



Public Works and
Government Services
Canada

Travaux Publics et Services
Gouvernementaux Canada

REAL PROPERTY SERVICES
Western Region

SITE REMEDIATION PROGRAM

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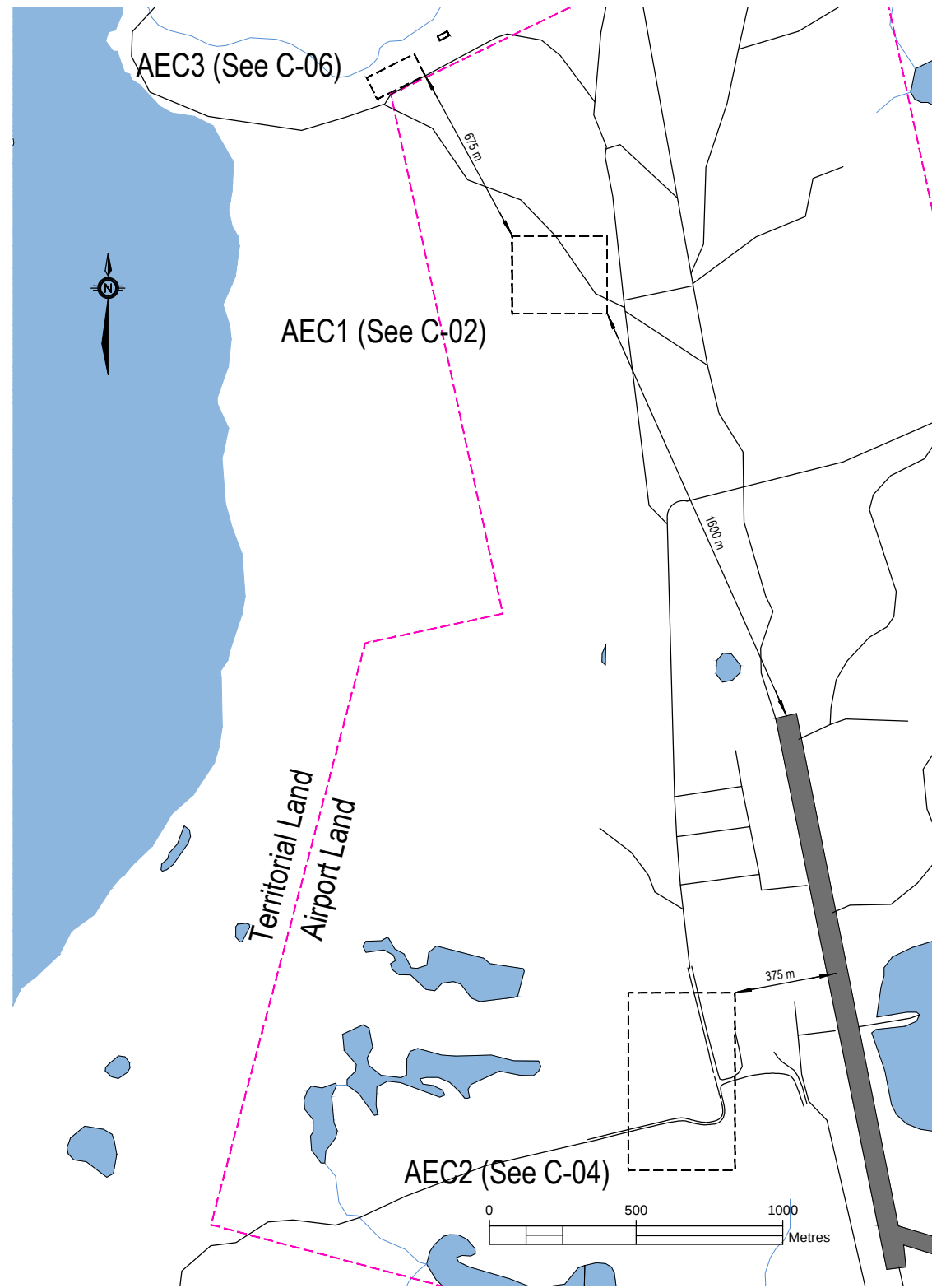
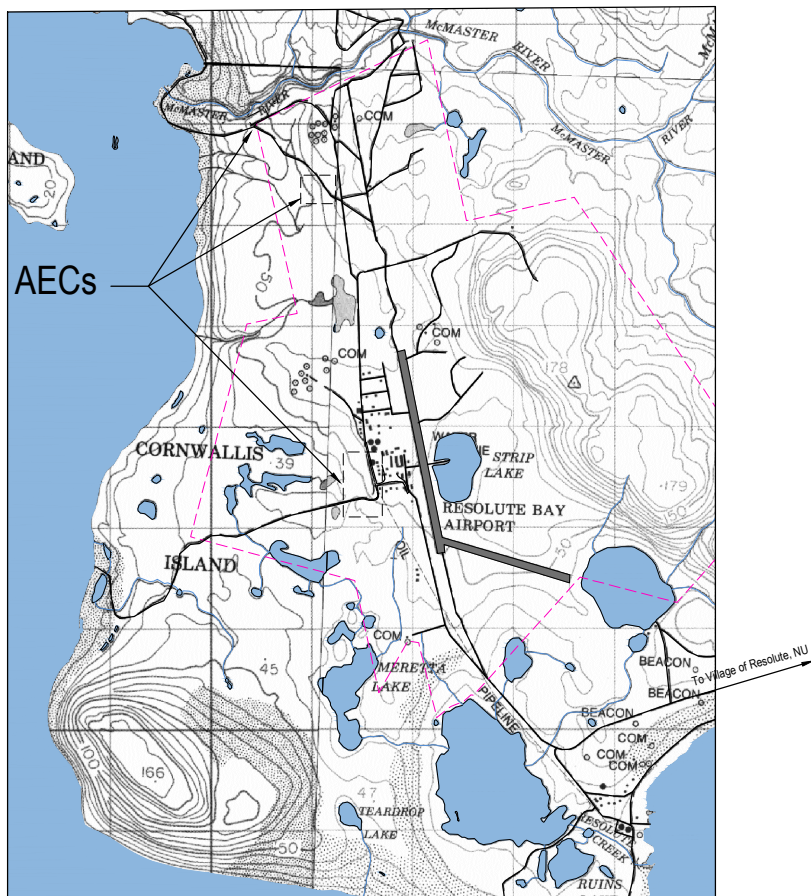
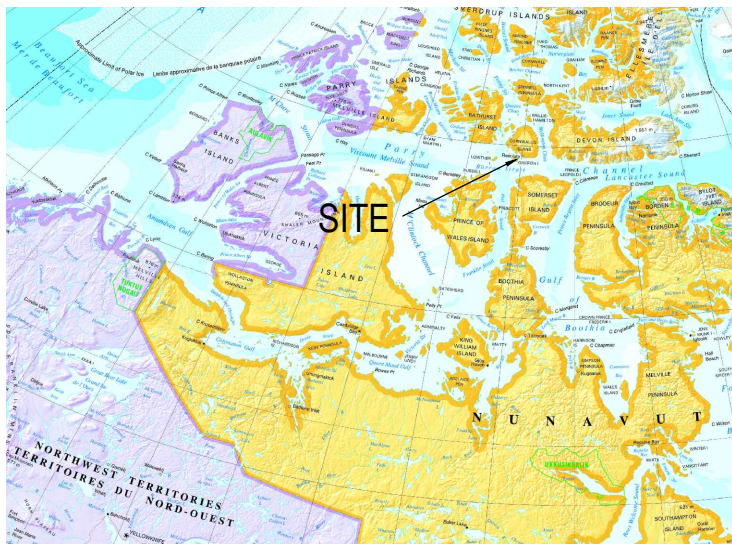
RESOLUTE BAY AIRPORT LANDFILLS REMEDIATION PROJECT

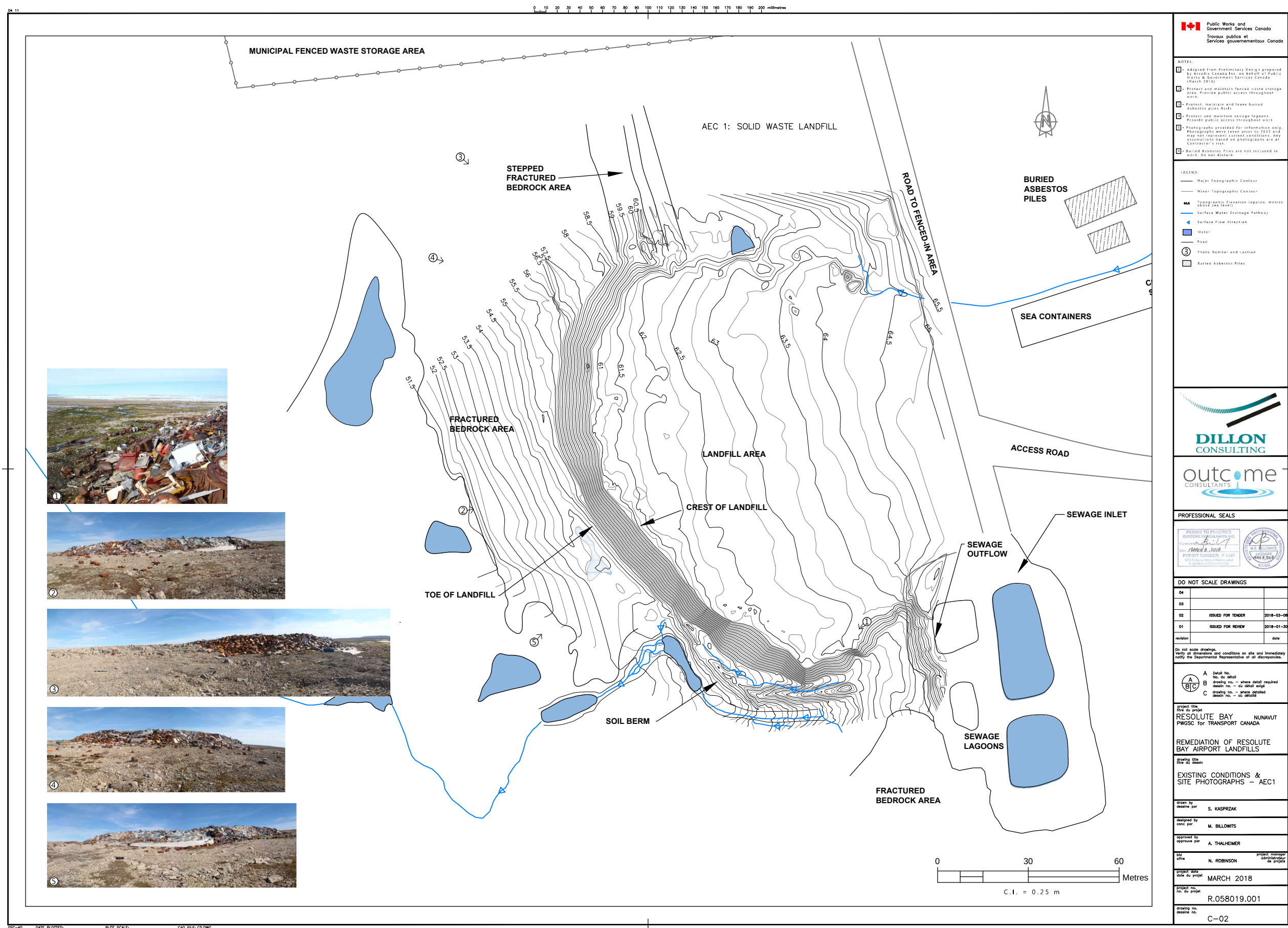
ISSUED FOR TENDER - MARCH 2018

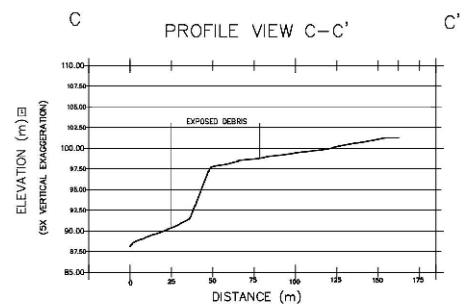
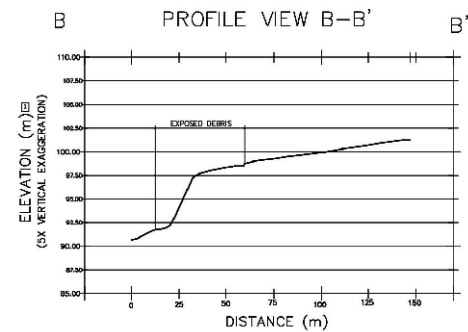
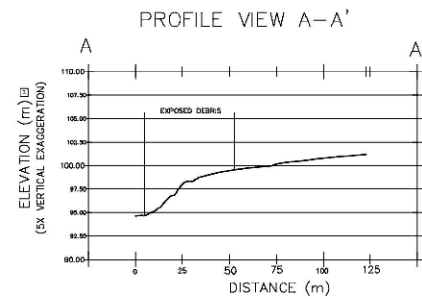
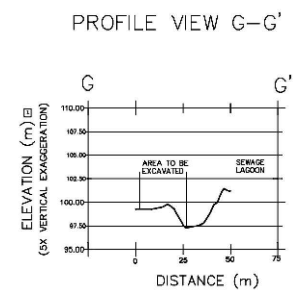
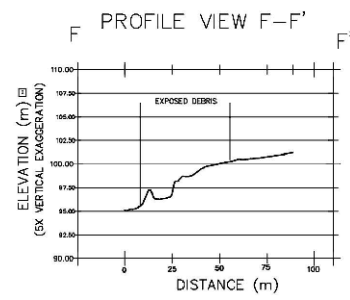
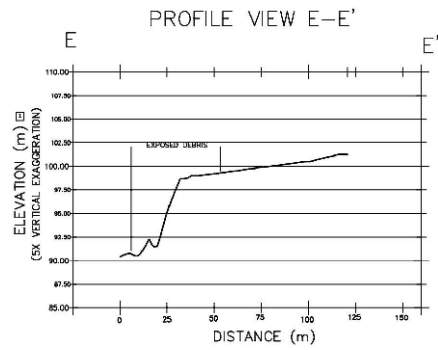
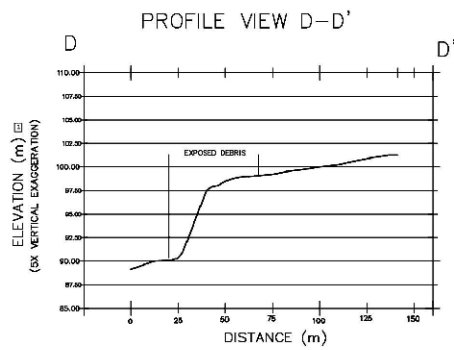
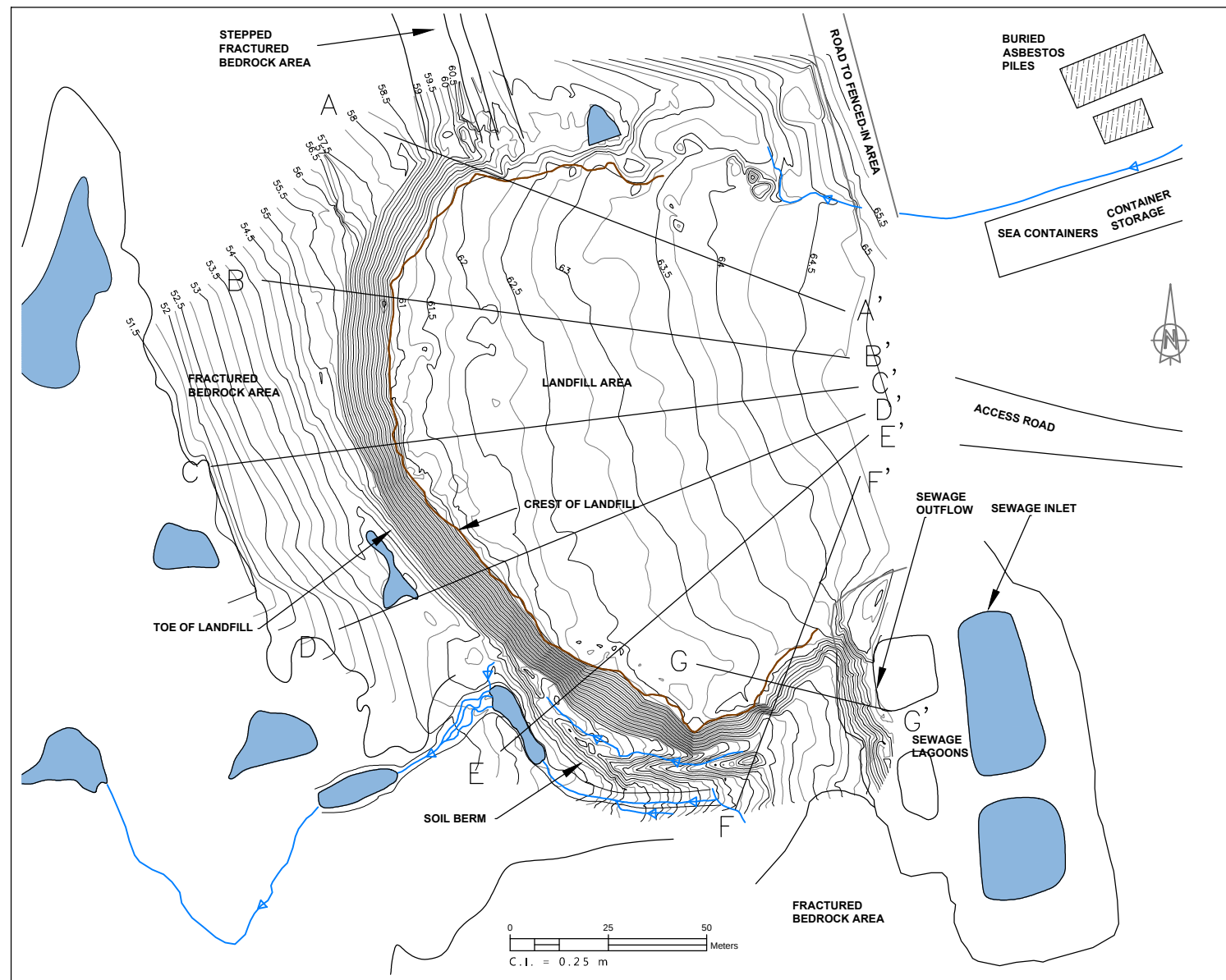
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Plot: 300x475.0x0.000.dwg

Saved by: Simon.boudreau







Notes:

- Adapted from Preliminary Design prepared by Arisid Canada Inc. on behalf of the Government of Canada (March 2018).
- Two existing Sewage Lagoons contain liquid effluent. The existing sewage lagoons remain dry for most of the year and were constructed to contain seasonal overflow.
- Elevations shown in profile cross sections are arbitrary based on site specific topographic data. Elevation elevations in metres above sea level are indicated on topographic map plan view.
- Profile vertical scale is exaggerated by 5X.
- Buried Asbestos Piles are not included in work. Do not disturb.

LEGEND:

- Major Topographic Contour (0.5m)
- Minor Topographic Contour (0.25m)
- Topographic Elevation (approx. metres above sea level)
- Surface Water Drainage Pathway
- Water
- Surface Water Flow Direction
- Road
- Fenced Area
- Location of Profile Cross Section
- Buried Asbestos Piles

DILLON CONSULTING

outcome CONSULTANTS

PROFESSIONAL SEALS

PERMIT TO PRACTICE
OUTCOME CONSULTANTS INC.
MARCH 8, 2018
PERMIT NUMBER: P-1087
NORTHWESTERN TERRITORIES
Engineers and Geoscientists

DO NOT SCALE DRAWINGS

revision	date
04	
03	
02	ISSUED FOR TENDER 2018-03-08
01	ISSUED FOR REVIEW 2018-01-30

Do not scale drawings.
Verify all dimensions and conditions on site and immediately notify the Departmental Representative of all discrepancies.

A Detail No.
B No. of detail
C drawing no. - where detail required
drawing no. - at detail edge
drawing no. - along detailed
drawing no. - to details

Project File
Site No. Project
RESOLUTE BAY NUNAVUT
PWGSC for TRANSPORT CANADA

REMEDIAL OF RESOLUTE BAY AIRPORT LANDFILLS

EXISTING CONDITIONS - AEC1: PLAN AND SECTIONS

drawn by
designe par

S. KASPRZAK

designed by
conc par

M. BILLOUTS

approved by
approve par

A. THALHEIMER

1st
effe

N. ROBINSON

project manager
administrateur de projet

project date
date du projet

MARCH 2018

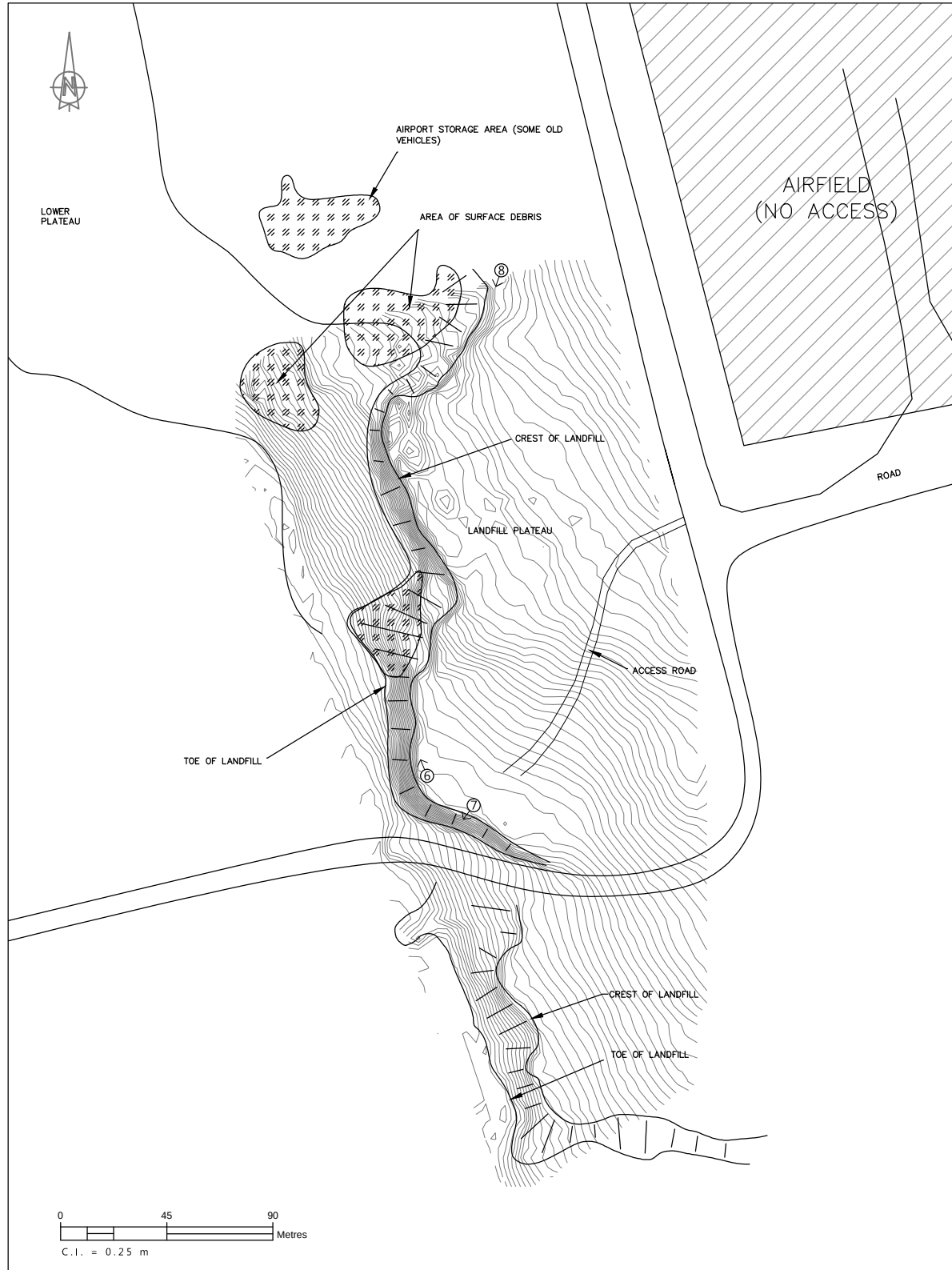
project no.
no. du projet

R.058019.001

drawing no.
dessine no.

C-03

AEC 2 - HISTORICAL LANDFILL



Public Works and
Government Services Canada
Travaux publics et
Services gouvernementaux Canada

Notes:

- Adapted from Preliminary Design prepared by Arcadis Canada Inc. on behalf of Canada (March 2018) Government Services Canada (March 2018)
- Do not enter or otherwise use the lands indicated as a result of not limit access to or use of public roads.
- Photographs provided for information only. Photographs were taken prior to 2015 and may not represent current conditions. Any discrepancies between the photographs and the Contractor's risk.

LEGEND:

- Major Topographic Contour
- Minor Topographic Contour
- ▲▲▲ Topographic Elevation (approx. metres above sea level)
- ▨ Airfield
- ▨ Surface Waste
- Road
- /// Embankment



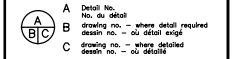
PROFESSIONAL SEALS



DO NOT SCALE DRAWINGS

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03		
02	ISSUED FOR TENDER	2018-03-06
01	ISSUED FOR REVIEW	2018-01-30
revision		date

Do not scale drawings.
Verify all dimensions and conditions on site and immediately notify the Departmental Representative of all discrepancies.



project title
titre du projet
RESOLUTE BAY NUNAVUT
PWGSC for TRANSPORT CANADA

**REMEDATION OF RESOLUTE
BAY AIRPORT LANDFILLS**

drawing title
titre du dessin
**EXISTING CONDITIONS & SITE
PHOTOGRAPHS - AEC2**

drawn by
dessiné par
S. KASPRZAK

designed by
conçu par
M. BILLOWITS

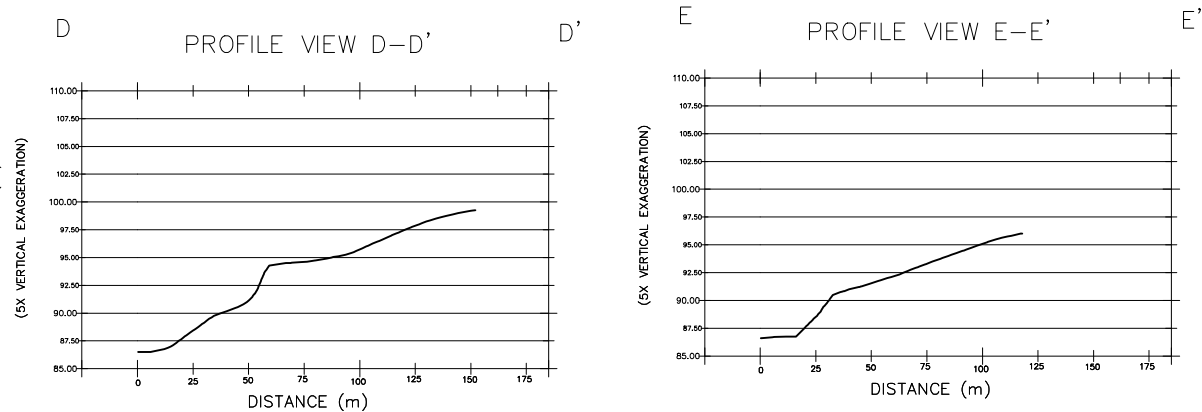
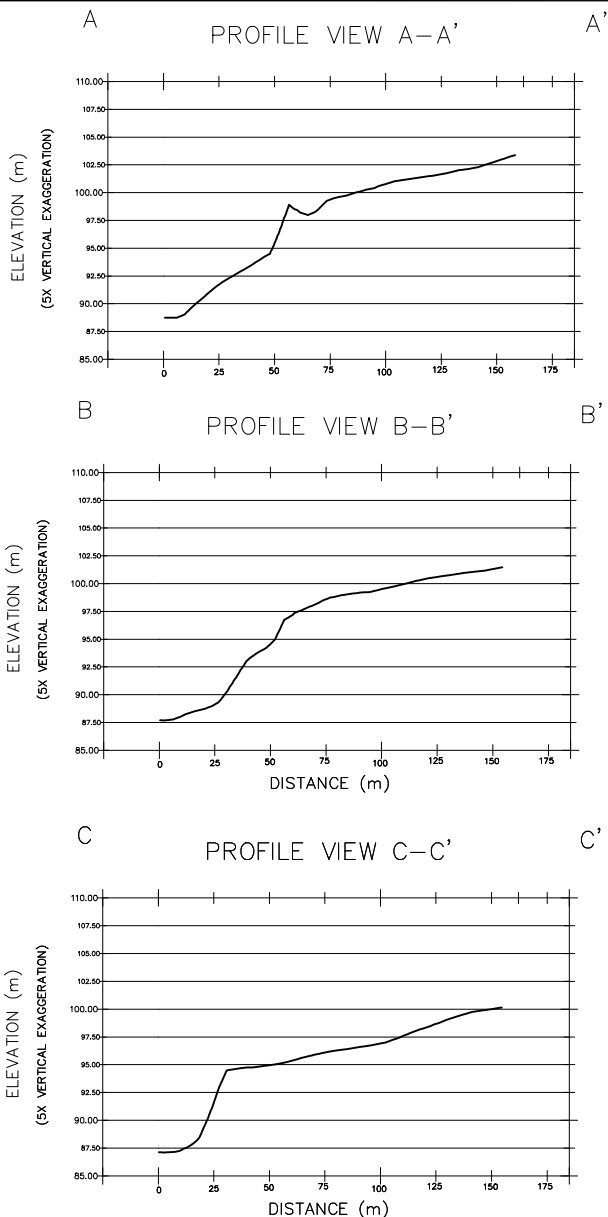
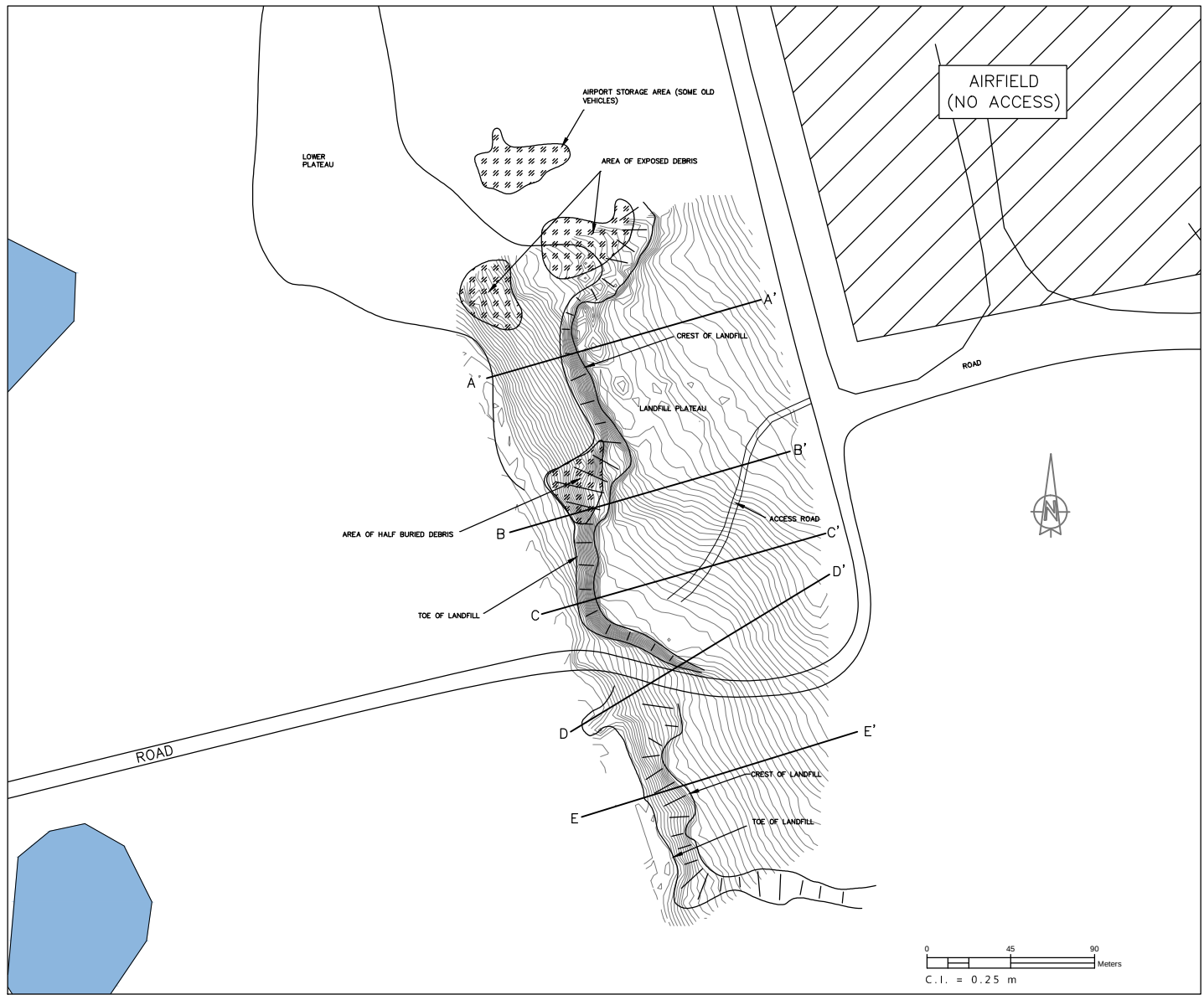
approved by
approuvé par
A. THALHEIMER

site
offre
N. ROBINSON project manager
administrateur de projet

project date
date du projet
MARCH 2018

project no.
no. du projet
R.058019.001

drawing no.
dessiné no.
C-04



Notes:

- Adapted from Preliminary Design prepared by Arctic Canada Inc. on behalf of Public Works & Government Services Canada (March 2018)
- Profile vertical scale is exaggerated by 5X
- Elevations shown in profile cross sections are approximate and are not to be used for engineering purposes. Approximate elevations are shown above the level indicated on topographical map plan view.

LEGEND:

- Major Topographic Contour
- Minor Topographic Contour
- Topographic Elevation (approx. metres above sea level)
- Water
- Road
- Location of Profile Cross Section
- Airfield
- Surface Waste



PROFESSIONAL SEALS



DO NOT SCALE DRAWINGS

04		
03		
02	ISSUED FOR TENDER	2018-03-06
01	ISSUED FOR REVIEW	2018-01-30
revision		date

Do not scale drawings.
Verify all dimensions and conditions on site and immediately notify the Departmental Representative of all discrepancies.

A	Detail No.	
B	No. of detail	
C	drawing no. - where detail required	
	drawing no. - at detail angle	
	drawing no. - where detailed	
	drawing no. - at detail	

Project title
Site of project
RESOLUTE BAY NUNAVUT
PWSC for TRANSPORT CANADA

Project title
Site of project
REMEDATION OF RESOLUTE BAY AIRPORT LANDFILLS

Project title
Site of project
EXISTING CONDITIONS - AEC2: PLAN AND SECTIONS

Drawn by
dessiné par **S. KASPRZAK**

Designed by
conçu par **M. BILLOWITS**

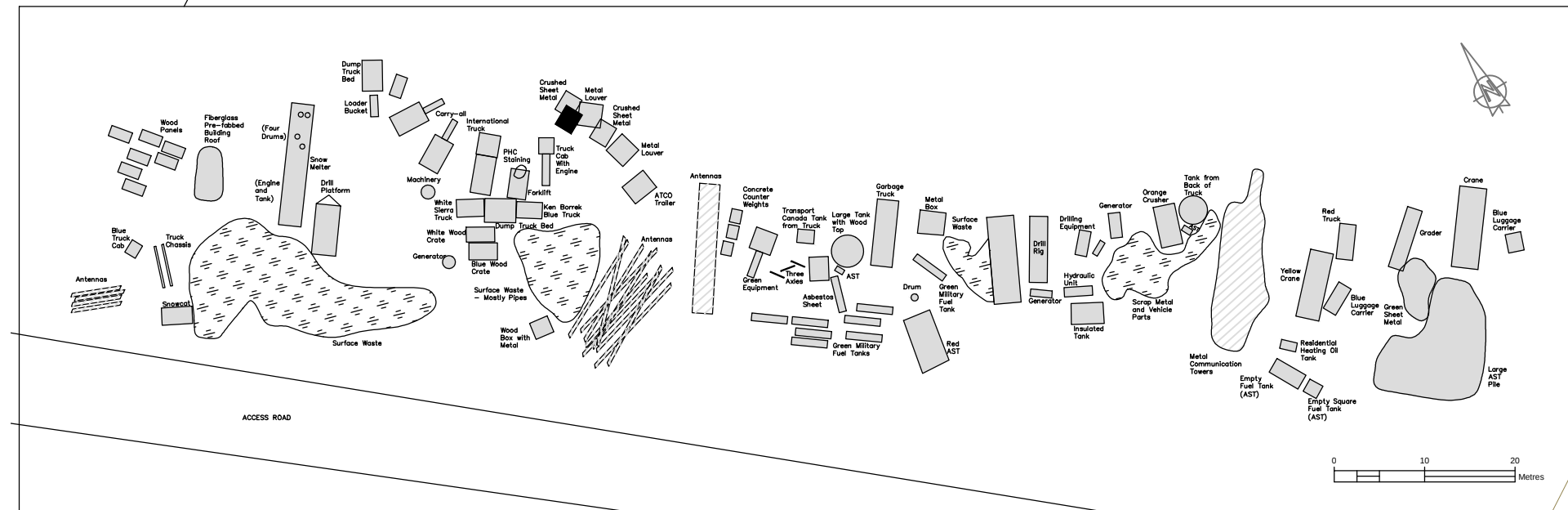
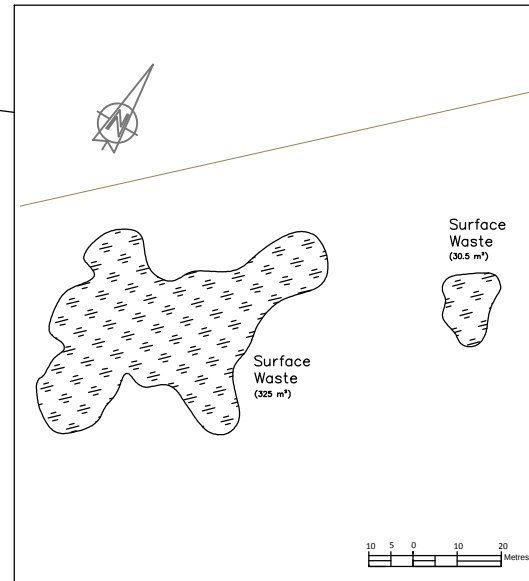
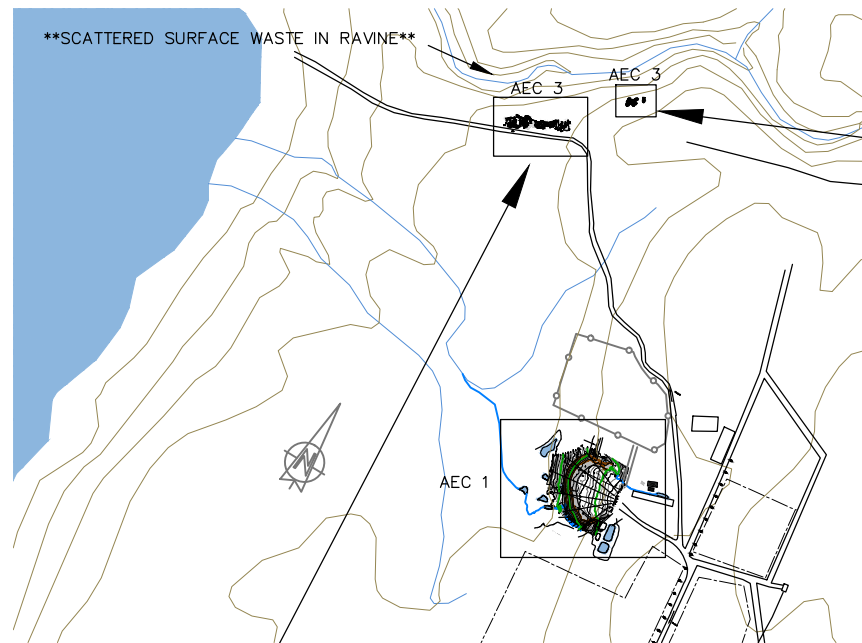
Approved by
approuvé par **A. THALHEIMER**

Issued
offre **N. ROBINSON** Project manager
administrateur de projet

Project date
date du projet **MARCH 2018**

Project no.
no. du projet **R.058019.001**

Drawing no.
dessiné no. **C-05**



NOTES:

1. Adapted from Preliminary Design prepared by Arcadis Canada Inc. on behalf of Public Works & Government Services Canada (March 2016).
2. Two eastern sewage lagoons contain liquid effluent; two western sewage lagoons remain dry for most of the year and were constructed to contain seasonal overflow.
3. Photographs provided for information only. Photographs were taken prior to 2015 and may not represent current conditions. Any assumptions based on photographs are at Contractor's risk.

LEGEND:

- Major Topographic Contour
- Minor Topographic Contour
- Topographic Elevation (approx. metres above sea level)
- Surface Water Drainage Pathway
- Surface Flow Direction
- Water
- Vehicle/Debris/Structure
- Surface Waste
- Property Boundary
- Area Identification
- Road
- Gravel Road
- Fenced Area
- Embankment

PROFESSIONAL SEALS



DO NOT SCALE DRAWINGS

Rev	Description	Date
04		
03		
02	ISSUED FOR TENDER	2018-03-08
01	ISSUED FOR REVIEW	2018-01-30

Do not scale drawings.
Verify all dimensions and conditions on site and immediately notify the Departmental Representative of all discrepancies.

Detail No.	Detail No.
A	Detail No. - where detail required
B	Detail No. - where detail required
C	Detail No. - where detail required

Project title
Site of project
RESOLUTE BAY NUNAVUT
PWSC for TRANSPORT CANADA

**REMEDIATION OF RESOLUTE
BAY AIRPORT LANDFILLS**

Drawing title
Site of design
**EXISTING CONDITIONS AND
SITE PHOTOGRAPH - AEC3**

Drawn by
designé par **S. KASPRZAK**

Designed by
conçu par **M. BILLOWITS**

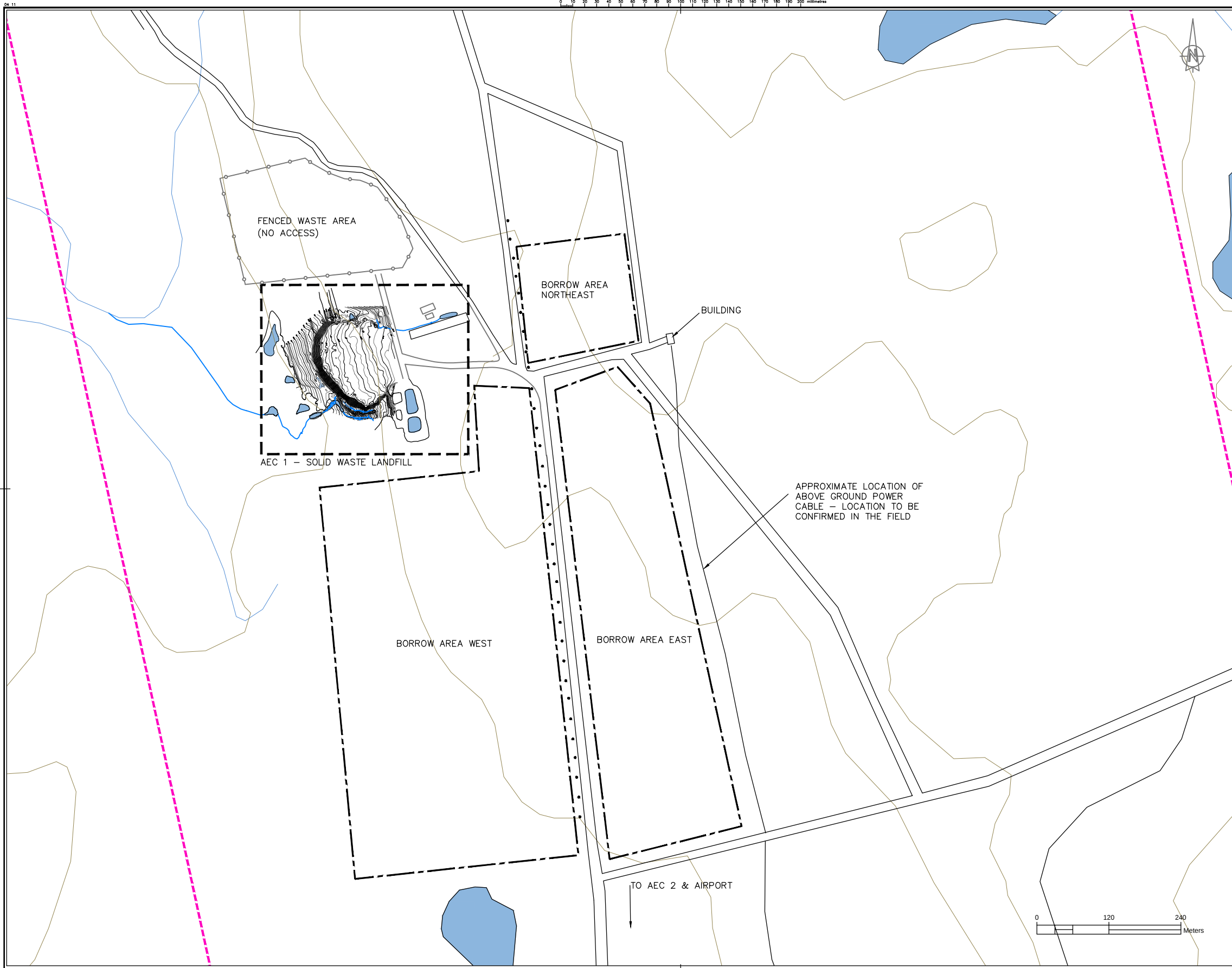
Approved by
approuvé par **A. THALHEIMER**

Site
office **N. ROBINSON** project manager
coordonnateur de projet

Project date
date du projet **MARCH 2018**

Project no.
no. du projet **R.058019.001**

Drawing no.
dessiné no. **C-06**



 Public Works and
Government Services Canada
Travaux publics et
Services gouvernementaux Canada

NOTES:
[] - Adapted from Preliminary Design prepared
by Arcadis Canada Inc. on behalf of Public
Works & Government Services Canada
(March 2018)
[] - Following Borrow Activities, grade areas
sufficient to ensure no slopes in excess of
3:1:2 and area is sloped to drain or is free
drainage (does not pond).

LEGEND:
Major Topographic Contour
Major Topographic Contour
Minor Topographic Contour
Topographic Elevation (approx. metres
above sea level)
Surface Water Drainage Pathway
Water
Borrow Source Area
Property Boundary
Area Identification
Road
Fenced Area
Hydro Pole



PROFESSIONAL SEALS



DO NOT SCALE DRAWINGS

04		
03		
02	ISSUED FOR TENDER	2018-03-06
01	ISSUED FOR REVIEW	2018-01-30
revision		date

Do not scale drawings.
Verify all dimensions and conditions on site and immediately
notify the Departmental Representative of all discrepancies.

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B	drawing no. - where detail required dessin no. - où détail exigé
C	drawing no. - where detailed dessin no. - où détaillé

project title
titre du projet
RESOLUTE BAY NUNAVUT
PWSC for TRANSPORT CANADA

REMEDATION OF RESOLUTE
BAY AIRPORT LANDFILLS

EXISTING CONDITIONS -
AEC1: BORROW AREAS

drawn by
dessiné par **S. KASPRZAK**

designed by
conçu par **M. BILLOWITS**

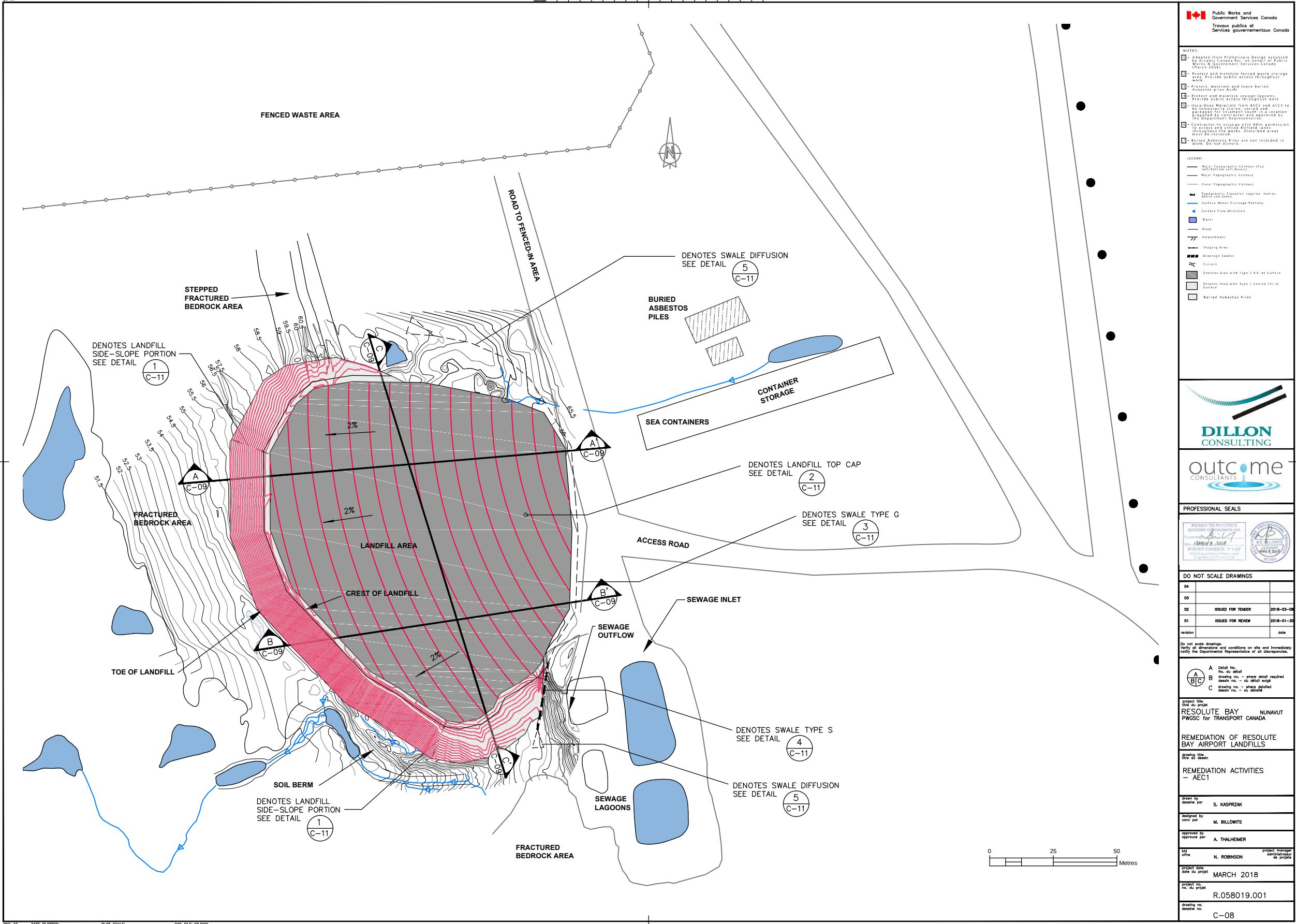
approved by
approuvé par **A. THALHEIMER**

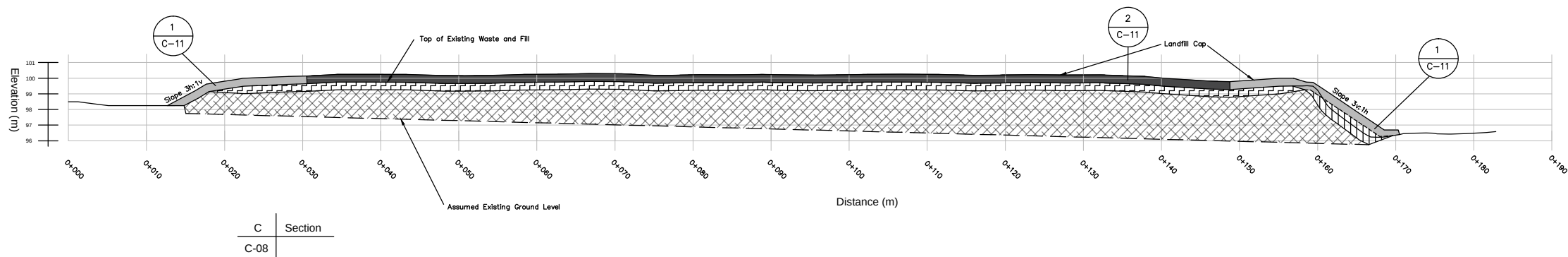
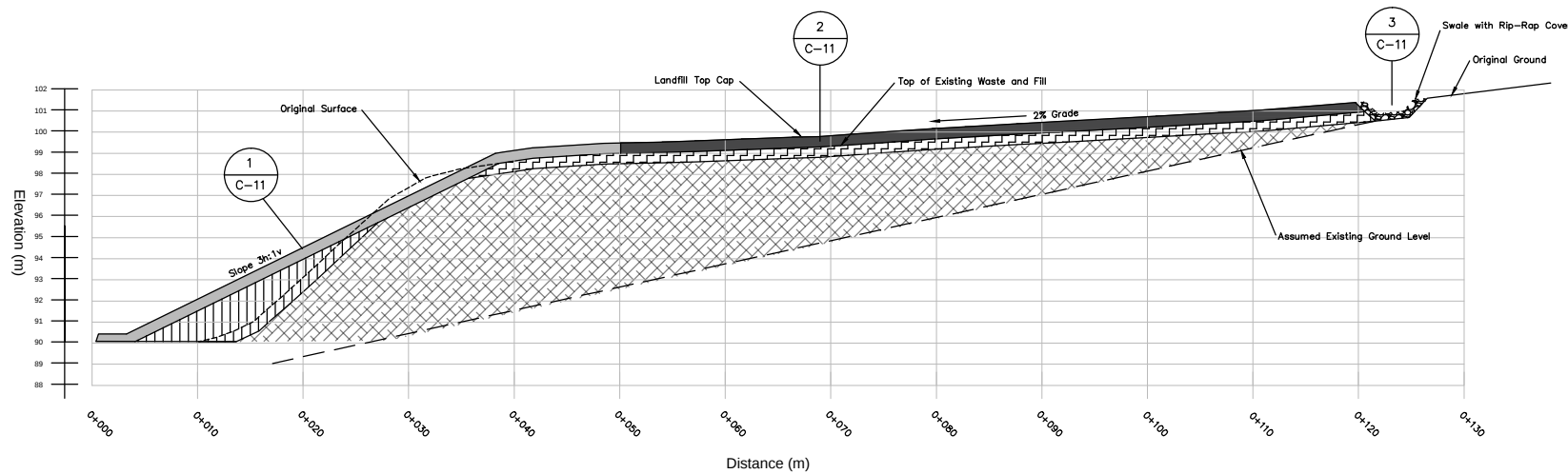
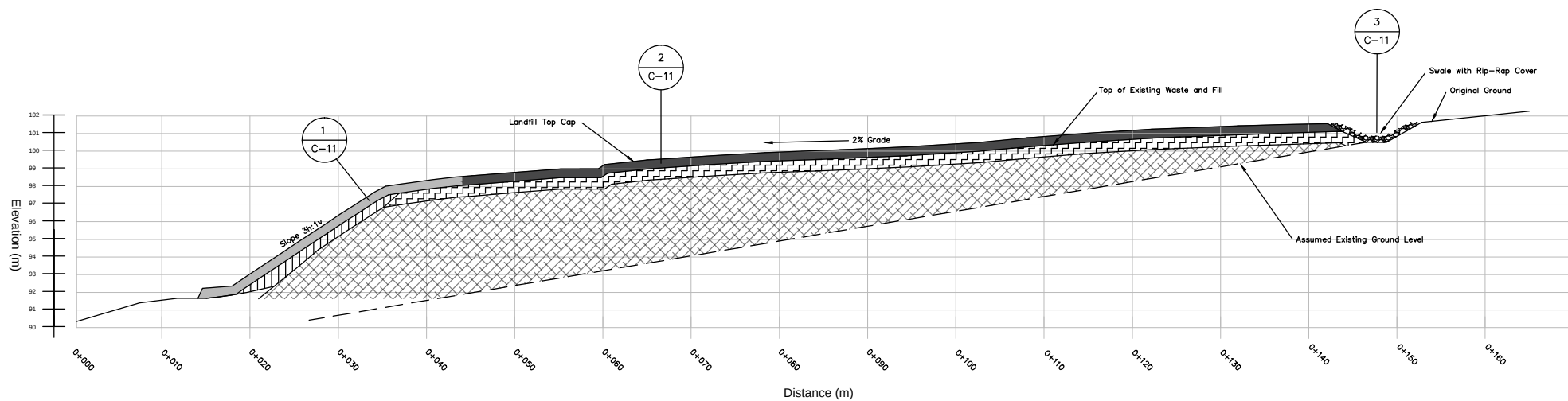
by
par **N. ROBINSON** project manager
administrateur de projet

project date
date du projet **MARCH 2018**

project no.
no. du projet **R.058019.001**

drawing no.
dessiné no. **C-07**





NOTES:

- 1. Adapted from Preliminary Design prepared by Arcadis Canada Inc. on behalf of Public Works & Government Services Canada (March 2018).
- 2. Elevations shown in profile cross sections are assumed based on the existing in the field. Approximate elevations in metres above sea level are illustrated on topographical map plan view.
- 3. Profile vertical scale is exaggerated by 5X.
- 4. Landfill material to be cut down to slope is greater than 2m x 2.5m and placed in a lift no greater than 0.5m in depth. Each lift is to be capped and compacted.
- 5. Surface wastes from all AEC are to be placed and covered on the AEC slope or at the toe of the slope to be placed or incorporated into the top cover.
- 6. Swale and erosion ditches to be excavated in stable material or built up with stable material. Top cover and ditcher rip to be lined with cobble and shoulder rip-rap to prevent erosion.
- 7. All hazardous materials are to be removed and disposed off site.

LEGEND:

- Existing Waste and Fill
- Existing Fill
- Rehabilitated Landfill Material including Side Slope Landfill Material and Surface Wastes from all AEC
- Landfill Side Slope Cap
- Landfill Top Cap
- Type 3 Fill within Swale



PROFESSIONAL SEALS



DO NOT SCALE DRAWINGS

04		
03		
02	ISSUED FOR TENDER	2018-03-08
01	ISSUED FOR REVIEW	2018-01-30
revision		date

Do not scale drawings.
Verify all dimensions and conditions on site and immediately notify the Departmental Representative of all discrepancies.

A	Detail No.
B	No. du détail
C	drawing no. - where detail required dessin no. - où détail exigé
	drawing no. - where detailed dessin no. - où détaillé

Project title
titre du projet
RESOLUTE BAY NUNAVUT
PWSC FOR TRANSPORT CANADA

REMEDIAL OF RESOLUTE
BAY AIRPORT LANDFILLS

drawing title
titre du dessin
**LANDFILL REHABILITATION -
AEC1: SECTIONS**

Drawn by
dessiné par S. KASPRZAK

Designed by
conçu par M. BILLOWITS

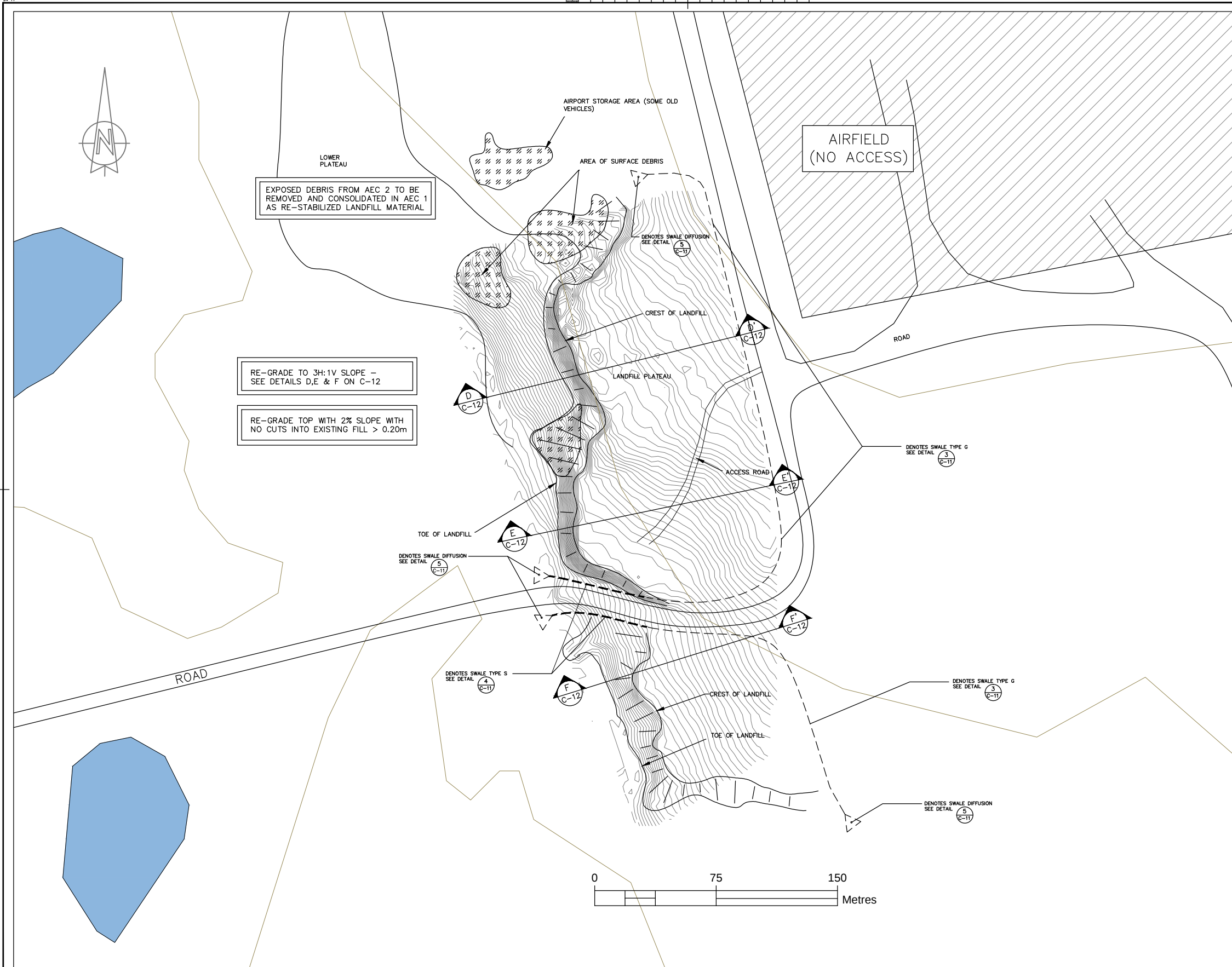
Approved by
approuvé par A. THALHEIMER

Issued by
émis par N. ROBINSON

Project date
date du projet MARCH 2018

Project no.
no. du projet R.058019.001

Drawing no.
dessiné par C-09



NOTES:

- 1. Adapted from Preliminary Design prepared by Paracore Canada Inc. on behalf of Public Works & Government Services Canada (March 2016).
- 2. Surface debris removal incurred as an Optional Work Package.
- 3. Regrading on Top of Slope incurred as an Optional Work Package.
- 4. Construction of Swales incurred as an Optional Work Package.

LEGEND:

- Major Topographic Contour (Top Left/Bottom Left Inset)
- Major Topographic Contour
- Minor Topographic Contour
- Topographic Elevation (approx. metres above sea level)
- Surface Water Drainage Pathway
- Surface Flow Direction
- Water
- Airstrip
- Vehicle/Debris/Structure
- Property Boundary
- Area Identification
- Road
- Embankment
- Drainage Swales
- Culvert
- Location of Cross Section (See C12)

PROFESSIONAL SEALS



DO NOT SCALE DRAWINGS

04		
03		
02	ISSUED FOR TENDER	2018-03-06
01	ISSUED FOR REVIEW	2018-01-30
revision		date

Do not scale drawings.
Verify all dimensions and conditions on site and immediately notify the Departmental Representative of all discrepancies.

A	Detail No.	No. du détail
B	Drawing No. - where detail required	dessin no. - où détail exigé
C	Drawing No. - where detail exists	dessin no. - où détail existe

Project title
titre du projet
RESOLUTE BAY NUNAVUT
PWSC for TRANSPORT CANADA

REMEDATION OF RESOLUTE
BAY AIRPORT LANDFILLS

Drawing title
titre du dessin
REMEDATION ACTIVITIES
- AEC2

Drawn by
dessiné par
S. KASPRZAK

Designed by
conçu par
M. BILLOWITS

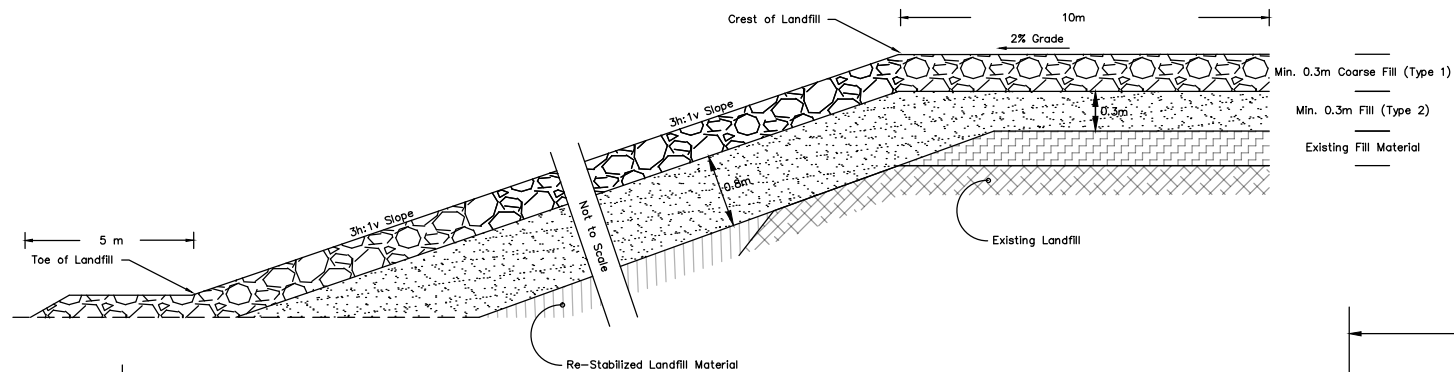
Approved by
approuvé par
A. THALHEIMER

Issued by
émis par
N. ROBINSON

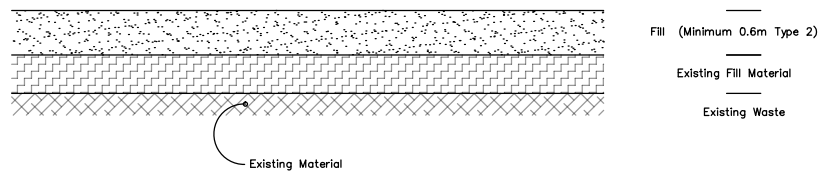
Project date
date du projet
MARCH 2018

Project no.
no. du projet
R.058019.001

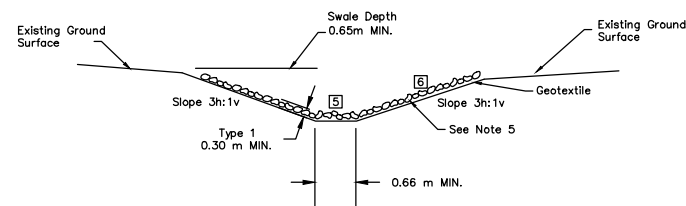
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dessiné no.
C-10



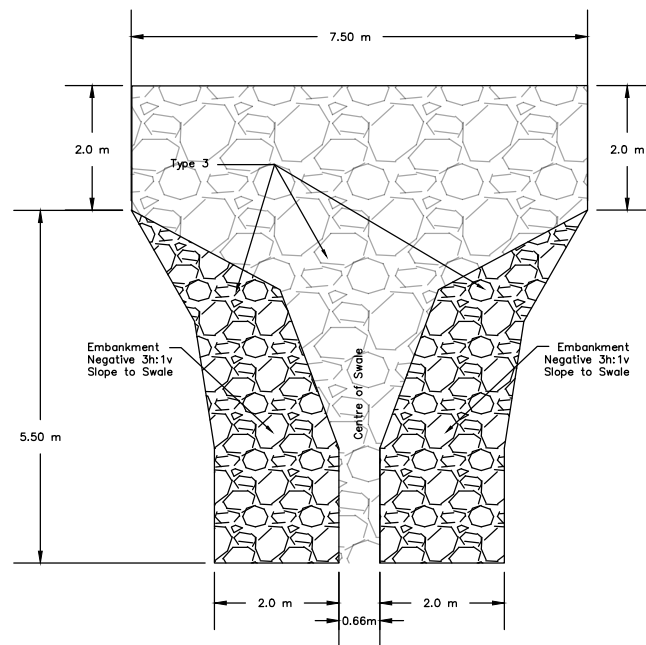
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C-08 NTS
C-09
LANDFILL SIDE SLOPE CAP PORTION



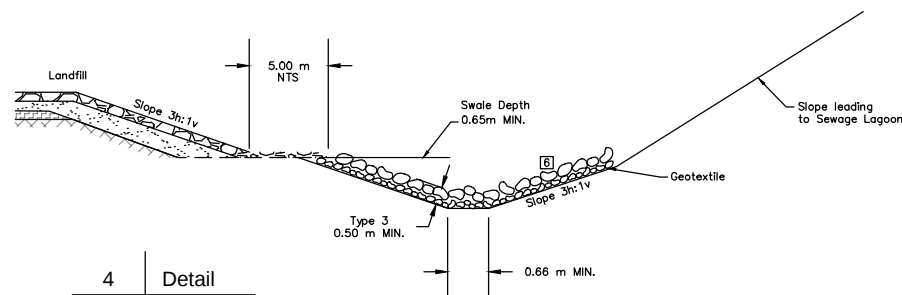
2 Detail
C-08 NTS
C-09
LANDFILL TOP CAP PORTION



3 Detail
C-08 NTS
C-09
C-10
LANDFILL SWALE (TYPE G)



5 Detail
C-08 NTS
C-10
PROPOSED SWALE DIFFUSION



4 Detail
C-08 NTS
C-10
LANDFILL SWALE (TYPE S)

NOTES:

- 1 Adapted from Preliminary Design prepared by Accutec Canada Inc. on behalf of Public Works & Government Services Canada (March 2016)
- 2 Quarried pit run fine angular aggregate to be placed and compacted between lifts of landfilled debris
- 3 Landfilled material to be cut down to sizes no greater than 75 & 0.5m and placed in lift no greater than 0.5m in depth. Each lift is to be capped and compacted (see note 1)
- 4 Geotextile to consist of 6-mm thickness nonwoven fabric consisting only of continuous chain polymeric filaments. See specification section 33.32.23 - Geotextiles
- 5 Type G Swales to be set at a minimum linear slope of 0.5% grade
- 6 Swales and diversion ditches to be excavated in stable material or built up with cobbles material. The swales and ditches are to be lined with cobble and boulder (lap to prevent erosion)

LEGEND:

- Existing Landfill Material
- Existing Fill Material
- Restabilized Landfill Material
- Type 3 Fill within Swale
- Type 2 Fill



PROFESSIONAL SEALS



DO NOT SCALE DRAWINGS

04		
03		
02	ISSUED FOR TENDER	2018-03-08
01	ISSUED FOR REVIEW	2018-01-30
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Verify all dimensions and conditions on site and immediately notify the Departmental Representative of all discrepancies.

A	Detail No.
B	No. of detail
C	drawing no. - where detail required
	drawing no. - where detail required
	drawing no. - where detail required

project title
titre du projet
RESOLUTE BAY AIRPORT LANDFILLS
P.W.G.S.C. FOR TRANSPORT CANADA

REMEDATION OF RESOLUTE BAY AIRPORT LANDFILLS
drawing title
titre du dessin
LANDFILL CONSTRUCTION - AEC1: DETAILS

drawn by
dessiné par
S. KASPRZAK

designed by
conçu par
M. BILLOUTS

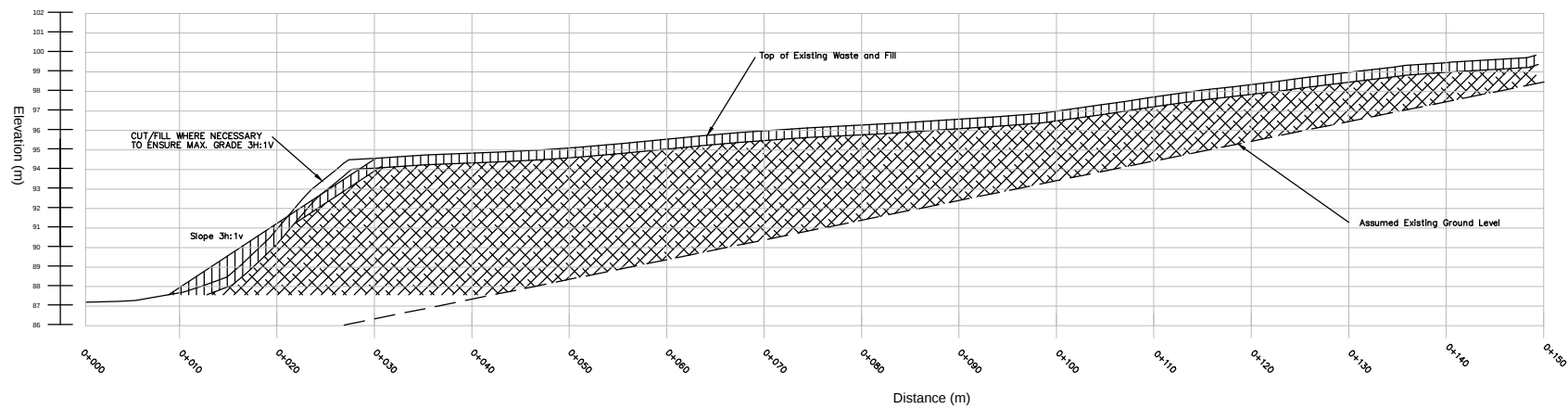
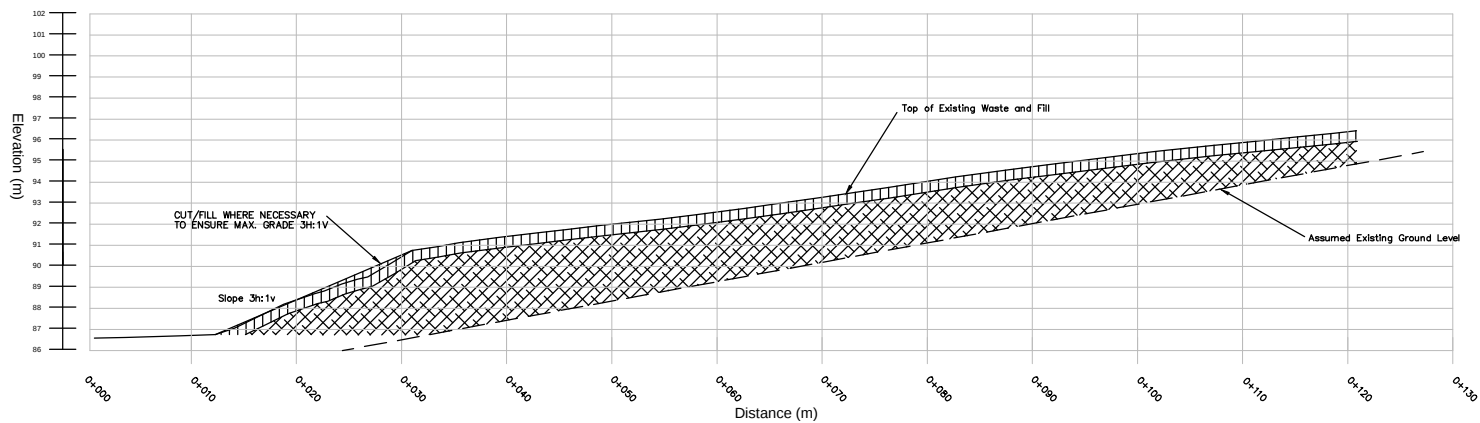
approved by
approuvé par
A. THALHEIMER

td
office
N. ROBINSON

project date
date du projet
MARCH 2018

project no.
no. du projet
R.058019.001

drawing no.
dessiné no.
C-11

D SECTION
C-10E SECTION
C-10F SECTION
C-10

NOTES:

- Adapted from Preliminary Design prepared by Arcadis Canada Inc. on behalf of Public Works & Government Services Canada (March 2018)
- Elevations shown in profile cross sections are arbitrary and do not correspond to the field. Approximate elevations in metres above sea level are illustrated on topographical map plan view.
- Profile vertical scale is exaggerated by 5X.

LEGEND:

- Major Topographic Contour
- Minor Topographic Contour
- Topographic Elevation (approx. metres above sea level)
- Surface Water Drainage Pathway
- Water
- Surface Water Flow Direction
- Road
- Fenced Area
- Existing Landfill Material
- Re-Shaped Fill



PROFESSIONAL SEALS



DO NOT SCALE DRAWINGS

04		
03		
02	ISSUED FOR TENDER	2018-03-06
01	ISSUED FOR REVIEW	2018-01-30
revision		date

Do not scale drawings.
Verify all dimensions and conditions on site and immediately notify the Departmental Representative of all discrepancies.

A	Detail No.
B	No. du détail
C	drawing no. - où détail exigé
C	drawing no. - où détail exigé

project title
titre du projet
RESOLUTE BAY NUNAVUT
PWGSC for TRANSPORT CANADA

REMEDIAL OF RESOLUTE
BAY AIRPORT LANDFILLS

drawing title
titre du dessin
LANDFILL REHABILITATION -
AEC2: SECTIONS

drawn by
dessiné par
S. KASPRZAK

designed by
conçu par
M. BILLOWITS

approved by
approuvé par
A. TALHEIMER

job
offre
N. ROBINSON

project date
date du projet
MARCH 2018

project no.
no. du projet
R.058019.001

drawing no.
dessiné no.
C-12

