

CITY OF ALBUQUERQUE



Richard J. Berry, Mayor

August 9, 2017

David Soule, P.E.
Rio Grande Engineering
P.O. Box 93924
Albuquerque, NM, 87199

**RE: 13704 Ellena Gallegos NE
Grading Plan
Stamp Date: 8/8/17
Hydrology File: E24D002A**

Dear Mr. Soule:

PO Box 1293

Based upon the information provided in your re-submittal received 8/9/2017, the Grading Plan is approved for Building Permit.

Albuquerque

Please attach a copy of this approved plan in the construction sets for Building Permit processing. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

New Mexico 87103

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

www.cabq.gov

Reneé C. Brissette

Reneé C. Brissette, P.E.
Senior Engineer, Hydrology
Planning Department



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: 13704 Ellena Gallegos Building Permit #: _____ City Drainage #: _____
 DRB#: _____ EPC#: _____ Work Order#: _____
 Legal Description: lot 93 unit 3 the highlands at high desert
 City Address: 13704 Ellena Gallegos

Engineering Firm: RIO GRANDE ENGINEERING Contact: DAVID SOULE
 Address: PO BOX 93924, ALBUQUERQUE, NM 87199
 Phone#: 505.321.9099 Fax#: 505.872.0999 E-mail: DAVID@RIOGRANDEENGINEERING.COM

Owner: las ventanas homes Contact: _____
 Address: _____
 Phone#: _____ Fax#: _____ E-mail: _____

Architect: Contact: _____
 Address: _____
 Phone#: _____ Fax#: _____ E-mail: _____

Other Contact: Contact: _____
 Address: _____
 Phone#: _____ Fax#: _____ E-mail: _____

Check all that Apply:

DEPARTMENT:

- HYDROLOGY/ DRAINAGE
- TRAFFIC/ TRANSPORTATION
- MS4/ EROSION & SEDIMENT CONTROL

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- BUILDING PERMIT APPROVAL
- CERTIFICATE OF OCCUPANCY
- PRELIMINARY PLAT APPROVAL
- SITE PLAN FOR SUB'D APPROVAL
- SITE PLAN FOR BLDG. PERMIT APPROVAL
- FINAL PLAT APPROVAL
- SIA/ RELEASE OF FINANCIAL GUARANTEE
- FOUNDATION PERMIT APPROVAL
- GRADING PERMIT APPROVAL
- SO-19 APPROVAL
- PAVING PERMIT APPROVAL
- GRADING/ PAD CERTIFICATION
- WORK ORDER APPROVAL
- CLOMR/LOMR
- PRE-DESIGN MEETING
- OTHER (SPECIFY) _____

TYPE OF SUBMITTAL:

- ENGINEER/ ARCHITECT CERTIFICATION
- CONCEPTUAL G & D PLAN
- GRADING PLAN
- DRAINAGE MASTER PLAN
- DRAINAGE REPORT
- CLOMR/LOMR
- TRAFFIC CIRCULATION LAYOUT (TCL)
- TRAFFIC IMPACT STUDY (TIS)
- EROSION & SEDIMENT CONTROL PLAN (ESC)
- OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: Yes No

DATE SUBMITTED: 8/1/17 By: _____

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

SITE HYDROLOGY

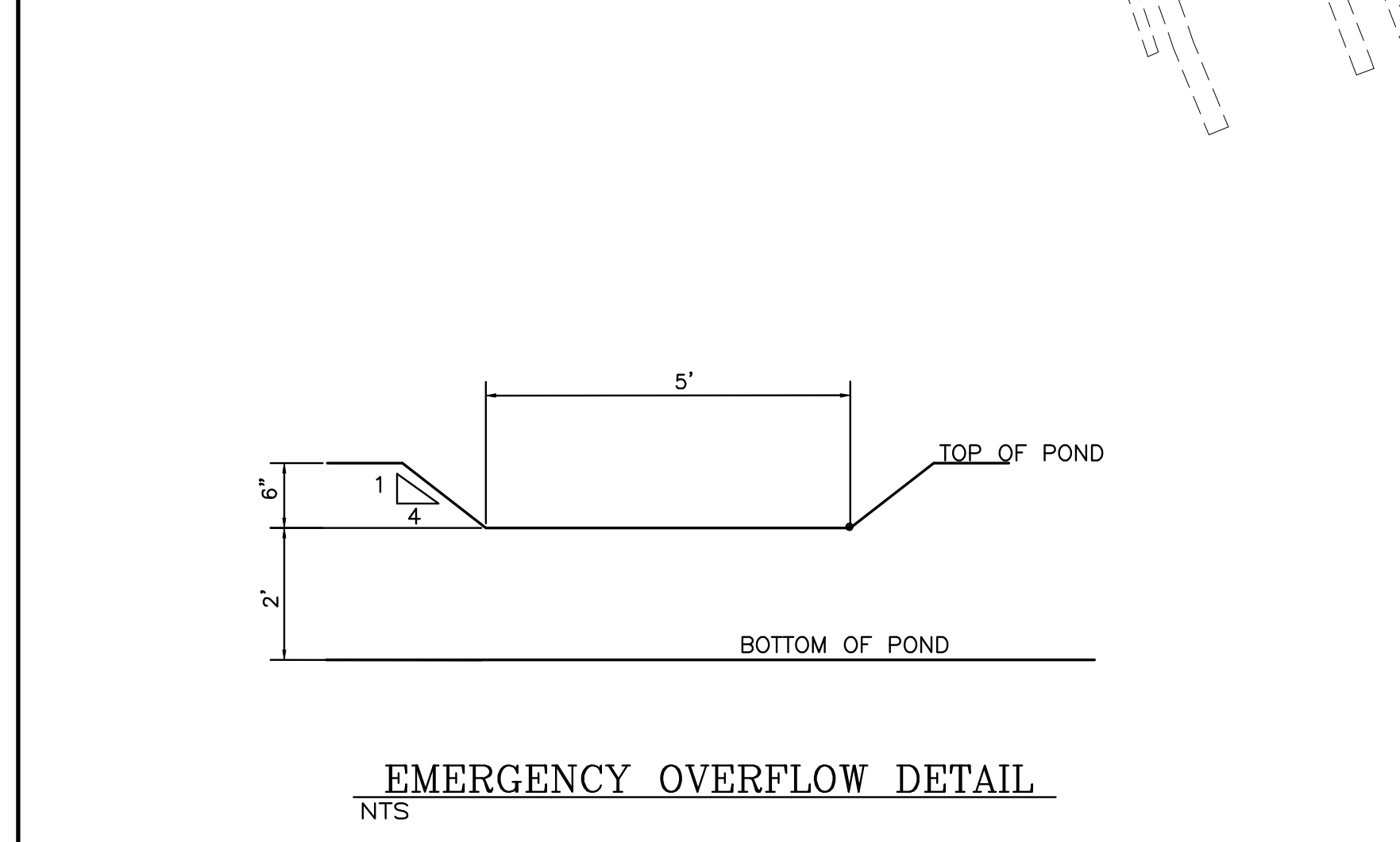
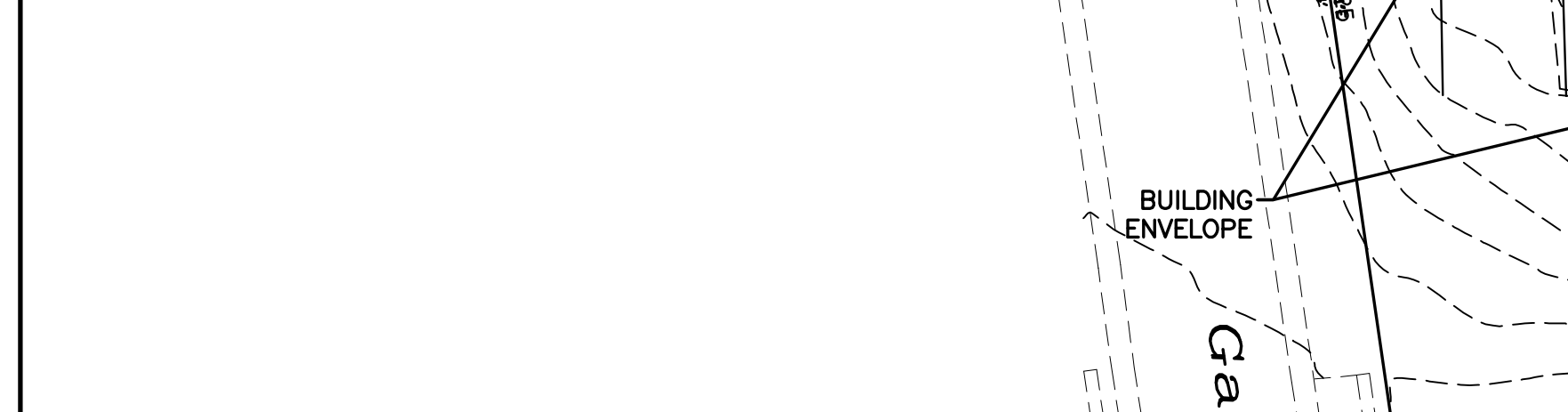
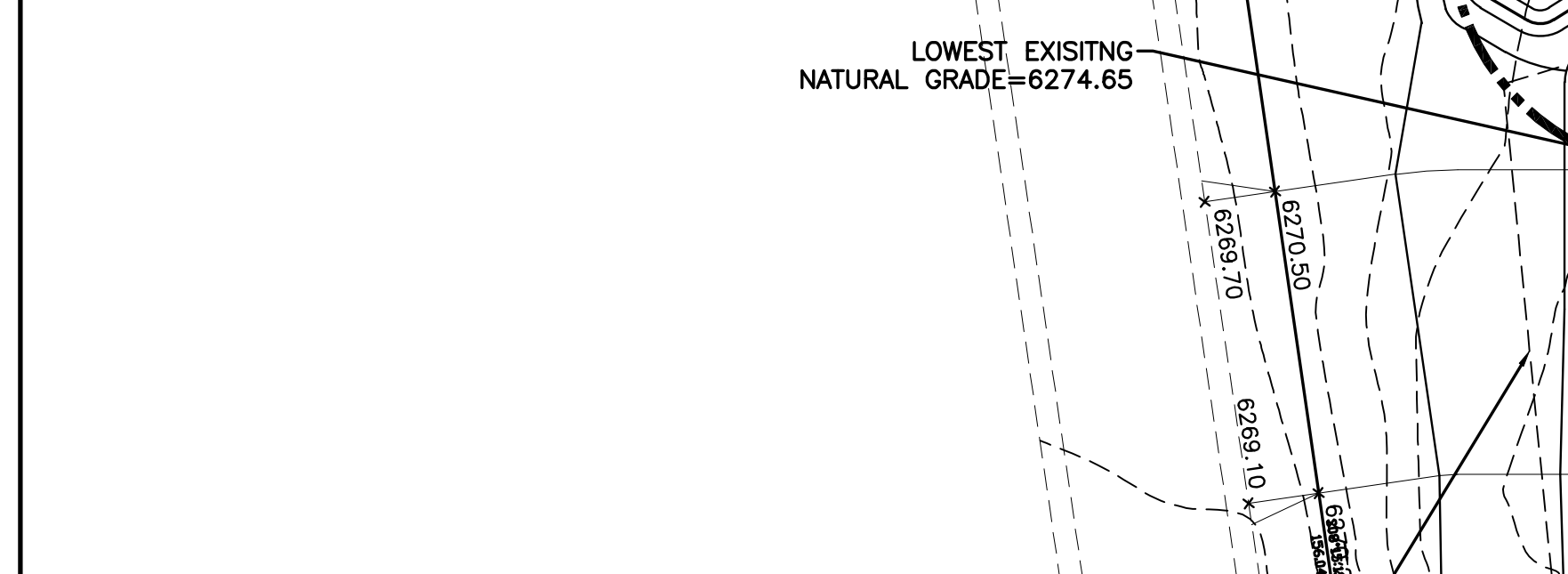
Weighted E Method
per City of Albuquerque Development Process Manual- chapter 22

Existing Developed Basins	Basin	Area (sf)	Area (acres)	Treatment A				Treatment B				Treatment C				Treatment D				100-Year, 6-hr		10-day	
				%	(acres)	%	(acres)	%	(acres)	%	(acres)	%	(acres)	%	(acres)	Weighted E (ac-ft)	Flow (cfs)	Volume (ac-ft)	Flow (cfs)	Volume (ac-ft)			
	BASIN A(native)	6257.00	0.144	75%	0.10773072	25%	0.036	0%	0	0%	0.000	0.870	0.010	0.32	0.010								
	BASIN A(proposed)	6257.00	0.144	0%	0	30%	0.043	26%	0.03735	44%	0.063	1.905	0.022	0.50	0.031								
	BASIN B(native)	8740.00	0.201	75%	0.15048209	25.0%	0.050	0.0%	0	0%	0.000	0.870	0.015	0.48	0.015								
	BASIN B(proposed)	8740.00	0.201	0%	0	43.0%	0.086	36.0%	0.07223	21%	0.042	1.544	0.026	0.74	0.031								
	REMAINING SITE(native)	19953.00	0.458	75%	0.34354339	25%	0.115	0%	0	0%	0.000	0.870	0.033	1.09	0.033								
	REMAINING SITE(proposed)	19953.00	0.458	75%	0.34354339	7%	0.032	10%	0.04581	8%	0.037	1.033	0.039	1.21	0.044								
	NATIVE	34950.00	0.802	75%	0.6017562	25.0%	0.201	0.0%	0	0%	0.000	0.870	0.058	1.91	0.059								

Equations:
Weighted E = Ea'Aa + Eb'Ab + Ec'Ac + Ed'Ad / (Total Area)
Volume = Weighted D * Total Area
Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad
Where for 100-year, 6-hour storm
Ea= 0.8
Eb= 1.38
Ec= 1.46
Ed= 2.64
Qa= 2.2
Qb= 2.92
Qc= 3.73
Qd= 5.25
H= 0.5 ft
L= 5 ft
Q= 5.1 cfs
Q= 1.52 cfs
C= 2.95
Q= 2.95X 5.0 X(5/1.5)

OVERFLOW CAPACITY
Weir Equation:
 $Q = C L H^{3/2}$
Where for 100-year, 6-hour storm
Ea= 0.8
Eb= 1.38
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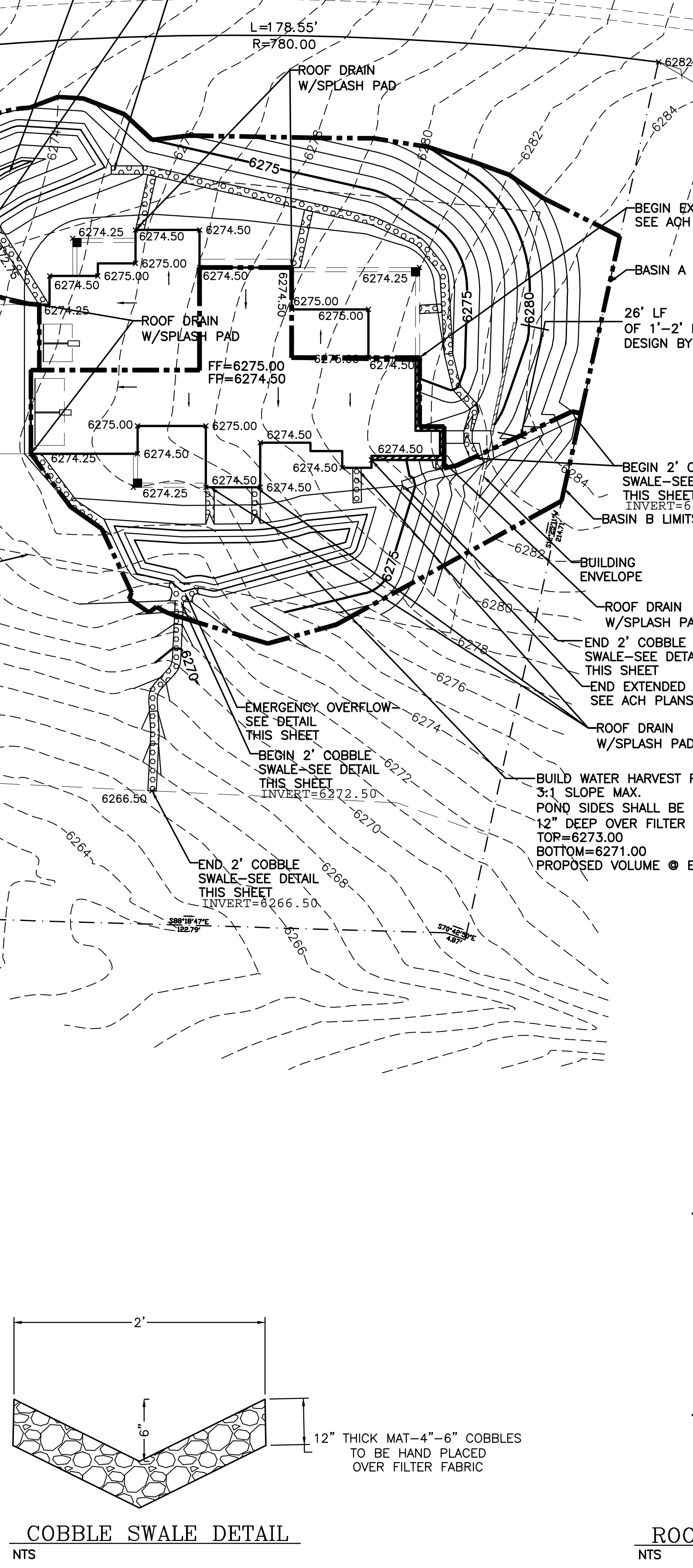
Drainage Narrative
BASIN A COMPRISE OF THE SOUTHERN PORTION OF THE HOME AND THE AREA DRAINING SOUTH CAPTURED BY SOUTH POND
BASIN B COMPRISES OF THE NORTHER PORTION OF THE HOME AND THE AREA DRAINING TO THE NORTH CAPTURED BY THE NORTH POND
Site discharges 2.33 cfs in developed condition and 1.91 in native. Master drainage study accounted for discharge of impervious areas within building envelope
THE MASTER DRAINAGE PLAN ALLOWS FOR FREE DISCHARGE TO THE EXISTING OPENS SPACE AND DOWN STREAM DRAINAGE FACILITIES AT THIS PEAK RATE
THE LAND TREATMENT OF THIS LOT GENERATES 42 CFS GREATER THAN NATIVE. THEREFORE THE INCREASE IN FLOW WILL BE RETAINED BY WATER QUALITY PONDS
DUE TO THIS SITE BEING GOVERNED BY THE GUIDELINES FOR SUSTAINABILITY, THE INCREASE IN THE DEVELOPED FLOW MUST BE RETAINED ON SITE AS CALCULATED FOR THE 100-YEAR, 6-HOUR EVENT. THE REQUIRED RETENTION IS 1010 CUBIC FEET. THE WATER QUALITY PONDS RETAIN 1040 CF AND PASS THE HISTORIC FLOW, WHICH WILL BE LESS DUE TO PONDS UPWARD FLOW IS ALLOWED TO ENTER THE SITE AND PASS TO THE EXISTING DRAINAGE CONDUIT WITHIN THE RIGHT OFWAY. THE PONDS DISCHARGE TO HISTORICAL PATTERNS. DUE TO THE EXISTING TOPOGRAPHY, PERIODIC MAINTANANCE OF DRAINAGE FACILITIES WILL BE REQUIRED. THIS SITE CONFORMS TO THE MASTER DRAINAGE PLAN



EROSION CONTROL NOTES:

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
- REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.

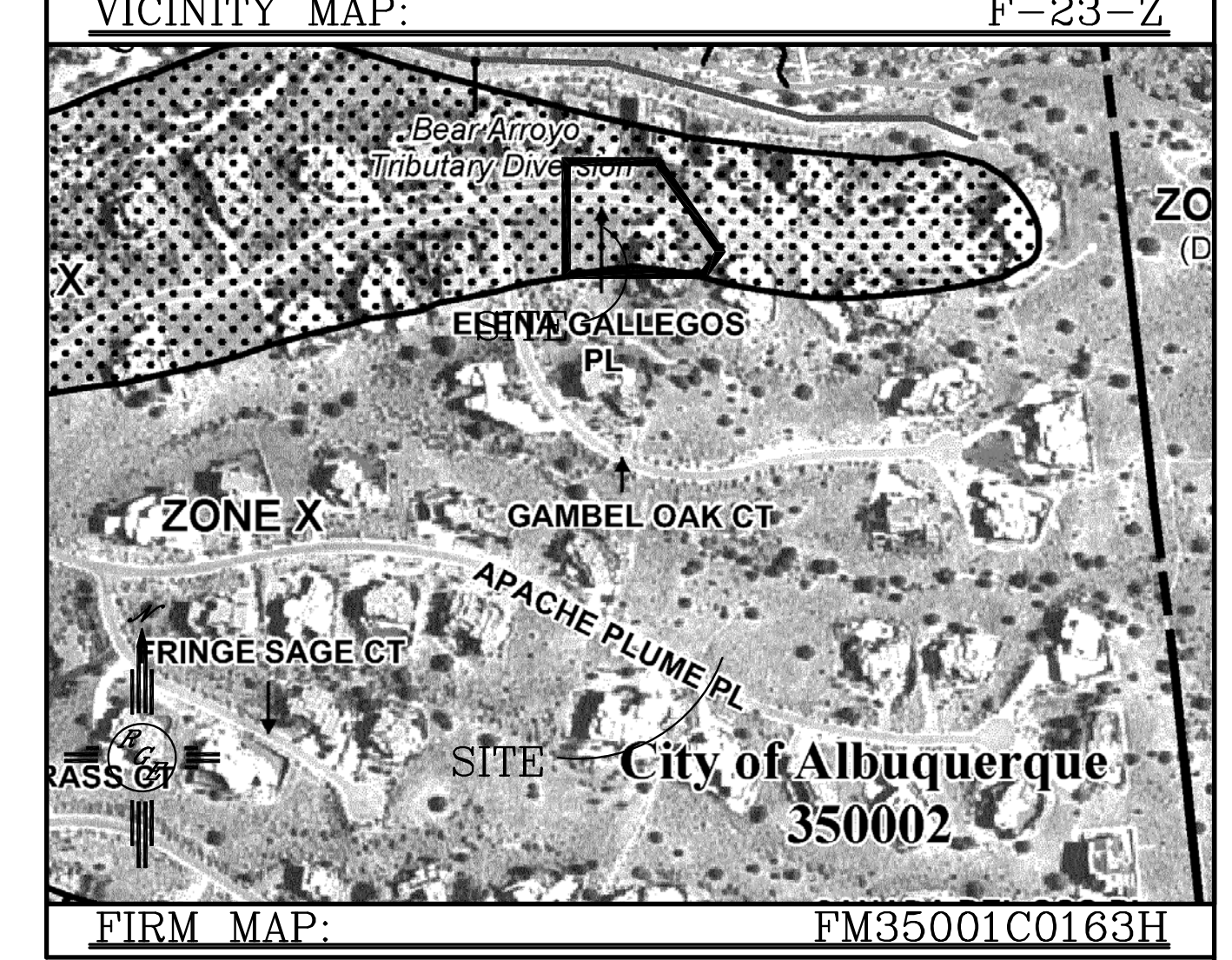
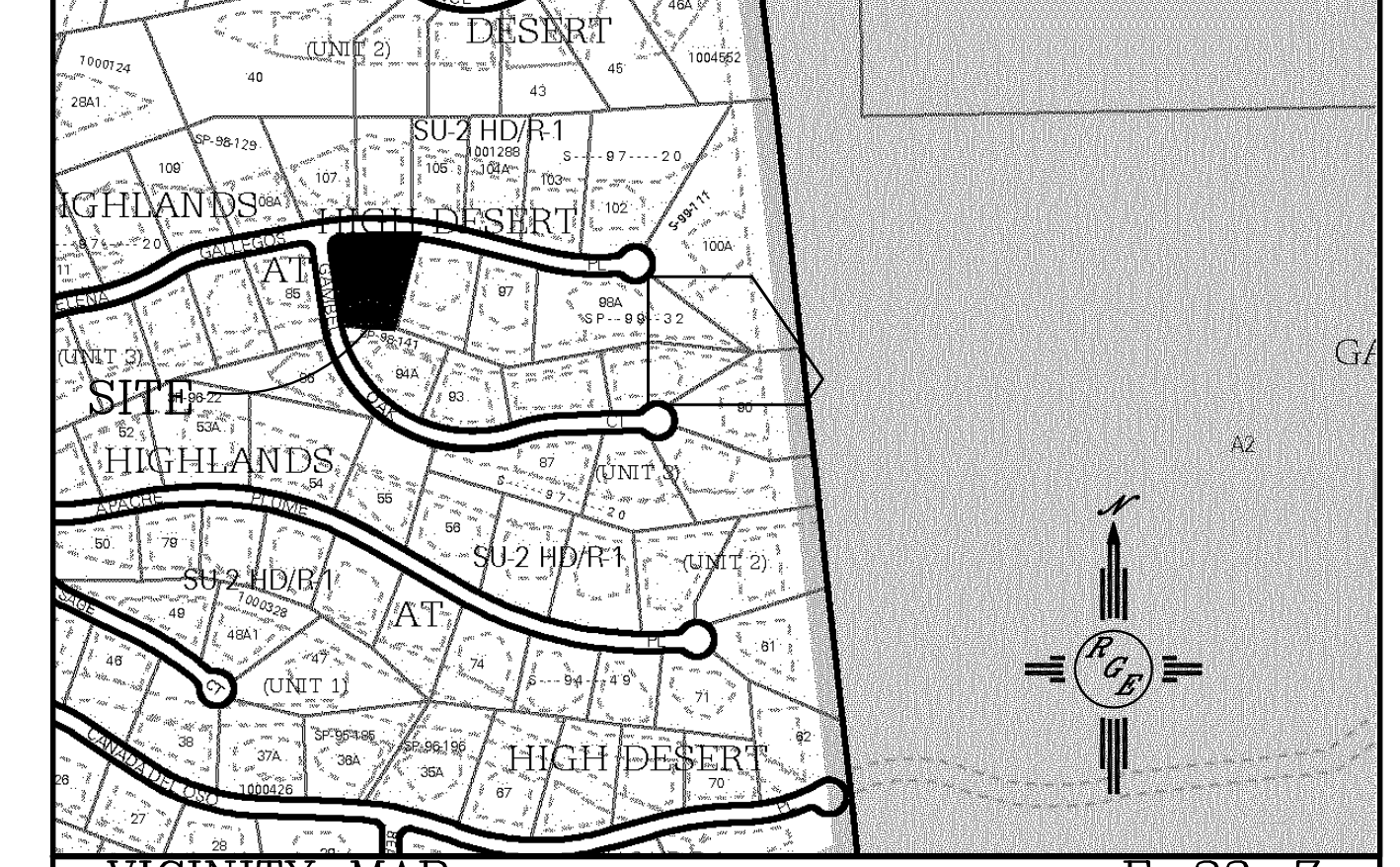
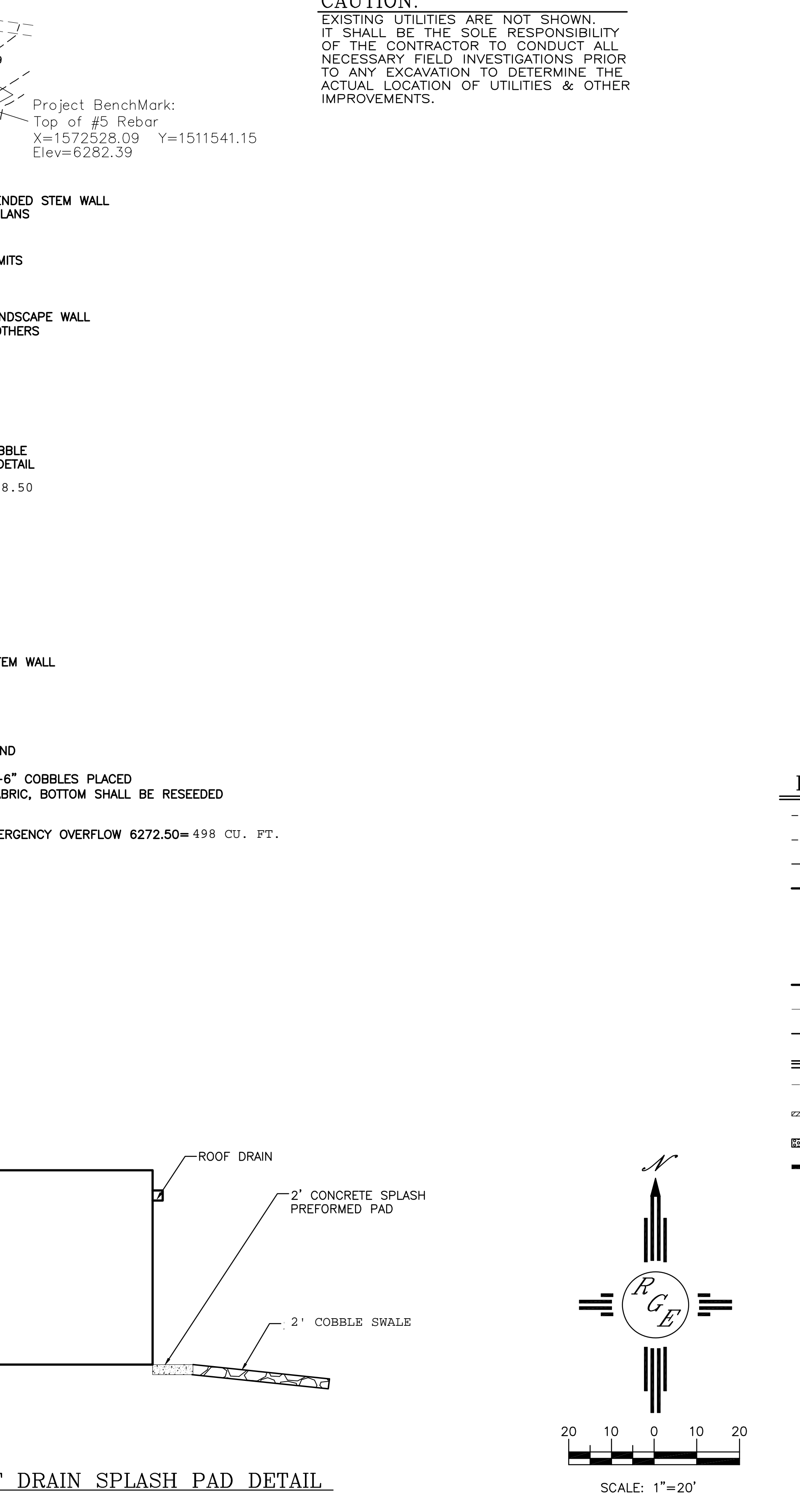
CAUTION:
EXISTING UTILITIES ARE NOT SHOWN. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATION TO DETERMINE THE ACTUAL LOCATION OF UTILITIES & OTHER IMPROVEMENTS.



EROSION CONTROL NOTES:

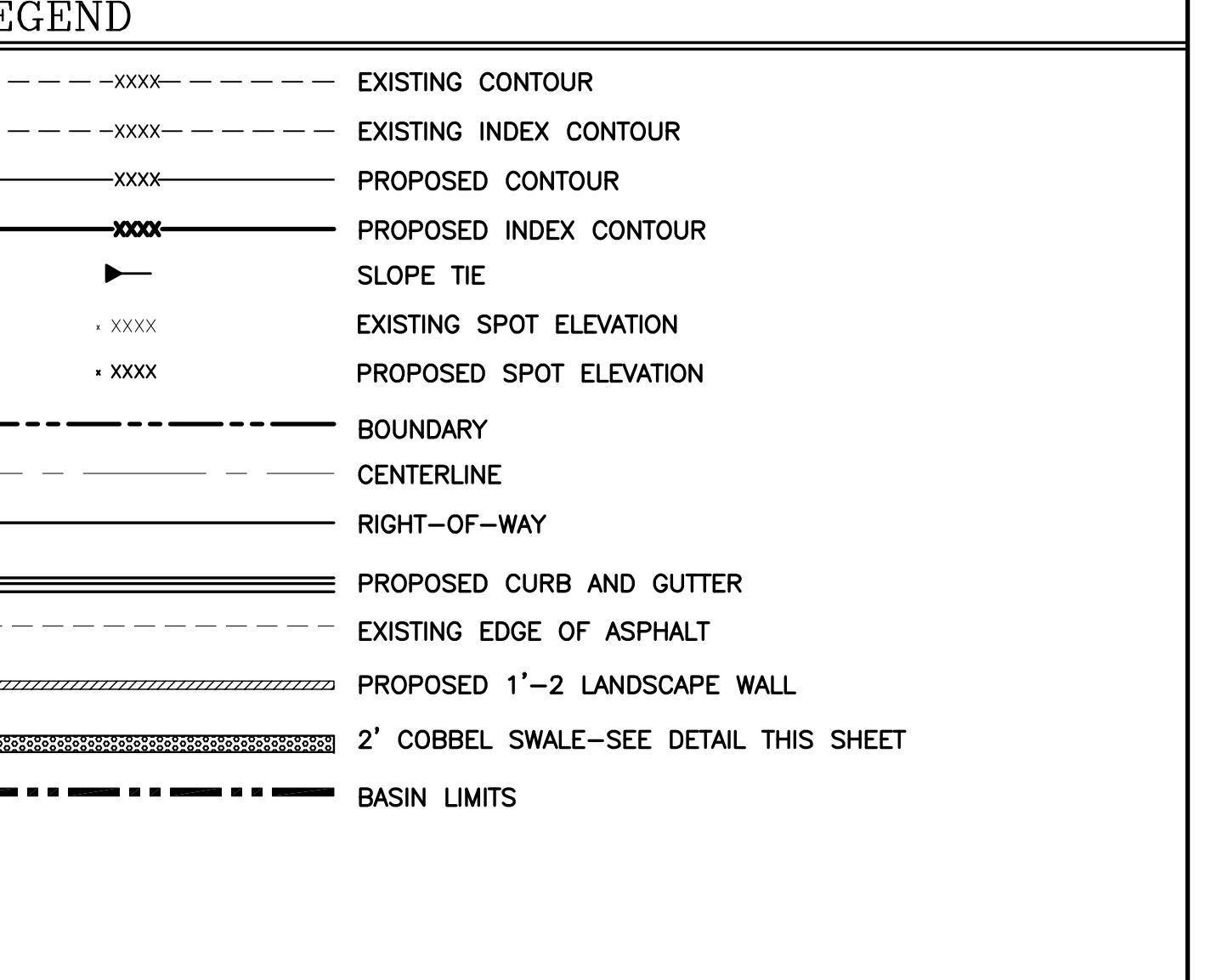
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LEGAL DESCRIPTION:
Lot 95 Unit 3 of the Highlands at High Desert

- NOTES:**
- ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.
 - ALL ROOF DRAINS SHALL HAVE A SLASH PAD AND 2' COBBLE SWALE THAT SHALL TIE TO MAIN COBBLES SWALES AROUND THE HOUSE PER DETAIL THIS SHEET..
 - ALL DISTURBED AREAS SHALL BE RESEEDDED WITH APPROVED HIGH DESERT MIX WITHIN 30 DAYS OF DISTURBANCE.
 - ALL SLOPES SHALL BE 3:1 MAX. AND GRAVEL OR NATIVE SEEDING PRIOR TO CO.
 - SURVEY PROVIDED BY RIO GRANDE SURVEY COMPANY, BASED UPON NAVD 1988 DATUM.



	13704 ELENA GALLEGOS	DRAWN BY WCVJ
	GRADING AND DRAINAGE PLAN	DATE 7-16-17
7/18/17 8/8/17		21740-LAYOUT-5-28-17
DAVID SOULE P.E. #14522		SHEET #
		JOB # 21740



Richard J. Berry, Mayor

August 7, 2017

David Soule, P.E.
Rio Grande Engineering
P.O. Box 93924
Albuquerque, NM, 87199

**RE: 13704 Ellena Gallegos NE
Grading Plan
Stamp Date: 7/18/17
Hydrology File: E24D002A**

Dear Mr. Soule:

Based upon the information provided in your submittal received 8/2/2017, the Grading Plan **is not** approved for Building Permit. The following comments need to be addressed for approval of the above referenced project:

1. Please provide both the beginning and ending flowlines for all the cobble swales.
WE HAVE ADDED THE INVERT ELEVATIONS
2. Please add the weir calculations for the emergency overflows.
WE HAVE ADDED TO THE CAACLULATIONS
3. There is enough room on the sheet, so please enlarge the Site Hydrology calculations and notes. **WE ENLARGED**

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Reneé C. Brissette

Reneé C. Brissette, P.E.
Senior Engineer, Hydrology
Planning Department