

## ES.4 CONCLUSIONS

The refinement process sought to optimize T&R and establish a measure of the financial feasibility of the C-470 express lanes concept. Due to the preliminary nature of this feasibility study, and the variability of factors for a bond issuance, the revenue analysis was conducted to characterize a range of potential feasibility outcomes. A sensitivity analysis was conducted on the coverage rates and interest rate of the bonds. The projected cost of the C-470 express lanes (Phase 1 – Kipling Parkway to I-25) would be \$335 million. Using a Senior Lien Coverage Rate of 1.75, and varying the Junior Lien Coverage Rate from 2.19 to 2.99, a composite coverage rate of 1.3 to 1.4 was produced. Using a bond interest rate of 5.5 percent and 6.0 percent, it is estimated that the express lanes could support a bond issuance of approximately 68 to 80 percent of the initial capital construction cost after accounting for annual financing, operations and maintenance, and capital reserve. This would require between \$65.6 million and \$108.5 million in supplemental funding from as-yet undetermined sources. Several potential strategies to reduce the funding gap have been discussed with the Colorado Tolling Enterprise (CTE). As a result, the CTE has determined that an acceptable funding plan can be developed that would cover the entire project cost and allow the project to advance. Table ES.1 summarizes the results of the preliminary financial feasibility analysis.

**Table ES.1**  
**Summary of Preliminary Financial Feasibility Analysis**

| Scenario  | Present Value<br>Net Revenue<br>(\$) | Capital Costs<br>(\$) | Feasibility Factor |
|---|--------------------------------------|-----------------------|--------------------|
| 1.75 Senior Lien/2.19 Subordinate Lien and<br>5.5% Bonding Rate | 269,708,624                          | 335,267,740           | 0.80               |
| 1.75 Senior Lien/2.19 Subordinate Lien and<br>6.0% Bonding Rate | 243,319,829                          | 335,267,740           | 0.70               |
| 1.75 Senior Lien/2.99 Subordinate Lien and<br>5.5% Bonding Rate | 251,299,736                          | 335,267,740           | 0.75               |
| 1.75 Senior Lien/2.99 Subordinate Lien and<br>6.0% Bonding Rate | 226,712,101                          | 335,267,740           | 0.68               |

*Note: All values are in 2006 Dollars*

## PHASED IMPLEMENTATION PLAN

Based on the conclusion that the eastern segment from Kipling Parkway to I-25 was the most financially feasible section of the corridor, it is proposed that this segment be implemented as Phase 1. The steps required to advance Phase 1 are described below:

- Carry express lanes alternative forward into the C-470 Corridor EA for consideration with other alternatives.
- Should the express lanes alternative be selected as the preferred alternative in the EA, pursue the following steps;

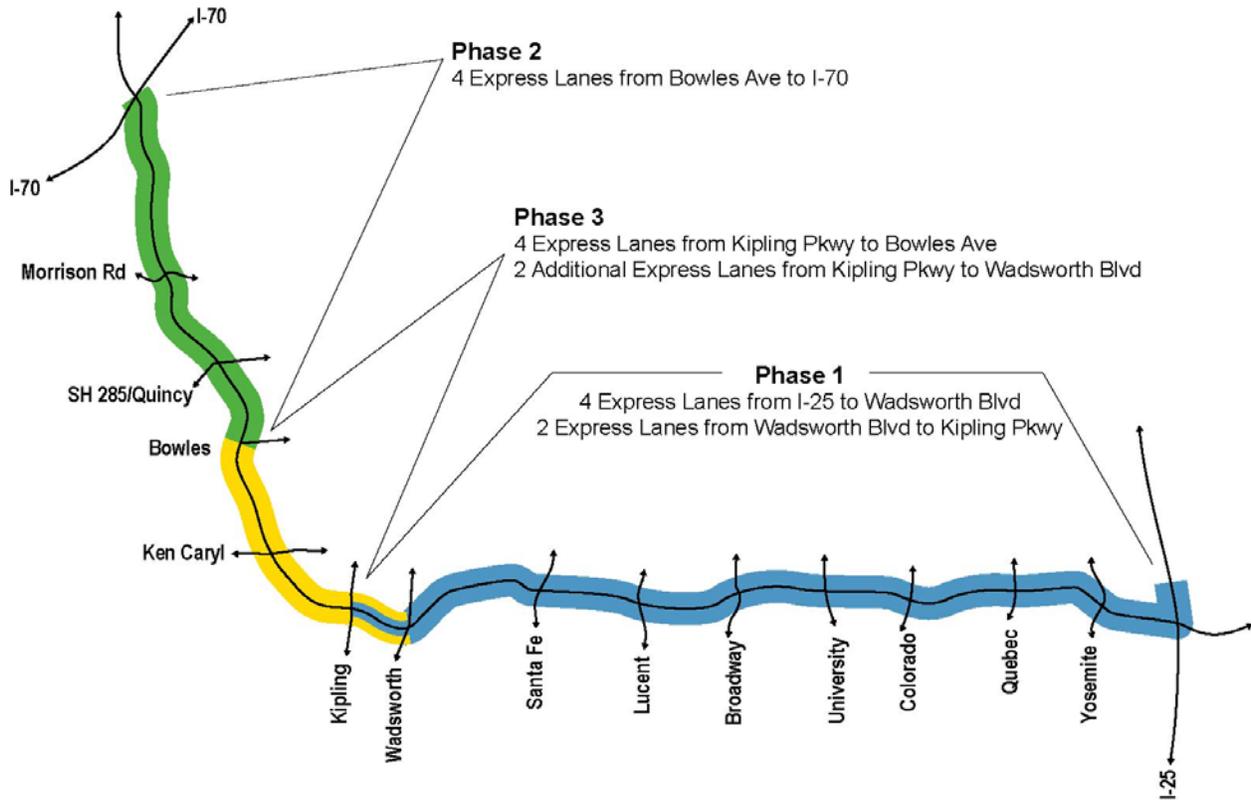
- Identify and solidify a funding plan to cover the entire project cost. Specifically, identify strategies and supplemental funding sources needed to make up the remaining 20 to 30 percent of capital construction costs. Seek amendment to the DRCOG Regional Transportation Plan (RTP) to add the express lanes to the Plan.
- FHWA would issue a decision document for the EA. If a Finding of No Significant Impact (FONSI) is issued, the express lanes would advance. If an Environmental Impact Statement (EIS) is required, that process would begin.
- CDOT would execute a design-build contract to construct the facility.
- Either CTE or the design-build contractor would administer an investment grade T&R study.
- CTE would complete a detailed financial plan, bond rating, and bond sale.
- Design-build contractor would begin the design and construction.

Although determined to be beyond the planning horizon of this study (2025), it is projected that Phase 2 of the implementation would be the segment from I-70 to Bowles Avenue. This would be the next logical segment, based on existing traffic volumes and projected growth. It is estimated that by 2030, adequate demand could occur to warrant construction of express lanes in this segment. This assumption is based on the CTE's desire for a four-lane segment and six lanes from I-70 to Morrison Road. In a hypothetical situation in which only four lanes were present in this segment, or if the CTE considers a two-lane express lane facility, the express lanes could then be feasible as early as 2020.

Phase 3 of the implementation of express lanes on C-470 is thought to be the extreme southwest segment from Bowles Avenue to Kipling Parkway. Based on current growth rates, it is expected that this final phase would not be warranted until beyond 2050.

Figure ES.2 illustrates the potential phasing plan.

**Figure ES.2  
Potential Phasing Plan**



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