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October 19, 2016

Kenneth F. Rose
CEO/Director
Department of Economic Development & Planning
Montgomery County
9 Park Street, P.O. Box 1500
Fonda New York 12068
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RE: Executive Summary: Structural Condition Assessment of The Former Beech-Nut Plant Church Street, Canajoharie New York.

Dear Ken:

Over a several day period we evaluated a total of fifteen buildings associated with the former Beech-Nut Plant on the Easterly side of the Canajoharie creek in the Village of Canajoharie. We understand that the plant has been vacant for approximately 10 years. We undertook a structural condition assessment of each of the fifteen buildings and the associated appurtances such as the access bridges that span the Canajoharie Creek. Lighting in the building was exceedingly poor but we utilized interior and exterior photographs to explain our findings and made recommendations on how to address this site from the standpoint of liability for the Village of Canajoharie and Montgomery County and to insure that both the municipality and the County can protect public safety.

A). Approach to the Site Evaluation:
This site is a large facility that constitutes fifteen building structures totaling 237,127 sq. ft. We divided the fifteen buildings into three

classifications based on the construction type seen throughout the facility. We identified life safety hazards that we encountered and made recommendations how to address the removal of environmental issues, additional testing that is the New York State Building Code, ASCE 11 Guidelines for Structural Condition Assessment of Existing Buildings and Accepted Engineering and Construction practice.

B). Findings:

We evaluated each of the fifteen buildings associated with this site. At the back of our Structural Condition Assessment Report we list each of the fifteen buildings along with the square footage of each structure along with the date of construction. It shall be noted that Buildings 38, 40, 42, 45, 51, 54 and 56 exhibit extensive water damage, deterioration and corrosion in the skeletal steel frame specifically at the roof level as well as deterioration and corrosion in the connections of these structural members and to the concrete roof deck which is spalling and failing in areas of each of these buildings. This is an ongoing problem and represents a significant public safety hazard. It is evident by the amount of materials removed from the building for the purposes of salvage and resale by unauthorized personnel, that securing the site is problematic. We noted areas of points of entry throughout the facility where unauthorized persons accessed interiors of buildings. This includes breaching the 8" concrete block wall on the Easterly side of Building 62.

We found that there was corrosive damage and deterioration in the main access bridge that enters into Building 57. There are tripping hazards associated with this bridge. It is recommended that because this is the main access point into the plant on the East side of Canajoharie Creek, additional bracing and stabilization measures be undertaken to insure adequate and safe passage through this bridge structure in order to maintain practical access to this site. The three other bridges exhibit significant deterioration and section loss. These bridges are considered unsafe. In one instance, the bridge that interconnects Building 57 and Building 42 is highly unstable. In one of our site visits we were able to punch through the bridge deck on the Northeasterly side of the bridge.

There is process equipment on top of this enclosed bridge and steel plate which applies a significant dead load to the bridge structure. Timber floor beams are dry rotted and deteriorated and can no longer adequately support the applied dead load. Collapse of a portion of this bridge structure is considered imminent at this time. In an attempt to maintain life safety the entrance to this bridge from both Building 57 and Building 42 shall be blocked using 2" x 4" framing using ¾" CDX plywood 4' in height across the bridge opening. This horizontal barrier shall be installed at each of the three bridges that interconnects with Buildings 57, 42 and 38.

We noted fracture cracking due to settlement and a lack of maintenance in the 8" exterior concrete block. CMU shear walls found in Buildings 62, 49 and 63. Heavy corrosion was noted in the structural framing members and their connections associated with Building 57.

C). Recommendations and Conclusions:

During the course of our evaluation of the four bridge structures and each of the fifteen buildings, it became readily apparent that there is an ongoing degradation in the concrete roof decking in each of these buildings specifically Buildings 38, 40, 42, 45, 51, 54 and 56. Spalling concrete is periodically falling to the plant floor and represents an overhead hazard to personnel evaluating the building and to first responders having to address unauthorized personnel that may become injured that are entering the plant.

Three of the four bridge structures should not be accessed and are considered dangerous. There are numerous confined space issues where unauthorized personnel and homeless people can become trapped and represent life safety issues with respect to first responders attempting to extricate people who may become injured or especially if fatalities occur due to falling or falling debris.

We observed debris piles along the easterly and Northeasterly side of the site. The debris piles should be tested for asbestos containing materials

(ACM). The testing report along with an abatement plan should be prepared and furnished to the EPA and DOL, for approval, prior to the removal and clean-up of the exterior portion of the site. All work activities associated with this shall be accomplished in accordance with NYCRR Code Rule 56 for asbestos and accepted Engineering and Construction practice.

An updated environmental testing shall be made of the buildings associated with the Easterly side of the plant. Ewe will recommend that we discuss on-site the life safety issues that we encountered with both the Fire Chief, Deputy Chiefs, Battalion Chiefs and the Code Enforcement Officer. This recommendation is made based on our experience with past abandoned industrial sites in which site security is problematic and difficult to maintain. In the event that emergency response is required, it will be important to make first responders aware of the significant public safety hazards that exist in this facility. Based upon our Structural Condition Assessment, we will recommend the removal of Buildings 38, 40, 42, 45, 51, 54 and 56 as well as three of the four bridges be removed at the time the aforementioned buildings are removed. In order to assist the Police Department to enforce site security as practicable," No Trespassing" signs and "Danger Keep Out No Access" signage shall be placed about the perimeter of the property.

No personnel are permitted to enter into the three bridges that interconnect the Northwesterly side of Building 57, the Westerly side of Building 42 and the Westerly side of Building 38. A collapse of a portion of the bridges on the Westerly side of Buildings 57 and 42 is considered imminent at this time due to the deterioration we found in the decking and floor beams and the heavy dead loads applied to each of these bridge structures.

It shall be noted that a collapse of a portion of the roof structure (concrete roof deck panels) located in Buildings 42 and 45, 38, 40, 45, 51, 53, 54 and 56 are considered imminent at this time due to

extensive corrosive and water damage and gross deterioration found in portions of the roof structure of these buildings.

The present condition of the buildings listed above is considered a hazard to public safety and first responders. Demolition and removal of the three bridges and ten buildings listed in the above paragraph shall take place as soon as practicable. Only a qualified, fully insured contractor shall be selected for this purpose. The contractor is wholly responsible for workers' safety, DOL and OSHA compliance. Access of personnel is prohibited due to the hazard classification. All utilities with confirmation shall be terminated at the curb line (water/ sewer), at the power pole (electrical service) and in the street (gas). It shall be noted that utilities are likely fed from multiple locations that enter this site. This shall be coordinated with the Village of Canajoharie DPW.

Once Buildings 42, 45, 38, 40, 45, 51, 53, 54 and 56 have been removed along with the aforementioned deteriorated three bridges, Buildings 48, 49, 57, 62 and 63 as well as the existing bridge structure that interconnects with Building 57 shall be further evaluated to determine the most appropriate methodology to address these remaining structures.

If you have any questions please do not hesitate to call.

Very truly yours,

R. Russell Reeves, CEng., P.E.
City of Albany Department of Building and Codes

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9 Park Street, P.O. Box 1500
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RE: Structural Condition Assessment of The Former Beech-Nut Plant Church Street, Canajoharie New York.

Dear Ken:
On August 25, 2016, September 15, and 30, 2016 Engineering Technician Barbara Tozzi and I made site visits to the former Beech-Nut facility along Church Street in Canajoharie, NY.

Photograph 1
Entrance area to Access Bridge into Building 57.

The purpose of this site visit was to perform an overall structural condition assessment of the fifteen buildings that are listed in tabular form at the back of this

report. The main access into the plant area is achieved over the bridge shown in Photograph 1 and enters into Building 57 (refer to the site plan at the back of this report). Of the fifteen buildings evaluated, there are a total of three classifications of building types that we established based upon our site evaluation. The building types are classified as follows:

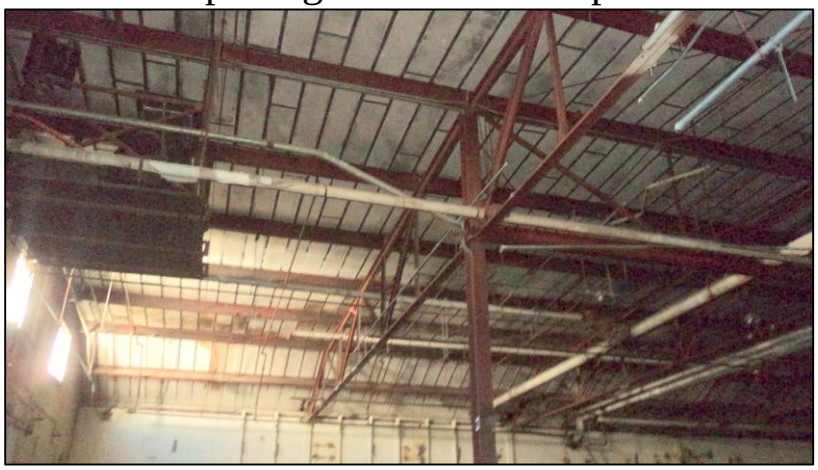
Building Classification A: Building classification A consists of steel columns with long span braced joist girders with steel I beam purlins that support a panelized concrete roof deck. This building configuration is typically found in Building 57. The main access bridge enters into Building 57 through a skeletal frame roof corridor as depicted in Photograph 18. There is heavy corrosive damage found in the overhead skeletal framing that enters into Building 57.

Photograph 1 shows a typical view of the Warren type truss bridge structure that allows access over the Canajoharie Creek. There are significant corrosion issues and some tripping hazards but this is the most appropriate means of access into the main plant area at this time. Caution must be exercised when accessing the walking area of this bridge. No vehicles are permitted over this bridge structure.

Photograph 2

Building Classification B: This type of structure is the predominant building type in the plant facility. This also consists of steel columns but with a closer column spacing, joist girders have tapered end sections to accommodate the slope of the roof line, joist bracing are provided between each joist girder. Steel purlins support the existing concrete roof deck. Along the perimeter walls of each building there are intermediate steel columns with 8” concrete block infill that serves as fire separation between buildings and provides diaphragm action or

shear walls that resist lateral forces throughout the structure. The concrete block infill maintains stability in the steel frames. The roofing consists of reinforced concrete deck panels in varying states of deterioration. This building type is confined to structures 38, 40, 42, 45, 51, 54 and 56. Photographs 2, 3 and 4 show the typical framing configurations found in each of these eight buildings. These are the most deteriorated structures and represent a significant public safety hazard from the stand point of the deterioration of the roof decking. Falling debris from the spalling concrete is the predominant issue.



Photograph 3

Photograph 4

Typical steel frames as seen in (Photographs 2, 3 and 4) buildings 38, 40, 42, 45, 51, 54, & 56

Over the last ten years, each of these buildings listed above experienced varying states of deterioration and corrosion in the skeletal steel framing

members, bolted connections and roof decking. As we indicated above, in numerous instances, there are failures in the concrete roof deck and skeletal roof framing due to corrosion and deterioration. Debris has already fallen onto the plant floor in each of the eight buildings. Caution shall be exercised when accessing the interior of the plant due to falling concrete that has spalled which is the result of water saturation and subsequent freeze / thaw cycles. We noted in numerous areas where falling concrete debris is a constant and imminent threat that is reoccurring and without notice thus making portions of the building hazardous. This condition specifically arises in Buildings 38, 40, 42, 45 51, 54 and 56.

Photograph 5

Typical Structural Steel Configuration for Buildings # 49, 62 & 63.

Photograph 6

Elevation Views of Buildings # 48, 62 & 63

Building Classification C: Building Type C consists of skeletal steel framing member of wide flange columns, braced deep joist girders, with angle iron knee bracing and a purlin roof system with a corrugated metal decking. This type of building system consists of long span between columns and deeper joist girders. The concrete block infill between columns is 8" wide and also provides lateral restraint and behaves as shear walls to resist lateral wind loads. This building type is found in Buildings 49, 62 and 63 located along the Easterly side of the property. Photograph 5 shows a typical view of this skeletal steel framing system. Photograph 6 shows a typical view of a typical Northerly elevation view of Buildings 62 and 63. Building 49 is located on the Southerly side of Building 62 (please refer to the enclosed site plan at the back of this report.

Photograph 7

Heavy Corrosive Damage Found in Buildings: 38, 40, 42, 45, 51, 54, & 56

Photograph 8

There are several public safety hazards that are associated with this plant facility that we need to bring to your attention. Because of the size of the facility and type of construction, it is difficult to prevent unauthorized persons from entering the site and the interior of the building structures. The public safety hazards are as follows:

1**). Deterioration and Corrosion:**
Deteriorated and severely corroded structural steel framing members, connections and steel framing systems that support reinforced concrete roof paneling. Deteriorated and spalled concrete is falling onto the plant floor in eight building locations (38, 40, 42, 45, 51, 54 and 56). This is an ongoing problem where we found new debris on the floors during each of our three site visits to the plant. A typical view of some of the spalling concrete areas and corroded steel framing members are depicted in Photographs 7 and 8. This is a significant safety hazard for first responders that are entering the buildings in the event that an unauthorized person that has entered the plant becomes trapped and is injured or is trapped resulting in a fatality.

2). Confined Spaces:
There are numerous confined spaces where unauthorized persons who can enter the building and become trapped. Photograph 9 shows a typical view of a valve vault within a floor system where one can readily fall into this open area and if injured can remain indefinitely. Due to the remoteness of this plant location, rapid safe response is an issue. In addition, there are other areas that contain process equipment lines with subflooring where people can become trapped below the subfloor. First responders will have difficulty locating a trapped person and locating the most appropriate area to enter and safely remove the individual. This specifically occurs in Building 42, Building 45 and Building 38.

Photograph 9
Confined Space Hazards (4 ft. Deep Valve Vault Pit).

3). Structural Hazards:
There are two bridges that connect the upper portion of Building 57 and Building 42 on the Westerly side of Canajoharie Creek along Building 35. These bridge structures are highly structurally deficient and consist of timber floor decking which is deteriorated and dry rotted. In some instances, one can punch through the floor deck which had occurred during our September 30, 2016 site visit. Extreme caution shall be exercised in these areas.

4). Inability to Secure the Buildings and Site:
This is an industrial site that covers an extensive area. In addition to confined space hazards, falling concrete from the spalling roof structure and deteriorated structural framing members, unauthorized persons are entering into the building through penetrations made in the concrete block perimeter walls by hammering out the concrete and gaining access into the entire plant interior. This is specifically occurring along the Easterly side of Building 62. Perimeter gates and chain link fencing are being cut and breached which represents a substantial liability and life safety issue to the Village of Canajoharie and Montgomery County. Illegal partial demolition and removals are being made of metal materials for resale value in this hazardous environment. Complete site control in this abandoned and unoccupied facility is not practicable.

Photograph 10

Photograph 11

Photograph 12

Photographs 10, 11 and 12 show exterior elevation views of Building 62, 49 and 63 respectively. Each of these buildings exhibit varying states of

fracture cracking in the exterior block masonry due to settlement cracking and an overall general deterioration about the perimeter of these buildings due to a lack of maintenance. There are numerous construction demolition debris piles about the Easterly side of this site as can be seen in Photographs 10, 11 and 12. The protocol that would need to be followed in order to address this issue would be to retain the services of an asbestos certified environmental firm to test each pile for asbestos and have these piles properly removed from the site in their entirety by a licensed asbestos contractor. All asbestos containing materials (ACM) would then be properly disposed of at an approved landfill that could accept ACM. The existing concrete slab would then be washed with the residue removed from the site accordingly. The results of the laboratory testing of the piles shall be provided to EPA and DOL along with an abatement plan for approval prior to the commencement of any work activity. Once the work has been properly completed, a post removal testing report shall be prepared and then furnished to EPA and DOL to confirm that the existing site has been properly cleaned of the existing demolition debris and any asbestos containing materials. This shall be completed prior to the commencement of further demolition of the site.

During our site evaluation we found 8” diameter valving and backflow preventers for the fire suppression system in various parts of the building. It will be important to insure that the water has been shut off to this facility because of the potential risk of fractured pipes under high pressure. There was no evidence of fractured pipes in the water system but it will be important to confirm that the potable water system into the site has been properly shut off. Please note that the plant facility may be fed from more than one location.

Photograph 13

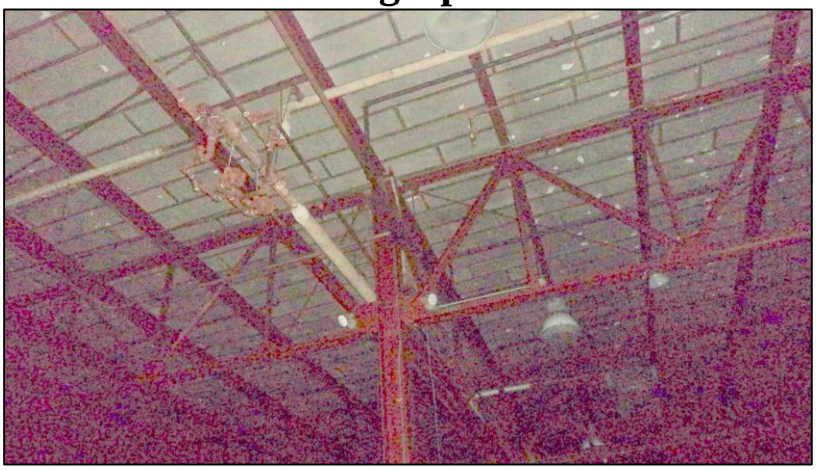
Photograph 14

Photograph 15

Photographs 13, 14 and 15 show the Southeasterly portion of the site which are the elevation views of a portion of Buildings 57 and 56

respectively. These areas house process, loading dock areas, second floor administrative office space, locker rooms and bathrooms. Each of these buildings in this locations have experienced extensive water damage and gross corrosion and deterioration through structural steel framing members and connections. Failure in some of the concrete roof panels is considered imminent at this time due to heavy water damage and corrosion/deterioration. Extreme caution shall be exercised to be aware of falling debris from these areas.

Photograph 16



Photograph 17

As previously described above in this report, Photograph 16 shows an elevation view of the present main access into the main plant area. This access bridge will require some structural improvements and additional stabilization. Supplemental stabilization is estimated to cost approximately $30,000 at this time and is subject to a more detailed

evaluation and stabilization plan which is beyond the scope of this initial Structural Condition Assessment but will be provided prior to the commencement of any further work activities associated with the bridge or with Building 57.

Photograph 18

Photograph 19

Photographs 17, 18 & 19 are of Skeletal Steel Framing Members Found in Building # 57. These skeletal framing members are more specifically described at the beginning of this report.

It shall be specifically noted that during the course of our evaluation, we noted where gross deterioration and corrosion represented a hazard to public safety because of deteriorated structural steel framing members in the roof and at connections and specifically in the spalling of concrete deck panels. One of our principle concerns is heavy snow loading and

unbalanced snow loads and drifting that will cause a localized collapse of some of the roof sections in each of the buildings we listed above.

Photograph 20

Photograph 20 shows the Westerly elevation view of the main Beech-Nut plant. We understand that it is the County's goal to restore this structure. On one of our site visits, specifically September 30, we accessed the roof area of the main building which we found to be a built up asphaltic and stone ballast roof system. This roof was substantially deteriorated and compromised and allowing water penetration in various areas. We will recommend that this roof surface be cleaned and further assessed with repairs made as needed in order to keep the water from further penetrating the main structure of the building. One consideration may be to remove the stone ballast and install a temporary self-adhesive fiber based rubber ice and water shield in areas that have been compromised. Roof vents shall be extended 3' above the roof line. All roof drains shall be cleared of debris. We noted that each of the cast iron roof drain stacks found on the interior of the building were cracked and were leaking water everywhere. We will recommend that each internal roof drain be saw cut below the roof line with a Fernco connection to a 4" diameter Schedule 40 PVC pipe and drain adequately to address water from the roof.

The existing structure of the main building consists of reinforced concrete framing members and structural steel framing members in varying states of corrosion and deterioration due to extensive water damage and subsequent freeze / thaw cycles. At this time, it will be important to secure the roof from further water leaking, remove and reconnect new roof drain leaders and remove all wet and molded rugging, furniture and wall treatments as practical. It will also be necessary to properly vent each floor level to the outside in order to achieve an adequate air flow.

In order to understand the presence of any asbestos containing materials, lead based paint or any other environmental concerns, it would be beneficial to perform an updated an overall environmental assessment of the main Beech-Nut administrative office building prior to any remediation measures that would take place.

Based on our overall structural condition assessment of the former plant area on the Easterly side of the Canajoharie Creek, we are recommending the emergency condemnation and removal of Buildings 38, 40, 42, 45, 51, 54 and 56 as well as the deteriorated and structurally unstable bridges that interconnect with the Northwesterly side of Building 57, Westerly side of Building 42 and the Westerly side of Building 38.

No personnel are permitted to enter the three bridges listed above. Each of these three bridges shall be barricaded to prevent entry. Only authorized personnel with proper personal protective gear ie hard hat and vest or Turn Out Gear shall be permitted to enter the main plant of Buildings 38, 40, 42, 45, 51, 54 and 56. The Fire department and Building Department shall be made aware of these hazards through this report. The Police department shall also be made aware of unauthorized persons entering this site.

The recommendations and conclusions made in the Executive Summary attached to this report shall be applicable to actions taken on this facility.

If you should have any questions please do not hesitate to call.

Very Truly Yours,

Russ Reeves, CEng., P.E.

The following is a list of buildings in tabular form, dimensions and area of each structure, the type of building and approximate date of construction that we will evaluate:

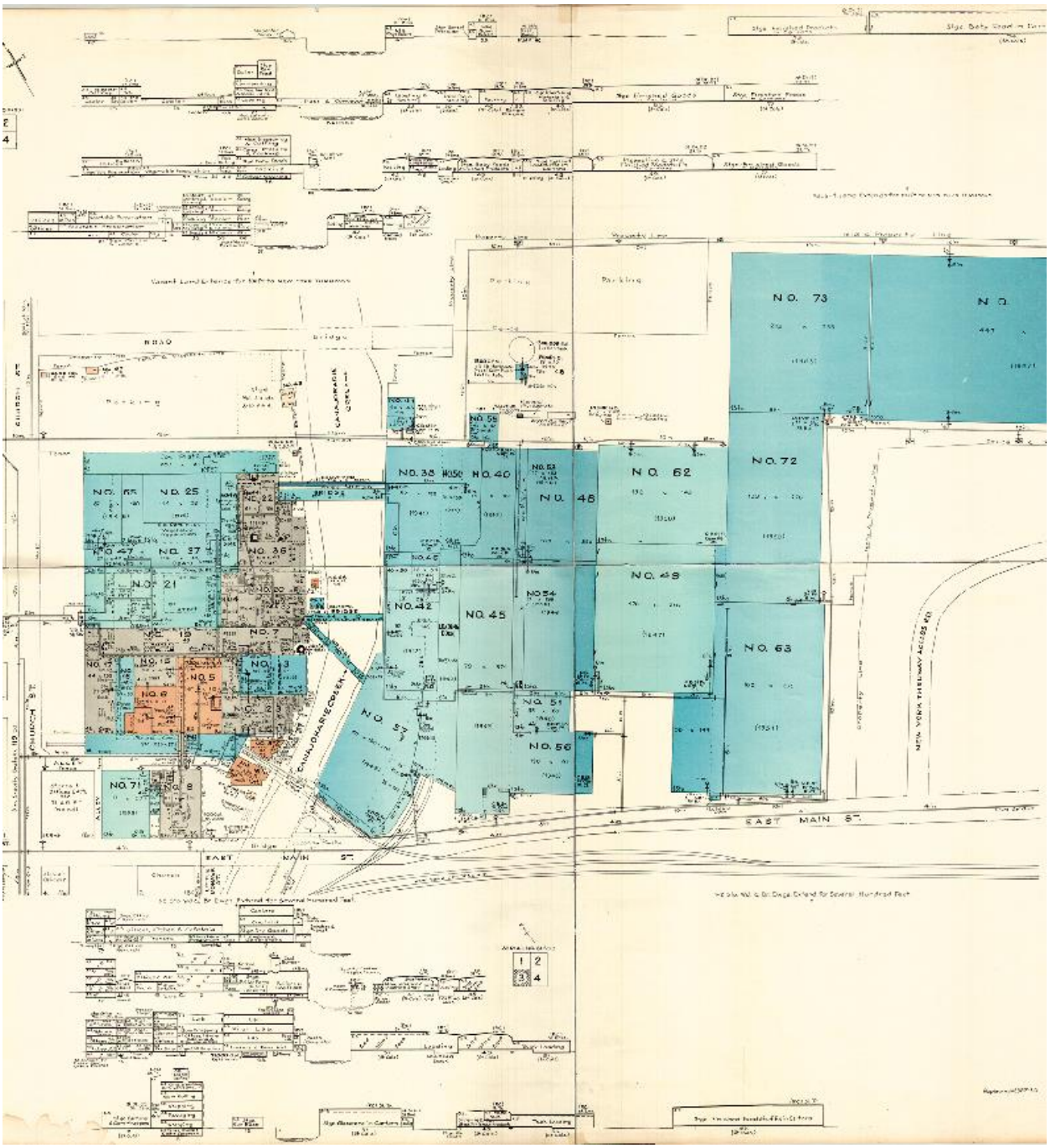
Beech-Nut Plant Canajoharie, NY			
Building Number	**Dimensions and Area of Building**	**Constrction Type**	**Date of Construction**
# 38	82’ X 155’ = **12,710 Sq. Ft.**	Skeletal Steel Frame	1941
# 40	79’ X 161” = **12,719 Sq. Ft.**	Skeletal Steel Frame	1942
# 42	80’ X 150’ = 12,000 Sq. Ft 30’ X 350’ = 10,500 Sq. Ft. **22,500 Sq. Ft.**	Skeletal Steel Frame	1942
# 45	79’ X 371’ = **29,309 Sq. Ft.**	Skeletal Steel Frame	1945
# 46	42’ X 50’ = 2,100 Sq. Ft. 40’ X 50’ = 2,000 Sq. Ft. **4,100 Sq. Ft.**	Skeletal Steel Frame	1944
# 48	103’ X 350’ = **36,050 Sq. Ft.**	Skeletal Steel Frame	1946

# 49	176’ X 216’ = **38,016 Sq. Ft.**	Skeletal Steel Frame	1947
# 50	31’ X 150’ = **4,650 Sq. Ft.**	Skeletal Steel Frame	1941
# 51	85’ X 60’ = **5,100 Sq. Ft.**	Skeletal Steel Frame	1948
# 53	17’ X 153’ = **2,601 Sq. Ft**.	Skeletal Steel Frame	1946
# 54	17’ X 198’ = **3,366 Sq. Ft.**	Skeletal Steel Frame	1946
# 56	91’ X 120’ = **10,920 Sq. Ft.**	Skeletal Steel Frame	1948
# 57	85’ X 200’ = 17,000 Sq. Ft. 33’ X 102’ = 3,366 Sq. Ft. 120’ X ½ (60’ + 110’) = 10,200 Sq. Ft. **30,566 Sq. Ft.**	Skeletal Steel Frame	1948
# 62 # 63	192’ X 143’ = **27,456 Sq. Ft.** 163’ X 279’ = 45.477 SF. 58’ X 144’= 8,352 SF. **53,829 SF.**	Skeletal Steel Frame Skeletal Steel Frame	1950 1951

	Net Total Area= 237,127 Sq. Ft.		

Thanks so much for the opportunity to meet with you.

Russ Reeves, CEng., P.E.


NO. 73
NO. 72
NO. 62
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NO. 6
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NO. 51
NO. 56
NO. 57
NO. 71
NO. 8
EAST MAIN ST.
NEW YORK THRUWAY

Site Plan