



**BALTIMORE
METROPOLITAN
COUNCIL**

REPORT

MD 22

Before and After Study

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MD 22 Before and After Study

There were numerous improvements on MD 22 between 2016 and 2018.

MD 22 and Old Post Road was open to traffic in October 2016. The project included:

- Add a third through-lane to both eastbound and westbound MD 22 by widening to the outside.
- Lengthen right-turn lanes on MD 22 eastbound and westbound.
- Add an additional left-turn lane from MD 22 eastbound to Old Post Road northbound by shifting the eastbound lanes.
- Widen existing MD 22 median east of the intersection to accommodate the shifted MD 22 eastbound lanes.
- New traffic signal and resurface roadway within project limits.
- New noise wall along eastbound MD 22 east of the intersection.

On Old Post Road:

- Widen to provide an additional northbound through-lane and extend the southbound left-turn lane. The majority of the roadway
- Widening is proposed on the east side of Old Post Road, with minimal widening on the west side.
- New curb/gutter and sidewalks within project limits.

MD 22 at Beards Hill Road was open to traffic in August 2018. The project included:

Intersection of MD 22 at Beards Hill Road:

- Add a third through-lane to both eastbound and westbound MD 22 by widening to the outside.
- Lengthen right-turn lanes on MD 22 eastbound and westbound.
- Add an additional left-turn lane from MD 22 eastbound to Beards Hill Road northbound into the median and shift the eastbound lanes.

- Lengthen left-turn lanes in both directions on MD 22 at Middleton Road.
- Add sidewalk along MD 22 between Middleton Road and I-95 and along the north side of MD 22 from the Aberdeen Fire Station #2 to Middleton Road.

Beards Hill Road:

- Widen the existing single left-turn lanes to double left-turn lanes on each approach to MD 22.

MD 22 at Paradise Road was open to traffic in July 2018. The project included:

At the intersection of MD 22 and MD 462:

- Add a third through-lane to MD 22 in both directions by widening to the outside.
- Lengthen right-turn lanes on MD 22 westbound to MD 462 northbound.
- Add sidewalk along MD 22, Graceford Drive and Middleton Road, at the request of Harford County.
- New curb/gutter, sidewalk, and resurfacing within the project limits.
- Replace traffic signal.
- Noise wall along MD 22 in both directions east of MD 462.

On MD 462:

- Provide double left-turn and dedicated right -turn lanes on southbound MD 462.
- Add a new right-turn lane to northbound MD 462

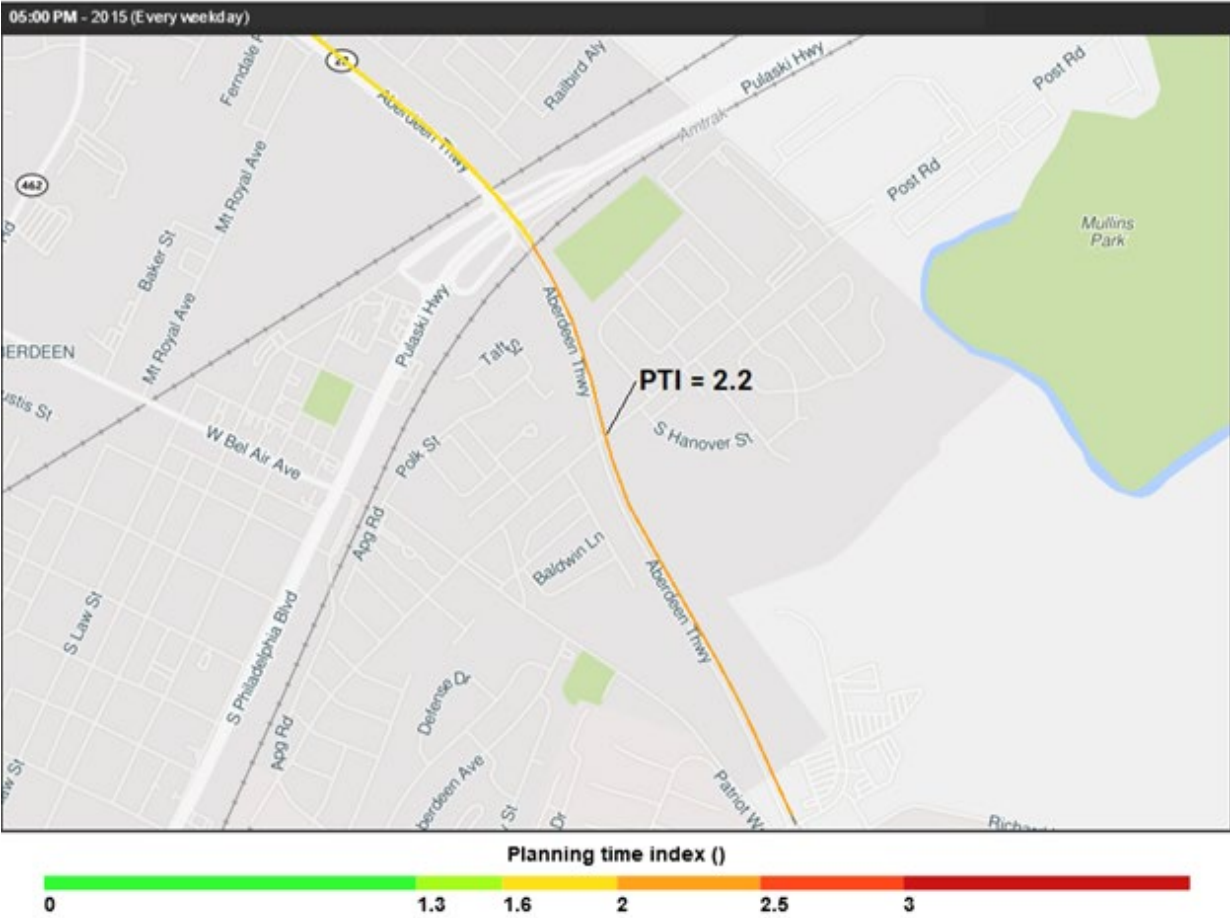
The preliminary results on MD 22 in Harford County showed speeds and Travel Time Index changed very little. However Reliability with Planning Time Index showed some good improvement westbound. Eastbound data was pretty stagnant but did not get worse.

The following maps show the Planning Time Index (PTI) which measures the reliability of a roadway. By definition the PTI is the total travel time that should be planned when an adequate buffer time is included (95% Travel Time / Free-flow Travel Time). The planning time index differs from the buffer index because it includes typical delay as well as unexpected delay. Thus, the planning time index compares near-worst case travel time to a travel time in light or free-flow traffic. For example, a planning time index of 1.60 means that, for a 15-minute trip in light traffic, the total time that should be planned for the trip is 24 minutes (15 minutes x 1.60 = 24 minutes).

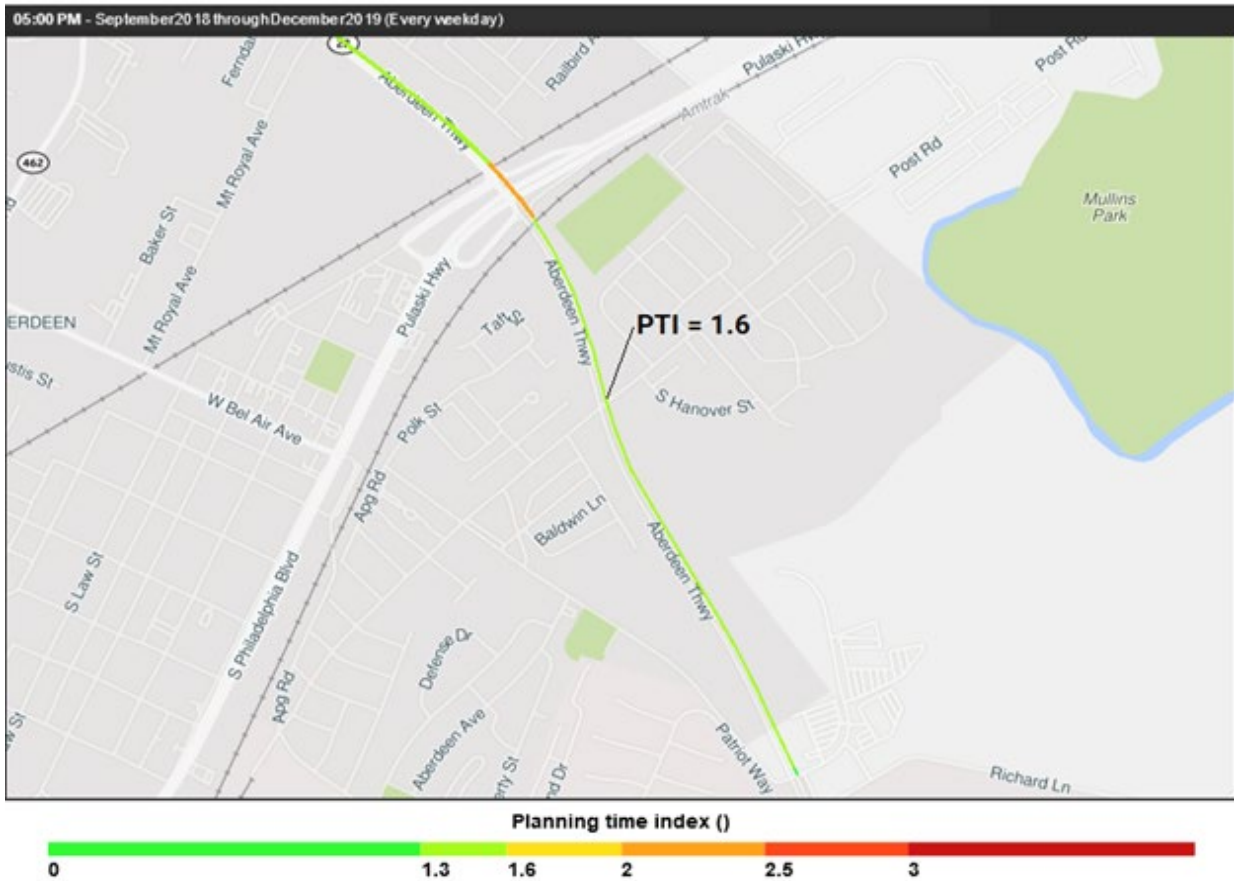
In the following examples the “before” is the year 2015 weekdays pre-project start and the “after” September 2018 to present. The focus is on the 5 pm hour which by observation is the most congested time of day in the project areas.

MD-22 at Old Post Rd WB had a PTI of 2.2 before the projects and improved to 1.3. Traffic volume showed a decrease on MD-22 in this area in Annual Average Weekday Traffic (AAWDT) from 24,334 pre-project to 23,990 after project completion.

Planning Time Index - Before Projects (Weekday AVG 5pm)

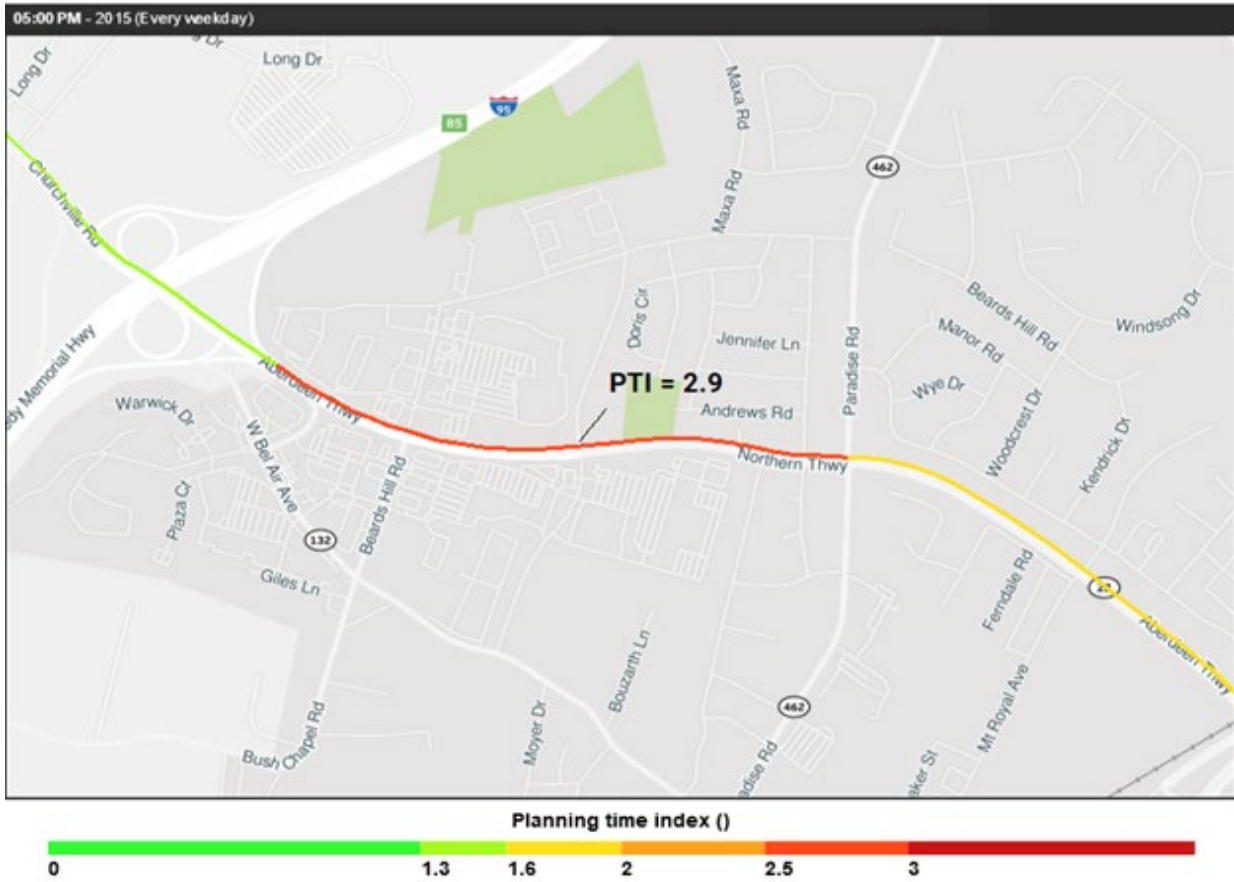


Planning Time index - After Projects (Weekday AVG 5pm)

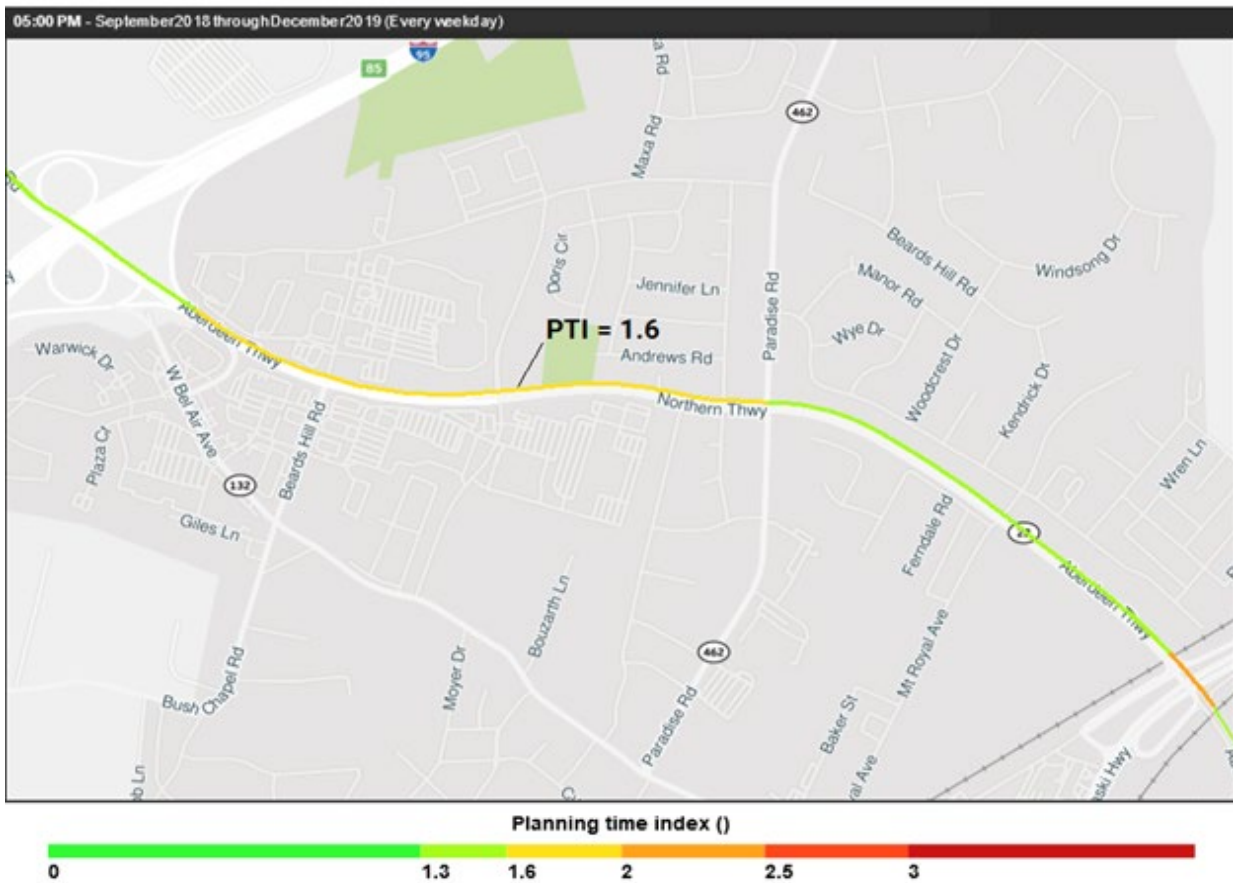


MD 22 between Paradise Rd and Beards Hill Rd showed a very significant improvement in PTI from 2.9 to 1.6. This occurred despite an increase in Annual Average Weekday Traffic (AAWDT) from 25,483 pre-project to 27,840 after project completion.

Planning Time Index - Before Projects (Weekday AVG 5pm)



Planning Time Index - After Projects (Weekday AVG 5pm)



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