
2.0 PROJECT DESCRIPTION AND MAJOR PROJECT FEATURES

2.1 INTRODUCTION

The proposed project would adopt a new alignment and construct a four-lane divided expressway from SR-86, northwest of the city of Brawley, to SR-111, southeast of the city of Brawley, in Imperial County. Ten alternatives were initially studied to determine which best addressed the purpose and need of the project while minimizing impacts to existing resources. [Figure 2-1](#) shows the original ten alternatives studied. Screening of alternatives resulted in the identification of three build alternatives which were carried forward into more detailed environmental and engineering studies.

The criteria for selecting these three build alternatives for further study are: meeting the purpose and need goals, cost, and reduced impacts to existing irrigation infrastructure, cultural and natural resources, agricultural resources, businesses, and homes. These alternatives are shown on [Figure 2-2](#), the Project Alternatives and Study Area Map. Subsequently, the U.S. Environmental Protection Agency (EPA) requested Caltrans to provide more information on the project purpose and need and provide additional detail about a fourth alternative, the Andre Alternative, which was dropped. The Alternative Evaluation Report was prepared in August 1998 and distributed to the city of Brawley, Imperial County, and U.S. EPA. The three build alternatives were then reaffirmed for further study. The alternatives no longer under consideration are discussed in Section 2.3.

These alternatives, the Fredricks (Variation 1 & 2), the Del Rio, and the Del Rio North, and the No Build Alternative are under consideration at this time and are described in the following section and are shown on [Figure 2-3A](#), [Figure 2-3B](#), [Figure 2-3C](#), [Figure 2-3D](#) and [Figure 2-3E](#). Detailed descriptions of the environmental impacts of these alternatives are discussed in [Chapter 4](#), Environmental Consequences. Final selection of the Preferred Alternative will not be made until after the Public Hearing but prior to the approval of the Final Environmental Impact Statement. The “Alternatives No Longer Under Consideration” are addressed in Section 2.3. The following discussion will contain a brief description of each alternative and its ability to fulfill the purpose and need of the project.

2.2 ALTERNATIVES UNDER CONSIDERATION

Four alternatives are being considered; a no-build alternative and three build alternatives. The build alternatives being considered in this report are the Fredricks (Variation 1 & 2), Del Rio, and Del Rio North Alternatives as shown in the Project Features Maps, [Figure 2-3A](#), [Figure 2-3B](#), [Figure 2-3C](#), [Figure 2-3D](#), and [Figure 2-3E](#). Each build alternative consists of a four-lane controlled access expressway with 3.6 m (12 ft) lanes, 3.0 m (10 ft) outside shoulders, and a 29 m (94 ft) median including 1.5 m (5 ft) inside shoulders. A typical cross section for the alternatives is shown in [Figure 2-4A](#), [Figure 2-4B](#), and [Figure 2-4C](#). All imported borrow will come from SMARA sanctioned sites. Major project features of the alternatives include grade separated structures at the New River and Union Pacific Railroad crossing, signalized and nonsignalized intersections, frontage roads that provide access to impacted parcels, and access to the expressway at approximate intervals of 1.6km (1 mile). In general, each build alternative

leaves SR-86 between Brawley and Westmorland and bypasses the city of Brawley to the north and east. The build alternatives have a common north/south portion which lies approximately 0.8 km (0.5 mile) east of Best Road and joins SR-111 just north of Mead Road, southeast of Brawley.

The main difference between the alternatives is how far north of the city of Brawley the east/west portion lies, and subsequently where the alignment crosses the New River. The alignments are designed to avoid or minimize impacts to residences, businesses, the New River floodplain, sensitive species, the Del Rio Country Club, the sewer treatment plant, future airport expansion and other future approved development, local agriculture land and irrigation facilities and the community character. The golf course and the treatment plant are both located north of the city of Brawley and directly adjacent to the east side of the New River.

2.2.1 Fredricks Alternative (Variation 1: Intersection)

The Fredricks Alternative intersects SR-86 at Fredricks Road in unincorporated Imperial County and proceeds easterly following the existing Fredricks Road. At Hovley Road, the alignment curves to the northeast and then to the southeast across the New River before intersecting with SR-111. East of SR-111, the Fredricks Alternative crosses an industrial area in the northernmost portion of the city of Brawley. The alternative crosses the Union Pacific Railroad, just east of existing SR-111, and curves to the south to parallel the Rockwood Canal and Stahl Drain in unincorporated Imperial County. The alternative intersects SR-78, just east of the existing SR-111/78 intersection, and continues south approximately 2.2 km (1.4 miles) to connect to the previously approved SR-111 expressway. The Fredricks Alternative would have a length of approximately 12.5 km (7.8 miles).

This alternative includes the construction of four bridge structures. Two parallel bridges, 95 m (312 ft) in length, would be constructed over the New River. These bridges would accommodate wildlife corridors, 18 m (59 ft) wide, on each side of the river. Two parallel bridge structures, 103 m (338 ft) in length, are proposed over the Union Pacific Railroad and would accommodate a future track and a proposed frontage road. Approximately 1,800 linear meters (5,910 ft) of fill slopes, with maximum heights of approximately 11.5 m (38 ft), would be required for the construction of the bridge structures (see Figure 2-9A). The Fredricks Alternative would require an estimated 719,000 cubic meters (940,000 cubic yards) of imported fill material.

Signalized at-grade intersections are proposed where the expressway intersects the existing SR-78/86, SR-111, and SR-78. Nonsignalized at-grade intersections (2-way stop) would be provided at the intersections of Kalin Road, Brandt Road, Hovley Road, and Best Road. In addition, a new two-lane county road is proposed near the southern end of the project to connect the expressway to the existing SR-111 two-lane facility with a nonsignalized at-grade intersection.

To meet the profile grade of the proposed expressway intersection at SR-111, near Shank Road, approximately 900 linear meters (2,953 ft) of SR-111 would be reconstructed (see [Figure 2-9B](#)). Approximately 2 m (6.5 ft) of fill would be required at the proposed intersection of the

expressway and SR-111. A temporary construction detour, approximately 900 m (2,953 ft) in length, would be required for the reconstructed portion of SR-111 (see [Figure 2-7](#)).

This alternative includes approximately 4.3 km (2.7 miles) of frontage roads to maintain parcel access at various locations and local traffic circulation to the agricultural business area along Shank Road and SR-111. Upon completion of this expressway project, the proposed frontage roads would be relinquished to either the city of Brawley, or the County of Imperial, depending on local jurisdiction.

The proposed expressway would disrupt the continuation of three existing local roads. Fredricks Road would remain between Hovley Road and SR-111, but would not be continuous. Fredricks Road, consisting of two-lanes, would be vacated between the existing SR-78/86 intersection and Hovley Road since the proposed expressway would replace it. The proposed expressway intersection with SR-111 would eliminate the existing intersection of Shank Road and SR-111. Shank Road, a local access road designated as a major arterial in the Brawley General Plan, would be closed at the intersection with SR-111 due to the grade changes required for SR-111 and the close proximity of the expressway intersection. Shank Road, just east of SR-111, would be extended north and terminated. A private road located approximately 900 m (0.6 miles) south of the proposed expressway intersection at SR-78 would also be terminated.

The Fredricks Alternative crosses an industrial area in the northernmost portion of the city of Brawley. Due to grade differences at the railroad crossing, the need to intersect with existing SR-111, and the close proximity of the New River, providing adequate local access to the businesses in the industrial area required detailed design and coordination. The County of Imperial and local business owners have stressed the importance of the existing at-grade railroad crossing on Shank Road to remain open to local traffic circulation. Two different local access cases were studied for this alternative as shown in [Figure 2-5](#).

Local Access Case 1 assumed that the railroad crossing at Shank Road would remain open, and Local Access Case 2 assumed that the railroad crossing at Shank Road would be closed. Shank Road currently serves as the principal access road for the agricultural businesses in the area by providing local access for produce trucks, semi-trucks, and agricultural vehicles. Case 2 would disrupt the continuation of Shank Road, forcing large and slow moving trucks and agricultural equipment to use state routes, which typically have higher traffic volumes and increased speeds. Local agencies and property owners have expressed opposition to the closure of Shank Road because of the associated local traffic circulation and safety issues.

The UPRR has agreed to keep the existing Shank Road railroad crossing open (Local Access Case 1) and has requested that the crossing be upgraded to current standards. Approximately \$300,000 would be provided to UPRR, through a future railroad agreement, and is included in the project cost estimates for the Fredricks Alternative (Variations 1 and 2).

The total estimated project cost for this alternative is \$ 75,200,000. This cost includes roadway, structure items, right-of-way, and support costs.

2.2.2 Fredricks Alternative (Variation 2: Interchange)

This variation includes the same horizontal alignment for the proposed expressway as previously described under the Fredricks Alternative Variation 1. However, this variation proposes construction of an interchange with existing SR-111, instead of a signalized at-grade intersection (see [Figure 2-9E](#)). This interchange variation was developed to:

- reduce traffic congestion and the risk of potential accidents where the proposed expressway intersects existing SR-111
- improve local access in the area of SR-111 and Shank Road
- eliminate the need for traffic turning movements in the area of the existing railroad crossing on Shank Road
- eliminate the need to raise the vertical profile of existing SR-111
- eliminate the need for a construction detour for SR-111

This variation proposes a two-quadrant cloverleaf interchange with both quadrants located on the west side of existing SR-111, in order to minimize impacts to the agricultural businesses east of existing SR-111. The proposed interchange allows full access for all directions of travel for the expressway and SR-111. Each of the two quadrants includes a diagonal ramp and a loop ramp. Signalized at-grade intersections are proposed at the two ramp termini on SR-111 to accommodate expressway traffic and local access.

This variation would replace the existing Del Rio Country Club access road connection to SR-111 with a signalized intersection. The existing access road would be reconstructed and extended further south to the proposed intersection of SR-111 and the westbound expressway ramps. This signalized intersection, and the proposed frontage roads north of the expressway, would also provide direct access to the parcels east of SR-111, between Shank Road and the Country Club. The County of Imperial, city of Brawley, and local business owners have expressed support of this variation due to this direct access.

Two parallel bridges, 87 m (285 ft) in length, would be constructed over SR-111 to allow the vertical profile of SR-111 to remain as existing. The bridge structures would accommodate the proposed frontage road that would link both sides of the expressway together to provide local access. This variation includes approximately 4.0 km (2.5 miles) of frontage roads.

As in Variation 1, two different local access cases were studied for this alternative as shown in Figure 2-6. Local Access Case 1 assumes that the railroad crossing at Shank Road would remain open, and Local Access Case 2 assumes that the railroad crossing at Shank Road would be closed. The UPRR has agreed to accommodate Case 1, as discussed in Variation 1, which would provide an estimated \$300,000 to UPRR, through a future railroad agreement, and is included in the project cost estimates for the Fredricks Alternative (Variations 1 and 2).

This variation proposes construction of two parallel bridges, 100 m (328 ft) in length, over the New River. These bridges would accommodate wildlife corridors 12 m (39 ft) wide, on each side of the river. Two parallel bridge structures, 71 m (233 ft) in length, are also proposed over the Union Pacific Railroad and would accommodate a future track. Approximately 2,200 linear meters (7,220 ft) of fill slopes, with maximum heights of approximately 11.0 m (36 ft), would be required for the construction of the proposed bridge structures (see [Figure 2-9C](#)). All four interchange ramps would also require fill slopes as shown on [Figure 2-9D](#). This variation would require an estimated 933,000 cubic meters (1,220,000 cubic yards) of imported borrow.

The total estimated project cost for this alternative is \$ 84,400,000. This cost includes roadway, structure items, right-of-way, and support costs.

The total project cost for this variation exceeds the total amount of funding currently programmed for this project. Approximately \$9 million of additional funding would be needed for this variation.

2.2.3 Del Rio Alternative

The Del Rio Alternative intersects SR-78/86 and proceeds easterly, paralleling the south side of the existing field road between Andre Road and Baughman Road. At Hovley Road, the alignment curves to the southeast and then traverses across the New River between the Del Rio Country Club and the sewage treatment plant. The alternative crosses the Union Pacific Railroad, just east of the Country Club, and curves to the south and parallels the Rockwood Canal and Stahl Drain. The Del Rio Alternative intersects SR-78, just east of the existing SR-111/78 intersection, and continues south (approximately 2.2 km 1.4 miles) to connect to the proposed SR-111 expressway. This alternative would have a length of approximately 15.4 km (9.6 miles).

The Del Rio Alternative includes the construction of four bridge structures. Two parallel bridges, 76 m (249 ft) in length, would be constructed over the New River. These bridges would accommodate 12 m (39 ft) wide wildlife corridors on each side of the river. Two parallel bridge structures, 71 m (233 ft) in length, are proposed over the Union Pacific Railroad and would accommodate a future track. Approximately 1,100 linear meters (3,610 ft) of fill slopes, with maximum heights of approximately 13 m (43 ft), would be required for the construction of the bridge structures (see [Figure 2-9F](#)). This alternative would require an estimated 509,000 cubic meters (666,000 cubic yards) of imported borrow.

Signalized at-grade intersections are proposed where the expressway intersects the existing SR-78/86, SR-111, and SR-78. Non-signalized at-grade intersections (2-way stop) are proposed at the intersections of Kalin Road, Brandt Road, Hovley Road, Best Road, and Shank Road. In addition, a new two-lane county road is proposed near the southern end of the project to connect the expressway to the existing SR-111 two-lane facility with a nonsignalized at-grade intersection.

This alternative does not require any frontage roads to maintain local traffic circulation; however, it would disrupt the continuation of two existing local roads. Kreuger Road, located approximately 800 m (0.5 miles) east of the proposed expressway intersection at SR-78/86, would be terminated. A private road located approximately 900 m (0.6 miles) south of the proposed expressway intersection at SR-78 would also be terminated.

The total estimated project cost for this alternative is \$ 69,400,000. This cost includes roadway, structure items, right-of-way, and support costs.

2.2.4 Del Rio North Alternative

The Del Rio North Alternative intersects SR-78/86 and proceeds easterly, paralleling the south side of the existing field road between Andre Road and Baughman Road. At Hovley Road, the alignment curves to the northeast and then traverses across the New River, just east of existing SR-111. The alternative crosses the Union Pacific Railroad, just north of the sewage treatment plant, curving south and parallels the Rockwood Canal and Stahl Drain. The Del Rio North Alternative intersects SR-78, just east of the existing SR-111/78 intersection, and continues south approximately 2.2 km (1.4 miles) to connect to the proposed SR-111 expressway. This alternative would have a length of approximately 16.6 km (10.3 miles).

The Del Rio North Alternative includes the construction of four bridge structures. Two parallel bridges, 71.5 m (235 ft) in length, would be constructed over the New River. These bridges would accommodate 12 m (39 ft) wide wildlife corridors on each side of the river. Two parallel bridge structures, 77 m (253 ft) in length, are proposed over the Union Pacific Railroad and would accommodate a future track. Approximately 1,600 linear meters (5,250 ft) of fill slopes, with maximum heights of approximately 11 m (36 ft), would be required for the construction of the bridge structures (see [Figure 2-9G](#)). This alternative would require an estimated 760,000 cubic meters (994,000 cubic yards) of imported borrow.

Signalized at-grade intersections are proposed where the expressway intersects the existing SR-78/86, SR-111, and SR-78. Nonsignalized at-grade intersections (2-way stop) would be provided at the intersections of Kalin Road, Brandt Road, Hovley Road, Best Road, and Shank Road. In addition, a new two-lane county road is proposed near the southern end of the project to connect the expressway to the existing SR-111 two-lane facility with a non-signalized at-grade intersection.

To meet the profile grade of the proposed expressway intersection at Best Road, approximately 580 linear meters (1900 ft) of Best Road, just east of the railroad tracks, would need to be reconstructed (see [Figure 2-9H](#)). Approximately 3.5 m (12 ft) of fill would be used at the proposed intersection of the expressway and Best Road. It is anticipated that the reconstructed portion of Best Road can be constructed with a temporary closure of Best Road to through traffic. This detoured traffic would be routed approximately 1.6 km (1 mile) west to SR-111, which parallels Best Road.

This alternative does not require any frontage roads to maintain local traffic circulation; however, it would disrupt the continuation of three existing local roads. Kreuger Road, located approximately 800 m (0.5 miles) east of the proposed expressway intersection at SR-78/86, would be terminated. Ward Road, located approximately 1.6 km (1 mile) north of Shank Road, would also be terminated. Likewise, a private road located approximately 900 m (0.6 miles) south of the proposed expressway intersection at SR-78 would be terminated.

The total estimated project cost for this alternative is \$ 75,200,000. This cost includes roadway, structure items, right-of-way, and support costs.

2.2.5 No Build Alternative

The no-build alternative would leave SR-78 and SR-111 in their existing condition, through the city of Brawley. This condition would not accommodate increasing regional and international traffic due to NAFTA and GATT. In addition, the no-build alternative would not alleviate delay, increased traffic congestion, noise and safety concerns caused by regional traffic traveling through the city of Brawley.

As discussed in [Section 1.3.2](#), existing SR-78 traverses through the city of Brawley's locally recognized historic downtown square and business district. The downtown business district consists of storefront shops with sidewalk canopies and parallel street parking. Historic civic buildings and a park characterize the downtown square area. There is substantial pedestrian use in this area. The traffic negatively impacts the city's downtown community character in the existing condition and would worsen in the future with a no build alternative. Given these concerns, a no-build alternative is not supported by Imperial County and the city of Brawley.

2.3 ALTERNATIVES NO LONGER UNDER CONSIDERATION

All these alternatives are shown on [Figure 2-1](#).

2.3.1 Andre Alternative

This alternative intersects SR-78/86 and, from this juncture, proceeds easterly (following the existing Andre Road) approximately 1.6 km (1 mile) north of and parallel to Fredricks Road, crosses the New River between the Del Rio Country Club and the sewage treatment plant, and then proceeds to the south connecting to SR-111 south of SR-78.

This alternative was included in the 1993 Project Study Report (PSR) and rejected because of its impacts to Imperial Irrigation District (IID) facilities, local roads, and residences. This alternative was also included in the May 1997 Alternative Analysis Report (AAR). It was again rejected from further study because of its impacts to IID facilities, local roads, residences, and businesses. Because the Andre Alternative follows an existing road, a substantial number of frontage roads would be required to provide local access to adjacent parcels, increasing the impacts of this alternative.

The County requested a meeting with Caltrans to review several issues, including the elimination of the Andre Alternative. Additional studies for the Andre Alternative were completed and included in the August 1998 Alternative Evaluation Report to address questions from the EPA and Imperial County. These studies were not all inclusive but limited to biological resources, right-of-way/agricultural, limited hazardous waste investigation, and right of way utility impacts. With the addition of this information, EPA accepted the elimination of the Andre Alternative and the County has not taken a formal action to request Caltrans to include it for further study.

The Andre Alternative would impact two agricultural water storage ponds. The west pond is located near the southwest quadrant of the intersection of Andre Road and Hovely Road. The pond is approximately 152 meters by 40 meters (500-feet by 130-feet), and is basically devoid of vegetation. The east pond is located on the south side of Andre Road west of the SR-111 intersection. The pond is approximately 128 meters by 61 meters (420-feet by 200-feet), with a central earthen dike. This pond contains a small stand of cattails occupied by nesting Red-Wing Blackbirds. Both ponds are located in an upland area and the water is pumped from a canal. Therefore, agricultural ponds would not be considered "jurisdictional" by the U.S. Army Corps. of Engineers (ACOE). However, because the ponds provide habitat for many different kinds of wildlife, they may be regulated by the California Department of Fish and Game (CDFG).

The Imperial Irrigation District (IID) relocation impacts are substantially more for the Andre Alternative than for the alternatives still under consideration. Hazardous waste assessment has not been done for the Andre Alternative. However, it is known that there is an abandoned geothermal plant site, located west of the intersection of Andre Road and SR-111. Additionally, there is site with potential contamination from a previously removed fuel tank. These potential hazardous waste sites would require further investigation if the alternative were still under consideration.

When compared to the alternatives still under consideration, the Andre Alternative would have the greatest amount of impacts to:

- IID facilities (canals, laterals, and drains)
- CDFG regulated agricultural aquatic resources along the agricultural drains
- Burrowing Owls
- Farmlands of Statewide Importance
- Residential homes
- Local roads

Even though the Andre Alternative satisfies the project purpose and need, it is no longer being considered based on its greater impacts to biological resources, IID facilities, and local roads.

2.3.2 Far Northerly Alternatives

These alternatives all lie north of the alternatives currently under consideration. The northerly alternatives were shown at the October 1996 Public Scoping Meeting and later discussed and rejected in the May 1997 Alternatives Analysis Report. The four alternatives are Baughman, Boarts, Rutherford/Boarts, and Rutherford/Bannister (see [Figure 2-1](#)). Each alternative intersects SR-78/86 north of the alternatives currently under consideration and then proceeds easterly following the existing local road for which they are named. After crossing the New River, they proceed south to connect to SR-111 south of SR-78.

The Far Northerly Alternatives meet the Purpose and Need for the project. These alternatives would alleviate traffic in downtown Brawley and also address the regional concerns of access to SR-111 and SR-86. However, the Baughman and Boarts alternatives could result in future right-of-way, noise, and visual impacts to the city of Westmorland if the “Westmorland Bypass” is constructed in the future (see [Figure 1-3](#)). When compared to the alternatives still under consideration, these alternatives were generally greater in cost, farmland impacts and right of way impacts. Although these alternatives meet the purpose and need for this project, they were rejected from further study because they do not provide a substantial benefit to offset their increased lengths and resulting impacts.

2.3.3 Southerly Alternatives

The Schartz/SR-228 Alternative and the Mead/SR-228 Alternative were favored by some by local residents at the Public Scoping Meeting in October 1996. They connect SR-86 with SR-111 by by-passing the city of Brawley to the south. This bypass includes SR-86 and SR-111 only. SR-78 would remain in its current location. A major reason the local community suggested these routes is the perceived need for an east-west corridor south of the city. The alternatives utilize all or part of the previously planned State Route 228 which joins SR-86 southwest of the city with SR-86 west of the city. SR-228 was included as part of the Imperial County Transportation Plan (ICTP) but was not adopted by the California Transportation Commission and was deleted from the ICTP through the public hearing process on February 26, 1997. Although the route has not been adopted, its path would be referred to as SR-228 in this document for ease of reference.

Both alternatives intersect SR-78/86 west of Brawley and proceed southerly along the path of SR-228. After crossing the New River, the Schartz/SR-228 Alternative continues south and joins SR-86 until reaching Schartz Road, which it then follows easterly to SR-111. The Mead/SR-228 Alternative crosses the New River and then proceeds easterly, approximately 1.6 km (1 mile) north of and parallel to Schartz Road, to join Mead Road and ultimately SR-111.

These two southerly alternatives were rejected because they do not meet the purpose and need for this project, due to the fact that they would still require SR-111 and SR-78 traffic to traverse through the downtown area of Brawley. If one of the southern alternatives were constructed, it is likely that another bypass would be needed to service the SR-111 traffic. These alternatives also had potentially greater impacts to businesses, residences, and wetlands.

2.3.4 Transportation System Management/Transit/Rail

The following alternatives are discussed in the Major Investment Study that is summarized in Section 2.4 and provided as a separate document. Transportation System Management alternatives investigated to alleviate highway congestion included signalization modification, widening of existing roads, and designation of one-way roads within the city of Brawley. The city staff of Brawley and local residents expressed concern, during the public scoping meetings in 1996, at the estimated time to complete this project.

In response, the possibility of providing a short-term solution to the traffic in downtown Brawley was investigated. The concept involved signing two streets parallel to SR-78, within the City, as one-way streets in order to alleviate the downtown traffic. The city of Brawley has very few east/west streets that are continuous and cross the railroad tracks. Of these, only Malan Street is continuous between SR-111 and SR-86. Malan Street is adjacent to a park and two elementary schools. With the exception of SR-78, the city streets are residential in nature and border schools and/or parks as shown in [Figure 3-3E](#) and [Figure 3-4](#). Therefore, due to the existing volume of traffic and the street network within the city, a couplet of one way streets is not feasible.

Signalization modification and widening of existing roads within the city of Brawley would severely impact existing buildings, possible historic structures, parks, trees, and community resources and therefore would not be feasible.

The Imperial County Transit Authority provides public transit service in the city of Brawley. There are nine daily buses to El Centro and Calexico. Additionally, the Brawley Dial-a Ride system provides service to disabled persons and to those that can schedule their trips in advance. The public transit system can move people effectively in more heavily populated areas but does not meet the purpose and need of the project to remove regional and international goods through the Brawley Bypass corridor. Furthermore, it does not meet the needs of the rural users who have widely varied source and destination points.

Currently, there is no passenger rail service in Imperial County and rail freight only accounts for 1.2% of the total domestic movements within the six-county region covered by the Southern California Association of Governments (SCAG). In addition, agricultural traffic from diverse areas accounts for a large amount of the goods and services movement in Imperial County. Further, because much of the international, national and regional products are carried by trucks, the rail alternative also does not meet the purpose and need of the project.

None of the above transportation alternatives address the specific goals for this project. Since, this project would alleviate congestion in the city of Brawley it is consistent with the State Congestion Management Plan.

2.4 MAJOR INVESTMENT STUDY (MIS)

The highway alternative and other reasonable mode alternatives were reviewed and evaluated with respect to costs, benefits, effectiveness and impacts to social, economic, and environmental elements in a Major Investment Study, pursuant to the Final Metropolitan Statewide Planning Regulations (23 CFR Part 450, 49 CFR Part 613). The SR-78 Brawley Bypass MIS was completed in December 1998. A major metropolitan transportation investment is defined in the regulations as "...a high-type highway or transit improvement of substantial cost that is expected to have a significant effect on capacity, traffic flow, level of service, or mode share at the transportation corridor or subarea scale." The regulations mandate preparation of a MIS for any project considered a major investment with potential federal funding. This MIS regulation was adopted by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) on October 28, 1993, and became effective on November 29, 1993. The responsibility for the MIS oversight has been assigned to the Southern California Association of Governments (SCAG), the Metropolitan Planning Organization with oversight for Imperial County. SCAG formally acknowledged that the Brawley Bypass 78/111 Expressway project meets the requirements established by SCAG and FTA/FHWA guidance in their letter dated January 14, 1999 ([see Chapter 6, Comments and Coordination](#)).

The MIS is a separate document and investigates alternatives for air transportation, bus transit, transportation system management, passenger and freight rail, and highways. Based on the modal transportation options, the MIS recommended that the transportation improvement project in the Brawley Bypass Corridor be carried forward as the Highway Alternative. The Highway Alternative is expected to be more successful than the other transportation modes because it best satisfies the need and purpose for the project. It is an integral portion in the system development strategy of providing a high level expressway connection between the international border and Interstate 10 in Riverside County. The MIS for this project was approved in December 1998.

2.5 NEPA EIS/404 CONCURRENCE PROCESS

In 1993, Caltrans, Federal Highway Administration (FHWA), Federal Transit Administration, U.S. Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (ACOE), U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service, and the Arizona and Nevada Departments of Transportation entered into a Memorandum of Understanding (MOU). The purpose of the MOU was to integrate the National Environmental Policy Act (NEPA) and the Clean Water Act, Section 404 into early involvement and selection of alternatives for transportation projects that require an individual permit. The MOU commits these agencies to ensuring the earliest possible consideration of environmental concerns pertaining to waters of the U.S., including wetlands and to a clear understanding of the project purpose and need.

Caltrans first met with the U.S. EPA, U. S. FWS, and the ACOE regarding the SR-78/111 Brawley Bypass project at a Pre-Application Meeting on October 16, 1996. The preliminary alternatives were presented at that time. Subsequently, the Alternatives Analysis Report was submitted to ACOE, FWS and EPA in May 1997 recommending the Fredricks, Del Rio, and Del Rio North Alternatives for further consideration. ACOE and FWS concurred with the project purpose and need and the three alternatives recommended for further study. EPA requested

additional information on purpose and need and why the Andre Alternative was dropped from further consideration. A second report, the August 1998 Alternative Evaluation Report, was prepared as a supplement to the May 1997 Alternatives Analysis Report. EPA then concurred with the recommendation for continuing studies on the Fredricks, Del Rio, and Del Rio North Alternatives.

When the studies for the project were initiated, the wetland and waters of the U.S. impacts were undetermined. Additionally, the requirements for Nationwide Permits were under review with changes anticipated that could affect the status of whether or not the Brawley Bypass required an Individual Permit or a Nationwide Permit. The Wetland Delineation has since undergone field review with ACOE (see [Appendix J](#)) and Caltrans staff and it is anticipated that the Brawley Bypass will be eligible for a Nationwide Permit 14, *Linear Transportation Crossing*, for all four proposed alternatives. Coordination with the ACOE was conducted with Mr. Antal Szijj, Project Manager, on July 29, 1999.

2.6 CONSTRUCTION SCHEDULE

Construction is tentatively scheduled to begin during July 2005, assuming final environmental approval for the project is obtained during May 2002. The project will be advertised to prospective bidders after the project Plans, Specifications, and Estimate (PS&E) are prepared. Construction duration for all alternatives is expected to be approximately 24 months. Completion of construction is expected by August 2007.

No construction staging is proposed for this project at this time. Planning during the design phase would ensure that construction activities are properly coordinated to improve construction operations and minimize traffic disruption.

2.7 DETOURS

Traffic control during construction will be required where the proposed expressway intersects existing state routes and county roads. An evaluation of the impact of construction activities on traffic conditions within the project area revealed that no significant delays would be imposed on local traffic. The existing local road network provides sufficient alternate routes for local access in and out of the project area. All detours will provide clearly identifiable access to local businesses.

The Fredricks Alternative, Variation 1, will require a temporary detour of existing SR-111 during construction (see [Figure 2-7](#)). The detour is approximately 0.9 km (0.6 miles) in length and would be constructed on the west side of existing SR-111, in the area of Shank Road. This detour operation will include temporary access connections to adjacent parcels. The duration of the proposed detour is estimated to be twelve months.

The Del Rio North Alternative would require a temporary closure of Best Road. Approximately 4.8 km (3 miles) of Best Road would be closed to through traffic in order to construct the proposed expressway at-grade intersection at Best Road. It is anticipated that through traffic would be rerouted approximately 1.6 km (1 mile) west to SR-111, which parallels Best Road.

Detour signs would be placed at Shank Road, which is located south of the construction area, and Rutherford Road, which is located north of the construction area. The duration of the proposed detour is estimated to be six months.

All alternatives would require the removal of a future temporary connection at the southern end of this proposed project, where it connects to the SR-111 expressway project (see [Figure 2-3E](#) and [Figure 2-8](#)). The temporary connection, approximately 0.8 km (0.5 miles) in length, would be constructed as part of the SR-111 expressway project. It would temporarily divert the traffic from the SR-111 expressway to existing SR-111 roadway until the completion of the Brawley Bypass expressway project. Current project schedules reveal that this temporary connection would be in place for approximately 4 years. The extreme southern portion of the Brawley Bypass expressway would be built on an area acquired for the previously approved SR-111 expressway (see [Figure 2-3E](#) and [Figure 2-8](#)).

2.8 HAUL ROADS AND CONSTRUCTION STAGING AREAS

The construction contractor will select the source for imported fill material. All imported borrow will come from SMARA sanctioned sites. Hauling of fill material to the construction site may be on local roads. Traffic volumes on these local roads are light and haul activity is not expected to delay traffic. No hauling will be allowed on those local streets which are congested or where public safety would be impaired.

Construction staging areas will depend on what alternative is selected. Areas will be within the proposed project right-of-way or on excess land acquired during right-of-way acquisition. Staging areas will be located away from sensitive residential, business, sensitive wildlife habitat or the county club.

2.9 NONSTANDARD FEATURES OF THE PROJECT

Design exceptions for nonstandard sight distances are required for both variations of the Fredricks Alternative. The Fredricks Alternative proposes to modify existing SR-111, near Shank Road, where the proposed expressway will intersect SR-111. Existing constraints of the New River Bridge will limit the sight distance on existing SR-111 in this area. This will cause nonstandard sight distances to exist. Therefore, a mandatory design exception for stopping sight distance and an advisory design exception for decision sight distance have been approved for the Fredricks Alternative.