

ORIGINAL

Decision No. 82375

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of RAY LEVERT for
waiver of requirement requiring
undergrounding of electrical and
telephonic utilities in a two
acre rural subdivision.

Application No. 54244
(Filed August 15, 1973)

Lloyd B. Hamilton, Attorney at Law,
for applicant.
M. H. Furbush, J. B. Bunnin and
Mrs. L. S. Friedman, Attorneys at
Law, for Pacific Gas and Electric
Company, interested party.

O P I N I O N

General

Ray Levert requests an exception to the mandatory requirement requiring undergrounding of the electric and telephone facilities serving applicant's new residential subdivision, Diamond Springs Estates Unit No. 1, near the unincorporated area of Diamond Springs, El Dorado County.

Public hearing was held before Examiner Coffey at San Francisco on October 15, 1973. The matter was submitted on October 24, 1973 upon the receipt of transcript.

Presentation

Applicant presented the testimony of three witnesses and offered four exhibits in support of his petition. The Pacific Gas and Electric Company (PG&E) appeared at the proceeding. Although PG&E did not oppose the request for overhead construction of the distribution system, it did present the testimony of one witness and offered twelve photographs of the area. The Pacific Telephone and Telegraph Company (Pacific) did not appear. By letter dated

October 5, 1973, the telephone utility requests that it be specifically authorized to deviate from undergrounding requirements if such a deviation should be granted for electrical facilities.

Description of Area

The area in which the subdivision is located is within one and one-half miles of Diamond Springs. Diamond Springs is an unincorporated area having approximately three or four thousand people in its immediate environ and is approximately five miles southeast of the city of Placerville. The land is hilly, rolling, and has considerable rock formation. The terrain has moderately heavy brush and tree cover. This portion of El Dorado County has many small rural homes. In most instances the homes were developed without any subdivision plans, and vary in quality and age. Planning and control of development have been late in starting in this rural foothill area.

Description of Subdivision

The proposed development consists of approximately forty-five acres divided into eighteen two-acre lots, one five-acre lot, and one fractional-acre lot. Photographs presented show that the roads are graded but not surfaced. A complete water system, consisting of water mains and laterals to each lot, has been installed. The water system was installed in accordance with the El Dorado Irrigation District's specifications and will be owned by the district upon completion of the improvements within the subdivision.

Construction Costs

Exhibit No. 4 attached to the application indicates that a refundable advance of \$11,000 would be required by Pacific for underground telephone service. With overhead construction no advance payment would be required by Pacific since all homes would be located within the free footage allowance.

The witness for PG&E testified that if an underground distribution system is installed, under the standard provisions of Rule 15.1, a refundable advance of approximately \$12,574 would be required. In addition, there would be a non-refundable payment required by the subdivider of approximately \$3,112 as well as the requirement that the subdivider provide the necessary trench excavation, backfill, and any conduits which may be needed. On a preliminary basis, the witness estimated that approximately 4,200 feet of trenching will be required at an estimated cost of \$2.00 per foot for a total trenching cost of \$8,400. The subdivider would also be responsible for excavating transformer pad sites, where located in the side of the hill, and constructing retaining walls around some of the proposed transformer pad locations to prevent soil from sliding down the hill onto the transformer pads. The total non-refundable costs to the subdivider would exceed \$11,512.

If overhead lines serve all of the lots within the subdivision, it is estimated that approximately 4,200 feet of overhead line, measured along the road, would be required at a cost of \$7,560. If a deviation is granted, PG&E proposes to make the overhead extension within the subdivision in accordance with Section C of its Electric Rule No. 15. The proposed \$7,560 payment by the subdivider for the overhead line would be subject to refund in accordance with the provisions of Electric Rule No. 15.

If overhead distribution facilities are provided neither the developer nor applicants for service would be required to make any additional payments for the installation of permanent overhead services from distribution lines. If underground distribution is provided, lot owners may have to pay a nominal amount for service conductor footage in excess of 100 feet as required by PG&E Rule 16. Further, the applicant for service would also be required to provide the trenching on his property for the service conductors.

Geologist's Testimony

Applicant presented a consulting geologist who described the area as having a varied topographic expression with relief ranging from a minimum of about 1,400 feet above sea level to a maximum elevation of about 1,900 feet. The area variation is approximately 500 feet for drainage but the maximum deviation is 400 feet on the property herein being considered.

The property is crossed by drainage swales with slopes which vary from steep to gentle.

The vegetation consists of black and live oaks, manzanita, and a few varieties of pine trees. The property is moderately to heavily wooded. Three lots are described as moderately wooded, but some lots are densely wooded.

The soils are variously described as clay loams, silty clay sands, or sandy silty lean clays. The depth of the soils vary from a few inches to six feet. The rock starts appearing resistant at about 36 inches below the surface. At approximately 36 inches below the surface, and in some cases at as little as 8 inches, very severely weathered bedrock is encountered, which is a soil zone within the soil profile. Although increasing resistance is encountered at an average of four to five feet, resistance can also be encountered almost immediately below the surface at random locations throughout the property. The resistance depends on the weathering of individual beds. The beds are laminated and almost vertical. Alternate beds will have different excavation characteristics and different ability to accept and transport water.

The geologist estimated that an average of 17 trees, from six to fourteen inches in diameter, would have to be removed per lot for a 150-foot electric and telephone service trench. This estimate was based on tapping in a straight line a 10 x 150 foot area on a representative lot.

The geologist also testified that sinking 24-inch service trenches throughout the property created a strong possibility that serious problems with the disposal fields of septic tanks will occur. Placing more subsurface installations in the ground causes more danger of concentrating septic tank effluent and changing natural drainage and dispersing elements. If electric service trenches are compacted they could serve as dams tending to concentrate the effluents. On the other hand, subdrained and non-compacted trenches would accept the effluent rapidly, transport it downslope, and then concentrate it. It is important not to have concentration of the effluent because such a build-up of the material tends to break out to the surface and expose coliform-type bacteria.

Thus, the two important problems visualized by the geologist related to subsurface water drainage and tree removal.

Discussion of Geologist's Testimony

The validity of applicant's position almost entirely depends on the acceptance of the geologist's testimony.

First it is necessary to clearly establish that essentially what the geologist discussed was the effect of undergrounding the service connection between the main subdivision roads and the building sites on the individual lots. The main distribution lines will be buried 36 inches in the existing graded roads from which trees have been removed and in which the water mains are buried. No substantial additional drainage or scarring problems need be anticipated from the installation of telephone cables and electric lines in the right-of-way of the roads. From photographs in this record it appears feasible to maintain an underground utility clearance of 10 feet from water mains as required by the water district. Despite testimony that the present installation of the water mains would tend to force utility trenching toward the more rocky portions of the roads, PG&E has raised no issue of its ability to install its facilities in the roads.

We will now consider the service trench problems of scarring due to tree removal and water drainage on the lots.

The geologist's estimate of tree removal assumed the clearance of a 10-foot wide swath through the growth in a straight line. Despite the fact the trench need be only six inches wide, the 10-foot width was assumed on the premise that track-mounted equipment would be used. The PG&E witness testified that a small trenching machine would be capable of climbing the slopes involved and digging the required 24-inch deep trenches. We are not convinced by applicant's testimony of the difficulties experienced by a neighbor using a small trencher that such a technique is not feasible. By the use of small trenching machines, which are available with various power capabilities and in some instances can be ridden, a much narrower and circuitous swath would be required for the trench. Such a trench could meander between trees. We are not impressed by the argument that economics dictate the trench be a straight line. In fact we are not convinced that economics dictate that the trench must be dug by a machine. It is reasonable to assume that one or two laborers could dig a 24-inch deep trench, one-shovel width wide, 200-feet long in one day. The cost of such a manually dug trench would not be excessive. We are not convinced by applicant's testimony that economics and water service placement do not permit placing the electric and telephone service trench in the individual lot driveways. If the driveways were used for all utility trenches, it appears that all incremental scarring due to the trenches would be eliminated.

We are not convinced that the utility trenches will cause septic tank effluent drainage problems if the trenches are properly backfilled and compacted. The geologist visualized that concentration would be caused by compacting the trenches. We visualize that if a trench crosses a slope the natural drainage pattern will be substantially unaffected if the trench is heavily compacted in an appropriate number of spots along the trench to permit the effluent

to cross the trench in the natural drainage path without flowing down the trench. Between impervious compaction locations it may be necessary to install either drainage material or relatively lightly compact the trench fill to insure cross trench drainage.

Thus, the testimony is not convincing that subsurface water drainage and tree removal would have sufficient impact on the ecology to justify relaxing the Commission's requirement of undergrounding electric and telephone facilities.

Other Testimony

Applicant supports its request by several additional points, summarized as follows:

1. El Dorado County will not require undergrounding of electric and telephone facilities in the subdivision.
2. The construction of another utility trench in this subdivision will greatly enhance siltation potential and could have an adverse effect on downstream water quality.
3. Applicant will realize a profit of about \$18,000 from the subdivision if overhead construction is permitted and a loss of \$9,400 if undergrounding is required.
4. Undergrounding will cause increased construction costs for individual property owners.

We are not persuaded by any of the foregoing. For instance, in applicant's calculation of his potential loss, he did not consider that part of his estimated undergrounding costs are refundable. Further, his cost estimate includes work done by himself without any indication of the profits or wages to himself included therein.

Findings and Conclusion

We find that:

1. Undergrounding of electric and telephone facilities in Diamond Springs No. 1 will not cause substantial scarring of the land by erosion or the removal of trees if trenches are properly routed and installed.

2. Undergrounding of electric and telephone facilities in Diamond Springs No. 1 subdivision need not cause unreasonable siltation, degradation of downstream water quality, or substantial change in subsurface water drainage if trenches are properly routed, compacted, and otherwise installed.

3. Undergrounding of electric facilities in Diamond Springs No. 1 subdivision will not create an unreasonable economic burden on either the developer or future lot owners.

We conclude that applicant's request for a waiver of undergrounding requirements for electric and telephone utilities should be denied.

O R D E R

IT IS ORDERED that Application No. 54244 is denied.

The effective date of this order shall be twenty days after the date hereof.

Dated at San Francisco, California, this 22nd day of JANUARY, 1974.

Vernon L. Stenger
President
William J. Quinn

[Signature]
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Commissioners

L. Abtani
[Signature], Commissioner