

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

November 18, 2020

Caleb J. Flake, P.E.
McClure
1700 Swift Street, Suite 100
North Kansas City, MO 64116

**RE: WAQ1 – Albuquerque
7300 Meridian Pl NW
Revised Grading & Drainage Plan
Engineer's Stamp Date: 11/12/20
Hydrology File: H14D111**

Dear Mr. Flake:

PO Box 1293

Based upon the information provided in your resubmittal received 11/12/2020, the Revised Grading & Drainage Plan is approved for Building Permit, Grading Permit, SO-19 Permit, and for action by the DRB on Site Plan for Building Permit.

Albuquerque

Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter. Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

NM 87103

www.cabq.gov

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 (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

Also as a reminder, please provide Drainage Covenant for the stormwater quality ponds per Article 6-15(C) of the DPM prior to Permanent Release of Occupancy. There is a recording fee (\$25, payable to Bernalillo County). Please contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996). Due to COVID-19, please follow the instructions:

Either email a pdf copy of the executed drainage covenant and the exhibit to clabadie@cabq.gov or either mail or drop off the originals. Please mail the \$25.00 recording fee check made payable to Bernalillo County to:

Planning Dept./DRC

CITY OF ALBUQUERQUE

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Attn: Charlotte LaBadie
600 2nd St. NW, Ste. 400
ABQ, NM, 87102

If you drop off the originals, there is a drop box outside the building labeled DRC. Once approved and recorded, Charlotte will email you a copy.

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 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: _____



November 12, 2020

1700 Swift Street, Suite 100
North Kansas City, MO 64116
P 816.756.0444

www.mecresults.com

NORTHWEST IOWA | DES MOINES METRO | EASTERN IOWA | SIOUXLAND | SOUTHWEST IOWA | CENTRAL MISSOURI | ST. LOUIS METRO | KANSAS CITY METRO

Renee Brissette, P.E.
Hydrology Section
600 2nd NW
Albuquerque, NM 87102

Re: 7300 Meridian PI NW—Updates to Grading & Drainage Plan (Project Number: PR-2020-003650)

Dear Renee:

Plans for the parking lot expansion at the address mentioned above have been revised in accordance with the City review comments received on 10/27/2020. As part of the changes, small adjustments were made to the islands and this affected the storage within the islands. We are still able to meet the required storage amount with the new layout, and are attaching the updated plan for your review.

Very truly yours,

Matt Eblen, P.E.
meblen@mecresults.com
913-307-2588



SITE GRADING GENERAL NOTES

1. ALL ELEVATIONS SHOWN ARE TO FINISHED GRADE.
2. ALL GRADING OPERATIONS, EXCAVATION, FILL, COMPACTION TESTING, AND BACKFILL SHALL BE OBSERVED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER.
3. NO PAVEMENTS SHALL BE PLACED PRIOR TO APPROVAL OF THE SUBGRADE BY THE GEOTECHNICAL ENGINEER.
4. ALL FILL MATERIAL SHALL BE IN COMPLIANCE WITH THE PROJECT SPECIFICATIONS.
5. THE CONTRACTOR SHALL LEAVE ALL AREAS NOT TO RECEIVE PAVEMENT 6 INCHES BELOW THE FINISHED GRADE, TO ALLOW FOR TOPSOIL. SEE LANDSCAPE FOR ADDITIONAL REQUIREMENTS.
6. ALL GRADING OPERATIONS SHALL BE STAKED BY A REGISTERED CIVIL ENGINEER OR A LICENSED LAND SURVEYOR.
7. ALL ADA PARKING STALLS AND ACCESS AISLES, SHALL HAVE LESS THEN 2% IN ANY DIRECTION
8. ALL SIDEWALKS SHALL HAVE A CROSS SLOPE OF 1.5%. (2.0% MAX)
9. ALL BUILDING ENTRANCES SHALL HAVE A MINIMUM 5' LANDING WITH 1.5% SLOPE AWAY FROM THE BUILDING (2% MAX).

EXISTING 45,000 S.F. BUILDING TO BE RETROFITTED
ZONED NR-BP
UPC:101005722646320107
OWNER: BRUNACINI DEVELOPMENT LTD CO

EXISTING 41,293 S.F. BUILDING
TO REMAIN
ZONED NR-BP

LEGEND

- 924- EXISTING 1' CONTOUR
- 925- EXISTING 5' CONTOUR
- 929.0- PROPOSED .5' CONTOUR
- 930- PROPOSED 2' CONTOUR
- STR- PROPOSED STORM PIPE
- [N-1] DETENTION BASIN NUMBER

NOTE
AT THE TIME OF THIS SUBMITTAL, SURVEY HAD ONLY BEEN PARTIALLY COMPLETED. GRADES WITHIN THE NEW PARKING AREAS EAST OF THE EXISTING BUILDING ARE INCLUDED; BUT INFORMATION ON ADJACENT STREETS AND AT ADJACENT TO THE EXISTING BUILDING WAS STILL IN PROCESS. THE AREA AROUND THE EXISTING BUILDING AND STREETS WILL LARGELY REMAIN UNCHANGED, BUT OUR DOCUMENTS WILL INCLUDE INFORMATION IN THESE AREAS AS IT BECOMES AVAILABLE

DRAINAGE PLAN

THE FOLLOWING ITEMS CONCERNING THE LOT 11 & LOT 12 MERIDIAN BUSINESS PARK GRADING AND DRAINAGE PLAN ARE CONTAINED BELOW:

1. VICINITY MAP
2. GRADING PLAN
3. CALCULATIONS

THE PROPOSED IMPROVEMENTS, AS SHOWN BY THE VICINITY MAP, ARE LOCATED ON THE SOUTH SIDE OF MERIDIAN PLACE NW, ON THE WEST SIDE OF AIRPORT DRIVE NW AND ON THE NORTH SIDE OF BLUEWATER ROAD NW. THE SITE IS UNDEVELOPED AND SLOPES FROM NORTH TO SOUTH AT AN APPROXIMATE SLOPE OF 0.5%. THE SITE IS NOT LOCATED WITHIN A FLOOD HAZARD ZONE ACCORDING TO EFFECTIVE MAPPING FROM F.E.M.A.

THE MASTER DRAINAGE PLAN FOR THIS SUBDIVISION WAS PREPARED BY EASTERLING AND ASSOCIATES. THIS PLAN ESTABLISHED A MAXIMUM SITE DISCHARGE RATE OF 0.10 CFS/ACRE AND REQUIRES TEMPORARY DIVERSION DITCHES AND PONDS TO CONTROL THE RUNOFF GENERATED FROM EACH LOT.

THE SITE IS BOUNDED ON THREE (3) SIDES BY PUBLIC RIGHT-OF-WAY, AND ON THE FOURTH SIDE BY PREVIOUSLY DEVELOPED SITES (INCLUDING LOT 13, FOR WHICH THE PARKING LOT IMPROVEMENTS ARE BEING DEVELOPED). THEREFORE, OFF-SITE FLOWS ARE NOT CONSIDERED SIGNIFICANT.

THE GRADING PLAN SHOWS:

1. THE EXISTING AND PROPOSED GRADES, INDICATED BY CONTOURS AT 0.5' INTERVALS (REFERENCE GENERAL NOTE ON THIS SHEET REGARDING STATE OF SURVEY AT THE TIME OF SUBMITTAL).
 2. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
 3. THE LIMIT AND CHARACTER OF EXISTING IMPROVEMENTS, AND
 4. THE LIMIT AND CHARACTER OF PROPOSED IMPROVEMENTS.
- THE PROPOSED IMPROVEMENTS CONSIST OF PARKING AND ASSOCIATED LANDSCAPING ON LOTS 11 & 12 AS WELL AS TENANT IMPROVEMENTS TO LOT 13 (INCLUDING CANOPIES ON THE NORTH AND SOUTH SIDE OF THE EXISTING BUILDING). THE RUNOFF FROM LOTS 11 & 12 INTO THE NORTHERN AND SOUTHERN PONDS. THE NORTHERN PONDS ARE DIVIDED INTO SUB-PONDS (N-1, N-2, N-3, N-4 & N-5) AND THE SOUTHERN PONDS ARE DIVIDED INTO SUB-PONDS (S-1, S-2, S-3 & S-4). EACH POND IS LOCATED WITHIN DEPRESSED ISLANDS WITHIN THE PARKING AREAS, AND WILL EVENTUALLY DISCHARGE INTO PUBLIC STORM SEWERS ALONG MERIDIAN PLACE NW (NORTHERN PONDS) AND BLUEWATER ROAD NW (SOUTHERN PONDS). THE RESPECTIVE RATES OF DISCHARGE FOR THE ACCUMULATED NORTHERN AND SOUTHERN PONDS ARE 0.26 AND 0.26 (BOTH OF WHICH ARE LESS THAN THE 0.1 CFS/ACRE REQUIREMENT PER THE MASTER PLAN).

THE CALCULATIONS ANALYZE THE EXISTING AND PROPOSED CONDITIONS FOR THE 6-HOUR, 100 YEAR RAINFALL EVENT. PER DISCUSSIONS WITH CITY, THE ANALYSIS IS IN ACCORDANCE WITH CHAPTER 6-"DRAINAGE, FLOOD CONTROL AND EROSION CONTROL" DEVELOPMENT PROCESS MANUAL. AS SHOWN BY THESE CALCULATIONS, THE RATE AND VOLUME OF RUNOFF WILL INCREASE BUT THE POND(S) WITH CONTROLLED OUTLETS WILL MITIGATE THE INCREASE. THIS PLAN IS IN CONFORMANCE WITH THE MASTER DRAINAGE PLAN.

CALCULATIONS

PRECIPITATION ZONE 1

TOTAL SITE AREA (NORTHERN) = 2.65 ACRES, TOTAL SITE AREA (SOUTHERN) = 2.76 ACRES

NORTHERN BASIN AREA = 2.65 ACRES

EXISTING CONDITIONS

LAND TREATMENT A = 100%

EQN 6.1: E = $(0.55^2/2.65)/2.65 = 0.55$ INCHES

EQN 6.2: V360 = $(0.55^2/2.65)/12 = 0.122$ ACRE FEET

EQN 6.6: Qp = $(1.54^2/2.65) = 4.08$ CFS

PROPOSED CONDITIONS

LAND TREATMENT B = 82.8% (2.19 ACRES), D = 17.2% (0.46 ACRES)

EQN 6.1: E = $(0.93^2/0.46) + (2.24^2/19)/2.65 = 2.01$ INCHES

EQN 6.2: V360 = $(2.01^2/2.65)/12 = 0.444$ ACRE FEET

EQN 6.6: Qp = $(2.16^2/0.46) + (4.12^2/19) = 10.02$ CFS

INCREASE IN VOLUME OF RUNOFF = 0.322 ACRE FEET

INCREASE IN RATE OF RUNOFF = 5.94 CFS

POND VOLUME (NORTHERN BASINS)

Tc = 0.2 HR, Ad = 2.43 ACRES, At = 2.65 ACRES, 0.25(Ad/At) = 0.229 HR

Tb = 2.107"E*(Av/Qp) - 0.25(Ad/At) = 0.891 HR

Tp = (0.7"Tc) + ((1.6*(Ad/At))/12) = 0.197 HR

Vrequired = 19.776 CF

POND VOLUME AND DISCHARGES

POND 1 VOLUME = 1,631.26 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2"32.2"3.23)] = 0.0273 CFS
POND 2 VOLUME = 1,972.21 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2"32.2"2.84)] = 0.0268 CFS
POND 3 VOLUME = 780.51 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2"32.2"2.73)] = 0.0251 CFS
POND 4 VOLUME = 665.13 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2"32.2"3.16)] = 0.0270 CFS
POND 5 VOLUME = 794.46 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2"32.2"2.69)] = 0.0249 CFS
POND 6 VOLUME = 702.28 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2"32.2"2.74)] = 0.0251 CFS
POND 7 VOLUME = 1,980.70 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2"32.2"3.06)] = 0.0285 CFS
POND 14 VOLUME = 4,851.20 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2"32.2"3.22)] = 0.0272 CFS
POND 15 VOLUME = 1,641.11 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2"32.2"2.36)] = 0.0233 CFS
POND 16 VOLUME = 808.30 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2"32.2"2.55)] = 0.0242 CFS

TOTAL OUTFLOW = 0.2561 CFS, ALLOWABLE OUTFLOW = 2.65^0.1 = 0.265 CFS

SOUTHERN BASIN AREA = 2.76 ACRES

EXISTING CONDITIONS

LAND TREATMENT A = 100%

EQN 6.1: E = $(0.55^2/2.76)/2.76 = 0.55$ INCHES

EQN 6.2: V360 = $(0.55^2/2.76)/12 = 0.127$ ACRE FEET

EQN 6.6: Qp = $(1.54^2/2.76) = 4.25$ CFS

PROPOSED CONDITIONS

LAND TREATMENT B = 82.8% (2.29 ACRES), D = 17.2% (0.47 ACRES)

EQN 6.1: E = $(0.93^2/0.47) + (2.24^2/29)/2.76 = 2.02$ INCHES

EQN 6.2: V360 = $(2.02^2/2.76)/12 = 0.465$ ACRE FEET

EQN 6.6: Qp = $(2.16^2/0.47) + (4.12^2/29) = 10.45$ CFS

INCREASE IN VOLUME OF RUNOFF = 0.338 ACRE FEET

INCREASE IN RATE OF RUNOFF = 6.20 CFS

POND VOLUME (SOUTHERN BASINS)

Tc = 0.2 HR, Ad = 2.53 ACRES, At = 2.76 ACRES, 0.25(Ad/At) = 0.229 HR

Tb = 2.107"E*(Av/Qp) - 0.25(Ad/At) = 0.895 HR

Tp = (0.7"Tc) + ((1.6*(Ad/At))/12) = 0.197 HR

Vrequired = 20.700 CF

POND VOLUME AND DISCHARGES

POND 8 VOLUME = 1,352.11 CF, 0.95" ORIFICE (AREA = 0.0049 SF), OUTFLOW = 0.6 (0.0049) [SQ(2"32.2"3.42)] = 0.0438 CFS
POND 9 VOLUME = 1,171.28 CF, 0.95" ORIFICE (AREA = 0.0049 SF), OUTFLOW = 0.6 (0.0049) [SQ(2"32.2"3.92)] = 0.0469 CFS
POND 10 VOLUME = 2,524.64 CF, 0.95" ORIFICE (AREA = 0.0049 SF), OUTFLOW = 0.6 (0.0049) [SQ(2"32.2"2.47)] = 0.0372 CFS
POND 11 VOLUME = 4,354.06 CF, 0.95" ORIFICE (AREA = 0.0049 SF), OUTFLOW = 0.6 (0.0049) [SQ(2"32.2"2.90)] = 0.0404 CFS
POND 12 VOLUME = 4,460.13 CF, 0.95" ORIFICE (AREA = 0.0049 SF), OUTFLOW = 0.6 (0.0049) [SQ(2"32.2"2.87)] = 0.0402 CFS
POND 13 VOLUME = 10,915.17 CF, 0.72" ORIFICE (AREA = 0.0028 SF), OUTFLOW = 0.6 (0.0028) [SQ(2"32.2"4.52)] = 0.0289 CFS
POND 17 VOLUME = 1,860.71 CF, 0.95" ORIFICE (AREA = 0.0049 SF), OUTFLOW = 0.6 (0.0049) [SQ(2"32.2"2.57)] = 0.0380 CFS

TOTAL OUTFLOW = 0.2755 CFS, ALLOWABLE OUTFLOW = 2.76^0.1 = 0.276 CFS

TOTAL VOLUME

TOTAL VOLUME PROVIDED (NORTH AND SOUTH BASINS) = 42,345.26 CF

TOTAL VOLUME REQUIRED (NORTH AND SOUTH BASINS) = 40,446.00 CF



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Revisions

NO. DATE DESCRIPTION

WAQ1 - Albuquerque, NM

WAQ1 - Albuquerque, NM
7300 Meridian Pl NW
Albuquerque, NM 87121

Project Manager:

CJF

Checked By:

MVE

Drawn by:

ELM

Document date:

08/18/2020

Project No.

30000481 MEC# 191313-000

Professional Seal



Sheet Title

STORM SEWER CALC SHEET

Sheet No.

C3.06