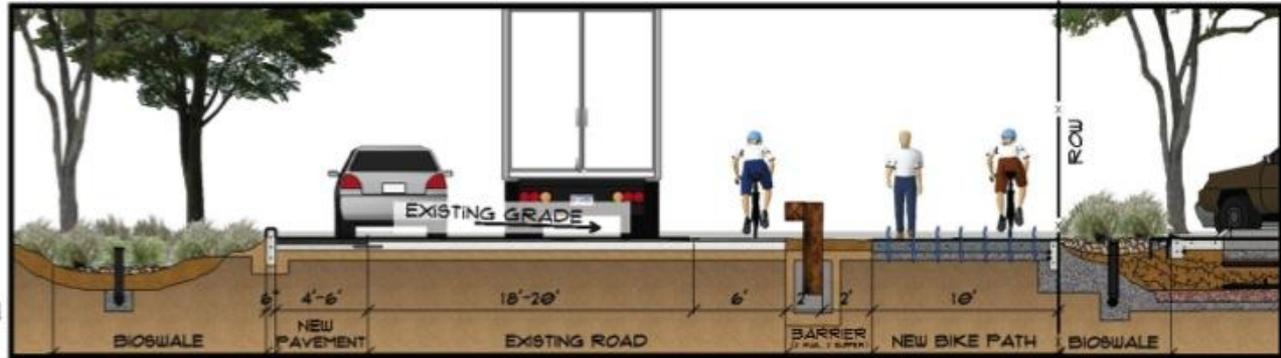


Harbor Drive Road Preliminary Potential Costs

OPTION 1: Minimal Roadway Improvements (no Bio-swale Buffer)

Actions taken:

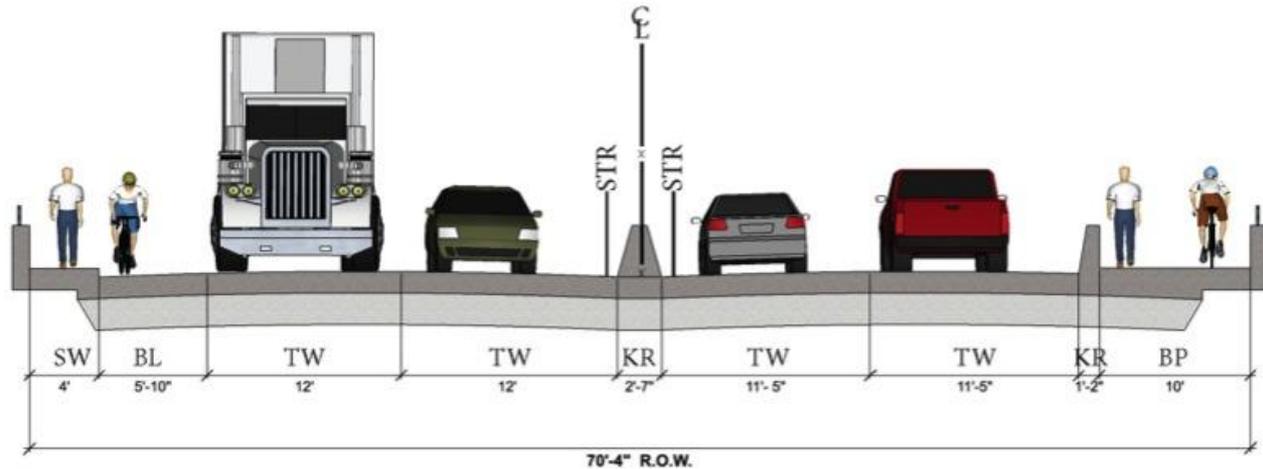
Path and bio-swales are newly constructed. New roadway pavement added near the medians as asphalt. Existing roadway to remain as is with no fixes, treatments or overlays. Path would be reduced to 10' to save on new pavement costs. Pedestrian lights on trail would not be included. New path would be permeable concrete with compacted d.g. buffer surface. Wood rail acts as buffer with 2' clearance for bike path users.



1. Use K-rail or wood rail barrier & key in new paving along north edge of median

Option 1

Expand existing walkway, drop northbound bike lane.



1. Widen north sidewalk, narrow lanes & remove bike lane

\$15- \$16.5 million

Harbor Drive Road Preliminary Potential Costs

OPTION 2: Moderate Roadway Improvements (Add on Lane with Median Rebuild)

Actions taken:

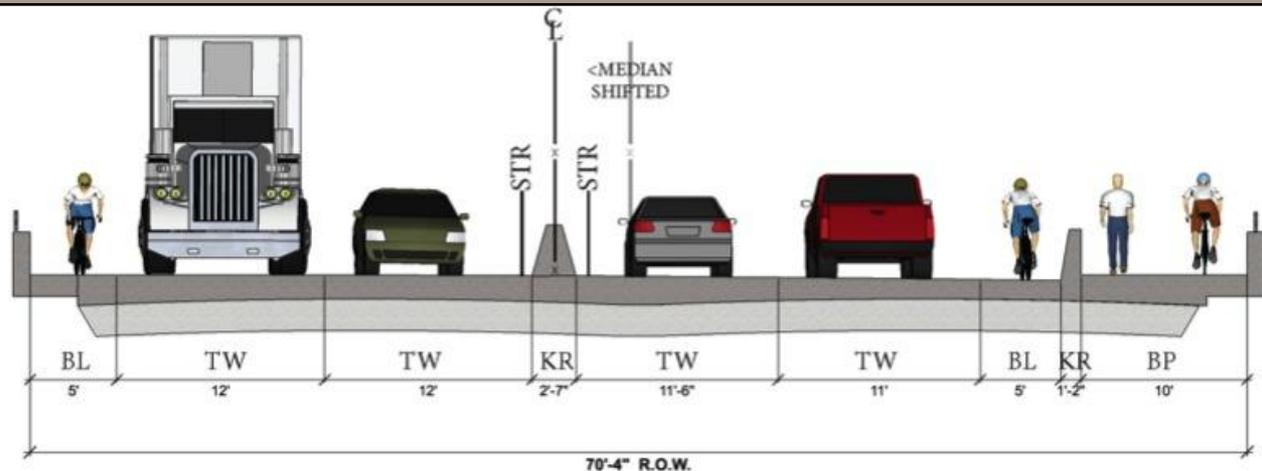
Path and bio-swales are newly constructed. New roadway pavement added near the medians as asphalt. The median would require a curb and small curb line retaining walls in some locations. If drained towards, then gutter and curb line breaks are needed. A seal coat over portions that have been asphalted on top of concrete would be completed. Minor imperfections and roadway damage would be left, major ones filled or ground to be even.



2. Use 4' landscape buffer, key in new paving, rebuild median & seal coat surface

Option 2

Expand existing walkway and move median.



2. Move median over and narrow lanes

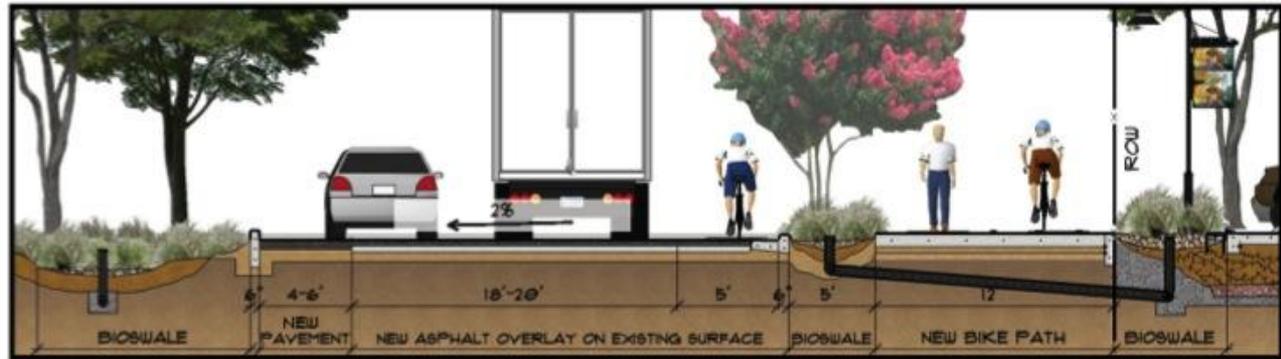
\$17-\$20 million

Harbor Drive Road Preliminary Potential Costs

OPTION 3: Partial Roadway Rebuild (Full Surface Overlay, Add on Lane with Median Rebuild)

Actions taken:

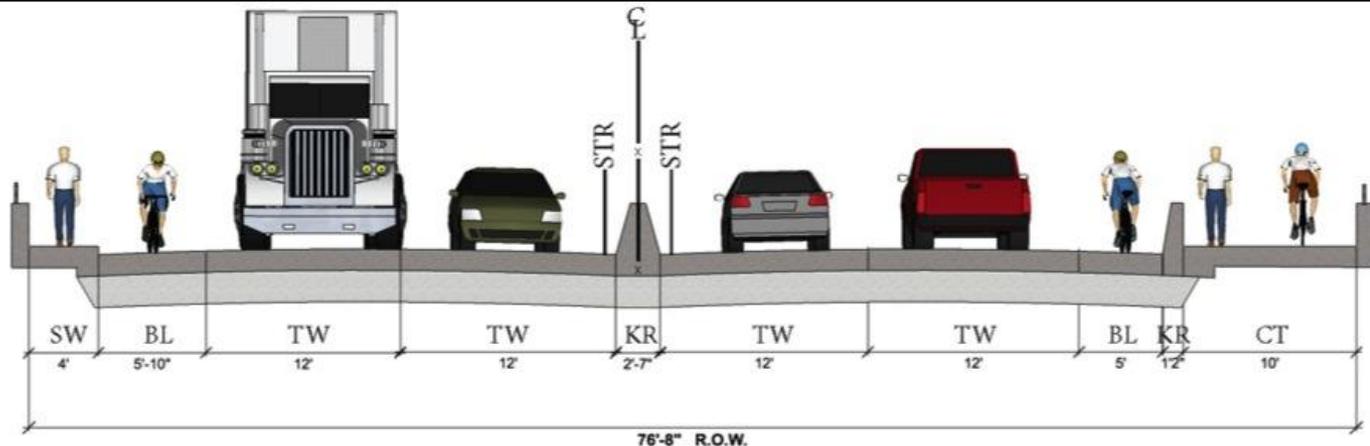
New path and bio-swales would be constructed with additional pavement added onto the concrete roads (use of dowels likely). Major pot-holes and damage to concrete would be repaired. Asphalt course with major lifts on top of concrete would be ground to allow for a new 2-3" asphalt overlay added over the full roadway.



3. Same as 2 but repair roadway and provide asphalt overlay on entire roadway

Option 3

Remove northbound walkway, rebuild cantilever as bike path.



3. Remove walk cantilever & replace with path cantilever

\$20-\$25 million

Harbor Drive Road Preliminary Potential Costs

OPTION 4: Full Roadway Rebuild (Full Roadway Rebuild and Drainage Improvements)

Actions taken:

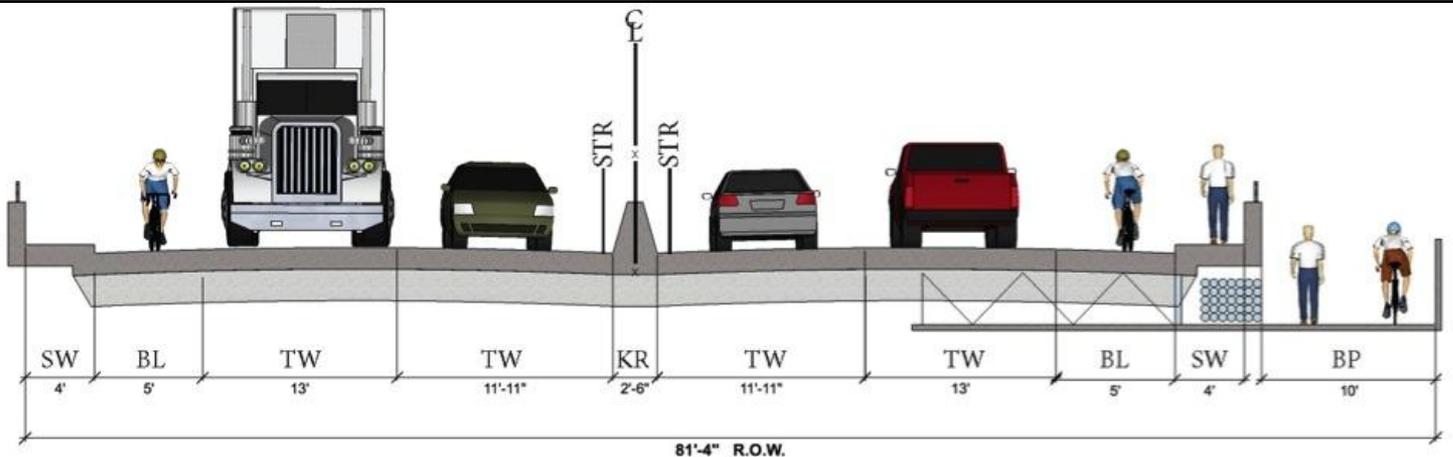
Demolish roadway surfaces, rebuild base and grade to drain towards median. Add major storm water runoff treatment areas, basins and subsurface drainage in median. New pavement would be standard asphalt (6" on 6" base?).



4. Demo and rebuild full roadway and median

Option 4

Add new cantilever attached to substructure.



4. Extend new path cantilever below existing walk cantilever

\$30-\$40 million