of 2003 through the Water Environment and Water Services (Scotland) Act 2003 and in April 2006 through the Water Environment (Controlled Activities) (Scotland) Regulations 2005. In March 2011, the Water Environment (Controlled Activities) (Scotland) Regulations 2005 were replaced with the Water Environment (Controlled Activities)(Scotland) Regulations 2011 ("the Regulations", also known as CAR).

The WFD establishes a legal framework for the protection, improvement and sustainable use of the water environment across Europe by requiring member states to:

- Prevent deterioration and enhance status of aquatic ecosystems, including groundwater;
- Promote sustainable water use;
- Reduce pollution; and
- Contribute to the mitigation of floods and droughts.

The Regulations set out the regulatory framework for achieving some of the aims of the WFD in Scotland, through a regime for authorising "controlled activities", e.g. point source discharges, abstractions, impoundments and engineering activities. They provide for three levels of authorisation, dependent on the risks associated with a controlled activity. A licence is the highest level of authorisation.

Having differing levels of authorisation allows for proportionate and cost-effective controls, so that environmental protection can be achieved whilst minimising the regulatory burden.

2. WATER EFFICIENCY

Regulation 5 of the Regulations imposes a general duty to use water efficiently:

"It is the duty of any person carrying out a controlled activity authorised under these Regulations to take all reasonable steps to secure efficient and sustainable water use."

For example, water efficiency could be the management of the total quantity of water abstracted from a source of supply using measures to minimise wastage, optimise use and reduce consumption.

The means of achieving this can be varied but may include good housekeeping, management systems and procedures, reusing and recycling water and the redesign of operations.

Water audits are the first step to using water efficiently. Water audits develop an understanding of the water system, enable detection of leakages and areas of water wastage and are a means of identifying opportunities for reduced water use.

3. APPEALS

If you are aggrieved by any of the conditions of the licence or the level of authorisation, you may appeal to the Scottish Ministers. Further information on your right of appeal and the appeals procedure is contained in regulations 50 to 53 and Schedule 9 of the Regulations.

Formal notice of appeal under regulation 50(b) or (c) is to be given within three months of the date that the licence is issued. Paragraph 2 of Schedule 9 lists the documents that the appellant has to submit to the Scottish Ministers.

4. SUBSISTENCE CHARGES

An annual subsistence charge may be payable in respect of the licence in terms of the current Water Environment (Controlled Activities) Fees and Charges (Scotland) Scheme, copies of which are available from SEPA. Where a subsistence charge is payable, an invoice will be sent to you.

The charging scheme provides that it is a condition of every authorisation that the fees and charges prescribed in the scheme are paid in accordance with the scheme. Failure to pay such charges may therefore constitute an offence.

5. GENERAL STATUTORY REQUIREMENTS

A licence under the Regulations does not disapply any other statutory requirements applicable to the licence holder or his/her operations, such as any need to obtain planning permission or a building warrant, or any responsibilities under legislation for health, safety and welfare in the workplace.

6. CONTACT DETAILS FOR NOTIFICATIONS

The contact address and telephone number for notifications in terms of Condition 2.5.1 of the licence is as follows:

Scottish Environment Protection Agency
Carr's Corner Industrial Estate
Lochybridge
Fort William
PH33 6TL

During office hours

Tel No: 01397 704426

Out of office hours and public holidays

Tel No: 0800 80 70 60

7. ADDRESS FOR REPORTS AND SUBMISSIONS

The contact address for all information to be reported or submitted in terms of Condition 2.6.1 of the licence is as follows:

The Registry
Scottish Environment Protection Agency
Graesser House
Fodderty Way
Dingwall
IV15 9XB
DingwallRegistry@sepa.org.uk

8. SEPA REVIEW AND VARIATION OF CONDITIONS

The conditions of the licence will be periodically reviewed by SEPA and may be varied under regulation 22 of the Regulations as a result of that review.

9. OPERATOR-INITIATED VARIATION OF CONDITIONS

The responsible person may apply to SEPA under regulation 24 for a variation of the conditions of the licence.

10. TRANSFER OF AUTHORISATION

A responsible person may apply to transfer the licence to another person under regulation 25 by making a joint application with the other person.

11. SURRENDER OF AUTHORISATION

Where the controlled activities authorised by the licence have ceased, or it is intended that the controlled activities will cease, the responsible person may apply to SEPA to surrender the licence under regulation 27.

12. SUSPENSION AND REVOCATION OF AUTHORISATION

SEPA may at any time suspend or revoke an authorisation (in whole or in part) by serving a notice on the responsible person under regulation 29.

13. ENFORCEMENT NOTICES

Where SEPA is of the opinion that an activity

a) has contravened, is contravening or is likely to contravene any condition of the licence or

b) has caused, is causing or is likely to cause significant adverse impacts on the water environment or

c) has caused, is causing or is likely to cause a direct or indirect discharge into groundwater of any hazardous substance (as determined pursuant to Schedule 2 of the Regulations) or any other pollutant

SEPA may serve an enforcement notice on the responsible person under regulation 32.

This notice will specify the steps to be taken by the responsible person which SEPA considers to be necessary or appropriate to prevent, mitigate or remedy the contravention, the impact on the environment or the discharge into groundwater.

14. OFFENCES

It is an offence to carry on, or cause or permit others to carry on, any controlled activity except insofar as it is authorised under the Regulations and carried on in accordance with that authorisation.

It is an offence to fail to comply with or contravene, or cause or permit others to fail to comply with or contravene, a water use licence, including any condition imposed.

It is an offence to fail to comply with, or cause or permit others to fail to comply with, the requirements of an enforcement notice.

It is an offence to intentionally make, or cause or permit others to make, a false entry in any record required to be kept under a condition of an authorisation.

Further details on these and other offences and on penalties liable to be imposed upon conviction for an offence are provided in regulation 44 of the Regulations.

Directors, managers and other individuals within a company may be held personally liable for offences under the Regulations.

All personnel who are responsible for fulfilling any condition of the licence should be made aware of these facts.

Please note that your licence authorises you to carry out the activity or activities outlined in your application to SEPA in accordance with the licence and its conditions. Be aware, however, that any activity outwith the terms of the licence is prohibited under regulation 4 of the Regulations. Should you undertake any activity which does not conform to the terms of your licence, you may be subject to criminal proceedings in accordance with regulation 44(1)(a) and/or (d) of the Regulations. This prohibition encompasses any activity which is liable to cause pollution of the water environment. Section 20 of the Water Environment and Water Services (Scotland) Act 2003 includes definitions of “pollution” and “water environment”.

The statutory definition of pollution, as set out in that section, is as follows:-

‘”Pollution”, in relation to the water environment, means the direct or indirect introduction, as a result of human activity, of substances or heat into the water environment, or any part of it , which may give rise to any harm, and “harm” means –

a) harm to the health of human beings or other living organisms,

b) harm to the quality of the water environment, including-

i) harm to the water environment taken as a whole,

ii) other impairment of or interference with, the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems,

c) offence to the senses of human beings,

d) damage to property, or

e) impairment of, or interference with, amenities or other legitimate uses of the water environment.’

Authorisation No	Site	Authorisation Status	Authorisation Status Date	Legislation	Category	Authorisation Holder	Authorisation Activity	Site NGR
CAR/R/1012034	1 The Steadings, Auchterawe, Fort Augustus --- 1 THE STEADINGS, AUCHTERAWE, FORT AUGUSTUS PH32 4BT	Granted	August 1, 2006	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 35050 07850
CAR/R/1019415	2 The Steadings, Auchterawe, F. William --- 2 The Steadings, Auchterawe, Fort Augustus PH32 4BT	Granted	June 20, 2007	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 35031 07817
CAR/R/1021463	7 Auchterawe, Fort Augustus --- 7 AUCHTERAWE, FORT AUGUSTUS PH32 4BT	Granted	September 28, 2007	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 35708 08690
CAR/R/1026079	New House E 5 Auchteraw, Fort Augustus --- NEW HOUSE 100M EAST OF, 5 AUCHTERAWE, AUCHTERAW, FORT AUGUSTUS	Granted	April 25, 2008	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 35100 08100
CAR/R/1026080	Chalet 1 E 5 Auchteraw, Fort Augustus --- CHALET 1 100M EAST OF, 5 AUCHTERAW, AUCHTERAW, FORT AUGUSTUS	Granted	April 25, 2008	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 35080 08261
CAR/R/1026082	Chalet 2 E of Auchteraw, Fort Augustus --- CHALET 2 100M EAST OF, 5 AUCHTERAW, AUCHTERAW, FORT AUGUSTUS	Granted	April 25, 2008	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 35160 08230
CAR/R/1031547	Whinhill, Auchterawe, Fort Augustus --- Whinhill, Auchterawe, Fort Augustus PH32 4BT	Granted	October 2, 2008	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 35098 08003
CAR/R/1031577	Plot at Auchterawe Farm, Fort Augustus --- New Dwelling, Auchterawe Farm, Fort Augustus PH32 4BT	Granted	October 2, 2008	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Secondary	NH 35170 07670
CAR/R/1036995	Pinetops, Auchterawe, Fort Augustus --- Pinetops, Auchterawe, Fort Augustus PH32 4BT	Granted	April 15, 2009	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 35201 08082
CAR/R/1037137	Auchterawe House, Auchterawe, Fort Augustus --- AUCHTERAWE HOUSE, AUCHTERAWE, PH32 4BT PH32 4BT	Granted	April 16, 2009	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 35022 07930
CAR/R/1048103	Sionnaich, 2 Auchterawe, Fort Augustus --- 2 Auchterawe, Fort Augustus PH32 4BT	Granted	June 12, 2009	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 35300 07750
CAR/R/1104081	7b Auchterawe & Caravan, Fort Augustus --- 7b Auchterawe & Caravan, Fort Augustus ph32 4bt	Granted	June 25, 2012	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 35346 08038
CAR/R/1104360	6 Auchterawe, Fort Augustus --- 6 Auchterawe, FORT AUGUSTUS PH32 4BT	Granted	July 5, 2012	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 35722 08692
CAR/R/1117793	Hawks View, Auchterawe, Fort Augustus --- Hawks View, Auchterawe, FORT AUGUSTUS PH32 4BT	Granted	December 13, 2013	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 35115 07962
CAR/R/1132817	Fort Augustus Eng Wks, Auchteraw --- Fort Augustus, Auchteraw Eng Wks, Auchteraw	Granted	February 13, 2015	CAR	Registration	J MUPRHY AND SONS	Pipeline / Cable Crossing	NH 35570 08380
CAR/R/1132818	Fort Augustus Eng Wks, Auchteraw --- Fort Augustus, Auchteraw Eng Wks, Auchteraw	Granted	February 13, 2015	CAR	Registration	J MUPRHY AND SONS	Pipeline / Cable Crossing	NH 35570 08380
CAR/R/1132819	Fort Augustus Eng Wks, Auchteraw --- Fort Augustus, Auchteraw Eng Wks, Auchteraw	Granted	February 13, 2015	CAR	Registration	J MUPRHY AND SONS	Pipeline / Cable Crossing	NH 35570 08380
CAR/R/1133458	Skye T Reinforecement Eng Wks, Auchteraw --- Skye T, Auchteraw	Granted	March 23, 2015	CAR	Registration	SCOTTISH HYDRO ELECTRIC TRANSMISSION PLC	Bridge	NH 34740 07500
CAR/R/1185319	Muir Pit Eng Wks, Auchteraw, Ft Augustus --- Muir Pit Eng Wks, Auchteraw, Fort Augustus PH32 4BT 8 AUCHTERAWE FORT AUGUSTUS PH32 4BT	Granted	August 29, 2019	CAR	Registration	CNOCLEE LIMITED	Bridging Culvert	NH 35995 08046
CAR/R/3002139		Granted	December 19, 2021	CAR	Registration		Point Source - Existing Sewage Treatment System (PSTS)	NH 35259 08135
CAR/R/5002941	Fort Augustus Substation, Auchterawe, Fort Augustus, PH32 4BT	Granted	August 8, 2022	CAR	Registration		Point Source - New Sewage Treatment System to Land	NH 3559 0845
CAR/R/5005435	Auchterawe Underground Cable, Auchterawe, PH32 4BT	Granted	June 14, 2023	CAR	Registration	Cnoclee Ltd	Engineering - Pipe Crossing	NH 35428 07947
CAR/S/1195027	Land 325m SW of Whitebridge Cott, Auchteraw --- Land 325m SW of Whitebridge Cott, Auchteraw	Granted	December 15, 2020	CAR	Licence			NH 35890 08450
PSTS/623e66	Forest Lodge, Auchterawe, Fort Augustus, PH32 4BT	Granted	March 30, 2021	CAR	Registration		Point Source - Existing Sewage Treatment System (PSTS)	NH 35191 08131

C.2 Consultation with The Highland Council

September 2023

Flood Risk Management Team
The Highlands Council
(By email: frm highland.gov.uk)

Project Name: Fort Augustus
Project Number: B2413736

Subject: Fort Augustus Data Re uest

Dear Sir/Madam

We are currently undertaking a Flood Risk Assessment (FRA) on behalf of SSE, in support of a project to extend an existing substation in Fort Augustus.

The FRA is being prepared to appraise the impacts of the new... The approximate location of the substation at Fort Augustus is NH 35233 08277.

Consequently, we are seeking any information that the Lead Local Flood Authority hold on flooding and drainage in the vicinity of the site to inform our assessment.

Specifically, we are seeking information on flooding and drainage at and near the above areas (NH 35233 08277 – Fort Augustus). The site and areas of interest are attached to this letter (Figure 1).

We would therefore be grateful if you could provide us with:

- Details of any sewers, piped drainage systems and flood risk management assets that the Council is aware of and has responsibility for in the vicinity of the site
- Any information related to groundwater flooding in this area. If possible please provide borehole locations, groundwater levels and details of the strata monitored.
- Any mapping of historical flooding events at/near the development site, from all sources (i.e. fluvial, surface water, groundwater, sewer, reservoir, canal, etc.),
- Any information on drainage within the site and the local area, including any known drainage problems
- Details to assist us in assessing whether collected surface water generated by the site can be discharged to soakaway or infiltration, in accordance with regulatory requirements. For example, details of sensitive aquifers in the area, known ground /groundwater contamination issues, soakage tests etc.
- Information on any future development plans in the vicinity of the site

If you do not hold any of the information requested above, can you please state this for each dataset this applies to (and suggest who would be appropriate to contact to obtain these data).

An early response would be much appreciated.

ours Sincerely

James Buckley
Graduate Hydrologist
James.Buckley1 jacobs.com

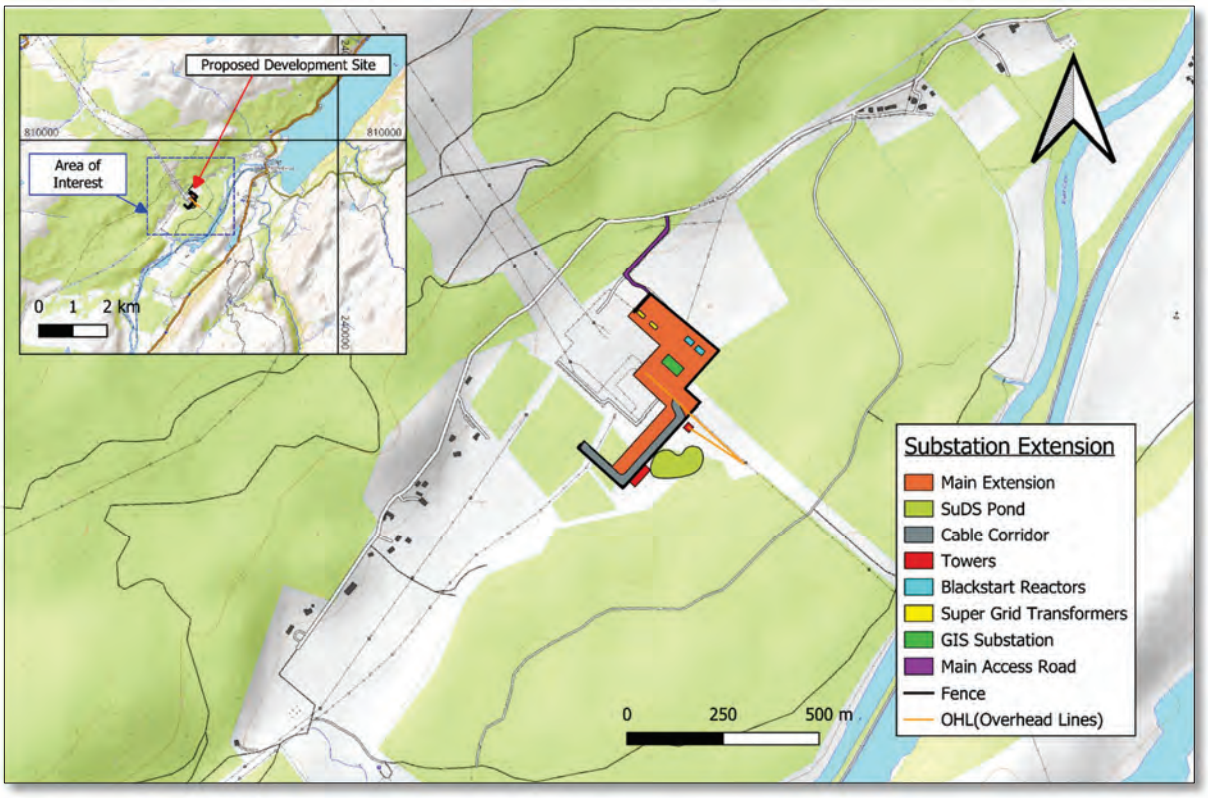


Figure 1. The area of interest for the Fort Augustus Flood Risk Assessment as well as an inlet map showing details of the proposed substation extension.

Buckley, James

From: The Highland Council <donotreply@highland.gov.uk>
Sent: 30 October 2023 11:44
To: Buckley, James
Subject: [EXTERNAL] Freedom of Information request FS-Case-553389655 - Request complete

Dear Mr Buckley,

Original FOI request: Flooding information

The response below refers to the geographical extent shown in the supplied image, only. (This does not include the Ft Augustus urban area).

• Details of any sewers, piped drainage systems and flood risk management assets that the Council is aware of and has responsibility for in the vicinity of the site
• Any information related to groundwater flooding in this area. If possible please provide borehole locations, groundwater levels and details of the strata monitored.
• Any mapping of historical flooding events at/near the development site, from all sources (i.e. fluvial, surface water, groundwater, sewer, reservoir, canal, etc.),
• Any information on drainage within the site and the local area, including any known drainage problems
• Details to assist us in assessing whether collected surface water generated by the site can be discharged to soakaway or infiltration, in accordance with regulatory requirements. For example, details of sensitive aquifers in the area, known ground /groundwater contamination issues, soakage tests etc.

The information you have requested is not held by the Council. The information is, therefore excepted under Regulation 10(4)(a) of the EIRs. The Council does not hold information on sewers, piped drainage, groundwater flooding, flooding events, drainage problems or ground contamination issues or future development plans for this area.

• Information on any future development plans in the vicinity of the site

Under Regulation 6(1)(b) of the EIR's we would advise this information is already publicly available. Information pertaining to planning applications can be found in the relevant planning case file in the planning register which forms part of the Council's publication scheme.

Users are able to search for applications in a specific area by using the map tab and zooming to the area. The type of application displayed can be filtered under "Legend and Filter"
https://wam.highland.gov.uk/wam/spatialDisplay.do?action=display&searchType=Application

If you have created an online account you can save the searched area, details on how to do this can be found at https://wam.highland.gov.uk/wam-skin/help/pagehelp/mapSearchLegacy.htm

Under Section 20 of Freedom of Information (Scotland) Act, you have the right to request that the Highland Council reviews any aspect of how it has dealt with your request. This requirement for review should be requested to the Freedom of Information Officer, Chief Executive's Office, Glenurquhart Road, Inverness IV3 5NX, or dpo@highland.gov.uk, within 40 working days of receipt of this response. The request should include details of the information requested and the aspects of the Highland Council's response which you are not satisfied with.

If you are subsequently dissatisfied with the outcome of the Council's review, you have the right to appeal to the Scottish Information Commissioner under Section 47 of the Freedom of Information (Scotland) Act, within six months of receiving the Council's review response.

Yours sincerely
Customer Resolution and Improvement Team

Unless related to the business of The Highland Council, the views or opinions expressed within this e-mail are those of the sender and do not necessarily reflect those of The Highland Council, or associated bodies, nor does this e-mail form part of any contract unless so stated.
Mura h-eil na beachdan a tha air an cur an cèill sa phost-d seo a' buntainn ri gnothachas Chomhairle na Gàidhealtachd, 's ann leis an neach fhèin a chuir air falbh e a tha iad, is chan eil iad an-còmhnaidh a' riochdachadh beachdan na Comhairle, no buidhnean buntainneach, agus chan eil am post-d seo na phàirt de chunnradh sam bith mura h-eil sin air innse.

C.3 Consultation with Scottish Water

September 2023

Scottish Water
(By email: developmentoperations scottishwater.co.uk)

Project Name: Fort Augustus
Project Number: B2413736

Subject: Fort Augustus Data Re uest

Dear Sir/Madam

We are currently undertaking a Flood Risk Assessment (FRA) on behalf of Scottish and Southern Energy (SSE), in support of a project to extend an existing substation in Fort Augustus.

The FRA is being prepared to appraise the impacts of the extension to the substation. The approximate location of the substation at Fort Augustus is NH 35233 08277.

Specifically, we are seeking information on flooding and drainage at and near the above areas (NH 35233 08277 – Fort Augustus). The site and areas of interest are attached to this letter (Figure 1).

We would therefore be grateful if you could provide us with:

- Asset location maps which include the location and dimensions of your potable water supply network/infrastructure
- Potable water pipework flood history reports for the services at and around the project site
- Details of asset location maps which include the location and dimensions of your drainage network and infrastructure
- Drainage network flood history reports for the services at and around the project site
- Any other available information on potable water pipework flooding in this area, or on flooding from any other source
- Any information related to groundwater in this area and water abstraction boreholes. If possible, please provide borehole locations and levels and details of the strata monitored.

If you do not hold any of the information requested above, can you please state this for each dataset this applies to (and suggest who would be appropriate to contact to obtain these data).

An early response would be much appreciated.

ours sincerely

James Buckley
Graduate Hydrologist
James.Buckley1 jacobs.com

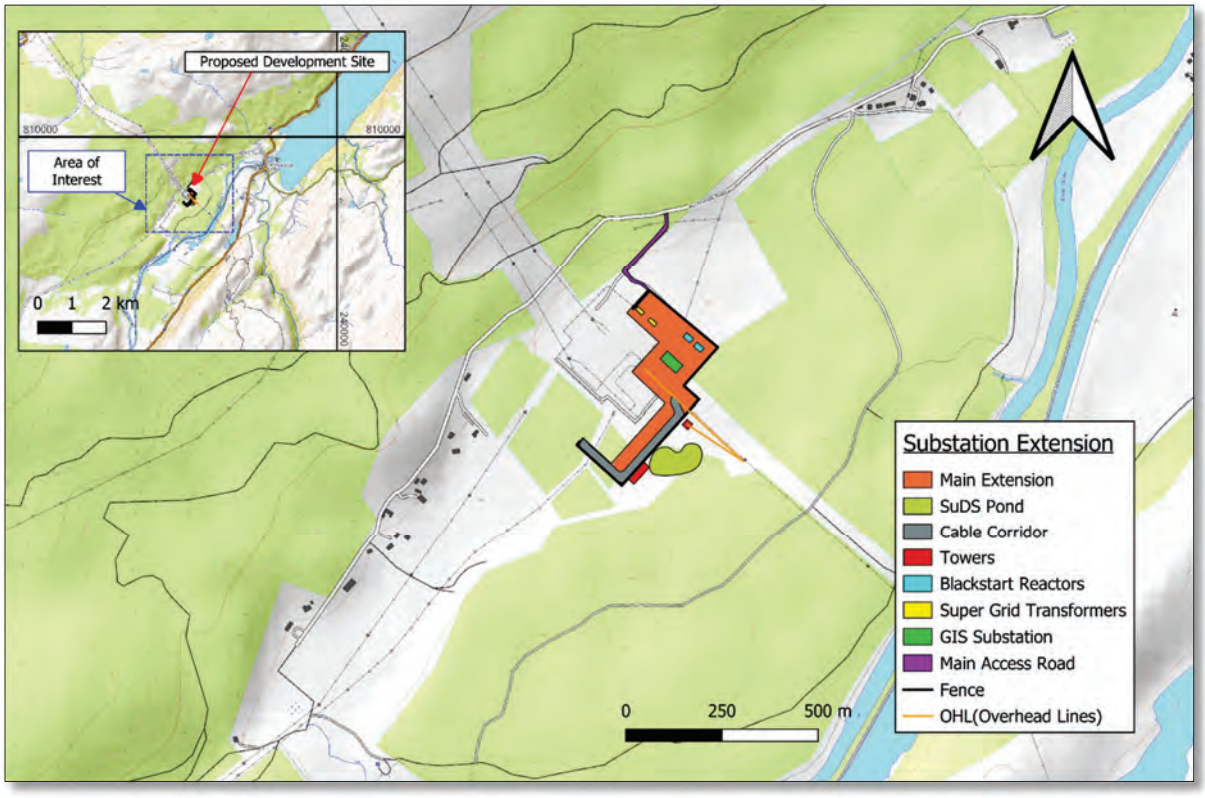


Figure 1. The area of interest for the Fort Augustus Flood Risk Assessment as well as an inlet map showing details of the proposed substation extension.