HISTORIC STRUCTURE REPORT

BRYN COED DAIRY FARM COMPLEX

1422 St. Matthews Road, West Vincent Township, Chester County, Pennsylvania

PREPARED FOR:

West Vincent Township
729 Saint Matthews Road
Chester Springs, Pennsylvania 19425

October 2019

RICHARD GRUBB & ASSOCIATES

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1422 St. Matthews Road, West Vincent Township,
Chester County, Pennsylvania

Principal Investigators:

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Prepared by:

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Prepared for:

West Vincent Township
729 Saint Matthews Road
Chester Springs, Pennsylvania 19425

Date:

October 28, 2019

EXECUTIVE SUMMARY

This Historic Structure Report (HSR) documents the architecture of the Bryn Coed Dairy Farm Complex, the massive farm complex located at 1422 St. Matthews Road in West Vincent Township, Chester County, Pennsylvania. The township purchased the farm in 2018 for a township park, and as part of a larger effort to preserve the Bryn Coed Farm. The township plans to demolish all of the buildings in the complex except Building 1, a former office and shop building on the west side of the complex. Richard Grubb & Associates, Inc. (RGA), a cultural resources consulting firm, was retained by the township to conduct the physical investigation and professionally document the structures prior to demolition.

While all of the buildings constructed at the complex are from the last third of the twentieth century, their immense size and industrial-like plan make this complex far different from the typical Chester County dairy farm, and they were obviously designed to provide state-of the-art dairy production. The complex provided for every stage of the process, from breeding, calf raising, food production, feeding and waste removal, to final product development. This occurred at an unprecedented scale, at least locally. The farm was thus designed to be self-sufficient, which began with the growing, storage, and mixing of grain, made possible from the farm's several hundred acres of fields that grew both grain and hay. Calves were born and raised in purpose-built barns (Buildings 11 and 12), and transferred into the main barn wings (Buildings 6, 7 and 8) upon reaching maturity. The buildings provided for fostering the herd environmentally, including ventilation, heat (in some cases) and the efficient removal of waste. Show animals were also nurtured in these buildings. Mangers and "feed alleys" were installed for ease of feeding, with hay stored in central locations in the complex. Finally, milk – the end product of the farm – was brought and processed in Building 3. This building was not only centrally located, but symbolically its white columned portico was the most visible architectural feature for all those entering the property. All buildings relied on concrete block walls, concrete floors, and a steel structural frame with cathedral ceilings to promote light and ventilation.

This undertaking did not include research or the preparation of a historic narrative. RGA did review the architectural plans. The buildings in the complex were all constructed in 1968. They were designed by Carl Eisenhower and Richard E. Hunter, Registered Architects located at 510 Walnut Street, in Reading, Pennsylvania. The plans are dated 1967, and developed for "Dairy Farm Complex, Luden's, Inc." The plans enumerate the buildings, and the original enumeration is retained in this document. Two additional silos were constructed in the 1970s, but they were later removed, leaving only the silo foundations. Together the buildings in the complex form an immense dairy and breeding complex, quite possibly one of the largest in Chester County. The approximately 1,800-acre farm property remained a working farm into the 1990s, after which the structures were largely vacated. The fields continue to be farmed; hay is still harvested on the property and stored in the complex.

The buildings are generally in good condition even though they are in a state of abandonment and decline. One silo has lost its cap, and the two appendages on the sides of the rear wings of the main barn are in the process of collapse. Apart from these declining elements, the interiors of the buildings are dry although most are open to the elements. No structural analysis was undertaken as part of this report.

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1.0 BACKGROUND INFORMATION

1.1 Identification and Purpose of Study

This Historic Structures Report (HSR) documents the Bryn Coed Dairy Farm Complex, located at 1422 St. Matthews Road in West Vincent Township, Chester County, Pennsylvania (Figures 1.1 and 1.2). All but one of the buildings on the property are slated for demolition, as are the silos. The township retained Richard Grubb & Associates, Inc. (RGA) to conduct the physical investigation of the structures for documentation purposes prior to demolition. RGA is a cultural resource consulting firm located in Cranbury, New Jersey with a local office in Chester Springs, Pennsylvania. The demolition is to occur in the fall of 2019.

1.2 Principal Investigators

This study was prepared by Robert Wise, Principal Senior Architectural Historian, and Seth Hinshaw, Senior Historian, of RGA. The authors meet the National Park Service Professional Qualifications for Architectural Historians (36 CFR 61 and 48 FR 44716) and have M.S. degrees in Historic Preservation from the University of Pennsylvania. Robert Wise is a resident of the township and also serves on the West Vincent Township Historical Commission.

1.3 Dates of Investigation

This HSR is based on a field survey conducted on August 20, 2019.

1.4 Definitions

Subject Tract: The subject tract, one of several parcels comprising Bryn Coed Farm, is a 72-acre property is located at 1422 St. Matthews Road in West Vincent Township. The tax parcel number is 25-4-174.4, and the property is zoned R2 – Residential. The property contains the large Dairy Farm complex just south of St. Matthews Road, which is surrounded by farmland and wooded areas. The property drive off St. Matthews Road leads south to a squared loop road that encircles the main barn complex, with the other resources located on the perimeter of the loop. The silo complex is located approximately 550 feet east of the barn complex.

The buildings listed below are arranged by the building numbers in the architectural plans drawn by Carl Eisenhower and Richard E. Hunter, Registered Architects with an office in Reading, Pennsylvania, and dated 1967. Other names may have been applied to the buildings once constructed. Together, they comprise the **Dairy Farm Complex**.

All of the buildings and structures in the Dairy Farm Complex were constructed circa 1968. All are essentially metal frame buildings with concrete walls.

> **Building 1 (Farm Office and Shop):** This building is located north of the Main Barn Complex. The one-story building contains the former farm office in its eastern third and what appear to be an open, unfinished shop occupying the western two-thirds of the building.
>
> **Buildings 2, 3, 4, 6, 7 and 8 (Main Barn Complex):** The main barn complex is a large, one- and two-story, E-shaped complex composed of six different parts or "buildings" as shown on the architects' plans. It is the principal building on the complex and the most visible upon entering the property. Building 3 (Milk Processing Building) exhibits a columned, two-story portico with a front-end gabled roof. It is flanked by two-story, 180-foot long wings (Buildings 2 and 4)

to the east and west. Together, Buildings 2, 3 and 4 from the stem of the E; Buildings 6, 7, and 8 extended to the south from the stem, and housed the stalls, hay storage and loading area. Activities taking place within Buildings 2, 4, 6 and 8 could be observed from a second floor level via V-shaped, windowed, observation rooms running along the apex of Buildings 2 and 4.

Note: there are no Buildings 5 and 9; they are shown as potential future buildings flanking the Main Barn Complex. Together, they would have extended the E-shape of the Main Barn Complex into an elongated E with 5 extensions.

Building 10 (West Office and Storage Shop Building): This building is located west of the Main Barn Complex. The one-story building contains an office in its north end and a shop and storage areas occupying the southern two-thirds. This building will be reused for park purposes.

Buildings 11 and 12 (Calf Barn Complex): This large H-shaped building is located south of the Main Barn Complex. It consists of Building 11, to the north, and the larger Building 12, to the south, connected by a small 12-foot wide hyphen. The complex was used to raise calves prior to moving them to the main barn complex.

Silo and Feed Mixing Building Complex: This complex is located several hundred feet east of the Main Barn Complex. It consists of a small block building (Feed Mixing Building) and four immense concrete silos. The building contains a hopper that ground silage that was fed through a trough and then loaded into the silos, which were aligned along either side of the trough.

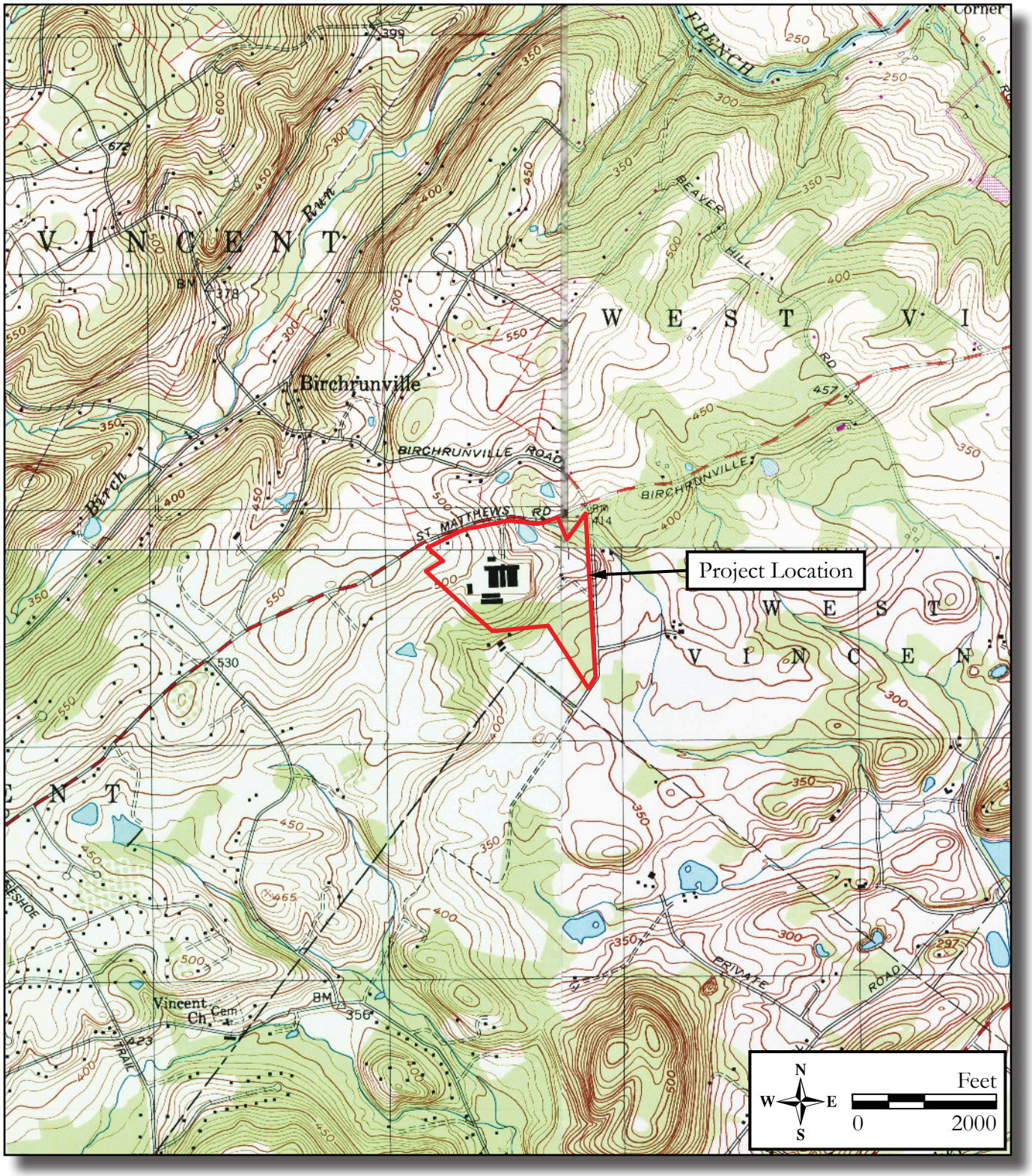


Figure 1.1: U.S.G.S. Map
(U.S.G.S. 7.5' Quadrangles: 1999 Pottstown, PA; 1955 Phoenixville, PA [photorevised 1983]; 1999 Malvern, PA; and 1999 Downington, PA).

Figure 1.2: Aerial Map
(Google Earth, Image date 2/8/2019).

2.0 LOCATION

The subject tract is one of many parcels comprising the larger Bryn Coed Farm in the eastern part of West Vincent Township. The subject tract contains 72 acres of land on the south side of St. Matthews Road (Figures 1.1 and 1.2). Bryn Coed Lane, a private road, forms the eastern boundary of the property. The property drains to the southeast, and the portions of the property with a lower topography are heavily wooded while the remainder of the property is moderately wooded. The gravel property drive begins with a divided access of St. Matthew Road, and then leads south to a squared loop that accesses the farm complex, passing around the Main Barn Complex. Additional buildings are located on the outside of the loop road, with the Silo Complex several hundred feet to the east. The Main Barn Complex and associated buildings around the loop road are on relatively level topography.

3.0 BUILDING 1 (FARM OFFICE AND SHOP)

Building 1 is a one-story, eight-bay block building located just north of the Main Barn Complex (Plates 3.1 to 3.11; Figure 3.1). It was used as the Dairy Farm office and as a retail shop. It has overall measurements of 40 by 100 feet and is oriented east/west along the north side of the property loop drive. A concrete walk runs along the north (rear) elevation of the building, where a scale was located. A curved walkway leads from the property drive to the office entrance on the east end.

The building has an end-gabled roof clad with standing seam tin, with overhanging eaves on the north and south elevations but with flush eaves on the east and west end walls. A mechanical vent on the south slope east of center mimics a modern chimney. The main (south) elevation has eight bays and stucco-over-concrete block walls. Five contiguous bays feature overhead garage doors on this elevation, providing access to the primary interior space. The bays flanking the garage doors feature a metal hollow core door. The east bay contains a paired window unit that provides natural light to an interior office. The concrete walk mentioned above leads to a small porch on the east end, where a metal hollow core door opens between two sets of paired one-over-one double hung sash window units. The north (rear) elevation features eight windows with slightly protruding sills; the windows are one-over-one double hung sash units, some with simulated divided lights creating the appearance of eight-over-eight units. The west end is a solid stucco-over-concrete block wall. The building has a concrete foundation.

The interior of the building contains two offices and associated space in the east end, a large, unfinished shop area in the center, and two additional rooms occupying the west end of the building.

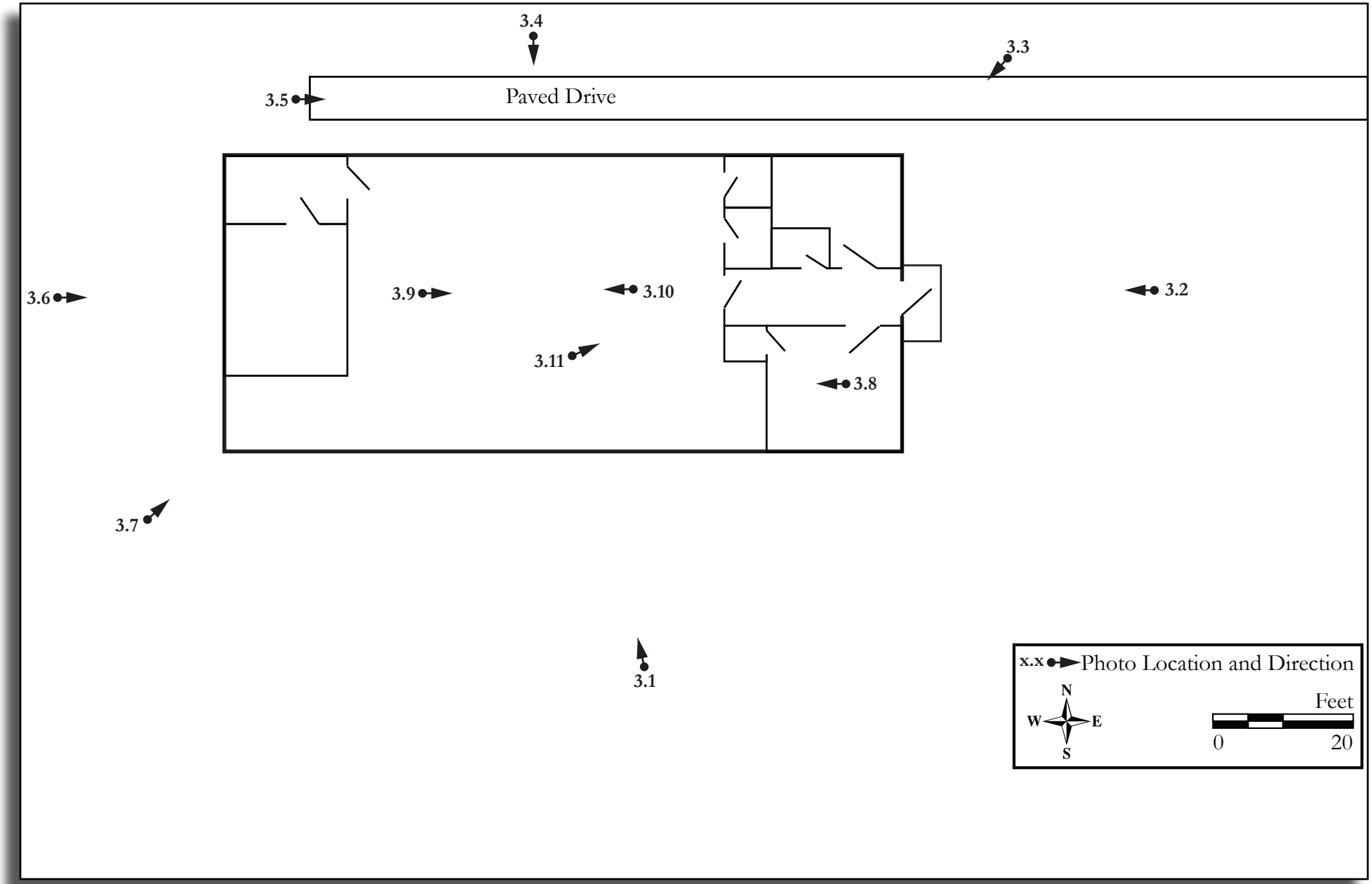


Figure 3.1: Building 1 Farm Office and Shop.

Plate 3.1: Building 1 Farm Office and Shop, main (south) elevation.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 3.2: Building 1 Farm Office and Shop, east elevation.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 3.3: Building 1 Farm Office and Shop, northeast corner.

Photo view: Southwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 3.4: Building 1 Farm Office and Shop, rear (north) elevation.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 3.5: Paved drive behind the Building 1 Farm Office and Shop.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 3.6: Building 1 Farm Office and Shop, west elevation.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 3.7: Building 1 Farm Office and Shop, southwest corner.

Photo view: Northeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 3.8: Building 1 Farm Office and Shop, office.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 3.9: Building 1 Farm Office and Shop, main storage room.

Note, the door with the red sign leads to the offices, and the doors to the left access restrooms.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 3.10: Building 1 Farm Office and Shop, main storage room.

Note, the metal hollow core door in the far right leads to the storage areas in the west part of the building.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 3.11: Detail of the east wall of the main storage room in Building 1 Farm Office and Shop.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

4.0 BUILDINGS 2, 3, 4, 6, 7 AND 8 (MAIN BARN COMPLEX)

The Main Barn Complex (Figure 4.1; Plates 4.1 to 4.25, exterior; Plates 4.26 to 4.54, interior). is an E-shaped building complex with the stem (composed of Buildings 2, 3 and 4) running east/west and the three prongs (composed of Building 6, to the east, Building 7 center, and Building 8, to the south) attached perpendicularly to the south side of the stem. Together they form one large building. Building 3 is the centerpiece of the complex, both visually and geographically speaking. Behind its portico decorated façade is the heart of the dairy farm: the milk finishing and storage facility. Buildings 2 and 4, which apiece measure some 180 feet, flank Building 3 and, as mentioned, form the stem of the E. These buildings contain processing operations and storage areas, as well as an observation V-shaped, tube like structures enabling managers to observe activities in these buildings, as well as those in Buildings 6, 7 and 8. The latter buildings are some 264 feet in length (Building 7, in the center, is 240 feet long). These building hold the milking stalls, hay storage areas, and cattle holding and loading areas. Concrete courtyards between these sections enabled the herd to venture outside of the enclosed environment, but in a confined area that, like the buildings, was equipped with waste removal system. All of the buildings exhibit essentially the same construction: slab floor with sanitary system gutters and auger systems, steel framed walls consisting of vertically spaced I-beams connected to the steel roof rafter and truss system overhead, cinderblock walls laid between vertical steel elements, and stucco-clad exterior walls. Each building contains a shallow-pitched gabled roof, with a ridge ventilation system and other means of HVAC.

Combined into one integrated complex, Buildings 2, 3, 4, 6, 7, and 8 comprise an immense structure, with overall approximate dimensions of 400 by 300 feet, with over 83,000 square feet on the main floor alone. Approaching the complex from St. Matthews Road, Buildings 2, 3, and 4 fill the view. Their formal, north facing elevation has the general appearance of a 1960s motel rather than a barn. At the center is Building 3, the main milk processing building. Its decorative projecting portico with cupola is flanked by the 180-foot long, 50-foot wide operation wings (Building 2 extending east and Building 4 extending west). As stated, the three stall buildings (Buildings 6, 7, and 8) extend from the south façade of Buildings 2, 3, and 4. The upper space of Buildings 2 and 4 houses an enclosed, V-shaped windowed observation structure, as noted above, enabling observation of nearly the entire complex interior. The roof of the three sections to the north is clad with asphalt shingles, but the roof of the rear wings is clad with standing seam tin.

The front portico on Building 3 is part of a two-story cross-gabled section with overall measurements of 50 feet wide and 70 feet deep (Plate 4.2 and 4.3). This cross-gabled portico section has the highest ridge of the various parts of the Main Barn Complex. Near the front end of the ridge is a large cupola, which features a splayed pyramidal roof, louvers on the four sides, and a square base (Plate 4.5). The portico features a blank tympanum, molded cornice with return, and six unfluted wooden columns standing on a scotia base. The stuccoed wall surface below the tympanum consists of large window units comprised of Belgian block. On either side of the projecting portico, small porches provide access into the interior (Plate 4.6). The porches have hipped roofs supported by a single unfluted Ionic corner column. Each porch has one metal door leading into the interior of the portico section and a two-leaf entrance leading into the flanking wing. The porches are accessed by concrete steps on their north sides. The portico has a concrete foundation. On the wall of the portico over these small porches is a Belgian block window unit lighting the upper interior level.

Buildings 2 and 4 flanking Building 3 are nearly identical and will be described together (Plates 4.4 and 4.8). Each wing measures 180 feet long and 50 feet deep. They are one-story elements clad with asphalt shingles on the roof and stucco over concrete block walls. Each wing has three small cupolas, each with a pyramidal roof, four louvered sides, and a slightly elevated base (Plate 4.11). The wings feature large Belgian block window units on the north elevation (Plate

4.12). The end walls feature two large open bays that could be enclosed with large metal swinging gates (Plates 4.9 and 4.10). A steel I-beam separated the bays and connected with the ridge of the wings.

Buildings 6, 7 and 8 extend from the south side of Buildings 2, 3 and 4. Buildings 6 and 8 are nearly identical in appearance and are described together with differences noted (Plates 4.13 and 4.16). The two wings are the main dairy wings of the entire complex, designed to produce the majority of the milk. These wings are larger than the center wing, and measure 264 feet long by 100 feet wide. The wings are set back 24 feet from the east and west ends of Buildings 2 and 4, thus slightly altering the overall E shape. The roof of the wings are clad with standing seam tin, including 22 areas where the tin has been replaced with opaque material to function as skylights for the interior. The overhanging eaves on the east and west sides are clad with vinyl. The wall surface is stucco-clad up to a height of approximately six feet. Above six feet are hopper panels just below the eaves (Plate 4.21). The hopper panels are located in a band of corrugated tin siding. The southern end of Buildings 6 and 8 feature four large open bays that can be sealed with overhead garage doors (Plates 4.15 and 4.19). Two, two-panel metal hollow core doors are located on the end walls for use when the garage doors are closed to limit access to the exterior by the cows (Plate 4.23). On the sides of the two wings near the southern end, wide rolling metal doors face onto the concrete courtyard between the wings and the center wing (Plate 4.22). Both wings have a concrete foundation.

Appendages that were added onto the east elevation of Building 6 and the west elevation of Building 8 were used in part to pump manure from the buildings. Unlike the main buildings, both are in a state of ruin (Plate 4.17). These additions have overall measurements of 70 by 24 feet. They have a shed roof clad with corrugated tin and a steel frame. Overhead garage doors off the rear wings are located over a waste trough that leads into these appendages. Manure pumpers were located in the appendages, and the pumper remains in the appendage to the east (Plate 4.18). The framing for the western appendage has mostly collapsed, leaving it in a ruinous state. The eastern appendage is in slightly better condition, although the concrete block south wall has collapsed and most of the roof is missing.

The interiors of Buildings 6 and 8 are nearly identical, although changes to the two over recent years have diminished their original appearance. They feature stanchions in the north end (most of which have been removed) and long hay, grain, and water alleys and mangers running the length of the southern half of the wings. The floors, as mentioned, are concrete with waste disposal troughs.

The center prong of the E, Building 7, is a one-story section that extends south from Building 3 (Plate 4.24). Building 7 is smaller than Buildings 6 and 8 (220 by 40 feet), show animals were housed here. The center wing has a gabled roof clad with standing seam tin, with overhanging eaves on each side wall. Steel I-beams divide the exterior into bays, most of which contain large windows comprised of Belgian block. Each side wall has a wide rolling door near the center that accesses the concrete area connecting with the adjacent wings. The south end of the center wing features a large open bay with a center ramp leading up to the floor level and flanking storage areas for farm equipment. An iron railing lines the ends of the ramp and the elevated dock area on the main floor level. The interior contains stalls for the show cattle as well as the engine room at its north end. The southern end of Building 7 contains an open bay and a centered ramp that was used for moving cattle in and out of the building.

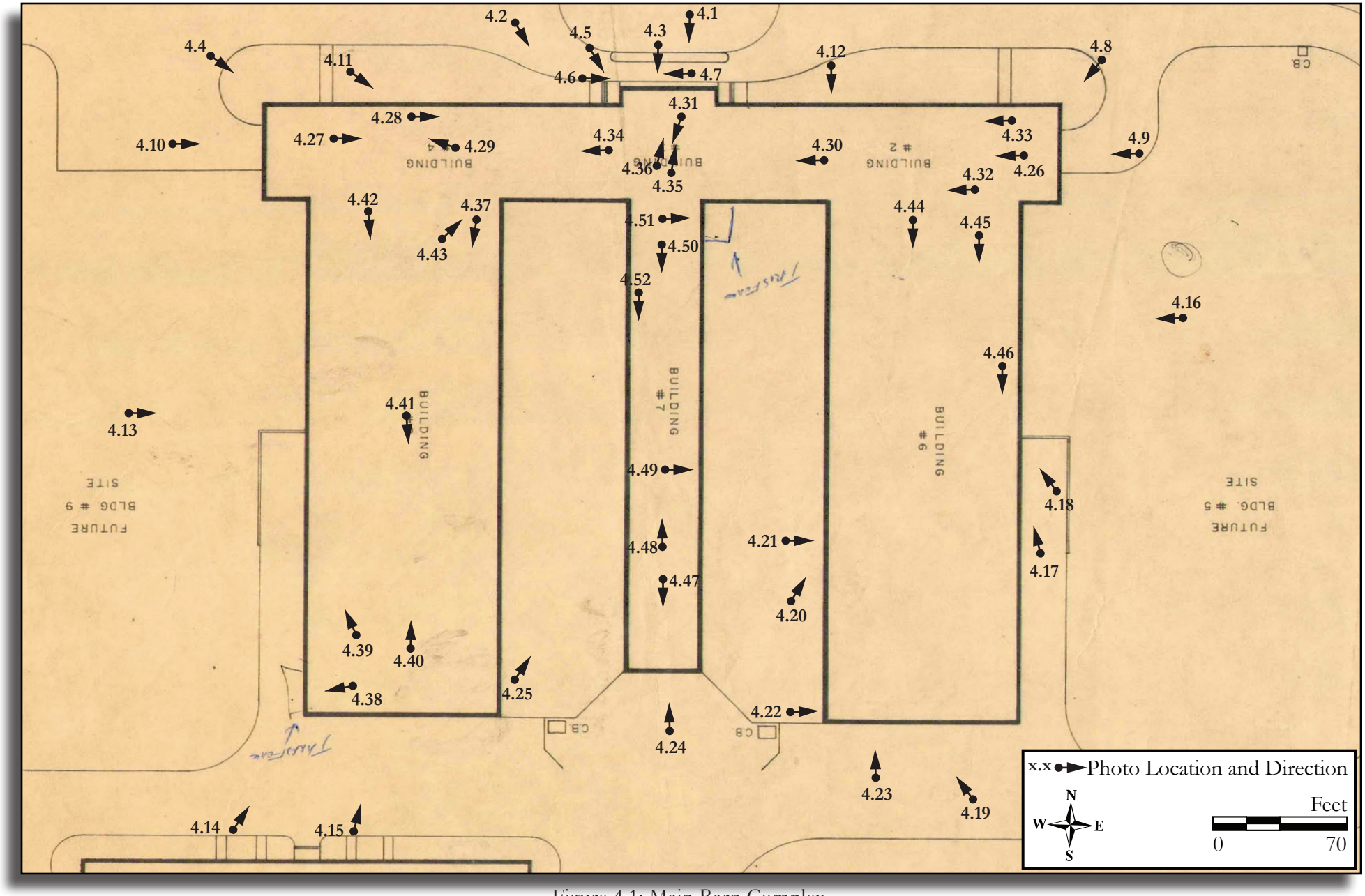


Figure 4.1: Main Barn Complex.

Due to the complexity of the building, the camera angles are plotted on a reduced version of the 1968 Eisenhower and Hunter plans for the main barn complex (see Appendix B).

Plate 4.1: Main Barn Complex as viewed when entering the property from the north.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.2: Front portico of Main Barn Complex (Building 3).

Photo view: Southeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.3: Front portico of Main Barn Complex (Building 3).

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.4: Buildings 3 and 4 of Main Barn Complex.

Photo view: Southeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.5: Cupola of Building 3, Main Barn Complex.

Photo view: Southeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.6: Front portico and small porch on the west end of Building 3.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.7: Front portico ceiling and walls.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.8: Building 2 (left) and Building 3 (right).

Photo view: Southwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.9: East end of Building 2, Main Barn Complex.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.10: West end of Building 4, Main Barn Complex.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.11: Small cupola on Building 4, Main Barn Complex.

Photo view: Southeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.12: Belgian block window unit on Building 2.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.13: West elevation, Main Barn Complex, showing Building 4 (far left) and Building 8 (right).

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.14: Southwest corner of Building 8.

Photo view: Northeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.15: South end of Building 8.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.16: East elevation of Main Barn Complex, showing Building 2 (right) and Building 6 (left).

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.17: South elevation of east appendage on Building 6.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.18: Manure pumper in east appendage.

Photo view: Northwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.19: South elevation of Building 6.

Photo view: Northwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.20: West elevation of Building 6.

Photo view: northeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.21: Hopper window unit on west elevation of Building 6.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.22: Metal rolling door on west elevation of Building 6.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

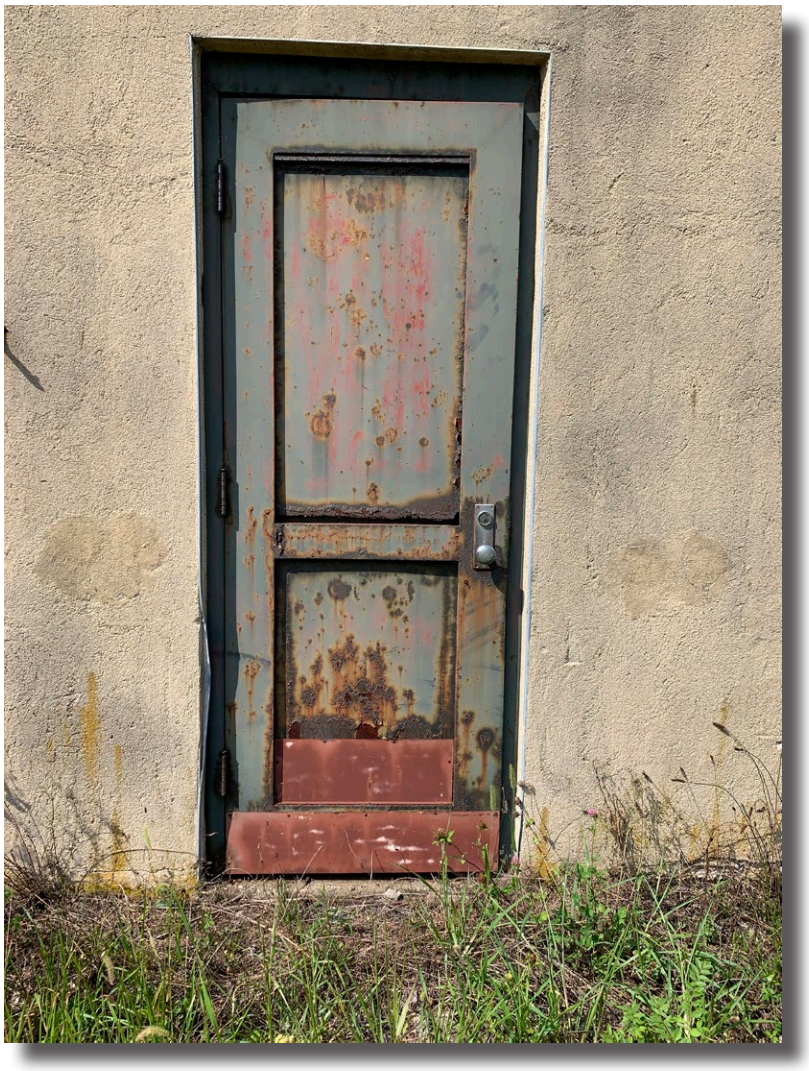


Plate 4.23: Two-panel metal door on south elevation of Building 6.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.24: South elevation of Building 7.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.25: Concrete area between Building 8 and Building 7.

Photo view: Northeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.26: Interior of Building 6, as viewed from the bays on the east end.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.27: Interior of Building 8, as viewed from the bays on the west end.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.28: Bull pen in Building 4.

Note, the elevated observation area does not have windows facing into the bull pen.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.29: Bull pen in Building 4.

Photo view: Northwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.30: Eastern space of Building 2 with recessed center area.

Note, this area may have been intended for castration of bulls.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.31: First floor room in center of Building 3, showing the large milk tank.

Note, this is one of the few rooms in the barn with a drop ceiling.

Photo view: Southwest

Photographer: Robert Wise

Date: August 20, 2019

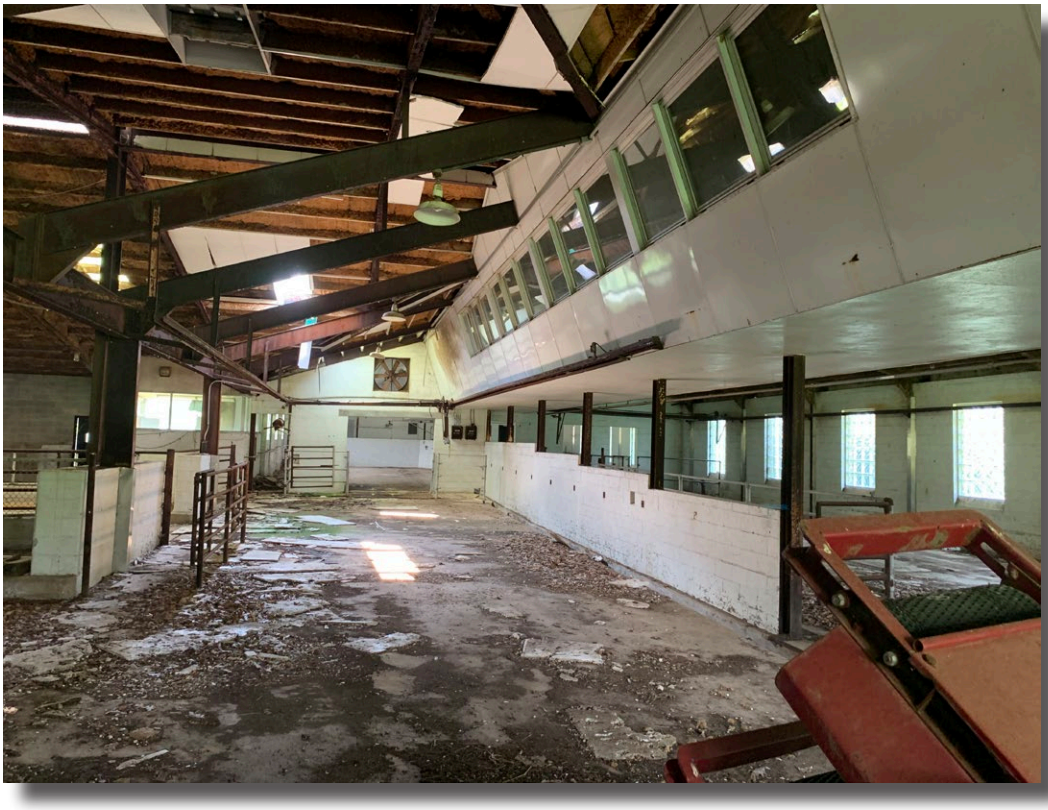


Plate 4.32: Passageway along south side of Building 2, showing the elevated observation area over the bull pen (left) and the stall area (right).

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.33: Set of metal stairs accessing the east end of the elevated observation area, Building 2.

Note, a similar set of stairs is located on the west end of the elevated observation area.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.34: Interior of the elevated observation area, as viewed from the entrance off the second floor room in Building 3.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.35: Second floor room in Building 3.

Note, the three windows in the center face into the portico.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.36: Opaque plastic element that admits light into the milk room below, Building 3.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.37: Building 8, as viewed from the north.

Note, hay was fed to the cows using the metal grates to the left, with a trough for grain below the hay. Water flowed through the trough on the right.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.38: Metal gate in southwest corner of Building 8, originally used to seal the large open bay.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.39: Metal hay grates along west wall of Building 8, above the grain trough.

Photo view: Northwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.40: Aisle in Building 8 between the water trough (left) and the feed trough (right).

Note, the opaque skylights flood the interior with natural light.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.41: Aisle in Building 8, facing south from the center cross-aisle.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.42: Aisle in the northern half of the Building 8.

Note, the metal stanchions in this area have been removed.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.43: Observation post in Building 8.

Photo view: Northeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.44: Northern portion of Building 6.

Note, the metal stanchions in this area have been removed.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.45: Northern portion of Building 6.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.46: Central portion of Building 6.

Note, the overhead garage door on the left accesses the east appendage.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.47: South end of the Building 7.

Note, the open bay features a central ramp leading up to the floor level and metal partitions that regulated bovine circulation through the space.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

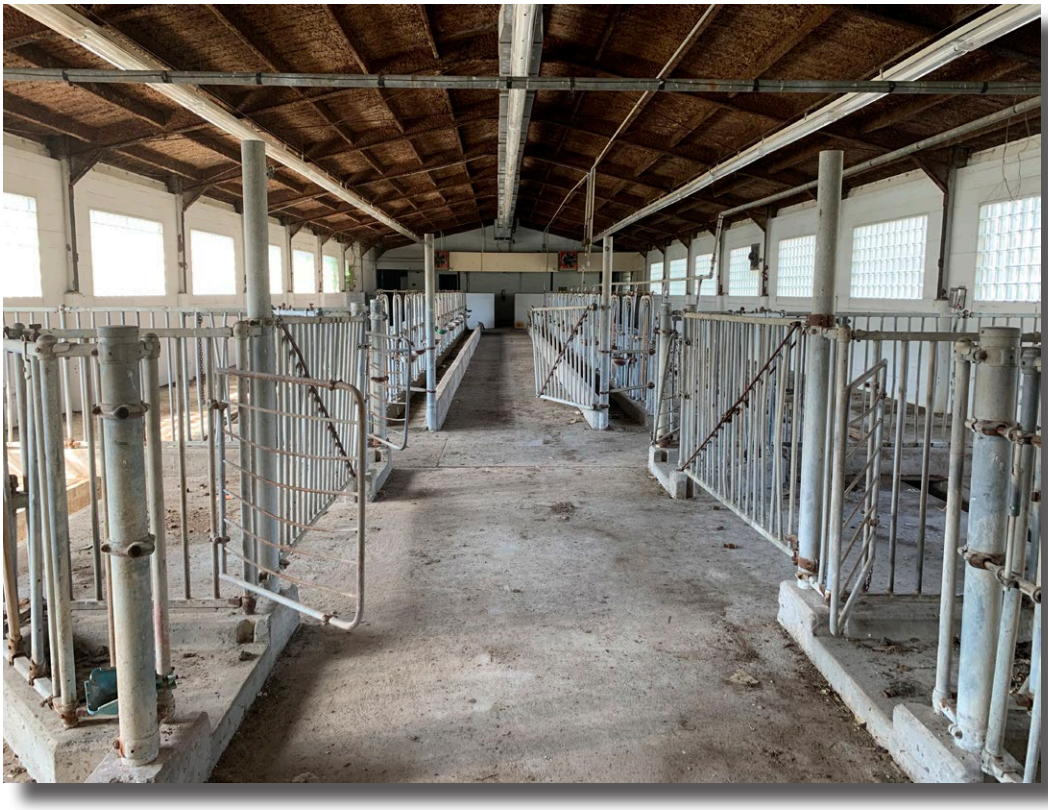


Plate 4.48: South end of the Building 7.

Note, the metal stalls occupy the central portion of the wing.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.49: One of several letter boards for show cows in the Building 7.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.50: North end of the Building 7.

Note, the stanchions remain in place in the stalls.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.51: Area in the north end of the Building 7 for cleaning cows prior to shows.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.52: West wall of Building 7, showing the stanchions on the left and the waste trough on the right.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.53: Concrete-encased steel I-beam in the Building 7.

Photo view: Southwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 4.54: Engine room in the Building 7.

Photo view: Northwest

Photographer: Robert Wise

Date: August 20, 2019

5.0 BUILDING 10 (WEST OFFICE AND STORAGE SHOP BUILDING)

Building 10 is a one-story concrete block building standing west of the Main Barn Complex (Plates 5.1 to 5.8; Figure 5.1). It measures 40 by 120 feet and is oriented north/south. The building was constructed on a sloping site, with its access on the south end opening on a lower grade than the doors on the north and east elevations. Concrete walks lead from the loop road to the office doors on the north and east elevations.

The building has an end gabled orientation and faces east. The roof is clad with standing seam tin. The concrete block walls are divided into 10 wide bays by vertical steel I-beams that are attached at the tip to the interior rafters. Most bays feature one-over-one double hung sash windows that feature projecting sills and snap-in muntins that create the appearance of eight-over-eight sashes. The main (east) elevation features seven of these windows, plus two overhead garage doors and a metal hollow core door that originally featured a six-light inset light. The north end features a centered metal hollow core door flanked by paired windows. The rear (west) elevation features 10 windows in the 10 bays. On the south end, a wide open bay is sealed by an overhead garage door. The interior of the building contains an office in the north end and a two-part storage area in the center and south ends (Plates 5.9 to 5.11).

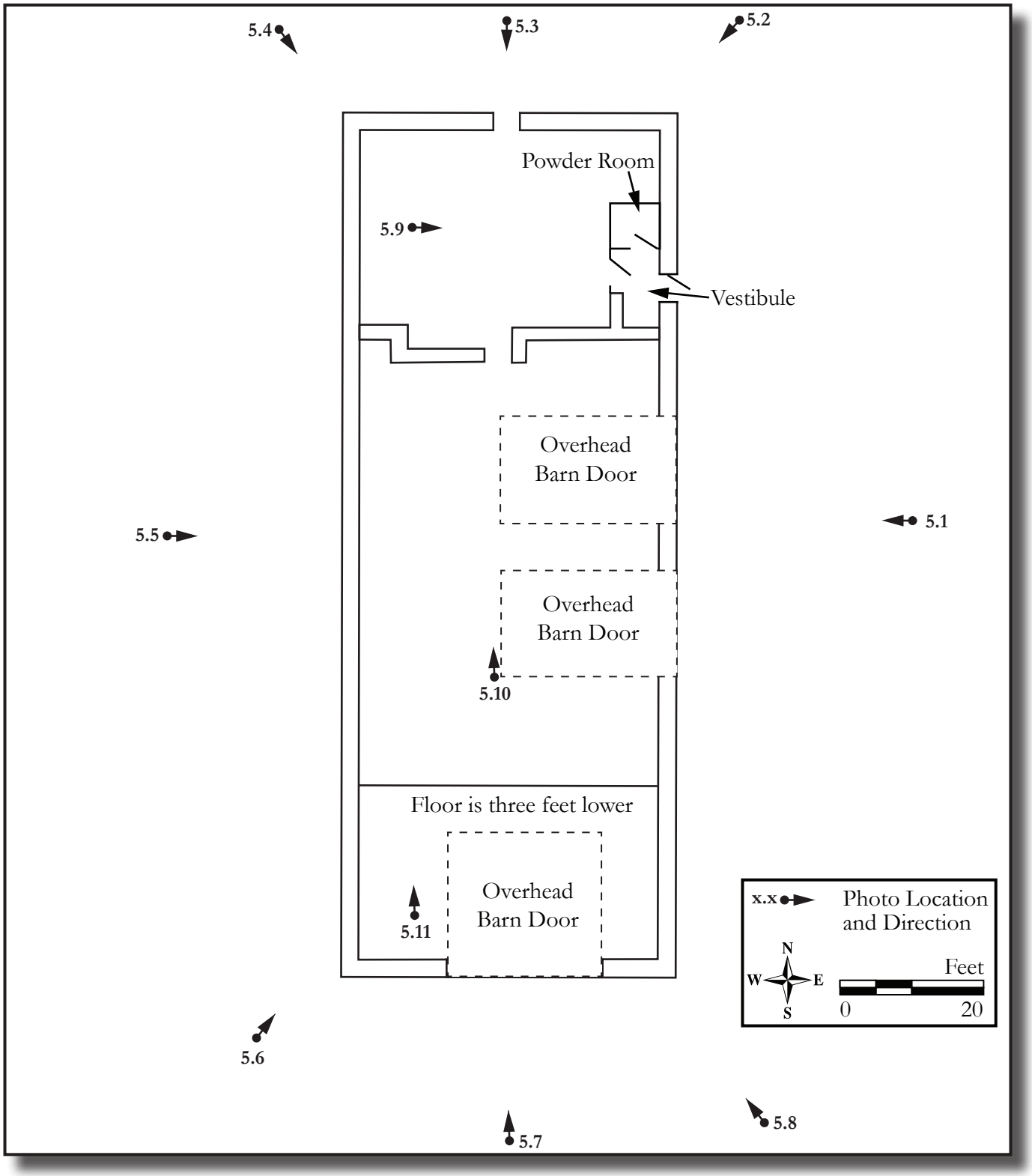


Figure 5.1: Building 10 West Office and Storage Shop Building.

Plate 5.1: West Office and Storage Shop Building, main (east) elevation.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 5.2: West Office and Storage Shop Building, northeast corner.

Photo view: Southwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 5.3: West Office and Storage Shop Building, north end.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 5.4: West Office and Storage Shop Building, northwest corner.

Photo view: Southeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 5.5: West Office and Storage Shop Building, west elevation.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 5.6: West Office and Storage Shop Building, southwest corner.

Photo view: Northeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 5.7: West Office and Storage Shop Building, south elevation.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 5.8: West Office and Storage Shop Building, southeast corner.

Photo view: Northwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 5.9: Office in north end of West Office and Storage Shop Building.

Note, a powder room is located behind the wall in the center of the plate.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 5.10: Large storage room in center of West Office and Storage Shop Building, facing towards the office.

Photo view: north

Photographer: Robert Wise

Date: August 20, 2019

Plate 5.11: Storage area in the south end of the West Office and Storage Shop Building.

Note, the falling grade in this location results in a floor three feet below that of the remainder of the building.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

6.0 BUILDINGS 11 AND 12 (CALF BARN COMPLEX)

The Calf Barn Complex is housed in Buildings 11 and 12. It is an elongated H-shaped building that stands near the southwest corner of the main barn (Figure 6.1; Plates 6.1 to 6.15). Two long rectangular sections (Building 11 forming the north element of the H and Building 12 forming the south element of the H) were built parallel to each other; a 12 foot wide hyphen at the center connects the two sections. The building complex has corrugated tin on the roof, and its walls and foundation are built of concrete block. Building 11 measures 228 feet long by 36 feet wide. Building 12 is longer, measuring 300 by 36 feet. The two sections have large open bays on each end. The open bays on Building 12 are centered, but the open bays on Building 11 are offset to the south. Building 11 has four metal hollow core doors near the center of the north elevation. Building 12 has ancillary metal hollow core doors on the sides near the ends and a door centered on the south elevation. Both buildings have large Belgian block windows and concrete foundations.

Building 11 housed the younger calves (Plates 6.16 to 6.26). Stalls line the walls with a central alley through much of the building. Rails on the floor were used to guide equipment that rolled down the center aisle to feed the livestock. Fifteen block stanchions near the center (Plate 6.20) have rings that held water and feed bowls; most watering bowls survive. Moving further away from the center are four stalls on each side of the alley, each with metal gates and waste troughs running below grates to the ends of the building. Vent-O-Matic heaters mounted on the walls provided heat during the winter (Plate 6.26).To keep an eye on the animals, an elevated observation area is located along the north wall, near the center of the building (Plate 6.23). Rooms in the center of the building (between the stall areas and with access to the hyphen into Building 12) include restrooms and storage areas. The floors are concrete and the steel structural system, like all the buildings in the complex, is exposed.

Building 12 (originally called the Maternity Barn) is the larger section of the Building 11-12 Calf Barn Complex (Plates 6.27 to 6.40). Its interior is divided into five areas by block partition walls, arranged symmetrically, however the principal and largest areas, like Building 11, contain stalls. A room in the center of the building connects to the hyphen which leads to Building 11. It is unfinished with overhead garage doors to the north, south, east, and west (Plate 6.27). The overhead garage doors on the east and west walls lead into the stall areas running east and west from the center area. The stall areas have an insulated ceiling overhead, the same steel bents framing the interior, and an 11-foot wide aisle running through the center of metal stalls lining the walls and flanked by waste troughs. The stalls have vertical metal pipes running along the aisle with metal gates and stanchion-like openings allowing the cows to feed in troughs installed over concrete troughs. Each stall measures 12 feet square. Some stalls have small heaters located in the corners atop triangular concrete bases (Plate 6.32). Some original automatic watering containers inside the stalls were called StockMatic waterers, produced by the Fairfield Corporation (Plate 6.33). In the ends of Building 12 are block storage rooms measuring 24 by 36 feet with heavy rolling doors used to seal the oversized doorways. The doors are metal-framed with upper rollers and a lower sheave that stopped the door from blowing in the wind. The waste troughs curve along the concrete floor to the south to exit the building. In the west storage room, the date "1968" was fingered into the poured concrete.

The hyphen that connects Buildings 11 and 12 is a one-story element spanning the 30 feet between the two sections and measuring 12 feet wide (Plate 6.13). It has a gabled roof supported by steel posts that are attached to rafters; the posts are connected by heavy gauge wire railings. The sides are otherwise open to enhance breezes through the space. The connection has a concrete foundation. Overhead garage doors along the walls of the two sections may be used to seal the connection.

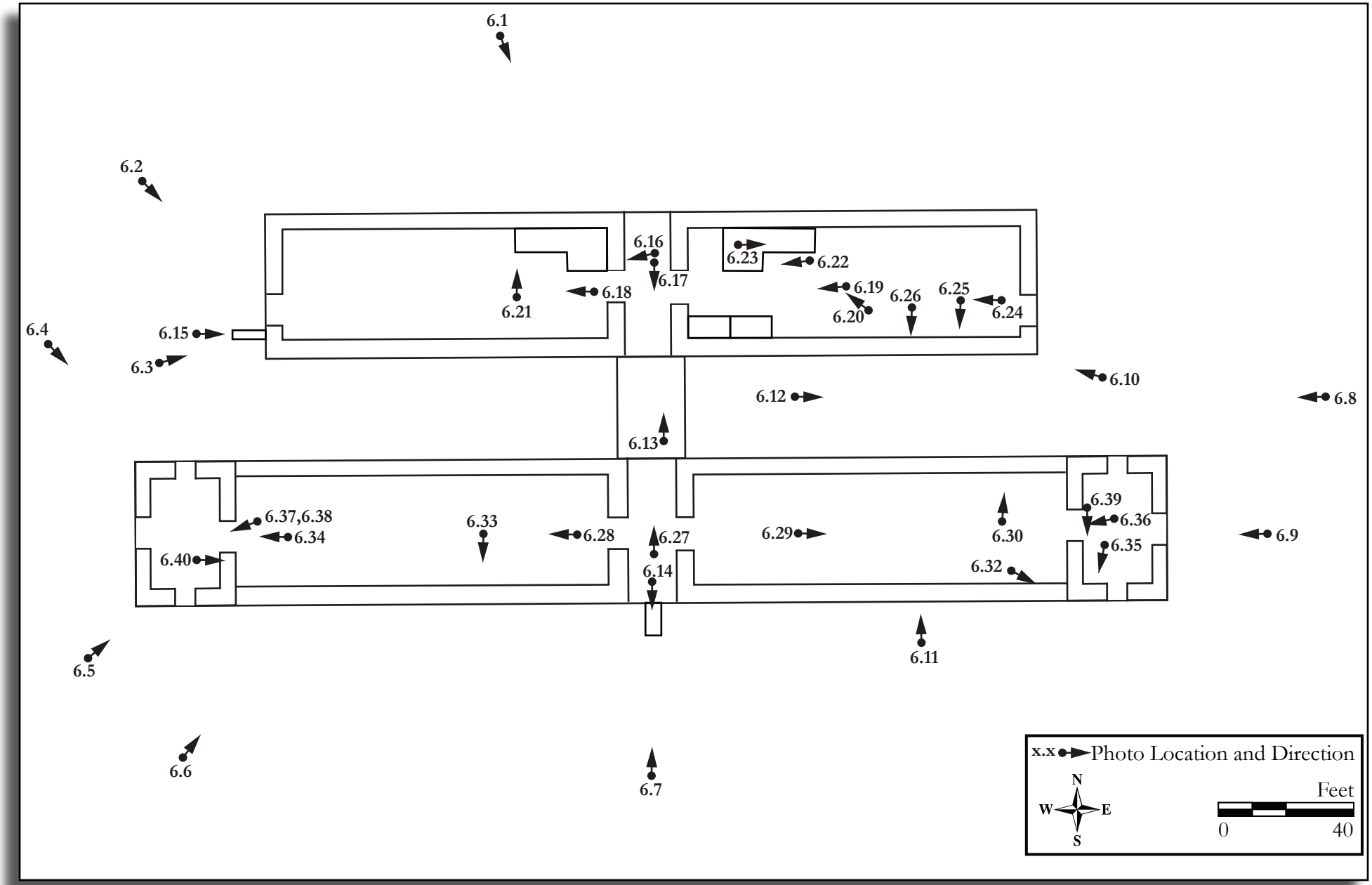


Figure 6.1: Calf Barn Complex.

Plate 6.1: Calf barn complex, north elevation.

Photo view: Southeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.2: Calf barn complex, north section.

Photo view: Southeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.3: Calf barn complex, west elevation.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.4: Calf barn complex, west elevation.

Photo view: Southeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.5: Calf barn complex, southwest corner.

Photo view: Northeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.6: Calf barn complex, south elevation.

Photo view: Northeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.7: Calf barn complex, south elevation.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.8: Calf barn complex, east elevation.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.9: Calf barn complex, east end of south section.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.10: Calf barn

complex, east end of north section.

Photo view: Northwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.11: Belgian windows on south elevation.

Photo view: Southeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.12: View of the passageway between the north and south sections of the calf barn as viewed from the connection.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.13: Connecting element between the north and south sections of the calf barn complex.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.14: Cattle chute on south side of south section of calf barn complex.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.15: Waste chute on west end of north building, calf barn complex.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.16: Building 11 of calf building complex, central passageway facing Building 12.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.17: Large rolling doors that seal the central passageway of Building 11 of the calf building from the stall area.

Note, the doors include a wicket (inset) door.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.18: Concrete stall area of Building 11.

Note, the west half of the section has a drop ceiling.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.19: Concrete stall area of Building 11.

Note, two rails on the floor guided machinery that delivered food to the stalls.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.20: Concrete stalls in Building 11.

Note, the concrete stalls are narrow with stanchions facing the passageway; a water bowl and a ring to hold the feed are attached onto the stanchions.

Photo view: Northwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.21: Concrete stalls in Building 11.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.22: Concrete stalls in Building 11.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.23: Observation area in east part of Building 11.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.24: East stall area of Building 11.

Note, above, the rafters and the underside of the roof have been sealed with insulation, and ductwork running below the ridge was used to heat the space in the winter.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.25: Typical stall in east end of Building 11.

Note, four stalls of this size are located in the ends of Building 11, with larger stalls on the north side of the aisle.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.26: Vent-O-Matic heater on south wall of Building 11.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.27: Central passageway of Building 12.

Note, a central aisle runs east/west through the stall areas, with a waste trough running along the sides of the aisle below concrete troughs used to feed the calves.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.28: West half of Building 12.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.29: East half of Building 12.

Photo view: East

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.30: Typical stall in Building 12.

Note, individual troughs have a gate through the metal partition and a stanchion that was used during feeding.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

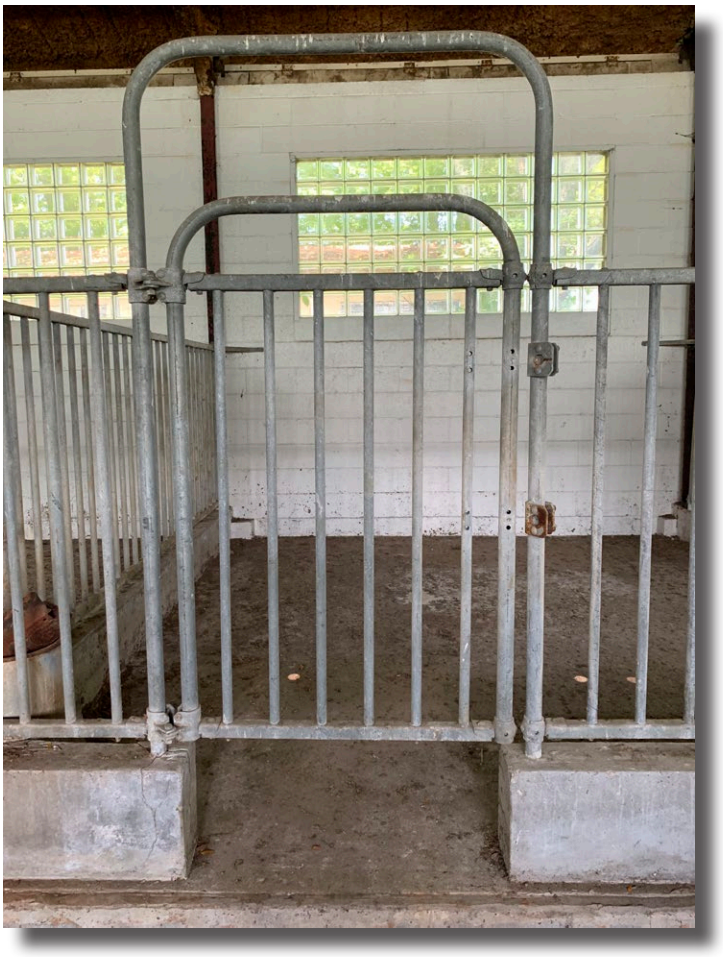


Plate 6.31: Typical gate in Building 12.

Note, the framing for the gates rises to a height of seven feet, and is embedded into concrete at the base.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.32: Corner heater in Building 12.

Photo view: Southeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.33: Fairfield StockMatic feeders in Building 12.

Note, each stall has access to a Fairfield StockMatic feeder in the front corners that was installed through the metal partition to feed two adjacent stalls.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.34: West end of stall area in Building 12.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.35: Storage room on east end of Building 12.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.36: Storage room on east end of Building 12.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.37: Large rolling door separating the storage room from the stall area in Building 12.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

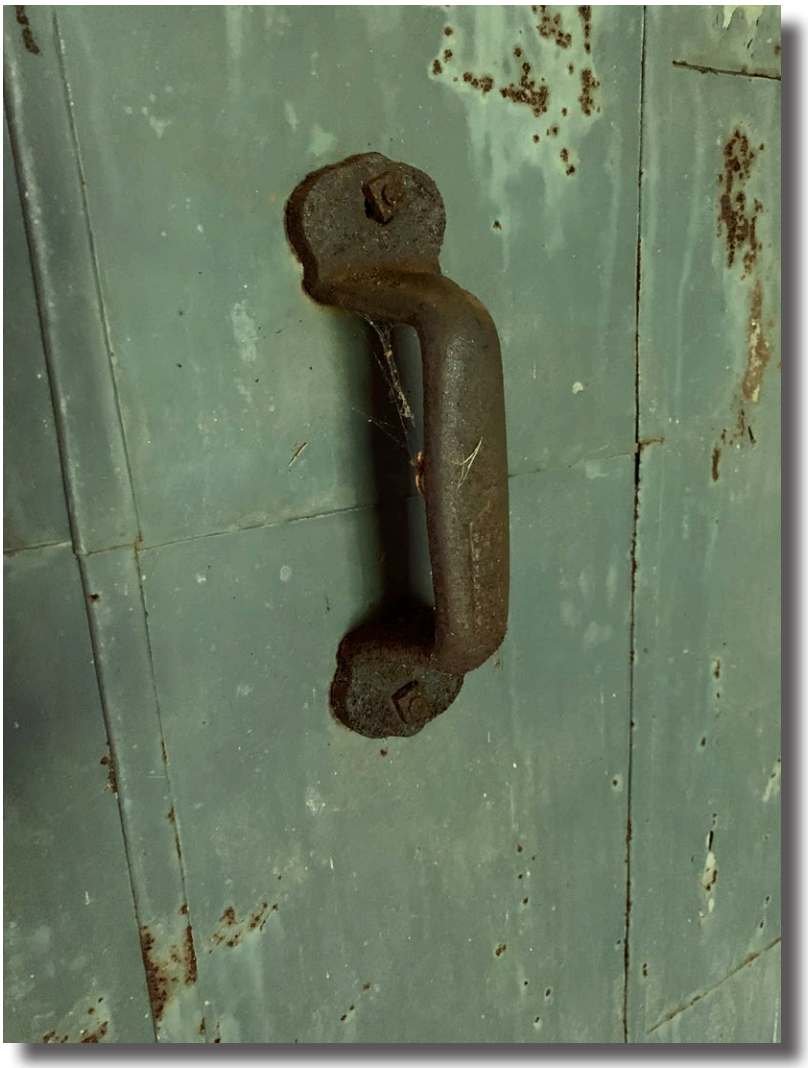


Plate 6.38: Suffolk handle on large rolling doors in Building 12.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

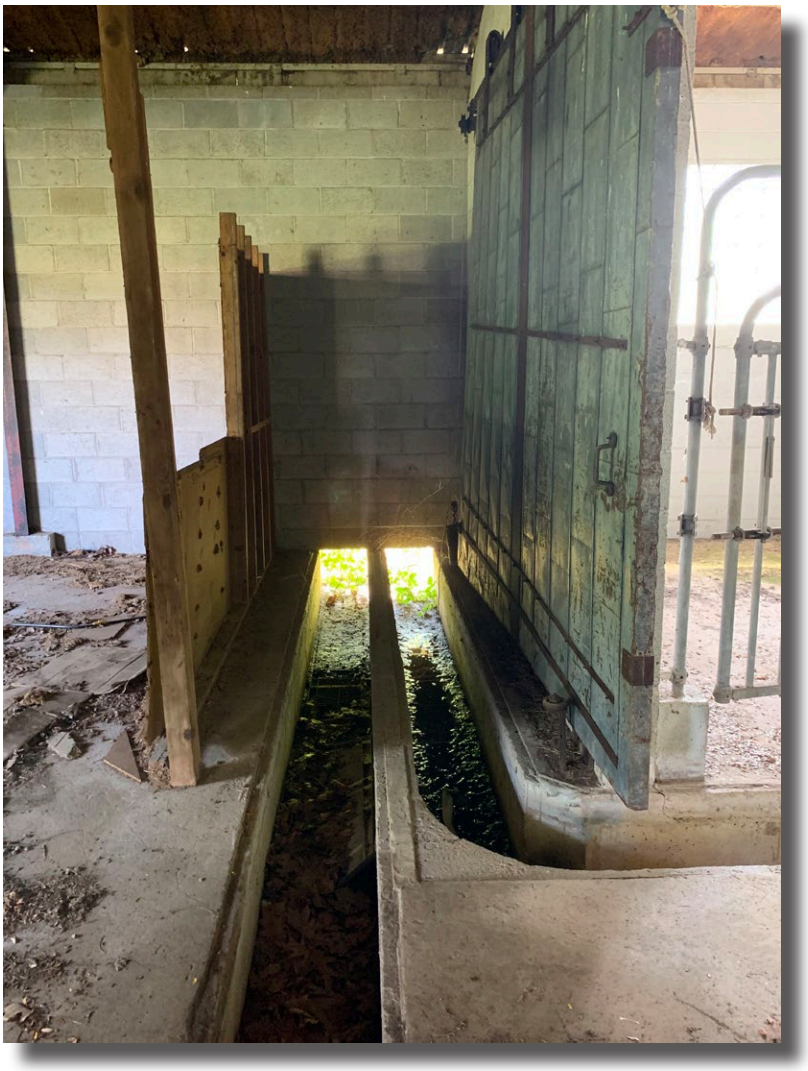


Plate 6.39: Detail of waste trough in east end of Building 12.

Note, the waste troughs extend into the storage rooms and turn south to exit the building.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

Plate 6.40: Detail of "1968" in the concrete floor in west end of Building 12 complex.

Photo view: South

Photographer: Robert Wise

Date: August 20, 2019

7.0 SILO AND FEED MIXING BUILDING COMPLEX

The Silo and Feed Mixing Building Complex is located approximately 600 feet east of the Main Barn Complex, on slightly lower ground (Plate 7.1; Figure 7.1). The complex is accessed by a gravel lane leading east from the Calf Barn Complex. The complex consists of a block building built for feed mixing operations and silo lot consisting of four associated silos to the northeast. A concrete apron with a recessed trough runs northeast from the northeast end of the Feed Mixing Building and through a paved concrete passageway between the silos. It appears that the trough transported silage from the silos to the Feed Mixing Building. The concrete apron surrounding the silos was used by machinery that loaded the silage into the silos. The silo lot is one of the largest on farm silage storage facilities in Chester County.

7.1 Feed Mixing Building

The Feed Mixing Building is a one-story, five-bay building facing southeast (Plates 7.2 to 7.13). The building's overall measurements are 60 by 40 feet. Its end-gabled roof is clad with corrugated tin, and the walls are stucco over concrete block. On the main (southeast) and rear (northwest) elevations, the three bays to the southwest feature large overhead garage doors that allowed farm equipment to drive through the building. The fourth bay on the southeast side and the second bay on the northwest side have a metal hollow core door and a large Belgian block window unit. The remaining bay on each side has a large Belgian block window. The southwest end, which is the first elevation viewed from the property drive, features two large Belgian block window units. The northeast end features concrete steps leading up to an elevated metal hollow core door. A wooden railing formerly lined the sides of the steps to the entrance, and the stucco was installed around this railing (leaving an impression of the shape of the railing when it was removed). The building has a concrete foundation. The key feature in the building is a mixer located in its north corner, closest to the silos. Silage was transported from the silos via the concrete troughs, mixed, and then loaded on trucks within the building. An elevated office enabled observation of the process.

7.2 Silos

Four silos and two silo foundations are located northeast of the Feed Mixing Building (Plates 7.14 to 7.25). As mentioned, a concrete apron with a centered trough runs through the middle of the silos, with three silos to the northwest and one (plus the two silo foundations) to the southeast. The silos measure approximately 72 feet tall and 29 feet in diameter. All silos were built with a metal silo cap in the shape of a half-globe, although the northern silo has lost its cap. The silo walls are built of concrete staves measuring 30 by 10 inches and four inches thick. Iron bands were installed around the perimeter to hold the staves in tension; as the silos rise, the bands are spaced further apart because the staves are gradually under less compression. The hoistways are located on the side of the silo facing the trough, and open ladders on the opposite side of each silo extend upward to the entrance into the cap.

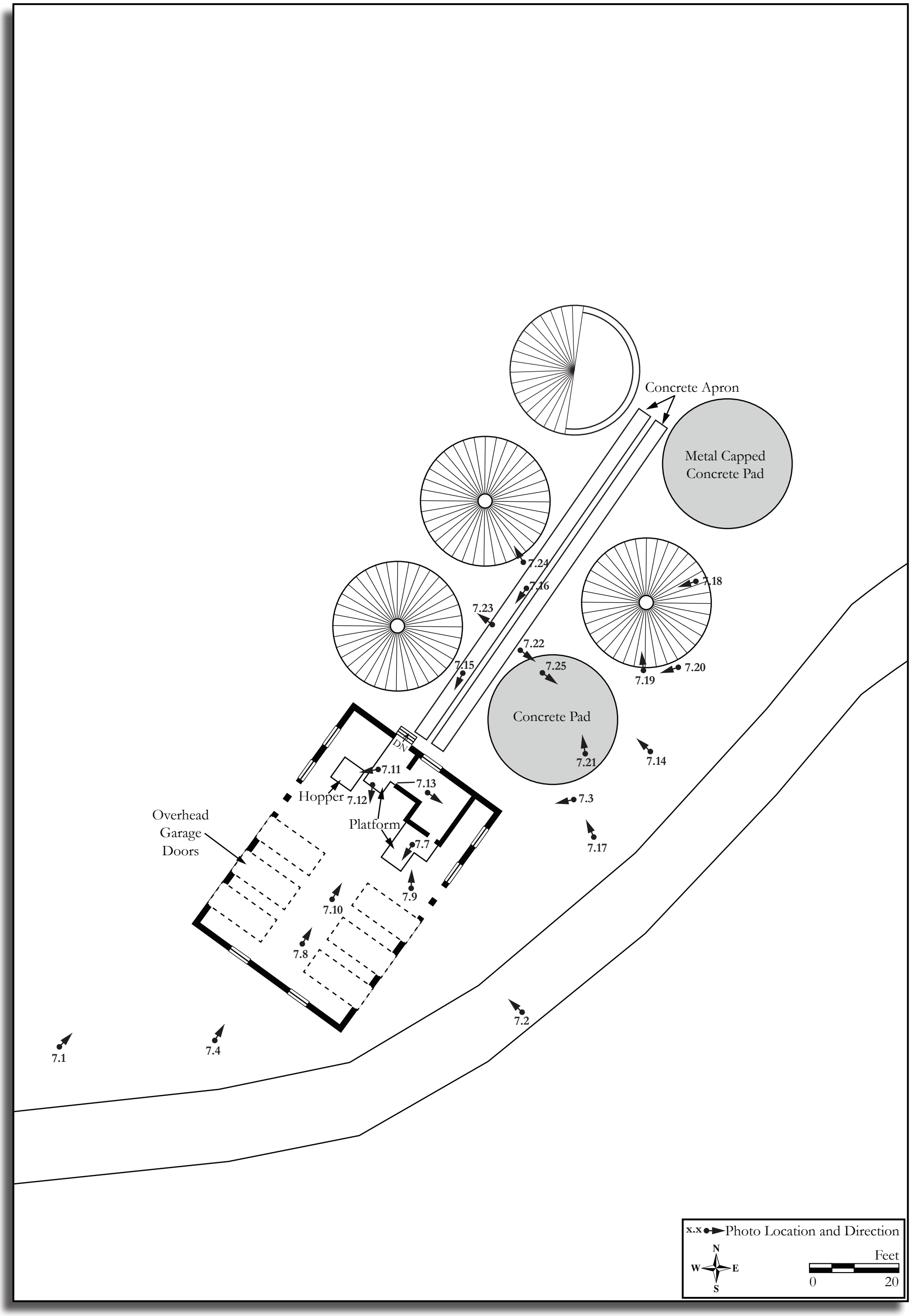


Figure 7.1: Silo and Feed Mixing Building Complex.

Plate 7.1: Silo and Feed Mixing Building Complex, as viewed from the farm drive.

Photo view: Northeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.2: Feed Mixing Building, main elevation.

Photo view: Northwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.3: Feed Mixing Building, east corner.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.4: Feed Mixing Building, southwest end.

Photo view: Northeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.5: Feed Mixing Building, northeast end.

Note, the metal hollow core door with a square inset light accesses the exterior of the building atop a frame stoop.

Photo view: Southwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.6: Detail of northeast elevation of Feed Mixing Building showing the imprint of the now-removed wooden railing for the porch.

Photo view: Southwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.7: Interior of Feed Mixing Building, as viewed from the interior platform.

Note, the main room, which has the three drive-through bays for farm machinery, has steel I-beams along the outer walls that are attached to steel rafters.

Photo view: Southwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.8: Interior of Feed Mixing Building, as viewed from the southwest end.

Photo view: Northeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.9: Mechanical control room and frame steps to the main platform in Feed Mixing Building.

Note, the steps lead to the mechanical control room, which is elevated off the main floor of the building.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.10: Detail of the joint at the ridge where the steel I-beams meet in the Feed Mixing Building.

Photo view: Northeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.11: Silage hopper near north corner of Feed Mixing Building, as viewed from the platform.

Note, the hopper ground silage, and an auger conveyed the silage into a trough that carried the silage northeast to the silos.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.12: Auger that delivered silage from the hopper to the trough leading to the silos.

Photo view: Southwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.13: Mechanical control room in Feed Mixing Building.

Note, electric control panels on the southeast wall of the room managed the silage operations.

Photo view: Southeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.14: Three of the four silos, as seen from the farm lane.

Photo view: Northwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.15: Silage trough leading through the concrete apron between the silos.

Photo view: Southwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.16: Silage trough leading through the concrete apron between the silos.

Photo view: Southwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.17: Three of the four silos.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.18: Three of the four silos, including the silo that has lost it cap.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.19: Foundation of a now-removed silo.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.20: Detail of the metal half-globe silo cap.

Photo view: West

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.21: Detail of iron bands that hold the silos in place.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.22: View facing up into a hoistway.

Photo view: Southeast

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.23: Detail of a silo closeable door below the hoistway.

Note, as the silo is filled from the bottom, these special doors can be closed and locked in place.

Photo view: Northwest

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.24: Interior of a silo without its cap.

Note, a reddish pink interior coat was installed over the inside of the concrete staves. The concrete floor features two rows of concrete blocks that were used to assist in unloading the silage.

Photo view: North

Photographer: Robert Wise

Date: August 20, 2019

Plate 7.25: Interior of the southeast silo, facing up to its cap.

Photo view: Southeast

Photographer: Robert Wise

Date: August 20, 2019

8.0 INTERPRETATION RECOMMENDATIONS

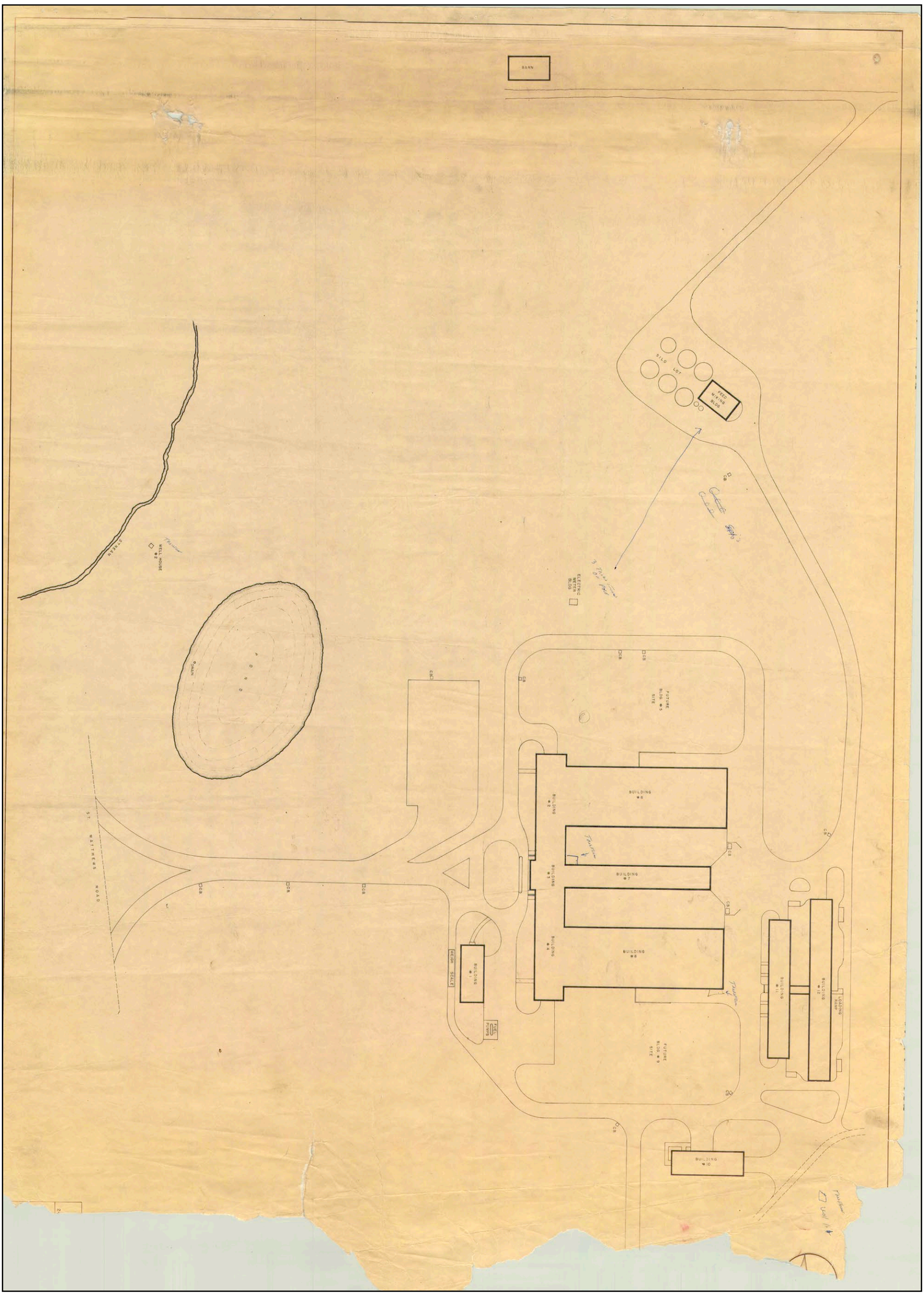
RGA recommends the township consider developing wayside signs along part pathways or near the entrance to commemorate and interpret the site. Historic research, including oral history, should also be completed on the barn complex to augment this description.

APPENDIX A: ANNOTATED BIBLIOGRAPHY

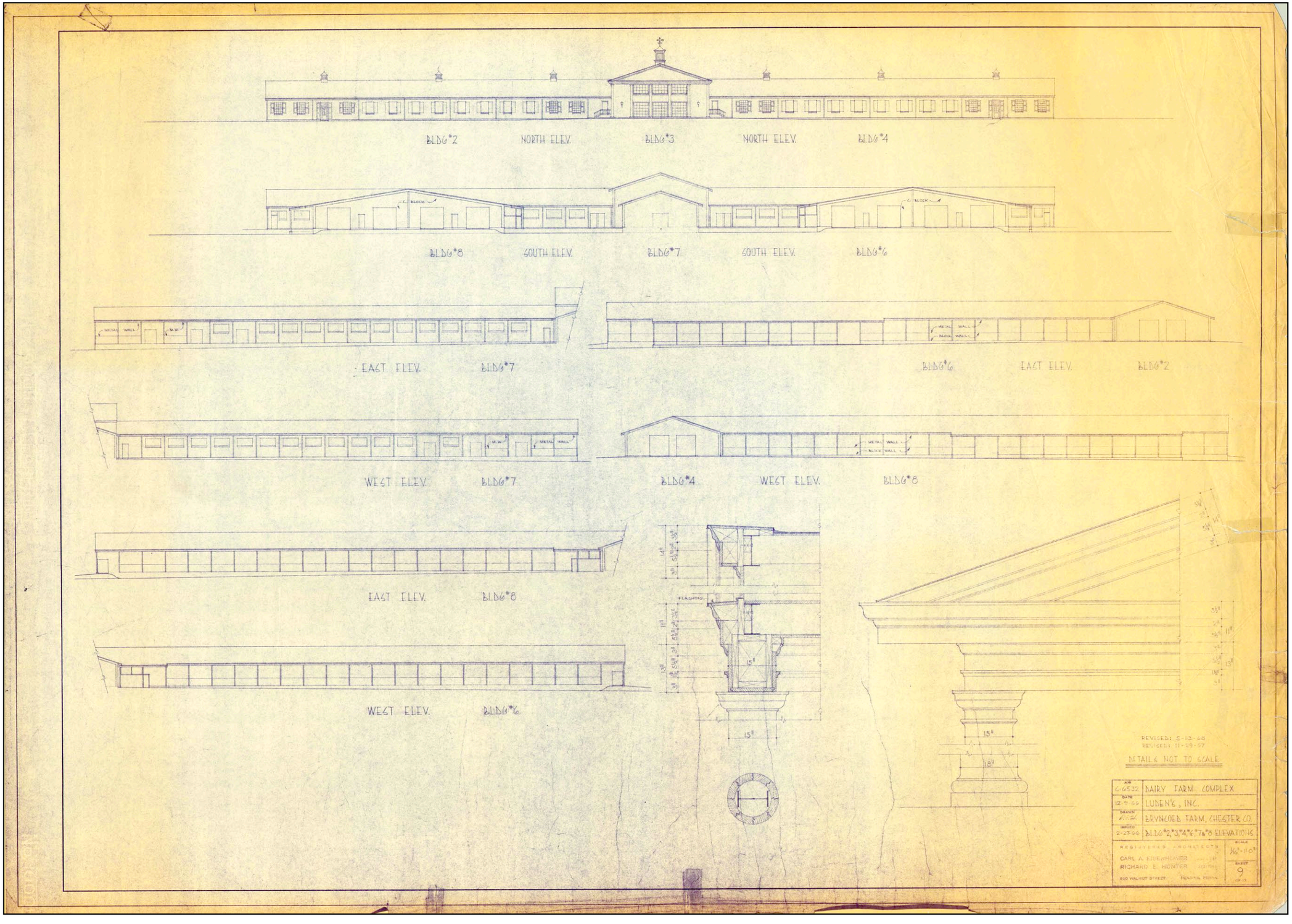
Authors:	Robert Wise, MSHP, Seth B Hinshaw, MSHP
Title:	Historic Structure Report, Bryn Coed Dairy Farm Complex, 1422 St. Matthews Road, West Vincent Township, Chester County, Pennsylvania
Date:	October 2019
RGA Database Title:	Bryn Coed Farm Barn Complex HSR
RGA Project No.:	2019-128PA
State:	Pennsylvania
County:	Chester
Municipality:	West Vincent Township
Drainage Basin:	Pickering Creek, Schuylkill River
U.S.G.S. Quad:	Downingtown, PA
Project Type:	Government: Historic Structure Report
Client:	West Vincent Township
Level of Survey:	Historic Structure Report
Cultural Resources:	None

APPENDIX B: COPIES OF SELECT ORIGINAL PLANS OF THE BRYN COED DAIRY FARM COMPLEX

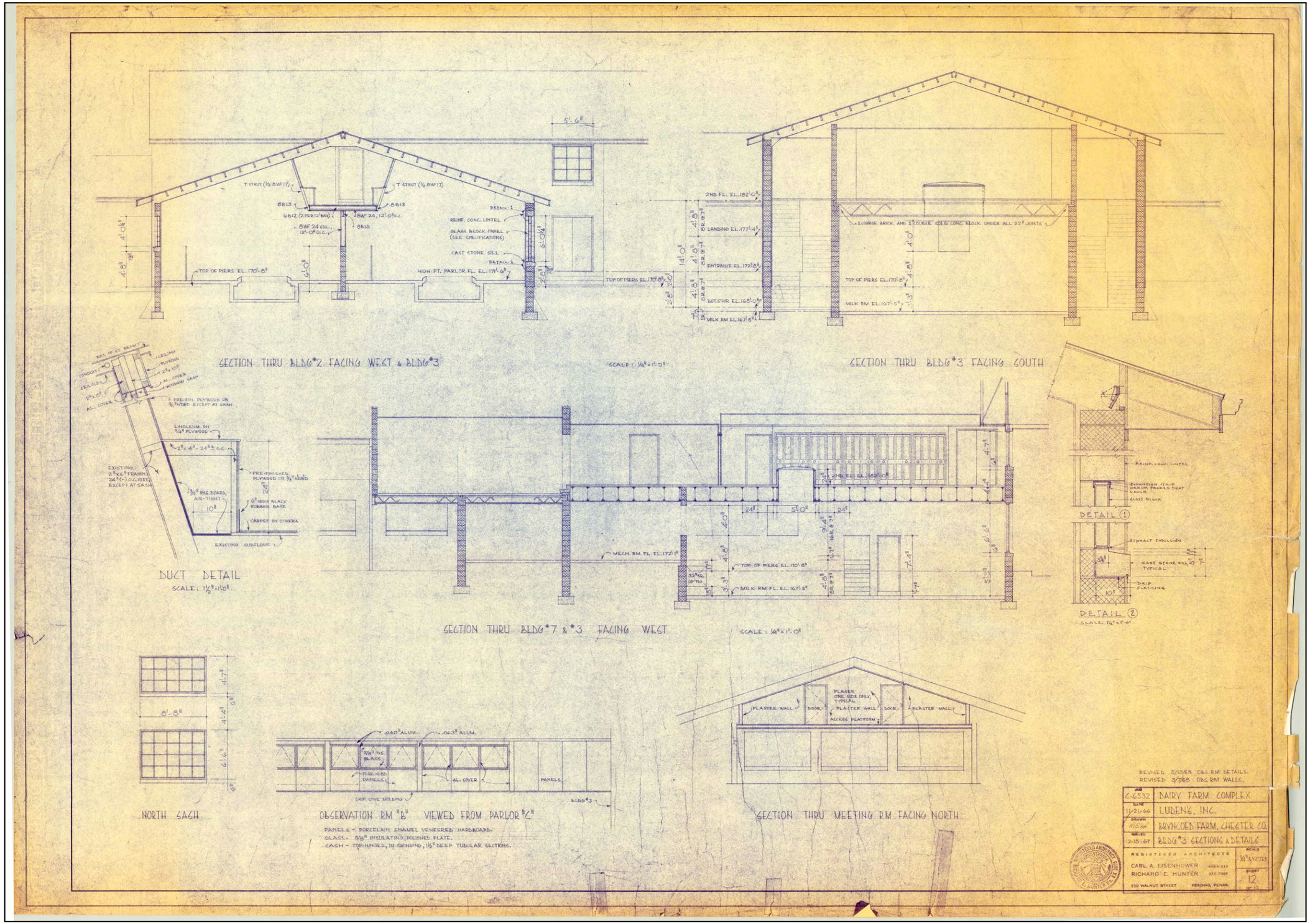
The full set of original plans by Carl Eisenhower and Richard E. Hunter, Registered Architects (1967) are housed in the West Vincent Township building.



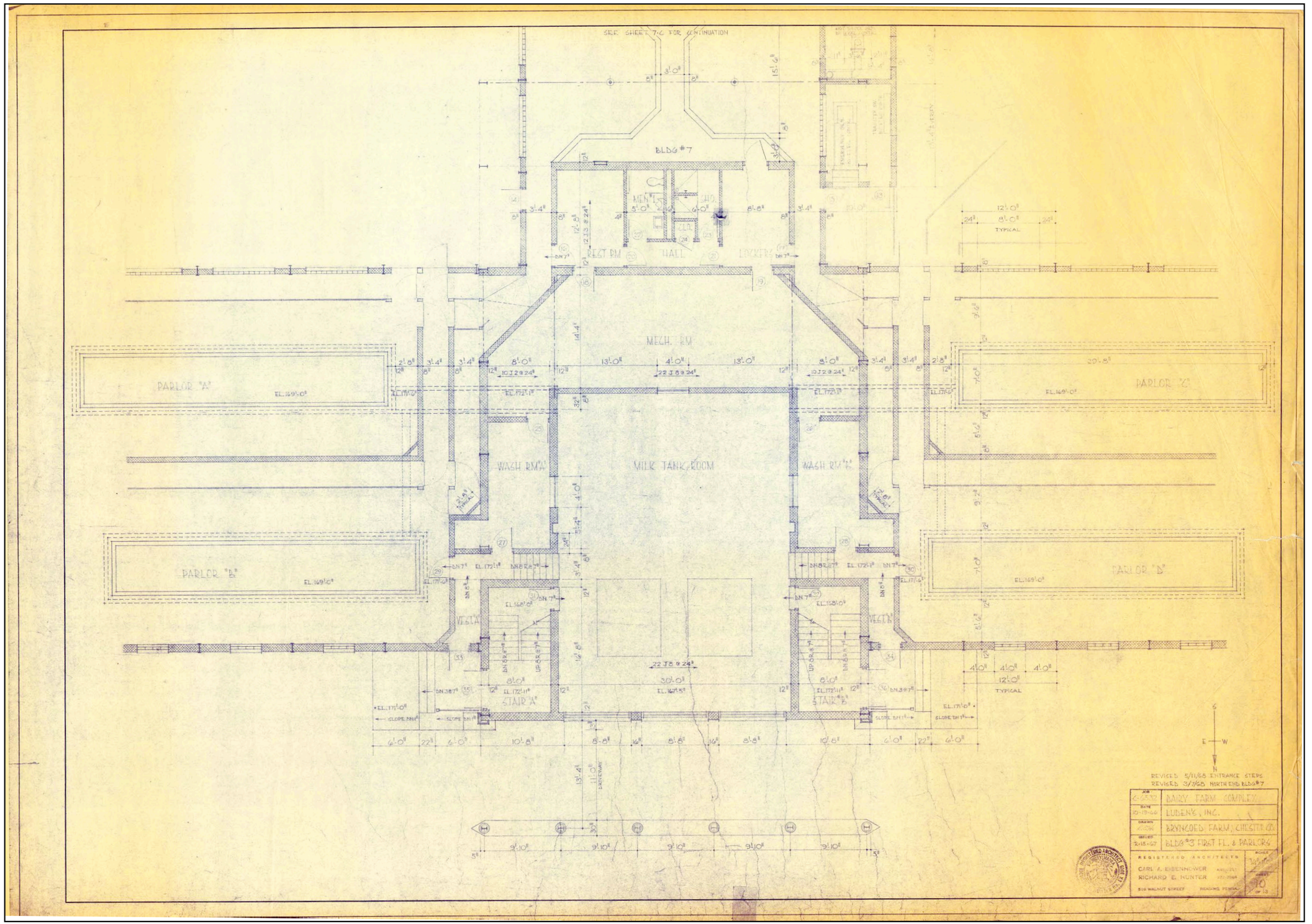
1 – Site Layout Plan.



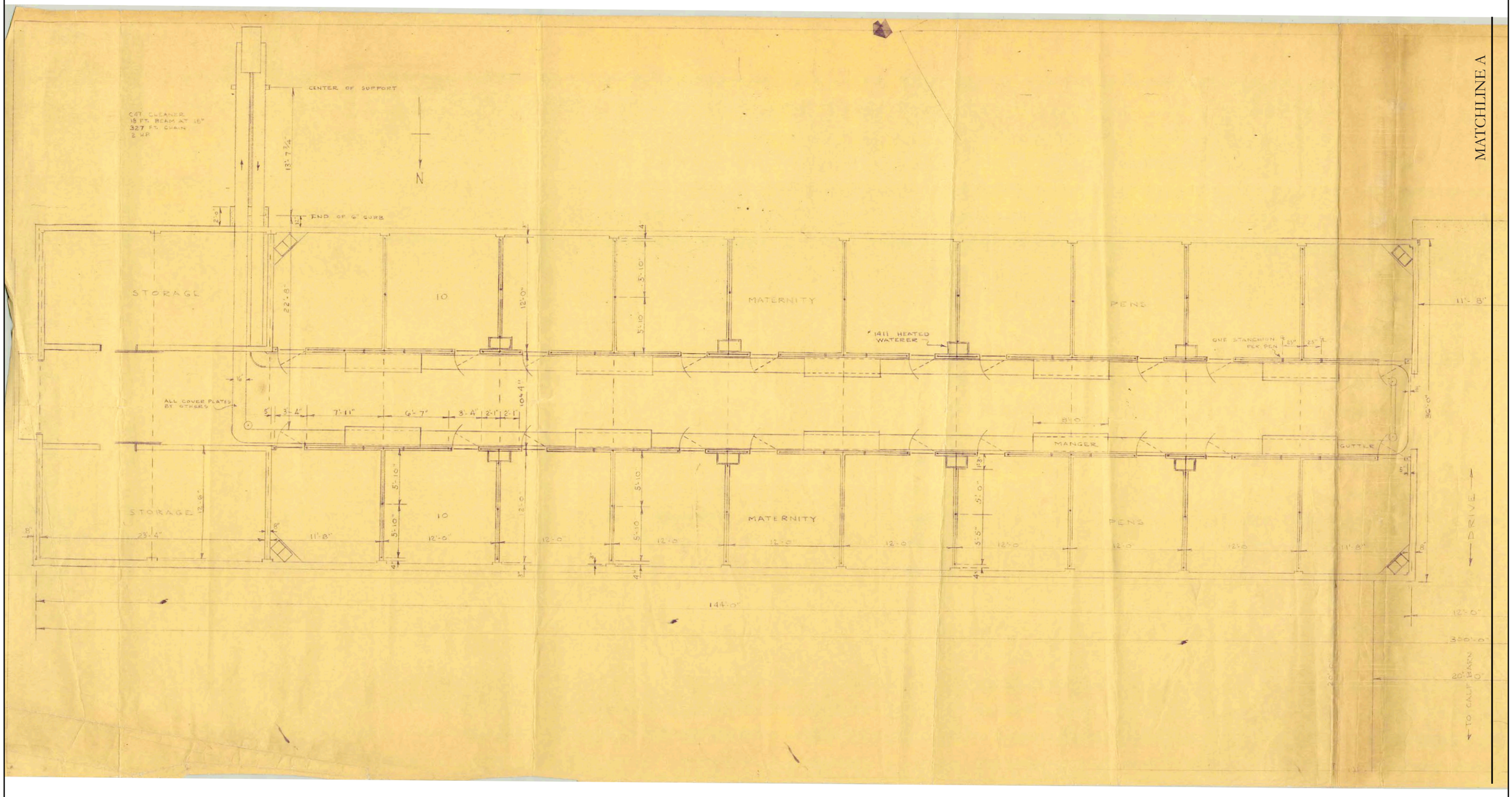
2 – Elevations of Main Barn Complex.



3 – Building 3 Sections.

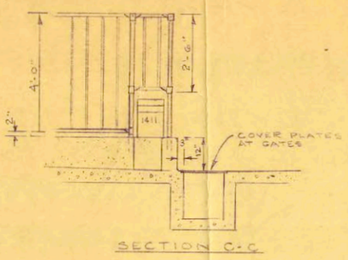


4 – Building 3 First Floorplan.

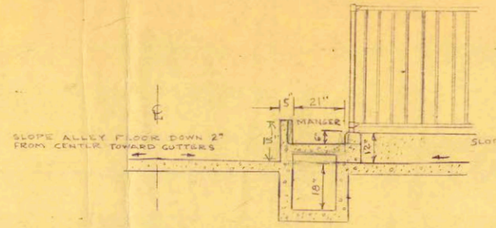


5a – Building 12 Floorplan.

MATCHLINE A

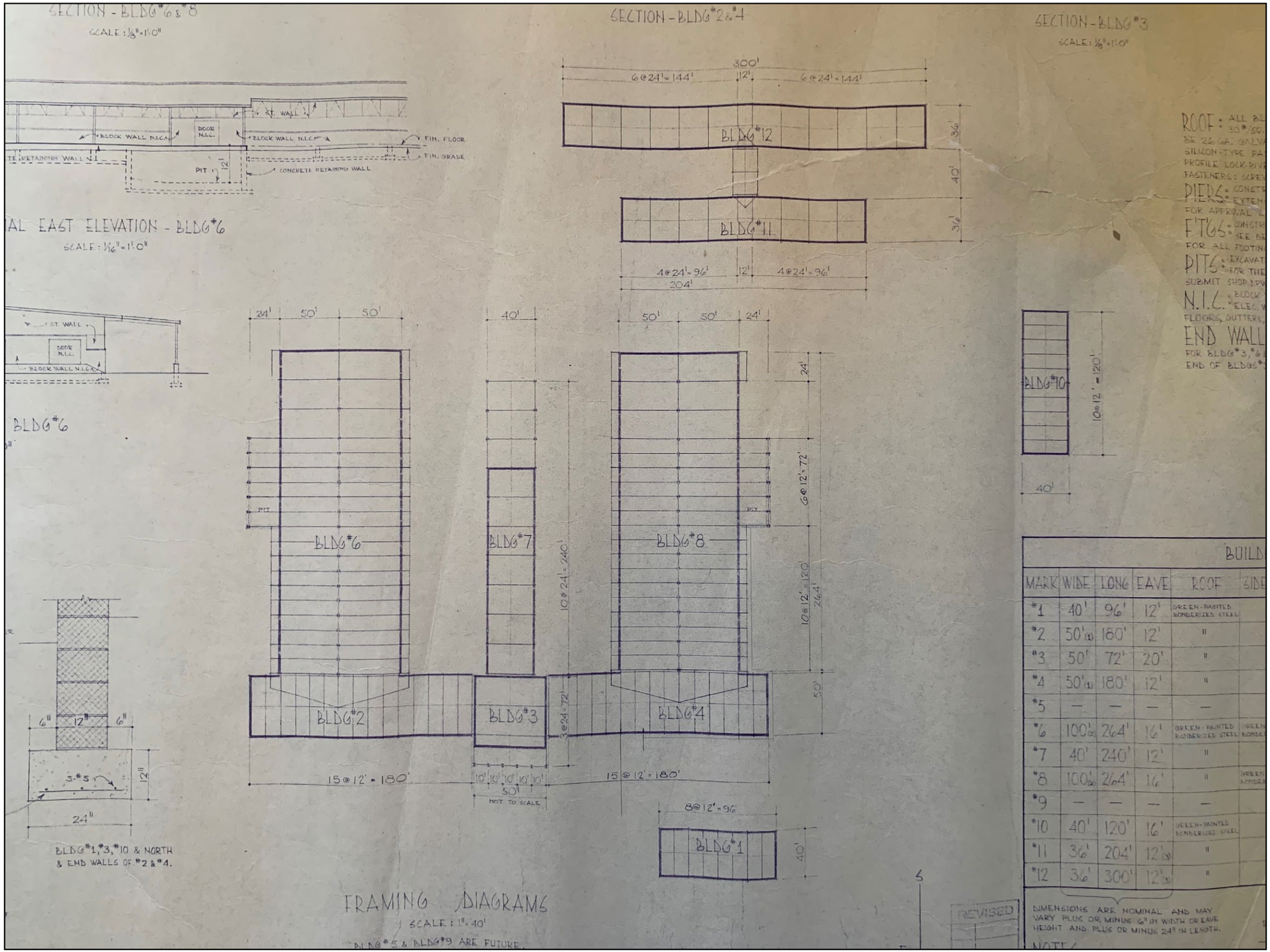


SECTION C-C



SECTION D-D

5b – Building 12 Floorplan.



6 – Framing bents of the buildings.