

## STATE PRACTICES AND POTENTIAL SOLUTIONS

This chapter provides a discussion of potential solutions to managing the increasing levels of commercial vehicle parking demand. Included in this discussion are the results of the nationwide survey as well as best practices pursued by selected states.

### SURVEY RESULTS

Survey respondents were asked to rank the effectiveness and feasibility of a selected number of alternative strategies to address commercial vehicle parking demand. A 3-point scale was used in which a value of 3 was assigned to a rating of “high,” a value of 2 was assigned to a rating of “medium,” and a value of 1 was assigned to a rating of “low.” A weighted average score was calculated for each strategy. The results are summarized in Tables 11–13.

The strategies rated highest in effectiveness included the following:

- Establish federal assistance program targeted at truck parking (2.08).

- Encourage the development of public–private partnerships (2.08).
- Use Intelligent Transportation Systems (ITS) to expand amount of information available to truckers (2.04).
- Expand existing rest areas for truck parking by providing more truck spaces (2.00).
- Build new rest areas for trucks only (1.92).
- Build new rest areas for autos, trucks, and recreational vehicles (RVs) (1.79).

Improvement strategies rated the lowest in effectiveness were:

- Improve access to commercial truck stops (e.g., driveway design and curbing) (1.25).
- Locate law enforcement office substations at rest areas (1.21).
- Establish a rating system for commercial truck stops (1.21).
- Use park-and-ride lots (1.17).
- Eliminate parking time enforcement (1.15).

The strategies rated highest in feasibility included the following:

TABLE 11  
SUMMARY OF IMPROVEMENT STRATEGY EFFECTIVENESS RATING

Improvement Strategies	Effectiveness Score
Establish federal assistance program targeted at truck parking	2.08
Encourage the development of public–private partnerships	2.08
Use ITS to expand amount of information available to truckers	2.04
Expand existing rest areas for truck parking by providing more truck spaces	2.00
Build new rest areas for trucks only	1.92
Build new rest areas for autos, trucks, and RVs	1.79
Permit the use of weigh stations for parking	1.71
Permit the use of federal-aid funds to maintain public rest areas	1.63
Build “pull offs” to provide parking	1.54
Redesign parking configuration at existing rest areas to provide more spaces	1.46
Reopen closed rest areas	1.38
Conduct education campaign to encourage drivers to better plan trips	1.38
Install security systems, cameras, and effective lighting	1.33
Expand existing rest areas for truck parking by permitting use of auto spaces at certain times	1.29
Construct multi-use rest area facilities that also address tourism and truck inspection (e.g., safety, size and weight, and diesel emissions testing) needs	1.29
Improve access to commercial truck stops (e.g., driveway design and curbing)	1.25
Locate law enforcement office substations at rest areas	1.21
Establish a rating system for commercial truck stops	1.21
Use park-and-ride lots	1.17
Eliminate parking time enforcement	1.15

Notes: ITS = Intelligent Transportation Systems; RVs = recreational vehicles.

TABLE 12  
SUMMARY OF IMPROVEMENT FEASIBILITY RATING

Improvement Strategies	Feasibility Score
Use ITS to expand amount of information available to truckers	1.96
Permit the use of weigh stations for parking	1.92
Expand existing rest areas for truck parking by providing more truck spaces	1.79
Build new rest areas for autos, trucks, and RVs	1.54
Establish federal assistance program targeted at truck parking	1.50
Encourage the development of public-private partnerships	1.48
Locate law enforcement office substations at rest areas	1.46
Install security systems, cameras, and effective lighting	1.42
Permit the use of federal-aid funds to maintain public rest areas	1.33
Redesign parking configuration at existing rest areas to provide more spaces	1.33
Reopen closed rest areas	1.31
Expand existing rest areas for truck parking by permitting use of auto spaces at certain times	1.29
Construct multi-use rest area facilities that also address tourism and truck inspection (e.g., safety, size and weight, and diesel emissions testing) needs	1.25
Use park-and-ride lots	1.18
Conduct education campaign to encourage drivers to better plan trips	1.17
Build "pull offs" to provide parking	1.13
Establish a rating system for commercial truck stops	1.13
Improve access to commercial truck stops (e.g., driveway design and curbing)	1.08
Build new rest areas for trucks only	1.04
Eliminate parking time enforcement	1.00

Notes: ITS = Intelligent Transportation Systems; RVs = recreational vehicles.

TABLE 13  
SUMMARY OF IMPROVEMENT STRATEGY COMBINED RATING

Improvement Strategies	Combined Score
Use ITS to expand amount of information available to truckers	4.00
Expand existing rest areas for truck parking by providing more truck spaces	3.58
Permit the use of weigh stations for parking	3.27
Establish federal assistance program targeted at truck parking	3.13
Encourage the development of public-private partnerships	3.08
Build new rest areas for autos, trucks, and RVs	2.76
Permit the use of federal-aid funds to maintain public rest areas	2.17
Build new rest areas for trucks only	2.00
Redesign parking configuration at existing rest areas to provide more spaces	1.94
Install security systems, cameras, and effective lighting	1.89
Reopen closed rest areas	1.81
Locate law enforcement office substations at rest areas	1.76
Build "pull offs" to provide parking	1.73
Expand existing rest areas for truck parking by permitting use of auto spaces at certain times	1.67
Construct multi-use rest area facilities that also address tourism and truck inspection (e.g., safety, size and weight, and diesel emissions testing) needs	1.61
Conduct education campaign to encourage drivers to better plan trips	1.60
Use park-and-ride lots	1.38
Establish a rating system for commercial truck stops	1.36
Improve access to commercial truck stops (e.g., driveway design and curbing)	1.35
Eliminate parking time enforcement	1.15

Notes: ITS = Intelligent Transportation Systems; RVs = recreational vehicles.

- Use ITS to expand amount of information available to truckers (1.96).
  - Permit the use of weigh stations for parking (1.92).
  - Expand existing rest areas for truck parking by providing more truck spaces (1.79).
  - Build new rest areas for autos, trucks, and RVs (1.54).
  - Establish federal assistance program targeted at truck parking (1.50).
  - Encourage the development of public-private partnerships (1.48).
  - Locate law enforcement office substations at rest areas (1.46).
- The strategies rated lowest in feasibility were:
- Conduct education campaign to encourage drivers to better plan trips (1.17).
  - Build "pull offs" to provide parking (1.13).

- Establish a rating system for commercial truck stops (1.13).
- Improve access to commercial truck stops (e.g., driveway design and curbing) (1.08).
- Build new rest areas for trucks only (1.04).
- Eliminate parking time enforcement (1.00).

A measure was created that combined the effectiveness score and feasibility score to determine what strategies respondents believed would be most feasible and effective to implement. The results indicated that the following strategies would be the highest rated:

- Use ITS to expand amount of information available to truckers (4.00).
- Expand existing rest areas for truck parking by providing more truck spaces (3.58).
- Permit the use of weigh stations for parking (3.27).
- Establish federal assistance program targeted at truck parking (3.13).
- Encourage the development of public–private partnerships (3.08).
- Build new rest areas for autos, trucks, and RVs (2.76).
- Permit the use of federal-aid funds to maintain public rest areas (2.17).
- Build new rest areas for trucks only (2.00).

The responses to the ranking of strategies reflect a belief that among agencies the most effective and feasible way to reduce shortages is to make better use of existing resources, combined with a prudent expansion of existing public spaces. Because all of the respondents work in the public sector, it can be speculated that their responses reflect recognition that a public role is appropriate—but the resources to meet all needs are not available, and that the private sector is in a better position to provide these resources.

#### **SUMMARY OF SECTION 4027 STUDY STRATEGIES**

This section of the report presents a compilation of recommended actions for addressing commercial truck parking shortages from the Section 4027 study (18). As part of this study, states were asked to identify actions they would consider useful in solving truck parking shortages. These actions fell into the following six broad categories:

- Expand or improve public rest areas,
- Improve commercial truck stops and travel plazas,
- Encourage the formation of public–private partnerships,
- Educate or inform drivers about available spaces,
- Change parking enforcement rules, and
- Conduct additional studies.

#### **EXPAND PUBLIC FACILITIES**

The recommendations on how to expand public facilities included the following:

- Construct new public rest area facilities with additional truck parking spaces. Consider developing truck-only parking facilities. Raise the priority of public rest area construction by making it a safety-related issue.
- Add new truck spaces to existing public rest areas as part of scheduled rest area reconstruction or rehabilitation. Redesign and reconfigure rest areas to increase parking and improve commercial vehicle circulation through the lot. Also, convert parallel parking to pull-through parking for added driver convenience.
- Convert closed public rest areas into parking facilities and consider designating these facilities for truck parking only.
- Investigate the use of federal funds for maintaining public rest areas. Explore alternative financing of public rest area construction. Develop pilot projects for generating revenue to keep public rest areas open.
- Partner with other state agencies, such as the Department of Tourism, to incorporate truck parking needs in the development of new tourist information sites.
- Review and expand security at public rest areas by providing call boxes, cameras, increased law enforcement, etc.
- Identify locations where commercial vehicle parking can be combined with ports of entry, weigh stations, or police substations. Consider exempting trucks from enforcement actions to encourage the use of these sites for parking by fatigued drivers.
- Construct turnouts in rural sections of the Interstate for parallel parking by commercial trucks.
- Upgrade facilities currently closed during off-season to be open year round.
- Improve geometric design at interchanges to increase convenience to drivers choosing to exit. For example, increase turning radii, widen narrow bridges, place traffic signals where warranted, and add turning lanes to ease access and egress to commercial truck stops and travel plazas.

#### **CASE STUDY: NEW YORK STATE**

The New York State DOT (NYSDOT) has undertaken a major program to upgrade public rest areas along the Interstate system. In 1997, NYSDOT adopted a Rest Area Policy providing for facilities to meet the future needs of both automobile and commercial motor vehicle users. The policy also acknowledges the importance of providing rest areas

to address concerns about commercial motor vehicle operator fatigue. As a result of this policy, NYSDOT has increased the number of commercial vehicle parking spaces by between 200 and 300. NYSDOT is also working with a county to develop a county-owned rest area that would be located within the state-owned right-of-way, but accessed from the local road system.

Regional offices within NYSDOT were requested to prepare Regional Rest Area Plans to consider the needs of commercial motor vehicle operators. Some plans recommended the conversion of closed rest areas into commercial vehicle parking. Others proposed the construction of new rest areas on heavily used corridors. Regional plans also provided for improved signs and lighting, expanded areas for drivers and vehicles placed out of service, and state police office space at new and reconstructed sites. NYSDOT initiated multiregion corridor studies to obtain more detailed input into a Statewide Rest Area Plan. These corridor studies involved the cooperation of key elected officials, state police, and state and regional economic development officials, and they focused on safety and tourism issues such as parking, security, and inspection facilities.

NYSDOT formulated a Statewide Rest Area Plan that provided a framework for a system of rest areas. This plan reflects the Statewide Rest Area Policy and Regional Rest Area Plans and addresses a number of issues, including

- Spacing and number of rest areas—Generally, 1 hour of driving time will be used as the interval between rest area facilities.
- Motor carrier industry—Adequate commercial vehicle services, parking, and safety facilities will be provided as part of the new system of rest areas.
- Tourist information—Additional tourist information will be provided to enhance the economic development aspects of the rest area system.

#### **EXPAND OR IMPROVE COMMERCIAL TRUCK STOPS AND TRAVEL PLAZAS**

The following measures were among those recommended:

- Increase yearly truck registration fees with the stipulation that these fees can be used by states only on initiatives to address the truck parking issue.
- Implement a program that allows states to close rest areas in locations that are well served by private-sector businesses and shift funds to areas where additional development is desirable.
- Remove cost-prohibitive road improvement requirements imposed by state DOTs on developers attempting to open new facilities.

#### **ENCOURAGE FORMATION OF PUBLIC–PRIVATE PARTNERSHIPS**

The recommendations on how to encourage formation of public–private partnerships included the following:

- Create working groups between public and private sectors to develop new parking, and explore options to overcome barriers to cooperation.
- Work with the private sector to redevelop or construct new public rest areas with direct access to the Interstate.
- Provide low-interest loans or grants to commercial truck stops and travel plazas to increase capacity.
- Construct state-owned lots adjacent to commercial truck stops and travel plazas, and enter into agreements to lease or maintain the lots.
- Work with owners of commercial truck stops to help them promote the availability of parking in large lots close to the Interstate highway (e.g., provide signage on the highway).

#### **CASE STUDY: CALIFORNIA**

Caltrans convened the Caltrans Safety Roadside Rest Area System Team in January 1999 to develop a vision and recommendations for improving California’s Safety Roadside Rest Area System. The team included organizations representing the traveling public, commercial drivers, senior citizens, Caltrans staff responsible for safety rest areas, and several other state agencies, and was charged with addressing the following issues:

- Significant increases in the safety of roadside rest area usage,
- Lack of a comprehensive master plan update since 1985,
- Perceived low level of priority and staffing for rest areas, and
- Issues related to truck usage of the safety rest areas.

Team members met five times during the spring of 1999 to identify issues, develop goals, and draft recommendations. The recommendations were developed for consideration by Caltrans management and the California Transportation Commission (CTC).

Caltrans developed its first statewide master plan for safety rest areas in 1962. This plan included the construction of 269 safety rest area units on the state highway system at approximately 30-mi intervals. The plan was revised in 1968 and expanded to 278 units. In 1974, the department revised the plan to reduce the number of rest area units to 162 and increase the spacing to approximately 60 mi. By 1985, a total of 91 units had been constructed. However, the plan

was again revised to reduce the number of units to 104. In addition, the CTC required that the remaining 13 units be developed by the private sector with minimal state investment.

In 1997, Caltrans was directed by the CTC to explore the potential for closing existing rest areas that had become obsolete for various reasons. In response to this direction, Caltrans conducted an analysis of future demand and recommended against a strategy of closure, suggesting that a policy of rehabilitation be pursued. The CTC agreed with this recommendation, and Caltrans established the Safety Roadside Rest Area Improvement Team to support that purpose. The California Safety Roadside Rest Area Improvement Team consisted of representatives from the following organizations:

- American Association of Retired Persons;
- Automobile Club of Southern California;
- California Department of Mental Health;
- California Department of Rehabilitation;
- California Department of Transportation;
- California Commission on Aging;
- California Division of Tourism;
- California Highway Patrol;
- California Roundtable on Parks, Recreation, and Tourism;
- California State Automobile Association;
- California Trucking Association;
- Collier Interpretive Information Center Agency;
- FHWA;
- Parents Against Tired Truckers; and
- Traveler Center Services

The Safety Roadside Rest Area Improvement Team formulated the following eight recommendations:

1. Raise the priority of the Safety Rest Area System as integral to highway safety.
2. Develop an updated Roadside Rest Area System Master Plan.
3. Rescind the mandatory privatization policy.
4. Expand and formalize public and private partnerships.
5. Conduct ongoing evaluation of rest area system performance.
6. Investigate in-route truck parking capacity issues.
7. Maintain ongoing stakeholder involvement.
8. Update Safety Roadside Rest Area design standards and guidelines.

Caltrans has focused on pursuing the implementation of many of these actions. However, the most significant progress that has been made to date includes the development of a new master plan, investigation of truck parking issues, and exploration of new partnership and privatization strategies.

In response to these recommendations, Caltrans established an In-Route Truck Issues Task Force. This task force was chaired by the Traffic Operations Program and included participation by the California Highway Patrol, California Trucking Association, California Chapter of the National Association of Truck Stop Operators, the Automobile Association of Southern California, and the California State Automobile Association.

The task force has identified a privatization–partnership concept that proposes the construction of fenced, lighted parking lots built adjacent to commercial developments in the vicinity of overcrowded rest areas or where the master plan indicates unmet stopping needs. The auxiliary lots would be free to all motorists and there would be signs directing motorists from the highway and from any nearby rest area. It is envisioned that the private sector would provide restrooms, clean up litter, and provide security at these auxiliary lots through competitive, negotiated, long-term agreements. Land for these lots may be leased or purchased by the state. If implemented, this concept could alleviate the overcrowding experienced at current rest area locations.

#### **BETTER EDUCATE OR INFORM DRIVERS ABOUT AVAILABLE SPACES**

Specific recommendations offered by the states included the following:

- Educate drivers on the safety benefits of rest and encourage them to use available spaces. For example, provide safety information (e.g., through brochures and public service announcements) to both drivers and trucking companies about the relationship between driver fatigue and accidents, to encourage fatigued drivers to get off the road.
- Develop ITS deployments that provide drivers with real-time information on the location and availability of parking spaces. For example, investigate using cell phones and radio frequencies to broadcast parking locations and availability to drivers.
- Investigate using mailings related to credentials administration for the International Registration Plan and the International Fuel Tax Agreement as a means to distribute information on the location and type of parking spaces within the base state to participating motor carriers.
- Publish and distribute a “truckers’ map” that pinpoints parking facilities for drivers.
- Initiate a program that informs drivers of state-approved parking facilities. Such facilities may have security, lighting, and other features that will encourage drivers to use existing spaces.



- Use both static and real-time signage to provide drivers with information about the availability and location of public and private parking spaces.

#### **CASE STUDY: MARYLAND**

The Baltimore Region Freight Movement Task Force undertook a survey of commercial vehicle parking demand along high truck travel corridors in the region. The surveys conducted by the group indicated that commercial vehicles were parking illegally along Interstate routes during the night, even though an adequate supply of public rest areas, commercial truck stops, commuter park-and-ride lots, and weigh stations were available for use. In response to these observations, the region implemented a strategy to educate commercial vehicle drivers on the supply of parking. Signs were added along the I-95 corridor to advise drivers of commercial truck stops. In addition, these signs promoted the use of park-and-ride lots and weigh stations for use by commercial vehicles during overnight hours. A truckers' map was published that contained information on the location of public and private parking areas and widely distributed to the commercial vehicle driver community.

#### **PARKING ENFORCEMENT RULES**

Specific recommendations offered by the states included the following:

- Implement more stringent enforcement of parking rules to remove vehicles from unsafe locations, such as interchange ramps.
- Change parking limits to allow trucks more time to park at public rest areas and weigh stations.
- Encourage local government and business support for constructing and operating commercial truck stop facilities in or near their community industrial and business parks (i.e., zoning). The “Not in My Backyard” attitude has made it difficult to gain such local support. That attitude has become a major problem in developing new commercial truck stops and public rest area facilities near the boundaries of larger cities.
- Encourage better recognition of credit and tax incentives for companies and terminal operators that provide truck staging area facilities for pickup and delivery activities with 24-hour access, parking, sanitation, and security. This possibility could be promoted at both the state and national levels.
- Promote building requirements for future warehouse and delivery facilities to incorporate truck parking

and staging facilities as part of their development and building permit process. Encourage public-private partnerships to fund or offset the possibility of increased costs. These requirements could be promoted at both the state and local level.

#### **CASE STUDY: KENTUCKY TRANSPORTATION CABINET**

The Kentucky Transportation Cabinet developed a “safe haven” concept to permit commercial vehicle drivers to park at weigh stations during overnight hours. Currently, a total of seven weigh stations are used for this purpose, and they provide approximately 225 commercial vehicle parking spaces. Employees of the Division of Motor Vehicle Enforcement staff weigh stations that are open 24 hours a day. Under the safe haven concept, drivers are not disturbed except in the case of an emergency.

#### **CASE STUDY: MINNESOTA**

Several states suggested that additional studies were required to better understand the level of need pertaining to truck parking demand and to formulate feasible solutions. To increase the level of understanding of safety rest areas issues, the Minnesota DOT conducted several market research studies. These studies included focus groups, a statewide telephone survey, an evaluation of nighttime truck parking, and an examination of truck parking length of stay. Content included an analysis of the parking needs of commercial motor vehicle drivers. Data collected on nighttime commercial truck parking use at Minnesota's Interstate and non-Interstate rest areas have documented an increase in nighttime demand since 1975. These studies have resulted in in-depth understanding of the site-specific parking shortages and provided justification for truck parking lot expansion at high-demand rest areas.

#### **SUMMARY**

This chapter has presented a number of alternative approaches that states have implemented to manage a growing demand for commercial vehicle parking demand. Several example case studies were presented that outlined strategies adopted by states to manage the problem of commercial vehicle parking. The strategies developed by these states generally have been effective in managing increasing parking demand. These studies include strategies to make better use of existing spaces by sharing information as well as developing policies and approaches to expand the amount of spaces available for use by truckers.