

Table of Contents

FINAL REPORT Route 710 Enhancement and Mitigation Advisory Committee

July 1993

	Page
Executive Summary	iii
I Committee Charge and Charter	I-1
Introduction	I-1
Charge to the Advisory Committee	I-1
Advisory Committee Charter and Membership	I-1-
Plan of Operation	I-3
Key Advisory Committee Events	I-5
II Summary of Initial Committee Concerns	II-1
Brief Description of the Proposed Meridian Variation	
Alternative	II-1
Mitigation Plan Categories	II-1
Issues from the Advisory Committee Tour of the	
Proposed Facility	II-4
Sequence for Addressing Issues	II-5
III Narrowing the Footprint Options	III-1
Range of Options and Analysis	III-1
Footprint Decision Aid	III-1
Mitigation Category Analysis	III-3
Landform Alterations	III-3
Relocation impact Analysis	III-3
Construction Requirements	III-7
Traffic impact Analysis	III-7
Historic Resources Impact Analysis	III-9
Noise Impact Analysis	III-10
Visual impact Analysis	III-13
Taxbase Impacts	III-13
Impacts to Public Services	III-14
Seismic Impact Analysis	III-15
Hazardous Waste and Spills	III-15
Travel in Tunnels	III-15
Wildlife	III-15

Table of Contents (Cont'd)

III	Narrowing the Footprint Options (Cont'd)		
	Air Quality Impact Analysis	III-16	
	Schools Impact Analysis	.III-17	
	Growth Inducing Activities Analysis		III-22
	SpecialEvent	.III-22	
	Tunneling	. III-22	
	Implementation and Commitment Mechanisms	..	III-22
	Regional Impacts	III-24	
	Cost Estimates	III-24	
	Public Health	. III-27	
	Urban Design Mitigation	III-27	
IV	Committee Recommendations		
	General Findings		IV-1
	Recommendations	IV-1	
	Reduced Footprints	IV-2	
	Landform Alterations	IV-2	
	Relocation Impacts	IV-2	
	Construction Requirements		IV-3
	Traffic Impacts	.IV-3	
	Historic Resources	IV-4	
	Noise Impa	. IV-5	
	School Impacts	. IV-5	
	Impacts to Public Services	. IV-5	
	Seismic Safety	. IV-6	
	Air Quality	.IV-6	
	Implementation Commitments and Mechanisms	.	IV-6
	Special Events	.. IV-7	
	Urban Design Mitigation Plan	.. IV-7	
	Conclusions	..IV-S	

List of Acronyms

Appendices:

- A Committee Membership
- B Summary of Public Discussion Periods
- C Correspondence to the Committee
- D Maps Illustrating Original and Reduced Footprints
- E Historic Preservation Subcommittee Reports
- F Urban Design Mitigation Report and Visual Impact

Executive Summary

The Route 710 Enhancement and Mitigation Advisory Committee was established to explore and recommend measures to reduce further the impacts of the proposed Meridian Variation alternative. This process did not allow for discussion of other alternatives, including "No Build." The Advisory Committee has examined a wide range of issues since their 1st of thirteen workshops began September 9, 1992. This document summarizes the Advisory Committee's accomplishments, findings, and recommendations.

The Committee's report is intended to stand alone. However, a wide range of public documentation was made available during the time the Committee met. These documents have been filed with the appropriate city clerks and other agencies in an effort to keep public information and public involvement at its highest

Findings

The Committee based its recommendations and conclusions on several general findings:

- The impact of the proposed Meridian Variation alternative will be significant in the local communities. The degree of impact varies from city to city because of differences in alignment, the nature of community assets, and local amenities and interests. Consequently, mitigation measures developed in one community may not be appropriate for other communities.
- Planning with local representatives and concerned citizens provides one of the best means of developing meaningful mitigation measures. While the Committee meetings have provided for a collective exchange of ideas and development of recommendations, substantial progress has likewise been achieved in the local mitigation planning meetings.
- Many mitigation programs exist at the federal or state level and have been incorporated into the Final Environmental Impact Statement (FEIS) and this report. However, the effectiveness of these programs is based on coordinated action, proper funding, and an understanding of local needs.
- Based on review and discussion of existing mitigation measures identified in the
- FEIS, the Advisory Committee agreed that the recommendations in this report would be an enhancement of or refinement to the existing FEIS mitigation measures.

- Whether well founded or not, many members of the community are skeptical about the follow-through and implementation of the enhancement and mitigation measures recommended in the FEIS and this report. This underscores the need for a sound monitoring plan and continuing participation of the local communities during the right-of-way acquisition, design, and construction phases.

Recommendations

Highlights of agreements reached by the Committee are:

Reduced Footprint

- Use of a reduced footprint from the FEIS initial design of 176 feet to a maximum width of 142 feet, including a reduction of the median strip by 22 feet (attributed to the elimination of the light rail component) and use of an intermittent, rather than continuous, 12 foot auxiliary lane. This recommended footprint is an 8-lane mixed-flow facility, including two HOV (High-Occupancy Vehicle) lanes and one intermittent auxiliary lane (totaling 142 feet).
- Throughout this report, this footprint option is referred to as option 2C.
- Elimination of the freeway-to-freeway interchange (710/110) and associated connector ramps, with the need to revisit, with local officials, additional modifications to local streets and freeway ramp locations in anticipation of additional traffic levels on local surface streets.
- Agreement on six cut and cover tunnels (Los Angeles (El Sereno)/ Templeton-Poplar, South Pasadena High School, South Pasadena/Orange Grove Park-Mission; South Pasadena/Prospect Circle; Pasadena/ Pasadena Avenue-Westridge; Pasadena/ Bellefontaine-Markham District).
- Maximum use of acceptable grading contours, retaining walls, reduced median and shoulders, and other approaches to minimize the footprint, especially in specific areas identified as critical due to historic resources or the community character. Development of slope treatments and landscape concepts in collaboration with communities and the urban design consultant.

Truck Ban

- Elimination of trucks from the proposed facility, with the need to work out details for local access and memorializing this ban with responsible enforcement agencies.
- Possible examination of additional noise impacts in those areas where the auxiliary lanes are still planned. Analysis has shown that all freeway noise levels will be below the required threshold of 67 decibels-adjusted (dBA). Additional mitigation measures, developed in conjunction with local communities and the urban design consultant, will assist in mitigating the impact of soundwalls and other noise mitigation approaches.

Relocation Inspects

- Establishment of a Relocation Assistance Advisory Program (RAP) to aid all residential displaces in locating decent, safe, and sanitary replacement housing units.
- Appointment of an experienced consultant to act as an advocate for community groups and to advise Caltrans on ways to make relocation easier and more equitable.
- Re-evaluation of fair market value calculations, especially in the El Screw community.
- Creation of a job-placement and apprenticeship program to help individuals, including a program to retrain members of the impacted community.
- Opportunities to enhance the ability of renters to become homeowners.
- Development of casements or other incentives for properties on cut and cover tunnels to encourage ownership of homes.
- Special relocation counseling and assistance for senior citizens, particularly those relying on their property for retirement income. The program will ensure no greater financial burden or loss of additional income will occur due to relocation impacts.

Historic Resources

- Implementation of the recommendations and procedures contained in the Historic Preservation Subcommittee Reports (Appendix E).
- Completion of the survey and identification process for all historic properties, as outlined in the Historic Preservation Subcommittee Reports (Appendix E).
- Use of cut and cover tunnels under every National Register-eligible historic district and property, unless proven to be infeasible.
- Investigation of the feasibility of additional cut and cover tunnels and/or shifts in the alignment to avoid or mitigate harm to the South of Mission Historic District, the Grokowsky House, the northern part of the Markham Place Historic District, and any other historic district or property found to be National Register-eligible after completion of the survey and identification process.
- Replacement of all National Register-eligible historic properties and districts back on top of or in proximity to the cut and cover tunnels with full rehabilitation of those properties in accordance with relocation guidelines developed in consultation with the State Historic Preservation Officer (SHPO), historic preservations groups, and the Secretary of the Interior's Standards for Rehabilitation.

- For all historic properties that cannot feasibly be replaced on cut and cover tunnels, relocation of those properties onto compatible sites within compatible historic districts, based upon relocation criteria designed to maintain National Register eligibility.
- Development and implementation of additional mitigation measures for all California Register-eligible historic properties, in consultation with the SHPO and historic preservation groups. The Advisory Committee is aware of a new State law effective January 1, 1993, establishing a California Register of Historical Resources. Criteria and regulations for implementation of this new State law have not yet been adopted. The Advisory Committee requests Caltrans to comply with all the applicable laws.
- Initiation of an immediate condition assessment of all Caltrans owned historic properties and performance of needed stabilization measures and repairs.
- Use of architecturally sensitive soundwalls, earth berms, and soundproofing techniques for historic homes affected by noise.

Noise Impacts

- Proper soundproofing of walls and windows (double-paned) consistent with the general guidelines established by State and Federal law and through joint discussions with the urban design consultant, local officials and residents, and Caltrans staff.
- Proper grading and use of vegetation to minimize noise propagation.
- Use of soundwalls and reasonable alternatives to be developed in a manner consistent with the overall urban design master plan of the affected communities.

School Impacts

- Implementation of a financial plan whereby the affected school districts are compensated for net revenue losses based on estimated student displacement and enrollment over a ten-year period. The mitigation measures for the ten-year redemption period range from a minimum total of approximately \$4,110,000 to a maximum total of approximately \$4,700,000 (both in 1993 dollars, assuming a 5% annual percentage rate).
- Soundproofing of all school buildings, unless determined to be unnecessary and concurred with by school officials. This would include air conditioning, sealing, and window upgrading.
- Integration of air filtering systems into school buildings affected by construction activities. Air monitoring of affected exterior areas would be required to ensure contractor compliance with Caltrans' Standard Specifications.
- Funding for part-time custodial service to each school affected by construction dust.

- Funding for temporary school security to each school affected by construction activity to ensure student and school safety.
- Implementation of an educational safety program, provided by Caltrans to each school district, to alert the students and faculty of construction activities.

Air Quality

- Use of an intermittent auxiliary lane on the S-lane (including two HOV lanes) option to help achieve air quality and mobility requirements.
- Use of construction-based measures.
- Containment of fugitive dust from demolition and construction.

Implementation Commitments and Mechanisms

- Publication and availability of the Final Report will be announced in the Federal Register. Copies of the Final Report will be made available to interested parties and individuals by contacting the city clerk's office of Alhambra, Los Angeles, South Pasadena, or Pasadena. In addition, a limited number of copies are available by writing to the Branch Chief, Environmental Planning Branch, Calms, District Seven, 120 South Spring Street, Los Angeles, California 90012
- Receipt of written comments on the Final Report for at least 30 days after it has been made available to the public.
- Recommendations will be given full consideration by Caltrans and FHWA along with
- comments received on this Final Report prior to issuing the Federal Record of Decision (ROD) or Notice of Determination (NOD)
- Recommendations publicly endorsed by Caltrans and FHWA will be included in the
- Federal ROD and in the state document entitled Facts, Findings, and Statement of Overriding Considerations.
- Formal commitment to the implementation of recommendations should be provided in the Facts, Findings, and Statement of Overriding Considerations document as well as in the Federal ROD. Enhancement and mitigation elements that are adopted and carried forward from either the FEIS or the Final Report are legally binding when incorporated into the Federal ROD.
- Recommendations not adopted immediately into the Federal ROD will be given further consideration and could be developed during preliminary design or construction of the project.

To support implementation of the recommendation in the long-term, the Advisory Committee recommends:

- Implementation of the Route 710 Mitigation Monitoring and Enforcement Plan.
- Use of an independent oversight Mitigation Monitoring Team or independent consultant to monitor and enforce the detailed implementation of the various components of the mitigation programs. This recommendation includes continuing and coordinating activities between Caltrans and the affected communities and groups to ensure that the mitigation measures become a reality and do not fade away due to potential budget cuts or inattention.
- Integration of mitigation actions into each project segment to phase funding and provide a clear linkage between the mitigation actions and that phase. This linkage should be part of the Route 710 Mitigation and Monitoring Enforcement Plan. This makes most effective use of public funds through proportional funding and tracking mechanisms.

Special Events

- Caltrans continues to work with the city of Pasadena and the Pasadena Tournament of Roses Committee to implement the tradition of closing a section of the Route 710 freeway for public use (beginning about Del Mar and running to Colorado, on the evening of December 31 until later in the morning of January 1) or to develop a mutually agreeable alternative.

Urban Design Mitigation Plan

- Implementation of the Urban Design Mitigation Plan (Appendix F).
- Continued interaction of the Urban Design Team with the local communities to allow for more definitive evaluation and selection of preferred urban design features, especially for the environs near the proposed cut and cover tunnels.
- Use of advanced techniques and technologies to ensure that community character be preserved, vandalism and graffiti are prevented, and ease-of-maintenance materials are incorporated

Conclusions

The Advisory Committee recommends a reduced footprint (142 feet) from that proposed in the FEIS. The recommended footprint is an S-lane mixed-flow facility, including two HOV (High-Occupancy Vehicle) lanes and one intermittent auxiliary lane. The recommendations of the Advisory Committee are summarized in the tables on the following pages. These tables contain

the 22 mitigation categories discussed by the Advisory Committee and the full set of recommendations for each category.

As a result of implementing the Advisory Committee recommendations, the following changes are anticipated:

- Reduced traffic congestion in the gap closure corridor, resulting in reduced travel times, congestion, accidents, and air pollution.
- An additional saving of 379 out of 1426 residential units.
- An additional saving of 12 out of 52 historic units. The FEIS cited 52 historic properties displaced prior to implementation of these recommendations. With the recommended reduced footprint, 29 of those historic properties would be displaced. Between 22 and 26 historic resources would be rehabilitated under this mitigation plan.
- The potential for displacement or removal of an additional 46 historic properties based on application of a new State law regarding historic resources.
- Design and development of a Meridian Variation alignment that preserves and enhances existing amenities and desirable community features.

Summary of Recommendations by Mitigation Category

MITIGATION CATEGORY	MAJOR RECOMMENDATIONS
Landform Alteration	<ul style="list-style-type: none"> • Elimination at the freeway-to-freeway interchange (710/110) • Agreement on six cut and cover tunnels • Maximum use of acceptable grading contours, retaining walls, reduced median and shoulders, and other approaches to minimize the footprint, especially in specific areas identified as critical due to historic resources or the community character • Slope treatments and landscape concepts to be developed in collaboration with communities and the urban design consultant
Relocation Impacts	<ul style="list-style-type: none"> • Establishment of a relocation Assistance Program (RAP) • Inclusion of a program whereby non-RAP eligible re-renters are given relocation benefits • Appointment of an experienced consultant to act as an advocate for community groups and to advise Caltrans on ways to make relocation easier and more equitable • Re-evaluation of fair market value calculations, especially in the El Sereno community • Provisions for an expert bilingual, bicultural individual to aid families in making their relocation process easier and less painful • Creation of a job-placement and apprenticeship program to help impacted community • Opportunities to enhance the ability of renters to become homeowners • Development of easements or other incentives for properties on cut and cover tunnels to encourage ownership of homes • Special relocation counseling and assistance for senior citizens, particularly those relying on their property for retirement income • Negotiate, at the appropriate time, the opportunities for adjusting city boundaries to absorb the one row of houses in the El Sereno community on the Alhambra border affected by the current alignment
Construction Requirements	<ul style="list-style-type: none"> • Formation of a Mitigation Monitoring Team or the selection of an independent consultant, either of whom will have independent oversight responsibility for the implementation of a traffic management plan
Traffic Factors	<ul style="list-style-type: none"> • Work with the local communities on design details to best minimize the anticipated traffic impacts • Eliminate trucks from the freeway • Develop a way to permit trucks making local deliveries to utilize the freeway rather paralleling local surface streets

Summary of Recommendations by Mitigation Category

MITIGATION CATEGORY	MAJOR RECOMMENDATIONS
Historic Resources	<ul style="list-style-type: none"> • Implementation of the recommendations and procedures contained in the Historic Preservation Subcommittee Reports (Appendix E) • Completion of the survey and identification process for all historic properties, as outlined in the Historic Preservation Subcommittee Reports (Appendix E) • Use of cut and cover tunnels under every National Register-eligible historic district and property, unless proven to be infeasible • Investigation of the feasibility of additional cut and cover tunnels and/or shifts in the alignment to avoid or mitigate harm to historic resources • Replacement of all National-eligible historic properties and districts back on to of or in proximity to the cut and cover tunnels with full rehabilitation of those properties in accordance with relocation guidelines, developed in consultation with the SHPO, historic preservation groups, and the Secretary of the Interior's standards for Rehabilitation • For all historic properties that cannot feasible be replaced on cut and cover tunnels, relocation of those properties onto compatible sites within compatible historic districts, based upon relocation criteria designed to maintain National Register eligibility • Development and Implementation of additional mitigation measures for all California Register-eligible historic properties, in consultation with the SHPO • An immediate condition assessment for all Caltrans-owned historic properties and the performance of needed stabilization measures and repairs • Architecturally sensitive use of soundwalls, earth berms, and soundproofing techniques for historic homes affected by noise
Noise Impacts	<ul style="list-style-type: none"> • Proper soundproofing of walls and windows (double-paned) consistent with the general guidelines established by State and Federal law and through joint discussions with the urban design consultant, local officials and residents, and Caltrans staff • Proper grading and use of vegetation to minimize noise propagation • Use of soundwalls and reasonable alternatives to be developed in a manner consistent with the overall urban master plan of the affected communities • Interactions between individual property owners or affected individuals and Caltrans to asses the need for noise mitigation measures

Summary of Recommendations by Mitigation Category

MITIGATION CATEGORY	MAJOR RECOMMENDATIONS
Visual Impacts (Urban Design Mitigation Plan)	<ul style="list-style-type: none"> • Implementation of the Urban Design Mitigation Plan (Appendix F). • Continued interaction at the Urban Design Team with the local communities to allow for more definitive evaluation and selection of preferred urban design features, especially for the environs near the proposed cut and cover tunnels. • Use of advanced techniques and technologies to ensure that community character be preserved, vandalism and graffiti are prevented, and ease-of-maintenance materials are incorporated. • Murals and other paintings on soundwalls, bridges, and other such structures should be allowed, as appropriate, and with the approval of the effected local jurisdiction
Tax base Impacts	<ul style="list-style-type: none"> • No recommendations beyond those presented in the FEIS requires discussions of individual cities
Impacts to Public Service	<ul style="list-style-type: none"> • Special attention given by Caltrans to coordinate planning and construction activities to assure that community services are not diminished • Relocation of the city of South Pasadena's maintenance yard will be made to a suitable replacement site that meets the needs of the city of South Pasadena. This relocation is to be carefully coordinated and planned with the city.
Seismic Safety	<ul style="list-style-type: none"> • Caltrans and appropriate consultants conduct a detailed review of their seismic analysis of the Raymond Hill Fault area
Hazardous Waste and Spills	<ul style="list-style-type: none"> • No recommendations beyond those presented in the FEIS. Detailed needs to be determined based on roadway geometrics and truck ban procedures.
Travel in Tunnels	<ul style="list-style-type: none"> • No recommendations beyond those presented in the FEIS. Detailed needs to be determined based on roadway geometrics and truck ban procedures.
Wildlife	<ul style="list-style-type: none"> • No recommendations beyond those presented in the FEIS.
Air Quality	<ul style="list-style-type: none"> • Use of construction-based measures • Containment of fugitive dust from demolition and construction

Summary of Recommendations by Mitigation Category

MITAGATION CATEGORY	MAJOR RECOMMENDATIONS
Schools	<ul style="list-style-type: none"> • Implementation of a financial plan whereby the affected school district are compensated for net revenue losses based on estimated student displacement and enrollment over a ten-year redemption period. Totaling approximately \$4,110,000 • Soundproofing of all school buildings, unless determined to be unnecessary and concurred with by school officials. This would include air-conditioning, sealing , and window upgrading • Integration of air filtering systems into school buildings affected by construction dust • Funding for temporary school security to each school affected by construction activity to ensure student and school safety • Implementation for an educational safety program, provided by Caltrans to each school district, to alert the students and faculty of construction activities
Growth Inducing	<ul style="list-style-type: none"> • No recommendations discussed beyond those presented in the FEIS
Special Events	<ul style="list-style-type: none"> • Caltrans continues to work with the city of Pasadena and the Pasadena Tournament of Roses Committee to implement the tradition of closing a section of the Route710 freeway for public use (beginning about Del Mar and running to Colorado, on the evening of December 31 until later in the morning of January 1), or to develop a mutually agreeable alternative.
Tunneling	<ul style="list-style-type: none"> • Full-Bore tunneling and drift tunneling not recommended • Recommended use of six cut and cover tunnels (Los Angeles (El Sereno0/Templeton-Poplar, South Pasadena High School, South Pasadena/Orange grove Park-Mission; Pasadena/Prospect Circle; Pasadena/Pasadena Avenue-Westridge; Pasadena/Bellefontaine-Markham District)

Summary of Recommendations by Mitigation Category

MITIGATION CATEGORY	MAJOR RECOMMENDATIONS
Implementations Commitments and Mechanisms	<ul style="list-style-type: none"> • Publication and availability of the Final report will be announced in the Federal Register. Copies of the Final Report will be made available to interested parties and individuals by contacting the city clerk's office of Alhambra, Los Angeles, South Pasadena, or Pasadena. • Receipt of written comments on the Final Report for at least 30 days after it has been made available to the public • Recommendations will be given full consideration by Caltrans and FHWA along with comments received on this Final Report prior to issuing the Federal ROD or NOD • Recommendations publicly endorsed by Caltrans and FHWA will be included in the Federal ROD and in the same document entitled Facts, Findings, and Statement of Overriding Considerations • Formal commitment to the implementation of recommendations should be provided in the Facts, Findings, and statement of Overriding Considerations document as well as in the Federal ROD. • Recommendations not adopted immediately into the Federal ROD will be given further consideration and could be developed during preliminary design or construction of the project • Implementation of the Route 710 Mitigation Monitoring and Enforcement Plan • Use of an independent oversight Mitigation Monitoring team or independent consultant to monitor and enforce the detailed implementation of the various components of the mitigation programs • Integration of mitigation actions into each project segment to phase funding and provide a clear linkage between the mitigation actions and that phase. This linkage should be part of the Route 710 Mitigation and Monitoring Enforcement Plan
Regional Impacts	<ul style="list-style-type: none"> • Use of an intermittent auxiliary lane of the 8-lane (including two HOV) option to help achieve mobility requirements
Costs	<ul style="list-style-type: none"> • Provide funding associated with the preferred footprint - \$709,000,000
Public Health	<ul style="list-style-type: none"> • No recommendations beyond those contained in the FEIS