

CITY OF ROCKVILLE

KING FARM FARMSTEAD PROPERTY

CONDITION ASSESSMENT

DEPARTMENT OF RECREATION AND PARKS
JULY 3, 2014



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King Farm Farmstead Assessment Services and Intent

King Farm Farmstead Park is currently owned by the City of Rockville. Formerly the largest farm in the area, much of the original farm has long since been sold off and developed. The property that remains is comprised of 8 buildings on 7 acres. The character of the site and buildings coupled with the adjacent residential units offer great development potential, but the City has not yet found a suitable use for the property that satisfies all stakeholders. Many proposals for the site's future use have been suggested, but none have moved forward for various reasons. During this time, the buildings at King Farm Park have remained vacant and are deteriorating. The need to find an appropriate use for the site has become more critical due to the increasing level of dilapidation.

This report categorically goes through every building and assesses the overall condition of each. Visual inspections of both exterior and interior spaces are used to determine which areas and specific items are most in need of attention. Invasive investigations were not performed in the preparation of this assessment, although further investigations are recommended for a number of items contained herein. Based on this visual assessment, a series of recommended actions are proposed. These actions are further grouped, categorized, and prioritized to give the City a "roadmap" to follow in first stabilizing the buildings on the site, and eventually planning for future use and occupancy of the buildings at the King Farm Farmstead Park. The recommendations have also been assigned estimated costs, which are then tabulated by specific building and necessity grouping.

Implementing all of the recommendations contained in this report does not mean that the buildings will then be ready for use and occupancy. These recommendations merely provide initial steps that can be anticipated based on the most general of uses; actual proposed uses will need to be known before further evaluation, design, and implementation can occur. The scope of this assessment includes only the current condition of the seven buildings identified herein, and does not evaluate the site itself for parking capacity or vehicular access, zoning requirements, subsurface conditions, etc.

Report Sheet Nomenclature and Methodology

Every report sheet for each building is assigned a unique identifier according to building number and issue type. The buildings are numbered according to the map on page 7. Issue types are categorized based on building considerations common to all structures. For example, “Openings” is a category used to describe the issues associated with windows, doors, etc. for every building. Different buildings may have varying levels of deterioration within the same category. For instance, the doors and windows on the Garage (Building 2) are generally in worse shape than the doors and windows on the House (Building 1).

These issue type categories are numbered as follows:

1 Egress	7 Moisture	13 Electrical Systems
2 Accessibility	8 Insulation	14 Plumbing Systems
3 Approach	9 Siding	15 Gutter Systems
4 Foundation	10 Paint – Exterior	16 Roof
5 Flooring	11 Paint – Interior	17 Other Items*
6 Openings	12 Mechanical Systems	

*Some buildings have specific concerns not replicated in others, and these items are placed after the “Roof” report. Hence, they are identified with report numbers 17, 18, 19, etc.

Using the building number and the categories above, a unique identifier is created for each report sheet. I.e. the report sheet for “Openings” for the Garage (Building 2) is report sheet **2-6**.

Each report sheet also identifies the “Necessity” of the items contained therein. Three levels of necessity have been established to group items according to severity:

“Urgent” is used to identify issues which are severe enough that they have the potential to pose a danger to persons in or around the buildings. These items are exclusively structural in nature.

“Stabilize” is used to identify items which must be repaired to prevent further building deterioration. Primarily, these recommendations are focused on the building envelope and the repairs needed to stop moisture infiltration. The recommendations in this category do not assume future use, but are solely to maintain and protect the building as it currently stands. Structurally, this category entails replacing or reinforcing existing structural members that have deteriorated. This may include members that could not be viewed, but surrounding damage was severe enough to assume structural damage.

“Rehabilitate” is used to describe the initial repairs and construction which will be necessary to begin to prepare the building for future use and occupancy. These recommendations cannot accurately describe what will ultimately be required to complete the renovation for a particular building, as the actual proposed use and occupancy will have enormous ramifications on the required design. The recommendations do attempt to establish a realistic initial baseline for these future renovations, and some assumptions have been made to that end. Specifically, the “Rehabilitate” recommendations generally assume a future business use (which affects items like required floor loading capacity, HVAC and electrical systems sizing), and a warm shell (insulated envelope, minimally finished interior, and basic HVAC, plumbing, and electrical systems). From a structural standpoint, the following loading conditions have been included for recommendations in the “Rehabilitate” category:

Framed floor LL= 50psf,

Slab on grade LL = 100psf,

Roof LL= 30psf,

Lateral Loads per current codes (e.g. IBC and ASCE)

Finally, each report sheet has been prioritized. For each building, each of the report sheets has been evaluated and issued a sequential priority number. The most important issue for each building has been identified as priority number 1. Obviously, the items which have been identified as “Urgent” will have the highest priority for each building, and those items which fall in the “Rehabilitate” category will have the lowest priority.

Hazardous Materials

Possible hazardous materials were visually observed in a number of buildings around the site, and are likely present throughout the buildings on the site due to the age of the structures and common use of these materials in the construction process over this time period. However, a hazardous materials survey is outside the scope of this report. A comprehensive hazardous materials survey is necessary to determine the extent of hazardous materials present and the amount of remediation required. The report recommends that the City hire an appropriately credentialed and qualified professional service firm to perform these tasks. The extent of the remediation effort required (and associated costs to remediate) can not be determined until this survey is completed.

Notes on Estimated Costs

Each report sheet contains an estimated cost for the recommended action items contained therein.

The costs on each sheet are inclusive of the following items:

- Construction cost for the work described
- A 0.75% multiplier for contractor liability insurance
- A 5% multiplier for contractor overhead and profit
- A 1.5% multiplier for contractor bond
- Contingency (10%)

The following items have been excluded from the listed costs:

- Design (A/E) and permit fees which may be required to implement many of the recommended action items
- Escalation: Recent historical escalation costs have been in the range of 3 - 4% per year. However, the construction market has seen an aggressive upward trend, and it is recommended that escalation costs of 8% per year be budgeted for deferred work
- Hazardous materials remediation
- Site utilities: The MEP systems descriptions contained in the report constitute the engineers understanding of the requirements for these systems to a point of 5 feet outside each building. The narratives for new mechanical, electrical and plumbing systems, as defined in the report, do not include any utility cost to bring utilities to the various structures to within 5 feet of the building envelope. The owner should anticipate additional cost to provide the necessary utilities to the various structures. To serve future use and occupancy, the following utilities should be upgraded and brought to within the close proximity of the various buildings – sewer and water, electrical service and natural gas. All these utilities would be required for the adaptive reuse of the structures. *Note: A 2007 Site Utility Water and Sewer System Report for the King Farm Farmstead performed by KCI Technologies in 2007 is included as Appendix G to this report.*

Summary of Recommendations

Below are listed summary recommendations for each of the assessed structures in narrative form. All of these recommendations can be found in greater detail in the individual building sections later in the report, along with associated costs.

Building 1 – House: Stabilize and Rehabilitate

There are no urgent structural items which require attention at this time. Because the relative condition and visual presentation is good and many historic features are present, the house should be treated with a light touch. Significantly invasive actions will detract from the historic character and are not recommended, especially on the exterior. While some building modifications will be dictated by the requirements of the future use and occupancy, these preparations should be done with an eye towards minimizing exterior changes to the greatest extent possible.

Building 2 – Garage: Stabilize and Rehabilitate

While no urgent structural matters have been identified for this building, a large percentage of the recommended actions are focused on stabilization of the building envelope. Until these items are addressed, the building will continue to deteriorate. From a future use standpoint, the configuration is flexible enough to allow for a variety of uses. It is recommended that the articulation of windows and garage doors be retained regardless of adaptive reuse to provide a visual historic record of the building.

Buildings 3 & 4 – Dairy Barn(s): Address Urgent Structural Items, Stabilize, and Rehabilitate

Barn 4 has some urgent structural items that must be addressed immediately. The remainder of the recommendations for these buildings is split almost equally between significant stabilization requirements and items required to prepare the buildings for future use and occupancy. As the primary structures exhibiting the historic function of the site, these buildings should be treated in a way that highlights their significance. Extensive structural and building envelope upgrades will be required to prepare these buildings for public use. The recommendations contained herein do not contain provisions to prepare the attic areas of the barns for future use and occupancy.

Building 5 – Horse (Hay) Barn: Demolish and Reconstruct

The sheer number of structural deficiencies evidenced in this building will make any rehabilitation effort extremely challenging and costly. Throughout the building, the framing is undersized and not properly connected per current code requirements. Rather than try to address each of the numerous structural issues individually, it is recommended that this building be demolished. As much of the existing historical material (siding, etc.) as possible should be salvaged for use in a future reconstruction of the barn according to historic preservation standards.

Building 6 – Tenant House: Demolish Later Additions, Stabilize, and Rehabilitate

This building has arguably been affected the most by moisture infiltration and related damages, and an immediate stabilization effort is therefore paramount. The most deteriorated sections of this building are the two additions. While they do contribute to the story of the site, they are jeopardizing the entire structure. The recommendation is to remove the additions and rehabilitate the original portion of the structure for future use and occupancy. In addition, a proper foundation and crawl space must be installed to stabilize the structure.

Building 7 – Tenant House: Stabilize and Rehabilitate

This building is in fairly good shape, and the stabilization and rehabilitation recommendations are the least costly of any building on the site. The foundation and crawl space have similar issues to those found in building 6 (exposed framing too close to earth), and must be modified to protect the building. Despite its decent condition, the small size of the structure will limit the future uses which can be accommodated, and ADA compliance will be difficult to achieve.

Future Site Use

While it is beyond the purview of this report to suggest future uses for the site, it is recommended that if at all possible, a cohesive use for the site be established. While each of the individual buildings is important in their own right, the primary historical significance of the site is as a collection of buildings which embody 20th century dairy farming. It would be wonderful if future site use could support and enhance this historic narrative.

Acknowledgements

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Jim Plowden, P.E.

MEP: L.S. Grim, MEP Consulting Engineers
Les Grim, P.E.

Cost Estimating: CostCon Construction Services
Lloyd Bernstein

Abbreviations

@	at
ADA	Americans with Disabilities Act guidelines
Amp	Ampere
Approx.	Approximately
ASCE	American Society of Civil Engineers
CPVC	Plastic – Chlorinated Polyvinyl Chloride. PVC that has been chlorinated.
CMU	Concrete Masonry Unit
Gyp. Bd.	Gypsum Board
HDC	Historic District Commission
HVAC	Heating, Venting, and Air Conditioning
IBC	International Building Code
KCI	KCI Technologies
LF	Linear Feet
LL	Live Load
LVL	Laminated Veneer Lumber
MBH	Thousand Btu's per Hour
MC	Metal-Clad. Used to describe metal-clad cable used for electrical wiring.
MEP	Mechanical, Electrical, Plumbing
OC	On Center
PSF	Pounds per Square Foot
PVC	Plastic – Polyvinyl Chloride
Romex	Plastic Insulated Wire; Non-metallic sheathing for electrical wiring.
SF	Square Foot

King Farm – Building Number Map

6.96 Acres

Estimated total building square footage: 27,544



King Farm – Narrative

History

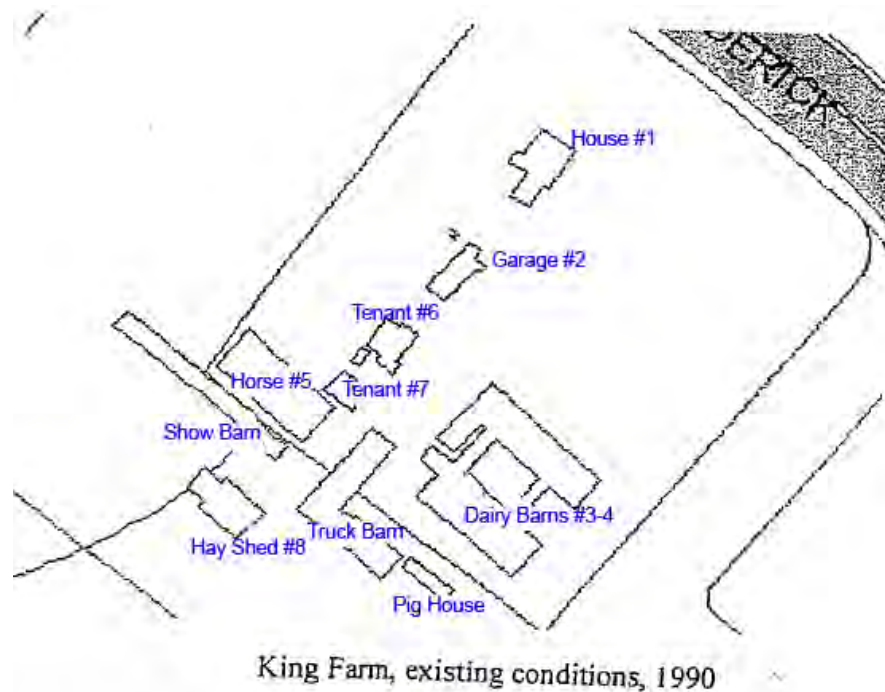
(Much of the information in this and the following section(s) has been summarized from the Maryland Historical Trust Maryland Inventory of Historic Properties Form for King Farm Park, dated 2006, prepared by Robin Ziek. That Inventory is included with this report as Appendix F.)

King Farm Farmstead Park is a 7 acre property located off Frederick Rd. in Rockville, MD. It is the last remaining piece of what was originally a 122 acre dairy farm, one of the largest operations in the County.

The land for the farm was originally assembled from a number of pieces of larger contiguous parcels, and was sold to Andrew Graff at auction in 1822. It was a well managed farm with a variety of farming activities including cultivating fruit and corn. In 1914, the Graff family built the house that sits on the property today.

The King family became owners of the property in 1925. The Kings named their newly acquired property “Irvington Farm” after a family member. Many of the original functions of the farm were converted to support dairy farming. The King family is responsible for building most of the structures that remain today. A tornado and multiple lightning strikes early in the family’s ownership destroyed some of the original buildings. In their place, the garage, attached smoke house, tenant cottage and horse barn were all built. King also expanded the farm for dairy use by constructing the double dairy barns (buildings 3 and 4) in 1932. The farm operated until the 1980’s, when the last of the King descendants died without a successor. The majority of the property (and the property of the surrounding contiguous farms, which were also owned by the Kings) was developed as the King Farm development, a 430 acre mixed used development. In 1997, the 7 acre farmstead was donated to the City by the developers of this project.

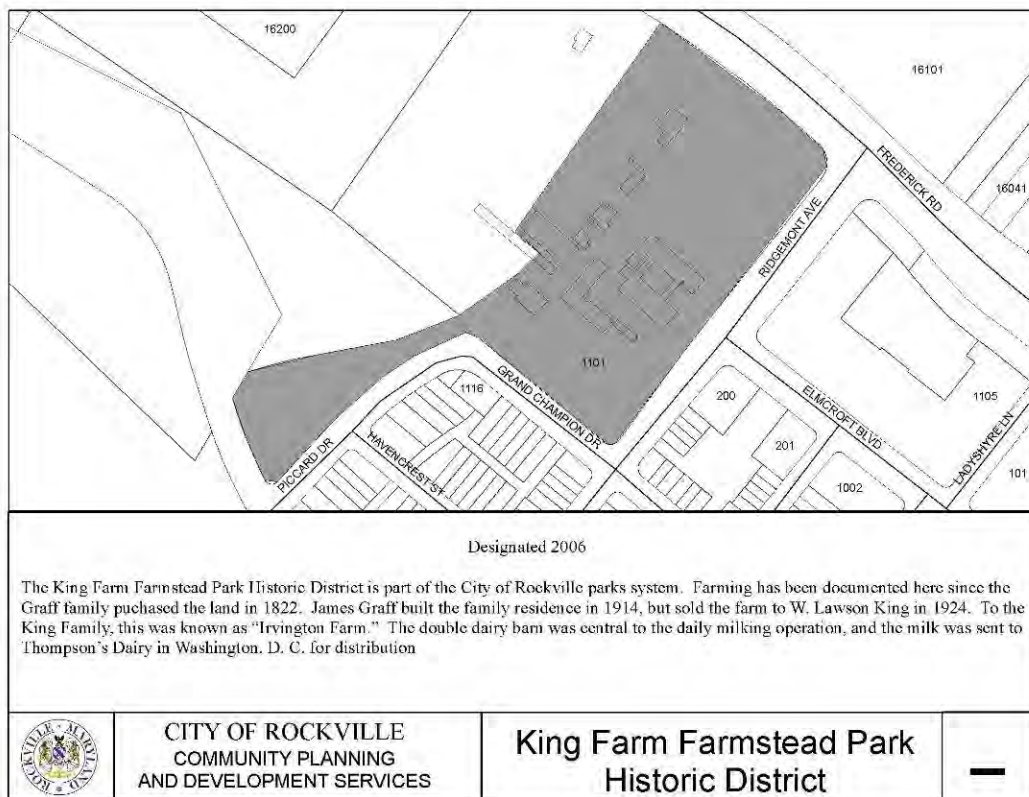
When the City took ownership, several of the buildings on the site were deteriorated and beyond repair. The King Farm Task Force was created in 2001 to help define plans for the remaining buildings. Based on their recommendations, the pig house, calf barn and show barn were demolished. Another lightning strike at the property had already necessitated the demolition of the existing truck barn soon after the City took ownership, leaving the 8 buildings present on the site today. The hay drying shed (building 8) was converted into an open picnic pavilion (also in keeping with the Task Force recommendations), and was not included in this assessment.



In 2010, the City of Rockville issued a Request for Information for the Adaptive Re-Use of King Farm Farmstead Park with the goal of exploring potential adaptive re-use proposals for the site. Several proposals were received, but none were formally accepted or implemented. Additional proposals have also been received and reviewed by the City outside of this process, but no further action has occurred on the site. At the time of the survey for this assessment, Bikes of the World was occupying the horse barn and tenant cottage (buildings 5 and 7), primarily for storage.

Historic Significance

Each of the 8 existing buildings is a contributing resource to the historic significance of the site. As a whole, the site offers a great example of 20th century farming in the region. In addition to agricultural influence, the families associated with the property were also prominent figures in local community politics and business. At one time, the Irvington Farm was the largest operating dairy barn in the county with 500 cows milked daily. As such, the site and buildings are excellent examples of a major historic economic driver in the area. The social and economic histories of the site are important factors to consider, and future plans for the site need to take into account the rich history surrounding the buildings. The site has been identified as a local historic district, and future plans for the site and buildings are subject to Rockville Historic District Commission review.



Preservation and the Rockville Historic District Commission

This property was designated an historic district in 2006. The King Farm Farmstead Park Historic District includes all 8 existing buildings currently standing at the site. Due to this designation, all proposed actions including exterior changes and demolition on the property must go through a review process by the Historic District Commission and apply for a Certificate of Approval.

The Rockville Historic District Commission (HDC) is the governing body over local historic districts and properties. Their mission is to protect the local heritage embodied in the districts and buildings within the community. The application process for a Certificate of Approval for any proposed change requires approval by the HDC at a public meeting. The HDC will also provide recommendations and advice in the form of a Courtesy Review. Courtesy Reviews may be requested before the Certification application is submitted to assist in decisions regarding exterior renovations, preservation techniques and issues, and the site. This informal review process may be an ideal way to determine appropriate action for many of the buildings. Because some parts of various buildings appear beyond repair, seeking early advice regarding these locations will help keep any proposal on the right track. Arguments for demolition are typically required to come accompanied with justification beyond deteriorated condition of the building. For example, building 6 is in fairly bad condition. Demolition of the two later additions to the original structure may be justified in this case by indicating they are not part of the original structure. By removing them, the old barn will present in its original form. Future uses for the buildings may be partially dictated by what additions and/or renovations are accepted by the HDC.

The Secretary of the Interior has outlined standards for the preservation of historic structures. These guidelines are used as a road map for treating a given building or site based on the strategy chosen. The strategies are as follows:

Preserve*: the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property.

Rehabilitate*: the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

Restore*: the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period.

Reconstruct*: the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure or object for the purpose of replicating its appearance at a specific period of time and in its historic location.¹

¹ * National Park Service. "The Secretary of Interior's Standards for the Treatment of Historic Properties" *Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings*.
www.nps.gov/history/hps/tps/standguide/

Given the characteristics of the King Farm site and the desire to adaptively reuse the buildings, the most appropriate approach to preserving the existing structures is to rehabilitate them. The advantage of this strategy is that it accommodates adaptive reuse by allowing more flexibility in the treatment of the historic structures. Modern requirements and stabilizing measures such as gutter systems can be installed tastefully while still maintaining the historic features of a given building. Alterations to the structures can be made, and additions are also possible. Other strategies are less flexible on their own, but may be included as part of a rehabilitation approach.

Context

The current site is now a park, with the 8 buildings resting on elevated grassland. The site is bounded by a high-density residential development to the east and south, a large car dealership to the west, and Frederick Rd. to the north. Frederick Rd. is a major vehicular artery for the area and is commonly very congested. Several commercial structures occupy the opposite side of Frederick Rd. from the site. Because the site sits higher than its surroundings, it has high visibility; the "Thompson's Dairy" lettering across the barn roof is an iconic view for the area.

Site Characteristics

Large mature trees add to the rural feel and act as a natural shield from the surrounding congestion of the area. The west side of the site is defined by a large grass covered berm that runs the property's entire length. Generally speaking, the topography continuously slopes up as one moves south from Frederick Rd. The southern part of the site has both a community garden and a covered picnic area. The hay-drying shed (building 8) is located in this area and serves as the picnic pavilion.

Site Utilities

There was a new electric service provided to the complex in 2006. It is a freestanding pedestal style electric distribution panel and meter assembly which feeds out to the various onsite buildings. It is a 400 amp switchboard fed by PEPCO meter KZD350868642 and serves a General Electric panel which is 24 spaces, 11 of which are free and available for future reuse.

Current water service for the site consists of two wells that stretch to approximately 150' to 200' below the surface. The wells are located across the site from each other, as one serves the existing community garden across from building 8, and the other serves the house. Pumps for both wells were replaced within the last five years. The house also has a trunk sewer. The well that serves the garden is reported as non-potable water. Please review KCI's *Site Utility Water and Sewer System Report* from 2007 for more detailed information (included as Appendix G to this report). The KCI report also provides proposed measures for serving all of the existing structures with public water and sewer.

Building Structure

The structural assessment consisted of a walk through visual assessment of condition, and where accessible, measurements were taken of the existing framing sizes. No existing finishes were removed for a more detailed evaluation. In the specific reports, the findings have been categorized as either "Urgent", "Stabilize", or "Rehabilitate", as defined on the previous pages.

Mechanical, Electrical, Plumbing (MEP)

As a working farm, the requirements for MEP systems were low. The systems used were all very basic. Those that are still present today reflect the simplicity of their past function, and in most cases are not appropriate for modern use.

The main house building is typical for farmhouse occupancy and contains most of the MEP systems found on the complex. In general, the mechanical, electrical and plumbing systems on the site are nonfunctional; however, a new electrical service was installed in 2006 (see preceding "Site Utilities" section). The service was added to the freestanding electric pole located in the approximate center of the farmstead and allows for back-feeding some of the out buildings. All are currently being used for other functions. Please refer to the attached building-by-building narrative and specific report sheets for the condition of each complex component.

King Farm, Assessment

SITE WIDE - ALL BUILDINGS



Pests

A unique and somewhat unfortunate characteristic of the King Farm site is its current groundhog residents. They are not relegated to one area, but stretch across the entire site. Their burrows are numerous and make walking in the grass somewhat risky. Holes have also been dug under the foundation of nearly every building on the site. Eradicating the groundhogs is important to prevent further damage to the grounds and structures. (Estimate for groundhog eradication: \$10,000)

Hazardous Materials

Possible hazardous materials were visually observed in a number of buildings around the site, and are likely present throughout the buildings on the site due to the age of the structures and common use of these materials in the construction process over this time period. A comprehensive hazardous materials survey is necessary to determine the extent of hazardous materials present and the amount of remediation required. It is recommended that the City hire an appropriately credentialed and qualified professional service firm to perform these tasks. The extent of the remediation effort required (and associated costs to remediate) can not be determined until this survey is completed. (Estimate for hazardous materials survey: \$12,000)

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 0-1
Priority: 2	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: SITE WIDE	
Category: PESTS	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
Site wide evidence of groundhogs.	
Recommended Action	
Consult with professional service to humanely remove groundhogs. Continuing service will be required for a minimum of two years to effectively eradicate the groundhogs.	
References:	Estimated Cost: \$10,000.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 0-2
Priority: 1	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: SITE WIDE	
Category: HAZARDOUS MATERIALS	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
Possible hazardous materials were visually observed in a number of buildings around the site, and are likely present throughout the buildings on the site due to the age of the structures and common use of these materials in the construction process over this time period.	
Recommended Action	
A comprehensive hazardous materials survey is necessary to determine the extent of hazardous materials present and the amount of remediation required. Hire an appropriately credentialed and qualified professional service firm to perform these tasks. The estimated cost for this line item concerns solely the hazardous materials survey and associated report - the extent of the remediation effort required (and associated costs) can not be determined until this survey is completed.	
References:	Estimated Cost: \$12,000.00

King Farm, House Assessment

Building 1



General:

The house was built in 1914 as part of the original 122 acre farm. It sits on high ground set significantly back from Frederick Rd. which provides a degree of separation from the noise and congestion of traffic. The large grass covered berm on the west side effectively shields the house from the car dealership beyond. Mature trees dotting the area surrounding the house also help to establish a more natural setting for the structure.

The house has 2 stories plus an attic and basement. All spaces are occupiable, but only the two main floors are meant for regular habitation. There are 5 bays along the front façade with a porch extending the entire width. Painted white wood siding is accentuated with green wood shutters and 6/1 double hung windows. The façade facing the drive is characterized by a 1-story bay window and irregularly placed 6/1 double hung windows. The carport is located along the rear façade, along with an exterior entrance down to the basement. A small porch addition anchors the right corner of the final façade. A back stair rests at this façade, made apparent by the varying heights of the windows. Window spacing is also inconsistent in this area. The interior of the house is organized around a central hall that bisects the building. The main living spaces are on either side, and the main stair up to the second level is located within the hall itself. The rear stair well is tucked beside the kitchen and is the interior means of access to both the basement and attic.

The general condition of the house is good. The house has been occupied for a good portion of its recent history (although it currently sits vacant), and past occupants have helped to keep the building in relative working order. The greatest issue with the house appears to be moisture infiltration; water damage is particularly evident in the basement and attic. Overall, the house is solidly constructed and the most prepared for future use.

Accessibility and Public Use:

While the house is in relatively good condition, there is no current accessible entrance. Because the house sits significantly above grade, providing an accessible entrance presents some difficulties. An accessible route into the first floor could be introduced through one of the rear entrances, as these are closest to both the drive and to grade. The second floor is also not currently accessible, and the addition of an elevator (interior or exterior) would be both expensive and challenging to implement. Depending on the proposed public use, the second floor may be excused from ADA requirements based on the historic status of the building.

There is not currently a restroom available that could be converted into an accessible toilet room without significant interior changes. The most obvious location is the first floor powder room, but further investigation would be required to establish the feasibility of such a renovation. There are two existing bathrooms located on the second floor, but neither is appropriate for accessible use. If the second floor is excused from ADA requirements due to historic status, then these bathrooms will not be required to meet accessible standards.

Architectural:

Some of the biggest problems noted relate to moisture damage and egress. The first floor of the house presently sits 21" and 33" above grade, depending on which entrance is being used. Generally, steps into the house are in poor condition. In terms of egress, some spaces are more lacking than others. The basement has very low ceilings and very narrow stairs, and is not suitable for public use and occupancy. In general, the doorways, railings and stairways throughout the house are all too narrow and/or short to accommodate current code egress requirements.

Water infiltration is evident in isolated locations within the house. The basement floor and ceiling joists show significant signs of historic water staining, as does the attic floor. The kitchen floor shows more current water damage; there is a significant soft spot which has affected the floor joists below and the adjacent exterior siding. Some of the windows show evidence of water infiltration, specifically the first floor bay window.

Structural:

The main house is a two-story wood framed structure with a basement and attic. The building is essentially in sound condition. There is one area under the kitchen where water has damaged some of the floor framing. Possible termite activity was observed in the basement near the side bay window. The adjacent car port is generally in good condition.

The first floor framing is satisfactory for a Live Load (LL) = 50psf. It is assumed that the upper floors are the same sized joists. There are no issues which have been identified as structurally "Urgent" for the house. Minor items have been included on specific report sheets for structural items which fall under the "Stabilize" and "Rehabilitate" categories.

MEP:

The main house MEP systems consist of an oil fired hot water boiler located in the basement which serves the entire two-story farm house. The equipment has significantly deteriorated, and while it is operational, it is very old and in need of replacement.

MECHANICAL SYSTEMS

The boiler is a Crane Company, Series 25 Oil Fired Heating Boiler #A258 and is rated at 235.7 mbh. Piping from this boiler feeds out to various cast iron radiators along the perimeter walls in each of the rooms. The cast iron radiators have simple manual control valves, but no modulating control valves have been provided. The general condition of the piping and the entire system is poor with the exception of the radiators, which may be considered architecturally significant.

Air conditioning for the building is provided only for the second floor sleeping areas. This was provided by a Lennox split system air conditioning unit located in the attic level with the ductwork mounted on the floor. Ductwork was then fed downward through the ceiling into the second floor to cool those spaces. This entire unit is a Lennox Model #B3-41-2-1150M, Serial Number #5669E and is nonoperational.

PLUMBING SYSTEMS

In general, the condition of the plumbing systems is poor. Water piping enters the building from a well area located to the rear of the property at the basement level. The piping goes through a whole house filtering- and water softening- system, then out to various fixtures within the farmhouse. An electric hot water heater in the basement provides the hot water for the entire building. Piping rises from the basement water heater and through the building to serve the first floor kitchen and bath areas on both floors. There is also a small laundry area at the basement level. The distribution piping for the plumbing systems is a mixture of copper and CPVC.

In general, the sanitary waste vent system is in poor condition. The sanitary waste vent exits the house along an exterior wall and goes out to the site. The main sewer line within the building is cast iron lead and oakum joint piping material, although PVC piping has been used for repairs. PVC branches and Fernco connectors are used to connect the PVC piping to the existing cast iron. The plumbing fixtures in the building are late 1950's white china fixtures and are in fair to poor condition.

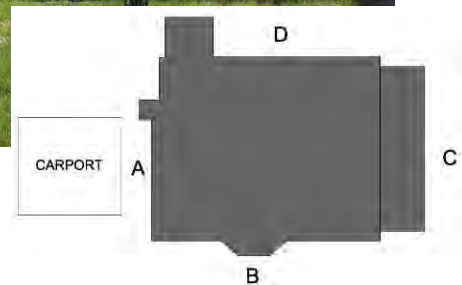
ELECTRICAL SYSTEMS

The electrical service enters the building and goes to a 200 amp Square D distribution panel which was installed in 2004. The exposed wiring in the basement from this panel was upgraded using MC cable out to various junction boxes where it then connected to the existing original wiring in the building. The wiring is a mixture of MC cable, Romex wiring and rag wiring from the original electrical installation in the building. The service entrance panel was installed in 2004 and appears to be in good shape. The primary distribution with circuitry that goes out to various wiring devices throughout the building (lights, switches, etc.) also seems in good condition. However, all the downstream devices, wiring, lighting, etc. are in questionable condition and should be replaced. There is also an Ademco Vista 40 security panel. It has sensors located throughout the structure. The condition of this system is unknown.

House Assessment Summary and Reports

General Recommendations:

There are no urgent structural items which require attention at this time. Because the relative condition and visual presentation is good and many historic features are present, the house should be treated with a light touch. Significantly invasive actions will detract from the historic character and are not recommended, especially on the exterior. While some building modifications will be dictated by the requirements of the future use and occupancy, these preparations should be done with an eye towards minimizing exterior changes to the greatest extent possible.

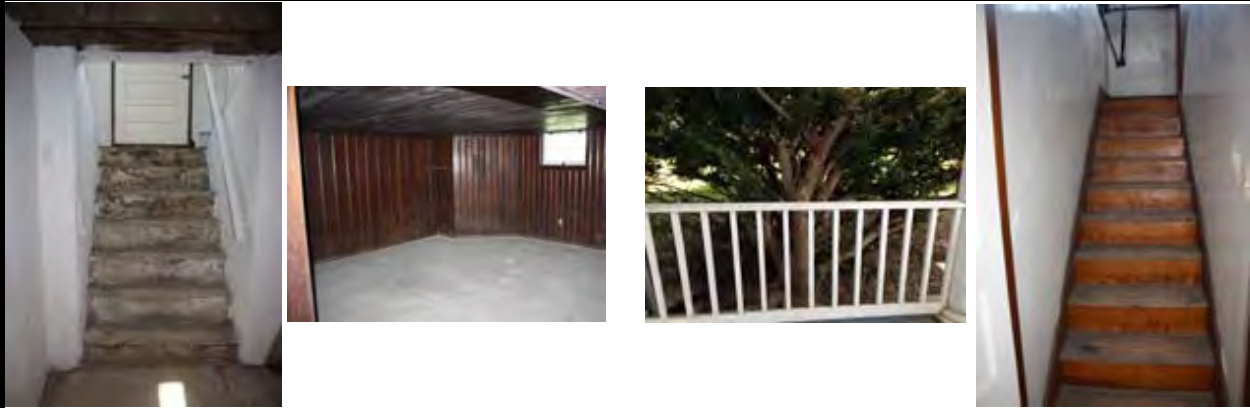


Cost Estimate Summary

Urgent:	\$ 0.00
Stabilize:	\$129,065.00
Rehabilitate:	\$ 376,874.50
Total:	\$505,939.50

Size

Basement:	1,396 sf
First Floor:	1,667 sf
Second Floor:	1,586 sf
Attic:	1,573 sf
Total:	6,222 sf

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 1
Priority: 11	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - INTERIOR	
Category: EGRESS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. No appropriate exit from the basement. Steps very steep. Ceiling heights too low in basement. 2. Rear interior stairwell too narrow for public use. 3. All doors @ second floor are too narrow.	
Recommended Action	
1. Prevent the basement from being public space. Allow for storage only. 2. Demolish the rear stair and provide appropriate new wood stair in pantry space between rooms 4 and 5. Floor to floor height approx. 12'-0". 3. Historic status of structure may allow relief from having to widen doors on second floor depending on proposed use and occupancy.	
References: R-2, R-3, R-4	Estimated Cost: \$25,222.00

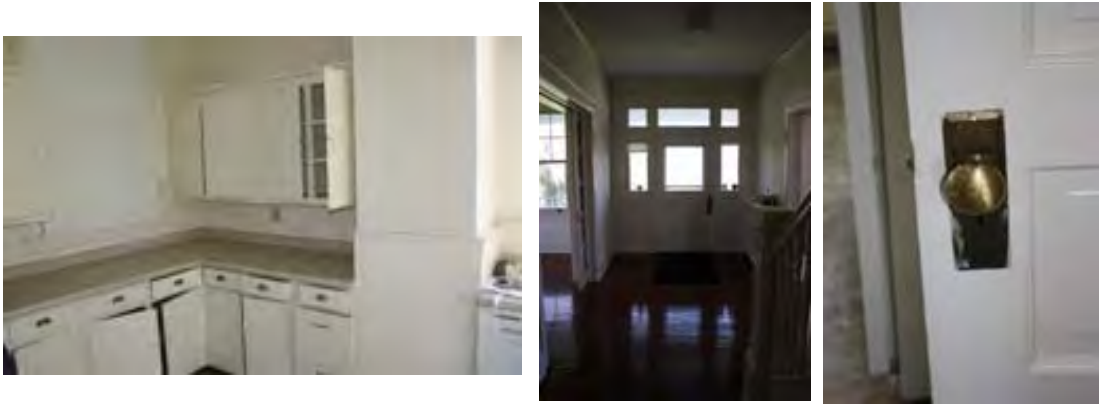
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 2
Priority: 12	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - INTERIOR	
Category: ACCESSIBILITY	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. There is no accessible restroom available on first floor. 2. There is no available accessible entrance for the building. The rear entrance provides the closest vertical height differential from grade, roughly 21". 3. There is no accessible means of access to the second floor.	
Recommended Action	
1. Install an accessible restroom on the first floor. 2. Provide an accessible route into the building. 3. Historic status of structure may allow relief from having to provide accessible access to the second floor depending on proposed use and occupancy.	
References: R-2, R-3	Estimated Cost: \$42,676.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 3
Priority: 9	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - EXTERIOR	
Category: APPROACH	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Slate path @ elevation B has broken and loose stones. Rusted nails are exposed and grout is deteriorating. 2. Deteriorated stoop @ elevation D. Stairs deteriorated @ ground level and railing has exposed, rusted nails. Deteriorated screen door. 3. Door surround @ elevation A warped - sidelight bent with strong vertical crack. Stoop buckled and wood molding delaminated. 4. Rear porch screen door missing latch and handle.	
Recommended Action	
1. Repair and replace approx. 200 sf slate path as needed. Replace slate stones that have crumbled beyond use; Remove exposed nails. Remove deteriorated grout. Regrout to secure loose stones. Seal as appropriate. 2. Remove and replace stoop @ elevation D. Replace screen door. 3. Replace door, sidelights and transom @ elevation A. 4. Replace screen door.	
References: R-5, SK-1	Estimated Cost: \$7,200.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 4
Priority: 2	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - EXTERIOR	
Category: FOUNDATION	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Delaminating flashing/moisture protection @ elevation B and D; 2. Tree roots very close to foundation @ front porch.	
Recommended Action	
1. Provide new sheet waterproofing to grade. Excavate as necessary. Provide sawcut reglet as necessary. See R-7. 2. Monitor. Tree removal may become necessary in the future if roots appear to be affecting foundation.	
References: R-5, R-7	Estimated Cost: \$10,000.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 5
Priority: 7	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - EXTERIOR	
Category: FLOORS	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
Soundness of porch floor framing is unknown, but porch appears to have slight dip towards the center.	
Recommended Action	
Remove lattice work under the front porch and inspect framing to confirm soundness of the floor. Replace deteriorated members. *Please note - an allowance has been included for select replacement of framing members until an invasive investigation of the area is performed.*	
References:	Estimated Cost: \$7,986.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 6
Priority: 6	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - INTERIOR & EXTERIOR	
Category: OPENINGS	
Necessity: STABILIZE	
Photo Documentation	
	
	
Deficiency Description	
1. Metal latch @ bottom of shutters broken, missing or loose. 2. Damage, rot @ shutters. 58 shutters total. 3. Missing or damaged screens @ 30 of the 44 double hung windows. 4. Some windows are exhibiting some minor deterioration.	
Recommended Action	
1. Re-attach loose metal latches. For those with missing pieces, secure remaining to shutter. Remove decayed pieces, otherwise leave as is. 2. Repair damaged shutters as needed. Caulk to prepare for paint. Replace deteriorated shutter @ elevation D, first floor adjacent to stoop. 3. Replace missing screens to match existing. 4. Repair windows as needed.	
References: R-5	Estimated Cost: \$51,909.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 6A
Priority: 19	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - INTERIOR	
Category: OPENINGS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. All door handles are noncompliant. 2. Hardware in kitchen is painted over. Latches on uppers nonfunctional. 3. Sliding pocket doors on either side of room 1 stick and are very difficult to use.	
Recommended Action	
1. Replace door handles with levers @ all 31 doors. 2. Replace cabinetry hardware in kitchen if cabinets will be kept for future use. 3. Replace sliding pocket door mechanisms.	
References: R-2, R-3	Estimated Cost: \$8,185.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 7
Priority: 1	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - INTERIOR	
Category: MOISTURE INFILTRATION	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Soft spot beneath vinyl flooring in kitchen @ pantry open doorway. Water damage @ floor deck; 2. Staining and drywall cracks @ bay window; 3. Staining @ rafters in attic; 4. Stained concrete @ basement floor.	
Recommended Action	
1. Remove and replace floor deck under kitchen, approx. 50 sf. Demo rotted floorboards and replace. On corresponding exterior location, replace approx. 32 sf exterior siding and sheathing. Replace fascia board (12"x20'-0") and trim (4"x9'-0"). See R-6. 2. Reflash bay window. Prepare damaged surface for paint. 3. Verify staining in basement and attic is from an old leak that has since been repaired. 4. Stain appears to be from a previous interior leak, no further action necessary.	
References: R-1, R-2, R-6, SK-1	Estimated Cost: \$12,452.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 8
Priority: 17	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - INTERIOR	
Category: INSULATION	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
The attic space is not insulated.	
Recommended Action	
Insulate attic with R-38 reflective batt insulation @ roof level.	
References: R-4	Estimated Cost: \$4,882.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 9
Priority: 4	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - EXTERIOR	
Category: SIDING	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Deteriorated conduit @ elevation B and D; 2. Unused brackets @ elevation B; 3. Soft, deteriorated siding @ elevation A porch; 4. Flaking and chipped paint @ all elevations.	
Recommended Action	
1. Electrical system to be rewired (See 1-13). Remove unused conduits. 2. Remove brackets. 3. Repair siding, trim and soffit @ front porch. Repair soft spots. Caulk as appropriate. 4. Lightly sand away loose paint chips. Prep surface for painting. See 1-10.	
References: R-5, 1-10, 1-13	Estimated Cost: \$8,318.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 10
Priority: 5	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - EXTERIOR	
Category: EXTERIOR PAINT	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
Flaking and chipped paint @ all elevations.	
Recommended Action	
Repaint after siding has been prepared. See 1-9. Paint trim, fascia board and columns @ front porch. Paint new railings, stoop and doors to match.	
References: R-5, 1-9	Estimated Cost: \$18,975.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 11
Priority: 20	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - INTERIOR	
Category: INTERIOR PAINT	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Minor cracks throughout the interior. Flaking paint.	
Recommended Action	
Patch plaster as necessary. Paint walls, ceilings, doors and trim throughout the interior.	
References: R-1, R-2, R-3	Estimated Cost: \$11,446.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 12
Priority: 13	Discipline: MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - INTERIOR & EXTERIOR	
Category: MECHANICAL EQUIPMENT	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Existing A/C system is roughly 30 years old. Existing system is nonfunctional and only serves the 2nd floor area (previous bedrooms). No A/C is provided on the 1st floor. Existing oil fired boiler is operational, but very old (See 1-14).	
Recommended Action	
Assume historic rehabilitation of the farm house for a new business use. Provide new HVAC cooling system only for the entire house, utilizing an attic mounted ductwork for the second floor distribution. Mount a condensing unit at grade. Provide outdoor air economizer capacity to the duct mounted unit on the second floor. Second floor capacity shall be 5 tons. First floor structure has no ductwork: To maintain the historic building use a variable flow refrigerant VFR system mini splits for the entire first floor. Assume 5 tons of mini split to serve the first floor.	
References: R-1, R-2, R-3, R-4, 1-14	Estimated Cost: \$83,187.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 13
Priority: 15	Discipline: MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - INTERIOR & EXTERIOR	
Category: ELECTRICAL SYSTEM	
Necessity: REHABILITATE	
Photo Documentation	
 	
Deficiency Description	
1. A 200A Square D panel was installed in 2004. Wiring was partially upgraded at that time. The condition of the concealed wiring is unknown. MC, romex and "rag" wire are visually present; 2. The existing building is served by an ADEMCO VISTA 40 system. Condition is unknown, although city staff indicates that no security alarm system is functional.	
Recommended Action	
1. Rewire the entire house and replace all lighting. Assume the 200A main panel is reusable. 2. Provide a new security system if desired for future use and occupancy.	
References: R-1, R-2, R-3, R-4	Estimated Cost: \$69,145.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 14
Priority: 14	Discipline: MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - INTERIOR & EXTERIOR	
Category: PLUMBING SYSTEMS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. Sanitary waste and vent piping is a mixture of materials (cast iron, galvanized pipe, pvc). Not code compliant; 2. Domestic water piping is a mixture of materials - copper/cpvc. Poor workmanship. Not code compliant; 3. Existing oil fired boiler is operational, but very old. Existing boiler is rated 235 MBH. No zone control valves are present to regulate heat in the individual rooms.	
Recommended Action	
1. Replumb the entire house sanitary and vent piping. Replace associated fixtures. 2. Replumb the entire house domestic hot water/cold water piping. Replace associated fixtures. 3. Remove existing oil boiler system with tanks and hot water distribution piping. Provide new gas fired boiler system with new insulated hot water piping out to existing radiators. Provide zone control valves for radiators.	
References: R-1, R-2, R-3	Estimated Cost: \$115,324.50

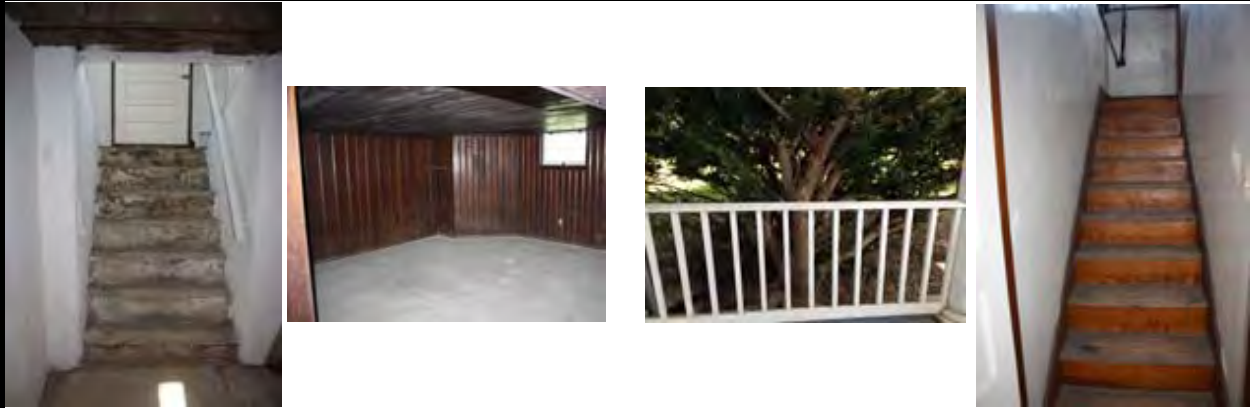
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 15
Priority: 8	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - EXTERIOR	
Category: GUTTER SYSTEM	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Warped gutter @ bay window on elevation B; 2. Deteriorated, rusted, separated and twisted downspout straps and brackets; 3. Missing gutter guards.	
Recommended Action	
1. Repair galvanized 1/2 round gutters as needed. 2. Remove and replace galvanized straps as needed. 3. Install gutter guards as needed.	
References: R-5	Estimated Cost: \$2,000.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 16
Priority: 18	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - EXTERIOR	
Category: ROOF	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. Roof appears to have been recently replaced. Will need further inspection to ensure condition. 2. The roof framing appears sound.	
Recommended Action	
1. Provide minor repairs as needed to roof materials. 2. Replace the connectors for rafter ends and collar beams with pre-fabricated gage metal wood connectors.	
References: R-4, R-8	Estimated Cost: \$2,500.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 17
Priority: 3	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - INTERIOR	
Category: PESTS	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
Evidence of termite damage in basement. Extent of damage is unknown.	
Recommended Action	
Determine the extent of the termite damage by removing the wood ceiling in the basement. Repair or replace affected areas as appropriate. Replace ceiling, assume 8 floor joists (2x10's) will need replacement. *Please note - an allowance has been provided for select member replacement until an invasive investigation of the area is performed.*	
References: R-1, SK-1	Estimated Cost: \$10,000.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 18
Priority: 10	Discipline: ARCH., MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - INTERIOR & EXTERIOR	
Category: RADON	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
Exterior radon drain @ elevation corner C-D is open to the elements.	
Recommended Action	
Reroute drain to face down.	
References: R-5	Estimated Cost: \$225.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 19
Priority: 21	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - EXTERIOR	
Category: CARPORT	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. Contact damage @ wood box beam; 2. Exposed wire ends with missing lighting fixture @ columns 1, 3 and 4; 3. Crumbling brick @ column 1. 4. Deteriorated grout @ stepped brick half wall along column 3.	
Recommended Action	
1. Replace trim board. Repaint carport; 2. Install light fixtures @ wire ends; 3-4. Make minor masonry repairs as necessary.	
References: R-5, R-9	Estimated Cost: \$3,500.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 1 - 20
Priority: 16	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 1 HOUSE - INTERIOR	
Category: RAILINGS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. The railing @ the attic stair is not compliant. 2. Front porch railing too low. 3. Railings for the stair @ room 1 are too low. 4. There is no railing present in the secondary stairwell by room 5.	
Recommended Action	
1. Provide appropriate railing @ attic stair. 2. Replace approx. 54'-0" railing @ front porch to 42" AFF. 3. Raise approx. 38'-0" of railing @ stair and hall above to 34" AFF. The hall railings may be adjusted by installing a curb beneath the railing assembly. The stair knull posts may be adjusted by adding an appropriately sized base and mounting the post on top of it. Keep the top railing aligned to the raised posts. Remove spindles and add molding to the base to accommodate new height. 4. Add compliant railing if stair is to remain.	
References: R-2, R-3, R-4	Estimated Cost: \$10,807.00

King Farm, Garage Assessment

Building 2



General:

Sitting behind the house to the southwest is the garage. This is a two-story building with wood siding painted white, a gambrel roof with flared eaves, 3 front-facing dormers and one rear-facing dormer. The garage sits nestled into the hill behind it, but the vehicular approach along the drive is relatively flat. The garage space itself consists of 5 equally spaced vehicular bays with coordinating interior columns. The stair to the second level juts out from beside the garage doors and leads straight up to the apartment above. A small hallway extends the length of the apartment along the rear façade. Several doorways open into various rooms, including a bathroom and kitchen. The north elevation of the building has a one-story smoke room that is accessible only from the exterior. An exterior hearth occupies the corner between the smoke room and apartment stair.

The condition of this building has been significantly affected by water damage. Both the dwelling unit upstairs and the garage below have deteriorated areas. Further evidence of water problems can be seen on the flared eave in the southwest corner where it droops toward the ground.

Accessibility and Public Use:

The garage needs to be rehabilitated before it can fulfill any public use. While the garage and/or smoke room could be made readily accessible, the interior is not insulated. There are existing interior conditioning systems, but they are in significant disrepair and need to be replaced. Plumbing lines do service the building, as there is a bathroom and kitchen on the second floor, but there are no restroom facilities on the ground level.

The second floor is not accessible. There is a single stair leading up to the old apartment, but that is the only current entrance and exit point. The square footage is limited on the second floor, which makes an accessible means up to and through it difficult to achieve. This is another instance where seeking relief from accessibility requirements due to historic status may be the most effective option. A second exit from the second floor may be necessary for egress purposes, depending on the proposed use and occupancy.

Architectural:

Water damage is a significant issue with this building. Both the garage and apartment above show pervasive water damage, particularly in the southwest corner of the building. In the garage, the sill has rotted almost completely in that corner, and the CMU foundation blocks below show damage. In the apartment, the floor, ceiling and walls in the same corner are significantly damaged by water infiltration. The roof of the structure has visual signs of deterioration, and replacing it will be an important first step in arresting water infiltration. However, the southwest corner has deteriorated beyond the point of repair and will need replacement of structure and materials.

Additional challenges are posed by the utilitarian construction of the existing structure. The garage is not insulated and the floor significantly slopes toward the garage doors. 4 of the 5 garage doors are currently inoperable, but they will all need to be replaced regardless due to their level of deterioration.

Structural:

The structure is wood framed on a low CMU foundation wall sitting just above grade. Wood studs support the upper floor/ roof. While invasive investigations were not performed, the structure appears mostly in sound condition with a couple exceptions due to moisture. The upper floor has an estimated LL capacity of only 20 PSF. The ground floor (vehicular area) has some significant cracking and deterioration, and is severely sloped.

It is recommended that the upper floor be reinforced to achieve a LL capacity of 50psf. Adequacy of roof framing should be reviewed further and tailored to future use code requirements.

MEP:**MECHANICAL SYSTEMS**

Heating in this building consists of a gas fired Smith boiler which is located in a small closet area off the garage level. Piping from the Smith boiler feeds upward and is then exposed through the garage structure and feeds into fin tube radiation around the perimeter walls. The boiler is nonoperational and should be replaced. The distribution piping is poor, uninsulated and should be replaced. The fin tube radiation may be suitable for reuse but the actual condition at this time is unknown.

PLUMBING SYSTEMS

Water enters the building from the site water system near the boiler located in the mechanical closet off the garage level. It then rises up through the structure and feeds a kitchen / bathroom level above. No hot water heater was noted. Hot water may have been provided by the cast iron boiler, although this could not be confirmed. The water piping consists of uninsulated copper and some plastic CPVC. Sanitary waste vent consists of cast iron mains and galvanized sanitary runouts for branch lines and venting. All the plumbing has significantly deteriorated and should be replaced.

ELECTRICAL SYSTEMS

The process of starting an electrical upgrade to this building appears to have been started, but never completed. There is some rough-in wiring on the garage level that was installed using Romex wiring and plastic boxes. There is an open exposed power panel which has no feed to it from the onsite services. Power, necessary wiring, and lighting will need to be provided for this structure.

Garage Assessment Summary and Reports

General Recommendations:

While no urgent structural matters have been identified for this building, a large percentage of the recommended actions are focused on stabilization of the building envelope. Until these items are addressed, the building will continue to deteriorate. From a future use standpoint, the configuration is flexible enough to allow for a variety of uses. It is recommended that the articulation of windows and garage doors be retained regardless of adaptive reuse to provide a visual historic record of the building.



Cost Estimate Summary

Urgent:	\$	0.00
Stabilize:	\$	97,748.00
Rehabilitate:	\$	205,809.00
Total:		\$303,557.00

Size

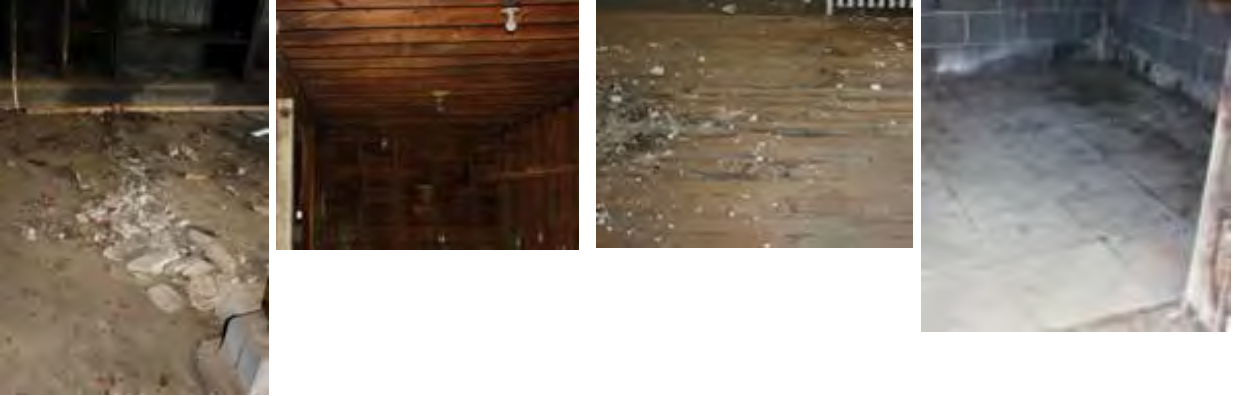
First Floor:	1,028 sf
Second Floor:	667 sf
Total:	1,695 sf

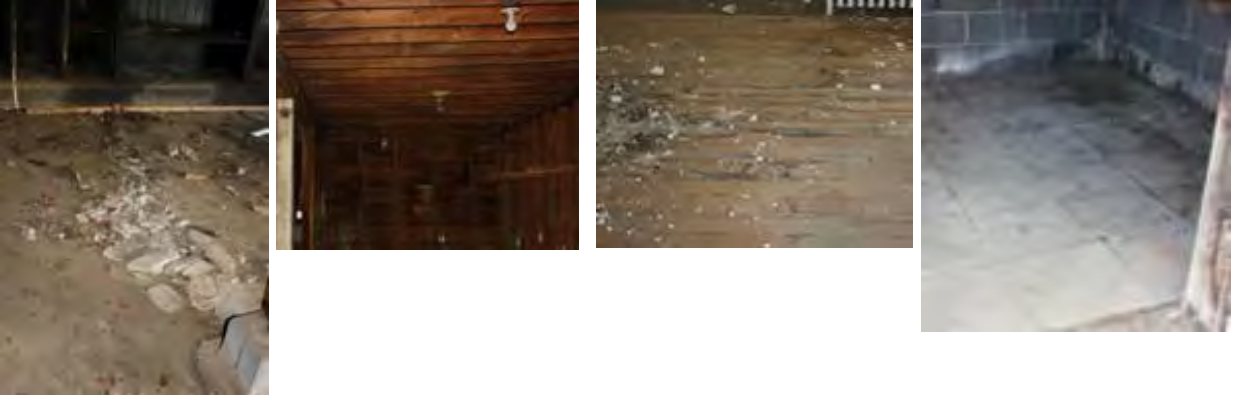
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 1
Priority: 14	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 - GARAGE	
Category: EGRESS	
Necessity: REHABILITATE	
Photo Documentation	
 	
Deficiency Description	
- Garage currently does not contain a code compliant means of egress. - Second floor contains only one means of egress.	
Recommended Action	
- Install accessible means of egress from the garage level. (See 2-2) - Second floor may be allowed a single means of egress depending on proposed use and occupancy, proposed design layout, and historic status of the structure. (See 2-2)	
References: 2-2	Estimated Cost: (Price Included in 2-2)

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 2
Priority: 14	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 - GARAGE	
Category: ACCESSIBILITY	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. No accessible entrance to 2nd floor or smoke room. Pipe stack in front of smoke room blocking possibility of ADA compliant access. 2. The garage space has no man door and the floor has an aggressive slope.	
Recommended Action	
1. Provide a man door into the garage or provide accessible route into the building via the smoke room. Cut or reroute pipe. A door connecting smoke room to the garage space will also need to be installed. Given the space limitations of the second floor and the historic status of the building, the second level may be excused from an accessibility requirement. 2. Depending on future use, the garage floor may maintain its current slope, making the smoke house a better place for an accessible entrance. See 2-5.	
References: R-10, R-11, 2-1, 2-5	Estimated Cost: \$11,979.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 3
Priority: 17	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 - GARAGE	
Category: APPROACH	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. Entry pad to second floor is deteriorated. There is no current entry pad to the smoke room.	
Recommended Action	
1. Remove deteriorated concrete and replace with a 5'-0" x 5'-0" concrete pad. Provide concrete entry pad @ the smoke room door. Remove capped pipe.	
References: R-10, 2-2	Estimated Cost: \$4,259.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 4
Priority: 2	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 - GARAGE	
Category: FOUNDATION	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
Cracking in brick foundation @ second floor entrance and CMU in smoke room under sill. Stained and cracked parging @ smoke room.	
Recommended Action	
Repoint existing brick and CMU. Remove and replace parging @ smoke room. Clean and parge elevation C. See R-13.	
References: R-10, R-13	Estimated Cost: \$4,658.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 5
Priority: 8	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 -GARAGE	
Category: FLOORS	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Garage floor significantly deteriorated. 2. Second floor joists are bowed. Floor is undersized for residential LL. Floor capacity is below code, with an estimated LL capacity of 20 psf. 3. Concrete tiled floor in smoke room deteriorated.	
Recommended Action	
1. Repair concrete floor. Cut out 12" wide at cracks, dowel to existing and place new concrete. 2. No action needed to stabilize. 3. Repair and repoint smoke room floor as needed.	
References: R-10, SK-2	Estimated Cost: \$7,500.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 5A
Priority: 9	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 -GARAGE	
Category: FLOORS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. Garage floor significantly deteriorated. 2. Second floor joists are bowed. Floor is undersized for residential LL. Floor capacity is below code, with an estimated LL capacity of 20 psf. 3. Concrete tiled floor in smoke room deteriorated.	
Recommended Action	
1. Remove and replace concrete floor (slope determined by use). Spray for termites when ground is exposed. 2. Insulate second level floor then patch and refinish. Reinforce existing second floor to minimum 50 PSF LL; Add new 2x6 between existing (8"o/c), and add new (2) 7 1/4" LVL's to all existing beams. 3. Remove and replace concrete tiled floor in smoke room.	
References: R-10, R-11, SK-2	Estimated Cost: \$51,793.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 6
Priority: 4	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 - GARAGE	
Category: OPENINGS	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. The 11 windows on the second floor have deteriorated sills. The window assemblies themselves are also in poor condition. 2. Doors are strewn about the apt.	
Recommended Action	
1. Replace 4'-0" x 2'-0" windows with 6/6 replicas. Repair sills and flashing where necessary. See 2-7. 2. Remove and retain existing doors on 2nd floor for possible reuse.	
References: R-11, 2-7	Estimated Cost: \$13,310.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 6A
Priority: 15	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 - GARAGE	
Category: OPENINGS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. Some of the 8 doors, while present, have been removed from their frames. 2. Exterior door to second floor is in poor condition. 3. The door to the smoke room is in poor condition. 4. The garage doors are non-operable and in poor condition.	
Recommended Action	
1. Keep existing doors in place and install those that have been removed. Replace hardware with levers. Make any minor repairs necessary on the door frames. Prep for paint. 2. Repair the exterior door to the second floor and prepare for paint. Replace the glass. 3. Replace 3'-6" x 7'-0" smoke room door with replica. Reuse hardware (other than door handles) after cleaning. Prep for paint. 4. Replace 5 garage doors with custom replicas. The future use will determine if the doors are operable or non-operable and sealed.	
References: R-10, R-11, 2-7	Estimated Cost: \$39,930.00

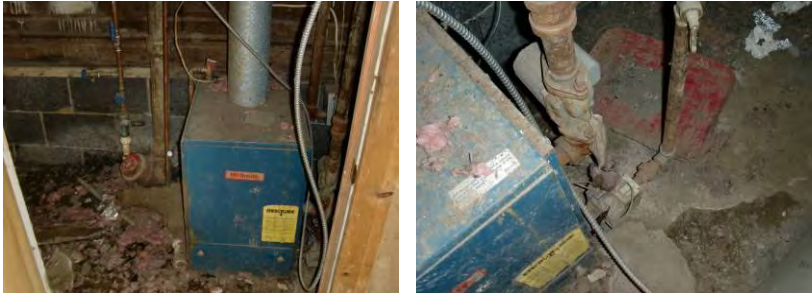
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 7
Priority: 1	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 - GARAGE	
Category: MOISTURE INFILTRATION	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Significant water damage @ elevation D side of apartment. Water damage and deteriorated gypsum board. 2. Holes in floor. Significant water damage on floors and ceiling throughout apartment. 3. Evident sill rot @ elevation C-D interior corner. Rusted bands and mold growth. Extensive water damage on wood sheathing. Damaged top plate.	
Recommended Action	
1-2. Take the apartment down to studs and subfloor, including removal of cabinetry. Retain door frames, floor boards and doors. See 2-8, 2-6 and 2-5. 3. Remove 16'-0" of foundation wall, top plate and sill, support as needed. Replace corner studs, leave siding in place. Replace assembly, including 6 2x6 studs and adding 2x6 to ceiling for extra support.	
References: R-10, R-11, 2-5, 2-6, 2-8	Estimated Cost: \$26,528.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 8
Priority: 10	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 - GARAGE	
Category: INSULATION	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. Garage is not insulated. 2. Smoke room is not insulated. 3. Insulation on second floor is in poor condition or missing.	
Recommended Action	
1. Insulate garage ceiling and walls with 6" R-19 batt insulation. 2. Insulate smoke room with 6" R-19 batt insulation up to approx. 6'-0". 3. Insulate second floor walls (R-19) and roof (R-38). Install gypsum board interior sheathing on all surfaces and prep for painting. See also 2-7.	
References: R-10, R-11, 2-7	Estimated Cost: \$28,323.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 9
Priority: 6	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 - GARAGE	
Category: SIDING	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
Chipped wood siding @ all elevations. Wires and pipes mounted on siding. Small penetrations for wires painted over without removing the penetration obstruction or filling the penetration itself.	
Recommended Action	
Minor scraping and sanding to remove chipped paint. Caulk as necessary to prepare for paint. Remove extraneous wires, conduit, etc. from siding. Fill penetrations as necessary.	
References: R-12	Estimated Cost: \$4,658.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 10
Priority: 7	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 - GARAGE	
Category: EXTERIOR PAINT	
Necessity: STABILIZE	
Photo Documentation	
 	
Deficiency Description	
Current paint job masks, but does not remedy siding problems.	
Recommended Action	
Repaint exterior siding, trim and doors. See also 2-6, 2-9.	
References: R-12, 2-6, 2-9	Estimated Cost: \$7,341.00

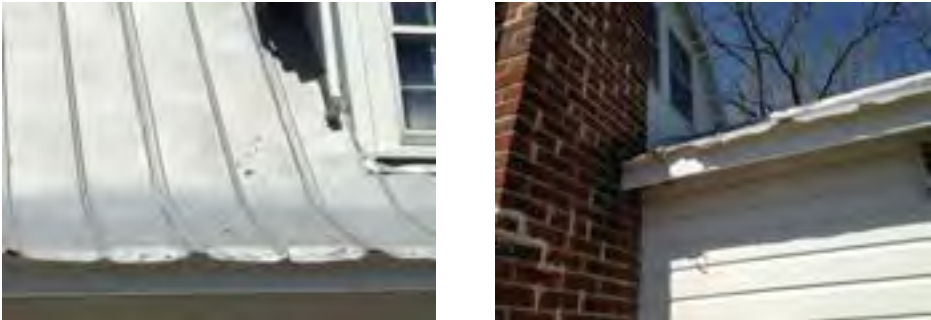
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 11
Priority: 16	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 - GARAGE	
Category: INTERIOR PAINT	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Paint in severely deteriorated condition.	
Recommended Action	
Repaint after new gypsum walls board and ceiling are installed and floors are refinished. Repaint doors and frames. Paint trim. See 2-5, 2-7 & 2-8.	
References: R-11, 2-5, 2-7, 2-8	Estimated Cost: \$6,810.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 12
Priority: 11	Discipline: MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 - GARAGE	
Category: MECHANICAL EQUIPMENT	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Garage level is unheated. Gas fired boiler in the garage level feeds the apartment above. Boiler is 30 years old, and condition is unknown. Existing hot water heating piping is uninsulated steel feeding up to the hot water baseboard.	
Recommended Action	
Replace corroded sections of piping. Patch and repair as necessary. Remove the existing boiler heating system in its entirety. Provide a new split system gas-fired furnace with add on cooling to serve the lower level of the garage. Air distribution shall be spiral sheet metal ductwork with sidewall duct diffuser. Assume a 3 ton HVAC system for the space. The unit shall be installed in an appropriately sized mechanical room and shall have economizer package along with a 7-day programmable thermostat. Provide a separate gas-fired split system heating / cooling with add on cooling to the upper level apartment area of the garage. Assume rectangular ductwork which would be concealable from bulkheads, utilizing sidewall diffusers and a central return. System for the upper level shall be assumed to be a 2 1/2 ton heating / cooling unit with economizer accessory and 7-day programmable thermostat.	
References: R-10, R-11	Estimated Cost: \$35,128.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 13
Priority: 13	Discipline: MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 - GARAGE	
Category: ELECTRICAL SYSTEM	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Existing building does not have operating electrical service and distribution, panel and wiring methods are non-code compliant. There is no light fixture in the smoke room.	
Recommended Action	
Provide new power service / panel to the structure. Rewire the entire structure for convenience outlets and new lighting. Provide energy efficient code compliant lighting on both levels of the structure along with necessary emergency exit signage. Assume a 200 amp single phase 120/208 V service entrance and main panel.	
References: R-10	Estimated Cost: \$18,783.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 14
Priority: 12	Discipline: MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 - GARAGE	
Category: PLUMBING SYSTEMS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. Existing domestic cold water piping is uninsulated copper and cpvc. Piping is in poor condition and not code compliant. 2. Existing sanitary piping is a mixture of cast iron, galvanized pipe, pvc and is not code compliant.	
Recommended Action	
1. Replace corroded sections of piping. Patch and repair as necessary. Replumb the domestic water piping to the kitchen and bathroom above, provide new hot water heater. 2. Replumb the sanitary waste and vent for the entire building. Replace all fixtures.	
References: R-10, R-11	Estimated Cost: \$8,804.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 15
Priority: 5	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 - GARAGE	
Category: GUTTER SYSTEM	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Several sections of the roof line are missing gutters. Existing gutters are too small and full of debris. Rusted extended gutter above apartment entrance. 2. Missing downspout @ C-D corner.	
Recommended Action	
1-2. Add gutters where needed. See R-14. Replace gutters with 6" galvanized gutters and install coordinating downspouts. Install brackets and gutter guards as appropriate.	
References: R-14	Estimated Cost: \$2,874.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 2 - 16
Priority: 3	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 2 - GARAGE	
Category: ROOF	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
Existing roof @ both smoke room and main structure are severely deteriorated. Random exposed wires and piping also present. Damage to roof framing due to water infiltration.	
Recommended Action	
Replace roof @ both smoke room and main structure with standing seam roof. Remove extraneous exterior brackets, conduit, etc. Replace damaged framing members as necessary. Assume 20% of rafters and 10% of exterior studs will need to be replaced.	
References: R-14, SK-2	Estimated Cost: \$30,879.00

King Farm, Dairy Barn Assessment

Buildings 3 & 4



General:

The dairy barn cluster of buildings was built in 1932 to replace a previous barn that had burned down on the same spot. There are 2 dairy barns connected by centrally located covered concrete walkways with a grass courtyard enclosed between. A milk house sits between the two barns along the front façade. Two of the original four silos remain. Both barns have cast CMU foundations and painted white wood siding on the short ends. The northern-most barn (building #3) has "Thompson's Dairy" written along the roof facing Frederick Rd. This has become an iconic view for the area and passing motorists.

The grade sits higher here than the nearby residential development. The unique setting of the barns is made more so by the framed view through the central courtyard to the new housing beyond.



Accessibility and Public Use:

The dairy barns rest at grade, which is consistent with their historic use. This makes accessibility into the buildings largely a non-issue. Problems arise once inside, however, because the concrete floor has been formed into platforms with curbs and troughs located on either side of the central aisle. Depending on intended use, these concrete forms may need to be filled in, leveled, or otherwise modified to better accommodate users.

There are no restroom facilities in either barn. Water service has historically been present in both barns, but only on a limited basis. There is plenty of square footage to program public restroom space, but the limited plumbing service to both buildings will need to be upgraded to accommodate public use.

Neither barn is insulated or has interior heating or conditioning systems present. Both would need to be installed to prepare the structures for public use. Depending on intended use and occupancy, additional exits will most likely need to be installed to fulfill egress requirements.

Architectural:

Other than the structural issue noted in barn 4 below, the most significant issues for these structures relate to weather tightness and envelope condition. Both the roofs and dormers in the hayloft spaces need to be replaced. Siding is either rotted or deteriorating, leaving the attic spaces open to the elements. There are gaps between roof and wall assemblies that also leave the interior of the building exposed. There is no proper roof drainage system present, which contributes to water infiltration and envelope deterioration. The windows lining the long walls in both barns are significantly deteriorated, as are the doors located around the perimeter of both structures. These will also need to be replaced. The small CMU vestibules which connect the barns and silo are deteriorated beyond repair, and should be demolished.

The unique floor articulation is a challenge to accommodate future uses and may require modification. 9" troughs and 6" curbs are integrated into the concrete floor on either side of the central aisles in both barns. The sides are accessed by short ramps to raised floors. All floor surfaces are concrete.

Structural:**Barn 3:**

This building is slightly narrower and longer than the other building (Barn 4). This building appears to be in generally sound structural condition. The structure consists of exterior masonry walls up to the attic level. In the attic, there are wood joists and interior beams/ posts, plus a clear span roof above. The roof framing will need to be supplemented to meet current codes prior to any kind of future occupancy. There is a minor amount of damage to the attic floor deck. The attic floor has a current live load (LL) capacity of only 20psf. The ground floor is generally in satisfactory condition (minor repairs needed), but there are raised portions and sloped floors that may restrict future use.

The original silos for this barn have already been removed, although their historic locations are very evident on the ground outside. The connecting links to the former silos are CMU walls and a concrete roof. They have significantly deteriorated, and should be demolished. Both the covered connecting links between barns 3 & 4 and the two smaller structures between the barns appear in sound condition. The framing for these structures was not accessible to determine their sizes.

Barn 4:

This barn also has exterior masonry walls to the attic, interior beams/ posts, and a clear span roof above. It is estimated that this was the earlier of the two barns, since it shows much more water damage.

Structurally, this building is in worse shape than its neighbor. A number of the steel columns which support the main beam lines have either failed or are missing. A number of the beams are similarly deteriorated and in need of replacement. Most of the attic floor deck has water damage and needs replacement, as do many of the attic joists. Similar to barn 3, the attic floor for this barn also has a capacity of only 20 psf. The ground floor is generally in satisfactory condition (minor repairs needed), but there are raised portions and sloped floors that may restrict future use. As in barn 3, the roof framing will need to be supplemented to meet current codes prior to any kind of future occupancy.

While the silos of this barn remain, the inside faces of the silo walls are damaged and need concrete repairs. The links to the silos have deteriorated significantly, and should be demolished.

MEP:

This was originally a dairy barn facility which had milking parlors on the lower level of each barn with a milk house complex between them. MEP systems are rudimentary based upon the types of functions that occurred in this space. There are some electrical panels in the building that feed out to some convenience outlets and general lighting (primarily in the form of porcelain lamp holder-type lighting fixtures), but all show significant signs of disrepair. There are some small wall mounted paddle fans that provided ventilation for the milking parlor during milking and also controlled the amount of moisture. Water was brought primarily into the milk house area where the main milk storage machinery was kept. All these MEP systems are rudimentary and will need to be replaced to accommodate future use and occupancy.

Dairy Barn Assessment Summary and Reports

General Recommendations:

Barn 4 has some urgent structural items that must be addressed immediately. The remainder of the recommendations for these buildings is split almost equally between significant stabilization requirements and items required to prepare the buildings for future use and occupancy. As the primary structures exhibiting the historic function of the site, these buildings should be treated in a way that highlights their significance. Extensive structural and building envelope upgrades will be required to prepare these buildings for public use. The recommendations contained herein do not contain provisions to prepare the attic areas of the barns for future use and occupancy.



Cost Estimate Summary

Urgent:	\$ 133,765.00
Stabilize:	\$ 929,341.00
Rehabilitate:	\$1,020,465.00
Total:	\$2,083,571.00

Size (does not include attic space)

Barn 3:	4,636 sf
Barn 4:	4,887 sf
Milk House:	452 sf
Silos:	220 sf
Total:	10,195 sf

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 1
Priority: 17	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: EGRESS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. Existing number of entrances/exits may accommodate a variety of proposed future uses, but all are in significant disrepair. Mechanisms of most are inoperable. See 3/4-6. 2. Existing concrete curbs and cow railings block off side exits from the central aisle. 3. There is no compliant means of egress from the attic area in either barn.	
1. See 3/4-6 for door treatment. Provide direct paths to all exits by removing railings and installing concrete ramps over the curb. 2. Due to 6" elevational change between central aisle and door openings, a ramp will most likely be necessary regardless of concrete floor treatment. See 3/4-5. Future use programming must be sensitive to the location of exits, as there are none located on elevations B or D. 3. The attic area may not be used for public use without significant modifications, which will be very much dependant on the proposed use and occupancy. No budget for those modifications has been included here.	
References: R-15, R-16, R-18, 3/4-6, 3/4-5	Estimated Cost: \$10,000.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 2
Priority: 16	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: ACCESSIBILITY	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Main entrances @ front and rear of both barns are the only openings that sit even with the driveway approach; The side aisles in both barns are not currently accessible. The ramps up are too short and have too high of a slope.	
Recommended Action	
Level central aisle floor and side aisles @ their respective elevation. See R-21. See 3/4-5 for floor treatment. Introduce accessible ramps to side-aisles.	
References: R-15, R-16, R-21, 3/4-5	Estimated Cost: \$3,993.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 4
Priority: 7	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: FOUNDATION	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
CMU deterioration @ seam on elevation D. Old piping penetration migrating through deteriorated CMU @ elevation C. Disintegrated CMU @ silo on elevation B.	
Recommended Action	
Patch and repair as necessary.	
References: R-18	Estimated Cost: \$6,655.00

King Farm Property Condition Assessment			
Condition / Deficiency Report		Report Number:	BLDG 3/4 - 5
Priority:	4	Discipline:	ARCH., STRUCT.
Address:	King Farm Park, 16100 Frederick Road, Rockville, MD 20850		
Location:	DAIRY BARNS 3/4		
Category:	FLOORS		
Necessity:	STABILIZE		
Photo Documentation			
			
Deficiency Description			
1. There are patches of deterioration in the concrete @ aisles 1, 2, and 3 in both barns. 2. Flooring @ room 4 deteriorated. 3. Attic floor in both barns shows damage and wear.			
Recommended Action			
1-2. Repair curbs and patch as needed prior to leveling the surface @ all aisles. Patch and repair concrete floor as needed. 3. In barn 3, replace missing tongue and groove ceiling @ the front of aisle 1, approx. 364 sf. In barn 3, replace approx. 20% wood deck in attic with plywood. In barn 4, replace approx. 80% wood deck in attic with plywood. Replace attic floor joists as needed, minor in barn 3, approx. 50% in barn 4. Existing attic floors in both barns (when repaired) only meet LL capacity of 20 psf.			
References:	R-15, R-16, R-21, SK-3, SK-4	Estimated Cost:	\$160,617.00

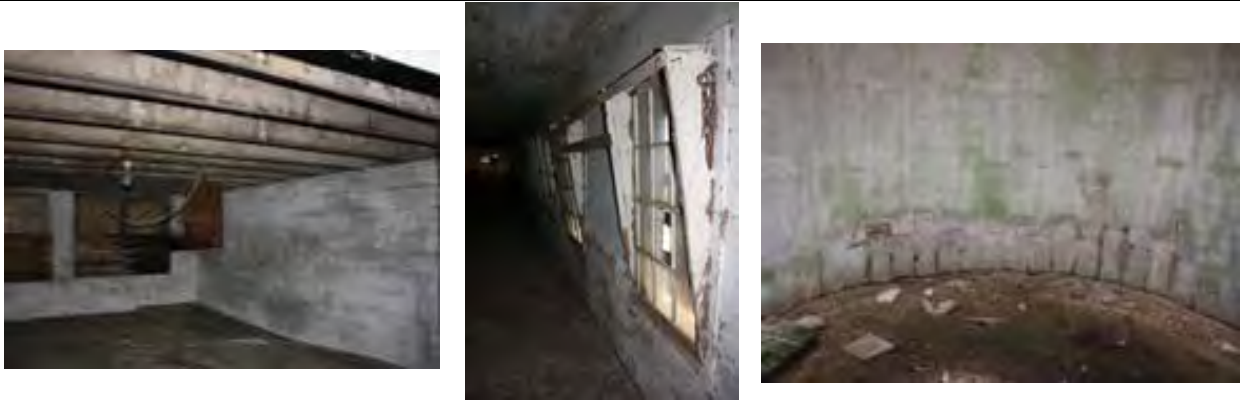
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 5A
Priority: 18	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: FLOORS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
In both barns: Floor is not level @ area 1, 2 and 3; The central aisle is concavely shaped along its short dimension. Height of curve approx. 1 1/2"; 6" curbs and 9" deep troughs are formed into the concrete @ aisles 2 and 3 in both barns.	
Recommended Action	
Level aisles 2 and 3 in both barns by filling the troughs. Level aisle 1 in both barns. Remove railings and fill holes.	
References: R-15, R-16, R-21, SK-3, SK-4	Estimated Cost: \$69,484.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 6
Priority: 5	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: BUILDING 3/4	
Category: OPENINGS	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Windows and louver openings @ all locations are in very poor condition. All trim very deteriorated. 2. Barn doors and hardware show evidence of rot and deterioration. Side exits are non-operable. 3. The 3 dormers show significant rot. 4. Milkhouse windows and doors in significant disrepair.	
Recommended Action	
1. Replace all windows and their frames with tilt-in paned replicas. 57 large @ 4'-0" x 5'-0", 14 small @ 3'-0" x 3'-0"; Replace louvers. 2. Replace 4 barn doors and hardware with replica. Replace 4 side doors, interior storage room door, and hardware leading to courtyard with replicas. 3. Replace entire dormer assembly, including necessary reframing, flashing, siding repair, etc. See also 3/4-16. 4. Replace 5 windows and 3 doors in milkhouse with historically accurate replicas. Prep for paint; Replace all trim. Prep for paint.	
References: R-15, R-16, R-17, 3/4-16	Estimated Cost: \$250,833.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 8
Priority: 12	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: INSULATION	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Attic space is not insulated. Barn walls are not insulated.	
Recommended Action	
Insulate attic space with R-38 batt insulation. Patch and repair walls as needed. To insulate barns, install wall assembly with gyp. bd., 2" continuous rigid insulation and furring strips.	
References: R-15, R-16, R-17	Estimated Cost: \$80,179.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 9
Priority: 8	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: SIDING	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Miscellaneous appurtenances attached to siding @ elevation C. 2. Rust and peeling paint on silos. 3. Deteriorated conduit mounted beneath eaves @ elevation B. Wood siding beneath gambrel roofs show signs of minor flaking. 4. Sill rot @ windows on elevation A.	
Recommended Action	
1. Remove appurtenances and miscellaneous conduit from siding. 2-3. Make any necessary repairs and gently remove flaking paint from silos and wood siding. Prepare surface for painting. 4. Window assembly to be replaced @ all elevations. See 3/4-6.	
References: R-18, 3/4-6	Estimated Cost: \$30,613.00

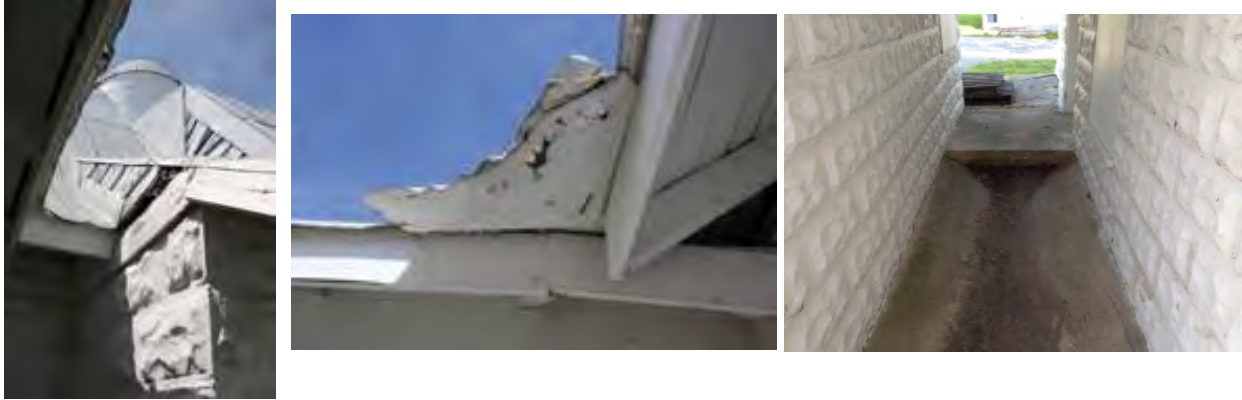
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 10
Priority: 19	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: EXTERIOR PAINT	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
Exterior paint shows some signs of wear @ all elevations. Cracks show in CMU and siding.	
Recommended Action	
Patch and repair as necessary. Repaint all exterior surfaces, including walls, silos, trim, underside of eaves, doors and windows.	
References: R-18	Estimated Cost: \$51,990.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 11
Priority: 20	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: INTERIOR PAINT	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Painted interior surfaces show significant deterioration. Silo walls show discoloration and deterioration.	
Recommended Action	
After all surfaces have been prepped per 3/4-9, 3/4-8 and 3/4-6 paint interior walls, doors, trim and window frames.	
References: R-15, R-16, 3/4-9, 3/4-8, 3/4-6	Estimated Cost: \$41,314.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 12
Priority: 13	Discipline: MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: MECHANICAL EQUIPMENT	
Necessity: REHABILITATE	
Photo Documentation	
 	
Deficiency Description	
Existing ventilation fans which served the milking area of the barn are not operational.	
Recommended Action	
Provide a business-type occupancy HVAC system for the lower level of the barns. The system shall consist of a two 20 ton gas-fired package rooftop units mounted at grade with spiral exposed ductwork running through the lower level of the barn for air distribution. Rooftop unit shall include economizer package and a 7-day programmable thermostat mounted within the lower level of the dairy barn.	
References: R-15, R-16, R-17	Estimated Cost: \$238,036.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 13
Priority: 15	Discipline: MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: ELECTRICAL SYSTEM	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Existing power service, distribution panels and lighting are non-operable. Panel and wiring devices are corroded and noncode compliant.	
Recommended Action	
Provide new service entrance panels, distribution and new lighting for the entire facility. Provide power to accommodate new package rooftop units serving the lower level of the dairy barn. Assume a 400 amp 120/208 V 3-phase 4-wire service entrance and distribution. Provide addressable fire alarm system.	
References: R-15, R-16, R-17	Estimated Cost: \$140,021.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 14
Priority: 14	Discipline: MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: PLUMBING SYSTEMS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Existing domestic cold water service to the milking area of the barn is in poor condition.	
Recommended Action	
Connect new water service to the building. Provide yard hydrant outside the barn for landscape irrigation. Provide a new men's and women's toilet room facilities to accommodate a business type occupancy on the main level of the barns.	
References: R-15, R-16, R-17	Estimated Cost: \$106,480.00

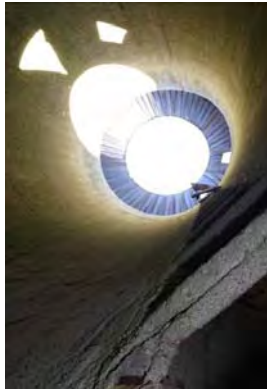
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 15
Priority: 20	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: GUTTER SYSTEM	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
For both barns: 1. There is no gutter system present. Some damage to fascia. 2. Corner drainage pieces show significant signs of wear. 3. Water pools at various locations @ barn 3 sidewalk.	
Recommended Action	
1. If allowed by HDC, install proper gutter system throughout both barns after new roof installation. See 3/4-16. Remove and replace damaged fascia board as needed. 2. Remove damaged corner drainage pieces. 3. Level barn 3 sidewalk by filling in the trough and providing the appropriate slope to drain water toward the courtyard grass area.	
References: R-19, R-20, 3/4-16	Estimated Cost: \$28,483.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 16
Priority: 3	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: ROOF	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Capacity and framing of the roof for both barns are below code. 2. The roof and rafters @ both barns show signs of damage and wear. Neither of the barn roofs are weather tight.	
Recommended Action	
1. Barn 3: Replace roof rafters as needed (approx. 2%); Barn 4, replace approx 10% roof rafters. 2. Remove and replace roof @ both barns. Replicate "Thompson's Dairy" on barn roof 3. Retain ventilators mounted on both roofs. See 3/4-8.	
References: R-19, R-20, 3/4-8, SK-3, SK-4	Estimated Cost: \$399,999.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 16A
Priority: 11	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: ROOF	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. Capacity and framing of the roof for both barns are below code.	
Recommended Action	
1. In both barns, Install new framing to upgrade roof to code. Estimated new posts @ 9'-0" OC, aligned over existing. Install new roof beams using multiple LVLs. Provide new cross members at posts and kickers down to CMU.	
References: R-19, R-20, SK-3, SK-4	Estimated Cost: \$299,475.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 17
Priority: 1	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: COLUMNS	
Necessity: URGENT	
Photo Documentation	
	
Deficiency Description	
Significantly rusted and deteriorated interior columns along aisle 1 @ barn 4. Columns sheared off their base. Missing column @ barn 4.	
Recommended Action	
Replace missing or failed steel posts (5" round). Provide steel base plates, bolted to existing foundations, and cap plates to accept beams. Replace or provide new beams for damaged ones, approx. 15 beams in barn 4. Temporary shoring as needed.	
References: R-16	Estimated Cost: \$109,807.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 18
Priority: 2	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: SILOS AND CONNECTORS	
Necessity: URGENT	
Photo Documentation	
	
Deficiency Description	
Concrete, CMU and connector roof are failing @ all silo connector locations. Connectors all show significant water damage.	
Recommended Action	
Demolish walls and roof of silo connectors 1 and 2 @ barn 3. Retain enough CMU block to enclose the (2) 3'-0" x 7'-0" openings. Concrete pads of connectors to remain for historical physical record. Similarly, remove silo connector 3 and 4 @ barn 4, and patch openings with CMU block retained from demolition.	
References: R-15, R-16, SK-4	Estimated Cost: \$23,958.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 18A
Priority: 6	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: SILOS AND CONNECTORS	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Silo 3 shows significant damage @ the floor line on the concrete interior. 2. Silo 4 interior concrete ladder is significantly degraded.	
Recommended Action	
1. Patch and repair concrete slabs remaining from barn 3 silo connectors. Remove all "soft" concrete at the base of silo 3 and repair with trowel grade epoxy. Repair silo roofs. 2. Patch and repair concrete ladder as necessary.	
References: R-15, R-16, SK-4	Estimated Cost: \$18,634.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 19
Priority: 21	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: WALKWAYS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Minor cracking in CMU.	
Recommended Action	
Repair CMU as necessary.	
References: R-15, R-16	Estimated Cost: \$3,000.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 3/4 - 20
Priority: 10	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: DAIRY BARNS 3/4	
Category: MILK HOUSE	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Lots of debris strewn throughout; Concrete walls in disrepair; Wall surfaces deteriorated; Concrete floor in disrepair. 2. Unknown concrete containment tank (sceptic?) in front of milkhouse.	
Recommended Action	
1. Patch and repair concrete walls in utility/storage area as necessary. Repair concrete floor throughout; Patch and repair interior wall surfaces as needed. 2. Hazardous materials survey to provide direction on proposed disposition of existing concrete containment tank; no cost provisions contained in this report at this time.	
References: R-17	Estimated Cost: \$10,000.00

King Farm, Horse (Hay) Barn Assessment

Building 5



General:

The horse barn sits toward the southern end of the site, across the drive from dairy barn 4. It is a one story structure with white painted wood siding and simple gabled roof. The only access to the building is located on the front façade; a large sliding barn door opens to the central aisle of the barn, while a door to the right opens into an old barn office space. A string of 5 windows dot the northeast facade of the barn that correspond to where the two interior rooms are located, and a chimney stretches above the roof in the same location. There are 2 windows on the rear façade tucked beneath the gable. All windows and doors are in poor condition. The last façade has no windows or doors. The barn has no proper drainage system for the roof, and the surface of both the roof and siding show many perforations. Rafters are exposed to the elements beneath the eaves and there are gaps leading into the main interior space at the transition between walls and roof structure.

This barn was used as a hay storage and horse barn. Large platforms at varying heights line the southwestern side of the building for hay drying purposes. The central aisle is lined on either side with structural wood columns, some of which have been reinforced. The two rooms in the front corner of the barn are closed off from the rest of the barn. The first room has an exterior entrance and was used as a break room or office space. Cabinetry lines the back wall of this office space. The second room has a dirt floor with a work table and a very basic brick hearth in one corner connected to the chimney above.

Accessibility and Public Use:

Similar to the dairy barns, the horse barn sits at grade, so accessibility would not be difficult to achieve. The uneven concrete floor would need to be addressed to provide a proper accessible floor surface. The hay drying platforms running along the side of the barn would most likely need to be removed unless a desire to present the structure in its original form for preservation purposes is desired. If this area is kept, further planning to accommodate accessibility would be needed.

The barn's porous envelope creates public use issues. There is no insulation or interior conditioning systems present, nor are there any restroom facilities in the building. The barn is a large space and would need additional exits for egress. The intended future use of the building will dictate the number and location of required exits.

Architectural:

The horse barn has exposed structure and a concrete floor. Similar to the dairy barns, this building has issues with weather tightness. Gaps large enough to show daylight are in the sheathing, roof and eave line. As previously noted, the building is not insulated. The large sliding barn door needs to be replaced with a more appropriate, weather tight entrance. As the only entrance / exit for the building, the barn is not currently compliant with egress requirements.

The exposed structure makes an interesting focal point, but it shows significant signs of stress; some structural members throughout the barn have already been reinforced, but cross members spanning the central aisle are bowed and significant fire damage is evident.

The platforms lining the southwest side of the barn are utilitarian and would be difficult areas which to provide ADA compliant access. They sit approximately 30" above the floor at the lowest point. Short ramps allow movement from one platform to another, but there are no railings present.

Structural:

This building is framed differently than Buildings 3 & 4. The barn has wood studs resting on a low CMU foundation wall. Roof framing consists of wood stud walls that extend up to a row of wood beams, continues up to a ridge, then back down to a parallel beam row, studs and to the opposite exterior bearing wall.

Structurally, the framing for this building is well below code requirements both in member sizes and connections. Structural deficiencies include:

- Undersized roof rafters
- Connection of rafters to stud wall and to beams and at ridge are mostly non-existent.
- Roof beams that are installed sideways (and undersized)
- Braces to beam/ columns that are undersized and poorly connected.
- Lack of lateral load resisting system
- Gable wall studs that are interrupted
- Lack of blocking at studs

Repairs to correct these issues would be extensive. While each of these items could be reconstructed on an individual basis, to do so will require extensive temporary shoring and will consume an inordinately large amount of time and money. For both safety and financial reasons, it is recommended that the building be removed and replaced in kind with a structurally sound building.

MEP:

There is no plumbing noted in this structure. There is some rudimentary electrical and HVAC. There is a power panel mounted on the exterior wall which is connected to an overhead service for this building. Circuits from there go out to various convenience outlets, along with some general lighting. The HVAC consists of wall mounted ventilation fans which are used to draw air through the space in the summer to make the space a little more tolerable. Full systems replacement and additions would be needed to prepare this structure for future use and occupancy.

Horse (Hay) Barn Assessment Summary and Reports

General Recommendations:

The sheer number of structural deficiencies evidenced in this building will make any rehabilitation effort extremely challenging and costly. Throughout the building, the framing is undersized and not properly connected per current code requirements. Rather than try to address each of the numerous structural issues individually, it is recommended that this building be demolished. As much of the existing historical material (siding, etc.) as possible should be salvaged for use in a future reconstruction of the barn according to historic preservation standards.



Cost Estimate Summary

Urgent:	\$ 400,000.00
Stabilize:	\$ 0.00
Rehabilitate:	\$ 1,882,215.00
Total:	\$2,282,215.00

Size

First Floor:	4,879 sf
Total:	4,879 sf

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 5 - 1
Priority: See 5-17A	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: HORSE BARN - BLDG. 5	
Category: EGRESS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. There is no exit to the outside @ room 2. 2. Total number of exits available throughout the building is likely deficient for any proposed future use or occupancy.	
Recommended Action	
See Building Structure reports. Reconstruction of the barn should include appropriate number and location of exits for the proposed use and occupancy.	
References: R-22, 5-5, 5-17, 5-17A	Estimated Cost: (Price included in 5-17, 5-17A)

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 5 - 2
Priority: See 5-17A	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: HORSE BARN - BLDG. 5	
Category: ACCESSIBILITY	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. There is no accessible entrance @ rooms 1 or 2. 2. Room 7 has a dirt floor. 3. Old hay platforms are not accessible.	
Recommended Action	
See Building Structure reports. Reconstitution of the barn should be performed in a manner so as to provide accessible routes and measures as required for the proposed use and occupancy.	
References: R-22, 5-5, 5-17, 5-17A	Estimated Cost: (Price included in 5-17, 5-17A)

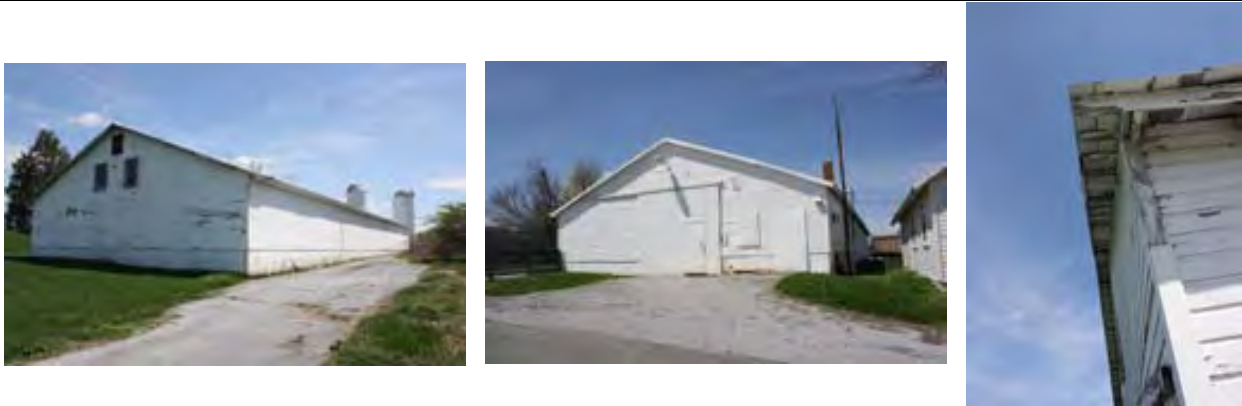
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 5 - 4
Priority: See 5-17A	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: HORSE BARN - BLDG. 5	
Category: FOUNDATION	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Damaged CMU @ elevation A, C and D. Cracked CMU, dislocated and shifted @ elevation A. Deteriorated concrete base @ C-D corner.	
Recommended Action	
See Building Structure reports. Depending on the proposed use and occupancy, some or most of the foundation could potentially be retained with appropriate repairs. For costing purposes, this assessment includes removal and replacement of the entire foundation.	
References: R-22, 5-17, 5-17A, SK-5	Estimated Cost: (Price included in 5-17, 5-17A)

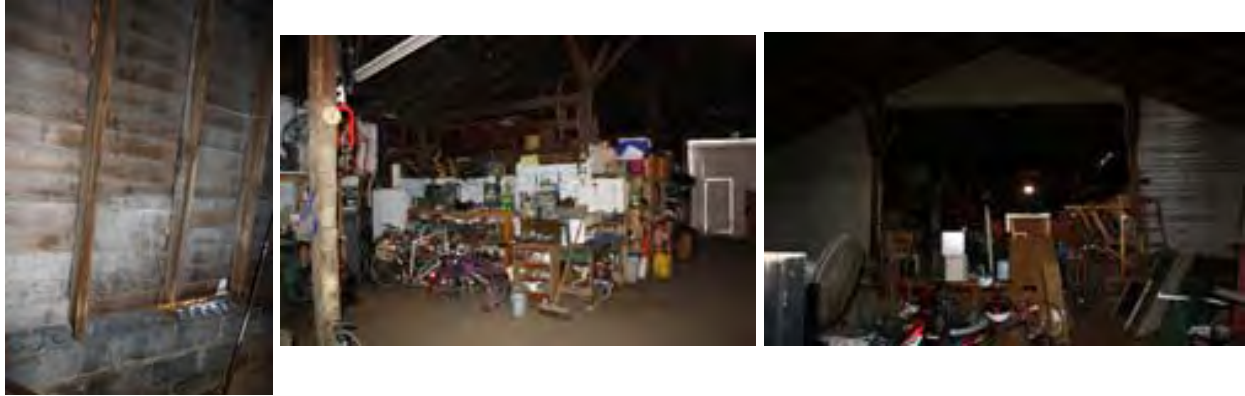
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 5 - 5
Priority: See 5-17A	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: HORSE BARN - BLDG. 5	
Category: FLOORS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Minor concrete floor cracking throughout @ room 3. Floor is not level; Dirt floor @ room 2 and 7; Significantly deteriorated floor @ room 1.	
Recommended Action	
See Building Structure reports. Depending on the proposed use and occupancy, some or most of the building floor could potentially be retained with appropriate repairs. For costing purposes, this assessment includes removal and replacement of the entire existing floor.	
References: R-22, 5-1, 5-2, 5-17, 5-17A, SK-5	Estimated Cost: (Price included in 5-17, 5-17A)

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 5 - 6
Priority: See 5-17A	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: HORSE BARN - BLDG 5	
Category: OPENINGS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Sliding barn door in poor condition and rotted at the bottom; Front door @ room 1 deteriorated; Sill rot @ elevation B windows. Windows beneath gable @ elevation C in poor condition; No reasonable access into room 2.	
Recommended Action	
See Building Structure reports. Barn reconstruction should include doors and windows which replicate the existing openings. New doors and windows installed to meet the functional and code requirements of the proposed use and occupancy shall clearly differentiate themselves from the historic fabric of the reconstructed barn.	
References: R-22, 5-2, 5-17, 5-17A	Estimated Cost: (Price included in 5-17, 5-17A)

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 5 - 8
Priority: See 5-17A	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: HORSE BARN - BLDG. 5	
Category: INSULATION	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. There is no insulation present. Current siding and roof assembly condition will not support insulation. 2. Building is not weather tight.	
Recommended Action	
See Building Structure reports. Reconstruction of the barn should include wall and roof assemblies that replicate the historic structure on the exterior, but appropriately protect and insulate the building for a new proposed use and occupancy. For costing purposes, the reconstruction includes insulated wall and roof assemblies.	
References: R-22, 5-6, 5-9, 5-17, 5-17A	Estimated Cost: (Price included in 5-17, 5-17A)

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 5 - 9
Priority: See 5-17A	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: HORSE BARN - BLDG. 5	
Category: SIDING	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Siding paint chipped and flaking @ all elevations; Various conduit and boards mounted on siding which no longer serve a purpose; numerous perforations @ all elevations.	
Recommended Action	
See Building Structure reports. During the demolition, the siding should be removed intact to the greatest extent possible and salvaged for re-use in the reconstruction.	
References: R-22, R-23, 5-17, 5-17A	Estimated Cost: (Price included in 5-17, 5-17A)

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 5 - 10
Priority: See 5-17A	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: HORSE BARN - BLDG. 5	
Category: EXTERIOR PAINT	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Exterior surfaces in poor condition.	
Recommended Action	
See Building Structure reports. Reconstructed building will have a new coat of exterior paint.	
References: R-23, 5-17, 5-17A	Estimated Cost: (Price included in 5-17, 5-17A)

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 5 - 11
Priority: See 5-17A	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: HORSE BARN - BLDG. 5	
Category: INTERIOR PAINT	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Interior side of perimeter walls and roof unpainted or poorly painted. Walls for rooms 1 and 2 in poor condition. Wall between area 3 and 7 in poor condition.	
Recommended Action	
See Building Structure reports. Reconstructed building will have a new coat of interior paint.	
References: R-22, 5-8, 5-17, 5-17A	Estimated Cost: (Price included in 5-17, 5-17A)

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 5 - 12
Priority: 3	Discipline: MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: HORSE BARN - BLDG. 5	
Category: MECHANICAL EQUIPMENT	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
There is no HVAC system other then wall mounted venting.	
Recommended Action	
Provide a new HVAC system for the entire structure. HVAC system shall consist of a packaged rooftop mounted unit placed on a slab at grade with sidewall air distribution ductwork exiting the rooftop unit and entering the structure. Spiral exposed style ductwork shall run the entire length of the structure to distribute the air through side duct mounted grilles and diffusers utilizing a central return. The HVAC unit shall be 20 ton gas-fired with economizer package and 7-day programmable thermostat.	
References: R-22	Estimated Cost: \$132,932.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 5 - 13
Priority: 5	Discipline: ARCH., MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: HORSE BARN - BLDG. 5	
Category: ELECTRICAL SYSTEM	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. Existing power panels appear adequate for existing use. 2. Existing / Emergency lighting is poor and not code compliant. There is no lighting @ room 2. Room 1 lighting is non-functional.	
Recommended Action	
1. Provide a new electrical service entrance to the building to accommodate future uses (assume business occupancy) and to feed gas-fired heating / cooling unit mounted at grade. Assume a 400 amp 120/208 V 3-phase 4-wire service entrance for the structure. 2. Provide normal lighting per code along with emergency and exit lighting (assume business occupancy).	
References: R-22	Estimated Cost: \$87,743.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 5 - 14
Priority: 4	Discipline: MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: HORSE BARN - BLDG. 5	
Category: PLUMBING SYSTEMS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
There is no existing plumbing service to the building.	
Recommended Action	
Provide a new water service entrance and sanitary connections at the building to accommodate men's and women's bathrooms to serve the use (assume business occupancy). Restrooms shall be ADA compliant.	
References: R-22	Estimated Cost: \$66,540.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 5 - 15
Priority: See 5-17A	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: HORSE BARN - BLDG. 5	
Category: GUTTER SYSTEM	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
There is no gutter system present; Fascia is significantly damaged or missing @ all elevations of the building.	
Recommended Action	
See Building Structure reports. If allowed by HDC, provide gutter and downspout system in reconstruction effort to protect the siding from future deterioration.	
References: R-23, 5-17, 5-17A	Estimated Cost: (Price included in 5-17, 5-17A)

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 5 - 17
Priority: 1	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: HORSE BARN - BLDG. 5	
Category: BUILDING STRUCTURE	
Necessity: URGENT	
Photo Documentation	
	
Deficiency Description	
1. The structural issues present in the building framing are myriad. Roof rafters are undersized, connections of rafters to stud wall, to beams, and @ ridge are mostly non-existent. Some roof beams are installed sideways. Braces to beam and columns are undersized and poorly connected. There is no lateral load resisting system. Gable wall studs are interrupted and there is no blocking @ studs. 2. There is fire damage to the structure @ area 3; the two front bays.	
Recommended Action	
Repairs to correct these issues would be extensive. While each of these items could be reconstructed on an individual basis, to do so will require extensive temporary shoring and will consume an inordinately large amount of time and money. For both safety and financial reasons, it is recommended that the building be demolished in an orderly fashion, and in a manner which allows the greatest amount of existing historic material to be salvaged for a possible future reconstruction.	
References: R-22, SK-5	Estimated Cost: \$400,000.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 5 - 17A
Priority: 2	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: HORSE BARN - BLDG. 5	
Category: BUILDING STRUCTURE	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
See R-17.	
Recommended Action	
If the building is demolished and there is a desire to re-build in kind to maintain the overall character of the site, then the building should be reconstructed as appropriate to satisfy historic preservation requirements. Existing materials shall be salvaged and re-used to the greatest extent possible, while ensuring that the reconstruction is structurally sound and meets the functional and code requirements of the proposed use and occupancy. Contemporary elements in the reconstruction should be clearly differentiated from the historic fabric.	
References: R-22, SK-5	Estimated Cost: \$1,595,000.00

King Farm, Tenant House Assessment

Building 6



General:

This tenant building was originally used as a horse barn and was converted into living quarters. A second floor was added in the original barn and 2 additions were placed on either side to help accommodate the new use. Unlike the other buildings on the site, this one is clad with vertical bead-board siding. The upper roof appears fairly new, and the roofs over the two additions flanking the original structure were replaced during the time period this assessment was being performed.

The building is located to the south of the garage on a hill which slopes down towards the dairy barns across the drive. The current main entrance is located on the front façade at the left addition. There are 5 windows total, but none are in usable condition. A short concrete retaining wall was constructed along the northern part of the structure to help deal with the elevational change. The façade facing the garage is one-story and severely dilapidated. The rear façade has two windows beneath the gable and a large tree stump with roots that have invaded the foundation.

Accessibility and Public Use:

This building is in extremely poor condition and has many challenges with regard to accessibility and public use. Ramps could be used along the front façade, but the existing septic tank and retaining walls would both need to be addressed before an ADA compliant entrance could be established.

The two additions sit at slightly different elevations from the current floor level of the main barn structure. The original barn is a small space, but does have plumbing service, so it would be possible to create a small restroom for future public use.

Architectural:

This tenant house has been severely impacted by moisture infiltration. The west corner of the building has deteriorated to such an extent that the lath has been exposed and the ceiling is bulging toward the floor. The second level has a pungent odor of mold and the floor feels suspiciously soft underfoot.

The porch on the northeast side is also significantly deteriorated. Glass is missing from most of the windows and the ceiling shows much damage. Because many of the most significant issues in this building are in the additions, demolishing them and returning the building to the original structure may be the most appropriate course of action.

Structural:

This building is a two-story building with low roofs on each side. Finishes and carpets cover most of the framing. The floors are soft, and there is evidence of water damage. The exterior walls show damage to several areas. The grade is too high adjacent to the building on the rear facade and is rotting the siding. The "crawl space" is very shallow, and thus the framing is too close to the earth. The building must be stabilized in the very near future if it is to be rehabilitated; else it will soon deteriorate past the point where this approach remains feasible.

MEP:

The building consists of a small apartment for the farm to use as housing for employees. The HVAC systems consist of electric baseboard heaters in the various rooms. No air conditioning is provided. There is some plumbing for a kitchen / bathroom area. The engineer was unable to determine the condition of the equipment. The general condition of all the systems is poor and a complete replacement of all MEP systems is required.

Tenant House 6 Assessment Summary and Reports

General Recommendations:

This building has arguably been affected the most by moisture infiltration and related damages, and an immediate stabilization effort is therefore paramount. The most deteriorated sections of this building are the two additions. While they do contribute to the story of the site, they are jeopardizing the entire structure. The recommendation is to remove the additions and rehabilitate the original portion of the structure for future use and occupancy. In addition, a proper foundation and crawl space must be installed to stabilize the structure.

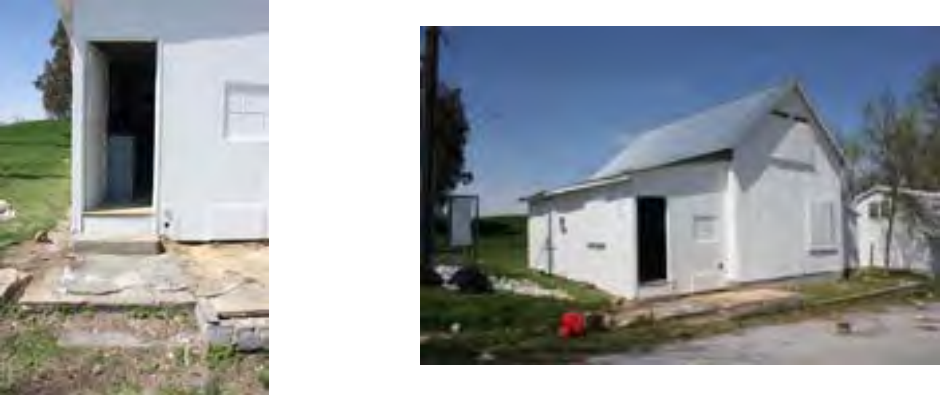


Cost Estimate Summary

Urgent:	\$	0.00
Stabilize:	\$	157,728.00
Rehabilitate:	\$	114,415.00
Total:		\$272,143.00

Size

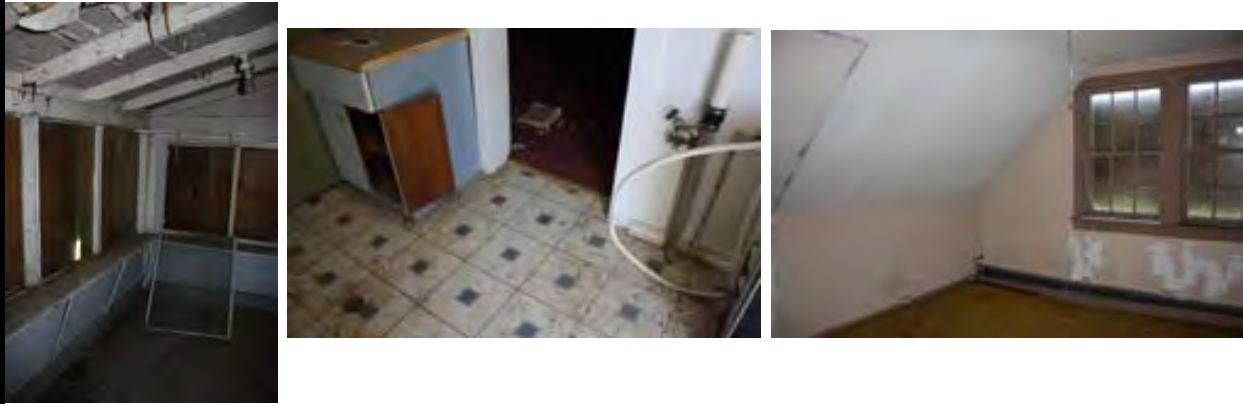
First Floor:	697 sf
Second Floor:	354 sf
Total:	1,051 sf

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 6 - 1
Priority: 9	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 6	
Category: EGRESS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. Entrances @ elevation A and B are too narrow. There are not enough operable exits. 2. The interior stair is too narrow.	
Recommended Action	
1. Install appropriately sized and number of exits after demolition. See 6-4, 6-7. 2. Demolish interior stair.	
References: R-24, R-26, 6-4, 6-7	Estimated Cost: \$7,986.00

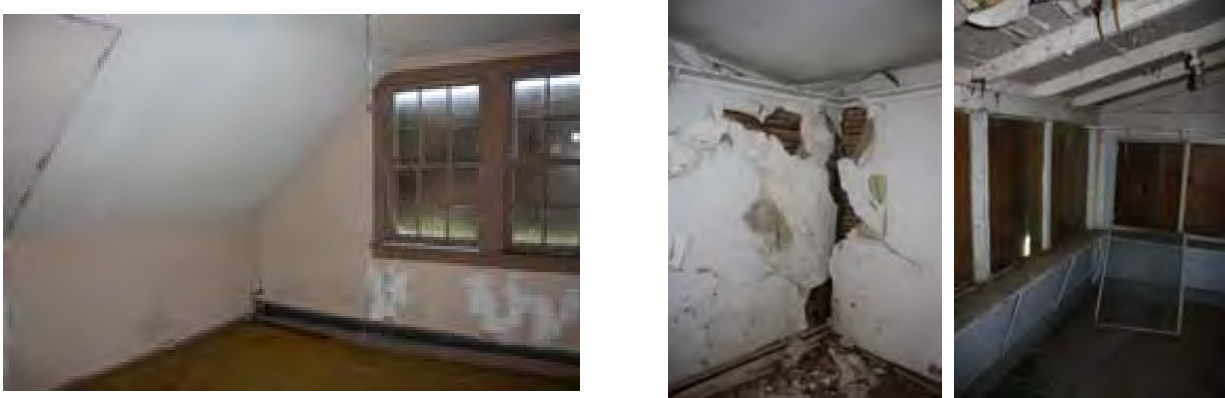
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 6 - 2
Priority: 13	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 6	
Category: ACCESSIBILITY	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. There is no appropriate accessible entrance into the building. 2. There are elevation changes @ thresholds between rooms 1 & 3, and 3 & 4.	
Recommended Action	
1. Provide accessible entry ramp to structure. 2. Demolish rooms 1, 2 and 4. Retain original central structure @ room 3. See 6-5 for cost. See also 6-4, 6-7, and 6-9 for related items .	
References: R-24, 6-4, 6-5, 6-7, 6-9	Estimated Cost: \$11,500.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 6 - 3
Priority: 5	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 6	
Category: APPROACH	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Heaved concrete base with significant cracking. Septic tank located below broken concrete pad. Loose pavers and deteriorated concrete steps. 2. The concrete retaining wall @ elevation A in disrepair.	
Recommended Action	
1. Remove septic tank. Demolish concrete base in front of addition 1. See 6-4, 6-7, and 6-9. 2. Replace retaining wall after demolition of additions as appropriate for remaining grade.	
References: R-24, R-25, 6-4, 6-7, 6-9	Estimated Cost: \$14,774.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 6 - 4
Priority: 1	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 6	
Category: FOUNDATION	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Deteriorated foundation cover @ elevation D. Deteriorated wood foundation @ elevations C and D. Deteriorated CMU foundation and grout @ elevation A. 2. Siding and foundation is damaged by invasive roots @ elevation C.	
Recommended Action	
1. Demolish addition 1 and 2. Repoint and replace CMU block as appropriate. Remove first floor, excavate to a minimum of 30", underpin existing walls and place new concrete "rat" slab. (See 6-5). 2. Grind stump and repair foundation @ the affected corner.	
References: R-25, SK-6	Estimated Cost: \$30,127.00

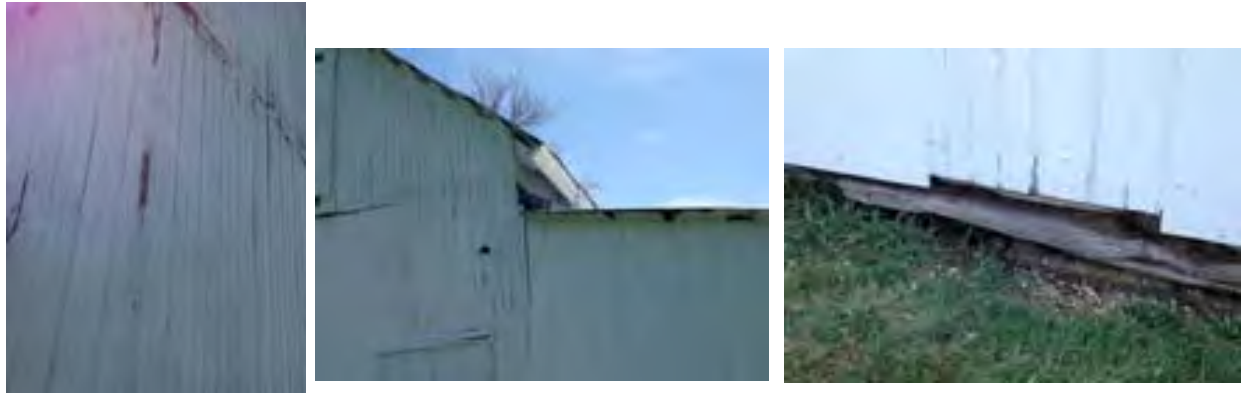
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 6 - 5
Priority: 2	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 6	
Category: FLOORS	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Floors @ first and second level are soft and feel spongy. See 6-7. 2. Second level is too low, causing the first floor ceiling height to be non-compliant. 3. Floors in additions are in very poor condition from extensive moisture damage.	
Recommended Action	
1-2. Demolish both additions (See 6-4). Demolish second floor. Strip the interior finishes and floors to studs @ room 3. Install new floor framing in remaining space post foundation/crawl space stabilization.	
References: R-24, R-26, 6-4, SK-6	Estimated Cost: \$36,842.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 6 - 6
Priority: 6	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 6	
Category: OPENINGS	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Current doorways into building are significantly deteriorated and located on additions only. 2. All windows are in poor condition, particularly @ addition 2.	
Recommended Action	
1. Post demolition (see 6-7): If records are available, reconstruct original barn opening with replica sliding barn door. 2. Replace windows below gable @ elevation A and C. Remove window and shutter @ elevation A. Fill with appropriate materials and siding.	
References: R-24, R-26, 6-7	Estimated Cost: \$32,951.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 6 - 7
Priority: 3	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 6	
Category: MOISTURE INFILTRATION	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Pervasive water damage, mold and rot. Lath @ room 2 is exposed by deteriorated plaster. Wall and roof assembly @ room 2 in danger of collapse. 2. Significant deterioration from moisture infiltration @ addition 2. 3. Second level has significant evidence of mold. Strong mold odor throughout building. Significant framing damage suspected.	
Recommended Action	
1-3. After demolition of the additions and the second level, strip the remaining interior space to studs. Repair, reinforce and replace framing as necessary once studs are exposed. *Note: framing repair allowance included for select framing replacement once invasive investigations are performed.*	
References: R-24, R-26	Estimated Cost: \$10,000.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 6 - 8
Priority: 8	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 6	
Category: INSULATION	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Insulation either not present or in poor condition @ all areas.	
Recommended Action	
Once central space has been stripped (see 6-7) and framing stabilized, install R-19 batt insulation @ walls. Install R-38 batt insulation @ underside of roof. Install drywall and prep all interior areas for paint.	
References: R-24, 6-7	Estimated Cost: \$35,463.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 6 - 9
Priority: 4	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 6	
Category: SIDING	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Significantly deteriorated siding along foundation line @ all elevations. Siding in deteriorated condition @ all elevations. 2. Fascia is missing or damaged @ elevations B, C, and D.	
Recommended Action	
Post demolition: 1. Remove siding and replace with like bead board. Prep for paint. 2. Remove and replace fascia board @ elevations B, C, and D.	
References: R-25	Estimated Cost: \$26,486.00

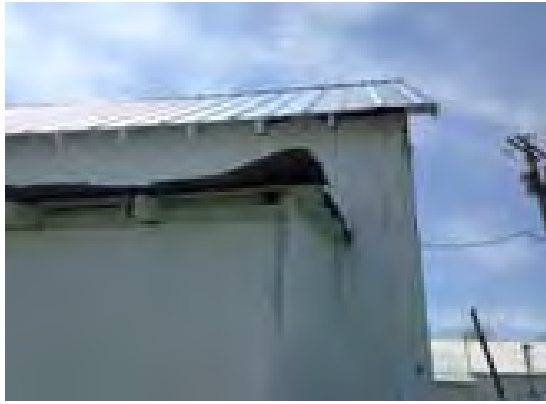
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 6 - 10
Priority: 7	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 6	
Category: EXTERIOR PAINT	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
Eaves in poor condition and show flaking paint. Siding paint has deteriorated.	
Recommended Action	
After demolition and re-siding (see 6-4, 6-7, 6-9), repaint all exterior surfaces, including siding, foundation, eaves, trim and fascia.	
References: R-25, 6-4, 6-7, 6-9	Estimated Cost: \$6,548.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 6 - 11
Priority: 15	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 6	
Category: INTERIOR PAINT	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Interior is in generally very poor condition. Paint is peeling or fallen away all together.	
Recommended Action	
Post demolition and stripping the interior to studs (see 6-7), paint new gyp. board and trim.	
References: R-24, 6-7	Estimated Cost: \$3,154.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 6 - 12
Priority: 10	Discipline: MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 6	
Category: MECHANICAL EQUIPMENT	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
There is no visible mechanical system present. Electric baseboard heating on the second floor is the only interior environment conditioning equipment.	
Recommended Action	
Provide a ducted gas-fired heating split system cooling unit for the structure. Provide rectangular ductwork concealed within bulkheads utilizing sidewall supply diffusers and central return. Assume 4 ton cooling system required. Distribution shall be for the entire structure. Unit shall have outdoor air connection to it with economizer and a 7-day programmable thermostat. Mount unit in an appropriately sized utility closet.	
References: R-24, 6-7, 6-8	Estimated Cost: \$21,029.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 6 - 13
Priority: 12	Discipline: ARCH., MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 6	
Category: ELECTRICAL SYSTEM	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Existing electrical distribution, wiring devices, lighting and electric baseboard heating are in poor, inoperative condition. All are non-code compliant.	
Recommended Action	
Provide new power service / panel and rewire entire building including lighting and electric heat. Provide new lighting fixtures as appropriate.	
References: R-24	Estimated Cost: \$12,617.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 6 - 14
Priority: 11	Discipline: MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 6	
Category: PLUMBING SYSTEMS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Existing plumbing centered around room 1. Entire plumbing systems, including hot water, cold water and sanitary are nonfunctional and noncode compliant.	
Recommended Action	
Replumb the entire building and provide new plumbing fixtures to serve the intended use (assume business occupancy). Assume electric hot water heater to serve the new plumbing fixtures.	
References: R-24	Estimated Cost: \$21,229.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 6 - 15
Priority: 14	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 6	
Category: GUTTER SYSTEM	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
There is no proper gutter system present.	
Recommended Action	
Post demolition: If allowed by HDC, install proper gutter system @ original barn roof, including downspouts and gutter guards. This will help protect the historic siding from further deterioration in the future.	
References: R-27	Estimated Cost: \$1,437.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 6 - 16
Priority: 16	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 6	
Category: ROOF	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Roof @ addition 2 clad with varying materials. Flashing is missing; Damaged metal roof @ addition 1; No gutter system present. See 6-15 (gutter system).	
Recommended Action	
Post demolition: Metal roof @ area 3 appears new. See 6-8 and 6-15 for insulation and gutter treatment.	
References: R-27, 6-8, 6-15	Estimated Cost: \$0.00

King Farm, Tenant House Assessment

Building 7



General:

This tenant house is located between the horse barn and the other tenant building. Comparatively speaking, this tenant house is in much better condition than the other. Its original purpose was a cottage rather than a barn, and the dedicated purpose seems to have assisted in maintaining its overall condition. Changes in the foundation and roof structure reveal that a couple of different additions have been made over the years. The foundation at the front facade is painted CMU, while the rear is supported by concrete piers. The simple gabled roof on the left side of the photo above is interrupted by a lower sloped roof covering the two side appendages. This suggests the lower sloped roof was retrofitted onto the simple gable at a later date. Historic reports indicate the cottage originally had both a bathroom and kitchen, but there is no evidence of either today.

Accessibility and Public Use:

Accessibility will be difficult to introduce. The front door sits significantly higher than the drive, as there is a short but significant ground slope. Steps leading up to the front door show an additional 30" rise to the building's floor level from the ground plane. There are multiple floor transitions inside, which makes navigation to and through the building difficult from an accessible standpoint. Further aggravating the issue, this is a small building; rooms are 11'-7" x 10'-0" on average, which makes maneuverability very tight and required clearances difficult to meet. All the doorways are too narrow to comply with ADA requirements.

In addition to these accessibility issues, the other main challenges from a public use standpoint are a limited thermal envelope (no attic insulation), a lack of toilet facilities, and general space constraints.

Architectural:

Comparatively speaking, the tenant house is in fairly good condition and will need fewer comprehensive repairs than some of the other structures. The attic space, while in good condition, is not insulated, and the survey was unable to determine whether the exterior walls were insulated. There are a few signs of water infiltration around the windows, but this does not appear to be a pervasive issue. Baseboard heat is the only space conditioning equipment. The extremely limited size of the building will make renovations challenging. Existing ceilings are very low.

Structural:

This is a one-story building that appears in generally sound condition. Finishes cover the framing. There are signs of water leaks and some structural members may be affected.

The main concern is at the SE corner, where it appears that the foundation is piers with wood beams. As with Building 6, it is expected that there is no (or very limited) crawl space and framing is too close to the earth.

MEP:

Originally, this was onsite housing for farmhands as an apartment type use. There has been a new electric panel installed with new fluorescent lighting, electric heat and convenience outlets. No plumbing was present. No plumbing fixtures were noted. No air conditioning or exhaust fans were noted. In general, the MEP systems are poor. The exception is the electrical system, which is relatively new. MEP systems would need to be replaced (or added) for future use and occupancy.

Tenant House 7 Assessment Summary and Reports

General Recommendations:

This building is in fairly good shape, and the stabilization and rehabilitation recommendations are the least costly of any building on the site. The foundation and crawl space have similar issues to those found in building 6 (exposed framing too close to earth), and must be modified to protect the building. Despite its decent condition, the small size of the structure will limit the future uses which can be accommodated, and ADA compliance will be difficult to achieve.



Cost Estimate Summary

Urgent:	\$	0.00
Stabilize:	\$	47,873.00
Rehabilitate:	\$	92,946.00
Total:	\$	140,819.00

Size

First Floor:	542 sf
Total:	542 sf

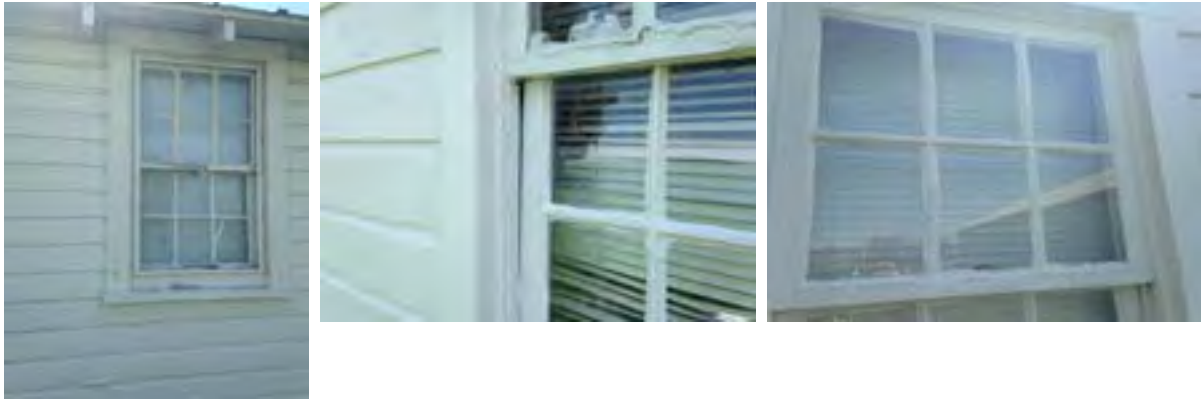
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 1
Priority: 13	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: EGRESS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Door widths are too narrow.	
Recommended Action	
Depending on use, provide 32" clear door openings (5 total including exterior doors) along the path of egress.	
References: R-28	Estimated Cost: \$10,648.00

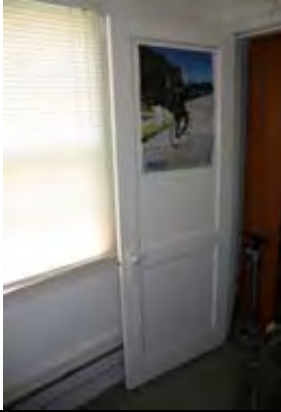
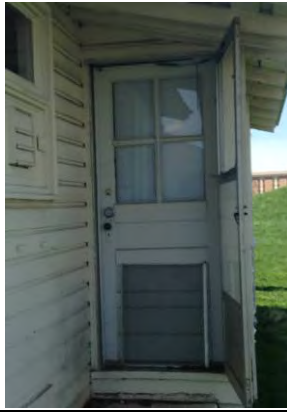
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 2
Priority: 14	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: ACCESSIBILITY	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. There is no accessible entrance into the building. 2. There are elevation changes @ the transitions between rooms 1 & 3, 1 & 4, and 4 & 5. 3. Door widths are too narrow. Front door clearance is too short.	
Recommended Action	
Post foundation stabilization work (7-4): 1. Provide concrete ramp to the main entrance. 2. Install level floor throughout structure. Where elevation changes are necessary between rooms, provide ADA compliant slope. Note the square footage of this building is very limited. The most appropriate action may be to seek a historic exemption from ADA requirements for the entire building.	
References: R-28, 7-4, 7-1	Estimated Cost: \$14,641.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 3
Priority: 15	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: APPROACH	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
1. The path to the main entrance is significantly deteriorated. 2. The concrete steps @ the secondary entrance are in poor condition.	
Recommended Action	
1. Replace existing remnants of path with like white stone look, approx. 20'-0". Pour slab @ the base of both entrances, 5'0" w x length of steps. 2. Replace concrete steps.	
References: R-28	Estimated Cost: \$5,989.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 4
Priority: 1	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: FOUNDATION	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
There are 2 different foundation systems. The front end is CMU, the rear is piers. The piers are susceptible to weather damage.	
Recommended Action	
Remove 1st floor, excavate to a minimum of 30", underpin existing walls, place "rat" slab, install new floor. New foundation at SW corner.	
References: R-28, R-30, SK-7	Estimated Cost: \$18,552.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 5
Priority: 17	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: FLOORS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Floors are old and dirty. Some areas show signs of wear.	
Recommended Action	
Post foundation stabilization work (7-4): Install new flooring.	
References: R-28	Estimated Cost: \$3,093.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 6
Priority: 2	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: OPENINGS	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Gapping window @ elevation D. Deteriorated double hung frames. Windows generally in poor condition and susceptible to moisture infiltration. 2. Door hardware is noncompliant.	
Recommended Action	
1. Replace all 8 windows approx. 3'-0" x 4'-6" with like 6/6 double hung and reflash. 2. See 7-2 and 7-6A for door treatments.	
References: R-28, R-29, 7-2, 7-6	Estimated Cost: \$15,972.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 6A
Priority: 16	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: OPENINGS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Door hardware is noncompliant.	
Recommended Action	
Replace door hardware with levers.	
References: R-28, 7-2, 7-6	Estimated Cost: \$3,200.00

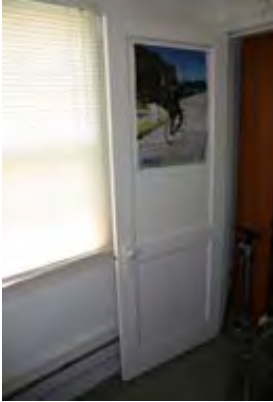
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 7
Priority: 3	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: MOISTURE INFILTRATION	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
Evidence of water damage @ room 4 interior window sill.	
Recommended Action	
Repair affected studs @ water infiltration, approx. 15 LF. Replace all windows. See 7-6.	
References: R-28, 7-6	Estimated Cost: \$2,000.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 8
Priority: 8	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: INSULATION	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
The attic is not insulated.	
Recommended Action	
Insulate with R-38 insulation.	
References: R-28	Estimated Cost: \$1,576.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 9
Priority: 4	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: SIDING	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
1. Peeling siding with spots of rot along foundation line @ all elevations 2. Cracked and rotting wood panel @ front porch. 3. Corner covers rotted. 4. Fascia board rotted, missing, or in poor condition.	
Recommended Action	
1-3. Gently scrape exterior surfaces to remove peeling and loose paint. Repair and replace as necessary. Prep surfaces for paint. 4. Install new fascia board.	
References: R-28, R-29	Estimated Cost: \$3,993.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 10
Priority: 5	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: EXTERIOR PAINT	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
Paint in poor condition on exterior surfaces.	
Recommended Action	
Repaint all exterior surfaces after proper preparation, including siding, trim, and new fascia board.	
References: R-29	Estimated Cost: \$5,856.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 11
Priority: 18	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: INTERIOR PAINT	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Interior walls and trim showing minor wear and damage.	
Recommended Action	
Patch and repair as necessary. Prep and paint all walls, trim and baseboard.	
References: R-28	Estimated Cost: \$4,639.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 12
Priority: 10	Discipline: MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: MECHANICAL EQUIPMENT	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
There is no modern HVAC system present beyond baseboard heating.	
Recommended Action	
Provide a new gas-fired heating split system DX cooling unit for the structure. Provide rectangular sheet metal ductwork concealed within bulkheads. HVAC unit shall be placed in the appropriately sized utility closet and shall have outdoor air capability with economizer. Assume a business type occupancy and the capacity of the unit shall be assumed to be 2 tons.	
References: R-28	Estimated Cost: \$14,641.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 13
Priority: 12	Discipline: ARCH., MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: ELECTRICAL SYSTEM	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Building was recently rewired, but there are no emergency or exit related signs.	
Recommended Action	
Provide emergency / exit signs.	
References: R-28	Estimated Cost: \$1,996.00

King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 14
Priority: 11	Discipline: MEP
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: PLUMBING SYSTEMS	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
No existing plumbing systems are present.	
Recommended Action	
Provide new plumbing systems for the structure. Provide an accessible restroom for the building utilizing an electric hot water heater.	
References: R-28	Estimated Cost: \$15,000.00

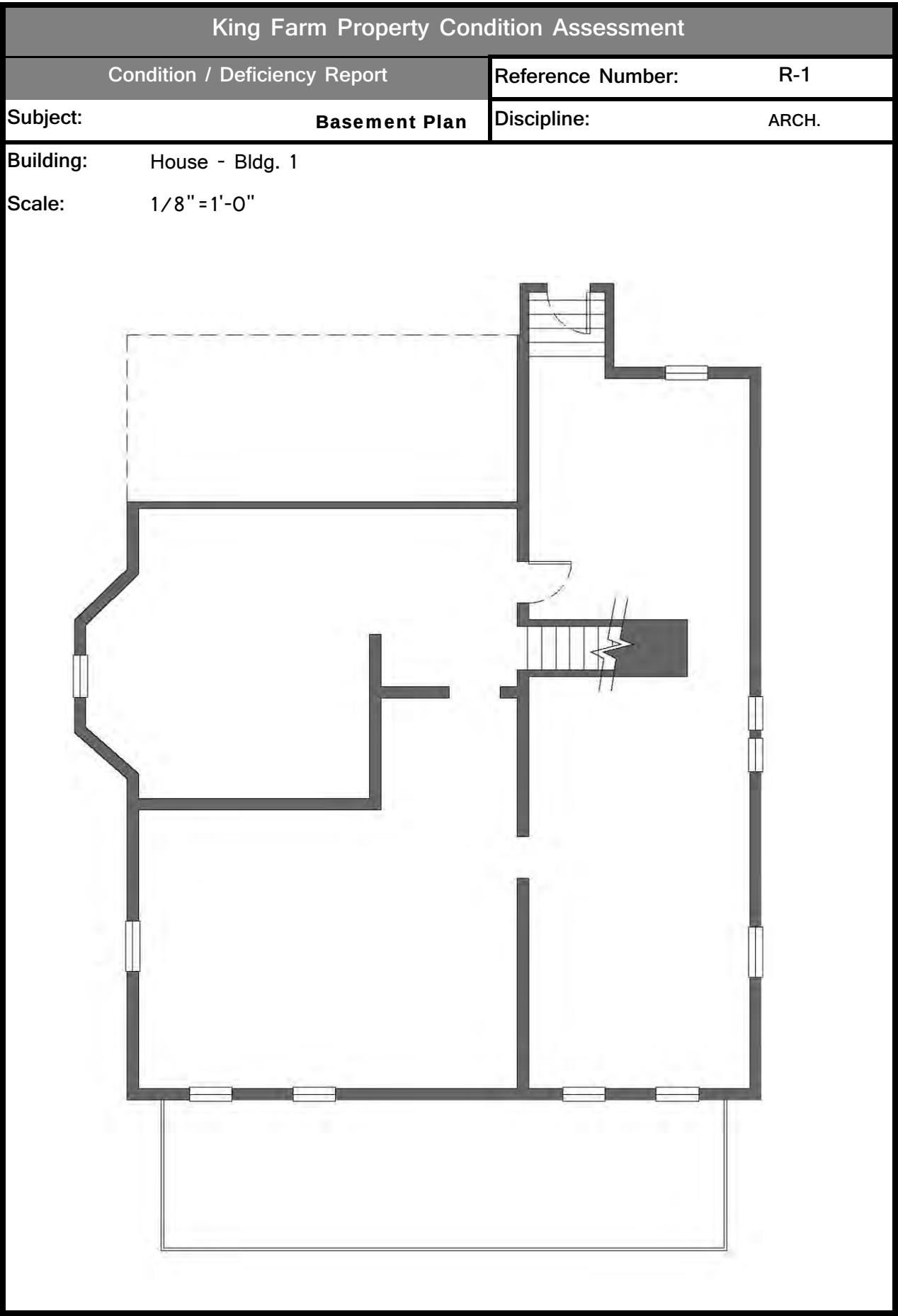
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 15
Priority: 9	Discipline: ARCH.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: GUTTER SYSTEM	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
There is no gutter system present to control rain water drainage.	
Recommended Action	
Once fascia is repaired, see 7-9, install appropriate gutter system with downspouts and guards (subject to approval from HDC).	
References: R-31, 7-9	Estimated Cost: \$2,523.00

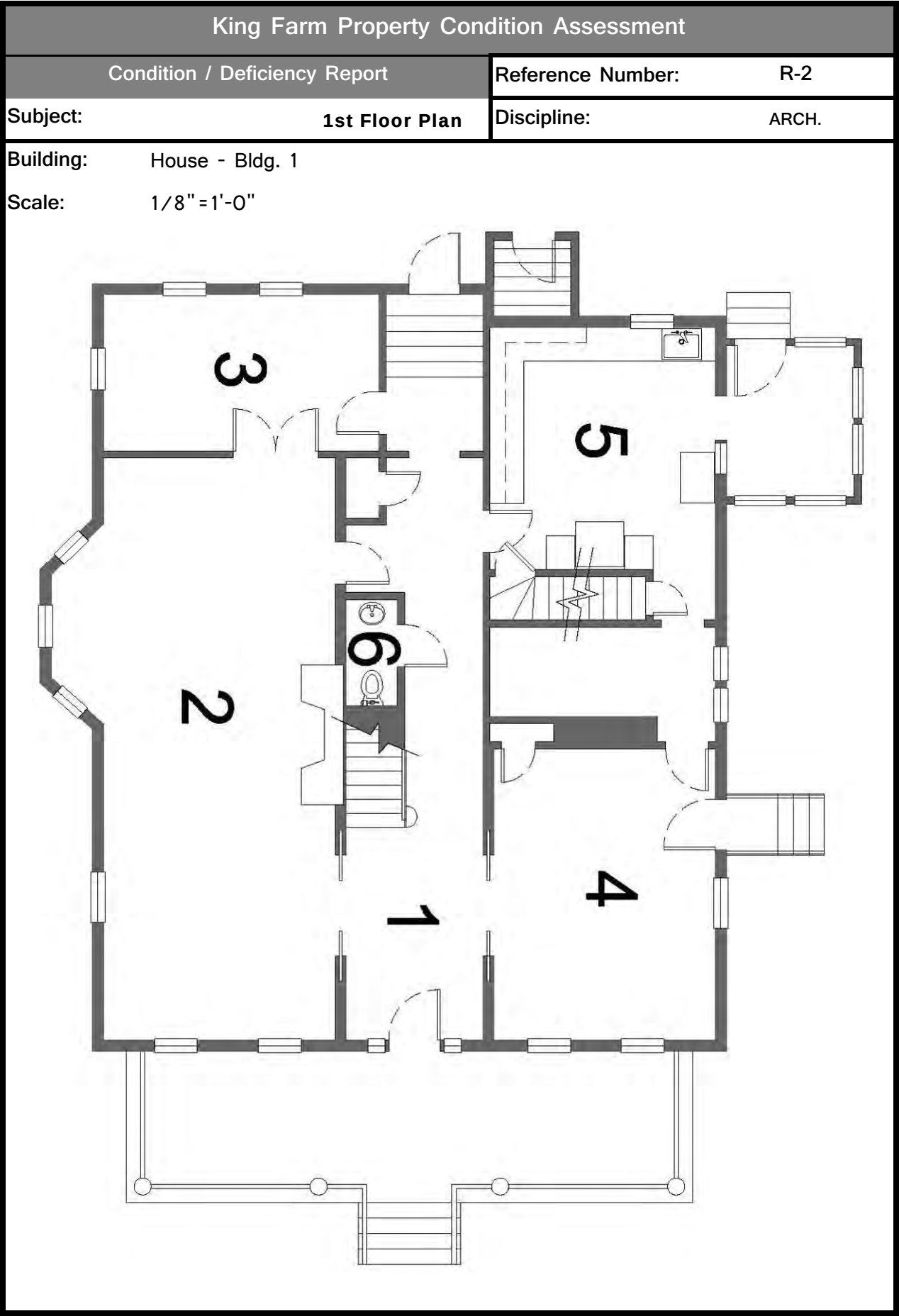
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 16
Priority: 6	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: ROOF	
Necessity: STABILIZE	
Photo Documentation	
	
Deficiency Description	
Minor damage to roof and eaves.	
Recommended Action	
Patch and repair roof and eaves as appropriate.	
References: R-31	Estimated Cost: \$1,500.00

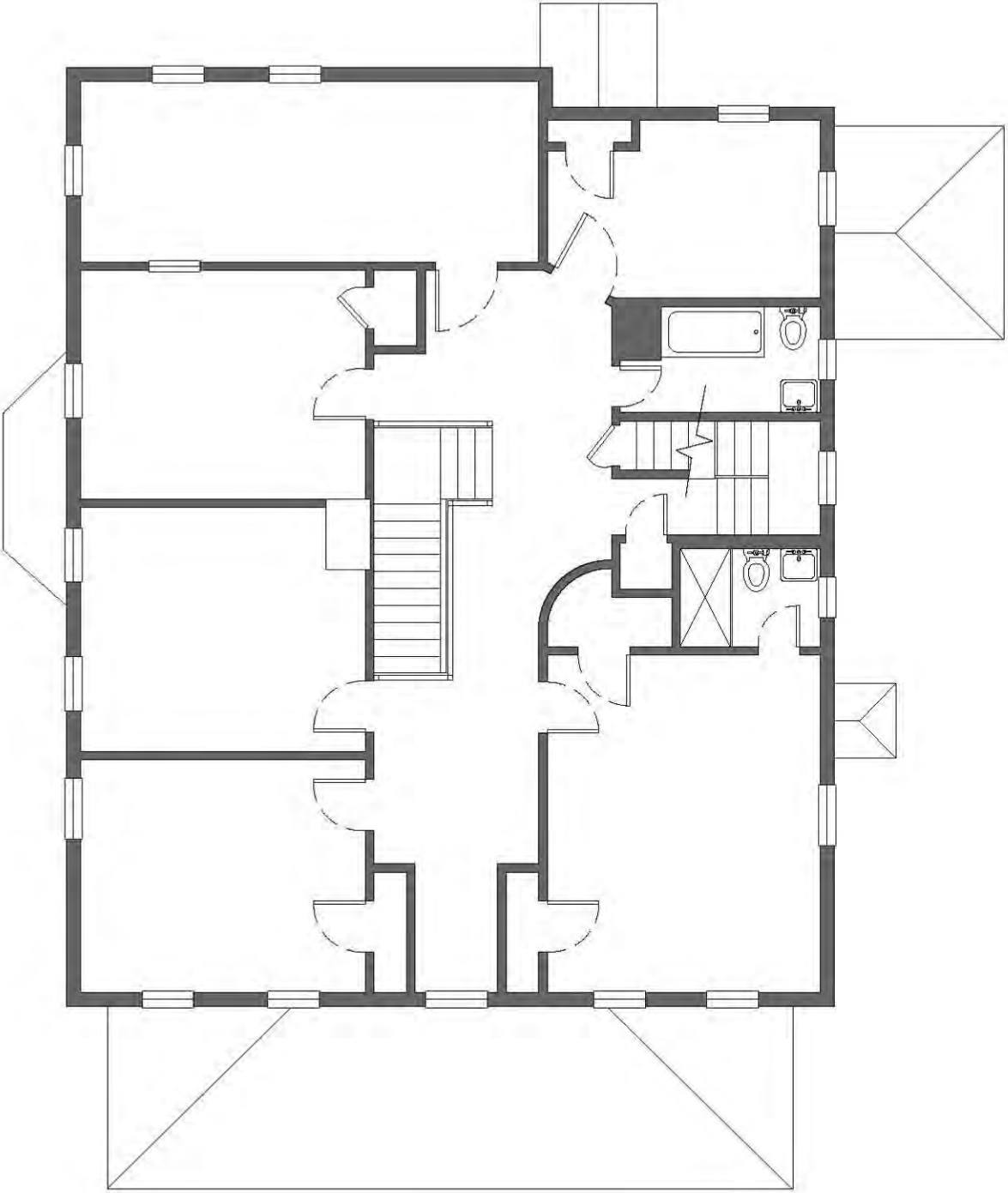
King Farm Property Condition Assessment	
Condition / Deficiency Report	Report Number: BLDG 7 - 16A
Priority: 7	Discipline: ARCH., STRUCT.
Address: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Location: TENANT - BLDG. 7	
Category: ROOF	
Necessity: REHABILITATE	
Photo Documentation	
	
Deficiency Description	
Roof framing is undersized.	
Recommended Action	
Reinforce roof rafters with new 2x8 at 16" o/c. Place between existing.	
References: R-31	Estimated Cost: \$15,000.00

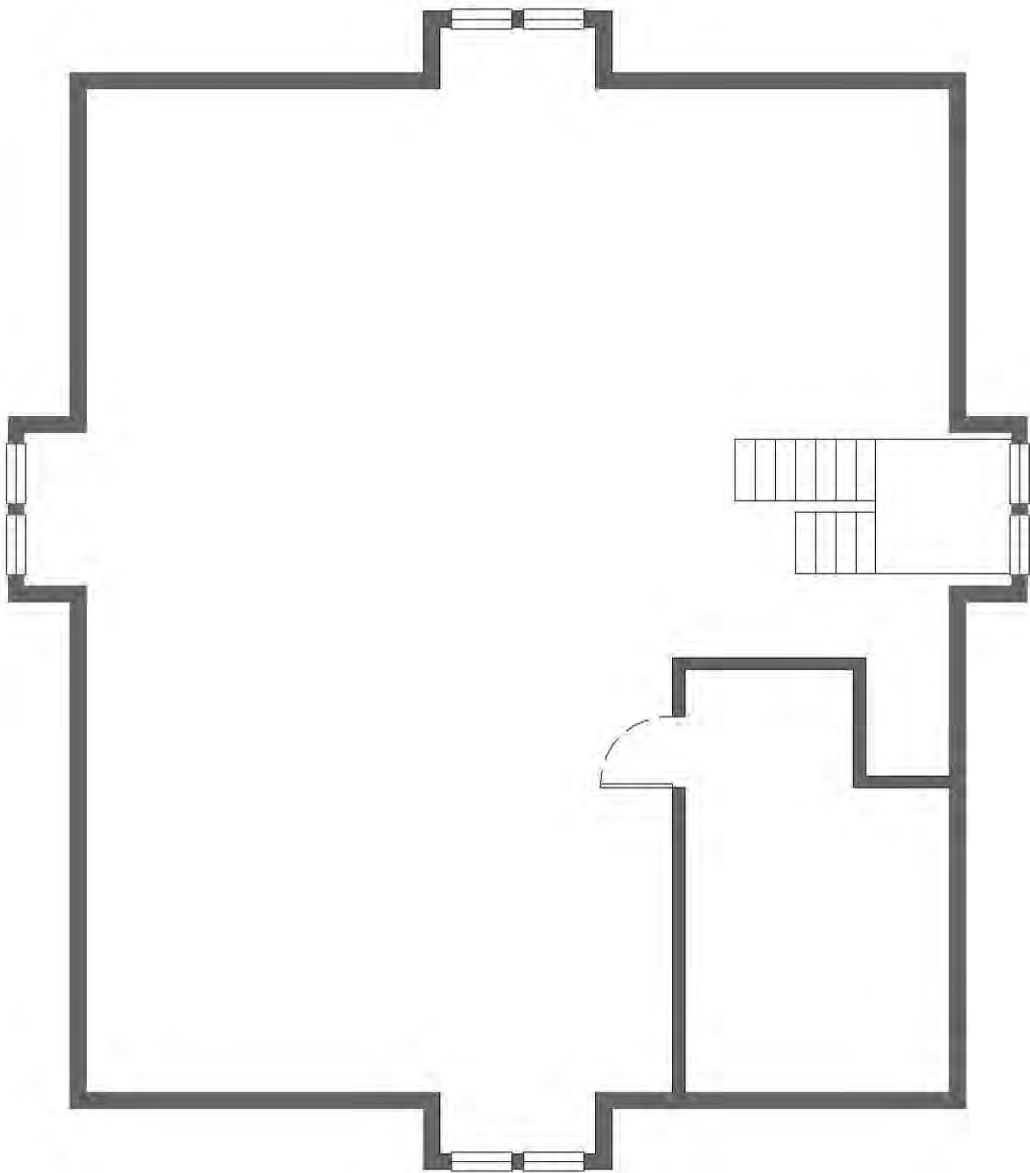
Appendix A: Report References

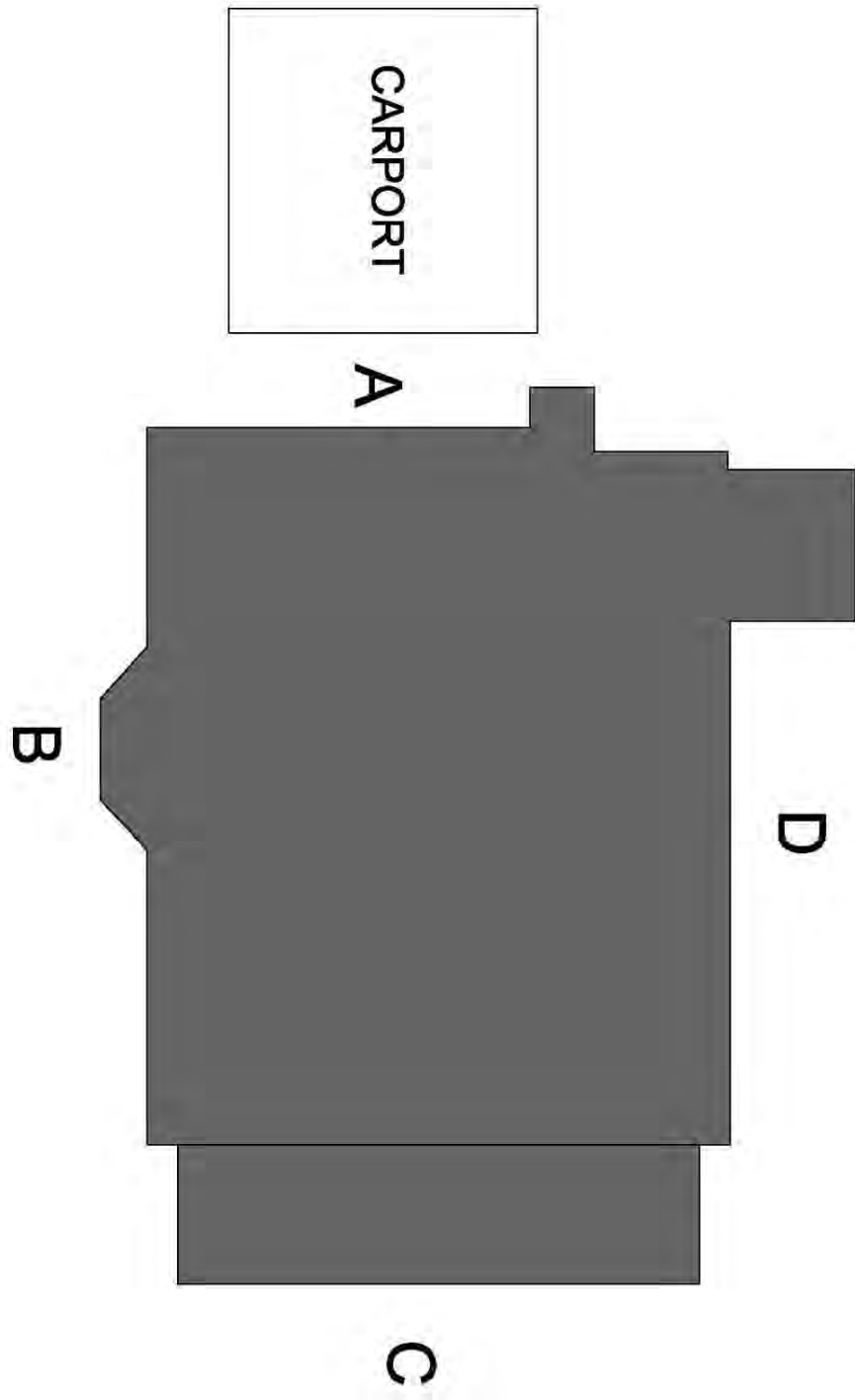
Number	Title	Relevant Building
R-1	Basement Plan	Building 1
R-2	First Floor Plan	Building 1
R-3	Second Floor Plan	Building 1
R-4	Attic Plan	Building 1
R-5	Elevation Key	Building 1
R-6	Moisture Damage	Building 1
R-7	Foundation	Building 1
R-8	Roof Plan	Building 1
R-9	Carport Key	Building 1
R-10	First Floor Plan	Building 2
R-11	Second Floor Plan	Building 2
R-12	Elevation Key	Building 2
R-13	Parging Locations	Building 2
R-14	New Gutter Locations	Building 2
R-15	First Floor Plan	Building 3
R-16	First Floor Plan	Building 4
R-17	Milk House	Building 3/4
R-18	Elevation Key	Building 3/4
R-19	Gutter Locations	Building 3
R-20	Gutter Locations	Building 4
R-21	Concrete Floors	Building 3/4
R-22	First Floor Plan	Building 5
R-23	Elevation Key	Building 5
R-24	Floor Plans	Building 6
R-25	Elevation Key	Building 6
R-26	Addition Key	Building 6
R-27	Gutter Locations	Building 6
R-28	Floor Plan	Building 7
R-29	Elevation Key	Building 7
R-30	Foundation Diagram	Building 7
R-31	Gutter Locations	Building 7
SK-1	House	Building 1
SK-2	Garage	Building 2
SK-3	Dairy Barn	Building 3
SK-4	Dairy Barn	Building 4
SK-5	Horse Barn	Building 5
SK-6	Tenant Building	Building 6
SK-7	Tenant Building	Building 7

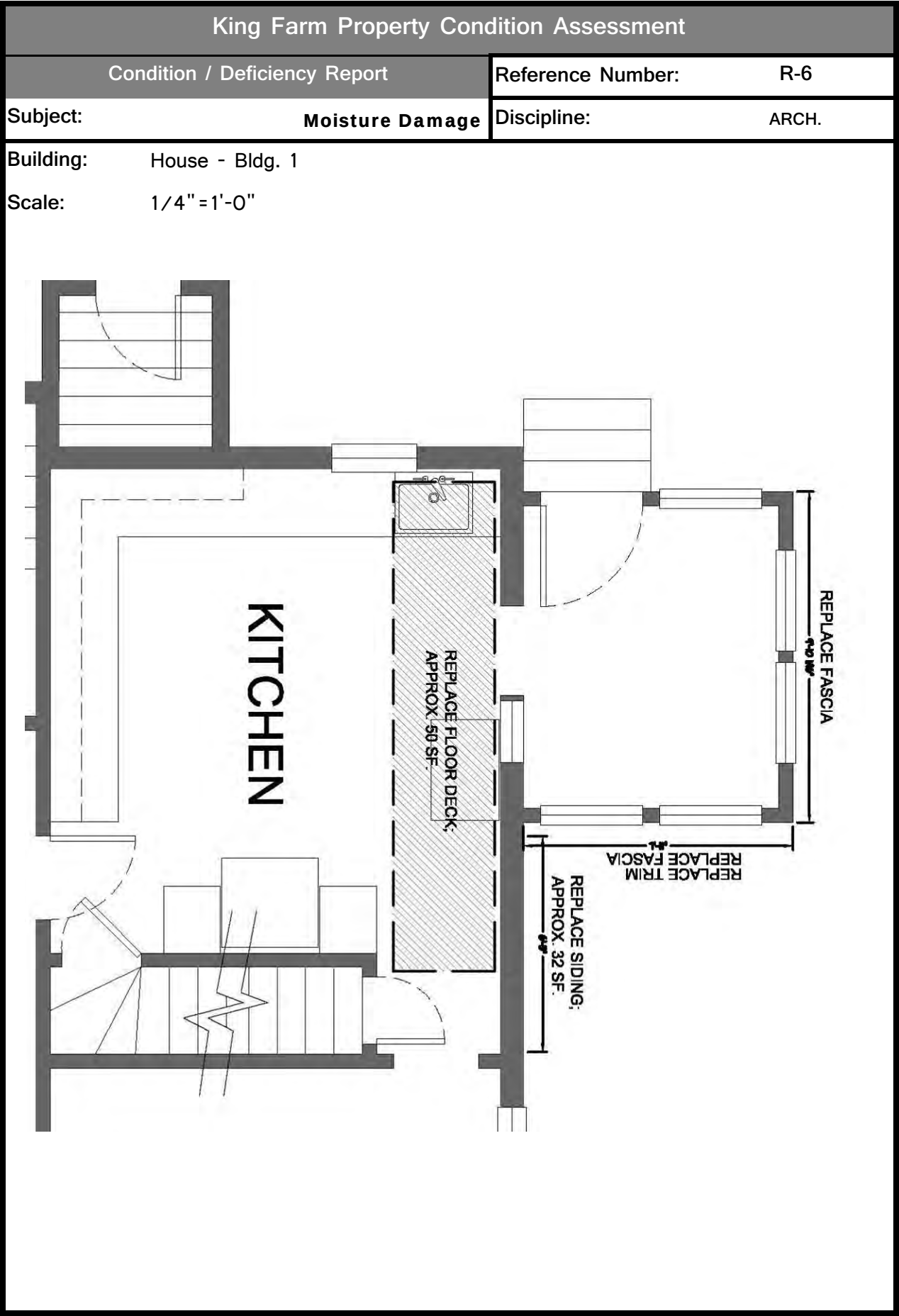


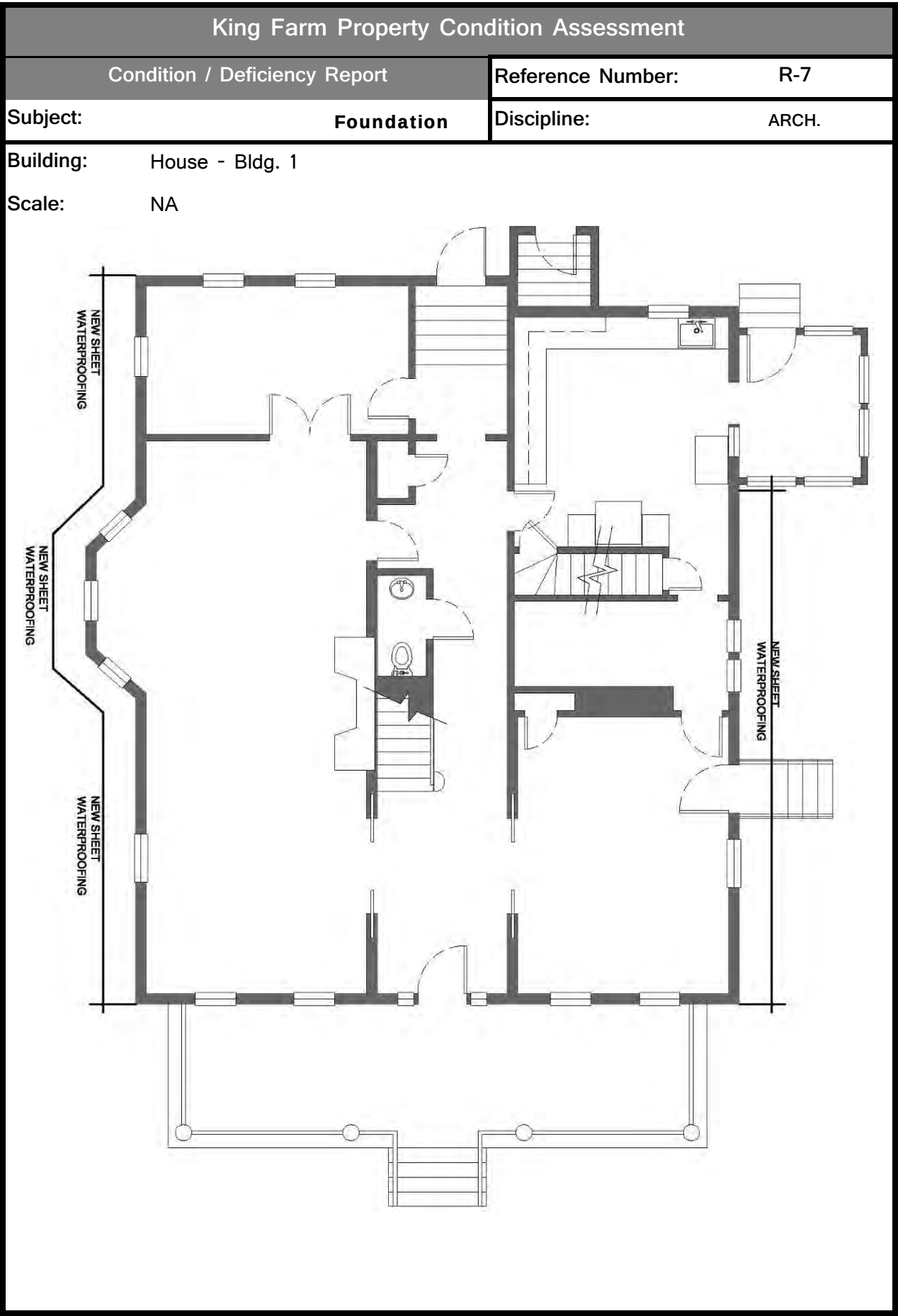


King Farm Property Condition Assessment	
Condition / Deficiency Report	Reference Number: R-3
Subject: 2nd Floor Plan	Discipline: ARCH.
Building: House - Bldg. 1	
Scale: 1/8" = 1'-0"	
	

King Farm Property Condition Assessment	
Condition / Deficiency Report	Reference Number: R-4
Subject: Attic Plan	Discipline: ARCH.
Building: House - Bldg. 1	
Scale: 1/8" = 1'-0"	
	

King Farm Property Condition Assessment	
Condition / Deficiency Report	Reference Number: R-5
Subject: Elevation Key	Discipline: ARCH.
Building: House - Bldg. 1	
Scale: NA	
 The diagram shows a dark gray silhouette of a house. Above the house is a white rectangular area labeled 'CARPORT'. Four letters are placed around the house: 'A' is above the main body, 'B' is to the left of a small protrusion, 'C' is below a rectangular extension at the bottom, and 'D' is to the right of the main body.	



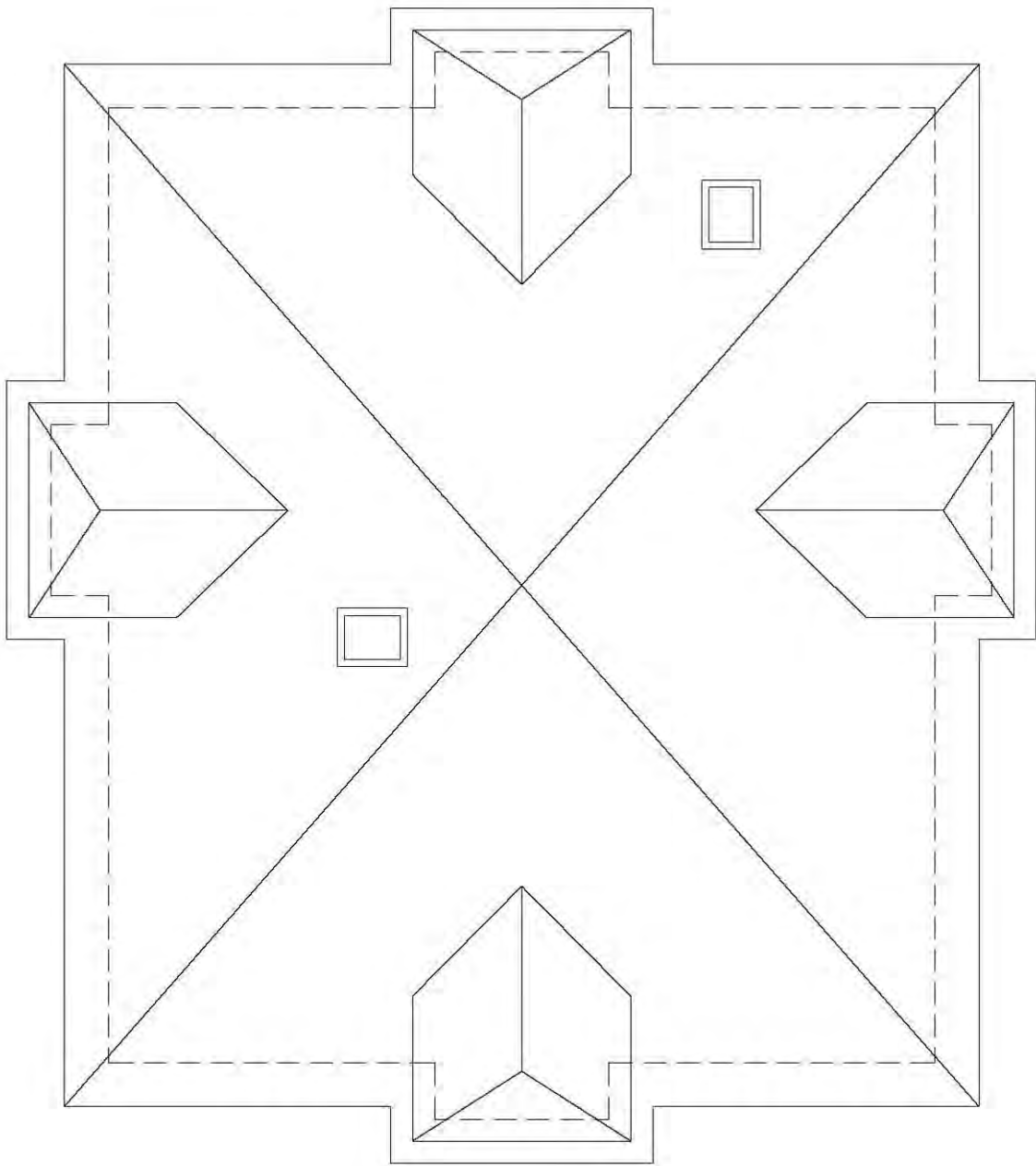


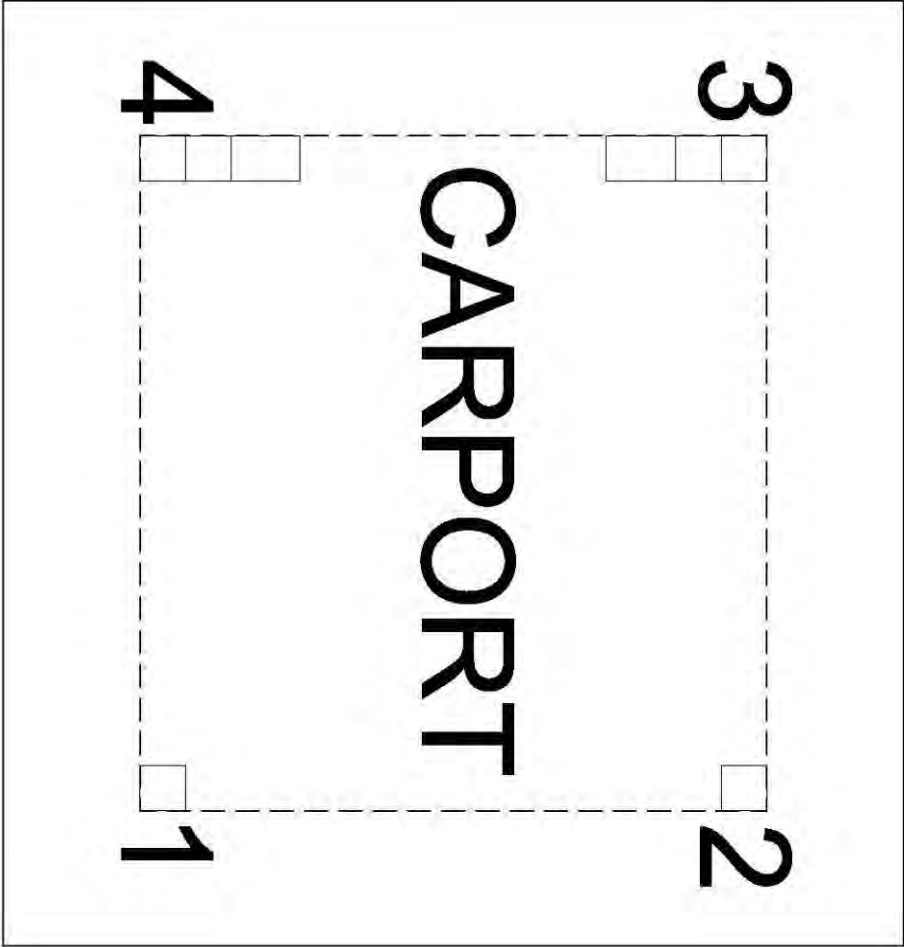
King Farm Property Condition Assessment

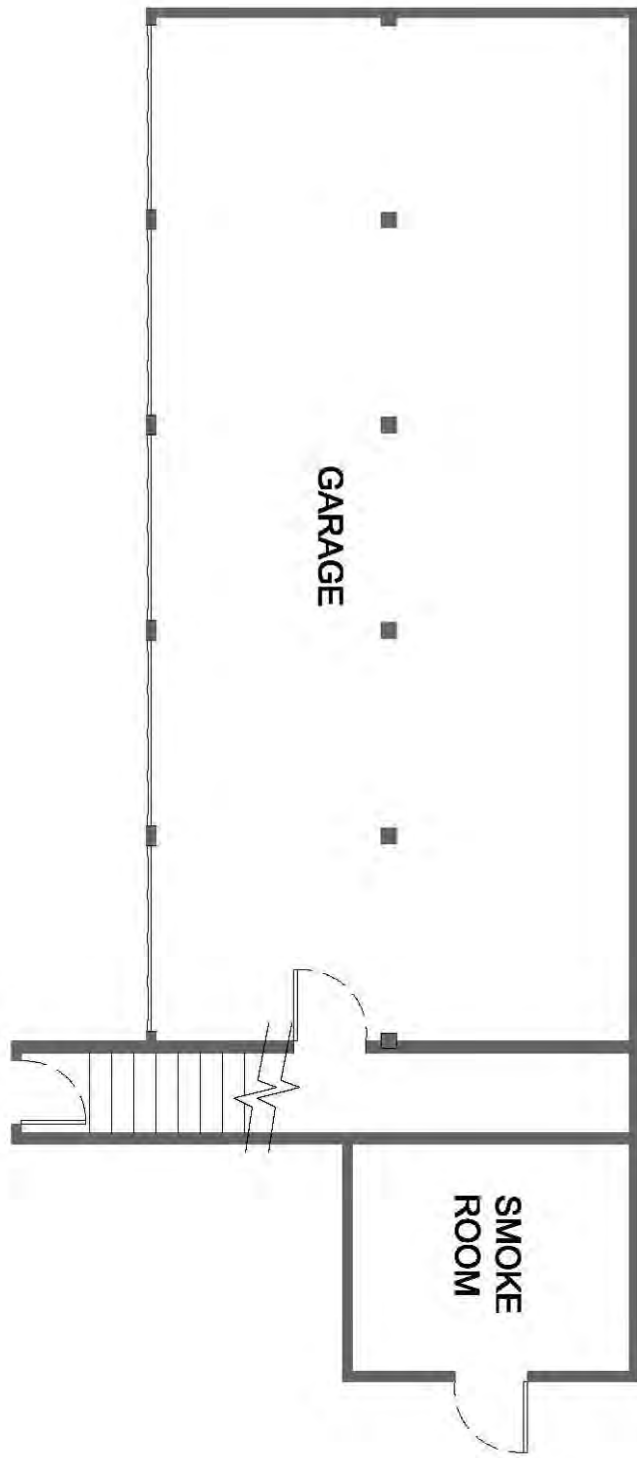
Condition / Deficiency Report	Reference Number: R-8
Subject: Roof Plan	Discipline: ARCH.

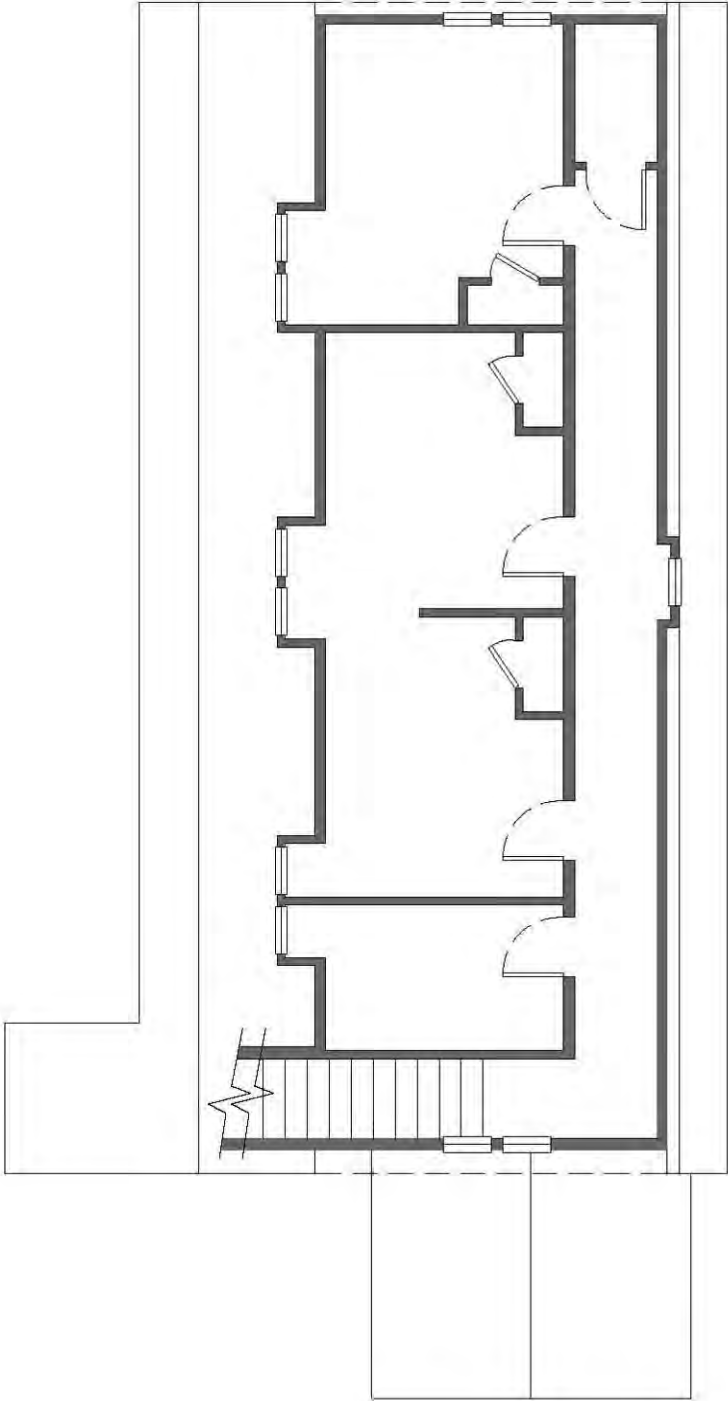
Building: House - Bldg. 1

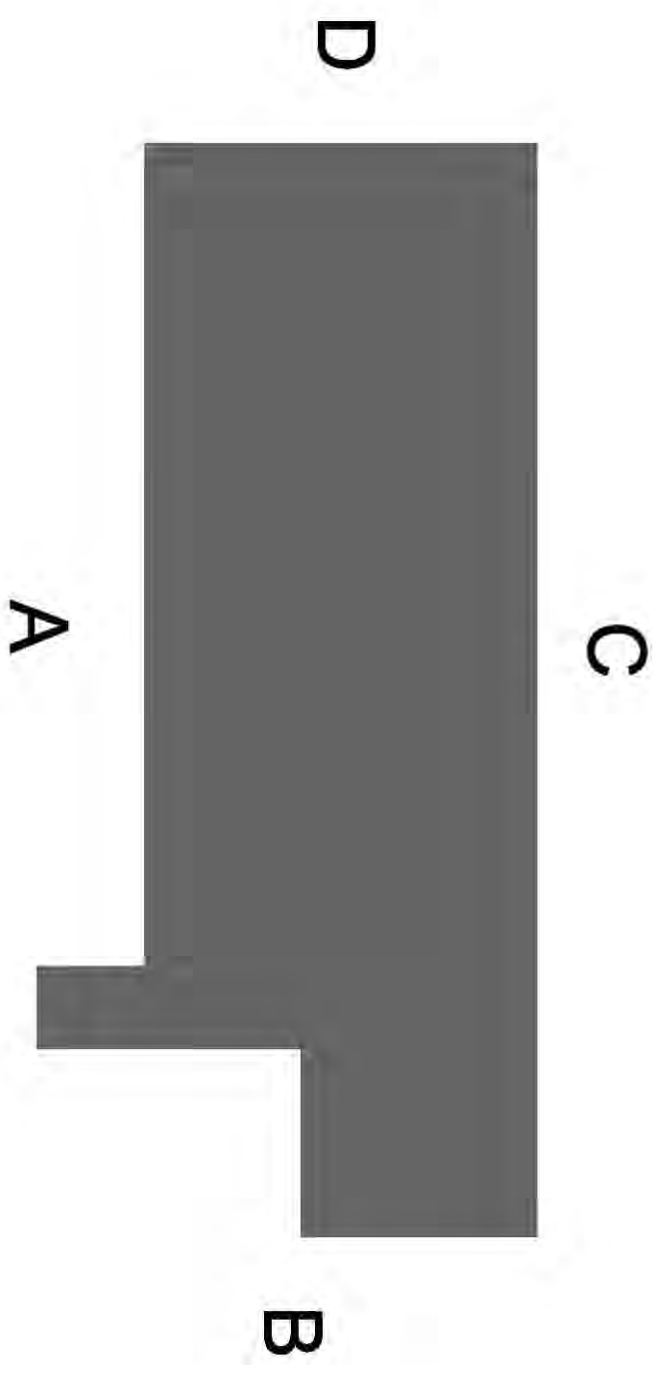
Scale: 1/8" = 1'-0"

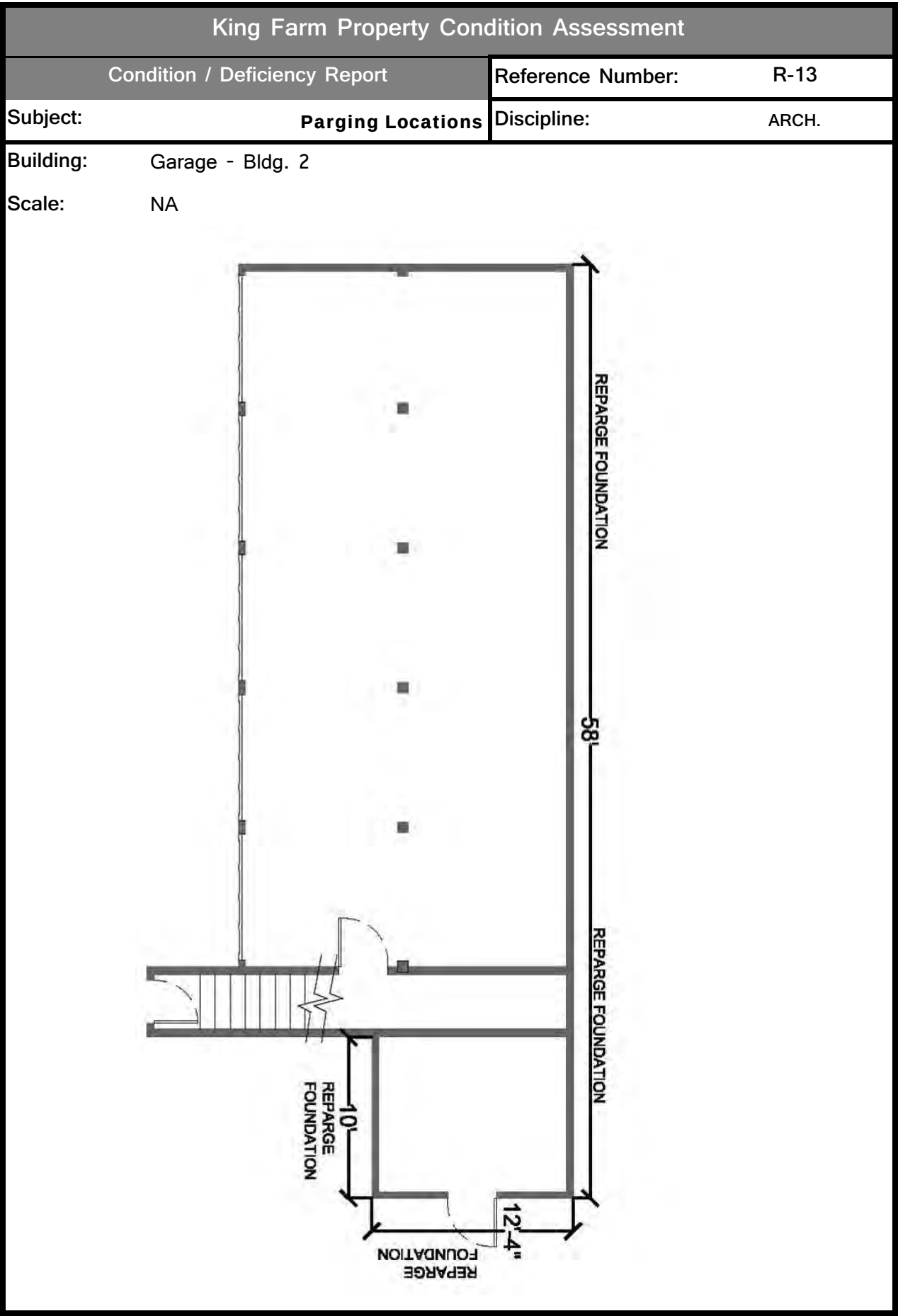


King Farm Property Condition Assessment	
Condition / Deficiency Report	Reference Number: R-9
Subject: Carport Key	Discipline: ARCH.
Building: House - Bldg. 1	
Scale: NA	
	

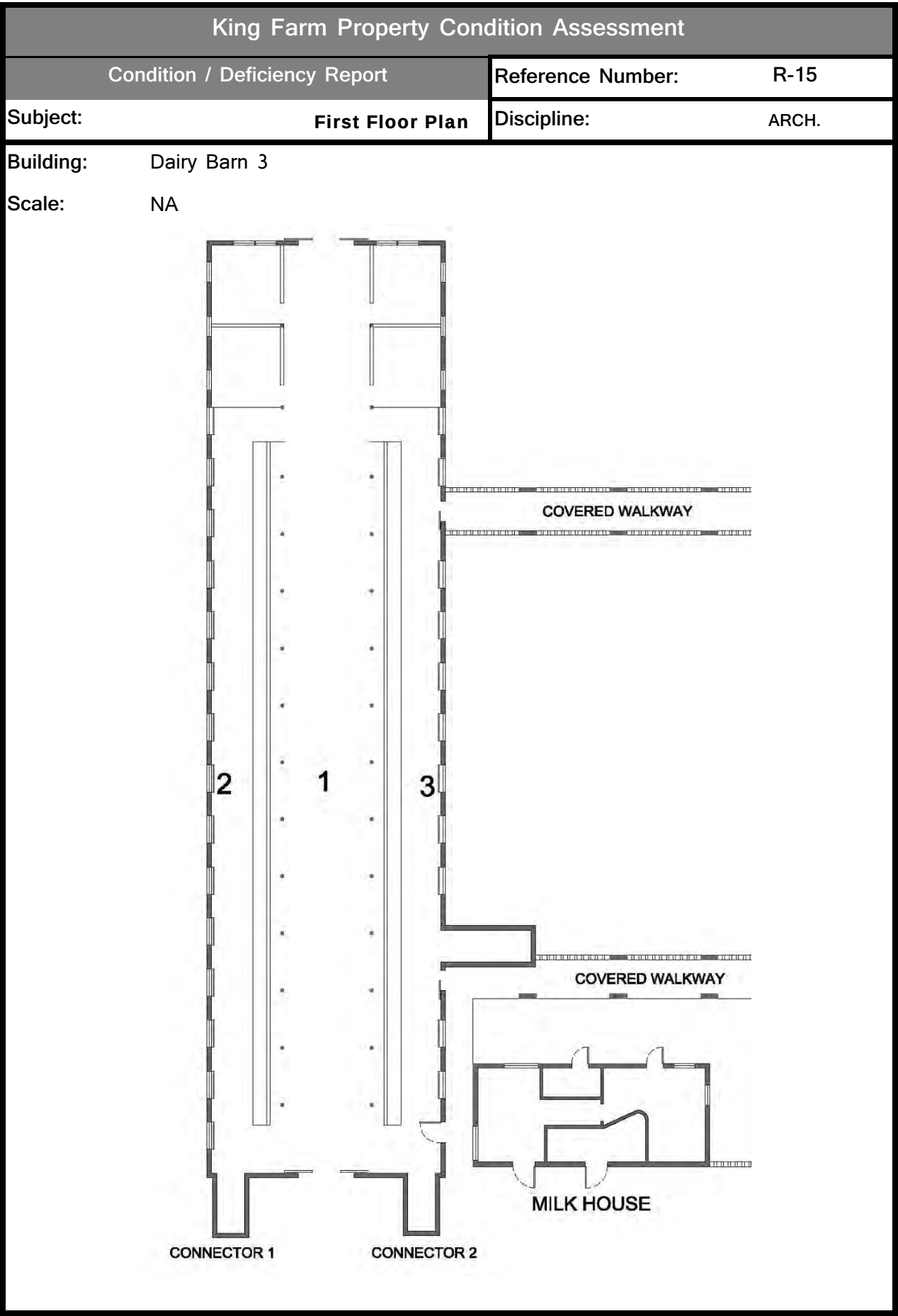
King Farm Property Condition Assessment	
Condition / Deficiency Report	Reference Number: R-10
Subject: First Floor Plan	Discipline: ARCH.
Building: Garage - Bldg. 2	
Scale: 1/8" = 1'-0"	
	

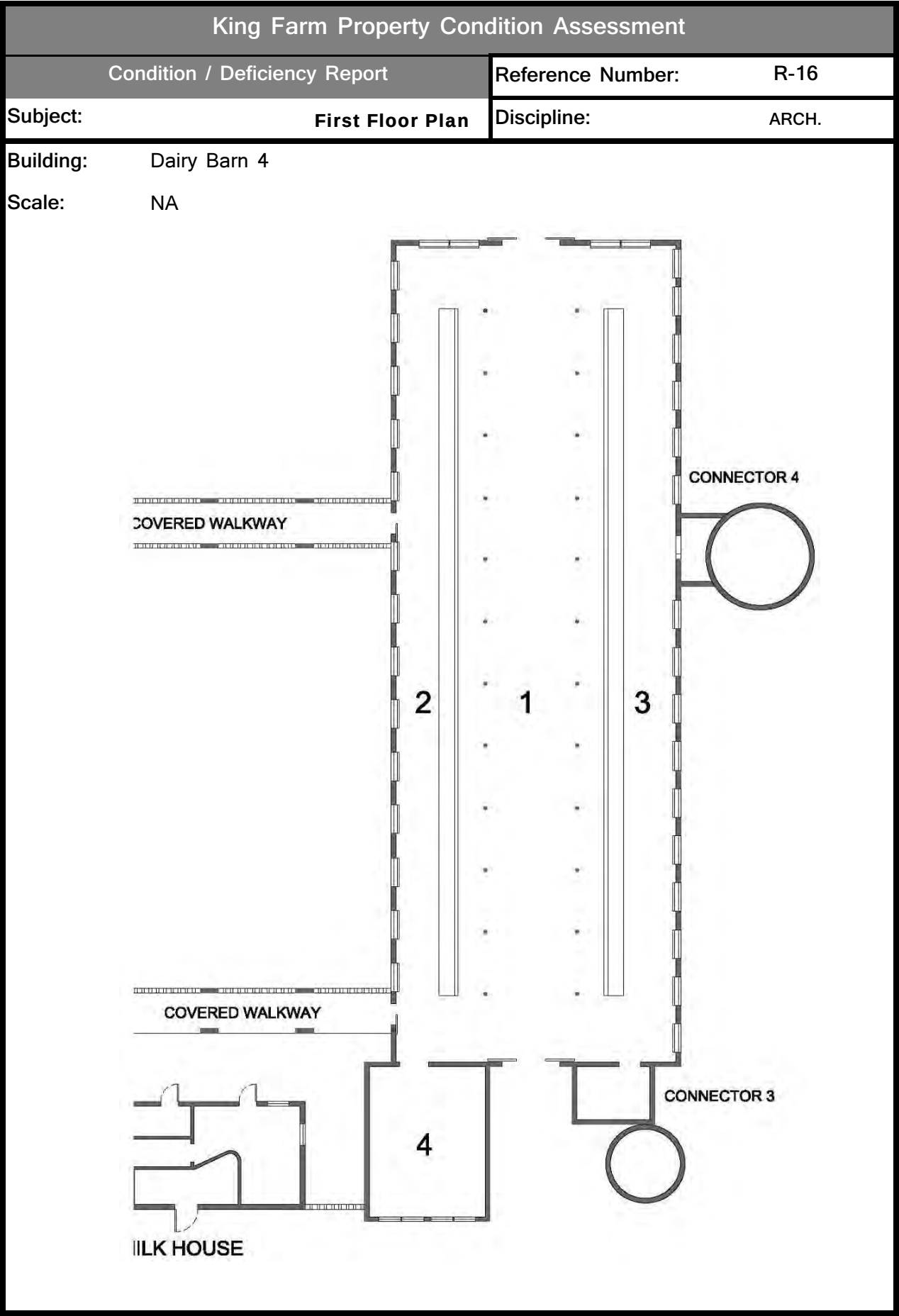
King Farm Property Condition Assessment			
Condition / Deficiency Report		Reference Number:	R-11
Subject:	Second Floor Plan	Discipline:	ARCH.
Building:	Garage - Bldg. 2		
Scale:	1/8" = 1'-0"		
			

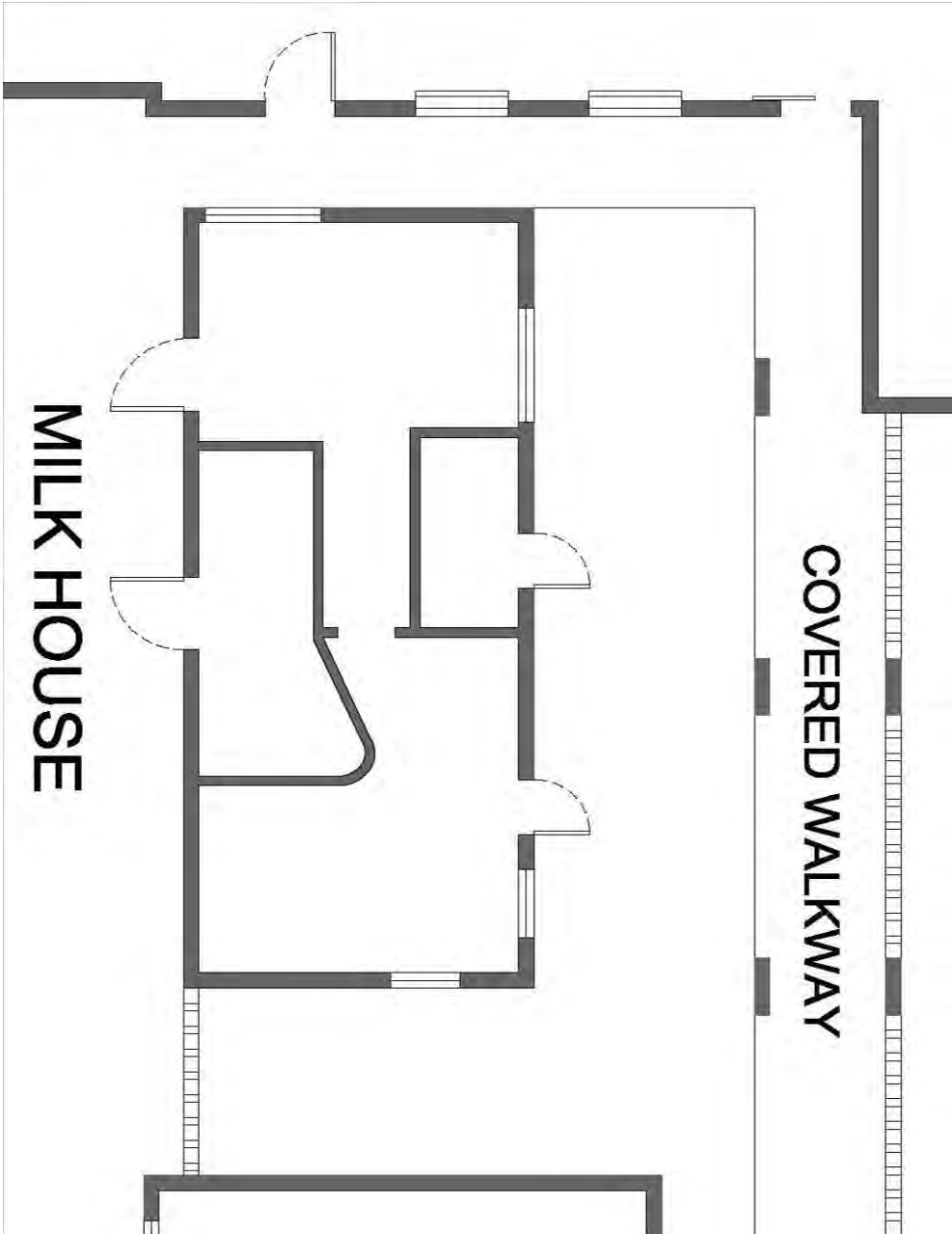
King Farm Property Condition Assessment	
Condition / Deficiency Report	Reference Number: R-12
Subject: Elevation Key	Discipline: ARCH.
Building: Garage - Bldg. 2	
Scale: NA	
	

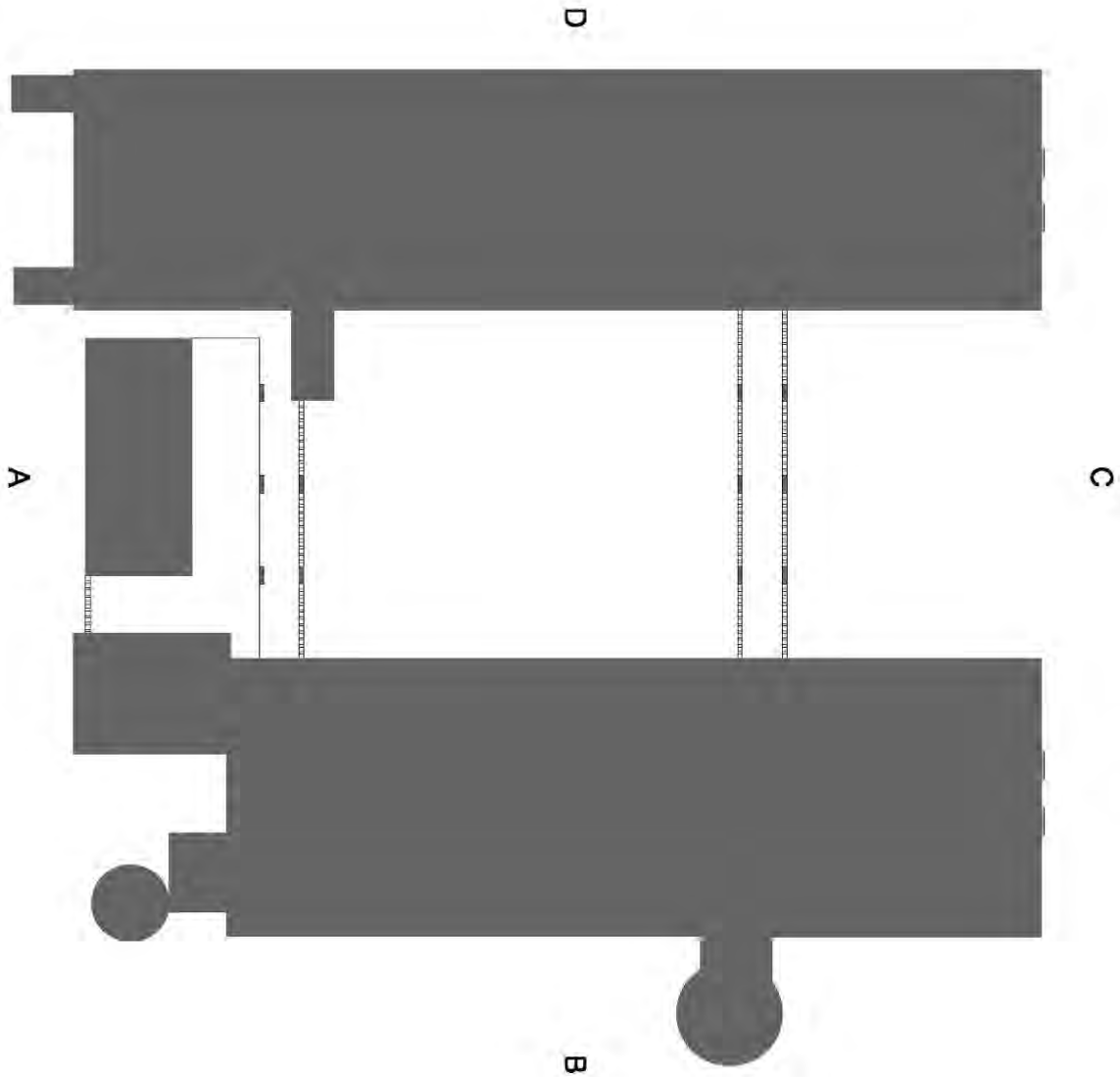


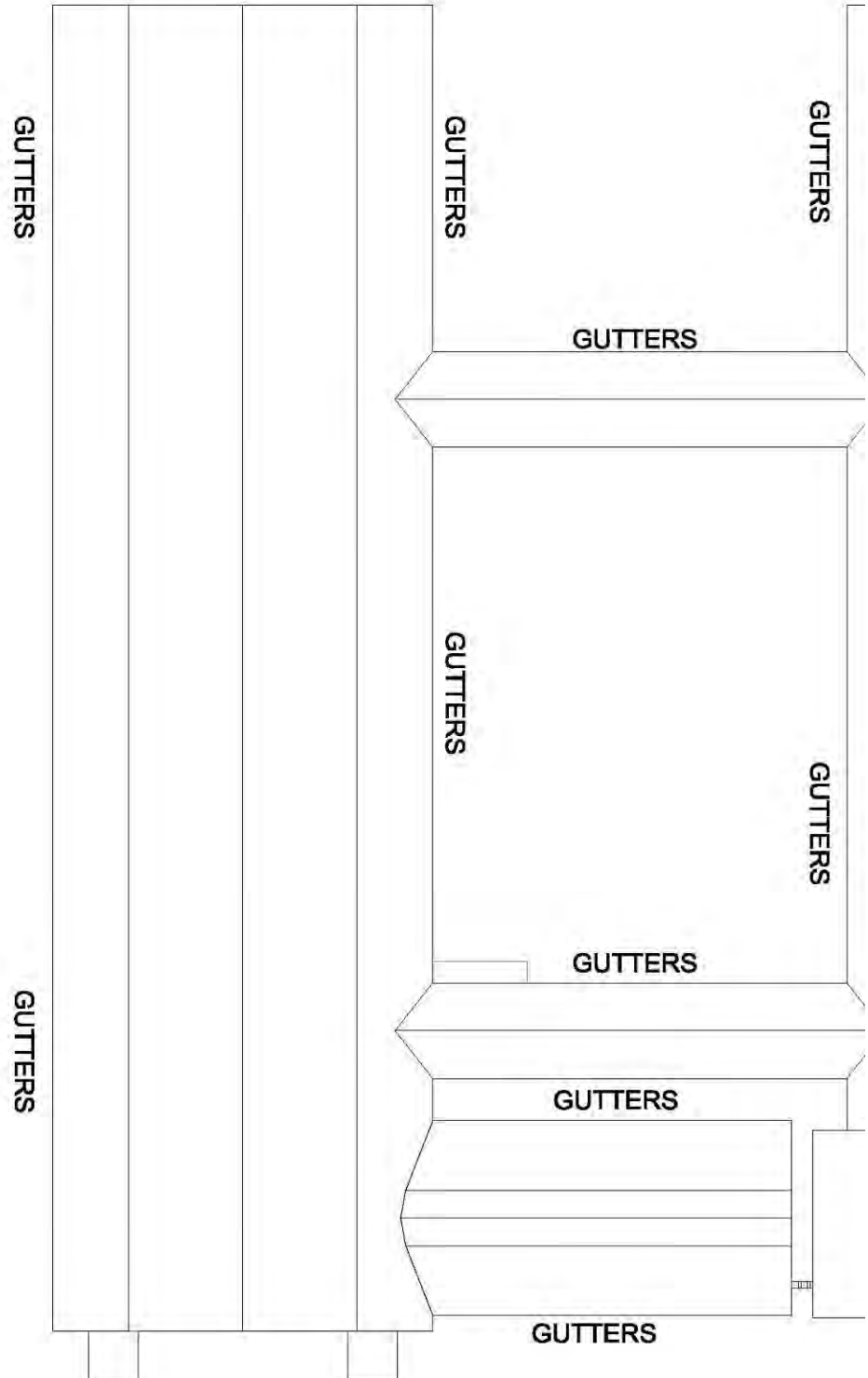
King Farm Property Condition Assessment	
Condition / Deficiency Report	Reference Number: R-14
Subject: New Gutters	Discipline: ARCH.
Building: Garage - Bldg. 2	
Scale: NA	

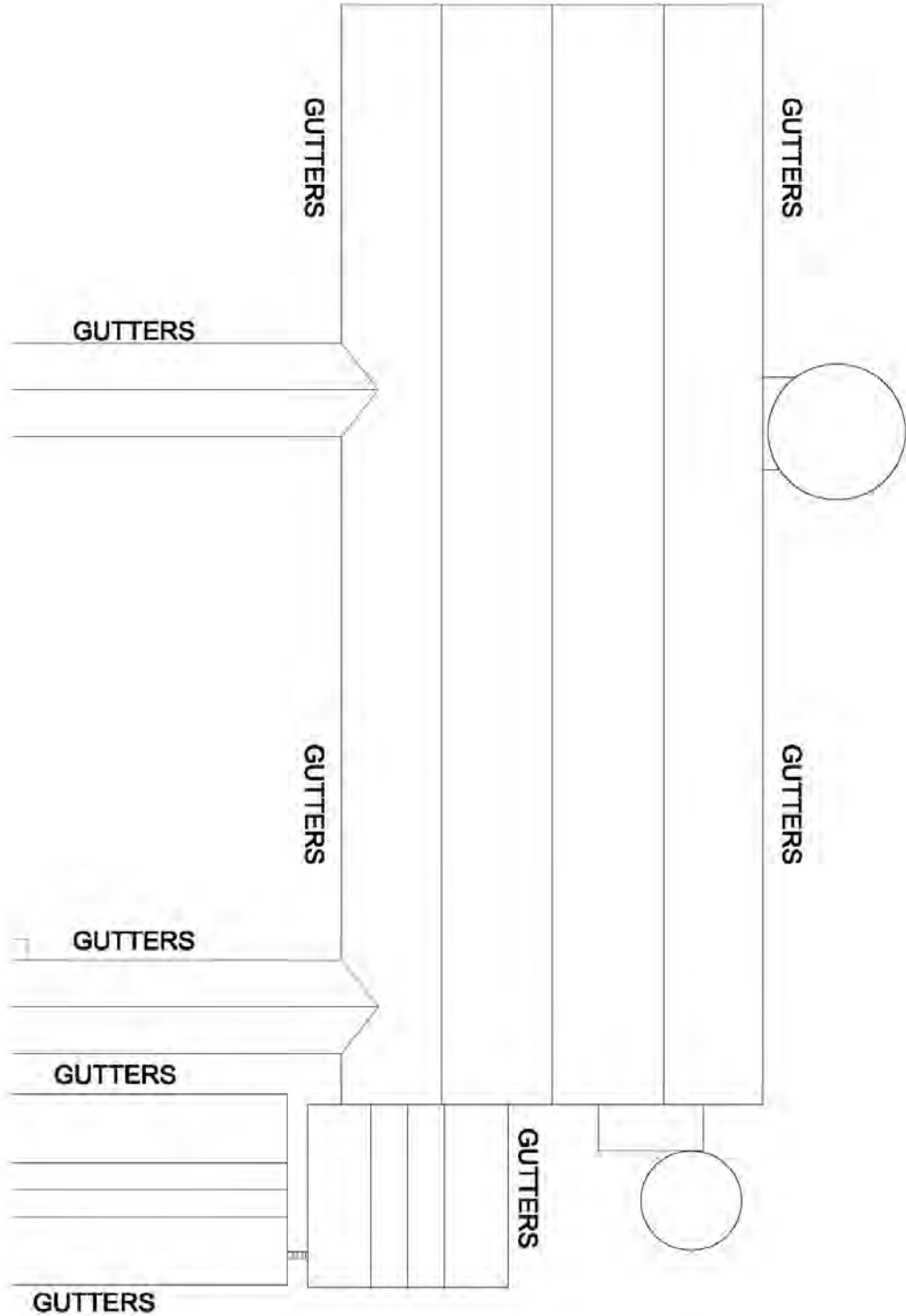


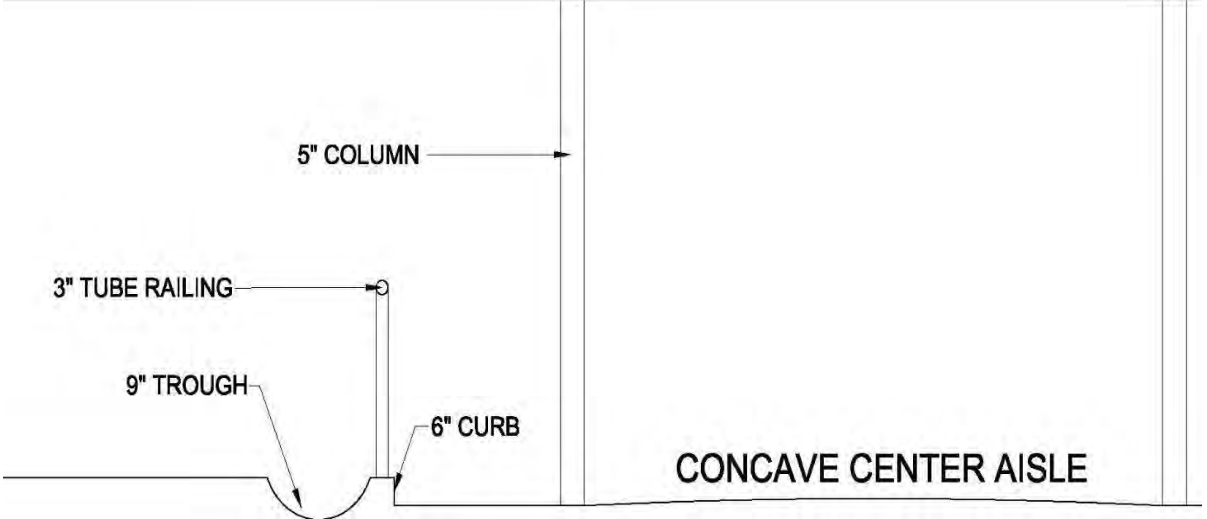


King Farm Property Condition Assessment			
Condition / Deficiency Report		Reference Number:	R-17
Subject:	Milk House	Discipline:	ARCH.
Building:	Dairy Barns 3/4		
Scale:	1/8" = 1'-0"		
			

King Farm Property Condition Assessment	
Condition / Deficiency Report	Reference Number: R-18
Subject: Elevation Key	Discipline: ARCH.
Building: Dairy Barns 3/4	
Scale: NA	
 The diagram shows two barns. The top barn is a long rectangle with a small protrusion on the left. The bottom barn is a long rectangle with a semi-circular protrusion on the left and a circular protrusion on the right. A vertical dashed line runs between the two barns. Labels A, B, C, and D are placed around the drawing: A is on the left, B is at the bottom, C is on the right, and D is at the top.	

King Farm Property Condition Assessment	
Condition / Deficiency Report	Reference Number: R-19
Subject: Gutter Locations	Discipline: ARCH.
Building: Dairy Barn 3	
Scale: NA	
	

King Farm Property Condition Assessment	
Condition / Deficiency Report	Reference Number: R-20
Subject: Gutter Locations	Discipline: ARCH.
Building: Dairy Barn 4	
Scale: NA	
	

King Farm Property Condition Assessment	
Condition / Deficiency Report	Reference Number: R-21
Subject: Concrete Floors	Discipline: ARCH.
Building: Dairy Barns 3/4	
Scale: NA	
 The diagram illustrates a cross-section of a concave center aisle. On the left, a horizontal line represents the ground level. A 9" TROUGH is shown as a curved depression in the ground. A 3" TUBE RAILING is positioned vertically above the trough. A 6" CURB is shown as a raised edge on the right side of the trough. A 5" COLUMN is shown as a vertical line extending upwards from the curb. The area to the right of the curb is labeled CONCAVE CENTER AISLE.	

King Farm Property Condition Assessment

Condition / Deficiency Report

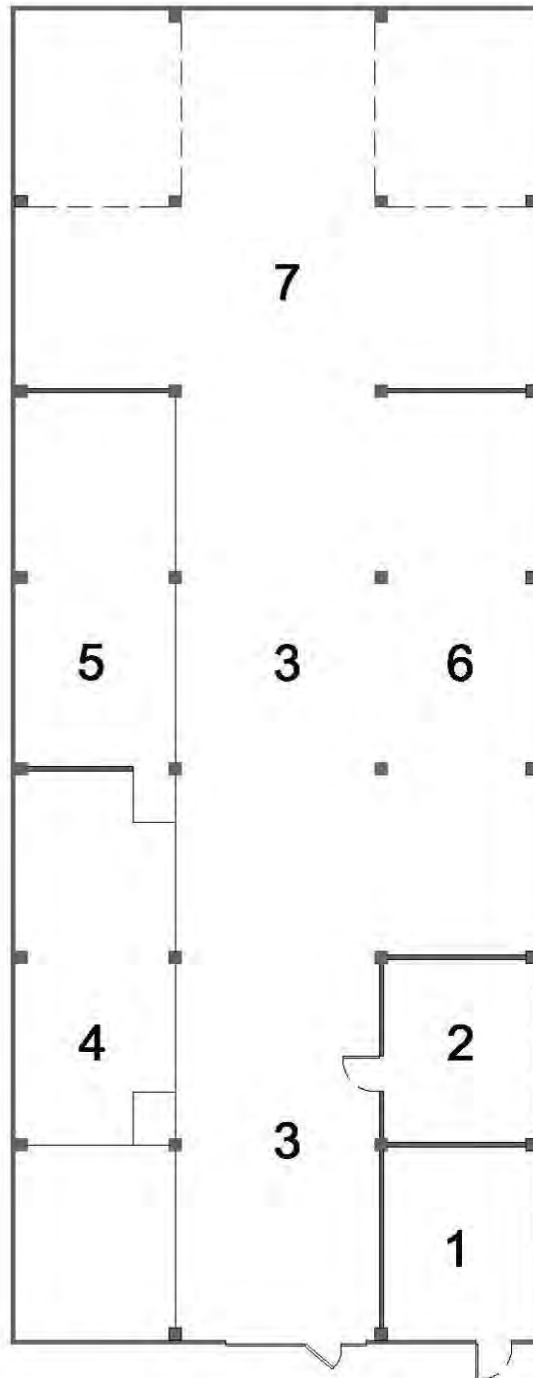
Reference Number: R-22

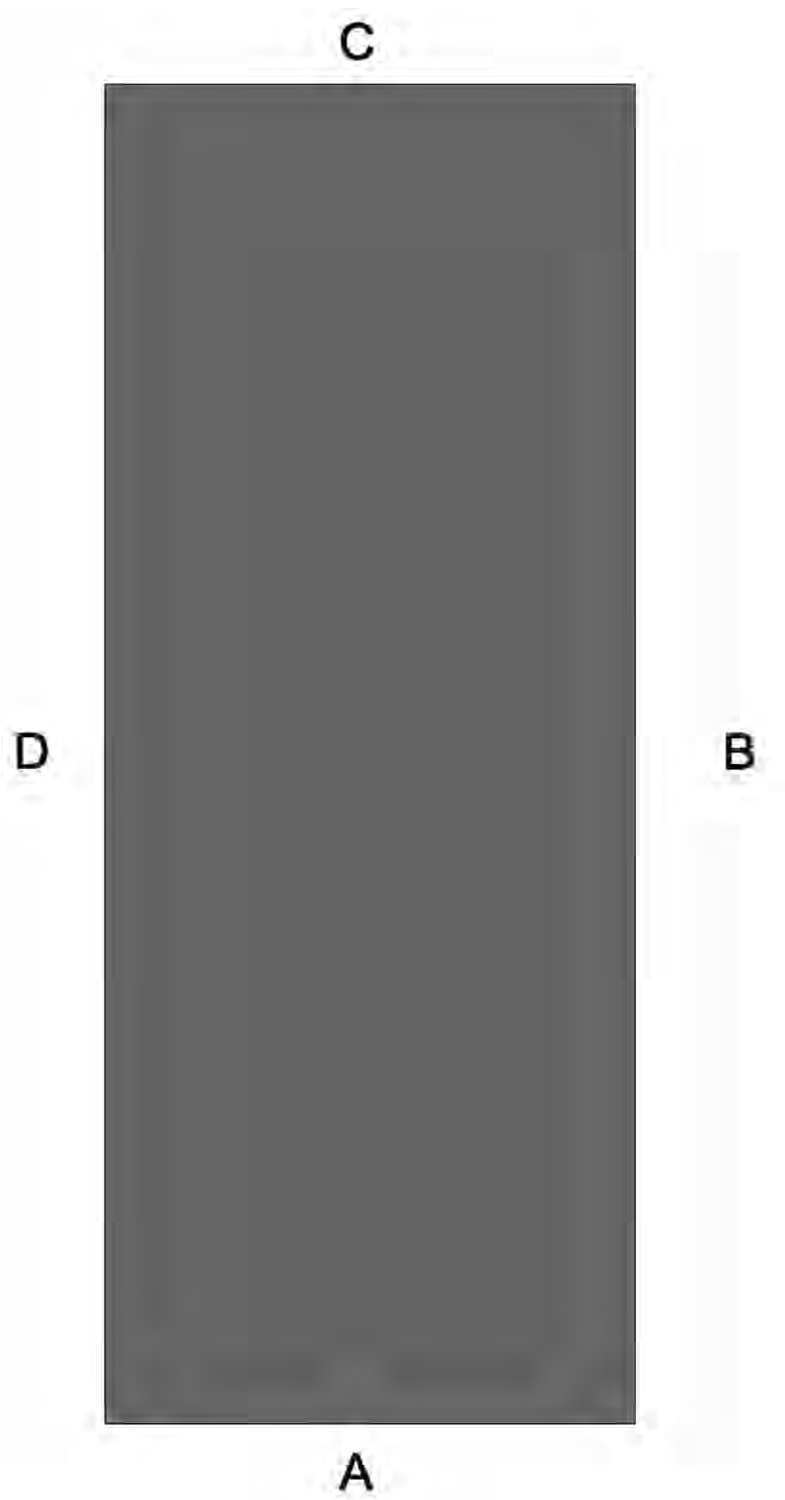
Subject: **First Floor Plan**

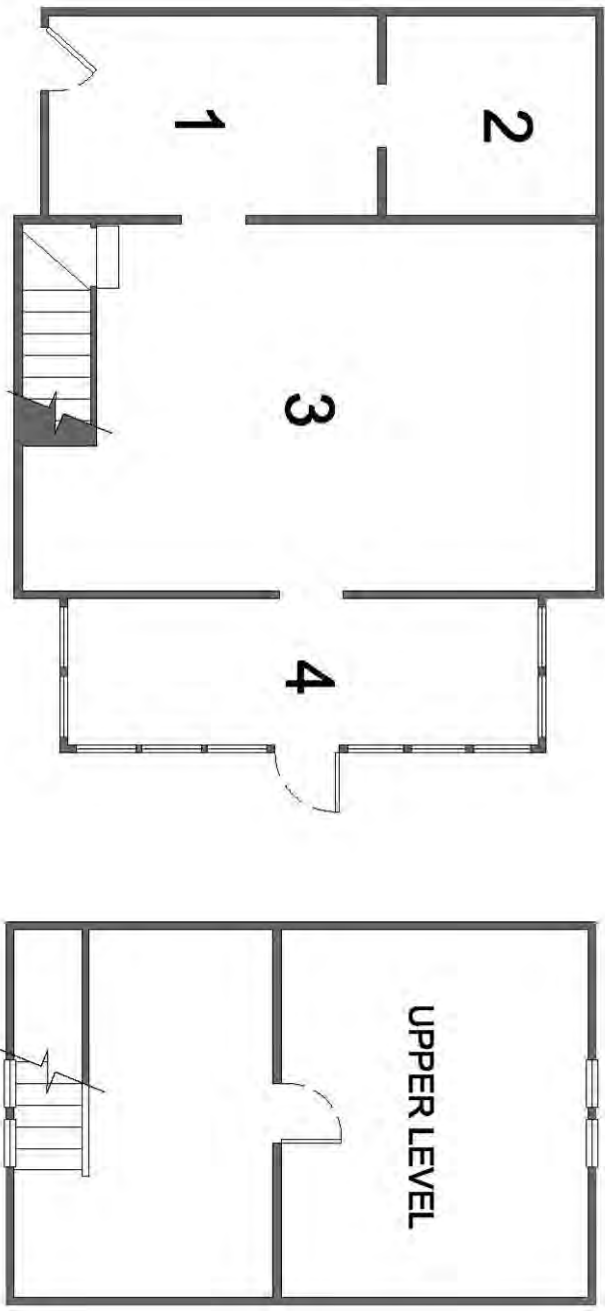
Discipline: ARCH.

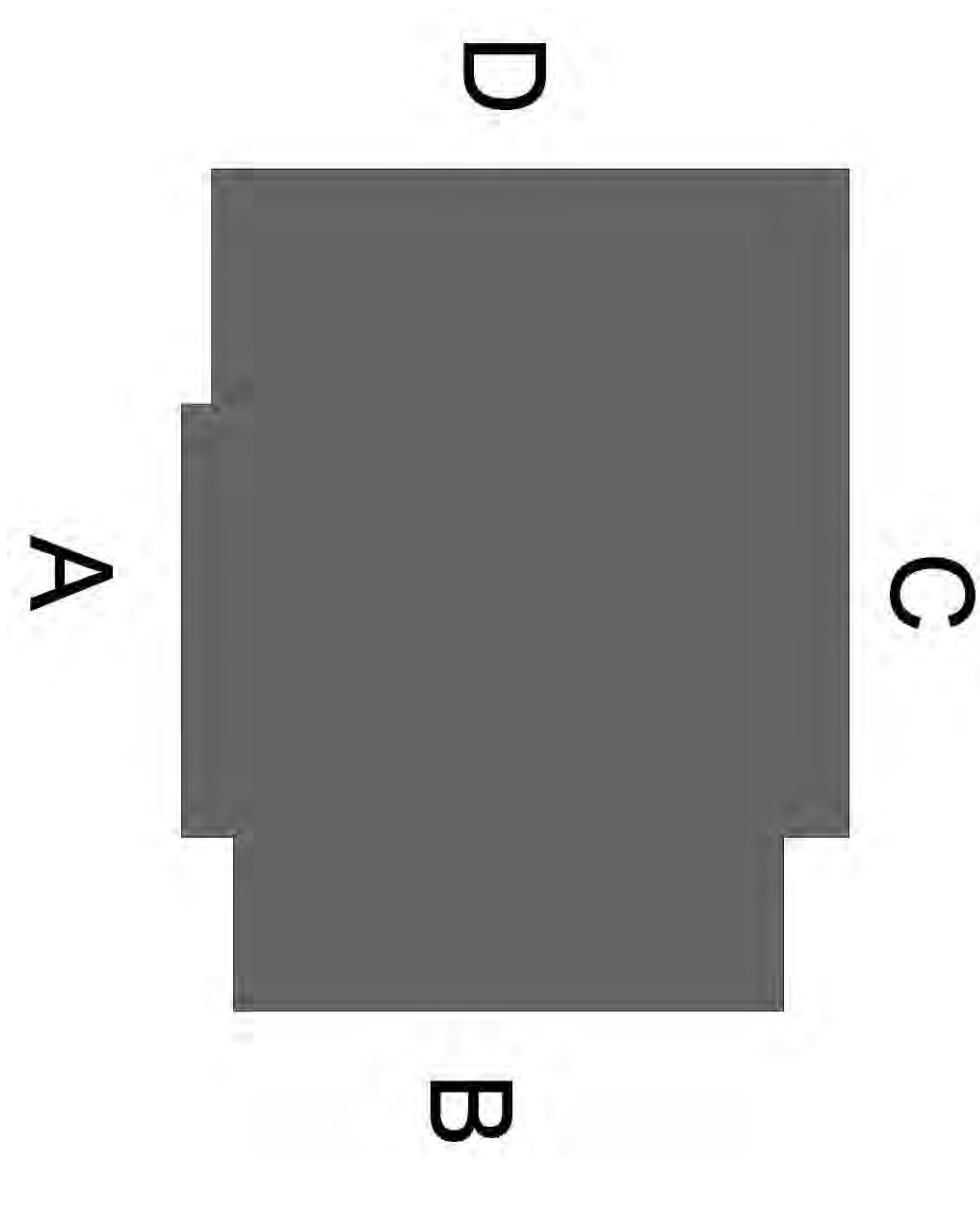
Building: King Farm Park, 16100 Frederick Road, Rockville, MD 20850

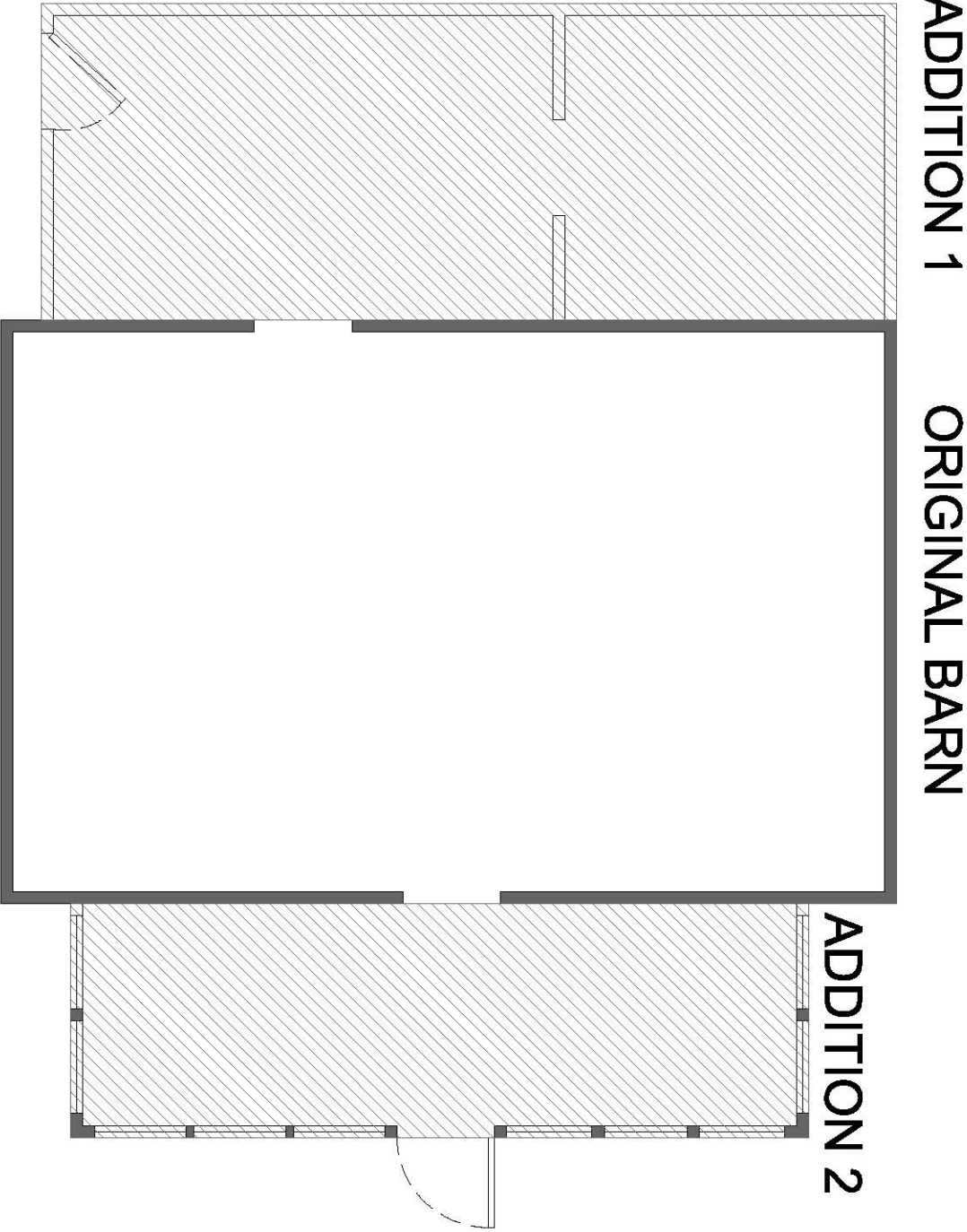
Scale: 1/16" = 1'-0"

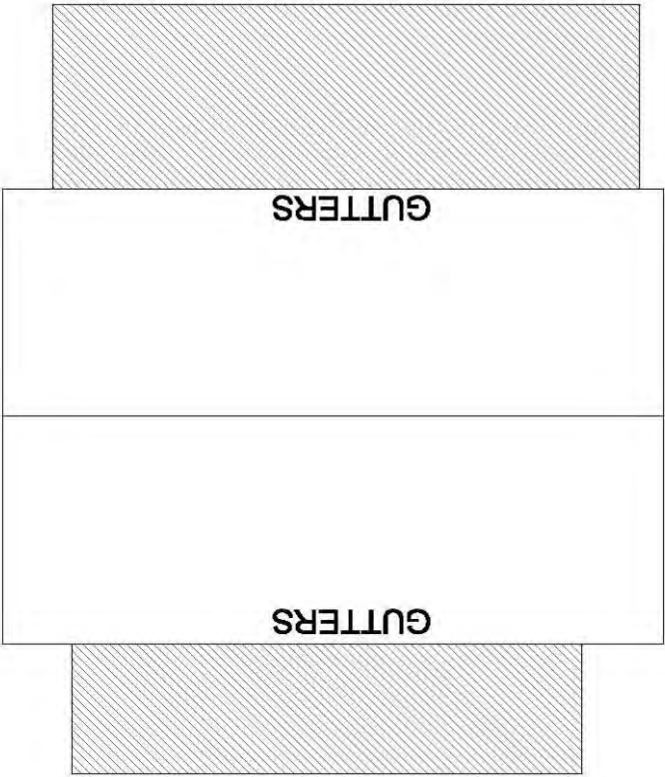


King Farm Property Condition Assessment	
Condition / Deficiency Report	Reference Number: R-23
Subject: Elevation Key	Discipline: ARCH.
Building: King Farm Park, 16100 Frederick Road, Rockville, MD 20850	
Scale: 1/16" = 1'-0"	
	

King Farm Property Condition Assessment	
Condition / Deficiency Report	Reference Number: R-24
Subject: Floor Plans	Discipline: ARCH.
Building: Building 6 - Tenant bldg.	
Scale: 1/8" = 1'-0"	
	

Condition / Deficiency Report		Reference Number:	R-25
Subject:	Elevation Key	Discipline:	ARCH.
Building:	Building 6 - Tenant bldg.		
Scale:	NA		
			

King Farm Property Condition Assessment			
Condition / Deficiency Report		Reference Number:	R-26
Subject:	Addition Key	Discipline:	ARCH.
Building:	Building 6 - Tenant bldg.		
Scale:	1/8" = 1'-0"		
			

King Farm Property Condition Assessment	
Condition / Deficiency Report	Reference Number: R-27
Subject: Gutter Locations	Discipline: ARCH.
Building: Building 6 - Tenant bldg.	
Scale: 1/8" = 1'-0"	
	

King Farm Property Condition Assessment

Condition / Deficiency Report

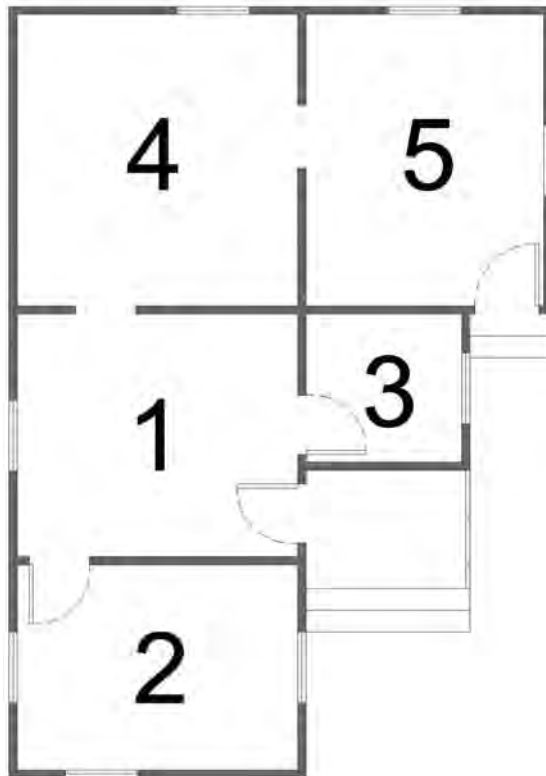
Reference Number: R-28

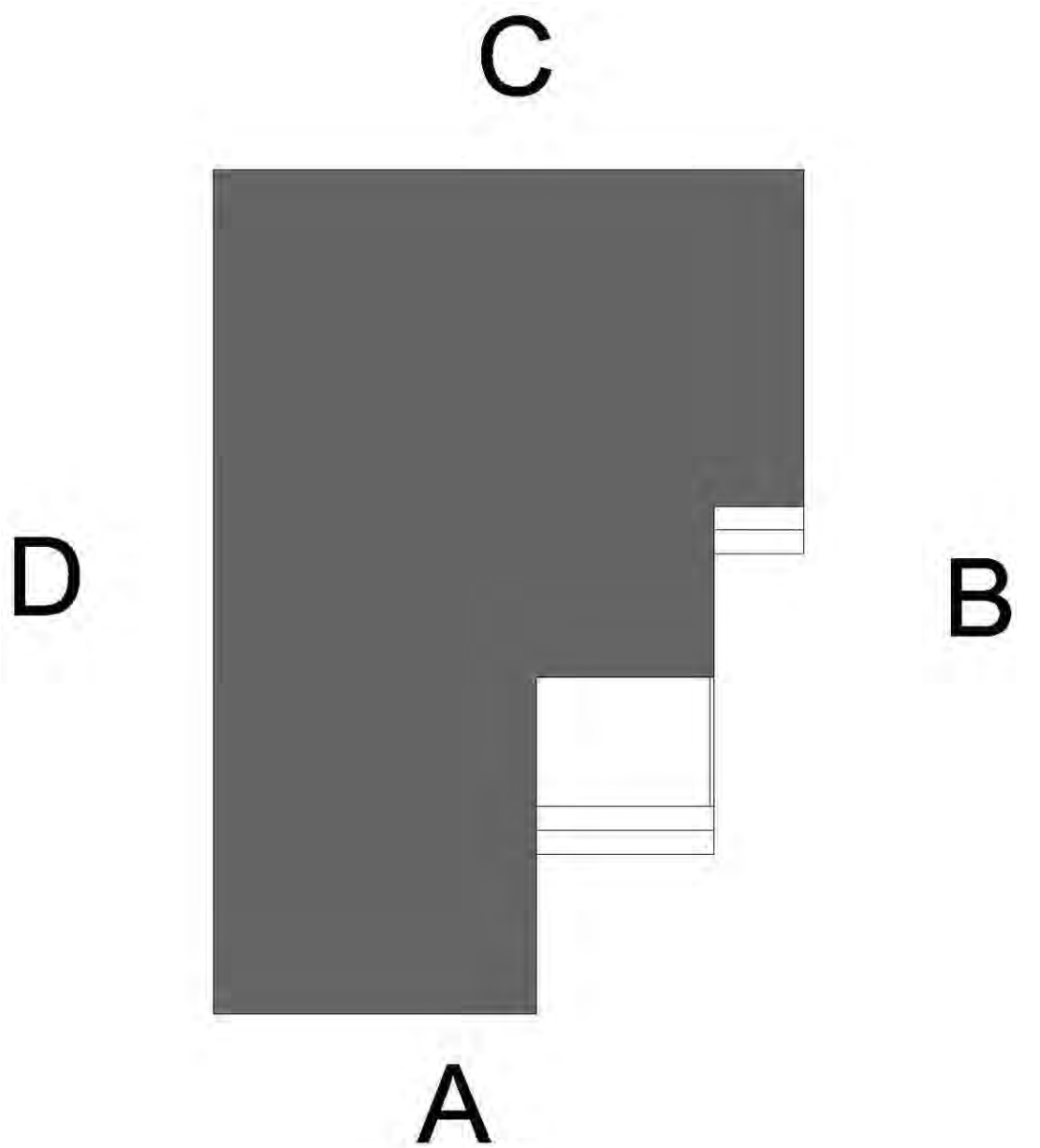
Subject: Floor Plan

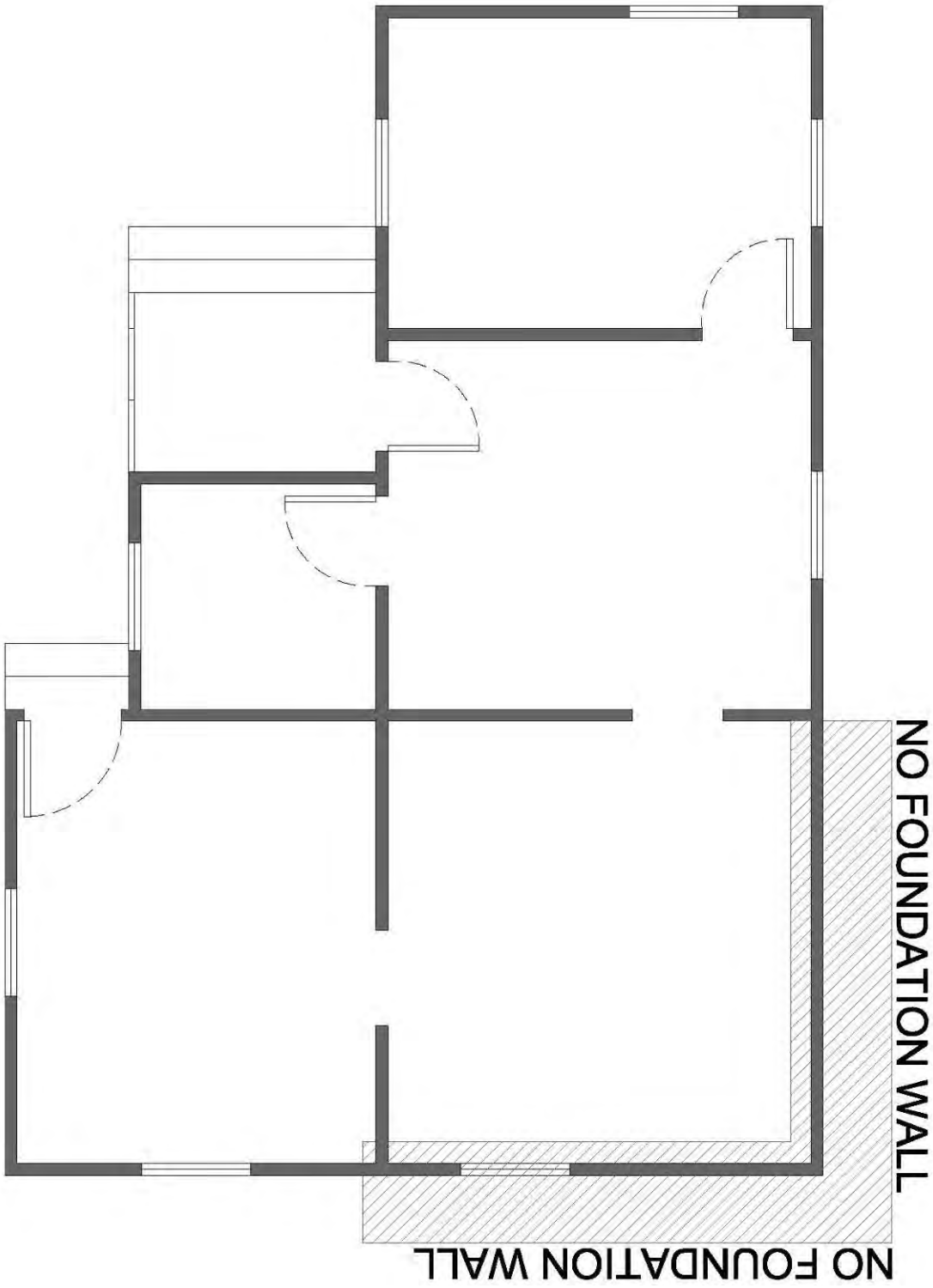
Discipline: ARCH.

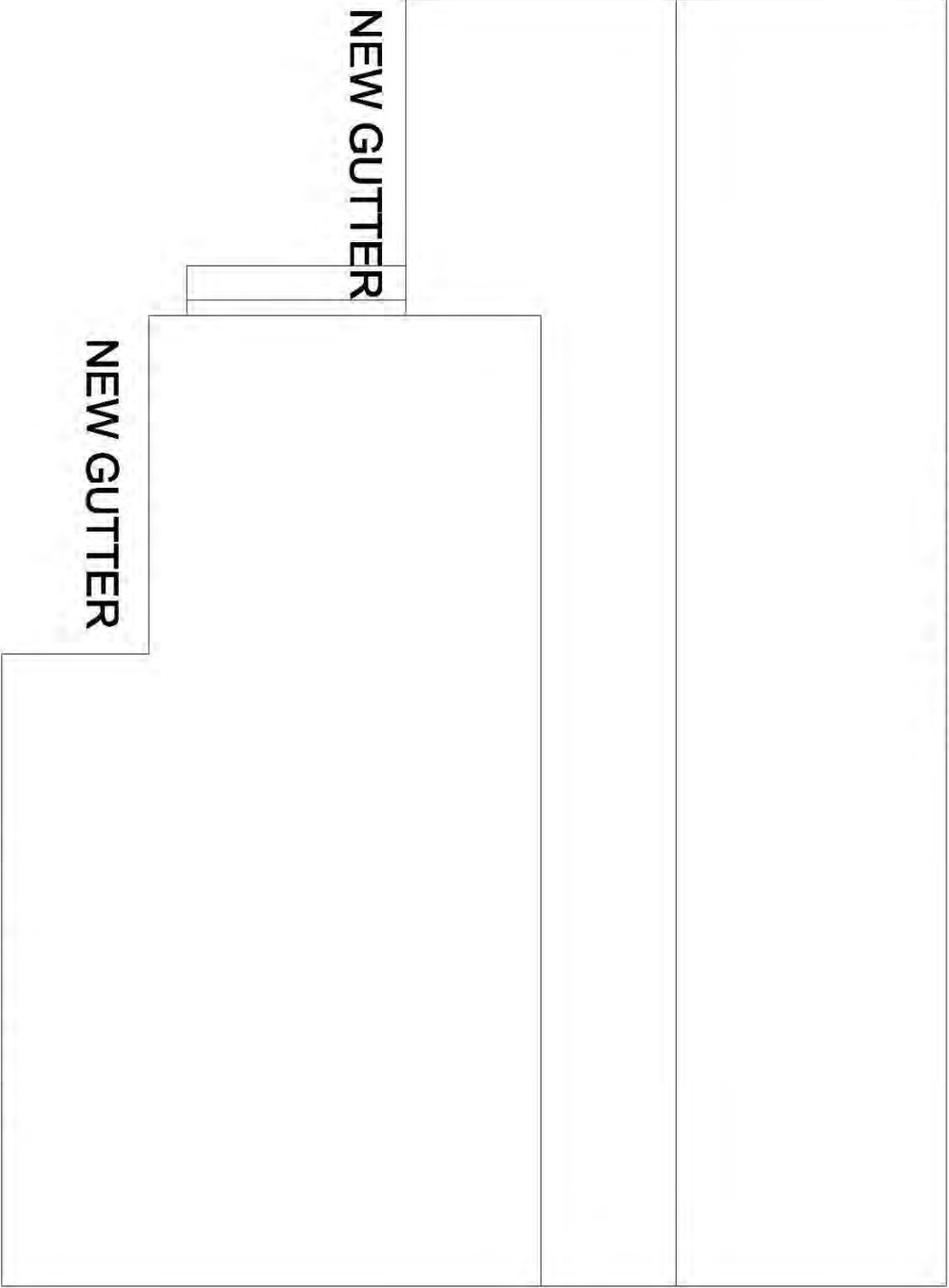
Building: Building 7 - Tenant Bldg.

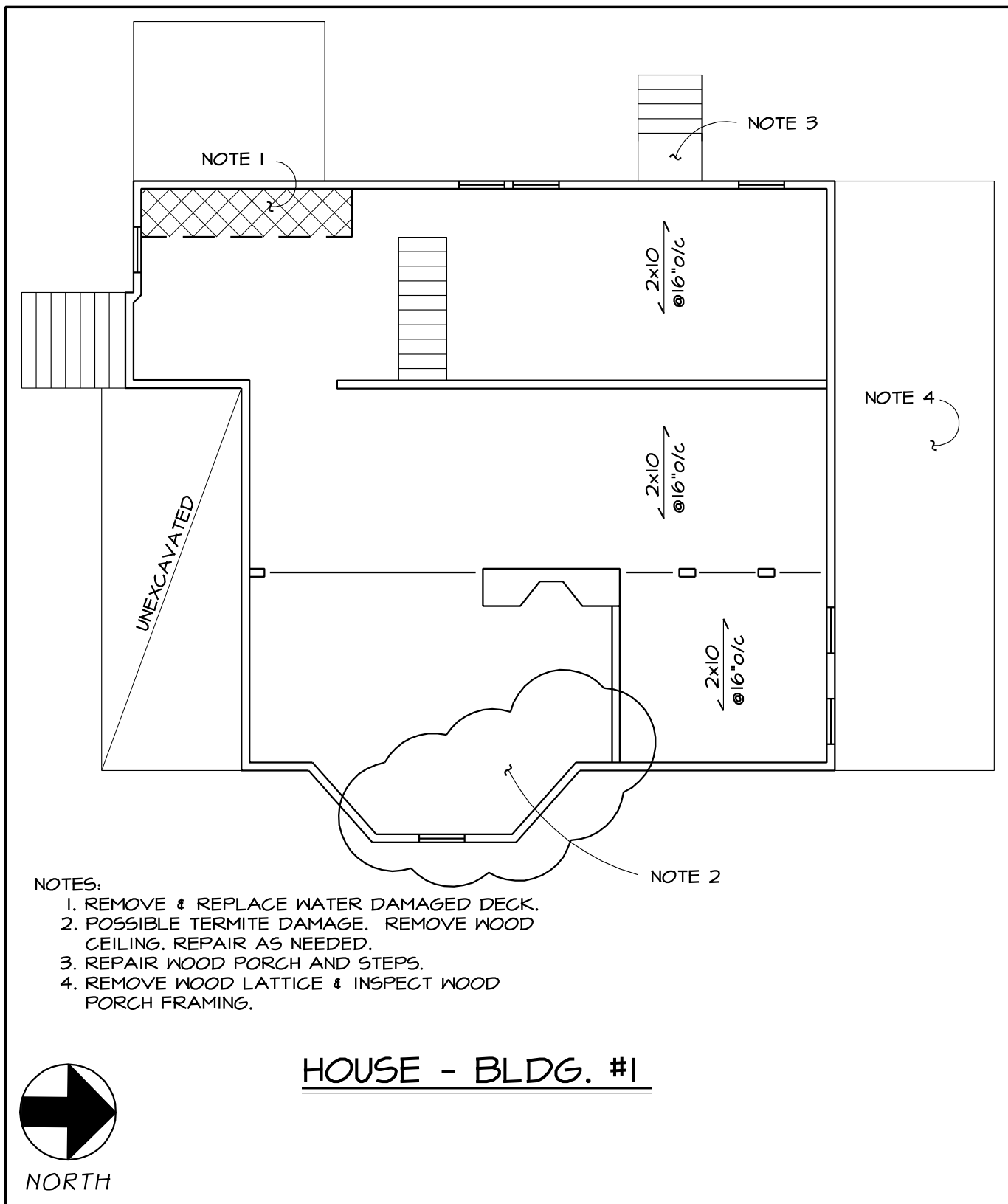
Scale: 1/8" = 1'-0"



King Farm Property Condition Assessment	
Condition / Deficiency Report	Reference Number: R-29
Subject: Elevation Key	Discipline: ARCH.
Building: Building 7 - Tenant Bldg.	
Scale: NA	
	

King Farm Property Condition Assessment			
Condition / Deficiency Report		Reference Number:	R-30
Subject:	Foundation Diagram	Discipline:	ARCH.
Building:	Building 7 - Tenant Bldg.		
Scale:	NA		
 The diagram is a technical drawing of a building's foundation. It shows a large rectangular footprint with several internal walls and a smaller rectangular area to the left. The walls are represented by thick black lines. The foundation is indicated by a hatched pattern. The text 'NO FOUNDATION WALL' is written vertically on the right side and horizontally at the bottom of the diagram.			

King Farm Property Condition Assessment	
Condition / Deficiency Report	Reference Number: R-31
Subject: Gutter Locations	Discipline: ARCH.
Building: Building 7 - Tenant Bldg.	
Scale: NA	
	



NOTES:

1. REMOVE & REPLACE WATER DAMAGED DECK.
2. POSSIBLE TERMITE DAMAGE. REMOVE WOOD CEILING. REPAIR AS NEEDED.
3. REPAIR WOOD PORCH AND STEPS.
4. REMOVE WOOD LATTICE & INSPECT WOOD PORCH FRAMING.



NORTH

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SHEET TITLE:

HOUSE BLDG. #1

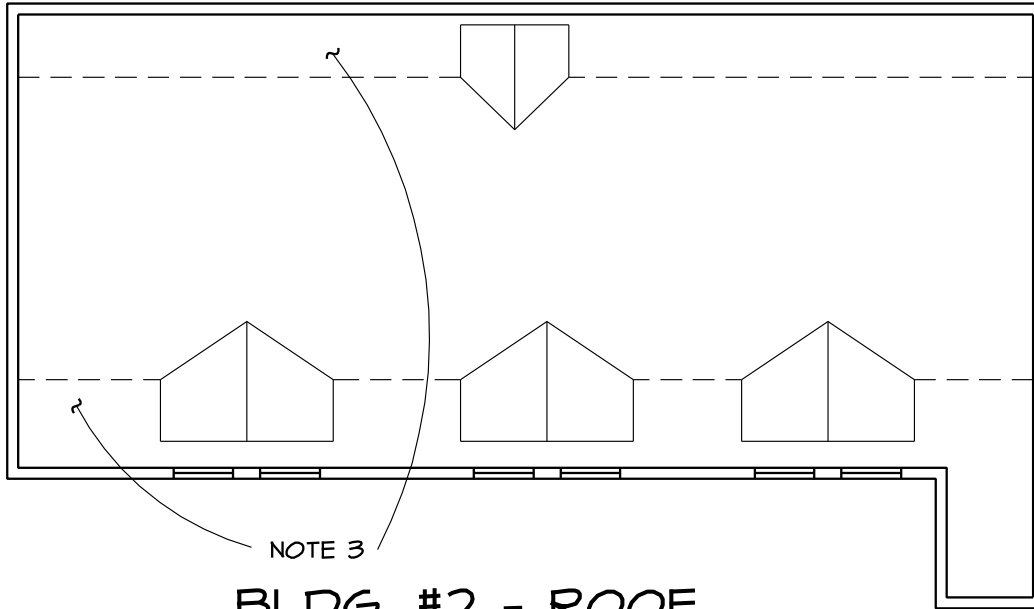
SEE NARRATIVE FOR ADD'L COMMENTS

KING FARM
STRUCTURAL ASSESSMENT

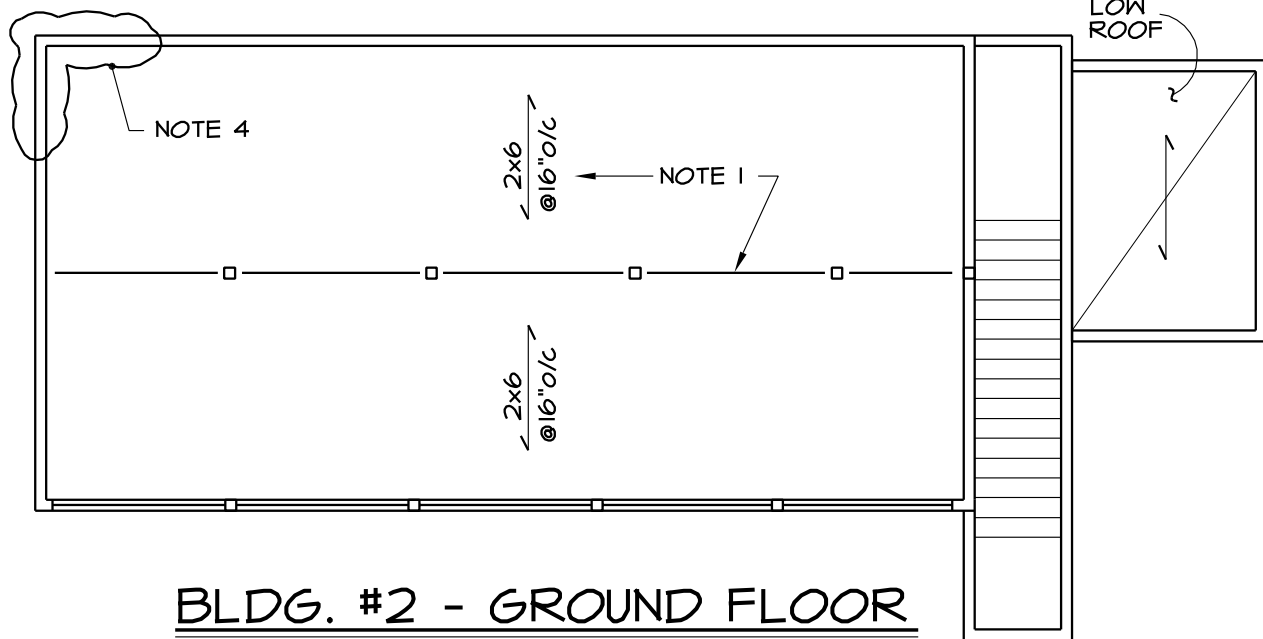
DATE:

06/06/14

SK-1



BLDG. #2 - ROOF



BLDG. #2 - GROUND FLOOR

NOTE 2

NOTES:

1. REINF. FLOOR w/ 2x6 BETWEEN EXIST.
(FINAL = 2x6 @ 8" o/c). REINF. BM. w/ 2-LVL'S
2. GROUND FLOOR - REPAIR CRACKS IN CONC. FLOOR.
3. WATER DAMAGE TO ROOF FRAMING.
REPLACE OR SCAB NEW WOOD FRAMING.
4. REPAIR STUDS/SILL PLATE.



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SHEET TITLE:

BLDG. #2
GROUND/ROOF PLANS

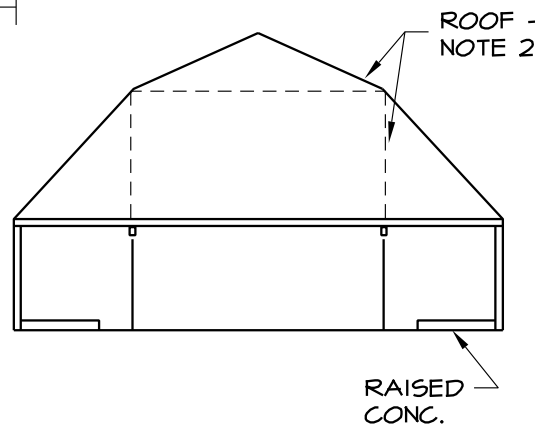
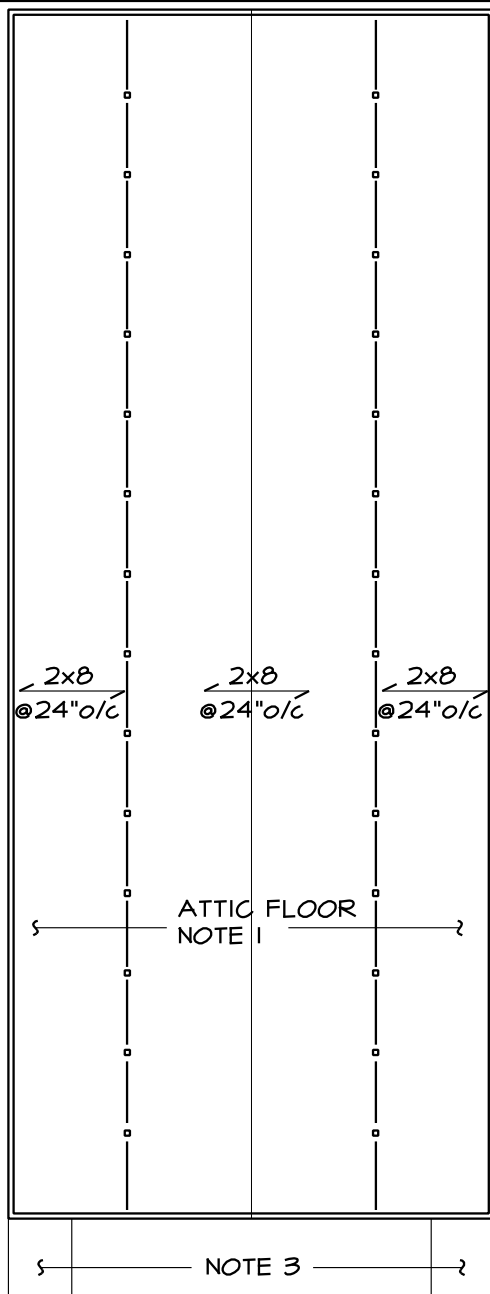
SEE NARRATIVE FOR ADD'L COMMENTS

KING FARM
STRUCTURAL ASSESSMENT

DATE:

06/06/14

SK-2



SECTION

BLDG. #3 - ROOF PLAN



NORTH

NOTES:

1. REPLACE EXIST. DECK (MINOR).
ATTIC FLOOR CAPACITY = 20 PSF
REINF. IF INTEND TO USE.
2. EXIST. ROOF FRAMING RECOMMENDED
ADD NEW FRAMING - SEE SECTION.
3. OLD SILO CONNECTOR - REMOVE EXIST.
AND REPLACE OR DEMO ALL.

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SHEET TITLE:

BLDG. #3
ROOF PLANS AND SECTIONS

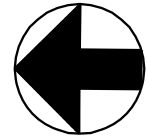
SEE NARRATIVE FOR ADD'L COMMENTS

KING FARM
STRUCTURAL ASSESSMENT

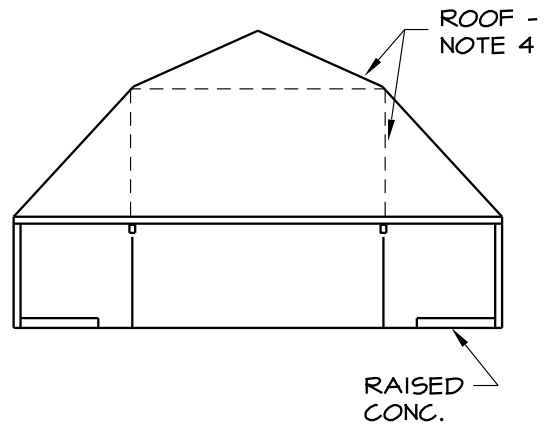
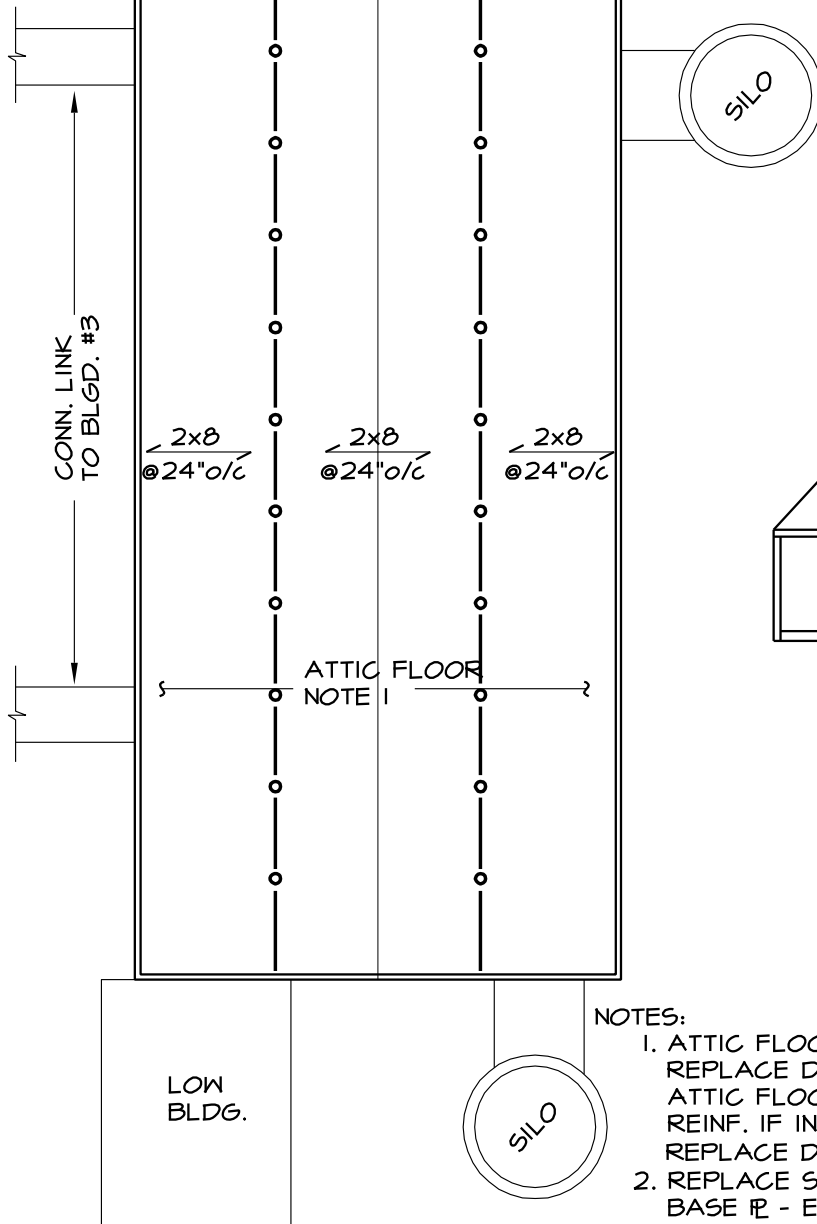
DATE:

06/06/14

SK-3



NORTH



SECTION

NOTES:

1. ATTIC FLOOR - REPLACE EXIST. DECK (EXTENSIVE). REPLACE DAMAGED JOIST (MINOR). ATTIC FLOOR CAPACITY = 20 PSF REINF. IF INTEND TO USE. REPLACE DAMAGED BEAMS.
2. REPLACE STEEL POSTS (5"Φ). INCLUDE:
BASE P - EPOXY BOLT TO CONC.
CAP P - LAG BOLT TO BEAMS
3. SILO - REPAIR CONC. MASONRY AT LOWER 10' OF SILO. ADD NEW ROOF. REPLACE CONN. LINK.
4. EXIST. ROOF FRAMING, RECOMMENED ADDING NEW FRAMING - SEE SECTION.

BLDG. #4 - ROOF PLAN

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SHEET TITLE:

BLDG. #4
ROOF PPLANS AND SECTIONS

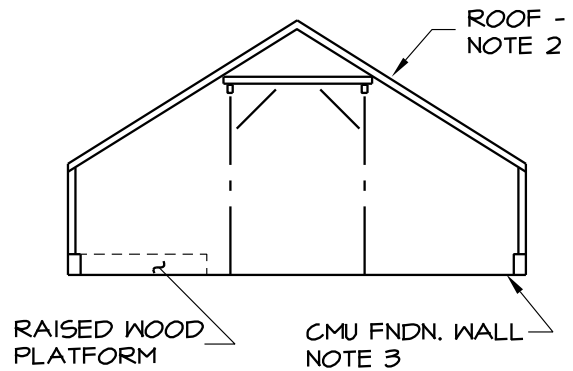
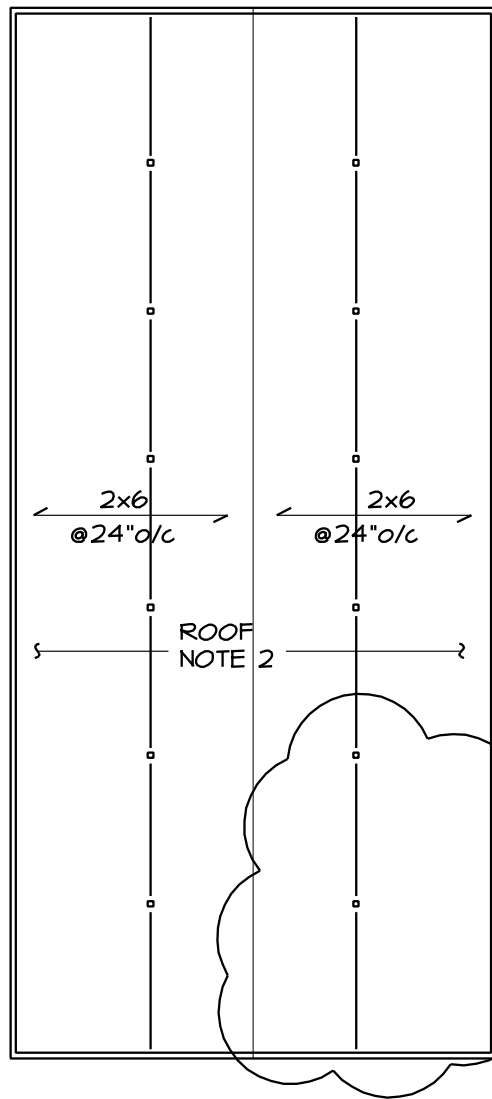
SEE NARRATIVE FOR ADD'L COMMENTS

KING FARM
STRUCTURAL ASSESSMENT

DATE:

06/06/14

SK-4



SECTION

BLDG. #5 - ROOF PLAN

NOTES:

1. REPLACE FIRE DAMAGED FRAMING
2. EXIST. ROOF FRAMING NOT MEET CURRENT CODES REQUIREMENTS. IF INTEND TO USE MAJOR REINF./ SUPPLEMENTAL FRAMING NEEDED. RECOMMEND DEMOLISH AND REPLACEMENT.
3. REPAIR CMU FNDN. REPLACE BROKEN CMU, POINT ALL JOINTS.
4. EXIST. FLOOR (NOT SHOWN) UNEVEN SLOPES AND IS DIRT FLOOR WEST TWO BAYS.



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SHEET TITLE:

BLDG. #5
ROOF PLANS AND SECTION

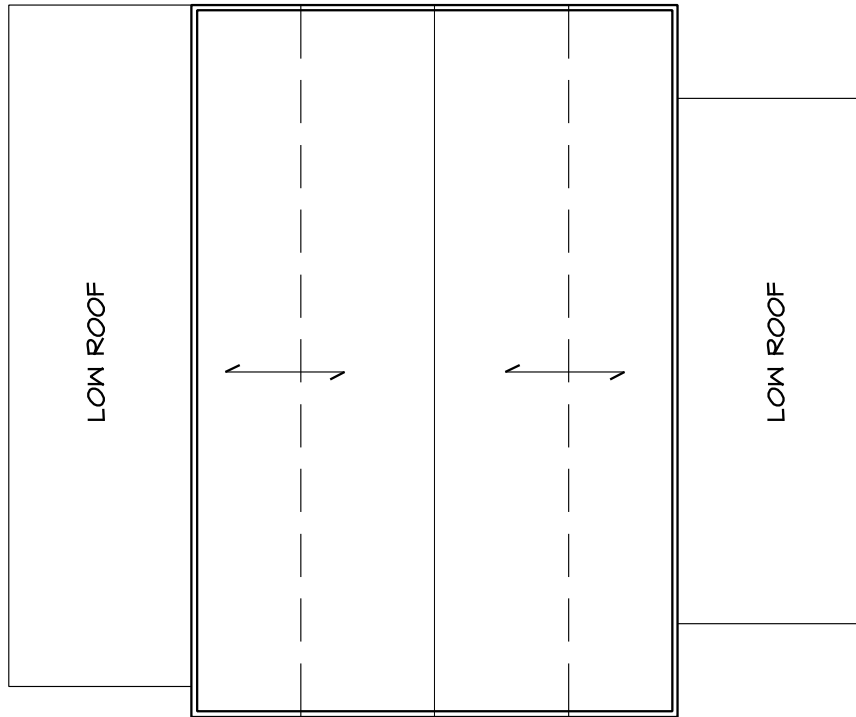
SEE NARRATIVE FOR ADD'L COMMENTS

KING FARM
STRUCTURAL ASSESSMENT

DATE:

06/06/14

SK-5



BLDG. #6 - ROOF PLAN



NORTH

NOTES:

1. FINISHES COVER FRAMING.
2. WATER DAMAGE VISIBLE.
3. FRAMED FLOORS (1st & 2nd) FEEL "SPONGY".
4. EXTERIOR SIDING IS DAMAGED.
5. MAJOR FRAMING REPAIRS NEEDED.
6. REMOVE EXIST. FLOOR. EXCAVATE CRAWL SPACE. UNDERPIN, REPLACE FLOOR.

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SHEET TITLE:

BLDG. #6
ROOF PLAN

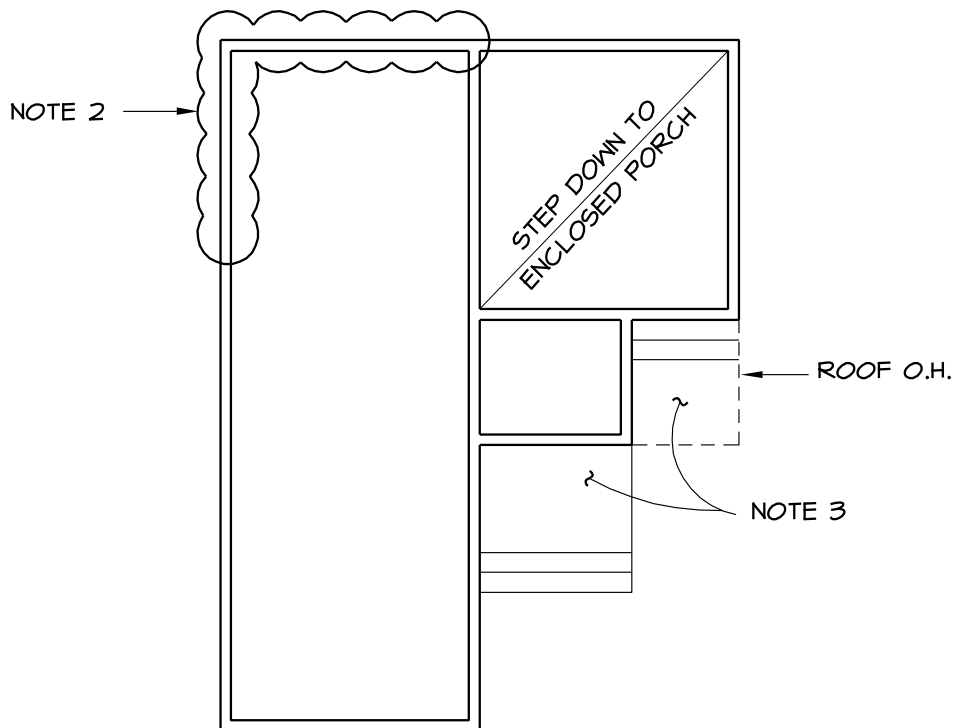
SEE NARRATIVE FOR ADD'L COMMENTS

KING FARM
STRUCTURAL ASSESSMENT

DATE:

06/06/14

SK-6



BLDG. #7 - FLOOR PLAN



NORTH

NOTES:

1. FINISHES COVER FRAMING.
SOME WATER DAMAGE VISIBLE.
2. NO FNDN. WALL. EXCAVATE,
PLACE NEW FTG. AND CMU FNDN. WALL
3. REPAIR STEPS.
4. MAJOR REPAIRS EXPECTED.
5. REMOVE EXIST. FLOOR. EXCAVATE CRAWL SPACE.
UNDERPIN, REPLACE FLOOR.

PLOWDEN ENGINEERING
910 W. UNIVERSITY PARKWAY
BALTIMORE, MD. 21210

SHEET TITLE:

BLDG. #7
FLOOR PLANS

SEE NARRATIVE FOR ADD'L COMMENTS

KING FARM
STRUCTURAL ASSESSMENT

DATE:

06/06/14

SK-7

Appendix B: Report Reference Index

SITE WIDE

Report	Item	Necessity	References
BLDG 0-1	Pests	Stabilize	
BLDG 0-2	HazMat Survey	Stabilize	

BUILDING #1: MAIN HOUSE

Report	Item	Necessity	References
BLDG 1-1	Egress	Rehabilitate	R-2, R-3, R-4
BLDG 1-2	Accessibility	Rehabilitate	R-2, R-3
BLDG 1-3	Approach	Stabilize	R-5, SK-1
BLDG 1-4	Foundation	Stabilize	R-5, R-7
BLDG 1-5	Floors	Stabilize	R-2
BLDG 1-6	Openings	Stabilize	R-5
BLDG 1-6A	Openings	Rehabilitate	R-2, R-3
BLDG 1-7	Moisture Infiltration	Stabilize	R-1, R-2, R-6, SK-1
BLDG 1-8	Insulation	Rehabilitate	R-4
BLDG 1-9	Siding	Stabilize	R-5, 1-13
BLDG 1-10	Exterior Paint	Stabilize	R-5, 1-9
BLDG 1-11	Interior Paint	Rehabilitate	R-1, R-2, R-3
BLDG 1-12	Mechanical Equipment	Rehabilitate	R-1, R-2, R-3, R-4
BLDG 1-13	Electrical System	Rehabilitate	R-1, R-2, R-3, R-4
BLDG 1-14	Plumbing Systems	Rehabilitate	R-1, R-2, R-3
BLDG 1-15	Gutter System	Stabilize	R-5
BLDG 1-16	Roof	Rehabilitate	R-4, R-8
BLDG 1-17	Pests	Stabilize	R-1, SK-1
BLDG 1-18	Radon	Stabilize	R-5
BLDG 1-19	Carport	Rehabilitate	R-5, R-9
BLDG 1-20	Railings	Rehabilitate	R-2, R-3, R-4

BUILDING #2: GARAGE

Report	Item	Necessity	References
BLDG 2-1	Egress	Rehabilitate	2-2
BLDG 2-2	Accessibility	Rehabilitate	R-10, R-11, 2-5
BLDG 2-3	Approach	Rehabilitate	R-10, 2-2
BLDG 2-4	Foundation	Stabilize	R-10, R-13
BLDG 2-5	Floors	Stabilize	R-10, SK-2
BLDG 2-5A	Floors	Rehabilitate	R-10, R-11, SK-2
BLDG 2-6	Openings	Stabilize	R-11, 2-7
BLDG 2-6A	Openings	Rehabilitate	R-10, R-11, 2-7
BLDG 2-7	Moisture Infiltration	Stabilize	R-10, R-11, 2-5, 2-6, 2-8
BLDG 2-8	Insulation	Rehabilitate	R-10, R-11, 2-7
BLDG 2-9	Siding	Stabilize	R-12
BLDG 2-10	Exterior Paint	Stabilize	R-12, 2-6, 2-9
BLDG 2-11	Interior Paint	Rehabilitate	R-11, 2-5, 2-7, 2-8
BLDG 2-12	Mechanical Equipment	Rehabilitate	R-10, R-11
BLDG 2-13	Electrical System	Rehabilitate	R-10
BLDG 2-14	Plumbing Systems	Rehabilitate	R-10, R-11
BLDG 2-15	Gutter System	Stabilize	R-14
BLDG 2-16	Roof	Stabilize	R-14, SK-2

BUILDINGS #3 AND #4: DAIRY BARN

Report	Item	Necessity	References
BLDG 3/4-1	Egress	Rehabilitate	R-15, R-16, R-18, 3/4-6, 3/4-5
BLDG 3/4-2	Accessibility	Rehabilitate	R-15, R-16, R-21, 3/4-5
BLDG 3/4-4	Foundation	Stabilize	R-18
BLDG 3/4-5	Floors	Stabilize	R-15, R-16, R-21, SK-3, SK-4
BLDG 3/4-5A	Floors	Rehabilitate	R-15, R-16, R-21, SK-3, SK-4
BLDG 3/4-6	Openings	Stabilize	R-15, R-16, R-17, 3/4-16
BLDG 3/4-8	Insulation	Rehabilitate	R-15, R-16, R-17
BLDG 3/4-9	Siding	Stabilize	R-18, 3/4-6
BLDG 3/4-10	Exterior Paint	Stabilize	R-18
BLDG 3/4-11	Interior Paint	Rehabilitate	R-15, R-16, 3/4-9, 3/4-8, 3/4-6
BLDG 3/4-12	Mechanical Equipment	Rehabilitate	R-15, R-16, R-17
BLDG 3/4-13	Electrical System	Rehabilitate	R-15, R-16, R-17
BLDG 3/4-14	Plumbing Systems	Rehabilitate	R-15, R-16, R-17
BLDG 3/4-15	Gutter System	Rehabilitate	R-19, R-20, 3/4-16
BLDG 3/4-16	Roof	Stabilize	R-19, R-20, SK-3, SK-4
BLDG 3/4-16A	Roof	Rehabilitate	R-19, R-20, 3/4-8, SK-3, SK-4
BLDG 3/4-17	Columns	Urgent	R-16, SK-4
BLDG 3/4-18	Silos and Connectors	Urgent	R-15, R-16, SK-4
BLDG 3/4-18A	Silos and Connectors	Stabilize	R-15, R-16, SK-4
BLDG 3/4-19	Walkways	Rehabilitate	R-15, R-16
BLDG 3/4-20	Milk House	Stabilize	R-17

BUILDING #5: HORSE BARN

Report	Item	Necessity	References
BLDG 5-1	Egress		R-22, 5-5, 5-17, 5-17A
BLDG 5-2	Accessibility		R-22, 5-5, 5-17, 5-17A
BLDG 5-3	Approach		R-22, 5-17, 5-17A, SK-5
BLDG 5-4	Foundation		R-22, 5-17, 5-17A, SK-5
BLDG 5-5	Floors		R-22, 5-1, 5-2, 5-17, 5-17A, SK-5
BLDG 5-6	Openings		R-22, 5-2, 5-17, 5-17A
BLDG 5-8	Insulation		R-22, 5-6, 5-9, 5-17, 5-17A
BLDG 5-9	Siding		R-22, R-23, 5-17, 5-17A
BLDG 5-10	Exterior Paint		R-23, 5-17, 5-17A
BLDG 5-11	Interior Paint		R-22, 5-8, 5-17, 5-17A
BLDG 5-12	Mechanical Equipment	Rehabilitate	R-22
BLDG 5-13	Electrical System	Rehabilitate	R-22
BLDG 5-14	Plumbing Systems	Rehabilitate	R-22
BLDG 5-15	Gutter System		R-23, 5-17, 5-17A
BLDG 5-17	Building Structure	Urgent	R-22, SK-5
BLDG 5-17A	Building Structure	Rehabilitate	R-22, SK-5

BUILDING #6: TENANT 6

Report	Item	Necessity	References
BLDG 6-1	Egress	Rehabilitate	R-24, R-26, 6-4, 6-7
BLDG 6-2	Accessibility	Rehabilitate	R-24, 6-4, 6-7, 6-9
BLDG 6-3	Approach	Stabilize	R-24, R-25, 6-4, 6-7, 6-9
BLDG 6-4	Foundation	Stabilize	R-25, SK-6
BLDG 6-5	Floors	Stabilize	R-24, R-26, 6-4, SK-6
BLDG 6-6	Openings	Stabilize	R-24, R-26, 6-7
BLDG 6-7	Moisture Infiltration	Stabilize	R-24, R-26
BLDG 6-8	Insulation	Rehabilitate	R-24, 6-7
BLDG 6-9	Siding	Stabilize	R-25
BLDG 6-10	Exterior Paint	Stabilize	R-25, 6-4, 6-7, 6-9
BLDG 6-11	Interior Paint	Rehabilitate	R-24, 6-7
BLDG 6-12	Mechanical Equipment	Rehabilitate	R-24, 6-7, 6-8
BLDG 6-13	Electrical System	Rehabilitate	R-24
BLDG 6-14	Plumbing Systems	Rehabilitate	R-24
BLDG 6-15	Gutter System	Rehabilitate	R-27
BLDG 6-16	Roof	Rehabilitate	R-27, 6-8, 6-15

BUILDING #7: TENANT 7

Report	Item	Necessity	References
BLDG 7-1	Egress	Rehabilitate	R-28
BLDG 7-2	Accessibility	Rehabilitate	R-28, 7-4
BLDG 7-3	Approach	Rehabilitate	R-28
BLDG 7-4	Foundation	Stabilize	R-28, R-30, SK-7
BLDG 7-5	Floors	Rehabilitate	R-28
BLDG 7-6	Openings	Stabilize	R-28, R-29, 7-2, 7-6
BLDG 7-6A	Openings	Rehabilitate	R-28, 7-2, 7-6
BLDG 7-7	Moisture Infiltration	Stabilize	R-28, 7-6
BLDG 7-8	Insulation	Rehabilitate	R-28
BLDG 7-9	Siding	Stabilize	R-28, R-29
BLDG 7-10	Exterior Paint	Stabilize	R-29
BLDG 7-11	Interior Paint	Rehabilitate	R-28
BLDG 7-12	Mechanical Equipment	Rehabilitate	R-28
BLDG 7-13	Electrical System	Rehabilitate	R-28
BLDG 7-14	Plumbing Systems	Rehabilitate	R-28
BLDG 7-15	Gutter System	Rehabilitate	R-31, 7-9
BLDG 7-16	Roof	Stabilize	R-31
BLDG 7-16A	Roof	Rehabilitate	R-28

Appendix C: Priority Index

SITE WIDE

Priority	Report	Item	Discipline
1	BLDG 0-2	HazMat Survey	ARCH
2	BLDG 0-1	Pests	ARCH

BUILDING #1: MAIN HOUSE

Priority	Report	Item	Discipline
1	BLDG 1-7	Moisture Infiltration	ARCH-STRUCT
2	BLDG 1-4	Foundation	ARCH
3	BLDG 1-17	Pests	ARCH-STRUCT
4	BLDG 1-9	Siding	ARCH
5	BLDG 1-10	Exterior Paint	ARCH
6	BLDG 1-6	Openings	ARCH
7	BLDG 1-5	Floors	ARCH
8	BLDG 1-15	Gutter System	ARCH
9	BLDG 1-3	Approach	ARCH
10	BLDG 1-18	Radon	ARCH-MEP
11	BLDG 1-1	Egress	ARCH
12	BLDG 1-2	Accessibility	ARCH
13	BLDG 1-12	Mechanical Equipment	MEP
14	BLDG 1-14	Plumbing Systems	MEP
15	BLDG 1-13	Electrical System	MEP
16	BLDG 1-20	Railings	ARCH
17	BLDG 1-8	Insulation	ARCH
18	BLDG 1-16	Roof	ARCH
19	BLDG 1-6A	Openings	ARCH
20	BLDG 1-11	Interior Paint	ARCH
21	BLDG 1-19	Carport	ARCH

BUILDING #2: GARAGE

Priority	Report	Item	Discipline
1	BLDG 2-7	Moisture Infiltration	ARCH-STRUCT
2	BLDG 2-4	Foundation	ARCH
3	BLDG 2-16	Roof	ARCH
4	BLDG 2-6	Openings	ARCH
5	BLDG 2-15	Gutter System	ARCH
6	BLDG 2-9	Siding	ARCH
7	BLDG 2-10	Exterior Paint	ARCH
8	BLDG 2-5	Floors	ARCH-STRUCT
9	BLDG 2-5A	Floors	ARCH-STRUCT
10	BLDG 2-8	Insulation	ARCH
11	BLDG 2-12	Mechanical Equipment	MEP
12	BLDG 2-14	Plumbing Systems	MEP
13	BLDG 2-13	Electrical System	MEP
14	BLDG 2-1	Egress	ARCH
14	BLDG 2-2	Accessibility	ARCH
15	BLDG 2-6A	Openings	ARCH
16	BLDG 2-11	Interior Paint	ARCH
17	BLDG 2-3	Approach	ARCH

BUILDINGS #3 AND #4: DAIRY BARNS

Priority	Report	Item	Discipline
1	BLDG 3/4-17	Columns	ARCH
2	BLDG 3/4-18	Silos and Connectors	ARCH-STRUCT
3	BLDG 3/4-16	Roof	ARCH-STRUCT
4	BLDG 3/4-5	Floors	ARCH-STRUCT
5	BLDG 3/4-6	Openings	ARCH
6	BLDG 3/4-18A	Silos and Connectors	ARCH-STRUCT
7	BLDG 3/4-4	Foundation	ARCH
8	BLDG 3/4-9	Siding	ARCH
9	BLDG 3/4-10	Exterior Paint	ARCH
10	BLDG 3/4-20	Milk House	ARCH-STRUCT
11	BLDG 3/4-16A	Roof	ARCH-STRUCT
12	BLDG 3/4-8	Insulation	ARCH
13	BLDG 3/4-12	Mechanical Equipment	MEP
14	BLDG 3/4-14	Plumbing Systems	MEP
15	BLDG 3/4-13	Electrical System	MEP
16	BLDG 3/4-2	Accessibility	ARCH
17	BLDG 3/4-1	Egress	ARCH
18	BLDG 3/4-5A	Floors	ARCH-STRUCT
19	BLDG 3/4-11	Interior Paint	ARCH
20	BLDG 3/4-15	Gutter System	ARCH
21	BLDG 3/4-19	Walkways	ARCH-STRUCT

BUILDING #5: HORSE BARN

Priority	Report	Item	Discipline
1	BLDG 5-17	Building Structure	ARCH
2	BLDG 5-17A	Building Structure	ARCH
3	BLDG 5-12	Mechanical Equipment	MEP
4	BLDG 5-14	Plumbing Systems	MEP
5	BLDG 5-13	Electrical System	MEP
(See 5-17A)	BLDG 5-1	Egress	ARCH
(See 5-17A)	BLDG 5-2	Accessibility	ARCH
(See 5-17A)	BLDG 5-3	Approach	ARCH
(See 5-17A)	BLDG 5-4	Foundation	ARCH
(See 5-17A)	BLDG 5-5	Floors	ARCH-STRUCT
(See 5-17A)	BLDG 5-6	Openings	ARCH
(See 5-17A)	BLDG 5-8	Insulation	ARCH
(See 5-17A)	BLDG 5-9	Siding	ARCH
(See 5-17A)	BLDG 5-10	Exterior Paint	ARCH
(See 5-17A)	BLDG 5-11	Interior Paint	ARCH
(See 5-17A)	BLDG 5-15	Gutter System	ARCH

BUILDING #6: TENANT 6

Priority	Report	Item	Discipline
1	BLDG 6-4	Foundation	ARCH-STRUCT
2	BLDG 6-5	Floors	ARCH-STRUCT
3	BLDG 6-7	Moisture Infiltration	ARCH-STRUCT
4	BLDG 6-9	Siding	ARCH
5	BLDG 6-3	Approach	ARCH
6	BLDG 6-6	Openings	ARCH
7	BLDG 6-10	Exterior Paint	ARCH
8	BLDG 6-8	Insulation	ARCH
9	BLDG 6-1	Egress	ARCH
10	BLDG 6-12	Mechanical Equipment	MEP
11	BLDG 6-14	Plumbing Systems	MEP
12	BLDG 6-13	Electrical System	MEP
13	BLDG 6-2	Accessibility	ARCH
14	BLDG 6-15	Gutter System	ARCH
15	BLDG 6-11	Interior Paint	ARCH
16	BLDG 6-16	Roof	ARCH

BUILDING #7: TENANT 7

Priority	Report	Item	Discipline
1	BLDG 7-4	Foundation	ARCH-STRUCT
2	BLDG 7-6	Openings	ARCH
3	BLDG 7-7	Moisture Infiltration	ARCH-STRUCT
4	BLDG 7-9	Siding	ARCH
5	BLDG 7-10	Exterior Paint	ARCH
6	BLDG 7-16	Roof	ARCH
7	BLDG 7-16A	Roof	ARCH
8	BLDG 7-8	Insulation	ARCH
9	BLDG 7-15	Gutter System	ARCH
10	BLDG 7-12	Mechanical Equipment	MEP
11	BLDG 7-14	Plumbing Systems	MEP
12	BLDG 7-13	Electrical System	MEP
13	BLDG 7-1	Egress	ARCH
14	BLDG 7-2	Accessibility	ARCH
15	BLDG 7-3	Approach	ARCH
16	BLDG 7-6A	Openings	ARCH
17	BLDG 7-5	Floors	ARCH-STRUCT
18	BLDG 7-11	Interior Paint	ARCH

Appendix D: Cost Index

SITE WIDE

\$22,000.00

Report	Item	Urgent	Stabilization	Rehabilitate
BLDG 0-1	Pests		\$10,000.00	
BLDG 0-2	HazMat Survey		\$12,000.00	
		\$0.00	\$22,000.00	\$0.00

BUILDING #1: MAIN HOUSE

\$505,939.50

Report	Item	Urgent	Stabilization	Rehabilitate
BLDG 1-1	Egress			\$25,222.00
BLDG 1-2	Accessibility			\$42,676.00
BLDG 1-3	Approach		\$7,200.00	
BLDG 1-4	Foundation		\$10,000.00	
BLDG 1-5	Floors		\$7,986.00	
BLDG 1-6	Openings		\$51,909.00	
BLDG 1-6A	Openings			\$8,185.00
BLDG 1-7	Moisture Infiltration		\$12,452.00	
BLDG 1-8	Insulation			\$4,882.00
BLDG 1-9	Siding		\$8,318.00	
BLDG 1-10	Exterior Paint		\$18,975.00	
BLDG 1-11	Interior Paint			\$11,446.00
BLDG 1-12	Mechanical Equipment			\$83,187.00
BLDG 1-13	Electrical System			\$69,145.00
BLDG 1-14	Plumbing Systems			\$115,324.50
BLDG 1-15	Gutter System		\$2,000.00	
BLDG 1-16	Roof			\$2,500.00
BLDG 1-17	Pests		\$10,000.00	
BLDG 1-18	Radon		\$225.00	
BLDG 1-19	Carport			\$3,500.00
BLDG 1-20	Railings			\$10,807.00
		\$0.00	\$129,065.00	\$376,874.50

BUILDING #2: GARAGE**\$303,557.00**

Report	Item	Urgent	Stabilization	Rehabilitate
BLDG 2-1	Egress			(See 2-2)
BLDG 2-2	Accessibility			\$11,979.00
BLDG 2-3	Approach			\$4,259.00
BLDG 2-4	Foundation		\$4,658.00	
BLDG 2-5	Floors		\$7,500.00	
BLDG 2-5A	Floors			\$51,793.00
BLDG 2-6	Openings		\$13,310.00	
BLDG 2-6A	Openings			\$39,930.00
BLDG 2-7	Moisture Infiltration		\$26,528.00	
BLDG 2-8	Insulation			\$28,323.00
BLDG 2-9	Siding		\$4,658.00	
BLDG 2-10	Exterior Paint		\$7,341.00	
BLDG 2-11	Interior Paint			\$6,810.00
BLDG 2-12	Mechanical Equipment			\$35,128.00
BLDG 2-13	Electrical System			\$18,783.00
BLDG 2-14	Plumbing Systems			\$8,804.00
BLDG 2-15	Gutter System		\$2,874.00	
BLDG 2-16	Roof		\$30,879.00	
		\$0.00	\$97,748.00	\$205,809.00

BUILDINGS #3 AND #4: DAIRY BARN**\$2,083,571.00**

Report	Item	Urgent	Stabilization	Rehabilitate
BLDG 3/4-1	Egress			\$10,000.00
BLDG 3/4-2	Accessibility			\$3,993.00
BLDG 3/4-4	Foundation		\$6,655.00	
BLDG 3/4-5	Floors		\$160,617.00	
BLDG 3/4-5A	Floors			\$69,484.00
BLDG 3/4-6	Openings		\$250,833.00	
BLDG 3/4-8	Insulation			\$80,179.00
BLDG 3/4-9	Siding		\$30,613.00	
BLDG 3/4-10	Exterior Paint		\$51,990.00	
BLDG 3/4-11	Interior Paint			\$41,314.00
BLDG 3/4-12	Mechanical Equipment			\$238,036.00
BLDG 3/4-13	Electrical System			\$140,021.00
BLDG 3/4-14	Plumbing Systems			\$106,480.00
BLDG 3/4-15	Gutter System			\$28,483.00
BLDG 3/4-16	Roof		\$399,999.00	
BLDG 3/4-16A	Roof			\$299,475.00
BLDG 3/4-17	Columns	\$109,807.00		
BLDG 3/4-18	Silos and Connectors	\$23,958.00		
BLDG 3/4-18A	Silos and Connectors		\$18,634.00	
BLDG 3/4-19	Walkways			\$3,000.00
BLDG 3/4-20	Milk House		\$10,000.00	
		\$133,765.00	\$929,341.00	\$1,020,465.00

BUILDING #5: HORSE BARN**\$2,282,215.00**

Report	Item	Urgent	Stabilization	Rehabilitate
BLDG 5-1	Egress			(See 5-17, 5-17A)
BLDG 5-2	Accessibility			(See 5-17, 5-17A)
BLDG 5-3	Approach			(See 5-17, 5-17A)
BLDG 5-4	Foundation			(See 5-17, 5-17A)
BLDG 5-5	Floors			(See 5-17, 5-17A)
BLDG 5-6	Openings			(See 5-17, 5-17A)
BLDG 5-8	Insulation			(See 5-17, 5-17A)
BLDG 5-9	Siding			(See 5-17, 5-17A)
BLDG 5-10	Exterior Paint			(See 5-17, 5-17A)
BLDG 5-11	Interior Paint			(See 5-17, 5-17A)
BLDG 5-12	Mechanical Equipment			\$132,932.00
BLDG 5-13	Electrical System			\$87,743.00
BLDG 5-14	Plumbing Systems			\$66,540.00
BLDG 5-15	Gutter System			(See 5-17, 5-17A)
BLDG 5-17	Building Structure	\$400,000.00		
BLDG 5-17A	Building Structure			\$1,595,000.00
		\$400,000.00	\$0.00	\$1,882,215.00

BUILDING #6: TENANT 6**\$272,143.00**

Report	Item	Urgent	Stabilization	Rehabilitate
BLDG 6-1	Egress			\$7,986.00
BLDG 6-2	Accessibility			\$11,500.00
BLDG 6-3	Approach		\$14,774.00	
BLDG 6-4	Foundation		\$30,127.00	
BLDG 6-5	Floors		\$36,842.00	
BLDG 6-6	Openings		\$32,951.00	
BLDG 6-7	Moisture Infiltration		\$10,000.00	
BLDG 6-8	Insulation			\$35,463.00
BLDG 6-9	Siding		\$26,486.00	
BLDG 6-10	Exterior Paint		\$6,548.00	
BLDG 6-11	Interior Paint			\$3,154.00
BLDG 6-12	Mechanical Equipment			\$21,029.00
BLDG 6-13	Electrical System			\$12,617.00
BLDG 6-14	Plumbing Systems			\$21,229.00
BLDG 6-15	Gutter System			\$1,437.00
BLDG 6-16	Roof			\$0.00
		\$0.00	\$157,728.00	\$114,415.00

BUILDING #7: TENANT 7**\$140,819.00**

Report	Item	Urgent	Stabilization	Rehabilitate
BLDG 7-1	Egress			\$10,648.00
BLDG 7-2	Accessibility			\$14,641.00
BLDG 7-3	Approach			\$5,989.00
BLDG 7-4	Foundation		\$18,552.00	
BLDG 7-5	Floors			\$3,093.00
BLDG 7-6	Openings		\$15,972.00	
BLDG 7-6A	Openings			\$3,200.00
BLDG 7-7	Moisture Infiltration		\$2,000.00	
BLDG 7-8	Insulation			\$1,576.00
BLDG 7-9	Siding		\$3,993.00	
BLDG 7-10	Exterior Paint		\$5,856.00	
BLDG 7-11	Interior Paint			\$4,639.00
BLDG 7-12	Mechanical Equipment			\$14,641.00
BLDG 7-13	Electrical System			\$1,996.00
BLDG 7-14	Plumbing Systems			\$15,000.00
BLDG 7-15	Gutter System			\$2,523.00
BLDG 7-16	Roof		\$1,500.00	
BLDG 7-16A	Roof			\$15,000.00
		\$0.00	\$47,873.00	\$92,946.00

TOTAL

\$5,610,244.50

Building	Urgent	Stabilization	Rehabilitate
Site Wide Issues	\$0.00	\$22,000.00	\$0.00
Building 1 - House	\$0.00	\$129,065.00	\$376,874.50
Building 2 - Garage	\$0.00	\$97,748.00	\$205,809.00
Buildings 3 & 4 - Dairy Barn(s)	\$133,765.00	\$929,341.00	\$1,020,465.00
Building 5 - Horse (Hay) Barn	\$400,000.00	\$0.00	\$1,882,215.00
Building 6 - Tenant House	\$0.00	\$157,728.00	\$114,415.00
Building 7 - Tenant House	\$0.00	\$47,873.00	\$92,946.00
	\$533,765.00	\$1,383,755.00	\$3,692,724.50

Appendix E: Photo Index

Photo Number	Title	Description	Associated Report
<i>House (Building 1)</i>			
1	Concrete Steps	There is no appropriate exit from the basement.	1-1
2	Wood Paneled Room	Ceiling is too low.	1-1
3	Concrete Floor	Staining from old moisture damage.	1-7
4	Boiler	Nonfunctioning.	1-12
5	Electrical Panel	Replace wiring.	1-13
6	Oil Tanks	Nonfunctioning.	1-14
7	Pocket Doors	Sliders don't work.	1-18
8	Railings	Height is too low.	1-1
9	Powder Room	No accessible restroom.	1-2
10	Bay Window	Staining and cracking from moisture.	1-7
11	Hardware	Noncompliant, painted over.	1-18
12	Door Knobs	Noncompliant.	1-18
13	2 nd Floor Bathroom	Door is too narrow. Bathroom is not accessible.	1-2
14	Rear Bedroom	Minor cracks in the plaster.	1-11
15	Attic Stair	Stairs are too narrow and have no railings.	1-1
16	2 nd Floor Hall	Railings are too low.	1-1
17	Attic Stair	No railings.	1-1
18	Edge of Stairwell	Moisture damage on flooring.	1-7
19	Attic Sheathing	Moisture staining.	1-7
20	Dormer Windows	No insulation.	1-8
21	Ductwork	Non-functioning A/C serving the 2 nd floor only.	1-12
22	Side Entrance	Steps and screen are significantly deteriorated. Railings decaying.	1-3
23	Rear Door	Surround and screen door deteriorated.	1-3
24	Shutters	Adjacent to stoop on elevation D. Shutters deteriorated.	1-6
25	Slate Path	Slate crumbling, grout deteriorated, exposed, rusted nails.	1-3
26	Window	Paint bubbling from leak.	1-7
27	Porch Trim	Corner guard, downspout and trim deteriorated.	1-15
28	Conduit	Deteriorated.	1-9
29	Siding	Soft siding and signs of rot.	1-9
30	Flashing	Flashing is delaminated and deteriorating	1-4

Photo Number	Title	Description	Associated Report
<i>Garage (Building 2)</i>			
1	Smoke Room Walls	Moisture damage along CMU sill. Uninsulated.	2-5(A), 2-8
2	Smoke Room Floors	Deteriorated and heaved tiled floor.	2-5(A), 2-4
3	Mechanical Room	Significant moisture damage.	2-7, 2-12
4	Garage Doors	Nonfunctional and deteriorated.	2-6A
5	Ceiling Joists	Bowed and below code.	2-5(A)
6	Concrete Floors	Concrete is crumbling.	2-5(A)
7	Garage	No insulation.	2-8
8	SW Corner	Significant moisture damage to sheathing.	2-7
9	SW Sill	Degraded sill with significant moisture damage.	2-7
10	Bedroom	Ceiling and wall damage from moisture infiltration.	2-7
11	Bathroom	Deteriorated floor and walls. Moisture damage.	2-7
12	Walls	Moisture damage, rot, and damaged plaster.	2-7
13	Windows	Signs of leaks and sill rot.	2-6(A), 2-7
14	Sheathing	Water damage and staining.	2-16
15	Floors	Deteriorated and stained floors.	2-5(A)
16	Roof	Deteriorated edges and rust spots. Various pinholes throughout.	2-16
17	Flared Eave	Gutter full of debris, and signs of deterioration.	2-16, 2-15
18	Apartment Entrance	Stoop disconnected from foundation and deteriorated concrete pad.	2-6(A), 2-3
19	Foundation	Gaps in SE corner. Deterioration.	2-4
20	Downspouts	SW corner downspout completely missing.	2-15
21	Burrow	Groundhog burrows beneath the stair foundation.	2-4, ENTIRE SITE

Photo Number	Title	Description	Associated Report
Dairy Barns (Buildings 3 & 4)			
1	Windows	Missing glass and muntins. Tilted surrounds deteriorated.	3/4-6
2	Curbs	6" curbs create barrier affecting both accessibility and egress.	3/4-1, 3/4-2, 3/4-5(A)
3	Plaster	Significant moisture damage.	3/4-8
4	Barn Doors	Nonfunctional and deteriorated.	3/4-6
5	Attic Dormers	Not weather tight and deteriorated doors.	3/4-16(A)
6	Attic Floor	Floor sheathing damaged.	3/4-5(A)
7	Aisles	Side aisles elevated from central aisle with concrete curbs showing signs of wear.	3/4-5(A)
8	Ceiling	Much of the boarded ceiling is missing or damaged.	3/4-5(A)
9	Hardware	Rusted, damaged and nonfunctional.	3/4-6
10	Silo 1	Torn down. Foundation remains.	3/4-18(A)
11	Connector 2	Significantly deteriorated space.	3/4-18(A)
12	Connector 1	Moisture damage, rot, and crumbling ceiling.	3-4-18(A)
13	Tilt-ins	Window glass broken or missing. Frames and sills show signs of rot.	3/4-6
14	Trench	Formed into the concrete floor.	3/4-5(A)
15	Columns	All show significant signs of wear. Some are missing and others have sheared off their base.	3/4-17
16	Ceiling	Shows signs of rot and the box beams have deteriorated.	3/4-5(A), 3/4-17
17	Barn Doors	All doors are rotted. Hardware has rusted and is nonfunctional.	3/4-6
18	Floors	Floor formed with 6" curbs, ramps and trenches in concrete. Hollow round railings embedded in concrete.	3/4-5(A)
19	Drains	Trench drains are clogged.	3/4-5(A)
20	Attic Floor	Floor sheathing damaged.	3/4-5(A)
21	Room 4	Joists are rotting and CMU shows water damage.	3/4-8
22	Roof	In poor condition and not weather tight.	3/4-16
23	Dormer	Doors have rotted as has siding. Not weather tight.	3/4-16(A), 3/4-9,
24	Silo 3	Deteriorated concrete ladder. Roof in disrepair.	3/4-18(A)
25	Silo 4	Significant damage along seam between concrete floor and silo wall.	3/4-18(A)

Photo Number	Title	Description	Associated Report
Dairy Barns (Buildings 3 & 4); continued			
26	Connector 3	Significantly deteriorated and showing many signs of water damage.	3/4-18(A)
27	Picture Window	Window glass missing. Sill deteriorated.	3/4-6
28	Debris	Flaking plaster, deteriorated wood and concrete accumulating on the floor.	3/4-20
29	Panel	Old panel missing equipment and deteriorated.	3/4-20
30	Rear Room	Plaster deterioration, missing window glass and deteriorated sills.	3/4-6, 3/4-20
31	Storage Room	Haphazard storage over spalling walls exposing crumbling brick.	3/4-20
32	Barn Doors	Rotted and damaged. Sliding hardware in disrepair.	3/4-6
33	Drainage	No gutter system is present. Corner guards falling apart.	3/4-15
34	Dormers	Siding is rotted away.	3/4-16(A), 3/4-9
35	Foundation	Some decay of CMU and grout.	3/4-5(A)
36	Vents	Are not functioning and show signs of wear.	3/4-12
37	Connector 3	Shows significant damage.	3/4-18(A)
38	Sliders	Show signs of rot.	3/4-6
39	Connector 4	Shows significant damage.	3/4-18(A)
40	Roof	in significant disrepair. Portion of silo roof missing.	3/4-16(A)
41	Appurtenances	Exterior walls have various plywood boards and miscellaneous appurtenances mounted on them.	3/4-9
42	Low Wall	Grout and CMU show signs of deterioration.	3/4-19
43	Roof	Show signs of rot.	3/4-18(A)
44	Fascia	Shows significant damage and rot.	3/4-15, 3/4-16(A)
45	Door	Damaged, held by only one hinge and rotted at the bottom.	3/4-20
46	Concrete Containment Tank	Unknown contents.	3/4-20

Photo Number	Title	Description	Associated Report
Horse Barn			
1	Beams	Undersized and bowing in the middle; insufficient connections.	5-17 (A)
2	Sill	Undersized and showing signs of water damage.	5-6, 5-17 (A)
3	Structure	Undersized and showing signs of past fire damage; insufficient connections.	5-17 (A)
4	Windows	In significant disrepair and missing glass. Sills rotting.	5-6, 5-17 (A)
5	Studs	CMU degraded, gaps in sheathing and studs disconnected from sill.	5-17 (A)
6	Front Room	Walls in disrepair and asbestos floor.	5-11, 5-17 (A)
7	Columns	Sheared off their base, fairly recently reinforced but insufficient connections.	5-17 (A)
8	Barn Door	In disrepair, shows signs of rot.	5-6, 5-17 (A)
9	Platforms	In disrepair, shows signs of rot, dirt floor underneath.	5-5, 5-17 (A)
10	Room 2	Walls in disrepair, wires and such hang from the ceiling, and dirt floor.	5-5, 5-17 (A)
11	Hearth	Brick hearth disconnected from chimney above.	5-17 (A)
12	Windows	Missing glass, deteriorated surround, rotted sill and damaged muntins.	5-5, 5-17 (A)
13	Fascia	Either missing or showing signs of significant rot and water damage.	5-17 (A)
14	Foundation	Exposed and crumbling concrete foundation exposed.	5-4, 5-17 (A)
15	Door	Showing signs of decay and rot.	5-5, 5-17 (A)
16	CMU Sill	Stepped crack, shifted foundation and slight bulge in CMU.	5-4, 5-17 (A)
17	Siding	In disrepair. Shows many pinholes.	5-9, 5-17 (A)

Photo Number	Title	Description	Associated Report
Tenant 6			
1	SW Corner	Significant water damage, plaster falling away and exposing rotted lath.	6-7
2	Ceiling	Bowed in and in danger of collapse.	6-7
3	Threshold	Stepped down and decaying.	6-5, 6-2, 6-6
4	Addition 2	Window glass missing, surround rotting. All finishes in disrepair.	6-7, 6-6
5	Floor	Carpet exhibiting signs of significant mold growth underneath. Vinyl showing signs of disrepair.	6-5
6	Stair Windows	Sill in disrepair.	6-6
7	Rear Windows	In disrepair, deteriorated sill and muntins.	6-6
8	Front Room	Significant signs of mold growth and water damage.	6-7
9	Rear Room	Significant signs of mold growth, base heating nonfunctional.	6-7, 6-12
10	Septic Tank	Decayed and nonfunctioning.	6-4, 6-3
11	Concrete Pad	Crumbling concrete with loose pieces.	6-3, 6-2
12	Fascia	Rotted or missing.	6-15
13	Siding	Rotted siding all along foundation. Invasive tree roots.	6-9, 6-4
14	Roof	In significant disrepair and warped.	6-15
15	Foundation	Too close to grade and rotting.	6-4
Tenant 7			
1	Doors	All are too narrow, including framed openings.	7-6(A)
2	Ceiling	No insulation.	7-8
3	Windows	Show signs of moisture infiltration.	7-6(A)
4	Threshold	Floor elevation change.	7-6(A), 7-5
5	Siding	Flaking paint. Sills show signs of rot.	7-9, 7-6(A)
6	Path	Very steep and not accessible.	7-3, 7-2
7	Windows	Gapping and muntins showing signs of wear.	7-6(A)
8	Side Entrance	Rafters and fascia in disrepair. CMU steps separated from siding and crumbling.	7-15, 7-4, 7-3
9	Foundation	Too close to grade and multiple foundation types have been used.	7-4

House, Bldg. 1 PHOTOS



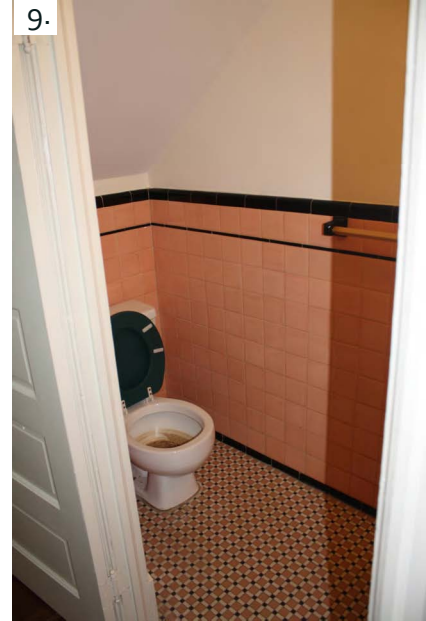
House, Bldg. 1 BASEMENT



1. **Concrete Steps** There is no appropriate exit.
2. **Wood Paneled Room** Basement ceiling is too low.
3. **Concrete Floor** Old moisture damage.
4. **Boiler** Nonfunctioning.
5. **Electrical Panel** Replace wiring.
6. **Oil Tanks** Nonfunctioning.



House, Bldg. 1 FIRST FLOOR



7. **Pocket Doors** Sliders don't work.

8. **Railings** at the foyer stair are too low.

9. **Powder Room** There is no accessible restroom.

10. **Bay Window** Staining and cracking from moisture.

11. **Hardware** Hardware is painted over and noncompliant.

12. **Door Knobs** Door knobs throughout the first floor. All are noncompliant.

House, Bldg. 1 SECOND FLOOR

13.



14.



13. **2nd Floor Bathroom** Restroom off the second floor central hall. Door is too narrow. Bathroom is not accessible.

14. **Rear Bedroom** Minor cracks in the plaster.

15. **Attic Stair** Stairs are too narrow and have no railings.

16. **2nd Floor Hall** Railings are too low.

15.



16.



House, Bldg. 1 ATTIC

17.



18.



19.



20.



21.



17. **Attic Stair Railing** The railing is noncompliant.

18. **Edge of Stairwell** Moisture damage on flooring.

19. **Attic Sheathing** Moisture staining.

20. **Dormer Windows** No insulation.

21. **Ductwork** Non-functioning A/C serving the second floor only.

House, Bldg. 1 EXTERIOR

22.



23.



24.



26.



25.



House, Bldg. 1 EXTERIOR



- 22. **Side Entrance** Steps and screen are significantly deteriorated. Railings also needs repair
- 23. **Rear Door** Surround and screen door deteriorated.
- 24. **Shutters** Adjacent to stoop on elevation D. Shutters deteriorated.
- 25. **Slate Path** Slate crumbling, grout deteriorated, exposed, rusted nails.
- 26. **Window** Paint bubbling from leak.
- 27. **Porch Trim** Corner guard and trim.
- 28. **Conduit** Deteriorated.
- 29. **Siding** Soft siding and signs of rot.
- 30. **Flashing** Flashing is delaminated and deteriorating.

Garage, Bldg. 2 PHOTOS



Garage, Bldg. 2 FIRST FLOOR



1. ***Smoke Room Walls*** Moisture damage along CMU sill. Uninsulated.
2. ***Smoke Room Floors*** Deteriorated and heaved tiled floor.
3. ***Mechanical Room*** Significant moisture damage.
4. ***Garage Doors*** Nonfunctional and deteriorated.
5. ***Ceiling Joists*** Bowed and below code.



Garage, Bldg. 2 FIRST FLOOR



6. **Concrete Floors** Concrete is crumbling.

7. **Garage** No insulation.

8. **SW Corner** Significant moisture damage to sheathing.

9. **SW Sill** Degraded sill with significant moisture damage.

Garage, Bldg. 2 SECOND FLOOR

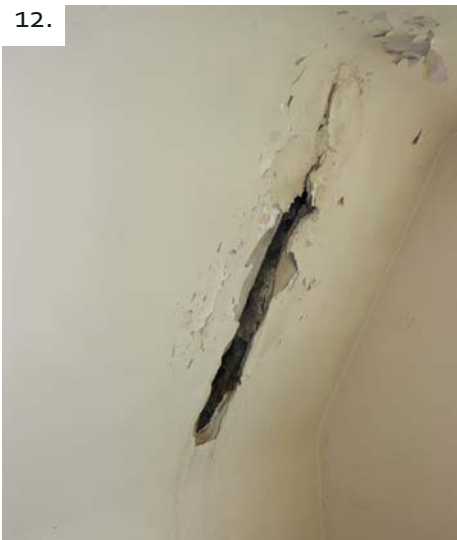
10.



11.



12.



13.



14.



15.



- 10. **Bedroom** Ceiling and wall damage from moisture infiltration.
- 11. **Bathroom** Deteriorated floor & walls. Moisture damage.
- 12. **Walls** Moisture damage, rot, & damaged plaster.
- 13. **Windows** Signs of leaks & sill rot.
- 14. **Sheathing** Water damage and staining.
- 15. **Floors** Deteriorated and stained floors.

Garage, Bldg. 2 EXTERIOR

16.



16. **Roof** Deteriorated edges and rust spots. Various pinholes throughout.

17. **Flared Eave** Gutters very full of debris, and showing signs of deterioration.

17.



Garage, Bldg. 2 EXTERIOR



18. **Apartment Entrance** Stoop disconnected from foundation and deteriorated concrete pad.

19. **Foundation** Gaps in SE corner. Deterioration.

20. **Downspouts** SW corner downspout completely missing.

21. **Burrow** Groundhog burrow beneath the stair foundation.



Dairy Barns and Milk House, Bldg. 3/4 PHOTOS



Dairy Barn, Bldg. 3 INTERIOR



1. **Windows** Missing glass and muntins. Tilted surrounds deteriorated.

2. **Curbs** 6" curbs affect both accessibility and egress.

3. **Plaster** Significant moisture damage.

4. **Barn Doors** Nonfunctional and deteriorated.



Dairy Barn, Bldg. 3 INTERIOR



5. **Attic Dormers** Not weather tight and deteriorated doors.

6. **Attic Floor** Floor sheathing is damaged in many places.

7. **Aisles** Side aisles elevated from central aisle with concrete curbs showing signs of wear.

8. **Ceiling** Much of the boarded ceiling is missing or damaged.

9. **Hardware** Rusted, damaged and nonfunctional.



Dairy Barn, Bldg. 3 SILOS

10.



11.



12.



10. **Silo** Torn down. Foundation remains.

11. **Connector 2** Significantly deteriorated space.

12. **Connector 1** Moisture damage, rot, and crumbling ceiling.

Dairy Barn, Bldg. 4 FIRST FLOOR

13.



14.



15.



16.



17.



13. **Tilt-ins** Window glass broken or missing. Frames and sills show signs of rot.

14. **Trench** formed into the concrete floor.

15. **Columns** all show significant signs of wear. Some are missing and others have sheared off their base.

16. **Ceiling** Shows signs of rot and the box beams have deteriorated.

17. **Barn Doors** All doors are rotted. Hardware has rusted and is nonfunctional.

Dairy Barn, Bldg. 4 INTERIOR

18.



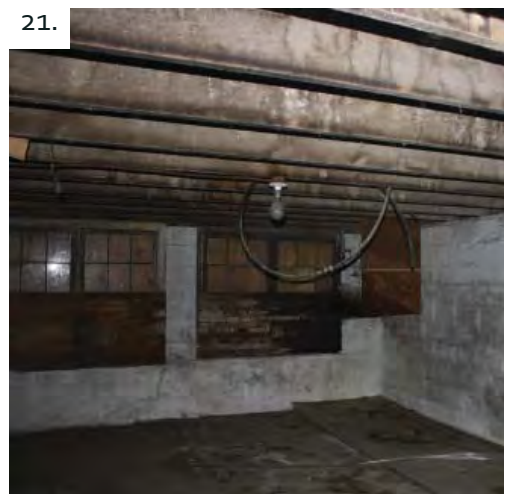
19.



20.



21.



22.



23.



18. **Floors** Floor formed w/ 6" curbs, ramps & trenches in concrete. Hollow railings embedded in curb.

19. **Drains** Trench drains are clogged. Appurtenances mounted over concrete and railings.

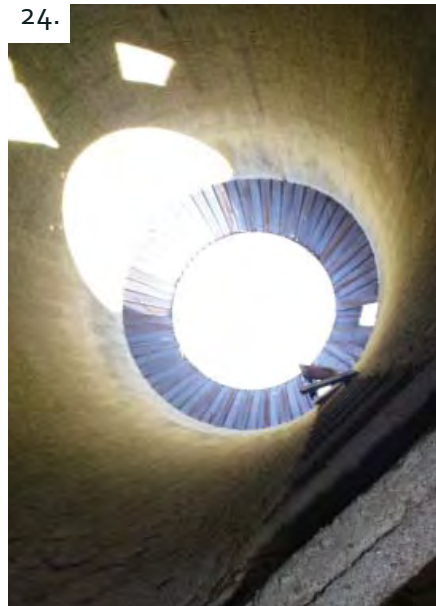
20. **Attic Floor** Floor sheathing damaged.

21. **Room 4** Joists are rotting and CMU shows water damage.

22. **Roof** In poor condition and not weather-tight.

23. **Dormer** Doors have rotted as has siding. Not weather-tight.

Dairy Barn, Bldg. 4 SILOS



24. **Silo 3** Deteriorated concrete ladder. Roof in disrepair.



25. **Silo 4** Significant damage along seam between concrete floor and silo wall.

26. **Connector 3** Significantly deteriorated and showing many signs of water damage.



Dairy Barn, Bldg. 3 /4 MILK HOUSE INTERIOR

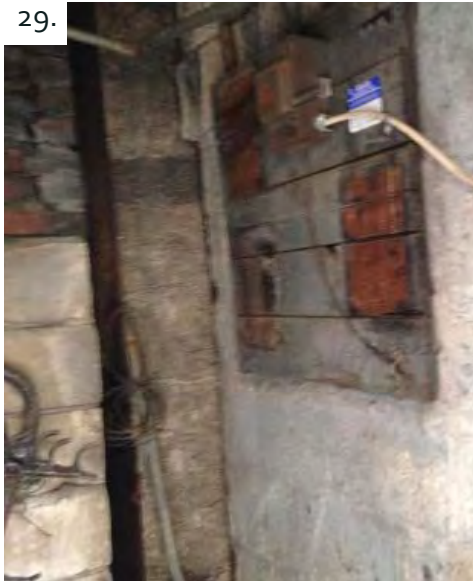
27.



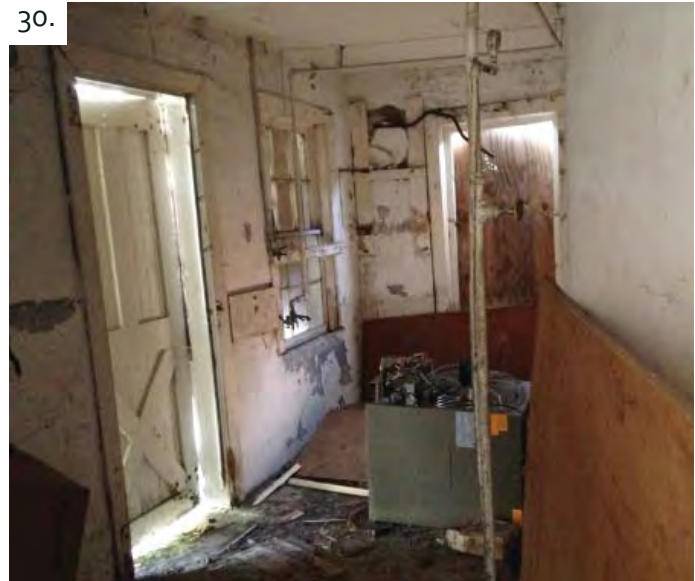
28.



29.



30.



31.



27. **Picture Window** Window glass missing. Sill deteriorated.

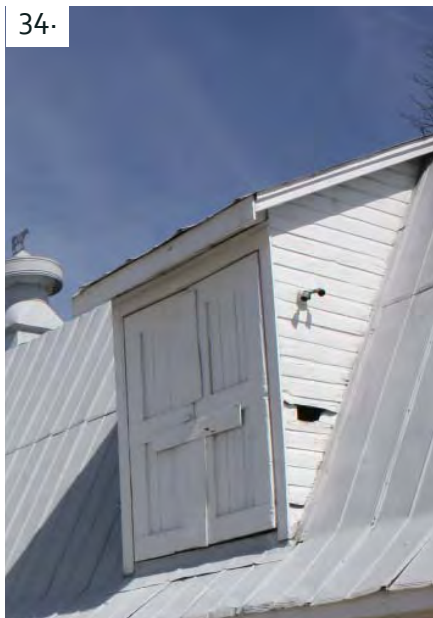
28. **Debris** Flaking plaster, deteriorated wood and concrete accumulating on the floor.

29. **Panel** Old panel missing equipment and deteriorated.

30. **Rear Room** Plaster deterioration, missing window glass and deteriorated sills.

31. **Storage Room** Walls are crumbling.

Dairy Barn, Bldg. 3 EXTERIOR



32. **Barn Doors** Rotted and damaged. Sliding hardware in disrepair.

33. **Drainage** No gutter system is present. Corner guards falling apart.

34. **Dormers** Siding showing deterioration.

35. **Foundation** Some decay of CMU and grout.

36. **Vents** are not functioning and show signs of wear.

Dairy Barn, Bldg. 4 EXTERIOR



37. **Connector 3** Shows significant damage.

38. **Sliders** Show signs of rot.

39. **Connector 4** Shows significant damage.

40. **Roof** in significant disrepair. Portion of silo roof missing.

41. **Appurtenances** Exterior walls have various plywood boards and other miscellaneous appurtenances on them.

Dairy Barn, Bldg. 4 MILK HOUSE EXTERIOR



42. **Low Wall** Grout and CMU show signs of deterioration.

43. **Roof** Show signs of rot.

44. **Fascia** Shows significant damage and rot.

45. **Door** Damaged, held by only one hinge and rotted at the bottom.

46. **Concrete containment tank** In front of milk house; Unknown contents



Horse Barn, Bldg. 5 PHOTOS



Horse Barn, Bldg. 5 INTERIOR



1. **Beams** Undersized and bowing in the middle; insufficient connections.
2. **Sill** Undersized and showing signs of water damage.
3. **Structure** Undersized and showing signs of past fire damage; insufficient connections.
4. **Windows** In significant disrepair and missing glass. Sills rotting.
5. **Studs** CMU degraded, gaps in sheathing and studs disconnected from sill.
6. **Front Room** Walls in disrepair and asbestos floor.
7. **Columns** Sheared off their base, fairly recently reinforced but insufficient connections.



Horse Barn, Bldg. 5 INTERIOR



8. **Barn Door** In disrepair, shows signs of rot.

9. **Platforms** In disrepair, shows signs of rot, dirt floor underneath.

10. **Room 2** Walls in disrepair, wires and such hang from the ceiling, and dirt floor.

11. **Hearth** Brick hearth disconnected from chimney above.

12. **Windows** Missing glass, deteriorated surround, rotted sill and damaged muntins.

Horse Barn, Bldg. 5 EXTERIOR

13.



14.



15.



16.



17.



13. **Fascia** Either missing or showing signs of significant rot and water damage.

14. **Foundation** Exposed and crumbling concrete foundation exposed.

15. **Door** Showing signs of decay and rot.

16. **CMU Sill** Stepped crack, shifted foundation and slight bulge in CMU.

17. **Siding** In disrepair. Shows many pinholes.

Tenant, Bldg. 6 PHOTOS



Tenant, Bldg. 6 FIRST FLOOR



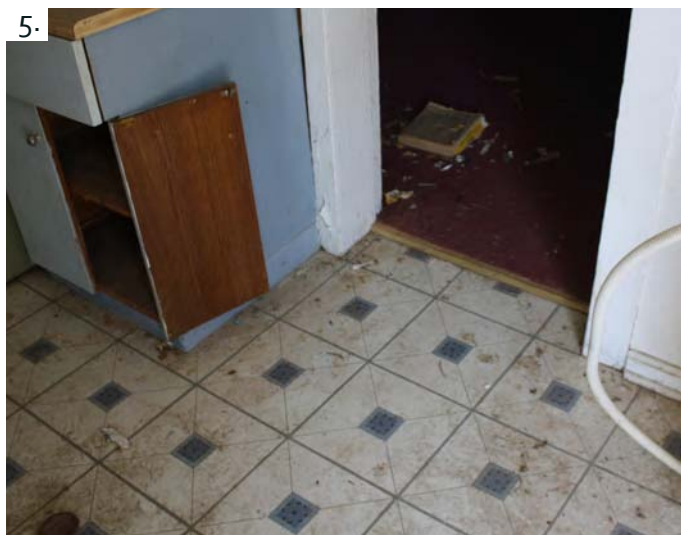
1. **SW Corner** Significant water damage, plaster falling away and exposing rotted lath.

2. **Ceiling** bowed in and in danger of collapse.

3. **Threshold** Stepped down and decaying.

4. **Addition 2** Window glass missing, surround rotting. All finishes in disrepair.

5. **Floor** Carpet exhibiting signs of mold growth underneath. Vinyl showing signs of disrepair.



Tenant, Bldg. 6 SECOND FLOOR



6. **Stair Windows** Sill in disrepair.



7. **Rear Windows** In disrepair, deteriorated sill and muntins.

8. **Front Room** Significant signs of mold growth and water damage.



9. **Rear Room** Significant signs of mold growth, base heating nonfunctional.



Tenant, Bldg. 6 EXTERIOR

10.



11.



12.



13.



14.



15.



10. **Septic Tank** Deteriorating and nonfunctioning.

11. **Concrete Pad** Crumbling concrete with loose pieces.

12. **Fascia** Rotted or missing.

13. **Siding** Rotted siding all along foundation. Invasive tree roots.

14. **Roof** In significant disrepair and warped.

15. **Foundation** Too close to grade and deteriorated.

Tenant, Bldg. 7 PHOTOS



Tenant, Bldg. 7 INTERIOR



1. **Doors** All are too narrow, including framed openings.

2. **Ceiling** No insulation.

3. **Windows** Show signs of moisture infiltration.

4. **Threshold** Floor elevation change.



Tenant, Bldg. 7 EXTERIOR

5.



6.



5. **Siding** Flaking paint. Sills show signs of rot.

6. **Path** Very steep and not accessible.

7. **Windows** Gapping and muntins showing signs of wear.

8. **Side Entrance** Rafters and fascia in disrepair. CMU steps separated from siding and crumbling.

9. **Foundation** Too close to grade and multiple foundation types have been used.



8.



9.



Appendix F:

Maryland Historical Trust Maryland Inventory of Historic Properties Form

Inventory No. M: 20/32

Prepared by Robin D. Ziek on March 10, 2006

The Maryland Historical Trust Inventory Form contained on the following pages uses different numbers for the buildings on the King Farm Farmstead than does the Property Condition Assessment. As such, the following cross reference table has been included for clarification:

Building Description	Property Condition Assessment Bldg #	MHT Inventory Bldg #
Main House	Building 1	Building #10
Garage	Building 2	Building #9
Dairy Barns	Buildings 3 & 4	Building #6
Horse (Hay) Barn	Building 5	Building #5
Tenant House	Building 6	Building #8
Tenant House	Building 7	Building #7
Hay Drying Shed	Building 8	Building #2
19 th century Bank Barn	-	Building #11
Truck Storage and Calf Barn	-	Building #3
Show Barn	-	Building #4

Maryland Historical Trust

Maryland Inventory of Historic Properties Form

Inventory No. M: 20/32

1. Name of Property (indicate preferred name)

historic Irvington Farm

other King Farm, King Farm Park, Graff Farmstead

2. Location

street and number 16100 Frederick Road ☐ not for publication

city, town Rockville ☐ vicinity

county Montgomery

3. Owner of Property (give names and mailing addresses of all owners)

name City of Rockville

street and number 111 Maryland Avenue telephone 240-314-5000

city, town Rockville state MD zip code 20850

4. Location of Legal Description

courthouse, registry of deeds, etc. Montgomery County liber 15705 folio 0193

city, town Rockville tax map GS122 tax parcel tax ID number 16 04 03189995

5. Primary Location of Additional Data

- ☐ Contributing Resource in National Register District
☐ Contributing Resource in Local Historic District
☐ Determined Eligible for the National Register/Maryland Register
☐ Determined Ineligible for the National Register/Maryland Register
☐ Recorded by HABS/HAER
☐ Historic Structure Report or Research Report at MHT
☐ Other: _____

6. Classification

Category	Ownership	Current Function	Resource Count
☒ district	☒ public	☐ agriculture	Contributing
☐ building(s)	☐ private	☐ commerce/trade	☐ Noncontributing
☐ structure	☐ both	☐ defense	☐ buildings
☐ site		☐ domestic	☐ sites
☐ object		☐ education	☐ structures
		☐ funerary	☐ objects
		☐ government	☐ Total
		☐ health care	
		☐ industry	
		☒ vacant/not in use	
		☐ other:	

Number of Contributing Resources
previously listed in the Inventory

Maryland Historical Trust Maryland Inventory of Historic Properties Form

Inventory No. M: 20/32

Name
Continuation Sheet

Number 7 Page 2

Resource count:

Buildings (associated with human occupancy):

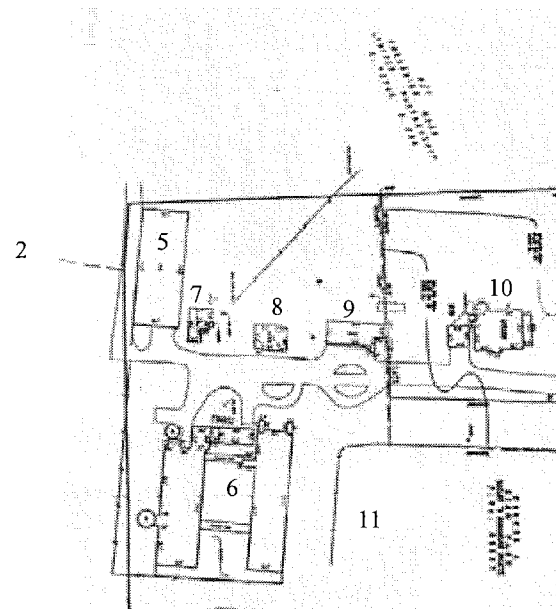
- (#10) Main House
- (# 9) Garage w/apartment
- (# 8) Farm shed/Tenant House
- (# 7) Tenant House

Structures:

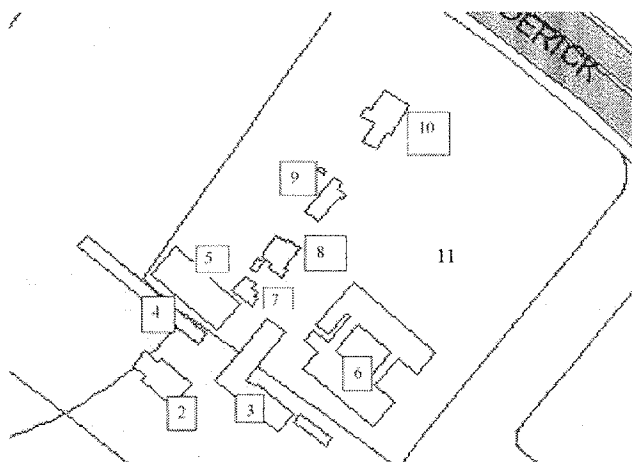
- (# 6) Dairy Barn Complex
- (# 5) Horse Barn
- (# 2) Hay Drying Shed

Sites:

- (#11) [Purported] Site of 19th c Bank Barn
- (# 3) [Calf Barn and truck storage, demolished]
- (# 4) [Show Barn, demolished]

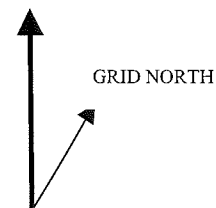


Survey Plat of front five-acres, 2005



King Farm, existing conditions, 1990

NORTH



7. Description

Inventory No. M: 20/32

Condition

☐ excellent	☐ deteriorated
☐ good	☐ ruins
☒ fair	☐ altered

Prepare both a one paragraph summary and a comprehensive description of the resource and its various elements as it exists today.

SUMMARY

The King Farm Park is a remnant of the 122 acre farm known to the King Family as "Irvington Farm." The Park preserves the original setting of the house and associated farm buildings to the south on approximately seven acres. Irvington Farm was part of the largest dairy operation in the county (500 cows milked daily), and accommodated 100 dairy cows. Although some farm buildings have been demolished, the remaining buildings are a significant grouping that contributes to an understanding of the 20th century farming industry in the immediate vicinity of Rockville, the county seat. The extant buildings are: the 1914 house, the dairy barn complex, a garage with a 2nd floor apartment, a farm shed renovated as a 1-1/2 story dwelling, a small 1-story tenant house, a large English barn, and the hay drying shed. The property also includes the probable location of a 19th century bank barn, which was destroyed by lightning in 1932. There is a high potential for archaeological remains of the multiple outbuildings associated with the long-term farming operations at this site, as well as remnants of 18th and 19th century occupation at this site.

* * * * *

ENVIRONMENTAL SETTING FOR THE KING FARM HOMESTEAD PARK

The King Farm Park, consisting of two parcels, is now in a congested suburban area at the north end of the City of Rockville. The park is bounded by the Frederick Road (north), Ridgemont Avenue (east), Piccard Drive (south) and the King Pontiac-GMC Truck at 16200 S Frederick Ave (west). The large farm was annexed into the City of Rockville in 1995, and all of the farmland (except for the park) has been developed as a residential community with an urban density. The park is located on high ground, above all the surrounding development. Across the Frederick Road, Montgomery County has developed a waste transfer station, and the City of Gaithersburg begins just north of the 370 Overpass. The cluster of farm buildings, including the King family home and the large dairy barn, is highly visible in the landscape because of the topography, as well as the contrast between high and low density development. Although the original wide farmland setting has been lost, the low density of the parkland stands out in marked contrast to its surroundings. The proposed park boundaries are sufficiently large to represent the lost farmstead.

THE HAY DRYING SHED

Building #2)

The Hay drying shed is a 20th century pole barn. It sits on the west side of the farm lane, towards the south end. Its front-facing gable faces east. Three sides (north, east and south) are open to the roof plate, while the west end has an enclosed area for the hay drying machinery. A middle range of poles divides the shed into north and south bays. The attic area is fully enclosed with vertical siding in the gable ends. An angled vent sent hot air from the furnace into the attic. Hatches in the ceiling, evenly placed in both the north and south bays, for access to the attic space. The concrete floor was poured with channels designed to guide the wagons through each of five column bays that were defined by the range of exterior poles along the north and south sides. The building was wide enough to accommodate two hay wagons in each of the five bays delineated with the floor channels. These channels matched up with the hatches in the ceiling. Wagons loaded with the freshly bailed hay were positioned beneath a ceiling hatch. Canvas covers were dropped from each ceiling hatch and secured at the individual wagons. The furnace and blower were then turned on. The hot air would make its way through the attic to the hatches and down over the wagons to dry out the hay. The amount of time necessary would vary based on the condition of the hay (moisture content), but it couldn't go for too long or the dry hay could be a fire hazard. When this was installed, it was considered new technology and "the latest." The Kings found, however, that it wasn't that efficient, and it wasn't used all that much.¹

¹ Information from Ms. Betsy Rippion, granddaughter of W. Lawson King, 12-7-05. Ms. Rippion was the eldest grandchild, and was at the farm every day to help with the farming operations.

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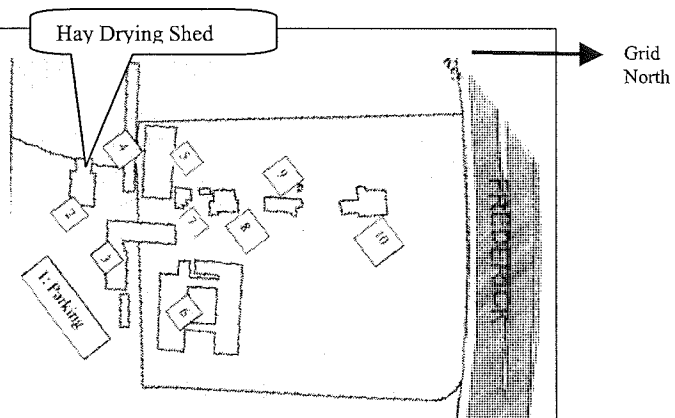
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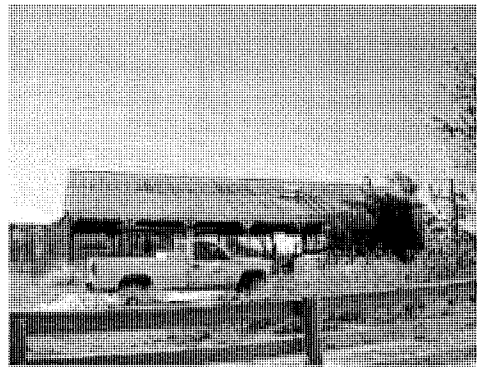
Number 7 Page 1

General: The Hay Drying Shed sits on a flat area, with overgrown weeds and shrubs. The metal roof is in poor condition, and the sagging plate indicates some structural deficiencies. The shed is open on three sides, but has a drying loft or room at the north end, supported by metal pipes to carry the weight of the machinery inside.

Character-defining elements: Massing, materials, functional design elements including ceiling hatches and wheel channels, machinery.



Surrounding Environment: The barn sits on a gradually rolling hill, which falls towards the north façade. Landscaping around the drying barn consists of brush and scrub trees that encroach on the building. Vines are climbing on the north façade.



East Façade: The wood frame is open below the ceiling plate. The front-facing gable end is clad with vertical wood siding, painted white. The roof is covered with standing-seam metal. The three poles on this façade are notched to hold the built-up beam and plates. In the exterior ranges, these plates are nailed on the exterior side of the poles. , In the central range, the beam is nailed on the east side of the poles. The beam and plates are built-up, and consist of two - 2x10s.

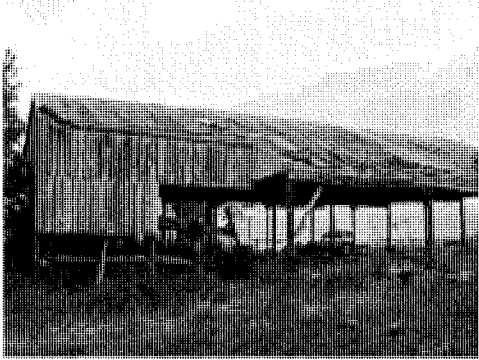
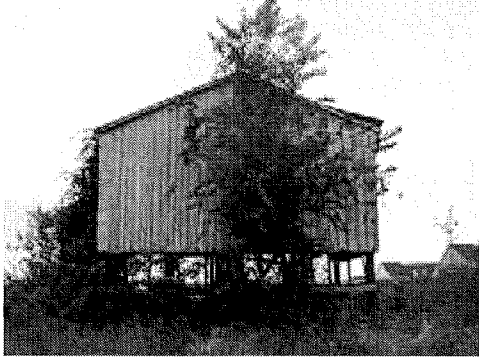
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Maryland Inventory of Historic Properties Form

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Continuation Sheet

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South Façade: The south façade shows the two distinct parts of the structure, with the east portion being the hay storage shed through which the wagons would pass to collect the hay. The west portion is the attached drying loft, with vertical siding to protect the machinery.	
West (rear) Façade: The west-facing gable end has no windows or vents. It is clad with vertical wood siding. The siding starts approximately three feet off the ground, providing additional ventilation and air circulation.	

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Maryland Inventory of
Historic Properties Form

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Continuation Sheet

Number 7 Page 3

North Façade: The north façade is similar to the south façade, with its five wagon bays, and two additional bays for the hay loft. Wagons were prevented from entering in the bay closest to the hay drying loft with a board nailed between posts (in the second bay from the west end), as the vertical board siding only extends a little lower than the ceiling level.

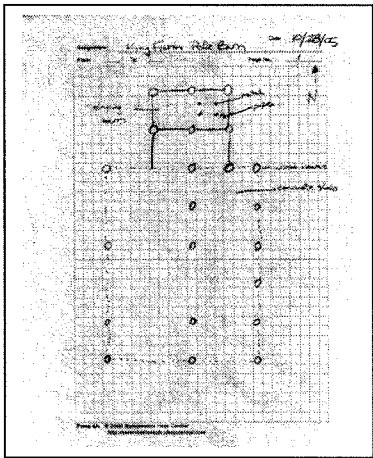


Interior: The Hay Drying Shed consists of three ranges of poles spaced east-west along the concrete floor to accommodate the specific use of this building. The six sets of poles were spaced to provide five wagon bays. The additional two bays at the west end accommodated the hay drying loft, with its machinery.

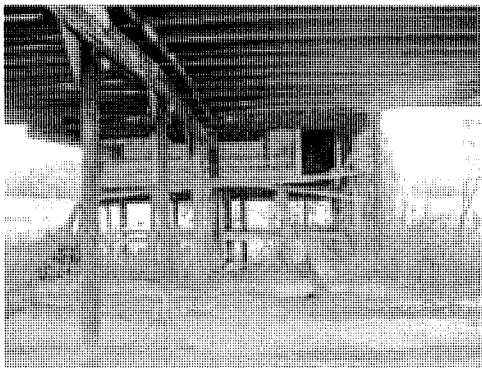
The hay drying loft includes two bays: the west bay housed the machinery, while the adjacent bay provided access to this rear storage space via a raised platform leading to a door. The angled vent that directed warm air from the furnace to the enclosed attic area is clearly visible from the ground.

The platform was built approximately 5 feet above grade, leaving only about four feet to the ceiling. The doorway measures 2-1/2 x 4 feet. The platform measures approximately 21' long (the entire width of the hay loft structure) x 11-1/2' deep.

The machinery consisted of a gas-fired boiler, and associated gas and electric power. There is a gas pipe to this system, visible above grade. The heavy weight of the machinery was supported by metal posts.



Grid
North



Details:

Maryland Historical Trust Maryland Inventory of Historic Properties Form

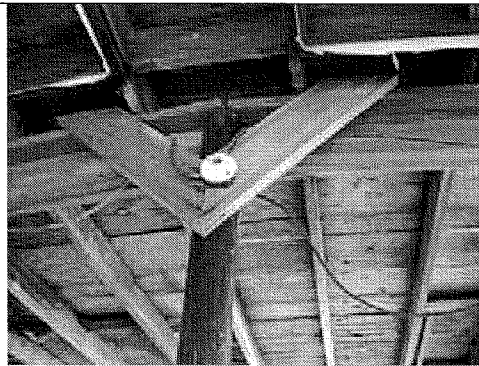
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Name
Continuation Sheet

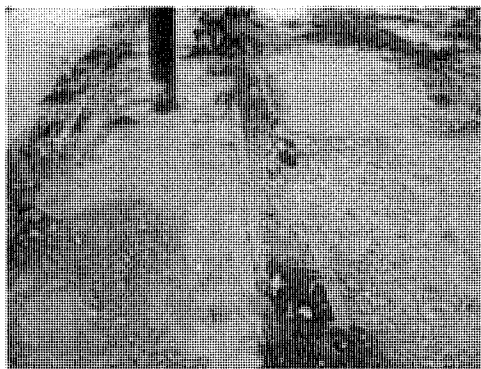
Number 7 Page 4



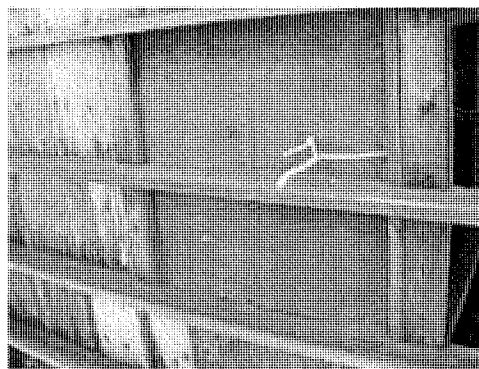
V-notches where beams meet rafters



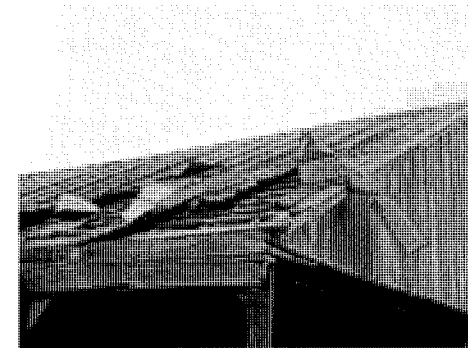
V-braces



Wagon wheel channels



Hay Hatches



Detail of roof



Condition of plates

Maryland Historical Trust

Maryland Inventory of Historic Properties Form

Inventory No. M: 20/32

Name
Continuation Sheet

Number 7 Page 5

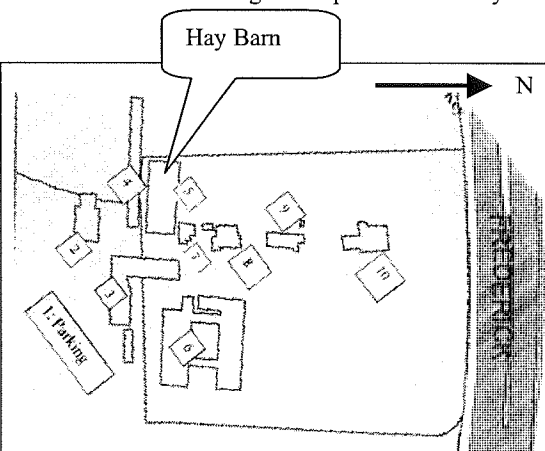
[See below for Buildings #3 and #4, which have been demolished]

HAY BARN Building # 5

The hay barn is similar to an English barn (being a single level), and is located on the west side of the farm lane. It sits on a concrete block perimeter foundation. The wood frame is clad with horizontal, wood German siding. The front gable roof is clad with standing-seam metal. 6/6 double-hung wood windows have been added in the north elevation. The rafters are exposed at the eaves. The interior is a center-aisle plan, with various divisions of the side-aisles including raised platforms for hay storage.

Environmental setting: The Hay Barn sits on a gradually rolling hill, which falls towards the east. An asphalt driveway leads to the farm lane, running N-S through the site. A post and plank wood fence extends eastwards from the southeast corner of the barn to separate portions of the farm complex. The building is a simple rectangle, and its roof has a shallow slope.

Character-defining features: Simple massing, simple materials; internal framing with bents.



East (front) Façade: The main façade has two entrances: one for the main portion of the barn, and the other to the farm office, with a small kitchen area. For the barn entrance, a large sliding wood door accommodated machinery and animals. Within the frame of this sliding door, there is a single-leaf door. The office entrance has a single-leaf, half-glaze (2/2) wood paneled door. There is a rectangular, slatted vent at the gable peak. The German siding has been patched in places.

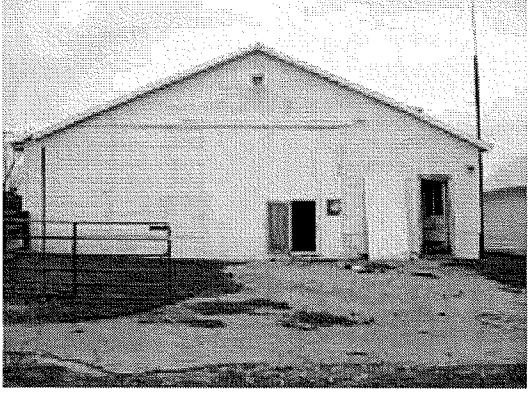
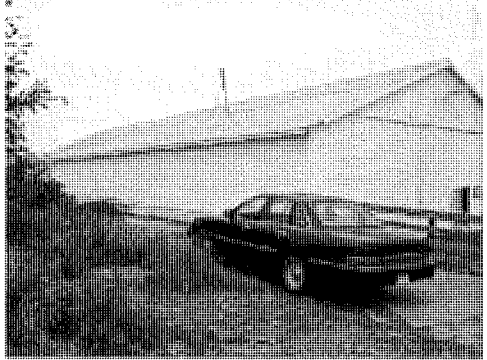
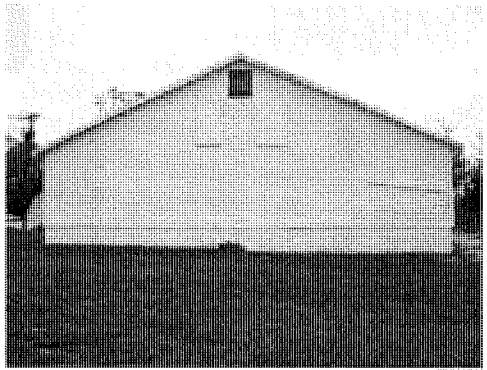
Maryland Historical Trust

Maryland Inventory of Historic Properties Form

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Continuation Sheet

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South Façade: The south façade lacks any voids or windows. It has wood German siding, and sits on a block foundation. There is a single pipe in the roof slope, with a wire attached.	
West (rear) Façade: The rear façade has two windows symmetrically placed high in the wall. A large louvered vent with a fan sits close to the eaves, under the peak of the roof.	

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Maryland Inventory of Historic Properties Form

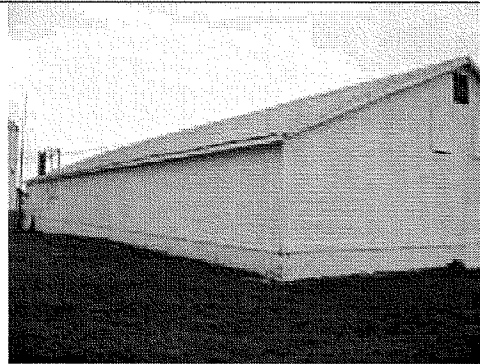
Inventory No. M: 20/32

Name

Continuation Sheet

Number 7 Page 7

North Façade: The north façade has five windows towards the south end. Three of these light a room within the main portion of the barn, while the other two light the office/kitchen room. An internal brick chimney is located between these two internal spaces.



Interior: Timber-framed bents are evenly spaced in the barn, and support heavy timber perkins which brace the mid-point of the rafters. The interior is laid out with a central aisle, with stalls and hay storage along the sides. The west end is separated from the main part of the barn with board walls extending to the central aisle.



Within the east two-thirds of the barn, the south side has a raised timber platform which was designed for the storage of hay. Both the north and south sides are further separated into individual areas that follow the framing, for the most part. There is a small, tack room on the north side at the entrance, abutting the office/kitchen wall.



Details:

Maryland Historical Trust Maryland Inventory of Historic Properties Form

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Name
Continuation Sheet

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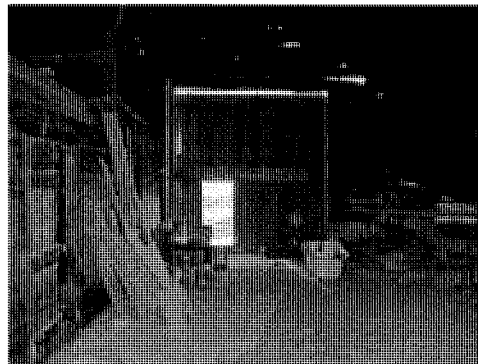
Central and side-aisle framing



Raised platform along south side



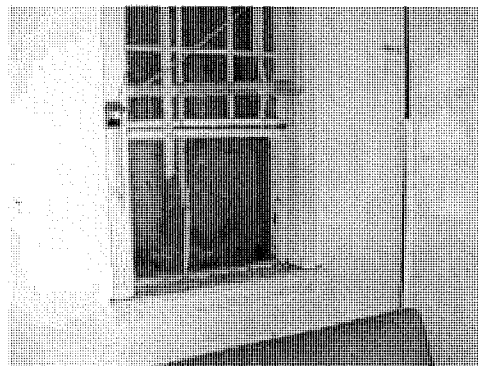
Tack room interior



Interior, looking east towards entrance



Office/Kitchen interior



Window in Office/Kitchen

Maryland Historical Trust

Maryland Inventory of Historic Properties Form

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Name
Continuation Sheet

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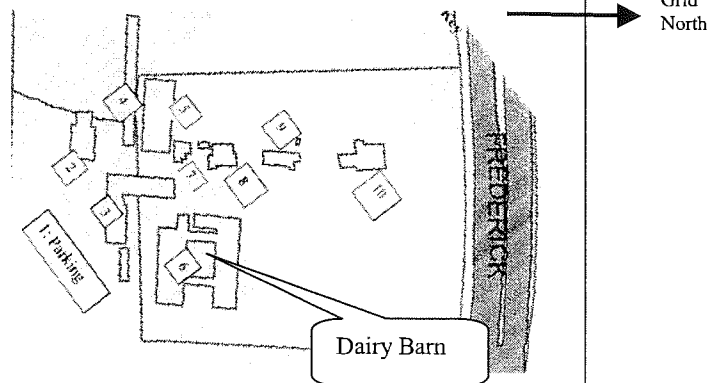
THE DAIRY BARN (1932)

Building #6

The Dairy Barn was built in 1932 to replace the 19th century Bank Barn, which was destroyed by fire. The Dairy Barn reflects the sanitary conditions required by law, and was built of cast, stone-faced concrete block, with wood German siding in the gable ends. The Barn consists of several buildings joined together with two covered walkways. The largest structures are the two milking barns, with gambrel roofs, set at the east and west ends. A small storage building and the milk house are aligned with the north façade of the east milking barn, and connected to it with a concrete block wall. The west milking barn was constructed south of this line, providing an entryway defined by the milk house to the east and a silo to the west. Each milking barn had two silos attached to the sheds with narrow, flat-roofed concrete block extensions. Two of the original four silos remain standing, while the locations of the removed silos are evident. The two covered walkways link doorways in each cattle shed, and form an enclosed "cloister" in the middle and an open cattle plaza at the south end.

General: The Dairy Barn sits at the crest of a hill, which falls to the north (to Frederick Road) and to the east (to Ridgmont Avenue). It is the largest structure on the property, and consists of several individual components functionally linked with walkways and courtyards. The building, with the "Milk for Thompson's Dairy" sign on the north roof panel, is a prominent feature along Frederick Road.

Character-defining Features: Massing, with individual components including courtyards, walkways, and silos; cast stone-faced concrete block; wood barn doors; multi-light wood windows; decorative elements including letters and dates on west façade; and decorative trim; advertising sign for Thompson's Dairy on north roof slope.



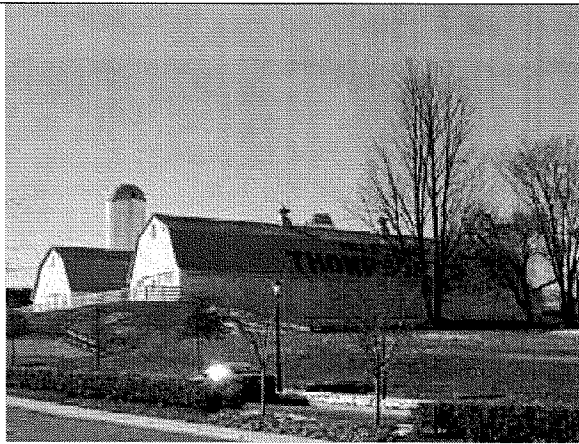
Maryland Historical Trust

Maryland Inventory of Historic Properties Form

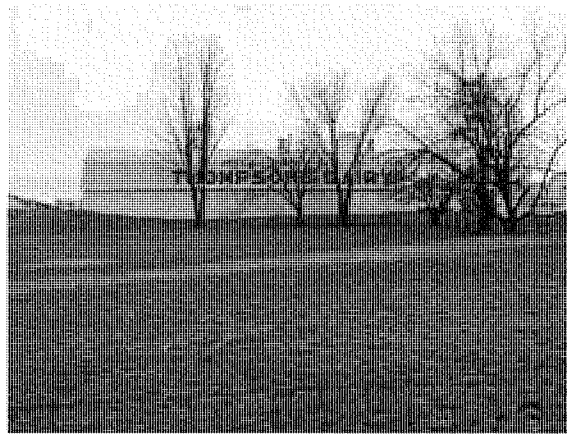
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East Façade: The east façade of the milking barn is parallel to Frederick Road. The gambrel roof, with kicked eaves, sports a painted sign "Milk for Thomson's Dairy", centered on the original concrete block building. A later plain-faced concrete block addition was added to the south end, at some time after the sign was painted. The addition matches the original in roof and wall planes. There are three ventilators at the ridge of the original structure. Hopper windows are evenly spaced along the entire length of the original façade; while smaller windows were added under the eaves on the new addition. All of the windows are currently boarded up.



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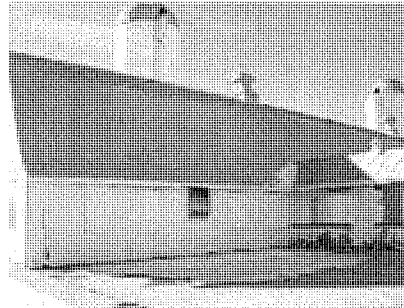
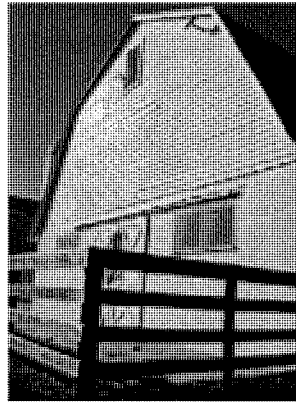
Inventory No. M: 20/32

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Continuation Sheet

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South (rear) Façade: The rear façade of the dairy barn consists of the mid-20th century rear block additions to the two milking barns, and the paved concrete plaza between them. Both milk barns were enlarged with new block additions, but the rooflines match the original.

A sliding double door provides entry to each milking barn.



Maryland Historical Trust

Maryland Inventory of Historic Properties Form

Inventory No. M: 20/32

Name

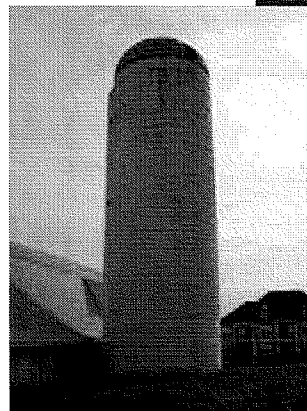
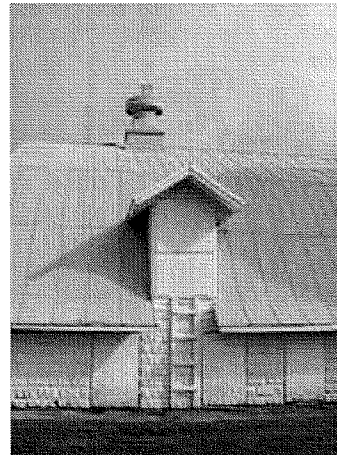
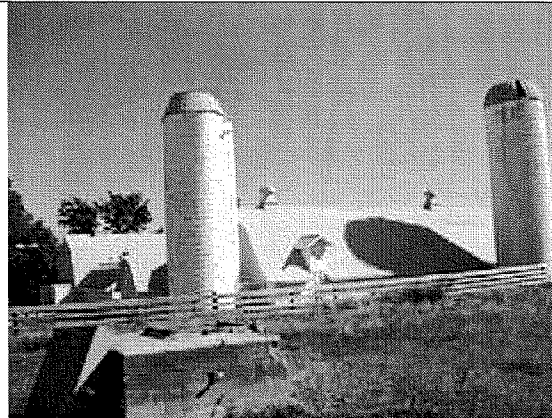
Continuation Sheet

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West Façade: The west milking barn is shorter than the east milking barn, providing room for a silo on the northwest corner of the building. The west façade of the west milking barn includes the silo at the north end, the associated connecting block section, the original stone-faced cast block portion, and the smooth-faced concrete block addition at the south end. There is a second silo at the southwest corner of the original portion of the milking barn, with its connecting block wing. The mid-20th century smooth-faced block addition extends the same distance as the east milking barn.

The original block portion has one gable dormer in the lower roof slope, with a fixed ladder on the wall leading up to the gable opening. There is a shed-roof dormer in the later addition, south of the silo. There are two ventilators at the roof ridge of the original portion of the milking barn.

The silo is cast concrete with adjustable metal ties, spaced as needed to offset the internal pressures. The silo at the southwest corner has a rounded roof cap, while the silo at the northwest corner has a mansard roof cap.



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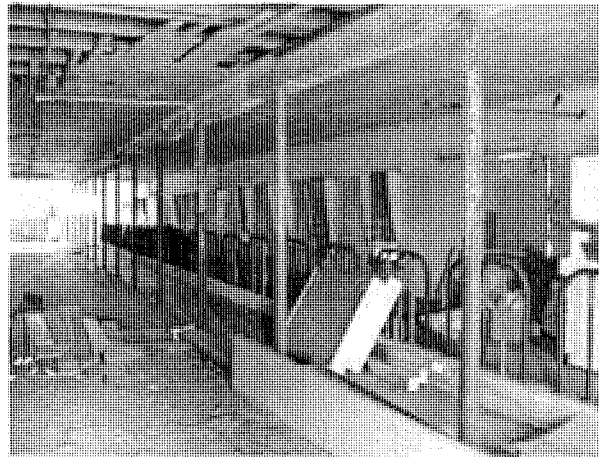
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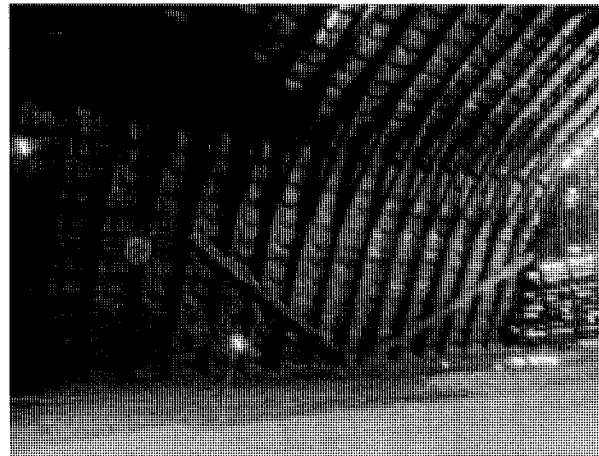
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Interior:

The two milking barns are long, narrow buildings with a central aisle separating two rows of metal cattle stanchions. The side aisles along the window walls are raised approximately 15" above the level of the center aisle. There are two rows of pipe columns framing the center aisle. The ceiling was clad with tongue and groove boards, painted white. The hopper windows were evenly spaced along both sides of each cattleshed, with cheekwalls projecting approximately 5" into the space, to both guide and protect the 12-light wood window sash.



The hay lofts, at the second floor level of the milking barns, were large open spaces made possible with balloon-framed clear-span gothic arch trusses, strengthened with "v" braces. Hay would have been stored in these large open spaces.



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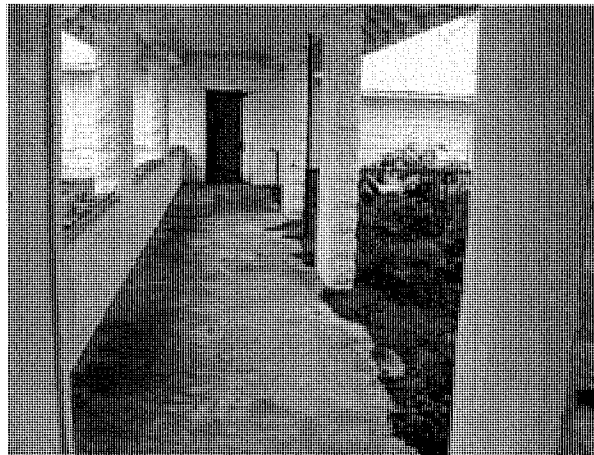
Inventory No. M: 20/32

Name

Continuation Sheet

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Doors in the opposing elevations of the two milking barns led to connecting covered walkways that delineated three distinct courtyard areas in between the milking barns. At the north walkway, there was a 3'-high wall on the south side only, separating off the central courtyard. On the north side of this walkway, a small yard area was created by the small storage building, the milk house, and the connecting walls between them.



A central grassy courtyard was fully enclosed with low walls and the two milking barns. Access to the central courtyard was from a central doorway in the west milking barns. There were windows opening on to this area in both milking barns. Each walkway had four large openings framed by its columns and walls. At the north walkway, the east bay was covered with the addition of a small storage building.



The walkways had simple gable roofs, with wide eaves and exposed rafter tails. The south walkway had three ventilators at the ridgeline.

At the south end, the paved concrete courtyard was left open. Today, there a board fence about 10' from the building.

Maryland Historical Trust

Maryland Inventory of Historic Properties Form

Inventory No. M: 20/32

Name
Continuation Sheet

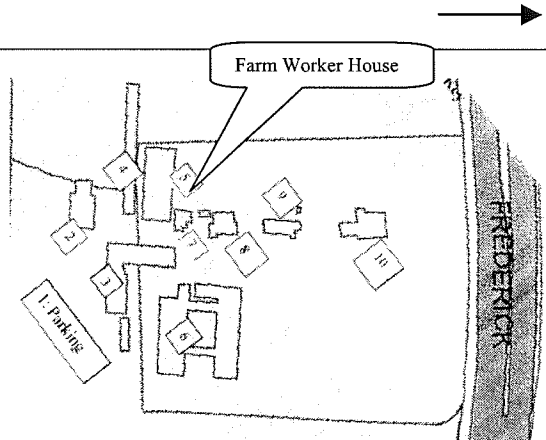
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FARM WORKER HOUSE Building #7

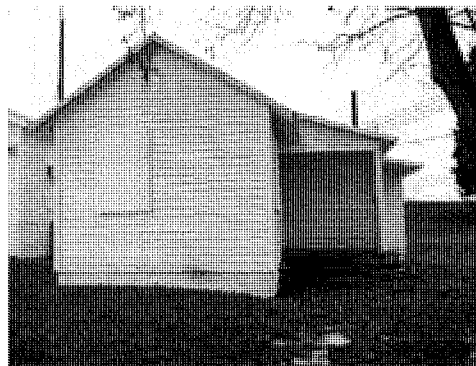
The single-story farm worker house is situated along the north side of the farm lane. The small house exhibits vernacular craftsman elements in its deep eaves and exposed rafters. It consists of three aligned rooms in addition to a kitchen and a bath which each project on the east façade. There is no basement. The house is sheathed in horizontal drop siding of varying widths and it has a standing seam tin roof. The 6/6 double-hung windows have wood sills and casings but are presently covered with plywood. A single brick chimney emerges from the roof ridge, approximately 2/3 of the distance from the south façade. The south bay and the kitchen projection are on perimeter concrete block foundations, while the northwest corner and the bathroom projection are on concrete piers with crawl spaces below.

General: This mid-20th century residential structure is south-facing along the east-west axis of the farm lane. The wood-frame house is ell-shaped, with several additions. The house is clad with wood German siding, and is painted white.

Character-defining elements: Small massing, materials, use of additions to enlarge space.



East: The east façade includes projections for both the bathroom (with one window) and the kitchen (with one window). The left bay also includes one double hung window. The roofline is stepped on this façade. There is a secondary door that faces east and leads from the left side of the kitchen projection but it is covered with plywood. There are two concrete block steps from this door. Two wide wooden steps lead to the porch.



Maryland Historical Trust

Maryland Inventory of Historic Properties Form

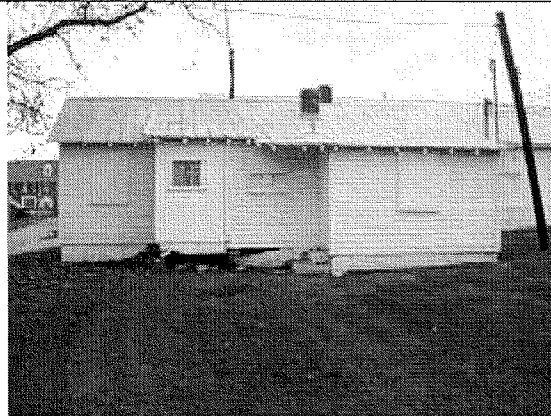
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Name

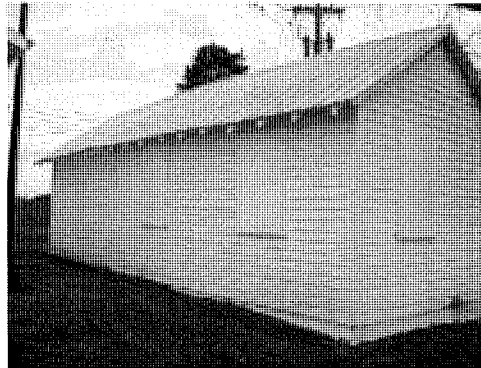
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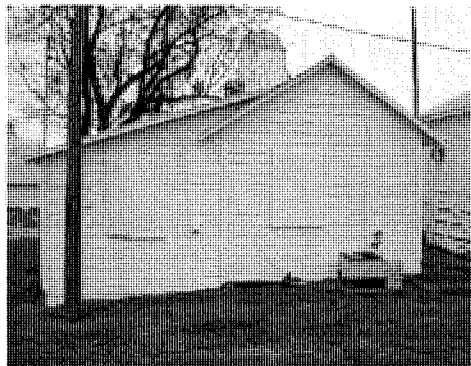
North: The main entrance is on the north façade, set perpendicular to the farm lane. A small porch enclosure, formed by a thin wood wall, which contains a window for additional light, provides weather protection at the entrance. This window sash appears to be reused from another location. A front door is wood paneled, with a single fixed glass pane for the top half. There is also a screen door.



South: The south façade is in a single plane, with a continuous roofline, although it consists of the original building and an addition at the west end. The wider siding is evident on the left bay and slightly narrower on the right. A vertical trim board separates the two. Two identical 6/6 windows are in the original portion. A concrete block foundation supports the right side and concrete piers support the left addition.



West: The dual roof lines reflect the additions added to this small cottage, to accommodate residents. The gable roof reflects the massing of the original cottage, while the shed roof provided additional living space. There is a single window in each portion.



Maryland Historical Trust

Maryland Inventory of Historic Properties Form

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Continuation Sheet

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FARM WORKER HOUSE

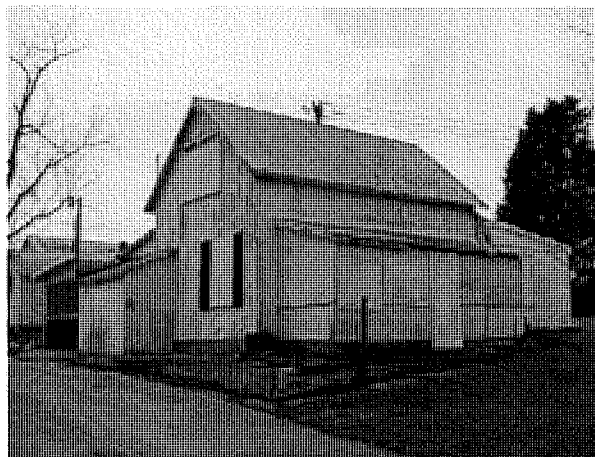
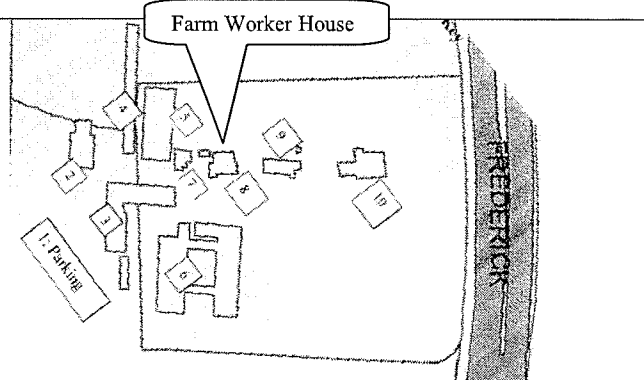
Building #8

This farm worker house is a converted horse barn. The barn was original a single rectangular form, with vertical siding. It now has a concrete block foundation, to accommodate its new use as a residence. Several shed-roof additions were added, on the south, east and west sides, for additional living space, and a stairway was inserted to provide access to a second story with two connecting rooms. The addition on the south side has been removed, exposing the front entrance door. The building is clad with vertical beaded board siding, and painted white. The front gable roof has a standing-seam metal roof.

Environmental Setting: The building sits on the north side of the farm lane, facing south. There is a slight slope to the land, to the east. The building site was leveled with the addition of a small retaining wall, at the southeast corner.

Character-defining elements: Massing, materials, use of one-story additions and salvaged materials.

View of building with all the additions, ca. 1995
[north and east elevations, looking northwest.



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Maryland Inventory of Historic Properties Form

Inventory No. M: 20/32

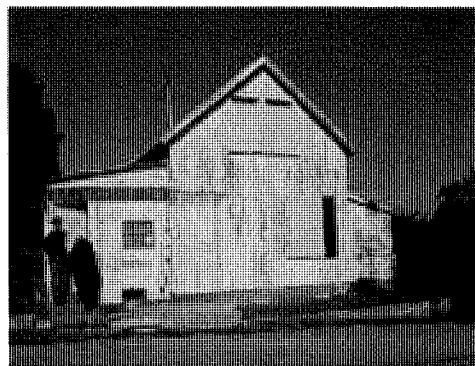
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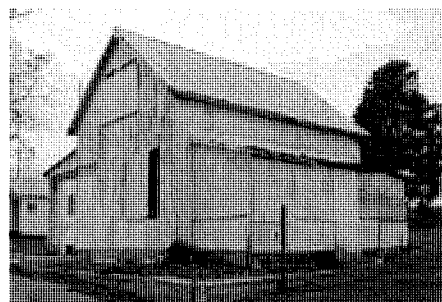
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East: The front elevation includes the original front-facing gable building, with a shed-roof addition on each side. The original 1-1/2 story building has two bays, with a boarded-up doorway on the south side, and a 6/6 double-hung window in the north bay. At the second floor level, a pair of 6/6 double-hung wood windows were inserted under the eaves. The south side addition has two bays, with the entrance door on the south side, and a 6-light fixed sash on the north.

The right- side addition has plywood cladding painted white. There are two windows in this east façade.



North: The 1-story addition has a roof with a shallow slope. There are several windows with a half-wall, and a centrally-placed doorway. The concrete block foundation is exposed to a height of approximately 18".



South: The south façade has a one-story shed roof addition constructed below the eaves of the main gable roof. The main entrance to the residence is through this addition, with its entrance on the east façade.



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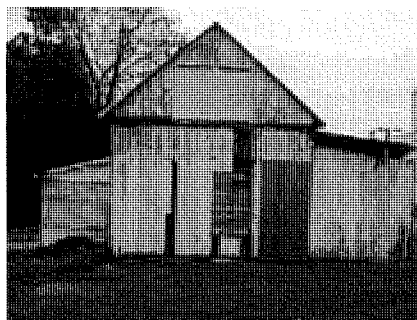
Maryland Inventory of Historic Properties Form

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West: The west façade shows the original farm building with its simple gable roof, and the one-story shed additions on both the north and south sides. A pair of 6/6 double-hung wood windows were re-used in the gable end, providing light for a second-story bedroom.

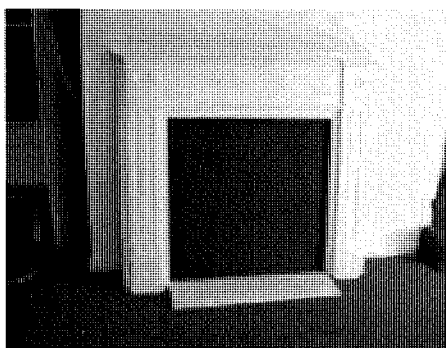


Interior details: Many salvaged materials were reused here to adapt the farm building to residential use.



Board door at second story bedroom

Victorian-era mantle, with bull's eye corner blocks



GARAGE Building #9

The Garage building is a 1-1/2 story wood frame structure on a concrete slab foundation, with a small side-gable addition on the east side. It consists of two distinct elements – the five-bay garage with its entry hall leading to the residential apartment above, and an attached one-story side-gable building on the east façade. The small side-gable structure may have once been a meat house which predates the garage portion of the building. The entire structure is clad with wood German siding, painted white. The roof is painted standing-seam metal.

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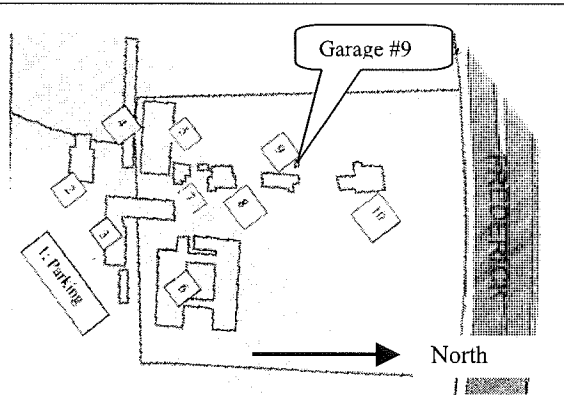
Inventory No. M: 20/32

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General: It sits on a generally flat site, with a grassy incline rising on the west side (and draining to the building), and an asphalt parking area along the east side. There are some large overgrown shrubs in the immediate vicinity. A deteriorated outdoor brick hearth is attached to the chimney that sits in the corner between the garage and the one-story addition on the north façade.

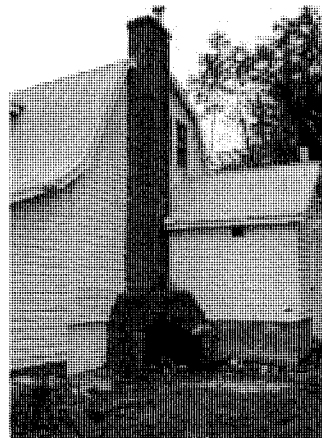
Character-defining features: Massing, materials, garage bays; and, associated massing and materials for north gable addition.



East Façade: The garage building has five parking bays with wood paneled overhead doors. The five bays of the garage portion have overhead wood paneled doors. The second story, with its side-gable gambrel roof with flared eaves and metal roofing, features three large gabled dormers with 6/6 paired double-hung wood windows.



The small one-story side-gable building attached on the north façade is accessible only from its doorway on the north façade. The wood German siding is painted white, and there is a small opening (vent) high on the wall just under the eaves. The foundation is exposed to a height of approximately two feet, and is parged with concrete. An outdoor brick fireplace was built to use the exterior brick chimney as its flue. The fireplace is deteriorated. This small addition is also roofed with painted standing seam metal.



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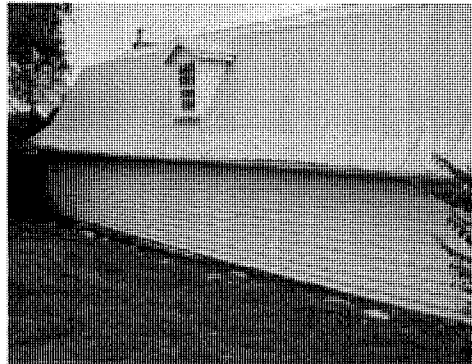
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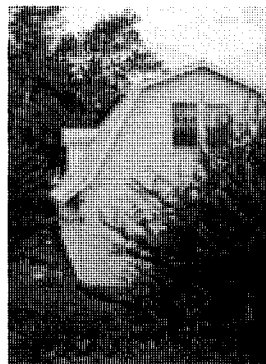
North Façade: The entrance to the second floor of the main garage building extends out from the main garage façade to the east. An exterior brick chimney breaks through the eaves of the east roof panel. Paired 6/6 double-hung wood windows are offset in the façade. Three different foundation materials are seen on this façade: brick and concrete block for the main structure, and parged concrete block for the attached structure, also known as “the meat house.” The one-story meat house is only accessible through the exterior door centered in this north façade.



West Façade: The West façade has a solid wall, clad in wood German siding. A small amount of the foundation is exposed above grade. A single gable dormer with a 6/6 double-hung wood window is centered in the expanse of roof.



South: The south façade has a pair of 6/6 double-hung wood windows centered in the gable end at the second floor level. There are no other voids on this façade. The Dutch gambrel roof shape is apparent.



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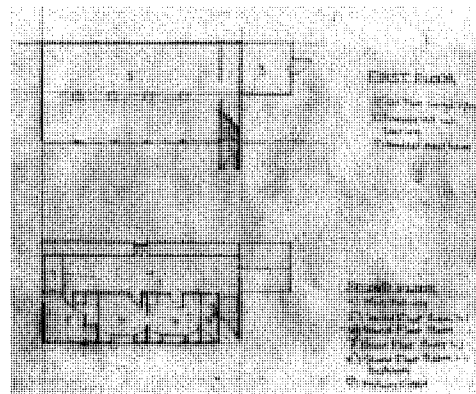
Name
Continuation Sheet

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Interior - First Floor: The garage is a large open room with a concrete floor. The stud walls have no interior finish so that the back of the exterior wood siding is exposed. There are four column supports running east-west down the center of the room, supporting a beam.



Along the east wall, underneath the stairway, there is a narrow closet for the heating system, and storage.



The second story of the garage has been developed as residential quarters. The single-door entry way has a single flight of stairs along the east side of the building. The entry hallway has a vinyl tile floor, and the stairs are carpeted.

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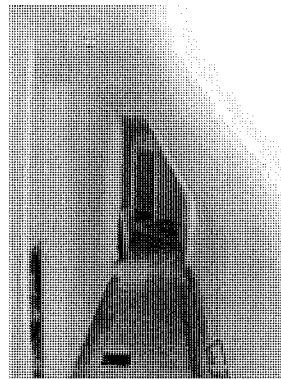
Maryland Inventory of Historic Properties Form

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Interior (Second Floor): The residence has a narrow hallway with a slanting ceiling along the north side, terminating in a closet at its west end. Openings include the dormer window in the north roof and openings to four rooms that range along the south side. The room closest to the stairs is a narrow bathroom. The next two rooms are connected with a single doorway. The fourth room at the southwest corner has a closet. The flooring is vinyl in the two connected rooms, and wood in the others.

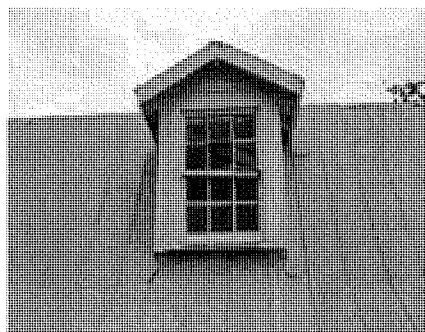


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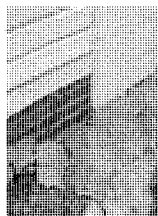
South Gabled Dormer



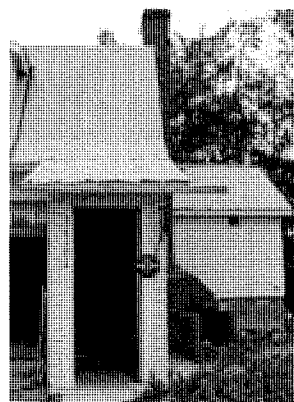
North Gabled Dormer



Foundation near chimney along East elevation



Entry hall doorway



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Maryland Inventory of Historic Properties Form

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THE KING FARM HOUSE (1914)

Building #10

The main residence is a 2-1/2 story Colonial Revival style wood frame structure, with a full-width porch and a hipped roof. It has a full basement, with stone and concrete block foundation materials. It has German siding, and 6/1 double-hung wood windows, with shutters at each window. There is a hipped roof dormer with paired 6/1 double-hung wood windows in each roof slope. The roof is clad with stamped metal shingles. The full-width front porch is supported by four Tuscan columns, with a square-picket railing spanning between the columns, and along the central steps leading up to the porch from the front walk. A one-story bay window is centered on the first floor, south elevation. There are three internal brick chimneys: one on the south slope towards the ridgeline, one in the north slope, close to the hipped dormer, and one in the west slope, close to the roof's edge.



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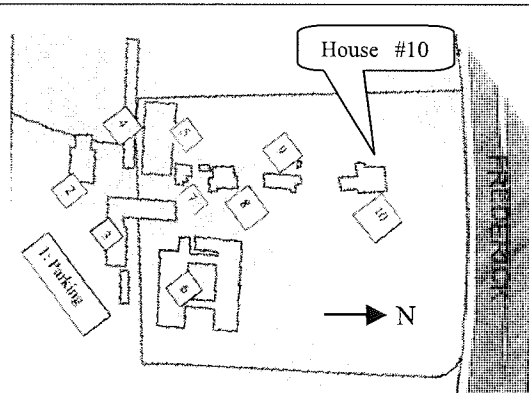
Inventory No. M: 20/32

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General: The King Family house was built at the top of a slope that falls east and south to the Frederick Road. The driveway crosses in front of the house and leads along the south side of the house to the farm lane, which extends to the west. There are mature trees in front of the house, and shrubs at its perimeter.

Character-defining Features: Massing, front porch, dormers, windows (6/1), siding, bay window, metal shingle roof, wide eaves, interior brick chimneys; siting with surrounding mature trees, fronting Frederick Road, but well set back.



North Façade: This is a five-bay façade, raised above grade with parged concrete block foundation. It has a central doorway with sidelights and transom, flanked by two 6/1 double-hung wood windows to either side, each with operable wood shutters, at the first floor level. At the second floor level, the five windows with operable shutters are paired above the first floor openings.



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Maryland Inventory of Historic Properties Form

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East Façade: This four-bay façade has irregularly placed openings, including the first floor polygonal bay at the living room. A two-story sleeping porch at the south end has been enclosed and sided with wood clapboard to match the rest of the siding. There is a single window at the first and second floors of the enclosed sleeping porch. The remainder of the facade includes four windows at the second floor level, and two windows at the first floor level. All the windows, including those in the bay, have operable shutters. In the attic level, there is a single hipped dormer, with paired 6/1 double-hung windows, placed off-center. There is an internal brick chimney high on the roof hip.



South Façade: The South façade has three bays, with three sets of paired 6/1 double-hung windows at the second floor level. On the first floor level, there are two single windows in the enclosed sleeping porch, and an opening with a storm door that leads to an enclosed exterior hallway. This leads to steps leading up to the back door. To the left of this, there is a weather enclosure over the basement steps. At the west side, there is a one-story sun porch, with large glazed openings, and an exterior door with its flight of steps. A hipped-roof dormer with paired 6/1 double-hung wood windows is centered in the rear roof hip. There is an interior brick chimney just to the left of the dormer. A low carport with brick columns and a flat roof was built just south of the house. It has a roof extension connecting to the rear entrance to the house.



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Maryland Inventory of Historic Properties Form

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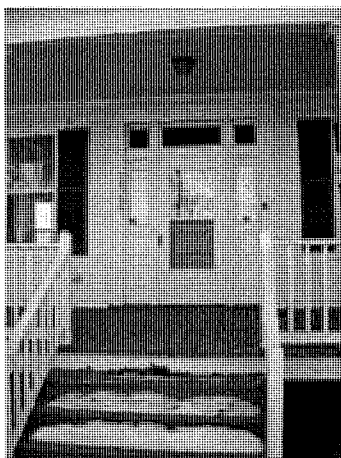
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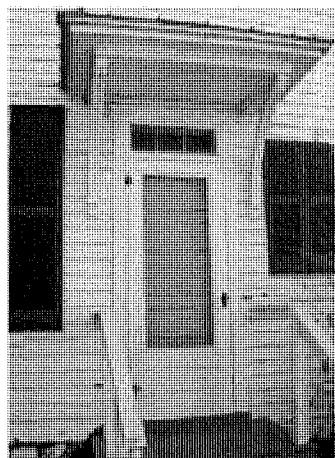
West: The west façade has irregularly placed openings. At the first floor level, there are four bays. A single window sits to the left of the side door, with transom above. This side entry and steps are protected with a hipped roof, supported by large curving brackets. The bay to the right includes a pair of small windows, with operable folding shutters on either side. The south bay consists of a small, one-story sunroom addition, with a flat roof and a pair of large jalousie windows. At the second floor level, there are five irregularly placed windows, including one dropped to match an internal stair landing. At the attic level, there is one hipped dormer, set off-center. To the left of a dormer, there is an internal brick chimney.



Details:



FRONT DOOR, NORTH FACADE



SIDE DOOR, WEST FACADE

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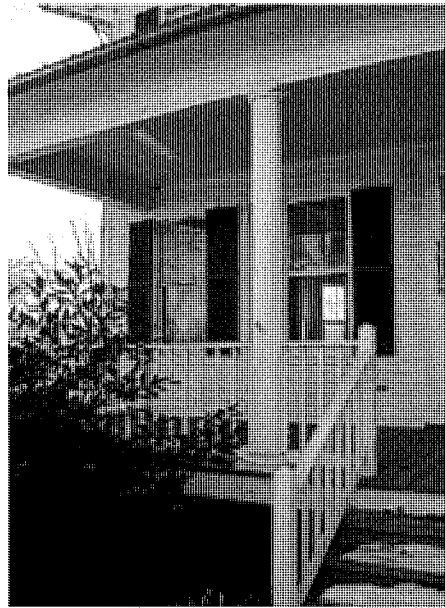
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BAY WINDOW, EAST FACADE



PORCH COLUMN, NORTH FACADE

Interior - Plan: The house has a center-hall plan, with front door and back door opening to this center hall. The dining room and kitchen sit to the right of the hallway, with the side door entry hall separating them. A basement door opens off of this entry. To the left of the center hallway, there is a double-pile living room, with access to the sleeping porch at the south end.

The center hall includes a wide staircase, with a landing just a few steps short of the second floor. The wide second floor hallway provides access to five bedrooms, and one full bath. Separate steps lead to the attic, with its dormer windows in each hip.



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Maryland Inventory of Historic Properties Form

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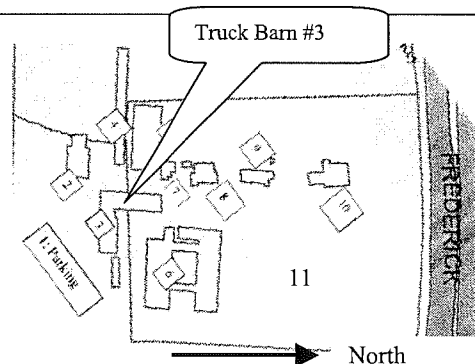
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Continuation Sheet

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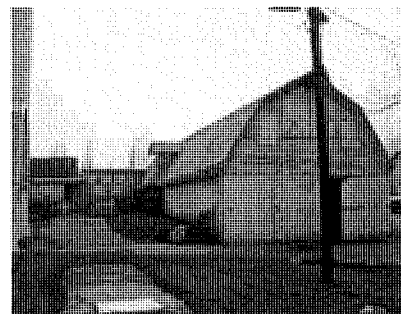
Reported site of 19th century Bank Barn (#11): This has been described as the open field area just north of the Dairy Barn (see small map below).

Buildings that have been demolished due to ruinous condition: When the City took over maintenance at the King Farm Homestead, many of the buildings were in ruinous condition. Subsequently, the Truck Barn was hit by lightning, and was removed, along with the associated Calf Barn and Pig Yard. The narrow Show Barn extended off of the City property and was also in such poor condition that salvaging a portion of it was not an option.

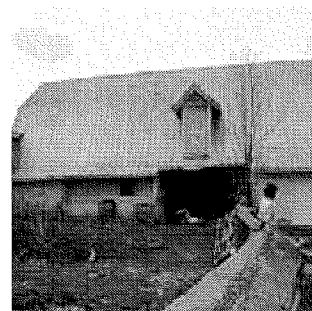
Truck storage and Calf Barn (#3): These two buildings were located west and south of the Dairy Barn, in close proximity to the south milking shed. A farm yard was formed by these structures, with the addition of fencing. The paved area in front of the main doors to the Truck Barn was a widening of the farm lane to accommodate the building's entry, which faced north while all the other buildings faced east and west to the farm lane.



North: The north elevation shows the dutch gambrel roof of the Truck Barn, with the large doors at the second story for hay storage, complemented by the roof hood for a hitch or pulley to facilitate bringing hay to the second floor. The large doors are flanked by two smaller windows for light. The gable end has horizontal German siding, while the first floor level is a series of barn doors.



East: The barn doors in the center of the east elevation of the Truck Barn opened into the farmyard where bulls were kept. There was a gable dormer centered in the second story over the large central opening.



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Maryland Inventory of Historic Properties Form

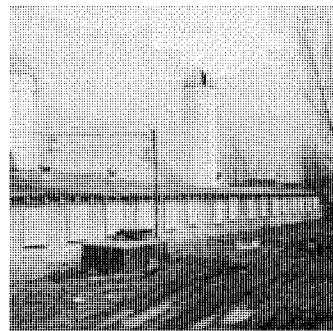
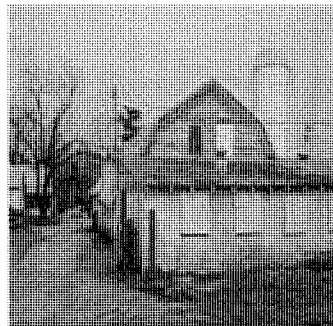
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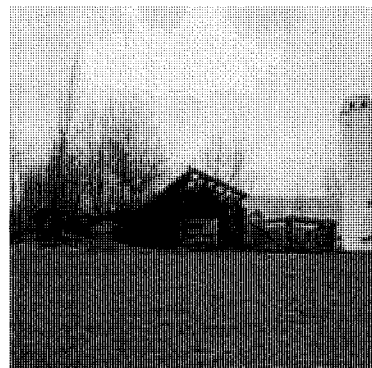
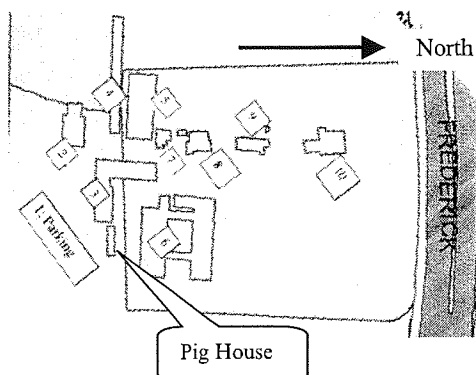
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South: The south elevation of the Truck Barn illustrates how the one-story Calf Barn was attached to the Truck Barn.

The Calf Barn was a one-story shed-roof structure, constructed of concrete block. Windows were evenly spaced along the entire south elevation. The rafter tails were exposed at the eaves. There were ventilators spaced along the roof.



Pig House: View of east elevation, of the dilapidated structure. This was a narrow gable-roofed structure placed just south of the Calf Barn.



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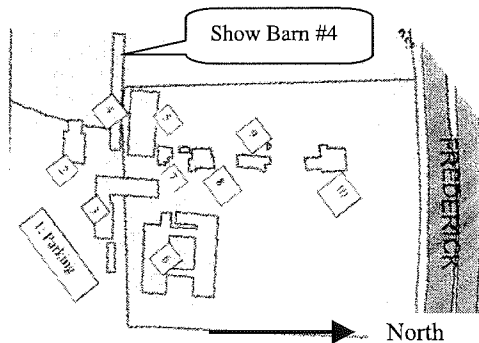
Maryland Inventory of Historic Properties Form

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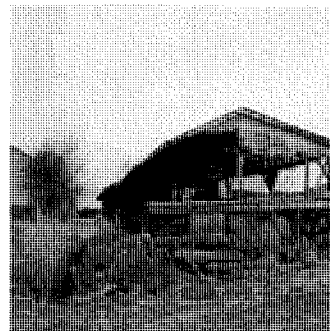
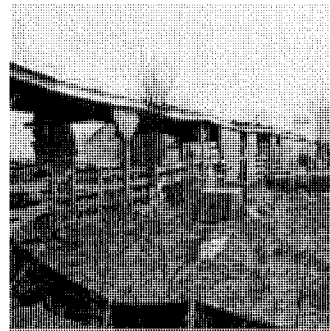
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Show Barn (#4): This narrow, open-air gable-roofed structure was used to house the animals being raised by the King Family children for 4-H competition at Montgomery County's Agricultural Fair.



The building was constructed partially on property of King Automotive to the north, and was demolished as non-conforming as part of the King Farm development.

South Elevation



West Elevation

8. Significance

Inventory No. M: 20/32

Period	Areas of Significance	Check and justify below		
☐ 1600-1699	☒ agriculture	☐ economics	☐ health/medicine	☐ performing arts
☐ 1700-1799	☐ archeology	☐ education	☐ industry	☐ philosophy
☐ 1800-1899	☒ architecture	☐ engineering	☐ invention	☐ politics/government
☒ 1900-1999	☐ art	☐ entertainment/ recreation	☐ landscape architecture	☐ religion
☐ 2000-	☐ commerce	☒ ethnic heritage	☐ law	☐ science
	☐ communications	☐ exploration/ settlement	☐ literature	☒ social history
	☐ community planning		☐ maritime history	☐ transportation
	☐ conservation		☐ military	☐ other: _____

Specific dates	N/A	Architect/Builder
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Construction dates	1914, 1925, 1932
--------------------	------------------

Evaluation for:

☐ National Register ☒ Maryland Register ☐ not evaluated

Prepare a one-paragraph summary statement of significance addressing applicable criteria, followed by a narrative discussion of the history of the resource and its context. (For compliance projects, complete evaluation on a DOE Form – see manual.)

SUMMARY:

The small remnant of Irvington Farm which is preserved as the King Farm Park is representative of both the 19th century Graff farmstead (122 acres), and the 20th century King Farm. Located at the original Graff Farm site, these ca. 8 acres also serve to illustrate the much larger King Farm, which included the Graff Farm as well as three other separate, but contiguous, farms purchased at different times from 1925 – 1942 by William Lawson King. (Graff Farm -122 acres purchased in 1925; Frank Ricketts farm - 100 acres on the east side of MD 270; the Watkins Farm - purchased in 1940; and the Fields Farm - purchased in 1942). The property is significant under National Register Criteria B and C. Under Criterion B, the property is associated with the Graff, King, and Fulks families, Montgomery County families of long-standing. In particular, William Lawson King was involved in many aspects of Montgomery County agriculture, business and politics and was recognized for his various contributions. And under Criterion C, this farm remnant embodies the distinctive character of 20th century dairy farming, an important economic sector in Montgomery County at that time. While the chain of title for this farm property can be traced back to the Graff Farm of 1822, the existing farm buildings are all 20th century structures. Firm dates include the construction of a new family home in 1914 by James W. Graff; the garage and smokehouse in 1925; and the dairy barn in 1932.

Historic Context #6: Agricultural-Industrial Transition, 1815-1870

[Graff Family]

Theme #1: Agriculture

More farmers moved into this piedmont area, as lower tobacco lands were depleted. Farms were home to people of differing status and cultural backgrounds, reflecting a complex social organization. Montgomery County was in the forefront of innovative farming practices, and created agricultural societies, and fairs to promote their industry. Farms included the farmers' houses and multiple specialized accessory buildings, including granaries and corn cribs.

Historic Context #7: Industrial/Urban Dominance 1870-1930

[Graff and King Families]

Theme #1: Agriculture

There is increased farm prosperity due to easier access to markets (rail, auto/trucks), and new artificial fertilizers. New homes are built, and additional specialized farm buildings, such as dairy barns and equipment sheds.

Historic Context #8: Modern Period 1930-present

[W. Lawson King dairy farm]

Theme #1: Agriculture

Dairy farming becomes a predominant local industry. [King Farm is not specifically mentioned as it was in Montgomery County, at the edge of the City of Rockville.] A Montgomery County dairy program was approved in 1936 to support the dairy farmers, which set milk prices and inspection standards for the Washington market.

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Number 8 Page 1

NARRATIVE

The Piedmont in Montgomery County is characterized by rolling hills, pasture and fertile farmland. Hunting, gathering and fishing practices have been documented with varying tool kits found on archaeological surveys. In the Late Woodland Period (AD 900-1600), large village settlements were established along the Potomac River, marked by the manufacturing of ceramic vessels.² An archaeological survey in 1995 of King Farm in the vicinity of the farm house and farm buildings found "a scattering of artifacts, predominantly debris associated with tool making."³ Therefore, while there is evidence of Native American activity at the site, the materials are either so disturbed or transient in nature that little additional information would be expected from further archaeological investigations into the prehistory of the site.

Farmers of European origin moved into this piedmont area in the 18th century, as lower-lying tobacco lands were depleted. A large group of English-related people moved west from Anne Arundel and Prince George's counties. In addition, a large number of German-related people moved south from Pennsylvania. Both groups contributed different architectural and cultural ideas, including different designs for barns.⁴ Montgomery County was in the forefront of innovative farming practices in the 19th century, and created agricultural societies and fairs to promote their industry. Farm properties included owner and tenant homes, and specialized accessory buildings such as granaries and corn cribs.

Occupation of the site is lengthy, including pre-historic activity. In the early 19th century, there's some indication that the property was farmed and that there was a tavern as well, to serve travelers along the Frederick Road. Ownership by local and prominent families changed several times, until the land was purchased by Andrew Graff in 1822.

Historic Context #6: Agricultural-Industrial Transition, 1815-1870

[Graff family]

Theme #1: Agriculture

The subject property was surveyed in land grants dating to 1717 (Two Brothers), 1726 (Valentines Garden and Hobsons Choice), and Conclusion (1731). It was sold to Thomas Lamar in 1748. Throughout the 18th century, this property was part of larger parcels and not a distinct entity. Records indicate that George Riley sold parts of two of the above tracts (Valentines Garden Enlarged and Hobson's Choice) in 1812 to Robert P. Magruder.⁵ In 1822, Magruder sold that land, with another tract called "Crabb's Redoubt," to William W.C. Veirs, totaling 122 acres. Six months later, in July 1822, Veirs sold this property at public auction to Andrew Graff for \$12.51/acre.⁶

² Archaeological Survey of Proposed Watershed Improvements along Watts Barnch at Carnation Drive, City of Rockville, URS Corporation, Inc., Greenman-Pedersen, Inc., January 2005, chapter 3, Culture Context.

³ Letter dated 17 November 1995, from Daniel Koski-Karell (Karell Archeological Services) to Mr. Larry A. Goldstein (Helios/Towle, LLC.). Letter dated 1/27/98 from E. Cole of MHT to Mr. George Harrison of US Army core of Engineers, that there are two archaeological sites: 18MO405 (historical farmstead) and 18MO406 (prehistoric camp).

⁴ The English Barn is typically ground-level all around, while the German Bank Barn utilizes a change in grade to provide at-grade entrances for both upper and lower stories.

⁵ Liber P, Folio 659, April 8, 1812.

⁶ The property included burial ground for the Belmeir Family, and Veirs executed a bond of conveyance in October, 1822, to assure that the Belmeir Family descendants might visit the graveyard without special leave or permission.

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Andrew Graff was born in Lancaster, PA.⁷ He had a business in Frederick prior to the War of 1812. After the war, it is noted that he lived 2-1/2 miles from Rockville.⁸ After 1822, he bought the subject property and lived here. He married Jane [Graff] ca. 1810, and they had 6 children. When Andrew Graff died in 1838 without a will, the property was conveyed to his entire family.⁹ Because the property could not be divided without ruining some of its value, George M. Graff bought out the other seven heirs for \$1,550 in 1842.¹⁰ He lived at this farm, and had eleven children with his second wife, Mary Brown Graff (1826 – 1905; married in 1844).

The mid-19th century was a time of innovative farming activities, which arose as a necessity to address the loss of soil fertility through earlier farming practices. The new technologies including the use of imported fertilizers.¹¹ In addition farmers gathered together to share ideas. They participated in cattle shows as early as 1822 and formed societies, such as the Montgomery County Agricultural Society which was formed in 1846. Soon after that, the first County Fair was held in Rockville.

Historic Context #7: Industrial/Urban Dominance 1870-1930

[Graff and King Families]

Theme #1: Agriculture

The time period from 1870 – 1930 saw major changes in transportation, and technology. George M. and Mary Graff lived at this property during this time of transition for agriculture in Montgomery County. An advertisement in 1893 for a public auction of the property after George Graff's death¹² provides a good idea of the modern farming practices followed by the Graff family.

“about 110 acres of this farm is cleared and the remainder is in good oak and chestnut timber. All the cleared land is in a high state of cultivation. It has been limed, is well watered and very productive. Improvements – a substantial frame dwelling house containing [seven] rooms, a new bank barn 36 x 50, a new double corn house and wagon shed, hen/kine house and smoke house, well of good water in yard with pump attached, fine apple and pear orchard in full bearing and the entire farm is substantially fenced. This property has a frontage of about one third of a mile on the Frederick Road, one of the main thoroughfares of Montgomery County. It is in full view of the Metropolitan Branch of the B&O RR and is located convenient to three railroad stations, the county seat, churches, schools, mills, stores, hay balance, and a large cannery, and is one of the most desirable farms that has been offered at public sale in this county for many years.”¹³

The advertisement illustrates the assets of the farm, including its location and proximity to the railroad. The land was apparently well managed and productive, with attention paid to soil management (with use of lime). The new farm buildings and farm features such as the orchard and wells, were substantial elements in the farm economy.¹⁴ At the public auction, James paid \$56 per acre for his

⁷ His father, George, apparently, joined an independent artillery company as a lieutenant during the Revolutionary War, and was sent off by his parents with a man-servant named Shadrach Nugent. Mr. Nugent became a well-known historic figure in Georgetown, as the “Moon Man.” See Scharf, Thomas, *History of Western Maryland*, Vol II 683-683; Baltimore MD reprint, 1968, Regional Publishing Co.

⁸ 1814, ____.

⁹ BS9 212-214.

¹⁰ BS11 297-298, 1842.

¹¹ Historic Resources Management Plan, p. 84.

¹² When George died in 1887, he didn't leave a will. Equity court records note that his son James W. brought suit against the other heirs for title to the farm. His parents were buried in Germantown, Maryland.

¹³ The property was sold September 19, 1893, and the sale was advertised for three consecutive weeks in the *Sentinel* prior to that.

¹⁴ None of these elements (except the location) survey today.

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family's farm, and made it his home.¹⁵ An article in the *Sentinel* notes that James Graff built a new home in 1914 at his farm.¹⁶ The large new house, which stands today, was built in the popular Colonial Revival Style with a generous center hall for the wide stairway. Oral tradition says variously that the new house was built up the hill from the original Graff house, or that the original house was substantially altered and a portion of the original foundation remains.¹⁷

Historic Context #8: Modern Period 1930-present

Theme #1: Agriculture

[W. Lawson King dairy farm]

James Graff sold the farm to William Lawson King, a dairy farmer from Cedar Grove, Maryland, in 1925.¹⁸ Soon after the sale, several outbuildings were destroyed by the 1925 tornado: a carriage and stable building, and a chicken coop. These were replaced by a garage and smokehouse directly behind the house. W. Lawson King converted an existing horse barn into a living place for two farm hands (building # 8), expanding it with several additions. The small farm worker house (building #7) and the hay barn (building #5) were also constructed by King. The King family were farmers (Cedar Grove area and also Clarksburg area) and held many farm properties around the county. When W. Lawson King purchased the Graff farm, his wife renamed it "Irvington Farm." Irving was the name of one of Mrs. Cordelia Fulks King's brothers (Irving Fulks). Her son, Billy King (born 1921), was also given Irving as a middle name after his mother's brother.

Further early losses at the property were caused by a lightening strike on May 30, 1932. At that time, the Graff bank barn, corn house, the new chicken coop, and smokehouse were all destroyed in the fire.¹⁹ After this fire, King made substantial investments in the farm and built the double dairy barn with its pair of silos for each milking shed. The 1932 construction date of the barn is memorialized on the front façade along with Mr. King's initials. This barn was initially designed for 40 cows, but was extended to eventually accommodate the milking of 100 cows.

Whereas the Graff Farm was not specialized, W. Lawson King transformed the farming operation into a dairy farm. The early 20th century was a prosperous time for dairy farming. Starting with a mixed herd of only 20 cows, King experimented with Guernseys (because of the cream and butterfat) and then eventually settled on Holsteins (disease resistant and productive milkers). With his extensive land holdings, including the farms contiguous to Irvington Farm that he subsequently purchased, King developed the largest Holstein herd in the world. He raised champion stock, and sold cows internationally. He was a pioneer in the field of artificial insemination of cattle. He served on the Maryland-Virginia Milk Producers Association Board of Directors, and worked for the planning and construction of the Montgomery County Cooperative Agricultural Center. He was personally honored by the Maryland Dairy Shrine, located in Frederick, Maryland. Irvington Farm was proclaimed a "model dairy farm" in 1964 by the National Holstein Association.

In addition, Lawson King was a wide-ranging businessman. He established King Motor Company in Gaithersburg in 1928, and eventually owned and operated dealerships in Gaithersburg and Rockville. These were later consolidated into King Pontiac (located

¹⁵ JA40 376, 8/19/1893.

¹⁶ *Sentinel*, 5/16/1914; at a cost of \$5,000.

¹⁷ Billy King interview by J. Christensen and G. Littlefield, 1998. Billy King thought the Morris House down the hill and west of the King house had been the old Graff house. The Morris House was still standing at the time of the interview.

¹⁸ Billy King interview, 1998.

¹⁹ *Washington Post*, 1932. Billy King reminisced that these buildings were in close proximity to the house, and he and his sister, Betty Jeanne, were locked into the sleeping porch to keep them out of the way.

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due west of Irvington Farm along the Frederick Road). He also established numerous retail stores, including Gaithersburg Farmers Supply in 1945.

Further, Mr. King was active in Montgomery County politics. He unsuccessfully ran for County Commissioner in 1942, but he was appointed to the Montgomery County Council in the 1950s. He also served on the Montgomery County Planning Board.

His legacy includes his support of the local 4-H program. His children and grandchildren have many memories of raising animals for the Montgomery County Fair; and Lawson King endowed a \$500 annual scholarship, that is administered by the local 4H chapter.

The 20th century Dairy industry

The 20th century dairy industry was the focus of both public and private efforts to improve the quality of American dairy products in order to assure healthy and safe food, as well as to develop products that could compete in the international markets. Locally, the dairy industry found an increased market in growing cities, as people moved from rural areas to the cities. Advertising in magazines and newspapers promoted milk as a healthy food, with support from the Division of Agrostology and the Dairy Division that was set up in 1895 as part of the federal USDA.

The growth in markets, from strictly local areas to a broader regional focus, was matched by improved production machinery such as the automated Mehring milking machine (widely used by the 1890s), and advances in refrigeration. Production increases were matched by faster transportation methods (railroad and automobiles/trucks), which helped support the regional growth of the industry. Governmental policies emphasized "(1) healthy cows; (2) careful grooming of the cows; (3) clean hands and clean clothing; (4) clean, dust-free barns (5) thoroughly washed and sterilized milking utensils; (6) prompt and effective cooling of the milk. The USDA sponsored farm inspectors and advisors to help assure the quality of the nation's food, and assure compliance with governmental ordinances and statutes designed to safeguard the health of the milk supply.²⁰ The King Farm Dairy Barn illustrates the enforcement of these policies, with white-washed interiors, separate Milk house, and easy to clean interiors (concrete block and floors).

The Dairy Barn at King Farm Park reflects this transformation of 20th century dairy farming into a large industry. For the first 14 years at the property, all the milking was done by hand.²¹ But with the new dairy barn and with the increased scale of milk production, machinery was introduced into the process.

Unlike the earlier bank barns, the dairy barn was strictly designed for the production of milk. The first floor was designed to accommodate moving cows in and out daily for the milking. The cows were fed at their stanchions, while the milk was collected and directed through pipes to the Milk House. The second floor was designed for hay storage. The clear-span gothic arch truss gambrel roof, constructed with balloon framing, provided the maximum storage area for the hay. The pair of silos for each milking shed held silage [a high energy feed consisting of a chopped corn and/or grains], which was delivered directly into the milking sheds through the small connecting blocks. The cows were herded in to the milking barns twice daily and milked with machinery. The milk was collected and piped to the Milking House where it was cooled and then could be shipped in to a distributor by truck.

²⁰ <http://www.nal.usda.gov/speccoll/images1/dairy.htm>; Dr. Charles North.

²¹ Interview, Billy King (1998).

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Mr. King initially trucked milk in 10-gallon cans to his distributor in Washington. It is unclear whether King used one or more distributors, or whether he started with one distributor and switched to the Milk Producer's Association. This dairy association was begun in 1920, and currently helps nearly 1,500 dairy farmers by collecting and processing/distributing their milk. Both Lawson King and Billy King served on the Board of Directors of the Maryland-Virginia Milk Producer's Association in Washington, D.C.²²

However, the well-known sign on the north slope of the dairy barn roof is prominent advertising for Thompson's Dairy, located in Washington, D. C. Thompson's Dairy began when a local dairy farmer, John Thompson, had problems with his own distributor and decided to sell his own milk. With his own farms in Alexandria, Virginia and Landover, Maryland, Thompson invited other dairy farmers to bring their milk to him for distribution to the local Washington market. In 1881, he rented space in Washington and began to retail milk. With success and growth of the business, Thompson built a dairy at Four-and-a-Half Street in SW Washington, where he could be close to the river freight steamers for milk that was shipped by river as well as receive milk coming in by truck. All the milk he distributed came from farms inspected yearly by representatives of the District Health Department. The dairies were scored on the condition of the farm and the cleanliness of the milking operation, and payment reflected the ranking.²³

Thompson's Dairy was still in operation in 1965,²⁴ but W. Lawson King sold his dairy cows in the 1960s, and brought in beef cattle instead.²⁵ The farming operation up to King's death in the 1980s consisted of beef cattle and hay. With the death of W. Lawson King, farming operations ceased entirely at the property. Development pressures were catching up with the farming industry around the City of Rockville, and the land was eventually annexed into the City of Rockville for the site of a planned unit development, with the King Farm Park as a public amenity.

²² Interview with Billy King (1998).

²³ *The Washington Post* 1877, Nov. 7, 1927, "Thompson's Dairy Started in Small Store Back in 1881"; material provided by the Washington Historical Society.

²⁴ *The Washington Post*, February 26, 1965, "Thompson Dairy Chief Retiring after 48 years," p. B7.

²⁵ Interview with Billy King (1998), and with King's granddaughter, Betsy Rippion (2006).

9. Major Bibliographical References

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Judy Christensen and Gail Littlefield, notes from interviews and research, 1998.

Photographs and plan drawing by city staff (2005).

10. Geographical Data

Acreage of surveyed property 7+ acres

Acreage of historical setting 7+ acres

Quadrangle name

Quadrangle scale:

Verbal boundary description and justification

Parcels A (plat 20357) and CX (plat 22411) were surveyed during the Comprehensive Planned Development (CPD) process for King Farm. These two parcels were dedicated to the City as parkland, in compliance with CPD requirements. The proposed historic district boundary uses logical borders - streets on three sides, and the actual property boundary on the fourth – to distinguish the new CPD from the remains of the historic farm.

11. Form Prepared by

name/title	Robin D. Ziek		
organization	City of Rockville	date	March 10, 2006
street & number	111 Maryland Avenue	telephone	240-314-8200
city or town	Rockville	state	Maryland

The Maryland Inventory of Historic Properties was officially created by an Act of the Maryland Legislature to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 supplement.

The survey and inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

return to: Maryland Historical Trust
DHCD/DHCP
100 Community Place
Crownsville, MD 21032-2023
410-514-7600

**Maryland Historical Trust
Maryland Inventory of
Historic Properties Form**

Inventory No. M

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Appendix G:

Phase 1 Letter Report for the Site Utility Water and Sewer System for the King Farm Farmstead

Prepared by KCI Environmental Engineering Division on January 8, 2008

The Phase 1 Letter Report contained on the following pages uses different numbers for the buildings on the King Farm Farmstead than does the Property Condition Assessment. As such, the following cross reference table has been included for clarification:

Building Description	Property Condition Assessment Bldg #	Phase 1 Letter Report Bldg #
Main House	Building 1	Building #10
Garage	Building 2	Building #9
Dairy Barns	Buildings 3 & 4	Building #6
Horse (Hay) Barn	Building 5	Building #5
Tenant House	Building 6	Building #8
Tenant House	Building 7	Building #7
Hay Drying Shed	Building 8	Building #2



Phase 1 Letter Report for the Site Utility Water and Sewer System for the King Farm Farmstead

Prepared For
*City of Rockville
Department of Recreation and Parks*

Prepared By
*KCI Environmental Engineering
Division*

**Revision 1
January 8, 2008**





ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS
10 North Park Drive • Hunt Valley, MD 21030 • Phone 410-316-7800 • Fax 410-316-7817

January 8, 2008

Mr. Rob Orndorff, Horticulturalist
City of Rockville
Department of Recreation and Parks
111 Maryland Avenue
Rockville, MD 20850-2364

Subject: King Farm Farmstead Water and Sewer Master Plan
PO Number 1009070210
KCI Job No. 01032289.01

Dear Mr. Orndorff:

Pursuant to your purchase order for engineering and design services, KCI Technologies, Inc. (KCI) is pleased to submit this Revision 1 of Phase 1 Letter Report for the Site Utility water and sewer system for the King Farm Farmstead.

The report has been prepared based on information received from the City of Rockville, site visits conducted by KCI on September 4 and November 11, 2007, review of preliminary concepts with City staff, discussions with WSSC staff and comments received December 18, 2007.

Based on this investigation, engineering work and comments received from City staff, KCI estimated building occupancy, obtained relevant information from WSSC concerning existing infrastructure and hydraulic grades, dimensioned the site utility connections, laid out the water and sewer connection alignments, investigated existing data concerning subsurface conditions, performed a material takeoff, estimated the probable construction cost of the project and prepared a preliminary project schedule for construction.

We have concluded that the probable cost of the project, including WSSC system development and connection fees is approximately \$450,311. We anticipate that the construction could be completed in about 3 months from notice to proceed.

KCI also evaluated alternatives to conventional water and sewer connections and discussed these with WSSC and MDE staff. We have concluded that while these alternatives may be attractive as part of an overall LEEDS building strategy, they are probably not economically attractive.



1. Background

The existing farmstead is the remnant of a large dairy farming operation that once occupied over 500 acres. The majority of this land has been developed and is mostly occupied by the King Farm subdivision project consisting of about 3800 homes. A remainder of approximately 5 to 7 acres has been conserved and planning is underway for use as a community center, theatre, arts center and as an example of a historic farming operation. This portion of the overall farm is the subject of this engineering investigation.

It is occupied by typical farm structures including large dairy barns, hay drying barn converted to sheltered picnic area, tenant houses, horse or implements barn, and garage/tenant apartment. The original farmhouse is well preserved but will not be part of the farmstead complex. Instead this will be treated as a private residence and either sold or leased.

Two wells exist on the property and are operational. One of these serves the main house and the other a community garden. The garden well is posted as non-potable water. Water and sewer are provided to the adjacent King Farm subdivision by WSSC. The existing farmhouse (the Manse, Building #10) is connected to a trunk sewer that runs parallel to MD 355 (Frederick Avenue) in a southeasterly direction. To the south-west of the site water service is provided to the King Farm subdivision. A major WSSC water storage tank is not too far to the west of the site. At least one of the tenant houses is connected to the sewer system. At least two other cleanouts are visible in the direction of the SHC line that runs easterly from the back corner of the main house to the trunk sewer near the intersection of Frederick Road and Ridgmont Avenue.

Upon review of the surrounding WSSC public utilities and the layout of the site, the existing 10" water main in Ridgmont Avenue would be the preferred connection point for the Farmstead. This connection point is the closest to the Dairy Barns which would be the largest water user on the property. A fire hydrant would also be considered on site to provide further protection of the wood structures. The size of the water main connection is based on water demands presented in the following sections, along with estimated fire flow. The determination of the required size and type of connection to the public system is presented in the following sections.

The farmhouse (the Manse) will have its own water house connection (WHC) so as to facilitate future management as a separate property. However, a shared connection agreement would be another viable alternative that would slightly reduce connection costs. As requested by the City, the service connection will be to the existing water main located along Frederick Road as this is the closest location and it will not require crossing the rest of the park. Furthermore this would eliminate the need to establish an easement across the park property if the farmhouse is separated from the site.

For sewer connections several alternatives have been investigated, taking into account that the connection can be shared as described above for water.



2. Sources of Data

This report is based on data received from the City of Rockville including:

- Site Enhancement and Utilization Report, dated 11-26-02
- Evaluation of Significance, dated 03-09-06
- Various plans including: Site Plan, Phase 2-B, W & S Extension 1, 2 & 3 of 3, 221NW8-W, WSSC Water, Untitled Concept Sketch. These plans were received on September 7, 2007.

In addition, KCI staff visited the site on September 4, 2007 to discuss the general project objectives and again on November 7, 2007 to observe existing building structures. A preliminary concept plan was reviewed with City staff on November 7, 2007. Revised plumbing fixture unit counts were received from City staff on December 18, 2007.

3. Site Enhancement and Utilization Report

The Site Enhancement and Utilization Report, together with personal communications from City staff during our site visits have been the primary sources of information regarding future uses of the site and its buildings. The site enhancement report is a high level document which does not enter into specific details regarding the estimated occupancy, provisions of service, interior finishes or partitions, etc. Not all building dimensions are shown in this report so an effort has been made to estimate building footprint square footage through the Google Earth measurement tool. Where building size is cited in the report it agrees well with the approximate measurements taken from Google Earth imagery.

The Site Enhancement and Utilization Report identifies the following buildings for conversion, restoration or improvements:

- Building #2: Already converted to open sided picnic pavilion
- Building #5: Convert to “Black Box” theatre
- Building #6: Barn to convert to gallery, studios, arts and crafts, exhibit, museum, café and concession
- Building #7: Convert for non-public use, possible police substation or public restroom
- Building #8: Raze partially, strip to original building
- Building #9: Garage to be upgraded for museum and preservation site, or short term rental to community groups

During site visits Building #7 was also included as a structure for potential future use and therefore water and sewer service have been considered for this building as well.



Inclusion of this building would not have any significant impact on the sizing or cost of the water and sewer utilities.

The original farm house (Building #10, the “Manse”) is considered a separate property not to be incorporated into any public utilization of the site. A sewer house connection already exists for the Manse, however in its current alignment it crosses an open field that would form part of the future park complex. In order to avoid future disputes or liabilities associated with utilities alignment across public property the City requested that a new sewer house connection be considered running entirely on what might reasonably be expected to remain as part of the house parcel. The Manse is also currently served with potable water by an existing well. A higher level of security would be available by connecting to the public water service and this is also included. Finally, although fire sprinkling would probably not be required under existing codes, the City requested that a larger water house connection be considered so as to facilitate future fire sprinkler service if needed or desired for future uses.

The reported or approximate measured building sizes are shown in the table below:

Table 1: Summary of Building Sizes

Building	Size (ft²)
#2: Pole Barn, Hay Drying Shed (Picnic Pavilion)	2,800
#5 Horse Barn (Black box theatre)	5,175
#6 Dairy Barn Complex (Gallery, exhibit, café, arts and crafts, studios)	19,920
#7 Tenant House (Community group)	875
#8 Farm Shed/Tenant House (Public restrooms)	625
#9 Garage w/ apartment (Museum preservation, storage)	1,152
#10 The Manse (Private use)	2,016

It should be noted that the Site Enhancement and Utilization Report is not a park master plan and does not enter into details concerning access, parking, electrical power , telecommunications or gas extensions, the means for restoring the buildings or estimated number of visitors to the park.

4. Evaluation of Significance

This report discusses in considerable detail the history of the site as a whole, each building and its construction, and finally, makes recommendations regarding their significance and value for preservation. The structures are in general of frame construction with some notable exceptions. The dairy barn complex is built mostly of precast concrete block simulating stone. The gambrel roof trusses are “stick built” and the gambrel gable ends are sided with wood.



All structures are vulnerable to fire due to the nature of the materials used in their construction and in fact, signs of a previous fire are visible in the Building # 5 (future ‘black box theatre’). Considerable effort will be required to restore all buildings to a condition such that occupancy will be viable.

With regard to archeological remains, it is noted that a high potential exists for resources related to past farming. Further evaluation or inventory is beyond the scope of this water and sewer utility study. Our construction cost estimate does not include any additional costs that might be associated with finding or preserving cultural artifacts during the water and sewer infrastructure construction.

5. Water Demand and Sanitary Wastewater Flow

While a park master plan has not yet been prepared, the potential uses of each building have been identified. Further, the City intends that future uses of each building or the site as a whole not be constrained by the water and sewer utilities, so a conservative approach has been adopted to estimate the potential number of visitors and thereby, the recommended plumbing facilities to be provided. This is essentially based on the building square footage and an assumed visitor density during peak occupancy of all the buildings. Based on these estimates, peak occupancy of close to 700 persons has been calculated, as shown in Table 2 below. As noted previously, only about 30 parking spaces will be provided on site, so remaining visitors will either park at the nearby ball fields; arrive on foot or by public transit.

For utility infrastructure planning purposes, the following table summarizes the services to be provided to each of the structures identified in the Site Enhancement and Utilization Report:

Table 2: Building Water and Sewer Services

Building	Water Service	Sewer Service	Sprinkler
#2: Pole Barn, Hay Drying Shed	yes	yes	no
#5 Horse Barn	yes	yes	yes
#6 Dairy Barn Complex	yes	yes	yes
#7 Tenant House	yes	yes	yes
#8 Farm Shed/Tenant House	yes	yes	yes
#9 Garage w/ apartment	yes	yes	yes
#10 The Manse	yes	yes	no



The required capacity of the water and sewer utilities has been calculated based on the expected number of plumbing fixture units following guidelines of the 2006 International Building Code (Table 2902.1) as given by the city of Rockville. The resulting plumbing fixtures have been distributed among the various buildings as follow:

Table 3: Distribution of Plumbing Facilities

Building	Water Closet	Urinal	Lavatory	Drinking Fountain	Utility Sink	Hose Bibb
#2: Pole Barn Picnic Pavilion	4	1	2	1	1	1
#5 Horse Barn Black Box Theatre	8	1	4	2	1	2
#6 Dairy Barn Gallery, Studio, Exhibit, Museum, Café, Concession, Meeting, Storage	25	5	15	3	4	4
#7 Tenant House, Office	2	0	2	1	1	1
#8 Tenant House Restroom Facilities	8	2	4	2	1	2
#9 Garage Office, Museum Preservation	2	0	2	1	1	1
Total	49	9	29	10	9	11

Conversion of the plumbing fixtures to WSSC “Fixture Units” yields a total of 354.5 fixture units. WSSC fixture unit values are used for calculating system development charges. The Uniform Plumbing Code “Water Supply Fixture Units” method is used to estimate flow rates. This method takes into account the intermittent nature of flow from plumbing fixtures. The Uniform Plumbing Code WFSU values give a total of 229 fixture units summing all the plumbing fixtures recommended. The corresponding peak flow rate as shown on Chart A3 is approximately 95 gallons per minute (gpm) or 136,800 gallons per day (gpd).

6. Fire Sprinkler Demand

Building uses are mostly considered in the “Assembly” use class with some of the smaller buildings being dedicated to administrative needs and office space, thereby classifying as “business” uses. Under NFPA code requirements, the sprinkler flow rate density (given in gallons per minute per square foot) varies depending on the size of the area to be protected and the hazard class as related to the anticipated use. Given the combustible nature of all building structures, we recommend a conservative approach to assure a high level of fire protection. While all spaces could theoretically be classified as “Light Hazard”, some potential uses also include artisan workshops or museum preservation or performance spaces where combustible materials may be used or stored and potential ignition sources may be present. For these buildings we have estimated fire sprinkler demands using the “Ordinary 1 Hazard” class. We would strongly recommend that consideration also be given to passive fire protection in the architectural renovation



of all buildings and also note the calculation of sprinkler demand must be performed based on a real interior layout of each of the buildings. The estimate provided is only for determining the size of the required utility connection. It is not a fire protection plan in itself.

The table below summarizes the fire sprinkler demands estimated for each of the buildings provided with fire sprinkler systems. Note that neither the open picnic pavilion (open sided structure) nor the Manse is included.

Table 4: Fire Sprinkler Demands

Building	Building Size (ft2)	Fire Flow Low (gpm)	Fire Flow High (gpm)	Low Hazard Class	High Hazard Class
#5 Horse Barn (Note 1) (Note 2)	5,175	280	400	Light Hazard	Ordinary 1 Hazard
#6 Dairy Barn Complex	19,920	280	400	Light Hazard	Ordinary 1 Hazard
#7 Tenant House	875	88	n/a	Light Hazard	n/a
#8 Farm Shed/Tenant House	625	63	n/a	Light Hazard	n/a
#9 Garage w/ apartment	1,152	115	n/a	Light Hazard	n/a

Based on this estimate, fire sprinkler demands vary from a low of 63 gpm for the smallest building to a high of 400 gpm for the largest buildings. The sprinkler flows might be reduced by providing passive fire resistant barrier walls and ceilings so that smaller floor areas can be protected. For example, partitioning the artisan workshops on the ground floor of the dairy barns could mimic the existing stall layout and reduce the required protected floor area for each. The upper open floor of the dairy barns, if protected from the workshops below by a fire resistant ceiling, could then be protected based on a lower hazard class. These details must be carefully considered in building renovation, which is outside of KCI's current scope.

7. Capacity

The required capacity of the water and sewer utilities has been calculated based on the expected flow rates. As noted, flows are estimated based on Uniform Plumbing Code Water Supply Fixture Unit counts. For the recommended facilities with a total fixture unit count of 229, a peak instantaneous flow rate of 95 gpm (136,800 gpd) has been estimated.

As discussed previously, based on the type of construction and the size of the buildings, placement of a fire hydrant onsite would be advisable along with fire sprinkler service. Accordingly, these fire demands and estimated water service requirements would require a minimum of a 6" service connection. Given these conditions and according to standard engineering practices, an 8" water main connection would most likely meet the



anticipated water demands for the site. Therefore, the connection for the park would be an 8" main up to the site fire hydrant, and then reduced to a 6" service for the building plumbing and fire sprinkler connections.

For the water supply, this flow is delivered through an 8" connection up to the onsite fire hydrant and then through a 6" connection from which each of the buildings is served. The maximum velocity in the 6" pipe for peak domestic supply is 1.0 feet per second, well within the accepted velocity limits for domestic flow. For the maximum fire sprinkler flow of 400 gpm the velocity in the 6" pipe is 4.45 feet per second. This is an acceptable velocity for fire flow. The 8" pipe segment could provide a flow of about 1600 gpm at a maximum velocity of 10 feet per second. The 8" connection therefore provides for continuous fire sprinkler flow of 400 gpm and an additional hose stream flow of 1200 gpm for firefighting from the on-site fire hydrant without exceeding maximum velocity limitations. The actual flow provided depends on the hydraulic gradient and pressure losses from the point of connection to point of application.

The site lies within WSSC's 660A water pressure zone. According to WSSC's list of high and low hydraulic grades, sheet 221NW08 shows a high hydraulic grade of 685' and a low hydraulic grade of 621'. The fire hydrant ground elevation is shown as 518' on existing topography. Therefore the minimum static pressure available at the fire hydrant is over 100' water column (over 40 psi). During detailed design, the head loss will be calculated along with the system pressure to ensure it does not drop below the minimum requirement of 20 psi.

Sanitary flow is based on the peak instantaneous water demand of 136,800 gpd. The capacity of an 8" sanitary sewer at the minimum slope of 0.5% and flowing half full is about 0.5 mgd. Due to the site topography it is likely that the pipe slope will be greater than the minimum of 0.5 %, increasing the capacity significantly. Therefore, no capacity limitations are expected with the sanitary drainage pipe. However it is not recommended to use a smaller pipe for the sewer service connection. Based on direction provided by the owner, it should be noted that full kitchen facilities are not planned at the park complex. At most a "catering" type kitchen (warming only, not full food preparation) would be provided. Therefore, no grease trap has been considered.

8. Building Connection Alignments

Service connections for water and sewer to each building will be provided as directed by the City of Rockville, in line with anticipated uses. The services to be provided for each building are summarized in Table 5: Building Water and Sewer Services.

A preliminary size has been determined for each connection based on the fixture units and fire sprinkler flows. A preliminary alignment has also been developed to show tie-in points to the WSSC water and sewer mains. The service connections are extended to about 5 feet from the building foundation. Connection from this point to interior

plumbing is considered a plumbing connection. Currently the disposition of interior plumbing facilities for each of the buildings to be served is unknown. The city should verify the location of interior plumbing before the detail design phase of the service connections.

The preliminary layout for the water and sewer connections is presented on Attachment 1, Preliminary Layout.

9. Subsurface Conditions

A desktop study of subsurface conditions has been conducted to identify potential obstacles to conventional trench construction techniques for installing the water and sewer service connections. Data has been drawn from the USDA web based soil mapping database at <http://websoilsurvey.nrcs.usda.gov/app/>.

The major soil group at the site is the Glenelg silt loam at 3 to 8% slopes, soil mapping unit 2B as shown below.

Figure 1: Soil Map





As may be noted above, almost all excavation and pipe installation will be in the Glenelg silt loam, with only a small amount of excavation and pipe installation required in the Gaila silt loam (mapping unit 1C).

The soils report notes the “depth to restrictive layer” for these soil classes as greater than 2 meters (about 80 inches or 6.7 feet). Restrictive layer is defined as a nearly continuous soil layer that impedes root development. Examples include bedrock, cemented, or frozen layers. For all practical purposes, it may be reasonably deducted that there is no bedrock or cemented layer within 6 to 8 feet of the surface. The water and sewer utilities will generally be installed at a minimum depth (approximately 4 to 6 feet of soil cover) which is above this depth. However, isolated boulders, outcrops or large cobbles could be encountered at practically any depth. A seismic refractive soil survey along the pipe alignments can be performed to verify that no bedrock would be encountered in normal excavation.

With regard to soils limitations for shallow trench excavation it should be noted that the Glenelg silt loam at 3 to 8% is “somewhat limited” with a negative rating of 0.1. The limitation is related to the tendency of trench walls to collapse, indicating that trench excavation deeper than stipulated depths should be protected against cave-in. The limitation for Gaila silt loam is more severe (rated at 1.0). This would apply to the utility connections for the Manse which are smaller pipes and most likely run at shallower depths.

The depth to water table is expected to be over 80 inches for all soil classes on the site so trench dewatering should not be necessary.

Based on the information available, no impediments to conventional trenching techniques are anticipated. Trenches deeper than 4 feet can be protected by a variety of measures including sloping back or benching excavation, shoring and sheeting, or shielding (trench box).

10. Material Takeoff

A preliminary material takeoff (MTO) has been prepared to enable the preparation of a concept level cost estimate. The preliminary MTO is based on the alignment as presented on Figure 1. Measurements from this plan are only approximate and will require further refinement once the alignment is approved and surveyed.

Some alternatives were considered for routing sanitary sewer connections on site. As confirmed by WSSC, the point of connection does not affect the System Development charges. Assuming that the site will be subdivided to permit separate sale or management of the Manse, it is still possible to have shared connections on-site. This would be accomplished through execution of a shared connection agreement. A sample agreement has been requested from WSSC.



For material takeoff and cost estimating purposes, the sanitary sewer connections have been considered separately. No alternatives for shared water connection have been considered. Essentially there would be little foreseeable economic benefit since the pipes are approximately the same length.

See Attachment 2 for the preliminary MTO.

11. Concept Level Cost Estimate

The concept level cost estimate is based on the preliminary material takeoff as mentioned above and typical construction costs for conventional water and sewer construction. A contingency level of 25% is considered at this stage given the preliminary nature of the alignments, the accuracy of the base plan data and subsurface conditions anticipated from the general soils report. The estimated construction cost is shown in [Attachment 2, MTO and Construction Cost Estimate](#).

The estimated construction cost of the water and sewer connections, assuming separate connections for the farmstead park and the Manse, is about \$309,000. To this sum the WSSC charges must be added. These charges include System Development, review, inspection, and connection fees. The WSSC charges are estimated at about \$141,311 based on the fixture unit counts as described above and standards for residential connection for the Manse. No front foot benefit assessment has been included since it is not clear whether this may have already been paid. The WSSC charge derivation is shown on [Attachment 3, WSSC Charges](#). The project execution cost including WSSC charges is thus estimated at \$450,311.

12. Construction Schedule

A preliminary construction schedule has been prepared to assist in programming the work to be accomplished. As noted in previous comments, no impediments are anticipated in performing the work using conventional construction techniques. A cultural artifacts investigation has not been performed as part of this project. As noted in the reference documents, no deposits of special significance are anticipated to be found. Therefore, the construction period is estimated as 12 weeks from mobilization upon bid award to demobilization. However, if significant cultural artifacts are found this could affect the construction schedule.

Refer to [Attachment 4, Preliminary Construction Schedule](#) for further details.



We will be pleased to meet with you to further discuss any questions or comments you may have related to this Phase 1 report and based on the same we will move forward on Phase 2 detail design.

Sincerely,

Michael Sevener, P.E.
Senior Project Manager

Mr. Sevener's Direct Dial Number: 301.317.7582

Fax Number: 410.792.7419

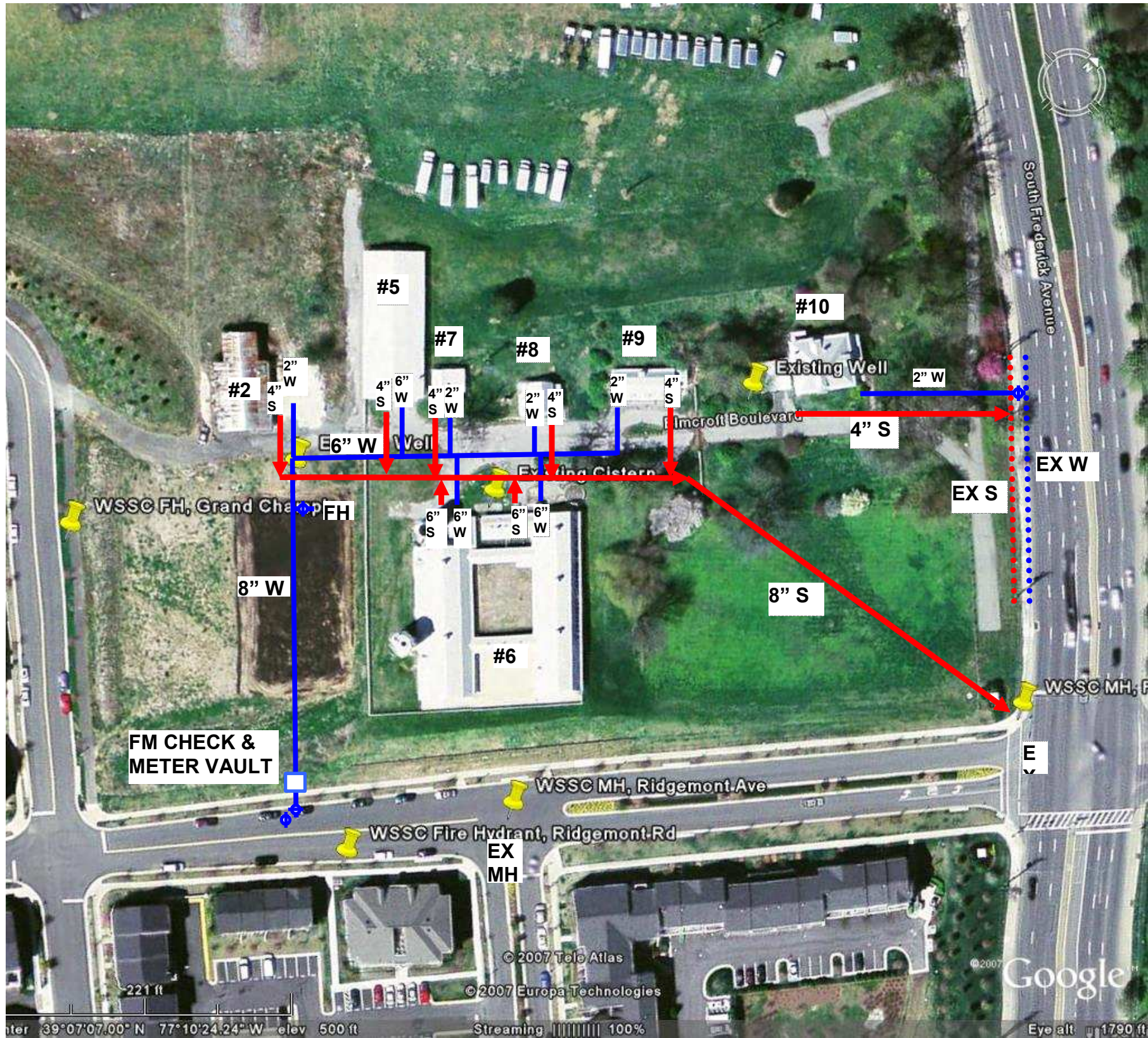
cc: T. Wolfe, P.E., BCEE

Attachments

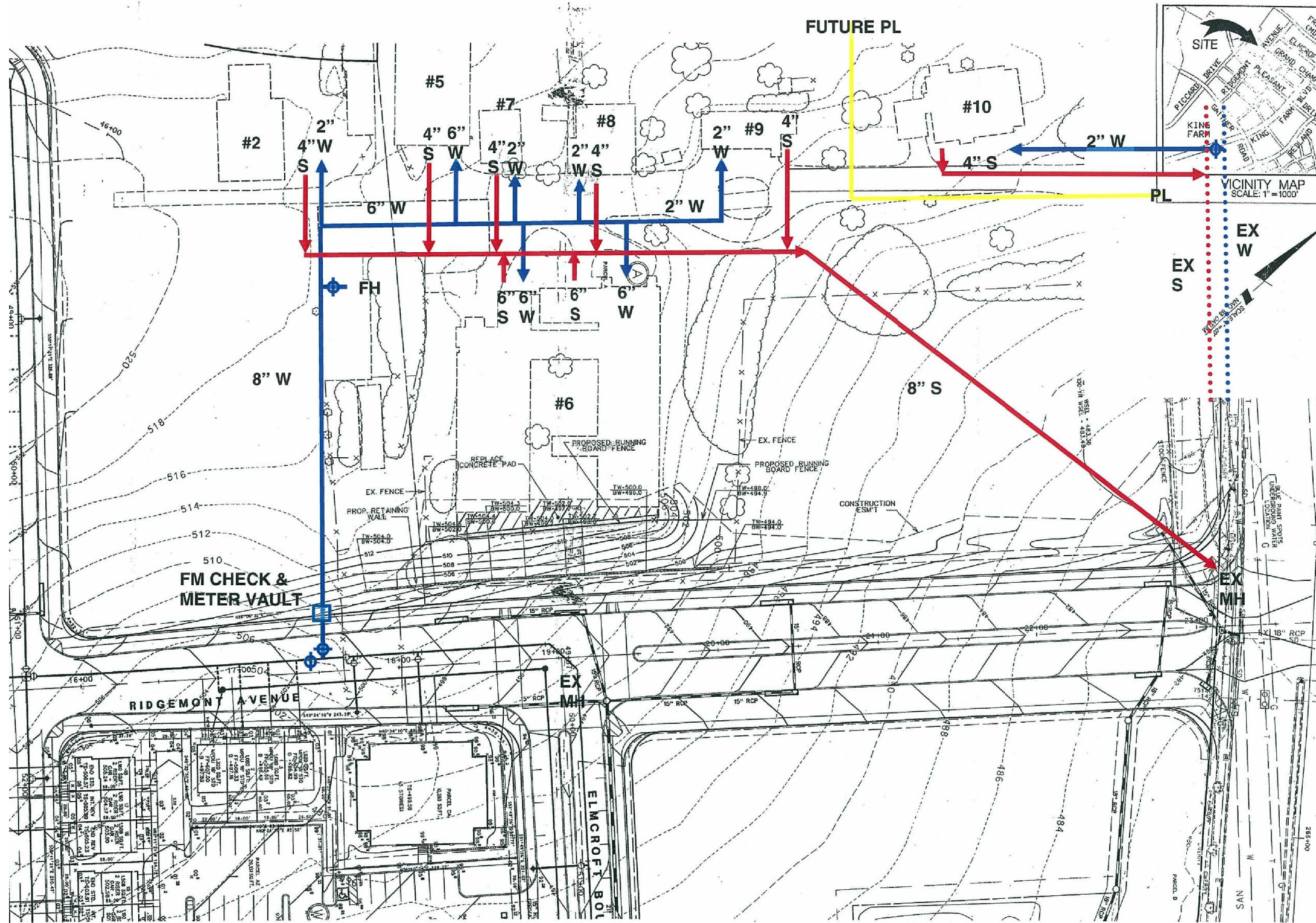
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Attachment 1

Preliminary Layout



BUILDINGS	
BLDG. NO.	DESCRIPTION
2	POLE BARN, HAY DRYING SHED
5	HORSE BARN
6	DAIRY BARN COMPLEX
7	TENANT HOUSE
8	FARM SHED / TENANT HOUSE
9	GARAGE W/APARTMENT
10	THE MANSE



BUILDINGS	
BLDG. NO.	DESCRIPTION
2	POLE BARN, HAY DRYING SHED
5	HORSE BARN
6	DAIRY BARN COMPLEX
7	TENANT HOUSE
8	FARM SHED / TENANT HOUSE
9	GARAGE W/APARTMENT
10	THE MANSE

Attachment 2

MTO and Construction Cost Estimate

Table 1: Farmstead Park Water

Table 2: Farmstead Park Sewer

Table 3: The Manse Water

Table 4: The Manse Sewer

Table 5: Summary Construction Cost

Table 1: Farmstead Park Water

Item	Description	Unit	Quantity	Unit Price	Total Price
1	Water service 8" DIP	LF	280	150	\$ 42,000
2	Water service 6" DIP	LF	380	110	\$ 41,800
3	Water service 2" Type K copper	LF	150	40	\$ 6,000
4	Water service 1" Type K copper	LF	0	35	\$ 0
5	6" Gate Valve & box	each	4	2000	\$ 8,000
6	2" Corporation cock	each	3	120	\$ 360
7	1" Corporation cock	each	1	50	\$ 50
8	Fire Hydrant	each	1	3000	\$ 3,000
9	8" FM Detector Check and Meter Vault	each	1	10000	\$ 10,000
10	10" x 8" Tee DIP	each	1	1600	\$ 1,600
11	8" x 6" Tee DIP	each	1	1200	\$ 1,200
12	8" x 6" Reducer DIP	each	2	600	\$ 1,200
13	6" x 6" Tee DIP	each	2	800	\$ 1,600
14	6" 90 Ell DIP	each	1	600	\$ 600
15	Pavement and sidewalk restoration	SY	10	125	\$ 1,250
Total					\$ 118,660

Table 2: Farmstead Park Sewer

Item	Description	Unit	Quantity	Unit Price	Total Price
1	8" PVC sewer	LF	680	100	\$ 68,000
2	6" PVC sewer	LF	60	80	\$ 4,800
3	4" PVC sewer	LF	160	70	\$ 19,600
4	8" PVC Cleanout	each	3	250	\$ 750
5	6" PVC Cleanout	each	2	200	\$ 400
6	4" PVC Cleanout	each	3	180	\$ 540
7	Connect to WSSC MH	each	1	800	\$ 800
8	Manhole Standard	each	4	3000	\$ 12,000
9	Pavement and sidewalk restoration	SY	10	125	\$ 1,250
Total					\$ 108,140

Table 3: The Manse Water

Item	Description	Unit	Quantity	Unit Price	Total Price
1	Water service 2" Type K copper	LF	130	40	\$ 5,200
2	Corporation cock 2"	each	1	120	\$ 120
Total					\$ 5,320

Table 4: The Manse Sewer

Item	Description	Unit	Quantity	Unit Price	Total Price
1	4" PVC sewer	LF	130	70	\$ 9,100
2	4" PVC Cleanout	each	1	180	\$ 180
3	Connect to WSSC sewer	each	1	800	\$ 800
Total					\$ 10,080

Table 5: Summary Construction Cost

Farmstead Park Water		\$ 118,660
Farmstead Park Sewer		\$ 108,140
The Manse Water		\$ 5,320
The Manse Sewer		\$ 10,080
Soil Erosion and Sediment Control	LS	\$ 5,000
Subtotal		\$ 247,200
Contingency	25%	\$ 61,800
Total Construction Cost		\$ 309,000
WSSC Charges		\$ 141,311
Project cost		\$ 450,311

Attachment 3

WSSC Charges

Table 1: Farmstead Park Charges

Table 2: The Manse Charges

Table 1: WSSC System Development Charges Farmstead Park¹

Units	Fixture Description	Water Supply FU	SDC Water Charge	Drainage FU	SDC Sewer Charge	SDC Combined Charge
49	Water Closet (assume flush valve)	245	\$1,560.00	294	\$33,810.00	\$55,370.00
9	Urinal	27	\$2,376.00	36	\$4,140.00	\$6,516.00
29	Lavatory	29	\$2,552.00	29	\$3,335.00	\$5,887.00
10	Drinking Fountain	2.5	\$220.00	5	\$580.00	\$800.00
9	Utility Sink	18	\$1,584.00	18	\$2,070.00	\$3,654.00
11	Hose Bibb	33	\$2,904.00	0	na	\$2,904.00
Subtotal System Development		354.5	\$31,196.00	382	\$43,935.00	\$75,131.00
Application and Inspection Fee for Applicant Installed Service Connections						
Standard Service Connection in Public Way, Outside Meter (8")						\$36,600.00
Standard Service Connection in Public Way, 8" into existing Manhole						\$13,500.00
Non-residential review/inspection fees						
	Water Hookup				\$115.00	
	Sewer Hookup				\$115.00	
	First Plumbing Fixture				\$115.00	
	Additional Fixtures (116)				\$2,900.00	
	Long Form Permit Charge				\$175.00	
	Site Utility Review Water (810 LF)				\$1,890.00	
	Site Utility Review Sewer (900 LF)				\$1,890.00	
Subtotal Review/Inspection Fees						\$7,200.00
Subtotal Nonresidential System Development, Connection and Review Charges						\$133,931.00

¹ Source: [SDCResolution_20071776.pdf, Appendix B 2007 WSSC Plumbing and Fuel Gas Code](#)

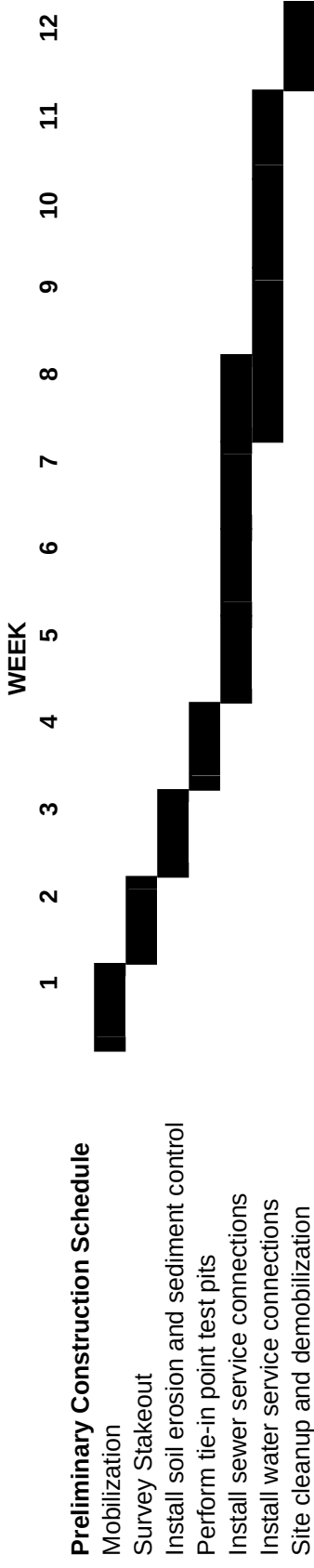
Table 2: WSSC Charges for the Manse

Water		
	2 inch	\$450.00
Sewer		
	4 & 6 inch	\$500.00
Inspection Fees		
	Converting from well	\$125.00
	Sewer/septic hookup	\$65.00
System Development Charges		
	Housing w/ 3 - 4 toilets	\$5,090.00
	Connection abandonment county road	\$1,150.00
Front Foot Benefit Assessment		unknown
Subtotal Residential Charges		\$7,380.00
Total WSSC Charges		\$141,311.00

Attachment 4

Preliminary Construction Schedule

Preliminary Construction Schedule



Appendix H:

Selected Sheets from Citywide Roof Survey

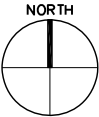
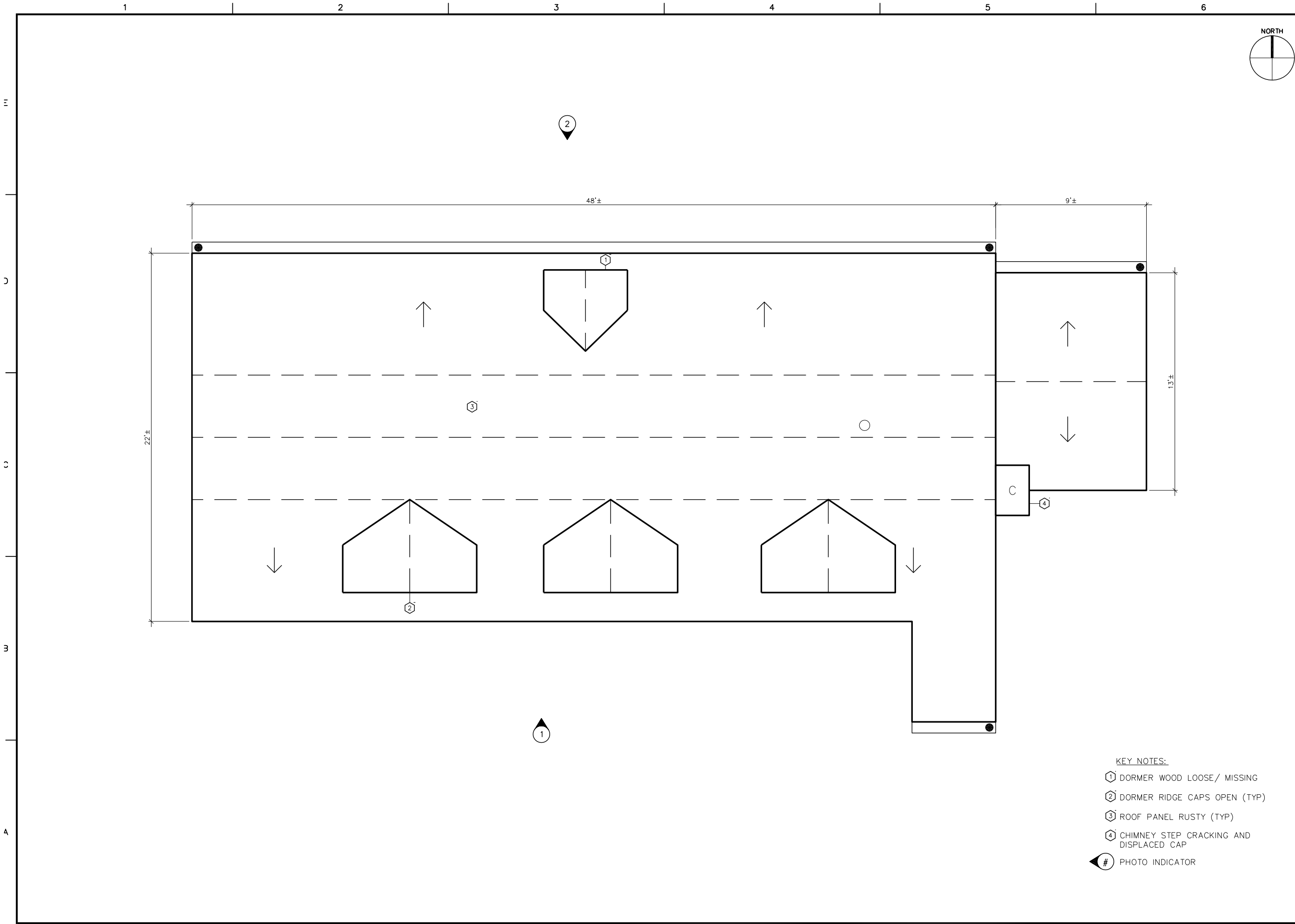
Prepared by Gale Associates, Inc.

The Roof Survey sheets contained on the following pages uses different numbers for the buildings on the King Farm Farmstead than does the Property Condition Assessment. As such, the following cross reference table has been included for clarification:

Building Description	Property Condition Assessment Bldg #	Roof Survey Bldg #
Main House	Building 1	Building 40
Garage	Building 2	Building 35
Dairy Barns	Buildings 3 & 4	Buildings 38 & 39
Horse (Hay) Barn	Building 5	Building 42
Tenant House	Building 6	Building 36
Tenant House	Building 7	Building 37



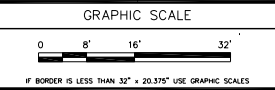
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	OWNER	CITY OF ROCKVILLE	

NO.	DATE	DESCRIPTION	BY
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DRAWN BY		LSJ	
CHECKED BY		SJB	
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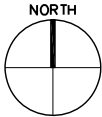
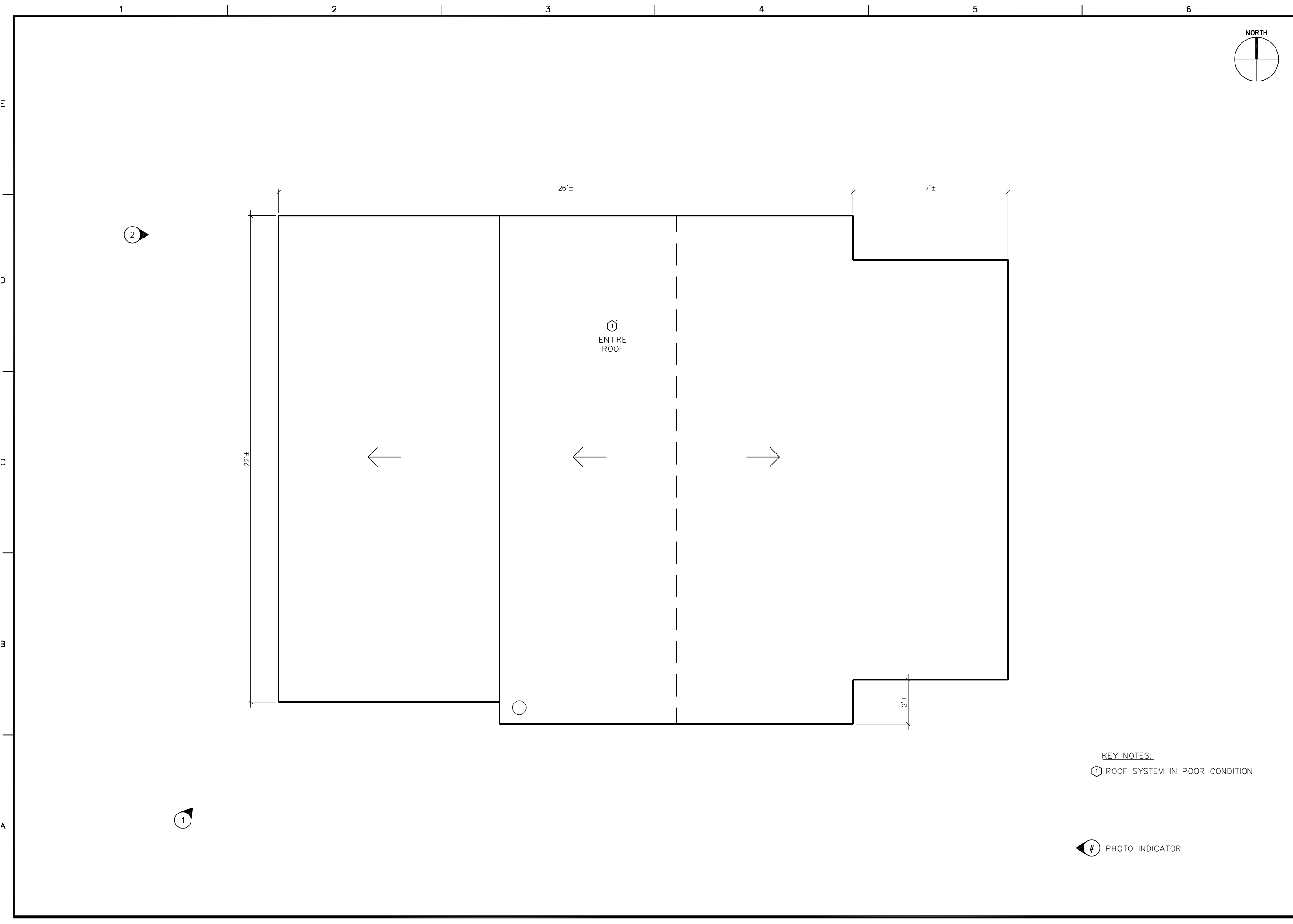


IF BORDER IS LESS THAN 32" x 20.315" USE GRAPHIC SCALES

SHEET TITLE	
KING FARMSTEAD VACANT HOUSE /GARAGE #1 BUILDING 35	

- KEY NOTES:
- 1 DORMER WOOD LOOSE/ MISSING
 - 2 DORMER RIDGE CAPS OPEN (TYP)
 - 3 ROOF PANEL RUSTY (TYP)
 - 4 CHIMNEY STEP CRACKING AND DISPLACED CAP
 - # PHOTO INDICATOR

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	OF



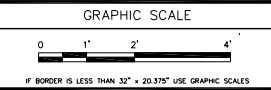
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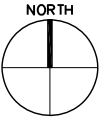
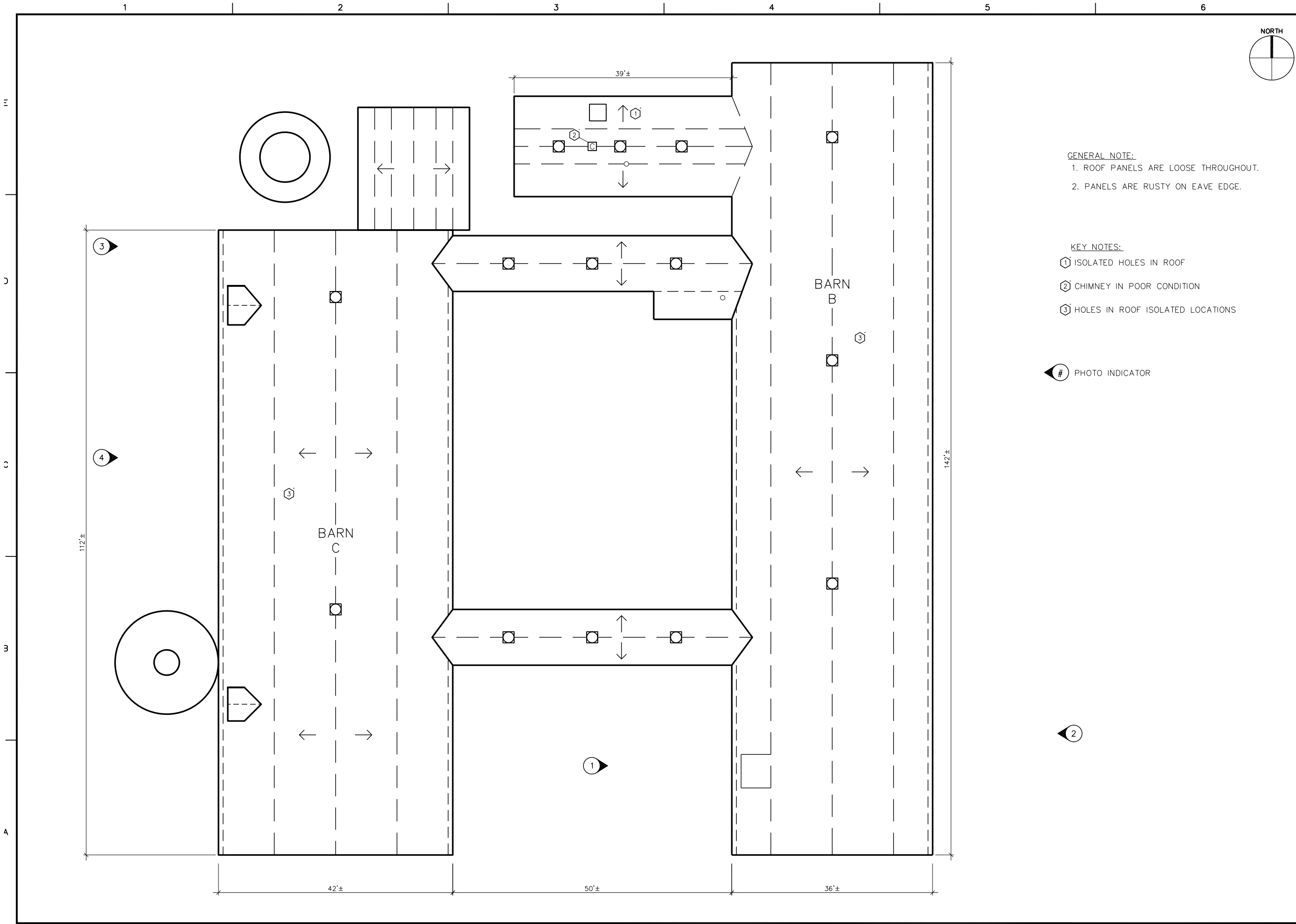
KING FARMSTEAD
VACANT HOUSE
#2
BUILDING 36

KEY NOTES:
ROOF SYSTEM IN POOR CONDITION

PHOTO INDICATOR

DRAWING NO.

OF



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	CITY OF ROCKVILLE				
	16100 FREDERICK AVENUE				
	MONTGOMERY, MARYLAND 20850				

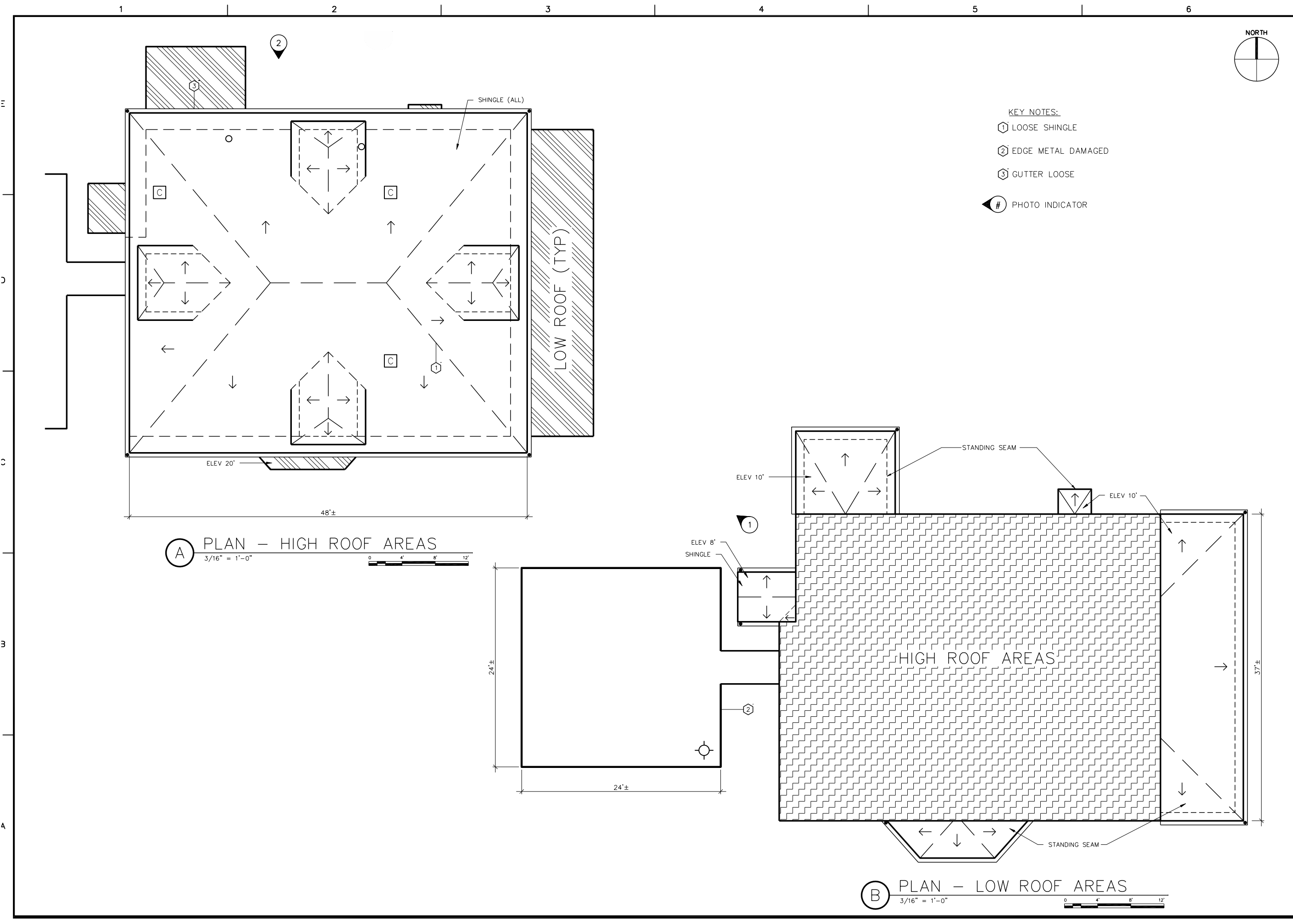
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GRAPHIC SCALE	
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SHEET TITLE	

KING FARMSTEAD
BARN
B & C

BUILDINGS 38 & 39

	DRAWING NO.
	OF

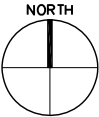
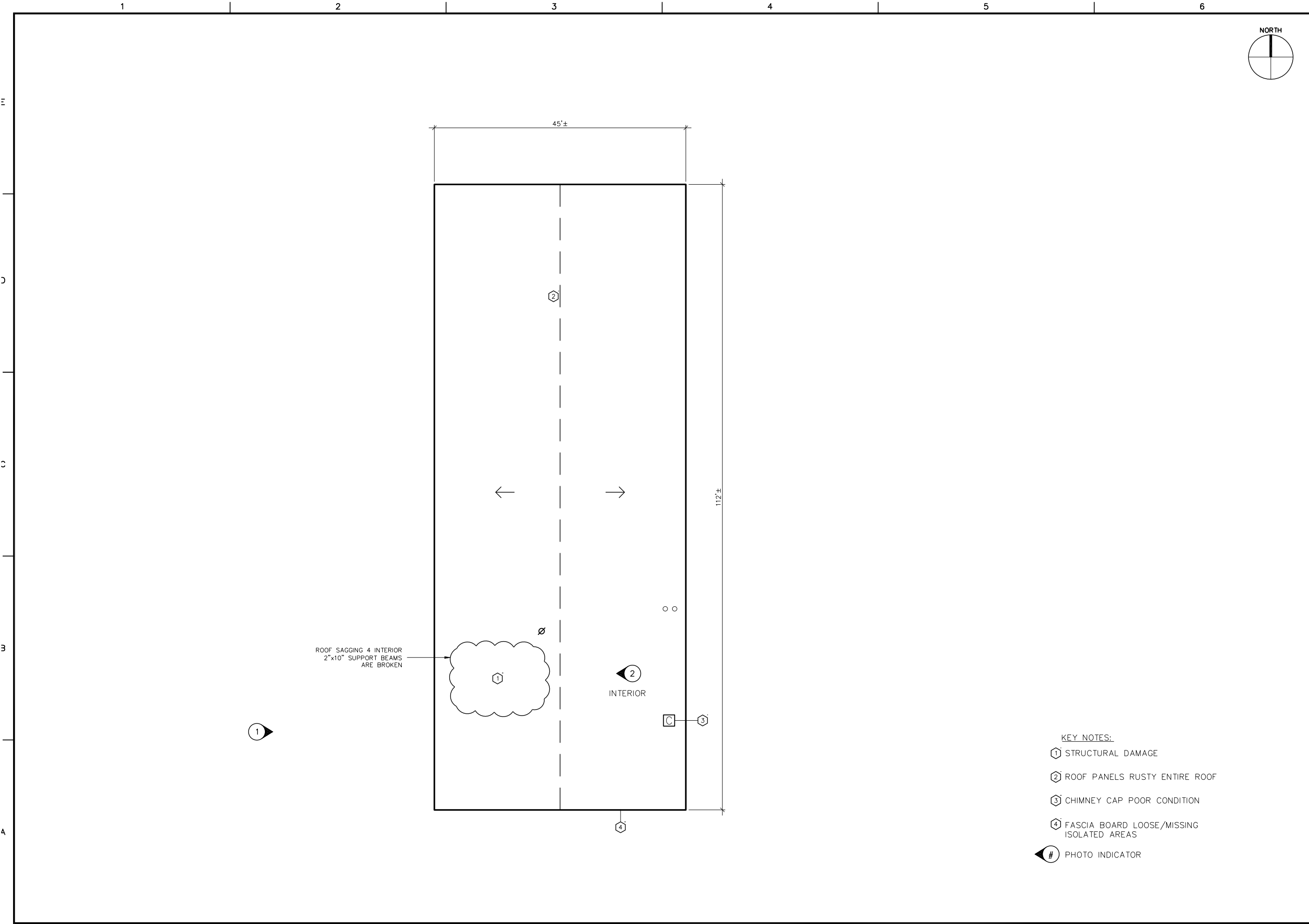


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NO.	DATE	DESCRIPTION	BY
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SHEET TITLE			
KING FARM HOME STEAD BUILDING			
BUILDING 40			
		DRAWING NO.	
		OF	



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KING FARMSTEAD
HORSE BARN
BUILDING 42

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OF