CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director

Mayor Timothy M. Keller

July 26, 2023

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

RE: 8400 Florence Ave. NE
Grading and Drainage Plan
Engineer's Stamp Date: 07/20/23
Hydrology File: B20D071

Dear Mr. Soule:

Based upon the information provided in your submittal received 07/20/2023, the Grading & Drainage Plan is approved for Grading Permit (earthwork can get started for the earth pad on the house and retaining walls).

PRIOR TO BUILDING PERMIT:

1. Once the grading is complete, a pad certification (meaning that the earthwork and retaining walls are complete) will be required. Please include a site photo with the submittal. Also, at the time of pad certification approval, Hydrology will concurrently approve the Grading & Drainage Plan for Building Permit.

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

Sincerely,

Renée C. Brissette

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: 8400 Florence Building Permit #:_____ Hydrology File #: _____

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

Legal Description: LOT 3, BLOCK 16 TRACT 1 UNIT 3 NORTH ALBUQUERUQE ACRES

City Address: 8400 FLORENCE

Applicant: _____ Contact: _____

Address: _____

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

Other Contact: RIO GRANDE ENGINEERING Contact: DAVID SOULE

Address: PO BOX 93924 ALB NM 87199

Phone#: 505.321.9099 Fax#: 505.872.0999 E-mail: david@riograndeengineering.com

TYPE OF DEVELOPMENT: ___ PLAT X RESIDENCE ___ DRB SITE ___ ADMIN SITE

Check all that Apply:

DEPARTMENT:

X HYDROLOGY/ DRAINAGE

___ TRAFFIC/ TRANSPORTATION

TYPE OF SUBMITTAL:

___ ENGINEER/ARCHITECT CERTIFICATION

___ PAD CERTIFICATION

___ CONCEPTUAL G & D PLAN

X GRADING PLAN

___ DRAINAGE REPORT

___ DRAINAGE MASTER PLAN

___ FLOODPLAIN DEVELOPMENT PERMIT APPLIC

___ ELEVATION CERTIFICATE

___ CLOMR/LOMR

___ TRAFFIC CIRCULATION LAYOUT (TCL)

___ TRAFFIC IMPACT STUDY (TIS)

___ STREET LIGHT LAYOUT

___ OTHER (SPECIFY) _____

___ PRE-DESIGN MEETING?

IS THIS A RESUBMITTAL?: ___ Yes X No

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

X 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

___ FLOODPLAIN DEVELOPMENT PERMIT

___ OTHER (SPECIFY) _____

DATE SUBMITTED: _____ By: _____

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED:_____

FEE PAID:_____

Weighted E Method

Existing Developed Basins

Basin	Area (sf)	Area (acres)	Treatment A %	Treatment A (acres)	Treatment B %	Treatment B (acres)	Treatment C %	Treatment C (acres)	Treatment D %	Treatment D (acres)	100-Year, 6-hr. Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	10-day Volume (ac-ft)
UPLAND BASIN	226000	5.188	20%	1.03765	30.0%	1.556	34.0%	1.764	26%	1.349	1.667	0.721	20.49	0.901
ALLOWED PER NAA	38610	0.886	20%	0.17727	30.0%	0.266	34.0%	0.30136	26%	0.230	1.667	0.123	3.50	0.154
PROPSED	38610	0.886	10%	0.08864	20.0%	0.177	34.0%	0.30136	36%	0.319	1.743	0.129	3.51	0.171
COMPARISON				0.089		0.089		0.000		-0.089		0.006	0.012	0.017

Equations:

Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed*Ad / (Total Area)

Volume = Weighted D * Total Area

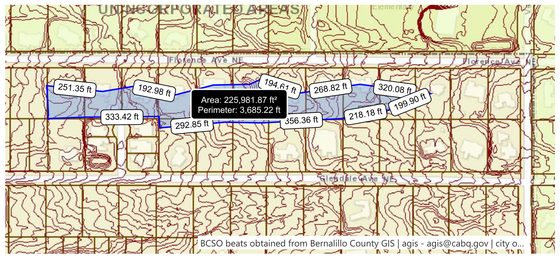
Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad

Where for 100-year, 6-hour storm (zone 4)

Ea= 0.8 Qa= 2.2
Eb= 1.08 Qb= 2.92
Ec= 1.46 Qc= 3.73
Ed= 2.64 Qd= 5.25

Pond volume required
to reduce to below NAA Allowable 759.33 cf
Pond volume provided 1429 cf

Narrative
The subject property is located within the boundaries of the North Albuquerque Acres Master Drainage Master Plan. This lot is located in the LR- Low Density Residential area of the developed condition assumption map. The Impevious area exceeds the allowed conditions assumptions. Therefore ponding of 759 cubic feet is required. Upland flow is allowed to enter and pass thru the property, leaving a historical patterns. There isa 20.5 cfs flow entering the property at the southeast corner



Channel Capacity

	Top Width (ft)	Bottom Width (ft)	Depth (ft)	Area (ft^2)	WP (ft)	R	Slope (%)	Q Provided (cfs)	Q Required (cfs)	Velocity (ft/s)
6' SWALE	6	4	0.67	3.35	6.41	0.5228325	3.6	20.49	2.90	0.87

Manning's Equation:
Q = 1.49/n * A * R^(2/3) * S^(1/2)
A = Area
R = D/4
S = Slope
n = 0.03

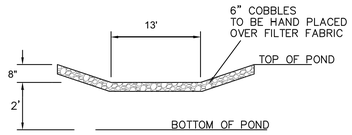
Weir Equation:

$Q=CLH^{3/2}$

Q= 20.49 cfs (upland plus onsite)
C = 2.95
H = .67 (2 block courses)
L = Length of weir

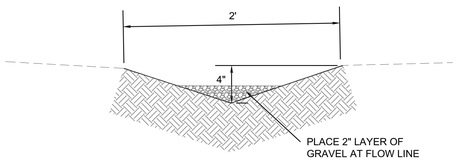
$L = 20.49/(2.95*((.67)^(3/2))) = 6.43'$

13' WIDE OVERFLOW, OR 10 TURNED BLOCKS



EMERGENCY OVERFLOW DETAIL
NTS

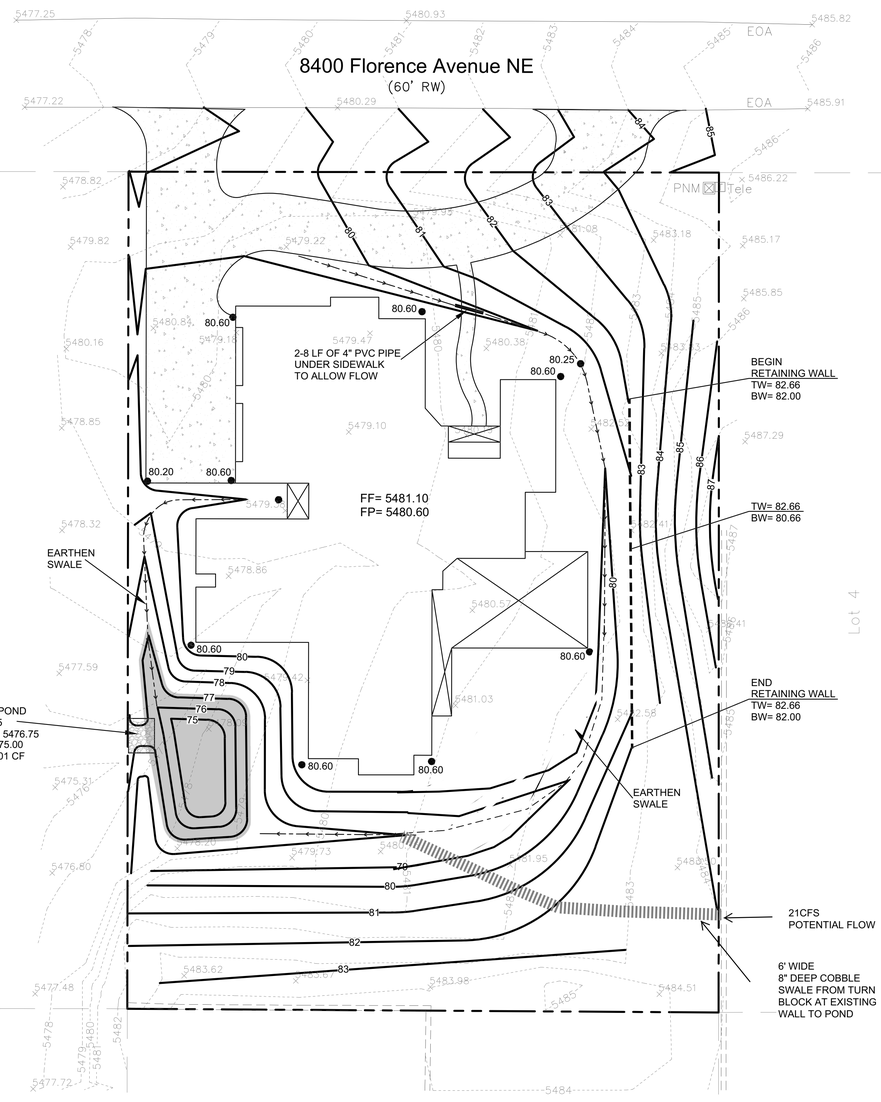
CONSTRUCT ALL SWALES AND EROSION PROTECTION (SHOWN HATCHED) BELOW ADJACENT GRADE TO ENSURE RUNOFF CAN BE CAPTURED AND CONVEYED PROPERLY.



EARTHEN SWALE
NTS

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:

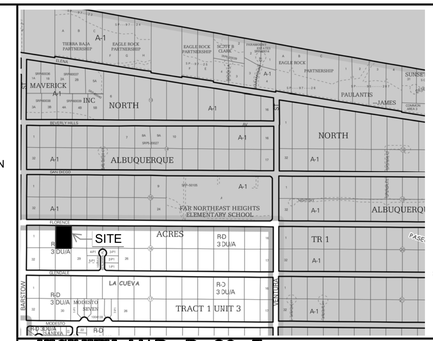
1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.

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

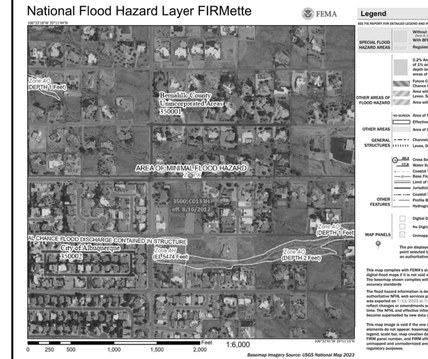
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.

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: B-20-Z



FIRM MAP:

LEGAL DESCRIPTION:

LOT 3, BLOCK 16 NORTH ALBUQUERQUE ACRES TRACT 1, UNIT 3
CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

NOTES:

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

2. ALL SLOPES SHALL BE 3:1 MAX. AND GRAVEL OR NATIVE SEEDING PRIOR TO CO.

3. ANY PERIMETER WALLS MUST BE PERMITED SEPARATELY ALL RETAINING WALL DESIGN SHALL BE BY OTHERS.

4. SURVEY INFORMATION PROVIDED BY COMMUNITY SCIENCES CORPORATION USING NAVD DATUM 1988.

5. A PAD ELEVATION CERTIFICATION SHALL BE REQUIRED PRIOR TO RELEASE OF BUILDING PERMIT.

LEGEND

- XXXX — EXISTING CONTOUR
- XXXX — EXISTING INDEX CONTOUR
- XXXX — PROPOSED CONTOUR
- XXXX — PROPOSED INDEX CONTOUR
- XXXX — EXISTING SPOT ELEVATION
- XXXX — PROPOSED SPOT ELEVATION
- BOUNDARY
- ADJACENT BOUNDARY
- EXISTING CURB AND GUTTER
- PROPOSED EARTHEN SWALE
- PROPOSED RETAINING WALL
- PROPOSED GRAVEL
- PROPOSED CONCRETE
- PROPOSED 2' WIDE COBBLE SWALE

ENGINEER'S SEAL
DAVID SOULE NEW MEXICO 14522 REGISTERED PROFESSIONAL ENGINEER
7/20/23
DAVID SOULE
P.E. #14522

LOT 3 BLK 16 U 3 NAA
8400 FLORENCE AVE. NE

GRADING AND DRAINAGE PLAN

Rio Grande Engineering
PO BOX 93924
ALBUQUERQUE, NM 87199
(505) 321-9099

DRAWN BY DEM
DATE 7-17-23
8400 FLORENCE AVE NE .DWG
SHEET # C1
JOB #