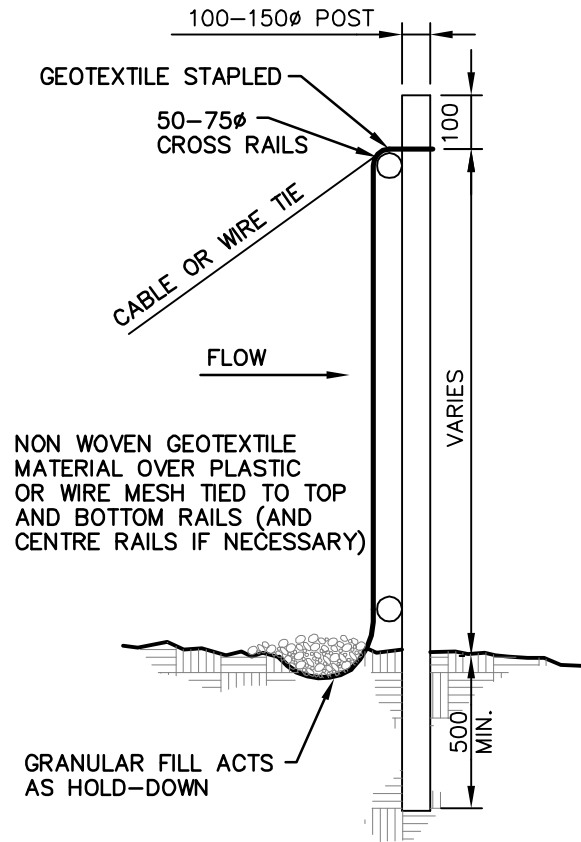


**TYPICAL INSTALLATION**  
N.T.S.



**TYPICAL SECTION**  
N.T.S.

Project title/Titre du projet

km 550.64 TO km 560.79 & km 563.1 TO km 570.2  
ALASKA HIGHWAY  
BRITISH COLUMBIA

Drawing title/Titre du dessin

**SILT FENCING**

Approved by/Approuvé par

AHG

PWGSC Project Manager/Administrateur de Projets TPSCG

Scale/Echelle

NOT TO SCALE

Designed by/Concept par

AHG

PWGSC, Architectural and Engineering Resources Manager/  
Ressources Architectural et de Directeur d'ingénierie, TPSCG

Date/Date

DECEMBER 2013

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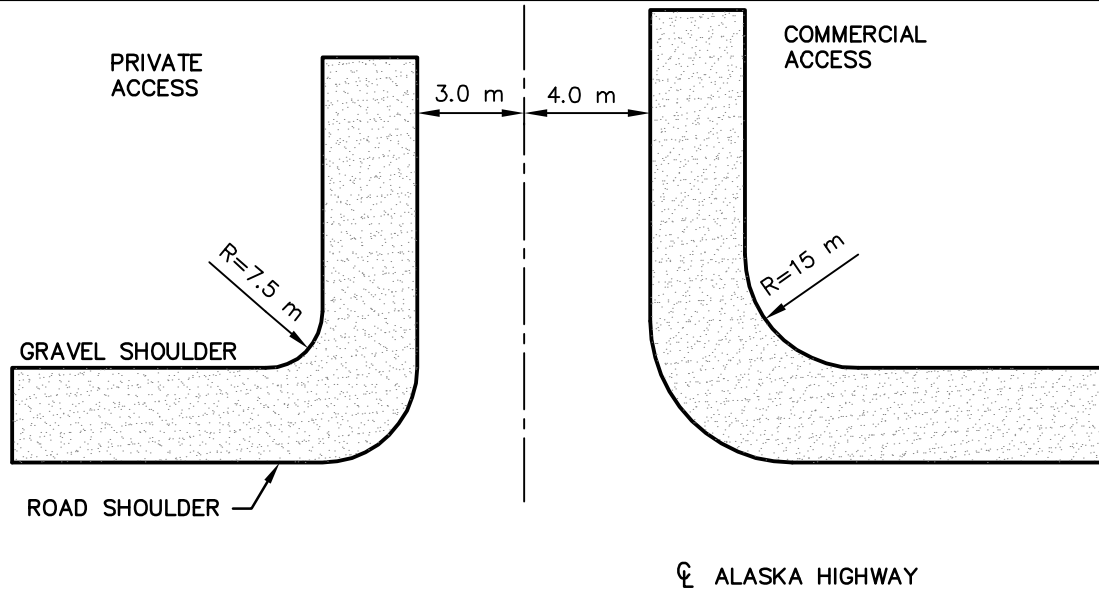
Project No./No. du projet

R.017173.049

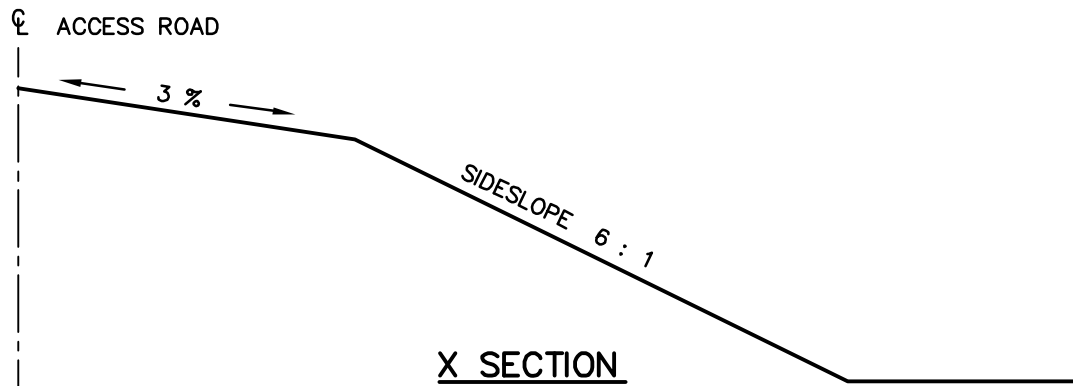
Sheet/Fauille

D01

Revision/Revision



PLAN VIEW



X SECTION

**NOTES:**

1. MAXIMUM GRADIENT IS 10% FOR ACCESS ROAD.
2. ACCESS ROADS TO BE BUILT AT 90° TO THE CENTRE OF THE HIGHWAY.
3. ADDITIONAL CUTTING OF THE HIGHWAY BACKSLOPE MAY BE REQUIRED TO PROVIDE ADEQUATE VISIBILITY.
4. IF A CULVERT IS REQUIRED, THE SIDE SLOPES WILL BE SCULPTED TO ALLOW EFFICIENT DRAINAGE.
5. ANY ACCESS WHICH IS PROPOSED TO CONNECT TO THE HIGHWAY ON A HORIZONTAL CURVE WILL BE EVALUATED FOR SAFETY.

Project title/Titre du projet <b>km 550.64 TO km 560.79 &amp; km 563.1 TO km 570.2 ALASKA HIGHWAY BRITISH COLUMBIA</b>		Drawing title/Titre du dessin <b>TYPICAL ACCESS ROAD APPROACH</b>	
Approved by/Approve par <b>AHG</b>	PWGSC Project Manager/Administrateur de Projets TPSGC	Scale/Echelle <b>NOT TO SCALE</b>	
Designed by/Concept par <b>AHG</b>	PWGSC, Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'Ingénierie, TPSGC	Date/Date <b>DECEMBER 2013</b>	
Drawn by/Dessine par <b>AHG</b>	Project No./No. du projet <b>R.017173.049</b>	Sheet/Fauille <b>D02</b>	Revision/Revision



**SELECT GRANULAR SUBGRADE FILL MATERIAL**  
shall meet all the following requirements:

.1	Sieve Size	% Passing
	150 mm	100%
	0.075 mm	0 - 10%

.2 Material passing 0.425 mm sieve size shall have PL < 6 and LL < 25.

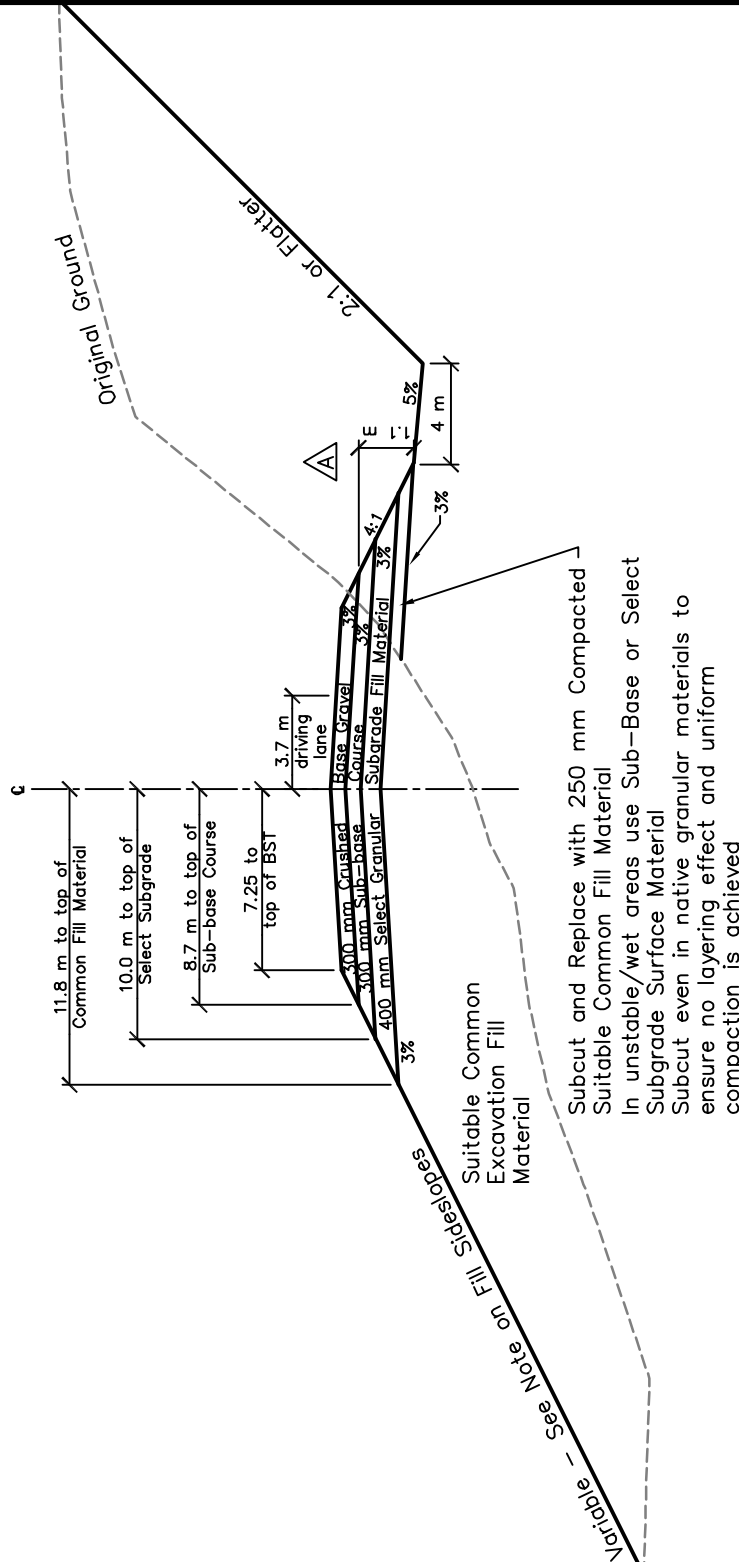
.3 Regardless that the material meets the above gradation, PL and LL requirements, it will be rejected if the material ruts when a loaded tandem truck passes over it.

**SUB-BASE MATERIAL**  
shall meet all the following requirements:

.1	Sieve Size	% Passing
	100 mm	100%
	5 mm	20 - 65%
	0.075 mm	0 - 8%

.2 Material passing 0.425 mm sieve size shall have PL < 6 and LL < 25.

.3 Regardless that the material meets the above gradation, PL and LL requirements, it will be rejected if the material ruts when a loaded tandem truck passes over it.



Subcut and Replace with 250 mm Compacted Suitable Common Fill Material  
In unstable/wet areas use Sub-Base or Select Subgrade Surface Material  
Subcut even in native granular materials to ensure no layering effect and uniform compaction is achieved

**Fill Slopes**

Subgrade Fill Height < 6 m 4:1 sideslope  
Subgrade Fill Height > 6 m < 9 m 3:1 sideslope with 5m wide zone from bottom of sideslope clear of hazards to errant vehicle.

Subgrade Fill Height > 9 m 2:1 sideslope - BC Warrants for Guiderail will be used to determine guiderail requirements.

Roadway to be widened 1 m in sections to receive concrete guiderail.

**NOTE:** Slopes of Crushed Base Gravels, the Sub-base Course and Select Subgrade Surface Material to be always 4:1.

Project title/Titre du projet	km 550.64 TO km 560.79 & km 563.1 TO km 570.2 <b>ALASKA HIGHWAY BRITISH COLUMBIA</b>
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Drawing title/Titre du dessin	<b>STANDARD EMBANKMENT STRUCTURE</b>
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Approved by/Approve par	AHG
Designed by/Concept par	AHG
Drawn by/Dessiné par	AHG

PWGSC Project Manager/Administrateur de Projets TPSGC
PWGSC, Architectural and Engineering Resources Manager/Ressources Architectural et de Directeur d'ingénierie, TPSGC
Project No./No. du projet R.017173.049

Scale/Echelle	NOT TO SCALE
Date/Date	DECEMBER 2013
Sheet/Fauille	D03
Revision/Revision	



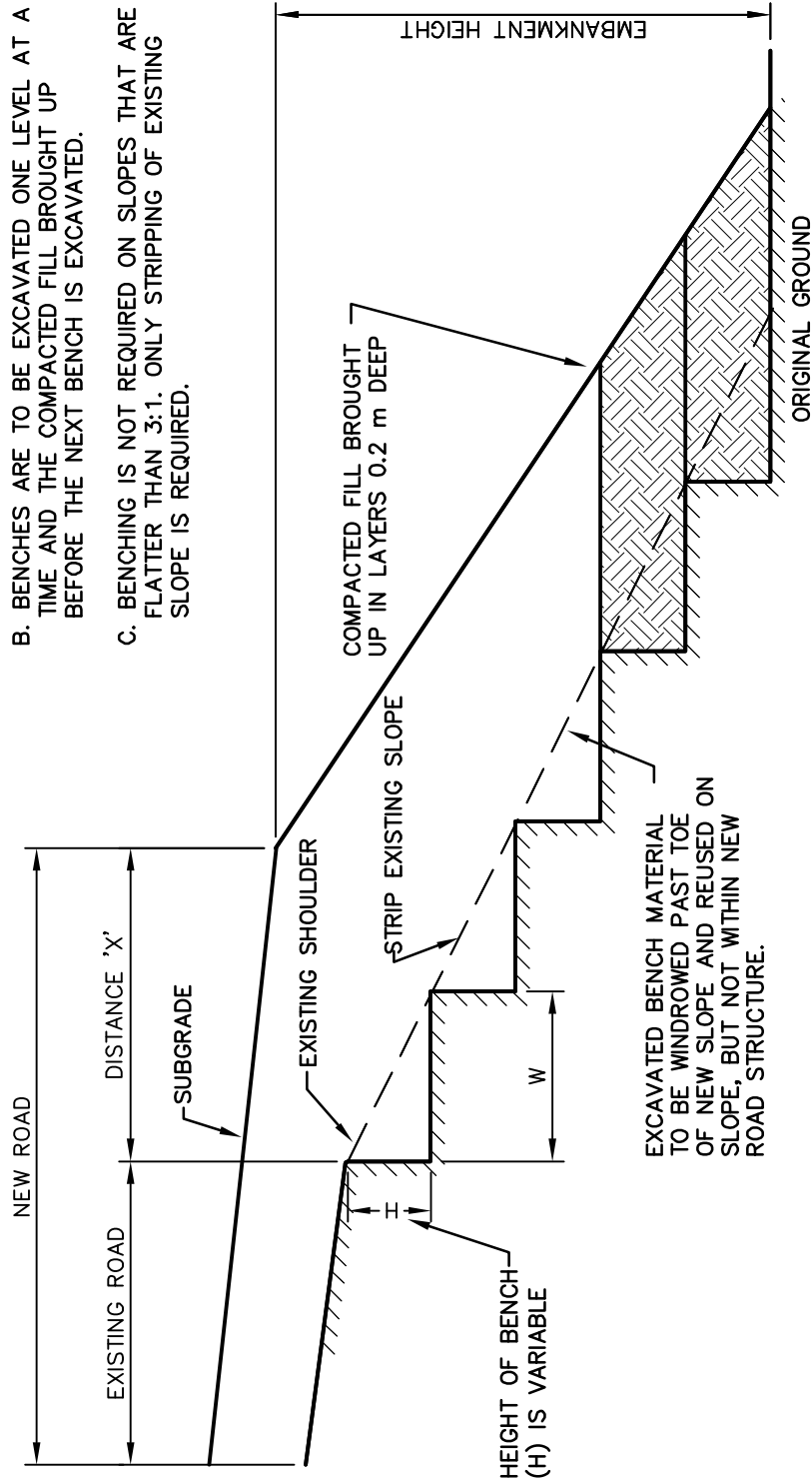
WIDTH OF BENCHES (W)		
EXISTING SLOPES	FILLS > 3.5 m	FILLS < 3.5 m
2:1	1.25 m	0.6 m
SLOPES < 2:1	2.5 m	1.25 m

**NOTES:**

A. THIS STANDARD APPLIES TO WIDENING OF FILLS WHERE THE DISTANCE 'X' IS 1.0 m OR MORE AT NEW SUBGRADE LEVEL.

B. BENCHES ARE TO BE EXCAVATED ONE LEVEL AT A TIME AND THE COMPACTED FILL BROUGHT UP BEFORE THE NEXT BENCH IS EXCAVATED.

C. BENCHING IS NOT REQUIRED ON SLOPES THAT ARE FLATTER THAN 3:1. ONLY STRIPPING OF EXISTING SLOPE IS REQUIRED.



NOT TO SCALE

Project title/Titre du projet

km 550.64 TO km 560.79 & km 563.1 TO km 570.2  
ALASKA HIGHWAY  
BRITISH COLUMBIA

Drawing title/Titre du dessin

BENCHING FOR EARTH SLOPES

Approved by/Approve par

AHG

PWGSC Project Manager/Administrateur de Projets TPSCG

Scale/Echelle

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Designed by/Concept par

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Date/Date

DECEMBER 2013

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AHG

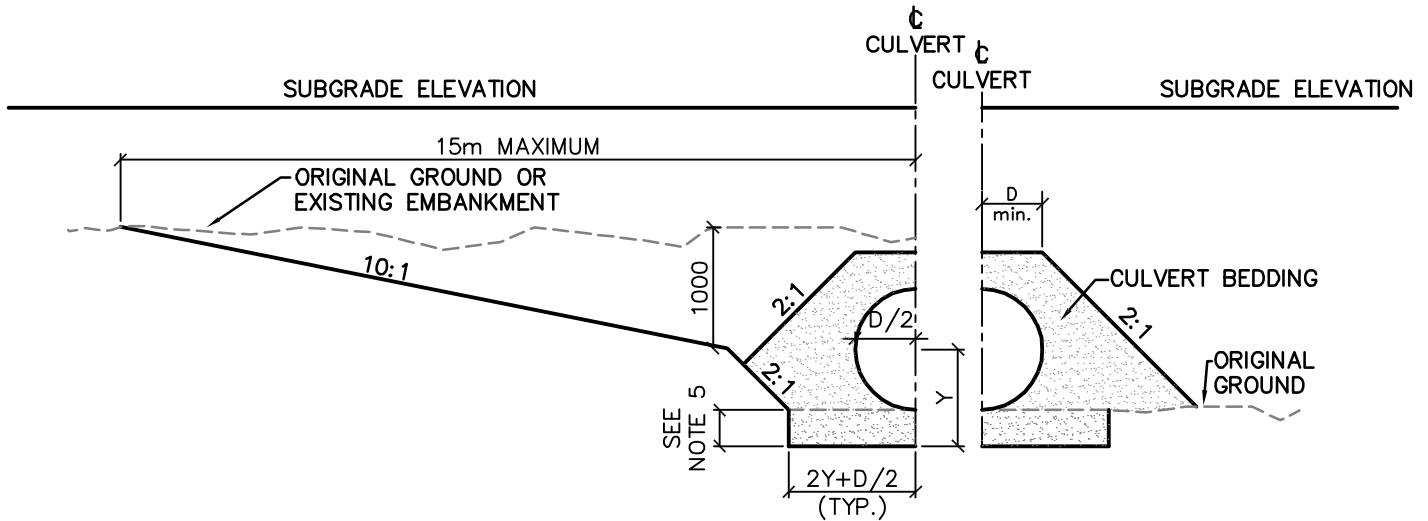
Project No./No. du projet

R.017173.049

Sheet/Fauille

D04

Revision/Revision



**NOTES:**

1. BEDDING TO BE TAKEN TO A MINIMUM OF 300 ABOVE THE CULVERT.
2. CULVERT BED TO BE CAREFULLY SHAPED TO RECEIVE LOWEST SEGMENT OF CULVERT TO A DEPTH EQUAL TO 10% OF CULVERT DIAMETER.
3. COMPACTION OF BEDDING MATERIAL – 98% OF STANDARD PROCTOR IN 150 LAYERS.
4. BEDDING MATERIAL TO BE CRUSHED BASE GRAVELS UNLESS SPECIFIED OTHERWISE IN THE CONTRACT.
5. DEPTH OF BEDDING MATERIAL BELOW CULVERT WILL BE A MINIMUM COMPACTED THICKNESS OF 300.
6. MINIMUM CAMBER = CULVERT LENGTH x (0.5/100).
7. ALL DIMENSIONS AND MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

Project title/Titre du projet

km 550.64 TO km 560.79 & km 563.1 TO km 570.2  
ALASKA HIGHWAY  
BRITISH COLUMBIA

Drawing title/Titre du dessin

INSTALLATION OF CULVERTS

Approved by/Approuvé par

AHG

PWGSC Project Manager/Administrateur de Projets TPSGC

Scale/Echelle

NOT TO SCALE

Designed by/Concept par

AHG

PWGSC, Architectural and Engineering Resources Manager/  
Ressources Architectural et de Directeur d'Ingénierie, TPSGC

Date/Date

DECEMBER 2013

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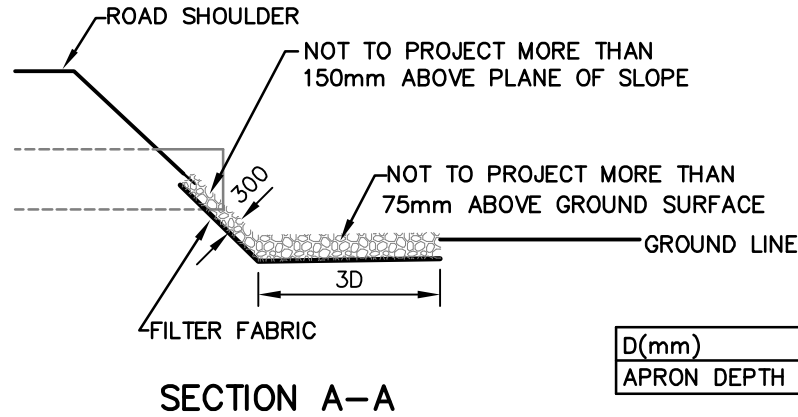
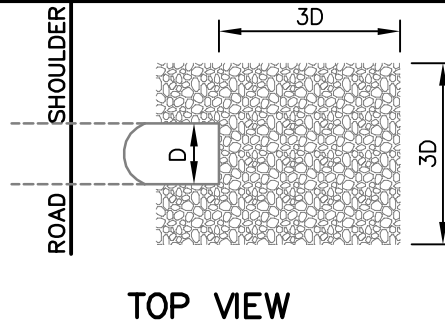
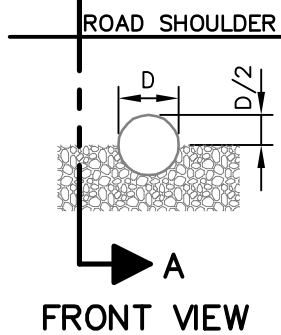
Project No./No. du projet

R.017173.049

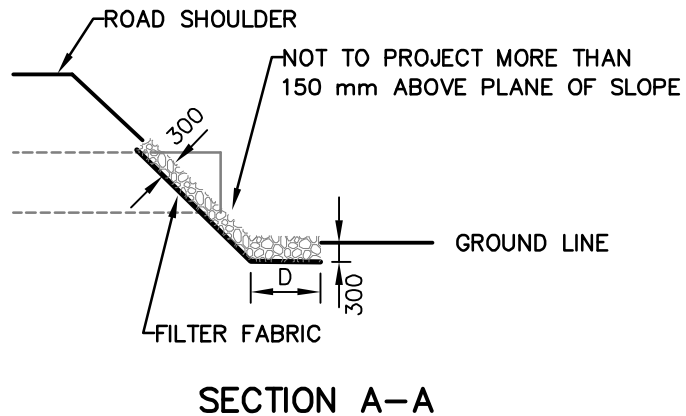
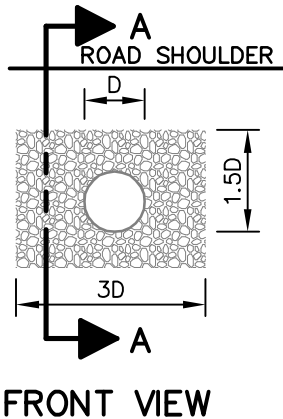
Sheet/Feuille

D05

Revision/Revision



**OUTLET**

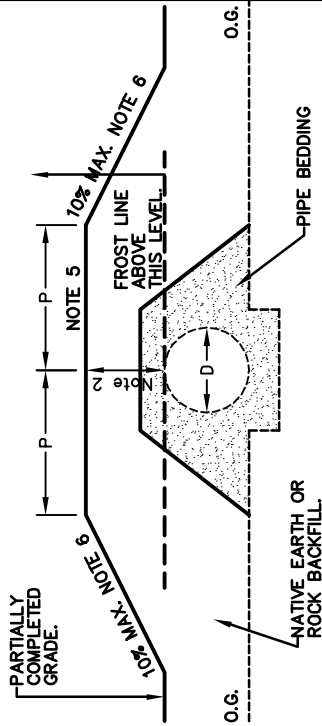


**NOTE:**

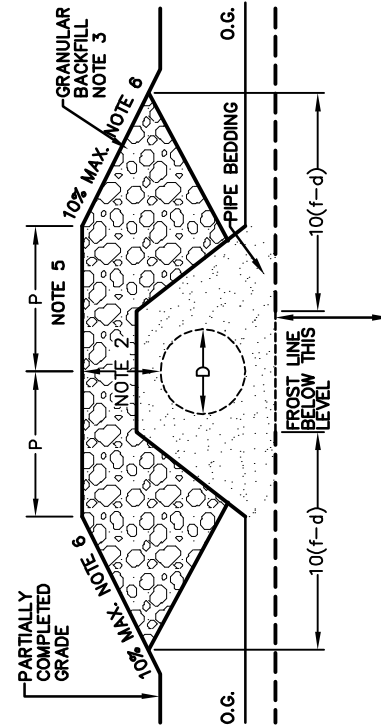
1. MINIMUM SIZE OF RIP RAP TO BE AS SPECIFIED IN SPECIFICATIONS.
2. ALL DIMENSIONS AND MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

**INLET**

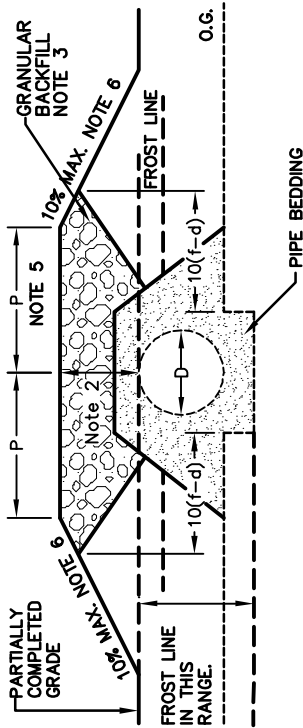
Project title/Titre du projet <b>km 550.64 TO km 560.79 &amp; km 563.1 TO km 570.2 ALASKA HIGHWAY BRITISH COLUMBIA</b>		Drawing title/Titre du dessin <b>HAND PLACED ROCK RIP RAP</b>	
Approved by/Approve par <b>AHG</b>	PWGSC Project Manager/Administrateur de Projets TPSGC	Scale/Echelle <b>NOT TO SCALE</b>	
Designed by/Concept par <b>AHG</b>	PWGSC, Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'Ingénierie, TPSGC	Date/Date <b>DECEMBER 2013</b>	
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**FROST LINE ABOVE TOP OF PIPE**



**FROST LINE BELOW BOTTOM OF BEDDING**



**FROST LINE BETWEEN BOTTOM OF BEDDING AND TOP OF PIPE**

**LEGEND:**

"d" DENOTES DEPTH OF GRANULAR (ROADBED)  
"f" DENOTES DEPTH OF FROST PENETRATION

**NOTES:**

1. P = 1.5m OR 1.5 D WHICHEVER IS GREATER. D = DIAMETER OF CIRCULAR PIPE OR SPAN OF PIPE-ARCH.
2. DEPTH OF BEDDING MATERIAL PLUS BACKFILL OVE TOP OF PIPE MUST BE 600 OR (DIA. OR SPAN)/6 PLUS 300 WHICHEVER IS GREATER.
3. CONTAMINATED MATERIAL TO BE REMOVED AND REPLACED WITH APPROVED GRANULAR BACKFILL.
4. THIS STANDARD TO BE USED IN CONJUNCTION WITH BACKFILLS FOR CULVERTS.
5. WHEN PROTECTION IS HIGHER THAN SUBGRADE, IT IS TO BE REMOVED TO SUBGRADE LEVEL BEFORE PLACING GRANULAR BASE.
6. WHEN PROTECTION IS USED BY PUBLIC VEHICULAR TRAFFIC, THEN MAXIMUM SLOPE SHALL BE 5%.
7. ALL DIMENSIONS AND MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

Project title/Titre du projet

km 550.64 TO km 560.79 & km 563.1 TO km 570.2  
ALASKA HIGHWAY  
BRITISH COLUMBIA

Drawing title/Titre du dessin

PROTECTION OF CULVERTS AGAINST  
HEAVY CONSTRUCTION EQUIPMENT

Approved by/Approve par

AHG

PWGSC Project Manager/Administrateur de Projets TPSGC

Scale/Echelle

NOT TO SCALE

Designed by/Concept par

AHG

PWGSC, Architectural and Engineering Resources Manager/  
Ressources Architectural et de Directeur d'ingénierie, TPSGC

Date/Date

DECEMBER 2013

Drawn by/Dessine par

AHG

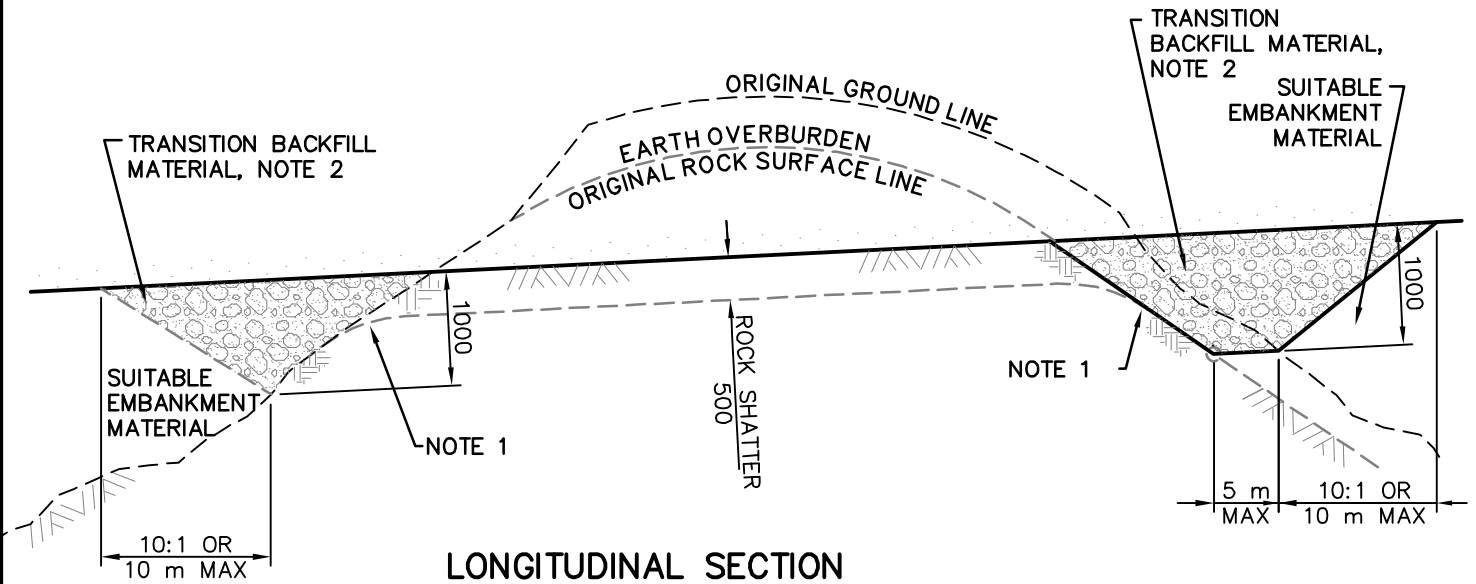
Project No./No. du projet

R.017173.049

Sheet/Fauille

D07

Revision/Revision



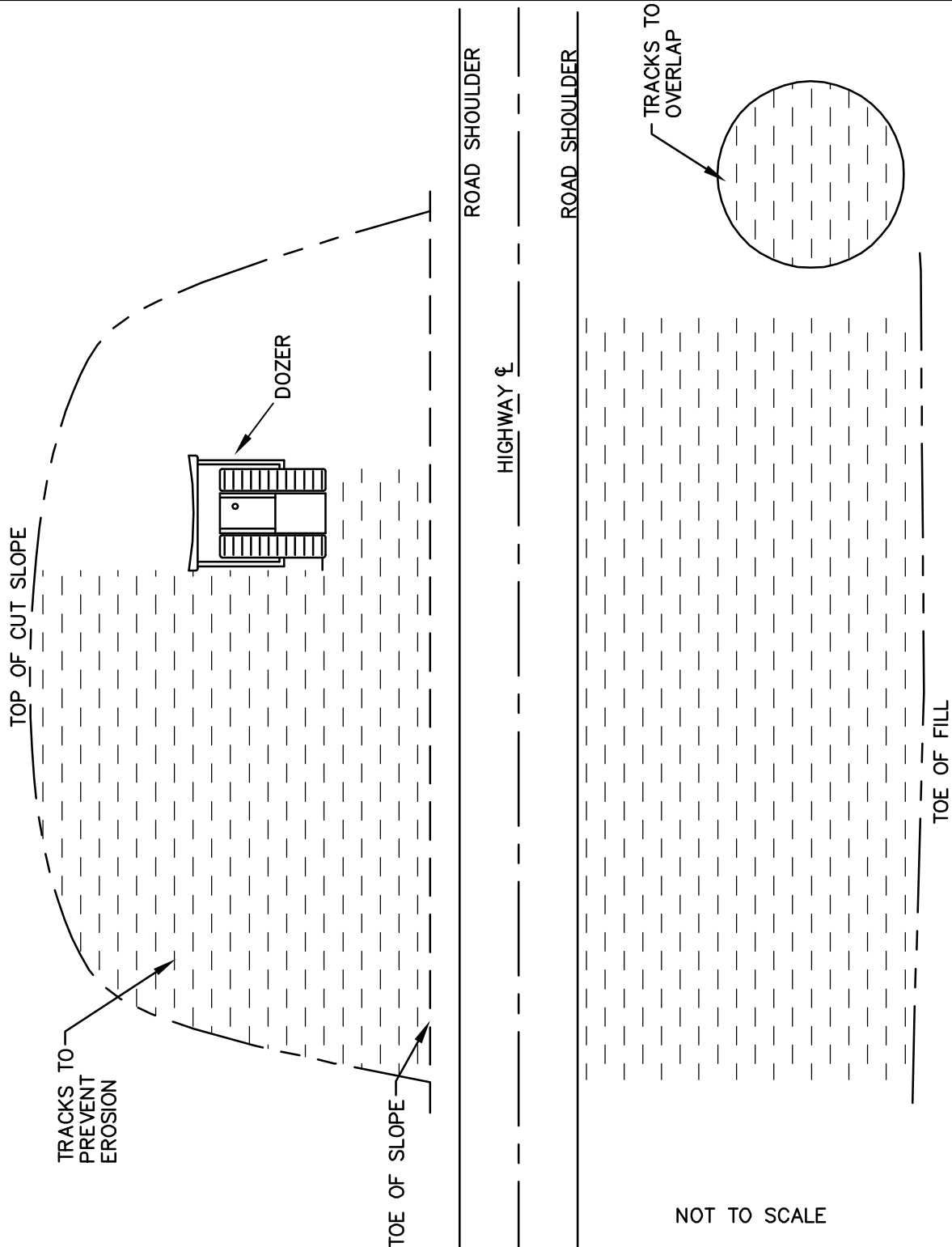
**LONGITUDINAL SECTION**

**NOTE:**

1. CARRY OUT SUFFICIENT SHATTER AT TRANSITION POINT TO OBTAIN POSITIVE DRAINAGE.
2. ROCK FILL OR IF NOT AVAILABLE GRANULAR SUB-BASE MATERIAL.
3. LONGITUDINAL SECTION: THIS TREATMENT IS TO BE CARRIED OUT FOR WIDTH OF CUT OR SUBGRADE WIDTH OF FILL.
4. ALL DIMENSIONS AND MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

Project title/Titre du projet <b>km 550.64 TO km 560.79 &amp; km 563.1 TO km 570.2 ALASKA HIGHWAY BRITISH COLUMBIA</b>		Drawing title/Titre du dessin <b>TREATMENT OF TRANSITION POINTS ROCK CUT TO FILL WITH OR WITHOUT OVERBURDEN</b>	
Approved by/Approve par <b>AHG</b>	PWGSC Project Manager/Administrateur de Projets TPSCG	Scale/Echelle <b>NOT TO SCALE</b>	
Designed by/Concept par <b>AHG</b>	PWGSC, Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'Ingénierie, TPSCG	Date/Date <b>DECEMBER 2013</b>	
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Project title/Titre du projet

km 550.64 TO km 560.79 & km 563.1 TO km 570.2  
ALASKA HIGHWAY  
BRITISH COLUMBIA

Drawing title/Titre du dessin

SLOPE TREATMENT  
CUTS & FILLS

Approved by/Approve par

AHG

PWGSC Project Manager/Administrateur de Projets TPSCG

Scale/Echelle

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Ressources Architectural et de Directeur d'ingénierie, TPSCG

Date/Date

DECEMBER 2013

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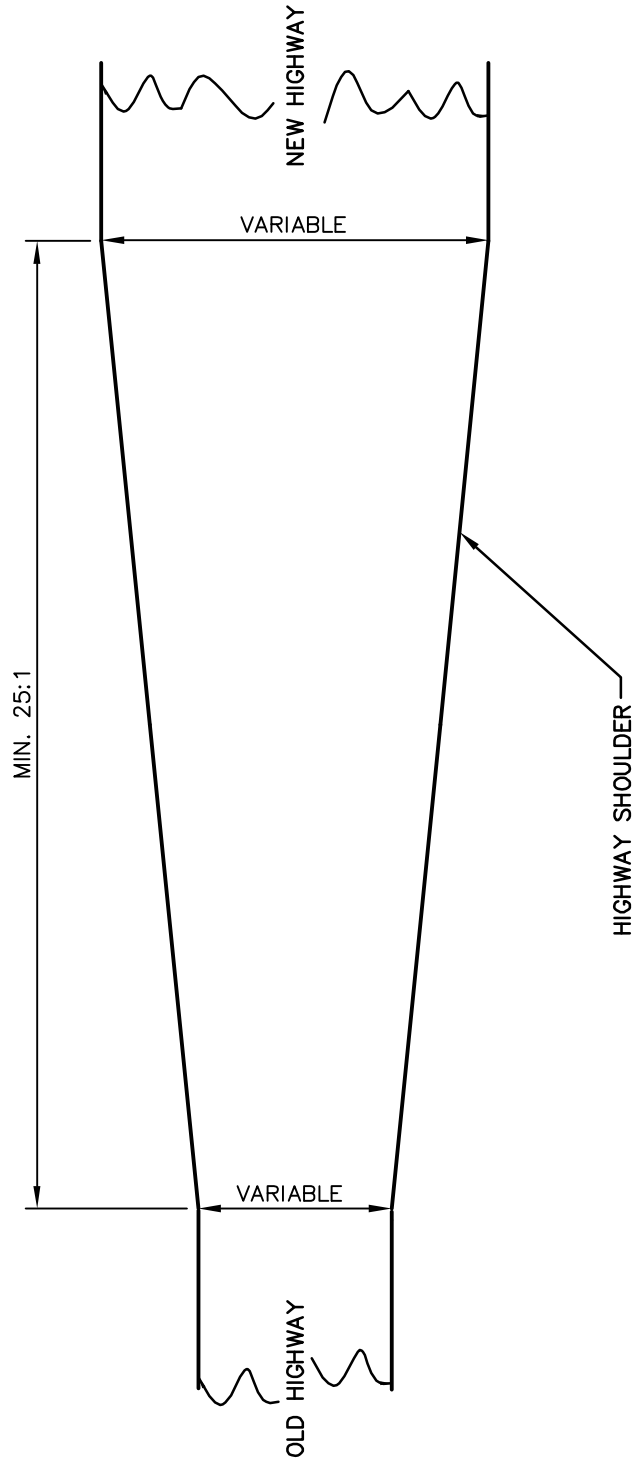
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R.017173.049

Sheet/Fauille

D09

Revision/Revision



Project title/Titre du projet

**km 550.64 TO km 560.79 & km 563.1 TO km 570.2  
ALASKA HIGHWAY  
BRITISH COLUMBIA**

Drawing title/Titre du dessin

**TRANSITION FROM OLD  
TO NEW HIGHWAY**

Approved by/Approve par

AHG

PWGSC Project Manager/Administrateur de Projets TPSCG

Scale/Echelle

NOT TO SCALE

Designed by/Concept par

AHG

PWGSC, Architectural and Engineering Resources Manager/  
Ressources Architectural et de Directeur d'Ingénierie, TPSCG

Date/Date

DECEMBER 2013

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R.017173.049

Sheet/Fauille

D10

Revision/Revision