

CITY OF ALBUQUERQUE



December 3, 2014

Mr. David Soule
Rio Grande Engineering
PO Box 93924
Albuquerque, NM 87199

**Re: Garcia Residence – Lot 11 Black Farms
Grading and Drainage Plan with Engineer's Stamp Dated 11-17-14
(C13D027B)**

Dear Mr. Soule,

Based upon the information provided in your submittal received November 17, 2014, the above referenced plan is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

For future submittals, refer to water harvesting as First Flush. Calculate the First Flush as follows. Per the City Drainage ordinance, the 90th Percentile Storm Event, which is 44 inches, is to be managed. Reduce 0.44 inch by the 0.1 inch for the initial impervious abstraction in Table A-6 of Section 22 of the DPM. Multiply the remaining 0.34 inch by your impervious area. This is the amount of the First Flush necessary for the site.

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

If you have any questions, you can contact me at 924-3994.

Sincerely,

Amy L. D. Niese, P.E.
Senior Engineer, Hydrology
Planning Department

C: e-mail



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: _____ Building Permit #: _____ City Drainage #: _____

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: _____

City Address: _____

Engineering Firm: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Owner: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Architect: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Surveyor: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Contractor: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL:

- _____ DRAINAGE REPORT
- _____ DRAINAGE PLAN 1st SUBMITTAL
- _____ DRAINAGE PLAN RESUBMITTAL
- _____ CONCEPTUAL G & D PLAN
- _____ GRADING PLAN
- _____ EROSION & SEDIMENT CONTROL PLAN (ESC)
- _____ ENGINEER'S CERT (HYDROLOGY)
- _____ CLOMR/LOMR
- _____ TRAFFIC CIRCULATION LAYOUT (TCL)
- _____ ENGINEER'S CERT (TCL)
- _____ ENGINEER'S CERT (DRB SITE PLAN)
- _____ ENGINEER'S CERT (ESC)
- _____ SO-19
- _____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- _____ SIA/FINANCIAL GUARANTEE RELEASE
- _____ PRELIMINARY PLAT APPROVAL
- _____ S. DEV. PLAN FOR SUB'D APPROVAL
- _____ S. DEV. FOR BLDG. PERMIT APPROVAL
- _____ SECTOR PLAN APPROVAL
- _____ FINAL PLAT APPROVAL
- _____ CERTIFICATE OF OCCUPANCY (PERM)
- _____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
- _____ FOUNDATION PERMIT APPROVAL
- _____ BUILDING PERMIT APPROVAL
- _____ GRADING PERMIT APPROVAL
- _____ PAVING PERMIT APPROVAL
- _____ WORK ORDER APPROVAL
- _____ GRADING CERTIFICATION
- _____ SO-19 APPROVAL
- _____ ESC PERMIT APPROVAL
- _____ ESC CERT. ACCEPTANCE
- _____ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED: _____ Yes _____ No _____ Copy Provided

DATE SUBMITTED: _____ By: _____

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to 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 subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

RIO GRANDE ENGINEERING OF NEW MEXICO, LLC

November 17, 2014

Ms. Rita Harmon
Hydrology Department
Public Works Department
City of Albuquerque

**RE: Drainage Submittal
Lot 11, black farms**

Dear Ms Harmon:

The purpose of this letter is to accompany the attached grading. The plan has been designed to conform to the master drainage plan for the black farms subdivision. The grades shown have different datum, so we set the finish floor based upon the differential between front property corners and finished floor elevations.

Should you have any questions regarding this submittal, please do not hesitate to call me.

Sincerely,

David Soule, PE
Rio Grande Engineering
PO Box 93924
Albuquerque, New Mexico 87199
505-321-9099

Weighted E Method

BLACK FARMS

Existing Developed Basins											100-Year, 6-hr		24-hou	
Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Volume (ac-ft)
			%	(acres)	%	(acres)	%	(acres)	%	(acres)				
PROPOSED	47384.5	1.088	0%	0	34.0%	0.370	50.0%	0.5439	16%	0.174	1.038	0.094	3.07	0.101
HISTORICAL	47384.5	1.088	0%	0	100.0%	1.088	0.0%	0	0	0.000	1.070	0.061	2.24	0.061

$$\text{Weighted E} = E_a \cdot A_a + E_b \cdot A_b + E_c \cdot A_c + E_d \cdot A_d / (\text{Total Area})$$
$$\text{Volume} = \text{Weighted D} \cdot \text{Total Area}$$
$$\text{Flow} = Q_a \cdot A_a + Q_b \cdot A_b + Q_c \cdot A_c + Q_d \cdot A_d$$

Where for 100-year, 6-hour storm (zone 1)

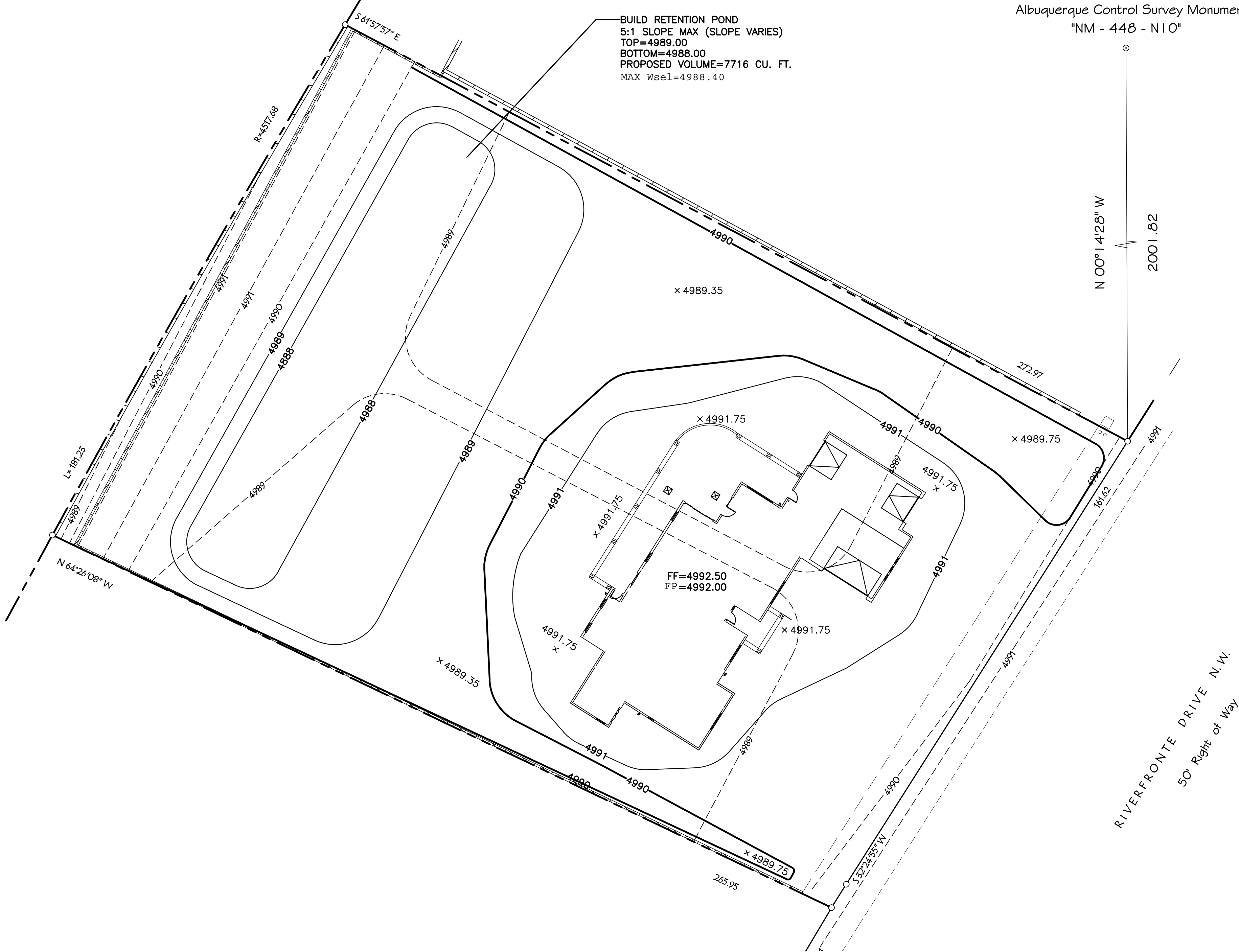
ES = 0.44
Eb = 0.67
E = 0.55

 $\bar{E}_d = 1.97$

EXISTING 24-HOUR VOLUME	284
PROPOSED 24-HOUR VOLUME	43

WATER QUALITY REQUIREMENT	13
PONDING REQUIRED	17

SITE IS LOCATED WITHIN A FULLY DEVELOPED SUBDIVISION. THE ADJACENT ROADWAY DOES NOT HAVE CURB AND GUTTER. THE DRAINAGE MANAGEMENT PLAN FOR THIS LOT CALLS FOR THE ONSITE RETENTION OF THE INCREASE IN FLOW GENERATED BY THIS DEVELOPMENT COMPARED TO EXISTING USING THE 24-HOUR EVENT.



CAUTION:

EXISTING UTILITIES ARE NOT SHOWN.
IT SHALL BE THE SOLE RESPONSIBILITY
OF THE CONTRACTOR TO CONDUCT ALL
NECESSARY FIELD INVESTIGATIONS PRIOR
TO ANY EXCAVATION TO DETERMINE THE
ACTUAL LOCATION OF UTILITIES & OTHER
IMPROVEMENTS.

EROSION CONTROL NOTES:

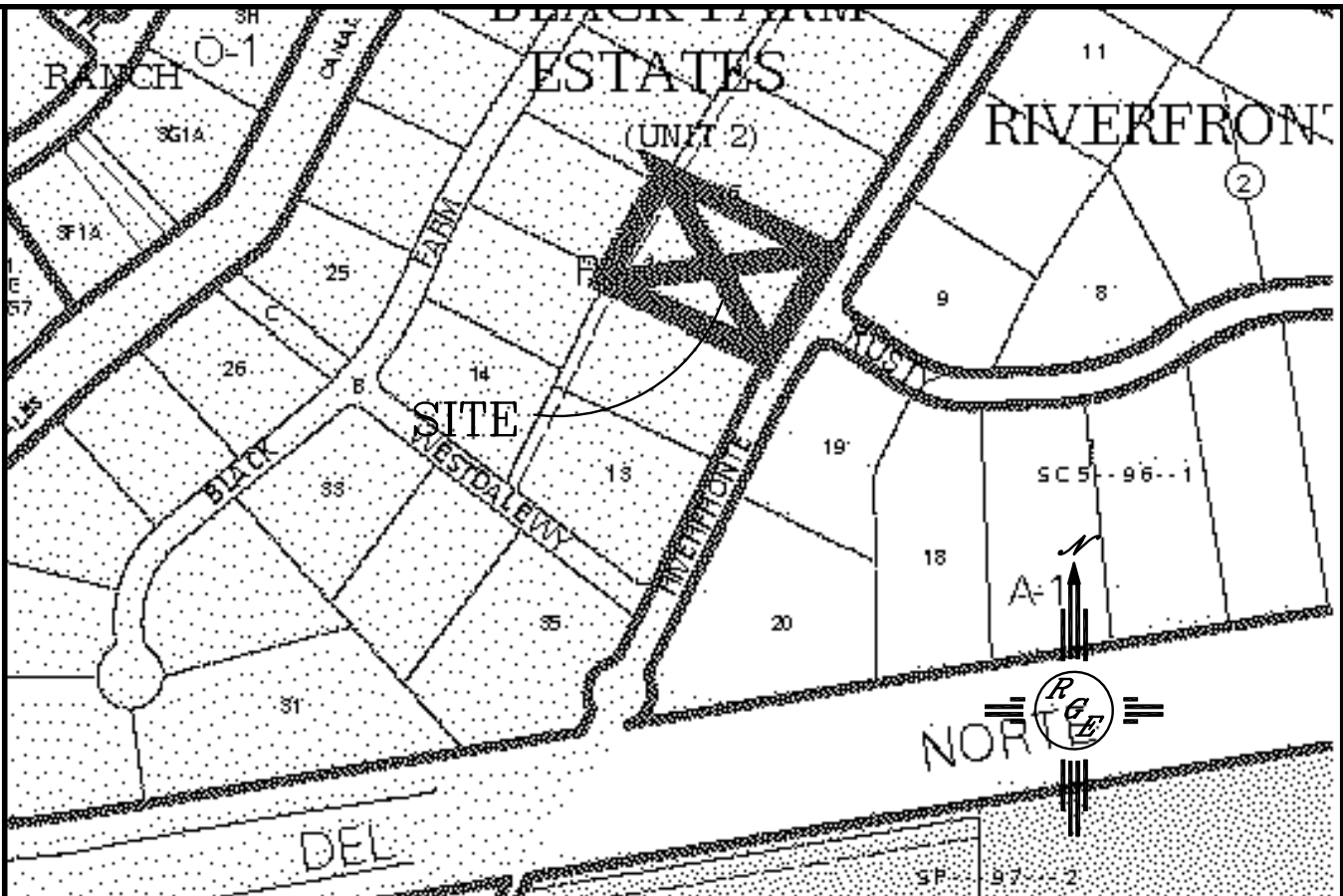
1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.

2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.

3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.

4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.

5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.



VICINITY MAP:	C-13-Z
---------------	--------



FIRM MAP:	35001C0116G
-----------	-------------

LEGAL DESCRIPTION:

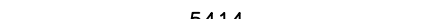
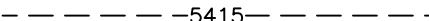
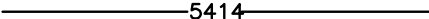












Lot numbered Eleven (11) of BLACK FARM ESTATES UNIT 2

NOTES:

1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.

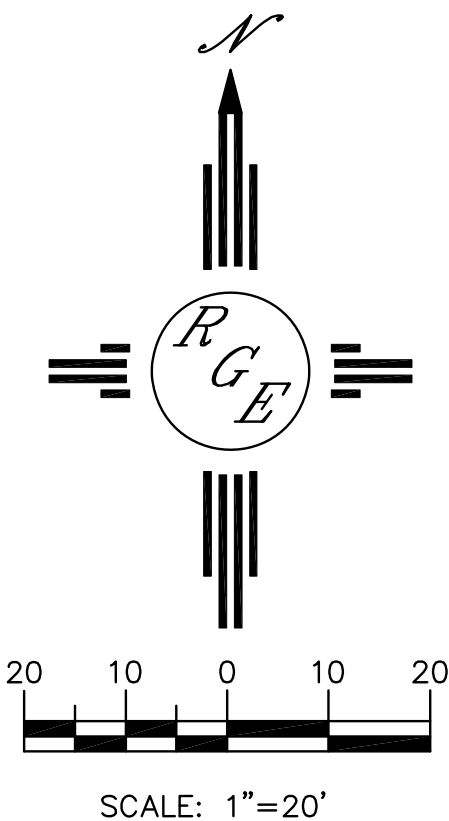
2. ALL RETAINING WALL DESIGN SHALL BE BY OTHERS.



LEGEND

	-5414	EXISTING CONTOUR
	-5415	EXISTING INDEX CONTOUR
	-5414	PROPOSED CONTOUR
	-5415	PROPOSED INDEX CONTOUR
		SLOPE TIE
	4048.25	EXISTING SPOT ELEVATION
	4048.25	PROPOSED SPOT ELEVATION
		BOUNDARY
		CENTERLINE
		RIGHT-OF-WAY
		PROPOSED CURB AND GUTTER
		EXISTING CURB AND GUTTER
		PROPOSED SCREEN WALL (6' TYP.)
		PROPOSED RETAINING WALL (HEIGHT VARIES-DESIGN BY OTHERS)
		FLOODPLAIN

I DAVID SOULE HAVE PERSONALLY VISITED THIS SITE ON 11/14/14 AND CERTIFY THE TOPOGRAPHY SHOWN ACCURATELY DEPICTS CURRENT SITE GRADING.

11/17/14



<p>ENGINEER'S SEAL</p>	<p>LOT 11 BLACK FARM ESTATES</p>	<p>DRAWN BY WCWJ</p>
	<p>GRADING AND DRAINAGE PLAN</p>	<p>DATE 11-17-14</p>
<p>11/17/14</p>		<p>21420-LAYOUT-11-17-14</p>
<p>DAVID SOULE P.E. #14522</p>	<p><i>Rio Grande Engineering</i></p> <p>1606 CENTRAL AVENUE SE SUITE 201 ALBUQUERQUE, NM 87106 (505) 872-0989</p>	<p>SHEET # —</p>
		<p>JOB # 21420</p>