

The
-SANDOWN DEPOT-
BOSTON & MAINE RAILROAD
SANDOWN, NEW HAMPSHIRE

A REPORT TO THE TOWN OF SANDOWN SELECTBOARD
CONCERNING THE PRESENT CONDITION OF THE HISTORIC
RAILROAD DEPOT PROPERTY AND RECOMMANDATIONS FOR
ITS REPAIR, REVITILAZATION, RESTORATION, AND LONG TERM
PRESERVATION



BARRETT ARCHITECTURE, PC
P.O. Box 55
WHITE RIVER JUNCTION, VERMONT 05001
Frank.j.barrett@myfairpoint.net
May 31, 2016

Table of Contents

Section	Page
1. Introduction	1
2. Current Status of the Historic Property	2
3. Brief Historic Overview of the Property	4
4. Detailed Description of the Historic Building and its Present Condition	5
5. Moving Forward	13
6. Building Maintenance, Repair, and Long Term Stabilization	14
7. Building Exterior Restoration and Site Improvements	16
8. Building Interior Restoration, Renovation, and Re-Utilization	20
9. Conclusions	23
Photographs	
Existing Conditions Building Plans	
Appendix	

1. Introduction

On December 21, 2015 this office was retained by the Town of Sandown Selectboard to prepare a report for the board's information and use concerning the historic railroad depot property presently owned by the town of Sandown. It was agreed that the report would:

- Provide information concerning the present historic certification of the existing property and any restrictions or other encumbrances that might impact the property;
- Provide an overview and assessment of the past and present condition of the historic property;
- Provide recommendations as to proper repair, revitalization, restoration, and long term preservation of the historic property.

During the spring of 2016, Frank J. Barrett, Jr., A.I.A., the principle architect of the firm Barrett Architecture, PC, made several scheduled field trips to examine the property, including measuring the existing building and preparing a set of existing conditions drawings of the historic depot structure. And, because of the historic designations that have been voluntarily placed upon the property over the course of years, this office has reached out to those applicable state and federal government agencies for information, impute, and guidance. That information is reflected within this report.

The firm of Barrett Architecture, PC is located in White River Junction, Vermont; and Frank J. Barrett, Jr., A.I.A., the owner of the firm, is the author of this report. Mr. Barrett has a long back ground in the field of historic preservation; and an especially strong interest in regional railroad architecture, history, and transportation. His personal residence is a restored former Boston & Maine Railroad station located in Ely, Vermont that is currently listed on the National Register of Historic Places. In 2009 the Barrett office received an award from the New Hampshire Preservation Alliance for the preservation and restoration of the former Boston & Maine Railroad station located in Lisbon, New Hampshire. Additionally, over the past many years the Barrett office has prepared numerous nomination listings for placing individual properties on the National Register of Historic Places.

2. Current Status of the Historic Property

Ownership Status: Based upon a Quitclaim Deed recorded in the Rockingham County Land Records Office, Book 2324 / Page 1578, the so-called Sandown Depot property is owned by the Town of Sandown. The property was acquired from the State of New Hampshire on August 18, 1977; and the deed was recorded on October 26, 1978.

As described in the recorded deed, a copy of which is included in the appendix of this report, the property transfer consisted of:

“The old Sandown railroad station formerly belonging to the Boston and Maine Railroad together with all lands located within ten (10’) feet of the existing structure. Containing twenty-four hundred (2,400) square feet, more or less. Together with a twenty-five (25’) foot right-of-way lying Northwesterly of and parallel to the State’s Northwesterly property line between the above-described premises and the existing Town road.”

The deed transferring ownership of the property from the State of New Hampshire to the Town of Sandown does not make mention of any restrictions, easements, rights-of-first refusal or any other encumbrances for purposes relating to historic significance or preservation.

Additionally, a drawing titled “Sandown Historical Society and Museum” dated June 22, 1981 and last revised January 21, 1986 clearly shows the depot building and the lot, including other site improvements made at that time such as a parking area and a new well both located on State owned property. There is no indication that this property plan was ever recorded as part of any deed or reference. A copy of that drawing is included in the appendix of this report.

It would appear from the old railroad valuation maps prepared by the Boston & Maine railroad about 1914 that the State of New Hampshire still owns a significant amount of land on all sides of the Town’s property.

Historic Status: At this time the property, which consists of the very modest amount of land area described above and the single story wood framed railroad depot structure, is listed on two (2) registers of historic places:

- On September 4, 1986 the property was officially listed on the National Register of Places. This is a nationwide voluntary listing of buildings, places, and structures deemed to be historically important. The listing is maintained by the National Park Service of the United States Department of the Interior.
- On April 26, 2011 the property was officially listed on the New Hampshire Register of Historic Places. Very similar to the National Register, this is a state wide voluntary listing of building, structures, and places deemed to be historically important. The listing is maintained by the New Hampshire Division of Historical Resources. The property ID number in the State registry is SND0002.

As stated above, the fact that this publically owned property is listed on both the National and State registers of historic places is completely voluntarily on behalf of the Town of Sandown. There are no preservation easements or restrictions on the property that in any way encumber it as to any aspects of historic preservation, use, or otherwise. The writer of this report has verified this fact with Peter Michaud at the New Hampshire Division of Historical Recourses in an email communication on May 24, 2016. A copy of that email is included within the appendix of this report.

As a result of the above, the Town of Sandown is indeed free to do with the building whatever it might wish, even going so far as to demolish and dispose of it in its entirety; or otherwise treat it in ways completely out of character with its historic being. Again, the two listings are completely voluntarily and were bad things inflicted upon the building over time, it would just become unlisted, and that would be the end of it.

On the other hand, by virtue of having these two important historic listings, under certain circumstances these listings can help access and leverage certain areas of funding sources intended for restoration and rehabilitation of important historic sites, structures, and buildings – especially publically owned properties such as the Sandown Depot.

Within the so-called *Inventory – Nomination Form* completed in July 29, 1986 for listing the property on the National Register of Historic Places, the property came to be officially referred to as the *Sandown Depot, Boston & Maine Railroad*. And as per the form, this is called out as the preferred name of the property. Therefore, as to the title of this report, the property will be so referred to.

3. Brief Historic Overview of the Property

The Sandown depot building was constructed in 1874 by the Nashua & Rochester Railroad (N&RRR) as a facility intended to provide full passenger and freight service to the local community. The N&RRR was a 48.81 mile long railroad incorporated in 1871 by the Worcester & Nashua Railroad (W&NRR) to be built diagonally across southeastern New Hampshire from the Massachusetts and Maine borders, thereby connecting the two principle towns of Nashua and Rochester. An earlier railroad, the Nashua & Epping Railroad that had been surveyed but never built, was absorbed into the newer line. The N&RRR was completed and placed into operation in November 1874. In 1883 the N&RRR and the W&NRR were merged; and on January 1, 1886 the line was leased to the Boston & Maine Railroad (B&MRR) thereby creating the Worcester, Nashua & Portland Division of the B&MRR. By 1911 the line became fully absorbed into the sprawling B&MRR system – the largest railroad company in all of New England.

In spite of carrying great amounts of traffic, the line remained unsigaled until the B&MRR's 1911 – 1912 capital improvements program, when a second track was completed between Worcester and Nashua, and train signaling equipment was added at most in not all of the stations along the line. It is believed that traffic on the line peaked at about this time. Through the teens and into the 1920's local passenger service continued to be reduced and many through trains were re-routed to other lines within the B&MRR system. After 1930 just one passenger round trip operated north of Nashua using gas-electric "doodlebugs" as they were called at the time.

By 1932 changes in the regions railroad industry brought about by increasing numbers of both passenger cars and trucks on the Nation's highways, as well as the unset of the Great Depression, caused the B&MRR to seek permission from the State of New Hampshire to abandon the line north of Nashua. In January the ICC approved the request; and the last scheduled passenger train passed through Sandown on March 3, 1934.¹ By late 1935 the rails were removed. With the abandonment of the line by the B&MRR, ownership of the property passed to the State of New Hampshire. Between 1936 and 1938 parts of the former railroad right-of-way were converted into highway use; however, the section through Sandown that was in the vicinity of the depot building still remains unaltered and has not been used for any highway purposes. Just as ownership of the former railroad right-of-way went to the State, so too did ownership of the depot building.

From about 1934 to 1977 the former depot building was used by the New Hampshire highway department as a storage building; and there is some recollection of it also being used as a post office and by the Sandown Fire Department. Regardless, by about 1977 the property became owned by the Town of Sandown, as it so remains to this day; and has been continuously used as a museum and headquarters by the Sandown Historical Society. It is also this writer's understanding that at one time there was even consideration of converting the building into a small police station for the Town.

¹ See The Rail Lines of Northern New England by Robert M. Lindsay; Branch Line Press; Pepperell, MA; 2000 ; pages 76 – 79.

4. Detailed Description of the Historic Building and its Present Condition

“Depot” vs. “Station”: It is important to briefly touch upon the use of the word “depot” versus “station” when referring to this or similar historic railroad related buildings. Both the National and State register listings refer to the building as a “depot”. This writer does not believe this to be necessarily correct given both the dictionary definitions for the words depot and station, and as per the definition of the building by the Boston & Maine Railroad circa 1915.

The dictionary defines a depot, a word of French origin, as:

A railroad or bus station. *Mil.* A place to which supplies and materials shipped and stored for distribution. A storehouse or warehouse. *Syn.* Terminal. See station.

However, a station is defined in part as:

A stopping place for trains and other land conveyances for the transfer of freight or passengers.

Station, Depot, and Terminal are not properly synonyms. A station is a stopping place along a route where passengers may get on or off trains or other vehicles. A depot is a storehouse or warehouse: a depot in the wing of the station building. In the early days in the U.S., the station waiting room and the freight depot were usually in the same building and as a result, the names became confused. A terminal is literally, at the end of a rail, bus, or other transportation line, but station has become the more common word and is applied generally to both a stopping place along a route and the end of the route.²

Furthermore, the Boston and Maine Railroad Handbook “Rules for the Government of the Operating Department”, published November 17, 1915, within the section of the book titled Definitions, defines a station as: “A place designated on the timetable by name, at which a train may stop for traffic; or to enter or leave the main track; or from which signals are operated.” There is no mention of, or definition for, a depot.

In light of the above, this writer will in the following pages of this report refer to the building in question as a “station”, and not as a depot. However, because the property as listed on both National and State registers calls the building a “depot”, the title page and introduction of this report will refer to the property as the Sandown Depot.

Building Orientation: For the purposes of this report, so as to be able to refer to the orientation of the building with simple consistency and clarity, the writer will call the long face of the building with the perturbing bay window, that originally faced the railroad tracks, as the north or “front” of the building; and the other three faces as the east and west sides or “ends”, and the south or “rear” face accordingly. The front might also be referred to as the “track side” of the building although the original tracks have now been removed for many years. The reader will also note that on the existing conditions drawings of the building, as prepared by this office, this orientation of the building is referred to as *Project North*.

² See the Random House Dictionary of the English Language, College Edition; 1968 by Random House, Inc.

The Building Site: As discussed above, the historic Town owned building is situated upon a very small parcel of Town owned land that extends only 10 feet beyond the four exterior faces of the existing building. As a result, there is very little of a “site” that can be legally said to belong with the building.

None the less, there is an in-ground septic system that handles waste water from the single toilet located inside the building. This writer understands that although there is presently little known about this current septic system, it is functioning without any known problems. However, the entire septic disposal is believed to be located entirely on property belonging to the State of New Hampshire.

Likewise, the building is provided with domestic water from a drilled well, also located on State of New Hampshire property. This writer does not know the condition or capacity of that well.

Generally speaking, all site improvements including domestic water, septic disposal, parking, and outdoor display areas are location not on-site, but off-site on State of New Hampshire property.

The last point concerning the site that should be mentioned in this report concerns speculation that there is currently buried, adjacent to the southwesterly corner of the building, an underground oil tank, that apparently is no longer in use as the building has not been heated for some number of winters now. This writer does not know anything about this tank; however, its vent and fill pipes are visible above ground, beside the west exterior wall of the building.

Architectural Character and Style: It appears that we no longer know of the designer of this station building as it was so constructed in 1874 by the Nashua & Rochester Railroad. It could well have been an architect, engineer, or builder who had a contractual relationship with the railroad; or it could well have been a stock plan available in a variety of plan books published at the time. Likewise, it could have been a copy of a similar building used elsewhere on the line; or even a copy of a building owned by a competing railroad company. Photographic evidence indicates that the building erected by the railroad in Sandown was an almost identical twin to the station erected in Hampstead, New Hampshire – the next stop below Sandown. The primary difference between the two buildings was that the plan of the Hampstead facility is the reverse of the layout at Sandown (see Image Number 8). The Hampstead building was destroyed by fire about a century ago. Also of note is that much of the architectural detail of the Sandown building appears identical to the railroad station located in Potter Place, New Hampshire. The Potter Place facility was also erected in 1874 but by a different railroad company. Although there are many aspects of the Potter Place station that do differ from the building at Sandown, it has survived completely intact with hardly any alterations or mutilations and serves as a good architectural reference.

Reviewing historic photographs on file in the Walker Transportation Collection of the Beverly Historical Society, located in Beverly, Massachusetts, the writer noticed that not only does the architectural style and detailing look very similar to other station buildings that were once located along this railroad line, but that there were additional similarities. Not only is there a clear similarity to the Hampstead station, as mentioned above, the station at Barrington appears the same; and the stations at Epping, West Windham, and Anderson are almost the same building but wider.

The architectural character of the building at Sandown can best be described as incorporating elements of the so-called *Stick or Eastlake* style of American architecture – an architectural movement popular

between the period of the Carpenter Gothic in the mid nineteenth century and the Queen Ann styles of the last two decades of that same century. The building had or still has many original features, architectural elements, and details that were typical of the Stick style and the era within which it was constructed.

Original Building Layout: The overall layout of the building and organization of the interior spaces was also typical of smaller railroad stations of the day. The interior layout included both a men's and a women's waiting rooms, separated by the Station Agent's office. The Station Agent's office was the operating "hub" so to say within the facility, the place where tickets were sold to the traveling public, paperwork was maintained concerning the sending and receiving of freight, as well as time schedules and paper work communicating the movement of traffic on the entire railroad line, and a telegraph operation that was installed to provide communication within the overall Boston and Maine Railroad system. The layout of the agent's office also included a protruding track side bay window that gave the agent visibility for a distance up and down the line. At the easterly end of the building there was a freight room with a wood framed floor probably elevated several feet above the floor level of the remainder of the building, with a small wood framed exterior loading dock on the same easterly end of the facility. Given the era in which the building was originally designed and erected, and the rural setting of the depot that at the time did not provide the building with running water for indoor plumbing, the building layout most probably included separate small men's and women's privy rooms adjacent to the agent's office. It is believed that the waiting room located to the west of the agent's office was the men's, and the waiting room to the east was the women's.

The building was originally heated with stoves – probably two – one in each of the two waiting room areas. The building layout as originally designed included a small stove chimney, constructed of brick, with a single unlined flue. As to whether the stoves burned chunks of wood or coal, we don't know – given the period when the building was first constructed, it could have been either. In 1874 the typical steam railroad locomotive used in New England was still burning wood.

Overall Building Construction: The station building, as originally designed and constructed, is a single story wood framed structure, with a simple rectangular shaped plan, that overall measures approximately 20 feet by 50 feet, with the long dimension parallel to the location of the former railroad tracks. The building is set on a stone rubble foundation with only a shallow crawl space underneath most or all of the building area. As was common of the period, the entire building is so-called balloon framed, with what appear to be full dimension 2X6 floor joists, 2X4 exterior wall studs, and 2X8 ceiling joists and roof rafters. This light gauge wood framing is rough sawn and undoubtedly native lumber – hemlock, spruce, or white pine. The entire building is sheathed with 1 inch sawn boards, as was typical; and again undoubtedly of native lumber.

The building has a full hipped roof set at a moderate 5/12 pitch, with broad overhangs that extend out 6 feet around the entire building perimeter. The roof overhang is in part supported by exposed brackets assembled from dressed and chamfered pieces of 6X6 timber. These brackets are both a structural and decorative component of the building. The exterior wall plate height is approximately 14' – 6" above the finish floor; and the interior ceiling height and roof overhang soffit height, measure approximately 11' – 6" high from the interior finish floor as well.

Overall, all aspects of the building design, materials, and methods of construction utilized to erect the building in 1874 were typical of the period and widely in use during that time period. There is nothing out of the ordinary or otherwise special that was utilized in the original design and construction of this building.

As to the question of the overall condition of the building's wood frame structure, based upon on-site observations, this much appears known to this writer:

- The wood floor system in that part of the building that was once the area of the women's waiting and freight rooms was removed when the building became converted to a highway by the State of New Hampshire. After the Town of Sandown acquired the building in 1977, a new replacement wood framed floor was constructed within this entire area. From what can be seen looking under the building at several very small openings along the south rear wall of the building, it would appear that this replacement floor was very lightly framed and may well be structurally under capacity. This would certainly account for the amount of shake or bounce to the floor when walking across it inside the building.
- At the southeasterly corner of the building there is clear evidences of rot in the wood sills at this area; and it is assumed that there is considerable damage to the sill along the east side of the building, where a grade level garage door had been constructed post railroad use of the building.
- Although very difficult to ascertain, at other areas along the bottom of the wood frame of the building, where the original grade has over the years been built up, this writer has concerns that there could very well be additional sill damage from rot.
- All of the exterior wall framing appears very straight and therefore assumed to be in good condition.
- From the exterior the roof appears straight and without sag. Inside, by looking up into the somewhat shallow attic space, all of the original roof construction appears to be in very good condition.

Overall, other than the concerns expressed above relative to the wood sill and floor framing, the structure of the wood framed building appears to be in generally very good condition.

Building Exterior: The building still has almost all of its original wood exterior finish in place, including horizontal clapboard siding with an approximate 4 inch exposure, flat 1 inch thick corner boards, and flat 1 inch window and door trim. The broad soffit areas on all four sides of the building are finished with 1 inch planed boards with what appears to be a tongue and groove beaded joint.

When the building was first constructed, along the roof eave was applied a continuous decorative bargeboard with a cutout pattern of triangular and circular design elements. This original feature of the building design clearly shows up in historic photographs of the station, and remained in place until at least 1938, as evidenced by a photograph of the building dated that year. Since the time of that photograph, this decorative element of the building has been completely removed and the roof edge now has in place two wide overlapping flat fascia boards with no decorative features.

The exterior window and door fenestration of the building is likewise mostly intact and original to the building. The only changes to the exterior window layout and locations that have occurred over the years is on the east side of the building and on the south rear face.

On the east end of the building, there is good photographic evidence showing a raised wood framed exterior loading dock platform with an interior mounted sliding door leading into the area that would have been the freight room inside the station. The dock and sliding door have since been removed, it is assumed after the building was no longer used as a railroad station but instead when it came to be owned by the State of New Hampshire and used as a highway garage. In place of this feature of the original building a significantly larger door opening was created that extended to grade level; and also involved the removal of what probably had been the elevated interior floor in the freight room area. To accommodate the larger sliding door, now mounted on the exterior face of the building, the wood timbered roof support bracket at the northeast corner of the building was cut into and greatly compromised. Also at the time that the larger sliding garage door was created, an original roof bracket at the mid-point of the exterior was removed and discarded.

The other exterior change was on the south rear face of the building where originally there was installed a pair of double hung windows with a heavy wood mullion set between them. This writer believes that the reason for the pair of windows being located such as they were was to provide light and ventilation into the two small interior privy rooms, previously mentioned above in this report. At some time in the twentieth century, either during or after the time of the railroad's ownership of the building, both privy room windows, as well as a window into the easterly women's waiting room area on the same wall, were removed, the openings completely filled. At new locations along the same wall, new opens were made at different locations in the same wall and the old salvaged window units were relocated into these newly created openings.

Otherwise, as stated above, the window and door opening fenestration, location, and pattern on the north front and west side of the building is completely original to the building and unaltered. On the north front of the building, there are three exterior door openings. Two of those openings have the original door leafs still in place; however, at the third opening the door leaf is a much newer replacement that does not match. Photographic evidence clearly shows that originally at all three of these door openings the door leafs swung inward. It is this writer's understanding that this change was made to the building after the Town acquired the property post 1977. All of the window sash in the building, including at the bay window, is clearly original to the building and is generally in good overall condition.

It is a bit difficult to determine from old images of the building exactly what the original roof covering was made of. What can be determined was that it was defiantly a shingle of some kind. Given the date of the building's construction, it could have been a sawn wood cedar or a slate shingle. Given the minimal shadow profile as seen in several of the old images, this writer believes that the original material was most probably slate, and that the hips and ridge were capped with individual overlapping pieces of formed sheet metal (tin or copper). The Potter Place station still has a slate roof believed to be original to when that building was first erected; however, the hips are capped with a different treatment. As of 1938, the Sandown building still retained its original roofing material. The present roof

covering material on the building is a standard black asphalt three tab shingle. The overall condition of the roof shingles appears to be acceptable.

The historic images of the building also show a narrow brick stove chimney, apparently in the same location as the present day chimney made of concrete masonry units. Historic images show that the top of the original brick chimney had some amount of brick detail, as was typical of the period. Similar to the slate roof, as evidenced by the photograph of the building dated 1938, the replacement of the original brick chimney with a concrete masonry chimney was made after the railroad no longer owned the property.

The present exterior paint colors, while attractive, are not in any way the original colors used by the Boston & Maine Railroad. The overall condition of the paint is still in most areas of the building exterior in reasonably good condition, although showing age and dirt.

Adjacent to the bay window on the north side of the building there is a large round vertical pole that extends from the ground up through the roof by about 10 feet or so. And at the top of that pole is presently located some amount of what appears to be fixed signaling equipment. The round shaped pole is not original to the building. Instead, it was installed by the Town after 1977 to suggestively replicate signaling equipment that would have at one time been on the building, as discussed below. .

Semaphore Train Order Signals: The remaining exterior detail of note is what the Boston & Maine Railroad called a Semaphore Train Order Signal, that was typically installed at most of their stations, large and small, along most of the routes within the B&MRR system – including at Sandown. Seasonally operated depots or “flag stop” locations typically would not be outfitted with this signaling equipment. The use of these signals was in effect a manual “block signal” type of arrangement. Railroad men often just called these “order boards”. Regardless, these signals were mounted on a high square wooden mast attached to the depot building, and were manually operated from within the building by the Station Agent. At the top of the mast were two semaphore arms – one for signaling trains in each of the directions. The semaphore arm had three positions and at night was also illuminated with a corresponding colored light: Arm in the vertical down position with a green light = proceed; arm in half out diagonal position with a yellow light = slow or caution; and arm fully extended in a horizontal position with a red light = stop. The semaphore arm was in fact a rigid stamped metal “blade” with a red and white colored porcelain coating that was bolted to a very heavy counter weighted cast iron pivoting piece that held the three colored lenses. Painted black, this massive cast iron piece (there were two at the top of the mast) was often called the “spectacle”. This signaling equipment, together with the telegraph operation inside the Station Agent’s office, was how the railroad communicated with and kept control over train movements. Based upon upgrades made to this division line by the B&MRR as noted earlier, it is believed that this equipment was added to the Sandown station about 1913.

It has been earlier researched and determined by this writer that this signaling equipment installed at each station location within the B&MRR system in the early decades of the twentieth century was made by the railroad in their shops in Concord, New Hampshire; and was of a standardized design. The somewhat intricate design and arrangement of levers, pivots, rods, and more, these parts were cast iron and the long vertical control rods were threaded 1 ¼” o.d. black iron pipe. At the time of initial installation, depending upon the height of the wooden mast, the length of the rods were adjusted

accordingly. Before the installation of electricity in many of the more rural depots, at the top of the mast was installed a kerosene lantern to provide light behind the previously mentioned colored lenses at night. Later, as the individual buildings were electrified, the kerosene lamp was replaced with an electric one. To be able to either clean, fuel, or light the kerosene lamp, or to change bulbs in the electric lamp, a small iron ladder was affixed to the side of the mast to allow the Station Agent to reach the lamp mounted at the top of the mast. The wooden mast would have been painted white.

When a station was closed by the railroad, or otherwise taken off line, the long red and white porcelain colored blades on the semaphore arms were removed to indicate that the location had become inactive. The photograph of this building taken in 1938 (Image Number 7) shows the wooden mast and all of the signally equipment still in place; however it is apparent that the colored blades have been removed - compared with an earlier Image Number 3 taken circa 1915.

The semaphore mast and all of the signaling equipment has been removed from the property; however, recently two (2) hooked shaped rods that were an integral part of the mechanical operating system were found discarded and lying on the ground outside the building. And, looking from the ground up at what is presently installed on the round pole, it appears that both of the red and white colored signal blades are original and correct B&MRR equipment.

Building Interior: The present building interior is a bit of a mixed story as to condition and originality. The entire interior area to the east of the former Station Agent's office, area that was once the woman's waiting room and the freight room spaces, has no amount of original floor, wall, or ceiling finish, trim, or other detailing left including interior doors. It has all been lost – apparently during the time that the building was used as a highway garage. The same is true of the area where the present toilet facilities and mechanical room are located.

As to the former men's waiting room, it appears that room does have much of its original finish and trim intact, although that is a bit difficult to conclusively ascertain. The wood floor in this area certainly looks original to the building. Inside the former Station Agent's office some amount of the original interior appears to be original to the building; however, some trim does not. The wood floor in this room looks like it has been replaced as some time. And in the bay window there would have been installed a wide counter for telegraph equipment. Both the counter and the telegraph equipment have long since been removed. In the agent's office, the two matching ticket windows with frosted glass appear original to the building.

Many of the windows in the building have metal bars installed on the interior. These bars are not original to the building; and it is this writer's understanding that these bars were installed post 1977 by the Town of Sandown when there was consideration years ago of converting the building into a town police station.

The single toilet and sink installed in the building are somewhat recent; however, they do not meet Federal and State ADA requirements. Being a publicly owned facility, it is required that the building have a single handi-capped accessible toilet room. And given the small size of the building, the New Hampshire Plumbing Code will allow a single uni-sex toilet room.

Within the small mechanical room is located the building's electric panel, domestic hot water heater, and an oil fired hot air furnace. It is this writer's understanding that it has been some number of years since the heating equipment was last used. Therefore, the operating condition is at this time unknown. The age of the equipment looks to be at least thirty years old.

In the attic area can be seen some amount of fiberglass batt insulation – perhaps 8 inches or so. Due to age, damage by animals and others, and quantity, its present effectiveness is questionable. This writer assumes that within the larger open area of the building that was once the women's waiting and freight rooms, there is fiberglass insulation within the exterior wall cavity. Within the foundation / crawl space, beneath the floor, there is not believed to be any insulation.

5. Moving Forward

The Sandown r Boston & Maine Railroad station is a historically important building both locally and regionally, that still retains an abundance of its original architectural character and detail. And, the building is in generally good condition but none the less is in need of attention. With these points in mind, this writer will first make several broad assumptions:

1. The general consensus of the Sandown community has long been that it is important that the Town of Sandown continue to own and maintain this historic building; and that the building is an important town asset and cultural resource.
2. That the community continues to support the use of the building by the Sandown Historical Society as a meeting place and museum, which has been ongoing since about 1977 when the Town of Sandown first received the property from the State of New Hampshire.
3. That there is community support, at some level, to see some amount of repairs, improvements, and restoration of the building completed through the potential use of town funds, outside grant resources, and private funding efforts.

Therefore, this writer has compiled below a series of recommendations broken down into three categories, as follows:

1. Building maintenance, repair, and long term stabilization.
2. Building exterior restoration and site improvements.
3. Building interior restoration, renovation, and re-utilization.

This writer believes that with the material contained within the pages of this report as a basis of background information, and as an outline of the work both needed and recommended, much could be accomplished for the historic building by way of:

- Utilizing a short and long term capital budgeting program initiated by the Town of Sandown;
- Accessing possible State and National historic preservation grant funding sources;
- Private fund raising efforts by the Sandown Historical Society;
- Soliciting funding and donations from private individuals and organizations.

It should be noted that during the period from 2004 to about 2008 the Town of Lisbon, New Hampshire, aided by this writer as the project architect, superbly restored their former Boston & Maine Railroad station – a building that was in noticeably rougher condition. In fact, in 2009 the completed project won a prestigious award from the New Hampshire Preservation Alliance. To this day the building remains a well-used cultural and historical resource valued by the community.

6. Building Maintenance, Repair, and Long Term Stabilization

Building Foundation: As previously stated in this report, the overall condition of the building is quite good considering its age and past use. One of the primary reasons for the building's continued generally good state of repair is due to the broad roof overhangs that run continuously around all four sides of the structure. These overhangs have for more than one hundred and forty years deflected water away from the building foundation and sill areas. And it appears that the building is placed upon well drained sand and gravel type of soils.

However, despite the good fortune of broad roof overhangs and well drained soils, there is known rot damage to the wood timber perimeter building sills; and a wood framed floor system that is indicating inadequacies. The building's original foundations, of stone rubble masonry construction, probably at the most provide only a minimal level of frost depth protection to keep the building from moving between the winter and non-winter months of the year. Photographic evidence clearly shows that over the building's life time, the grade around the building has been built up. As a result, even at areas where the sills are now at grade level and they have not yet been damaged by rot, the building needs to be made higher above the current grade.

Therefore, his report recommends that as a first step the building be temporarily raised, a new 10 inch thick poured in place reinforced concrete foundation wall be installed around the building perimeter, and damaged or structurally deficient wood building sills, beams, and floor joists be repaired or replaced as their present condition may warrant. As previously noted, the present wood framed floor exhibits some amount of pitch towards the center of the structure as well as an amount of spring or pounce when walked across. Installing proper interior support within a newly created unfinished basement area would greatly help the building for generations to come. And with a new perimeter foundation wall would be included proper foundation drainage, damp proofing, and back filling.

To provide access to a new unfinished basement area we recommend an exterior bulkhead located about where there presently exists an access opening in the present foundation wall along the south rear wall of the building, near the southeasterly corner. For a variety of building code related reasons, and given the amount of space that would be required for a new interior stair, the new basement area should only be considered for occasional storage and as a location for future new heating and ventilation equipment.

In conclusion concerning this point, and after much thought, this writer believes that to do other work on the building without first addressing this important issue, would be a mistake and only provide limited shorter term value for whatever other future work on the building that might be undertaken.

Site: The property deed makes it clear that this Town owned building is sited on a parcel of Town owned land that is only slightly larger by ten (10) feet in each direction than the overall building footprint. And, the Town's only legal access to the property from the public highway is by a twenty-five (25) feet wide right-of-way (ROW) across State owned property. The exact location of that ROW is not in this writer's opinion conclusively spelled out. Furthermore, it is this writer's understanding that all of the land surrounding this property continues to be owned by the State of New Hampshire. Because the ROW is only twenty-five feet wide, most of the vehicular parking and circulation associated with the

building is on adjacent State owned land. Therefore, as part of an approach towards long term building stabilization and continued community support and utilization of the historic property, the Town of Sandown should in this writer's opinion enter into discussions with the State as to the possibility of acquiring additional land area around the historic building. This additional land could:

1. Provide additional physical protection of the historic building and its setting as a cultural resource;
2. Allow for the on-site septic and the well providing domestic water to be located on Town owned land;
3. Provide for a proper amount of Town owned land for having adequate underground fuel storage for a new heating system – probably propane fired;
4. Provide a safe, secure, well defined and maintained area for proper vehicular access, maneuvering, and parking;
5. Provide better opportunities for landscaping and other site enhancements by the Town on property not owned by the State;
6. Provide an expanded area for outdoor events on the historic site, displays, historic interpretation, flea markets, and recreation for the public and visitors alike with picnic tables and potentially other additional site amenities.

It seems reasonable to think that the State's interest in maintaining possible future rail trail and related facilities through the site could be properly accommodated and planned for as part of any such a proposed land transfer to the Town. And it is this writer's understanding that any discussions concerning the town acquiring additional land area would start with the Town's locally elected legislative representatives, and with Sandown's representative on the Governor's Council. Ultimately, it would be the Governor and Council that would make any additional land transfer to the Town of Sandown, with input from various state agencies.

Lastly, regardless of all else, the Town should remove the existing buried underground fuel oil tank and piping.

7. Building Exterior Restoration and Site Enhancements

As this writer has noted earlier in this report, like so many old buildings that are now historic properties, the Sandown railroad station has, since the time of its initial construction in 1874, undergone some amount of changes to the exterior of the building. Therefore, in an effort to restore the original look, feel, and appearance of function to the premises, and in concert with recommendations for the interior spaces that will be made below, we make the following recommendations for restoration work to the exterior of the building.

East Side Elevation: When the building was converted to a highway garage post 1934, the original elevated sliding freight room door and exterior wooden loading were removed. In their place was constructed a far larger sliding door at the grade level, and an exterior poured in place concrete apron slab also at grade level. To create a way for the replacement sliding door to fully open the heavy timber roof bracket at the northeasterly corner was structurally, and aesthetically, compromised. A second existing bracket located at the mid-point of the exterior wall was completely removed and discarded. We recommend that the original smaller sliding door be re-created but only as a fixed (non-operable) door; the existing concrete slab be removed; the original wooden framed loading dock platform be recreated; the existing damaged wood timber roof bracket at the northeasterly corner of the building be either repaired or a new matching duplicate be made; and the missing middle bracket be replicated and installed. This writer believes that the re-created small loading dock could be an ideal outdoor display area, as well as restoring an important historical element that would help to interpret the building's original function as a typical small rural New Hampshire village multipurpose railroad station facility. As an important detail of note, as per State of New Hampshire's adopted building codes, if this recreated elevated loading dock area was to be no more than 30 inches above the grade, it would not be required to have guard rails around its perimeter. Based upon old images of the building, it would appear that the original dock was no more than 30 inches high.

South Rear Elevation: There is clear photographic evidence that shows the original window layout along the south rear wall of the building. And, should interior work be undertaken within the building that would expose the framing of this exterior wall, the exact location of those original openings would undoubtedly become very clear as well. For reasons that will become apparent with discussions below concerning recommendations for the building's interior spaces, we recommend this restoration work be undertaken to restore the original window locations. When years ago these windows were relocated, it was the entire window assembly (sash and frame) that was moved from a former to a newly created opening. Unfortunately, where there were originally four (4) window units installed along the south wall of the building, there are now only three (3). As the remaining old unit was apparently no longer needed, it was discarded or perhaps re-used by someone elsewhere off site. So a new duplicate frame and sash would need to be fabricated by a mill work shop.

Windows in General: The mention above of restoring the original window fenestration along the south rear wall of the building raises the matter of windows in general. Within the world of historic preservation in general, the preservation of original window sash is a very important point of concern and consideration. As previously mentioned above, thankfully this building still retains all of the original window sash, frames, and trims, even if some of the window locations have changed on the south

elevation as discussed above. Once again that broad perimeter roof overhangs have provided a high degree of protection to the building's original window sash.

This office recommends that each existing set of window sash in the building be carefully inspected for overall condition: potential rot, glass and putty condition, &c., and repairs made accordingly by an experienced tradesman. Should the town consider heating and using the building year round, then traditional wooden storm windows should be made by an experienced mill work shop. In no case should the original double hung window sash be removed, discarded, and replaced with so-called modern replacement units of any kind. To do so would not only destroy an important element of the building's historic fabric, but would lessen the buildings historic listing status and potential for receiving historic preservation grant monies.

Exterior Doors: As noted previously, two out of three of the exterior doors on the north front of the building appear to be original; and one is a more recent replacement. And, it was noted that all of these doors now swing out. Therefore, this office recommends that the two original door leafs be repaired and restored; and refitted to swing into the building once again – not out. And that a third new door leaf be replicated, and that too be made to swing into the building as was originally the case.

Roof Eave Trim: One of the most striking features of the original station, which remained with the building through all of its years as a railroad facility, was the highly decorative roof eave trim, commonly called bargeboards that ran continuously around the entire roof eave perimeter. This work was originally created in a mill work shop by a skilled tradesman utilizing 1 inch pine boards and a powered band saw. This writer has verified that what was originally installed on the Sandown building was an almost exact duplicate to that installed on the Potter Place, New Hampshire railroad station that survives to this day as a National Register listed building that was also erected in 1874. Therefore, duplication and restoration of this important architectural detail and any related trim pieces can be readily and accurately duplicated.

Roof Overhang Soffit Repair: On several sides of the building some of the beaded boarding that is applied to the exterior soffits of the roof overhangs has been removed, apparently in an effort to provide air circulation to the un-insulated attic area. And, these after the fact created openings were not properly screened. With proper re-insulation of the building as will be described as part of the proposed interior work, these attempts at venting the attic area will not be required. Therefore, the soffits should be repaired with matching material.

Chimney: There is no reason to think that the present chimney made of concrete masonry units is not in the same location as the original stove chimney that was made of standard brick masonry. Furthermore, there is no reason to think that the original chimney was left exposed within the interior of the building. Therefore, this writer recommends that the existing chimney of concrete masonry construction be replaced with a new lined, single flue, chimney that would run from the new unfinished basement area up through the first floor and attic space, all in concrete masonry construction, and the exposed portion through the roof be all in brick masonry construction. Using historic documentation, the original chimney height and the design of the brick chimney cap can easily be replicated. It should be noted that comparing various historic photographs of the building made in the later nineteenth century with the

image made in 1938, that by the time of the later image the original brick chimney cap had been rebuilt and was of a far simpler very straight design. New chimney flashing should be copper.

Roof: Assuming that the present asphalt shingle roof is reasonably well along in its years of usefulness, we would recommend that in time the roof be stripped of all existing roof covering materials; any damaged sheathing boards removed and replaced with in kind materials; a new layer of ½ inch thick exterior grade plywood be applied over the entire roof surface; a membrane layer of ice and water shield installed over the entire roof area; and a new slate shingled roof be installed with copper flashed hips and ridge areas. The new plywood sheathing over the original 1inch thick sheathing boards will add an important layer of structural membrane to the entire roof structure which will be of good value in the many years to come; as well as providing far improved nailing and fastening abilities for new roofing materials and flashings.

Exterior Paint Colors: This writer does not know what, if any, were the usual paint colors for the Nashua & Rochester Railroad. However, from 1886 until closed in 1934 the building was part of the Boston & Maine Railroad system; and we do know what that railroad's standard paint colors were for all of their many stations and other buildings. More recently, computer technology has matched those old paint colors with readily available colors made by Benjamin Moore Paints. They are:

- Cottage Red for all of the exterior trim and the painted band around the lower portion of the exterior walls.
- Colonial Yellow for all of the body of the building (clapboards) above the afore mentioned painted band.

Furthermore, as part of this standardized pint scheme by the B&MRR, the exterior surface of the wood window sash was painted a gloss black.

It is the recommendation of this report that the exterior of the building be restored to its former Boston & Maine Railroad color scheme.

Semaphore Train Order Signals: Restoration of the original semaphore train order signals on the building, including replicating the original square wooden mast that the equipment was mounted on, this writer believes is an important historical feature of the property; however, it will also potentially be the most difficult single aspect to accomplish. As with my own former B&MRR station located in Ely, Vermont, the identical entire system had been removed from the building long before I acquired it in 1990. However, through my many years of membership in the Boston & Maine Railroad Historical Society, I was very fortunately able to purchase the entire system with all of its many individual components from a fellow railroad enthusiast, and then install it on my building. It fit perfectly and I was indeed very lucky. I rather suspect that Sandown will not be as lucky. Regardless, based upon the equipment still in place at locations such as the former B&M station in Fairlee, Vermont, as well as my own station in Ely, it is very possible that with some amount of effort a reasonably good likeness could be recreated. Recreating the wooden mast and iron ladder should not be as difficult.

Exterior Lighting: As a minimum, there should be installed adequate security lighting around the building. And, depending upon the extent of site improvements over the years and the possibility of acquiring additional land area, historically period compatible site lighting added to the property as well.

Site Restoration and Improvements: When the building was in use by the Boston & Maine Railroad as an operating station, on the track side of the facility between the building and the tracks, would have been a wooden platform at grade level running at least the length of several railroad passenger cars or more. This so-called grade platform would have been made using 2 inch thick rough sawn native pine, hemlock, or spruce planking set on used wooden railroad ties placed as sleepers. The planking then would have been treated with creosote as a preservative. Although requiring more effort to maintain them using modern pressure treated wood materials, it provides a historically correct look and feel that cannot be had by using modern wooden materials. After other work such as foundation replacement and such, the original grade platform should be recreated as described above – only using modern and safe preservatives on the planking.

8. Building Interior Restoration, Renovation, and Re-Utilization

Overall Interior Layout: This writer assumes that the former railroad station is going to continue to be used by the Sandown Historical Society as both a museum featuring artifacts pertinent to the Town of Sandown, as well as a meeting place for the society. And, with restoration work completed on the building, there is every reason to believe that the site will have greater appeal as an interpretive center for regional railroad history. Therefore, combined with other work on the building as outlined in this report, this writer offers the following thoughts as to how the interior of the building could be re-programmed so as to provide a more historically accurate feeling, better flow, meet current handicapped accessibility standards, and generally better space utilization.

The westerly end of the building that is believed to have been the men's waiting room area, and the adjacent station agent's office, appear fully intact as to original building layout and programmatic relationships. The same cannot be said of the presently larger space to the east of the station agent's office that is believed to have originally been the woman's waiting room and a separate freight room area. We assume that post 1934 these two spaces were combined into a garage bay intended for storing highway equipment. And probably during that time a small office room was created in the southeasterly corner of the building. Furthermore, at some time the area to the south of the station agent's office, between the two waiting room areas where there were originally two small privy rooms, became a single toilet room and a small mechanical room for heating and electrical equipment. At this time, this toilet room does not meet ADA requirements for HC accessible toilet facilities – a lawful requirement since 1991. Presently, both former waiting room areas are used as museum and meeting spaces, and to get from one to the other requires either passing through the existing toilet room area, or going back outside and coming back in by a different door. And utilizing the toilet room area as a passage way does not meet ADA requirements. Lastly, there is little if any of the original interior finish and trim left in these heavily altered areas of the building.

Therefore, this writer proposes the following:

1. Completely remove (gut) the interior of the area that was once the freight room, women's waiting room, and privy rooms of the building down to the studs, ceiling joists, and subfloor .
2. Look for and record any remaining indications of the original building layout, wall placement, window openings, &c.
3. Make any structural repairs found to be necessary, especially floor system replacement in the easterly end of the building due to former garage use.
4. Along the easterly exterior wall of the building construct a new ADA handi-capped accessible uni-sex toilet room, a small kitchenette, and a small secure office for the Sandown Historical Society's use.
5. Install all new electrical, communications, data, and security wiring within this entire area of the building.
6. Re-insulate and install new period correct interior finish on the walls, ceiling, and floor. All window and door trim to match existing or be recreated using the completely original former B&MRR station in Potter Place as a guide.

This proposal will accomplish several important objectives:

1. Cause the interior display spaces on the east and west side of the former station agent's office to more easily flow together.
2. To provide appropriate and building code compliant toilet facilities for all – physically handicapped persons included.
3. Provide a more usable and open larger space interior space for both display and meeting room purposes.
4. Provide for the preparation a refreshments during meetings and open house events.
5. And lastly make for a far more inviting and historically appealing area of the building then what presently exists. And by way of the restoration of the original window locations along the south rear wall of the building as has been suggested above, this will provide for better natural light distribution within the building interior.

Interior Detail: As mentioned above, this writer believes that at least some amount of the exiting interior finish still present in the former men's waiting room is original to the building. However, that claim needs to be further studied and if possible verified. And, as also previously mentioned, the entire original interior of the Potter Place station, built the same year as Sandown, remains completely intact. Therefore, this writer believes that with some amount of study, research, and documentation, proper and historically correct period detailing and finishes can be recreated / restored within this building.

Building Insulation: At this time it is a bit difficult to know entirely what level of thermal insulation has been over the years installed within areas of the building envelope. None the less, opening up the interior of the building as proposed above, would make installing new insulation a relatively straight forward and comprehensive matter. At this time, this writer recommends that whatever amounts of insulation that might be present in the building be completely removed. Within the exterior wall cavity new spray foam insulation be installed, as well as in the sill areas that would be accessible from the new unfinished basement space. In the attic space, at this time the writer recommends a combination of blown in cellulose insulation and spray foam.

Heating and Ventilation: The existing oil fired forced hot air ducted heating system is very old, has not been operated for some time now, and is bound to be very inefficient – even if it were made to be operational again. Also, in some areas of the building there remains remnants of an old forced hot water baseboard heating system – but no boiler to provide heated water. All of this equipment should be removed from the building and disposed of. With a new unfinished basement area under the building, along with good levels of new building installation and historically correct storm windows, it is fitting to consider installing a new heating, ventilating, and air conditioning (HVAC) system in the building. At this time, a fully air system with the primary equipment located in the basement, and a small pad mounted condenser unit placed outside at the rear south side of the building, seems most appropriate. With much of a new interior and layout being proposed within the first floor of the building, necessary duct work could be planned and laid out so as to be fully concealed.

Interior Lighting: This writer recommends that in addition to the installation of all new branch circuit wiring installed within the building interior, that new period appropriate lighting also be installed throughout. There are numerous lighting manufactures that offer quality products that would enhance the proposed refurbished building interior.

9. Conclusions

The so-called Sandown Depot is a remarkable survivor of a building type once common throughout much of New England, and especially southern New Hampshire. Sadly, many of this building's contemporaries have either been completely lost, or if they have survived, have been so greatly altered, moved, or otherwise worked over so as to now have little or none of their historical and architectural character remaining intact. As this report has demonstrated, clearly that is not the case with the Sandown Depot.

All of the concerns, deficiencies, and objectionable alterations made to the building over the past many years raised by this report are indeed manageable as to the overall preservation of the building for many generations to come. And as demonstrated by this report, the overall condition of the building is generally very good. That work outlined by this writer which needs to be done so as to stabilize the building for the long term is all very straight forward and can be readily accomplished by locally skilled contractors. And, it is this writer's opinion that with an organized approach, various aspects of the building's stabilization, restoration, and revitalization can be successfully presented to various funding sources aimed at historic preservation. All of the work recommended and outlined by this report can very readily and immediately bring excellent value to the historic property without it seeming like an uphill battle – the building is that good. However, in the final analysis, any work done on the building must be undertaken with careful planning and forethought – an excellent example of not necessarily what one does but how one does it, so to say.

The community of Sandown is very fortunate that not only has this building survived, but that it is under the protective care and ownership of the Town – very similar to the Old Meeting House. And the fact that both properties are uniquely representative of, and speak to, an important local and regional past that remains to this day an integral part of our broader culture, is in itself remarkable and valuable.

The Sandown Depot property is truly deserving of the community's continued attention and support; and is truly deserving of an ongoing program to repair, revitalize, restore, and long term preserve this important historical and cultural resource. The Town of Sandown is indeed fortunate; and indeed has an obligation.

Frank J. Barrett, Jr., A.I.A.
Architect – May 31, 2016