

ADDITIONAL COST ESTIMATES FOR THBC INTERSECTION

DATE: November 27, 2023

TO: Richmond Transportation Committee

FROM: Keith Osborne, Director of Planning and Zoning

RE: Cost of additional enhancements for the THBC Intersection discussion

General: The following is in response to RTC members need for a cost break out for enhancements not anticipated during the Richmond Complete Bridge Streets Corridor Study completed in 2021. These enhancements are specifically related to Alternative 1, Four Way Stop (cost = \$100,000 in 2021) located on page 9 of the study and the Mountable Island concept (cost not provided) offered on pg. 13 of 23 of the Preferred Alternatives Preliminary Plan Set. Please note these estimates are from multiple sources and “distilled” down to an average cost and adding an additional 15-20% contingency would also be prudent based on current trends. Finally, all costs associated with any project are to be arrived at during the specific scoping and design phases of a particular project at a particular time. Attached are three links on this subject. The FHWA Costs are outdated but the differential can be assumed and applied to deliberations.

Estimated Enhancement Costs

- Raised Crosswalk (ea.) **\$2,500 to \$8,000** and up depending on drainage, road width and materials used. Further costs include stamped asphalt, brickwork and striping regime.
- Speed table (ea.) see comparable for Raised Crosswalk
- Signalized Crosswalk (ea.), dependent on type:
 - PDH – Pedestrian Hybrid Beacon, Mast Arm installation = **\$230,000 and up**
 - RRFB – Rapid Rectangular Flashing Beacon, side road installation (Current TOR configuration) New infrastructure = **\$40,000 and up.**
- Additional sidewalk (4 ft. wide) per lineal foot = Materials - \$12 to \$20 per lineal foot
Labor – Highly variable \$36 to \$48 plus
Total = \$ 48 to \$68 per lineal foot *

The addition of a sidewalk on the southern portion of Huntington Road from Thompson to existing commercial development, approximately 220 lineal feet, has an estimated cost of \$10,560 to \$14,960 without curb or \$21,120 to \$29,920 with curb based on the above scenario.

[Pedestrian Hybrid Beacon Guide– Recommendations and Case Study | FHWA \(dot.gov\)](#)

[Rectangular Rapid Flashing Beacons \(RRFB\) \(dot.gov\)](#)

[Module 3: Toolbox of Individual Traffic Calming Measures Part 1 | FHWA \(dot.gov\)](#)