



# Plymouth Engineering, Inc.

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January 26, 2019

Job #: 19211

## Suitability and Conditions Review

### **Location:**

Existing Commercial building  
14 Fernald Avenue, Corinna, ME.

### **Client:**

Town of Corinna  
8 Levi Stewart Drive  
Corinna, ME. 04928

### **Attachments:**

Exhibit A

### **Background:**

The Town of Corinna is considering options for the construction or alteration of a building to serve as a Fire Station that would replace the existing station.

One option considered was the re-purposing of an existing Vacant Commercial Building located at 14 Fernald Avenue.

The Town contracted Plymouth Engineering, Inc. to provide services toward a basic suitability and Conditions review to determine if the property was a viable option.

**On Site visit:** August 30, 2019 @ 7:45AM

### **Review:**

The Property to be reviewed resides at 14 Fernald Avenue in the “Village Commercial” district at the corner of Fernald and Exeter St.

#### **Land:**

- It is designated as Map/Lot 20-024 and listed as 1.62 acres.
- The property is served by public Sewer and has at least one private well.
- The topography is very level and mostly cleared with entrances along Fernald Ave. No curb cut currently exists along the Exeter St. side.
- Areas adjacent to the building on the street sides are paved with bituminous asphalt in poor condition.
- Based on visual observation the rear and side of the property appears to have a high ground water table or poor drainage as the ground was saturated despite no rain in the last 12 hours.

#### **Building:**

- The Existing Building is a 1-1/2 story Steel Frame Space building with metal siding and metal roofing.
  - It is approximately 125' wide by 80' deep which equates to 10,000 S.F.
  - The height of the building is approximately 13'6" at the eave and 16'6" at the peak.
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**Foundation:**

- The Foundation is a Concrete Slab of unknown thickness.
- The presence of frost walls could not be determined.
- A concrete trench exists extending the entire depth of the building (front to back) which has water, sewer and electric lines running through it. The trench was flooded with water and the utilities were submersed.

**Exterior:**

- The metal siding appears to be corrugated siding with paint in poor condition.
- The main entrance is typical store front type in average condition, an overhead and man door in the rear in very poor condition and one other man door.
- An awning exists on the front left of the building sheltering the entrance.

**Roof:**

- Aerial views of the building depict a corrugated metal roof in fair condition. No obvious leaks were observed from the interior of the building.

**Interior:**

The interior is divided up into warehousing space on the right and rear and retail space in the front left divided by gypsum wall partitions. A mezzanine exists above a portion of the retail and warehouse section on the left end.

**Warehousing space:**

- The warehousing section is in average condition with the right most area having full height clearance to the frames.

**Retail:**

- The retail area is currently configured as an office space with several dozen cubicles in place.
- The Gypsum walls are heavily molded as is the carpet and possibly the ACT ceiling panels due to a consistent and heavy moisture environment.

**Mezzanine:**

- The mezzanine area is unfinished storage space.

**Frames:**

- The structure consists of engineered clear span frames about 25' on center and conventional columns and girts on the gable end walls. The visible frames and girts appear to be in acceptable condition.
- The age of the building may mean the structure will not meet the current design loads specified by the building code.

**Suitability:****Pros:**

- The location of the building is favorable as the existing fire station and annex building is just across the street. Fernald Ave. and Essex St. provide access to all points of Corinna.
- The building is large enough to house all the apparatus, equipment and personnel support facilities with space left over that could be used for other municipal requirements such as DPW equipment storage, etc or other community service needs.
- The condition of the shell of the structure (frames, siding and roof) appear to be in acceptable condition.
- It was related to us that the cost of obtaining the building would be very low.
- Retrofitting the building would likely be faster than constructing a new one.
- It would benefit the community to have the building

**Cons:**

- The limited height of the building eaves would only allow for overhead door heights of 11' on the Fernald Ave. side and rear.
- The building is very close to Fernald Ave. limiting turning radius and backing space.
- The end walls would allow only one 14' tall overhead door at the center with the possibility of only two 12' tall overhead doors adjacent (three doors total). This restriction limits the size and type of apparatus which could be housed unless parked end to end which is not optimum for response times.
- Using the gable end walls would require some structural upgrades due to the locations of columns, etc.
- Use of the left end wall would require the primary entrance to be on Exeter St. which would require a state curb cut permit and current site drainage reconfiguring.
- The entire interior including walls, floors, ceilings and insulation would need to be demolished due to the mold issue and general degradation of the materials.
- The slab thickness may be insufficient for the weight of the apparatus and may require reinforcement.
- Utilities will require significant upgrade and relocation.
- Relocation of plumbing and water lines for bathrooms and break areas will require precise location of in-slab piping and slab cutting for re-routing.
- The utility trench will need to be cleaned out and filled.
- An examination of the drainage issue around the building is recommended as well as an Environmental Assessment of the site due to the nature of the uses over the life of the building.

**Renovation cost:**

**Option One:**

Remove and replace with new facility. The potential demolition cost and replacement cost with a new building on the existing site. The new facility is approximately 4500 square foot which is approximately the modernized space layout of the existing buildings across the street. The demo cost is approximately \$120,000 if all work is hired out. And the new construction cost with a 20% markup will be \$810000. This option for a preliminary budget number is

**Option Two:**

This option is to rebuild and revitalize the existing building.

- |   |   |           |
|---|---|-----------|
| • Reside entire building                              | - | \$ 8,000  |
| • Concrete floor thickness to support weight trucks   | - | \$ 25,000 |
| • Reroof the building                                 | - | \$ 23,487 |
| • Replace walls, install new lighting and ventilation |   | \$393,750 |

The preliminary layout of the building is not done so the cost is a square foot basis. The above numbers are potential cost only. With a 20% contingency the cost is \$540,284

**Conclusion:**

The building could be repurposed for the use of a Fire Station. As discussed on site the existing building is not optimal and would limit future expansion of the apparatus bays do to door size and location capability. To renovate the building, we need to potentially budget \$540,280.

Demolition and upgrade to the structure will be extensive and could approach the cost of a new structure in terms of end value. However if the cost of obtaining the property was very low and lower cost local

contractor work could be obtained then the building would present a viable solution if the cost of a new building was prohibitive for the town.

Thank you for the opportunity presented with this Town Project and please feel free to contact us with questions or additional needs going forward with this project.

Regards,

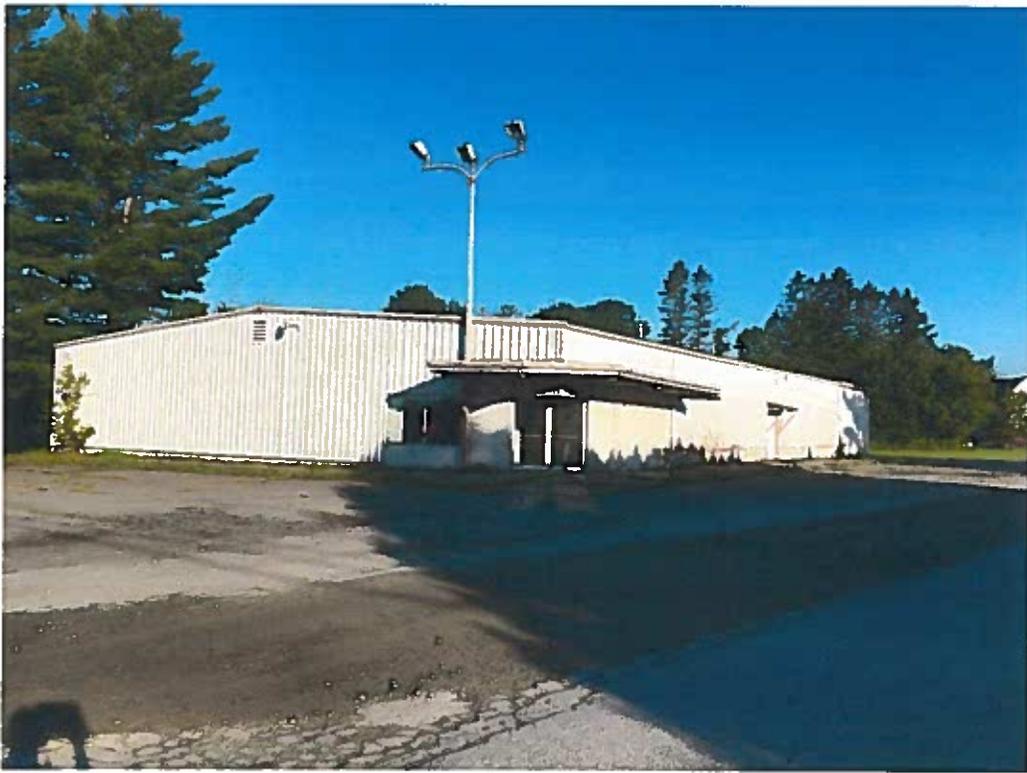


Keith Ewing, PE, TPI  
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RCM

**Exhibit "A"**  
**Current images**



**Aerial View**



**Front / Left corner  
(entrance)**



**Rear / Right corner**