## Appendix F

$$
\begin{aligned}
& \text { Project } \\
& \text { Score Sheets }
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$$



Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.14 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.24 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 174 | Medium | 66.7 | 20\% | 13.3 |
| Future Traffic Volume | 302 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | One facility | Medium | 66.7 | 20\% | 13.3 |
| Total Mobility and Accessibility Score |  |  |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.04 | Medium | 66.7 | $50 \%$ | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ | 16.7 |
|  | Total Safety Score |  |  |  | $\mathbf{5 0 . 0}$ |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ | 11.1 |
| Surrounding Employment Density | 0.02 | Low | 33.3 | $33 \%$ | 11.1 |
| Freight Volume (\%) | 6 | High | 100 | $33 \%$ | 33.3 |
|  |  | Total Economy Score |  |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ | 50.0 |
| Environmental Resources | No impact | High | 100 | $50 \%$ | 50.0 |
| Total Community and Nature Score |  |  |  |  |  |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | Two or more plans | High | 100 | $33 \%$ | 33.3 |
| Distribution of Benefits | Localized benefits | Low | 33.3 | $33 \%$ | 11.1 |
|  |  | Total Operational Efficiency Score |  | $\mathbf{7 7 . 8}$ |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | 20\% | 11.3 |
|  | Safety | 50.0 | 30\% | 15.0 |
|  | Economy | 55.5 | 35\% | 19.4 |
|  | Community and Nature | 100.0 | 10\% | 10.0 |
|  | Operational Efficiency | 77.8 | 5\% | 3.9 |
|  | Total Project Benefit Score |  |  | 59.6 |


| Benefit-Cost Calculation | Benefit Score | 59.6 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$3,300,000 |
|  | Estimated Users | 3307 |
|  | Benefit-Cost Score | 59.77 |


| Project Number |  | 2 | Project Benefit Score | 70.1 |  | Length (mi) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To | Len | Dimon Dr. |
| City of Danville | Mount Cross Rd | 750 | Danville City Limits | 1.75 |  |  |


| Proposed Improvement | Improvement Phase II: Improved alignment; additional capacity | Est. Cost | \$16,000,000 |
| :--- | :--- | :--- | :--- |

## Benefit Score Calculation



Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.70 | Medium | 66.7 | $50 \%$ | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ | 16.7 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Placemaking | Includes placemaking | High | 100 | $33 \%$ |
| Surrounding Employment Density | 5.29 | High | 100 | 33.3 |
| Freight Volume (\%) | 0 | Low | 33.3 | 3 |
|  | $33 \%$ | 3.3 |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ |
| Environmental Resources | No impact | 50.0 |  |  |
|  | High | 100 | $50 \%$ | 50.0 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires some ROW | Medium | 66.7 | 33\% | 22.2 |
| Plan Coordination | Two or more plans | High | 100 | 33\% | 33.3 |
| Distribution of Benefits | Jurisdiction-wide benefits | Medium | 66.7 | 33\% | 22.2 |
| Total Operational Efficiency Score |  |  |  |  | 77.8 |


|  | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
| Total Benefit Score | Mobility and Accessibility | 70.0 | 20\% | 14.0 |
|  | Safety | 50.0 | 30\% | 15.0 |
|  | Economy | 77.7 | 35\% | 27.2 |
|  | Community and Nature | 100.0 | 10\% | 10.0 |
|  | Operational Efficiency | 77.8 | 5\% | 3.9 |
|  | Total Project Benefit Score |  |  | 70.1 |


| Benefit-Cost  <br> Calculation Estimated Cost <br>  Estimated Users <br>  Benefit-Cost Score | $10,000,000$ |
| :---: | :--- | :---: |





| Project Number |  | 9 | Project Benefit Score | 59.1 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To | Length (mi) |  |
| Pittsylvania <br> County | Martinsville Hwy | 58 | Long Circle Rd east (Rt 708) | Grays Park Rd west | 4.3 |  |


| Proposed Improvement | Median modifications, median closures, install turn lanes | Est. Cost | $\$ 35,100,000$ |
| :--- | :---: | :---: | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.22 | Low | 25 | $20 \%$ | 5.0 |
| Future Congestion | 0.33 | Low | 25 | $20 \%$ | 5.0 |
| Existing Traffic Volume | 478 | High | 100 | $20 \%$ | 20.0 |
| Future Traffic Volume | 728 | High | 100 | $20 \%$ | 20.0 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | $20 \%$ | 6.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.34 | Low | 33.3 | $50 \%$ | 16.7 |
| PSI Locations | PSI locations present | Medium | 66.7 | $50 \%$ | 33.4 |
|  |  | Total Safety Score | $\mathbf{5 0 . 0}$ |  |  |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ |
| Surrounding Employment Density | 0.02 | Low | 33.3 | $33 \%$ |
| Freight Volume (\%) | 6 | High | 100 | 11.1 |
|  | $33 \%$ | 33.3 |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | Some impact | Medium | 66.7 | 50\% | 33.4 |
| Environmental Resources | No impact | High | 100 | 50\% | 50.0 |
| Total Community and Nature Score |  |  |  |  | 83.4 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | 33\% | 33.3 |
| Plan Coordination | Two or more plans | High | 100 | 33\% | 33.3 |
| Distribution of Benefits | Significant regional benefits | High | 100 | 33\% | 33.3 |
| Total Operational Efficiency Score |  |  |  |  | 100.0 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | 20\% | 11.3 |
|  | Safety | 50.0 | 30\% | 15.0 |
|  | Economy | 55.5 | 35\% | 19.4 |
|  | Community and Nature | 83.4 | 10\% | 8.3 |
|  | Operational Efficiency | 100.0 | 5\% | 5.0 |
|  | Total Project Benefit Score |  |  | 59.1 |


| Benefit-Cost Calculation | Benefit Score | 59.1 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$35,100,000 |
|  | Estimated Users | 21565 |
|  | Benefit-Cost Score | 36.30 |



Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | 50\% | 50.0 |
| Environmental Resources | Some impact | Medium | 66.7 | 50\% | 33.4 |
| Total Community and Nature Score |  |  |  |  | 83.4 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | 33\% | 33.3 |
| Plan Coordination | Two or more plans | High | 100 | 33\% | 33.3 |
| Distribution of Benefits | Significant regional benefits | High | 100 | 33\% | 33.3 |
| Total Operational Efficiency Score |  |  |  |  | 100.0 |


|  | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | 20\% | 11.3 |
|  | Safety | 50.0 | 30\% | 15.0 |
| Total Benefit Score | Economy | 66.6 | 35\% | 23.3 |
|  | Community and Nature | 83.4 | 10\% | 8.3 |
|  | Operational Efficiency | 100.0 | 5\% | 5.0 |
|  | Total Project Benefit Score |  |  | 63.0 |


| Benefit-Cost Calculation | Benefit Score | 63.0 |
| :---: | :---: | :---: |
|  | Estimated Cost | \#\#\#\#\#\#\#\#\# |
|  | Estimated Users | 22519.33 |
|  | Benefit-Cost Score | 65.06 |


| Project Number |  | 13 | Project Benefit Score | 60.7 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To | Length (mi) |
| Both Localities | Riverside Dr | 58 Bus | Westover Dr (Rt 51) | Parkway Dr | 5.23 |


| Proposed Improvement | Install right turn lanes, extend left turn lanes | Est. Cost | $\$ 2,400,000$ |
| :--- | :---: | :---: | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.22 | Low | 25 | $20 \%$ | 5.0 |  |  |  |  |
| Future Congestion | 0.23 | Low | 25 | $20 \%$ | 5.0 |  |  |  |  |
| Existing Traffic Volume | 491 | High | 100 | $20 \%$ | 20.0 |  |  |  |  |
| Future Traffic Volume | 511 | High | 100 | $20 \%$ | 20.0 |  |  |  |  |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | $20 \%$ | 6.7 |  |  |  |  |
| Total Mobility and Accessibility Score |  |  |  |  |  |  |  |  | $\mathbf{5 6 . 7}$ |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.48 | Low | 33.3 | $50 \%$ | 16.7 |
| PSI Locations | PSI locations present | Medium | 66.7 | $50 \%$ | 33.4 |
| Total Safety Score |  |  |  |  |  |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ | 11.1 |  |  |
| Surrounding Employment Density | 0.1 | Low | 33.3 | $33 \%$ | 11.1 |  |  |
| Freight Volume (\%) | 6 | High | 100 | $33 \%$ | 33.3 |  |  |
| Total Economy Score |  |  |  |  |  |  | $\mathbf{5 5 . 5}$ |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ | 50.0 |  |  |  |  |  |  |  |
| Environmental Resources | No impact | High | 100 | $50 \%$ | 50.0 |  |  |  |  |  |  |  |
| Total Community and Nature Score |  |  |  |  |  |  |  |  |  |  |  | $\mathbf{1 0 0 . 0}$ |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | Two or more plans | High | 100 | $33 \%$ | 33.3 |
| Distribution of Benefits | Significant regional benefits | High | 100 | $33 \%$ | 33.3 |
|  | Total Operational Efficiency Score |  |  | $\mathbf{1 0 0 . 0}$ |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :--- | :--- | :---: | :---: |
|  | 56.7 | $20 \%$ | 11.3 |  |
|  | Safety | 50.0 | $30 \%$ | 15.0 |
|  | 55.5 | $35 \%$ | 19.4 |  |
| Community and Nature | 100.0 | $10 \%$ | 10.0 |  |
| Operational Efficiency | 100.0 | $5 \%$ | 5.0 |  |
|  |  | Total Project Benefit Score | $\mathbf{6 0 . 7}$ |  |


| Benefit-Cost <br> Calculation Benefit Score 60.7 <br>  Estimated Cost $\$ 2,400,000$ <br>  Estimated Users 13529 <br>  Benefit-Cost Score 342.45 l |
| :---: | :--- | :---: |


| Project Number |  | 14 | Project Benefit Score | 60.7 |  | From |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | To | Length (mi) |  |  |
| City of Danville | Riverside Dr | 58 Bus | Parkway Dr | Church Ave | 5.23 |  |


| Proposed Improvement | Extend turn lanes, median closure, install turn lane | Est. Cost | $\$ 2,700,000$ |
| :--- | :---: | :---: | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.22 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.23 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 491 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 511 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | 20\% | 6.7 |
| Total Mobility and Accessibility Score |  |  |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.48 | Low | 33.3 | 50\% | 16.7 |
| PSI Locations | PSI locations present | Medium | 66.7 | 50\% | 33.4 |
| Total Safety Score |  |  |  |  | 50.0 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ | 11.1 |
| Surrounding Employment Density | 0.1 | Low | 33.3 | $33 \%$ | 11.1 |
| Freight Volume (\%) | 6 | High | 100 | $33 \%$ | 33.3 |
|  | Total Economy Score | $\mathbf{5 5 . 5}$ |  |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ | 50.0 |
| Environmental Resources | No impact | High | 100 | $50 \%$ | 50.0 |
| Total Community and Nature Score | $\mathbf{1 0 0 . 0}$ |  |  |  |  |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | 33\% | 33.3 |
| Plan Coordination | Two or more plans | High | 100 | 33\% | 33.3 |
| Distribution of Benefits | Significant regional benefits | High | 100 | 33\% | 33.3 |
| Total Operational Efficiency Score |  |  |  |  | 100.0 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :--- | :--- | :---: |
|  | Mobility and Accessibility | 56.7 | $20 \%$ | 11.3 |
|  | 50.0 | $30 \%$ | 15.0 |  |
|  | Economy | 55.5 | $35 \%$ | 19.4 |
| Community and Nature | 100.0 | $10 \%$ | 10.0 |  |
| Operational Efficiency | 100.0 | $5 \%$ | 5.0 |  |
|  |  | Total Project Benefit Score | $\mathbf{6 0 . 7}$ |  |


| Benefit-Cost <br> Calculation Benefit Score 60.7 <br>  Estimated Cost $\$ 2,700,000$ <br>  Estimated Users 13529 <br>  Benefit-Cost Score 304.40 l |
| :---: | :--- | :---: |


| Project Number |  | 15 | Project Benefit Score | 57.4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To | Length (mi) |  |
| City of Danville | Riverside Dr | 58 Bus | Church Ave | Radio Ln | 5.23 |  |


| Proposed Improvement | Modify median openings, install turn lanes, extend turn lanes | Est. Cost | $\$ 11,150,000$ |
| :--- | :--- | :--- | :--- |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.22 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.23 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 491 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 511 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | 20\% | 6.7 |
| Total Mobility and Accessibility Score |  |  |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.48 | Low | 33.3 | $50 \%$ | 16.7 |
| PSI Locations | PSI locations present | Medium | 66.7 | $50 \%$ | 33.4 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ | 11.1 |
| Surrounding Employment Density | 0.34 | Low | 33.3 | $33 \%$ | 11.1 |
| Freight Volume (\%) | 6 | High | 100 | $33 \%$ | 33.3 |
|  |  | Total Economy Score | 55.5 |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | 50\% | 50.0 |
| Environmental Resources | High impact | Low | 33.3 | 50\% | 16.7 |
| Total Community and Nature Score |  |  |  |  | 66.7 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Score |  |  |  |  |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ |
| Plan Coordination | Two or more plans | 33.3 |  |  |
| Distribution of Benefits | Significant regional benefits | High | 100 | $33 \%$ |
|  | High | 100 | 33.3 |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | $20 \%$ | 11.3 |
|  | Safety | 50.0 | $30 \%$ | 15.0 |
|  | Economy | 55.5 | $35 \%$ | 19.4 |
| Community and Nature | 66.7 | $10 \%$ | 6.7 |  |
| Operational Efficiency | 100.0 | $5 \%$ | 5.0 |  |
|  |  | Total Project Benefit Score | $\mathbf{5 7 . 4}$ |  |


| Benefit-Cost Benefit Score 57.4 <br> Calculation Estimated Cost $\$ 11,150,000$ <br>  Estimated Users 13529 <br>  Benefit-Cost Score 69.66 l |
| :---: | :--- | :---: |


| Project Number |  | 17 | Project Ben |  | 60.9 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name |  | Route <br> Number | From |  | To |  | Length (mi) |
| City of Danville | Piney Forest Rd |  | 29 Bus | Audubon Dr |  | Beaver Mill Rd (Rt 724) |  | 1.12 |
| Proposed Improvement |  | Intersection and circulation improvements |  |  |  | Est. Cost | \$23, | 0,000 |


| Benefit Score Calculation <br> Goal: Mobility and Accessibility |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Existing Congestion | 0.66 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.79 | Medium | 50 | 20\% | 10.0 |
| Existing Traffic Volume | 1106 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 1324 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | One facility | Medium | 66.7 | 20\% | 13.3 |
| Total Mobility and Accessibility Score |  |  |  |  | 68.3 |
| Goal: Safety |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Fatal and Injury Crash Rate | 1.26 | Medium | 66.7 | 50\% | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | 50\% | 16.7 |
|  |  |  |  | fety Score | 50.0 |
| Goal: Economy |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Placemaking | May accommodate placemaking | Medium | 66.7 | 33\% | 22.2 |
| Surrounding Employment Density | 1.14 | Medium | 66.7 | 33\% | 22.2 |
| Freight Volume (\%) | 1 | Low | 33.3 | 33\% | 11.1 |
| Total Economy Score |  |  |  |  | 55.5 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | 50\% | 50.0 |
| Environmental Resources | Some impact | Medium | 66.7 | 50\% | 33.4 |
| Total Community and Nature Score |  |  |  |  | 83.4 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | 33\% | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | 33\% | 22.2 |
| Distribution of Benefits | Significant regional benefits | High | 100 | 33\% | 33.3 |
| Total Operational Efficiency Score |  |  |  |  | 88.9 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :--- | :---: | :---: |
|  | Mobility and Accessibility | 68.3 | $20 \%$ | 13.7 |
|  | Safety | 50.0 | $30 \%$ | 15.0 |
|  | Economy | 55.5 | $35 \%$ | 19.4 |
| Community and Nature | 83.4 | $10 \%$ | 8.3 |  |
| Operational Efficiency | 88.9 | $5 \%$ | 4.4 |  |
|  | Total Project Benefit Score |  |  | $\mathbf{6 0 . 9}$ |


| Benefit-Cost Benefit Score 60.9 <br> Calculation Estimated Cost $\$ 23,300,000$ <br>  Estimated Users 30705 <br>  Benefit-Cost Score 80.22 l |
| :---: | :--- | :---: |





Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.10 | Low | 33.3 | 50\% | 16.7 |
| PSI Locations | PSI locations present | Medium | 66.7 | 50\% | 33.4 |
| Total Safety Score |  |  |  |  | 50.0 |
| Goal: Economy |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Placemaking | May accommodate placemaking | Medium | 66.7 | 33\% | 22.2 |
| Surrounding Employment Density | 0.02 | Low | 33.3 | 33\% | 11.1 |
| Freight Volume (\%) | 15 | High | 100 | 33\% | 33.3 |
| Total Economy Score |  |  |  |  | 66.6 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ |
| Environmental Resources | Some impact | Medium | 66.7 | $50 \%$ |
|  | Total Community and Nature Score |  |  |  |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | 33\% | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | 33\% | 22.2 |
| Distribution of Benefits | Significant regional benefits | High | 100 | 33\% | 33.3 |
| Total Operational Efficiency Score |  |  |  |  | 88.9 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | $20 \%$ | 11.3 |
|  | Safety | 50.0 | $30 \%$ | 15.0 |
|  | Economy | 66.6 | $35 \%$ | 23.3 |
|  | Community and Nature | 83.4 | $10 \%$ | 8.3 |
|  | Operational Efficiency | 88.9 | $5 \%$ | 4.4 |
|  | Total Project Benefit Score |  |  | $\mathbf{6 2 . 4}$ |


| Benefit-Cost Score <br> Calculation Estimated Cost <br>  Estimated Users <br>  Benefit-Cost Score | $\$ 6,500,000$ |
| :---: | :--- | :---: |


| Project Number | 22 | Project Benefit Score | 57.1 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route Number | From | Tength (mi) |  |
| Both Localities | Piney Forest Parkway | 29 Bus | Mount Cross Rd (Rt 750) | Central Blvd (Rt 29 Bus) |  |


| Proposed Improvement | Construct 4-lane parkway on new alignment | Est. Cost | \$175,000,000 |
| :--- | :---: | :---: | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.16 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.16 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 302 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 308 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | One facility | Medium | 66.7 | 20\% | 13.3 |
| Total Mobility and Accessibility Score |  |  |  |  | 63.3 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.46 | Low | 33.3 | $50 \%$ | 16.7 |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ | 16.7 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ |
| Surrounding Employment Density | 5.29 | High | 100 | $33 \%$ |
| Freight Volume (\%) | 2 | Medium | 66.7 | 31 |
|  |  | $33 \%$ | 22.2 |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ |  |  |  |  |
| Environmental Resources | Some impact | 50.0 |  |  |  |  |  |  |
| Medium |  |  |  |  |  | 66.7 | $50 \%$ | 33.4 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires lots of ROW | Low | 33.3 | 33\% | 11.1 |
| Plan Coordination | One plan | Medium | 66.7 | 33\% | 22.2 |
| Distribution of Benefits | Jurisdiction-wide benefits | Medium | 66.7 | 33\% | 22.2 |
| Total Operational Efficiency Score |  |  |  |  | 55.6 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 63.3 | 20\% | 12.7 |
|  | Safety | 33.3 | 30\% | 10.0 |
|  | Economy | 66.6 | 35\% | 23.3 |
|  | Community and Nature | 83.4 | 10\% | 8.3 |
|  | Operational Efficiency | 55.6 | 5\% | 2.8 |
|  | Total Project Benefit Score |  |  | 57.1 |


| Benefit-Cost Benefit Score 57.1 <br> Calculation Estimated Cost $\$ 175,000,000$ <br>  Estimated Users 12000$\quad$ Benefit-Cost Score | 3.91 |
| :---: | :--- | :---: |


| Project Number |  | 23 | Project Benefit Score | 52.0 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To | Length (mi) |  |
| Pittsylvania <br> County | Moorefield Bridge Rd | 863 | US 58 | 0.8 mi south of Rt 750 | 2.99 |  |


| Proposed Improvement | Construct roadway on new alignment | Est. Cost | $\$ 9,200,000$ |
| :--- | :---: | :---: | :---: |


|  | Benefit Score Calculation Goal: Mobility and Accessibility |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Existing Congestion | 0.115 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.205 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 145 | Low | 33.3 | 20\% | 6.7 |
| Future Traffic Volume | 256 | Medium | 66.7 | 20\% | 13.3 |
| Alternative Transportation Facilities | One facility | Medium | 66.7 | 20\% | 13.3 |
| Total Mobility and Accessibility Score |  |  |  |  | 43.3 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.95 | Medium | 66.7 | 50\% | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | 50\% | 16.7 |
| Total Safety Score |  |  |  |  | 50.0 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Slacemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ |
| Surrounding Employment Density | 0.02 | Low | 33.3 | $33 \%$ |
| Freight Volume (\%) | 6 | High | 11.1 |  |
|  |  | 11.1 |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ |
| Environmental Resources | High impact | Low | 33.3 | $50 \%$ |
| Total Community and Nature Score |  |  |  |  |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires lots of ROW | Low | 33.3 | $33 \%$ |
| Plan Coordination | One plan | Medium | 66.7 | $33 \%$ |
| Distribution of Benefits | Localized benefits | Low | 33.3 | $33 \%$ |
|  | Total | 32.2 |  |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :---: | :---: | :---: |
|  | Mobility and Accessibility | 43.3 | $20 \%$ | 8.7 |
|  | Safety | 50.0 | $30 \%$ | 15.0 |
|  | Economy | 55.5 | $35 \%$ | 19.4 |
| Community and Nature | 66.7 | $10 \%$ | 6.7 |  |
| Operational Efficiency | 44.4 | $5 \%$ | 2.2 |  |
|  |  | Total Project Benefit Score | $\mathbf{5 2 . 0}$ |  |


| Benefit-Cost Calculation | Benefit Score | 52.0 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$9,200,000 |
|  | Estimated Users | 2822 |
|  | Benefit-Cost Score | 15.94 |


| Project Number |  | 24 | Project Benefit Score | 54.3 |  | Length (mi) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route Number | From | To |  |  |
| Both Localities | Mount Cross Pkwy | 750 | Rt 863 | US 29 Business |  |  |


| Proposed Improvement | Construct 2-lane parkway on new alignment (in 4 lane ROW) | Est. Cost | $\$ 165,000,000$ |
| :--- | :--- | :--- | :--- | Benefit Score Calculation

Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.27 | Low | 25 | $20 \%$ | 5.0 |
| Future Congestion | 0.37 | Low | 25 | $20 \%$ | 5.0 |
| Existing Traffic Volume | 378 | High | 100 | $20 \%$ | 20.0 |
| Future Traffic Volume | 570 | High | 100 | $20 \%$ | 20.0 |
| Alternative Transportation Facilities | One facility | Medium | 66.7 | $20 \%$ | 13.3 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.67 | Medium | 66.7 | 50\% | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | 50\% | 16.7 |
| Total Safety Score |  |  |  |  | 50.0 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ | 11.1 |
| Surrounding Employment Density | 1.42 | Medium | 66.7 | $33 \%$ | 22.2 |
| Freight Volume (\%) | 1 | Low | 33.3 | $33 \%$ | 11.1 |
|  |  | Total Economy Score |  |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Score |  |  |  |  |
| Environmental Resources | No impact | High | 100 | $50 \%$ |
|  | Some impact | Medium | 66.7 | $50 \%$ |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires lots of ROW | Low | 33.3 | $33 \%$ | 11.1 |
| Plan Coordination | One plan | Medium | 66.7 | $33 \%$ | 22.2 |
| Distribution of Benefits | Jurisdiction-wide benefits | Medium | 66.7 | $33 \%$ | 22.2 |
|  | Total Operational Efficiency Score | 55.6 |  |  |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 63.3 | 20\% | 12.7 |
|  | Safety | 50.0 | 30\% | 15.0 |
|  | Economy | 44.4 | 35\% | 15.5 |
|  | Community and Nature | 83.4 | 10\% | 8.3 |
|  | Operational Efficiency | 55.6 | 5\% | 2.8 |
|  | Total Project Benefit Score |  |  | 54.3 |


| Benefit-Cost <br> Calculation | Benefit Score | 54.3 |
| :---: | :--- | :---: |
|  | Estimated Cost | $\$ 165,000,000$ |
|  | Estimated Users | 15000 |
|  | Benefit-Cost Score | 4.94 |




| Project Number |  | 27 | Project Benefit Score | 48.4 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To | Tength (mi) |
| Pittsylvania <br> County | Barker Rd | 733 | Rt 41 Extension | 0.1 mi south of railroad <br> tracks on Rt 733 |  |


| Proposed Improvement | Reconstruct to current two-lane standards; improve intersection <br> at Rt 730 | Est. Cost | $\$ 32,343,747$ |
| :--- | :--- | :--- | :--- |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.04 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.1 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 68 | Low | 33.3 | 20\% | 6.7 |
| Future Traffic Volume | 165 | Medium | 66.7 | 20\% | 13.3 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | 20\% | 6.7 |
| Total Mobility and Accessibility Score |  |  |  |  | 36.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.44 | Low | 33.3 | $50 \%$ | 16.7 |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ | 16.7 |
|  |  | Total Safety Score | 33.3 |  |  |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ |
| Surrounding Employment Density | 0.21 | Low | 33.3 | 3 |
| Freight Volume (\%) | 13 | High | 11.1 |  |
|  |  | 100 | 3 | 11.1 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ |  |  |  |  |
| Environmental Resources | Some impact | 50.0 |  |  |  |  |  |  |
| Medium |  |  |  |  |  | 66.7 | $50 \%$ | 33.4 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | 33\% | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | 33\% | 22.2 |
| Distribution of Benefits | Localized benefits | Low | 33.3 | 33\% | 11.1 |
| Total Operational Efficiency Score |  |  |  |  | 66.7 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 36.7 | 20\% | 7.3 |
|  | Safety | 33.3 | 30\% | 10.0 |
|  | Economy | 55.5 | 35\% | 19.4 |
|  | Community and Nature | 83.4 | 10\% | 8.3 |
|  | Operational Efficiency | 66.7 | 5\% | 3.3 |
|  | Total Project Benefit Score |  |  | 48.4 |


| Benefit-Cost Calculation | Benefit Score | 48.4 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$32,343,747 |
|  | Estimated Users | 825.5 |
|  | Benefit-Cost Score | 1.24 |


| Project Number |  | 28 | Project Benefit Score | 75.8 |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To | Length (mi) |  |
| City of Danville | South Boston Rd | 58 | Danville Expressway (Rt 29) | Kentuck Rd (Rt 729) | 2.14 |  |


| Proposed Improvement | Widen to six lanes | Est. Cost | \$33,503,021 |
| :--- | :---: | :---: | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.3 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.4 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 612.5 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 815.5 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | 20\% | 6.7 |
| Total Mobility and Accessibility Score |  |  |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.93 | Medium | 66.7 | 50\% | 33.4 |
| PSI Locations | Top 20 PSI location present | High | 100 | 50\% | 50.0 |
| Total Safety Score |  |  |  |  | 83.4 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Slacemaking | May accommodate placemaking | Medium | 66.7 | $33 \%$ |
| Surrounding Employment Density | 1.26 | Medium | 66.7 | 32.2 |
| Freight Volume (\%) | 10.5 | High | 100 | $33 \%$ |
|  |  | 32.2 |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ | 50.0 |
| Environmental Resources | Some impact | Medium | 66.7 | $50 \%$ | 33.4 |
| Total Community and Nature Score |  |  |  |  | $\mathbf{8 3 . 4}$ |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires some ROW | Medium | 66.7 | $33 \%$ |
| Plan Coordination | One plan | Medium | 66.7 | 32.2 |
| Distribution of Benefits | Significant regional benefits | High | 100 | 30 |
|  |  | 22.2 |  |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | $20 \%$ | 11.3 |
|  | Safety | 83.4 | $30 \%$ | 25.0 |
|  | Economy | 77.7 | $35 \%$ | 27.2 |
|  | Community and Nature | 83.4 | $10 \%$ | 8.3 |
| Operational Efficiency | 77.8 | $5 \%$ | 3.9 |  |
| Total Project Benefit Score |  |  |  | $\mathbf{7 5 . 8}$ |


| Benefit-Cost Benefit Score 75.8 <br> Calculation Estimated Cost $\$ 33,503,021$ <br>  Estimated Users 28694 <br>  Benefit-Cost Score 64.89 l |
| :---: | :--- | :---: |




| Project Number |  | 31 | Project Ben | core | 46.2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name |  | Route <br> Number | From |  |  | Length (mi) |
| Pittsylvania County | Ringgold Depot Rd |  | 726 | South Boston Hwy (Rt 58) |  | Tom Fork R <br> (R | 1.38 |
| Proposed Improvement |  | Improve 2 lane facility |  |  |  | Est. Cost | \$14,606,853 |

## Benefit Score Calculation

Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.11 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.18 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 139 | Low | 33.3 | 20\% | 6.7 |
| Future Traffic Volume | 231 | Medium | 66.7 | 20\% | 13.3 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | 20\% | 6.7 |
| Total Mobility and Accessibility Score |  |  |  |  | 36.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.00 | Low | 33.3 | 50\% | 16.7 |
| PSI Locations | No PSI locations | Low | 33.3 | 50\% | 16.7 |
| Total Safety Score |  |  |  |  | 33.3 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | 33\% | 11.1 |
| Surrounding Employment Density | 0.02 | Low | 33.3 | 33\% | 11.1 |
| Freight Volume (\%) | 3 | Medium | 66.7 | 33\% | 22.2 |
| Total Economy Score |  |  |  |  | 44.4 |


| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | 50\% | 50.0 |
| Environmental Resources | No impact | High | 100 | 50\% | 50.0 |
| Total Community and Nature Score |  |  |  |  | 100.0 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ |
| Plan Coordination | One plan | Medium | 66.7 | 33.3 |
| Distribution of Benefits | Localized benefits | Low | 33.3 | $33 \%$ |
|  |  | Total Operational Efficiency Score |  | 62.2 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 36.7 | 20\% | 7.3 |
|  | Safety | 33.3 | 30\% | 10.0 |
|  | Economy | 44.4 | 35\% | 15.5 |
|  | Community and Nature | 100.0 | 10\% | 10.0 |
|  | Operational Efficiency | 66.7 | 5\% | 3.3 |
|  | Total Project Benefit Score |  |  | 46.2 |


| Benefit-Cost Calculation | Benefit Score | 46.2 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$14,606,853 |
|  | Estimated Users | 2375 |
|  | Benefit-Cost Score | 7.51 |


| Project Number |  | 32 | Project Ben | ore | 65.2 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name |  | Route Number | From |  |  |  | Length (mi) |
| Both Localities | Kentuck Rd |  | 729 | South Boston Rd (Rt 58) |  | Eagle Spri | Rd (Rt 730) | 1.47 |
| Proposed Improvement |  | Widen to four lanes |  |  |  | Est. Cost | \$34,778,222 |  |
| Benefit Score Calculation Goal: Mobility and Accessibility |  |  |  |  |  |  |  |  |
| Performance Measure |  | Result |  |  | Rating | Points | Weight | Score |
| Existing Congestion |  | 0.32 |  |  | Low | 25 | 20\% | 5.0 |
| Future Congestion |  | 0.445 |  |  | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume |  | 514 |  |  | High | 100 | 20\% | 20.0 |
| Future Traffic Volume |  | 753.5 |  |  | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities |  | No facilities |  |  | Low | 33.3 | 20\% | 6.7 |
|  |  | Total Mobility and Accessibility Score |  |  |  |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.23 | Medium | 66.7 | 50\% | 33.4 |
| PSI Locations | PSI locations present | Medium | 66.7 | 50\% | 33.4 |
| Total Safety Score |  |  |  |  | 66.7 |
| Goal: Economy |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Placemaking | Doesn't include placemaking | Low | 33.3 | 33\% | 11.1 |
| Surrounding Employment Density | 1.26 | Medium | 66.7 | 33\% | 22.2 |
| Freight Volume (\%) | 7 | High | 100 | 33\% | 33.3 |
| Total Economy Score |  |  |  |  | 66.6 |


| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | 50\% | 50.0 |
| Environmental Resources | Some impact | Medium | 66.7 | 50\% | 33.4 |
| Total Community and Nature Score |  |  |  |  | 83.4 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires lots of ROW | Low | 33.3 | $33 \%$ |
| Plan Coordination | One plan | 11.1 |  |  |
| Distribution of Benefits | Localized benefits | Medium | 66.7 | $33 \%$ |
|  | 22.2 |  |  |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :--- | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | $20 \%$ | 11.3 |
|  | Safety | 66.7 | $30 \%$ | 20.0 |
|  | Economy | 66.6 | $35 \%$ | 23.3 |
|  | Community and Nature | 83.4 | $10 \%$ | 8.3 |
|  | Operational Efficiency | 44.4 | $5 \%$ | 2.2 |
|  | Total Project Benefit Score |  |  | $\mathbf{6 5 . 2}$ |


| Benefit-Cost Calculation | Benefit Score | 65.2 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$34,778,222 |
|  | Estimated Users | 11351.5 |
|  | Benefit-Cost Score | 21.28 |




| Project Number |  | 35 | Project Benefit Score | 58.4 |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To | Length (mi) |  |
| City of Danville | Elizabeth St/Edgewood Dr | 1128 | Danville Expressway (Rt 58/29) | West Main St (Rt 29 Bus) | 1.74 |  |


| Proposed Improvement | Improve 2 lane facility | Est. Cost | \$16,925,401 |
| :--- | :--- | :--- | :---: |

## Benefit Score Calculation

Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.07 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.08 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 88 | Low | 33.3 | 20\% | 6.7 |
| Future Traffic Volume | 100.5 | Low | 33.3 | 20\% | 6.7 |
| Alternative Transportation Facilities | One facility | Medium | 66.7 | 20\% | 13.3 |
| Total Mobility and Accessibility Score |  |  |  |  | 36.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 3.82 | Medium | 66.7 | 50\% | 33.4 |
| PSI Locations | PSI locations present | Medium | 66.7 | 50\% | 33.4 |
| Total Safety Score |  |  |  |  | 66.7 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Placemaking | May accommodate placemaking | Medium | 66.7 | 33\% | 22.2 |
| Surrounding Employment Density | 0.39 | Low | 33.3 | 33\% | 11.1 |
| Freight Volume (\%) | 3 | Medium | 66.7 | 33\% | 22.2 |
| Total Economy Score |  |  |  |  | 55.5 |



Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | 33\% | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | 33\% | 22.2 |
| Distribution of Benefits | Localized benefits | Low | 33.3 | 33\% | 11.1 |
| Total Operational Efficiency Score |  |  |  |  | 66.7 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 36.7 | 20\% | 7.3 |
|  | Safety | 66.7 | 30\% | 20.0 |
|  | Economy | 55.5 | 35\% | 19.4 |
|  | Community and Nature | 83.4 | 10\% | 8.3 |
|  | Operational Efficiency | 66.7 | 5\% | 3.3 |
|  | Total Project Benefit Score |  |  | 58.4 |


| Benefit-Cost Benefit Score 58.4 <br> Calculation Estimated Cost $\$ 16,925,401$ <br>  Estimated Users 1254.5 <br>  Benefit-Cost Score 4.33 l |
| :---: | :--- | :---: |


| Project Number |  | 36 | Project Benefit Score | $\mathbf{5 0 . 3}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To | Tength (mi) |
| Pittsylvania <br> County | Robertson Ln/Golf Club Dr | 863 | Franklin Turnpike (Rt 41) | 0.5 mi south Golf Club Rd <br> (Rt 719) | 1.89 |


| Proposed Improvement | Construct roadway on new alignment | Est. Cost | \$17,505,039 |
| :--- | :---: | :---: | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.155 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.155 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 193.5 | Medium | 66.7 | 20\% | 13.3 |
| Future Traffic Volume | 230.5 | Medium | 66.7 | 20\% | 13.3 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | 20\% | 6.7 |
| Total Mobility and Accessibility Score |  |  |  |  | 43.3 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.35 | Low | 33.3 | $50 \%$ | 16.7 |  |  |  |  |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ | 16.7 |  |  |  |  |
| Total Safety Score |  |  |  |  |  |  |  |  | 33.3 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | 33\% | 11.1 |
| Surrounding Employment Density | 0.03 | Low | 33.3 | 33\% | 11.1 |
| Freight Volume (\%) | 6 | High | 100 | 33\% | 33.3 |
| Total Economy Score |  |  |  |  | 55.5 |


| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | 50\% | 50.0 |
| Environmental Resources | No impact | High | 100 | 50\% | 50.0 |
| Total Community and Nature Score |  |  |  |  | 100.0 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires lots of ROW | Low | 33.3 | 33\% | 11.1 |
| Plan Coordination | One plan | Medium | 66.7 | 33\% | 22.2 |
| Distribution of Benefits | Localized benefits | Low | 33.3 | 33\% | 11.1 |
| Total Operational Efficiency Score |  |  |  |  | 44.4 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 43.3 | 20\% | 8.7 |
|  | Safety | 33.3 | 30\% | 10.0 |
|  | Economy | 55.5 | 35\% | 19.4 |
|  | Community and Nature | 100.0 | 10\% | 10.0 |
|  | Operational Efficiency | 44.4 | 5\% | 2.2 |
|  | Total Project Benefit Score |  |  | 50.3 |


| Benefit-Cost Benefit Score 50.3 <br> Calculation Estimated Cost $\$ 17,505,039$ <br>  Estimated Users 2600 <br>  Benefit-Cost Score 7.47 l |
| :---: | :--- | :---: |


| Project Number |  | 37 | Project Ben | t Score | 51.1 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name |  | Route <br> Number | From |  |  | Length (mi) |
| Pittsylvania County | Moorefield Bridge Rd/Laniers Mill Rd |  | 863 | $0.8 \mathrm{~m}$ | oss Rd (Rt | $\begin{array}{r} 0.5 \mathrm{mi} \text { sout } \\ (\mathrm{R} \\ \hline \end{array}$ | 6.18 |
| Proposed Improvement |  |  | Improve 2 lane facility |  |  | Est. Cost $\quad \$ 42,777,213$ |  |

## Benefit Score Calculation

Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.2 | Low | 25 | $20 \%$ |  |
| Future Congestion | 0.23 | Low | 25 | 20 |  |
| Existing Traffic Volume | 253.67 | Medium | 66.7 | $20 \%$ | 5.0 |
| Future Traffic Volume | 318.67 | High | 100 | $20 \%$ | 20 |
| Alternative Transportation Facilities | No facilities | Low | 30.0 |  |  |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.43 | Low | 33.3 | 50\% | 16.7 |
| PSI Locations | No PSI locations | Low | 33.3 | 50\% | 16.7 |
| Total Safety Score |  |  |  |  | 33.3 |
| Goal: Economy |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Placemaking | Doesn't include placemaking | Low | 33.3 | 33\% | 11.1 |
| Surrounding Employment Density | 0.03 | Low | 33.3 | 33\% | 11.1 |
| Freight Volume (\%) | 5 | High | 100 | 33\% | 33.3 |
| Total Economy Score |  |  |  |  | 55.5 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | 50\% | 50.0 |
| Environmental Resources | Some impact | Medium | 66.7 | 50\% | 33.4 |
| Total Community and Nature Score |  |  |  |  | 83.4 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | 33\% | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | 33\% | 22.2 |
| Distribution of Benefits | Localized benefits | Low | 33.3 | 33\% | 11.1 |
| Total Operational Efficiency Score |  |  |  |  | 66.7 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :--- | :---: | :---: |
|  | Mobility and Accessibility | 50.0 | $20 \%$ | 10.0 |
|  | Safety | 33.3 | $30 \%$ | 10.0 |
|  | Economy | 55.5 | $35 \%$ | 19.4 |
|  | Community and Nature | 83.4 | $10 \%$ | 8.3 |
| Operational Efficiency | 66.7 | $5 \%$ | 3.3 |  |
| Total Project Benefit Score |  |  |  | $\mathbf{5 1 . 1}$ |


| Benefit-Cost Benefit Score 51.1 <br> Calculation Estimated Cost $\$ 42,777,213$ <br>  Estimated Users 3087.33 <br>  Benefit-Cost Score 3.69 l |
| :---: | :--- | :---: |


| Project Number |  | 38 | Project Ben | t Score | 50.2 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name |  | Route Number | From |  |  |  | Length (mi) |
| Pittsylvania County | Kentuck Church Rd |  | 726 | 0.7 mi north Kentuck Rd (Rt 729) |  | Old Richm | Rd (Rt 360) | 2.04 |
| Proposed Improvement |  | Improve 2 lane facility |  |  |  | Est. Cost | \$27,358,868 |  |
| Benefit Score Calculation Goal: Mobility and Accessibility |  |  |  |  |  |  |  |  |
| Performance Measure |  | Result |  |  | Rating | Points | Weight | Score |
| Existing Congestion |  | 0.28 |  |  | Low | 25 | 20\% | 5.0 |
| Future Congestion |  | 0.33 |  |  | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume |  | 363 |  |  | High | 100 | 20\% | 20.0 |
| Future Traffic Volume |  | 423 |  |  | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities |  | No facilities |  |  | Low | 33.3 | 20\% | 6.7 |
|  |  | Total Mobility and Accessibility Score |  |  |  |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.09 | Low | 33.3 | $50 \%$ |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ |
|  |  | 16.7 |  |  |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ | 11.1 |
| Surrounding Employment Density | 0.06 | Low | 33.3 | $33 \%$ | 11.1 |
| Freight Volume (\%) | 3 | Medium | 66.7 | $33 \%$ | 22.2 |
|  |  | Total Economy Score | 44.4 |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | 50\% | 50.0 |
| Environmental Resources | No impact | High | 100 | 50\% | 50.0 |
| Total Community and Nature Score |  |  |  |  | 100.0 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ |
| Plan Coordination | One plan | Medium | 66.7 | $33 \%$ |
| Distribution of Benefits | Localized benefits | Low | 33.3 | 3 |
|  |  | Total | 32.2 |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :--- | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | $20 \%$ | 11.3 |
|  | Safety | 33.3 | $30 \%$ | 10.0 |
|  | Economy | 44.4 | $35 \%$ | 15.5 |
|  | Community and Nature | 100.0 | $10 \%$ | 10.0 |
|  | Operational Efficiency | 66.7 | $5 \%$ | 3.3 |
|  | Total Project Benefit Score |  |  | $\mathbf{5 0 . 2}$ |


| Benefit-Cost Calculation | Benefit Score | 50.2 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$27,358,868 |
|  | Estimated Users | 3499 |
|  | Benefit-Cost Score | 6.42 |


| Project Number | 39 | Project Benefit Score | 62.4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction Route Name Route <br> Number From To <br> Pittsylvania <br> County US 29 29 E Witt Rd Dry Fork Rd | 5.82 |  |  |  |  |


| Proposed Improvement | Modify median openings, install turn lanes, extend turn lanes | Est. Cost | $\$ 19,080,000$ |
| :--- | :--- | :--- | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.23 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.30 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 500 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 635.33 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | 20\% | 6.7 |
| Total Mobility and Accessibility Score |  |  |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.19 | Low | 33.3 | $50 \%$ | 16.7 |
| PSI Locations | PSI locations present | Medium | 66.7 | $50 \%$ | 33.4 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Placemaking | May accommodate placemaking | Medium | 66.7 | $33 \%$ | 22.2 |
| Surrounding Employment Density | 0.04 | Low | 33.3 | $33 \%$ | 11.1 |
| Freight Volume (\%) | 9.33 | High | 100 | $33 \%$ | 33.3 |
|  |  | Total Economy Score | 66.6 |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | 50\% | 50.0 |
| Environmental Resources | Some impact | Medium | 66.7 | 50\% | 33.4 |
| Total Community and Nature Score |  |  |  |  | 83.4 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ |
| Plan Coordination | One plan | 33.3 |  |  |
| Distribution of Benefits | Significant regional benefits | Medium | 66.7 | $33 \%$ |
|  | 22.2 |  |  |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | 20\% | 11.3 |
|  | Safety | 50.0 | 30\% | 15.0 |
|  | Economy | 66.6 | 35\% | 23.3 |
|  | Community and Nature | 83.4 | 10\% | 8.3 |
|  | Operational Efficiency | 88.9 | 5\% | 4.4 |
|  | Total Project Benefit Score |  |  | 62.4 |


| Benefit-Cost Benefit Score 62.4 <br> Calculation Estimated Cost $\$ 19,080,000$ <br>  Estimated Users 22519.33 <br>  Benefit-Cost Score 73.67 l |
| :---: | :--- | :---: |


| Project Number |  | 40 | Project Benefit Score | 79.3 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To | Length (mi) |  |
| City of Danville | Riverside Dr | 58 Bus | Park Avenue | Westover Dr (Rt 51) | 0.67 |  |


| Proposed Improvement | Two RCUTS, construct sidewalks, access management | Est. Cost | $\$ 10,272,000$ |
| :--- | :--- | :--- | ---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.235 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.26 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 512 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 564 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | One facility | Medium | 66.7 | 20\% | 13.3 |
| Total Mobility and Accessibility Score |  |  |  |  | 63.3 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.82 | Medium | 66.7 | $50 \%$ | 33.4 |
| PSI Locations | Top 20 PSI location present | High | 100 | $50 \%$ | 50.0 |
|  |  | Total Safety Score | $\mathbf{8 3 . 4}$ |  |  |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Placemaking | May accommodate placemaking | Medium | 66.7 | $33 \%$ | 22.2 |
| Surrounding Employment Density | 5.29 | High | 100 | $33 \%$ | 33.3 |
| Freight Volume (\%) | 6 | High | 100 | $33 \%$ | 33.3 |
|  |  | Total Economy Score | $\mathbf{8 8 . 8}$ |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ |
| Environmental Resources | High impact | Low | 33.3 | $50 \%$ |
| Total Community and Nature Score |  |  |  |  |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires some ROW | Medium | 66.7 | $33 \%$ |
| Plan Coordination | One plan | Medium | 66.7 | 22.2 |
| Distribution of Benefits | Significant regional benefits | High | 100 | $33 \%$ |
|  | Total Operational Efficiency Score | $\mathbf{7 7 . 8}$ |  |  |



| Benefit-Cost Calculation | Benefit Score | 79.3 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$10,272,000 |
|  | Estimated Users | 15764.5 |
|  | Benefit-Cost Score | 121.72 |


| Project Number |  | 41 | Project Benefit Score | 82.9 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To | Length (mi) |
| City of Danville | Riverside Dr | 58 Bus | Westover Dr (Rt 51) | Mount Cross Rd (Rt 750) | 0.38 |


| Proposed Improvement | RCUT, construct new sidewalks, median opening modifications, | Est. Cost | $\$ 15,653,000$ |
| :--- | :---: | :---: | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.38 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.4 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 914 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 924 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | Two or more facilities | High | 100 | 20\% | 20.0 |
| Total Mobility and Accessibility Score |  |  |  |  | 70.0 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.42 | Medium | 66.7 | 50\% | 33.4 |
| PSI Locations | Top 20 PSI location present | High | 100 | 50\% | 50.0 |
| Total Safety Score |  |  |  |  | 83.4 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Placemaking | May accommodate placemaking | Medium | 66.7 | $33 \%$ |
| Surrounding Employment Density | 5.29 | High | 100 | 22.2 |
| Freight Volume (\%) | 6 | High | 100 | $23 \%$ |
|  | $33 \%$ | 3 |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ |  |  |  |  |
| Environmental Resources | Some impact | 50.0 |  |  |  |  |  |  |
| Medium |  |  |  |  |  | 66.7 | $50 \%$ | 33.4 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | $33 \%$ | 22.2 |
| Distribution of Benefits | Significant regional benefits | High | 100 | $33 \%$ | 33.3 |
|  | Total Operational Efficiency Score |  |  |  | 88.9 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 70.0 | 20\% | 14.0 |
|  | Safety | 83.4 | 30\% | 25.0 |
|  | Economy | 88.8 | 35\% | 31.1 |
|  | Community and Nature | 83.4 | 10\% | 8.3 |
|  | Operational Efficiency | 88.9 | 5\% | 4.4 |
|  | Total Project Benefit Score |  |  | 82.9 |


| Benefit-Cost Calculation | Benefit Score | 82.9 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$15,653,000 |
|  | Estimated Users | 24629 |
|  | Benefit-Cost Score | 130.39 |


| Project Number |  | 42 | Project Benefit Score | 79.9 |  | Length (mi) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction Route Name Route <br> Number From To <br> City of <br> Danville Riverside Dr 58 Bus Mount Cross Rd (Rt 750) Piney Forest Dr | 0.37 |  |  |  |  |  |


| Proposed Improvement | Construct sidewalks, realign ramp, pedestrian safety features | Est. Cost | $\$ 3,442,260$ |
| :--- | :--- | :---: | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.615 | Low | 25 | $20 \%$ |  |  |  |
| Future Congestion | 0.675 | Low | 25 | 5.0 |  |  |  |
| Existing Traffic Volume | 981.5 | High | 100 | $20 \%$ |  |  |  |
| Future Traffic Volume | 1074.5 | High | 100 | 5.0 |  |  |  |
| Alternative Transportation Facilities | One facility | Medium | 66.7 | $20 \%$ |  |  |  |
| Total Mobility and Accessibility Score |  |  |  |  |  |  | 20.0 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.15 | Medium | 66.7 | 50\% | 33.4 |
| PSI Locations | Top 20 PSI location present | High | 100 | 50\% | 50.0 |
| Total Safety Score |  |  |  |  | 83.4 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Placemaking | May accommodate placemaking | Medium | 66.7 | 33\% | 22.2 |
| Surrounding Employment Density | 5.29 | High | 100 | 33\% | 33.3 |
| Freight Volume (\%) | 6 | High | 100 | 33\% | 33.3 |
| Total Economy Score |  |  |  |  | 88.8 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ |  |  |  |  |
| Environmental Resources | High impact | Low | 30.0 |  |  |  |  |  |
| Total Community and Nature Score |  |  |  |  |  | 6.3 | $50 \%$ | 16.7 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | $33 \%$ | 22.2 |
| Distribution of Benefits | Significant regional benefits | High | 100 | $33 \%$ | 33.3 |
|  | Total Operational Efficiency Score | 88.9 |  |  |  |


|  | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
| Total Benefit Score | Mobility and Accessibility | 63.3 | 20\% | 12.7 |
|  | Safety | 83.4 | 30\% | 25.0 |
|  | Economy | 88.8 | 35\% | 31.1 |
|  | Community and Nature | 66.7 | 10\% | 6.7 |
|  | Operational Efficiency | 88.9 | 5\% | 4.4 |
|  | Total Project Benefit Score |  |  | 79.9 |


| Benefit-Cost Benefit Score 79.9 <br> Calculation Estimated Cost $\$ 3,442,260$ <br>  Benefit-Cost Score 27120.5$\quad$629.25 l |
| :---: | :--- | :---: |


| Project Number |  | 43 | Project Benefit Score | 66.8 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To | Length (mi) |  |
| City of Danville | Riverside Dr | 58 Bus | Piney Forest Rd | Audubon Dr | 0.92 |  |


| Proposed Improvement | Median opening modifications, construct sidewalks, access <br> management | Est. Cost | $\$ 16,013,000$ |
| :--- | :---: | :---: | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.57 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.6 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 900 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 950 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | Two or more facilities | High | 100 | 20\% | 20.0 |
| Total Mobility and Accessibility Score |  |  |  |  | 70.0 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.05 | Medium | 66.7 | $50 \%$ | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ | 16.7 |
|  |  | Total Safety Score | $\mathbf{5 0 . 0}$ |  |  |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Placemaking | May accommodate placemaking | Medium | 66.7 | $33 \%$ | 22.2 |
| Surrounding Employment Density | 3 | Medium | 66.7 | $33 \%$ | 22.2 |
| Freight Volume (\%) | 6 | High | 100 | $33 \%$ | 33.3 |
|  |  | Total Economy Score |  |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | Some impact | Medium | 66.7 | 50\% | 33.4 |
| Environmental Resources | Some impact | Medium | 66.7 | 50\% | 33.4 |
| Total Community and Nature Score |  |  |  |  | 66.7 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Score |  |  |  |  |
| Right-of-Way Sufficiency | Requires some ROW | Medium | 66.7 | $33 \%$ |
| Plan Coordination | One plan | Medium | 66.7 | $33 \%$ |
| Distribution of Benefits | Significant regional benefits | High | 100 | 32.2 |
|  |  | Total Operational Efficiency Score |  | $\mathbf{7 7 . 8}$ |


|  | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
| Total Benefit Score | Mobility and Accessibility | 70.0 | 20\% | 14.0 |
|  | Safety | 50.0 | 30\% | 15.0 |
|  | Economy | 77.7 | 35\% | 27.2 |
|  | Community and Nature | 66.7 | 10\% | 6.7 |
|  | Operational Efficiency | 77.8 | 5\% | 3.9 |
|  | Total Project Benefit Score |  |  | 66.8 |


| Benefit-Cost Calculation | Benefit Score | 66.8 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$16,013,000 |
|  | Estimated Users | 23863 |
|  | Benefit-Cost Score | 99.49 |


| Project Number |  | 44 | Project Benefit Score | 66.0 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To | Length (mi) |
| City of <br> Danville | Riverside Dr | 58 Bus | Audubon Dr | Arnett Blvd | 0.92 |


| Proposed Improvement | RCUT, construct new sidewalks, median opening modifications, |
| :--- | ---: | ---: | ---: |
| access management |  | Est. Cost | $\$ 5,041,000$ |
| :--- | :--- | :--- |


|  | Benefit Score Calculation <br> Goal: Mobility and Accessibility |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Existing Congestion | 0.57 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.6 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 900 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 950 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | One facility | Medium | 66.7 | 20\% | 13.3 |
| Total Mobility and Accessibility Score |  |  |  |  | 63.3 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.05 | Medium | 66.7 | 50\% | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | 50\% | 16.7 |
| Total Safety Score |  |  |  |  | 50.0 |
| Goal: Economy |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Placemaking | May accommodate placemaking | Medium | 66.7 | 33\% | 22.2 |
| Surrounding Employment Density | 3 | Medium | 66.7 | 33\% | 22.2 |
| Freight Volume (\%) | 6 | High | 100 | 33\% | 33.3 |
| Total Economy Score |  |  |  |  | 77.7 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | Some impact | Medium | 66.7 | 50\% | 33.4 |
| Environmental Resources | Some impact | Medium | 66.7 | 50\% | 33.4 |
| Total Community and Nature Score |  |  |  |  | 66.7 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | $33 \%$ | 22.2 |
| Distribution of Benefits | Significant regional benefits | High | 100 | $33 \%$ | 33.3 |
|  | Total Operational Efficiency Score |  | 88.9 |  |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 63.3 | 20\% | 12.7 |
|  | Safety | 50.0 | 30\% | 15.0 |
|  | Economy | 77.7 | 35\% | 27.2 |
|  | Community and Nature | 66.7 | 10\% | 6.7 |
|  | Operational Efficiency | 88.9 | 5\% | 4.4 |
|  | Total Project Benefit Score |  |  | 66.0 |


| Benefit-Cost Benefit Score 66.0 <br> Calculation Estimated Users $\$ 5,041,000$ <br>  Benefit-Cost Score 23863 | 312.36 |
| :---: | :--- | :---: |


| Project Number | 45 | Project Benefit Score | 62.4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To | Length (mi) |
| City of Danville | Riverside Dr | 58 Bus | Arnett Blvd | Main St | 0.82 |


| Proposed Improvement | Median opening modifications, construct sidewalks, access <br> management | Est. Cost | $\$ 12,611,000$ |
| :--- | :---: | :---: | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.35 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.41 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 556 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 646 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | 20\% | 6.7 |
| Total Mobility and Accessibility Score |  |  |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.19 | Medium | 66.7 | $50 \%$ | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ | 16.7 |
|  |  | Total Safety Score | 50.0 |  |  |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | 33\% | 11.1 |
| Surrounding Employment Density | 3 | Medium | 66.7 | 33\% | 22.2 |
| Freight Volume (\%) | 6 | High | 100 | 33\% | 33.3 |
| Total Economy Score |  |  |  |  | 66.6 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ |  |  |  |  |
| Environmental Resources | Some impact | 50.0 |  |  |  |  |  |  |
| Medium |  |  |  |  |  | 66.7 | $50 \%$ | 33.4 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | $33 \%$ | 22.2 |
| Distribution of Benefits | Significant regional benefits | High | 100 | $33 \%$ | 33.3 |
|  | Total Operational Efficiency Score |  |  |  | 88.9 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | 20\% | 11.3 |
|  | Safety | 50.0 | 30\% | 15.0 |
|  | Economy | 66.6 | 35\% | 23.3 |
|  | Community and Nature | 83.4 | 10\% | 8.3 |
|  | Operational Efficiency | 88.9 | 5\% | 4.4 |
|  | Total Project Benefit Score |  |  | 62.4 |


| Benefit-Cost Calculation | Benefit Score | 62.4 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$12,611,000 |
|  | Estimated Users | 16693 |
|  | Benefit-Cost Score | 82.63 |



| Project Number |  | 50 | Project Benefit Score | 50.9 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To | Length (mi) |  |
| Pittsylvania <br> County | Berry Hill Rd | 311 | Oak Hill | NC State Line | 1.97 |  |


| Proposed Improvement | Geometric improvements on existing 2 lane road | Est. Cost | $\$ 52,000,000$ |
| :--- | :---: | :---: | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.14 | Low | 25 | $20 \%$ | 5.0 |  |  |  |  |  |
| Future Congestion | 0.16 | Low | 25 | $20 \%$ | 5.0 |  |  |  |  |  |
| Existing Traffic Volume | 173 | Medium | 66.7 | $20 \%$ | 13.3 |  |  |  |  |  |
| Future Traffic Volume | 197 | Medium | 66.7 | $20 \%$ | 13.3 |  |  |  |  |  |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | $20 \%$ | 6.7 |  |  |  |  |  |
| Total Mobility and Accessibility Score |  |  |  |  |  |  |  |  |  | $\mathbf{4 3 . 3}$ |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.15 | Low | 33.3 | 50\% | 16.7 |
| PSI Locations | No PSI locations | Low | 33.3 | 50\% | 16.7 |
| Total Safety Score |  |  |  |  | 33.3 |
| Goal: Economy |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Placemaking | Doesn't include placemaking | Low | 33.3 | 33\% | 11.1 |
| Surrounding Employment Density | 0 | Low | 33.3 | 33\% | 11.1 |
| Freight Volume (\%) | 6 | High | 100 | 33\% | 33.3 |
| Total Economy Score |  |  |  |  | 55.5 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ | 50.0 |
| Environmental Resources | No impact | High | 100 | $50 \%$ | 50.0 |
|  |  | Total Community and Nature Score | $\mathbf{1 0 0 . 0}$ |  |  |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | $33 \%$ | 22.2 |
| Distribution of Benefits | Two localities |  | 0 | $33 \%$ | 0.0 |
|  |  | Total Operational Efficiency Score |  | $\mathbf{5 5 . 6}$ |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :---: | :---: | :---: |
|  | Mobility and Accessibility | 43.3 | $20 \%$ | 8.7 |
|  | Safety | 33.3 | $30 \%$ | 10.0 |
|  | Economy | 55.5 | $35 \%$ | 19.4 |
|  | Community and Nature | 100.0 | $10 \%$ | 10.0 |
| Operational Efficiency | 55.6 | $5 \%$ | 2.8 |  |
| Total Project Benefit Score |  |  |  | $\mathbf{5 0 . 9}$ |


| Benefit-Cost Benefit Score 50.9 <br> Calculation Estimated Cost $\$ 52,000,000$ <br>  Estimated Users 16693 <br>  Benefit-Cost Score 16.32 l |
| :---: | :--- | :---: |


| Project Number |  | 51 | Project Benefit Score | 60.2 |  | From |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | To | Length (mi) |  |  |
| City of Danville | Riverside Dr | 58 Bus | Avalon Dr | Kayewood Ln | 0.56 |  |


| Proposed Improvement | Restricted crossing u-turns, access management | Est. Cost | $\$ 9,450,000$ |
| :--- | :--- | :--- | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.22 | Low | 25 | $20 \%$ | 5.0 |  |  |  |  |
| Future Congestion | 0.23 | Low | 25 | $20 \%$ | 5.0 |  |  |  |  |
| Existing Traffic Volume | 491 | High | 100 | $20 \%$ | 20.0 |  |  |  |  |
| Future Traffic Volume | 511 | High | 100 | $20 \%$ | 20.0 |  |  |  |  |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | $20 \%$ | 6.7 |  |  |  |  |
| Total Mobility and Accessibility Score |  |  |  |  |  |  |  |  | $\mathbf{5 6 . 7}$ |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.48 | Low | 33.3 | $50 \%$ | 16.7 |
| PSI Locations | PSI locations present | Medium | 66.7 | $50 \%$ | 33.4 |
| Total Safety Score |  |  |  |  |  |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ | 11.1 |  |  |  |  |  |  |  |
| Surrounding Employment Density | 0.1 | Low | 33.3 | $33 \%$ | 11.1 |  |  |  |  |  |  |  |
| Freight Volume (\%) | 6 | High | 100 | $33 \%$ | 33.3 |  |  |  |  |  |  |  |
| Total Economy Score |  |  |  |  |  |  |  |  |  |  |  | $\mathbf{5 5 . 5}$ |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ | 50.0 |
| Environmental Resources | No impact | High | 100 | $50 \%$ | 50.0 |
|  | Total Community and Nature Score |  |  |  | $\mathbf{1 0 0 . 0}$ |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | $33 \%$ | 22.2 |
| Distribution of Benefits | Significant regional benefits | High | 100 | $33 \%$ | 33.3 |
|  | Total Operational Efficiency Score |  |  |  | $\mathbf{8 8 . 9}$ |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | 20\% | 11.3 |
|  | Safety | 50.0 | 30\% | 15.0 |
|  | Economy | 55.5 | 35\% | 19.4 |
|  | Community and Nature | 100.0 | 10\% | 10.0 |
|  | Operational Efficiency | 88.9 | 5\% | 4.4 |
|  | Total Project Benefit Score |  |  | 60.2 |


| Benefit-Cost <br> Calculation Benefit Score 60.2 <br>  Estimated Cost $\$ 9,450,000$ <br>  Estimated Users 13529$\quad$ Benefit-Cost Score | 86.18 |
| :---: | :--- | :---: |


| Project Number |  | 32 | Project Benefit Score | 53.5 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To | Length (mi) |
| Pittsylvania <br> County | Kentuck Rd | 729 | Eagle Springs Rd (Rt 730) | 0.46 miles north | 0.46 |


| Proposed Improvement | Widen existing lanes, add shoulders and add turn lanes at <br> intersection with Ringgold Dr | Est. Cost | $\$ 7,428,972$ |
| :--- | :---: | :---: | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.26 | Low | 25 | $20 \%$ | 5.0 |
| Future Congestion | 0.24 | Low | 25 | $20 \%$ | 5.0 |
| Existing Traffic Volume | 334 | High | 100 | $20 \%$ | 20.0 |
| Future Traffic Volume | 372 | High | 100 | $20 \%$ | 20.0 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | $20 \%$ | 6.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.64 | Low | 33.3 | $50 \%$ | 16.7 |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ | 16.7 |
|  |  | Total Safety Score | 33.3 |  |  |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | 33\% | 11.1 |
| Surrounding Employment Density | 0.2 | Low | 33.3 | 33\% | 11.1 |
| Freight Volume (\%) | 4 | High | 100 | 33\% | 33.3 |
| Total Economy Score |  |  |  |  | 55.5 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ |  |  |  |  |
| Environmental Resources | No impact | High | 100 | 50.0 |  |  |  |  |
| Total Community and Nature Score |  |  |  |  |  |  |  | 100.0 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires some ROW | Medium | 66.7 | $33 \%$ | 22.2 |
| Plan Coordination | One plan | Medium | 66.7 | $33 \%$ | 22.2 |
| Distribution of Benefits | Localized benefits | Low | 33.3 | $33 \%$ | 11.1 |
|  | Total Operational Efficiency Score |  |  | 55.6 |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | $20 \%$ | 11.3 |
|  | Safety | 33.3 | $30 \%$ | 10.0 |
|  | Economy | 55.5 | $35 \%$ | 19.4 |
|  | Community and Nature | 100.0 | $10 \%$ | 10.0 |
|  | Operational Efficiency | 55.6 | $5 \%$ | 2.8 |
|  | Total Project Benefit Score |  |  | $\mathbf{5 3 . 5}$ |


| Benefit-Cost <br> Calculation | Benefit Score | 53.5 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$7,428,972 |
|  | Estimated Users | 11351.5 |
|  | Benefit-Cost Score | 81.78 |


| Project Number | 53 | Project Benefit Score | 58.0 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name |  | Route <br> Number | From | To | Length (mi) |
| City of <br> Danville | River St |  | 58 Bus | Main St | Old Halifax Rd | 0.67 |
| Proposed Improvement |  | Raise the road to reduce flooding potential, <br> straighten the alignment, and improve horizontal <br> clearance under the railroad bridge | Est. Cost | $\$ 35,000,000$ |  |  |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.23 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.27 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 444 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 512 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | 20\% | 6.7 |
| Total Mobility and Accessibility Score |  |  |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Score |  |  |  |  |
| Patal and Injury Crash Rate | 0.83 | Medium | 66.7 | $50 \%$ |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ |
|  |  |  | 16.7 |  |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ | 11.1 |
| Surrounding Employment Density | 0.4 | Low | 33.3 | $33 \%$ | 11.1 |
| Freight Volume (\%) | 6 | High | 100 | $33 \%$ | 33.3 |
|  |  | Total Economy Score | 55.5 |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Score |  |  |  |  |
| Social Resources | No impact | High | 100 | $50 \%$ |
| Environmental Resources | Some impact | Medium | 66.7 | $50 \%$ |
|  |  | Total Community and Nature Score | $\mathbf{8 3 . 4}$ |  |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires some ROW | Medium | 66.7 | $33 \%$ | 22.2 |
| Plan Coordination | One plan | Medium | 66.7 | $33 \%$ | 22.2 |
| Distribution of Benefits | Significant regional benefits | High | 100 | $33 \%$ | 33.3 |
|  |  | Total Operational Efficiency Score | $\mathbf{7 7 . 8}$ |  |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | 20\% | 11.3 |
|  | Safety | 50.0 | 30\% | 15.0 |
|  | Economy | 55.5 | 35\% | 19.4 |
|  | Community and Nature | 83.4 | 10\% | 8.3 |
|  | Operational Efficiency | 77.8 | 5\% | 3.9 |
|  | Total Project Benefit Score |  |  | 58.0 |


| Benefit-Cost <br> Calculation Benefit Score <br>  Estimated Cost <br> Estimated Users $\$ 35,000,000$ <br>  Benefit-Cost Score |
| :---: | :--- | :---: |


| Project Number |  | I-1 | Project Benefit Score | 63.5 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction Route Name Route <br> Number From To | Length (mi) |  |  |  |  |  |
| Pittsylvania <br> County | Moorefield Bridge Rd | 863 | Mount Cross Rd (Rt 750) | - |  |  |


| Proposed Improvement | Intersection improvements and alternative design considerations | Est. Cost | $\$ 2,400,000$ |
| :--- | :--- | :--- | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.31 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.29 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 406 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 463 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | 20\% | 6.7 |
| Total Mobility and Accessibility Score |  |  |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.04 | Medium | 66.7 | $50 \%$ |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Placemaking | May accommodate placemaking | Medium | 66.7 | 33\% | 22.2 |
| Surrounding Employment Density | 0.03 | Low | 33.3 | 33\% | 11.1 |
| Freight Volume (\%) | 6 | High | 100 | 33\% | 33.3 |
| Total Economy Score |  |  |  |  | 66.6 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ |  |  |
| Environmental Resources | No impact | High | 100 | 50.0 |  |  |
| Total Community and Nature Score |  |  |  |  |  | $\mathbf{1 0 0 . 0}$ |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | $33 \%$ | 22.2 |
| Distribution of Benefits | Jurisdiction-wide benefits | Medium | 66.7 | $33 \%$ | 22.2 |
|  | Total Operational Efficiency Score | 77.8 |  |  |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | 20\% | 11.3 |
|  | Safety | 50.0 | 30\% | 15.0 |
|  | Economy | 66.6 | 35\% | 23.3 |
|  | Community and Nature | 100.0 | 10\% | 10.0 |
|  | Operational Efficiency | 77.8 | 5\% | 3.9 |
|  | Total Project Benefit Score |  |  | 63.5 |


| Benefit-Cost Benefit Score 63.5 <br> Calculation Estimated Users $\$ 2,400,000$ <br>  Benefit-Cost Score 6080$\quad 160.95$ |
| :---: | :--- | :---: |


| Project Number |  | I-2 | Project Be | core | 56.6 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name |  | Route Number | From |  |  |  | Length (mi) |
| City of Danville | Moorefield Bridge Rd |  | 863 | Westover Dr (Rt 51) |  |  |  |  |
| Proposed Improvement |  | Addition of southbound left turn lane |  |  |  | Est. Cost | \$ |  |
| Benefit Score Calculation Goal: Mobility and Accessibility |  |  |  |  |  |  |  |  |
| Performance Measure |  | Result |  |  | Rating | Points | Weight | Score |
| Existing Congestion |  | 0.11 |  |  | Low | 25 | 20\% | 5.0 |
| Future Congestion |  | 0.22 |  |  | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume |  | 180 |  |  | Medium | 66.7 | 20\% | 13.3 |
| Future Traffic Volume |  | 371 |  |  | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities |  | No facilities |  |  | Low | 33.3 | 20\% | 6.7 |
|  |  | Total Mobility and Accessibility Score |  |  |  |  |  | 50.0 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.56 | Medium | 66.7 | $50 \%$ | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ | 16.7 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ | 11.1 |
| Surrounding Employment Density | 0.03 | Low | 33.3 | $33 \%$ | 11.1 |
| Freight Volume (\%) | 4 | High | 100 | $33 \%$ | 33.3 |
|  |  | Total Economy Score | $\mathbf{5 5 . 5}$ |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | 50\% | 50.0 |
| Environmental Resources | Some impact | Medium | 66.7 | 50\% | 33.4 |
| Total Community and Nature Score |  |  |  |  | 83.4 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | $33 \%$ | 22.2 |
| Distribution of Benefits | Jurisdiction-wide benefits | Medium | 66.7 | $33 \%$ | 22.2 |
|  | Total Operational Efficiency Score | 77.8 |  |  |  |


|  | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
| Total Benefit Score | Mobility and Accessibility | 50.0 | 20\% | 10.0 |
|  | Safety | 50.0 | 30\% | 15.0 |
|  | Economy | 55.5 | 35\% | 19.4 |
|  | Community and Nature | 83.4 | 10\% | 8.3 |
|  | Operational Efficiency | 77.8 | 5\% | 3.9 |
|  | Total Project Benefit Score |  |  | 56.6 |


| Benefit-Cost Calculation | Benefit Score | 56.6 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$700,000 |
|  | Estimated Users | 2507 |
|  | Benefit-Cost Score | 202.86 |


| Project Number |  | 1-3 | Project Ben |  | 71.9 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name |  | Route Number | From |  |  |  | Length (mi) |
| City of Danville | Kentuck Rd |  | 729 | Halifax Rd (Rt 655) |  |  |  |  |
| Proposed Improvement |  | Construction of single lane roundabout |  |  |  | Est. Cost |  | ,000 |
| Benefit Score Calculation Goal: Mobility and Accessibility |  |  |  |  |  |  |  |  |
| Performance Measure |  | Result |  |  | Rating | Points | Weight | Score |
| Existing Congestion |  | 0.29 |  |  | Low | 25 | 20\% | 5.0 |
| Future Congestion |  | 0.35 |  |  | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume |  | 483 |  |  | High | 100 | 20\% | 20.0 |
| Future Traffic Volume |  | 592 |  |  | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities |  | No facilities |  |  | Low | 33.3 | 20\% | 6.7 |
|  |  | Total Mobility and Accessibility Score |  |  |  |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 2.79 | Medium | 66.7 | 50\% | 33.4 |
| PSI Locations | PSI locations present | Medium | 66.7 | 50\% | 33.4 |
| Total Safety Score |  |  |  |  | 66.7 |
| Goal: Economy |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Placemaking | May accommodate placemaking | Medium | 66.7 | 33\% | 22.2 |
| Surrounding Employment Density | 1.26 | Medium | 66.7 | 33\% | 22.2 |
| Freight Volume (\%) | 7 | High | 100 | 33\% | 33.3 |
| Total Economy Score |  |  |  |  | 77.7 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ |
| Environmental Resources | No impact | High | 100 | 50.0 |
|  |  | Total Community and Nature Score | 100.0 |  |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | $33 \%$ | 22.2 |
| Distribution of Benefits | Localized benefits | Low | 33.3 | $33 \%$ | 11.1 |
|  | Total Operational Efficiency Score | 66.7 |  |  |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | $20 \%$ | 11.3 |
|  | Safety | 66.7 | $30 \%$ | 20.0 |
|  | Economy | 77.7 | $35 \%$ | 27.2 |
|  | Community and Nature | 100.0 | $10 \%$ | 10.0 |
|  | Operational Efficiency | 66.7 | $5 \%$ | 3.3 |
|  | Total Project Benefit Score |  |  | $\mathbf{7 1 . 9}$ |


| Benefit-Cost Calculation | Benefit Score | 71.9 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$3,500,000 |
|  | Estimated Users | 9083 |
|  | Benefit-Cost Score | 186.53 |


| Project Number |  | I-4 | Project Benefit Score | 59.1 |  | Length (mi) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction Route Name Route <br> Number From To |  |  |  |  |  |  |
| Pittsylvania <br> County | Kentuck Rd | 729 | Eagle Springs Rd (Rt 730) | - |  |  |


| Proposed Improvement | Remove northbound channelization; install right turn lanes | Est. Cost | $\$ 1,100,000$ |
| :--- | :--- | :--- | :--- |

## Benefit Score Calculation

Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.35 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.54 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 545 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 915 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | 20\% | 6.7 |
| Total Mobility and Accessibility Score |  |  |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.54 | Medium | 66.7 | 50\% | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | 50\% | 16.7 |
| Total Safety Score |  |  |  |  | 50.0 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ | 11.1 |
| Surrounding Employment Density | 0.21 | Low | 33.3 | $33 \%$ | 11.1 |
| Freight Volume (\%) | 13 | High | 100 | $33 \%$ | 33.3 |
|  |  | Total Economy Score | 55.5 |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ |  |  |  |  |
| Environmental Resources | No impact | High | 100 | 50.0 |  |  |  |  |
| Total Community and Nature Score |  |  |  |  |  |  |  | 100.0 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | $33 \%$ | 22.2 |
| Distribution of Benefits | Localized benefits | Low | 33.3 | $33 \%$ | 11.1 |
|  | Total Operational Efficiency Score | 66.7 |  |  |  |



| Benefit Score <br> Benefit-Cost <br> Calculation Estimated Cost 59.1  <br>  Estimated Users 13620 <br>  Benefit-Cost Score 731.55 l |
| :---: | :--- | :---: |


| Project Number |  | I-5 | Project Benefit Score | 63.5 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction Route Name Route <br> Number From To |  |  |  |  |  |  |
| Pittsylvania <br> County | Kentuck Rd | 729 | Little Creek Rd/Fall Creek Rd (Rt <br> $732)$ | - |  |  |


| Proposed Improvement | Intersection improvements and alternative design considerations | Est. Cost | $\$ 4,700,000$ |
| :--- | :--- | :--- | :--- |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.31 | Low | 25 | $20 \%$ | 5.0 |
| Future Congestion | 0.44 | Low | 25 | $20 \%$ |  |
| Existing Traffic Volume | 484 | High | 100 | $20 \%$ | 20.0 |
| Future Traffic Volume | 740 | High | 100 | $20 \%$ | 20.0 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | $20 \%$ | 6.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.99 | Medium | 66.7 | $50 \%$ | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ | 16.7 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Placemaking | May accommodate placemaking | Medium | 66.7 | $33 \%$ | 22.2 |
| Surrounding Employment Density | 0.21 | Low | 33.3 | $33 \%$ | 11.1 |
| Freight Volume (\%) | 4 | High | 100 | $33 \%$ | 33.3 |
|  |  | Total Economy Score | $\mathbf{6 6 . 6}$ |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ | 50.0 |  |  |  |  |  |
| Environmental Resources | No impact | High | 100 | $50 \%$ | 50.0 |  |  |  |  |  |
| Total Community and Nature Score |  |  |  |  |  |  |  |  |  | $\mathbf{1 0 0 . 0}$ |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Sight-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ |
| Plan Coordination | Two or more plans | High | 100 | 33.3 |
| Distribution of Benefits | Localized benefits | Low | 33.3 | $33 \%$ |
|  |  | Total Operational Efficiency Score |  | 73.3 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | $20 \%$ | 11.3 |
|  | Safety | 50.0 | $30 \%$ | 15.0 |
|  | Economy | 66.6 | $35 \%$ | 23.3 |
|  | Community and Nature | 100.0 | $10 \%$ | 10.0 |
|  | Operational Efficiency | 77.8 | $5 \%$ | 3.9 |
|  | Total Project Benefit Score |  |  | $\mathbf{6 3 . 5}$ |


| Benefit-Cost Calculation | Benefit Score | 63.5 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$4,700,000 |
|  | Estimated Users | 7903 |
|  | Benefit-Cost Score | 106.83 |



Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.07 | Low | 25 | $20 \%$ | 5.0 |  |  |
| Future Congestion | 0.24 | Low | 25 | $20 \%$ | 5.0 |  |  |
| Existing Traffic Volume | 93 | Low | 33.3 | $20 \%$ | 6.7 |  |  |
| Future Traffic Volume | 377 | High | 100 | $20 \%$ | 20.0 |  |  |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | $20 \%$ | 6.7 |  |  |
| Total Mobility and Accessibility Score |  |  |  |  |  |  | $\mathbf{4 3 . 3}$ |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 5.45 | High | 100 | $50 \%$ | 50.0 |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ | 16.7 |
|  | Total Safety Score |  |  |  | $\mathbf{6 6 . 7}$ |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Slacemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ |
| Surrounding Employment Density | 0.01 | Low | 33.3 | 11.1 |
| Freight Volume (\%) | 6 | High | 100 | $33 \%$ |
|  | $33 \%$ | 11.1 |  |  |


| Goal: Community and Nature |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Social Resources | No impact | High | 100 | 50\% | 50.0 |
| Environmental Resources | No impact | High | 100 | 50\% | 50.0 |
| Total Community and Nature Score |  |  |  |  | 100.0 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Sight-of-Way Sufficiency | Requires some ROW | Medium | 66.7 | $33 \%$ |
| Plan Coordination | No plans | Low | 33.3 | $33 \%$ |
| Distribution of Benefits | Significant regional benefits | High | 100 | 11.1 |
|  | $33 \%$ | 33.3 |  |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 43.3 | 20\% | 8.7 |
|  | Safety | 66.7 | 30\% | 20.0 |
|  | Economy | 55.5 | 35\% | 19.4 |
|  | Community and Nature | 100.0 | 10\% | 10.0 |
|  | Operational Efficiency | 66.7 | 5\% | 3.3 |
|  | Total Project Benefit Score |  |  | 61.4 |


| Benefit-Cost Calculation | Benefit Score | 61.4 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$1,800,000 |
|  | Estimated Users | 5556 |
|  | Benefit-Cost Score | 189.55 |



Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.01 | Low | 25 | $20 \%$ | 5.0 |
| Future Congestion | 0.01 | Low | 25 | $20 \%$ | 5.0 |
| Existing Traffic Volume | 15 | Low | 33.3 | $20 \%$ | 6.7 |
| Future Traffic Volume | 17 | Low | 33.3 | $20 \%$ | 6.7 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | $20 \%$ | 6.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.96 | Medium | 66.7 | 50\% | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | 50\% | 16.7 |
| Total Safety Score |  |  |  |  | 50.0 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Slacemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ |
| Surrounding Employment Density | 0.01 | Low | 33.3 | 3 |
| Freight Volume (\%) | 0 | Low | $33 \%$ | 11.1 |
|  |  | 31.3 | $33 \%$ | 11.1 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | 50\% | 50.0 |
| Environmental Resources | No impact | High | 100 | 50\% | 50.0 |
| Total Community and Nature Score |  |  |  |  | 100.0 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | 33\% | 33.3 |
| Plan Coordination | No plans | Low | 33.3 | 33\% | 11.1 |
| Distribution of Benefits | Localized benefits | Low | 33.3 | 33\% | 11.1 |
| Total Operational Efficiency Score |  |  |  |  | 55.5 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :--- | :---: | :---: |
|  | 30.0 | $20 \%$ | 6.0 |  |
|  | Safety | 50.0 | $30 \%$ | 15.0 |
|  | 33.3 | $35 \%$ | 11.6 |  |
| Community and Nature | 100.0 | $10 \%$ | 10.0 |  |
| Operational Efficiency | 55.5 | $5 \%$ | 2.8 |  |
|  |  | Total Project Benefit Score | 45.4 |  |


| Benefit-Cost Benefit Score 45.4 <br> Calculation Estimated Cost $\$ 1,750,000$ <br>  Estimated Users 264 <br>  Benefit-Cost Score 6.85 l |
| :---: | :--- | :---: |


| Project Number |  | 1-9 | Project Be | core | 52.1 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name |  | Route <br> Number | From |  | To | Length (mi) |
| Pittsylvania Countr | US 29 Business |  | 29 Bus | Malmaison Rd (Rt 726) |  |  |  |
| Proposed Improvement |  | Short-term: Reconfigure WB approach |  |  |  | Est. Cost | \$442,900 |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.16 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.18 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 302 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 331 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | One facility | Medium | 66.7 | 20\% | 13.3 |
| Total Mobility and Accessibility Score |  |  |  |  | 63.3 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.15 | Low | 33.3 | 50\% | 16.7 |
| PSI Locations | No PSI locations | Low | 33.3 | 50\% | 16.7 |
| Total Safety Score |  |  |  |  | 33.3 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ | 11.1 |
| Surrounding Employment Density | 0.01 | Low | 33.3 | $33 \%$ | 11.1 |
| Freight Volume (\%) | 3 | Medium | 66.7 | $33 \%$ | 22.2 |
|  |  | Total Economy Score | $\mathbf{4 4 . 4}$ |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ |  |  |  |
| Environmental Resources | No impact | High | 100 | 50.0 |  |  |  |
| Total Community and Nature Score |  |  |  |  |  |  | $\mathbf{1 0 0 . 0}$ |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | 33\% | 33.3 |
| Plan Coordination | No plans | Low | 33.3 | 33\% | 11.1 |
| Distribution of Benefits | Significant regional benefits | High | 100 | 33\% | 33.3 |
| Total Operational Efficiency Score |  |  |  |  | 77.8 |


|  | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
| Total Benefit Score | Mobility and Accessibility | 63.3 | 20\% | 12.7 |
|  | Safety | 33.3 | 30\% | 10.0 |
|  | Economy | 44.4 | 35\% | 15.5 |
|  | Community and Nature | 100.0 | 10\% | 10.0 |
|  | Operational Efficiency | 77.8 | 5\% | 3.9 |
|  | Total Project Benefit Score |  |  | 52.1 |


| Benefit-Cost Benefit Score 52.1 <br> Calculation Estimated Cost $\$ 442,900$ <br>  Benefit-Cost Score 12041$\quad 1415.95$ |
| :---: | :--- | :---: |


| Project Number |  | I-10 | Project Ben |  | 55.2 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name |  | Route <br> Number | From |  |  | To | Length (mi) |
| Pittsylvania Countr | US 29 |  | 29 | Toy Ln |  |  | - |  |
| Proposed Improvement |  | Access management with potential intersection redesign |  |  |  | Est. Cost |  | ,000 |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.29 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.33 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 639 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 727 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | 20\% | 6.7 |
| Total Mobility and Accessibility Score |  |  |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.19 | Low | 33.3 | 50\% | 16.7 |
| PSI Locations | No PSI locations | Low | 33.3 | 50\% | 16.7 |
| Total Safety Score |  |  |  |  | 33.3 |
| Goal: Economy |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Placemaking | Doesn't include placemaking | Low | 33.3 | 33\% | 11.1 |
| Surrounding Employment Density | 0.04 | Low | 33.3 | 33\% | 11.1 |
| Freight Volume (\%) | 13 | High | 100 | 33\% | 33.3 |
| Total Economy Score |  |  |  |  | 55.5 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | 50\% | 50.0 |
| Environmental Resources | No impact | High | 100 | 50\% | 50.0 |
| Total Community and Nature Score |  |  |  |  | 100.0 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | 33\% | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | 33\% | 22.2 |
| Distribution of Benefits | Significant regional benefits | High | 100 | 33\% | 33.3 |
| Total Operational Efficiency Score |  |  |  |  | 88.9 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | $20 \%$ | 11.3 |
|  | Safety | 33.3 | $30 \%$ | 10.0 |
|  | Economy | 55.5 | $35 \%$ | 19.4 |
|  | Community and Nature | 100.0 | $10 \%$ | 10.0 |
| Operational Efficiency | 88.9 | $5 \%$ | 4.4 |  |
|  | Total Project Benefit Score |  |  | $\mathbf{5 5 . 2}$ |


| Benefit-Cost Calculation | Benefit Score | 55.2 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$7,000,000 |
|  | Estimated Users | 24792 |
|  | Benefit-Cost Score | 195.45 |



Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.85 | Medium | 66.7 | 50\% | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | 50\% | 16.7 |
| Total Safety Score |  |  |  |  | 50.0 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Score |  |  |  |  |
| Surrounding Employment Density | Doesn't include placemaking | Low | 33.3 | $33 \%$ |
| Freight Volume (\%) | 2.07 | Medium | 66.7 | 31.1 |
|  | 16 | High | 100 | 33 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ |
| Environmental Resources | Some impact | Medium | 66.7 | $50 \%$ |
| Total Community and Nature Score |  |  |  |  |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires some ROW | Medium | 66.7 | $33 \%$ | 22.2 |
| Plan Coordination | No plans | Low | 33.3 | $33 \%$ | 11.1 |
| Distribution of Benefits | Significant regional benefits | High | 100 | $33 \%$ | 33.3 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :--- | :---: | :---: | :---: |
|  | Mobility and Accessibility | 50.0 | $20 \%$ | 10.0 |
|  | Safety | 50.0 | $30 \%$ | 15.0 |
|  | Economy | 66.6 | $35 \%$ | 23.3 |
|  | Community and Nature | 83.4 | $10 \%$ | 8.3 |
|  | Operational Efficiency | 66.7 | $5 \%$ | 3.3 |
| Total Project Benefit Score |  |  |  | $\mathbf{6 0 . 0}$ |


| Benefit-Cost Score <br> Calculation Estimated Cost 60.0 <br>  Estimated Users $\$ 3,500,000$ <br>  Benefit-Cost Score 11547 l | 197.89 |
| :---: | :--- | :---: |


| Project Number |  | 1-12 | Project Ben |  | 63.2 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name |  | Route <br> Number | From |  |  | To | Length (mi) |
| City of Danville | Mount Cross Rd |  | 750 | Dimon Dr |  |  | - |  |
| Proposed Improvement |  | Construct roundabout, add pedestrian features/sidewalks |  |  |  | Est. Cost |  | 2,448 |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.17 | Low | 25 | $20 \%$ | 5.0 |
| Future Congestion | 0.19 | Low | 25 | $20 \%$ | 5.0 |
| Existing Traffic Volume | 320 | High | 100 | $20 \%$ | 20.0 |
| Future Traffic Volume | 365 | High | 100 | $20 \%$ | 20.0 |
| Alternative Transportation Facilities | One facility | Medium | 66.7 | $20 \%$ | 13.3 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.70 | Medium | 66.7 | $50 \%$ | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ | 16.7 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Placemaking | May accommodate placemaking | Medium | 66.7 | $33 \%$ | 22.2 |
| Surrounding Employment Density | 5.29 | High | 100 | $33 \%$ | 33.3 |
| Freight Volume (\%) | 0 | Low | 33.3 | $33 \%$ | 11.1 |
|  |  | Total Economy Score | 66.6 |  |  |



Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | 33\% | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | 33\% | 22.2 |
| Distribution of Benefits | Jurisdiction-wide benefits | Medium | 66.7 | 33\% | 22.2 |
| Total Operational Efficiency Score |  |  |  |  | 77.8 |


|  | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 63.3 | 20\% | 12.7 |
|  | Safety | 50.0 | 30\% | 15.0 |
| Total Benefit Score | Economy | 66.6 | 35\% | 23.3 |
|  | Community and Nature | 83.4 | 10\% | 8.3 |
|  | Operational Efficiency | 77.8 | 5\% | 3.9 |
|  | Total Project Benefit Score |  |  | 63.2 |


| Benefit-Cost Calculation | Benefit Score | 63.2 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$7,392,448 |
|  | Estimated Users | 10931 |
|  | Benefit-Cost Score | 93.46 |




Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.66 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.79 | Medium | 50 | 20\% | 10.0 |
| Existing Traffic Volume | 1197 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 1324 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | One facility | Medium | 66.7 | 20\% | 13.3 |
| Total Mobility and Accessibility Score |  |  |  |  | 68.3 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.26 | Medium | 66.7 | 50\% | 33.4 |
| PSI Locations | Top 20 PSI location present | High | 100 | 50\% | 50.0 |
| Total Safety Score |  |  |  |  | 83.4 |
| Goal: Economy |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Placemaking | Doesn't include placemaking | Low | 33.3 | 33\% | 11.1 |
| Surrounding Employment Density | 5.29 | High | 100 | 33\% | 33.3 |
| Freight Volume (\%) | 1 | Low | 33.3 | 33\% | 11.1 |
| Total Economy Score |  |  |  |  | 55.5 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ | 50.0 |
| Environmental Resources | No impact | High | 100 | $50 \%$ | 50.0 |
|  |  | Total Community and Nature Score | $\mathbf{1 0 0 . 0}$ |  |  |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | No plans | Low | 33.3 | $33 \%$ | 11.1 |
| Distribution of Benefits | Significant regional benefits | High | 100 | $33 \%$ | 33.3 |
|  |  | Total Operational Efficiency Score |  | $\mathbf{7 7 . 8}$ |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :---: | :---: | :---: |
|  | Mobility and Accessibility | 68.3 | $20 \%$ | 13.7 |
|  | Safety | 83.4 | $30 \%$ | 25.0 |
|  | Economy | 55.5 | $35 \%$ | 19.4 |
|  | Community and Nature | 100.0 | $10 \%$ | 10.0 |
| Operational Efficiency | 77.8 | $5 \%$ | 3.9 |  |
| Total Project Benefit Score |  |  |  | $\mathbf{7 2 . 0}$ |


| Benefit-Cost Benefit Score 72.0 <br> Calculation Estimated Cost $\$ 12,400,000$ <br>  Estimated Users 30705 <br>  Benefit-Cost Score 178.23 l |
| :---: | :--- | :---: |


| Project Number |  |  | Project Benefit Score |  | 63.0 | To |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name |  | Route <br> Number | From |  |  |  | Length (mi) |
| Pittsylvania Countr | Danville Expressway |  | 58 | Oak Ridge Farms Rd (Rt 1260) |  |  |  |  |
| Proposed Improvement |  | Interchange improvements |  |  |  | Est. Cost | \$17,000,000 |  |
| Benefit Score Calculation Goal: Mobility and Accessibility |  |  |  |  |  |  |  |  |
| Performance Measure |  | Result |  |  | Rating | Points | Weight | Score |
| Existing Congestion |  | 0.08 |  |  | Low | 25 | 20\% | 5.0 |
| Future Congestion |  | 0.13 |  |  | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume |  | 197 |  |  | Medium | 66.7 | 20\% | 13.3 |
| Future Traffic Volume |  | 302 |  |  | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities |  | One facility |  |  | Medium | 66.7 | 20\% | 13.3 |
|  |  | Total Mobility and Accessibility Score | 56.7 |  |  |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 4.14 | High | 100 | 50\% | 50.0 |
| PSI Locations | No PSI locations | Low | 33.3 | 50\% | 16.7 |
| Total Safety Score |  |  |  |  | 66.7 |
| Goal: Economy |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Placemaking | Doesn't include placemaking | Low | 33.3 | 33\% | 11.1 |
| Surrounding Employment Density | 0.01 | Low | 33.3 | 33\% | 11.1 |
| Freight Volume (\%) | 6 | High | 100 | 33\% | 33.3 |
| Total Economy Score |  |  |  |  | 55.5 |


| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | 50\% | 50.0 |
| Environmental Resources | Some impact | Medium | 66.7 | 50\% | 33.4 |
| Total Community and Nature Score |  |  |  |  | 83.4 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | No plans | Low | 33.3 | $33 \%$ | 11.1 |
| Distribution of Benefits | Significant regional benefits | High | 100 | $33 \%$ | 33.3 |
|  | Total Operational Efficiency Score | $\mathbf{7 7 . 8}$ |  |  |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :--- | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | $20 \%$ | 11.3 |
|  | Safety | 66.7 | $30 \%$ | 20.0 |
|  | Economy | 55.5 | $35 \%$ | 19.4 |
|  | Community and Nature | 83.4 | $10 \%$ | 8.3 |
|  | Operational Efficiency | 77.8 | $5 \%$ | 3.9 |
|  | Total Project Benefit Score |  |  | $\mathbf{6 3 . 0}$ |


| Benefit-Cost Benefit Score 63.0 <br> Calculation Estimated Cost $\$ 17,000,000$ <br>  Estimated Users 9325 <br>  Benefit-Cost Score 34.54 l |
| :---: | :--- | :---: |



| Project Number |  | I-18 | Project Benefit Score | 54.6 |  | Length (mi) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To |  |  |
| Pittsylvania <br> County | Martinsville Hwy | 58 Bus | Berry Hill Rd (Rt 311) | - |  |  |


| Proposed Improvement | Add eastbound and northbound turn lanes; modify signal | Est. Cost | $\$ 3,800,000$ |
| :--- | :--- | :--- | :--- |

## Benefit Score Calculation

Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.23 | Low | 25 | $20 \%$ | 5.0 |  |  |  |
| Future Congestion | 0.33 | Low | 25 | $20 \%$ | 5.0 |  |  |  |
| Existing Traffic Volume | 513 | High | 100 | $20 \%$ | 20.0 |  |  |  |
| Future Traffic Volume | 732 | High | 100 | $20 \%$ | 20.0 |  |  |  |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | $20 \%$ | 6.7 |  |  |  |
| Total Mobility and Accessibility Score |  |  |  |  |  |  |  | $\mathbf{5 6 . 7}$ |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.12 | Low | 33.3 | 50\% | 16.7 |
| PSI Locations | No PSI locations | Low | 33.3 | 50\% | 16.7 |
| Total Safety Score |  |  |  |  | 33.3 |
| Goal: Economy |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Placemaking | Doesn't include placemaking | Low | 33.3 | 33\% | 11.1 |
| Surrounding Employment Density | 0.02 | Low | 33.3 | 33\% | 11.1 |
| Freight Volume (\%) | 6 | High | 100 | 33\% | 33.3 |
| Total Economy Score |  |  |  |  | 55.5 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ | 50.0 |  |  |
| Environmental Resources | No impact | High | 100 | $50 \%$ | 50.0 |  |  |
| Total Community and Nature Score |  |  |  |  |  |  | $\mathbf{1 0 0 . 0}$ |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | No plans | Low | 33.3 | $33 \%$ | 11.1 |
| Distribution of Benefits | Significant regional benefits | High | 100 | $33 \%$ | 33.3 |
|  |  | Total Operational Efficiency Score |  |  | $\mathbf{7 7 . 8}$ |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | $20 \%$ | 11.3 |
|  | Safety | 33.3 | $30 \%$ | 10.0 |
|  | Economy | 55.5 | $35 \%$ | 19.4 |
|  | Community and Nature | 100.0 | $10 \%$ | 10.0 |
|  | Operational Efficiency | 77.8 | $5 \%$ | 3.9 |
|  |  | Total Project Benefit Score | $\mathbf{5 4 . 6}$ |  |


| Benefit-Cost <br> Calculation Benefit Score 54.6 <br>  Estimated Cost $\$ 3,800,000$ <br>  Estimated Users 18558 <br>  Benefit-Cost Score 266.78 l |
| :---: | :--- | :---: |


| Project Number |  | I-19 | Project Ben |  | 45.1 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name |  | Route Number | From |  |  |  | Length (mi) |
| Pittsylvania County | Countryside Dr |  | 730 | Sandy Creek |  |  |  |  |
| Proposed Improvement |  | Replace bridge |  |  |  | Est. Cost |  | ,000 |
| Benefit Score Calculation Goal: Mobility and Accessibility |  |  |  |  |  |  |  |  |
| Performance Measure |  | Result |  |  | Rating | Points | Weight | Score |
| Existing Congestion |  | 0.11 |  |  | Low | 25 | 20\% | 5.0 |
| Future Congestion |  | 0.15 |  |  | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume |  | 128 |  |  | Low | 33.3 | 20\% | 6.7 |
| Future Traffic Volume |  | 183 |  |  | Medium | 66.7 | 20\% | 13.3 |
| Alternative Transportation Facilities |  | No facilities |  |  | Low | 33.3 | 20\% | 6.7 |
|  |  | Total Mobility and Accessibility Score |  |  |  |  |  | 36.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.20 | Medium | 66.7 | 50\% | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | 50\% | 16.7 |
| Total Safety Score |  |  |  |  | 50.0 |
| Goal: Economy |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Placemaking | Doesn't include placemaking | Low | 33.3 | 33\% | 11.1 |
| Surrounding Employment Density | 0.02 | Low | 33.3 | 33\% | 11.1 |
| Freight Volume (\%) | 0 | Low | 33.3 | 33\% | 11.1 |
| Total Economy Score |  |  |  |  | 33.3 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ |
| Environmental Resources | Some impact | Medium | 66.7 | $50 \%$ |
|  | Total Community and Nature Score |  |  |  |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | No plans | Low | 33.3 | $33 \%$ | 11.1 |
| Distribution of Benefits | Localized benefits | Low | 33.3 | $33 \%$ | 11.1 |
|  | Total Operational Efficiency Score | 55.5 |  |  |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 36.7 | 20\% | 7.3 |
|  | Safety | 50.0 | 30\% | 15.0 |
|  | Economy | 33.3 | 35\% | 11.6 |
|  | Community and Nature | 83.4 | 10\% | 8.3 |
|  | Operational Efficiency | 55.5 | 5\% | 2.8 |
|  | Total Project Benefit Score |  |  | 45.1 |


| Benefit Sore <br> Calculation Estimated Cost <br>  Estimated Users <br>  Benefit-Cost Score | $\$ 2,400,000$ |
| :---: | :--- | :---: |


| Project Number |  | 1-20 | Project Ben | (1) 57.7 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name |  | Route <br> Number | From |  | To | Length (mi) |
| City of Danville | Central Blvd |  | 29 Bus | Memorial Dr (Rt 413) |  | - |  |
| Proposed Improvement |  | Improve alignment of southbound to westbound ramp |  |  | Est. Cost |  | 0,000 |


| Benefit Score Calculation <br> Goal: Mobility and Accessibility |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Existing Congestion | 0.38 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.67 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 1085 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 1141 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | One facility | Medium | 66.7 | 20\% | 13.3 |
| Total Mobility and Accessibility Score |  |  |  |  | 63.3 |
| Goal: Safety |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Fatal and Injury Crash Rate | 0.92 | Medium | 66.7 | 50\% | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | 50\% | 16.7 |
|  |  |  |  | Safety Score | 50.0 |
| Goal: Economy |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Placemaking | Doesn't include placemaking | Low | 33.3 | 33\% | 11.1 |
| Surrounding Employment Density | 2.28 | Medium | 66.7 | 33\% | 22.2 |
| Freight Volume (\%) | 3 | Medium | 66.7 | 33\% | 22.2 |
| Total Economy Score |  |  |  |  | 55.5 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | Some impact | Medium | 66.7 | 50\% | 33.4 |
| Environmental Resources | Some impact | Medium | 66.7 | 50\% | 33.4 |
| Total Community and Nature Score |  |  |  |  | 66.7 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ |
| Plan Coordination | No plans | Low | 33.3 | $33 \%$ |
| Distribution of Benefits | Significant regional benefits | High | 100 | 3 |
|  |  | Total Operational Efficiency Score |  | 71.1 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :--- | :---: | :---: |
|  | Mobility and Accessibility | 63.3 | $20 \%$ | 12.7 |
|  | Safety | 50.0 | $30 \%$ | 15.0 |
|  | Economy | 55.5 | $35 \%$ | 19.4 |
| Community and Nature | 66.7 | $10 \%$ | 6.7 |  |
| Operational Efficiency | 77.8 | $5 \%$ | 3.9 |  |
|  | Total Project Benefit Score |  |  | $\mathbf{5 7 . 7}$ |


| Benefit-Cost Benefit Score 57.7 <br> Calculation Estimated Cost $\$ 19,000,000$ <br>  Estimated Users 24587 <br>  Benefit-Cost Score 74.61 l |
| :---: | :--- | :---: |


| Project Number |  | I-21 | Project Benefit Score | 67.7 |  | Length (mi) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction Route Name Route <br> Number From To  <br> City of <br> Danville Piney Forest Rd 29 Bus North Main St (Rt 293) -  |  |  |  |  |  |  |


| Proposed Improvement | Intersection improvements and alternative design considerations | Est. Cost | $\$ 3,400,000$ |
| :--- | :--- | :--- | :--- | Benefit Score Calculation

Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.34 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.48 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 563 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 799 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | One facility | Medium | 66.7 | 20\% | 13.3 |
| Total Mobility and Accessibility Score |  |  |  |  | 63.3 |
| Goal: Safety |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Fatal and Injury Crash Rate | 4.56 | High | 100 | 50\% | 50.0 |
| PSI Locations | PSI locations present | Medium | 66.7 | 50\% | 33.4 |
| Total Safety Score |  |  |  |  | 83.4 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | 33\% | 11.1 |
| Surrounding Employment Density | 0.95 | Low | 33.3 | 33\% | 11.1 |
| Freight Volume (\%) | 2 | Medium | 66.7 | 33\% | 22.2 |
| Total Economy Score |  |  |  |  | 44.4 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | 50\% | 50.0 |
| Environmental Resources | No impact | High | 100 | 50\% | 50.0 |
| Total Community and Nature Score |  |  |  |  | 100.0 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | 33\% | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | 33\% | 22.2 |
| Distribution of Benefits | Significant regional benefits | High | 100 | 33\% | 33.3 |
| Total Operational Efficiency Score |  |  |  |  | 88.9 |


|  | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
| Total Benefit Score | Mobility and Accessibility | 63.3 | 20\% | 12.7 |
|  | Safety | 83.4 | 30\% | 25.0 |
|  | Economy | 44.4 | 35\% | 15.5 |
|  | Community and Nature | 100.0 | 10\% | 10.0 |
|  | Operational Efficiency | 88.9 | 5\% | 4.4 |
|  | Total Project Benefit Score |  |  | 67.7 |


| Benefit-Cost Calculation | Benefit Score | 67.7 |
| :---: | :---: | :---: |
|  | Estimated Cost | \$3,400,000 |
|  | Estimated Users | 15479 |
|  | Benefit-Cost Score | 308.01 |


| Project Number |  | 1-22 | Project Ben |  | 58.5 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name |  | Route <br> Number | From |  |  |  | Length (mi) |
| City of Danville | Riverside Dr |  | 58 | Cambridge Rd |  |  |  |  |
| Proposed Improvement |  |  | Restricted Crossing U-Turn |  |  | Est. Cost | \$7,003,000 |  |
| Benefit Score Calculation <br> Goal: Mobility and Accessibility |  |  |  |  |  |  |  |  |
| Performance Measure |  |  | Result |  | Rating | Points | Weight | Score |
| Existing Congestion |  |  | 0.22 |  | Low | 25 | 20\% | 5.0 |
| Future Congestion |  |  | 0.23 |  | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume |  |  | 491 |  | High | 100 | 20\% | 20.0 |
| Future Traffic Volume |  |  | 511 |  | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities |  |  | No facilities |  | Low | 33.3 | 20\% | 6.7 |
|  |  |  |  |  | Total Mobility and Accessibility Score |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.48 | Low | 33.3 | 50\% | 16.7 |
| PSI Locations | PSI locations present | Medium | 66.7 | 50\% | 33.4 |
| Total Safety Score |  |  |  |  | 50.0 |
| Goal: Economy |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Placemaking | Doesn't include placemaking | Low | 33.3 | 33\% | 11.1 |
| Surrounding Employment Density | 0.1 | Low | 33.3 | 33\% | 11.1 |
| Freight Volume (\%) | 6 | High | 100 | 33\% | 33.3 |
| Total Economy Score |  |  |  |  | 55.5 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | 50\% | 50.0 |
| Environmental Resources | Some impact | Medium | 66.7 | 50\% | 33.4 |
| Total Community and Nature Score |  |  |  |  | 83.4 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | 33\% | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | 33\% | 22.2 |
| Distribution of Benefits | Significant regional benefits | High | 100 | 33\% | 33.3 |
| Total Operational Efficiency Score |  |  |  |  | 88.9 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | $20 \%$ | 11.3 |
|  | Safety | 50.0 | $30 \%$ | 15.0 |
|  | Economy | 55.5 | $35 \%$ | 19.4 |
|  | Community and Nature | 83.4 | $10 \%$ | 8.3 |
|  | Operational Efficiency | 88.9 | $5 \%$ | 4.4 |
|  | Total Project Benefit Score |  |  | $\mathbf{5 8 . 5}$ |


| Benefit-Cost <br> Calculation Benefit Score 58.5 <br>  Estimated Cost $\$ 7,003,000$ <br>  Estimated Users 13529 <br>  Benefit-Cost Score 113.07 l |
| :---: | :--- | :---: |


| Project Number |  | I-23 | Project Ben |  | 58.5 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name |  | Route Number | From |  | To |  | Length (mi) |
| City of Danville | Riverside Dr |  | 58 | James St |  |  |  |  |
| Proposed Improvement |  |  | Restricted Crossing U-Turn |  |  | Est. Cost | \$7,767,000 |  |
| Benefit Score Calculation <br> Goal: Mobility and Accessibility |  |  |  |  |  |  |  |  |
| Performance Measure |  |  | Result |  | Rating | Points | Weight | Score |
| Existing Congestion |  |  | 0.22 |  | Low | 25 | 20\% | 5.0 |
| Future Congestion |  |  | 0.23 |  | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume |  |  | 491 |  | High | 100 | 20\% | 20.0 |
| Future Traffic Volume |  |  | 511 |  | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities |  |  | No facilities |  | Low | 33.3 | 20\% | 6.7 |
|  |  |  |  |  | Total Mobility and Accessibility Score |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.48 | Low | 33.3 | 50\% | 16.7 |
| PSI Locations | PSI locations present | Medium | 66.7 | 50\% | 33.4 |
| Total Safety Score |  |  |  |  | 50.0 |
| Goal: Economy |  |  |  |  |  |
| Performance Measure | Result | Rating | Points | Weight | Score |
| Placemaking | Doesn't include placemaking | Low | 33.3 | 33\% | 11.1 |
| Surrounding Employment Density | 0.1 | Low | 33.3 | 33\% | 11.1 |
| Freight Volume (\%) | 6 | High | 100 | 33\% | 33.3 |
| Total Economy Score |  |  |  |  | 55.5 |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ |
| Environmental Resources | Some impact | 50.0 |  |  |
|  | Medium | 66.7 | $50 \%$ | 33.4 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | 33\% | 33.3 |
| Plan Coordination | One plan | Medium | 66.7 | 33\% | 22.2 |
| Distribution of Benefits | Significant regional benefits | High | 100 | 33\% | 33.3 |
| Total Operational Efficiency Score |  |  |  |  | 88.9 |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :--- | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | $20 \%$ | 11.3 |
|  | Safety | 50.0 | $30 \%$ | 15.0 |
|  | Economy | 55.5 | $35 \%$ | 19.4 |
|  | Community and Nature | 83.4 | $10 \%$ | 8.3 |
| Operational Efficiency | 88.9 | $5 \%$ | 4.4 |  |
|  | Total Project Benefit Score |  |  | $\mathbf{5 8 . 5}$ |


| Benefit-Cost Benefit Score 58.5 <br> Calculation Estimated Cost $\$ 7,767,000$ <br>  Estimated Users 13529 <br>  Benefit-Cost Score 101.95 l |
| :---: | :--- | :---: |



| Project Number |  | I-9 | Project Benefit Score | 51.5 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | Route Name | Route <br> Number | From | To | Length (mi) |  |
| Pittsylvania <br> County | US 29 Business | 29 Bus | Malmaison Rd (Rt 726) | - |  |  |


| Proposed Improvement | Long term: roundabout | Est. Cost | $\$ 4,624,700$ |
| :--- | :---: | :---: | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.16 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.18 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 302 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 331 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | One facility | Medium | 66.7 | 20\% | 13.3 |
| Total Mobility and Accessibility Score |  |  |  |  | 63.3 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 0.15 | Low | 33.3 | $50 \%$ | 16.7 |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ | 16.7 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ | 11.1 |
| Surrounding Employment Density | 0.01 | Low | 33.3 | $33 \%$ | 11.1 |
| Freight Volume (\%) | 3 | Medium | 66.7 | $33 \%$ | 22.2 |
|  |  | Total Economy Score | $\mathbf{4 4 . 4}$ |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Score |  |  |  |  |
| Social Resources | No impact | High | 100 | $50 \%$ |
| Environmental Resources | No impact | High | 100 | $50 \%$ |
|  |  | Total Community and Nature Score | 100.0 | 100.0 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires some ROW | Medium | 66.7 | $33 \%$ | 22.2 |
| Plan Coordination | No plans | Low | 33.3 | $33 \%$ | 11.1 |
| Distribution of Benefits | Significant regional benefits | High | 100 | $33 \%$ | 33.3 |
|  | Total Operational Efficiency Score | 66.7 |  |  |  |


|  | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
| Total Benefit Score | Mobility and Accessibility | 63.3 | 20\% | 12.7 |
|  | Safety | 33.3 | 30\% | 10.0 |
|  | Economy | 44.4 | 35\% | 15.5 |
|  | Community and Nature | 100.0 | 10\% | 10.0 |
|  | Operational Efficiency | 66.7 | 5\% | 3.3 |
|  | Total Project Benefit Score |  |  | 51.5 |


| Benefit-Cost Benefit Score 51.5 <br> Calculation Estimated Users $\$ 4,624,700$ <br>  Benefit-Cost Score 12041$\quad 134.16$ |
| :---: | :--- | :---: |


| Project Number |  | I-26 | Project Benefit Score | 58.0 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \begin{tabular}{\|c|c|c|c|c|}
\hline
\end{tabular} | Route <br> Number | From | To | Length (mi) |  |  |
| Rittsylvania <br> County | Route Name | 29 | Lawless Creek Road | - |  |  |


| Proposed Improvement | Short term: Restricted Crossing U-Turn | Est. Cost | $\$ 6,449,300$ |
| :--- | :---: | :---: | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.15 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.18 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 368 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 427 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | 20\% | 6.7 |
| Total Mobility and Accessibility Score |  |  |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.10 | Medium | 66.7 | $50 \%$ | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ | 16.7 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ | 11.1 |
| Surrounding Employment Density | 0.14 | Low | 33.3 | $33 \%$ | 11.1 |
| Freight Volume (\%) | 16 | High | 100 | $33 \%$ | 33.3 |
|  |  | Total Economy Score | $\mathbf{5 5 . 5}$ |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ | 50.0 |
| Environmental Resources | No impact | High | 100 | $50 \%$ | 50.0 |
|  |  | Total Community and Nature Score | $\mathbf{1 0 0 . 0}$ |  |  |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | No plans | Low | 33.3 | $33 \%$ | 11.1 |
| Distribution of Benefits | Three or more locailities |  | 0 | $33 \%$ | 0.0 |
|  | Total Operational Efficiency Score | 44.4 |  |  |  |


|  | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
| Total Benefit Score | Mobility and Accessibility | 56.7 | 20\% | 11.3 |
|  | Safety | 50.0 | 30\% | 15.0 |
|  | Economy | 55.5 | 35\% | 19.4 |
|  | Community and Nature | 100.0 | 10\% | 10.0 |
|  | Operational Efficiency | 44.4 | 5\% | 2.2 |
|  | Total Project Benefit Score |  |  | 58.0 |


| Benefit-Cost Benefit Score 58.0 <br> Calculation Estimated Users $\$ 6,449,300$ <br>  Benefit-Cost Score 12548$\quad 112.79$ |
| :---: | :--- | :---: |


| Project Number |  | I-27 | Project Benefit Score | 58.0 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \begin{tabular}{\|c|c|c|c|c|}
\hline
\end{tabular} | Route <br> Number | From | To | Length (mi) |  |  |
| Rittsylvania <br> County | Route Name | 29 | Lawless Creek Road | - |  |  |


| Proposed Improvement | Long term: roundabout | Est. Cost | $\$ 4,604,100$ |
| :--- | :---: | :---: | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.15 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.18 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 368 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 427 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | 20\% | 6.7 |
| Total Mobility and Accessibility Score |  |  |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fatal and Injury Crash Rate | 1.10 | Medium | 66.7 | $50 \%$ | 33.4 |
| PSI Locations | No PSI locations | Low | 33.3 | $50 \%$ | 16.7 |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ | 11.1 |
| Surrounding Employment Density | 0.14 | Low | 33.3 | $33 \%$ | 11.1 |
| Freight Volume (\%) | 16 | High | 100 | $33 \%$ | 33.3 |
|  |  | Total Economy Score | $\mathbf{5 5 . 5}$ |  |  |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | $50 \%$ | 50.0 |
| Environmental Resources | No impact | High | 100 | $50 \%$ | 50.0 |
|  |  | Total Community and Nature Score | $\mathbf{1 0 0 . 0}$ |  |  |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight | Score |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ | 33.3 |
| Plan Coordination | No plans | Low | 33.3 | $33 \%$ | 11.1 |
| Distribution of Benefits | Three or more locailities |  | 0 | $33 \%$ | 0.0 |
|  | Total Operational Efficiency Score | 44.4 |  |  |  |


| Total Benefit Score | Vision Theme | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: |
|  | Mobility and Accessibility | 56.7 | 20\% | 11.3 |
|  | Safety | 50.0 | 30\% | 15.0 |
|  | Economy | 55.5 | 35\% | 19.4 |
|  | Community and Nature | 100.0 | 10\% | 10.0 |
|  | Operational Efficiency | 44.4 | 5\% | 2.2 |
|  | Total Project Benefit Score |  |  | 58.0 |


| Benefit-Cost Benefit Score 58.0 <br> Calculation Estimated Users $\$ 4,604,100$ <br>  Benefit-Cost Score 12548$\quad 157.99$ |
| :---: | :--- | :---: |


| Project Number |  | I-28 | Project Benefit Score |  | 55.7 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction Route Name Route <br> Number From To Length (mi) |  |  |  |  |  |  |
| City of <br> Danville | Goodyear Blvd | 737 | Pumpkin Creek | - |  |  |


| Proposed Improvement | Bridge replacement | Est. Cost | $\$ 20,000,000$ |
| :--- | :---: | :---: | :---: |

Benefit Score Calculation
Goal: Mobility and Accessibility

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Existing Congestion | 0.37 | Low | 25 | 20\% | 5.0 |
| Future Congestion | 0.34 | Low | 25 | 20\% | 5.0 |
| Existing Traffic Volume | 461 | High | 100 | 20\% | 20.0 |
| Future Traffic Volume | 526 | High | 100 | 20\% | 20.0 |
| Alternative Transportation Facilities | No facilities | Low | 33.3 | 20\% | 6.7 |
| Total Mobility and Accessibility Score |  |  |  |  | 56.7 |

Goal: Safety

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Score |  |  |  |  |
| Fatal and Injury Crash Rate | 0.56 | Low | 33.3 | $50 \%$ |
| PSI Locations | No PSI locations | Low | 36.3 | $50 \%$ |
|  |  | 16.7 |  |  |

Goal: Economy

| Performance Measure | Result | Rating | Points | Weight | Score |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Placemaking | Doesn't include placemaking | Low | 33.3 | $33 \%$ | 11.1 |  |  |  |  |
| Surrounding Employment Density | 1.21 | Medium | 66.7 | $33 \%$ | 22.2 |  |  |  |  |
| Freight Volume (\%) | 7 | High | 100 | $33 \%$ | 33.3 |  |  |  |  |
|  |  | Total Economy Score |  |  |  |  |  |  | $\mathbf{6 6 . 6}$ |

Goal: Community and Nature

| Performance Measure | Result | Rating | Points | Weight | Score |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Social Resources | No impact | High | 100 | 50\% | 50.0 |
| Environmental Resources | Some impact | Medium | 66.7 | 50\% | 33.4 |
| Total Community and Nature Score |  |  |  |  | 83.4 |

Goal: Operational Efficiency

| Performance Measure | Result | Rating | Points | Weight |
| :--- | :---: | :---: | :---: | :---: |
| Score |  |  |  |  |
| Right-of-Way Sufficiency | Requires no ROW | High | 100 | $33 \%$ |
| Plan Coordination | One plan | Medium | 66.7 | $33 \%$ |
| Distribution of Benefits | One locality | 22.2 |  |  |
|  |  | 0 | 0 | $33 \%$ |



| Benefit-Cost <br> Calculation Estimated Cost <br>  Estimated Users <br>  Benefit-Cost Score | $1250,000,000$ |
| :---: | :--- | :---: |

