

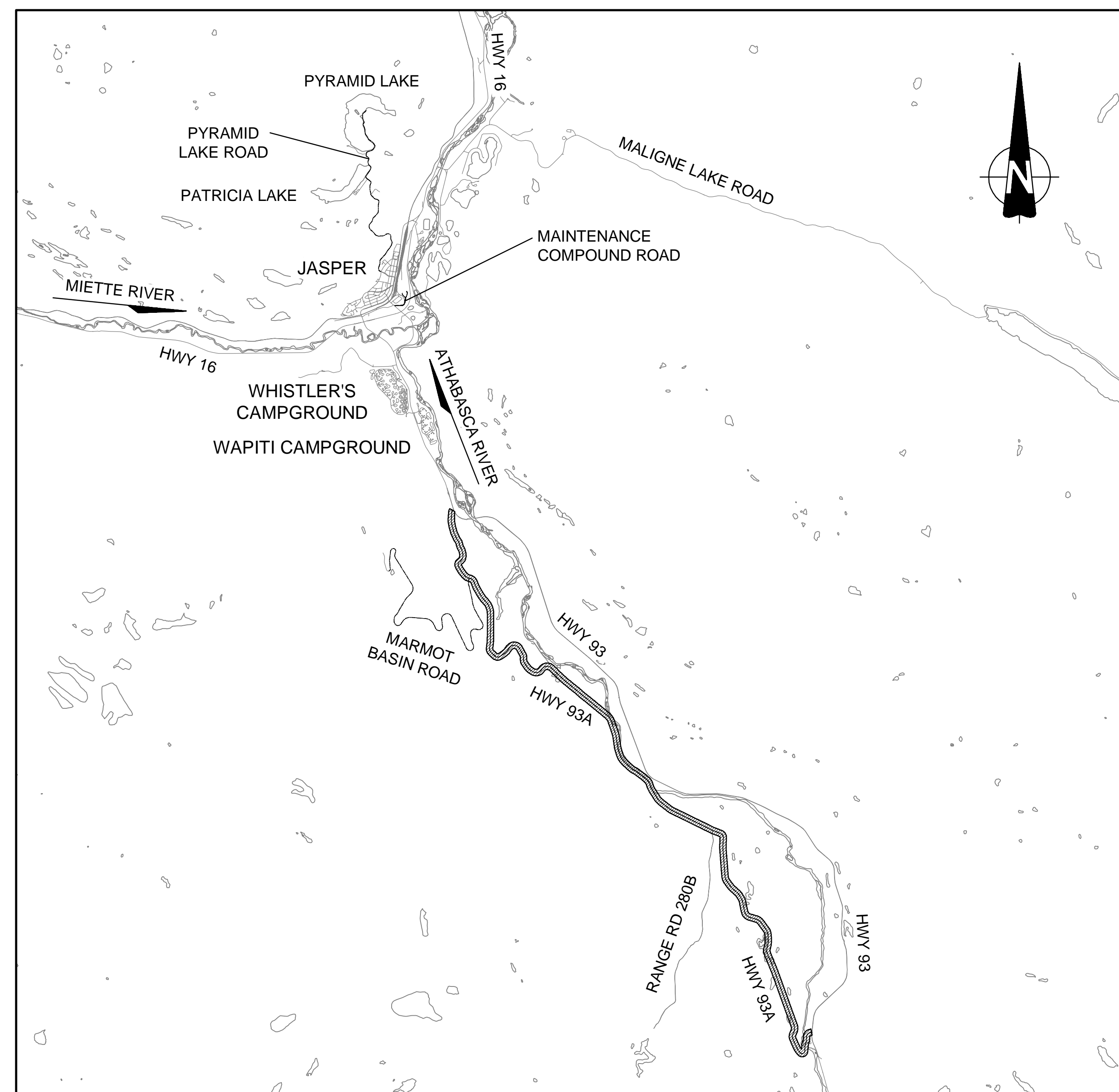
**PARKS CANADA AGENCY
JASPER NATIONAL PARK
CONDITION 'D' CATEGORY 4 TO 6 ROADS REHABILITATION
PROJECT No. 60506644
HWY 93A**

LIST OF PROJECT DRAWINGS


DRAWING NO.	DISCIPLINE	DESCRIPTION
<u>GENERAL</u>		
G000	GENERAL	COVER SHEET

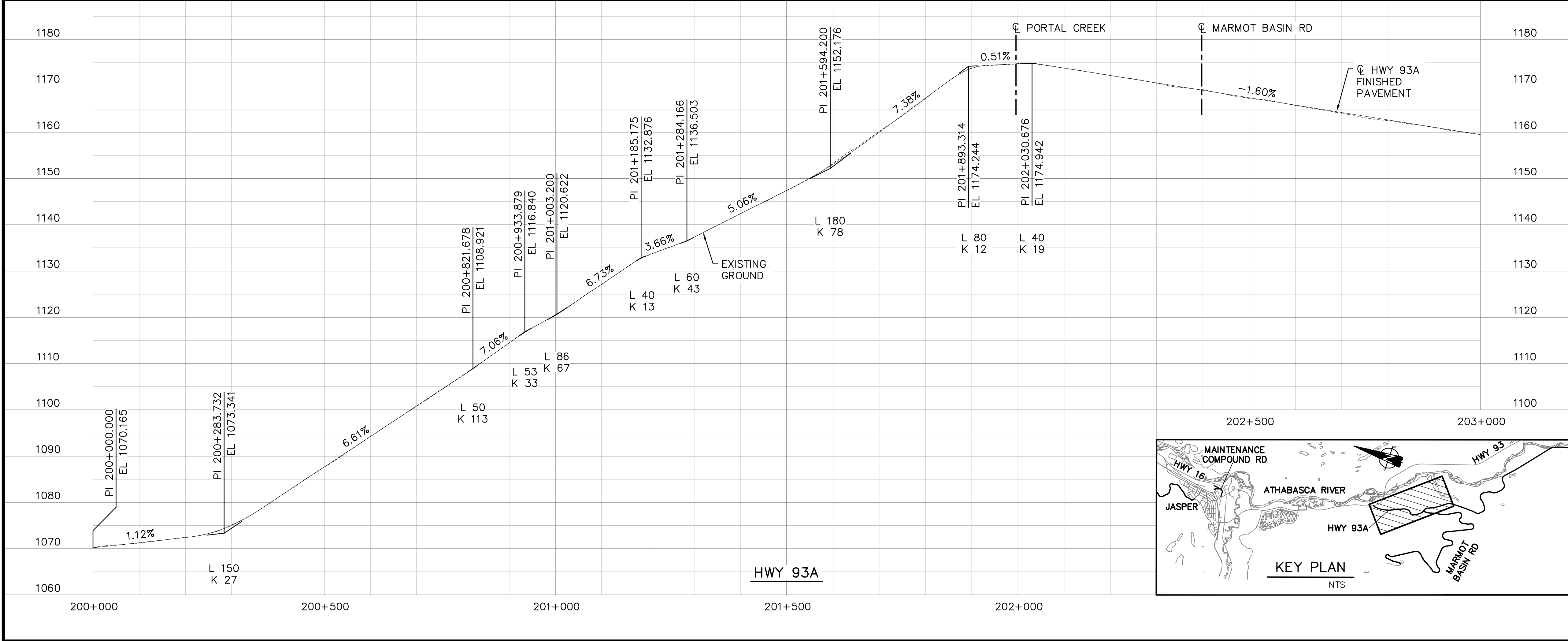
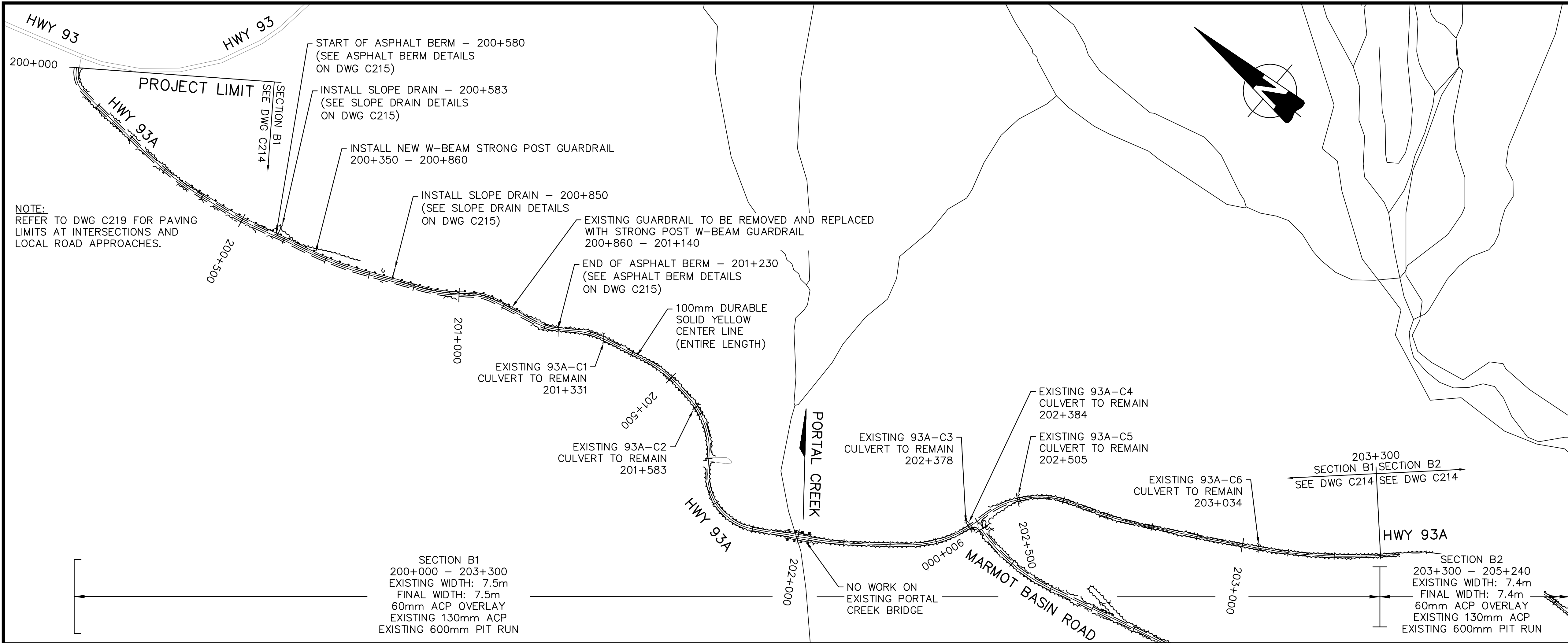
CIVIL ENGINEERING

HWY 93A		
C200	CIVIL	PLAN AND PROFILE
C201	CIVIL	PLAN AND PROFILE
C202	CIVIL	PLAN AND PROFILE
C203	CIVIL	PLAN AND PROFILE
C204	CIVIL	PLAN AND PROFILE
C205	CIVIL	PLAN AND PROFILE
C206	CIVIL	PLAN AND PROFILE
C207	CIVIL	PLAN AND PROFILE
C208	CIVIL	DITCHING PLAN AND PROFILE
C209	CIVIL	DITCHING PLAN AND PROFILE
C210	CIVIL	DITCHING PLAN AND PROFILE
C211	CIVIL	DITCHING PLAN AND PROFILE
C212	CIVIL	DITCHING PLAN AND PROFILE
C213	CIVIL	DITCHING PLAN AND PROFILE
C214	CIVIL	SECTIONS AND DETAILS
C215	CIVIL	SECTIONS AND DETAILS
C216	CIVIL	CULVERT DATA TABLES
C217	CIVIL	CULVERT DATA TABLES
C218	CIVIL	CULVERT DETAILS
C219	CIVIL	PAVING LIMITS



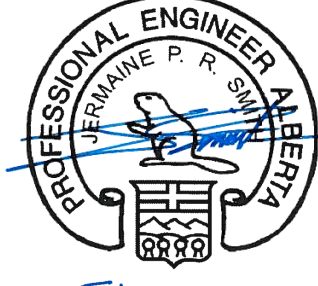
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No.	Date	Description	Drawn by Dessiné par	Approved Approuvé
Revision / Revision				
<div><div>A</div><div>B</div></div>		Detail number Sheet number	A Numero de detail B Numero de la feuille	
Linear dimensions in millimetres		Dimensions linéaires en millimètres		
Consultant's Name Nom de l'expert-conseil			Eng. Stamp Sceau de l'ingénieur	
<div>AECOM</div>				
<div><div></div><div>Parks Canada</div></div>		<div><div>Parcs Canada</div></div>		
Strategic Asset Management, Western and Northern Region		Gestion Stratégique des Biens, Région de l'Ouest et du Nord		
<div>Canada</div>				
Project Title/Titre du projet				
<div>JNP 4-6 ROADS REHAB 96% DETAILED DESIGN</div>				
Drawing title/Titre du dessin				
<div>HWY 93A COVER SHEET</div>				
Surveyed by/Arpente par		Drawn by/Dessiné par		Date
-		DT		2017-07-06
Designed by/Concept par		Reviewed by/Revisé par		Scale/Echelle
JS		DC		
Client Acceptance/Acceptation du client			Approved by/Approuvé par	
Date			Date	
Project No./N° du projet		Asset No./N° du bien		Sheet No./ N° de la feuille
60506644		-		
Drawing Set No./N° de série du dessin				G000



- LEGEND**
- PROPOSED EDGE OF PAVEMENT
 - - - EXISTING EDGE OF PAVEMENT
 - X— EXISTING CULVERT
 - = NEW CULVERT
 - X— EXISTING/REPLACE CULVERT
 - ~ TREE LINE

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AECOM CANADA LTD.
Signature: *[Signature]*
Date: *July 6, 2017*
PERMIT NUMBER: P10450
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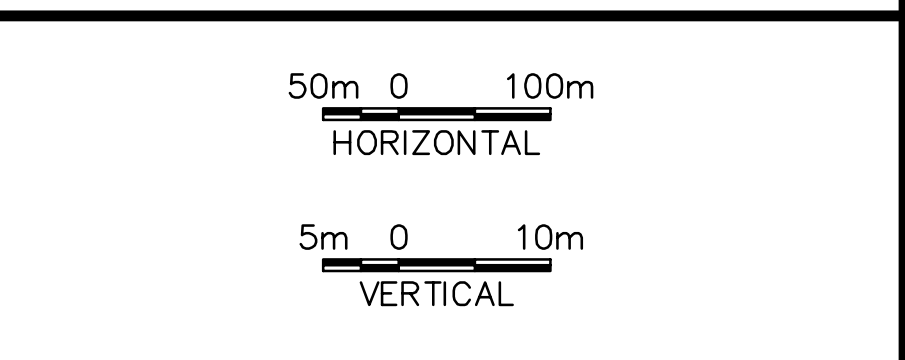


No.	Date	Description	Drawn by Dessine par	Approved Approuve
1	17.07.06	ISSUED FOR TENDER	DT	JS

Revision / Revision
A B
Detail number Sheet number
A Numéro de detail B Numéro de la feuille

Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
AECOM	

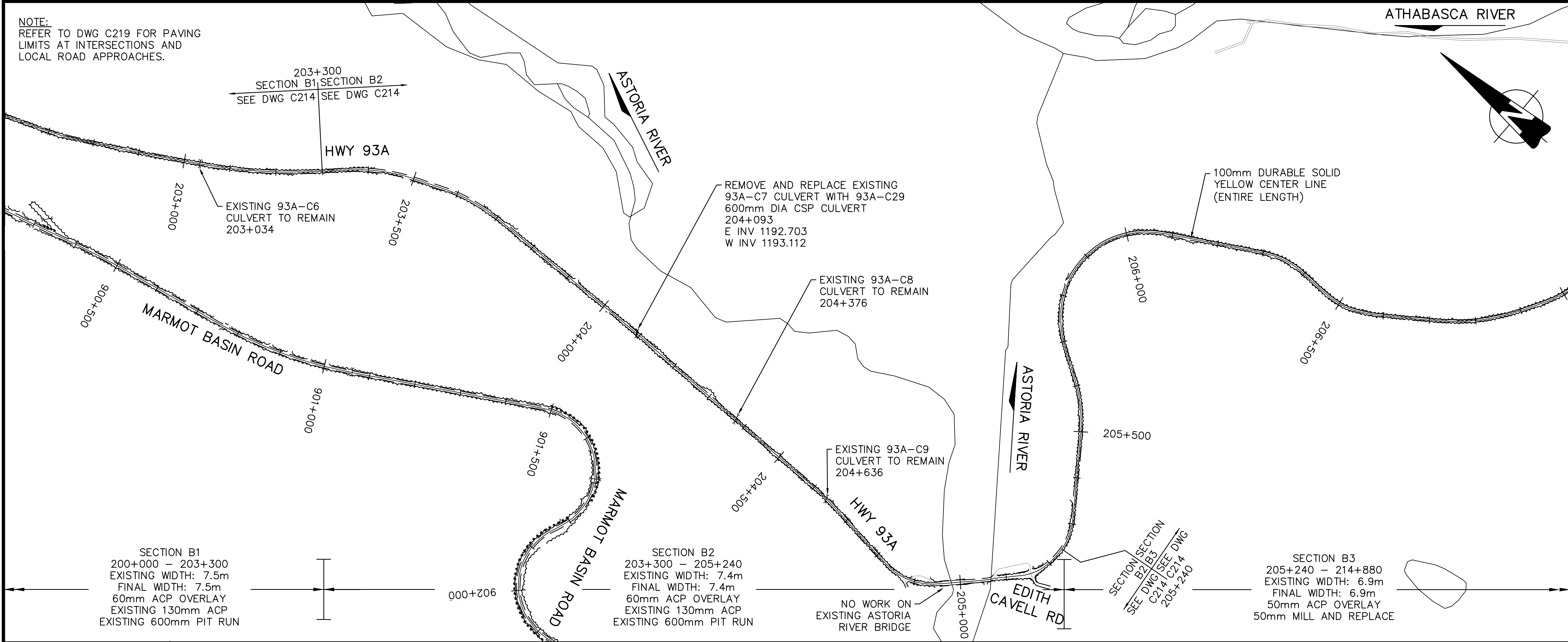
Canada
Strategic Asset
Management,
Western and Northern
Region
Parcs Canada
Gestion Stratégique
des Biens,
Région de l'Ouest et
du Nord



**JNP 4-6 ROADS REHAB
96% DETAILED DESIGN**

**HWY 93A
PLAN AND PROFILE**

Surveyed by/Arpente par -	Drawn by/Dessine par DT	Date 2017-07-06
Designed by/Concept par JS	Reviewed by/Revisé par DC	Scale/Echelle
Client Acceptance/Acceptation du client	Approved by/Approuvé par	
Project No./N° du projet 60506644	Asset No./N° du bien -	Sheet No./N° de la feuille C200





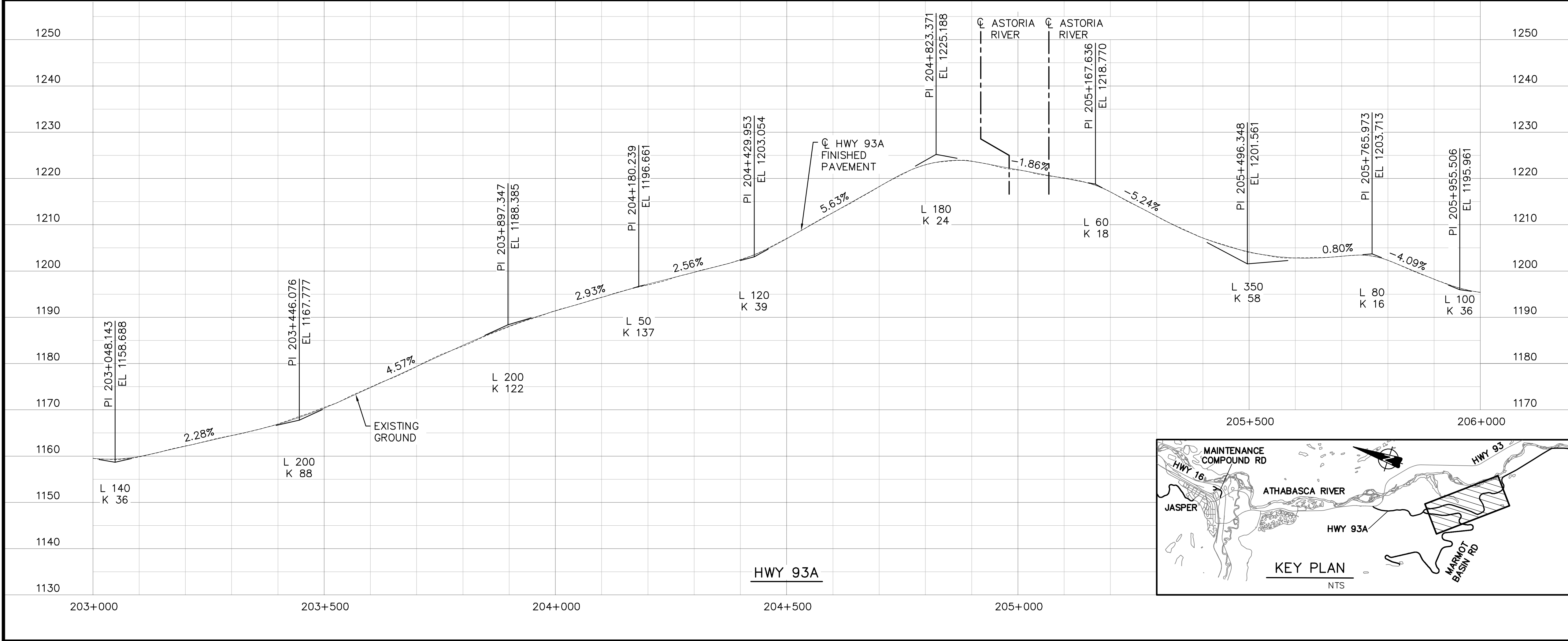
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- = NEW CULVERT
- EXISTING/REPLACE CULVERT
- TREE LINE

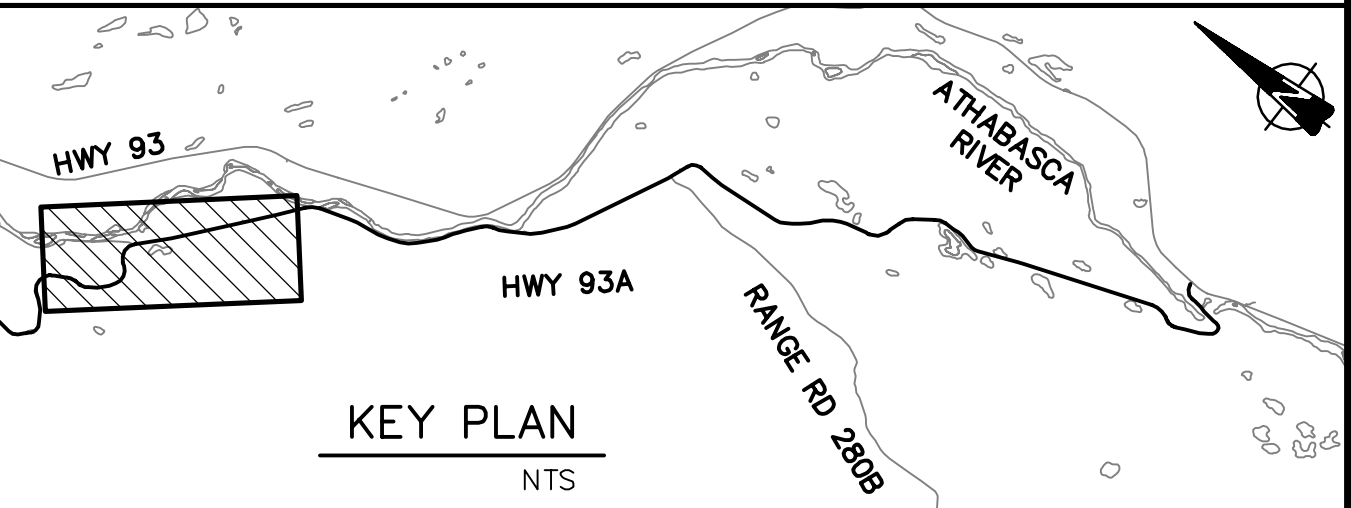
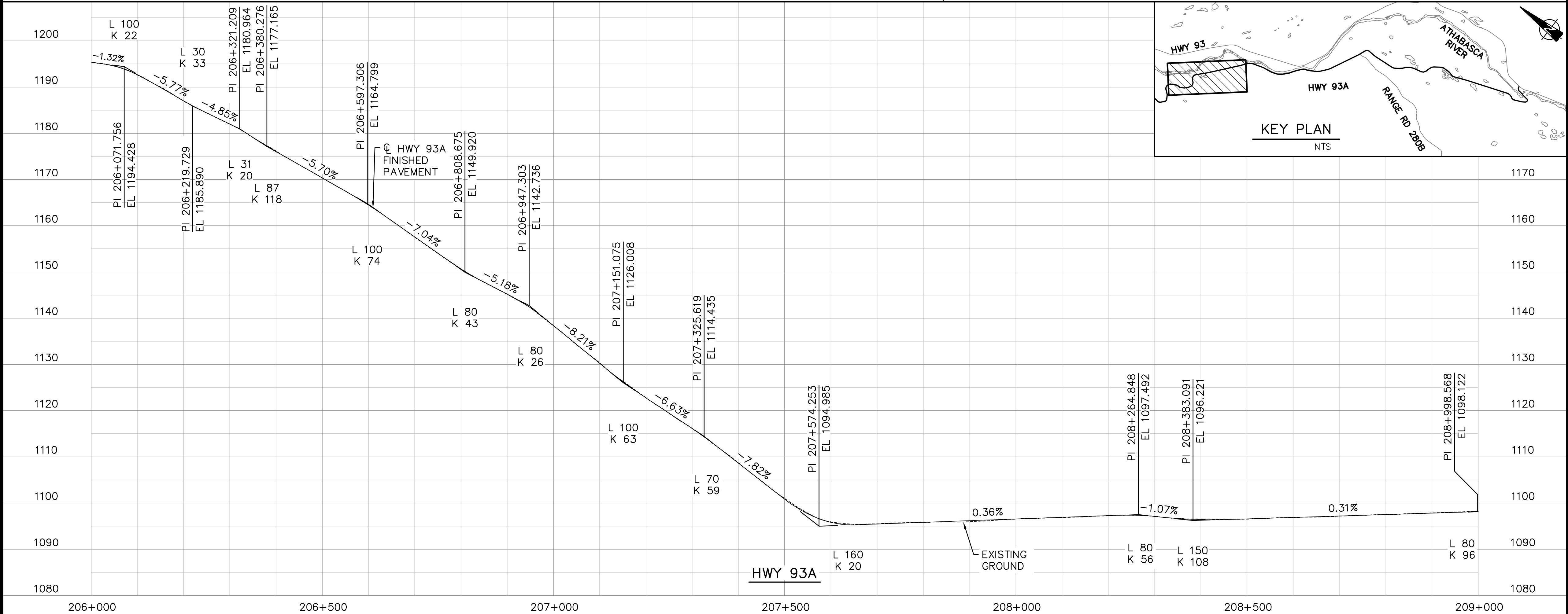
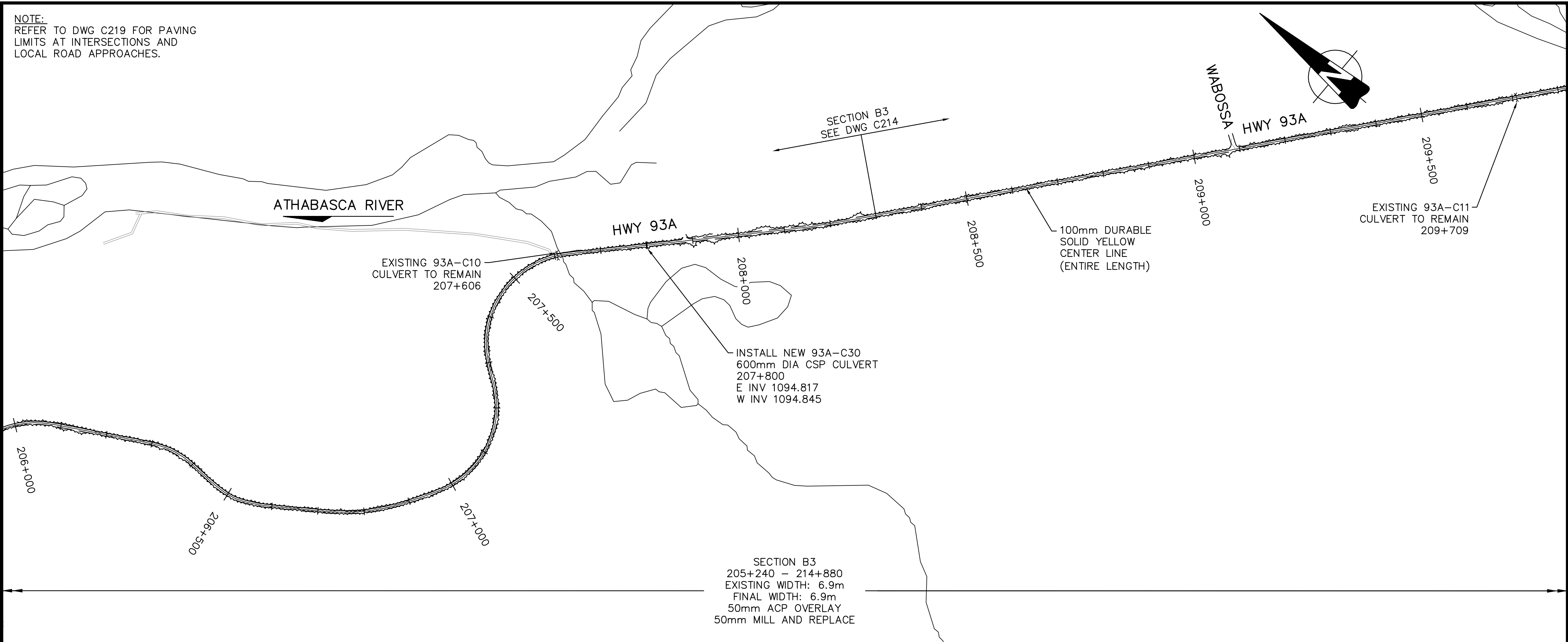
PERMIT TO PRACTICE
AECOM CANADA LTD.
Signature: *Julian P. R. Smith*
Date: *July 6, 2017*
PERMIT NUMBER: P10450
The Association of Professional
Engineers and Geoscientists of Alberta

PROFESSIONAL ENGINEER
ALBERTA
JULIAN P. R. SMITH
DATE: *July 6, 2017*

1	17.07.06	ISSUED FOR TENDER	DT	JS
No.	Date	Description	Drawn by Dessiné par	Approved Approuvé
Revision / Revision				
A	Detail number	A Numéro de détail		
B	Sheet number	B Numéro de la feuille		
Linear dimensions In millimetres		Dimensions linéaires en millimètres		
Consultant's Name Nom de l'expert-conseil		Eng. Stamp Sceau de l'ingénieur		
AECOM				
 Parks Canada		Parcs Canada		
Strategic Asset Management, Western and Northern Region		Gestion Stratégique des Biens, Région de l'Ouest et du Nord		
				
50m 0 100m HORIZONTAL				
5m 0 10m VERTICAL				
Project title/Titre du projet				
JNP 4-6 ROADS REHAB 96% DETAILED DESIGN				
Drawing title/Titre du dessin				
HWY 93A PLAN AND PROFILE				
Surveyed by/Arpente par	DT	Drawn by/Dessiné par	DT	Date
Designed by/Concept par	JS	Reviewed by/Revisé par	DC	2017-07-06
Client Acceptance/Acceptation du client		Approved by/Approuvé par		
Date		Date		
Project No./N° du projet	Asset No./N° du bien	Sheet No./N° de la feuille		
60506644	-	C201		
Drawing Set No./N° de série du dessin				



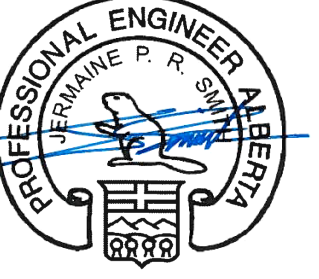
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REFER TO DWG C219 FOR PAVING
LIMITS AT INTERSECTIONS AND
LOCAL ROAD APPROACHES.



LEGEND

- PROPOSED EDGE OF PAVEMENT
- - - EXISTING EDGE OF PAVEMENT
- < > EXISTING CULVERT
- = NEW CULVERT
- ≡ EXISTING/REPLACE CULVERT
- ~ TREE LINE

PERMIT TO PRACTICE
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Date: *July 6, 2017*
PERMIT NUMBER: P10450
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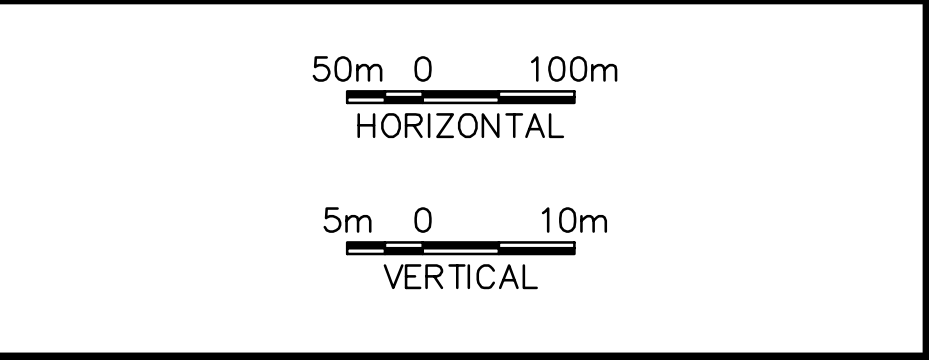


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No.	Date	Description	Drawn by Dessiné par	Approved Approuvé

Revision / Revision	
A	B
Detail number	A Numéro de détail
Sheet number	B Numéro de la feuille
Linear dimensions In millimetres	Dimensions linéaires en millimètres

Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
AECOM	

Parks Canada Strategic Asset Management, Western and Northern Region	Parcs Canada Gestion Stratégique des Biens, Région de l'ouest et du Nord
Canada	

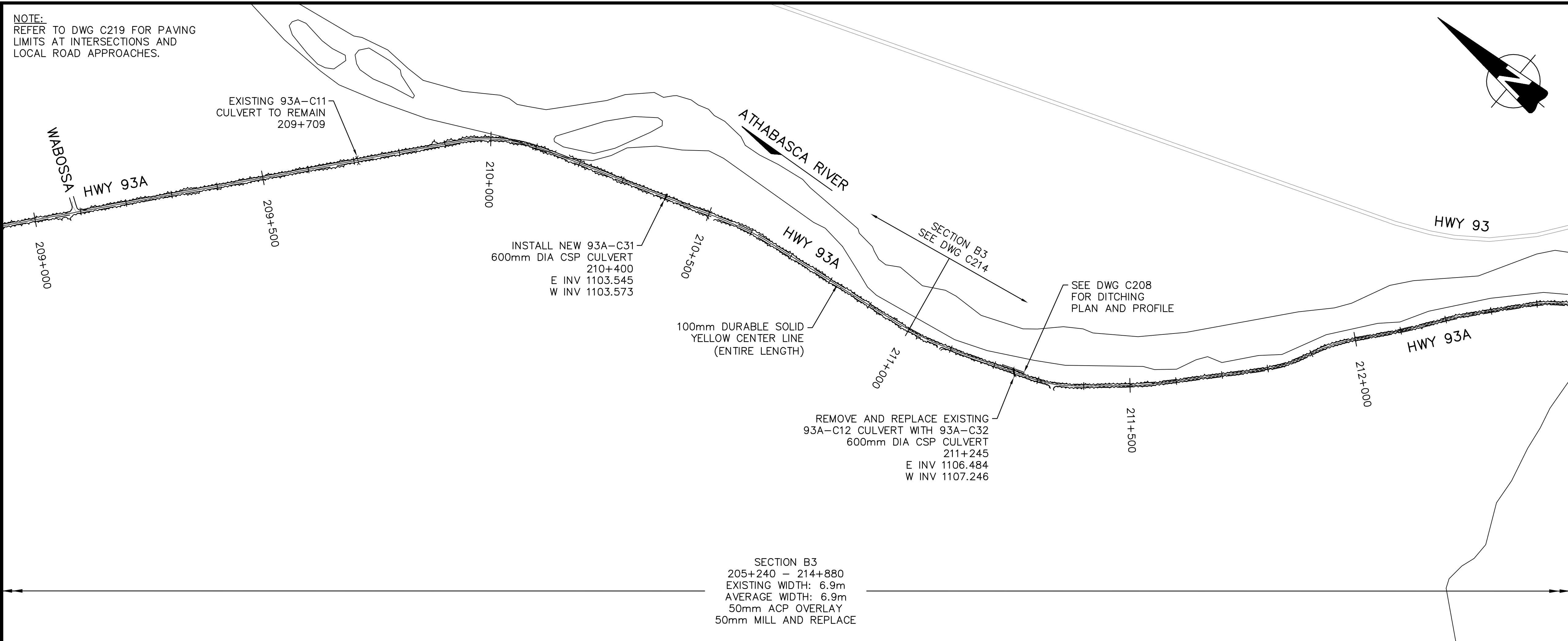


Project title/Titre du projet
**JNP 4-6 ROADS REHAB
96% DETAILED DESIGN**

Drawing title/Titre du dessin
**HWY 93A
PLAN AND PROFILE**

Surveyed by/Arpente par -	Drawn by/Dessiné par DT	Date 2017-07-06
Designed by/Concept par JS	Reviewed by/Revisé par DC	Scale/Echelle
Client Acceptance/Acceptation du client	Approved by/Approuvé par	
Date	Date	
Project No./No du projet 60506644	Asset No./No du bien -	Sheet No./ N° de la feuille C202
Drawing Set No./N° de série du dessin -		

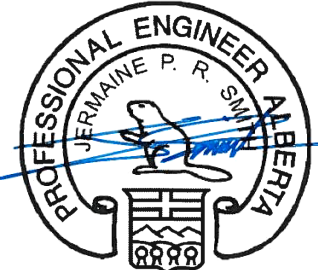
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REFER TO DWG C219 FOR PAVING
LIMITS AT INTERSECTIONS AND
LOCAL ROAD APPROACHES.



LEGEND

- PROPOSED EDGE OF PAVEMENT
- - EXISTING EDGE OF PAVEMENT
- EXISTING CULVERT
- = NEW CULVERT
- EXISTING/REPLACE CULVERT
- TREE LINE

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Date *July 6, 2017*
PERMIT NUMBER: P10450
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DATE *July 6, 2017*

1	17.07.06	ISSUED FOR TENDER	DT	JS

No.	Date	Description	Drawn by Dessiné par	Approved Approuvé

Revision / Revision	
A	Detail number A Numéro de détail
B	Sheet number B Numéro de la feuille

Linear dimensions In millimetres	Dimensions linéaires en millimètres
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Consultant's Name
Nom de l'expert-conseil

AECOM

Eng. Stamp
Sceau de l'ingénieur

Parks Canada
Strategic Asset
Management,
Western and Northern
Region

Parcs Canada
Gestion Stratégique
des Biens,
Région de l'ouest et
du Nord

Canada

50m 0 100m
HORIZONTAL

5m 0 10m
VERTICAL

Project title/Titre du projet

**JNP 4-6 ROADS REHAB
96% DETAILED DESIGN**

Drawing title/Titre du dessin

**HWY 93A
PLAN AND PROFILE**

Surveyed by/Arpente par -	Drawn by/Dessiné par DT	Date 2017-07-06
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Designed by/Concept par JS	Reviewed by/Revisé par DC	Scale/Echelle
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Client Acceptance/Acceptation du client

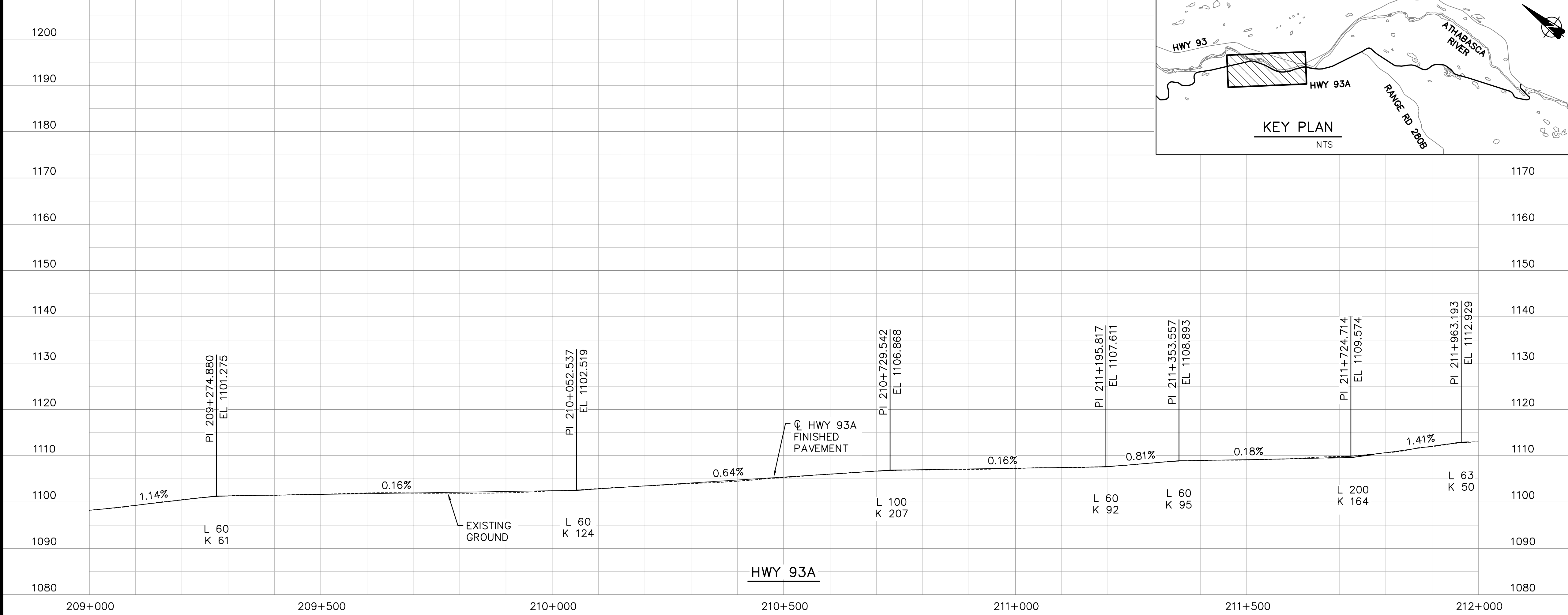
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Date

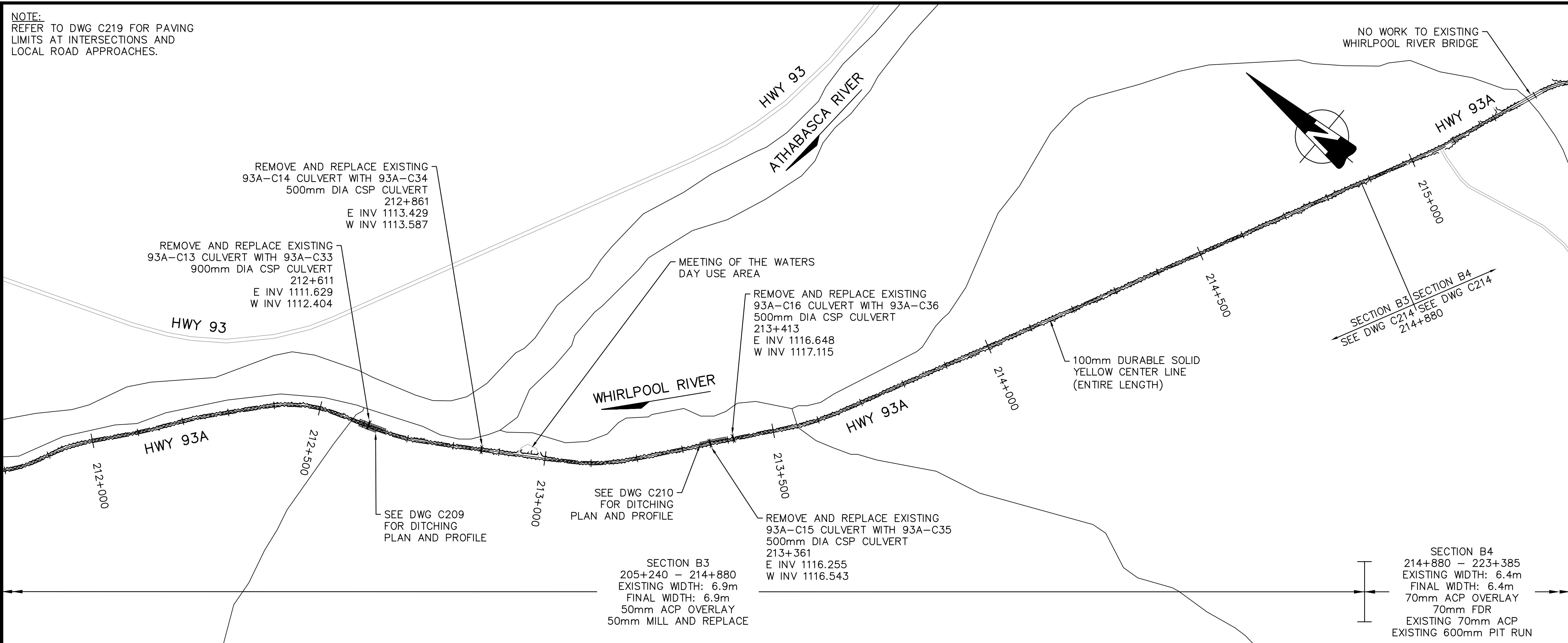
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Drawing Set No./N° de série du dessin

C203



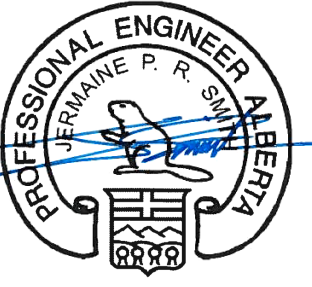
NOTE:
REFER TO DWG C219 FOR PAVING
LIMITS AT INTERSECTIONS AND
LOCAL ROAD APPROACHES.



LEGEND

- PROPOSED EDGE OF PAVEMENT
- - - EXISTING EDGE OF PAVEMENT
- EXISTING CULVERT
- = NEW CULVERT
- EXISTING/REPLACE CULVERT
- TREE LINE

PERMIT TO PRACTICE
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Signature *Paul Davis*
Date *July 6, 2017*
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No.	Date	Description	Drawn by Dessine par	Approved Approuve
1	17.07.06	ISSUED FOR TENDER	DT	JS

Revision / Revision
A B
Detail number Sheet number
A Numéro de détail B Numéro de la feuille

Linear dimensions in millimetres	Dimensions linéaires en millimètres
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Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
AECOM	

Parks Canada Strategic Asset Management, Western and Northern Region	Parcs Canada Gestion Stratégique des Biens, Région de l'ouest et du Nord
--	--

Canada

50m 0 100m
HORIZONTAL

5m 0 10m
VERTICAL

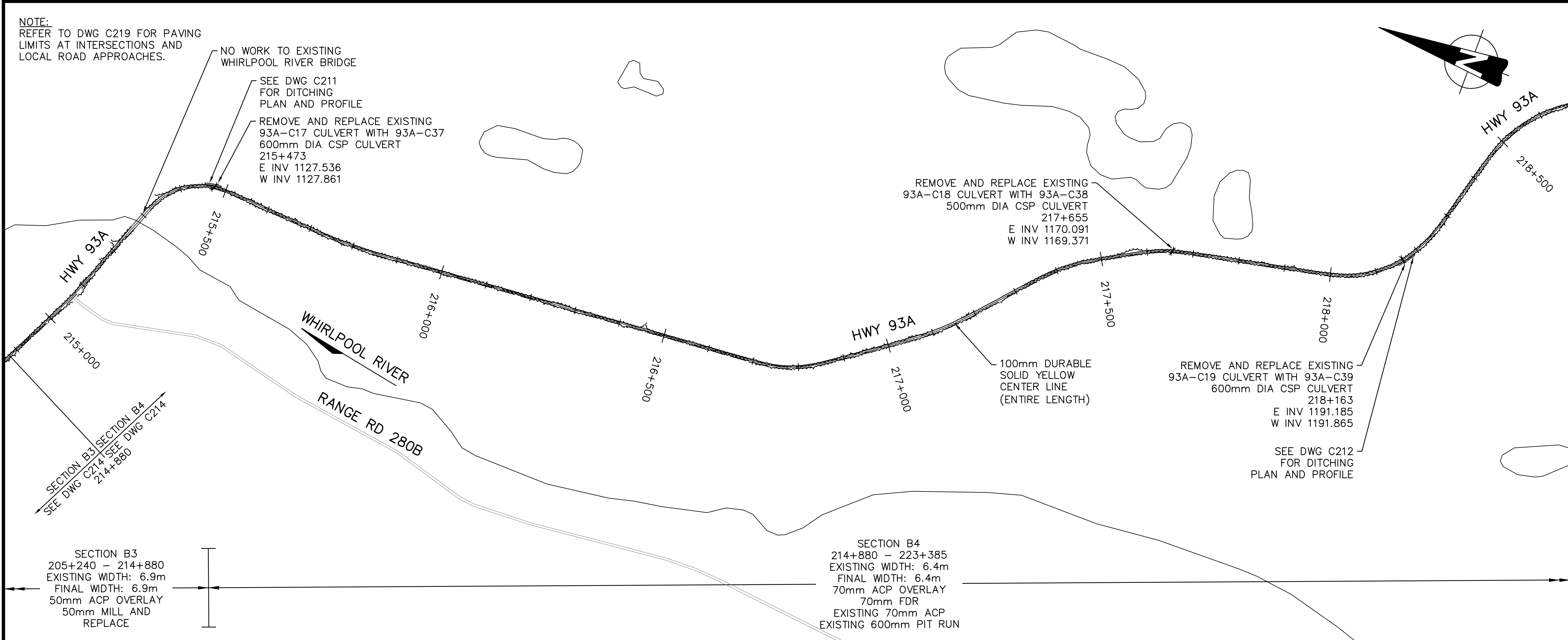
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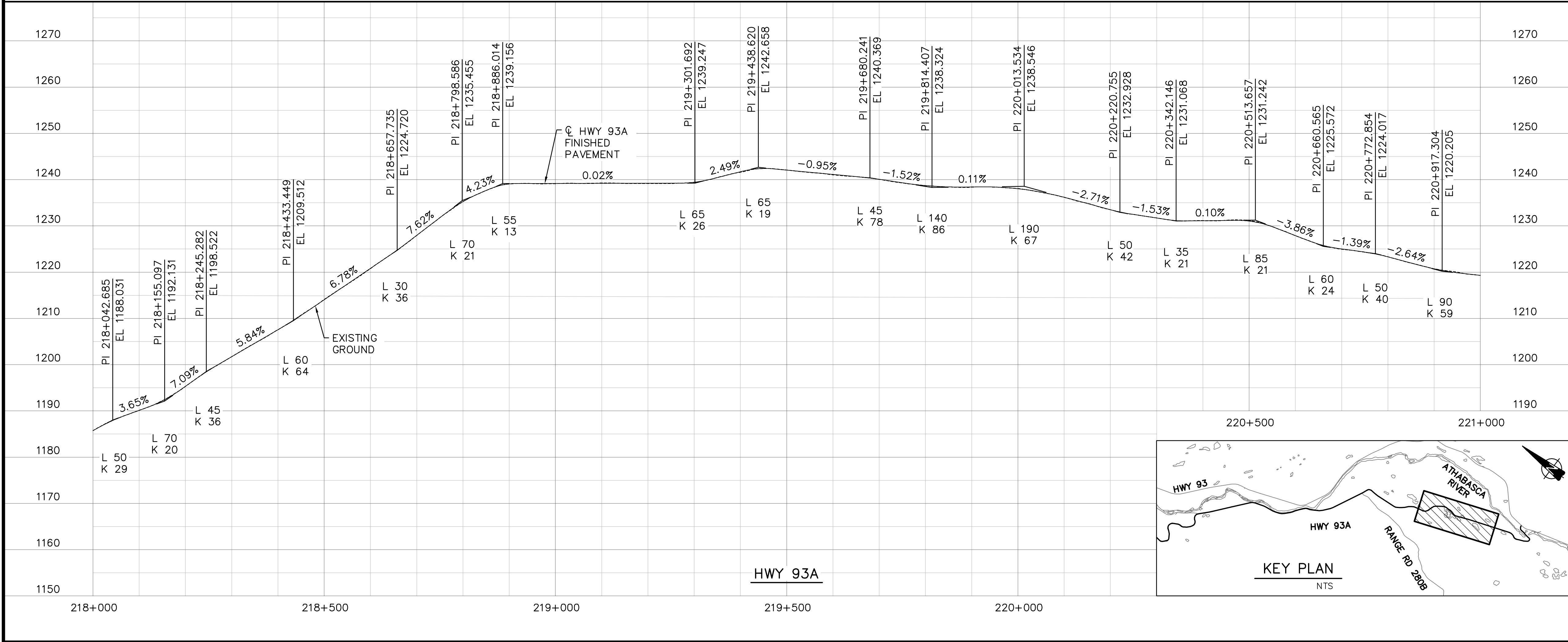
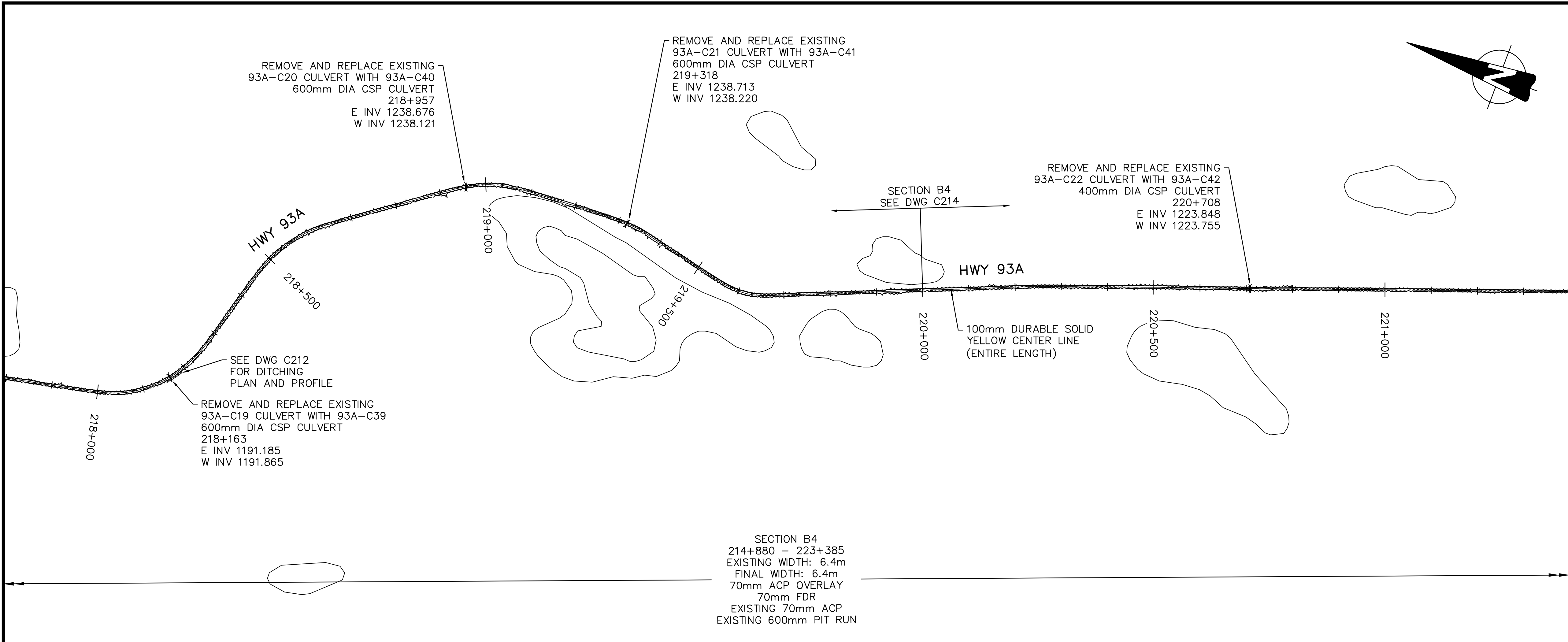
**JNP 4-6 ROADS REHAB
96% DETAILED DESIGN**

Drawing title/Titre du dessin

**HWY 93A
PLAN AND PROFILE**

Surveyed by/Arpente par -	Drawn by/Dessine par DT	Date 2017-07-06
Designed by/Concept par JS	Reviewed by/Revisé par DC	Scale/Echelle
Client Acceptance/Acceptation du client		Approved by/Approuvé par
Date		Date
Project No./N° du projet 60506644	Asset No./N° du bien -	Sheet No./N° de la feuille C204
Drawing Set No./N° de série du dessin		





LEGEND

- PROPOSED EDGE OF PAVEMENT
- EXISTING EDGE OF PAVEMENT
- EXISTING CULVERT
- = NEW CULVERT
- EXISTING/REPLACE CULVERT
- TREE LINE

PERMIT TO PRACTICE
AECOM CANADA LTD.
Signature: *[Signature]*
Date: *July 6, 2017*
PERMIT NUMBER: P10450
The Association of Professional Engineers and Geoscientists of Alberta
DATE: *July 6, 2017*

PROFESSIONAL ENGINEER
ALBERTA
FRANCOIS P. R. S. S. 1000

No.	Date	Description	Drawn by Dessine par	Approved Approuve
1	17.07.06	ISSUED FOR TENDER	DT	JS

Revision / Revision

A	B
Detail number	A Numéro de détail
Sheet number	B Numéro de la feuille

Linear dimensions
in millimetres

Dimensions linéaires
en millimètres

Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

AECOM

Canada
Strategic Asset
Management,
Western and Northern
Region

Parcs Canada
Gestion Stratégique
des Biens,
Région de l'Ouest et
du Nord

Canada

50m 0 100m
HORIZONTAL

5m 0 10m
VERTICAL

Project title/Titre du projet

**JNP 4-6 ROADS REHAB
96% DETAILED DESIGN**

Drawing title/Titre du dessin

**HWY 93A
PLAN AND PROFILE**

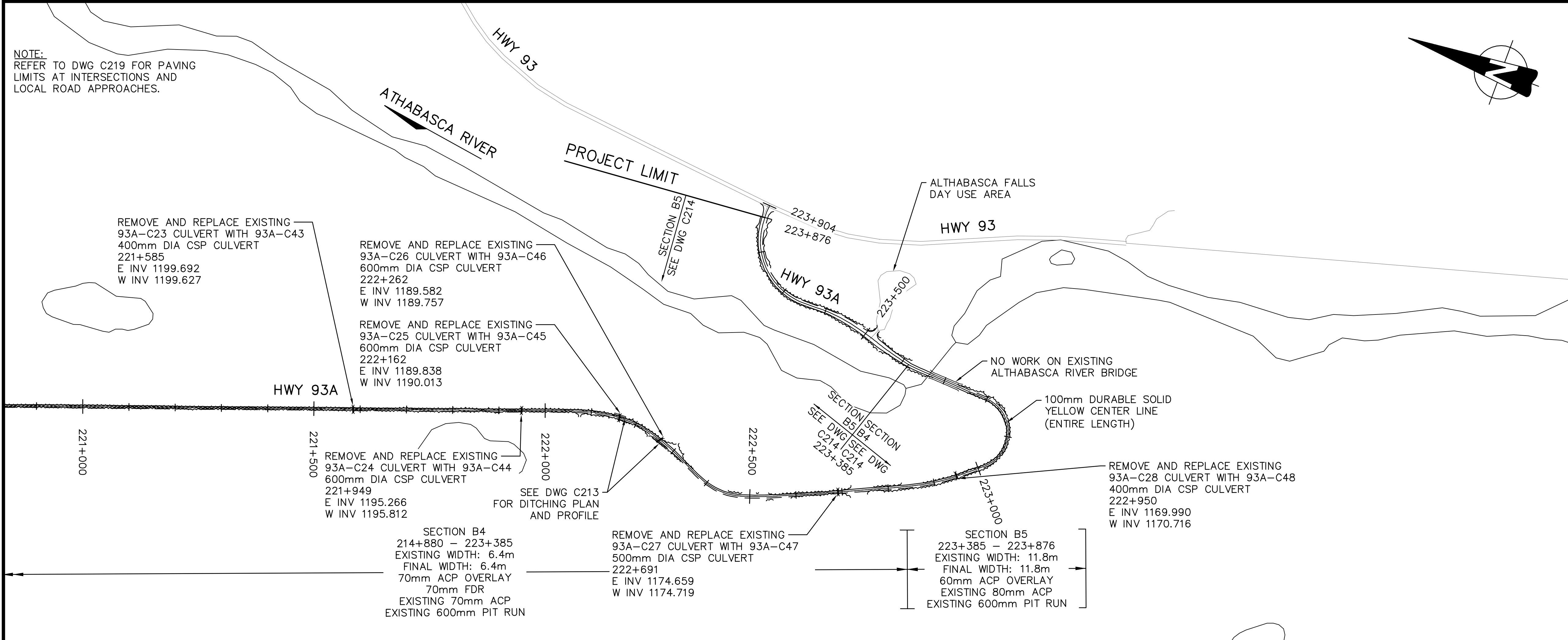
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-	DT	2017-07-06

Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
JS	DC	

Client Acceptance/Acceptation du client	Approved by/Approuvé par

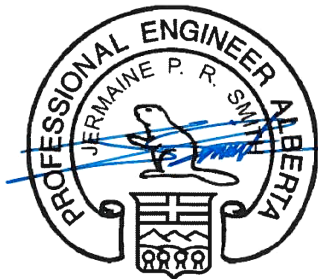
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60506644	-	C206

Drawing Set No./N° de série du dessin
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- LEGEND**
- PROPOSED EDGE OF PAVEMENT
 - EXISTING EDGE OF PAVEMENT
 - EXISTING CULVERT
 - NEW CULVERT
 - EXISTING/REPLACE CULVERT
 - TREE LINE

PERMIT TO PRACTICE
AECOM CANADA LTD.
Signature: *[Signature]*
Date: *July 6, 2017*
PERMIT NUMBER: P10450
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No.	Date	Description	Drawn by Dessiné par	Approved Approuvé
1	17.07.06	ISSUED FOR TENDER	DT	JS

Detail number Sheet number	A Numéro de détail B Numéro de la feuille
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Linear dimensions
In millimètres

Dimensions linéaires
en millimètres

Consultant's Name
Nom de l'expert-conseil

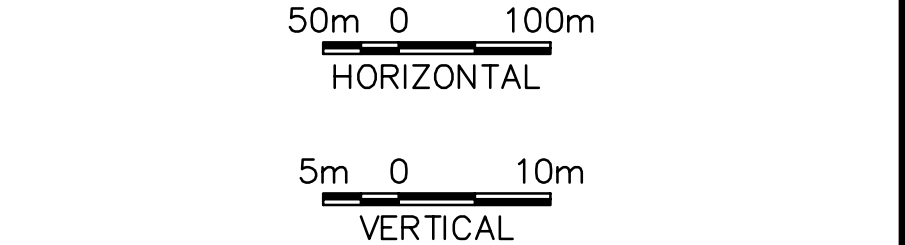
Eng. Stamp
Sceau de l'ingénieur



Parcs Canada
Strategic Asset
Management,
Western and Northern
Region

Parcs Canada
Gestion Stratégique
des Biens,
Région de l'Ouest et
du Nord

Canada



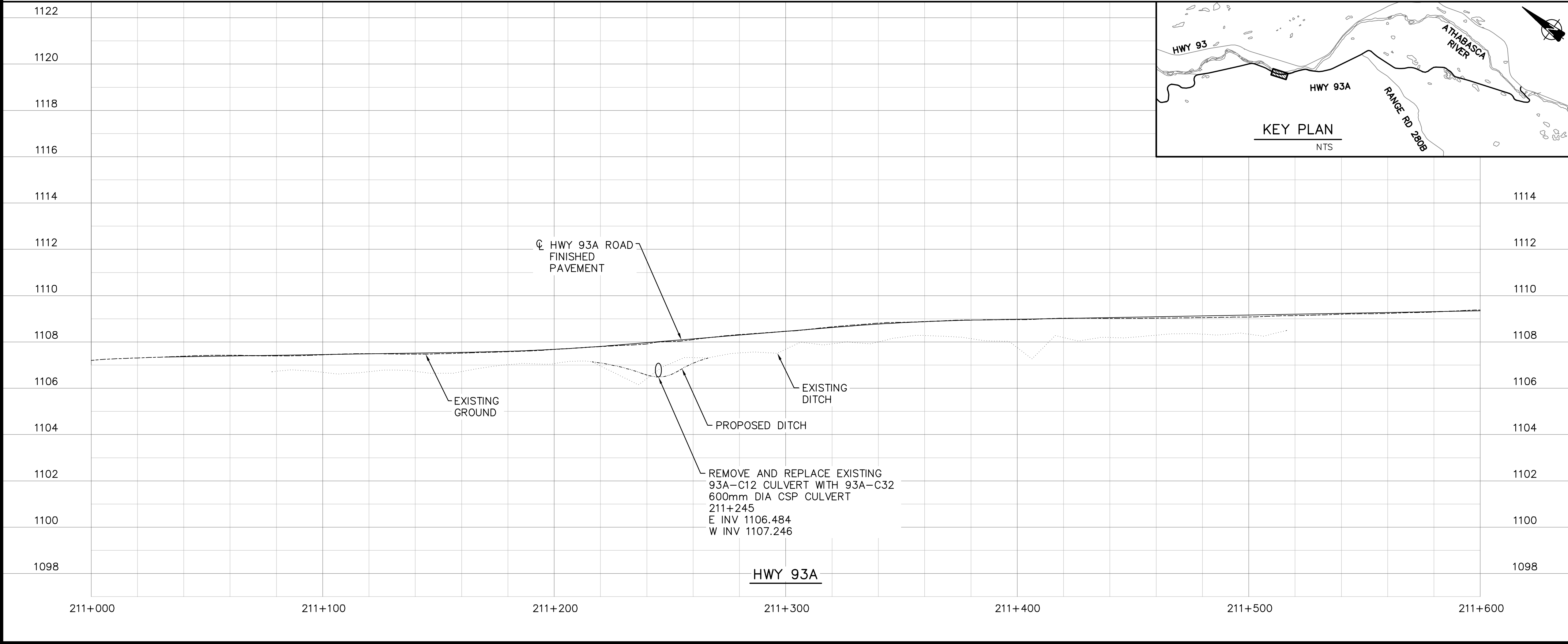
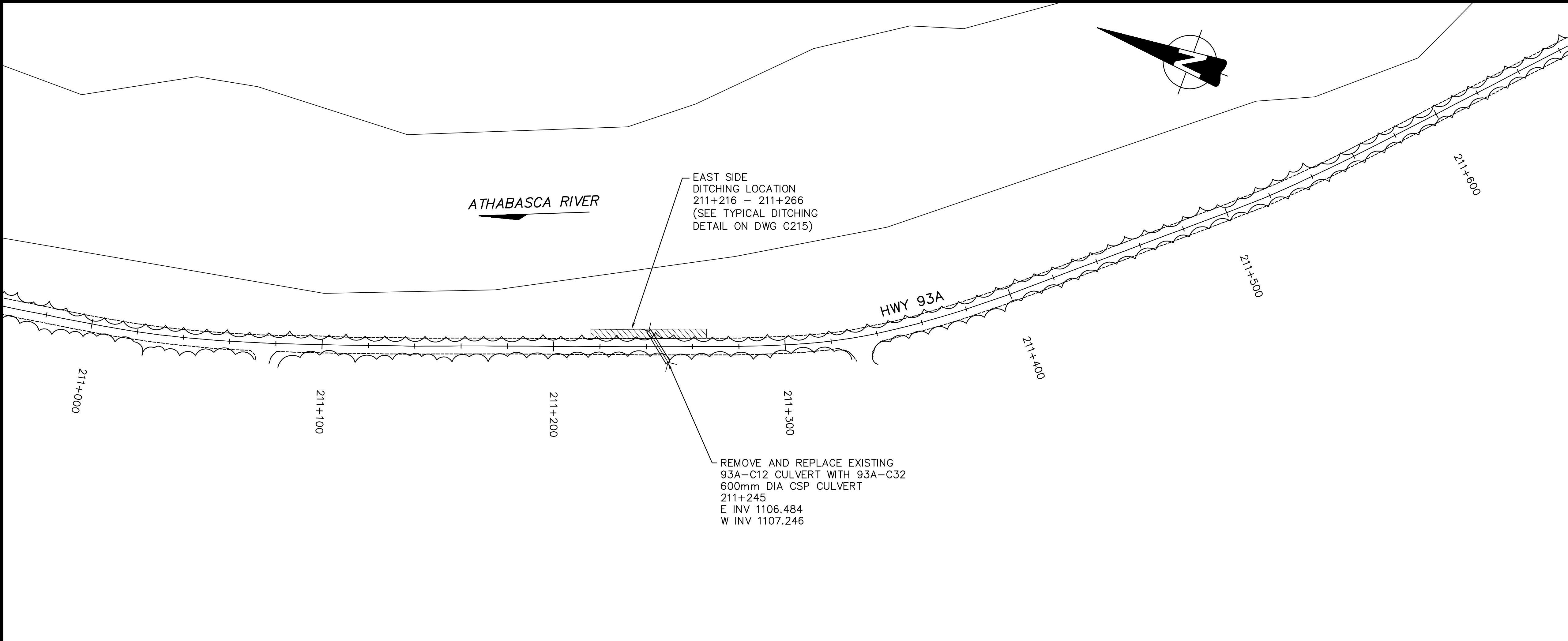
Project title/Titre du projet

**JNP 4-6 ROADS REHAB
96% DETAILED DESIGN**

Drawing title/Titre du dessin

**HWY 93A
PLAN AND PROFILE**

Surveyed by/Arpente par -	Drawn by/Dessiné par DT	Date 2017-07-06
Designed by/Concept par JS	Reviewed by/Revisé par DC	Scale/Echelle
Client Acceptance/Acceptation du client		Approved by/Approuvé par
Date		Date
Project No./No du projet 60506644	Asset No./No du bien -	Sheet No./ N° de la feuille C207
Drawing Set No./N° de série du dessin		



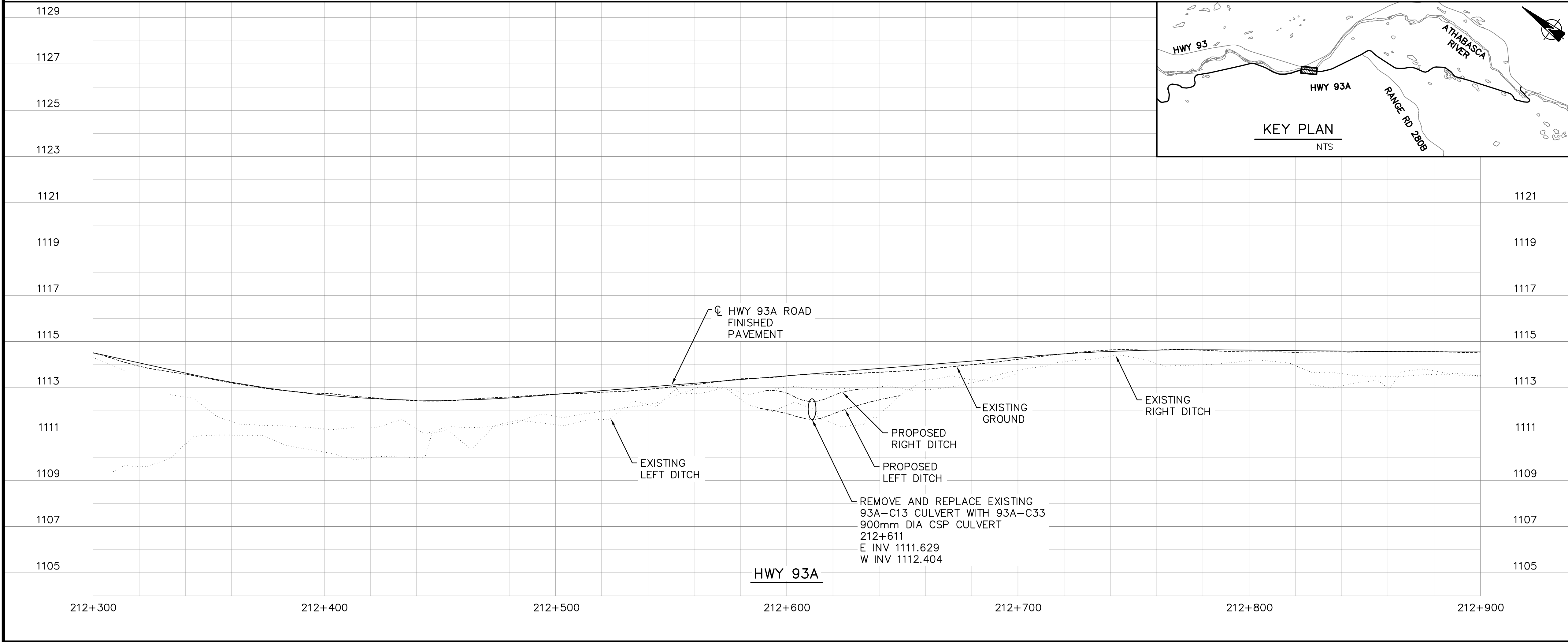
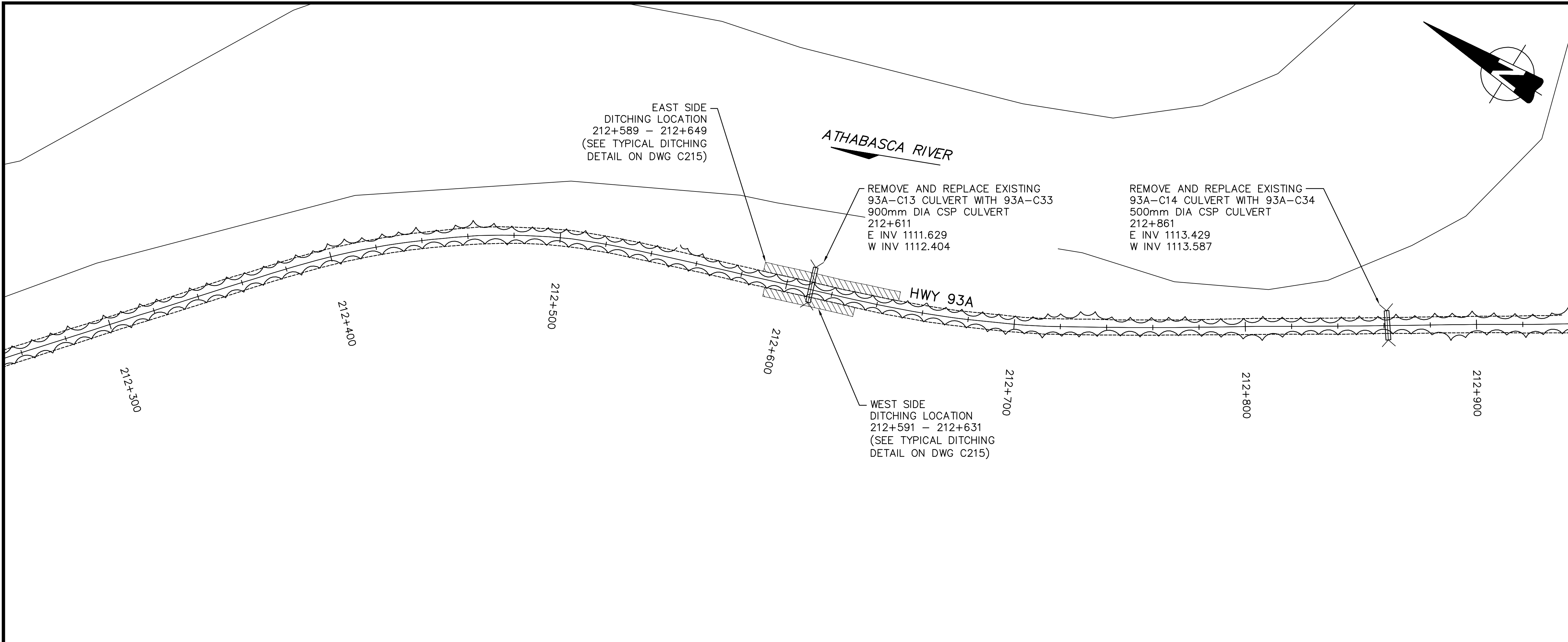
LEGEND

- PROPOSED EDGE OF PAVEMENT
- - EXISTING EDGE OF PAVEMENT
- >< EXISTING CULVERT
- = NEW CULVERT
- ≡ EXISTING/REPLACE CULVERT
- ▨ DITCHING
- ~ TREE LINE

PERMIT TO PRACTICE
AECOM CANADA LTD.
Signature: *Paul Davis*
Date: *July 06, 2017*
PERMIT NUMBER: P10450
The Association of Professional Engineers and Geoscientists of Alberta

PROFESSIONAL ENGINEER
ALBERTA
FRANCOIS P. R. SIVAK
DATE: *July 6, 2017*

1	17.07.06	ISSUED FOR TENDER	DT	JS
No.	Date	Description	Drawn by Dessine par	Approved Approuve
Revision / Revision				
A	Detail number	A Numéro de détail		
B	Sheet number	B Numéro de la feuille		
Linear dimensions In millimetres		Dimensions linéaires en millimètres		
Consultant's Name Nom de l'expert-conseil		Eng. Stamp Sceau de l'ingénieur		
AECOM				
Parks Canada Strategic Asset Management, Western and Northern Region		Parcs Canada Gestion Stratégique des Biens, Région de l'Ouest et du Nord		
Canada				
10m 0 20m HORIZONTAL				
1m 0 2m VERTICAL				
Project title/Titre du projet				
JNP 4-6 ROADS REHAB 96% DETAILED DESIGN				
Drawing title/Titre du dessin				
HWY 93A DITCHING PLAN AND PROFILE				
Surveyed by/Arpente par	Drawn by/Dessine par	Date		
-	DT	2017-07-06		
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle		
JS	DC			
Client Acceptance/Acceptation du client		Approved by/Approuvé par		
Date		Date		
Project No./N° du projet		Asset No./N° du bien	Sheet No./N° de la feuille	
60506644		-	C208	
Drawing Set No./N° de série du dessin				
-				



LEGEND

- PROPOSED EDGE OF PAVEMENT
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- >< EXISTING CULVERT
- = NEW CULVERT
- ≡ EXISTING/REPLACE CULVERT
- ▨ DITCHING
- ~ TREE LINE

PERMIT TO PRACTICE
AECOM CANADA LTD.

Signature: *Paul Davis*
Date: *July 6, 2017*

PERMIT NUMBER: P10450
The Association of Professional Engineers and Geoscientists of Alberta

DATE: *July 6, 2017*

No.	Date	Description	Drawn by Dessiné par	Approved Approuvé
1	17.07.06	ISSUED FOR TENDER	DT	JS

Revision / Revision

A	Detail number	A Numéro de détail
B	Sheet number	B Numéro de la feuille

Linear dimensions
In millimetres

Dimensions linéaires
en millimètres

Consultant's Name
Nom de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

AECOM

Canada

Parks Canada
Strategic Asset Management,
Western and Northern Region

Parcs Canada
Gestion Stratégique des Biens,
Région de l'Ouest et du Nord

10m 0 20m
HORIZONTAL

1m 0 2m
VERTICAL

Project title/Titre du projet

**JNP 4-6 ROADS REHAB
96% DETAILED DESIGN**

Drawing title/Titre du dessin

**HWY 93A
DITCHING
PLAN AND PROFILE**

Surveyed by/Arpenté par	Drawn by/Dessiné par	Date
-	DT	2017-07-06

Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
JS	DC	

Client Acceptance/Acceptation du client

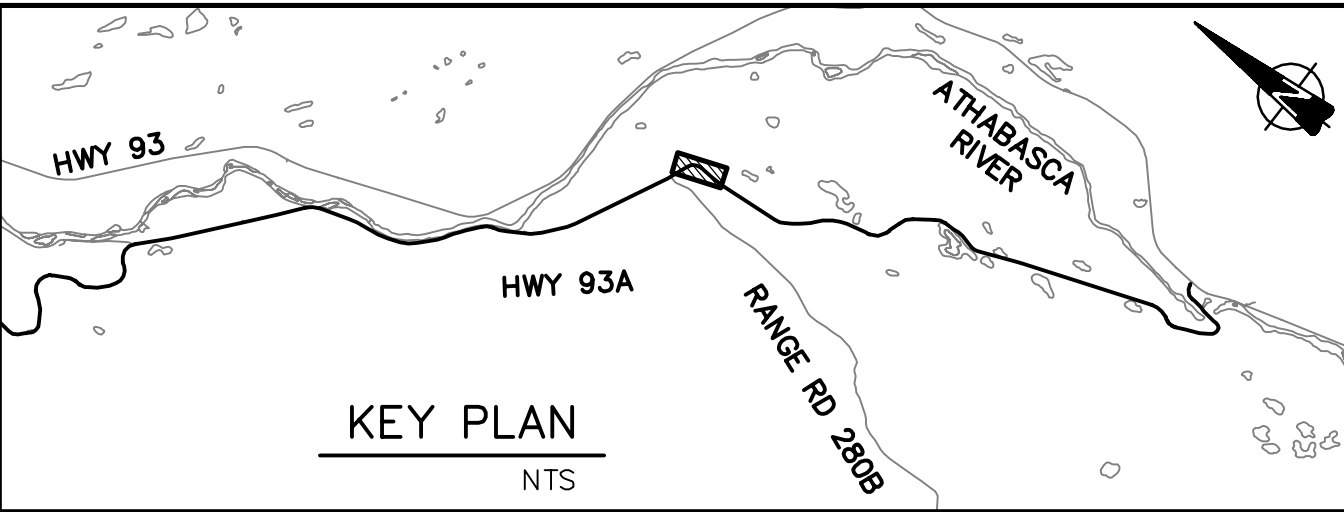
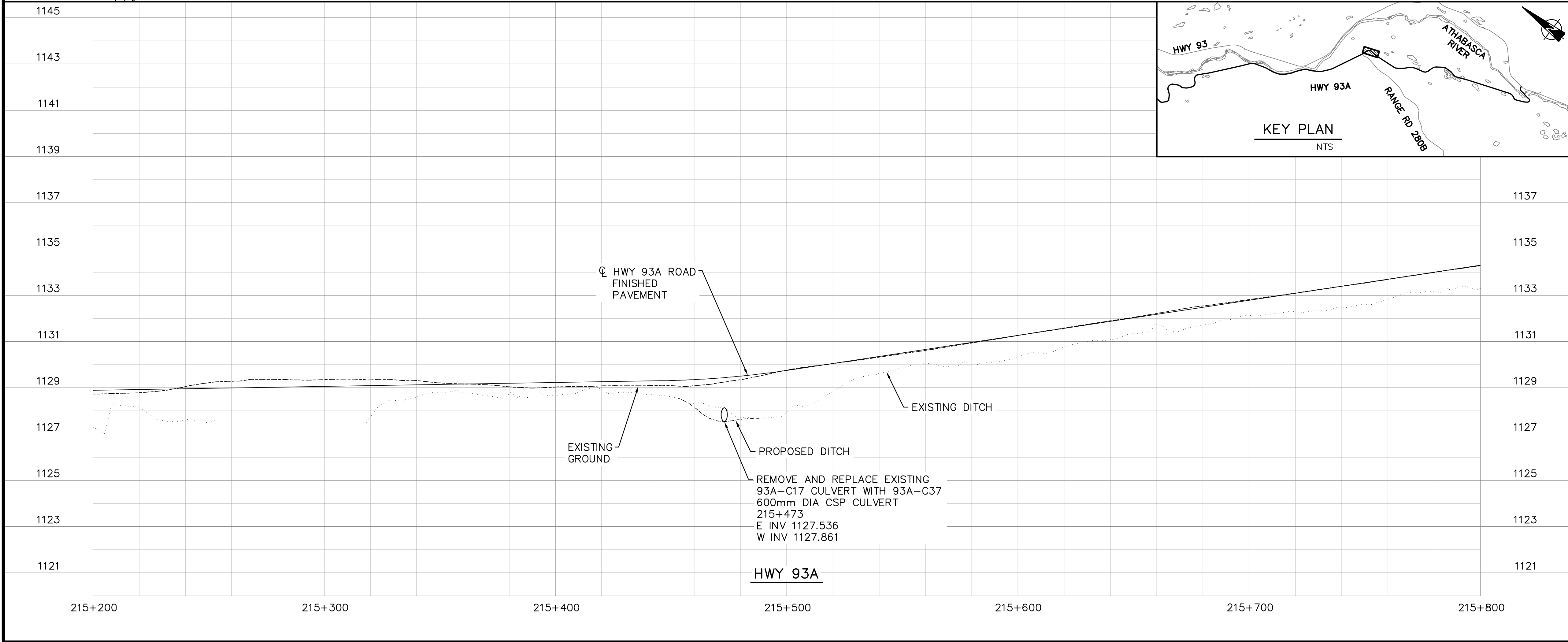
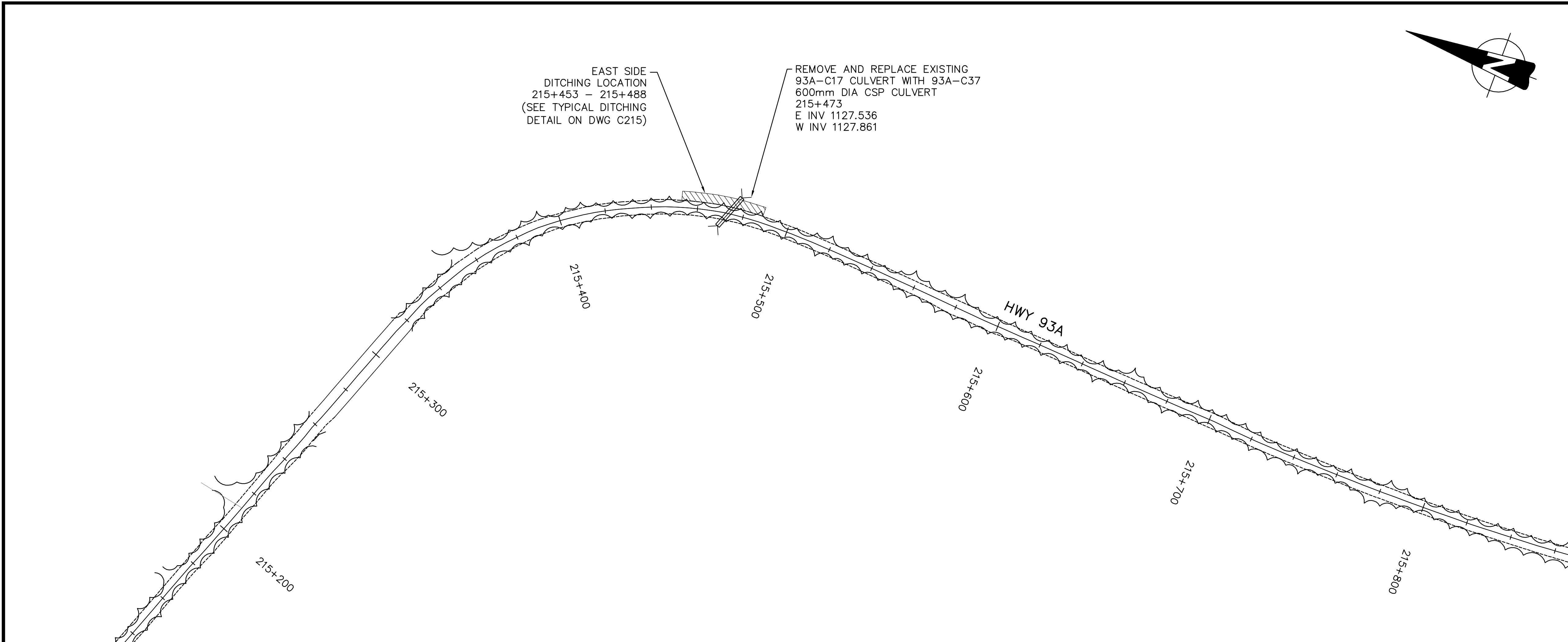
Approved by/Approuvé par

Date

Date

Project No./No du projet	Asset No./No du bien	Sheet No./No de la feuille
60506644	-	C209

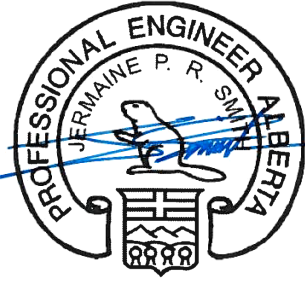
Drawing Set No./No de série du dessin



LEGEND

- PROPOSED EDGE OF PAVEMENT
- - EXISTING EDGE OF PAVEMENT
- >X< EXISTING CULVERT
- = NEW CULVERT
- >X< EXISTING/REPLACE CULVERT
- ▨ DITCHING
- ~ TREE LINE

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1	17.07.06	ISSUED FOR TENDER	DT	JS
No.	Date	Description	Drawn by Dessiné par	Approved Approuvé

Revision / Revision				
A	Detail number	A Numéro de détail		
B	Sheet number	B Numéro de la feuille		
Linear dimensions In millimetres		Dimensions linéaires en millimètres		

Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
AECOM	

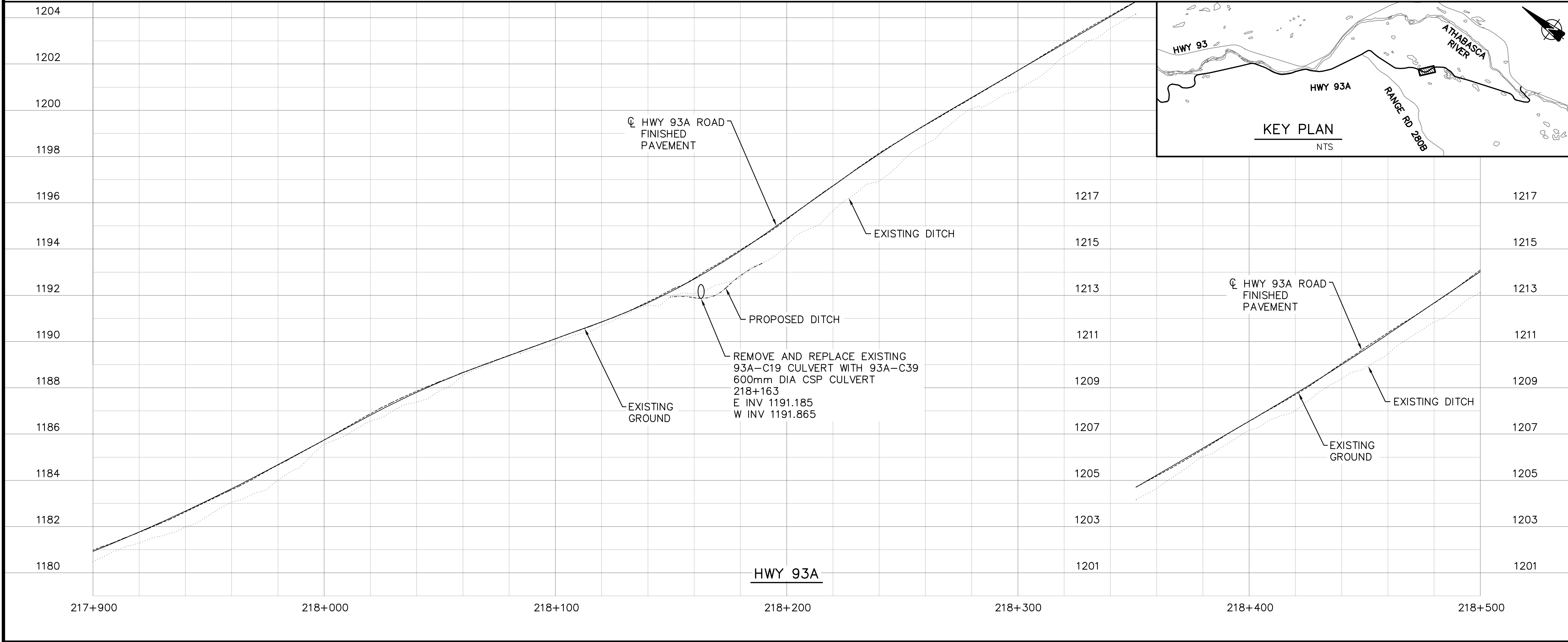
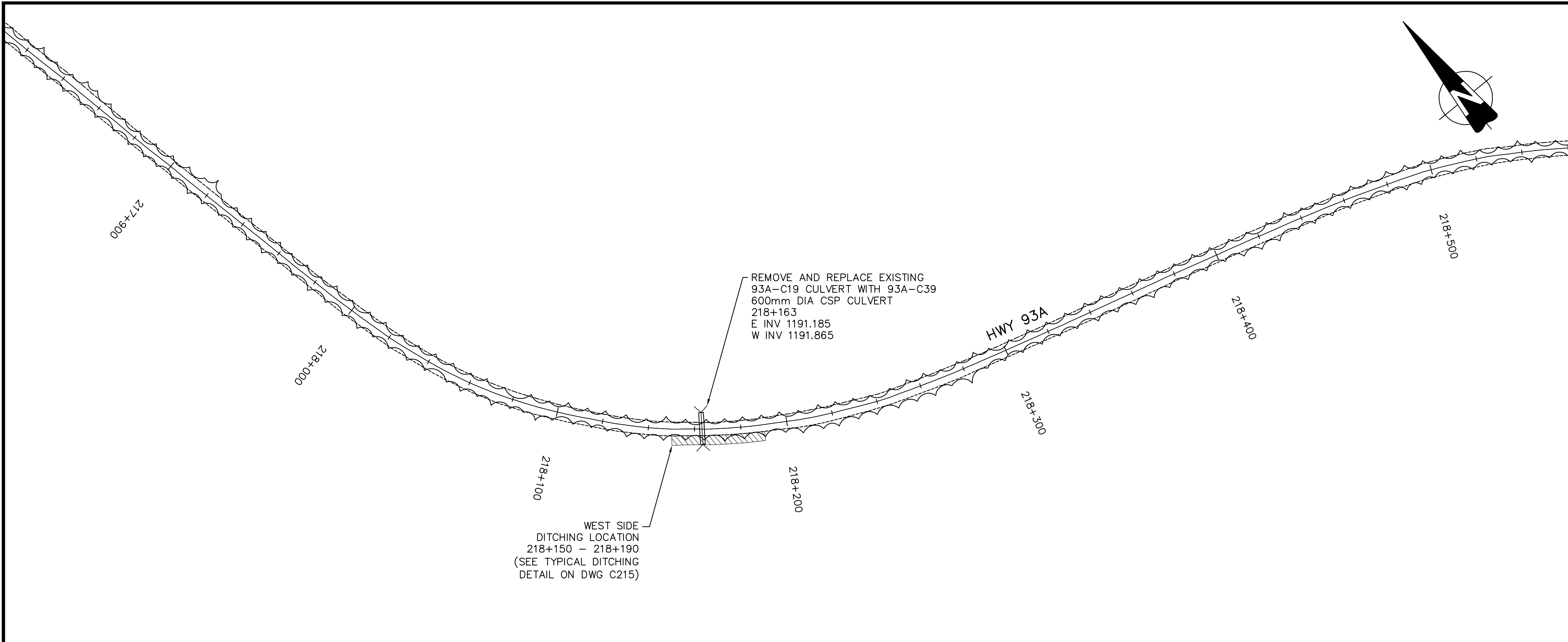
	Parks Canada Strategic Asset Management, Western and Northern Region	Parcs Canada Gestion Stratégique des Biens, Région de l'Ouest et du Nord
Canada		

10m 0 20m HORIZONTAL
1m 0 2m VERTICAL

Project title/Titre du projet
**JNP 4-6 ROADS REHAB
96% DETAILED DESIGN**

Drawing title/Titre du dessin
**HWY 93A
DITCHING
PLAN AND PROFILE**

Surveyed by/Arpenté par -	Drawn by/Dessiné par DT	Date 2017-07-06
Designed by/Concept par JS	Reviewed by/Revisé par DC	Scale/Echelle
Client Acceptance/Acceptation du client		Approved by/Approuvé par
Date		Date
Project No./N° du projet 60506644	Asset No./N° du bien -	Sheet No./ N° de la feuille C211
Drawing Set No./N° de série du dessin		



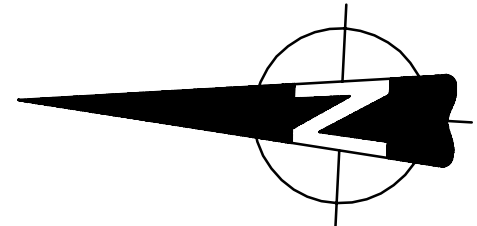
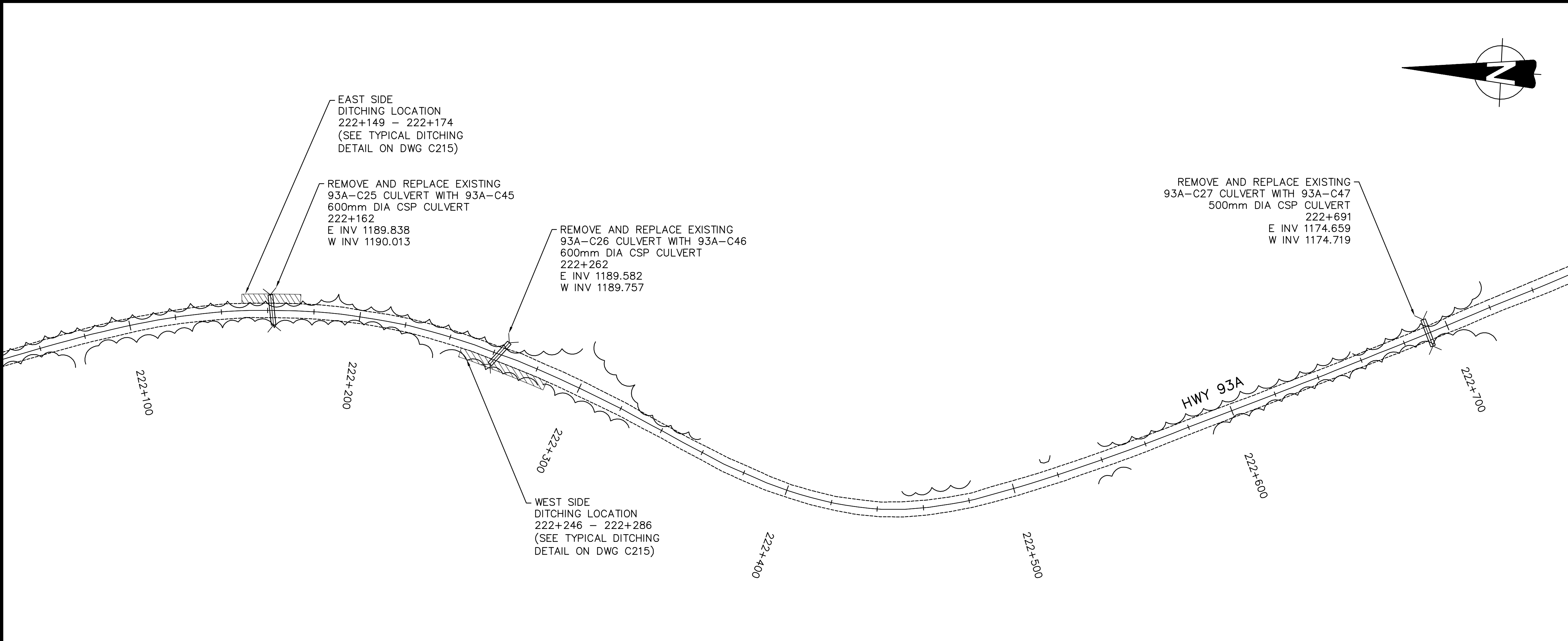
LEGEND

- PROPOSED EDGE OF PAVEMENT
- - EXISTING EDGE OF PAVEMENT
- <- EXISTING CULVERT
- = NEW CULVERT
- ≡ EXISTING/REPLACE CULVERT
- ▨ DITCHING
- ~ TREE LINE

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Date: *July 6, 2017*
PERMIT NUMBER: P10450
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DATE: *July 6, 2017*

PROFESSIONAL ENGINEER
ALBERTA
FERRIS, P. R. S. 1000

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Revision / Revision				
A	Detail number	A Numéro de détail		
B	Sheet number	B Numéro de la feuille		
Linear dimensions In millimetres		Dimensions linéaires en millimètres		
Consultant's Name Nom de l'expert-conseil		Eng. Stamp Sceau de l'ingénieur		
AECOM				
Parks Canada Strategic Asset Management, Western and Northern Region		Parcs Canada Gestion Stratégique des Biens, Région de l'Ouest et du Nord		
Canada				
10m 0 20m HORIZONTAL 1m 0 2m VERTICAL				
Project title/Titre du projet JNP 4-6 ROADS REHAB 96% DETAILED DESIGN				
Drawing title/Titre du dessin HWY 93A DITCHING PLAN AND PROFILE				
Surveyed by/Arpente par -	Drawn by/Dessine par DT	Date 2017-07-06		
Designed by/Concept par JS	Reviewed by/Revisé par DC	Scale/Echelle		
Client Acceptance/Acceptation du client		Approved by/Approuve par		
Date		Date		
Project No./No du projet 6050644	Asset No./No du bien -	Sheet No./No de la feuille C212		
Drawing Set No./No de serie du dessin -				



LEGEND	
---	PROPOSED EDGE OF PAVEMENT
- - -	EXISTING EDGE OF PAVEMENT
> <	EXISTING CULVERT
=	NEW CULVERT
≡	EXISTING/REPLACE CULVERT
▨	DITCHING
~~~~~	TREE LINE

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AECOM CANADA LTD.  
Signature: *Paul Dain*  
Date: *July 06, 2017*  
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DATE: *July 6, 2017*

No.	Date	Description	Drawn by Dessine par	Approved Approuve
1	17.07.06	ISSUED FOR TENDER	DT	JS

Revision / Revision
A B
Detail number Sheet number
A Numéro de detail B Numéro de la feuille

Linear dimensions In millimetres	Dimensions linéaires en millimètres
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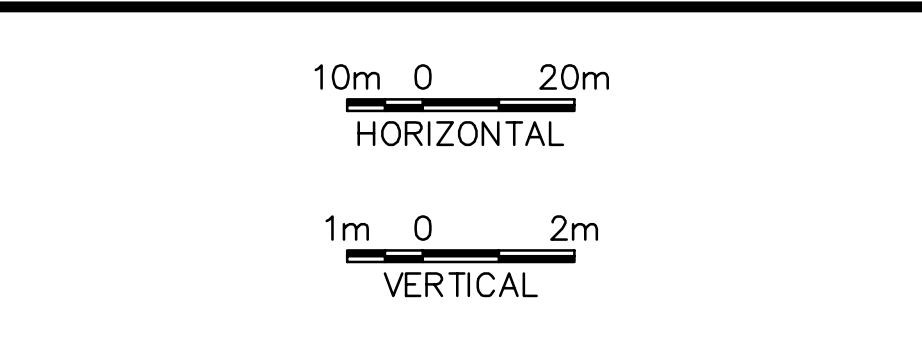
Consultant's Name  
Nom de l'expert-conseil

Eng. Stamp  
Sceau de l'ingénieur

Parks Canada  
Strategic Asset Management,  
Western and Northern Region

Parcs Canada  
Gestion Stratégique des Biens,  
Région de l'Ouest et du Nord

Canada



Project title/Titre du projet

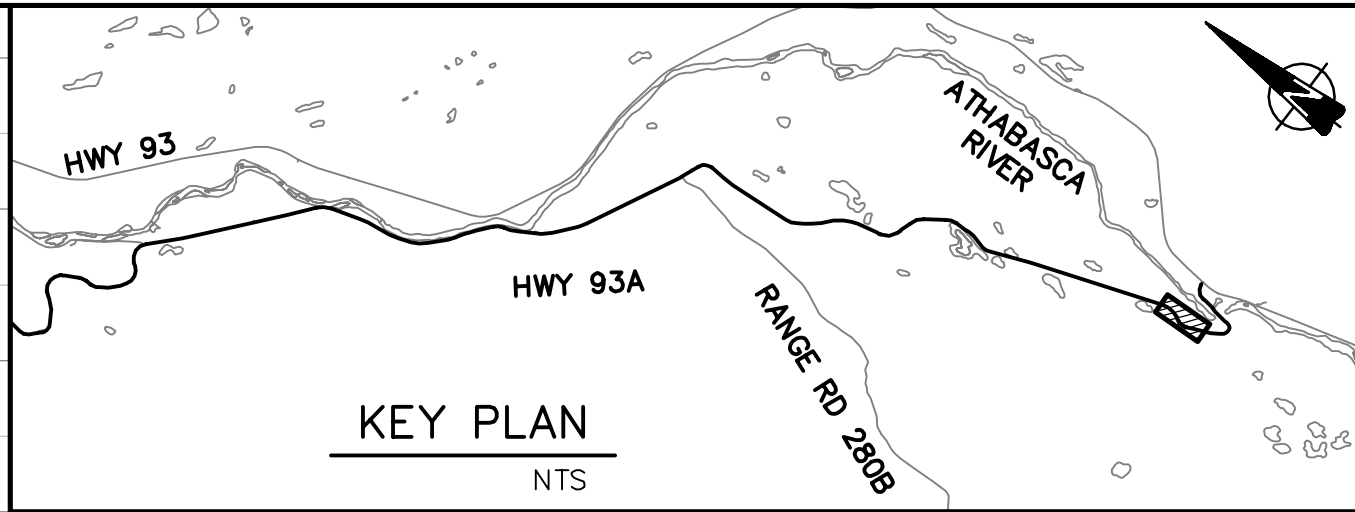
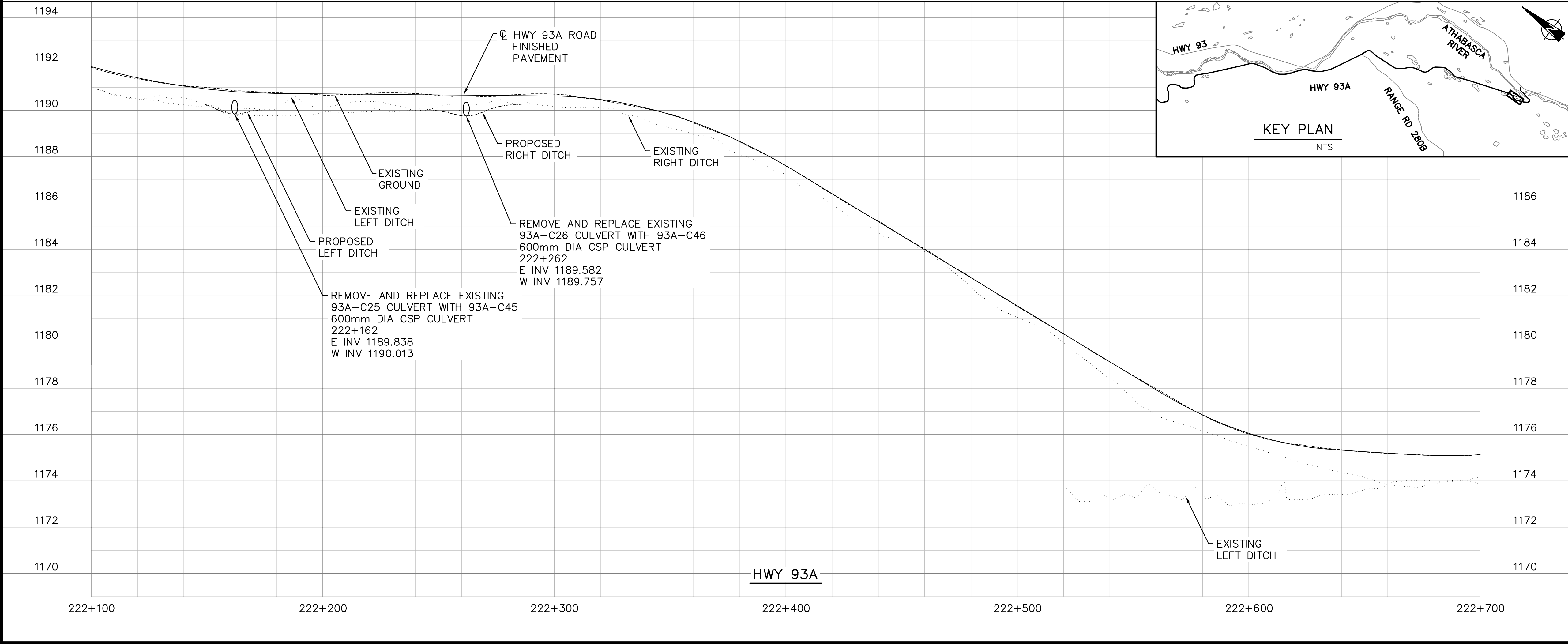
**JNP 4-6 ROADS REHAB  
96% DETAILED DESIGN**

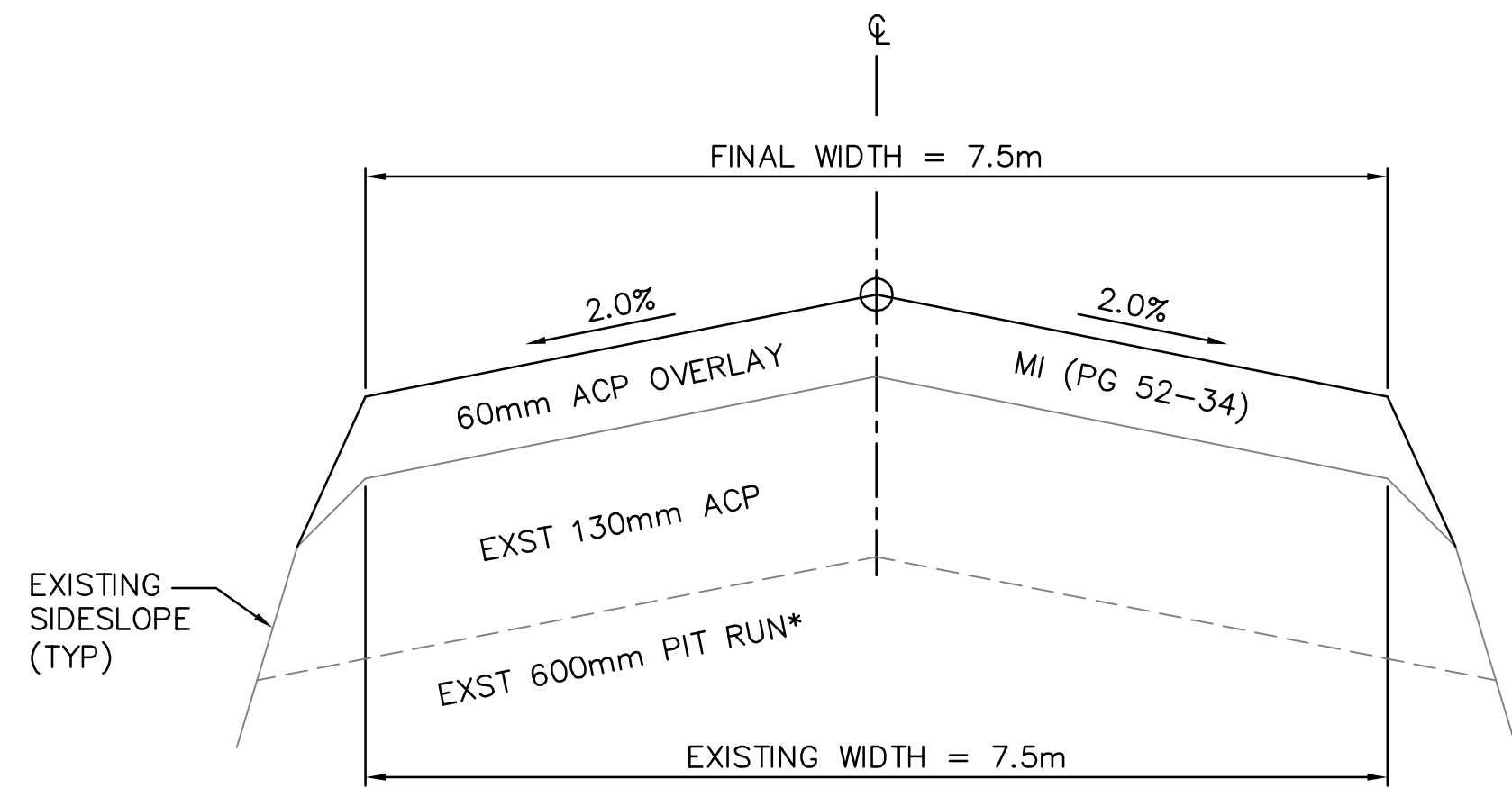
Drawing title/Titre du dessin

**HWY 93A  
DITCHING  
PLAN AND PROFILE**

Surveyed by/Arpente par -	Drawn by/Dessine par DT	Date 2017-07-06
Designed by/Concept par JS	Reviewed by/Revisé par DC	Scale/Echelle
Client Acceptance/Acceptation du client		Approved by/Approuvé par
Date		Date

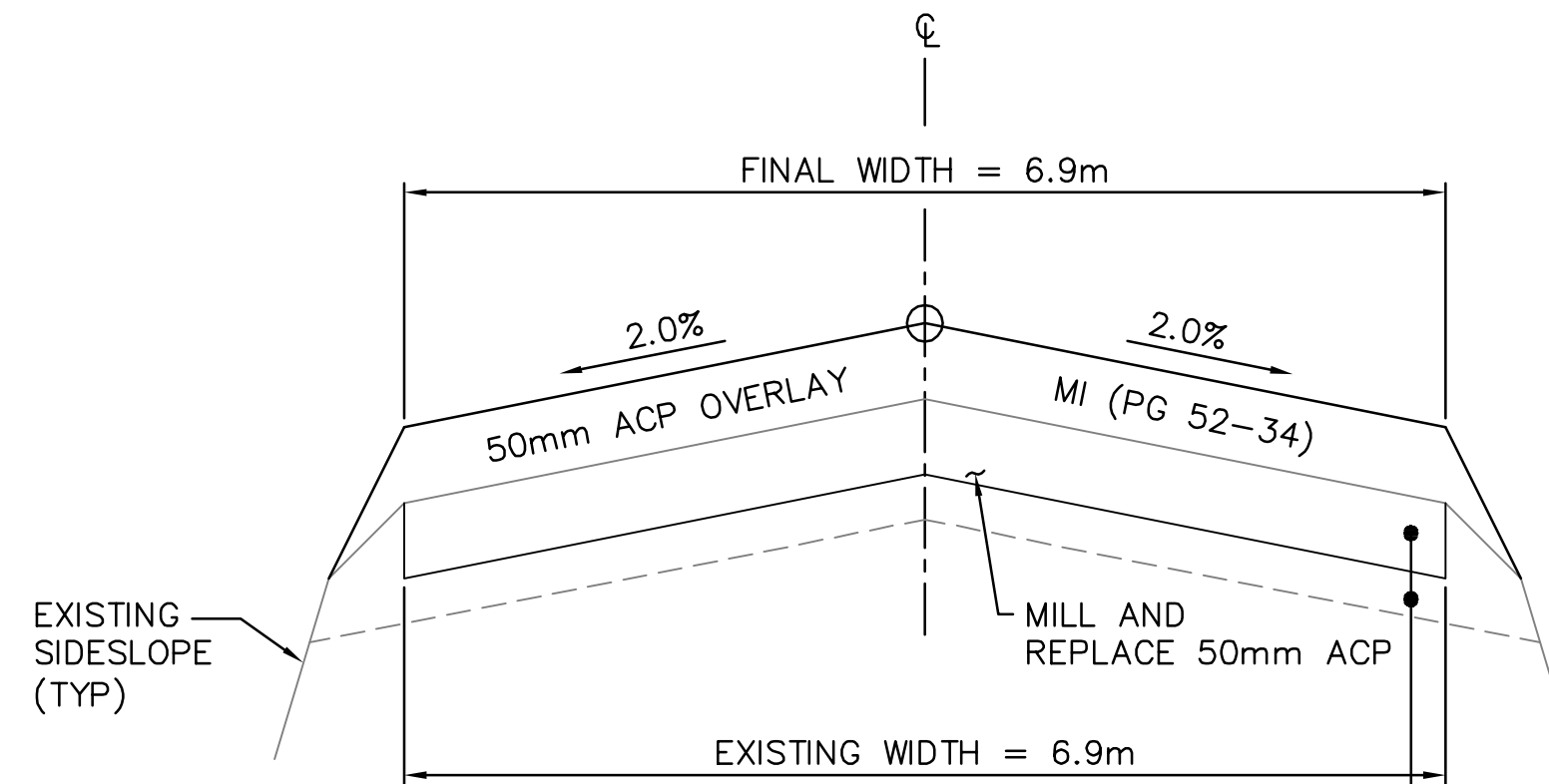
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Drawing Set No./N° de série du dessin -		





TYPICAL SECTION B1

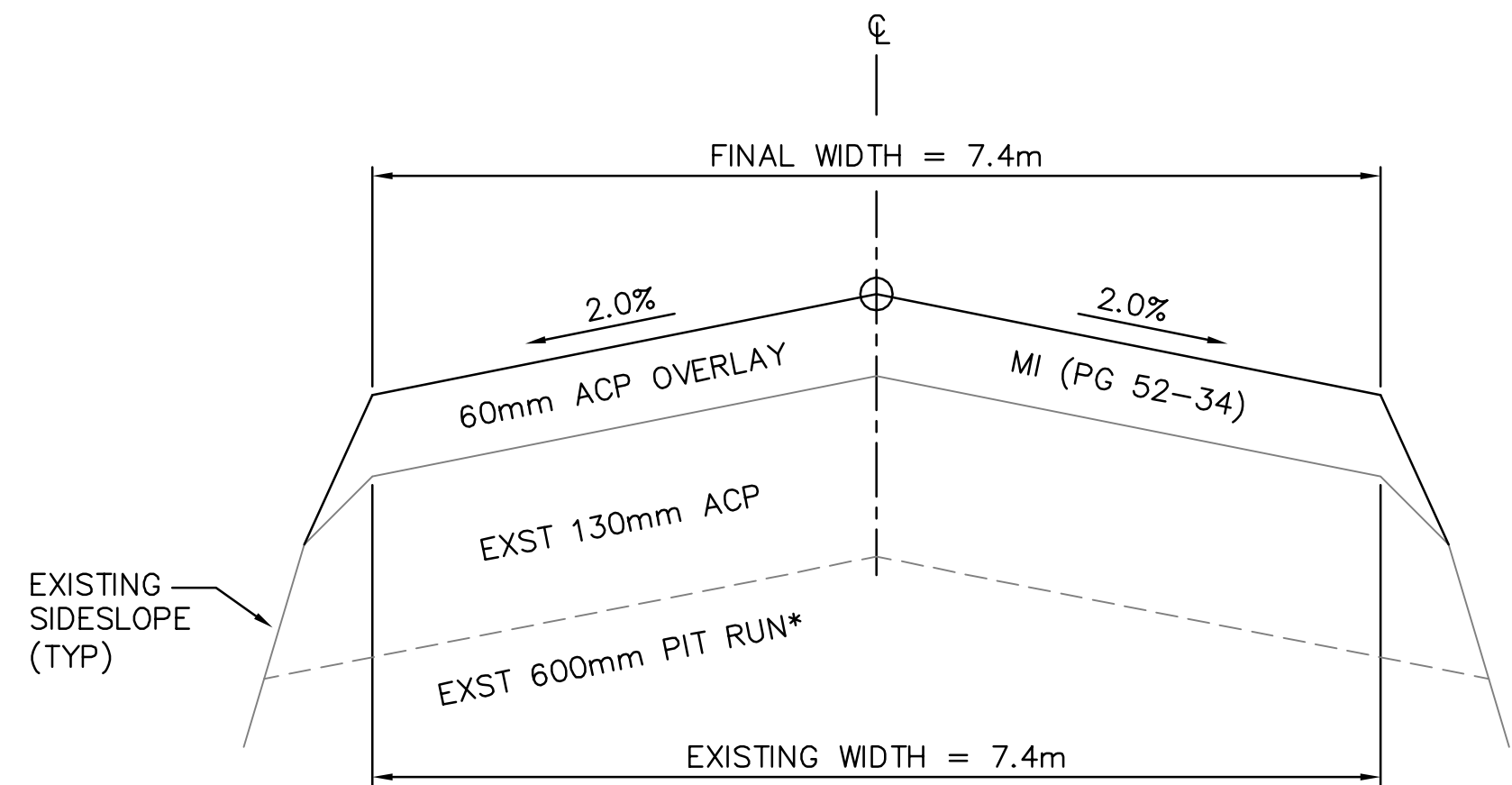
HIGHWAY 93A SOUTH km 200+000 - km 203+300



TYPICAL SECTION B3

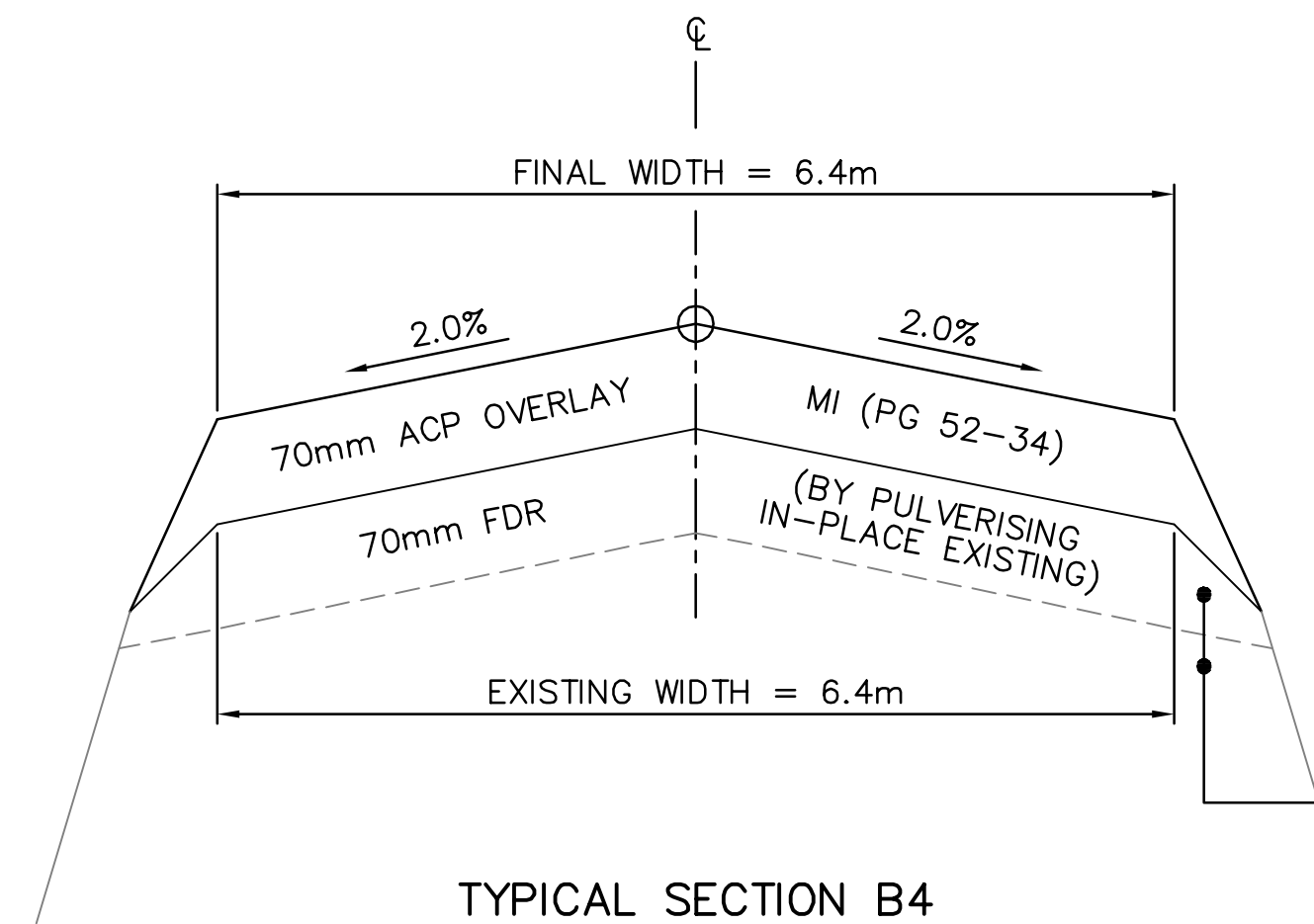
HIGHWAY 93A SOUTH km 205+240 - km 214+880

205+240 - 207+750  
EXST 130mm ACP  
EXST 600mm PIT RUN*  
207+750 - 214+880  
EXST 80mm ACP  
EXST 600mm PIT RUN*



TYPICAL SECTION B2

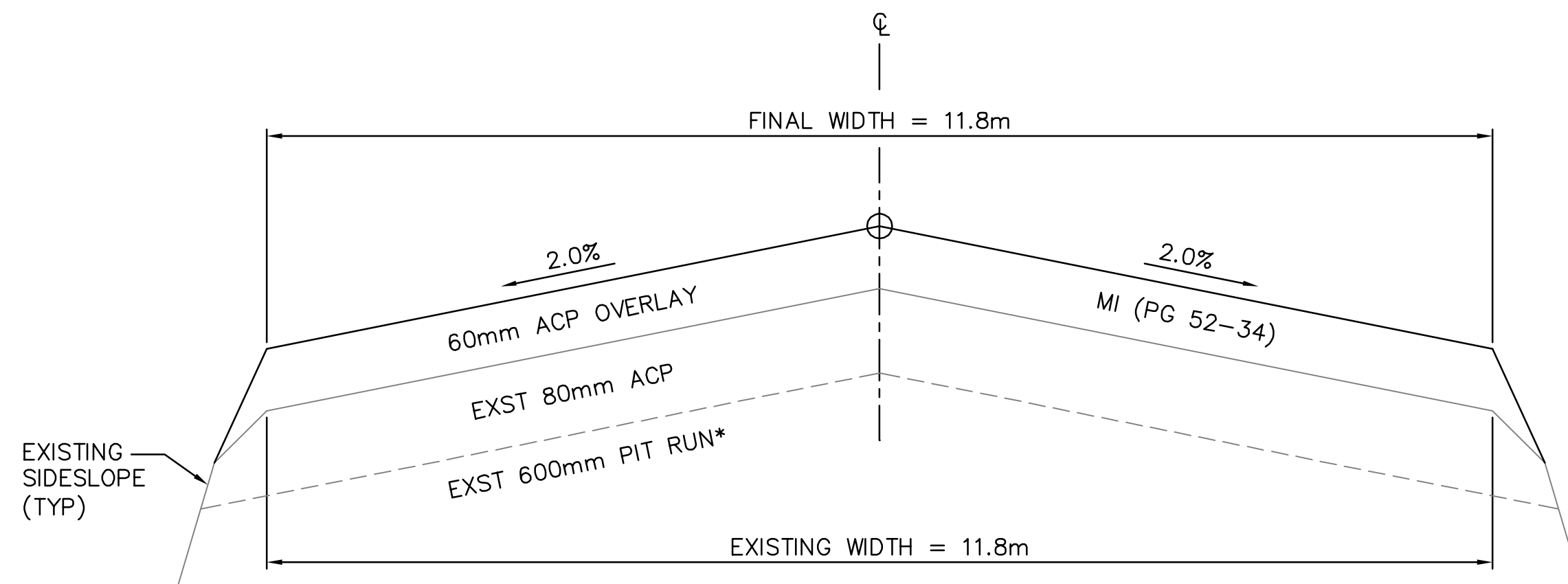
HIGHWAY 93A SOUTH km 203+300 - km 205+240



TYPICAL SECTION B4

HIGHWAY 93A SOUTH km 214+880 - km 223+385

EXST 70mm ACP  
EXST 600mm PIT RUN*

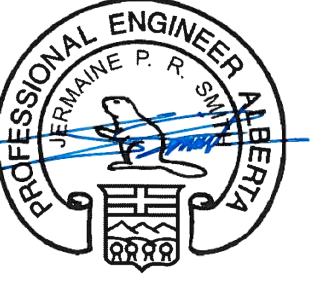


TYPICAL SECTION B5

HIGHWAY 93A SOUTH km 223+385 - km 223+876

* THE UNDERLYING BASE MATERIAL BENEATH THE BITUMINOUS LAYER WAS PRIMARILY SAND/GRAVEL MIXTURE (PIT RUN) OF VARYING THICKNESSES

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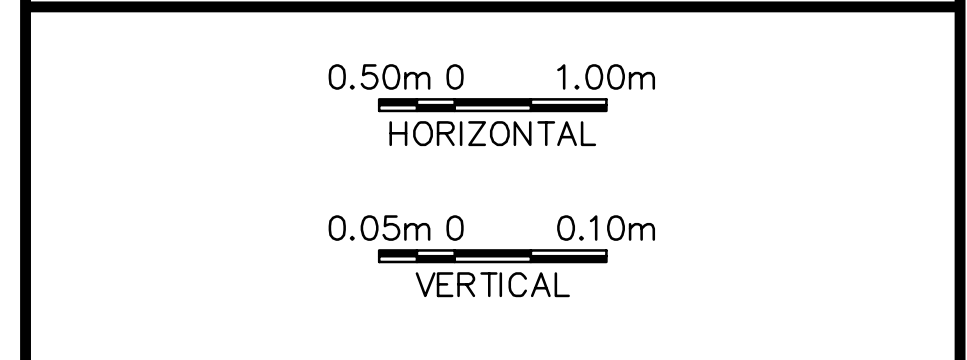


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No.	Date	Description	Drawn by Dessine par	Approved Approuve

Revision / Revision	
<div><div>A</div><div>B</div></div>	Detail number Sheet number A Numéro de détail B Numéro de la feuille
Linear dimensions in millimetres Dimensions linéaires en millimètres	
Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur

Parks Canada  
Strategic Asset  
Management,  
Western and Northern  
Region

Parcs Canada  
Gestion Stratégique  
des Biens,  
Région de l'ouest et  
du Nord



Project title/Titre du projet

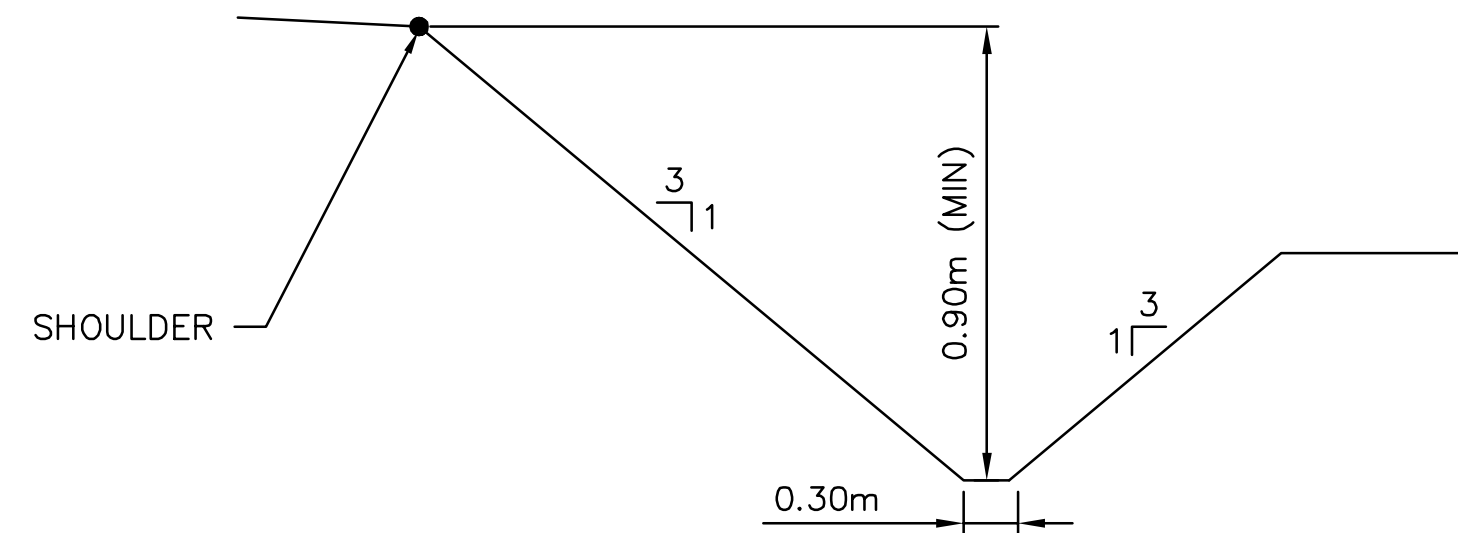
## JNP 4-6 ROADS REHAB 96% DETAILED DESIGN

Drawing title/Titre du dessin

## HWY 93A SECTIONS AND DETAILS

Surveyed by/Arpente par -	Drawn by/Dessine par DT	Date 2017-07-06
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Date		Date
Project No./N° du projet 60506644	Asset No./N° du bien -	Sheet No./N° de la feuille C214
Drawing Set No./N° de série du dessin -		

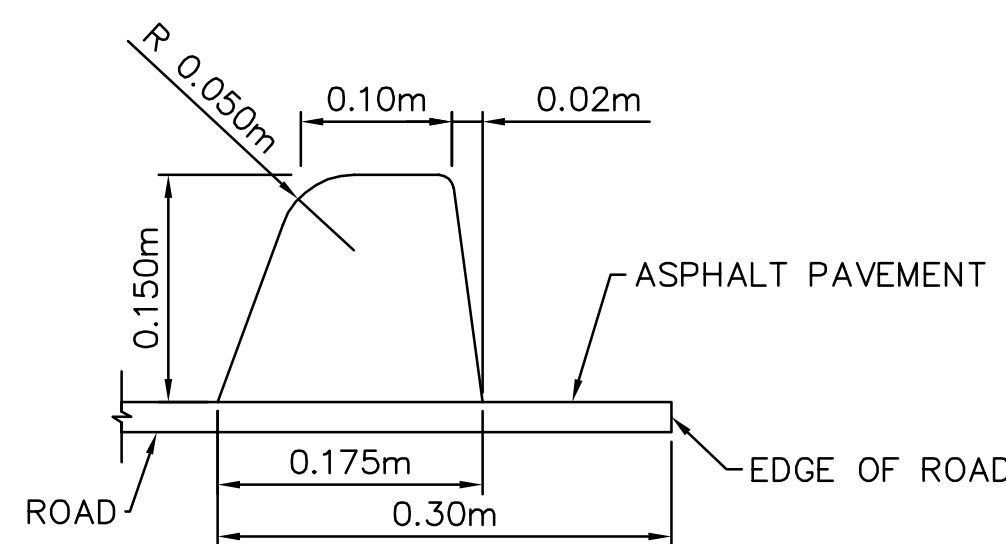




TYPICAL DITCHING SECTION

NTS

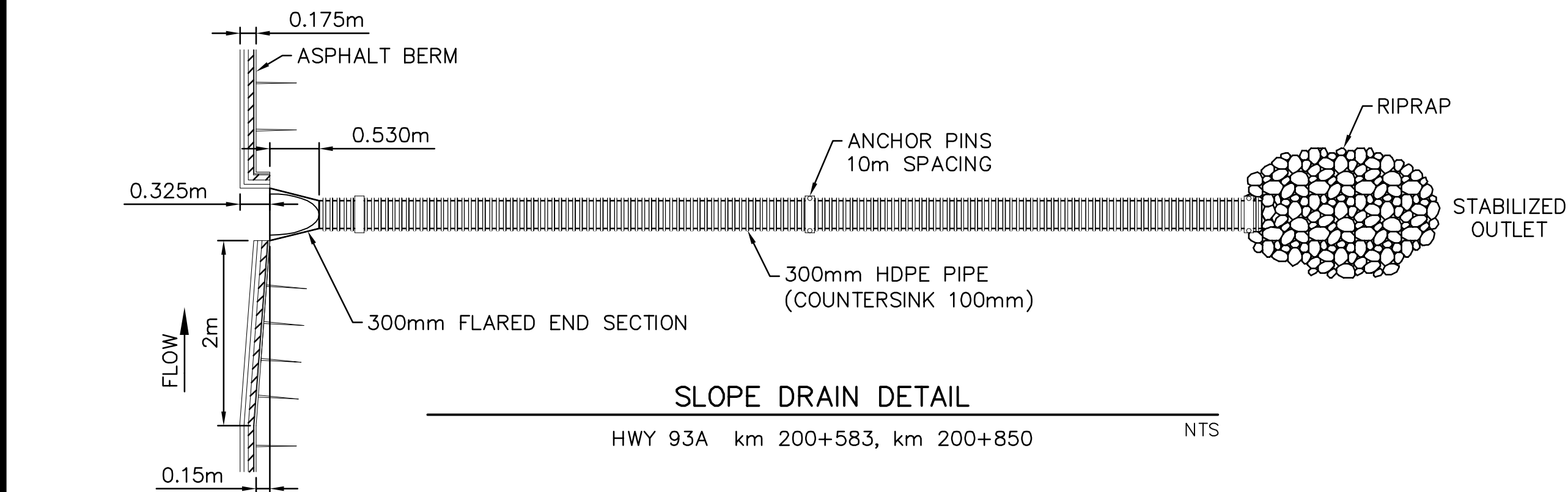
HWY 93  
km 211+216 - km 211+266 LT  
km 212+589 - km 212+649 LT  
km 212+591 - km 212+631 RT  
km 213+340 - km 213+397 LT  
km 215+453 - km 215+488 LT  
km 218+150 - km 218+190 RT  
km 222+149 - km 222+174 LT  
km 222+246 - km 222+286 RT



ASPHALT BERM DETAIL

HWY 93A km 200+580 - km 201+230

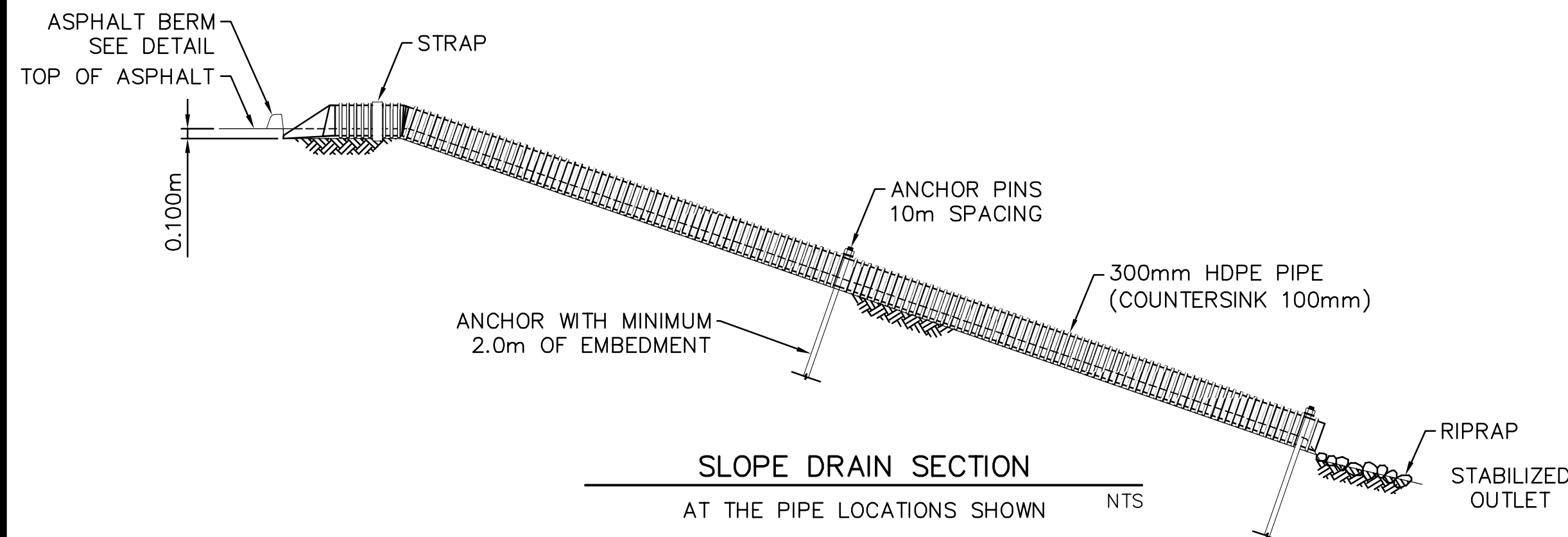
NTS



SLOPE DRAIN DETAIL

HWY 93A km 200+583, km 200+850

NTS

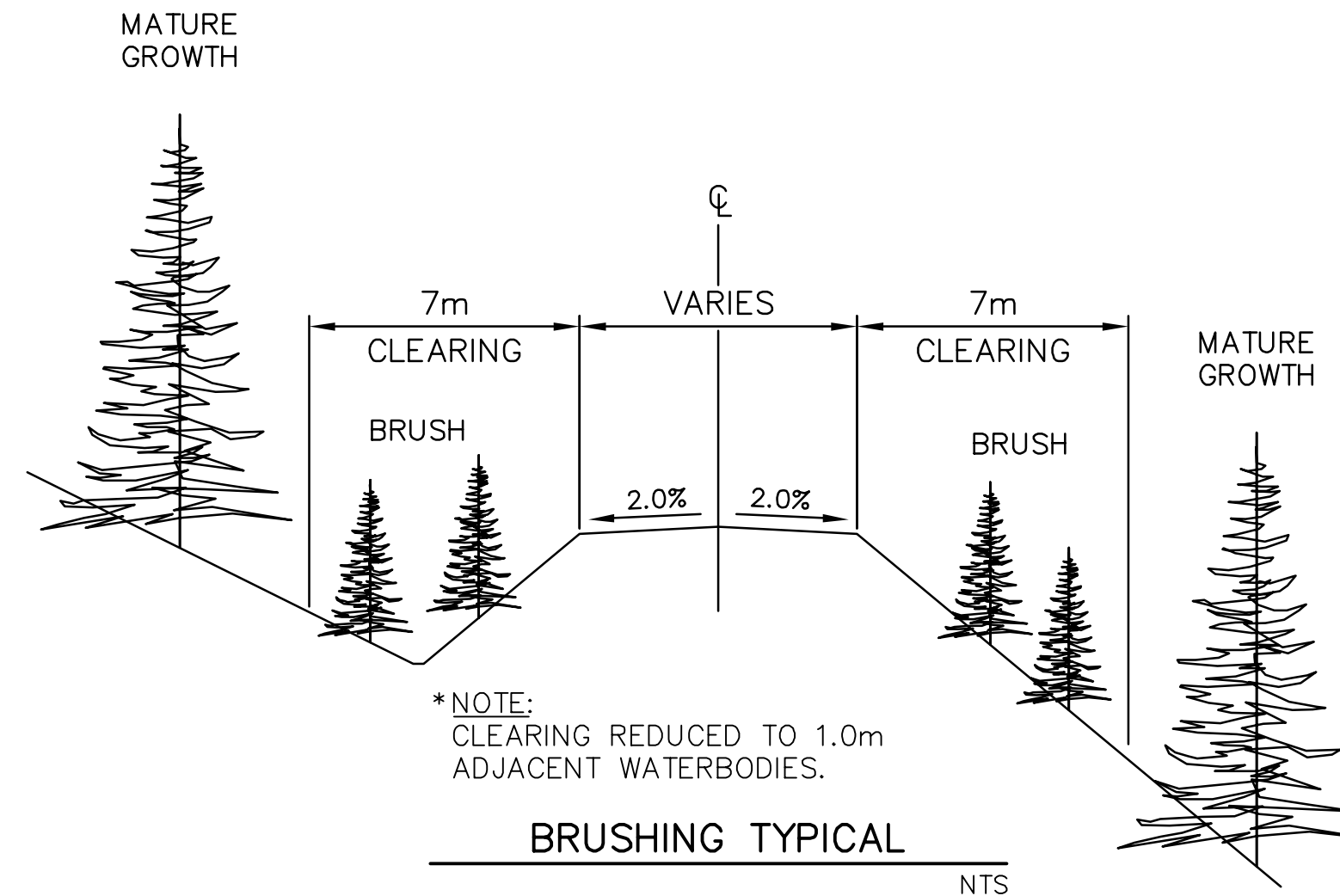


SLOPE DRAIN SECTION

AT THE PIPE LOCATIONS SHOWN

NTS

* THE UNDERLYING BASE MATERIAL BENEATH THE BITUMINIOUS LAYER WAS PRIMARILY SAND/GRAVEL MIXTURE (PIT RUN) OF VARYING THICKNESSES



HIGHWAY 93A CLOSE CUT CLEARING

FROM STATION (km)	TO STATION (km)	LEFT+RIGHT
200+500	200+520	RT
200+500	200+530	LT
201+210	201+270	RT
201+480	201+510	LT
201+840	201+890	RT
202+460	202+540	LT
202+560	202+630	LT
202+670	202+690	LT
202+710	202+940	LT
203+380	203+570	LT
203+800	203+850	LT
204+000	204+080	LT
204+170	204+190	LT
204+730	204+800	LT
204+730	204+800	RT
205+000	205+080	LT
205+180	205+280	LT
205+580	205+590	RT
205+850	206+000	LT
206+400	206+430	LT
206+580	206+900	LT
207+360	207+440	LT
207+520	207+580	RT
207+580	210+000	LT
207+580	211+000	RT
210+000	211+000	LT
211+100	211+250	RT
211+170	211+200	LT
211+600	211+740	LT
211+680	211+730	RT
211+700	212+060	LT
212+110	213+170	LT
212+770	213+300	RT
213+380	213+680	LT
213+400	213+940	LT
213+750	213+830	RT

ACP M1 MIX GRADATION

SIEVE DESIGNATION	PERCENT PASSING
12,500	100
10,000	83-92
5,000	55-70
1,250	26-45
630	18-38
315	12-30
160	8-20
80	4-10

HIGHWAY 93A BRUSH CLEARING

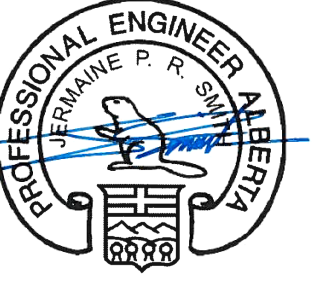
FROM STATION (km)	TO STATION (km)	LEFT+RIGHT
214+760	214+835	LT
214+880	214+930	LT
214+980	215+020	LT
217+150	217+220	RT
221+750	221+770	LT
222+340	222+460	LT
222+670	222+710	RT
223+230	223+260	LT

GBC 2-25 GRADATION

SIEVE DESIGNATION	PERCENT PASSING
25,000	100
20,000	82-97
16,000	70-94
10,000	52-79
5,000	35-64
1,250	18-43
630	12-34
315	8-26
160	5-18
80	2-10

SIEVE TABLES

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A	Detail number
B	Sheet number
Linear dimensions in millimetres	
Dimensions lineaires en millimetres	
Consultant's Name Nom de l'expert-conseil	
Eng. Stamp Sceau de l'ingenieur	

	Parks Canada Strategic Asset Management, Western and Northern Region	Parcs Canada Gestion Stratégique des Biens, Région de l'ouest et du Nord
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Canada
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Project title/Titre du projet
JNP 4-6 ROADS REHAB 96% DETAILED DESIGN

Drawing title/Titre du dessin		
HWY 93A SECTIONS AND DETAILS		
Surveyed by/Arpente par	Drawn by/Dessine par	Date
Designed by/Concept par	Reviewed by/Revisé par	Scale/Echelle
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Date		Date
Project No./N° du projet	Asset No./N° du bien	Sheet No./N° de la feuille
60506644	-	C215
Drawing Set No./N° de série du dessin		-

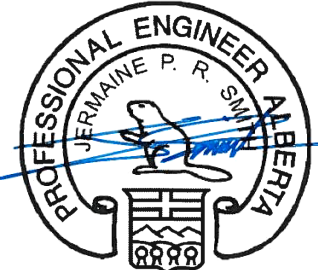
EXISTING CULVERT INVENTORY – 93A

CULVERT NAME	STATION	LOCATION	TYPE	SIZE (mm)	LENGTH (m)	ELEVATION			GRADE (%)	FLOW DIRECTION	COND.	REMARKS
						Lt W	PROP C/L	Rt E				
93A–C1	201+331	CENTRELINE	CSP	500	17.3	1138.462		1137.530	5.39%			OBVERT ELEVATIONS
93A–C2	201+583	CENTRELINE	CSP	500	14.0	1151.274		1150.788	3.47%			OBVERT ELEVATIONS
93A–C3	202+378	CENTRELINE	CSP	200?	?	?		?	?			
93A–C4	202+384	CENTRELINE	CSP	600	26.3	1166.800		1165.764	3.94%			OBVERT ELEVATIONS
93A–C5	202+505	CENTRELINE	CSP	500	13.2	1166.730		1166.453	2.10%			OBVERT ELEVATIONS
93A–C6	203+034	CENTRELINE	CSP	500	13.2	1159.018		1158.592	3.23%			OBVERT ELEVATIONS
93A–C7	204+093	CENTRELINE	CSP	700	13.7	1193.980		1193.403	4.21%			OBVERT ELEVATIONS
93A–C8	204+376	CENTRELINE	CSP	600	17.7	1200.103		1199.712	2.21%			OBVERT ELEVATIONS
93A–C9	204+636	CENTRELINE	CSP	?	13.6	1214.081		1213.534	4.02%			OBVERT ELEVATIONS
93A–C10	207+606	CENTRELINE	CSP	700	15.2	1095.454		1095.161	1.93%			OBVERT ELEVATIONS
93A–C11	209+709	CENTRELINE	CSP	450	13.4	1101.314		1101.271	0.32%			OBVERT ELEVATIONS
93A–C12	211+245	CENTRELINE	CSP	600	15.9	1107.846		1107.085	4.80%			OBVERT ELEVATIONS
93A–C13	212+611	CENTRELINE	CSP	900	15.5	1113.576		1112.801	5.00%			INVERT ELEVATIONS
93A–C14	212+861	CENTRELINE	CSP	500	12.6	1113.587		1113.429	1.25%			INVERT ELEVATIONS
93A–C15	213+361	CENTRELINE	CSP	450	13.5	1117.043		1116.755	2.13%			OBVERT ELEVATIONS
93A–C16	213+413	CENTRELINE	CSP	450	13.2	1117.615		1117.148	3.53%			OBVERT ELEVATIONS
93A–C17	215+473	CENTRELINE	CSP	600	16.0	1128.461		1128.136	2.03%			OBVERT ELEVATIONS
93A–C18	217+655	CENTRELINE	CSP	500	13.8	1169.871		1170.591	–5.21%			OBVERT ELEVATIONS
93A–C19	218+163	CENTRELINE	CSP	600	13.9	1192.465		1191.785	4.90%			OBVERT ELEVATIONS
93A–C20	218+957	CENTRELINE	CSP	600	13.3	1238.721		1239.276	–4.18%			OBVERT ELEVATIONS
93A–C21	219+318	CENTRELINE	CSP	600	13.2	1238.820		1239.313	–3.74%			OBVERT ELEVATIONS
93A–C22	220+708	CENTRELINE	CSP	400	13.0	1224.155		1224.248	–0.71%			OBVERT ELEVATIONS
93A–C23	221+585	CENTRELINE	CSP	400	13.1	1200.027		1200.092	–0.50%			OBVERT ELEVATIONS
93A–C24	221+949	CENTRELINE	CSP	600	12.8	1196.412		1195.866	4.25%			OBVERT ELEVATIONS
93A–C25	222+162	CENTRELINE	CSP	400	13.1	1190.413		1190.238	1.34%			OBVERT ELEVATIONS
93A–C26	222+262	CENTRELINE	CSP	600	12.5	1190.802		1190.627	1.40%			OBVERT ELEVATIONS
93A–C27	222+691	CENTRELINE	CSP	500	12.2	1175.219		1175.159	0.49%			OBVERT ELEVATIONS
93A–C28	222+950	CENTRELINE	CSP	400	13.1	1171.116		1170.390	5.56%			OBVERT ELEVATIONS
TOTAL LENGTH OF EXISTING CULVERTS =					388.3							

CULVERT REMOVAL – 93A

CULVERT NAME	STATION	LOCATION	TYPE	SIZE (mm)	LENGTH (m)	REMOVE, SALVAGE & RE-INSTALL				REMOVE & DISPOSE				REMARKS
						UP TO 700mm DIA.		OVER 700mm DIA.		UP TO 700mm DIA.		OVER 700mm DIA.		
						LT.	RT.	LT.	RT.	LT.	RT.	LT.	RT.	
93A—C7	204+093	CENTRELINE	CSP	700	13.7					6.9	6.9			BUCKLING AND HEAVING OF THE ROAD SURFACE
93A—C12	211+245	CENTRELINE	CSP	600	15.9					7.9	7.9			BUCKLING AND HEAVING OF THE ROAD SURFACE
93A—C13	212+611	CENTRELINE	CSP	900	15.5							7.8	7.8	BUCKLING AND HEAVING OF THE ROAD SURFACE
93A—C14	212+861	CENTRELINE	CSP	500	12.6					6.3	6.3			LOW COVER. DIP IN THE ROAD SURFACE
93A—C15	213+361	CENTRELINE	CSP	450	13.5					6.8	6.8			LOW COVER. DIP IN THE ROAD SURFACE
93A—C16	213+413	CENTRELINE	CSP	450	13.2					6.6	6.6			LOW COVER. DIP IN THE ROAD SURFACE
93A—C17	215+473	CENTRELINE	CSP	600	16.0					8.0	8.0			
93A—C18	217+655	CENTRELINE	CSP	500	13.8					6.9	6.9			
93A—C19	218+163	CENTRELINE	CSP	600	13.9					6.9	6.9			
93A—C20	218+957	CENTRELINE	CSP	600	13.3					6.6	6.6			
93A—C21	219+318	CENTRELINE	CSP	600	13.2					6.6	6.6			
93A—C22	220+708	CENTRELINE	CSP	400	13.0					6.5	6.5			
93A—C23	221+585	CENTRELINE	CSP	400	13.1					6.6	6.6			
93A—C24	221+949	CENTRELINE	CSP	600	12.8					6.4	6.4			
93A—C25	222+162	CENTRELINE	CSP	400	13.1					6.5	6.5			
93A—C26	222+262	CENTRELINE	CSP	600	12.5					6.2	6.2			LOW COVER. REPLACE WITH SMALLER CULVERT
93A—C27	222+691	CENTRELINE	CSP	500	12.2					6.1	6.1			
93A—C28	222+950	CENTRELINE	CSP	400	13.1					6.5	6.5			
										107.6	107.6	7.8	7.8	
TOTALS =					244.42					228.9		15.5		

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Date July 6, 2017  
PERMIT NUMBER: P10450  
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No.	Date	Description	Drawn by Dessine par	Approved Approuve

Revision / Revision

A

B

Detail number  
Sheet number

A

B

A Numéro de détail  
B Numéro de la feuille

Linear dimensions  
in millimetres

Dimensions linéaires  
en millimètres

Consultant's Name  
Nom de l'expert-conseil

Eng. Stamp  
Sceau de l'ingénieur

AECOM

Parks Canada  
Strategic Asset  
Management,  
Western and Northern  
Region

Parcs Canada

Gestion Stratégique  
des Biens,  
Région de l'Ouest et  
du Nord

Canada

Project title/Titre du projet

JNP 4-6 ROADS REHAB  
96% DETAILED DESIGN

Drawing title/Titre du dessin

HWY 93A  
CULVERT DATA  
TABLES

Surveyed by/Arpente par  
-

Drawn by/Dessine par  
DT

Date  
2017-07-06

Designed by/Concept par  
JS

Reviewed by/Revisé par  
DC

Scale/Echelle

Client Acceptance/Acceptation du client

Approved by/Approuvé par

Date

Date

Project No./N° du projet  
60506644

Asset No./N° du bien  
-

Sheet No./N° de la feuille

Drawing Set No./N° de série du dessin  
-

C216



CULVERT INSTALLATION – 93A

CULVERT NAME	STATION	LOCATION	TYPE	SIZE (mm)	STRAIGHT END INSTALL (m)		OPEN EXC. INSTALL (m)		SLOPED ENDS			INVERT LENGTHS (m)				CONTRACTOR SUPPLY OF MATERIAL (Y=YES)	HAND-LAID RIP-RAP REQ'S (Y=YES)				REMARKS
									LENGTH (m)		THICKNESS CLASS						INLET	OUTLET	INLET APRON	OUTLET APRON	
					LT.	RT.	LT.	RT.	LT.	RT.		EXIST	REMOVE	NEW	TOTAL						
93A-C29	204-093	CENTRELINE	CSP	600	1	1			6	6	1.6	13.7		14.0	14.0	Y	Y	Y	Y	Y	ROAD SURFACE DISTORTED
93A-C30	207-800	CENTRELINE	CSP	600	1	1			6	6	1.6			14.0	14.0	Y	Y	Y	Y	Y	ROAD SURFACE DISTORTED
93A-C31	210-400	CENTRELINE	CSP	600	1	1			6	6	1.6			14.0	14.0	Y	Y	Y	Y	Y	ROAD SURFACE DISTORTED
93A-C32	211+245	CENTRELINE	CSP	600	2	2			6	6	1.6	15.9		16.0	16.0	Y	Y	Y	Y	Y	BUCKLING AND HEAVING OF THE ROAD SURFACE
93A-C33	212+611	CENTRELINE	CSP	900	2	2			6	6	1.6	15.5		16.0	16.0	Y	Y	Y	Y	Y	BUCKLING AND HEAVING OF THE ROAD SURFACE
93A-C34	212+861	CENTRELINE	CSP	500	0.5	0.5			6	6	1.6	12.6		13.0	13.0	Y	Y	Y	Y	Y	LOW COVER. DIP IN THE ROAD SURFACE
93A-C35	213+361	CENTRELINE	CSP	500	1	1			6	6	1.6	13.5		14.0	14.0	Y	Y	Y	Y	Y	LOW COVER. DIP IN THE ROAD SURFACE
93A-C36	213+413	CENTRELINE	CSP	500	1	1			6	6	1.6	13.2		14.0	14.0	Y	Y	Y	Y	Y	LOW COVER. DIP IN THE ROAD SURFACE
93A-C37	215+473	CENTRELINE	CSP	600	2	2			6	6	1.6	16.0		16.0	16.0	Y	Y	Y	Y	Y	
93A-C38	217+655	CENTRELINE	CSP	500	1	1			6	6	1.6	13.8		14.0	14.0	Y	Y	Y	Y	Y	
93A-C39	218+163	CENTRELINE	CSP	600	1	1			6	6	1.6	13.9		14.0	14.0	Y	Y	Y	Y	Y	
93A-C40	218+957	CENTRELINE	CSP	600	1	1			6	6	1.6	13.3		14.0	14.0	Y	Y	Y	Y	Y	
93A-C41	219+318	CENTRELINE	CSP	600	1	1			6	6	1.6	13.2		14.0	14.0	Y	Y	Y	Y	Y	
93A-C42	220+708	CENTRELINE	CSP	400	1	1			6	6	1.6	13.0		14.0	14.0	Y	Y	Y	Y	Y	
93A-C43	221+585	CENTRELINE	CSP	400	1	1			6	6	1.6	13.1		14.0	14.0	Y	Y	Y	Y	Y	
93A-C44	221+949	CENTRELINE	CSP	600	1	1			6	6	1.6	12.8		14.0	14.0	Y	Y	Y	Y	Y	
93A-C45	222+162	CENTRELINE	CSP	600	1	1			6	6	1.6	13.1		14.0	14.0	Y	Y	Y	Y	Y	
93A-C46	222+262	CENTRELINE	CSP	500	0.5	0.5			6	6	1.6	12.5		13.0	13.0	Y	Y	Y	Y	Y	
93A-C47	222+691	CENTRELINE	CSP	400	0.5	0.5			6	6	1.6	12.2		13.0	13.0	Y	Y	Y	Y	Y	LOW COVER. REPLACE WITH SMALLER DIA. CULVERT
93A-C48	222+950	CENTRELINE	CSP	400	1	1			6	6	1.6	13.1		14.0	14.0	Y	Y	Y	Y	Y	
TOTAL =					43.0					240						283.0					

CHANNEL EXCAVATION CALCULATION – 93A

CULVERT NAME	STATION	LOCATION	TYPE	D	b	EXCAVATION ABOVE INVERT					L	UNDERCUT V2=2.4*D*L	TOTAL V1+V2	REMARKS
						L1	h	0.5 (b+L1)	7+D+2h	V1				
93A-C29	204-093	CENTRELINE	CSP	600	6.9	14	1.0	10.5	9.6	100	14.0	20	120.5	ROAD SURFACE DISTORTED
93A-C30	207-800	CENTRELINE	CSP	600	6.9	14	1.0	10.5	9.6	100	14.0	20	120.5	ROAD SURFACE DISTORTED
93A-C31	210-400	CENTRELINE	CSP	600	6.9	14	1.0	10.5	9.6	100	14.0	20	120.5	ROAD SURFACE DISTORTED
93A-C32	211+245	CENTRELINE	CSP	600	6.9	16	1.0	11.4	9.6	109	16.0	23	133.0	BUCKLING AND HEAVING OF THE ROAD SURFACE
93A-C33	212+611	CENTRELINE	CSP	900	6.9	16	1.5	11.2	10.9	183	16.0	34	221.8	BUCKLING AND HEAVING OF THE ROAD SURFACE
93A-C34	212+861	CENTRELINE	CSP	500	6.9	13	1.0	9.8	9.5	93	13.0	15	110.1	LOW COVER. DIP IN THE ROAD SURFACE
93A-C35	213+361	CENTRELINE	CSP	500	6.9	14	1.0	10.2	9.5	97	14.0	16	116.1	LOW COVER. DIP IN THE ROAD SURFACE
93A-C36	213+413	CENTRELINE	CSP	500	6.9	13	1.0	10.1	9.5	96	14.0	16	116.1	LOW COVER. DIP IN THE ROAD SURFACE
93A-C37	215+473	CENTRELINE	CSP	600	6.4	16	1.0	11.2	9.6	108	16.0	23	130.6	
93A-C38	217+655	CENTRELINE	CSP	500	6.4	14	1.0	10.1	9.5	96	14.0	17	113.7	
93A-C39	218+163	CENTRELINE	CSP	600	6.4	14	1.0	10.1	9.6	97	14.0	20	118.1	
93A-C40	218+957	CENTRELINE	CSP	600	6.4	13	1.0	9.8	9.6	94	14.0	19	118.1	
93A-C41	219+318	CENTRELINE	CSP	600	6.4	13	1.0	9.8	9.6	94	14.0	19	118.1	
93A-C42	220+708	CENTRELINE	CSP	400	6.4	13	1.0	9.7	9.4	91	14.0	12	109.3	
93A-C43	221+585	CENTRELINE	CSP	400	6.4	13	1.0	9.8	9.4	92	14.0	13	109.3	
93A-C44	221+949	CENTRELINE	CSP	600	6.4	13	1.0	9.6	9.6	92	14.0	18	118.1	
93A-C45	222+162	CENTRELINE	CSP	600	6.4	13	1.0	9.7	9.4	92	14.0	20	118.1	
93A-C46	222+262	CENTRELINE	CSP	500	6.4	12	1.0	9.4	9.5	90	13.0	15	107.8	
93A-C47	222+691	CENTRELINE	CSP	400	6.4	12	1.0	9.3	9.4	87	13.0	12	103.7	LOW COVER. REPLACE WITH SMALLER DIA. CULVERT
93A-C48	222+950	CENTRELINE	CSP	400	6.4	13	1.0	9.7	9.4	92	14.0	13	109.3	
TOTALS =											283.0		2432.5	

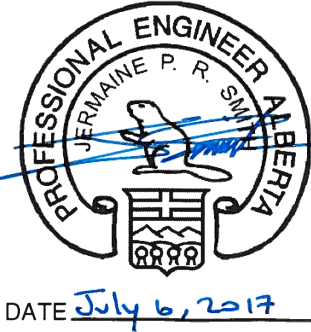
CHANNEL EXCAVATION = V1+V2  
= 0.5H*(7 + D +2H)*(B + L1) + 0.8*(3DL)  
V1 = EXCAVATION ABOVE INVERT. (m³)  
V2 = UNDERCUT FOR BEDDING (m³)

V1 = EXCAVATION ABOVE INVERT. (m³)  
V2 = UNDERCUT FOR BEDDING (m³)  
L1 = EMBANKMENT EXC LENGTH (m)  
L = NEW CULVERT LENGH (m)  
D = CULVERT DIAMETER (mm)

CULVERT BEDDING SUMMARY – 93A

CULVERT NAME	STATION	LOCATION	TYPE	SIZE (mm) DIA.	NEW INSTALL L (m)	GRAVEL BEDDING m³
93A-C29	204-093	CENTRELINE	CSP	600	14	11
93A-C30	207-800	CENTRELINE	CSP	600	14	11
93A-C31	210-400	CENTRELINE	CSP	600	14	11
93A-C32	211+245	CENTRELINE	CSP	600	16	13
93A-C33	212+611	CENTRELINE	CSP	900	16	21
93A-C34	212+861	CENTRELINE	CSP	500	13	8
93A-C35	213+361	CENTRELINE	CSP	500	14	9
93A-C36	213+413	CENTRELINE	CSP	500	14	9
93A-C37	215+473	CENTRELINE	CSP	600	16	13
93A-C38	217+655	CENTRELINE	CSP	500	14	9
93A-C39	218+163	CENTRELINE	CSP	600	14	11
93A-C40	218+957	CENTRELINE	CSP	600	14	11
93A-C41	219+318	CENTRELINE	CSP	600	14	11
93A-C42	220+708	CENTRELINE	CSP	400	14	7
93A-C43	221+585	CENTRELINE	CSP	400	14	7
93A-C44	221+949	CENTRELINE	CSP	600	14	11
93A-C45	222+162	CENTRELINE	CSP	600	14	10
93A-C46	222+262	CENTRELINE	CSP	500	13	8
93A-C47	222+691	CENTRELINE	CSP	400	13	6
93A-C48	222+950	CENTRELINE	CSP	400	14	7
TOTALS =					283.0	204

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Signature *Paul Davis*  
Date July 06, 2017  
PERMIT NUMBER: P10450  
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No.	Date	Description	Drawn by Dessiné par	Approved Approuvé

Revision / Revision

<div>A</div> <div>B</div>	Detail number Sheet number	A Numéro de détail B Numéro de la feuille
Linear dimensions In millimètres		Dimensions linéaires en millimètres
Consultant's Name Nom de l'expert-conseil		Eng. Stamp Sceau de l'ingénieur
<b>AECOM</b>		

	Parks Canada Strategic Asset Management, Western and Northern Region	Parcs Canada Gestion Stratégique des Biens, Région de l'ouest et du Nord
<b>Canada</b>		

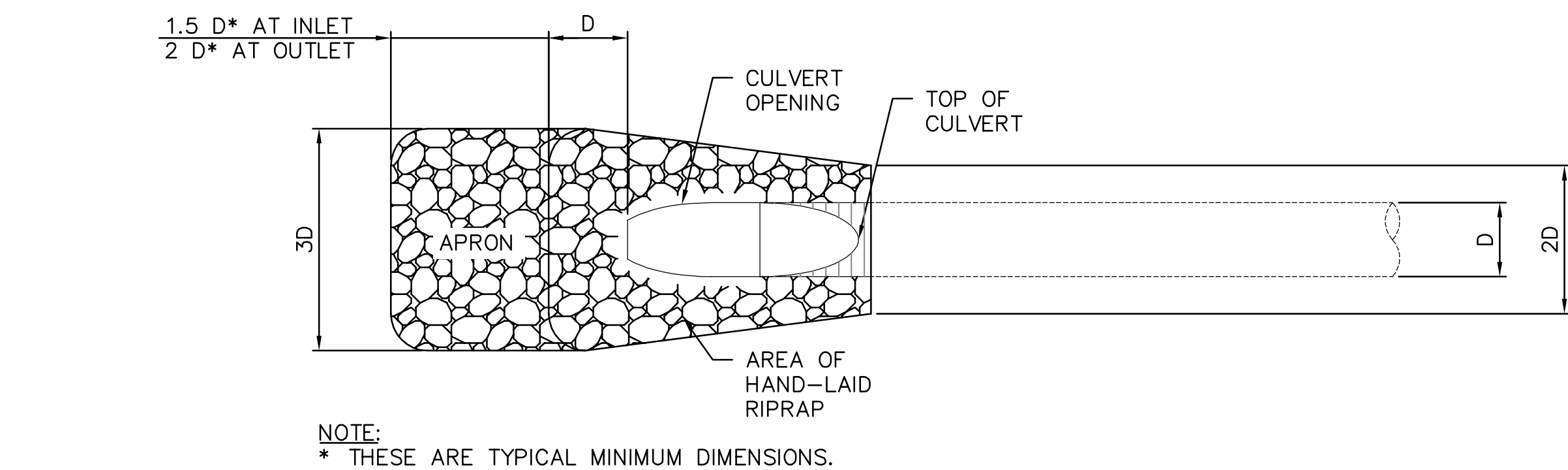
Project title/Titre du projet

**JNP 4-6 ROADS REHAB  
96% DETAILED DESIGN**

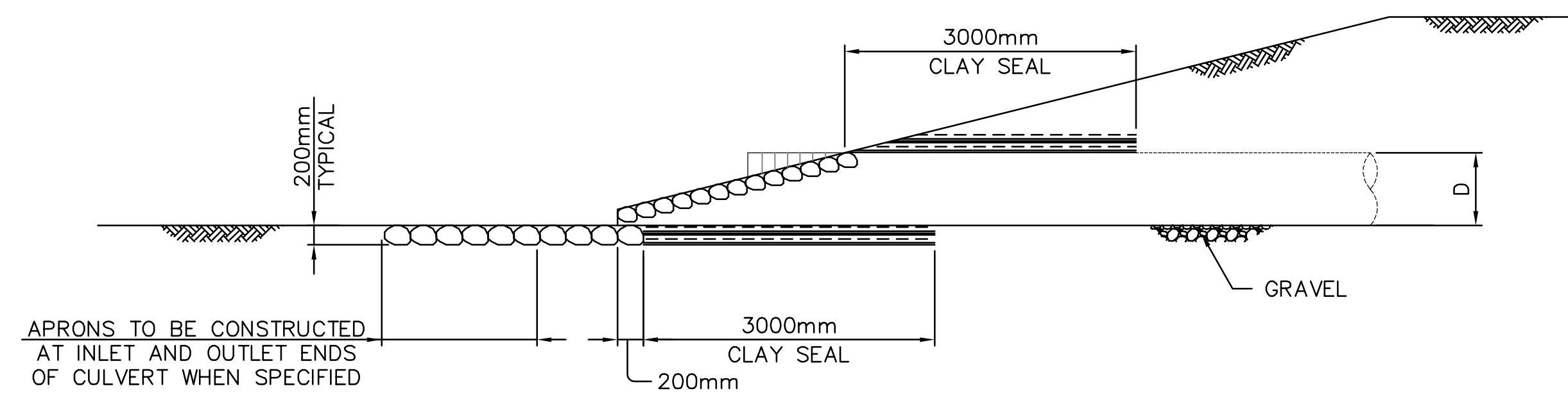
Drawing title/Titre du dessin

**HWY 93A  
CULVERT DATA  
TABLES**

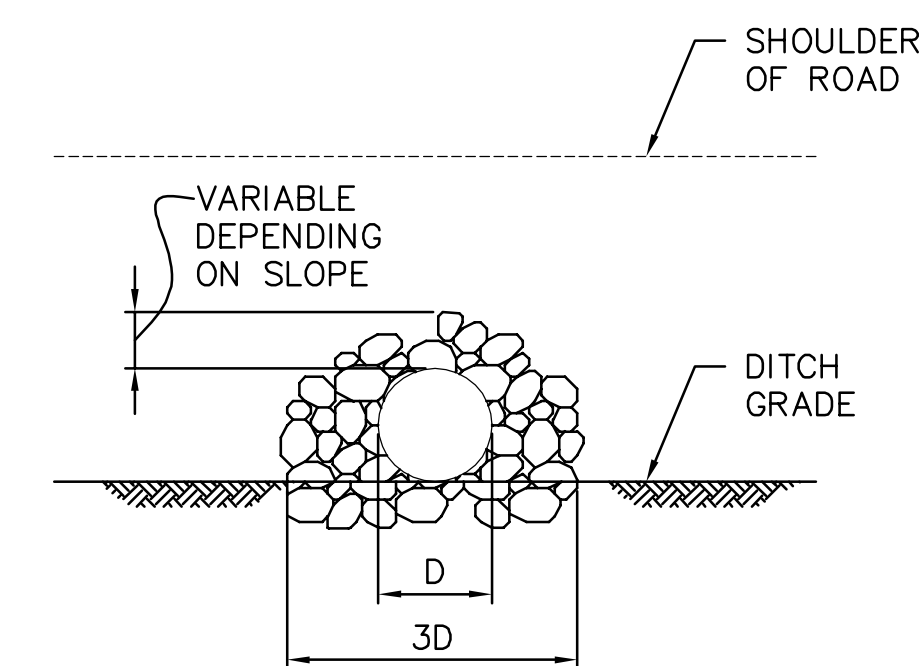
Surveyed by/Arpente par -	Drawn by/Dessiné par DT	Date 2017-07-06
Designed by/Concept par JS	Reviewed by/Revisé par DC	Scale/Echelle
Client Acceptance/Acceptation du client		Approved by/Approuvé par
Date		Date
Project No./Nº du projet 60506644	Asset No./Nº du bien -	Sheet No./ Nº de la feuille
Drawing Set No./Nº de série du dessin -		<b>C217</b>



PLAN

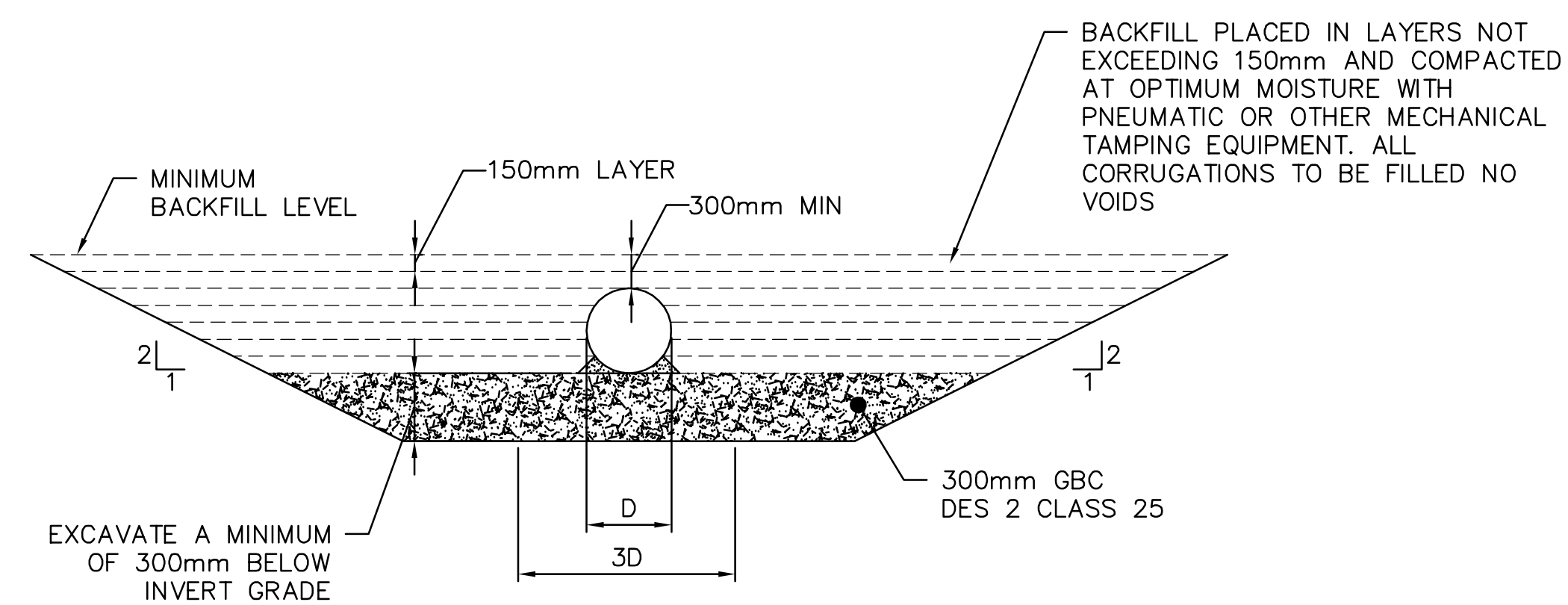


ELEVATION



SECTION

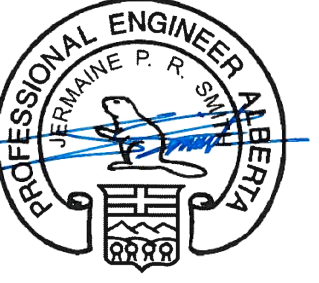
HANDLAID RIPRAP  
ROCK OR SACKED MATERIAL



EXCAVATION, CULVERT BASE AND BACKFILLING

NTS

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AECOM CANADA LTD.  
Signature: *[Signature]*  
Date: *July 6, 2017*  
PERMIT NUMBER: P10450  
The Association of Professional Engineers and Geoscientists of Alberta



DATE *July 6, 2017*

1	17.07.06	ISSUED FOR TENDER	DT	JS
No.	Date	Description	Drawn by Dessine par	Approved Approuve

Revision / Revision	
A	Detail number
B	Sheet number
Linear dimensions In millimetres	
Dimensions linéaires en millimètres	
Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
<b>AECOM</b>	

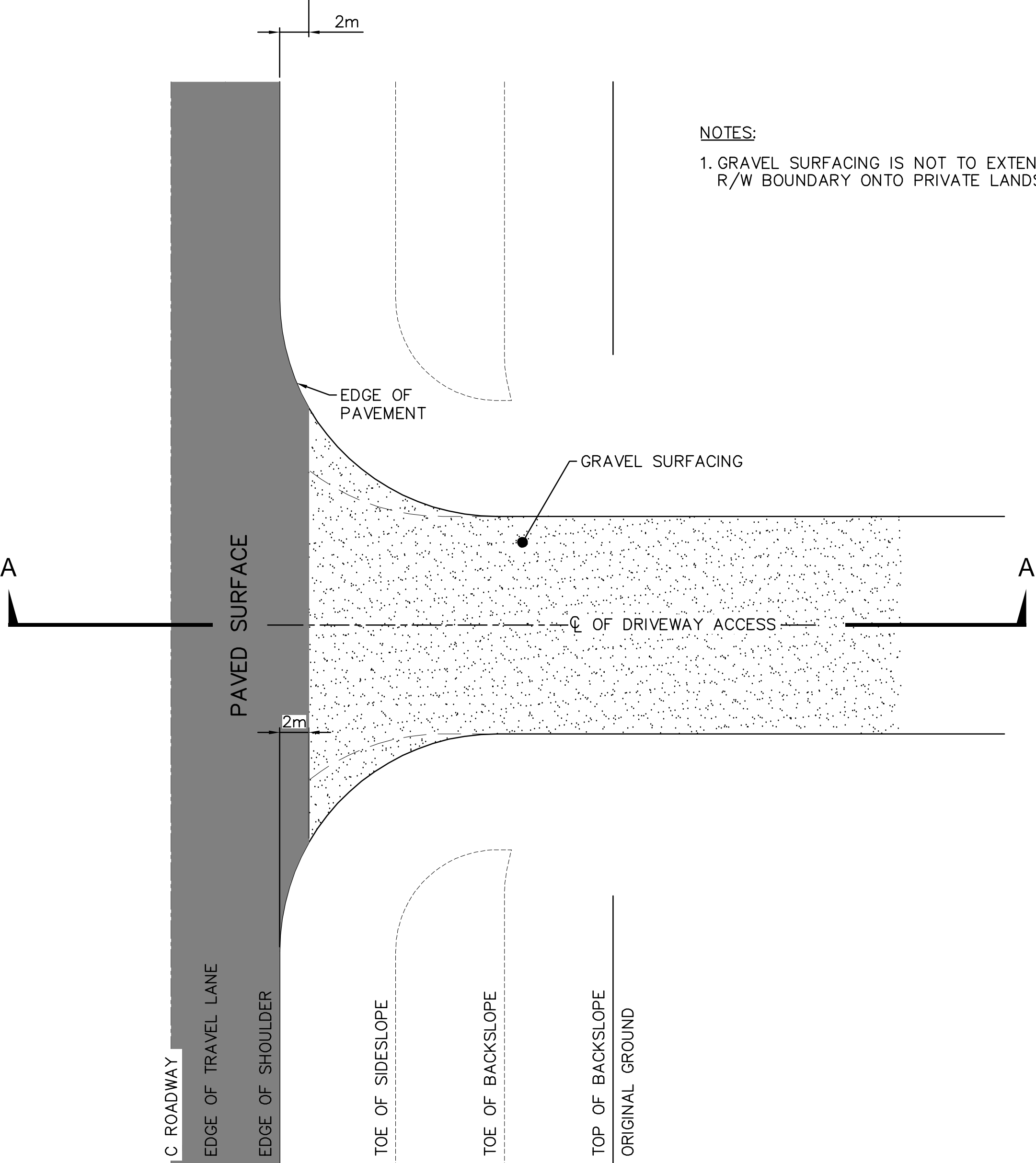
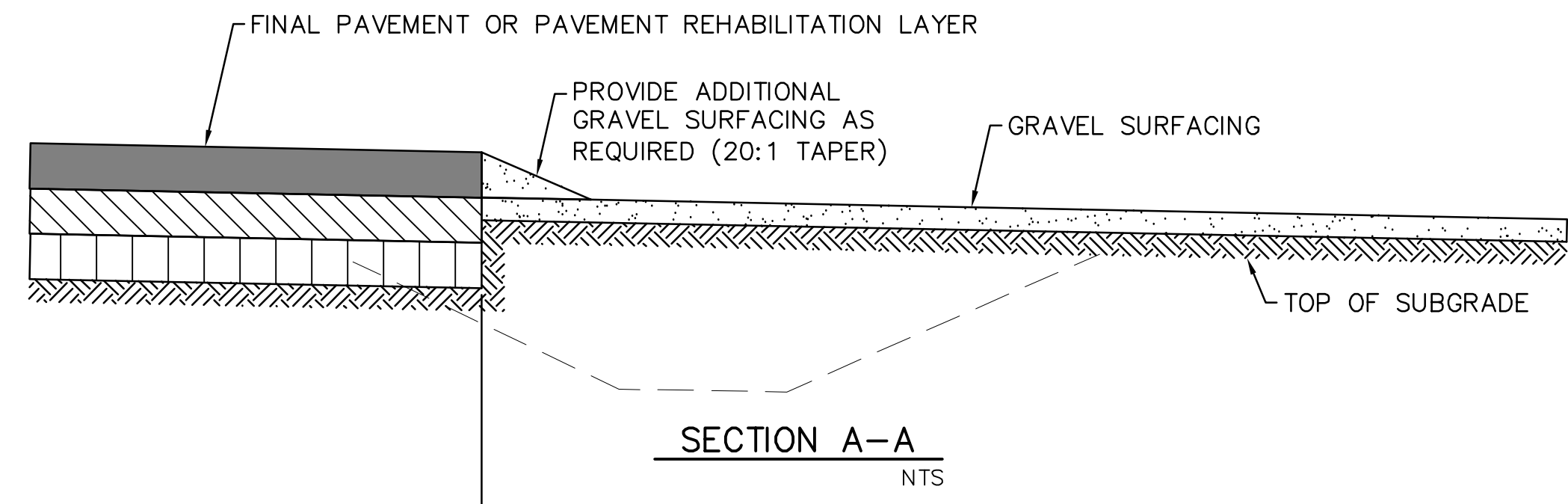
	Parks Canada Strategic Asset Management, Western and Northern Region	Parcs Canada Gestion Stratégique des Biens, Région de l'Ouest et du Nord
<b>Canada</b>		

Project title/Titre du projet  
**JNP 4-6 ROADS REHAB  
96% DETAILED DESIGN**

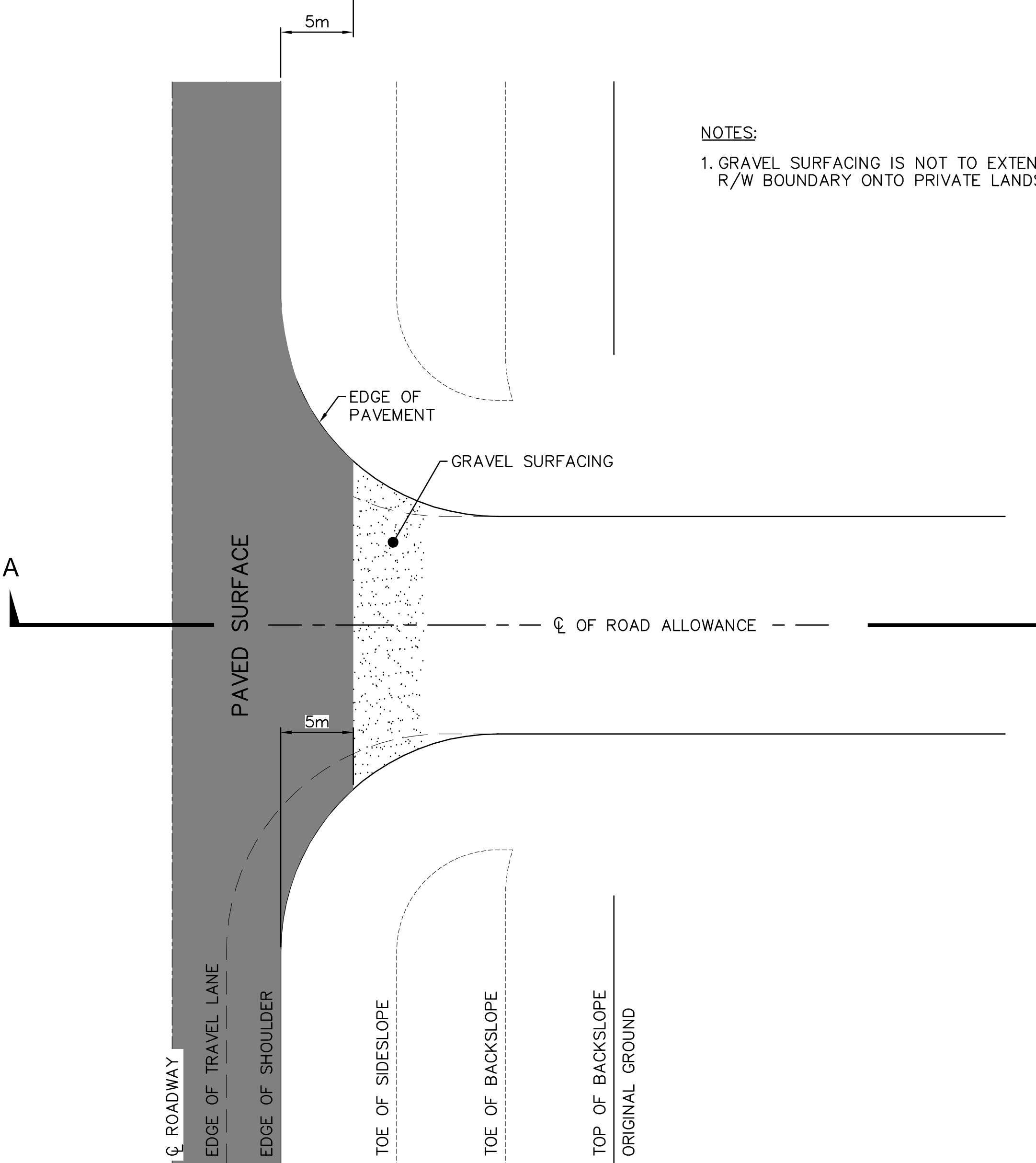
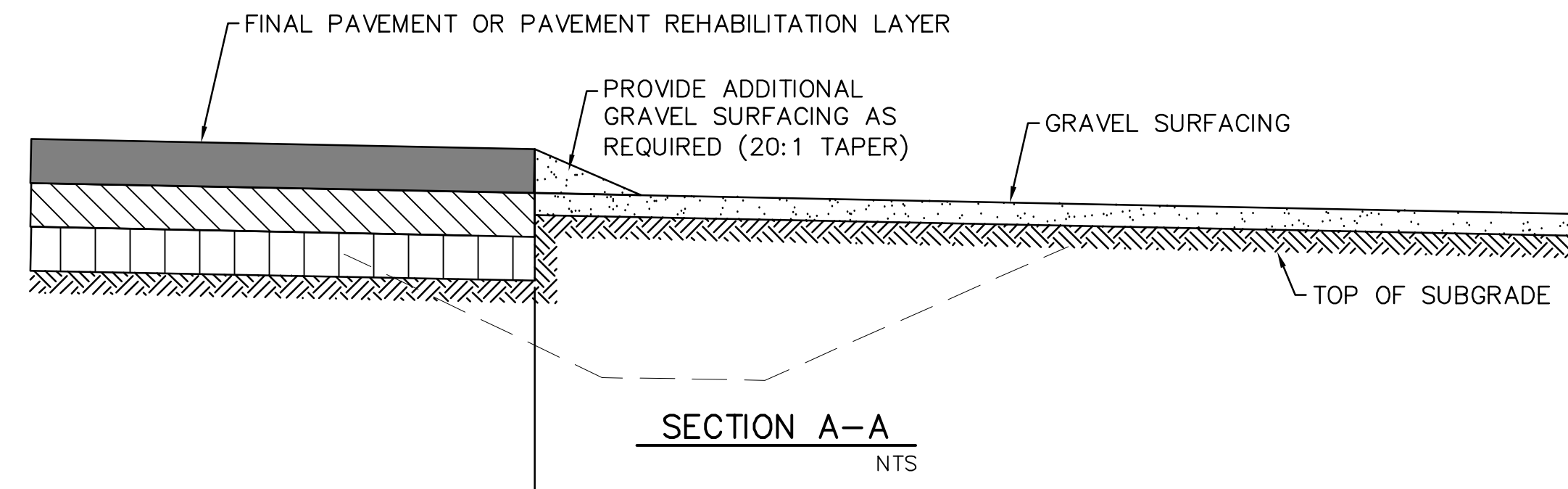
Drawing title/Titre du dessin  
**HWY 93A  
CULVERT DETAILS**

Surveyed by/Arpente par -	Drawn by/Dessine par DT	Date 2017-07-06
Designed by/Concept par JS	Reviewed by/Revisé par DC	Scale/Echelle
Client Acceptance/Acceptation du client		Approved by/Approuve par
Date		Date
Project No./N° du projet 60506644	Asset No./N° du bien -	Sheet No./ N° de la feuille
Drawing Set No./N° de série du dessin -		<b>C218</b>



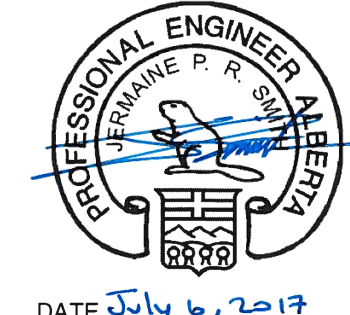


PAVING LIMITS OF DRIVEWAY ACCESSES AT  
TIME OF PAVEMENT REHABILITATION



PAVING LIMITS OF INTERSECTING ROADWAYS AT  
TIME OF PAVEMENT REHABILITATION

PERMIT TO PRACTICE  
AECOM CANADA LTD.  
Signature *[Signature]*  
Date *July 6, 2017*  
PERMIT NUMBER: P10450  
The Association of Professional  
Engineers and Geoscientists of Alberta



1	17.07.06	ISSUED FOR TENDER	DT	JS
No.	Date	Description	Drawn by Dessine par	Approved Approuve

Revision / Revision	
A	Detail number
B	Sheet number
A Numéro de détail	
B Numéro de la feuille	

Linear dimensions In millimetres	Dimensions linéaires en millimètres
-------------------------------------	----------------------------------------

Consultant's Name Nom de l'expert-conseil	Eng. Stamp Sceau de l'ingénieur
<b>AECOM</b>	

Parks Canada Strategic Asset Management, Western and Northern Region	Parcs Canada Gestion Stratégique des Biens, Région de l'ouest et du Nord
<b>Canada</b>	

Project title/Titre du projet  
**JNP 4-6 ROADS REHAB  
96% DETAILED DESIGN**

Drawing title/Titre du dessin  
**HWY 93A  
PAVING LIMITS**

Surveyed by/Arpente par -	Drawn by/Dessine par DT	Date 2017-07-06
Designed by/Concept par JS	Reviewed by/Revisé par DC	Scale/Echelle
Client Acceptance/Acceptation du client		Approved by/Approuvé par
Date		Date
Project No./N° du projet 60506644	Asset No./N° du bien -	Sheet No./ N° de la feuille
Drawing Set No./N° de série du dessin -		<b>C219</b>