Medical Center Station Access Improvement Study

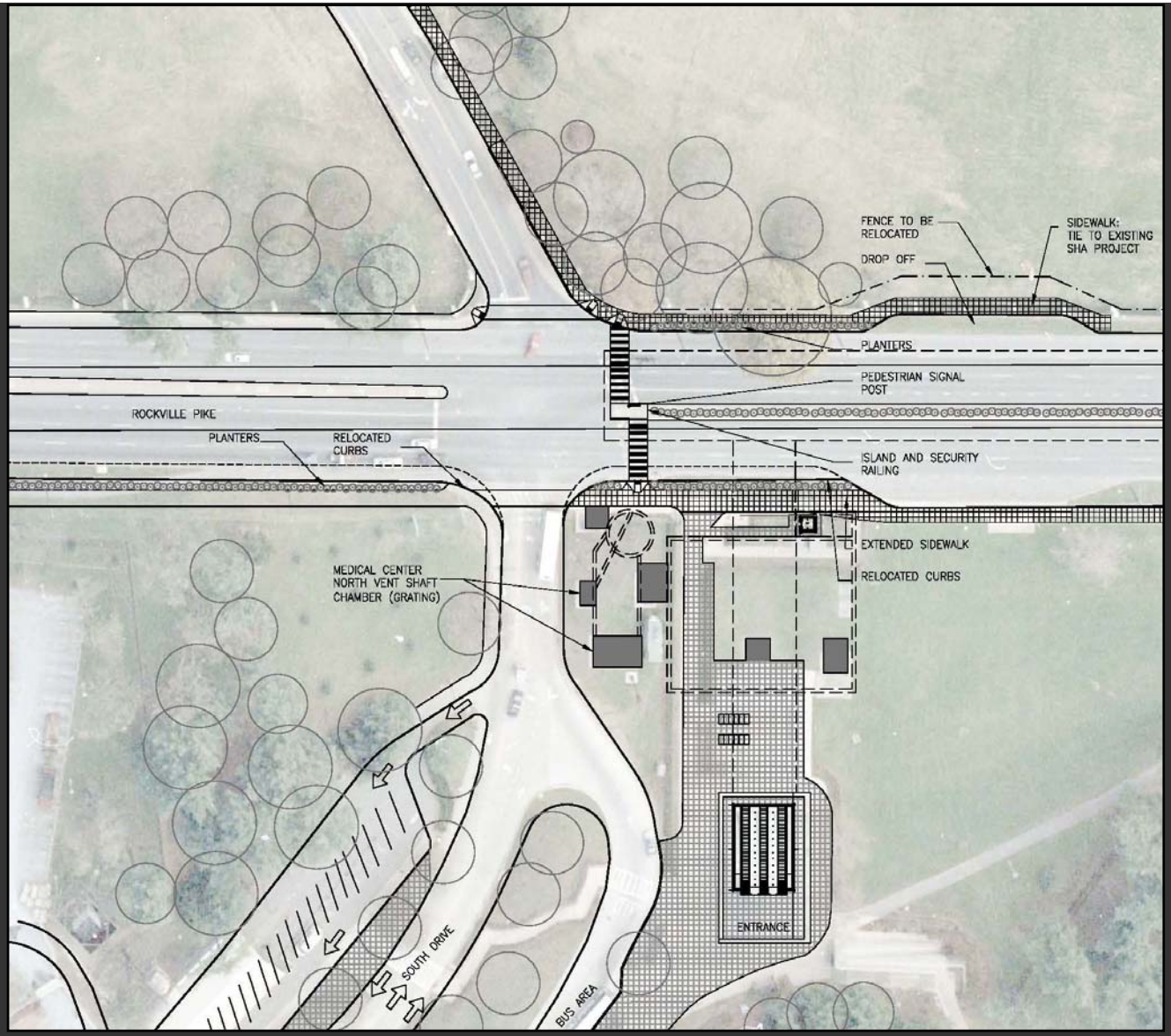
June 16, 2009

BRAC Implementation Committee Meeting

Alternatives

1. No build
2. Deep elevators
3. Shallow tunnel
4. Deep elevators & shallow tunnel
5. Pedestrian bridge

Alternative 1: No Build



Alternative 1: No Build

Components:

- Median expansion
- Roadway widening on west side
- Addition of pick-up/drop-off on east side
- Maintenance of Traffic

Alternative 1: No Build

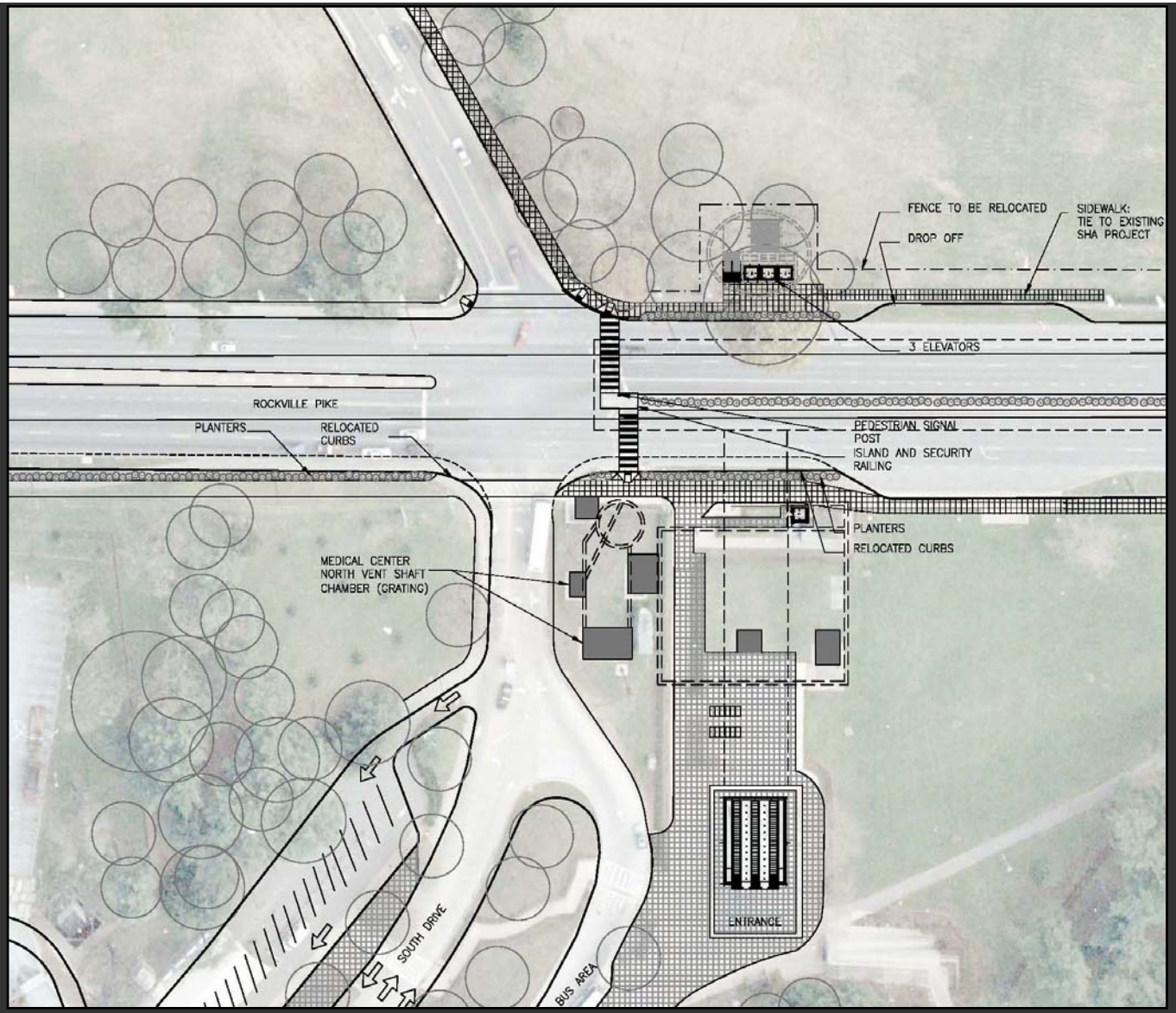
What it will do

- Enhance pedestrian safety

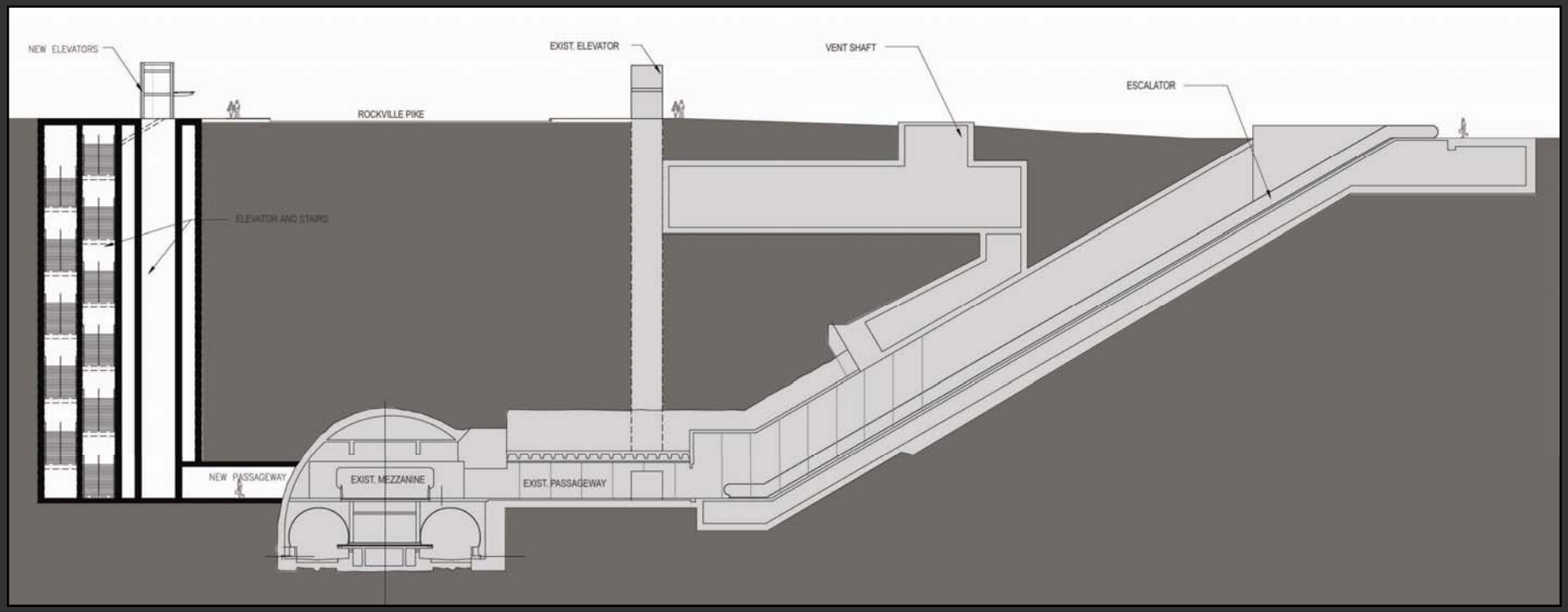
What it won't do

- Reduce the number of people crossing the intersection at-grade
- Reduce conflicts between pedestrians and turning vehicles

Alternative 2: Deep Elevators



Alternative 2: Deep Elevators



Alternative 2: Deep Elevators

Components:

- New Mezzanine Passageway
- 3 Street to Mezzanine Elevators
- Emergency Stair Shaft
- 1 Platform to Mezzanine Elevator
- 1 Platform to Mezzanine Stair
- Median expansion
- Roadway widening on west side
- Addition of pick-up/drop-off on east side
- Maintenance of Traffic

Alternative 2: Deep Elevators

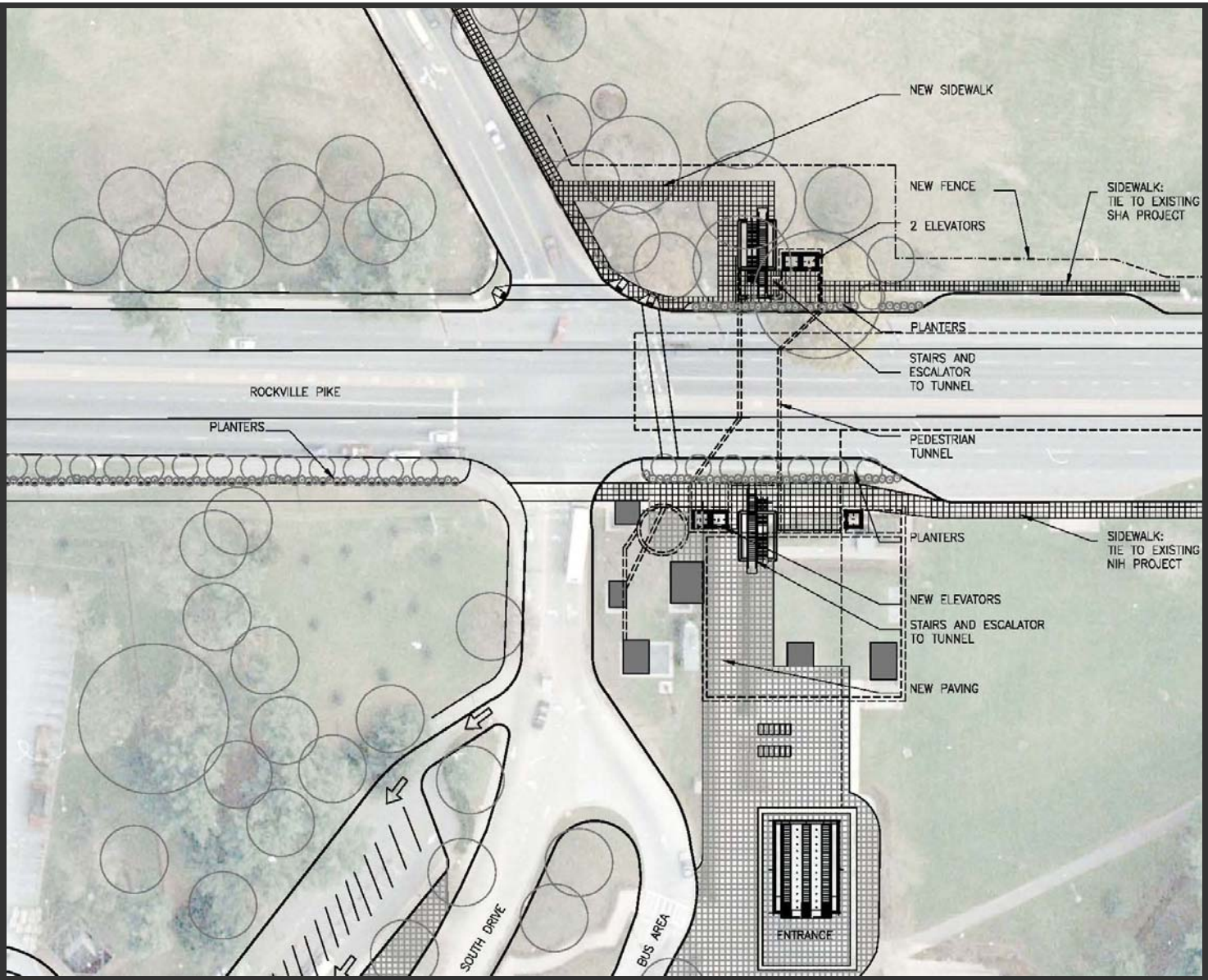
What it will do

- Reduce the number of pedestrians crossing at grade by 80% (Metrorail users)
- Reduce the number of conflicts between pedestrians and vehicles
- Reduce the trip time for NNMC Metrorail riders
- Reduce the delay for vehicles exiting NNMC in the PM Peak

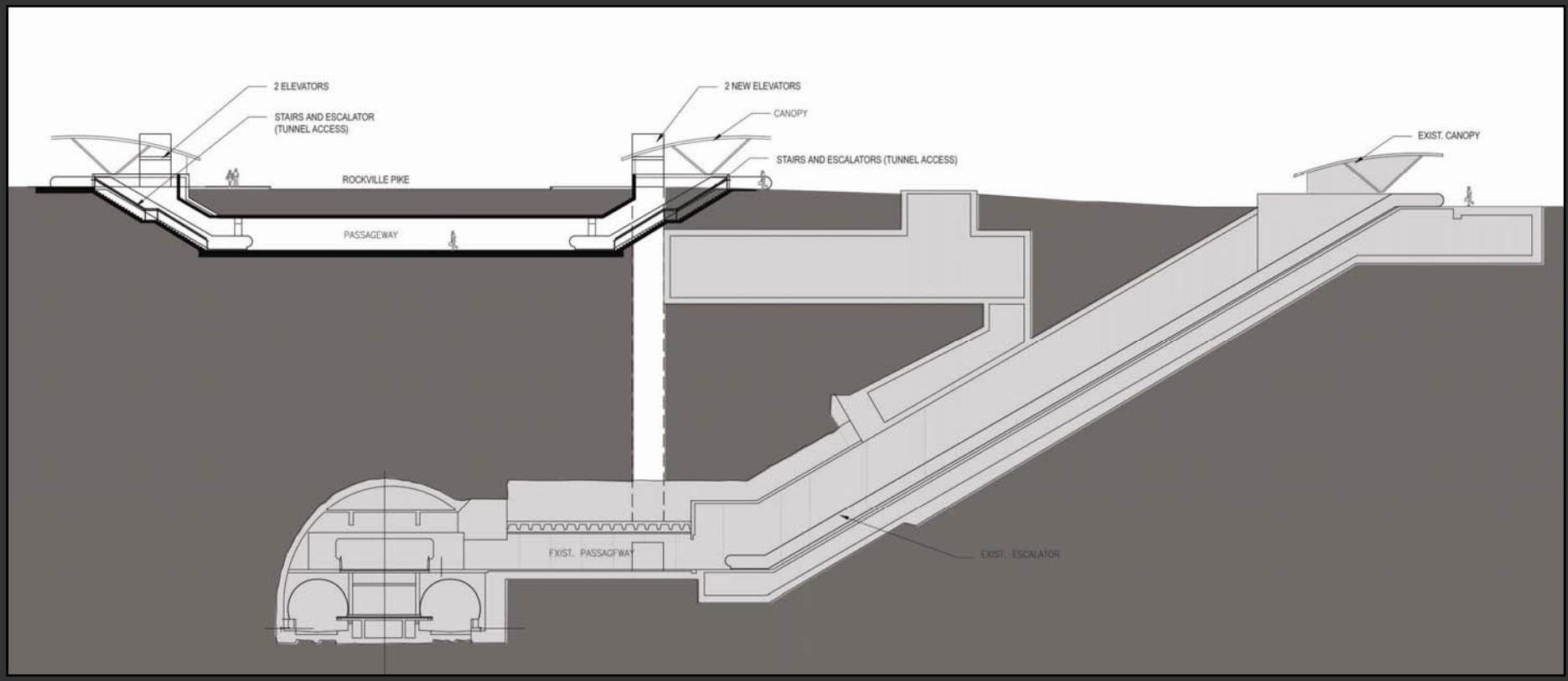
What it won't do

- Serve the bus riders or other pedestrians

Alternative 3: Shallow Tunnel



Alternative 3: Shallow Tunnel



Alternative 3: Shallow Tunnel

Components:

- Underground Shallow Tunnel (Mined)
- 4 Street to Tunnel Elevators (2 eastside & 2 westside)
- 2 Escalator/Stair Pairs
- 2 Canopies
- Addition of pick-up/drop-off on east side
- Maintenance of Traffic

Alternative 3: Shallow Tunnel

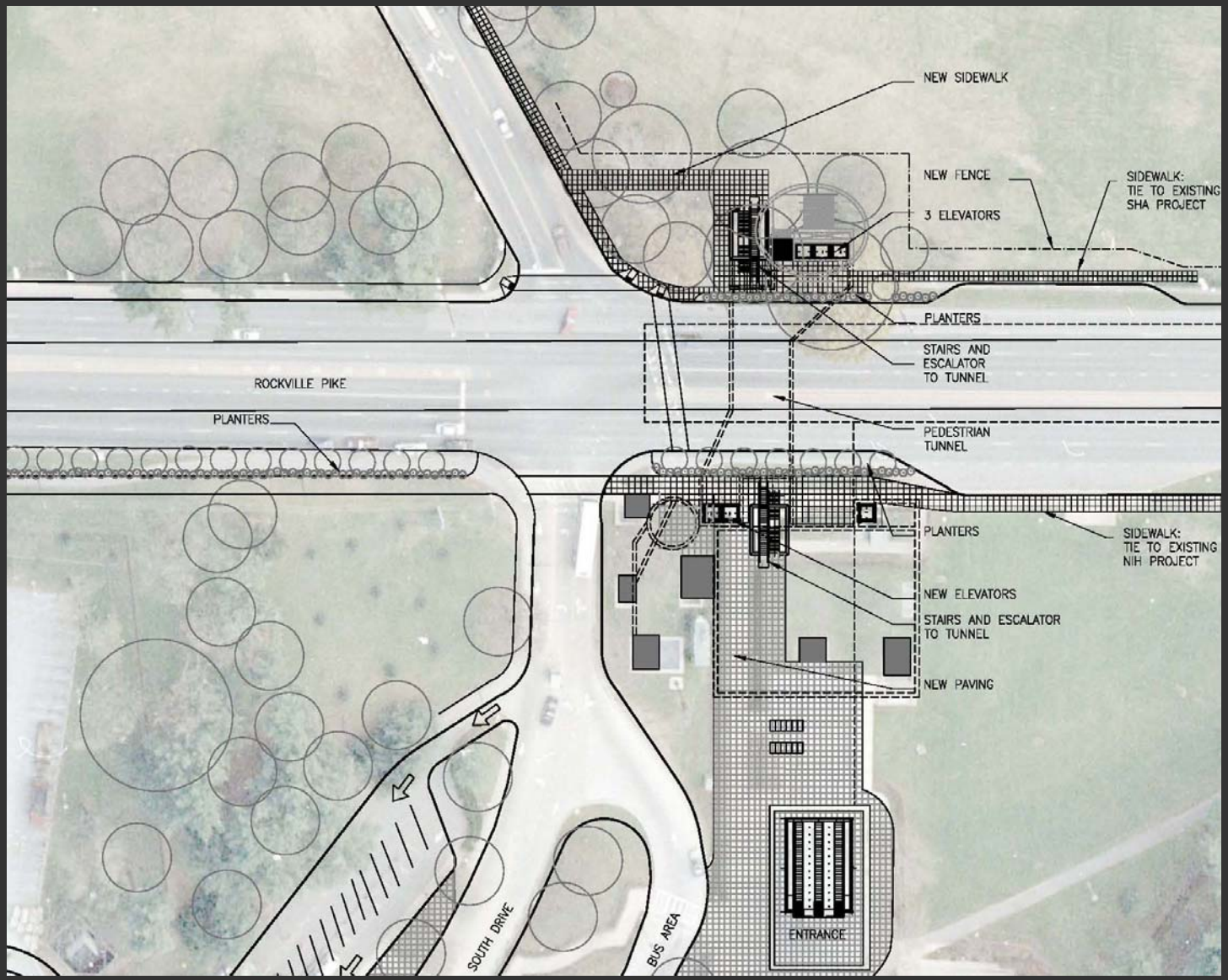
What it will do

- Potentially reduce all at-grade crossings
- Reduce the number of conflicts between pedestrians and vehicles
- Reduce the delay for vehicles exiting NNMC in the PM Peak
- Give pedestrians an option for crossing Rockville Pike

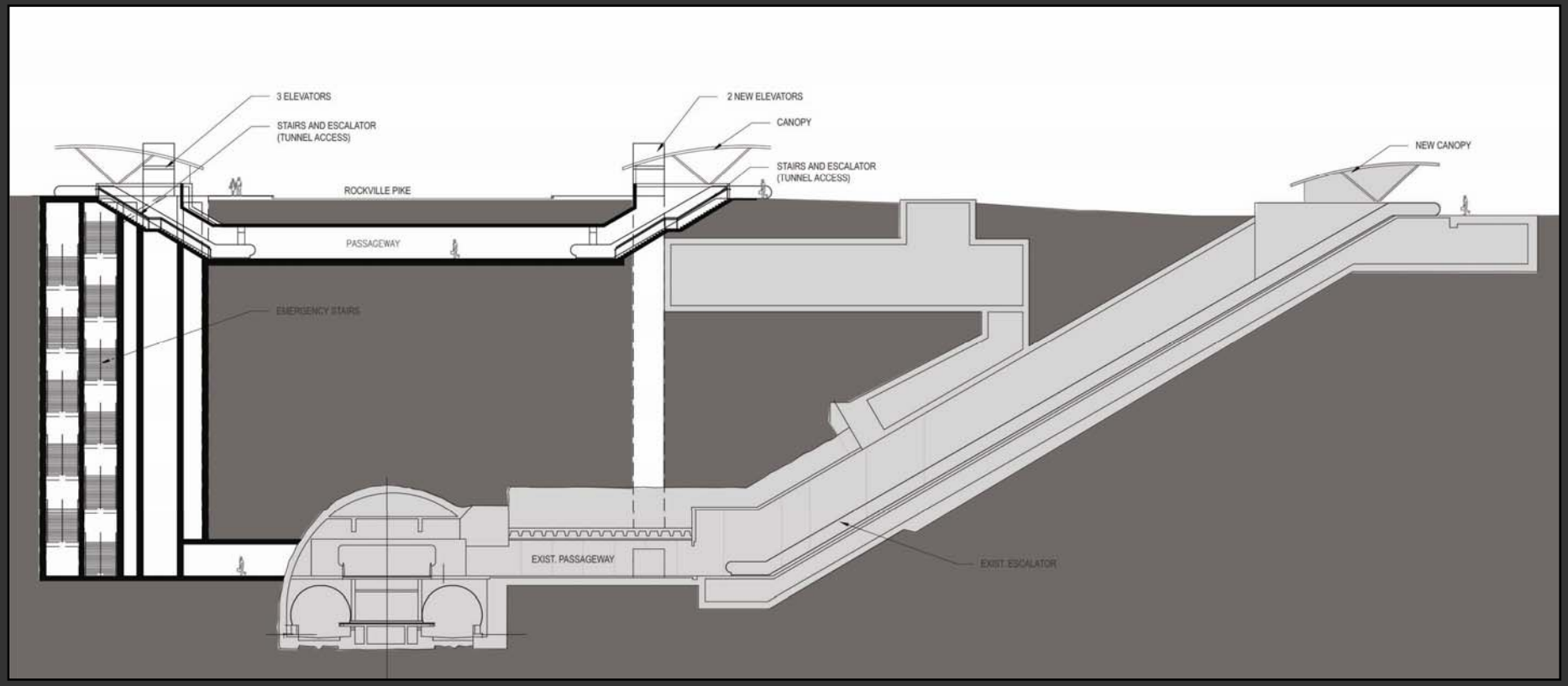
What it won't do

- Reduce trip time for any pedestrians

Alternative 4: Deep Elevators & Shallow Tunnel



Alternative 4: Deep Elevators & Shallow Tunnel



Alternative 4: Deep Elevators & Shallow Tunnel

Components:

- New Mezzanine Passageway
- 3 Street to Mezzanine Elevators
- Emergency Stair Shaft
- 1 Platform to Mezzanine Elevator
- 1 Platform to Mezzanine Stair
- Underground Shallow Tunnel (Mined)
- 4 Street to Tunnel Elevators (2 eastside & 2 westside)
- 2 Escalator/Stair Pairs
- 2 Canopies
- Addition of pick-up/drop-off on east side
- Maintenance of Traffic

Alternative 4: Deep Elevator & Shallow Tunnel

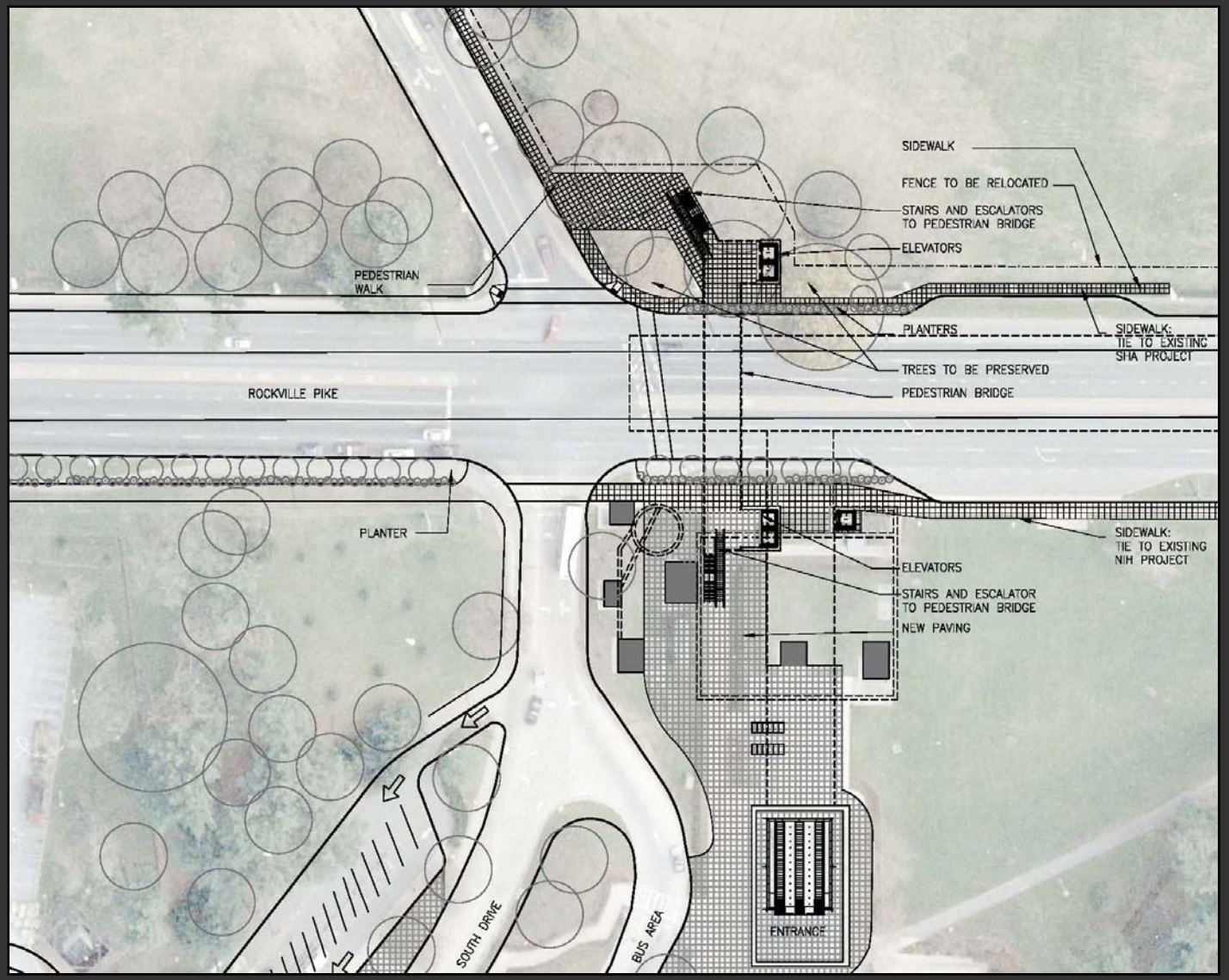
What it will do

- Potentially reduce all at-grade crossings (80% Metrorail users + 20% bus patrons and other pedestrians)
- Reduce the number of conflicts between pedestrians and vehicles
- Reduce the delay for vehicles exiting NNMC in the PM Peak
- Reduce the trip time for NNMC Metrorail riders
- Give bus patrons an option for crossing Rockville Pike

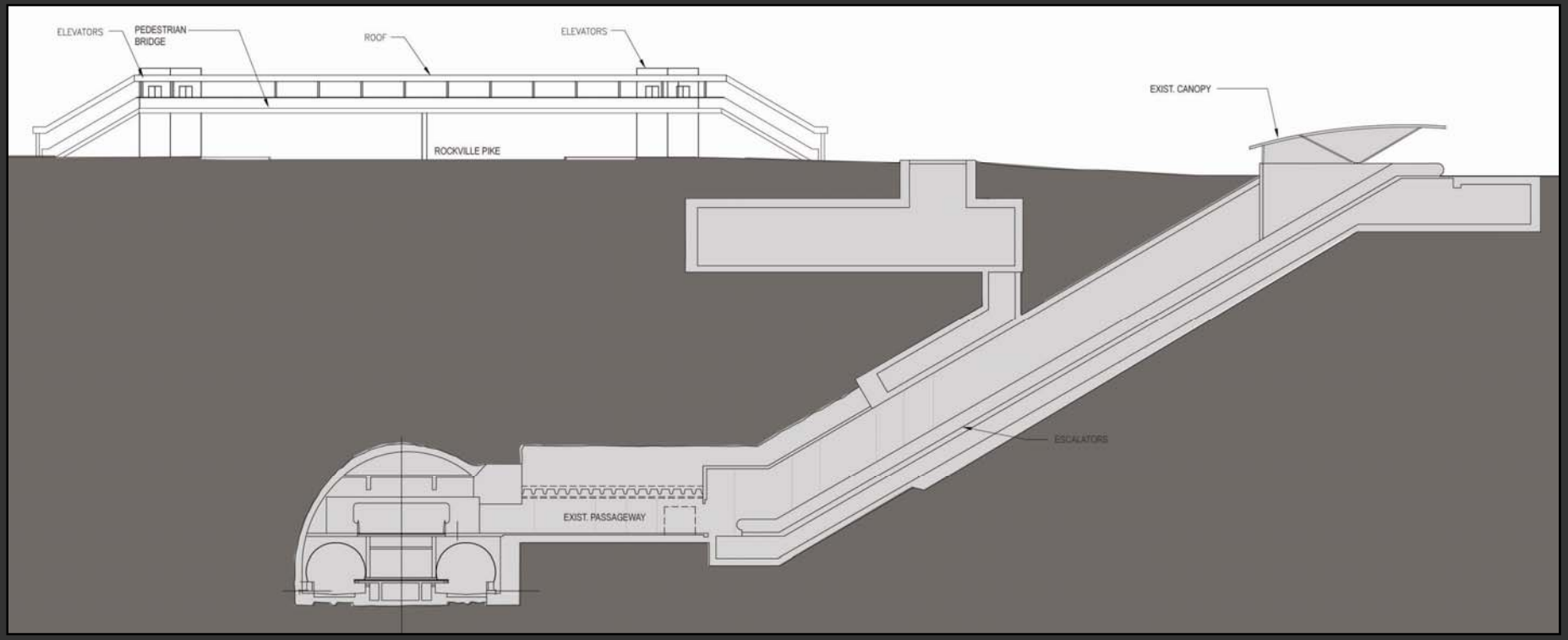
What it won't do

- Reduce trip time for bus patrons or other pedestrians

Alternative 5: Pedestrian Bridge



Alternative 5: Pedestrian Bridge



Alternative 5: Pedestrian Bridge

Components:

- 20’ Wide Pedestrian Bridge
- 4 Street to Bridge Elevators (2 eastside & 2 westside)
- 2 Lobby/Escalator/Stair Pair (1 eastside & 1 westside)
- Median expansion
- Roadway widening on west side
- Addition of pick-up/drop-off on east side
- Maintenance of Traffic

Alternative 5: Pedestrian Bridge

What it will do

- Potentially reduce all at-grade crossings
- Reduce the number of conflicts between pedestrians and vehicles
- Reduce the delay for vehicles exiting NNMC in the PM Peak
- Give pedestrians an option for crossing Rockville Pike

What it won't do

- Reduce trip time for any pedestrians

Pedestrian Crossings at Intersection

Ridership	Pedestrians Crossing Intersection – AM and PM Peak Hour	Maximum # of People Using Shuttle (Peak Hour)	Estimated Pedestrians Using New Tunnel or Bridge – AM and PM Peak Hour
2007	250-275	110*	N/A
2020	875-1000	240**	635-760

*Based on existing shuttle counts (46% utilization rate)
**Maximum capacity of shuttles during peak hour

Cost Estimates

Costs*	Alternatives 1	2	3	4	5
Construction	0.5	22.6	23.3	44.0	10.8
Project Delivery	0.2	7.9	8.2	15.4	3.8
Total	**0.7**	**30.5**	**31.5**	**59.4**	**14.6**

Previous Total	1-1.5	32-35	16-29	47-60	12-15

*Cost estimates are in FY09, $ Millions.

Note: Range of accuracy at this level of conceptual planning is -10% to +30%.

Next Steps

- Final report
- Committee recommendation
- Secure Funding
  - Assist Navy in obtaining DAR certification