









**Project Narrative**

**5. What is the improvement in the volume to capacity ratio (v/c) for truck movements? (continued)**

Step 2: Convert the peak hour truck volume to Passenger Car Equivalents:

Factor for converting trucks to Passenger Car Equivalents (PCE) (D) \_\_\_\_\_

Use a factor of 1.5 except for the following conditions:

- For upgrades use the value from Table 3-4 of the Highway Capacity Manual using the specific site conditions.
- For downgrades use the value from Table 3-6 of the Highway Capacity Manual using the specific site conditions:

Passenger Car Equivalents = (E) = (C) x (D): (E) \_\_\_\_\_ PCE's/Peak Hour

Step 3: Determine the current facility capacity (without the proposed project):

Highway capacity value from the Highway Capacity Manual: (F) \_\_\_\_\_ PCPHPL

- For multilane highways, use the value from Figure 7-1 for the posted speed and LOS D.
- For basic freeway sections on four-lane freeways, use Figure 11.3-1 for the posted speed and LOS D.
- For basic freeway sections on six or more lane freeways use the value from Figure 7-1 for the posted speed and LOS D.

Number of current lanes in the direction of peak hour flow: (G) \_\_\_\_\_ Lanes

Current Capacity = (H) = (F) x (G): (H) \_\_\_\_\_ PCPH

Step 4: Determine the current truck volume to capacity ratio:

For Intersections:

This value (I) is typically computed using computer software. Developed for this purpose, or can be hand calculated using the procedure established in the Highway Capacity Manual. (Chapter 9 for signalized intersections, or Chapter 10 for un-signalized intersections).

(I) \_\_\_\_\_

Intersection truck v/c: (J) = (I) x (B) (J) \_\_\_\_\_

**OR**

For Highways: Highway truck v/c (J) = (E) / (H) (J) \_\_\_\_\_

Step 5: Determine the projected truck volume to capacity ratio using the methods presented in the above Steps 1 through 4, only using the conditions and factors with the proposed improvements in place. (K) \_\_\_\_\_

Step 6: Improvement to v/c for trucks = (L) = (J) – (K) or zero, if the calculated value is less than zero. (L) \_\_\_\_\_

**Project Narrative**

6. **If this project increases the capacity of train movements during peak periods, please describe and give information on current capacity and the amount of improvement.** \_\_\_\_\_

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7. **What is the significance of this project to the regional economy? Describe the project's impact on the regional freight transportation system and the regional economy (i.e., nature of the improvement and principal freight moved; improved intra-regional and inter-regional freight movement in terms of products, industries and direct employment; improved freight movement and access to domestic and international markets in terms of freight, industries and direct employment; benefits to other regional industries; and access and links to intermodal connections and facilities.)** \_\_\_\_\_

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8. **What is the significance of this project to the state economy? Describe the project's impact on the state (outside the region) freight transportation system and the state (outside the region) economy. (i.e., improved intrastate freight movement in terms of products, industries and direct employment; improved freight movement to domestic and international markets in terms of freight, industries and direct employment; and benefits to other state industries.)** \_\_\_\_\_

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**Project Narrative**

16. Is the project located on an essential emergency vehicle access route?  No  Yes  
Describe. (i.e., fire, police, ambulance, school bus route and include closest alternative emergency access) \_\_\_\_\_

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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

17. Does this project result in additional road/rail closures? How many and where.  
 No  Yes \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

18. How does the project benefit mainline rail operations (i.e., increases train speed, improves train access to terminals, etc.)? Describe. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

19. Does the project improve access to key employment areas?  No  Yes Describe and include the number of employees affected by the access. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

20. If, as a result of this improvement, train speed limits are planned to be increased, will the applicant be supportive?  No  Yes Describe level of support. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Project Narrative**

21. Is the project located in a non-attainment area for air pollution control?  No  Yes

22. How many sensitive receptor sites are affected by the reduction in train whistle noise in the vicinity of the grade separation? (Vicinity is identified as a quarter of a mile up and down the track and 600 feet each side of centerline. Sensitive receptor sites include residences, schools, churches, hospitals, hotels and motels, each counted as individual facilities.) \_\_\_\_\_

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23. Why is it important to get this project underway within the next year (i.e., available funding, project impacts or other critical timing issues.)? \_\_\_\_\_

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24. Are there environmental impacts of the project, which may affect implementation (i.e., displaced businesses or residences, wildlife refuge, water quality, etc.)?  No  Yes  
Explain. \_\_\_\_\_

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## Project Narrative

**25. What is the cost-effectiveness of the project?**

Calculate the cost effectiveness of this project, using the equation:  
Cost Effectiveness = Reduced Delay / Cost

Step 1: Reduced Truck Delay (A) = (I) from Question 2 (A) \_\_\_\_\_ Hours

Step 2: If available, from Question 3, train delay (B) is equal to the average delay per train car times the average number of train cars per day. (B) \_\_\_\_\_ Hours

Step 3: Cost (C) = Total cost for proposed improvement, including engineering/design, right of way, construction and contingencies. (C) \_\_\_\_\_ Millions

Cost Effectiveness (D) = ((A)+(B)) / (C) (D) \_\_\_\_\_ Hours / \$M

**26. Describe the degree to which least-cost alternatives were analyzed and considered for this project.** \_\_\_\_\_

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**27. Describe the uniqueness of this project based on factors not addressed by previously asked questions.** \_\_\_\_\_

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**28. Freight projects have the potential to not only improve the movement of commerce, but also improve local air quality. Explain how this project provides an overall health and environmental benefit. ( e.g. reduction of particulate emissions, contribution to attainment standards in non-attainment area, etc.) How was the information and evaluation arrived at to support the benefit statement? (e.g. traffic model, air emissions model, etc**

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# Freight Mobility Strategic Investment Program Application Form

## Certification

### *Applicant Organization*

*(To be signed by the Mayor, Chair or Executive Director of the Sponsoring Agency)*

I certify that \_\_\_\_\_ supports the proposed Enhancement  
*(sponsoring agency)*

project, has the legal authority to pledge matching funds, and has the legal authority to apply for Freight Mobility Strategic Investment Board funds. I further certify that matching funds are available or will be available for the proposed project. I understand that this is a request for reimbursement through the state system, and that all state rules for contracting, auditing, and payment will apply to this project.

<b>Signature</b>	<b>Date</b>
<b>Printed Name</b>	<b>Title</b>
<b>Project Title</b>	