# SAN DIEGO GAS & ELECTRIC COMPANY EAST COUNTY SUBSTATION TRAFFIC CONTROL PLAN

**JANUARY 2013** 



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## LIST OF ATTACHMENTS

Attachment A: Draft Traffic Control Plan Attachment B: Standard Traffic Control Plan Attachment C: Sight Distance Conformance Attachment D: Agency Briefing Summary

# 1 – INTRODUCTION

This Traffic Control Plan (Plan) describes how San Diego Gas & Electric Company (SDG&E) and its contractors plan to reduce traffic impacts during construction of the East County (ECO) Substation component of the East County Substation Project (Project). The Project involves the construction of a new 500/230/138 kilovolt (kV) ECO Substation, rebuild of the Boulevard Substation in a new location, and construction of an approximately 14-mile-long 138 kV transmission line, consisting of overhead and underground segments in southeastern San Diego County.

This Plan was prepared in accordance with Mitigation Measure (MM) TRA-1 of the Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) for the Project, which includes guidelines for reducing impacts associated with construction-related traffic and procedures to be followed in the field. MM TRA-1 requires the Plan to be consistent with the California Department of Transportation's (Caltrans's) standards and regulations. This Plan was developed to ensure compliance with federal, state, and local regulations, as well as the requirements stipulated by the Bureau of Land Management (BLM) and California Public Utilities Commission (CPUC) in the MMCRP.

# 2 – OBJECTIVES

The purpose of this Plan is to support compliance with the MMCRP throughout the duration of construction of the ECO Substation. The contents of this Plan are intended to accomplish the following objectives:

- Reduce impacts of construction-related traffic
- Maintain consistency with MM TRA-1, as specified in the MMCRP, as well as with relevant federal, state, and local ordinances

# **3 – APPLICABLE REGULATIONS**

This Plan conforms to the regulatory ordinances outlined by Caltrans, the CPUC, and the County of San Diego. Ordinances to be adhered to include the following:

- Caltrans's Manual on Uniform Traffic Control Devices (MUTCD)
- Caltrans's Work Area Traffic Control Handbook (WATCH) Manual
- County of San Diego Department of Public Works Public Road Standards

# 4 – MITIGATION MEASURES

**TRA-1: Prepare and implement a Traffic Control Plan.** At minimum, the plan will include the following:

• SDG&E shall encourage carpooling to the construction site to reduce personal vehicle traffic in the Project area to the greatest extent possible.

- SDG&E will consider the specific object sizes, weights, origin, destination, and unique handling requirements, and evaluate alternative transportation approaches.
- Measures such as informational signs and flaggers shall be implemented when equipment may result in blocked roadways, and traffic cones or similar shall be implemented to identify any necessary changes in temporary lane configuration.
- Flaggers and directional guidance for bicyclists along Old Highway 80 shall be used.
- All Caltrans' standards for utility encroachments shall be met.
- The plan shall be prepared in accordance with Caltrans' Manual on Uniform Traffic Control Devices and the Work Area Traffic Control Handbook (WATCH) Manual.
- Clearances or overhead crossings shall conform to regulations of the CPUC and BLM, and the number of crossings shall be minimized.
- New installations under an existing roadbed shall be made by the boring-and-jacking method. No trenching under the traveled way will occur.
- For freeways and expressways, the placement of longitudinal encroachments is prohibited within controlled-access rights-of-way (ROWs).
- Utilities shall not be located in median areas.
- Transverse crossings shall be normal (90°) to the highway alignment where practical. If impractical, skews of up to 30° from normal may be allowed.
- Supports for overhead lines crossing freeways shall be located outside the controlledaccess ROW and not on cut-or-fill slopes, and shall not impair sight distances. All installations shall be placed as close to the ROW line as possible. Aboveground utilities shall be outside of the clear recovery zone (20 feet from edge-of-travel way for conventional highways and 30 feet for freeways and expressways). Allowance shall be made for future widening of the highways.
- New installations shall not impair sight distances.
- SDG&E shall coordinate in advance with the applicants for the other two connected actions. This effort shall include coordinating the timing of construction of the various projects to reduce potential conflicts.
- SDG&E shall coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles. The County will then notify respective police, fire, ambulance, and paramedic services. SDG&E shall notify counties and cities of the proposed locations, nature, timing, and duration of any construction activities, and advise of any access restrictions that could impact their effectiveness.

SDG&E shall provide a draft copy of the Traffic Control Plan to the agencies listed for comment a minimum of 90 days prior to the start of any construction activities. The comments will be provided back to SDG&E, and plan revisions will address each comment to the satisfaction of the commenting agency. The final plan will be submitted to the CPUC and BLM with input from commenting agencies and provided to SDG&E for implementation during all construction activities.

# **5 – PLAN IMPLEMENTATION**

Table 1: ECO Substation Crosswalk for Mitigation Measure TRA-1 describes SDG&E's implementation of this Plan throughout construction of the ECO Substation. The guidelines outlined in Table 1: ECO Substation Crosswalk for Mitigation Measure TRA-1 will reduce construction-related traffic impacts; meet the regulatory ordinances set forth by federal, state, and local agencies; and establish notification requirements for emergency personnel.

# 6 – REFERENCES

Caltrans. 2012. MUTCD.

Caltrans. 2012. WATCH Manual.

County of San Diego Department of Public Works. March 2012. Public Road Standards.

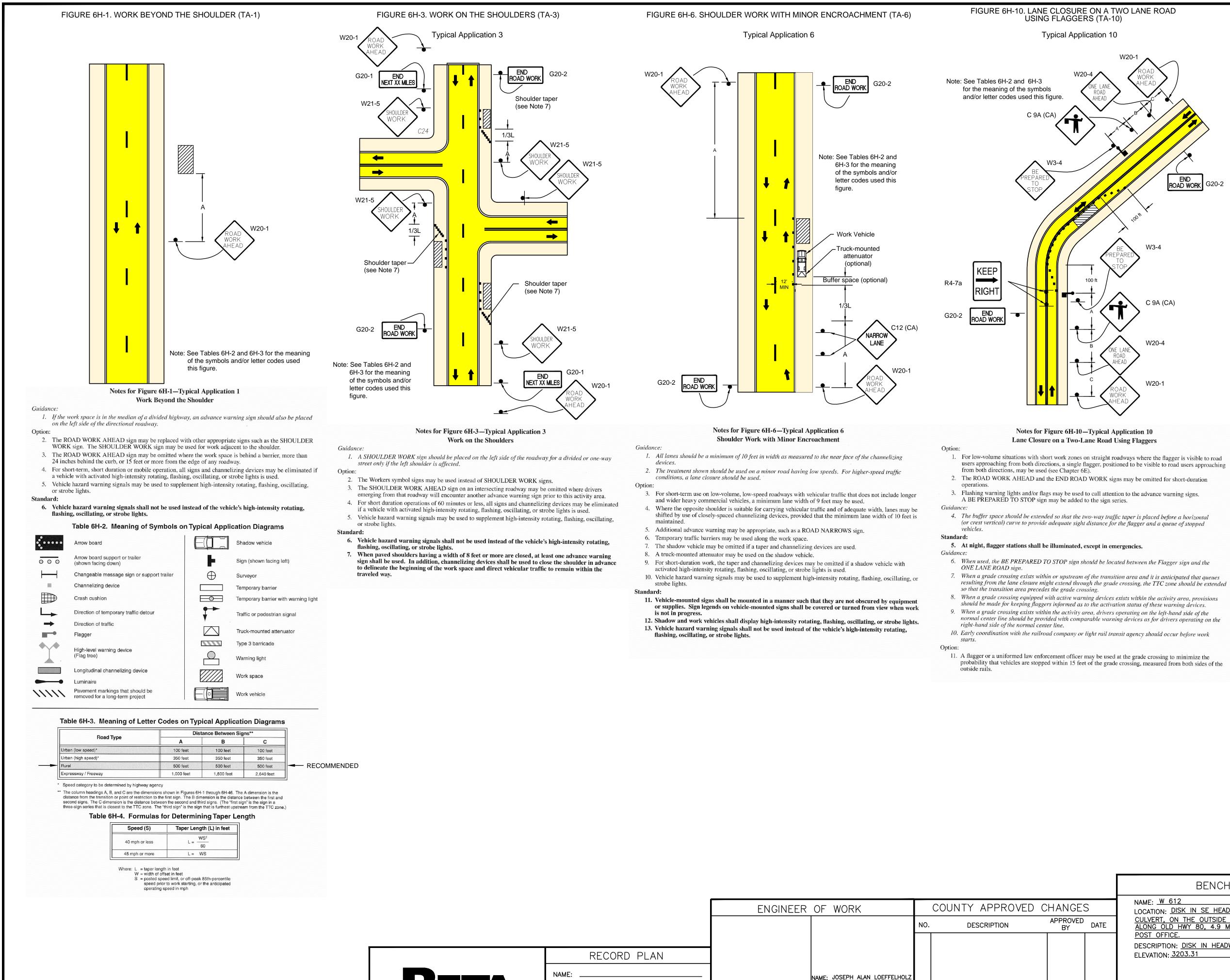
## Table 1: ECO Substation Crosswalk for Mitigation Measure TRA-1

Mitigation Measure Requirement	Mitigation Measure Implementation
SDG&E shall encourage carpooling to the construction site to reduce personal vehicle traffic in the project area to the greatest extent possible.	The Safe Worker and Environmental Awareness Program, which is mandatory to work on the Project ROW, encourages carpooling to and from the construction site.
SDG&E will consider the specific object sizes, weights, origin, destination, and unique handling requirements, and evaluate alternative transportation approaches.	SDG&E's construction contractor will utilize specialized equipment delivery professionals for the delivery of large equipment deliveries to the site. These professionals will consider the specific object sizes, weights, origin, destination, unique handling requirements, and evaluate alternative transportation approaches for each delivery, as needed. In addition, required permits will be obtained from appropriate cities, counties, and other agencies, such as Caltrans, as needed.
Measures such as informational signs and flaggers shall be implemented when equipment may result in blocked roadways, and traffic cones or similar shall be implemented to identify any necessary changes in temporary lane configuration.	Attachment A: Draft Traffic Control Plan and Attachment B: Standard Traffic Control Plan described the measures that will be implemented when equipment/material deliveries or construction activities cause blocked or restricted roadways or temporary impacts to the movement of traffic in the Project area.
Flaggers and directional guidance for bicyclists along Old Highway 80 shall be used.	If necessary during construction, flaggers and directional guidance for bicyclists and motorists along Old Highway 80 shall be used during construction of improvements to the southern access road entrance and for any equipment loading/unloading along the road shoulder in accordance with Attachment A: Draft Traffic Control Plan and Attachment B: Standard Traffic Control Plan.
All Caltrans' standards for utility encroachments shall be met.	This measure requirement is not applicable to construction of the East County (ECO) Substation because no impacts to utility encroachments are anticipated; however, in the event a utility is impacted by construction, all Caltrans standards will be followed.
The plan shall be prepared in accordance with Caltrans' Manual on Uniform Traffic Control Devices and the Work Area Traffic Control Handbook (WATCH) Manual.	Attachment A: Draft Traffic Control Plan, developed in association with the curb grade permit, and Attachment B: Standard Traffic Control Plan have been developed in accordance with Caltrans's MUTCD and the WATCH Manual.

Mitigation Measure Requirement	Mitigation Measure Implementation
Clearances or overhead crossings shall conform to regulations of the CPUC and BLM, and the number of crossings shall be minimized.	This measure requirement is not applicable to construction of the ECO Substation because no overhead crossings are anticipated as part of construction of the substation.
New installations under an existing roadbed shall be made by the boring-and-jacking method. No trenching under the traveled way will occur.	This measure requirement is not applicable to construction of the ECO Substation because there will be no installations constructed under the existing roadbed as part of the substation construction.
For freeways and expressways, the placement of longitudinal encroachments is prohibited within controlled-access rights-of-way (ROWs).	This measure requirement is not applicable to construction of the ECO Substation because no freeway or expressway crossings will occur as part of the construction of the substation.
Utilities shall not be located in median areas.	This measure requirement is not applicable to construction of the ECO Substation because no underground utility lines will be constructed in public roadways as part of the substation.
Transverse crossings shall be normal (90°) to the highway alignment where practical. If impractical, skews of up to 30° from normal may be allowed.	This measure requirement is not applicable to construction of the ECO Substation because no highway crossings will occur as part of the construction of the substation.
Supports for overhead lines crossing freeways shall be located outside the controlled-access ROW and not on cut-or-fill slopes, and shall not impair sight distances. All installations shall be placed as close to the ROW line as possible. Aboveground utilities shall be outside of the clear recovery zone (20 feet from edge-of-travel way for conventional highways and 30 feet for freeways and expressways). Allowance shall be made for future widening of the highways.	This measure requirement is not applicable to construction of the ECO Substation because no freeway or expressway crossings will occur as part of the construction of the substation.
New installations shall not impair sight distances.	The southern access road entrance into the ECO Substation will require a curb grade permit. The County of San Diego reviews sight distances as part of the curb grade permit application. As shown in Attachment C: Sight Distance Conformance, the final design of the access road entrance conforms to County of San Diego's sight distance requirements.

Mitigation Measure Requirement	Mitigation Measure Implementation
SDG&E shall coordinate in advance with the applicants for the other two connected actions. This effort shall include coordinating the timing of construction of the various projects to reduce potential conflicts.	SDG&E will provide notifications to Energia Sierra Juarez U.S. Transmission LLC (ESJ) as required by the mutual ROW Agreement with ESJ. SDG&E will maintain communications during construction with ESJ's project manager, Alberto Abreu. SDG&E will also maintain communications with the Tule Project management personnel and will keep them advised of the construction schedule to avoid any potential conflicts.
SDG&E shall coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles. The County will then notify respective police, fire, ambulance, and paramedic services. SDG&E shall notify counties and cities of the proposed locations, nature, timing, and duration of any construction activities, and advise of any access restrictions that could impact their effectiveness.	SDG&E has met with the United States Customs and Border Patrol, County of San Diego, Carrizo Gorge Railway Police, San Diego Rural Fire Protection District, San Diego County Fire Authority, and the San Diego County Sheriff's Department regarding the location of the Project, as well as the nature, timing, and duration of the anticipated construction activities and potential access restrictions. Specific threats and risks to the Project have also been discussed with many of these agencies. Attachment D: Agency Briefing Summary describes the coordination efforts that SDG&E has engaged in with these agencies to date. Communications with all of these agencies are ongoing and will be maintained throughout construction by Jack Strumpsky (Security Lead) and Dennis Baldridge (Project Fire Marshall) of SDG&E. SDG&E will continue to provide updates on schedule and access restrictions that could affect Project workers, the agencies, or the community.

ATTACHMENT A: DRAFT TRAFFIC CONTROL PLAN



				BENCH MARK	PRIVATE CONTRACT
]	ENGINEER OF WORK	COUNTY APPROVED C	CHANGES	NAME: <u>W 612</u> LOCATION: <u>DISK IN SE HEADWALL OF 5'X10' BOX</u>	SHEET COUNTY OF SAN DIEGO 3 2 DEPARTMENT OF PUBLIC WORKS SHEETS
		NO. DESCRIPTION	APPROVED BY DATE	CULVERT, ON THE OUTSIDE AND NE END OF A CURVE ALONG OLD HWY 80, 4.9 MILES EAST OF JACUMBA POST OFFICE.	IMPROVEMENT PLAN FOR: EAST COUNTY SUBSTATION
				DESCRIPTION: <u>DISK IN HEADWALL STAMPED</u> "W 612 1941" ELEVATION: <u>3203.31</u> DATUM: <u>NAVD</u> 88	TRAFFIC CONTROL DETAILS
RECORD PLAN				ELEVATION. <u>2200.01</u> DATOM. <u>IN VD-00</u>	
R.C.E	NAME: <u>JOSEPH ALAN LOEFFELHOLZ</u> PHONE NO. <u>X%米~派家級-XXXX</u>				RECOMMENDED FOR APPROVAL APPROVED:
DATE:	ADDRESS: <u>9990 MESA RIM ROAD</u> SUITE 150				ENGINEER OF WORK JOSEPH LOEFFELHOLZ R.C.E. 69868 EXP APPROVAL DATE: CHECKED BY: APPROVAL DATE: CG 4794
	SAN DIEGO, CA 92121				·

NOTE: TRAFFIC CONTROL PER ATTACHED CALTRANS' MUTCD TYPICAL APPLICATIONS, (IN CONJUNCTION WITH THE WORK AREA TRAFFIC CONTROL HANDBOOK) IS FOR DRIVEWAY/PRIVATE ROAD CONSTRUCTION IN COUNTY RIGHT-OF-WAY

WITH REGARD ONLY TO THE WORK SHOWN ON THESE PLANS FOR THE SDG&E EAST COUNTY SUBSTATION GRADING AND ACCESS ROAD OVER APN 661-041-03, THE DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES (PDS) FOR THE COUNTY OF SAN DIEGO ACKNOWLEDGES THAT SAN DIEGO GAS & ELECTRIC (SDG&E) HAS CONSULTED WITH PDS REGARDING THOSE LAND USE MATTERS WITHIN SCOPE OF PDS'S REVIEW AUTHORITY IN THE MANNER REQUIRED BY SECTION XIV(B) OF CALIFORNIA PUBLIC UTILITIES COMMISSION, GENERAL ORDER 131-D, DECISION 94-06-14 AS MODIFIED BY DECISION 95-08-038.

FOR COUNTY ENGINEER

DATE

NAM 858 NO:

ATTACHMENT B: STANDARD TRAFFIC CONTROL PLAN



Beta Engineering 4725 Highway 28 East Pineville, LA 71360 Attn: Dane Anderson

Subject: East County Substation Project Jacumba, California

Re: Traffic Control Plan for Equipment Offloading

To Whom It May Concern:

As requested, Sukut is submitting the standard Traffic Control Plan that will be utilized for equipment offloading on the above referenced project. The planned offloading area for equipment will be on the Access Road near the project entrance. However, if it becomes necessary to offload equipment on Old Highway 80, Sukut will follow the 2012 Edition of the California Manual on Uniform Traffic Control Devices for any traffic control work. Specifically, we will follow Figure 6H-10 (CA) for lane closures on a twolane road using flaggers and Table 6E-101(CA) for Flagger Station Spacing. Both of these documents are attached for your reference.

I may be reached at (XXX) XXX-XXXX if you have any questions or concerns regarding this issue.

Sincerely,

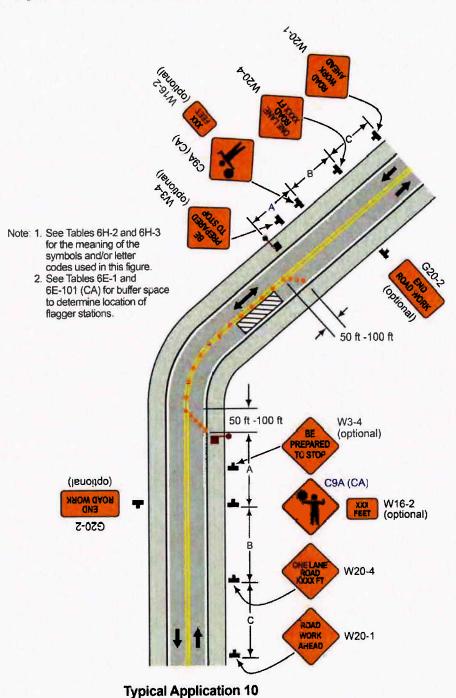
5 Ontone

Nick Osborne, P.E. Project Manager

SUKUT CONSTRUCTION, INC.

Moving Earth to Award-Winning Levels

4010 W. Chandler Avenue • Santa Ana, California 92704-5202 714.540.5351 • Fax 714.545.2438 • 800.339.6024 • www.Sukut.com Contractor's License No. 554278



## Figure 6H-10 (CA). Lane Closure on Two-Lane Road Using Flaggers (TA-10)

Speed*	Distance		
20 mph	115 feet		
25 mph	155 feet		
30 mph	200 feet		
35 mph	250 feet		
40 mph	305 feet		
45 mph	360 feet		
50 mph	425 feet		
55 mph	495 feet		
60 mph	570 feet		
65 mph	645 feet		
70 mph	730 feet		
75 mph	820 feet		

#### Table 6E-1. Stopping Sight Distance as a Function of Speed

 Posted speed, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed.
Can also be used as Stopping Sight Distance as suggested buffer space length or location for flagger station.

## Table 6E-101(CA). Longitudinal Buffer Space or Flagger Station Spacing on Downgrades

Speed (mph)	% Downgrade (Buffer Space)			
	-3% (feet)	-6% (feet)	-9% (feet)	
20	116	120	126	
25	158	165	173	
30	205	215	227	
35	257	271	287	
40	315	333	354	
45	378	400	427	
50	446	474	507	
55	520	553	593	
60	598	638	686	
65	682	728	785	
70	771	825	891	

\* Exhibit 3-2. A Policy on Geometric Design of Highways and Streets, AASHTO, 2001, p.115.

Chapter 6E – Flagger Control Part 6 – Temporary Traffic Control

ATTACHMENT C: SIGHT DISTANCE CONFORMANCE



Beta Engineering 9990 Mesa Rim Rd. Ste. 150 San Diego, CA 92121

> phone 858.750.2370 fax 858.750.2375 betaengineering.com

November 13, 2012

Richard E. Crompton, Deputy Director County of San Diego Department of Public Works, MS O336 5555 Overland Avenue San Diego, CA 92123

LAND DEVELOPMENT SIGHT DISTANCE POLICY

Dear Mr. Crompton,

This letter is to certify that physically, there is a minimum unobstructed sight distance of 600' in both directions along Old Highway 80 from the private access road serving the East County Substation for the prevailing operating traffic speed on Old Highway 80 per the Design Standards of Section 6.1.E of the County of San Diego public Road Standards (dated March 2012). Said line of sight falls within the existing right-of-way and a clear space easement is not required.

Respectfully yours,

Joseph Loéffelholz RCE 69868 Expiration Date 9/30/2014



ATTACHMENT D: AGENCY BRIEFING SUMMARY

## East County (ECO) Substation Project Agency Briefing Summary January 11, 2013

#### California Highway Patrol (CHP)

On January 8, 2013, San Diego Gas & Electric Company (SDG&E) held a briefing with the CHP Rural Operations Sergeant Amata Macia, to discuss the Project's impact to freeways and the construction schedule. SDG&E also provided the CHP a copy of the ECO Substation Project Overview Map for their reference.

#### Carrizo Gorge Railway Police

A briefing was held with the Carrizo Gorge Railway Police Chief of Police Marc Langlais on December 12, 2012, after which railway fire and security teams accompanied SDG&E on a tour of the right-of-way.

#### County of San Diego, Department of Public Works (DPW)

SDG&E initially met with Ken Brazell, Project Manager for DPW in the Land Development Division on May 6, 2011, to review the underground alternative and the access road from the substation to Old Highway 80. On May 31, 2012, SDG&E met with Mr. Brazell and other individuals from DPW to conduct an overall Project review. On September 13, 2012, SDG&E met with Mr. Brazell and provided copies of grading plans for DPW's review. On November 9 and 19, 2012, SDG&E met with Mr. Brazell to review DPW's comments to the grading plans and drainage study. In addition, since the September 2012, meeting with DPW, SDG&E has been in regular communication (approximately 2-4 times per month) with Mr. Brazell via email and telephone regarding various issues, including construction plans, schedule and associated impacts to traffic.

#### San Diego County Sheriff

SDG&E initially contacted San Diego County Sheriff Rural Division Supervisor, Sergeant Mike Clough, and resident deputies on November 2, 2012, to discuss Project impacts to the area and possible threats to the Project. SDG&E also provided a copy of the ECO Substation Project Overview Map for their reference.

SDG&E routinely contacts resident deputies on a bi-weekly basis to discuss developments in the right-ofway area as well as the construction schedule.

## <u>Fire Agencies: San Diego Rural Fire Protection District (SDRFPD), San Diego County Fire Authority</u> (SDCFA), California Fire (CAL FIRE), and Bureau of Land Management (BLM)

SDG&E has coordinated with all of the agencies listed above as part of the development of the Project fire plans. Additionally, on January 9, 2013, SDG&E held a pre-construction review of the ECO Substation Project Construction Fire Prevention Plan with Chief David Nissen, SDRFPD, and Captain Cal

Hendrie, CAL FIRE. Impacts to traffic and emergency services were also discussed during that meeting. SDG&E will continue to meet with and maintain communications with these individuals, as well as, Clay Howe, BLM, and Fire Marshall Ralph Steinhoff, SDCFA, prior to and during construction. SDG&E's construction contractor will provide the ECO Substation Project Fire Marshal with a 30-day look-ahead for work activities, and the Fire Marshal will provide this information to local fire agencies along with any anticipated activities that could impact the use of roads in the Project area.

### U.S. Customs and Border Patrol (CBP)

On October 19, 2012, SDG&E held a formal briefing with Boulevard Station, San Diego Sector, Field Operations Supervisor Douglas Cook and Community Liaison Agent Jason Bush to discuss issues associated with upcoming Project construction activities. SDG&E will continue to apprise the agents of changes to the schedule and construction plans throughout construction.