HYDROLOGY G10/D3A THREE PLAN

G10-D3A

3 PLANS

INTER-OFFICE MEMORANDUM
MUNICIPAL DEVELOPMENT DEPARTMENT

ENGINEERING

- ☐ Administration
- ☐ Capital Implementation
- ☐ Code Administration
- ☐ Engineering
- ☐ Information
- ☐ Planning
- ☐ Renewal & Rehabilitation
- ☐ Other
- ☐ City Engineer
- ☐ Principal Asst. C.E.
- ☐ Asst. City Engineer-Design
- ☐ Asst. City Engineer-Field
- ☒ Asst. City Engineer-Hydrology
- ☐ Chief City Surveyor
- ☐ Administrative Asst.
- ☐ Secretary

ATTENTION: Bruno

For Your:
- ☐ Approval
- ☐ Circulation
- ☐ Comment & Return
- ☐ Files
- ☒ Handling
- ☐ Information
- ☐ Investigation & Report
- ☐ Signature

Response Requested by: ASAP

REMARKS:

Please contact Bo Johnson re: El Rancho Atmero #8. He claims the diversion west of the subdivision has been completed. You stated it was not included in the plans. Please contact him & clear this up

1/26/82 ☐ Date

☐ RSA City Engineer

Memo To RSH

From B.C.

Re El Rancho Arriba Unit 8 & 9.

The following is a summary of the conditions in the ~~existing~~ refund development: Over the past three years several commitments were made and not fulfilled or only partly fulfilled by the developer and by the engineers as can be seen from the attached correspondence.

Specifically

1. Completion of the Ouray crossing of the Ladera System outfall channel
2. Construction of the drop structures required in the channel between Units 2 and Unit

Since I did not participate in the conversation mentioned by Bo Johnson in his letter dated Feb 13, 1981 and attached to the revised dr. report, nor was I apprised of your thoughts on the subject, I feel it is difficult to give the developer precise indications.

My opinion is as follows

1. The ultimate crossing over the Indiana system has not been built (required 100 yrs frontage access to their property) nor the outlet structure for the pipes discharging a total of 8.85 cfs onto the golf course
2. There is a tendency of granting permanence to the temporary facilities - 30 months have elapsed since my letter of Sept 8, 1978 requiring all weather crossing access to the subdivision

50 homes have been built & 42 are proposed to be built in unit 8. In my opinion the C.3 must obtain a bond for the construction of this crossing before any additional ass. Building

candlelight homes, inc.
western development company, inc.

Western Holding Company

Mr. Richard Heller
City Engineer
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: El Rancho Atrisco, Unit 8
El Rancho Atrisco Development
Letter of Understanding

Dear Mr. Heller:

This letter is an understanding between the Municipal Development - Engineering, City of Albuquerque and Western Holding Company, the developer of the aforementioned Master Plan subdivisions, on the schedule of offsite improvements for the El Rancho Atrisco Development. This letter also requests construction drawings approved for Unit 8.

Western Holding Company has currently completed construction on the following subdivisions in the El Rancho Atrisco Master Plan:

EL RANCHO ATRISCO Unit No.	NO. OF LOTS
1	75 - East Side
2 Phase I	50 - West Side
3	58 - East Side
4	46 - East Side
5	40 - East Side
6	35 - East Side

OURAY & LADERA BLVD. - EAST SIDE

On the east portion of this development the only remaining work to be completed is Ouray Road adjacent to Unit 3. It is our proposal to complete this work with Unit 8 construction funds.

DRAINAGE CHANNEL SOUTH OF UNIT 2

There remains to be completed a drainage channel adjacent to Unit 2, Phase I. At the present time this channel has been excavated and the Ronda de Lechusas Road Crossing is complete. This channel has not been fully completed or accepted by the City, but provides full protection from the 100 year flood. We propose that the

1224 pennsylvania, n.e. albuquerque, new mexico 87110 phone (505) 268-4395

City allow Western Holding Company the right to maintain this existing channel to protect Unit 2, Phase I until it is fully completed and turned over to the City for maintenance. This channel shall be fully developed and completed with construction of Unit 9. (The next scheduled subdivision after Unit 8). All necessary berms have been constructed to protect Unit 2, Phase I from the 100 year flow generated from the west.

Western Holding Company will construct and maintain required improvements to protect Unit 8 from the 100 year flood hazard as required by the approved construction drawings, until this subdivision is accepted by the City.

OURAY ROAD - DEBRIS BASIN CULVERT CROSSING

With regard to the pipe crossing on Ouray Road (Ladera Channel Debris Basin Pond #14) and our previous letter of November 13, 1978 please consider this a request to extend the number of permitted housing units from 75 to 92 before this crossing must be completed. This crossing will be part of the construction of Unit 9.

Thank you,

WESTERN HOLDING COMPANY

Gerhard Muller, President — 2/12-81. Date

CITY OF ALBUQUERQUE

Richard Heller, City Engineer — Date

CITY OF ALBUQUERQUE

ALBUQUERQUE, NEW MEXICO

INTER-OFFICE CORRESPONDENCE August 12, 1981 REF. NO._____

TO: Charles M. Easterling, Principal Assistant City Engineer

FROM: Bruno Conegliano B.C.

SUBJECT: EL RANCHO ATRISCO UNIT 8

Towards the end of February of this year, a meeting was held in Mr. Dick Heller's office with Mr. Bo Johnson and myself regarding the rough grading and the approval of El Rancho Atrisco Unit 8. The minimum requirements were set as follows:

1. Provision of a storm sewer to intercept the flows from Unit 8 before they reached Ouray Road. A run-down perpendicular to the arterial that is to serve all the area within the El Rancho Atrisco Phase III, was not acceptable. The storm sewer was also to collect the run-off conveyed by Ouray Road; a small desilting basin was to be constructed within the park, south of Unit 8, to minimize sendiment conveyance and deposition in the dip section over the drainage channel.

2. Written approval from the Public Service Company of the design of the ditch to be built in their easement.

3. Provisions for non-erosive conditions at the intersection of the ditch (86.0 cfs) with the channel (300 cfs) at the boundary with Unit 2.

4. Treatment of the west lane of Ouray Road to prevent erosion and damages to the existing arterial pavement.

5. Revise the grading plan and indicate the location of the retaining walls where the proposed grading required excessive differences in elevation between pond elevation and the elevation of the property corners (almost five feet in some instances).

6. If at all possible revise the grade of the major access drive to reduce the 7.0% grade shown on the plan.

In exchange, the City would hold in abeyance its demands that:

1. the Turnkey Agreement, proposed by Candelight Homes and accepted by the City in 1978, be fulfilled;
2. would not request the completion of the 100 year crossing of the Ladera Channel;
3. would not request the completion of the drop structures indicated on the approved design by Jake Bordenave;
4. would allow the construction of 92 lots, as requested, rather than the 75 of the original agreement.

Nevertheless the provisions of the above were to be supplied by the developer with El Rancho Atrisco Unit 9.

The revised grading plan did not comply with the minimum requirements indicated above. For instance the engineer simply erased on the grading plan the elevations at the property corners that had aroused my displeasure. Yet, the site grading and construction plan was approved and today there are houses standing on the unaccepted subdivision. Well, what do you know, Mr. A. Houle has called me asking me for the signature of the plat of El Rancho Atrisco Unit 9 (No drainage report submitted with a proper grading plan yet; in the file there is a conceptual plan from J. Bordenave that needs to be fleshed out).

As a further clarification of the above I am enclosing a reduced copy of a plan signed by Mr. Bo Johnson (Sheet 1 of 1), which had attempted to address the concerns of Point 3. With a 1.7% slope for the channel in those eolian deposits, with no bank protection at the confluence, with a significant drop in flow line at the beginning of the channel and no grade control structures, no W. S. profile etc. etc., I could not concur with the proposal; (please note the scale of the profile). After my rejection the problem was simply disregarded, as can be seen from the approved plans.

BC:gc

cc f/Reading

CITY OF ALBUQUERQUE

ALBUQUERQUE, NEW MEXICO

G10-D3

REF. NO.

INTER-OFFICE CORRESPONDENCE August 17, 1981

TO: Richard S. Heller, City Engineer

FROM: Charles M. Easterling, Principal Assistant City Engineer/Hydrology CME

SUBJECT: EL RANCHO ATRISCO UNIT 8, BO JOHNSON

It appears that Mr. Johnson either forgot our conversations with him, or totally disregarded them. My recollection of the circumstances surrounding our signing his drawings were:

> We asked if he had satisfied our concerns from our previous meetings, to which Bo answered: "Of course, I said I would, didn't I? I know that if I didn't your would get me the next time around."

As you can see from Bruno's memo, we've been had. We need to get together and discuss a course of action on this. In the meantime, Bo wants the plat for Unit 9 of El Rancho Atrisco approved, which I will not do until they have satisfed all previous commitments with no exceptions.

Enough is enough.

CME:gc
8081A
cc f/El Rancho Atrisco Unit 8
f/Reading

RECEIVED
AUG 18 1981
CITY ENGINEER

RSH RSH
HRO
CDS
DES
INSP
HYDRO

ADM
SUR
COUN
SEC
FILE
RETURN

No more approvals until "Bruno" is satisfied — RSH 8/18/81

To many deviations

CITY OF ALBUQUERQUE

ALBUQUERQUE, NEW MEXICO

INTER-OFFICE CORRESPONDENCE August 19, 1981 REF. NO._____

TO: Charles M. Easterling, Principal Assistant City Engineer/Hydrology

FROM: Bruno Conegliano, Assistant Hydrology Engineer

SUBJECT: EL RANCHO ATRISCO - UNIT 8

While I appreciate the recognition of Mr. Heller, I must respectfully decline the responsibility that rightfully belongs to the Principal Assistant City Engineer/Hydrology. In regard to the "temporary" interceptor channel, along the west property line of this subdivision, I would also like to point out that, over time, we have observed that these "temporary" facilities tend to become permanent.

I believe that the mentioned channel is not in a dedicated drainage easement. Therefore, provisions for an ultimate method of handling the significant flow anticipated (86 cfs) should be provided within the context of the development of "El Rancho Atriso Phase III." These provisions should be acceptable to the City; the developer, Candlelight Homes, should also supply a binding commitment for the restoration of the natural conditions when the ultimate facilities are in force. For your benefit, I am attaching an attractive page of engineering poetry, included in El Rancho Atrisco Area Plan prepared by Trinity Enterprises, to be compared with the actual design submitted by Mr. Bo Johnson for the interceptor channel.

BC:gc
8083A
cc f/Reading

Developed Arroyo - Open Space Concept

It is rare that any city has an opportunity to deal with a single large landowner on the periphery of its boundary and in the path of logical development. That is what the City of Albuquerque has on its western limits. Not only does the landowner control a very large tract of land, but the property is almost contiguous to the only major vehicular ingress from the west. A slope to the east exposes the alluvial fan to view from the highway. The development of this large area of Albuquerque will prove to be the "window to the city".

Perhaps more important than providing a pleasing entrance to the city are the land use coordination opportunities afforded when a single owner embarks upon the development of such a tract of land. With proper planning and budgeting, it would be appropriate to expect the arroyos to be used for other open space functions in addition to discharging storm water.

The most useful and practical additional use for the arroyo is the public park. In some existing examples of this dual "linear park drainage system", the park has almost become the primary use of the land. Park users may rarely be aware of the park's main purpose.

In viewing the arroyo patterns across this 3,300-acre tract, it is ineveitable to note that the arroyos provide major definition of boundaries of land use and open space. To neglect this openness, to concrete line and chain link the primary drainage ways, would be to relegate this addition to the city to the usual drab concrete, asphalt, and rooftop scene so prevalent in the growing periphery of major cities in the country. Green bands of grass dotted with recreational equipment (as well as natural drainage facilities) would lend a significant difference to the final character of this tract as well as to the city.

These are examples of this multi-use drainage facility in other cities as well as in Albuquerque, the most notable being the linear park at Layton Street and Eubank Boulevard at Juan Tabo Boulevard.

As with any park, the maintenace must be included as a cost. Considering the cost/benefit ratio, it would seem advantageous and desirous to include a number of limited sections of grassed linear parks (with possibly a low-flow channel) in this large tract. These sections could be ideally placed in areas of high visibility to the public.

A number of possible sections are shown on the following pages with some of the key parameters noted.

The channels should be lift in their natural state. The natural bottom widths and side slopes provide a mature floodway. Design guidelines for wide, soft-bottmed channels with side riprap as required for lateral stabilization, are currently being developed by AMAFCA. Significantly, this design is based upon dynamic equilibrium of the bed, not absolute stability. Again, such a design can best be implemented where the landowner is willing to allow a wide (say 200 feet) drainage easement. This would be recommended for a very large part of the arroyo reaches on this project.

Stabilization of natural arroyos could be done with soil cement construction on the side slopes of the channels, allowing the bottom to scour and fill in with sediment as the velocities dictate. The side slopes would remain highly nonerosive up to high velocities.

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

October 21,1981

Andre Houle
Trinity Enterprises
3107 Eubank Blvd. N.E.
Albuquerque, N.M. 87111

RE: GRADING - DRAINAGE PLAN FOR UNIT 8, EL RANCHO ATRISCO

Dear Mr. Houle:

The revised grading plan still contains inconsistencies or, at least, indicates proposed elevations that cannot be supplied without structural measures. As an example, I wish to refer you to the grading plan for lots 39, 40 and 41 (revised sheet 3 of 13). On the property line between lots 39 and 40, the proposed elevation of 28.2 ft. is shown; the pad elevation for lot 39 is given at 31.1 ft. Since there are only 5 ft. in horizontal distance between the pad and the property line, the slope on the side of the lot is 1:1.72. Similarly, the slope between the pad of lot 40 and the property line separating this lot from lot 41 is 1:1.85.

Similar conditions are recognized between lots 14 and 15, 26 and 27, etc. As a further example, if the pond of lot 16 is at the indicated elevation of 31.0 ft., the elevation of the northwest property line must be 31.5 ft. Given a pond bottom elevation of 26.5 ft. for the adjacent lot 15, and the indicated 5:1 side slopes, the pond on lot 15 must be located at 25 ft. from the property line. Overall, the indication on the grading plan is that the runoff from the individual lots will not be confined to the lots themselves; if the intent of the plan is to use common swales between the lots, this intent is not met by the grading shown.

Field inspections indicate that houses have already been built on the mentioned lots 39, 40 and 41 and on Lot 6; thus it is going to be impossible to perform any type of remedial action. These unsatisfactory conditions are likely to result in the obliteration of the ponds in a very short order, after the houses are sold. The significant slope in the backyard of lot 39 for instance, will prompt the owners to perform modification to allow them to use their property, to the obvious detriment of the overall drainage plan.

The mentioned field inspection indicates that the grading performed to date does not contain the runoff on the lots but water flows from lot to lot and is ultimately conveyed to Ouray Rd. Without significant adjustments to the utilities along the southeast property line, the proposed grading plan cannot be executed nor can the swale and sedimentation pond be constructed.

Substantial erosion (more than 2 ft.),has taken place at the confluence of the northwest swale with the channel at the north of Ouray Rd.; this condition indicates that significant runoff was collected by this facility during the past storm season. Therefore, the City's need to receive acceptable plans for the ultimate treatment of these channels is here restated. Acceptance of the subdivision will not be granted, without provision of structural measures to control water velocity and channel degradation. The City cannot be satisfied if significant siltation of the culvert under Ronda de LaChuga Dr. can reduce its effectiveness or if undue conveyance of sediment to the golf course is anticipated.

Finally, your request that the provision of the ultimate channel improvements be deferred, provided that the Western Holding Company supplies the City a maintenance agreement, is not acceptable. A bond sufficient to cover the cost of the construction must be supplied in view of the unacceptable performance on prior commitments.

Very truly yours,

Richard S Heller

Richard S. Heller
City Engineer

RSH/CME/tsl

8598A