



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

August 30, 1994

Scanned
8/25/14
SEP 2 1994

REVISED

CERTIFICATE OF COMPLETION AND ACCEPTANCE

Tony Sciarrillo
Sandia Properties, Ltd, Co.
#10 Tramway Loop N.E.
Albuquerque, NM 87122

RE: PROJECT NO. 4725.80 LAS TERRAZAS SUBDIVISION PHASE I
(MAP NO. C-12)

Dear Mr. Sciarrillo:

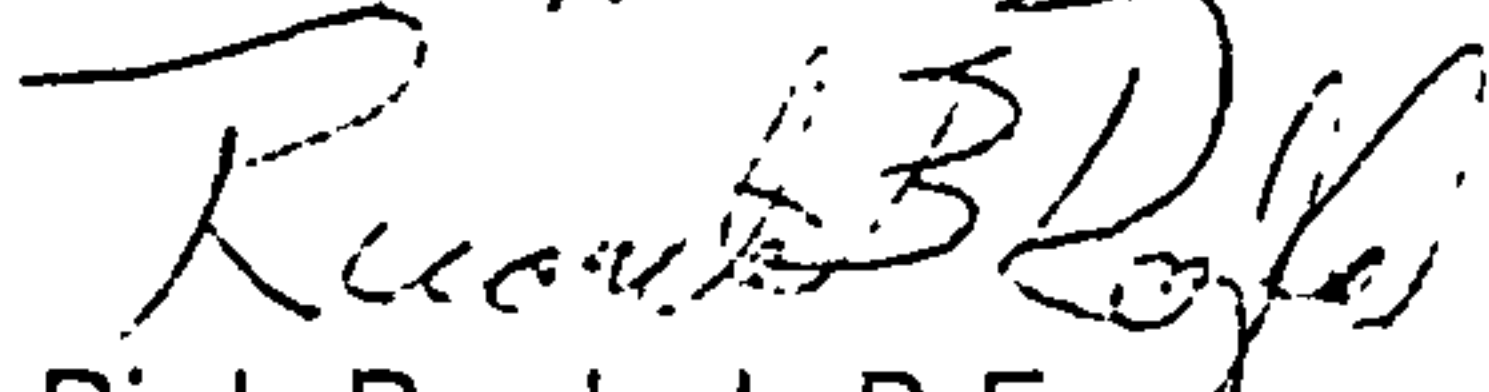
This is to certify that the City of Albuquerque accepts Project No. 4725.80 as being completed according to approved plans and construction specifications. Please be advised this certificate of completion and acceptance shall only become effective upon final plat approval and filing in the office of the Bernalillo County Clerk's Office.

The project is described as follows:

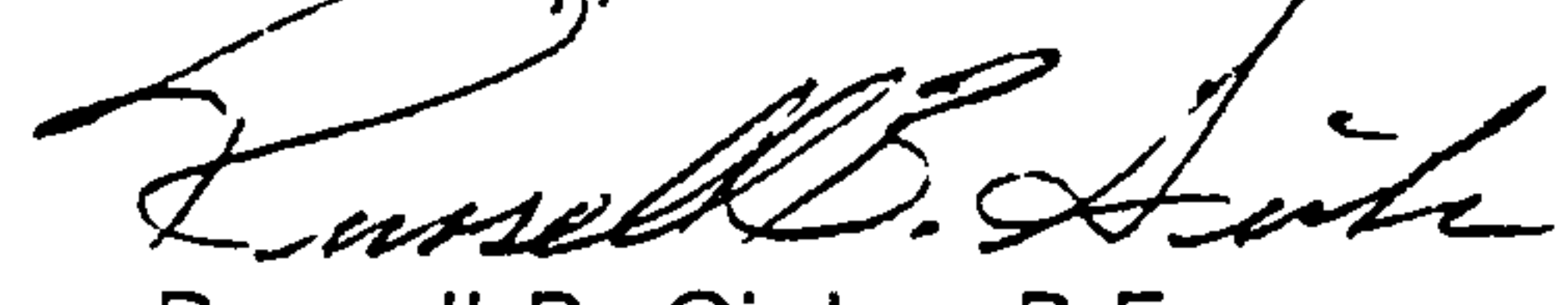
- This project involved installation of sanitary sewer lines, drain lines, water lines and appurtenances, subgrade and paving for all the interior access streets as per plans. This area is situated see the south quadrant of Paseo Del Norte and Golf Course Road N.W. The external paving and sidewalks were accepted as part of Project No. 4725.84.

The contractor's correction period began on March 24, 1994, and will be effective for a period of one (1) year.

Sincerely,


Rick Roybal, P.E.
City Engineer,
Engineering Group
Public Works Department

Sincerely,


Russell B. Givler, P.E.
Chief Construction Engineer,
Engineering Group
Public Works Department



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 6, 1994

CERTIFICATE OF COMPLETION AND ACCEPTANCE

Tony Sciarrillo
Sandia Properties, Ltd, Co.
#10 Tramway Loop N.E.
Albuquerque, NM 87122

**RE: PROJECT NO. 4725.84 LAS TERRAZAS SUBDIVISION PHASE II
(MAP NO. C-12)**

Dear Mr. Sciarrillo:

This is to certify that the City of Albuquerque accepts Project No. 4725.84 as being completed according to approved plans and construction specifications. Please be advised this certificate of completion and acceptance shall only become effective upon final plat approval and filing in the office of the Bernalillo County Clerk's Office.

The project is described as follows:

- The project consisted of the installation of 8" PVC storm drain on Calle Primera, Vista De Paseo Road., Vista Verde Place, Rio Verde Place. Also installed twelve 4' sewer services to service 96 lots on the above reference streets.
- Constructed one catch basin on Paseo Del Norte and 40' of 18" RCP III was placed from catch basin to an existing manhole storm drain on Paseo Del Norte.
- Installed ten inch water line on Rancho Sereno Road NW, one 10" gate valve, 4" and 6" water lines along with five 6" gate valves, four fire hydrants, and 3/4" single and 3/4" double water service line were also placed in above referenced subdivision. Also installed two stubouts and a 10" gate valve from the 10" waterline in Rancho Sereno Drive.
- Residential paving was placed within subdivision and on Rancho Sereno Drive to pt sta. 10+85.79-49.63 RT Vista De Paseo Road. Arterial Paving section was placed on remainder of Rancho Sereno. On Paseo Del Norte (Golf Course to Rancho Sereno) Temporary paving was

Ltr Tony Sciarrillo
July 6, 1994
Project No. 4725.84
Page 2

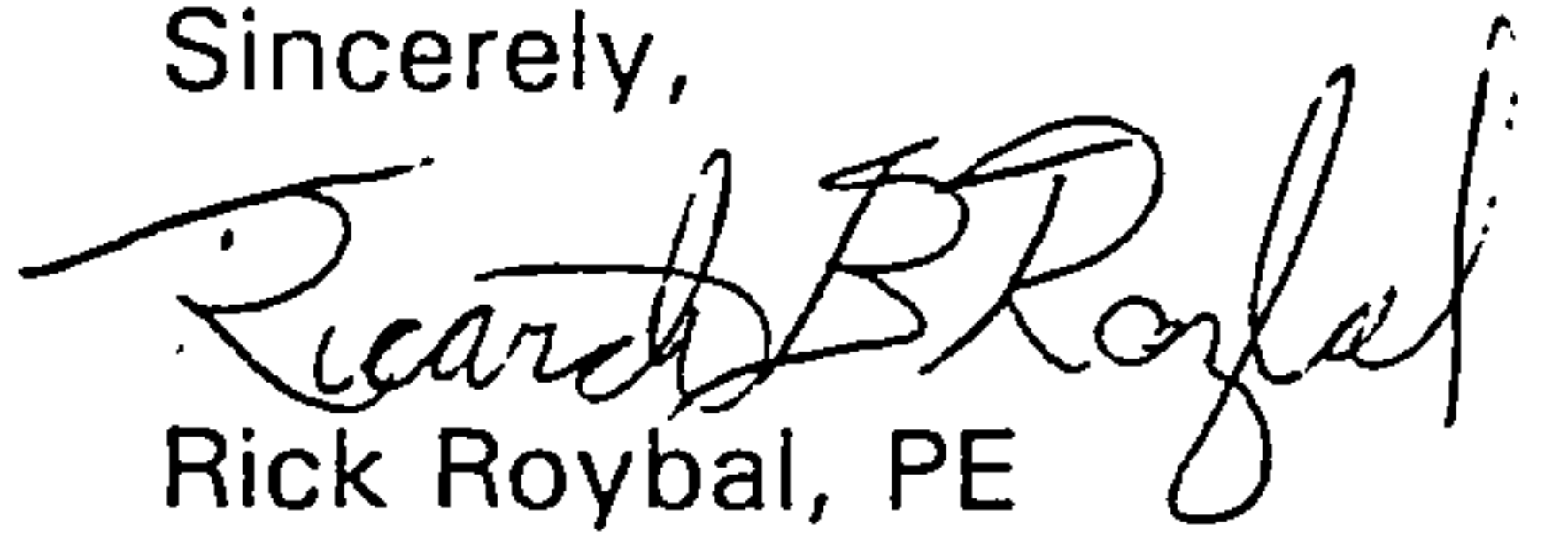
installed from sta. 20 + 23 to EO at sta. 24 + 50.87 on Paseo Del Norte.

- Standard curb and gutter was installed with in subdivision, west side of Rancho Sereno, and south side of Paseo Del Norte. Sidewalk was installed on Rancho Sereno and on Paseo Del Norte. Wheelchair ramps were installed through-out subdivision, Median curb and gutter was placed with median pavement and 4" CLR, PCC on Vista De Paseo Road.


All of the above work is shown on the as-built drawings 4725.84 at the City of Albuquerque.

The contractor's correction period begins the date of this letter and will be effective for a period of one (1) year.

Sincerely,


Rick Roybal, PE
City Engineer,
Engineering Group
Public Works Department

Sincerely,

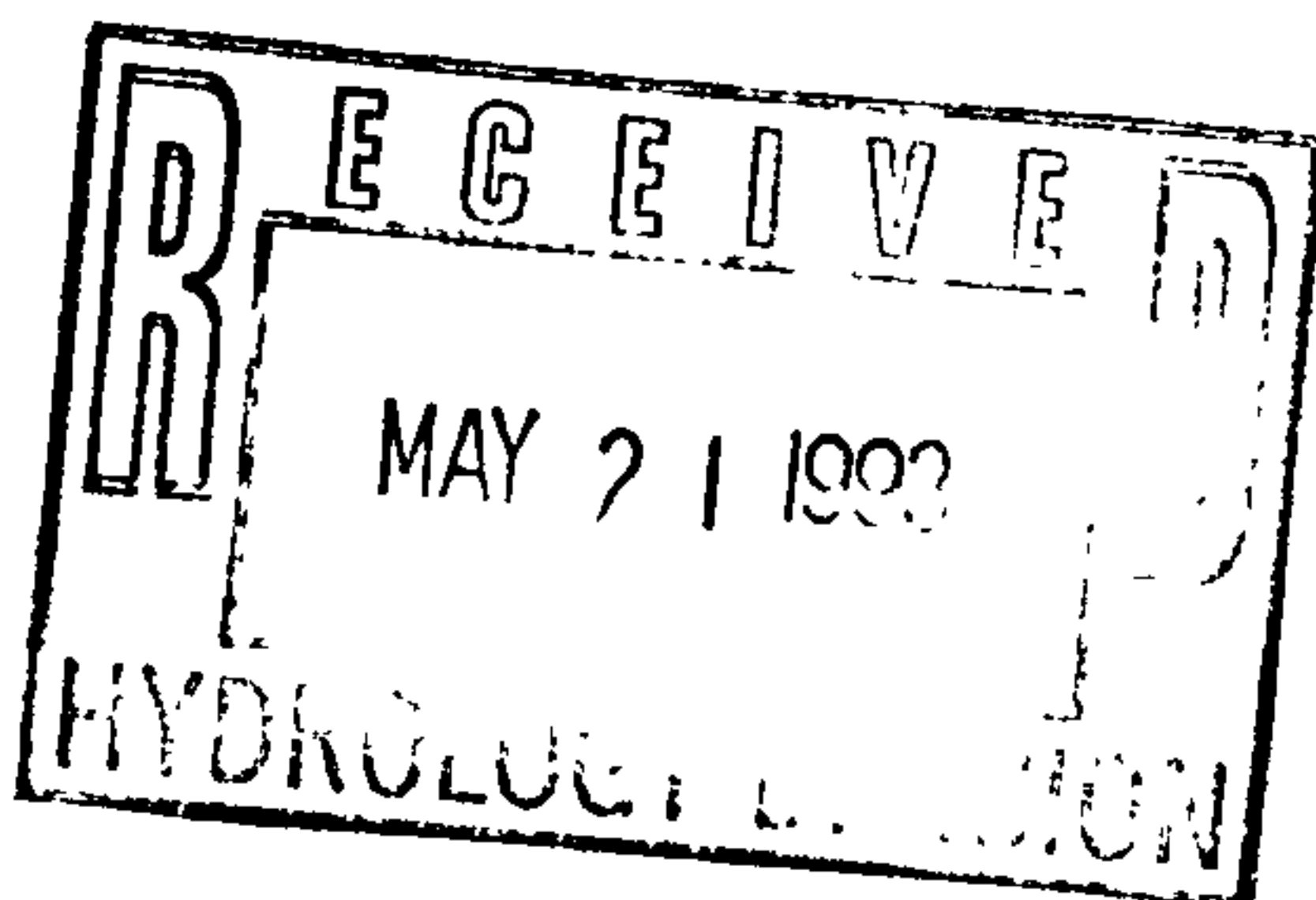

Russell B. Givler, PE
Chief Construction Engineer,
Engineering Group
Public Works Department

DRAINAGE REPORT
FOR
Las Terrazas Subdivision

Prepared for:

Alvarado Realty
10 Tramway Loop NE
Albuquerque, NM 87122

April 1993



4-22-93
5-14-93
5-20-93

PURPOSE

The purpose of this report is to present the drainage management plan for the Las Terrazas Subdivision to obtain final plat and work order approval. All applicable ordinances and the DPM were utilized to prepare this plan.

EXISTING CONDITIONS

The project comprises an area of 44.9619 acres at the southeast corner of Paseo del Norte and Golf Course Road. (See attached Vicinity Map, page 2.)

The site (aka Riverview Parcel, H-10) is moderately sloped at 5 percent with 2 shelves that drop from 6 to 10 feet. The site slopes to the south and drains overland to the main branch of the Piedras Marcadas Arroyo.

HYDROLOGIC ANALYSIS

Hydrologic aspects of this site were evaluated using AMAFCA's AHYMO program according to guidelines presented in the City of Albuquerque's DPM, Section 22.2 (January 1993). All of the pertinent hydrologic parameters and calculations are located in the calculations of this report.

Care needs to be taken along Golf Course Road because of a history of flooding. The flooding is caused by the inlet at the intersection of Paseo del Norte and Golf Course Road being blocked and the 600 cfs running down the roadway. The analysis of this problem will be done according to an agreement with AMAFCA (see Sheets 4 & 5). Until the study and analysis is completed a financial guarantee will be submitted to continue the project approval process.

PROPOSED MANAGEMENT PLAN

As a developed site, this plan proposes to discharge stormwater runoff at one (1) location, the proposed Riverview Stormdrain. The site will discharge 105.68 cfs via a series of on-site catch basins and stormdrain system directly into the Riverview Stormdrain. (See Drainage Map, page 3.)

Since the site slopes away from the two (2) main roads, all flows will be taken by the interior and perimeter roads, leaving no chance of flow going onto adjacent properties. (See Grading Plan maps prepared by Tierra West Development Management Services.)

DESIGN OF RIVERVIEW STORMDRAIN

The Riverview area drains in two different directions but the end result is the same -- all flows drain into the Piedras Marcada Arroyo to the south. (See attached Drainage Map, page 3.)

The existing stormdrain in Golf Course Road is not adequate to handle the developed flows from the Riverview area. Presently there are two catch basins on the north side of Paseo del Norte which pass the accumulated flows under the roadway to an outfall on the south side of Paseo del Norte through approximately 100LF of 48" RCP. This flow after forming a small ditch of its own flows overland south to the arroyo.

From the Drainage Map (page 3) you can see that half of two parcels drain to Golf Course Road along with flow from the north west corner of Paradise Boulevard and Golf Course Road. With current topography and without spending an extreme amount of money these flows will remain part of the Golf Course Road Stormdrain.

The following table indicates the parcels which drain into the Riverview Stormdrain south of Paseo del Norte and their areas:

<u>Parcel No.</u>	<u>Area (AC)</u>
H-10	44.96
H-17B	<u>17.12</u>
TOTAL	62.08

Only H-10 (Las Terrazas Subdivision) is under design and it will be assumed for design purposes of the stormdrain that all parameters used to obtain the flows for H-10 will also be used for H-17B. (See sheet 1 of calculations.)

Note that parcel H-11 does not drain into the stormdrain but directly into the Piedras Marcada Dam.

To accomodate the flows from the north side of Paseo del Norte it will require realignment of the 48" RCP to the existing 50' drainage easement (see attached Drainage Map, page 3). This existing flow will follow its proper route to an existing desilting pond which is in the route of the easement and then to the Piedras Marcada Dam.

To minimize discharge points to the Piedras Marcada Dam the master plan shows routing through a temporary easement within Tract H-11. The final collection and routing to the Piedra Marcada Dam is the responsibility of the owner of Tract H-11.

The stormdrain will consist of 36" and 48" RCP at various slopes from the southern corner of Las Terrazas to the Piedras Marcada Arroyo. The stormdrain will carry 106 cfs from Las Terrazas for 300 LF where the flow from H-17B will combine for 146 cfs and continue for approximately 140 LF to the arroyo. (See sheets 4-7 of the calculations.) The flow will enter the arroyo through a concrete headwall and spillway which will be coordinated with Bohannon-Huston.

See attached letter, Sheets 8 & 9, for financial responsiblity of final 140 LF of stormdrain and Piedras Marcada Channel construction.

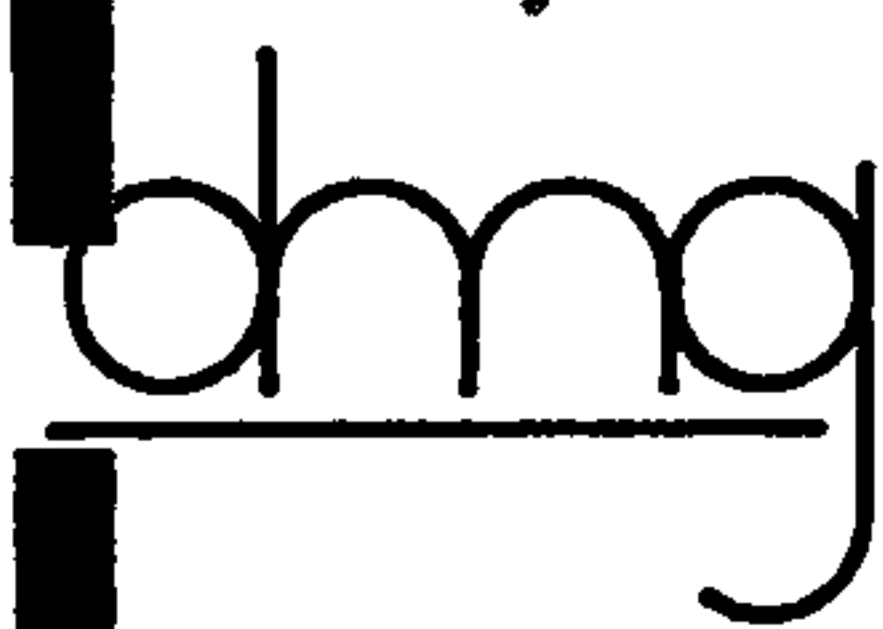
INTERIM EROSION CONTROL

Due to the sensitive nature of the sandy soils associated with this site, an Erosion Control Plan is part of this report and project.

The plan centers on the fact that storm waters will not be allowed free discharge during the construction process until all street paving is accomplished.

CONCLUSIONS

The proposed Las Terrazas Subdivision, comprising 193 lots on 44.9619 acres, can be readily accommodated through the implementation of this plan. It has been adequately shown in this report that the other off-site conveyance systems are adequate and, indeed, were masterplanned with this project in mind. It has also been shown in this report that the internal conveyance of stormwater can be accomplished while meeting all current City requirements.



D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS

PROJECT LAS Terrazas
SUBJECT Drainage Calcs
BY GSK DATE 4-13-93
CHECKED _____ DATE _____

SHEET 1 OF _____

REVISED 5/20/93

- TOTAL AREA = 44,961.9 ACRES
- PRECIPITATION ZONE 1
- P FOR 100 yr 6 hr storm = 2.20 inches
- LAND TREATMENTS WILL BE TYPES B, C + D
- PERCENT IMPERVIOUS

$$\begin{aligned} & \sqrt{(N \times N) + (S \times N)} \\ & = \sqrt{(9.29)^2 + (5 \times 4.29)} \\ & = 10.19 \end{aligned}$$

N = UNITS/ACRE

$$= 193 / 44,961.9 = 4.29$$

- TREATMENT B
LUNGS = 27.905%

- TREATMENT C
GRAVEL = 27.905%

- Time of Concentration = 12 min

- P 100 1 hr = 1.87 inches

- P 100 24 hr = 2.66 inches

$$\begin{aligned} C_p &= (0.7 \cdot T_c) + 8 - (5 \times A_0/A_T) \\ &= 0.7(12) + 8 - (5 \times 4419) \\ &= 14.19 \text{ min} \\ &= 0.2365 \text{ hr} \end{aligned}$$

FROM ATTACHED HYMO RUN (SHEETS 2+3)

$$Q_p = 105.68 \text{ CFS}$$

$$\begin{aligned} \text{Volume} &= 4,9597 \text{ ACRE-FEET} \\ &= 216,045 \text{ CF} \end{aligned}$$

Scanned
8/25/14



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 19, 1994

Ronald R. Bohannon, P.E.
Tierra West Dev. Mgmt Ser.
4600 Montgomery NE, Suite #3
Albuquerque, N.M. 87109

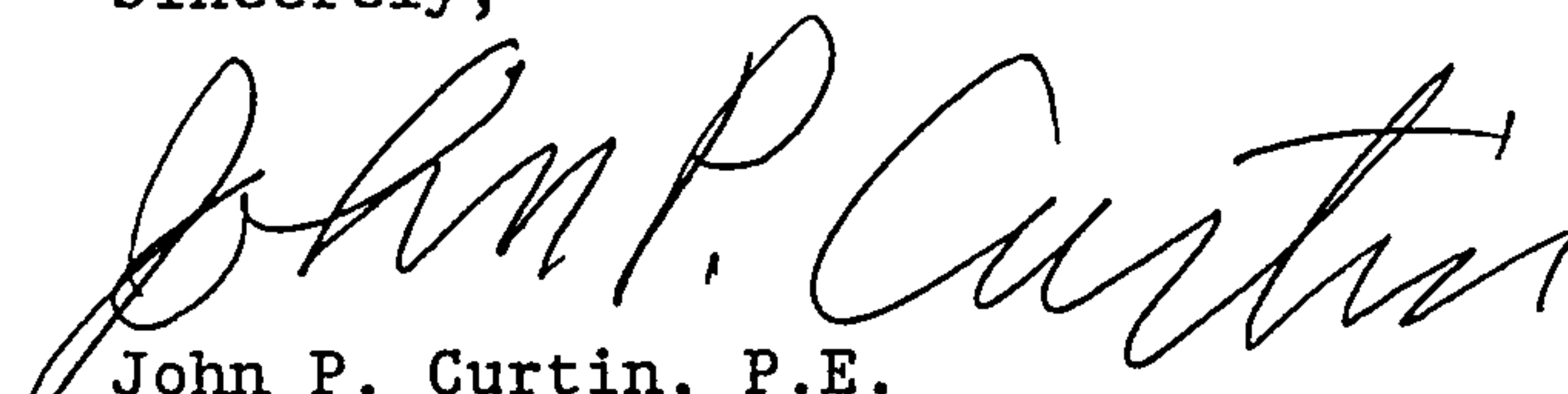
RE: ENGINEER'S CERTIFICATION FOR LAS TERRAZAS PHASE I (C-12/D1P)
RECEIVED APRIL 14, 1994 FOR FINANCIAL GUARANTY RELEASE
ENGINEER'S STAMP DATED 4-12-94

Dear Mr. Bohannon:

Based on the information included in the submittal referenced above, City Hydrology releases the Financial Guaranty for this Project.

If I can be of further assistance, You may contact me at 768-2727.

Sincerely,


John P. Curtin, P.E.
Civil Engineer/Hydrology

c: Lynda-Michelle DeVanti, Project No. 4725.90

WPHYD/7748/jpc



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 25, 1994

Ronald R. Bohannon, P.E.
Tierra West Dev. Mgmt Ser.
4600 Montgomery NE, Suite #3
Albuquerque, N.M. 87109

RE: ENGINEER'S CERTIFICATION FOR LAS TERRAZAS PHASE II (C-12/D1P)
RECEIVED JULY 21, 1994 FOR FINANCIAL GUARANTY RELEASE
ENGINEER'S STAMP DATED 7-21-94

Dear Mr. Bohannon:

Based on the information included in the submittal referenced above, City Hydrology accepts the Engineer's Certification of grading & drainage and releases the Financial Guaranty for City Project # 4725.91.

If I can be of further assistance. You may contact me at 768-2727.

Sincerely,

John P. Curtin, P.E.
Civil Engineer/Hydrology

c: Lynda-Michelle DeVanti

WPHYD/7748/jpc