

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

August 26, 2020

Gilbert Aldaz, P.E.
Applied Engineering & Surveying, Inc.
1605 Blair Drive NE
Albuquerque, NM, 87112

RE: 13804 Haines Ave. NE
Grading and Drainage Plan
Engineer's Stamp Date: 08/11/20
Hydrology File: J23D027

Dear Mr. Aldaz:

PO Box 1293

Based upon the information provided in your submittal received 08/11/20, the Grading and Drainage Plan is approved for Building Permit, Foundation Permit and Grading Permit.

Albuquerque

Once the grading is complete, a pad certification will be required prior to release of Building Permit. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter and the pad certification approval letter.

NM 87103

Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

www.cabq.gov

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

Sincerely,

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



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title: _____ **Building Permit #:** _____ **Hydrology File #:** _____

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

Legal Description: _____

City Address: _____

Applicant: _____ **Contact:** _____

Address: _____

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

Owner: _____ **Contact:** _____

Address: _____

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

TYPE OF SUBMITTAL: _____ PLAT (____# OF LOTS) _____ RESIDENCE _____ DRB SITE _____ ADMIN SITE

IS THIS A RESUBMITTAL?: _____ Yes _____ No

DEPARTMENT: _____ TRAFFIC/ TRANSPORTATION _____ HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- _____ ENGINEER/ARCHITECT CERTIFICATION
- _____ PAD CERTIFICATION
- _____ CONCEPTUAL G & D PLAN
- _____ GRADING PLAN
- _____ DRAINAGE MASTER PLAN
- _____ DRAINAGE REPORT
- _____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- _____ ELEVATION CERTIFICATE
- _____ CLOMR/LOMR
- _____ TRAFFIC CIRCULATION LAYOUT (TCL)
- _____ TRAFFIC IMPACT STUDY (TIS)
- _____ 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: _____ **By:** _____

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

[illegible]

- ① CONSTRUCT NEW 6' HIGH CMU WALL.
- ② CONSTRUCT NEW 2" HIGH RETAINING WALL..
- ③ CONSTRUCT 8' X 8' DESILTING POND.
- ④ CONSTRUCT 3 FOOT WIDE SWALE WITH +/-4' FRACTURED STONE WITH FILTER FABRIC, 12" THICK, PROVIDE A 6" DEPRESSION ADJACENT TO SIDEWALK.
- ⑤ CONSTRUCT CONCRETE DRIVEWAY..
- ⑥ PROPOSED DRAINAGE BASIN BOUNDARY FOR NORTHEAST CORNER THAT DRAINS INTO DESILTING POND
- ⑦ PROVIDE ONE BLOCK OPENING AT BOTTOM OF NEW WALL TO ALLOW FLOWS TO DRAIN OUT.
- ⑧ INSTALL ROOF DRAINS WITH CANALES THAT DRAIN ONTO A CONCRETE SPLASH BLOCK.

PROJECT LOCATION

CITY OF CULMERVILLE

CITY OF LA BONA

CULMERVILLE SCHOOL ROAD

AREA OF MINIMUM FLOOD HAZARD

35001C03766
01/19/2008

35001C03766

<p>PROPOSED SUMMARY AND INTRODUCTION:</p> <p>THE PROPOSED RESIDENTIAL LOT IS LOCATED AT 1804 HANES AVENUE. THE PLAN IS TO CONSTRUCT A RESIDENCE THAT CONSISTS OF A ROOF AREA OF APPROXIMATELY 3,600 SQ. FT. ON ONE OF A ONLY FIVE REMAINING EXISTING LOTS THAT WERE NEARLY BUILT OUT IN THE 1950S IN THE EAST TOWNSHIP. THE LOCATION IS EAST OF RAINWAY AND NORTH OF ANIMAL SHOOL ROAD. THE EXISTING TOPOGRAPHY ON THE SITE Orients TO THE NORTHWEST CORNER AND IS ABOUT 13 FEET FROM THE NORTHWEST CORNER OF THE LOT OF CURVE TO THE NORTHWEST CORNER. THE PLAN IS TO RE-DESIGN THE PROPOSED INTERFERENCE FLOW TO HANES AVENUE AS PART OF THIS PROJECT. ALONG HANES AVENUE ALL OF THE EXISTING INTERFERENCE ON THE SOURCE OF THE STREET FLOW AND DRAINAGE CONCEPT. IT IS THE PROPOSAL OF THE PLAN TO FOLLOW THE SAME DRAINAGE CONCEPT. ON THE NORTH SIDE OF HANES AVENUE IS A DESIGNATED CITY OPEN SPACE SO PROBABLY NO DEVELOPMENT IN THE FUTURE FOR THIS AREA. THE INTENT OF THE DRAINAGE PLAN IS TO SECURE A ROUGH GRADING FIRM AND A BUILDING PERMIT APPROVAL FOR THE PROPOSED DEVELOPMENT.</p>	<p>6. PROPOSED CONDITIONS</p> <p>TOTAL AREA = 0.31 ACRES</p> <p>DRAINAGE BASIN TO NORTHWEST CORNER OF SITE = 1.3052F + 1.8553F NORTH CORNER ROOF AREA + PROPOSED YARD) = 1.485F + 0.27AC</p> <p>TYPE "D" TREATMENT = NEW ROOF AREAS (2.005F) + CONCRETE AREA (2.005F) + 5.005F + 0.11AC PROPOSED TYPE "B" TREATMENT = LANDSCAPED AREAS 5.05 (1.1) 4.85F - 0.002F) = 3.55AC + 0.04AC</p> <p>TYPE "C" TREATMENT = REINAMING COMPACTED GRAVEL AND DEFURBED AREAS COMPACTED BY HUMAN ACTIVITY + 5.0X (1.1) 4.85F - 0.002F) = 3.26AC + 0.04AC</p> <table border="1"> <tr> <th>TREATMENT</th><th>AREAS/ACRES</th></tr> <tr> <td>A</td><td>0</td></tr> <tr> <td>B</td><td>0.08</td></tr> <tr> <td>C</td><td>0.08</td></tr> <tr> <td>D</td><td>0.11</td></tr> </table>	TREATMENT	AREAS/ACRES	A	0	B	0.08	C	0.08	D	0.11
TREATMENT	AREAS/ACRES										
A	0										
B	0.08										
C	0.08										
D	0.11										
<p>PROJECT DESCRIPTION:</p> <p>THE PROJECT LOCATION FOR THE PROPOSED RESIDENCE IS LOCATED IN BLOCK 17, REBONDO SUBDIVISION AND 6 EAST OF HANES AVENUE AND NORTH OF ANIMAL SHOOL ROAD, ALBUQUERQUE (SEE ATTACHED VICINITY MAP). THE PROJECT 6 EAST LOCATED IN ZONE 4, LANE 2 AND IS IN FLOOD HAZARD ZONE "1". AREA OF ANIMAL FLOOD HAZARD PER MAP 300125 (SEE ATTACHED FLOOD MAP).</p>	<p>Q (PROPOSED 4HR) = (2.73 X 0.02) + (0.41 X 0.007) + (4.78 X 0.01) = 1.1023 CFS</p> <p>Q (PROPOSED 4HR) PROPOSED ONSET FLOW INTO RAIN RETENTION POND</p> <p>V (PROPOSED 4HR) = (0.05 X 0.08) + (0.08 X 0.01) + (0.34 X 0.01) / 0.1</p> <p>= 0.045AC FT = 1.9552F PROPOSED VOLUME INTO HANES AVENUE THROUGH DRAINWAY.</p>										
<p>BACKGROUND INFORMATION:</p> <p>IN THE 1980S A SPECIAL ADJUDICATION DISTRICT "24-20" WAS CREATED FOR REBONDO SUBDIVISION WHICH RESULTED IN THE INSTALLATION OF STORM SEWER, WATER AND SEWER LINES AND ROADWAY AND SIDEWALK. THE LOT OWNER AT THAT TIME PAID A FEE OF \$1000 FOR THE CONSTRUCTION OF THE INFRASTRUCTURE WHICH INCLUDES STORM DRAIN IMPROVEMENTS FOR ADDRESSING RAINFALL TO THE SUBDIVISION.</p>	<p>DRAINAGE BASIN TO NORTH EAST CORNER = 1.855F + 0.04AC</p> <p>TYPE "D" TREATMENT = NEW ROOF AREAS (2.005F) + 0.04AC PROPOSED</p> <p>TYPE "B" TREATMENT = LANDSCAPED AREAS 5.05 (1.1) 4.85F - 0.002F) = 3.07F + 0.00AC</p> <p>TYPE "C" TREATMENT = REINAMING COMPACTED GRAVEL AND DEFURBED AREAS COMPACTED BY HUMAN ACTIVITY + 5.0X (1.1) 4.85F - 0.002F) = 3.07F + 0.00AC</p> <table border="1"> <tr> <th>TREATMENT</th><th>AREAS/ACRES</th></tr> <tr> <td>A</td><td>0.00</td></tr> <tr> <td>B</td><td>0.07</td></tr> <tr> <td>C</td><td>0.07</td></tr> <tr> <td>D</td><td>0.03</td></tr> </table>	TREATMENT	AREAS/ACRES	A	0.00	B	0.07	C	0.07	D	0.03
TREATMENT	AREAS/ACRES										
A	0.00										
B	0.07										
C	0.07										
D	0.03										
<p>EXISTING CONDITIONS:</p> <p>AS SHOWN PER THE GRADING PLAN AND PER THE TOPOGRAPHY FROM A SURVEY PERFORMED ON AUGUST 2ND 2010, THE TOTAL CROWN DRAIN TO THE NORTHWEST CORNER FROM THE SOUTHEAST CORNER AND TWO HANES AVENUE. THE TOTAL LOT AREA OF THE SITE = 3.445F (0.11 AC). IF PAVES IMPROVEMENTS AND GRADING WERE PERFORMED ON THE SITE BASED ON THE ORIGINAL TOPOGRAPHY WHICH IS SHOWN ON THIS DRAWING FROM 2010. IN DECISIONS WITH THE CURRENT LAND DRAINAGE OF THE ORIGINAL TOPOGRAPHY THIS SHOWS TWO FOOT CONTOUR THE SOUTH HALF OF THE SITE. ORIGINALLY DRAINED TO THE SOUTHWEST CORNER AND WAS CAUSING SOME FLOODING TO THE ADJACENT LOT 20. BASED ON THE SURVEY AND THE RECENT SITE VISIT IMPROVEMENTS WERE MADE ALONG THE SOUTH BOUNDARY THAT CHANGED A DRIP PROPERTY.</p> <p>V (PROPOSED 4HR) = (0.05 X 0.02) + (0.01 X 0.007) + (0.34 X 0.03) / 0.1</p> <p>0.01AC FT = 4.185F PROPOSED ONSET FLOW INTO DESLING POND AND INTO CORBLE SWALE AT THE NORTH EAST CORNER OF PROPERTY</p>	<p>Q (PROPOSED 4HR) = (2.73 X 0.02) + (0.41 X 0.007) + (4.78 X 0.01) = 1.1023 CFS</p> <p>Q (PROPOSED 4HR) PROPOSED ONSET FLOW INTO DESLING POND AND INTO CORBLE SWALE AT THE NORTH EAST CORNER OF PROPERTY</p> <p>V (PROPOSED 4HR) = (0.05 X 0.02) + (0.01 X 0.007) + (0.34 X 0.03) / 0.1</p> <p>0.01AC FT = 4.185F PROPOSED ONSET FLOW INTO DESLING POND AND INTO CORBLE SWALE AT THE NORTH EAST CORNER OF PROPERTY</p>										
<p>ADDITIONAL DRAINAGE ISSUES FOR THE PROPERTY:</p>	<p>DESING POND VOLUME REQUIRED = 6.79 X 0.87 X 1 FT DEEP = 4.85F + 0.11AC 1 YEARLY VOLUME</p>										
<p>PROPOSED CONDITIONS:</p> <p>THE PROPOSED GRADING PLAN PREPARED FOR THE SITE. THE INTENT IS TO DRAIN ABOUT 2050F OF ROOF AREA ALONG WITH 2050F OF CONCRETE DECKING OF THE DRIVEWAY TO THE NORTHWEST CORNER AND INTO HANES AVENUE.</p> <p>IT ALSO PROPOSED THAT ABOUT 1205F OF ROOF AREA DRAIN TO THE NORTHWEST CORNER AND INTO A NEW DESLING POND WHICH WOULD OVERFLOW OUT AT THE BOTTOM OF A 6" X 16" NEW WALL OPENING AND BE DISCHARGED INTO A CORBLE SWALE AND WOULD HANES AVENUE AT THE NORTH EAST CORNER OF THE SITE.</p>	<p>7. IMPACT OF THE NEW RESURGENCE ON PROPOSED STORM DRAIN CAPACITY (100-YEAR, 4-HOUR STORM)</p> <p>Q (EXISTING 4HR) RELEASE RATE FOR SITE = 1.1023CFS</p> <p>Q (PROPOSED 4HR) RELEASE RATE FOR SITE = 1.1023CFS + 0.10CFS = 1.21CFS</p> <p>Q (DIFFERENCE 4HR) = 0.04CFS = 1.21 CFS + 0.04 CFS = 1.25CFS INCREASE TO DOWNTOWN INLETS AND EMBUDO ARROYO</p> <p>V (EXISTING 4HR) RINOFF VOLUME FOR SITE = 5.85CFT</p> <p>V (PROPOSED 4HR) RINOFF VOLUME FOR SITE = 1.9552F + 4.185F = 2.73CFT</p> <p>V (DIFFERENCE 4HR) = 8.85CFT - 3.73CFT = 5.12CFT INCREASE TO DOWNTOWN INLETS AND EMBUDO ARROYO</p>										
<p>THE PLAN IS TO ALSO PROVIDE LANDSCAPING TO THE FRONT YARD AND REAR YARD TO MINIMIZE DISCHARGE SEE THE BELOW CALCULATIONS FOR THE IMPACTS PER THE DEVELOPMENT.</p>											
<p>DOWNTOWN CAPACITY:</p> <p>SINCE THERE IS AN INLET WITH DEVELOPMENT ALMOST COMPLETE IN THIS SUBDIVISION AND SINCE AN EXISTING RESIDENS REAR DISCHARGE INTO HANES AVENUE. ALLOWING FREE DISCHARGE FROM THE SITE INTO THE EXISTING STORM DRAIN IMPROVEMENTS CONSIDERED AS PART OF A "5-AD 20" F. PROPOSED. THE DRAINAGE FROM THE SITE WILL OWN TO HANES AVENUE AND WOULD FLOW INTO HANES AVENUE AND WILL FLOW INTO REBONDO KNOX INLET. IT REACHES THE INTERSECTION OF REBONDO ROAD AND MONTE LARGO DRIVE. THERE IS A SERIES OF 5 EXISTING INLETS DESIGNED TO ACCEPT THIS FLOW. THIS FLOW FROM THIS DRAIN KNOX ABOUT 40 FT AND DISCHARGED INTO THE EMBUDO ARROYO. THE FREE DISCHARGE FROM THE SITE SHOULD HAVE ANIMAL FLOOD IMPACT TO EXISTING DOWNTOWN CONDITIONS.</p>											
<p>DRAINAGE CALCULATIONS:</p>											
<p>1. PRECIPITATION ZONE 4</p>											
<p>2. DESIGN STORM = DEPTH (INCHES) AT 100-YEAR STORM</p>											
<p>4 HOUR = 2.24 INCHES</p>											
<p>24 HOUR = 3.61 INCHES</p>											
<p>10 DAY = 6.27 INCHES</p>											
<p>3. PEAK DISCHARGE (CFS) (ACROSS) FOR 100-YEAR, ZONE 4, TABLE 6.8</p>											
<p>Q = 2.19 CFS (SCALAR) SCL UNCOMPACTED "A"</p>											
<p>Q = 2.75 CFS (SCALAR) LANDSCAPED "B"</p>											

— 5980 — NEW FINAL SURFACE GRADE
— 5980 — EXISTING CONTOUR GRADE

CUT = 283CY
FILL = 226CY

[illegible]

BENCH MARK REFERENCE:
CITY OF ALBUQUERQUE 1-3/4" ALUMINUM DISK,
STAMPED "ACS BM, 14-J23", EPOXIED TO TOP OF
THE CONCRETE CURB RETURN, SW QUADRANT OF
REBONITO ROAD AND CAMINO DEL SIERRA NE
WITH ELEVATION = 6051.357 NAVD88.


IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THIS DRAWING, THEY ARE SHOWN IN APPROXIMATE MANNER ONLY. UTILITY LINES MAY EXIST WHERE NONE ARE SHOWN, IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE UTILITY OR PIPELINE COMPANY, THE OWNER, THE SURVEYOR WHO PERFORMED THE TOPOGRAPHIC SURVEY FOR THIS DEVELOPMENT OR BY OTHERS. THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES.

THE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, TYPE OR TYPE OF EXISTING ABOVE AND UNDERGROUND UTILITIES, OR EXISTING PIPELINES. THE ENGINEER MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM HIMSELF OF THE LOCATION OF ANY EXISTING ABOVE AND UNDERGROUND UTILITIES, AND EXISTING PIPELINES, IN AND NEAR THE AREA OF THE WORK, IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY HIS FAILURE TO LOCATE AND PROTECT EXISTING ABOVE AND BELOW GROUND AND UNDERGROUND UTILITIES, AND EXISTING PIPELINES. THE CONTRACT SHALL COMPLY WITH STATE STATUTES PERTAINING TO THE LOCATION OF THESE LINES IN PLANNING AND CONDUCTING EXCAVATION WORK.

08-11-2020

APPLIED ENGINEERING AND
SURVEYING, INC.

CIVIL ENGINEERING, LAND
PLANNING AND SURVEYING



PROJECT NAME

RESIDENCE
13804 HAINES AVENUE

ALBUQUERQUE, NEW MEXICO

[illegible]

PROJECT NUMBER
DRAWN BY GA
CHECKED BY GA
ISSUE DATE 08-11-2020
FILE NAME: A103 GRADING & DRAINAGE

GRADING AND DRAINAGE PLAN

SHEET NUMBER

A-103