



Birkdale Community Association
Capital Improvements Committee

PATHS/WALKWAYS SUB-COMMITTEE

REPORT

March 7, 2024

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I. COMMITTEE MEMBERSHIP

Lewis and Dawn Green, Pat and Tom Maxwell, Pat Rock, Sharon Shifflett, Betsy Martello, Board Representative, and Earl Bishop, Board President

II. MISSION STATEMENT

The Ad Hoc Paths Committee will observe, research, gather and compile information regarding Birkdale's existing paths/walkways and present a report to the Birkdale Community Association Board for their informed decisions.

III. SELECTION OF COMMITTEE MEMBERSHIP

- Members regularly use paths or Royal Birkdale Drive for walking, running, or other activities.
- Members represent different sections of Birkdale: original development, middle area (Sunningdale to Spyglass Hill Circle), and Avalon.

IV. SCOPE OF THE COMMITTEE

- Identify why residents use the street instead of the walkways/paths.
- Walk all paths/walkways and make observations about conditions.
- Measure length and varying widths.
- Identify safety issues.
- Review Chesterfield County regulations.
- Research and make recommendations for repair/replacement including choice of materials.

- Research “sealing” of asphalt.
- Prioritize recommendations and time for implementation.

V. QUESTIONS

1. Why do people walk/run in the streets?

- Many residents do not use paths and instead, walk, run, or use “toys” in the street.
- Some walkers use the streets since others walking dogs do not yield to other pedestrians, nor do all maintain control of their pets.
- Paths are irregular in width; some areas permit only one person while other areas are a 2-person width. Paths are narrower from Spyglass Hill Circle to Ashbourne Hollow, the Royal Birkdale gazebo, and Ashdale Way.
- Asphalt edges having severe “drops” need “banking” with dirt to avoid pedestrians tripping or falling.
- The angle of the asphalt paths is extreme/steep in several areas. This can cause severe pain as residents walk and run.

2. Are there safety issues with the paths leading to both gazebos?

The flagstone paths are aesthetically pleasing; however, the irregular stone surfaces, loose stones, and overall unevenness can be trip/fall hazards.

3. Why have some areas of the paths deteriorated?

Maintaining pristine asphalt paths includes management of drainage, standing water and ice, invasion of grass and tree roots, and patching as needed. In 2013 some areas

of paths were excavated, repaired, or replaced; contractors applied two inches of asphalt to all walking paths. No walkway maintenance has occurred since 2013.

4. Why are there no paths in Avalon?

Since Spyglass Hill Circle is not a thru-put street (it is a feeder street to Royal Birkdale Drive), Chesterfield County did not require sidewalks/paths when the community was developed. Utility easements are too close to Spyglass Hill Circle roadway to permit “inserting” sidewalks into the front lawn areas.

5. Should paths be “sealed?”

- Sealing helps protect asphalt pathways from the elements (rain, snow, ice, and ultra-violet rays that are damaging.
- Sealing fills in cracks and holes. This prevents water from seeping into the asphalt and causing further damage.
- Sealing gives asphalt a fresh look and makes it easier to clean.

VI. HISTORY

- Asphalt paths were required by the Chesterfield County Planning Regulations only along the “through-put” or “spine” road, Royal Birkdale Drive. In 2013, the BCA Board repaired/removed deficient sections and added two inches of asphalt for the entire length of the Royal Birkdale paths. That cost was \$66,218; the walkways were not sealed.
- **2023 Reserve Study Report: projections, recommendations, & cost estimates**
David Herring, DMA Reserves, wrote in his report of 4-28-2023, to the BCA Board, pages 8- 10:
“The asphalt pathways along Royal Birkdale Drive from Spyglass Hill Circle to Sunningdale Terrace are currently in fair to poor condition with areas of the pathway not level and leaning toward the street, causing many residents to walk along Royal Birkdale Drive. The community plans to replace the deficient

pathways in three phases shown here and this work is anticipated to be done in 2024, 2025, and 2025 to spread these costs over this period of time.”

VII. DATA

1. Measurement estimates of length of paths (by committee members)

1,030 feet	Spyglass Hill Circle to Ashbourne Hollow
313 feet	Ashbourne Hollow to Torrey Pines
330 feet	Torrey Pines to Emerald Valley Circle
341 feet	Emerald Valley Circle to Sunningdale
4,345 feet	Sunningdale to Birkdale Golf Club
<u>2,700 feet</u>	<u>Birkdale Golf Club to Ainsdale</u>

Total 9,059 feet--estimated length of asphalt paths

2. Measurement estimates for width of paths along Royal Birkdale Drive (by committee members)

Most of the walkways are 48 inches to 57 inches wide. A section in the 9100 block of Royal Birkdale Drive narrows from 60 inches to 48 inches. Grass growing over the sides causes this narrowing.

57 inches	Spyglass Hill to Emerald Dunes
60 inches	Ashbourne Hollow to Torrey Pines
52 inches	Emerald Valley Circle to bridge/dam
60 inches	Bridge/dam
56 inches	Merseyside to Royal Birkdale gazebo
48 inches	Royal Birkdale gazebo to Old Brompton
60 inches	Old Brompton to Birkdale Golf Club entrance
60 inches	Birkdale Golf Club entrance to Ashdale Way
48 inches	Ashdale Way
60 inches	Houghton Street
60 inches	Houghton Street to Old Bond
60 inches	Old Bond to cart path

1. 2023 Reserve Study Report measurements & estimated costs (See Appendix)

566 feet	Spyglass Hill to Ashbourne Hollow	\$16,989.00
353 feet	Ashbourne Hollow to Seabrook Circle	\$11,843.00
371 feet	Torrey Pines to Sunningdale	\$12,447.00

Resurfacing all asphalt paths	In year	2013	\$66, 218.00
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	In year	2023	\$90,486.00
	In year	2038	\$137,348.27
Periodic patching allowance	In year	2023	\$10,807.00
	In year	2028	\$12,406.03
	In year	2033	\$14,404.28

2. Measurement of gazebo paths (Nature's Way)

150 square feet Royal Birkdale gazebo

162 square feet Avalon Gazebo

5. Vendor estimates for gazebo paths (Nature's Way, 11-2-2023 - see appendix)

- Renovation in concrete
 - Royal Birkdale gazebo path - \$3,475
 - Avalon gazebo path - \$3,767
- **Renovation with pavers**
 - Royal Birkdale gazebo path - \$4,350
 - Avalon gazebo path - \$4,698

VIII. COST ESTIMATES FOR ASPHALT AND SEALING

- \$3.48 per square foot is the average cost of asphalt paving installation in Richmond. The range is \$2.72 - \$4.23.
- Asphalt patching ranges from \$2.75 - \$3.88.
- Commercial sealing averages \$1.50 - \$2.00 per square foot depending on the type and brand of sealant product.

IX. CHESTERFIELD COUNTY, VIRGINIA, RESIDENTIAL SIDEWALKS REQUIREMENTS / PROCEDURES -- (adopted June 20, 2006)

“A. Tentative Subdivision / Site Plan

1. Sidewalk location approval is to be a joint decision by Transportation, the Environmental Engineering Department, and the Planning Department.

2. Sidewalk locations and maintenance responsibility shall be shown on the site plan, and/or by a line on the tentative subdivision with a note that construction is to conform to the VDOT standards where required or the following standards in other locations:

(a) adjacent to streets, concrete walks shall be a minimum of five (5) feet in width with a depth of four (4) inches of 3000 psi concrete placed on native soil or satisfactorily compacted fill or crushed aggregate as appropriate with the top surface appropriately finished to increase traction,

(b) in locations not adjacent to streets, asphalt walks/ paths shall be a minimum of four (4) feet in width with a depth of six (6) inches of compacted aggregate and two (2) inches of S5 asphalt placed on native soil or satisfactorily compacted fill or crushed aggregate as appropriate,

(c) brick or concrete paver walks may be approved in either locations and shall be a minimum of four (4) feet in width laid on an appropriate base.

These standards shall be complied with unless approved otherwise by the Directors of Environmental Engineering and Transportation. Privately maintained sidewalks shall be noted as the responsibility of the Homeowners Association on the final check and record plats.”

- X. **CHESTERFIELD COUNTY PLANNING DEPARTMENT - QUESTIONS AND ANSWERS from Jeff Lamson, Senior Planner, Chesterfield County Planning Department, Subdivision Specialist** (phone call with Betsy Martello, 2/3/24; phone call with Betsy Martello from Matoaca Representative to Chesterfield Planning Commission, Tommy Owens, 2/5/24)

1. Who is responsible for maintaining the walkways in Birkdale?

Since Birkdale is managed by a homeowners' association, the Birkdale Community Association is responsible for the maintenance of all walkways. Initially, when the development was approved, the walkways and golf cart pathways were sometimes used for both golfers and pedestrians.

2. Is Birkdale required to comply with Chesterfield County's sidewalk standards?

No. Birkdale's walkways are considered "private."

3. Winterpock Road now has a wide asphalt path bordering Birkdale and extends to the commercial developments at the corner of Hull Street and Winterpock. Is Birkdale required to create a new walkway along Royal Birkdale Parkway from the Birkdale Golf Club to Winterpock that would connect with the new VDOT pathway?

No. Birkdale is not required to connect the pathway. However, linking the pathways might be reconsidered in the future. If there are significant changes to the current pathways, Chesterfield County Planning, Chesterfield Department of Transportation (CDOT), and the Virginia Department of Transportation (VDOT) should be consulted.

4. Are there any Chesterfield County funds available for renovating Birkdale's asphalt paths?

No. Funds are not available.

XI. VIRGINIA DEPARTMENT OF TRANSPORTATION - QUESTIONS AND ANSWERS

1. Dustin Dunnagan, Area Land Use Engineer, VDOT (email with Earl Bishop, 2/1/24))
Dustin.Dunnagan@vdot.virginia.gov

"I have put in a request with the county for the subdivision plans so I can look and see whose maintenance responsibilities the sidewalks are so I can better direct your request. Since a lot of this subdivision along Royal Birkdale was built in late 80's/early 90's, the sidewalk requirements would differ from today, so I am trying to see what was designed on the plans. If it were today's standards and were being maintained by VDOT, it would be a minimum 5' sidewalk with a 1.5% to 2% cross-slope and any vertical deflections between concrete slabs greater than 0.25" would require

maintenance; however, these look to be older with asphalt sidewalk and aggregate ramps instead of the standard concrete ones that would be required today.”

2. **Dustin Dunnagan, Area Land Use Engineer, VDOT** (email with Earl Bishop, 2/5/24))

“I was able to get the plans (attached) from the county and they show a cross-slope of 1” per 1’, for a 5’ asphalt path, which would make sense with how you are describing it. VDOT maintains in kind based on the plans the sidewalks were constructed with. I gave Chesterfield Department of Transportation, and they recommended calling their front desk to talk to Karen Wood-Bradley to give her the information so she can get it to the appropriate person within the department.

Once you have a plan you would need a VDOT land use permit prior to starting work. If you are all getting a licensed professional to adjust the cross-slopes they would need to be designed 1.5% cross-slope to meet ADA requirements of 2% cross-slope in the field.”

3. **Rebecca Worley, VDOT Resident Engineer in Chesterfield** (telephone call with Earl Bishop, 2/27/24)

Rebecca Worley informed Earl Bishop that she had received several messages regarding the proposed pathway renovation project for Birkdale. Ms. Worley indicated that she had driven through the Birkdale neighborhood earlier in the day. She continued, “Since the sidewalk was not installed by VDOT, there were no VDOT requirements related to it. Birkdale’s sidewalks are “private” but on VDOT property with permission. Her only concern was that Birkdale, (the selected contractor) obtain a permit from VDOT to work in the right-of-way. This should be the proper procedure for any contractor working in the right-of-way.

XII. **CONCLUSIONS**

1. Repair/renovation of paths might not decrease the number of people using the street instead of the walkways.
2. Discussions with staff from the Chesterfield County Planning Department, Virginia Department of Transportation (VDOT) and Chesterfield County Department of Transportation (CDOT) have been confusing. However, it appears that if the pathways stay

withing the original footprint as approved when the subdivision was accepted, no oversight/approval will be required from these governmental agencies **except that the contractor must obtain a permit from VDOT to work in the VDOT right-of-way.**

3. Some areas need little, if any, renovation while other areas are potentially dangerous and need immediate attention.
4. Encroaching on the owners' land may occur when the walkways are renovated or widened.
5. In at least two places, 8607 Royal Birkdale Drive and 9005 Royal Birkdale Drive, large trees are very close to the pathway. Any renovation/repair to the pathway should take the potential loss of the trees into consideration.
6. The gazebo paths are trip/fall hazards.
7. No walkways are possible in Avalon. VDOT has refused to permit one-side of the street parking. VDOT will not approve a pedestrian/bicycle lane.
8. Birkdale should continue to educate dog owners about proper etiquette in yielding to pedestrians using the walkways.
9. Birkdale needs to remind dog owners to maintain dogs on leashes and always have them under control.

XIII. RECOMMENDATIONS

1. All paths in Birkdale should be of a single, consistent material (asphalt) because of the cost difference between asphalt and more expensive concrete.

2. Consider sealing the asphalt.
3. Paths should be a consistent width of five feet.
4. Tree roots causing damage to paths must be removed and excavated appropriately to reduce further damage to the paths.
5. Reduce the steep angle in sections of the paths.
6. Renovation/repair should address areas where the asphalt is higher than the surrounding ground—especially the pavement edges.
7. Maintain height of paths to conform to existing residential driveways.
8. Determine a repair/replacement plan in phases to distribute the Capital Improvement funds over 1-3 years.
9. **PRIORITY:** Immediate attention for replacement of both flagstone paths at the Royal Birkdale gazebo and Avalon gazebo.
10. **PRIORITY:** Replace/repair paths/walkways from Spyglass Hill Circle to Ashbourne Hollow.
11. **PRIORITY:** Patch/fill/repair “bad” areas with tree root eruptions, severely cracked areas, and potholes.
12. **PRIORITY:** Address the severe slopes of the paths from Spyglass Hill Circle to Torrey Pines and on Royal Birkdale Drive from the dam to the Royal Birkdale gazebo.

13. **PRIORITY:** Engage professional contractors to review this report, visit the sites, and prepare estimates for repair/replacement and sealing.

XIV. APPENDIX

- Photographs



Royal Birkdale gazebo flagstone path



Avalon Gazebo flagstone path



Potholes



Cracks and grass/weeds



Hole



Crack



Crack



Edge drop-off & cracks near Birkdale Golf Club



Roots and cracks near #1 golf course hole



Steep angle of path



Steep slope of path near Ashbourne Hollow





Avalon near Spyglass Hill Circle: narrow, sloped and irregular path



Cracks

DMA 2023 Reserve Study**Estimates and timeline for asphalt path renovation & repair**

- 2023 Reserve Study Excerpts

Component Detail Unpublished R1 Based on Board Comments J-23-23
Birkdale Community Association

002.000 Asphalt Walkways & Site Components

002.000.0001 Asphalt Path - Replace, Phase 1 Spyglass Hill to Ashbourne Hollow

Component Details									
Last In-Service	Est Useful Life	Repl Interval	Remain Useful Life	Next Repl. Year	Field Meas. Quantity or Count	Units	% Replaced Per Interval	Client Responsibility	Replacement Cost for Study Year
1988	36	25	1	2024	566	SY	100.0%	100.00%	\$33.55
Yearly Expenditures for this component Years(s) and expenditures are shown below for this component if occurring within the study period.									
Unless a One-Time Expenditure, any expenditures after 2023 include a compounded inflation factor (see last page of this report).									
2024				\$18,989.00	2049				\$36,550.31

On 4/28/2023 By David Herring, DMA Reserves

The asphalt pathways along Royal Birkdale Drive from Spyglass Hill Circle to Sunnydale Terrace are currently in fair to poor condition with much of the pathway not level and leaning toward the street, causing many residents to walk along Royal Birkdale Drive. The community plans to replace the deficient pathways in 3 phases shown here and this work is anticipated to be done in 2024, 2025 & 2026 in order to spread these costs over this period of time. Future funding for patching these pathway sections is included as a separate component below.

002.000.0002 Asphalt Path - Replace, Phase 2 Ashbourne Hollow to Seabrook

Component Details									
Last In-Service	Est Useful Life	Repl Interval	Remain Useful Life	Next Repl. Year	Field Meas. Quantity or Count	Units	% Replaced Per Interval	Client Responsibility	Replacement Cost for Study Year
1988	37	25	2	2025	353	SY	100.0%	100.00%	\$33.55
Yearly Expenditures for this component Years(s) and expenditures are shown below for this component if occurring within the study period.									
Unless a One-Time Expenditure, any expenditures after 2023 include a compounded inflation factor (see last page of this report).									
2025				\$12,281.19	2050				\$23,233.31

On 4/28/2023 By David Herring, DMA Reserves

The asphalt pathways along Royal Birkdale Drive from Spyglass Hill Circle to Sunnydale Terrace are currently in fair to poor condition with much of the pathway not level and leaning toward the street, causing many residents to walk along Royal Birkdale Drive. The community plans to replace the deficient pathways in 3 phases shown here and this work is anticipated to be done in 2024, 2025 & 2026 in order to spread these costs over this period of time. Future funding for patching these pathway sections is included as a separate component below.

Component Detail Unpublished R1 Based on Board Comments 3-23-23

Birkdale Community Association

002.000.0003 Asphalt Path - Replace, Phase 3									
Torrey Pines to Sunningdale									
Component Details									
Last In-Service	Est Useful Life	Repl Interval	Remain Useful Life	Next Repl Year	Field Meas. Quantity or Count	Units	% Replaced Per Interval	Client Responsibility	Replacement Cost for Study Year
1988	38	25	4	2026	371	LS	100.0%	100.00%	\$12,447.00
Yearly Expenditures for this component Year(s) and expenditures are shown below for this component if occurring within the study period.									
Unless a One-Time Expenditure, any expenditures after 2023 include a compounded inflation factor (see last page of this report).									
2026									\$13,363.34
									\$24,879.68

On 4/28/2023 By David Herring, DMA Reserves

The asphalt pathways along Royal Birkdale Drive from Spyglass Hill Circle to Sunnydale Terrace are currently in fair to poor condition with much of the pathway not level and leaning toward the street, causing many residents to walk along Royal Birkdale Drive. The community plans to replace the deficient pathways in 3 phases shown here and this work is anticipated to be done in 2024, 2025 & 2026 in order to spread these costs over this period of time. Future funding for patching these pathway sections is included as a separate component below.

On 6/19/2023 By David Herring, DMA Reserves

Note: Street name changed from Sunnydale, to Sunningdale.

002.000.0004 Asphalt walkway - resurfacing project									
All Asphalt Paths									
Component Details									
Last In-Service	Est Useful Life	Repl Interval	Remain Useful Life	Next Repl Year	Field Meas. Quantity or Count	Units	% Replaced Per Interval	Client Responsibility	Replacement Cost for Study Year
2013	25	25	15	2038	1	LS	100.0%	100.00%	\$90,486.25
Documented Costs were used for this component cost									
Year	Replacement Cost	Repl %	Quant	Unit	Comment				
2013	\$66,218.00	100.0%	1	LS					

Yearly Expenditures for this component Year(s) and expenditures are shown below for this component if occurring within the study period.

Unless a One-Time Expenditure, any expenditures after 2023 include a compounded inflation factor (see last page of this report).

2038 \$137,348.27

On 4/28/2023 By David Herring, DMA Reserves

The entire community asphalt walkway was overlaid with 2 of asphalt in 2013. Total scope of work included tree root removal, repairs as required and a new asphalt overlay. Funds are included below for patching until the next replacement is anticipated in 2038.

Component Detail Unpublished R1 Based on Board Comments 5-23-23

Birkdale Community Association

002.000.0005 Asphalt walkway - periodic patching allowance									
Community Wide									
Component Details									
Last In-Service	Est Useful Life	Repl Interval	Remain Useful Life	Next Repl. Year	Field Meas. Quantity or Count	Units	% Replaced Per Interval	Client Responsibility	Replacement Cost for Study Year
2013	15	5	5	2028	4329	SF	5.0%	100.00%	\$10,807.00
Yearly Expenditures for this component Years(s) and expenditures are shown below for this component if occurring within the study period.									
Unless a One-Time Expenditure, any expenditures after 2023 include a compounded inflation factor (see last page of this report).									
2028			\$12,416.03	2033			\$14,404.28	2038	\$16,403.90
2043			\$18,402.49	2048			\$20,401.61		

On 4/28/2023 By David Herring, DMA Reserves

The entire community asphalt walkway was overlaid with 2" of asphalt in 2013. Future funding for ongoing patching of the asphalt path network - both the newly replaced and the remaining sections overlaid in 2013 is included here.

002.000.0006 Gazebo - original, replacement funding									
Component Details									
Last In-Service	Est Useful Life	Repl Interval	Remain Useful Life	Next Repl. Year	Field Meas. Quantity or Count	Units	% Replaced Per Interval	Client Responsibility	Replacement Cost for Study Year
1990	50	50	17	2040	185	SF	100.0%	100.00%	\$12,722.00
Yearly Expenditures for this component Years(s) and expenditures are shown below for this component if occurring within the study period.									
Unless a One-Time Expenditure, any expenditures after 2023 include a compounded inflation factor (see last page of this report).									
2040			\$20,252.65				\$68.77		

On 4/28/2023 By David Herring, DMA Reserves

Gazebo noted in good overall condition. NOTE: this is periodically maintained from the community's operating budget; however, we have included funding for full eventual replacement funding in 2040.

- **Nature's Way Estimate for Gazebo Paths**



Nature's Way Landscaping
P.O. Box 1222
Midlothian, VA 23113
804-276-3677



Paths Committee

Birkdale

Proposal to perform the following scope of work. All labor, materials, and disposal costs are included.

Gazebo 1 - 150sf

1. Remove existing stone path, excavate for compacted stone base.
2. Install 4" crush stone, compaction rate 90%
3. Install 4000 psi air entrained concrete. Edge, expansion joints with broom finish.

Concrete..... Proposed Amount; \$3,475.00

Gazebo 1- 150sf

1. Remove existing stone path, excavate for stone base
2. Install 4" 21a, compaction rate 95%
3. Install paver stone, sand set, tamped and grouted with G-2 Polymeric

Paver..... Proposed Amount; \$4,350.00

Gazebo 2 -162sf

1. Remove existing stone path, excavate for compacted stone base
2. Install 4" crush stone, compaction rate 90%
3. Install 4000 psi air entrained concrete. Edge, expansion joints with broom finish

Concrete.....Proposed Amount; \$3,767.00

Gazebo 2-162sf

1. Remove existing stone path, excavate for stone base

2. Install 4" 21a compaction rate 95%
3. Install paver stone, sand set, tamped and grouted with G-2 polymeric
Paver..... Proposed Amount; \$4,698.00

Signature

Date

Quote is good for 90 days from date, and is subject to additions and deductions pursuant to authorized change orders.

BIRKDALE COMMUNITY ASSOCIATION
REQUEST FOR BIDS FOR PAVING PROJECTS

2/15/2024 (prepared by Earl D. Bishop, BCA President)

The Birkdale Community Association is seeking bids to perform sidewalk paving at various locations in the Birkdale Community as discussed in the following. The general requirements shall be two inches of compacted asphalt with a standard gravel base underneath. The sidewalk width shall be five feet. The sidewalk shall have a pitch of 1.5%. The specifications shall follow the standards of VDOT and Chesterfield County for construction and drainage.

PROJECT ONE: Gazebos

Birkdale has two gazebos: one in the 8700 block of Royal Birkdale Drive and one in 14300 block of Spyglass Hill Circle. Each location has a blue flagstone walkway between the curb and the structure. These paths are trip hazards. The stone walkway shall be removed and replaced with asphalt. The flagstone shall be recovered for resale, if practical. The Royal Birkdale gazebo path is 150 square feet, and the Avalon path is 162 square feet.

PROJECT TWO: Royal Birkdale Drive, southern section

The section of sidewalk along Royal Birkdale Drive from Spyglass Hill Circle to the southern end of Ashbourne Hollow Circle has been severely damaged by the incursion of roots. The entire length of this section shall be excavated to remove the damaged pavement and roots which have damaged the current surface. Proper drainage shall be established. This section is 1,030 feet in length.

**PROJECT THREE: Ashbourne Hollow Circle and Torrey Pines Drive connections to
Royal Birkdale Drive**

The section along Royal Birkdale Drive between the south connection of Ashbourne Hollow Circle to Royal Birkdale Drive extending to the intersection of Torrey Pines Drive with Royal Birkdale Drive shall be excavated and repaved to provide a 1.5% slop from the inner edge to the curbside. This section is 313 feet in length.