Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
marijuana.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Alaska Marijuana Control Board

Operating Plan Supplemental

Form MJ-04: Marijuana Cultivation Facility

What is this form?

This operating plan supplemental form is required for all applicants seeking a marijuana cultivation facility license and must accompany **Form MJ-01: Marijuana Establishment Operating Plan**, per 3 AAC 306.020(b)(11). Applicants should review **Chapter 306: Article 4** of the **Alaska Administrative Code.** This form will be used to document how an applicant intends to meet the requirements of the statutes and regulations.

If your business has a formal operating plan, you may include a copy of that operating plan with your application, but all fields of this form must still be completed per 3 AAC 306.020 and 3 AAC 306.420(2).

What additional information is required for cultivation facilities?

Applicants must identify how the proposed establishment will comply with applicable regulations regarding the following:

- Prohibitions
- Cultivation plan
- Waste disposal
- Odor control
- Testing procedure and protocols
- Packaging and labeling

This form must be completed and submitted to AMCO's main office before any new or transfer application for a standard marijuana cultivation facility or limited marijuana cultivation facility license will be considered complete.

Section 1 – Establishment Information

Enter information for the business seeking to be licensed, as identified on the license application.

Licensee:	High North	**MJ License #:**		13588	
License Type:	Full - Standard Marijuana Cultivation Facility				
Doing Business As:	High North				
Premises Address:	12975 W. Horizon Way				
City:	Houston	**State:**	Alaska	**ZIP:**	99694

AMCO
MAR 10 2021

Form MJ-04: Marijuana Cultivation Facility Operating Plan Supplemental

Section 2 – Overview of Operations

2.1. Provide an overview of your proposed facility's operations. Include information regarding the flow of marijuana from seed or clone to harvest and transfer from your premises:

Clones are taken from Mother plants, located in the Veg room, and are grown out and then transplanted to either of the 28 x 11 flower rooms. All plants are grown in a coco medium using hydroponic techniques. Once the plants are harvested they are transfered from the flower rooms to the drying area. After the product is dry it is packaged and sent out for required testing. Once the testing comes back the flower and trim are packaged and sold to either a processing or retail facility.

Section 3 – Prohibitions

Review the requirements under 3 AAC 306.405 and 3 AAC 306.410.

3.1. I certify that the marijuana cultivation facility will not: Initials

a. **sell, distribute, or transfer any marijuana or marijuana product to a consumer, with or without compensation;** JH

b. **allow any person, including a licensee, employee, or agent, to consume marijuana or marijuana product on the licensed premises or within 20 feet of the exterior of any building or outdoor cultivation facility; or** JH

c. **treat or otherwise adulterate marijuana with any organic or nonorganic chemical or compound to alter the color, appearance, weight, or odor of the marijuana.** JH

Section 4 – Cultivation Plan

Review the requirements under 3 AAC 306.420 and 3 AAC 306.430.

4.1. Describe the size of the space(s) the marijuana cultivation facility intends to be under cultivation, including dimensions and overall square footage. Provide your calculations below:

The facility consists of 3 rooms which total 784 ft of available growing space:
-The Vegetative room is 6' x 28' = 168 Sq ft
-Flower 1 is 11' x 28' = 308 Sq ft
-Flower 2 is 11 x 28' = 308 Sq ft

AMCO
MAR 1 0 2021

Alaska Marijuana Control Board

Form MJ-04: Marijuana Cultivation Facility Operating Plan Supplemental

You must be able to certify the statement below. Read the following and then sign your initials in the box to the right: Initials

4.2. The proposed area(s) for cultivation are clearly identified on the Form MJ-02: Premises Diagram that is submitted with this application. JH

Answer "Yes" or "No" to the following question: Yes No

4.3. Will the marijuana cultivation facility include outdoor production? ☐ ☑

If "Yes", describe the outdoor structure(s) or the expanse of open or clear ground and how it is fully-enclosed by a physical barrier:

n/a

4.4. Describe the method(s) used to ensure that any marijuana at the marijuana cultivation facility, whether indoors or outdoors, cannot be observed by the public from outside the facility:

The facility is completly indoors and does not have any windows that would allow the public to observe marijuana from outside the facility

4.5. Describe the marijuana cultivation facility's growing medium(s) to be used:

Clones are started in a cloning cube
Veg and flower plants are grown out in coco coir medium

4.6. Provide the complete product name and EPA registration # (if applicable) for each of the cultivation facility's pesticide and pest control product to be used. All proposed products must be on DEC's list of approved pesticides in the state of Alaska:

None

4.7. Describe all other fertilizers, chemicals, gases, and delivery systems, including carbon dioxide management, to be used at the marijuana cultivation facility:

- Plants are fed with commercial products from the following companies: Advanced nutrients, Mammoth, Hydroponic Research, Floraflex, Athena, Plant success, Microbe Life, Alchemist, and Current Culture.
-The CO2 injection systems, located within each flower room and the veg room, will inject CO2 from a 50lb cylinder through a regulator and will be controlled by a computer system to control the frequency of injection and the CO2 levels within the growing areas. Growing areas are also monitored by a seperate safety system that will warn anyone if the CO2 reaches unsafe levels by triggering a visual alarm, sending text notifications, and it will also vent the area to lower the levels quickly. The Cylinders will be secured to the wall using an approved safety bracket with chains. The outside of the grow areas have warning signs stating that CO2 is in use. See attached engineering diagram and specifications.

AMCO

4.8. Describe the marijuana cultivation facility's irrigation and waste water systems to be used:

The facility uses automated watering systems to control the frequency of irrigation. The well water is filtered using an RO filter then mixed with nutrients and dispersed to the plants. The runoff irrigation is captured and drained into the onsite septic system.

Section 5 – Waste Disposal

Review the requirements under 3 AAC 306.740.

You must be able to certify the statement below. Read the following and then sign your initials in the box to the right: Initials

5.1. The marijuana cultivation facility shall give the board at least three days written notice required under 3 AAC 306.740(c) before making marijuana waste unusable and disposing of it. JH

5.2. Describe how you will store, manage, and dispose of any solid or liquid marijuana waste, including wastewater generated during marijuana cultivation, in compliance with any applicable laws. Include details about the material(s) you will mix with ground marijuana waste and the processes that you will use to make the marijuana waste unusable for any purpose for which it was grown:

All marijuana waste will be collected, weighed, and logged into metrc. A MJ-25 form will be filled out and the waste will be bagged for a period of 3 days before it is made unusable by mixing the marijuana plant waste with at least an equal amount of coco coir or other compostable materials and transfered to the onsite locking dumpster which is removed bi-weekly by the local trash company and taken to the landfill. Rootballs will also be transfered to the locking dumpster for disposal once plants are harvested and logged. All waste water is collected and directed to the onsite septic system.

AMCO

Form MJ-04: Marijuana Cultivation Facility Operating Plan Supplemental

Section 6 – Odor Control

Review the requirements under 3 AAC 306.430.

Answer "Yes" or "No" to the following question:	Yes	No
6.1. Have you received an exemption from your local government for the odor control requirement set forth in 3 AAC 306.430(c)(2)?	☐	☑

If "Yes", you must be able to certify the statement below. Read the following and then sign your initials in the box:	Initials
I am attaching to this form documentation of my odor control exemption from the local government.	☐

If "No" to question 6.1., describe the odor control method(s) to be used and how the marijuana cultivation facility will ensure that any marijuana at the facility does not emit an odor that is detectable by the public from outside the facility:

The facility is equipped with vent fans and charcoal filters in all growing areas to minimize odors outside the facility. Doors will remain closed and locked at all times.

Section 7 – Testing Procedure and Protocols

Review the requirements under 3 AAC 306.455 and 3 AAC 306.465.

You must be able to certify each statement below. Read the following and then sign your initials in the corresponding box:	Initials
7.1. I understand and agree that the board or director will, from time to time, require the marijuana cultivation facility to provide samples of the growing medium, soil amendments, fertilizers, crop production aids, pesticides, or water for random compliance checks.	JH
7.2. I will ensure that any individual responsible for collecting random, homogenous samples for required laboratory testing under 3 AAC 306.455 will prepare the necessary accompanying signed statement, provide the signed statement to the marijuana testing facility, and maintain a copy as a business record under 3 AAC 306.755.	JH

7.3. Describe the testing procedures and protocols the marijuana cultivation facility will follow:

A random sample is packaged and sent to the testing facility as defined above to a state licensed testing facility. Marijuana products will not be sold to a retail facility until it has passed the requirements of the state. If a harvest batch fails the marijuana will be transfered to a licensed processing facility to be remediated.

Form MJ-04: Marijuana Cultivation Facility Operating Plan Supplemental

Section 8 – Packaging and Labeling

Review the requirements under 3 AAC 306.470 and 3 AAC 306.475.

Answer "Yes" or "No" to the following question:	Yes	No
8.1. Will the marijuana cultivation facility be packaging marijuana for a retail marijuana store to sell to a consumer without repackaging?	☐	☑

If "Yes", describe how the marijuana cultivation facility will ensure that the marijuana sold will meet the packaging requirements in 3 AAC 306.470, and provide a sample label that the facility will use to meet the labeling requirements set forth in 3 AAC 306.475:

Answer "Yes" or "No" to the following question:	Yes	No
8.2. Will the marijuana cultivation facility be packaging marijuana in wholesale packages?	☑	☐

If "Yes", describe how the marijuana cultivation facility will ensure that the marijuana sold will meet the packaging requirements in 3 AAC 306.470, and provide a sample label that the facility will use to meet the labeling requirements set forth in 3 AAC 306.475:

Any product that is packaged for wholesale will not exceed 10lbs per package and will have a metrc tracking label. All packages will be contained in a locking tamper-evident shipping container with the transport manifest. With each harvest batch sold the facility will disclose in writing each soil amendment, fertilizer, and other crop production aid applied to the growing medium as well as the name of the testing facility and the results of that test. The product will also be labeled to comply with 3 AAC 306.475 by affixing a label that states the name and license# of the cultivation facility, The inventory tracking number assigned to that package, The net weight of the package, a list of all pesticides, fungicides, and herbicides used. In addition the testing results including THC, microbial, and any contaminates for which the product was tested. If product is sold untested to a processing facility there will be a label disclosing that the product was not tested for any contaminates listed under 3 AAC 306.645(e)(4). Labels included on page 7 of this document.

I certify that as a marijuana cultivation facility, I will submit monthly reports to the Department of Revenue and pay the excise tax required under AS 43.61.010 and AS 43.61.020 on all marijuana sold or provided as a sample to a marijuana establishment, as required under 3 AAC 306.480.

I declare under penalty of unsworn falsification that this form, including all accompanying schedules and statements, is true, correct, and complete.

Signature of licensee

Jason Heilig

Printed name of licensee

OFFICIAL SEAL
Vickimari Horton
Notary Public-State of Alaska
My Comm. Expires 03/18/2022

Notary Public in and for the State of Alaska

My commission expires: 03/18/2022

Subscribed and sworn to before me this 08 day of March, 2021.

AMCO
MAR 10 2021

Form MJ-04: Marijuana Cultivation Facility Operating Plan Supplemental

(Additional Space as Needed):

Labels for packages

High North License #13588

THC %:

Net Weight:

This product has passed all required testing under 3 AAC 306.645 including microbial, and additional contaminates.

No pesticides, herbicides, or fungicides used

High North License #13588

Products used in the cultivation of this product include:

Nitrogen , Potassium, Phosphorus, Calcium, magnesium, silica, beneficial microbes, and trace elements.

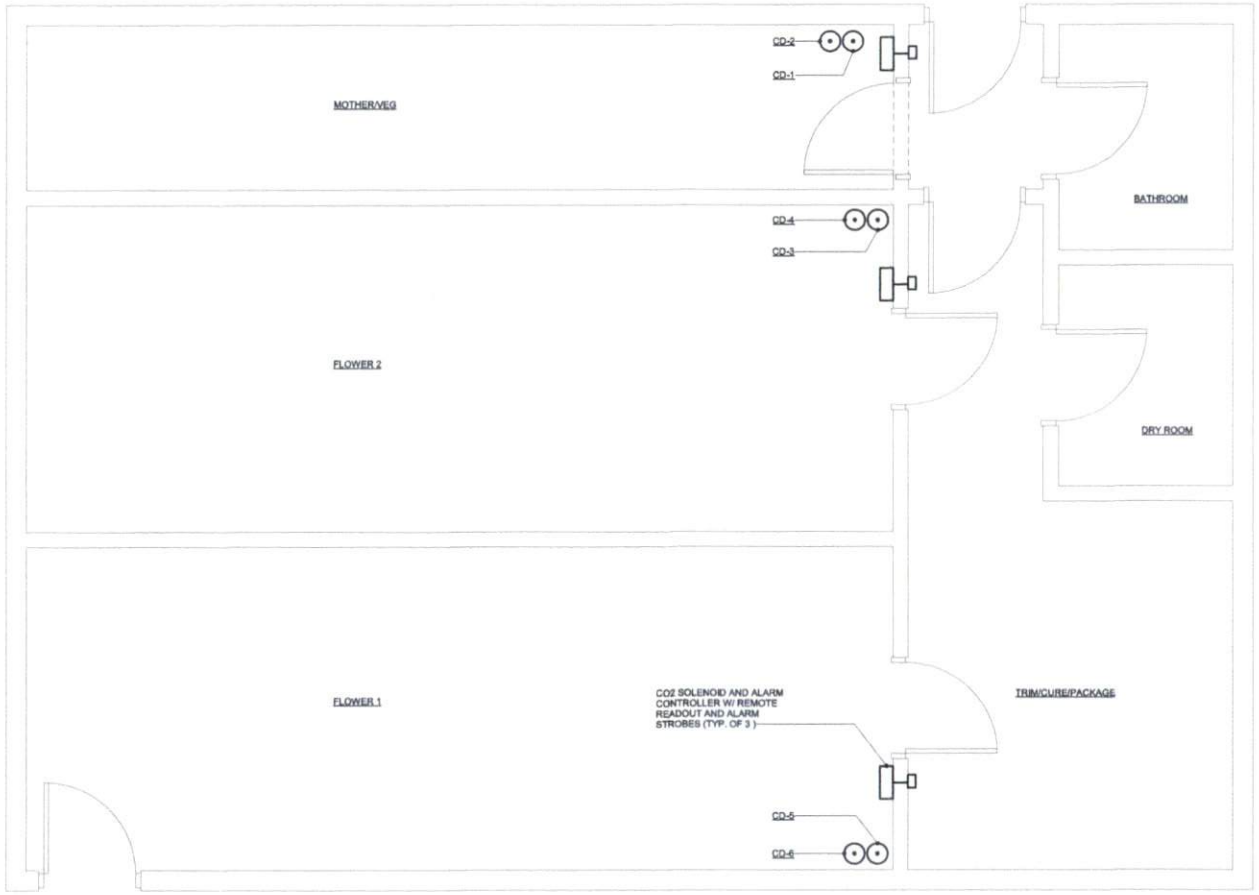
No pesticides, herbicides, or fungicides used

AMCO

NOTES:

1. INTERLOCK NEW SOLENOID CONTROLLERS WITH EXISTING GROW ROOM EQUIPMENT

2. SECURE CYLINDERS UPRIGHT AGAINST WALLS WITH UNISTRUTS AND CHAINS



1 FLOOR PLAN
1/2" = 1'-0"

AMCO
MAR 1 0 2021

PERMIT DOCUMENTS

DRAWN BY: AL
DATE: 8/11/2020 1:31:43 PM

STATE OF ALASKA
49TH
GREGORY JERNSTROM
AK 12571

JERNSTROM ENGINEERING
CONSULTING MECHANICAL ENGINEERS
OFFICE 721 DEPOT DRIVE, ANCHORAGE ALASKA 99501
PHONE 907.522.1942
ONLINE WWW.JERNSTROMENGINEERING.COM
AECL 1145

HIGH NORTH LLC
CARBON DIOXIDE INSTALL
189 E. NELSON AVE.
WASILLA, AK 99654

FLOOR PLAN

THIS SHEET IS FULL SIZE AT 34"x22"

#	DESCRIPTION	DATE

DATE	8/11/2020
DRAWN	AL
CHECK	GJ
PROJECT	2020-39

SHEET NO.
M2

AMCO
MAR 1 0 2021

MECHANICAL LEGEND AND ABBREVIATIONS

GENERAL ABBREVIATIONS

ADA	AMERICANS W/ DISABILITIES ACT
AHJ	AUTHORITY HAVING JURISDICTION
APPROX	APPROXIMATE
ARCH	ARCHITECT, ARCHITECTURAL
BB	BASEBOARD
BAS	BUILDING AUTOMATION SYSTEM
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
CFM	CUBIC FEET PER MINUTE
CA	COMPRESSED AIR
CO	CARBON MONOXIDE
CO2	CARBON DIOXIDE
CONN	CONNECTION
dB	DECIBEL
DB	DRY BULB (AIR)
DDC	DIRECT DIGITAL CONTROL
DEG	DEGREE
DN	DOWN
DPS	DIFFERENTIAL PRESSURE SENSOR
DWV	DRAIN WASTE AND VENT
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EGT	ENTERING GLYCOL TEMPERATURE
ELEC	ELECTRICAL
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER (GLYCOL) TEMPERATURE
(E)	EXISTING
FDC	FIRE DEPARTMENT CONNECTION
FPM	FEET PER MINUTE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GPH	GALLON PER HOUR
GPM	GALLON PER MINUTE
HP	HORSEPOWER (ELEC.)
HZ	HERTZ (ELEC.)
IN.W.C.	INCH, WATER COLUMN
KW	KILOWATT
KWH	KILOWATT HOUR
LAT	LEAVING AIR TEMPERATURE
LGT	LEAVING GLYCOL TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MAT	MIXED AIR TEMPERATURE
MAX	MAXIMUM
MBH	1,000 BTU PER HOUR
MECH	MECHANICAL
MIN	MINIMUM
MISC	MISCELLANEOUS
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OAT	OUTSIDE AIR TEMPERATURE
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
PD	PRESSURE DROP
PG	PROPYLENE GLYCOL
PH	PHASE (ELEC)
PSI	POUND PER SQUARE INCH
RPBFP	REDUCED PRESSURE BACKFLOW PREVENTER
RPM	REVOLUTION PER MINUTE
S.L.	ACOUSTIC OR SOUND LINED
SS	STAINLESS STEEL
TEMP	TEMPERATURE
TP	TRAP PRIMER
TYP	TYPICAL
V	VOLT (ELEC.)
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
VTR	VENT THRU ROOF
WB	WET BULB

ADDITIONAL ABBREVIATIONS NOTED BY EQUIPMENT TAGS, SYSTEM SYMBOLS, AND ACRONYMS GENERALLY ACCEPTED BY THE INDUSTRY SHALL BE APPLICABLE.

GRAPHIC REFERENCES

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
CL	CENTER LINE
ELEV.	ELEVATION
FFL	FINISHED FLOOR LEVEL
INV.	INVERT
TOD	TOP OF DUCT
TOP	TOP OF PIPE
OC	ON CENTER

DUCTWORK AND ACCESSORIES

C/A	COMBUSTION AIR
E/A	EXHAUST AIR
O/A	OUTSIDE AIR
R/A	RETURN AIR
S/A	SUPPLY AIR
T/A	TRANSFER AIR
FD	FIRE DAMPER
FSD	FIRE-SMOKE DAMPER
BD	BALANCING DAMPER
BDD	BACK DRAFT DAMPER
SM	SHEET METAL

BB-1 — BASEBOARD CALLOUT
10' — FINNED ELEMENT LENGTH

PIPING SYSTEM REFERENCES

PLUMBING SYSTEMS

CW	DOMESTIC COLD WATER
NPW	NON-POTABLE COLD WATER
HW	DOMESTIC HOT WATER
HWC	DOMESTIC HOT WATER CIRCULATION
PS	PRESSURE SEWER
PW	PUMPED WASTE
RL	RAIN LEADER
V	SANITARY VENT
W	SANITARY WASTE

FUEL GAS SYSTEMS

G	NATURAL GAS
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY

FIRE PROTECTION SYSTEMS

SP	FIRE PROTECTION SPRINKLER PIPING
F	FIRE MAIN
FDC	FIRE DEPARTMENT CONNECTION

HYDRONIC SYSTEMS

CWR	CHILLED WATER RETURN
CWS	CHILLED WATER SUPPLY
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
GR	GLYCOL RETURN
GS	GLYCOL SUPPLY

MEDICAL GAS SYSTEMS

O2	OXYGEN
N2O	NITROUS OXIDE
DA	DENTAL AIR
VAC	VACUUM
WAGD	WASTE ANESTHETIC GAS DISPOSAL

PIPING COMPONENTS AND ASSEMBLIES

SYMBOL	ABBREV.	DESCRIPTION
		PIPE UP
		PIPE DOWN
		PIPE TEE UP
		PIPE TEE DOWN
	FD	FLOOR DRAIN
	RD, ORD	ROOF DRAIN, OVERFLOW ROOF DRAIN
	CO	CLEANOUT, PIPE END PLUG
	WCO	CLEANOUT, WALL, CONCEALED
	FCO	CLEANOUT, FLOOR
	YCO	CLEANOUT, YARD W/CONCRETE COLLAR
	WHA	WATER HAMMER ARRESTOR (# DENOTES FIXTURE UNIT LOAD)
	AAV	AUTOMATIC AIR VENT W/SHUT-OFF VALVE(NOT SHOWN)
	MAV	MANUAL AIR VENT W/SHUT-OFF VALVE(NOT SHOWN)
	TP	TRAP PRIMER, AUTOMATIC
		BALL/GATE/SHUTOFF VALVE
		GLOBE VALVE
		CHECK VALVE
	ST	STRAINER, IN-LINE W/HOSE-END DRAIN
		DRAIN VALVE W/HOSE END
	BLV	BALANCING VALVE
	FCV	FLOW CONTROL VALVE
	MOV	CONTROL VALVE, 2-WAY
	3MV	CONTROL VALVE, 3-WAY MIXING
	3DV	CONTROL VALVE, 3-WAY DIVERTING
	RV	RELIEF VALVE
		PRESSURE GAGE W/ ISOLATION VALVE
		PRESSURE REDUCING VALVE
		PIPE REDUCER
		UNION CONNECTION
		FLANGE CONNECTION
		FLEXIBLE JOINT
		PIPE ANCHOR
		PIPE ALIGNMENT GUIDE
		PIPE EXPANSION COMPENSATOR
	POC	POINT OF CONNECTION

DUCTWORK COMPONENTS AND ASSEMBLIES

SYMBOL	ABBREV.	DESCRIPTION
	S.L.	ACOUSTICALLY LINED DUCT
		THERMALLY INSULATED DUCT
		FLEX DUCT
		FLEX CONNECTION
		TURNING VANES
	VD, BD	VOLUME DAMPER, BALANCING DAMPER
	FD, FSD	FIRE DAMPER, FIRE SMOKE DAMPER
	HC	HEATING COIL
	T'STAT	THERMOSTAT (W/ INSULATED BASE)
	S/A, O/A	SUPPLY AIR, OUTSIDE AIR (UP & DOWN)
	R/A, T/A	RETURN AIR, TRANSFER AIR (UP & DOWN)
	E/A	EXHAUST AIR (UP & DOWN)

MECHANICAL SPECIFICATIONS

GENERAL PROVISIONS (DIVISION 21, 22, 23)

SCOPE OF WORK

THIS PROJECT IS GENERALLY DESCRIBED AS PROVIDING THE CARBON DIOXIDE, CONTROL, AND ALARM SYSTEMS TO THE HIGH NORTH LLC FACILITY. IT INCLUDES THE ADDITION OF EQUIPMENT AND SYSTEMS TO SERVE THE CARBON DIOXIDE AND CONTROL FUNCTIONS IN THE FACILITY.

INTENT OF DRAWINGS AND SPECIFICATIONS

THE INTENT OF THE CONTRACT DOCUMENTS IS FOR THE CONTRACTOR TO INCLUDE ALL WORK NECESSARY FOR COMPLETE MECHANICAL SYSTEMS, TESTED AND READY FOR OPERATION. BY SUBMITTING A PROPOSAL, THE CONTRACTOR REPRESENTS THEY HAVE MADE A THOROUGH EXAMINATION OF THE SITE, OF THE WORK AND ALL EXISTING CONDITIONS AND LIMITATIONS, AND THEY HAVE DETERMINED THE DOCUMENTS ARE ADEQUATE AND SATISFACTORY FOR THE COMPLETION OF THE WORK.

MECHANICAL DRAWINGS DO NOT ATTEMPT TO SHOW ALL ASPECTS OF BUILDING CONSTRUCTION, WHICH WILL AFFECT THE INSTALLATION OF MECHANICAL SYSTEMS. THE MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW ALL OFFSETS, FITTINGS AND ACCESSORIES THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION.

CODES AND STANDARDS

PROVIDE ALL WORK IN COMPLIANCE WITH APPLICABLE LOCAL CODES AND STANDARDS. APPLICABLE CODES AND STANDARDS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

1. 2012 UNIFORM PLUMBING CODE
2. 2012 INTERNATIONAL MECHANICAL CODE
3. 2012 INTERNATIONAL FUEL GAS CODE
4. 2012 INTERNATIONAL FIRE CODE
5. 2012 INTERNATIONAL BUILDING CODE
6. 2012 INTERNATIONAL ENERGY CONSERVATION CODE
7. REQUIREMENTS OF OSHA AND EPA
8. NATIONAL FIRE PROTECTION ASSOCIATION CODES, LATEST EDITIONS
9. ASME CODES FOR BOILER AND PRESSURE VESSELS, LATEST EDITIONS
10. SMACNA HVAC DUCT CONSTRUCTION STANDARDS, LATEST EDITIONS
11. ALL LOCAL AND STATE AMENDMENTS
12. REQUIREMENTS OF ALL AGENCIES HAVING JURISDICTIONAL AUTHORITY OVER INSTALLATION

COORDINATION AND SCHEDULING

PROVIDE ALL ADMINISTRATIVE AND SUPERVISORY REQUIREMENTS FOR THE COORDINATION AND SCHEDULING OF THE WORK. THE MECHANICAL CONTRACTOR SHALL COORDINATE THEIR WORK WITH THE WORK OF OTHER CONTRACTORS, SUBCONTRACTORS, SUPPLIERS AND THE OWNER.

REVIEW ALL PROJECT DRAWINGS INCLUDING, BUT NOT LIMITED TO, ARCHITECTURAL, STRUCTURAL AND ELECTRICAL DRAWINGS.

PLAN AND EXECUTE WORK IN COOPERATION WITH ALL OTHER TRADES. EVERY REASONABLE EFFORT SHALL BE MADE TO PROVIDE ALL CONCERNED WITH TIMELY NOTICE OF WORK AFFECTING OTHER TRADES TO PREVENT CONFLICTS OR INTERFERENCE AS TO SPACE REQUIREMENTS, DIMENSIONS, OPENINGS, BLOCK-OUTS, SLEEVING OR OTHER MATTERS WHICH WILL CAUSE DELAYS OR NECESSITATE WORK-AROUND METHODS.

CONTRACTOR RESPONSIBILITY

THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN COMPLETE CONTROL OF THE CONSTRUCTED PROJECT, SUCH THAT THE COMPLETE PROJECT SHALL BE FREE OF DEFECTS AND IN CONFORMANCE WITH THE PROJECT DOCUMENTS.

THE CONTRACTOR SHALL UTILIZE PROCEDURES THAT ASSURE QUALITY CONSTRUCTION THROUGHOUT, WITH USE OF THE BEST INDUSTRY STANDARDS FOR THE SPECIFIC PROCESS USED. REMOVE AND REPLACE ANY WORK FOUND DEFECTIVE OR NOT COMPLYING WITH REQUIREMENTS OF THE CONTRACT DOCUMENTS, AT NO ADDITIONAL COST TO THE OWNER.

WORKMANSHIP

ALL WORK TO BE DONE BY WORKMEN SKILLED IN AND REGULARLY EMPLOYED AT THAT TRADE.

PROVIDE ALL MATERIALS, PRODUCTS AND EQUIPMENT IN STRICT ACCORDANCE WITH ALL GOVERNING CODES AND ORDINANCES. THEY MUST BE OF FIRST QUALITY AND IN LINE WITH THE BEST CURRENT PRACTICES.

CUTTING AND PATCHING SHALL BE KEPT TO A MINIMUM. ALL PATCHING TO MATCH EXISTING FINISH WORK. DO NOT CUT STRUCTURAL MEMBERS.

CONTRACTOR SHALL FIELD VERIFY PRIOR TO BIDDING. VERIFY SPACE AVAILABILITY PRIOR TO FABRICATION AND INSTALLATION OF ANY WORK. VERIFY EXACT DISTANCES BETWEEN POINTS SHOWN ON DRAWINGS BY ACTUAL MEASUREMENT AT SITE.

REMOVE ALL WASTE MATERIALS AND RUBBISH FROM THE SITE, THOROUGHLY CLEAN ALL SURFACES OF WORK, AND LEAVE READY FOR OCCUPANCY BY THE OWNER. THE OWNER WILL VERIFY THE COMPLETION AND/OR CORRECTION OF THE ITEMS ABOVE.

CARBON DIOXIDE CYLINDER SCHEDULE

NOTES:

1. PROVIDE CO2METER.COM TANK REGULATOR/SOLENOID MODEL CO0346.
2. PROVIDE CO2METER.COM CO2 STORAGE SAFETY ALARM MODEL RAD-0102-6, WITH STROBE LIGHT ADD-ON KIT MODEL CM-1026.
3. CYLINDER FOR BACKUP STORAGE, INITIALLY SEALED AND DISCONNECTED FROM REGULATOR.

		BASIS OF DESIGN		
TAG	CAPACITY (LBS)	MANUFACTURER	MODEL	NOTES
CD-1	20	AIRGAS	CD FG20A	1, 2
CD-2	20	AIRGAS	CD FG20A	3
CD-3	20	AIRGAS	CD FG20A	1, 2
CD-4	20	AIRGAS	CD FG20A	3
CD-5	20	AIRGAS	CD FG20A	1, 2
CD-6	20	AIRGAS	CD FG20A	3

MECHANICAL SPECIFICATIONS CONT'D

SUBMITTALS

SUBMIT TECHNICAL DATA AND REQUIRED INFORMATION ON EQUIPMENT AND MATERIALS AS FOLLOWS:

1. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA FOR THE ITEMS LISTED IN THE INDIVIDUAL SPECIFICATION SECTIONS. PRODUCT DATA SHALL DEMONSTRATE COMPLIANCE WITH ALL SPECIFIED FEATURES AND REQUIREMENTS.
2. SHOP DRAWINGS: SUBMIT CONTRACTOR PREPARED DRAWINGS OF CONTRACTOR FABRICATED MECHANICAL SYSTEMS. DRAWINGS SHALL BE PREPARED AT ¼" SCALE USING COMPUTER AIDED SOFTWARE UNLESS INDICATED OTHERWISE. DRAWINGS SHALL SHOW EXACT LOCATION OF EQUIPMENT, PIPING AND DUCTWORK, EACH SECTION OF SHOP FABRICATED DUCT OR PIPE AND LOCATION OF FIELD JOINTS, SUPPORTS AND BUILDING ATTACHMENTS.
3. REPORTS AND CERTIFICATES: INDICATE AND INTERPRET TEST RESULTS FOR COMPLIANCE WITH PERFORMANCE REQUIREMENTS. PROVIDE PERFORMANCE CERTIFICATES.
4. EQUIPMENT AND MATERIALS SEISMIC RESTRAINT: CONTRACTOR TO PROVIDE STRUCTURAL AND SEISMIC CALCULATIONS PLUS FASTENING DETAILS FOR ALL APPLICABLE EQUIPMENT AND MATERIALS TO INCLUDE ENGINEER'S STAMP AND SIGNATURE, FOR STRUCTURAL REVIEW ON A DEFERRED SUBMITTAL BASIS.

PERMITS, INSPECTIONS AND FEES

CONTRACTOR SHALL ARRANGE AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS REQUIRED IN CONNECTION WITH THIS INSTALLATION. THE CONTRACTOR SHALL PRESENT THE OWNER WITH PROPERLY SIGNED CERTIFICATES OF FINAL INSPECTION BEFORE THE WORK WILL BE ACCEPTED.

CONTRACTOR SHALL CALL FOR ALL INSPECTIONS BY LOCAL BUILDING OFFICIALS WHEN THEY BECOME DUE AND SHALL NOT COVER ANY WORK UNTIL APPROVED BY THESE GOVERNING AUTHORITIES.

CONTRACTOR SHALL MAKE ALL ARRANGEMENTS WITH UTILITY COMPANIES FOR WATER, STEAM, GAS AND DRAINAGE SERVICES, ETC., ASSOCIATED WITH THE WORK AND INCLUDE REQUIRED PAYMENTS FOR METERS, PIPING, SERVICES, CONNECTION CHARGES AND MATERIALS FURNISHED AND INSTALLED BY UTILITY COMPANIES. WORK AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH RULES OF RESPECTIVE AUTHORITIES.

FINAL CHECKOUT AND PROJECT CLOSEOUT

THE OWNER HAS FULL AUTHORITY TO SEE THAT THE WORK IS PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

THE OWNER WILL REQUIRE A COMPLETE FINAL INSPECTION OF ALL PARTS OF THE WORK. WORK SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING: PLUMBING, PIPING, EQUIPMENT, DUCTWORK, WIRING, AND FINISH WORK.

THE OWNER WILL REQUIRE A WRITTEN GUARANTY THAT ALL MATERIALS AND WORKMANSHIP THAT PROVE DEFECTIVE WITHIN ONE YEAR AFTER DATE OF ACCEPTANCE WILL BE REPLACED.

OPERATION AND MAINTENANCE MANUAL

INCLUDE WARRANTY CERTIFICATES FOR ALL EQUIPMENT WHERE EXTENDED WARRANTIES ARE EITHER OFFERED OR REQUIRED; PROVIDE SUPPLIER CONTACT INFORMATION.

23 09 00 INSTRUMENTATION AND CONTROLS

PROVIDE SYSTEM VERIFICATION TIME ALLOWANCE FOR SEQUENCE CHECK-OFF.

ALL COMPONENTS USED WILL BE ONLY COMMERCIAL GRADE. PROVIDE ALL EQUIPMENT FOR A COMPLETE AND OPERATIONAL SYSTEM.

CONTROL WIRING: PROVIDE ELECTRIC WIRING AND WIRING CONNECTIONS REQUIRED FOR THE INSTALLATION OF THE CONTROL SYSTEM. COMPLY WITH THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE.

ADDITIONAL METHODS

COORDINATE ALL NEW WORK WITH THE CONDUITS, LIGHTS, HANGERS, STRUCTURAL MEMBERS AND OTHER TRADES.

SUBMIT PROJECT DATA, WARRANTIES, AND O&M DATA FOR REVIEW.

SEE SCHEDULES FOR EQUIPMENT REQUIREMENTS AND SPECIFICATIONS.

INSTALL ALL EQUIPMENT ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. INSTALL ONLY PRODUCTS SPECIFICALLY DESIGNED AND APPROVED FOR THE TYPE OF OPERATION OR SERVICE.

STATE OF ALASKA 49TH
GREGORY JERNSTROM
8/14/2020
ME 12071
REGISTERED PROFESSIONAL ENGINEER

JERNSTROM ENGINEERING
CONSULTING MECHANICAL ENGINEERS
OFFICE 721 DEPOT DRIVE, ANCHORAGE ALASKA 99501
PHONE 907.522.1042
ONLINE WWW.JERNSTROMENGINEERING.COM
AECL 1148

HIGH NORTH LLC
CARBON DIOXIDE INSTALL
189 E. NELSON AVE.
WASILLA, AK 99654

LEGEND, SCHEDULES & SPECIFICATIONS

THIS SHEET IS FULL SIZE AT 34"x22"
1/8" 1/4" 1/2" 1" 2"

#	DESCRIPTION	DATE

DATE	8/11/2020
DRAWN	AL
CHECK	GJ
PROJECT	2020-39

SHEET NO.
M1

PERMIT DOCUMENTS

DRAWN BY: AL
DATE: 8/11/2020 1:31:43 PM