

Public Roadway Creek Crossing Requirements



Community Development/Housing/General Government Committee
August 10, 2021

Background

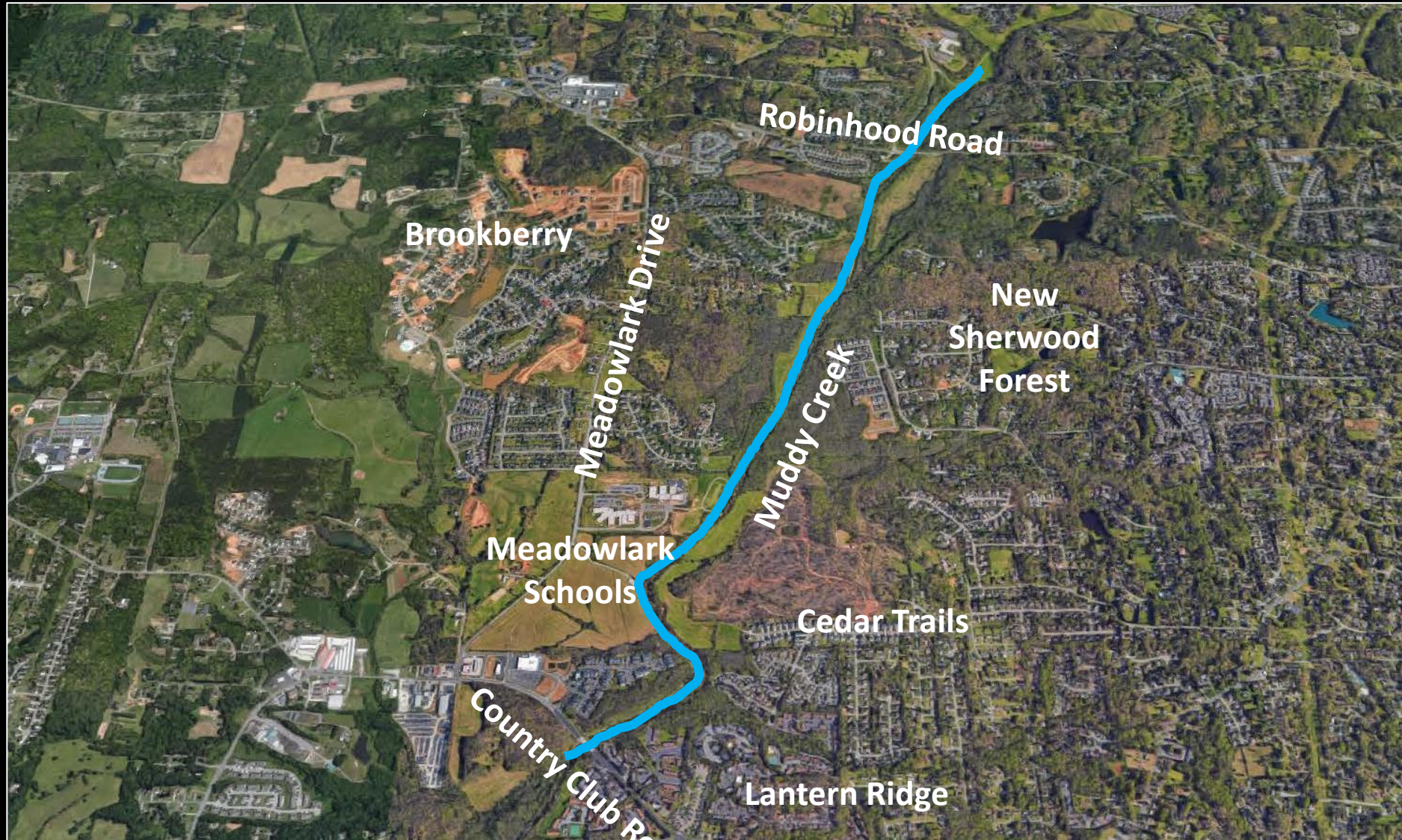


- Doral Drive/Reynolda Road Interchange Plan Public Hearing in Feb. 2021 raised the issues of street connectivity and crossing creeks
- Staff has researched how NC peer cities address public street creek crossings

Inadequate Street Connectivity Impacts

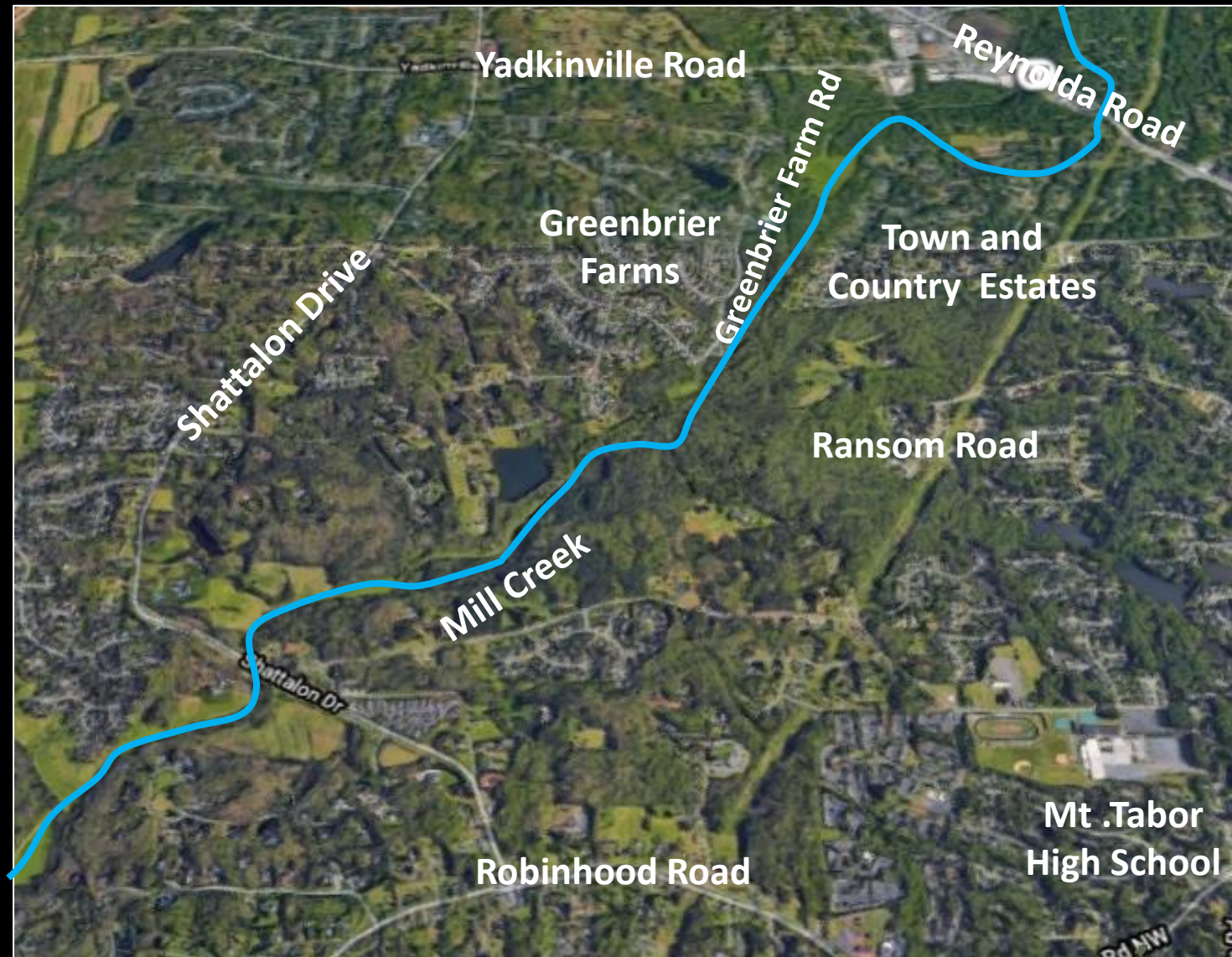
- **Street congestion/longer travel times**
- **Traffic safety issues**
- **Longer Emergency services response times (EMS, Fire, Police)**
- **Two examples**

Muddy Creek between Robinhood Road and Country Club Road*



* No street connections across Muddy Creek

Mill Creek between Yadkinville Road and Robinhood Road*



* No street connections across Mill Creek

Roadway Creek Crossing Costs

(NCDOT Division 9 Projects)

Road(s)	Location	Creek(s)	Estimated Cost	Project #
Watkins Ford Rd (SR 2624)	Forsyth County	Abbott's	\$870,690	17BP.9.R.65
Old Greensboro Rd (SR 2377)	Winston-Salem	Salem	\$1,400,000	BP9.R001
Hastings Hill Rd (SR 2667)	Winston-Salem	Kerner's Mill	\$1,584,000	B-4511
Glade St	Winston-Salem	Peters	\$462,000	B-2882
Dull Road (SR 1170)	Forsyth County	Ellison	\$491,367	17BP.9.C.2
Tuttle Rd (SR 1639) & Priddy Farm Rd (SR 1893)	Forsyth County	W. Fork Muddy/ Muddy	\$912,953	17BP.9.R.64
Yadkinville Rd (SR 1525)	Winston-Salem	Muddy	\$1,800,000	17Bp.9.R.43
Old Salisbury Rd (SR 3011)	Winston-Salem	S. Fork Muddy	\$2,000,000	BP9.R009
Novack St	Winston-Salem	Mill	\$500,000	B-5006

Peer Cities Ordinances and Standards

Subdivision Ordinance Requirements Affecting Street Connectivity						
City	Thoroughfare/ Collector Street Plan Conformance	Maximum Block Perimeter (ft.)	Maximum Block Length (ft.)	Maximum Cul-De-Sac Length (ft.)	Connectivity Ratio (# links/ # nodes)	Stub Street Requirement*
Winston-Salem	Yes	N/A	N/A	800	1.2	1/each of 4 sides
Durham	Yes	N/A	N/A	800	1.4	1/1,000-1,400 ft. for each of 4 sides
Greensboro	Yes	2,400-4,800	600-1,200	650-800	N/A	1/each of 4 sides
High Point	Yes	6,000	N/A	1,200-1,600	N/A	1/each of 4 sides
Charlotte	Yes	N/A	600-1,000	400-600	N/A	1/600-1,000 ft. for each of 4 sides
Raleigh	Yes	2,000-8,000	N/A	300-1,000	N/A	Must meet maximum block perimeter standards

**All stub street requirements subject to waivers and exemptions*

Peer Cities Exemptions/Waivers for Stubbed Streets

Exemptions exist in all cities for natural impediments such as:

- very steep slopes
- perennial creeks/streams, or
- wetlands, municipal water supply watershed critical areas, floodplains

Exemptions also exist for the presence of manmade features such as:

- cemeteries
- historic landmarks
- railroads
- controlled access highways
- churches, hospitals, schools, or
- lotting configurations on adjacent property that does not allow for a stubbed street

Municipal Financial Assistance

- **None of our peer cities offer any policy or program for financial assistance for public street creek crossings**
- **Land parcels adjacent to creeks may remain undeveloped if developers believe that the costs are too great to be absorbed or passed on to buyers or renters**
- **Reduces street network connectivity**

Recommendations

- 1. Consider financially assisting developers with strategic, critical creek crossings**
- 2. Provide more-specific UDO criteria for determining exceptions to street connectivity requirements**