

Retaining Wall with 26.5° maximum slope above

Soil Slope (26.5°)

Soil/Rock Slope (56°)

Soil/Rock Slope (26.5°)

Soil/Rock Slope (56°)

Soil/Rock Slope (26.5°)

Soil/Rock Slope (56°)

Soil/Rock Slope (26.5°)

Existing culvert, no earthworks proposed

A83 to Arrochar

For continuation see drawing number 13/NW/0901/052/110/001

Loch Fyne

Minor earthworks to edge of verge

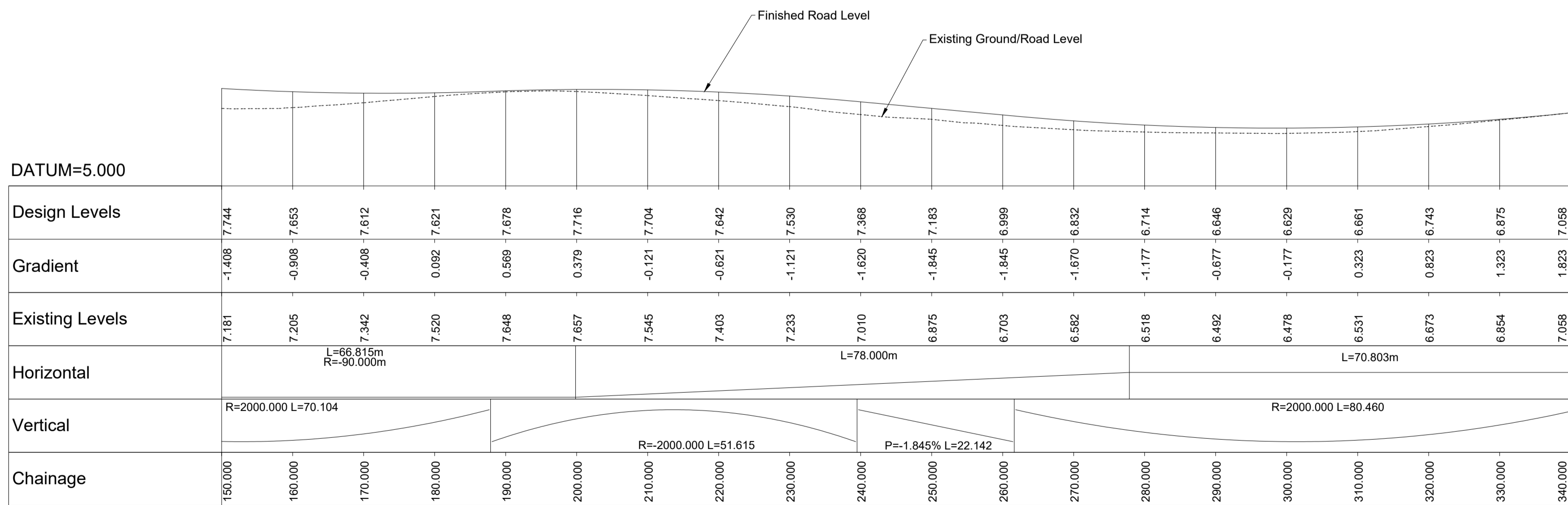
SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
 In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:
CONSTRUCTION
 1. None
 It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement.

Drawing Number
13/NW/0901/052/110/002

- Notes
- Refer to drawing 13/NW/0901/052/200/001 and Specification Appendix 2/1, 2/2, 2/3 and 2/6 for site clearance details.
 - Refer to drawing 13/NW/0901/052/300/001 and 002 and Specification Appendix 3/1 for fence details.
 - Refer to drawing 13/NW/0901/052/400/001 and Specification Appendix 4/1 and 4/2 for details of road restraint systems.
 - Refer to drawing 13/NW/0901/052/500/001 to 003 and Specification Appendix 5/1 and 5/7 for drainage details.
 - Refer to drawing 13/NW/0901/052/GDR/101 to 108 and Specification Appendix 6/1, 6/2, 6/3, 6/8, and 6/10 for earthworks details.
 - Refer to drawing 13/NW/0901/052/700/001 to 003 and Specification Appendix 7/1, 7/2, 7/4, 7/6 and 7/9 for pavement details.
 - Refer to drawing 13/NW/0901/052/GDR/109 and Specification Appendix 25/2 for details of the retaining wall.
 - Refer to Specification Appendix 1/16 and 13/NW/0901/052/2700/001 and 002 for utility details.
 - Refer to drawing 13/NW/0901/052/3000/001 and Specification Appendix 30/1, 30/2 and 30/5 for landscape details.
 - All protection zones should be set up with the Ecological Clerk of Works. Refer to drawing 13/NW/0901/052/3000/002 and Specification Appendix 2/6 and 30/12 for ecological site clearance restrictions and special ecological measures.

- Key:
- Unstrengthened Cut/Fill (26.5°)
 - Strengthened Soil Cut (56°)
 - Rock Cut (56°)
 - Cut Slope Transition (varies)
 - Minor Earthworks (45° Max. for H < 0.5m)
 - Otter Holt
 - Otter Couch
 - Protection Zone
 - Tree with potential bat roosts that cannot be climbed
 - Tree bat roosts

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Scale
 Horizontal 1:500 Vertical 1:100

Do not scale this drawing

0	July 16	Issue for Construction	GI
Rev	Date		Checked

Client



Status
FOR CONSTRUCTION

Project
 A83 STRONE POINT IMPROVEMENT SCHEME

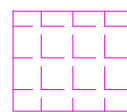
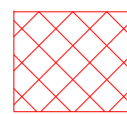
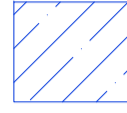
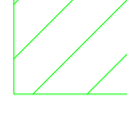
Title
 DETAILED DESIGN PLAN AND PROFILE SHEET 2 OF 2

Drawing No.	13/NW/0901/052/110/002	SA	SA		
Scale	1:500 @ A1	Date	02/09/2016		
Designed AR	Drawn SA	Checked GI	Approved JW		

Prepared for BEAR Scotland by **JACOBS**
 Jacobs 160 Dundee Street Edinburgh EH11 1DQ

- Notes
- Refer to drawing 13/NW/0901/052/500/001 and 003 and Specification Appendix 5/1 and 5/7 for drainage details.
 - Refer to drawing 13/NW/0901/052/GDR/101 to 108 and Specification Appendix 6/1, 6/2, 6/3, 6/8, and 6/10 for earthworks details.
 - Refer to drawing 13/NW/0901/052/700/001 to 003 and Specification Appendix 7/1, 7/2, 7/4, 7/6 and 7/9 for pavement details.
 - Refer to Specification Appendix 1/16 and drawing 13/NW/0901/052/2700/001 for utility details.
 - Refer to Specification Appendix 2/6 for ecological site clearance restrictions and Specification Appendix 30/12 for special ecological measures.
 - Alternative methods of construction will be considered and shall be agreed with the Engineer prior to the works.

Key

-  No Planing
-  Plane out 0-40mm
-  Plane out 40-100mm
-  Break up existing carriageway

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:

CONSTRUCTION

- Risk of slips, trips and falls due to level differences in existing and proposed pavement

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement.

Do not scale this drawing

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0.0	Jan 17	Issue for Construction	GI
Rev	Date		Checked



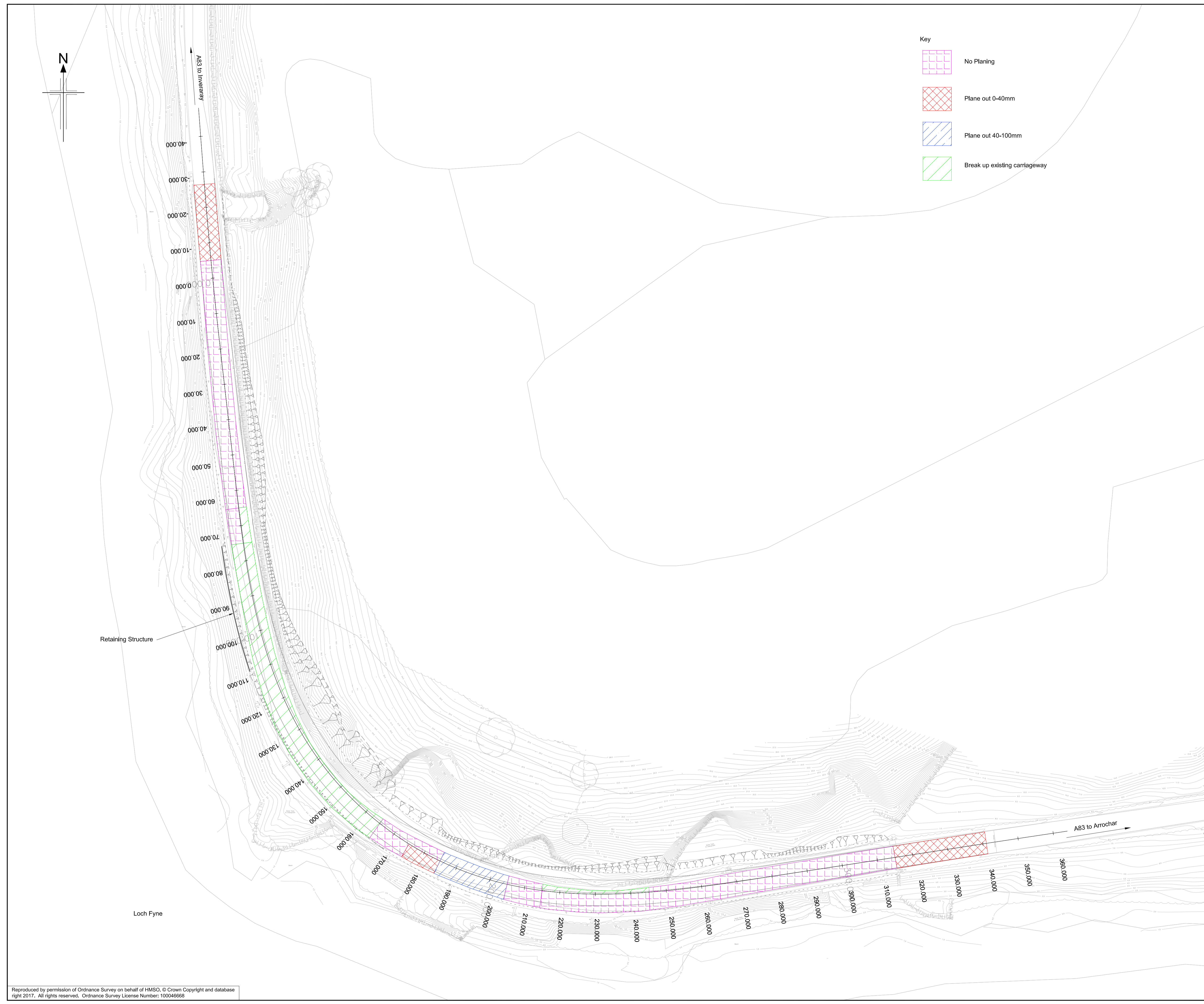
Status
FOR CONSTRUCTION

Project
A83 STONE POINT IMPROVEMENT SCHEME

Title
DETAILED DESIGN PAVEMENT PLANING LAYOUT


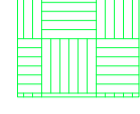
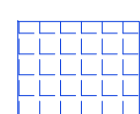

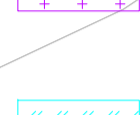
Drawing No.	13/NW/0901/052/700/001	SA			
Scale	1:500 @ A1	Date	16 Jul 2016		
Designed	SA	Drawn	SA	Checked	GI
				Approved	JW

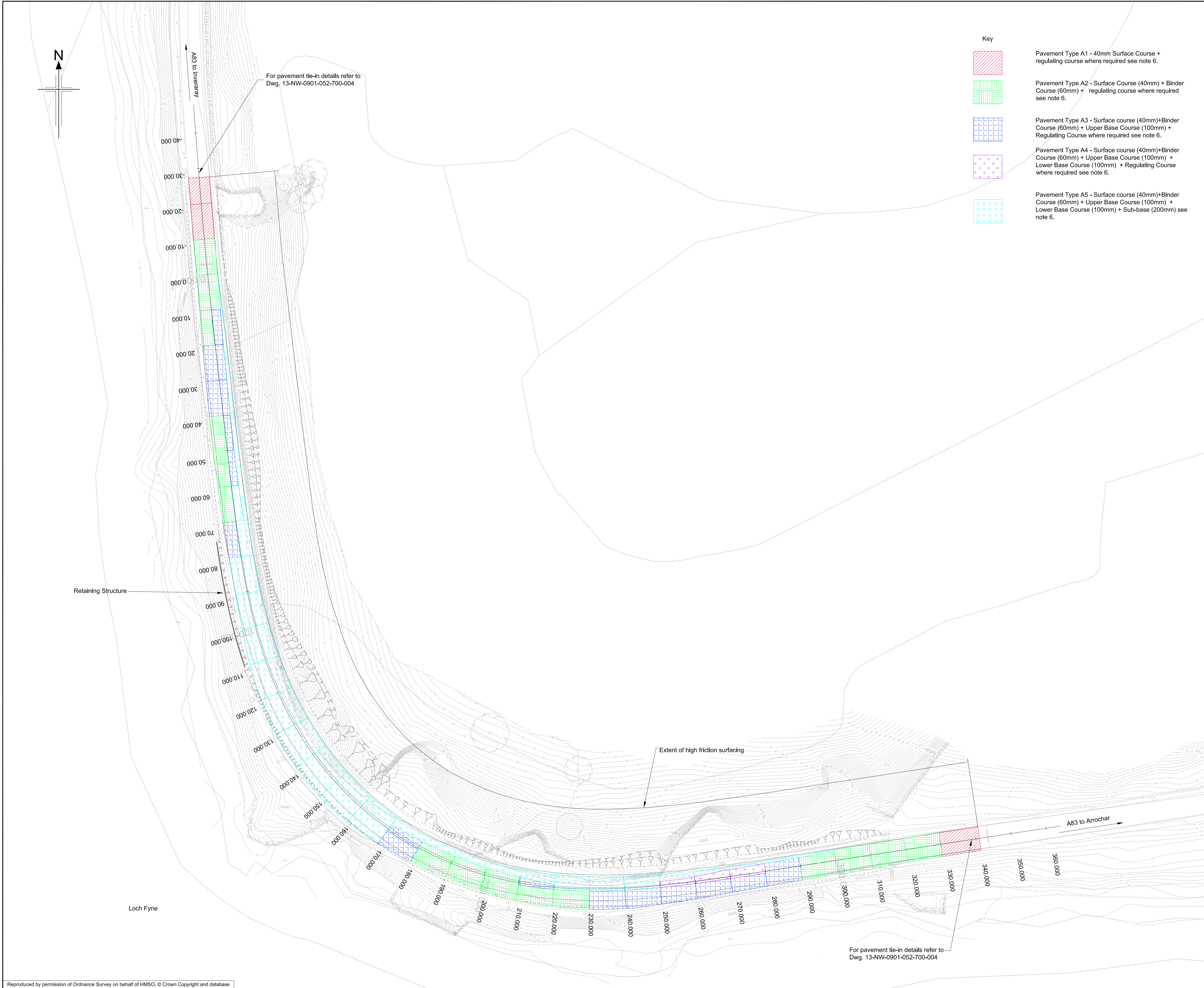
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Jacobs 160 Dundee Street Edinburgh EH11 1DQ



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- Notes
- Refer to drawing 13/NW/0901/052/500/001 and 003 and Specification Appendix 5/1 and 5/7 for drainage details.
 - Refer to drawing 13/NW/0901/052/GDR/101 to 108 and Specification Appendix 6/1, 6/2, 6/3, 6/8, and 6/10 for earthworks details.
 - Refer to drawing 13/NW/0901/052/700/001 to 003 and Specification Appendix 7/1, 7/2, 7/4, 7/6 and 7/9 for pavement details.
 - Refer to Specification Appendix 1/16 and drawing 13/NW/0901/052/2700/001 for utility details.
 - Refer to Specification Appendix 2/6 for ecological site clearance restrictions and Specification Appendix 30/12 for special ecological measures.
 - See Cross section drawings 13-NW-0901-052-700-005 to 13-NW-0901-052-700-014 for details of pavement construction.

- Key
-  Pavement Type A1 - 40mm Surface Course + regulating course where required see note 6.
 -  Pavement Type A2 - Surface Course (40mm) + Binder Course (60mm) + regulating course where required see note 6.
 -  Pavement Type A3 - Surface course (40mm)+Binder Course (60mm) + Upper Base Course (100mm) + Regulating Course where required see note 6.
 -  Pavement Type A4 - Surface course (40mm)+Binder Course (60mm) + Upper Base Course (100mm) + Lower Base Course (100mm) + Regulating Course where required see note 6.
 -  Pavement Type A5 - Surface course (40mm)+Binder Course (60mm) + Upper Base Course (100mm) + Lower Base Course (100mm) + Sub-base (200mm) see note 6.



SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION	
In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:	
CONSTRUCTION 1. Risk of slips, trips and falls due to level differences in existing and proposed pavement	
It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement.	

Do not scale this drawing			

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Rev	Date		Checked



Status **FOR CONSTRUCTION**

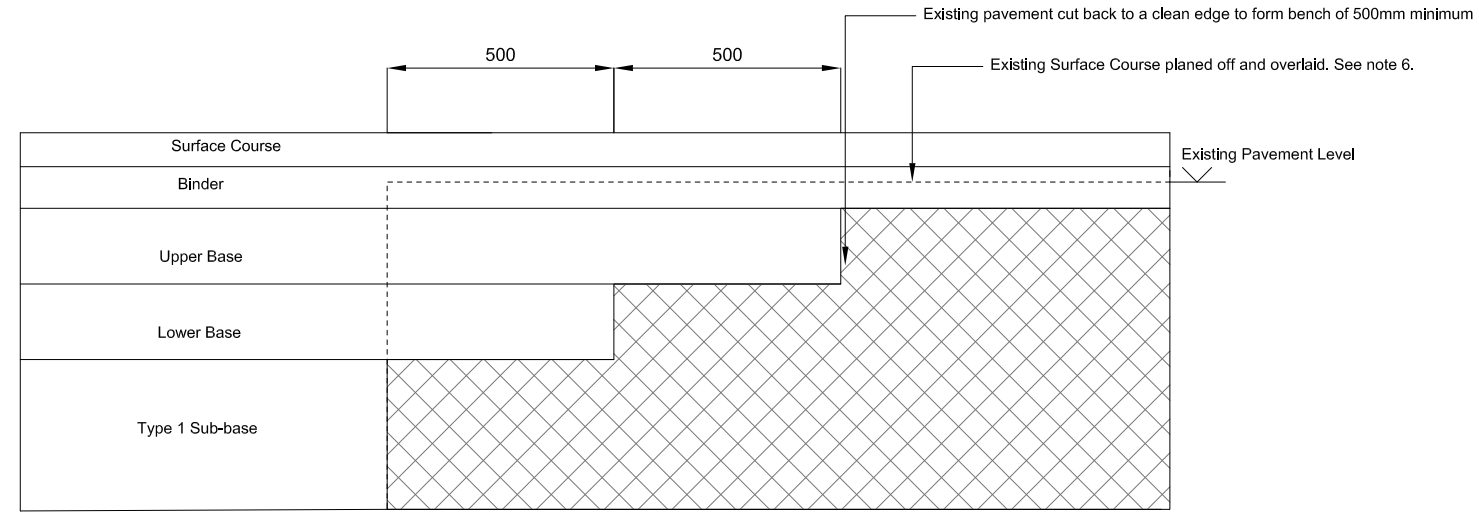
Project **A83 STONE POINT IMPROVEMENT SCHEME**

Title **DETAILED DESIGN PAVEMENT LAYOUT**

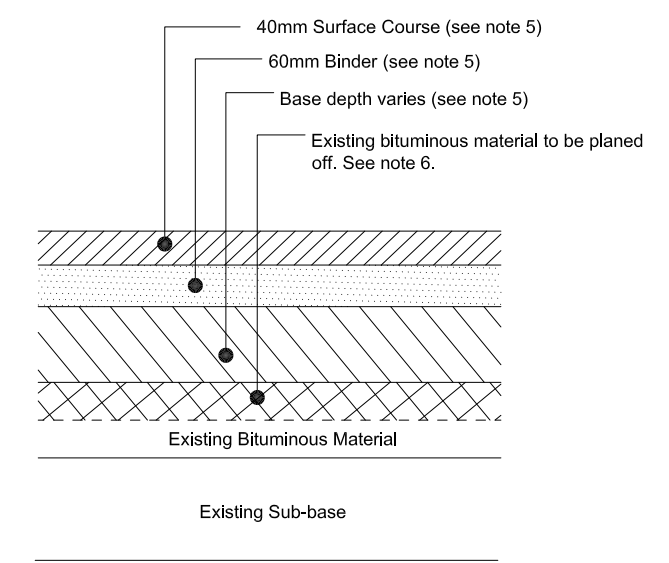
Drawing No.	13/NW/0901/052/700/002	SA			
Scale	1:500 @ A1	Date	15 July 16		
Designed	SA	Drawn	SA	Checked	GI
				Approved	JW

Prepared for BEAR Scotland by **JACOBS**
 Jacobs 160 Dundee Street Edinburgh EH11 1DQ

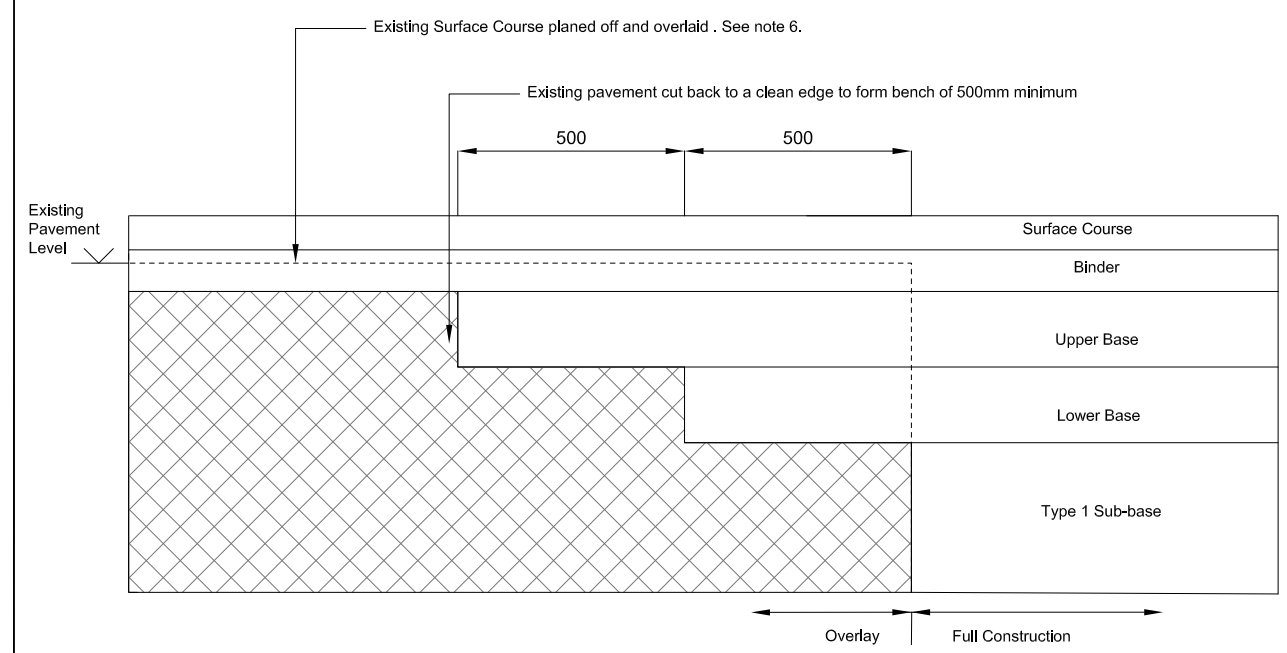
- Notes
1. Refer to drawing 13/NW/0901/052/700/001 to 003 and Specification Appendix 7/1, 7/2, 7/4, 7/6 and 7/9 for pavement details.
 2. All dimensions are in millimetres unless otherwise stated.
 3. Excavation and reinstatement to be in accordance with Spec.CL706.
 4. Pavement to be laid with 1:2 step between layers.
 5. Refer to Specification Appendix 7/1 for permitted pavement options.
 6. Refer to drawing 13/NW/0901/052/700/001 for planing depth information.



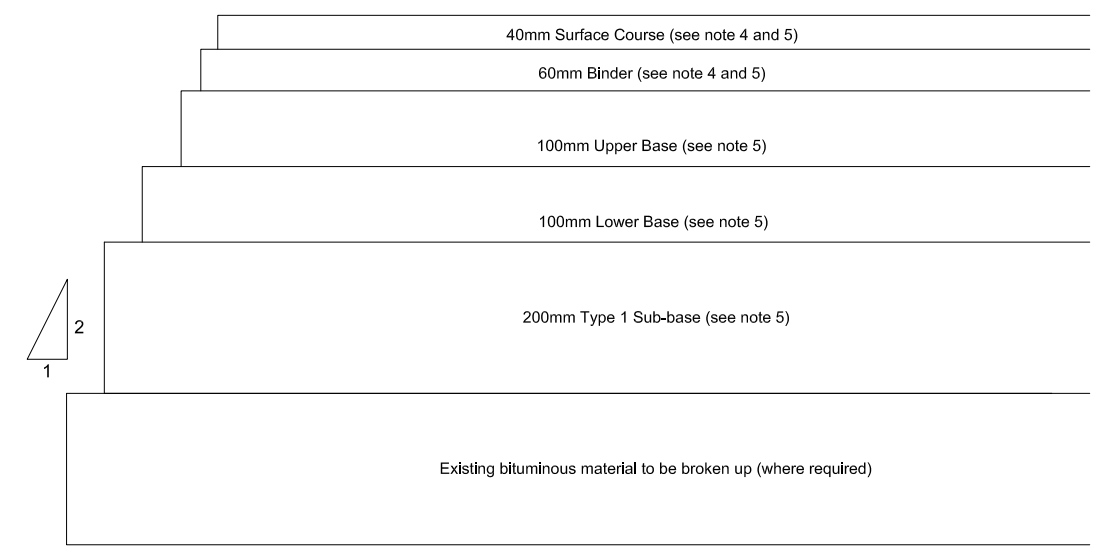
Longitudinal Joint Between Full Construction and Overlay Treatment



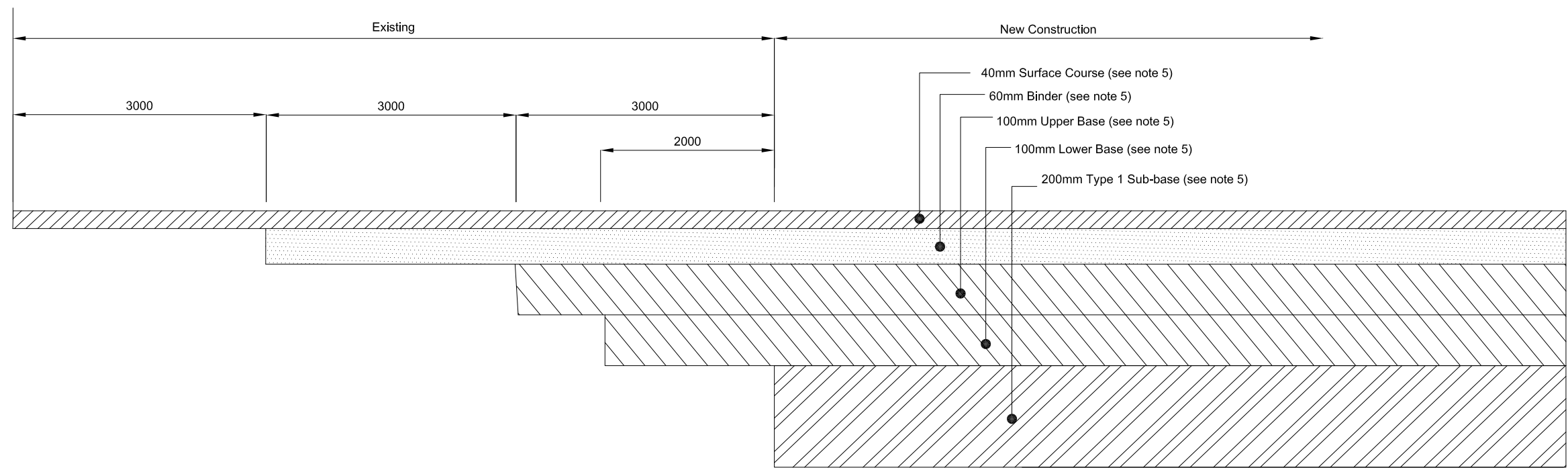
Typical Main Line Overlay Construction Detail



Transverse Joint Between Full Construction and Overlay Treatment



Typical Main Line Full Construction Detail

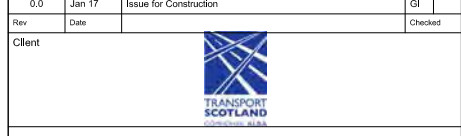


Typical Main Line Tie-In Detail

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION	
In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:	
CONSTRUCTION	
1. Risk of slips, trips and falls due to level differences in existing and proposed pavement	
It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement.	

Do not scale this drawing

0.0	Jan 17	Issue for Construction	GI
Rev	Date	Issue for Construction	Checked



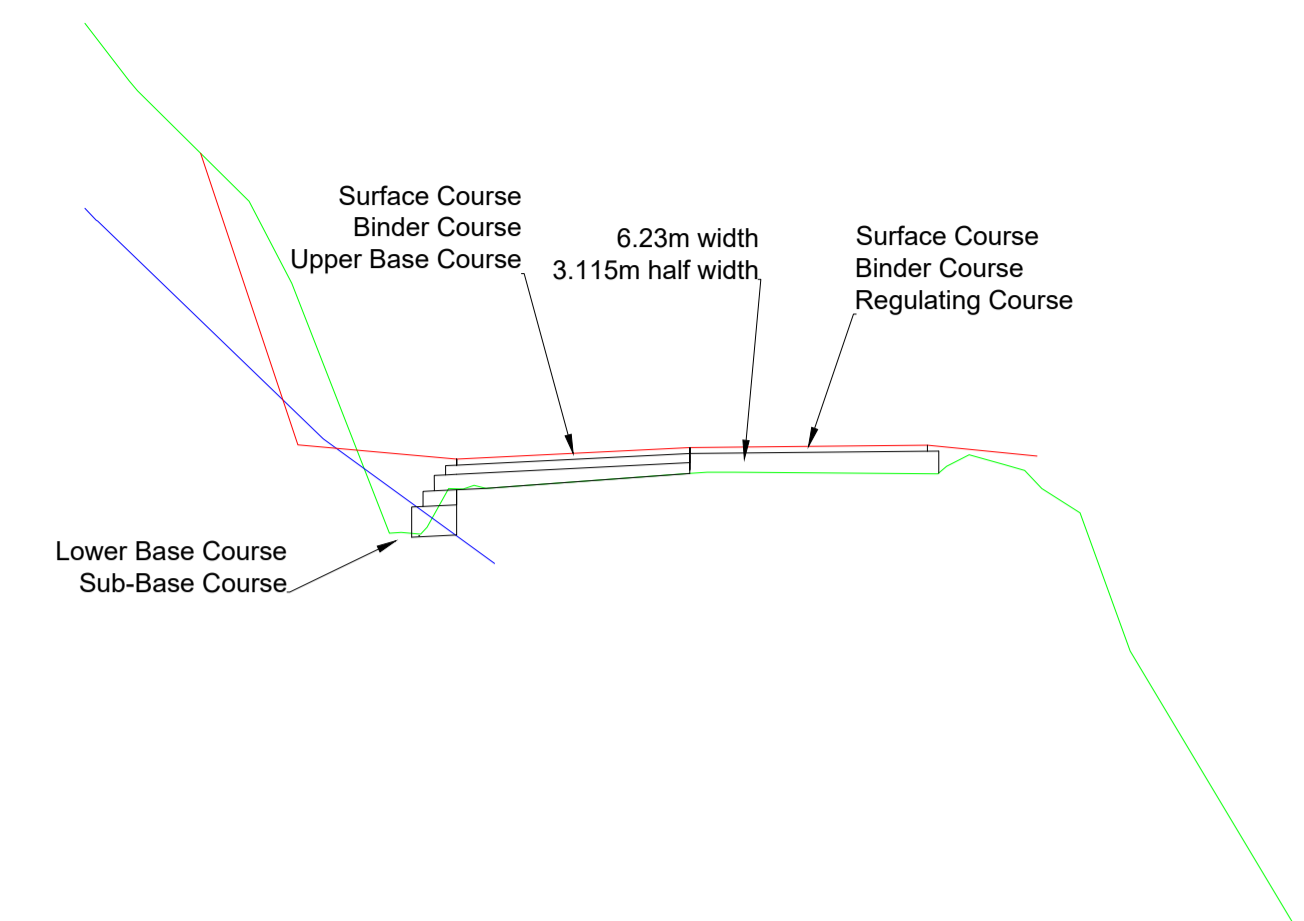
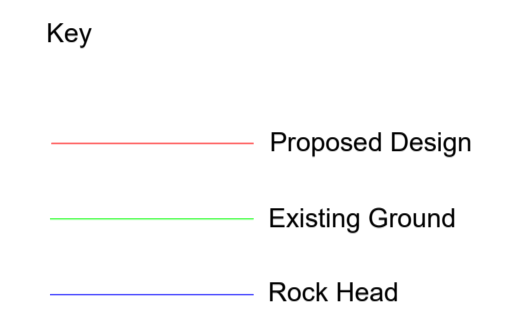
Status
FOR CONSTRUCTION

Project
A83 STRONE POINT IMPROVEMENT SCHEME

Title
TYPICAL PAVEMENT DETAILS

Drawing No.	13/NW/0901/052/700/003	SA			
Scale	NTS	Date	24 July 16		
Designed	LF	Drawn	SA	Checked	GI
				Approved	JW

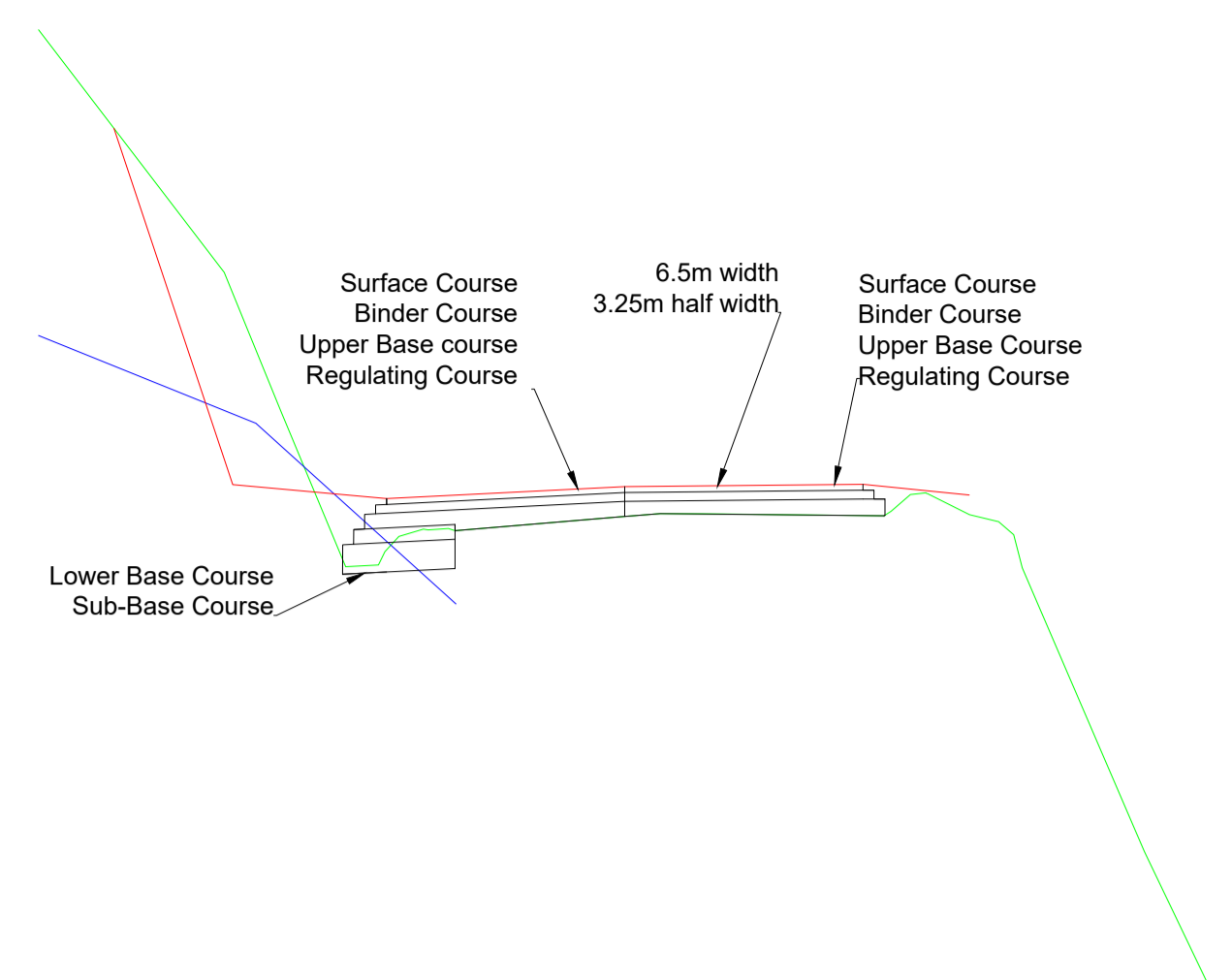
- Notes
- Refer to drawing 13/NW/0901/052/500/001 and 003 and Specification Appendix 5/1 and 5/7 for drainage details.
 - Refer to drawing 13/NW/0901/052/GDR/101 to 108 and Specification Appendix 6/1, 6/2, 6/3, 6/8, and 6/10 for earthworks details.
 - Refer to drawing 13/NW/0901/052/700/001 to 003 and Specification Appendix 7/1, 7/2, 7/4, 7/6 and 7/9 for pavement details.
 - Refer to Specification Appendix 1/16 and drawing 13/NW/0901/052/2700/001 for utility details.
 - Refer to Specification Appendix 2/6 for ecological site clearance restrictions and Specification Appendix 30/12 for special ecological measures.
 - Excavation and planing must not intrude on the root zone of any trees.



Level Datum =5.000

Design Levels																				
Design Offset			-6.470	-10.406																
Existing Levels		11.265	10.889	10.089	9.546	7.884	7.933	8.190	8.194											
Existing Offset		-8.000	-7.313	-5.829	-5.263	-3.871	-3.475	-2.664	-2.562											
Rock Head Levels		9.957		8.515		7.694														
Rock Head Offset		-7.832		-4.893		-2.581														

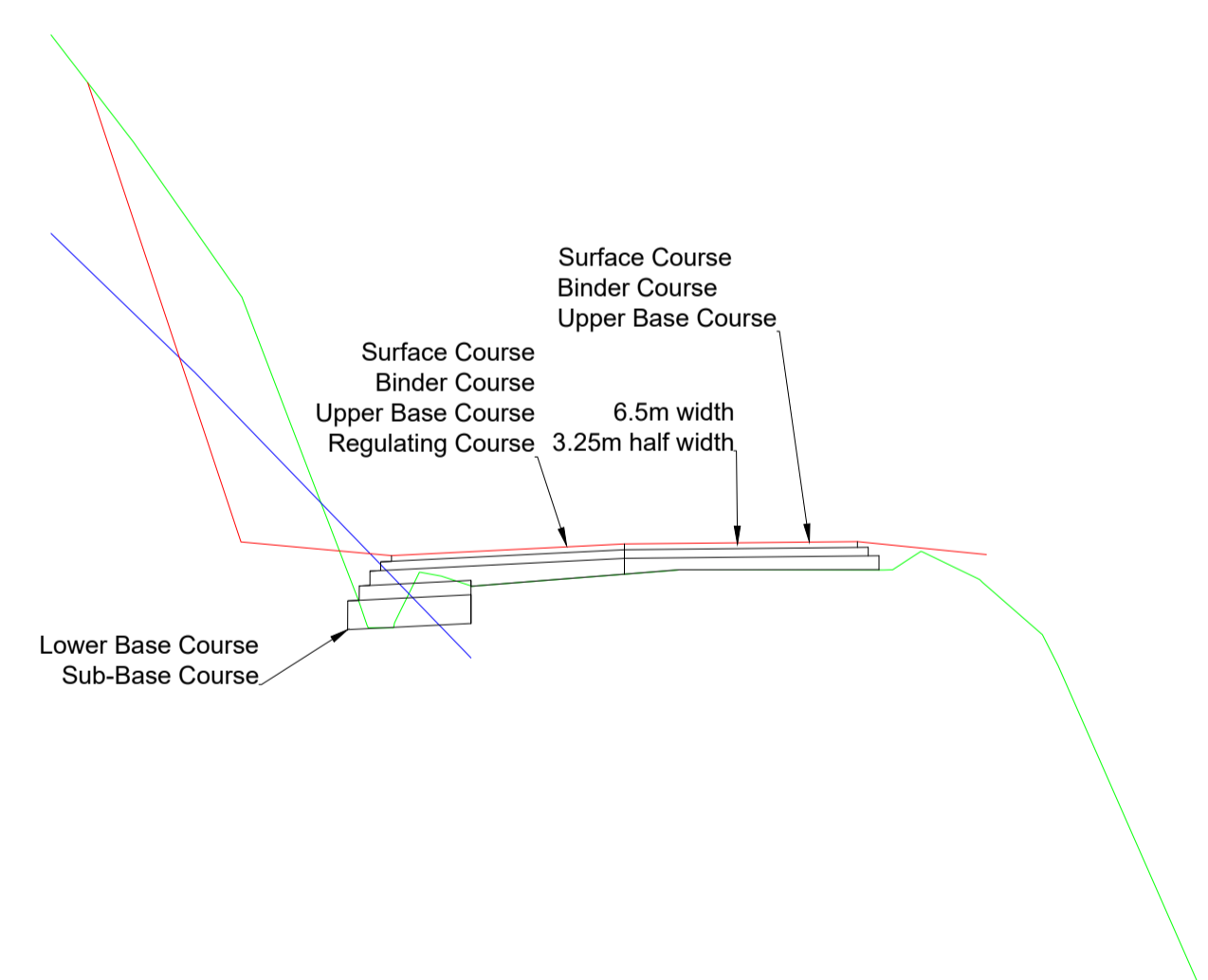
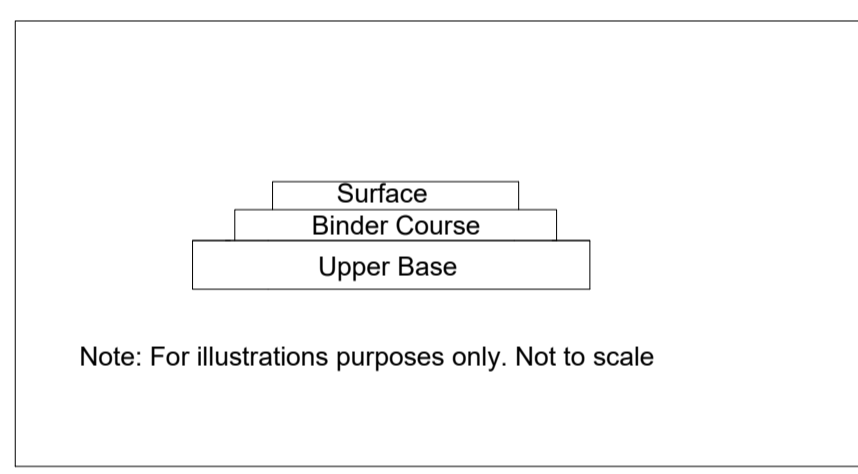
Chainage = 10.000
Scale H 1:100, V 1:50 @ A2



Level Datum =5.000

Design Levels																				
Design Offset																				
Existing Levels		11.139	10.157	9.221	8.149	8.151	8.355	8.394												
Existing Offset		-8.000	-5.465	-4.701	-3.908	-3.724	-2.962	-2.377												
Rock Head Levels		9.726	9.128	8.581	8.149	8.151	8.355	8.394												
Rock Head Offset		-8.000	-5.039	-4.824	-3.824	-3.703	-2.303													

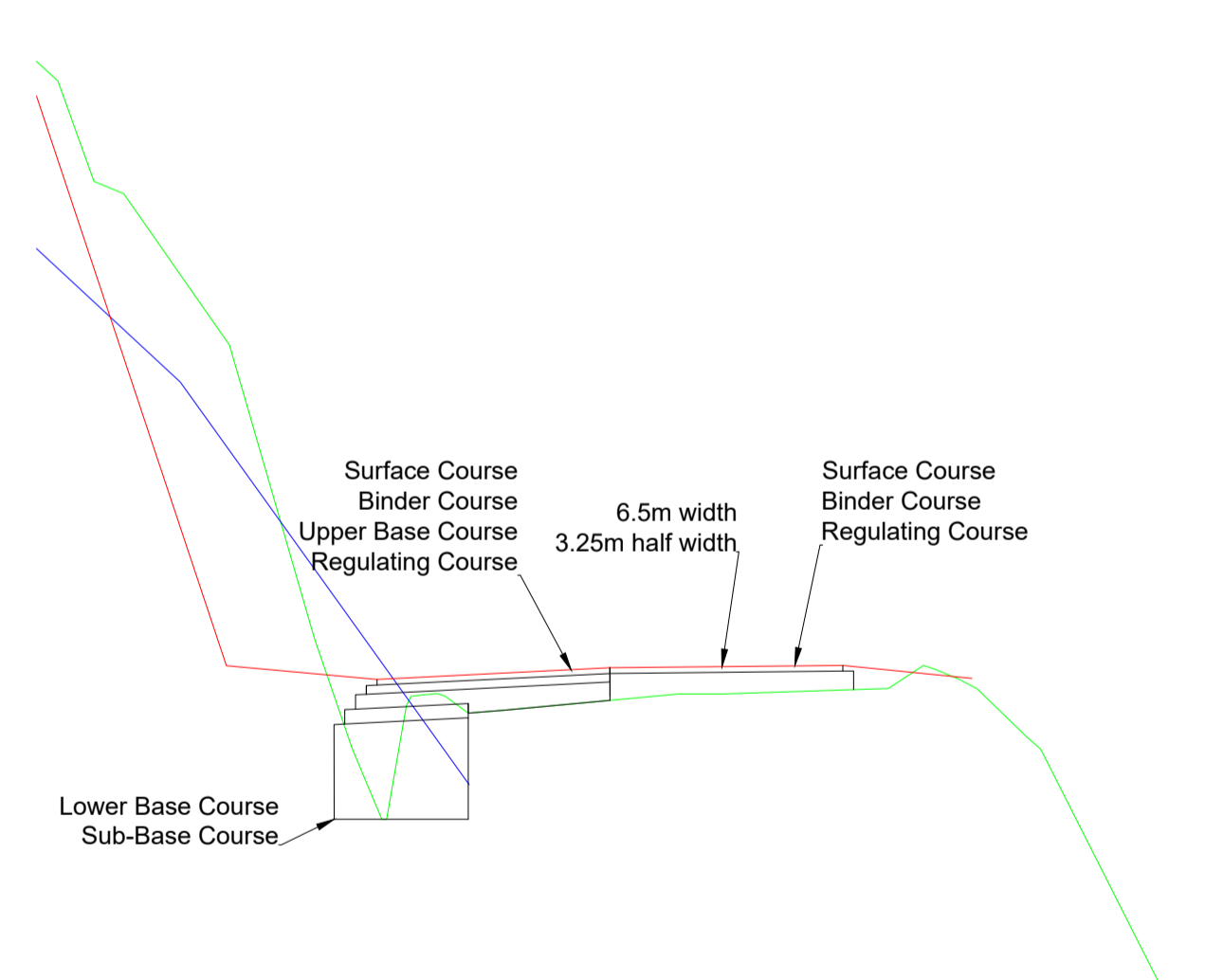
Chainage = 20.000



Level Datum =5.000

Design Levels																				
Design Offset			-7.486	-5.350	-3.250															
Existing Levels		12.434	11.683	10.604	8.476	8.476	8.476	8.476												
Existing Offset		-8.000	-6.845	-5.337	-3.700	-3.700	-3.700	-3.700												
Rock Head Levels		11.048	10.089	9.467	8.087	8.087	8.087	8.087												
Rock Head Offset		-8.000	-8.004	-4.811	-2.140	-2.140	-2.140	-2.140												

Chainage = 30.000
Scale H 1:100, V 1:50 @ A2



Level Datum =6.000

Design Levels																				
Design Offset																				
Existing Levels		13.007	12.326	11.270	9.219	9.219	9.219	9.219												
Existing Offset		-8.000	-6.785	-5.308	-4.120	-3.967	-3.784	-3.784												
Rock Head Levels		11.942	11.013	9.383	8.203	8.203	8.203	8.203												
Rock Head Offset		-8.000	-5.998	-4.658	-3.658	-3.658	-3.658	-3.658												

Chainage = 40.000

Do not scale this drawing

0.0	Jan 17	Issue for Construction	GI
Rev	Date		Checked

Client

Status

FOR CONSTRUCTION

Project

A83 STRONE POINT IMPROVEMENT SCHEME

Title

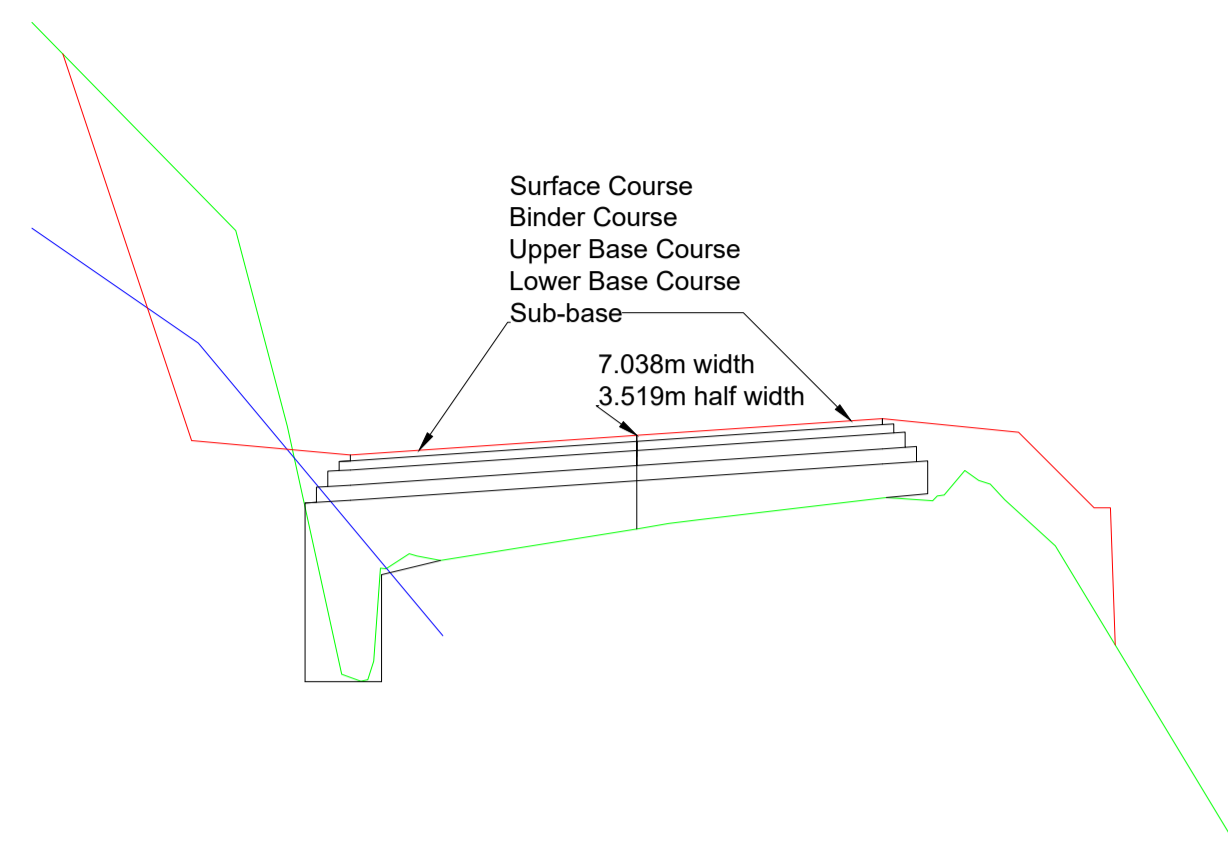
DETAILED DESIGN CONSTRUCTION CROSS SECTIONS SHEET 2 OF 10

Drawing No.	13/NW/0901/052/700/005	SA			
Scale	1:1000 @ A1	Date	14 July 16		
Designed	LF	Drawn	SA	Checked	GI
		Approved	JW		

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- Notes
1. Refer to drawing 13/NW/0901/052/500/001 and 003 and Specification Appendix 5/1 and 5/7 for drainage details.
 2. Refer to drawing 13/NW/0901/052/GDR/101 to 108 and Specification Appendix 6/1, 6/2, 6/3, 6/8, and 6/10 for earthworks details.
 3. Refer to drawing 13/NW/0901/052/700/001 to 003 and Specification Appendix 7/1, 7/2, 7/4, 7/6 and 7/9 for pavement details.
 4. Refer to Specification Appendix 1/16 and drawing 13/NW/0901/052/2700/001 for utility details.
 5. Refer to Specification Appendix 2/6 for ecological site clearance restrictions and Specification Appendix 30/12 for special ecological measures.
 6. Excavation and planing must not intrude on the root zone of any trees.

- Key
- Proposed Design
 - Existing Ground
 - Rock Head

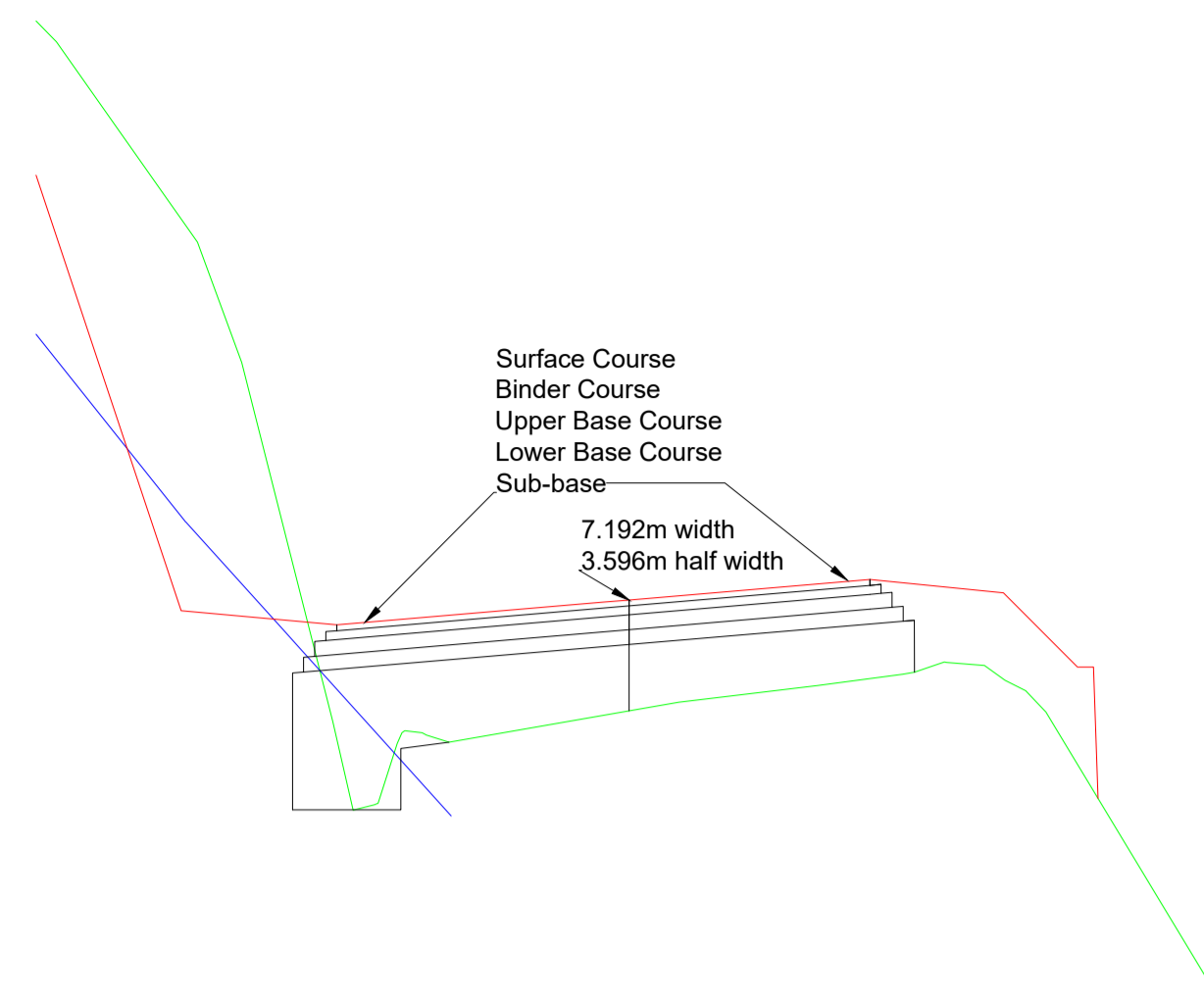


Level Datum =6.000

Design Levels	11.476	8.919	8.824	8.944	9.064	8.974	8.474	7.568
Design Offset	-7.593	-5.888	-3.788	-0.260	3.250	5.050	6.050	6.328
Existing Levels	11.684	10.307	9.014	8.335	8.542	8.523	8.223	6.184
Existing Offset	-8.000	-5.304	-3.904	0.007	3.302	4.523	5.538	8.000
Rock Head Levels	10.322	9.563	8.055	8.335	8.542	8.523	8.223	6.184
Rock Head Offset	-8.000	-5.800	-3.278	0.000	3.013	4.868	5.538	8.000

Chainage = 90.000

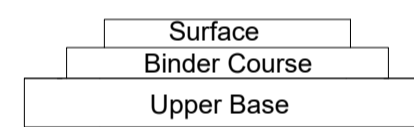
Scale H 1:100, V 1:50 @ A2



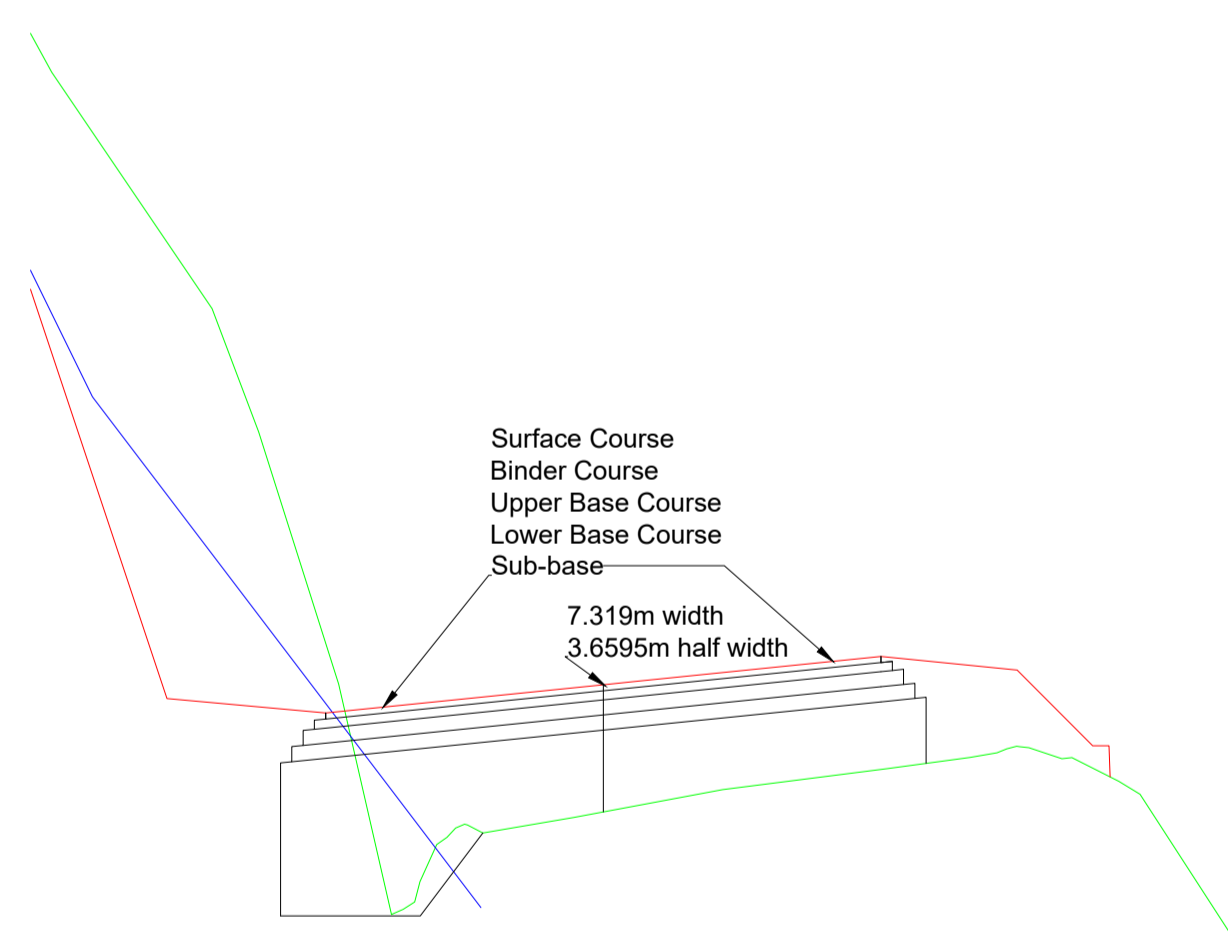
Level Datum =6.000

Design Levels	11.655	8.717	8.622	8.775	8.790	8.928	8.838	7.452
Design Offset	-8.000	-6.042	-3.942	-0.346	-0.000	3.250	5.050	6.327
Existing Levels	12.955	11.203	10.391	9.972	9.972	8.213	8.038	6.066
Existing Offset	-9.000	-5.822	-3.999	-3.723	-3.723	2.544	3.682	8.000
Rock Head Levels	10.582	9.315	8.597	8.432	8.432	8.213	8.038	6.066
Rock Head Offset	-8.000	-5.978	-4.682	-4.383	-4.383	2.544	3.682	8.000

Chainage = 100.000



Note: For illustrations purposes only. Not to scale

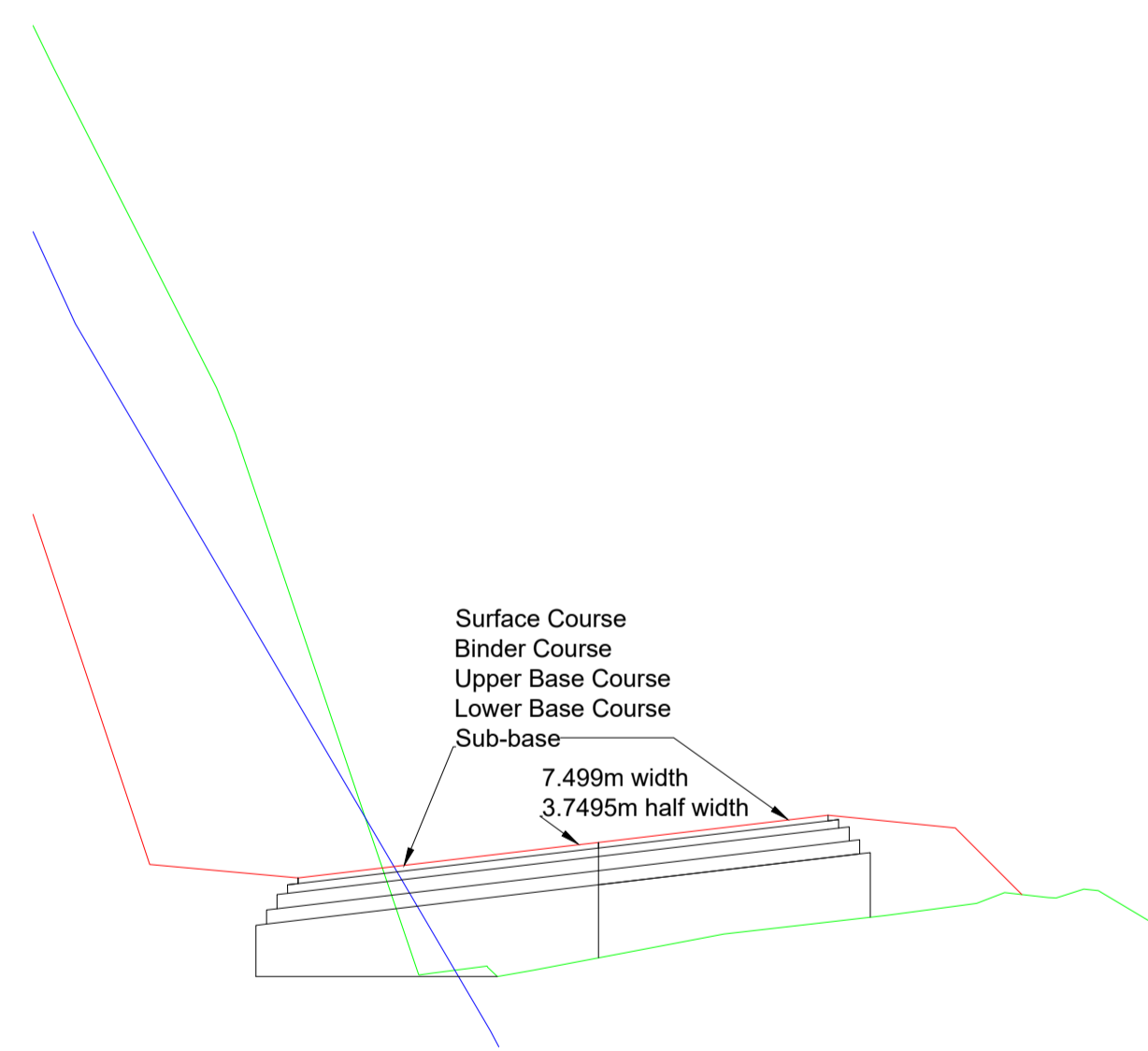


Level Datum =6.000

Design Levels	11.170	8.464	8.369	8.555	8.742	8.652	8.152	7.946
Design Offset	-8.000	-6.196	-4.096	-0.423	3.250	5.050	6.050	6.279
Existing Levels	12.862	11.042	10.227	10.000	8.000	8.075	8.152	6.810
Existing Offset	-9.000	-5.597	-3.925	-0.815	3.332	4.488	5.774	8.000
Rock Head Levels	11.295	9.563	8.055	8.000	8.000	8.075	8.152	6.810
Rock Head Offset	-8.000	-5.194	-3.278	-2.042	3.332	4.488	5.774	8.000

Chainage = 110.000

Scale H 1:100, V 1:50 @ A2



Level Datum =6.000

Design Levels	10.636	8.160	8.065	8.287	8.316	8.508	8.418	7.948
Design Offset	-8.000	-6.349	-4.249	-0.500	0.000	3.250	5.050	5.991
Existing Levels	11.092	11.531	11.531	8.446	8.446	7.800	7.873	7.924
Existing Offset	-9.000	-5.402	-3.268	-2.543	-2.348	4.065	5.180	6.373
Rock Head Levels	11.994	11.531	11.531	8.446	8.446	7.800	7.873	7.924
Rock Head Offset	-8.000	-5.402	-3.268	-2.543	-2.348	4.065	5.180	6.373

Chainage = 120.000

Do not scale this drawing

0.0	Jan 17	Issue for Construction	GI
Rev	Date	Checked	Checked

Client



Status

FOR CONSTRUCTION

Project: A83 STRONE POINT IMPROVEMENT SCHEME

Title: DETAILED DESIGN CONSTRUCTION CROSS SECTIONS SHEET 4 OF 10

Drawing No.	13/NW/0901/052/700/007	SA			
Scale	1:1000 @ A1	Date	14 July 16		
Designed	LF	Drawn	SA	Checked	GI
				Approved	JW

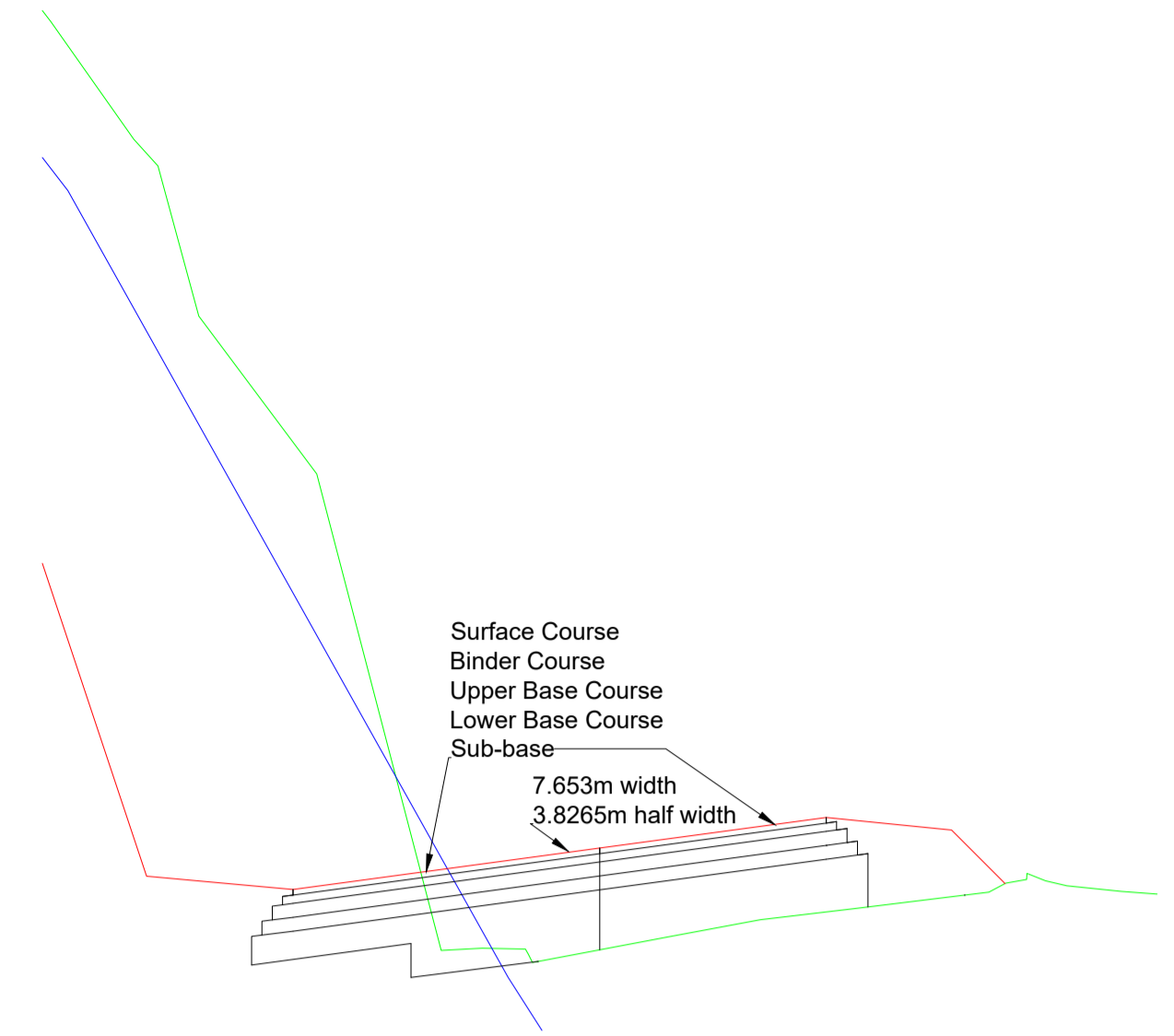
- Notes
1. Refer to drawing 13/NW/0901/052/500/001 and 003 and Specification Appendix 5/1 and 5/7 for drainage details.
 2. Refer to drawing 13/NW/0901/052/GDR/101 to 108 and Specification Appendix 6/1, 6/2, 6/3, 6/8, and 6/10 for earthworks details.
 3. Refer to drawing 13/NW/0901/052/700/001 to 003 and Specification Appendix 7/1, 7/2, 7/4, 7/6 and 7/9 for pavement details.
 4. Refer to Specification Appendix 1/6 and drawing 13/NW/0901/052/2700/001 for utility details.
 5. Refer to Specification Appendix 2/6 for ecological site clearance restrictions and Specification Appendix 30/12 for special ecological measures.
 6. Excavation and planing must not intrude on the root zone of any trees.

Key

Proposed Design

Existing Ground

Rock Head

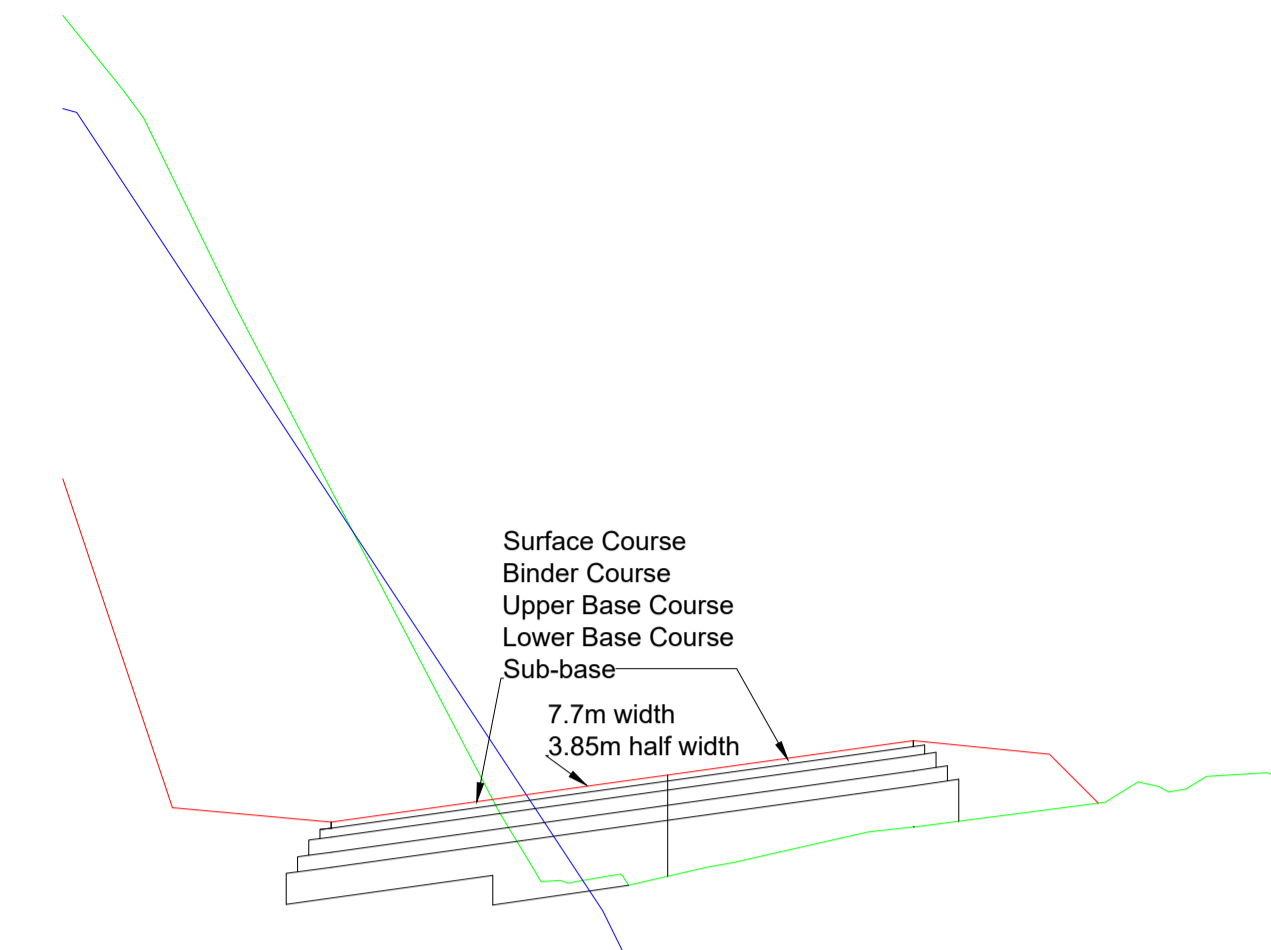


Level Datum =6.000

Design Levels	10.118	7.873	7.778	8.036	8.075	8.295	8.205	7.821
Design Offset	-8.000	-6.503	-4.403	-0.577	0.000	3.250	5.050	5.818
Existing Levels	14.005	13.160	12.969	11.892	10.759	7.341	7.357	7.255
Existing Offset	-7.880	-6.689	-6.341	-5.756	-4.062	-2.275	-1.687	-1.131
Rock Head Levels	12.702	7.147	6.767	7.433	7.561	7.640	7.759	7.893
Rock Head Offset	-5.800	-7.835	-8.830	0.929	2.305	3.649	5.698	6.341

Chainage = 130.000

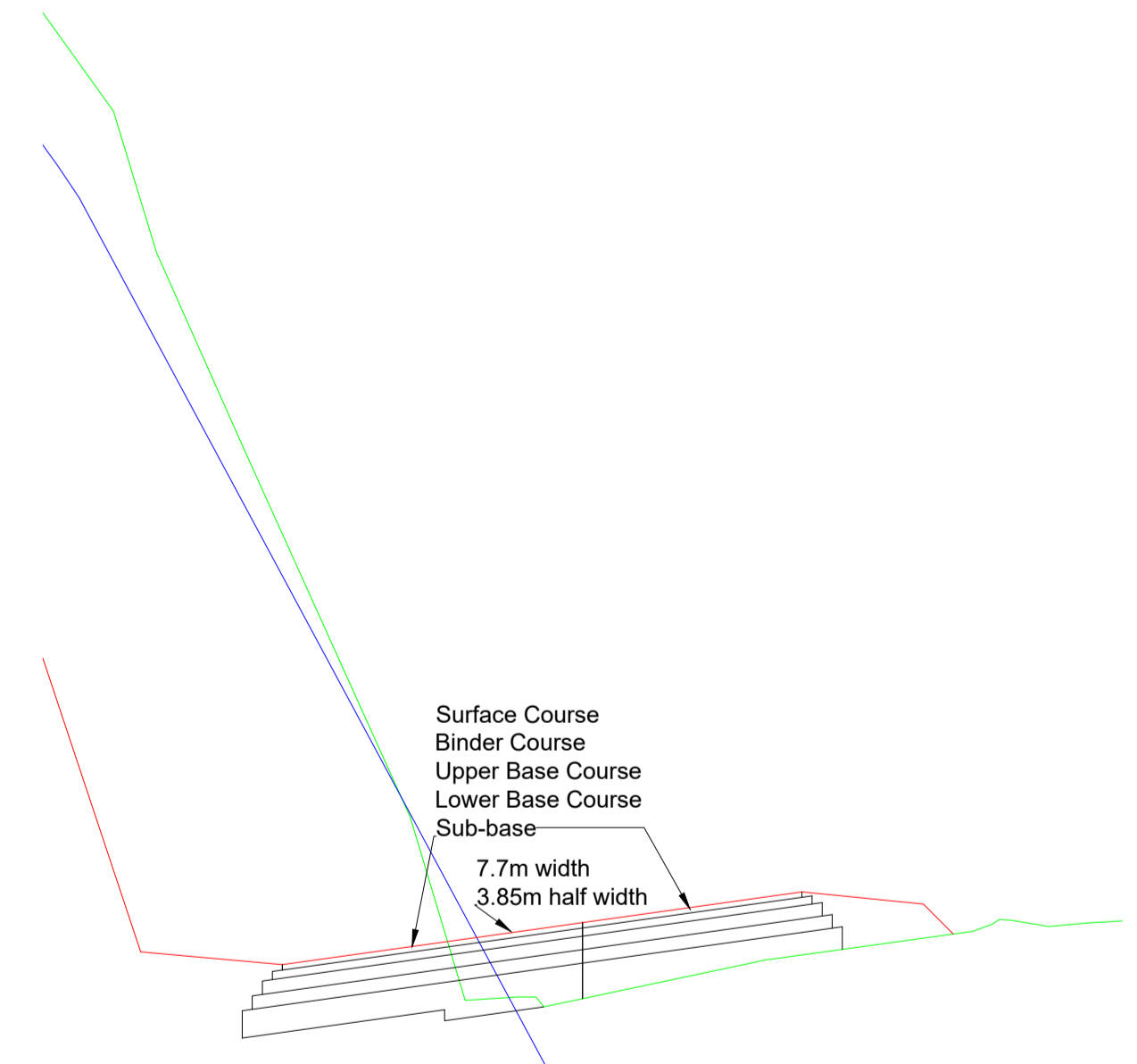
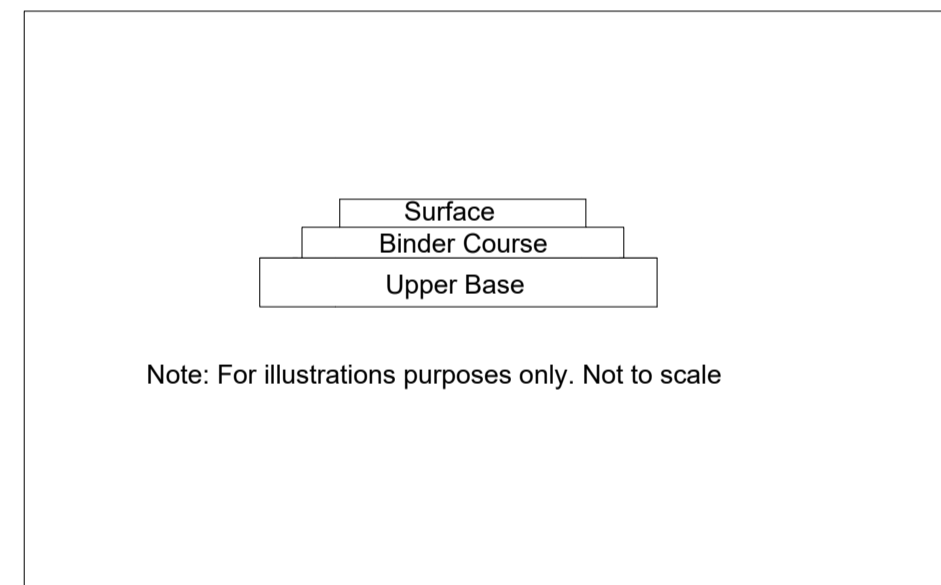
Scale H 1:100, V 1:50 @ A2



Level Datum =6.000

Design Levels	9.843	7.668	7.573	7.842	7.884	8.112	8.022	7.698
Design Offset	-8.000	-6.550	-4.450	-0.600	0.000	3.250	5.050	5.698
Existing Levels	12.907	12.414	10.980	7.639	7.305	7.168	7.180	7.155
Existing Offset	-8.000	-7.204	-5.717	-2.229	-1.826	-1.312	-1.203	-0.576
Rock Head Levels	12.265	6.987	6.660	7.273	7.307	7.364	7.508	7.547
Rock Head Offset	-7.815	-8.660	-9.537	0.513	0.893	1.391	2.663	3.364

Chainage = 140.000

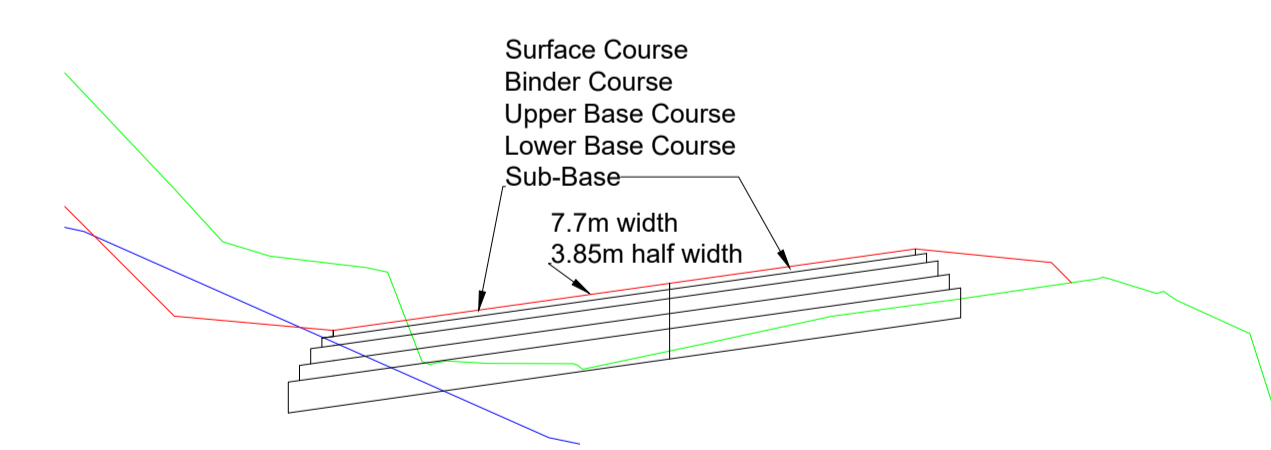


Level Datum =6.000

Design Levels	9.702	7.527	7.432	7.702	7.744	7.971	7.881	7.659
Design Offset	-8.000	-6.550	-4.450	-0.600	-0.000	3.250	5.050	5.494
Existing Levels	14.484	13.755	12.707	11.302	8.526	7.168	7.193	7.119
Existing Offset	-8.000	-6.954	-6.314	-5.064	-2.556	-1.741	-0.946	-0.579
Rock Head Levels	13.382	13.114	7.453	7.474	7.453	7.474	7.453	7.474
Rock Head Offset	-7.794	-7.461	2.578	2.515	5.783	6.356	6.907	7.499

Chainage = 150.000

Scale H 1:100, V 1:50 @ A2



Level Datum =6.000

Design Levels	8.161	7.436	7.341	7.611	7.653	7.880	7.790	7.658
Design Offset	-8.000	-6.550	-4.450	-0.600	0.000	3.250	5.050	5.315
Existing Levels	9.044	8.275	7.928	7.832	7.757	7.137	7.140	7.124
Existing Offset	-8.000	-6.548	-5.913	-5.286	-4.095	-3.730	-3.277	-2.954
Rock Head Levels	7.996	6.633	6.590	7.152	7.085	7.236	7.435	7.550
Rock Head Offset	-7.748	-8.660	-9.004	-1.589	-1.190	0.300	2.152	3.847

Chainage = 160.000

Do not scale this drawing

0.0	Jan 17	Issue for Construction	GI
Rev	Date		Checked

Client

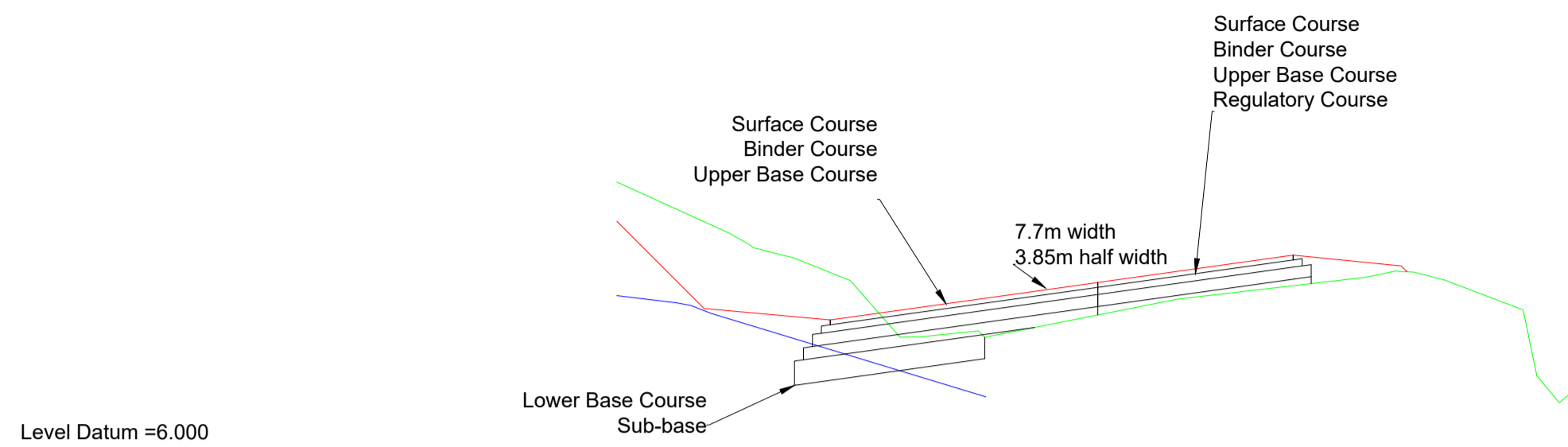
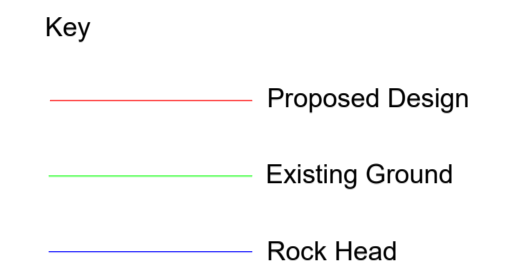
Status **FOR CONSTRUCTION**

Project **A83 STRONE POINT IMPROVEMENT SCHEME**

Title **DETAILED DESIGN CONSTRUCTION CROSS SECTIONS SHEET 5 OF 10**

Drawing No.	13/NW/0901/052/700/008	SA			
Scale	1:1000 @ A1	Date	14 July 16		
Designed	LF	Drawn	SA	Checked	GI
				Approved	JW

- Notes
- Refer to drawing 13/NW/0901/052/500/001 and 003 and Specification Appendix 5/1 and 5/7 for drainage details.
 - Refer to drawing 13/NW/0901/052/GDR/101 to 108 and Specification Appendix 6/1, 6/2, 6/3, 6/8, and 6/10 for earthworks details.
 - Refer to drawing 13/NW/0901/052/700/001 to 003 and Specification Appendix 7/1, 7/2, 7/4, 7/6 and 7/9 for pavement details.
 - Refer to Specification Appendix 1/16 and drawing 13/NW/0901/052/2700/001 for utility details.
 - Refer to Specification Appendix 2/6 for ecological site clearance restrictions and Specification Appendix 30/12 for special ecological measures.
 - Excavation and planing must not intrude on the root zone of any trees.

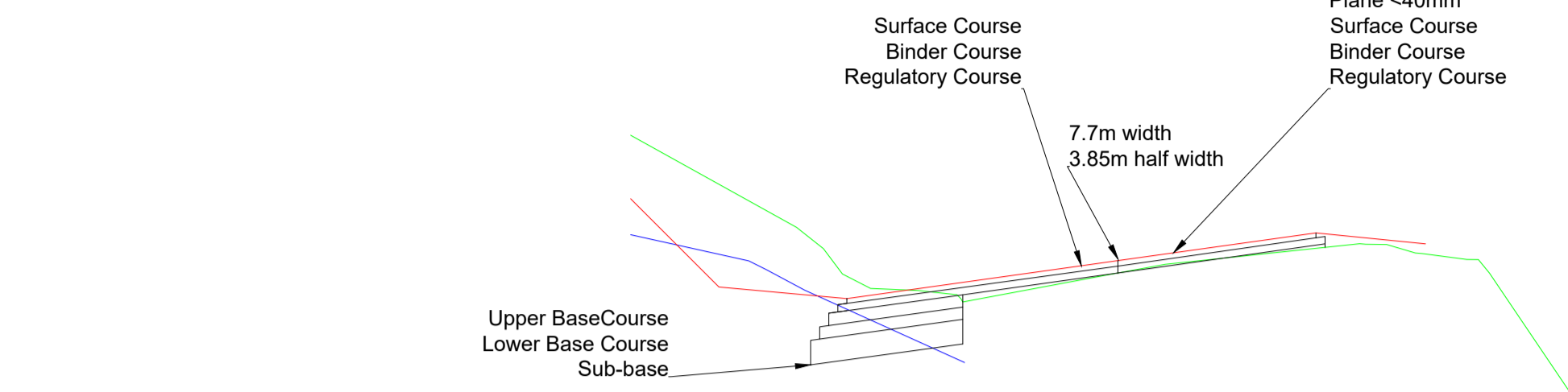


Level Datum =6.000

Design Levels	8.120	7.395	7.300	7.570	7.612	7.839	7.749	7.701
Design Offset	-8.000	-6.550	-4.450	-0.600	0.000	3.250	5.050	5.146
Existing Levels	8.447	8.029	7.900	7.818	7.647	7.157	7.210	7.215
Existing Offset	-8.000	-6.169	-5.725	-5.061	-4.216	-3.289	-2.903	-1.984
Rock Head Levels	7.503	7.443	7.355	6.662		1.339	7.474	
Rock Head Offset	-8.000	-7.016	-6.429					

Chainage = 170.000

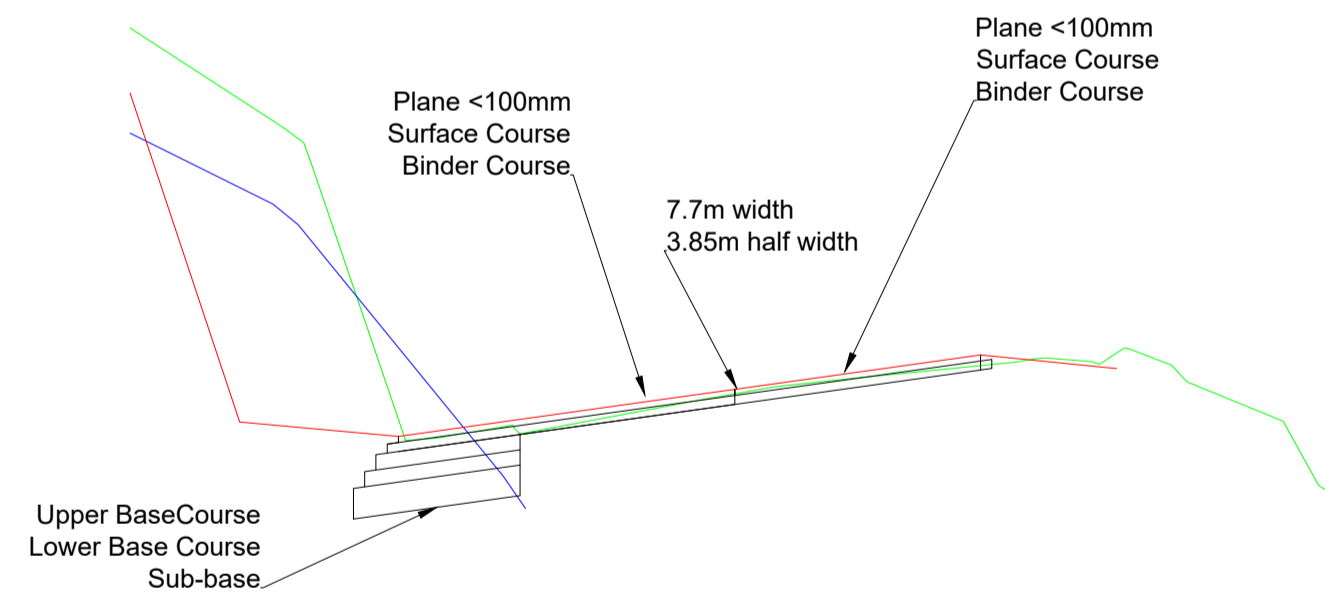
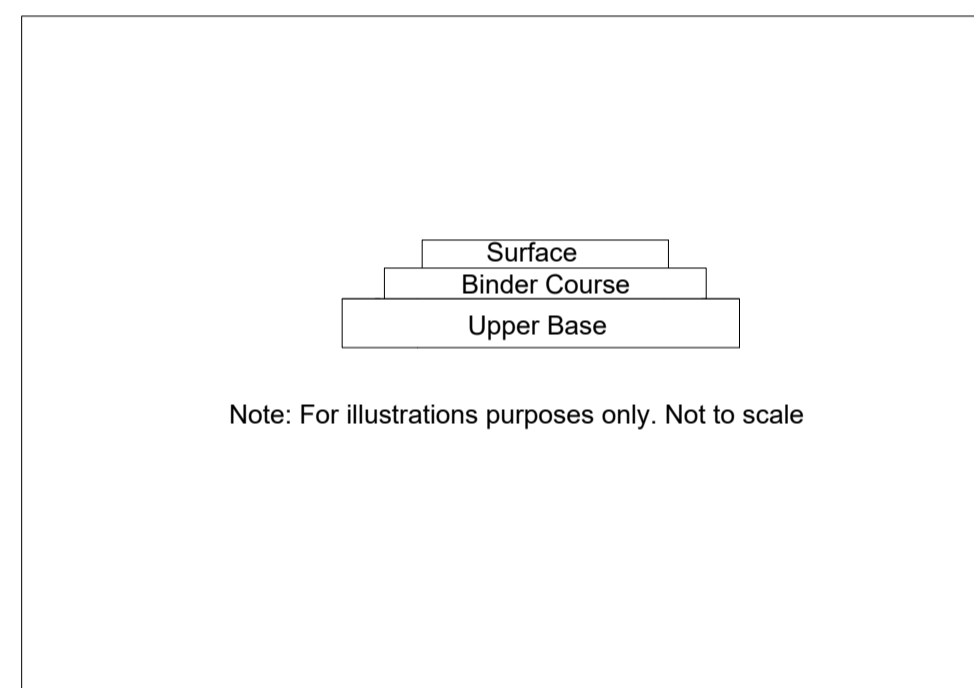
Scale H 1:100, V 1:50 @ A2



Level Datum =6.000

Design Levels	8.130	7.405	7.310	7.579	7.621	7.849	7.759	
Design Offset	-8.000	-6.550	-4.450	-0.600	0.000	3.250	5.050	
Existing Levels	8.651	7.894	7.720	7.511	7.393	7.376	7.281	6.110
Existing Offset	-8.000	-5.276	-4.835	-4.522	-4.061	-3.281	-2.642	
Rock Head Levels	7.834	7.619	7.377	6.784				
Rock Head Offset	-8.000	-6.060	-5.173					

Chainage = 180.000

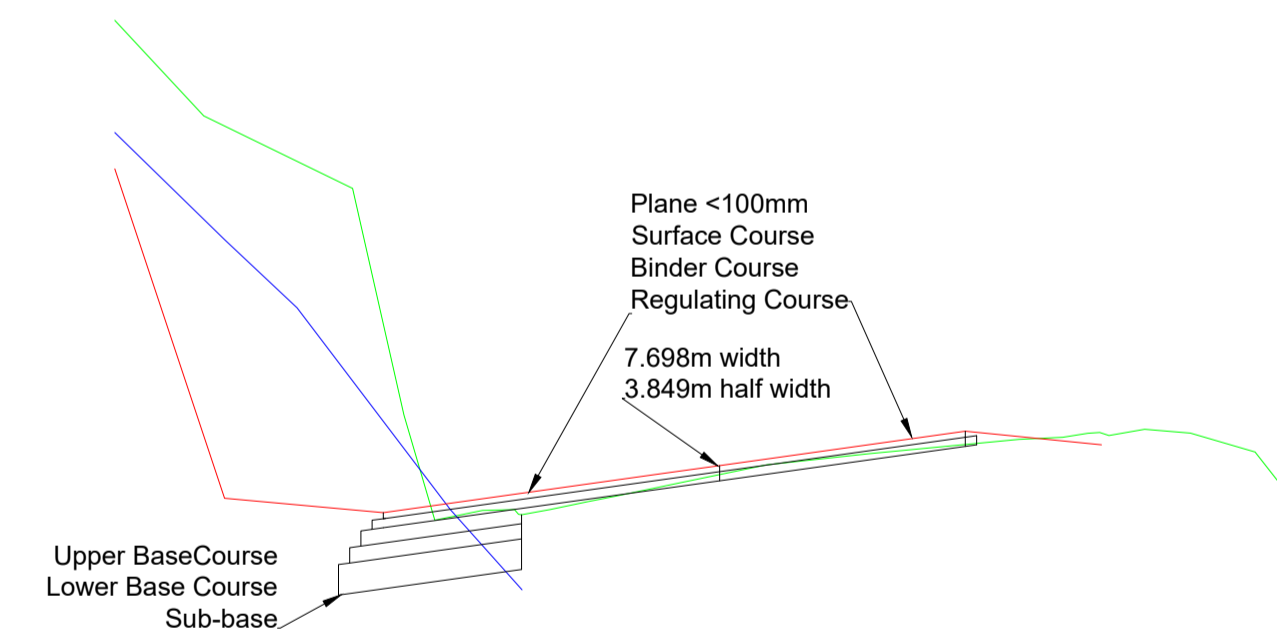


Level Datum =6.000

Design Levels	9.636	7.461	7.366	7.636	7.678	7.905	7.815	
Design Offset	-8.000	-6.550	-4.450	-0.600	0.000	3.250	5.050	
Existing Levels	10.067	9.414	9.161	7.339	7.355	7.440	7.383	
Existing Offset	-8.000	-5.987	-5.595	-4.355	-3.950	-2.940	-2.841	
Rock Head Levels	9.372	8.992	8.767	7.105	6.890			
Rock Head Offset	-8.000	-6.106	-5.776					

Chainage = 190.000

Scale H 1:100, V 1:50 @ A2



Level Datum =6.000

Design Levels	9.678	7.500	7.405	7.674	7.716	7.943	7.853	
Design Offset	-8.000	-6.548	-4.448	-0.599	-0.000	3.250	5.050	
Existing Levels	10.660	10.028	9.548	8.050	7.355	7.420	7.425	
Existing Offset	-8.000	-6.824	-4.856	-4.176	-3.768	-3.137	-2.716	
Rock Head Levels	9.918	9.209	8.760	7.424	6.894			
Rock Head Offset	-8.000	-6.547	-5.590					

Chainage = 200.000

Do not scale this drawing

0.0	Jan 17	Issue for Construction	GI
Rev	Date		Checked

Client

Status

FOR CONSTRUCTION

Project

A83 STRONE POINT IMPROVEMENT SCHEME

Title

DETAILED DESIGN CONSTRUCTION CROSS SECTIONS SHEET 6 OF 10

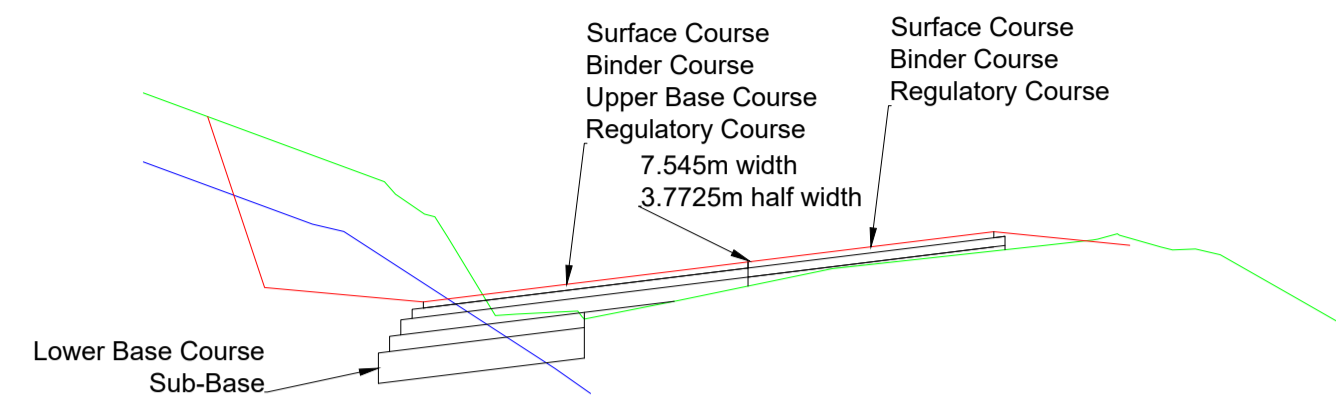
Drawing No.	13/NW/0901/052/700/009	SA		
Scale	1:1000 @ A1	Date	14 July 16	
Designed	LF	Drawn	SA	Checked
			GI	Approved
				JW

Prepared for BEAR Scotland by **JACOBS**
Jacobs 160 Dundee Street Edinburgh EH11 1DQ

- Notes
- Refer to drawing 13/NW/0901/052/500/001 and 003 and Specification Appendix 5/1 and 5/7 for drainage details.
 - Refer to drawing 13/NW/0901/052/GDR/101 to 108 and Specification Appendix 6/1, 6/2, 6/3, 6/8, and 6/10 for earthworks details.
 - Refer to drawing 13/NW/0901/052/700/001 to 003 and Specification Appendix 7/1, 7/2, 7/4, 7/6 and 7/9 for pavement details.
 - Refer to Specification Appendix 1/16 and drawing 13/NW/0901/052/2700/001 for utility details.
 - Refer to Specification Appendix 2/6 for ecological site clearance restrictions and Specification Appendix 30/12 for special ecological measures.
 - Excavation and planing must not intrude on the root zone of any trees.

Key

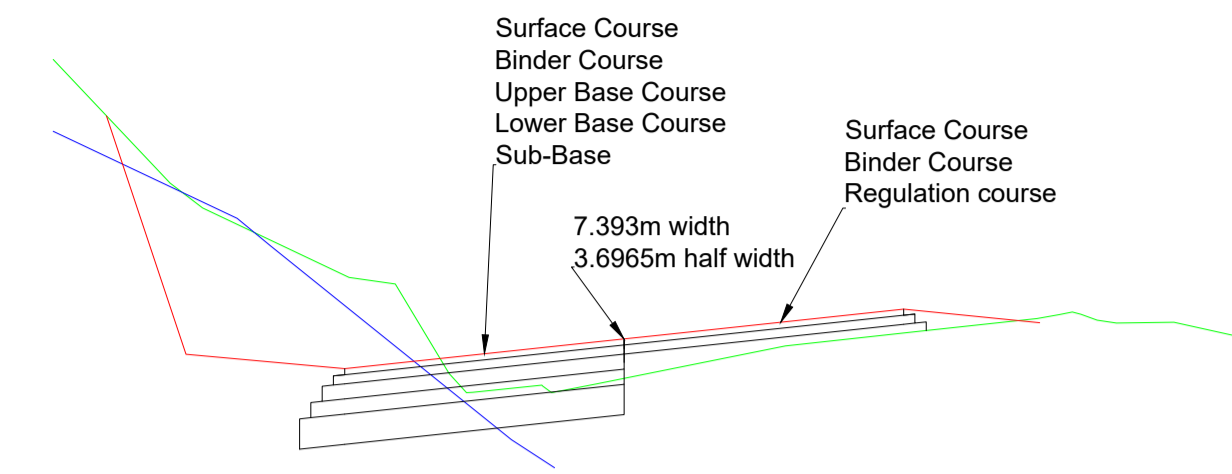
- Proposed Design
- Existing Ground
- Rock Head



Level Datum =6.000

Design Levels		8.665	7.534																	
Design Offset		-7.149	-6.395	-4.295																
Existing Levels		8.822		8.234	8.152	8.067	7.989	7.919	7.849	7.780	7.711	7.642	7.572	7.503	7.434	7.364	7.295	7.225	7.156	7.086
Existing Offset		-8.000		-4.809	-4.663	-3.971	-3.062	-2.253	-1.444	-0.635	0.174	0.983	1.792	2.601	3.410	4.219	5.028	5.837	6.646	7.455
Rock Head Levels		8.366	7.954	7.905			6.999	6.834												
Rock Head Offset		-8.000	-5.762	-5.248			-2.563	-2.048												

Chainage = 210.000

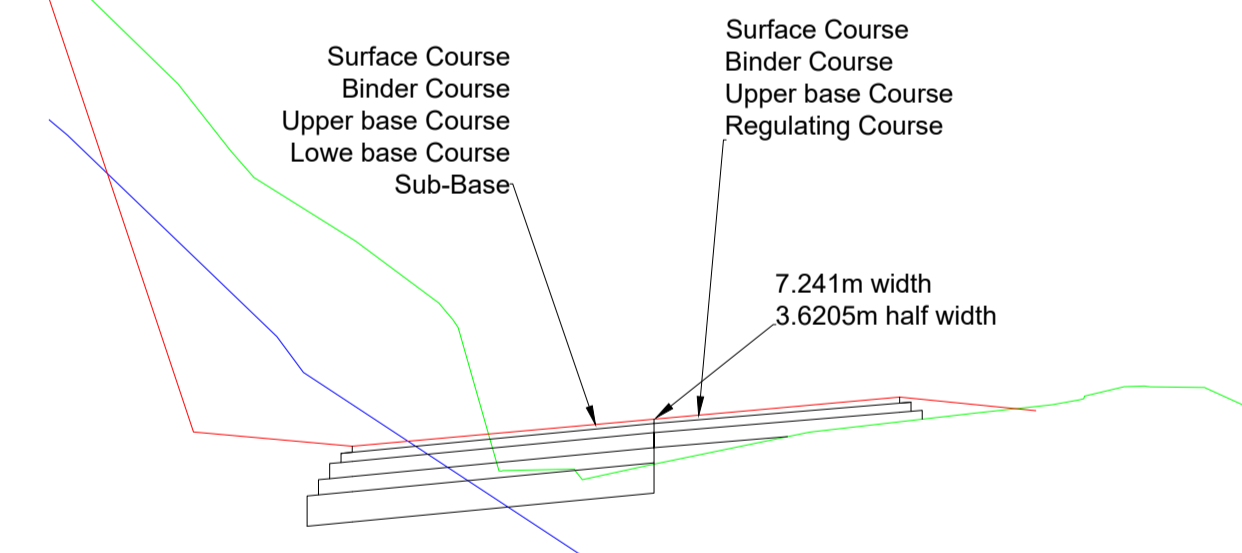
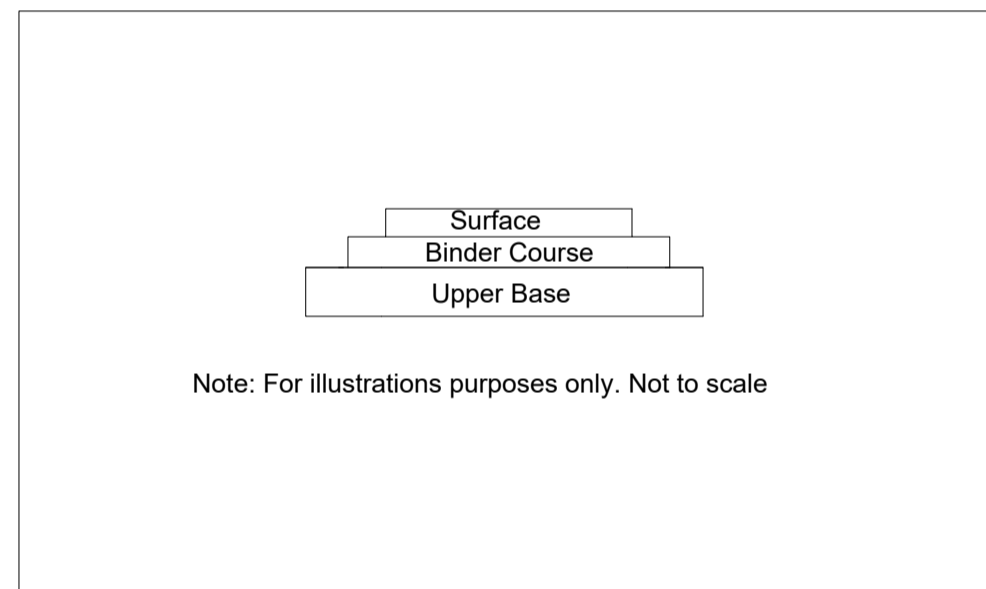


Level Datum =6.000

Design Levels		9.093																		
Design Offset		-7.294	-6.243	-4.143																
Existing Levels		9.486	8.648	8.483	8.024	7.981	7.980	7.980	7.980	7.980	7.980	7.980	7.980	7.980	7.980	7.980	7.980	7.980	7.980	7.980
Existing Offset		-8.000	-6.452	-6.023	-4.086	-3.474	-2.762	-2.453	-1.535	-0.810	0.000	0.710	1.420	2.130	2.840	3.550	4.260	4.970	5.680	6.390
Rock Head Levels		8.991	8.415	8.231	6.951	6.766														
Rock Head Offset		-8.000	-5.564	-5.118	-1.938	-1.368														

Chainage = 220.000

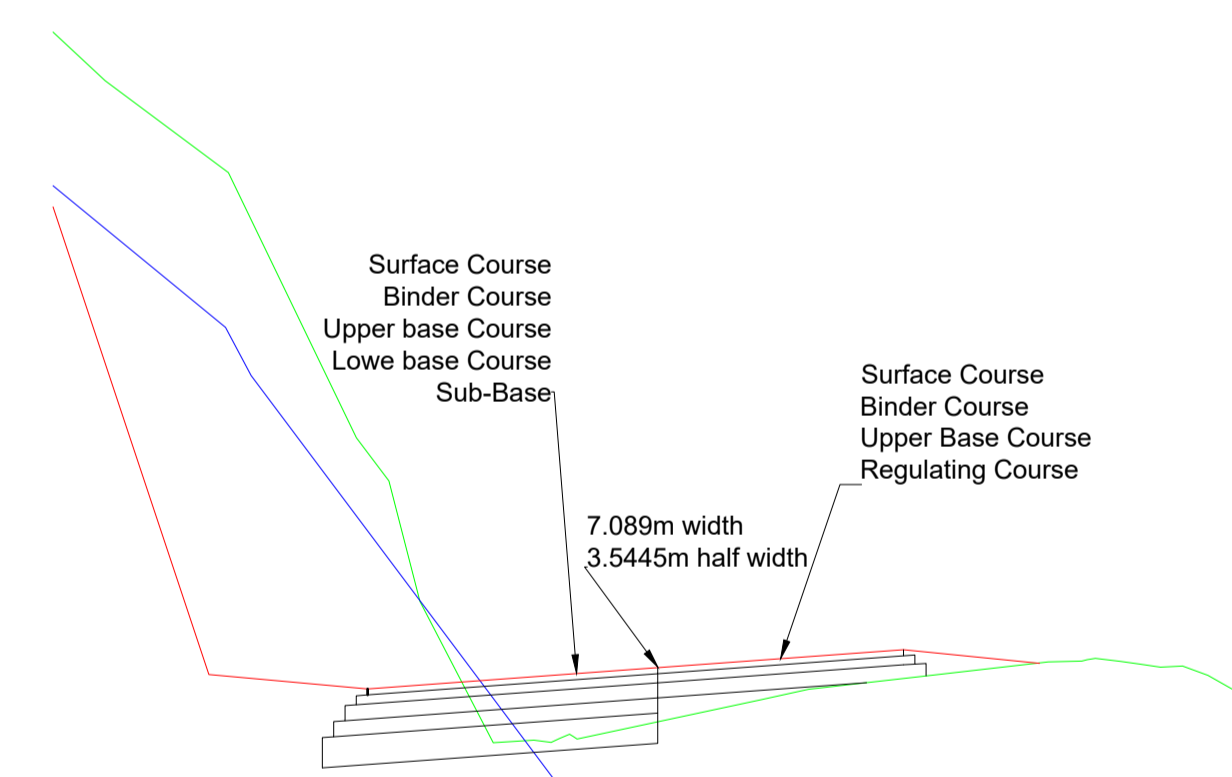
Scale H 1:100, V 1:50 @ A2



Level Datum =6.000

Design Levels		10.309	7.446	7.351																
Design Offset		-8.000	-6.091	-3.991																
Existing Levels		10.576	9.747	9.304	9.128	8.706	8.298	8.135	7.980	7.825	7.670	7.515	7.360	7.205	7.050	6.895	6.740	6.585	6.430	6.275
Existing Offset		-8.000	-6.266	-5.599	-5.252	-3.944	-2.847	-2.589	-2.331	-2.073	-1.815	-1.557	-1.299	-1.041	-0.783	-0.525	-0.267	-0.009	0.249	0.507
Rock Head Levels		9.407	8.076	7.838			6.630													
Rock Head Offset		-7.757	-4.988	-4.636			-0.963													

Chainage = 230.000



Level Datum =6.000

Design Levels		10.415	7.322	7.227																
Design Offset		-8.000	-5.939	-3.839																
Existing Levels		11.570	11.249	10.641	8.887	8.603	8.319	8.035	7.751	7.467	7.183	6.899	6.615	6.331	6.047	5.763	5.479	5.195	4.911	4.627
Existing Offset		-8.000	-7.310	-6.641	-3.986	-3.557	-3.147	-2.737	-2.327	-1.917	-1.507	-1.097	-0.687	-0.277	0.133	0.543	0.953	1.363	1.773	2.183
Rock Head Levels		10.554	9.618	9.299	6.406															
Rock Head Offset		-8.000	-5.718	-5.380	-1.038															

Chainage = 240.000

Scale H 1:100, V 1:50 @ A2

Do not scale this drawing

Rev	Date	Description	GI	Checked
0.0	Jan 17	Issue for Construction		

Client: TRANSPORT SCOTLAND

Client: BEAR SCOTLAND

Status: FOR CONSTRUCTION

Project: A83 STRONE POINT IMPROVEMENT SCHEME

Title: DETAILED DESIGN CONSTRUCTION CROSS SECTIONS SHEET 7 OF 10

Drawing No.	13/NW/0901/052/700/010	SA					
Scale	1:1000 @ A1	Date	14 July 16				
Designed	LF	Drawn	SA	Checked	GI	Approved	JW

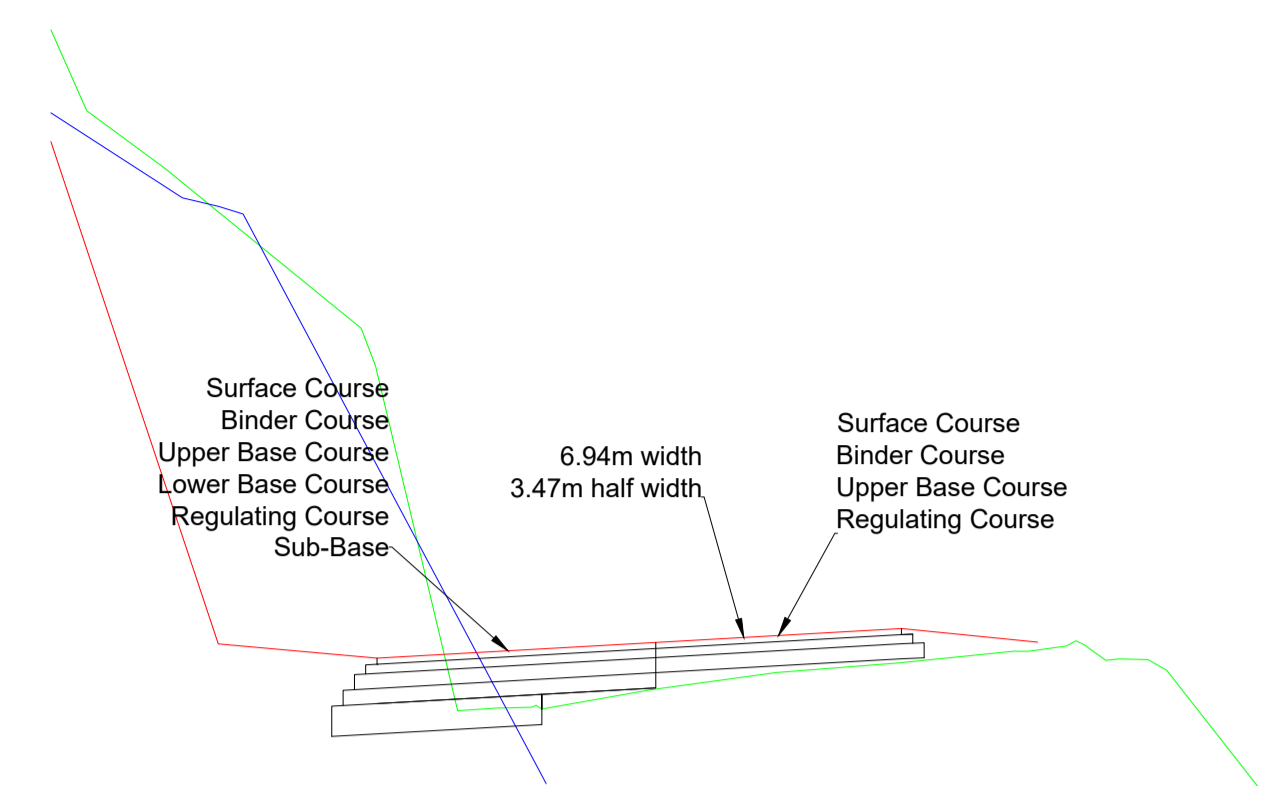
Prepared for BEAR Scotland by JACOBS
Jacobs 160 Dundee Street Edinburgh EH11 1DQ

Notes

- 1. Refer to drawing 13/NW/0901/052/500/001 and 003 and Specification Appendix 5/1 and 5/7 for drainage details.
- 2. Refer to drawing 13/NW/0901/052/GDR/101 to 108 and Specification Appendix 6/1, 6/2, 6/3, 6/8, and 6/10 for earthworks details.
- 3. Refer to drawing 13/NW/0901/052/700/001 to 003 and Specification Appendix 7/1, 7/2, 7/4, 7/6 and 7/9 for pavement details.
- 4. Refer to Specification Appendix 1/16 and drawing 13/NW/0901/052/2700/001 for utility details.
- 5. Refer to Specification Appendix 2/6 for ecological site clearance restrictions and Specification Appendix 30/12 for special ecological measures.
- 6. Excavation and planing must not intrude on the root zone of any trees.

Key

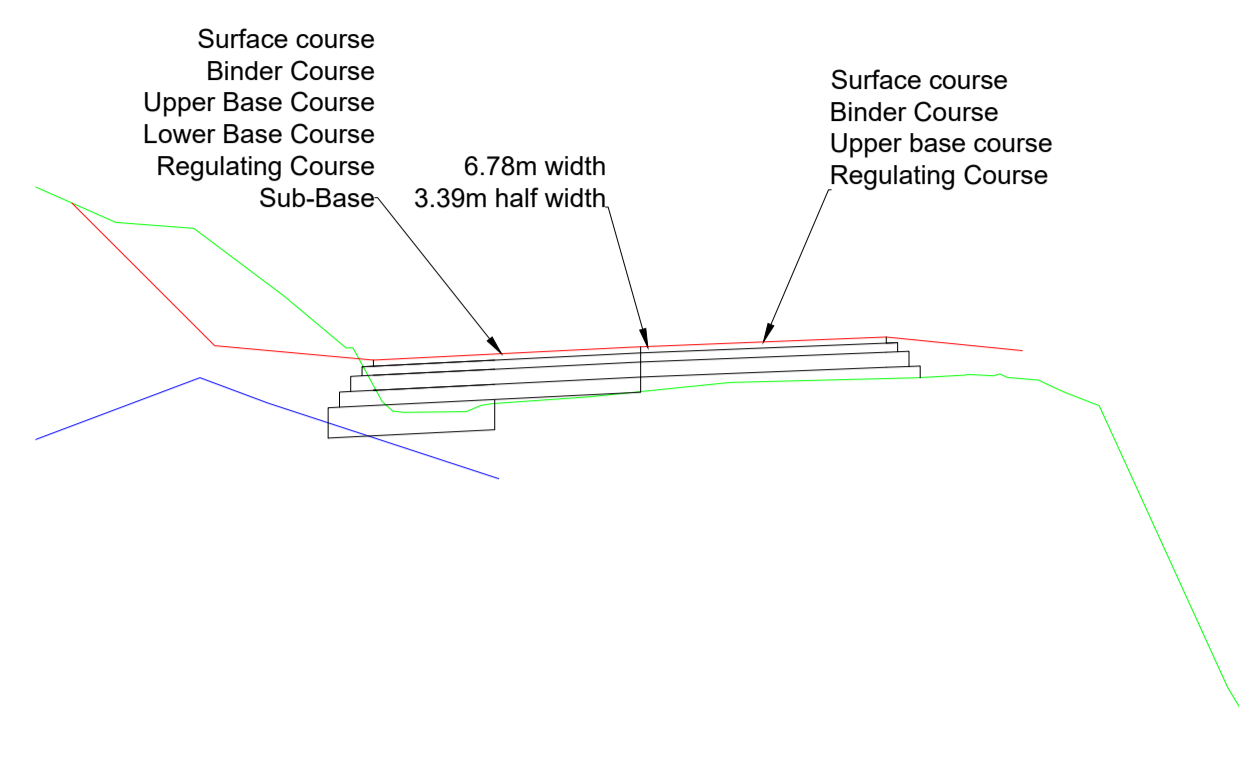
- Proposed Design
- Existing Ground
- Rock Head



Level Datum =6.000

Design Levels	-8.000	11.235	-8.000	10.495																	
Design Offset	-8.000	-7.525	-6.900	-5.786	-3.686	-0.292	-0.000	3.250	5.050	7.185											
Existing Levels	-8.000	10.123	10.016	9.261	8.734	8.750	8.743	6.870	6.984	7.048	7.125	7.169	7.075	6.969	6.209						
Existing Offset	-8.000	-7.525	-6.900	-3.695	-3.704	-2.620	-2.547	-2.091	-1.507	-0.069	1.597	3.212	4.734	4.939	5.431	5.665	6.121	6.494	6.870	8.000	
Rock Head Levels	10.685	10.123	10.016	9.261	8.734	8.750	8.743	6.250													
Rock Head Offset	-8.000	-6.260	-5.456	-3.704	-3.704	-2.620	-2.547	-1.449													

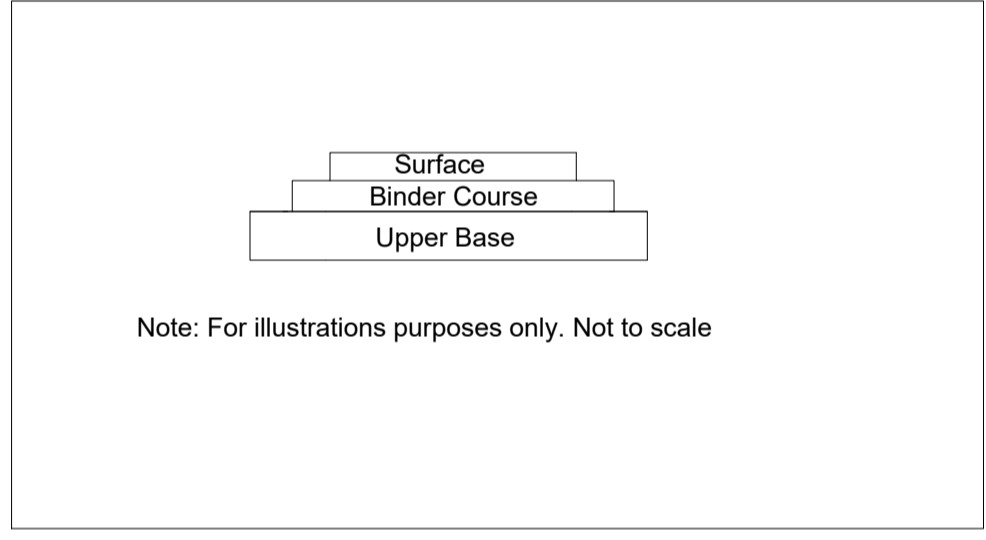
Chainage = 250.000



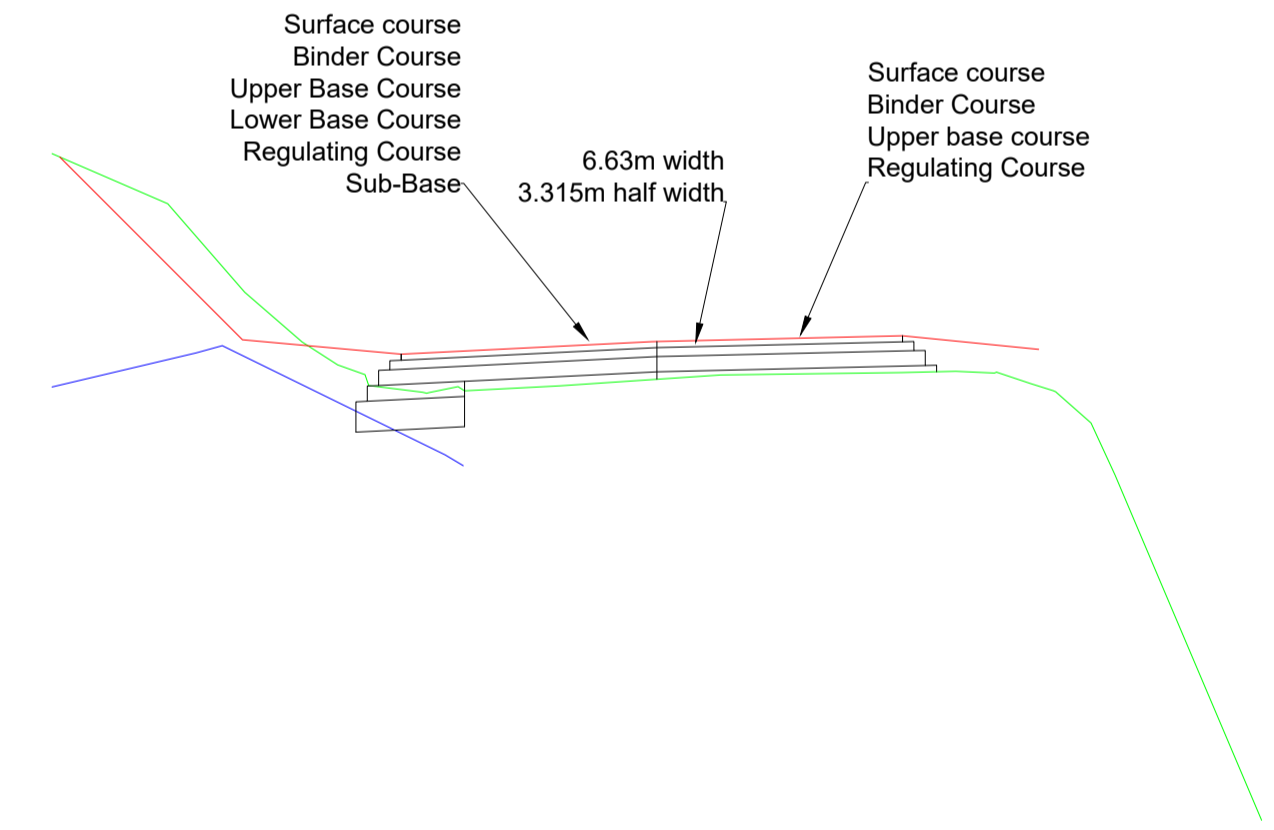
Level Datum =4.000

Design Levels	-8.000	7.950																			
Design Offset	-8.000	-7.521	-6.940	-5.634	-3.534	-0.000	3.250	5.050	6.973												
Existing Levels	-8.000	8.056	7.821	7.782	7.333	6.992	6.993	6.574	6.571	6.627	6.667	6.763	6.793	6.812	6.807	6.786	6.779	6.696	6.609	4.744	
Existing Offset	-8.000	-6.944	-5.909	-4.713	-3.895	-3.804	-3.728	-3.120	-2.303	-1.928	-0.665	1.185	3.634	4.293	4.662	4.855	5.263	5.618	6.066	7.768	
Rock Head Levels	6.387	6.786	6.627	6.627	6.571	6.571	6.128														
Rock Head Offset	-8.000	-5.827	-4.926	-4.926	-4.713	-4.713	-1.877														

Chainage = 260.000



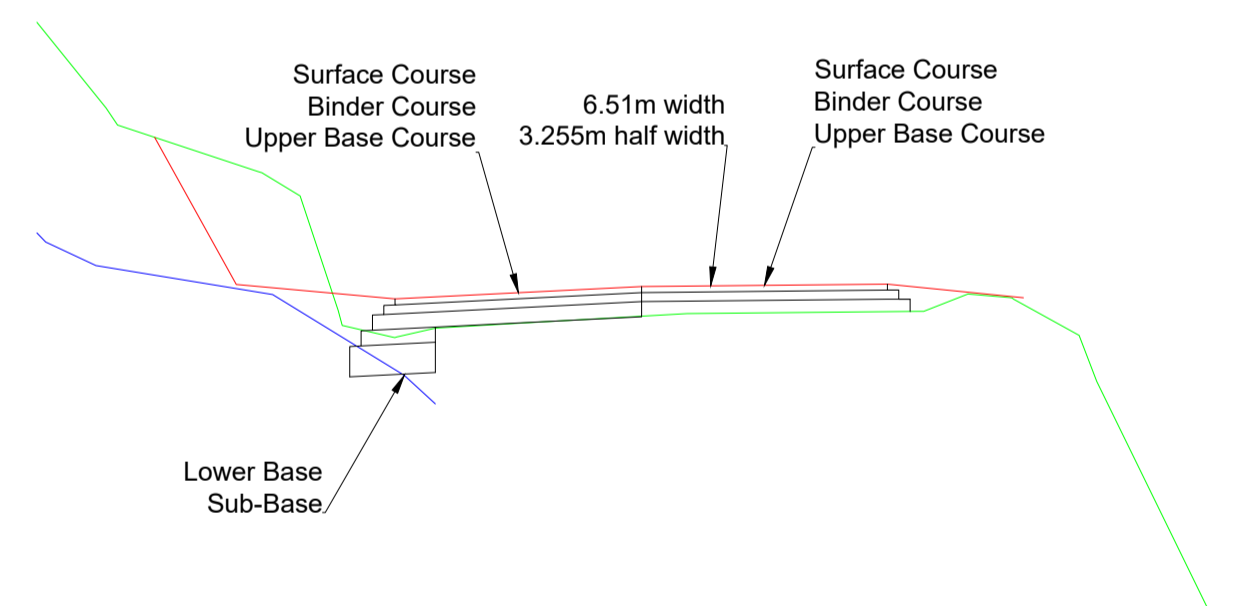
Scale H 1:100, V 1:50 @ A2



Level Datum =3.000

Design Levels	-8.000	8.052																			
Design Offset	-8.000	-7.898	-5.482	-3.382	-0.071	-0.000	3.250	5.050	6.779												
Existing Levels	-8.000	8.073	7.743	7.157	6.828	6.827	6.827	6.496	6.495	6.505	6.508	6.610	6.626	6.635	6.683	6.653	6.499	6.292	5.949	3.686	
Existing Offset	-8.000	-6.470	-5.451	-4.693	-4.222	-3.883	-3.099	-3.004	-2.545	-1.267	0.843	3.239	3.955	4.455	4.944	5.275	5.744	6.061	6.499	8.000	
Rock Head Levels	6.930	6.756	6.804	6.828	6.827	6.827	6.496	6.495	6.505	6.508	6.610	6.626	6.635	6.683	6.653	6.499	6.292	5.949	3.686		
Rock Head Offset	-8.000	-6.094	-5.748	-4.693	-4.222	-3.883	-3.004	-2.545	-1.267	0.843	3.239	3.955	4.455	4.944	5.275	5.744	6.061	6.499	6.499		

Chainage = 270.000



Level Datum =4.000

Design Levels	-8.000	7.700																			
Design Offset	-8.000	-6.443	-5.362	-3.262	-0.000	3.250	5.050	6.640													
Existing Levels	-8.000	6.461	7.885	7.781	7.424	7.313	6.555	6.381	6.469	6.535	6.550	6.550	6.550	6.550	6.550	6.550	6.550	6.550	6.550	4.061	
Existing Offset	-8.000	-7.086	-6.834	-6.834	-6.834	-6.834	-6.834	-6.834	-6.834	-6.834	-6.834	-6.834	-6.834	-6.834	-6.834	-6.834	-6.834	-6.834	-6.834	-6.834	
Rock Head Levels	7.008	6.861	6.861	6.861	6.861	6.861	6.861	6.861	6.861	6.861	6.861	6.861	6.861	6.861	6.861	6.861	6.861	6.861	6.861	4.061	
Rock Head Offset	-7.983	-7.219	-6.863	-6.863	-6.863	-6.863	-6.863	-6.863	-6.863	-6.863	-6.863	-6.863	-6.863	-6.863	-6.863	-6.863	-6.863	-6.863	-6.863	-6.863	

Chainage = 280.000

Scale H 1:100, V 1:50 @ A2

Do not scale this drawing

0.0	Jan 17	Issue for Construction	GI
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Client



Status FOR CONSTRUCTION

Project A83 STRONE POINT IMPROVEMENT SCHEME

Title DETAILED DESIGN CONSTRUCTION CROSS SECTIONS SHEET 8 OF 10

Drawing No.	13/NW/0901/052/700/011	SA					
Scale	1:1000 @ A1	Date	14 July 16				
Designed	LF	Drawn	SA	Checked	GI	Approved	JW

Prepared for BEAR Scotland by JACOBS Jacobs 160 Dundee Street Edinburgh EH11 1DQ

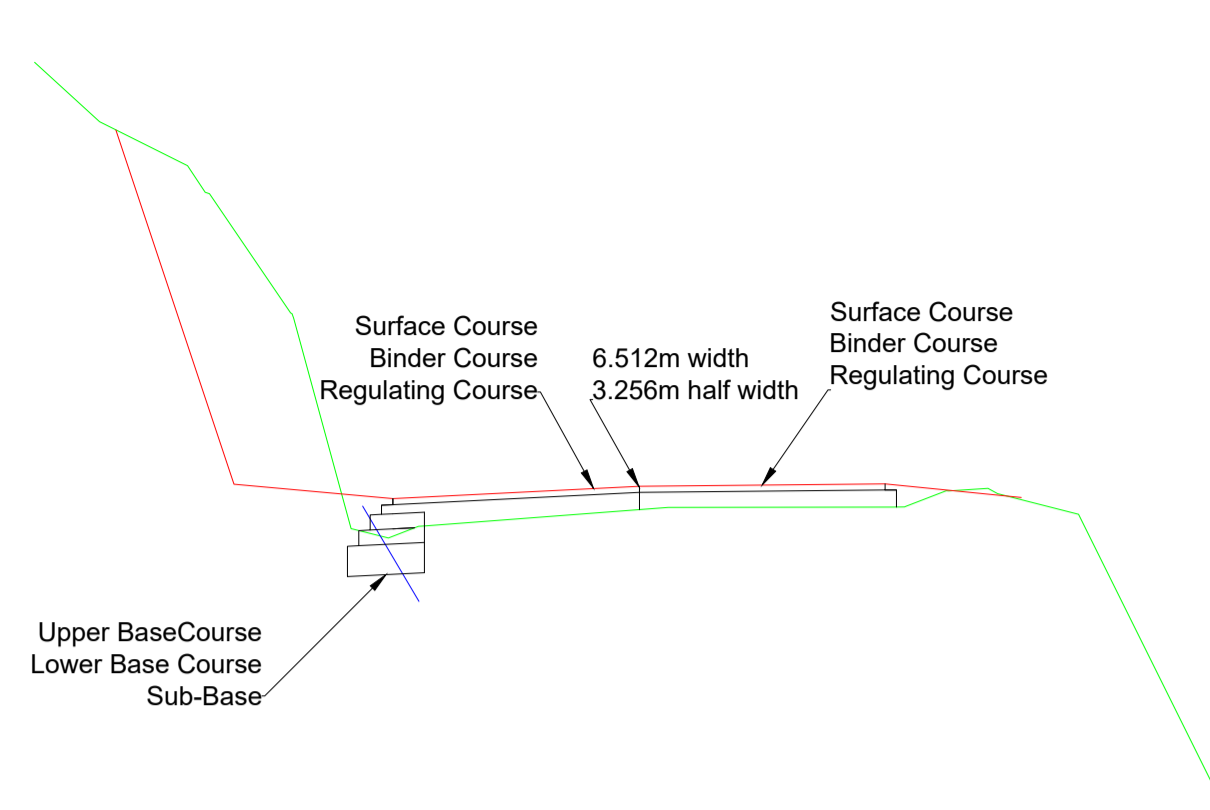
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Notes

1. Refer to drawing 13/NW/0901/052/500/001 and 003 and Specification Appendix 5/1 and 5/7 for drainage details.
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6. Excavation and planing must not intrude on the root zone of any trees.

Key

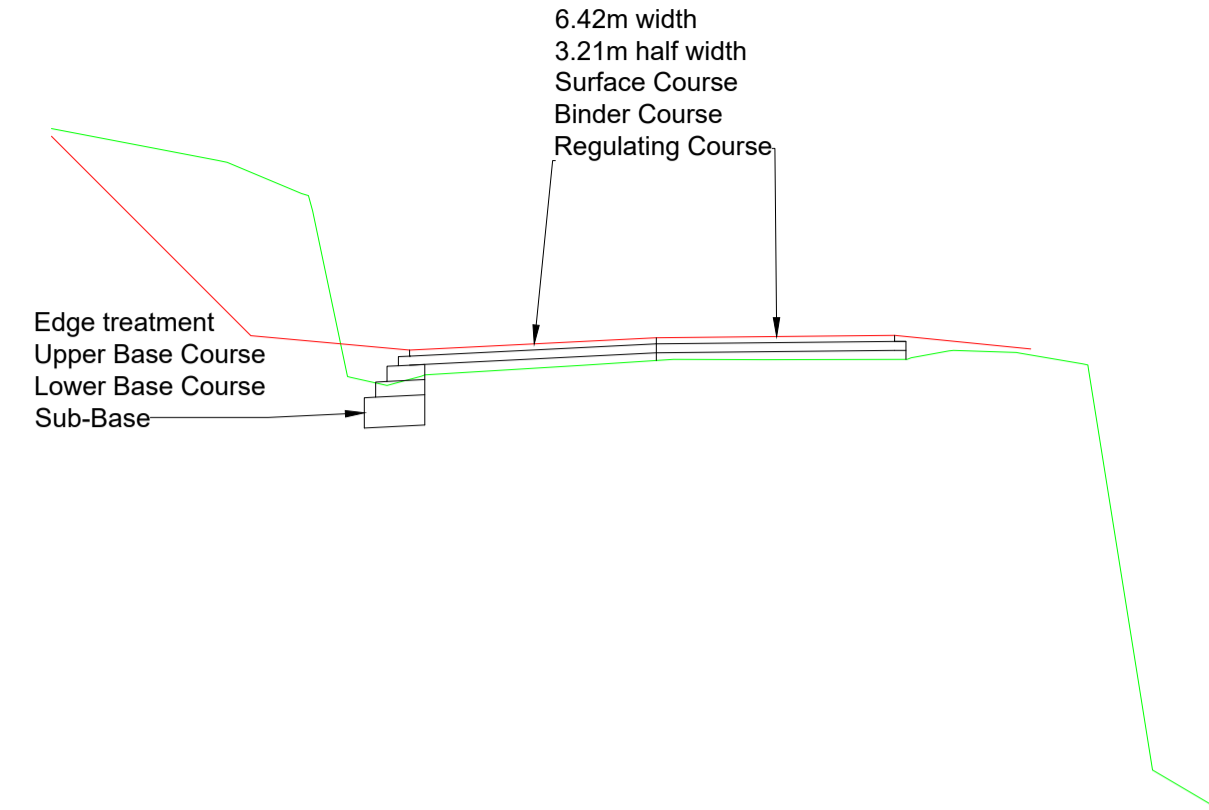
- Proposed Design
- Existing Ground
- Rock Head



Level Datum =4.000

Design Levels		9.003								
Design Offset		-6.924		-5.362		-3.262		-0.000		6.663
Existing Levels		9.449	9.057	8.765	8.581	7.788	6.364	5.886	5.808	4.254
Existing Offset		-8.000	-7.140	-5.637	-5.667	-4.613	-3.814	-3.782	-4.916	8.000
Rock Head Levels		7.895		7.513		5.886				
Rock Head Offset		-7.676		-4.916		-2.917				

Chainage = 290.000

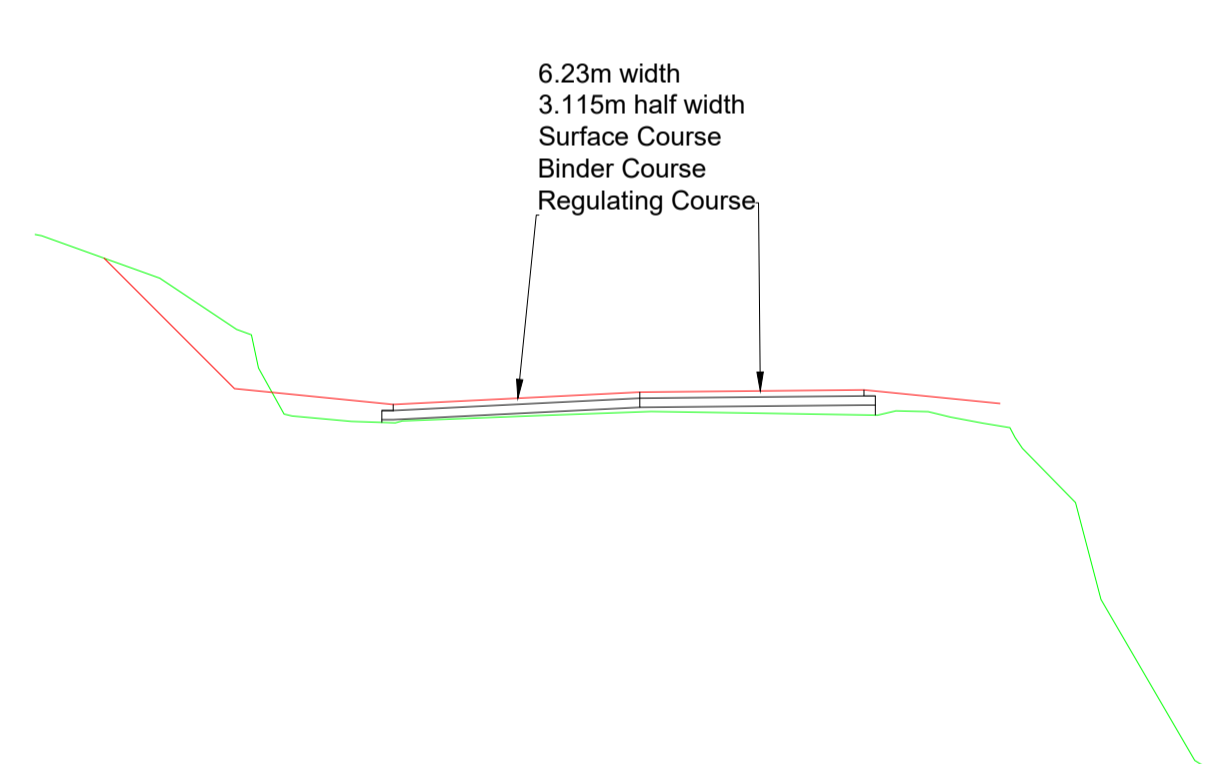
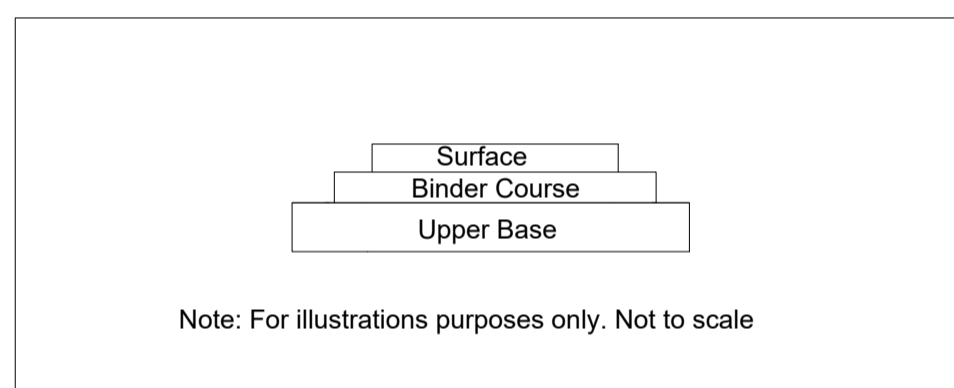


Level Datum =3.000

Design Levels		7.961								
Design Offset		-8.000		-5.362		-3.262		-0.000		6.629
Existing Levels		8.012	7.968	7.582	7.467	6.367	5.813	5.383	5.808	4.254
Existing Offset		-8.000	-5.678	-4.691	-4.582	-3.562	-3.103	-2.170	-4.916	8.000
Rock Head Levels										
Rock Head Offset										

Chainage = 300.000

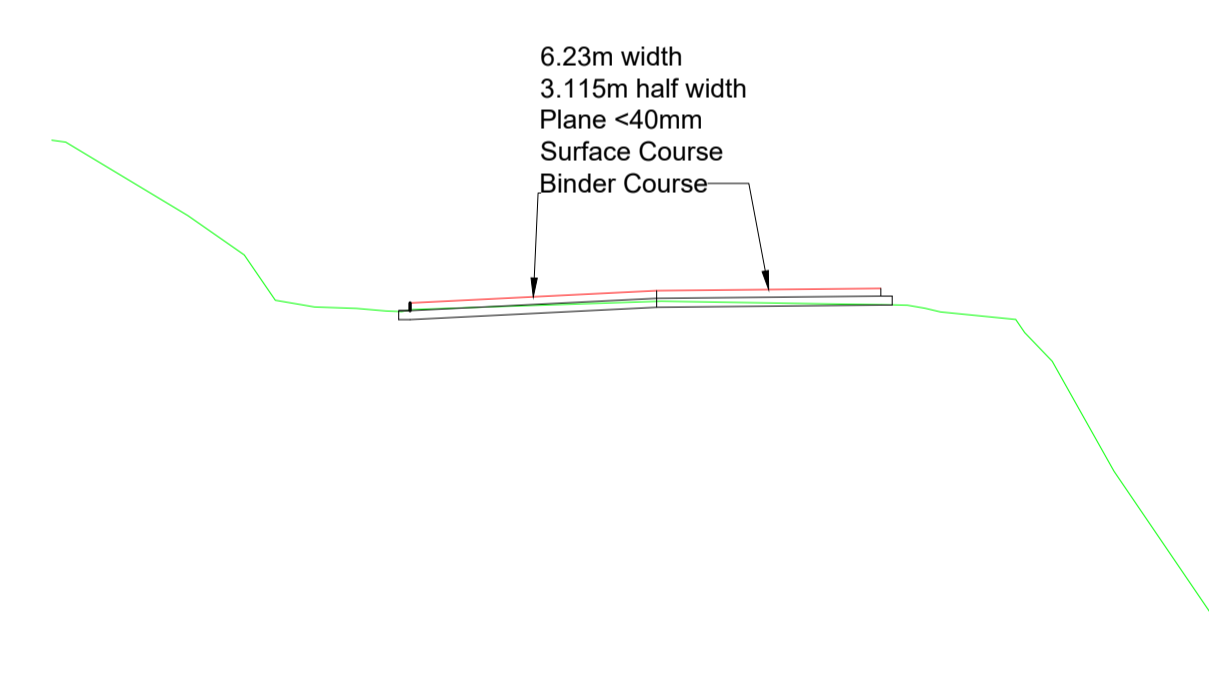
Scale H 1:100, V 1:50 @ A2



Level Datum =4.000

Design Levels		7.547								
Design Offset		-7.088		-5.362		-3.262		-0.000		6.661
Existing Levels		7.895	7.415	7.076	6.576	6.503	6.467	6.471	6.504	4.020
Existing Offset		-7.912	-6.351	-5.334	-4.979	-4.600	-3.815	-3.235	-3.141	8.000
Rock Head Levels										
Rock Head Offset										

Chainage = 310.000



Level Datum =4.000

Design Levels										
Design Offset										
Existing Levels		7.725	7.240	6.980	6.680	6.635	6.626	6.619	6.637	4.116
Existing Offset		-7.818	-6.202	-5.455	-5.044	-4.525	-3.971	-3.226	-2.170	8.000
Rock Head Levels										
Rock Head Offset										

Chainage = 320.000

Scale H 1:100, V 1:50 @ A2

Do not scale this drawing

Rev	Date	Issue for Construction	GI	Checked
0.0	Jan 17			

Client

Status: **FOR CONSTRUCTION**

Project: **A83 STRONE POINT IMPROVEMENT SCHEME**

Title: **DETAILED DESIGN CONSTRUCTION CROSS SECTIONS SHEET 9 OF 10**

Drawing No.	13/NW/0901/052/700/012	SA			
Scale	1:1000 @ A1	Date	14 July 16		
Designed	LF	Drawn	SA	Checked	GI
				Approved	JW

Prepared for BEAR Scotland by **JACOBS**
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