

DEPARTMENT OF PUBLIC WORKS

Request for a Modification to a Road Standard and/or Project Conditions

Project Number:

Date of Request: October 7, 2009

Project Location: On Old Hwy 80 approximately 3.75 miles east of Jacumba. See Vicinity Map(Figure 2).

Thos. Bros. Map/Grid: Map 430/Grid F9

APN#: 661-041-02

Requestor Name: Sempra Global

Telephone: 619-696-1824

Address: 101 Ash St HQ8B, San Diego, CA 92010

Requested Modification: A modification to a Road Standard is requested for the "Minimum Corner Intersection Sight Distance" at the intersection of a private road and public road. The Energia Sierra Juarez (ESJ) project proposes to construct a 24' private access road from Old Hwy 80 at the location of the legal easement and existing driveway to APN# 661-041-02. In the vicinity of the project, Old Hwy 80 has a posted speed limit of 55mph and an assumed design speed of 60mph, which corresponds to a required 600' Standard Corner Sight Distance. The maximum corner sight distance available at the intersection of the private road and Old Hwy 80 is 517' looking west and 460' looking east to the east. See the attached memo dated October 7, 2009 for the background information from the corner sight distance study.

Reason for Requested Modification: The access point is proposed to occur at the existing location of the property legal access road (PA) and will be improved to a 24' wide gravel private road. The proposed private road will be used to provide access for the construction, operation and maintenance of the proposed ESJ generator-tieline project. Most of the traffic using the access road will occur during the project construction which is expected to last approximately 6 months and require approximately 20 to 25 workers per day. After the project is completed, traffic volume on the access road is expected to be very low totaling approximately one maintenance trip per week. Additionally, due to the limited development in the vicinity of the project site, Old Hwy 80 has a low volume of traffic with many of the trips directly related to US Border Patrol Operations. As a result of the low volume of traffic on Old Hwy 80, minimal vehicular trips on the private road after construction is completed, and the high cost of the mitigation required to meet standards, the project proposes to continue using the existing access point and legal easement for the property.

List Alternatives that could mitigate the requested Modification: To mitigate for the reduced corner sight distance, a traffic control plan during the construction phase of this project will be implemented and include temporary traffic control signs and devices for Low Volume Roads per Chapter 5 and 6 of the Manual on Uniform Traffic Control Devices. Additionally, after construction is complete, intersection

warning signs W2-2 "T-symbol" and W16-2 "500 feet" would be installed 500-feet in advance of the intersection to warn drivers of the proposed access location.

Describe the hardship to the property owner(s) and/or neighbors if the request is not approved:

Meeting the required corner sight distance per the County of San Diego Road Standards would require either relocating the access location 375' to the east or rebuilding approximately 700 linear feet of Old Hwy 80. The relocation of the access point to the east as shown on Exhibit 2 would require the acquisition of property rights or a new easement to allow for project access. Additionally, if the access were relocated to an undisturbed location, additional environmental and cultural impacts would be realized as part of the project. The relocation of the access would require the property rights acquisition and additional clearing, grubbing and grading of approximately 0.50 acres of undisturbed property.

If the private road were to remain at the existing access location, approximately 500 linear feet of Old Hwy, between Stations 108+00 and 113+00, would need to be raised between one and four feet to meet the corner sight distance requirements. The rebuilding of Old Hwy 80 would likely require temporary construction easements, off-site grading, impacts to existing drainage courses, a lengthy approval process, construction staging concerns, impacts to existing traffic patterns and significant construction times and costs.

Provide Design and Cost Estimate for meeting the Condition: The cost estimate for relocating the access 375' to the east is \$148,500. The cost estimate for rebuilding Old Hwy 80 is \$485,000. Detailed costs estimates are attached.



October 7, 2009

MEMORANDUM

TO: Joan Heredia, Sempra Global

FROM: Mark Tarrall, P.E.

RE: Energia Sierra Juarez (ESJ) Access Corner Sight Distance at Intersections Study

This memorandum provides the results of the corner sight distance study performed by Dokken Engineering at the proposed ESJ access location. The proposed ESJ access is located off of the south side of Old Hwy 80 approximately 3.75 miles east of Jacumba in the southeast corner of San Diego County near the Imperial County Line. See Figure 2 "Project Vicinity Map" as included in the San Diego County Major Use Permit Application Project Description. The access point is proposed to occur at the existing location of the property legal access road (PA) and will be improved to a 24' wide gravel private road. The proposed private road will be used to provide access for the construction, operation and maintenance of the proposed ESJ generator-tie line project. Most of the traffic using the access road will occur during the project construction which is expected to last approximately 6 months and require approximately 20 to 25 workers per day. After the project is completed, traffic volume on the access road is expected to be very low totaling approximately one maintenance trip per week.

Due to the limited development in the vicinity of the projects site, Old Hwy 80 has a low volume of traffic with many of the trips related to US Border Patrol Operations. The roadway consists of a 12' lane in each direction with 5' paved shoulders within a 60' Right of Way. The posted speed limit on Old Hwy 80 in the vicinity of the existing access point is 55 mph. Old Hwy 80 does not fit into any of the typical road classifications as outlined in Table 2 of the County of San Diego Public Road Standards and therefore is not associated with a typical design speed. However, given the posted speed of 55 mph and the rural character of the road, it is reasonable to assume a 60 mph design speed for the roadway.

Field survey data consisting of top and toe of slope, edge of travel way and edge of pavement was collected for 1000' in each direction of the proposed access location. Utilizing the field survey data and the criteria outlined in section 3.1(G) of the County of San Diego Private Road Standards a Corner Sight Distance at Intersection Study was completed for the proposed access location. The results of the study show that the proposed access location provides a maximum 517' line of sight looking west and a 460' line of sight looking to the east. See Exhibit 1 "Corner Sight Distance Study".



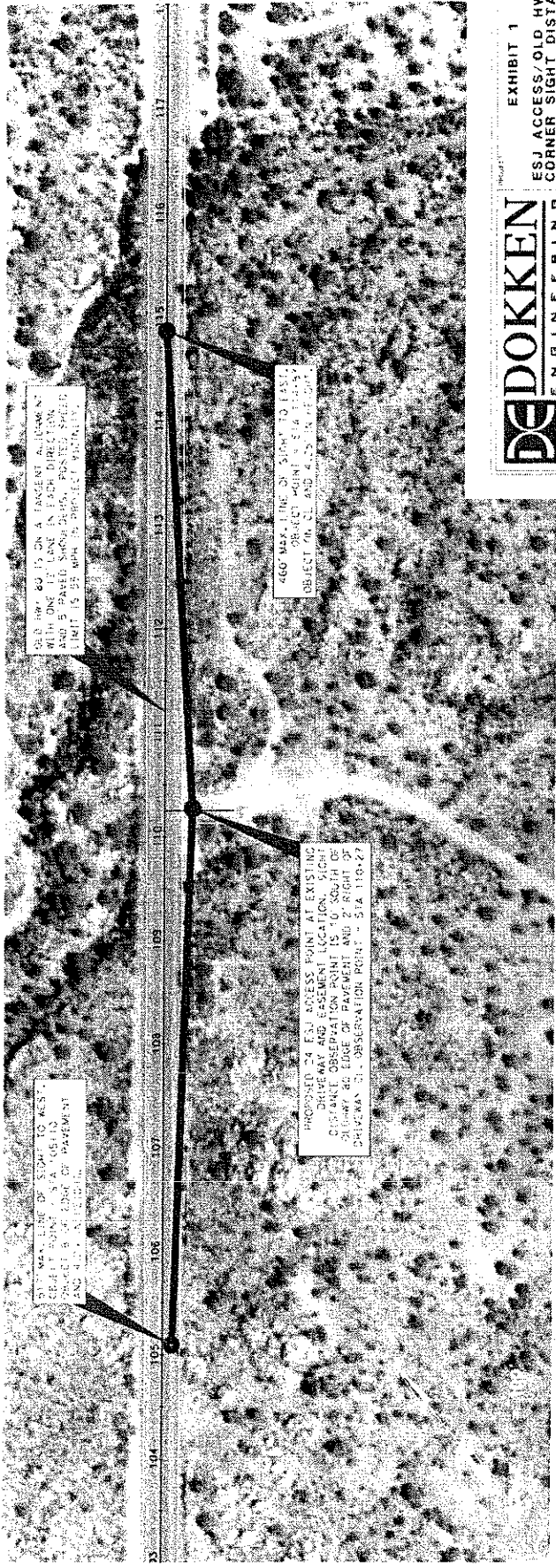
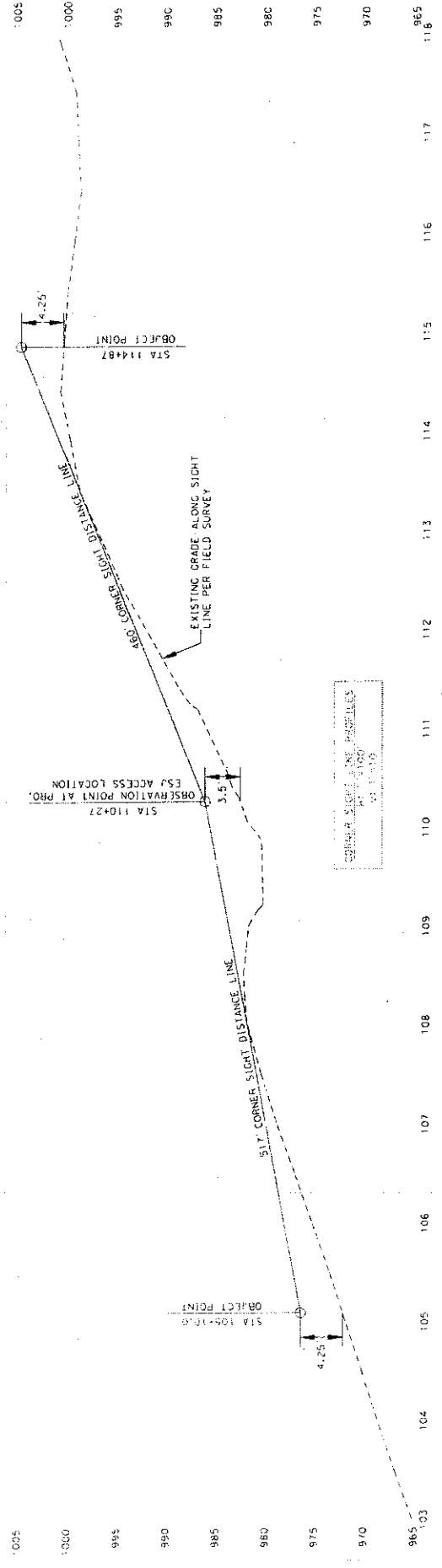
Since the County of San Diego Road standards require a 600' line of sight in each direction for a roadway with a 60 mph design speed a "Request for a Modification to a Road Standard" will need to be completed for a reduction to the corner sight distance standard.

To mitigate for the reduced corner sight distance, a traffic control plan during the construction phase of this project should be implemented and include temporary traffic control signs and devices for Low Volume Roads per Chapter 5 and 6 of the Manual on Uniform Traffic Control Devices. Additionally, after construction is complete, intersection warning signs W2-2 "T-symbol" and W16-2 "500 feet" should be installed 500-feet in advance of the intersection to warn drivers of the proposed access location.

Prepared By:

Mark Tarrall, Registered Civil Engineer

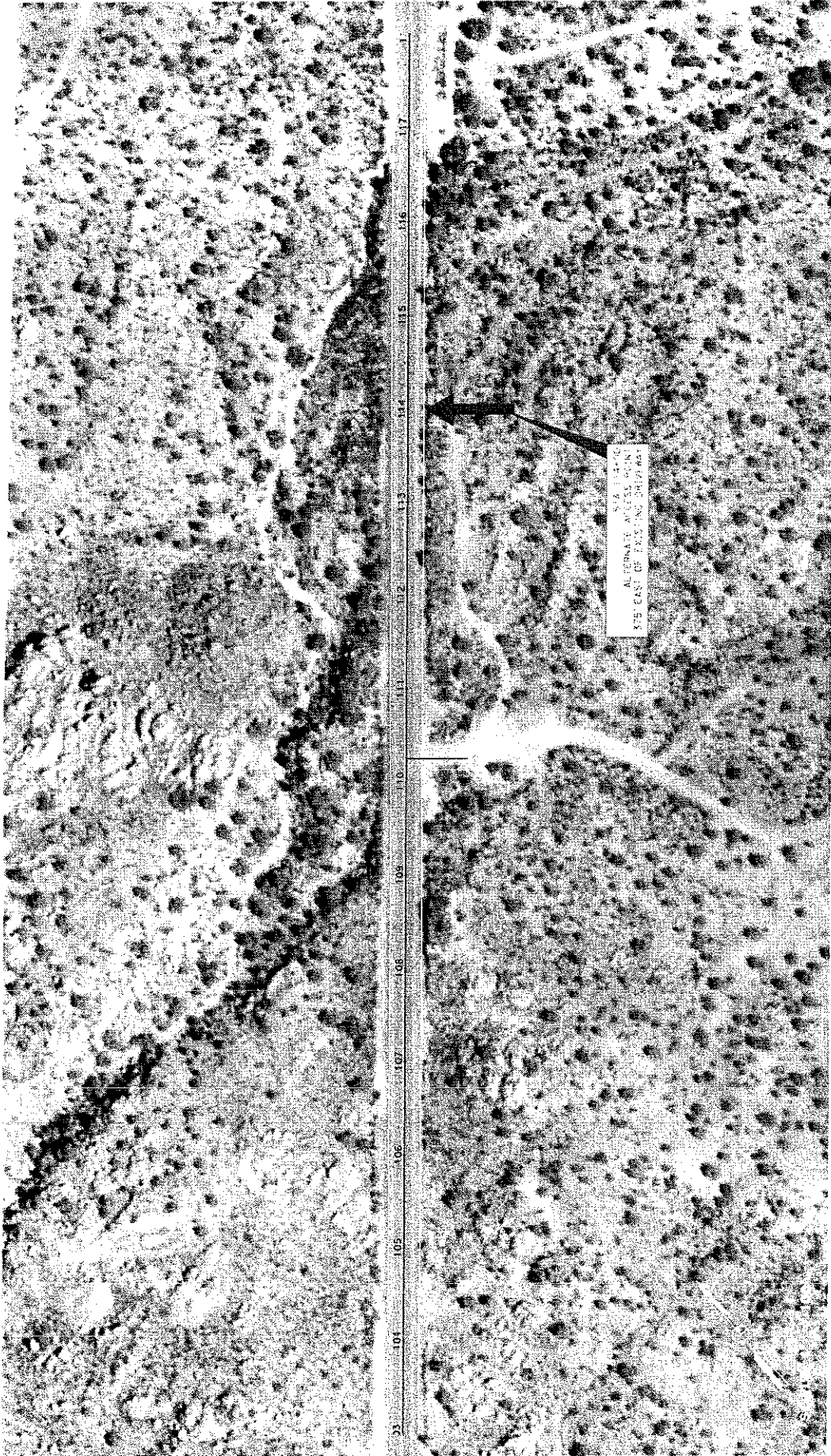




DE DOKKEN
ENGINEERING

EXHIBIT 1
ESJ ACCESS/OLD HWY 80
CORNER SIGHT DISTANCE
STUDY
SEPTEMBER 25, 2009

3500 W. 15th Street
San Diego, CA 92122
Tel: 619.594.2121
Fax: 619.594.2122



DEDOKKEN
ENGINEERING

1000 N. ROAD
SAN DIEGO, CA 92101

EXHIBIT 3

ESJ ACCESS/ OLD HWY 80
ALTERNATE ACCESS POINT

SEPTEMBER 29, 2009

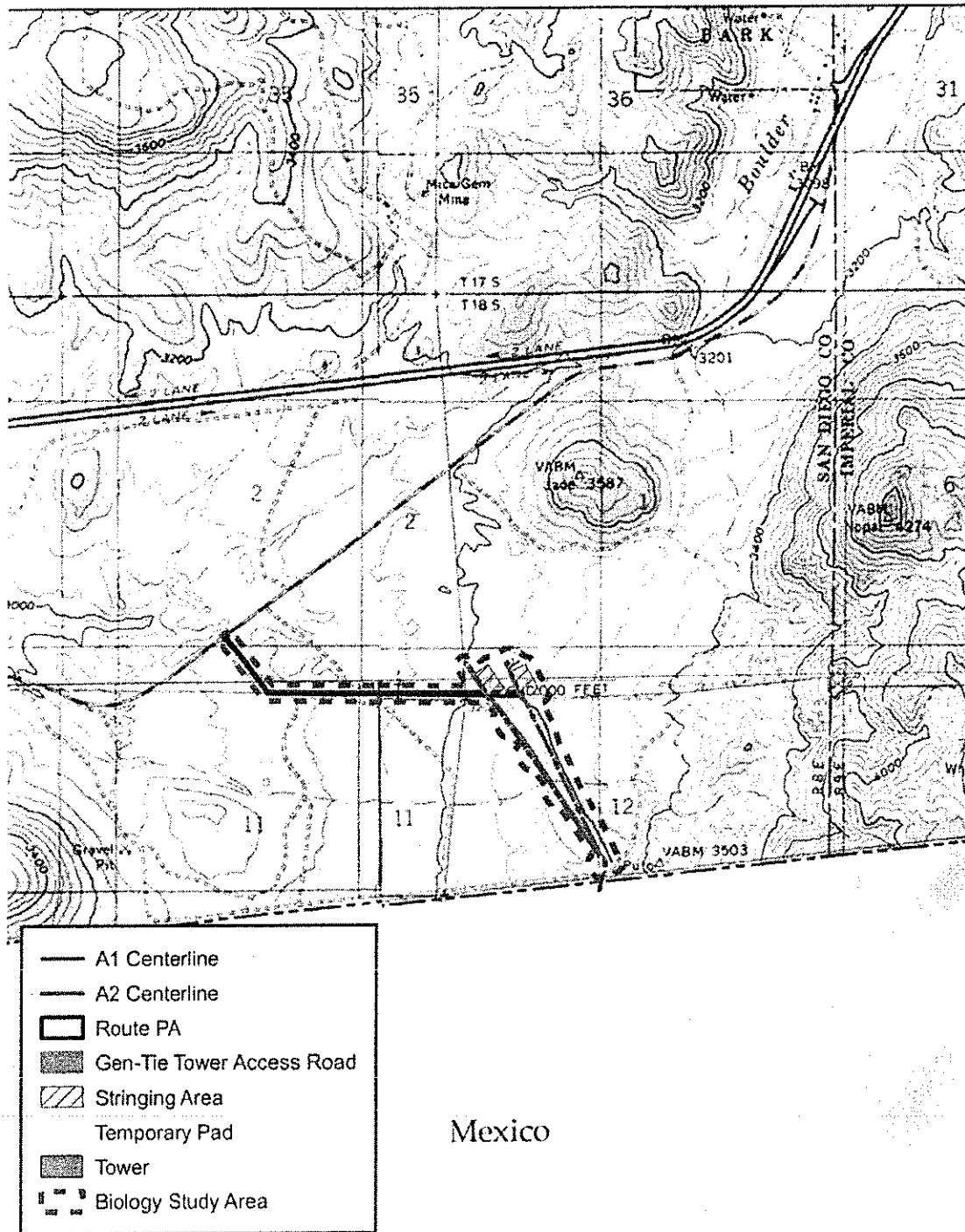


Figure 2
Project Vicinity

EXHIBIT 4



Photo 1 - Looking west at Old Hwy 80 from vehicle at proposed ESJ Access location



Photo 2 - Looking east at Old Hwy 80 from vehicle at proposed ESJ Access location



Preliminary Cost Estimate
Alternative 1 - Relocate ESJ Access 375' East

Property and Easement Acquisition	LS	1	x	50,000.00	=	\$ 50,000
Clearing & Grubbing	LS	1	x	10,000.00	=	\$ 10,000
Grading	LS	1	x	15,000.00	=	\$ 20,000
Drainage	LS	1	x	10,000.00	=	\$ 10,000
Environmental/Cultural Studies	LS	1	x	20,000.00	=	\$ 20,000
20% Contingency	LS	1	x	22,000.00	=	\$ 22,000
15% Support Costs	LS	1	x	16,500.00	=	\$ 16,500
				TOTAL COST		\$ 148,500



**Preliminary Cost Estimate
Alternative 2 - Rebuild 700' of Old Hwy 80**

Mobilization	LS	1	x	25,000.00	=	\$	25,000
Embankment	CY	1,400	x	30.00	=	\$	42,000
Clearing & Grubbing	LS	1	x	5,000.00	=	\$	5,000
Develop Water Supply	LS	1	x	5,000.00	=	\$	5,000
HMA (TYPE A)	TON	880	x	90.00	=	\$	79,200
Class 2 Aggregate Base	CY	985	x	35.00	=	\$	34,475
Cold Plane Asphalt Concrete Pavement	SQYD	150	x	10.00	=	\$	1,500
Drainage	LS	1	x	25,000.00	=	\$	25,000
Prepare SWPPP	LS	1	x	5,000.00	=	\$	5,000
Temporary Erosion Control	SQYD	1,500	x	0.50	=	\$	750
Move In/ Move Out (Temporary Erosion Control)	EA	1	x	1,000.00	=	\$	1,000
Temporary Fiber Roll	LF	500	x	3.00	=	\$	1,500
Temporary Silt Fence	LF	1,000	x	3.50	=	\$	3,500
Temporary Construction Entrance	EA	1	x	2,750.00	=	\$	2,750
Temporary Check Dam	LF	100	x	10.00	=	\$	1,000
Street Sweeping	LS	1	x	10,000.00	=	\$	10,000
Relocate Roadside Sign	EA	4	x	300.00	=	\$	1,200
Paint Traffic Stripe (2 Coat)	LF	2,800	x	2.00	=	\$	5,600
Construction Area Signs	EA	10	x	500.00	=	\$	5,000
Minor Items	LS	1	x	15,000.00	=	\$	15,000
Construction Staging/Maintain Traffic	LS	1	x	75,000.00	=	\$	75,000
Temporary Construction Easements/R/W	LS	1	x	15,000.00	=	\$	15,000
20% Contingency	LS	1	x	71,895.00	=	\$	71,895
15% Support Costs	LS	1	x	53,921.30	=	\$	53,921
				TOTAL COST		\$	485,291