



Bonneagar Iompair Éireann
Transport Infrastructure Ireland

TII Publications



Standard Construction Details - Series 600

September 2024

Standard Construction Details (SCDs) – Series 600

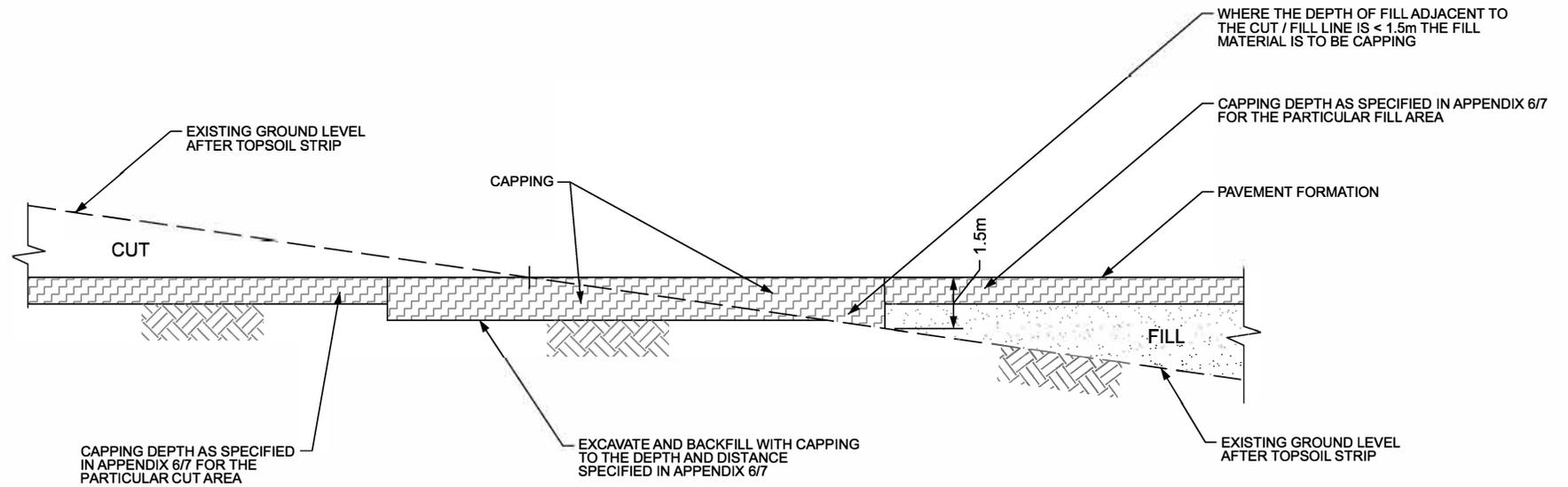
TII Publications contains Standard Construction Details (SCDs) for use on National Road schemes in Ireland. This composite document brings together all the Series 600 SCDs from TII Publications current at the date of this document's publication, into a single location for convenience.

Every effort has been made to keep this composite document updated and available from the TII Publications website (<http://www.tiipublications.ie/>). Please note that the SCD drawings available from the TII Publications website (individually linked below) are the controlled versions for all SCDs.

The SCDs contained in this document are as follows:

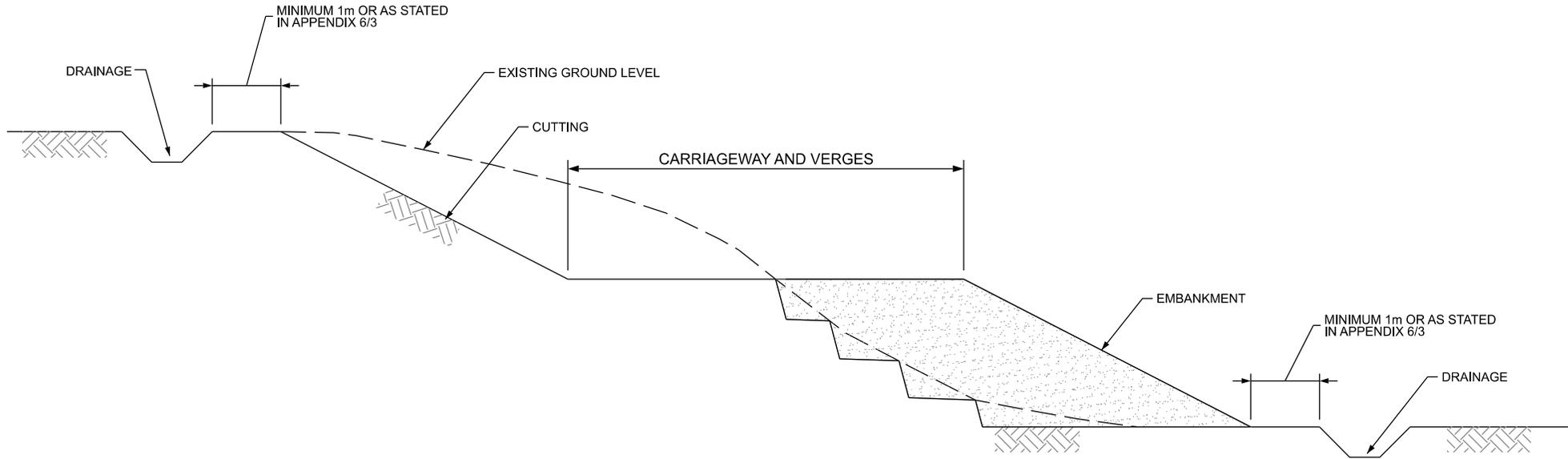
Series 600 Earthworks

CC-SCD-00601	Earthworks Transition Area Between Cut and Fill
CC-SCD-00602	Earthworks Drainage
CC-SCD-00603	Earthworks Rounding of Earthworks Slopes
CC-SCD-00604	Earthworks Treatment of Abandoned Watercourse and/or Ditch
CC-SCD-00605	Earthworks Benching for Embankment or Bund on Sloping Ground
CC-SCD-00606	Earthworks Embankment in Areas Prone to Flooding
CC-SCD-00607	Earthworks Rock Cut Slope
CC-SCD-00608	Earthworks Fill Against Existing Embankment
CC-SCD-00609	Earthworks Fill to Structures
CC-SCD-00610	Earthworks Embankment Verge Detail
CC-SCD-00611	Earthworks Instrumentation (Sheet 1 of 2)
CC-SCD-00612	Earthworks Instrumentation (Sheet 2 of 2)



NOTE:

1. REFER TO APPENDIX 6/3 FOR MAXIMUM DEPTHS AND SIDE SLOPE ANGLES OF INTERCEPTOR DITCHES.
2. DRAINAGE MAY BE INTERCEPTOR DITCHES (AS SHOWN) OR THE OTHER TYPES SHOWN IN THE STANDARD CONSTRUCTION DETAILS SERIES 500.
3. REFER TO DRAINAGE DRAWINGS FOR DRAINAGE TYPES, LOCATIONS, LEVELS / GRADIENTS AND BASE WIDTHS.



PUBLICATION TITLE

**EARTHWORKS
DRAINAGE**

STREAM

STANDARD CONSTRUCTION DETAIL (SCD)

HISTORICAL REFERENCE

RCD/600/2

DOCUMENTATION SET

STANDARDS

PUBLICATION DATE

SEPTEMBER 2024

PUBLICATION NUMBER

ACTIVITY

CC

STREAM

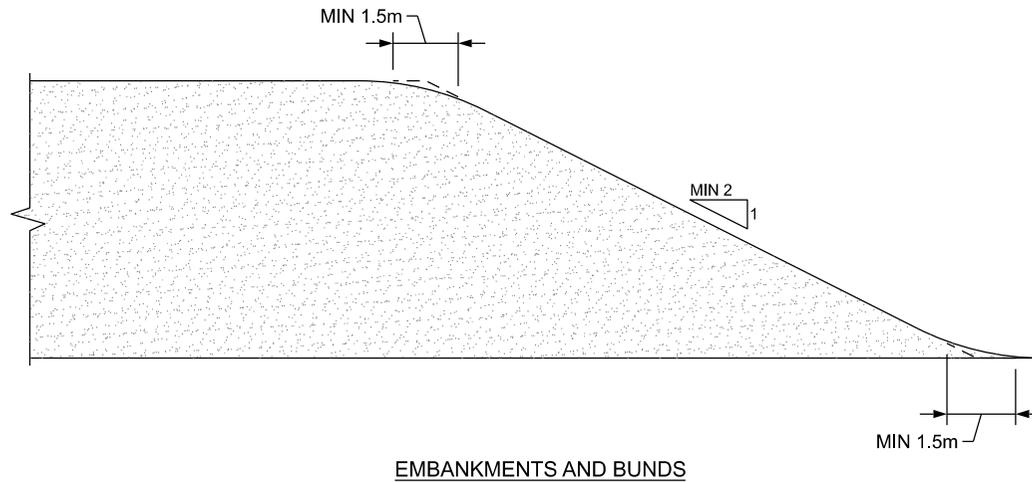
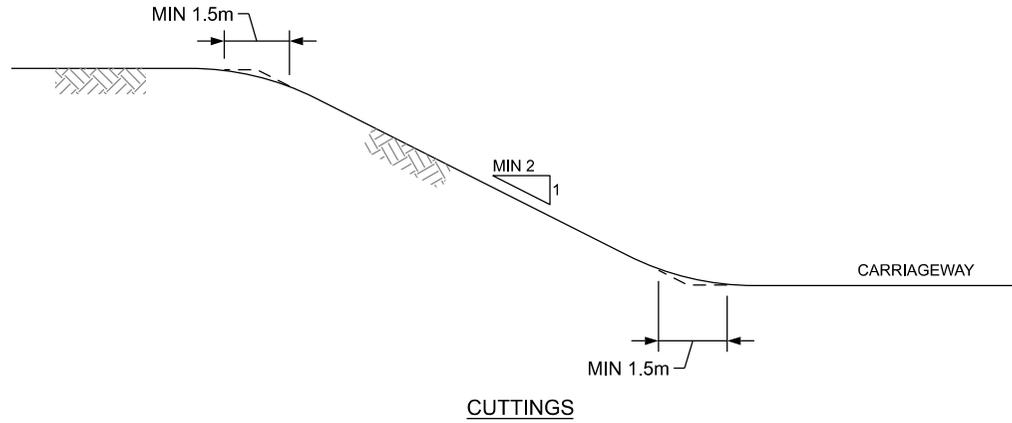
SCD

DRAWING NUMBER

00602

NOTE:

1. THE SLOPE ANGLE SHALL BE IN ACCORDANCE WITH CC-SPW-00600 AND APPENDICES.
2. THE ROUNDING OF ROCK CUTTING SLOPES SHALL BE DETERMINED BY THE DESIGNER WITH CONSIDERATION OF THE ROAD RESTRAINT SYSTEM AND DRAINAGE REQUIREMENTS.



PUBLICATION TITLE

EARTHWORKS
ROUNDING OF EARTHWORKS SLOPES

STREAM

STANDARD CONSTRUCTION DETAIL (SCD)

HISTORICAL REFERENCE

RCD/600/3

DOCUMENTATION SET

STANDARDS

PUBLICATION DATE

SEPTEMBER 2024

PUBLICATION NUMBER

ACTIVITY

CC

STREAM

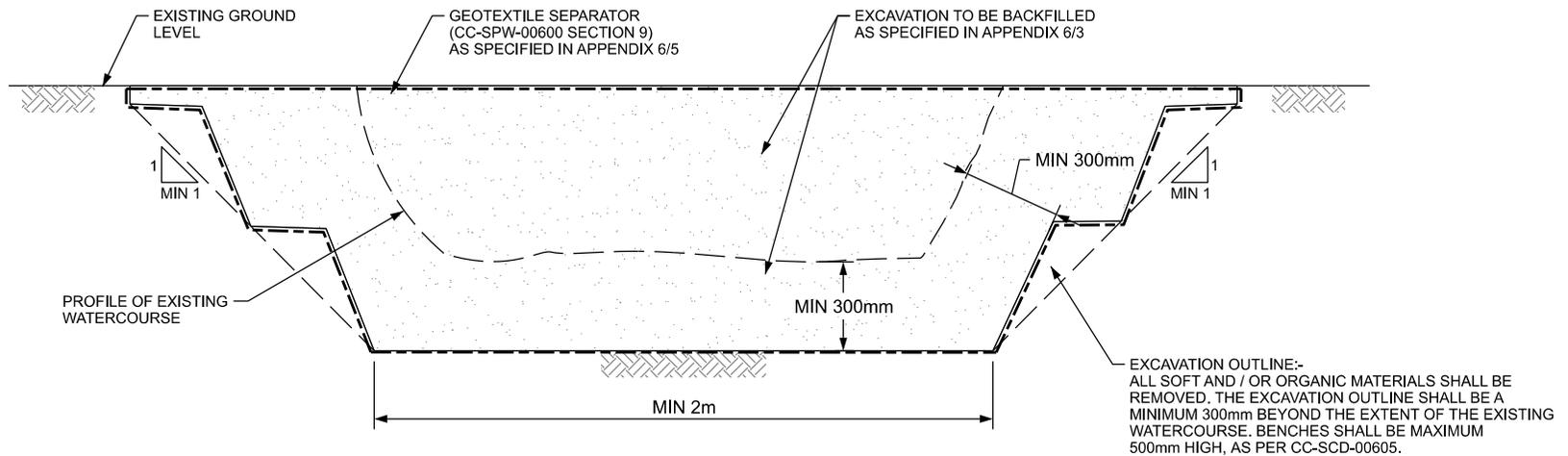
SCD

DRAWING NUMBER

00603

NOTE:

1. THE TREATMENT SHALL BE EXTENDED A MINIMUM OF 3m FROM THE EARTHWORKS TOE ON BOTH SIDES OF THE EMBANKMENT .
2. ST2 CONCRETE PLUGS SHALL BE PROVIDED A MINIMUM OF 3m FROM THE EARTHWORKS TOE ON BOTH SIDES OF THE EMBANKMENT.



PUBLICATION TITLE

**EARTHWORKS
TREATMENT OF REDUNDANT WATERCOURSE AND / OR DITCH**

ACTIVITY

STREAM

STANDARD CONSTRUCTION DETAIL (SCD)

HISTORICAL REFERENCE

RCD/600/4

DOCUMENTATION SET

STANDARDS

PUBLICATION DATE

SEPTEMBER 2024

PUBLICATION NUMBER

ACTIVITY

CC

STREAM

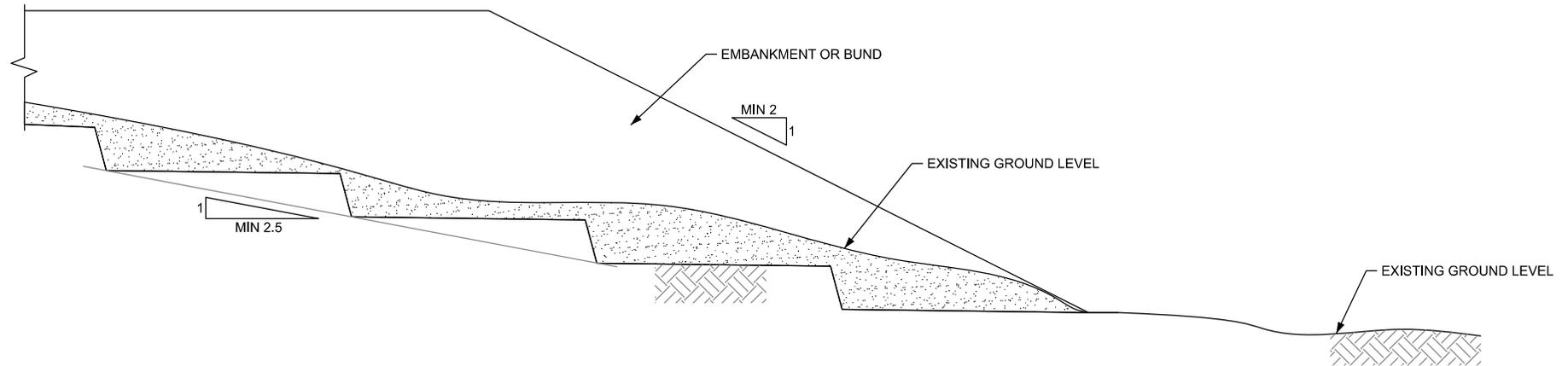
SCD

DRAWING NUMBER

00604

NOTE:

1. BENCHING SHALL BE CARRIED OUT ON EMBANKMENT FOUNDATIONS WHERE THE SLOPE OF EXISTING GROUND EXCEEDS 1(V):5(H).
2. BENCH DIMENSIONS SHALL BE AS SPECIFIED IN APPENDIX 6/3 AND SHALL NOT RESULT IN AN OVERALL SLOPE ANGLE STEEPER THAN 1(V): 2.5(H).



PUBLICATION TITLE

**EARTHWORKS
BENCHING FOR EMBANKMENT OR BUND ON SLOPING GROUND**

STREAM

STANDARD CONSTRUCTION DETAIL (SCD)

HISTORICAL REFERENCE

RCD/600/5

DOCUMENTATION SET

STANDARDS

PUBLICATION DATE

SEPTEMBER 2024

PUBLICATION NUMBER

ACTIVITY

CC

STREAM

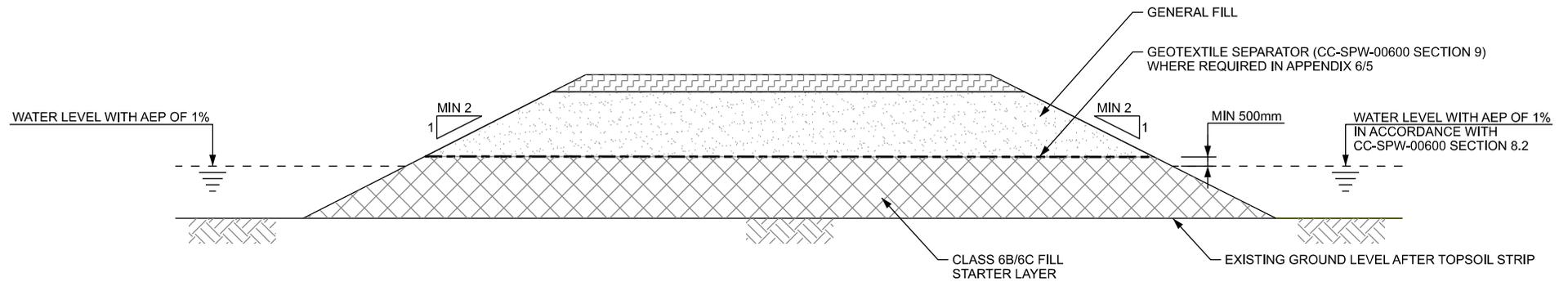
SCD

DRAWING NUMBER

00605

NOTE:

1. REFER TO APPENDIX 6/3 FOR FLOOD LEVELS.
(WATER LEVELS WITH CORRESPONDING ANNUAL EXCEEDANCE PROBABILITY (AEP)).



PUBLICATION TITLE

**EARTHWORKS
EMBANKMENT IN AREAS PRONE TO FLOODING**

STREAM

STANDARD CONSTRUCTION DETAIL (SCD)

HISTORICAL REFERENCE

RCD/600/6

DOCUMENTATION SET

STANDARDS

PUBLICATION DATE

SEPTEMBER 2024

PUBLICATION NUMBER

ACTIVITY

CC

STREAM

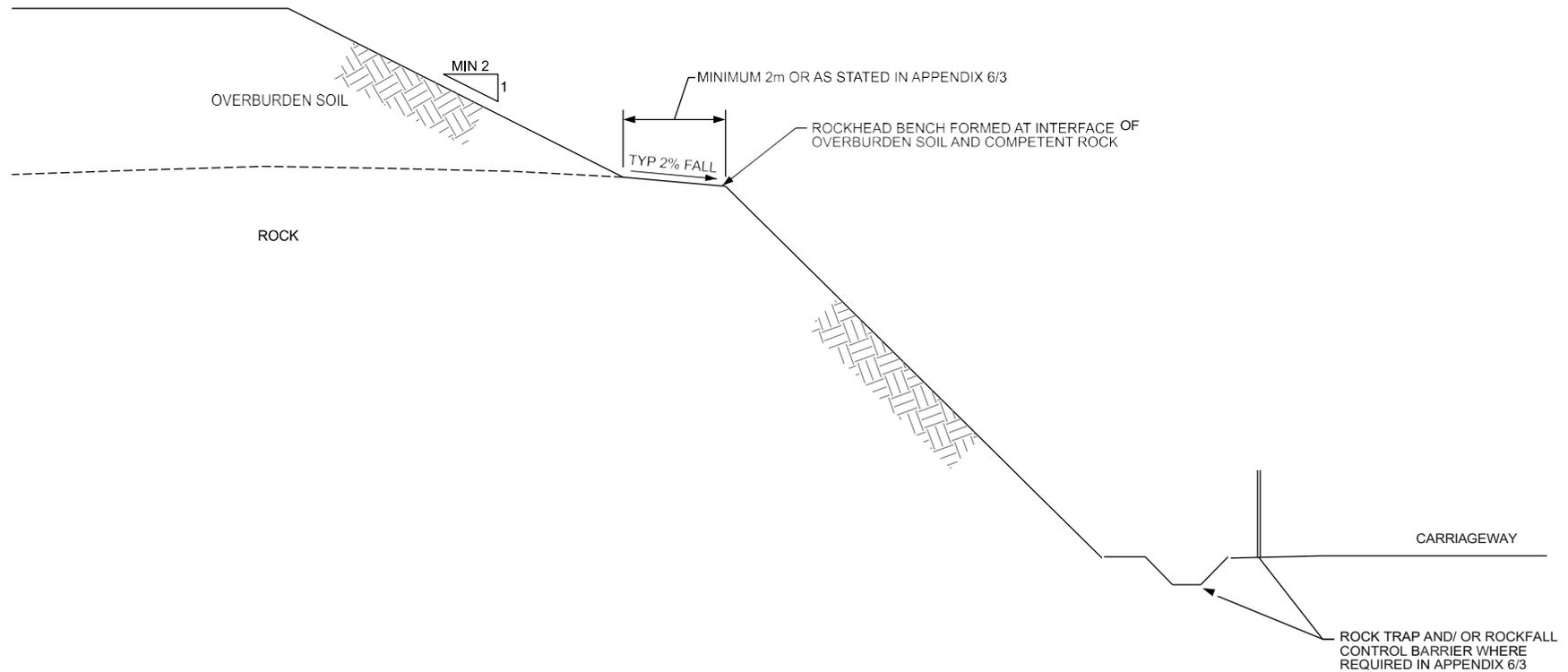
SCD

DRAWING NUMBER

00606

NOTE:

1. THE MAXIMUM PERMITTED ROCK SLOPE ANGLE SHALL BE AS SPECIFIED IN APPENDIX 6/3.



PUBLICATION TITLE

**EARTHWORKS
ROCK CUT SLOPE**

STREAM

STANDARD CONSTRUCTION DETAIL (SCD)

HISTORICAL REFERENCE

RCD/600/7

DOCUMENTATION SET

STANDARDS

PUBLICATION DATE

SEPTEMBER 2024

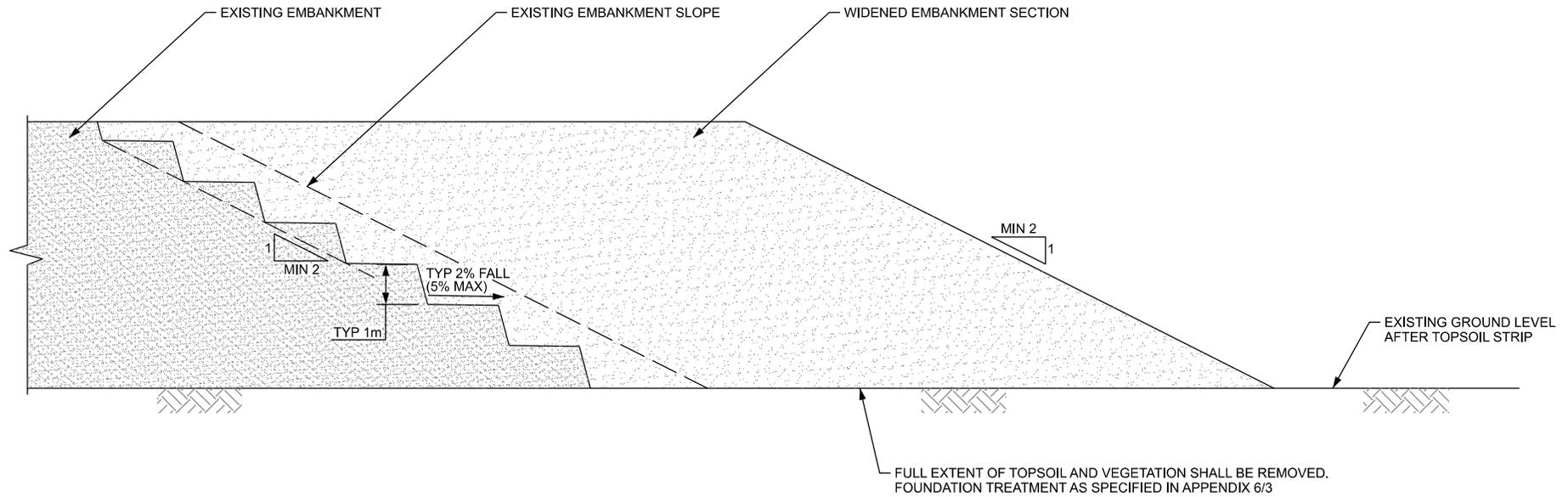
PUBLICATION NUMBER

ACTIVITY STREAM DRAWING NUMBER

00607

NOTE:

1. BENCH DIMENSIONS SHALL BE AS SPECIFIED IN APPENDIX 6/3 AND SHALL NOT RESULT IN AN OVERALL SLOPE ANGLE STEEPER THAN 1(V): 2(H).



PUBLICATION TITLE

**EARTHWORKS
FILL AGAINST EXISTING EMBANKMENT**

STREAM

STANDARD CONSTRUCTION DETAIL (SCD)

HISTORICAL REFERENCE

RCD/600/8

DOCUMENTATION SET

STANDARDS

PUBLICATION DATE

SEPTEMBER 2024

PUBLICATION NUMBER

ACTIVITY

CC

STREAM

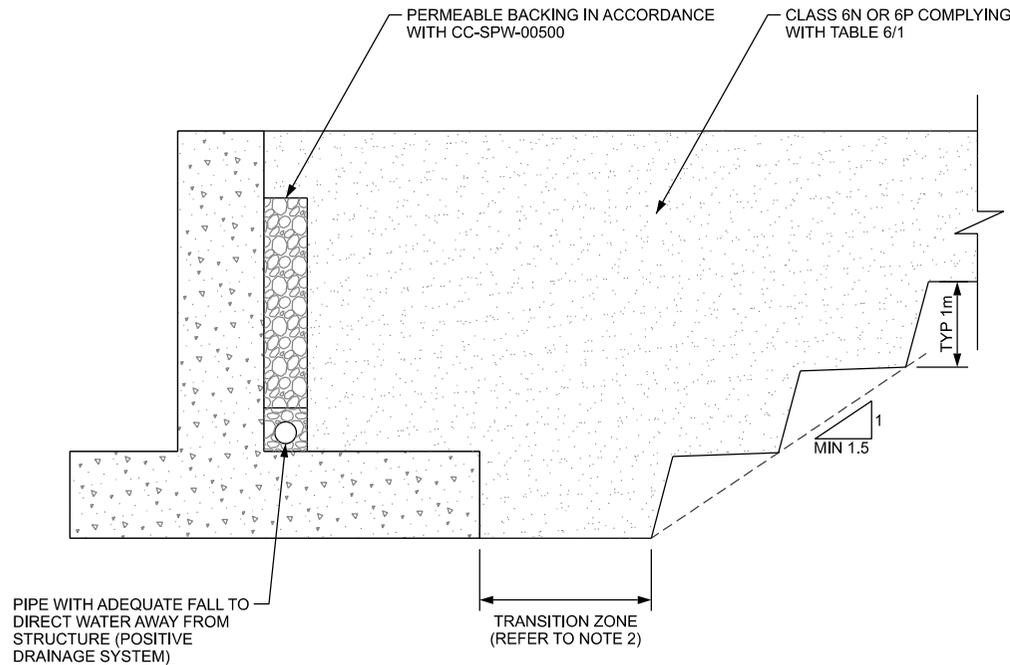
SCD

DRAWING NUMBER

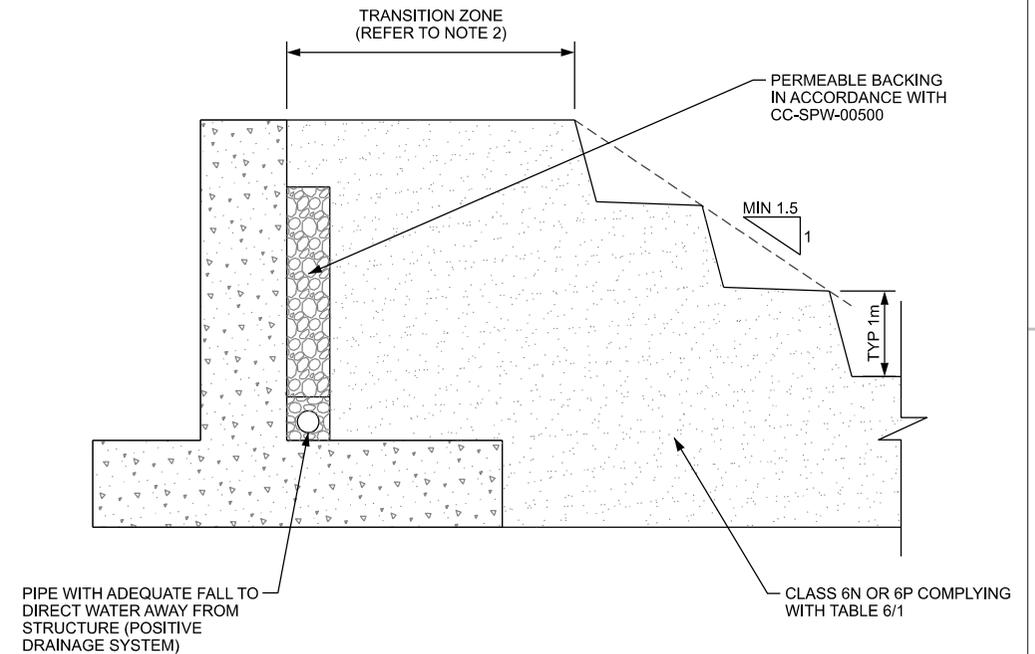
00608

NOTES:

1. REFER TO THE RELEVANT STRUCTURES DRAWINGS FOR THE WIDTH OF THE TRANSITION ZONE.
2. MINIMUM WIDTH OF THE TRANSITION ZONE SHALL BE DETERMINED BY:
 - a) THE REQUIREMENTS OF GOOD COMPACTION, SO AS TO REDUCE TO A MINIMUM DIFFERENTIAL SETTLEMENT BETWEEN THE EARTHWORKS AND THE STRUCTURE; AND
 - b) THE NEED TO SATISFY THE PRINCIPLES USED IN THE CALCULATION OF THE EARTH PRESSURE ON THE STRUCTURE, BUT SHALL NOT BE LESS THAN 1.0m.
3. THE GEOMETRY OF THE STRUCTURE IS SHOWN FOR DIAGRAMMATIC PURPOSES ONLY.
4. BENCHING SHALL BE AS PER CC-SCD-00605 FOR NATURAL GROUND AND CC-SCD-00608 FOR EMBANKMENT FILL.

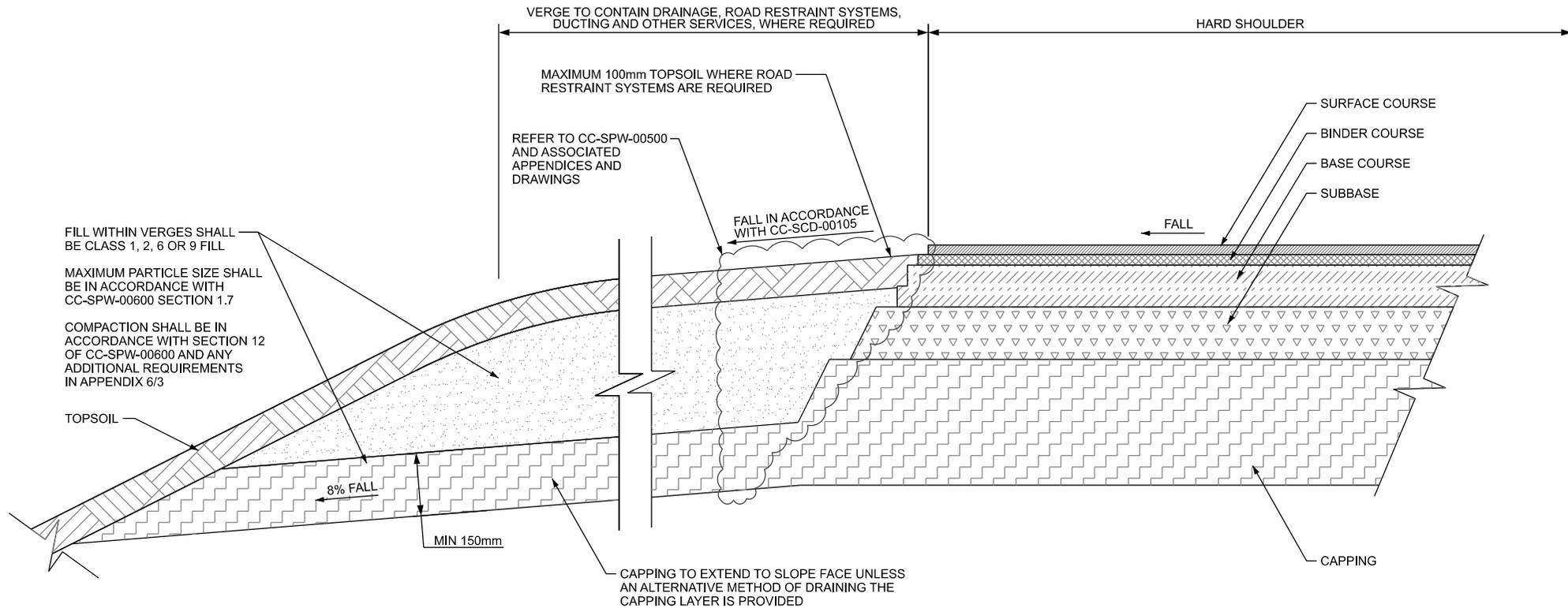


STRUCTURE CONSTRUCTED AFTER EARTHWORKS



STRUCTURE CONSTRUCTED BEFORE EARTHWORKS

	ACTIVITY	PUBLICATION TITLE								
		EARTHWORKS FILL TO STRUCTURES								
STREAM	HISTORICAL REFERENCE	DOCUMENTATION SET	PUBLICATION DATE	PUBLICATION NUMBER						
STANDARD CONSTRUCTION DETAIL (SCD)	RCD/600/9	STANDARDS	SEPTEMBER 2024	<table border="1"> <tr> <td>ACTIVITY</td> <td>STREAM</td> <td>DRAWING NUMBER</td> </tr> <tr> <td>CC</td> <td>SCD</td> <td>00609</td> </tr> </table>	ACTIVITY	STREAM	DRAWING NUMBER	CC	SCD	00609
ACTIVITY	STREAM	DRAWING NUMBER								
CC	SCD	00609								



PUBLICATION TITLE

EARTHWORKS
EMBANKMENT VERGE DETAIL

ACTIVITY

STREAM

STANDARD CONSTRUCTION DETAIL (SCD)

HISTORICAL REFERENCE

RCD/600/10

DOCUMENTATION SET

STANDARDS

PUBLICATION DATE

SEPTEMBER 2024

PUBLICATION NUMBER

ACTIVITY

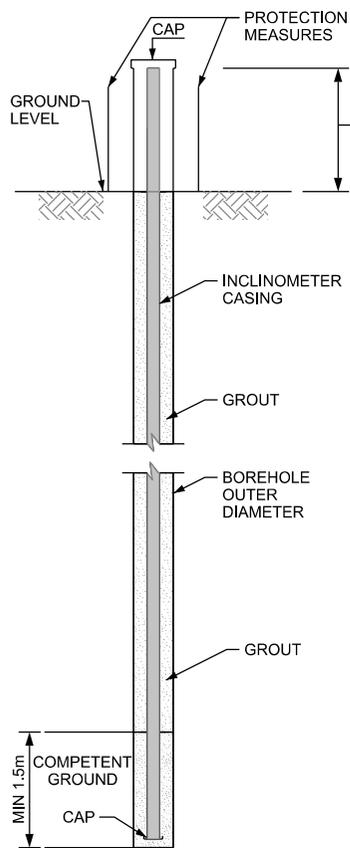
CC

STREAM

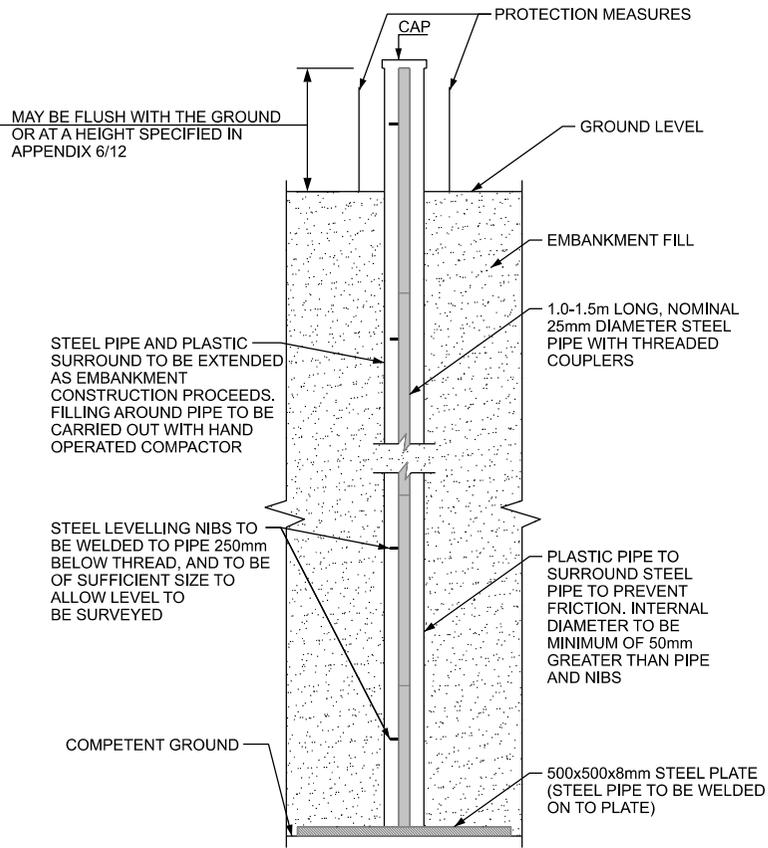
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DRAWING NUMBER

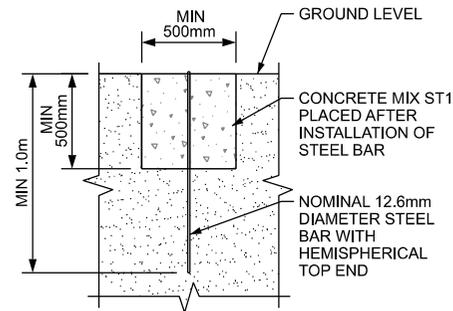
00610



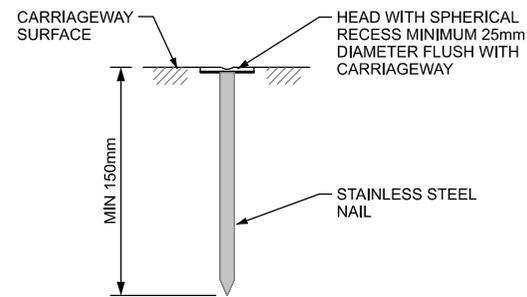
INCLINOMETER



SETTLEMENT MONITORING PLATE



SETTLEMENT MONITORING POINT



CARRIAGEWAY SETTLEMENT MONITORING POINT

NOTES:

1. ALL INSTRUMENTATION SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
2. INSTRUMENTATION AND MONITORING SHALL COMPLY WITH CC-SPW-00600 APPENDIX 6/12.
3. ALL INSTRUMENTATION SHALL BE INSTALLED AT SUITABLE LOCATIONS, TO BE AGREED WITH THE EMPLOYER'S REPRESENTATIVE AFTER ASSESSMENT OF THE SITE.
4. THE CONTRACTOR SHALL PROVIDE ADEQUATE ACCESS FOR THE INSTALLATION AND MONITORING OF ALL MONITORING POINTS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE MONITORING POINTS THROUGHOUT THE CONSTRUCTION PERIOD. ANY DAMAGED INSTRUMENT SHALL BE REPAIRED AND REINSTATED IMMEDIATELY AFTER DISCOVERY OF THE DAMAGE TO THE SATISFACTION OF THE EMPLOYER'S REPRESENTATIVE.



PUBLICATION TITLE
EARTHWORKS
INSTRUMENTATION (SHEET 1 OF 2)

ACTIVITY
STREAM
STANDARD CONSTRUCTION DETAIL (SCD)

HISTORICAL REFERENCE

N/A

DOCUMENTATION SET

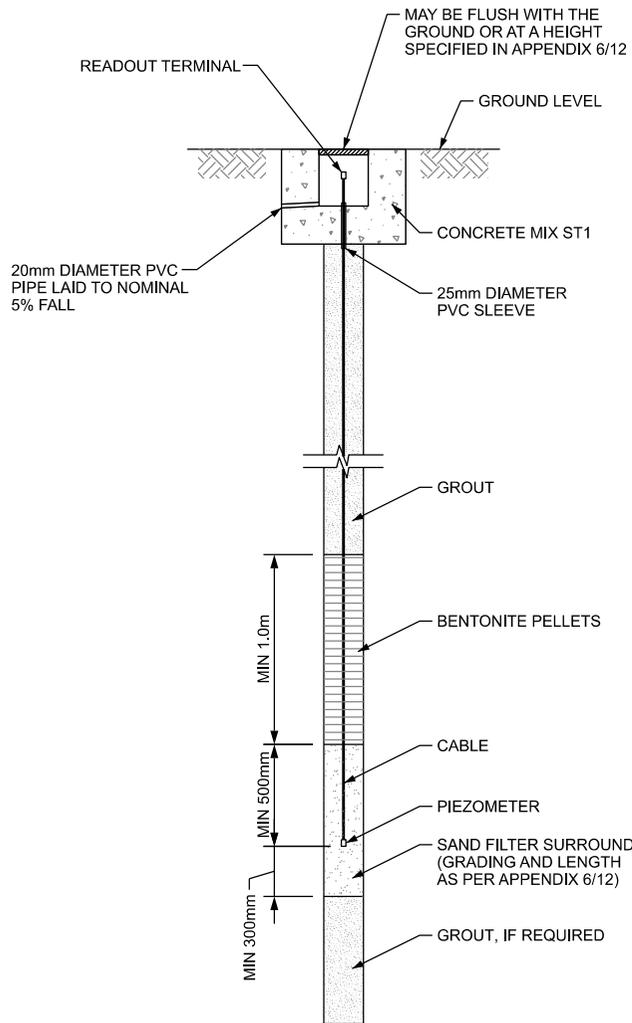
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PUBLICATION DATE

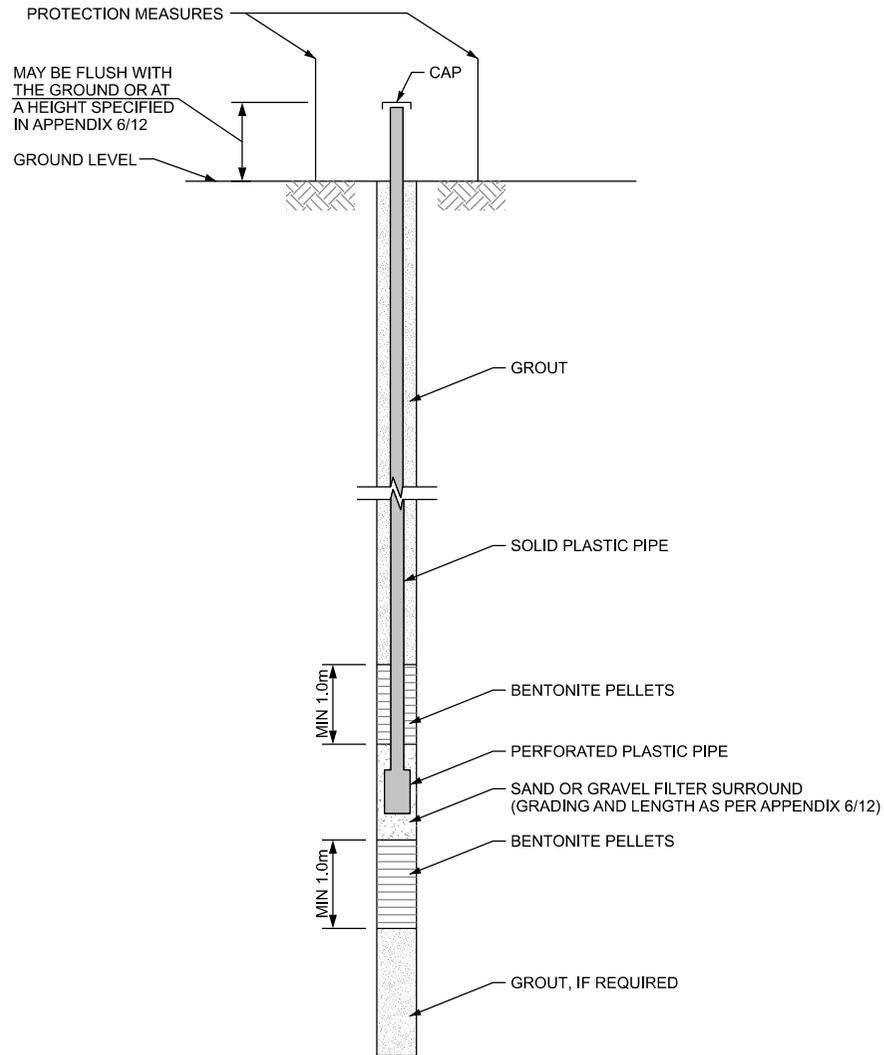
SEPTEMBER 2024

PUBLICATION NUMBER

ACTIVITY	STREAM	DRAWING NUMBER
CC	SCD	00611



VIBRATING WIRE PIEZOMETER



STANDPIPE PIEZOMETER

NOTES:

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2. INSTRUMENTATION AND MONITORING SHALL COMPLY WITH CC-SPW-00600 APPENDIX 6/12.
3. ALL INSTRUMENTATION SHALL BE INSTALLED AT SUITABLE LOCATIONS, TO BE AGREED WITH THE EMPLOYER'S REPRESENTATIVE AFTER ASSESSMENT OF THE SITE.
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PUBLICATION TITLE

EARTHWORKS
INSTRUMENTATION (SHEET 2 OF 2)

ACTIVITY

STREAM

STANDARD CONSTRUCTION DETAIL (SCD)

HISTORICAL REFERENCE

N/A

DOCUMENTATION SET

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PUBLICATION NUMBER

ACTIVITY STREAM DRAWING NUMBER

CC

SCD

00612



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