

ERNEST A. BARBEAU
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84 FURMAN STREET
SCHENECTADY 4, NEW YORK

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Mr. Frank L. York
General Manager
The Troy Record Company
Troy
New York

Dear Frank:

Today I spent most of the morning and all afternoon at the Helderbergs studying various situations of interest to our project. I climbed the W R T Y hill and found considerably activity there. They are making real progress trying to beat the weather.

From the various workmen I managed to get a lot of general information about W T R Y's project. Here are some of the items of interest to us:

TOWER

They have erected a self-supporting tower of about 175 to 200 ft. right back of their transmitter house. I was amazed that it is so high. I had heard that it was to be less than 100 ft. It looks like a product of either American Bridge Co. or Balw-Knox. Their FM 4-Bay GE antenna has not yet been mounted.

This tower and antenna when completed will be at least 175 to 200 ft. taller than either GE's or our own. However, their transmitter power is only 1 KW as against our 3 KW. With this antenna height and 4-bay antenna they get an effective radiated power (ERP) of 3.5 KW with an elevation above average terrain of 985 ft.

Our ammended application calls for 3 KW power with 4-Bay antenna which will produce 6 KW effective rated power (ERP) at 805 ft. EAH (effective average height). Thus it would seem that the difference between the over-all height as measured from the center-line of their antenna radiating structure to the ground is exactly 180 ft. higher than ours by the same formula. We should cover almost twice their anticipated service area coverage.

WATER-WELL

I learned that their well was drilled to a depth of 150 feet where they struck very good water - not surface water either. I don't understand it. GE could not hit good water at any depth just a thousand feet away. Neither could WBCA. However, recently Stewart Brothers of Schenectady were sure that good water was obtainable in that kind of soil and shale formation. How deep we must go, is another matter.

They are presently pumping water with a twin-cylinder gasoline motor and plunger type pump. This is probably a temporary hook-up pending delivery of an automatic electric-driven outfit.

BUILDING

Their building is two-story built of 8" cement block with "I" beams supporting the second floor. Their building is 20' x 30' and the ceiling height is about 10'.

I understand from some of the men (sub-contractors on the job) that the upper floor is earmarked for future use as their television transmitter room. There is a large picture window overlooking the valley. Apparently they are entertaining serious future planning of television operation. Water lines and heat ducts are being run up-stairs where presumably they will use the upper half of the building for living quarters.

There is a large opening left in the front of the building where the main entrance will be located. It measures 9' in width and is approximately as high. Apparently double doors will be installed for easy movement of equipment, etc.

PUMP-HOUSE

They have a separate cubicle attached to the building constructed of cement blocks about 6' x 6' square where the pumping equipment is housed. This cubicle opens right into the down-stairs space. The roof of this pump-house is constructed like the main roof - of built-up paper, tar and slag.

HEATING

They are installing automatic warm-air double-duct circulating heat from a modern type furnace heated by an oil-burner with thermostat control.

POWER-LINE

The power company has already furnished them with their power which will be 110/220 V. single phase, 3-wire system. The pole is already in and mounted thereon are the transformers, disconnecting switches and lightning arresters. The line runs down the face of the mountain to the north of their road and connects with the main line on the Beaver Dam-New Salem Road.

For our installation of 3 KW, we will require three phase power instead of single phase. Our system will be 3-wire 110/220 volt, 3 phase 60 cycle. The power company can supply us with 3-phase power from the same source as General Electric which also uses this system for their equipment of which our transmitter will be an exact duplicate.

HI-Fidelity
WIRE LINES

The New York Telephone Company has already brought to W T R Y their new hi-fidelity 15,000 cycle equalized wire line cables. The line runs through Camp Pinnacle property and hooks into a newly constructed line brought up from Clarksville expressly to serve all FM stations in that area. The poles are already up and the cable was being brought into the building through a special conduit today.

The telephone people assure me that we can take service from that cable for anything we require. Our requirements have been worked out only tentatively to date but will be definitely determined after we know more about our future plans.

This will give you a fairly accurate picture of W T R Y's planning of their FM installation. It also opens up the subject of what planning, if any, you wish to do in the direction of future television operation. John Barron some time ago sounded the advisability of giving some thought to television development while planning our FM installation.

Our present plan of 24' x 42' transmitter building will serve our purpose for a long time to come unless television comes along so fast it will knock your hat off - which is improbable, in my opinion, despite the strides television is making today. If what I understand is correct about this second story with the large picture window being built by W T R Y, they are getting ready for it now and be ready for television when it comes.

I know positively that there is no television application before FCC by any of Colonel Wilder's stations - at least there was none two weeks ago when I was in Washington.

If you wish, I can make the transmitter building ten feet longer or perhaps ten feet wider to get the added space for any future television planning you might feel necessary to do while we are at it. It is up to you. My advice would be to go along with what we have and a few years hence add to the building if you ever feel the necessity for doing so. The only change I see advisable in my layout may be putting the pumping house against the back of the building in a similar cubicle as W T R Y's - jutting it out about six feet square with an opening right into the utilities room. When I talk with the architect, I'll bring this point up and will make another drawing showing the suggested change.

I have written Orsini Brothers for a revised quote on the proposed road as originally calculated but with 8 inches of shale covering instead of 4 inches.

Today I also made tentative arrangements with the GE maintenance man at W G F M, Mr. Arthur Reardon, who agreed to install the FM antenna radiation elements ("donuts") when we are ready. This should be some time next spring. He has been with GE ever since the station was built and is a very excellent man in this type of work. I can very highly recommend him.

I wrote John Barron considerably at length today following my visit to the site. I mailed you a copy in tonight's mail prior to dictating this memorandum. I also sent you a copy of my letter to one of our local structural steel concerns for a quote on a tower. From Barron's letter, it now seems that our antenna support (or tower) will be somewhat higher than 58 or 60 ft. because of having to measure from the center-line of the radiating structure instead of the extreme top of the antenna. That will make a difference. Most engineers don't bother with that difference but apparently Barron does. Hence the necessity for getting prices on a little higher structure.

EAB/MW

enclosure (1)

Very sincerely,


Ernest A. Barbeau