NR	CF	0	RM	31	3

10 CFR 30, 32, 33, 34, 35, 36, 39, and 40

#### U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0120

EXPIRES: 3/31/2012

APPLICATION FOR MATERIALS LICENSE

Estimated burden per response to comply with this mandatory collection request: 4.3 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW. APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH: ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352 OFFICE OF FEDERAL & STATE MATERIALS AND ENVIRONMENTAL MANAGEMENT PROGRAMS
DIVISION OF MATERIALS SAFETY AND STATE AGREEMENTS APPLICATIONS TO U.S. NUCLEAR REGULATORY COMMISSION WASHINGTON, DC 20555-0001 ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS: 06-31429-01 F YOU ARE LOCATED IN: ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO: ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY. NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO: LICENSING ASSISTANCE TEAM NUCLEAR MATERIALS LICENSING BRANCH DIVISION OF NUCLEAR MATERIALS SAFETY U.S. NUCLEAR REGULATORY COMMISSION, REGION I U.S. NUCLEAR REGULATORY COMMISSION, REGION IV 612 E. LAMAR BOULEVARD, SUITE 400 475 ALLENDALE ROAD ARLINGTON, TX 76011-4125 KING OF PRUSSIA, PA 19406-1415 PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S.NUCLEAR REGULATORY COMMISSION JURISDICTIONS. 2. NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code) THIS IS AN APPLICATION FOR (Check appropriate item) A. NEW LICENSE Lawrence J. Marcik, Jr., P.E. dba Design Earth Technology P.O. Box 187 AMENDMENT TO LICENSE NUMBER Guilford, CT. 06437 C. RENEWAL OF LICENSE NUMBER 4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION 3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED The Marcik's Residence Lawrence J. Marcik, Jr. 126 Sheep Pasture Road TELEPHONE NUMBER Guilford, CT. 06437 (203) 458-9806 SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE. 6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED. a. Element and mass number; b. chemical and/or physical form; and c. maiximum amount which will be possessed at any one time. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR 8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS. TRAINING EXPERIENCE. 10. RADIATION SAFETY PROGRAM. FACILITIES AND FOLIPMENT 12. LICENSE FEES (See 10 CFR 170 and Section 170.31) 11. WASTE MANAGEMENT. AMOUNT ENCLOSED FEE CATEGORY 3P s 1,400.00 CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING JPON THE APPLICANT. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTANED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF. WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION. CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE · 12/30/2010 Lawrence J. Marcik, Jr., P.E. -Owner FOR NRC USE ONLY TYPE OF FEE FFF LOG FEE CATEGORY AMOUNT RECEIVED CHECK NUMBER COMMENTS APPROVED BY DATE

NMSS/RGN1 MATERIALS-002

Supplemental Pages for US NRC License Application Form 313

## ITEMS 5 & 6. MATERIALS TO BE POSSESSED AND PROPOSED USES

Radioisotopes: Am-241:Be, Cs-137, and Ra-226:Be

Device manufacturer and models: Seaman Nuclear Corporation models C-300, C-200, and C-75. These are listed in the Sealed Source and Device Registry. For additional information see the enclosed page titled: "Devices and Sealed Source Details".

Quantity: Not to exceed maximum activity per source as specified in Sealed Source and Device Registration Sheets.

Use: Measuring the physical properties of construction materials as specified in Sealed Source and Device Registration Sheets.

Financial Assurance is Not Required. Quantities of material possessed will be less than limits specified in 10 CFR 30.35.

# ITEM 7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE - RADIATION SAFETY OFFICER

The current RSO is Lawrence J. Marcik, Jr.. The RSO has attended a portable gauge manufacturer's training course.

"Before obtaining licensed materials, the proposed RSO will have successfully completed one of the training courses described in Criteria in the section entitled 'Individual(s) Responsible for Radiation Safety Program and Their Training and Experience — Radiation Safety Officer' in NUREG-1556, Vol. 1, Rev. 1, 'Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Portable Gauge Licenses,' dated November 2001 "

## 8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS

Before using licensed materials, authorized users will have successfully completed one of the training course described in Criteria in the section entitled "Training for Individuals Working In or Frequenting Restricted Areas" in NUREG-1556, Vol. 1, Rev 1, dated November 2001.

## 9. FACILITIES AND EQUIPMENT

The material density gauge will be stored in a residential home/office at the address noted in the application.

### 10.3 RADIATION SAFETY PROGRAM - INSTRUMENTS

A statement that: "We will either possess and use, or have access to and use, a radiation survey meter that meets the criteria in the section entitled 'Radiation Safety Program – Instruments' in NUREG-1556, Vol. 1 Rev. 1, 'Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Portable Gauge Licenses,' dated November 2001, in the event of an incident."

### 10.4 RADIATION SAFETY PROGRAM - MATERIAL RECEIPT AND ACCOUNTABILITY

Physical inventories will be conducted at intervals not to exceed 6 months, to account for all sealed sources and devices received and possessed under the license.

## 10.5 RADIATION SAFETY PROGRAM - OCCUPATIONAL DOSIMETRY

Either we will maintain, for inspection by NRC, documentation demonstrating that unmonitored individuals are not likely to receive a radiation dose in excess of 10% of the allowable limits in 10 CFR Part 20, or we will provide dosimetry processed and evaluated by a NVLAP-approved processor that is exchanged at a frequency recommended by the processor.

## 10.7 RADIATION SAFETY PROGRAM - OPERATING & EMERGENCY PROCEDURES

Operating and emergency procedures will be developed, implemented, and maintained, and will meet the criteria in the section entitled 'Radiation Safety Program – Operating and Emergency Procedures' in NUREG-1556, Vol. 1, Rev. 1, 'Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Portable Gauge Licenses,' dated November 2001.

## 10.8 RADIATION SAFETY PROGRAM - LEAK TEST

Leak tests will be performed at intervals approved by the NRC or an Agreement State and specified in the Sealed Source and Device Registration Sheet. Leak tests will be performed by an organization authorized by NRC or an Agreement State to provide leak testing services for other licensees or using a leak test kit supplied by an organization authorized by NRC or an Agreement State to provide leak test kits to other licensees and according to the kit supplier's instructions.

## 10.9 RADIATION SAFETY PROGRAM - MAINTENANCE ROUTINE CLEANING & LUBRICATION

We will implement and maintain procedures for routine maintenance of our gauges according to each manufacturer's recommendations and instructions.

## NON-ROUTINE MAINTENANCE

We will send the gauge to the manufacturer or other person authorized by NRC or an Agreement State to perform non-routine maintenance or repair operations that require the removal of the source or source rod from the gauge.

## 11. WASTE MANAGEMENT

No information needs to be submitted with the application to the NRC on this matter.

## **Additional Information**

- Our organization does not have a website but has a email address- docdirt@aol.com
- Lawrence J. Marcik, Jr., P.E. dba Design Earth Technology is a sole proprietorship and we do not have a registration with our Secretary of State.
- Lawrence J. Marcik, Jr., P.E. dba Design Earth Technology has no federal tax identification number. Under a sole proprietorship type organization a social security number is typically use. If this will be required, we will furnish.
- Lawrence J. Marcik, Jr., P.E. dba Design Earth Technology is a "one" person engineering service business. Lawrence J. Marcik, Jr., P.E. is owner-operator. At the present time, there are no employees.
- Security of the storage location:
  - O A line drawing of the gauge storage area is enclosed.
  - o The gauge will be stored in large locked fireproof safe (see attached info.) that is located in soils laboratory within a residence. The soils laboratory is also locked with a combination lock security system.
- Our organization has not previously had an NRC license for portable gauges.

## **Devices and Sealed Source Details (rev. 5)**

## Seaman Nuclear Corporation Models C-300, C-200, and C-75.

## Isotope and maximum activity:

- Cesium-137, 10 mCi (370 MBq) for model C-300, 8 mCi (296 MBq) for models C-200 and C-75
- Americium-241:Beryllium, 50 mCi (1.85 GBq) for model C-300, 40 mCi (1480 MBq) for models C-200 and C-75.

## Gauge Manufacturer, Models, Registry:

- Seaman Nuclear Corporation, Portable Moisture Density Gauge Models C-200 and C-300, SSD Registry NR-587-D-104-S
- Seaman Nuclear Corporation, Portable Moisture Density Gauge Model 75, SSD Registries NR587D105S and WI-587-D-108-S

## Source Manufacturers and models for Gauge Models C-200 and C-300 and C-75:

- Amersham Models: CDC.804, CDC.805, AMN.6002, AMN.Q1954
- Du Pont Merck: NER-550 (formerly New England Nuclear)
- 3M: 4P6M
- Nuclear Sources and Services: AN-HPG, AN-HP, GT-GHP

## Additional Source Manufacturers and models for Gauge Model C-300:

- Amersham Models: AMN.PE5, AMN.V997, CDC.800
- Gammatron Models: AN-HP, GT-GHP
- Isotope Products Laboratory Model: HEG-137

## Isotope and nominal activity:

• Radium-226:Beryllium, 4.5 mCi

## Gauge Manufacturer and models (radium):

- Seaman Nuclear Corporation, Portable Moisture Density Gauge Models C-300, SSD Registry NR-587-D-104-S
- Seaman Nuclear Corporation Portable Moisture Density Gauge Model C-200, Registry WI-587-D-107-S
- Seaman Nuclear Corporation Portable Moisture Density Gauge Model C-75, Registry WI-587-D-108-S

## Source Manufacturers and models/drawings for Gauge Models C-300, C-200 and 75 (radium):

- Radium Chemical Co., Drawing 21.94, SSD Registry NY-0763-S-109-S
- AEA, Model RAN.C1, SSD Registry MA-1059-S-878-S. (Formerly Amersham and product code RAN.W25 was listed as model.)





Secure Storage

Premier Safes

Total Defense Safes

Elite Safes

Stack-On Safes

Security Safes

Personal Safes

Security Cabinets (Gun

Cabinets)

Storage & Reloading

Accessories

Tool Storage

Garage

Storage & Organization

Service

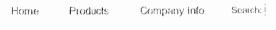
**Product Catalogs** 

## INCREASE YOUR STORAGE OPTIONS

These Accessories can Help Expand the Storage Capacity of Your Safe or Security Cabinet

















Q+ zoom

Model # HGS-1024

. Storage or All Storage.

## Features UL Rated Group 2 Combination Lock and High Gloss Hunter Green Paint

- Safe is California DOJ-approved firearms safety device that meets the requirements of California Penal Code Section 12088 and the regulations issued thereunder.
- UL rated safe includes Group 2 3-number combination lock with a drill resistant, hardened steel plate behind the lock provides greater security.
- Safe has gone through rigorous testing against break-in and is UL listed as a Residential Security Container.
- ETL fire rated to manufacturer's specifications for 30 minutes up to 1400° F.
- ETL tested for water resistance in up to 2 feet of standing water for 72 hours. The synthetic rubber gasket on the body of the door, along with other sealants provide a waterproof seal. (Unit must be bolted to the floor in order to comply with the waterproof safe feature.)
- Four way locking with 7 live action locking bolts and 3 steel dead bolts provide 10 locking points. Live action locking bolts are retracted and extended by rotating a 5-spindle handle. A re-locking feature has been included in this safe that will keep the door secured, even if the lock is completely removed during an attempted break-in.
- Safe includes Stack-On's patented barrel rest standoffs to keep most scoped rifles away from the back of the safe and allow for one position storage. This unique standoff can be attached to any Stack-On barrel rest and removed if needs change.
- Batteries are accessible from the front of the safe and are easy to replace.
- Full-sized gun safe includes pre-installed, fully carpeted interior. Safe includes adjustable shelves that can be positioned to meet your storage needs.
- Pre-drilled mounting holes in the steel bottom of the safe allow for easy attachment to the floor. Fastening hardware is included.
- Exterior has a high gloss hunter green, wet paint, reflective finish with gold accents and silk-screen on the door.

Exterior Dimensions: 29-1/4" W (74.3cm), 21-3/8" D (54.3cm), 59" H (150cm)

Interior Dimensions: 15.93" W, 56.97" D, 27.8" H

Interior Cubic Feet:

14.5 (25067 Cubic Inches)

Shipping Weight:

435 lbs. (not including skid weight)

Convertible Interior:

all storage

Number of Shelves: 6
Total Locking Points: 16

Live Action Locking

Bolts:

7-1" locking bolts

Steet Dead Bolts:

0

4-way

Locking Bolts:

Notes:

Not recommended for storing CD's or other electronic storage devices. Safe must be

bolted to the floor to insure waterproof rating.

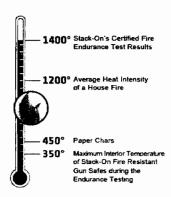










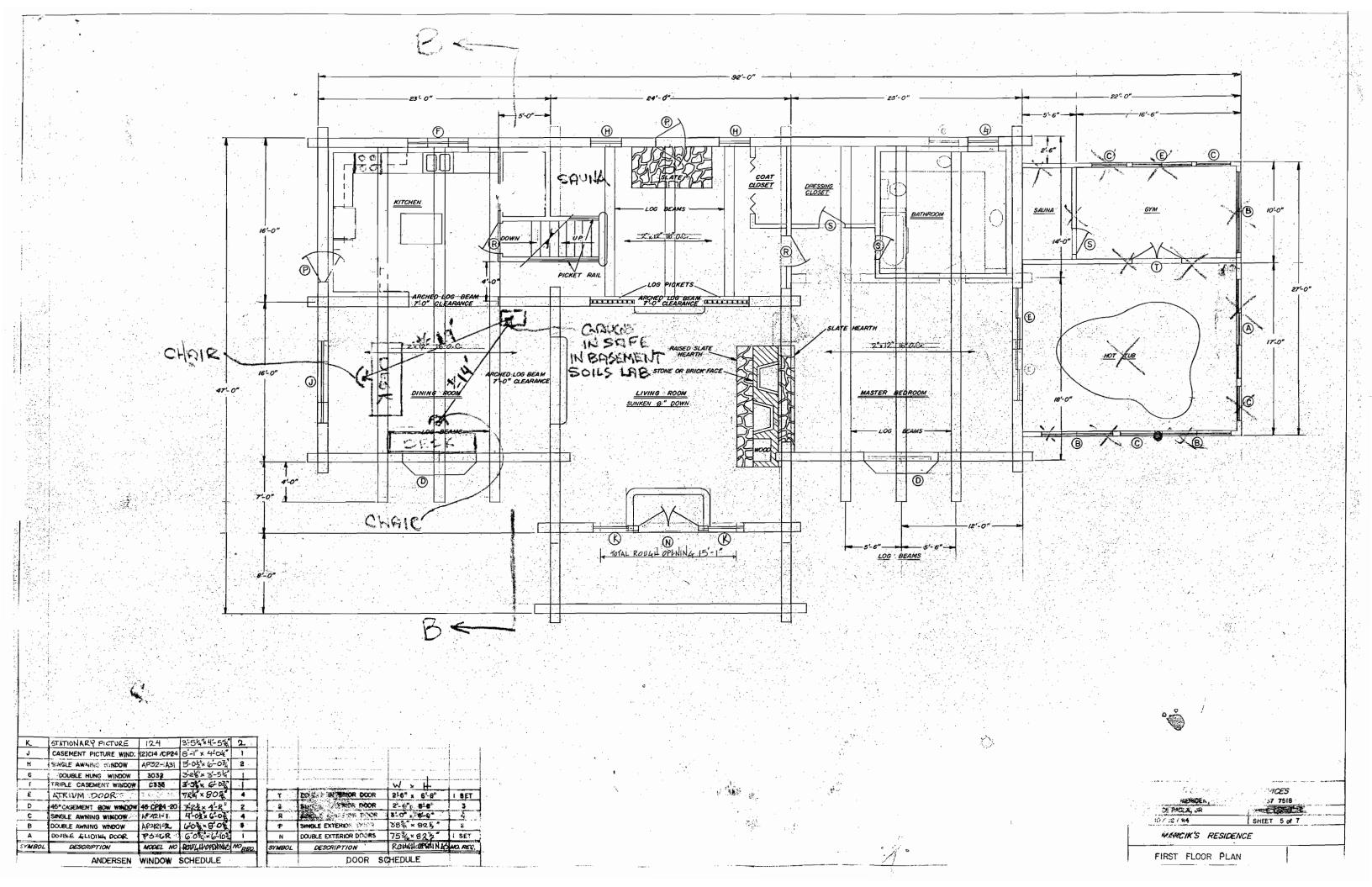


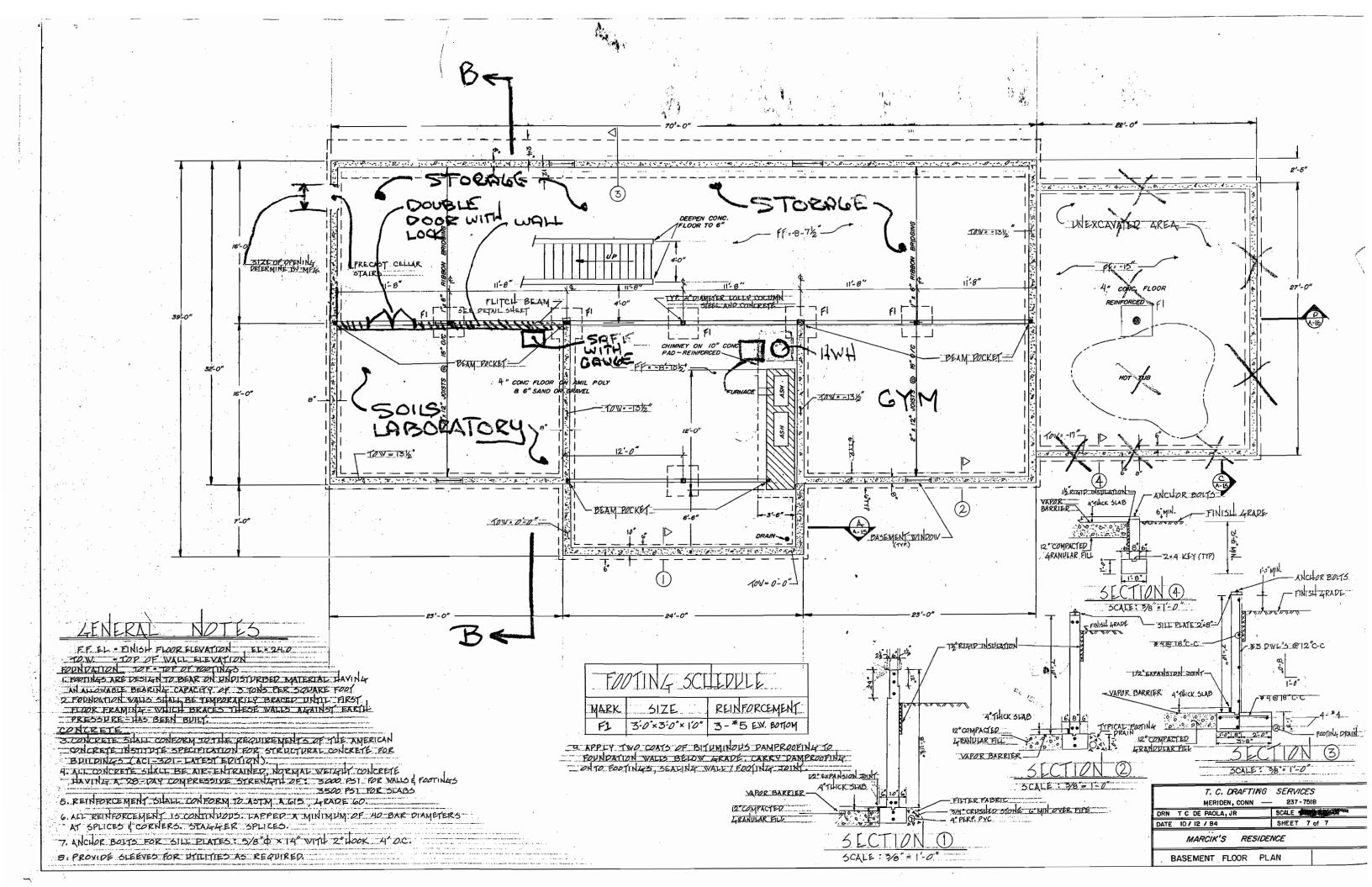
Contact Us

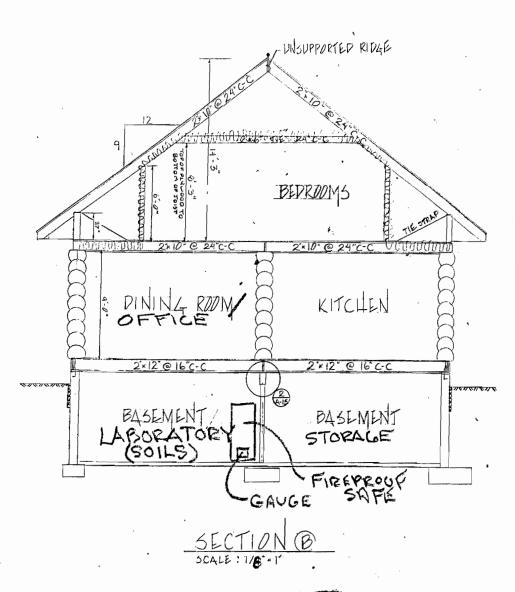
Privacy Policy

Site Map

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SECTION B

SUPPORTED RIDGE

includes an a	and definition of the series o	Polication (03038409) ssions. Your application was assigned to a hat the technical review may identify additional
, , ,		arded to our License Fee & Accounts Receivable tely if there is a fee issue involved.
When calling		Control Number 574179.  tion, please refer to this control number. or 337-5260.
NRC FORM 532 (R (6-96)		Sincerely, Licensing Assistance Team Leader