



Parks Canada

Strategic Asset  
Management,  
Western and Northern  
Region

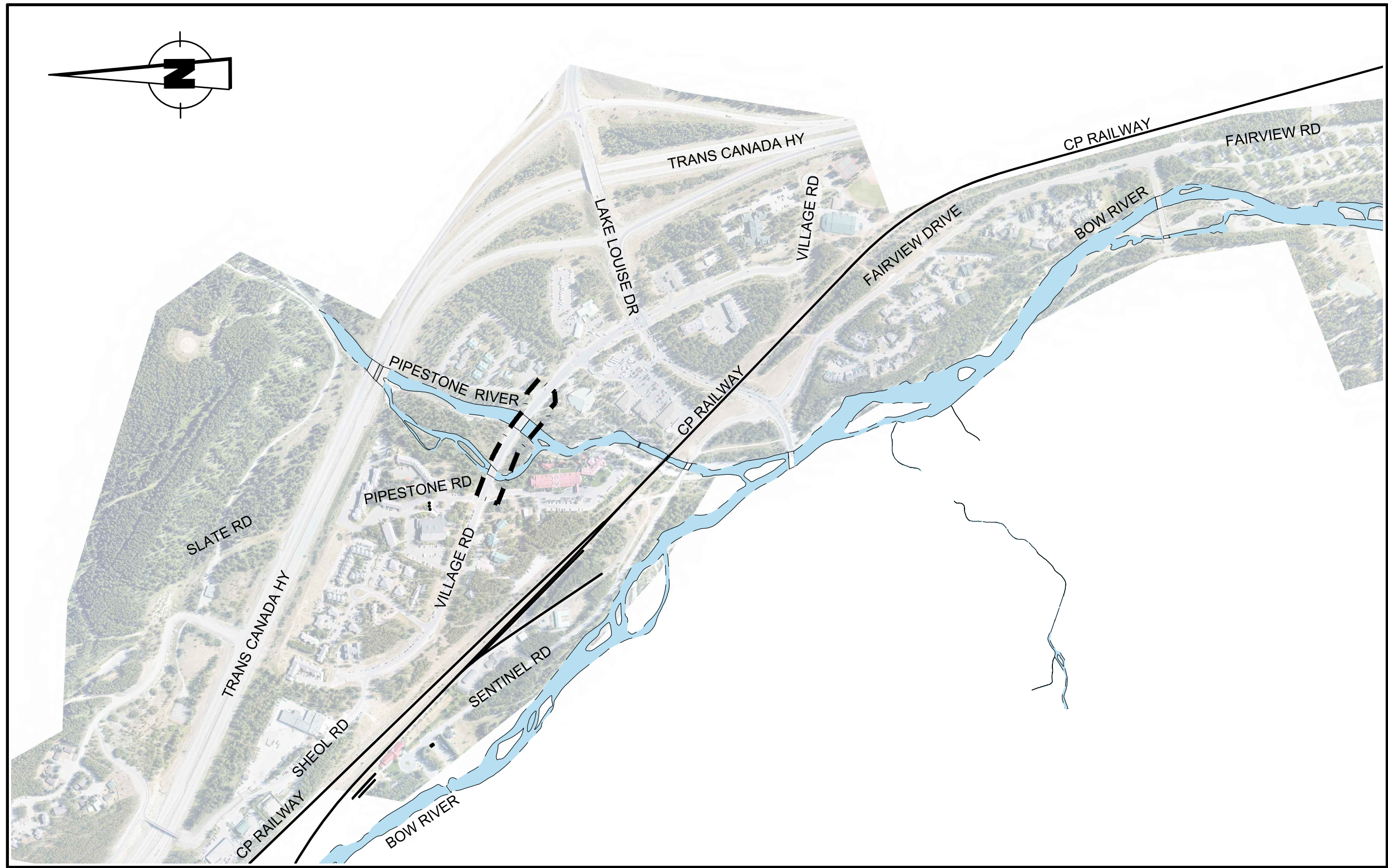
Parcs Canada

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

Canada

LAKE LOUISE TOWNSITE PHASE 3  
2018 WATER & SEWER UPGRADES  
BANFF NATIONAL PARK

CONSULTANT PROJECT No. 181-13597-14  
DATE: 2020AUG18



SITE LOCATION PLAN  
SCALE 1:7500

CIVIL DRAWING INDEX	
DWG No.	DRAWING TITLE
C100	TITLE SHEET & INDEX
C101	OVERALL SITE LOCATION PLAN
C102	PIPESTONE RIVER BRIDGE CROSSING SITE PLAN
DETAILS & ADDITIONAL INFORMATION	
DWG No.	DRAWING TITLE
C103	UNDERGROUND DETAILS (TYPICAL)
C104	SLIDE TYPE CASING SUPPORT DETAILS
C105	ABOVE GROUND & PRE-INSULATED PIPE DETAILS
C106	SURFACE DETAILS (TYPICAL)
C107	BOREHOLE LOCATION PLAN & BOREHOLE LOGS

STRUCTURAL DRAWING INDEX	
DWG No.	DRAWING TITLE
S101	PIPESTONE RIVER BRIDGES PROPOSED WORK GENERAL ARRANGEMENT
S102	PIPESTONE RIVER BRIDGES PROPOSED WORK STEEL DETAILS
S103	PIPESTONE RIVER BRIDGES PROPOSED WORK LAYOUT AND ANCHOR DETAILS

ELECTRICAL DRAWING INDEX	
DWG No.	DRAWING TITLE
E101	ELECTRICAL SITE PLAN



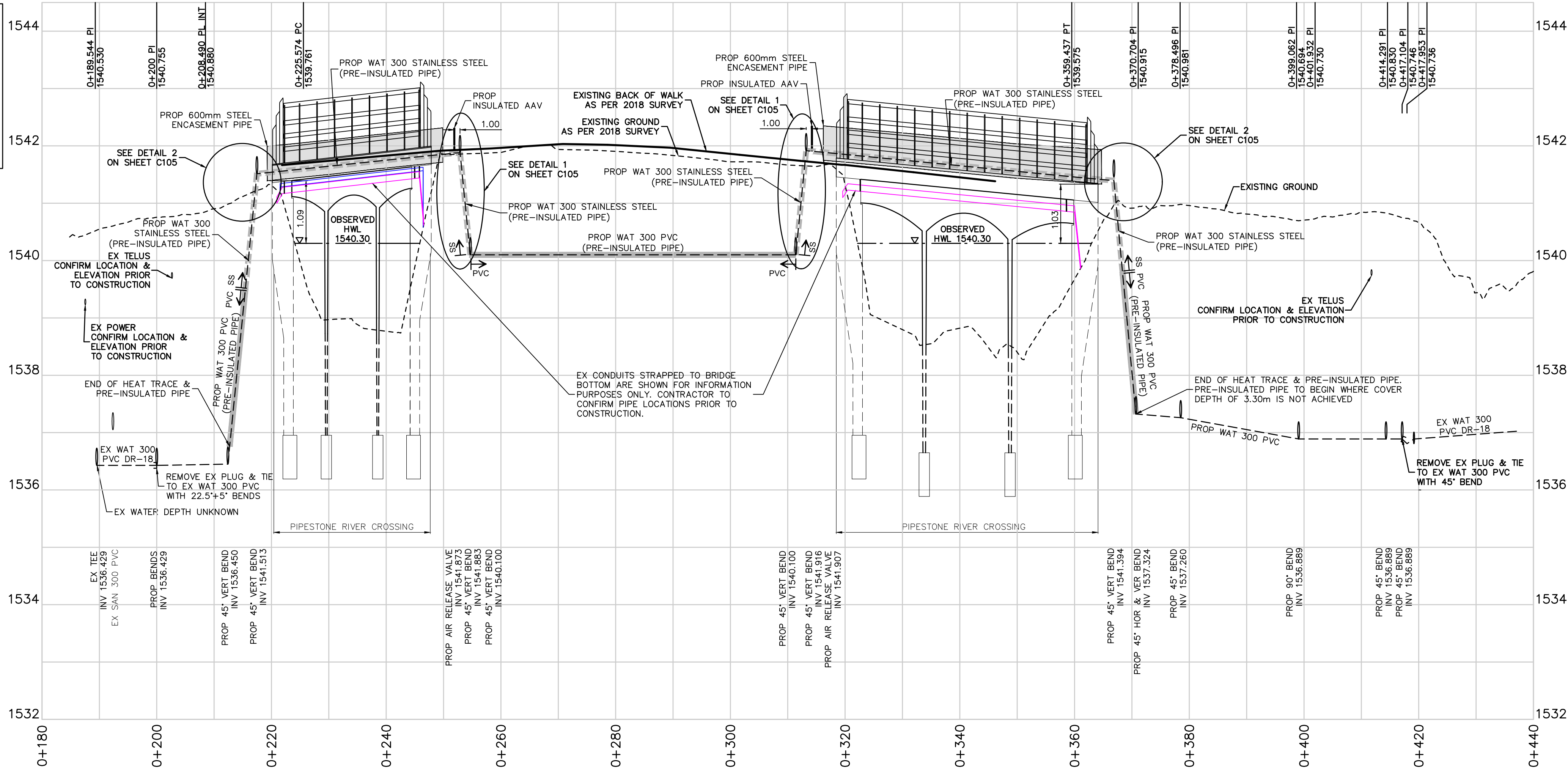
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729 10 Street, Suite 203  
Canmore, AB, Canada T1W 2A3  
t:403.678.3500 | f:403.678.3501  
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- NOTES**
1. CONTRACTOR IS TO SUPPLY ANY REQUIRED POTABLE WATER BYPASSES FOR THE WORK.
  2. PIPE RESTRAINTS TO BE TO THE PIPE PRESSURE RATING 150 PSI.
  3. INSTALLED WATERMAIN TESTS ARE AS PER SPECIFICATION.
  4. PRECAST BARRIERS SHALL BE PRECAST 'F' SHAPE BARRIER NCHRP 350 TEST LEVEL 3 AS DETAILED ON ALBERTA TRANSPORTATION DRAWING No. CB6 4.2 M 16.
  5. FOR INSULATED PIPE:  
5.1. STAINLESS STEEL PIPING TO HAVE TWO HEAT TRACE CABLES.  
5.2. PVC PIPING TO HAVE ONE HEAT TRACE CABLE.



**LEGEND**

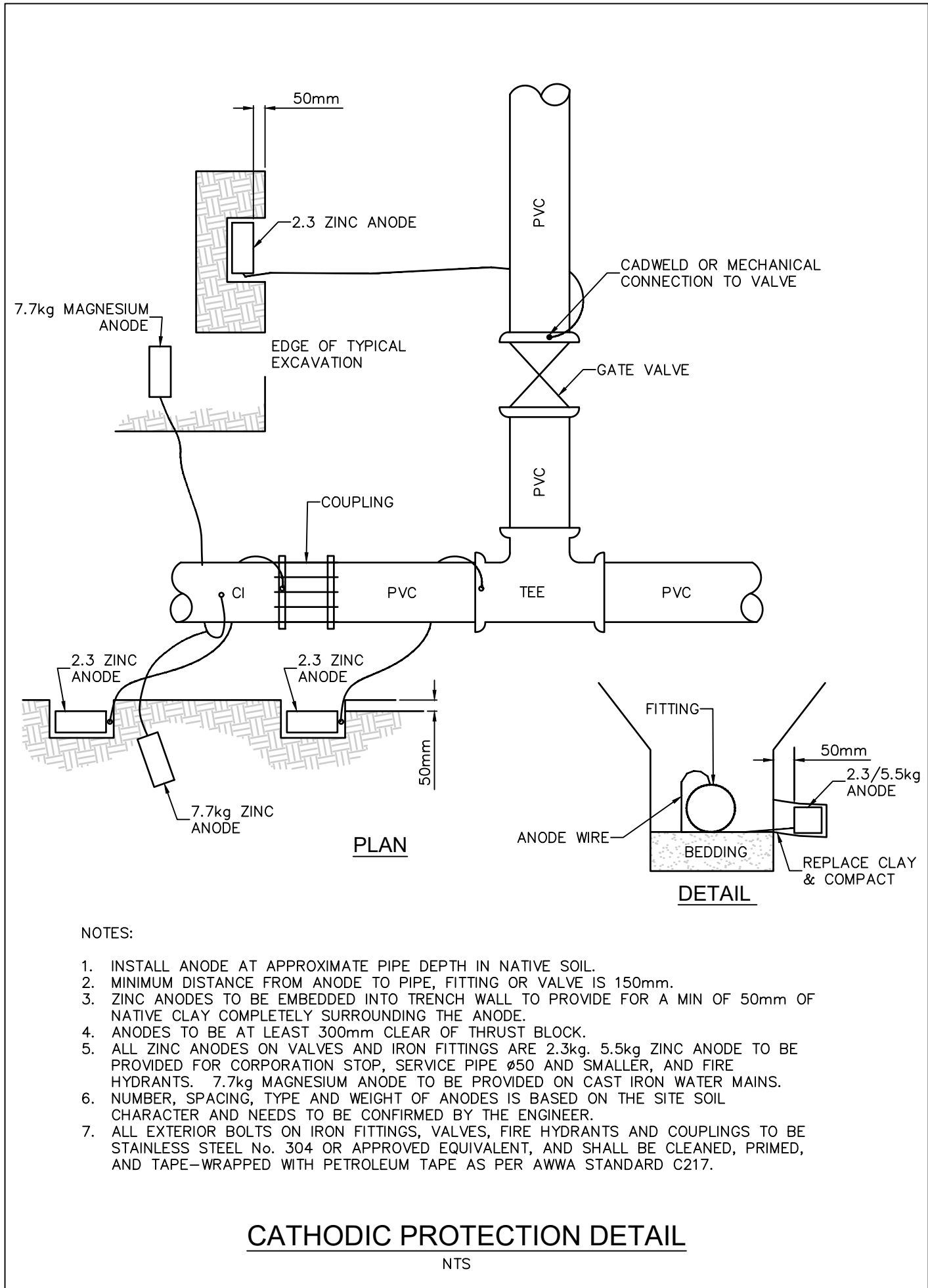
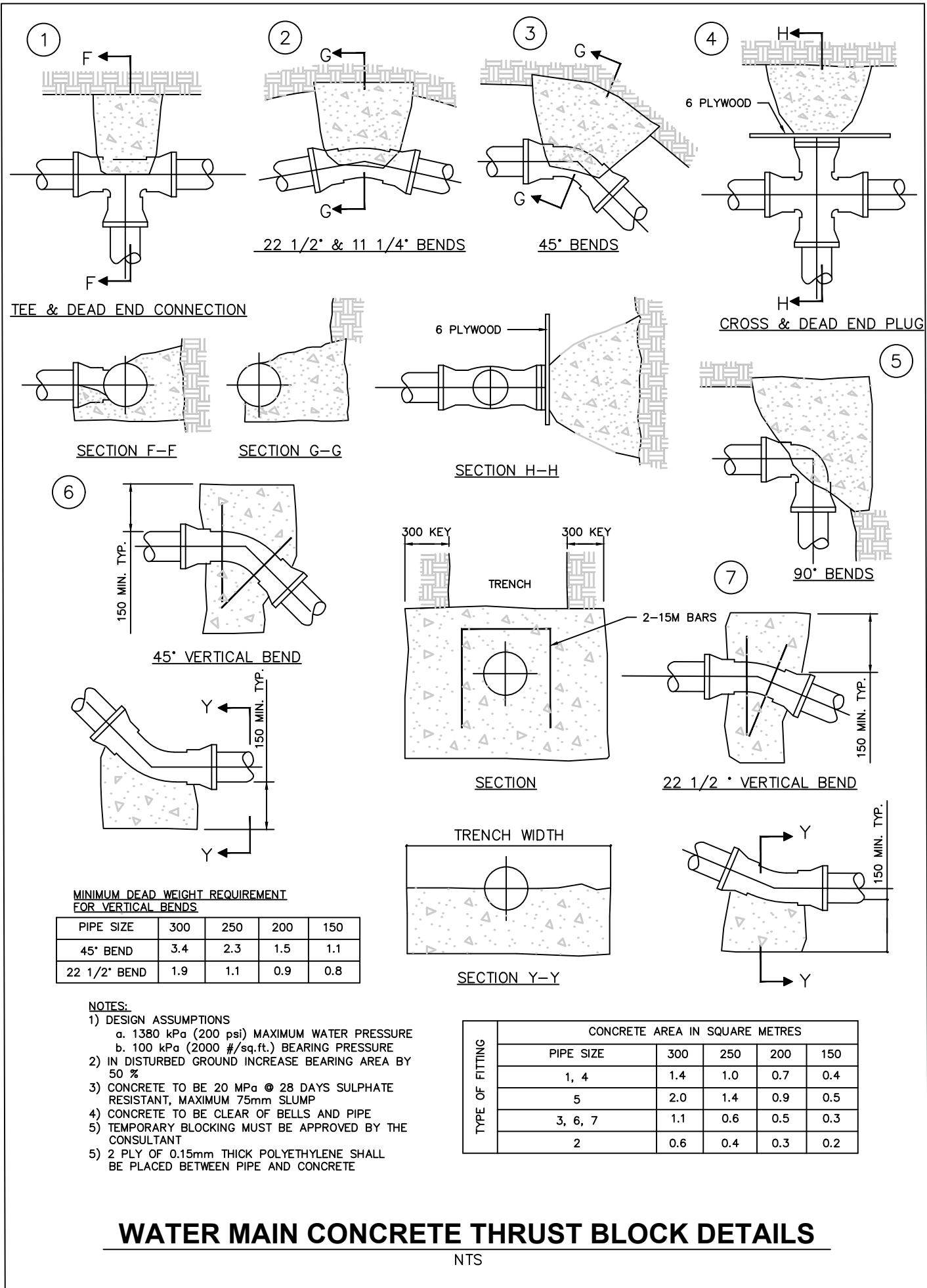
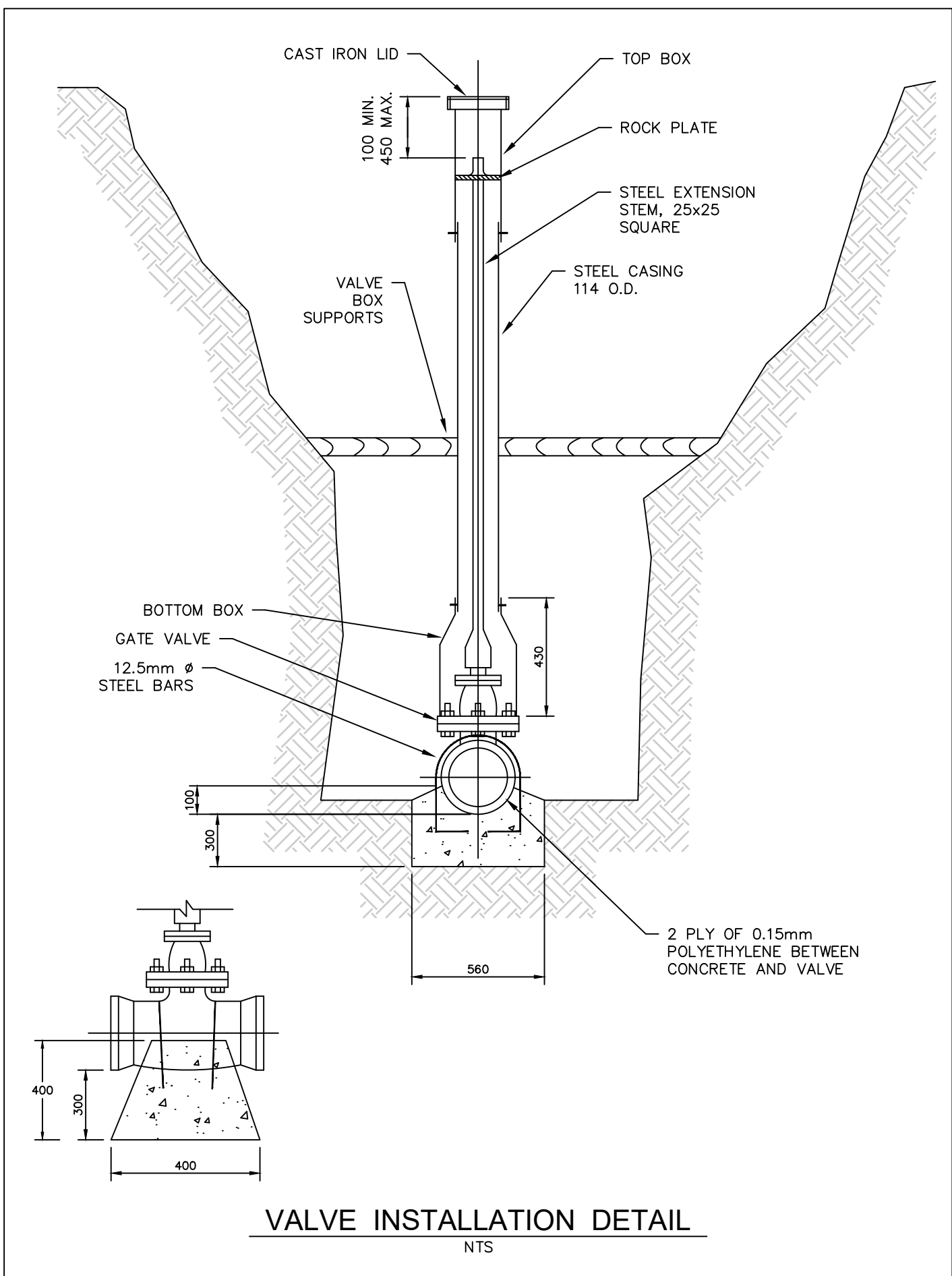
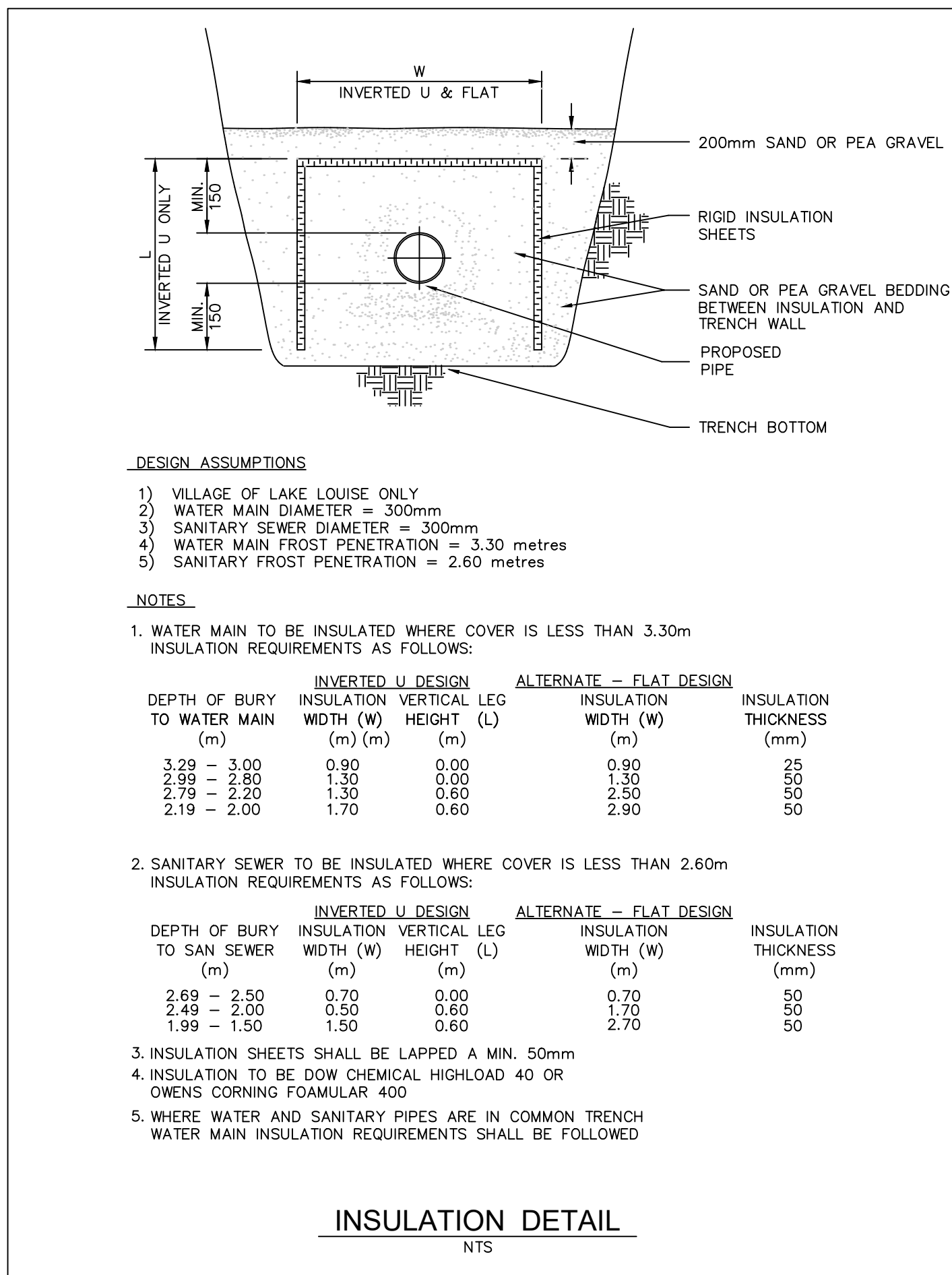
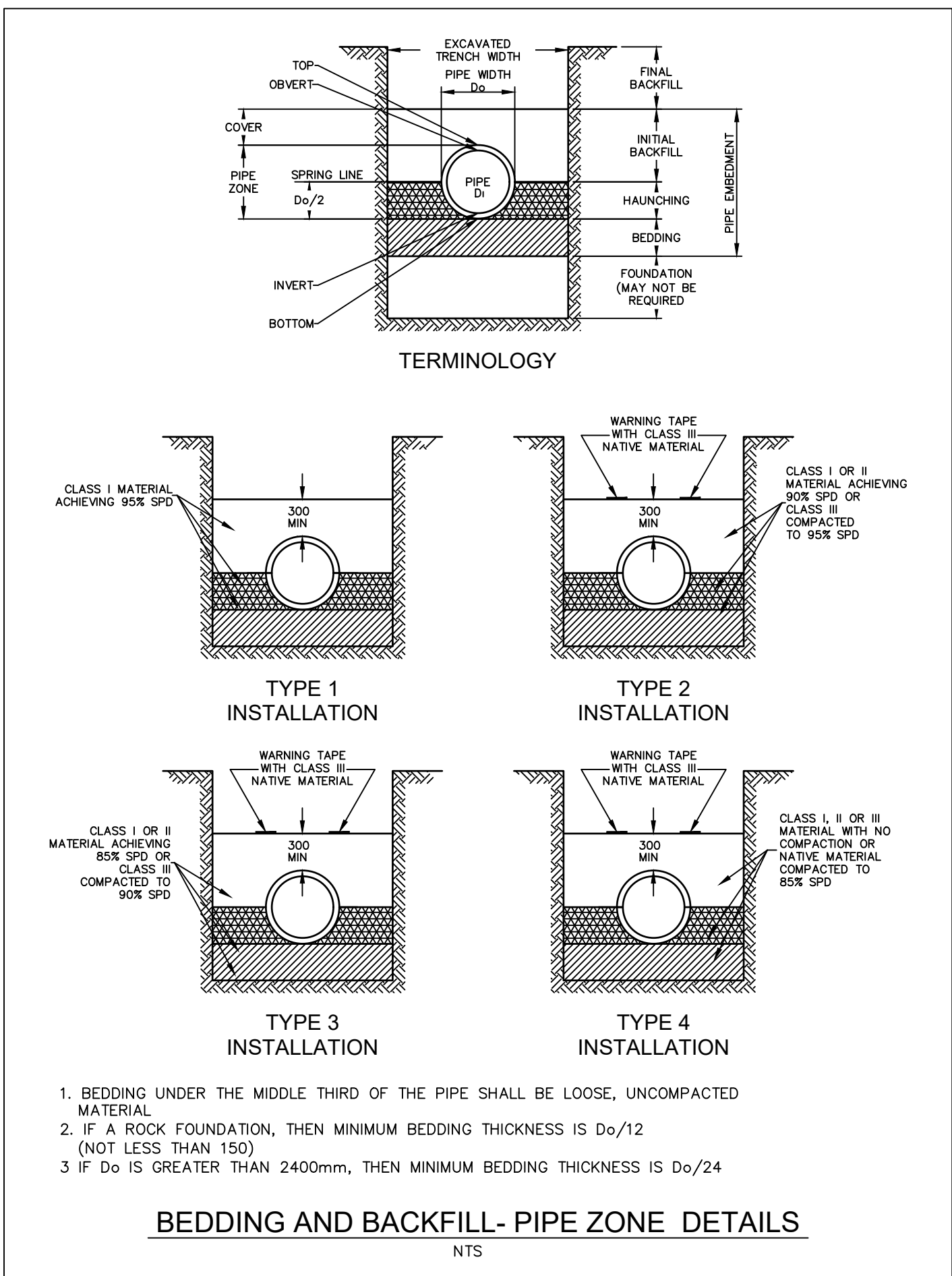
-C100-	BLOCK PROFILE DRAWING NUMBER
---	CONSTRUCTION BOUNDARY
---	EXISTING PROPERTY LINE
---	EXISTING WATERMAIN & VALVE
---	PROPOSED WATERMAIN & VALVE
---	PROPOSED WATERMAIN REPLACEMENT VIA PIPE BURSTING
---	EXISTING SANITARY SEWER & 5A MH
---	PROPOSED SANITARY SEWER & 5A MH
---	PROPOSED SANITARY SEWER REPLACEMENT VIA PIPE BURSTING
---	EXISTING POWER - UNDERGROUND
---	EXISTING POWER - OVERHEAD
---	EXISTING TELUS
---	EXISTING GAS LINE
---	EXISTING POWER POLE w/ GUY WIRE
---	EXISTING STREET LIGHT
---	EXISTING HYDRANT
---	EXISTING WATER MANHOLE
---	SENDING & RECEIVING PITS
---	BOREHOLE LOCATION
---	c/w BOREHOLE NUMBER & ELEVATION
---	SEE DWG No. C107 FOR BOREHOLE LOG

5				
4				
3	2020AUG18	ISSUED FOR TENDER	PVD	LK
2	2020JUL03	ISSUED FOR 90% SUBMISSION	AD	LK
1	2020MAR30	ISSUED FOR 50% SUBMISSION	PVD	JW
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé
Revision / Revision				
A		A detail number		
B		B source drawing no.		
C		C detail on drawing no.		
Consultant's Name Nom de l'expert-conseil				
WSP Canada Group Limited 729 10 Street, Suite 203 Camrose, AB, Canada T1W 2A3 t:403.678.3500   f:403.678.3501 www.wsp.com				
		Public Works and Government Services Canada Travaux publics et Services gouvernementaux Canada		
Client Services Team Southern Alberta Operations Branch		Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations		
Client/client		Parks Canada Agency L'Agence Parcs Canada		
Western and Northern Region		Ouest et Nord du Canada		
Project title/Titre du projet <b>LAKE LOUISE TOWNSITE PHASE 3 – 2018 WATER &amp; SEWER UPGRADES BANFF NATIONAL PARK</b>				
Drawing title/Titre du dessin <b>PIPESTONE RIVER BRIDGE CROSSING SITE PLAN</b>				
Surveyed by/Arpenté par WSP GEOMATICS	Drawn by/Dessiné par PVD	Date/Date 2020MAR18		
Designed by/Concept par DP	Reviewed by/Revisé par LK	Scale/Échelle 1:500		
PWGSC Project Manager/Administrateur de Projets TPSGC KD				
Client Acceptance/Acceptation du client		Approved by/Approuvé par		
Park Responsible Officer/Agent Responsable		PWGSC Project Manager/Administrateur de Projets TPSGC		
Project No./No. du projet 181-13597-14	Asset No./No. du bien -	Sheet No./No. de la feuille 3		
Drawing Reference No./No. de référence du dessin C102				

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Design: (Sheet) 1 - WSP Canada Group Limited, Design: (Sheet) 1 - WSP Canada Group Limited  
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4				
3	2020AUG18	ISSUED FOR TENDER	PVD	LK
2	2020JUL03	ISSUED FOR 90% SUBMISSION	AD	LK
1	2020MAR30	ISSUED FOR 50% SUBMISSION	PVD	JW
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé

Revision / Revision

A	detail number	A
B	numéro de détail	B
C	source drawing no. de dessin no.	C
D	detail on drawing no. detail sur dessin no.	D

Consultant's Name  
Nom de l'expert-conseil

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**Public Works and Government Services Canada**

Client Services Team  
Southern Alberta Operations Branch

**Travaux publics et Services gouvernementaux Canada**

Le Client Entretien l'Équipe  
Alberta Méridional Branche d'Opérations

**Canada**

Client/client  
**Parks Canada Agency**

L'Agence Parcs Canada

Western and Northern Region

Ouest et Nord du Canada

Project title/Titre du projet

**LAKE LOUISE TOWNSITE  
PHASE 3 - 2018 WATER  
& SEWER UPGRADES  
BANFF NATIONAL PARK**

Drawing title/Titre du dessin

**UNDERGROUND  
DETAILS (TYPICAL)**

Surveyed by/Arpenté par <b>WSP</b>	Drawn by/Dessiné par <b>PVD</b>	Date/Date <b>2020JUN16</b>
Designed by/Concept par <b>DP</b>	Reviewed by/Revisé par <b>LK</b>	Scale/Échelle <b>AS SHOWN</b>
PWGSC Project Manager/Administrateur de Projets TPSCG <b>KD</b>		
Client Acceptance/Acceptation du client		Approved by/Approuvé par
Park Responsible Officer/Agent Responsable		PWGSC Project Manager/Administrateur de Projets TPSCG
Project No./No. du projet <b>181-13597-14</b>	Asset No./No. du bien <b>-</b>	Sheet No./No. de la feuille <b>4</b>
Drawing Reference No./No. de référence du dessin <b>C103</b>		



1. ALL CASING PIPE SUPPORT FROM THE BRIDGE MUST SUPPORT MINIMUM OF 112 KN.
2. THE CASING PIPE 600mm NOMINAL DIAMETER CARBON STEEL PIPE, STANDARD WALL THICKNESS TO ASTM SPECIFICATION A139, GRADE B OR ASTM A532.
3. SLIDING SUPPORTS ARE TO BE WEATHERED STEEL AND MOUNTING STRAPS ARE TO BE ISOLATE FROM THE CASING PIPE.
4. SHIMS WILL BE REQUIRED FOR THE PIPE SUPPORTS TO ENSURE LEVEL CONTACT ON ALL POINTS ALONG THE SUPPORTED CASING PIPE. SHIMS SHALL BE INCLUDED AS PART OF ALL SUPPORTS

		WEST ABUTMENT	WEST PIER	EAST PIER	EAST ABUTMENT
WEST BRIDGE	STEEL CASING ELEVATION (OUTSIDE INVERT)	1541.425	1541.496	1541.599	1541.669
EAST BRIDGE	STEEL CASING ELEVATION (OUTSIDE INVERT)	1541.700	1541.591	1541.445	1541.335

FINISH =

24" PIPE

9

2

BOP

1

4"

1 1/2"

19 1/2"

3/16" TYP

4

5

3

6

8

1

3/8"

4

5

6

5 1/2"

12"

7

1/8" X 2

1/8" X 2

DIMENSIONS ARE IN INCHES  
TOLERANCES: +/ - 1/8" U.N.O.  
FORMING  
ANGULAR: ± 1/4" BEND: ± 3/8" Ø  
HOLES (PUNCHED):  
LOCATION:  
DIAMETER: N/A  
SQUARENESS OF CUT:  
1" NOT TO EXCEED 1/8" OFFSET  
MATERIAL:  
A36 CARBON STEEL  
FINISH: ☐ PAINT ☐ PLAIN  
☐ GALVANIZED  
COMMENTS  
SQUARENESS OF CUT APPLIES  
TO CRITICAL DIMENSIONS ONLY

2"

2"

3 5/8"

1/2"

2 1/2"

3"

12"

2 1/2"

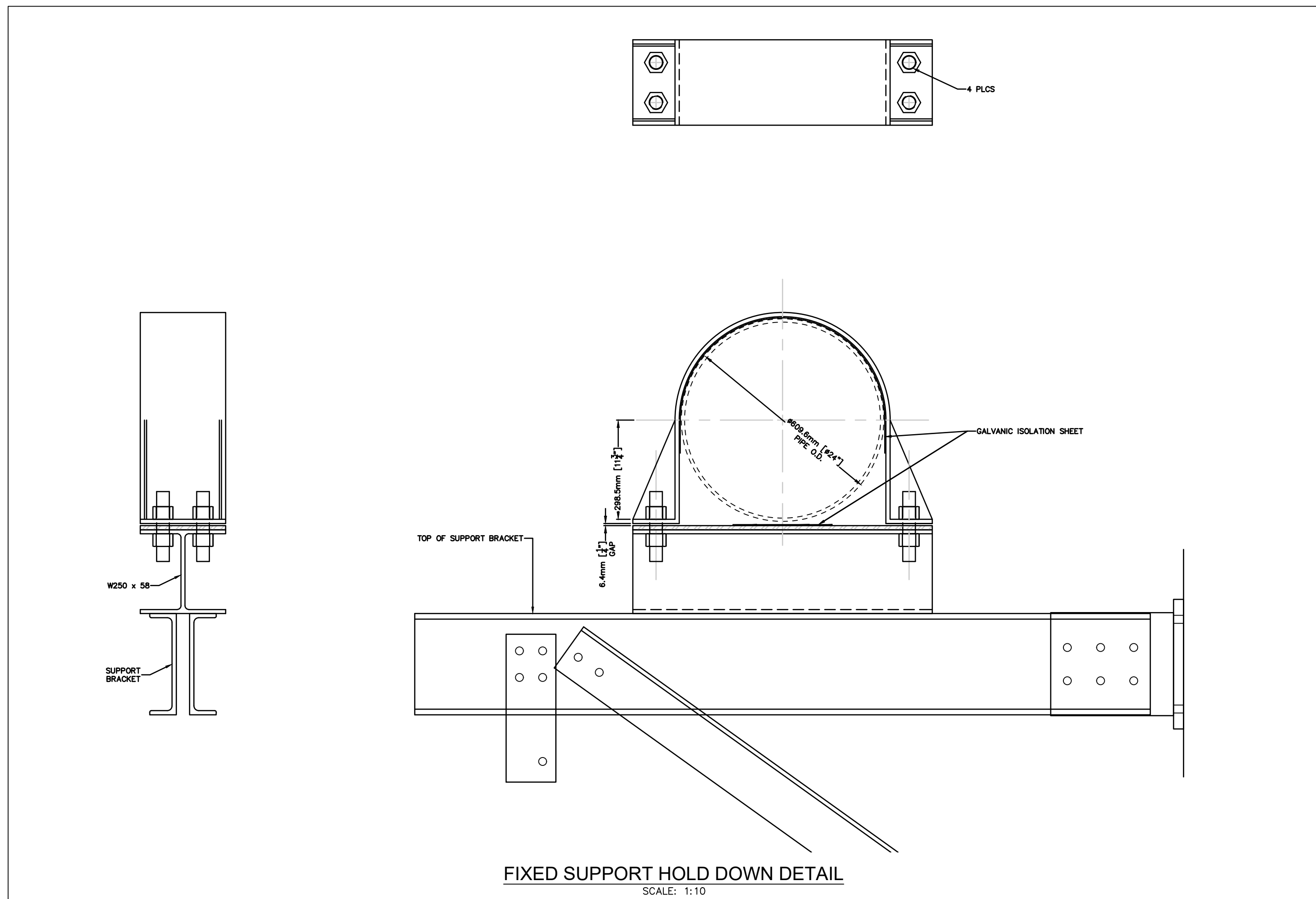
DETAIL ITEM #1

ALLOWABLE LOADS:  
MAX VERTICAL: 30 KIP  
MAX LATERAL: 6 KIP  
MAX UPLIFT: 3 KIP

## SLIDE TYPE CASING SUPPORT

SHEET 2 OF 2

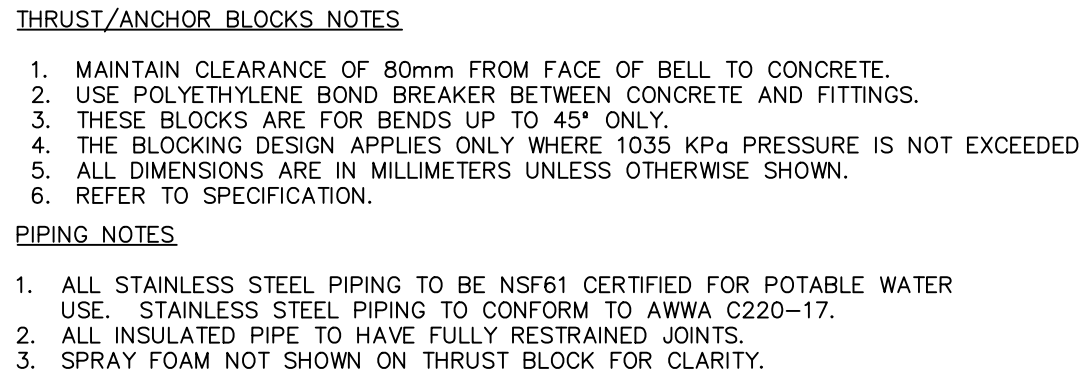
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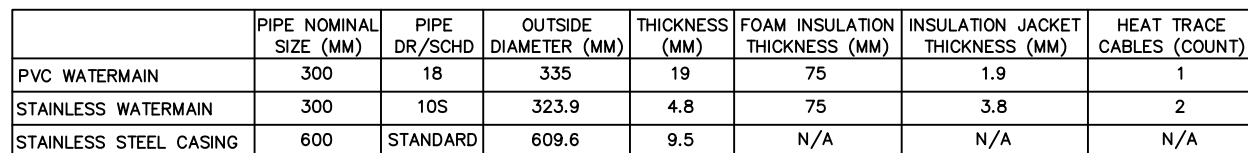
## FIXED SUPPORT HOLD DOWN DETAIL

SCALE: 1:10

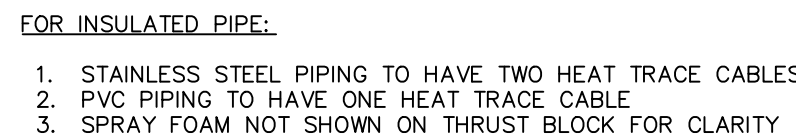




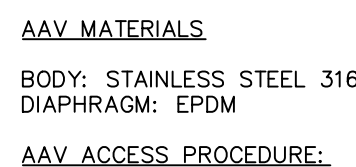
### PRE-INSULATED WATERMAIN PIPE CONNECTION DETAIL 1



## PRE-INSULATED WATERMAIN DETAILS


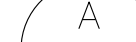


PRE-INSULATED WATERMAIN PIPE CONNECTION  
DETAIL 2  
NTS




AUTOMATIC AIR RELEASE VALVE PRE-INSULATION DETAILS




Revision / Revision		
	A	
	détail number numéro de détail	
	B	
	source drawing no. de dessin no.	
	C	
	détail on drawing no. détail sur dessin no.	

Consultant's Name Nom de l'expert-conseil	 <p>WSP Canada Group Limited 729 10 Street, Suite 203 Canmore, AB, Canada T1W 2A3 t:403.678.3500   f:403.678.3501 <a href="http://www.wsp.com">www.wsp.com</a></p>
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	Public Works and Government Services Canada	Travaux publics et Services gouvernementaux Canada
	Client Services Team Southern Alberta Operations Branch	Le Client Entretien l'Équipe Alberta Méridionale Branche d'Opérations

# Canada

Client/client  
 Parks Canada  
 Agency L'Agence Parcs  
 Canada

Western and Northern Region      Ouest et Nord du Canada

Project title/Titre du projet

LAKE LOUISE TOWNSITE  
PHASE 3 – 2018 WATER  
& SEWER UPGRADES  
BANFF NATIONAL PARK

Drawing title/Titre du dessin

ABOVE GROUND &  
PRE-INSULATED  
PIPE DETAILS

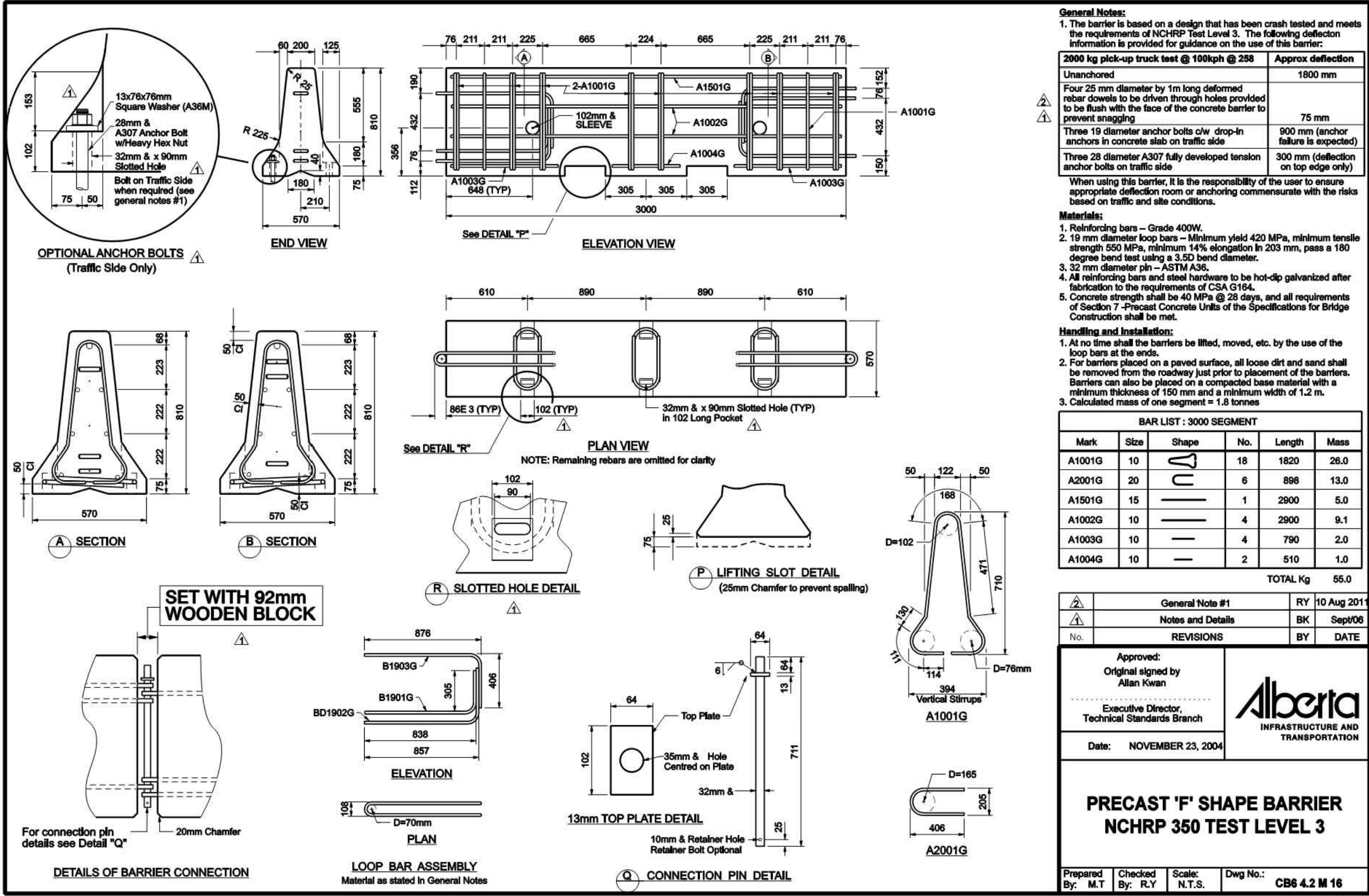
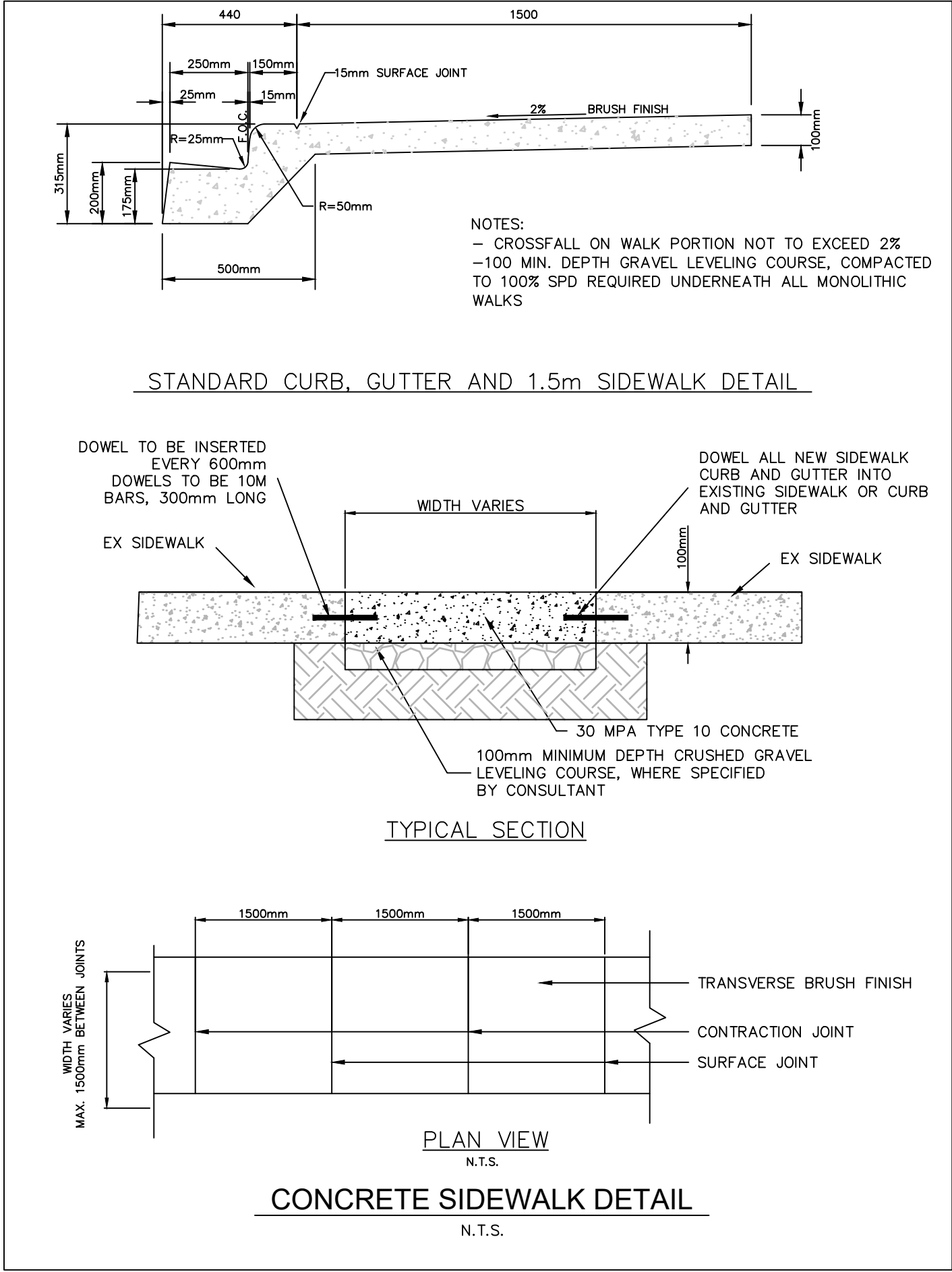
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Designed by/Concept par DP	Reviewed by/Revisé par LK	Scale/Échelle AS SHOWN

PWGSC Project Manager/Administrateur de Projets TPSGC	
KD	
Client Acceptance/Acceptation du client	Approved by/Approuvé par
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Park Responsible Officer/Agent Responsable	PWGSC Project Manager/Administrateur de Projets TPSGC

Project No./No. du projet 181-13597-14	Asset No./No. du bien -	Sheet No./ No. de la feuille 6
Drawing Reference No./No. de référence du dessin C105		8




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5				
4				
3	2020AUG18	ISSUED FOR TENDER	PVD	LK
2	2020JUL03	ISSUED FOR 90% SUBMISSION	AD	LK
1	2020MAR30	ISSUED FOR 50% SUBMISSION	PVD	JW
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé

Revision / Revision	
A detail number	A
numéro de détail	A
B source drawing no.	B
de dessin no.	B
C detail on drawing no.	C
détail sur dessin no.	C

Consultant's Name Nom de l'expert-conseil	WSP Canada Group Limited 729 10 Street, Suite 203 Cammore, AB, Canada T1W 2A3 t:403.678.3500 f:403.678.3501 www.wsp.com
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 Public Works and Government Services Canada	Travaux publics et Services gouvernementaux Canada
Client Services Team Southern Alberta Operations Branch	Le Client Entretien l'Équipe Alberta Méridional Branche d'Opérations

Canada

Client/client	 Parks Canada Agency	L'Agence Parcs Canada
	Western and Northern Region	Ouest et Nord du Canada

Project title/Titre du projet

LAKE LOUISE TOWNSITE  
PHASE 3 – 2018 WATER  
& SEWER UPGRADES  
BANFF NATIONAL PARK

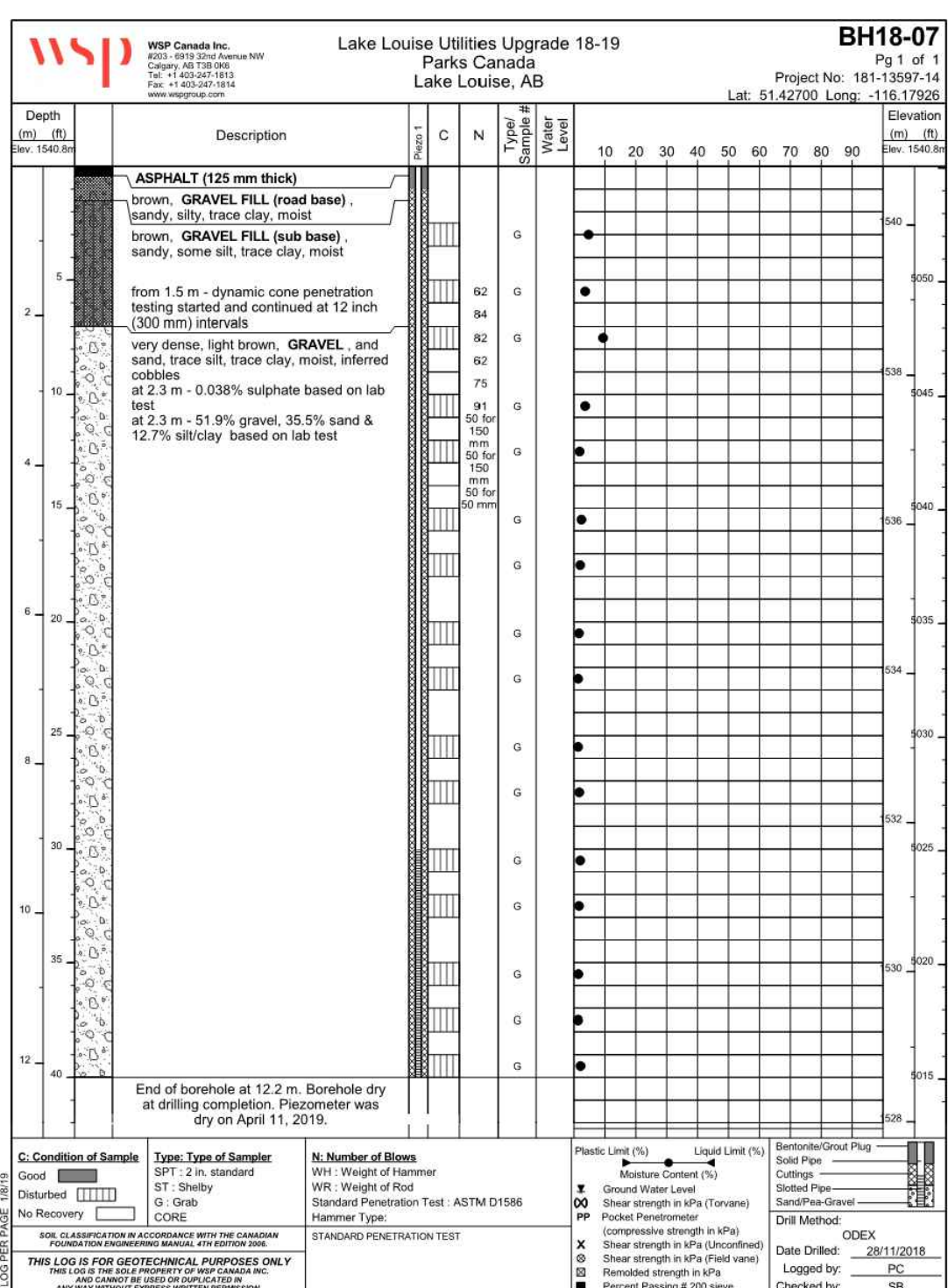
Drawing title/Titre du dessin

SURFACE DETAILS  
(TYPICAL)

Surveyed by/Arpenté par WSP GEOMATICS	Drawn by/Dessiné par PVD	Date/Date 2020JUL31
Designed by/Concept par DP	Reviewed by/Revisé par LK	Scale/Échelle AS SHOWN

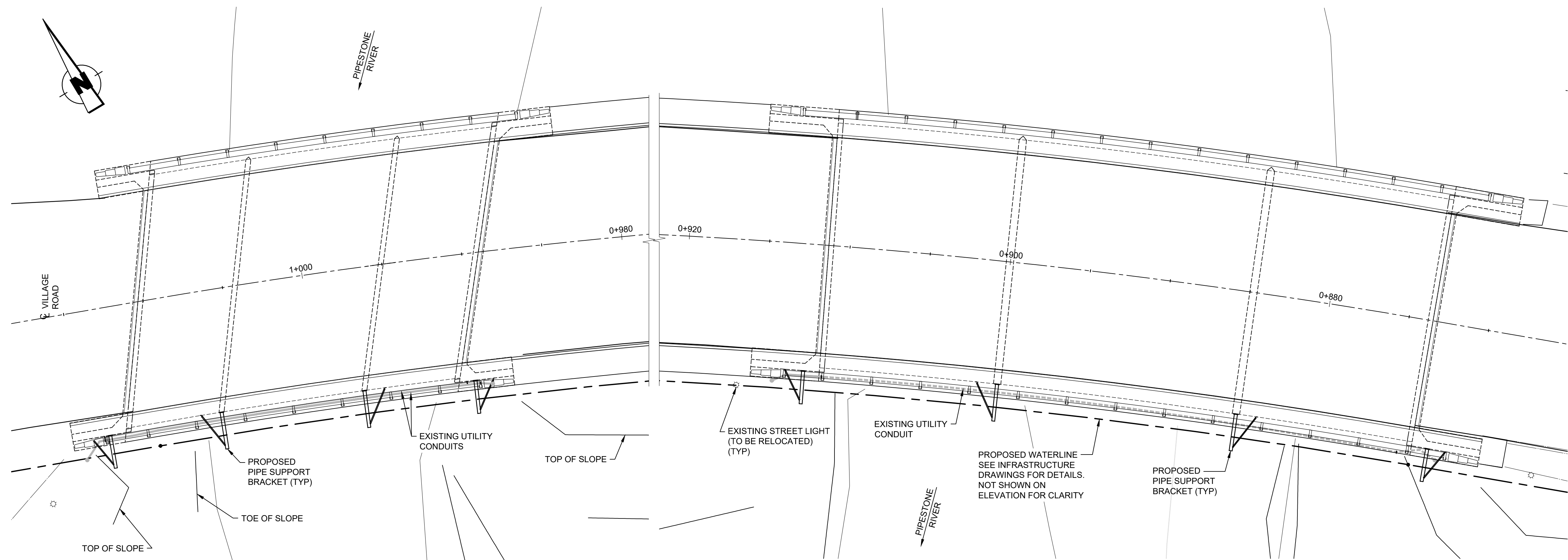
PWGSC Project Manager/Administrateur de Projets TPSSGC KD		
Client Acceptance/Acceptation du client		Approved by/Approuvé par
Park Responsible Officer/Agent Responsable		PWGSC Project Manager/Administrateur de Projets TPSSGC
Project No./No. du projet 181-13597-14	Asset No./No. du bien -	Sheet No./ No. de la feuille 7 8
Drawing Reference No./No. de référence du dessin C106		



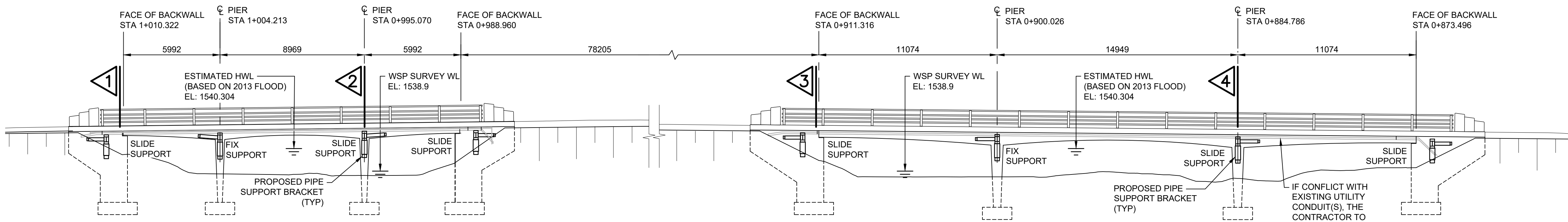


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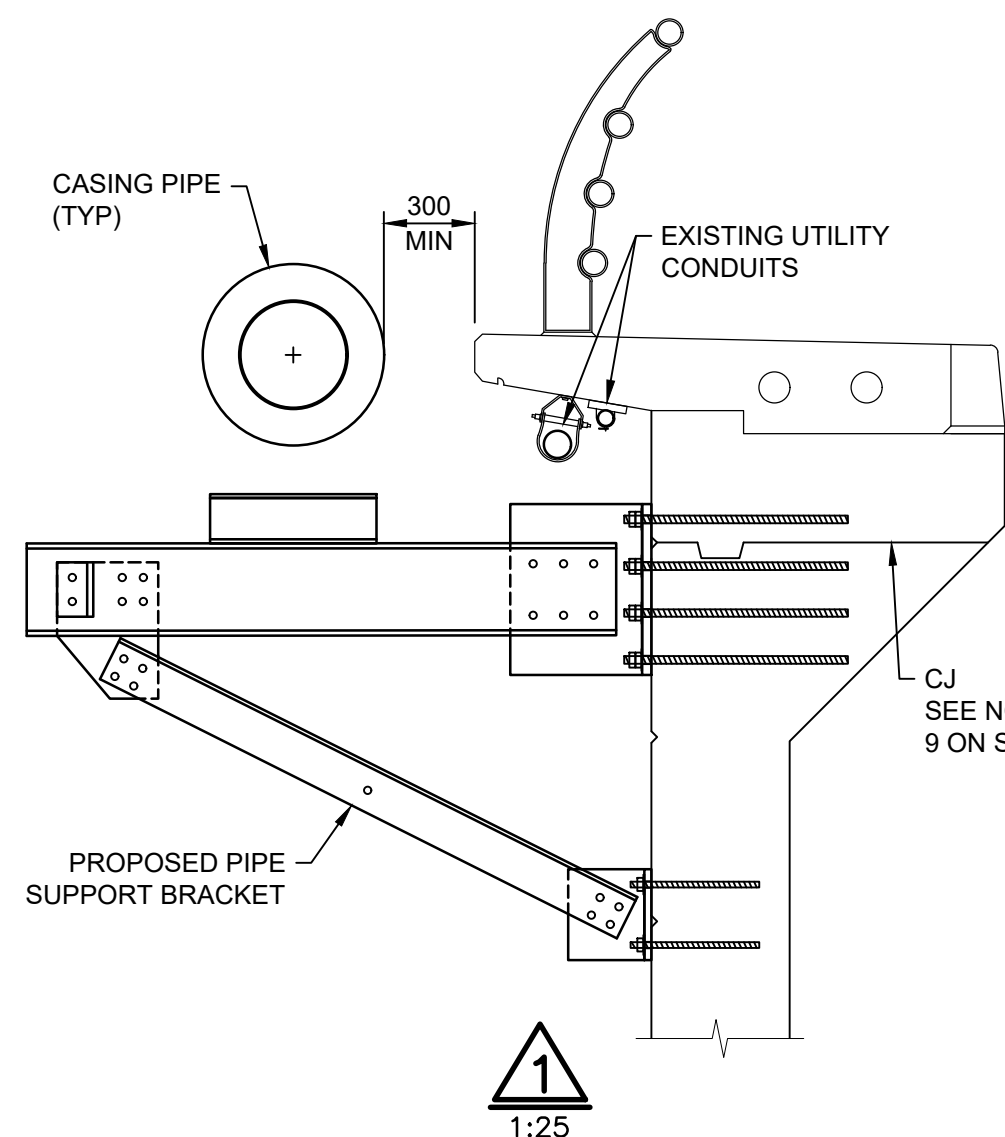


PLAN VIEW  
1:150

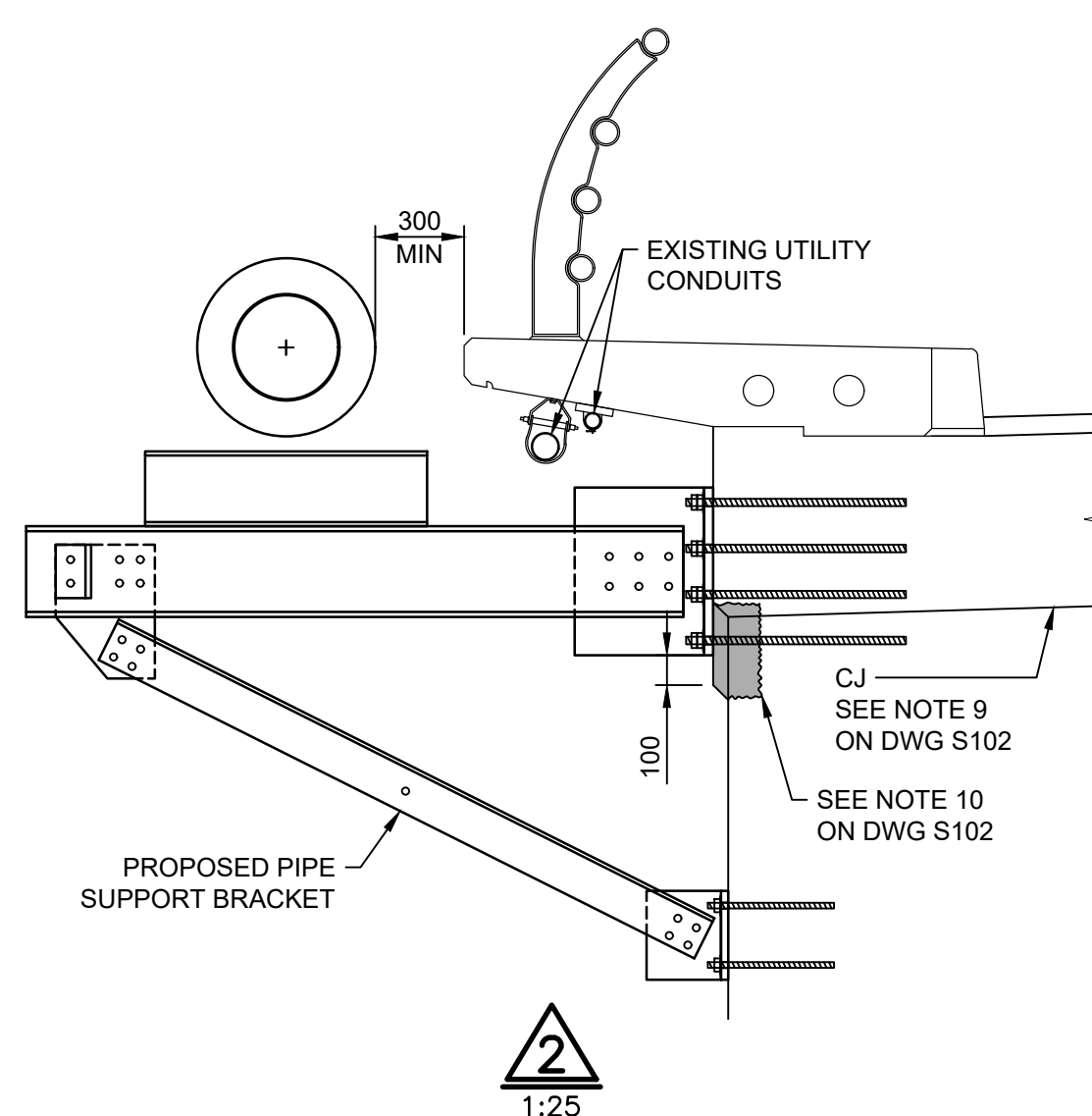


NOTE:  
ELEVATIONS AND SPAN LENGTHS ARE ALONG SOUTH EDGE OF DECK  
STATIONING ALONG EXISTING CONTROL LINE

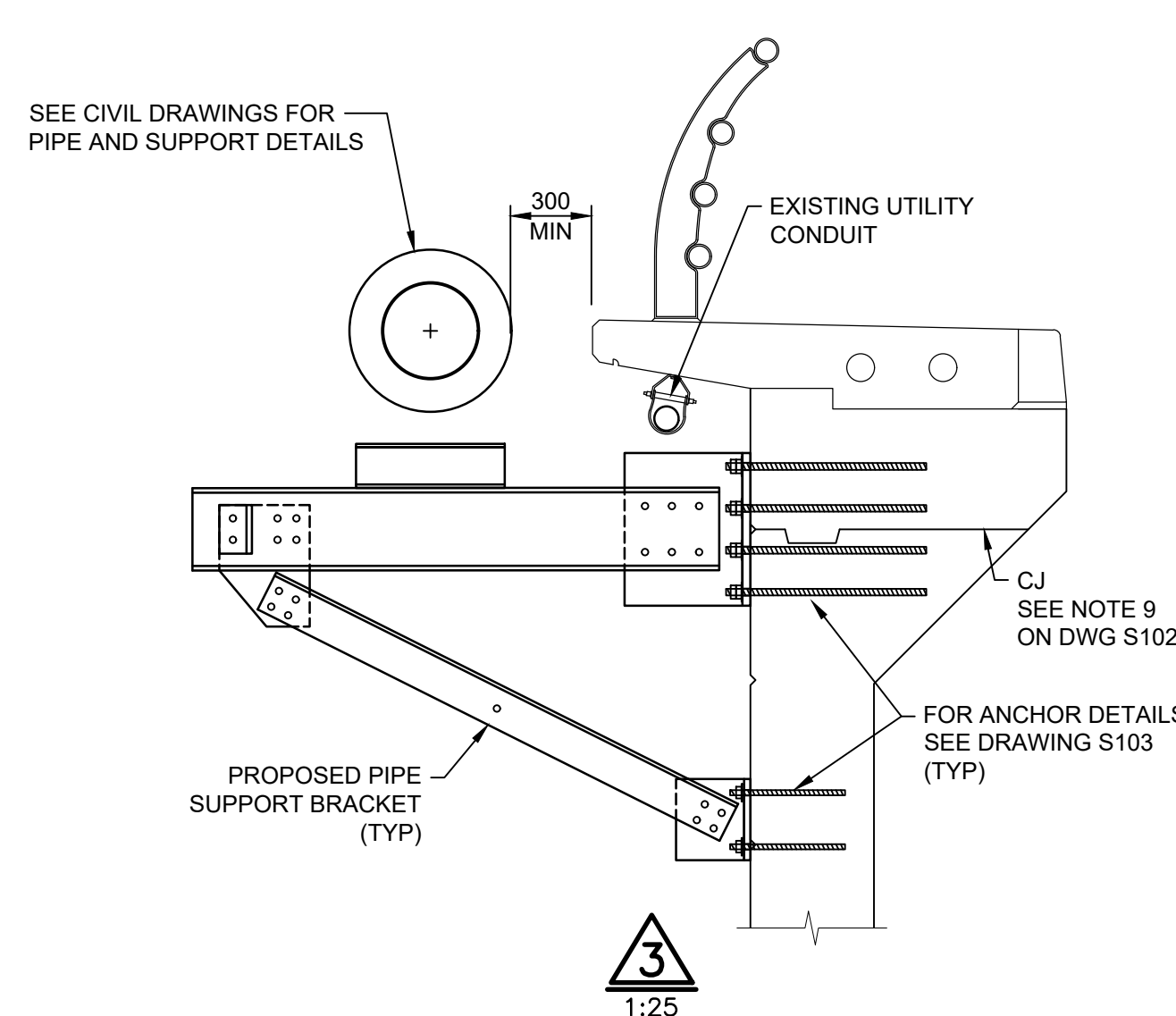
ELEVATION ALONG SOUTH EDGE OF DECK  
1:150



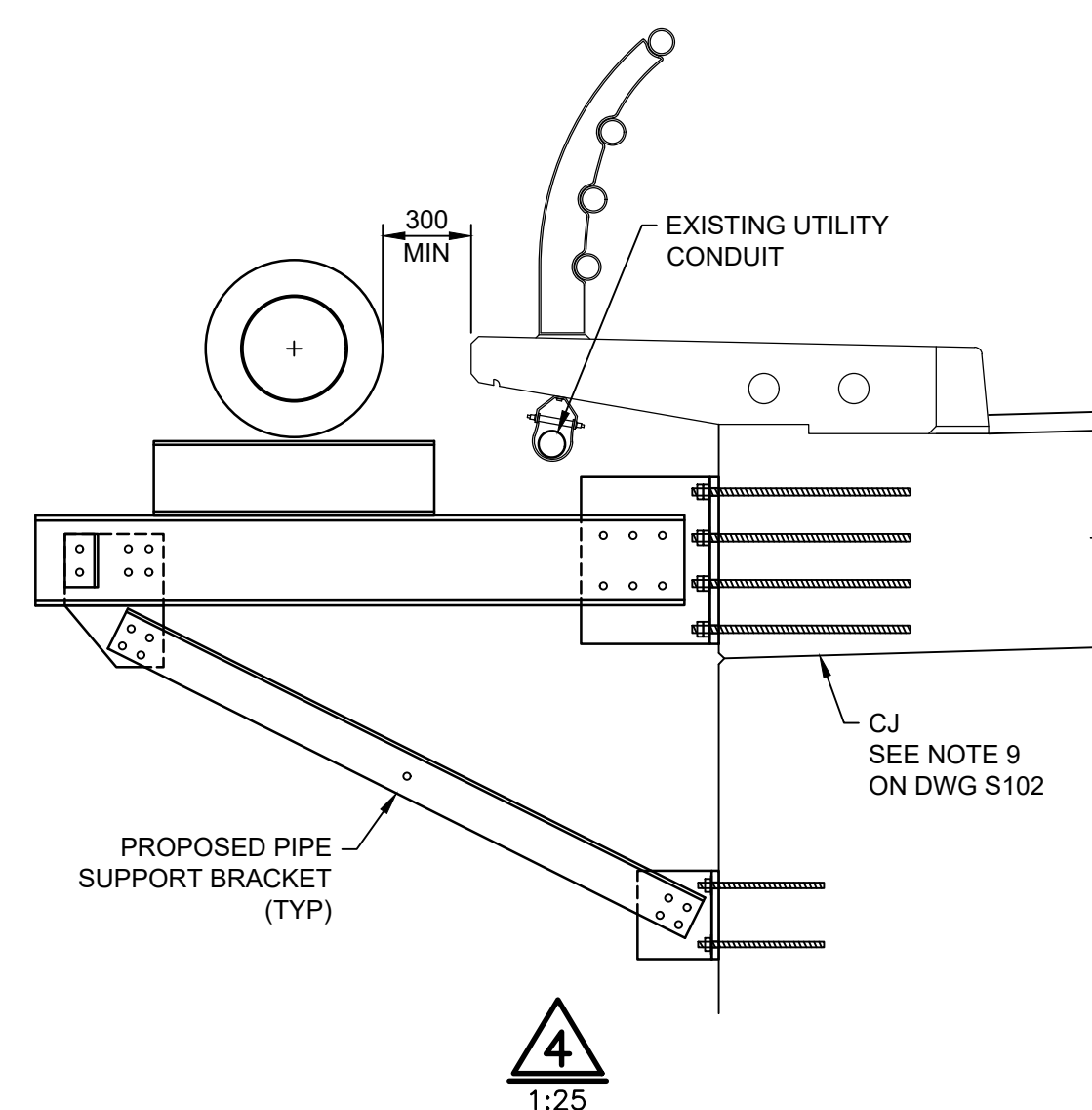
1  
1:25



2  
1:25



3  
1:25



4  
1:25

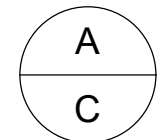
WEST BRIDGE SECTIONS  
1:25

EAST BRIDGE SECTIONS  
1:25

SEE DRAWING S102 FOR GENERAL NOTES

5				
4				
3				
2				
1	2020AUG18	ISSUED FOR TENDER	JM	DN
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé

Revision / Revision



A detail number  
numéro de détail  
B source drawing no.  
de dessin no.  
C detail on drawing no.  
détail sur dessin no.

Consultant's Name  
Nom de l'expert-conseil



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Eng. Stamp  
Sceau de l'ingénieur

Public Works and  
Government Services  
Canada  
Travaux publics et  
Services gouvernementaux  
Canada  
Client Services Team  
Southern Alberta  
Operations Branch  
Le Client Entretien l'Équipe  
Alberta Méridional  
Branche d'Opérations

Canada

Client/client  
Parks Canada  
Agency  
L'Agence Parcs  
Canada

Western and  
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du Canada

Project title/Titre du projet  
LAKE LOUISE TOWNSITE  
PHASE 2 – 2018 WATER  
& SEWER UPGRADES  
BANFF NATIONAL PARK

Drawing title/Titre du dessin  
PIPESTONE RIVER BRIDGES  
PROPOSED WORK  
GENERAL ARRANGEMENT

Surveyed by/Arpenté par WSP GEOMATICS	Drawn by/Dessiné par JM	Date/Date 2020JUN18
Designed by/Concept par HAA	Reviewed by/Revisé par HOA	Scale/Echelle AS SHOWN

PWGSC Project Manager/Administrateur de Projets TPSSC  
KD

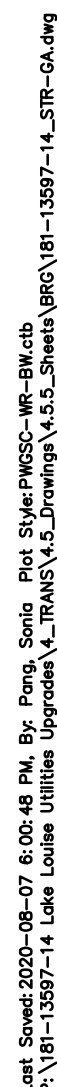
Client Acceptance/Acceptation du client  
Approved by/Approuvé par

Park Responsible Officer/Agent Responsable  
PWGSC Project Manager/Administrateur de Projets TPSSC

Project No./No. du projet 181-13597-14	Asset No./No. du bien -	Sheet No./ No. de la feuille 1 OF 3
---	----------------------------	--


Drawing Reference No./No. de référence du dessin  
S101





1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. ALL STRUCTURAL STEEL SHALL CONFORM TO CAN/CSA-G40.20-13/G40.21-13 (R2018), STEEL GRADE SHALL BE 350QT CATEGORY 3.
3. ALL WELDING SHALL CONFORM TO CAN/CSA W59 WITH WELD SIZE SHOWN ON DRAWINGS.
4. STRUCTURAL BOLTS, NUTS, AND WASHERS SHALL CONFORM TO ASTM SPECIFICATIONS F3125, GRADE A325/A325M, A563/A563M, AND F436/F436M, RESPECTIVELY. BOLTS, NUTS, AND WASHERS FOR CORROSION RESISTANT STEEL SHALL BE TYPE 3. BOLTS, NUTS, AND WASHERS FOR CONNECTING GALVANIZED COMPONENTS SHALL BE TYPE 1 AND SHALL BE GALVANIZED.
5. ALL BOLTS SHALL BE M22 WITH THREADS. STRUCTURAL BOLTS SHALL BE INSTALLED BY TURN-OF NUT METHOD FROM A SNAG-TIGHT CONDITION.
6. CONTRACTOR SHALL VERIFY EXISTING STRUCTURES AND UTILITIES AND VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCY OR CONFLICTS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
7. ALL ANCHOR BOLTS SHALL BE STAINLESS STEEL PER ASTM F593 AND F594
8. DRAWINGS TO BE READ IN CONJUNCTION WITH OTHER DRAWINGS (I.E. INFRASTRUCTURE, ETC.)
9. LOCATION OF CONSTRUCTION JOINTS (CJS) ARE TAKEN FROM AS-BUILT DRAWINGS AND IS TO BE FIELD-VERIFIED BY THE CONTRACTOR. ANCHORS SHOULD BE INSTALLED SUCH THAT THEY DO NOT CONFLICT WITH EXISTING CJS AND CJS BE AT THE MIDDLE OF TWO ANCHORS OR SUFFICIENTLY OUTSIDE THE ANCHORS.
10. EXISTING CONCRETE SHOULD BE REMOVED FOR A MINIMUM OF 25 mm BEHIND EXISTING REBARS, AND REPLACED WITH AN APPROVED ALBERTA TRANSPORTATION NON-SHRINK PATCHING MATERIAL. BEFORE REMOVAL, SAWCUT 20 mm AROUND THE REMOVAL AREA.
11. ANY GALVANIZING REPAIR SHALL BE DONE BY APPROVED METALIZING PROCEDURE.

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1	2020AUG18	ISSUED FOR TENDER	JM	DN
No.	Date/Date	Description/Description	Drawn by Dessiné par	Approved Approuvé


Revision / Revision	
<p>A detail number numéro de detail</p> <p>B source drawing no. de dessin no.</p> <p>C detail on drawing no. detail sur dessin no.</p>	

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

Client Services Team      Le Client Entretien l'Équipe  
Southern Alberta      Alberta Méridional  
Operations Branch      Branche d'Opérations

Canada

Client/client 	Parks Canada Agency	L'Agence Parcs Canada
	Western and Northern Region	Ouest et Nord du Canada

Project Title/Titre du projet

LAKE LOUISE TOWNSITE  
PHASE 2 – 2018 WATER  
& SEWER UPGRADES  
BANFF NATIONAL PARK

Drawing title/Titre du dessin

PIPESTONE RIVER BRIDGES  
PROPOSED WORK  
STEEL DETAILS

Surveyed by/Arpenté par WSP GEOMATICS	Drawn by/Dessiné par JM	Date/Date 2020AUG06
Designed by/Concept par HAA	Reviewed by/Revisé par HOA	Scale/Échelle AS SHOWN

PWGSC Project Manager/Administrateur de Projets TPSGC	KD
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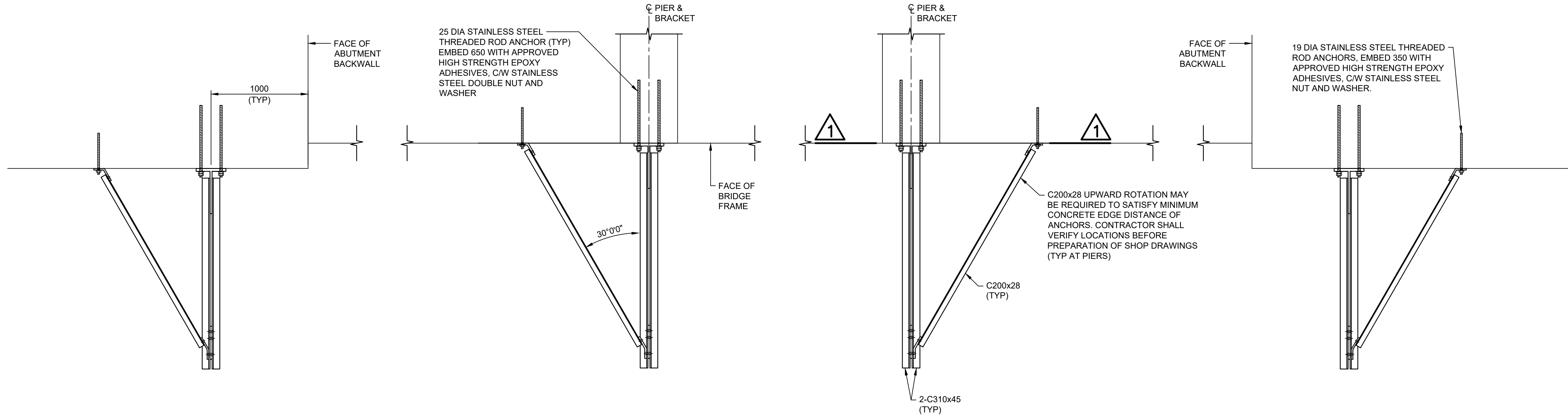
Client Acceptance/Acceptation du client	Approved by/Approuvé par
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Park Responsible Officer/Agent Responsable	PWGC Project Manager/Administrateur de Projets TPSGC
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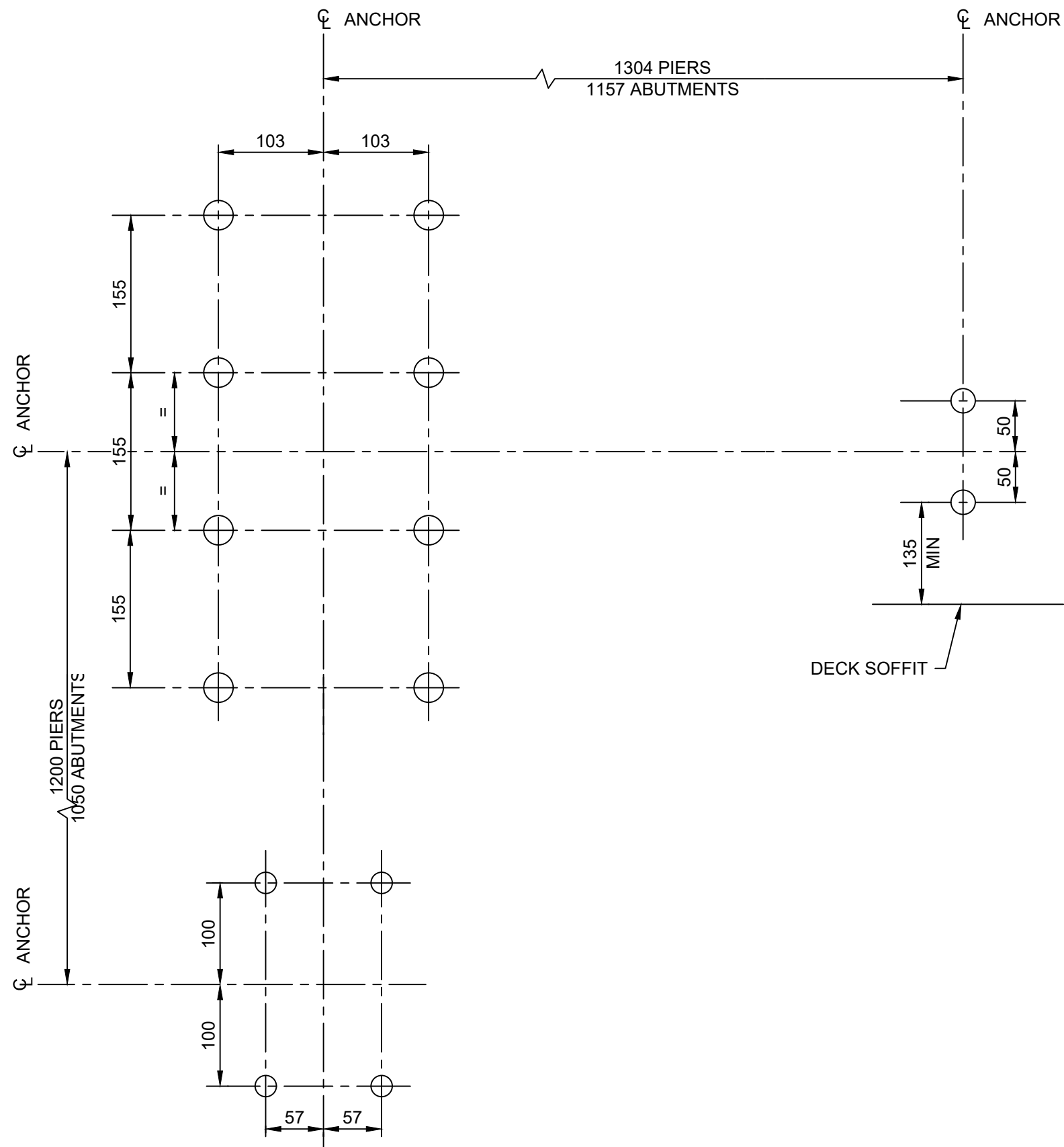
Project No./No. du projet 181-13597-14	Asset No./No. du bien -	Sheet No./ No. de la feuille 2 OF 3
Drawing Reference No./No. de référence du dessin S102		



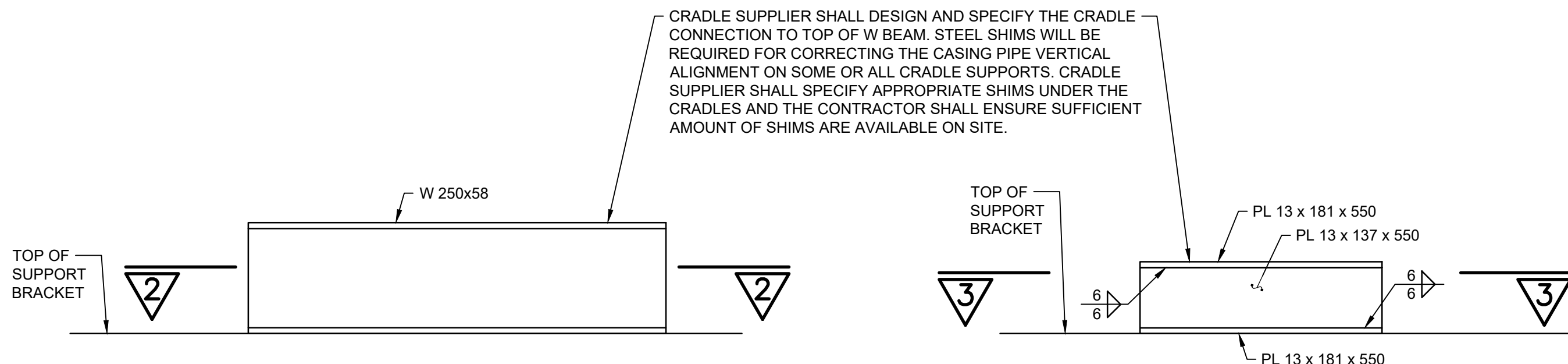
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TYPICAL PIPE SUPPORT LAYOUT  
 1:25

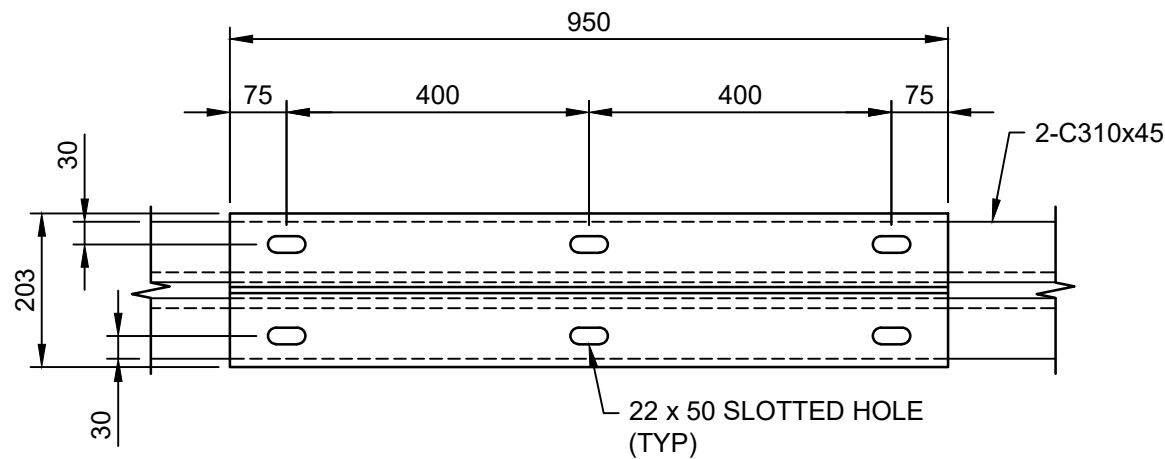


1 ANCHOR LAYOUT  
 1:5

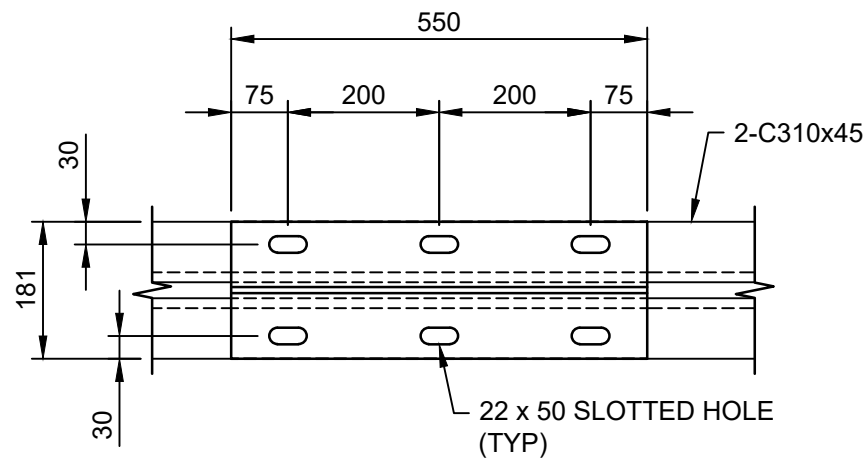


CASING FIX SUPPORT DETAILS  
 1:10

CASING SLIDE SUPPORT DETAILS  
 1:10



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ANCHOR INSTALLATION PROCEDURE:

- THE CONCRETE SURFACE WHERE ANCHOR PLATES WILL BE INSTALLED NEED TO BE HAMMER TESTED BY THE ENGINEER FOR ANY SIGNS OF DELAMINATION. IF ANY DELAMINATION IS PRESENT, THEN THE UNSOUND CONCRETE SHALL BE REMOVED UNTIL REACHING THE SOUND CONCRETE. THE CONCRETE SHALL BE REMOVED MINIMUM 25 mm BEHIND THE EXISTING REBAR. THE PROPER PATCHING MATERIAL FROM ALBERTA TRANSPORTATION APPROVED PRODUCTS SHALL BE USED TO REPLACE THE REMOVED CONCRETE. FOLLOW MANUFACTURERS RECOMMENDATIONS FOR PATCHING MATERIAL PLACING AND CURING.
- LOCATE REINFORCING STEEL IN EXISTING CONCRETE BEFORE DRILLING.
- LAYOUT ANCHOR LOCATIONS ACCORDING TO DRAWING AND TO AVOID EXISTING REINFORCING IF POSSIBLE WITH COORDINATION WITH THE ENGINEER. ENGINEER APPROVAL IS REQUIRED FOR THE ANCHOR LOCATIONS BEFORE START OF DRILLING. IF THE HOLE LOCATIONS INTERFERE WITH EXISTING REINFORCEMENT A REBAR CUTTER SHALL BE USED TO DRILL THROUGH EXISTING REINFORCEMENT.
- ALL THE PERSONNEL DOING DRILLING OR INSTALLING THE ANCHORS SHALL HAVE REQUIRED TRAINING PER CSA STANDARDS AND SUBMIT THE WRITTEN CERTIFICATE TO ENGINEER BEFORE DRILLING.
- UNUSED HOLES SHALL BE GROUTED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- A HOLLOW DRILL BIT ALONG WITH VACUUM SYSTEM SHALL BE USED TO DRILL THE HOLES AUTOMATICALLY REMOVING THE DUST AVOIDING THE NEED TO CLEAN THE HOLES AFTER DRILLING.
- IN LOCATIONS WHERE THE EXISTING CONCRETE HAS BEEN CHIPPED BACK TO SOUND CONCRETE, LONGER ANCHORS SHALL BE USED TO PROVIDE THE MINIMUM EMBEDMENT DEPTH IN EXISTING CONCRETE.
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATIONS AS SPECIFIED IN THE DRAWINGS.
- ADDITIONAL SAMPLE ANCHORS SHALL BE INSTALLED BY THE CONTRACTOR AT THE LOCATIONS TO BE SPECIFIED BY THE ENGINEER FOR TENSILE TESTING BY AN INDEPENDENT TESTING AGENCY AND WITNESSED BY THE ENGINEER. TENSILE TESTING SHALL CONFORM TO ASTM E488 AND MANUFACTURER'S RECOMMENDATION. TESTING WILL BE LIMITED TO 2 LONG ANCHORS AND 1 SHORT ANCHOR PER BRIDGE. SAMPLE TEST ANCHORS SHALL BE CUT FLUSH AFTER TESTING IS COMPLETE.
- IF THE ANCHOR PLATE DOES NOT MATCH THE INSTALLED ANCHORS, REAMING OF HOLES UP TO 2 mm IS PERMITTED.

SEE DRAWING S102 FOR GENERAL NOTES

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Drawing title/Titre du dessin  
 PIPESTONE RIVER BRIDGES  
 PROPOSED WORK  
 LAYOUT AND ANCHOR  
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Drawing Reference No./No. de référence du dessin S103		



