

**R.106340.001: ROCK SLOPE STABILIZATION NORTH SIDE
G100 - G112: GEOTECHNICAL DRAWING LIST**

DRAWING NUMBER	SHEET NAME
G100	COVER SHEET
G101	SITE LOCATION PLAN
G102	SITE PLAN
G103	AREA A - ROCKFALL PROTECTION GENERAL LAYOUT PLAN
G104	AREA B - ROCKFALL PROTECTION GENERAL LAYOUT PLAN
G105	AREA A - ELEVATION & SECTIONS
G106	AREA B - ELEVATION & SECTIONS
G107	TYPICAL ANCHOR DETAILS
G108	PRIMARY & SECONDARY MESH A - TYPICAL DETAILS
G109	MESH B - TYPICAL DETAILS
G110	ANCHOR TABLE
G111	AREA A - PHOTO LOCATIONS
G112	AREA B - PHOTO LOCATIONS

DESIGN PRINCIPLES AND CONSTRUCTION NOTES

Design Criteria

- These rockfall protection measures were designed using the principles set out in "Rock Slope Engineering - Civil and Mining (4th Edition)" by Duncan C Wyllie & Christopher W Mah.
- Anchors were designed in accordance with PTI DC35.1-14 "Recommendations for Prestressed Rock and Soil Anchors".
- Seismic design was based on the 1 in 2475 design earthquake (2015 NBC).
- Quality assurance checks shall be carried out by the Departmental Representative throughout construction to verify the installation complies with the details shown on these drawings.
- Anchor Load Table:

Anchor Type:	Design Load (kN):	Lock off Load (kN):
Top wire rope	300 kN	N/A
Bottom wire rope	150 kN	N/A
Lateral wire rope	150 kN	N/A
4m rock anchor	180 kN	80 kN
8m rock anchor	290 kN	120 kN



Revision/ Révision	Description/ Description	Date/ Date
5		
4		
3	IFT Drawings	20/03/20
2	99% Design Drawings	20/02/21
1	66% Design Drawings	20/01/16
0	33% Design Drawings	19/12/05

Client/Client
Public Works and Government Services Canada

Project title/Titre du projet
**Esquimalt Graving Dock
825 Admirals Road
Victoria, B.C.**

**Rock Slope Stabilization
North Side**

Consultant Signature Only

Designed by/Concept par
RS

Drawn by/Desiné par
AJB

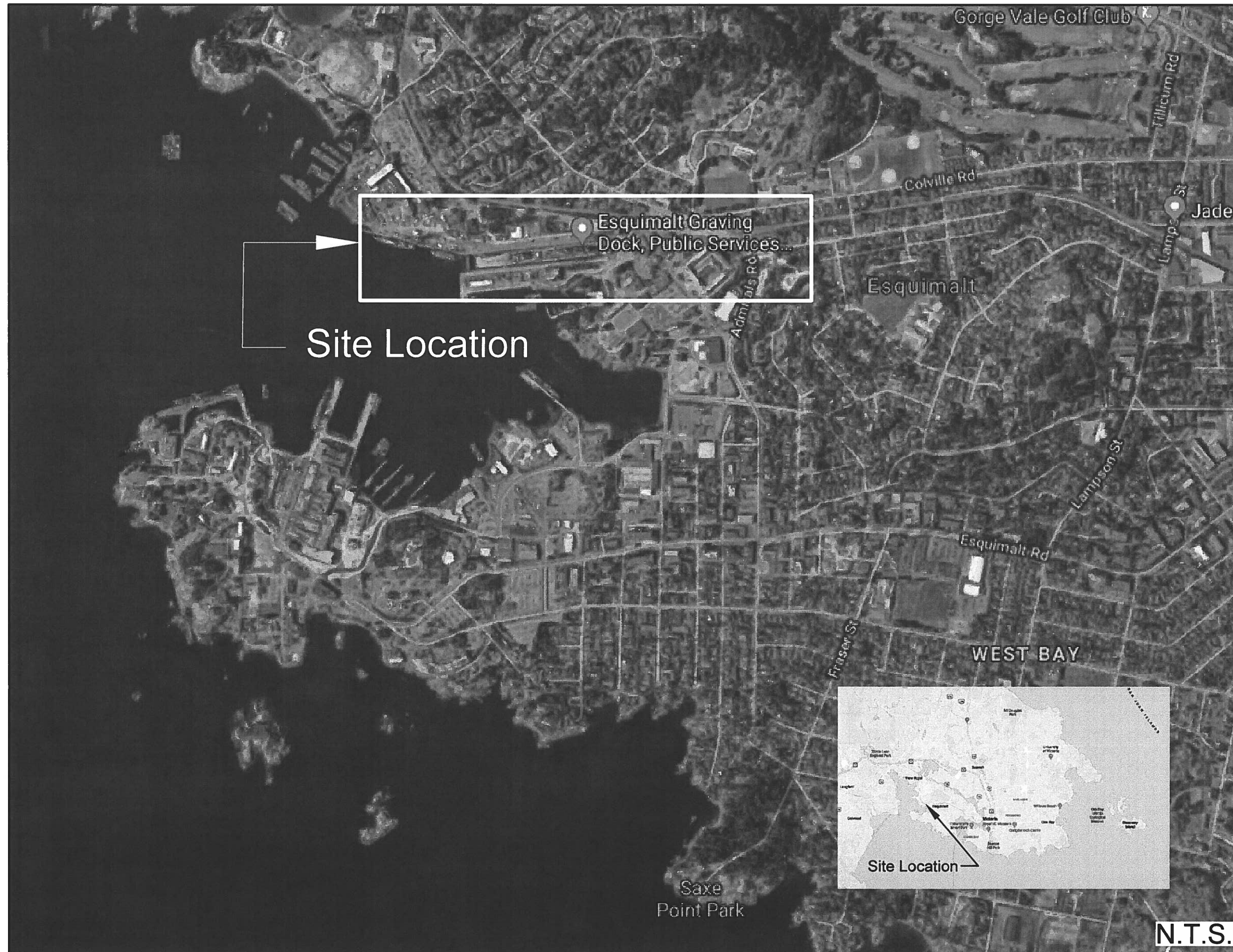
PWOSC Project Manager/Administrateur de Projets TPSGC
Rowan Seth Leonard

PWOSC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régionale, Services d'architectural et de génie, TPSGC
Preetipal Paul

Drawing title/Titre du dessin

Cover Sheet

Project No./No. du projet	Sheet/Feuille	Revision no./ La Révision no.
R.106340.001	G100 OF G112	3



Site Location



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5		
4		
3	IFT Drawings	20/03/20
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RS

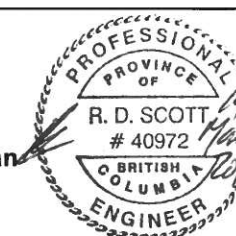
Drawn by/Dessiné par
AJB

PWGSC Project Manager/Administrateur de Projets TPSGC
Rowan Seth Leonard

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Site Location Plan



Project No./No. du projet	Sheet/Fauille	Revision no./ La Révision no.
R.106340.001	G101 OF G112	3

Reference: Google Maps [website]. Retrieved on 30 November 2019 from <https://www.google.ca/maps>



N.T.S.



5		
4		
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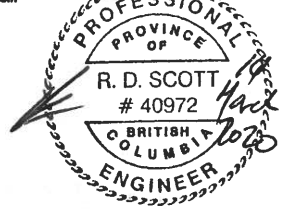
Client/client
Public Works and Government Services Canada

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Esquimalt Graving Dock
825 Admirals Road
Victoria, B.C.

Rock Slope Stabilization
North Side

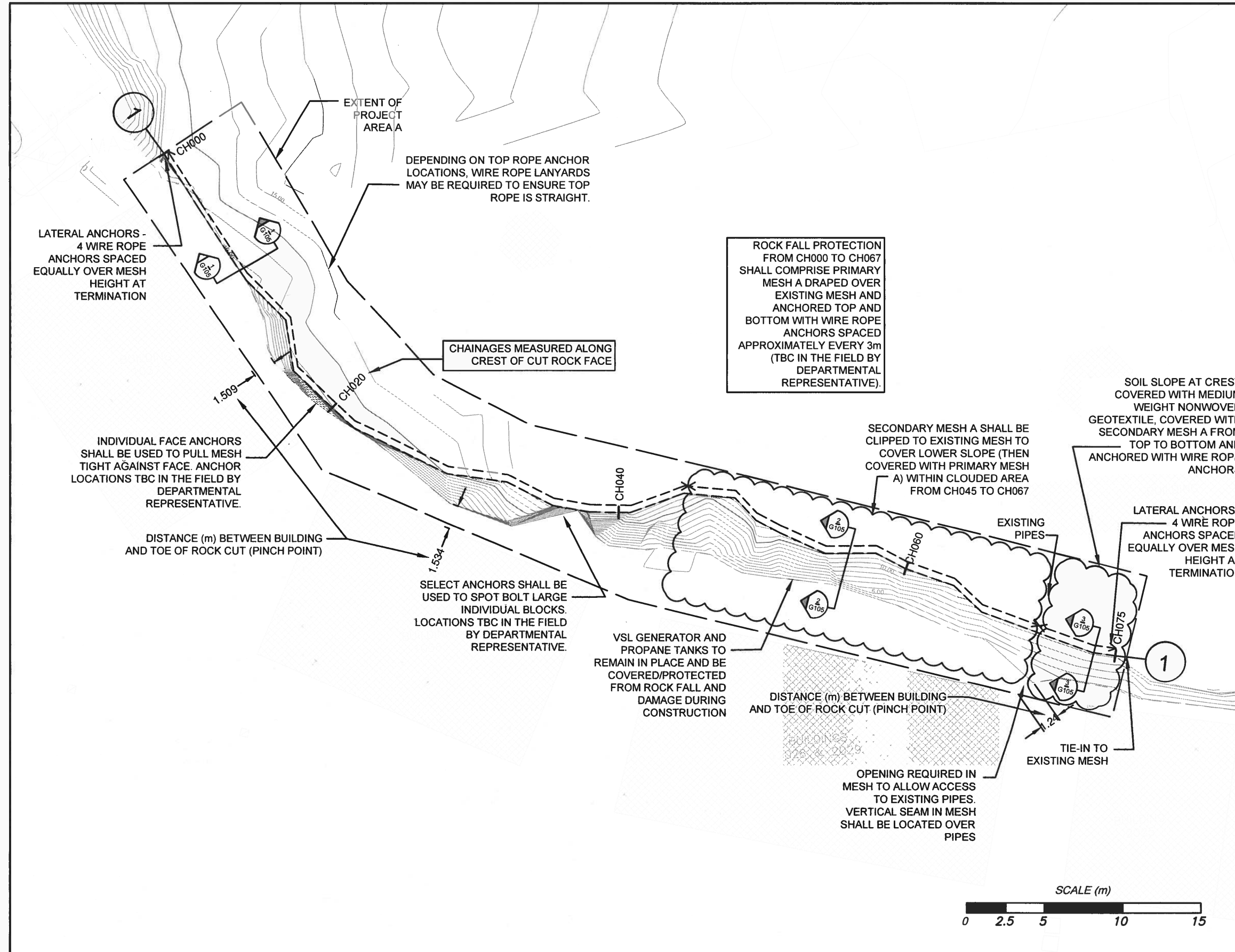
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 PWGSC Project Manager/Administrateur de Projets TPSGC
 Rowan Seth Leonard

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Drawing title/Titre du dessin
Site Plan


Project No./No. du projet	Sheet/Fauille	Revision no./ La Révision no.
R.106340.001	G102 OF G112	3

Reference: Google Maps [website]. Retrieved on 30 November 2019 from <https://www.google.ca/maps>



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 Victoria, B.C.**

**Rock Slope Stabilization
 North Side**

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 RS

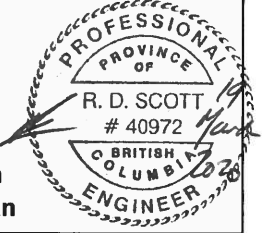
Drawn by/Dessiné par
 A.J.B.

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 Rowan Seth Leonard

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 Preetipal Paul

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**Area A -
 Rockfall Protection
 General Layout Plan**



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 North Side**

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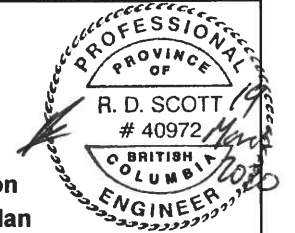
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 AJB

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 Rowan Seth Leonard

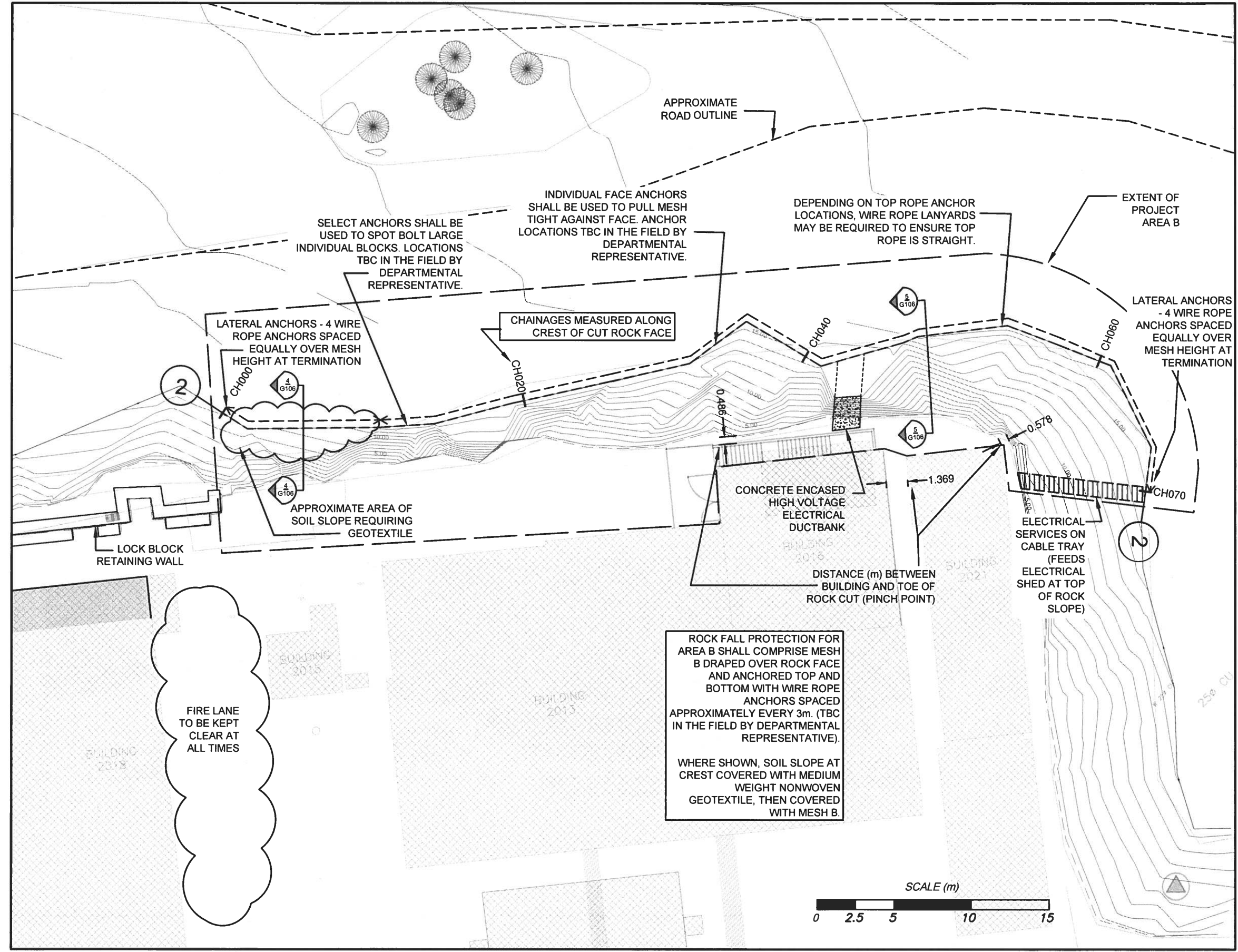
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 Gestionnaire régionale, Services d'architecture et de génie, TPSGC
 Preetpal Paul

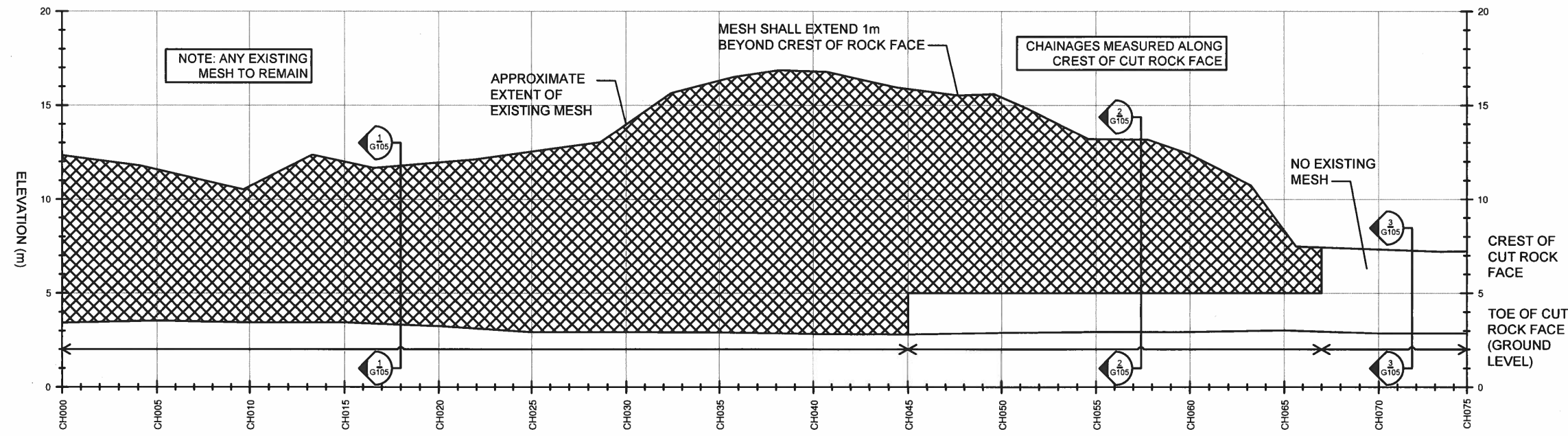
Drawing title/Titre du dessin

**Area B -
 Rockfall Protection
 General Layout Plan**

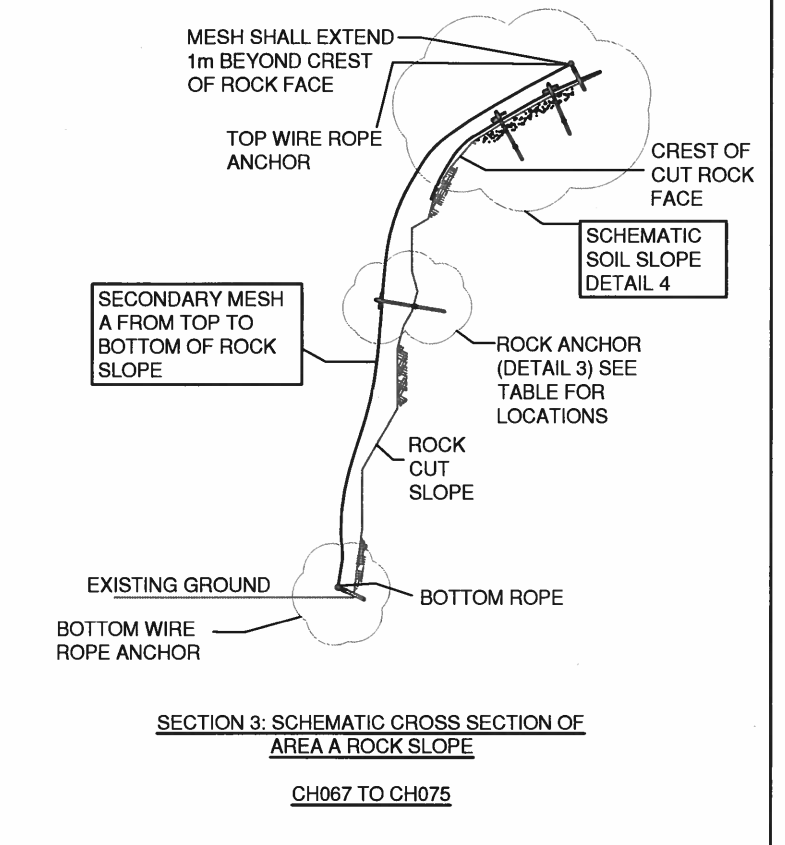
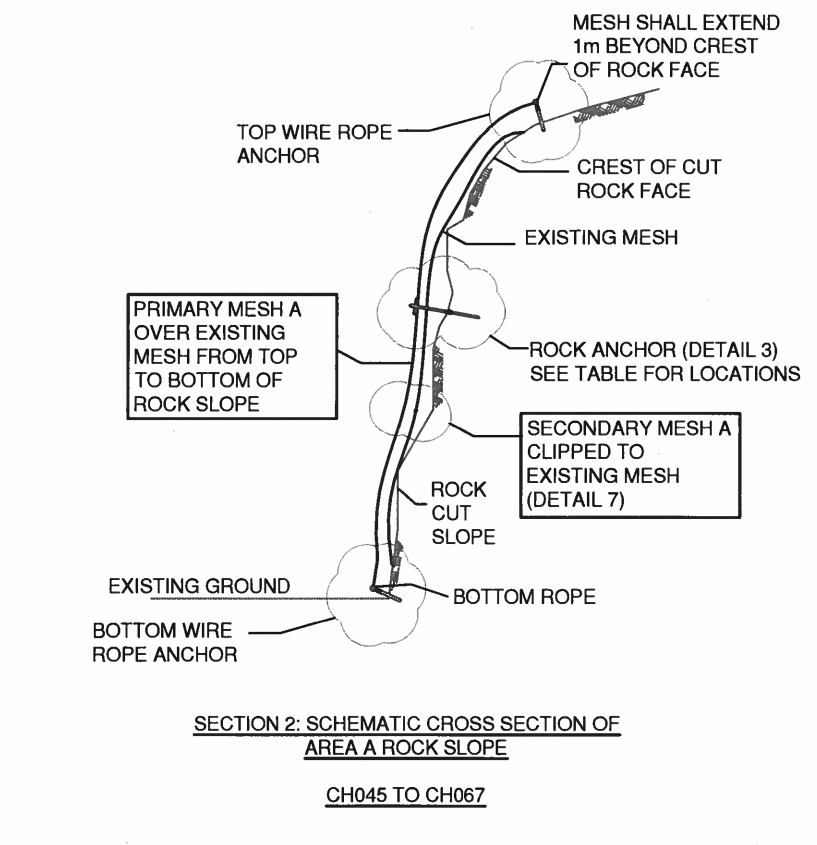
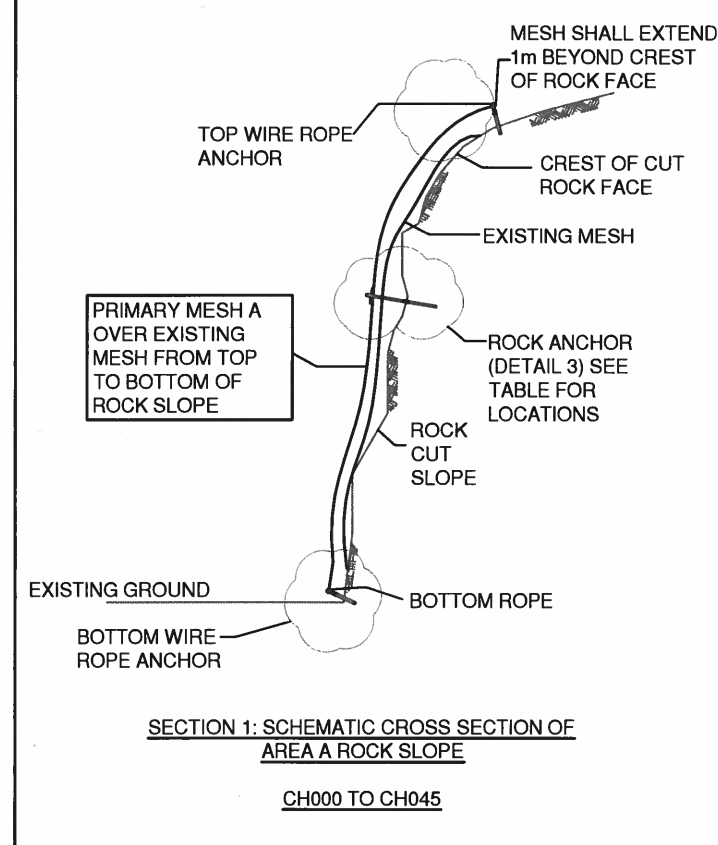


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Existing Profile 1: Area A



5		
4		
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Victoria, B.C.**

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North Side**

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RS

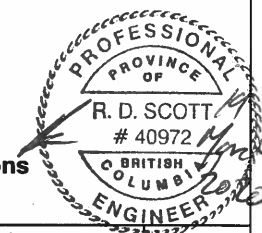
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Rowan Seth Leonard

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Preestipal Paul

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Area A -
Elevation & Sections



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Esquimalt Graving Dock
825 Admirals Road
Victoria, B.C.

Rock Slope Stabilization North Side

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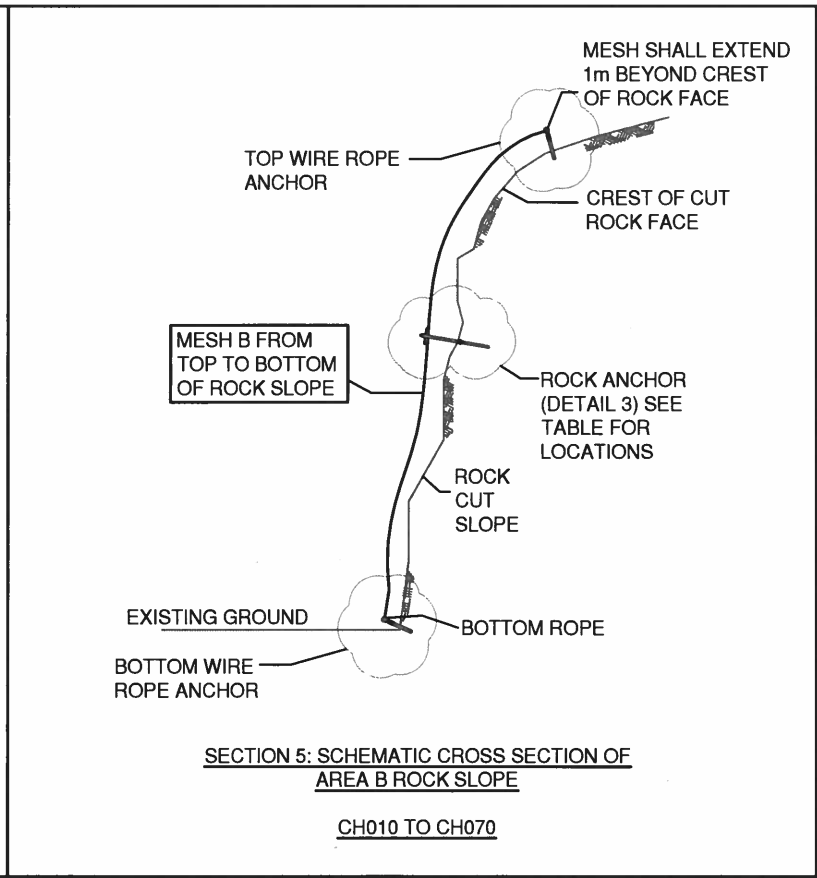
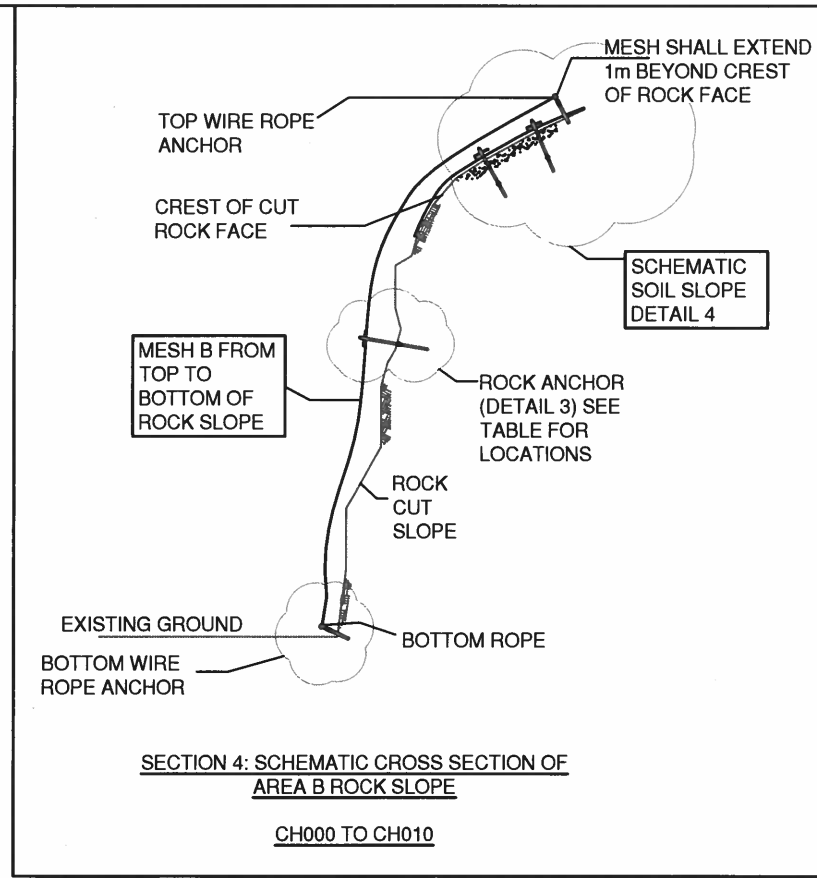
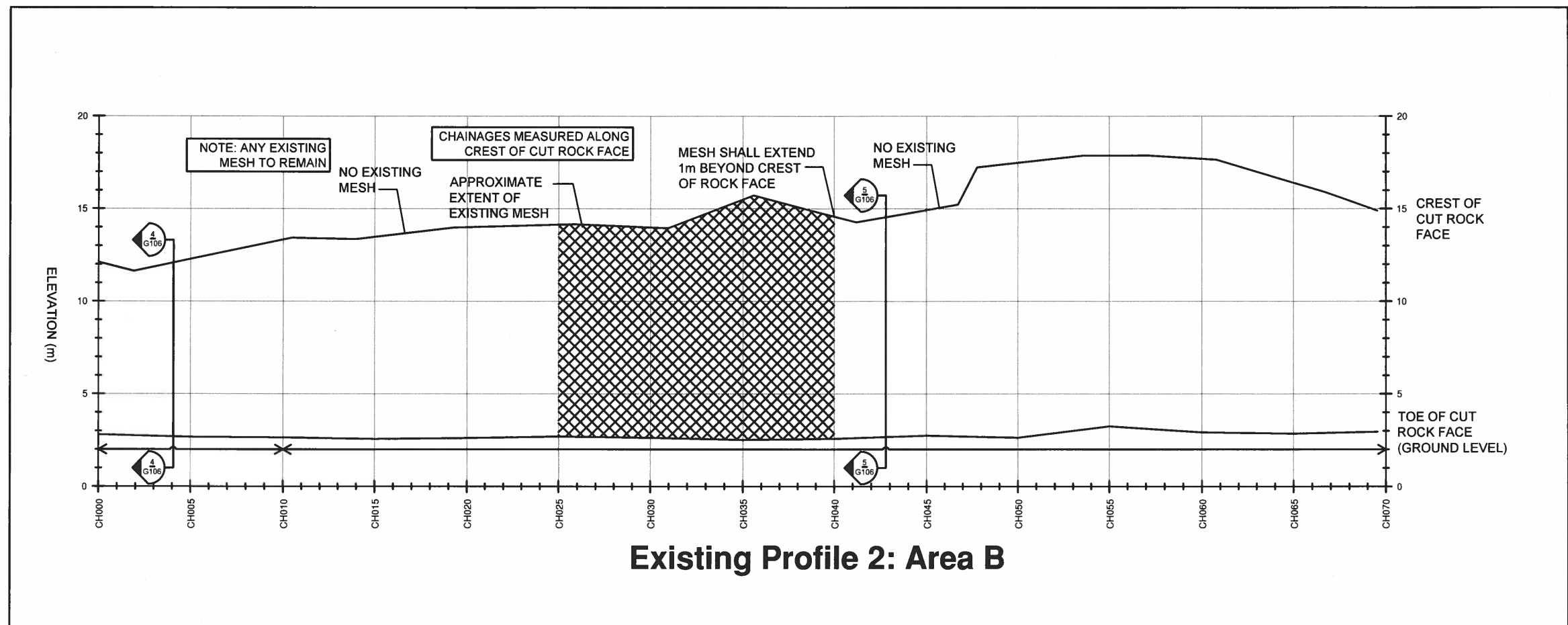
PWOSC Project Manager/Administrateur de Projets TPSOC
Rowan Seth Leonard

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Gestionnaire régional, Services d'architecture et de génie, TPSOC
Preetpal Paul

Drawing title/Titre du dessin

Area B -
Elevation & Sections

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5		
4		
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825 Admirals Road
Victoria, B.C.

Rock Slope Stabilization North Side

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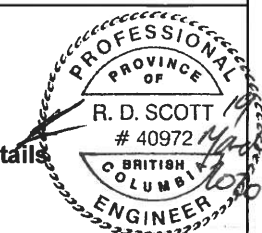
Drawn by/Dessiné par
AJB

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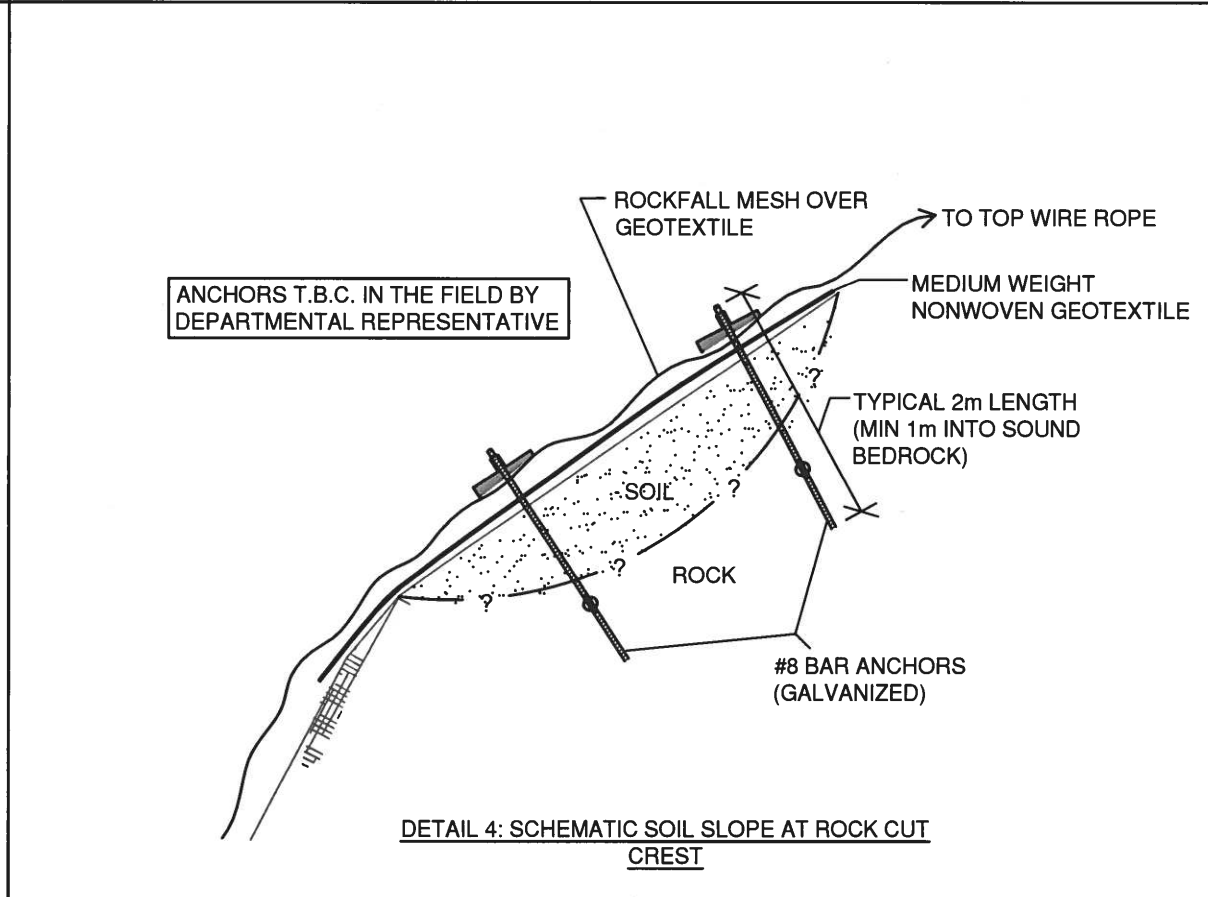
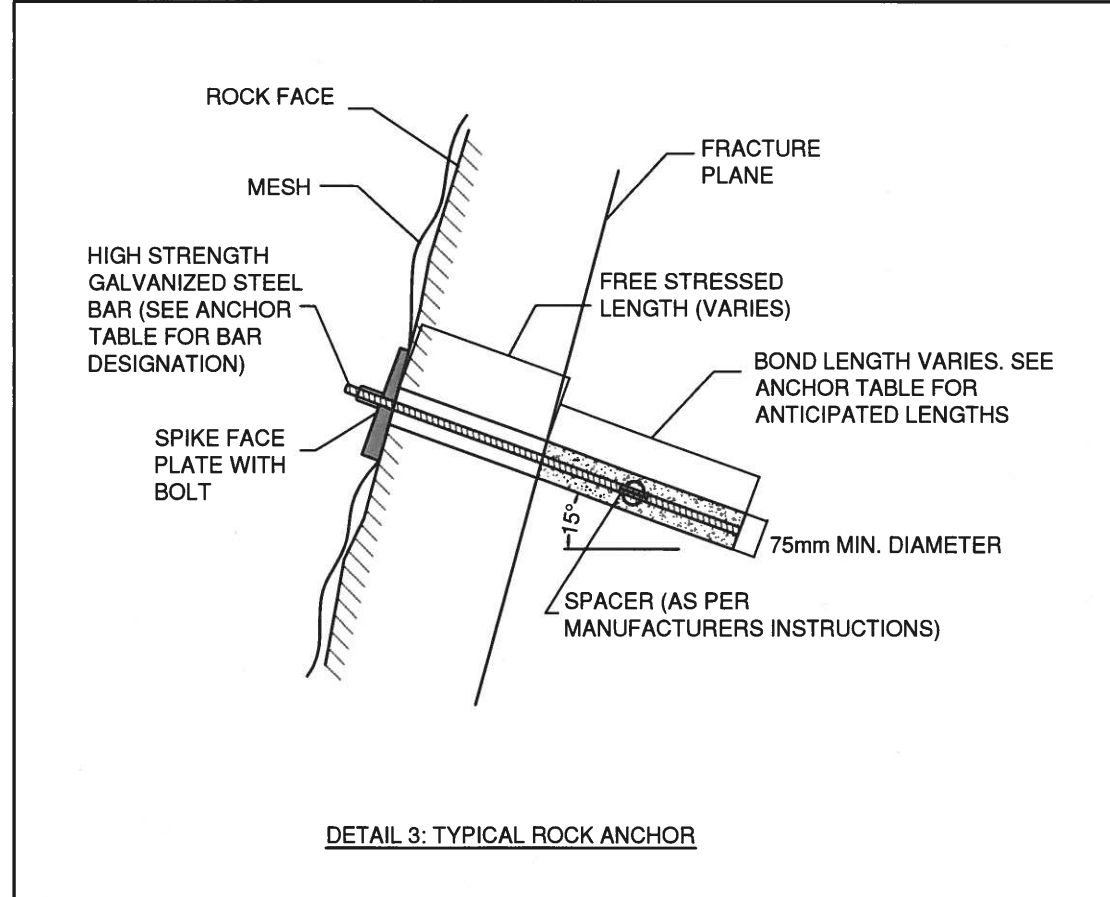
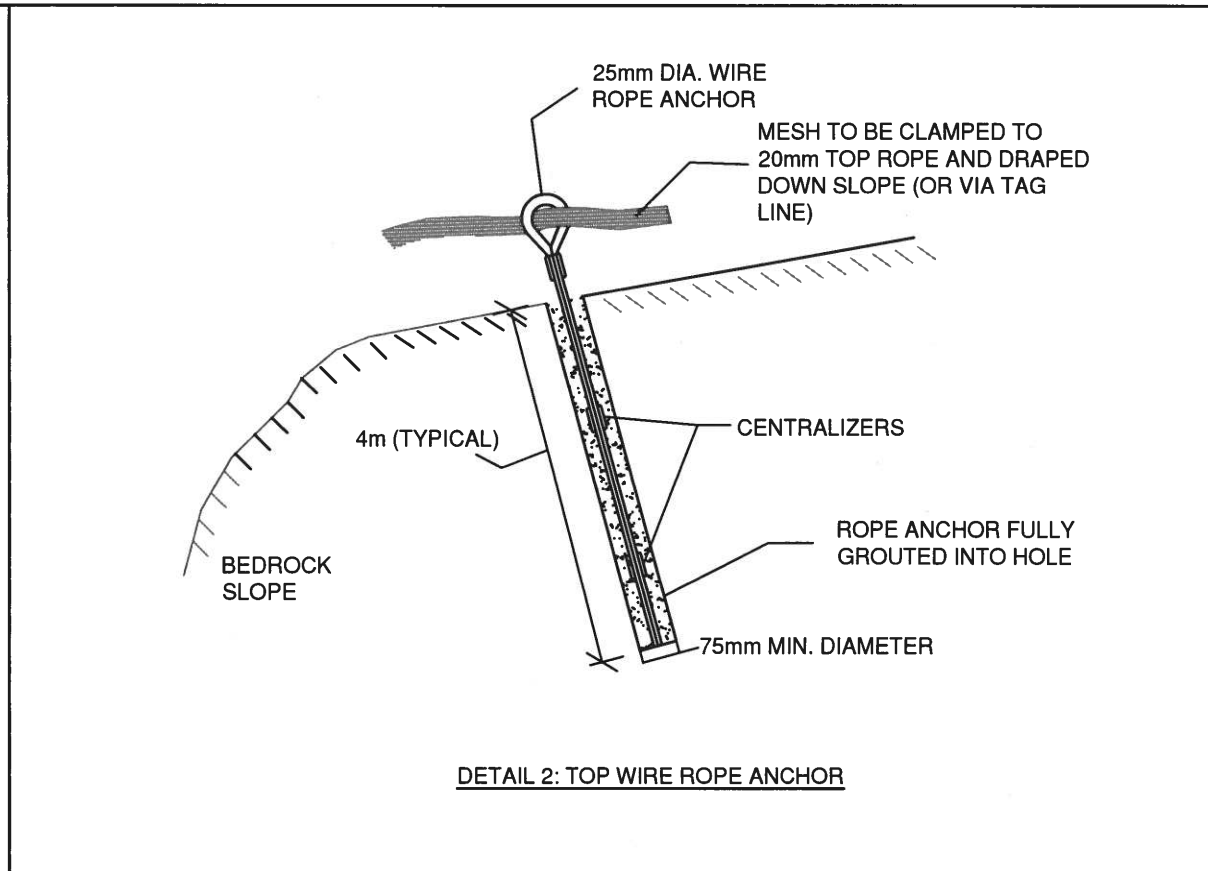
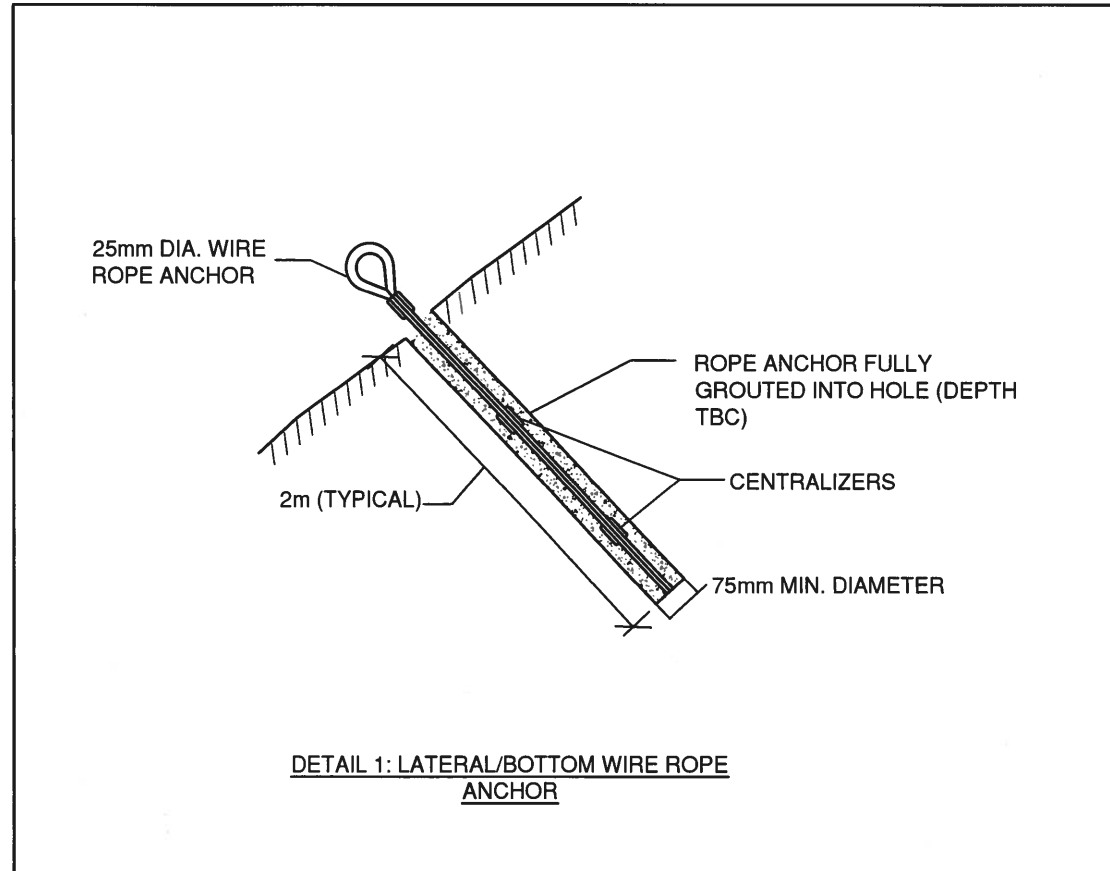
PWOSC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régionale, Services d'architecture et de génie, TPSGC
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Typical Anchor Details



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4		
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Client/client: Public Works and Government Services Canada

Project title/Titre du projet: Esquimalt Graving Dock 825 Admirals Road Victoria, B.C.

Rock Slope Stabilization North Side

Consultant Signature Only

Designed by/Concept par: RS

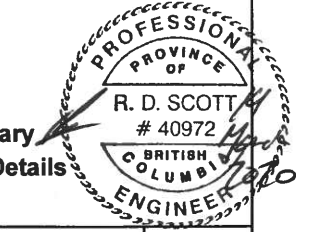
Drawn by/Dessiné par: AJB

PWOSC Project Manager/Administrateur de Projets TPSOC: Rowan Seth Leonard

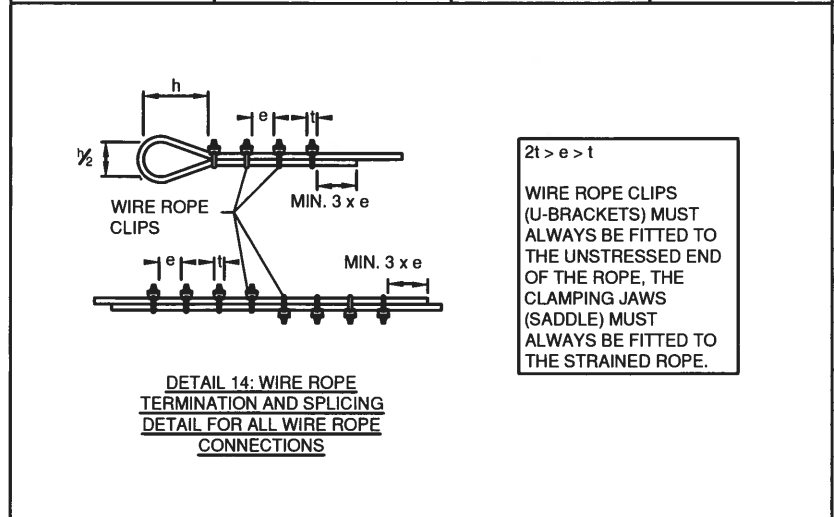
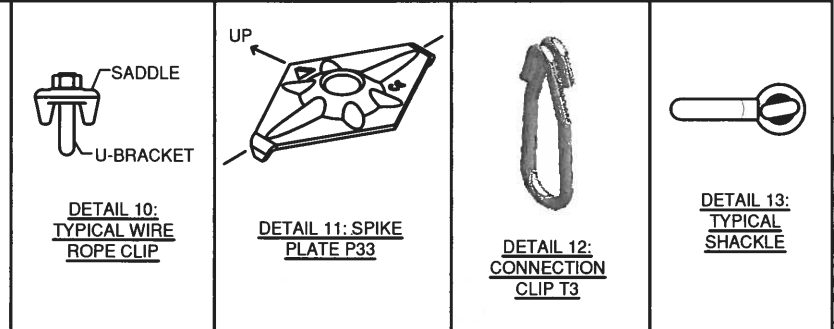
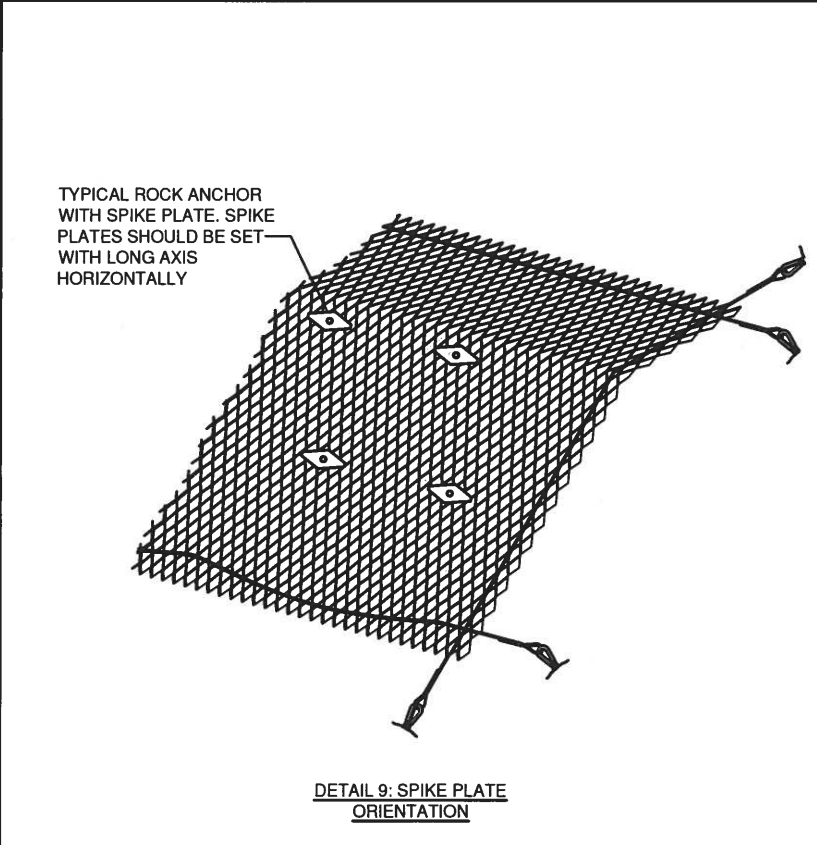
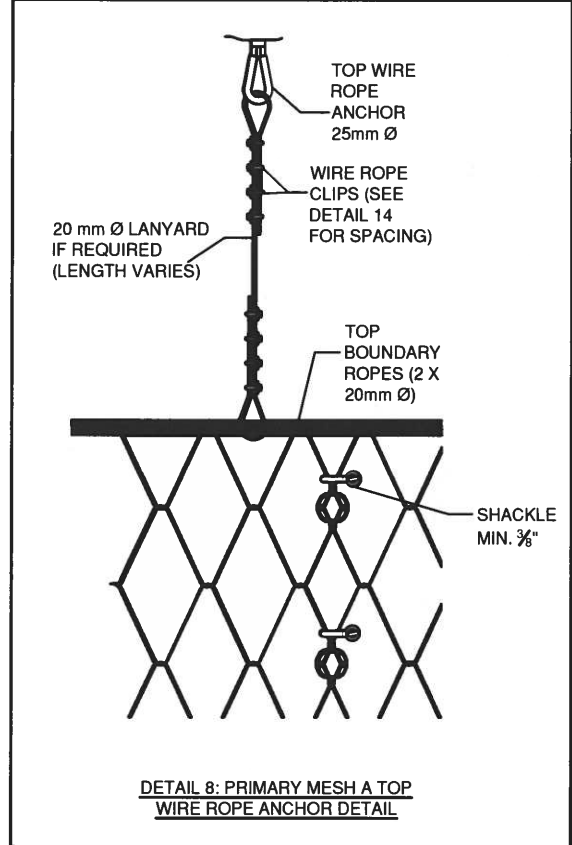
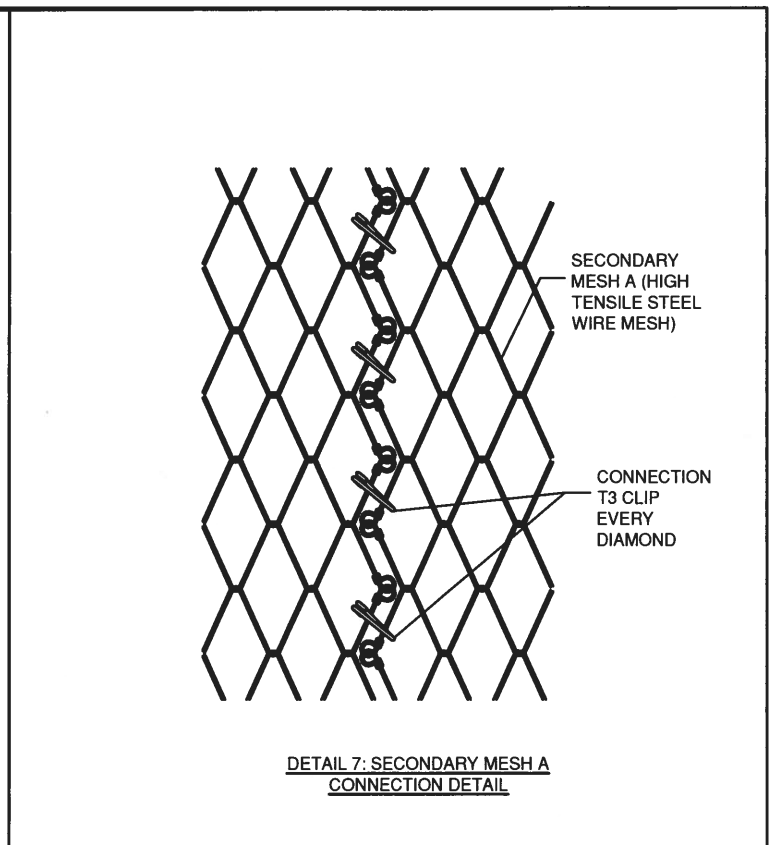
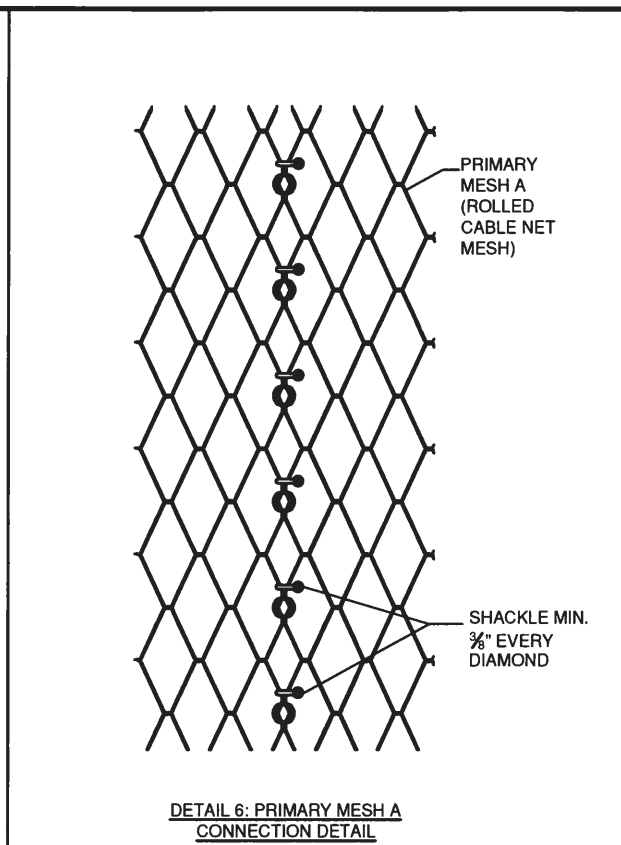
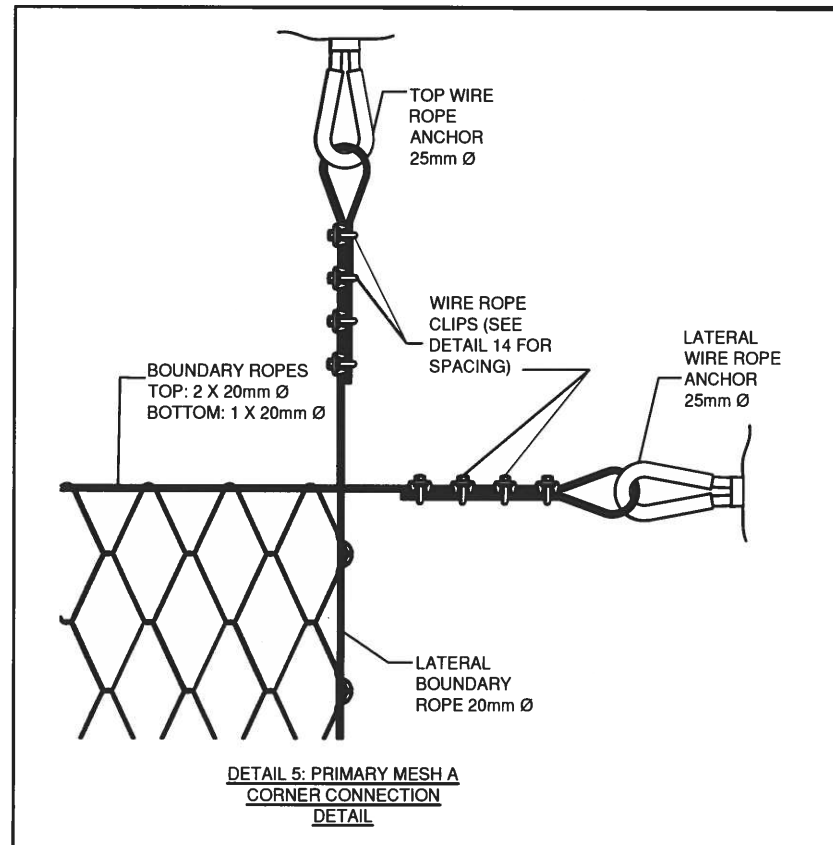
PWOSC, Regional Manager, Architectural and Engineering Services / Gestionnaire régionale, Services d'architectural et de génie, TPSOC: Preetipal Paul

Drawing title/Titre du dessin

Primary & Secondary Mesh A - Typical Details



Project No./No. du projet: R.106340.001	Sheet/Feuille: G108 OF G112	Revision no./La Révision no.: 3
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5		
4		
3	IFT Drawings	20/03/20
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Client/client
Public Works and Government Services Canada

Project title/Titre du projet
Esquimalt Graving Dock
825 Admirals Road
Victoria, B.C.

Rock Slope Stabilization North Side

Consultant Signature Only

Designed by/Concept par
RS

Drawn by/Dessiné par
AJB

PWGSC Project Manager/Administrateur de Projets TPSGC
Rowan Seth Leonard

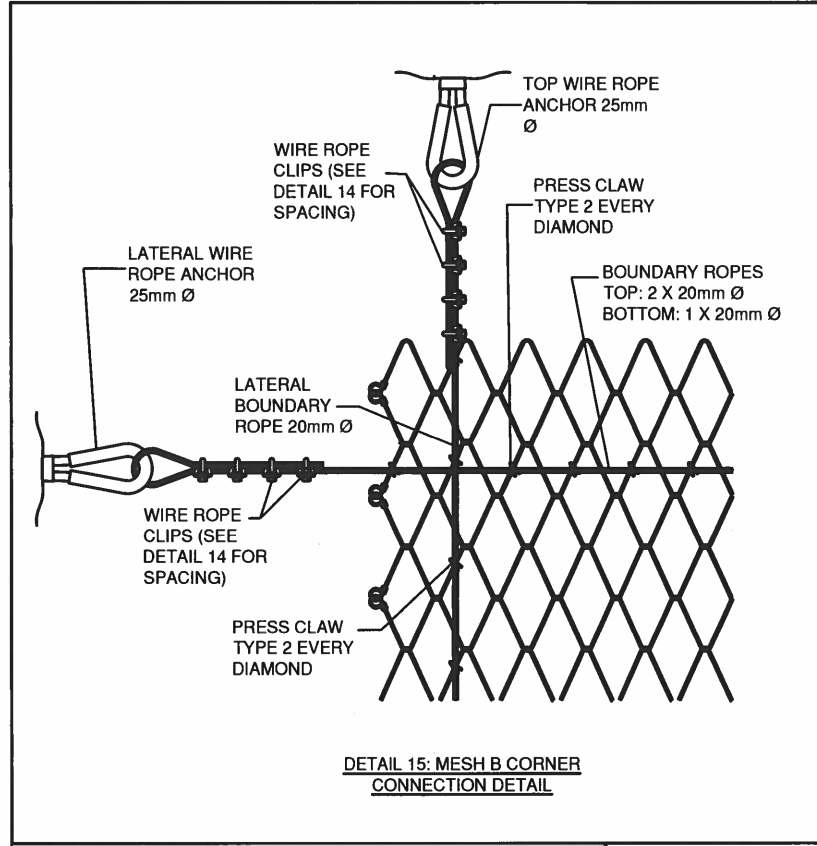
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Preetipal Paul

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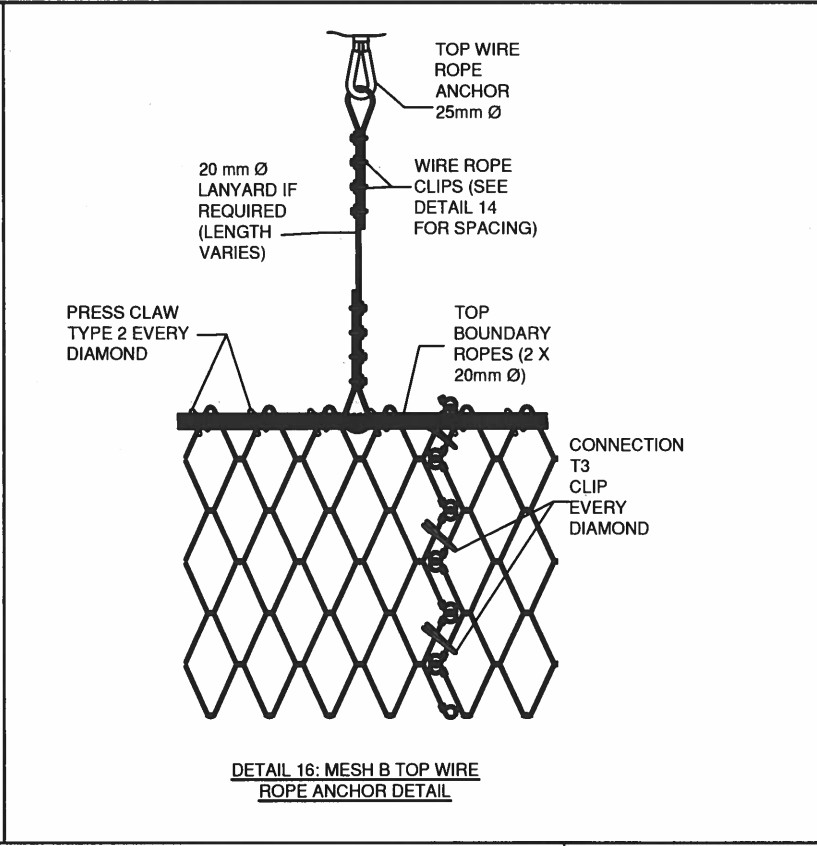
Mesh B - Typical Details



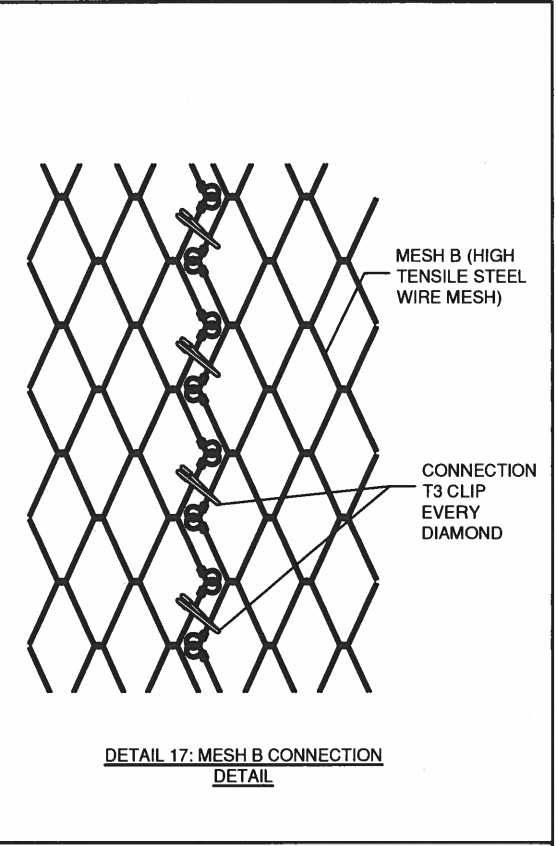
Project No./No. du projet R.106340.001	Sheet/Feuille G109 OF G112	Revision no./ La Révision no. 3
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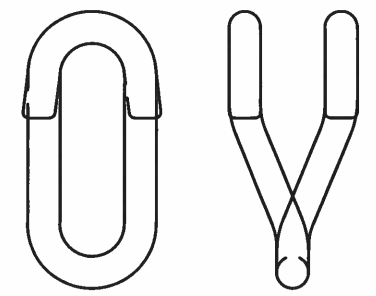
DETAIL 15: MESH B CORNER CONNECTION DETAIL



DETAIL 16: MESH B TOP WIRE ROPE ANCHOR DETAIL



DETAIL 17: MESH B CONNECTION DETAIL



DETAIL 18: PRESS CLAW TYPE 2



Area A - Anchor Table

Anchor ID (#)	Chainage (m)	Height (m)	Length (m)	Threadbar Designation	Comments
A001	018	2	4	#8	Large block
A002	037	2	4	#8	Block
A003	037	4	4	#8	Block
A004	037	8	4	#8	Gully
A005	042	2	8	#10	Block
A006	042	6	4	#8	Gully
A007	044	6	8	#10	Gully/block
A008	055	1	4	#8	Gully
A009	055	8	4	#8	Gully
A010	058	2	4	#8	Gully
A011	062	7	8	#10	Block
A012	063	5	4	#8	Gully
A013	068	2	4	#8	Gully
A014	068	4	4	#8	Gully

Area B - Anchor Table

Anchor ID (#)	Chainage (m)	Height (m)	Length (m)	Threadbar Designation	Comments
B001	004	7	4	#8	Block
B002	012	8	4	#8	Block
B003	012	8	4	#8	Block
B004	015	3	8	#10	Block
B005	015	5	8	#10	Block
B006	018	2	4	#8	Gully
B007	021	3	4	#8	Block
B008	021	6	4	#8	Block
B009	022-027	2	4	#8	Gully
B010	022-027	5	4	#8	Gully
B011	022-027	7	4	#8	Gully
B012	030-040	2	4	#8	Gully
B013	030-040	4	4	#8	Gully
B014	030-040	6	4	#8	Gully
B015	030-040	8	4	#8	Gully
B016	046	4	8	#10	Block
B017	046	6	8	#10	Block
B018	046	10	8	#10	Block
B019	055	2	8	#10	Gully
B020	055	4	8	#10	Gully
B021	055	6	8	#10	Gully
B022	055	8	8	#10	Gully

*NOTE: ANCHOR LOCATIONS AND LENGTHS ARE APPROXIMATE AND SHALL BE USED TO ASSIST WITH PRICING ONLY. FINAL ANCHOR LOCATIONS AND LENGTHS SHALL BE SPECIFIED IN THE FIELD BY THE DEPARTMENTAL REPRESENTATIVE TO SUIT THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING DRILLING.

*NOTE: CHAINAGES SHOWN ARE +/- 5m. TO BE CONFIRMED IN THE FIELD BY THE DEPARTMENTAL REPRESENTATIVE.

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Rock Slope Stabilization
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PWOSC Project Manager/Administrateur de Projets TPSOC
Rowan Seth Leonard

PWOSC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régionale, Services d'architecture et de génie, TPSOC
Preetipal Paul

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Anchor Tables

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.106340.001	G110 OF G112	3



LEGEND



LOCATION & DIRECTION OF PHOTO ON CORRESPONDING PHOTO TABLE

Reference: Google Maps [website]. Retrieved on 30 November 2019 from <https://www.google.ca/maps>



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Rowan Seth Leonard

PWGC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régionale, Services d'architectural et de génie, TPSOC
Prestipal Paul

Drawing title/Titre du dessin

Area A -
Photo Locations



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R.106340.001	G111 OF G112	3



LEGEND



LOCATION & DIRECTION OF PHOTO ON CORRESPONDING PHOTO TABLE

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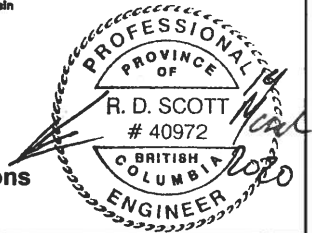
Consultant Signature Only

Designed by/Concept par
 SKD

Drawn by/Dessiné par
 AJB

PWGSC Project Manager/Administrateur de Projets TPSGC
 Rowan Seth Leonard

PWGSC, Regional Manager, Architectural and Engineering Services/
 Gestionnaire régionale, Services d'architecture et de génie, TPSGC
 Preetipal Paul

Drawing title/Titre du dessin
Area B - Photo Locations


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