

JAMES R. BUTTERFIELD AND ASSOCIATES, INC.

*Established 1972*

*B u i l d i n g   I n s p e c t i o n   S e r v i c e s*

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December 10, 2001

Gerald R. Daus  
Parks and Facilities Development Manager  
Department of Recreation and Parks  
City of Rockville  
111 Maryland Avenue  
Rockville, MD 20850-7153

Re:    Lawson King home-farm complex  
      16100 Frederick Road  
      Rockville, MD

Dear Mr. Daus:

At your request and in your presence I have completed a visual review of the captioned property. The dates of my visits to the site were November 19, hereinafter referred to as D1, and November 26, hereinafter referred to as D2 and December 4, hereinafter referred to as D3. On all days the weather was clear and the ambient temperature was about 60o.

As background for this report, on D1 the exteriors of the residence, the five car garage, and interior and exterior of the two large barns were examined in detail. The five car garage with the apartment upstairs and the servants' house were locked and not entered on this day. On D2 the main house was examined from top to bottom and all spaces were entered except a bedroom on the second floor which was occupied by the tenants' pets. On D3 the five car garage with the apartment above, the servants' houses and Barn #4 were entered and examined.

On D1 the main house was being prepared for painting by a contractor by the name of Tito. The hazardous conditions created by the removal of suspected lead paint from interior trim surfaces as part of the preparation work made the area unsafe for those not outfitted with the proper safety equipment. I was not so equipped. As a result, D2 was set for the inspection of this area.

The intention of this inspection and this report, as we discussed prior to commencement of my work, was to take a “look-see” at all of the property described above and to give an over-view of the structural conditions and to include any other pertinent and significant detail that might be discovered. It is specifically not the intention of the inspection and/or this report to be a technically exhaustive review of all conditions found. I believe it is fair to say that anyone having any exposure to the property would realize that the buildings are old and suffer from the inadequacies of the original construction materials and methods and the ravages of time. Such is certainly the case in this matter.

For the purposes of orientation and directions used in this report, I shall consider that Frederick Road runs north and south (actually northwest to southeast) and therefore the front of the main house faces east. For easy identification I took 10 photographs and list them as follows:

- Photo #1 East and south facades of the main house
- #2 North facade of the main house
- #3 South and west facades of the main house
- #4 Five car garage with servants' quarters and second floor above
- #5 Number One servants' house
- #6 Small storage shed between #1 servants' house and #2 servants' house
- #7 Number 2 servants' house
- #8 Number 2 servants' house on right and barn #4
- #9 Barn #4 on left
- #10 Barn #4 - south and east side
- #11 Barn #3 - south side - rear section
- #12 Barn #3 - south side - front section
- #13 Barn #3 - east and north side - front section
- #14 Barn #3 - north side
- #15 Barn #3 - masonry shed roof extension on west side
- #16 Barn #3 - shed at rear
- #17 Barn #3 - east side of shed at the rear
- #18 Silos at Barn #2
- #19 Rear section of Barn #1
- #20 Open shed at the northwest corner of the property

#### MAIN HOUSE - Occupied (See photos 1, 2 & 3)

1. Footprint: approximately 36' x 43' (+/-) not including front porch.
1. Description: the house is frame construction and contains a finished first and finished second floor, a full unfinished basement (except under the small room on the north side next to the kitchen which has a unaccessible crawl area ) with low headroom and a full headroom attic in the center area due to the hip roof design. There are two sets of stairways between the first and second floors, a stairway to the attic from the second floor (no safety handrail) and no stairway from the first floor to the basement. The exterior is finished with wood lap siding - presumed to

be the original material - and the roofing material is tin and is most likely also original. Based on the materials used and observed, it is estimated the building was constructed in the 1910 to 1920 era.

Rooms and finishes: The first floor area has painted wood trim, oak flooring and plaster walls. The space is divided into the following rooms: Living room (with an inoperable wood burning fireplace), dining room, front foyer, rear foyer, den, kitchen and powder room. The second floor area has similar finishes, six (6) bedrooms and two bathrooms. Bedroom closets are small and would not be acceptable by present day standards.

2. Structure: the basement foundation walls are poured concrete except the closed in porch at the southwest corner (the rear) of the house. All areas viewed are considered to be reasonably sound except the first floor room that adjoins the kitchen. It appears this room was built with a crawl space which is inaccessible. The foundation for this room has deteriorated and although the room seems sound, work is needed in this area. See photo #2.
3. Electrical Service Entry: The main entry service cable is a two wire plus ground cable with a rating of 220v 125 Amps. (Most homes built today have a least 200 Amp service.) Additionally, service from this building supplies the electricity for the well pump.
4. Electrical Distribution: The viewable distribution lines within the house utilize either metal clad cable (often referred to as "BX" cable) or plastic coated cable known as romex. Either of these two materials are considered adequate by most authorities if properly sized for the anticipated electrical load. What cannot be seen in the interior of partitions and floors is the type of cables used in those locations. There is evidence of old "knob and tube" equipment in the basement which has been abandoned and so serious consideration must be given to the possibility that this is the type of wiring in partitions and other concealed areas. The problem with knob and tube is that the insulating material for the wire was rubber and since the procedure for using this material for wiring was discontinued more than 50 years ago, the rubber insulation must be considered deteriorated and now unsafe. The old switches, outlets and lighting fixtures are all functionally obsolete. They lack grounding method required by current electrical codes.
5. Plumbing: Water Supply. About 50' to the rear of the house is an inground well pit which contains a steel well cap and a single plastic water line from a submersible pump located in the well to a large water storage tank. The pit has a concrete cover with an opening for access to the pit and equipment. On the opening is a wood "shoe box" style cap which complies with local regulations for well pits. A single line from the pit to the house supplies the water to the house. The depth of the well is unknown. It is presumed that this well supplies all domestic water for those buildings that have water service but this was not actually determined.
6. Plumbing: Interior Distribution. Most of the viewable domestic water lines have been replaced with PVC type pipe. This appears to be very serviceable and therefore

satisfactory. Again, it is not possible to know about the lines concealed in the partitions without utilizing destructive techniques. Domestic water is heated by a 50 gallon electric water heater. This size water heater is adequate for no more than two people. Disagree

7. Heating: The source of energy for heating is fuel oil which is stored in twin 250 gallon tanks located in the basement. The boiler is a National Boiler, probably 30 years old, which has a 235,700 Btu/hr input capacity. As this review was taking place, a mechanic from the Harvey Hottel Company was overhauling the burner. The lines for the heating system run exposed in the various areas of the basement, first and second floors. The heat convectors are cast iron radiators in an architectural style that was popular from the late 1890's into the 1920's. There are fragments of asbestos that remain on the pipes in the basement suggesting that the heating lines in the basement were once insulated with asbestos pipe insulation. If details of the removal are not known, the area should be tested for the presence of asbestos fibers by a licensed technician using federal government EPA protocol for said testing. The remaining asbestos particles on the lines should be removed using HAZMAT procedures.
8. Roofing: The roof is covered with stamped tin shingles which were installed on the wood sheathing substrate over a layer of paper that acts as a slipsheet as was the custom at the time the house was built. There is evidence of deterioration along the lower edge of the roof as well as current leaks, all probably due to the condition known as ice damming. There is also a leak at the masonry chimney on the north side of the house. This leakage has gone on for years, has rotted the wood where the water has fallen inside the attic, caused damage to the soffit below and is most probably attributable to a failure of the flashing. The lower edge of the roof, which has a much lower slope than the upper parts of the roof, shows much evidence of repairs in the past and at the south side (rear) this material has been replaced in the recent past with new, non-matching metal material. The lower edge of the roof should be repaired to prevent further damages from storm water leakage.
9. Cooling: The first floor has no direct cooling equipment. Only the second floor is directly cooled by a central cooling system. The old Lennox compressor is located on the ground at the north side of the building and the cooling coils/air handling unit (Lennox Model C3-41-IFF DM) is located in the attic. The supply duct work is insulated in the attic area (some of the material is in very poor condition) and the return duct work is not insulated. Current technology indicates *all* duct work should be insulated where it is passing through unconditioned space. The fan control switch was activated and the fan responded properly. As the outside temperature was well below 65o the compressor was not activated.
10. Miscellaneous
  - Basement paneled room: Evidence of wood boring insect infestation (termites?).
  - Basement sump and pump: Does not function properly. Float switch malfunctions and the discharge line is partly restricted (clogged).

Carport: Two (2) car carport at the rear of the house is in acceptable condition.  
Sanitary waste disposal system (septic system?): Not located. Type and size unknown.

Water treatment equipment on main line in basement not evaluated.

Windows: Recently reconditioned, fit loosely. Window screens and most storm sash stored in attic.

Gas meter yoke. A natural gas line meter yoke (Washington Gas Light Co.) is in place on the exterior of the north wall. There is no meter installed and no line has been run from the yoke into the house. There are no gas appliances in the house.

#### FIVE CAR GARAGE - vacant (See photo #4)

1. Footprint: 22' x 60' (+/-)
2. Structure: Exterior consists of cinder block foundation (slab on grade for first level), second level has 2 bedrooms, one bath and a kitchen. The first floor, a concrete slab on grade, is for storing vehicles. This building appears to be structurally in good condition, is served with water and electricity from the main system. There is an attached small storage room that appears to have been once used as a smoke house. This structure appears reasonably sound. At the east end of this building at the exterior there is the remains of a brick out-door fireplace. This brick structure is in dilapidated condition with broken and separated joints in the brickwork and it would be very unsafe to attempt to use it.
3. Utilities: Heating of the second floor is by hot water baseboard convectors with water heated by a gas fired boiler. The equipment is not operable. The water lines were being drained for winter on D3. Electricity service is "hot". Gas is off. No evaluation of equipment is offered herein.

#### SERVANTS' HOUSE #1 - vacant (See photo #5)

1. Footprint: 34' x 36' (+/-)
2. Structure: This is an all wood frame 2 story, 3 bedroom, one bath, living room, dining room and kitchen dwelling unit. The roof has leaked and caused extensive damage to both the first floor bedroom and the porch (there may be some structural reinforcement required when the leaks problems are repaired). The house has hot water baseboard convection units and hot water is supplied by an old American Standard gas-fired boiler which is not in operating order at this time.
3. Utilities: Electricity is "hot". Gas and water are off. No evaluation of equipment is offered herein.

#### SMALL STORAGE SHED (See photo #6)

1. Footprint: 8' x 15" (+/-)
1. Structure: This wood framed structure is leaning and has a rotting foundation.
2. Utilities: There are no services to this structure

## SERVANTS' HOUSE #2 - vacant (See photo #7)

1. Footprint: 20' x 32' (+/-)
2. Structure: This is an all wood frame one story, 1 bedroom, one bath, living room, dining room and kitchen dwelling unit. The roof has leaked and caused extensive damage to the first floor bedroom (there may be some structural re-enforcement required when the leaks problems are repaired). The house has hot water baseboard convection units and hot water is supplied by an old American Standard gas-fired boiler which is not in operating order at this time. The exterior facade is covered with painted wood siding.
3. Utilities: Electricity is "hot". Gas is off, water is off. No evaluation of equipment is offered herein.

## LONG OPEN SHED AT NW CORNER OF PROPERTY (See photo #20)

1. Footprint: Not measured.
2. Structure: wood framed. Presently used for storage of salvaged wood materials. The structure is in poor condition. Value is very questionable.

## BARN #4 (See photo #'s 8, 9 and 10)

1. Footprint: 45' x 112'
2. This is a wood framed building the exterior of which is painted wood siding. Most of the floor area is concrete and about 1/3rd of the total area is raw earth. Charred roof members give strong indication of a portion of the building once being on fire. The charred rafter members in their present condition do not constitute a threat to the structural integrity at this time.
2. Utilities: This building is served by 3 phase electrical service and is the source for electrical service to all other building excepting the main house

## BARN #3 (See photos #11, 12, 13, 14 and 15)

1. Footprint: 26' x 104'
2. Structure: This building is a mix of materials and it has been added onto and modified several times. The structure is presently partially being used for storage purposes. The c.m.u. (concrete masonry units) walls in the front section (four walls) are in very poor condition and have numerous stair cracks in the stair step pattern in all four walls which seriously diminish their structural integrity. These walls require extensive remedial repairs to restore their structural soundness. A few of the roof trusses show wood rot at the peak which most likely has resulted from storm water leakage. Repairs are needed, both to the roof to prevent leakage and to the frame members to restore structural integrity.
3. Utilities: There is electric service and water to the building. Neither is operating at this time.

## SHED STRUCTURE ATTACHED TO THE REAR OF BARN #3 (See photos #16 and 17)

1. Structure: Most of the exterior walls are c.m.u. The structure is divided into holding pens. Most of the structure and materials are in very poor condition.
2. Utilities: None in view. Not reviewed.

## BARN #2 and TWO SILOS: (See photos #18)

1. Footprint: 140' x 35' (+/-)
2. Structure: The barn has c.m.u. walls (concrete masonry units), a frame roof structure, metal roofing and a concrete floor. There are two levels of the floor with about an 8" differential; the main floor area and a feed storage loft or attic above. Judging by the methods of construction, it was probably constructed in 1920's. At some point in time an addition was constructed on the south end of the barn. It is very similar to the original building and consists of 36' in length of the total 140' dimension of the building.

Recommendation: It is recommended that a structural engineer inspect and certify the adequacy of the steel columns that are now in place. (No other serious structural problems were detected).

3. Silo structures: Both of the silos are constructed of pre-cast concrete members held together by steel bands. Both are missing weatherproof roofs. Acids resulting from years of storing the feed have badly etched the interior concrete surfaces, eating away much of the concrete, leaving the walls much thinner than when the structure was built.

Recommendation: It is recommended that a structural engineer inspect and certify the adequacy of the concrete walls of these two silos.

4. Interior: The interior surfaces of the walls of the main floor area are painted, and there are pipe stanchions still standing that helped to hold cows in place while they were being milked. The slop troughs have been filled with concrete. The concrete floor still has two different levels as needed for the dairy operation. There is some failure of the attic decking in evidence. This should be immediately repaired for the safety of those entering this area.
5. Utilities: Not reviewed.
6. Roofing: The metal roofing needs work to be made watertight.

## BARN #1

1. Footprint: 140' x 35' (+/-)
2. Structure: The barn has c.m.u. walls (concrete masonry units), a frame roof structure, metal roofing and a concrete floor. There are two levels of the floor with about an 8" differential; the main floor area and a feed storage loft or attic above. Judging by the methods of construction, it was probably constructed in 1920's. Part of the ceiling of the first floor area is covered with cement asbestos 4' x 8' x 1/4" sheets. These should be handled as a HAZMAT material. At some point in time an addition was constructed on the south end of the barn. It is very similar to the

original building and consists of 36' in length of the total 140' length of the building.

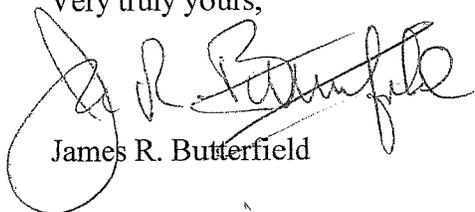
Recommendation: It is recommended that a structural engineer inspect and certify the adequacy of the steel columns that are now in place. (No other serious structural problems were detected).

3. Interior: The interior surfaces of the walls of the main floor area are painted, and there are pipe stanchions still standing that helped to hold cows in place while they were being milked. The slop troughs have been filled with concrete. The concrete floor still has two different levels as needed for the dairy operation. There is some failure of the attic decking in evidence. This should be immediately repaired for the safety of those entering this area.
4. Utilities: Not inspected.
5. Roofing: The metal roofing needs work to be made watertight.

In summation, it is my opinion based on the presently observed conditions that the main house, related carport, the three large barns (#1, 2 and 4), perhaps part of Barn 3, the two servant houses and the five car garage, are worthy of restoration. The structures have a high public profile and are landmarks in Montgomery County. Located at the northern edge of the city, they offer a unique potential for use as public buildings. What is first and foremost needed is a site development plan prepared by a qualified land planning engineering company. This plan would indicate the eventual goals and layout development of the property, the buildings to be razed, the location of new water, sewer, underground electric and gas service lines, new gardens to be developed, areas to be paved, lighting, signage etc.

I trust the above is clear and that you will call me if there are any questions or comments.

Very truly yours,



James R. Butterfield