

Yield Roadway

A proposal for the Fair Mills Loop

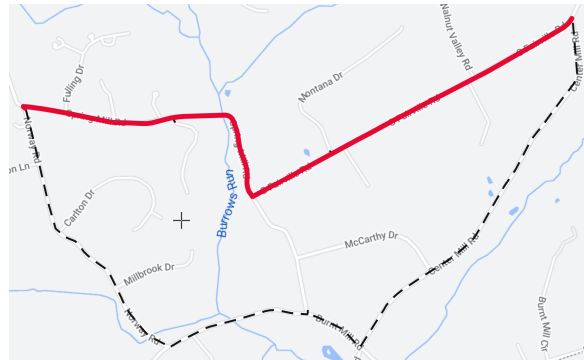


Executive Summary

Yield Roadways offers a low-cost option for beginning to create a recreation and active transportation route in less developed regions wherever there are roads with relatively low volumes and immediate connections to neighborhoods and community assets.



The **Fair Mills Loop** (marked to the right with a dashed line), based on sections of Burnt Mill, Center Mill, Spring Mill, South Fairville, and Norway roads demonstrates the potential for a multimodal route based on Yield Roadways. We summarize a potential first phase using sections of **South Fairville and/or Spring Mill Rd** (marked to the right in red).



We conclude that this loop has excellent potential for helping Kennett become **Healthy Outdoors**. With traffic calming and minor improvements, the roads can be converted to a Yield Roadways. This creates a low stress route suitable for all ages and abilities, at a relatively low cost. The resulting route offers excellent connections to hundreds of households for exercise and active transportation in natural settings.

- More information is available on **Kennett Outdoors** regarding our goals and standards for a **Healthy Outdoors**, including the **journey of a young woman** and her family to become healthy outdoors despite her disabilities.

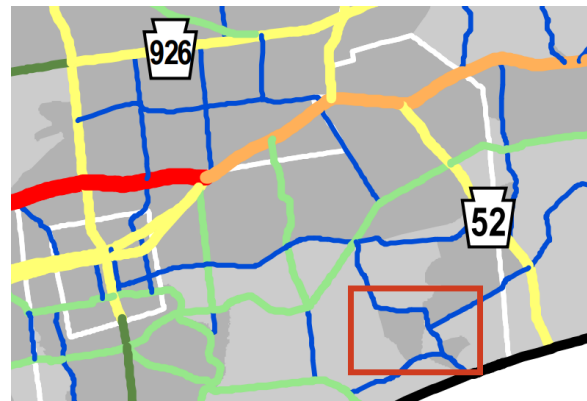
The Route

Yield Roadway Design

This route centers on converting existing roads to a Yield Roadway design, described in greater detail [here](#). In sum, these are local roads with low speeds, low volumes, and no centerline. The absence of centerlines naturally calms traffic by lowering speeds and increasing the vigilance of drivers. Yield Roadways also give drivers more freedom to drift towards the center to give cyclists and pedestrians more room, and can also incorporate dashed lines to suggest edge lanes for cyclists and pedestrians.

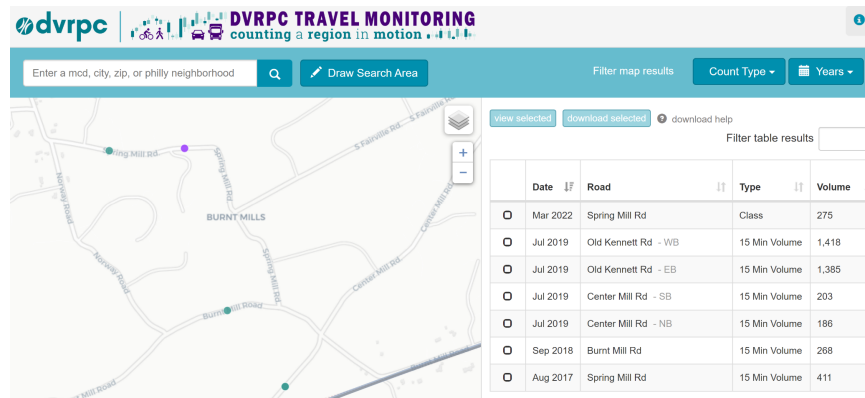
To establish whether an existing road has the potential to become a Yield Roadway, we can number **Opportunities** and **Challenges** with respect to the characteristics of the road and the traffic. This can help establish a plan for improvement.

1. Type of road The roads in question (in the red box) are all local roads (marked blue).



2. Prevailing speeds (e.g., for the 85th %ile of drivers) are likely around 35-40mph, given counts elsewhere in Kennett for similar roads. Prevailing speeds under 30mph are preferred

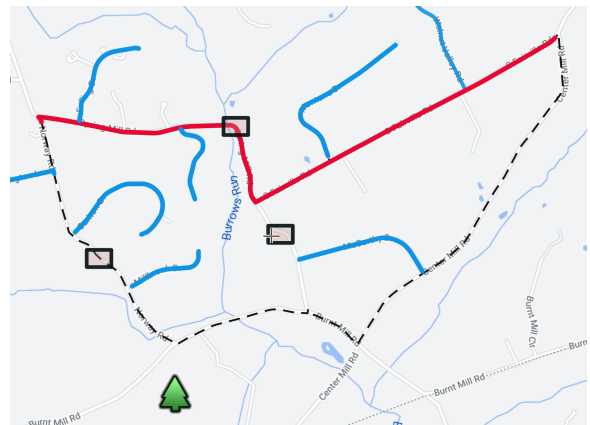
3. Traffic counts available from [DVRPC](#) (see right) are ideal - under 400 vehicles/day.



4. Width of roadway All of the roads are narrow - around 18' - with no shoulders

5. Centerlines All roads but those recently repaved (Spring Mill and Burnt Mill) have centerlines.

6. Limited Sight Distance There appear to be 2 sections (marked with squares), though given extremely low traffic volumes these are much more likely to be uncomfortable than dangerous.



Both 2 and 6 can potentially be addressed through systematic and strategic traffic calming measures.

Other factors related to safety, stress, and effort

7. Bicycle Level of Traffic Stress = 3 Using the [2022 rubric](#), criteria 1-5 above would lead to rating of 2 or 3 (depending upon prevailing speed). But limited sight distance (not incorporated into this rubric), leads to a rating of 3, which would render this route uncomfortable for more than 90% of cyclists if not changed. But implementing the changes identified above would lead to a LTS rating of 1.

8. Intersections. All but one intersection with through roads on this route have 4 way stops. Once converted into Yield Roadways, these would all be considered to be low stress intersections.

9. Safety There is no history of accidents on these roads

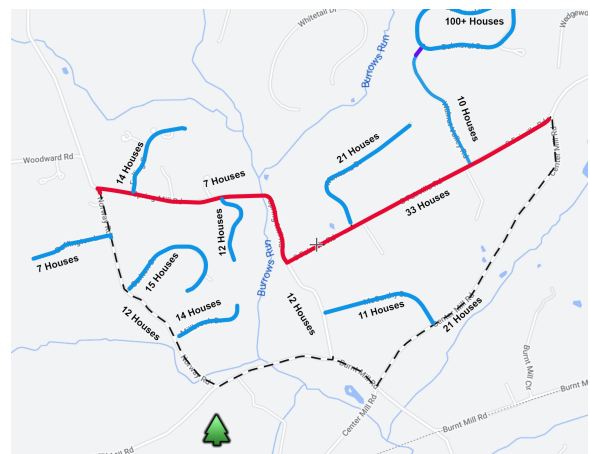
10. Accessibility

- Most of the roadways lack the crowning that is stressful for wheelchair users.
- Most sections have uphill / downhill grades appropriate for wheelchair users, either less than 5% (thin gray sections, like the .6 miles of South Fairville between Montana and Center Mill) or between 5-8% (thick light yellow or green sections)



Healthy Outdoors

11. Connections to Neighborhoods The Fairville /Spring Mills section (in red) connects with 120 houses, the entire loop with 200 houses, and a potential future connection to the Balmoral development (in purple) with 200+ more.



12. Exercise Opportunities This meets recreation needs for a very broad range of walkers, joggers, runners, and many cyclists.

- The entire route and the section of interest offer a good range of options for all users interested in gradually building their comfort with easy to moderate or moderate grades
- We can find no other low-stress road-based cycling route of this length in southern Chester County for cyclists interested in becoming more comfortable sharing the road.

13. Active Transportation Opportunities

The loop connects to the 100+ acre Spar Hill Farm.

14. Connections to Nature Most of the route passes through open fields and woods, including the 160 acre Spar Hill and Lord Howe Preserves



Conclusion: Excellent potential

This loop has excellent potential to help Kennett residents be Healthy Outdoors. Some suggested next steps for the Fairville/Spring Mill section includeing

1. Walking the route to identify sections with limited sight distance (LSDs)
2. Surveying users about interests / concerns
3. Conducting a traffic study to verify prevailing speeds, and targeting any identified LSDs
4. Implementing the Yield Roadway, piloting strategically placed traffic calming as needed
5. Repeat 2, 3, and 4 until prevailing speeds drop below 30 mph

Learn more at www.kennettoutdoors.org/kennett-greenways