80	000-100	J-14-00000Z-4Z0491_	11	10	9	8	7	<u> </u>	6	5	4	3	2		1
	<u>GENE</u> 1.	<u>IERAL:</u> PROJECT COORDINATES ARE SET IN NA	AD83 (CSRS), MTM ZONE 9 PROJECTI	ON.	THAN 1H:1V (HORIZONTAL: VE	,,	OM THE BOTTOM OF THE EXCAVATION	I NO STEEPER		COMPACTION EQUIPMENT SHALL BE SUCCESSION SATISFACTORY PERFORMAN	SUBJECT TO THE APPROVAL OF THE GEONCE.	TECHNICAL			
	2.	ALL COORDINATES AND ELEVATIONS AF		ERWISE.	THAN 3H:1V.						LOCATIONS SHALL FOLLOW THE RECOMM THE CONTRACTOR SHALL EXERCISE EVERY				
Н		ALL WORK SHOWN SHALL BE PERFORM	MED IN ACCORDANCE WITH THE PRO	DJECT STANDARDS, SPECIFICATIONS, THE	FLATTENING OF THE SLOPES	OF OPEN CUT EXCAVATIONS MAY E	BY THE GEOTECHNICAL ENGINEER. BE REQUIRED. THE CLASSIFICATION C		PRECAUTION NECES		SEGREGATION OF PARTICLE SIZES. STOCK				Н
	5.	LATEST GEOTECHNICAL REPORT AND LIT IS THE CONTRACTOR'S RESPONSIBILI				ONFIRMED AT THE TIME THE EXCAVA AVATIONS ARE REQUIRED TO BE STE	ATION IS OPEN. EEPENED, SUPPORT OF EXCAVATED W	VALLS MAY BE	16. GRANULAR FILL MA	ERIALS SHALL NOT BE CONTAMINATED	BY MIXING WITH OTHER MATERIALS. FILL	MATERIALS			
		BEFORE CONSTRUCTION BEGINS. TH RECORD.	HE CONTRACTOR SHALL REPORT	DISCREPANCIES TO THE ENGINEER OF	REQUIRED PER THE REVIEW AN 11. AT ALL TIMES DURING CONST	ND RECOMMENDATIONS OF THE GE		S SUCH THAT		E CONTAMINATED SHALL BE REMOVED AI ENGINEERED FILLS SHOULD BE PROTECTE	IND REPLACED. TED FROM CONSTRUCTION TRAFFIC AND	SLOPED TO			
	6.	THE CONTRACTOR SHALL IDENTIFY AN		MENTS, U/G UTILITIES INCLUDING WATEF	R, THE STABILITY OF ANY SLOPE	IS NOT IMPAIRED. ENGINEER'S ACC	CEPTANCE OF EXCAVATION PROCEDU ESPONSIBILITY FOR SAFEGUARDING T	URES AND/OR			G Construction period. Additional s IISHED SURFACED ARE LEFT EXPOSED DURIN				
		WORK UNDER THIS CONTRACT.		DITS FRIOR TO COMMENCEMENT OF AN	OF ALL SLOPES EXCAVATED.				PERIODS OF FREEZIN	G WEATHER.					
	7. 8.	ENVIRONMENTAL PERMITTING TO BE CO GEOTECHNICAL RECOMMENDATIONS		EPORT "TRAIL ROAD BATTERY ENERGY		THE CONTRACTOR TO KEEP EXPOSE	ED FOUNDATION SOILS AND EXCAVAT	TIONS DRY AT	FOUNDATION CONSIDERAT		NI ELEMENTO, OLIOLI AO TUE OLIDOTATIONI (NUOLII D. DE			
		STORAGE SYSTEM (BESS) PRELIMINARY Rev.A, DATED FEBRUARY 3, 2025.	RY GEOTECHNICAL INVESTIGATION", [DOCUMENT #H375035-0000-2A0-066-0001	,	E DIRECTED FROM ANY OPEN EXC A AND REGULATIONS FOR CONSTRU	CAVATION AND ALL TEMPORARY EXC JCTION PROJECTS.	CAVATIONS IN	BACKFILLED WITH NO	N-FROST SUSCEPTIBLE GRANULAR MATE	N ELEMENTS, SUCH AS THE SUBSTATION, S ERIAL SUCH AS GRANULAR B TYPE I TO PRO				
G	9.	SURFACE DATA, PROPERTY BOUNDARY SURVEY FILE "241437 TRAIL ROAD BESS	•	TION OBTAINED FROM CLIENT PROVIDED MATICS INC. DATED 2025-03-12			IMPS AND SUMPS. CONSIDERATIONS ONE TIME, OR THE USE OF A TREMIE		FROM FROST ADHES 2. TO MINIMIZE DIFFER		ES WHERE HARD SURFACING LIKE ASPHALT	OR			G
	0.54				BASE.		ABLE AND SAFE CONDITION, TO THE		,		SLOPING THE BACKFILL FROM 1.8 M BELOV 1V. BACKFILL SHALL BE PLACED IN 200 MM				
	<u>CLEA</u> 1.	<u>aring and Grubbing</u> The Work to be done under this i	ITEM COMPRISES THE SUPPLY OF A	ALL LABOUR, PLANT AND MATERIAL, AND	SATISFACTION, AT NO ADDITIC	ONAL COST TO OWNER. THE SURFA	ACES OF DISPOSAL AREAS SHALL BE				N EQUIPMENT. THE UPPER 0.3 M OF BACKF LE SOILS AND THE EXTERIOR GRADE SHO				
		THE PERFORMANCE OF ALL WORK N SHOWN ON THE DRAWINGS.	NECESSARY FOR CLEARING AND G	RUBBING THE CONSTRUCTION LIMIT AS	S LINES AND GRADES SATISFACT	TORY TO THE ENGINEER.			AWAY FROM THE STR		ICE WITH THE GEOTECHNICAL RECOMMENT	DATIONS BY			
	2.	CLEARING AND GRUBBING SHALL CONDEAD, DEBRIS AND ALL OTHER PERISHA		OF ALL TREES, HEDGES SHRUBS ALIVE OF N TREES AND LOGS WHICH MAY BE		PARATION SHALL BE COMPLETED IN	N ACCORDANCE TO THE GEOTECHNI	IICAL RFPORT	HATCH AND UNDER	HE SUPERVISION AND APPROVAL OF THE	E GEOTECHNICAL ENGINEER.				\vdash
		,	OUND WITHIN THE CONSTRUCTION	LIMIT. ALL TREES, HEDGES, AND SHRUBS	AND UNDER THE SUPERVISION	N AND APPROVAL OF THE GEOTECHI	NICAL ENGINEER.		GRANULAR AGGREG	ATE WITH A MAXIMUM PARTICLE SIZE OF 5	AYER OF GRANULAR A BASE OR A CRUSHED 50 MM OVERLAYING GRANULAR B TYPE II SU	BBASE.			
	3.	THE CONTRACTOR SHALL GIVE THE EN	NGINEER OF RECORD 3 DAYS NOTICE	OF INTENT TO CLEAR AREAS. THE LIMITS	HAS BEEN REVIEWED AND	APPROVED BY THE GEOTECHNIC	ARTH FOUNDATION SURFACE UNTIL T CAL ENGINEER. FINAL PREPARATION			HALL BE PLACED IN MAXIMUM 300 MM T BRATORY COMPACTION EQUIPMENT.	THICK LOOSE LIFTS AND COMPACTED TO 9	98% SPMDD			
		OF CLEARING AS APPROVED BY THE EN ADHERED TO.			3. SUBSEQUENT TO THE REMOVA	,	SUBGRADE SURFACE SHOULD BE HE				M 1.8 M OF SOIL COVER MEASURED PERP DE OF THE FOOTING FOR FROST PROTECT				_
	4.	REMOVE ALL CLEARED MATERIAL FROM PROCEDURES AND IN A MANNER ACCE		ORDING TO LOCAL REGULATIONS, CLIEN ⁻ ORD.	TOLLED WITH THE EQU	,	SPECTION BY A GEOTECHNICAL ENGII HOULD BE SUB-EXCAVATED AND REF		OPSD 3090.101. ALT		TION MAY USED TO COMPENSATE FOR TH				
						E SUPERVISION AND DIRECTION OF TRACE FILL MATERIAL ON FOUNDA	THE GEOTECHNICAL ENGINEER. ATION SURFACES WITHOUT WRITTEN A	ACCEPTANCE	ROADWAY SURFACE						
		PPING, STOCKPILING AND DISPOSING OF THE WORK TO BE DONE UNDER THIS IT		OF ALL LABOUR, AND THE PERFORMANCE	OF FOUNDATION PREPARATION	N FROM THE GEOTECHNICAL ENGIN			- PAVEMENT STRUCT		HALL BE COMPLETED IN ACCORDANCE WITI R THE SUPERVISION AND APPROVAL OF THE				
				UBSEQUENT REUSE OR DISPOSAL FROM	CONSTRUCTION ACTIVITIES (OF THE GENERAL CONTRACTOR	AND SUBCONTRACTORS WITH OB.	JECTIONABLE	GEOTECHNICAL EN	GINEER AND SHALL FOLLOW THE RECOM					<u> </u>
	2.	NO STRIPPING OF ANY AREA SHALL STA		OM THE ENGINEER OF RECORD. TOPSOII DL (ESC) MEASURES ARE IMPLEMENTED.	- SATISFACTION OF THE ENGINE	EER, AT NO ADDITIONAL COST TO OV			OPTIMUM MOISTURE	CONTENT.					
	3.	THE CONTRACTOR SHALL PROVIDE ADE	EQUATE PROTECTION MEASURES TO	TEMPORARY TOPSOIL STOCKPILES.	CONDITION ALL MATERIAL BEL	NS SHALL BE TAKEN TO PRESERVE LOW AND BEYOND THE LIMITS OF EX	: IN A SOUND, UNDISTURBED AND U (CAVATION.	JNSHATTERED		D COMPACTION DENSITY TESTING SHALL NEER FOR EACH LIFT, UNLESS OTHERWIS	LL BE COMPLETED UNDER THE SUPERVISI SE STATED OTHERWISE.	ON OF THE			
F	4.	BE MAINTAINED AT ALL TIMES IN A CON	NDITION ACCEPTABLE TO THE OWNE	THE WORK UNDER THIS ITEM AND SHALI R OR OWNER'S REPRESENTATIVE AND/OF	R ENGINEERED FILL						r to promote runoff. The Subgrade (And 5% towards the roadway perimet				l F
		THE ENGINEER OF RECORD. STOCKPIL SHALL NOT BLOCK DRAINAGE OF NATU		Y FOR STABILITY. STOCKPILED MATERIAL	1. ENGINEERED FILL MATERIAL, I	'	OL SHALL BE COMPLETED IN ACCOF			REPORT PROVIDED BY HATCH. (TILE REINFORCEMENT (I.E., TERRAFIX 3	300R OR APPROVED EQUIVALENT) SHALL	BE PLACED			
	5.	STRIPPED TOPSOIL MATERIAL IS NOT SU SITE, FOLLOWING LOCAL REGULATIONS		DISPOSED OF BY THE CONTRACTOR OFFER BY THE OWNER.	GEOTECHNICAL ENGINEER.				ABOVE EXPOSED SU OVERLAPPED A MINII		TING IS OBSERVED. GEOTEXTILE LAYERS S	SHOULD BE			
					AND AS REQUIRED BY THE ENG	GINEER AND GEOTECHNICAL ENGIN			TRENCH BACKFILL						
	<u>UNDE</u>	DERGROUND UTILITIES	ND DEEEDENICE ONLY THE CONTDAC	TOR IS REQUIRED TO OBTAIN THEIR OWN	SHALL VARY THE METHOD O	OF PLACING AND COMPACTING FIL	TING DURING CONSTRUCTION. THE C LLS IN ORDER TO MEET THE REQUI	IREMENTS AS	1. EMBEDMENT MATER		SAND FILL WITH THE FOLLOWING PROPERTI				—
	1.	LOCATE DATA PRIOR TO COMMENCING	S ANY EARTHWORKS.		DETERMINED BY TESTING AIN	ID AS ACCEPTED BY THE GEOTECI QUALITY OF WORK IN ACCORDANCI	HNICAL ENGINEER. THE CONTRACTO E WITH THESE SPECIFICATIONS.	OR SHALL BE	MOISTURE CONTENT	EQUAL OR LOWER THAN 2%, AS NOTED C	ERMAL RESISTIVITY OF 0.75 °CM/W (RHO) WI'ON THE ELECTRICAL DRAWINGS. FILL TO BE				
	2. 3.	ALL UTILITY INFORMATION SHALL BE VE FOR PRIVATE UTILITY WORK, UNDER NO		/ THE CONTRACTOR. VICE BE INTERRUPTED WITHOUT WRITTEN			OR REUSE AS ENGINEERED FILLS PRO OR OTHER DELETERIOUS MATERIALS	,	ADDITIONAL DETAILS		200 mm MAX. REFER TO ELECTRICAL DRA	WINGS FOR			
D	4.	PERMISSION FROM THE UTILITY OWNER RELOCATION OF PRIVATE UTILITIES		ORDANCE WITH THE DRAWINGS AND		150 MM IN SIZE) SHOULD BE REMOV RED SUSCEPTIBLE TO OVER-WETTIN	/ED FOR RE-USE OF NATIVE SOILS. NG AND SUBSEQUENT FREEZING. AS	S SUCH. SITE			ULVERTS SHALL BE GRANULAR A PLACED A DMMENDED BY THE GEOTECHNICAL ENGIN				l _D
		SPECIFICATIONS OF EACH INDIVIDUAL COORDINATED WITH PRIVATE OWNER.		WISE SPECIFIED. THE WORK SHALL BE	GRADING ACTIVITIES ARE REC SEASONS OR ANY PERIODS OF		OUT DURING LATE FALL, WINTER, E.	EARLY SPRING	TO CIVIL PLANS FOR 3. TRENCH BACKFILL		D IN ACCORDANCE WITH THE GEO	TECHNICAL			
	EVCA	AVATION AND GROUNDWATER MANAGEM	MENIT		6. IMPORTED MATERIAL FOR E	ENGINEERED FILL PURPOSES SH	OULD BE REVIEWED AND APPROVE				N AND APPROVAL OF THE GEOTECHNICAL E SOILS AND ENGINEERED FILL, OR AS RECON				
	1.	EXCAVATION AND GROUNDWATER MA	—— IANAGEMENT WORKS SHALL BE C	OMPLETED IN ACCORDANCE WITH THE	MATERIALS SHALL CONSIST (OF NATURALLY OCCURRING (AS S	SPECIFIED HERE), OR CRUSHED, CLI PSOIL OR OTHER DEBRIS. MATERIALS	EAN, SOUND,	BY THE GEOTECHNIC		,				
		GEOTECHNICAL RECOMMENDATIONS GEOTECHNICAL ENGINEER.	BY HATCH AND UNDER THE S	SUPERVISION AND APPROVAL OF THE	QUANTITIES OF ORGANIC MA	ATTER, FLAT OR ELONGATED PAR	TICLES, DELETERIOUS MATERIAL, W		INSULATION STONE						
	2.	THE WORK SHALL INCLUDE TRANSPORTS GEOTECHNICAL ENGINEER, ARE SUITAE		RIALS WHICH, IN THE OPINION OF THE	_	CAL ENGINEER ARE UNACCEPTABLE, S SHALL BE ONE OF THE FOLLOW	, will be rejected. 'Ing types or approved equivale	ENTS BY THE		,	H NO GREATER THAN 2% CONTENT HAVING GREATER THAN 18 mm, WITH A MINIMUM				
	3.		,	BMIT FOR REVIEW BY THE GEOTECHNICAL OPERATIONS TO BE FOLLOWING FOR THE		1010)			VALUE OF 3000 OHM 2. THE CONTRACTOR S		S EVALUATED WITH ASTM G57 TEST "STAN	DARD TEST			
С	4	EXCAVATION TO BE CARRIED OUT AS SE		T/EILL SLOPES SHALL BE REVIEWED AND	b. GRANULAR B TYPE I (OPSS.I c. GRANULAR B TYPE II (OPSS.	,			METHOD FOR FIELD	MEASUREMENT OF SOIL RESISTIVITY USING	IG THE WENNER FOUR-ELECTRODE METHO	D"			C
	r.			RED FILL MATERIAL PLACEMENT AND	9. 9. 1. 1. 19 2 1. 1 2 1. 1 (9. 99.	NEERED FILL AND/OR GENERAL BAC	KFILL SHOULD BE REVIEWED AND API	PROVED BY	GEOMEMBRANE AND GEOTILE 1. UNLESS OTHERWISE		ALL GEOMEMBRANES ACCORDING TO THE	SUPPLIER'S			
	5.	THE DETERMINATION OF ACCEPTABLE		ADE BY THE GEOTECHNICAL ENGINEER	R. 8. PLACING AND SPREADING OF E		L BE PERFORMED IN SUCH A MANNER	R AS TO	RECOMMENDATIONS	,	AS WELL AS SEALING OF SURFACES IN CON				
		, ,		OILS CONSISTING OF NATIVE SILTY SAND	9. PLACEMENT OF FILL MATERIAL	LS SHALL BE DIRECTED AT OBTAINII	S MASS. NG A STABLE AND HOMOGENEOUS F (ETS OF MATERIALS WHICH DO NOT			·	TALL GEOTEXTILE WITH OVERLAPS OR SEV	/FD JOINTS			
	6.	SOFTENED OR DISTURBED NATIVE SO		ERIALS ENCOUNTERED AT THE BASE OF	REQUIREMENTS OF THESE SPE	ECIFICATIONS.	D FILLS AND NATIVE SOILS, OR AS REC			SUPPLIER'S RECOMMENDATIONS AND RE		5511116			
		OF THE GEOTECHNICAL ENGINEER.		NGINEERED FILLS UNDER THE DIRECTION	BY THE GEOTECHNICAL ENGIN	NEER.									
			THE WORK. ALL EXCAVATIONS SH	HALL BE IN ACCORDANCE WITH THE	AND UNIFORMLY COMPACTED	O TO 98% OF THE STANDARD PROC	LACED IN A MAXIMUM 300MM THICK CTOR MAXIMUM DRY DENSITY (SPMDI	D). FULL-TIME							
В		AND SAFETY PLAN.	`	A) AND REVIEWED SITE-SPECIFIC HEALTH			OUT DURING PLACEMENT OF ENGINE HE MATERIAL'S OPTIMUM MOISTURE C								В
		ALL TEMPORARY EXCAVATIONS MUST B - NATIVE SOILS ABOVE GROUNDWATER -			,	,	ATER SHALL BE APPLIED OR REMOVEI NTS AS APPROVED BY THE GEOTECHN	,							
					ENGINEER.										
										SEAL:			PROJECT:	TRAIL ROAD BESS	
			TING							OCESSIO.			TITLE:	CIVIL	
		TERM	ONSTRUCTION							PROFESSIONAL CONTRACTOR				BESS SITE GENERAL NOTES	
4		FOR PETFORCE							V DDIMELLED E-	V. BRUNELLE H			DEGIGNATE TO		
H3: 53: 3		NOTTOBL			GRAPHIC PLAN OF SURVEY R DTM OTTAWA-GATINEAU 2019-20 PACKAGE N	AC FOR PERMIT AB FOR PERMIT		B. THOMAS B. THOMAS	V. BRUNELLE P. Eng. P.E.O No. 100617887 V. BRUNELLE P. Eng. P.E.O No. 100617887 V. BRUNELLE P. Eng. 2025-	7-24 100617887 5-09 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	CLIENT:		DESIGNED BY: B. THOMAS PREPARED BY:	DRAFTED BY: A. MENESES CHECKED BY	
DRÉS 7-23					BESS - 150 MW - 230 kV - 34.5 kV SUBSTATION			B. THOMAS	P.E.O No. 100617887 V. BRUNELLE P. Eng. P.E.O No. 100617887 2025-	5-02 POLINCE OF ONTARIO	EVO	by Brookfield Renewable	B. THOMAS SCALE:		Eng. P.E.O No. 100617887
ES, ANI 025-0				DRAWING No.	DESCRIPTION	REV	DESCRIPTION	VERIFIED BY	APPROVED BY DA	E 2025-0	07-24	by Brookfield Renewable	DRAWING No.:	2025-04-24 SI	SHEET: SIZE: REV. 01 A1 AC
: MENES		1 2	11	10	REFERENCE DRAWINGS	0	REVIS	SIONS	G			7	7154024-200000	, , , , , , , , , , , , , , , , , , , 	01 A1 AC 8 9 10 cm
BY.		12	11	10	9	0			U	<u> </u>	4	<u> </u>			