



Fire Station Building Review Committee

Meeting Minutes
Wednesday, September 6, 2017
APPROVED

Committee members in attendance: Allan Brown - Chair, Selectman Kimberley Edelmann, David Hartman, Howard Kirchner, Peter Ladd, Jonathan Lord, Janice Loz, Fire Chief Ed Raymond, Peter Wyman

SMP Architects: Anthony Mento, Jason LaCombe

North Branch Construction: Ken Holmes, Bruce Blazon

Also in attendance: Selectman John Dabuliewicz, Town Administrator Jim Bingham, Emergency Management Director Ed Mical, Varick Proper, John McGilvray, Steve Hall, Ken Millender

1. Tour of Fire Station On Kearsarge Mountain Road

Chairman Allan Brown opened the pre-meeting tour of the fire station on Kearsarge Mountain Road at 5:30 pm . Those in attendance included Jonathan Lord, Janice Loz, Chief Ed Raymond, Peter Ladd, David Hartman, Howard Kirchner, Kimberley Edelmann, Anthony Mento, and Bruce Blazon.

Basically, the small building is a one floor garage. A narrow staircase leads to a lightly supported second floor. Ed Raymond recommended only a few people explore upstairs at a time.

Allan said he remembered the building as being the only fire station when he was a kid.

The building is wood framed. There used to be two doors. Now there is one large garage door and a standard entrance door.

There is a siren on the top of the building. Ed says it is very heavy.

David Hartman said he may have instigated the tour to visit the building with an eye to using the existing space long term and reducing the space needed at the new fire station. David noted that the upstairs floor bounces. He wondered what the Selectmen were considering doing with the building after abandoning use of it as a fire station.

Ed noted that the Warner Fall Foliage Festival was currently using the building for storage. It also houses a forestry vehicle. Ed said he would like to be able to use that vehicle year round. But with it in cold storage, it was only used seasonally.

Allan said the property lot was very small, maybe as small as 50 x 50 feet.

Ed said a Firefighters Association committee was looking into figuring out what it would cost to maintain the building, make it more safe, and put it into continued use. The committee had not reached any findings yet. Ed noted that the Firefighters Museum was running low on space; the building might help alleviate space issues at the museum.

The building has a kick wall. Whether there was a deep foundation or not was not known. Allan suspected not.

The ground floor had several fire hoses lying on it. They would be put onto the new Engine 2 when it arrived. Hopefully the new engine would be in Warner in time for the Festival.

The forestry truck was stocked with pumps, hoses, 250 gallon water tank, hand tools. In winter, the water tank was drained. It is a 4-wheel drive. Ed felt putting a plow on it would be good during winter use, adding that going to a fire in winter, there was often a need to do some plowing. Firefighters would often try to get to a fire with their own trucks and plow to clear the way before the fire apparatus arrived.

David Hartman said he believed the Town would have to invest money into the building if it were going to be used as a satellite station. It was apparent to him that the ceiling / upper floor would need to be rebuilt and that the electrical would need to be updated.

Janice asked if the building could be used seasonally, storing different equipment (snowmobile, ATV, lighting plant) in the building each season. Peter Ladd noted that they have tried that, but they got surprised at times. Ed noted that the lighting plant definitely needed to be in a heated building due to the diesel engine.

Allan ended the tour at 5:55 pm.

2. Meeting at the Town Hall

6:01 pm, the meeting continued at the Town Hall.

2.1. Minutes

The meeting minutes of July 26 were reviewed. Allan added that where John was referenced in the minutes, it was Jonathan Lord, not John Dabuliewicz. John Dabuliewicz was not present at that meeting. Motion to approve made by Peter Wyman, seconded by Jonathan Lord. All voted in favor of approving the minutes.

The meeting minutes of August 2 were approved. Motion made by Peter Wyman, seconded by Jonathan. No corrections were noted. All voted in favor of approving the minutes.

3. House & Site Update

Jim Bingham provided an update regarding plans to move the house. He noted that Bob Irving (who purchased the house and would be moving it later in the year) inquired about the garage, asking if he could also take it. The building is currently in use as storage for the Fire & Rescue Department.

Ed Mical provided an update regarding the FEMA grant process. He had not heard anything new and would be chasing up later in the week. He added that the garage was not included in any paperwork regarding the grant, just the house. He was concerned about doing anything that might upset the FEMA grant process.

4. Marketing Update

Howard Kirchner provided an update stating that signs had been put up around town showing a drawing of the fire station. Locations include The Local, Aubuchon, Market Basket, and the Post Office. He hoped that as more people saw the images, more might become interested in viewing the website: <http://wfd.warner.nh.us/>

Kimberley Edelmann provided an update regarding a videotape noting that she and Chief Raymond were discussing approaches to use for gaining video material. Anthony added that helping people see the current fire station was important.

5. Design Update

Anthony Mento said that a kickoff meeting at North Branch had taken place 3 weeks earlier. During that meeting, review of the schematic plan was done and a lot of good ideas were shared, such as modifications to the roof design, all with an eye towards reducing costs. The goal was to get a set of schematic plans to North Branch so that they could put together a first pass schematic budget.

On behalf of the FSBRC, some assumptions, recommendations, and choices were made for the first pass in order to put some meat on the schematics, allowing pricing work to be done. The committee would view the plans today.

6. Geotechnical Engineering Report

The report from Ransom Consulting, Inc had been received. Six borings were done on the site. The favorable report was made available to the Town. The following is from the cover letter send with the report:

Subsurface conditions consisted of a thin layer of topsoil and subsoil 12 to 18 inches thick, overlying a sand and gravel deposit. Groundwater was observed at depths of 9 to 14 feet below the ground surface. Drilling refusal, which we interpret to be on large boulders, was encountered at depths of 6.5 to 13.5 feet below the existing grades in some of the test borings. Bedrock was not exposed at the ground surface within areas of the Site being proposed for development.

Following stripping of the topsoils and subsoils from the building footprint areas, the proposed fire station building could be supported on a conventional shallow foundation system of spread and continuous footings that bear directly on the native sand and gravel soils or on compacted structural fill. The ground floor could be constructed as a slab-on-grade.

We do not anticipate bedrock excavation; however, we did observe large boulders at the ground surface, and large boulders were likely responsible for the shallow drilling refusals. Large boulders could be encountered in excavations for deep utilities.

The native sand and gravel soils at the Site could be reused as structural fill below the building footprint and as common fill outside the building footprint areas, provided the contractor can place and compact in accordance with the requirements of this Report. Crushed gravel for the slab-on-grade base course will have to be imported to the Site.

Overall, it was a very good outcome. No heroic foundation work would need to be done.

7. Latest Schematics

Schematics dated August 23, 2017 were shared with the committee. Anthony showed the plans on the overhead projector while pointing out recent modifications, which included:

- ◆ Based on feedback from the Emergency Management Director, the EMD's office closet was simplified into a door-less nook which would hold filing cabinets and shelves.
- ◆ The number of windows was reduced.
- ◆ No basement. Electrical, mechanical, sprinkler would be on the slab-on-grade single floor. The building had to be expanded a bit to accommodate having everything on one floor.
- ◆ Additional storage was added.
- ◆ The bath / shower rooms were reduced in size.
- ◆ The EMS (Emergency Medical Services) office was moved to back of building.
- ◆ The kitchen was reduced in size to provide space for the mechanical room.
- ◆ The apparatus bay was reduced by 2 feet in width.
- ◆ The roof lines / truss profiles were simplified.
- ◆ Wall widths in the administration area were reduced from 10" to 6". The apparatus bay wall widths remained at 10" as the thicker walls are needed for structural strength. The ICF walls will have rebar throughout.

Anthony also reviewed areas which were not impacted by recent modifications:

- ◆ Gear room
- ◆ Decon area with washer / dryer
- ◆ Radio room

David Hartman asked how the decon room was used and how many firefighters would use it at once. Ed Raymond noted it could be one or a few firefighters at a time. Peter Ladd added that the decon area was not intended for large scale hazardous material decontamination. That would be taken care of somewhere else.

Kimberley asked where the drainage holding tanks would be located. Anthony said they would be under the slab.

John Dabuliewicz asked if the Civil Engineer would talk about water pressure and the sprinkler system. Anthony said it would be the Mechanical Engineer who talked about that. The sprinkler system would be design built based on a pressure test. John noted that the Town Hall also needed a sprinkler and the process was underway to get one. Peter Wyman noted that the Liquor Store would have had to do a recent test. Ken Holmes noted that the pressure test would have to be done on the hydrant nearest to the site.

The building was currently at 11,087 square feet gross. That included all exterior and interior walls. Ed Raymond said it would be good to know what the net square footage was. The committee was told the interior square footage may be closer to 8,900 square feet; approximately 80% of the gross. Peter Wyman noted that 8,900 was a more palatable figure.

Three different types of windows are currently in use. Taller windows, medium sized windows, and small frosted glass windows for the bath rooms and gear room.

John McGilvray asked how tall the building was in the current design. Anthony said it was 32 feet high. The apparatus bay had 16 foot clearance inside. The trusses were 16 feet high. Anthony showed the truss layouts. The trusses would be spaced 2 feet apart. The single span trusses would be shipped in 2 long pieces; bottom and top. Calculations were done to confirm the full length single span trusses could be delivered to the site.

Anthony showed various approaches to layout of the apparatus bay trench drains. Looking at the floor plan, long strip drains could be placed either parallel or perpendicular to the fire equipment or there could be multiple drains in several locations across the floor. Another option was to have a flat floor where water had to be squeegeed to a single drain. Ed Raymond noted that consideration was needed in terms of which way someone would roll when under a truck on a dolly. Bruce noted that the delta between the various options was only about \$8K.

8. Mechanical Systems

Anthony shared the energy analysis report provided by Mark Vincello of WV Engineering Associates. The committee had requested cost information for two specific scenarios which both include air to air heat pumps and full air conditioning in the admin area. Mark provided six scenarios in his analysis.

- ◆ Option 3: Condensing gas boiler, full air conditioning, and heat pumps in the admin area. Radiant slab in the apparatus bay.
- ◆ Option 6: Wood pellets boiler, full air condition, and heat pumps in the admin area. Radiant slab throughout.

Anthony noted that the total dollar amounts shown in the report were for comparison sake and not a prediction of actual costs. Bruce noted that there may be additional costs during construction; such as louvers.

Kimberley noted that the carbon footprint column was very interesting.

Peter Wyman noted that the price shown per ton for wood pellets (\$225) seemed low, noting that the Hopkinton Fire Department was paying \$270 per ton. Ed Raymond concurred.

Peter Ladd noted that the recent hurricanes could impact the cost of propane.

Ken Holmes noted that for the first pass at a schematic budget, they used Option 3 numbers for the purpose of pricing out the mechanical system.

Anthony said the analysis was done on the gross square footage. Ed Raymond noted that the space that would be heated would be the net square footage, not the larger gross number. Therefore, he would expect the actual heating costs to be 20% lower.

9. Civil Engineering Site Plan

In the August 23 plan, it was decided to keep the utility pole in front of the building, with two curb cuts; one on each side of the utility pole island. The plan did not show any tree data which would eventually be needed.

Anthony noted that at the next meeting, Kevin Leonard from Northpoint Engineering would be coming to discuss the site plan in terms of arrangement of trees, water infiltration and collection, and other civil engineering topics.

Ken Holmes noted that the suggested curb cuts have not yet been approved by the State. Kimberley asked if the curb cut was more than 50 feet. Anthony said it was and that he expected it to be approved due to the intended use.

Discussion about the utility pole island resumed. Anthony said moving the utility pole meant adding new poles in new locations, which would get pricey. He said it would be a good discussion to have when Kevin attended the meeting. Allan believed it was currently 230 feet from pole to pole. Ken added that it was about \$60,000 for two poles. Peter Ladd said the Town was told it would be \$30,000 for a new pole for the new solar array, but in the end it was free. Bruce said if the Town arranged to move utility poles, it would be wonderful for the project.

Ed Raymond felt the pole island would be a problem. Kimberley added it could get in the way when plowing.

10. Windows

Bruce presented window comparison data to the committee. Four manufacturers' models were represented:

- ◆ Kolbe Forbent
- ◆ Marvin Integrity Ultrex
- ◆ Pella Impervia
- ◆ Anderson 400

The comparison chart includes prices, U-factors, and SHGC factors. U-Factor measures the rate of heat transfer and says how well the window insulates. The lower the U-factor, the better the window insulates. Solar Heat Gain Coefficient (SHGC) measures the fraction of solar energy transmitted and says how well the product blocks heat caused by sunlight. SHGC is measured on a scale of 0 to 1. The lower the SHGC, the less solar heat the window transmits.

There are only a few windows on the front of the building. In total, there are currently 32 windows, some of which are small. All totaled, the price range for a full set of windows ranged from \$17,094 to \$23,067.

Bruce noted that the Pella Impervia was not yet added onto the list of specified bidders. Bruce and Anthony noted that vinyl windows are not recommended for the project.

Performance data was not available for the Anderson.

Anthony noted that a Kolbe Froben and Marvin samples were provided to the committee at an earlier meeting, and Pella was there. He had always like Marvin but was very impressed by the Kolbe. Bruce noted it was a fairly new window and North Branch didn't have a lot of experience with it.

Bruce added that there are some decisions could not be easily changed down the road. Window selection did not fall into that group; decisions could be made after bids come in.

Doors will be coming from different manufacturers.

11. First Pass at a Schematic Budget

Bruce Blazon of North Branch Construction walked through the first pass schematic budget, line by line, which was based on current drawings. He stressed that there were a lot of ways the numbers could go up and down.

Bruce noted that the "Contingency", currently at \$348,000, provides a placeholder for things that didn't yet exist. For this pass, it was set at 15% of the schematic budget. Later, when there was a GMP (guaranteed maximum price), it would be closer to 5%. The first schematic budget was between 2.55 and 2.8 million. Decisions made along the way would change that.

The numbers Bruce presented covered construction, aka the "hard costs". There would also be "soft costs" to consider which would cover things such as construction administrative fees, legal fees, inspections, furniture, fixtures, and utility costs. At the next meeting, total project costs would be presented.

The numbers were shown on the overhead projected. Printouts were not provided. All figures include associated labor. The following "hard costs" were captured via notes jotted during the meeting:

Construction Divisions	Amount	Comments
General conditions	\$204,000	The superintendent's wages are a big part of this. 34 weeks schedule.
Demolition & site work	\$256,725	Includes \$150,000 in site work, 515 tons of pavement, 120 feet of granite curbing, site signage, extractor holding tank, water / oil separator, 200 ft stockade fencing, landscaping and hydro-seed at \$28,500.
Concrete	\$375,155	The ICF wall & foundation system came in at \$204,000.
Metals	\$45,470	Estimated 8 tons of structural steel. Also includes metal jams in overhead doors and bollards protecting the pillars between the apparatus doors.
Rough carpentry	\$177,680	The roof assembly for the whole building. Trusses \$38,850.
Finish carpentry	\$22,300	Exterior trim and internal window sills.
Thermal moisture	\$126,950	Includes air barriers, acoustic insulation, asphalt shingles.
Doors & windows	\$149,390	Includes 30 interior doors at \$18,600 and aluminum entrances at \$30,250. Overhead doors shown as \$43,800, but can range from 25K to 75K.
Finishes	\$191,086	Includes drywall, dragon board, ceilings, flooring and floor treatment, Hardie Plank siding, and painting.
Specialties	\$51,128	Includes 40 gear lockers, 3 flagpoles, interior signs, toilet partitions, and mirrors.
Equipment	\$1,680	Labor only as appliances will be provided by the Town.
Furnishings	\$12,380	Includes cabinets and blinds.
Mechanical	\$481,500	Includes fire protection, plumbing at \$110,500, internal truck fill at \$6,000, compressed air, trench drain system, HVAC at \$250,000.
Electrical	\$227,250	Includes general calculation of \$17.50 per square foot for 10,700 square feet at \$187,250, emergency power, card entry system, and data cabling.
Sub-Total	\$2,322,694	
Contingency @ 15%	\$348,404	Likely to drop to 5% as plans firm up.
Gen'l Liability Insurance	\$8,179	Required
Performance & Payment Bond	\$24,900	Required
Sub-Total	\$2,704,177	
North Branch Fee	\$94,646	Per contract, 3.5% of construction costs
Total	\$2,798,823	First Schematic Budget

Ken said the numbers came out to \$278 per square foot.

In discussion, the committee was told that standing seam metal roofing costs roughly 2 to 2.5 times that of asphalt. Peter Ladd believes metal was the way to go. Allan said he had two bad experiences with standing seam roofs. Peter Wyman believed asphalt could last 20 years. Ken noted there are many options and various qualities.

The committee speculated whether construction materials, such as drywall and wood, would increase in price due to increased demand during rebuilding after the hurricanes. Anthony noted this is something the community would also need to understand.

Sizing of the generator would need to be done as numbers got firm. In the meantime, Ed Raymond reminded everyone that there was a good fairly new generator at the current stations which if usable, should be put to use.

11.1 Other Fire Stations

Ken shared with the committee recent pricing scenarios on other projects.

The first was a two bay, 7631 square foot facility which came in at approximately \$2,634,000. Ken noted that while smaller, it had elements which not included in the Warner fire station. Therefore, it would be hard to compare. It's not apples to apples. That came out to \$345 per square foot.

Ken said that generally, the smaller the building, the higher the price per square foot.

The other project was a five bay building, approximately 10,800 square feet. The work was very preliminary. The price was currently estimated at \$3,500,000. But, it was more of a city type of station and had characteristics that would not be in the Warner building.

Ken's point was that he did not believe the number provided by Bruce was inflated at all, given the information received to date.

12. The Basement

Peter Wyman asked how much square footage was added in order to eliminate the basement. Anthony said when there was a basement, the total square footage was 11,152. Now, the total was 11,087.

Peter did the math. With a 800 sq ft basement, the first floor in the previous plan was 10,352 sq ft. The first floor expanded by 735 feet. He calculated that at a rate of \$278 per square foot, that meant the plans had grown by \$204,330 as compared to \$80,000 for a basement which was roughly priced at \$100 per square foot. Peter concluded that \$124,330 was added to the price by doing away with the basement.

Allan noted that the ICF may not had been agreed when the \$100 per square foot. Ken said the \$80,000 was based on numbers 8 weeks earlier.

Peter, speaking for the committee, noted that 2.8 million would not be a number that could be sold to the Town. So, he wanted to reconsider the basement. Kimberley asked Anthony if a basement plan could be done. He noted that they still had that plan.

John Dabuliewicz asked why the basement was removed. It had been advised that the basement would cost too much. Bruce added that without the geotechnical report being available at the time, it was conservative.

It was noted that square footage price depends on what is included in the area. Doors, for example, raise square footage price in comparison to open space.

Peter stressed that going down to a basement was usually cheaper.

David Hartman believed the basement idea revolved around storage space for a wood pellet system. He speculated that 15 years down the road, the fire department would go to full time and the heating system would need to be replaced; maybe the wood pellet system could be added into the basement during the building expansion.

Peter recalled that the basement was added to house the mechanical room and storage and had nothing to do with wood pellets. David recalled that since wood pellets were not needed, it was felt the basement was not needed. Allan said by removing the basement, everything that had been in the basement went onto the slab-on-grade.

Ken did not believe that a new plan with a basement would result in a \$124,000 difference. Anthony noted that having the \$80,000 out there without a geotechnical report was not helpful. Now, North Branch would be able to review the geotechnical report and make a better assessment regarding the price of a basement.

Kimberley said she was under the assumption that the process of designing and pricing was an iterative process. She asked Anthony / Jason and Bruce if a second design - with a basement - could be drawn up, priced, and shared with the committee for comparison. Jason said that was absolutely doable.

Action Item: SMP will provide a plan with a basement

Action Item: North Branch will provide a schematic budget for the plan with a basement

Ken reiterated how "price per square foot" could vary depending on the components in the square footage added or removed. Going forward, prices of various components, such as windows, would impact the final prices.

13. The Goal

Anthony returned discussion to the exercise of pricing against the first schematic. He noted that the committee had defined the needs of the fire department. North Branch provided a number to get to that particular building. To reduce the price by \$300,000 to meet the goal of keeping the construction cost under \$2,500,000, Anthony said more things would need to be considered, more decisions would need to be made.

Anthony agreed looking at a plan with a basement was a good idea. Ed Raymond noted that it was a good first step and that a lot more little steps would be needed.

Allan reminded everyone that there was a contingency of over \$300,000.

Peter Ladd expressed concern that the price of building materials was going to increase. He also felt the fire station was going to be a hard sell and that the committee needed to go out and really sell it. Allan felt that there was no way to sell the building for 3M to a Town of 2800 people.

Ken said the easiest way to reduce the price was to eliminate square footage "in mass". Someone else added that reducing amenities with high price tags was another way. For example, the value of square footage in the apparatus bay was not the same as square footage in the kitchen.

Janice noted a lot of general storage space in the plan. It was pointed out it was needed.

Anthony said the committee now had information with which to work. He added that the committee needed to help the community understand the needs. Peter Wyman said it would be wrong to build a building that did not meet those needs. Anthony said waiting 3, 4, or 5 years, the building could cost over six million and the Town would never go for that. Jonathan summarized the conversation well with, "So you're saying, is the juice worth the squeeze?"

14. Next Meeting

Wednesday, September 27, 2017 at the Town Hall. 6 pm start time.

Anthony will move the Civil Engineer's visit to a later meeting, allowing the committee to focus on the building size and schematic budget.

15. Adjournment

A motion was made and seconded to adjourn the meeting at 8:25 pm.

Respectfully submitted,
Kimberley Brown Edelmann
Recording Secretary