



## **Appendix B Preliminary Major Stream Crossing Designs**

Date: 2014/12/12 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc-PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-123-1960-123-300 | Layout: 001 | Paper Size: 558.8mm x 431.8mm



**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
		1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/29	ISSUED FOR REVIEW	TJB	WBM



CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/29
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/29
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**

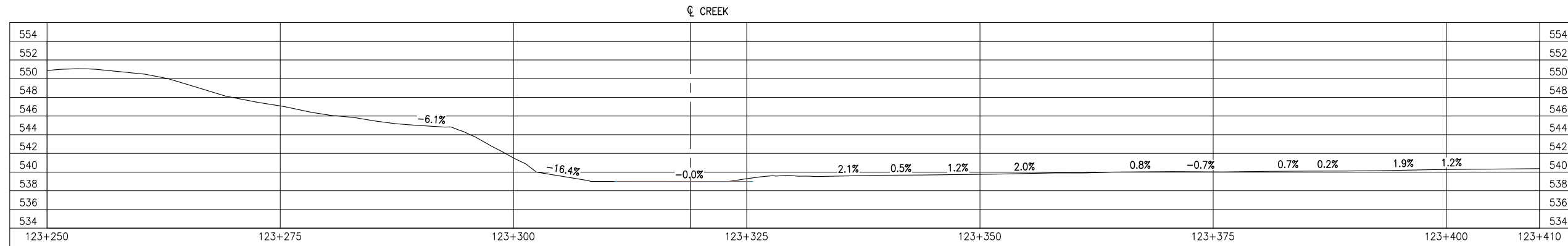
**STREAM CROSSING  
UPPER GRAINGER RIVER  
PRAIRIE CREEK MINE ROAD  
AT STA. 123+320**

TITLE:

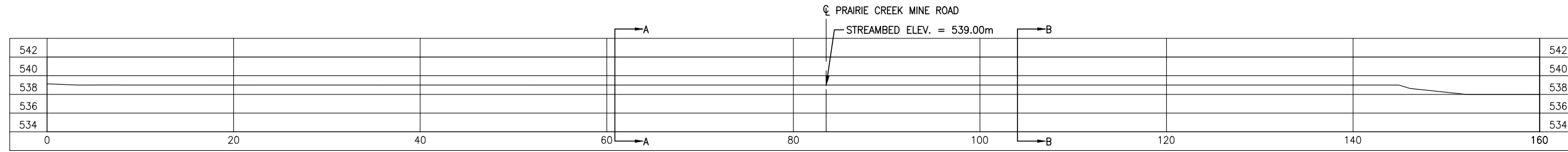
**SITE PLAN**

DWG NO:	<b>14GP0128-123-1960-001</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/12 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-123-1960\_123-300 | Layout: 002 | Paper Size: 558.8mm x 431.8mm

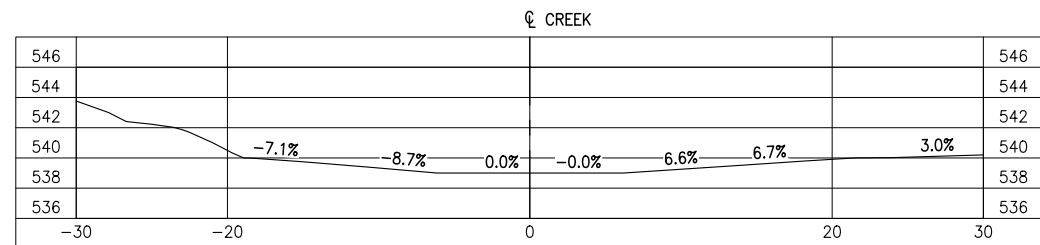


**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:500

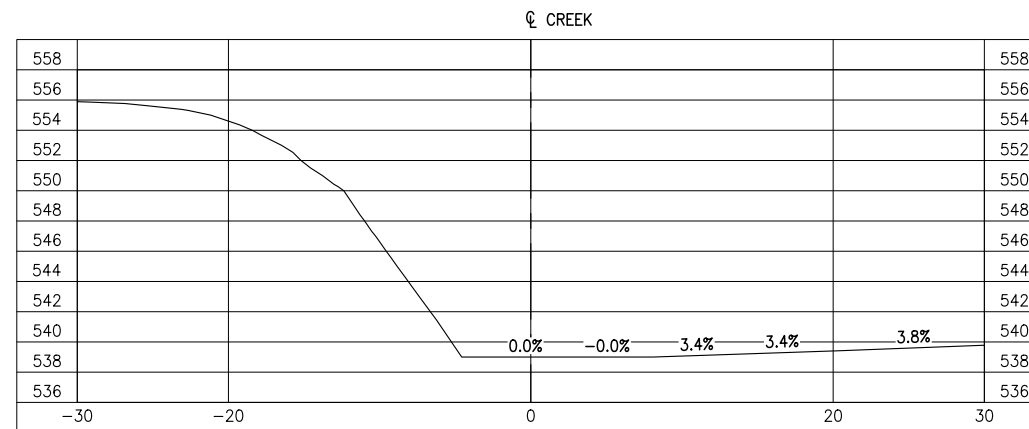


**CREEK PROFILE**  
SCALE: 1:500

OVERALL AVERAGE GRADIENT = -0.6%



**SECTION A**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/29	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



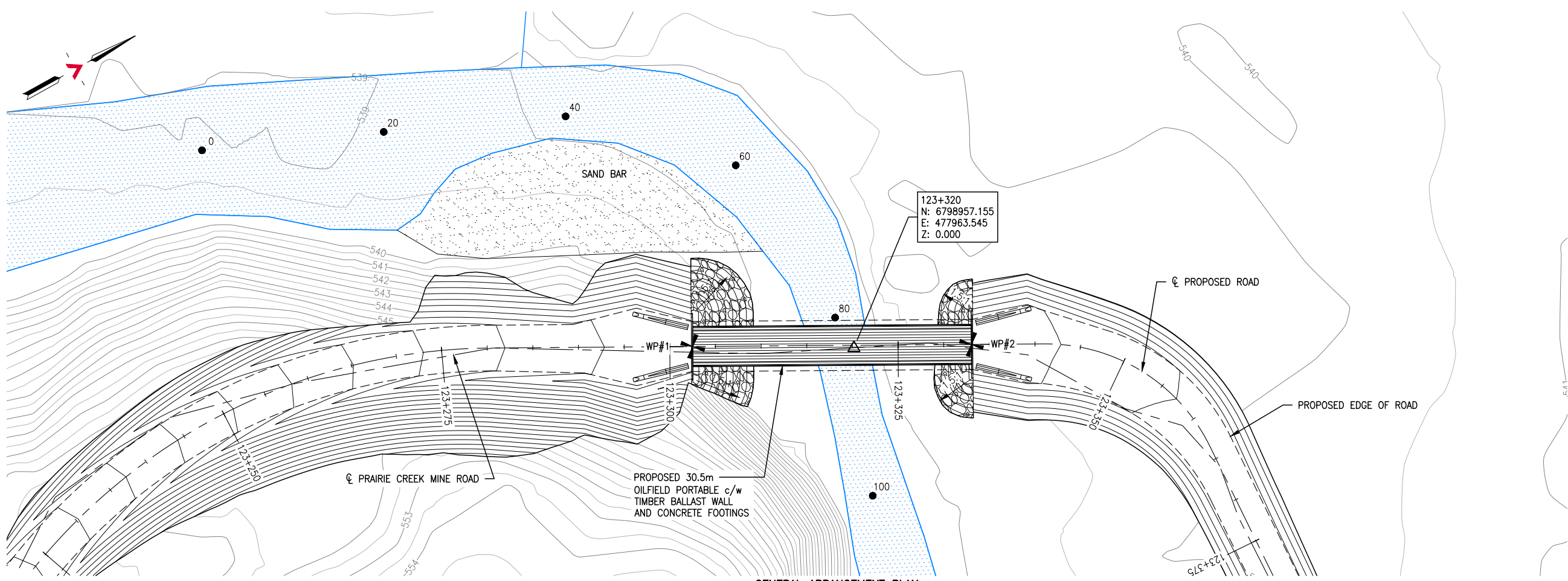
CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/29
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/29
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING**  
**UPPER GRAINGER RIVER**  
**PRAIRIE CREEK MINE ROAD**  
**AT STA. 123+320**

**TITLE:**  
**PROFILES**  
**AND**  
**SECTION VIEWS**

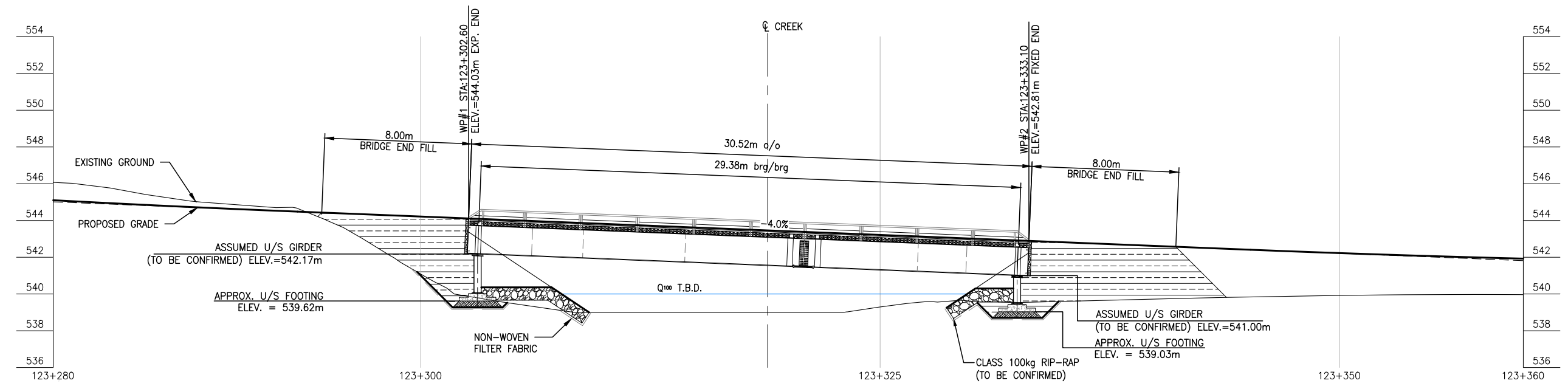
DWG NO:	<b>14GP0128-123-1960-002</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/16 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\Drawings\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-1960\_123-300 | Layout: 003 | Paper Size: 558.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500

SURVEY CONTROL			
DESCRIPTION	NORTHING	EASTING	ELEVATION
WP#1	6798941.790	477954.868	544.030
WP#2	6798968.588	477969.465	542.810



**BRIDGE PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/13	ISSUED FOR REVIEW	TJB	WBM



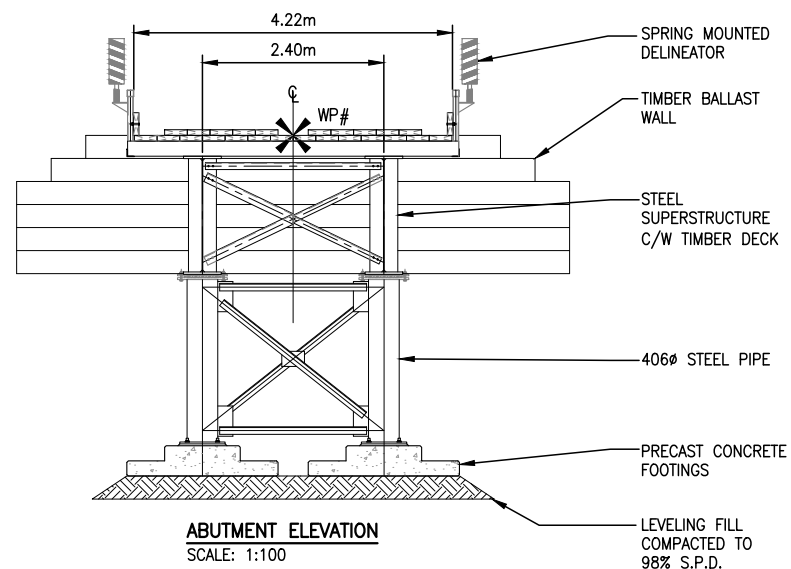
CLIENT NO:	DRWN:	TJB	DATE:	14/12/12	
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/12
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING**  
**UPPER GRAINGER RIVER**  
**PRAIRIE CREEK MINE ROAD**  
**AT STA. 123+320**

**TITLE:**  
**GENERAL ARRANGEMENT PLAN**  
**AND**  
**BRIDGE PROFILE**

DWG NO:	<b>14GP0128-123-1960-003</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

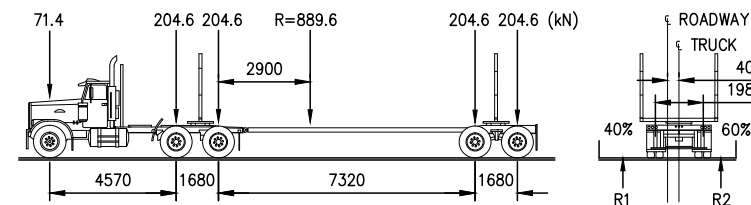
Date: 2014/12/12 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc-PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-123-1960-123-300 | Layout: 004 | Paper Size: 558.8mm x 431.8mm



**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. BRIDGE STRUCTURE SHOWN ON GENERAL ARRANGEMENT PLAN AS MANUFACTURED BY RAPID-SPAN STRUCTURES LTD.
3. RIPRAP SHALL EXTEND AROUND ABUTMENTS AS SHOWN ON THE PLAN.
4. NO SITE SPECIFIC GEOTECHNICAL INVESTIGATION HAS BEEN COMPLETED AT THE SITE TO DATE. THEREFORE, THIS CONCEPTUAL DESIGN HAS BEEN PREPARED WITHOUT THE BENEFIT OF GEOTECHNICAL ADVICE. GROUND CONDITIONS MAY VARY AND THE FOUNDATION CONCEPT MAY NEED TO BE MODIFIED TO ACCOMMODATE ACTUAL SITE CONDITIONS.
5. BACK FILL OF APPROACHES SHALL GENERALLY CONFORM TO THE LINES SHOWN ON THE DRAWINGS AND SHALL BE PLACED IN LIFTS NOT EXCEEDING 305mm THICK, COMPACTED TO 95% STANDARD PROCTOR DENSITY. MATERIAL SHALL BE NON-FROZEN, CLEAN, FREE DRAINING, WELL GRADED GRANULAR FILL OF 75mm MAXIMUM SIZE. USE LIGHT MECHANICAL TAMPERS ONLY.
6. CONSTRUCTION SHALL BE CARRIED OUT IN SUCH A MANNER AS TO ENSURE WATER QUALITY IS MAINTAINED BY KEEPING SOIL EROSION AND RUN-OFF TO A MINIMUM DURING INCLEMENT WEATHER AND BY TAKING MEASURES TO PREVENT SEDIMENTATION, LEACHATE, AND CONSTRUCTION MATERIALS FROM ENTERING THE STREAM.
7. OPERATE MACHINERY IN A MANNER THAT MINIMIZES DISTURBANCE TO THE BANKS OF THE WATERCOURSE. MACHINERY IS TO ARRIVE ON SITE IN CLEAN CONDITION AND IS TO BE MAINTAINED FREE OF FLUID LEAKS. REFUEL AND SERVICE MACHINERY AT MINIMUM 100m AWAY FROM THE WATERCOURSE. ENSURE EMERGENCY SPILL KIT IS ON SITE IN CASE OF FLUID LEAKS OR SPILLS FROM MACHINERY.
8. ALL EXPOSED MINERAL SOILS MUST BE SEEDED USING AN APPROVED RECLAMATION GRASS SEED MIXTURE AND COVERED WITH AN APPROVED EROSION CONTROL BLANKET.
9. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
10. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.
11. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK. INSTALLATION OF WORKS TO COMPLY WITH BEST MANAGEMENT PRACTICES.
12. DESIGN SPEED OF APPROACH ROAD SHOWN IS 30 km/hr. LOCAL CHAINAGE SHOWN RELATIVE TO APPROXIMATE CENTRE OF STREAM.
13. STRUCTURE DESIGN SHALL BE COMPLETED IN ACCORDANCE WITH CAN/CSA-S6-06 CANADIAN HIGHWAY BRIDGE DESIGN CODE, WITH VARIATIONS IN THE DESIGN LOADING VEHICLE TO MEET ANTICIPATED VEHICLE LOADING.

**LOADING DIAGRAM L-100 OFF HIGHWAY G.V.W. = 90 680kg;  
DESIGN IN ACCORDANCE WITH CAN/CSA-S6-06 WITH MODIFIED LOADING AS FOLLOWS:**



REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/13	ISSUED FOR REVIEW	TJB	WBM



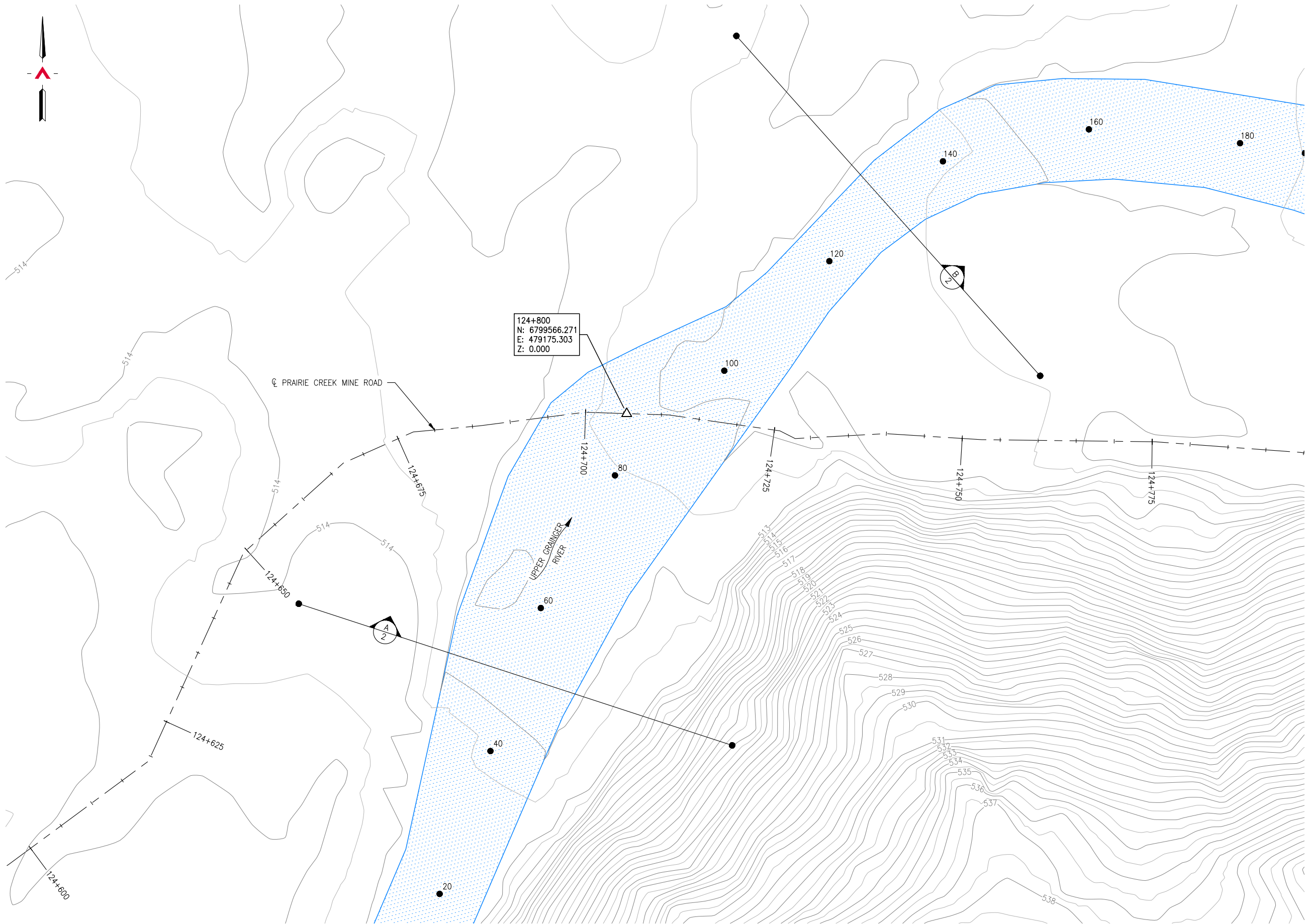
CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/12
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/12
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING  
UPPER GRAINGER RIVER  
PRAIRIE CREEK MINE ROAD AT  
STA. 123+320**

**TITLE:**  
**ABUTMENT ELEVATION  
AND  
GENERAL NOTES**

DWG NO:	<b>14GP0128-123-1960-004</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2015/02/09 | User: Tammy Beer | File: P:\GP\_2014\10014-GP-0128\_CanadaZinc\PrairieCreekMine\1000-Drawings\1011-Civil-Production\_Site Plans\14GP0128-124-1960\_124-800\_Option A | Layout: 001 | Paper Size: 558.8mm x 431.8mm



SITE PLAN  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
		1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2015/02/10	ISSUED FOR REVIEW	TJB	WBM

CLIENT:

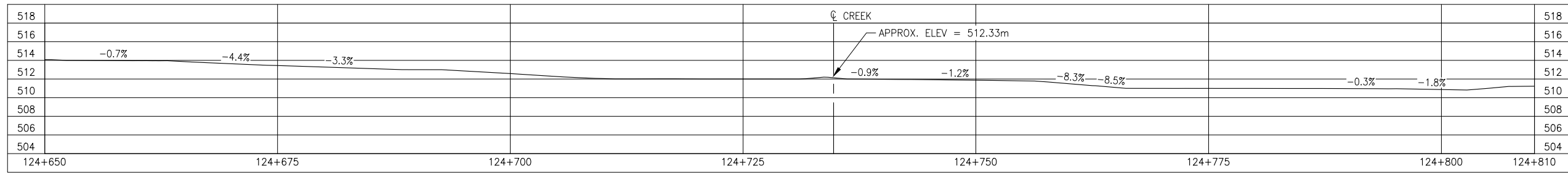
CLIENT NO:	DRWN: MDB	DATE: 14/11/28
PROJECT NO: 14-GP-0128	DSGN: WBM	DATE: 14/11/26
DRAWING SIZE: ANSI "B"	CHKD:	DATE:
SCALE: AS NOTED	APVD:	DATE:

PROJECT:  
**STREAM CROSSING  
UPPER GRAINGER RIVER  
PRAIRIE CREEK MINE ROAD  
AT STA. 124+800  
OPTION 'A'**

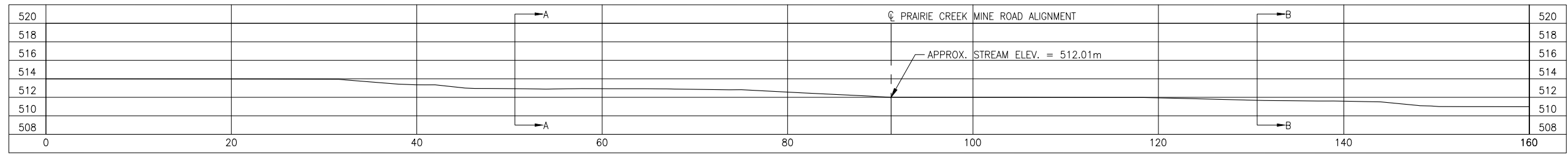
TITLE:  
**SITE PLAN**

DWG NO: <b>14GP0128-124-1960-001</b>	REV: <b>0</b>
---	------------------

Date: 2015/02/09 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-124-1960\_124-800\_Option A | Layout: 002 | Paper Size: 558.8mm x 431.8mm

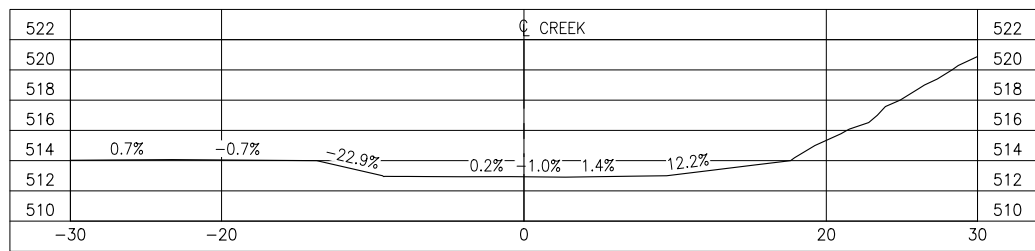


GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT  
SCALE: 1:500

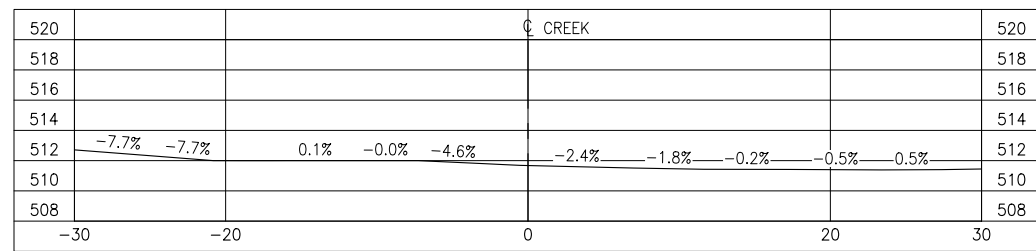


CREEK PROFILE  
SCALE: 1:500

OVERALL AVERAGE GRADIENT = -1.9%



SECTION A  
SCALE: 1:500



SECTION B  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2015/02/10	ISSUED FOR REVIEW	TJB	WBM



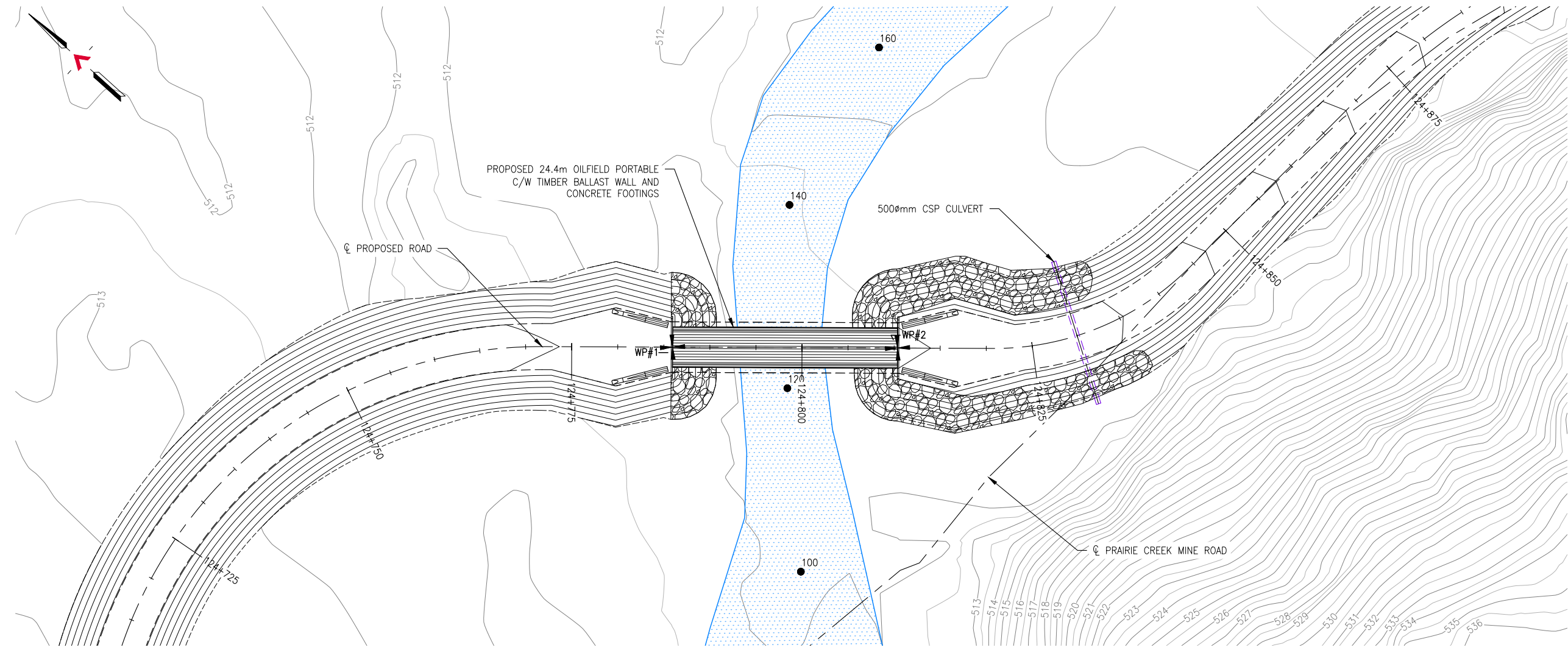
CLIENT NO:	DRWN: MDB	DATE: 14/11/28
PROJECT NO: 14-GP-0128	DSGN: WBM	DATE: 14/11/28
DRAWING SIZE: ANSI "B"	CHKD:	DATE:
SCALE: AS NOTED	APVD:	DATE:

PROJECT:  
**STREAM CROSSING  
UPPER GRAINGER RIVER  
PRAIRIE CREEK MINE ROAD  
AT STA. 124+800  
OPTION 'A'**

TITLE:  
**PROFILES  
AND  
SECTION VIEWS**

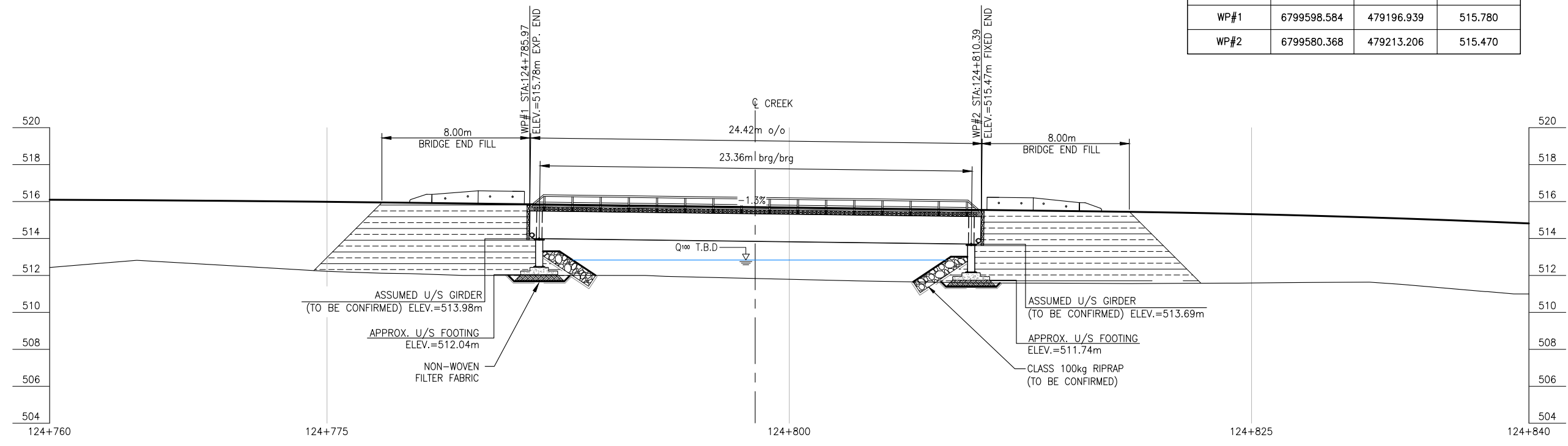
DWG NO: <b>14GP0128-124-1960-002</b>	REV: <b>0</b>
---	------------------

Date: 2015/02/11 | User: Tammy Beer | File: P:\GP\14\10014-GP-0128\_CanadianZinc\PrairieCreekMine\1000-Drawings\1011-Civil\1-Production\_Site Plans\14GP0128-124-1960-124-800\_Option A | Layout: 003 | Paper Size: 558.8mm x 431.8mm



GENERAL ARRANGEMENT PLAN  
SCALE: 1:500

SURVEY CONTROL			
DESCRIPTION	NORTHING	EASTING	ELEVATION
WP#1	6799598.584	479196.939	515.780
WP#2	6799580.368	479213.206	515.470



REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
		1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2015/02/10	ISSUED FOR REVIEW	TJB	WBM



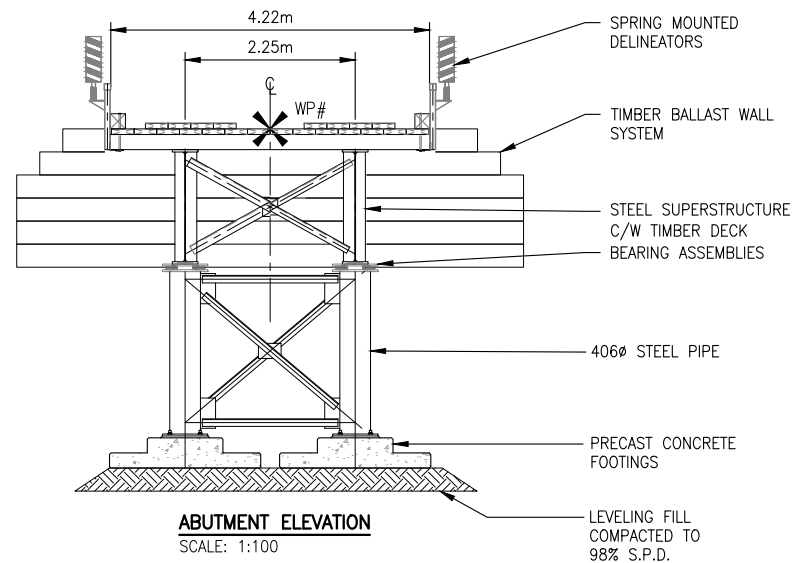
CLIENT NO:	DRWN:	TJB	DATE:	15/02/09	
PROJECT NO:	14-GP-0128	DSGN:	WBM	DATE:	15/02/09
DRAWING SIZE:	ANSI "B"	CHKD:		DATE:	
SCALE:	AS NOTED	APVD:		DATE:	

PROJECT:  
**STREAM CROSSING  
UPPER GRAINGER RIVER  
PRAIRIE CREEK MINE ROAD  
AT STA. 124+800  
OPTION 'A'**

TITLE:  
**GENERAL ARRANGEMENT  
PLAN AND BRIDGE PROFILE**

DWG NO:	REV:
<b>14GP0128-124-1960-003</b>	<b>0</b>

Date: 2015/02/09 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\Drawings\1001-Production\_Site Plans\14GP0128-124-1960\_124-800\_Option A | Layout: 004 | Paper Size: 558.8mm x 431.8mm



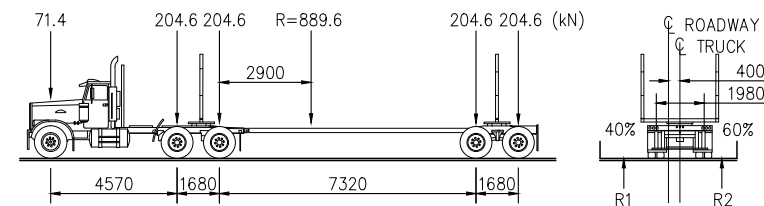
**ABUTMENT ELEVATION**  
SCALE: 1:100

**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. BRIDGE STRUCTURE SHOWN ON GENERAL ARRANGEMENT PLAN AS MANUFACTURED BY RAPID-SPAN STRUCTURES LTD.
3. RIPRAP SHALL EXTEND AROUND ABUTMENTS AS SHOWN ON THE PLAN.
4. NO SITE SPECIFIC GEOTECHNICAL INVESTIGATION HAS BEEN COMPLETED AT THE SITE TO DATE. THEREFORE, THIS CONCEPTUAL DESIGN HAS BEEN PREPARED WITHOUT THE BENEFIT OF GEOTECHNICAL ADVICE. GROUND CONDITIONS MAY VARY AND THE FOUNDATION CONCEPT MAY NEED TO BE MODIFIED TO ACCOMMODATE ACTUAL SITE CONDITIONS.
5. BACK FILL OF APPROACHES SHALL GENERALLY CONFORM TO THE LINES SHOWN ON THE DRAWINGS AND SHALL BE PLACED IN LIFTS NOT EXCEEDING 305mm THICK, COMPACTED TO 95% STANDARD PROCTOR DENSITY. MATERIAL SHALL BE NON-FROZEN, CLEAN, FREE DRAINING, WELL GRADED GRANULAR FILL OF 75mm MAXIMUM SIZE. USE LIGHT MECHANICAL TAMPERS ONLY.
6. CONSTRUCTION SHALL BE CARRIED OUT IN SUCH A MANNER AS TO ENSURE WATER QUALITY IS MAINTAINED BY KEEPING SOIL EROSION AND RUN-OFF TO A MINIMUM DURING INCLEMENT WEATHER AND BY TAKING MEASURES TO PREVENT SEDIMENTATION, LEACHATE, AND CONSTRUCTION MATERIALS FROM ENTERING THE STREAM.
7. OPERATE MACHINERY IN A MANNER THAT MINIMIZES DISTURBANCE TO THE BANKS OF THE WATERCOURSE. MACHINERY IS TO ARRIVE ON SITE IN CLEAN CONDITION AND IS TO BE MAINTAINED FREE OF FLUID LEAKS. REFUEL AND SERVICE MACHINERY AT MINIMUM 100m AWAY FROM THE WATERCOURSE. ENSURE EMERGENCY SPILL KIT IS ON SITE IN CASE OF FLUID LEAKS OR SPILLS FROM MACHINERY.
8. ALL EXPOSED MINERAL SOILS MUST BE SEEDED USING AN APPROVED RECLAMATION GRASS SEED MIXTURE AND COVERED WITH AN APPROVED EROSION CONTROL BLANKET.
9. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
10. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.
11. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK. INSTALLATION OF WORKS TO COMPLY WITH BEST MANAGEMENT PRACTICES.
12. DESIGN SPEED OF APPROACH ROAD SHOWN IS 30 km/hr. LOCAL CHAINAGE SHOWN RELATIVE TO APPROXIMATE CENTRE OF STREAM.
13. STRUCTURE DESIGN SHALL BE COMPLETED IN ACCORDANCE WITH CAN/CSA-S6-06 CANADIAN HIGHWAY BRIDGE DESIGN CODE, WITH VARIATIONS IN THE DESIGN LOADING VEHICLE TO MEET ANTICIPATED VEHICLE LOADING.

**LOADING DIAGRAM L-100 OFF HIGHWAY G.V.W. = 90 680kg:**

DESIGN IN ACCORDANCE WITH CAN/CSA-S6-06 WITH MODIFIED LOADING AS FOLLOWS:



REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2015/02/10	ISSUED FOR REVIEW	TJB	WBM



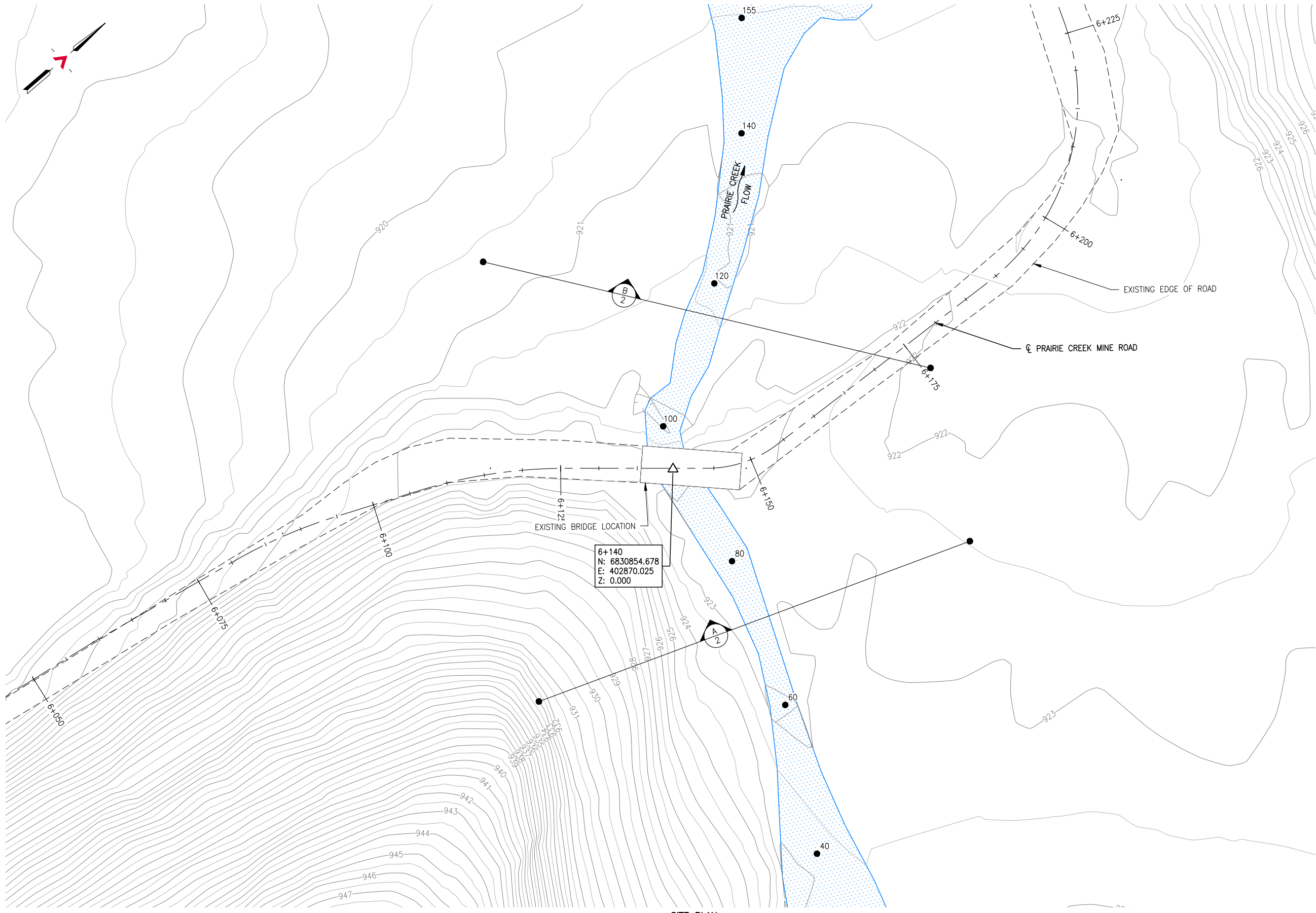
CLIENT NO:	DRWN:	TJB	DATE:	15/02/09	
PROJECT NO:	14-GP-0128	DSGN:	WBM	DATE:	15/02/09
DRAWING SIZE:	ANSI "B"	CHKD:		DATE:	
SCALE:	AS NOTED	APVD:		DATE:	

**PROJECT:**  
**STREAM CROSSING**  
**UPPER GRAINGER RIVER**  
**PRAIRIE CREEK MINE ROAD**  
**AT STA. 124+800**  
**OPTION 'A'**

**TITLE:**  
**ABUTMENT ELEVATION**  
**AND NOTES**

DWG NO:	<b>14GP0128-124-1960-004</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/11 | User: Tammy Beer | File: P:\GP\_2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\2014-10014-GP-0128-006-1960\_6+040 | Layout: 001 | Paper Size: 588mm x 431mm



6+140  
N: 6830854.678  
E: 402870.025  
Z: 0.000

**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/18	ISSUED FOR REVIEW	TJB	WBM



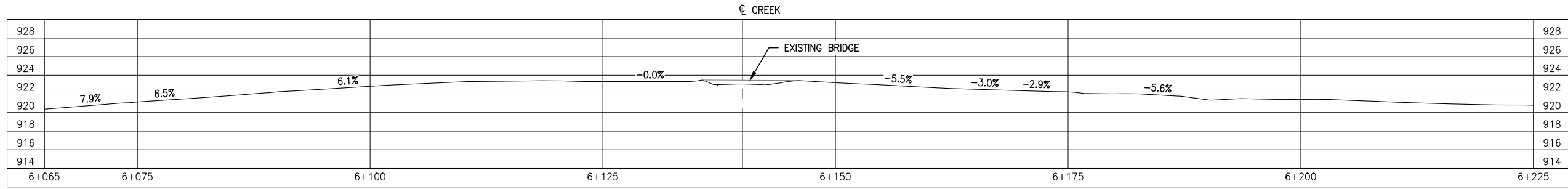
CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/17
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/17
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

PROJECT:  
**STREAM CROSSING  
PRAIRIE CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 6+140**

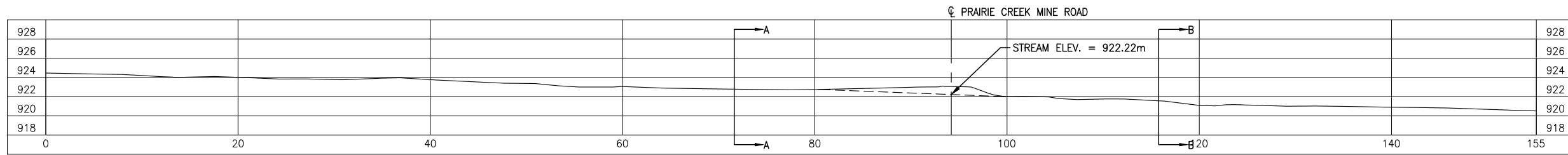
TITLE:  
**SITE PLAN**

DWG NO:	<b>14GP0128-006-1960-001</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

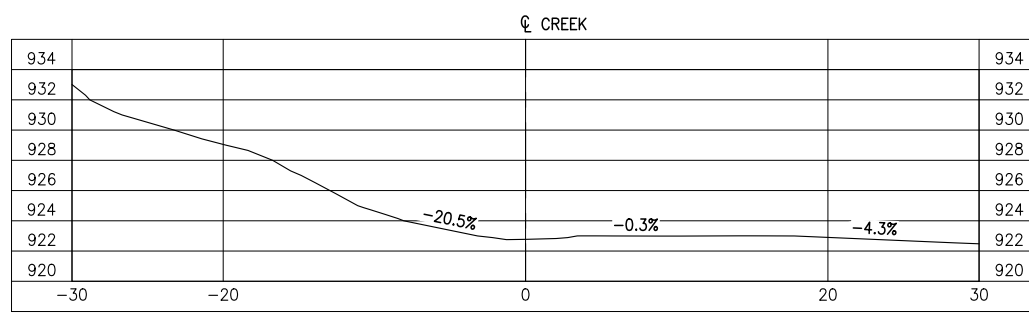
Date: 2014/12/11 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-006-1960\_6+040 | Layout: 002 | Paper Size: 588.6mm x 431.8mm



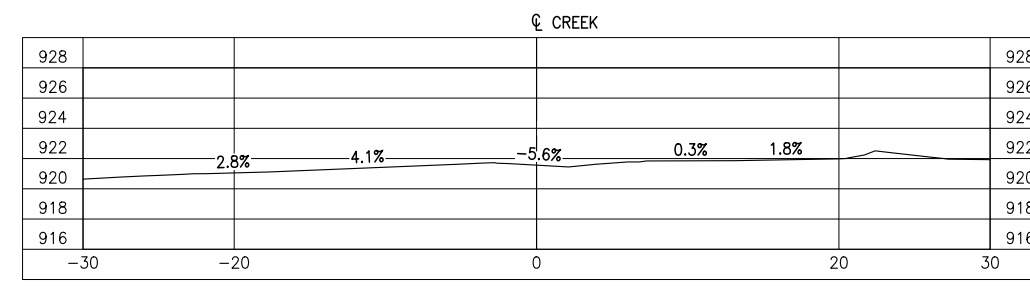
**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:500



**CENTRELINE CREEK**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/18	ISSUED FOR REVIEW	TJB	WBM



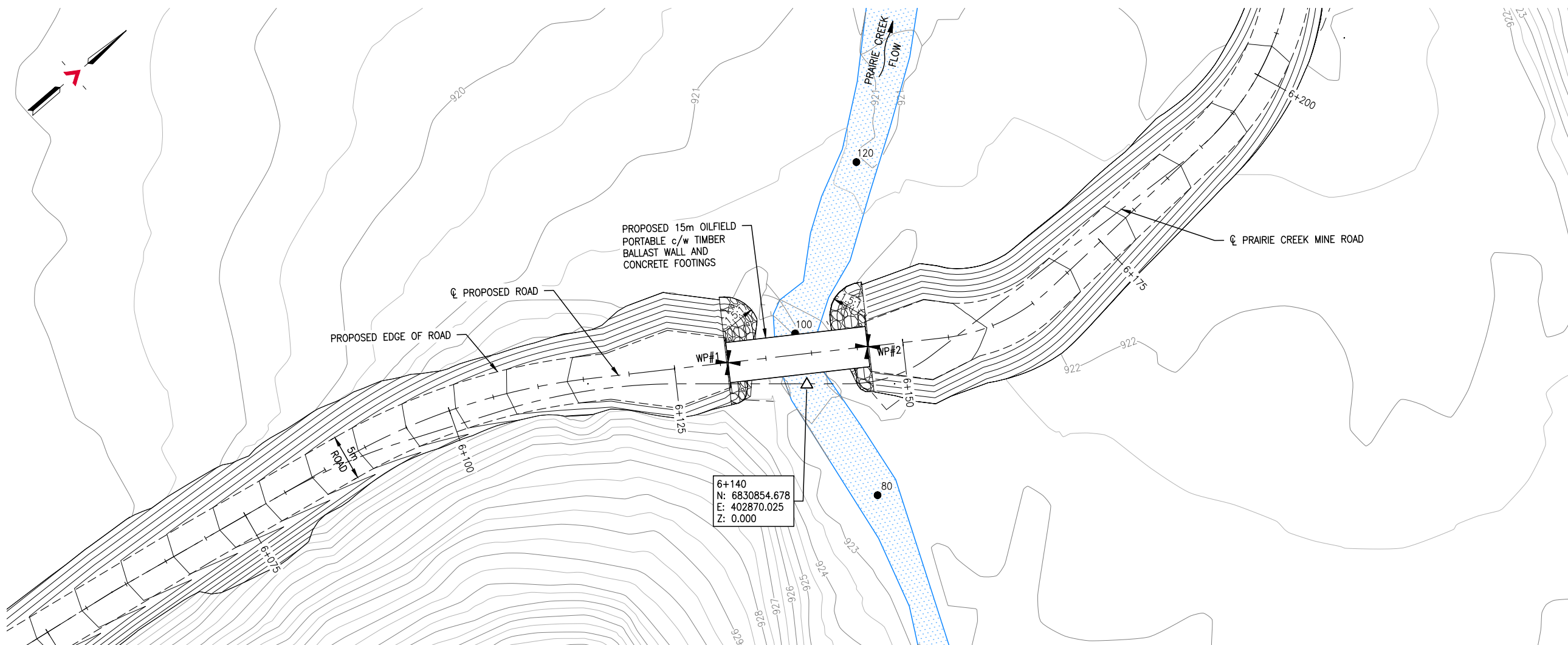
CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/17
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/17
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING PRAIRIE CREEK PRAIRIE CREEK MINE ROAD AT STA. 6+140**

**TITLE:**  
**PROFILES AND SECTION VIEWS**

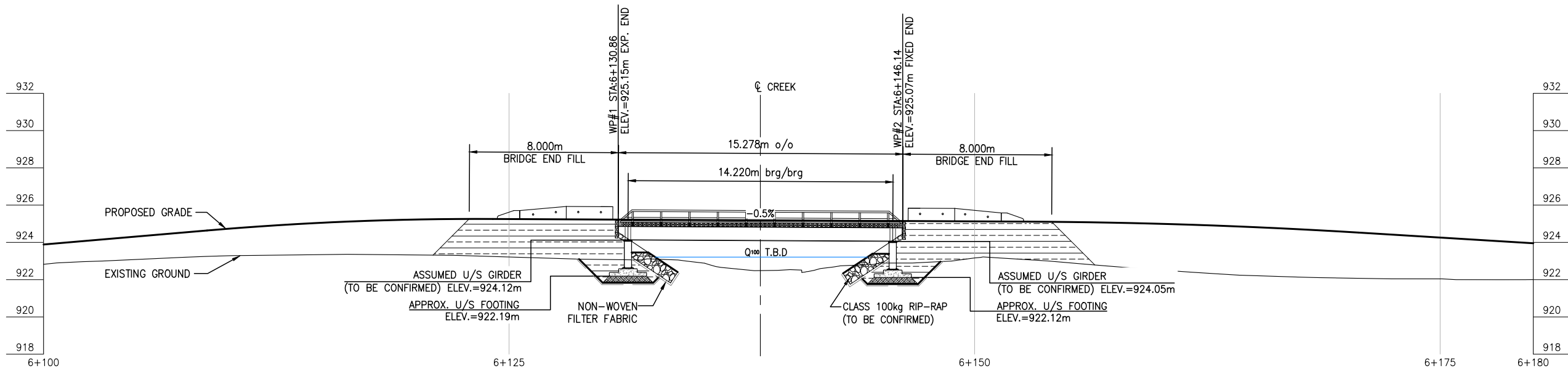
DWG NO:	<b>14GP0128-006-1960-002</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/16 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc-PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-006-1960\_6+040 | Layout: 003 | Paper Size: 588.0mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500

SURVEY CONTROL			
DESCRIPTION	NORTHING	EASTING	ELEVATION
WP#1	6830849.721	402862.634	925.150
WP#2	6830862.373	402871.199	925.070



**BRIDGE PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/03	ISSUED FOR REVIEW	TJB	WBM



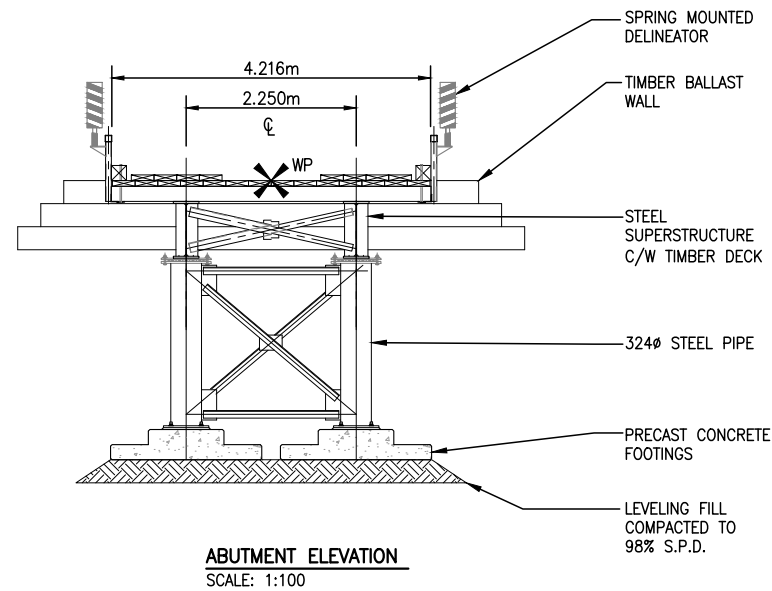
CLIENT NO:	DRWN:	TJB	DATE:	14/12/03	
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/03
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING PRAIRIE CREEK PRAIRIE CREEK MINE ROAD AT STA. 6+140**

**TITLE:**  
**GENERAL ARRANGEMENT PLAN AND BRIDGE PROFILE**

DWG NO:	REV:
<b>14GP0128-006-1960-003</b>	<b>0</b>

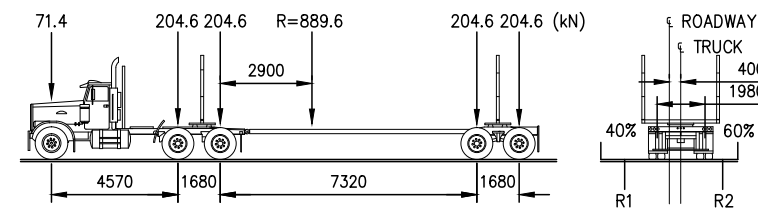
Date: 2014/12/11 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-006-1960\_6+040 | Layout: 004 | Paper Size: 588.0mm x 431.8mm



**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. BRIDGE STRUCTURE SHOWN ON GENERAL ARRANGEMENT PLAN AS MANUFACTURED BY RAPID-SPAN STRUCTURES LTD.
3. RIPRAP SHALL EXTEND AROUND ABUTMENTS AS SHOWN ON THE PLAN.
4. NO SITE SPECIFIC GEOTECHNICAL INVESTIGATION HAS BEEN COMPLETED AT THE SITE TO DATE. THEREFORE, THIS CONCEPTUAL DESIGN HAS BEEN PREPARED WITHOUT THE BENEFIT OF GEOTECHNICAL ADVICE. GROUND CONDITIONS MAY VARY AND THE FOUNDATION CONCEPT MAY NEED TO BE MODIFIED TO ACCOMMODATE ACTUAL SITE CONDITIONS.
5. BACK FILL OF APPROACHES SHALL GENERALLY CONFORM TO THE LINES SHOWN ON THE DRAWINGS AND SHALL BE PLACED IN LIFTS NOT EXCEEDING 305mm THICK, COMPACTED TO 95% STANDARD PROCTOR DENSITY. MATERIAL SHALL BE NON-FROZEN, CLEAN, FREE DRAINING, WELL GRADED GRANULAR FILL OF 75mm MAXIMUM SIZE. USE LIGHT MECHANICAL TAMPERS ONLY.
6. CONSTRUCTION SHALL BE CARRIED OUT IN SUCH A MANNER AS TO ENSURE WATER QUALITY IS MAINTAINED BY KEEPING SOIL EROSION AND RUN-OFF TO A MINIMUM DURING INCLEMENT WEATHER AND BY TAKING MEASURES TO PREVENT SEDIMENTATION, LEACHATE, AND CONSTRUCTION MATERIALS FROM ENTERING THE STREAM.
7. OPERATE MACHINERY IN A MANNER THAT MINIMIZES DISTURBANCE TO THE BANKS OF THE WATERCOURSE. MACHINERY IS TO ARRIVE ON SITE IN CLEAN CONDITION AND IS TO BE MAINTAINED FREE OF FLUID LEAKS. REFUEL AND SERVICE MACHINERY AT MINIMUM 100m AWAY FROM THE WATERCOURSE. ENSURE EMERGENCY SPILL KIT IS ON SITE IN CASE OF FLUID LEAKS OR SPILLS FROM MACHINERY.
8. ALL EXPOSED MINERAL SOILS MUST BE SEEDED USING AN APPROVED RECLAMATION GRASS SEED MIXTURE AND COVERED WITH AN APPROVED EROSION CONTROL BLANKET.
9. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
10. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.
11. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK. INSTALLATION OF WORKS TO COMPLY WITH BEST MANAGEMENT PRACTICES.
12. DESIGN SPEED OF APPROACH ROAD SHOWN IS 30 km/hr. LOCAL CHAINAGE SHOWN RELATIVE TO APPROXIMATE CENTRE OF STREAM.
13. STRUCTURE DESIGN SHALL BE COMPLETED IN ACCORDANCE WITH CAN/CSA-S6-06 CANADIAN HIGHWAY BRIDGE DESIGN CODE, WITH VARIATIONS IN THE DESIGN LOADING VEHICLE TO MEET ANTICIPATED VEHICLE LOADING.

LOADING DIAGRAM L-100 OFF HIGHWAY G.V.W. = 90 680kg;  
DESIGN IN ACCORDANCE WITH CAN/CSA-S6-06 WITH MODIFIED LOADING AS FOLLOWS:



REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/03	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/03
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/03
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

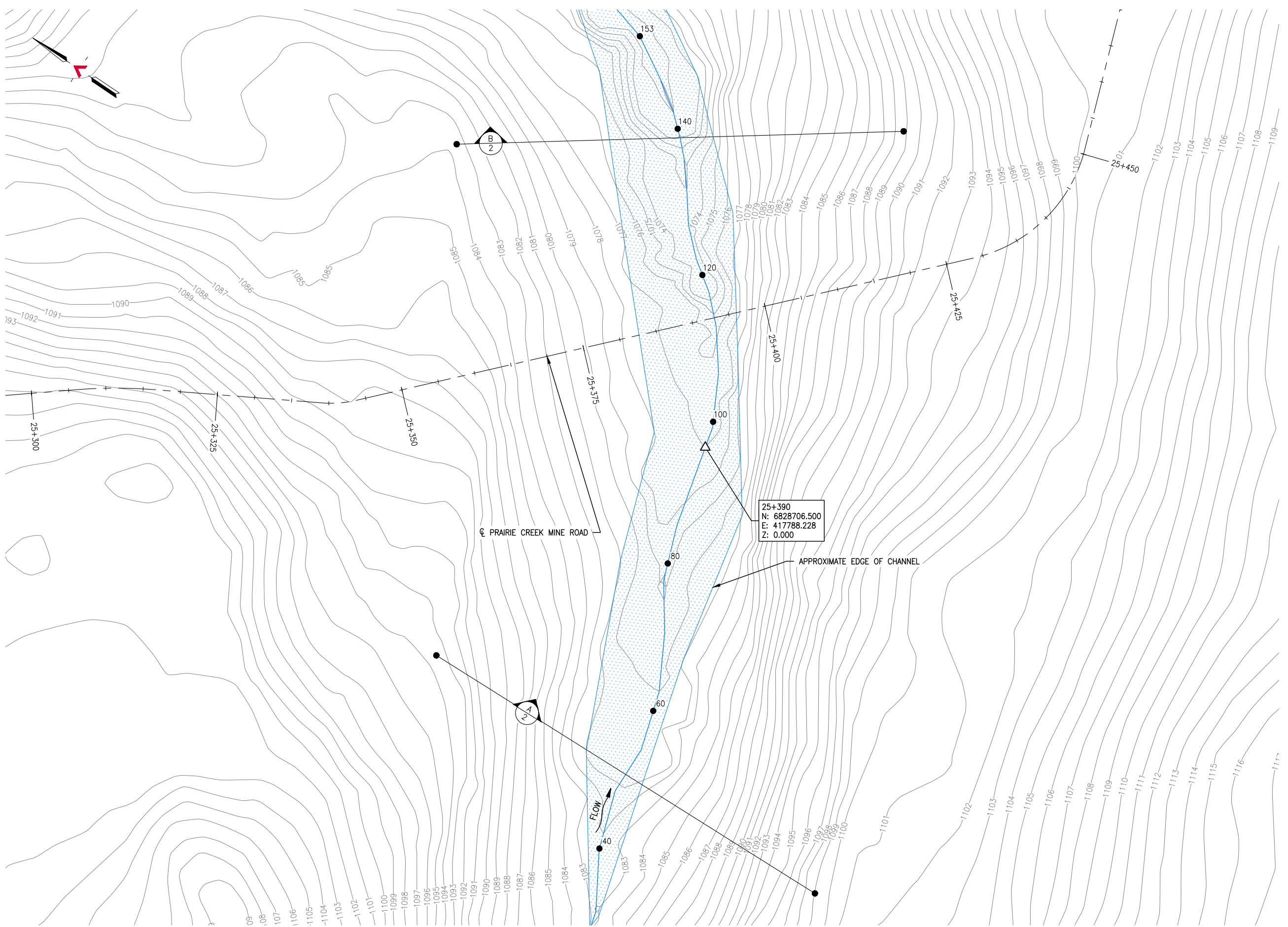
PROJECT:

**STREAM CROSSING  
PRAIRIE CREEK  
PRAIRIE CREEK MINE ROAD AT  
STA. 6+140**

TITLE:  
**ABUTMENT ELEVATIONS  
AND  
GENERAL NOTES**

DWG NO:	<b>14GP0128-006-1960-004</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/16 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadaZinc\PrairieCreekMine\2014\10014-GP-0128-Production\_Site Plans\14GP0128-025-1960\_25+380 | Layout: 001 | Paper Size: 558.8mm x 431.8mm



**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
		1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, in any form or by any means, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/19	ISSUED FOR REVIEW	TJB	WBM



CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/18
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/18
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**

**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 25+390**

TITLE:

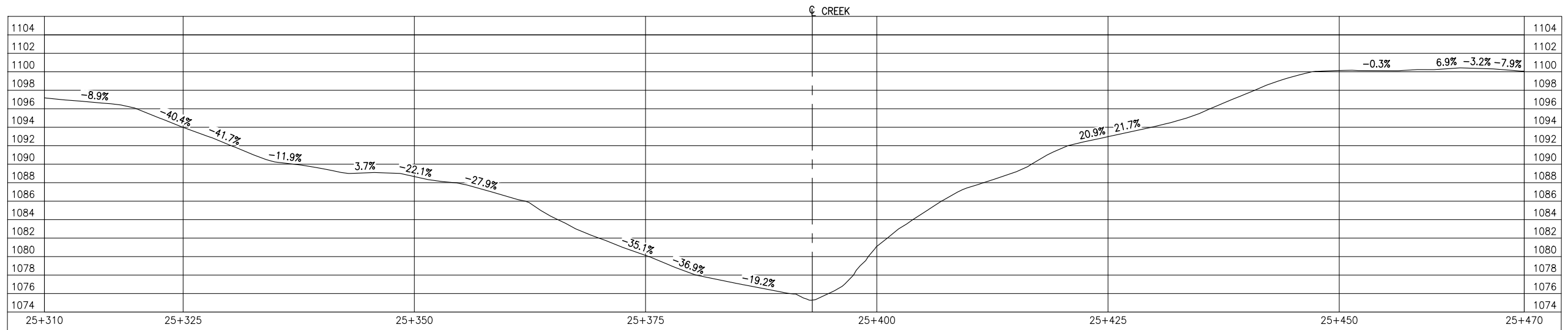
**SITE PLAN**

DWG NO: **14GP0128-025-1960-001** REV: **0**

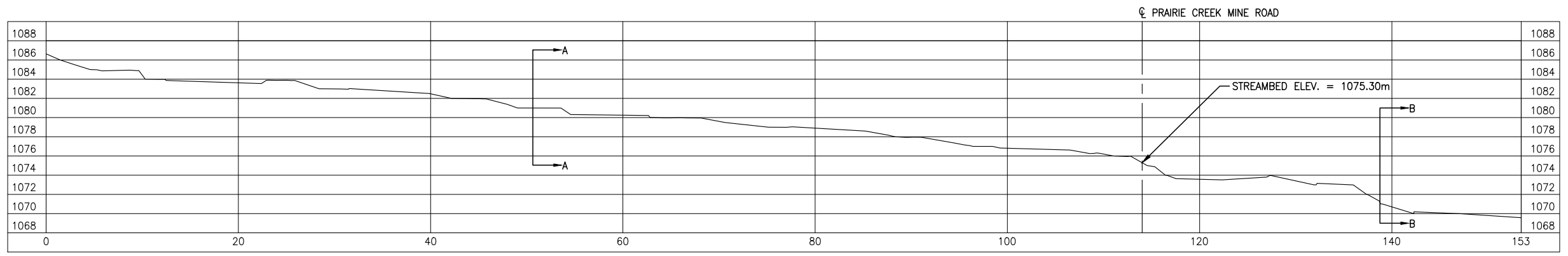
Date: 2014/12/16 | User: Tammy Beer | File: P:\GP\_2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-025-1960\_25+380 | Layout: 002 | Paper Size: 558.8mm x 431.8mm

REFERENCE DRAWINGS

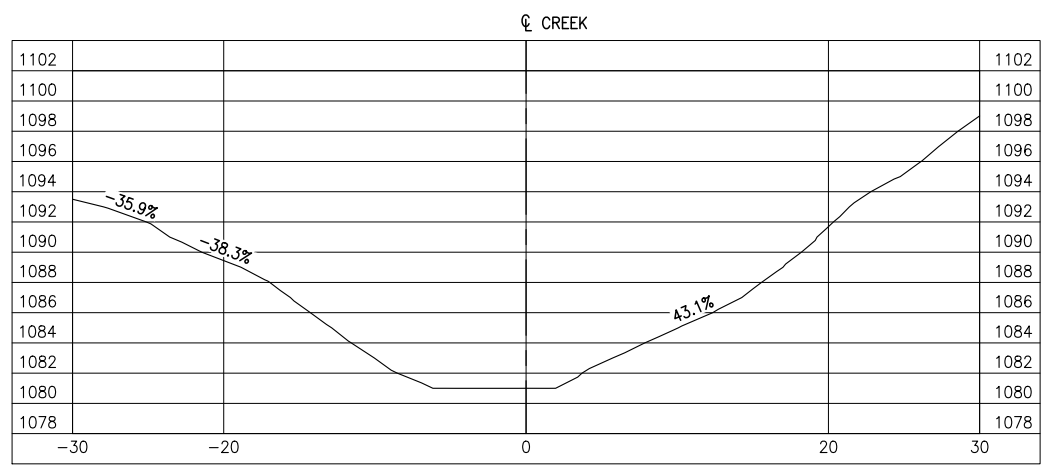
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1



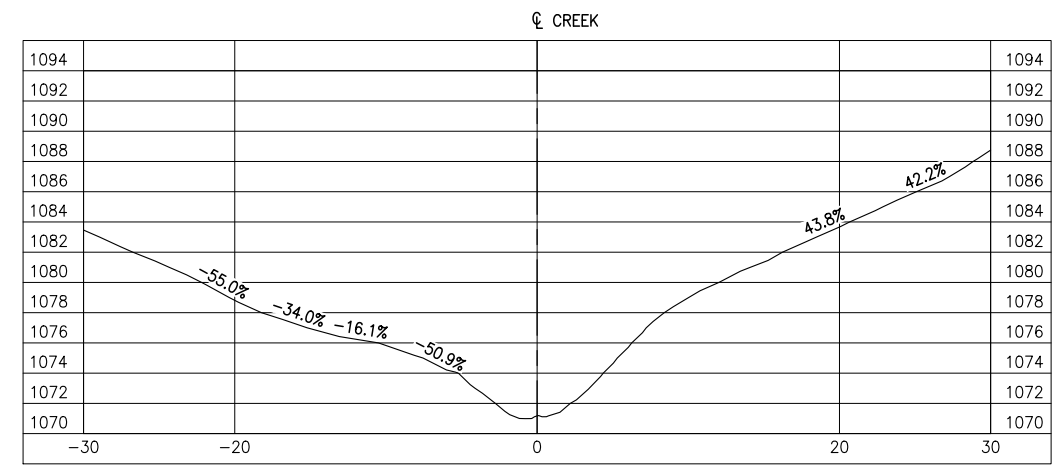
**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:500



**CREEK PROFILE**  
SCALE: 1:500



**SECTION A**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, in any form or by any means, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/19	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/18
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/18
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

PROJECT:

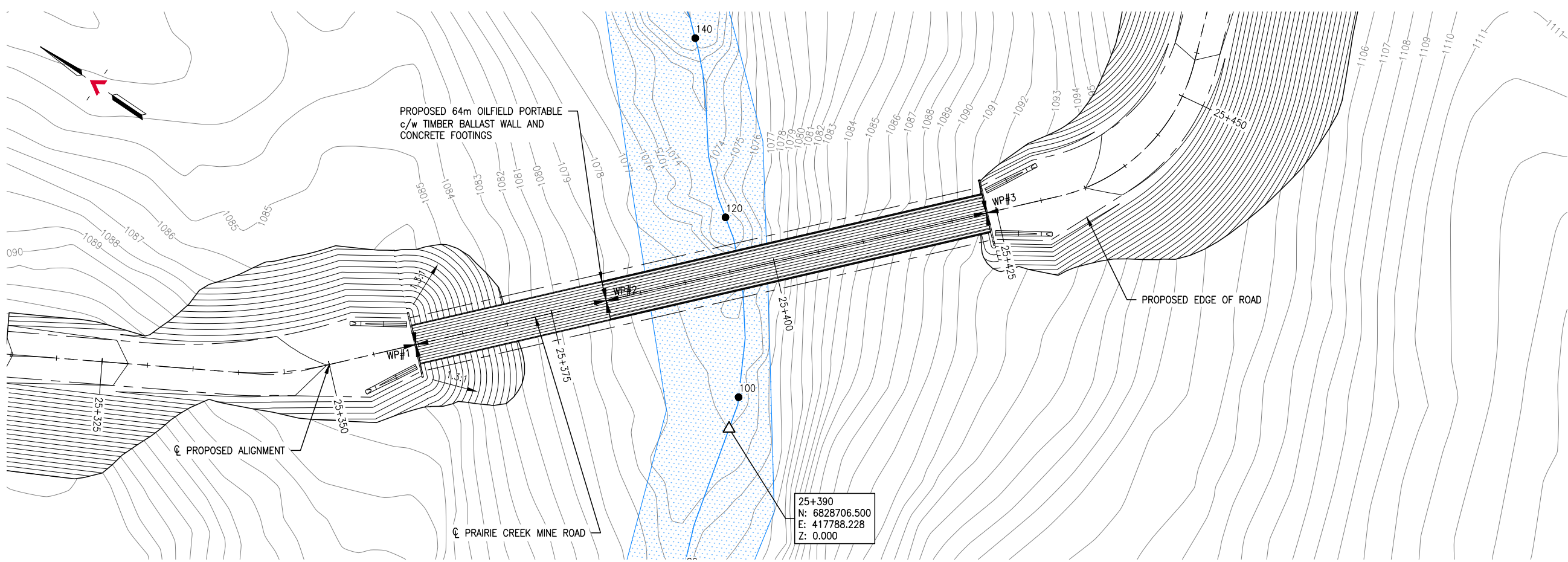
**CULVERT CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 25+390**

TITLE:

**PROFILE VIEWS  
AND  
SECTION VIEWS**

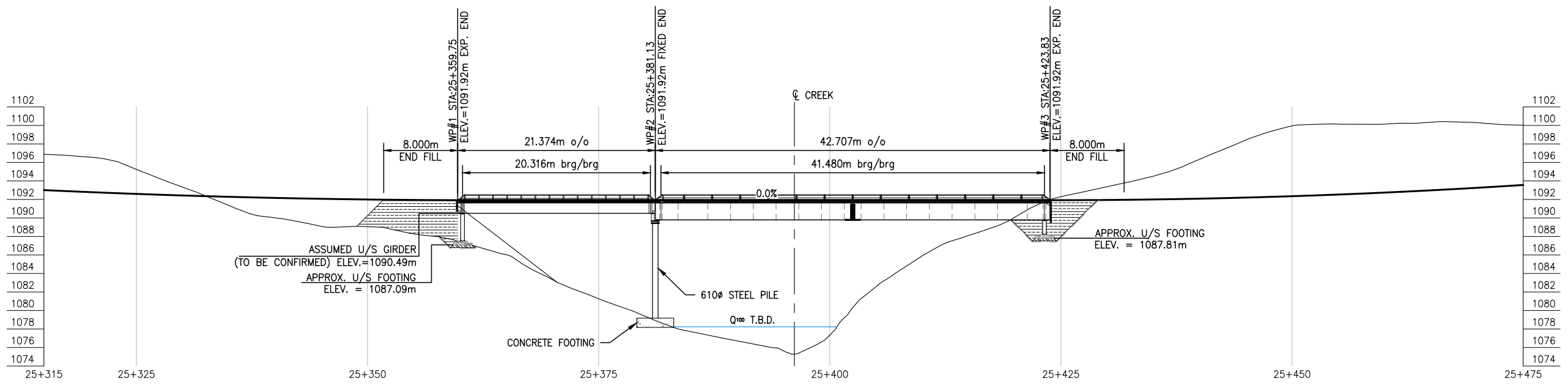
DWG NO:	<b>14GP0128-025-1960-002</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/18 | User: Tammy Beer | File: P:\GP\_2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\2014\10014-Production\_Site Plans\14GP0128-025-1960\_25+380 | Layout: 003 | Paper Size: 558.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500

SURVEY CONTROL			
DESCRIPTION	NORTHING	EASTING	ELEVATION
WP#1	6828740.057	417776.680	1091.920
WP#2	6828725.475	417792.307	1091.920
WP#3	6828696.338	417823.531	1091.920



**BRIDGE PROFILE**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/01	ISSUED FOR REVIEW	TJB	WBM



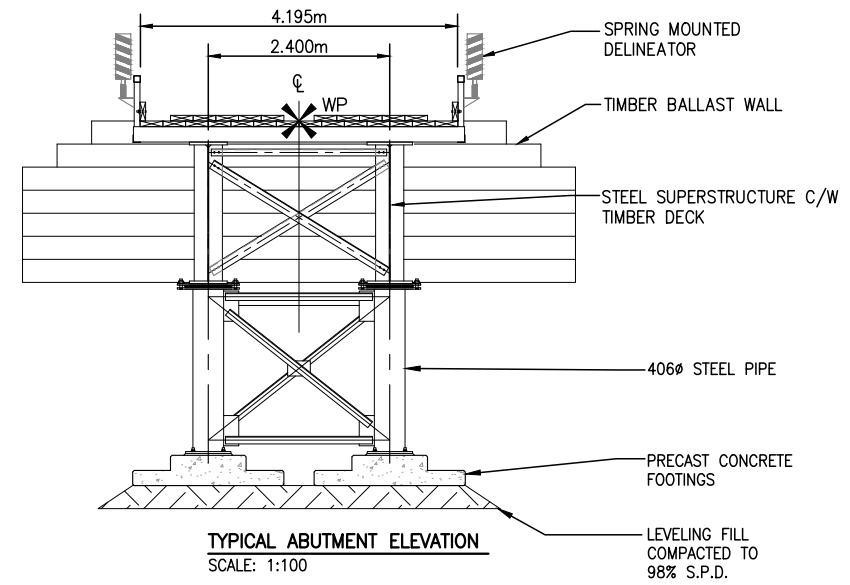
CLIENT NO:	DRWN: TJB	DATE: 14/11/28
PROJECT NO: 14GP0128	DSGN: WBM	DATE: 14/11/28
DRAWING SIZE: ANSI "B"	CHKD: -	DATE: -
SCALE: AS NOTED	APVD: -	DATE: -

**BRIDGE CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 25+390**

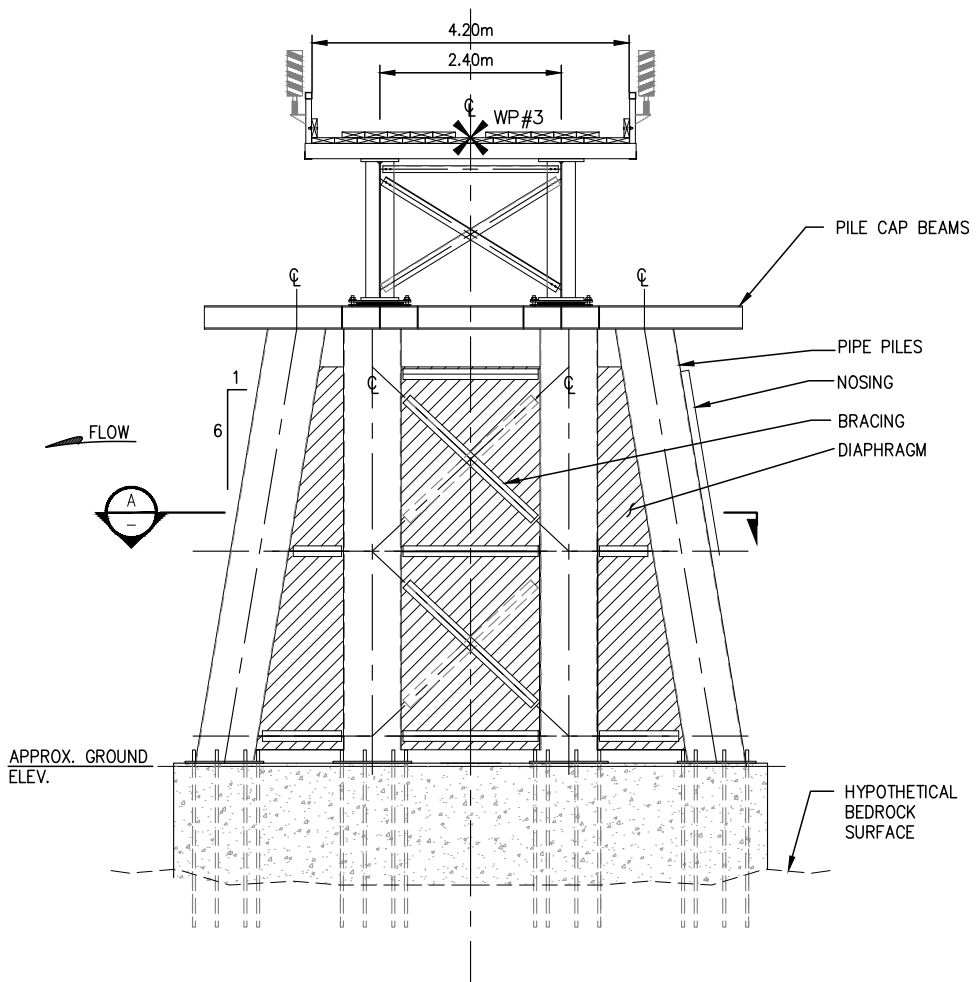
TITLE:  
**GENERAL ARRANGEMENT PLAN  
AND  
BRIDGE PROFILE**

DWG NO: <b>14GP0128-025-1960-003</b>	REV: <b>0</b>
---	------------------

Date: 2014/12/18 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc-PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-025-1960-25+390 | Layout: 004 | Paper Size: 558.8mm x 431.8mm



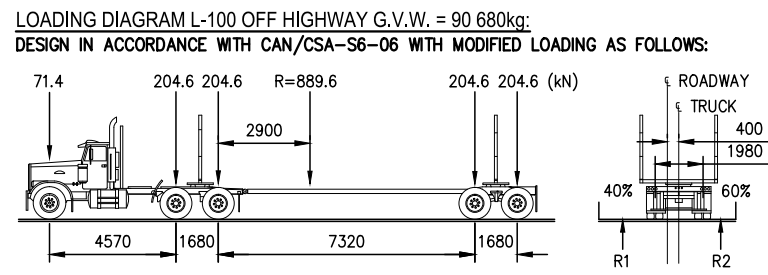
**TYPICAL ABUTMENT ELEVATION**  
SCALE: 1:100



**ABUTMENT ELEVATION @ WP#3**  
SCALE: 1:100

**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. BRIDGE STRUCTURE SHOWN ON GENERAL ARRANGEMENT PLAN AS MANUFACTURED BY RAPID-SPAN STRUCTURES LTD.
3. RIPRAP SHALL EXTEND AROUND ABUTMENTS AS SHOWN ON THE PLAN.
4. NO SITE SPECIFIC GEOTECHNICAL INVESTIGATION HAS BEEN COMPLETED AT THE SITE TO DATE. THEREFORE, THIS CONCEPTUAL DESIGN HAS BEEN PREPARED WITHOUT THE BENEFIT OF GEOTECHNICAL ADVICE. GROUND CONDITIONS MAY VARY AND THE FOUNDATION CONCEPT MAY NEED TO BE MODIFIED TO ACCOMMODATE ACTUAL SITE CONDITIONS.
5. BACK FILL OF APPROACHES SHALL GENERALLY CONFORM TO THE LINES SHOWN ON THE DRAWINGS AND SHALL BE PLACED IN LIFTS NOT EXCEEDING 305mm THICK, COMPACTED TO 95% STANDARD PROCTOR DENSITY. MATERIAL SHALL BE NON-FROZEN, CLEAN, FREE DRAINING, WELL GRADED GRANULAR FILL OF 75mm MAXIMUM SIZE. USE LIGHT MECHANICAL TAMPERS ONLY.
6. CONSTRUCTION SHALL BE CARRIED OUT IN SUCH A MANNER AS TO ENSURE WATER QUALITY IS MAINTAINED BY KEEPING SOIL EROSION AND RUN-OFF TO A MINIMUM DURING INCLEMENT WEATHER AND BY TAKING MEASURES TO PREVENT SEDIMENTATION, LEACHATE, AND CONSTRUCTION MATERIALS FROM ENTERING THE STREAM.
7. OPERATE MACHINERY IN A MANNER THAT MINIMIZES DISTURBANCE TO THE BANKS OF THE WATERCOURSE. MACHINERY IS TO ARRIVE ON SITE IN CLEAN CONDITION AND IS TO BE MAINTAINED FREE OF FLUID LEAKS. REFUEL AND SERVICE MACHINERY AT MINIMUM 100m AWAY FROM THE WATERCOURSE. ENSURE EMERGENCY SPILL KIT IS ON SITE IN CASE OF FLUID LEAKS OR SPILLS FROM MACHINERY.
8. ALL EXPOSED MINERAL SOILS MUST BE SEEDED USING AN APPROVED RECLAMATION GRASS SEED MIXTURE AND COVERED WITH AN APPROVED EROSION CONTROL BLANKET.
9. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
10. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.
11. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK. INSTALLATION OF WORKS TO COMPLY WITH BEST MANAGEMENT PRACTICES.
12. DESIGN SPEED OF APPROACH ROAD SHOWN IS 30 km/hr. LOCAL CHAINAGE SHOWN RELATIVE TO APPROXIMATE CENTRE OF STREAM.
13. STRUCTURE DESIGN SHALL BE COMPLETED IN ACCORDANCE WITH CAN/CSA-S6-06 CANADIAN HIGHWAY BRIDGE DESIGN CODE, WITH VARIATIONS IN THE DESIGN LOADING VEHICLE TO MEET ANTICIPATED VEHICLE LOADING.



REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/01	ISSUED FOR REVIEW	TJB	WBM



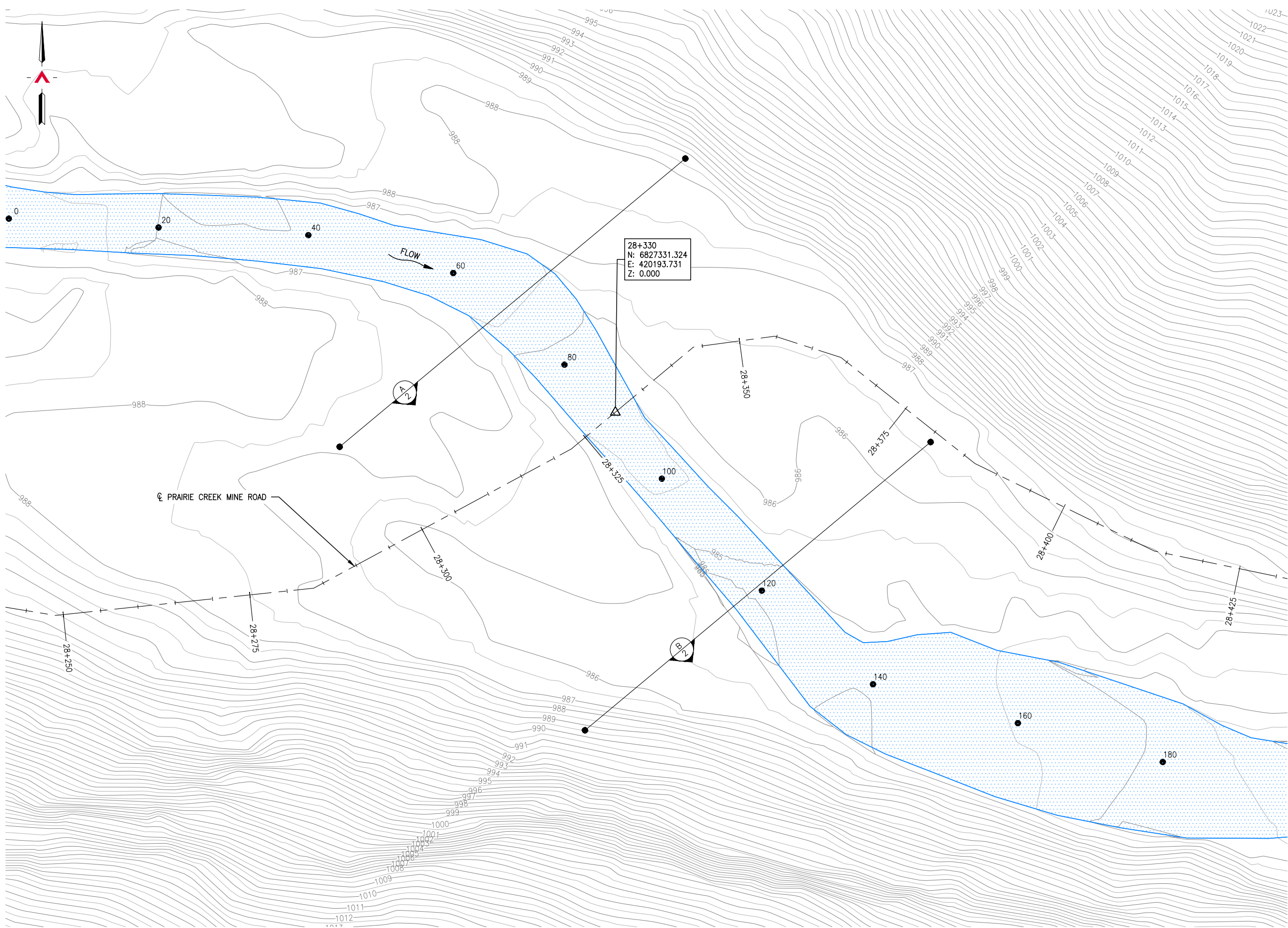
CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/28
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/28
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**CULVERT CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 25+390**

**ABUTMENT ELEVATIONS  
AND  
GENERAL NOTES**

DWG NO:	<b>14GP0128-025-1960-004</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/12 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\28.3-1960-001-Production\_Site Plans\14GP0128-28.3-1960-001-01.dwg | Layout: 001 | Paper Size: 558.8mm x 431.8mm



**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
1		

**PERMIT TO PRACTICE**  
ALLNORTH CONSULTANTS LIMITED  
**PERMIT NUMBER: P 6366**  
The Association of Professional Engineers  
and Geoscientists of Alberta (APEGA)

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/24	ISSUED FOR REVIEW	TJB	WBM



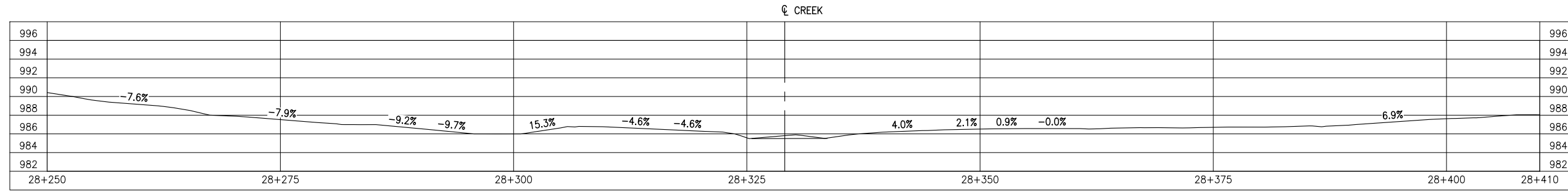
CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/20
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/20
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING**  
**UPPER SUNDOG CREEK**  
**PRAIRIE CREEK MINE ROAD**  
**AT STA. 28+330**

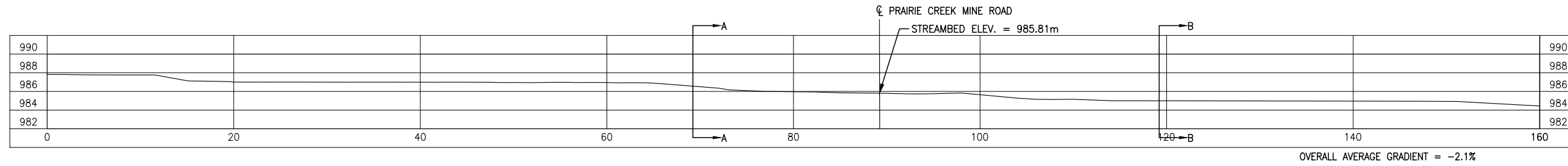
TITLE:  
**SITE PLAN**

DWG NO:	<b>14GP0128-28.3-1960-001</b>	REV:	<b>0</b>
---------	-------------------------------	------	----------

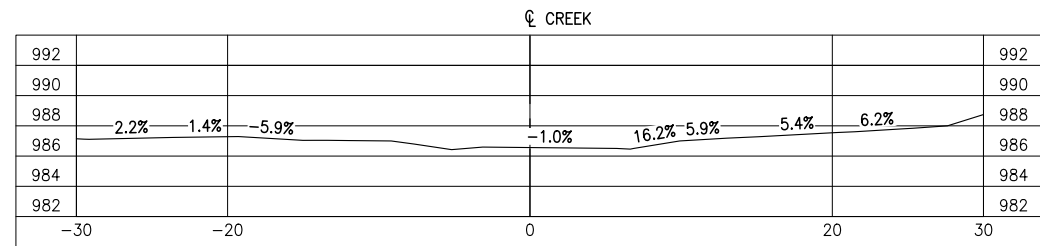
Date: 2014/12/12 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-028-1960\_28+320 | Layout: 002 | Paper Size: 558.8mm x 431.8mm



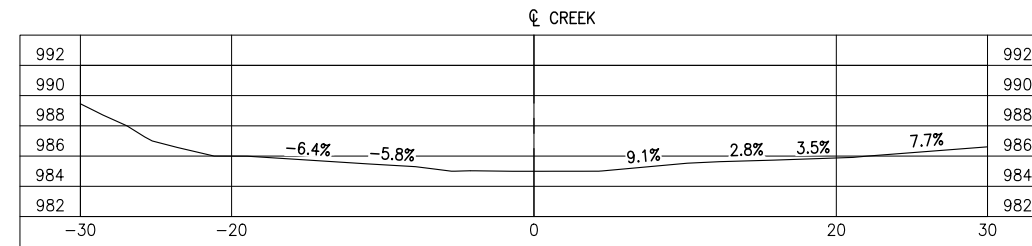
**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:500



**CREEK PROFILE**  
SCALE: 1:500



**SECTION A**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/24	ISSUED FOR REVIEW	TJB	WBM



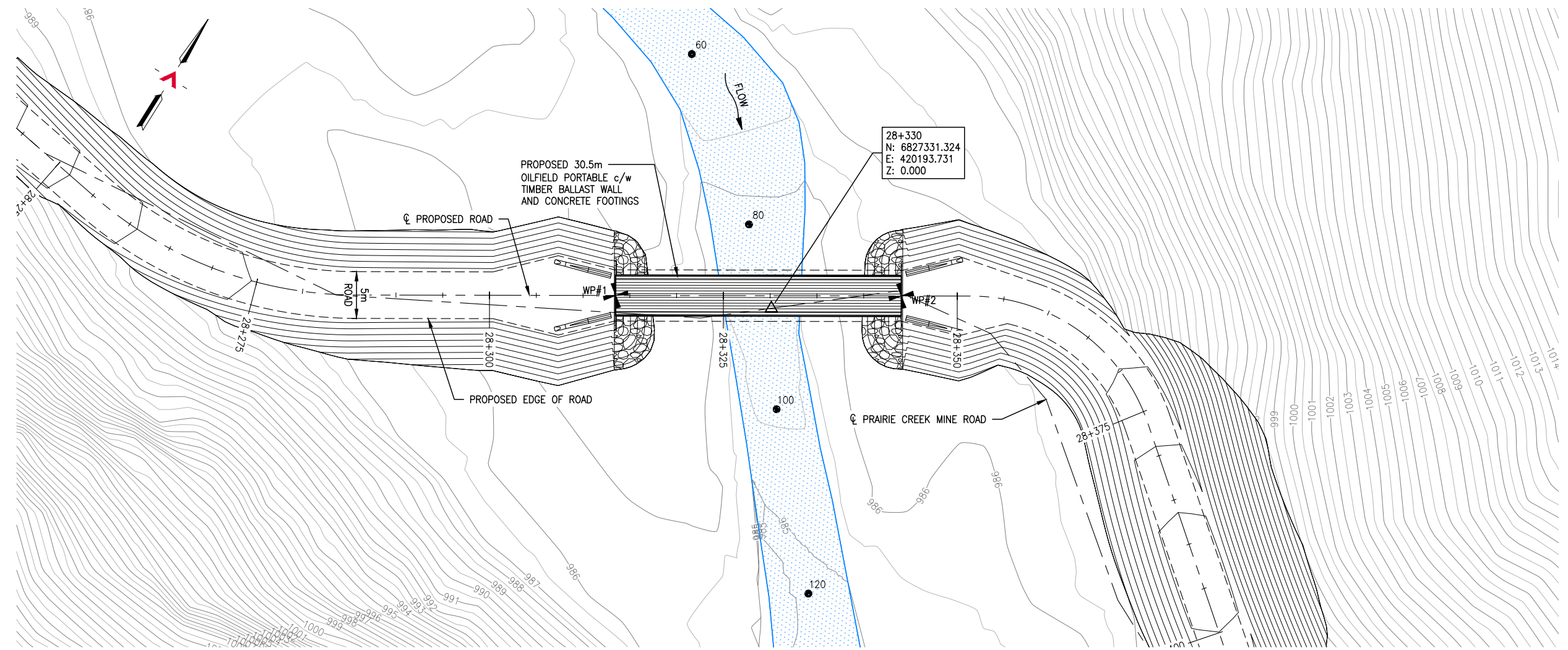
CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/20
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/20
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING UPPER SUNDOG CREEK PRAIRIE CREEK MINE ROAD AT STA. 28+330**

**TITLE:**  
**PROFILES AND SECTION VIEWS**

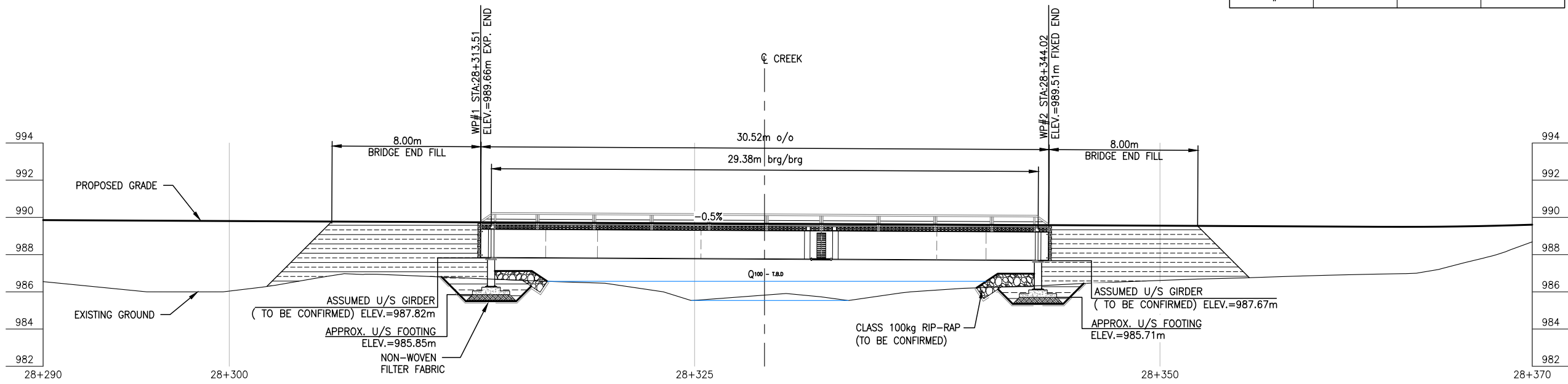
DWG NO:	<b>14GP0128-28.3-1960-002</b>	REV:	<b>0</b>
---------	-------------------------------	------	----------

Date: 2014/12/12 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-028-1960-28-320 | Layout: 003 | Paper Size: 558.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500

SURVEY CONTROL			
DESCRIPTION	NORTHING	EASTING	ELEVATION
WP#1	6827323.674	420178.902	989.660
WP#2	6827339.802	420204.808	989.510



**BRIDGE PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other or unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/24	ISSUED FOR REVIEW	TJB	WBM



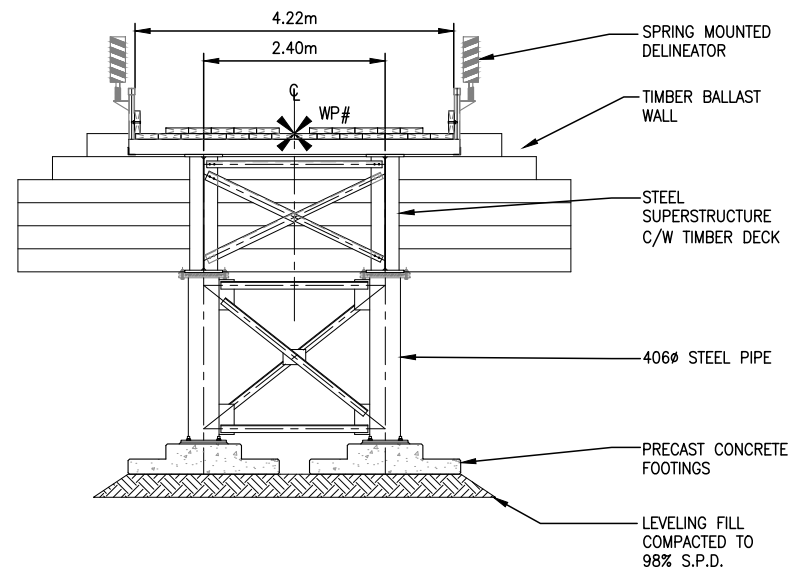
CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/20
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/20
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING**  
**UPPER SUNDOG CREEK**  
**PRAIRIE CREEK MINE ROAD**  
**AT STA. 28+330**

**TITLE:**  
**GENERAL ARRANGEMENT PLAN**  
**AND**  
**BRIDGE PROFILE**

DWG NO:	<b>14GP0128-28.3-1960-003</b>	REV:	<b>0</b>
---------	-------------------------------	------	----------

Date: 2014/12/12 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc-PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-028-1960-28+320 | Layout: 004 | Paper Size: 558.8mm x 431.8mm

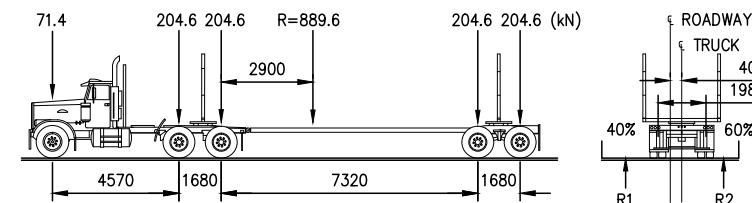


**ABUTMENT ELEVATIONS**  
SCALE: 1:100

**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. BRIDGE STRUCTURE SHOWN ON GENERAL ARRANGEMENT PLAN AS MANUFACTURED BY RAPID-SPAN STRUCTURES LTD.
3. RIPRAP SHALL EXTEND AROUND ABUTMENTS AS SHOWN ON THE PLAN.
4. NO SITE SPECIFIC GEOTECHNICAL INVESTIGATION HAS BEEN COMPLETED AT THE SITE TO DATE. THEREFORE, THIS CONCEPTUAL DESIGN HAS BEEN PREPARED WITHOUT THE BENEFIT OF GEOTECHNICAL ADVICE. GROUND CONDITIONS MAY VARY AND THE FOUNDATION CONCEPT MAY NEED TO BE MODIFIED TO ACCOMMODATE ACTUAL SITE CONDITIONS.
5. BACK FILL OF APPROACHES SHALL GENERALLY CONFORM TO THE LINES SHOWN ON THE DRAWINGS AND SHALL BE PLACED IN LIFTS NOT EXCEEDING 305mm THICK, COMPACTED TO 95% STANDARD PROCTOR DENSITY. MATERIAL SHALL BE NON-FROZEN, CLEAN, FREE DRAINING, WELL GRADED GRANULAR FILL OF 75mm MAXIMUM SIZE. USE LIGHT MECHANICAL TAMPERS ONLY.
6. CONSTRUCTION SHALL BE CARRIED OUT IN SUCH A MANNER AS TO ENSURE WATER QUALITY IS MAINTAINED BY KEEPING SOIL EROSION AND RUN-OFF TO A MINIMUM DURING INCLEMENT WEATHER AND BY TAKING MEASURES TO PREVENT SEDIMENTATION, LEACHATE, AND CONSTRUCTION MATERIALS FROM ENTERING THE STREAM.
7. OPERATE MACHINERY IN A MANNER THAT MINIMIZES DISTURBANCE TO THE BANKS OF THE WATERCOURSE. MACHINERY IS TO ARRIVE ON SITE IN CLEAN CONDITION AND IS TO BE MAINTAINED FREE OF FLUID LEAKS. REFUEL AND SERVICE MACHINERY AT MINIMUM 100m AWAY FROM THE WATERCOURSE. ENSURE EMERGENCY SPILL KIT IS ON SITE IN CASE OF FLUID LEAKS OR SPILLS FROM MACHINERY.
8. ALL EXPOSED MINERAL SOILS MUST BE SEEDED USING AN APPROVED RECLAMATION GRASS SEED MIXTURE AND COVERED WITH AN APPROVED EROSION CONTROL BLANKET.
9. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
10. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.
11. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK. INSTALLATION OF WORKS TO COMPLY WITH BEST MANAGEMENT PRACTICES.
12. DESIGN SPEED OF APPROACH ROAD SHOWN IS 30 km/hr. LOCAL CHAINAGE SHOWN RELATIVE TO APPROXIMATE CENTRE OF STREAM.
13. STRUCTURE DESIGN SHALL BE COMPLETED IN ACCORDANCE WITH CAN/CSA-S6-06 CANADIAN HIGHWAY BRIDGE DESIGN CODE, WITH VARIATIONS IN THE DESIGN LOADING VEHICLE TO MEET ANTICIPATED VEHICLE LOADING.

**LOADING DIAGRAM L-100 OFF HIGHWAY G.V.W. = 90 680kg;  
DESIGN IN ACCORDANCE WITH CAN/CSA-S6-06 WITH MODIFIED LOADING AS FOLLOWS:**



REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/24	ISSUED FOR REVIEW	TJB	WBM



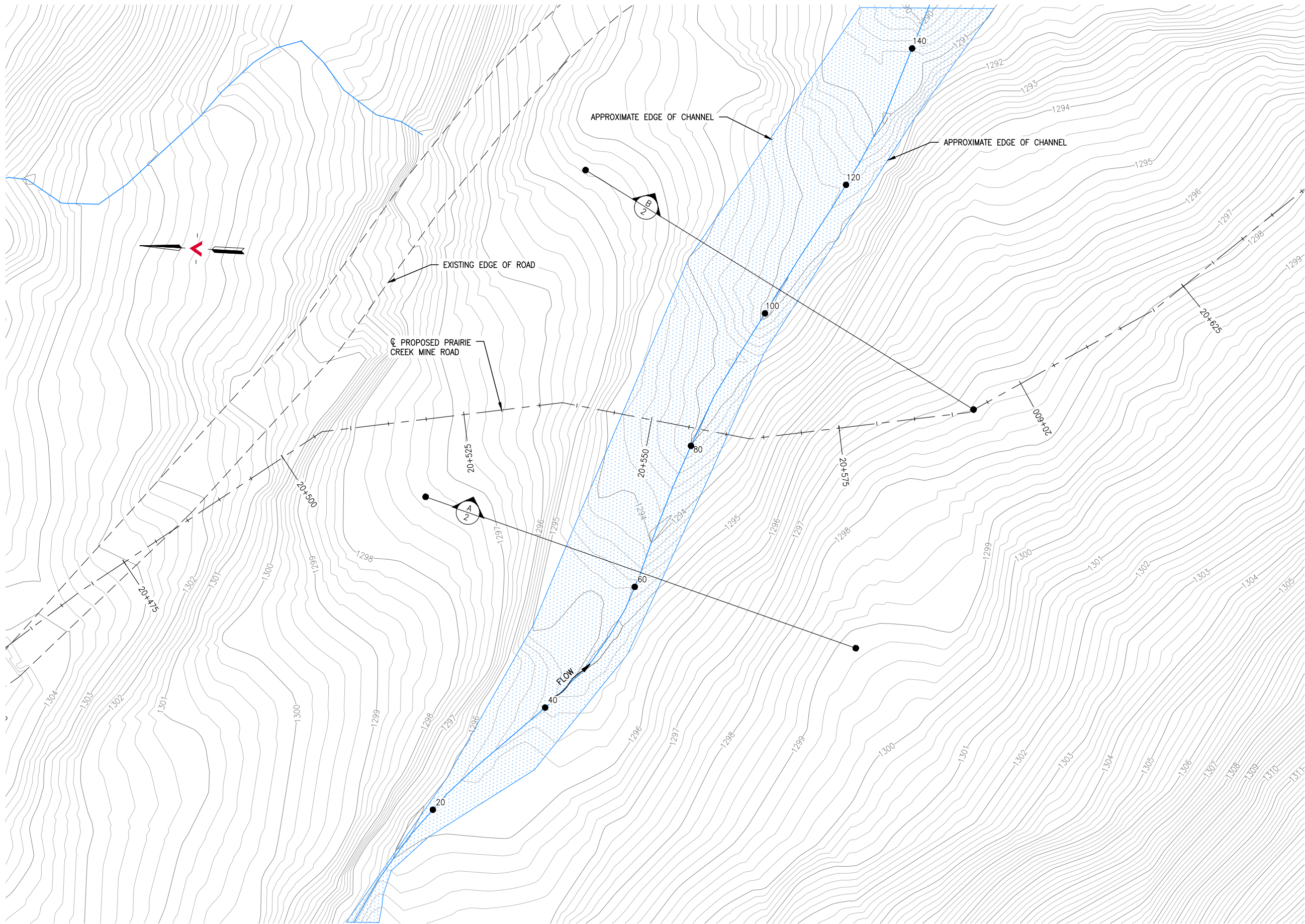
CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/20
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/20
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING  
UPPER SUNDG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 28+330**

**TITLE:**  
**ABUTMENT ELEVATIONS  
AND  
GENERAL NOTES**

DWG NO:	<b>14GP0128-28.3-1960-004</b>	REV:	<b>0</b>
---------	-------------------------------	------	----------

Date: 2014/12/12 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\2000-Drawings\1011-Civil\1-Production\_Site Plans\14GP0128-020-1960-20+380 | Layout: 001 | Paper Size: 558.8mm x 431.8mm



**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
		1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/05	ISSUED FOR REVIEW	IHY	WBM

CLIENT:



CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/17
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/17
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

PROJECT:  
**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 20+550**

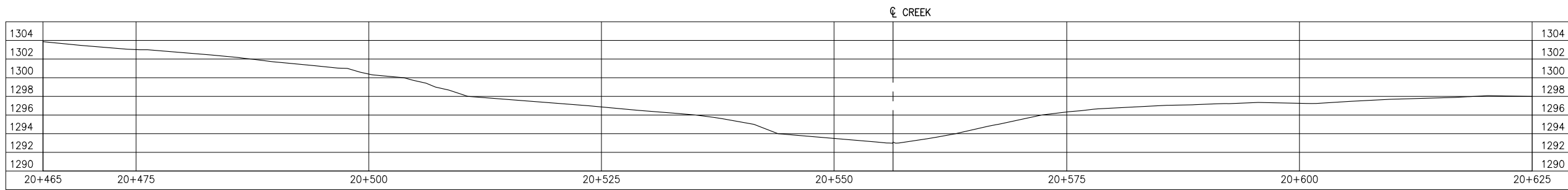
TITLE:  
**SITE PLAN**

DWG NO:	<b>14GP0128-020-1960-001</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

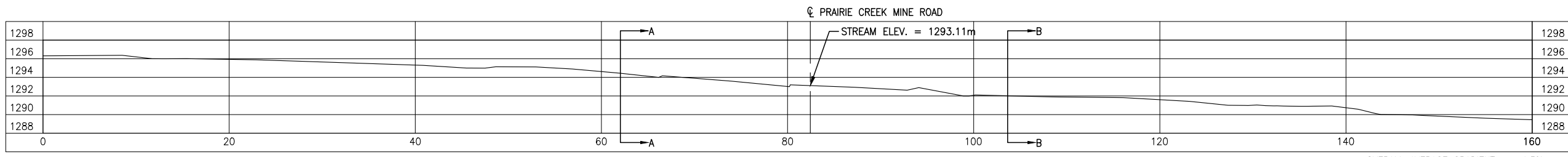
Date: 2014/12/12 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-020-1960\_20+380 | Layout: 002 | Paper Size: 558.8mm x 431.8mm

REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

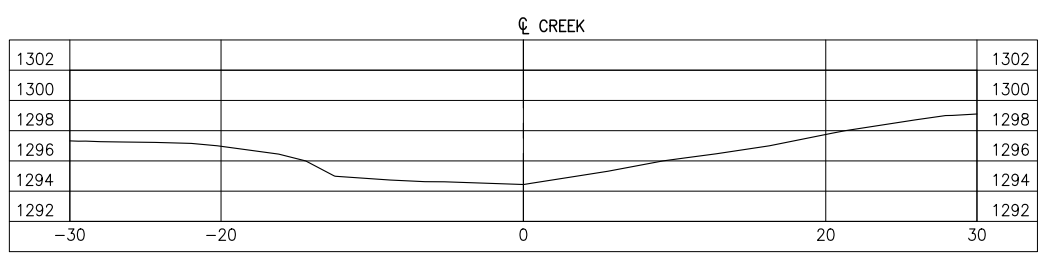


**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:500

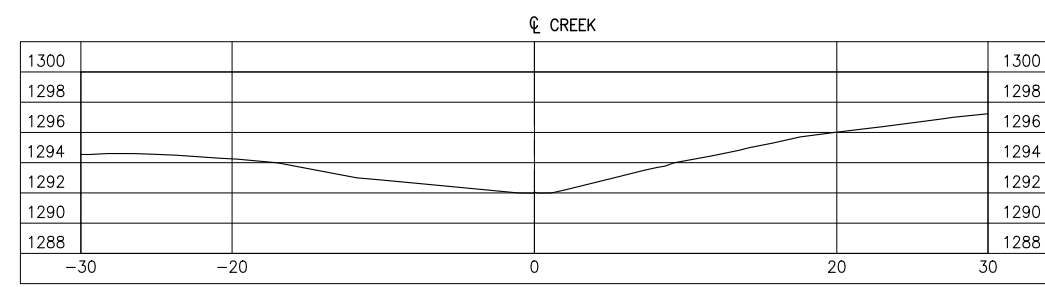


**CREEK PROFILE**  
SCALE: 1:500

OVERALL AVERAGE GRADIENT = -4.3%



**SECTION A**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/05	ISSUED FOR REVIEW	IHY	WBM

CLIENT:



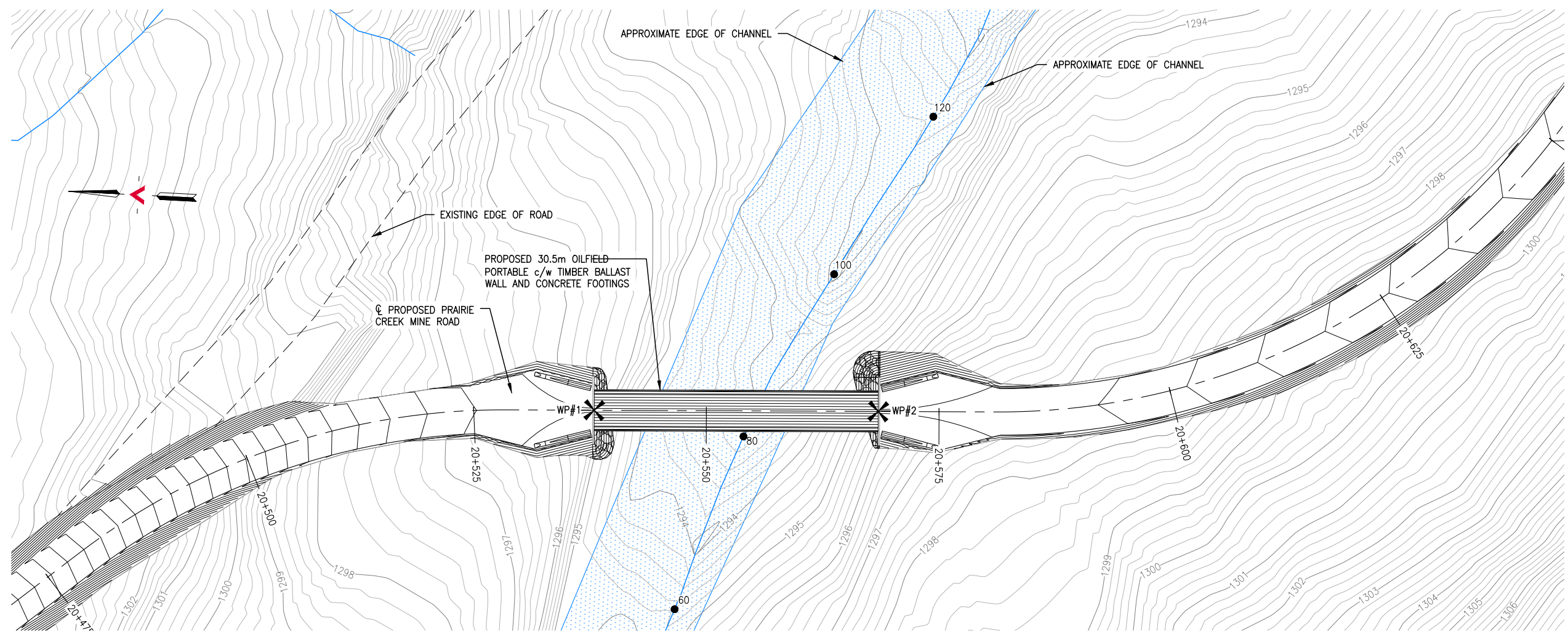
CLIENT NO:	DRWN: TJB	DATE: 14/11/17
PROJECT NO: 14-GP-0128	DSGN: WBM	DATE: 14/11/17
DRAWING SIZE: ANSI "B"	CHKD:	DATE:
SCALE: AS NOTED	APVD:	DATE:

**PROJECT:**  
**STREAM CROSSING UPPER SUNDOG CREEK PRAIRIE CREEK MINE ROAD AT STA. 20+550**

**TITLE:**  
**PROFILES AND SECTION VIEWS**

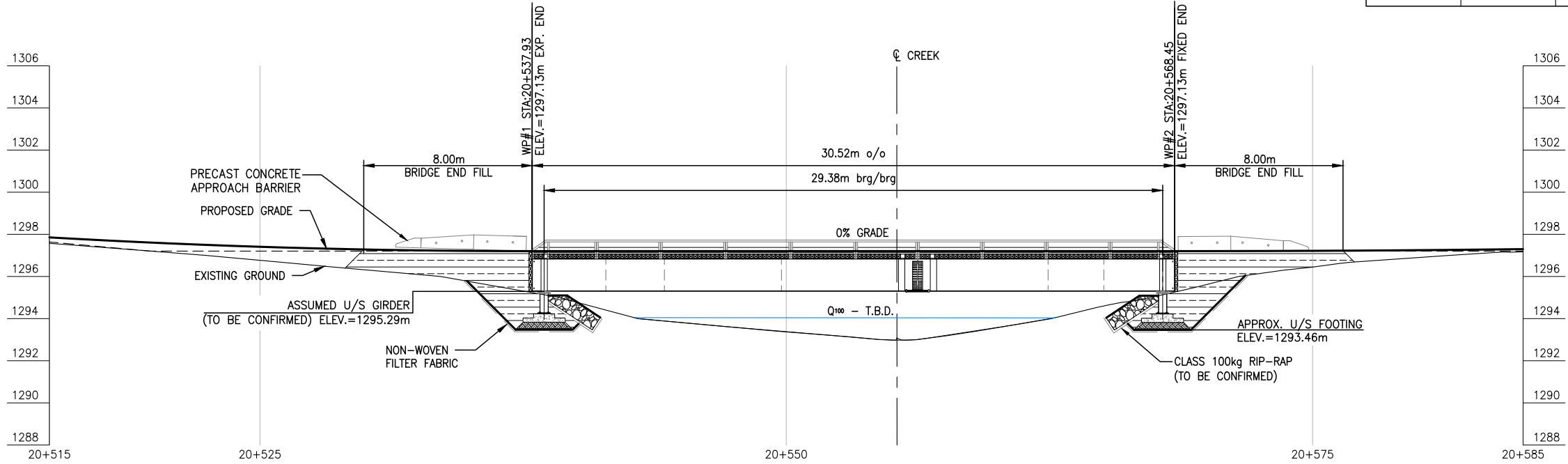
DWG NO:	REV:
<b>14GP0128-020-1960-002</b>	<b>0</b>

Date: 2014/12/16 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-020-1960-20+380 | Layout: 003 | Paper Size: 558.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500

SURVEY CONTROL			
DESCRIPTION	NORTHING	EASTING	ELEVATION
WP#1	6831239.563	414038.327	1297.129
WP#2	6831209.082	414039.795	1297.129



**BRIDGE PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
		1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, in part or in any other or unauthorised manner, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/05	ISSUED FOR REVIEW	IHY	WBM

CLIENT:



CLIENT NO:	DRWN:	IHY	DATE:	14/12/05	
PROJECT NO:	14-GP-0128	DSGN:	WBM	DATE:	14/12/03
DRAWING SIZE:	ANSI "B"	CHKD:		DATE:	
SCALE:	AS NOTED	APVD:		DATE:	

PROJECT:

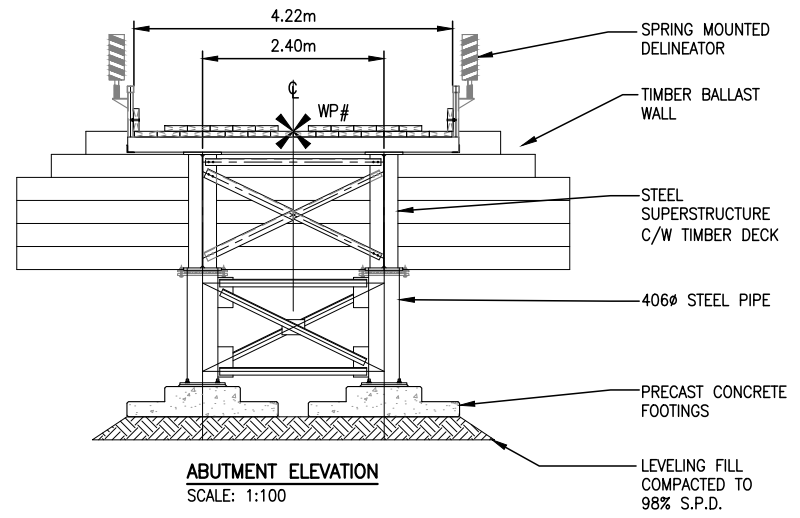
**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 20+550**

TITLE:

**GENERAL ARRANGEMENT  
PLAN, BRIDGE PROFILE, AND  
ABUTMENT DETAIL**

DWG NO:	14GP0128-020-1960-003	REV:	0
---------	-----------------------	------	---

Date: 2014/12/12 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-020-1960\_20+580 | Layout: 004 | Paper Size: 558.8mm x 431.8mm

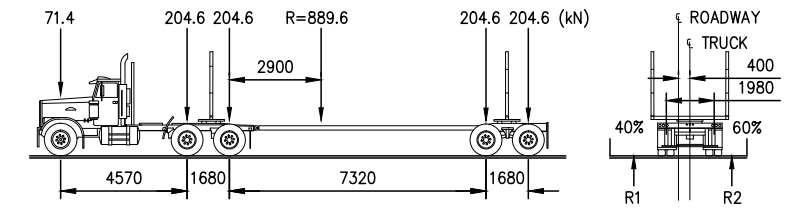


**ABUTMENT ELEVATION**  
SCALE: 1:100

**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. BRIDGE STRUCTURE SHOWN ON GENERAL ARRANGEMENT PLAN AS MANUFACTURED BY RAPID-SPAN STRUCTURES LTD.
3. RIPRAP SHALL EXTEND AROUND ABUTMENTS AS SHOWN ON THE PLAN.
4. NO SITE SPECIFIC GEOTECHNICAL INVESTIGATION HAS BEEN COMPLETED AT THE SITE TO DATE. THEREFORE, THIS CONCEPTUAL DESIGN HAS BEEN PREPARED WITHOUT THE BENEFIT OF GEOTECHNICAL ADVICE. GROUND CONDITIONS MAY VARY AND THE FOUNDATION CONCEPT MAY NEED TO BE MODIFIED TO ACCOMMODATE ACTUAL SITE CONDITIONS.
5. BACK FILL OF APPROACHES SHALL GENERALLY CONFORM TO THE LINES SHOWN ON THE DRAWINGS AND SHALL BE PLACED IN LIFTS NOT EXCEEDING 305mm THICK, COMPACTED TO 95% STANDARD PROCTOR DENSITY. MATERIAL SHALL BE NON-FROZEN, CLEAN, FREE DRAINING, WELL GRADED GRANULAR FILL OF 75mm MAXIMUM SIZE. USE LIGHT MECHANICAL TAMPERS ONLY.
6. CONSTRUCTION SHALL BE CARRIED OUT IN SUCH A MANNER AS TO ENSURE WATER QUALITY IS MAINTAINED BY KEEPING SOIL EROSION AND RUN-OFF TO A MINIMUM DURING INCLEMENT WEATHER AND BY TAKING MEASURES TO PREVENT SEDIMENTATION, LEACHATE, AND CONSTRUCTION MATERIALS FROM ENTERING THE STREAM.
7. OPERATE MACHINERY IN A MANNER THAT MINIMIZES DISTURBANCE TO THE BANKS OF THE WATERCOURSE. MACHINERY IS TO ARRIVE ON SITE IN CLEAN CONDITION AND IS TO BE MAINTAINED FREE OF FLUID LEAKS. REFUEL AND SERVICE MACHINERY AT MINIMUM 100m AWAY FROM THE WATERCOURSE. ENSURE EMERGENCY SPILL KIT IS ON SITE IN CASE OF FLUID LEAKS OR SPILLS FROM MACHINERY.
8. ALL EXPOSED MINERAL SOILS MUST BE SEEDED USING AN APPROVED RECLAMATION GRASS SEED MIXTURE AND COVERED WITH AN APPROVED EROSION CONTROL BLANKET.
9. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
10. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.
11. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK. INSTALLATION OF WORKS TO COMPLY WITH BEST MANAGEMENT PRACTICES.
12. DESIGN SPEED OF APPROACH ROAD SHOWN IS 30 km/hr. LOCAL CHAINAGE SHOWN RELATIVE TO APPROXIMATE CENTRE OF STREAM.
13. STRUCTURE DESIGN SHALL BE COMPLETED IN ACCORDANCE WITH CAN/CSA-S6-06 CANADIAN HIGHWAY BRIDGE DESIGN CODE, WITH VARIATIONS IN THE DESIGN LOADING VEHICLE TO MEET ANTICIPATED VEHICLE LOADING.

**LOADING DIAGRAM L-100 OFF HIGHWAY G.V.W. = 90 680kg;  
DESIGN IN ACCORDANCE WITH CAN/CSA-S6-06 WITH MODIFIED LOADING AS FOLLOWS:**



REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/05	ISSUED FOR REVIEW	IHY	WBM



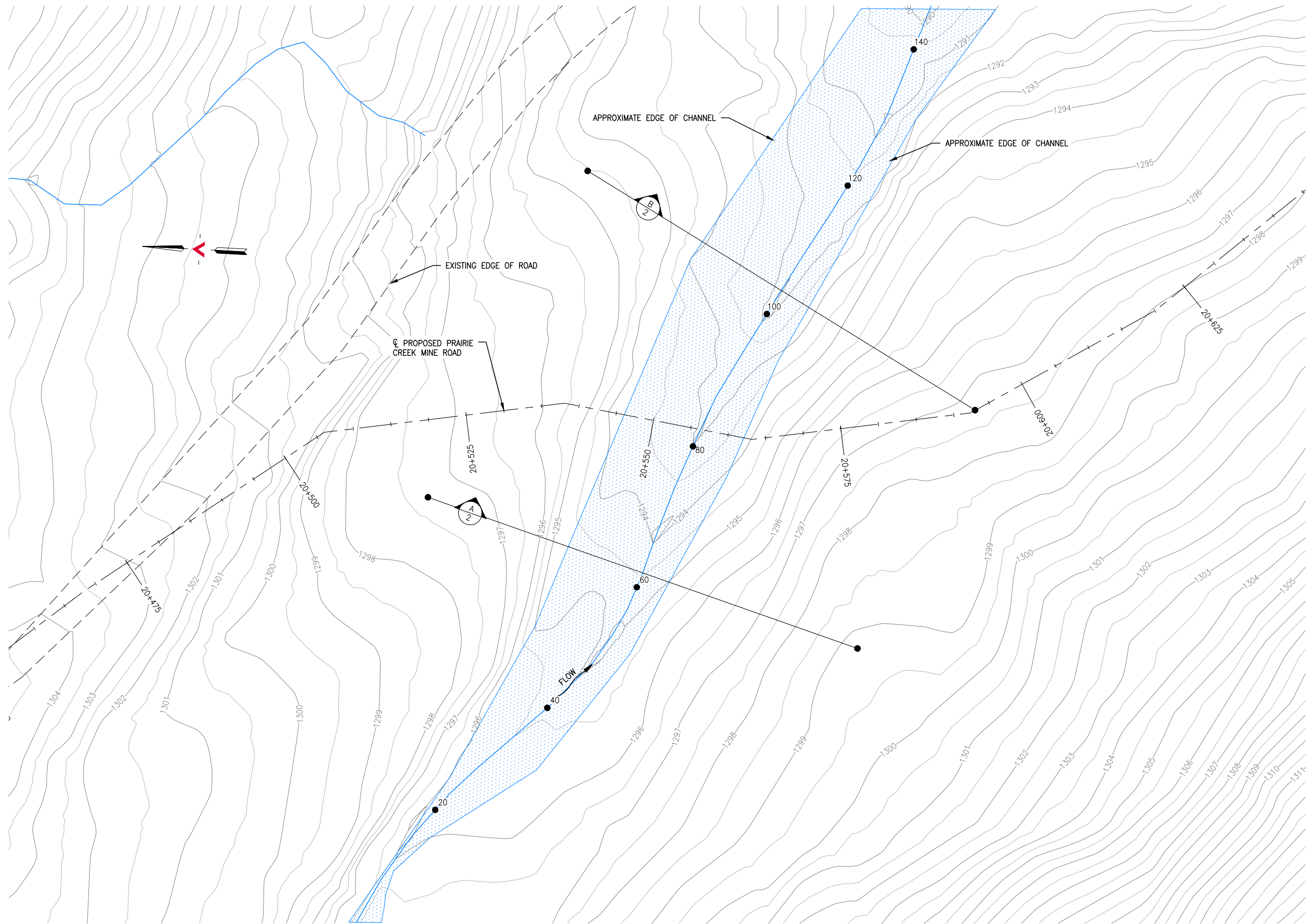
CLIENT NO:	DRWN:	IHY	DATE:	14/12/05	
PROJECT NO:	14-GP-0128	DSGN:	WBM	DATE:	14/12/03
DRAWING SIZE:	ANSI "B"	CHKD:		DATE:	
SCALE:	AS NOTED	APVD:		DATE:	

**PROJECT:**  
**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 20+550**

**TITLE:**  
**ABUTMENT DETAIL AND  
NOTES**

DWG NO:	<b>14GP0128-020-1960-004</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2015/01/21 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc-PrairieCreekMine\2000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-020-1960-20+380-Option 2 | Layout: 001 | Paper Size: 558.8mm x 431.8mm



**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2015/01/14	ISSUED FOR REVIEW	TJB	WBM



CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/17
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/17
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

PROJECT:  
**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 20+550  
OPTION 2**

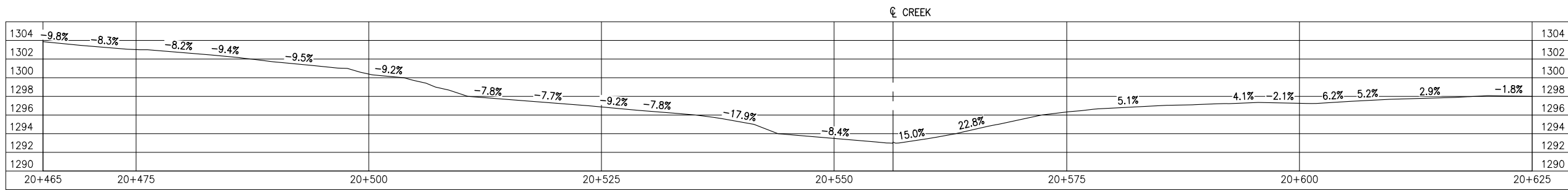
TITLE:  
**SITE PLAN**

DWG NO:	<b>14GP0128-020-1960-001</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

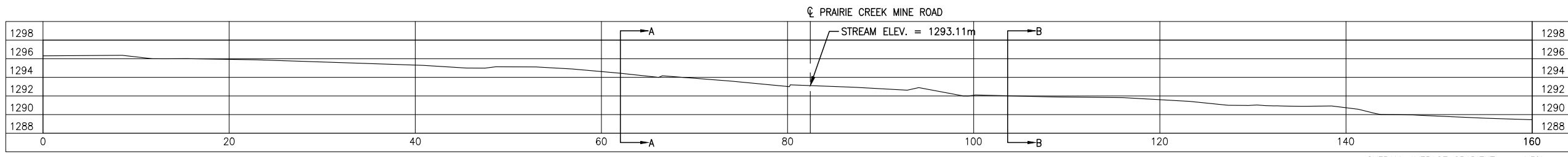
Date: 2015/01/21 | User: Tammy Beer | File: P:\GP\_2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-020-1960\_20+380\_Option 2 | Layout: 002 | Paper Size: 558.8mm x 431.8mm

REFERENCE DRAWINGS

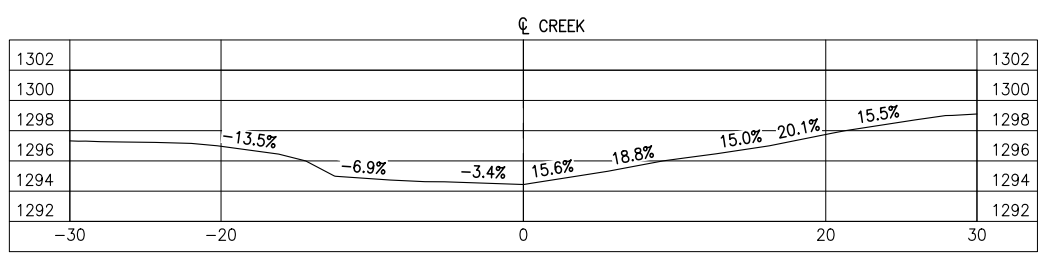
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1



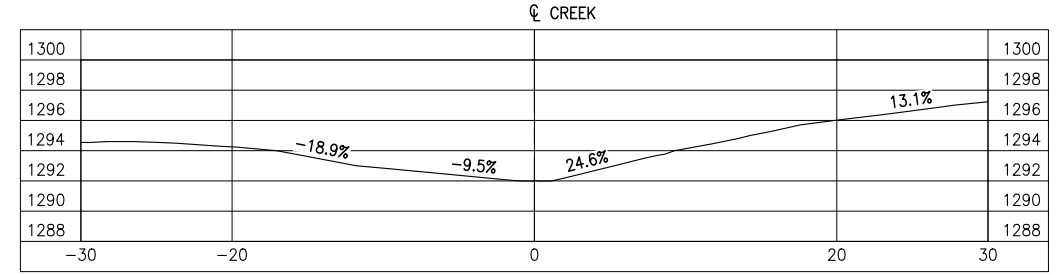
**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:500



**CREEK PROFILE**  
SCALE: 1:500



**SECTION A**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated or communicated to any unauthorized person, or used in any other unauthorized manner, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2015/01/14	ISSUED FOR REVIEW	TJB	WBM



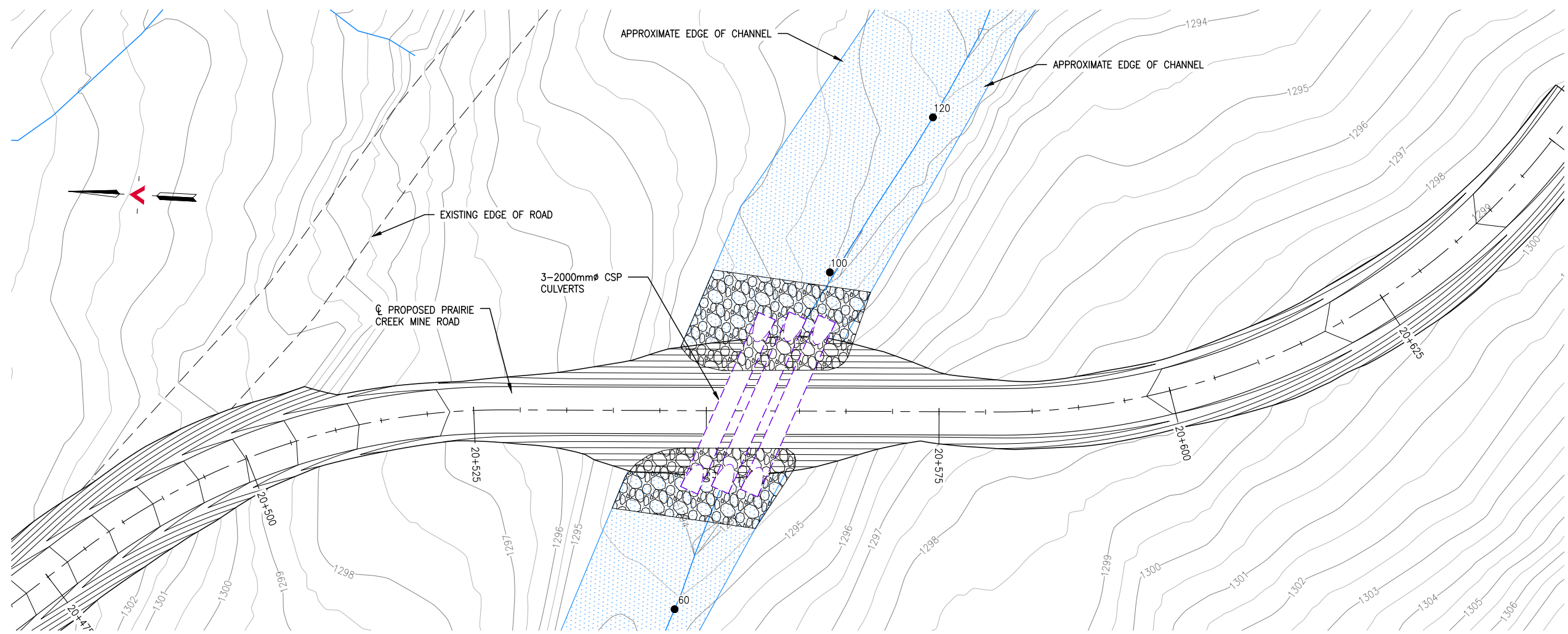
CLIENT NO:	DRWN:	TJB	DATE:	14/11/17	
PROJECT NO:	14-GP-0128	DSGN:	WBM	DATE:	14/11/17
DRAWING SIZE:	ANSI "B"	CHKD:		DATE:	
SCALE:	AS NOTED	APVD:		DATE:	

**PROJECT:**  
**STREAM CROSSING**  
**UPPER SUNDOG CREEK**  
**PRAIRIE CREEK MINE ROAD**  
**AT STA. 20+550**  
**OPTION 2**

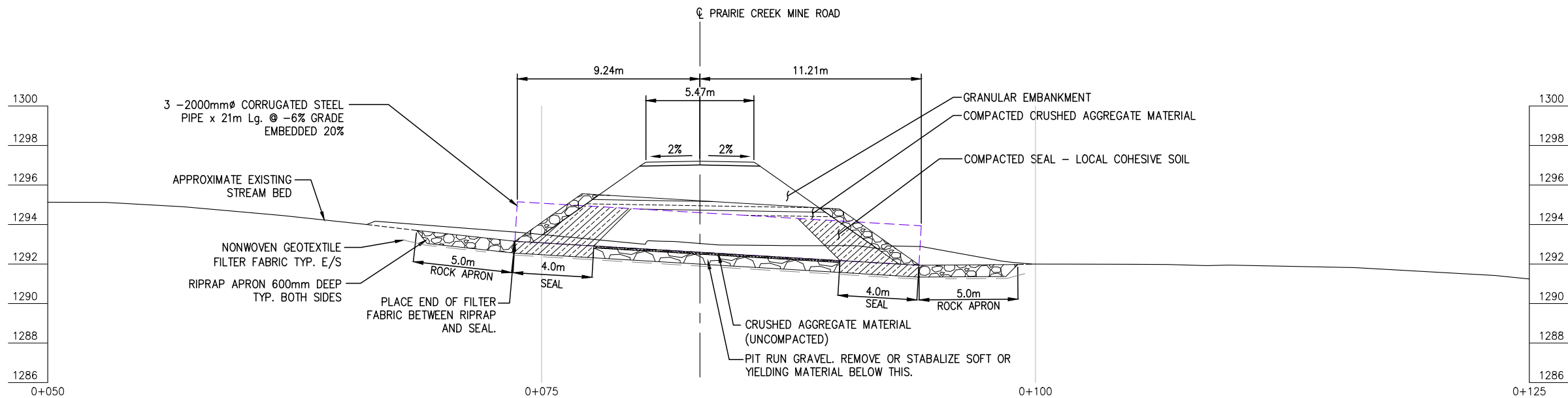
**TITLE:**  
**PROFILES**  
**AND**  
**SECTION VIEWS**

DWG NO:	14GP0128-020-1960-002	REV:	0
---------	-----------------------	------	---

Date: 2015/01/21 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\1-Production\_Site Plans\14GP0128-020-1960\_20+380\_Option 2 | Layout: 003 | Paper Size: 558.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500



**CULVERT PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner, in whole or in part, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2015/01/14	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



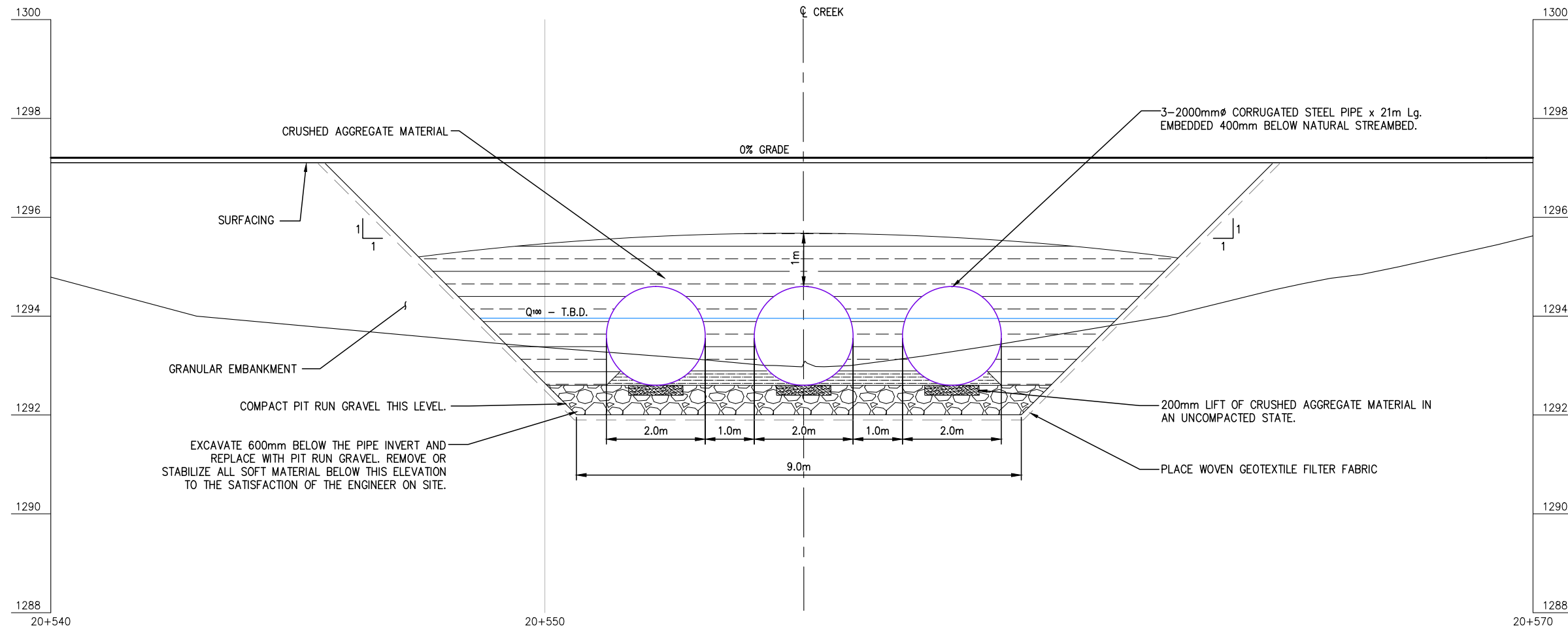
CLIENT NO:	DRWN:	TJB	DATE:	15/01/13	
PROJECT NO:	14-GP-0128	DSGN:	WBM	DATE:	15/01/13
DRAWING SIZE:	ANSI "B"	CHKD:		DATE:	
SCALE:	AS NOTED	APVD:		DATE:	

PROJECT:  
**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 20+550  
OPTION 2**

TITLE:  
**GENERAL ARRANGEMENT PLAN  
AND  
CULVERT PROFILE**

DWG NO:	<b>14GP0128-020-1960-003</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2015/01/21 | User: Tammy Beer | File: P:\GP\_2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\Production\_Site Plans\14GP0128-020-1960\_20+380\_Option 2 | Layout: 004 | Paper Size: 558.8mm x 431.8mm



**CULVERT ELEVATION**  
SCALE: 1:100

**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. 3-2000mmØ x 21m Lg. @ 24° SKEW CULVERT OR APPROVED EQUAL WALL THICKNESS TO BE SPECIFIED BY CULVERT SUPPLIER.
3. RIPRAP SHALL EXTEND AROUND CULVERT INLET AND OUTLET AS SHOWN ON THE PLAN.
4. FOUNDATION, BEDDING, AND BACKFILL MATERIAL SHALL BE WELL GRADED AND FREE DRAINING AS APPROVED BY THE ENGINEER. IT SHALL NOT CONTAIN FROZEN SOIL, CHUNKS OF CLAY, OR ANY OTHER DELETERIOUS MATERIAL WITHIN 1000mm OF THE STRUCTURE.
5. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
6. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK.
7. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.

REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2015/01/14	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



CLIENT NO:	DRWN:	TJB	DATE:	15/01/13	
PROJECT NO:	14-GP-0128	DSGN:	WBM	DATE:	15/01/13
DRAWING SIZE:	ANSI "B"	CHKD:		DATE:	
SCALE:	AS NOTED	APVD:		DATE:	

PROJECT:

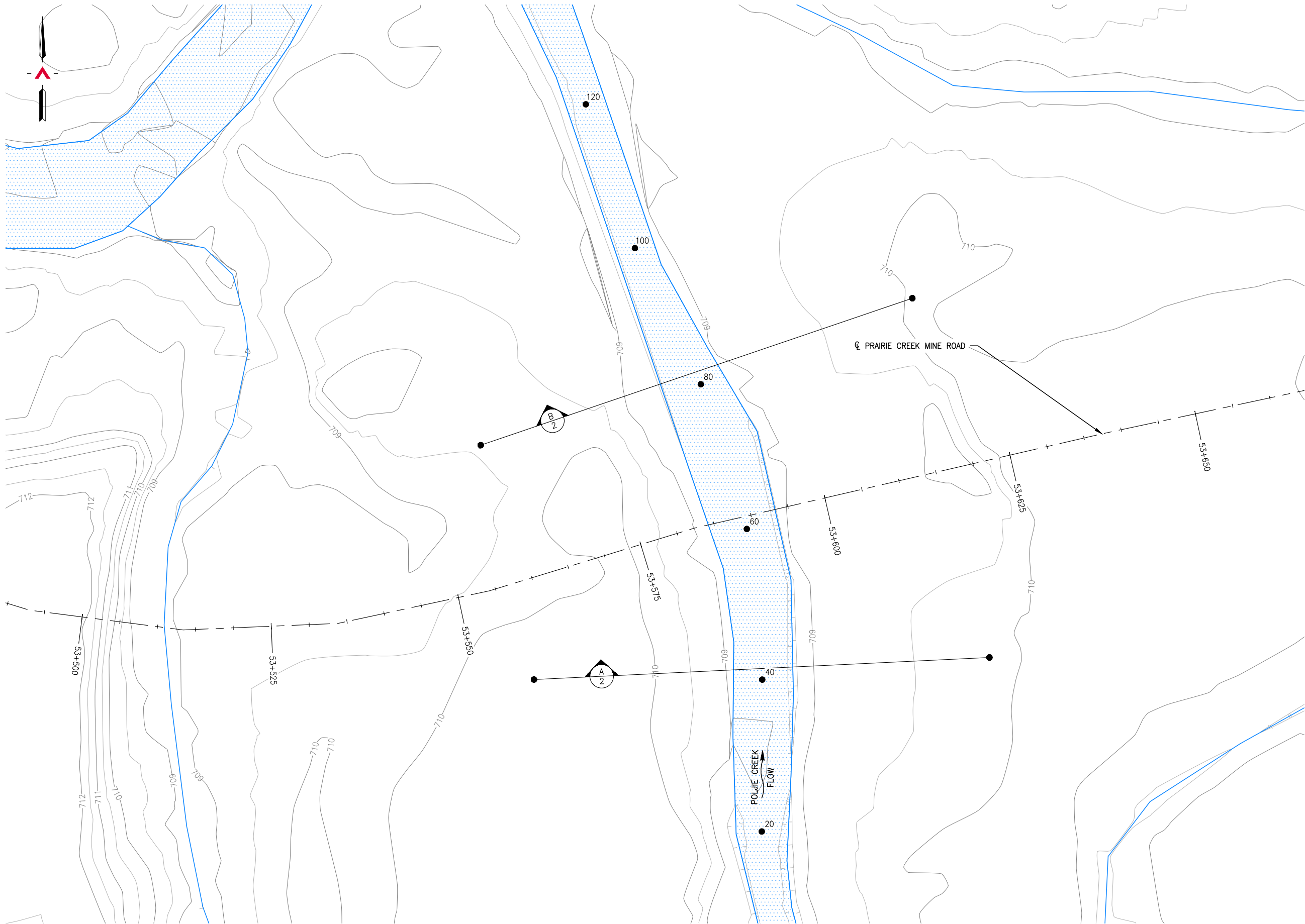
**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 20+550  
OPTION 2**

TITLE:

**CULVERT ELEVATION  
AND  
NOTES**

DWG NO:	14GP0128-020-1960-004	REV:	0
---------	-----------------------	------	---

Date: 2014/12/19 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\BoxA\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-053-1960-53+500 | Layout: 001 | Paper Size: 558.8mm x 431.8mm



**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/19	ISSUED FOR REVIEW	TJB	WBM



CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/19
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/19
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**

**STREAM CROSSING  
POLJIE CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA.53+500**

TITLE:

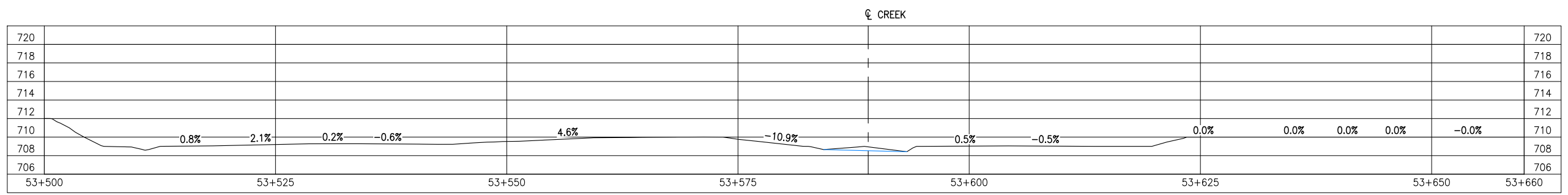
**SITE PLAN**

DWG NO:	<b>14GP0128-053-1960-001</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

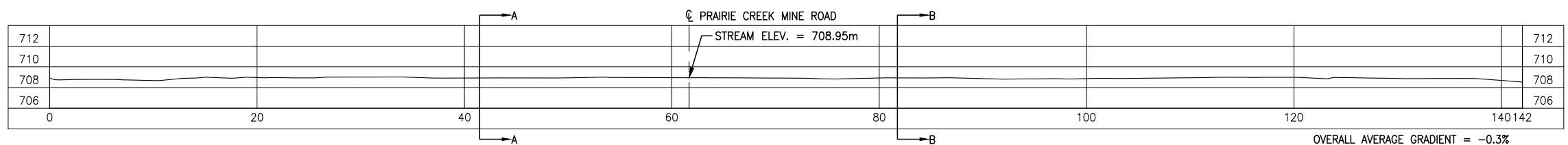
Date: 2014/12/19 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-053-1960-53+500 | Layout: 002 | Paper Size: 558.8mm x 431.8mm

REFERENCE DRAWINGS

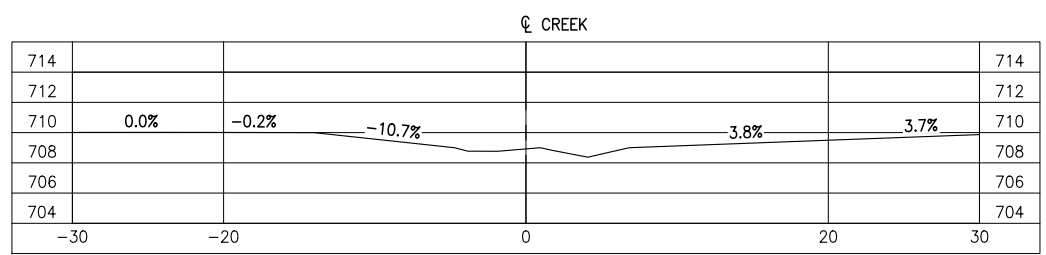
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1



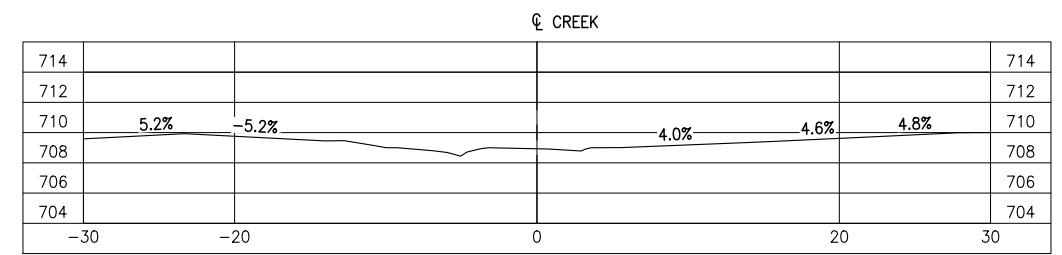
GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT  
SCALE: 1:500



CREEK PROFILE  
SCALE: 1:500



SECTION A  
SCALE: 1:500



SECTION B  
SCALE: 1:500

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/19	ISSUED FOR REVIEW	TJB	WBM



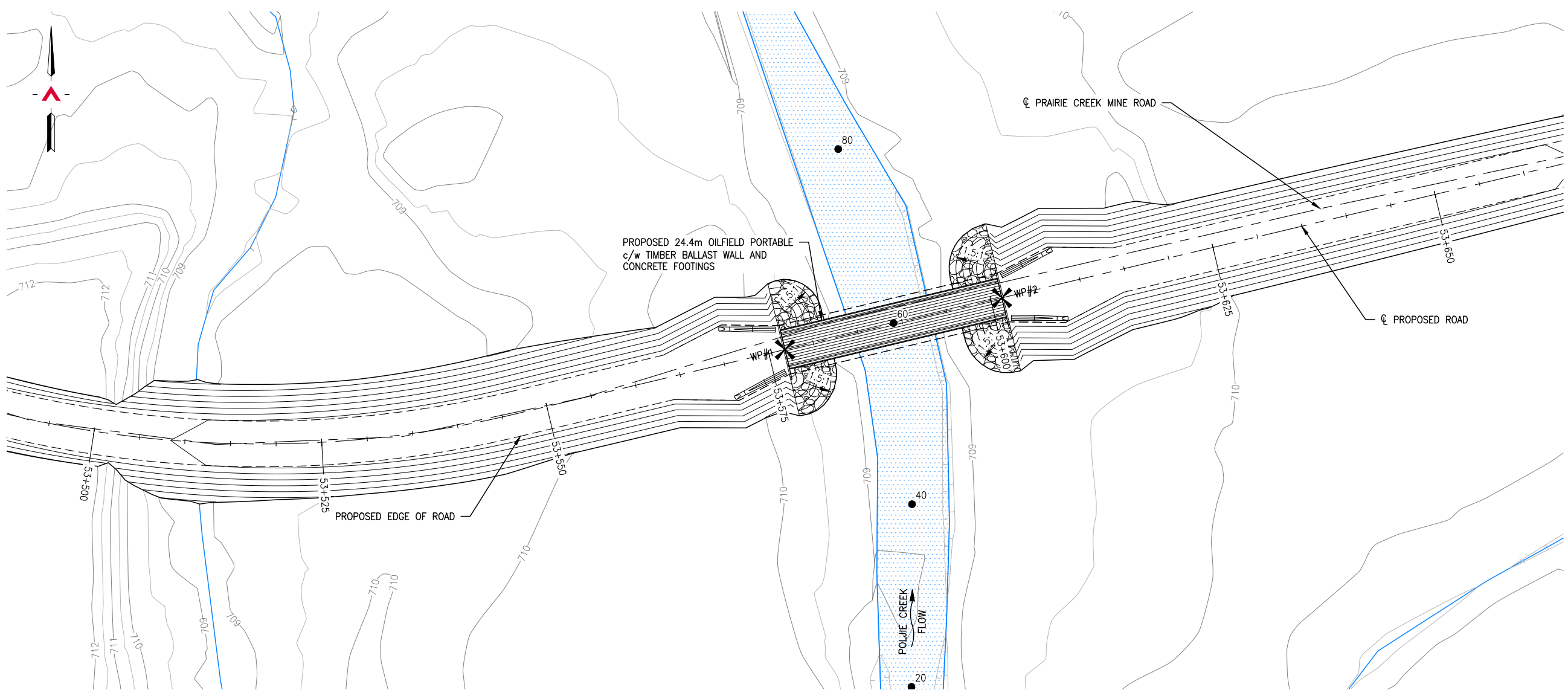
CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/19
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/19
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING**  
**POLJIE CREEK**  
**PRAIRIE CREEK MINE ROAD**  
**AT STA.53+500**

**TITLE:**  
**PROFILES**  
**AND**  
**SECTION VIEWS**

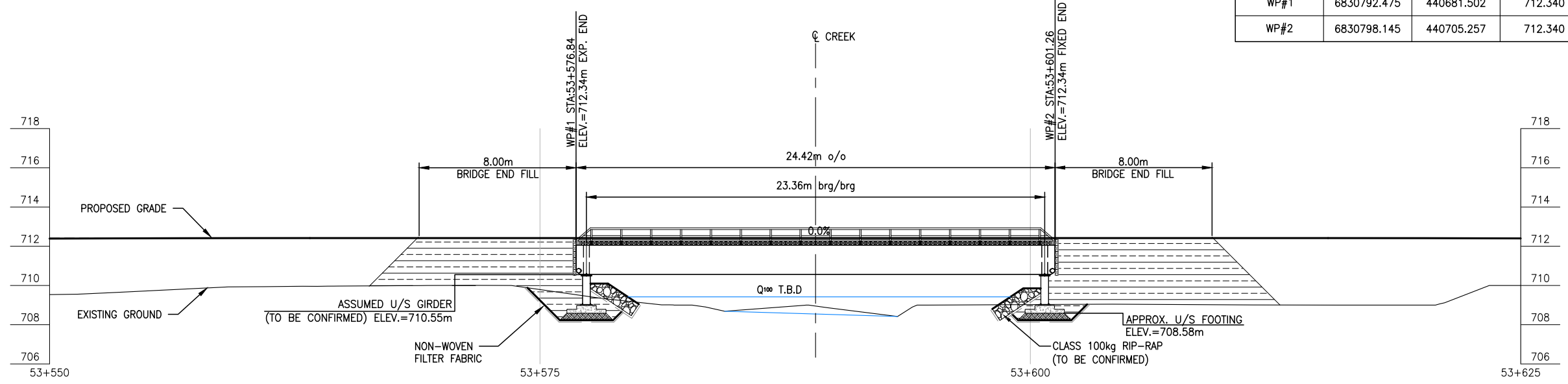
DWG NO:	<b>14GP0128-053-1960-002</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2015/01/06 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc-PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-053-1960-53+500R1 | Layout: 003 | Paper Size: 598.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500

SURVEY CONTROL			
DESCRIPTION	NORTHING	EASTING	ELEVATION
WP#1	6830792.475	440681.502	712.340
WP#2	6830798.145	440705.257	712.340



**BRIDGE PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
1	15/01/06	ISSUED FOR REVIEW	TJB	WBM
0	14/12/19	ISSUED FOR REVIEW	TJB	WBM



CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/19
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/19
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING**  
**POLJIE CREEK**  
**PRAIRIE CREEK MINE ROAD**  
**AT STA.53+500**

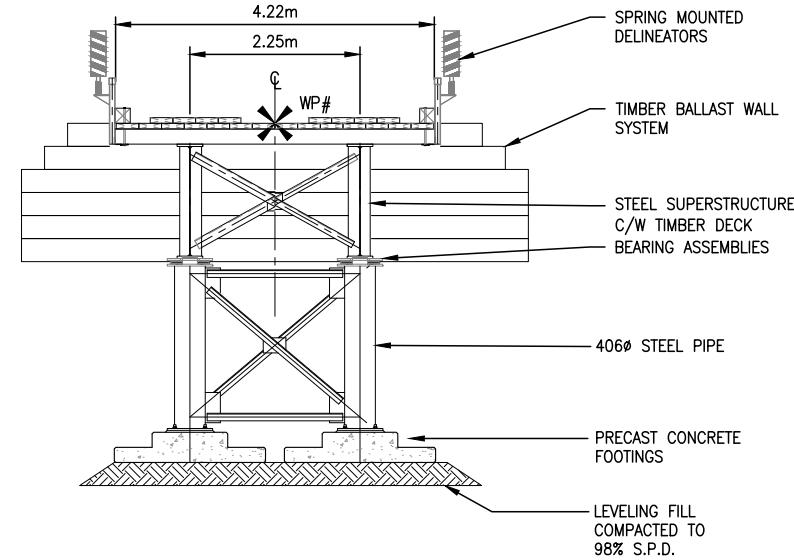
**TITLE:**  
**GENERAL ARRANGEMENT PLAN**  
**AND**  
**BRIDGE PROFILE**

DWG NO:	<b>14GP0128-053-1960-003</b>	REV:	<b>1</b>
---------	------------------------------	------	----------

Date: 2015/01/06 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-053-1960-53+500R1 | Layout: 004 | Paper Size: 558.8mm x 431.8mm

REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

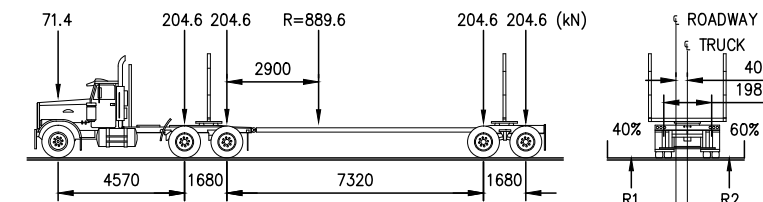


**ABUTMENT ELEVATION**  
SCALE: 1:100

**NOTES:**

- THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
- BRIDGE STRUCTURE SHOWN ON GENERAL ARRANGEMENT PLAN AS MANUFACTURED BY RAPID-SPAN STRUCTURES LTD.
- RIPRAP SHALL EXTEND AROUND ABUTMENTS AS SHOWN ON THE PLAN.
- NO SITE SPECIFIC GEOTECHNICAL INVESTIGATION HAS BEEN COMPLETED AT THE SITE TO DATE. THEREFORE, THIS CONCEPTUAL DESIGN HAS BEEN PREPARED WITHOUT THE BENEFIT OF GEOTECHNICAL ADVICE. GROUND CONDITIONS MAY VARY AND THE FOUNDATION CONCEPT MAY NEED TO BE MODIFIED TO ACCOMMODATE ACTUAL SITE CONDITIONS.
- BACK FILL OF APPROACHES SHALL GENERALLY CONFORM TO THE LINES SHOWN ON THE DRAWINGS AND SHALL BE PLACED IN LIFTS NOT EXCEEDING 305mm THICK, COMPACTED TO 95% STANDARD PROCTOR DENSITY. MATERIAL SHALL BE NON-FROZEN, CLEAN, FREE DRAINING, WELL GRADED GRANULAR FILL OF 75mm MAXIMUM SIZE. USE LIGHT MECHANICAL TAMPERS ONLY.
- CONSTRUCTION SHALL BE CARRIED OUT IN SUCH A MANNER AS TO ENSURE WATER QUALITY IS MAINTAINED BY KEEPING SOIL EROSION AND RUN-OFF TO A MINIMUM DURING INCLEMENT WEATHER AND BY TAKING MEASURES TO PREVENT SEDIMENTATION, LEACHATE, AND CONSTRUCTION MATERIALS FROM ENTERING THE STREAM.
- OPERATE MACHINERY IN A MANNER THAT MINIMIZES DISTURBANCE TO THE BANKS OF THE WATERCOURSE. MACHINERY IS TO ARRIVE ON SITE IN CLEAN CONDITION AND IS TO BE MAINTAINED FREE OF FLUID LEAKS. REFUEL AND SERVICE MACHINERY AT MINIMUM 100m AWAY FROM THE WATERCOURSE. ENSURE EMERGENCY SPILL KIT IS ON SITE IN CASE OF FLUID LEAKS OR SPILLS FROM MACHINERY.
- ALL EXPOSED MINERAL SOILS MUST BE SEEDED USING AN APPROVED RECLAMATION GRASS SEED MIXTURE AND COVERED WITH AN APPROVED EROSION CONTROL BLANKET.
- MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
- ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.
- ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK. INSTALLATION OF WORKS TO COMPLY WITH BEST MANAGEMENT PRACTICES.
- DESIGN SPEED OF APPROACH ROAD SHOWN IS 30 km/hr. LOCAL CHAINAGE SHOWN RELATIVE TO APPROXIMATE CENTRE OF STREAM.
- STRUCTURE DESIGN SHALL BE COMPLETED IN ACCORDANCE WITH CAN/CSA-S6-06 CANADIAN HIGHWAY BRIDGE DESIGN CODE, WITH VARIATIONS IN THE DESIGN LOADING VEHICLE TO MEET ANTICIPATED VEHICLE LOADING.

LOADING DIAGRAM L-100 OFF HIGHWAY G.V.W. = 90 680kg;  
DESIGN IN ACCORDANCE WITH CAN/CSA-S6-06 WITH MODIFIED LOADING AS FOLLOWS:



Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, in any form or by any means, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
1	15/01/06	ISSUED FOR REVIEW	TJB	WBM
0	14/12/19	ISSUED FOR REVIEW	TJB	WBM

CLIENT:

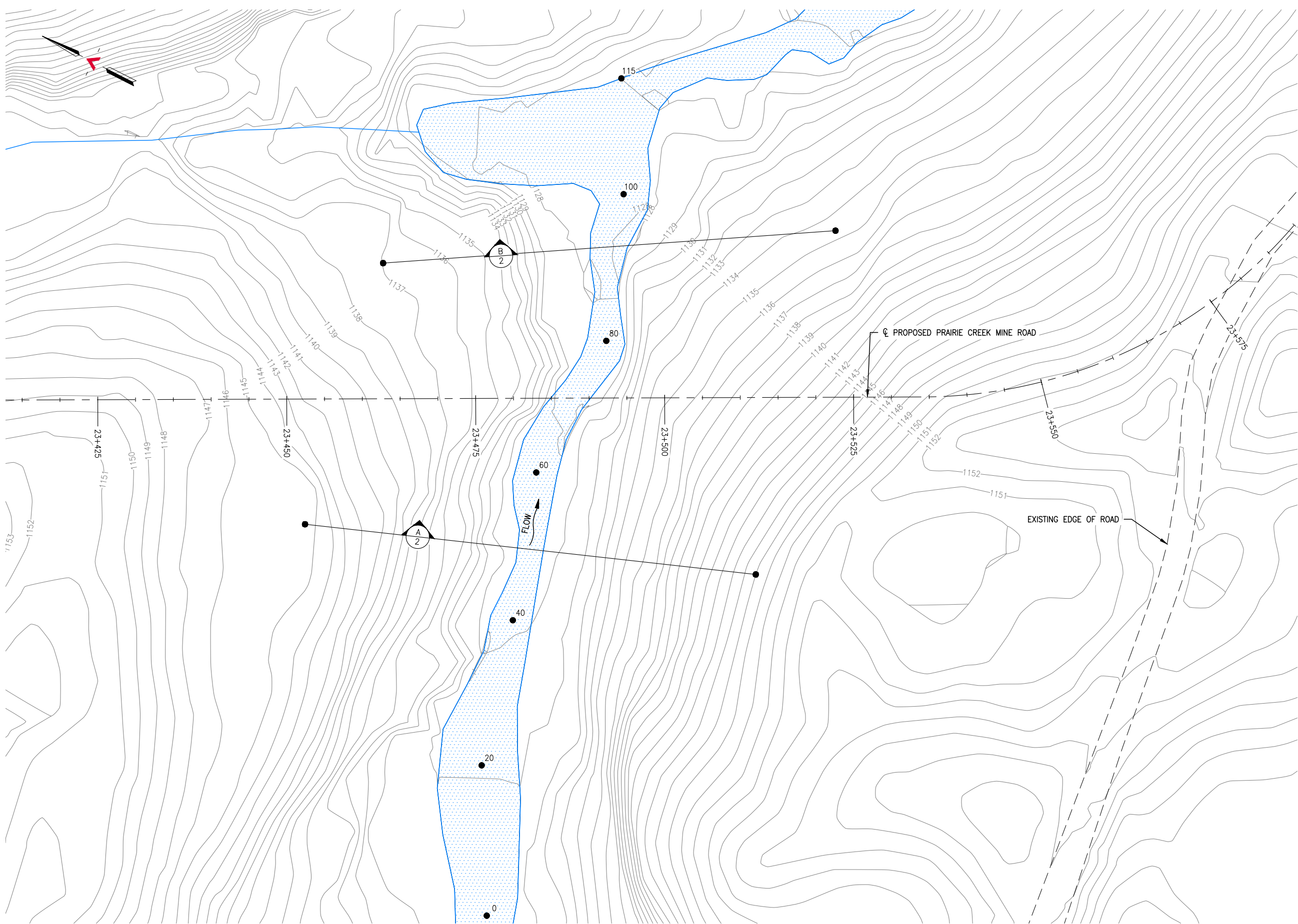
CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/19
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/19
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

PROJECT:  
**STREAM CROSSING  
POLJIE CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA.53+500**

TITLE:  
**ABUTMENT ELEVATIONS  
AND  
GENERAL NOTES**

DWG NO:	<b>14GP0128-053-1960-004</b>	REV:	<b>1</b>
---------	------------------------------	------	----------

Date: 2014/12/18 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadaZinc\PrairieCreekMine\2014-10014-GP-0128-1960-23+000\_Layout: 001 | Paper Size: 598mm x 431.8mm



**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
		1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other or unauthorised manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/29	ISSUED FOR REVIEW	TJB	WBM



CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/29
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/29
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**

**STREAM CROSSING  
UPPER SUNDGOG  
PRAIRIE CREEK MINE ROAD  
AT STA. 23+500**

TITLE:

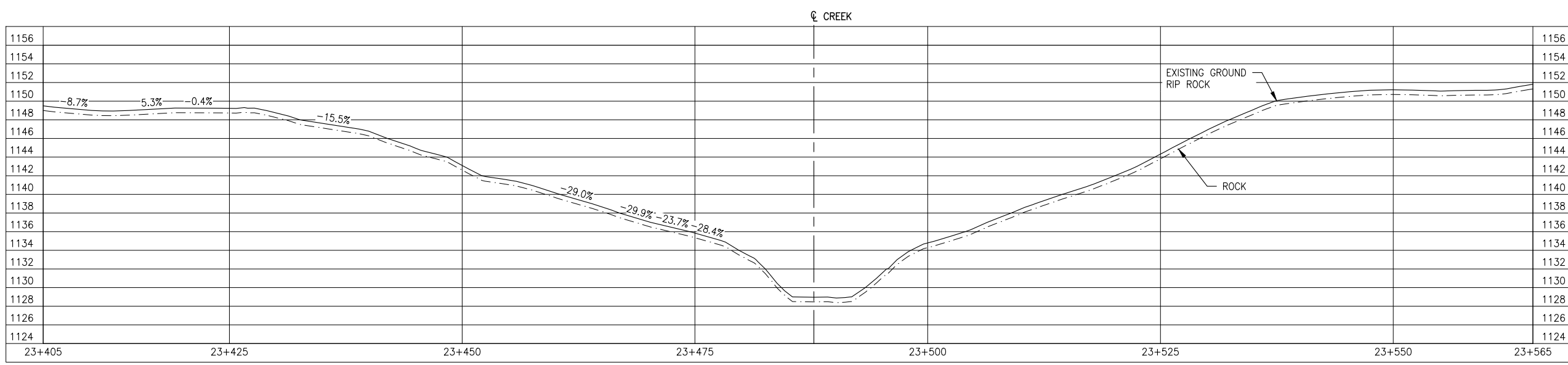
**SITE PLAN**

DWG NO:	<b>14GP0128-023-1960-001</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

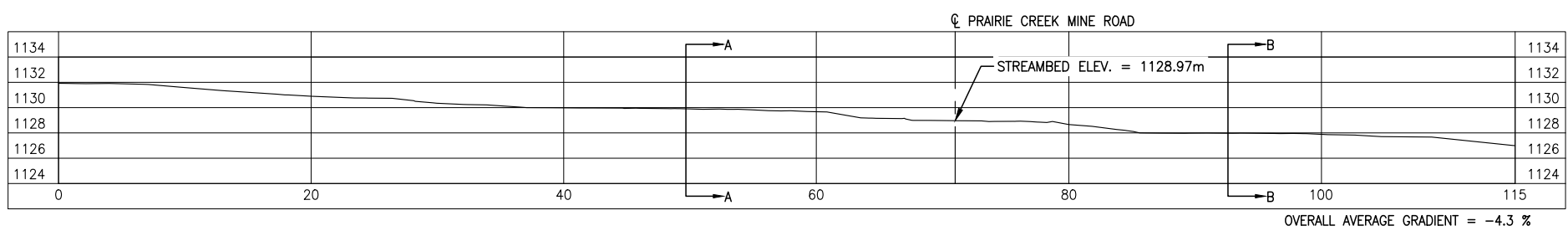
Date: 2014/12/18 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-023-1960-23+000 | Layout: 002 | Paper Size: 558.8mm x 431.8mm

REFERENCE DRAWINGS

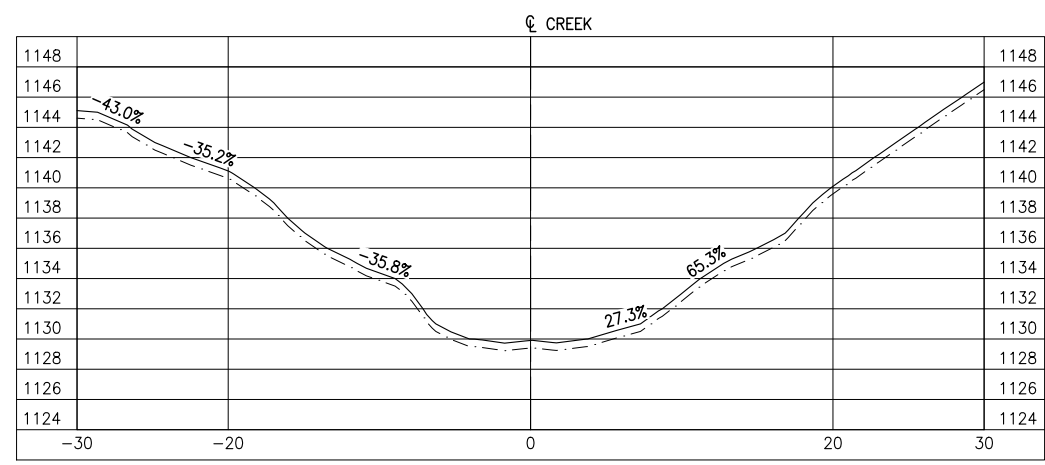
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1



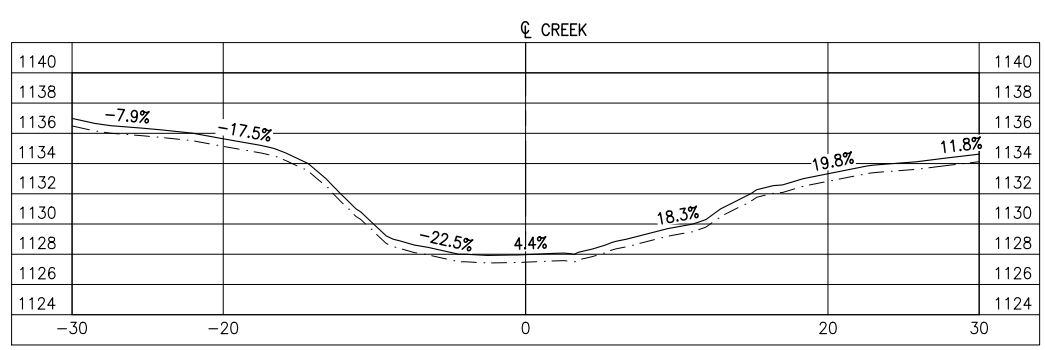
**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:1000



**CREEK PROFILE**  
SCALE: 1:500



**SECTION A**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/29	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



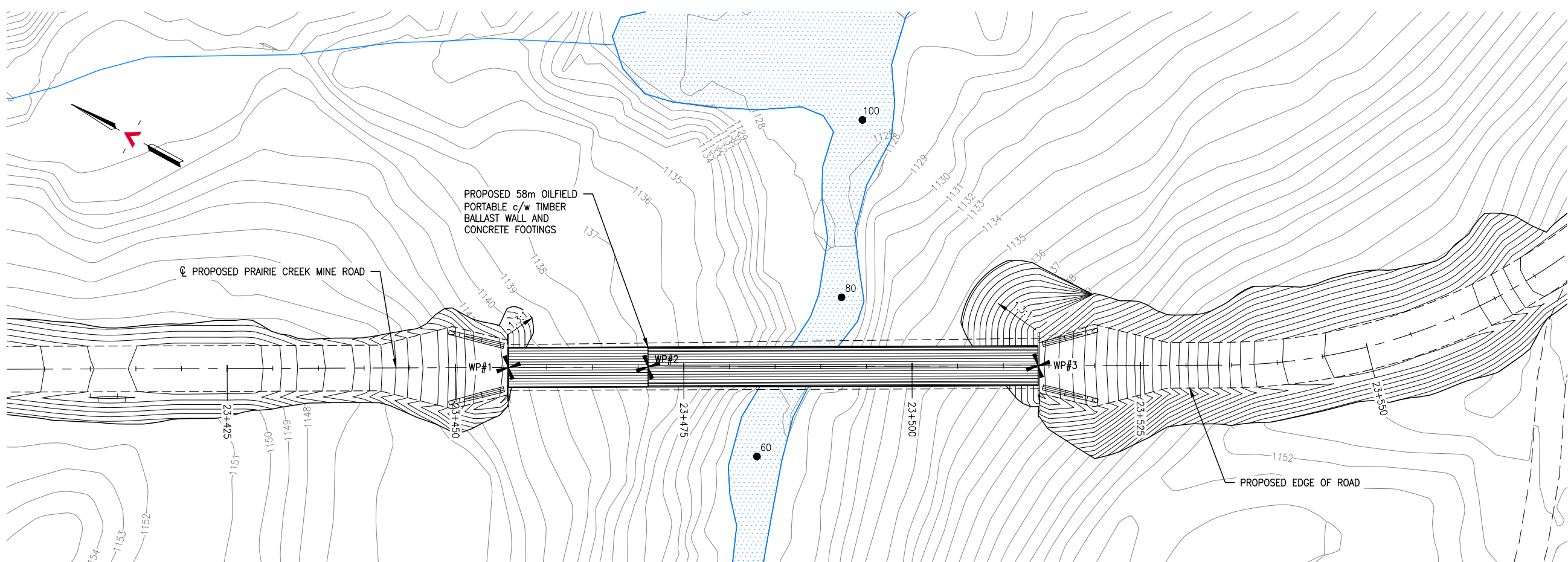
CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/29
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/29
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING**  
**UPPER SUNDOG**  
**PRAIRIE CREEK MINE ROAD**  
**AT STA. 23+500**

**TITLE:**  
**PROFILES**  
**AND**  
**SECTION VIEWS**

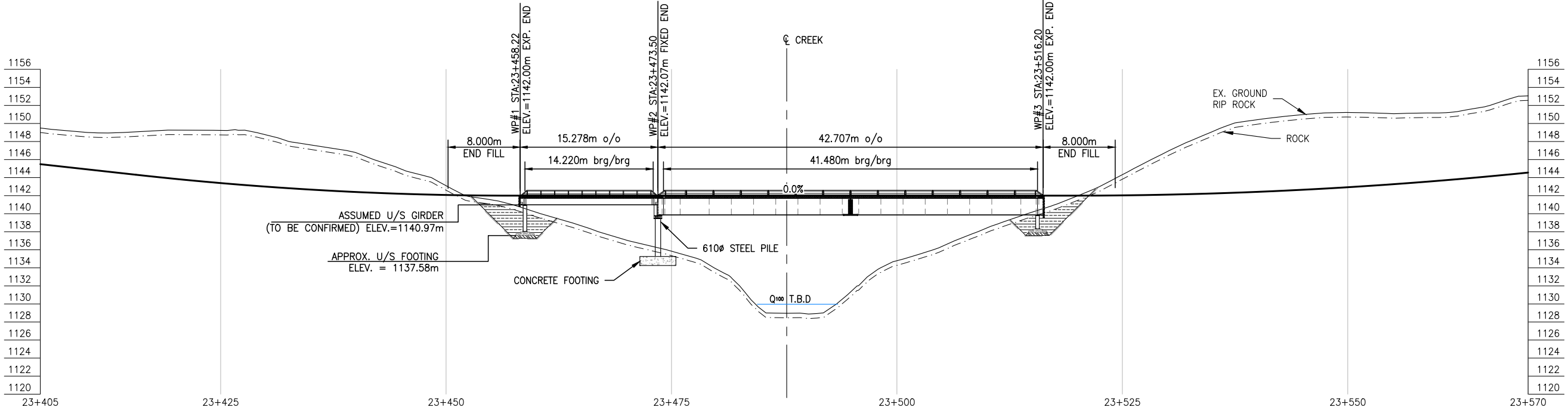
DWG NO:	<b>14GP0128-023-1960-002</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/18 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-023-1960\_23+000 | Layout: 003 | Paper Size: 558.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500

SURVEY CONTROL			
DESCRIPTION	NORTHING	EASTING	ELEVATION
WP#1	6829236.255	416021.581	1142.000
WP#2	6829222.666	416028.563	1142.000
WP#3	6829184.679	416048.080	1142.000



**BRIDGE PROFILE**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
1		

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/15	ISSUED FOR REVIEW	TJB	WBM



CLIENT NO:	DRWN:	TJB	DATE:	14/12/14	
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/14
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

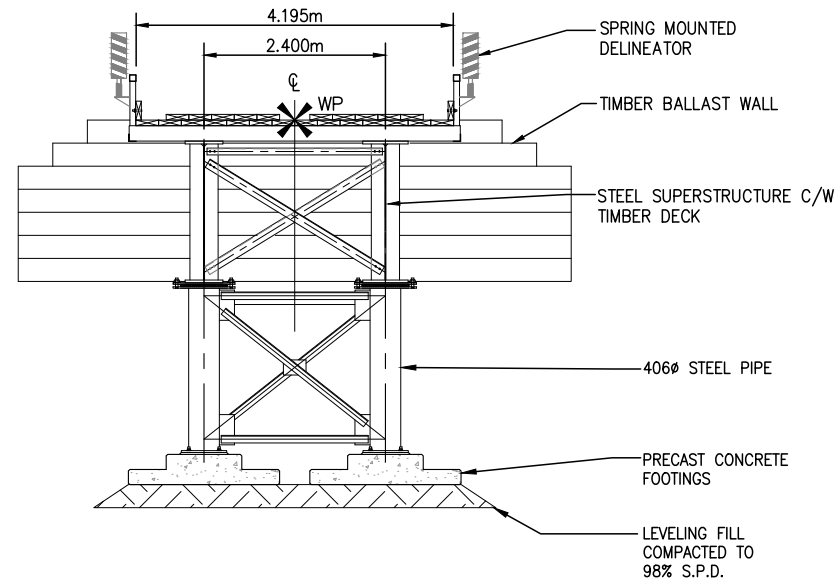
**PROJECT:**

**STREAM CROSSING  
UPPER SUNDOG  
PRAIRIE CREEK MINE ROAD  
AT STA. 23+500**

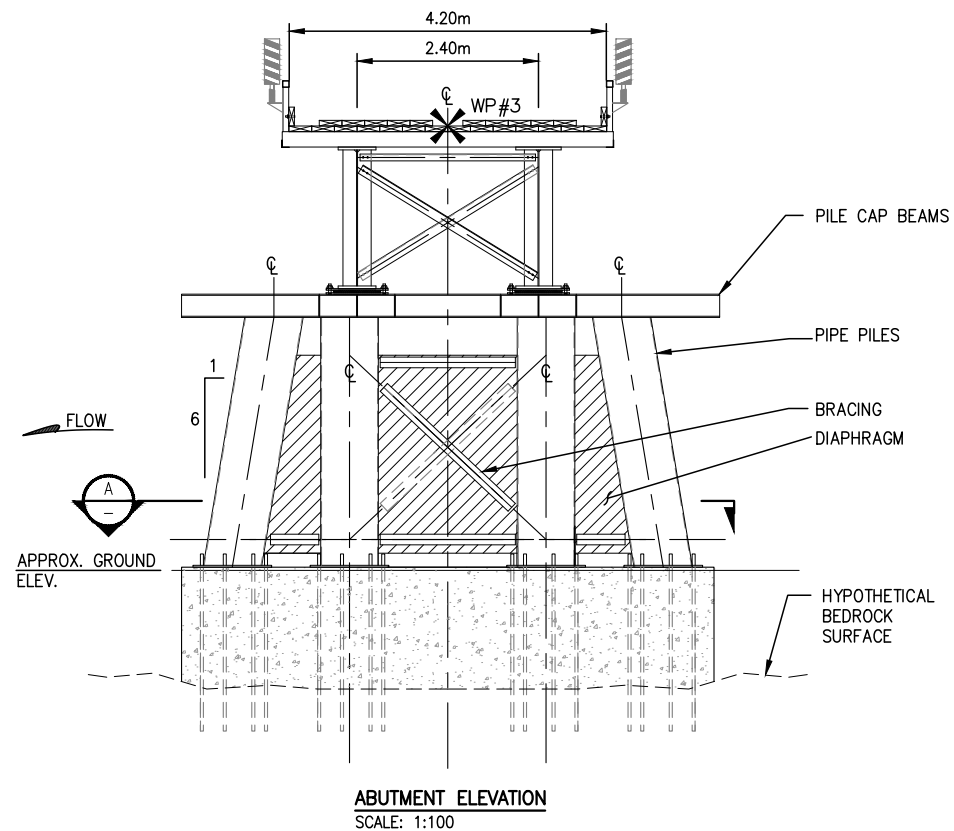
**TITLE:**

**GENERAL ARRANGEMENT PLAN  
AND  
BRIDGE PROFILE**

DWG NO:	14GP0128-023-1960-003	REV:	0
---------	-----------------------	------	---



**TYPICAL ABUTMENT ELEVATION**  
SCALE: 1:100

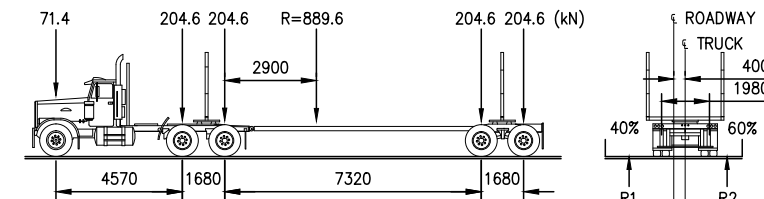


**ABUTMENT ELEVATION**  
SCALE: 1:100

**NOTES:**

- THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
- BRIDGE STRUCTURE SHOWN ON GENERAL ARRANGEMENT PLAN AS MANUFACTURED BY RAPID-SPAN STRUCTURES LTD.
- RIPRAP SHALL EXTEND AROUND ABUTMENTS AS SHOWN ON THE PLAN.
- NO SITE SPECIFIC GEOTECHNICAL INVESTIGATION HAS BEEN COMPLETED AT THE SITE TO DATE. THEREFORE, THIS CONCEPTUAL DESIGN HAS BEEN PREPARED WITHOUT THE BENEFIT OF GEOTECHNICAL ADVICE. GROUND CONDITIONS MAY VARY AND THE FOUNDATION CONCEPT MAY NEED TO BE MODIFIED TO ACCOMMODATE ACTUAL SITE CONDITIONS.
- BACK FILL OF APPROACHES SHALL GENERALLY CONFORM TO THE LINES SHOWN ON THE DRAWINGS AND SHALL BE PLACED IN LIFTS NOT EXCEEDING 305mm THICK, COMPACTED TO 95% STANDARD PROCTOR DENSITY. MATERIAL SHALL BE NON-FROZEN, CLEAN, FREE DRAINING, WELL GRADED GRANULAR FILL OF 75mm MAXIMUM SIZE. USE LIGHT MECHANICAL TAMPERS ONLY.
- CONSTRUCTION SHALL BE CARRIED OUT IN SUCH A MANNER AS TO ENSURE WATER QUALITY IS MAINTAINED BY KEEPING SOIL EROSION AND RUN-OFF TO A MINIMUM DURING INCLEMENT WEATHER AND BY TAKING MEASURES TO PREVENT SEDIMENTATION, LEACHATE, AND CONSTRUCTION MATERIALS FROM ENTERING THE STREAM.
- OPERATE MACHINERY IN A MANNER THAT MINIMIZES DISTURBANCE TO THE BANKS OF THE WATERCOURSE. MACHINERY IS TO ARRIVE ON SITE IN CLEAN CONDITION AND IS TO BE MAINTAINED FREE OF FLUID LEAKS. REFUEL AND SERVICE MACHINERY AT MINIMUM 100m AWAY FROM THE WATERCOURSE. ENSURE EMERGENCY SPILL KIT IS ON SITE IN CASE OF FLUID LEAKS OR SPILLS FROM MACHINERY.
- ALL EXPOSED MINERAL SOILS MUST BE SEEDED USING AN APPROVED RECLAMATION GRASS SEED MIXTURE AND COVERED WITH AN APPROVED EROSION CONTROL BLANKET.
- MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
- ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.
- ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK. INSTALLATION OF WORKS TO COMPLY WITH BEST MANAGEMENT PRACTICES.
- DESIGN SPEED OF APPROACH ROAD SHOWN IS 30 km/hr. LOCAL CHAINAGE SHOWN RELATIVE TO APPROXIMATE CENTRE OF STREAM.
- STRUCTURE DESIGN SHALL BE COMPLETED IN ACCORDANCE WITH CAN/CSA-S6-06 CANADIAN HIGHWAY BRIDGE DESIGN CODE, WITH VARIATIONS IN THE DESIGN LOADING VEHICLE TO MEET ANTICIPATED VEHICLE LOADING.

LOADING DIAGRAM L-100 OFF HIGHWAY G.V.W. = 90 680kg:  
DESIGN IN ACCORDANCE WITH CAN/CSA-S6-06 WITH MODIFIED LOADING AS FOLLOWS:



REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/15	ISSUED FOR REVIEW	TJB	WBM



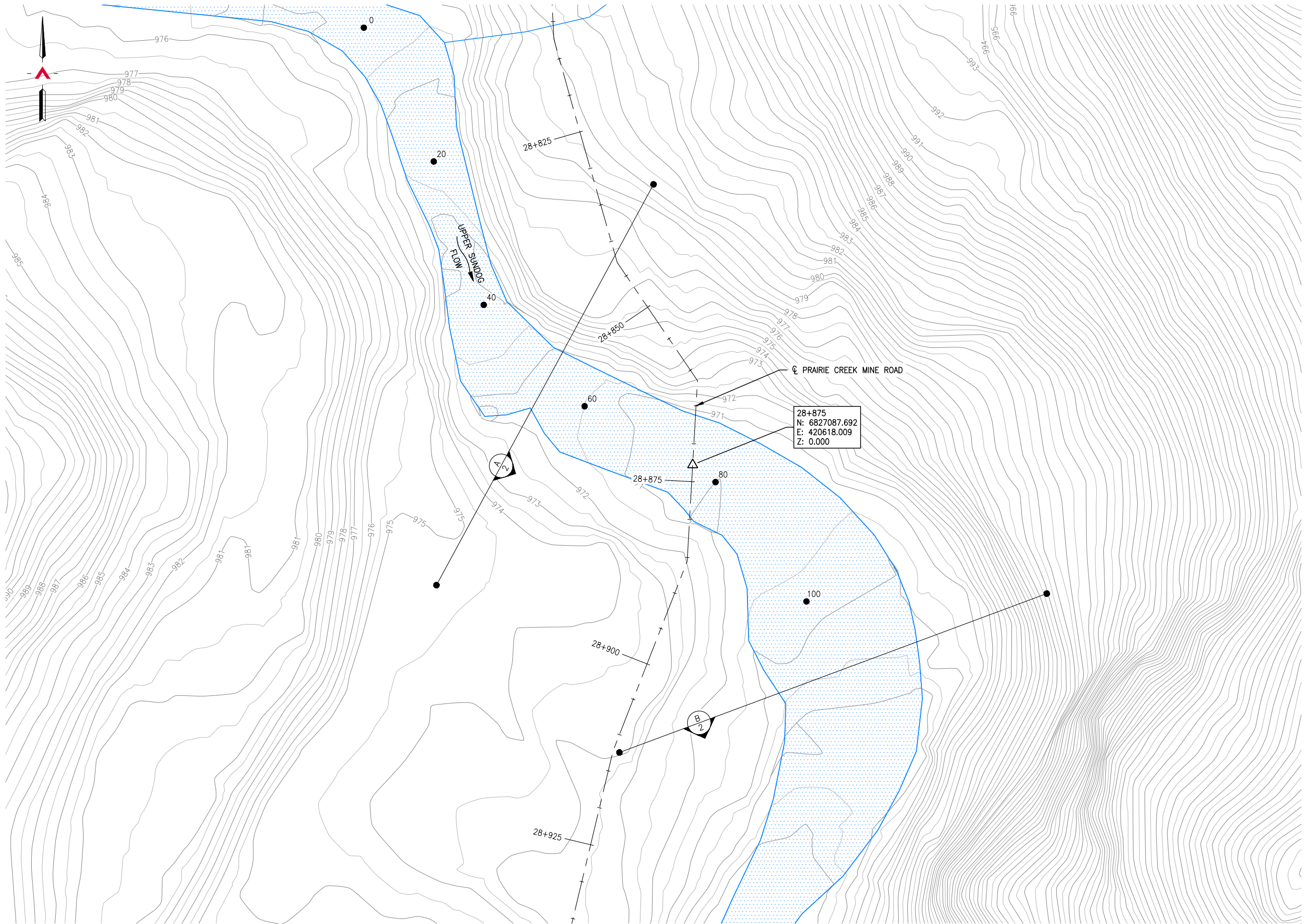
CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/14
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/14
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING**  
**UPPER SUNDGOG**  
**PRAIRIE CREEK MINE ROAD**  
**AT STA. 23+500**

**TITLE:**  
**ABUTMENT ELEVATIONS**  
**AND**  
**GENERAL NOTES**

DWG NO:	<b>14GP0128-023-1960-004</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/11 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc-PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-028-1960-28-800 | Layout: 001 | Paper Size: 558.8mm x 431.8mm



**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
		1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/24	ISSUED FOR REVIEW	TJB	WBM



CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/21
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/21
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**

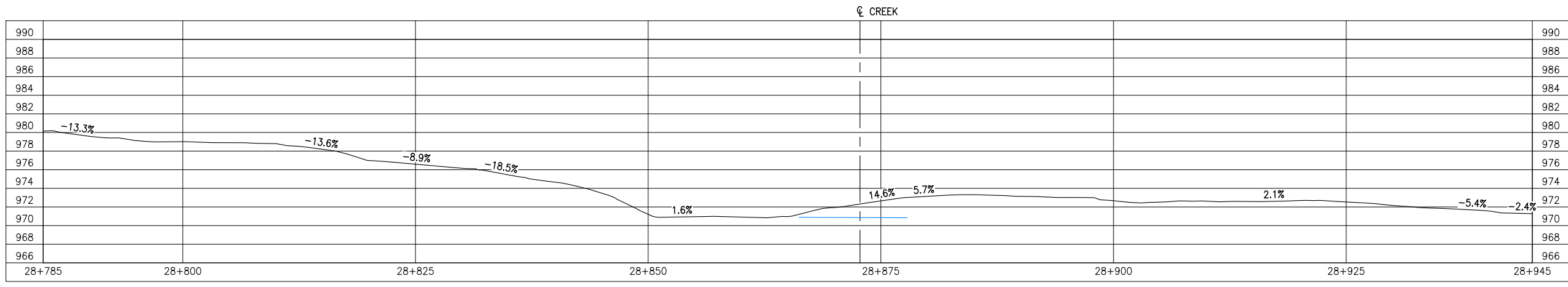
**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 28+875**

TITLE:

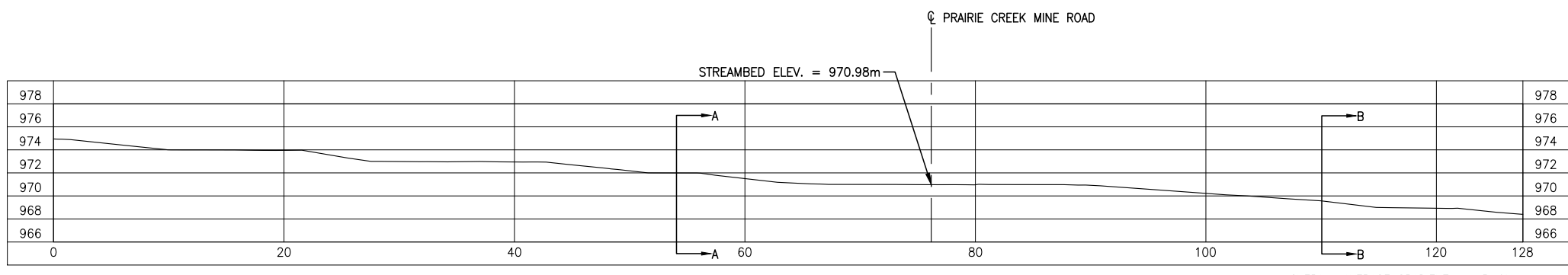
**SITE PLAN**

DWG NO:	<b>14GP0128-28.8-1960-001</b>	REV:	<b>0</b>
---------	-------------------------------	------	----------

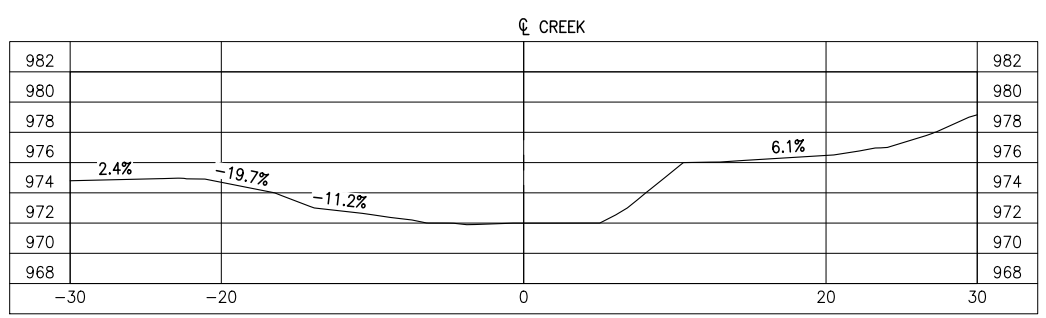
Date: 2014/12/16 | User: Tammy Beer | File: P:\GP\_2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-1960\_28+800 | Layout: 002 | Paper Size: 558.8mm x 431.8mm



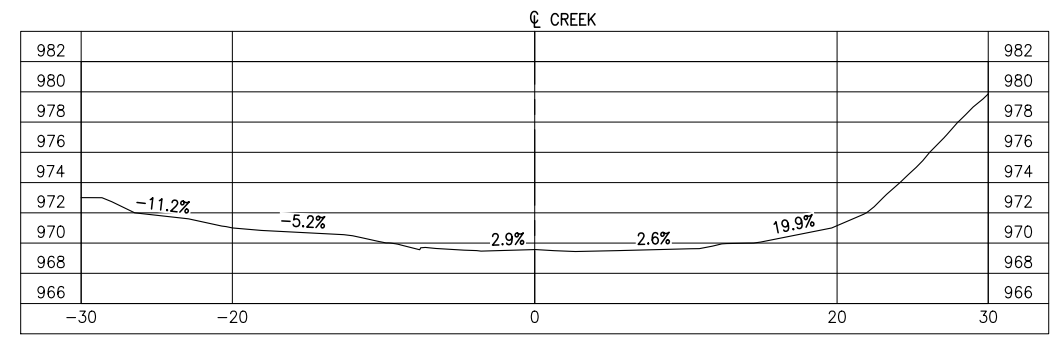
**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:500



**CREEK PROFILE**  
SCALE: 1:500



**SECTION A**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/24	ISSUED FOR REVIEW	TJB	WBM



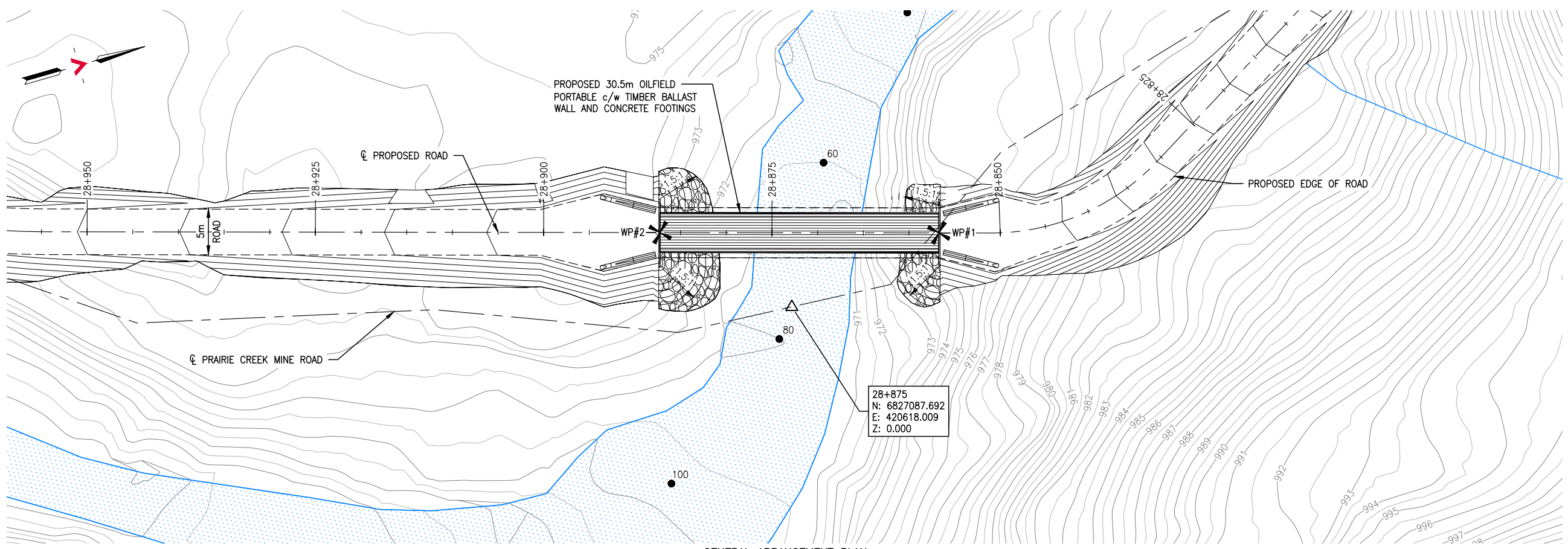
CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/24
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/24
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING UPPER SUNDOG CREEK PRAIRIE CREEK MINE ROAD AT STA. 28+875**

**TITLE:**  
**PROFILES AND SECTION VIEWS**

DWG NO:	<b>14GP0128-28.8-1960-002</b>	REV:	<b>0</b>
---------	-------------------------------	------	----------

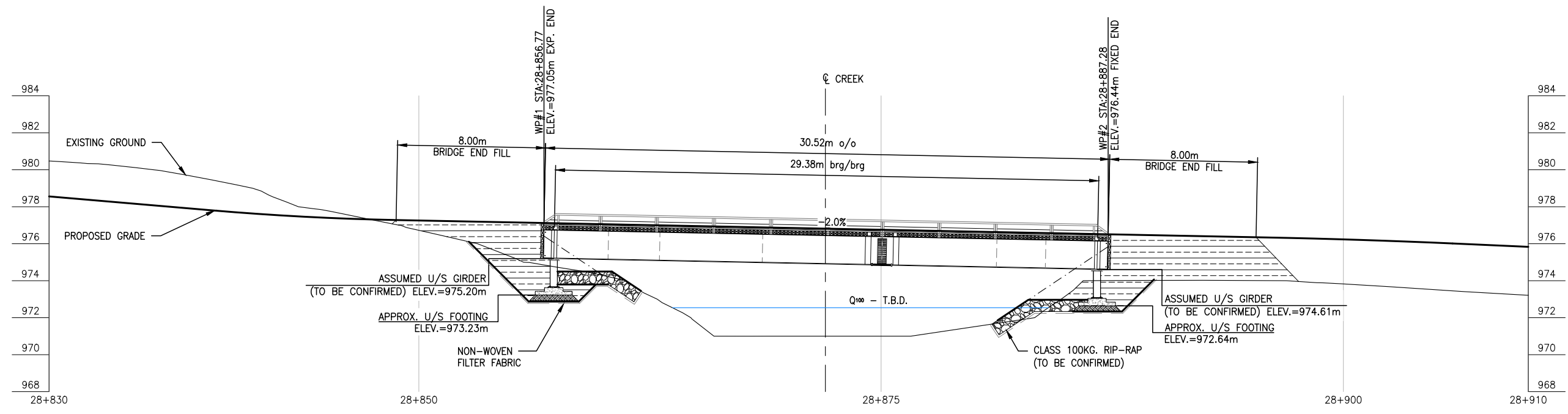
Date: 2014/12/16 | User: Tammy Beer | File: P:\GP\_2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-028-1960-28-800 | Layout: 003 | Paper Size: 558.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500

28+875  
N: 6827087.692  
E: 420618.009  
Z: 0.000

SURVEY CONTROL			
DESCRIPTION	NORTHING	EASTING	ELEVATION
WP#1	6827105.398	420614.668	974.858
WP#2	6827076.076	420606.218	974.008



**BRIDGE PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/02	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/01
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/01
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

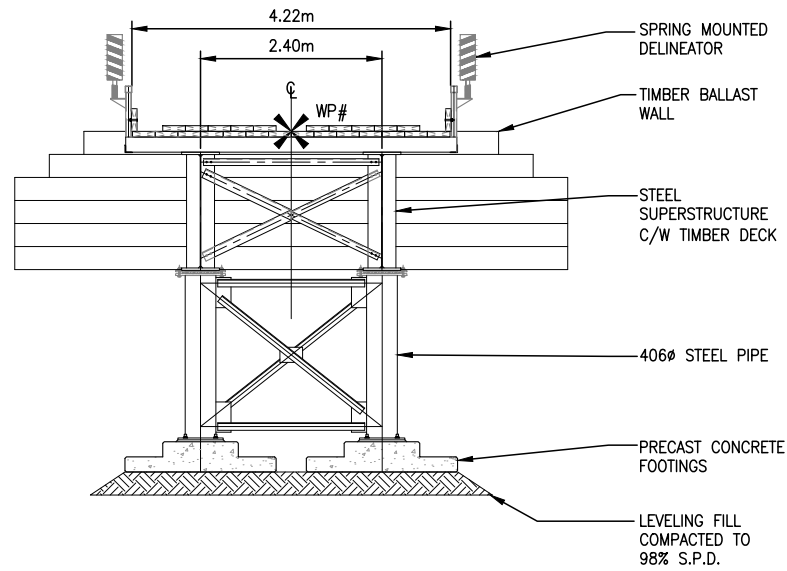
PROJECT:

**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 28+875**

TITLE:  
**GENERAL ARRANGEMENT PLAN  
AND  
BRIDGE PROFILE**

DWG NO:	<b>14GP0128-28.8-1960-003</b>	REV:	<b>0</b>
---------	-------------------------------	------	----------

Date: 2014/12/11 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-028-1960-28+800 | Layout: 004 | Paper Size: 558.8mm x 431.8mm

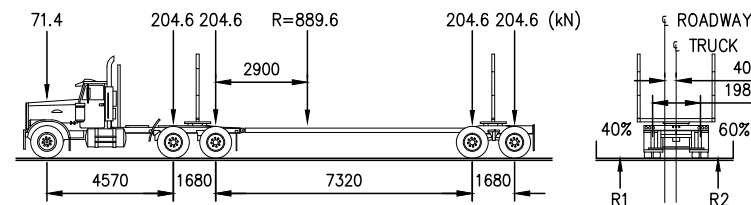


**ABUTMENT ELEVATION**  
SCALE: 1:100

**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. BRIDGE STRUCTURE SHOWN ON GENERAL ARRANGEMENT PLAN AS MANUFACTURED BY RAPID-SPAN STRUCTURES LTD.
3. RIPRAP SHALL EXTEND AROUND ABUTMENTS AS SHOWN ON THE PLAN.
4. NO SITE SPECIFIC GEOTECHNICAL INVESTIGATION HAS BEEN COMPLETED AT THE SITE TO DATE. THEREFORE, THIS CONCEPTUAL DESIGN HAS BEEN PREPARED WITHOUT THE BENEFIT OF GEOTECHNICAL ADVICE. GROUND CONDITIONS MAY VARY AND THE FOUNDATION CONCEPT MAY NEED TO BE MODIFIED TO ACCOMMODATE ACTUAL SITE CONDITIONS.
5. BACK FILL OF APPROACHES SHALL GENERALLY CONFORM TO THE LINES SHOWN ON THE DRAWINGS AND SHALL BE PLACED IN LIFTS NOT EXCEEDING 305mm THICK, COMPACTED TO 95% STANDARD PROCTOR DENSITY. MATERIAL SHALL BE NON-FROZEN, CLEAN, FREE DRAINING, WELL GRADED GRANULAR FILL OF 75mm MAXIMUM SIZE. USE LIGHT MECHANICAL TAMPERS ONLY.
6. CONSTRUCTION SHALL BE CARRIED OUT IN SUCH A MANNER AS TO ENSURE WATER QUALITY IS MAINTAINED BY KEEPING SOIL EROSION AND RUN-OFF TO A MINIMUM DURING INCLEMENT WEATHER AND BY TAKING MEASURES TO PREVENT SEDIMENTATION, LEACHATE, AND CONSTRUCTION MATERIALS FROM ENTERING THE STREAM.
7. OPERATE MACHINERY IN A MANNER THAT MINIMIZES DISTURBANCE TO THE BANKS OF THE WATERCOURSE. MACHINERY IS TO ARRIVE ON SITE IN CLEAN CONDITION AND IS TO BE MAINTAINED FREE OF FLUID LEAKS. REFUEL AND SERVICE MACHINERY AT MINIMUM 100m AWAY FROM THE WATERCOURSE. ENSURE EMERGENCY SPILL KIT IS ON SITE IN CASE OF FLUID LEAKS OR SPILLS FROM MACHINERY.
8. ALL EXPOSED MINERAL SOILS MUST BE SEEDED USING AN APPROVED RECLAMATION GRASS SEED MIXTURE AND COVERED WITH AN APPROVED EROSION CONTROL BLANKET.
9. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
10. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.
11. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK. INSTALLATION OF WORKS TO COMPLY WITH BEST MANAGEMENT PRACTICES.
12. DESIGN SPEED OF APPROACH ROAD SHOWN IS 30 km/hr. LOCAL CHAINAGE SHOWN RELATIVE TO APPROXIMATE CENTRE OF STREAM.
13. STRUCTURE DESIGN SHALL BE COMPLETED IN ACCORDANCE WITH CAN/CSA-S6-06 CANADIAN HIGHWAY BRIDGE DESIGN CODE, WITH VARIATIONS IN THE DESIGN LOADING VEHICLE TO MEET ANTICIPATED VEHICLE LOADING.

**LOADING DIAGRAM L-100 OFF HIGHWAY G.V.W. = 90 680kg:**  
**DESIGN IN ACCORDANCE WITH CAN/CSA-S6-06 WITH MODIFIED LOADING AS FOLLOWS:**



REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/02	ISSUED FOR REVIEW	TJB	WBM



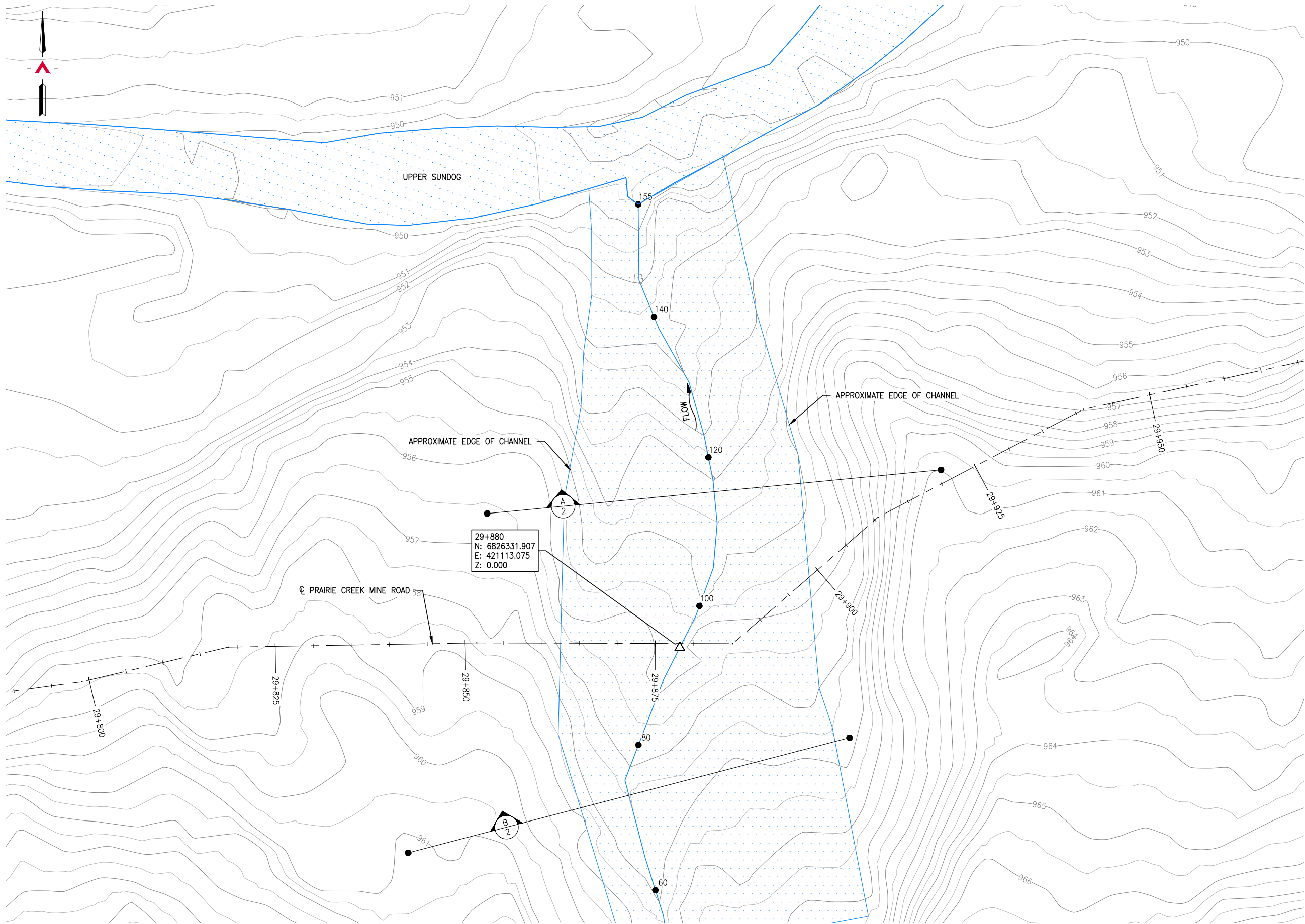
CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/01
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/01
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING**  
**UPPER SUNDOG CREEK**  
**PRAIRIE CREEK MINE ROAD**  
**AT STA. 28+875**

**TITLE:**  
**ABUTMENT ELEVATIONS**  
**AND**  
**GENERAL NOTES**

DWG NO:	<b>14GP0128-28.8-1960-004</b>	REV:	<b>0</b>
---------	-------------------------------	------	----------

Date: 2014/12/18 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadaZinc\PrairieCreekMine\2014\Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-029-1960-29+800\_1\_1\_3927 | Layout: 001 | Paper Size: 558.8mm x 431.8mm



**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/24	ISSUED FOR REVIEW	TJB	WBM



CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/24
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/24
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**

**STREAM CROSSING  
UPPER SUNDOG CREEK  
ON PRAIRIE CREEK MINE ROAD  
AT STA. 29+880**

TITLE:

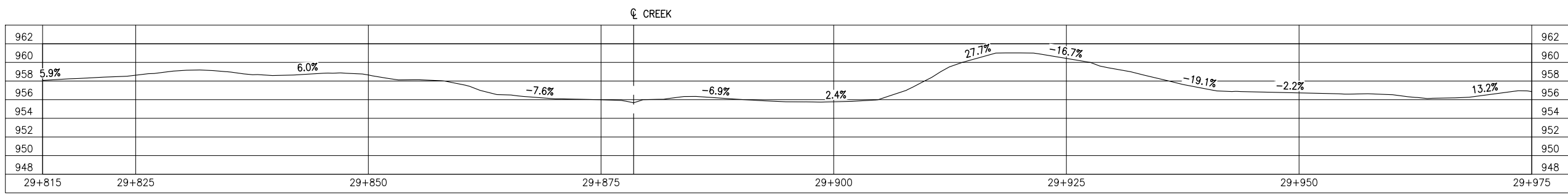
**SITE PLAN**

DWG NO:	<b>14GP0128-029-1960-001</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

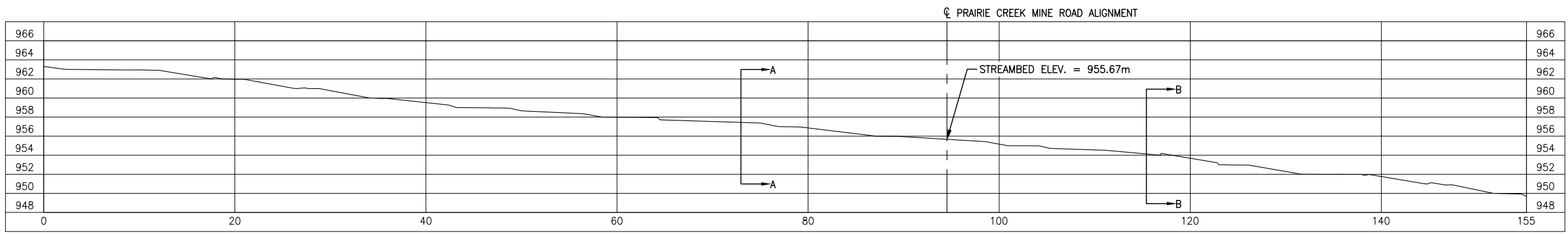
Date: 2014/12/18 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-029-1960\_29+800\_1\_1\_3927 | Layout: 002 | Paper Size: 558.8mm x 431.8mm

REFERENCE DRAWINGS

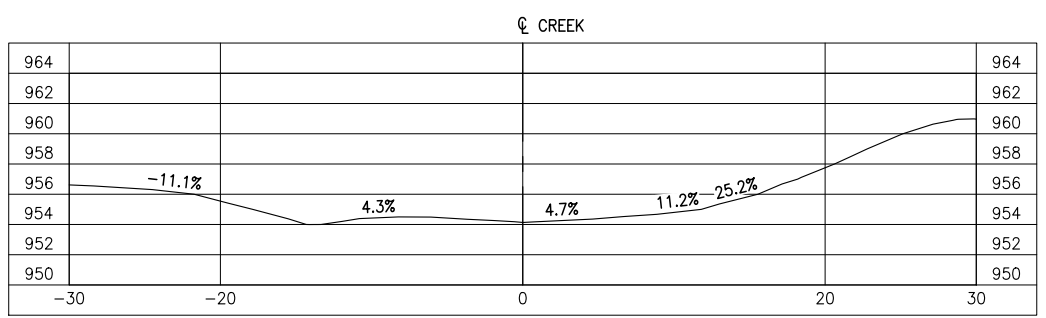
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1



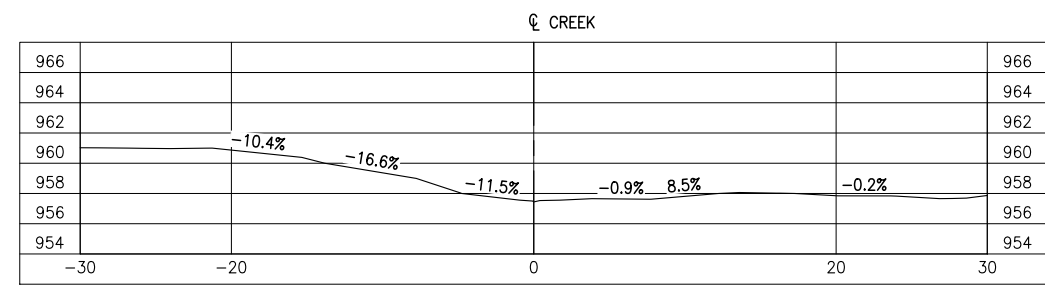
**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:500



**CREEK PROFILE**  
SCALE: 1:500  
OVERALL AVERAGE GRADIENT = -8.8%



**SECTION A**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/24	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



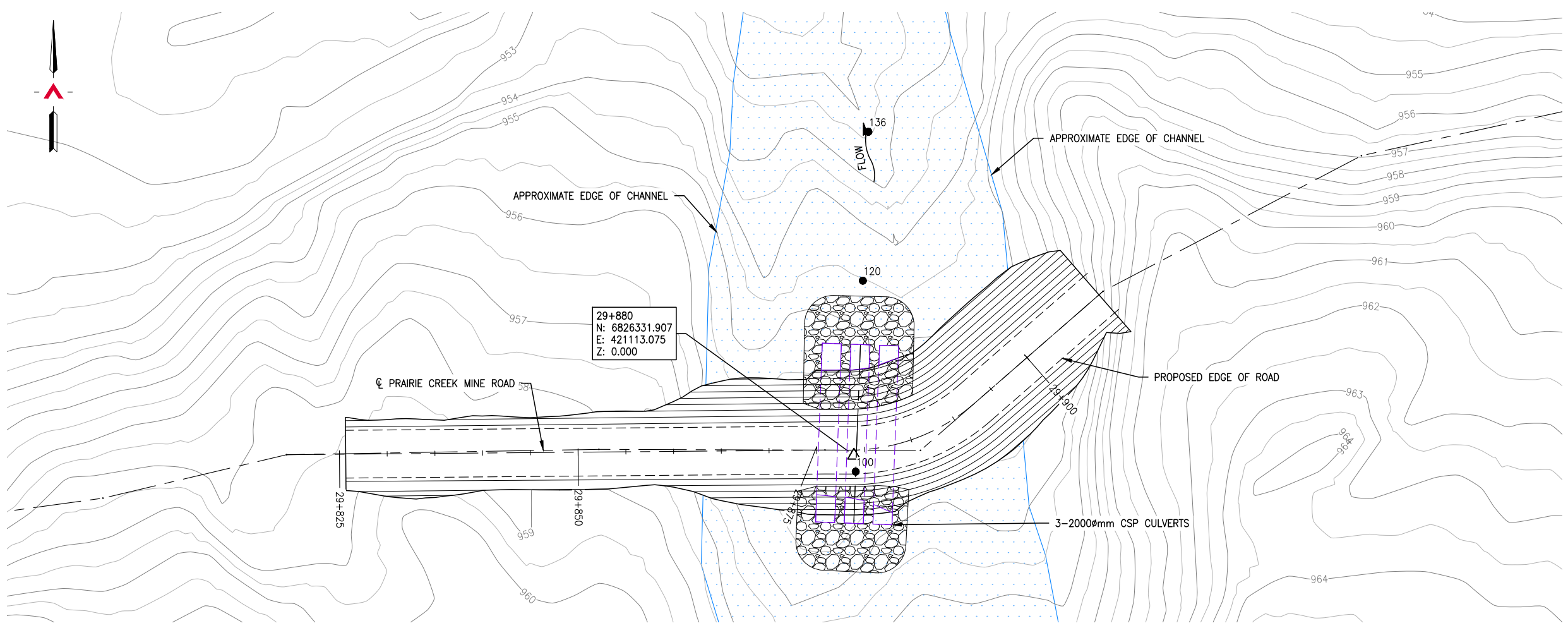
CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/24
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/24
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING  
UPPER SUNDOG CREEK  
ON PRAIRIE CREEK MINE ROAD  
AT STA. 29+880**

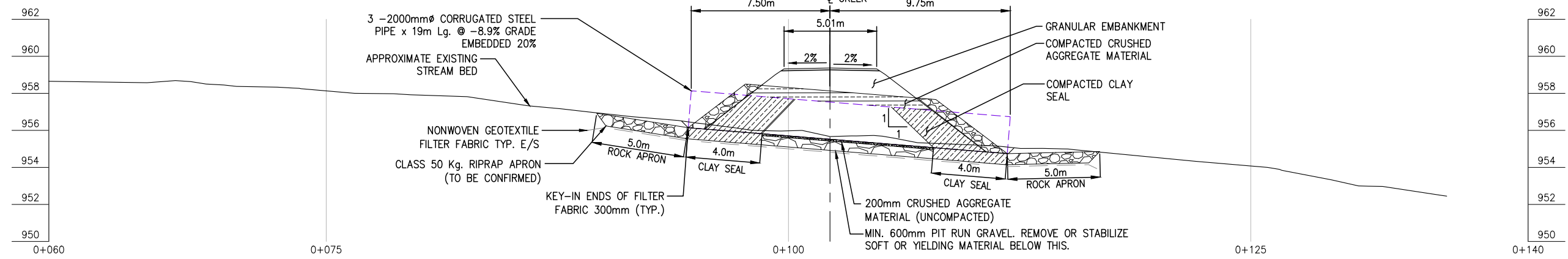
**TITLE:**  
**PROFILES  
AND  
SECTION VIEWS**

DWG NO:	<b>14GP0128-029-1960-002</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/19 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-029-1960-29+800\_1\_1\_3927 | Layout: 003 | Paper Size: 558.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500



**BRIDGE PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/24	ISSUED FOR REVIEW	TJB	WBM



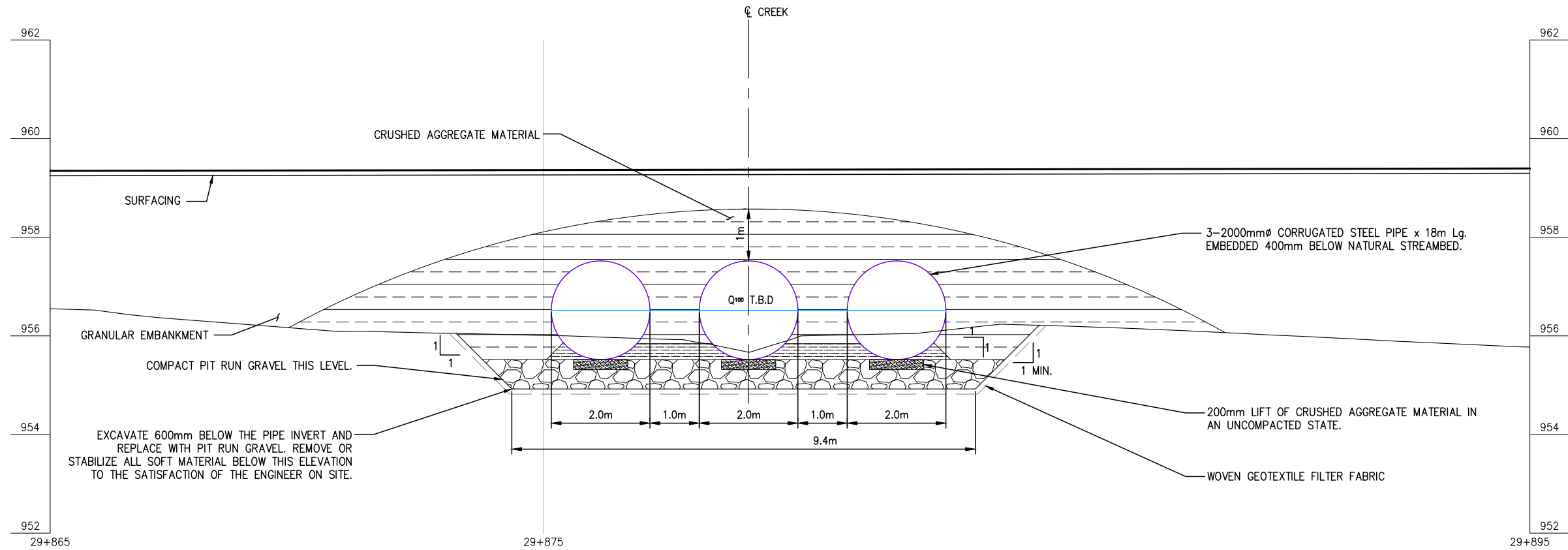
CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/17
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/17
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING**  
**UPPER SUNDOG CREEK**  
**ON PRAIRIE CREEK MINE ROAD**  
**AT STA. 29+880**

**TITLE:**  
**GENERAL ARRANGEMENT PLAN**  
**AND**  
**CULVERT PROFILE**

DWG NO:	<b>14GP0128-029-1960-003</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/19 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-029-1960\_29+880\_1.1\_3927 | Layout: 004 | Paper Size: 558.8mm x 431.8mm



**CULVERT ELEVATION**  
SCALE: 1:100

**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. 3-2000mmØ x 19m Lg. CULVERT OR APPROVED EQUAL. WALL THICKNESS TO BE SPECIFIED BY CULVERT SUPPLIER.
3. RIPRAP SHALL EXTEND AROUND CULVERT INLET AND OUTLET AS SHOWN ON THE PLAN.
4. FOUNDATION, BEDDING, AND BACKFILL MATERIAL SHALL BE WELL GRADED AND FREE DRAINING AS APPROVED BY THE ENGINEER. IT SHALL NOT CONTAIN FROZEN SOIL, CHUNKS OF CLAY, OR ANY OTHER DELETERIOUS MATERIAL WITHIN 1000mm OF THE STRUCTURE.
5. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
6. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK.
7. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.

REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/24	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/17
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/17
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

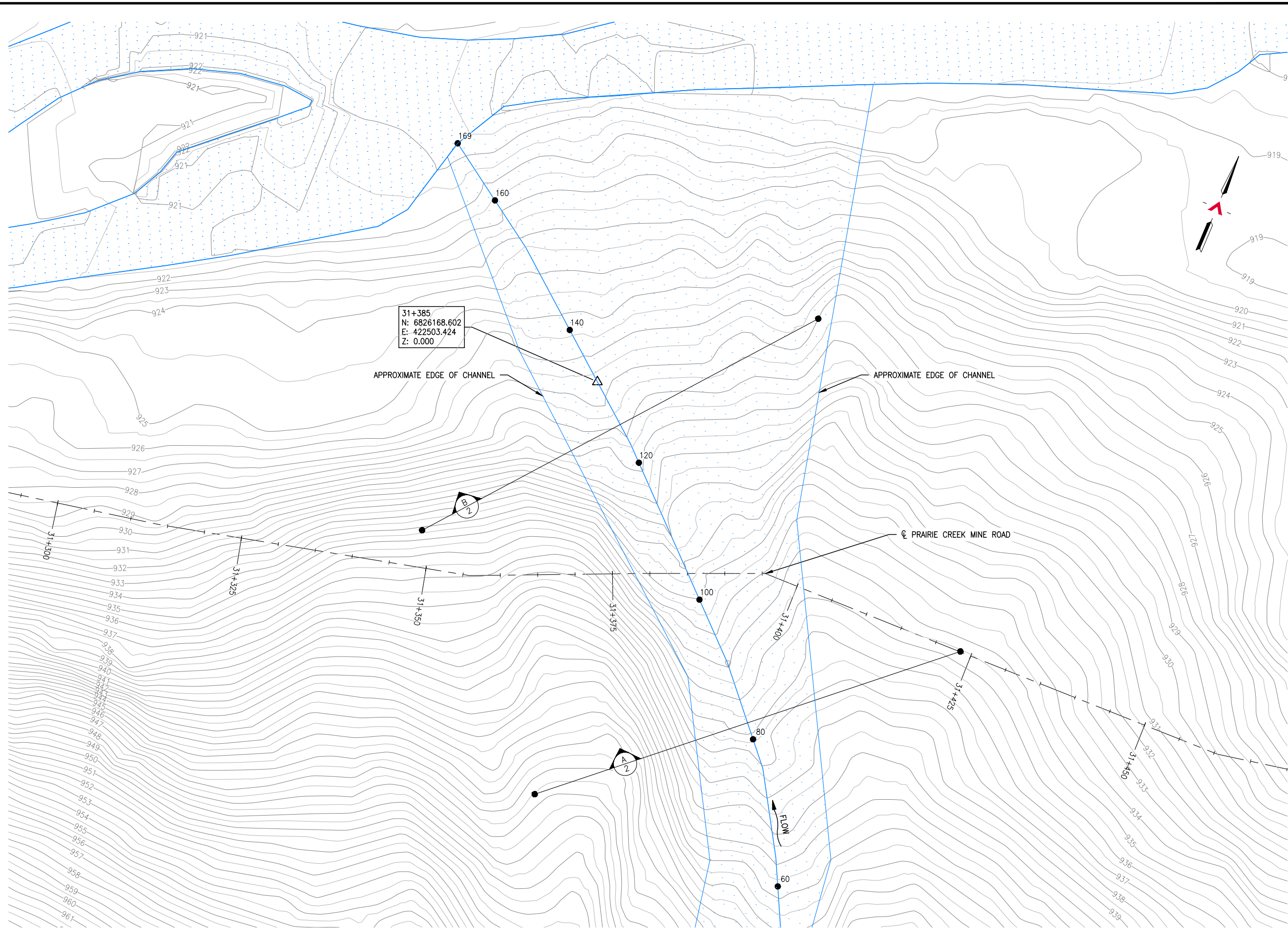
PROJECT:

**STREAM CROSSING  
UPPER SUNDOG CREEK  
ON PRAIRIE CREEK MINE ROAD  
AT STA. 29+880**

TITLE:  
**CULVERT ELEVATION  
AND  
GENERAL NOTES**

DWG NO:	<b>14GP0128-029-1960-004</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/15 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\Production\_Site Plans\14GP0128-31.4-1960-31-400 | Layout: 001 | Paper Size: 558.8mm x 431.8mm



31+385  
N: 6826168.602  
E: 422503.424  
Z: 0.000

APPROXIMATE EDGE OF CHANNEL

APPROXIMATE EDGE OF CHANNEL

PRAIRIE CREEK MINE ROAD

**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
		1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/24	ISSUED FOR REVIEW	TJB	WBM



CLIENT NO:	DRWN:	TJB	DATE:	14/11/24	
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/24
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 31+385**

TITLE:  
**SITE PLAN**

DWG NO:	14GP0128-31.4-1960-001	REV:	0
---------	------------------------	------	---

Date: 2014/12/15 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-31.4-1960-31-400 | Layout: 002 | Paper Size: 558.8mm x 431.8mm

REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1
-	-	-
-	-	-
-	-	-
-	-	-

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, in part or in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/24	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



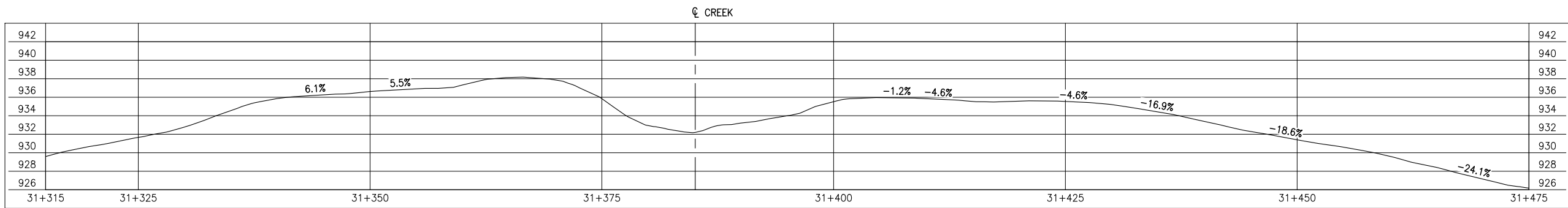
CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/24
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/24
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

PROJECT:

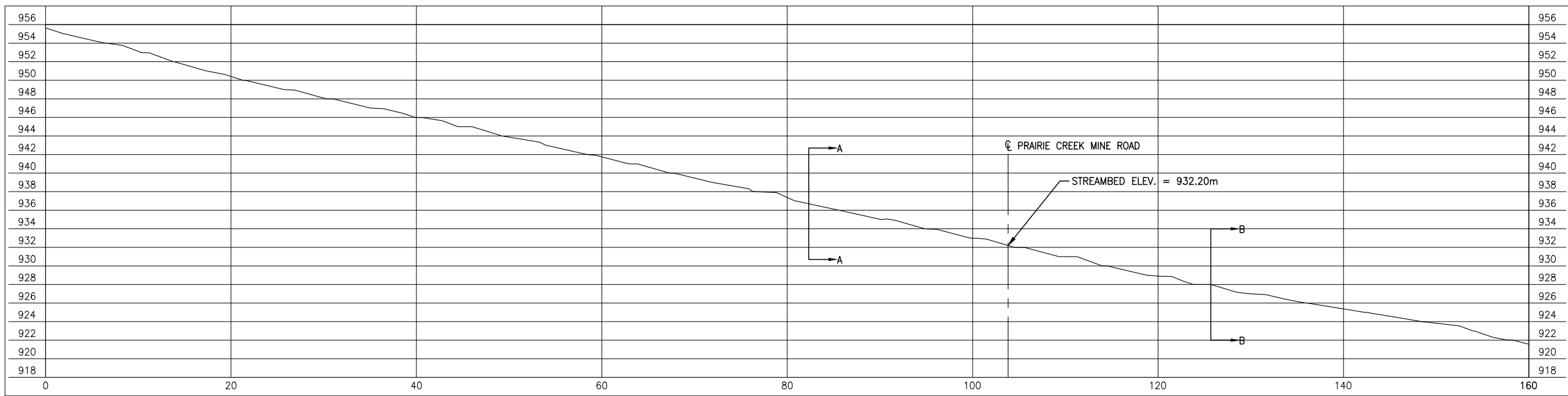
**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 31+385**

TITLE:  
**PROFILES  
AND  
SECTION VIEWS**

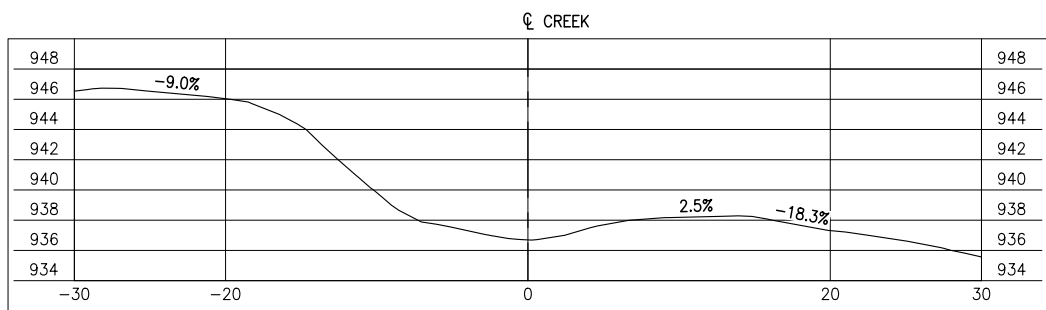
DWG NO:	<b>14GP0128-31.4-1960-002</b>	REV:	<b>0</b>
---------	-------------------------------	------	----------



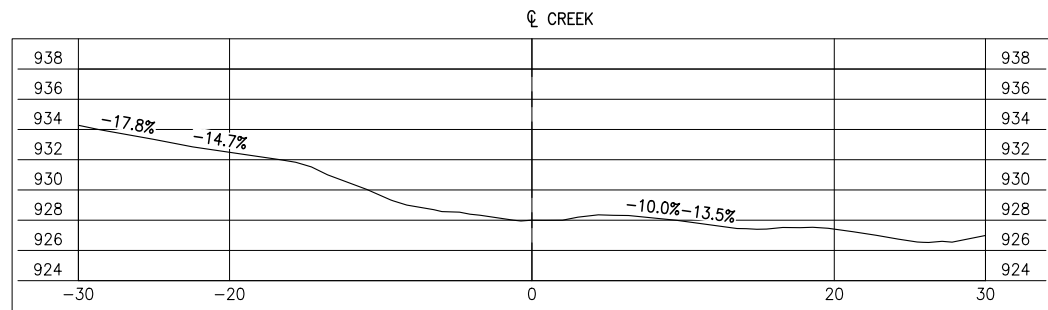
**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:500



**CREEK PROFILE**  
SCALE: 1:500

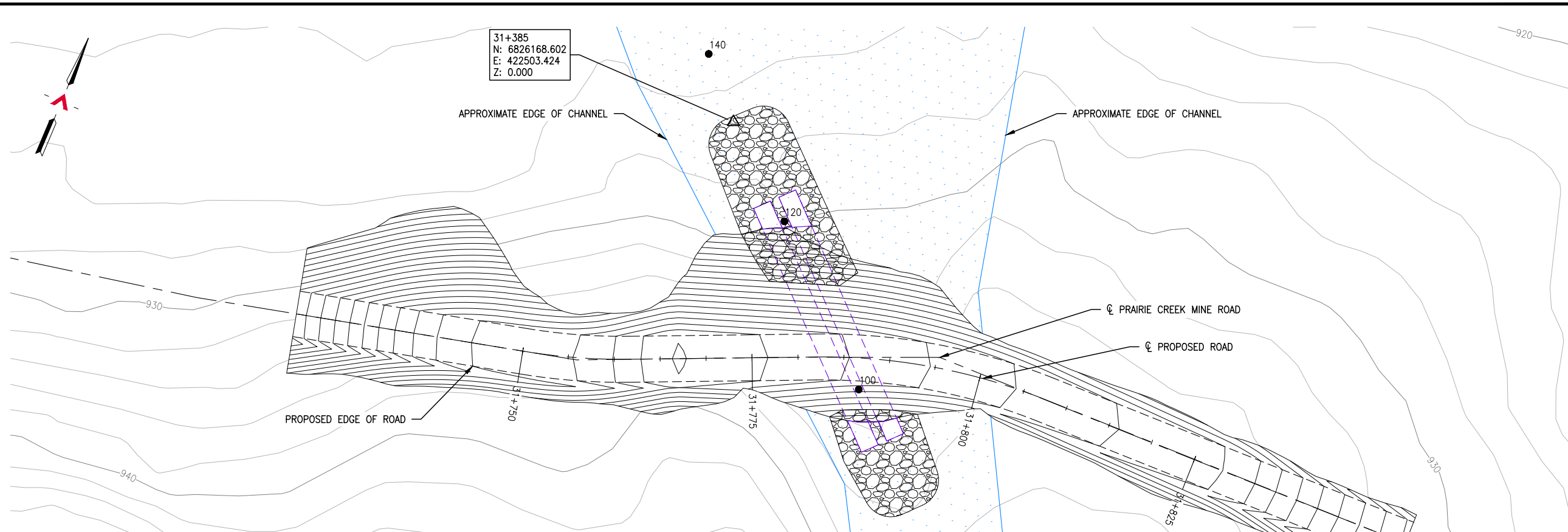


SECTION **A**  
SCALE: 1:500

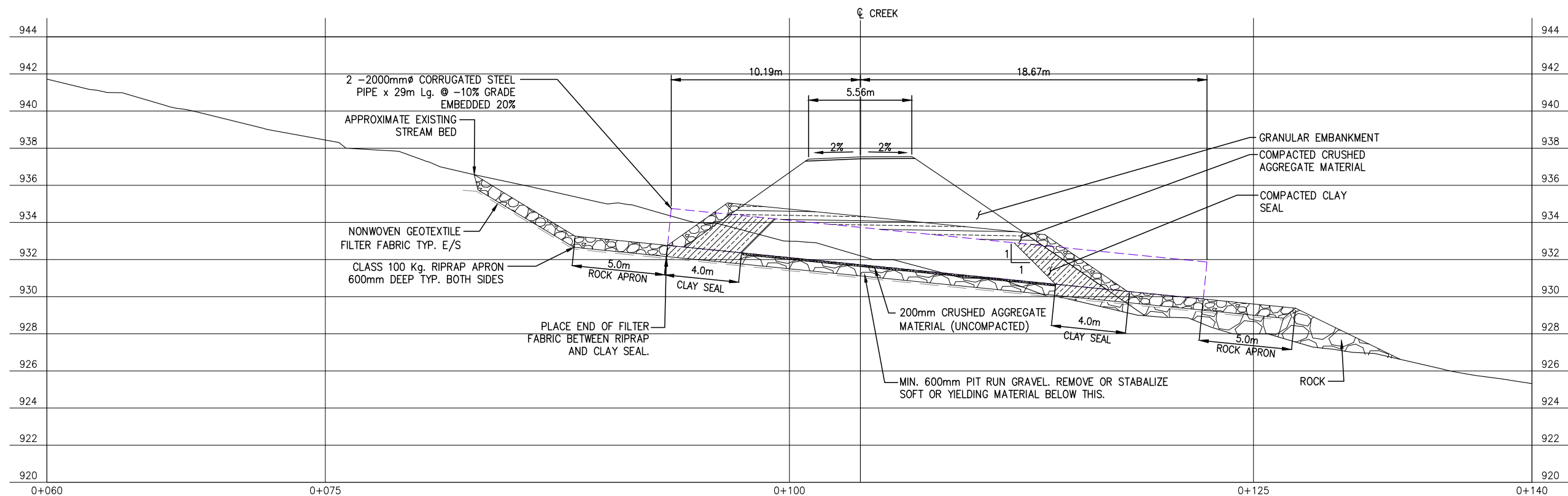


SECTION **B**  
SCALE: 1:500

Date: 2014/12/19 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc-PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-31.4-1960-31-400 | Layout: 003 | Paper Size: 558.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:250



**CULVERT PROFILE**  
SCALE: AND

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/15	ISSUED FOR REVIEW	TJB	WBM



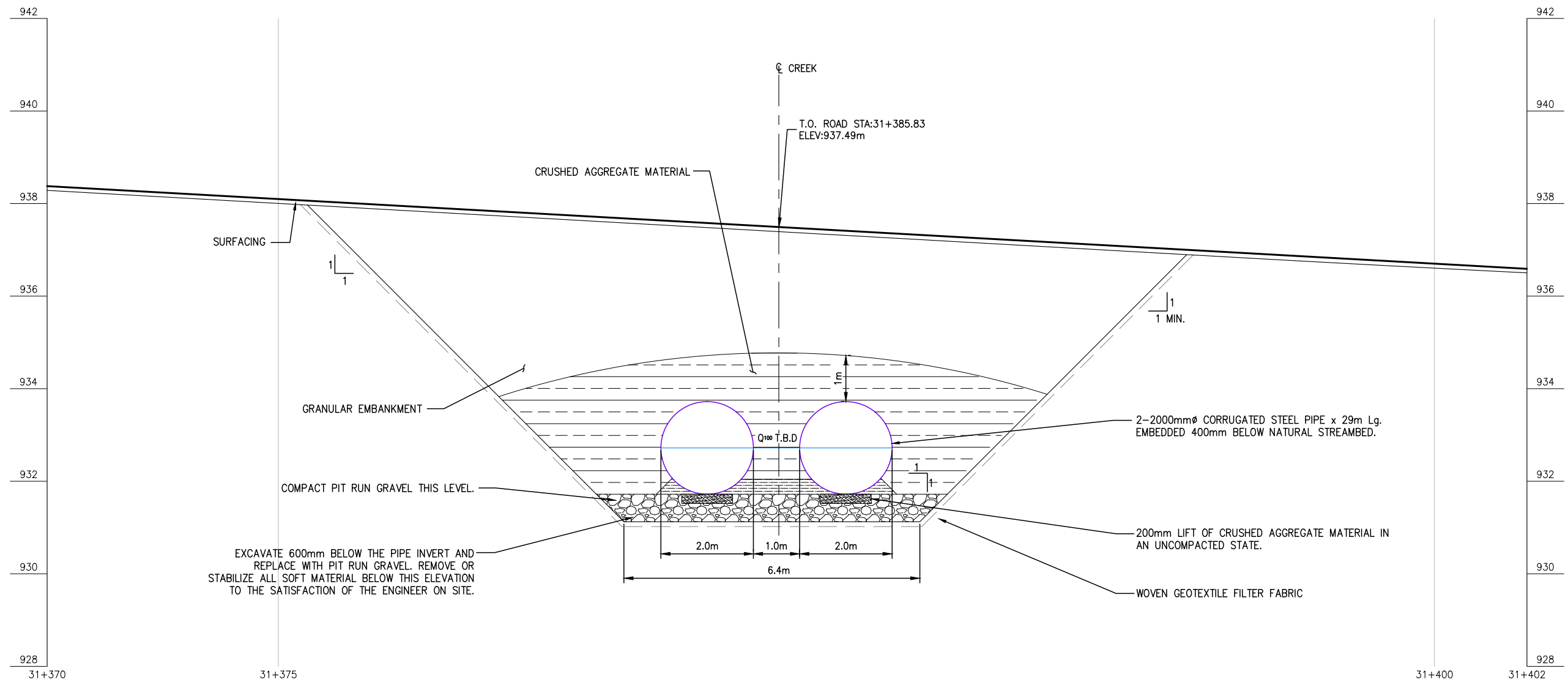
CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/14
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/14
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

PROJECT:  
**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 31+385**

TITLE:  
**GENERAL ARRANGEMENT PLAN  
AND  
CULVERT PROFILE**

DWG NO:	<b>14GP0128-31.4-1960-003</b>	REV:	<b>0</b>
---------	-------------------------------	------	----------

Date: 2014/12/19 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\Road\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-31.4-1960-31-400 | Layout: 004 | Paper Size: 558.8mm x 431.8mm



**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. 3-2000mm $\phi$  x 29m Lg. @ 7' SKEW CULVERT OR APPROVED EQUAL. WALL THICKNESS TO BE SPECIFIED BY CULVERT SUPPLIER.
3. RIPRAP SHALL EXTEND AROUND CULVERT INLET AND OUTLET AS SHOWN ON THE PLAN.
4. FOUNDATION, BEDDING, AND BACKFILL MATERIAL SHALL BE WELL GRADED AND FREE DRAINING AS APPROVED BY THE ENGINEER. IT SHALL NOT CONTAIN FROZEN SOIL, CHUNKS OF CLAY, OR ANY OTHER DELETERIOUS MATERIAL WITHIN 1000mm OF THE STRUCTURE.
5. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
6. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK.
7. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/15	ISSUED FOR REVIEW	TJB	WBM



CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/14
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/14
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**

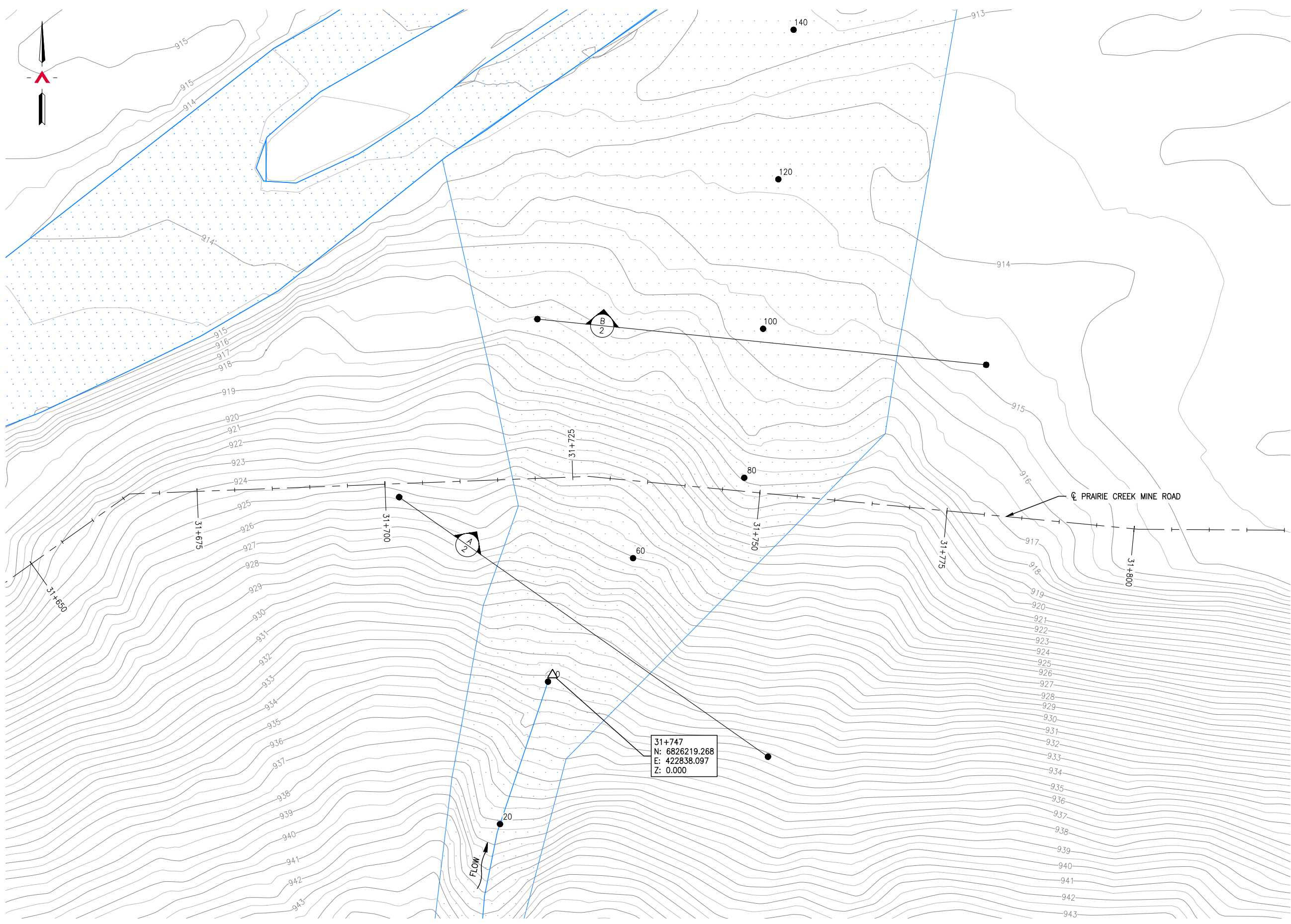
**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 31+385**

**TITLE:**

**CULVERT ELEVATION  
AND  
GENERAL NOTES**

DWG NO:	<b>14GP0128-31.4-1960-004</b>	REV:	<b>0</b>
---------	-------------------------------	------	----------

Date: 2014/12/22 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadaZinc\PrairieCreekMine\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-31.7-1960-31-700-00 | Layout: 001 | Paper Size: 558.8mm x 431.8mm



**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/24	ISSUED FOR REVIEW	TJB	WBM



CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/24
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/24
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**

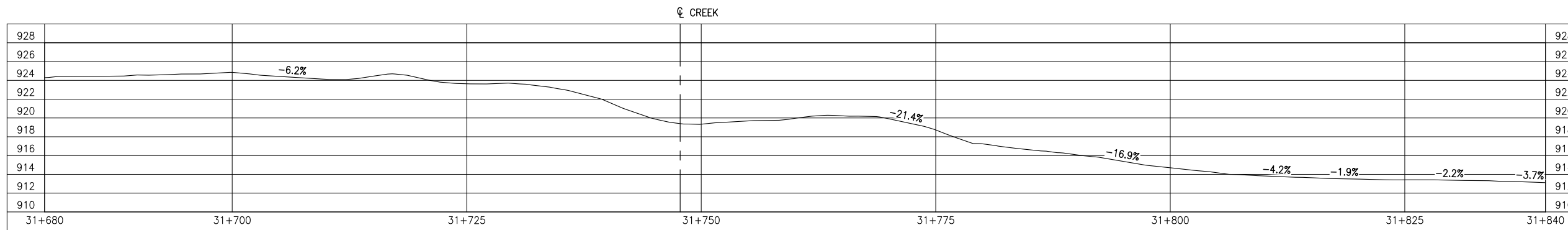
**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 31+747**

TITLE:

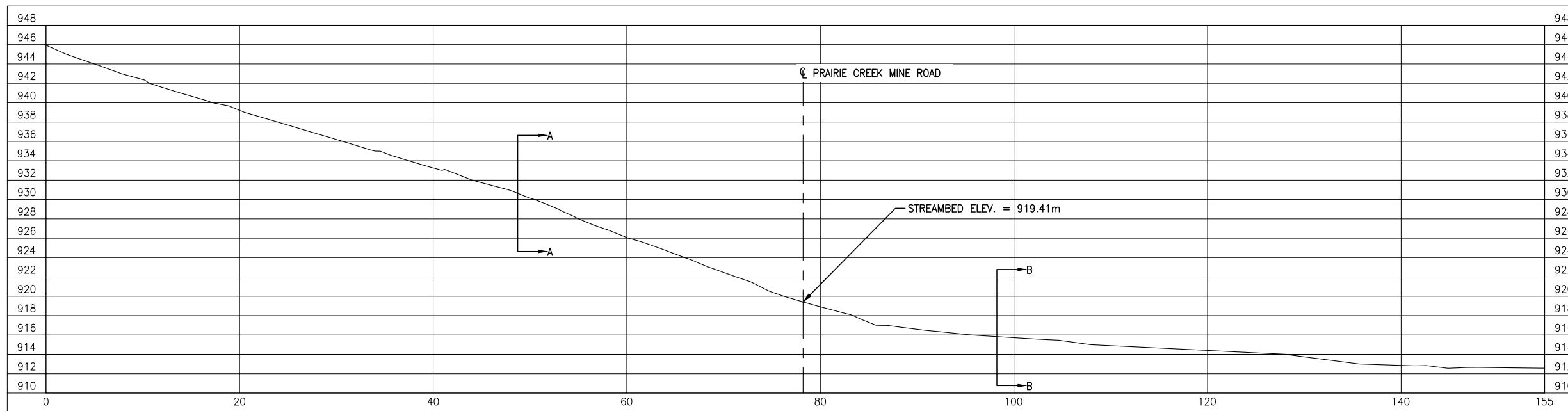
**SITE PLAN**

DWG NO:	<b>14GP0128-31.7-1960-001</b>	REV:	<b>0</b>
---------	-------------------------------	------	----------

Date: 2014/12/22 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc-PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-31.4-1960-31+700-80 | Layout: 002 | Paper Size: 558.8mm x 431.8mm

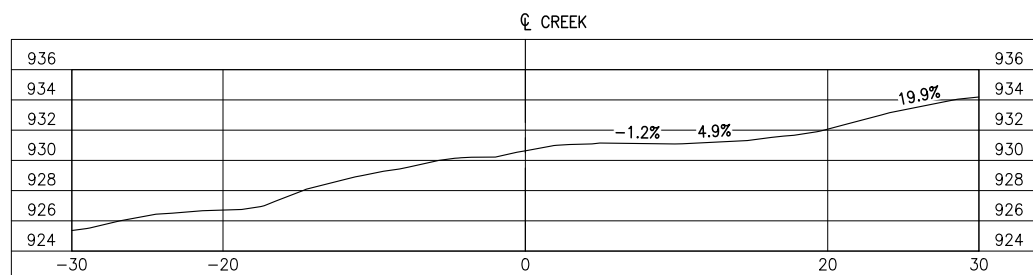


**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:500

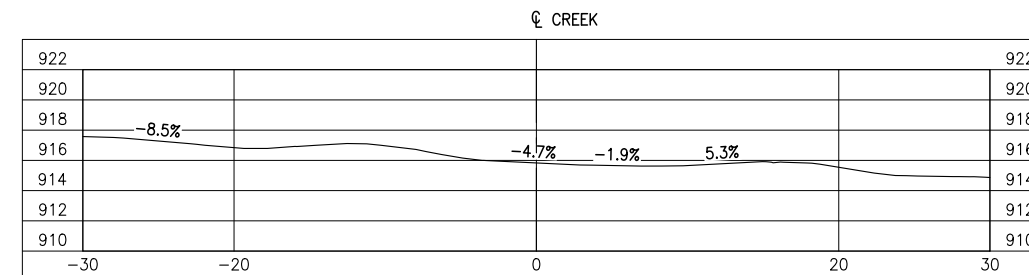


**CREEK PROFILE**  
SCALE: 1:500

OVERALL AVERAGE GRADIENT = -33.7% TO -6.4%



**SECTION A**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/24	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/24
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/24
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

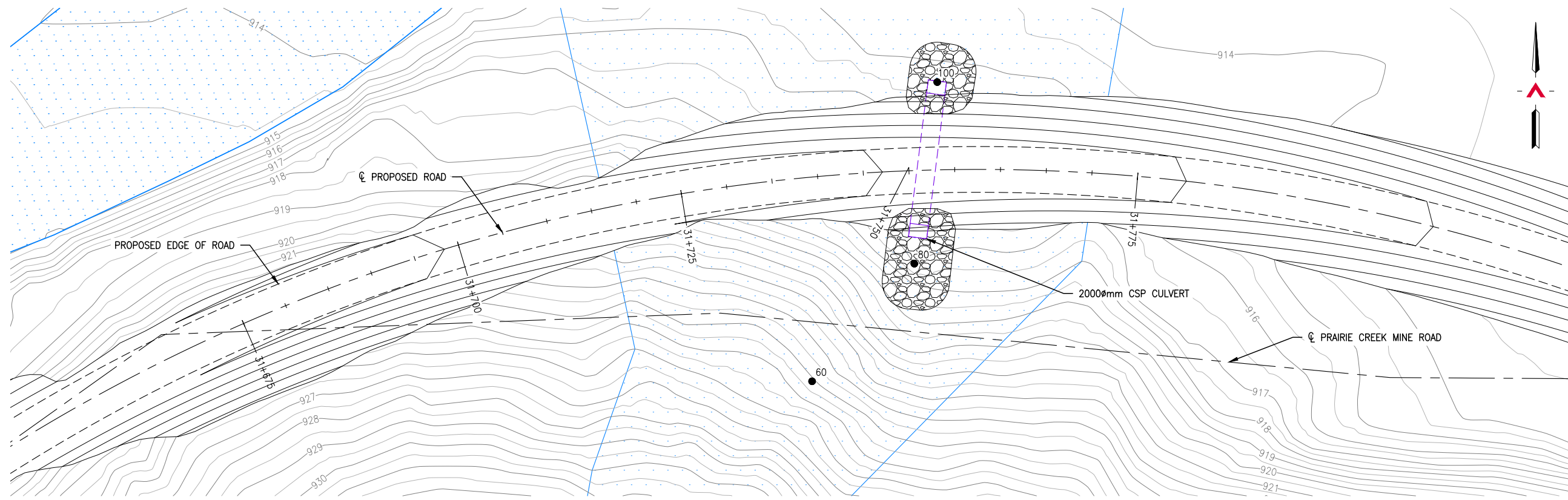
PROJECT:

**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 31+747**

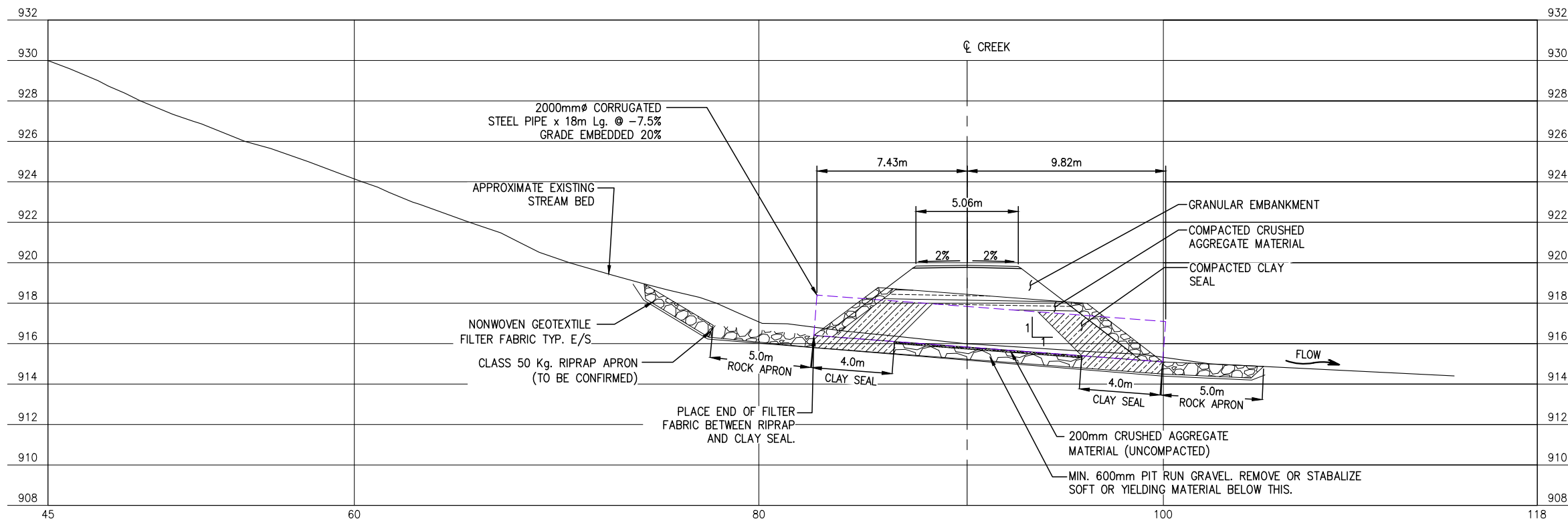
TITLE:  
**PROFILES  
AND  
SECTION VIEWS**

DWG NO:	<b>14GP0128-31.7-1960-002</b>	REV:	<b>0</b>
---------	-------------------------------	------	----------

Date: 2014/12/22 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc-PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-31.7-1960-31+700-R0-1.1\_7912 | Layout: 003 | Paper Size: 558mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500



**CULVERT PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1
-	-	-
-	-	-
-	-	-
-	-	-

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/15	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/14
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/14
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

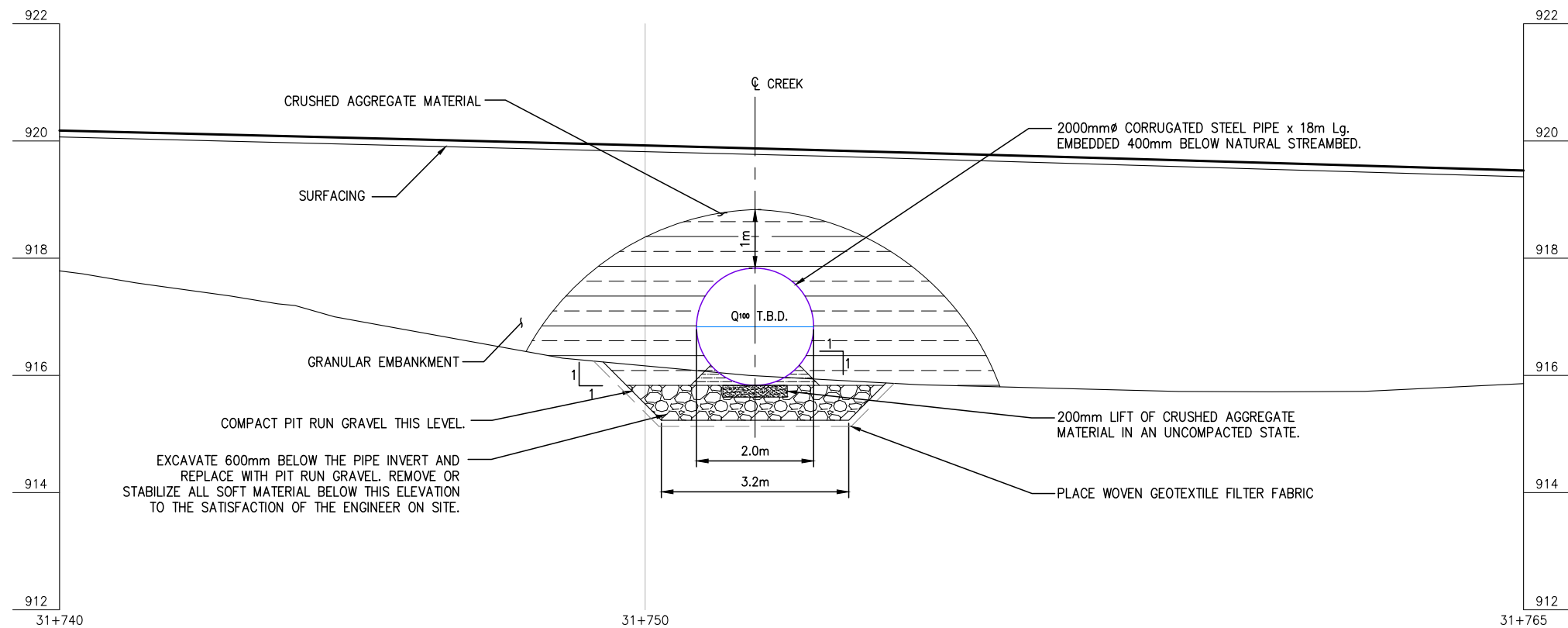
PROJECT:

**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 31+747**

TITLE:  
**GENERAL ARRANGEMENT PLAN  
AND  
CULVERT PROFILE**

DWG NO:	<b>14GP0128-31.7-1960-003</b>	REV:	<b>0</b>
---------	-------------------------------	------	----------

Date: 2014/12/22 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-31.7-1960-31+700-R0-1.1\_7912 | Layout: 004 | Paper Size: 558.8mm x 431.8mm



**CULVERT ELEVATION**  
SCALE: 1:100

**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. 1-2000mm $\phi$  x 18m Lg. @ 9° SKEW CULVERT OR APPROVED EQUAL WALL THICKNESS TO BE SPECIFIED BY CULVERT SUPPLIER.
3. RIPRAP SHALL EXTEND AROUND CULVERT INLET AND OUTLET AS SHOWN ON THE PLAN.
4. FOUNDATION, BEDDING, AND BACKFILL MATERIAL SHALL BE WELL GRADED AND FREE DRAINING AS APPROVED BY THE ENGINEER. IT SHALL NOT CONTAIN FROZEN SOIL, CHUNKS OF CLAY, OR ANY OTHER DELETERIOUS MATERIAL WITHIN 1000mm OF THE STRUCTURE.
5. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
6. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK.
7. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/15	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/14
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/14
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

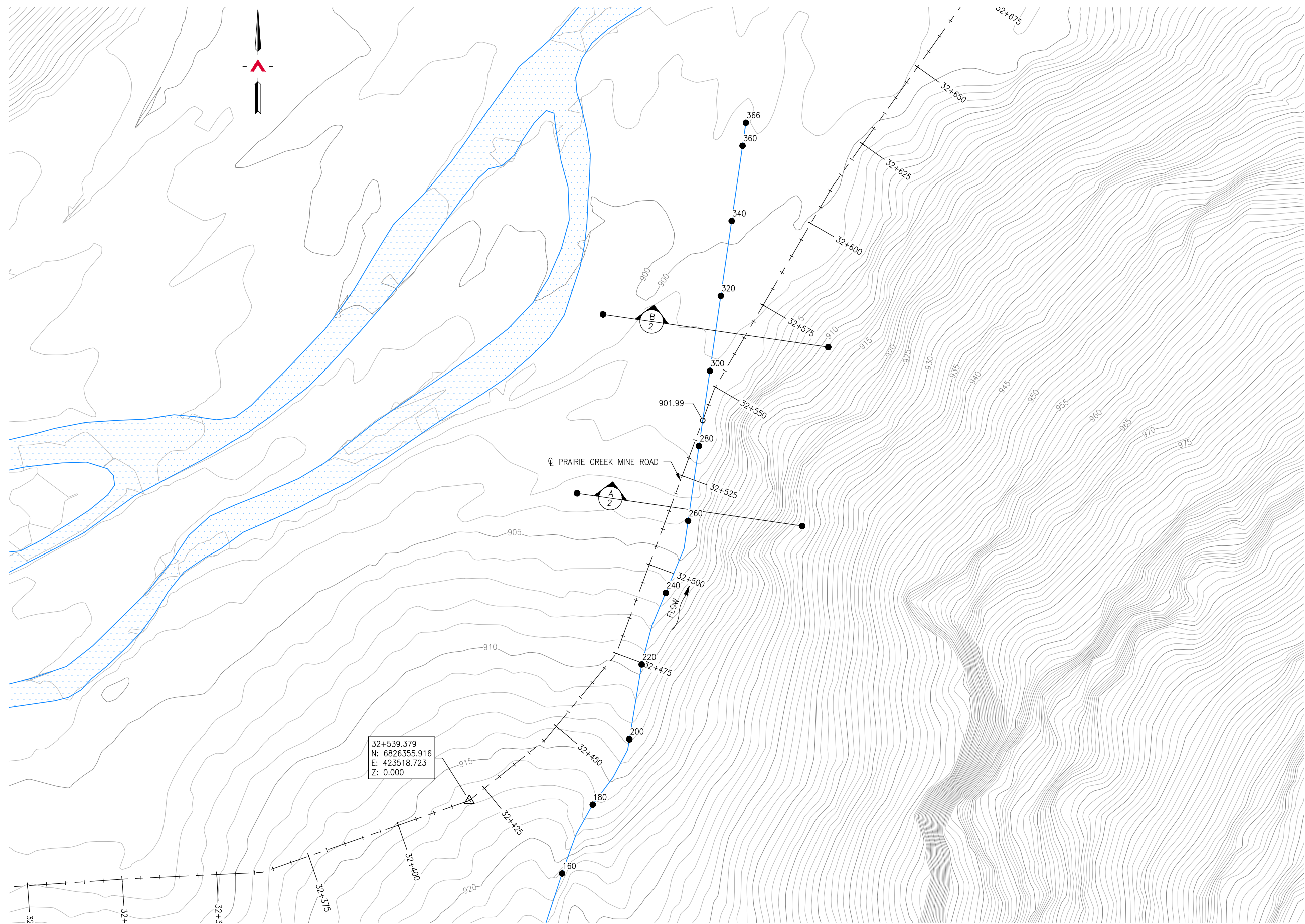
PROJECT:

**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 31+747**

TITLE:  
**CULVERT ELEVATION  
AND  
GENERAL NOTES**

DWG NO:	<b>14GP0128-31.7-1960-004</b>	REV:	<b>0</b>
---------	-------------------------------	------	----------

Date: 2014/12/23 | User: Irene Yehum | File: P:\GP\2014\10014-GP-0128\_CanadianZinc-PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\Site Plans\14GP0128-032-1960-32-400 | Layout: 001 | Paper Size: 558.8mm x 431.8mm



**SITE PLAN**  
SCALE: 1:1000

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
		1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/23	ISSUED FOR REVIEW	IHY	WBM



CLIENT NO:	DRWN: TJB	DATE: 14/11/24
PROJECT NO: 14-GP-0128	DSGN: WBM	DATE: 14/11/24
DRAWING SIZE: ANSI "B"	CHKD:	DATE:
SCALE: AS NOTED	APVD:	DATE:

**PROJECT:**

**STREAM CROSSING  
UPPER SUNDOG CREEK  
ON PRAIRIE CREEK MINE ROAD  
AT STA. 32+557**

TITLE:

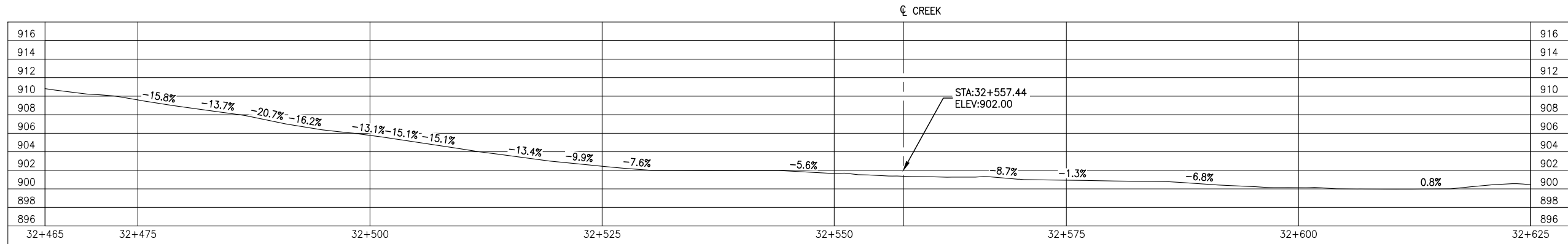
**SITE PLAN**

DWG NO: <b>14GP0128-032-1960-001</b>	REV: <b>0</b>
---	------------------

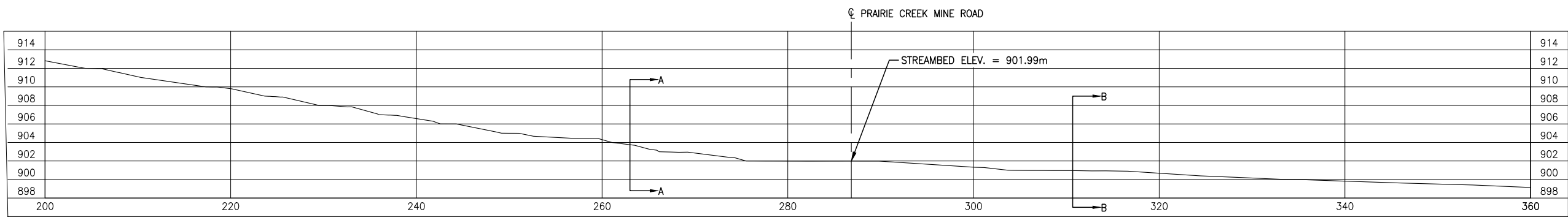
Date: 2014/12/23 | User: Irene Yehnam | File: P:\GP\2014\100\14-GP-0128\_CanadianZinc-PrairieCreekMineRoad\1000-Drawings\1011-Civil\1-Production\Site Plans\14GP0128-032-1960-32-400 | Layout: 002 | Paper Size: 558.8mm x 431.8mm

REFERENCE DRAWINGS

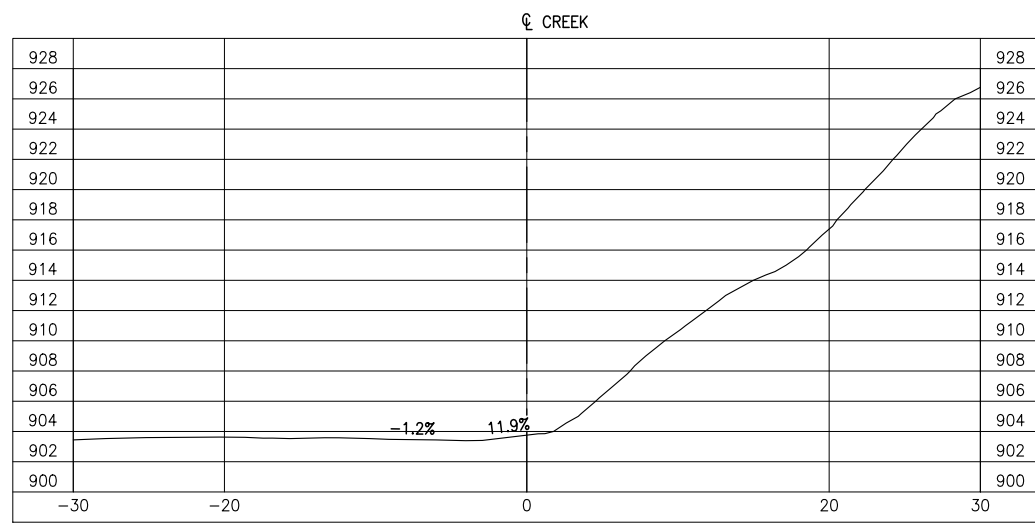
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1



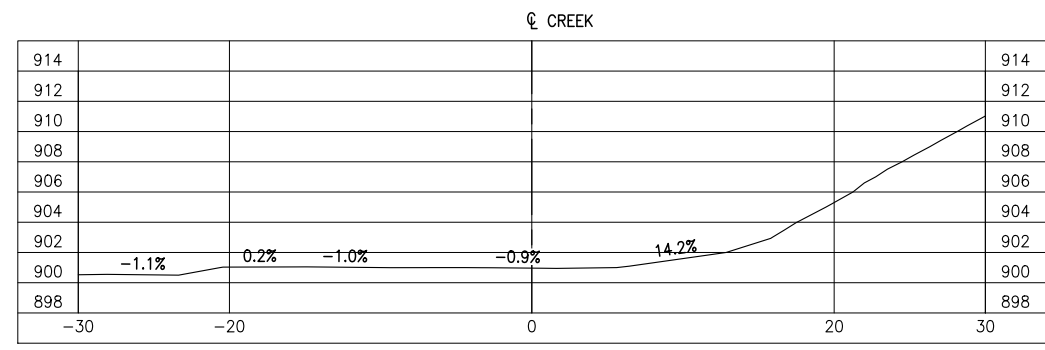
**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:500



**CREEK PROFILE**  
SCALE: 1:500  
OVERALL AVERAGE GRADIENT = -8.6%



**SECTION A**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/23	ISSUED FOR REVIEW	IHY	WBM

CLIENT:



CLIENT NO:	DRWN: TJB	DATE: 14/11/29
PROJECT NO: 14-GP-0128	DSGN: WBM	DATE: 14/11/29
DRAWING SIZE: ANSI "B"	CHKD:	DATE:
SCALE: AS NOTED	APVD:	DATE:

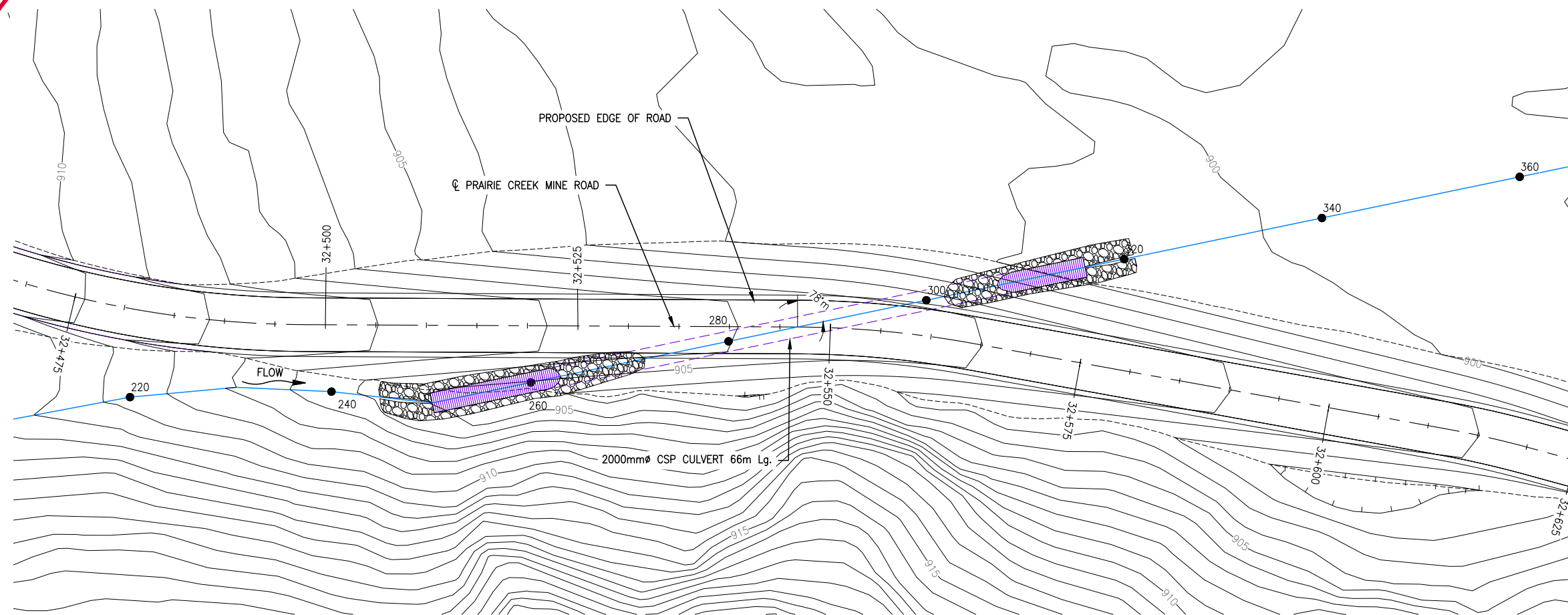
PROJECT:

**STREAM CROSSING  
UPPER SUNDOG CREEK  
ON PRAIRIE CREEK MINE ROAD  
AT STA. 32+557**

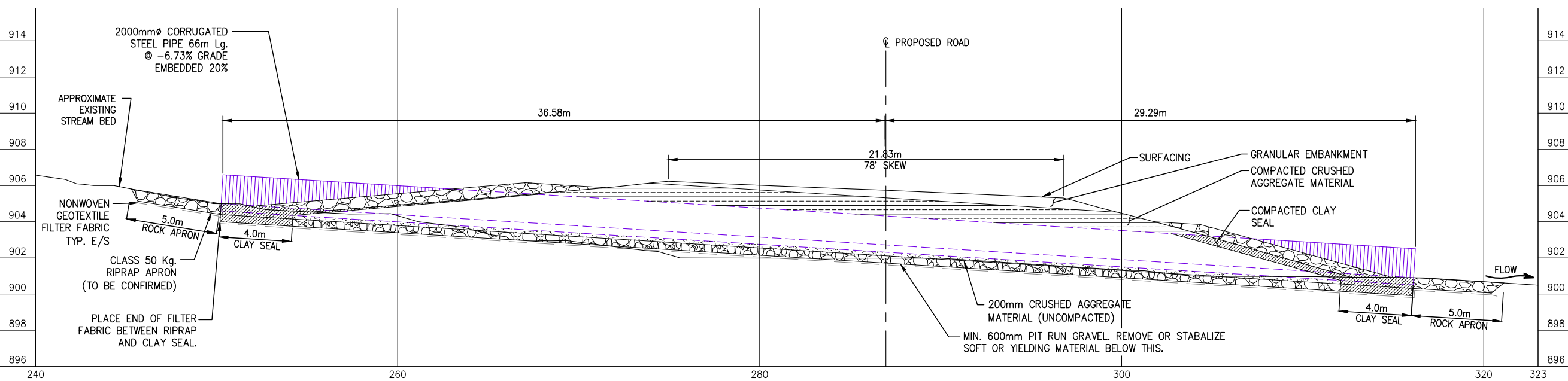
TITLE:  
**PROFILES  
AND  
SECTION VIEWS**

DWG NO: <b>14GP0128-032-1960-002</b>	REV: <b>0</b>
---	------------------

Date: 2014/12/23 | User: Irene Yehum | File: P:\GP\2014\14-GP-0128\_CanadianZinc-PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\Site Plans\14GP0128-032-1960-32-400 | Layout: 003 | Paper Size: 558.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500



**CULVERT PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/23	ISSUED FOR REVIEW	IHY	WBM



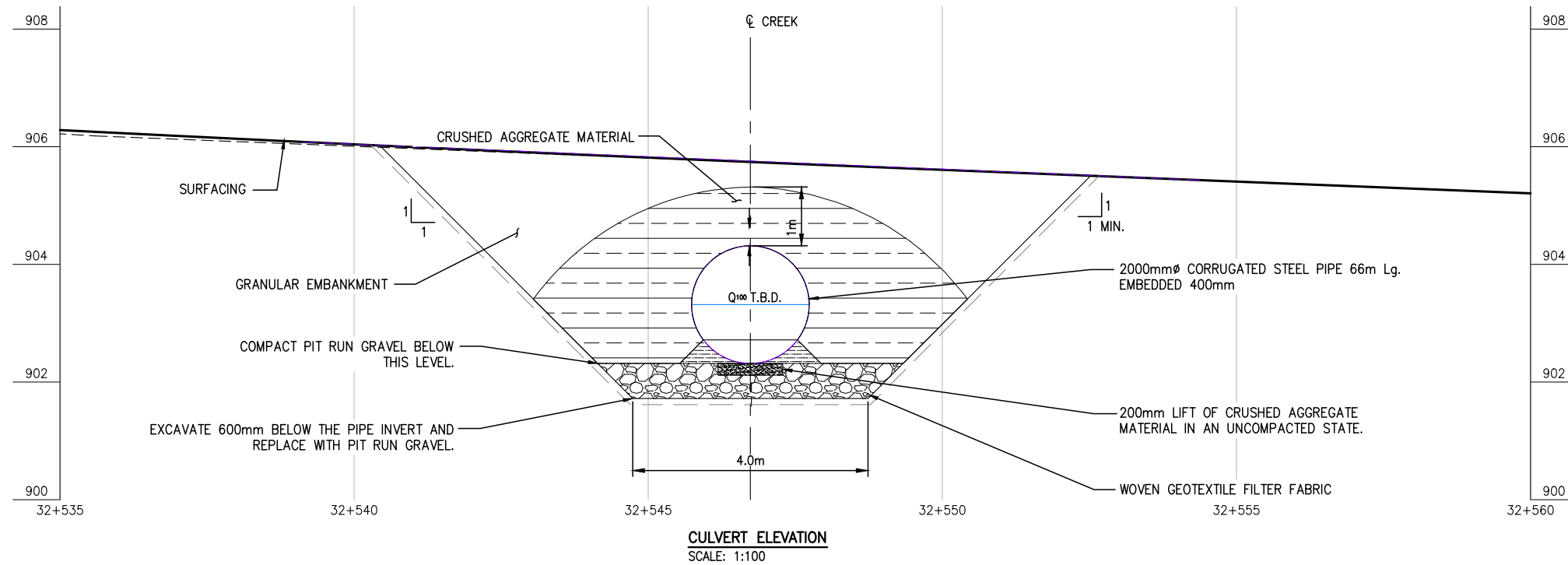
CLIENT NO:	DRWN:	IHY	DATE:	14/12/23	
PROJECT NO:	14-GP-0128	DSGN:	WBM	DATE:	14/12/20
DRAWING SIZE:	ANSI "B"	CHKD:		DATE:	
SCALE:	AS NOTED	APVD:		DATE:	

**PROJECT:**  
**STREAM CROSSING**  
**UPPER SUNDOG CREEK**  
**ON PRAIRIE CREEK MINE ROAD**  
**AT STA. 32+557**

**TITLE:**  
**GENERAL ARRANGEMENT**  
**PLAN AND CULVERT PROFILE**

DWG NO:	14GP0128-032-1960-003	REV:	0
---------	-----------------------	------	---

Date: 2014/12/23 | User: Irene Yehum | File: P:\GP\2014\10014-GP-0128\_CanadianZinc-PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\Site Plans\14GP0128-032-1960-32+400 | Layout: 004 | Paper Size: 558.8mm x 431.8mm



**CULVERT ELEVATION**  
SCALE: 1:100

**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. 2000mm $\phi$  x 66.0m Lg. @ 78° SKEW CULVERT OR APPROVED EQUAL. WALL THICKNESS TO BE SPECIFIED BY CULVERT SUPPLIER.
3. RIPRAP SHALL EXTEND AROUND CULVERT INLET AND OUTLET AS SHOWN ON THE PLAN.
4. FOUNDATION, BEDDING, AND BACKFILL MATERIAL SHALL BE WELL GRADED AND FREE DRAINING AS APPROVED BY THE ENGINEER. IT SHALL NOT CONTAIN FROZEN SOIL, CHUNKS OF CLAY, OR ANY OTHER DELETERIOUS MATERIAL WITHIN 1000mm OF THE STRUCTURE.

ENGINEERED FILL:	
SIEVE SIZE mm	PERCENT PASSING
75.0	100
25.0	50-100
4.75	25-60
0.3	5-30
0.075	0-10

5. NON-WOVEN FILTER FABRIC TO BE PLACED ON INSIDE OF ABUTMENT WALL SYSTEM PRIOR TO BACKFILL TO HAVE A MINIMUM MULLEN BURST STRENGTH OF 2500kPa. FILTER FABRIC TO BE LAPPED AT 300mm MINIMUM AT JOINTS.
6. ALL EXPOSED MINERAL SOILS MUST BE SEEDED USING AN APPROVED RECLAMATION GRASS SEED MIXTURE AND COVERED WITH AN APPROVED EROSION CONTROL BLANKET.
7. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
8. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK.
9. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.

REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/23	ISSUED FOR REVIEW	IHY	WBM

CLIENT:



CLIENT NO:	DRWN:	IHY	DATE:	14/12/23	
PROJECT NO:	14-GP-0128	DSGN:	WBM	DATE:	14/12/20
DRAWING SIZE:	ANSI "B"	CHKD:		DATE:	
SCALE:	AS NOTED	APVD:		DATE:	

PROJECT:

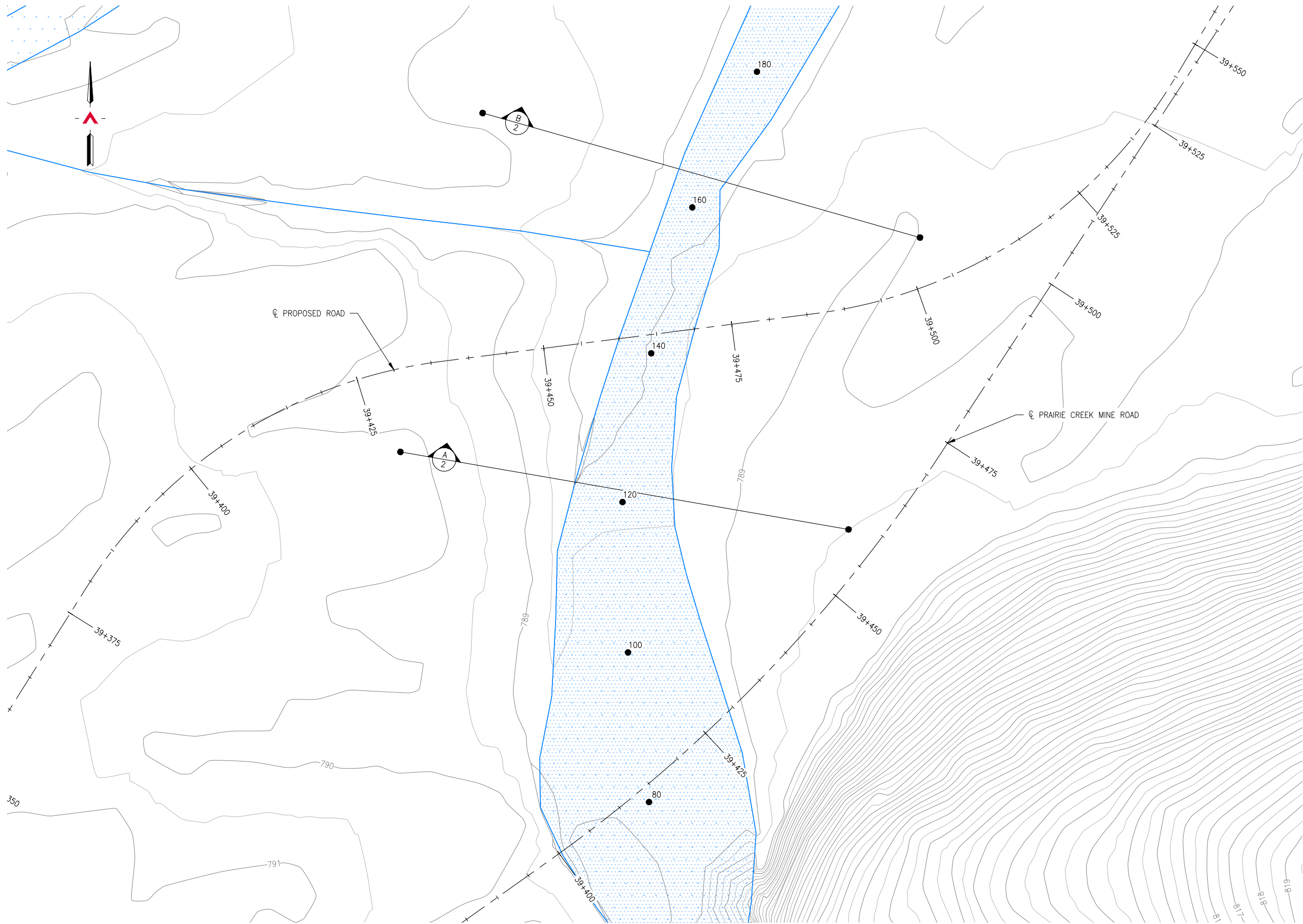
**STREAM CROSSING  
UPPER SUNDG CREEK  
ON PRAIRIE CREEK MINE ROAD  
AT STA. 32+557**

TITLE:

**CULVERT ELEVATION  
AND NOTES**

DWG NO:	<b>14GP0128-032-1960-004</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2015/01/09 | User: Tammy Beer | File: P:\GP\_2014\10014-GP-0128\_CanadaZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\Production\_Site Plans\14GP0128-039-1960\_39+400\_Option B | Layout: 001 | Paper Size: 558.8mm x 431.8mm



**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
		1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/11	ISSUED FOR REVIEW	IHY	WBM

CLIENT:



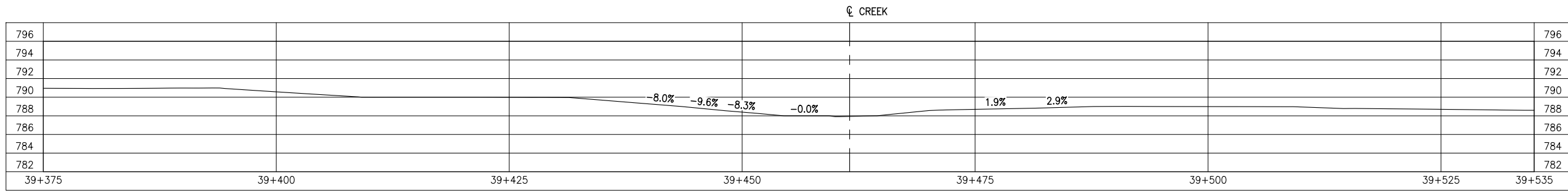
CLIENT NO:	DRWN: TJB	DATE: 14/11/24
PROJECT NO: 14-GP-0128	DSGN: WBM	DATE: 14/11/24
DRAWING SIZE: ANSI "B"	CHKD:	DATE:
SCALE: AS NOTED	APVD:	DATE:

PROJECT:  
**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 39+465  
OPTION 'B'**

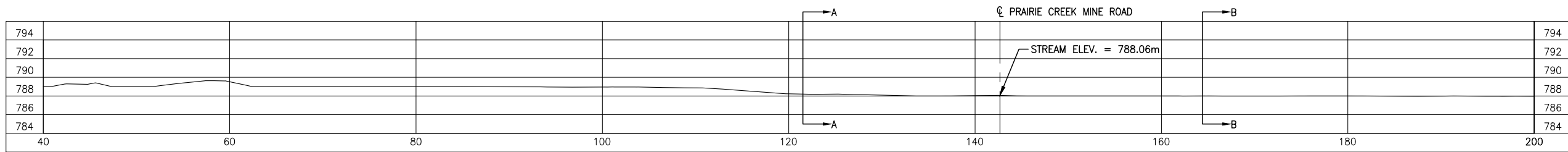
TITLE:  
**SITE PLAN**

DWG NO: <b>14GP0128-039-1960-001</b>	REV: <b>0</b>
---	------------------

Date: 2015/01/08 | User: Tammy Beer | File: P:\GP\_2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-039-1960\_39+400\_Option B | Layout: 002 | Paper Size: 558.8mm x 431.8mm

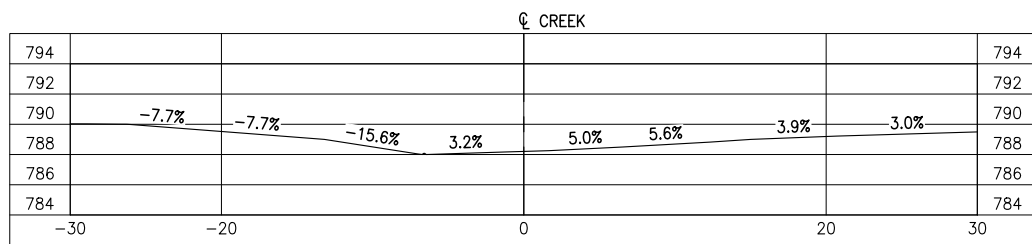


**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:500

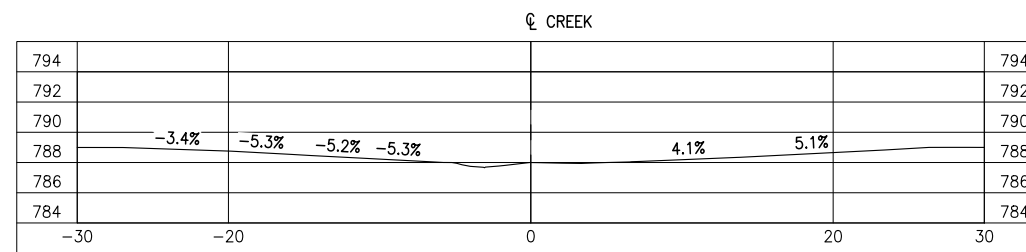


**CREEK PROFILE**  
SCALE: 1:500

OVERALL AVERAGE GRADIENT = -1.0%



**SECTION A**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/12	ISSUED FOR REVIEW	IHY	WBM

CLIENT:



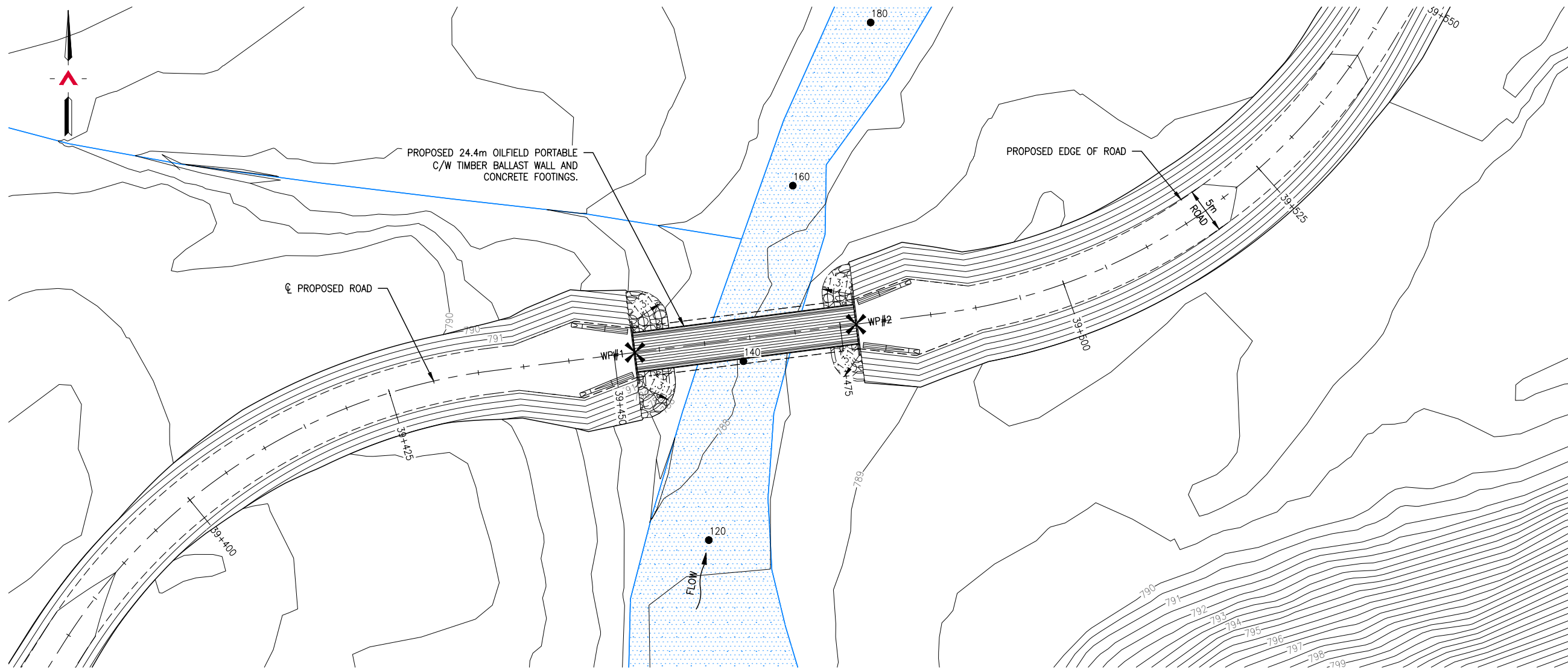
CLIENT NO:	DRWN: TJB	DATE: 14/11/26
PROJECT NO: 14-GP-0128	DSGN: WBM	DATE: 14/11/26
DRAWING SIZE: ANSI "B"	CHKD:	DATE:
SCALE: AS NOTED	APVD:	DATE:

**PROJECT:**  
**STREAM CROSSING**  
**UPPER SUNDOG CREEK**  
**PRAIRIE CREEK MINE ROAD**  
**AT STA. 39+465**  
**OPTION 'B'**

**TITLE:**  
**PROFILES**  
**AND**  
**SECTION VIEWS**

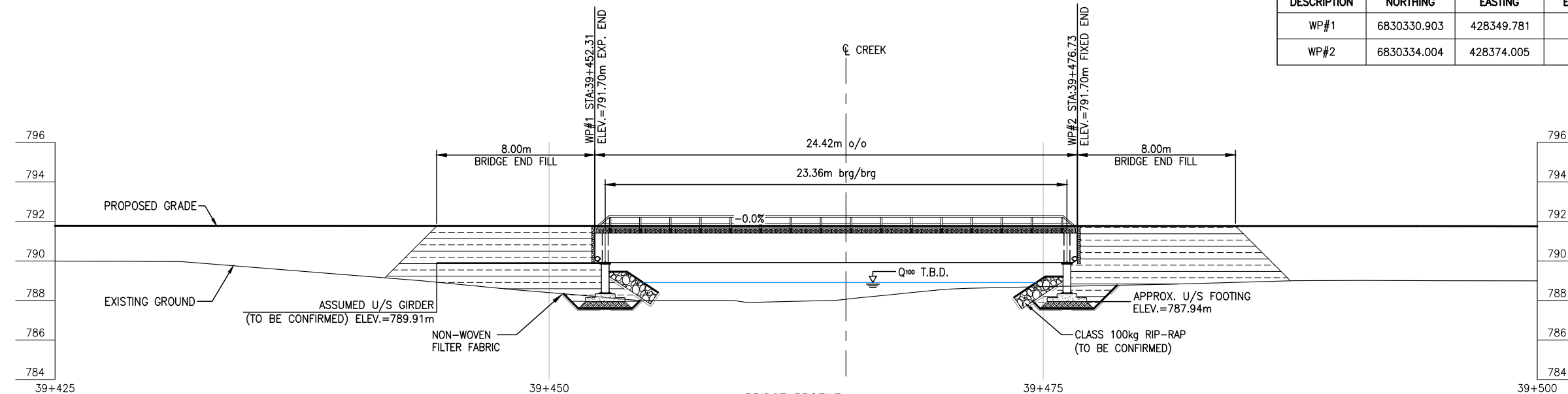
DWG NO:	REV:
<b>14GP0128-039-1960-002</b>	<b>0</b>

Date: 2015/01/08 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-039-1960\_39+400\_Option B | Layout: 003 | Paper Size: 558.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500

SURVEY CONTROL			
DESCRIPTION	NORTHING	EASTING	ELEVATION
WP#1	6830330.903	428349.781	791.700
WP#2	6830334.004	428374.005	791.700



**BRIDGE PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
		1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/12	ISSUED FOR REVIEW	IHY	WBM



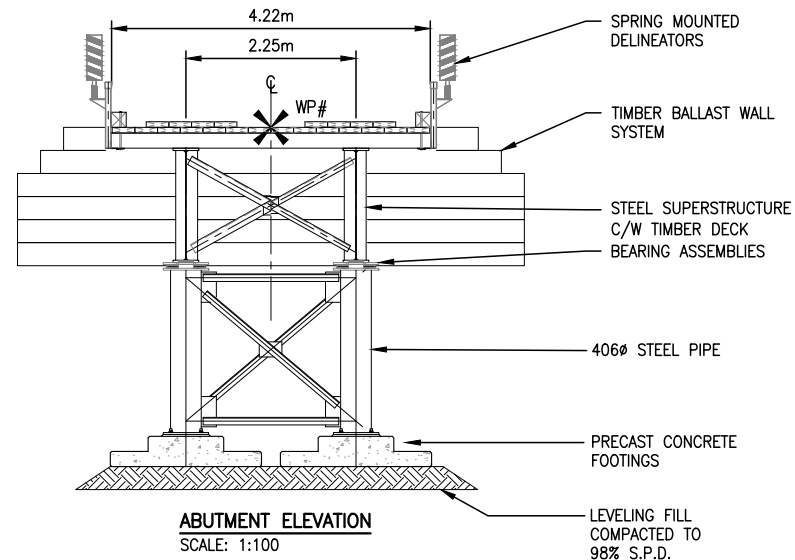
CLIENT NO:	DRWN:	IHY	DATE:	14/12/11	
PROJECT NO:	14-GP-0128	DSGN:	WBM	DATE:	14/12/10
DRAWING SIZE:	ANSI "B"	CHKD:		DATE:	
SCALE:	AS NOTED	APVD:		DATE:	

**PROJECT:**  
**STREAM CROSSING**  
**UPPER SUNDG CREEK**  
**PRAIRIE CREEK MINE ROAD**  
**AT STA. 39+465**  
**OPTION 'B'**

**TITLE:**  
**GENERAL ARRANGEMENT PLAN**  
**AND BRIDGE PROFILE**

DWG NO:	14GP0128-039-1960-003	REV:	0
---------	-----------------------	------	---

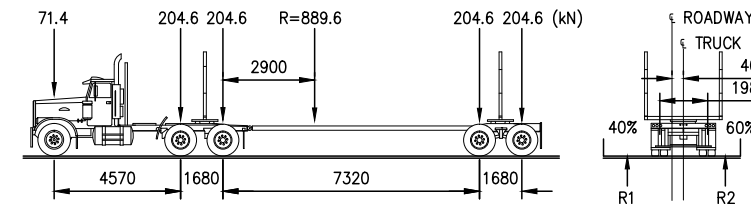
Date: 2015/01/08 | User: Tammy Beer | File: P:\GP\_2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-039-1960\_39+460\_Option B | Layout: 004 | Paper Size: 558.8mm x 431.8mm



**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. BRIDGE STRUCTURE SHOWN ON GENERAL ARRANGEMENT PLAN AS MANUFACTURED BY RAPID-SPAN STRUCTURES LTD.
3. RIPRAP SHALL EXTEND AROUND ABUTMENTS AS SHOWN ON THE PLAN.
4. NO SITE SPECIFIC GEOTECHNICAL INVESTIGATION HAS BEEN COMPLETED AT THE SITE TO DATE. THEREFORE, THIS CONCEPTUAL DESIGN HAS BEEN PREPARED WITHOUT THE BENEFIT OF GEOTECHNICAL ADVICE. GROUND CONDITIONS MAY VARY AND THE FOUNDATION CONCEPT MAY NEED TO BE MODIFIED TO ACCOMMODATE ACTUAL SITE CONDITIONS.
5. BACK FILL OF APPROACHES SHALL GENERALLY CONFORM TO THE LINES SHOWN ON THE DRAWINGS AND SHALL BE PLACED IN LIFTS NOT EXCEEDING 305mm THICK, COMPACTED TO 95% STANDARD PROCTOR DENSITY. MATERIAL SHALL BE NON-FROZEN, CLEAN, FREE DRAINING, WELL GRADED GRANULAR FILL OF 75mm MAXIMUM SIZE. USE LIGHT MECHANICAL TAMPERS ONLY.
6. CONSTRUCTION SHALL BE CARRIED OUT IN SUCH A MANNER AS TO ENSURE WATER QUALITY IS MAINTAINED BY KEEPING SOIL EROSION AND RUN-OFF TO A MINIMUM DURING INCLEMENT WEATHER AND BY TAKING MEASURES TO PREVENT SEDIMENTATION, LEACHATE, AND CONSTRUCTION MATERIALS FROM ENTERING THE STREAM.
7. OPERATE MACHINERY IN A MANNER THAT MINIMIZES DISTURBANCE TO THE BANKS OF THE WATERCOURSE. MACHINERY IS TO ARRIVE ON SITE IN CLEAN CONDITION AND IS TO BE MAINTAINED FREE OF FLUID LEAKS. REFUEL AND SERVICE MACHINERY AT MINIMUM 100m AWAY FROM THE WATERCOURSE. ENSURE EMERGENCY SPILL KIT IS ON SITE IN CASE OF FLUID LEAKS OR SPILLS FROM MACHINERY.
8. ALL EXPOSED MINERAL SOILS MUST BE SEEDED USING AN APPROVED RECLAMATION GRASS SEED MIXTURE AND COVERED WITH AN APPROVED EROSION CONTROL BLANKET.
9. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
10. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.
11. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK. INSTALLATION OF WORKS TO COMPLY WITH BEST MANAGEMENT PRACTICES.
12. DESIGN SPEED OF APPROACH ROAD SHOWN IS 30 km/hr. LOCAL CHAINAGE SHOWN RELATIVE TO APPROXIMATE CENTRE OF STREAM.
13. STRUCTURE DESIGN SHALL BE COMPLETED IN ACCORDANCE WITH CAN/CSA-S6-06 CANADIAN HIGHWAY BRIDGE DESIGN CODE, WITH VARIATIONS IN THE DESIGN LOADING VEHICLE TO MEET ANTICIPATED VEHICLE LOADING.

**LOADING DIAGRAM L-100 OFF HIGHWAY G.V.W. = 90 680kg;  
DESIGN IN ACCORDANCE WITH CAN/CSA-S6-06 WITH MODIFIED LOADING AS FOLLOWS:**



REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/12	ISSUED FOR REVIEW	IHY	WBM



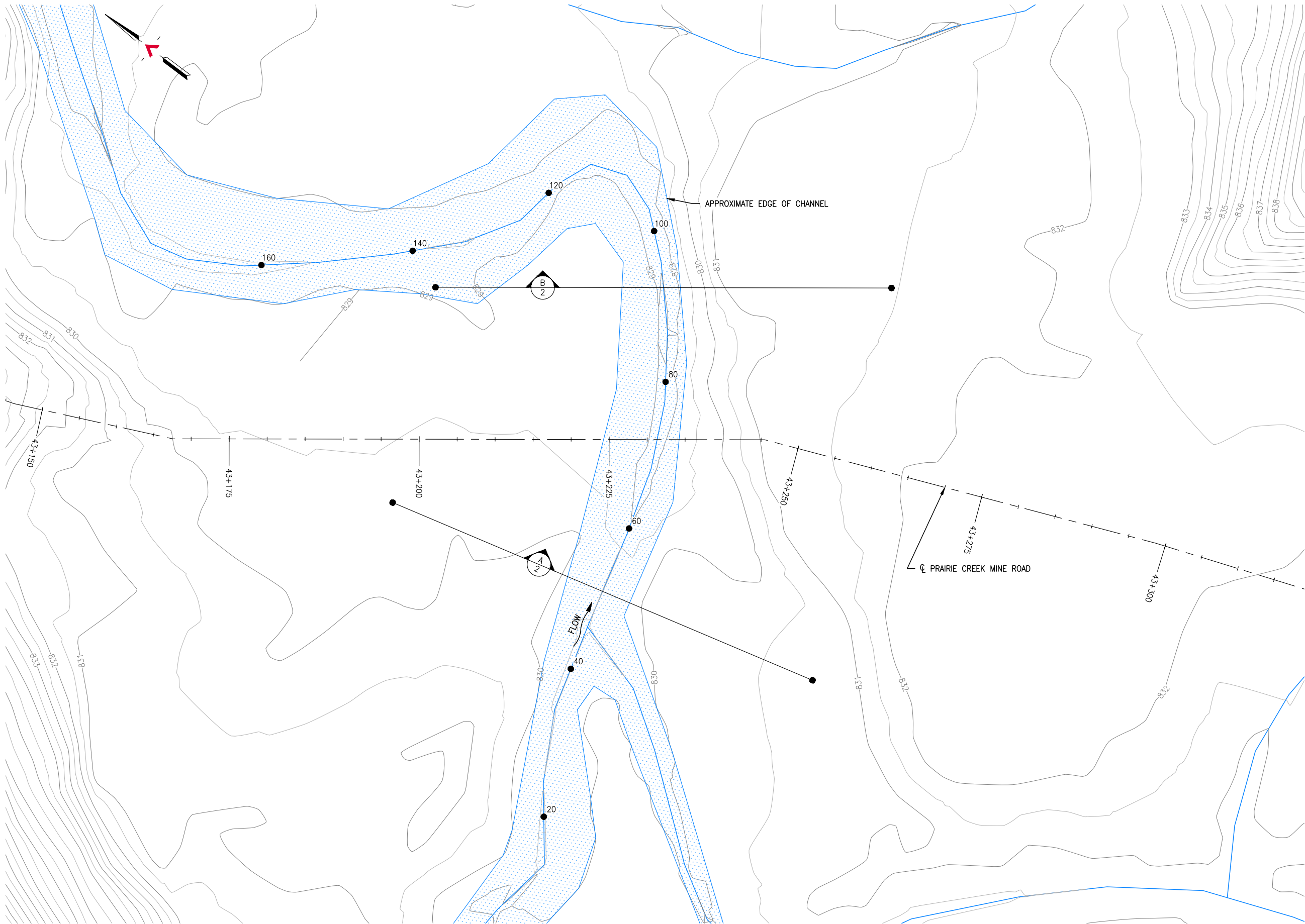
CLIENT NO:	DRWN:	IHY	DATE:	14/12/11	
PROJECT NO:	14-GP-0128	DSGN:	WBM	DATE:	14/12/10
DRAWING SIZE:	ANSI "B"	CHKD:		DATE:	
SCALE:	AS NOTED	APVD:		DATE:	

**PROJECT:**  
**STREAM CROSSING  
UPPER SUNDOG CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 39+465  
OPTION 'B'**

**TITLE:**  
**ABUTMENT ELEVATION  
AND NOTES**

DWG NO:	14GP0128-039-1960-004	REV:	0
---------	-----------------------	------	---

Date: 2015/01/08 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc-PrairieCreekMine\BoxA\1000-Drawings\1011-Civil\Production\_Site Plans\14GP0128-043-1960-01-200-Option B | Layout: 001 | Paper Size: 558.8mm x 431.8mm



**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
		1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	15/01/06	ISSUED FOR REVIEW	TJB	WBM



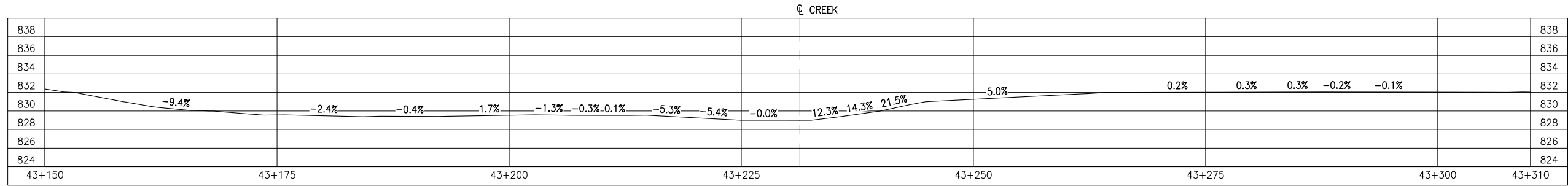
CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/22
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/22
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING  
UNNAMED CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 43+230  
OPTION 'B'**

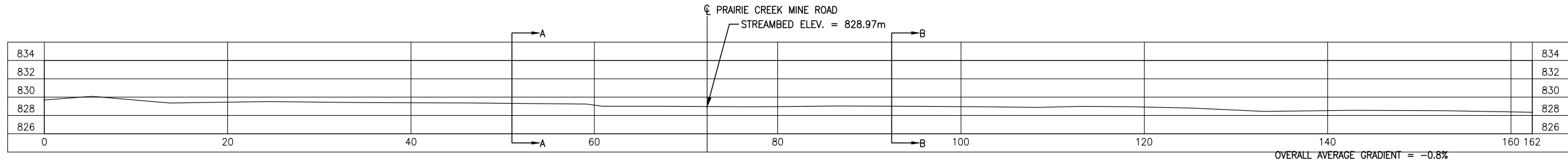
TITLE:  
**SITE PLAN**

DWG NO:	<b>14GP0128-043-1960-001</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

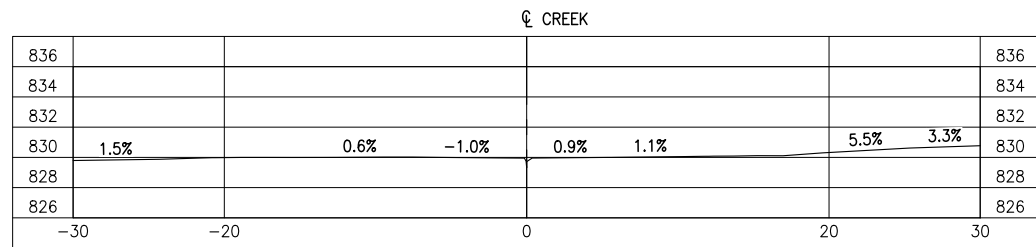
Date: 2015/01/07 | User: Tammy Beer | File: P:\GP\_2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\Drawings\1001-Civil\01-Production\_Site Plans\14GP0128-043-1960-03+200-Option B | Layout: 002 | Paper Size: 558.8mm x 431.8mm



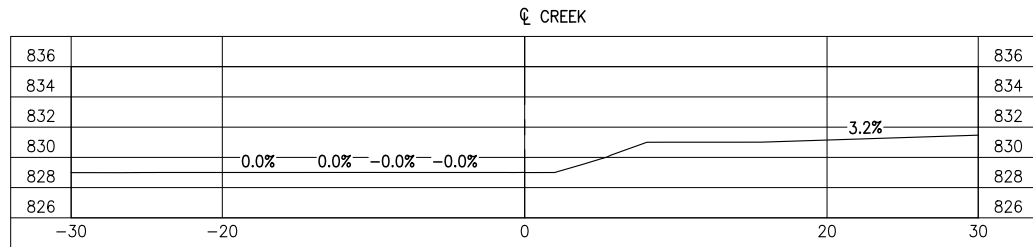
**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:500



**CREEK PROFILE**  
SCALE: 1:500



**SECTION A**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	15/01/06	ISSUED FOR REVIEW	TJB	WBM



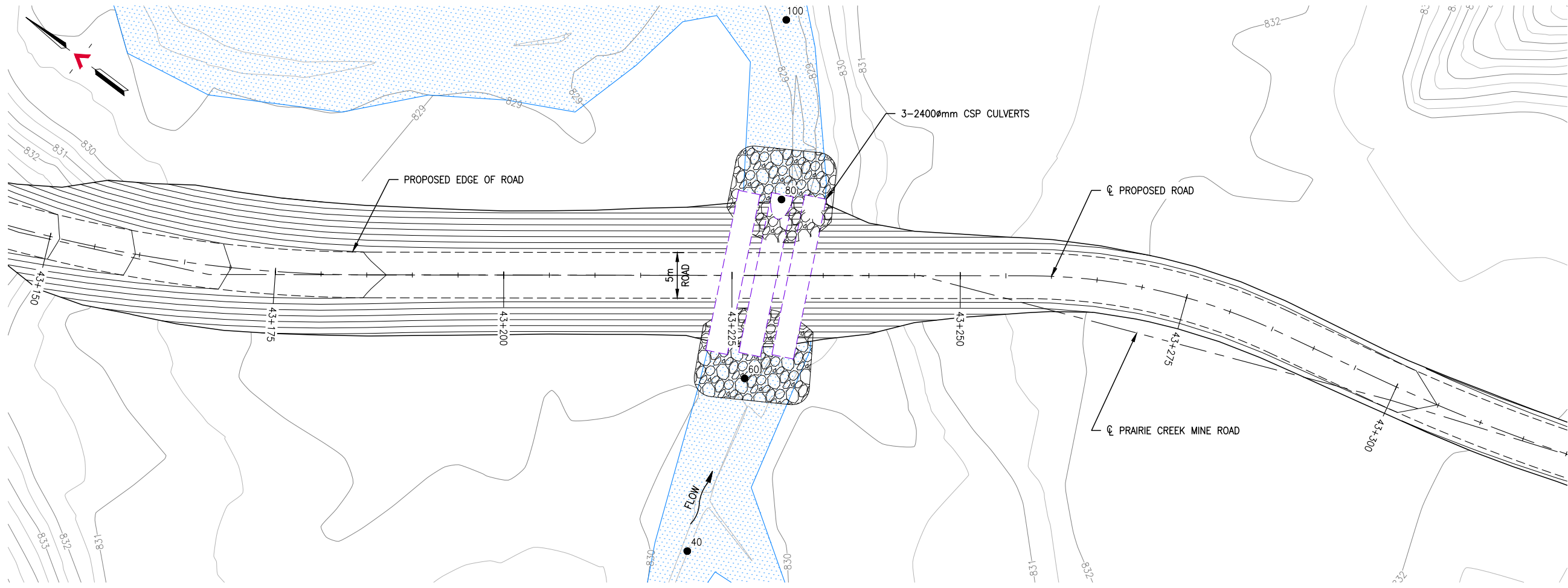
CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/22
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/22
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING UNNAMED CREEK PRAIRIE CREEK MINE ROAD AT STA. 43+230 OPTION 'B'**

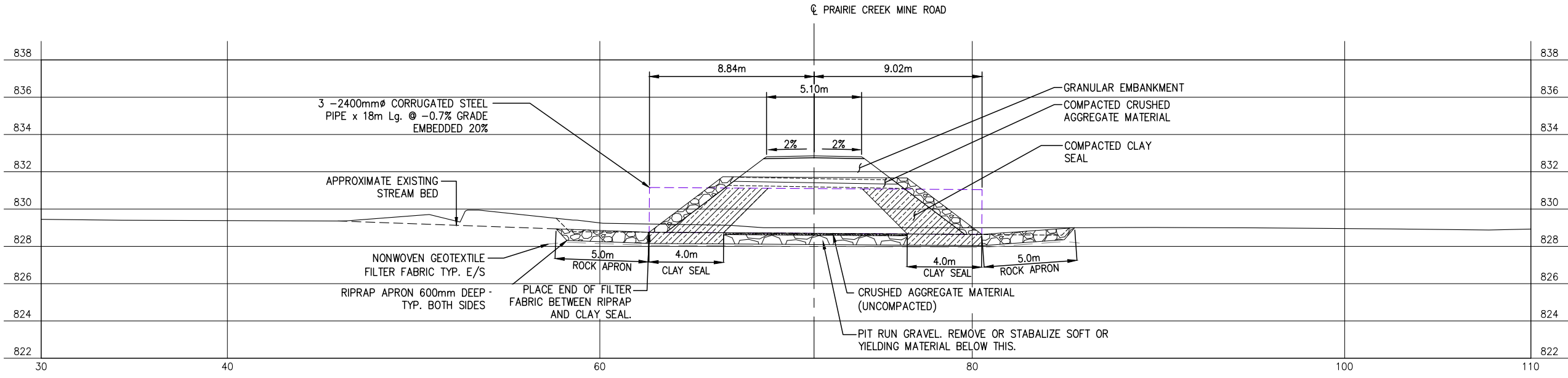
**TITLE:**  
**PROFILE VIEWS AND SECTION VIEWS**

DWG NO:	<b>14GP0128-043-1960-002</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2015/01/08 | User: Tammy Beer | File: P:\GP\_2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-043-1960-03+200-Option B | Layout: 003 | Paper Size: 558.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500



**CULVERT PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1
-	-	-
-	-	-
-	-	-
-	-	-

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other or unauthorised manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	15/01/06	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



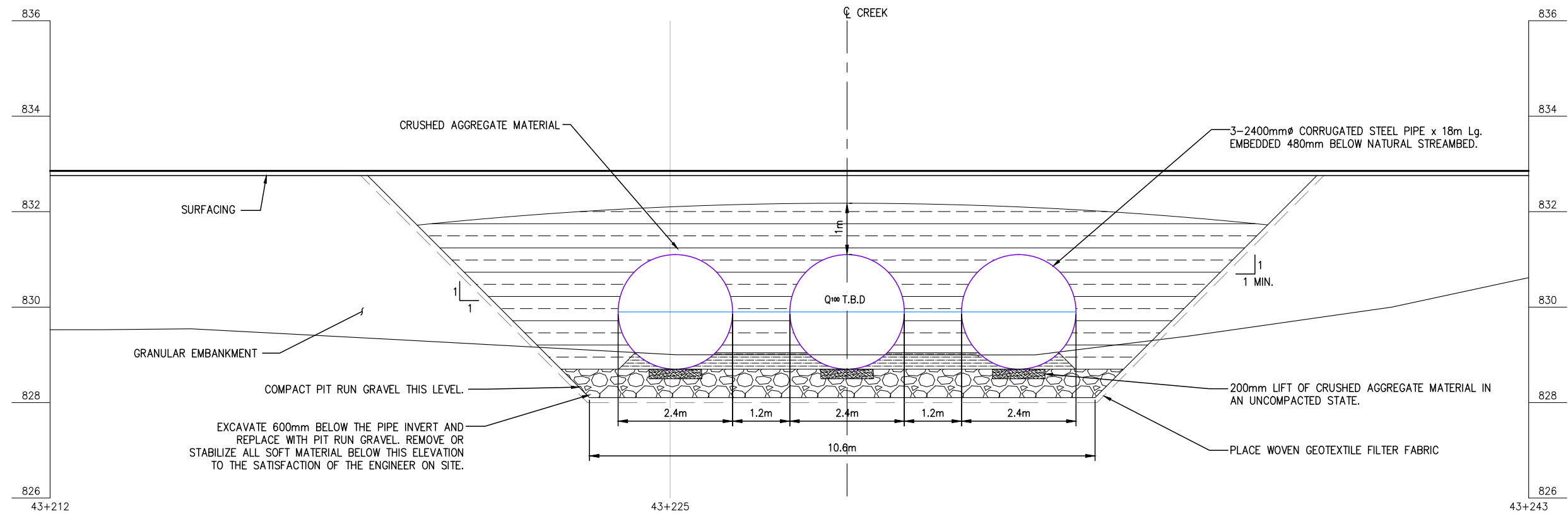
CLIENT NO:	-	DRWN:	TJB	DATE:	15/01/06
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	15/01/06
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING**  
**UNNAMED CREEK**  
**PRAIRIE CREEK MINE ROAD**  
**AT STA. 43+230**  
**OPTION 'B'**

**TITLE:**  
**GENERAL ARRANGEMENT PLAN**  
**AND**  
**CULVERT PROFILE**

DWG NO:	<b>14GP0128-043-1960-003</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2015/01/08 | User: Tammy Beer | File: P:\GP\_2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-043-1960-03+200-Option B | Layout: 004 | Paper Size: 558.8mm x 431.8mm



**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. 3-2400mm $\phi$  x 18m Lg. @ 12' SKEW CULVERT OR APPROVED EQUAL WALL THICKNESS TO BE SPECIFIED BY CULVERT SUPPLIER.
3. RIPRAP SHALL EXTEND AROUND CULVERT INLET AND OUTLET AS SHOWN ON THE PLAN.
4. FOUNDATION, BEDDING, AND BACKFILL MATERIAL SHALL BE WELL GRADED AND FREE DRAINING AS APPROVED BY THE ENGINEER. IT SHALL NOT CONTAIN FROZEN SOIL, CHUNKS OF CLAY, OR ANY OTHER DELETERIOUS MATERIAL WITHIN 1000mm OF THE STRUCTURE.
5. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
6. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK.
7. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.

REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	15/01/06	ISSUED FOR REVIEW	TJB	WBM



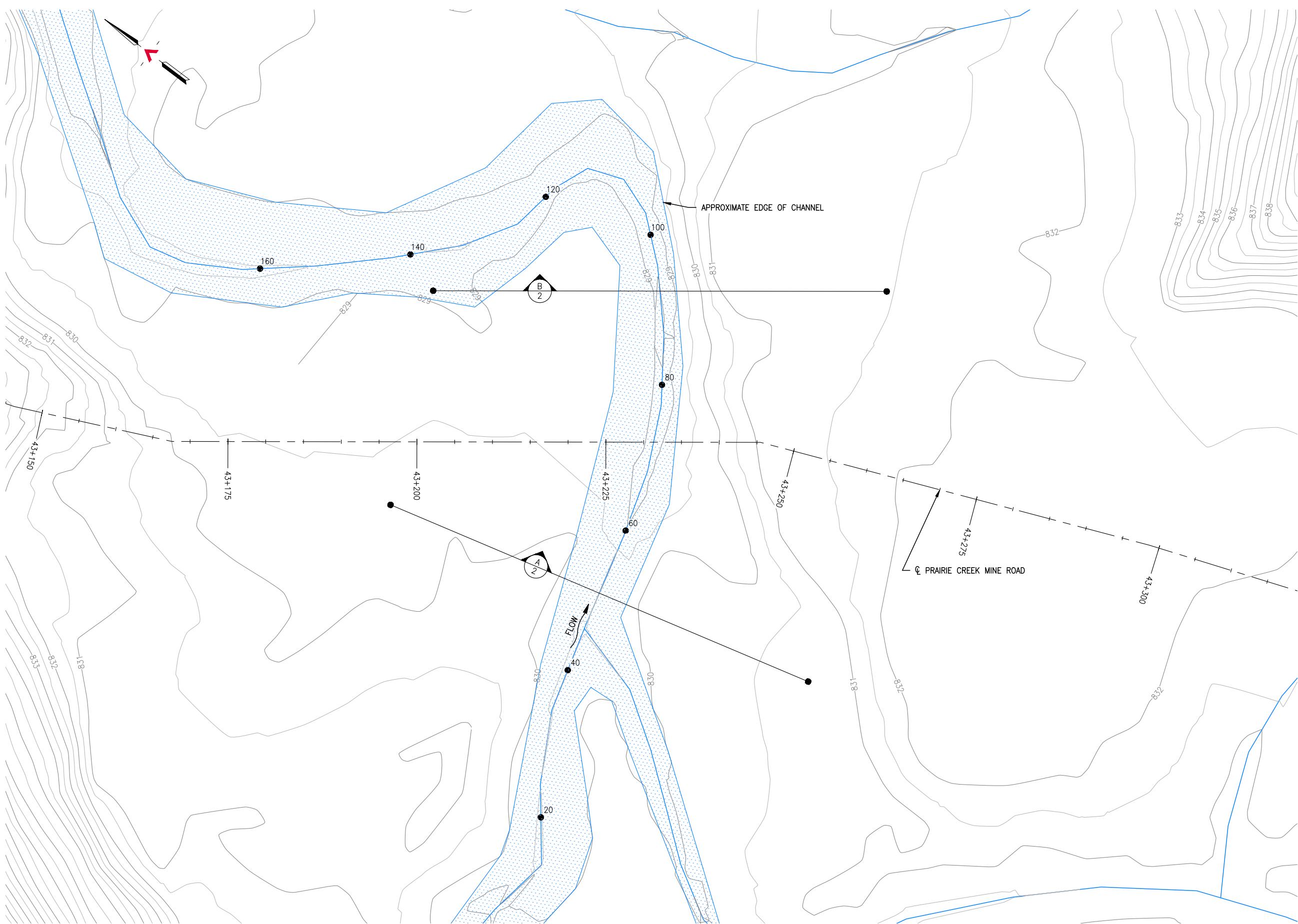
CLIENT NO:	-	DRWN:	TJB	DATE:	15/01/06
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	15/01/06
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

PROJECT:  
**STREAM CROSSING  
UNNAMED CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 43+230  
OPTION 'B'**

TITLE:  
**CULVERT ELEVATION  
AND  
GENERAL NOTES**

DWG NO:	<b>14GP0128-043-1960-004</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/23 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\BoxA\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-043-1960-01-200 | Layout: 001 | Paper Size: 558.8mm x 431.8mm



**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
		1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/22	ISSUED FOR REVIEW	TJB	WBM



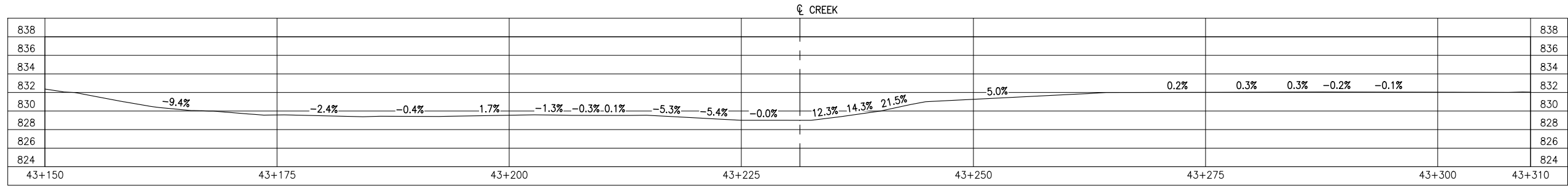
CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/22
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/22
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING  
UNNAMED CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 43+230**

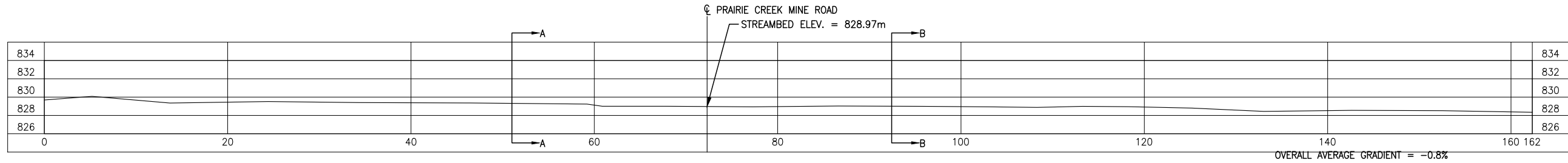
TITLE:  
**SITE PLAN**

DWG NO:	<b>14GP0128-043-1960-001</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

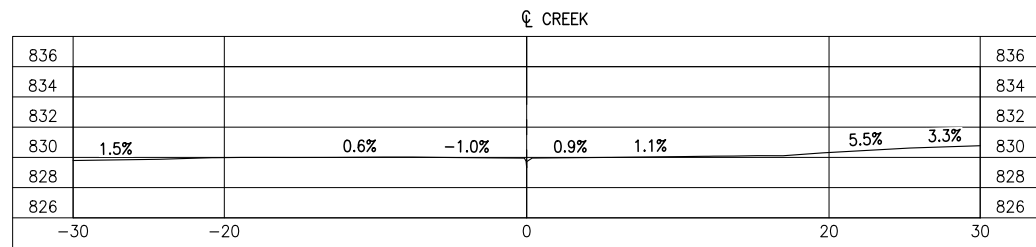
Date: 2014/12/23 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-043-1960-03+200 | Layout: 002 | Paper Size: 558.8mm x 431.8mm



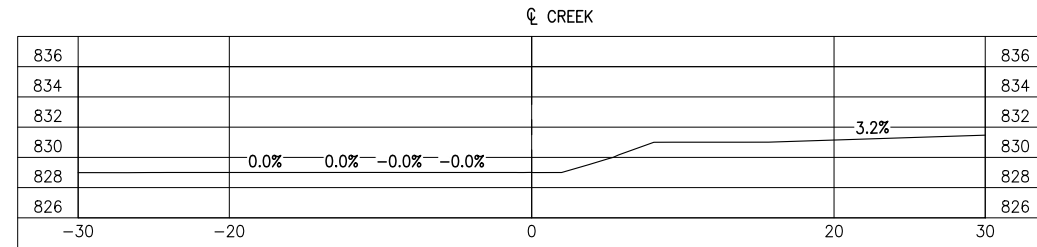
**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:500



**CREEK PROFILE**  
SCALE: 1:500



**SECTION A**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, in part or in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/22	ISSUED FOR REVIEW	TJB	WBM

CLIENT:

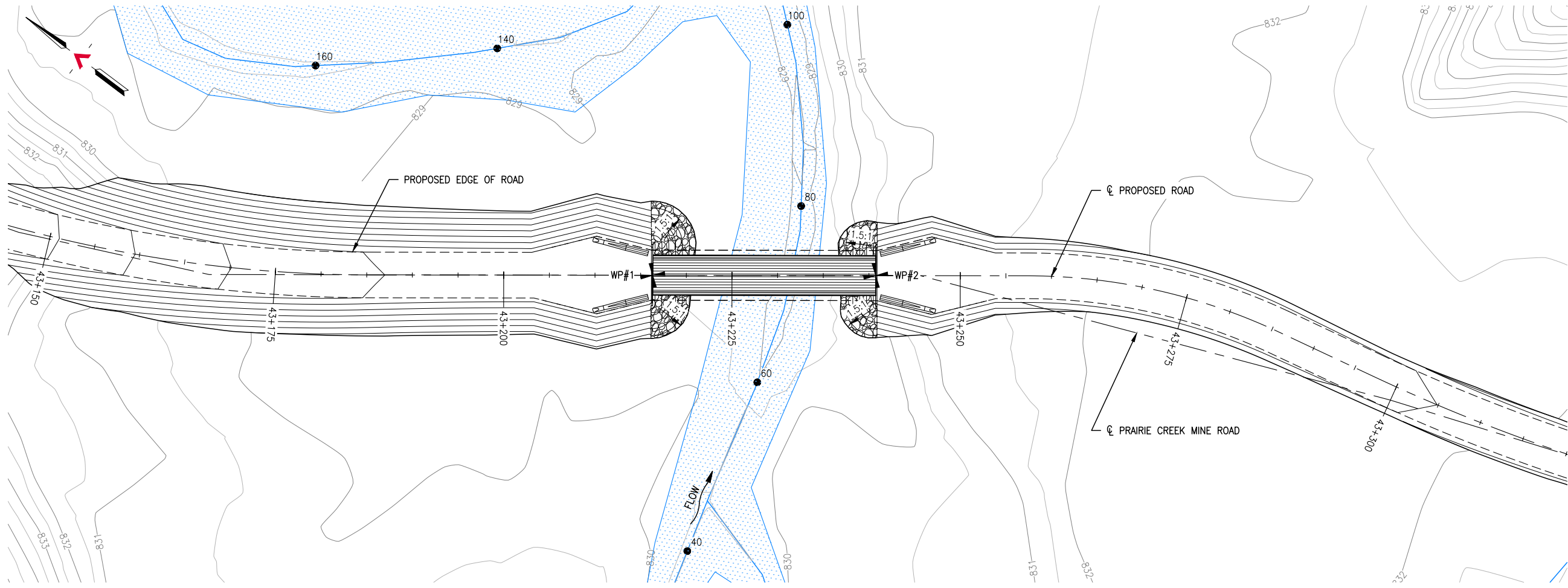
CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/22
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/22
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING UNNAMED CREEK PRAIRIE CREEK MINE ROAD AT STA. 43+230**

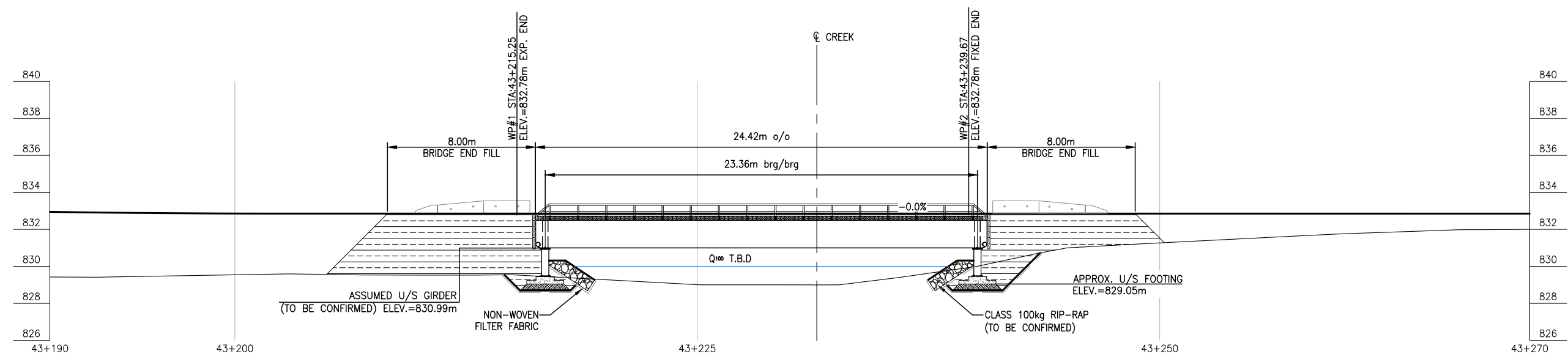
**TITLE:**  
**PROFILE VIEWS AND SECTION VIEWS**

DWG NO:	<b>14GP0128-043-1960-002</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/23 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-043-1960-03.rvt | Layout: 003 | Paper Size: 558.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500



**BRIDGE PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
		1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/22	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



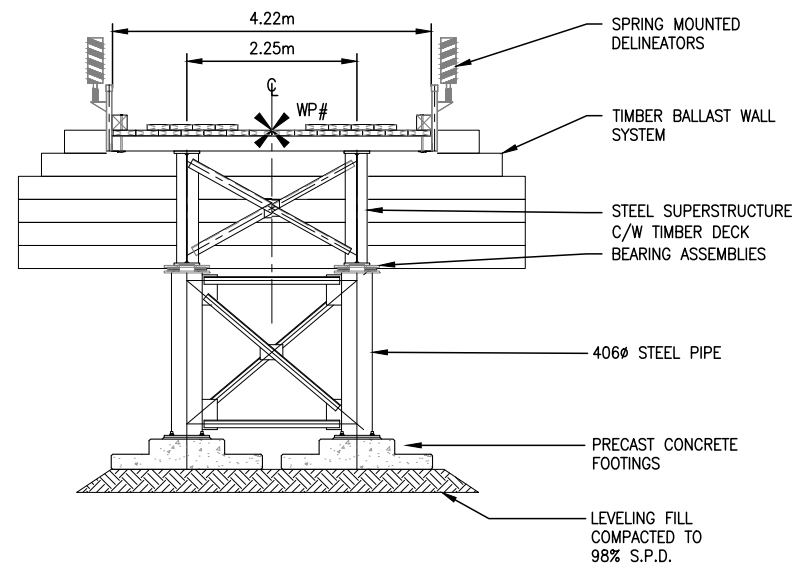
CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/22
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/22
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

PROJECT:

**STREAM CROSSING  
UNNAMED CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 43+230**

TITLE:  
**GENERAL ARRANGEMENT PLAN  
AND  
BRIDGE PROFILE**

DWG NO:	<b>14GP0128-043-1960-003</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

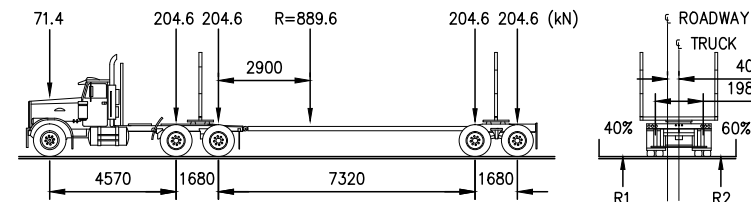


**ABUTMENT ELEVATION**  
SCALE: 1:100

**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. BRIDGE STRUCTURE SHOWN ON GENERAL ARRANGEMENT PLAN AS MANUFACTURED BY RAPID-SPAN STRUCTURES LTD.
3. RIPRAP SHALL EXTEND AROUND ABUTMENTS AS SHOWN ON THE PLAN.
4. NO SITE SPECIFIC GEOTECHNICAL INVESTIGATION HAS BEEN COMPLETED AT THE SITE TO DATE. THEREFORE, THIS CONCEPTUAL DESIGN HAS BEEN PREPARED WITHOUT THE BENEFIT OF GEOTECHNICAL ADVICE. GROUND CONDITIONS MAY VARY AND THE FOUNDATION CONCEPT MAY NEED TO BE MODIFIED TO ACCOMMODATE ACTUAL SITE CONDITIONS.
5. BACK FILL OF APPROACHES SHALL GENERALLY CONFORM TO THE LINES SHOWN ON THE DRAWINGS AND SHALL BE PLACED IN LIFTS NOT EXCEEDING 305mm THICK, COMPACTED TO 95% STANDARD PROCTOR DENSITY. MATERIAL SHALL BE NON-FROZEN, CLEAN, FREE DRAINING, WELL GRADED GRANULAR FILL OF 75mm MAXIMUM SIZE. USE LIGHT MECHANICAL TAMPERS ONLY.
6. CONSTRUCTION SHALL BE CARRIED OUT IN SUCH A MANNER AS TO ENSURE WATER QUALITY IS MAINTAINED BY KEEPING SOIL EROSION AND RUN-OFF TO A MINIMUM DURING INCLEMENT WEATHER AND BY TAKING MEASURES TO PREVENT SEDIMENTATION, LEACHATE, AND CONSTRUCTION MATERIALS FROM ENTERING THE STREAM.
7. OPERATE MACHINERY IN A MANNER THAT MINIMIZES DISTURBANCE TO THE BANKS OF THE WATERCOURSE. MACHINERY IS TO ARRIVE ON SITE IN CLEAN CONDITION AND IS TO BE MAINTAINED FREE OF FLUID LEAKS. REFUEL AND SERVICE MACHINERY AT MINIMUM 100m AWAY FROM THE WATERCOURSE. ENSURE EMERGENCY SPILL KIT IS ON SITE IN CASE OF FLUID LEAKS OR SPILLS FROM MACHINERY.
8. ALL EXPOSED MINERAL SOILS MUST BE SEEDED USING AN APPROVED RECLAMATION GRASS SEED MIXTURE AND COVERED WITH AN APPROVED EROSION CONTROL BLANKET.
9. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
10. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.
11. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK. INSTALLATION OF WORKS TO COMPLY WITH BEST MANAGEMENT PRACTICES.
12. DESIGN SPEED OF APPROACH ROAD SHOWN IS 30 km/hr. LOCAL CHAINAGE SHOWN RELATIVE TO APPROXIMATE CENTRE OF STREAM.
13. STRUCTURE DESIGN SHALL BE COMPLETED IN ACCORDANCE WITH CAN/CSA-S6-06 CANADIAN HIGHWAY BRIDGE DESIGN CODE, WITH VARIATIONS IN THE DESIGN LOADING VEHICLE TO MEET ANTICIPATED VEHICLE LOADING.

**LOADING DIAGRAM L-100 OFF HIGHWAY G.V.W. = 90 680kg:  
DESIGN IN ACCORDANCE WITH CAN/CSA-S6-06 WITH MODIFIED LOADING AS FOLLOWS:**



REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/22	ISSUED FOR REVIEW	TJB	WBM



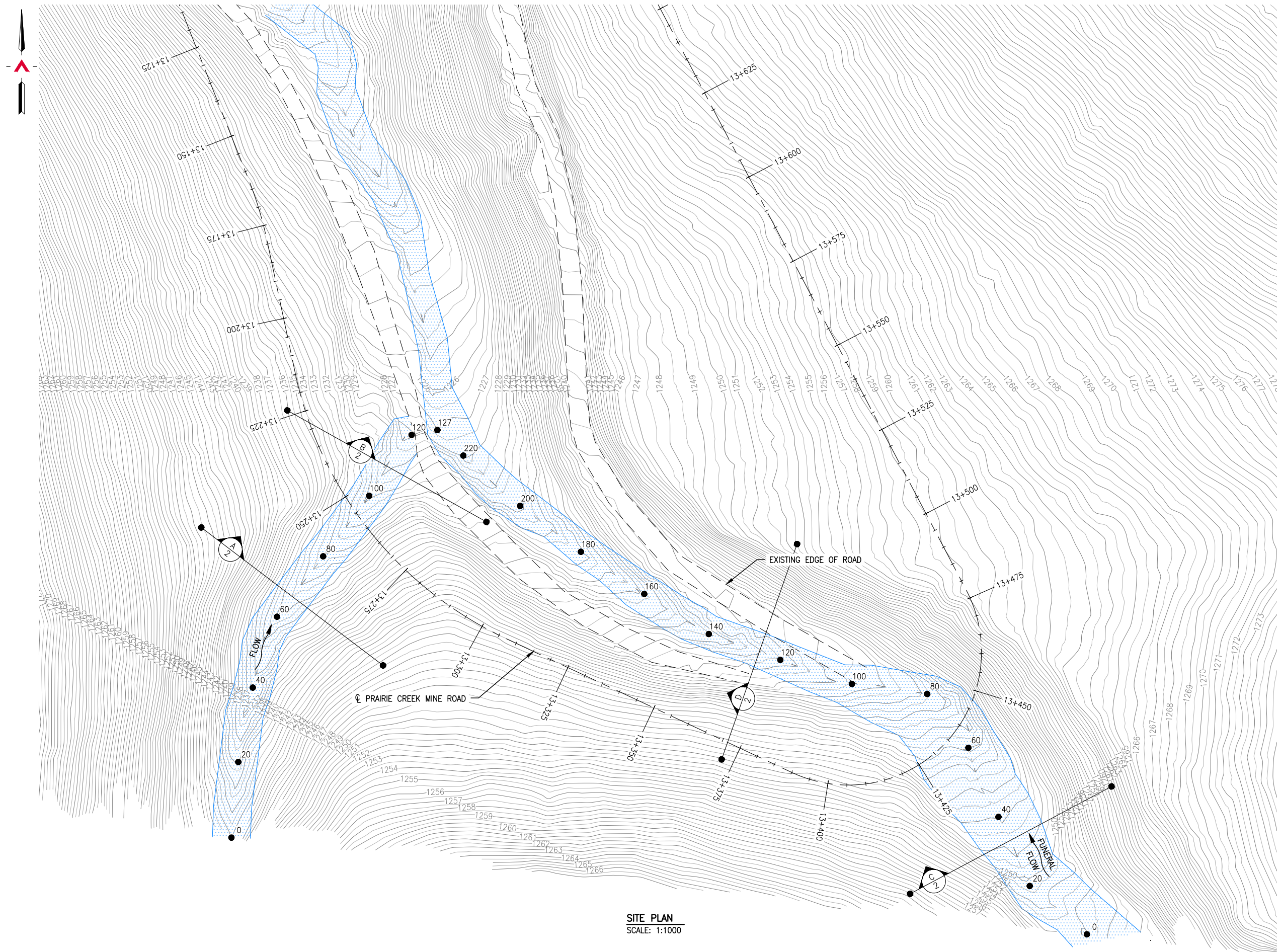
CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/22
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/22
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING  
UNNAMED CREEK  
PRAIRIE CREEK MINE ROAD  
AT STA. 43+230**

**TITLE:**  
**ABUTMENT ELEVATIONS  
AND  
GENERAL NOTES**

DWG NO:	<b>14GP0128-043-1960-004</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/18 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-013-1960\_13+420\_80 | Layout: 001 | Paper Size: 598.8mm x 431.8mm



**SITE PLAN**  
SCALE: 1:1000

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
		1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/06	ISSUED FOR REVIEW	TJB	WBM



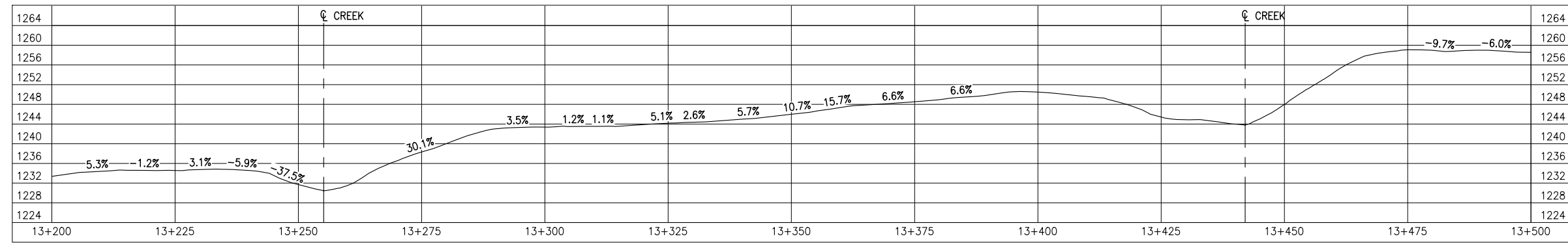
CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/05
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/05
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING**  
**FUNERAL CREEK**  
**ON PRAIRIE CREEK MINE ROAD**  
**AT STA. 13+255.14**  
**AND STA. 13+442.03**

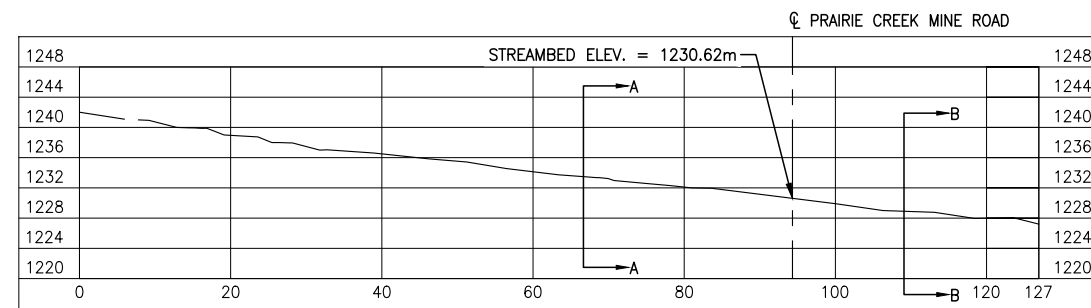
TITLE:  
**SITE PLAN**

DWG NO:	<b>14GP0128-013-1960-001</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

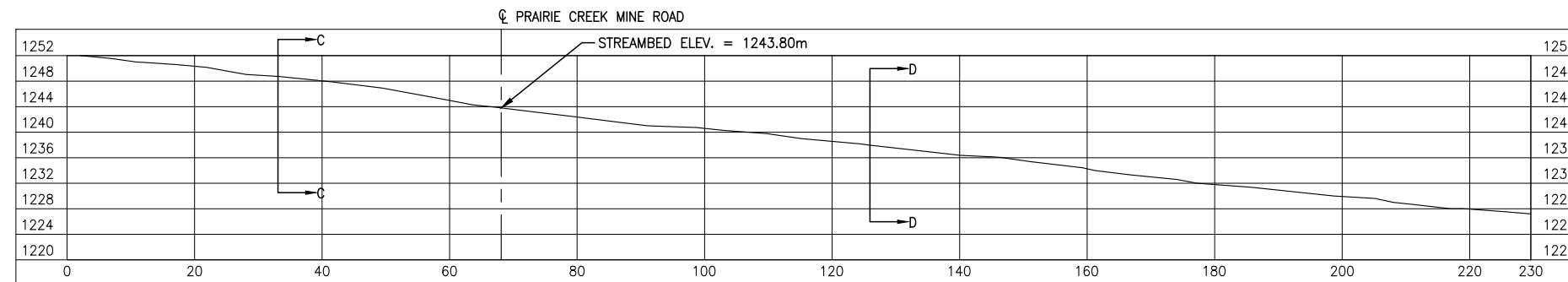
Date: 2014/12/18 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-013-1960\_13+420\_80 | Layout: 002 | Paper Size: 598.8mm x 431.8mm



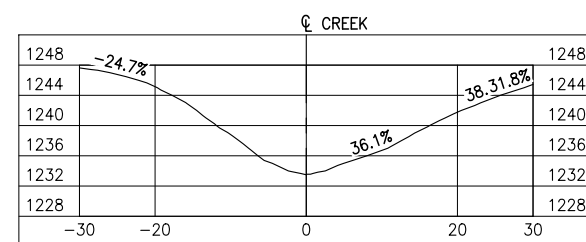
**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:1000



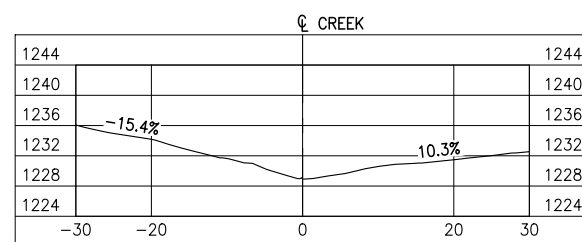
**CREEK PROFILE @ 13+256.16**  
SCALE: 1:1000



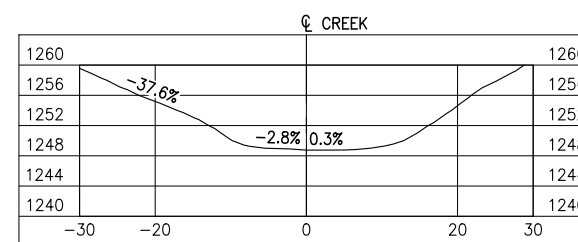
**CREEK PROFILE @ 13+418.01**  
SCALE: 1:1000



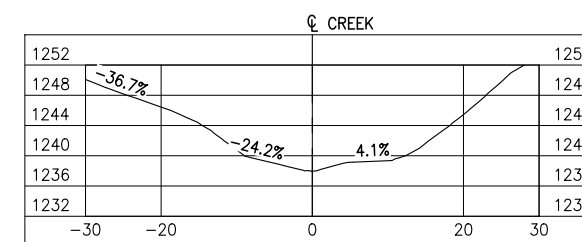
**SECTION A**  
SCALE: 1:1000



**SECTION B**  
SCALE: 1:1000



**SECTION C**  
SCALE: 1:1000



**SECTION D**  
SCALE: 1:1000

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the end user property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/06	ISSUED FOR REVIEW	TJB	WBM



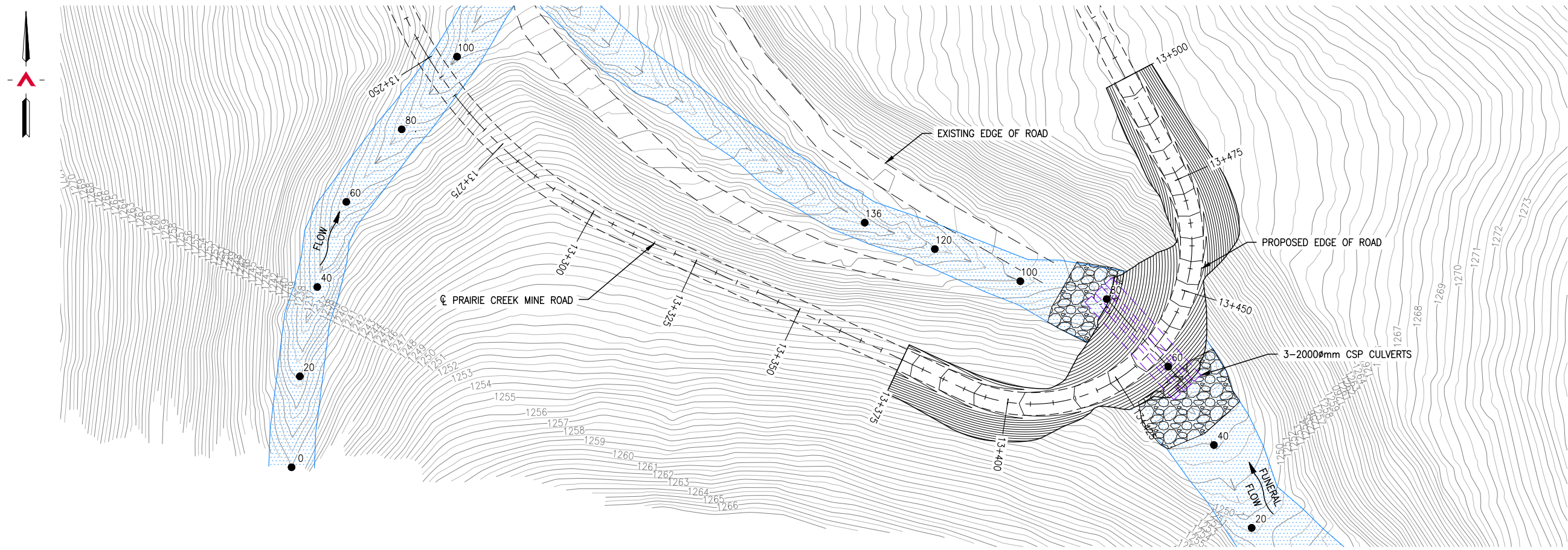
CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/05
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/05
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING**  
**FUNERAL CREEK**  
**ON PRAIRIE CREEK MINE ROAD**  
**AT STA. 13+255.14**  
**AND STA. 13+420.03**

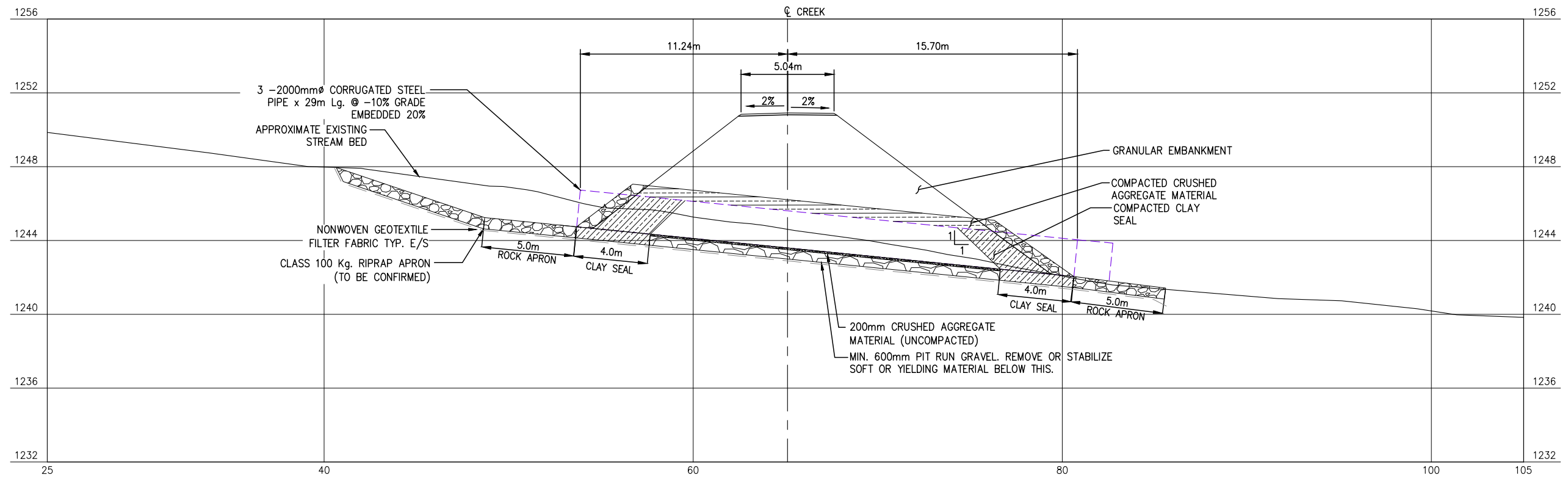
**TITLE:**  
**PROFILES**  
**AND**  
**SECTION VIEWS**

DWG NO:	14GP0128-013-1960-002	REV:	0
---------	-----------------------	------	---

Date: 2014/12/19 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-013-1960\_13+420\_80 | Layout: 003 | Paper Size: 598.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:1000



**CULVERT PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/18	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



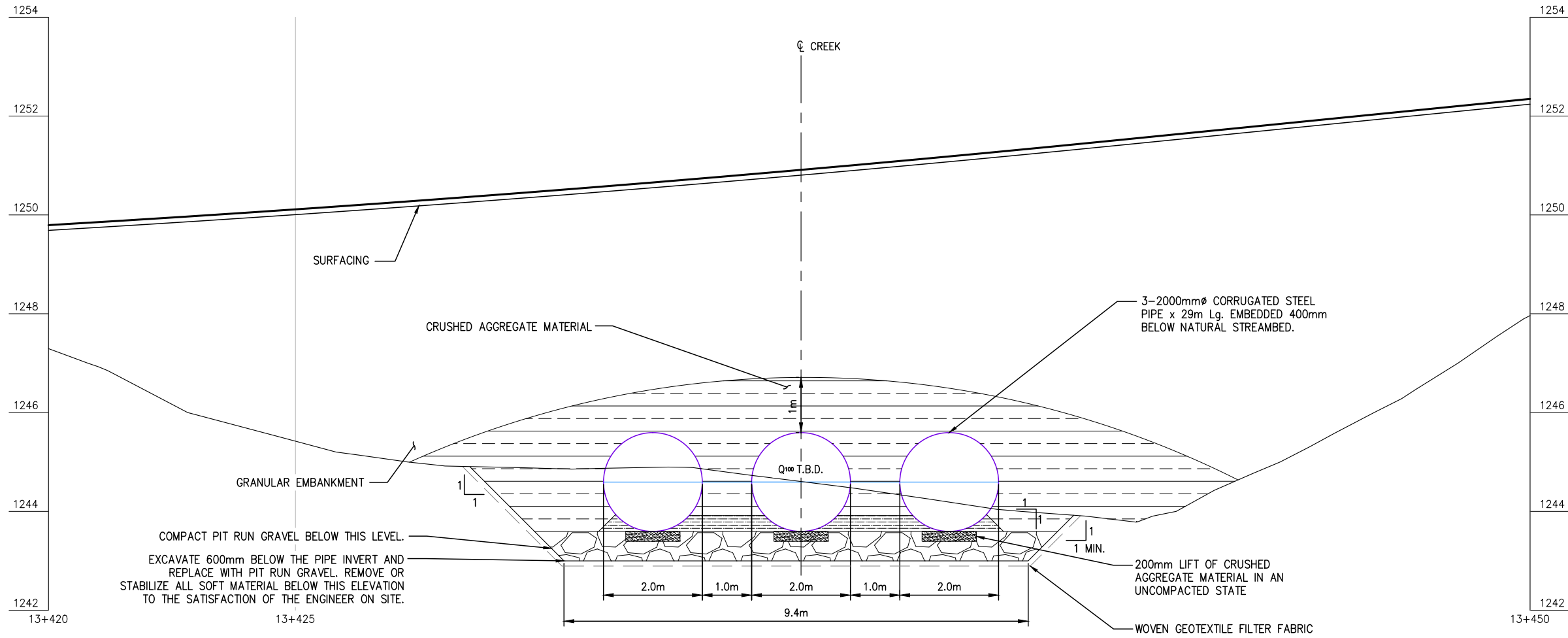
CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/18
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/18
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING**  
**FUNERAL CREEK**  
**ON PRAIRIE CREEK MINE ROAD**  
**AT STA. 13+255.14**  
**AND STA. 13+442.03**

**TITLE:**  
**GENERAL ARRANGEMENT PLAN**  
**AND**  
**BRIDGE PROFILE**

DWG NO:	<b>14GP0128-013-1960-003</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/19 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-013-1960\_13+420\_B0 | Layout: 004 | Paper Size: 598.8mm x 431.8mm



**CULVERT ELEVATION**  
SCALE: 1:100

**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. 3-2000mmØ x 29m Lg. @ 7° SKEW CULVERT OR APPROVED EQUAL. WALL THICKNESS TO BE SPECIFIED BY CULVERT SUPPLIER.
3. RIPRAP SHALL EXTEND AROUND CULVERT INLET AND OUTLET AS SHOWN ON THE PLAN.
4. FOUNDATION, BEDDING, AND BACKFILL MATERIAL SHALL BE WELL GRADED AND FREE DRAINING AS APPROVED BY THE ENGINEER. IT SHALL NOT CONTAIN FROZEN SOIL, CHUNKS OF CLAY, OR ANY OTHER DELETERIOUS MATERIAL WITHIN 1000mm OF THE STRUCTURE.
5. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
6. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK.
7. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/18	ISSUED FOR REVIEW	TJB	WBM



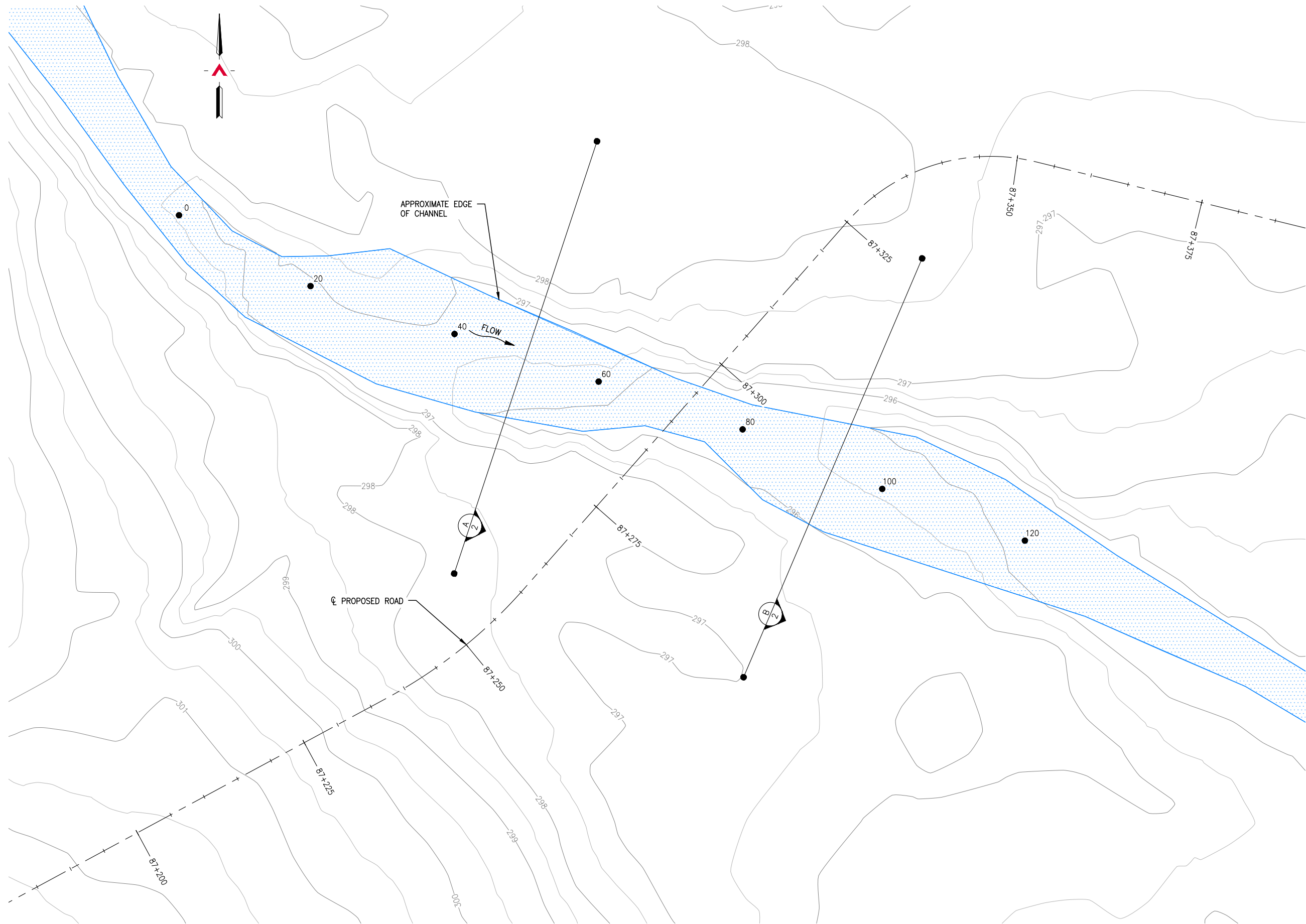
CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/18
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/18
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING  
FUNERAL CREEK  
ON PRAIRIE CREEK MINE ROAD  
AT STA. 13+255.14  
AND STA. 13+442.03**

**TITLE:**  
**CULVERT ELEVATION  
AND  
GENERAL NOTES**

DWG NO:	<b>14GP0128-013-1960-004</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2015/01/06 | User: Tammy Beer | File: P:\GP\_2014\10014-GP-0128\_CanadaZinc\PrairieCreekMine\Drawings\1011-Civil\Production\_Site Plans\14GP0128-087-1960\_87+400\_alternate | Layout: 001 | Paper Size: 558.8mm x 431.8mm



**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
1	15/01/06	ISSUED FOR REVIEW	TJB	WBM
0	14/11/26	ISSUED FOR REVIEW	TJB	WBM

CLIENT:

CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/26
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/26
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

PROJECT:

**STREAM CROSSING  
TETCALA RIVER  
PRAIRIE CREEK MINE ROAD  
AT STA. 87+375**

TITLE:

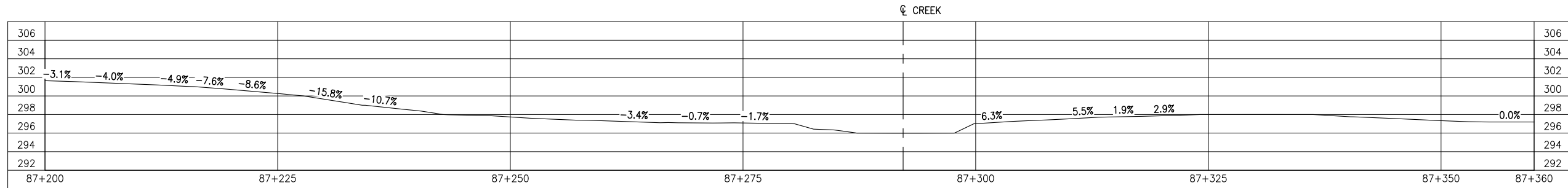
**SITE PLAN**

DWG NO:	<b>14GP0128-087-1960-001</b>	REV:	<b>1</b>
---------	------------------------------	------	----------

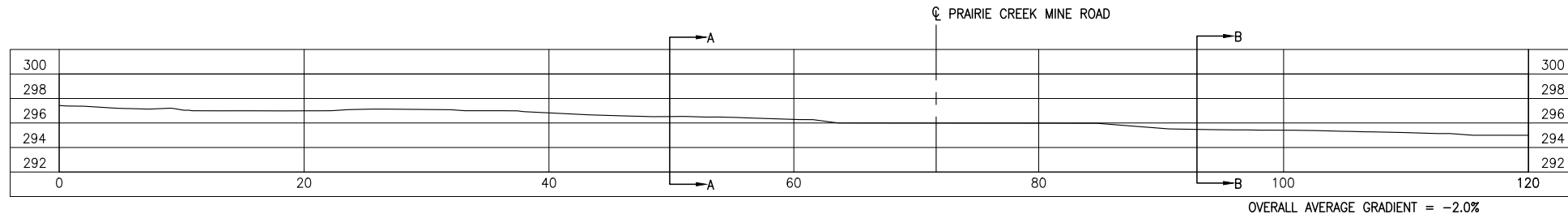
Date: 2015/01/06 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\Drawings\1001-Civil\1-Production\_Site Plans\14GP0128-087-1960\_87+400\_alternate | Layout: 002 | Paper Size: 558.8mm x 431.8mm

REFERENCE DRAWINGS

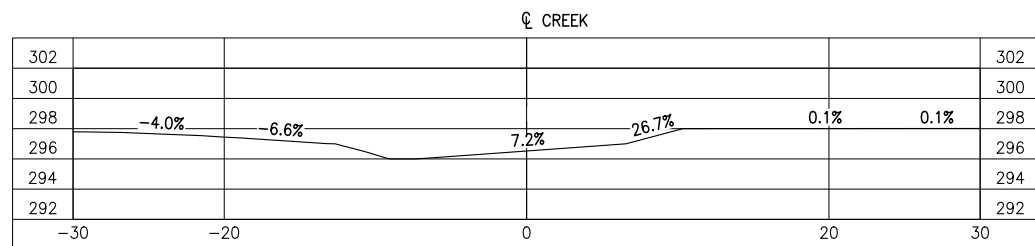
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1



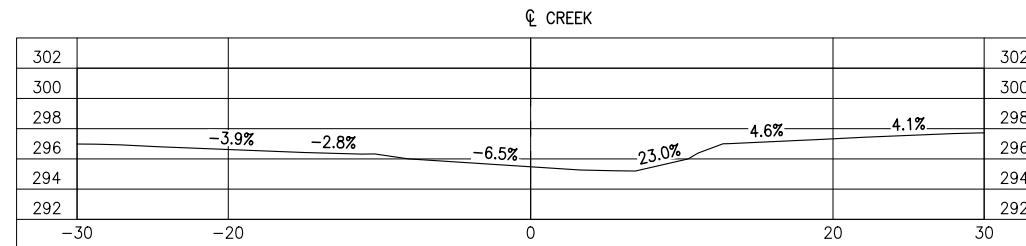
**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:500



**CREEK PROFILE**  
SCALE: 1:500



**SECTION A**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
1	15/01/06	ISSUED FOR REVIEW	TJB	WBM
0	14/11/26	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/26
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/26
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

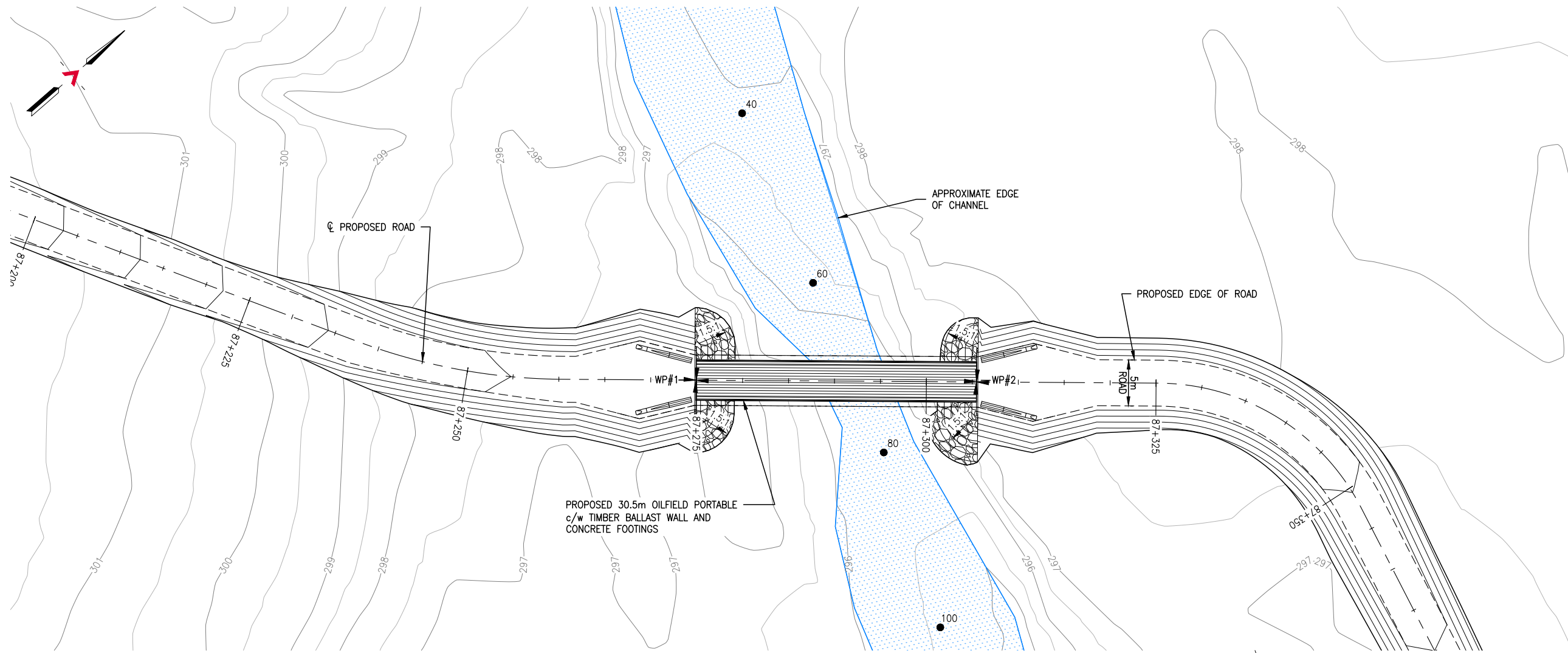
PROJECT:

**STREAM CROSSING  
TETCALA RIVER  
PRAIRIE CREEK MINE ROAD  
AT STA. 87+375**

TITLE:  
**PROFILES  
AND  
SECTION VIEWS**

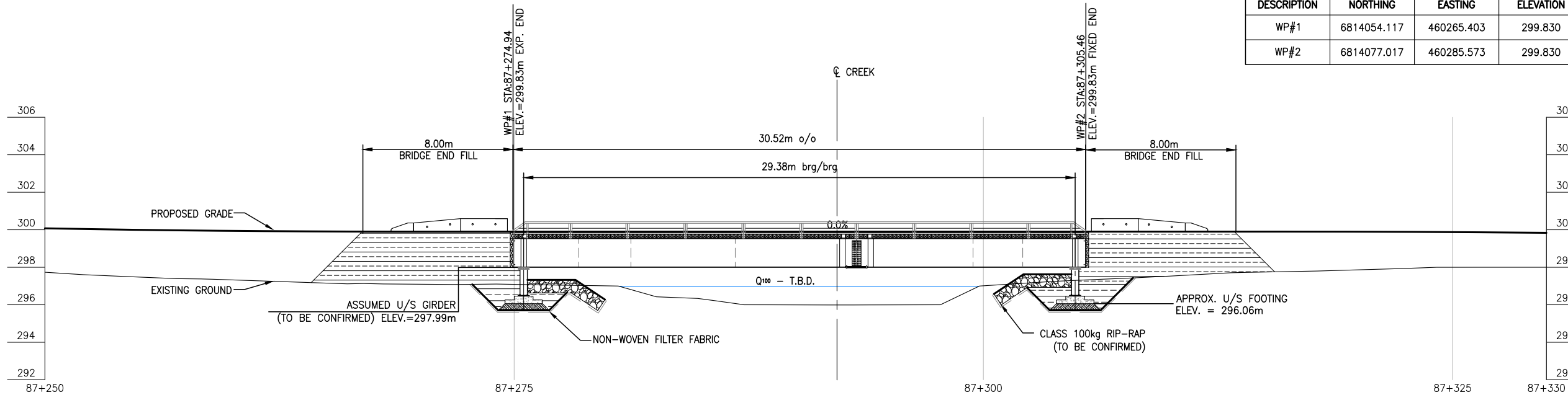
DWG NO:	<b>14GP0128-087-1960-002</b>	REV:	<b>1</b>
---------	------------------------------	------	----------

Date: 2015/01/06 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadaZinc\PrairieCreekMine\Drawings\1011-Civil\Production\_Site Plans\14GP0128-087-1960\_87+400\_alternate | Layout: 003 | Paper Size: 558.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500

SURVEY CONTROL			
DESCRIPTION	NORTHING	EASTING	ELEVATION
WP#1	6814054.117	460265.403	299.830
WP#2	6814077.017	460285.573	299.830



**BRIDGE PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
1	15/01/06	ISSUED FOR REVIEW	TJB	WBM
0	14/12/05	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/04
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/04
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

PROJECT:

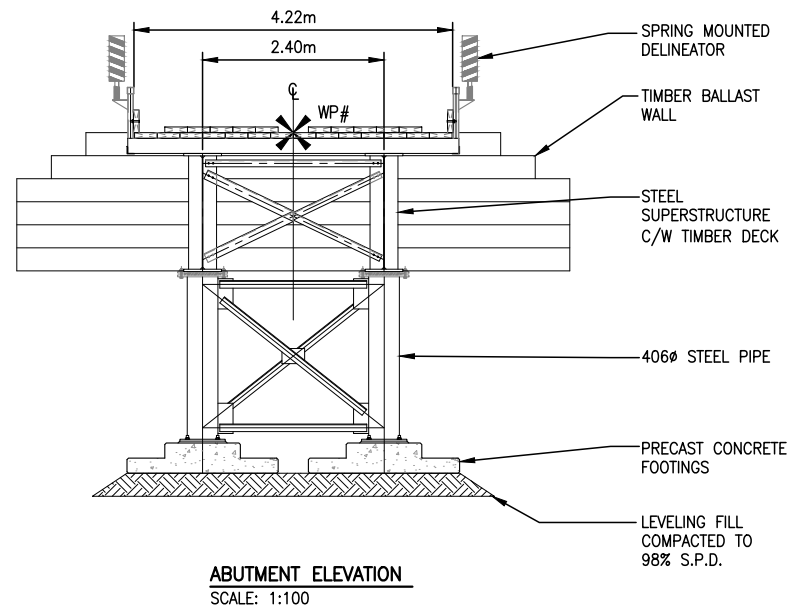
**STREAM CROSSING  
TETCALA RIVER  
PRAIRIE CREEK MINE ROAD  
AT STA. 87+375**

TITLE:

**GENERAL ARRANGEMENT PLAN  
AND  
BRIDGE PROFILE**

DWG NO:	<b>14GP0128-087-1960-003</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2015/01/06 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc-PrairieCreekMine\Drawings\1011-Civil\1-Production\_Site Plans\14GP0128-087-1960-87+400\_alternate | Layout: 004 | Paper Size: 558.8mm x 431.8mm

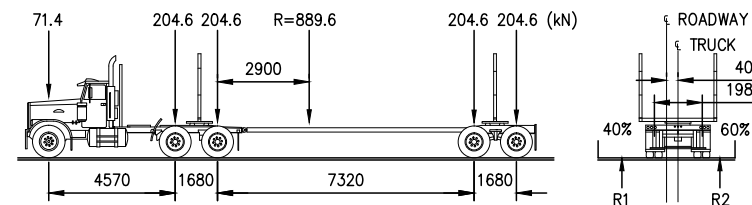


**ABUTMENT ELEVATION**  
SCALE: 1:100

**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. BRIDGE STRUCTURE SHOWN ON GENERAL ARRANGEMENT PLAN AS MANUFACTURED BY RAPID-SPAN STRUCTURES LTD.
3. RIPRAP SHALL EXTEND AROUND ABUTMENTS AS SHOWN ON THE PLAN.
4. NO SITE SPECIFIC GEOTECHNICAL INVESTIGATION HAS BEEN COMPLETED AT THE SITE TO DATE. THEREFORE, THIS CONCEPTUAL DESIGN HAS BEEN PREPARED WITHOUT THE BENEFIT OF GEOTECHNICAL ADVICE. GROUND CONDITIONS MAY VARY AND THE FOUNDATION CONCEPT MAY NEED TO BE MODIFIED TO ACCOMMODATE ACTUAL SITE CONDITIONS.
5. BACK FILL OF APPROACHES SHALL GENERALLY CONFORM TO THE LINES SHOWN ON THE DRAWINGS AND SHALL BE PLACED IN LIFTS NOT EXCEEDING 305mm THICK, COMPACTED TO 95% STANDARD PROCTOR DENSITY. MATERIAL SHALL BE NON-FROZEN, CLEAN, FREE DRAINING, WELL GRADED GRANULAR FILL OF 75mm MAXIMUM SIZE. USE LIGHT MECHANICAL TAMPERS ONLY.
6. CONSTRUCTION SHALL BE CARRIED OUT IN SUCH A MANNER AS TO ENSURE WATER QUALITY IS MAINTAINED BY KEEPING SOIL EROSION AND RUN-OFF TO A MINIMUM DURING INCLEMENT WEATHER AND BY TAKING MEASURES TO PREVENT SEDIMENTATION, LEACHATE, AND CONSTRUCTION MATERIALS FROM ENTERING THE STREAM.
7. OPERATE MACHINERY IN A MANNER THAT MINIMIZES DISTURBANCE TO THE BANKS OF THE WATERCOURSE. MACHINERY IS TO ARRIVE ON SITE IN CLEAN CONDITION AND IS TO BE MAINTAINED FREE OF FLUID LEAKS. REFUEL AND SERVICE MACHINERY AT MINIMUM 100m AWAY FROM THE WATERCOURSE. ENSURE EMERGENCY SPILL KIT IS ON SITE IN CASE OF FLUID LEAKS OR SPILLS FROM MACHINERY.
8. ALL EXPOSED MINERAL SOILS MUST BE SEEDED USING AN APPROVED RECLAMATION GRASS SEED MIXTURE AND COVERED WITH AN APPROVED EROSION CONTROL BLANKET.
9. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
10. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.
11. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK. INSTALLATION OF WORKS TO COMPLY WITH BEST MANAGEMENT PRACTICES.
12. DESIGN SPEED OF APPROACH ROAD SHOWN IS 30 km/hr. LOCAL CHAINAGE SHOWN RELATIVE TO APPROXIMATE CENTRE OF STREAM.
13. STRUCTURE DESIGN SHALL BE COMPLETED IN ACCORDANCE WITH CAN/CSA-S6-06 CANADIAN HIGHWAY BRIDGE DESIGN CODE, WITH VARIATIONS IN THE DESIGN LOADING VEHICLE TO MEET ANTICIPATED VEHICLE LOADING.

LOADING DIAGRAM L-100 OFF HIGHWAY G.V.W. = 90 680kg;  
DESIGN IN ACCORDANCE WITH CAN/CSA-S6-06 WITH MODIFIED LOADING AS FOLLOWS:



REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
1	15/01/06	ISSUED FOR REVIEW	TJB	WBM
0	14/12/05	ISSUED FOR REVIEW	TJB	WBM

CLIENT:

CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/05
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/05
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

PROJECT:

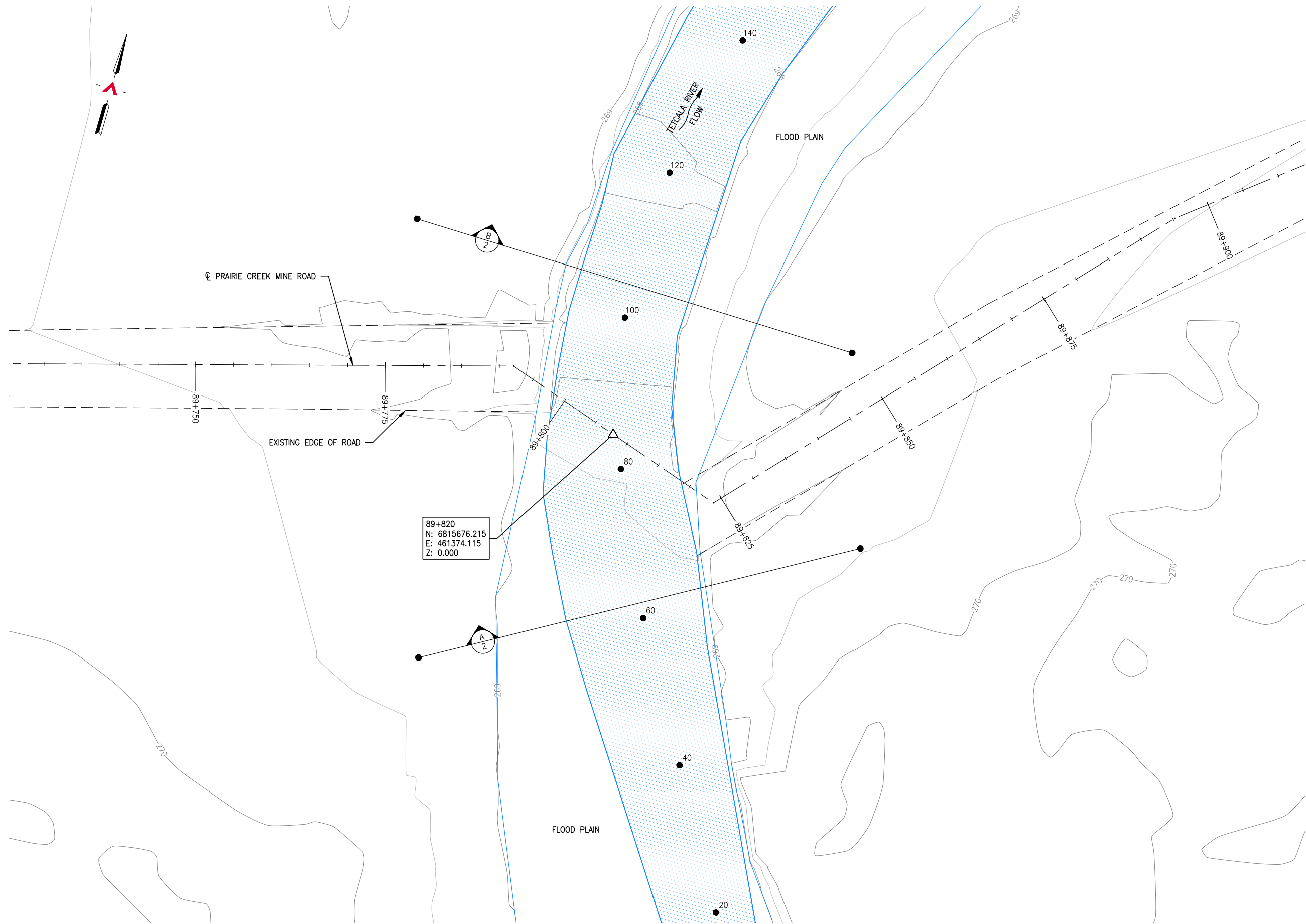
**STREAM CROSSING  
TETCALA RIVER  
PRAIRIE CREEK MINE ROAD  
AT STA. 87+375**

TITLE:

**ABUTMENT ELEVATIONS  
AND  
GENERAL NOTES**

DWG NO:	<b>14GP0128-087-1960-004</b>	REV:	<b>1</b>
---------	------------------------------	------	----------

Date: 2014/12/12 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadaZinc\PrairieCreekMine\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-089-1960\_89+820\_141211 | Layout: 001 | Paper Size: 558.8mm x 431.8mm



89+820  
 N: 6815676.215  
 E: 461374.115  
 Z: 0.000

**SITE PLAN**  
 SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/26	ISSUED FOR REVIEW	TJB	WBM

CLIENT:

CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/26
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/26
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**

**STREAM CROSSING  
 TETCALA RIVER  
 PRAIRIE CREEK MINE ROAD  
 AT STA. 89+820**

TITLE:

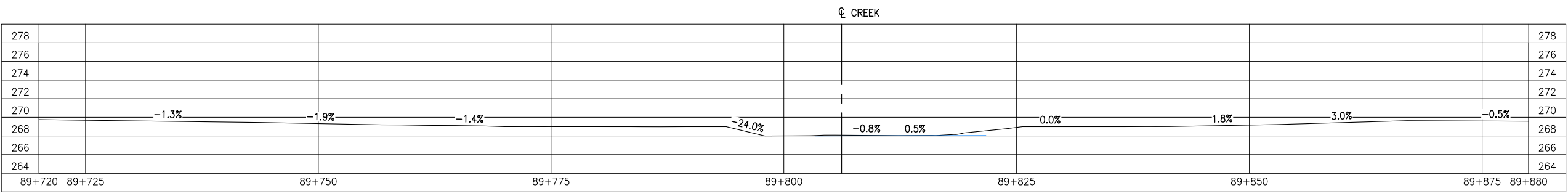
**SITE PLAN**

DWG NO:	<b>14GP0128-089-1960-001</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

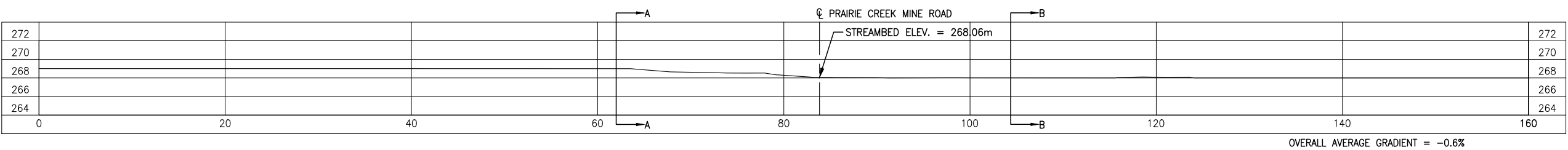
Date: 2014/12/12 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-089-1960-89+820-14211 | Layout: 002 | Paper Size: 558.8mm x 431.8mm

REFERENCE DRAWINGS

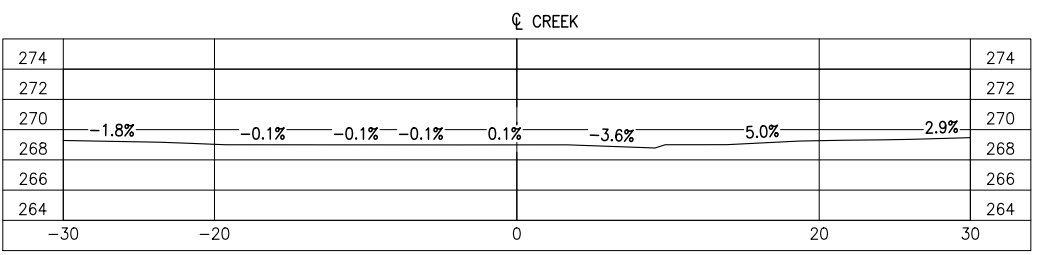
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1



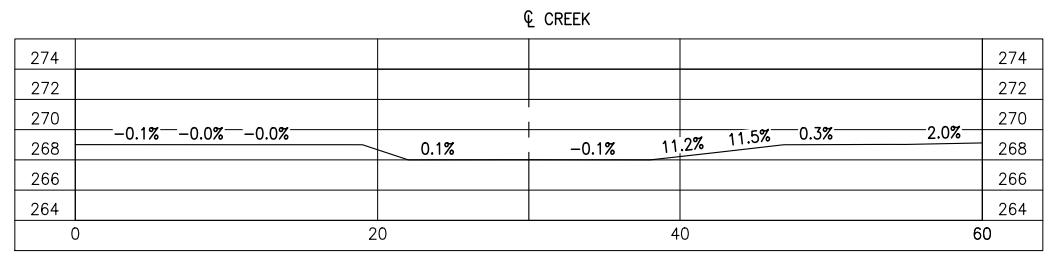
**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:500



**CREEK PROFILE**  
SCALE: 1:500



**SECTION A**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, in any form or by any means, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/11/26	ISSUED FOR REVIEW	TJB	WBM

CLIENT:



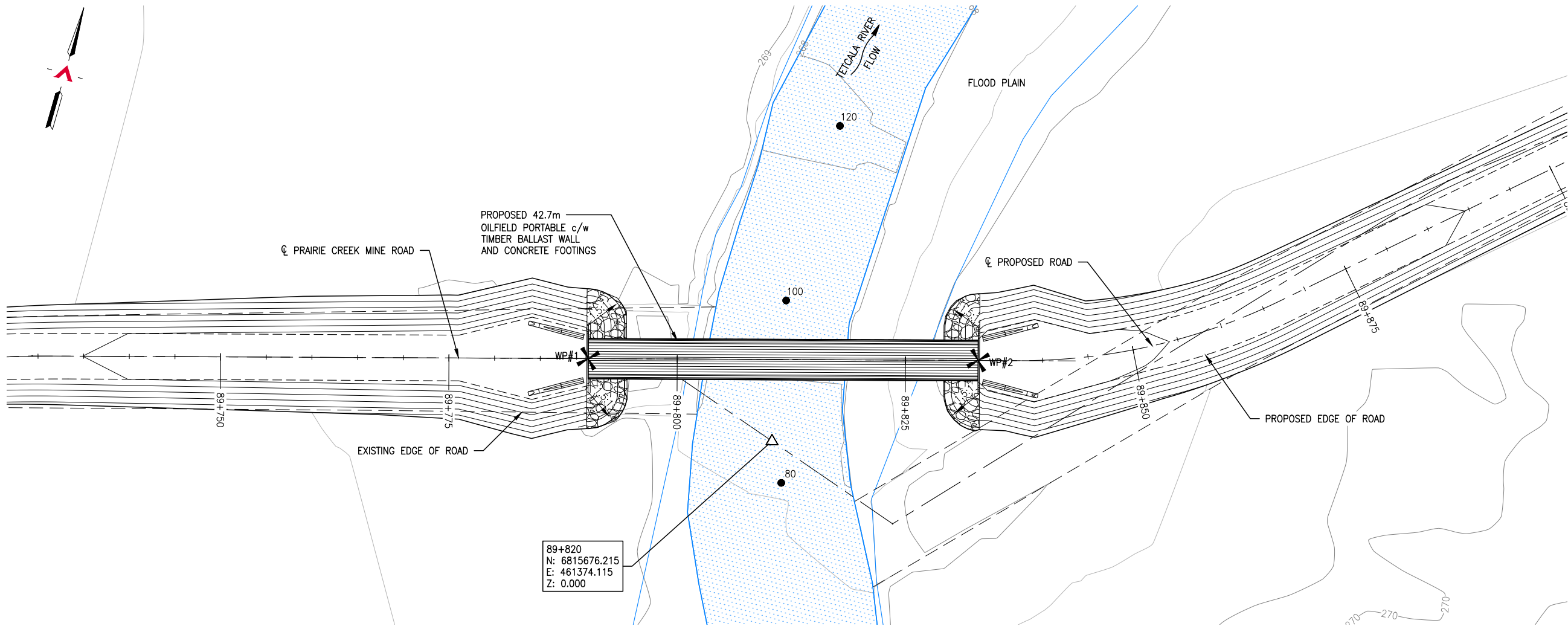
CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/26
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/26
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING**  
**TETCALA RIVER**  
**PRAIRIE CREEK MINE ROAD**  
**AT STA. 89+820**

**TITLE:**  
**PROFILES**  
**AND**  
**SECTION VIEWS**

DWG NO:	<b>14GP0128-089-1960-002</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

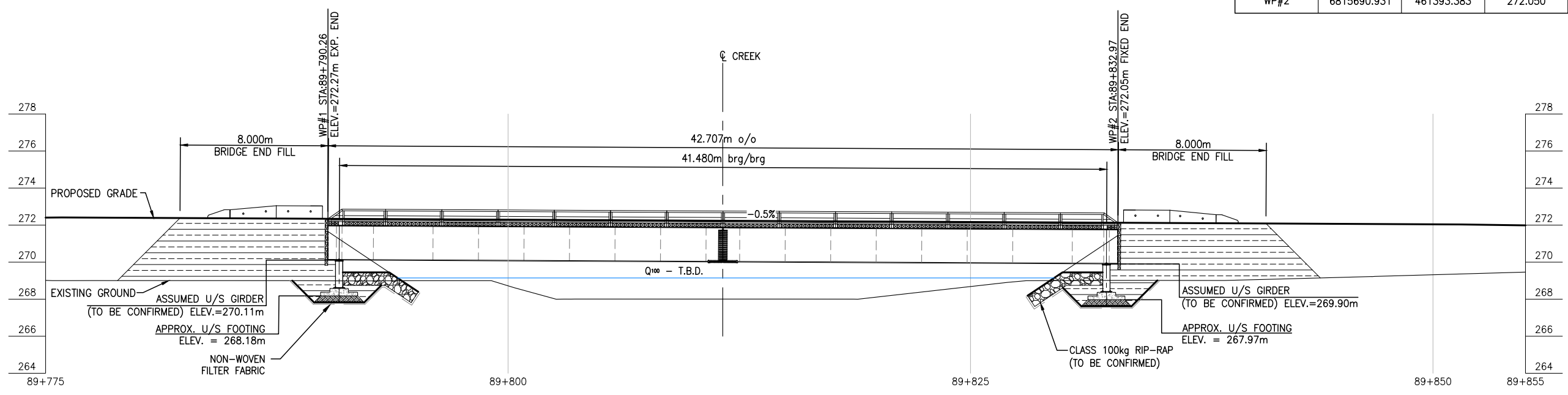
Date: 2014/12/16 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-089-1960\_89+820\_141211 | Layout: 003 | Paper Size: 558.8mm x 431.8mm



89+820  
N: 6815676.215  
E: 461374.115  
Z: 0.000

**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500

SURVEY CONTROL			
DESCRIPTION	NORTHING	EASTING	ELEVATION
WP#1	6815679.353	461352.275	272.270
WP#2	6815690.931	461393.383	272.050



**BRIDGE PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

0	14/12/08	ISSUED FOR REVIEW	TJB	WBM
REV	YY/MM/DD	DESCRIPTION	DRWN	APVD



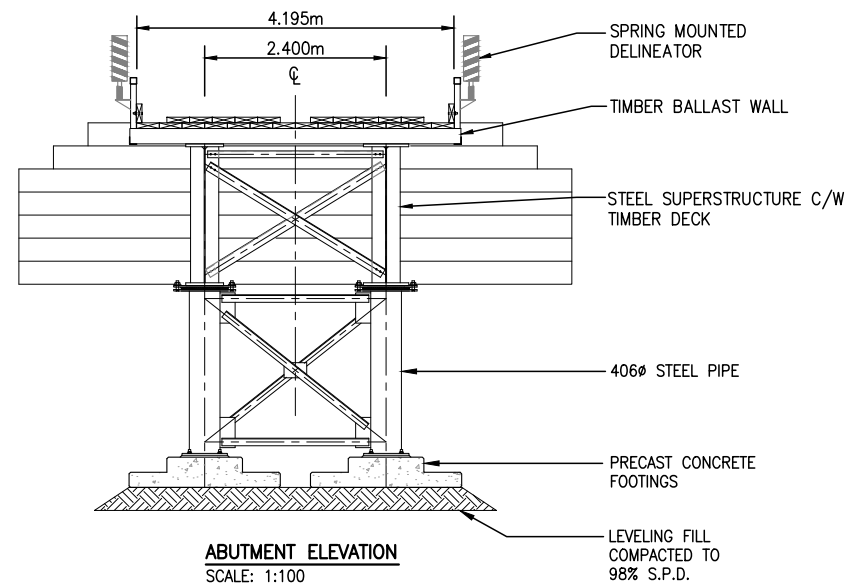
CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/05
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/05
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING**  
**TETCALA RIVER**  
**PRAIRIE CREEK MINE ROAD AT**  
**STA. 89+820**

**TITLE:**  
**GENERAL ARRANGEMENT PLAN**  
**AND**  
**BRIDGE PROFILE**

DWG NO:	<b>14GP0128-089-1960-003</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

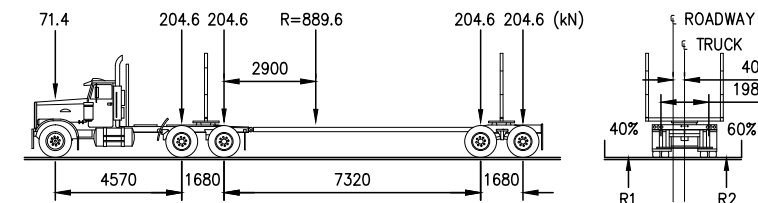
Date: 2014/12/12 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc-PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-089-1960-89+820\_141211 | Layout: 004 | Paper Size: 558.8mm x 431.8mm



**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. BRIDGE STRUCTURE SHOWN ON GENERAL ARRANGEMENT PLAN AS MANUFACTURED BY RAPID-SPAN STRUCTURES LTD.
3. RIPRAP SHALL EXTEND AROUND ABUTMENTS AS SHOWN ON THE PLAN.
4. NO SITE SPECIFIC GEOTECHNICAL INVESTIGATION HAS BEEN COMPLETED AT THE SITE TO DATE. THEREFORE, THIS CONCEPTUAL DESIGN HAS BEEN PREPARED WITHOUT THE BENEFIT OF GEOTECHNICAL ADVICE. GROUND CONDITIONS MAY VARY AND THE FOUNDATION CONCEPT MAY NEED TO BE MODIFIED TO ACCOMMODATE ACTUAL SITE CONDITIONS.
5. BACK FILL OF APPROACHES SHALL GENERALLY CONFORM TO THE LINES SHOWN ON THE DRAWINGS AND SHALL BE PLACED IN LIFTS NOT EXCEEDING 305mm THICK, COMPACTED TO 95% STANDARD PROCTOR DENSITY. MATERIAL SHALL BE NON-FROZEN, CLEAN, FREE DRAINING, WELL GRADED GRANULAR FILL OF 75mm MAXIMUM SIZE. USE LIGHT MECHANICAL TAMPERS ONLY.
6. CONSTRUCTION SHALL BE CARRIED OUT IN SUCH A MANNER AS TO ENSURE WATER QUALITY IS MAINTAINED BY KEEPING SOIL EROSION AND RUN-OFF TO A MINIMUM DURING INCLEMENT WEATHER AND BY TAKING MEASURES TO PREVENT SEDIMENTATION, LEACHATE, AND CONSTRUCTION MATERIALS FROM ENTERING THE STREAM.
7. OPERATE MACHINERY IN A MANNER THAT MINIMIZES DISTURBANCE TO THE BANKS OF THE WATERCOURSE. MACHINERY IS TO ARRIVE ON SITE IN CLEAN CONDITION AND IS TO BE MAINTAINED FREE OF FLUID LEAKS. REFUEL AND SERVICE MACHINERY AT MINIMUM 100m AWAY FROM THE WATERCOURSE. ENSURE EMERGENCY SPILL KIT IS ON SITE IN CASE OF FLUID LEAKS OR SPILLS FROM MACHINERY.
8. ALL EXPOSED MINERAL SOILS MUST BE SEEDED USING AN APPROVED RECLAMATION GRASS SEED MIXTURE AND COVERED WITH AN APPROVED EROSION CONTROL BLANKET.
9. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
10. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.
11. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK. INSTALLATION OF WORKS TO COMPLY WITH BEST MANAGEMENT PRACTICES.
12. DESIGN SPEED OF APPROACH ROAD SHOWN IS 30 km/hr. LOCAL CHAINAGE SHOWN RELATIVE TO APPROXIMATE CENTRE OF STREAM.
13. STRUCTURE DESIGN SHALL BE COMPLETED IN ACCORDANCE WITH CAN/CSA-S6-06 CANADIAN HIGHWAY BRIDGE DESIGN CODE, WITH VARIATIONS IN THE DESIGN LOADING VEHICLE TO MEET ANTICIPATED VEHICLE LOADING.

**LOADING DIAGRAM L-100 OFF HIGHWAY G.V.W. = 90 680kg;  
DESIGN IN ACCORDANCE WITH CAN/CSA-S6-06 WITH MODIFIED LOADING AS FOLLOWS:**



REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, in any form or by any means, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	14/12/08	ISSUED FOR REVIEW	TJB	WBM



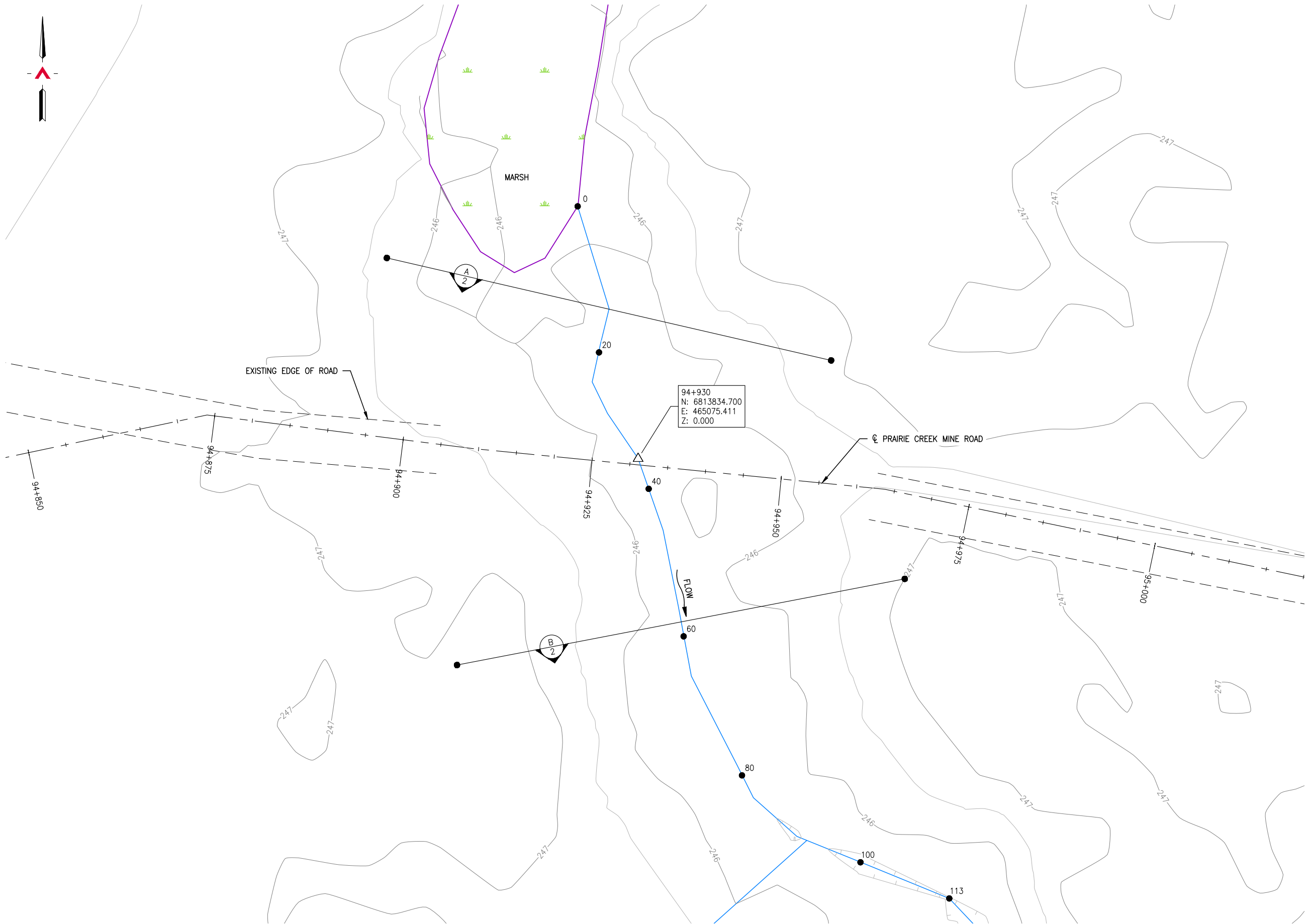
CLIENT NO:	-	DRWN:	TJB	DATE:	14/12/05
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/05
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING  
TETCALA RIVER  
PRAIRIE CREEK MINE ROAD AT  
STA. 89+820**

**TITLE:**  
**ABUTMENT ELEVATIONS  
AND  
GENERAL NOTES**

DWG NO:	<b>14GP0128-089-1960-004</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/22 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\BoxA\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-094-1960-94+600 | Layout: 001 | Paper Size: 558.8mm x 431.8mm



**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/20	ISSUED FOR REVIEW	IHY	WBM



CLIENT NO:	DRWN:	TJB	DATE:	14/11/29	
PROJECT NO:	14-GP-0128	DSGN:	WBM	DATE:	14/11/29
DRAWING SIZE:	ANSI "B"	CHKD:		DATE:	
SCALE:	AS NOTED	APVD:		DATE:	

**PROJECT:**

**STREAM CROSSING  
TETCALA RIVER  
ON PRAIRIE CREEK MINE ROAD  
AT STA. 94+930**

TITLE:

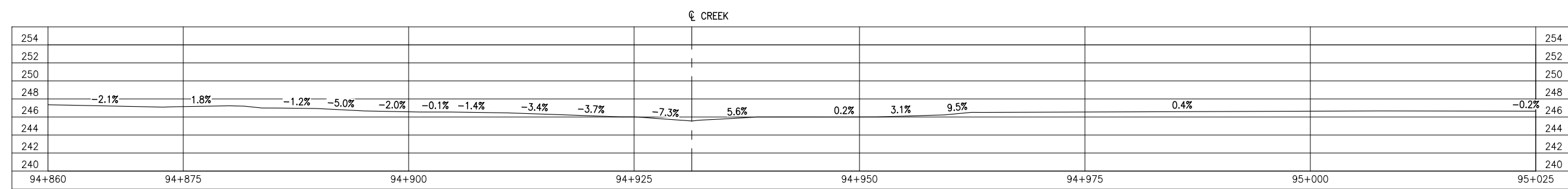
**SITE PLAN**

DWG NO:	<b>14GP0128-094-1960-001</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

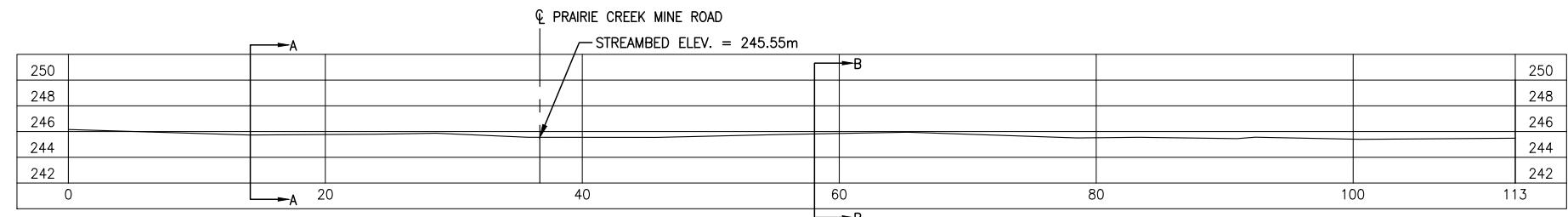
Date: 2014/12/22 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-094-1960\_94+600 | Layout: 002 | Paper Size: 558.8mm x 431.8mm

REFERENCE DRAWINGS

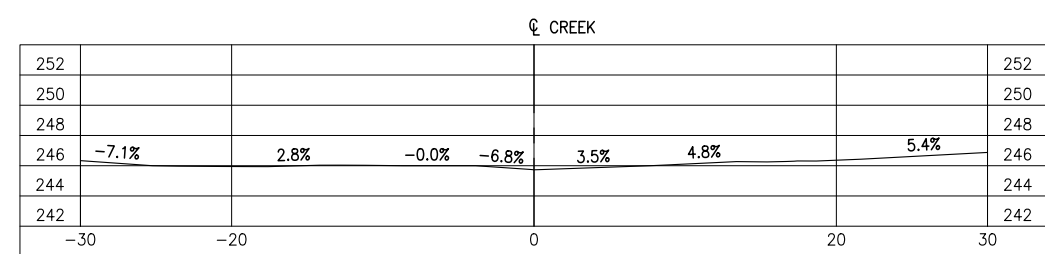
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1
-	-	-
-	-	-
-	-	-
-	-	-



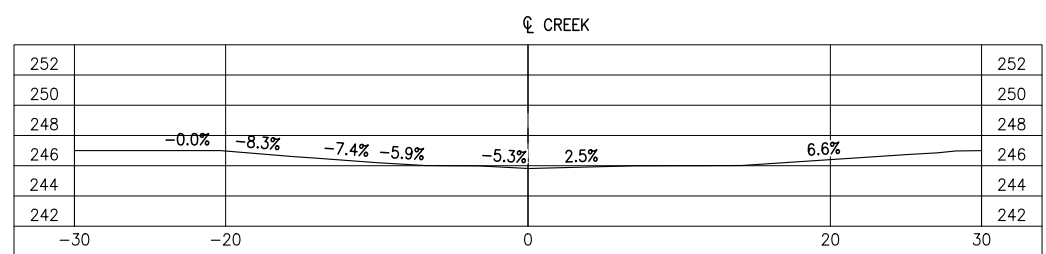
GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT  
SCALE: 1:500



CREEK PROFILE  
SCALE: 1:500



SECTION A  
SCALE: 1:500



SECTION B  
SCALE: 1:500

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/20	ISSUED FOR REVIEW	IHY	WBM

CLIENT:



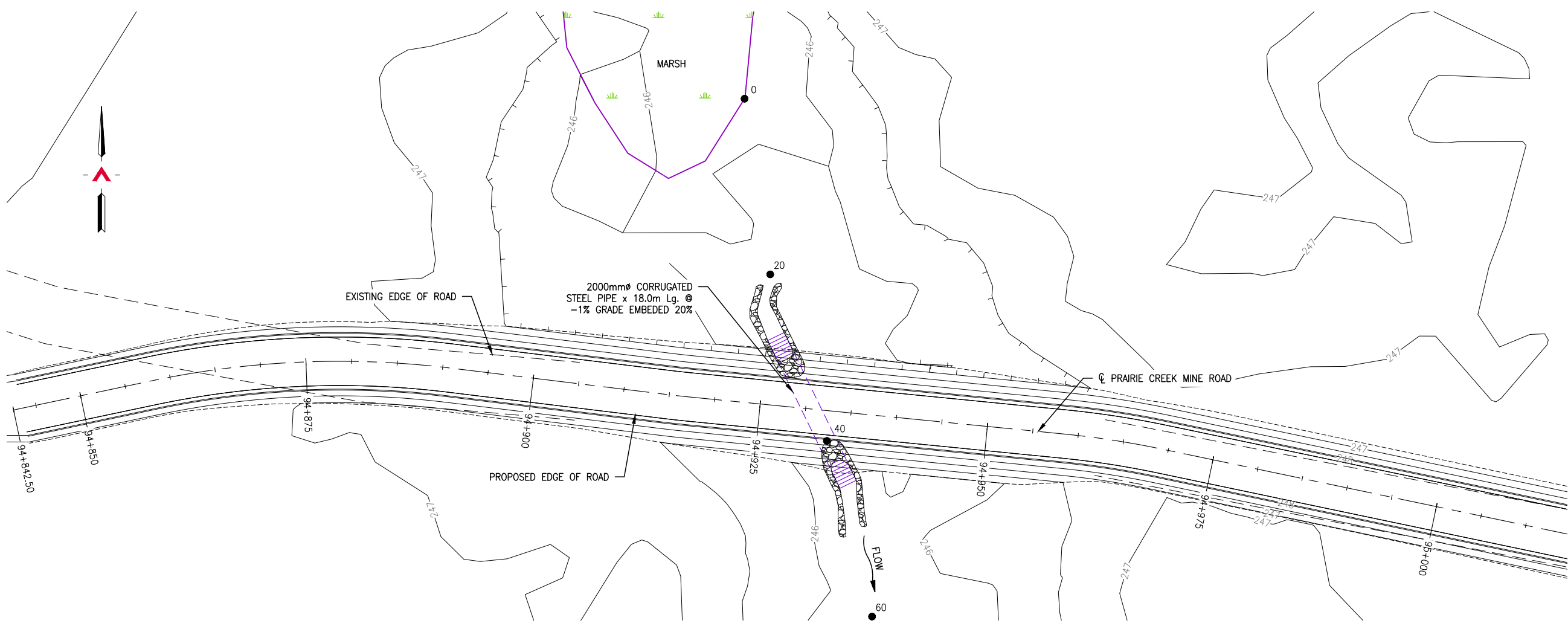
CLIENT NO:	DRWN: TJB	DATE: 14/11/29
PROJECT NO: 14-GP-0128	DSGN: WBM	DATE: 14/11/29
DRAWING SIZE: ANSI "B"	CHKD:	DATE:
SCALE: AS NOTED	APVD:	DATE:

PROJECT:  
**STREAM CROSSING  
TETCALA RIVER  
ON PRAIRIE CREEK MINE ROAD  
AT STA. 94+930**

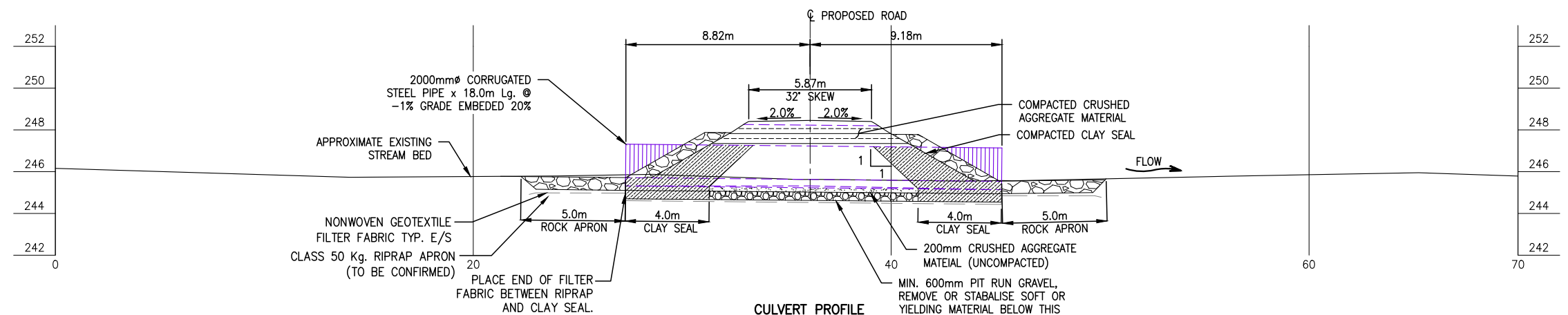
TITLE:  
**PROFILES  
AND  
SECTION VIEWS**

DWG NO: <b>14GP0128-094-1960-002</b>	REV: <b>0</b>
---	------------------

Date: 2014/12/22 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadaZinc\PrairieCreekMine\Drawings\1001-Civil\01-Production\_Site Plans\14GP0128-094-1960\_94+600 | Layout: 003 | Paper Size: 558.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500



**CULVERT PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner, without the express written permission of Allnorth Consultants Limited and affiliated companies.

0	2014/12/22	ISSUED FOR REVIEW	IHY	WBM
REV	YY/MM/DD	DESCRIPTION	DRWN	APVD



CLIENT NO:	DRWN:	IHY	DATE:	14/12/22	
PROJECT NO:	14-GP-0128	DSGN:	WBM	DATE:	14/12/18
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	
SCALE:	AS NOTED	APVD:	DATE:		

**PROJECT:**

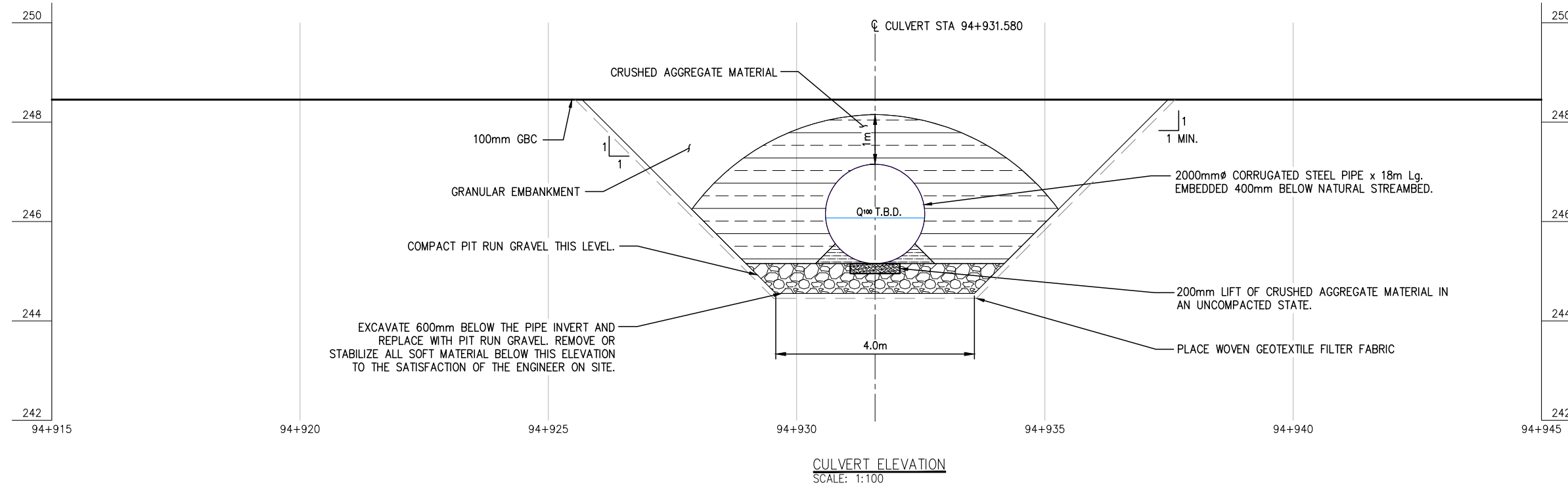
**STREAM CROSSING  
TETCALA RIVER  
ON PRAIRIE CREEK MINE ROAD  
AT STA. 94+930**

**TITLE:**

**GENERAL ARRANGEMENT  
PLAN AND CULVERT PROFILE**

DWG NO:	<b>14GP0128-094-1960-003</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2014/12/23 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\Drawings\1001-Civil\01-Production\_Site Plans\14GP0128-094-1960\_94+600 | Layout: 004 | Paper Size: 558.8mm x 431.8mm



**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. 2000mm $\phi$  x 18m Lg. @ 32° SKEW CULVERT OR APPROVED EQUAL. WALL THICKNESS TO BE SPECIFIED BY CULVERT SUPPLIER.
3. RIPRAP SHALL EXTEND AROUND CULVERT INLET AND OUTLET AS SHOWN ON THE PLAN.
4. FOUNDATION, BEDDING, AND BACKFILL MATERIAL SHALL BE WELL GRADED AND FREE DRAINING AS APPROVED BY THE ENGINEER. IT SHALL NOT CONTAIN FROZEN SOIL, CHUNKS OF CLAY, OR ANY OTHER DELETERIOUS MATERIAL WITHIN 1000mm OF THE STRUCTURE.
5. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
6. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK.
7. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/22	ISSUED FOR REVIEW	IHY	WBM



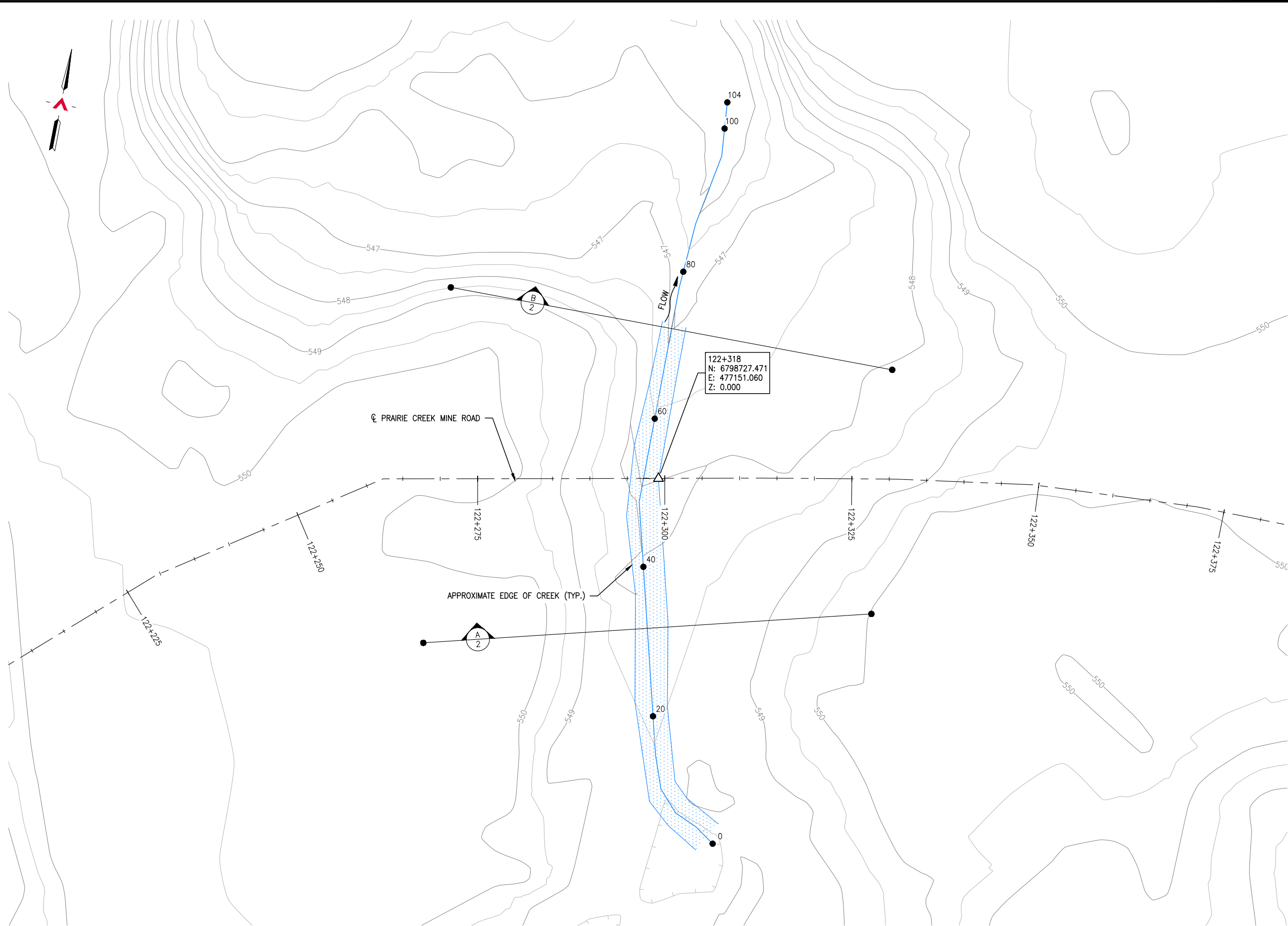
CLIENT NO:	DRWN:	IHY	DATE:	14/12/22	
PROJECT NO:	14-GP-0128	DSGN:	WBM	DATE:	14/12/18
DRAWING SIZE:	ANSI "B"	CHKD:		DATE:	
SCALE:	AS NOTED	APVD:		DATE:	

**PROJECT:**  
**STREAM CROSSING  
TETCALA RIVER  
ON PRAIRIE CREEK MINE ROAD  
AT STA. 94+930**

**TITLE:**  
**CULVERT ELEVATION  
AND NOTES**

DWG NO:	14GP0128-094-1960-004	REV:	0
---------	-----------------------	------	---

Date: 2014/12/16 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadaZinc\PrairieCreekMine\BoxA\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-122-1960-122-300 | Layout: 001 | Paper Size: 558.8mm x 431.8mm



**SITE PLAN**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/15	ISSUED FOR REVIEW	MDB	WBM

CLIENT:



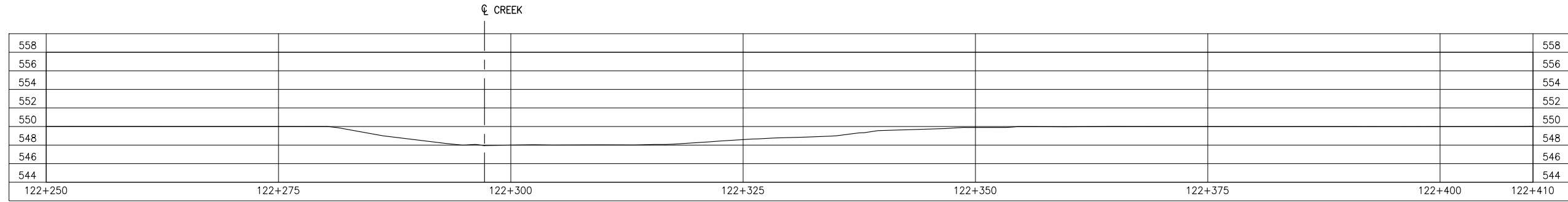
CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/29
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/29
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING  
UPPER GRAINGER RIVER  
PRAIRIE CREEK MINE ROAD AT  
STA. 122+318**

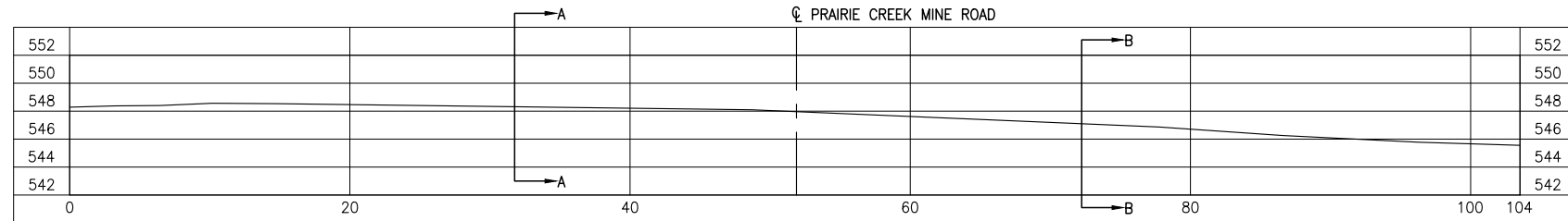
TITLE:  
**SITE PLAN**

DWG NO:	<b>14GP0128-122-1960-001</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

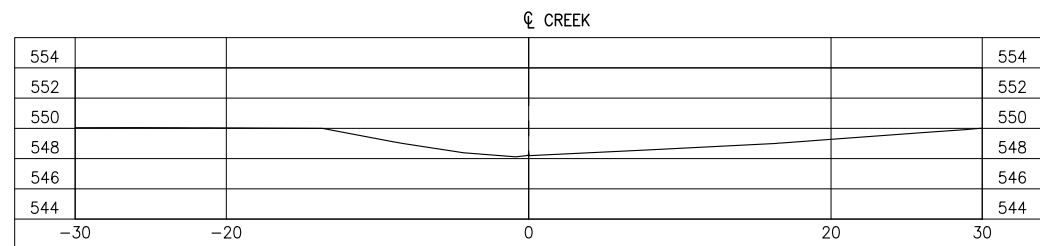
Date: 2014/12/16 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-122-1960\_122-300 | Layout: 002 | Paper Size: 558.8mm x 431.8mm



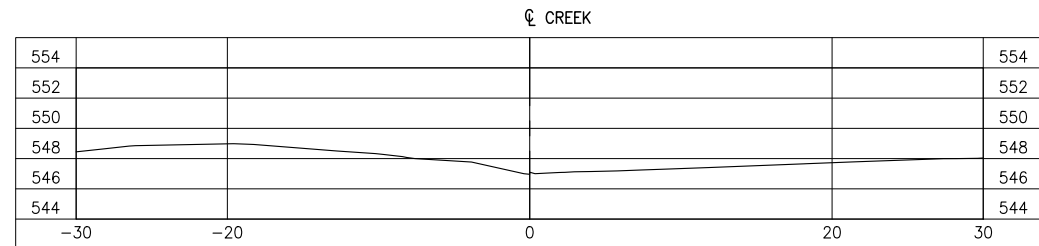
**GROUND PROFILE ALONG PRAIRIE CREEK MINE ROAD CENTRELINE ALIGNMENT**  
SCALE: 1:500



**CREEK PROFILE**  
SCALE: 1:500



**SECTION A**  
SCALE: 1:500



**SECTION B**  
SCALE: 1:500

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/15	ISSUED FOR REVIEW	MDB	WBM



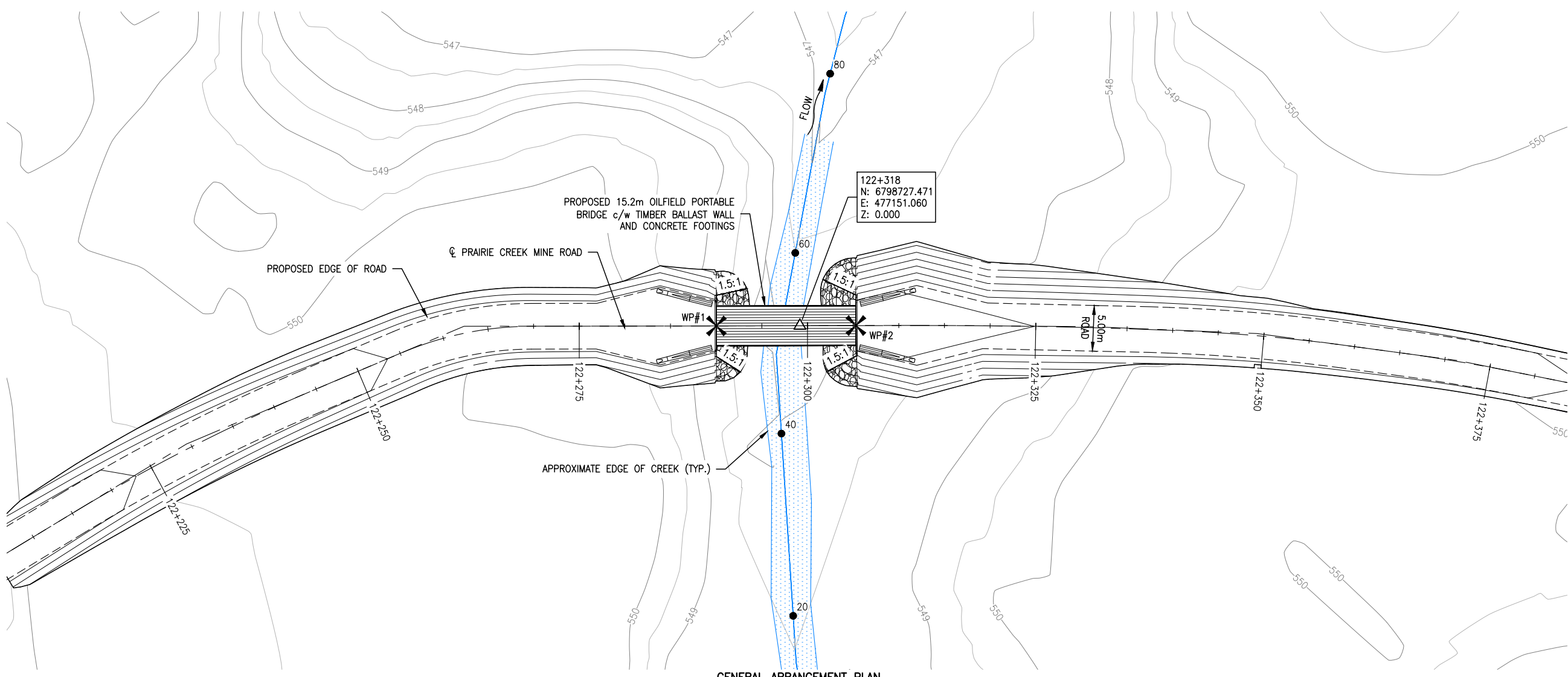
CLIENT NO:	-	DRWN:	TJB	DATE:	14/11/29
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/11/29
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING  
UPPER GRAINGER RIVER  
PRAIRIE CREEK MINE ROAD AT  
STA. 122+318**

**TITLE:**  
**PROFILES  
AND  
SECTION VIEWS**

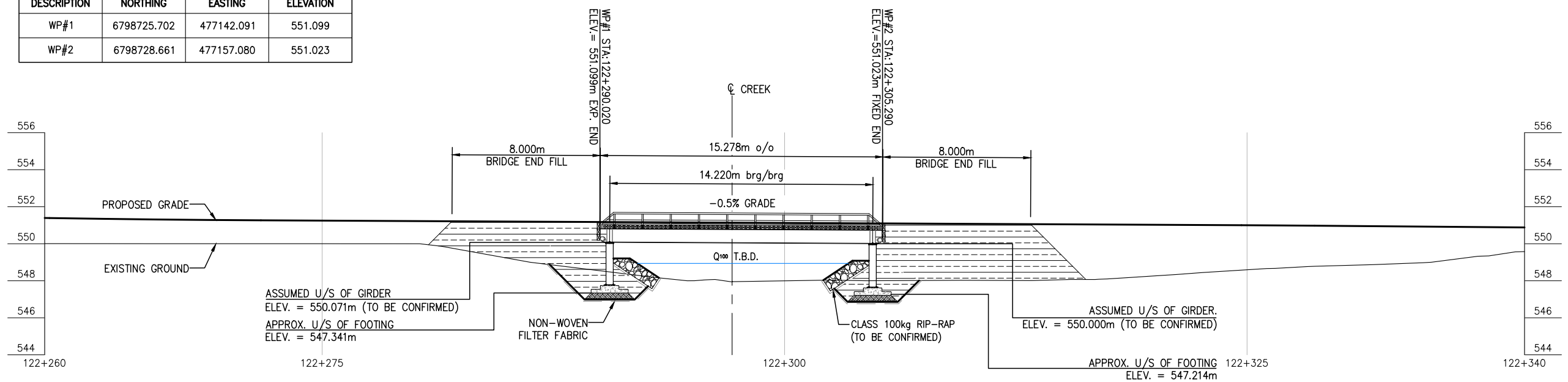
DWG NO:	<b>14GP0128-122-1960-002</b>	REV:	<b>0</b>
---------	------------------------------	------	----------

Date: 2015/01/06 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMine\Drawings\1000-Drawings\1011-Civil\1-Production\_Site Plans\14GP0128-1960-122-300 | Layout: 003 | Paper Size: 558.8mm x 431.8mm



**GENERAL ARRANGEMENT PLAN**  
SCALE: 1:500

SURVEY CONTROL			
DESCRIPTION	NORTHING	EASTING	ELEVATION
WP#1	6798725.702	477142.091	551.099
WP#2	6798728.661	477157.080	551.023



**BRIDGE PROFILE**  
SCALE: 1:250

REFERENCE DRAWINGS		
DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or distributed, or communicated to any unauthorized person, or used in any other unauthorized manner from whatsoever, without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
1	2015/01/06	ISSUED FOR REVIEW	TJB	WBM
0	2014/12/15	ISSUED FOR REVIEW	MDB	WBM



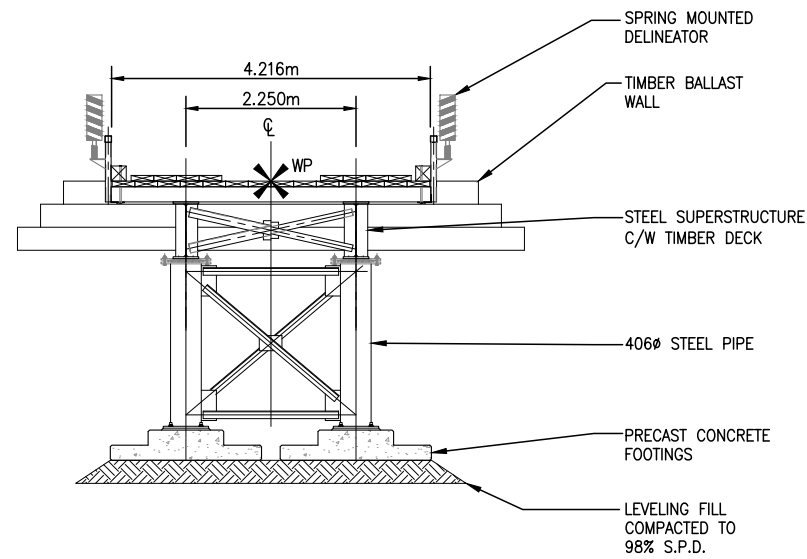
CLIENT NO:	-	DRWN:	MDB	DATE:	14/12/11
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/10
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

**PROJECT:**  
**STREAM CROSSING**  
**UPPER GRAINGER RIVER**  
**PRAIRIE CREEK MINE ROAD AT**  
**STA. 122+318**

**TITLE:**  
**GENERAL ARRANGEMENT**  
**PLAN AND**  
**BRIDGE PROFILE**

DWG NO:	<b>14GP0128-122-1960-003</b>	REV:	<b>1</b>
---------	------------------------------	------	----------

Date: 2014/12/16 | User: Tammy Beer | File: P:\GP\2014\10014-GP-0128\_CanadianZinc\PrairieCreekMineRoad\1000-Drawings\1011-Civil\01-Production\_Site Plans\14GP0128-122-1960-122-300 | Layout: 004 | Paper Size: 558.8mm x 431.8mm

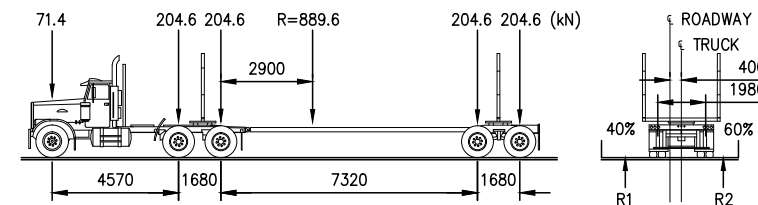


**ABUTMENT ELEVATION**  
SCALE: 1:100

**NOTES:**

1. THESE DRAWINGS ARE INTENDED FOR CONCEPTUAL PURPOSES ONLY.
2. BRIDGE STRUCTURE SHOWN ON GENERAL ARRANGEMENT PLAN AS MANUFACTURED BY RAPID-SPAN STRUCTURES LTD.
3. RIPRAP SHALL EXTEND AROUND ABUTMENTS AS SHOWN ON THE PLAN.
4. NO SITE SPECIFIC GEOTECHNICAL INVESTIGATION HAS BEEN COMPLETED AT THE SITE TO DATE. THEREFORE, THIS CONCEPTUAL DESIGN HAS BEEN PREPARED WITHOUT THE BENEFIT OF GEOTECHNICAL ADVICE. GROUND CONDITIONS MAY VARY AND THE FOUNDATION CONCEPT MAY NEED TO BE MODIFIED TO ACCOMMODATE ACTUAL SITE CONDITIONS.
5. BACK FILL OF APPROACHES SHALL GENERALLY CONFORM TO THE LINES SHOWN ON THE DRAWINGS AND SHALL BE PLACED IN LIFTS NOT EXCEEDING 305mm THICK, COMPACTED TO 95% STANDARD PROCTOR DENSITY. MATERIAL SHALL BE NON-FROZEN, CLEAN, FREE DRAINING, WELL GRADED GRANULAR FILL OF 75mm MAXIMUM SIZE. USE LIGHT MECHANICAL TAMPERS ONLY.
6. CONSTRUCTION SHALL BE CARRIED OUT IN SUCH A MANNER AS TO ENSURE WATER QUALITY IS MAINTAINED BY KEEPING SOIL EROSION AND RUN-OFF TO A MINIMUM DURING INCLEMENT WEATHER AND BY TAKING MEASURES TO PREVENT SEDIMENTATION, LEACHATE, AND CONSTRUCTION MATERIALS FROM ENTERING THE STREAM.
7. OPERATE MACHINERY IN A MANNER THAT MINIMIZES DISTURBANCE TO THE BANKS OF THE WATERCOURSE. MACHINERY IS TO ARRIVE ON SITE IN CLEAN CONDITION AND IS TO BE MAINTAINED FREE OF FLUID LEAKS. REFUEL AND SERVICE MACHINERY AT MINIMUM 100m AWAY FROM THE WATERCOURSE. ENSURE EMERGENCY SPILL KIT IS ON SITE IN CASE OF FLUID LEAKS OR SPILLS FROM MACHINERY.
8. ALL EXPOSED MINERAL SOILS MUST BE SEEDED USING AN APPROVED RECLAMATION GRASS SEED MIXTURE AND COVERED WITH AN APPROVED EROSION CONTROL BLANKET.
9. MAINTAIN EFFECTIVE SEDIMENT AND EROSION CONTROL MEASURES UNTIL COMPLETE RE-VEGETATION OF DISTURBED AREA IS ACHIEVED.
10. ENVIRONMENTAL MANAGEMENT PLAN TO BE PREPARED FOR PROJECT BY OTHERS. COMPLETION OF WORKS TO COMPLY WITH MITIGATION RECOMMENDATIONS OUTLINED IN ENVIRONMENTAL MANAGEMENT PLAN.
11. ALL PERMITS AND REGULATORY APPROVALS TO BE IN PLACE PRIOR TO COMMENCING WORK. INSTALLATION OF WORKS TO COMPLY WITH BEST MANAGEMENT PRACTICES.
12. DESIGN SPEED OF APPROACH ROAD SHOWN IS 30 km/hr. LOCAL CHAINAGE SHOWN RELATIVE TO APPROXIMATE CENTRE OF STREAM.
13. STRUCTURE DESIGN SHALL BE COMPLETED IN ACCORDANCE WITH CAN/CSA-S6-06 CANADIAN HIGHWAY BRIDGE DESIGN CODE, WITH VARIATIONS IN THE DESIGN LOADING VEHICLE TO MEET ANTICIPATED VEHICLE LOADING.

LOADING DIAGRAM L-100 OFF HIGHWAY G.V.W. = 90 680kg;  
DESIGN IN ACCORDANCE WITH CAN/CSA-S6-06 WITH MODIFIED LOADING AS FOLLOWS:



REFERENCE DRAWINGS

DRAWING NO	DRAWING DESCRIPTION/TITLE	REF
-	-	1

Copyright © Allnorth Consultants Limited and affiliated companies. All rights reserved. The information contained in this document is the sole and exclusive property of Allnorth Consultants Limited and affiliated companies and shall not be reproduced or disseminated, or communicated to any unauthorized person, or used in any other unauthorized manner without the express written permission of Allnorth Consultants Limited and affiliated companies.

REV	YY/MM/DD	DESCRIPTION	DRWN	APVD
0	2014/12/15	ISSUED FOR REVIEW	MDB	WBM

CLIENT:

CLIENT NO:	-	DRWN:	MDB	DATE:	14/12/12
PROJECT NO:	14GP0128	DSGN:	WBM	DATE:	14/12/10
DRAWING SIZE:	ANSI "B"	CHKD:	-	DATE:	-
SCALE:	AS NOTED	APVD:	-	DATE:	-

PROJECT:

**STREAM CROSSING  
UPPER GRAINGER RIVER  
PRAIRIE CREEK MINE ROAD AT  
STA. 122+318**

TITLE:

**ABUTMENT ELEVATION  
AND NOTES**

DWG NO:	<b>14GP0128-122-1960-004</b>	REV:	<b>0</b>
---------	------------------------------	------	----------