## CITY OF ALBUQUERQUE

Planning Department
Suzanne Lubar, Director



June 21, 2016

Scott McGee, PE Scott M. McGee PE, LLC 9700 Tanoan Dr. NE Albuquerque, NM 87111

RE: Albuquerque Christians Children's Home

5700 Winter Haven Rd NW Grading and Drainage Plan

Engineers Stamp Date 6/16/16 (E12D005)

Dear Mr. McGee,

Based upon the information provided in your submittal received 6/17/16, this plan is

approved for Building Permit.

PO Box 1293

Please attach a copy of this approved plan to the construction sets in the permitting process

prior to sign-off by Hydrology.

Albuquerque

Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will

be required.

Sincerely,

New Mexico 87103

If you have any questions, please contact me at 924-3986 or Rudy Rael at 924-3977.

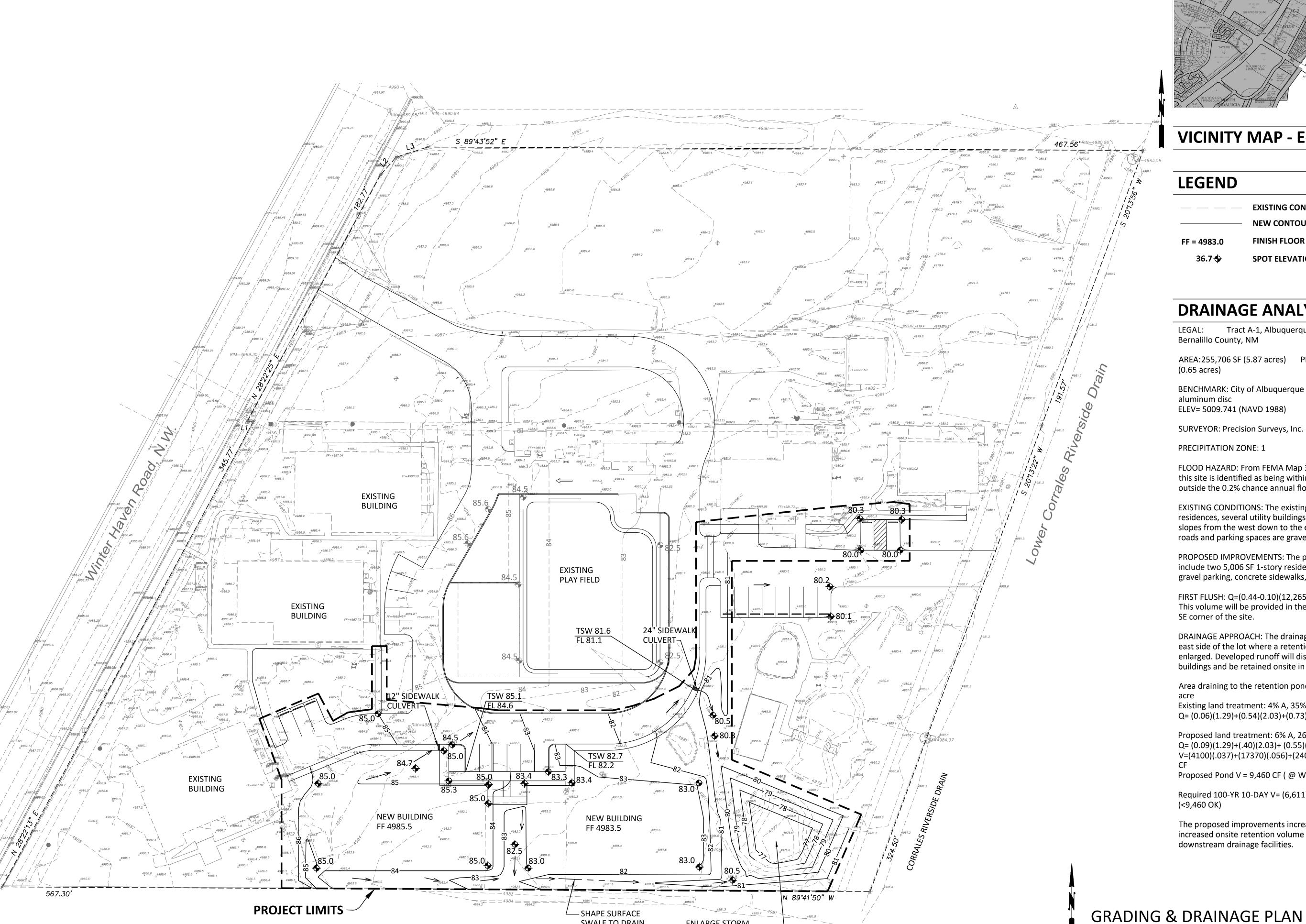
www.cabq.gov

Abiel Carrillo, P.E.

Principal Engineer, Hydrology

Planning Department

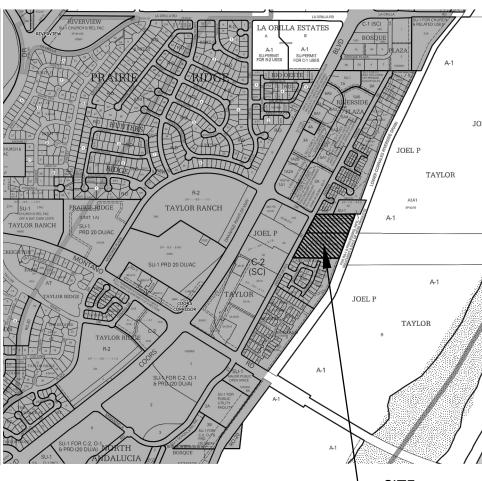
RR/AC C: File



SWALE TO DRAIN

**ENLARGE STORM** 

WATER STORAGE POND —



**VICINITY MAP - E-12** 

**EXISTING CONTOUR LINE NEW CONTOUR LINE** 

FINISH FLOOR ELEVATION

**SPOT ELEVATION** 

## **DRAINAGE ANALYSIS**

Tract A-1, Albuquerque Christian Children's Home Bernalillo County, NM

AREA:255,706 SF (5.87 acres) PROJECT LIMITS: 28,320 SF

BENCHMARK: City of Albuquerque Station '10\_E12' being an

SURVEYOR: Precision Surveys, Inc. dated July, 2014

FLOOD HAZARD: From FEMA Map 35001C0118G (dated 9/26/08) this site is identified as being within Zone 'X' which is located outside the 0.2% chance annual floodplain.

EXISTING CONDITIONS: The existing site is developed with 5 residences, several utility buildings, and a garage building. It slopes from the west down to the east at 1-2%. Existing access roads and parking spaces are gravel surfaced.

PROPOSED IMPROVEMENTS: The proposed improvements include two 5,006 SF 1-story residential buildings with associated gravel parking, concrete sidewalks, and landscaping.

FIRST FLUSH: Q=(0.44-0.10)(12,265)/12= 348 CF This volume will be provided in the retention pond located at the

DRAINAGE APPROACH: The drainage plan will direct flows to the east side of the lot where a retention pond is proposed to be enlarged. Developed runoff will discharge to the east of the new buildings and be retained onsite in the enlarged pond as shown.

Area draining to the retention pond (land treatment A) is 1.53

Existing land treatment: 4% A, 35% B, 48% C, & 13% D Q= (0.06)(1.29)+(0.54)(2.03)+(0.73)(2.87)+(0.20)(4.37)=4.1 CFS

Proposed land treatment: 6% A, 26% B, 36% C & 32% D Q= (0.09)(1.29)+(.40)(2.03)+ (0.55)(2.87)+(.49)(4.37)=4.6 CFS V=(4100)(.037)+(17370)(.056)+(24050)(.083)+(21280)(.164)=6,61

Proposed Pond V = 9,460 CF ( @ WSEL=4980.6)

Required 100-YR 10-DAY V= (6,611)+(21,280)(.1225) =9,218 CF

The proposed improvements increase site runoff, but with the increased onsite retention volume there won't be any impact to downstream drainage facilities.

**GRADING** and DRAINAGE PLAN

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TITLE OF SHEET

MARK DATE DESCRIPTION

MANAGEMENT BLOCK

MG1408\_C101.DW

PROJECT NO:

CAD DWG FILE:

DRAWN BY: CB

CHECKED BY: SMM

SHEET NUMBER

C101

SHEET 3 OF

CHERRY/SEE/REAMES

ARCHITECTS, PC

220 gold avenue sw albuquerque, nm 87102 505 - 842 - 1278 fax 505 - 766 - 9269

\lbuquerque Christian Childre 5700 Winterhaven F Albuquerque, N  $\blacksquare$