
**SAN DIEGO GAS & ELECTRIC COMPANY
EAST COUNTY SUBSTATION PROJECT
AMENDED SURFACE TREATMENT PLAN**

**PREPARED
DECEMBER 2, 2013**

PREPARED BY:

ENVIRONMENTAL VISION

PREPARED FOR:



TABLE OF CONTENTS

1 – INTRODUCTION..... 1
2 – OBJECTIVES 1
3 – MITIGATION MEASURES..... 1
4 – PLAN IMPLEMENTATION 2
 4.0 ECO Substation.....2
 4.1 Boulevard Substation6
 4.2 Transmission Line.....6
5 – REFERENCES..... 14

LIST OF TABLES

Table 1: Summary of Structure Surface Treatment – ECO Substation 3
Table 2: Summary of Structure Surface Treatment – Boulevard Substation..... 7
Table 3: Summary of Structure Surface Treatment – Transmission Poles..... 10
Table 4: Project Component Installation Schedule..... 14

LIST OF ATTACHMENTS

- Attachment A: Project Component Overview – Surface Treatment Plan
- Attachment B: ECO Substation Plan and Elevation Drawings
- Attachment C: Block/Wall Color Samples
- Attachment D: Gray Color Samples
- Attachment E: Weathering Steel (Cor-ten) Color Sample
- Attachment F: Visual Simulation of ECO Substation from Old Highway 80
- Attachment G: Boulevard Substation Plan and Elevation Drawings
- Attachment H: Visual Simulation of Boulevard Substation from Old Highway 80
- Attachment I: Transmission Pole Typical Elevation Drawings
- Attachment J: Visual Simulation of Transmission Line from Old Highway 80
- Attachment K: Visual Simulation of Transmission Line from Jacumba

1 – INTRODUCTION

San Diego Gas & Electric Company's (SDG&E)'s East County (ECO) Substation Project (Project) includes the construction of a new 500/230/138 kilovolt (kV) ECO Substation east of Jacumba, the rebuilding of Boulevard Substation near the community of Boulevard, and the installation of a new transmission line between the Boulevard and ECO substations, along with a new transmission interconnect to the Southwest Powerlink (SWPL) at the ECO Substation. The locations of these Project components are depicted in Attachment A: Project Component Overview – Surface Treatment Plan. This Structure Surface Treatment Plan (Plan) outlines measures to be taken by SDG&E to reduce the potential visual impacts associated with the construction and operation of the Project. Specifically, this Plan has been prepared to support compliance with Mitigation Measure (MM) VIS-3g: Reduce visual contrast associated with substations and ancillary facilities. This Plan addresses the use of structure surface treatment that will reduce visibility and contrast of substation and ancillary facilities and will help these elements to blend in with the surrounding landscape setting.

2 – OBJECTIVES

The purpose of this Plan is to specify structure surface treatment that will reduce potential visibility and contrast of substation and ancillary facilities. Implementation of the Plan will help the Project elements blend in with the surrounding landscape setting, thereby reducing potential short- and long-term visual impacts.

3 – MITIGATION MEASURES

MM VIS-3g: Reduce visual contrast associated with substation and ancillary facilities; requires SDG&E to address the following requirements:

“Submit to the CPUC a Surface Treatment Plan describing the application of colors and textures to all new facility structure buildings, walls, fences, and components comprising all ancillary facilities including substations. The Surface Treatment Plan must reduce glare and minimize visual intrusion and contrast by blending the facilities with the landscape. The Surface Treatment Plan shall be submitted for approval at least 90 days before (a) ordering the first structures that are to be color treated during manufacture or (b) construction of any of the ancillary facility components, whichever comes first. The Surface Treatment Plan shall include:

- Specification and 11” × 17” color simulations at life-size scale of the treatment proposed for use on project structures including structures treated during manufacturing
- A list of each major project structure, building, tower and/or pole, and fencing specifying the color(s) and finish proposed for each (colors must be identified by name and by vendor brand or a universal designation)
- Two sets of brochures and/or color chips for each proposed color

- A detailed schedule for completion of the treatment
- Procedures to ensure proper treatment maintenance for the life of the project.”

In addition to MM VIS-3g, this Plan also addresses MM VIS-3i, which calls for reducing potential visual contrast of transmission structures through the use of dulled metal finish transmission structures and non-specular conductors. This Plan addresses the use of structure surface treatment to reduce potential long-term visual impacts identified in the Final Environmental Impact Report/Environmental Impact Statement, resulting from contrast of Project structures, as seen by the public at locations along Interstate (I-) 8 and Old Highway 80 from distances within 0.75 mile.

4 – PLAN IMPLEMENTATION

Implementation of this Plan is intended to be coordinated with the Project Landscape Screening Plan for the ECO and Boulevard substations and the Project Habitat Restoration Plan, which call for installation of landscaping and revegetation that will reduce potential visibility and visual contrast associated with Project structures (and grading). In addition, to comply with MM VIS-3i: Reduce potential visual contrast of transmission structures, SDG&E will use non-specular conductors for overhead transmission lines located outside of the fenced substation areas and a dulled metal finish for transmission structures, including new poles.

4.0 ECO SUBSTATION

Attachment B: ECO Substation Plan and Elevation Drawings shows a plan and elevation drawing of the ECO Substation. The substation will be split into two separate yards—a 500 kV yard and a 230/138 kV yard—at offset elevations. The substation pads will be enclosed by chain-link fencing. The substation footprint includes a 20-foot area outside the perimeter of the fencing required for maintenance purposes. The tallest structures in the substation will be the 500 kV line and transformer dead-end structures and the new communication tower. The maximum height for the 500 kV structures and communication tower will be approximately 130 feet.

Table 1: Summary of Structure Surface Treatment – ECO Substation lists the structures proposed at the ECO Substation and summarizes the predominant visual backdrop and recommended surface treatment. As seen from the primary affected public view corridors, including places along Interstate (I-) 8 and Old Highway 80, the predominant visual backdrop for the ECO Substation will be desert landscape consisting of a mottled pattern of sparse vegetation and exposed rock and soil. The Project Landscape Screening Plan for the ECO Substation calls for installation of plant material, including small trees, shrubs, and grasses, that will reduce potential visibility of the substation structures and help the facility blend in with its surrounding desert landscape setting.

In light of these visual conditions, structure surface treatment will primarily involve use of gray color and dulled metal finishes for major transmission and substation facilities in combination with Otay Ranch Brown-colored split-face concrete block for the control and maintenance shelters, and similar darker colors that will blend in with the desert landscape.

Table 1: Summary of Structure Surface Treatment – ECO Substation¹

Equipment/Structure	Approximate Height (feet)	Predominant Visual Backdrop	Recommended Surface Treatment Color/Finish²
500 kV A-frames	130	Desert landscape	Dulled steel/metal finish substation and transmission structures
230 kV A-frames	73	Desert landscape	Dulled steel/metal finish substation and transmission structures
138 kV A-frames	55	Desert landscape	Dulled steel/metal finish substation and transmission structures
Microwave Communication Tower	100	Desert Landscape	Dulled steel/metal finish substation and transmission structures
Control Shelter	12	Desert landscape	Otay Ranch Brown-colored split-face concrete block
Maintenance Shelter	12	Desert landscape	Otay Ranch Brown-colored split-face concrete block
Warehouse	25	Desert landscape	Weathered Copper-colored steel building finished in a standard mesa wall
Transformer Fire Walls	30	Desert landscape	Toffee Bar (UL140-21 – Behr) or equivalent poured in place concrete walls painted/stained in the field
Water Tank	24	Desert landscape	Weathered Copper-colored or equivalent steel tank manufactured or painted/stained in the field
Fence	8	Desert landscape	Standard Gray galvanized steel chain link

¹ SDG&E will be constructing a 230 kV transmission structure within the permanent substation ECO Substation footprint on behalf of the ESJ Project. This structure will be approximately 150 feet tall and will be treated in accordance with measures VIS-3i and VIS-3j of the Major Use Permit issued by the San Diego County Division of Planning and Land Use for the ESJ Project. Those measures require all transmission components to be dulled metal-finish.

² Some equipment foundations and bases, such as concrete foundations and the capacitor racks, will not be color-treated.

Equipment/Structure	Approximate Height (feet)	Predominant Visual Backdrop	Recommended Surface Treatment Color/Finish²
Less Visible Elements³			
500/230/12 kV Transformer	34	Desert landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available
Emergency Generators	9	Desert landscape	RhinoCoat standard Gray factory-applied finish
500 kV Series Capacitor	35	Desert landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available
500 kV, Single-Phase Circuit Breaker	26	Desert landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available
500 kV, Three-Phase Disconnect Switch	30	Desert landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available
230 kV Circuit Breaker	17	Desert landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available
230 kV Disconnect Switch	20	Desert landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available
230 kV Shunt Capacitor	28	Desert landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available
230/138 kV Transformer	27	Desert landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available

³ Some of the less visible elements at ECO Substation are not available in different color options and will come in the factory-applied finish. ANSI 70 Gray factory-applied finish will be used for the main equipment/structure component, but other components may come in other factory-applied finishes such as galvanized steel, stainless steel, gray, or white if ANSI 70 Gray is not available.

Equipment/Structure	Approximate Height (feet)	Predominant Visual Backdrop	Recommended Surface Treatment Color/Finish²
138 kV Circuit Breaker	14	Desert landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available
138/12 kV Transformer	16	Desert landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available
12 kV Circuit Breaker	11	Desert landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available
12 kV Shunt Reactor	7	Desert landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available
Paving	0	Desert landscape	Asphalt

Color samples for the Project structures are provided in Attachment C: Block/Wall Color Samples, Attachment D: Gray Color Samples, and Attachment E: Weathering Steel (Cor-ten) Color Sample. All finishes will be factory- or manufacturer-applied. The recommended surface treatments are durable and will minimize visual contrast of Project structures. Attachment F: Visual Simulation of ECO Substation from Old Highway 80 is a visual simulation that shows the ECO Substation with implementation of both this Plan and the Project Landscape Screening Plan.

4.1 BOULEVARD SUBSTATION

The Boulevard Substation rebuild will include a 138/69/12 kV fenced yard measuring approximately 300 feet by 350 feet, and a cleared area measuring approximately 10 to 35 feet wide around the perimeter of the yard. The fenced area of the new substation will encompass approximately 2.5 acres; the installed substation equipment will be fully contained within the fenced area. The tallest substation elements will be the two transmission line (TL) 6931 steel poles (SPs), a 69 kV A-frame structure, and 69 kV bus structures, which will be respectively 90, 38, and 44 feet tall. Attachment G: Boulevard Substation Plan and Elevation Drawings shows a plan and elevation drawing of Boulevard Substation.

Table 2: Summary of Structure Surface Treatment – Boulevard Substation lists each structure proposed at the Boulevard Substation site and summarizes its predominant visual backdrop and appropriate surface treatment. Distribution poles are not addressed in this plan because they are not substation components. As seen from the primary affected public view corridors within the surrounding vicinity, including places along Old Highway 80, the predominant visual backdrop for the Boulevard Substation will be a combination of sky and undulating landscape terrain. The installation of trees, shrubs, and grasses called for in the Boulevard Landscape Screening Plan will provide partial screening of the substation structures. Given these visual conditions, structure surface treatment will primarily involve use of neutral gray color and dulled metal finishes for major transmission and substation facilities, in combination with Otay Ranch Brown or equivalent split-face concrete block for the control shelter and Toffee Bar (UL140-21 – Behr) or an equivalent color for the fire walls, retaining wall, and water tank. All finishes—with the exception of the retaining walls, fire walls, and water tank—will be factory- or manufacturer-applied. The retaining walls and fire walls will be stained or painted and the water tank will be painted in the field. The recommended surface treatments are durable and will minimize contrast of the partially visible structures. Attachment H: Visual Simulation of Boulevard Substation from Old Highway 80 presents a visual simulation that shows the Boulevard Substation with implementation of both this Plan and the Project Landscape/Screening Plan.

4.2 TRANSMISSION LINE

Attachment A: Project Component Overview shows the overall transmission line layout and Attachment I: Transmission Pole Typical Elevation Drawings presents typical elevation drawings of the transmission poles.

4.2.0 SWPL Loop-In

The existing SWPL 500 kV transmission line, which will include approximately six three-pole structures east of the ECO Substation fence, will be looped in and out of the ECO Substation.

Table 2: Summary of Structure Surface Treatment – Boulevard Substation

Equipment/Structure	Approximate Height	Predominant Visual Backdrop	Recommended Surface Treatment Color/Finish
69 kV TL6931 SP	85	Sky	Weathering steel (cor-ten) transmission structure
69 kV TL6931 SP	90	Sky	Weathering steel (cor-ten) transmission structure
69 kV A-Frame Structure	39	Sky	Dulled steel/metal finish substation and transmission structures
69 kV Bus Structure	30	Sky	Dulled steel/metal finish substation and transmission structures
Control Shelter	12	Landscape	Otay Ranch Brown or equivalent split-face concrete block painted/stained in the field
Capacitor Bank	28	Landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available
Fence	8	Landscape	Standard Gray galvanized steel chain link
138/69 kV Transformer Fire Wall	28	Landscape	Toffee Bar (UL140-21 – Behr) or equivalent pre-colored manufactured panels or poured in place concrete walls painted/stained in the field
138/12 kV Transformer Fire Wall	17	Landscape	Toffee Bar (UL140-21 – Behr) or equivalent pre-colored manufactured panels or poured in place concrete walls painted/stained in the field
Retaining Wall	8	Landscape	Toffee Bar (UL140-21 – Behr) or equivalent painted/stained concrete wall
Water Tank	18	Landscape	Toffee Bar (UL140-21 – Behr)-colored steel tank or equivalent
Less Visible Elements			
138 kV Circuit Breakers	14	Landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available
69 kV Circuit Breakers	12	Landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available

Equipment/Structure	Approximate Height	Predominant Visual Backdrop	Recommended Surface Treatment Color/Finish
			available
138/69 kV Transformer	24	Landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available
138/12 kV Transformer	16	Landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available
12 kV Switchgear	11	Landscape	ANSI 70 Gray factory-applied finish and/or equivalent factory-applied finish, if available
Paving	0	Landscape	Asphalt
Berm	3	Landscape	Earthen Berm

4.2.1 138 kV Overhead Line

The Project includes construction of one new 138 kV transmission line from the rebuilt Boulevard Substation to the new ECO Substation. Approximately 6.9 miles will be constructed overhead, including 57 poles,⁴ and 6.9 miles will be constructed underground. An overhead portion will extend west from the ECO Substation to a riser pole in the Southern Access Road for approximately 0.28 mile before transitioning underground with two riser poles located between Milepost (MP) 0.3 and MP 0.4. The line will transition back to an overhead line near MP 3.1, where two riser poles will be installed. It will then extend overhead approximately 6.8 miles, paralleling the SWPL to a location near MP 9.8, where two additional riser poles will be installed and the line will again transition to an underground configuration that will continue into the rebuilt Boulevard Substation.

Table 3: Summary of Structure Surface Treatment – Transmission Poles lists each transmission pole number and structure type with a summary of its corresponding height, predominant visual backdrop, and appropriate surface treatment. The recommended dulled metal surface treatment will minimize potential visual contrast of the structures. As seen from the primary affected public view corridors along I-8 and Old Highway 80 and in the Jacumba community, the predominant visual backdrop for the overhead portion of the transmission line will be a combination of sky and hillside landscape. Views of the Project’s 138 kV transmission line will generally include the nearby or adjacent existing SWPL transmission line structures. As described in the Visual Resources section of the Final EIR/EIS, the existing SWPL structures dominate the visual landscape as a result of their bulk and scale, and their presence “would reduce the overall visual change attributed to the 138 kV transmission line.” Given these visual conditions, structure surface treatment will primarily involve the use of dulled metal finishes for the transmission poles and use of non-specular conductors. Finishes will be durable and factory- or manufacturer-applied. The recommended surface treatment will further minimize visual contrast of the 138 kV Project structures, the visual impacts of which were determined to be less than significant in the Final EIR/EIS. Attachment J: Visual Simulation of Transmission Line from Old Highway 80 and Attachment K: Visual Simulation of Transmission Line from Jacumba are visual simulations that respectively show the transmission line with implementation of this Plan as seen from Old Highway 80 and from the Jacumba community, respectively.

4.2.2 Schedule

Project structures will be delivered to the job site, complete with recommended surface treatment because all colors and finishes will be factory- or manufacturer-applied. Table 4: Project Component Installation Schedule summarizes the general timeframe for completing installation of Project structures.

⁴ The poles that will be installed along the 138 kV Overhead Transmission Line consist of 30 tangent poles, 15 strain poles, eight deadend poles, and four riser poles.

Table 3: Summary of Structure Surface Treatment – Transmission Poles

Pole Number Structure Type	Approximate Height (feet)	Predominant Visual Backdrop	Recommended Surface Treatment Finish/color
SD-1 SWPL Loop-In	116	Landscape	Dulled metal finish transmission structure
SD-2 SWPL Loop-In	125	Landscape	Dulled metal finish transmission structure
SD-3 SWPL Loop-In	117	Landscape	Dulled metal finish transmission structure
SD-4 SWPL Loop-In	95	Landscape	Dulled metal finish transmission structure
SD-5 SWPL Loop-In	135	Landscape	Dulled metal finish transmission structure
SD-6 SWPL Loop-In	110	Landscape	Dulled metal finish transmission structure
SP-38B Riser	130	Landscape/sky	Dulled metal finish transmission structure
SP-39 Deadend	115	Landscape/sky	Dulled metal finish transmission structure
SP-40 Tangent	131	Landscape/sky	Dulled metal finish transmission structure
SP-41 Tangent	141	Landscape/sky	Dulled metal finish transmission structure
SP-42 Tangent	166	Landscape/sky	Dulled metal finish transmission structure
SP-43 Strain	170	Landscape/sky	Dulled metal finish transmission structure
SP-44 Strain	150	Landscape/sky	Dulled metal finish transmission structure
SP-45 Tangent	146	Landscape/sky	Dulled metal finish transmission structure
SP-46 Tangent	156	Landscape/sky	Dulled metal finish transmission structure
SP-47 Tangent	111	Landscape/sky	Dulled metal finish transmission structure
SP-48 Tangent	136	Landscape/sky	Dulled metal finish transmission structure
SP-49 Deadend	145	Landscape/sky	Dulled metal finish transmission structure
SP-50 Deadend	135	Landscape/sky	Dulled metal finish transmission structure

Pole Number Structure Type	Approximate Height (feet)	Predominant Visual Backdrop	Recommended Surface Treatment Finish/color
SP-51 Tangent	111	Landscape/sky	Dulled metal finish transmission structure
SP-52 Tangent	156	Landscape/sky	Dulled metal finish transmission structure
SP-53 Tangent	151	Landscape/sky	Dulled metal finish transmission structure
SP-54 Tangent	131	Landscape/sky	Dulled metal finish transmission structure
SP-55 Tangent	111	Landscape/sky	Dulled metal finish transmission structure
SP-56 Tangent	131	Landscape/sky	Dulled metal finish transmission structure
SP-57 Tangent	121	Landscape/sky	Dulled metal finish transmission structure
SP-59 Tangent	116	Landscape/sky	Dulled metal finish transmission structure
SP-60 Tangent	151	Landscape/sky	Dulled metal finish transmission structure
SP-60A Strain	140	Landscape/sky	Dulled metal finish transmission structure
SP-61 Strain	110	Sky	Dulled metal finish transmission structure
SP-62 Tangent	151	Landscape/sky	Dulled metal finish transmission structure
SP-63 P1 Deadend	90	Landscape	Dulled metal finish transmission structure
SP-63 P2 Deadend	90	Landscape	Dulled metal finish transmission structure
SP-63 P3 Deadend	90	Landscape	Dulled metal finish transmission structure
SP-64 P1 Deadend	95	Landscape	Dulled metal finish transmission structure
SP-64 P2 Deadend	95	Landscape	Dulled metal finish transmission structure
SP-64 P3 Deadend	95	Landscape	Dulled metal finish transmission structure
SP-65 Deadend	120	Landscape	Dulled metal finish transmission structure
SP-66 Deadend	120	Sky	Dulled metal finish transmission structure

Pole Number Structure Type	Approximate Height (feet)	Predominant Visual Backdrop	Recommended Surface Treatment Finish/color
SP-67 Strain	120	Sky	Dulled metal finish transmission structure
SP-69 Tangent	141	Sky	Dulled metal finish transmission structure
SP-70 Tangent	131	Sky	Dulled metal finish transmission structure
SP-71 Tangent	111	Sky	Dulled metal finish transmission structure
SP-72 Tangent	116	Sky	Dulled metal finish transmission structure
SP-73 Strain	115	Landscape/sky	Dulled metal finish transmission structure
SP-75 Strain	125	Sky	Dulled metal finish transmission structure
SP-76 Strain	130	Sky	Dulled metal finish transmission structure
SP-77 Tangent	151	Sky	Dulled metal finish transmission structure
SP-78 Tangent	146	Sky	Dulled metal finish transmission structure
SP-79 Tangent	141	Sky	Dulled metal finish transmission structure
SP-80 Tangent	131	Sky	Dulled metal finish transmission structure
SP-81 Tangent	121	Sky	Dulled metal finish transmission structure
SP-82 Tangent	141	Sky	Dulled metal finish transmission structure
SP-83 Deadend	125	Landscape	Dulled metal finish transmission structure
SP-84 Deadend	135	Landscape/sky	Dulled metal finish transmission structure
SP-85 Tangent	131	Landscape/sky	Dulled metal finish transmission structure
SP-86 Tangent	116	Landscape/sky	Dulled metal finish transmission structure
SP-87 Tangent	131	Landscape/sky	Dulled metal finish transmission structure
SP-88 Strain	125	Landscape/sky	Dulled metal finish transmission structure

Pole Number Structure Type	Approximate Height (feet)	Predominant Visual Backdrop	Recommended Surface Treatment Finish/color
SP-90 Deadend	115	Sky	Dulled metal finish transmission structure
SP-91B Riser	118	Sky	Dulled metal finish transmission structure
SP-105B Riser	170	Sky	Dulled metal finish transmission structure
SP-108A Deadend	160	Landscape/sky	Dulled metal finish transmission structure

Table 4: Project Component Installation Schedule

Project Component	Activity	Approximate Duration (months)	Anticipated Start Date
ECO Substation	Above-Grade Construction	8	October 2013
SWPL Loop-In	Tower Installation and Conductor Stringing	4	June 2014
138 kV Transmission Line	Pole Installation	6	December 2013
	Conductor Stringing and Sagging	4	May 2014
Boulevard Substation Rebuild	Above-Grade Construction	5	January 2014

4.2.3 Maintenance Procedures

The factory-applied finishes on transmission poles and major substation equipment, including A-Frames, bus structures, capacitor banks and transformers, is considered permanent and will not deteriorate. The appearance of standard, pre-colored concrete material used for the control and maintenance shelters is durable and is not expected to deteriorate. Over a period of approximately two years, standard galvanized steel used for perimeter fencing at both substations will weather to become dull and slightly darker, but it will not deteriorate. Field-applied finishes are also considered permanent and will be maintained in accordance with SDG&E's substation maintenance protocols and programs, which include periodic inspections that would identify and resolve potential issues associated with any deterioration in manufacturer-, factory-, or field-applied finishes on Project structures.

4.2.4 Inspection

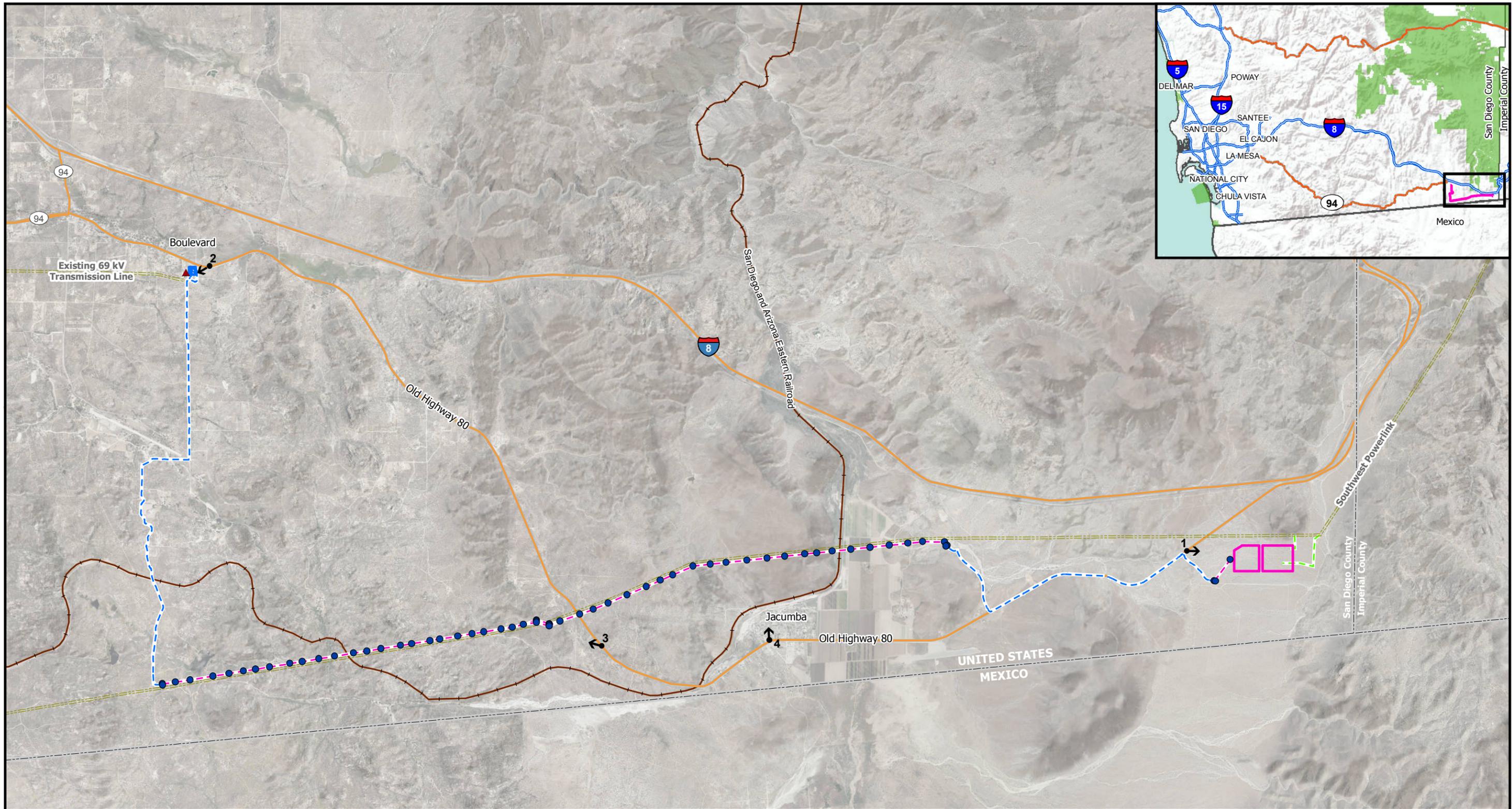
In accordance with requirements outlined in MM VIS-3g, within 30 days following the start of commercial operation, SDG&E will notify the California Public Utilities Commission (CPUC) that all buildings and structures are ready for inspection.

5 – REFERENCES

CPUC. East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects Final Environmental Impact Report/Environmental Impact Statement. 2012. Online. http://www.cpuc.ca.gov/environment/info/dudek/ECOSUB/ECO_Final_EIR-EIS.htm.

SDG&E. 2009. ECO 500/230/138 kV Substation Project Proponent's Environmental Assessment.

ATTACHMENT A: PROJECT COMPONENT OVERVIEW – SURFACE TREATMENT PLAN



Attachment A: Project Component Overview

East County Substation Project

- ▲ Existing Boulevard Substation
- Proposed Pole
- ▭ Boulevard Substation Rebuild
- ▭ ECO Substation
- Proposed 138 kV Overhead
- Proposed 138 kV Underground
- Proposed SWPL Loop-In
- Existing Transmission Line
- Major Road
- Railroad
- ➡ Simulation Viewpoint



SDGE
A Sempra Energy utility



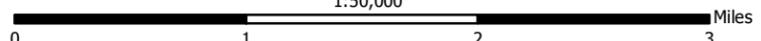
INSIGNIA
ENVIRONMENTAL



ENVIRONMENTAL VISION



1:50,000



0 1 2 3 Miles

ATTACHMENT B: ECO SUBSTATION PLAN AND ELEVATION DRAWINGS

ATTACHMENT C: BLOCK/WALL COLOR SAMPLES



Precision Block: Available Colors

CONCRETE BLOCK

Precision Block: Available Colors

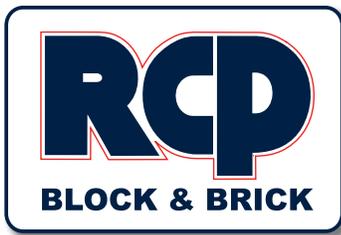
Standard colors are available at a usual lead time of 4 to 6 weeks.

Custom Colors are available after a sample run has been approved.

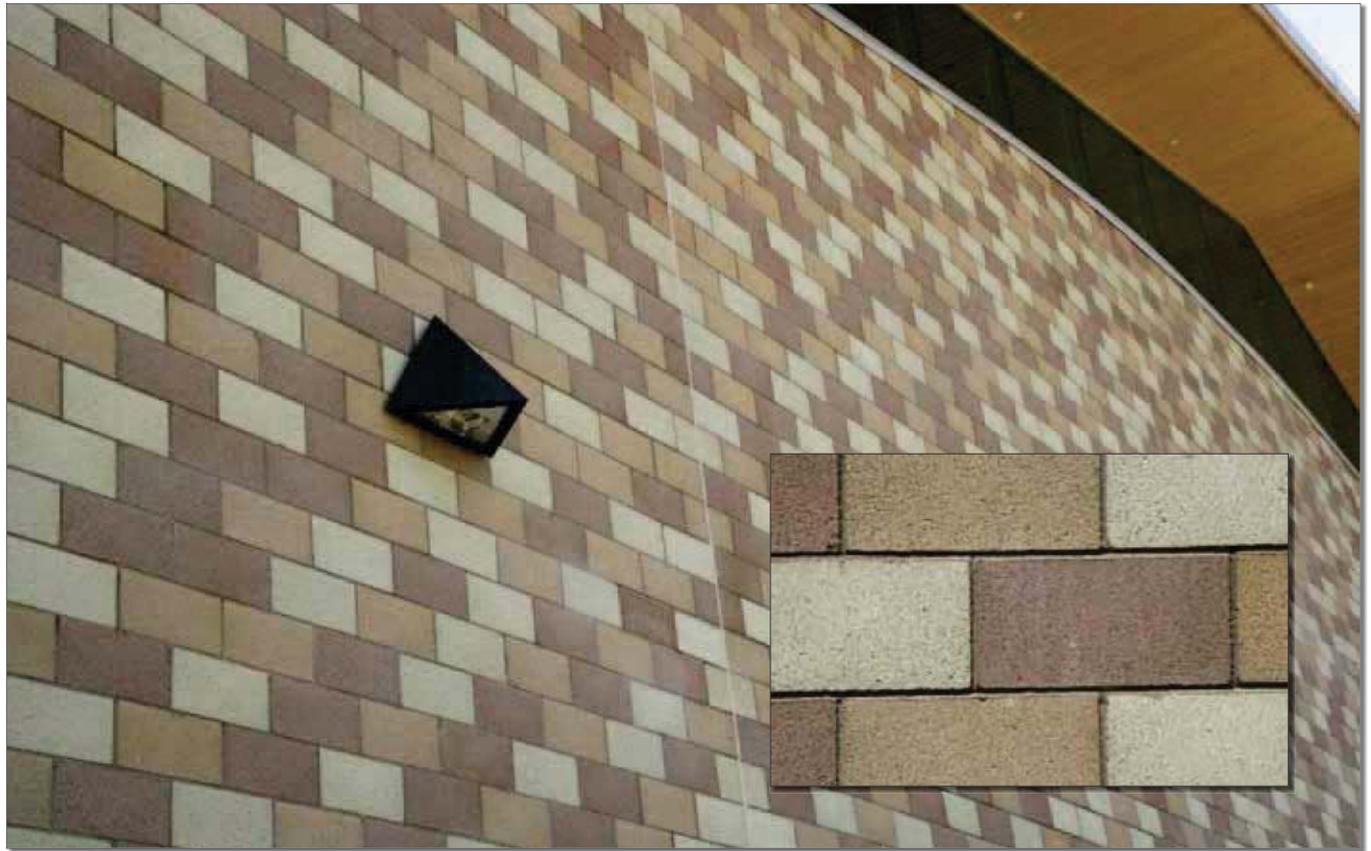
Higher unit compressive strengths may affect standard color ranges due to changes in aggregates and increased cement ratio.

NOTE: Colors may vary depending on your monitor or printer. Please contact RCP Block & Bricks [Architectural Support](#) for color samples.





PRECISION BLOCK



RCP Block & Brick, Inc. manufactures structural and non-structural **PRECISION** concrete masonry units. The structural units conform to ASTM C90, Specification for Loadbearing Masonry Units, Medium Weight. These units also comply with the latest editions of ACI 530, and Chapter 21 of the California Building Code (CBC) and the International Building Code (IBC). The non-structural units conform to ASTM C129, Specification for Nonloadbearing Concrete Masonry Units. Custom faced units can be manufactured with single, three or five vertical scores, combed, flutes, and diamond projections. To achieve the industry standard Medium Weight, RCP Block manufactures with black volcanic cinders that conform to ASTM C331, Specification for Lightweight Aggregates for Concrete Masonry Units. Different weights and

design strengths are available on Special Order.

Precision concrete block can be manufactured in Natural Grey and a range of integral colors. All block are run on a per job basis and are available with a four to six week lead time.

When specified to meet USGBC LEED, CHPS, or Cal Green, RCP Block & Brick manufactures a concrete block that will conform to the post consumer recycled content per ICC SAVE: VAR 1003. Minimum quantity production order may be required.

SERVING SOUTHERN CALIFORNIA SINCE 1947
www.rcpblock.com

CHULA VISTA
75 No. Fourth Ave.
Chula Vista, CA
(619)474-1516

SANTEE
8755 Magnolia
Santee, CA
(619)448-2240

LEMON GROVE
8240 Broadway
Lemon Grove, CA
(619)460-9101

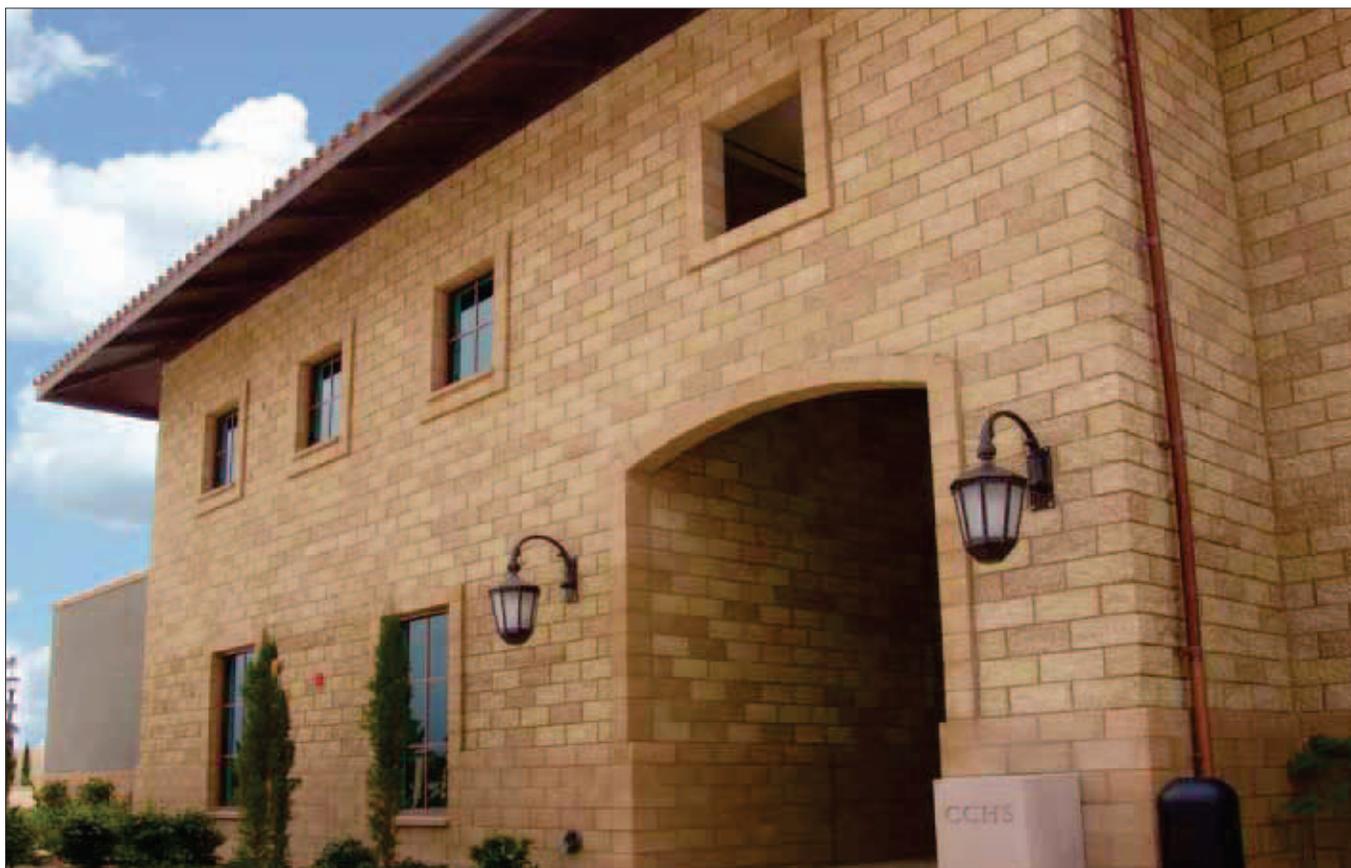
ESCONDIDO
1070 W. Mission Ave.
Escondido, CA
(760)480-9696

MURRIETA
25725 Jefferson Ave.
Murrieta, CA
(951)677-1489

ENCINITAS
577 N. Vulcan Ave.
Encinitas, CA
(760)753-1164



SPLITFACE BLOCK



RCP Block & Brick, Inc. manufactures structural and non-structural **SPLITFACE** concrete masonry units. The structural units conform to ASTM C90, Specification for Loadbearing Masonry Units, Medium Weight. These units also comply with the latest editions of ACI 530, and Chapter 21 of the California Building Code (CBC) and the International Building Code (IBC). The non-structural units conform to ASTM C129, Specification for Nonloadbearing Concrete Masonry Units. Custom faced units can be manufactured with single, three, five and seven vertical scores.

To achieve the industry standard Medium Weight, RCP Block manufactures with black volcanic cinders that conform to ASTM C331, Specification for Lightweight Aggregates for Concrete Masonry Units.

Splitface is available on one or two sides, and one or two ends on most standard units. Black Cinders are the most common aggregate used in Splitface units. Special order aggregates can be used to achieve different architectural effects, weights, or strengths. All block are run on a per job basis and are available with a four to six week lead time.

When specified to meet USGBC LEED, CHPS, or Cal Green, RCP Block & Brick manufactures a concrete block that will conform to the post consumer recycled content per ICC SAVE: VAR 1003. Minimum quantity production order may be required.

SERVING SOUTHERN CALIFORNIA SINCE 1947
www.rcpblock.com

CHULA VISTA
75 No. Fourth Ave.
Chula Vista, CA
(619)474-1516

SANTEE
8755 Magnolia
Santee, CA
(619)448-2240

LEMON GROVE
8240 Broadway
Lemon Grove, CA
(619)460-9101

ESCONDIDO
1070 W. Mission Ave.
Escondido, CA
(760)480-9696

MURRIETA
25725 Jefferson Ave.
Murrieta, CA
(951)677-1489

ENCINITAS
577 N. Vulcan Ave.
Encinitas, CA
(760)753-1164

Insulated Metal Panels

Color Availability Chart

The colors shown here are representative only and not necessarily true reproductions of actual coating colors. Coil coat color chips are available on request.

For information regarding USDA and CFIA approved colors please contact your Vicwest / AWIP sales representative.

PVDF In-stock Colors



Sandstone



Surrey Beige



Regal White



Regal Blue



Natural Green



Pearl Gray

SMP In-stock Colors



Imperial White



Sandstone

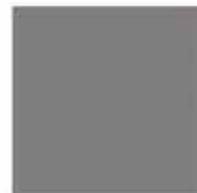


Surrey Beige

Available PVDF Non-stock Colors



Warm White



Slate Gray



Evergreen



Slate Blue



Colonial Red



Weathered Copper

Interior Colors



Imperial White



Fire Wall Color Sample

Color Summary



Toffee Bar UL140-21

Visualize colors with **Color Smart**

Behr® Color Samples **\$3.94** each
FREE SHIPPING! with purchase of 3 or more



[Visualize Colors](#) [Save Color](#) [Buy Sample](#)

ATTACHMENT D: GRAY COLOR SAMPLES



ANSI 70 Gray
Color Sample



Light-Medium Gray
Dulled Galvanized Steel
Color Sample

ATTACHMENT E: WEATHERING STEEL (COR-TEN) COLOR SAMPLE



Weathering Steel (Cor-ten) Color Sample

Attachment E:
Weathering Steel (Cor-ten) Color Sample
Surface Treatment Plan
East County Substation Project

ATTACHMENT F: VISUAL SIMULATION OF ECO SUBSTATION FROM OLD HIGHWAY 80



Visual simulation of East County Substation from Old Highway 80 (VP 1)



Refer to Attachment A for viewpoint location
ENVIRONMENTAL VISION

Attachment F:
Visual Simulation of ECO Substation from Old Highway 80
Surface Treatment Plan
East County Substation Project

ATTACHMENT G: BOULEVARD SUBSTATION PLAN AND ELEVATION DRAWINGS

**ATTACHMENT H: VISUAL SIMULATION OF BOULEVARD SUBSTATION FROM OLD
HIGHWAY 80**



Visual simulation of Boulevard Substation from Old Highway 80 (VP 2)



Refer to Attachment A for viewpoint location
ENVIRONMENTAL VISION

Attachment G:
Visual Simulation of Boulevard Substation from Old Highway 80
Surface Treatment Plan
East County Substation Project

ATTACHMENT I: TRANSMISSION POLE TYPICAL ELEVATION DRAWINGS

**ATTACHMENT J: VISUAL SIMULATION OF TRANSMISSION LINE FROM OLD
HIGHWAY 80**



Visual simulation of 138 kV transmission line from Old Highway 80 (VP 3)



Refer to Attachment A for viewpoint location
ENVIRONMENTAL VISION

Attachment J:
Visual Simulation of Transmission Line from Old Highway 80
Surface Treatment Plan
East County Substation Project

ATTACHMENT K: VISUAL SIMULATION OF TRANSMISSION LINE FROM JACUMBA



Visual simulation of 138 kV transmission line from Jacumba (VP 4)



Refer to Attachment A for viewpoint location
ENVIRONMENTAL VISION

Attachment K:
Visual Simulation of Transmission Line from Jacumba
Surface Treatment Plan
East County Substation Project

