

DETERMINATION OF APPROPRIATE INCENTIVE / DISINCENTIVE AMOUNT

I. PROJECT CHARACTERISTICS

Route No. \_\_\_\_\_ F. A. Project No.: \_\_\_\_\_ Contract No.: \_\_\_\_\_

DES. No.: \_\_\_\_\_ District: \_\_\_\_\_

National Highway System (NHS) Route: Yes No

Location: \_\_\_\_\_

Estimated Start Date of Work: \_\_\_\_\_, 20\_\_\_\_

Estimated Completion Date Without I/D: \_\_\_\_\_, 20\_\_\_\_

Estimated Construction Costs: \$ \_\_\_\_\_

\* Estimated Local Traffic AADT: \_\_\_\_\_ Trucks \_\_\_\_\_ %

\* Estimated Through Traffic AADT: \_\_\_\_\_ Trucks \_\_\_\_\_ %

\*\* Length of Local Traffic Detour: \_\_\_\_\_ km

\*\* Length of Through Traffic Detour: \_\_\_\_\_ km

\* Use best judgment for breakdown of traffic.

\*\* Use official detours for through traffic.

Identify any contract restrictions (e.g., utility adjustments, R/W acquisitions, permits, environmental constraints, closure times, special fabrication requirements): \_\_\_\_\_

\_\_\_\_\_

Reasons for proposing I/D: \_\_\_\_\_

\_\_\_\_\_

List any critical construction elements: \_\_\_\_\_

\_\_\_\_\_

Estimated Completion Date With I/D: \_\_\_\_\_, 20\_\_\_\_

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**Figure 81-3D**

Estimated I/D Amount: \$ \_\_\_\_\_ per day  
 Proposed I/D Time: \_\_\_\_\_ (Calendar Days)

Maximum I/D Adjustments = (I/D Amount) x (I/D Time):

$$\$ \text{_____} \times \text{_____} = \$ \text{_____}$$

User Vehicle Costs (UVC): \$0.15 / km / veh (Autos & Trucks)

User Time Value (UTV): \$5.00 / h / veh

Local Design Speed: \_\_\_\_\_ km/h

Through Design Speed: \_\_\_\_\_ km/h

Traffic Adjustment Factor (TAF): Suggested Value 0.35  
*(TAF normal range is 0.30 to 0.45)*

NOTE: Use either of the following analyses depending on the type of project (i.e., road closure-detoured or through traffic projects). Various computer programs are available like "QUEWZ" for estimating queue lengths and user costs that can be used in lieu of the following for freeway work zone lane closures. Contact the Design Division's Specialty Projects Group for details.

A. User Cost for "Closure-Detoured" Projects

LOCAL TRAFFIC

$$\text{Vehicle Costs} = (\text{UVC}) (\text{AADT}) (\text{Detour Length-Local})$$

$$(\$0.15) (\text{_____}) (\text{_____}) = \$ \text{_____}$$

$$\text{User Costs} = (\text{UTV}) (\text{AADT}) (\text{Detour Length}) (1/\text{Design Speed})$$

$$(\$5.00) (\text{_____}) (\text{_____}) (1/\text{_____}) = \$ \text{_____}$$

$$\text{Local-Road User Costs (RUC)} = (\text{Vehicle Costs} + \text{User Costs})$$

$$\text{\$ _____} + \text{\$ _____} = \text{\$ _____}$$

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**Figure 81-3D** (cont'd.)

THROUGH TRAFFIC

Vehicle Costs = (UVC) (AADT) (Detour Length-Through)
(\$0.15) ( ) ( ) = \$

User Costs = (UTV) (AADT) (Detour Length) (1/Design Speed)
(\$5.00) ( ) ( ) (1/ ) = \$

Through-Road User Costs (RUC) = (Vehicle + User Costs)
\$ + \$ = \$

Site (RUC) = Local (RUC) + Through (RUC)
\$ + \$ = \$

B. Disruption Cost for "Through Traffic" Projects

NOTE: The following analysis provides only delay cost for through traffic only. If the project includes ramp or intersection closures for example, the analysis from Part A above can be added to the through traffic disruption costs and/or other factors commensurate upon the scope of the particular project.

Vehicle Costs = (UVC) (AADT) (TAF)
(\$0.15) ( ) ( ) = \$

User Costs = (UTV) (AADT) (TAF)
(\$5.00) ( ) ( ) ( ) = \$

Traffic Disruption Costs = (Vehicle Costs + User Costs)
\$ + \$ = \$

General Comments:

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Figure 81-3D (cont'd.)

Other factors to consider. Is the route ON or NEAR?

School  
Hospital  
Emergency Route

Hazardous Materials Route  
Special/Seasonal Events  
Local Businesses

III. SUMMARY

Recommended Maximum I/D Time: \_\_\_\_\_ (Calendar Days)

Recommended I/D Date: \_\_\_\_\_, 20\_\_

Recommended maximum I/D Amount: \$ \_\_\_\_\_ (Daily)

If I/D amount (daily) > Impacts, I/D is not justified.

Is I/D amount > 5% of construction costs?      Yes      No

IV. APPROVALS

NON-NHS PROJECTS:

Prepared By: \_\_\_\_\_ / \_\_\_\_\_

Recommended By: \_\_\_\_\_ / \_\_\_\_\_  
Construction Field Engineer, Operations

If I/D  $\leq$  5% contract amount,

Approved By: \_\_\_\_\_ / \_\_\_\_\_  
Chief, Operations Support Division

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**Figure 81-3D (cont'd.)**

If I/D > 5% contract amount,

Approved By: \_\_\_\_\_ / \_\_\_\_\_  
Chief Highway Engineer

Received By: \_\_\_\_\_ / \_\_\_\_\_  
Contracts Services Manager

**NHS PROJECTS:**

Prepared By: \_\_\_\_\_ / \_\_\_\_\_

Recommended By: \_\_\_\_\_ / \_\_\_\_\_  
Construction Field Engineer, Operations

Approved By: \_\_\_\_\_ / \_\_\_\_\_  
Chief, Operations Support Division

Received By: \_\_\_\_\_ / \_\_\_\_\_  
Contracts Services Manager

NHS Exemption:      Yes      No

\* Approved By: \_\_\_\_\_ / \_\_\_\_\_  
Federal Highway Administration

\* Non-exempt NHS to be submitted to the FHWA for approval.

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**Figure 81-3D (cont'd.)**