

# **Project Description Report: Aklavik Airport Drainage Improvements Revision 02**



## **Government of the Northwest Territories**

NOVEMBER 2019  
ISSUED FOR USE | REVISION 02  
FILE: 704-ENW.EENW03288-01

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Moshiur Rahman, Government of the Northwest Territories – Airport Planning Officer

Geoff Petzold, CIMA Canada Inc. – Project Manager

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## APPENDIX SECTIONS

### APPENDICES

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Appendix F	Waste Management Plan
Appendix G	Closure and Reclamation Plan

## 1.0 PROJECT TITLE

Project Description Report for the Aklavik Airport Drainage Improvements Project (the Project), Revision 02.

## 2.0 CONTACT NAME AND ADDRESS

Moshiur Rahman, Airport Planner  
Government of the Northwest Territories  
Department of Infrastructure  
5015 – 49 Street Yellowknife, NT, X1A 2L9  
Phone: (867) 767-9084 ext. 31079  
Fax: (867) 873-0297  
Email: Moshiur\_Rahman@gov.nt.ca

## 3.0 REGULATORY APPROVALS

The Government of the Northwest Territories (GNWT) is seeking a Water Licence from the Inuvialuit Water Board (IWB). Approvals from the Inuvialuit Environmental Impact Screening Committee (EISC) and the Department of Fisheries and Oceans (DFO) have already been attained for this project. The IWB application, and the EISC and DFO approvals are included in Appendix A of this report.

The EISC approval noted that the Project does meet the definition of development as defined under the Inuvialuit Final Agreement, and that the Project qualifies for an exemption from environmental impact screening under Exclusion Item # 13 of the EISC Guidelines.

The DFO approval noted that the Project will not result in serious harm to fish or prohibited effects on listed aquatic species at risk. As such, DFO stated that an authorization under the Fisheries Act or a permit under the Species at Risk Act is not required.

## 4.0 LOCATION

The site is located at Aklavik Airport (68°13'23.57" N, 135°00'23.03" W) within the Hamlet of Aklavik. The GNWT confirmed in 2018 that this project fell within the Inuvialuit Settlement Region and not the Gwich'in Settlement Region. The GNWT needed to confirm this as the boundary between the two settlement regions passes through the Hamlet of Aklavik (Hamlet).

## 5.0 DEVELOPMENT SUMMARY

CIMA Canada Inc. (CIMA+) was retained by the GNWT as the design engineers to develop a drainage plan to drain two problem areas at the Aklavik Airport (Area 1 and Area 2). Tetra Tech Canada Inc. (Tetra Tech) was retained by CIMA+ to assist with environmental regulatory approvals. Significant portions of the Hamlet and Aklavik Airport flood in the spring during "break-up". After flood waters recede, Areas 1 and 2 do not drain completely, which has been a problem for the Hamlet and Aklavik Airport. The purpose of this project is to develop a practical plan to drain Areas 1 and 2 by gravity after flood waters subside. A set of stamped "Issued for Environmental Review" drawings are included in Appendix B of this report. The drawings detail the ditch improvements, graded areas, and Peel Channel outfalls. No new culverts are included as part of this project.

The Project would have Area 1 graded with a perimeter swale constructed around it. The perimeter swale would drain to an existing ditch that runs along the airport runway. The ditch would be reworked to daylight into the Peel Channel, south of the airport. The Area 1 drainage improvements are shown on Figures 1 and 2 in Appendix B. The block profiles for the ditch improvements are shown on Figures 501 to 505 in Appendix B.

Area 2 would have a swale constructed through the centre of it. The swale would lead to a short ditch that would daylight into the Peel Channel, north of the airport. The Area 2 drainage improvements are shown on Figures 3 and 4 in Appendix B.

The construction of the swales and ditches would be as follows:

- Typically, a 2 metre (m) wide base constructed with 200 millimetre (mm) granular ditch bedding over geotextile.
- The swales would have back slopes to match the existing ground elevations to a maximum slope of 3:1.
- The ditches would typically have back slopes at 3:1.
- The ditch for Area 1 would daylight into the Peel Channel at 68°13'07.35" N, 134°59'57.21" W, and the ditch for Area 2 would daylight into the Peel Channel at 68°13'45.23" N, 135°00'46.44" W.
- The length of the ditch from Area 1 to the Peel Channel would be approximately 855 m long.
- The length of the short ditch for Area 2 would be approximately 55 m long.

The contractor and heavy equipment used for this project will depend on the result of a forthcoming GNWT request for proposals (RFP). It is anticipated that the contractor will be local, and that the heavy equipment used for this project will include a backhoe.

## **6.0 DEVELOPMENT TIMETABLE**

The project timeline is to be determined and is dependent on the selected contractor.

## **7.0 NEW TECHNOLOGY**

No new technologies or methods will be employed for this culvert installation Project.

## **8.0 ALTERNATIVES**

Initially two drainage improvement routes were considered for this Project by the design engineers. The present approach was chosen by the GNWT as the preferred option.

## **9.0 TRADITIONAL AND OTHER LAND USES**

The Project is being completed at Aklavik Airport, which is well within the municipal boundaries of the Hamlet of Aklavik. Impacts to traditional land uses and other land uses are not anticipated from this Project.

## **10.0 ENGAGEMENT**

A community stakeholders meeting was held in the Hamlet of Aklavik Chambers on May 30, 2018 with the GNWT, the design engineers, and members of the community. The meeting discussed utilizing local contractors in Aklavik and sources of gravel in town. The minutes from this meeting are included in Appendix C.

## **11.0 ENVIRONMENTAL OVERVIEW AND PLANS**

The Project is located at Aklavik Airport, which is well within the municipal boundaries of the Hamlet Aklavik. The Project will improve the drainage of two relatively small areas at critical locations of the airport infrastructure, particularly the flooding in spring during “break-up”. Environmental impacts are not anticipated from the Project, and the limited potential effects can be mitigated with the environmental plans noted in Sections 11.1 and 11.2 of this report. The drainage improvements largely improve existing ditches in the Hamlet of Aklavik, and the improvements drain flood waters that arise from the Peel Channel back into the Peel Channel.

The approval from the DFO noted that the Project will not result in serious harm to fish or prohibited effects on listed aquatic species at risk. Therefore, significant impacts to fish are not anticipated from this Project.

### **11.1 Spill Contingency Plan**

The Project Spill Contingency Plan (SCP) was updated as a Revision 02 to include comments made by the IWB. The contractor will be required to have a copy of the Project SCP on-site and be knowledgeable of the contents of it. In the unlikely event of a spill incident on site, the contractor will immediately implement the appropriate spill notification, response and mitigation measures as specified in the SCP (Refer to Appendix D).

### **11.2 Erosion and Sediment Control Plan**

The Project will conform with the applicable best management practices of the Erosion and Sedimentation Control Plan (ESCP) where applicable. The contractor will be required to have a copy of the ESCP on-site and be knowledgeable of the contents of it (Refer to Appendix E).

### **11.3 Waste Management Plan**

The IWB requested the inclusion of a Waste Management Plan (WMP) in their review of the original submission. The Project will adhere to the WMP for managing waste management issues, where applicable. The contractor will be required to have a copy of the WMP on-site and be knowledgeable of the contents of it (Refer to Appendix F).

### **11.4 Closure and Reclamation Plan**

The IWB requested the inclusion of a Closure and Reclamation Plan (CRP) in their review of the original submission. The Project will adhere to the CRP for managing closure and reclamation issues, where applicable. The contractor will be required to have a copy of the CRP on-site and be knowledgeable of the contents of it (Refer to Appendix G).

## 12.0 CLOSURE

We trust this report meets your present requirements. If you have any questions or comments, please contact the undersigned.

Respectfully submitted,  
Tetra Tech Canada Inc.

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FILE: 704-ENW.EENW03288-01

Prepared by:  
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FILE: 704-ENW.EENW03288-01

Reviewed by:  
Rick A.W. Hoos, R.P.Bio  
Principal Consultant  
Mining Practice  
Direct Line: 604.608.8914  
Rick.Hoos@tetrattech.com

# APPENDIX B

## ISSUED FOR ENVIRONMENTAL REVIEW DRAWINGS

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GOVERNMENT of NORTHWEST TERRITORIES

AKLAVIK AIRPORT DRAINAGE

IN THE

HAMLET of AKLAVIK, NORTHWEST TERRITORIES

ISSUED FOR ENVIRONMENTAL REVIEW

LIST OF DRAWINGS:

1	AREA 1 DRAINAGE IMPROVEMENTS	501	BLOCK PROFILE - AREA 1 & DITCH TO PEEL CHANNEL
2	AREA 1 GRADING PLAN	502	BLOCK PROFILE - DITCH TO PEEL CHANNEL
3	AREA 2 DRAINAGE IMPROVEMENTS & GRADING PLAN	503	BLOCK PROFILE - DITCH TO PEEL CHANNEL
4	AREA 2 CROSS SECTIONS	504	BLOCK PROFILE - DITCH TO PEEL CHANNEL
		505	BLOCK PROFILE - DITCH TO PEEL CHANNEL & OUTFALL



LOCATION PLAN

N.T.S.








AREA 1  
DRAINAGE IMPROVEMENTS  
SCALE 1:2000

TYPICAL DITCH CROSS SECTION  
INSTALLATION DETAIL  
NOT TO SCALE

PROPOSED DITCH  
CROSS SECTION A-A  
H 1:250 V 1:50

PROPOSED DITCH  
CROSS SECTION B-B  
H 1:250 V 1:50

- # LEGEND
- |   |  |
|---|--|
|    | PROPOSED SITE BOUNDARY   |
|  | BOUNDARY IS EAST EDGE OF GRAVEL ON HANSEN ROAD & 15m FROM WEST EDGE OF RUNWAY EXCEPT AS SHOWN. |
|  | PROPOSED DRAINAGE IMPROVEMENTS   |
|  | EXISTING DRAINAGE PATH   |
|  | PROPOSED DRAINAGE PATH   |
| <div><div>N68°13'31.72"</div><div>W135°00'41.49"</div></div>                        | GPS COORDINATES<br>DMS (DEGREES, MINUTES, SECONDS)<br>NOTE: WESTING IS NEGATIVE                |

1	2018/10/02	ISSUED FOR ENVIRONMENTAL REVIEW	RFC
No.	Date	Description	By



ENGINEER: **CIMA+** E00724A

**T 306 653-2462, F 888 478-7420**  
**4th Floor-333 3rd Avenue North**  
**Saskatoon, SK S7K 2M2 CANADA**

GOVERNMENT of  
NORTHWEST TERRITORIES

PROJECT NAME:

AKLAVIK AIRPORT DRAINAGE

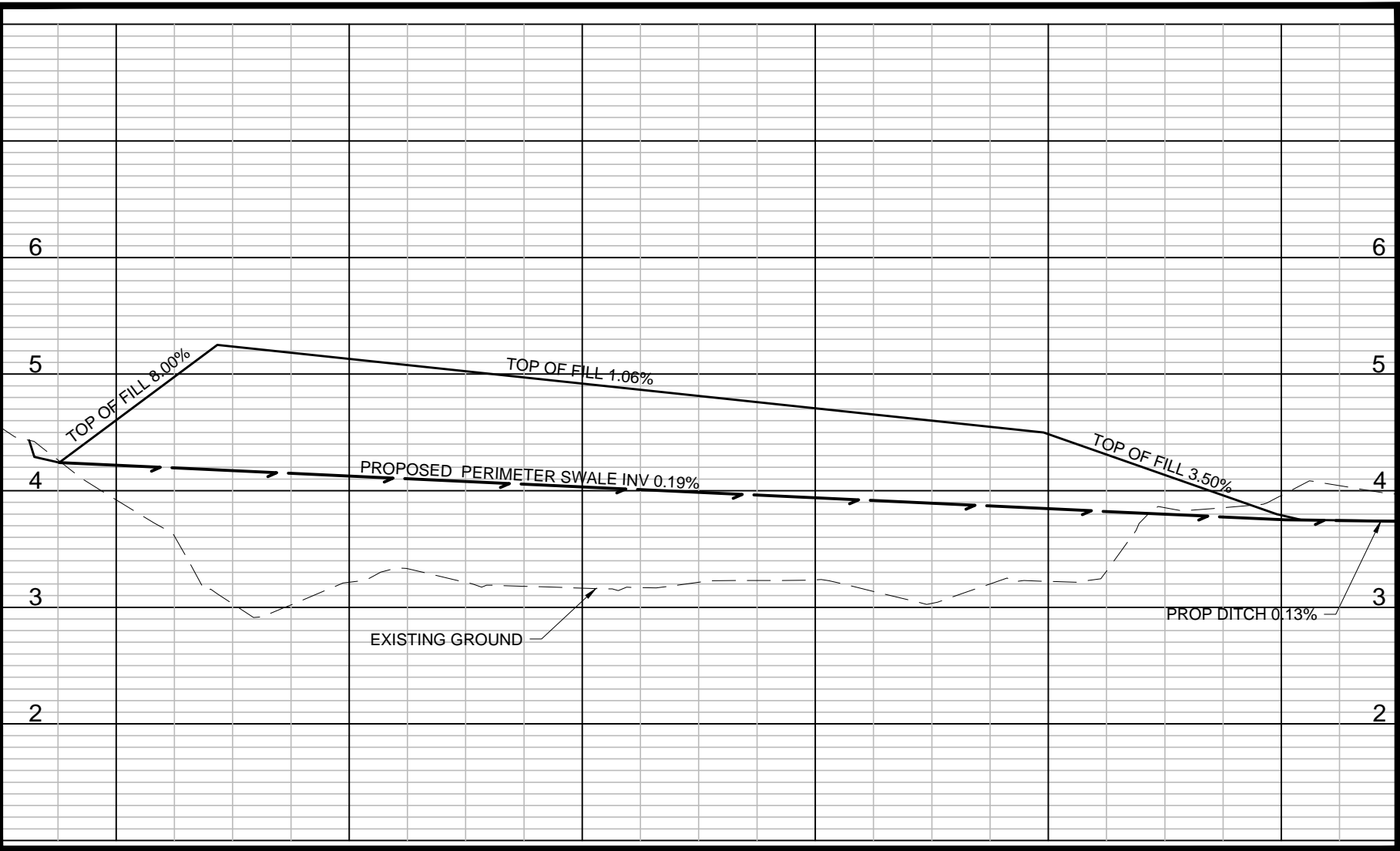
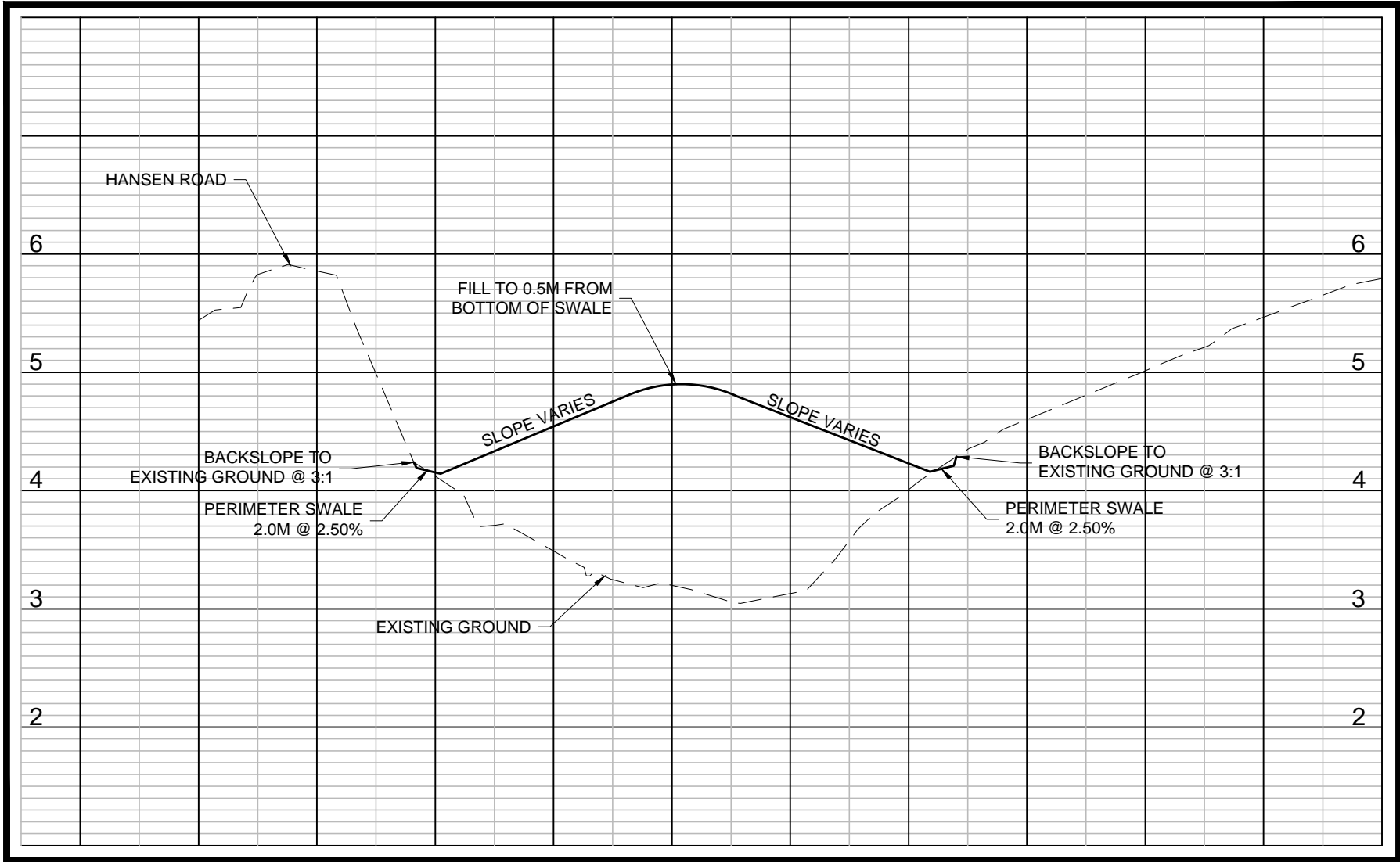
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AREA 1  
DRAINAGE IMPROVEMENTS

DISCIPLINE: INFRASTRUCTURE

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DESIGNER: RFC	DATE: 2018/06/29
APPROVER: -	APPROVER: -
PROJECT No: E00724A	DRAWING No:  <div style="text-align: center; font-size: 2em;">1</div>
SHEET No:  <div style="text-align: center;">1 of 9</div>	





LEGEND

- EXISTING CONTOUR 1.00 METRE INTERVAL
- EXISTING CONTOUR 0.25 METRE INTERVAL
- FLOW DIRECTION
- EXISTING GROUND ELEVATION
- DESIGN ELEVATION

1	2018/10/02	ISSUED FOR ENVIRONMENTAL REVIEW	RFC
No.	Date	Description	By

STAMP:

REGISTERED PROFESSIONAL ENGINEER  
NT / NU

PERMIT TO PRACTICE  
CIMA CANADA INC. o/a CIMA+  
Signature: R.P. CADIEUX  
Date: 2018-10-02  
PERMIT NUMBER: P042  
NTNU Association of Professional Engineers and Geoscientists

DESIGNED BY: ENGINEER: CIMA+ APPROVED BY: E00724A

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CLIENT:

GOVERNMENT of  
NORTHWEST TERRITORIES

PROJECT NAME:

AKLAVIK AIRPORT DRAINAGE

SHEET TITLE:






AREA 1  
GRADING PLAN

DISCIPLINE:	INFRASTRUCTURE
DRAFTER: KRD	SCALE: 1:250
DESIGNER: RFC	DATE: 2018/06/29
APPROVER: -	APPROVER: -
PROJECT No: E00724A	DRAWING No: 2
SHEET No: 2 of 9	





## LEGEND

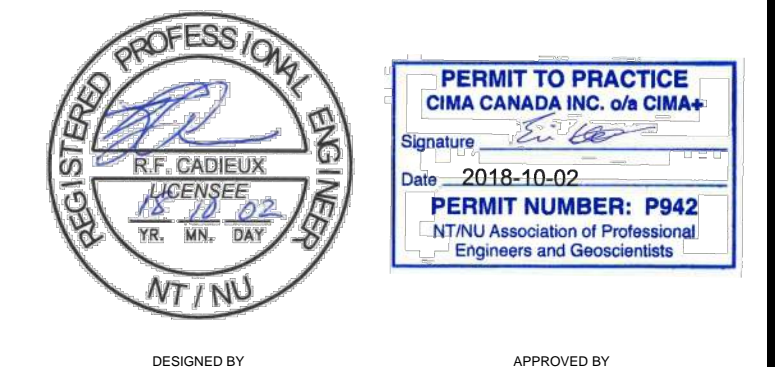
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 EXISTING CONTOUR 0.25 METRE INTERVAL  
 FLOW DIRECTION  
 EXISTING GROUND ELEVATION  
 DESIGN ELEVATION  

N68°13'31.72"  
 W135°00'41.49"

 GPS COORDINATES  
 DMS (DEGREES, MINUTES, SECONDS)  
 NOTE: WESTING IS NEGATIVE

1	2018/10/02	ISSUED FOR ENVIRONMENTAL REVIEW	RFC
No.	Date	Description	By

**STAMPS:**



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CLIENT:

GOVERNMENT of  
NORTHWEST TERRITORIES

PROJECT NAME:

AKLAVIK AIRPORT DRAINAGE

SHEET TITLE:

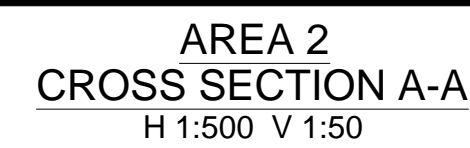
## AREA 2 DRAINAGE IMPROVEMENTS & GRADING PLAN

DISCIPLINE:

## INFRASTRUCTURE

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DESIGNER: RFC	DATE: 2018/06/29
APPROVER: "	APPROVER: "
PROJECT No: E00724A	DRAWING No:  3
SHEET No: 3 of 9	





1	2018/10/02	ISSUED FOR ENVIRONMENTAL REVIEW	RFC
No.	Date	Description	By



The image shows two documents. On the left is a circular Professional Engineer License for R.F. CADIEUX, Licensee 112 02, issued by the NT/NU Association of Professional Engineers and Geoscientists. On the right is a rectangular Permit to Practice for CIMA Canada Inc. o/a CIMA+, signed by R.F. Cadieux on 2018-10-02, also issued by the NT/NU Association of Professional Engineers and Geoscientists.

ENGINEER:  E00724A

**CIMA+** E00724A

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4th Floor-333 3rd Avenue North  
Saskatoon, SK S7K 2M2 CANADA

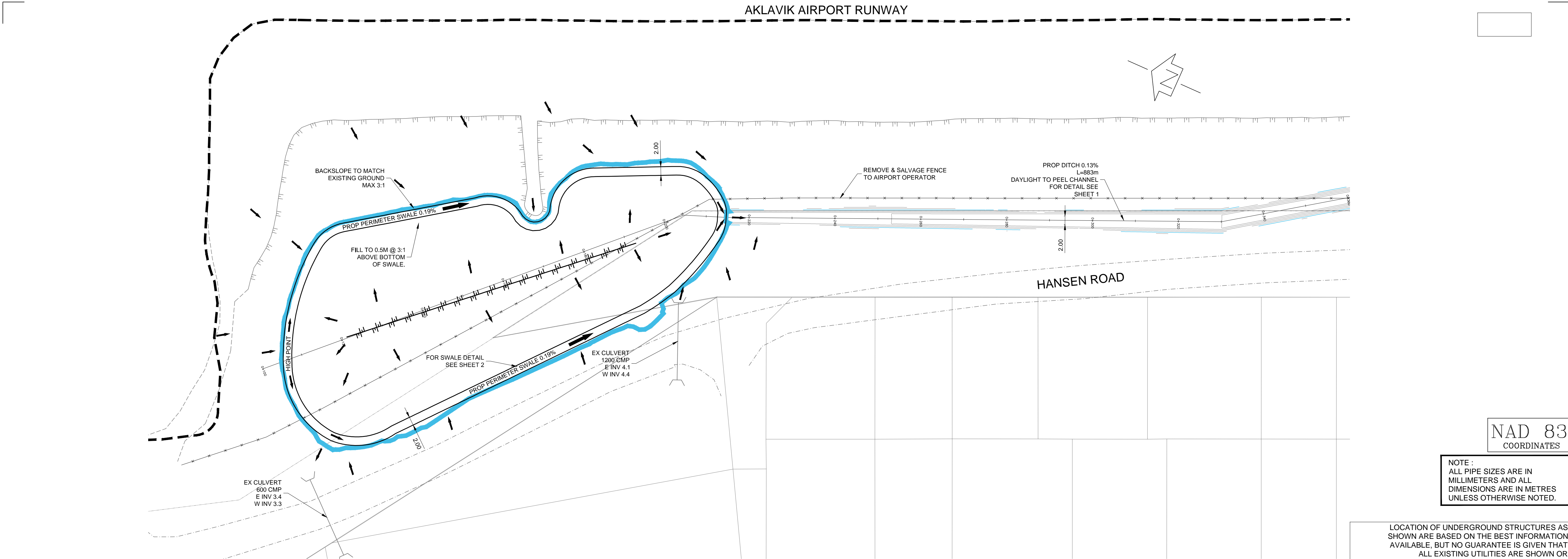
GOVERNMENT of  
NORTHWEST TERRITORIES

## AKLAVIK AIRPORT DRAINAGE

## AREA 2 CROSS SECTIONS

## INFRASTRUCTURE

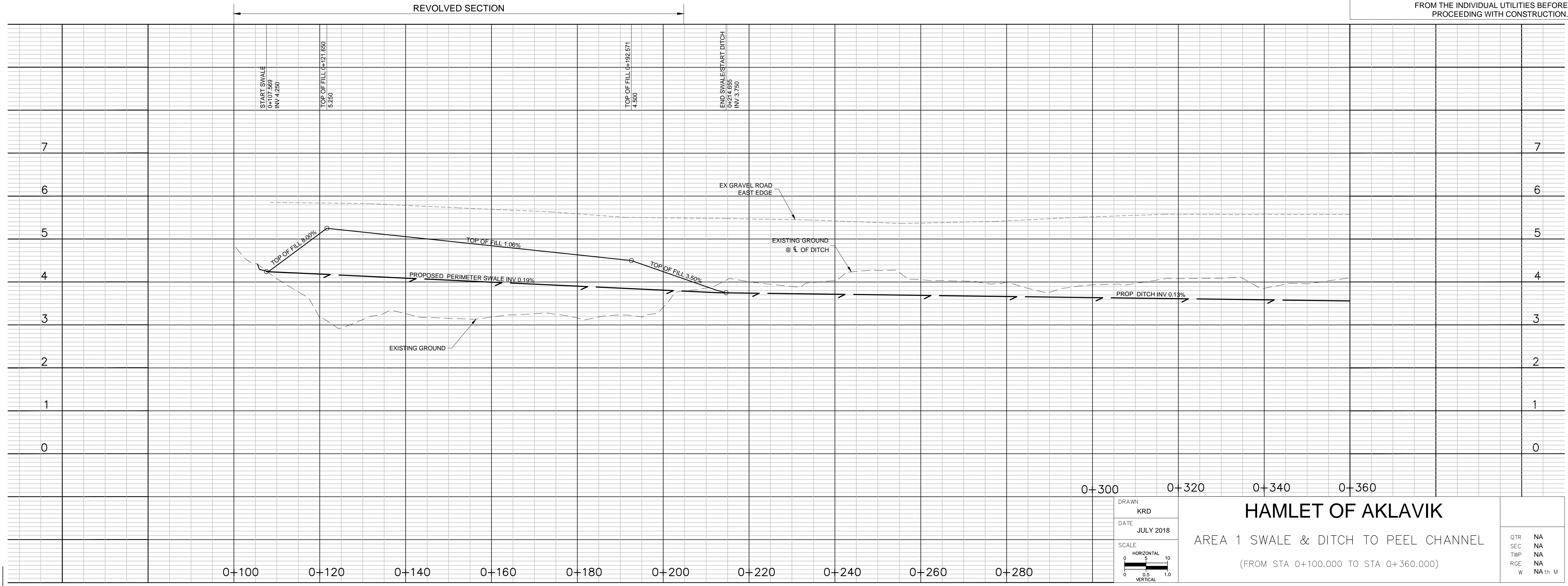
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SHEET No:  <div style="text-align: center;">4 of 9</div>	



NAD 83  
COORDINATES

NOTE :  
ALL PIPE SIZES ARE IN  
MILLIMETERS AND ALL  
DIMENSIONS ARE IN METRES  
UNLESS OTHERWISE NOTED.

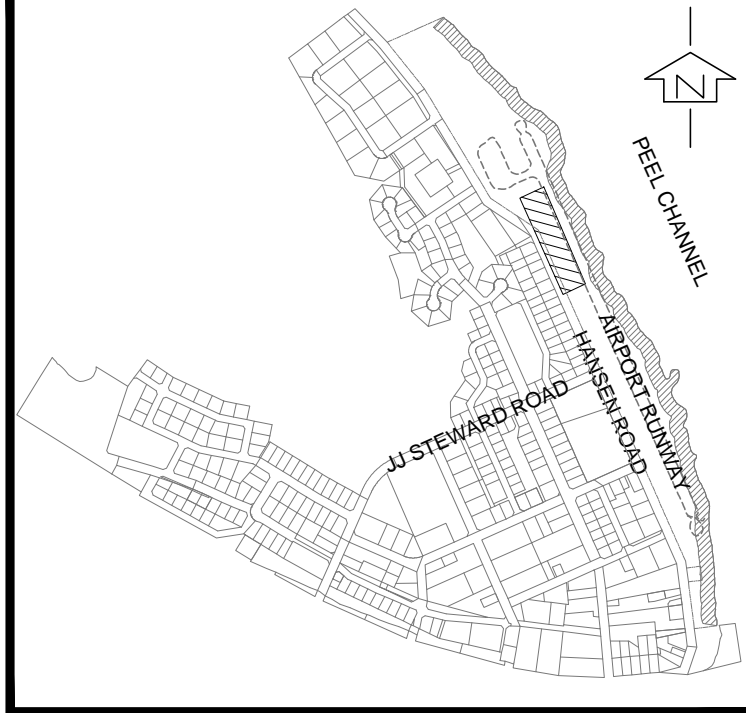
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SHOWN ARE BASED ON THE BEST INFORMATION  
AVAILABLE, BUT NO GUARANTEE IS GIVEN THAT  
ALL EXISTING UTILITIES ARE SHOWN OR  
THAT THE GIVEN LOCATIONS ARE EXACT.  
CONFIRMATION OF EXISTENCE AND EXACT LOCATION  
OF ALL SERVICES MUST BE OBTAINED BY CONTRACTOR  
FROM THE INDIVIDUAL UTILITIES BEFORE  
PROCEEDING WITH CONSTRUCTION.



DRAWN  
KRD  
DATE  
JULY 2018  
SCALE  
HORIZONTAL 1:10  
VERTICAL 1:10

HAMLET OF AKLAVIK  
AREA 1 SWALE & DITCH TO PEEL CHANNEL  
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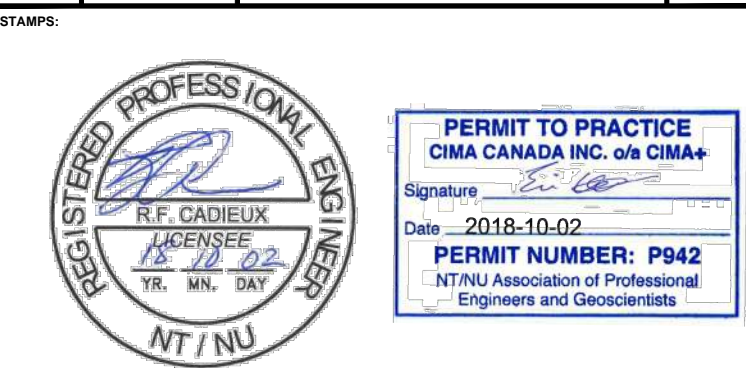
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SEC NA  
TWP NA  
RGE NA  
W NA



HAMLET OF AKLAVIK  
LOCATION PLAN  
SCALE: NTS

PROFILE LOCATION


1	2018/10/02	ISSUED FOR ENVIRONMENTAL REVIEW	RFC
No.	Date	Description	By



DESIGNED BY  
APPROVED BY  
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Saskatoon, SK S7K 2M2 CANADA

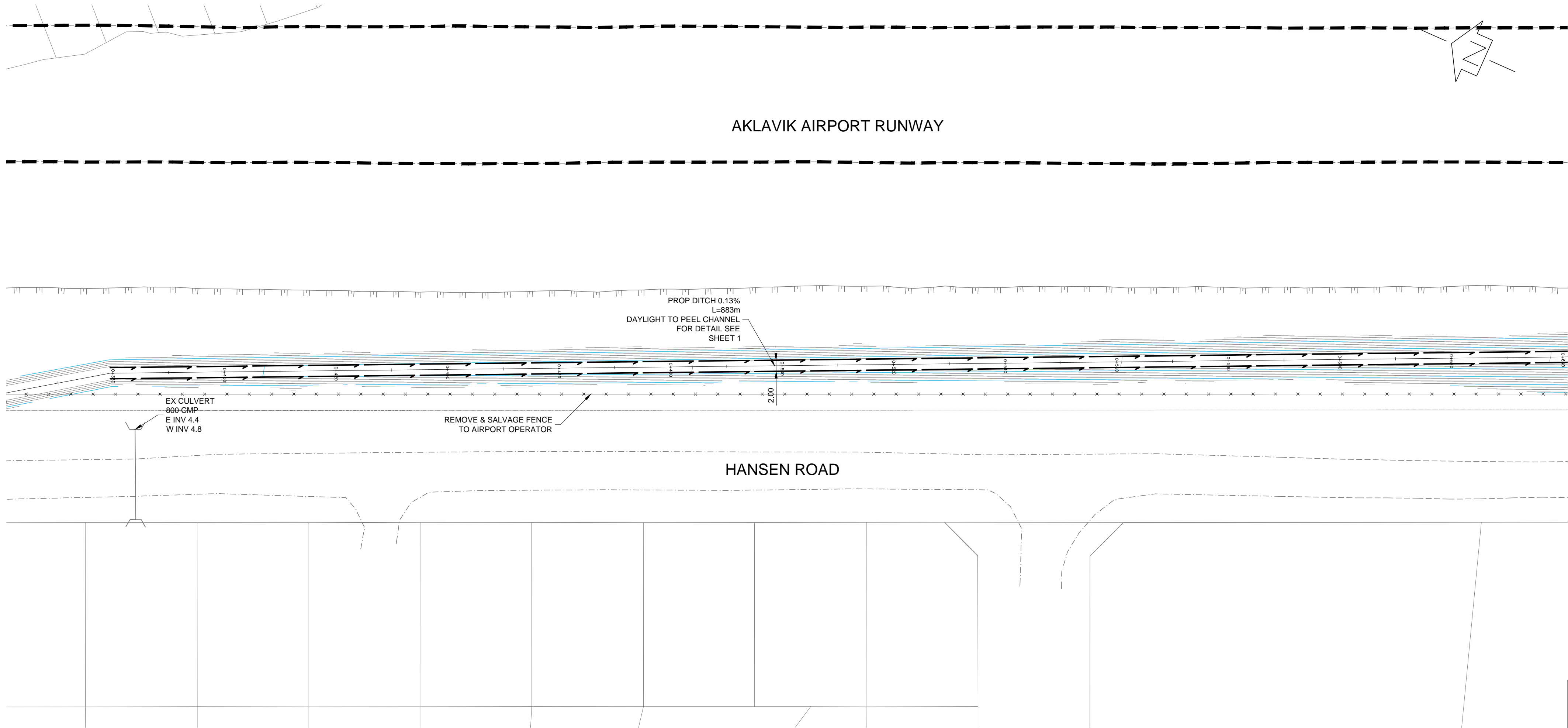
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GOVERNMENT of  
NORTHWEST TERRITORIES

PROJECT NAME:  
AKLAVIK AIRPORT DRAINAGE

SHEET TITLE:  
BLOCK PROFILE

DISCIPLINE: INFRASTRUCTURE	SCALE: H 1:500 V 1:100
DRAWER: KRD	DATE: 2018/07/10
DESIGNER: RFC	APPROVER: -
PROJECT No: E00724A	DRAWING No: 501
SHEET No: 5 of 9	

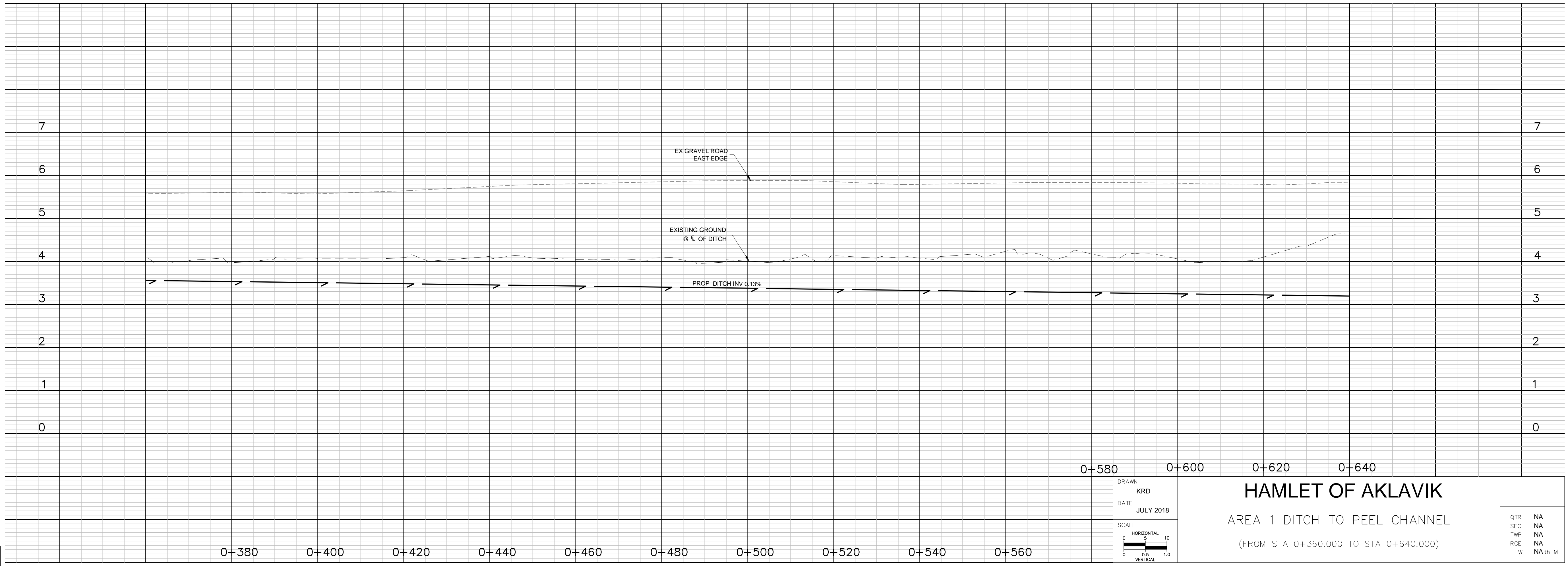




NAD 83  
COORDINATES

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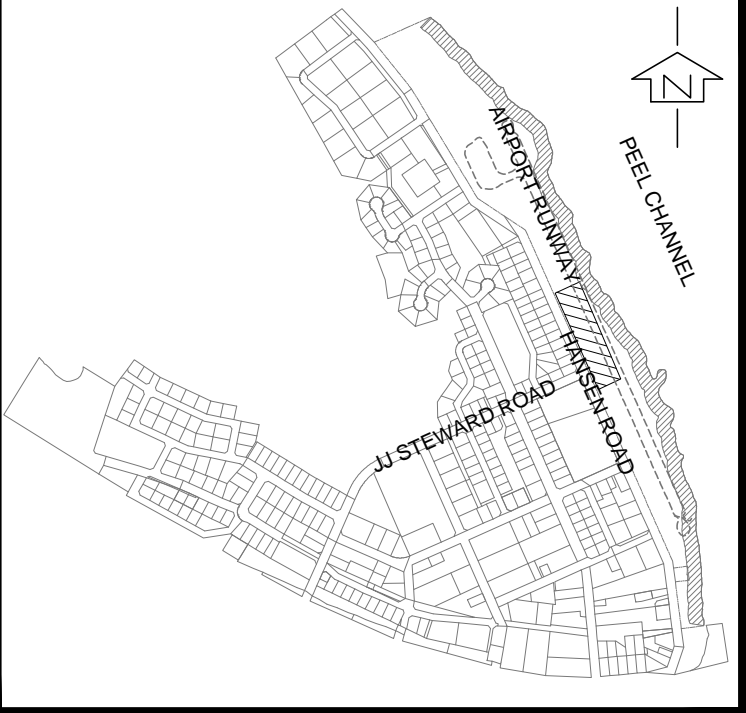
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DRAWN  
KRD  
DATE  
JULY 2018  
SCALE  
HORIZONTAL 1:10  
VERTICAL 1:10

HAMLET OF AKLAVIK  
AREA 1 DITCH TO PEEL CHANNEL  
(FROM STA 0+360.000 TO STA 0+640.000)

QTR NA  
SEC NA  
TWP NA  
RGE NA  
W NA



HAMLET OF AKLAVIK  
LOCATION PLAN  
SCALE: NTS

PROFILE LOCATION


1	2018/10/02	ISSUED FOR ENVIRONMENTAL REVIEW	RFC
No.	Date	Description	By

STAMPS:

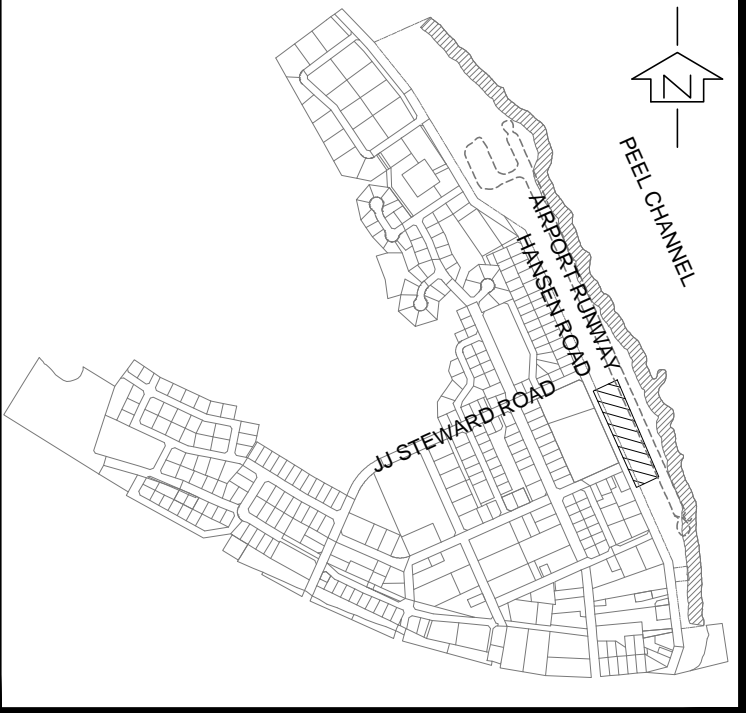
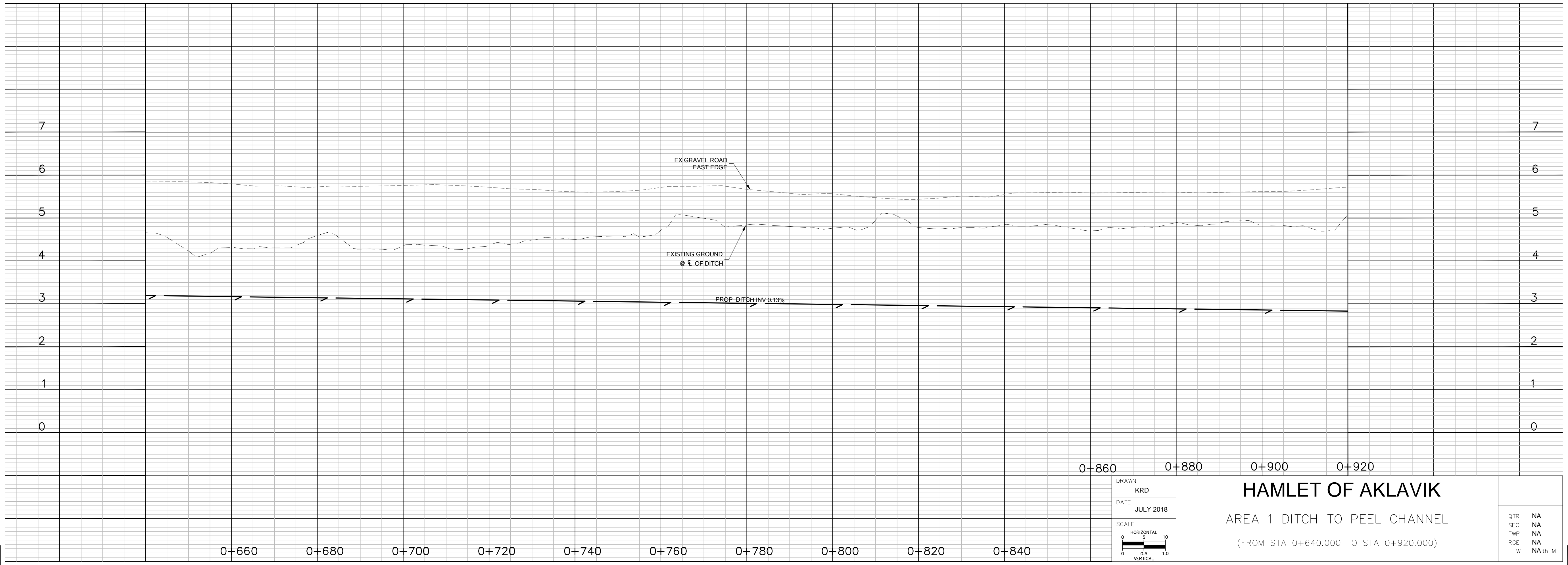
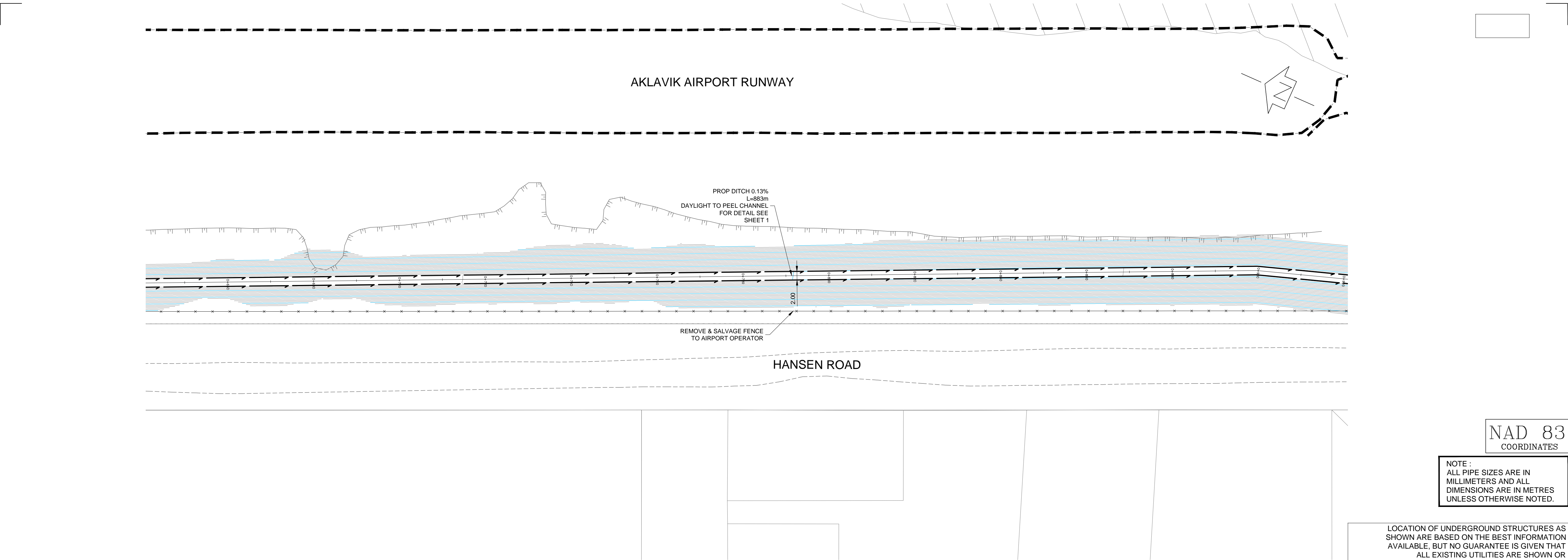
ENGINEER: **CIMA+**  
T 306 653-2462, F 888 478-7420  
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Saskatoon, SK S7K 2M2 CANADA

CLIENT:  
**GOVERNMENT of  
NORTHWEST TERRITORIES**

PROJECT NAME:  
**AKLAVIK AIRPORT DRAINAGE**

SHEET TITLE:  
**BLOCK PROFILE**

DISCIPLINE: INFRASTRUCTURE	
DRAFTER KRD	SCALE: H 1:500 V 1:100
DESIGNER: RFC	DATE: 2018/07/10
APPROVER: -	APPROVER: -
PROJECT No: E00724A	DRAWING No: 502
SHEET No: 6 of 9	



HAMLET OF AKLAVIK  
LOCATION PLAN  
SCALE: NTS

PROFILE LOCATION

1	2018/10/02	ISSUED FOR ENVIRONMENTAL REVIEW	RFC
No.	Date	Description	By

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DESIGNED BY: APPROVED BY: E00724A

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4th Floor-333 3rd Avenue North  
Saskatoon, SK S7K 2M2 CANADA

CLIENT:

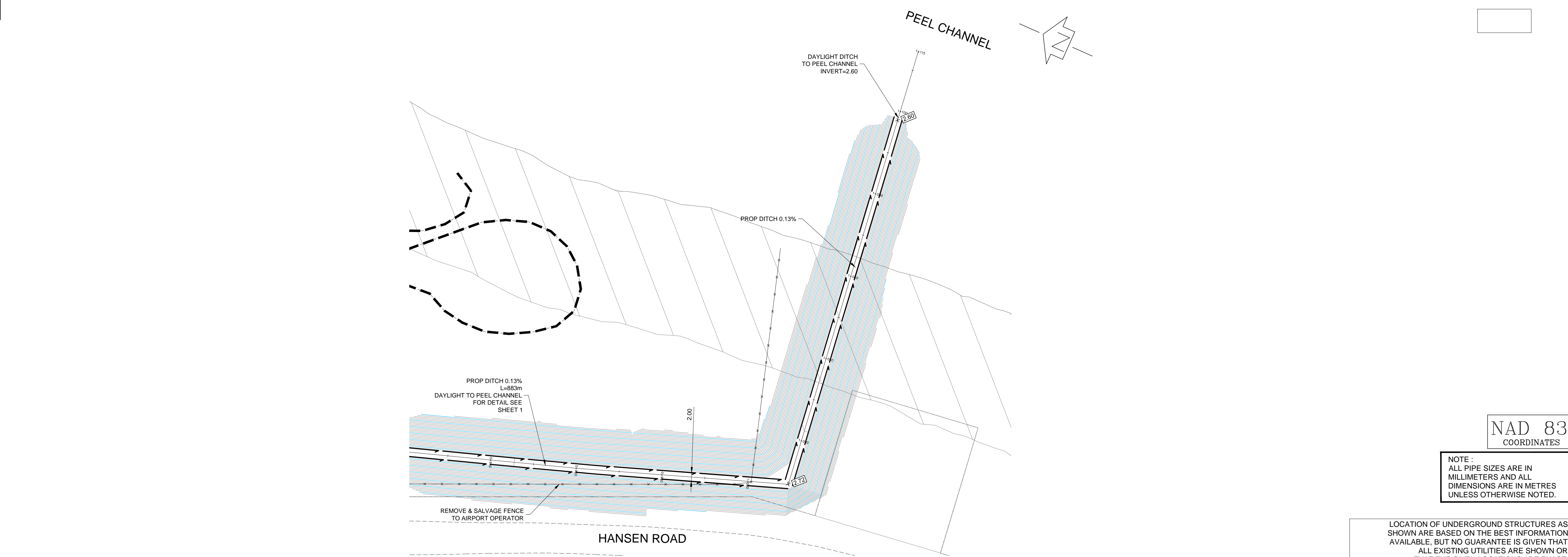
GOVERNMENT of  
NORTHWEST TERRITORIES

PROJECT NAME:  
  
AKLAVIK AIRPORT DRAINAGE

SHEET TITLE:  
  
BLOCK PROFILE

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DRAWN: KRD	SCALE: H 1:500 V 1:100
DESIGNED: RFC	DATE: 2018/07/10
APPROVED: -	APPROVED: -
PROJECT No: E00724A	DRAWING No: 503
SHEET No: 7 of 9	

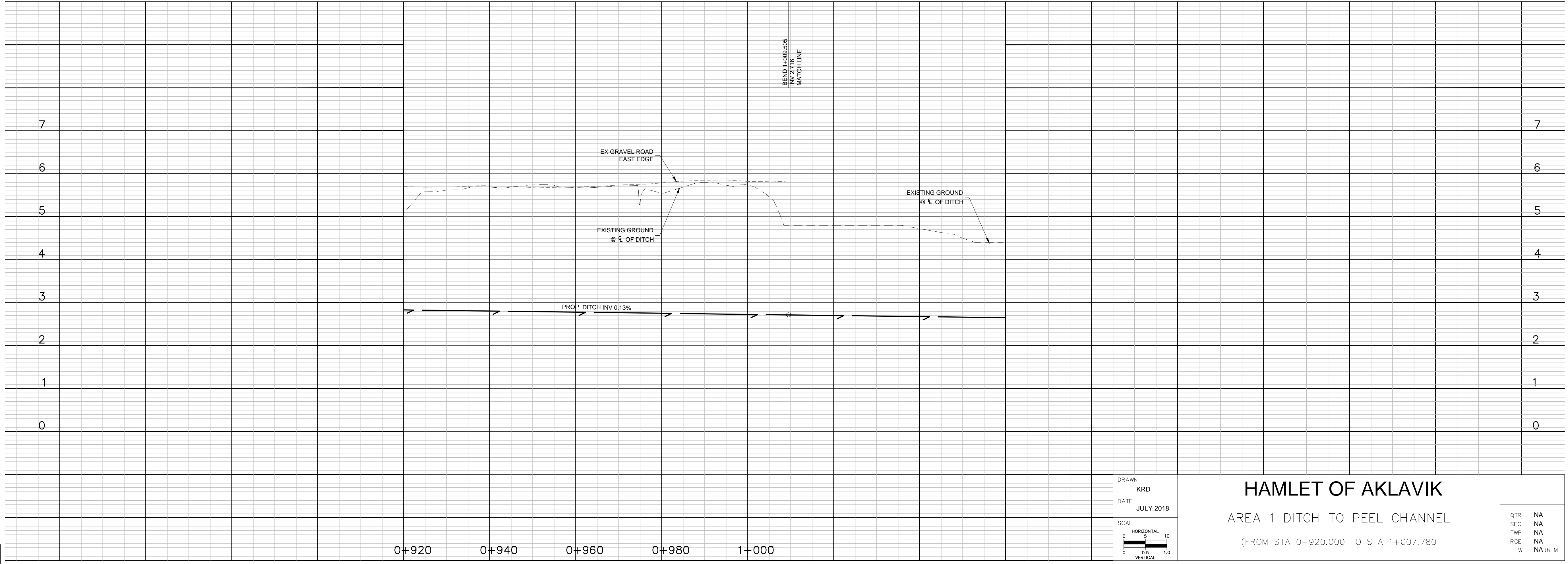




NAD 83  
COORDINATES

NOTE :  
ALL PIPE SIZES ARE IN  
MILLIMETERS AND ALL  
DIMENSIONS ARE IN METRES  
UNLESS OTHERWISE NOTED.

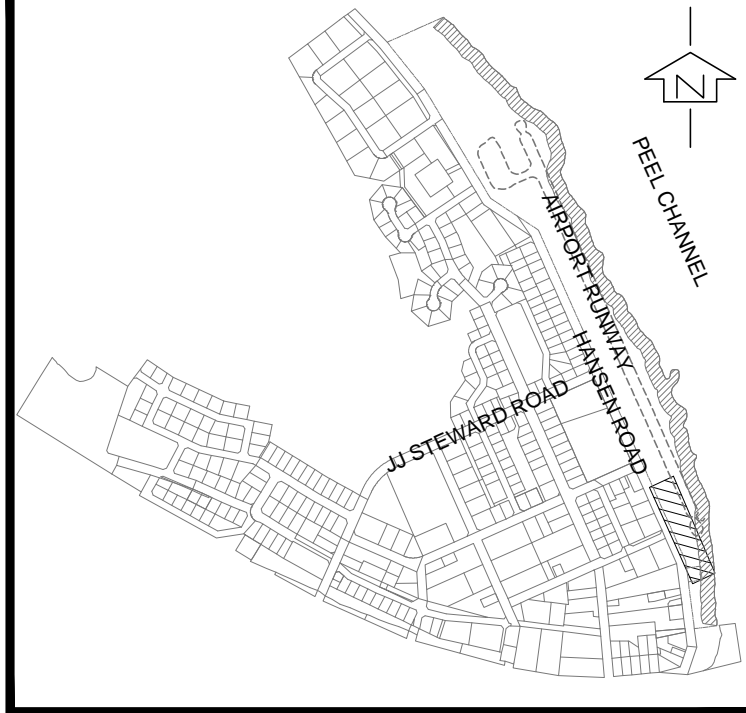
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PROCEEDING WITH CONSTRUCTION.



DRAWN  
KRD  
DATE  
JULY 2018  
SCALE  
HORIZONTAL  
0 5 10  
VERTICAL  
0 0.5 1.0

HAMLET OF AKLAVIK  
AREA 1 DITCH TO PEEL CHANNEL  
(FROM STA 0+920.000 TO STA 1+007.780)

QTR NA  
SEC NA  
TWP NA  
RGE NA  
W NA th M



HAMLET OF AKLAVIK  
LOCATION PLAN  
SCALE: NTS

PROFILE LOCATION


1	2018/10/02	ISSUED FOR ENVIRONMENTAL REVIEW	RFC
No.	Date	Description	By



DESIGNED BY  
APPROVED BY  
E00724A

**CIMA+**  
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4th Floor-333 3rd Avenue North  
Saskatoon, SK S7K 2M2 CANADA

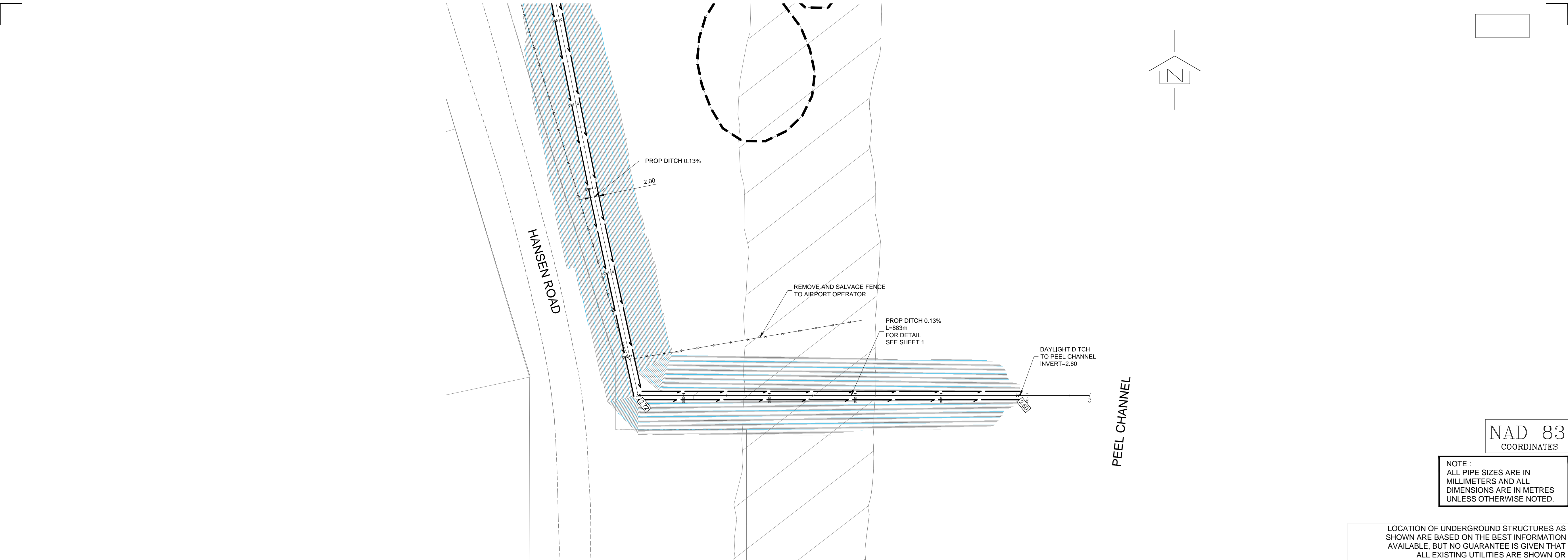
CLIENT:  
**GOVERNMENT of  
NORTHWEST TERRITORIES**

PROJECT NAME:  
**AKLAVIK AIRPORT DRAINAGE**

SHEET TITLE:  
**BLOCK PROFILE**

DISCIPLINE: <b>INFRASTRUCTURE</b>	
DRAFTER KRD	SCALE: H 1:500 V 1:100
DESIGNER: RFC	DATE: 2018/07/10
APPROVER: -	APPROVER: -
PROJECT No: E00724A	DRAWING No: 504
SHEET No: 8 of 9	

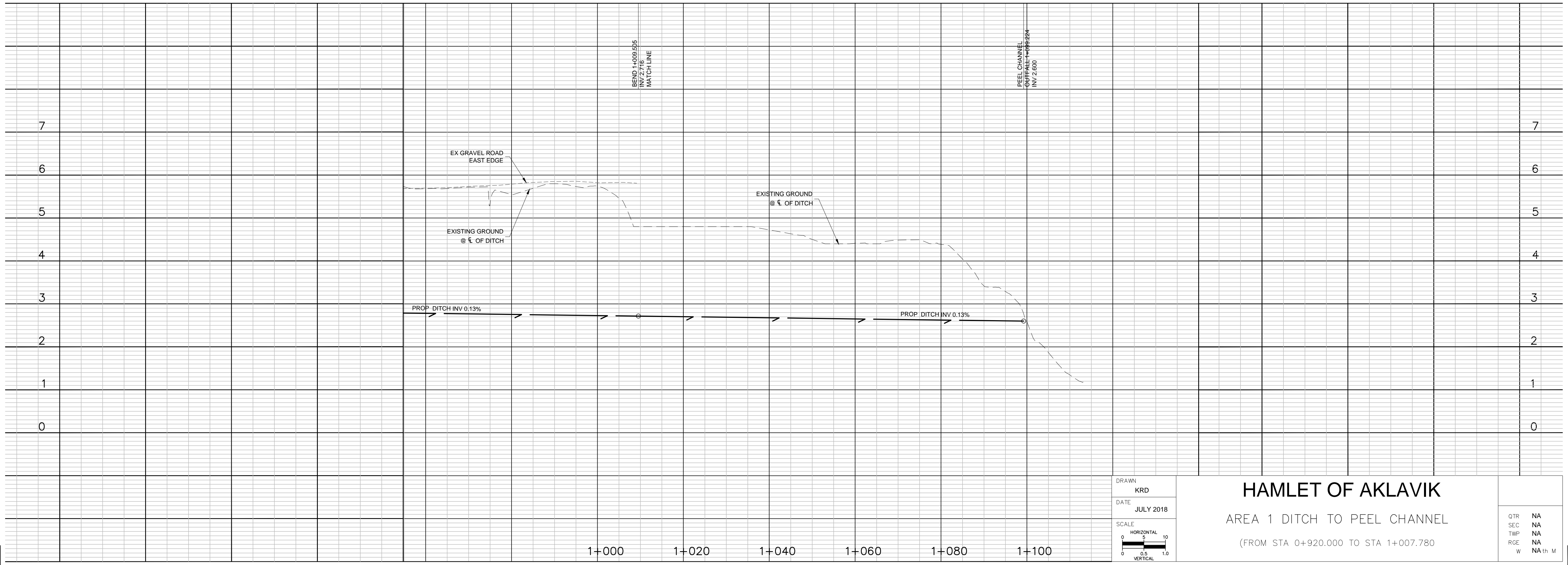




NAD 83  
COORDINATES

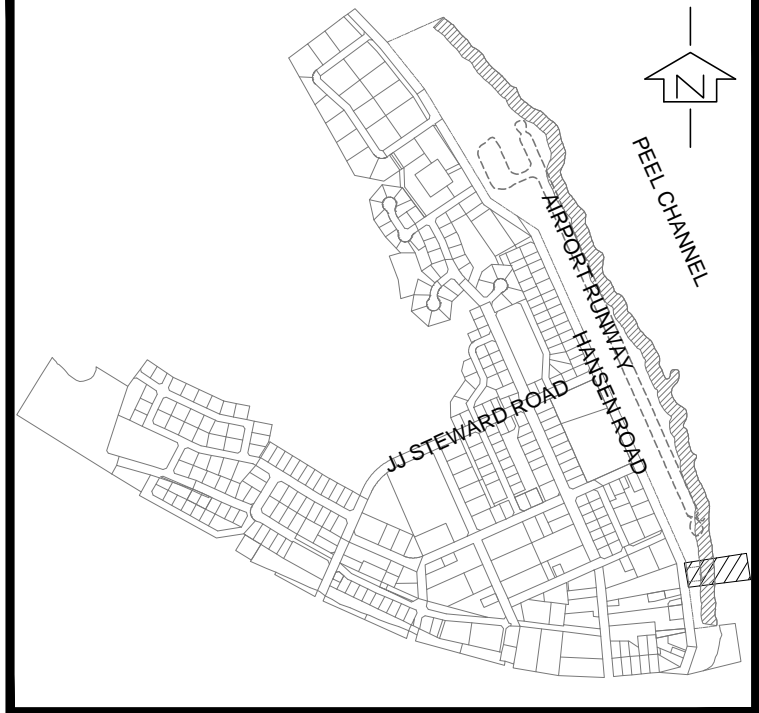
NOTE :  
ALL PIPE SIZES ARE IN  
MILLIMETERS AND ALL  
DIMENSIONS ARE IN METRES  
UNLESS OTHERWISE NOTED.

LOCATION OF UNDERGROUND STRUCTURES AS  
SHOWN ARE BASED ON THE BEST INFORMATION  
AVAILABLE, BUT NO GUARANTEE IS GIVEN THAT  
ALL EXISTING UTILITIES ARE SHOWN OR  
THAT THE GIVEN LOCATIONS ARE EXACT.  
CONFIRMATION OF EXISTENCE AND EXACT LOCATION  
OF ALL SERVICES MUST BE OBTAINED BY CONTRACTOR  
FROM THE INDIVIDUAL UTILITIES BEFORE  
PROCEEDING WITH CONSTRUCTION.



HAMLET OF AKLAVIK  
AREA 1 DITCH TO PEEL CHANNEL  
(FROM STA 0+920.000 TO STA 1+007.780)

QTR NA  
SEC NA  
TWP NA  
RGE NA  
W NA



HAMLET OF AKLAVIK  
LOCATION PLAN  
SCALE: NTS

PROFILE LOCATION


1	2018/10/02	ISSUED FOR ENVIRONMENTAL REVIEW	RFC
No.	Date	Description	By



DESIGNED BY: APPROVED BY: E00724A  
**CIMA+**  
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CLIENT:  
**GOVERNMENT of  
NORTHWEST TERRITORIES**

PROJECT NAME:  
**AKLAVIK AIRPORT DRAINAGE**

SHEET TITLE:  
**BLOCK PROFILE**

DISCIPLINE: <b>INFRASTRUCTURE</b>	
DRAFTER: KRD	SCALE: H 1:500 V 1:100
DESIGNER: RFC	DATE: 2018/07/10
APPROVER: -	APPROVER: -
PROJECT No: E00724A	DRAWING No: 505
SHEET No: 9 of 9	

# APPENDIX C

## CONSULTATIONS MEETING MINUTES

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## MINUTES OF MEETING

**CLIENT** : Government of Northwest Territories

**PROJECT** : Aklavik Airport Drainage Plan (File: E00724A 070)

**MEETING N°** : One (1)

**DATE OF MEETING** : May 30, 2018

**LOCATION** : Hamlet of Aklavik Chambers

**ATTENDEES  
AND DISTRIBUTION** : See attached sign-in sheet

Name	Initials	Location	Attendees	Distribution

**C.C. TO** : Attendees and: Geoff Petzold

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Note: If you believe that these minutes are lacking in accuracy, please inform the author who will make the necessary changes within ten (10) days following distribution of the document. After that delay, the minutes will be deemed official and binding for all those involved.

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## DISCUSSION TOPICS

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## ACTION BY

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### 1.1 Introductions

- Ryan thanked everyone for attending the meeting.
- Ryan circulated a sign-in sheet and roundtable introductions and all attendees participated.

### 1.2 Project Overview and Schedule

- Ryan distributed an 11x17 drawing consisting of an aerial photo of the project area and Hamlet of Aklavik.
- Ryan summarized the main objective of the project was to improve drainage at two locations on the airport property.
- Ryan showed the two areas on the drawing as one south of the terminal building and one north of the runway.
- Ryan indicated CIMA+ was in the early stages of engineering and that a solution has not been finalized yet. Ryan summarized a couple of potential solutions involving possibly facilitating drainage by ditching or improving ditching to the Peel Channel, to Pump Lake (Eddie indicated the lake's name) and/or filling or partially filling in the low areas with fill material. Ryan indicated these solutions could be implemented in combination and acknowledged that the pump Lake option involves Hamlet land.
- Ryan indicated CIMA+ plan to do a site survey with GPS equipment in a couple weeks and the information obtained from that survey will be used to determine the solution.
- Robert asked if this meeting was to for "Consultation". Ryan indicated the project was in the early stages and legislated consultation requirements were not known yet. Ryan indicated that from a practical perspective this meeting has many features of a formal consultation event and that given the logistics of having a meeting in Aklavik, hoped this meeting would benefit the consultation process regardless of what is actually required as the project advances.
- The project Timeline was discussed. Moshiur indicated design was scheduled for summer 2018 and construction next fiscal year for GNWT/summer 2019.
- Discussion took place regarding the need to haul in building materials like gravel during the winter on the ice road which is February/March on an average year. Dave indicated on the Hamlet drainage improvements that the bottom part of the ditches included a layer of 6 inches of gravel.
- Andrew asked the group that if there was gravel material in town, if that gravel could be used by the project. Ryan indicated this was noted and would be considered. Ryan indicate the noticed gravel stockpiles around town and asked who owned them. There was



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## DISCUSSION TOPICS

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## ACTION BY

general input that various entities owned various piles such as the hamlet, Band, K+D etc.

- There was discussion about the idea of maybe filling in some of the low areas. Ryan indicated this was being considered but nothing was set yet.
- Ryan asked about property ownership in the Hamlet noting the legal plan made available to CIMA+ showed many lots as LTO and a number with no unique identity. Ryan indicated that the project team needs to be aware of where any improvements and ditches lie and who owns the land so the proper agreements can be sought. There was an indication from various attendees that the maps on the wall of the chambers had land ownership information.
- **ACTION:** CIMA+ to do a land titles search for the Hamlet. ASAP
- Ryan discussed possible drainage options to include draining to the Peel Channel, which would likely carry a Water licence implication, ditching to Pump Lake, which attendees noted the new culverts may have to be lowered, or filling the low spots or combinations.
- Dave indicated they have to clean off their gravel pad at the south of the runway after flooding to skim off the silt.
- Moshiur asked who does the maintenance in the Hamlet on the existing ditching. Dave indicated snow melt doesn't leave behind anything in the ditches but flood water leaves behind silt when the Peel channel backs up in to the ditches, which has to be cleaned out. This is only needed down near the river. The rest of the ditches are not maintained.
- Dave indicated they did a little bit of drainage improvements every year.
- Andrew indicated he'd like to see aerial photos from different times over the years because he's noticed the shore is eroding closer to the runway at the north end. There was discussion about the large rocks that were placed along the edge of the channel all the way around the south side of the community and up along the runway. Andrew was wondering if rocks or something could be done to keep that part of runway from eroding away.
- Discussion took place about hauling rip rap in, source locations and challenges.
- Andrew asked Moshiur about the extension of the runway. Andrew indicated the Med-evac plane needs a longer runway. Jason and Moshiur indicated they had not heard about this initiative.





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## DISCUSSION TOPICS

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## ACTION BY

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- Ryan indicated it would still be good to know as the idea of an extension could be a consideration in what drainage option is recommended and used an example that one wouldn't put silt fill in place below what could eventually support a runway structure.
- **ACTION:** Moshiur to research and identify if there is a project or goal to extend the runway in Aklavik. ASAP
- The timelines were discussed again. Next GNWT fiscal year starts after March 31, 2019 in other words after this winter ice road can be used, on average, for hauling for anything to be used in construction in 2019.
- Robert indicated ditch along runway used to be dry but not now.
- Dennis indicated that maybe rip rap would be easier to access from Stink Creek. Dave said it's still a winter haul. Dennis spoke of the rip rap around the entire community.
- Rip rap, the requirements to build roads, distances and need to haul on an ice road and possible source locations was discussed.
- Moshiur indicated any rip rap for the shore and protection of the river bank would be a separate project but such a project doesn't yet exist.
- Andrew asked if the construction contract would be a negotiated contract. Moshiur indicated GNWT has deemed this project to be tendered with the BIP policies implemented and that this decision comes from the general manager not him.
- There was general discussion about the practicality and benefits of this project being a negotiated contract.
- **ACTION:** CIMA+ write a letter recommending a negotiated contract and supporting rationale. ASAP
- Andrew introduced Fred Behrens and that he has info on land ownership in town and existing water board licenses.
- Fred indicated the Hamlet is currently involved in a disaster mitigation project, they currently have identified a preferred proponent and that it includes considerations for flooding.
- Fred indicated the drainage improvements in the Hamlet were constructed 2010-2011-2012.



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## DISCUSSION TOPICS

## ACTION BY

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- Ryan raised the ideas of requiring in the contract clauses for requiring the use and providing evidence of using local labour and contractors. Moshiur indicated GNWT has standard templates.
- **ACTION:** Moshiur to send Ryan standard GNWT local labour and contractor content templates for construction contracts. ASAP

### 1.3 Roundtable Discussion

- Jason indicated he was here for logistics and highlighted there is an opportunity here with this project to benefit the local economy with a negotiated contract.
- Moshiur indicated this is an airport drainage project and that is what the construction scope is. The erosion near the runway and the possible runway extension are not part of this project scope.
- Andrew indicated there was good discussion and appreciates everyone being notified of the project.
- Lloyd thought the discussion was good and supports local benefits.
- There was discussion about using local resources for the upcoming CIMA+ survey and ideas shared included bear monitoring/safety, supply of canoes or boats, hip waders, hand tools and general escort. Ryan indicated they would use local and it was suggested Dave has the resources. Dave gave his number 867-978-2792.
- Robert indicated he supports the use of local contractors and to consider Dave's local experience and would like GNWT to consider the advantages of using local resources.
- Eddie indicated he was good with everything discussed.
- Jordan Macleod attended the meeting later and indicated he works with K+D and is on a number of boards and wants to support local.
- Mina spoke to the timeline and said she has always asked about airport drainage because it is affecting the runway. She wants something done sooner rather than later. Jordan noted an 8-10 inch wide crack across the runway and he can show it.
- Dave indicated something has to be done about the fence at south and west side of runway. He spoke about sled riders coming up on runway off the river.
- Dennis noted the Peel Channel is changing because of erosion and to consider that.
- Moshiur indicated he had not heard of a runway extension project and neither had Jason. Moshiur asked if there were any technical reports on this or anything and no one knew. Andrew thought Transportation department has been talking about it. Robert indicated there may be an initiative to upgrade all runways from 75 wide by 2000 long to 100 wide and 3000 long and Andrew mentioned that Med-evac planes are actually landing illegally. Jason indicated Transport Canada can issue exemptions. There was also talk about some engineers coming out one time and saying the runway can't be expanded because it is too close to the water already and there is no room.





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**DISCUSSION TOPICS**

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**ACTION BY**

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**DISCUSSION TOPICS**

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**ACTION BY**

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**1.4 Summary of Action Items**

**ACTION:** CIMA+ to do a land titles search for the Hamlet. ASAP

**ACTION:** Moshiur to research and identify if there is a project or goal to extend the runway in Aklavik. ASAP

**ACTION:** CIMA+ write a letter recommending a negotiated contract and supporting rationale. ASAP

**ACTION:** Moshiur to send Ryan standard GNWT local labour and contractor content templates for construction contracts. ASAP

Ryan Cadieux, P. Eng.

RC/rc





Partners in excellence

Project AKLAVIK AIRPORT DRAWING By

Date MAY 30, 2018

Subject

By

Date

File SIGN-IN SHEET

Page of

<u>NAME (PRINT)</u>	<u>COMPANY/AFFILIATION</u>	<u>SIGN</u>
RYAN CADIEUX	CIMA+	
JASON MacNeil	GNWT INF	
Moshiur Rahman	GNWT, INF	
Nayd Petre	AIB+EGC CEO	
Robert Beckle	EGC Enditot Guichin ED Council	
Eddie Greenland	<del>Atta</del> Hamlet	
Andrew Linnell	AKLAVIK WATER	
Dennis Arcey	ACC	
Muna McLeod	K+D Contracting	
Dave McLeod	K+D Contracting	





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E00724A

## AKLAVIK AIRPORT DRAINAGE

INFO SKETCH

DRAFTER: KRD	SCALE: 1:5000
DESIGNER: RFC	DATE: 2018/04/23
APPROVER: ---	DRAWING No: TT-1