

November 5, 1997

VACATION

Retantion?

Retantion?

Martin J. Chávez, Mayor

Marvin Kortum, P.E. 1605 Speakman Dr. SE Albuquerque, NM 87123

RE: IRONWOOD RIDGE SUBDIVISION (K11-D11). REQUEST FOR SITE DEVELOPMENT PLAN AND BUILDING PERMIT APPROVAL. ENGINEERS STAMP DATED OCTOBER 3, 1997.

Dear Mr. Kortum:

Based on the information provided on your October 10, 1997 submittal, City Hydrology is in agreement with your assessment of the existing pond. There appears to be no need for the pond. Please address the following comments prior to any approval:

- 1. Single family residential does not require a Building Permit. I assume you want to replat Tract A into two separate lots. You must provide a grading and drainage plan of the proposed construction and provide hydrology calculations.
- 2. Be certain to discuss downstream capacity and floodplain issues as they relate to your developed flow.
- 3. Is this area zoned for mobile homes? Will you need to have it rezoned.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

Lisa Ann Manwill, P.E.

Hydrology

c: Andrew Garcia

File



DRAINAGE INFORMATION SHEET GRADING & DRAINAGE PLAN REDISION ZONE ATLAS/DRNG. FILE #: ピル/ F'ROJECT TITLE: LEGAL DESCRIPTION: TRACT A FROMWOOD RIDGE SUBDIVISION CITY ADDRESS: CHURCHILLEDE MERLINA STREET 64 ENGINEERING FIRM: \_\_\_\_\_Narvin R Kortum Marvin R Kortum \_\_\_ CONTACT: 1605 Speakman Dr. SE ADDRESS: Albuquerque, NW 87123 PHONE: (505) 299-0774 CONTACT: OWNER: ADDRESS: PHONE: ARCHITECT: CONTACT: ADDRESS: \_\_\_\_ \_\_\_\_\_PHONE: CONTACT: SURVEYOR: ADDRESS: PHONE: CONTRACTOR: CONTACT: ADDRESS: PHONE: PRE-DESIGN MEETING: × YES DRB NO. NO EPC NO. \_\_ COPY OF CONFERENCE RECAP PROJ. NO. SHEET PROVIDED TYPE OF SUBMITTAL: CHECK TYPE OF APPROVAL SOUGHT: DRAINAGE REPORT \_\_\_\_ SKETCH PLAT APPROVAL DRAINAGE PLAN PRELIMINARY PLAT APPROVAL. X SITE DEVELOPMENT PLAN APPROVAL ROUSION \_\_\_\_ CONCEPTUAL GRADING & DRAINAGE PLAN \_\_\_\_ GRADING PLAN \_\_\_\_ FINAL PLAT APPROVAL EROSION CONTROL PLAN X BUILDING PERMIT APPROVAL ENGINEER'S CERTIFICATION FOUNDATION PERMIT APPROVAL ROASLOW TO GKISTING PLAY CERTIFICATE OF OCCUPANCY APPROVAL 国(CEIVE \_\_\_\_ ROUGH GRADING PERMIT APPROVAL OCT 0 8 1997 GRADING/PAVING PERMIT APPROVAL OTHER (SPECIFY)

HYDROLOGY SECTION

BY: MARVIN

Oct

DATE SUBMITTED:

1997

KORTUM

# IRONWOOD RIDGE SUBDIVISION

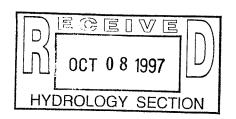
# GRADING AND DRAINAGE PLAN REVISION

FOR

TRACT A

October 3, 1997

Marvin R Kortum NMPE 6519





#### PURPOSE:

The purpose of this revision to the Drainage Report K11/D11 is to obtain approval for the elimination of a pond and obtain approval for the placing of two modular houses on Tract A, Ironwood Ridge subdivision.

#### BACKGROUND:

- A. Tract A is a .2 acre lot located at the intersection of Merlida Street and Churchill Road. Tract A was created as in the process of obtaining subdivision plat approval. As explained below, Tract A has been designated as a temporary ponding area. The reason for the "temporary" designation appears to be that there were restrictions on the amount of runoff permitted from the Ironwood Ridge subdivision due a "storm drain bottleneck". The bottleneck is not identified within the files available for review.
- B. Documents relating to Tract A and the Ironwood Ridge subdivision are located in the City of Albuquerque Planing Department files, the City of Albuquerque Engineer Department files, the County of Bernalillo County Clerks office, and the County of Bernalillo Accessor's office. The results presented in these documents are summarized below. Copies of certain of the documents are attached. As far as possible, the documents attached are the intermediate and decision documents which are available in the files. The complete files are available in the respective offices. In some instances the attached copies are presented in two copies, with one a light copy, and one a dark copy, as available on the microfishe. Some portions of the documents have been enlarged to make them more legible. No files were found in the Hydrology Department files
- The earliest documents found were a Drainage Management Plan dated November, 1979, and the City of Albuquerque Work Order drawings approved for construction on July 25, 1980. These documents indicate that the subdivision would meet R-1 zoning requirements, and that the development would have individual lot ponds, and one temporary overflow pond of about 5100 cubic feet. The source of the overflow was partially due to estimated runoff from adjacent undeveloped lands (off-site flow). The temporary pond was to be constructed on lot 21, and was to temporarily retain street runoff until the downstream storm sewer bottleneck is corrected. The lot was not to be used for housing until the downstream condition was corrected. The Work Order drawings show the design of the pond, with the street runoff entering the pond over a 20 feet wide rundown, the rundown consisting of deleting curb for the rollover curb and qutter. The Work Order drawings also indicate that the pond was to be drained by means of a 4" pipe which extended through the berm and over the curb onto Churchill Road. (Note: There appears to be a mixed use of the word "retention" for the pond. The 4" metered pipe which was to drain the pond should have indicated that the pond was a "detention" pond.) The street, water and sewer mains were apparently constructed according to these July 25, 1980 Work Order drawings.

- D. The site plan for the Ironwood Ridge subdivision was then apparently amended and approved August 16, 1982 by the Environmental Planning Commission. This approval was for a change of zoning from R-1 to SU-1 for R-T uses. Comments from the City Hydrology section prior to this approval indicate a dissatisfaction with the proposed "detention" pond, but no details are evident within the files.
- E. The next action appears to be to revise the Ironwood Ridge subdivision Site Development Plan to reflect the approved change in zoning from R-1 to SU-1. The Environmental Planning Commission granted approval of the revised Site Development Plan on May 26, 1983. One condition of the approval was that, "additional details are required with regard to the drainage pond area".
- F. The Drainage Management Plan indicates a revision in March, 1983 to the original November, 1979 plan. Apparently the revision to support the site plan revision. The pond configuration is revised, and the method for runoff entering the pond is revised. The revised design shows that two Type A inlets are to be provided along the east curb line of Merlida Street, and that the 4" diameter metering outlet pipe is to be placed through the curb into Churchill Road. These revisions are shown on plate 3 of the Drainage Management Plan, and on sheet 5 of 5 of the Site Development Plan. On this sheet 5, Tract A is designated as "Lots 20 and 21-TEMPORARY DRAINAGE EASEMENT TO CITY OF ALBUQUERQUE. (LANDSCAPING TO BE APPROVED BY THE CITY ENGR.)
- G. The plat for the Ironwood Ridge subdivision is the next document in the chronological sequence. The plat was recorded July 29, 1983, and is on file at the Bernalillo County Clerk's office, file number C21-171. Tract A is designated on this plat with notes as follows:

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- "4. TRACT A IS RESERVED FOR DRAINAGE RETENTION IN COMPLIANCE WITH THE APPROVED DRAINAGE REPORT ON RECORD WITH THE CITY ENGINEER AND WILL BE CONVEYED TO THE CITY OF ALBUQUERQUE BY SEPERATE (sic) DEED. THE CITY BY APPROVAL OF THIS PLAT DOES NOT ASSUME RESPONSIBILITY FOR MAINTENANCE OF VEGETATIVE LANDSCAPING".
- 5. THIS PLAT WAS PREPARED IN CONFORMANCE WITH THE AMENDED SITE DEVELOPMENT PLAN FOR IRONWOOD RIDGE SUBDIVISION (CASE # Z-91-122-1) APPROVED 6/20/83."

#### **CURRENT STATUS:**

A. The topography of Tract A and the adjacent streets as of October 3, 1997 is shown on sheet 1 of 1, dated October 3, 1997, titled "TRACT A, REVISION TO DRAINAGE PLAN K11/D11. The curb line inlet to the pond is still in place, there are no inlets, and there is no pipe outlet.

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- B. I have observed the pond during a rainstorm. The runoff on Merlida Street does not enter the pond, rather continuing down the gutter to Churchill Road. Part of the reason that runoff does not enter the pond is that the grass and sediment has built up along the flow line. The pond itself shows no sign of having any water standing in the pond, even during a rainstorm. It appears that the only precipitation entering the pond is that which falls directly on the lot, plus a small amount from the lot adjacent to the north.
- C. The overflow for the pond as it now exists would be over the low part of the inlet rundown. The contour line for this elevation, 5049.25, is shown on the drawing, sheet 1 of 1, October 3, 1997. If water did enter the pond, the depth would vary up to about 6", with the capacity of the pond being about 400 to 500 cubic feet.
- D. The vegetation on Tract A consists of weeds and scrub elm. The neighbors stated that they have from time to time cut the weeds on the tract. Currently it also has a small accumulation of trash.
- E. The Bernalillo County Accessor's office currently lists the owner of Tract A as a private individual, identified on the attached printout from the Accessor's office.

#### DOWNSTREAM FLOWS AND BASIN CAPACITIES:

- A. Tract A and the Ironwood Ridge subdivision are within a large drainage basin, extending to west past Coors Road, and north and south of Central Avenue about one-half mile. Within this drainage basin is a sub-surface storm sewer system centered on Central Avenue, with a number of branches. Tract A is within the sub-basin which feeds into a sub-surface storm sewer with branches extending into Churchill Road and Gonzales Road, a street 1000 feet south of Churchill Road. This south branch of the sub-surface drainage system feeds into the Central Avenue storm sewer near the intersection of Central Avenue and the Arenal Canal, a MRGCD irrigation ditch.
- B. Surface runoff from Tract A and the Ironwood Ridge subdivision flows to the east down the north gutter of Churchill Road, crossing to the south at 61st Street, then to Gonzales Road. Just west of the intersection of 61st Street with Gonzales Road the flow enters the sub-surface storm sewer system. Runoff along Churchill Road could enter the storm sewer system at the intersection of 61st Street and Churchill Road, except that the elevations of the catch basin inlets at that location are higher than the flow path, and would only catch runoff at very high levels of flow which would cause the flow to cross the crown of Churchill Road.

- C. Tract A and the Ironwood Ridge subdivision are not within a 100 year flood plain. Panel 329 of 825 of the FEMA Flood Insurance Rate Map identifies one flood plain area within the immediate downstream basin from the Ironwood Ridge subdivision. The flood area is identified as an AH area, a flood pond area with depth of 1 to 3 feet. The flood pond elevation stated for this area is 5009. From the topographic map of the area (sheet K-11), the elevation of the street at the inlet to the storm sewer at 61st Street and Gonzales Road, which would mean that the flood pond depth in that area would be about 1 foot and 5 inches. The pond is shown with a surface area of about 600,000 square feet.
- D. Major changes have occurred in the upstream off-site flow since the Ironwood Ridge subdivision was approved and constructed in 1983. The new Coors Road south of Central Avenue has been constructed, being located about 1000 feet west of the subdivision site. The Coors Road construction controls flows from upstream which previously may have crossed the Ironwood Subdivision site, and directs these flows to other drainage basins. The vacant land bordering on the north of the Ironwood Ridge subdivision is now developed as a Sonic drive-in restaurant. Flow from the Sonic site is directed to the street surface of 64th Street, downstream of the subdivision. There is no ponding, either retention or detention, within the Sonic site.
- E. Observations within the drainage basin do not indicate any of the developments which have been constructed since the construction of the Ironwood Ridge subdivision have been required to have ponding, either retention of detention. The available documents do not indicate any major change in the storm sewer system which is downstream of the Ironwood Ridge subdivision.

#### **CONCLUSIONS:**

- A. The "bottleneck" in the storm sewer system which was the reason for the ponding on Tract A of the Ironwood Ridge subdivision is not identified. It is reasonable to conclude that the "bottleneck" has been eliminated inasmuch as developments which have occurred more recently have been approved without the requirement to do ponding.
- B. If the pond on Tract A had been constructed with the 5100 cubic feet capacity as stated in the Drainage Management Plan, the storage of the 5100 cubic feet would have resulted in a 0.01 of a foot (1/8th inch) drop in the surface of the flood pond. As the pond is now constructed, and assumming that runoff could enter the pond and it filled to its capacity of 500 cubic feet, the drop in the level of the flood pond would be 1/10 of the 1/8th inch. It is reasonable to conclude that the impact of the pond on the overall drainage basin is negligible.

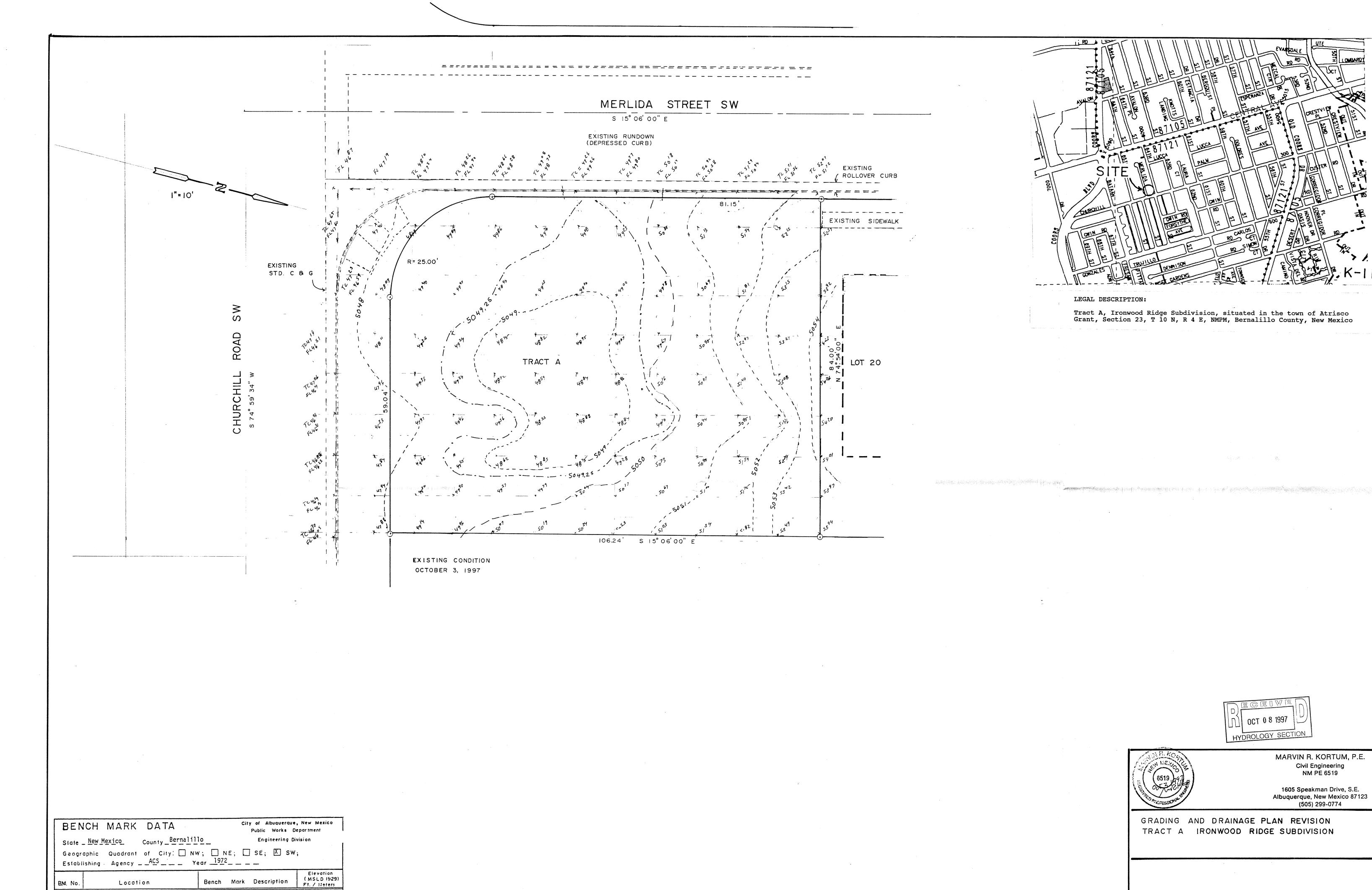
- C. If there is a severe problem in street flooding between the 61st Street-Churchill Road intersections and the storm drain inlet on Gonzales Road, the problem could be partially alleviated by having the runoff enter the existing storm drain inlets at the 61st Street-Churchill Road intersection.
- D. The major developments upstream from the Ironwood Ridge subdivision have eliminated much of the off-site flow that could have entered the subdivision at the time the subdivision was approved.
- E. Tract A as it now exists is relatively worthless. The private owners pay property taxes without any benefit from the property. The City of Albuquerque does not maintain nor use the pond. The neighborhood does not benefit from a weed choked, trash collecting vacant lot. A greater benefit to all would be to place the land into productive use.

### **RECOMMENDATIONS:**

- A. That the City of Albuquerque relinquish all requirements and interest in the use of the land as a ponding area.
- B. That the land owners be permitted to place appropriate housing on the site.

## Attached document listing

- A. City of Albuquerque Planning documents, March 22, 1983 to May 26, 1983.
- B. Drainage Management Plan, November, 1979, revised March 1983, with City of Albuquerque comments, March 23, 1983.
- C. Planning and zoning documents, September 23, 1981 to August 16, 1982
- D. Ironwood Ridge Subdivision Site Development Plan
- E. Enlargements from Construction Drawings
- F. Replat of Ironwood Ridge Subdivision, recorded July 29, 1983
- G. Construction Drawings for Ironwood Subdivision, approved July 25, 1980
- H. Drainage Facilities map K-11N and K-11S
- I. Accessor's ownership statement



At the intersection of Merlida and Churchill, SW.

"X" chisled on top of SSE #5047.842 curb return.

1538.585

PROJECT NO MAP NO SHEET OF K-II / D-II

