

2.0 Concepts Considered and Dismissed

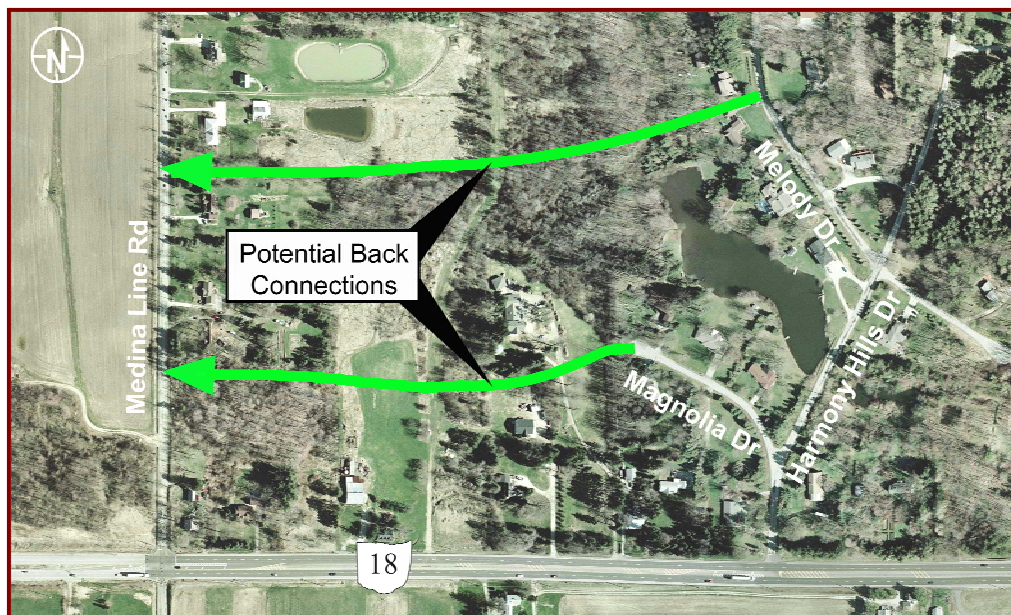
2.1 Intersection Concepts (Concepts with Independent Utility)

Existing and Future Conditions

The existing unsignalized intersections along SR 18 at Harmony Hills Dr and North Hametown Rd both experience operational failures (LOS F) on the side street approaches in the future 2030 condition PM Peak Hour due to a lack of acceptable gaps in the heavy westbound SR 18 traffic to allow left turn movements. In a No-Build for the 2030 PM Peak Hour delays at Harmony Hills Dr exceed 57 seconds and at North Hametown Rd the delays exceed 1200 seconds.

Concepts Considered and Dismissed

Back Connection to Harmony Hills – This concept proposes the creation of a local street connection from the Harmony Hills Dr subdivision to Medina Line Rd to provide an alternate route for vehicles currently making a left in or out of the unsignalized intersection of Harmony Hills Dr and SR 18. Residents of the Harmony Hills subdivision would now have indirect access to a signalized intersection at SR 18 and Medina Line Rd via the proposed back connection to Medina Line Rd.

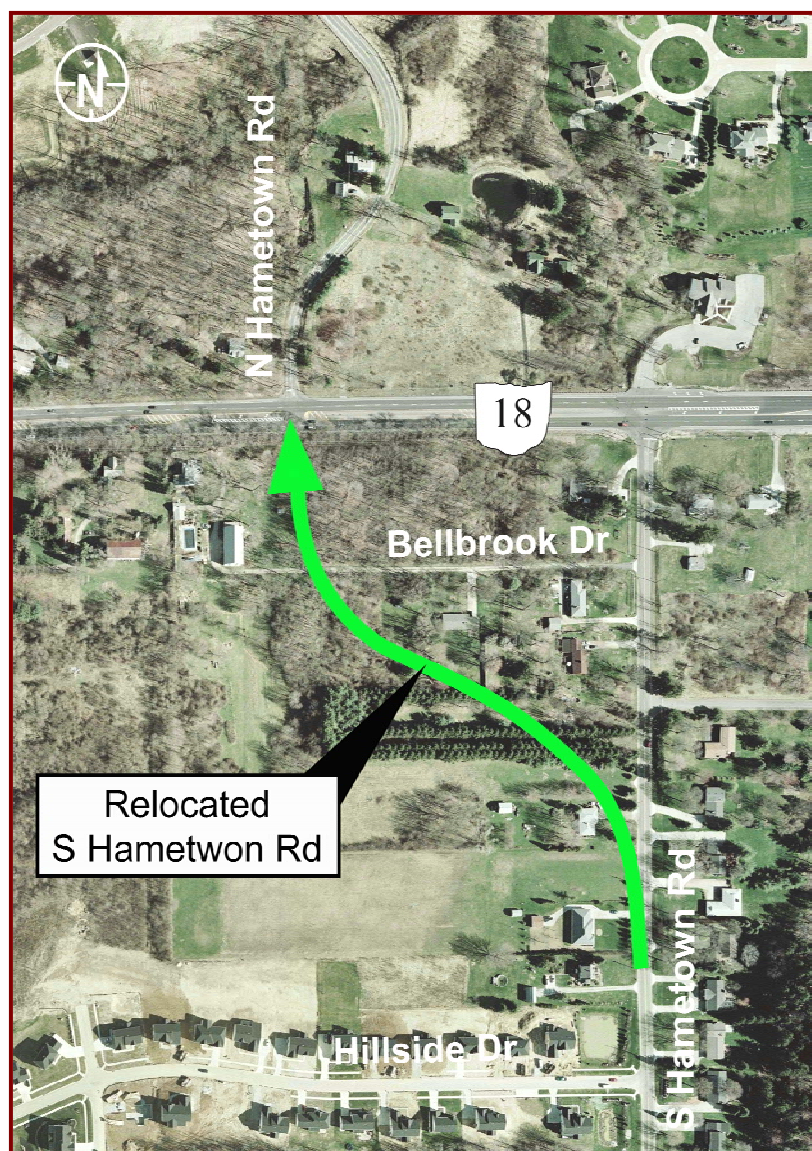


Back Connections from Harmony Hills to Medina Line

Due to the low volume of vehicles making left turns out of Harmony Hills Dr in the peak hours, it has been deemed infeasible to construct a back connection from Harmony Hills to Medina Line due to economic constraints and right-of-way impacts to existing residences in the vicinity.

Realignment of South Hametown Rd to North Hametown Rd – This concept proposes realigning South Hametown to form a single signalized intersection with North Hametown Rd at SR 18. This improvement would enable vehicles traveling southbound on North Hametown, which would experience a delay of over 1200 seconds in the future No-Build condition, to make a signalized left onto eastbound SR 18. Without realigning North and South Hametown Rd to a single intersection, North Hametown Rd alone does not have enough traffic to warrant a signal.

Any realignment of South Hametown Rd would be infeasible due to right-of-way costs stemming from the acquisition of multiple residential parcels along South Hametown Rd and Bellbrook Dr. In addition, the required excavation through a solid rock face adjacent to the south side of SR 18 would be cost prohibitive.



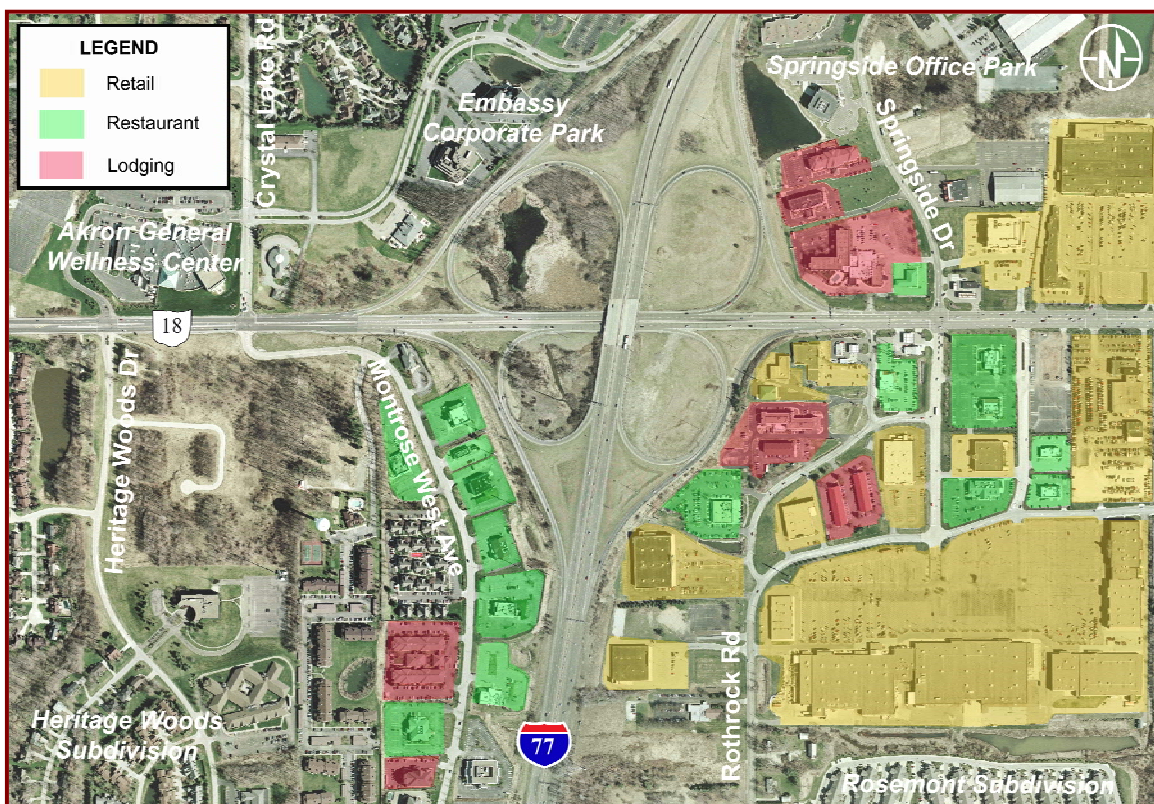
Realignment of South Hametown Rd to North Hametown Rd

2.2 Local Connector Roads

Existing and Future Conditions

The SR 18 principal arterial is the only east-west connection across the I-77 and SR 21 freeways in the Montrose area. Cleveland-Massillon Rd crosses I-77 both north and south of Montrose, with a half diamond interchange providing access to and from southbound I-77 in southern Fairlawn. To the North, Cleveland-Massillon Rd provides indirect access to northbound and southbound I-77 via the Ghent Rd interchange in Bath Township. To the south of the study area, Ridgewood Rd, a two-lane collector road, is the nearest east-west connection across SR 21.

To the West of I-77 adjacent trip generators include Embassy Parkway Corporate Park, Akron General Wellness Center, Montrose West food and lodging, and a multitude of Copley Township subdivisions. To the East of I-77 adjacent trip generators include multiple shopping plazas, numerous restaurants, several hotels and a business park on Springside Dr. Currently, the majority of local trips originating on one side of I-77 and terminating on the other side utilize SR 18. These trips contribute to the congestion experienced within the study corridor, particularly from Heritage Woods Dr through the I-77 interchange to Springside Dr.



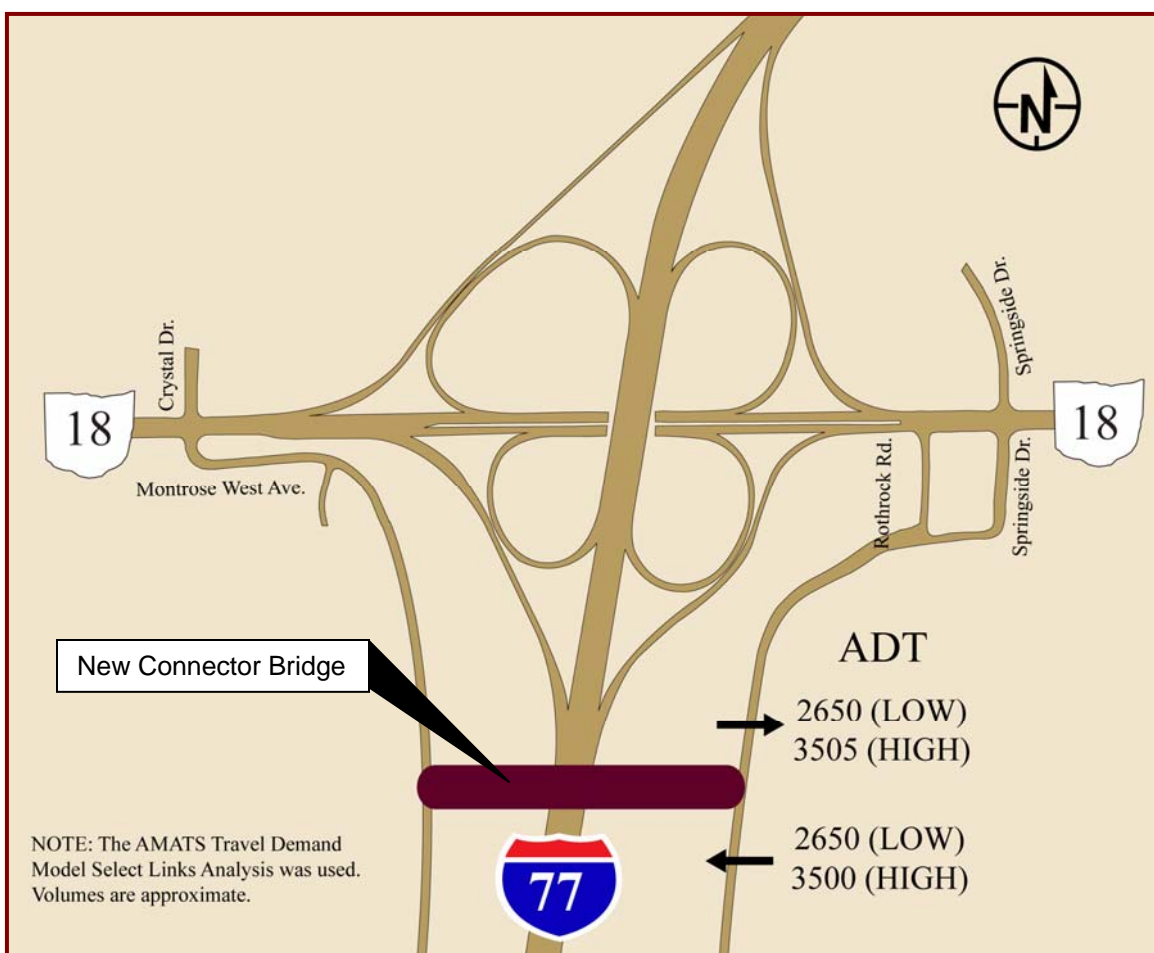
Destinations in the Vicinity of the I-77 & SR-18 Interchange

Concepts Considered and Dismissed

Connector Bridge – Montrose West Ave to Rothrock Rd – This concept proposes the construction of a new structure over I-77 south of SR 18 between Montrose West Ave and Rothrock Rd. This newly created connector would provide motorists with a direct link between Montrose West hill and the commercial development along Rothrock Rd, Springside Dr and Brookwall Dr southeast of the SR 18/I-77 interchange.

Approximate traffic volumes were generated for the proposed connector bridge using the AMATS Travel Demand Select Links Analysis. The ADT was estimated to be between 2650 and 3500 vehicles in each direction. With approximate ADT of only 6000 vehicles the construction of the proposed connector bridge would have a negligible impact on the SR 18 LOS through the I-77 interchange.

Creating a direct link between Montrose West Ave and Rothrock Rd would have negligible impacts on SR 18 traffic, hence the construction of new roadway and structure over I-77 is not an economically viable option.



Connector Bridge - Montrose West Ave to Rothrock Rd

Southbound I-77 Spur Ramp to Embassy Parkway – This concept proposes the addition of a spur ramp off the southbound I-77 to SR 18 ramp to Embassy Parkway. This additional connection aims to remove commuter traffic destined for the Embassy Parkway corporate park from the I-77 southbound exit ramp/SR 18 intersection and the SR 18/Crystal Lake intersection.

The benefit of this movement in the AM peak hour is minimal because commuters making this the aforementioned trip currently make only rights turns, one at a stop sign at SR 18 and two at signals at Crystal Lake Rd and Embassy Parkway. The accompanying return movement in the PM Peak Hour would require vehicles to make two left turns to return to I-77. In addition, an alternative to the SR 18 interchange already exists for southbound I-77 traffic indirectly via the Ghent Rd interchange and the 1996 extension of Embassy Parkway to a signalized intersection with Cleveland-Massillon Rd.



Spur Ramp – I-77 SB to Embassy Parkway

Several factors preclude the further development of the Embassy Parkway slip-ramp concept. First, the concept only removes right turns which have the least affect of any movement on traffic operation at an intersection because they can be made on red after a stop. Second, a viable back connection for traffic traveling to and from I-77 to the North already exists at the eastern terminus of Embassy Parkway via Cleveland-Massillon Rd and the Ghent Rd interchange. Finally, slip ramps present a dilemma for ODOT maintenance crews because they cannot plow the entire ramp in one pass. As a result of these factors the Embassy Parkway slip-ramp is dismissed from further consideration.

Connector Bridge – Embassy Parkway to Springside Dr – This concept proposes the construction of a new structure over I-77 north of SR 18 between Embassy Parkway and Springside Dr. This newly created connector would provide motorists with a direct link between the Embassy Parkway Corporate Park and the business park along Springside Dr, in addition to providing an indirect connection with commercial and retail development along Cleveland-Massillon Rd and SR 18 northeast of the SR 18/I-77 interchange.

This concept was explored due to the unusually high number of left turns from eastbound SR 18 to northbound Springside Dr in the PM Peak Hour (260 vehicles.) It is probable that these turns do not originate from Embassy Parkway since that street already has indirect access to Springside Dr via Cleveland-Massillon Rd at its eastern terminus.

Creating a direct link between Embassy Parkway and Springside Dr would have negligible impacts on SR 18 traffic, therefore the construction of new roadway and structure over I-77 is not an economically viable option.



Connector Bridge – Embassy Parkway to Springside Dr