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February 10, 2020

Derek Donald Technical Advisor Nunavut Water Board P.O. Box 119 Goja Haven, NU, X0B 1J0

Sent via Email: <u>licensing@nwb-oen.ca</u>; <u>derek.donald@nwb-oen.ca</u>

# Re: Hope Bay Project - Madrid North and South All-Weather Road Detail Design Drawings (1 to 4.7 km)

Dear Mr. Donald,

On behalf of TMAC Resources Inc. (TMAC) and in accordance with Part D, Item 1 and Schedule D, Item 1 of Type A Water Licence 2AM-DOH1335, please find attached stamped, Issued for Construction (IFC) drawings for an additional section, 1 to 4.7 km, of the Madrid North and South All Weather Road (AWR).

The additional section of the Madrid North and South AWR described in this submission was designed, and will be developed, in accordance with the principles described in the previous submission for the first section of the Madrid North and South AWR, 0 to 1 km, which was submitted to the Nunavut Water Board on March 19, 2019 ("Madrid North and South All-Weather Road Detail Design Package"). The development of this additional section of the Madrid North and South AWR will be monitored under TMAC's existing environmental management system and will use materials from existing quarries or geochemically suitable non-acid generating waste rock for road construction as per existing and approved site management plans.

As this submission and design is consistent with the previous approved submission for the 0 to 1km section of the Madrid North and South AWR and due to the fact TMAC wishes to complete this work in winter if possible, TMAC respectfully requests that the NWB respond to this submission no later than March 1, 2020. Development of this section of the Madrid North and South All Weather Road (1 to 4.7 km) would commence upon approval.

Should you have any further questions please feel free to contact me at oliver.curran@tmacresources.com.

# Regards,

Mr.

#### **Oliver Curran**

Vice-President, Environmental Affairs TMAC Resources Inc.

# Cc:

Licencing, NWB Kyle Conway, TMAC Sarah Warnock, TMAC Adam Grzegorczyk, TMAC

## Attachments:

1. Issued for Construction Drawings - Madrid North and South All Weather Road (1 to 4.7 km)

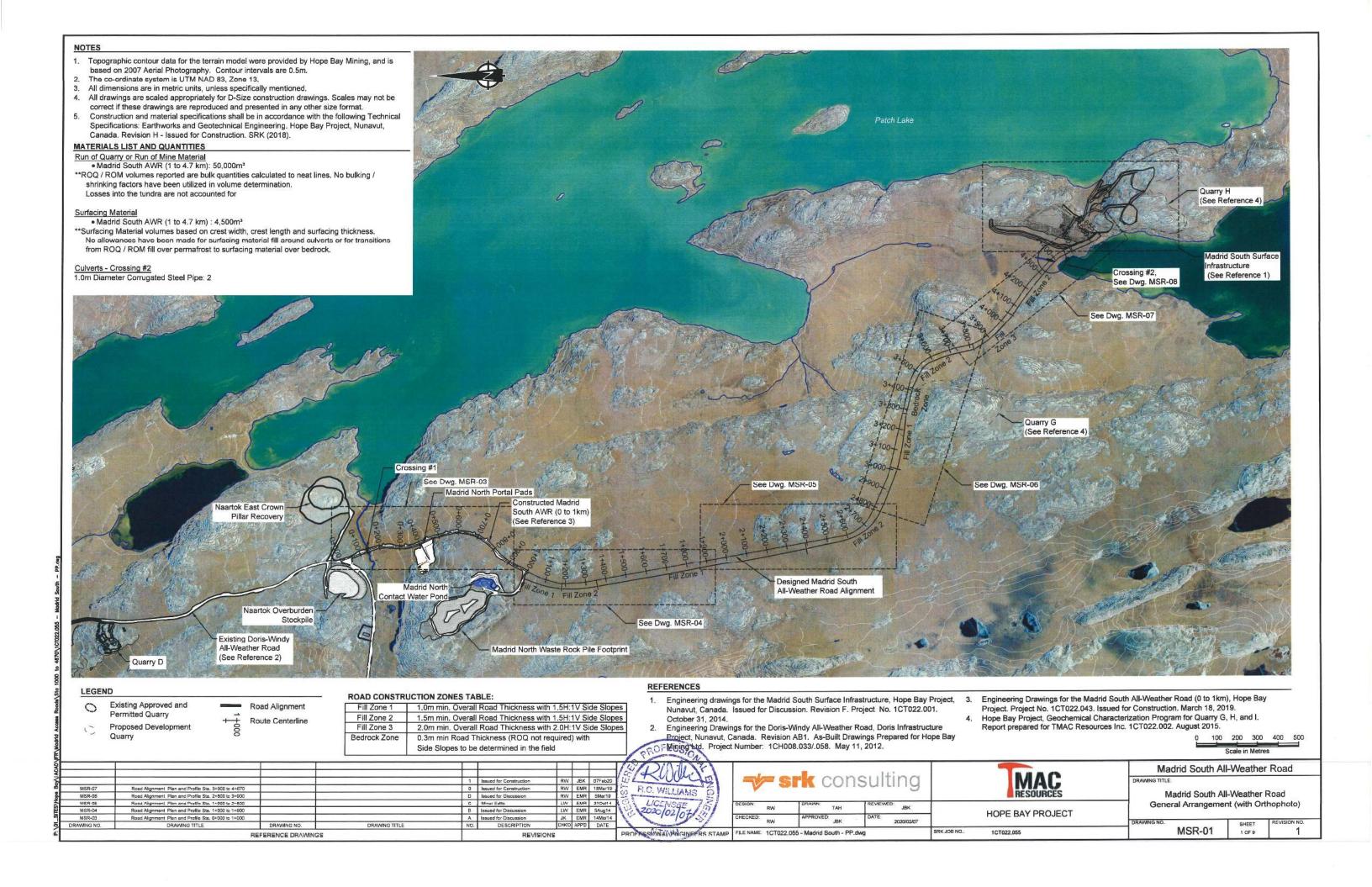
# Engineering Drawings for the Madrid South All-Weather Road, Hope Bay Project, Nunavut, Canada

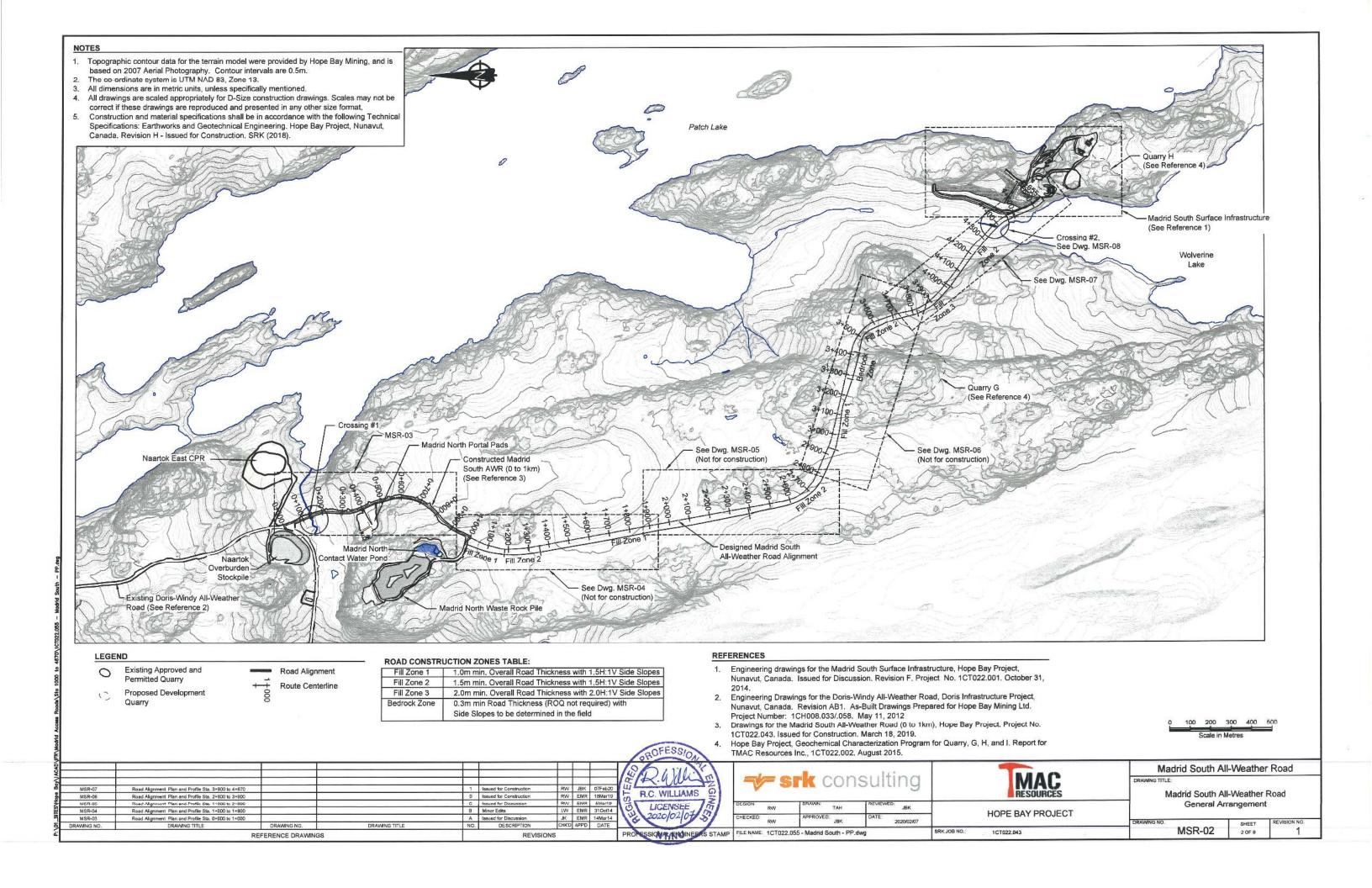
#### **ACTIVE DRAWING STATUS**

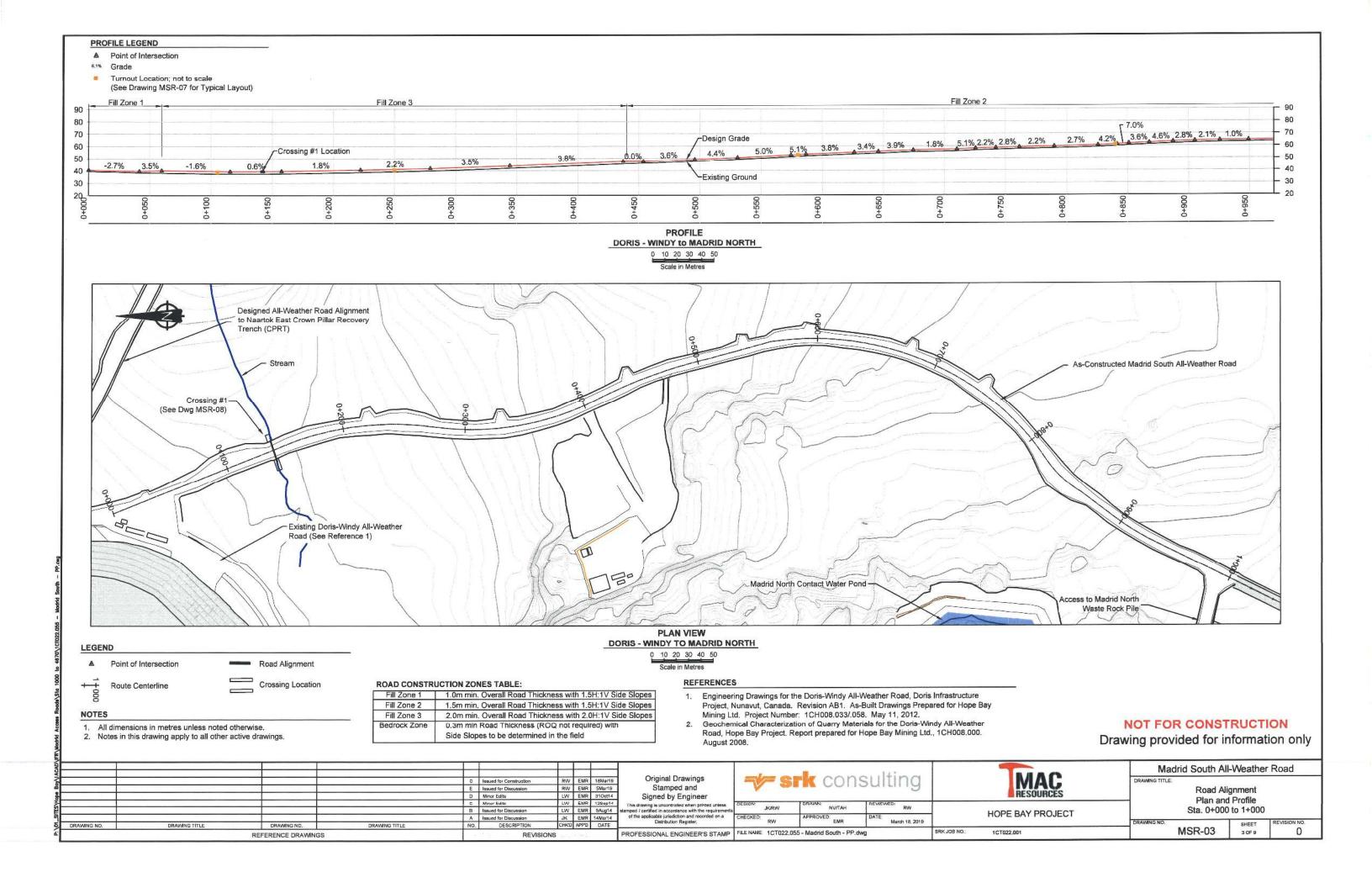
DWG NUMBER	DRAWING TITLE	REVISION	DATE	STATUS			
MSR-01	General Arrangement (with Orthophoto)	1	February 7, 2020	Issued for Construction			
MSR-02	General Arrangement	1	February 7, 2020	Issued for Construction			
MSR-03 Road Alignment Plan and Profile Sta. 0+000 to 1+000  MSR-04 Road Alignment Plan and Profile Sta. 1+000 to 1+900		0	Mar. 18, 2019	Issued for Construction			
		0	February 7, 2020	Issued for Construction			
MSR-05	Road Alignment Plan and Profile Sta. 1+900 to 2+800	0	February 7, 2020	Issued for Construction			
MSR-06	Road Alignment Plan and Profile Sta. 2+800 to 3+750	0	February 7, 2020	Issued for Construction			
MSR-07	Road Alignment Plan and Profile Sta. 3+750 to 4+655	0	February 7, 2020	Issued for Construction			
MSR-08	Typical Road and Crossing Details	1	February 7, 2020	Issued for Construction			
MSR-09	Animal Crossings Plan and Sections	1	February 7, 2020	Issued for Construction			
MSR-10	Crossing #1 - Bridge Option - Plan, Section and Detail (1 of 2)	A	Mar. 14, 2014	Discontinued (Removed)			
MSR-11	Crossing #1 - Bridge Option - Plan, Section and Detail (2 of 2)	A	War. 14, 2014	Discontinued (Removed)			
MSR-12	Crossing #1 - Arch Culvert Option	A	Mar, 14, 2014	Discontinued (Removed)			
MSR-13	Crossing #2 - Arch Culvert	А	Mar. 14, 2014	Discontinued (Removed)			
MSR-14	Typical Arch Culvert Plan and Profile (1 of 2)	A	Mar. 14, 2014	Discontinued (Removed)			
MSR-15	Typical Arch Culvert Details (2 of 2)	A	Mar. 14, 2014	Discontinued (Removed)			
MSR-16	Material List and Quantity Estimates	В	Aug. 5, 2014	Discontinued (Removed)			
MSR-17	Madrid North Waste Rock Access Road Plan and Profile	0	Mar. 18, 2019	Issued for Construction			
MSR-18	Naartok East CPRT Access Road Plan and Profile	0	Mar. 18, 2019	Issued for Construction			

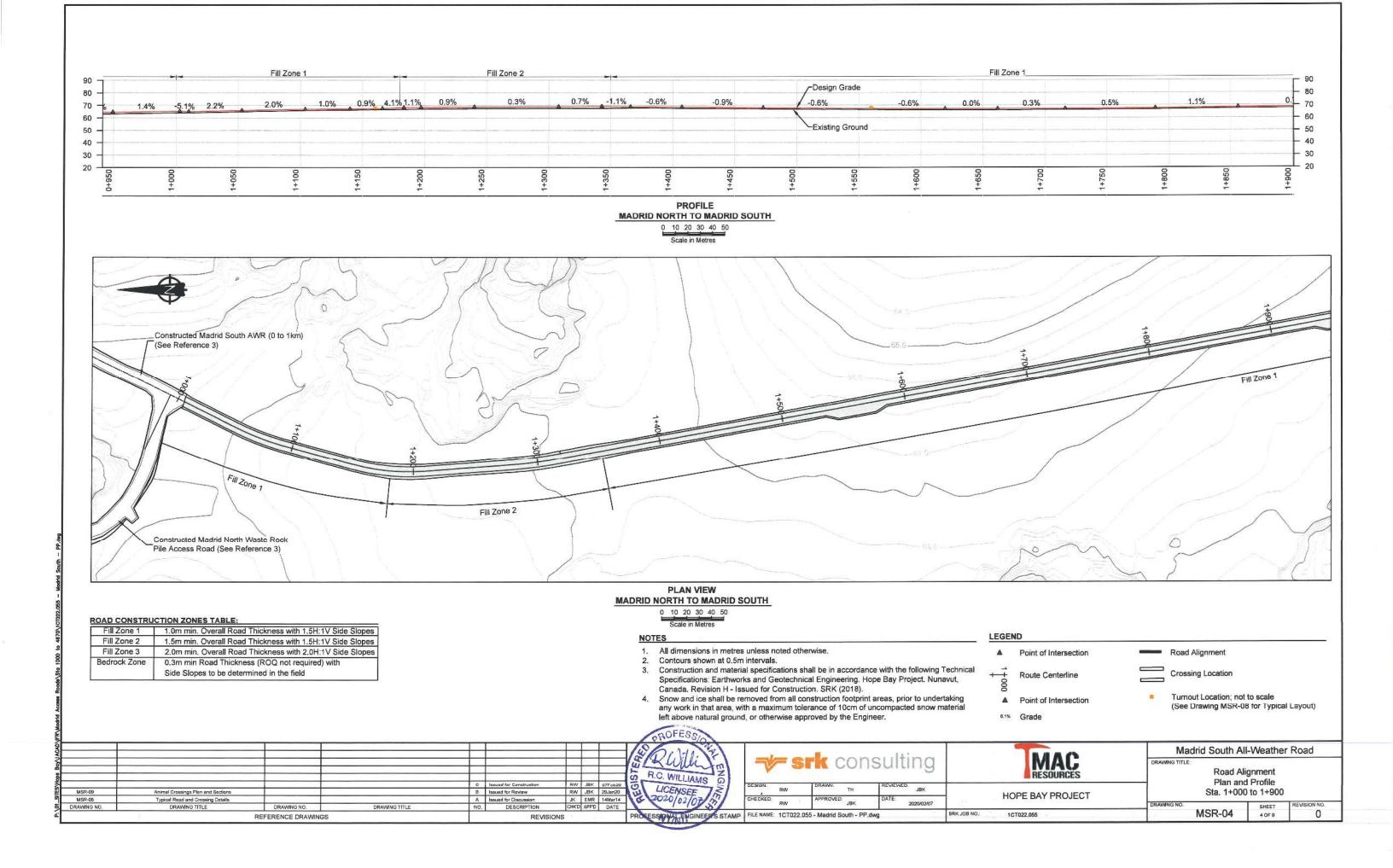


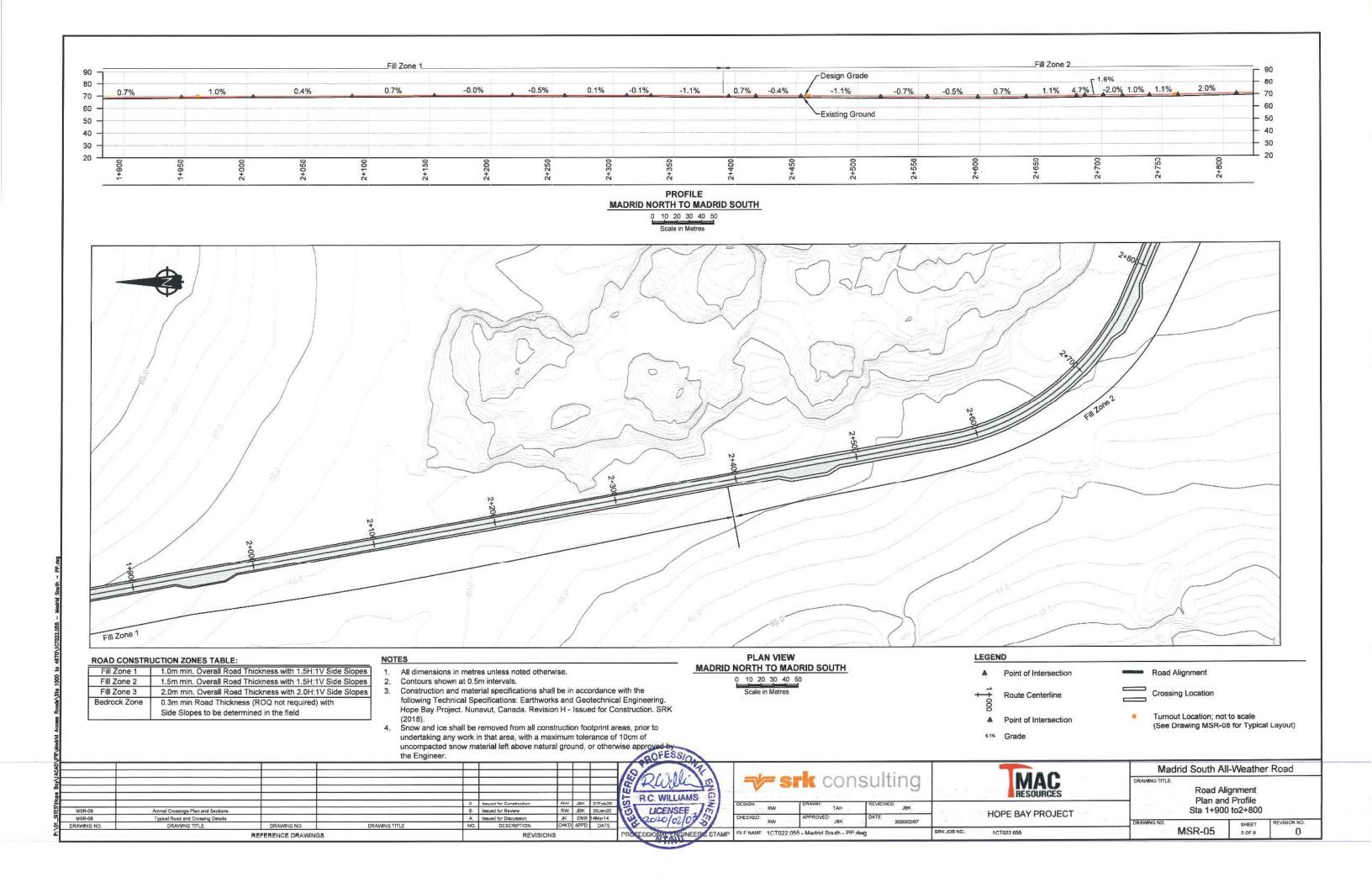


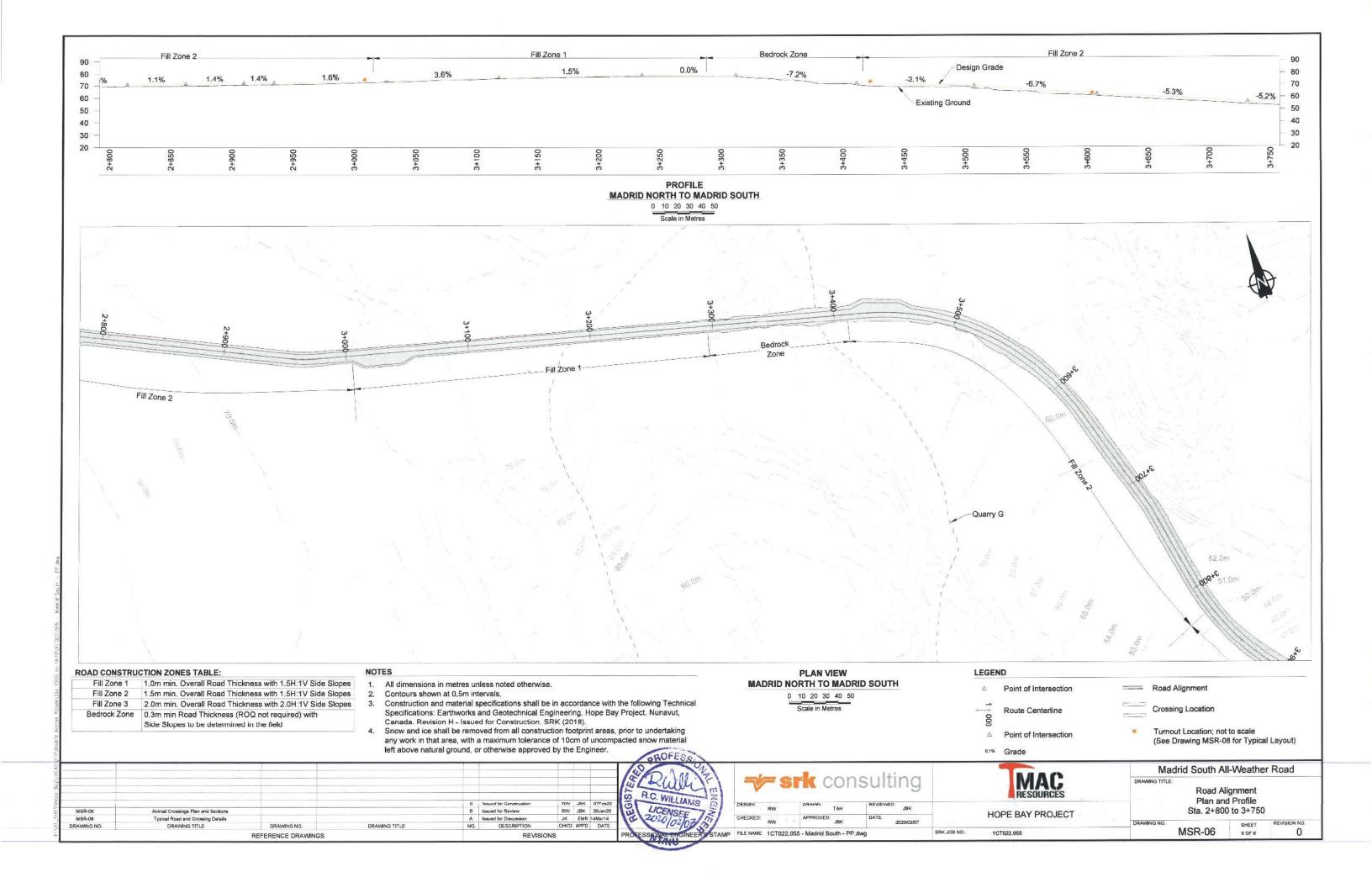


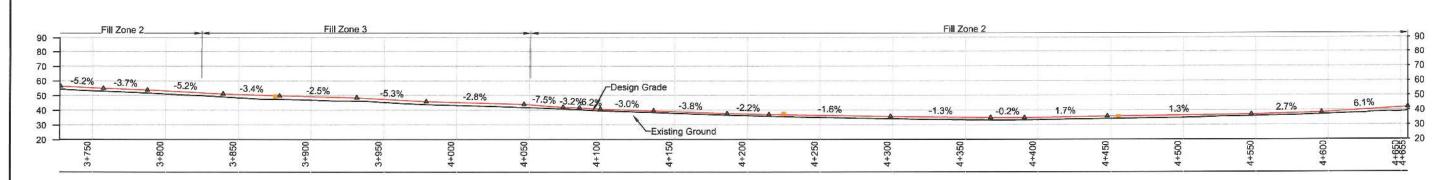






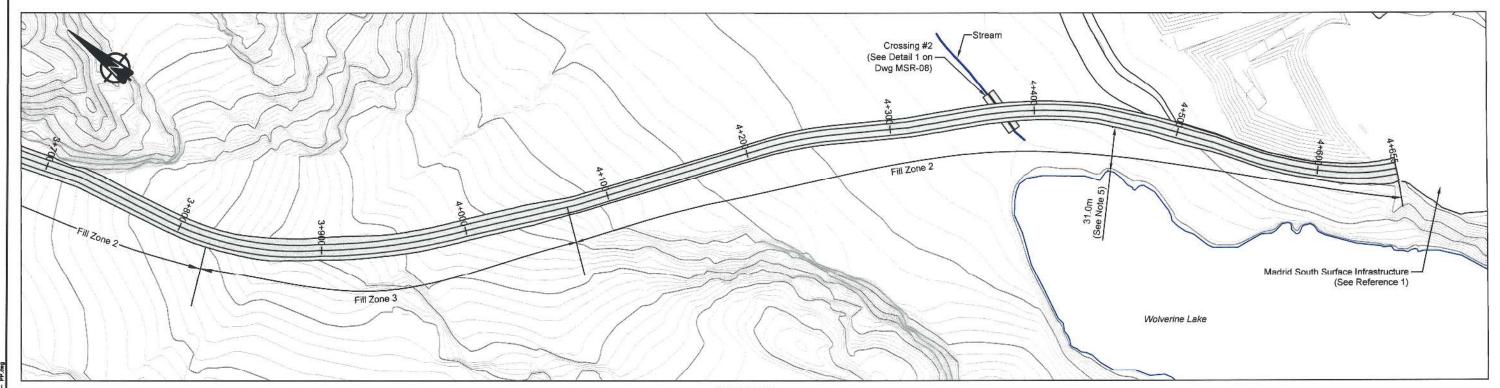






#### PROFILE MADRID NORTH TO MADRID SOUTH

0 10 20 30 40 50 Scale in Metres



#### ROAD CONSTRUCTION ZONES TABLE:

Fill Zone 1	1.0m min. Overall Road Thickness with 1.5H:1V Side Slopes
Fill Zone 2	1.5m min. Overall Road Thickness with 1.5H:1V Side Slopes
Fill Zone 3	2.0m min. Overall Road Thickness with 2.0H:1V Side Slopes
Bedrock Zone	0.3m min Road Thickness (ROQ not required) with Side Slopes to be determined in the field

#### **PLAN VIEW** MADRID NORTH TO MADRID SOUTH

0 10 20 30 40 50

#### NOTES

- 1. All dimensions in metres unless noted otherwise.
- 2. Contours shown at 0.5m intervals.
- 3. Construction and material specifications shall be in accordance with the following Technical Specifications: Earthworks and Geotechnical Engineering. Hope Bay Project. Nunavut, Canada. Revision H - Issued for Construction. SRK (2018).
- 4. Snow and ice shall be removed from all construction footprint areas, prior to undertaking any work in that area, with a maximum tolerance of 10cm of uncompacted snow material left above natural ground, or otherwise approved by the Engineer.
- 5. A minimum 31.0m setback from shorelines is required.

### LEGEND

SRK JOB NO.:

Point of Intersection

Route Centerline

▲ Point of Intersection

# 6.1% Grade

#### REFERENCE 1. Engineering drawings for the Madrid South Surface Infrastructure, Hope Bay Project, Nunavut, Canada. Issued for Discussion. Revision F. Project No. 1CT022.001. October 31, 2014.

Road Alignment

Crossing Location

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE	NO.	DESCRIPTION	CHKT	APP'D	DATE
MSR-08	Typical Road and Crossing Details			A	Issued for Discussion	JK	EMR	14Mar14
MSR-09	Animal Crossings Plan and Sections			В	Issued for Discussion	LW	EMR	5Aug14
				С	Minor Edito	LW	EMR	125ep14
				D	Minor Edits	LW	EMR	31Oct14
				E	Issued for Review	RW	JBK	29Jan20
				0	Issued for Construction	RW	JBK	07Feb20

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	PROFESSIONAL ENGINEER'S STAMP	

alon: RV		AVN: TAH	REVIEWED: JBK
ECKED: RV	AP	PROVED. JBK	DATE: 2020/02/07

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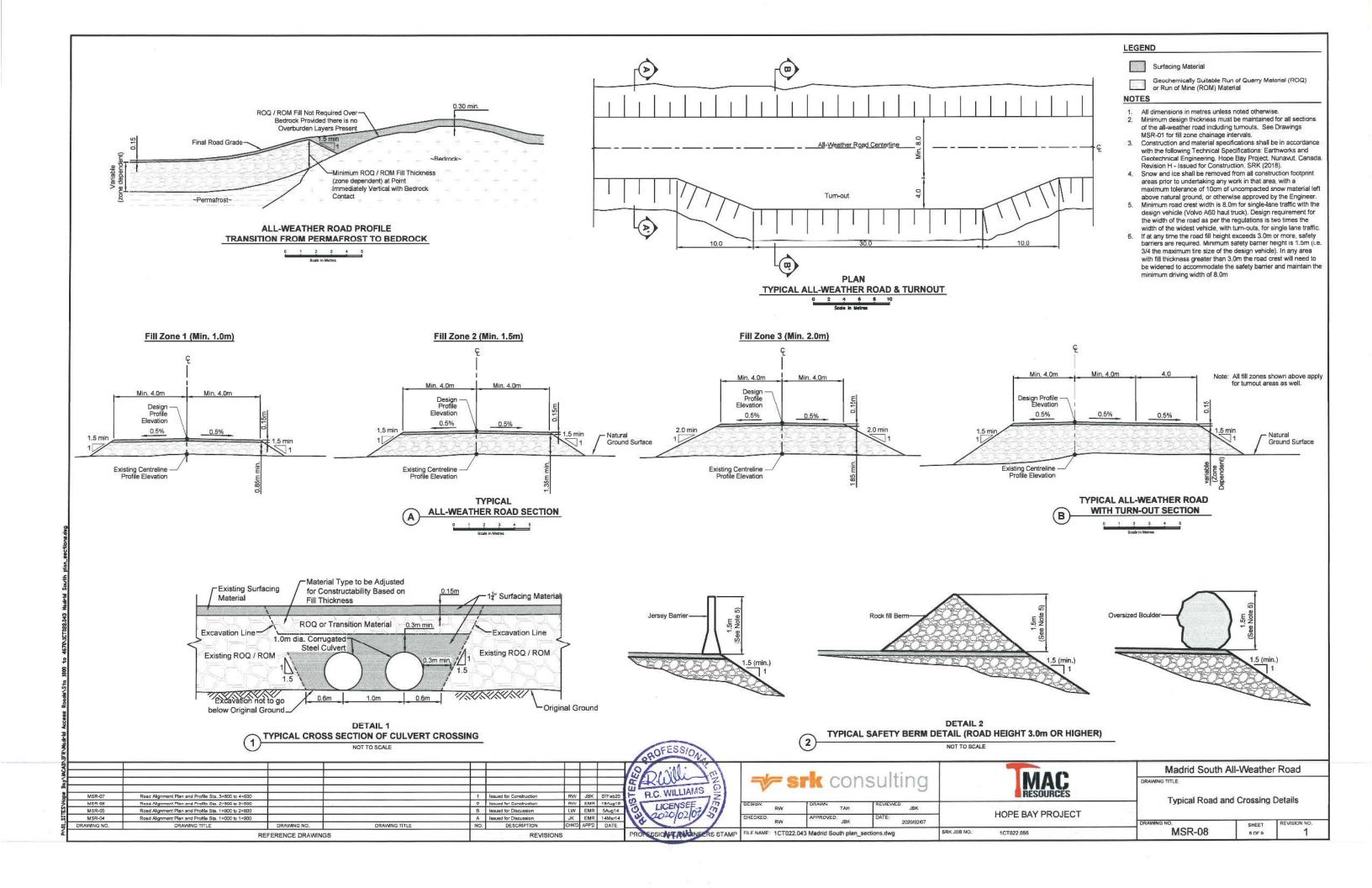
HOPE BAY PROJECT 1CT022,055

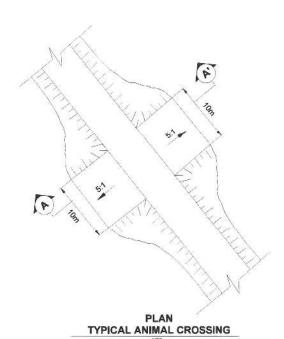
	Madrid South All-Weather Road				
	DRAWING TITLE:				
	Road Alignment				
_	Plan and Profile				
	Sta. 3+750 to 4+655				

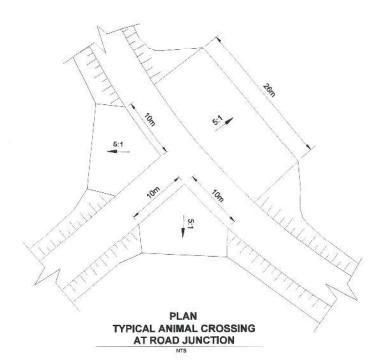
Turnout Location; not to scale

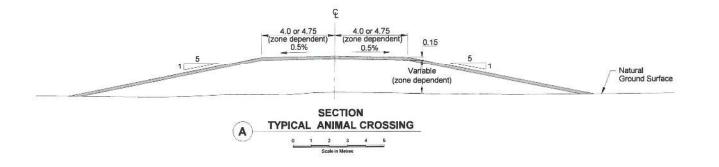
(See Drawing MSR-08 for Typical Layout)

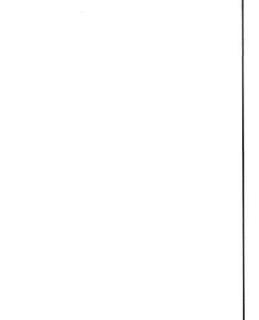
MSR-07	SHEET 7 OF 9	REVISION NO.
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LEGEND

Surfacing Material

Geochemically Suitable Run of Quarry Material (ROM) or Run of Mine (ROM) Material

All dimensions in metres unless noted otherwise.
 Locations for animal crossings will be identified by Land Owner and Elders once road construction is completed.

	RI	EFERENCE DRAWINGS			REVISI	ONS		
DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE	NO.	DESCRIPTION	CHKD	APP'D	DATE
MSR-04	Road Alignment Plan and Profile Sta. 1+000 to 1+900			A	Issued for Discussion	JK	EMR	14Mar14
MSR-05	Road Alignment Plan and Profile Sta. 1+900 to 2+800			0	Issued for Construction	RW	EMR	18Mar19
M5R-05	Road Alignment Plan and Profile Sta. 2+800 to 3+000			- 1	Issued for Construction	RW	-	D7Feb20
MSR-07	Road Alignment Plan and Profile Sta. 3+800 to 4+500							
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1CT022.055

HOPE BAY PROJECT

DRAWING TITLE: **Animal Crossings** 

Plan and Sections

Madrid South All-Weather Road

SHEET 9 OF 9 MSR-09