

Public Works Department

April 16, 1997

Martin J. Chávez, Mayor

Robert E. Gurulé, Director

CERTIFICATION OF COMPLETION AND ACCEPTANCE

George F. Phillipson
Vice President
Sivage Thomas Homes, Inc.
5141 Masthead NE
Albuquerque, NM 87109

RE: RICHLAND HILLS UNIT 3; CITY PROJECT NO. 4878.86; MAP NO. C-12

Dear Mr. Phillipson:

This is to certify that the City of Albuquerque accepts the construction of the infrastructure provided in the Work Order Construction Plans, City Project No. 4878.92 as compliance with completing the required public infrastructure listed in the Subdivision Improvements Agreement (SIA) Sivage Thomas Homes, Inc. and the City of Albuquerque executed on May 12, 1995.

Having satisfied the requirements referenced above, the SIA and any associated Financial Guaranty, held by the City, can now be released. The Contractors one-year warranty period started at the date of acceptance by the Chief Construction Engineer, dated April 9, 1997.

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.

Should you have any questions or issues regarding this project, please contact me.

Sincerely,

Ricardo B. Roybal, P.E.

City Engineer
Dev. & Bld. Services Div.
Public Works Department

Good for You, Albuquerque!





City of Albuquerque

P. O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103
PUBLIC WORKS-DEPARTMENT

April 9, 1997

CERTIFICATE OF WORK ORDER COMPLETION

Sivage Thomas Homes, Inc.
5141 Masthead N.E.
Albuquerque, NM 87109

RE: RICHLAND HILLS PHASE III (MAP NO. C-12), PROJECT NO. 4878.92

Dear Sir:

This is to certify that the City of Albuquerque accepts Project No. 4878.92 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:

On-site

- Sanitary sewer improvements using gravity flow system.
- Potable water distribution system improvements.
- Storm drain improvements for the interior streets, collecting runoff by drop inlets and transporting the runoff by underground pipe to the COA storm drain system recently constructed in Golf Course Road.
- Asphalt concrete streets, Portland Cement Concrete curbs and gutters.
- A 10' Bike Trail was installed on the east side of Golf Course Road.
- On the north side of Paseo del Norte a 6' sidewalk was built.

Off-site

- Pavement improvements within both Paseo del Norte and Golf Course Road, NW.



Public Works Department

Martin J. Chávez, Mayor

Robert E. Gurulé, Director

April 8, 1997

Ellery A. Biathrow Jr. PE
Sivage Thomas Homes, Inc.
Albuquerque, New Mexico 87109

RE: REVISED ENGINEER'S CERTIFICATION FOR RICHLAND HILLS, UNIT3
(C12-D6A) ENGINEER'S STATEMENT DATED 2/26/97 FINANCIAL
GUARANTEE RELEASE

Dear Mr. Biathrow Jr.:

Based on the information provided on your April 2, 1997 resubmittal, Engineer Certification for the above referenced site is acceptable for Engineer Certification and Financial Guarantee release

If I can be of further assistance, please feel free to contact me at 924-3986.

C: Andrew Garcia

File

Sincerely

Bernie J. Montoya CE
Engineering Associate.

Good for You, Albuquerque!





Martin J. Chávez, Mayor

Robert E. Gurulé, Director

March 19, 1997

CERTIFICATION OF COMPLETION AND ACCEPTANCE

Bill Mueller
Manager, Land Development Division
Sivage-Thomas Homes, Inc.
5141 Masthead Street, NE
Albuquerque, NM 87109

RE: RICHLAND HILLS PHASE II, CITY PROJECT NO. 4878.83 MAP NO. C-12

Dear Mr. Mueller:

This is to certify that the City of Albuquerque accepts the construction of the infrastructure provided in the Work Order Construction Plans, City Project No. 4878.91 as compliance with completing the required public infrastructure listed in the Subdivision Improvements Agreement (SIA) Sivage-Thomas Homes, Inc. and the City of Albuquerque executed on December 5, 1994.

At the time of the expiration deadline for this SIA all obligations for release had not been completed. On December 4, 1996 the City made Demand for Payment on the Bonds held as Financial Guaranty for the subject project. Since that time, Sivage-Thomas Homes, Inc., Principal under the bond, satisfactorily performed all of the required obligations and on December 6, 1996 the City withdrew its Demand for Payment (see attached letter).

Having satisfied the requirements referenced above, the SIA and any associated Financial Guaranty, held by the City, can now be released. The Contractors one-year warranty period started at the date of acceptance by the Chief Construction Engineer, dated December 6, 1996.

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.

Good for You, Albuquerque!

P.O. Box 1293, Albuquerque, New Mexico 87103



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APPENDICES

APPENDIX A - AHYMO SUMMARY AND DETAILED OUTPUT
APPENDIX B - HYDRAULIC CALCULATIONS

I. PURPOSE AND SCOPE

Sivage Thomas Homes, Inc. is currently planning for the development of Richland Hills Units #2 and #3. The proposed development consists of approximately 36.6 acres and is to be subdivided into 149 single family residences.

This report presents an overall Drainage Management and Conceptual Grading Plan for approval by the City of Albuquerque in order that subsequent subdivision and development may commence.

II. SITE DESCRIPTION AND HISTORY

Richland Hills Units #2 and #3 is a portion of Riverview, Parcel H-3, H-4 and H-5, located north of Paseo Del Norte, east of Golf Course Rd., south of the 105.69' U.N.M. land and the Paradise Valley Tract 5 and westerly of Richland Hills Unit #1 (ALTA/ASCM suvey).

The site slopes to the south and west with an average slope of approximately 4%. The soil is fine silty sand classified as type "A" hydraulic group soils. The Alta Survey shows floodplain going through this proposed development as reflected on F.I.R.M. Community Panel No. 350002-0008, effective October 14, 1983. The developer has executed an agreement with AMAFCA which stipulates the amount of funds to be contributed on the part of the developer directly to AMAFCA. In consideration thereof, the floodplain is to be removed from this property by AMAFCA's construction of a storm sewer in Golf Course Rd. AMAFCA will also be responsible for F.E.M.A. approvals associated with the storm drain project. Further details of that agreement must be obtained either from the Developer or AMAFCA.

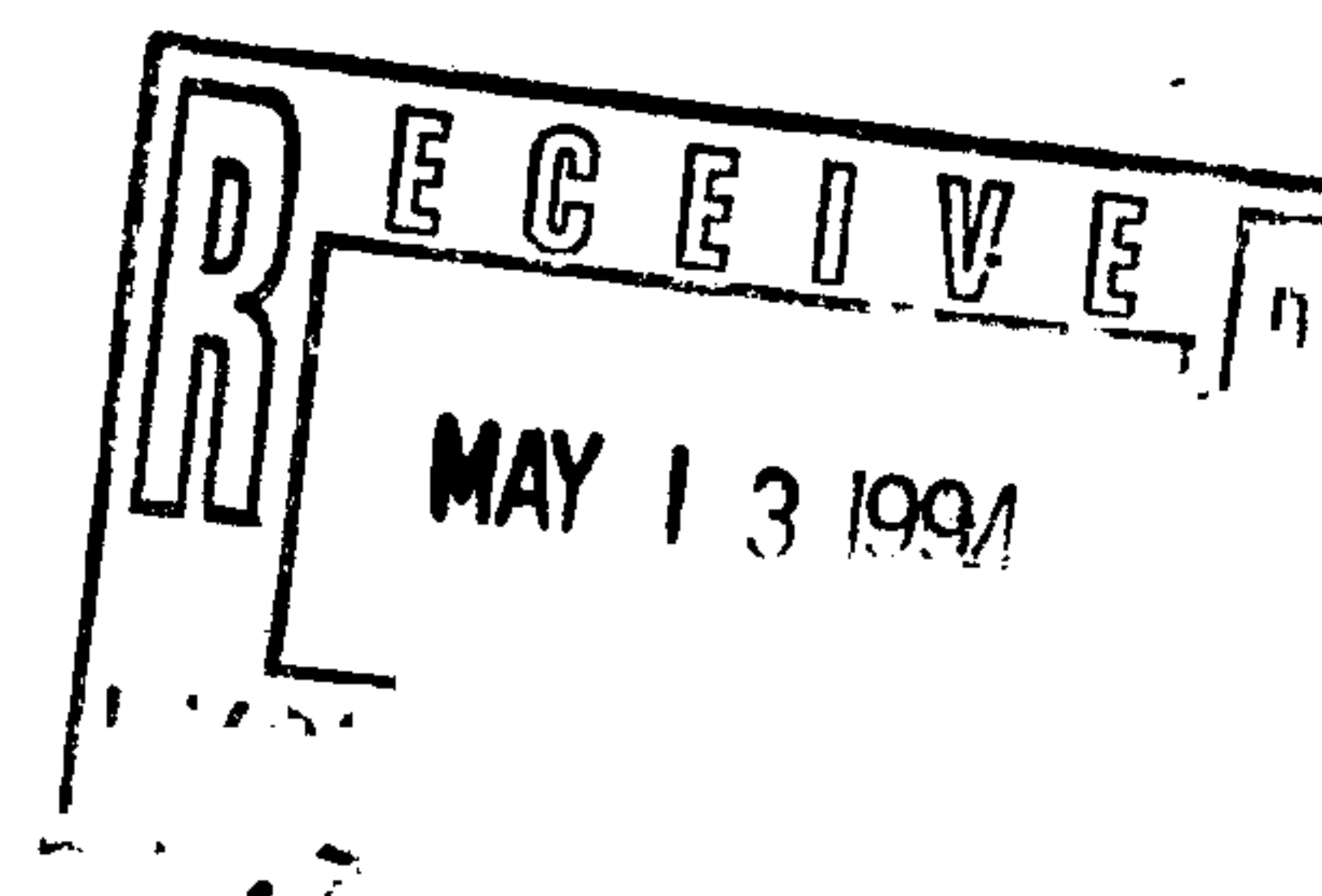
Previous drainage studies for this area were conducted by Community Sciences Corporation for Riverview sector development plan, Plate 5. This plate was a base for drainage study of Richland Hills project.

III. DESIGN CRITERIA

A. Flood Control Regulations

The drainage plan presented in this report has been designed to comply with AMAFCA resolution 80-15, which requires that proposed land development projects be designed such that no flooding of private properties will occur during any storm up to and including the 100-year frequency event. Additionally, this drainage plan has been designed to comply with current "City of Albuquerque Drainage Ordinance" and Chapter 22 of the Development Process Manual (DPM), and subsequently adopted general policies of the City of Albuquerque.

1. 100-year storm
 - a. Stormwater flow depth not to exceed the top of curb in any street.
 - b. Jump depth to be contained within right-of-way.
2. 10-year storm:
 - a. Local street - velocity times depth less than 6.5



B. Engineering Parameters

In accordance with AMAFCA criteria, all hydrological analysis is based on the 100-year frequency, 6-hour duration storm, as represented in Section 22.2, Hydrology, of the "Development Process Manual, Volume 2, Design Criteria for the City of Albuquerque, New Mexico, January 1993".

Ten-year, 6-hour values were also used for subcatchments, in accordance with City drainage policies regarding street flow.

The four rainfalls pertinent to the study are as follows:

	<u>10-Year</u>	<u>100-Year</u>
One-Hour	<u>1.27 "</u>	<u>1.9 "</u>
Six-Hour	<u>1.48 "</u>	<u>2.22 "</u>

IV. COMPUTATIONAL PROCEDURES

The analysis approach follows standard engineering practice. Key points of confluence were selected and the associated individual and aggregate contributing basins were subsequently defined.

Hydrological computations were accomplished by means of the March 1992 version of AHYMO Computer Program as developed by AMAFCA. The input parameters and resulting flows for the basins are summarized on Table 1. Summary and detailed AHYMO printouts are contained in Appendix A.

Times of concentration were estimated using the Upland Method and then converted to times to peak (Lg), in accordance with the above referenced Section 22.2 which also establishes the minimum time of concentration as 12 minutes.

Flow characteristics for conveyance swales, channels, and streets were analyzed based on the Manning equation for uniform flow. Streets are assumed to have a 2% cross slope from lip of gutter to crown and a curb and gutter per City of Albuquerque Standard details. Finished grade at the right-of-way is 0.33' above top of curb.

V. OFF-SITE DRAINAGE

Basin 100A (portion of Paseo Del Norte) drains west to Golf Course Road. Basin 100C (portion of Golf Course Road) drains south to Richland Hills Road and then continues to join with basin 100B (portion of Golf Course Road) and thence drain to Paseo Del Norte. The proposed storm drain for Golf Course Road should provide inlets to intercept these flows.

VI. ON-SITE DRAINAGE

Basin 100, Claridge Court, drains to Ridgemont Ave. and thence east into Richland Hills Unit 1 (this basin was included in the Drainage Report for Richland Hills Unit 1 as Basin No. 120). Basin 101, Silvercrest Place, drains into Richland Hills Road and thence west (some minor flow from Richland Hills Unit 1 is part of Basin 101). Basin 101 flow and Basin 102, Springhill Drive/Rosecliff Ave., join in Richland Hills Road and flow west, combining with Basins 103 and

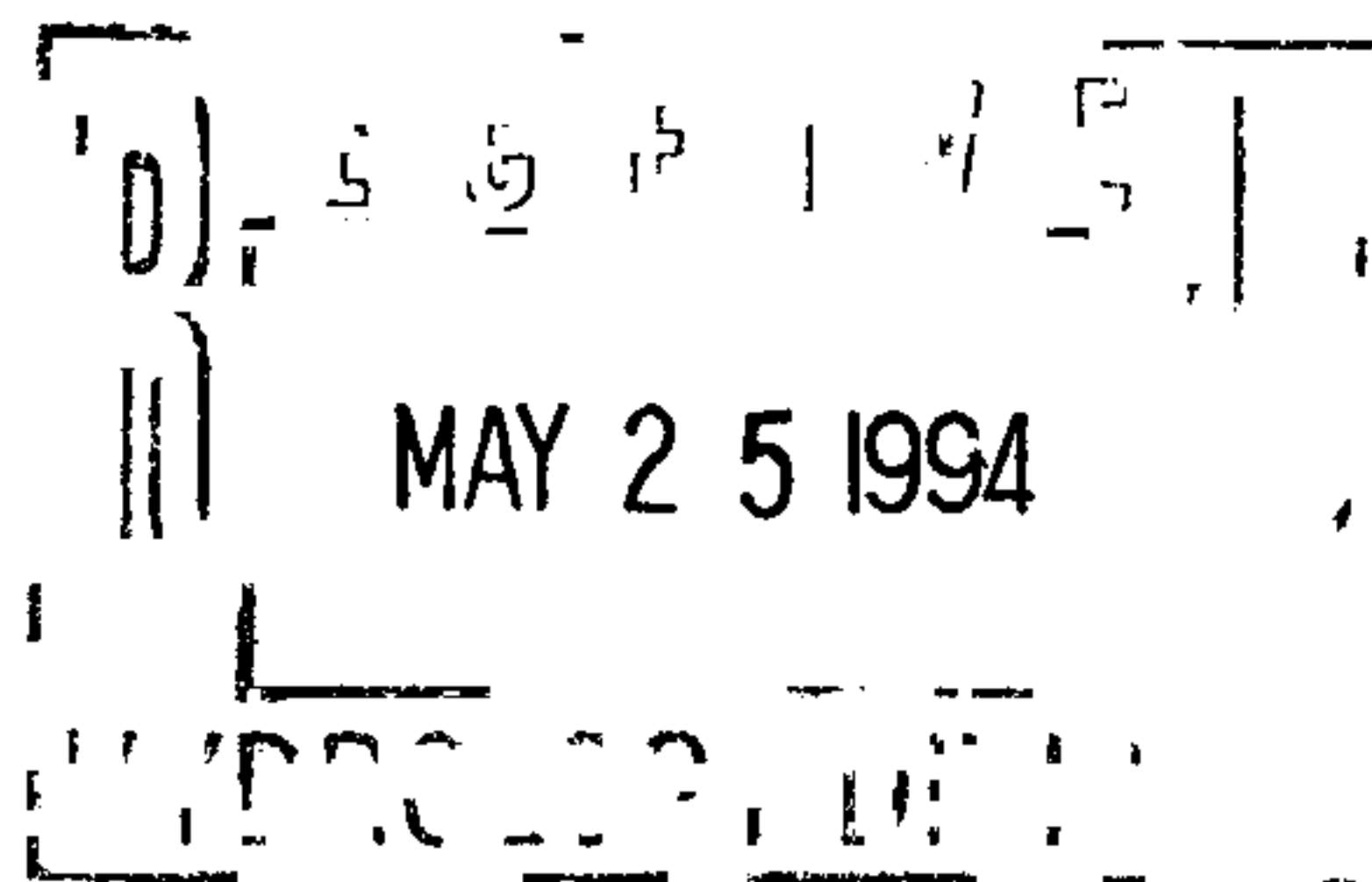
104 at the Breckenridge Drive intersection. Flow then proceeds south combining with Basin 105, Breckenridge Drive., by the Glencroft Ave. intersection. Basin 106, Timberridge Place, drains to Ridgemont Ave. and thence west and north combining with Basin 107 by the Glencroft Ave. intersection. At the Glencroft Ave./Breckenridge Drive intersection Basins 101 to 107 have combined. Inlets are proposed at this intersection to reduce the Q100 that will flow down Glencroft Ave. to the proposed sump point at the westerly end. Surface flow that goes down Glencroft Ave. combine with Basin 108. Basin 109, Montvale Ave./Woodcroft Drive, flows west and south to the sump point in Glencroft Ave. Basins 101 to 109 flows are all combined at the sump point, at the westerly end of Glencroft Ave. All flow will be picked up in inlets and conveyed via pipe to proposed Golf Course Road storm drain.

Basin 111, Westridge Place, drains south toward Richland Hills Road combining with Basin 112, Westridge Court, and Basin 113 and then flowing west in Richland Hills Road to Golf Course Road. All flow will be picked up by inlets prior to Golf Course Road and conveyed via pipe to the proposed Golf Course Road storm drain.

It is the intent of Sivage Thomas Homes, Inc. to complete the earthwork grading of units 2 and 3 concurrently and to phase construction of infrastructure improvements in two units. However, if Unit 2 is developed separately and apart from Unit 3, then drainage structures built at the corner of Golf Course Road and Paseo Del Norte per project No. 3875.90 will be in effect and Sivage Thomas Homes, Inc. will maintain these facilities until Unit 3 is built. There are no new requirements for interim drainage facilities to support final construction of Unit 2, Richland Hills. Attached is sheet No. 2 and No. 7 of project No. 3875.90 depicting the location and details of the special drop inlet manhole situated at Sta. 86 + 70.00, 70.19 RT. of Golf Course Road.

VII. EROSION CONTROL

Control of excessive soil erosion into City streets and drainage improvements during construction will be accomplished by use of temporary lot line, water-trap berms. These will be windrowed into place following mass grading operations and left in place until each home is constructed and sold. Plate 3 illustrates the dimensions of these berms, and they will be located along those boundaries of each lot which are common to City rights-of-way or public easements.





P.O. Box 1293, Albuquerque, NM 87103

December 6, 1996

Martin J. Chávez, Mayor

Ellery A Biathrow Jr, PE
Sivage Thomas Homes, Inc
5141 Masthead NE
Albuquerque, NM 87109

RE: ENGINEER'S CERTIFICATION FOR RICHLAND HILLS, UNIT 2 (C-12/D6A)
RECEIVED DECEMBER 6, 1996 FOR FINANCIAL GUARANTY RELEASE
ENGINEER'S STAMP DATED 12-06-96

Dear Mr. Biathrow:

Based on the information included in the submittal referenced above, City Hydrology accepts the engineer's certification for financial guaranty release.

Contact Terri Martin to obtain the Financial Guaranty Release for City Project 4878.91.

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

Sincerely,

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

c: Terri Martin, CPN 4878.91

Good for You, Albuquerque!





CITY OF
Albuquerque

P.O. Box 1293, Albuquerque, NM 87103

December 2, 1996

Martin J. Chávez, Mayor

Ellery A Biathrow Jr, PE
Sivage Thomas Homes, Inc
5141 Masthead NE
Albuquerque, NM 87109

**RE: ENGINEER'S CERTIFICATION FOR RICHLAND HILLS, UNIT 2 (C-12/D6A)
RECEIVED NOVEMBER 27, 1996 FOR FINANCIAL GUARANTY RELEASE
ENGINEER'S STAMP DATED Nov. 27, 1996**

Dear Mr. Biathrow:

Based on the information included in the submittal referenced above, City Hydrology has the following comments:

Submit a copy of the letter from James D. Hughes authorizing you to use his plan. Each sheet must be stamped, signed & dated by the Engineer making the Certification.

Provide as-built elevations along the streets and at the back of each lot. Indicate the as-built top & bottom of wall elevations at each retaining wall. Provide as-built bottom elevations for each rearyard pond.

If you have any questions about this project, You may contact me at 768-2727.

Sincerely,

A handwritten signature in black ink that reads "John P. Curtin".

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

c: Fred Aguirre, DRB 94-222

Good for You, Albuquerque!





City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

May 31, 1995

**James D. Hughes, PE
Community Sciences Corp
P.O.Box 1326
Corrales, NM 87048**

**RE: GRADING PLAN FOR RICHLAND HILLS, UNIT 3 (C-12/D~~X~~6A)
RECEIVED MAY 25, 1995 FOR FINAL PLAT
ENGINEER'S STAMP DATED 2-9-95**

Dear Mr. Hughes:

Based on the information included in the submittal referenced above, City Hydrology accepts the Grading Plan for Final Plat. Submit the Amended Grading Plan to DRB for their approval.

Engineer's Certification of grading & drainage per DPM checklist must be accepted by City Hydrology before the Financial Guaranty will be released for City Project Number 4878.92.

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

Sincerely,

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

**c: Andrew Garcia
Fred Aguirre, DRB 94-222**