

John Nolen Drive: An Underpass is the Only Option

4/11/2023, Craig Weinhold, craig@madisonbikes.org

The Capital City Path parallel to John Nolen Drive is a bike commuting route, a recreational destination, and a tourist draw. On a nice summer day, it gets over 4,000 bicyclists and at least an equal number of peds. Many of those reach the path via the treacherous street crossings at North Shore Dr and Broom St.



Crash risk is omnipresent, but almost more serious are the daily inconveniences: tight staging areas, "refuge" islands, lengthy wait times, slip lanes, uneven railroad tracks, and, of course, the noise and smell of 50,000 daily cars and trucks. We have no idea how many potential users choose other routes simply because of how uncomfortable and inconvenient today's crossings are¹.

It is time to build an underpass under John Nolen Drive so that bikers and pedestrians can have safe and unimpeded movement between the City and Lake Monona:



¹ My wheelchair-bound mother lives on W Main St. I took her across the Broom St crossing just once, and I will **never** do it again. That's how awful the experience was.

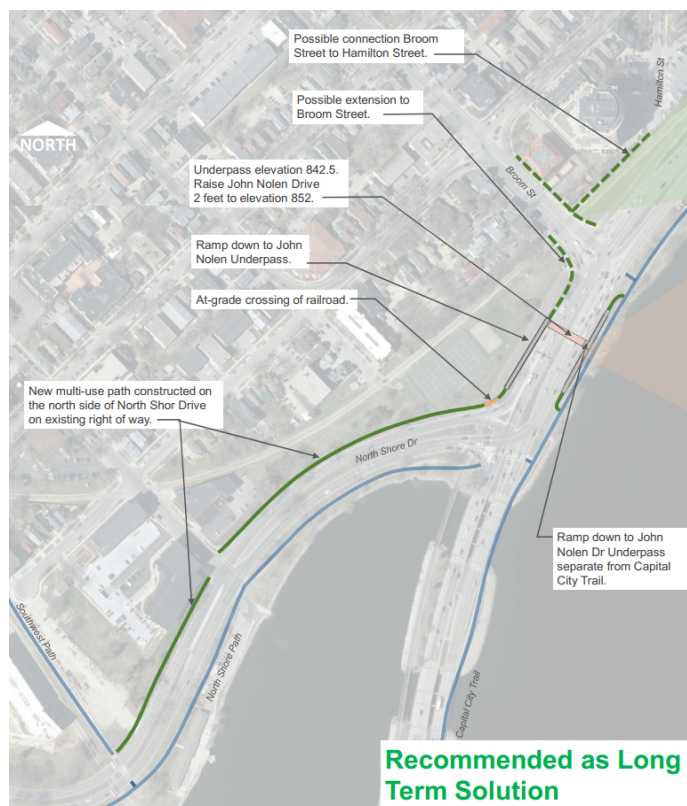
Why now?

- The City's [John Nolen Drive \(JND\) Reconstruction project](#)² is in full swing. The concrete poured will shape the causeway and southern Law Park for 30+ years. When City engineers brought up the idea of an underpass at a public information meeting, it was *wildly* supported by attendees:



The City's JND project also plans to extend the path network through *Brittingham Park 2*, the small park with tennis courts and a dog exercise area. That would be where an underpass would land, connecting the lakefront to that park's amenities.

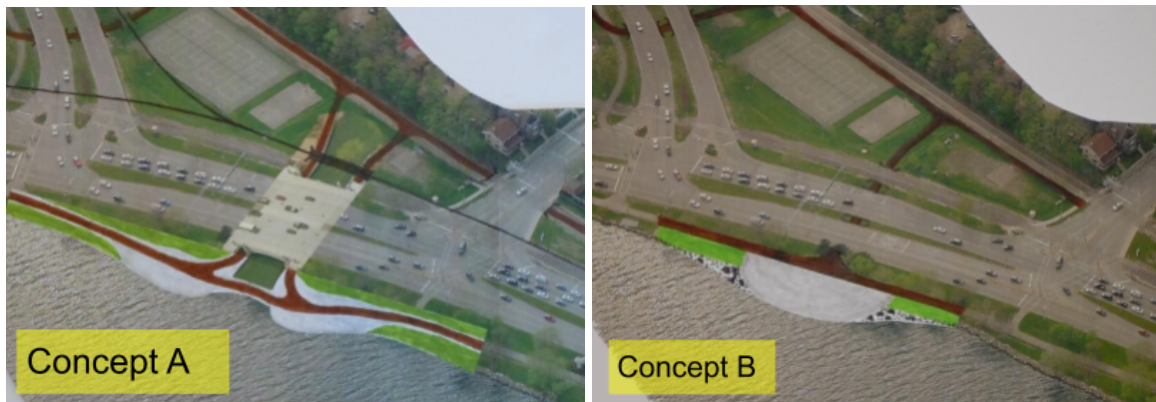
- The City itself recommended an underpass as the long-term solution in 2017's [Blair/John Nolen Drive Corridor Study](#)³:



² <https://www.cityofmadison.com/engineering/projects/john-nolen-drive>

³ <https://www.cityofmadison.com/engineering/projects/blair-street-john-nolen-drive-corridor-study>

- Engineer Ron Shutvet independently researched the technical feasibility of two underpass concepts in the Dane County [Master Plan Collaborative](#)⁴ 2011 & 2017. His designs are practical, innovative, and could save the City months of their own engineering effort.



- In Madison Parks' 2023 [Lake Monona Waterfront Design Challenge](#)⁵, two of the three design firms recognized the need for underpasses in this area with one, James Comer Field Operations, labeling it a top priority. The timeline of the Challenge effectively means the City's JND project engineers will soon have access to technical, architectural, and aesthetic expertise of a world-class urban design firm.



- The City's long-discussed plan for two-way cycletrack along Wilson Street is [now kicking off](#)⁶. This path will provide a gentler climb up to Monona Terrace, MLK Drive, and the Capitol Square from both directions. It's important that the flat Capital City Trail has an easy and robust connection to it.
- Finally, the 25+ year old [Bassett Neighborhood Master Plan](#)⁷ states that the neighborhood sorely lacks character worthy of its location, history, and growth potential. The Plan calls for safer bike/ped connectivity to the lake, but it also stresses the need for the neighborhood's lake edge to be beautified. An underpass and potential railroad realignment would deliver on that, and would also make Brittingham Park 2 a first-class destination.

⁴ <https://aecstudy.countyofdane.com/documents/John-Nolen-Drive-Corridor-Master-Plan-Collaborative-07282017-from-Ron-Shutvet.pdf>

⁵ <https://www.cityofmadison.com/parks/projects/lake-monona-waterfront-design-challenge>

⁶ <https://www.cityofmadison.com/engineering/projects/300-block-w-wilson>

⁷ <https://www.cityofmadison.com/dpced/planning/documents/bassett.pdf>

What are the obstacles?

- **Water.** A tunnel under today's John Nolen Drive would be 3.5' below current lake level and 6' below the high water mark set during the 2018 floods. It would require careful design and continuous pumping, a costly and technically-challenging approach.

The underpass described in the City's 2017 JND/Blair corridor study would raise JND by 2'. Ron Shutvet's concepts would raise the streets by 6-7' and the railroad by 4". These are *not* far-fetched ideas. The neighborhood's edge is already far above JND, as evidenced by the steep drops of Broom and Bassett as they approach the railroad tracks. The earth-moving needed to raise the streets and railroad carries a cost, but it is a predictable cost that follows a predictable schedule.

- **Multiple jurisdictions.** Possibly the biggest obstacle is that a tunnel would touch many jurisdictions: City, State DOT highway, State DOT Railroad, State DNR, etc. To City engineers, the extra steps needed on a multi-jurisdictional project add months or years. As frustrating as it is, the wrong response is to avoid important projects solely because of such human-created difficulties.

The good news is that important multijurisdictional projects can work just fine. In 2016, County, State, and Federal agencies worked together to realign the Canadian Pacific railroad tracks through Cherokee marsh near the airport. In Madison, a future passenger rail station will also be multijurisdictional.

- **Money.** Although an underpass is considerably cheaper than an overpass, it will still cost several million unfunded dollars. Federal money is available, but grants take time and effort and securing funding for projects like this is typically a multi-year process. City shortfalls won't help the matter.

Luckily, the cost of a tunnel is very low compared to the value it brings to the City, the Bassett Neighborhood, non-motorized transport, and recreation opportunities. A tunnel would immediately become the main way to reach the lakefront from campus or anywhere south or west of the Capitol. It would also achieve many of the lofty goals of the Lake Monona Waterfront Design Challenge at a fraction of the price.

- **Time.** The City hopes to have a final JND causeway design in 2024 and do construction in 2026. The obstacles listed above may delay that schedule.

However, ***it should still be done!*** If John Nolen Drive's reconstruction leaves out the underpass, it's unlikely to ever be built at all.

Are there other benefits?

- Street-level crossings would still be needed but could be engineered to a more car-friendly standard, meaning reduced idling, better air quality, and less acceleration & braking noise.
- Ron Shutvet's underpass option A includes stormwater filtration. All three Lake Monona Waterfront Design Challenge firms also included stormwater management to reduce the amount of pollution reaching Lake Monona.
- His option A also realigns the railroad tracks so that Broom St crosses only one set of tracks instead of two. This simplifies our streets and enlarges Brittingham Park 2.
- Raising JND where its causeway meets North Shore Drive would allow for boat clearance into Monona Bay during high water events like 2018.

For an exhaustive list of underpass pros & cons, please see Ron Shutvet's Master Plan Collaborative document linked above.

What about an overpass?

All previous studies have concluded that an underpass is the way to go. Overpasses cost more than underpasses. To clear the railroad tracks, an overpass would need to be 50% longer and almost twice as high as the overpass on East Washington near Starkweather Creek. It would block views, have long ramps, and add ½ mile and 30' of climbing to anyone using it. At a JND public information meeting, a majority of attendees said they would take a street-level crossing rather than use such a bridge.



Next steps?

April 2023 is the critical month. City engineers are hard at work processing public input and planning the JND causeway. My impression is that the overpass concept has been put on the back-burner due to funding. It is now up to the City's [Transportation Commission](#)⁸ to insist that an underpass be included as part of the JND reconstruction, even if it delays the project. Public input can help! Please follow the [John Nolen Drive project](#), take its surveys, and email your thoughts to JNDproject@cityofmadison.com. Also, reach out to your Alders to let them know how important this issue is, so that they are informed when it comes before them.

⁸ <https://www.cityofmadison.com/city-hall/committees/transportation-commission>