City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 2, 2003

Chris Phillips, PE
Riverbend Engineering
5929 Pauline NW
Albuquerque, NM 87107

Re: Boese Residence Grading and Drainage Plan
Engineer's Stamp dated 2-20-03, (L23/D26)

Dear Mr. Phillips,

Based upon the information provided in your submittal dated 2-26-03, the above referenced plan is approved for construction. A wall permit will be required prior to commencing construction. Routine maintenance of the pond, which is the responsibility of your client, should alleviate the drainage problem for the adjoining lot in the event of a 100-yr design storm. Upon completion of the project, please provide certification of this plan for our records.

If you have any questions, please contact me at 924-3986.

Sincerely,

Bradley L. Bingham, PE
Sr. Engineer, Planning Dept.
Development and Building Services

C: file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

L-23/D26

PROJECT TITLE: Boese Backyard Retention Wall ZONE MAP/DRG. FILE #: L28
DRB #: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Lot #1 Creakside West Subdivision
CITY ADDRESS: 400 Poinsettia PL SE Albuq., NM 87123

ENGINEERING FIRM: Riverbend Engineering, LLC — CONTACT: Chris Phillips, PE
ADDRESS: 5929 Pauline St NW — PHONE: 344-3315
CITY, STATE: Albuq., NM, 87107 — ZIP CODE: 87107

OWNER: C. Robert & June Boese — CONTACT: Bob Boese
ADDRESS: 400 Poinsettia PL SE — PHONE: 294-8875
CITY, STATE: Albuquerque, NM 87123 — ZIP CODE: _____

ARCHITECT: _____ — CONTACT: _____
ADDRESS: _____ — PHONE: _____
CITY, STATE: _____ — ZIP CODE: _____

SURVEYOR: _____ — CONTACT: _____
ADDRESS _____ — PHONE: _____
CITY, STATE: _____ — ZIP CODE: _____

CONTRACTOR: _____ — CONTACT: _____
ADDRESS: _____ — PHONE: _____
CITY, STATE: _____ — ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL, ***REQUIRES TCL or equal***
____ DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL GRADING & DRAINAGE PLAN
____ GRADING PLAN
____ EROSION CONTROL PLAN
____ ENGINEER'S CERTIFICATION (HYDROLOGY)
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ ENGINEERS CERTIFICATION (TCL)
____ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
X OTHER
ONSITE Retention WALL

CHECK TYPE OF APPROVAL SOUGHT:

____ SIA / FINANCIAL GUARANTEE RELEASE
____ PRELIMINARY PLAT APPROVAL
____ S. DEV. PLAN FOR SUB'D. APPROVAL
____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
____ FOUNDATION PERMIT APPROVAL
____ BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY (PERM.)
____ CERTIFICATE OF OCCUPANCY (TEMP.)
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
X OTHER (SPECIFY)
LETTER OF APPROVAL

WAS A PRE-DESIGN CONFERENCE ATTENDED:

____ YES
____ NO
____ COPY PROVIDED

RECEIVED
FEB 26 2003
HYDROLOGY SECTION
BY: Bob Boese / Chris Phillips

DATE SUBMITTED: 2-25-03

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature , location and scope ot the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

RIVERBEND ENGINEERING

February 20, 2003

Mr. Brad Bingham, PE
Development Review Section
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: Lot 1, Creekside West Subdivision
400 Poinsettia PL SE, COA Zone Atlas L23
Residence of Robert & June Boese

Dear Mr. Bingham,

The referenced site is in a residential subdivision that was completed back in 1994 (see attached subdivision as-built plan). The owner of the home located on Lot 4 experienced some building settlement and sued the owners of Lot 1 (Robert & June Boese) claiming that surface water runoff from Lot 1 had caused structural damage to his house. The lawsuit has recently been settled, with the Boese agreeing to construct a flood retention wall on their property that will prevent future runoff from crossing the common property line. The enclosed submittal documents are intended to demonstrate to the City of Albuquerque that the proposed wall construction will be sufficient to accomplish these goals.

Riverbend Engineering has performed a topographic survey of the Boese back yard (see attached plan) and has looked at the drainage pattern for this and the adjoining lots. We have also calculated runoff volumes for the 100-yr event and have concluded that the existing retention pond in the Boese backyard is insufficient to contain the 100-yr runoff volume (calculations attached, assumes no infiltration). The as-built drawing for the subdivision shows all runoff from Lot 1 being conveyed to Waterfall Dr in a swale across the back of the property. It is unclear whether this swale was actually constructed (and then someone came back and dug out a pond) or if the builder opted for a retention pond similar to Lots 2& 3. Mr. & Mrs. Boese were the first occupants of the house on Lot 1 and the backyard they purchased always had the retention pond feature.

140-A SOLOMON DR. • PAGOSA SPRINGS, CO 81147 • PHONE: 970.731.0065 • FAX: 970.731.0264 • E-MAIL: cphilips@frontier.net
5929 PAULINE ST. NW. • ALBUQUERQUE, NM 87107 • PHONE: 505.344.3315 • FAX: 505.344.3318 • WEBSITE: www.riverrestoration.com

Our calculations indicate that the proposed flood retention wall will pond the runoff from the 100-yr, 10 day event up to elevation 5669.8. We propose to construct a concrete retaining wall with a crest elevation of 5671.0, located just inside the property line. This will put the top of wall about 1.0 ft above the high point in the concrete drive pad, and thus the drive pad will act as an emergency spillway in case of an extraordinary runoff event.

We are requesting a letter from the City, which confirms that this drainage solution will meet all of the City's requirements for proper drainage, including the elimination of cross-lot drainage. We will provide the City with an as-built certification and engineer's stamp that the proposed flood retention wall was constructed in conformance with the approved plans.

Sincerely,

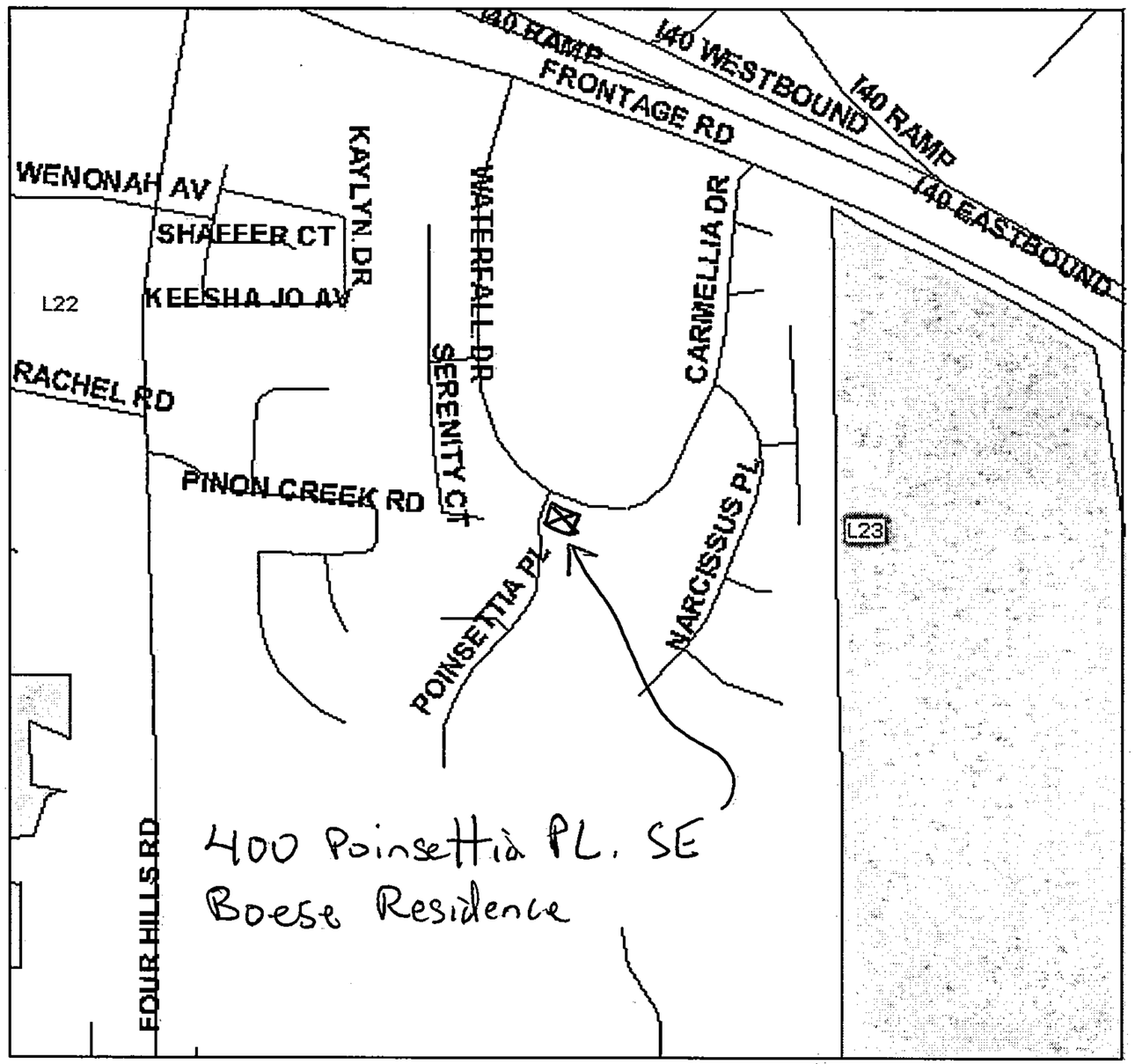
Chris Philips

Christopher S. Philips, PE

CC: Bob & June Boese

Activate By 'Clicking' on the Map

◉ Zoom In ○ Id Address ○ Id ZM ○ Pan ○ Zoom Out



ReDraw Screen

1999 AIR PHOTO (Metro Area Coverage)

CITYWIDE VIEW

LAYER LEGEND

- ☑ STREET NAMES
- ☐ PARKS
- ☑ OUT OF CITY LIMITS
- ☑ ZONE MAP GRID
- ☐ NBR BOUNDARY
- ☐ COMMUNITY PLANNING
- ☐ WATER LINES
- ☐ SEWER LINES
- ☐ STORM DRAINS
- ☐ ZONING
- ☑ LOT NUMBERS
- ☐ ZIP CODES
- ☐ COUNCIL DISTRICTS
- ☐ FLOOD ZONES (disclaimer)
- ☐ PARCELS
- ☐ CONTROL STATIONS
- ☐ SENATE DIST.
- ☐ REPRESENTATIVE DIST.

BOESE PROPERTY DRAINAGE CALCULATIONS
EXISTING CONDITIONS
100-yr 10 day Event

Precipitation Zone = 3
Total rainfall depth for 100 yr event:

P360 =	**2.60 inches**
P1440 =	**3.10 inches**
P10 day =	**4.90 inches**

100 yr Excess Precipitation for Different Land Treatments:
6 hr event

A	**1.24 inches**
B	**1.73 inches**
C	**2.43 inches**
D	**4.45 inches**

Drainage Area Description	Area sq ft	Land Treatment Values (%) A	B	C	D	Runoff Volumes (ft3)	(ft3)	(ft3)	(ft3)	Total Volume (ft3)
Boese Backyard West										
boese roof west	564				100%	0.0	0.0	0.0	209.2	209.2
patio roof west	103				100%	0.0	0.0	0.0	38.2	38.2
concrete patio	292				100%	0.0	0.0	0.0	108.3	108.3
grass lawn	317	100%				0.0	0.0	64.2	0.0	64.2
drainage swale & retention pond	396	100%				0.0	0.0	80.2	0.0	80.2
rock & fabric landscaping	1507	100%				0.0	0.0	305.2	0.0	305.2
					total volume from backyard west:					**805.2**
Boese Backyard East										
boese roof east	480				100%	0.0	0.0	0.0	178.0	178.0
patio roof east	103				100%	0.0	0.0	0.0	38.2	38.2
concrete patio	197				100%	0.0	0.0	0.0	73.1	73.1
concrete drive pad	972				100%	0.0	0.0	0.0	360.5	360.5
grass lawn	263	100%				0.0	0.0	53.3	0.0	53.3
graveled steps	178	100%				0.0	0.0	36.0	0.0	36.0
rock & fabric landscaping	467	100%				0.0	0.0	94.6	0.0	94.6
					total volume from backyard east:					**833.6**
					total volume which must be retained:					**1638.7**

Spectra Precision Software, Inc.
5901 Peachtree-Dunwoody Rd., Suite A-300

Atlanta, GA 30328-5548
800-235-4972
Thu Feb 20 13:45:36 2003

PROJECT: C:\Data\Boese\Boeses Home Site Plan 2-15-03.pro

DTM TO DTM VOLUME

Cut and Fill Volumes

Shrinkage/swell factors: Cut 1.0000 Fill 1.0000

Original DTM Layer Name	# of Points	Final DTM Layer Name	# of Points
DTM	290	WALL DTM	22

Cut Volume (Cu. Yd.)	Cumulative Cut Volume	Fill Volume (Cu. Yd.)	Cumulative Fill Volume
0.1	0.1	73.7	73.7

Net Difference: 73.7 Cu. Yd. BORROW

= 1990 cu. ft.

Pond Volume with w/s elevation @ 5670.0