

CITY OF ALBUQUERQUE

Planning Department
David S. Campbell, Director



Timothy M. Keller, Mayor

March 20, 2019

Jake Bordenave
Bordenave Designs
PO Box 91194
Albuquerque, NM 87199

RE: **6705 Emory Oak Place NE**
Grading and Drainage Plan
Engineer's Stamp Date 3/13/2019
Hydrology File: E24D006

Dear Mr. Bordenave:

Based on the information provided in the submittal received on 3/14/2019 the above-referenced Grading and Drainage Plan is approved Building Permit. Include a copy of this letter and the approved plan in the Building Permit plan sets.

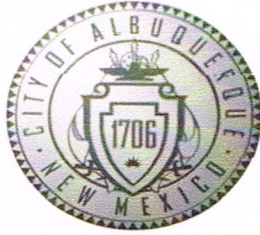
Prior to Certificate of Occupancy an Engineer's Certification must be submitted to and approved by the Hydrology Section. Standard resubmittal fees apply.

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Curtis Cherne, PE, ccherne@cabq.gov, 924-3420) 14 days prior to any earth disturbance, Building Permit, or Work Order.

If you have any questions, I can be contacted at 924-3986 or jhughes@cabq.gov.

Sincerely,

James D. Hughes P.E.
Principal Engineer, Planning Dept.
Development Review Services



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: SERSUN RES. Building Permit #: 2019-06086 Hydrology File #: _____
DRB#: _____ EPC#: _____ Work Order#: _____
Legal Description: LOT 59, MOUNTAIN HIGHLANDS & HIGH DESERT
City Address: 6705 EMORY OAK PL. NE
Applicant: BORDENAVE DESIGN Contact: _____
Address: PO Box 91194 87199
Phone#: 823-1344 Fax#: - E-mail: jake.bordenave@comcast.net
Other Contact: _____ Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____
TYPE OF DEVELOPMENT: _____ PLAT (# of lots) ☒ RESIDENCE _____ DRB SITE _____ ADMIN SITE
IS THIS A RESUBMITTAL? ☒ Yes _____ No
DEPARTMENT ☒ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE
Check all that Apply:
TYPE OF SUBMITTAL:
____ ENGINEER/ARCHITECT CERTIFICATION
____ PAD CERTIFICATION
____ CONCEPTUAL G & D PLAN
☒ 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?
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
____ FLOODPLAIN DEVELOPMENT PERMIT
____ OTHER (SPECIFY) _____
DATE SUBMITTED: 03/13/19 By: JAKE BORDENAVE

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

LEGEND

TBM

TEMPORARY BENCHMARK

G

EXISTING GROUND

FF

FINISH FLOOR

FG

FINISH GRADE after landscaping

FL

FLOWLINE

TA

TOP OF ASPHALT

TC

TOP OF CONCRETE

BC

TOP OF CURB

TS

TOP OF SIDEWALK

TRW

TOP RETAINING WALL

TW

TOP OF YARD WALL

FH

FIRE HYDRANT

WM

WATER METER

WV

WATER VALVE

MH

MANHOLE

CB

CATCH BASIN GRATE

GM

GAS MATER

GV

GAS VALVE

LP

LIGHT POLE

PP

POWER POLE

GW

GUY WIRE

PED

ELEC., TEL. OR CBL PED.

OHU

OVERHEAD UTILITIES

RD/C

ROOF DRAINAGE POINT

DIRECTION OF FLOW

YARD WALL

RETAINING WALL

FEMA FLOODPLAIN BOUNDARY

DRAINAGE BASIN BOUNDARY

EROSION SETBACK LINE

EXISTING CONTOUR

PROPOSED CONTOUR

EXISTING SPOT ELEVATION

PROPOSED SPOT ELEVATION

RECORD SPOT ELEVATION

MAJOR MINOR

XXXXXX

XX.XX

XX.XX

EXISTING

PROPOSED

STRUCTURES

UNDERGROUND UTILITIES

EXISTING S,T,U

S,T,U = SIZE (INCHES), TYPE & USE

TYPE: CI— Cast Iron, DI—Ductile Iron, CMP— Corr. Metal, HDPE—High Density Poly ethylene, PVC— Polyvinyl Chloride, RCP— Reinforced Conc.

USES: SD—STORM DRAIN, SAS—SANITARY SEWER, W—WATER, IRR— IRRIGATION

PROPOSED S,T,U

STORM DRAIN JUNCTION BOX w/ SOLID LID & PVC SMOOTH WALL PIPE SIZE

MINIMUM PIPE SLOPES

PIPE SIZE

SLOPE

4"

2%

6"

1%

8"

1%

STORM DRAIN JUNCTION BOX w/ GRATE LID & PVC SMOOTH WALL PIPE SIZE

SEE SHEET C-2 FOR PIPE SIZE/FL ELEV. AND JUNCTION BOX GRATE/LID ELEVATIONS

STORM DRAIN NOTES: ALL JUNCTION BOXES TO HAVE REMOVABLE TOPS (LIDS OR GRATES) FOR CLEANING PURPOSES. DO NOT USE CORRUGATED PIPE.

GRADING PLAN

CONSTRUCTION NOTES:

ELEVATIONS SHOWN ARE BASED ON CONTOUR MAP PREPARED BY SANDIA LAND SURVEYING, LLC. ELEVATION BASIS NAD 83.

CONCRETE OR STONE SPLASH PADS SHALL BE PLACED AT ALL CANALES.

ALL SURFACES BETWEEN THE BANCO OR YARD WALLS AND THE RESIDENCE SHALL BE GRADED TO DRAIN TO THE GRATED JUNCTION BOXES.

EXISTING GROUND ELEVATIONS SHALL REMAIN UNALTERED EXCEPT WHERE SHOWN TO BE ADJUSTED ON THIS GRADING PLAN.

TOPS OF RETAINING WALLS SHALL TRANSITION IN ELEVATION IN EIGHT INCH INCREMENTS AND SHALL BE AT LEAST ONE FOOT ABOVE HIGHEST ADJACENT GRADE. SEE STRUCTURAL PLANS FOR RETAINING WALL DETAILS.

SURFACE OF COBBLE STONES (WHERE THEY ABUT NATURAL GROUND) IN ALL EROSION CONTROL FACILITIES SHALL BE FLUSH WITH ADJACENT EARTH SURFACES.

DISTURBED AREAS THAT ARE NOT BEING TREATED AS PART OF THE FORMAL LANDSCAPING PLAN SHALL BE SEEDED WITH THE 'HIGH DESERT' SEED MIX.

ALL CUT AND FILL SLOPES SHALL BE 3:1 OR FLATTER.

OWNERS NOTE:

THE PROPERTY OWNER SHALL MAKE PERIODIC INSPECTIONS OF DRAINAGE FACILITIES TO ASSURE THEY ARE OPERATIONAL. MAINTENANCE OF THESE FACILITIES IS THE RESPONSIBILITY OF THE INDIVIDUAL PROPERTY OWNERS.

EMORY OAK PL. NE

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LOT 57

FINISH FLOOR 6271.50

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[illegible]

PERCENT BY VOL.	PERCENT BY VOL.
> 6"	0-5
3"-6"	40-60
1"-3"	10-30
3/8"-1"	10-15
< 3/8"	0-5

CONSTRUCTION NOTES:
BOTTOM AND BANK WIDTHS SHALL
VARY TO SIMULATE A NATURAL
STREAM. CONSTRUCTED BOTTOM WIDTH
SHALL BE AT LEAST AS WIDE AS NOTED
IN THE BUILD NOTE. STONES GREATER
THAN 4" SHALL BE LIMITED TO BANK
AREAS.

WIDTH PER KEY NOTE ON SHEET C-1

12" 6" 6"

6" 6" 6"

3 - NO. 4 REBARS. LAP JOINTS 12".

SUBGRADE PREPARATION (95% MODIFIED PROCTOR)

COMPACTED SUBGRADE (90% MODIFIED PROCTOR)

NOTE:
AT INSTALLATIONS WHERE THE SIDEWALK PENETRATES A CURB
FACE THE GUTTER SHALL BE POURED MONOLITHICALLY WITH
SIDEWALK CULVERT.

1'-0" MIN.

6"

6"

6"

15"

6"

* ROUND TOP EDGES WITH 1/2" EDGING TOOL.

2-#4 REINFORCING STEEL BARS

PORTLAND CEMENT CURB

SUBGRADE PREPARATION
(95% MODIFIED PROCTOR)

COMPACTED SUBGRADE
(90% MODIFIED PROCTOR)

PAVING SURFACE

NOTE:

PROVIDE CONTRACTION JOINTS AT 5 FEET ON CENTER AND EXPANSION JOINTS AT 50 FEET ON CENTER UNLESS OTHERWISE STATED ON SITE PLANS OR IF CURB ABUTS SIDEWALK; WHERE CURB JOINTS SHALL MATCH SIDEWALK JOINTS.

	ASIN	RETURN PERIOD	TYPE	AREA	PRECIPITATION	RUNOFF	VOLUME	RATE
			(table 4)		(table 8)	(table 9)		
-	-	year	-	sq. ft.	in.	cfs/acre	cu. ft.	cfs
EXISTING	SITE	10	A	48154	0.28	0.87	1124	0.96
			B	20220	0.46	1.45	775	0.67
			C	0	0.73	2.26	0	0.00
			D	0	1.69	3.57	0	0.00
			TOTAL	68374			1899	1.63
		100	A	48154	0.80	2.20	3210	2.43
			B	20220	1.08	2.92	1820	1.36
			C	0	1.46	3.73	0	0.00
			D	0	2.64	5.25	0	0.00
			TOTAL	68374			5030	3.79
DEVELOPED	SITE	10	A	46610	0.28	0.87	1088	0.93
			B	10142	0.46	1.45	389	0.34
			C	0	0.73	2.26	0	0.00
			D	11622	1.69	3.57	1637	0.95
			TOTAL	68374			3113	2.22
		100	A	46610	0.80	2.20	3107	2.35
			B	10142	1.08	2.92	913	0.68
			C	0	1.46	3.73	0	0.00
			D	11622	2.64	5.25	2557	1.40
			TOTAL	68374			6577	4.43
POND	12	100	A	0	0.80	2.20	0	0.00
			B	4116	1.08	2.92	370	0.28
			C	0	1.46	3.73	0	0.00
			D	5315	2.64	5.25	1169	0.64
			TOTAL	9431			1540	0.92
POND	13	100	A	0	0.80	2.20	0	0.00
			B	3506	1.08	2.92	316	0.24
			C	0	1.46	3.73	0	0.00
			D	4939	2.64	5.25	1087	0.60
			TOTAL				1402	0.83

POND 12
INLET TO CONCRETE CHANNEL

HARP CRESTED WEIR
 $Q = CLH^{3/2}$
 where Q from table, C=weir coefficient, L=curb opening length, H=water depth,
 $0.92 = (3)L(0.33)^{1.5}$
 therefore L = 1.6 use 2' wide curb opening

COBBLE OUTLET FROM POND

ROAD CRESTED WEIR
 $Q = CLH^{3/2}$
 where Q from table, C=wier coefficient, L=curb opening length, H=water depth,
 $0.92 = (2.5)L(0.17)^{1.5}$
 therefore L = 5.3 use 6' wide pond outlet opening

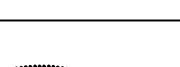
POND 13

$Q = CLH^{3/2}$
 where Q from table, C=wier coefficient, L=culb opening length, H=water depth,
 $0.83 = (2.5)L(0.17)^{1.5}$
 therefore L = 4.7 use 5' wide pond outlet opening

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT THE NM811 FOR LOCATION OF EXISTING UTILITIES. DIAL 811 TO SUBMIT REQUEST OR 505-260-1165 WITH QUESTIONS.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO PUBLIC RIGHT-OF-WAY OR PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY THE CONSTRUCTION OF TEMPORARY SOIL BERMS OR SILT FENCES AT PROPERTY LINES AND WETTING SOIL TO PREVENT IT FROM BLOWING.
2. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING TRACKED DOWN THE STREET.

no.	date	remarks	by

	REVISIONS		
	project title SERSUN RESIDENCE 6705 EMORY OAK PL. NE ALBUQUERQUE, NM		
	sheet title DETAILS, NOTES, + DRAINAGE CALCS		
03/13/19	drawn by METO	design by JUB	project no. 1806

 BORDENAVE DESIGNS P.O. BOX 91194, ALBUQUERQUE, NM 87199 ph (505)823-1344 cell (505)480-6812 fax(505)821-9105 email jakebordenave@comcast.net	sheet C-2 of
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6" THICK STONE PAD ON FILTER CLOTH (MIRAFI 140-N OR APPROVED EQUAL) AS SHOWN ON GRADING PLAN. SEE STONE GRADATION ON DRY STREAM DETAIL ABOVE. DO NOT PLACE STONE ON POND BANKS OR BOTTOM EXCEPT AS SHOWN ON THE GRADING PLAN.

CONCRETE CHANNEL INLET. SEE CHANNEL DETAILS THIS SHEET.

DRY STREAM INLET

CONSTRUCT 2' MINIMUM WIDTH COMPACTED EARTH BERM.

CONSTRUCT POND OUTLET AT 3:1 SLOPE TO NATURAL GROUND. EXTEND STONE AND FILTER FABRIC TO NATURAL GROUND.

PIPE INLET

BOTTOM OF POND. SEE GRADING PLAN FOR ELEVATION.

NOTE:
POND CUT AND FILL SLOPES SHALL BE 3:1 OR FLATTER.

I, JEAN J. BORDENAVE, NEW MEXICO PROFESSIONAL ENGINEER AND LAND SURVEYOR NO. 5110, HEREBY CERTIFY THAT I HAVE PERSONALLY INSPECTED THE PROPERTY SHOWN HEREON AND THAT IT APPEARS THAT NO GREADING, FILLING OR EXCAVATION HAS OCCURRED THEREON SINCE THE CONTOUR MAP SHOWN HEREON WAS PREPARED.

Jean J Bordenave 11/09/18
JEAN J. BORDENAVE, NM PE & PLS NO. 5110

1. THE SITE IS PRESENTLY IN IT'S NATURAL STATE, RELATIVELY STEEP AND ROCKY. VEGETATION IS DENSE WITH NATIVE GRASSES, BUSHES AND JUNIPER TREES. THERE ARE SEVERAL MINOR ARROYOS TRAVELING ACROSS THE PROPERTY FROM THE STREET TO A LARGE ARROYO AT AND ALONG THE REAR OF THE PROPERTY. THE LARGE ARROYO IS LOCATED IN A PLATTED DRAINAGE EASEMENT AND IS AT LEAST 35 FEET FROM THE DESIGNATED BUILDING ENVELOPE.
2. THERE WILL BE A FLOW INCREASE DUE TO PROPOSED DEVELOPMENT. THE DEVELOPED FLOW RATES WILL BE 2.22 AND 4.43 CFS FOR THE 10 YEAR AND 100 YEAR STORMS RESPECTIVELY AND THE 6 HOUR RUNOFF VOLUMES FOR THE 10 YEAR AND 100 YEAR STORMS WILL BE 3113 AND 6577 CUBIC FEET RESPECTIVELY.
3. THE SITE IS LOCATED IN A 'ZONE X' PER FEMA FIRM MAP NO. 161-G, DATED SEPTEMBER 26, 2008.
4. TOPO SURVEY DATA SHOWN ON THIS DRAWING WAS PREPARED BY SANDIA LAND SURVEYING, LLC. DATED MAY, 2018.

Diagram illustrating the cross-section of a retaining wall and driveway surface. The wall height is labeled as "VARIES 0'-8" TO 3'-8\"". The top of the wall is labeled "TOP OF WALL". The driveway surface is labeled "DRIVEWAY SURFACE". The property line is labeled "PROPERTY LINE". The distance from the property line to the wall face is labeled "1.5'". The existing surface on the adjoining property is labeled "EXISTING SURFACE ON ADJOINING PROPERTY". A note at the bottom states: "SEE STRUCTURAL PLANS FOR RETAINING WALL DESIGN."