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ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

THE PACIFICA CORPORATION and PARDEE CONSTRUCTION COMPANY, Complainants, vs. SOUTHERN CALIFORNIA EDISON COMPANY, Defendant.	Case 10829 (Filed January 30, 1980)

Greenberg, Bernhard, Weiss & Karma, Incorporated, by Richard Rosin and James C. Camp, Attorneys at Law, for complainants.
Robert W. Kendall, Attorney at Law, for defendant.

O P I N I O N

Summary

Complainants, The Pacifica Corporation and Pardee Construction Company, are the owners and developers of Tract 2865 in Ventura County, a 622-lot residential subdivision. The tract is being developed in phases through 1986. Complainants contend that the electrical conduit system proposed to serve the tract by defendant, Southern California Edison Company (Edison), cannot be used for the foreseeable future and, therefore, is not necessary construction within the meaning of Edison's tariff Rule 15.1, Section B.1. In essence, they claim Edison is proposing to over-build and, accordingly, collect unreasonable charges from them.

Section B.1 states:

"B. Installation.

"1. The developer of the subdivision will perform all necessary trenching and backfilling, including furnishing of any imported backfill material required, and will furnish, install and deed to the utility any necessary distribution and feeder conduit required."

Complainants argue that (1) Edison could adequately serve Tract 2865 and surrounding areas with fewer and less costly feeder circuits than it is proposing, which would reduce complainants' contributions to Edison; and (2) while Edison concedes that it should pay for a 5-inch conduit from its Moorpark Substation to a proposed Wood Ranch Development (Wood Ranch) which traverses Tract 2865, it does not recognize its obligations to pay a proportionate share of the costs of trenching, backfilling, and concrete jacketing required to install four 5-inch electrical conduits in a common trench in Tierra Rejada Road (Tierra Rejada) or to pay a proportionate share of the cost of the spare conduit.

The testimony of Edison's witnesses establishes the validity of Edison's design concepts for serving the areas in and around Tract 2865. However, complainants' contention that Edison should pay a pro rata portion of other costs associated with its Wood Ranch circuit has merit.

Background

On December 18, 1979 the Ventura County Board of Supervisors (County) adopted a revised master plan for the rapidly developing Moorpark area. The plan adopts zoning and density criteria and a grid of existing and proposed streets and numbers of lanes in those streets to provide for vehicular circulation in the master plan area.

A part of the master plan area will be referred to below as the study area. The study area is an irregularly shaped 7,169-acre area with a maximum length of about 6-1/2 miles and a maximum width of about three miles. Tract 2865 is in the center of the study area.

The complaint focuses on the electrical facilities needed within Tract 2865 as part of the distribution feeder system required to supply the study area. It also seeks to apportion costs for extending service to Wood Ranch, a development outside of the study area.

Three attachments to this decision show the various methods proposed for providing electrical service to the study area and for Edison's Moorpark Substation connection to Wood Ranch. Attachment A shows Edison's plan. Attachment B shows complainants' plan. Attachment C shows modifications to complainants' plan which Edison believes are necessary to provide reliable service, spare conduit, and necessary backup circuits to these areas. However, Edison prepared the modified plan only for illustrative purposes. It contends that the modified plan would be more costly and less reliable than its plan.

Edison and complainants discussed tentative routings for supplying electricity to the study area and Wood Ranch. Edison based its earlier designs upon its understanding of elements in the proposed master plan and the construction scheduling of complainants and other developers in the study area and in adjacent areas. Edison's earlier designs thus assumed that:

1. The Moorpark substation on Los Angeles Avenue (State Highway 118) near Gabbert Road would be the primary source of distribution feeder circuits for the study area;

2. Three primary circuits and a spare conduit follow Tierra Rejada, using the proposed Tierra Rejada Bridge over the Arroyo Simi, and proceed through the "Urban West Communities" Development (Urban West) to Tract 2865.

After the filing of the complaint, negotiations continued between Edison and complainants on the proposed method of serving the study area. Complainants informed Edison that the County had adopted a revised Moorpark master plan. Edison was also informed that Urban West did not plan to construct the bridge over Arroyo Simi until 1991. Since this bridge was to have been the connecting link on Edison's main route for supplying the study area, Edison modified its design to provide electric service to tracts in the study area, including Tract 2865, prior to the 1991 completion of that through route. This modification includes adding a new overhead 400-ampere circuit and increasing the capacity of an existing overhead circuit from 285 amperes to 400 amperes, on the Janss circuit pole line from the Moorpark Substation east along Los Angeles Avenue to Peach Hill Road, then south on the north-south portion of Peach Hill Road and its extension parallel to the western boundary of Tract 2865 to Tierra Rejada.

As a visual aid, Edison divided the study area into color-coded areas. The conduits were color-keyed to show the primary feeder circuits serving these areas, the Wood Ranch, and a spare conduit. The shadings and notations on Attachments A, B, and C show the boundaries of the green, blue, and red areas and the distribution feeder circuit proposed by Edison and by complainants.

Edison proposes to use Janss overhead circuits through 1991 as interim feeder lines to all of the developments in the study area. It would also use the Janss circuits to permanently supply existing loads and any load expansion in areas now served from the existing Janss circuit. This circuit is a backup link between substations

needed to switch power during emergencies. Edison expects the Janss circuit[1/] will be required to meet growing demands in the Peach Hill Road corridor near Tract 2865 and to supply additional large user single-family homes adjacent to Santa Rosa Road. (The west branch of the Janss circuit is south and west of Tract 2865.) After completion of the bridge over Arroyo Simi, Edison plans to supply most of the study area directly from Moorpark Substation from three circuits installed in the four Tierra Rejada conduits. Areas adjacent to Peach Hill Road now served from the Janss circuit and a school site and a park site in Tract 2865 would be permanently served from the reconductored Janss circuit. In the interim the Janss overhead circuits would convey electricity from Moorpark Substation to those underground Tierra Rejada circuits.

1/ An Edison witness identified further potential loads on the east branch of the Janss circuit along the portion of Tierra Rejada east of Tract 2865. This portion of the blue area is now zoned for very low density open space uses. He stated that developer pressures caused the County to prepare a Tierra Rejada Valley Land Use Study which analyzes several alternatives for revising the master plan to permit more residential subdivisions to be developed.

Complainants propose to use the Janss circuit as the permanent supply for Tract 2865.

Both complainants and Edison relied on the following conclusions contained in two prior decisions[2/] to resolve their disputed interpretations of Edison's Rule 15.1:

> "1. The phrase 'any necessary distribution and feeder conduit required' in Section B.1 of defendant's Rule 15.1 includes not only that feeder conduit required to serve the tract for which service is sought, but also that feeder conduit installed within the boundaries of the tract which is necessary to interconnect the service to the tract with service to subsequent developments outside the tract." (Mimeo. page 9, Raney.)
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> "1. The phrase 'any necessary distribution and feeder conduit required' in Section B.1 of SCE's Rule 15.1 includes not only that feeder conduit required to serve the tract for which service is sought and that installed within the boundaries of the tract which is necessary to interconnect the service to the tract with service to subsequent developments outside the tract; but also includes conduit which is installed as a part of a backbone system in accordance with sound engineering practice to provide for the potential for growth in the area, to provide for future anticipated

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2/ Decision (D.) 88613 dated March 21, 1978 in Case (C.) 10313, Raney Development Company v Southern California Edison Company, and D.89908 dated January 30, 1979 in C.10454, Villa Building Company v Southern California Edison Company.

> load growth in the existing residential subdivision and the existing subdivisions in close proximity thereto, and to provide the flexibility and versatility of modifying or supplying emergency backup power to the area involved." (Mimeo. pages 18 and 19, Villa.)

Edison also contends that in Villa the Commission implied that necessary conduit might be installed for other reasons,[3/] but that its proposal is consistent with Villa.

Issues

The primary issues concerning Edison's proposal are:

I. The apportionment of costs associated with the Wood Ranch circuit.

II. Edison's control of its distribution system design.

III. The definition of necessary distribution and feeder conduit under Rule 15.1.

3/ "In the Raney case we stated that feeder conduit installed within the boundaries of the subdivider's tract, which is necessary to interconnect the service to that tract with service to subsequent developments outside the tract, was necessary feeder conduit required by Section B.1. of SCE's Rule 15.1. It does not necessarily follow that feeder cable installed for purposes different from or in addition to the interconnection of service to the developer's tract with service to subsequent developments outside the tract should not be considered in determining whether the feeder conduit is necessary and required pursuant to Rule 15.1." (D.89908, mimeo. page 15.)

Hearings

Five days of public hearings were held between November 3 and December 15, 1980 in Los Angeles before Administrative Law Judge Jerry J. Levander. The matter was submitted after receipt of concurrent opening and closing briefs.

I. THE APPORTIONMENT OF COSTS ASSOCIATED WITH THE WOOD RANCH CIRCUIT

Edison plans to install electrical cable in two of the Tierra Rejada conduits to supply Tract 2865 and surrounding areas. The third conduit will be a spare used for ventilation, which could be used in an emergency for the installation of new circuits to replace circuits damaged by construction equipment or by electrical failures. The fourth conduit would be a portion of the 6½-mile installation from Edison's Moorpark Substation to Wood Ranch.[4/] Edison argues that it should not pay a pro rata portion of the trenching and spare conduit costs in Tierra Rejada because the trench and spare conduit are necessary under its Rule 15.1, exclusive of the Wood Ranch conduit, and the same-sized trench would accommodate either three or four conduits. It bases its argument upon the Commission's resolution of the issue of cost sharing for a spare conduit in Villa. Edison contends that the Commission could have provided for a pro rata sharing of costs, but it did not.

4/ Wood Ranch is about equidistant from Edison's Moorpark and Royal Substations and will be supplied from both substations. Edison plans to use its Royal Substation feeder circuit as the sole supply for the early phases of Wood Ranch.

If Edison deferred its Wood Ranch installation, complainants would pay for a 3-conduit installation.[5/] Edison would eventually need to construct its own trench, install cable within a conduit and a spare conduit, structures, concrete jacketing, and backfill. At that time, it could incur added costs for breaking and replacing pavement, curbs, and gutters, and avoiding other utilities' lines.

We note that if Edison constructed a joint trench with another utility, the two utilities would apportion the trenching costs. We think that Edison should pay for the benefits it derives from the joint installation with complainants.

In Villa the Commission concluded that necessary conduit includes "conduit required to provide the flexibility and versatility of modifying or supplying emergency backup power to the area involved." (Emphasis added.) The spare conduit is also necessary to provide ventilation for the underground circuits. Edison's argument would be valid if these uses of the spare conduit were limited to servicing the requirements of the study area circuits. **However, since Edison** concedes that it, rather than complainants, is responsible for the cost of the Wood Ranch conduit and the spare conduit would be used for two study area circuits and for the Wood Ranch circuit, a one-third (pro rata) apportionment of the cost of the Tierra Rejada spare conduit **(e.g. trenching, concrete**

5/ Complainants could pay more for a 3-conduit installation than for a 4-conduit installation because the cost of added quantities of concrete needed to occupy the space displaced by the conduit to Wood Ranch could be greater than the conduit cost.

jacketing, and backfill) to Edison is reasonable. Therefore, complainants are responsible for two-thirds of the cost of the conduit installation in Tierra Rejada and for all remaining conduit costs within Tract 2865 (see Routes RT and XY on Attachment A).

II. EDISON'S CONTROL OF ITS DISTRIBUTION SYSTEM DESIGN

Edison's Position

Edison contends that its public utility obligation make it responsible for providing reliable and adequate electrical service to all customers in its service area at the lowest cost to all. To carry out this responsibility Edison requires its planners to balance many conflicting factors and to apply a great deal of judgment. Edison argues that its design may not be the optimum or least costly solution possible for serving a particular customer or group of customers, but always tailoring design to minimize developers' costs would result in the installation of many piecemeal systems, increase the costs ultimately borne by Edison's ratepayers, and not facilitate Edison's duty to design for reliable service for all of its customers.

Edison believes that complainants' only goal in seeking a redesign of Edison's electrical distribution system in the study area is to minimize their costs. Edison asserts that inadequacies in complainants' proposed design would require later construction by Edison of additional underground facilities in developed lands to provide for reliable service in the study area and the needs now met by the Janss circuit. In addition, Edison would be precluded from its planned use of the overhead lines in Los Angeles Avenue to supply the northern portion of the master plan area.

Complainants' Position

Complainants contend that Edison seeks to frame the dispute in terms of whose design is superior or on Edison's undisputed right to design its own system. Complainants assert their plan merely demonstrates an alternate routing and timing plan, not a design, to show that alternatives are available to serve future developments in surrounding areas, if that development should ever occur. Complainants contend that Edison's proposed system was designed solely for Edison's benefit; that the proposed system would only duplicate or underground existing facilities or serve conjectural future developments; and that, therefore, the Commission should order Edison to pay for the system. They argue that if neither property owners required to pay for a system nor this Commission is permitted to question Edison's judgment on whether the conduit is necessary, then the word "necessary" may as well be read out of Rule 15.1.

Factors to be Considered

The Commission is the proper forum for resolution of this dispute. To test the validity of complainants' objections to the need for Edison's proposed system, we will review the process used in developing the designs, the design criteria, and the qualifications of the witnesses.

Planning Process

Edison's planning for the Tract 2865 system, made in the context of the system needed for the master plan area, was initiated by a service planner. The plan was reviewed by Marcel L. Ginchereau, planning manager of Edison's Thousand Oaks District, and then by James D. Hornbuckle, Thousand Oaks District manager. Due to the size of the tract, the plan was routinely reviewed by Hornbuckle's superior at the divisional level and by Edison's corporate engineering staff at its Rosemead headquarters. The

proposed design was reviewed with Edison's other four customer service divisions to ensure that the basic design was consistent with the way the other districts would design the system. It was also reviewed by C. Daniel Sanborn in Edison's Revenue Requirement Department. After all of these reviews, Edison recommends adoption of its proposal. Ginchereau, Hornbuckle, and Sanborn were Edison's witnesses in the proceeding.

In its master planning for a large residential area Edison lays out a grid of distribution feeder conduits adequate to contain the circuits needed to meet the foreseeable demands of the area being served. Edison continually revises its plans because the plans of many developers and individuals requesting service are continually changing. Therefore, Edison does not reserve circuits to serve individual tracts. It uses available capacity in existing circuits to defer installing new circuits and to reduce its costs. But if it fails to lay out a grid of distribution feeder conduits adequate to contain the circuits needed to meet the foreseeable demands of the area being served, it must later install facilities in improved streets containing other utility lines.

Edison admittedly changed the study area grid layout during the course of its discussions with complainants. Edison's witnesses testified that changes in its plans were needed to incorporate updated information, including the delay in completion of Tierra Rejada, the County adoption of a revised master plan, further identification of electrical loads and needed ventilation requirements, County requirements, and final Tract 2865 development plans. At the time the complaint was filed, the sequence for the buildout of Tract 2865 was still in the planning stage.

Design Criteria

Edison projected the ultimate number of residential dwelling units (DU) in the study area and related residential electric loads based upon a review of the revised Moorpark Plan Area master plan map[6] and use of average residential densities in each zoned area according to the County Planning Department's recommendations. Its estimates of present and future requirements in the study area include consideration of timing for known developments (even when tentative tract maps have not been filed). In addition to the development of the first four phases of Urban West, Tract 2865, and of areas adjacent to Peach Hill Road north and west of Tract 2865 discussed by complainants' witnesses, Edison supplied later information on the filing of tentative tract maps by two developers, Carlsberg and Meyer Howard. Carlsberg is requesting authority to build 1,005 DU in the portion of the blue area zoned for low density residential development beginning in 1983. Edison does not rely on developers' DU estimates (e.g., Edison believes that the County's ceiling for development of Carlsberg's tract is 883 DU out of a total of 1,005 DU for the blue area under the

6/ The revisions lowered the density of some parcels in the master plan area.

adopted master plan). Carlsberg plans to begin his development in 1983. Howard proposes to subdivide within the 1,500-foot strip between Tract 2865 and Urban West. Edison had not obtained information on Howard's planned scheduling. Edison's residential DU projections and load requirements (based on 0.2 amperes per DU) for the red, green, and blue areas and for Wood Ranch are as follows:

a. Red area - 2,651 DU (including 200 existing DU) - 530 amperes.

b. Green area - 1,992 DU (including 20 existing DU) - 398 amperes.

c. Blue area - 1,005 DU - 201 amperes.

d. Wood Ranch - 3,880 DU - 776 amperes.

The distribution system layout proposed by Edison focuses on service reliability, operational flexibility, and ease of access to avoid prolonged outages affecting many customers. At about the time a large area is fully developed, Edison's design requires completion of both a primary-feeder circuit and a back-feeder circuit for emergencies. To expedite distribution feeder circuit repairs and maintenance, Edison installs conduit in accessible corridors. Tierra Rejada and Los Angeles Avenue are the only east-west corridors available in the master plan area. Edison provides for emergency backup capability by designing its system to permit load transfers between circuits originating from the same substation and between circuits connecting adjacent substations. The Moorpark Substation is the primary distribution substation serving the Los Angeles Avenue area, the study area, Tierra Rejada Valley, and Santa Rosa Valley. Tierra Rejada will be a four-lane divided highway.

All of Edison's districts use 1,000 KCM 7/ wire for 400-ampere underground feeder circuits and 653 KCM wire for 400-ampere overhead service. The 400-ampere limitation per distribution circuit was adopted to enable Edison to maintain the voltage limitations which are part of its Conservation Voltage Reduction Program. It could not meet those limitations if the circuits were overloaded. In addition, when circuits are overloaded Edison lacks the flexibility to move electrical load from one circuit to another under emergency conditions. These circuits will temporarily handle a 600-ampere load under emergency conditions.

Complainants' Proposal

Allen M. Jones is the executive vice president of Utility Consultants, Inc. (UCI). UCI represents clients, primarily land developers. It negotiates with utilities about utility installations and arranges the scheduling of those installations. Jones represented complainants in their negotiations with Edison and developed complainants' proposals in this proceeding.

The UCI plan would extend Edison's proposed two-circuit Janss line south of Tierra Rejada and east along the south boundary of Tract 2865 to Moorpark Road (Route ABDE on Attachment B) to permanently provide feeder lines to serve Tract 2365 from Peach Hill Road on the west or from the southerly tract boundary and to provide service to Wood Ranch. This alternative would avoid construction of a trench and conduits in Tierra Rejada through Tract 2865. UCI's plan would require Carlsberg to install two 5-inch conduits in Moorpark Road between the intersection of Los Angeles Avenue and Spring Street and Tierra Rejada (Route CP) and would require developers of properties west of Tract 2865 to install two 5-inch conduits in

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7/ KCM means 1,000 circular mills, which is a measurement of the area of the cross section of a wire.

Tierra Rejada between the Moorpark Substation and the Janss circuits along Peach Hill Road (Route AN). (If construction of a portion of Tierra Rejada was delayed, UCI recommends installing conduit in an east-west portion of Peach Hill Road.) UCI proposes a 750 KCM circuit in Moorpark Road and a 1,000 KCM circuit in Tierra Rejada. The other conduit in each roadway would be a spare.

The UCI design would continuously overload circuits up to the thermal loading criteria[8/] established by the manufacturer. In addition, UCI's design would use two Janss circuits from the Moorpark Substation to Peach Hill Road along Los Angeles Avenue (Route AB) to feed three circuits, two circuits along Peach Hill Road and its extension (Route BDE), and one circuit from Los Angeles Avenue to the intersection of Moorpark Road and Tierra Rejada (Route BCP).

Proposed Tract 2865 Backbone Installations

Under its design criteria, Edison proposes to install two 5-inch conduits through Tract 2865 connecting its proposed facilities in Tierra Rejada to two existing 5-inch conduits in Tract 3096, which is north of Tract 2865 (Route RT on Attachment A). One conduit would house the backbone circuit needed to supply the residential in-tract distribution system load of 124.4 amperes; the other conduit would be a spare. It would also install a radial underground connection for a school site and a park site (Route XY on Attachment A).

Complainants' in-tract backbone system consists of two 3-inch conduits, one traversing the tract in an east-west direction connecting the Janss line to future circuits in Moorpark Road and the other connecting the east-west circuit to the circuits in Tract 3096 (Route XRBF2 on Attachment B). This alternative would not contain spare conduits. It would provide for a two-way feed to the school and park sites.

8/ This is the maximum current a wire can carry for one foot. Edison believes that its wiring would become annealed and burn up before the thermal loading was reached.

The UCI plan would extend Edison's proposed two-circuit Janss line along the south boundary of Tract 2865 to Moorpark Road to permanently provide the necessary feeder lines and backfeed lines needed to serve Tract 2865 from Peach Hill Road on the west or from the southerly tract boundary. This would avoid construction of a trench containing four 5-inch conduits in Tierra Rejada through Tract 2865.

Complainants concede that it would be necessary to install conduits in Tract 2865 within Tierra Rejada as proposed by Edison if UCI's proposal to serve Carlsberg from conduits in Moorpark Road is not adopted. In that event UCI proposes two conduits to provide a circuit to Carlsberg and a spare conduit. It proposes a third conduit if the Wood Ranch circuit could not be carried on an overhead line.

Construction of Tierra Rejada

Complainants' witnesses believed that the County would allow use of alternate access roads to delay construction of portions of Tierra Rejada. However, the County informed Edison that it will require study area developers to complete that portion of Tierra Rejada physically located within or adjacent to each phase of their developments and will not permit unimproved gaps in that road. The County believes that the needs of police, fire, and other emergency service agencies will require completion of the Tierra Rejada bridge over Arroyo Simi by about 1991, when the Urban West development has been 50% to 75% completed.

Qualifications of Complainants' Design Witness

Jones majored in mathematics and physics for two years. He holds no degree or professional license. He worked for San Diego Gas & Electric Company for six years in various capacities, which included pole design and cost-estimating. Neither Jones nor other UCI employees had designed substations or electrical distribution systems for large areas.

Qualifications of Edison's Witnesses

Edison's three witnesses all hold engineering degrees. Hornbuckle is a registered mechanical and a registered nuclear engineer in California. The regular work responsibilities of Edison's witnesses include design and/or review of facilities needed to supply large developments.

Discussion on System Design

Edison correctly assesses complainants' proposal as a redesign of its system. A developer should not be permitted to design the system, but it may question Edison's design. The UCI plan challenges the underlying engineering design assumptions used throughout Edison's system when it suggests that distribution feeder circuits could regularly carry loads far in excess of those used in Edison's design. But UCI provides no engineering justification for such circuit loading.

Edison's distribution feeder design criteria are reasonable. Its design has the flexibility to switch loads during emergencies and to meet the energy-conserving voltage limitations of its Conservation Voltage Reduction Program. The goals of that program could not be met if its circuits were overloaded.

Edison's plan provides a reasonable method for extending a grid of distribution feeder lines and backfeeds to provide: (1) service to the study area, (2) a circuit to Wood Ranch, (3) a backbone circuit and spare conduit connected to the Tierra Rejada installation and to two 5-inch conduits within Tract 3096, and (4) a radial connection in a 5-inch conduit to supply a school site and a park site. Full development of the red area is projected to require more than one

circuit. This need could be met from the blue circuit. In addition, there is an area north of Tract 2865 and east of Moorpark Road zoned for medium density residential development which is adjacent to the proposed Carlsberg tract, which may be served from the blue circuit. Projected demands for the green area, which should include the Griffin tract located north of Arroyo Simi, will require at least one circuit.

The multiple deficiencies of the UCI plan require the Commission to reject it. For example, in preparing the UCI plan the witness did not attempt to verify his assumptions concerning the construction of a purported Wood Ranch substation and he did not consider the need for stronger, wider, and/or taller structures for safely carrying long span overhead circuits or additional unbalanced stresses. He believed incorrectly that the Peach Hill Pole Top substation, which is used to supply a few surrounding blocks, could supply the northern portion of the master plan area.

His plan would not provide for future anticipated load growth in Tract 2865, in approved or proposed subdivisions close by, and in other portions of the study area. These subdivisions include Urban West, the proposed Howard tract, and subdivisions under construction along both the north-south and east-west portions of Peach Hill Road, west of Tract 2865, and the proposed Carlsberg tract, east of Tract 2865.

Our review confirms Edison's assessment that if it constructed the UCI system, it would need to construct new facilities in improved portions of the study area after 1991. If Edison had agreed to provide permanent service to Tract 2865 from Peach Hill Road, its design could include a new underground installation in Peach Hill Road under its Rule 15.1[9/] and there still could be a requirement for further underground installations to serve the blue area.

The distribution feeder and Tract 2865 backbone system proposed by Edison should be built to provide adequate and reliable service within the study area. Any Rule 15.1 cost modifications should be premised on Edison's design proposal.

III. THE DEFINITION OF NECESSARY DISTRIBUTION AND FEEDER CONDUIT UNDER RULE 15.1

Complainants argue that since Edison's proposed Tierra Rejada conduit could not be used for "future anticipated load growth in the existing subdivisions and the existing subdivisions in close proximity thereto" (Villa, mimeo. page 18; emphasis added) **for 10 years or more, those facilities cannot be used for the foreseeable future and are, therefore,** not necessary within the meaning of Rule 15.1. Complainants object to Edison's use of a longer time span than in Villa because in that case Edison's expert witness testified that the conduit at issue "would be needed within the foreseeable

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9/ Tract 2865 does not qualify for overhead service under Edison's Rule 15.

future, which he explained was a period of five to seven years." (Villa, mimeo. page 14.) Complainants do not object to Edison's planning 10 or more years into the future, but they argue that present homeowners will receive no benefits from Edison's proposed system for 10 years and those homeowners should not be forced to pay for that system at this time as a condition for service.

Complainants also argue that the needs for the study area are speculative and not based on any development plans and are therefore not "anticipated" as defined in Villa.

Costs

Edison estimated its plan shown on Attachment A would cost $1,365,600. Edison modified complainants' $533,540 cost estimate[10/] for the facilities shown on Attachment B to $691,790 to correct erroneous information it supplied to complainants (Edison included $4,790 for the in-tract backbone conduits proposed by UCI but omitted it in its estimate).

After these cost corrections, Edison's witnesses testified that they modified complainants' estimates: to incorporate costs of other facilities omitted by complainants; to provide for more costly tower structures required to safely carry circuits proposed by complainants over certain long spans and to resist unbalanced stresses; to construct required underground circuits instead of the overhead circuits proposed by complainants; and to provide needed spare conduits. These

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10/ Edison's estimates, revised to correct its errors on the cost and facilities required for the alternate proposals, were consolidated in Edison's opening brief. None of the cost estimates introduced in this proceeding was based on detailed engineering studies. They are primarily based on cost data developed by Edison.

changes increase the estimate to $938,590. The Edison witnesses then calculated the costs of facilities they recommended to eliminate UCI's design deficiencies. These additions brought the total cost of the facilities shown on Attachment C to $1,629,600, of which $79,000 would be paid for by complainants.

Edison estimates the cost of trenching within Tract 2865 in Tierra Rejada at $24,000 and the cost per conduit in that trench at $8,800.

Complainants' plan would avoid construction of any feeder in Tract 2865 except for Route XRBF2. On that basis, complainants' contribution for feeder conduit under Edison's Rule 15.1 would be $4,790.

Edison's estimate of complainants' initial costs under Rule 15.1 at $87,800 is broken down as follows: $50,400 for the Tierra Rejada installations; $30,200 for the two 5-inch backbone conduits in Tract 2865; and $7,200 for the in-tract connection to the school site and park site. The $7,200 item is subject to refund when those sites are developed. These amounts do not include structure costs for facilities installed by complainants which would then be paid for by Edison.

Discussion

The discussion on timing in Villa centered on the conditions involved in that complaint. In this proceeding, developers are holding large parcels of land and are contemplating developments spread over several years. In the case of Urban West, complainants' witness Poole testified that Urban West anticipated development of the first four phases of its 10-phase project over approximately 10 years,

but that this estimate could vary depending on market acceptance of its houses. In the context of major developers proceeding with their own multiyear construction and marketing planning, it would be unreasonable to apply the 5- to 7-year planning estimate in Villa to this case. Furthermore, Edison would install connections from two Janss circuits on Peach Hill Road into conduits in Tierra Rejada, and install needed cable in those conduits to supply electricity from those circuits. The use of Tierra Rejada circuits to provide a direct feed from the Moorpark Substation awaits the completion of that road.

At full development, the residences within the subdivisions, for which either tentative or final subdivision maps have been filed, would use almost all of the electricity[11] provided for in Edison's study area estimates.

As noted above, Edison's plan for serving the study area is reasonable and UCI's is not. Cost adjustments to conform to Rule 15.1 should be based on Edison's plan. The conduit Edison proposes to install in Tract 2865 is necessary under Edison's Rule 15.1 except for the Wood Ranch conduit. The method of apportionment of actual costs related to this conduit is discussed as Issue I of this decision. Therefore, complainants' costs under Rule 15.1 would be approximately $10,933 less than proposed by Edison for Tierra Rejada trenching and spare conduit costs in Tract 2865. Edison would pay one-third of approximately $24,000 for trenching costs plus one-third of approximately $8,000 for the spare conduit. Edison would also pay $8,800 for the Wood Ranch conduit.

11/ If the Tierra Rejada Valley area east of Tract 2865 is rezoned for residential uses, there would be additional capacity requirements in the blue area.

Findings of Fact

1. Complainant Pacifica and Edison commenced discussions regarding the installation of an electrical distribution system for Tract 2865, a 622-lot subdivision in the community of Moorpark in Ventura County in 1979. Pacifica disputed Edison's interpretations of "any necessary distribution and feeder conduit required" in Section B.1 of Edison's Rule 15.1, contained in Edison's preliminary proposals. Complainants, each developing portions of Tract 2865, object to Edison's adopted proposal.

2. Edison has a multilevel review procedure for determining the adequacy of proposed distribution feeder systems for large residential tracts (such as Tract 2865) and for service to other areas served from a substation. This review encompasses delivery of energy to a tract; providing necessary backfeed circuits and spare conduits for ventilation and for emergency replacement of circuits; providing for backbone in-tract feeder circuit and necessary spare conduit; conformity with Edison's design standards; and interconnection of circuits between distribution substations for emergency or backup purposes.

3. Edison originally planned to install distribution feeder conduits from its Moorpark Substation, south and east within the Tierra Rejada transportation corridor, a proposed four-lane divided highway, to supply anticipated residential subdivisions, including Tract 2865, within the study area.

4. Complainants advised Edison that the County had adopted a revised master plan for the Moorpark area and that Urban West, the developer of a 10-phase residential subdivision, was not planning to complete the portion of Tierra Rejada within its boundaries and a bridge across the Arroyo Simi prior to 1991. Tract 2865 is approximately 1,500 feet east of Urban West.

5. Edison used this information and updated information on complainants' specific plans for developing Tract 2865 to revise its proposed plan for serving the study area and Wood Ranch, and to provide for future interconnections to the portion of the master plan area north of the study area. The connection could be used as a backfeed for the blue area.

6. Edison's distribution design feeder criteria are reasonable. Its proposal permits flexibility to switch loads during emergencies and to meet the energy-conserving voltage limitations of its Conservation Voltage Reduction Program.

7. Edison's proposal provided for temporary service to supply electricity within the study area until its Tierra Rejada feeder system can be directly connected to its Moorpark Substation, at its expense. The conduits installed in Tierra Rejada through Tract 2865, which are designed to provide service within the study area, necessary ventilation, and emergency capability, will be used for those purposes whether the supply comes from the overhead circuits or directly from Moorpark Substation. The two 5-inch backbone conduits within Tract 2865 (Route RT) and the radial connection to a school site and a park site (Route XY) are needed to distribute electricity within that tract.

8. The UCI plan would not provide for future anticipated load growth in Tract 2865, in approved or proposed subdivisions close by, or in other portions of the study area, nor would it provide Edison with the flexibility to modify its system or to supply emergency backup power to the area involved. Due to circuit overloading inherent in the UCI plan, Edison could not meet the voltage and energy reduction goals of its Conservation Voltage Reduction Program.

9. Edison's permanent use of the reconductored Janss circuit as proposed by UCI would compel Edison to later install a new circuit to supply the existing and potential additional loads on this circuit.

10. Edison's extension to Wood Ranch is not "necessary" distribution and feeder conduit required for service within the study area.

11. Edison avoids the cost of installing the Wood Ranch conduit and a spare conduit in a separate trench by installing the Wood Ranch conduit in a common trench with three other conduits needed to supply Tract 2865; this would interconnect the service to the tract with subsequent developments outside the tract, and provide ventilation and flexibility to switch loads during emergencies. The Wood Ranch circuit is one of three proposed circuits in that trench; therefore, Edison should pay one-third of the cost of the spare conduit and one-third of the cost of trenching, concrete jacketing, and backfilling the Tierra Rejada trench through Tract 2865, which totals approximately $10,933.

12. Edison's plan provides for the Wood Ranch conduit and for a spare conduit as two of the four conduits in Tierra Rejada from Moorpark Substation to the east boundary of Tract 2865. Edison could avoid separate trenching costs in the remaining portions of Tierra Rejada by installing the Wood Ranch conduit in a common trench with the other feeder conduits.

Conclusions of Law

1. It would be unreasonable to apply the 5- to 7-year planning estimate in Villa to this case.

2. Edison must install underground conduit for the necessary distribution and feeder **circuits required to serve** Tract 2865 to conform to its Rule 15.1.

3. With the exception of the Wood Ranch conduit, Edison's proposal for Tract 2865 meets the Villa criteria for "any necessary distribution and feeder conduit required."

4. When Edison installs distribution and feeder conduit which is not necessary under its Rule 15.1 in a common trench with "necessary distribution and feeder conduit", it should pay for the nonqualifying conduit plus an equitable share of the cost of needed spare conduit, **trenching, concrete jacketing, and necessary backfilling. Edison's equitable share for portions of the four-conduit Tierra Rejada installation is** one-third of these costs.

5. Complainants should pay for two conduits, two-thirds of the cost of the spare conduit, and two-thirds of the costs for trenching, concrete jacketing, and necessary backfilling in Tierra Rejada within Tract 2865 under Edison's Rule 15.1. In addition, complainants should pay for all remaining necessary distribution and feeder conduit and trenching costs within Tract 2865, namely, Routes RT and XY shown on Attachment A.

O R D E R

IT IS ORDERED that:

1. Southern California Edison Company shall pay for its Wood Ranch Development 5-inch conduit plus one-third of the cost of a spare 5-inch conduit, plus one-third of the costs of trenching, concrete jacketing, and necessary backfilling of a four-conduit trench installation in Tierra Rejada Road through Tract 2865 in Ventura County.

2. The Pacifica Corporation and Pardee Construction Company (complainants) shall pay for two 5-inch conduits plus two-thirds of the cost of a spare 5-inch conduit, plus two-thirds of the costs of trenching, concrete jacketing, and necessary backfilling of a four-conduit trench installation in Tierra Rejada Road through Tract 2865 in Ventura County. Complainants shall pay all remaining distribution and feeder conduit trenching costs within Tract 2865 in Ventura County.

This order becomes effective 30 days from today.

Dated APR 6 1982, at San Francisco, California.

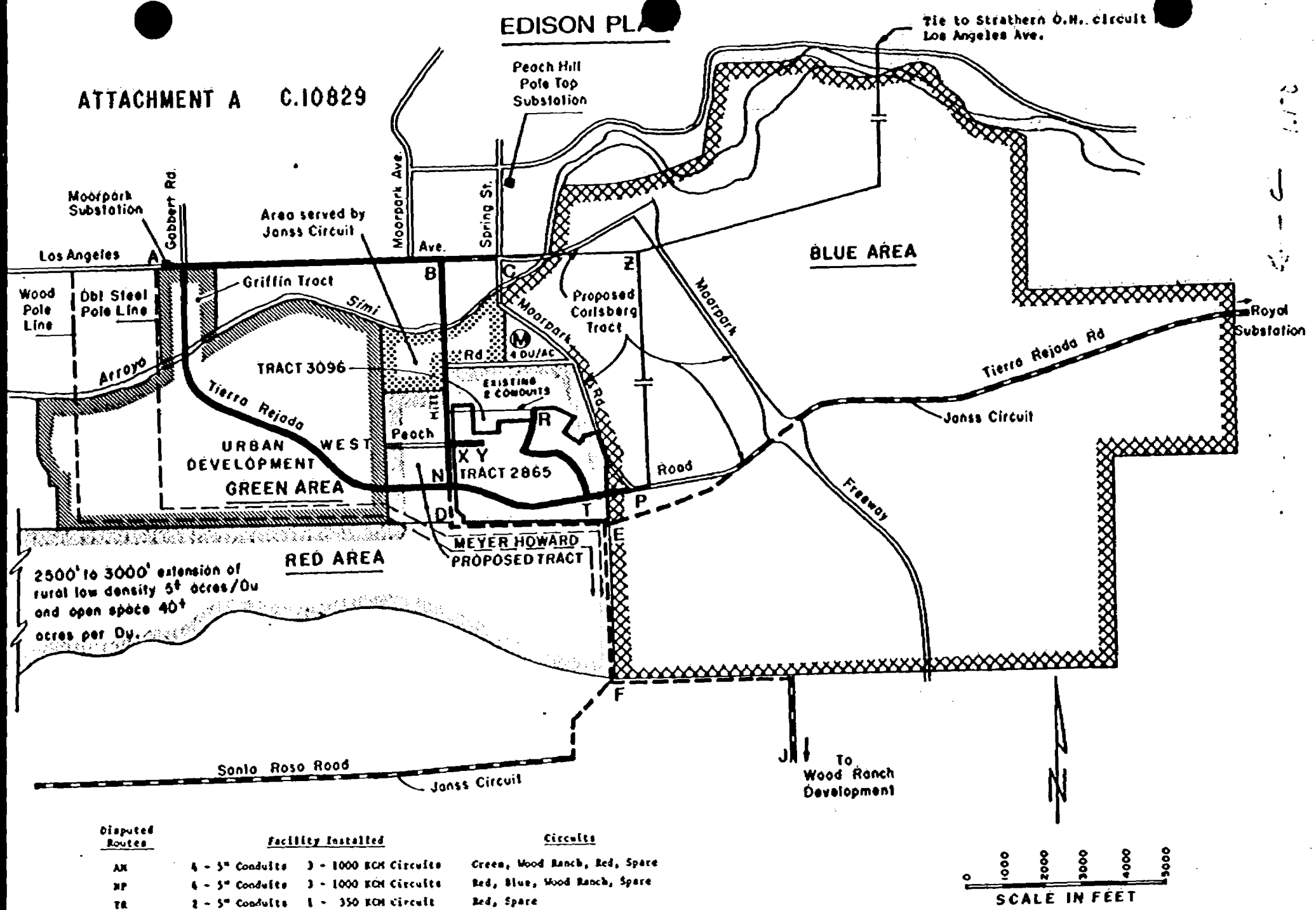
JOHN E. BRYSON
President
RICHARD D. GRAVELLE
LEONARD M. GRIMES, JR.
VICTOR CALVO
PRISCILLA C. GREW
Commissioners

I CERTIFY THAT THIS DECISION WAS APPROVED BY THE ABOVE COMMISSIONERS TODAY.

Joseph E. Bodovitz, Executive Director

EDISON PL[illegible]

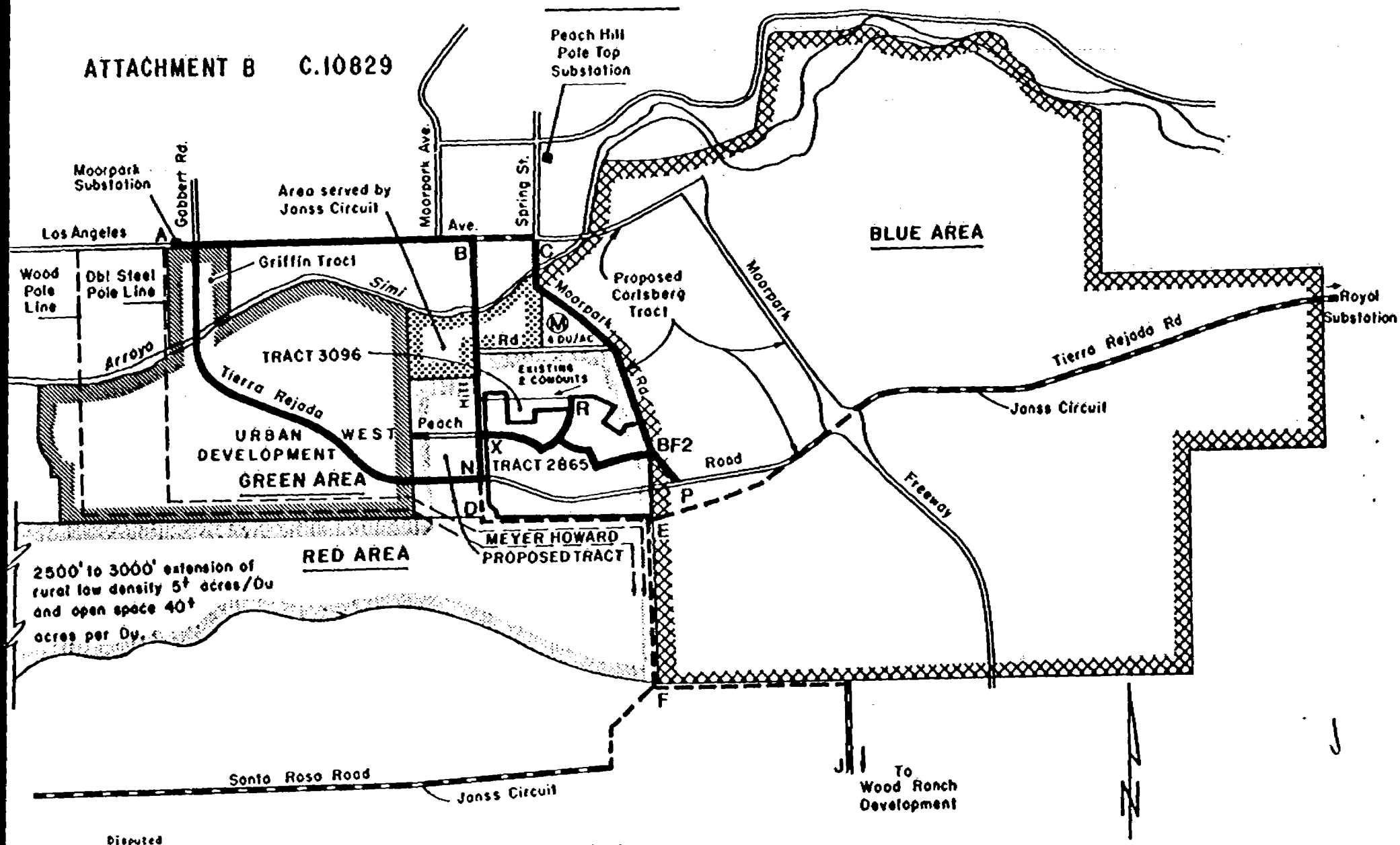
ATTACHMENT A C.10829



Disputed Routes	Facility Installed	Circuits
AR	4 - 5" Conduits 3 - 1000 KCM Circuits	Green, Wood Ranch, Red, Spare
RP	4 - 5" Conduits 3 - 1000 KCM Circuits	Red, Blue, Wood Ranch, Spare
TR	2 - 5" Conduits 1 - 350 KCM Circuit	Red, Spare
XY	1 - 5" Conduit 1 - 1/0 Circuit	Red
ABD	2 - OH 653 KCM Circuits (Janss)	Blue, Purple (Reconductured Janss)

UCI PLAN

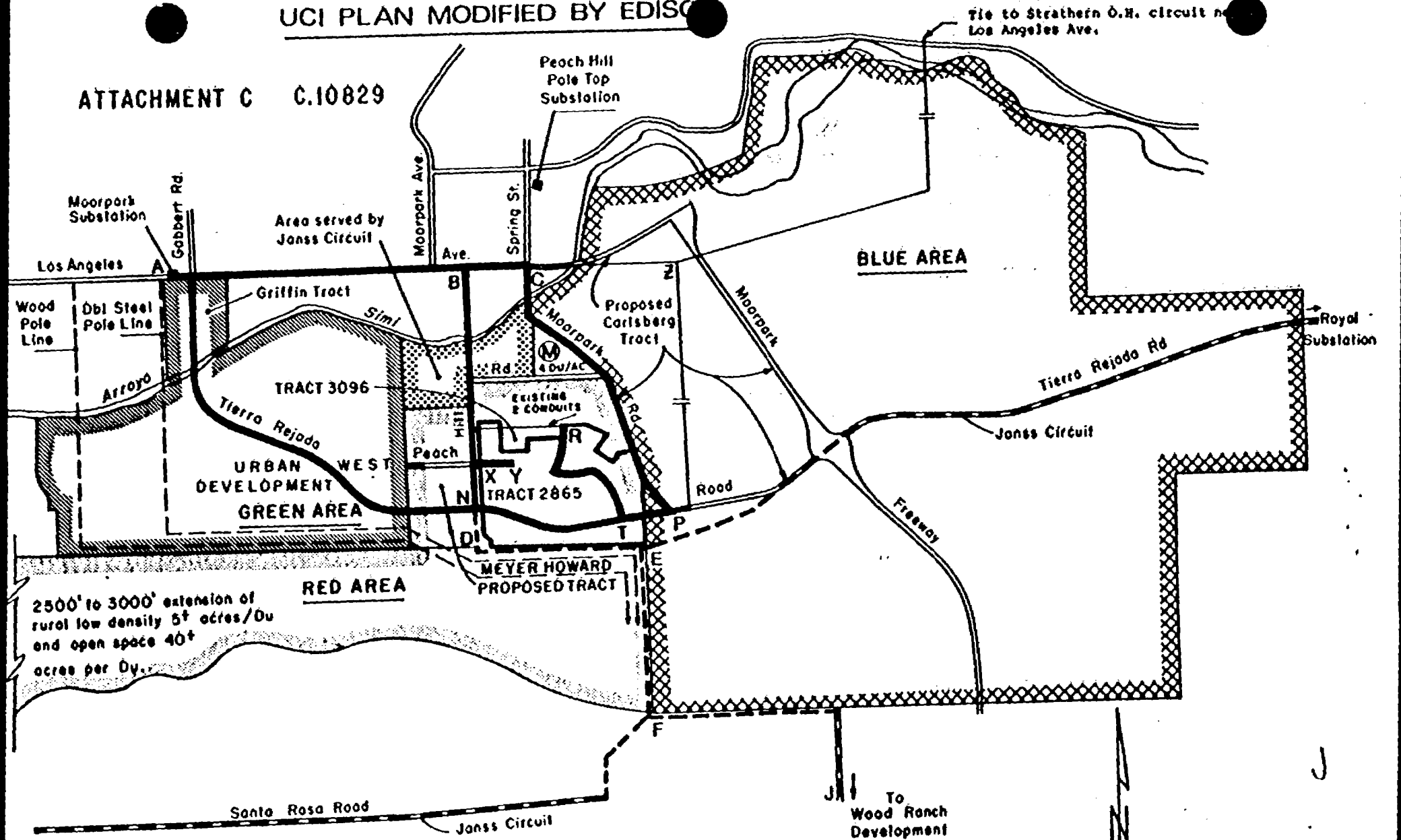
ATTACHMENT B C.10829



Disputed Routes	Facility Installed	Circuits
AH	2 - 5" Conduits 1 - 1000 KCM Circuit	Green, Spare
ABD	2 - OH 653 KCM Circuits	Red, Wood Ranch - Blue
CF	2 - 5" Conduits 1 - 750 KCM Circuit	Blue, Spare
XRBF2	1 - 3" Conduit 1 - 1/0 Circuit in each leg of intract feed lines	Red
HDF	2 - OH 653 KCM Circuits	Red (existing Janss) Wood Ranch

UCI PLAN MODIFIED BY EDISO

ATTACHMENT C C.10829



Disputed Routes	Facility Installed	Circuits
AN	2 - 5" Conduits 1 - 1000 KCM Circuit	Green - Red, Spare
ABN	2 - 653 KCM OH Circuits	Purple (Existing Janss), Red
XY	1 - 5" Conduit 1 - 1/0 Circuit	Red
CP	3 - 5" Conduits 2 - 1000 KCM Circuits	Wood Ranch, Blue, Spare
AC	3 - 5" Conduits 2 - 1000 KCM Circuits	Blue, Wood Ranch, Spare
NP	2 - 5" Conduits 1 - 1000 KCM Circuits	Red, Spare
RT	2 - 5" Conduits 1 - 350 KCM Circuit	Red, Spare