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**NAFTA II:
California Border Zone
Land Transportation Issues**

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16. Abstract The Mineta Transportation Institute at San José State University conducted this study to review the issues, impacts, implications, and opportunities for improved California-Baja California border area land transportation. The study reviews current conditions, previously identified issues, and, in consultation with Caltrans District 11 officials and others, developed an ultimate listing of seven issues for detailed study as follows: (1) public transportation at the border; (2) cross-border Americans with Disabilities Act interface; (3) California highway access to Tijuana International Airport; (4) Clean Air Act compliance; (5) General Services Administration off-site authority; (6) southbound inspection requirement; and (7) pipelines or other stationary facilities. As the study proceeded several topics of immediate concern were identified and relayed to the California Department of Transportation (Caltrans) as four recommendations. Observations and findings relating to the above seven issues are summarized and fifteen recommendations concerning them are presented.			
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- City of San Diego
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- Border Transportation Council
- Binational Air Quality Alliance

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EXECUTIVE SUMMARY

The body of this report is organized and presented according to the study process, as outlined in the study prospectus. As a result, the observations and recommendations are presented in the late chapters of the report and may not be as prominent as desired for maximum impact. Therefore, for the benefit of executive decision makers, this executive summary is formatted with the key recommendations presented first. This provides the most direct access to the information of major interest to management. A brief commentary on the study process is also included for those wishing to follow the process leading to our findings.

OBSERVATIONS AND RECOMMENDATIONS

As this study progressed, several topics surfaced that were addressed separately and recommendations for immediate concern provided to the California Department of Transportation (Caltrans) for timely attention. These recommendations are as follows:

1. Recommended legislation be enacted to revise the *Streets and Highway Code* to clarify legislative intent regarding state highway service to international ports of entry (POEs); define “border region;” modify existing state highway routes; and include section 321 to the *Streets and Highway Code* to add Route 21 to the system. The letter of 1 September 1999, to Caltrans District 11 Director, Gary Gallegos, covered this (see Appendix A) and conveyed recommended legislative wording to carry out these recommendations.
2. Recommended action be taken regarding funds under the Transportation Equity Act for the 21st Century (TEA-21), section 1106(d), Intermodal Freight Connection Study and use of TEA-21, section 1602, item 35 “to construct San Diego and Arizona Eastern Intermodal Yard, San Ysidro.” These two items were the subjects of the letter of 6 December 1999 to Caltrans District 11 Director, Gary Gallegos (see Appendix B).
3. Recommended action be taken regarding Presidential Executive Order 13122, Interagency Task Force on the Economic Development of the Southwest Border, interim report of 15 November 1999. This interim report was discussed at a meeting 12 April 2000 with the Caltrans District 11 Director and his staff, with our recommendation being that the Task force be contacted to correct the shortcomings of this interim report. The first full report of this task force was due April 2000, and if the California-

related shortcomings are not evidenced in that report, Caltrans should work with the task force to assure corrections are made in subsequent reports.

In consultation with Caltrans, 11 study elements were identified for detailed attention as reported in Chapter 3. After further study and consideration, these eleven study elements were rescoped, consolidated, and better identified as related in Chapter 4. As part of this reassessment a fourth recommendation was presented as follows.

4. Recommended that the study of a proposed Route 11 to a third border crossing extension on Otay Mesa include provisions for removal of heavy commercial border traffic from the present necessity of city street routing.

The seven study elements resulting from Chapter 4 were then given detailed study as reported in Chapters 5 through 11. Recommendations from these seven chapters are reported at the end of each chapter, but are summarized as follows.

5. Recommended that Caltrans continue full participation in the San Ysidro-based Border Transportation Council, and if found warranted, consider fostering a similar organization at Calexico (Chapter 5).
6. Recommended that new and updated POE designs on both sides of the border be coordinated to best serve the disabled (Chapter 6).
7. Recommended that design of State Route 905 accommodate possible future cross-border airport facility (Chapter 7).
8. Recommended that the scope of the Caltrans ground access to airport study be amended to include the Tijuana International Airport (Chapter 7).
9. Recommended that Caltrans defer to U.S. Customs and the California Highway Patrol regarding implementation of federal legislation amending the Clean Air Act (Chapter 8).
10. Recommended that Caltrans actively monitor the deliberations of the Border Air Quality Alliance and become an active participant in their actions that involve land transportation (Chapter 8).
11. Recommended that Caltrans consider border inspection facilities as part of the operating highway system (Chapter 9).
12. Recommended that Caltrans reach an agreement with the federal General Services Administration (GSA) on integration of projects as they address border transportation issues (Chapter 9).

13. Recommended that Caltrans and GSA establish nonspecific guidelines/principles to serve as a framework for project financial responsibilities (Chapter 9).
14. Recommended that, after resolution of recommendations 11 and 12, that Caltrans discuss possible legislation with appropriate officials to allow joint GSA-Caltrans projects (Chapter 9).
15. Recommended that Caltrans continue to track legislation related to southbound inspection requirements and respond accordingly (Chapter 10).
16. Recommended that Caltrans and the San Diego Association of Governments (SANDAG), act as a catalyst for entities attempting to promote experimental or prototypical cross-border facilities, where transportation efficiencies are evident or where there are air quality benefits (Chapter 11).
17. Recommended that Caltrans, SANDAG, and the Southern California Association of Governments (SCAG) join in petitioning the U.S. Department of State and the International Boundary and Water Commission to establish an expedited process for approving prototypical cross-border facilities (Chapter 11).

Note: specific process-oriented analysis and recommendations pertaining to this subject are contained in Appendix E.

18. Recommended that Caltrans include pipeline and conveyor technology in the planning process (Chapter 11).
19. Recommended that Caltrans, SANDAG, and SCAG join with appropriate federal agencies to explore, via a feasibility study, the concept of a common-carrier pipeline/conveyor facility to provide a minimum number of crossings for a maximum number of commodities (Chapter 11).
20. Recommended that Caltrans, SANDAG, and SCAG act as a catalyst in arguing that the cross-border permit-approval process focus on the most efficient modal choice for commodity movement, rather than limiting these choices because of traditional inspection protocols (Chapter 11).

STUDY PROCESS

Task 1 of this study was to determine the status of land transportation conditions along the California Border Zone (CBZ) and produce an interim report covering this Task.

Task 2 was to determine the status of current issues identified in the IISTPS study, *Impact of the North American Free Trade Agreement on Transportation*

in the Border Areas of the United States with Emphasis on the California-Mexico Border, and new policy-oriented issues resulting from recent action. A second interim report identifying resulting key issues was submitted.

Task 3 was to determine issue-resolution alternatives. During this stage, the issues previously identified were reevaluated, modified, and consolidated, resulting in seven issues to be carried forward as follows: (1) public transportation at the border; (2) cross-border ADA interface; (3) California highway access to Tijuana International Airport; (4) Clean Air Act compliance; (5) GSA off-site authority; (6) southbound inspection requirements; and (7) pipelines or other stationary facilities. A third and final interim report was produced covering this task.

Task 4 consisted of preparing work plans for the resolution of these seven issues. At this stage, a meeting was held with the District 11 Director and staff to verify the findings and intentions for study completion.

Task 5 was the creation of this report, including an updated bibliography covering key documents pertinent to the study, and identification of the key observations and recommendations from the study.

Note: This study presents the status of the various CBZ topics as of midyear 2000. Border activities are so dynamic that several of the recommendations have already been implemented at the time of publication of this study.

1. STUDY ORIGIN

U.S.-MEXICO BORDER-AREA LAND TRANSPORTATION

This is the Phase II of a study of the impacts of the North American Free Trade Agreement (NAFTA) of 1992 on the border-area transportation infrastructure. A thumbnail history of the development of the transportation facilities along the U.S.-Mexico border is presented in the Phase I report of the study as follows:

The settlement of the U.S.-Mexico war by the Treaty of Guadalupe Hidalgo in 1848 created a boundary with Mexico that, with the exception of the 1854 Gadsden Purchase to expand Arizona and New Mexico, has adequately served both nations' interests. The original legally established border-access points have multiplied slowly over the years. Although there were border violation problems, mostly related to political turmoil, the commercial demands for ports of entry (POEs) into the U.S. from Mexico were not a major factor until the latter half of the twentieth century. Trade and tourism with Mexico began robust growth in the 1960s. This growth began to change the needs for POEs, especially in Texas and California. In California, for instance, the growth led to studies on relieving congestion at the major POE of San Ysidro south of San Diego. These studies ultimately resulted in the opening of the Otay Mesa POE about seven miles east of San Ysidro in 1984.

Meanwhile, restrictions to free trade between the U.S. and Mexico were being liberalized. In 1966, two Mexican cabinet officials agreed to relax Mexico's strict foreign investment requirements as well as to liberalize certain customs and immigration laws. In 1971 this agreement was formalized into Mexican law as the Border Industrialization Program. These changes led to the *maquiladoras* industry, whereby materials imported into Mexico from the United States are assembled or manufactured in Mexico for export back to the United States with custom fees charged only on the increased product value. Mexican trade growth accelerated even further with the Mexican acceptance of the General Agreement on Tariffs and Trade (GATT) in 1986. U.S. exports to the *maquiladora* in Mexico, as a percentage of total exports, grew from 12 percent in 1980 to 41 percent in 1992. In the same period *maquiladora* imports to the United States grew from 20 percent to 52 percent of the import trade.¹ *Maquiladora* trade has grown even more since the signing of the North

¹ United States Federal Highway Administration, *Assessment of Border Crossings and Transportation Corridors for North American Trade, Report to Congress* ([Washington, D.C.]: FHWA, 1994), 31.

American Free Trade Agreement (NAFTA) by Canada, the United States, and Mexico on December 17, 1992.

Even prior to NAFTA, the growth of the *maquiladora* industries and tourism, especially in the last decade, had already exposed problems in the existing border transportation systems. However, most of the increased traffic from the *maquiladoras* was associated with goods that had to be inspected at the border. Accommodating tourists was not considered as important. The need for increasing capacity, providing for equipment inspections, and improving inspection and processing procedures were, therefore, not deemed a major concern. The picture changed rapidly with the passage of NAFTA. In retrospect, the normal pre-NAFTA growth of trade and tourism would have called for a reassessment of existing facilities, albeit at a more leisurely pace.

NAFTA, with its liberalization of trade regulation and the growth of the *maquiladoras* and tourism, overtaxed the transportation infrastructure along the U.S.-Mexico border at many locations. Problems of adequate vehicle inspections, crossing delays caused by traffic congestion, automobile pollution, and out-of-direction travel became major concerns.

In the late 1980s and early 1990s, with the growing discussions of a possible NAFTA, the transportation agencies of the U.S.-Mexico border states began to reassess the needs for transportation infrastructure. Because passage of NAFTA was uncertain, these studies moved slowly until the actual signing in late 1992. However, transportation planning during this period was furthered by the provisions of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, specifically by the requirements of sections 1089 and 6015, which called for an assessment of transportation infrastructure at the border. The resulting 1994 Federal Highway Administration (FHWA) study,² as presented to Congress, pointed out the need for improved POE performance and access. Increased NAFTA-induced trade and continued growth of tourism and border-area population have attributed largely to the *maquiladora* industry and exacerbated the need for transportation service improvements. If this is not adequately addressed, transportation experts in both the public and private sectors agree that the lack of adequate surface transportation infrastructure along the U.S.-Mexico border will inhibit the continued trade growth between the two countries and, therefore, their economic well-being.

The implementation of border transportation facilities, especially binational facilities, is a long and complicated process that can easily consume ten years between identified need and project completion. This manifests the need for

² Ibid.

early future needs identification to allow implementation of desired infrastructure in a timely manner.³

BACKGROUND OF THIS STUDY

Phase I of this study was completed and documented in August 1999 in the previously referenced IISTPS publication, *Impacts of the North American Free Trade Agreement on Transportation in the Border Areas of the United States with Emphasis on the California-Mexico Border*. This initial phase focused on the identification of the major transportation issues in the border area and concentrated on those that could be implemented by the California Department of Transportation (Caltrans) over a short term time frame (one to five years). Fifty-three issues were identified. Each of these issues was then assigned to one of the following categories:

1. Issues not appropriate for further consideration in the Phase I report.
2. Issues recommended for action at a later date.
3. Issues addressed by others.
4. Issues recommended for implementation in the near future.

The issues that were assigned to Category 4 above were then considered in detail and recommendations were made to address their resolution.

PURPOSE OF THIS PHASE II STUDY

In several instances, because of new legislation, rapid growth of border trade, and other factors, it soon became evident that further identification of issues, and recommendations for addressing them, was needed. This Phase II study fulfills that need by identifying key unaddressed policy-oriented land transportation issues that affect the California–Baja California border, and formulating recommendations for action.

SCOPE

The research prospectus for the Phase II study calls for the following five tasks:

³ George E. Gray, *Impacts of the North American Free Trade Agreement on Transportation in the Border Areas of the United States with Emphasis on the California-Mexico Border* (San José, Calif.: IISTPS, August 1999), 7–8.

Task 1—Determine the Status of Land Transportation Conditions

Determine status of land transportation conditions within or affecting the California Border Zone (CBZ) covering, as a minimum, the existing systems, funded improvements, and proposed projects. Create an interim report.⁴

Task 2—Determine the Issues

Determine the status of land transportation issues presented in the previously published Phase I of this study, *Impacts of the North American Free Trade Agreement on Transportation in the Border Areas of the United States with Emphasis on the California-Mexico Border*, and identify new policy-oriented issues resulting from federal and state legislation as well as other recent actions. Create an interim report identifying resulting key issues.⁵

Task 3—Determine the Resolution Alternatives

Determine alternative approaches for issue resolution of, as a minimum, five of the key issues as identified by the Caltrans District 11 Director from the Task two finding of this study. Create an interim report presenting alternative approaches for issue resolution of key issues.⁶

Task 4—Prepare a Work Plan for the Resolution of Issues

Prepare a work plan for resolution of issues based on agreed upon alternative(s) as determined by the Caltrans District 11 Director.

Task 5—Create Report Drafts and a Final Report

Create a report in draft and final form, including updated bibliography, covering key documents pertinent to this study. Create a report for comment by MTI peer-review process and designated Caltrans staff.

Of the tasks listed above, the three required interim reports have been completed and transmitted to Caltrans. The Task 2 interim report identified 11 issues for further study as part of Task 3. The Task 3 interim report reduced these issues to 7 elements each of which would possibly generate more than one issue. The seven elements were as follows:

1. Public transportation at the border;

⁴ George E. Gray and Norman Kelley, "NAFTA II: California Border Zone Land Transportation Issues. Task One: Determine Status of Land Transportation Conditions" (submitted to IISTPS 15 October 1999).

⁵ George E. Gray and Norman Kelley, "NAFTA II: California Border Zone Land Transportation Issues. Task Two: Determine Issues" (submitted to IISTPS 31 October 1999).

⁶ George E. Gray and Norman Kelley, "NAFTA II: California Border Zone Land Transportation Issues. Task Three: Determine Resolution Alternatives" (submitted to IISTPS 6 March 2000).

2. Cross-border U.S.-Mexico interface regarding compliance with Americans with Disabilities Act (ADA);
3. California state highway access to the Tijuana International Airport,
4. Air quality infrastructure;
5. Limits of federal General Service Administration authority to make off-site infrastructure improvements;
6. Southbound inspection requirements; and
7. The potential role of pipelines, conveyors, and other stationary facilities in moving goods across the California–Baja California border;

METHODOLOGY

In general, the methodology used for the study of each topic, issue, or element is as follows:

1. Review existing available information;
2. Determine needs;
3. Determine current status;
4. Consult with others;
5. Develop discussion; and
6. Formulate recommendations

A more detailed methodology used for each of the seven elements is presented in subsequent chapters.

STUDY TEAM

The study team was composed of George Gray, Principal Investigator and Research Associate, and Norman Kelley, Research Associate. Their efforts were supported by Larry Gamino, Student Assistant, San José State University, and MTI staff.

2. CURRENT CONDITIONS

EXISTING SYSTEMS

The initial Phase I report of August 1999, supplemented by the updated Task 1 interim report of this study, provides the following background information on the status of land transportation in the California–Baja California area:

Highways

An excellent summary of the status of the existing highway system in San Diego County is contained in the San Diego Association of Governments (SANDAG) Background Paper of 29 July 1999¹ as follows:

Efficient highways and land ports of entry are critical because they carry the cargo from the manufacturing (*maquiladora* or *maquila*) industries in Baja California and their twin plants in the San Diego region. More than 95 percent if this is a direct quote from the SANDAG paper, then leave it as is of all freight between Tijuana and San Diego is carried by truck.

In Baja California, Federal Highway 2 connects the major urban areas of Tijuana, Tecate, and Mexicali along the border and to the mainland of Mexico. Federal Highway 1, along the coast, links Tijuana with Playas de Rosarito, Ensenada, San Quintin, and the communities at the southern tip of the Baja California peninsula. In addition to agricultural and fish products, goods from the *maquilas*, most of which are located near the border, are carried in trucks on these highways. Increased tourism to the coastal areas of the state adds also to traffic on the local highways.

The San Diego border is served by three north-south highways, I-5, I-805, and I-15, and by I-8 to the east. State Route 905 (SR-905), when completed, will connect the Otay Mesa port to these interstates. Most truck traffic within the binational region travels on these freeways. SR 94 connects the Tecate port with San Diego to the west and I-8 to the east.

In Imperial County, the backbone highway system consists of I-8 serving east-west moves and Routes 7, 78/86, and 111 serving north-south traffic.

Maps of the Intermodal Corridors of Economic Significance as established by state legislation to emphasize the corridors that are most essential to the California economy in terms of national and international trade are included as figures 2-1 and 2-2 of this report.

¹San Diego Association of Governments, Committee on Binational Regional Opportunities, “Energy, Transportation and Trade: Linking Binational Opportunitites [sic] in the San Diego–Baja California Region” (background paper for the committee’s third annual binational summer conference held 29 July 1999), 8.

EXHIBIT 2-1
DISTRICT 11 - SAN DIEGO COUNTY
INTERMODAL CORRIDORS OF ECONOMIC IMPORTANCE



LEGEND

- State Highway
- ICES Corridor - Constructed Highway
- ICES Corridor - Unconstructed Highway
- Railline

The map displays the proposed ICES Corridor (Intermodal Corridor for the Imperial County Expressway) through District 11. The corridor is shown as a thick grey line, with the section between Westmorland and Holtville labeled as 'ICES Corridor - Constructed Highway' and the section between Holtville and Calexico labeled as 'ICES Corridor - Unconstructed Highway'. The map includes major roads such as State Highways 86, 78, 111, 115, 8, 98, and 186. It also shows the Salton Sea to the north, the Imperial River to the east, and the border with Mexico to the south. Key locations marked include Westmorland, Calipatria, Brawley, Imperial, El Centro, Holtville, Calexico, and Mexicali. A legend in the top right corner defines the symbols for State Highway, ICES Corridor (Constructed and Unconstructed), and Railline. A north arrow is located in the top right corner. The map is dated January 1997 and is not to scale.

With the exception of the state highway service to the Otay Mesa POE, the existing highway network focusing on the California–Baja California border is on a par with the rest of the state system. With the accelerated traffic growth due to both the increased trade resulting largely from NAFTA, and the increased auto traffic resulting from the economic health, robust tourism and growing populations on each side of the border, the already often congested border-serving highways will need continued improvements to assure they provide an adequate level of service.

The major deficiencies of the existing state highway system are as follows:

Service to East Imperial County

The existing POE at Andrade on State Route 186 is near the center of the border-hugging Mexican town of Algodones, which causes traffic problems within that rapidly growing town. However, the California State Highway infrastructure at this location is adequate.

Service to Calexico POE Complex

The existing Calexico West POE is located in the downtown area of the twin cities of Calexico and Mexicali, which greatly complicates the level of service provided. To exacerbate conditions at this site, the Southern Pacific/Union Pacific railroad connection to Mexico shares the site. Although this rail service is presently at a low level, there is potential for considerable future growth, which would greatly increase street congestion. The recently opened Calexico East POE has removed the commercial traffic from the West POE and greatly relieved the traffic problems at that site. However, highway service to the East POE is somewhat hampered by the present termination of constructed State Route 7 at State Route 94. The extension of Route 7 to I-8 is funded and the final alignment is being determined.

Service in Eastern San Diego County

At present the existing POE at Tecate is served by State Routes 94 and 188, both two-lane facilities through mountainous terrain. Caltrans District 11 and SANDAG are involved in a comprehensive study of the needs to improve highway service in this east San Diego County area, including a possible highway connection between I-8 and Mexico Route 2 in the vicinity of Jacumba.

Service to Otay Mesa

This is a rapidly growing area in the southeast portion of the City of San Diego and the southern portion of the County of San Diego. There are now an estimated one thousand companies with fifteen thousand employees on the mesa.² The present transportation facilities are inadequate. This inadequacy is being addressed. The interim improvements resulting from the City of San

Diego's project on Otay Mesa Road provide improved safety and service, but do not provide long-term relief. However, the construction of the rest of State Route 905, which is largely funded, and the construction by the private sector of the Route 125 toll road, which has recently obtained final environmental approval, will provide greatly improved access to this area. Nevertheless, even with these improvements and the recently opened routing of commercial traffic directly from the POE to the California Highway Patrol inspection facility, commercial traffic routing over city streets continues to be a problem.

Service to San Ysidro POE

The major problems at this POE are traffic delays at the border resulting from a multitude of causes, including inspection procedures, continually increasing traffic, lack of inspection personnel, access road inadequacies, the uncertainties of outbound inspection requirements, and the possible shifting of some of the pedestrian border crossing traffic to near Virginia Street.

Fast-Track Service

In 1995 an automobile commuter lane was created for frequent border-crossers at the Otay Mesa POE as a test of the concept. The system offers expedited service for prequalified users who pay for the privilege. It employs use of transponders and a port pass-card. As of April 2000, 3,000 drivers representing eight percent of the total of those who cross at Otay Mesa are in the system. Immigration officials say the "commuter lanes don't sacrifice security for speed."³

This priority method is being implemented at the San Ysidro POE, where it is estimated that twelve thousand will join the system. The Immigration and Naturalization Service proposes to add three more such facilities along the U.S.-Mexico border, one of which would be at Calexico.

Public Transportation

In general, present public transportation services at the California-Baja California border are a hodgepodge. Private-sector bus, van, and taxi services provide for the needs of some sectors of the market, and publicly owned service exists for the major demand (e.g., San Diego and Tijuana light rail transit – the "Tijuana Trolley"). On the other hand, some important markets (e.g., access to and from Lindbergh Field and Tijuana International Airport and between the two airports) have been largely ignored and social service public

² Mark Arner, "Trolley Board Seeks Otay Mesa Right of Way," *San Diego Union-Tribune* (17 April 2000).

³ Marisa Taylor, "Border Crossing on a Fast Track," *San Diego Union-Tribune* (22 April 2000).

transportation needs (e.g., for the elderly and handicapped) are in short supply in rural areas.

San Diego County metropolitan areas are well covered by a broad variety of public and private services, whereas the more rural areas tend towards minimal lifeline type service operated through the county Department of Public Works.

In Imperial County, a basic fixed-route system operated by the county provides service, with the frequency varying according to population density. Some of the more rural areas have only weekly lifeline fixed-route service. However, there are also Med-Express and American with Disabilities Act (ADA) minibus services available. Also, in the four main cities of Brawley, Calexico, El Centro, and Imperial, local contractors provide Dial-A-Ride service. The county is currently engaged in a reassessment of their public transportation services.

Intercity private carriers operate in both counties, with their main focus being the Los Angeles area market. Intercity and commute rail serves the San Diego–Los Angeles corridor, but, considering the rail mode for passenger service to the border in California, the only operating system is the LRT, Tijuana Trolley.

Goods Movement

The movement of goods across the California–Baja California border is dominated by trucking. It is estimated that about two million annual truck crossings between the two states will occur for the year 2000.⁴ These trucks will carry about 95 percent of the tonnage exchanged between the two governments along this portion of the border. However, there are strong indications that the trucking segment of commerce between California and Baja California will face some significant problems in the next decade. These are briefly discussed as follows.

Air Quality

For 50 years, California has been a global trend setter in developing programs for improving air quality. The results have been significant, as reported by the Environmental Protection Agency (EPA), “air pollution concentrations declined dramatically over the last 30 years: 99 percent for lead, 72 percent for sulfur dioxide, 66 percent for carbon monoxide and 42 percent for nitrogen dioxide. Ozone, the key ingredient of smog, was cut by 52 percent region-wide and even more in Southern California (70 percent on the South Coast and 66 percent in San Diego).”⁵ This is a monumental accomplishment, especially since all “of these results occurred despite enormous growth rates, when

⁴ California Department of Transportation, District 11, *California Border Briefing* (San Diego, Calif.: Caltrans, July 1999).

population grew nationally by 27 percent, the economy grew by 90 percent and vehicle miles travelled jumped by 111 percent.”⁶ And yet, the quest for cleaner skies is not over. The 100-kilometer-wide border CBZ, especially near the border with the development of Otay Mesa, Tijuana, and San Ysidro, faces robust population growth, spreading metropolitan areas, and dependence on automobiles.

An area of potential improvement that may involve Caltrans is the reduction of air pollution resulting from diesel engines commonly used in heavy-duty diesel trucks. For instance, although heavy-duty diesel trucks (the type dominating cross-border trucking) are estimated to constitute only about 3 percent of the total number of vehicles on the state’s roads, they account for 60 to 70 percent of the particulate matter created from vehicle exhaust, and up to 30 percent of the total amount of oxides of nitrogen, which is a building block for ozone formation.⁷

These conditions are causing concern at both the federal and local levels. For instance, the South Coast Air Quality Management District (SCAQMD), which covers most of Southern California is already considering a rule covering clean on-road vehicles for government and airport operations, a possible first step in pressuring against heavy-duty diesel trucks.⁸ At the federal level, the EPA announced on 16 May 2000, a proposal tightening rules on pollution from trucks and buses. The EPA proposal includes new fuel and emission standards to be phased in over the next 10 years. The intent is to reduce pollutants from heavy trucks and buses by nearly 95 percent.⁹ Because of the large number of hours of idling diesel trucks at the two commercial POEs along the California–Baja California border, air quality improvement efforts at these POEs in the near future appear likely.

Fuel Costs

The increased cost of fuel for trucking may cause some border-area shippers to shift to rail. However, because of the types of cargoes and the lack of adequate

⁵ Leo Kay and others, *Remember the Past, Protect the Future: EPA 1999 Annual Report* (San Francisco, Calif.: EPA Pacific Southwest, 2000), 7.

⁶ Ibid.

⁷ Kiley Russell, “Natural Gas Refueling Station for Heavy Trucks Opens,” *San Diego Union-Tribune* (10 February 2000).

⁸ South Coast Air Quality Management District, “Preliminary Draft Report: Proposed Rule 1190” (December 1999).

⁹ H. Josef Hebert, “Tighter Rules on Pollution Proposed for Trucks, Buses,” *San Diego Union-Tribune* (18 May 2000).

rail service between California and Baja California, this is not a significant factor at the California POEs.

Congestion

Increasing highway congestion, especially between the border and the Los Angeles/Riverside areas, coupled with the other factors such as fuel costs and pressures toward air pollution improvements may, make increased use of local air freight attractive. Proposed improvement to air cargo service at San Diego's Brown Field and the recently privatized Tijuana International Airport may accelerate this shift.

Safety

It is becoming increasingly evident, especially with growing state highway congestion, that the mix between trucks and autos is exacerbating safety-related issues. There is already some thought of future increased separation of the two types of vehicles.

U.S./Mexico Truck Travel Restrictions

Since NAFTA's passage in 1992, trucking has been a contentious issue. NAFTA called for U.S. and Mexican trucking to have access to each other's border states' markets by December 1995, and full national access by 2000. But the U.S., followed by Mexico, has not allowed this to occur. Citing safety concerns, the U.S. has restricted Mexican trucking to a specified commercial zone. Until 28 March 2000, Mexican truckers were able to circumvent this restriction by forming lease agreements with U.S. carriers.¹⁰ The recent Motor Carrier Safety Improvement Act of 1999 closed this loophole and established the Federal Motor Carrier Administration.¹¹ This change in law is expected to increase cost to move a container between, for example, Otay Mesa and the Los Angeles area, by \$100.¹²

The implementation of proposed improvements to Brown Field, Tijuana International Airport, and the existing border-area rail service is in such disarray that, at present, it is not practical to report more deeply on their status under this topic. The possible implementation of other alternatives to truck carrier cross-border hauling is addressed in Chapter 11.

Airports and Seaports

State highway access to the major air- and seaports within the California BZ are presently largely wanting improvement. Moreover, the legislative intent for

¹⁰ Diane Lindquist, "U.S. Travel Restrictions Slam Brakes on Mexican Truckers," *San Diego Union-Tribune* (28 March 2000).

¹¹ *Motor Carrier Safety Improvement Act of 1999*, 106TH Cong., 1st sess., H.R. 3419.

¹² Lindquist, "Travel Restrictions."

such facilities is not clear and the state's position on such facilities is not consistent statewide.

Discussions on the replacement (or augmentation) of Lindbergh Field are ongoing. Present street congestion leading to this facility is a problem that continues to hinder user growth. A similar city street congestion problem is a detriment to increased use of the seaport of San Diego for goods movement. Lindbergh Field and the Port of San Diego are both under the jurisdiction of the San Diego Port District.

The previously cited SANDAG report states:

The border region's trade-related infrastructure with regard to seaports and rail links depends heavily upon the actions of the Ports of San Diego and Ensenada. At present, more than three-fourths of the vessel cargo shipped to and from the San Diego–Baja California region travels through the Los Angeles and Long Beach Ports, north of San Diego. Transport of goods between the Los Angeles region and San Diego adds at least one day to the shipping time, as well as the extra financial costs of the transportation.¹³

In order to better compete with other West Coast ports, both the San Diego and Ensenada Port Districts recognize the need to provide additional container facilities, reopen the San Diego and Arizona Eastern (SD&AE) railway, and strengthen their links to the SD&AE.¹⁴

Air cargo services at San Diego are presently in an incubation stage, with significant volumes going north by truck where they are accommodated at the Los Angeles area airports. This surface transport to/from the Los Angeles air facilities adds to the highway congestion on both I-5 and I-15.

Railroads

The publicly owned SD&AE railway now provides rail service from the border to San Diego where it connects to the Burlington Northern–Santa Fe line to Fullerton and the Los Angeles area. The line crosses the border at San Ysidro and continues easterly through Tijuana to east of Tecate, Mexico, where it again crosses the border west of Jacumba, California. At present, this line is truncated because of tunnel and bridge damage east of Jacumba. When brought back into service, it will connect at its eastern end with the Union Pacific line at Plaster City in Imperial County. Thus, an alternative to routing rail traffic through the Los Angeles/Riverside area would be reestablished.

¹³ SANDAG, 10.

¹⁴ Ibid, 11.

The operator of the freight service on the SD&AE, RailTex, has recently been absorbed into Rail America, one of the world's largest operators of short-line railroads. This may ultimately effect the development of freight service over the SD&AE.

In Imperial County, the main line of the Union Pacific from Los Angeles to Texas bisects the Imperial Valley. A spur of that main line serves connections to the Mexican rail system at Calexico/Mexicali, and to the SD&AE at Plaster City.

Privatization of Mexican railroads is not yet complete, so the status of existing services on the Mexican portion of the SD&AE, as well as the Mexican service between Mexicali and Benjamin Hill is, at present, unsettled.

Ports of Entry

The facilities at the major U.S. commercial POEs within California are of recent origin. However, their design was based on pre-NAFTA growth estimates; and, especially at Otay Mesa, they are undergoing robust increased operations. Their expansion may soon be desirable.

An overview of the operations of U.S. POEs is found in the recent GAO report, *U.S.-Mexico Border: Better Planning, Coordination Needed to Handle Growing Commercial Traffic*. This report briefly describes POE activities for trucking as follows:

Processing commercial trucks from Mexico into the United States involves various steps and requirements. These steps will vary from port to port depending upon size, location, amount of traffic handled, type of cargo, and port layout. Before shipments enter the United States from Mexico, Mexican customs brokers prepare documents and pay duties. The trucks must then go through Mexican Customs, where their documentation is checked. If the truck will be entering Texas, and thus passing over the Rio Grande River, the driver in most cases must pay a bridge toll before entering the United States. U.S. customs brokers also prepare paperwork for a truck to bring merchandise into the United States. When a truck proceeds into the United States, it must go to the primary booth (or directly to the inspection dock at some small ports of entry) at the U.S. port of entry, where Customs inspectors review documentation regarding the exporter, importer, and goods being transported. If the truck's documentation is in order and no further inspections are required, the truck is allowed to pass through the port. Depending on the port of entry, goods imported, or law enforcement requirements, Customs may direct the truck to secondary inspections.¹⁵

Recent heightened interest in realigning the southbound lanes of I-5 and I-805 at the San Ysidro POE in order to accommodate improved traffic flows within Tijuana and provide for inspection of vehicular traffic leaving the U.S., as well as to allow space for more northbound inspection facilities, has caused the General Services Administration (GSA) to propose expansion of this POE.

As of 17 May 2000, the GSA is considering three alternatives: (1) moving the southbound I-5 and I-805 lanes westerly to a new outbound inspection facility just east of Virginia Avenue; (2) keeping the present southbound I-5 alignment to about the Camino de Plaza overcrossing, then curving it west with about a 300-to-400-foot curve to a new outbound facility generally parallel to the border with traffic, then directed south to a border crossing just east of Virginia Avenue; and (3) null or no-build. Both of the build alternatives present problems, but the second proposal appears to offer superior overall service. The concept for this alternative is shown on Figure 2-3 (found in Appendix F), labeled “North/Southbound Pair Alternative 2.”

The GSA proposes to have a final draft environmental impact statement (EIS) proposal by late summer, with an October public meeting on the preferred alternative, and a final environmental document in early 2001.

Special Facilities

At this time there are a limited number of special facilities that provide services across the U.S.-Mexico border, but the near- and long-term growth of water, sewer, pipeline, and electric services is expected to be substantial. The special services as considered in this study, include only features that handle materials and serve as a substitute for either existing or proposed highway traffic. Thus, gas and petroleum pipelines, electric service, water conveyance, and such, are not included in this study.

FEDERAL BORDER CONCERNS

The President’s Interagency Task Force

On 25 May 1999, the President of the United States established by Executive Order 13122, an Interagency Task Force on the Economic Development of the Southwest Border reporting to the Vice President, as Chair of the President’s Community Empowerment Board (PCEB), and to the Assistant to the President for Economic Policy, as Vice-Chair of the PCEB. This Task force not only includes the secretaries of all the federal departments, with major involvement in the southwest border, but also various other senior federal

¹⁵ United States General Accounting Office, *U.S.-Mexico Border: Better Planning, Coordination Needed to Handle Growing Commercial Traffic* (Washington, D.C.: GAO, March 2000), 6.

agencies. It is co-chaired by the Secretaries of the Treasury, Agriculture, and Labor Departments, who rotate annually. The executive order defines the purpose of the task force as follows:

(c) The purpose of the task force is to coordinate and better leverage existing Administration efforts for the Southwest Border, in concert with locally led efforts, in order to increase the living standards and the overall economic profile of the Southwest Border so that it may achieve the average of the Nation. Specifically, the Task Force shall:

(1) Analyze the existing programs and policies of task force members that relate to the Southwest Border to determine what changes, modifications, and innovations should be considered;

(2) Consider statistical and data analysis, research, and policy studies related to the Southwest Border;

(3) Develop and recommend short-term and long-term options for promoting sustainable economic development;

(4) Consult and coordinate activities with state, tribal, and local governments, community leaders, Members of Congress, the private sector, and other interested parties, paying particular attention to maintaining existing authorities of the States, tribes, and local governments, and preserving their existing working relationships with other agencies, organizations, or individuals;

(5) Coordinate and collaborate on research and demonstration priorities of Task Force member agencies related to the Southwest Border;

(6) Integrate Administration initiatives and programs into the design of sustainable economic development actions for the Southwest Border; and

(7) Focus initial efforts on pilot communities for implementing a coordinated and expedited Federal response to local economic development and other needs.¹⁶

The first report of this Task Force was issued 15 November 1999, as required by the executive order. Several aspects of this document, even as an interim report, are disturbing. The executive order defines the southwest border region “as including the areas up to 150 miles north of the United States–Mexican border in the States of Arizona, New Mexico, Texas, and California.”¹⁷ This definition, in California, causes problems of scale and applicable data as the

¹⁶ President, Executive Order 13122, “Interagency Task Force on the Economic Development of the Southwest Border,” *Federal Register* 64, no. 103 (26 May 1999), 29201-02, Internet.

150 miles includes most of the heavily populated portions of Los Angeles, Ventura, and San Bernardino Counties as well as all of Orange, Riverside, Imperial, and San Diego Counties. The task force interim report states that the border region U.S. population is 12.3 million. This is understated. California's population within 150 miles of the subject border is about 20 million. Thus, over half of California's population is included, although many of these citizens have little to do with border issues or conditions. It is unfortunate that the 150-mile limit was used rather than the one hundred kilometers for the CBZ as specified by the La Paz agreement. This evidently was a political ploy with the purpose of including a large number of counties in Texas in the program.

This task force interim report in Chapter 13, "Reinforcing Infrastructure in Rural Communities" presents information on improving roads, border crossings, and cross-border transportation networks. This section of the report is of sufficient import that a portion is presented here:

Improving Roads, Border Crossings and Cross-Border Transportation Networks

The Department of Transportation (DOT) is currently engaged in a number of activities that support the goals and objectives of the Task Force on the Economic Development of the Southwest Border. Several of DOT's Operating Administrations manage funding programs that support the planning, development, operation and maintenance of transportation infrastructure in the Southwest Border region. These programs support the improvement of transportation service that is essential for economic growth and development in the region. These transportation facilities (including highways and airports) attract industry to the region and provide jobs for the local population.

Without adequate transportation services industry will have one less incentive to locate in the border region and the region's ability to compete with other areas of the country and with other countries will decline. Sustained and vigorous economic and community development in the Southwest Border region requires the maintenance and improvement of transportation infrastructure based on effective coordination among state and local governments in the border region and the private sector. The DOT is engaged in a number of joint cooperative activities with the Mexican government that are designed to improve transportation services across the border, to eliminate existing impediments to the safe, smooth and efficient flow of goods and

¹⁷ *Interim Report of the President's Interagency Task Force on the Economic Development of the Southwest Border* (Washington, D.C.: the Taskforce, 15 November 1999), x.

people, and to encourage cooperation in the planning of transportation improvements that will benefit the entire economy of the U.S. border region and comparable areas in Mexico.ⁱ

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Transportation Equity Act for the 21st Century of 1998 (TEA-21) are the primary pieces of authorizing legislation for DOT's surface transportation programs, which provide grants and other funds for use by states and local governments for highway and transit capital investment, planning and related purposes. TEA-21 authorizes a spending level of \$198 billion over six years. States and local communities in the Southwest Border region will be recipients of a significant portion of those funds. This legislation also established the *National Corridor Planning and Development Program* and *Coordinated Border Infrastructure Program*. Both programs provide grants to states and localities in the Southwest Border region for the improvement of people and goods movement across the border between the U.S. and Mexico. Also, the Administration created the *U.S.-Mexico Joint Working Committee* in 1994 to strengthen the planning of cross-border transportation improvements. The following are brief descriptions of the major programs funded for highway and transit facilities as authorized by TEA-21:

- *National Corridor Planning and Border Infrastructure Programs (sec. 1118 and sec. 1119 TEA-21)*. In recognition of the importance of border infrastructure and the corridors used for international trade and scarce resources, Congress established the National Corridor Planning and Development (NCPD) and the Coordinated Border Infrastructure (CBI) programs (sections 1118 & 1119 of TEA-21). The purpose of the NCPD program is to provide allocations to states and metropolitan area planning organizations for coordinated planning, design, and construction of corridors of national significance, economic growth, and international and interregional trade. The purpose of the CBI program is to improve the safe movement of people and goods across the border between the United States and Canada as well as across the border between the United States and Mexico. These two programs are funded from a single source. The combined authorized funding is \$140 million in each year from FY1999 to 2003 (\$700 million total). Because of obligation limitations, \$123.6 million was available for allocation in FY1999.
- *Motor Carrier Safety Assistance Program (section 4003 TEA-21)*. The Department of Transportation is strengthening partnerships with border states in enforcement activities. TEA-21 provides for a 5 percent takedown from the Motor Carrier Safety Assistance Program for border enforcement activities (\$25 million from FY1999 through FY2003). In FY1999, \$4.5

million was made available for this purpose. Border states use the funds to hire safety inspectors and purchase equipment among other things. Since 1995, DOT has provided the Southwest Border states with over \$10 million in additional grants. The Department has also hired an additional 27 Federal inspectors for the ports of entry in Texas. This will supplement existing Department staff of 13 and will complement enforcement programs in the four border states.

- *Highway Construction Programs.* The following programs provide funds to states for the construction, rehabilitation, planning and maintenance (Interstate System only) of highways and bridges:
 - National Highway System. Authorizes the allocation of funds to individual states for use on highways and bridges in the National Highway System. Authorization levels are approximately \$4.8 billion yearly from 1997 through 2003.
 - Interstate Maintenance Program. Provides funding to the states by formula for resurfacing, restoring, rehabilitating and reconstructing routes on the Interstate Highway System. Funding is approximately \$4 billion per year for the period 1997–2003.
 - Surface Transportation Programs (STP). Provide flexible funding for use by states and localities for projects on any Federal-aid highway, transit projects and intercity and intra-city bus terminals and facilities. Some funds are reserved for rural areas. Funding is approximately \$5.5 billion yearly for the period 1997–2003.
 - Bridge Replacement and Rehabilitation. Provides funds to states for the replacement or rehabilitation of deficient bridges. Funding is approximately \$3.5 billion yearly for the period 1997–2003.

U.S.-Mexico Cooperative Programs. On April 29, 1994, Secretary of Transportation Federico Peña signed a Memorandum of Understanding that established the U.S.-Mexico Joint Working Committee on Transportation Planning (JWC) to establish a coordinated binational planning process for border transportation activities. The members of the JWC include representatives from the U.S. Federal Highway Administration, the Mexican Secretariat of Communications and Transportation (SCT), the U.S. Department of State, the Mexican Secretariat of Foreign Relations, the four U.S. border state Departments of Transportation, and the six Mexican border states.ⁱⁱ The role of the JWC is as follows:

- To facilitate communication among the groups responsible for border transportation planning within the state, local and Federal governments in Mexico and the United States.
- To serve as a forum for coordination of border transportation planning and programming activities while respecting differing transportation planning processes and requirements in both countries.
- To be available as a forum for discussing other binational border area transportation issues.

In early 1995, the JWC initiated a binational transportation planning study to establish the framework for binational planning and coordination. This \$2.5 million study was jointly funded by the U.S. border states and the SCT. The study was completed in 1998, and the final reports were approved at the JWC meeting held in Washington, D.C., April 16–17, 1998. The study identified many opportunities for improving planning and operations at the border ports of entry.

To continue the operations of the JWC following the completion of the binational study, the JWC developed and approved a transition plan and a one-year work program. Both stress the importance of sharing the results of the binational study, and the JWC sponsored a symposium in Guadalajara, Mexico on July 30–31, 1998, to present the results of the binational study. The JWC committed to hiring full-time staff coordinators to assist in the implementation of the study recommendations and to promote the coordination of binational planning activities. In November of 1998, the JWC approved a two-year work plan. The next meeting will be in Ensenada, Mexico in December 1999.

A key outcome of the binational study is a databank containing information on trade and traffic flows, socioeconomic data, and existing and planned border infrastructure improvements. The JWC is committed to updating and maintaining this databank, and the FHWA and Mexican Transportation Institute have assumed this responsibility. In addition, all reports and information from the binational study are available on the Internet.

Border Technology Exchange Program. The Border Technology Exchange Program (BTEP) was created by FHWA in 1994 to provide opportunities for sharing transportation information and technology between the U.S. border states and their counterparts in Mexico and Canada. BTEP's objectives include: creating a permanent technology exchange process that will survive regardless of political or financial influences; increasing institutional, technical, and legal compatibility; improving the transportation systems in the border region, making them safe for the users and facilitating the efficient and

competitive movement of commerce in support of NAFTA; and enhancing professional and technical capabilities. [Note that TEA-21 did not designate funds for BTEP.]

An important future component of BTEP includes the development of technology transfer centers in the border area modeled after the Local Technical Assistance Program (LTAP). Currently, Arizona, New Mexico and Texas are in the initial stages of developing such centers in Hermosillo, Chihuahua, and Monterrey, respectively:

ⁱ On this issue, the July 1999 GAO Report states: “As commercial and private vehicle traffic associated with growing economic integration has increased, it has put stress on the local infrastructure. Long lines at some crossings impede local traffic movement, contribute to air pollution, and can raise business costs if merchandise and parts are delayed. Traffic congestion is caused in part by inadequate infrastructure at some crossings, resource management issues, as well as how the ports of entry are managed. Another factor affecting congestion is the need to facilitate commerce and the movement of people across the border while at the same time protecting the nation against illegal immigration and contraband goods.” (p. 29)

ⁱⁱ The U.S.-Mexico Joint Working Committee (JWC) is comprised of representatives from the United States Department of Transportation, Federal Highway Administration, the Mexican Secretariat of Communication and Transportation, the U.S. State Department, the Mexican Secretariat of Foreign Relations and representatives of the 10 border states. The ten border states include: Arizona, California, New Mexico, Texas, Baja California, Chihuahua, Coahuila, Nuevo Leon, Sonora and Tamaulipas.¹⁸

This rather long quotation illustrates the outdated, incomplete, and misleading information presented in this report. For instance, the pending creation of the Motor Carrier Safety Administration is not noted; the programs described are mostly nationwide programs in which border needs are often lost; and the California efforts in border technology exchange are ignored. The first full report of this Interagency Task Force was due April 2000, and hopefully will correct these and similar shortcomings. If this isn’t accomplished, Caltrans should react appropriately to assure corrections in subsequent annual reports of the Task Force.

U.S.-Mexico Border GAO Reports

In June 1998, Congress requested the GAO report to them regarding their concerns “about the overall well-being of the border region and what appeared

¹⁸ Ibid., 97–100.

to be limited progress in addressing border issues.”¹⁹ Subsequently the GAO issued the July 1999 report to congressional requesters, *U.S.-Mexico Border: Issues and Challenges Confronting the United States and Mexico*. This report covers major issues on the border as follows:

- Drug enforcement;
- Illegal immigration;
- Cross-border transportation;
- Environmental infrastructure and public health; and
- Economic development.

The brief results of the GAO study of the cross-border transportation issue are reported as follows:

The border area provides the transportation infrastructure to facilitate trade between the United States and Mexico, which has more than doubled since the North American Free Trade Agreement went into effect in 1994. Nearly four million trucks and 85 million passenger vehicles entered the United States from Mexico in fiscal year 1998. Processing the high volume of commercial and passenger traffic while at the same time interdicting contraband and illegal immigrants has contributed to congestion and air pollution and has placed pressure on the infrastructure of local communities along the border.²⁰

In March 2000, the GAO issued two additional reports: and *U.S.-Mexico Border: Better Planning, Coordination Needed to Handle Growing Commercial Traffic* and *U.S.-Mexico Border: Despite Some Progress, Environmental Infrastructure Challenges Remain*. These reports define the border region as a 100 kilometer strip along the border. This is in accord with the 1983 Agreement for the Protection and Improvement of the Environment in the Border Area (the La Paz Agreement).

The second of these two reports is devoted mostly to nontransportation-related environmental concerns, but does point out that air pollution and handling hazardous waste are also growing problems in the border region.

The first of the reports elaborates on cross-border transportation:

¹⁹ United States General Accounting Office, *U.S.-Mexico Border: Issues and Challenges Confronting the United States and Mexico* (Washington, D.C.: GAO, July 1999), 1.

²⁰ *Ibid.*, 2.

The communities along the 2,000 mile U.S.-Mexico border have provided much of the necessary infrastructure—the roads and bridges—to facilitate truck shipments and the movement of people across the border.

You [Congress] expressed concern that the border area was shouldering a disproportionate share of the costs of increased trade activity and that congestion problems related to expanded traffic were not being adequately addressed. As agreed with your offices, this report provides information and analysis on (1) the nature of commercial truck traffic congestion at the southwest border; (2) the factors that contribute to congestion; and (3) the actions, including programs and funding, that are being taken to address these problems. This report provides a more in-depth analysis of the transportation infrastructure and inspection agency processes than was presented in our July 1999 report. In addition, we are preparing another report that focuses on environmental infrastructure at the border.

Multiple U.S. government agencies carry out regulatory and enforcement activities along the border at the 25 border ports of entry that process commercial vehicles. These activities are directed at assuring compliance with laws and standards regarding immigration, drugs, trade, and vehicle and product safety. The key inspection agencies are the U.S. Customs Service, the U.S. Department of Agriculture, the Food and Drug Administration, the U.S. Immigration and Naturalization Service, and the U.S. Department of Transportation. In addition, the General Services Administration oversees port of entry design, construction, and maintenance in consultation with the inspection agencies.

Our work focused on reviewing the binational processes associated with facilitating northbound commercial traffic entering the United States from Mexico. We conducted detailed case studies in six border communities, where we interviewed public and private sector representatives on both sides of the border. As part of these case studies, we visited 11 of the 25 ports of entry that handle commercial truck traffic across the border. We also reviewed studies related to cross-border transportation issues. In addition, we interviewed officials from federal, state, and local agencies as well as private sector organizations in the United States and Mexico.²¹

The overall findings of this GAO study are briefly reported as follows:

²¹ United States General Accounting Office, *U.S.-Mexico Border: Better Planning, Coordination Needed to Handle Growing Commercial Traffic* (Washington, D.C.: GAO, March 2000), 3–4.

Increased commercial truck traffic and the associated congestion at some border crossings, particularly older crossings that were built in downtown areas such as Laredo and El Paso, Texas, have taxed border community infrastructure. Lines of trucks—many of which are empty—waiting to enter the United States can run up to several miles during peak periods in the early to late afternoon, and the idling trucks contribute to air pollution and safety concerns in some major border cities. At the same time, crossings in remote and less accessible areas along the border such as Sasabe, Arizona, or Roma, Texas, are underutilized and less congested. According to U.S. Customs records, nearly 47 percent of the 3.6 million containers that crossed the border in fiscal year 1998 from Mexico were empty. Government officials at the ports of entry must still process all trucks—empty or not—to ensure compliance with U.S. laws and regulations.

Commercial traffic congestion at the U.S.-Mexico border is primarily caused by the high volume of vehicles at ports of entry that must be processed through facilities that have physical and technological limitations and cumbersome practices. The specific factors that contribute to border congestion include (1) difficulties resulting from the multiple checks at the border by various federal and state agencies; (2) inspection agency staffing shortages at some border crossings; (3) limited use of automated management information systems for processing commercial traffic; (4) lack of land to expand port of entry operations; (5) inadequate roads leading to some ports of entry; and (6) poor port of entry planning among U.S. inspection agencies and limited coordination between the U.S. and Mexican governments.

Federal, state, and local governments as well as binational groups have responded to congestion at the border with a variety of initiatives. Some infrastructure improvements at ports of entry and roads leading to the border have been undertaken and funded by federal and state agencies, and others have been funded and are scheduled to occur in the year 2000 and beyond. In addition, federal agencies have undertaken initiatives to integrate their inspection processes for commercial traffic and test new technologies for expediting commercial traffic. Likewise, binational mechanisms to encourage dialogue and coordination have been created. Government, private sector, and academic studies have also been undertaken that identified infrastructure and staffing needs, as well as explored ways to mitigate congestion. However, because facilities planning and port of entry operations take place in a complex political and economic environment characterized by competing interests and differing development priorities, these efforts collectively have neither been able to keep up with the rapid increase in the volume of goods crossing the border nor to alleviate congestion.²²

FUNDED IMPROVEMENTS

Highways

The Caltrans report, *California Border Briefing*, points out the following:

The plan to complete the *near-term* border infrastructure in San Diego and Imperial Counties is almost fully funded. **The critical section lacking total funding of the *near-term* improvements is the six-mile segment of State Route 905, which leads to the largest commercial port of entry in California. The deficit remaining to fully fund SR 905 is just over \$74 million.** Other than that, the local MPO's, Caltrans, the Federal Highway Administration and the California Transportation Commission, with the support of the Administration, has helped fund \$1 billion dollars to date for border infrastructure. About \$600 million of that total will be under construction this coming fiscal year (1999–2000).²³

The major projects in this ambitious construction program are shown on the included Border Trade Corridors as Figure 2-4 (found in Appendix F). The major portion of the funding for State Route 905 freeway has been secured. However, as previously stated, about \$74 million of the \$255 million total cost is still needed to provide for a full freeway over the entire distance. Figure 2-5 (found in Appendix F) shows State Route 905 construction phases.

California's governor, Gray Davis, has recently proposed an accelerated transportation program covering both highway and transit projects. If implemented through legislation, the funded border projects could be augmented considerably.

Two other major highway infrastructure funded programs deserve to be singled out. The first of these is the completion of State Route 125 from the border to Route 52, as shown on Figure 2-6 (found in Appendix F) titled "State Route 125 Progress." The second program is the projects in Imperial County that will greatly improve the access to the Calexico POEs. This program includes projects on Routes 7, 78, and 111.

There are other funded state highway projects within the one-hundred-kilometer- (i.e., 62 mile)-wide CBZ in the United States, but their impact on international trade pales in significance to those presented here. Figure 2-7 (found in Appendix F) presents a master schedule for the border projects on the state highway system.

²² Ibid., 4–5.

²³ Caltrans, District 11, *Border Briefing*.

In addition to the previously mentioned major state highway projects, a critical highway connection between the Otay Mesa POE and the California Highway Patrol (CHP) Commercial Vehicle Enforcement Facility (CVEF) has recently been placed into service. This connection provides a controlled access route between the two inspection facilities and removes this international incoming commercial traffic from the city street system. However, the street system is still the routing from the CVEF back to the state highway system, and the international commercial traffic outbound from California to Tijuana continues to rely on the city street system.

As with the state highway system, other city street and county road funded improvements will be undertaken in the short run, but their border commerce trade and traffic impacts are not significant except for improvements to the City of San Diego streets serving commercial traffic in the vicinity of the Otay Mesa POE..

Public Transportation

The only funded major public transportation project with significant impact on the border is the Metropolitan Transit Development Board (MTDB) project to upgrade the San Ysidro Terminal to improve automobile parking facilities for public and private bus services, as well as licensed taxi and van services. This project is estimated to cost \$18.4 million. MTDB proposes to have the project completed by fall of 2002. There are present concerns about the area designated for the regulated intercity van services. As of 9 May 2000, MTDB was relying on agreement between the van operators and a property owner for resolution. This is a risky reliance and may not be in the best public interest.

Airport and Seaport Access

Access to and from the Port of San Diego's Lindbergh Field has recently been improved, and no major transportation projects by the Port are presently funded for either that airport or the Port of San Diego. The same condition holds for the other commercial airports in the California BZ.

Railroads

Under section 1602 of TEA-21, \$10 million has been allocated for a SD&AE railway intermodal facility near the border, but plans for its implementation are not yet available since the status of the portion of this rail service in Mexico is still unclear. The Mexican privatization efforts are progressing, albeit slowly. Therefore, the proposed reopening of the SD&AE service is presently stalled.

Funded improvements to the major rail line between San Diego and the Los Angeles area are being implemented by the North San Diego County Transit District (NCTD) but are focused on improvement of commute passenger

services in the San Diego–Oceanside corridor and will have only minor impacts on overall CBZ commercial freight service.

At present, any plans for rail service improvements within Imperial County are unknown since, except for a short reach of the SD&AE, the services are in the private sector.

Special Facilities

Although there is lively interest in special facilities across the border that would substitute for truck traffic, at present there are no known proposed funded major projects. The approval process for such facilities is cumbersome, lengthy, and not well known or understood.

MEXICO FEDERALISM

In recent years, the Mexican federal government has shifted some powers and responsibilities to state and local governments. This trend of new federalism has been promoted by Mexican President Zedillo and is directed towards strengthening and improving the ability of state and local governments to control their future. Baja California has been in the forefront of accepting this change in governance. This attitude should, in time, provide more timely cross-border cooperation.

This shifting of the balance of power and its potential impacts for the California–Baja California area is well documented in the *San Diego Dialogue* paper, *New Federalism in Mexico: Implications for Baja California and the Cross-border Region*, by David Shirk. In his opinion, to ensure this governance shift is lasting and workable, the following areas need to be addressed:

- **Fiscal decentralization:** Give the state and local authorities greater authority to generate their own revenue and then ensuring that they have the political capacity to implement necessary, albeit unpopular, taxes and fees. Officials also need to explore public financing alternatives and public-private partnerships for large projects.
- **Re-election:** Change the election laws so that federal and state legislators can be re-elected (they currently can serve only one term; the length of the term depends on the office), thus forcing them to be accountable to their constituencies. In addition, a change in these laws would mean that elected officials could apply their experience and work toward long-term goals.
- **Municipal restructuring:** Establish separate elections for city council members to act as a check on powerful local executives. Under the current

system, the majority of seats on a city council are handed out to members of the mayor's political party.

- **Judicial reform and activism:** Shift the balance of power away from the central executive so that, as in the United States, the judicial branch plays a role in shaping laws and acting as a check on other branches of government. An important step would be ensuring the independence of the judiciary and affirming the right of states and municipalities to pursue legal action against the federal government.²⁴

Additionally, Shirk feels that this decentralization can facilitate cross-border cooperation in the areas of water, housing, health care, and urban development. Concerning this last item, he states, "Federal legislation has mandated the creation of quasi-independent local agencies to oversee long-term urban planning efforts. The creation of these agencies could improve cross-border planning on large infrastructure projects, including expansion of the land ports of entry."²⁵

He does caution that "Leaders on both sides of the border need to recognize the opportunities created by the 'New Federalism.' Particularly in Baja California, change is occurring rapidly, and policy-makers must be aware of potentials for collaboration resulting from the greater freedom of state and local governments to control their own destiny."²⁶

PROPOSED PROJECTS

SANDAG, the Imperial Valley Association of Governments (IVAG), San Diego County, Imperial County, the City of San Diego, and several other cities within the BZ are in various stages of updating their transportation plans. Therefore, the proposed projects covered here are subject to reevaluation. The recently heightened interest in land use, especially as it relates to sprawl and increased congestion is also expected to influence proposed projects. It is increasingly certain that changes will occur, but in what form and where is not yet evident.

²⁴ David A. Shirk, "New Federalism in Mexico: Implications for Baja California and the Cross-border Region" (executive summary of San Diego Dialogue briefing paper, July 1999), 2.

²⁵ Ibid., 4.

²⁶ Ibid.

Highways

As previously discussed, funding in the amount of an estimated \$74 million is still unsecured for the completion of State Route 905 as a full freeway on Otay Mesa.

Other proposed highway projects along the border include the following:

- Improvements at Andrade to relieve traffic in the adjacent Mexican town of Algodones—at present, no specific plan for this has been agreed upon.
- Proposed upgrading of the Tecate POE, which will require modification of State Route 188 at the border—the specific plan for this project is proceeding.
- Possible revision of I-5 at the San Ysidro POE to allow an increased inspection area and improved traffic circulation in Tijuana—since the need for increased inspections is subject to change, as are the needs of the Mexican government, this possible project is not presently determined in scope, but GSA work on their EIS leading to the determination of a preferred alternative is proceeding.

Other proposed projects that will impact the border area by improving highway capacity include improvements to I-5, I-15, and State Route 94. Corridor studies on these three critical routes are under way by SANDAG.

To provide for continuing traffic growth, two future ports of entry are being contemplated. The first of these would be to augment the present Otay Mesa POE, which has been identified as becoming overly congested with limited expansion potential,²⁷ and would be located east of the present facilities legislative State Route 11. Studies for this future highway and POE are presently under way by SANDAG and Caltrans.

The second possibility is a POE in eastern San Diego County near Jacumba. This POE would provide a connection between I-8 in the U.S. and Mexican Route 2, the major east-west highway in Baja California. As a follow-up to Phase I of this report, *Impact of the North American Free Trade Agreement on Transportation in the Border Areas of the United States, with Emphasis on the California-Mexico Border*,²⁸ by letter of 1 September 1999, to the Caltrans District 11 Director, it was recommended that State Route 21 be established by legislation to serve this projected POE.

²⁷ U.S. GAO, *Better Planning*, 20.

²⁸ Gray, *Impacts*.

Caltrans and SANDAG propose to undertake a study of the core of the City of San Diego to evaluate the impacts of several large projects on the present and proposed transportation facilities. The proposed study area is bounded by I-8 on the north, I-5 on the east, the San Diego–National City boundary on the south, and the Pacific Ocean on the west. The major proposed projects within the area are the expanded City of San Diego Convention Center, new major league ballpark, the future use of the now closed Naval Training Center, and improvements by the Port of San Diego, including Lindbergh field.

Public Transportation

A future light rail service to Otay Mesa from the existing San Ysidro line is proposed, but implementation is expected to be beyond 2010. The MTDB is currently striving to assure rights of way for this future service are protected.²⁹ The present minimal bus service to the Mesa area is also under study. However, no comprehensive study of the specific needs for coordinated public transportation services in the vicinity of the border has been done in either San Diego or Imperial Counties. At present, transit-dependent users who travel across the border are underserved, and there is limited incentive to substitute public transportation for the private auto. However, both Imperial and San Diego Counties are presently reevaluating their county transit services.

Airport and Seaport Access

It has been well documented that the existing major San Diego airport, Lindbergh Field, is not projected to accommodate future demand. The Port of San Diego has proposed interim improvements to this airport that are expected to satisfy needs in the short run. However, plans for the long run involving either establishing a new airport or massive changes to the existing field—or a combination of these two options—are not presently established.

Other airports in the San Diego area, notably Brown Field and the Tijuana International Airport, can have significant impact on land transportation as they are developed. Proposals for developing Brown Field into a major cargo facility are under way, as covered under “Private Sector Projects.” The Tijuana International Airport (TIA) is being privatized, and the Mexican organization responsible for the facility has indicated they plan improvements but specific plans are not yet public. The South County Economic Development Council has, with partial funding from the City of San Diego, contracted for a study of a cross-border air passenger terminal facility in connection with TIA. This study is in its second phase. The first phase concluded that a passenger

²⁹ Amer.

terminal in the U.S. “would reduce vehicular congestion at both San Ysidro and Otay Mesa border crossings by as much as 3%.”³⁰

At present, the airport facilities in Imperial County are judged to be adequate and no major improvements are contemplated.

Impacts on land transport resulting from growth of the seaport of San Diego have not been recently determined.

Railroads

Since the status of the SD&AE privatization in Mexico is in a state of flux, and the future plans of the U.S. private railroads that serve the border are unknown, the known future improvements in this transportation sector are minimal. The North San Diego County Transit District does propose to improve and extend their passenger rail services and infrastructure between the San Diego central business district and Oceanside, as well as to establish light rail service between Oceanside and Escondido.

U.S. Ports of Entry

The GAO reported in 1999 “that it plans to spend approximately \$200 million over the next 5 years on the southwest border for what it terms new ‘applied’ technology to improve processing and inspection capabilities. It is questionable if there is adequate space to accommodate the new equipment at all ports of entry, according to General Services Administration officials. At ports of entry that process larger traffic volumes, particularly those in crowded downtown locations, there is no room to expand operations. New technology requiring adequate space includes mobile and fixed truck or cargo X-rays and contraband destruction systems.”³¹

As previously mentioned, the GSA is currently developing a proposal to construct southbound inspection facilities at the San Ysidro POE. The latest proposal, as presented to the public on 17 May 2000, is included as Figure 2-3 (found in Appendix F). It could accommodate a variety of concerns, including the following:

- Providing outbound U.S. inspection facilities.
- Providing room for a southbound high-occupancy vehicle (HOV) or fast-track lane.
- Allowing room for expansion of incoming vehicular traffic.

³⁰ Profile Research & Marketing, *Crossborder Air Passenger Terminal Facility: Phase 1 Report* (n.p.: Profile, October 1998), 2.

³¹ U.S. GAO, *Better Planning*, 21.

- Allowing for improved traffic flows in Tijuana

Providing more room for Mexican POE inspection facilities

This newest proposal appears to be much less costly than previous designs and would result in less disruption to existing traffic problems.

Special Facilities

It has been reported that six separate private sector proposals are currently under consideration for developing conveyor systems that would move material across the international border. At present, there are no known proposals for slurry pipelines, although there may be instances or locations where such facilities may be a viable alternative.

Private Sector Projects

There are several significant proposed projects by the private sector that could significantly impact the CBZ between along Baja California including the following:

San Diego Air Commerce Center (Brown Field): A private sector consortium is proposing a \$265 million improvement to the City of San Diego's Brown Field to greatly increase the air cargo facilities as well as enhance general aviation. This privately financed proposal is presently in the draft environmental review process and has not yet been endorsed by the City of San Diego. It is obviously going to be a controversial item, with several organizations concerned with, among other items, aircraft noise and both surface and air traffic.³²

Cross-border air passenger terminal: For over 10 years there has been waxing and waning interest in providing an air terminal on Otay Mesa to serve U.S. air passenger users of flights in and out of Tijuana International Airport (TIA). The basic concept is to allow seamless travel between a U.S. terminal facility and flights to and from TIA. Since TIA has been privatized as part of Mexico's ambitious privatization of their airports, this concept has recently received renewed interest.

According to a recent news article, U.S. air travelers "make up a third of Tijuana passengers, who totaled 3.2 million in 1998."³³

³² Jennifer Vigil, "Brown Field Expansion Faces Opposition," *San Diego Union-Tribune* (17 April 2000).

³³ Diane Lindquist, "Local Airport Planners Look South for Relief," *San Diego Union-Tribune* (5 August 1999).

The grantee for the privatization franchise for TIA and the eleven other northwest Mexico airports that made up the bid package, is headed by AENA Servicios Aeronauticos, a Spanish government authority which owns and operates both civil and military airports in Spain. The Spanish consortium has several more months to submit their plans for upgrading airport operations and infrastructure. It has been reported that the franchise grantee is interested in the cross-border air terminal concept and may soon submit a proposal to the City of San Diego.

International Gateway of the Americas: In the past, this proposal was tied to the realignment of the southbound lanes of I-5 and I-805. However, the present plan for the International Gateway has been revised to not require modification of the interstate highways. The need for southbound inspection is covered in Chapter 10.

The International Gateway of the Americas, a privately financed project, has received conceptual approval from both the City of San Diego and the City of Tijuana. The basic proposal is to develop transit-oriented developments on both the north and south sides of the border.³⁴ In March 2000 the local developers acquired the last of the 59 acres required for the U.S. portion of the project and reportedly secured \$220 million in financing.

The proposed phase one of the development comprises twenty-three buildings just north of the Tijuana River and west of Virginia Avenue. The buildings would accommodate about eighty-five stores and fifteen restaurants. Groundbreaking is expected in the fall of 2000 with completion of phase one by spring of 2002. This phase of the project as presented in May 2000 is basically a high-grade commercial facility that has the combined features of a mall and a factory outlet development.

A dominant feature of the second phase of this project is a proposed pedestrian toll bridge crossing the Tijuana River. The plan requires a new pedestrian border crossing and, therefore, possibly a new Presidential Permit.

The federal General Services Administration, SANDAG, and Caltrans are the primary U.S. stakeholders in developing proposals and plans for the possible modification of I-5 and I-805 at the San

³⁴ Karen Hutchens, "San Diego and Tijuana Make Historic Joint Presentation for Visionary New Border Crossing" (press release, 22 September 1998).

Ysidro POE and a new southbound inspection facility. Land Grant Development is the organization promoting the International Gateway of the Americas.

SUMMARY

This chapter discusses the May 2000 status of California–Baja California land transportation conditions, their funded improvements, and significant proposed projects. There were several findings made that will be included in chapter 12.

It should be noted that the subject border area is very dynamic and that conditions, programs, and proposed projects can change rapidly. This may be especially true as both the U.S. and Mexico will soon be electing new administrations. Figure 2-8 (found in Appendix F) presents a chronicle chart portraying many of the issues, events, and responsibilities presented in this chapter.

3. REVIEW OF BORDER LAND TRANSPORTATION ISSUES

INTRODUCTION

Task 2 of this study calls for the study team to determine the “status of land transportation presented in the previously published Phase I of this IISTPS study, *Impacts of the North American Free Trade Agreement on Border Areas of the U.S. with Emphasis on the California Border with Mexico*, and identify new policy-oriented issues resulting from Federal and State legislation as well as other recent actions.”¹ Chapter 3 covers this determination and is an update of the Task 2 interim report of 31 October 1999.

ISSUES IDENTIFICATION PROCESS

First, the previously issued IISTPS Phase I report, *Impacts of the North American Free Trade Agreement on Border Areas of the U.S. with Emphasis on the California Border with Mexico*, was reviewed to assess the current status of the issues identified in that study and those that should be given further consideration in this Phase II study.

In addition, the findings resulting from the Task 1 effort of this study were considered for inclusion in further deliberations.

The resulting key issues as reported herein were considered for further study after consultation with Caltrans District 11 Director and staff.

STATUS OF ISSUES FROM PHASE I REPORT

The Phase I report identified 53 issues. These were assembled in a matrix that identified the issue, the agencies involved in each issue, and their level of involvement. The matrix also categorized the issues as follows:

1. Issues not appropriate for further consideration in the Phase I report.
2. Issues recommended for action at a later date.
3. Issues addressed by others.
4. Issues recommended for implementation in the near future.

As part of this task of the Phase II study, the 53 issues were revisited; the Category 4 issues to determine their status versus the recommendations in the

¹ Norman Y. Mineta International Institute for Surface Transportation Policy Studies, “Research Prospectus” (State Contract Number 65W136, 13 July 1999).

report and the others to ascertain if their category status should be revised. The results of this review and evaluation are presented here:

CATEGORY 4 ISSUES

Issue 1 Recommendation

It was recommended that Caltrans undertake a statewide Intermodal Freight Connectors Study to obtain input for the pending federal TEA-21, section 1106(d) study.

5.The section 1106(d) study, as stipulated in TEA-21, calls for an Intermodal Freight Connectors Study to be reported to Congress by 9 June 2000 (two years after TEA-21 was signed). This study calls for “(A) review the condition of and improvements made, since the designation of the National Highway System, to connectors on the National Highway System that serve seaports, airports, and other intermodal freight transportation facilities; and (B) report to Congress on the results of such review.”² The recommendation of the Phase I report was not implemented and is given further consideration herein.

Issue 2 Recommendation

It was recommended that Caltrans District 11 study the state highway route continuity on Otay Mesa, and, if found logical and feasible, recommend state legislation to simplify route descriptions.

This recommendation has been addressed by Caltrans and suggested route revisions submitted for legislative consideration. Issue 29 is related to this topic. No further action on this issue is warranted.

Issue 3 Recommendation

It was recommended that Caltrans take a strong, active position with the U.S. DOT regarding section 1213(d) of TEA-21.

Section 1213(d) of TEA-21 called for an assessment of transportation infrastructure on the southwest border between the United States and Mexico to be reported to Congress within one year of the implementation of TEA-21. Since this study was scheduled to be reported to Congress by 9 June 1999, this section must be considered as having been implemented, and no further action is needed in this NAFTA II study. Unfortunately the time for the study as specified in the legislation was so restrictive that, in our judgment, the requirements of the study as present in the TEA-21 legislation were not met.

² Gray, *Impacts*, 40.

Issue 6 Recommendations

It was recommended that the *Streets and Highways Code, Article 3, section 300* be revised to stipulate legislative intent regarding state highway service to international ports of entry within the state, and further, that all state highway routes that originate at the California–Baja California border be legislatively established as beginning at the international border or the boundary of the federal port of entry.

Suggested legislation to implement this recommendation was submitted to Caltrans District 11 Director by letter of 1 September 1999, and the District has indicated support; therefore, no further action is suggested.

Issue 8 Recommendation

It was recommended that Caltrans District 11 include in its submittal for statute update that “The border zone is defined as the area between the California–Baja California international border and a parallel line 100 km north.”

This recommendation has been implemented by a District 11 submittal of proposed legislation, and no further consideration is warranted in this study.

Issue 10 Recommendation

It was recommended that Caltrans work with the Bi-State Transportation Technical Advisory Committee (BTTAC) to develop a bistate transportation planning process.

It is expected that the development of a bistate transportation planning process will be a time-consuming effort, and since the point has been made and recognized by Caltrans as to the need for such a process, no further action is appropriate as part of this study.

Issue 11 Recommendation

To improve binational transportation coordination, it was recommended that Caltrans, in cooperation with SANDAG and the Southern California Association of Governments (SCAG), work with the Good Neighbor Environmental Board (GNEB) to address the transportation issues raised in the EPA U.S.-Mexico Border XXI Program and similar border region programs monitored by the GNEB.

Caltrans and SANDAG now regularly participate in the appropriate activities of the U.S. Environmental Protection Agency, San Diego Liaison Office, and although that office has only loose ties to the actions of the GNEB, it serves as a communication conduit. No further action on this issue is warranted as long as Caltrans continues to monitor GNEB and EPA activities.

Issue 12 Recommendation

It was recommended that the California Department of Transportation request a legal opinion of the department's role and its responsibilities in regard to the Indian Nations directly affected by the department's projects.

This is a sensitive issue that may be best left dormant, as far as Caltrans is concerned, unless proposals for relocation of State Route 186 at Andrade require otherwise. Therefore, no consideration is appropriate in this NAFTA II study.

Issue 13 Recommendation

It was recommended that Caltrans work with SCAG and others to encourage the development and extension of the Southwest Passage (now known as the Southwest Compact) as established in TEA-21.

The lead for the development and extension of the Southwest Compact should be vested in SCAG, and to a lesser extent, SANDAG. Caltrans support should follow their lead. No further action is advisable as part of this Phase II study.

Issue 14 Recommendation

It was recommended that Caltrans, in cooperation with SANDAG and SCAG, seriously review the present BTTAC and develop suggested improvements to strengthen the BTTAC organization to better accomplish its goals.

The role of the BTTAC is currently being addressed by the involved parties, but only at a minor level of effort. This issue is further considered in this study.

Issue 16 Recommendation

It was recommended that Caltrans encourage legislation to allow either public or private toll roads within the CBZ.

The political interest in toll highways has evidently passed its peak, and increased available funding for free facilities has also diminished interest in implementation of toll facilities. Therefore, this issue is no longer of major importance, and does not warrant further study at this time.

Issue 22 Recommendation

Considering the long lead time for project environmental clearance, it was recommended that Caltrans commence environmental studies for Route 11 as soon as the corridor preservation study was completed and accepted. Caltrans should also request that the GSA begin the process to authorize the required new POE.

SANDAG is presently studying Route 11 implementation, including the environmental documentation, and has had initial communications with the GSA for a third border crossing for this route. GSA has informed SANDAG

that they cannot get involved until an application for the Presidential Permit is submitted. This application is expected to be submitted on schedule with the other implementation actions; therefore, this issue needs no further consideration in this study.

Issue 24 Recommendation

It was recommended that Caltrans determine if Route 11 can be included within the existing privatization franchise.

Although a legal determination of this issue has not been obtained, it is felt that this will be done by District 11 in due time and no further action is necessary in this phase two study.

Issue 29 Recommendation

It was recommended that Caltrans reassess the route designations on Otay Mesa and, if found appropriate, request legislative changes.

This recommendation is still valid, but pressing for its consideration at this time might be an obstruction to the implementation of Route 905 as a full freeway. Therefore, this issue will not be further considered in this study.

Issue 30 Recommendation

It was recommended that Caltrans urge that SCAG, IVAG, and SANDAG undertake a coordinated binational public transportation study of the California–Baja California area, focusing on coordination of the U.S. and Mexican systems.

The called-for study has not been undertaken. The issue is still valid and is considered further as part of this NAFTA II study.

Issue 32 Recommendation

It was recommended that Caltrans confirm with the GSA their plans for POE American Disabilities Act (ADA) conformance and determine standards, if any, for accommodating the disabled at border connection points within Mexico.

This issue also remains valid and is considered further as part of this NAFTA II study.

Issue 39 Recommendation

It was recommended that Caltrans study the state highway access at Lindbergh Field and Calexico International to determine traffic service adequacy and to take appropriate action.

This issue is being partially addressed by recent actions of the San Diego Port District and a statewide study funded by Caltrans. However, a comprehensive

study of airport access, including Tijuana International Airport, may still be warranted. This is considered further in this NAFTA II study.

Issues 45 and 51 Recommendations

The general topic of air quality at POEs has recently received heightened interest. A study contracted by the Western Governors Association, entitled *Border Congestion Study*, has recently been completed. One of the key elements of this study is the effects of congestion on air quality levels. This study has been reviewed with special attention given to its findings and recommendations as they impact California. This review is included in Chapter 8.

In April 2000, a Binational Air Quality Alliance (BAQA) corporation was created to focus on air pollution matters within the San Diego–Tijuana/Rosarito air basin. A discussion of this newly established entity and a recommendation concerning its activities is contained in Chapter 8.

H.R. 8 (Bilbray), entitled, *Smog Reduction Act of 1998*, addresses the problem of nonconforming vehicles in regards to air quality requirements. The impact of this legislation is addressed in this NAFTA II study.

Issues 46 and 47 Recommendations

It was recommended that the following actions be taken:

1. Caltrans inform the GSA of interest in the inactive Calexico commercial POE property and request that the state have first refusal on its possible disposal.
2. Caltrans contact all appropriate parties to determine possible future transportation use of the property.
3. The State of California inform the GSA of its desire to have first right of refusal for ownership of the federal Virginia Avenue property.

The role of the GSA in providing POE improvements has been unclear, especially in regards to authorities and responsibilities outside of their property. The need for reserving GSA property at the now inactive commercial POEs at Virginia Avenue and Calexico has been conveyed to the GSA, but the problems associated with their authorities and responsibilities are given further consideration in this report.

ISSUES IN OTHER CATEGORIES

As stated previously, the other issues identified in the Phase I report were reviewed to determine if their categorization should be reconsidered. The results of this review identified the following issues that should be upgraded to be considered for inclusion in this NAFTA II study:

Issues 4 and 5

Should Caltrans develop a method to improve the presentation of proposals and plans to the Binational Bridges and Border Crossings Group (BBBCG), and should Caltrans request the formation of a task force to address border-crossing congestion and to consider how to improve the state's border crossings with Baja California?

Preliminary consideration of adding these two issues led to a reassessment of the role of the BBBCG and the process of obtaining binational approval of projects that cross the U.S.-Mexico border. This process is formidable, and cumbersome, and is not easily understood, as is pointed out in a recent GAO report.³ A cursory review of the border permitting process leads to a modification of this issue, directing the reconsideration of the involvement in obtaining cross-border permits to the present process and how it might be changed to accommodate needs in a more simplified manner without weakening the responsibilities of the members of the BBBCG. The issue may then be stated as, "How can the current process of obtaining approval of border crossing projects be improved?" This raised issue is further considered in this NAFTA II study.

Issue 48

Should Caltrans begin working with the GSA to plan for the accommodation of inspection facilities needed to implement federal requirements for southbound inspections at the San Diego-Tijuana POE?

The implementation of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 may result in the need for additional infrastructure at the POEs within California. This possibility is reviewed as part of this study.

Issue 52

Should the state be responsible for international freight movements that must use local San Diego streets to obtain access to the port of entry facilities?

As previously discussed, all of the POEs in California are directly served by the state highway system except for the commercial POE at Otay Mesa, which is the major commercial California POE. At that location, outbound commercial traffic must travel over several miles of city streets, and present inbound vehicles exiting the state Commercial Vehicle Enforcement Facility (CVEF) must utilize city streets. However, future construction of an added border crossing on proposed State Route 11 should include a direct connection from the CVEF to that state route.

³ U.S. GAO, *Better Planning*.

The need to reevaluate the lack of state highway service for outbound commercial traffic at Otay Mesa is obvious if the state accepts the responsibility for such traffic.

NEW ISSUES

Border Development Zone

State legislation to establish a border development zone in California became effective 1 January 2000. This zone, encompassing a three-mile-wide area along the California–Baja California border, is intended to promote the development of facilities to support the growth of industry and commerce in the zone. The legislation allows the establishment of infrastructure financing districts within the zone. These districts have bonding capacity supported by redirected existing property taxes. Since no new taxes to property owners are involved, a two-thirds vote is not required to sell the bonds.

This legislation has the potential to accelerate the development of industrial/commercial parks within its established border development zone and should result in the area being attractive to border-oriented business, as well as other endeavors seeking room for expansion at reasonable costs as, at present, there are large areas of fallow or agriculture lands available for development. At this time, it is not possible to identify any issues that this new legislation spawns, so it is not further considered in this study.

Cross-Border Goods Conveyance

Discussions with Caltrans, SANDAG, San Diego Dialogue, and others surfaced an added element of possible study, that of identification of the potential for providing for conveyance of commercial goods across the border by means other than in a vehicle. In other words, “What might be the role of pipelines, conveyors and other stationary facilities in providing for moving goods across the California–Baja California border?” This item is addressed in Chapter 11.

1. Issue 1—intermodal freight connectors study (TEA-21, section 1106(d)).
2. Issues 4 and 5 —improving process for border crossing approval.
3. Issue 14 —strengthen the BTTAC.
4. Issue 30 —coordinated binational public transportation.
5. Issue 32 —GSA plans for ADA conformance at POEs.
6. Issue 39 —state highway access to international airports along the California–Baja California border.
7. Issues 45 and 51 —air quality at California–Baja California POEs.

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8. Issues 46 and 47 —GSA authority and responsibilities.
 9. Issue 48 —southbound inspection requirements.
 10. Issue 52 —state responsibility for routing of commercial traffic.
 11. The role of pipelines, conveyors, and other stationary facilities in moving goods across the California–Baja California border.

4. DETERMINE RESOLUTION ALTERNATIVES

INTRODUCTION

Task 3 of this Phase II study calls for the study team to “Determine alternative approaches for issue resolution of, as a minimum, five of the key issues as identified by Caltrans District 11 Director from the Task 2 findings of this study.”¹ This chapter covers this determination.

KEY ISSUE IDENTIFICATION

As reported in Chapter 3, the issues identified in the IISTPS Phase I report, *Impacts of the North American Free Trade Agreement on Border Areas of the U.S. with Emphasis on the California Border with Mexico*, were reviewed to assess their current status and to present selected issues for inclusion in further studies. In addition, the findings of Task 1 of this Phase II study were also considered.

As a result of this issue review and consideration, a meeting was held with the Caltrans District 11 Director and his staff on 6 August 1999, to present a laundry list of possible issues for further study. This meeting resulted in the following project elements:

- Make recommendations to optimize public transportation connections/interface at the border to enhance public transportation utilization.
- Propose legislation that defines the CBZ, and makes technical corrections to statutes describing state routes within its defined parameters.
- Make recommendations on facilitating airport access to Tijuana International Airport, including infrastructure in the U.S.
- Make recommendations on infrastructure requirements necessary to implement recent federal legislation regarding (1) air quality implications of cross-border commuters using vehicles with Mexican registration and (2) infrastructure requirements necessary to implement immigration inspection of outbound individuals (This became two items because of the nature of infrastructure requirements).

¹ IISTPS, “Research Prospectus.”

- Make preliminary assessment of the potential for cross-border pipelines or other stationary facilities to carry gas, fluids, slurries, or aggregate and estimate the effect of these facilities on reducing truck traffic.
- Examine the limits of federal GSA authority to make infrastructure improvements beyond their specific right of way to mitigate traffic and environmental impacts. If necessary, make legislation and/or regulatory recommendations that would establish GSA's responsibilities to be consistent with any developer's encroachment or impact on the transportation system.

Subsequently, by letter of 1 September 1999, to District Director Gallegos, the study team proposed legislation addressing the second of the preceding project elements. A copy of this letter is found as Appendix A . This action, in effect, resolved this element.

On 28 September 1999, another meeting was held with District Director Gallegos and staff to review the six elements from the previous meeting, and to present a work plan for each of them, as well as to discuss their current status and any identified potential problems. At this meeting, it was agreed that work on the main element, enacting legislation defining CBZ and route adjustments, was completed. The remaining elements were discussed, and it was decided to separate the fourth element into two separate items.

Later, several additional topics were considered, due to input from SANDAG, San Diego Dialogue, and others. As a result of these deliberations, and as reported in the Task 2 interim report dated 31 October 1999, the following eleven elements were selected for consideration in Task 3 of this study:

1. Intermodal freight connectors study (TEA-21, section 1106(d));
2. Improving the process for border crossing approval;
3. Strengthening the BTTAC;
4. Coordinated binational public transportation;
5. GSA plans for ADA conformance at POEs;
6. State highway access to international airports along the California–Baja California border;
7. Air quality at California–Baja California POEs;
8. GSA authority and responsibilities;
9. Southbound inspection requirements;

10. State responsibility for routing of commercial traffic; and
11. The role of pipelines, conveyors, and other stationary facilities in moving goods across the California–Baja California border.

Work then proceeded on the 11 elements, with work plans and scopes refined from the previous efforts. After further research and discussions on these eleven elements, it became obvious that several of the topics needed redefinition, several needed to be dropped from further consideration for various reasons, and two others warranted only minimal study because of actions by levels of government senior to the Caltrans District.

DEVELOPMENT OF REFINED LISTING OF ELEMENTS

The process of developing a refined listing of elements is delineated herein item by item, including the reasons for any revisions, and the resulting intent for further study.

Element 1: Intermodal Freight Connectors Study

This study, as defined in TEA-21, calls for the study team to “(A) review the conditions of and improvements made since the designation of the National Highway System, to connectors on the National Highway System that serve seaports, airports, and other intermodal freight transportation facilities; and (B) report to Congress on the results of such review.”²

Research on this item resulted in the following findings:

- The study is being addressed by the FHWA with the intent to submit it in draft to the Office of Management and Budget (OMB) prior to formal submittal to Congress by the 9 June 2000 required date.
- Caltrans has not been directly involved in the study (Information for California was collected by the Sacramento Office of the FHWA). Hearings have been held on the findings in the Northeast (Boston) and Northwest (State of Washington), and a final hearing was held in Florida. To our knowledge, California was not represented at these hearings.
- The international land ports of entry have not been included in the study. Evidently the study is being formulated to address the concerns of the air- and seaport industries, with input also from the major railroads. This overlooks, for example, the present train to truck freight operations occurring at the San Ysidro POE.

² *Transportation Equity Act for the 21st Century (TEA-21)*, section 1106(d), H3801.

- In California, twenty-nine terminals have been identified by the FHWA, each with from one to ten connectors. The FHWA review of the 29 terminals is reported to conclude that there are no needed improvements between the identified terminals and the national highway system.

These findings were transmitted by the study team to Caltrans District 11 by letter of 6 December 1999, along with a listing of contacts regarding this topic. Subsequent contacts with Caltrans Division of Transportation Planning gave indications that that organization would follow-up with FHWA. Therefore, it is judged to be redundant for the study team to pursue the topic further. The letter of 6 December 1999 is found in Appendix B .

Element 2: Improving The Process For Border Crossing Approval

This process has been of interest to Caltrans and numerous others for several years, but it has recently received heightened importance and interest in connection with efforts of the private sector to increase cross-border commerce. This topic was considered in connection with our study of the potential for various stationary facilities to move goods across the California–Baja California border, Element 11 of this listing, and is covered in Chapter 11.

Element 3: Strengthening BTTAC

As identified in previous studies, the BTTAC has the potential to play a major role in, among other things, the coordination of transportation infrastructure development along the California–Baja California border. At present, it has not reached its full potential, although it is growing, albeit slowly, in effectiveness.

Discussions with the major participants in BTTAC have resulted in our conclusion that they are fully aware of the present limitations of the organization and are working to improve its effectiveness. Therefore, this topic will not be addressed further in this Phase II study. Caltrans District Director Gallegos concurs with this action.

Element 4: Coordinated Binational Public Transportation

Our interim findings on this topic were that, in general, public transportation services at the California–Baja California border are following demand growth and are reacting to normal marketing pressures. The competition, among and between private and public service providers, is both robust and healthy. This element is considered further in Chapter 5, “Public Transportation at the Border.”

Element 5: GSA Plans For ADA Conformance At POEs

This topic has been pursued and is covered in Chapter 6, “Cross-Border Compliance with ADA.”

Element 6: State Highway Access To International Airports Along The California–Baja California Border

The California Department of Transportation is presently in the process of undertaking a statewide study “to identify problems and issues related to ground access to airports and to develop a comprehensive intermodal approach to facilitate policy decisions leading to their resolution.”³ This study is scheduled to be completed by April 2001 and is financed by state planning and research (SPR) funds originating from TEA-21.

As articulated in the background portion of the request for proposals for this study, “Attempts to identify and address the problems related to airport ground access and modal connectivity have been and are being made in many ways. They include: emphasis in the Federal Intermodal Surface Transportation Efficiency Act (ISTEA) and succeeding Transportation Efficiency [sic] Act for the 21st Century (TEA-21) on enhancing the integration and connectivity of the transportation system, across and between modes, for people and freight; emphasis on goods movement strategy and transportation system performance measures in the 1998 California Transportation Plan Update; reports to the Legislature by the California Transportation Commission (CTC); CTC’s request for inclusion of an inventory of airport ground access need in the 1999 update of the Aeronautics Capital Improvement Plan (CIP); and several federally sponsored workshops on the subject.”⁴

Among the California airports to be included are the following California border-zone airports: Brown Field Municipal, McClellan-Palomar, San Diego International, and Imperial County. From a transportation standpoint, it is unfortunate that the Tijuana International Airport was not included in the study, even though it is located in Mexico, it is adjacent to the border, and its use by U.S. citizens is considerable and is increasing.

This comprehensive Caltrans Ground Access to Airport Study will look at the following issues:

- Inventory current and projected passenger and freight access needs, including intercity and modal connectivity;
- Identify responsibilities and roles;
- Identify issues and barriers to resolving issues related to planning, project selection, programming and funding; and

³ California Department of Transportation, “Request for Proposals 63A0043” (November 1999), 1.

⁴ Ibid., 3.

- Recommend strategies leading to coordinated and comprehensive approaches to providing efficient ground access to airports for people and freight. The project should be coordinated with caltrans aeronautics program and others identified in the scope of work⁵

The study is to be complementary to the present Caltrans studies being undertaken by the Los Angeles and San Diego districts. These district studies focus on local airport ground access issues and are not as comprehensive.

Since this Caltrans study will, among other things, “Compile a comprehensive ground access needs inventory on current and projected passenger and freight access needs, including intercity and modal connectivity.”⁶ This Phase II study will not further address Element 6 as identified in Chapter 3. The Caltrans study will serve the originally proposed topic for U.S. airports.

California state highway access to the Tijuana International Airport within California is further considered in Chapter 7, since this facility, unfortunately, is not included in the previously documented Caltrans airport study. The title for this portion of the study will be “California State Highway Access to the Tijuana International Airport.”

Element 7: Air Quality at California–Baja California POEs

This topic has recently been extensively studied as a major part of the *Border Congestion Study* prepared for the Western Governor’s Association.⁷ The principal goal of that study was “to develop solutions to problems that cause congestion, delay, and air polluting vehicle emissions at crossings of the U.S.-Mexican border.”⁸

This study includes a comprehensive seven-page table (Appendix C) that identifies “Problems, Needs, and Corresponding Potential Solutions and Related Benefits.”⁹ The Otay Mesa–Mesa de Otay POE was one of the four locations covered by the study. The conclusions and recommendations of this study should be considered in efforts for air quality improvements at the California–Baja California POEs.

Study of this topic has identified three aspects of air quality at the border that are not included in the *Border Congestion Study* and should be given specific

⁵ Ibid., 3-4.

⁶ Ibid., 4.

⁷ Parsons Transportation Group and Suma Sinergia, *Border Congestion Study: Study Methodology and Findings* (n.p., 13 June 1999).

⁸ Ibid., 2.

⁹ Ibid., Table 1, 11-16.

attention in connection with the California–Baja California border area and, therefore, are reported in Chapter 8. The first two of these three items are (1) entry into California of foreign-registered motor vehicles that do not comply with California state laws governing emissions and (2) excessive emissions resulting from idling vehicles awaiting entry into or exit from the U.S. These two topics are addressed in Chapter 8. The third topic is the possibility of improving air quality to meet new EPA requirements for diesel trucks and buses. This topic is also included in Chapter 8.

Element 8: GSA Authority and Responsibilities

This topic is further addressed in Chapter 9.

Element 9: Southbound Inspection Requirements

The passage of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 and its possible implementation at the land ports of entry along the borders of the U.S. has led to the inclusion of this topic and it is reported in Chapter 10.

Element 10: State Responsibility for Routing of Commercial Traffic

At present, all of the POEs in California are directly served by the state highway system except for the commercial POE at Otay Mesa. At that location, outbound commercial traffic must travel over several miles of city streets, as must all inbound vehicles exiting the state Commercial Vehicle Enforcement Facility (CVEF). However, the future construction of an added border crossing on proposed State Route 11 may include a direct connection from the CVEF to that state route.

The final construction phase of I-905 will provide partial remedy for this problem for outbound commercial vehicles, but major use of city streets may still remain.

The studies for proposed State Route 11 to a third border crossing east of the existing POE at Otay Mesa are in their infancy. This problem of use of city streets to carry heavy commercial traffic to access border crossing facilities is a legitimate factor in the studies of a third border crossing, and it is recommended that a reassessment of these commercial routings be included in these Route 11 studies. This is logical, since the attendant proposed POE in Mexico could be the relocated commercial entry into that country. This topic will not be further considered, as the present proposed construction of Route 905 coupled with the studies for future Route 11 should resolve present deficiencies.

Element 11: The Role of Pipelines, Conveyors, and Other Stationary Facilities in Moving Goods Across the California–Baja California Border

As reported in the Task 3 interim report, “This topic is pregnant with possibilities for improving goods movements across the subject border. Our preliminary findings are very encouraging as far as potential impacts on commerce, but discouraging regarding approval for implementation of such facilities. In our judgment, policies regarding these potential minor border crossing facilities may need reassessment. There appears to be a major incompatibility between the philosophies of the inspection agencies responsible for border regulations and the NAFTA concepts of liberalized trade. At present it appears that commercial trade advocacy is wanting.”¹⁰ This topic constitutes Chapter 11.

SUMMARY

This Chapter records the preliminary study findings on the eleven issues as identified in Chapter 3, and reassesses the continuation of these issues in this study.

In addition, the scope of the various issues is investigated and revised to better reflect actual circumstances. Of the eleven issues identified in Chapter 3, seven are identified to be carried forward, and an additional issue is identified as part of Element 3—Air Quality Infrastructure Requirements. Note that as part of Issue 10, to state responsibility for routing commercial traffic, it is recommended that the studies for future State Route 11 include provision for routing of southbound commercial traffic over the resulting California state highway system.

The result of this reassessment was that the following elements be given further study:

- Public transportation at the border—to review public transportation services at the California–Baja California border POEs to ascertain any major shortcomings.
- Cross-border ADA interface—to study cross-border U.S.-Mexican interface regarding compliance with the Americans with Disabilities Act (ADA).
- California highway access to Tijuana International Airport—to study the California state highway access adequacy to the Tijuana International Airport.

¹⁰ Gray and Kelley, “Task Three: Determine Resolution Alternatives.”

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- Clean Air Act compliance—to study air quality infrastructure requirements to comply with the amended Clean Air Act (assessing Caltrans infrastructure requirements that result from the implementation of H.R. 8, an amendment to the Clean Air Act).
 - GSA off-site authority—to study limits of federal General Service Administration (GSA) authority to make off-site infrastructure improvements (examining the limits of the GSA financial limitation for projects interfacing with Caltrans facilities and resolving GSA/Caltrans disagreements).
 - Southbound inspection requirements—to study the southbound inspection requirements resulting from recent legislation regarding automated record keeping at U.S. border stations and the possible impacts on Caltrans infrastructure requirements.
 - Pipelines or other stationary facilities—a preliminary assessment of the potential for cross-border pipelines or other stationary facilities to carry slurries or aggregates and the effect that these kinds of facilities could have on reducing truck traffic at border crossings.

5. PUBLIC TRANSPORTATION AT THE BORDER

ELEMENT STATEMENT

To review public transportation services at the California–Baja California border POEs to ascertain any major shortcomings

PURPOSE AND SCOPE

In general, public transportation services in the U.S. outside major urban areas do not provide for a large percentage of people trips since the automobile is ubiquitous. However, along the southern border of the U.S., the automobile is not as common; therefore, it is felt that to supply adequate mobility, the need for public transportation is stronger. The intent of this review of the status of public transportation in the border area was to determine if there are significant unmet travel needs.

The scope of study was limited to only licensed private and public services in California, and did not include services in Baja California, Mexico.

METHODOLOGY

To cover the public sector, interviews were held with staffs of SANDAG, IVAG, San Diego County, Imperial County, MTDB, and the state Public Utilities Commission (PUC). To cover the private sector, interviews were held with several major carriers. It soon became evident that the need for public transit service was nominal at the California–Baja California POEs except Calexico and San Ysidro, with the magnitude of public transportation need at San Ysidro far outstripping Calexico. The review then concentrated on the status of services at the San Ysidro POE.

DISCUSSION

As discussed in Chapter 2, public transportation serving the California–Baja California POEs has, in general, historically developed in response to market forces. The following sections of this chapter discuss this topic, covering each of the California/Baja California POEs.

San Ysidro POE

At the major California POE at San Ysidro, transit services are ubiquitous. Publicly owned bus and light rail services are present, with the major corridor extending northerly from San Ysidro to San Diego being exceptionally well served by the LRT, “Tijuana Trolley.” MTDB bus services provide for local circulation, including service from the LRT line to the Otay Mesa commercial POE area.

However, this border crossing, the busiest border crossing in the world, averaging over 27,000 pedestrians per day, also has its own transit problems:

While San Ysidro has become a major center of passenger transportation activity, the facilities for legitimate carriers are grossly inadequate, consisting of approximately 250 feet of curb space on a narrow public street. Shuttle buses to Tijuana, the local public transit bus, jitneys, other shuttles, and taxicabs share this space. There are no on-street facilities for the carriers that transport great numbers of travelers north to Los Angeles and beyond. Also, the public transit system has a light rail transit station on this street used by 16,000 trolley riders a day, which is a few yards from the Customs building.

Due to the extraordinary demand for transportation at this location, and the lack of an adequate and controlled area for licensed carriers, illegal carriers have flourished in San Ysidro for at least 40 years. It has been estimated that perhaps twice as many illegal trips versus legal trips were regularly provided.

The problem was exacerbated a few years ago when the expansion of the number of processing turnstiles inside the Customs building caused the exit doors to be relocated. The old exit had led to the dead-end portion of the street, occupied by taxicabs at the curb and a Greyhound bus terminal. The new doors empty toward the cul-de-sac portion of the street, busy with all types of vehicles, and give unlicensed carriers easier access to potential passengers.¹

The problems caused by these wildcatters included:

- Vehicle inadequacies resulting in high accident rates;
- Passenger security with assaults and even rapes occurring;
- Demands for extra payment in mid trip;
- Illegal drug and document transaction; and
- Overcrowded vehicles.

Legal private sector bus, van, and taxi services at the San Ysidro POE are ample and are especially adaptable to changes in demand. The existing problems for these legal carriers are predominantly caused by congestion, lack

¹ Barbara Lupro, "Effective Transportation Enforcement Strategies at the World's Busiest International Border: The San Diego Wildcat Task Force" (paper presented at the 1997 Annual Conference of the International Association of Transportation Regulators, Detroit, Mich., 5-8 October 1997), 4

of curb space, and unlicensed wildcat operators or *raiteros*. The problems resulting from congestion and lack of curb space should be greatly relieved by a proposed reconstruction of the area around the pedestrian exit of the POE, including the LRT station and adjacent parking. This project, by the MTDB, has been delayed for several years largely because of the status of proposed private developments in the vicinity, available funding, and the unsettled status of the proposed LRT service in Tijuana. For several years there have been active proposals to implement an LRT service in Tijuana, but the actuality has not materialized. To complicate plans on the U.S. side of the border, a plan to extend the LRT service at the border to the west in connection with a proposed private section development has been proposed.

The problems caused by the wildcatters became epidemic in the early 1990s, which led in 1994 to the formation of a San Diego Wildcat Task Force (WCTF). The WCTF soon recognized that cooperative efforts by the private and public sectors was essential for success in control of the area. To address this need, a Border Transportation Council (BTC) was formed, even though several of the members were business competitors. Agency members of the BTC included the MTDB, the state Public Utilities Commission (PUC), and the San Diego Police Department. The private sector is represented by about a dozen of the licensed carriers authorized to serve the POE. They have recognized that control of the wildcat operations is of mutual benefit and that by coordinating their needs they can present a much stronger case for needed improvements.

Through a number of actions, including marketing, added policing, improved prosecution, and establishment of a geographic probation zone that bans individuals convicted of wildcat offenses from the zone, the conditions for public transportation have become much improved.²

Otay Mesa POE

The scheduled bus service to this POE is sparse but is being closely monitored by the MTDB, which intends to increase service as demand grows. Taxi, van, and other private carrier services at this POE are minimal. Since pedestrian crossings at this POE are low, the present services appear adequate and wildcat competition is not a major factor.

Tecate POE

The Mexican town of Tecate is growing rapidly, but since there is virtually no adjacent U.S. settlement, pedestrian border-crossings are largely confined to immediate border-area stores. The County of San Diego does operate a

² Lupro.

Tecate–San Diego service with an inbound morning bus and an outbound bus from San Diego in the ed note: afternoon or evening, whichever it is. The county is presently reevaluating this minimal service and, if demand indicates added bus runs or service to other locations can be viable, they will be implemented.

El Centro POE

The Baja California state capital city of Mexicali shares the border with its California neighbor, Calexico. Considering their combined populations, the public transit services are sparse. Taxi services, especially in Mexicali, are sufficient, but while local bus services in the Mexican city are adequate, there are currently minimal services within Calexico. The county runs intercity bus services from Calexico north to Brawley and there are private carrier services connecting to Los Angeles and San Diego. Wildcat services do not appear to be a problem at this POE.

El Centro East POE

There is presently little public transportation service to this new POE, which mostly serves commercial traffic. There presently are no scheduled transit services on the California side of the border.

Andrade POE

This far eastern California–Baja California POE is little used and consequently has virtually no public transportation on the California side of the border. An errant taxi from Mexico or Yuma may occasionally be found, but that is an exception. Here again, wildcat services do not appear to be a problem. The County of Imperial is currently reviewing their public transit services and, if found needed, remedial services will be considered.

SUMMARY

Overall the public transportation services at the California–Baja California border POEs have been found to be adequate. However, the San Ysidro area needs the proposed infrastructure improvements implemented as soon as possible, and the wildcat services at this location must receive continued surveillance.

RECOMMENDATIONS

Through this study the existence of the BTC was brought to the attention of the Caltrans district and now a representative of Caltrans has been active with that council. It is recommended that this liaison continue. The district may consider recommending a similar council be established at the Calexico POEs if future growth of pedestrian crossings cause problems of unlicensed operators there.

6. CROSS-BORDER ADA INTERFACE

ELEMENT STATEMENT

To study cross-border U.S.-mexican interface regarding compliance with the Americans with Disabilities Act (ada)

PURPOSE AND SCOPE

Public law 101-336, the ADA became effective on 26 July 1990. Among its many features, this landmark legislation requires that public buildings and facilities be accessible to the handicapped. Since its enactment, enabling rules, appeal mechanisms and architectural standards have been established and implemented. The concern here is how this law is being enacted at the California border with Mexico, particularly with respect to the impact to the handicapped at the precise demarcation line between the two countries. The concern is that improvements to U.S. facilities not matched with complimentary improvements on the Mexican side of the border might constitute a barrier to handicapped travel. This short examination focuses on pedestrian travel.

METHODOLOGY

Review the ADA law and current practices exercised by U.S. General Services Administration (GSA), review the physical border crossings, receive input from the handicapped community, consult with Mexican authorities as appropriate and formulate recommendations.

DISCUSSION

The GSA is the federal 'landlord' for most federal agencies and is responsible for the construction, renovation and maintenance of federal facilities, including border-crossing infrastructure. The GSA has promulgated uniform standards for the implementation of the ADA. These standards are routinely incorporated into new or renovated facilities. Where practical, modifications are made to existing facilities. Modifications to existing facilities are initiated by maintenance personnel after observing barriers to the handicapped or because of complaints received by the handicapped. Some of these modifications are significant and costly, which indicates a commitment by the GSA to implement the ADA. For instance, the gradient of the pedestrian bridge at San Ysidro was flattened for the specific purpose of permitting safer and more convenient handicapped access. At some of the older facilities, such as Tecate, effective implementation of the ADA is delayed to coincide with the reconstruction of the entire port of entry.

Along the California–Baja California border, ADA compliance for pedestrians appears to be of importance only at the San Ysidro POE, as the other crossings are not complicated for pedestrian use by the physically handicapped.

Mexico does not have analogous ADA law. Theoretically, a costly improvement to a U.S. facility could lead to a barrier upon approaching Mexican territory, negating the purpose of the U.S. improvement. These potential difficulties are discussed at regular quarterly meetings held between GSA and their Mexican counterparts. These sessions are problem or project specific and seem to have been successful in correcting or avoiding any visible or glaring barriers.

However, it is clear that whatever success the GSA has in developing a logical interface with Mexican facilities it nevertheless has limited utility. As the handicapped proceed into Mexican territory, they will encounter all of the barriers that existed in the pre-ADA U.S. At present, the handicapped can expect substantial difficulties in Mexico. Handicapped border crossers appear to be cognizant of their mobility problems in Mexico and plan accordingly. The handicapped community has not made an issue of the present situation.

RECOMMENDATIONS

There are no recommendations that can substantially change the Mexican infrastructure once past the actual border crossing. Caltrans, the U.S. Customs Service, and the handicapped community could consider collaborating on developing an educational brochure/handout that provides helpful information on overcoming mobility obstacles within Mexico. For instance, one knowledgeable handicapped person commented that many U.S. citizens now use battery powered scooters that are typically transported by car or pickup, then used for local in-town trips. Lightweight, portable, and inexpensive ramps are available that could be carried by the scooters and used to overcome barriers such as concrete curbs.

Beyond inventorying both the anticipated barriers and the available solutions in the form of educational material, there does not appear to be a direct role for Caltrans. It is recommended that SANDAG and Caltrans urge the Mexican and GSA authorities to coordinate design for disabled users at new and updated POEs.

7. CALIFORNIA HIGHWAY ACCESS TO TIJUANA INTERNATIONAL AIRPORT

ELEMENT STATEMENT

To study the California state highway access adequacy to the Tijuana International Airport (recently changed from Alberto L. Rodriguez International Airport).

PURPOSE AND SCOPE

This study element was intended to examine the existing and proposed state highway access to the Tijuana International Airport (TIA), which is located adjacent to the California–Baja California border southerly of Brown Field.

The recently initiated Caltrans airport ground access study, as described in Chapter 4, element 6, will cover access to the major U.S. airports throughout California. Unfortunately, the Tijuana International Airport is not included in this study although California residents are a major user of this facility, contributing about one-third of the passengers.

Proposed State Route 905 is presently under design between the two existing sections of this route. The resulting route will greatly improve access from I-5 and I-805 to the Otay Mesa area and the Otay Mesa POE, as shown on Figure 2-5 (found in Appendix F) .

METHODOLOGY

Obtain the most recent information on proposed plans for (1) construction of Route 905; (2) improvement plans for TIA, which has recently been privatized; and (3) proposals for a possible terminal in California serving the TIA. Based on the obtained information, ascertain the adequacy of provided highway access to TIA.

DISCUSSION

It has been known for decades that San Diego's major civil airport, Lindbergh Field, and its access roads can not continue to provide adequate service to the region's growing population and air cargo needs.¹ At present there is a proposal, albeit controversial, for developing an air cargo facility at Brown Field, but plans for a new regional passenger airport have not solidified. The

¹ San Diego Dialogue, "Smart Regional Planning and the Airport Question" (executive briefing paper prepared for San Diego Dialogue's Forum Fronterizo policy luncheon series, October 1999).

debate over such a new airport has been lively, contentious, and prolonged. Among the alternative proposals is to utilize the existing TIA's runways with a passenger terminal in California.²

Recently the Mexican federal government awarded a franchise to a consortium to operate 12 airports in western Mexico, including the TIA. This consortium is headed by an arm of the Spanish government.³ At present their plans for improvement of TIA have not been made public, but indications are that they are receptive to the cross-border terminal concept.

Until planning for TIA is solidified, including the possible cross-border terminal, it is not logical to attempt to develop improved highway access to serve TIA.

RECOMMENDATIONS

The design of State Route 905 is recommended to accommodate the possibility of a proposed cross-border airport terminal facility. Also it is recommended that Caltrans consider amending the existing Caltrans Ground Access to Airport Study to include access to TIA.

² Profile Research & Marketing, *Crossborder Air Passenger Terminal Facility: Phase 1 Report* (n.p.: Profile, October 1998).

³ Diane Lindquist, "Spanish-led Team Picked for Airport Privatization," (*San Diego Union-Tribune*, 6 August 1999).

8. CLEAN AIR ACT COMPLIANCE

ELEMENT STATEMENT

To study air quality infrastructure requirements to comply with the amended Clean Air Act (assessing Caltrans infrastructure requirements that result from the implementation of H.R. 8, an amendment to the Clean Air Act)

PURPOSE AND SCOPE

Federal legislation (H.R. 8 of 1996) denies entry into the United States of certain foreign motor vehicles that do not comply with State laws governing emissions. The intent of this legislation was to address U.S. citizens and foreign nationals who cross the border on a regular basis. For example, frequent border crossers who maintain a residence in Mexico while working or going to school in California and travel in a vehicle registered in Mexico. In California's case, the concern is that thousands (Congressional Budget Office estimates 10,000) of these vehicles, legally registered in Mexico, do not necessarily meet California smog requirements and contribute to the region's air quality nonattainment status. The law would require compliance with California requirements by these vehicles.

Caltrans' concern is that physically stopping thousands of vehicles each day to check compliance could contribute to border crossing delays, increased air pollution, and, ultimately, require new infrastructure to deal with inspection protocols.

METHODOLOGY

Acquire the subject legislation, determine the status of implementation, and translate these implementation steps into infrastructure requirements (if any). Formulate recommendations.

DISCUSSION

Taken literally, H.R. 8 could present difficult and complex enforcement procedures. For instance, the law requires compliance with California vehicle emissions requirements. These requirements are met by passing a smog check when registering a vehicle in California. (The age of the vehicle determines how frequently these tests must be performed.) However, these smog checks are for the purpose of licensing a car in California, not in Mexico. Importantly, the owner of a vehicle seeking license renewal is not routinely provided with proof of passing the test, as the results are transferred electronically to the Department of Motor Vehicles (DMV) by the license testing facility. Therefore, aside from infrastructure requirements, proof of compliance would

require modifications of the DMV procedures, allowing an owner of a Mexican-plated vehicle to carry a hard copy of smog clearance.

Some concern was also expressed in the inconsistency of specifically earmarking Mexican vehicles but not requiring analogous situations with other states or Canada. This could possibly lead to court tests.

Despite legal and procedural concerns, the law has been implemented on an informal basis that has not resulted in border delays or created unusual attention to legal issues. U.S. Customs and the enforcement personnel of the California Highway Patrol (CHP) have collaborated in a process that is acceptable to both agencies and to the sponsoring legislator (Bilbray). This process provides for U.S. Customs officials directing suspect vehicles to a secondary inspection area where CHP officers inspect the vehicle. Customs officials give attention to obviously grossly polluting vehicles, and other vehicles that frequently cross the border, on a random choice basis. Finit tickets are issued as deemed appropriate by the CHP.

CHP officials report that the law introduces no additional infrastructure requirements.

RECOMMENDATION

There are reasonable questions regarding the method of implementation, and compliance with the law, with the current approach being informal, random, and questionable. However, the appropriate state and federal agencies as well as the sponsoring legislator are satisfied with the current procedures, and it is unlikely that either agency will demand additional infrastructure facilities from Caltrans for compliance with the amended Clean Air Act.

It is recommended that Caltrans defer to U.S. Customs and the California Highway Patrol on implementation of this legislation. Both of these agencies report that no Caltrans action is required.

General air quality concerns

Air quality along the U.S.-Mexico border has long been recognized as an environmental/health problem and NAFTA included the topic in early discussions and the agreement. As an outgrowth, as previously mentioned, in April 2000 the Binational Air Quality Alliance (BAQA) was incorporated to address air pollution matters within the San Diego–Tijuana/Rosarito air basin. According to Steve Bimson, U.S. cochairman of BAQA, the purpose of this newly established independent organization is “to improve the air quality and health of the citizens residing in the San Diego, California/Tijuana-Rosarito, and Baja California Air Basin. The BAQA shall serve in an advisory capacity to agencies, which are responsible for public health, as it relates to air quality

and as a public forum for the discussion of air quality issues in the binational region.” He states that the membership is “forty voting members, twenty representatives from the United Mexican States and twenty from the United States of America; and non-voting ex officio members from other agencies and other organizations as determined by the voting members.”

For the remainder of this, its inaugural year, the BAQA will meet bimonthly, alternating the meetings between Tijuana and the San Diego area. Their meetings are open and Caltrans participation would be welcome since auto and truck air pollution is a recognized air quality problem, especially along the border with the queuing of vehicles waiting to cross the border.

This new organization is interested in the problems of border basin air pollution attributed to diesel vehicles and alternative methods of reducing this pollution. The interest in this subject is exacerbated by the announced intent of the EPA to enact tighter pollution rules for trucks and buses.¹

RECOMMENDATION

Caltrans should actively monitor the deliberations of the BAQA and become an active participant in their actions that involve land transportation.

¹ Herbert.

9. GSA OFF-SITE AUTHORITY

ELEMENT STATEMENT

To study limits of federal General Service Administration (GSA) authority to make off-site infrastructure improvements (examining the limits of the GSA financial limitation for projects interfacing with Caltrans facilities and resolving GSA/Caltrans disagreements).

PURPOSE AND SCOPE

This study element examines financial responsibility disagreements that occasionally exist between Caltrans and the U.S. General Services Administrations (GSA). These disagreements occur when there is an interface between Caltrans and GSA facilities. This has caused delays in the construction of public facilities, and has complicated project management (scheduled delivery) practices. These disagreements currently have many dimensions: technical, budgetary, political initiatives, legal, and issues based on personality. Despite these disputes and varied parameters of disagreement, progress continues on border facilities, and the associated problems should not be overstated. However, resolution of the differences will benefit both agencies and the public through more efficiently delivered projects. Moreover, effective resolution will enhance the much broader issue, the implementation of the North American Free Trade Agreement (NAFTA), which is beneficial to the economy of the state and the country as a whole.

Current disagreements are over improvements at Tecate, a relatively minor border crossing, but the principles being enunciated over Tecate have the potential to spill over into projects of a more critical nature.

METHODOLOGY

Discuss the background of the problem with both GSA and Caltrans (District 11); gain perspective on the issue from Texas and Arizona. Discuss legal ramifications with Caltrans Legal Division, and from this data develop a strategy that moves towards resolving these disagreements. Formulate recommendations.

DISCUSSION

Defining Disagreements

Disagreements between Caltrans and GSA typically begin during the review of GSA environmental documents, wherein Caltrans assesses the impact of a new or modified GSA facility on Caltrans facilities. New or expanded border facilities must be compatible with the freeway and expressway system in order

to achieve a sensible interface. Disagreements tend to focus on the added capacity or altered geometrics that GSA facilities will have on the existing highway system. Caltrans (District 11) regards GSA facilities as they would that of any developer applying for an encroachment permit to enter a state highway. In those situations, if the developer is adding capacity or contributing to safety or operational problems, the developer must pay for the mitigating improvements that resolve these problems. Caltrans has developed a track record of requiring major developments to contribute large scale mitigating improvements such as added traffic lanes and interchanges, a dimension consistent with discussions held with GSA over border projects.

The specific reasons for GSA-Caltrans disagreements vary, but include the following:

- Caltrans claims that GSA has used the argument that legal constraints preclude GSA performing (and funding) work outside of their right of way. On the other hand, GSA denies that they have raised that legal defense and that no such constraint exists. However, it is clear that these legal discussions have been raised at project level meetings. It appears apparent (and will be proven) that GSA raises the legal issues as a defense to fend demands for improvements for which they do not feel any responsibility.
- Budget constraints are raised, GSA's position being that (absent legal problems) project allocations do not permit broad efforts beyond the actual border project. GSA also believes that agreement to substantially extend the scope of their projects could hold the agency hostage to any number of marginally related improvements across the country, which would diminish their improvement program and violate congressional intent.
- Planning and engineering disagreements exist over the interpretation of reasonable mitigating measures, and engagement of the two agencies at the point of environmental review tends to create adversarial points of view. That is, at this point, GSA has a project in mind, and will be inclined to defend that concept.
- Elected officials have taken positions in these disagreements, somewhat complicating a staff to staff resolution. Elected officials are protective of state and local funds because they have state and local projects for which they are advocates. This is a motivation to maximize federal funding on GSA projects.

- Finally, these legal, technical, budgetary, and political issues have become entangled, with conversations rapidly shifting from one issue to another, offering synergistic complications.

Analyzing The Disagreements

In sorting out these differences, the philosophical approach taken by Caltrans not only deserves comment, but may contribute to a substantial portion of the disagreement.

A new or improved border crossing is not analogous to a housing development or a shopping mall. The reason for improving border facilities is founded in an effort to implement NAFTA, a national policy, supported by law, enhancing trade between Canada, the U.S., and Mexico. NAFTA provides massive economic benefits to the U.S. in general and border states in particular. Certainly, California is a primary beneficiary, and border projects should be regarded less parochially. For instance, a much broader view of these Caltrans-federal interfaces exists between national defense issues and the state. A number of Caltrans projects support this view. One of many examples is the Coronado Bridge. Were the same view of this state facility taken that exists with border projects, the facility probably would not exist, since one of the bridge's primary purposes is to serve a major federal facility.

More importantly, border facilities constitute an integral, not an extraneous portion of the highway system. The more effectively these facilities function, the more effectively the system as a regional whole will function. While accepting this premise does not overcome specific project issues, clearly, adoption of a more inclusive view should eliminate many conflicts. In contrast to the California approach, Texas and the GSA are building border stations on state rights of way, with the project being, in total, a mutual joint venture. TEA 21 appears to envisage innovative techniques such as these for resolving the state-federal interfaces, including substantial funding for state facilities through normal federal-state transportation mechanisms, avoiding narrow disagreements with other federal agencies. Clearly, effective border facilities should be viewed as beneficial to not only Caltrans, but the state as a whole. It is necessary to take a broader perspective and not compartmentalize federal-state relationships into agency-by-agency disputes.

It is also clear that the disagreements under discussion should not lead one to the conclusion that there is an impasse over border improvements. Border improvements are under way, and the staffs of Caltrans and GSA reach accommodation (eventually) over funding issues. It is a compliment to both staffs that they have separated these differences so that crucial crossings, such as Otay Mesa and the connecting freeway system are on the critical path and

are proceeding. The philosophical differences focus on relatively inconsequential projects (Tecate), which causes an analyst to query just how deep or shallow these differences actually are. Still, disagreements have the potential to spill over into a major project, and a resolution is in everyone's interest.

As to the more specific issues, a complicating factor in sorting out the causes and solutions to these disagreements is the mixture of dissimilar issues, e.g., budget limitations, legal constraints and planning and engineering issues. Separating these matters will help us move towards a comprehensive resolution.

Legal Aspects

MTI suggestion, Caltrans requested a legal opinion to define what law or regulation prevents GSA from funding mitigation measures outside of GSA rights of way. While it is correct that GSA is not bound by a Caltrans legal opinion, the opinion could prompt a GSA legal review, which should lead towards an eventual agreement. The legal opinion, as expected, found that there is not a legal constraint to GSA funding modifications outside of their rights of way. This should come as no surprise to GSA, who deny (but are somewhat erratic) the existence of a legal problem. However, this finding should be the catalyst that permanently removes this issue from surfacing in project discussions. The subject legal opinion exists only for the purpose of removing one variable.

Budget Issues

Caltrans is sensitive to the importance of budget issues as a controlling factor in project 'growth', having constant pressure placed on their own projects for marginally related improvements, which escalate project costs. It appears self-evident that staff to staff discussions cannot change congressional allocations. However, it is important to fully understand the obstacle to reaching agreement: Having now isolated legal matters, are remaining disagreements over a technical issue or a funding (budget) issue? It will clarify project discussions if this distinction can be made at the outset. This should be a factual matter, i.e., for Caltrans the answer is a simple one: is the project funded in the State Transportation Improvement Program (STIP)? No amount of dialogue can overcome that inclusion/exclusion. For GSA the question is similar: is the funding included in the approved GSA improvement program?

Planning And Technical Issues; Perspectives From Other Border States

GSA and Caltrans are clearly approaching a GSA interface with a Caltrans facility from different perspectives. GSA is concerned that their project, which from their point of view, serves a specific purpose, and could be exploited to

correct marginally related, long-standing Caltrans problems. Caltrans, on the other hand, is operating a highway system, and is not inclined to fund improvements for problems created by a border facility. While this issue has been previously discussed, further comment is offered.

A perspective from other border states was sought to understand how these identical problems are handled in Texas and Arizona. In broadest terms, these states approach their relationship with GSA from a different vantage point than California. Their assumption is that a border crossing improvement that intends to increase trade with Mexico and improve the economies of both Mexico and the U.S. *is not analogous* to a developer seeking an encroachment permit from the State. Therefore, projects are perceived as being mutually beneficial, and the potential for an adversarial relationship is reduced.

It appears that the border states also approach these projects differently at the conceptual level. When a GSA project abuts a Caltrans facility and thereby creates a need for a modification to that facility, in common sense terms, this should become a single project. Significantly, this is how Texas and Arizona regard these projects. They are partners with GSA beginning with the feasibility studies, through environmental, design, and construction stages. Officials from these states do not experience funding disagreements with GSA, and, in the case of Arizona, the GSA staff is the same GSA staff that services California. It appears clear that the reason for a compatible relationship is founded in the belief that GSA projects are beneficial to the state, and, in fact, the states become a part of those projects.

RECOMMENDATIONS

1. When comparing the Texas perspective on border projects with those of California, it appears evident that Texas has a broader view of the public value of GSA improvements. The acceptance of this philosophical view is the first step in dissolving current GSA-Caltrans disagreement. A revised policy approach is strongly recommended. It is readily conceded that the encroachment permit proponents have a strong case for their policy, and, indeed, this approach may be correct in some government to government relationships. But the relationship between GSA border projects and Caltrans is unique, the resulting federal facility becoming a *de facto* part of the Caltrans facility. Indeed, *border inspection facilities are a part of the operating highway system*.
2. Caltrans should reach agreement with GSA on the use of integrated, joint projects as they address border transportation issues. Reaching agreement with GSA on being a partner in GSA projects is a second step in improving the Caltrans-GSA relationship. This approach simply eliminates the

adversarial potential if stakeholders/ project managers are working towards a common goal. These project relationships should begin at the earliest planning/feasibility stage. At the conceptual stage, Caltrans and GSA should establish a positive, working project relationship. From Caltrans perspective, a joint project does not overcome funding shortfalls, but this implies an effort to achieve the agreed to Caltrans participation. In those cases where technical issue are resolved but a Caltrans funding shortfall exists, GSA always has the option to proceed with its funding sources.

An example currently exists for the planned GSA improvement of the San Ysidro crossing. Any major change in this facility will require significant highway modifications. In alternative one, the southbound lanes of both I-5 and I-805 must be realigned at the border. Alternative two realigns the I-5 southbound lanes south of the Camino de Plaza overcrossing as shown on Figure 2-3 (found in Appendix F). This project is now in a very preliminary state, with scoping meetings just concluded. GSA is not aligned with any particular alternative. The National Environmental Protection Act (NEPA) provides for co-leading agencies and it is reasonably common for state-federal NEPA-CEQA (California Environmental Quality Act) projects. The law provides for these agencies to come to agreement, viz., roles through a letter of understanding. This would provide for early Caltrans integration into a project rather than just another attendee or commentator on GSA environmental progress.

It would be a positive step for Caltrans to suggest such a relationship to the GSA with regards to the San Ysidro project.

3. A third step is a commitment for Caltrans-GSA to establish a set of non-project-specific guidelines/principles that could serve as a framework for specific project financial splits. Caltrans and GSA have a standing quarterly meeting to discuss the status of projects and to resolve specific problems. However, to date, there has not been an effort to meet for the specific purpose of developing joint technical guidelines that could apply to any project. Today, the absence of such general guidelines requires that each project sort out these problems, which at times is only as successful as the compatibility of personalities. An established set of Caltrans-GSA guidelines will overcome many project-to-project issues. GSA is agreeable to begin such discussions. In order for this to not become an open-ended matter, it is suggested that a nine-month timeline be established for developing prototype guidelines for a specific product.
4. Now that elected officials have joined this discussion, it would be helpful to consult with these individuals on two issues: (1) to reach accord on the

newly adopted Caltrans policy of mutually beneficial projects, retreating from the we-they orientation, and (2) discuss the issue of a Texas-type legislative solution, where, by law, border projects are joint GSA-Caltrans projects, built on a common right of way. With preliminary planning under way for a third border crossing in the San Diego–Tijuana area, this concept is timely.

10. SOUTHBOUND INSPECTION REQUIREMENTS

ELEMENT STATEMENT

To study the southbound inspection requirements resulting from recent legislation regarding automated record keeping at U.S. border stations and the possible impacts on Caltrans infrastructure requirements

PURPOSE AND SCOPE

Recent federal legislation amended section 110 of the immigration code. This revision, entitled, An Amendment to the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, required that “an automated entry and exit control system that will collect a record of departure for every alien departing the United States and match the record with the record of arrival in the United States.”¹ This control system under the new legislation would apply to land, air, and sea ports of entry.

It would appear that implementing this system at high-volume land ports of entry, where every occupant of every vehicle would be subject to a query on their alien status, including a computer search of entry cards/visas and attendant violation procedures could cause major traffic delays, and, in turn, place demands for additional inspection booths, traffic lanes, and traffic control devices. Caltrans’ interest is to ascertain the procedural technique that the U.S. Immigration and Naturalization Service (INS) plans, so that these procedures may be translated to infrastructure requirements that may become the responsibility of Caltrans.

METHODOLOGY

Acquire the legislation, determine the status of implementation, and translate these implementation plans into infrastructure requirements. A preliminary breakout of the federal-state responsibility for these improvements would then be developed. Formulate recommendations.

DISCUSSION

A discussion was held with Virginia Kice, Director of Congressional and Public Affairs, INS Regional Office in Laguna Niguel, California, on 29 November 1999. Ms. Kice informs that a Justice Department assessment of the law indicates a need for massive increases in funding for increased personnel, equipment, and infrastructure and have so testified before the Congressional Commerce Committee. Kice further informs that implementation of the law has been delayed by Congress until 2001, and that legislation is being proposed

¹ *Illegal Immigration Reform and Immigrant Responsibility Act of 1996* (P.L. 104-208, Div.C).

by Congressman Fred Upton (Rep.), Michigan, to either repeal the act or enact major modifications. Upton's interest in the legislation is the delay that would occur at the Michigan-Canadian Border, interfering with trade.

A discussion was held with Ms. Tiffany Moore, staff to Congressman Upton, on 8 December 1999, who confirms the INS understanding of the status of the law, including the delay in implementation to 2001 and the likelihood of significant legislation to either simplify or repeal the law. Congressman Upton is Chairman of the Commerce Committee Subcommittee for Oversight.

A discussion was held with Ms. Karen Philis, Port Director, San Ysidro POE on 30 November 1999 regarding the legislation. Ms. Philis stated that a number of experiments and tests had been conducted to determine implementation feasibility, and every indication was that infrastructure, personnel, and equipment costs would be in the range of double the current budget.

Confirmation of delaying implementation of this legislation is contained in the July 1999 General Accounting Office report, *U.S.-Mexico Border: Issues and Challenges Confronting the United States and Mexico*.²

It should be recognized that, although the 1996 amended section 110 of the Immigration Code does not necessitate infrastructure additions, at least at the present time, requests from federal agencies for southbound inspection facilities at Otay Mesa for other purposes has resulted in the GSA proposing such accommodations. At present, intermittent southbound inspections are becoming more frequent and, when held, are backing up traffic on I-5 and, even at times, on I-805, causing traffic safety concerns.

RECOMMENDATIONS

Implementation of this law has been delayed until 2001, and it is likely that new legislation will either repeal or substantially modify the law before 2001. Accordingly, Caltrans should continue to track legislation, but there are no tangible methods to assess increased infrastructure needs caused by this legislative requirement (if any) until the legislative process is complete.

Note that southbound inspection facilities are a major feature of the GSA plans for modification of the San Ysidro POE, but this is not associated with the subject legislation.

² United States General Accounting Office, National Security and International Affairs Division, *U.S.-Mexico Border: Issues and Challenges Confronting the United States and Mexico*, a report to Congressional requesters (Washington, D.C.: GAO, July 1999), 28.

11. PIPELINES OR OTHER STATIONARY FACILITIES

ELEMENT STATEMENT

A preliminary assessment of the potential for cross-border pipelines or other stationary facilities to carry slurries or aggregates and the effect that these kinds of facilities could have on reducing truck traffic at border crossings

PURPOSE AND SCOPE

This study element hypothesizes that if commercial bulk materials could be transported across the border by nontrucking means, requirements for additional border station infrastructure and connecting highways would be reduced. Safety in the Southern California region could be enhanced (by means of fewer trucks on the highways), with air quality and other environmental concerns possibly improved, and with a concurrent reduction in congestion. Dedicated cross-border facilities could have built-in border integrity hardware eliminating the lengthy (current) unloading and inspection of individual trucks as well as the time consuming paper protocols involved in clearing loads on individual trucks.

This study element focuses on nontraditional techniques for moving raw or bulk commodities. The use of pipelines to transport gases and fluids is well known and accepted and is not emphasized in this study. However, the transport of bulk materials across the border by means of conveyors, tramways, or slurry pipelines (solids held in liquid suspension) is not generally in practice and is explored in this chapter, particularly with respect to the implementation of NAFTA and other public-policy issues such as air quality, border delays, and traffic safety. Border integrity issues are discussed in relationship to cross-border pipelines as they relate to the sometimes conflicting roles between the inspection agencies and the national intent to remove trade barriers with Mexico.

The element will document northern Mexico's natural resources in the context of identical resources being currently imported to the U.S. from other countries, but limited in scope to those resources that may be transported by pipeline. This introduces the possibility that readily available resources in northern Mexico could be imported via pipeline as an alternative to shipment from more remote regions of the world. This study generally discusses trade economics in the context of cross-border pipelines. The exploration of importing specific commodities from specific Mexican locations via non-traditional means is not within the scope of this short project element study. The concept of a common carrier (having published tariffs) set of pipeline

crossings that are available to any carrier is introduced as an alternative to many proprietary pipelines.

METHODOLOGY

1. Generally assess nontraditional alternatives for the transportation of bulk commodities in the context of cross-border trade.
2. Explore and summarize the regulatory process necessary for gaining approval to construct alternative infrastructure, such as cross-border pipelines or conveyors, and provide a summary of the time required for major installations to satisfy the regulatory process; summarize the experience of a small business' interaction with the regulatory process.
3. Examine the potential for increases in trade with Mexico by utilizing nontraditional transportation modes. Document the bulk resources in the northern Mexican states that are currently imported to the U.S. from other countries and, of those natural resources, determine which are adaptable to pipeline or conveyor transportation. The intent of this brief analysis is to provide an initial assessment of the theoretical (potential) increase in imports from Mexico to the U.S. via non-traditional transportation means, resulting in a complimentary decrease in overseas imports. Provide a preliminary assessment of the effect that nontraditional transportation means could have on conventional cross-border trade and traffic.
4. Compare costs for transporting bulk commodities by conveyor, truck, unit train, new train, and pipeline and summarize the appropriate parameters for the use of each mode.
5. Explore in preliminary fashion the concept of common carrier crossing the border allowing any business enterprise access to a pipeline at published tariffs.
6. Formulate recommendations.

ASSESSMENT OF NONTRADITIONAL TRANSPORTATION OF SOLID COMMODITIES IN CROSS-BORDER TRADE

Slurry Pipelines

The transportation of solid commodities in temporary liquid suspension via pipeline is not a new technology. Slurry pipelines are often used in third-world countries where conventional transportation methods, i.e., highways and railroads are not well developed. The reason for this is that a pipeline is more economical to construct (assuming distances of a hundred to a thousand miles) and operate than a highway or a railroad, albeit it is for limited and specific purposes. For instance, copper ore may be economically transported from an

Andes Mountain mine for hundreds of miles, which would not be economically feasible if a highway or railroad was contemplated for transport of this commodity. Such long-distance pipelines exist around the world—in South America, Africa, and the Middle East. Approximately 10 years ago a major slurry pipeline was proposed in the United States to transport coal from Utah. This was economically and environmentally a sound project that was canceled due to lobbying from existing transportation (rail) infrastructure interests.

Virtually any raw material that can be reduced to about one-eighth of an inch in size can be transported by slurry pipeline, including iron concentrate, phosphate, copper ore, coal, potash, limestone, clay, sand, etc. Pipelines vary in diameter from six to twenty-eight inches and are typically three to five feet underground and invisible. Pipelines have the potential for negative environmental impact at time of construction, similar to any major facility; however, once in operation, pipelines enjoy an environmental and safety advantage over surface modes such as trucks and trains. This is particularly true with respect to the inert commodities discussed in this study. Recirculating liquids for reuse have potential for decreasing water demands, but these techniques incur additional energy costs and have limited practical utility.

The potential (and interest) in slurry pipelines at U.S. border crossings is obviously different than the needs or motives of a third-world country. At the U.S.- Mexico border crossings a sophisticated highway system is in place and is constantly in a state of expansion and improvement in order to accommodate commercial and tourist trade. Physical crossing facilities are also constantly being improved and modified to meet new demand and legal and regulatory change. Physical expansion programs are expensive, and despite continual improvement and new technology, lengthy border delays continue. However, for the most part, *commercial delays are a result of regulatory requirements of the two countries not the actual physical roadway infrastructure*. These delays, however necessary, do constitute an impediment to commerce and tend to blunt the intent of NAFTA, i.e., “...eliminate barriers to trade in, and facilitate border movement of goods and services between the territories of the Parties.”¹

In certain cases, particularly those that could be influenced by the existence of slurry pipelines, commerce is almost completely curtailed by inspection techniques because it is uneconomical to unload raw materials from trucks for inspection and then reload the vehicle, especially when the unit cost for most

¹ North American Free Trade Agreement, Article 102, 1.(a).

raw materials is very low. Even with customs officials utilizing cameras, X-ray, and other new technology, a carrier faces the distinct possibility of offloading his entire cargo, spreading the load over a large area for inspection, and then reloading. Not only is this time consuming, but it requires expensive labor and equipment to be present at the customs facility. With some cargoes valued at only \$100 to \$150, this practice simply makes the commerce impractical. As a result, the study of the potential impact of slurry pipelines to border traffic is somewhat more complex than anticipated. That is, the introduction of a pipeline would not simply displace trucks equal to the capacity of a new pipeline, because the truck commerce is not now generally in place. Nevertheless, the potential benefits of slurry pipelines exist, not only for commercial purposes but for more subtle public-policy concerns as well.

- Most importantly, the NAFTA contemplated removing trade barriers and increasing commerce. Slurry pipelines could help achieve these objectives without any negative impact on the border infrastructure or integrity. It is generally conceded that it is in the national interest to achieve the NAFTA's objectives.
- Despite inspection impediments, trucks do transport raw materials across the border that could be more efficiently handled by pipeline facilities, reducing demand on border facilities while increasing commerce.
- In certain cases, specifically in the San Diego area, raw materials (mined in the U.S.) are trucked for relatively long distances into the metropolitan area. If there were effective means to transport these materials across the (closer) border, long truck trips in Southern California, many along congested I-15, would be eliminated or at least shortened, enhancing air quality and highway safety, while simultaneously increasing the automobile capacity of the existing freeway system.

In the context of this preliminary assessment, it would appear that there is positive potential for slurry pipelines that requires further and more detailed analysis. Part of that analysis is contained in this study, necessarily limited in depth consistent with the short nature of the effort. However, adequate information is presented that will allow policy makers to decide if they wish to make specific short-range operational decisions and provide the option of carrying longer range legislative and regulatory reform analysis through a carry-on study effort.

Conveyors

Conveyors are belt or chain driven devices designed to transport materials over relatively short distances. Conveyors are known to be effective up to a ten-mile distance, but in the context of this study, facilities would be relatively short,

probably not exceeding 500 feet, for the sole purpose of transporting commodities across the border outside of the existing border-crossing infrastructure.

On high-volume operations, this arrangement would provide for trucks in Mexico unloading at one end of the conveyor and simultaneously loading trucks on the other end. A more typical arrangement would provide for the stockpiling of material on the U.S. side for transfer to trucks as job requirements dictate. In either case, the entire existing border environment and infrastructure would be avoided. When not in use, conveyors may be readily removed from the border in a matter of minutes to assure border integrity. Customs officials could invoke specific hours of operation and require the facility be moved away from the border during off-hours.

While conveyors can transport virtually any solid commodity, the practical application for cross-border commerce limits their use to sand and gravel pits or mines reasonably close to the border. The immediate interest for conveyors is to transport high-quality sand and gravel (in short supply on the U.S. side) for major freeway and other public works projects.

Currently there is relatively little commerce in hauling sand and gravel across the border. In part, this is because of the aforementioned federal inspection agencies need to determine if contraband materials are included in the load, together with the delays accompanying import protocols. As previously discussed, randomly unloading 25 tons of material from a truck at the border for inspection can quickly make such commerce uneconomical. However, some business interests are convinced that fixed cross-border conveyors operating a short distance from the existing border crossing could be designed to accommodate border integrity concerns and would be more economical to operate because of reduced labor costs at point of manufacture (the supply source), eliminate time-consuming delays for trucks at border crossings, and reduce longer hauls from remote pits in the U.S., thus providing environmental (air quality) and highway safety improvements.

The pending large-scale housing projects and the construction of State Route 905 on the Otay Mesa will require importation of low-cost sand and gravel. The most economical source for these materials may be south of the border.

It appears that conveyors have good potential for limited purposes. The relatively small expense required to fabricate these facilities also makes them an excellent candidate for shorter term evaluation under actual field conditions. However, as discussed later, there are regulatory problems in attempting to implement such facilities.

Hybrid Systems

Currently, bulk products (mostly sand, gravel, and phosphates) are also imported by train. This mode faces the same delay from potential inspection as does truck traffic. Trains offload their materials at border stations for inspection, the materials are reloaded (sometimes by conveyor belt) onto trucks, and the trucks continue onto the freeway system. Therefore, many of the efficiencies and advantages of train transportation are terminated at the border and converted to truck traffic near the border station. An added disadvantage to rail transport is that trains must traverse central Tijuana to the border crossing. Similar difficulties exist for barge imports, which could provide high volume imports but also incur clumsy inspection protocols and, worse, would release 250 to 500 gravel trucks per day in the San Diego central business district.

PERMIT PROCESS FOR CROSS-BORDER FACILITIES

Although the permitting process in Mexico is similar to that in the U.S., it is considered to be less onerous. Therefore, this section discusses the permitting process for constructing cross-border facilities on the U.S. side of the border only. Such facilities require a Presidential Permit issued by the U.S. Department of State. This permit is *additive* to other permits or approvals required by law or regulation for projects *not* actually crossing the border. For instance, Corps of Engineers 404 wetlands permits, approvals or permits required for crossing public lands, the entire range of environmental law, etc., continue to be in force. Presidential Permits in this study element are presented in the context of transporting inert bulk commodities through pipelines or conveyors. Similar permitting requirements, approved by other federal agencies, e.g., Federal Energy Regulatory Commission, apply for the transport of electricity and petroleum products.

U.S. Department of State

The U.S. Department of State establishes rules, conditions, and approvals for cross-border facilities in coordination with all appropriate federal, state, and local agencies. The following material is generally extracted from the permit application for a Presidential Permit. It appears that this complex process was developed to address major international facilities such as new border crossings, ports of entry, or bridges that, absent the permitting process, constitute multiyear planning, design, and construction projects wherein a lengthy permitting process does not actually delay completion of the project. Yet, relatively minor facilities, such as pipelines, also use the same process, although the potential for actual involvement or interest by more than several agencies is improbable. Some limited scope projects, such as the Cox Communications fiberoptic tunnel project received a permit in eighteen

months, which was considered by Department of State officials as a short time period.

Federal agencies, particularly those dispersed regionally, are generally protective of their primary role, e.g., inspection, immigration control, environment, and historical and perform proposal reviews that tend to be on the parochial side without a reciprocal focus on NAFTA and international commerce. New and innovative proposals tend to be viewed as potential threats to inspection roles. This attitude is predictable and, in some cases, completely necessary. New ideas are not necessarily good ideas. Nevertheless, this approach fosters delays and obstacles to the permitting process.

During the course of this study, only a single federal office was identified as being a potential advocate for small, unconventional projects. The Commerce Department's Director of NAFTA has indicated a willingness to perform a limited advocacy role for positive, well-thought-out proposals that become delayed by bureaucratic processes, but this is a role that is difficult to discern at the present time.

The Process

Executive Order 11423, dated 16 August 1968, states that "the proper conduct of the foreign relations of the United States requires that executive permission be obtained for the construction and maintenance at the borders of the United States facilities connecting the United States with a foreign country."² Such permission is conveyed by a Presidential Permit.

Scope of Permits

Permits are required for the full range of facilities on the border, including, *inter alia*, bridges, pipelines, tunnels, tramways, and electric power lines.

Application, Coordination, and Conditions

Applications are processed by the Department of State. (Note that this study deals with bulk, inert commodities. In the case of electrical transmission or oil and gas transmission, Presidential Permits are the responsibility of the Department of Energy and the Federal Energy Regulatory Commission (FERC).)

The Department of State consults heavily with other federal and state Agencies. It also coordinates compliance with the requirements of the National Environmental Policy Act (NEPA), The National Historic Preservation Act

² President, Executive Order 11423, dated 16 August 1968, paragraph 1. Provisions of Executive Order 11423 may be found at 33FR 11741, 3CFR 1966-1970 Comp., p. 742.

(NHPA), and Executive Order 12898 of February 11, 1994 concerning Environmental Justice.”³

In order for a permit to be granted, the department must find that the proposed facility would serve the national interest. In the context of the current study, the NAFTA has certain objectives, among them: “*eliminate barriers to trade in, and facilitate the cross-border movement of goods and services between the territories of the Parties, . . . increase substantially investment opportunities in the territories of the Parties.*”⁴

Role of Other Public Agencies

Importantly, the Department of State actually acts as a collator (coordinator implies a more active role) of the interests of many public agencies and does not take an independent position, nor does it attempt to resolve conflicts with or between the agencies, which remains the responsibility of the applicant. As a practical matter, a small- or medium-sized business interest could expect to face substantial difficulties in achieving the consent from over a dozen public agencies. To date, to our best knowledge, permits have only been issued to public agencies or major corporations.

Public agencies expected to have an interest in permit applications area:

Federal Agencies:

- General Services Administration
- Immigration and Naturalization.
- Customs.
- Animal and Plant Health Inspection Service.
- Environmental Protection Agency.
- Fish and Wildlife Service.
- U.S. Coast Guard (if project is an international bridge).
- International Boundary and Water Commission.

³ United States Department of State, Bureau of Western Hemisphere Affairs, Office of Mexican Affairs, “Applying for a Presidential Permit from the Department of State” (fact sheet, 3 January 2000).

⁴ *North American Free Trade Agreement*, Article 102, 1. (a) and (c).

State Agencies:

Agencies responsible for the environment, parks, wildlife, highways, and historic and cultural preservation.

International Boundary and Water Commission (IBWC)

The International Boundary and Water Commission, United States and Mexico (IBWC) has its roots in the 1848 Treaty of Guadalupe Hidalgo that established a temporary joint boundary commission to survey, mark, and map the new boundary between the two countries.

The present-day IBWC, established in 1889 and modified in 1944, is a more than century-old experience by the governments of the United States and Mexico to resolve, through a joint international commission located at the border, those differences that arise from their common boundary.

The focal point of IBWC is where the Rio Grande and Colorado Rivers form the border and the issues that arise because of flooding, change of location of the river beds, common flood-control projects, the distribution of water rights, sanitation and other water quality problems. However, jurisdiction also includes “demarcation of the land boundary between the two countries, and to works located upon their common boundary.”⁵ A 1944 U.S.-Mexico treaty provides the IBWC authority to plan, design, construct, and operate facilities on the joint border.

The IBWC relates to the Department of State (presidential permits) the same as all federal agencies, e.g., a concern over the impact of the proposal on IBWC interests or facilities. However, the IBWC is given special recognition here because of its unique binational nature. This is the only U.S. agency that has day-to-day communications with a Mexican counterpart based on international treaty.

The American IBWC staff is well positioned to provide comments to the Department of State regarding the Mexican position (who receive applications through the appropriate Mexican Ministries) on a given project, and serve as a continuous communications link to the Mexican technical staff. However, it should be made clear that this unique relationship does not provide the IBWC with independent authority to approve applications.

U.S.-Mexico Binational Bridges and Border Crossing Group

This binational planning group is not a part of the formal presidential permit process, but, in practical ways, it can play an important and constructive role in the overall process. This group was formed in 1983 to consider border crossing

⁵ International Boundary and Water Commission Web site: <http://www.ibwc.StateGov/>

and facilities problems. It coordinates policy and fosters communications between the member federal agencies, (U.S. and Mexican) and allows sponsors of new projects a forum in which to present their proposals and gain reactions.

This group meets semiannually and is cochaired by the Department of State and the Mexican Ministry of Foreign Relations. (Note that the Department of State also approves Presidential Permits.) Membership includes all of the federal agencies involved in border affairs, most of them from an inspection perspective. These are the same federal agencies that comment on a formal application for a Presidential Permit. Therefore, even though this group cannot take formal actions on proposals, there is obvious value for a project sponsor to take advantage of the forum in order to gain reactions from the membership. Many individuals who represent the federal agencies in this group will also be those who make formal comments on permit applications. It is common that a presentation to this group immediately precedes a formal permit application and take into account the comments and recommendations received at one of these semiannual meetings.

There is one important factor that works against an applicant presenting their business plan to this group. Many of these business innovations are not freely publicized for fear that a competitor might steal the idea. It is somewhat naïve to imagine a well-thought-out-business plan, which may have taken years to develop, being presented to this group in a public setting, with the applicant having no proprietary rights over the proposal and with potential competitors sitting in the same room.

As discussed further under the recommendations section of this chapter, it is recommended authority be extended for this group to approve minor border projects, avoiding the time-consuming formality of the presidential permit process.

Binational Transportation Planning Joint Working Committee

This committee serves the previously noted Binational Group. The committee's membership includes the four U.S. and six Mexican states who share the southern border, plus the Department of State and the Federal Highway Administration. The initial purpose of this committee, to develop a joint U.S.-Mexican planning process for border projects, at this date remains unfulfilled. This may be a preliminary forum by which a project sponsor could gain comments and reaction before proceeding to the Binational Group.

The Regulatory Process in Practice

Obtaining a Presidential Permit, plus the Mexican equivalent, is a time-consuming process that contemplates a complete business plan, measurement and possible mitigation of environmental impacts, and satisfying the several

inspection agencies, as well as the American and Mexican sections of the International Boundary and Water Commission (IBWC). This process does not lend itself to a short-term business venture. On the other hand, it appears that if a substantial business enterprise is planned, there is no systemic reason why the necessary permits can not (eventually) be obtained.

It is important to emphasize that the Department of State acts only as a collator, or, at best, a clearinghouse to receive and disseminate applications to the appropriate agencies for comment. State makes no independent decision. Ideally, an applicant should have the impacted agencies satisfied as to project mitigation at the time of application for the Presidential Permit.

The time required to receive a Presidential Permit varies both in total time required and the involvement of local (operational) personnel. Clearly, those companies with repetitive experience and large legal and right-of-way staffs are best equipped to deal with the process. Indeed, the time required to develop very large projects, (regardless of location) requires several years, and the permitting process merely becomes one more complexity factor in the project development process. On the other hand, small business people with innovative plans but limited budgets are ill equipped to engage the entire federal bureaucracy. The one-size-fits-all process appears to be overly rigid and could be modified to allow more discretion of federal agencies at the field level when experimental, temporary, or very small installations are contemplated. This is discussed further in the recommendations section.

Following is the experience of several corporations that have been successful in the permitting process, as well as the experience of a very small business which at this date has been unsuccessful:

Cox Communications

Project description:

Fiberoptic 8-inch tunnel

Project comments:

This is a simple TV-cable crossing the border that required virtually no design preparation.

Time required for Presidential Permit: 18 months

Sempra

Project description:

30-inch natural gas pipeline

Project comments:

The permitting process was a critical-path item, meaning that the permit acquisition could extend the overall project lead-time and, in this case, was not merely a parallel process. This corporation also acknowledges that Sempra has many legal and engineering resources and believes that a neophyte organization would suffer many more delays. Sempra did not incur any particular difficulties in the permitting process but did experience disconnects between Washington and San Diego field officials. Decision making delegation could reduce the time required for permitting.

Time required for Presidential Permit: 24 months

El Paso Natural Gas

Project description:

Underground natural gas pipeline, 16-inch to 24-inch diameter

Project comments:

El Paso has several cross-border pipelines in operation and two in the planning stages. El Paso has considerable experience in this process and estimates about twelve months to receive the Presidential Permit.

Time required for Presidential Permit: 12 months

Case Study: A Small, Unconventional Facility Vs. the Regulatory Process

International Aggregates Corporation (IAC) is a U.S. firm specifically established to efficiently import high-quality sand and aggregates from Mexico into San Diego County.

Sand and gravel is a low-cost commodity in both Mexico and the U.S. The cost of delivery dominates the ultimate delivered price as haul distances increase beyond thirty to fifty miles. Traditionally, this industry has developed source pits throughout the developed part of the U.S. at 60 to 100 mile intervals in order to minimize transportation costs.

The primary users of sand and gravel are public works agencies engaged in the construction of ports, freeways, and other major public facilities that are intended to be in use for many decades. The standards established by these agencies for sand and aggregates are high, and the quality of material from traditionally based pits in many cases cannot meet these standards. In order to achieve these standards, sand and gravel is being hauled from increasingly distant pits (over 100 miles) on the freeway system to the job sites, increasing costs to the public and creating additional congestion on the existing freeway system. Conversely, these commodities exist in both quantity and quality

directly across the Mexican border from where many of the major U.S. projects are planned. IAC. recognized that if an efficient system could be designed to transport 5,000 to 10,000 tons per day (200 to 400 truckloads) of these materials across the border, it would be a viable economic venture.

If IAC's proposal could be effectively implemented, several public-policy objectives would be realized, in addition to the general benefit of implementing the NAFTA.

- Most of these aggregates are used on publicly financed highway, bridge, and port facilities. The reduced costs due to short hauls will result in reduced costs to the public through the competitive bidding process.
- The public exposure to heavy trucks on freeways (total vehicle-miles) would be substantially reduced, improving highway safety and reducing congestion.
- A reduction in heavy equipment vehicle-miles will improve air quality.
- Current cross-border truck commerce involving sand and gravel, albeit relatively small, would be eliminated, reducing congestion and customs workload at the Otay Mesa POE.

IAC had no experience in the federal permitting process. They took the common-sense approach and began discussions with U.S. Customs in 1994. The issue of building a system that could accommodate U.S. Customs concerns quickly surfaced, and these safeguards were designed into a cross-border conveyor system in the form of screens, remote cameras, and conventional inspection. Many specific advantages emerged, including the following two:

- U.S. Customs utilizes a random inspection system, unloading 25 percent to 100 percent of bulk commodities carried by cross-border trucks. On the other hand, the conveyor system would permit continuous 100 percent examination.

Obviously this is a commercial enterprise, and IAC agreed that inspectors diverted from normal border crossings or additional inspectors (if necessary) should be funded by IAC, not the public.

- Current practice accepts diesel trucks idling for up to several hours because of border-crossing delays. This is somewhat contradictory to the national interest for improving air quality in a nonattainment area. In fact, the public policy rationale for exporting natural gas to Mexico, including the new Sempra line, is to improve air quality in the border area.

During initial discussions, the concerns of other state and federal agencies emerged and IAC dealt with them directly at the regional level. As the conveyor option developed, discussions continued with regional federal officials. As obstacles emerged, they were resolved, only to face more obstacles. A reasonable interpretation of these delays is that these agencies, constantly under high pressure and public criticism, viewed an unconventional structure across the border as still another complication to their inspection role, particularly in terms of public and political criticism. A more charitable interpretation is that the permitting is unclear with regards to the authority at the regional level. Until September 1999, IAC held the view that project approval would be obtained or rejected at the regional level. This was a reasonable interpretation, given the back-and-forth communications regarding the project for over five years.

Meanwhile, IAC was having somewhat more success on the Mexican side of the border. In fact, the venture attracted World Bank officials who committed to funding the necessary mining facilities in Mexico as one method of improving employment and economic conditions in Baja California. (Note that the U.S. is the major contributor to World Bank funds via the International Monetary Fund.) IAC also was issued permits by the Mexican government to conduct operations, a significant accomplishment (which involved multiple trips to Mexico City) with a government that also has a complicated regulatory process.

Throughout the process of dealing with regional U.S. agencies, a Presidential Permit was not an active consideration because of the portable nature of the planned IAC facility. The presidential permit process has been traditionally geared towards bridges, dams, pipelines, and similar permanent facilities.

IAC is now on the threshold of receiving regional U.S. Custom's approval for their venture. However, the need for a Presidential Permit is now being considered. As previously discussed and displayed, this is usually an 18 to 24 month process. A number of points need to be made at this juncture:

- Inspection agencies are doing their assigned job, which is to inspect the border. Their primary role is border integrity, not enhancing international trade.
- There is no active U.S. agency that *is* an advocate for a business person attempting to merge a commercial undertaking with public policy (NAFTA). After several days of contacting federal agencies in Washington, one office in the U.S. Department of Commerce indicated that they might assume such a role, but their existence had been invisible to IAC.

- The federal permitting process is not well known even within the federal system, particularly to regional officials. Department of State officials, when asked informally if a portable conveyor system required a Presidential Permit, indicated that their legal division would have to review such a question. IAC, not anxious to receive a definitive ruling on that question (and a 24-month or more delay), has not requested the ruling.
- Project delays are not all due to the federal system. IAC has itself contributed to these delays through reorganizations and changes in their business plans.
- The reaction from transportation and border improvement advocates to the IAC proposal has been very disappointing. This is a prototype proposal that could further the NAFTA, improve transportation, and reduce public project costs; yet, there is little apparent interest in pushing the venture in a positive, forceful manner. Indeed, a willingness to simply allow the presidential permit process play out over a period of years seems to dominate. These same interests, including Caltrans, who routinely and aggressively lobby legislators on specific highway projects and request regulatory or statutory change of processes that interfere with their advocacy, display considerable timidity with respect to this proposal.

This proposed project remains on the brink of success or failure. However, it appears clear that confusion and a general lack of clarity in the permitting process have been a major contributor to these delays, and have forced major monetary expenditures on the small business person who has a creative idea, fully synchronized with the intent of the NAFTA.

The recommendations section, discusses remedies for this type of situation.

THE POTENTIAL FOR INCREASED CROSS BORDER TRADE UTILIZING UNCONVENTIONAL TRANSPORTATION MODES

This section consists of current and potential trade by pipeline. This preliminary information is provided on the premise that a discussion of unconventional transportation techniques is largely useless unless there is a reciprocal expectation that these methods could be utilized to transport real commodities in international trade. This information provides a crude analysis of potential supply and demand.

Figure 11-1 summarizes recent (1994-98) trade with all of Mexico, for commodities transportable by pipeline. While these numbers appear significant in the absence of current pipelines, they constitute only a small percentage of these commodities that the U.S. imports worldwide.

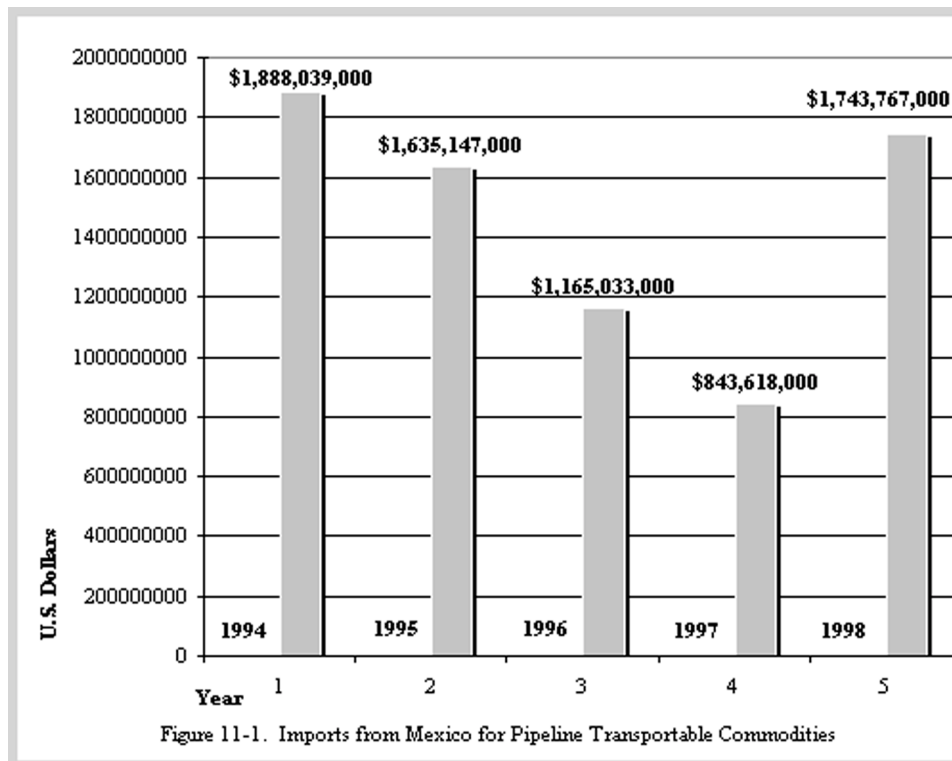
FIGURE 11-1

Table 11-1 provides the following information:

- A listing of commodities that are found in the Northern Mexican states (with their Dept of Commerce numerical designation) that can be transported in slurry pipelines;
- The current importation of each commodity from Mexico, expressed in millions of U.S. dollars (USD);
- The current importation of each commodity to the U.S. from all countries, expressed in millions of USD;
- The percent of these commodities currently imported from all of Mexico as a function of worldwide imports, which indicates the large potential increase in the importation of these commodities from Mexico, shifting this trade from more distant countries;
- Where known commercial quantities of these commodities exist in Mexican States adjacent to the U.S. Border, making them more attractive to their potential land transport by rail or pipeline; and

- A preliminary estimate of the opportunities to increase these imports via pipeline or conveyor given their existence in commercial quantities in Mexican States adjacent to the U.S. Border.

Note that in Appendix D, there are information sheets related to Table 11-1, published by the Mexican government that provide demographic, mineral deposits, and other economic information for the northern Mexican states.

Table 11-1. Preliminary Assessment of Potential Increase in Mexico Imports by Slurry Pipeline

Commodity	Imports Mexico *	Imports World Wide *	Percentage of World Wide Import	Prevalence of Commodity in Northern Mexico	Possible Pipeline Opportunity Usage (High/Med/Low)
Aluminum Phosphate / Calcium Phosphate - HS 251010	0.07	35,707	0.20%		Low
Ash and Slag - HS 262100	0.225	6,716	3.35%		Low
Clays - HS 250840	0.026	1,881	1.38%		Low
Coal - HS 270119	0.089	2,604	3.42%		Low
Copper Ore - HS 260300	1.4	227.5	0.62%	Chihuahua, Sonora	High
Dolomite - HS 251810	0.1	6,874	1.45%	Coahuila	High
Ferro Manganese - HS 720211	0.42	107,498	0.39%	Baja California North	High
Ferro Tungsten - HS 720280	0.16	4,591	3.49%	Baja California North	High
Fertilizer - HS 310100	0.323	4,477	7.21%		Low
Lime Stone - HS 252100	0.648	23,353	2.77%		Low
Natural Graphite - HS 250410	0.005	0.03	16.67%	Senora	High
Natural Sand - HS250590	0.056	4.72	1.19%		Low
Sand/Gravel - SIC1440	1.17	9,556	12.24%		Low
Sulfur - HS 250300	26,939	39,412	68.35%		Low
Unrefined Copper - HS 740200	0.108	0.423	25.53%	Chihuahua	High
Unwrought Gold - HS 710812	0.109	2,911	3.74%	Coahuila, Baja California North, Senora	High
Unwrought Lead - HS 780110	0.041	0.165	24.85%	Coahuila, Chihuahua	High
Unwrought Silver - HS 710691	0.241	0.584	41.27%	Coahuila, Chihuahua, Baja California North, Senora	High
Unwrought Tungsten - HS 810191	0.11	11.65	0.94%	Baja California North, Senora	High
Unwrought Zinc - HS 79011	0.081	0.666	12.16%	Coahuila, Chihuahua, Senora	High

* Chart is projected in millions of U.S. dollars. Information has been acquired through the U.S. Commerce Department.

GENERAL MODAL COST COMPARISONS: TRUCK VS. NEW RAILROAD VS. UNIT TRAIN VS. PIPELINE

Implicit in a discussion regarding pipelines are the economies of this non-traditional mode. This section briefly discusses and compares the cost of pipeline transportation vs. traditional modes.

Many factors are involved in making modal cost comparisons—with each mode having their advantages and disadvantages—such factors as the duration of the project, capital costs, permitting time requirements, energy utilization per ton, and distance to transport. For instance, trucks can be employed almost immediately but have high costs, both in terms of energy and labor. This limits the length of economic hauls. On the other hand, new rail projects are energy efficient but capital intensive, requiring a 15 to 25-year commitment to a project. Pipelines are also capital intensive (though less so than trains) and somewhat less energy efficient than trains, but they are largely immune to labor costs, climate, and environmental impacts (once construction is complete).

Table 11-2 illustrates the characteristics of the various modes and some of the considerations that must be made in determining an appropriate modal choice.

The point of this figure is not to favor one mode over another but, rather, to point out that each has its appropriate place, including pipelines, which heretofore have largely been ignored in these kinds of comparisons.

One important factor, which may not be immediately apparent in the following figure in the context of cross-border trade, is that five to twenty-five million tons of bulk commodities could be piped across the border without any impact whatsoever on border infrastructure and, in doing so, actually contribute to reducing current truck traffic in a modest manner.

Another positive use of the figure 3 can be made by adding operational cost data, allowing certain basic findings to be projected regarding the ton-mile costs of transport by each mode. Slurry pipelines have certain fixed costs, including water (to create the slurry), slurry preparation, and dewatering. These costs remain essentially the same regardless of the length of the pipeline. Therefore, these costs diminish in proportion to overall pipeline costs as the length of the pipeline increases. This results in a reduction of cost per ton for transporting material as the length of the pipeline increases. Based on 35 million tons per year, the following information would hold true:

- With a 200-mile pipeline, and charging \$8.00 per ton, the cost is \$.04 per ton-mile.

- 500-mile pipeline, and charging \$9.00 per ton, the cost is \$.02 per ton-mile.
- 1000-mile pipeline, and charging \$12.00 per ton, the cost is \$.01 per ton-mile.

Table 11-2. Characteristics of Modes

Characteristics	Truck	New Rail	Unit Train	Pipeline
Availability	Public roads exist near most cities	Built to suit requirements	Use existing track	Built to suit requirements
Lead Time Required EIS & Permits Construction	Nil Nil	1-2 years 2-3 years	Nil Car delivery	1-2 years 2-3 years
Minimum Shipment Size	23 tons per load	100 tons per car	11,000 ton per train	Continuous
Typical Annual Capacity	15,000 tons per truck	100,000 tons per car	1.5 Million tons per train	5-25 million tons per year
Typical Distance	Less than 100 miles	Less than 200 miles	Less than 1500 miles	Less than 2000 miles
Required Duration	Nil, trucks re-saleable	15-25 years	Short, cars can be sold	15-25 years
Social and Environmental Effects	Increased road traffic	Linear surface use, heavy cuts and fills	Increased railroad traffic	During construction period
Energy Efficiency*	7300 BTU per ton-mile	488 BTU per ton-mile	488 BTU per ton-mile	608 BTU per ton-mile
Water Requirements	Nil	Nil	Nil	230 gallons per ton

* Note: lengths for rail are normally longer than pipeline due to grade requirements.

These costs compare favorably to those of rail transportation. In a rail comparison, certain assumptions must be made. All new rail construction costs are much more cost intensive than dedicated cars (unit train) on an existing

railbed. On the other hand, it is unlikely that existing rail service is available to very many mine sites. For purposes of comparison, we assume 200 miles of new rail construction connecting to 800 miles of existing track, for the 1000-mile comparison, carrying 35 million tons per year. This would result in per ton costs of approximately \$18.00, or *two cents per ton-mile*. Obviously as new construction grows, so does the per ton mile costs, and vice versa, as existing rail service exists close to the commodity source, the per ton price will reduce. In the ideal (but unlikely) rail scenario, where railroad service actually exists to the site, the price per ton-mile would reduce too slightly under *one cent per ton-mile*.

Truck transportation is most economical for short distances., with costs steadily escalating according to mileage, since a truck is limited to about twenty-five tons per load., or about 15,000 tons per year per truck. The cost to transport per ton-mile is approximately *eight cents per ton-mile* assuming a 100- to 200-mile haul. The attractiveness of truck transportation is the absence of any major capital costs or permitting delays. Aside from the high per ton costs, another negative feature is the high sensitivity of truck transport to inflationary pressure.

One may conclude that different modes of transportation are appropriate for different situations, with pipelines gaining attractiveness as the length of the haul and the number of years of commitment increase. Rail service competitiveness is directly related to the proximity of existing service to the mine site. As new rail construction increases, the costs become a negative factor. Trucks are ideally suited to short hauls where the duration of the project is limited. A simplified representation depicting maximum modal transport distances is presented in Figure 11-2.

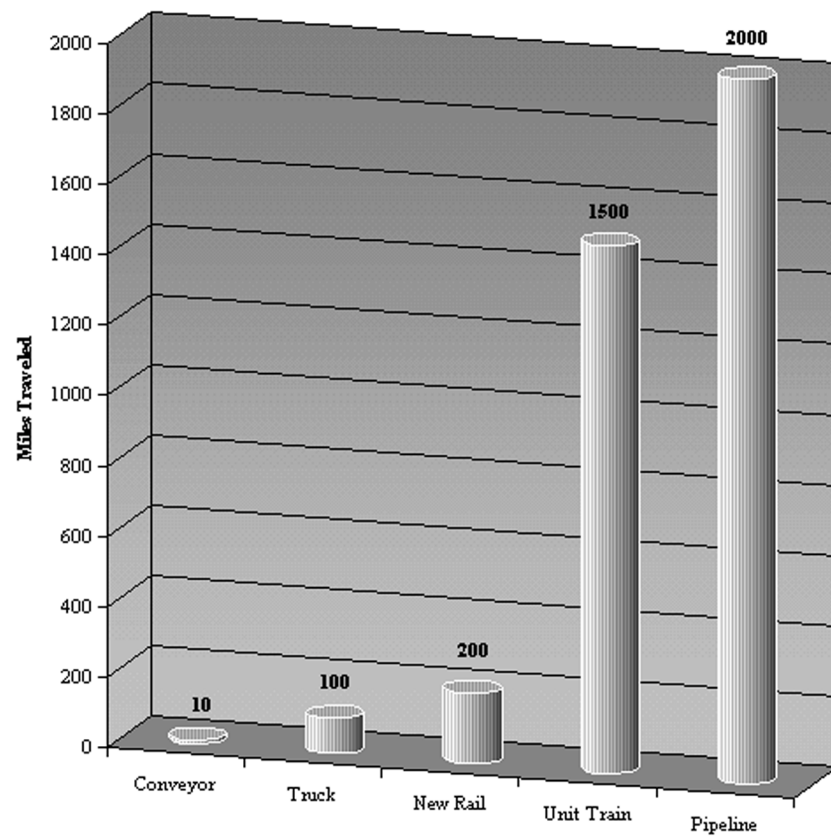


Figure 11-2. Mode of Transportation

COMMON CARRIER CROSS-BORDER PIPELINES: A CONCEPT

Common carriers have been an important transportation factor since well before the advent of motorized vehicles. This historical concept provides for published nondiscriminating tariffs (shipping rates) that may be used by any potential shipper. In the 1930s, tariffs for rail and truck became regulated tariffs, many of which were intended to protect the shipping industry. In the latter part of the twentieth century, these industries, at least with respect to government controlled tariffs, have been deregulated. However, these industries continue to be required to establish and publish their own non-discriminatory tariffs, as well as comply with safety and insurance regulations as a condition of being licensed as a common carrier. .

The discussion regarding cross-border pipelines has focused on proprietary installations. That is, each pipeline is owned and operated by a single company. That introduces at least two additional considerations:

1. If pipelines show increased popularity in cross-border trade, the number of physical installations will also increase, which could become a topic of concern in future years.
2. Not every business with an otherwise viable economic plan can build its own pipeline.

This introduces the concept of a series of cross-border pipelines that could be utilized by shippers as a means of transporting many commodities, with the pipelines themselves owned and operated by a third party, much as a trucking company carries goods for many different shippers. The common carrier label simply connotes that for such a facility to operate in the public interest, operator established, published, nondiscriminatory tariffs would be one key part of the pipeline approval process.

Keeping in mind that this discussion is conceptual in nature, but assuming ultimate success, pipelines of this nature could virtually displace bulk commodity trucking across the conventional border while dramatically increasing the volume of shipments.

There are more questions than there are answers when considering such an installation, such as the following:

- How deep into either country would the pipelines extend, where could loading and unloading occur?
- Which commodities could, at different times, utilize the same pipeline without concern over contamination?

- The previous discussion on pipelines emphasizes a long-term commitment to the facility and decreasing costs as pipeline mileage increases. The latter feature may be an obstacle, as this discussion conceptualizes the pipeline as a bridge across the border rather than a long distance facility.
- How frequently (along the U.S.-Mexico border) would batteries of pipelines cross the border?
- Would a major entity, such as the U.S. Department of Commerce or the U.S. Department of Transportation be interested in undertaking a role in a follow-on study effort, given that TEA-21 authorizes about \$500 million in border improvements', keeping in mind that the success of pipelines would substantially reduce traditional infrastructure costs?

Very obviously, this concept requires additional economic-based study, including the possible use of reclaimed water as the pipeline fluid. However, with Caltrans searching for visionary solutions at a time of funding pressures, this concept is a strong candidate for a constrained feasibility study. This is a concept that could displace the need for more traffic lanes, more inspection booths, and more inspection personnel, while at the same time drastically increasing trade and reducing border congestion.

RECOMMENDATIONS

1. Caltrans and SANDAG, where necessary, should act as a catalyst for entities attempting to promote experimental or prototypical cross-border facilities where transportation efficiencies are evident or where there are air quality benefits. This advocacy role could include participation in the International Boundary and Water Commission (IBWC) meetings where such topics are placed on the agenda; as a commentator to applications for Presidential Permits, and as a public proponent to the Departments of Commerce and State for such facilities and improvements.
2. Caltrans, SANDAG, and SCAG should join in petitioning the U.S. Department of State and the International Boundary and Water Commission (IBWC) to establish an expedited process for approving prototypical cross-border facilities. It is reasonable to assume that legislators may be interested in streamlining the process for minor projects.

More delegation to federal government field offices would allow for the approval of minor projects at the local level and should be advocated by Caltrans, SANDAG, and SCAG through appropriate legislative contact and in-house legislative liaison personnel. It appears that the U.S.-Mexican Binational Bridges and Border Crossing Group, who meet semiannually, is well positioned to assume limited delegated authority for the approval of

- small projects. As illustrated in the case study, a creative, productive small project may not survive the time and costs involved in the current permitting process. Specific recommendations have been provided to Caltrans that could effect a change in the Presidential Executive Order establishing the permitting process, together with a recommended process to gain the governor's and certain key legislator's support. (For the specific recommendations see appendix E.)
3. Caltrans (Headquarters and District 11) should take steps to include pipeline and conveyor technology in their planning process. It is noted that the recently approved Caltrans Goods Movement Strategy does not include these technologies. The traditional analysis of highway or transit should now include pipelines as a possible alternative to additional traffic lanes.
 4. Caltrans, SANDAG, and SCAG should join with appropriate federal agencies to explore, via a feasibility study, the concept of a common carrier pipeline/conveyor facility that provides a minimum number of crossings for a maximum number of commodities. Such a cross-border facility could be used as a conduit for many companies and commodities on a pay-for-service concept. It should be noted that there will be limited utility if each industry, or entity within an industry, all attempt to create cross-border facilities. Shared facilities would serve a larger public need and would be more practical for federal inspection agencies.
 5. Caltrans, SANDAG, and SCAG should act as a catalyst in arguing that the cross-border permitting process focus on the most efficient modal choice for commodity movement rather than limiting these choices because of traditional inspection protocols.

12. STUDY SUMMARY

As this study progressed, several topics surfaced that were addressed separately, and recommendations of immediate concern were provided to Caltrans for timely attention. These recommendations were as follows:

1. Recommended legislation to revise the *Streets and Highway Code* to clarify legislative intent regarding state highway service to international POEs; define “border region”; modify existing state highway routes; and include section 321 to the *Streets and Highway Code* to add Route 21 to the system. The letter of 1 September 1999 to Caltrans District 11 Director, Gary Gallegos, covered this (see Appendix A) and conveyed recommended legislative wording to carry out these recommendations.
2. Recommended action regarding TEA-21, section 1106(d), Intermodal Freight Connection Study and use of TEA-21, section 1602, item 35 funds “to construct San Diego and Arizona Eastern Intermodal Yard, San Ysidro.” These two items were the subjects of the letter of 6 December 1999 to Caltrans District 11 Director, Gary Gallegos (see Appendix B).
3. Recommended action regarding Presidential Executive Order 13122, Interagency Task Force on the Economic Development of the Southwest Border, interim report of 15 November 1999. This interim report was discussed at a meeting 12 April 2000 with Caltrans District 11 Director and his staff with our recommendation that the Task force be contacted to correct the shortcomings of this interim report. The first full report of this Task force was due April 2000, and if the California related shortcomings are not evidenced in that report, Caltrans should work with the Task force to assure corrections are made in subsequent reports.

In consultation with Caltrans, eleven study elements were identified for detailed attention as reported in Chapter 3. After further study and consideration, these eleven study elements were rescoped, consolidated, and better identified as related in Chapter 4. As part of this reassessment a fourth recommendation was presented as follows.

4. Recommended that the study of proposed Route 11 to a third border crossing on Otay Mesa include provisions for removal of heavy commercial border traffic from the present necessity of city street routing.

The seven study elements resulting from Chapter 4 were then given detailed study as reported in chapters 5 through 11. Recommendations from these seven chapters are reported at the end of each chapter, but are summarized as follows.

5. Recommended that Caltrans continue full participation in the San Ysidro based Border Transportation Council, and if found warranted, consider fostering a similar organization at Calexico (Chapter 5).
6. Recommended that new and updated POE designs on both sides of the border be coordinated to best serve the disabled (Chapter 6).
7. Recommended that design of State Route 905 accommodate possible future cross-border airport facility (Chapter 7).
8. Recommended that the Caltrans Ground Access to Airport Study be amended to include the Tijuana International Airport (Chapter 7).
9. Recommended that Caltrans defer to U.S. Customs and the California Highway Patrol regarding implementation of federal legislation amending the Clean Air Act (Chapter 8).
10. Recommended that Caltrans actively monitor the deliberations of the Border Air Quality Alliance and become an active participant in their actions that involve land transportation (Chapter 8).
11. Recommended that Caltrans consider border inspection facilities as part of the operating highway system (Chapter 9).
12. Recommended that Caltrans reach agreement with the federal GSA on integration of projects as they address border transportation issues (Chapter 9).
13. Recommended that Caltrans and GSA establish nonspecific guidelines/principles to serve as a framework for project financial responsibilities (Chapter 9).
14. Recommended that, after resolution of recommendations eleven and twelve, Caltrans discuss with appropriate officials possible legislation to allow joint GSA-Caltrans projects (Chapter 9).
15. Recommended that Caltrans continue to track legislation related to southbound inspection requirements and react accordingly (Chapter 10).
16. Recommended that Caltrans and SANDAG, where necessary, act as a catalyst for entities attempting to promote experimental or prototypical cross-border facilities where transportation efficiencies are evident or where there are air quality benefits (Chapter 11).
17. Recommended that Caltrans, SANDAG, and SCAG join in petitioning the U.S. Department of State and the International Boundary and Water Commission to establish an expedited process for approving prototypical cross-border facilities (Chapter 11).

Note: specific process-oriented analysis and recommendations pertaining to this subject are contained in Appendix E.

18. Recommended that Caltrans include pipeline and conveyor technology in the planning process (Chapter 11).
19. Recommended that Caltrans, SANDAG, and SCAG join with appropriate federal agencies to explore, via a feasibility study, the concept of a common carrier pipeline/conveyor facility that provides a minimum number of crossings for a maximum number of commodities (Chapter 11).
20. Recommended that Caltrans, SANDAG, and SCAG act as a catalyst in arguing that the cross-border permitting process focus on the most efficient modal choice for commodity movement rather than limiting these choices because of traditional inspection protocols (Chapter 11).

APPENDIX A

Gary Gallegos
District Director
Caltrans, District 11
2829 Juan Street
San Diego, CA 92101

Subject: Proposed Legislation

As was discussed at our August 6, 1999 meeting to inaugurate the *Phase II: California Border Zone Land Transportation Issues* study, proposed State legislation to implement items identified in the study, *Phase I: Impacts of the North American Free Trade Agreement on Transportation in the Border Areas of the U.S. with Emphasis on the California Border with Mexico* was to be presented to the District. This memo serves that purpose.

The proposed legislation is presented in four segments and on separate sheets as follows:

Legislation to revise *Streets and Highways Code*, Article 3: State Highway Routes, section 300 to clarify legislative intent regarding State Highway service to International Ports of Entry within the state,

Legislation to define "Border Region,"

Legislation to modify description of certain existing State Highway routes relative to the border with Mexico, and

Legislation to revise the *Streets and Highways Code* to include section 321, which would add Route 21 to the system.

Other legislative recommendations in the Phase I report covering possible toll roads have not been carried forward.

If you have any questions regarding these legislative recommendations, please do not hesitate to contact me.

Sincerely,

George E. Gray

APPENDIX B

December 6, 1999

To: Gary Gallegos

District Director

Caltrans District 11

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e-mail: gegray@gateway.net

Subject: IISTPS Study, *NAFTA II*:

California Border Zone Land Transportation Issues:

Issues of Immediate Concern

Dear Gary:

In our above-referenced study, two issues have surfaced which are of major short-range concern in that Caltrans could profit from involvement in them in the next few months.

The first of these is the first issue listed on page eleven of the *Interim Report, Task 2: Determine Issues*, dated October 31, 1999. (A copy of this Interim Report is included for your convenience.) This issue, "Intermodal Freight

Connection Study (TEA-21, section 1106(d))” has been pursued with the following results.

- The study is being addressed by the FHWA with the intent to submit it in draft to the Office of Management and Budget prior to formal submittal to Congress by the June 9, 2000 required date.
- Caltrans has not been involved in the study. (Information for California was collected by the Sacramento Office of the FHWA.) Hearings have been held on the findings in the northeast (Boston), and northwest (State of Washington), and a final hearing is to be held in Florida. The southwest has not been represented at these hearings.
- **The international land ports of entry have not been included in the study.** Evidently the study is being formulated to mostly address the concerns of the sea and air port industries, with input also from the major railroads.
- In California, 29 terminals have been identified by the FHWA, each with from one to ten connectors. The study as defined in TEA-21 calls for “(A) review the condition of and improvements made since the designation of the National Highway System, to connectors on the National Highway System that serve seaports, airports, and other intermodal freight transportation facilities; and (B) report to Congress on the results of such review.” The FHWA review of the 29 terminals is reported to conclude that there are no needed improvements between the identified terminals and the National Highway System. We find this to be an inadequate finding and feel that Caltrans should review the FHWA findings and, if appropriate, input to the study..

The above information was obtained from the following:

1. James Lee, FHWA Sacramento (916-498-5001);
2. Lee Chimini, FHWA, Washington, D.C. (202-366-4068);
3. Joedy W. Cambridge, TRB Liaison to Committee A1E05, Intermodal Freight Transport (202-334-2167);
4. Mike Hicks and Nan Valerio, SANDAG;
5. Joan Sollenberger, Caltrans DOTP; and

6. Carl West of your staff (confirming no District involvement in the study).

I intend to follow up on the present status of the study by contacting Carl Williams and by initiating further discussions with Joan Sollenberger. I feel the intent of Congress is not being addressed by the present effort of the FHWA.

The second issue is related to the first. At present, six to eight gondola freight cars loaded with high quality sand are entering the U.S. each weekday over the San Diego and Arizona Eastern (SD&AE) tracks at San Ysidro. RailTex, the railroad operator, intends to increase this import to 25 cars per workday in the near future. RailTex also expects a second shipper to soon enter into this business and has held discussions with Burlington-Santa Fe about serving the greater Southern California market with similar service. Each rail car holds about 100 tons, the equivalent of 3 large truck/trailer combinations. At present this sand is inspected by Customs as it is off-loaded at San Ysidro and skip-loaded into trucks that proceed north over I-805 and I-15 to Escondido – about 18 to 24 shipments per workday. If the business expands as expected by RailTex, this will grow to 75 shipments by truck per workday to this one importer. Needless to say, the trucking of sand from the border area to various users in the San Diego area can have significant favorable impact when compared to hauling from the Riverside area.

Discussions with Customs have identified that this operation is O.K. with them since all the rail cars are emptied in their presence. However, they have stated that the facilities for their inspectors are presently inadequate and if not improved may threaten continuation of the operation. RailTex does not feel that providing inspection facilities should be their responsibility. Providing such facility improvement may be a logical use of at least some of the \$10 million in TEA-21 funds authorized under section 1602, item 35 to “. . . construct San Diego and Arizona Eastern Intermodal Yard, San Ysidro.” It is my understanding that there is no present plan for use of these funds. Incidentally, action is proceeding to install a rail car X-raying inspection facility at San Ysidro. I do not presently know who is funding this effort. If successful, it is expected that off-loading of bulk cargo would not be required for Customs inspection.

The information on this sand importation and the section 1602 funds came from the following:

1. R.V. Nash, Supervisory Inspector, U.S. Customs Service (619-661-3377);

2. Mike Ortega, RailTex (619-239-7348);
3. Jack Limber, Metropolitan Transit Development Board (619-557-4512);
4. Mike Hicks, SANDAG;
5. Bill Figge of your staff; and
6. José C. Ornelas, Caltrans Border Liaison, who was especially helpful.

I intend to follow up on the present findings, but wanted to inform you of the present status. You may soon receive a copy of a letter from RailTex to Rudy Camacho of Customs regarding the inspection facilities on the SD&AE line at San Ysidro.

We are continuing to research the role of pipelines, conveyors, and other stationary facilities in moving goods across the California-Baja California border.

If you have any questions on the above, please don't hesitate to contact me.

APPENDIX C

Draft June 13, 1999
Findings

Table 1
PROBLEMS, NEEDS, AND CORRESPONDING POTENTIAL SOLUTIONS AND RELATED BENEFITS

Problems	Causes	Potential Solutions	Delay and Emissions Benefits (Daily)
High Priority			
Many vehicles crossing border pollute excessively	Varying fuel and emissions standards Poor maintenance Old vehicles Limited enforcement	Establish and enforce emissions and fuel standards for all vehicles operating in border area; ensure exported vehicles meet applicable standards in country of export. Work toward common standards over time.	No reduction in delay. NOx 0.12 Metric Tons VOC 1.59 Metric Tons CO 19.18 Metric Tons (common standards at current Texas & Arizona levels)
Unnecessary delay in queues at border station primary inspection booths	Insufficient staffing to meet demand patterns Insufficient monitoring to establish staffing needs	Monitor and staff inspection lanes to meet demand	Delay 42,300 Veh-Hrs NOx 0.33 Metric Tons VOC 2.11 Metric Tons CO 24.82 Metric Tons
		Use inspection lanes to maximum capacity	Delay 42,300 Veh-Hrs NOx 0.33 Metric Tons VOC 2.11 Metric Tons CO 24.82 Metric Tons
		Add primary passenger vehicle inspection lanes where deficient	Delay 39,000 Veh-Hrs NOx 0.35 Metric Tons VOC 2.03 Metric Tons CO 24.20 Metric Tons
No official goal for total time to process vehicles through primary inspection, including wait time		Provide additional commercial vehicle inspection lanes	Delay 1,000 Veh-Hrs NOx 0.01 Metric Tons VOC 0.05 Metric Tons CO 0.57 Metric Tons
		Establish hourly average maximum queue time (e.g., 20 minutes) as official goal for passenger vehicle crossings	Delay 35,300 Veh-Hrs NOx 0.29 Metric Tons VOC 1.82 Metric Tons CO 21.55 Metric Tons

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Findings

Table 1
PROBLEMS, NEEDS, AND CORRESPONDING POTENTIAL SOLUTIONS AND RELATED BENEFITS

Problems	Causes	Potential Solutions	Delay and Emissions Benefits (Daily)
	No official goal for total crossing time	Establish hourly average maximum queue time (e.g., 20 minutes) as official goal for commercial vehicle crossings	Delay 7,100 Veh-Hrs NOx 0.10 Metric Tons VOC 0.40 Metric Tons CO 4.71 Metric Tons
Dead heading trucks produce congestion and unnecessary emissions	NAFTA provision to permit return load from alternate location not yet implemented	Implement NAFTA provisions that will reduce deadheading, where applicable; convene brokers and shippers to increase efficiencies within the local business and inspection environment	Delay 1,800 Veh-Hrs NOx 0.03 Metric Tons VOC 0.10 Metric Tons CO 1.13 Metric Tons (assumes 10 % deadhead commercial crossings)
No one agency responsible for coordinating inspection process	Multiple agencies and levels of government involved Variety of primary agency missions Multiple inspections Duplicate inspections	Establish a unified POE management system under an single authority to coordinate efficient and compliant movement of people and goods across the border; start with unified agency on each side of border and move eventually to binational unified entity.	Benefit not definable for measurement borderwide
Border crossing demands peak and exceed crossing capacity; results in increased congestion	Demand peaks during AM and PM commute periods and certain other popular crossing times	Encourage drivers to cross at off-peak times	Congestion exists during most periods close in time to peak periods; little likely benefit
		Provide central transit hub at border station to encourage use of transit/walk to cross border instead of driving	Benefit too small to be measurable
		Provide transit across border in place of driving	Benefit too small to be measurable
		Provide additional park-and-walk lots at border to encourage pedestrian crossings	Benefit too small to be measurable; many existing lots are not full
		Dispatch more trucks to reach crossings at off-peak times	Benefit too small to be measurable; little present economic incentive
	Commercial vehicle crossings peak due to dispatch platooning and shipping schedules	Vary tolls to encourage crossings during off-peak periods	Benefit too small to be measurable borderwide

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Findings

Table 1
PROBLEMS, NEEDS, AND CORRESPONDING POTENTIAL SOLUTIONS AND RELATED BENEFITS

Problems	Causes	Potential Solutions	Delay and Emissions Benefits (Daily)
Border crossing demands peak and exceed crossing capacity; results in increased congestion (continued)		Encourage use of underutilized crossings; e.g., broadcast current crossing times on radio	Benefit too small to be measurable; diversion to associated with crossing greater than wait or it would already occur
	Some vehicles cross border that might not have to	Establish international trade centers straddling border; integrate inspection facilities into trade center	Benefit too small to be measurable
	Vehicle engines idling while in queues generate unnecessary emissions and air pollution	Provide areas for parking vehicles until they can be called for inspection	Delay 8,689 Veh-Hrs NOx 0.12 Metric Tons VOC 0.49 Metric Tons CO 5.68 Metric Tons (assumes idling is reduced to maximum of 10 minutes)
	Free border crossings near tolled crossings attract traffic and result in congestion	Use similar tolls at nearby adjacent crossings	Benefit too small to be measurable borderwide
Congestion and delays due to inefficient and/or circuitous access	All inspections are concentrated at border	Move inspections away from immediate border crossing zone	Not widely achievable under current laws and regulations
	Commercial traffic congests narrow streets at downtown crossings	Encourage use of underutilized or outlying crossings	Benefit too small to be measurable; diversion to associated with crossing greater than wait or it would already occur
	International truck traffic congests intersections and interchanges along border access routes	Improve intersections, interchanges, or congested routes	Not quantifiable with available data; impacts all passing traffic
	Indirect or circuitous access to border causes extra mileage or use of other more congested crossings	Complete or improve direct access roads	Benefit too small to be measurable on border-wide basis
	Trucks circulating in warehouse areas congest streets	Locate border crossings where there is sufficient infrastructure to accommodate resulting traffic	Benefit too small to be measurable borderwide

Parsons Transportation Group

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Findings

Table 1
PROBLEMS, NEEDS, AND CORRESPONDING POTENTIAL SOLUTIONS AND RELATED BENEFITS

Problems	Causes	Potential Solutions	Delay and Emissions Benefits (Daily)
Inspection and transportation agencies lack sufficient funding for many of the desired operational and infrastructure improvements	Commercial and passenger vehicle movements conflict at combined inspection facility approaches	Separate all major commercial and passenger inspection facility approach roads	Benefit too small to be measurable borderwide
	Existing at-grade railroad crossings cause delays on some border access routes	Grade separate railroad crossings of border access routes or reroute or relocate railroad lines.	Benefit too small to be measurable borderwide
	Federal and state agency headquarters do not fully understand local problems and needs and/or lack sufficient funding	Develop strategy to implement border operational and infrastructure improvements and increase funding • Inspection agencies • Federal facilities agencies • Transportation agencies Allow local communities to influence priorities of expenditures to solve major border congestion problems	No estimate; this action makes many of the other solutions possible to implement
No long range planning for international trade corridors or routes and facilities serving border crossings	No established process in either USA or Mexico	Establish a binational/trinational long range comprehensive planning process in transportation corridors serving international trade and border crossings	Unable to estimate benefit with current information
Medium Priority			
Pre-cleared vehicles delayed in primary inspection queue	Designated commuter lanes (DCL) not available for passenger vehicles in most POEs	Add at least one DCL lane (preferably two) at major crossings; expand the marketing of designated commuter lanes by private individuals	Delay 20,700 Veh-Hrs NOx 0.18 Metric Tons VOC 1.05 Metric Tons CO 12.42 Metric Tons
	Rapid enforcement lanes (REL) not available for trucks at most POEs	Add at least one REL lane (formerly NATAP) at major commercial crossings and encourage pre-clearance; promote the use of the rapid enforcement lanes by shippers	Delay 4,700 Veh-Hrs NOx 0.06 Metric Tons VOC 0.25 Metric Tons CO 2.95 Metric Tons
Insufficient physical capacity results in excessive congestion and delays	Insufficient land to accommodate crossing, queuing, and/or border station needs	Provide a new passenger vehicle border crossing	Delay 11,600 Veh-Hrs NOx 0.09 Metric Tons VOC 0.59 Metric Tons CO 7.20 Metric Tons

Parsons Transportation Group

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Findings

Table 1
PROBLEMS, NEEDS, AND CORRESPONDING POTENTIAL SOLUTIONS AND RELATED BENEFITS

Problems	Causes	Potential Solutions	Delay and Emissions Benefits (Daily)
Unnecessary delay in queues at primary inspection booths		Provide a new commercial vehicle border crossing	Delay 1,000 Veh-Hrs NOx 0.01 Metric Tons VOC 0.05 Metric Tons CO 0.57 Metric Tons
	Some vehicle inspection occurs in primary inspection lanes	Conduct all inspections in secondary inspection	Benefit too small to be measurable borderwide
	Some supplemental inspections temporarily block primary inspection lanes	Conduct all supplemental inspections "off-line" (off to side of paths through border station)	Benefit too small to be measurable borderwide
Different operating hours at adjacent U.S. and Mexican border stations	Red/green signals sometimes do not work	Employ preventative maintenance on signals	Benefit too small to be measurable borderwide
	U.S. and Mexican border stations at a border crossing open different hours	Coordinate U.S. and Mexican border station operating hours	Benefit too small to be measurable borderwide
Inefficient inspections and processing result in congestion	Automated Customs Entry (ACE) system remains unfunded	Actual inspection processes not included in this study	
	Significant variation in documents extend preparation, inspection times		
	Absence of pre-filing for most trucks at some locations		
	Inspection regulations too difficult to understand		
	Multiple stops and inspection locations for commercial vehicles at some locations		Congestion and emissions benefit too small to be measurable borderwide

Parsons Transportation Group

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Findings

Table 1
PROBLEMS, NEEDS, AND CORRESPONDING POTENTIAL SOLUTIONS AND RELATED BENEFITS

Problems	Causes	Potential Solutions	Delay and Emissions Benefits (Daily)
	Technology underutilization; inspection agencies lack sufficient funds to keep current with technology	Increase funding to permit installation of current technologies, such as: • ACE implementation • X-ray machines • Laser visas • Palm print readers • License plate readers • Technology connectivity between agencies, brokers, shippers	Unable to estimate benefit with current information
Some advances, improvements, information at some POEs are not utilized borderwide	Insufficient sharing of information both within agencies and private sector entities and between them	Establish effective process for sharing information on improving efficiencies associated with border transportation both within and between agencies and private sector entities involved in transportation across the border	Unable to estimate benefit with current information
Low Priority			
Operating hours at commercial border stations do not fit shipping schedules	Operating hours and shipper or broker business hours are different	Extend border station operating schedules to meet local business schedules -and/or modify broker business hours and/or shipping schedules to be compatible with border station schedules	Delay 2,200 Veh-Hrs NOx 0.03 Metric Tons VOC 0.13 Metric Tons CO 1.39 Metric Tons (assumes two additional hours of border station operation)
International railroad operational regulations generate delays and congestion	Trailers entering Mexico by rail must be sealed; unsealed trailers taken off train to seal, but are trucked across border adding to congestion Mexican agricultural inspection agency (SAGAR) requires exterior of rail cars to be cleaned before crossing border; trains delayed for car cleaning	Require that all trailers entering Mexico be sealed prior to approaching border Encourage SAGAR to permit cleaning at first rail yard in Mexico as does U.S. Department of Agriculture (USDA)	Benefit too small to be measurable Benefit too small to be measurable
River navigability requirement makes bridges longer, steeper,	U.S. Army Corps of Engineers requires bridge clearances	Re-examine where Rio Grande needs to be navigable; reduce vertical clearance elsewhere for new and	Not possible to determine with available information; benefit

Parsons Transportation Group

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Findings

Table 1
PROBLEMS, NEEDS, AND CORRESPONDING POTENTIAL SOLUTIONS AND RELATED BENEFITS

Problems	Causes	Potential Solutions	Delay and Emissions Benefits (Daily)
more costly		reconstructed bridges where possible	too small to be measurable borderwide
Inspectors exposed to traffic safety hazards	Inspectors exposed to passenger vehicle traffic driving in secondary inspection area	Not a congestion or air quality-related issue	
Insufficient air quality monitoring along border		Not a congestion-related issue	
Hazardous materials crossing border is environmental concern		Not a congestion or mobile source air quality-related issue	

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10/15/99

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APPENDIX D

INDUSTRY INFORMATION SHEETS

Tamaulipas

Coahuila

Chihuahua

Baja California Norte

Sonora

Nuevo Leon

<http://www.mexicool.com>

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Industrial Parks



Tamaulipas has a highly diversified economy by virtue of its petroleum refineries and petrochemicals plants, high production of oil-bearing seeds, and a wide range of in-bond processing plants.

The territory is mostly semidesert, and the climate is characterized by high temperatures and low rainfall. However, nearly half the arable land is irrigated, the main crops being sorghum, corn, beans and vegetables. Large quantities of soybeans, safflower, rice, sugarcane and citrus fruit are also grown in the Huasteca region of the state, and much of the produce is exported to the United States.

Cattle raising is also practiced extensively using modern methods and technology, and supplies both the domestic market and to the United States

Fisheries production and processing mostly concentrate on shrimp, crab, shark and crayfish, and most of the shrimp harvested is exported.

Industry is mainly located in the northern part of the state and in the industrial corridor of Altamira, near Tampico, where a major basic and secondary petrochemicals complex and extensive port facilities are being developed.

The state's infrastructure for in-bond plants is mostly geared to food processing, electronic parts and accessories, and toy manufacturing, and has the added advantage of a large, skilled workforce. In 1990 in-bond plants generated more than one billion dollars in foreign exchange.

State Highlights

Capital: Ciudad Victoria

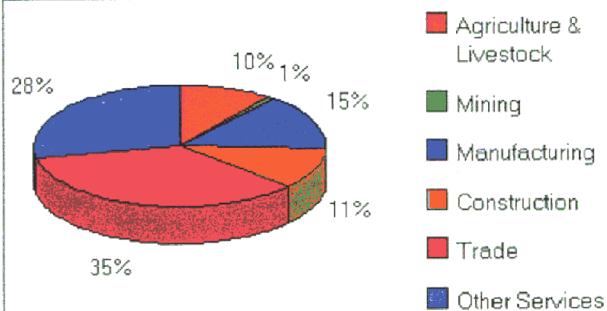
Main Cities: Cd. Mante, Matamoros, Nuevo Laredo, Reynosa

Main Ports: Tampico, Altamira

Population: 2,266,677

Labor Force: 32.3%

Share of G.N.P.: 2.72%



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Industrial Parks



A state with a vast wealth of mineral resources, Coahuila has given tremendous impetus to Mexico's iron and steel industry and to the establishment of a solidly-based engineering industry.

The state borders the United States and has an excellent communications network for the transportation of its products.

Its climate is hot and dry and the territory is mostly arid.

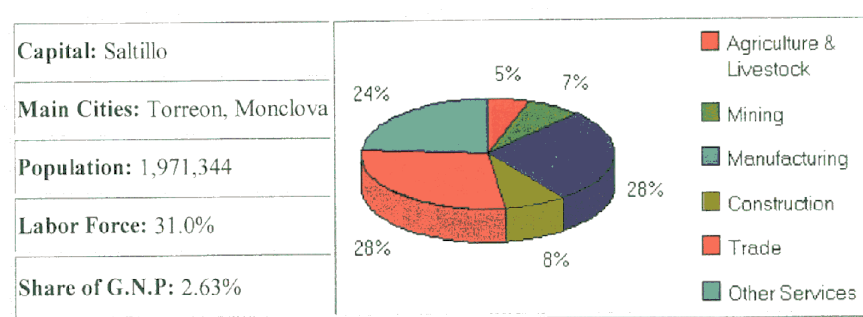
Production of cotton, corn, wheat, oats and safflower ranks among the highest in the country, as do apples, grapes and nuts. Numerous reservoirs have been built to make up for the lack of water in the state.

Cattle raising is highly developed and the state plays an important role in supplying meat to the rest of the country; Coahuila is also the country's number one goat breeder.

Mining is one of the state's most important activities and ranks high at the national level; it includes iron, coal, titanium, feldspar, barium oxide, lead, fluorite and dolomite, and to a lesser extent zinc, gold, silver and natural gas. Coahuila accounts for 36 percent of Mexico's steel production and has therefore spurred the establishment of new automobile plants, among them General Motors and Chrysler. Mexican industrial groups such as VITRO have embarked on a dynamic process of internationalization.

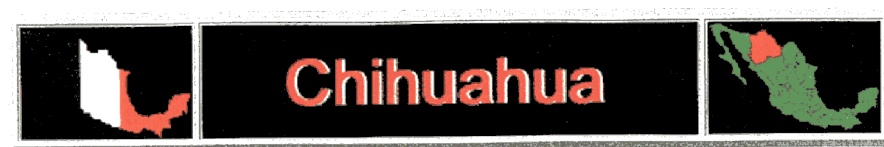
As is the case with all Mexico's northern states, in-bond processing plants have grown vigorously over the last ten years in Coahuila.

State Highlights

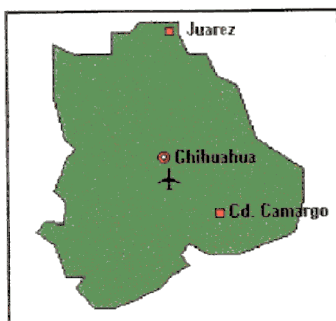


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Industrial Parks



Boasting a highly diversified economy and one of the nation's highest growth rates in recent years, Chihuahua is Mexico's most outstanding mining and forestry state, and one of the country's main food producers.

One fifth of its area is used for agriculture, and irrigation and modern techniques have been introduced for the cultivation of corn, beans, wheat, cotton and alfalfa.

Fruit growing is an important sector of the economy - it accounts for 65 percent of national production - and the state exports apples, peaches and nuts to the United States. Timber production is also a

very significant activity, since it contributes to the industrial development of the state. In-bond industries provide 40 percent of all jobs in the industrial sector.

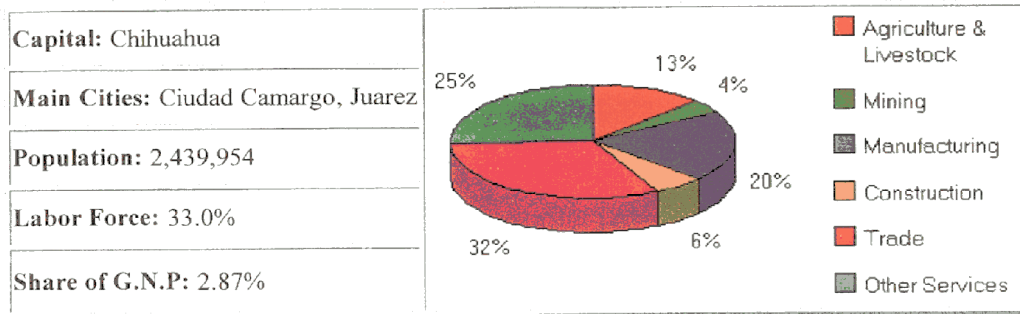
In addition, high technology is used in the production of beef and dairy products, and pasturelands cover a large area of the state.

Eight internationally competitive industrial centers house a large number of companies p involved in the manufacture of furniture and plywood panels. The Ford Motor plant is one of many high-technology factories in Chihuahua.

The processing of iron, copper, lead, silver and zinc (Chihuahua is the country's leading producer) deserves special mention.

The development of the in-bond industry has been particularly notable. RCA, Sylvania, General Electric, General Motors, American Hospital Supply, Chrysler and Westinghouse are just some of the companies with in-bond plants in the state.

State Highlights

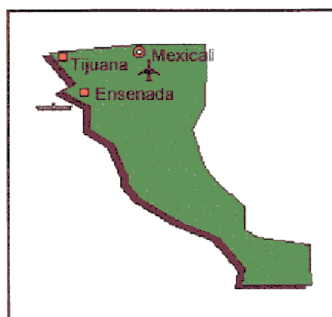


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Industrial Parks



The state's economy is mainly directed at satisfying the U.S. market with high quality, competitively-priced goods. Its infrastructure, services and regulations favor the establishment of new industries. Baja California is also an important tourist center, especially for border tourists interested in beach resorts and in deep-sea fishing; existing facilities are sufficient to cover the increasing demand.

The climate is varied, ranging from temperate to extremely hot.

Fishing is one of the state's main economic activities and Baja California is renowned for its wide variety of marine species, particularly lobster, shellfish and tuna, which are highly prized abroad.

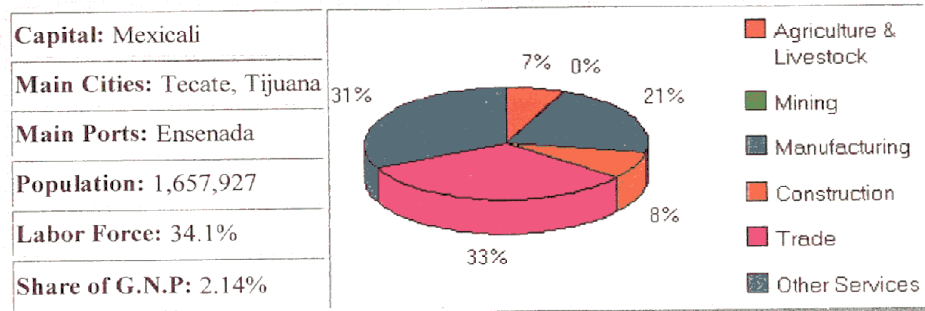
Marine products such as canned goods and livestock feed are processed in situ.

Using modern agricultural technology, the state produces grapes, olives, cotton, alfalfa, barley, dates, sorghum, and citrus fruit. Agriculture takes up 6.2 percent of the state territory, and 65 percent of arable land is irrigated.

Mineral resources are varied and include gold, silver, tungsten, iron, manganese, molybdenum and titanium. There is a large agroindustrial sector devoted to seed separation, wheat milling, vegetable packing and the wine industry. Other significant industrial activities include the garment industry, machine tools, truck assembly and agricultural tools and machinery. Baja California exports beer, furniture, and metal and plastic products.

The growing in-bond industry (maquiladoras) is of great importance to the region. Nearly 50 percent of Mexico's in-bond plants are located in the state. Long-time operators include Fansteel, Hughes Aircraft, Rockwell International and Beckman Instruments.

State Highlights



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Industrial Parks



Sonora is a major agricultural producer, especially with regard to grains and cotton. It is also the country's number one copper mining center.

Mexico's second largest state after Chihuahua, Sonora is mostly desert and the climate is therefore extreme.

The state's economy is largely based on the agriculture and livestock sector. Cattle raising - beef and dairy cattle in particular - is of paramount importance, and production is aimed both at the domestic and foreign markets.

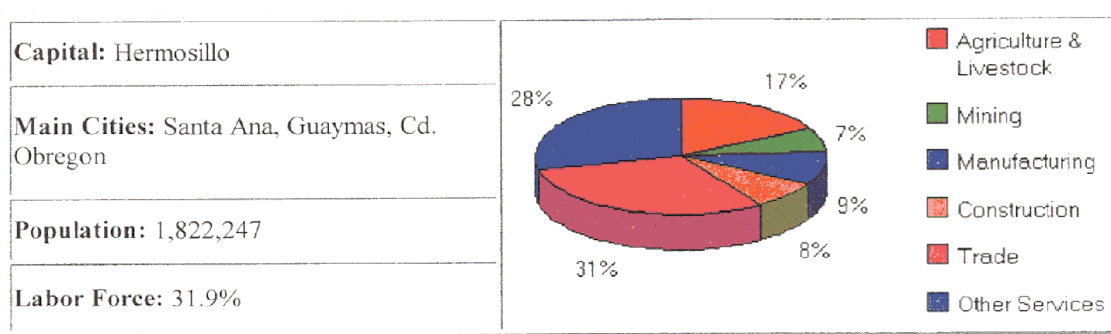
The most significant crops are wheat, cotton, grapes, nuts, safflower, sorghum and soybean all of which are grown under irrigation using the latest technology. Existing infrastructure allows for efficient marketing both within Mexico and abroad.

Fishing is another of the state's main activities, and fisheries generate a considerable amount of foreign exchange. The state's coastline is one thousand kilometers in length, and a fleet consisting of more than 3,000 vessels harvests large volumes of shrimp, sardine, shark, sea bass, sole and tuna.

Mining focuses on copper, silver, graphite, barite, zinc, gold and tungsten, and the industry is mainly located near the U.S. border

A large number of in-bond plants, mainly involved with food processing and the manufacture of capital goods and electrical appliances, are located along the border and throughout the state. The Ford assembly plant deserves special mention as one of the largest in the state.

State Highlights

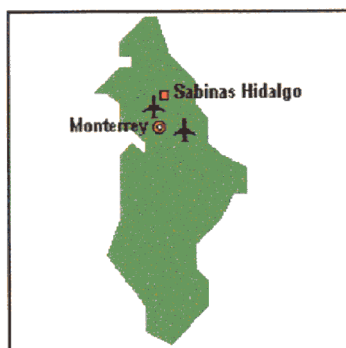


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[Companies](#) [Industrial Parks](#)



The state is known for its dynamic industrial activity, which is third in importance after the Federal District and the State of Mexico.

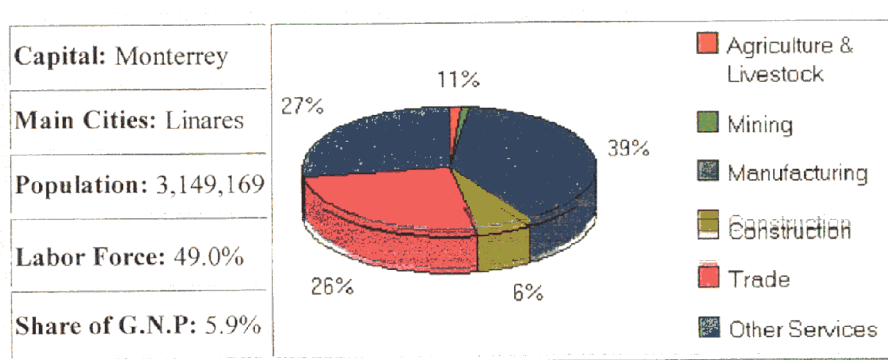
The weather is extreme, and hot most of the year. A small part of the state is devoted to agriculture, using modern cultivation techniques. The main crops are citrus fruit (Nuevo Leon is the country's second largest orange producer after Veracruz), sorghum, corn and wheat. Cattle raising is the predominant activity in the agricultural and livestock sector, and takes up 83 percent of agricultural acreage. The state also has numerous in-bond processing plants.

Mining is based on the extraction of non-metallic minerals, particularly baryta, which ranks second nationwide.

Nuevo Leon's industry is primarily concentrated around the metropolitan area of Monterrey, the capital, and has become highly diversified. This, in addition to its skilled workforce, solid infrastructure and proximity to the United States, has led to substantial exports of a wide range of products.

A large number of internationally competitive companies are based in the state, as well as many of Mexico's most important industrial conglomerates, such as the Alfa Group, specializing in steel, synthetic fibers, paper and foodstuffs; Visa, whose emphasis is on breweries and processed foods; Vitro, a manufacturer of glass and related products; and CYDSA, which mainly manufactures chemical products, petrochemicals and synthetic fibers.

State Highlights



APPENDIX E

ISSUE ANALYSIS FOR STREAMLINING THE FEDERAL PERMITTING PROCESS FOR SMALL CROSS-BORDER PROJECTS

Issue

Should Caltrans initiate steps that would result in the streamlining of the Presidential Permitting process for small and/or temporary cross-border projects ?

Response

Yes. The current process for issuing permits for cross-border projects is based on Executive Order 11423, dated 16 August 1968 (President Lyndon Johnson). This did not envisage the explosion of international trade following enactment of the NAFTA. While the executive order recognizes small projects such as cables and conveyor belts, the current process applies to all projects, be they permanent bridges or very minor entrepreneurial projects. These permits require fourteen to thirty-six months for approval. This is an unnecessary burden on small business people, delays benefits to the Mexican public, and is inconsistent with the NAFTA, which seeks to remove barriers to trade between the nations.

Currently, Presidential Permits are handled by three agencies: (1) Federal Energy Regulatory Commission (FERC) for energy transmission lines; (2) Department of Energy for petroleum and natural gas pipelines, and the Department of State for all other projects. Caltrans should be concerned only with the permits handled by the Department of State, which encompasses the minor projects that are addressed in this issue analysis.

Caltrans should seek no change in the process for major projects, which can continue to gain approval as a part of the normal (and lengthy) project development process.

Issue

Given that the current permitting process was established by executive order (E.O.), should Caltrans seek modification of E.O. 11423 or pursue legislative solutions?

Response

Revision to Executive Order 11423 would be the most expeditious solution. If that remedy fails, the legislative solution should be pursued.

Importantly, note that within the text of the current executive order, delegation of authority and other techniques for streamlining the process are arguably possible. However, these changes are unlikely to be initiated within the federal government, and a proposal to revise the executive order rather than simply lobby for a change in State Department procedure will be more successful. The effort may ultimately result in an administrative change rather than a formal revision to the E.O., but however this is accomplished, it must be externally stimulated, and structurally, a proposal to revise the E.O. is preferable.

Issue

What specific language changes are required to appropriately modify the current executive order?

Response

The necessary revision to the E.O. is an addition shown in underlined italics as follows :

Section 2 (b) The Secretary of State is authorized to issue such further rules and regulation, and to prescribe such further procedures as he from time to time deem necessary or desirable for the exercise of the authority conferred upon him by this order. *In the case of small projects characterized by facilities that do not impinge on the integrity of the international border such as, inter alia, small underground electronic data transmission lines or temporary or portable conveyor belts, and in order to make timely and efficient decisions, Presidential Permits shall be approved by the permanent United States-Mexico Binational Group for Bridges and Border Crossings.*

The United States–Mexico Binational Group for Bridge and Border Crossings is currently co-chaired by Mr. David Randolph, Coordinator for Mexican Affairs, Department of State, and Ms. Leonora Rueda, Director of Border Affairs, Mexican Ministry of Foreign Affairs. This group meets semiannually in the spring and fall of each year (usually in April and September) and is composed of representatives from all U.S. and Mexican agencies, commissions, bureaus, ministries and departments having a role in border affairs. This group is ideally poised to receive limited delegation for the purpose of acting on proposals for small border projects. Further, attendees and members of this group are fully familiar with the Presidential Permit process as they typically comment on border project proposals utilizing the current process.

It should be expected that once the revised E.O. is approved, that this group will establish application and meeting protocols, probably through the revision of the Department of State document, “Applying for a Presidential Permit from the Department of State,” dated 3 January 2000 (attached). It must be very

clear that this delegation does not remove any burden from the applicant in terms of application requirements, but merely permits decisions to be made at lower organizational reporting level.

Issue

The White House may prefer to issue a separate document that amends Executive Order 11423, rather than reissue the entire document. How would this affect the recommended revision?

Response

This is an operational, not a policy issue. One previous revision to Executive Order 11423 has taken the form of a separate executive order (E.O. 12647, dated 20 May 1993). This is an acceptable alternative, but the same or very similar language would apply.

Issue

Who will be responsible for additional inspection personnel and operating costs, where necessary?

Response

This proposal does not change the requirements for increased enforcement costs. However, in order that this is perfectly clear, where projects that may be physically located in areas remote from established border crossings and require special inspection services, the permittee will bear any costs incurred by the border inspection agencies for carrying out necessary inspections.

Issue

Once the executive order is revised and implementation protocols are finalized by the Binational Group, what practical advantage would be realized by an applicant?

Response:

The only advantage to an applicant would be that the decision-making group would meet each six months to consider minor projects approval, in addition to the group's other responsibilities. This could reduce the time required to obtain (or be denied) a permit from twelve to twenty months to two to eight months.

Issue

How will "small projects" be defined?

Response

This proposal envisages small projects to include, *inter alia*, electronic data information lines (not power) such as fiberoptic lines and cable television lines; and, conveyor belts intended to transport inert, solid commodities across the border, and other similar small projects as defined by the Binational Group.

The definition of a small project could be administratively revised as technology and business proposals require. It may be easier to distinguish these projects from large projects, such as bridges, large petrochemical pipelines, major sewer projects, flood control projects.

Issue

Would the United States of America sacrifice its sovereignty to another country by allowing a binational group to make decisions on Presidential Permits?

Response

No. The Bridges and Borders Group will have to promulgate specific rules that will determine how that group approves or denies permits. If, for instance, approval from the U.S. side requires approval from the U.S. cochairman, then no action taken by the Mexican Government can override his/her decision. The vice-versa situation also protects Mexican sovereignty.

Currently, the issuance of a Presidential Permit does not require Mexican Government concurrence. However, the project cannot practically move ahead until Mexican Government approval is reached and vice versa. This proposal simply brings all of the decision makers, American and Mexican, to the table at one time.

APPENDIX F

Figure 2-3 North/Southbound Pair Alternative 2



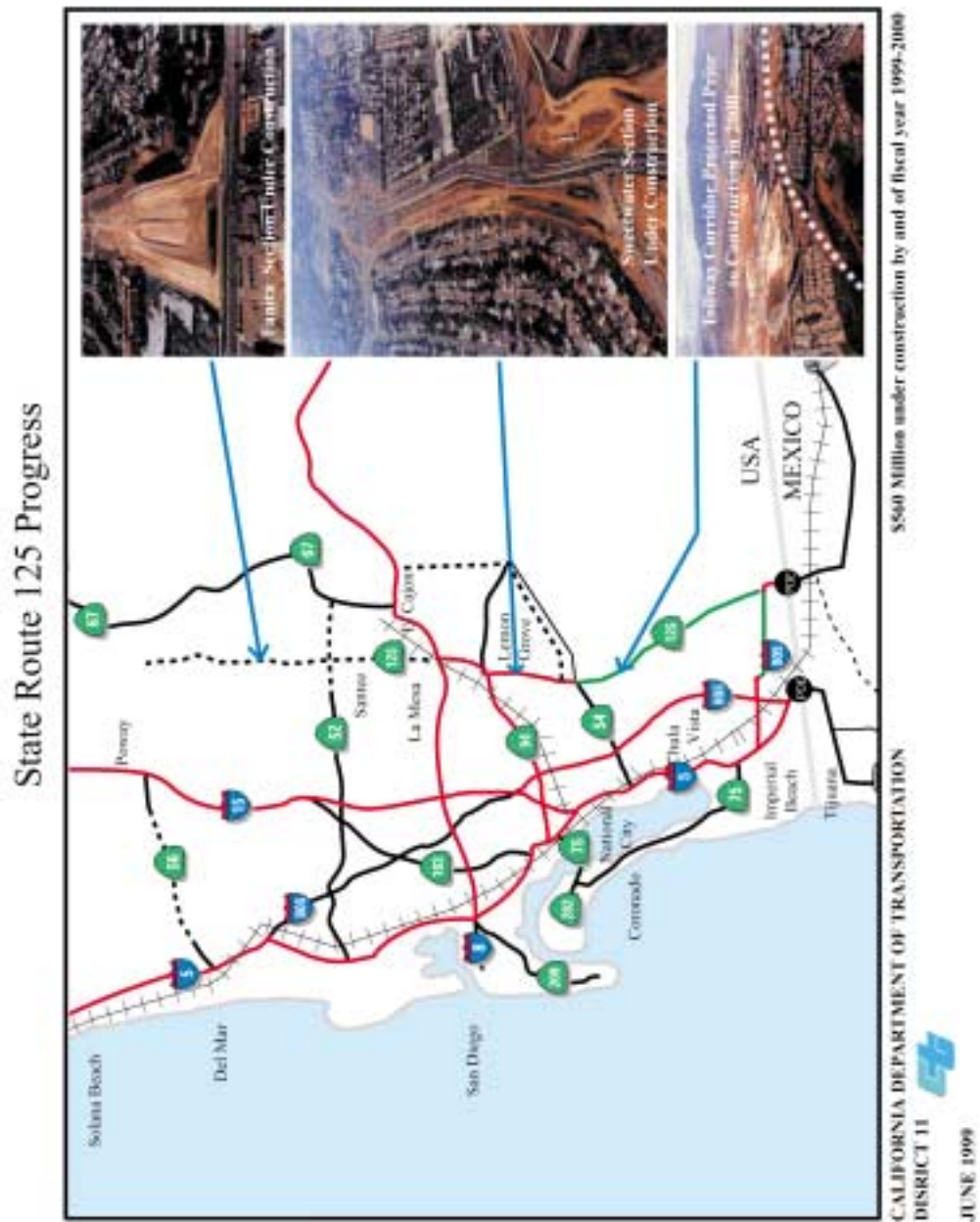
Images provided by author and not edited by the Mineta Transportation Institute.

State Route 905 Construction Phases



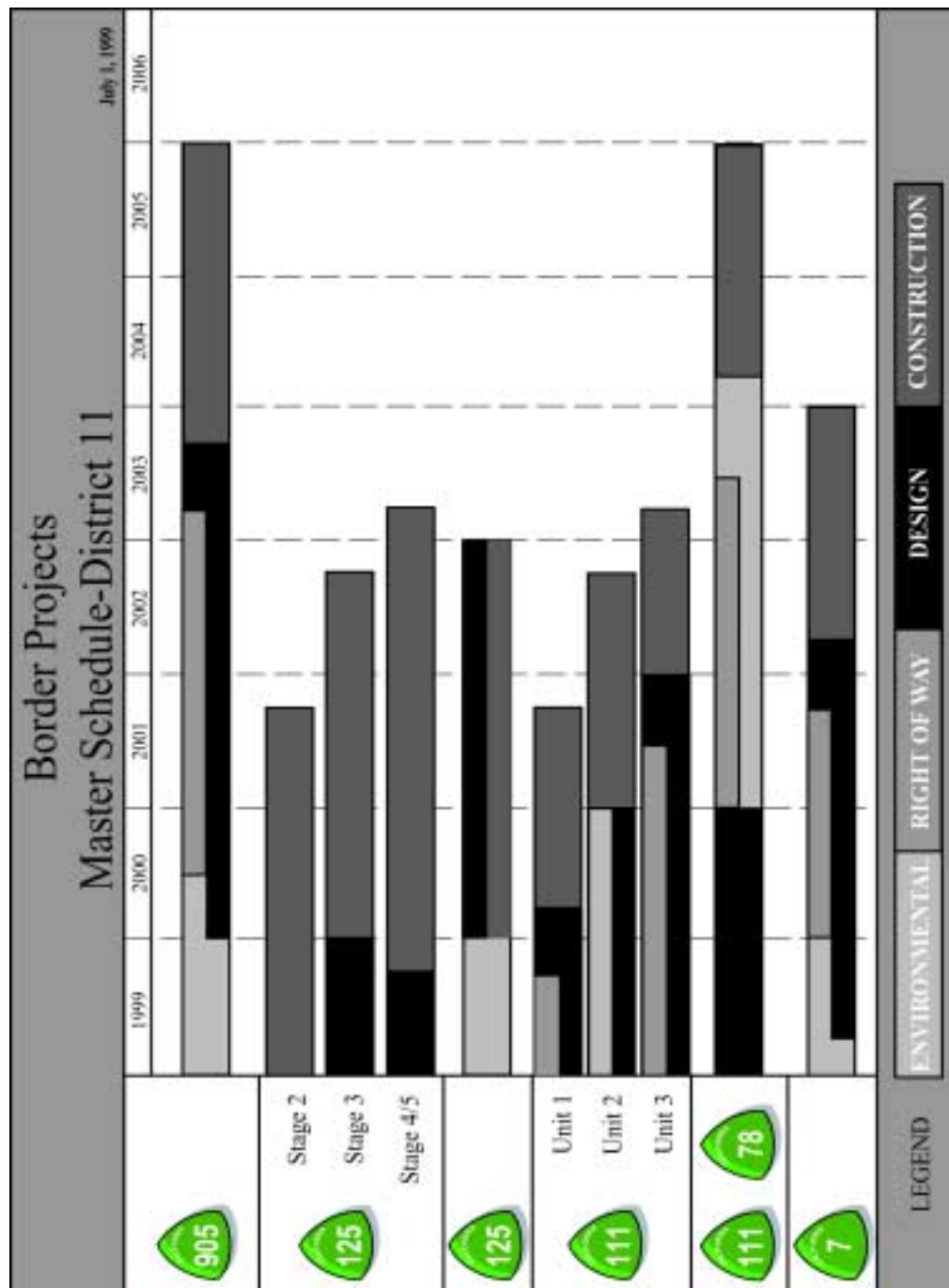
Mineta Transportation Institute

Figure 2-6



Images provided by author and not edited by the Mineta Transportation Institute.

Figure 2-7



Images provided by author and not edited by the Mineta Transportation Institute.

Figure 2-8

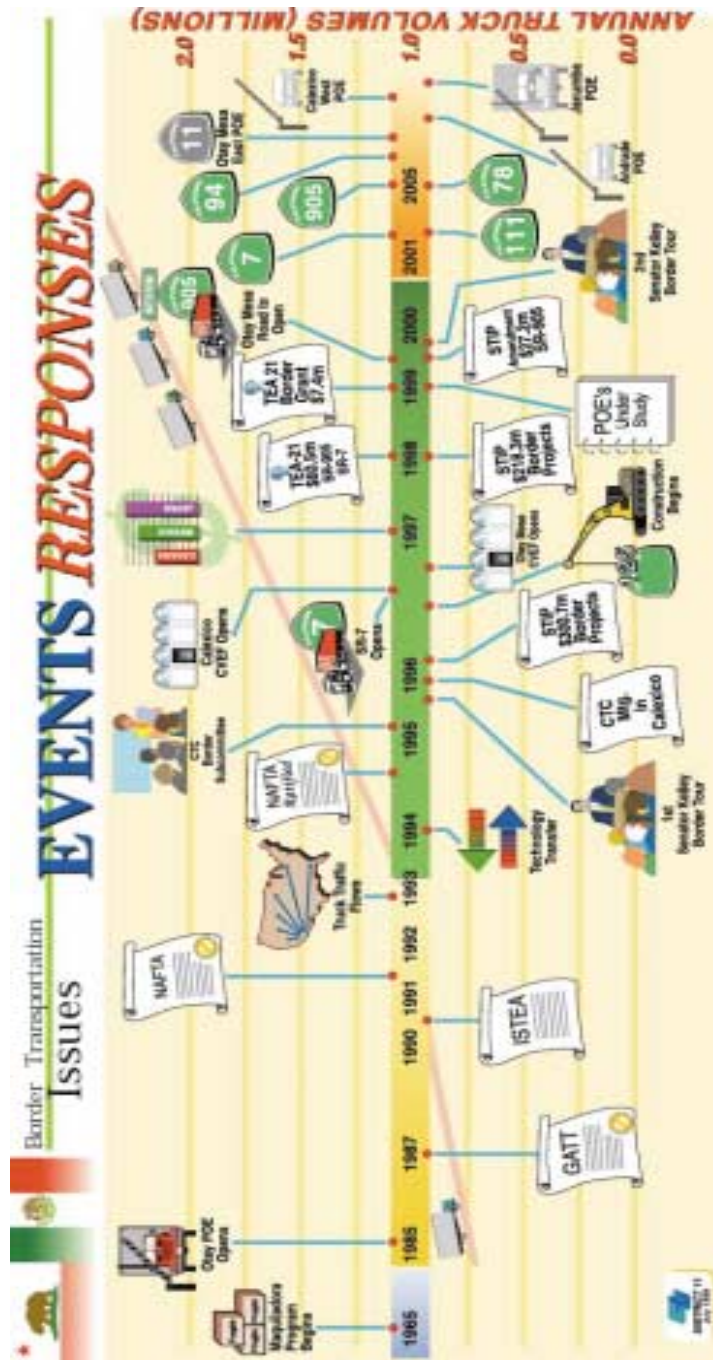


Fig. 2-8 Border Transportation Issues, Events, Responses

Images provided by author and not edited by the Mineta Transportation Institute.

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ABBREVIATIONS AND ACRONYMS

ABCS	Advanced Border Crossing Systems
ADA	Americans with Disabilities Act
BBBCG	Binational Bridges and Border Crossings Group
BBTAC	Bi-State Transportation Technical Advisory Committee
BEW	Border EcoWeb
BLTS	Border Land Transportation Systems
BTC	Border Transportation Council
BTEP	Border Technology Exchange Program
BZ	Border zone
Caltrans	California Department of Transportation
CBI	Coordinated Border Infrastructure (program)
CEQA	California Environmental Quality Act
CHP	California Highway Patrol
CIP	Capital Improvement Plan
CTC	California Transportation Commission
CVEF	Commercial Vehicle Enforcement Facility
DMV	Department of Motor Vehicles (California)
DOT	Department of Transportation
E.O.	Executive Order
EPA	Environmental Protection Agency (U.S.)
FERC	Federal Energy Regulatory Commission (U.S.)
FHWA	Federal Highway Administration (U.S.)
GATT	General Agreement on Tariffs and Trade
GNEB	Good Neighbor Environmental Board
GSA	General Services Administration (U.S.)
HOV	High-occupancy vehicle
H.R.	House Resolution

IAC	International Aggregates Corporation
IBWC	International Boundary and Water Commission (U.S.-Mexico)
IISTPS	International Institute for Surface Transportation Policy Studies (the Mineta Transportation Institute)
INS	Immigration and Naturalization Service (U.S.)
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
IVAG	Imperial Valley Association of Governments
JWC	Joint Working Committee on Transportation Planning (U.S.- Mexico)
LTAP	Local Technical Assistance Program
MPO	Metropolitan Planning Organization
MTDB	Metropolitan Transit Development Board (San Diego)
NAFTA	North American Free Trade Agreement
NCPD	National Corridor Planning and Development (program)
NCTD	North San Diego County Transit District
NEPA	National Environmental Protection Act
NHPA	National Historic Preservation Act
NSTC	National Science and Technology Council (U.S.)
OMB	Office of Management and Budget (U.S.)
PCEB	President's Community Empowerment Board (U.S.)
POE	Port of Entry
PUC	Public Utilities Commission (California)
SANDAG	San Diego Association of Governments
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCT	Secretariat of Communications and Transportation (Mexico)
SD&AE	San Diego and Arizona Eastern (railway)
SPR	State planning and research
SR	State Route

STIP	State Transportation Improvement Program (California)
STP	Surface Transportation Programs
TEA-21	Transportation Equity Act for the 21st Century (1998)
TIA	Tijuana International Airport
USD	U.S. dollars
WCTF	Wildcat Task Force (San Diego)

WEB SITES

Border EcoWeb (BEW) (environmental information)

<http://www.borderecoweb.sdsu.edu>

California Department of Transportation

<http://www.dot.ca.gov>

MTI Mineta Transportation Institute

<http://transweb.sjsu.edu>

International Boundary & Water Commission

<http://www.ibwc.state.gov>

San Diego Association of Governments (SANDAG)

<http://www.sandag.cog.ca.us>

San Diego Dialogue

<http://www-esps.ucsd.edu/sdd> and www.sddialogue.org

Southern California Association of Governments (SCAG)

<http://www.scag.ca.gov>

Southwest Border Task Force

http://www.treas.gov/sw_border

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George E. Gray is a transportation consultant and a retired employee of the California Department of Transportation (Caltrans). He has 50 years experience in the transportation field. The first fifteen years were in highway planning, design, construction, maintenance, and operations. Most of his subsequent work was for Caltrans in public transportation, transportation planning, and administration. He has also worked in the private sector and as an advisor on public transportation to the Kingdom of Saudi Arabia for the Office of the Secretary of Transportation, U.S. Department of Transportation.

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