

DATE: January 14, 2025

TO: Public Registry FROM: Barsha Sagan, P. Eng.

A/Senior Environmental Engineer Industrial and Wastewater Section

SUBJECT: File 6193.00 – Crystal Spring Colony Wastewater Treatment Lagoon–Information for Public Registry

Please find attached the 1st round TAC correspondence related to Crystal Spring Colony Wastewater Treatment Lagoon (6193.00) for distribution to the public registries. The documents included are:

No	Technical Advisory Committee Member	Response Provided
1	Environment and Climate Change	
	Environmental Approvals Branch	
	Air Quality Management	No response
	 Land Use, Waste Management, and Energy 	November 3, 2023
	Environmental Compliance and Enforcement	
	Regional Office	November 23, 2023
	 Hazardous Waste Program 	No response
	Office of Drinking Water	October 24, 2023
	Environmental Programs and Remediation	No response
	Drainage and Water Rights Licensing Branch	October 23, 2023
	Water Science and Watershed Management	
	 Water Quality Management Section 	November 15, 2023
	Groundwater Management Section	No response
	Climate and Green Plan Implementation Office	No response
	Parks and Trails	No response
2	Natural Resources and Indigenous Futures	
	Wildlife and Fisheries Branch (wildlife)	No response
	Wildlife and Fisheries Branch (fisheries)	No response
	Forestry and Peatlands Branch	October 24, 2023
	Lands and Planning	No response
	Crown Land Specialist	No response
3	Business, Mining, Trade and Job Creation	
	Mines	November 10, 2023
	Petroleum	November 21, 2023
4	Sport, Culture, Heritage and Tourism - Historic Resources Branch	November 15, 2023
5	Municipal and Northern Relations	NOVCITIBLE 15, 2025
<u> </u>	Community Planning Branch	November 15, 2023
	Office of the Fire Commissioner	No response
6	Labour and Immigration - Inspection and	No response
U	Technical Services	140 reaponse

7	Transportation and Infrastructure	
	Environmental Services and Consultation	No response
	 Hydrologic Forecasting & Water Management, Technical Services & 	No response
8	Health, Seniors and Long-Term Care – Southern Health-Santé Sud Regional Health Authorit	November 20, 2023 y
9	Fisheries and Oceans Canada	November 09, 2023



DATE: November 3, 2023

TO: Housseini Coulibaly, Ph.D. Environmental Approvals Branch

Environment and Climate Change

14 Fultz Boulevard Winnipeg MB R3Y 0L6

Housseini.Coulibaly@gov.mb.ca

Tel: 431-276-6465

FROM: Asit Dey, P.Eng.

Engineering Manager

Land Use, Waste Management & Energy

Environmental Approvals Branch Environment and Climate Change

14 Fultz Boulevard Winnipeg MB R3Y 0L6

PHONE NO.: 204-794-3389 FAX NO.: 204-945-5229

E-MAIL: <u>Asit.Dey@gov.mb.ca</u>

SUBJECT: Crystal Spring Colony New Development

DOMESTIC Wastewater Lagoon

IN SE 28-18-3 EPM, RM OF ARMSTRONG

FILE: 6193.00

Thank you for your email dated October 23, 2023, seeking comments on the subject Environment Act proposal.

The proposed project is not in an area of water power interest. I do not have any further comments on the proposal.

ORIGINAL SIGNED BY

Asit Dey



Date November 23, 2023

To: Housseini Coulibaly

Environmental Approvals

Branch

Environment and Climate

14 Fultz Blvd.,

Winnipeg, MB R3Y 0L6

From: Mariah Whiter

Environmental Compliance and

Enforcement Branch

Environment and Climate Change

309 – 25 Tupper Street N.

Portage La Prairie, MB, R1N 3K1

SUBJECT: Environment Act Proposal – File 6193.00 - Crystal Spring Colony New

Development – Wastewater Lagoon

Environmental Compliance and Enforcement has reviewed the Environment Act Proposal for the Crystal Springs Colony Lagoon and has the following comments:

Abattoir

• Is the blood from the animals being directed toward the lagoon? If so, what steps is the facility taking to minimize odour?

Weeping Tile

Why is the water from the weeping tile being directed toward the lagoon?

From: +WPG569 - Drinking Water - Approvals

Sent: October 24, 2023 11:10 AM

To: Coulibaly, Housseini

Subject: RE: Request for Environment Act Proposal Review: File 6193.00 – Crystal Spring Colony

New Development - Wastewater Lagoon

No concerns.

Office of Drinking Water (ODW)

Cory Vitt, P.Eng. M.Eng. CPPA CMMA

(pronouns: they/them; please don't use "Mr. Vitt")

Acting Senior Approvals Engineer

Office of Drinking Water Cell: 204-806-1363

Email: Cory.Vitt@gov.mb.ca

NEW ADDRESS:

Box 19 14 Fultz Blvd

Winnipeg, MB R3Y 0L6

Burland Ross, Siobhan

From: Caillier, Ginette

Sent: October-24-23 2:21 PM **To:** Coulibaly, Housseini

Subject: RE: Request for Environment Act Proposal Review: File 6193.00 – Crystal Spring Colony New

Development - Wastewater Lagoon

Attachments: 2023-WCW-0172 FINAL LICENSE.pdf; BMCE21-011-ISSUED FOR CONSTRUCTION-230330 (4).pdf

Good Afternoon,

On behalf of the Drainage and Water Rights Licensing Branch, there are no concerns at this time as there has been a licence issued for the proposed water control works. I have attached the final licence as well as the engineered report for your records.

Please let me know if you require any other information.

Sincerely,

Ginette Caillier

Senior Water Resource Officer

Licence to Construct Water Control Works



Issued in accordance with the provisions

The Water Rights Act and regulations made thereunder. Project: Crystal Spring Colony

File Number: 3.31.32

Licence No.: 2023-WCW-0172

Subject to the terms and conditions contained in this Licence, the Minister charged with administration of the Water Rights Act for the Province of Manitoba authorizes:

7317434 Manitoba Ltd.

in the **Rural Municipality of Armstrong** in the Province of Manitoba (the 'LICENSEE') to construct drainage or other works ("the WORKS") described as follows:

Construct drains and install culverts to improve local drainage conditions to accommodate colony development

And located on the following described lands:

28-18-3-E

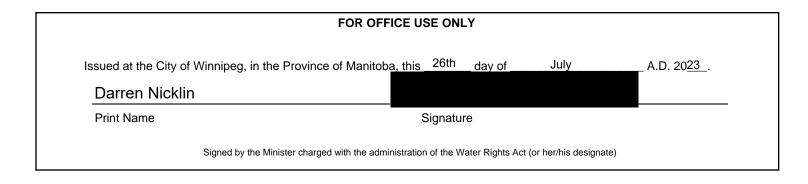
as more particularly located and shown on the attached Exhibit(s).

This Licence is issued upon the express condition that it shall be subject to the provisions of The Water Rights Act and Regulations and all amendments thereto and, without limiting the generality of the aforesaid. The WORKS shall be constructed and operated in accordance with the terms and conditions described as follows:

- Construct drains to accommodate subdivision. Existing culverts to be reset at new drain grade bottom, sizes not to be altered. All works and specifications to be constructed in accordance with Burns Maendel Consulting Engineers Ltd: Crystal Spring Colony - New Colony Development dated March 30, 2023.
- 2. Additional terms and conditions include but are not limited to:
 - a) All WORKS conducted or outletting outside the legal landowners property holdings may only be done with the express written permission and completed to the satisfaction of the respective landowner.
 - b) The LICENSEE shall hold and maintain all other regulatory approvals that may be required and shall comply with all other regulatory requirements for the construction, operation, or maintenance of the WORKS or to divert water as provided by this Licence.
 - c) Notwithstanding anything preceding in this Licence, the LICENSEE must have legal control, by ownership or by rental, lease, or other agreement, of the lands on which the WORKS shall be placed.
 - d) The LICENSEE shall, within reasonable expectations, operate the WORKS in a manner so as not to cause undue damages, hardship, or inconvenience on private lands upstream and downstream of the WORKS, which are not in accordance with formal agreements that may exist between the LICENSEE and the owners of impacted lands.
 - e) Construction of the WORKS are to include adequate and effective erosion and sedimentation controls (erosion control blankets, side slopes, sediment barriers, straw mulch, silt curtains, rock rip-rap at drain outlet, minimum disturbance of existing vegetation cover, seeding excavated area to ensure vegetation growth.)
 - f) Manitoba reserves the right to request future modifications to this licence to correct unforeseen impacts or to ensure the WORKS identified in the attached Exhibit(s) are in accordance with approved watershed plans.
- 3. The LICENSEE does hereby remise, release and forever discharge His Majesty the King in Right of the Province of Manitoba, of and from all manner of action, causes of action, claims and demands whatsoever which against His Majesty the LICENSEE ever had, now has or may hereafter have, resulting from the construction and operation of the WORKS.
- 4. In the event that the rights of others are infringed upon and/or damage to the property of others is sustained as a result of the operation or maintenance of the WORKS and the rights herein granted, the LICENSEE shall be solely responsible and shall save harmless and fully indemnify His Majesty the King in Right of the Province of Manitoba, from

Licence No. 2023-WCW-0172

- and against any liability to which His Majesty may become liable by virtue of the issue of this Licence and anything done pursuant hereto.
- 5. Upon the execution of this Licence the LICENSEE hereby grants the Minister or the Minister's agents the right of ingress and egress to and from the lands on which the WORKS are located for the purpose of inspection of the WORKS and the LICENSEE shall at all times comply with such directions and/or orders that may be given by the Minister or the Minister's agents in writing from time to time with regard to the operation and maintenance of the WORKS.
- 6. This Licence may be amended, suspended or cancelled by the Minister in accordance with The Water Rights Act by letter addressed to the LICENSEE at **Box 10**, **Ste. Agathe**, **Manitoba**, **R0G 1Y0**, **Canada** and thereafter this Licence shall be determined to be at an end.
- 7. The term of this Licence shall be in **Perpetuity** and this Licence shall become effective only on the date of execution hereof by a person so authorized under The Water Rights Act.



Licence to Construct Manitoba ¹ Water Control Works NE-28-18-3-E NW-28-18-3-E SE-28-18-3-E SW-28-18-3-E <u>Legend</u> This Plan is an integral part of Licence #2023-WCW-0172 issued **Existing Waterways** under The Water Rights Act. 7317434 Area of Proposed Drainage Works MANITOBA LTD. Licenced Water Control Works In and Through Section

Licence No. 2023-WCW-0172 Page 3 of 3

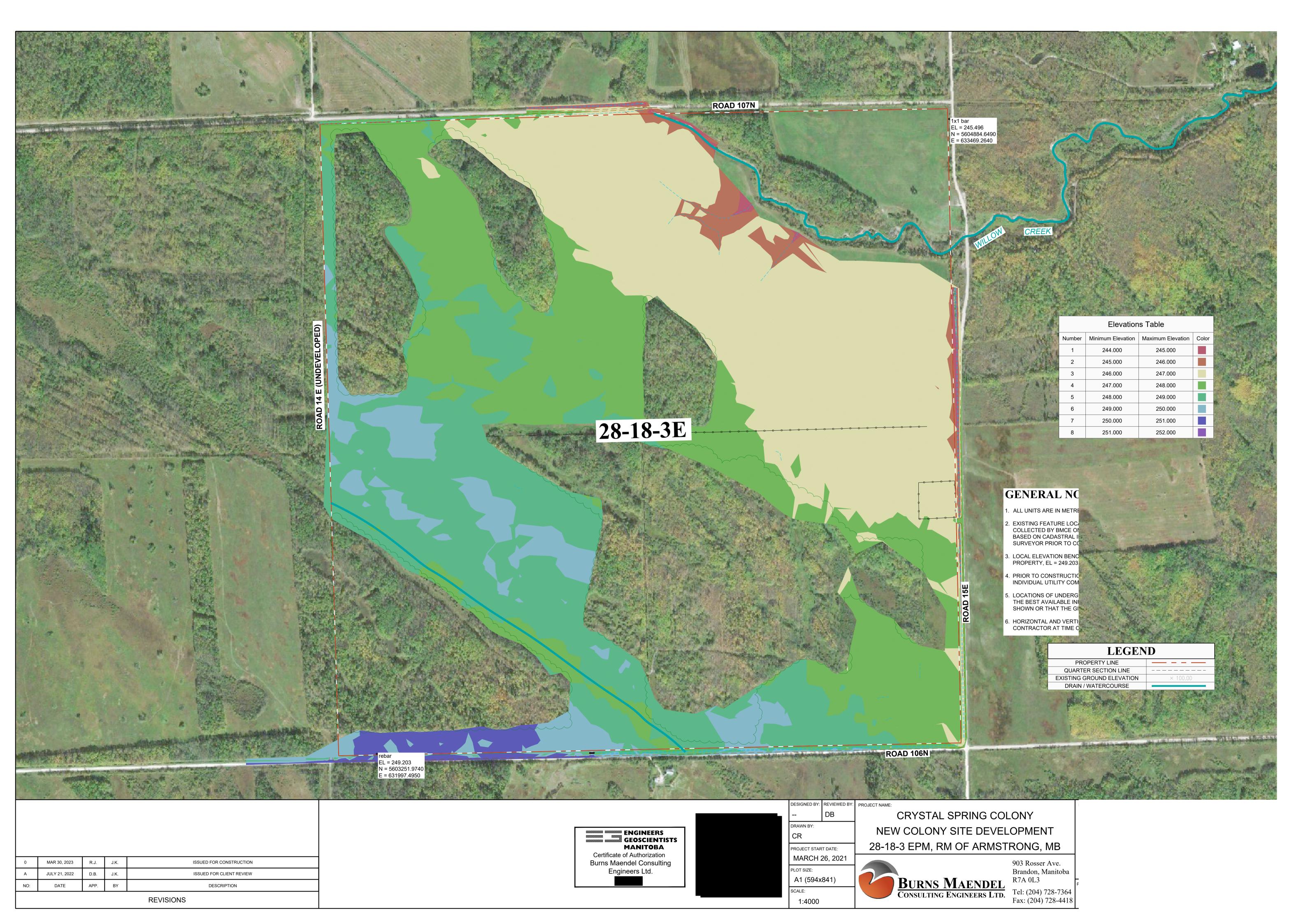
28-18-3-E

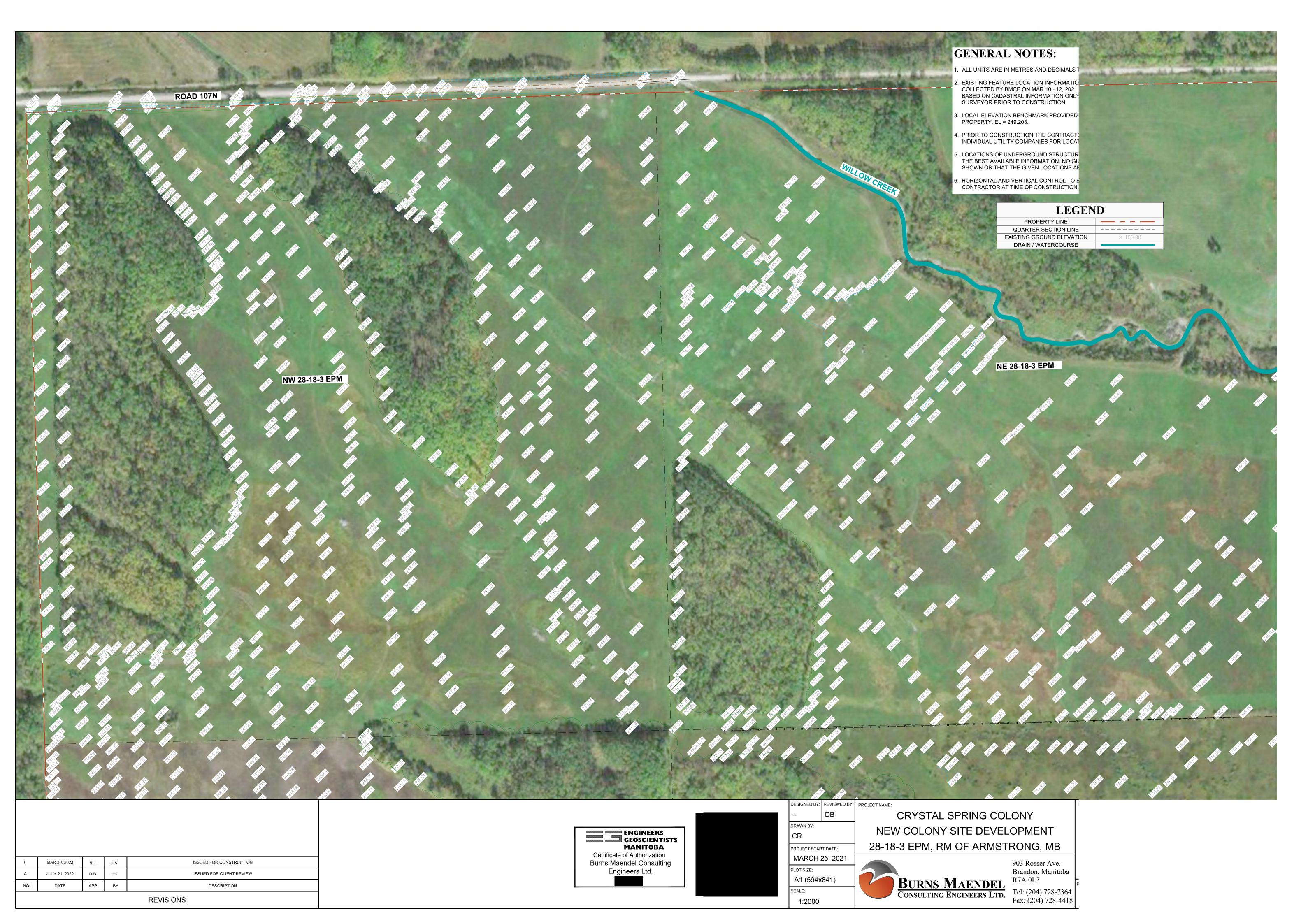
CRYSTAL SPRINGS COLONY NEW COLONY DEVELOPMENT 28-18-3 EPM

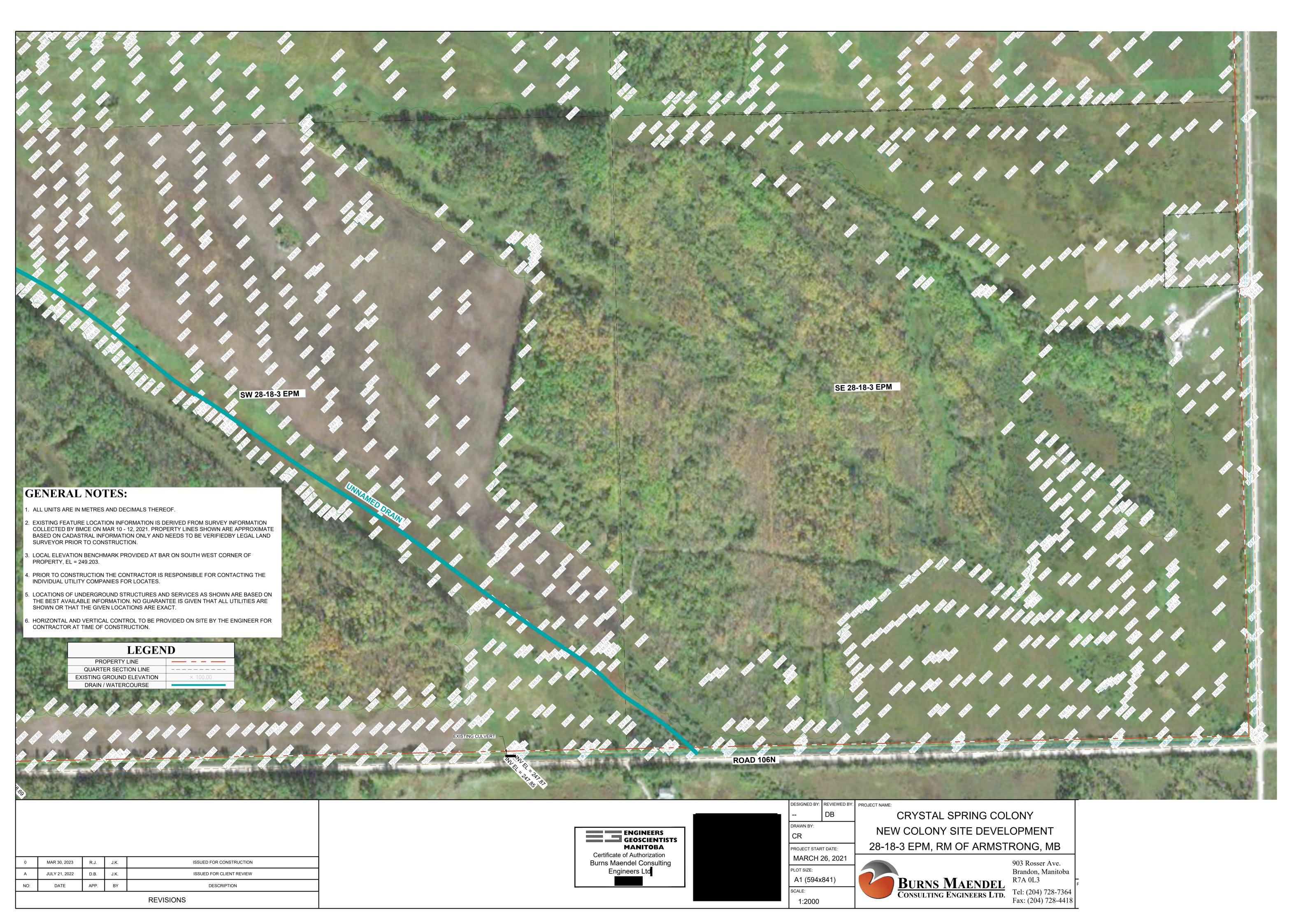
RM OF ARMSTRONG, MB

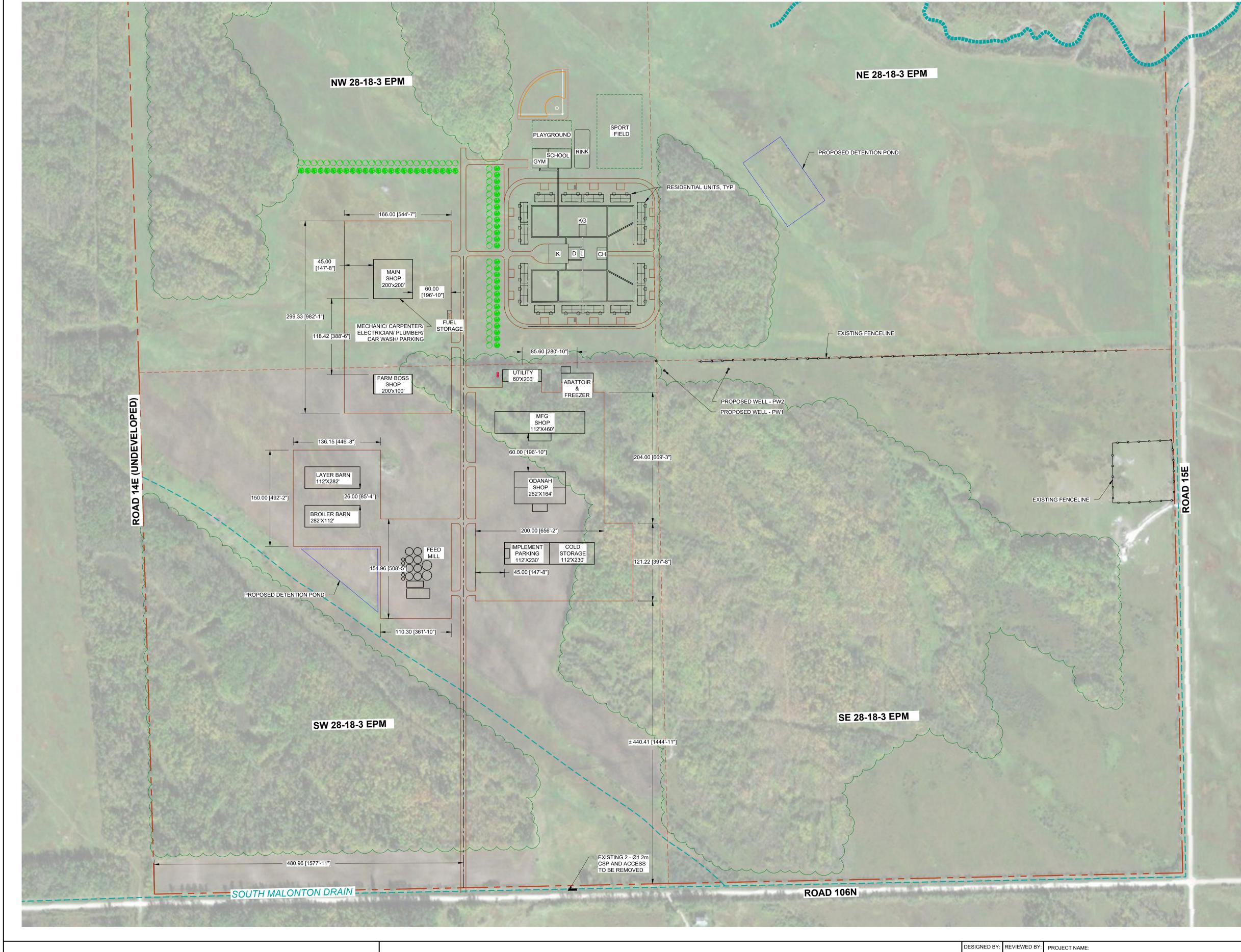
CIVIL DRAWINGS			
DWG NO.	DRAWING NAME	REV	
C1.1	TOPOGRAPHICAL SURVEY	0	
C1.2	NORTH SURVEY	0	
C1.3	SOUTH SURVEY	0	
C1.4	PROPOSED SITE CONCEPT PLAN	0	
C1.5	MAJOR DRAINAGE PLAN	0	
C1.6	SITE GRADING PLAN - MAIN ACCESS ROAD	0	
C1.7	SITE GRADING PLAN - FEED LOT AND INDUSTRIAL AREAS	0	
C1.8	SITE GRADING PLAN - MAIN SHOP AND RESIDENTIAL AREAS	0	
C3.1	CULVERT SECTIONS & DETAILS	0	
C3.2	SECTIONS & DETAILS	0	

DATE PROJECT NO: BMCE21-011 MAR 30, 2023









GENERA

- 1. ALL UNITS ARE
- 2. EXISTING FEAT INFORMATION (
 ARE APPROXIN VERIFIEDBY LE
- 3. LOCAL ELEVAT PROPERTY, EL
- 4. PRIOR TO CONTINUE THE INDIVIDUA
- 5. LOCATIONS OF BASED ON THE UTILITIES ARE
- 6. HORIZONTAL A FOR CONTRAC

LEGEND				
PROPERTY LINE				
QUARTER SECTION LINE				
EXISTING GROUND ELEVATION	× 100.00			
MAJOR CONTOUR (1.0m INTERVAL)	100.0			
BUSH LINE				
MAJOR DRAINAGE ARROW				
DITCH / SWALE				
GRADE BREAK				
PROPOSED ELEVATION	× 100.00			
PROPOSED GUTTER / DITCH	×100.00			
GRADE AT BUILDING ELEV.	100.00			
GRADE SLOPE	2.0%			
GRADE SLOPE w/ DISTANCE	10.0m @ 2.0%			

0	MAR 30, 2023	R.J.	J.K.	ISSUED FOR CONSTRUCTION
NO:	DATE	APP.	BY	DESCRIPTION
REVISIONS				



	DESIGNED BY:	REVIEWED BY:	PR			
	JK	DB				
	DRAWN BY:					
	JK					
	PROJECT START DATE: JUNE 2021					
	PLOT SIZE:					
	A1 (594x841)					
	SCALE:					

1:3000

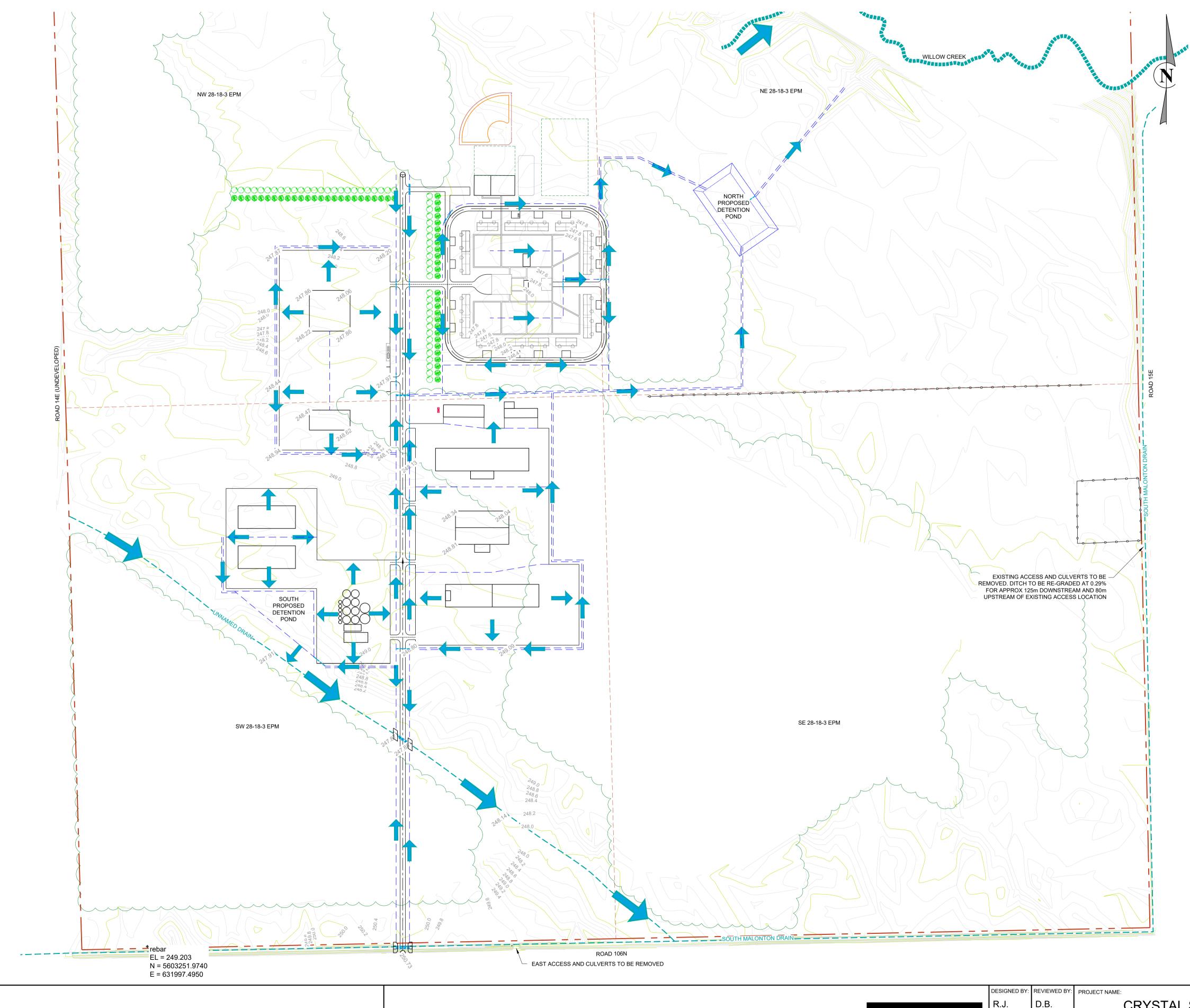
CRYSTAL SPRING COLONY

NEW COLONY SITE

28-18-3 EPM, RM OF ARMSTRONG, MB



903 Rosser Ave. Brandon, Manitoba R7A 0L3 Tel: (204) 728-7364 Fax: (204) 728-4418



GENERAL NOTES:

- 1. ALL UNITS ARE IN METRES AND DECIMALS
- 2. EXISTING FEATURE LOCATION INFORMATION MAR 10 - 12, 2021. PROPERTY LINES SHOW AND NEEDS TO BE VERIFIED BY LEGAL LAI
- 3. LOCAL ELEVATION BENCHMARK PROVIDEI
- 4. PRIOR TO CONSTRUCTION THE CONTRACT COMPANIES FOR LOCATES.
- 5. LOCATIONS OF UNDERGROUND STRUCTU INFORMATION. NO GUARANTEE IS GIVEN T
- 6. HORIZONTAL AND VERTICAL CONTROL TO OF CONSTRUCTION.

DRAINAGE NOTES:

- 1. RATIONAL METHOD USED FOR ALL DRAINA
- 2. GIMLI, MB #5031042 STATION, IDF EQUATIC
- 3. TIME OF CONCENTRATION WAS CALCULAT CHANNEL FLOW EQUATIONS.
- 4. MANNING'S KINEMATIC SOLUTION: N = 0.15 FOR PRAIRIE GRASS.
- N = 0.24 FOR DENSE GRASS. 5. SHALLOW FLOW:
- K = 0.213 FOR SHORT GRASS PASTU K = 0.457 FOR GRASSED WATERWAY
- 6. CHANNEL FLOW: N = 0.03 FOR GRASSED DITCHES

7. RUNOFF COEFFICIENTS:

- C = 0.15 (GRASS)
- C = 0.25 (MEADOWS AND PASTURE) C = 0.60 (GRAVEL AREAS)
- C = 0.90 (ROOF, ASPHALT AND CONC
- 8. PRE-DEVELOPMENT CONDITIONS: WEIGHTED "C" = 0.25
 - $T_{\rm C} = 134 \, {\rm MIN}.$
 - $Q_5 = 0.35 \text{ m}^3/\text{s}$

9. POST-DEVELOPMENT CONDITIONS:

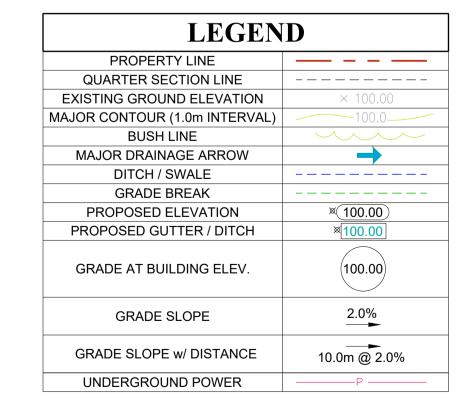
- WEIGHTED "C" = 0.43 $T_C = 64 \text{ MIN.}$ $Q_{25} = 1.42 \text{ m}^3/\text{s}$
- 10.IN ORDER TO LIMIT THE POST-DEVELOPME RATE, THE FOLLOWING MINIMUM STORAG POND SIZING:

VOLUME = $4,963 \text{ m}^3$

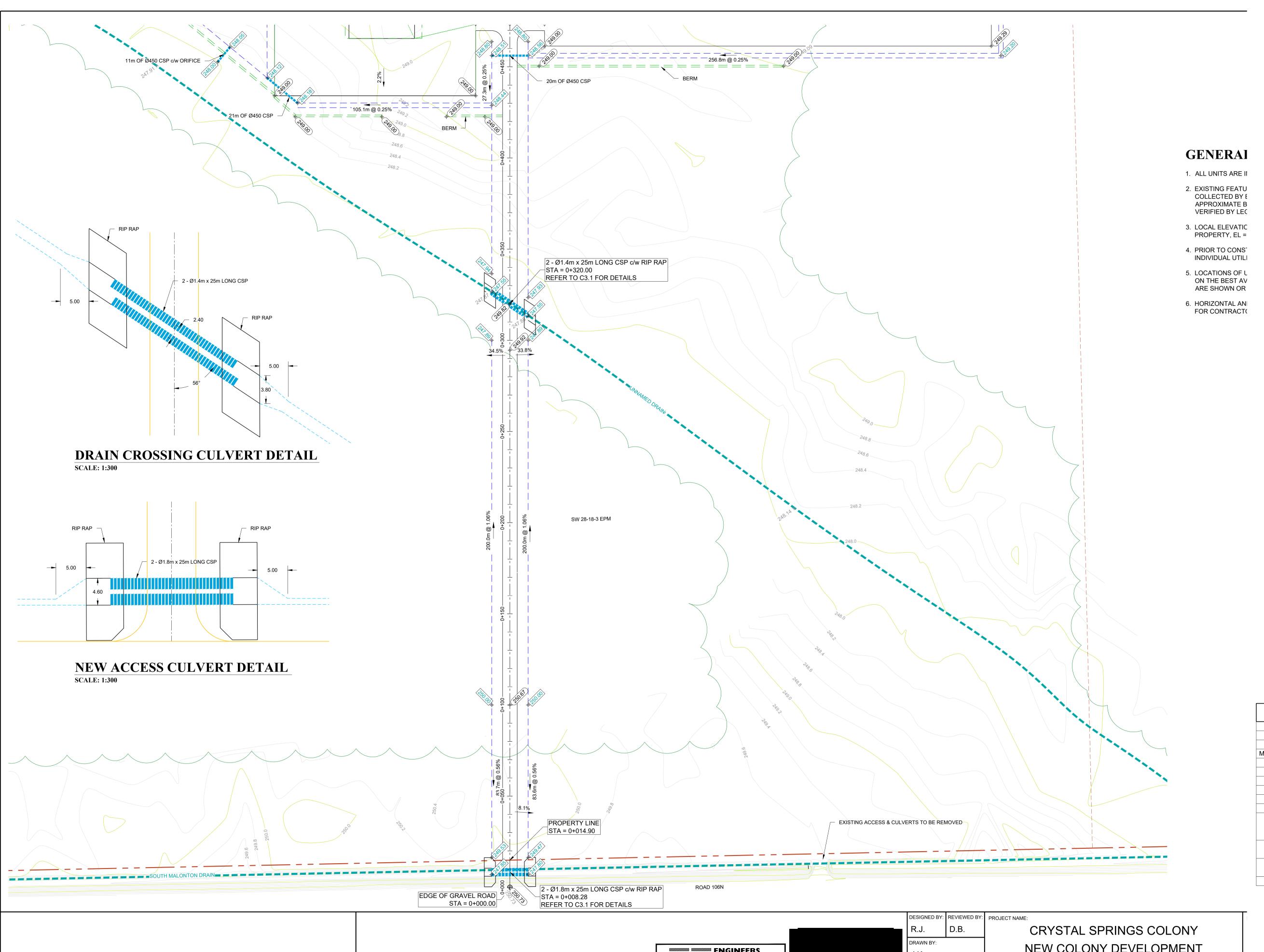
- 11. THE PROPOSED PONDS HAVE THE FOLLO SOUTH POND:
 - VOLUME = 702 m^3 OUTLET:UNNAMED DRAIN SOUTH C ALONG RD 106N.
 - NORTH POND: VOLUME = 4,261 m³ OUTLET: WILLOW CREEK VIA EXISTIN
- 12. THE 25 YEAR FLOWS WILL BE REDUCED TO PROPOSED POND:
 - SOUTH POND: OUTFLOW CONTROL: 0.175m ORIFICE POST-DEVELOPMENT CONTROLLED

NORTH POND:

OUTFLOW CONTROL: 0.390M ORIFICE POST-DEVELOPMENT CONTROLLED

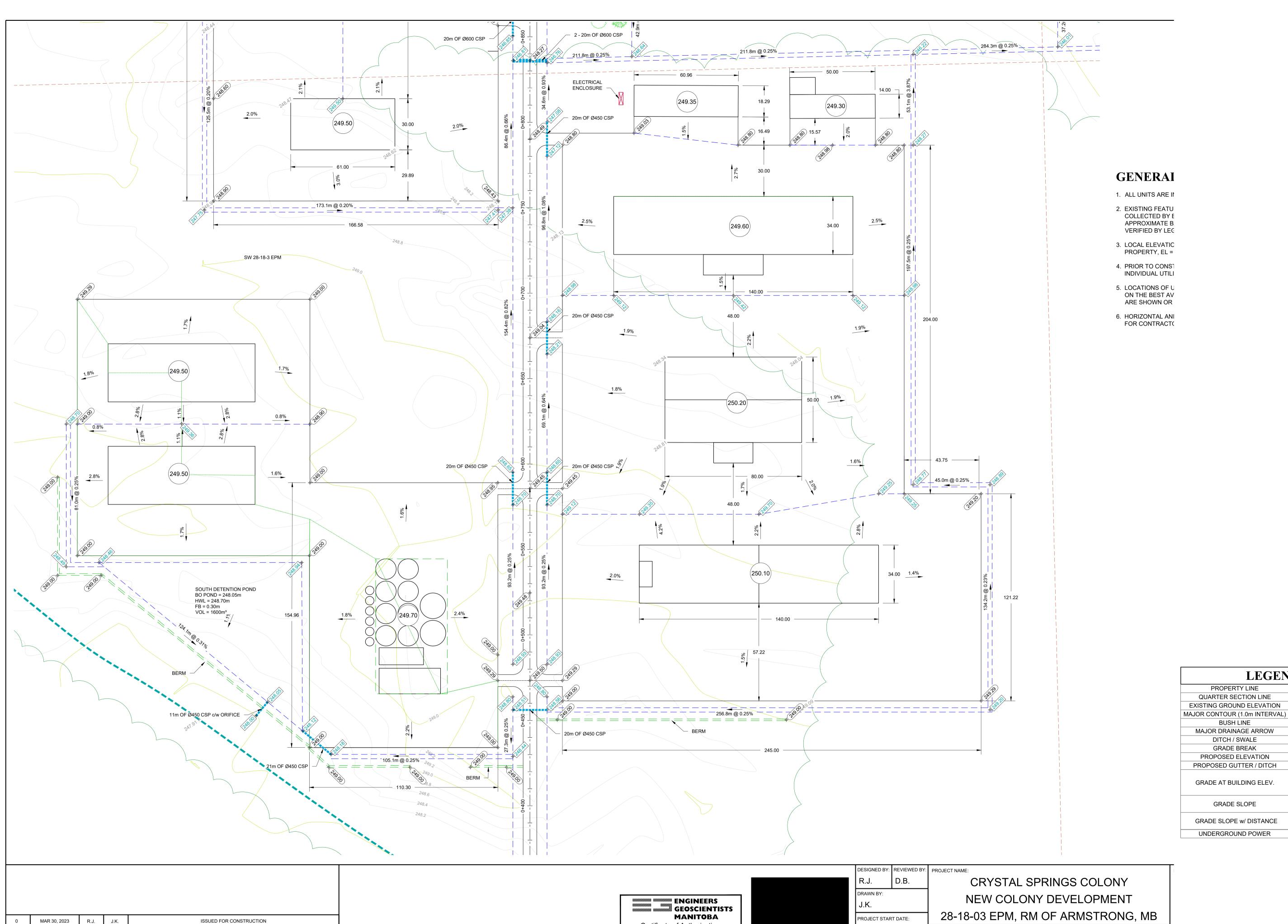


CRYSTAL SPRINGS COLONY DRAWN BY: NEW COLONY DEVELOPMENT ENGINEERS GEOSCIENTISTS J.K. 28-18-03 EPM, RM OF ARMSTRONG, MB **MANITOBA** PROJECT START DATE: Certificate of Authorization MAR 2021 ISSUED FOR CONSTRUCTION MAR 30, 2023 903 Rosser Ave. J.K. Burns Maendel Consulting PLOT SIZE: Brandon, Manitoba Engineers Ltd. ISSUED FOR CLIENT REVIEW JULY 21, 2022 J.K. A1 (594x841) R7A 0L3 BURNS MAENDEL CONSULTING ENGINEERS LTD. DATE APP. DESCRIPTION SCALE: Tel: (204) 728-7364 Fax: (204) 728-4418 **REVISIONS** AS NOTED



LEGEND				
PROPERTY LINE				
QUARTER SECTION LINE				
EXISTING GROUND ELEVATION	× 100.00			
MAJOR CONTOUR (1.0m INTERVAL)	100.0			
BUSH LINE				
MAJOR DRAINAGE ARROW	-			
DITCH / SWALE				
GRADE BREAK				
PROPOSED ELEVATION	× 100.00			
PROPOSED GUTTER / DITCH	×100.00			
GRADE AT BUILDING ELEV.	100.00			
GRADE SLOPE	2.0%			
GRADE SLOPE w/ DISTANCE	10.0m @ 2.0%			
UNDERGROUND POWER	———Р ———			

				STA = 0+000.00 REFER TO C3.1 FOR DETAILS			
	_				DESIGNED B	Y: REVIEWED BY	Y: PROJECT NAME:
					R.J.	D.B.	CRYSTAL SPRINGS COLONY
				ENGINEERS	DRAWN BY: J.K.		NEW COLONY DEVELOPMENT
				GEOSCIENTISTS MANITOBA Certificate of Authorization	PROJECT ST.		28-18-03 EPM, RM OF ARMSTRONG, MB
0	MAR 30, 2023 R	J.K.	ISSUED FOR CONSTRUCTION	Burns Maendel Consulting	MAR 20)21	903 Rosser Ave.
Α	JULY 21, 2022 D.	3. J.K.	ISSUED FOR CLIENT REVIEW	Engineers Ltd.	PLOT SIZE: A1 (594x841)	Lv044\	Brandon, Manitoba
NO:	DATE AF	P. BY	DESCRIPTION			+X04 I)	BURNS MAENDEL R7A 0L3
REVISIONS		REVISIONS		SCALE:	OTED	CONSULTING ENGINEERS LTD. Tel: (204) 728-7364 Fax: (204) 728-4418	



Certificate of Authorization

Burns Maendel Consulting

Engineers Ltd.

OCT 19, 2022

JULY 21, 2022

DATE

APP. BY

ADDED PROPOSED ELECTRICAL PAD LOCATIONS. ISSUED TO CLIENT FOR CONFIRMATION

ISSUED FOR CLIENT REVIEW

DESCRIPTION

REVISIONS

28-18-03 EPM, RM OF ARMSTRONG, MB MAR 2021 903 Rosser Ave. Brandon, Manitoba A1 (594x841) R7A 0L3 BURNS MAENDEL CONSULTING ENGINEERS LTD. Tel: (204) 728-7364 Fax: (204) 728-4418 AS NOTED

PLOT SIZE:

SCALE:

LEGEND

-----_____

×(100.00)

×100.00

100.00

2.0%

10.0m @ 2.0%

PROPERTY LINE

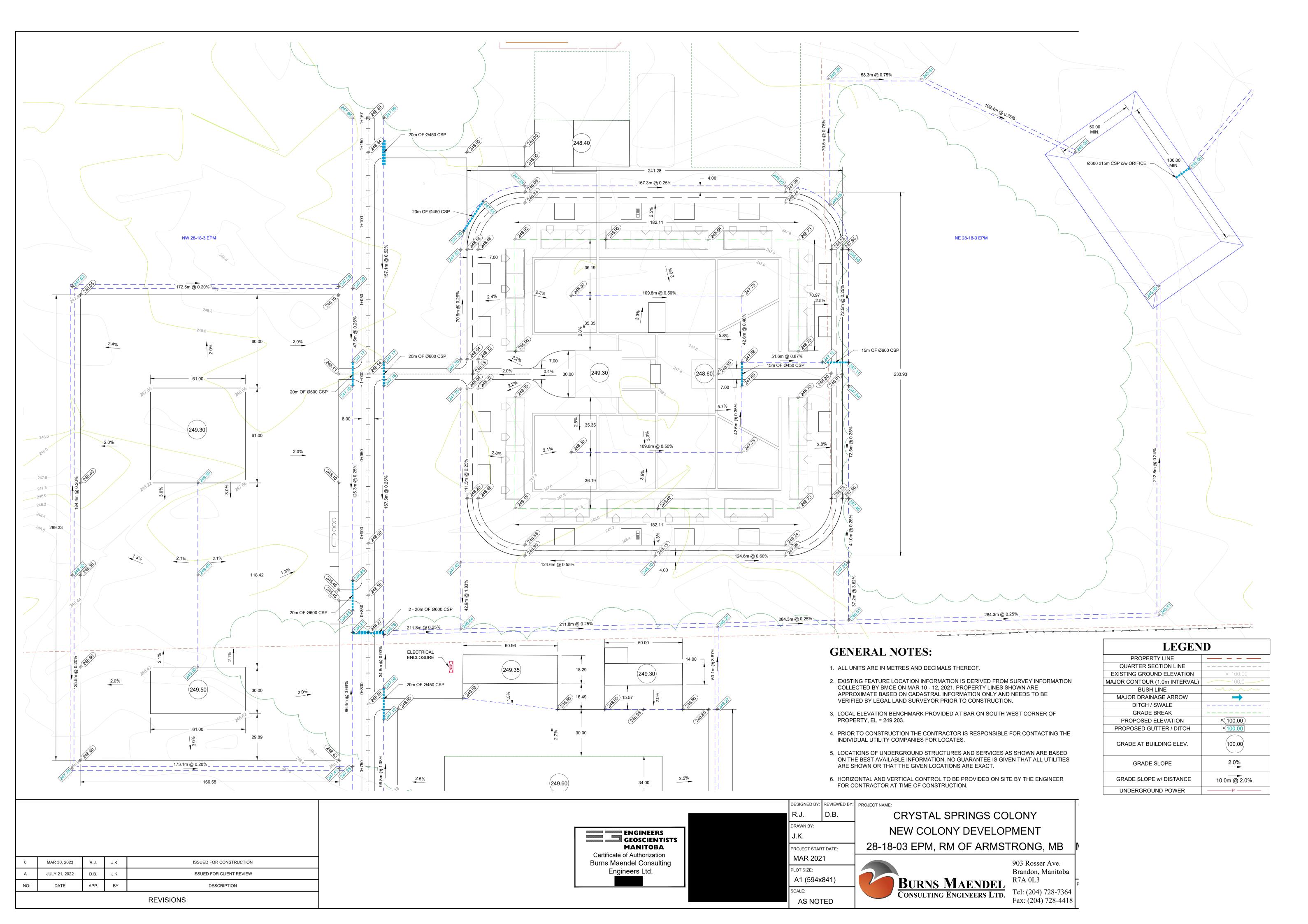
BUSH LINE

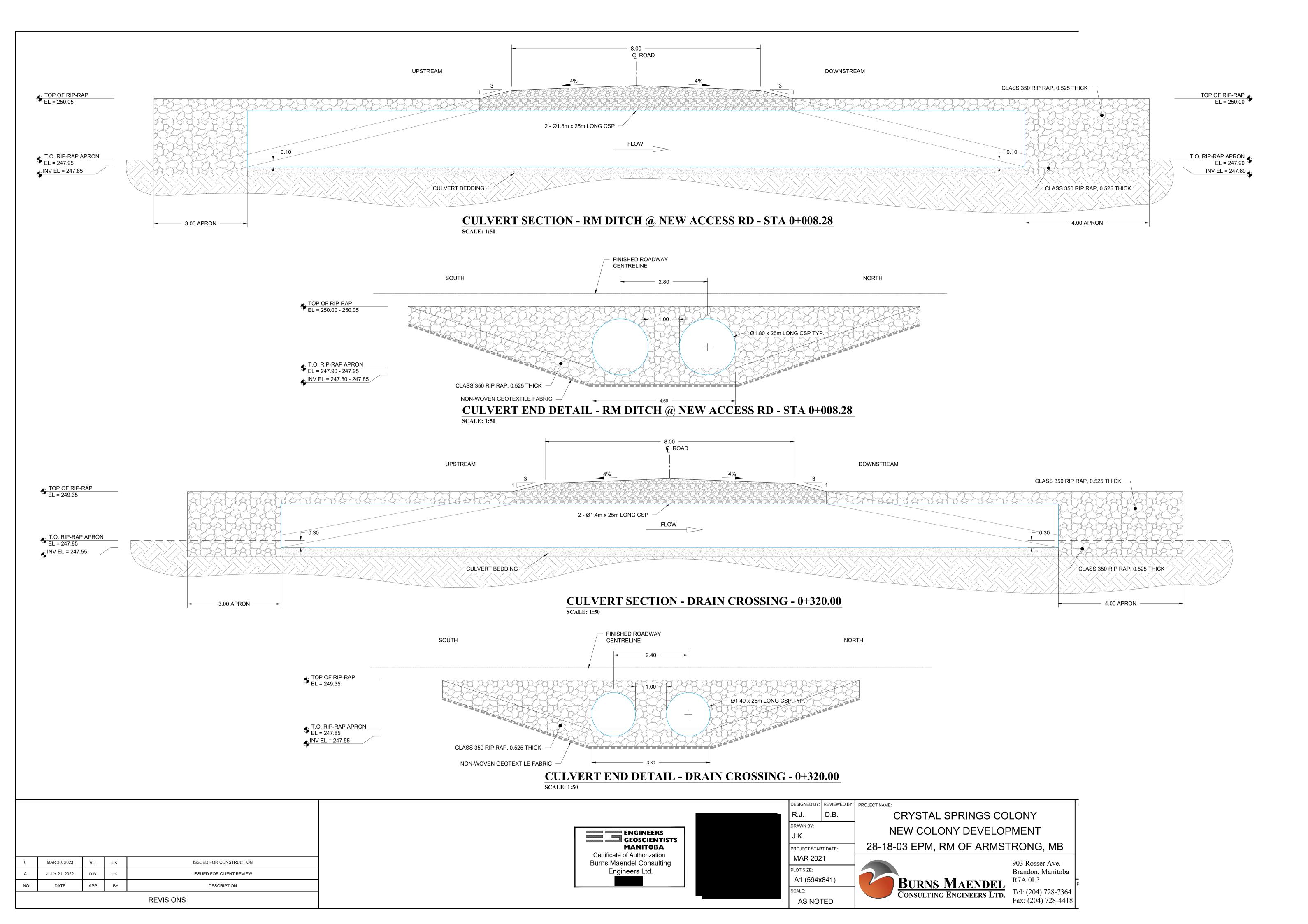
DITCH / SWALE

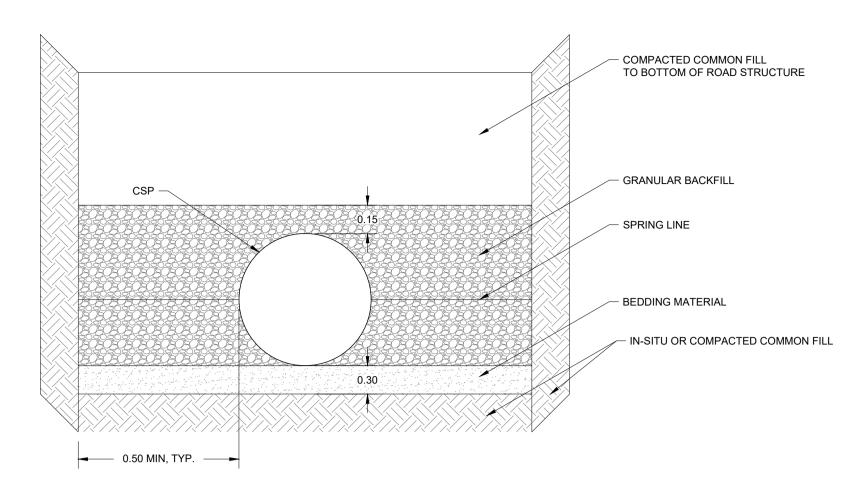
GRADE BREAK

PROPOSED ELEVATION

GRADE SLOPE







TYPICAL CULVERT BACKFILL DETAIL

SCALE: NTS

CULVERT INSTALLATION NOTES:

CULVERT FOUNDATION

1) THE CULVERT FOUNDATION MEANS THE NATURAL SOIL, UNDERLYING THE EXCAVATION, UPON WHICH THE CULVERT BEDDING OR THE CULVERT IS TO BE PLACED.

2) THE CULVERT FOUNDATION SHALL BE PREPARED AND COMPACTED TO THE STAKED GRADELINE AND FOR A WIDTH SUFFICIENT TO PERMIT COMPACTION OF THE BEDDING UNDER THE CULVERT HAUNCHES. BED EXCAVATION TO HAVE A MINIMUM WIDTH OF 0.5 m FROM OUTSIDE EDGE OF CULVERT. 3) UNSUITABLE MATERIAL FROM BELOW THE STAKED GRADELINE SHALL BE REMOVED TO AN APPROVED DEPTH AND

REPLACED WITH SUITABLE BEDDING AND SUITABLE GEOTEXTILE IF REQUIRED, TO PROVIDE UNIFORM CONTINUOUS SUPPORT 2. CULVERT PLACEMENT

1) CULVERTS SHALL BE PLACED AT THE LOCATION, GRADE AND ALIGNMENT AS INDICATED ON THE PLAN OR AS DIRECTED BY ENGINEERING REPRESENTATIVE.

2) CULVERT SECTIONS SHALL BE PLACED SO THAT THE COUPLER CORRUGATIONS SHALL PROPERLY ENGAGE PIPE CORRUGATIONS WITH THE MINIMUM GAP BETWEEN SECTION ENDS. COUPLER BOLTS SHALL BE FULLY TIGHTENED.

3. CULVERT BEDDING

1) THE CULVERT BEDDING MEANS A LAYER OF SELECTED MATERIAL, GENERALLY CULVERT GRAVEL, CONSTRUCTED ON THE CULVERT FOUNDATION SO AS TO UNIFORMLY SUPPORT THE CULVERT. 2) CULVERT GRAVEL SHALL BE WELL GRADED AND SHALL CONSIST OF SOUND, DURABLE PARTICLES OF GRAVEL, STONE, SAND AND FINES, FREE FROM SOD, ROOTS AND ORGANIC MATERIAL. THE SHALE CONTENT SHALL NOT EXCEED 25% BY WEIGHT OF THE PARTICLES RETAINED ON A 4.75 mm SIEVE. THE CULVERT GRAVEL SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

PASSING 37.5 mm -100% PASSING 4.75 m 25 - 80% PASSING 425 um 15 - 40% PASSING 75 um 6 - 18%

3) CULVERT GRAVEL FOR BEDDING SHALL BE SPREAD UNIFORMLY ALONG THE FULL LENGTH OF THE CULVERT FOUNDATION. THE BEDDING SHALL BE PLACED SO THAT AFTER COMPACTING, A DEPTH OF AT LEAST 300 mm OF GRAVEL REMAINS UNDER THE FULL LENGTH OF THE CULVERT 4) AFTER THE CULVERT HAS BEEN INSTALLED AND ASSEMBLED ON THE LOOSE BEDDING, THE BEDDING ON BOTH SIDES OF THE CULVERT SHALL BE COMPACTED. CULVERT BEDDING SHALL BE COMPACTED AT OPTIMUM MOISTURE CONTENT TO A MINIMUM OF 95% AASHTO STANDARD DRY DENSITY. 4. CULVERT BACKFILLING - BELOW SPRINGLINE

1) FILL MATERIAL UNDER HAUNCHES SHALL BE PLACED ALTERNATELY IN 150 mm LAYERS ON BOTH SIDES OF THE PIPE AND COMPACTED. THE MATERIAL UNDER THE HAUNCHES MUST BE IN FIRM CONTACT WITH THE ENTIRE BOTTOM SURFACE OF THE STRUCTURE. BACKFILL AND COMPACTION UNDER HAUNCHES IS A MANUAL JOB, CONSISTING OF SHOVEL PLACEMENT, TIMBER RAMMER OR HAND HELD PACKERS. 2) COMPACTION TO SPRINGLINE - AFTER THE HAUNCH AREA HAS BEEN BACKFILLED AND COMPACTED, ADDITIONAL BEDDING MATERIAL SHALL BE PLACED ADJACENT TO THE PIPE HAUNCHES IN LIFTS NOT EXCEEDING 150 mm. EACH LIFT SHALL BE COMPACTED WITH A PLATE TYPE MECHANICAL COMPACTOR. BEDDING MATERIAL SHALL BE PLACED IN THIS MANNER UP TO THE LEVEL OF THE SPRINGLINE. MATERIAL PLACED ABOVE THE SPRINGLINE SHALL BE PLACED AS DESCRIBED IN BACKFILL.

CULVERT BACKFILLING - ABOVE SPRINGLINE

1) BACKFILL WILL MEAN CULVERT GRAVEL OR SELECTED MATERIAL USED FOR FILL ADJACENT TO AND OVER AN ASSEMBLED CULVERT. THE LEVEL OF BACKFILL ON BOTH SIDES OF THE CULVERT SHALL BE MAINTAINED APPROXIMATELY EQUAL AT ALL TIMES TO PREVENT DISTURBING THE CULVERT. 2) EXCAVATED MATERIAL OR MATERIAL SIMILAR TO THE ROADWAY EMBANKMENT SHOULD BE ENCOURAGED AS BACKFILL IN FROST SUSCEPTIBLE SOILS. HEAVY CLAY MATERIAL SHALL NOT BE USED AS BACKFILL 3) WHEN CULVERT GRAVEL IS NOT USED, MATERIAL PLACED UNDER THE HAUNCHES SHALL BE CAREFULLY SELECTED TO ENSURE THAT IT IS FREE OF ROCKS AND LUMPS.

4) CULVERTS SHALL BE BACKFILLED IN UNIFORM LAYERS NOT EXCEEDING 150 mm AND SHALL BE COMPACTED TO A MINIMUM OF 95% AASHTO STANDARD DRY DENSITY.

5) BACKFILL SHALL BE PLACED AND COMPACTED IN UNIFORM LAYERS UNTIL THE EMBANKMENT HAS BEEN CONSTRUCTED TO A SUFFICIENT HEIGHT ABOVE THE TOP OF THE CULVERT SO THAT NORMAL GRADING EQUIPMENT CAN OPERATE WITHOUT DISTORTING THE CULVERT.

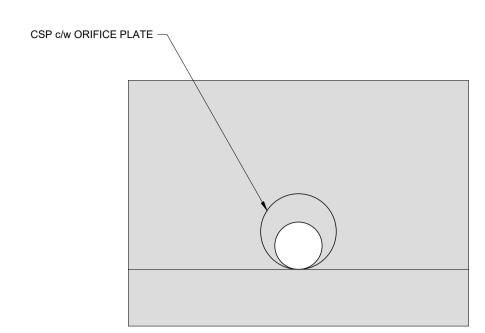
1) THE DRAIN MAY REQUIRE EXCAVATION UPSTREAM AND DOWNSTREAM TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING CHANNEL.

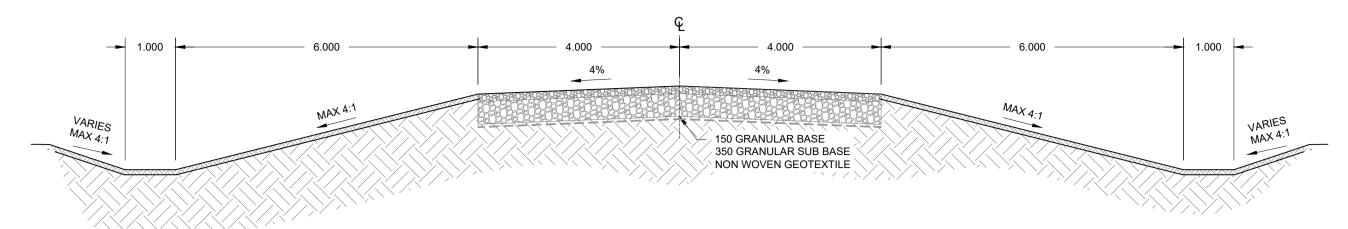
2) THE LIMITS OF THE CHANNEL TRANSITION SHALL BE AS INDICATED ON THE PLAN OR AS DIRECTED BY

ENGINEERING REPRESENTATIVE 7. RIPRAP

6. CHANNEL EXCAVATION

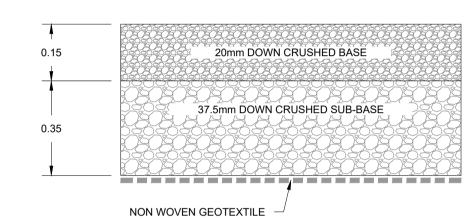
1) THE CLASS 350 RIPRAP WILL BE WELL-GRADED, ROUNDED, CLEAN FIELD STONE OR QUARRIED CRUSHED ROCK WITH THE FOLLOWING GRADATION: 100% < 350 mm, 50% > 200 mm AND 80% > 100 mm. 2) RIPRAP TO BE PLACED OVER ARMTEC 230 NON-WOVEN GEOTEXTILE OR EQUIVALENT





TYPICAL ROAD SECTION

TYPICAL ORIFICE PLATE DETAIL **SCALE: 1:20**



TYPICAL GRAVEL PAD SECTION

SCALE: NTS

GRAVEL PAD / ROAD CONSTRUCTION NOTES

1. ORGANICS, LOOSE SAND, FILLS, AND ANY OTHER DELETERIOUS MATERIAL SHOULD BE STRIPPED SUCH THAT THE SUBGRADE CONSISTS OF COMPACT TO DENSE SILT TILL, COMPACT TO DENSE SAND, STIFF TO HARD SILT AND CLAY, OR STIFF TO VERY STIFF SILTY CLAY.

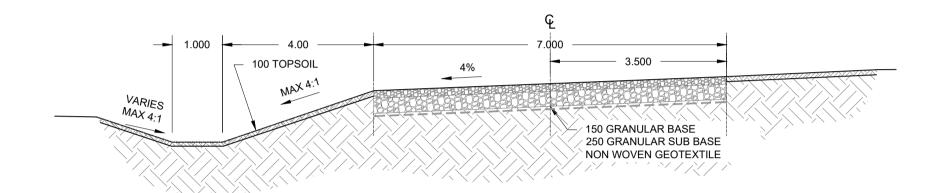
2. EXCAVATION SHOULD BE COMPLETED WITH AN EXCAVATOR EQUIPPED WITH A SMOOTH-BLADED BUCKET AND OPERATING FROM THE EDGE OF THE EXCAVATION IN ORDER TO MINIMIZE DISTURBANCE TO THE EXPOSED SUBGRADE

3. AFTER EXCAVATION, THE SUB-GRADE SHOULD BE INSPECTED BY TREK PERSONNEL. THE SUB-GRADE SHOULD BE PROOF-ROLLED WITH A FULLY LOADED TANDEM AXLE TRUCK TO DETECT SILT OR SOFT AREAS. SILT OR SOFT AREAS SHOULD BE REPAIRED AS PER DIRECTIONS PROVIDED BY TREK. THIS WILL LIKELY CONSIST OF EXCAVATING AN ADDITIONAL 150 TO 300 MM, PLACING A NON-WOVEN GEOTEXTILE ON THE SUB-GRADE, AND BACKFILLING WITH A 37.5 MM DOWN CRUSHED GRANULAR FILL. THE GRANULAR FILL SHOULD BE PLACED IN LIFTS NO GREATER THAN 150 MM AND COMPACTED TO A MINIMUM OF 95% OF THE SPMDD.

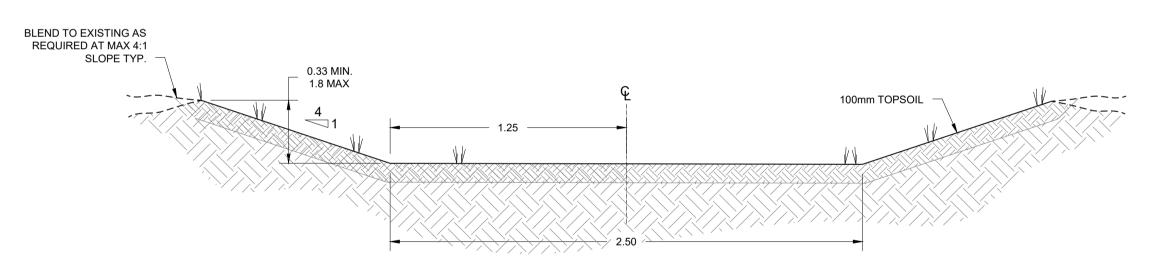
4. THE SUB-GRADE SHOULD BE PROTECTED FROM FREEZING, DRYING, INUNDATION WITH WATER OR DISTURBANCE AT ALL TIMES. IF ANY OF THESE CONDITIONS OCCUR THE SUB-GRADE SHOULD BE SCARIFIED, MOISTURE CONDITIONED AS APPROPRIATE, AND RE-COMPACTED TO A MINIMUM OF 95% OF THE SPMDD.

5. A NON-WOVEN GEOTEXTILE SHOULD BE PLACED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS ON THE PREPARED SUB-GRADE PRIOR TO PLACEMENT OF GRANULAR FILL.

6. THE GRANULAR SUB-BASE AND BASE MATERIALS SHOULD BE PLACED IN LIFTS NOT EXCEEDING 150 MM AND COMPACTED TO 98% OF THE SPMDD.



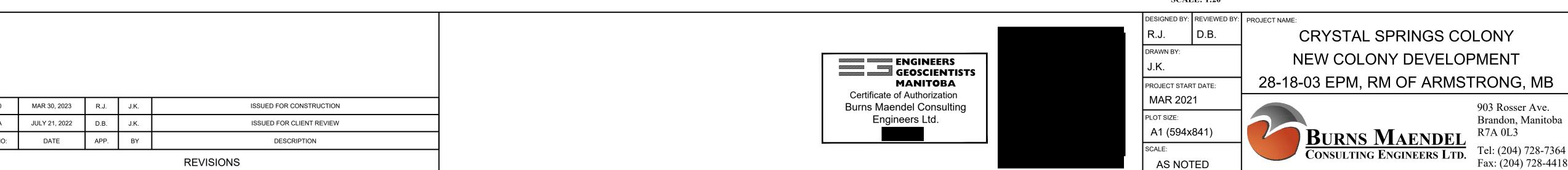
TYPICAL RESIDENTIAL ROAD SECT **SCALE: 1:75**



TYPICAL DITCH SECTION **SCALE: 1:20**

BLEND TO EXISTING AS **REQUIRED AT MAX 4:1** EDGE OF PAD OR BLEND TO EXISTING AS REQUIRED AT MAX 4:1 SLOPE 0.33 MIN. 100mm TOPSOIL 1.8 MAX B.O. DITCH EL VARIES

TYPICAL DITCH w/ BERM SECTION **SCALE: 1:20**





DATE: November 15, 2023

TO: Housseini Coulibaly

Environmental Approvals Branch 14 Fultz Blvd, Winnipeg, MB

R3Y 0L6

CC.

FROM: Joy Kennedy

Water Quality Management Section

Environment and Climate

14 Fultz Blvd, Winnipeg, Manitoba

R3Y 0L6

PHONE NO.: 204-945-7908

SUBJECT: CRYSTAL SPRING COLONY FARMS LTD

- The following effluent standards should be in place for Crystal Spring Colony Farms Ltd wastewater treatment lagoon as per the *Manitoba Water Quality Standards*, *Objectives and Guidelines* Regulation (196/2011) for discharge events:
 - BOD5 25 mg/L,
 - TSS 25 mg/L,
 - Total Phosphorus <1 mg/L,
 - Fecal Coliforms or Escherichia coli 200 organisms / 100mL
- The Water Quality Management Section is concerned with any discharges that have the potential to impact the aquatic environment and/or restrict present and future uses of the water. Therefore it is recommended that the license require the proponent to actively participate in any future watershed based management study, plan/or nutrient reduction program, approved by the Director.

Sincerely,	
Joy Kennedy	

From: +WPG569 - Forestry and Peatlands Circulars

Sent: October 24, 2023 10:56 AM

To: Coulibaly, Housseini

Subject: RE: Request for Environment Act Proposal Review: File 6193.00 – Crystal Spring Colony

New Development - Wastewater Lagoon

Forestry and Peatlands has no concerns with the activity.

To reduce the spread of forest insects and disease. Properly dispose of trees identified as Elm, per the Forest Health Protection Act and regulation.

Jane

From: +WPG1195 - Mines BR **Sent:** November 10, 2023 1:45 PM

To: Coulibaly, Housseini

Subject: RE: Request for Environment Act Proposal Review: File 6193.00 – Crystal Spring Colony

New Development - Wastewater Lagoon

Hi Housseïni,

Mines Branch has no concerns

Tim Davis GIS Specialist Minerals, Petroleum, and Geoscience, EDITNR <u>Tim.davis@gov.mb.ca</u> 360-1395 Ellice Ave, Winnipeg, MB (204) 945-6525

From: Leonen, Leonardo

Sent: November 21, 2023 9:15 AM

To: Coulibaly, Housseini

Cc: Mraz, Peter

Subject: RE: Request for Environment Act Proposal Review: File 6193.00 – Crystal Spring Colony

New Development - Wastewater Lagoon

There are no known petroleum deposits and oil/gas infra in the area. Petroleum Branch has no concerns.

Leo



DATE: 2023-11-15

TO: Environmental Approvals Branch Department of Environment and

Climate

c/o Housseïni D. Coulibaly Senior Environmental Engineer Industrial and Wastewater Section Box 35, 14 Fultz Blvd Winnipeg, MB R3Y 0L6 FROM: Archaeological Assessment Services Unit

Historic Resources Branch

Main Floor – 213 Notre Dame Avenue

Winnipeg, MB R3B 1N3

T: (204) 945-2118 F: (204) 948-2384

e: HRB.archaeology@gov.mb.ca

SUBJECT: File No: 6193.00

AAS File AAS-23-21055

Environment Act Proposal Review - Crystal Spring Colony New Development -

Wastewater Lagoon

No Concerns at this Time

Further to your e-mail regarding the above noted application, the Manitoba Historic Resources Branch (HRB) has examined the location in conjunction with Branch records for areas of potential concern. The potential to impact to heritage resources is believed to be low based on analysis of <u>current data</u> and evaluated by the type of action proposed, therefore, the HRB has no concerns with the proposed project at this time. This evaluation is only appropriate for this respective request.

Legislation

Under Section 46 and 51 of <u>the Heritage Resources Act</u> (the Act), if at any time, heritage resources are encountered in association with these lands during testing and development, there is an obligation to report any heritage resources and a prohibition on destruction, damage or alteration of said resources. HRB may require that an acceptable heritage resource management strategy be implemented by the proponent/developer to mitigate the effects of their activity on the heritage resources.

If you have any questions, please contact as above for proper assignment and queueing.

Historic Resources Branch Archaeological Assessment Services Unit

From: Jack, Breanne

Sent: November 15, 2023 11:40 AM

To: Coulibaly, Housseini
Cc: +SEL1081 - Selkirk CRP

Subject: RE: Due Nov 27- Request for Environment Act Proposal Review: File 6193.00 – Crystal

Spring Colony New Development - Wastewater Lagoon

Community Planning has no concerns.

From: Singh, Davinder

Sent: November 20, 2023 9:57 AM

To: Coulibaly, Housseini

Cc: Benoit, Peter; Khodaveisi, Mahmoud; Sturgess, Yvonne

Subject: RE: Request for Environment Act Proposal Review: File 6193.00 – Crystal Spring Colony

New Development - Wastewater Lagoon

Hello Housseïni,

Thank you for the opportunity to review this file.

I have no specific concerns.

Thank you, Davinder

Dr. Davinder Singh, MD, JD, MSc, FRCPC Medical Officer of Health Southern Health-Santé Sud Manitoba Health, Seniors and Long-Term Care

Burland Ross, Siobhan

From: Coletti, Lucas < Lucas.Coletti@dfo-mpo.gc.ca>

Sent: November-09-23 3:00 PM **To:** Coulibaly, Housseini

Subject: CRYSTAL SPRING COLONY NEW DEVELOPMENT - WASTEWATER LAGOON – FILE: 6193.00 -

7317434 MANITOBA LTD

You don't often get email from lucas.coletti@dfo-mpo.gc.ca. Learn why this is important

CAUTION: This email originated from an External Sender. Please do not click links or open attachments unless you recognize the source.

ATTENTION: ce courriel provient d'un expéditeur externe. Ne cliquez sur aucun lien et n'ouvrez pas de pièce jointe, excepté si vous connaissez l'expéditeur.

Hello Housseïni,

This project was brought to DFO's attention as it may relate to impacts to fish and fish habitat. Please accept our comment below.

The Fisheries Act requires that projects avoid causing any harmful alteration, disruption or destruction of fish and/or fish habitat unless authorized by the Minister of Fisheries and Oceans Canada. The Fish and Fish Habitat Protection Program of Fisheries and Oceans Canada reviews projects to ensure compliance with the Fisheries Act and the Species at Risk Act. Following the measures to protect fish and fish habitat will help you comply with the Act; these measures can be found at http://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures-eng.html.

We request that you visit our website at http://www.dfo-mpo.gc.ca/pnw-ppe/reviews-revues/request-review-demande-d-examen-001-eng.html to determine if DFO needs to review your project. If your project is not in one of the listed exempted waterbody types nor does it fall within the standards and codes of practice, we recommend that you submit a Request for Review to DFO before proceeding further. If you are unsure about whether your project requires DFO review, you can seek support from a qualified environmental professional familiar with measures to avoid impacts to fish and fish habitat. It is the proponent's responsibility to meet all requirements of federal, provincial and municipal agencies.

Sincerely,

Lucas Coletti

Biologist | Biologiste

Fisheries and Oceans Canada | Pêches et Océans Canada | Fish and Fish Habitat Protection Program | Programme de Protection du Poisson et de Son Habitat 867 Lakeshore Road, Burlington, ON, L7S 1A1 | 867, ch. Lakeshore, Burlington, ON, L7S 1A1 | Email/Courriel: Lucas.Coletti@dfo-mpo.gc.ca