

Environmental Assessment Report

August 2019

August 27, 2019

Government of Newfoundland & Labrador
Environment and Conservation
Pollution Prevention Division
4th Floor, Confederation Building, West Block
P.O. Box 8700
St. John's, NL
A1B 4J6

To whom it may concern:

RE: 82994 Newfoundland and Labrador INC – KRFT Micro Cultivation Production Facility

Please accept the following environmental assessment proposal as an outline of KRFT's intentions to build and operate a modern and environmentally conscious cannabis production facility in Georges Brook-Milton, NL. It is within our full intentions to adhere and be fully compliant to Health Canada's requirements.

KRFT are committed to the Province of Newfoundland and Labrador by ensuring that our operations are compliant with all by-laws and regulatory statutes.

Thank you for your consideration.

Kind regards,

Nicholas Langor
Director
KRFT Micro Cultivation

TABLE OF CONTENTS

1.0 Name of Undertaking

2.0 Proponent

2.1 Name of Corporate Body

2.2 Address

2.3 Management Team

3.0 The Undertaking

3.1 Purpose

4.0 Description

4.1 Location

4.2 Physical Features

4.3 Structural

4.3.1 Site Development

4.3.2 Sources of Environmental Contaminants

4.3.3 Waste Management

4.3.4 Storm Water & Waste Management

4.3.5 Air Quality & Odor Control

4.3.6 Pesticide Use

4.4 Operations

4.4.1 Cannabis Production

4.5 Labour Relations

4.6 Construction Documents

5.0 Approvals

6.0 Construction Scheduling

7.0 Funding

8.0 Appendix

Appendix 1 – Earth View

Appendix 2 – Land Survey

Appendix 3 – Building Accessibility Approval

Appendix 4 – Civil Drawings

1.0 Name of Undertaking

KRFT Micro Cultivation Production Facility

2.0 Proponent

KRFT is an applicant under the Cannabis Act

2.1 Name of Corporate Body

82994 Newfoundland and Labrador Inc.

2.2 Address

Paul Burgess
308 Terrace on the Square
St. John's, NL
A1B 4J9

2.3 Principal Contact for Environmental Assessment Purposes

Name: Nicholas Langor
Title: Director
Address: 5 Viking Place, Clarenville, NL
Telephone: 1-709-351-0951

3.0 The Undertaking

3.1 Name of Undertaking

KRFT Micro Cultivation Production Facility

3.2 Purpose

The purpose of this undertaking is for KRFT to construct and operate a Micro-Cultivation Facility in the town of Georges Brook, Newfoundland & Labrador. KRFT is currently completing its application process with Health Canada's Cannabis Tracking and Licensing System (CTLS).

Once KRFT is successfully granted a Micro-Cultivation License, KRFT will be permitted to cultivate 200 m² of cannabis plants within the micro cultivation facility.

The newly unveiled Micro Cultivation License subclass permits the production of cannabis for distribution and sale in the Canadian recreational market. The principal idea behind micro-cultivation is to supplement the supply of recreational cannabis within the local market of Newfoundland & Labrador and also nationally, to harness the innovation capacities of smaller niche producers and to lower barriers to entry.

The current proposed facility site is located at 169 Ryder's Brook Rd, George's Brook-Milton, Newfoundland & Labrador.

4.0 Description

4.1 Geographic Location

The proposed location is located at 169 Ryder's Brook Rd in Georges Brook-Milton, NL, approximately 8.6km from the Town of Clarenville. Please see a photo of the site below. Additional maps are located in the Appendices (Appendix 1).



KRFT Micro- Cultivation Production Facility: Adjacent Land Uses

North	George's Brook Fur Farm Inc.
East	George's Brook Fur Farm Inc
South	Route 232
West	George's Brook Fur Farm Inc

KRFT Micro- Cultivation Production Facility: Position & Access	
Site Position	169 Ryder's Brook Rd (Route 232)
Regional/ Local Access	Accessible by Main Rd, as well as the Trans-Canada Hwy
Public Transit	Accessible only by motor vehicle

4.2 Physical Features

The proposed production facility is a brand-new insulated concrete form (ICF) building measuring 86 x 62 ft. with a ceiling height of 12 ft. This building design creates an envelope that is soundproof, vapor impermeable and odor-proof – ideal for efficient control of environmental conditions within the production facility.

All entry points feature reinforced steel doors, with access controls. Concrete slab floors, with integrated floor drains and epoxy protective floor coatings for sanitary purposes. Walls and ceilings will be clad with fiberglass-reinforced panels.

KRFT will be using as many recycled materials as possible to pose no adverse environmental risk.

The building footprint is 5,040 sq/ft. (See Appendix 2 for a land survey of the location)

4.3 Structure

Construction commenced in June 2019, with an anticipated completion date in October 2019. Stages and duration as seen on the following page:

4.3.1 Site Development

Construction Milestones	
Construction Stage	Duration (days)
Site Preparation	Complete
Footings & Sewer Prep	Complete
Wall Construction	Complete
Trusses & Roof System	Complete
Building Envelope & Entry Points	Complete
Concrete Slab Prep – Pour & Finish	5
Electrical Rough-In	10
Interior Cladding & Partitions	10
Electrical & HVAC	10
Sewer, Septic & Water	Complete
Interior Up-fit –including all grow systems & automation	20
	120 approx days

This facility is being constructed with sustainability in mind, using efficient & environmentally friendly building materials. There are no environmental concerns with regards to the building materials used, as they pose no harmful effects to the environment or waterways.

However, airborne emissions resulting from the combustion of diesel fuel from equipment to be used will be kept minimal, exercising strict no idle time policies.

Otherwise, environmental waste will be little to none as chosen building materials are ordered to specific quantities and ready for use. For example, rebar and foundation wall

blocks are delivered to site in pre-cut, ready to install dimensions.

There may be organic debris from the cutting of lumber, but will be kept minimal, using dust extraction and HEPA filtration in the tools used. Any building waste that may result will be diverted from landfills by recycling any wasted materials, i.e. Styrofoam and metal waste will be returned to appropriate facilities to be recycled.

All individuals working on site will be required to strictly adhere to our Environmental Management Strategy, in effort to mitigate any environmental concerns. (See Appendix 3 for Building Accessibility Approval)

4.3.2 Sources of Environmental Contamination

➤ Air Pollution

Due to the scope & scale of this undertaking, sources of environmental contamination are inherently minimal. However, as with any construction site, air pollution generated from the combustion of hydrocarbons will occur but will be mitigated by using machinery that complies with Transport Canada and Environment & Climate Change Canada. The use of clean fuels and engines that meet emission standards, along with strict no idle time will minimize the GHG emissions.

Additionally, the fine particulate matter, silica dust, is hazardous not only for the environment, but also as a workplace hazard. Complying with OSHA and Workplace NL standards will minimize silica dust

generated from concrete – Silica dust can be easily contained by using dust collection tools. HEPA Filtration can virtually eliminate all Silica dust from contaminating the air.

➤ Water Pollution

Potential sources of water pollution on the building site may include, but are not limited to: gasoline & diesel fuel spills, paint, solvents, cleaners and other harmful chemicals. Silt, as a result of soil erosion may also be a potential source of water pollution. Preventative measures during construction will be taken to minimize these risks. For example, spill contamination kits will be on site to absorb any fuels or solvent spills.

Any excavation will be performed in dry weather – any ground disturbances will be rehabilitated using appropriately size rock to allow effective drainage preventing erosion and sediment from entering the waterways.

These measures should effectively mitigate any potential negative effects in relation to our production facility.

➤ Noise Pollution

Any work relating to the construction of a new building site could generate significant noise, from excavators and earth compaction machinery. This will be brief and performed in the least obtrusive ways.

The proposed facility construction design benefits from the fact that it is extremely well insulated. Since being built of solid reinforced concrete walls, there will be

zero ambient noise from the operations of the facility heard from the exterior. However, the air handling and AC units outside produce noise levels in the vicinity of 60 dB (A). This threshold is the same as normal speech within one meter and falls within the range considered to be residential.

4.3.3 Waste Management

As with any commercial facility, there will be the usual solid waste matter produced, along with the waste generated from the production of cannabis. Cannabis waste will mostly be in the form of organic material – a dedicated Standard Operating Procedure dictates how cannabis is to be disposed.

The Standard Operating Procedure for Cannabis Waste Disposal is as follows:

- Disposal of any cannabis product waste must be rendered unrecognizable, unusable and unrecoverable through grinding & incorporating the cannabis waste with the non-consumable, solid wastes listed below, such that the resulting mixture is at least 50% non-cannabis waste:
 - Paper waste, plastic waste, cardboard waste, food waste, grease or other compostable oil waste, Bokashi or other compost activators, other wastes approved by Licensing Authority that will render the medical cannabis waste unusable and unrecognizable as cannabis, such as kitty litter; and soil.

In compliance with Provincial Waste Management Strategies, we strive to provide a high level of environmental protection for our operations. Plastic and cardboard

materials will be recycled and all other solids will be disposed of as per Eastern Waste Management Guidelines.

4.3.4 Storm Water & Waste Water Management

KRFT will be adhering to all environmental requirements under the Environmental Protection Act to prevent any storm or wastewater from being contaminated. Storm water from rain will be collected and stored in tanks to supplement water supply to be used in reverse osmosis for plant irrigation. Storm water at the ground surface will be directed away from the facility via weeping tile & dispersed into the ground naturally. There will be no disruption to natural waterways. (See Appendix 4 for the Civil Drawings)

4.3.5 Air Quality & Odor Control

Air pollution Control Regulations set allowable limits for air contaminants under the Environmental Protection Act of Newfoundland.

Air Quality and Odour Control Regulations have been established in Canada under the ACMPR, as well as the Cannabis Act. KRFT Micro- Cultivation Production Facility is designed with these regulations in mind. Therefore, the facility has been designed as a completely sealed environment. If, in the event that discharging of air is necessary, the discharged air is scrubbed using activated charcoal filters and then sterilized using UV light to ensure all odors and contaminants are effectively controlled. KRFT is committed to implementing significant measurements to contain the odor of cannabis to within the facility.

4.3.6 Pesticide Use

As of August 27, 2019, there are 28 registered pesticides approved by the Pest Management Regulatory Agency for use on Cannabis. They are as follows:

- BARTLETT MICROSCOPIC WETTABLE SULPHUR
- BIOPROTEC CAF
- ROOTSHIELD HC BIOLOGICAL FUNGICIDE WETTABLE POWDER
- ROOTSHIELD GRANULES BIOLOGICAL FUNGICIDE
- NEUDOSAN COMMERCIAL
- MILSTOP FOLIAR FUNGICIDE
- OPAL INSECTICIDAL SOAP
- BOTANIGARD ES
- BOTANIGARD 22 WP
- ZEROTOL BROAD-SPECTRUM ALGAECIDE/FUNGICIDE
- ROOTSHIELD® WP – BIOLOGICAL FUNGICIDE
- LACTO-SAN
- REGALIA MAXX BIOFUNGICIDE LIQUID CONCENTRATE
- AGROTEK VAPORIZED SULPHUR
- CYCLONE
- ROOTSHIELD® PLUS WP BIOLOGICAL FUNGICIDE
- INFLUENCE LC
- SIROCCO
- BIOCERES G WP
- KOPA INSECTICIDAL SOAP
- BW240 WP BIOLOGICAL FUNGICIDE
- VEGOL CROP OIL
- BIOPROTEC PLUS
- AXXE BROAD SPECTRUM HERBICIDE
- DOKTOR DOOM FORMULA 420 PROFESSIONAL USE 3-IN-1 CROP & PLANT RESCUE CO
- PURESPRAY FX
- GENERAL HYDROPONICS EXILE
- GENERAL HYDROPONICS SUFFOCOAT

Licensed Producers are required to have adequate controls within their facility to ensure that unauthorized pest control products are not used. These controls may include, but are not limited to: restricting access to pest control products, monitoring the application of products to fresh or dried cannabis, cannabis plants or seeds, or testing for unauthorized pesticide use.

KRFT will regularly review and implement an Integrated Pest Management Program (IPM) as part of their Good Production Practices. Pesticide Control Regulations will control the sale, handling, use and safe disposal of pesticides.

4.4 Operations

KRFT will operate comparable to any other Health Canada Licensed Producer, except on a smaller scale. As per the Micro-Cultivation licensing requirements, the total canopy space is limited to a maximum of 200 m² or 2,152 sq./ft. This license class was introduced October 17, 2018, the same day as legalization to allow smaller scale producers to enter the industry with lower entry barriers and to add significant value to the market while helping to satisfy the supply constraints.

4.4.1 Cannabis Production

Production of cannabis will take place in a series of climate-controlled rooms within the facility. There will be two dedicated flowering rooms, a mother and a propagation room.

The grow rooms are to be completely air sealed with precise environmental controls on temperature, lighting and humidity to ensure consistent grow environments. The plants will be grown in a soil-less medium, elevated on rolling flood tables with irrigation and feeding.

Due to canopy limitations of this license class, there will be no need to implement a dedicated vegetative growth room. The cannabis plant clones will be propagated in the propagation room and then moved into their dedicated

growing rooms, at which point, they will grow in a vegetative state until are transitioned into flower and remain until maturity.

Upon maturity, generally 56-70 days, cannabis plants are harvested. The stalks containing the buds are weighed and documented then hung to dry in the temperature and humidity controlled drying rooms. Once optimal moisture content is achieved, the stalks are processed further by removing the buds; the excess leaves trimmed. This excess called trim is further processed for their cannabinoid contents. The buds are now ready for analytical and potency testing prior to packaging for distribution.

KRFT has worked with a variety of industry professionals to develop its Standard Operating Procedures (SOPs) that comply with all regulatory bodies, including Health Canada. Furthermore, the facility's Good Production Practices have been developed by GAP/GMP (Good Agricultural Practices/Good Manufacturing Practices) Professionals to ensure uniformity and compliance within the industry.

4.5 Labour Relations & Occupations

The construction phase and up-fitting of the facility will take approximately four months and deliver roughly 4,000 hours of labour from local crews and professionals.

Once the building facility is complete, operations and management will make up a team of 10-15 skilled & trained workers, following regulations from the Labour Standards Act, we will act as equal opportunity employers and endeavor to provide employment opportunities to both qualified men and women.

5.0 Approvals

The following list of permits, licenses, approvals and authorizations that will be required to enable the undertaking:

Summary of Approvals		
Authorization	Legislations	Responsible Department
Project Registration	NL Environmental Protection Act – Environmental Assessment Regulations	NL Department of Municipal Affairs and Environment
Building Registration	Fire & Life Safety- National Building Code, Building Accessibility	Service NL
Water & Septic	Water Resources Act – Environmental Control Water & Sewage Regulations	Service NL
Micro-Cultivation License	The Cannabis Act	Health Canada
Municipal Business Permits	Georges Brook Town Council	Georges Brook Town Council

6.0 Construction Schedule

Construction for this project is expected to commence late June 2019, pending approvals and authorizations from regulators. Construction will take approximately four months and the facility will be operational by October 2019.

7.0 Funding

This project is privately owned; there will not be any outside investment. Capital costs are estimated to be \$1,200,000.

8.0 Appendix

Appendix 1 – Earth View of Location



Site Location - KRFT Micro Cultivation Facility

Google ^{CA}

Maxar Technologies Camera : 1,364 m 48°13'46"N 53°55'43"W 32 m 100%



Appendix 2 – Land Survey

82994 NEWFOUNDLAND AND LABRADOR INC.
Harcourt, NL

SCHEDULE "A"

ALL THAT piece or parcel of land situate and being in the **Community** of **HARCOURT**, in the Electoral District of Bonavista abutted and bounded as follows:

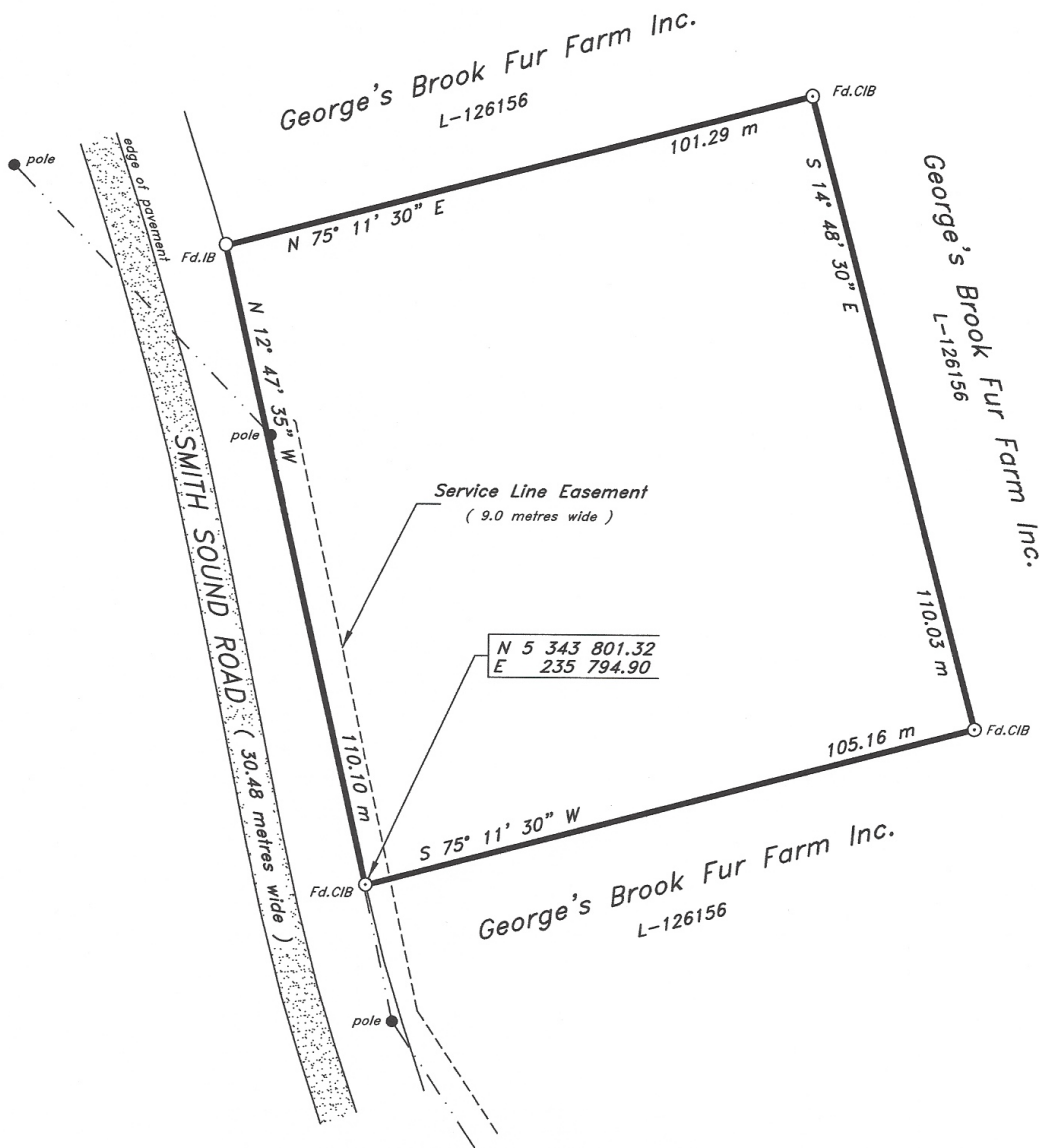
THAT IS TO SAY: Beginning at a point on the eastern limit of **SMITH SOUND ROAD** (30.48 metres wide), the said point having coordinates N 5 343 801.32 and E 235 794.90 metres of the Three Degree Modified Transverse Mercator Projection (NAD-83) for the Province of Newfoundland and Labrador;

THENCE along the eastern limit of **SMITH SOUND ROAD** north twelve degrees forty-seven minutes thirty-five seconds west (N 12-47-35 W) one hundred and ten decimal one zero (110.10) metres;

THENCE by property of George's Brook Fur Farm Inc. (L-126156) north seventy-five degrees eleven minutes thirty seconds east (N 75-11-30 E) one hundred and one decimal two nine (101.29) metres, south fourteen degrees forty-eight minutes thirty seconds east (S 14-48-30 E) one hundred and ten decimal zero three (110.03) metres, south seventy-five degrees eleven minutes thirty seconds west (S 75-11-30 W) one hundred and five decimal one six (105.16) metres, more or less to the point of beginning and containing an area of 1.1358 hectares.

All bearings refer to the above mentioned Projection.

The above described piece or parcel of land is subject to a portion of a Service Line Easement (9 metres wide) extending along the western boundary of the property as shown on the plan hereto attached.



GRID NORTH
 Zone 1-53° West Long.

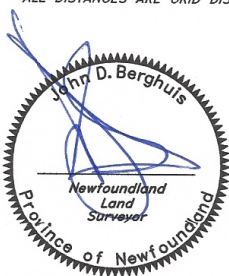
Area = 1.1358 hectares

NOTE \odot CIB CAPPED IRON BAR
 \circ IB IRON BAR
 Fd. FOUND
 - NO SCALE FACTOR USED
 ALL DISTANCES ARE GRID DISTANCES

NOTE:
 Starting point derived from Real Time
 Kinematic GPS observations relative to
 Control Monument No. 97G7039

CONTROL MONUMENTS

(NAD-83)	
97G7039	N 5 340 746.600 E 240 223.296
97G7038	N 5 339 928.133 E 241 292.546



(((CONTROL SURVEYS LTD. NEWFOUNDLAND LAND SURVEYORS 3 MYERS AVENUE, A5A 1T5 - Tel: (709) 466-3666	
Clarenville	Newfoundland
SURVEY ON BEHALF OF 82994 NEWFOUNDLAND AND LABRADOR INC.	
Harcourt	Newfoundland
SCALE: 1 : 1000	JOB No.: 2019-165
DATE: June 4, 2019	SURVEY BY: J.D.B.

Appendix 3 - Building Accessibility Approval

August 14th, 2019

82994 Newfoundland and Labrador INC
5 Viking Place
Clarenville, NL
A5A 2A7

**Re: Proposed New Building, Micro Cultivation Facility, Route 232 Smith Sound
Road, Georges Brook- Milton, NL**

Clarenville, NL – GSC Project ID #59ER2019

We acknowledge receipt of plans and other information pertaining to fire and life safety and buildings accessibility for the above project. Our comments for each aspect of review are as follows:

FIRE & LIFE SAFETY

We have reviewed the plans and FC/NBC form and found them generally acceptable. However, at the time of construction, you must ensure that the following items are included:

1. That portable fire extinguishers shall be installed, maintained and inspected in accordance to the requirements of NFPA-10, "Portable Fire Extinguishers".
2. In accordance with Chapter 7 of the Life Safety Code, where the exit door is not immediately apparent from all portions of the floor area, exit light signs shall be installed in accordance with Chapter 7.
3. The material to be used as an interior finish (wall and ceiling assemblies) shall have a flame spread rating not to exceed 150. It is recommended that Brick, Concrete Block, 9.5mm Gypsum Board, 11mm Plywood (good one side or select grade), or a "ULC" approved and listed panelling be used. Concrete walls need not be covered with a material previously mentioned, but may be covered with a water based paint.
4. That emergency lighting shall be provided in accordance with Chapter 7 of the Life Safety Code. Emergency lighting shall provide not less than 90 minute duration and shall be extended to include all exterior access to the public way.
5. That in accordance with Chapter 7 of the Life Safety Code, a continuous path of travel is provided from all exterior exits to a public way. This path of travel shall be protected from fire exposure from the building and be kept free from snow, ice, vegetation, debris and storage.
6. That the building be located on the property in accordance with Subsection 9.10.14 of the National Building Code of Canada. If the limiting distance requirements can not be provided then the exposed building face shall be constructed in accordance with Article 9.10.14.5.
7. Water supplies for fire fighting shall be provided as required by the National Building Code of Canada. The water supply may be via natural water sources (ponds, lakes, etc.), cisterns, holding tanks, etc. Natural sources shall be provided with vehicle access, and cisterns/holding tanks shall be accessible via dry hydrants, or secure access hatches. The volume of water required shall be determined using N.F.P.A.-1142. A proposal for the type and location of the fire water supply shall be submitted to this office and the local fire department prior to building construction. In addition, that the fire water supply be of sufficient quantity to meet the requirements of NFPA-13 if a sprinkler system is installed. An approval letter signed by the local Fire Chief stating the acceptance of the water supply proposed shall be forwarded to the GSC prior to the building being occupied. A signed letter from the local Fire Department approving the water supply shall be sent to GSC to become part of the approval.

Additional requirements that must be adhered to at time of construction are as follows:

That where a fire alarm, sprinkler, and/or kitchen system, fire extinguishers, exit & emergency lighting have been installed, they shall be inspected to ensure proper operation and location. This inspection shall be performed by a service company listed and licensed by the Office of the Fire Commissioner. A copy of all inspection certificates, where applicable, shall be forwarded to the Office of the Fire Commissioner for filing.

BUILDINGS ACCESSIBILITY

The documents submitted for registration under the Building Accessibility Act & Regulations have been reviewed. Following review, we determined the project is included in Group F-2 of the Classification of Buildings and is **exempt** from the Building Accessibility Act.

The registration number for this project is EA008411

We acknowledge receipt of the following documents relating to this registration:

- Application for Building Accessibility Registration dated August 9th, 2019
- Drawings: Floor Plans, Site Plan, Elevations dated August 9th, 2019

If you make changes to the present situation in the future, you will need to submit a new application for Building Accessibility review to determine if you are still exempt.

This registration is subject to a final inspection before occupancy. To arrange for an inspection, please contact **Service NL at (709) 466-4056**.

We trust that you will note and adhere to the requirements as stated above for both Fire and Life Safety and Buildings Accessibility.

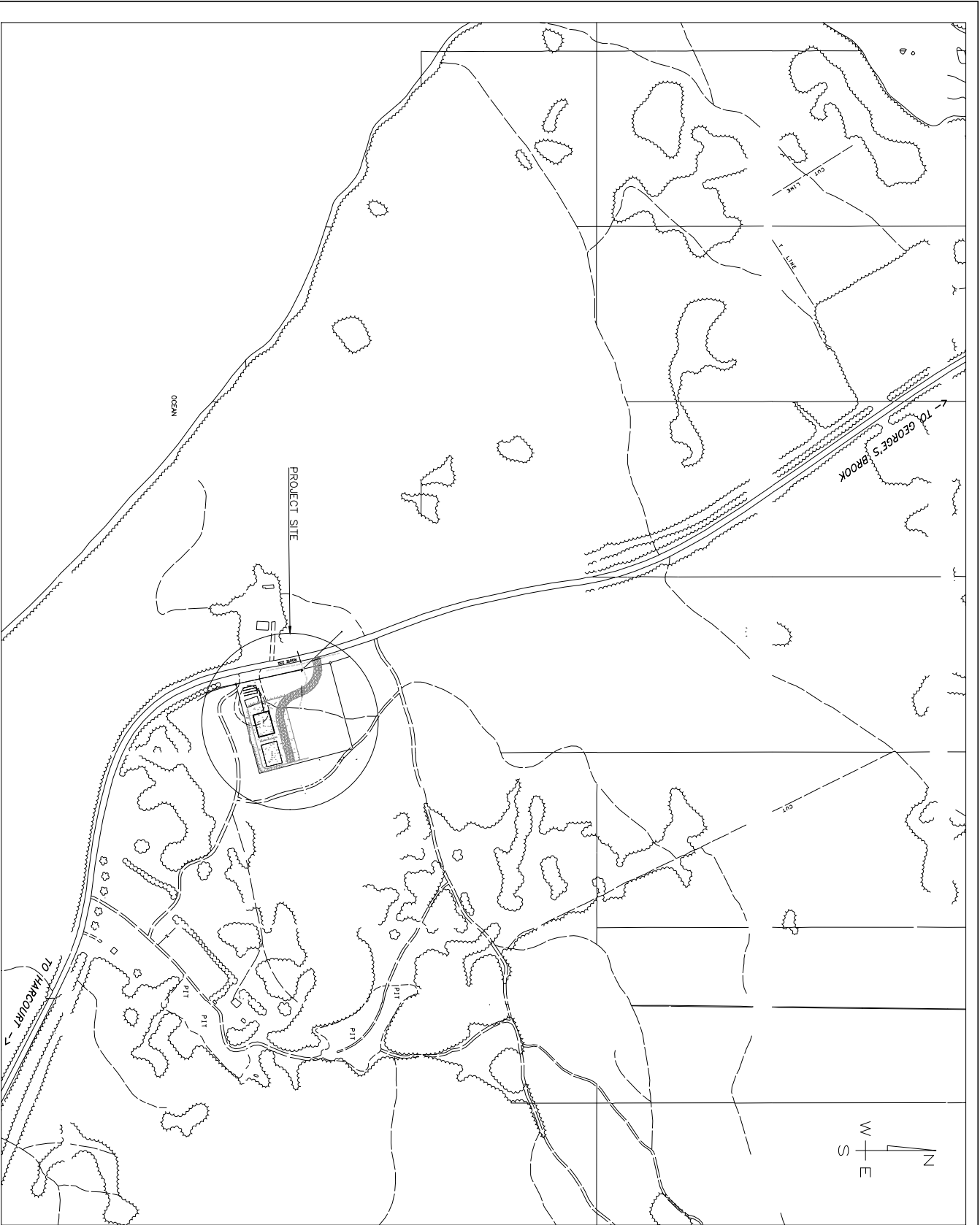


Blair Bursey,
Design Approval Technician II
GSC, Clarenville, NL
Phone: (709)466-4056
Fax: (709)466-5674

copy Office of the Fire Commissioner, Clarenville
Georges Brook Milton Fire Dept
Kirk Peddle, DMG Consulting

This approval does not absolve the applicant from obtaining the necessary leases, permits or licenses from any other Department of the Provincial or Federal Governments or Municipality that may be concerned.

Appendix 4 – Civil Drawings



NOTES

1. CONTRACTOR IS RESPONSIBLE TO ENSURE ALL WORK COMPLETS TO MEET REGULATORY, BUILDING CODES & REGULATIONS, AND MATERIAL MANUFACTURER'S REQUIREMENTS.
 2. DO NOT SCALE DRAWINGS.
 3. CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE.
 4. **WARNING: ADDITIONAL DEEP POWER LINES SET IN COORDINATION WITH LAND SAFETY REGULATION 16(2)(d)**
- CONTRACTORS TAKE THESE THREE STEPS AROUND POWER LINES:
- a. LOCATE, MARK, DETERMINE AND DETERMINE POWER LINES.
 - b. SHOW OTHERS THE LINES, AND MARK OF THEM.
 - c. ASK RESPONSIBLE POWER FOR LINE LOCATES AND EQUIPMENT.

NO.	ISSUED FOR APPROVAL	DATE	BY

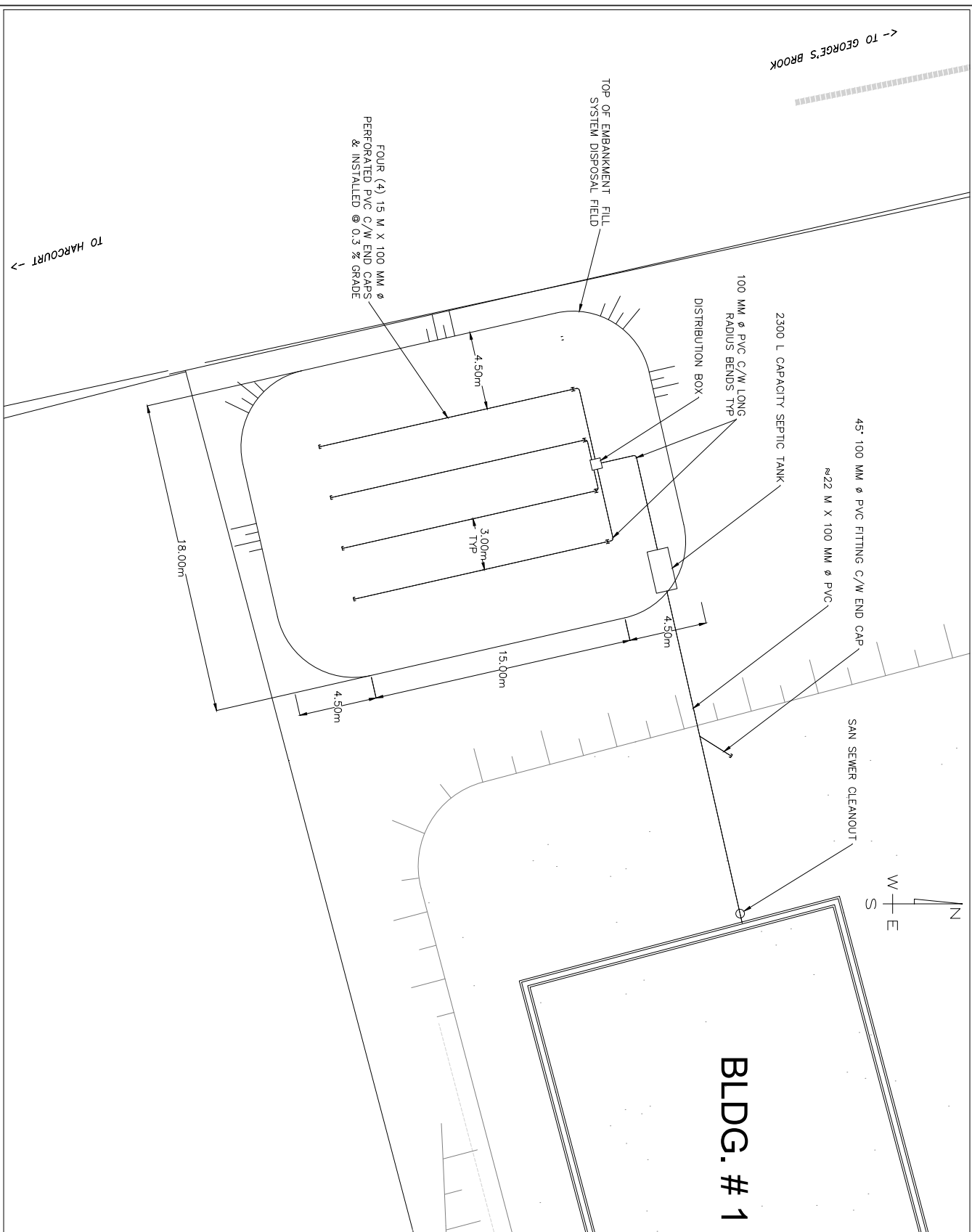
Stamp: Permit



Project Title
BARTON MICRO CULTIVATION FACILITY

Drawing Title
LOCATION PLAN

Des. By: [Blank] Chk. By: [Blank]
 Date: AUG 5, 2019 Scale: AS NOTED
 Prof. No.: 1050-19 Sheet No.: C1.01 Rev. No.: 0



NOTES

1. CONTRACTOR IS RESPONSIBLE TO ENSURE ALL WORK ADHERES TO SAFETY REGULATIONS, BUILDING CODES & REGULATIONS, AND MATERIAL MANUFACTURERS' INSTRUCTIONS.
 2. DO NOT SCALE DRAWINGS.
 3. CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE.
 4. CONTRACTOR IS RESPONSIBLE TO OBTAIN CODE LINE RELATIONSHIP, CONVEYANCE NETWORK AND RELATIONSHIP 100%.
- CONTRACTORS TAKE THESE THREE STEPS AROUND:
- a. LOCATE NEARBY OVERHEAD AND UNDERGROUND LINES.
 - b. SHOW OTHERS THE LINES, AND WHAT OF THEM WORK, AND ASK IF SAFETY MEASURES CAN BE TAKEN.
 - c. ASK NEIGHBOURS FOR LINE LOCATIONS AND SAFE CLEARANCES FOR ROADS, LAUNDRY AND OTHER SERVICES.

NO.	ISSUED FOR	DATE	BY
0	ISSUED FOR APPROVAL	06/05/19	JP
1	ISSUED FOR CONSTRUCTION	06/05/19	JP
R.E.V.I.S.I.O.N.S			

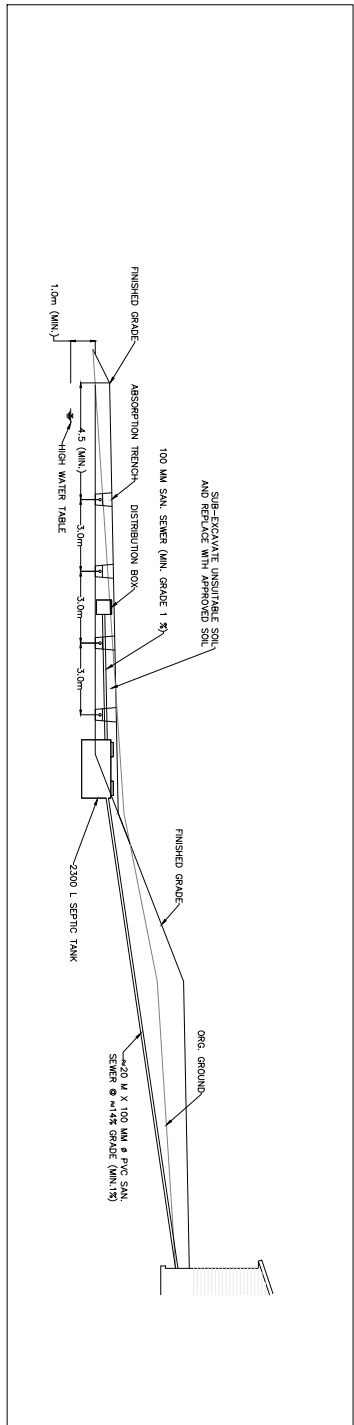
Stamp: PERMIT HOLDER: JOHN K. PERDUE, REGISTERED PROFESSIONAL ENGINEER, STATE OF MICHIGAN, LICENSE NO. 94084. PROJECT INCLUDES: SANITATION AND SEWERAGE SYSTEMS. PROJECT NO.: 1509-19. DRAWING NO.: C104.

DMG
Consulting & Landscaping

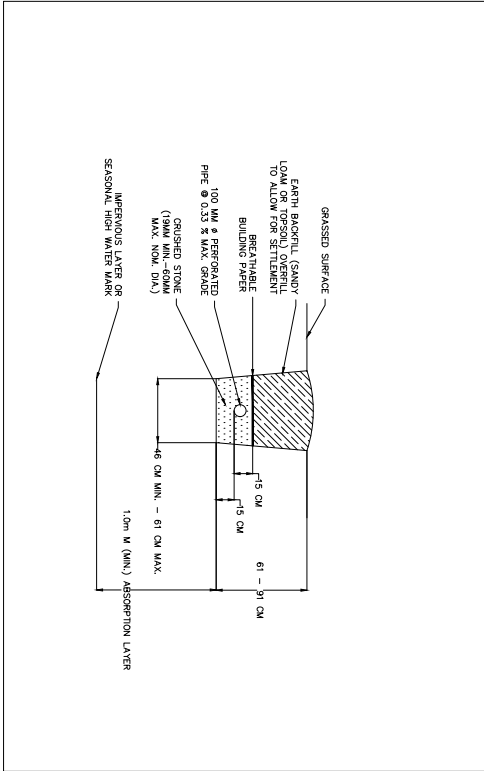
Consultants

Project Title: BARTON MICRO CULTIVATION FACILITY DISPOSAL FIELD PLAN VIEW

Dwg. By: GS	Chk. By: JP
Date: AUG 5, 2019	Scale: AS NOTED
Proj. No.: 1509-19	Sheet No.: C104
	Rev. No.: 0



SEWAGE DISPOSAL PROFILE



ABSORPTION TRENCH CROSS-SECTION

MINIMUM SEPARATION REQUIREMENTS

- SEPTIC TANK TO:
- PROPERTY BOUNDARIES 3.0 METRES (10 FT)
 - DUG WELLS & SPRINGS 30.0 METRES (100 FT)
 - DRILLED WELLS 30.0 METRES (100 FT)
 - WATER SERVICE LINES 4.5 METRES (15 FT)
 - DISPOSAL FIELD TO:
 - PROPERTY BOUNDARIES 6.0 METRES (20 FT)
 - DUG WELLS & SPRINGS 30.0 METRES (100 FT)
 - DRILLED WELLS 30.0 METRES (100 FT)
 - BLIND WATER COURSES 30.0 METRES (100 FT)
 - WATER SERVICE LINES 7.5 METRES (25 FT)
 - DRIVEWAYS 3.0 METRES (10 FT)
 - WATER TABLE 1.0 METRE (3 FT)

NOTE: THIS DRAWING DIMONSTRATES MINIMUM/MAXIMUM CLEARANCES ONLY. IT DOES NOT REPRESENT RECOMMENDED INSTALLATION ELEVATIONS.

NOTES

1. SEPTIC TANK TO BE CONSTRUCTED/MANUFACTURED IN ACCORDANCE WITH THE CANADIAN STANDARDS ASSOCIATION: STANDARD CAN/CSA S150.1 (1999) AND ALL PARTS TO BE INSTALLED LEAKING AND ALL PIPING BETWEEN THE DWELLING AND THE SEPTIC TANK, AS WELL AS THE SEPTIC TANK AND DISPOSAL FIELD, TO BE INSTALLED WITH WATERPROOF JOINTS AND DISTRIBUTION BOX.
 2. TO BE ACCEPTABLE TO THE LOCAL HEALTH DEPARTMENT WITH THE REQUIREMENTS OF THE PRIVATE SEWAGE DISPOSAL AND WATER SUPPLY ACT AND FOUR (4) OUTLETS AT THE SAME ELEVATION AND 90 MM (3") BELOW THE INLET ELEVATION.
 3. HAVE A WATERPROOF, REMOVABLE COVER.
 4. BE INSTALLED LEVEL ON FIRM GROUND.
- OTHER:
1. CHECK SEPTIC TANK LINES FROM DWELLING TO TANK TO THE DISTRIBUTION BOX TO BE A MINIMUM OF 1% (1 PER FOOT) DRAINAGE PARTICLE SIZE RANGE OF 1/2" DIA TO 3/8" DIA (7 TO 1").
 2. ALL MINIMUM SEPARATION DISTANCES TO BE MAINTAINED AT ALL TIMES.
 3. ALL MINIMUM SEPARATION DISTANCES TO BE MAINTAINED AT ALL TIMES.
 4. SEPTIC TANK LINES TO BE INSTALLED WITH A MINIMUM OF 1% (1 PER FOOT) DRAINAGE PARTICLE SIZE RANGE OF 1/2" DIA TO 3/8" DIA (7 TO 1").

NOTES

1. CONTRACTOR IS RESPONSIBLE TO ENSURE ALL WORK ACCORDS TO SAFETY REGULATIONS, BUILDING CODES & REGULATIONS, AND MATERIAL MANUFACTURER'S INSTRUCTIONS.
2. DO NOT SCALE DRAWINGS.
3. CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE.
4. BEFORE BEGAINING WORK, CONTRACTOR IS RESPONSIBLE TO OBTAIN CODE LINES, UTILITIES, AND ADJACENT PROPERTY BOUNDARIES. CONTRACTOR TO OBTAIN NECESSARY PERMITS AND RESOLUTIONS, CONSULTED NEIGHBOURS AND ALL OTHER CONCERNED PARTIES.
5. CONTRACTOR TAKE THESE THREE STEPS AROUND:
 - a. LOCATE NEARBY OVERHEAD AND UNDERGROUND LINES.
 - b. SHOW OTHERS THE LINES, AND MARK OF THEIR WORK, AND ASK IF SAFETY MEASURES CAN BE TAKEN.
 - c. GET NECESSARY POWER FOR LINE LOCATES AND SAFE CLEARANCES FOR BOMS, LADDERS AND OTHER EQUIPMENT.

NO.	ISSUED FOR APPROVAL	DATE	BY
0	ISSUED FOR APPROVAL	06/05/19	SP
1	ISSUED FOR APPROVAL	06/05/19	SP
2	ISSUED FOR APPROVAL	06/05/19	SP
3	ISSUED FOR APPROVAL	06/05/19	SP
4	ISSUED FOR APPROVAL	06/05/19	SP
5	ISSUED FOR APPROVAL	06/05/19	SP
6	ISSUED FOR APPROVAL	06/05/19	SP
7	ISSUED FOR APPROVAL	06/05/19	SP
8	ISSUED FOR APPROVAL	06/05/19	SP
9	ISSUED FOR APPROVAL	06/05/19	SP
10	ISSUED FOR APPROVAL	06/05/19	SP



Project Title
BARTON MICRO CULTIVATION FACILITY

Drawing Title
DISPOSAL FIELD DETAILS

Drawn By: [Blank]
Checked By: [Blank]
Date: AUG 5, 2019
Scale: AS NOTED
Proj. No.: 1050-19
Sheet No.: C108
Rev. No.: 0