### **APPENDIX A**

## Survey

# NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM Survey

### STRATEGIES FOR MANAGING INCREASING TRUCK TRAFFIC

With changes in the global economy and increases in total population and freight movement, many states are seeing significant increases in the number of trucks on their roadways. Increasing truck traffic poses many challenges for state departments of transportation (DOTs), metropolitan planning organizations (MPOs), and other transportation organizations. This survey is being sponsored by the National Cooperative Highway Research Program and is designed to help identify the strategies being used to address the challenges associated with increasing truck traffic.

The survey should be filled out by those in your agency who are familiar with your agency's activities related to trucking—highway improvements, operational strategies, safety, pavement enhancement, code enforcement, etc. *Your responses are relevant and important, regardless of whether your agency has actively engaged in identifying and mitigating impacts of truck traffic.* Comments and explanations are encouraged, particularly if the multiple-choice responses do not capture your situation. Please attach additional pages if necessary.

Please return the completed survey and any supporting documents by <u>August 15, 2001</u> to:

James G. Douglas Parsons Brinckerhoff 505 South Main Street, Suite 900 Orange, CA 92868

If you prefer, you may fax your response to him at (714) 973-4918.

If you have any questions, you may contact him by telephone at (714) 973-4880, or by email at: douglasj@pbworld.com.

#### **BACKGROUND INFORMATION**

Agency/Organization Responding:			
Address:			
Name of Respondent(s):			
Title(s)/Department(s):		Phone:	
Date:	Email:		

1. What challenges attributable to increasing truck traffic is your agency facing? For each challenge, circle the most appropriate response number (one only).

0 = No work undertaken to determine
whether it is a challenge.

1 = Minor challenge, or not an issue.
2 = Moderate challenge in localized areas.

3 = Serious challenge in localized areas.

4 = Moderate challenge through much of our state or urban area.

5 = Serious challenge through much of our state or urban area.

	_				_	_				_	_		_
a) Congestion							f) Intermodal Connections						
<ul> <li>Bottlenecks near terminals,</li> </ul>	0	1	2	3	4	5							
ports, border crossings, etc.		1					Rail/truck connectivity	0	1	2	3	4	5
<ul> <li>Congested urban streets</li> </ul>	0	1	2	3	4	5	Air/truck connectivity	0	1	2	3	4	5
<ul> <li>Congested urban highways</li> </ul>	0	1	2	3	4	5	Truck/truck connectivity	0	1	2	3	4	5
<ul> <li>Congested intercity roads</li> </ul>	0	1	2	3	4	5	<ul> <li>Water/truck connectivity</li> </ul>	0	1	2	3	4	5
• Other (please specify)	0	1	2	3	4	5	• Other (please specify)	0	1	2	3	4	5
b) Transportation System							g) Quality of Life						
<ul> <li>Substandard geometrics</li> </ul>	0	1	2	3	4	5	<ul> <li>Trucks driving through</li> </ul>	0	1	2	3	4	5
<ul> <li>Insufficient truck parking</li> </ul>	0	1	2	3	4	5	residential areas						
- D 1: /: 1 : :		1		_	4	_	Trucks parking in residential		1	•	2	4	_
<ul> <li>Poor directional signing</li> </ul>	0	1	2	3	4	5	areas	0	1	2	3	4	5
Other (please specify)	0	1	2	3	4	5	Other (please specify)	0	1	2	3	4	5
c) Safety							h) Economic Development						
<ul> <li>Truck crashes (single</li> </ul>	0	1	2	3	4	_	The same of the first same	0	1	2	3	4	5
vehicle)	U	1	2	3	4	5	<ul> <li>Incompatible land uses</li> </ul>	0	1	2	3	4	3
Multivehicle crashes		1		_	4	_	Truck uses that discourage		1	•	2	4	_
(especially auto-truck)	0	1	2	3	4	5	"desirable" development	0	1	2	3	4	5
Other (please specify)	0	1	2	3	4	5	Other (please specify)	0	1	2	3	4	5
d) Infrastructure							i) Losses in Productivity Due to						
d) Infrastructure							Congestion						
<ul> <li>Pavement deterioration</li> </ul>	0	1	2	3	4	5	<ul> <li>Increased transport costs</li> </ul>	0	1	2	3	4	5
Bridge structure	0	1	2	3	4	5	Worker productivity loss	0	1	2	3	4	5
deterioration	U	1		3	4	3	worker productivity loss	U	1	2	3	4	3
Other (please specify)	0	1	2	3	4	5	Other (please specify)	0	1	2	3	4	5
e) Environment													
<ul> <li>Air quality (emissions)</li> </ul>	0	1	2	3	4	5							
Noise	0	1	2	3	4	5							
Other (please specify)	0	1	2	3	4	5							

2. Has your agency undertaken planning activities to address the effects of increasing truck traffic? Please circle the most appropriate response for each type of planning (one only).

1 = No planning of this type.	4 = Under way but not completed.
2 = Discussed but not undertaken.	5 = Completed.
3 = Undertaken in support of another agency.	

a)	Freight/goods movement plan (for state or metropolitan area)	1	2	3	4	5
b)	System plan for freight/goods movement facilities	1	2	3	4	5
c)	Corridor freight/goods movement plan	1	2	3	4	5
d)	Freight/goods movement element of multimodal system plan	1	2	3	4	5
e)	Freight/goods movement element of multimodal corridor plan	1	2	3	4	5

f)	Intermodal facility planning	1	2	3	4	5
g)	Land use planning for truck-related uses	1	2	3	4	5
h)	Freight forecasts	1	2	3	4	5
i)	Truck forecasts	1	2	3	4	5
j)	Other (please specify)	1	2	3	4	5

- 3. Has your agency evaluated or implemented specific strategies to address the effects of increasing truck traffic? Please circle one number indicating the level of consideration given to each strategy, and mark (with an X) the challenge(s) to which the strategy is primarily directed (more than one challenge may be marked for each strategy).
  - 1 = Not considered.
  - 2 = Identified as a possible strategy, but not studied.
  - 3 = Studied as a possible strategy, but eliminated from further consideration.
  - 4 = Studied and recommended or adopted as an improvement strategy, but not yet implemented.
  - 5 = Implemented, or in the process of implementation.

						ī			Prima	ry Chall	enge(s)	Being .	Addres	sed	
				Congestion Transportation System Safety Infrastructure Environment Intermodal Connections Quality of Life										Economic Development	Losses in Productivity
a)	Improved Highway Design														
•	Improved highway geometrics	1	2	3	4	5									
•	New or upgraded structures	1	2	3	4	5									
•	New or improved pavement	1	2	3	4	5									
•	Modified design standards	1	2	3	4	5									
	(geometric/structural/pavement)														
•	Other (please specify)	1	2	3	4	5									
<b>b</b> )	Roadway Facilities														
•	Dedicated roads for trucks or commercial vehicles	1	2	3	4	5									
•	Special use lanes for trucks or commercial					***************************************									
	vehicles	1	2	3	4	5									
•	Truck climbing lanes	1	2	3	4	5		<b></b>							
•	Dedicated truck ramps	1	2	3	4	5									
•	Other (please specify)	1	2	3	4	5									
c)	Operational Strategies														
•	Lane restrictions for trucks	1	2	3	4	5									
•	Time-of-day restrictions on trucks	1	2	3	4	5									
•	Restriction or prohibition of trucks on some roads	1	2	3	4	5									
•	Truck parking restrictions/prohibitions	1	2	3	4	5									
•	Improved incident management	1	2	3	4	5									
•	Improved intermodal operations	1	2	3	4	5									
•	Other (please specify)	1	2	3	4	5									
d)	<b>Intelligent Transportation Systems</b>														
•	ITS strategies to facilitate truck flow on	1	2	3	4	5									
	roads (specify)			ļ											
•	Intelligent warning devices	1	2	3	4	5									
•	Weigh-in-motion	1	2	3	4	5									
•	Other (please specify)	1	2	3	4	5									

							Congestion	Transportation System	Safety	Infrastructure	Environment	Intermodal Connections	Quality of Life	Economic Development	Losses in Productivity
e)	Signing														
•	Improved warning signing	1	2	3	4	5									
•	Improved directional or informational signing	1	2	3	4	5									
•	Other (please specify)	1	2	3	4	5									
f)	Vehicle Size and Configuration		_		-										
•	Increased size or weight limits	1	2	3	4	5									
•	Reduced size or weight limits	1	2	3	4	5									
•	Allow triple trailers on roadways	1	2	3	4	5									
•	Other (please specify)	1	2	3	4	5									
g)	Enforcement/Compliance														
•	Additional inspection stations	1	2	3	4	5									
•	Additional truck inspections	1	2	3	4	5									
•	Electronic screening	1	2	3	4	5									
•	Enhanced enforcement to remove noncompliant trucks	1	2	3	4	5									
•	Enhanced enforcement of operator hours	1	2	3	4	5									
•	Other (please specify)	1	2	3	4	5									
h)	<b>Alternative Infrastructure Investments</b>														
•	Improvements in port/shipping infrastructure	1	2	3	4	5									
•	Improvements in air freight infrastructure	1	2	3	4	5									
•	Improvements in rail infrastructure	1	2	3	4	5									
•	Other (please specify)	1	2	3	4	5									

4. For each strategy with 3 circled in Question #3, please provide the information requested in the following table. Briefly describe the project, and mark (with an X) the factor(s) which drove the decision to eliminate the project from further consideration. Attach additional pages if necessary.

		racio	rs Driv	mg un	Decis	SIOII	
Project Description	Insufficient Benefit	High Cost	Difficult to Implement	Not Cost-Effective	Public Opinion	Lack of Information	Other (specify)

Project Description	Insufficient Benefit	High Cost	Difficult to Implement	Not Cost-Effective	Public Opinion	Lack of Information	Other (specify)

5. For each strategy with 4 or 5 circled in Question #3, please provide the information requested in the following table. Briefly describe the project, indicate its cost, describe the expected benefits, indicate whether the benefits have been evaluated, and mark (with an X) the factor(s) which drove the selection of that strategy. Attach additional pages if necessary.

					Fa	ctors Dri	ving S	election	
Project Description	Cost	Expected Benefits	Were Benefits Evaluated?	Greatest Potential Benefit	Low Cost	Ease of Implementation	Cost-Effectiveness	Public Acceptance	Other (specify)
			Yes						
			No						
			Not Yet						
			Yes						
			No						
			Not Yet						
			Yes						
			No						
			Not Yet						
			Yes						
			No						
			Not Yet						

Note: If benefits were evaluated, please attach information about criteria used for evaluation.

6.	If you have relevant plans or studies that you could share, please send a copy when you return the survey.	Or attach a
	separate page with the titles of relevant documents that are available. Please include	

- separate page with the titles of releFreight/goods movement plans
- Studies of improvements to accommodate increasing truck traffic
- Other relevant documents.

7.	Comments: