



# ARMIDALE REGIONAL COUNCIL

## ARMIDALE KEMPSEY ROAD

CURVE 1 - CH 42.05 km

### DETAILED DESIGN REMEDIATION WORKS

INDEX		
SHEET NUMBER	SHEET DESCRIPTION	REVISION
1	COVER SHEET & INDEX	D
2	SITE LOCATION	D
3	GENERAL NOTES	D
4	GENERAL ARRANGEMENT	D
5	LONGITUDINAL SECTION	D
6	LONGITUDINAL SECTION	D
7	CROSS SECTIONS	D
8	CROSS SECTIONS	D
9	CROSS SECTIONS	D
10	CULVERT DETAILS	D
11	CULVERT DETAILS	D
12	SAFETY BARRIER	D

			 	SURV SP, JS DRWN SP,RGS,ST DES SP CHKD MW	TITLE <b>KEMPSEY ROAD                  CURVE 01 REMEDIATION                  COVER SHEET AND INDEX</b>	DRAWING No <b>314-021</b>	APPROVED M.WILSON ..... 19/08/2021 COORDINATOR DESIGN AND RESOURCING ..... DATE		
No.      Amendment Description      Initials      Date						CADFILE: 314_021.dwg AREA No: 318	AS SHEET SIZE <b>A3</b>	SHEET No. <b>1 OF 12</b>	ISSUE <b>D</b>



SITE LOCATION

SITE LOCATION



SITE LOCATION



SITE PHOTO

No.	Amendment Description	Initials	Date



SURV	SP, JS
DRWN	SP, RGS, ST
DES	SP, RGS
CHKD	MW

TITLE  
**KEMPSEY ROAD  
 CURVE 01 REMEDIATION  
 SITE LOCATION**

DRAWING No	314-021
CADFILE:	314_021.dwg
AREA No:	318

APPROVED	M. WILSON	19/08/2021
COORDINATOR DESIGN AND RESOURCING		DATE
AS SHEET SIZE	A3	SHEET No.
		2 OF 12
		ISSUE
		D

**GEOTECHNICAL ASSESSMENT REQUIREMENTS**

1. THE BASE OF EXCAVATIONS SHALL BE BELOW THE LANDSLIDE SLIDE PLANE AND ALL UNSTABLE MATERIAL
2. BASE OF FOUNDATION EXCAVATIONS MUST BE ASSESSED BY A GEOTECHNICAL ENGINEER.
3. THE REQUIRED DEPTH OF EXCAVATION AND FOUNDATION MATERIAL MAY VARY
4. THE DESIGNER SHOULD BE CONTACTED IF THERE ARE ANY SIGNIFICANT VARIATIONS IN CONDITIONS ENCOUNTERED AND VARIATIONS TO THE DESIGN THAT MAY BE REQUIRED.
5. AT THE COMPLETION OF WORKS, THE CONTRACTOR SHALL PROVIDE CERTIFICATION OF THE COMPLETED WORKS AND WORK AS EXECUTED DRAWINGS SHOWING THE FINAL EXTENTS OF EXCAVATIONS, MATERIALS USED AND THEIR QUANTITIES.

**DRAINAGE**

6. ALL DRAINAGE WORKS IS TO COMPLY WITH RMS SPECIFICATION R11.
7. INLET AND OUTLET PROTECTION WORK TO COMPLY WITH RMS SPECIFICATION R55.
8. WHERE CONSTRUCTION IS HINDERED BY THE PRESENCE OF ROCK THE PRINCIPAL IS TO BE CONSULTED PRIOR TO ALTERING PIPE GRADES.
9. OPEN DRAINAGE LINES TO BE CONSTRUCTED WITH A MINIMUM 1% FALL.
10. PIPES INSTALLED TO HS2 SUPPORT CONDITIONS.
11. SCOUR PROTECTION MEASURES SHALL BE CONSTRUCTED AT THE DISCHARGE POINTS OF ALL SURFACE WATER CONTROL DEVICES. MEASURES CAN INCLUDE ROCK RIP RAP OR OTHER PROPRIETARY PRODUCTS SUCH AS CB STONEMAT OR SIMILAR.
12. SOIL SLOPES SHALL BE VEGETATED IMMEDIATELY FOLLOWING COMPLETION OF CONSTRUCTION TO PREVENT SCOUR AND EROSION. TEMPORARY MEASURES SUCH AS JUTE MAT, JUTE MESH, GRASSROOTS OR SIMILAR SHALL BE USED TO PROVIDE TEMPORARY PROTECTION WHILE VEGETATION ESTABLISHES.

**GENERAL**

13. DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWINGS.
14. MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS, TOGETHER WITH THE REQUIREMENTS OF ALL APPLICABLE CODES OF PRACTICE, AUSTRALIAN STANDARDS AND STATUTORY AUTHORITIES.
15. SITE SURVEY WILL BE SUPPLIED WITH STATIONS SET UP ON SITE. THE CONTRACTOR SHOULD CONFIRM THAT SUFFICIENT DATA IS SHOWN TO ENABLE CONSTRUCTION AND COMPLETION OF WORKS AS EXECUTED DRAWINGS.
16. HYDRAULIC DESIGN, AND DRAINAGE STRUCTURES DESIGNED BY ARMIDALE REGIONAL COUNCIL. REFER TO COUNCIL SHOULD ANY DISCREPANCIES BE FOUND.
17. ORIGIN OF CO-ORDINATES ARE LOCAL CO-ORDINATE SYSTEM.
18. PRIOR TO COMMENCEMENT OF ANY EXCAVATION OR CONSTRUCTION SERVICES LOCATION SHALL BE UNDERTAKEN AND ANY RELEVANT AUTHORITIES SHOULD BE CONTACTED FOR POSSIBLE RELOCATION OF UNDERGROUND SERVICES.
19. CULVERTS MAY BE INSTALLED WITH HDPE RATHER THAN RCP BUT WILL REQUIRE APPROVAL FROM THE SUPERINTENDENTS REPRESENTATIVE PRIOR TO INSTALLATION.

**EARTHWORKS (Where Required)**

20. EARTHWORKS TO BE UNDERTAKEN IN ACCORDANCE WITH RMS SPECIFICATION R44.
21. EARTH WORKS MATERIAL REQUIREMENTS TO BE SPECIFIED AND APPROVED BY THE PROJECT MANAGER. PRIORITY IS TO BE PLACED UPON REUSING FILL MATERIAL FROM THE ROAD RESERVE.
22. WHERE 1:1 BATTERS ARE SPECIFIED THESE SHOULD BE FLATTENED ONSITE WHERE THE EXISTING SURFACE ALLOWS AND SUFFICIENT MATERIAL IS AVAILABLE.
23. ALL SOILS CONTAINING ORGANIC MATTER (E.G. ROOTS, GRASS ETC.) MUST BE STRIPPED AND MUST NOT BE REUSED AS FILL. SUCH MATERIAL CAN BE REUSED FOR TOPSOILING ONLY.
24. ANY MATERIAL REQUIRING OFFSITE DISPOSAL WILL REQUIRE WASTE CLASSIFICATION ASSESSMENT IN ACCORDANCE WITH DEPARTMENT OF ENVIRONMENT AND CLIMATE CHANGE WASTE CLASSIFICATION GUIDELINES.
25. CUT / FILL BATTERS MUST NOT EXCEED 2H:1V (HORIZONTAL:VERTICAL ), WITHOUT APPROVAL FROM THE NOMINATED GEOTECHNICAL ENGINEER.
26. FILL MATERIAL MUST COMPLY WITH THE SPECIFICATIONS IN THE DRAWINGS.
27. ALL OVERSIZED MATERIAL, MUST BE REMOVED FROM THE FILL.
28. FILL IS TO BE UNIFORMLY COMPACTED IN LOOSE LAYERS NO GREATER THAN 300 mm AND MUST ACHIEVE A MINIMUM OF 98% STANDARD COMPACTION OR AS OTHERWISE SPECIFIED IN THE DRAWINGS.
29. FILL PLACED ON SLOPES GREATER THAN 10H:1V SHALL BE BENCHED OR ROCKWALL INSTALLED AS PER SHEET 13.
30. CLAYS OF HIGH PLASTICITY OR HIGH IN-SITU MOISTURE CONTENT ARE NOT TO BE USED AS FILL.
31. IMPORTED FILL SHALL COMPRISE WELL GRADED GRANULAR MATERIAL WITH A PLASTICITY INDEX LESS THAN 15%, AND A CBR OF GREATER THAN 15% UNLESS OTHERWISE APPROVED BY THE NOMINATED GEOTECHNICAL ENGINEER OR DESIGNER.

32. FILL SHALL BE PLACED AND COMPACTED WITHIN 60% TO 90% OF OMC OR AS SPECIFIED ON THE DRAWINGS.
33. DENSITY TESTING SHALL BE UNDERTAKEN IN FILL AS SPECIFIED IN THE DRAWINGS BY A NATA ACCREDITED TESTING AUTHORITY. ANY MATERIAL THAT DOES NOT MEET THE MINIMUM DENSITY REQUIREMENTS SHALL BE REWORKED AND RETESTED.

**PAVEMENTS**

34. ALL ROAD WORKS TO COMPLY WITH RMS SEPCIFICATION R71 OR IN ACCORDANCE WITH THE DESIGN OR AN APPROVED ALTERNATIVE DESIGN.
35. PAVEMENT MATERIAL REQUIREMENTS TO BE SPECIFIED AND APPROVED BY THE PROJECT MANAGER.
36. PAVEMENT TIE INS TO OCCUR OUTSIDE THE JOB EXTENTS. TIE IN TO BE PROVIDED OVER A MINIMUM OF 20 METRES TO ACHIEVE A SMOOTH TRANSITION.
37. WHERE NEW CONSTRUCTION JOINS ONTO EXISTING PAVEMENTS THE EXISTING PAVEMENT LAYERS SHOULD BE BENCHED TO AVOID A VERTICAL JOINT EXTENDING THROUGH THE PAVEMENTS AT THE INTERFACE.
38. PAVEMENT GRAVELS SHOULD BE PLACED AND MAINTAINED AT 60% TO 90% OF OPTIMUM MOISTURE CONTENT.
39. FINAL SEALING, THE BASE COURSE SHOULD BE ALLOWED TO DRY BACK TO NOT MORE THAN 60% OF OPTIMUM MOISTURE CONTENT PRIOR TO SEALING.
40. WHERE A TWO COAT SEAL IS ADOPTED, SEALING SHOULD BE AVOIDED DURING WINTER MONTHS OR AT TIMES WHEN PAVEMENT TEMPERATURES OF LESS THAN 15 DEGREES ARE LIKELY.
41. WHERE FINAL SEALING CANNOT BE UNDERTAKEN WITHIN A FEW DAYS OF COMPLETION OF THE BASE COURSE, A PRIMER SEAL SHOULD BE USED TO PROTECT THE PAVEMENT AND MAINTAIN EQUILIBRIUM MOISTURE CONTENT.

**GABION / NO FINES CONCRETE BLOCK (NFC) SPECIFICATION**

42. MACCAFERRI GABION PVC COATED DOUBLE TWIST BASKETS OR OTHER APPROVED GABION CAGE SHALL BE USED.
43. BASKETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
44. GABION ROCK SHALL BE NOMINALLY 100MM IN SIZE WITH THE GENERAL CHARACTERISTICS AS PER THE ROCK FILL SPECIFICATION
45. THE WALL SHOULD EXTEND AT LEAST THE LENGTH OF THE INSTABILITY BUT PREFERABLY 2M OR MORE BEYOND ITS EXTENT AT BOTH ENDS.
46. THE RETAINING ELEMENTS (GABIONS, NFC BLOCKS, ROCK FILL ETC.) SHALL BE FOUNDED ON WEATHERED ROCK BELOW ANY POTENTIAL FAILURE PLANE. THE FOUNDATION SHALL BE ASSESS BY A GEOTECHNICAL ENGINEER.
47. WHERE FOUNDATION SURFACE IS IRREGULAR, CONCRETE LEVELING STRIPS CAN BE USED.
48. THE FOUNDATION SHALL BE GRADED OR A DRAINAGE PIPE INSTALLED TO ENSURE DRAINAGE FROM BEHIND THE WALL AND TO PREVENT PONDING.
49. GABIONS / NFC BLOCKS SHALL BE PLACED WITH A SLIGHT INCLINE INTO THE SLOPE FACE (NOM 1-5°).
50. GABIONS / NFC BLOCKS SHALL BE PLACED WITH A 0.5M OFFSET FROM ADJOINING ROWS AND THE ROW BELOW. UNLESS CLEARLY DETAILED OTHERWISE IN THESE DRAWINGS.
51. GABIONS / NFC BLOCKS NOT DIRECTLY PLACED OVER ANOTHER ROW OF GABIONS SHALL BE PLACED ON A PREPARED FOUNDATION CONSISTING OF ROCKFILL PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ROCK FILL CONSTRUCTION METHODOLOGY AND SEQUENCING
52. EXCAVATE AND REMOVE ALL EXISTING SITE DEBRIS AND UNSUITABLE MATERIAL FROM THE EMBANKMENT TOE AND FACE OF SLOPE. THESE MATERIALS COULD BE REUSED ON SITE FOR SLOPE REGRADING AND TOPSOILING. ANY MATERIAL REMOVED FROM THE SITE WOULD ALSO REQUIRE WASTE CLASSIFICATION ASSESSMENT IN ACCORDANCE WITH DEPARTMENT OF ENVIRONMENT AND CLIMATE CHANGE WASTE CLASSIFICATION GUIDELINES.
53. PLACE A NON-WOVEN GEOFABRIC (SUCH AS BIDIM A49 OR SIMILAR) OVER THE BASE OF THE EXCAVATION AND SLOPE FACE BETWEEN THE GABION / NFC BLOCKS / ROCK FILL AND SUBGRADE;

**ROCK FILL CONSTRUCTION**

54. PLACE BOULDERS AND COBBLES SELECTIVELY IN A MANNER THAT ENSURES GOOD MECHANICAL INTERLOCK. ANY LARGE OPENINGS BETWEEN THE LARGER BOULDERS SHOULD BE IN-FILLED WITH SMALLER BOULDERS AND COBBLES.
55. EXCAVATE THE SLOPE PROGRESSIVELY AS THE ROCK IS PLACED, BENCHING IN LIFTS OF NO GREATER THAN 1.0M.
56. THE ROCK FILL SHOULD BE PLACED WITH A FACE ANGLE NO STEEPER THAN 35 TO 40°.

**ROCK FILL SPECIFICATIONS**

57. ROCK FILL SHOULD COMPRISE OF HARD, DURABLE, ANGULAR ROCK WITH THE FOLLOWING CHARACTERISTICS.
  - a. HIGH SPECIFIC GRAVITY (MASS) OF GREATER THAN 2.4T/M3
  - b. CHEMICALLY INERT
  - c. POINT LOAD STRENGTH IS50 ≥ 1MPA
  - d. WET STRENGTH >120MPA
  - e. WET/DRY STRENGTH VARIATION <35%
57. SITE WON MATERIAL CAN BE REUSED BUT SHOULD BE ASSESSED BY A GEOTECHNICAL ENGINEER FOR SUITABILITY.

**NFC SPECIFICATION**

58. NFC BLOCK INSTALLATION TO MANUFACTURERS SPECIFICATIONS
59. MIN COMPRESSIVE STRENGTH 7.5MPA
60. AGGREGATE:CEMENT RATIO - 8:1
61. WATER:CEMENT RATIO - 0.4

**EROSION AND SEDIMENT CONTROL (ERSED):**

62. ERSED CONTROLS TO BE DESIGNED AND IMPLEMENTED IN ACCORDANCE WITH THE LAND COM BLUE BOOK (MANAGING URBAN STORMWATER: SOILS AND CONSTRUCTION) AND THE ENVIRONMENTAL MANAGEMENT PLAN.
63. ERSED CONTROLS TO BE MAINTAINED THROUGHOUT THE JOB AND REINSPECTED AND MAINTAINED AFTER EACH RAIN EVENT.
64. BATTERS AND EXPOSED SURFACES TO BE REVEGETATED. SPECIFIC GRASS MIX AND PLANTING REQUIREMENTS TO BE SPECIFIED BY THE ARMIDALE REGIONAL COUNCIL PROJECT TEAM.

**SAFETY BARRIERS:**

65. SAFETY BARRIERS TO BE CONSTRUCTED IN ACCORDANCE WITH RMS SPECIFICATION R132.
66. WHERE ROCK IS ENCOUNTERED WHEN DRIVING POSTS REFER TO THE SUPPLIER PRODUCT MANUAL FOR ALTERNATIVE AUGER DEPTHS OR UTILISE A CONCRETE STRIP FOOTING AND SLIP BASE PLATES.
67. SEE MANUFACTURER SUPPLIED DRAWING EXY-SM-102 FOR CONCRETE STRIP FOOTING DETAILS.
68. SAFETY BARRIER TO BE RMS APPROVED EZY GUARD BARRIER WITH ET-SS TERMINALS. ALTERNATIVELY UTILISE SENTRY W BEAM BARRIER WITH MAX TENSION TERMINAL.. TL2 VARIANTS ACCEPTED DUE TO THE LOW SPEED ENVIRONMENT OF THE ROADWAY.

**CONCRETE:**

69. ALL CONCRETE WORKS MUST COMPLY WITH RMS SPEC R53 CONCRETE FOR GENERAL WORKS.
70. MINIMUM STRENGTH GRADE f'(c) = 32 MPa.
71. NOMINAL SLUMP 100 mm.
72. MINIMUM YIELD STRESS OF STEEL REINFORCING F'sy = 500 MPA.
73. ADJOINING SHEETS OF MESH MUST BE OVERLAPPED BY A MINIMUM OF TWO SQUARES.
74. STEEL REINFORCING BARS TO BE JOINED WITH MINIMUM LAP LENGTHS OF 32 TIMES THE BAR DIAMETER UNLESS OTHERWISE SPECIFIED.
75. CONCRETE REQUIREMENTS FOR HEADWALL CONSTRUCTION SHALL BE PROVIDED ON THE RMS STANDARD DRAWINGS. THESE CONSTRUCTION NOTES REFER TO GENERAL CONCRETE WORK FOR INLET PROTECTION AND GUARDRAIL FOOTINGS.

No.	Amendment Description	Initials	Date

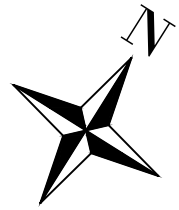


SURV	SP, JS
DRWN	RGS,ST
DES	SP
CHKD	MW

TITLE  
**KEMPSEY ROAD  
 CURVE 01 REMEDIATION  
 GENERAL NOTES**

DRAWING No	314-022
CADFILE:	314_022.dwg
AREA No:	318

APPROVED		
M. WILSON	19/08/2021	
COORDINATOR DESIGN AND RESOURCING DATE		
AS SHEET SIZE	SHEET No.	ISSUE
A3	3 OF 12	D



INLET/OUTLET SCOUR PROTECTION TO BE PROVIDED AS PER SHEET 11

ENLARGE TABLE DRAIN OUTLET AS SITE PERMITS

NEW 3 X Ø1050 PIPE CULVERT AND HEADWALL  
REFER TO SHEET 10 FOR DETAILS

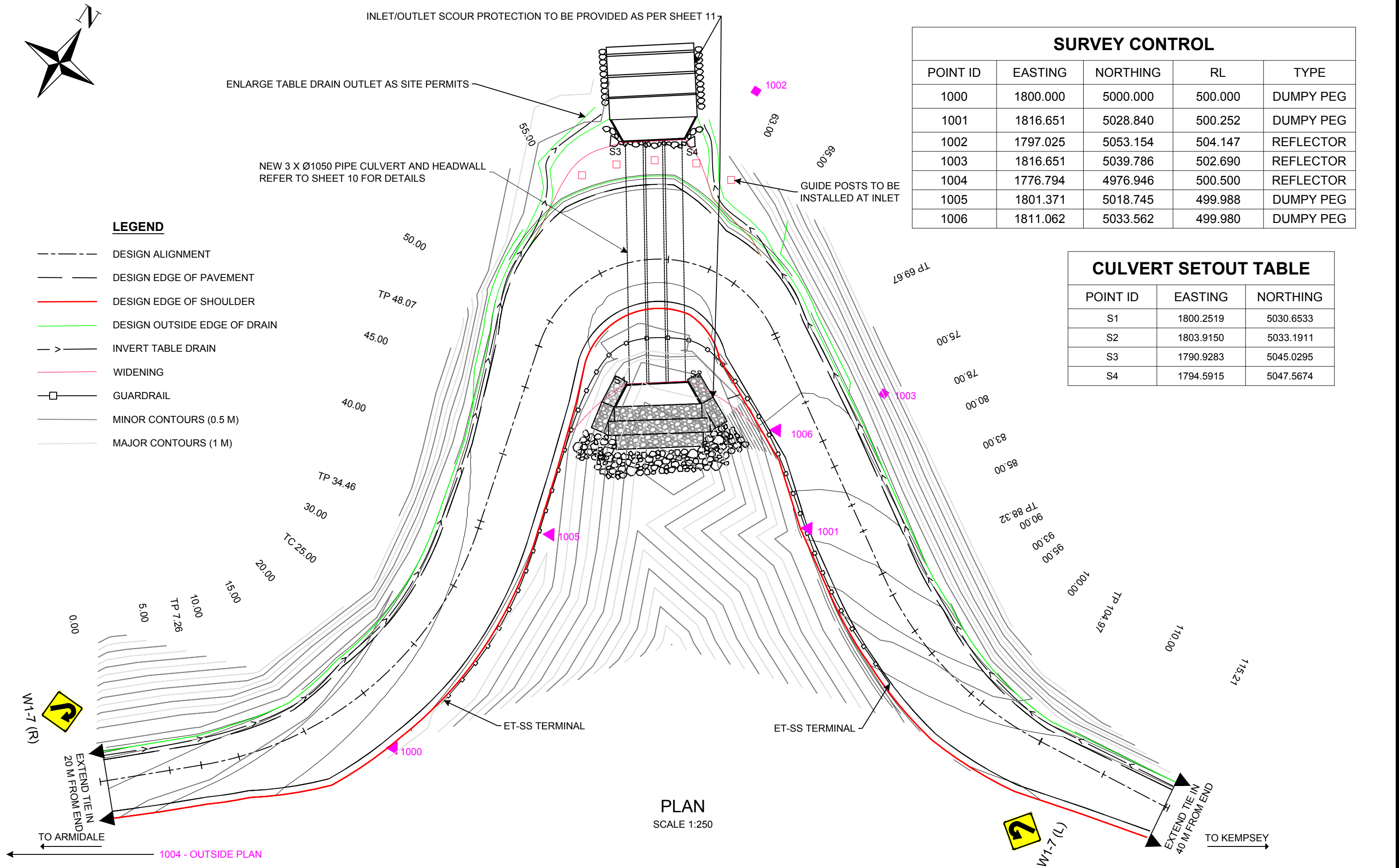
GUIDE POSTS TO BE  
INSTALLED AT INLET

SURVEY CONTROL				
POINT ID	EASTING	NORTHING	RL	TYPE
1000	1800.000	5000.000	500.000	DUMPY PEG
1001	1816.651	5028.840	500.252	DUMPY PEG
1002	1797.025	5053.154	504.147	REFLECTOR
1003	1816.651	5039.786	502.690	REFLECTOR
1004	1776.794	4976.946	500.500	REFLECTOR
1005	1801.371	5018.745	499.988	DUMPY PEG
1006	1811.062	5033.562	499.980	DUMPY PEG

**LEGEND**

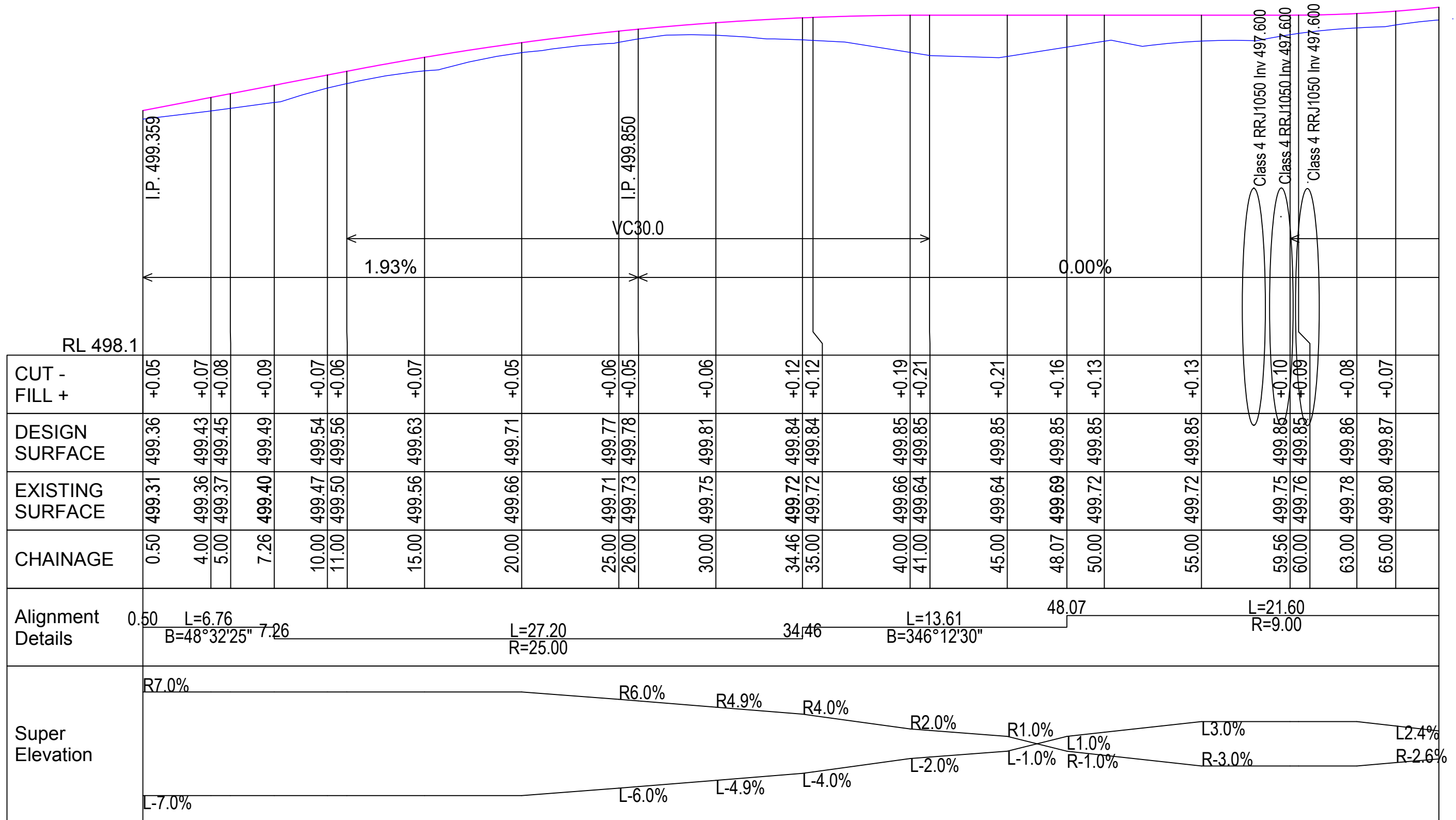
- DESIGN ALIGNMENT
- DESIGN EDGE OF PAVEMENT
- DESIGN EDGE OF SHOULDER
- DESIGN OUTSIDE EDGE OF DRAIN
- > - INVERT TABLE DRAIN
- WIDENING
- GUARDRAIL
- MINOR CONTOURS (0.5 M)
- MAJOR CONTOURS (1 M)

CULVERT SETOUT TABLE		
POINT ID	EASTING	NORTHING
S1	1800.2519	5030.6533
S2	1803.9150	5033.1911
S3	1790.9283	5045.0295
S4	1794.5915	5047.5674



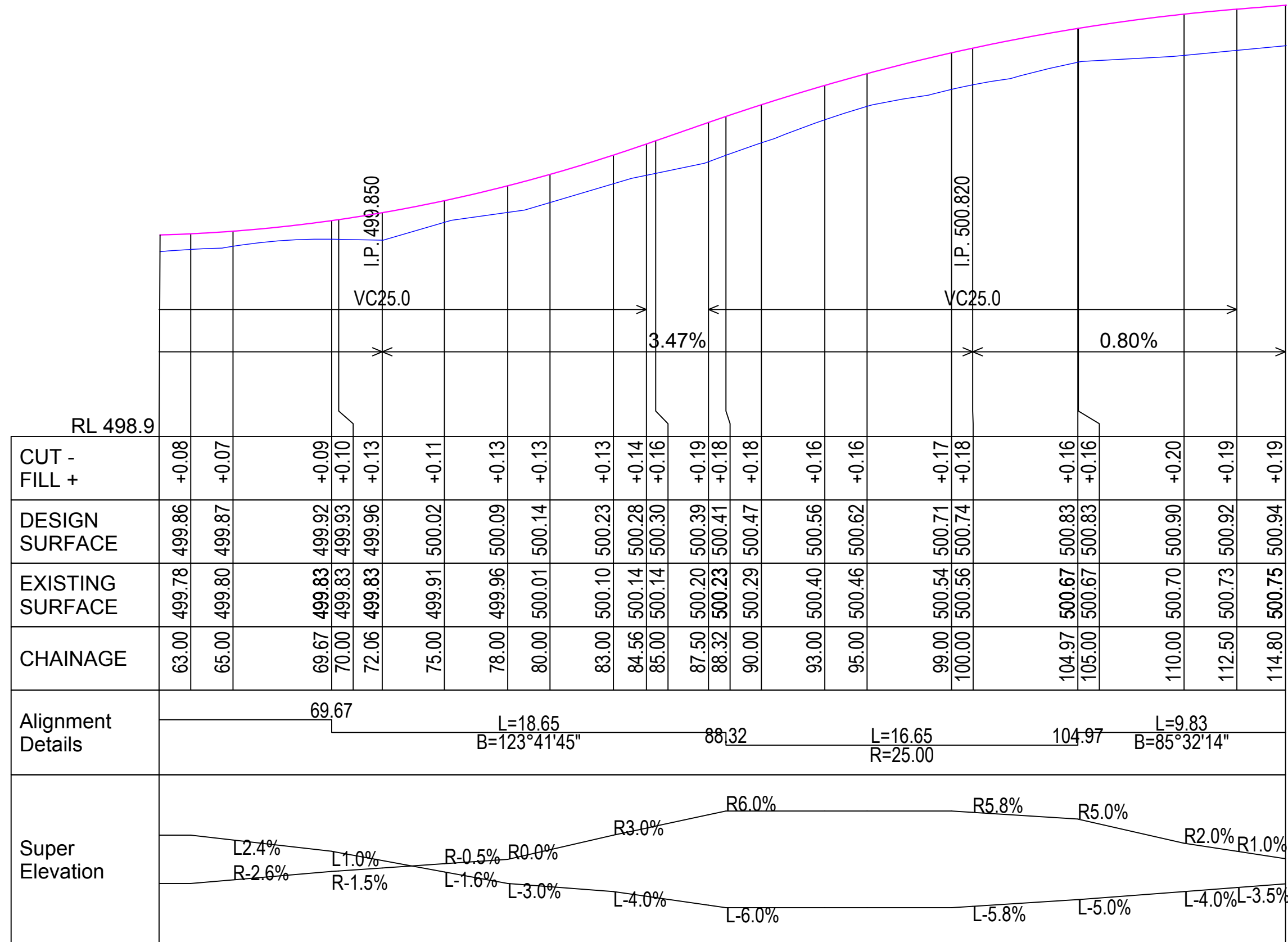
PLAN  
SCALE 1:250

	<b>SCALES</b>  SCALE 1:250 @ A3		SURV SP, JS DRWN SP, ST DES SP CHKD MW	TITLE <b>KEMPSEY ROAD          CURVE 01 REPAIR (CH 42.05 KM)          PLAN VIEW</b>	DRAWING No <b>314-021</b>	APPROVED M. WILSON COORDINATOR DESIGN AND RESOURCING 19/08/2021 DATE
	No.      Amendment Description      Initials      Date		Co-ordinate System: MGA Zone 56      Height Datum: A.H.D	CADFILE: 314_021.dwg AREA No: 318	AS SHEET SIZE <b>A3</b>	SHEET No. <b>4 OF 12</b>



SCALE: H 1 IN 200 V 1 IN 20

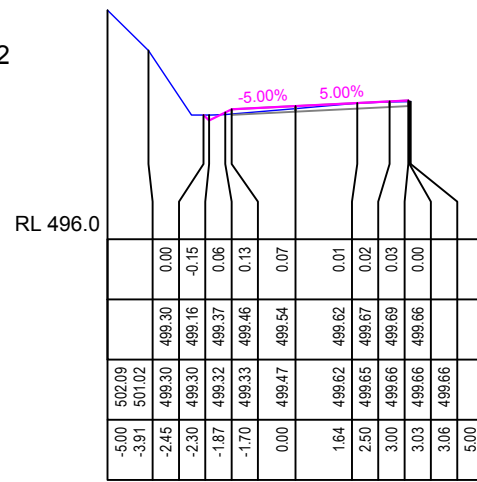
No.	Amendment Description	Initials	Date	Co-ordinate System: MGA Zone 56	Height Datum: A.H.D		SURV SP, JS	<b>KEMPSEY ROAD</b> <b>CURVE 01 REPAIR (CH 42.05 KM)</b> <b>LONG SECTION CH 0 - 65</b>	DRAWING No <b>314-021</b>	APPROVED M. WILSON COORDINATOR DESIGN AND RESOURCING 19/08/2021 DATE
							DRWN SP		CADFILE: 314_021.dwg	AS SHEET SIZE <b>A3</b>
DES SP	AREA No: 318									
CHKD MW										



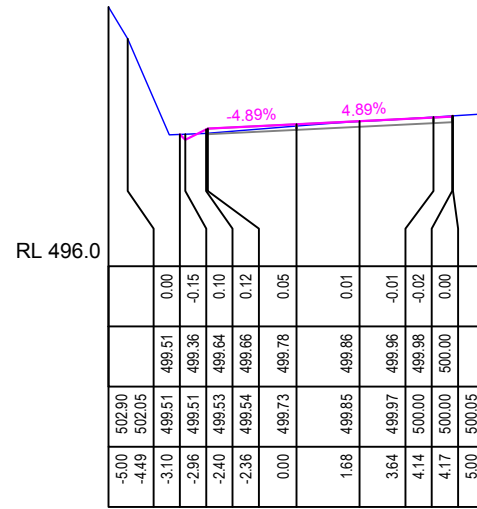
**SCALE: H 1 IN 200 V 1 IN 20**

No.	Amendment Description	Initials	Date	Co-ordinate System: MGA Zone 56	Height Datum: A.H.D		SURV SP, JS	<b>TITLE</b> KEMPSEY ROAD CURVE 01 REPAIR (CH 42.05 KM) LONG SECTION CH 65 - 114.8	DRAWING No <b>314-021</b>	APPROVED M. WILSON COORDINATOR DESIGN AND RESOURCING	19/08/2021 DATE
							DRWN SP		CADFILE: 314_021.dwg	AS SHEET SIZE <b>A3</b>	SHEET No. <b>6 OF 12</b>
DES SP	AREA No: 318										
CHKD MW											

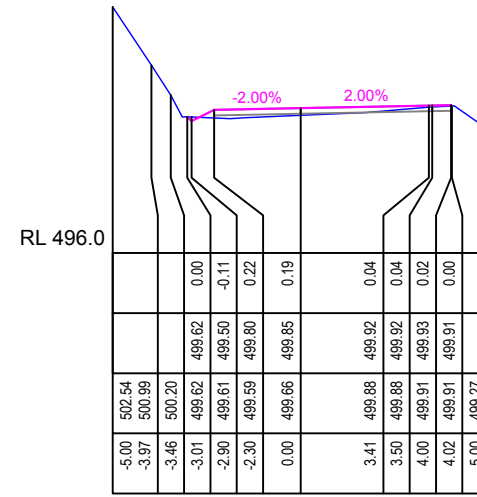
\*NOTE EXISTING CUT BATTER SLOPES VARY FROM 1:1.5 TO 1:2



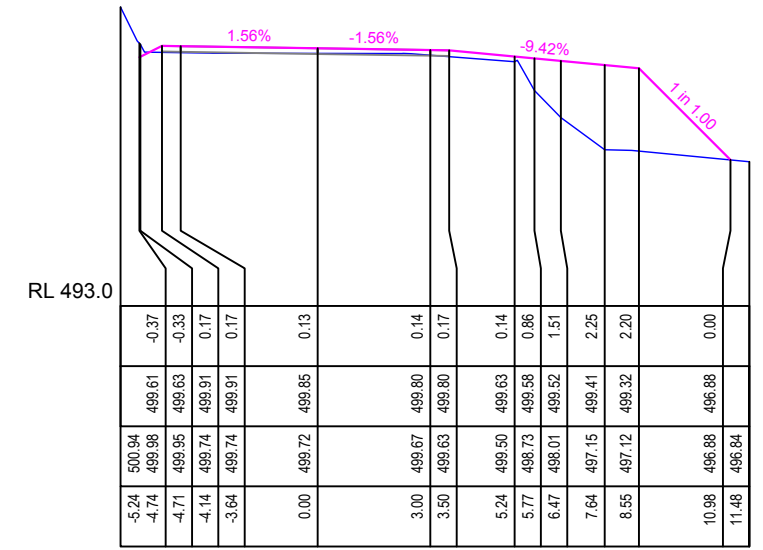
CH 10.00



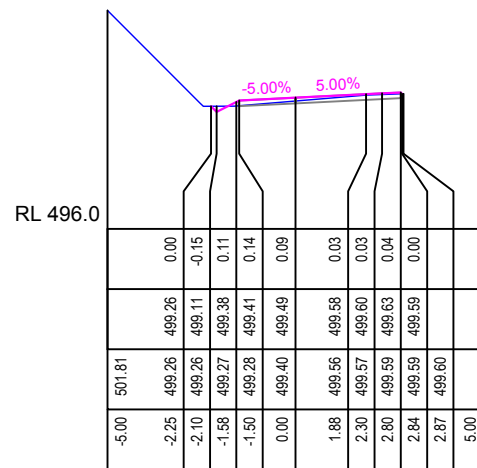
CH 26.00



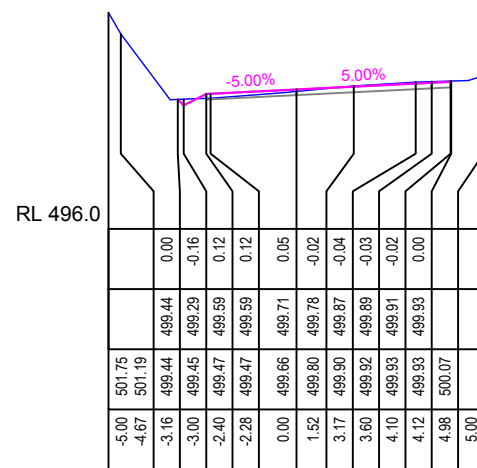
CH 40.00



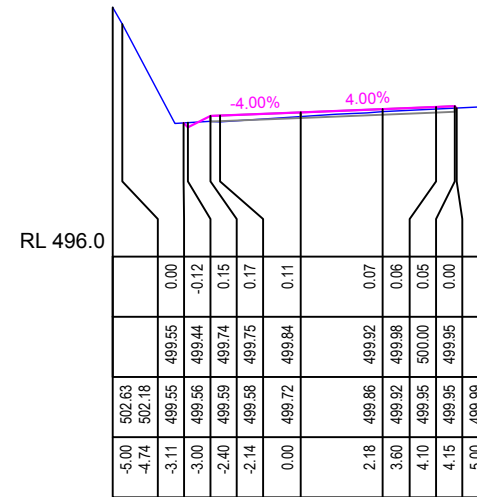
CH 50.00



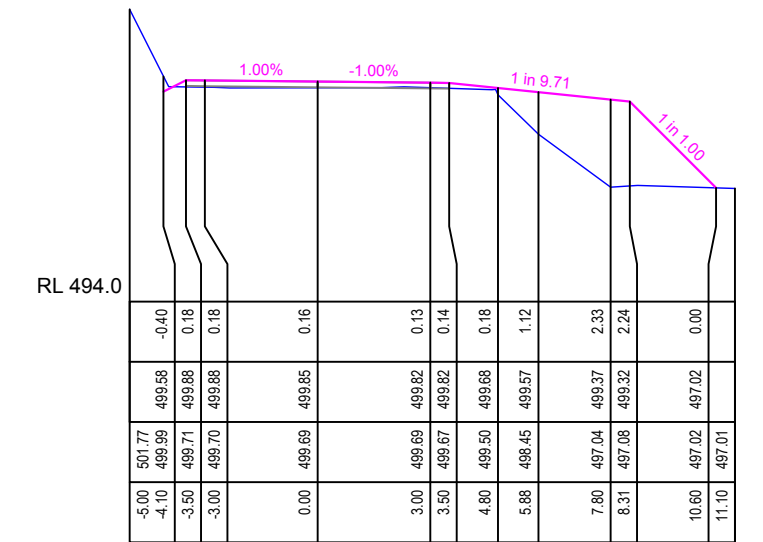
CH 7.26



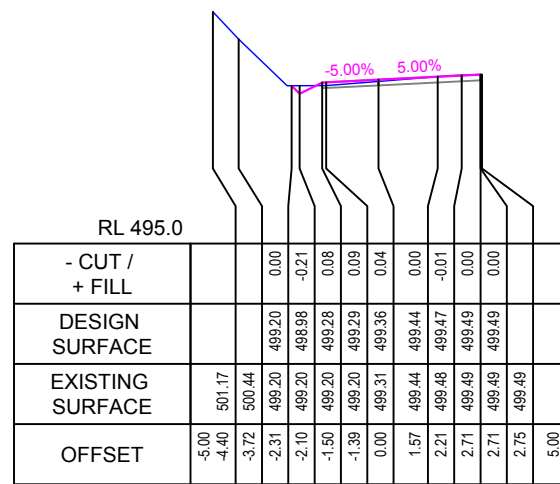
CH 20.00



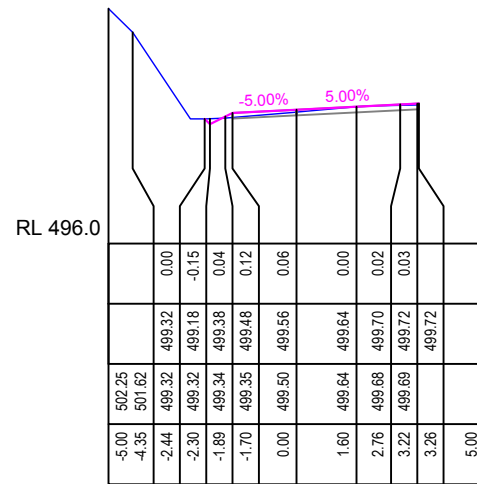
CH 34.46



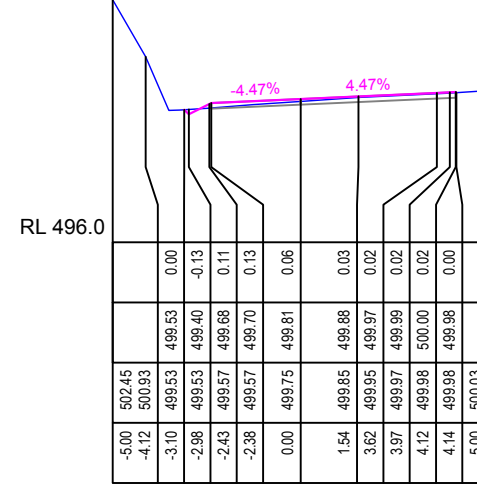
CH 48.07



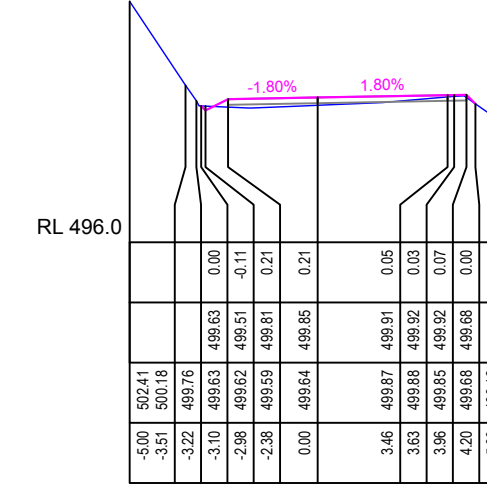
CH 0.50



CH 11.00



CH 30.00



CH 41.00

No.	Amendment Description	Initials	Date

SCALES

SCALE 1:200 @ A3

Co-ordinate System: MGA Zone 56 Height Datum: A.H.D



SURV	SP, JS
DRWN	SP
DES	SP
CHKD	MW

TITLE

**KEMPSEY ROAD**

**CURVE 01 REPAIR (CH 42.05 KM)**

**CROSS SECTIONS CH 0 - 50**

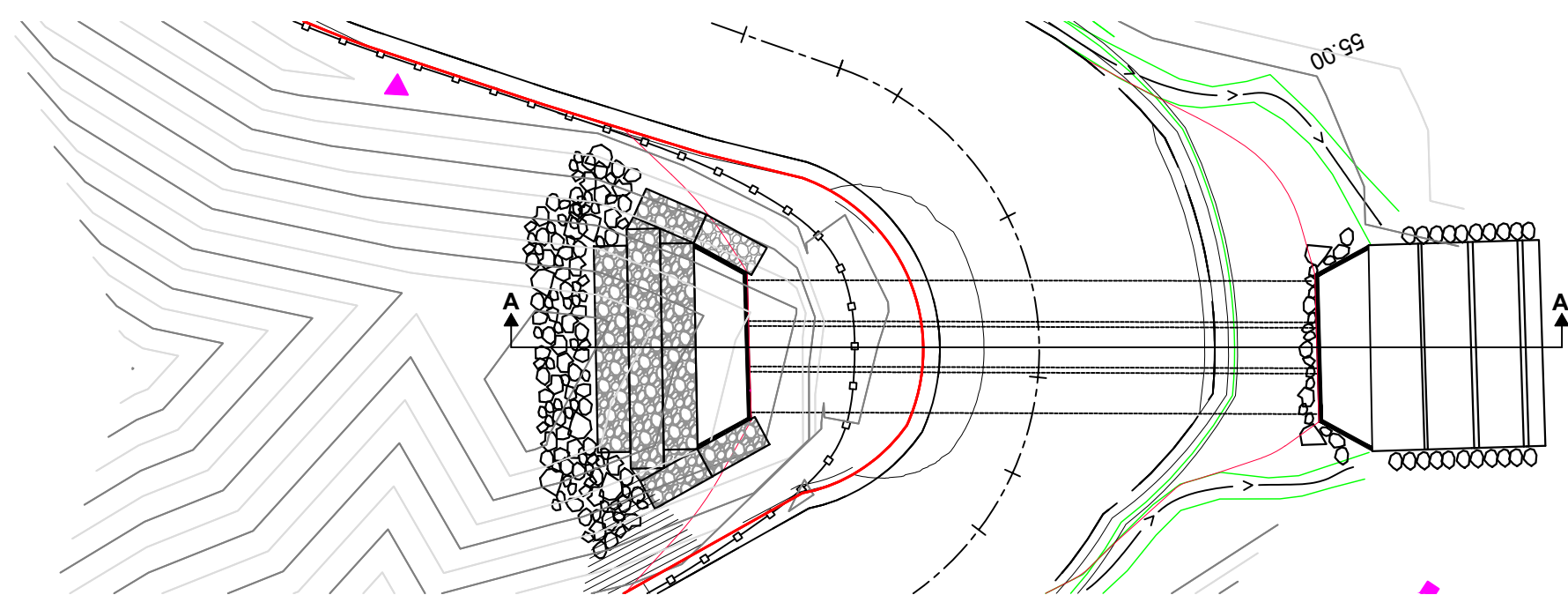
DRAWING No	314-021
CADFILE:	314_021.dwg
AREA No:	318

APPROVED	M.WILSON	19/08/2021
COORDINATOR DESIGN AND RESOURCING		DATE
AS SHEET SIZE	A3	SHEET No.
		7 OF 12
		ISSUE
		D









PLAN

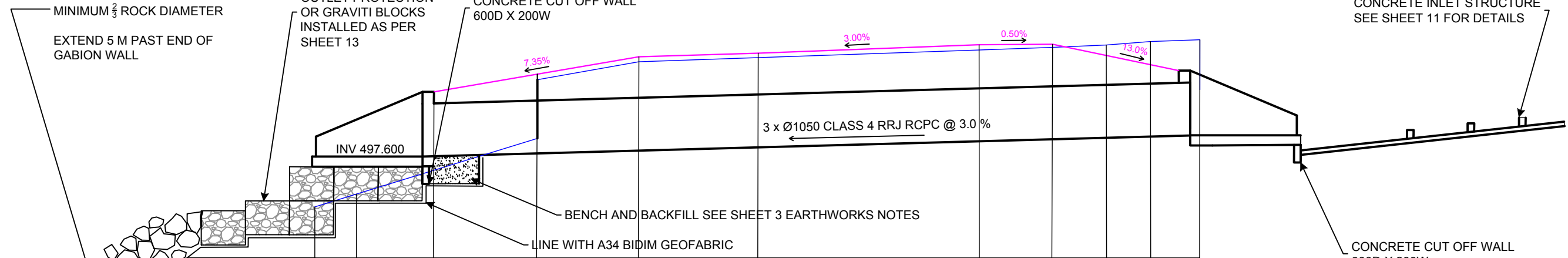
SCALE 1:200

D50 600 mm SCOUR ROCK TO BE SUPPORTED BY A BASE OF 1000 MM ROCK TOED INTO EXISTING BANK MINIMUM 2/3 ROCK DIAMETER  
 EXTEND 5 M PAST END OF GABION WALL

GABION BASKET OUTLET PROTECTION OR GRAVITI BLOCKS INSTALLED AS PER SHEET 13

CONCRETE CUT OFF WALL 600D X 200W

CONCRETE INLET STRUCTURE SEE SHEET 11 FOR DETAILS

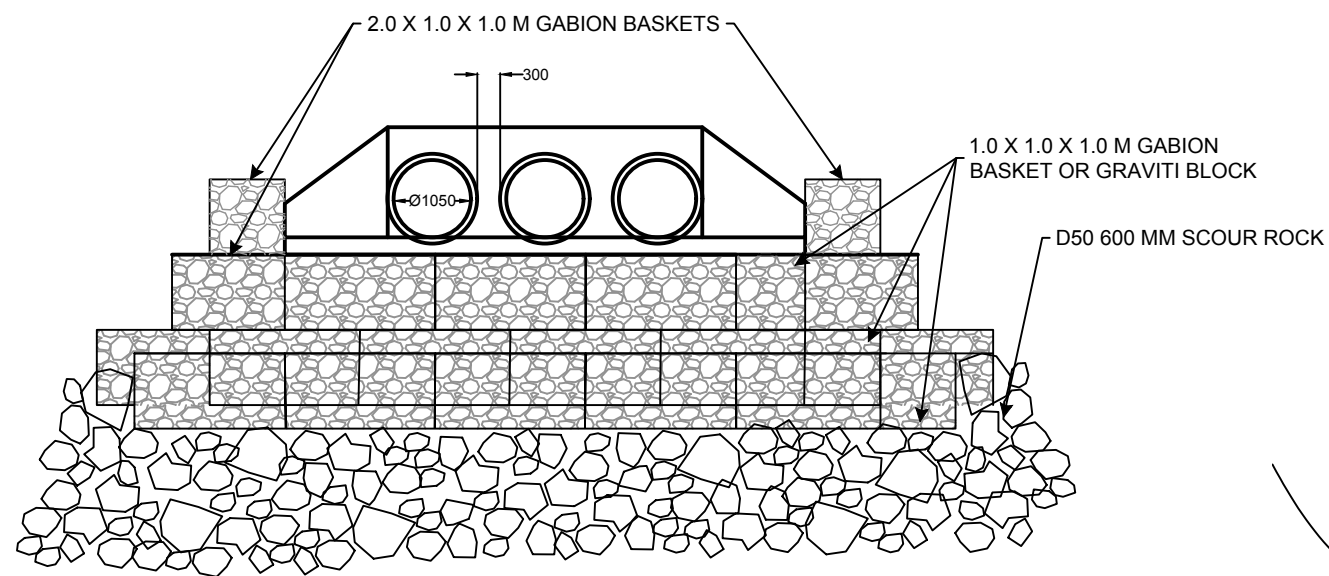


CUT - FILL +			+2.42	+1.89	+0.89	+0.10		+0.12	+0.07	-0.14	-0.33	
DESIGN SURFACE			499.32	499.48	499.73	499.81		499.96	499.95	499.79	499.66	
EXISTING SURFACE	496.27	496.90	497.59	499.64	499.71		499.84	499.88	499.93	499.99	500.02	
CHAINAGE	0.00	1.72	3.96	7.30	10.00		15.00	16.67	17.88	18.88	20.00	

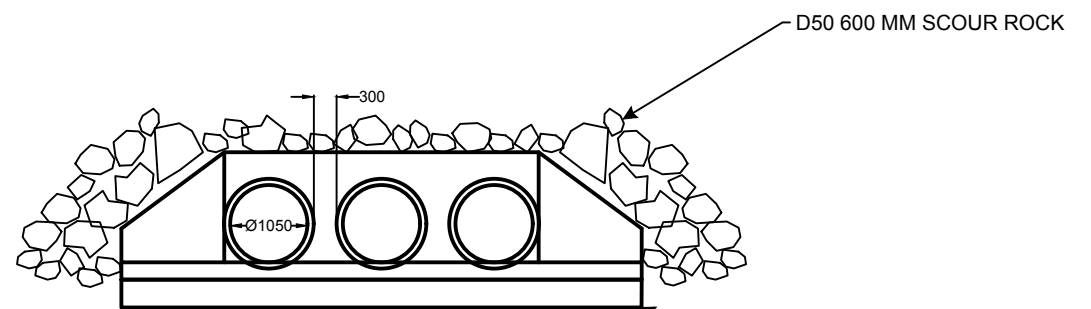
SECTIONAL ELEVATION A-A

SCALE 1:100

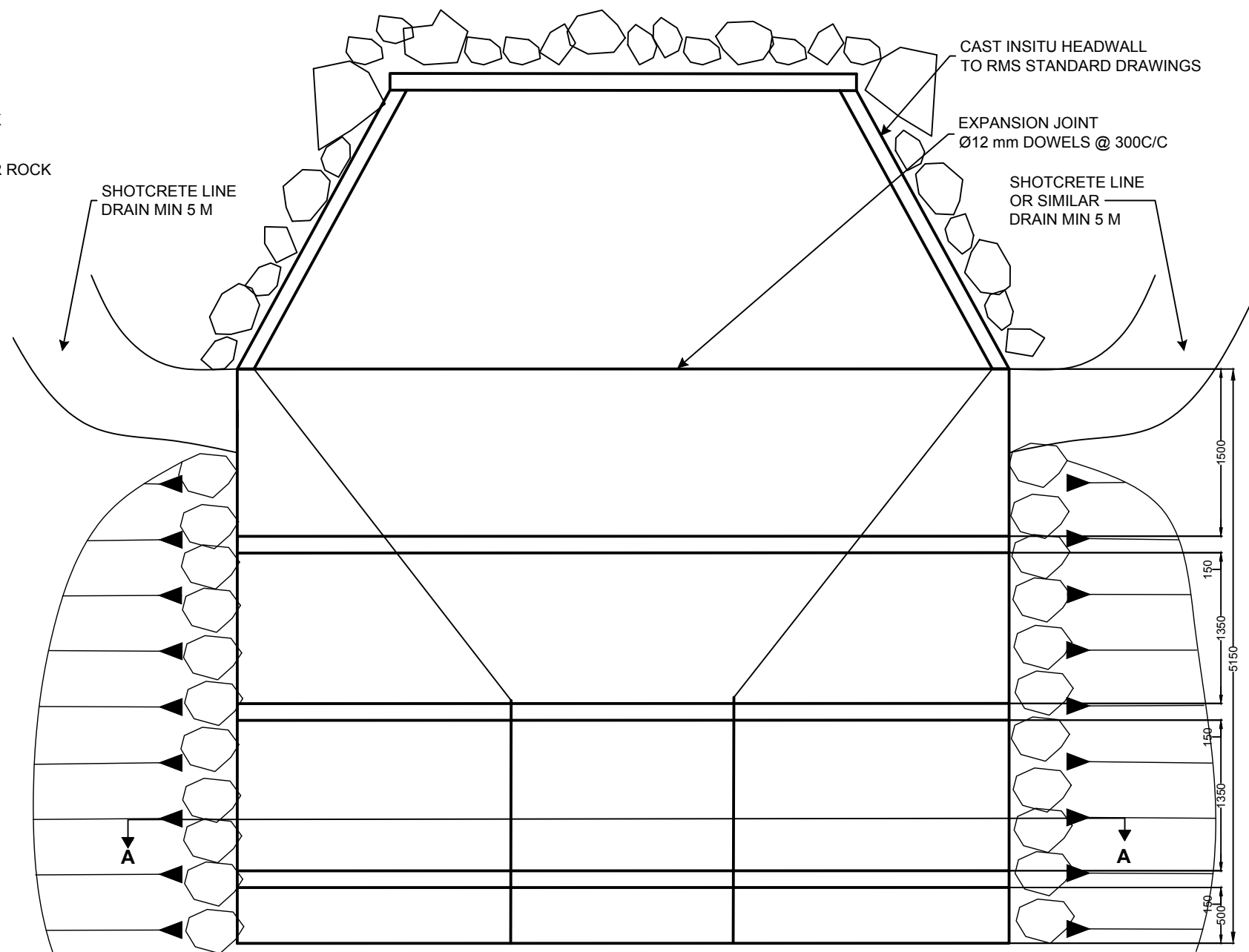
<p>SCALES</p> <p>SCALE 1:100 Vertical @ A3</p>				<p>SURV SP, JS</p>	<p>TITLE</p> <p><b>KEMPSEY ROAD</b></p> <p><b>CURVE 01 REPAIR (CH 42.05 KM)</b></p> <p><b>CULVERT DETAILS</b></p>	<p>DRAWING No</p> <p><b>314-021</b></p>	<p>APPROVED</p> <p>M. WILSON 19/08/2021</p> <p>COORDINATOR DESIGN AND RESOURCING DATE</p>	
				<p>DRWN SP</p>		<p>CADFILE: 314_021.dwg</p>	<p>AS SHEET SIZE</p> <p><b>A3</b></p>	<p>SHEET No.</p> <p><b>10 OF 12</b></p>
			<p>DES SP</p>	<p>AREA No: 318</p>				
			<p>CHKD MW</p>					
No.	Amendment Description	Initials	Date	Co-ordinate System: MGA Zone 56	Height Datum: A.H.D	<p>FILE No. ARCXX/XXXX.</p>		



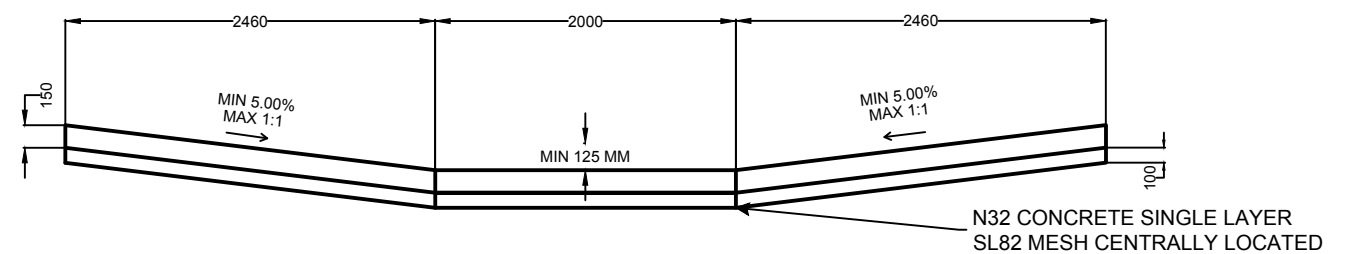
**CULVERT OUTLET PROTECTION**  
SCALE 1:100



**CULVERT INLET PROTECTION**  
SCALE 1:100



**PLAN  
CULVERT INLET PROTECTION**  
SCALE 1:50



**CROSS SECTIONAL ELEVATION A-A  
CULVERT INLET PROTECTION**  
SCALE 1:50

GABION BASKET SCHEDULE	
ITEM	REQUIRED
2.0 X 1.0 X 1.0 M GABION BASKET	31
1.0 X 1.0 X 1.0 M GABION BASKET	6

No.	Amendment Description	Initials	Date

SCALES	
0 1 2 3 4 5	
SCALE 1:100 Vertical @ A3	
Co-ordinate System: MGA Zone 56	Height Datum: A.H.D



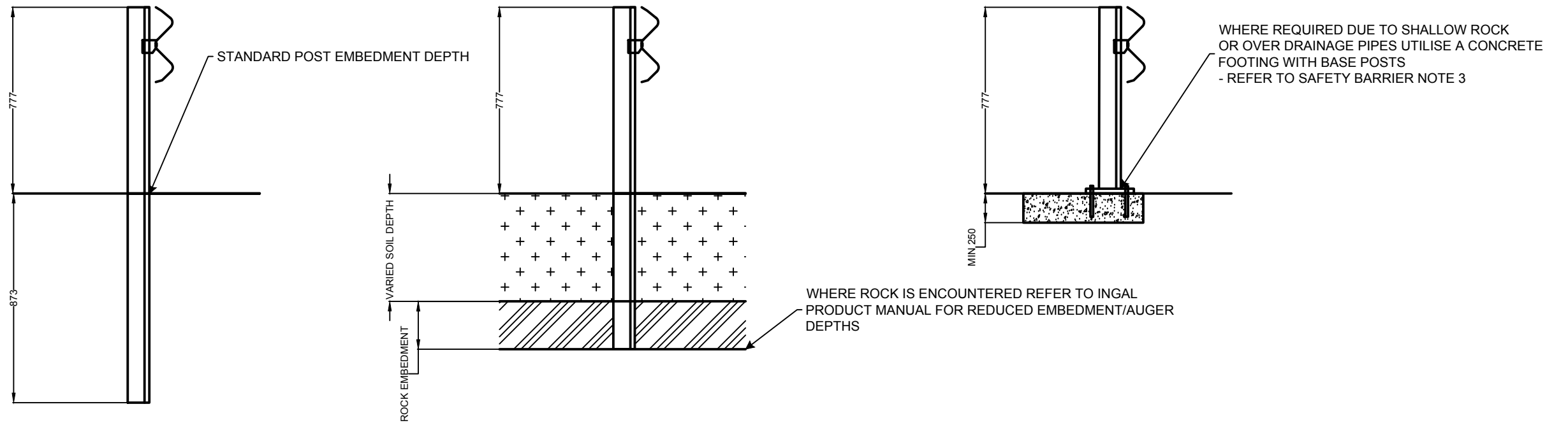
SURV SP, JS
DRWN SP
DES SP
CHKD MW

TITLE
KEMPSEY ROAD CURVE 01 REPAIR (CH 42.05 KM) CULVERT DETAILS

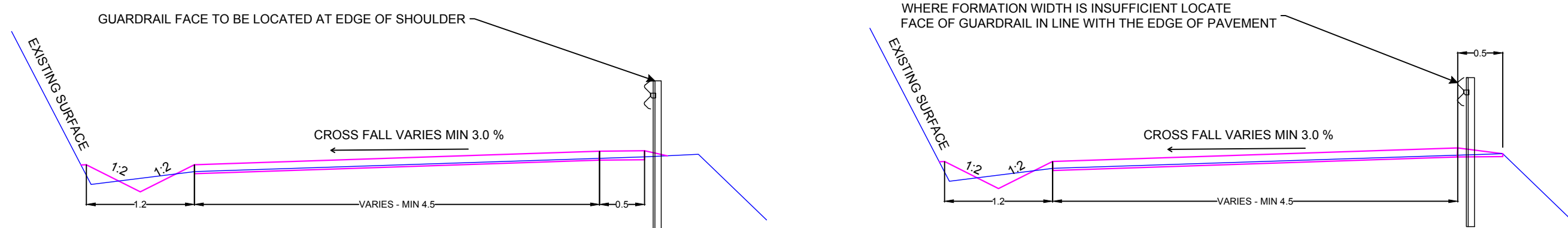
DRAWING No <b>314-021</b>
CADFILE: 314_021.dwg
AREA No: 318

APPROVED		
M. WILSON	19/08/2021	DATE
COORDINATOR DESIGN AND RESOURCING		
AS SHEET SIZE <b>A3</b>	SHEET No. <b>11 OF 12</b>	ISSUE <b>D</b>

FILE No. ARCXX/XXXX



**SAFETY BARRIER DETAILS**  
SCALE 1:20



**TYPICAL ROAD CROSS SECTIONS**  
SCALE 1:50

		<p><b>SCALES</b></p> <p>SCALE 1:20 @ A3 SCALE 1:50 @ A3</p>			<p>SURV SP, JS</p>	<p>TITLE</p> <p><b>KEMPSEY ROAD</b> <b>CURVE 01 REPAIR (CH 42.05 KM)</b> <b>SAFETY BARRIER INSTALL</b></p>	<p>DRAWING No</p> <p><b>314-021</b></p>	<p>APPROVED</p> <p>M. WILSON 19/08/2021 COORDINATOR DESIGN AND RESOURCING DATE</p>		
					<p>DRWN SP</p>		<p>CADFILE: 314_021.dwg</p>	<p>AS SHEET SIZE</p> <p><b>A3</b></p>	<p>SHEET No.</p> <p><b>12 OF 12</b></p>	<p>ISSUE</p> <p><b>D</b></p>
					<p>DES SP</p>		<p>AREA No: 318</p>			
					<p>CHKD MW</p>					
No.	Amendment Description	Initials	Date	Co-ordinate System: MGA Zone 56	Height Datum: A.H.D					