HYDROLOGY G16/D17 ONE PLAN

G 16/D 17

1 PLAN

ENCHANTMENT ENGINEERING, INC.
CIVIL CONSULTING ENGINEERS
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CLARENCE C. GODDARD, REG. P.E. & L.S.
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3240-D JUAN TABO, N.E.
MAIL TO BOX 11571
ALBUQUERQUE, NEW MEXICO 87112

October 15, 1975

Mr. Kleston H. Laws
Assistant City Engineer - Hydrology
City Engineer's Office
City of Albuquerque
P. O. Box 1293
Albuquerque, New Mexico 87105

RE: Drainage Easement adjacent to the westerly property line of Lots 16, 17 and 18, Block 1, INDIAN REST SUBDIVISION

Dear Mr. Laws:

The proposed development of Lots 16, 17, and 18 of Block 1, Indian Rest Subdivision calls for the construction of a four unit apartment complex. The intent is to utilize an existing concrete slab for the foundation of the complex. The location of the existing slab is shown on a copy of the enclosed plot plan. In order to assure access around the west end of the complex, it would be necessary to acquire an additional 15 feet on the west property line.

Presently there exists a fifty foot drainage easement on the west boundary of the subject property. The channel constructed in this easement has a 12 foot bottom width with a 1 1/2 to 1 side slope and a 2% grade. Acreage draining through this easement comprises approximately forty acres lying to the south of the development. This area consists of mobile home courts, apartment complexes, churches and some vacant lots. Assuming a runoff coefficient of .8 for this area and a maximum intensity of 5.4 in/hr., this area would produce approximately 173 cfs. flowing in the present channel.

In order to acquire the additional fifteen feet necessary for the construction of the apartment complex, it is proposed that the easterly 15 of the drainage easement right-of-way be abandoned. This would require that the present channel be constructed with an 8 foot bottom width, 1 1/2 to 1 side slopes and a minimum depth of 4 feet. By using Manning's Equation, a channel with these properties would be able to carry 377 cfs. with 1 foot of free board. Therefore, the proposed channel would still be capable of carrying the expected flow of 173 cfs. It is also proposed that the east side of this channel be rip-rapped to prevent scouring.

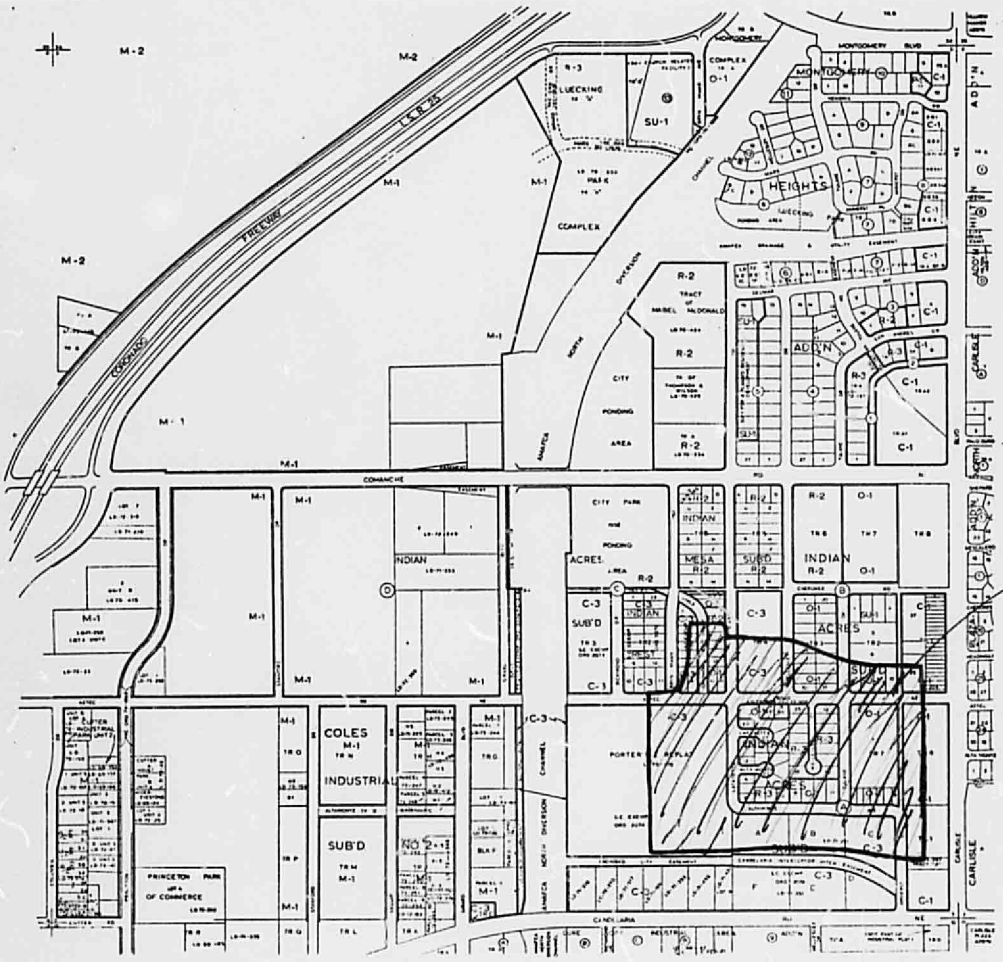
With the proposed change in the channel, the westerly fifteen feet of the existing drainage easement could be abandoned without altering the effectiveness of the easement.

If I can provide and further assistance, please feel free to call.

Sincerely,

J. W. Bettis
Reg. P.E. & L.S. #3441

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
NO. 3441
STATE OF NEW MEXICO
JOHN W. BETTIS


M-2
M-1
I-R-25
FREEWAY
CONGRESS
COMANCHE
MONTGOMERY BLVD
HEIGHTS
ADDN
CARLISLE
CANDELARIA
LUECKING
PARK
COMPLEX
SU-1
O-1
R-2
R-3
C-1
C-3
CITY
PONDING
AREA
CITY PARK
AND
PONDING
AREA
ACRES
INDIAN
MESA
SUB'D
PORTER
COLES
M-1
INDUSTRIAL
SUB'D
NO 2
PRINCETON PARK
OF COMMERCE
Approximately
40 acres
G-16-Z