10. COMPACTION

10.1. UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL MATERIALS SHALL BE COMPACTED TO 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D698.

10.2. WHEN BEING COMPACTED, ALL FILL MATERIALS AND SUBGRADE SHALL BE BETWEEN 0% AND +2% OF OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH ASTM D698 EXCEPT AGGREGATE MATERIALS SHALL BE BETWEEN 0% AND −2%.

10.3. THE MOISTURE CONTENT OF FILL MATERIALS SHALL BE DETERMINED IN ACCORDANCE WITH ASTM D2216 AND SHALL BE UNIFORM THROUGHOUT.

10.4. AS REQUIRED, ADD WATER TO MOSITURE CONDITION MATERIALS USING METHODS WHICH DO NOT CAUSE FINER MATERIALS TO BE WASHED OUT AND DRY MATERIAL BY SPREADING, DISCING, AND HARROWING.

10.5. IF REQUIRED, SCARIFY IN PLACE MATERIALS AND SUBGRADE TO A MINIMUM DEPTH OF 200 mm.

10.6. AS APPROPRIATE AND SUBJECT TO ENGINEER APPROVAL, MIX MATERIALS HAVING DIFFERENT IN SITU MOISTURE CONTENTS TO OBTAIN THE REQUIRED MOISTURE CONTENT. USE DISCS OR OTHER METHODS TO OBTAIN A HOMOGENEOUS MATERIAL.

10.7. AGGREGATE FILLS LARGER THAN 40 mm, COMMON FILL, SEMI−IMPERVIOUS FILL, AND WASTE FILL SHALL BE COMPACTED USING A MINIMUM OF THREE (3) PASSES OF A 10−TONNE VIBRATORY ROLLER OR OTHER SUITABLE ENGINEER−APPROVED COMPACTION EQUIPMENT. EACH MATERIAL TYPE AND SOURCE SHALL BE SUBJECT TO A TEST COMPACTION STRIP WITNESSED BY THE ENGINEER TO CONFIRM THE ADEQUACY OF THE COMPACTION EFFORT AND SPECIFY IF ADDITIONAL EFFORT IS REQUIRED. A PASS MEANS THE COMPLETE COVERAGE OF THE FILL LIFT. OVERLAP REQUIRED FOR COMPLETE COVERAGE WILL NOT BE CONSIDERED TO PROVIDE ANY PORTION OF A SUBSEQUENT OR PREVIOUS PASS.

10.8. ACHIEVE BOTH SPECIFIED MINIMUM DENSITY AND THE SPECIFIED MINIMUM NUMBER OF PASSES WITH COMPACTION EQUIPMENT.

10.9. IN AREAS THAT ARE NOT ACCESSIBLE TO LARGER COMPACTION EQUIPMENT, OR WHICH ARE WITHIN 1000 MM OF STRUCTURES, REDUCE THE LIFT THICKNESS AND COMPACT FILL MATERIALS WITH HAND OPERATED PNEUMATIC OR MECHANICAL TAMPING EQUIPMENT.

11. WASTE FILL

11.1. WASTE FILL SHALL BE EXCESS EXCAVATED MATERIAL AND / OR MATERIAL NOT SUITABLE FOR USE AS SPECIFIED FOR EARTHWORKS CONSTRUCTION. WASTE FILL IS GENERALLY USED IN AREAS WHERE NOTICEABLE SETTLEMENT CAN BE TOLERATED SUCH AS IN LANDSCAPED AREAS.

11.2. PLACE WASTE FILL IN WASTE AREAS SHOWN ON THE DRAWINGS, AND AS DESIGNATED BY THE ENGINEER.

11.3. WASTE AREAS SHALL BE CLEARED, GRUBBED, AND STRIPPED. RECEIVING SURFACES FOR WASTE FILL MAY BE FROZEN, BUT SHALL NOT BE COVERED WITH SNOW.

11.4. PLACE WASTE FILL IN LOOSE LIFTS NOT EXCEEDING 300 mm AND COMPACT TO A MINIMUM OF 90% SPMDD.

11.5. WASTE FILL MAY INCLUDE FROZEN MATERIAL, HOWEVER, TEMPORARILY STOCKPILE LARGE FROZEN PIECES THAT CANNOT BE BROKEN AND PLACED TO THE SPECIFIED LOOSE LIFT THICKNESS, AND COMPACTED AS SPECIFIED. ALLOW STOCKPILED FROZEN MATERIAL TO THAW PRIOR TO PLACING AND COMPACTING IN ITS FINAL LOCATION.

11.6. COMPLETED WASTE FILL AREA SLOPES SHALL NOT BE STEEPER THAN 3H:1V.

11.7. IF REQUIRED, REGRADE WASTE FILL AREAS AFTER THE PREVIOUSLY PLACED WASTE FILL MATERIALS HAVE SUBSIDED TO PROVIDE A NEAT, UNIFORM, AND FREE DRAINING SURFACE.

11.8. WASTE FILL AREAS SHALL BE TOPSOILED AND SEEDED IN ACCORDANCE WITH THE LANDSCAPING SPECIFICATION.

12. COLD WEATHER

12.1. DO NOT ADD WATER TO THE FILL MATERIAL OR PERFORM DRYING OPERATIONS SUCH AS WHEN SUCH WORK CANNOT BE PERFORMED BECAUSE OF COLD WEATHER.

12.2. PROTECT EXCAVATED SURFACES AGAINST WHICH FILL, CONCRETE OR ANY PERMANENT WORKS WILL BE PLACED FROM FREEZING BY SEQUENCING STRIPPING TO MINIMIZE THE EXPOSED AREA, BY USING A TEMPORARY LAYER OF SOIL OR INSULATING MATERIALS, OR OTHER MEANS AUTHORIZED BY THE ENGINEER. FROZEN MATERIAL SHALL BE EXCAVATED FROM SURFACES PRIOR TO PLACING NEW FILL AGAINST IT.

12.3. PERFORM EXCAVATION, LOADING, HAULING, DUMPING, SPREADING AND COMPACTION IN A CONTINUOUS OPERATION TO AVOID FREEZING OF MATERIALS BEFORE THE SPECIFIED COMPACTION IS ACHIEVED.

13. TOLERANCES

13.1. PROVIDE FINISHED FILL SURFACES THAT ARE SMOOTH, REGULAR, AND UNIFORM.

13.2. UNLESS SPECIFIED OTHERWISE, THE MAXIMUM DEVIATION FROM THE ELEVATIONS SHOWN ON THE DRAWINGS MEASURED NORMAL TO THE FINISHED SURFACE SHALL BE ± 50 mm.

13.3. MAXIMUM DEVIATION FROM THE GRADES SHOWN ON THE DRAWINGS SHALL BE ±0.5%.

PERMIT TO PRACTICE
TETRA TECH CANADA INC.
Signature
Date 2023-06-16
PERMIT NUMBER: P 018
NT/NU Association of Professional Engineers and Geoscientists

REGISTERED PROFESSIONAL ENGINEER
AG COMPTON
LICENSEE
NT/NU
#L5296
2023-06-16

Growler Energy

Landsvirkjun Power

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Canadian Projects Limited
A TETRA TECH COMPANY

NNC

FOR CONSTRUCTION

NUNAVUT NUKKIKSAUTIIT CORPORATION

ANURIQJUAK NUKKIKSAUTIIT PROJECT
CIVIL - GENERAL
EARTHWORKS
SPECIFICATIONS

PROJECT NUMBER 1096-003
CADD NUMBER 4.3.014
DRAWING NUMBER 2122