

* ZONE 2

* 100-YEAR, 6-HR STORM (UNDER EXISTING CONDITIONS) *

START TIME=0.0

RAINFALL TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=2.01 IN RAIN SIX=2.35 IN

RAIN DAY=2.75 IN DT=0.03333 HR

* ON-SITE COMPUTE NM HYD ID=1 HYD NO=100.0 AREA=0.000778 SQ MI

PER A=0.00 PER B=0.00 PER C=31.15 PER D=68.85

TP=0.1333 HR MASS RAINFALL=-1

* 10-YEAR, 6-HR STORM (UNDER EXISTING CONDITIONS) *

START TIME=0.0

RAINFALL TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=1.34 IN RAIN SIX=1.57 IN

RAIN DAY=1.83 IN DT=0.03333 HR

* ON-SITE COMPUTE NM HYD ID=1 HYD NO=110.0 AREA=0.000778 SQ MI

PER A=0.00 PER B=10.00 PER C=31.15 PER D=68.85

TP=0.1333 HR MASS RAINFALL=-1

* 100-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS) *

START TIME=0.0

RAINFALL TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=2.01 IN RAIN SIX=2.35 IN

RAIN DAY=2.75 IN DT=0.03333 HR

* ON-SITE COMPUTE NM HYD ID=1 HYD NO=100.1 AREA=0.000778 SQ MI

PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00

TP=0.1333 HR MASS RAINFALL=-1

* 10-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS) *

START TIME=0.0

RAINFALL TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=1.34 IN RAIN SIX=1.57 IN

RAIN DAY=1.83 IN DT=0.03333 HR

* ON-SITE COMPUTE NM HYD ID=1 HYD NO=110.1 AREA=0.000778 SQ MI

PER A=0.00 PER B=10.00 PER C=0.00 PER D=90.00

TP=0.1333 HR MASS RAINFALL=-1

FINISH

Location
Lot N-65-A, Cole's Industrial Subdivision No. 2 is located at 3427 Vassar Rd. NE containing 0.4982 acre. See attached portion of Vicinity Map G-16-Z for exact location.

Purpose
The purpose of this drainage report is to present a grading and drainage solution for the proposed parking addition. We are requesting paving permit approval.

Existing Drainage Conditions
The site is fairly flat. The site does not fall within a 100 year floodplain. No offsite flows enter this site. The site drains from east to west to Adjacent property owner. Under the current conditions the site generates a runoff of 2.12 cfs.

Proposed Conditions and On-Site Drainage Management Plan
The runoff will continue to drain west under the proposed conditions. The site under the proposed conditions generates a runoff of 2.24 cfs, only an increase of 0.12 cfs from existing conditions. The increase in runoff is very insignificant and will not have any impact on the downstream storm drain structures capacity. First Flush ponds are proposed to intercept the 100-Year/10-day volume of proposed conditions minus the existing conditions.

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) -
INPUT FILE = vassar.txt

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE	NOTATION
START RAINFALL TYPE= 1										1	
COMPUTE NM HYD	100.00	-	1	.00078	2.12	.075	1.80777	1.500	4.251	PER IMP= 68.85	
START RAINFALL TYPE= 1											
COMPUTE NM HYD	110.00	-	1	.00078	1.34	.045	1.07955	1.500	2.688	PER IMP= 68.85	
START RAINFALL TYPE= 1											
COMPUTE NM HYD	100.10	-	1	.00078	2.24	.082	1.98165	1.500	4.491	PER IMP= 90.00	
START RAINFALL TYPE= 1											
COMPUTE NM HYD	110.10	-	1	.00078	1.45	.051	1.23172	1.500	2.905	PER IMP= 90.00	

POND VOLUME REQUIRED

TOTAL PONDING VOLUME REQUIRED (90TH PERCENTILE FLUSH) = 0.34 INCHES x NEW IMPERVIOUS AREA = (0.34/12 x 6,760.83) = 191.56 CF

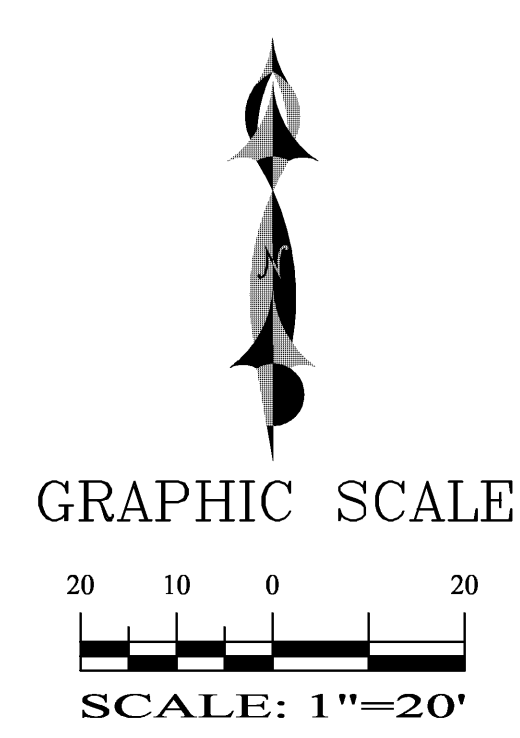
100-YR/10-DAY VOL. (PROPOSED CONDITIONS - EXISTING CONDITIONS)

VOLUME = 6,195.56 - 5,268.24 = 927.32 CF >> 191.56 CF

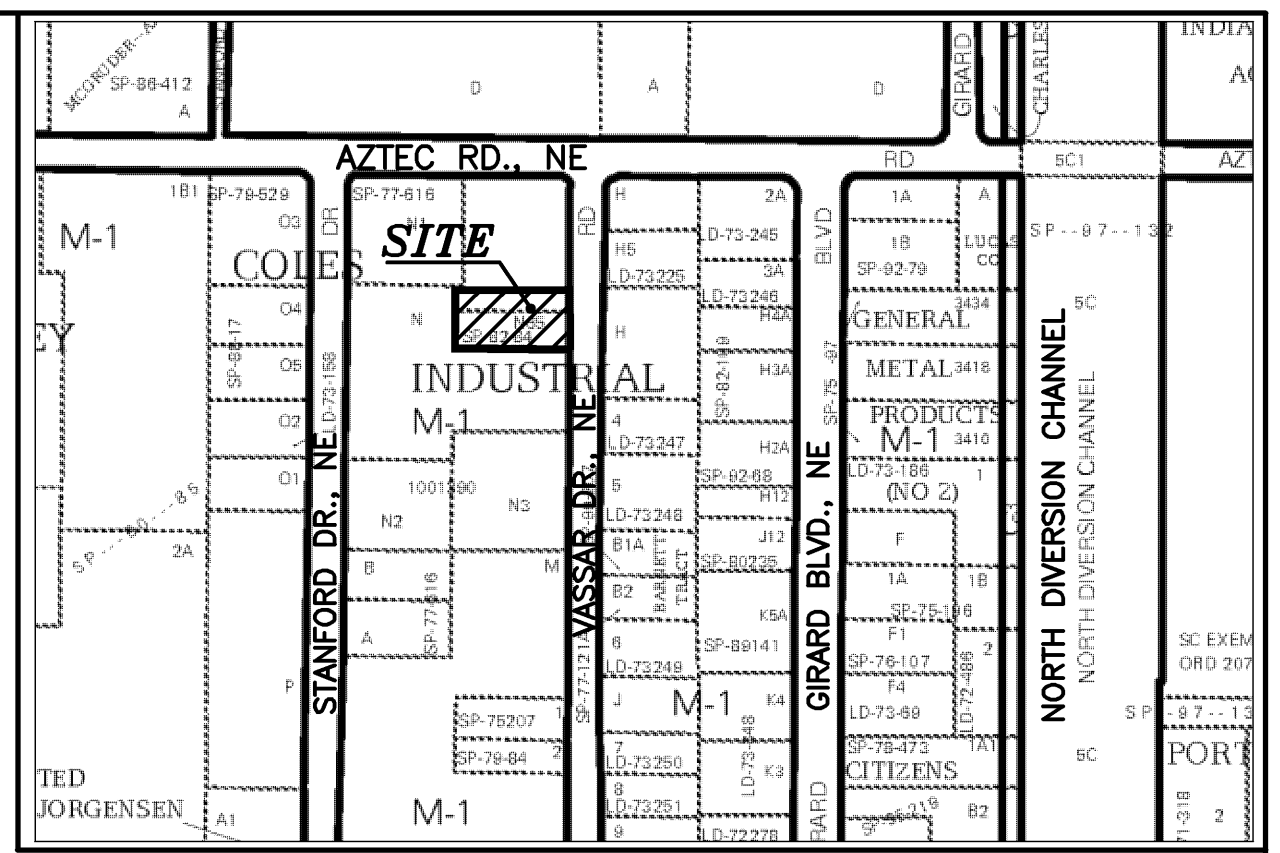
POND CALCULATION

AREA @ TOP = 1,046.91, AREA @ BOTTOM = 387.07

VOLUME = (1046.91 + 387.07)/2*2 = 1,433.98 CF > 927 CF



REZA AFAGHPOUR
P.E. #11814



VICINITY MAP: G-16-Z

LEGAL DESCRIPTION:

LOT N-65-A, COLE'S INDUSTRIAL SUBD., NO. 2
CONTAINING 0.4982 ACRE
ZONING: SU-1

ADDRESS:

3427 VASSAR RD. NE

- GENERAL NOTES:**
1. CONTOUR INTERVAL IS HALF (1.00) FOOT.
 2. ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE CONTROL STATION P-225, HAVING AN ELEVATION OF 5102.67 FEET ABOVE SEA LEVEL.
 3. UTILITIES SHOWN HEREON ARE IN THEIR APPROXIMATE LOCATION BASED ONLY ON ABOVE GROUND EVIDENCE FOUND IN THE FIELD AND AS-BUILT INFORMATION PROVIDED BY THE CLIENT. UTILITIES SHOWN HEREON, WHETHER INDICATED AS ABANDONED OR NOT, SHALL BE VERIFIED BY OTHERS FOR EXACT LOCATION AND/ OR DEPTH PRIOR TO EXCAVATION OR DESIGN CONSIDERATIONS.
 4. THIS IS NOT A BOUNDARY SURVEY, BEARINGS ARE ASSUMED, DISTANCES AND FOUND PROPERTY CORNERS ARE FOR INFORMATIONAL PURPOSES ONLY.
 5. SLOPES ARE AT 3:1 MAXIMUM.

- NOTICE TO CONTRACTORS**
1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
 2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
 3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
 4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
 5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
 6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
 7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

LEGEND	
— 5030 —	EXISTING CONTOUR (MAJOR)
— 5029 —	EXISTING CONTOUR (MINOR)
—	BOUNDARY LINE
x 28.50	PROPOSED SPOT ELEVATION
x 5029.16	EXISTING GRADE
x 5028.65 FL	EXISTING FLOWLINE ELEVATION
BC=89.08	BOTTOM OF CHANEL
TC=28.50	TOP OF CURB
TA=28.00	TOP OF ASPHALT
HP	HIGH POINT
86.65	AS-BUILT GRADES
x 86.65	AS-BUILT SPOT ELEVATIONS

HEIDI'S RASPBERRY JAM PARKING ADDITION LOT N-65-A, COLE'S INDUSTRIAL SUBD., NO. 2 GRADING AND DRAINAGE PLAN			
DRAWING: 201613-GR.DWG	DRAWN BY: SH-B	DATE: 1-24-2014	SHEET # 1

LAST REVISION: 07-18-2016



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 10/2015)

Project Title: HEIDI'S RASPBERRYJAM PARKING ADD. Building Permit #: _____ Hydrology File #: _____

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

Legal Description: TBK AS LOT N-65-A, COLES INDUSTRIAL SUBDIVISION NO.2

City Address: 3427 VASSAR DR., NE

Applicant: SBS CONSTRUCTION AND ENGINEERING, LLC Contact: SHAWN BIAZAR

Address: 10209 SNOWFLAKE CT., NW, ALBUQUERQUE, NM 87114

Phone#: (505) 804-5013 Fax#: (505) 897-4996 E-mail: AECLLC@AOL.COM

Other Contact: _____ Contact: _____

Address: _____

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

Check all that Apply:

DEPARTMENT:

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

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) _____

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?

IS THIS A RESUBMITTAL?: ☒ Yes ☐ No

____ OTHER (SPECIFY) _____

DATE SUBMITTED: 7-20-2016 By: SHAWN BIAZAR

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____

From: [Graeme Means](#)
To: [Rael, Rudy E.](#)
Subject: RE: Acoma E.S.
Date: Wednesday, August 03, 2016 8:38:06 AM
Attachments: [Acoma ES Port Reloc.pdf](#)

Rudy,

Here is the plan set. Let us know if you have any questions.

Thank you,

Graeme



J. Graeme Means, P.E., LEED AP BD+C
Principal

6010-B Midway Park Blvd. NE
Albuquerque, NM 87109
www.highmesacg.com

Phone: 505.345.4250
Fax: 505.345.4254
gmeans@highmesacg.com

We invite you to learn about our [subsurface utility department](#)

From: Rael, Rudy E. [mailto:RRael@cabq.gov]
Sent: Monday, August 01, 2016 9:53 AM
To: Graeme Means <GMeans@highmesacg.com>
Subject: Acoma E.S.

Graeme, we do not have the PDF copy of this plan, can you send it to me?
Thanks

Rudy E. Rael, CE, CFM
Engineer Associate, Hydrology
Planning Department
600 2nd St. NW Suite 201
Albuquerque NM 87102
(505) 924-3977

VOLUME CALCULATIONS FOR 10-DAY STORM

(UNDER EXISTING CONDITIONS)

DRAINAGE BASINS

SUB-BASIN	AREA (SF)	AREA (AC-FT)	AREA (MI ²)
RESIDENTIAL	21,700.74	0.4982	0.000778

$$E = \frac{EA(AA) + EB(AB) + EC(AC) + ED(AD)}{AA + AB + AC + AD}$$

$$V-360 = E (AA + AB + AC + AD)$$

$$V-10 \text{ Day} = V-360 + AD (P-10 \text{ Day} - P-360) / 12 \text{ in/ft}$$

$$EA = 0.53$$

$$EB = 0.78$$

$$EC = 1.13$$

$$ED = 2.12$$

$$AA = 0.00\%$$

$$AB = 0.00\%$$

$$AC = 31.15\%$$

$$AD = 68.85\%$$

$$P-60 = 2.01$$

$$P-360 = 2.35$$

$$P-1440 = 2.75$$

$$P-10 \text{ Day} = 3.95$$

$$E = 1.8116 \quad \text{IN}$$

$$V-360 = 0.0752 \quad \text{AC-FT}$$

$$AD = 0.3430 \quad \text{AC}$$

$$V-10 \text{ Day} = 0.1209 \quad \text{AC-FT}$$

$$V-10 \text{ DAY} = 5,268.24 \quad \text{CF}$$

PONDING REQUIREMENT:

$$(V-\text{PROPOSED}) - (V-\text{EXISTING}) =$$

$$\text{PONDING REQUIREMENT} =$$

$$6195.56 - 5268.24$$

$$927.32 \text{ CF}$$

$$0.02129 \text{ AC-FT}$$

VOLUME CALCULATIONS FOR 10-DAY STORM

(UNDER PROPOSED CONDITIONS)

DRAINAGE BASINS

SUB-BASIN	AREA (SF)	AREA (AC-FT)	AREA (MI ²)
RESIDENTIAL	21,700.74	0.4982	0.000778

$$E = \frac{EA(AA) + EB(AB) + EC(AC) + ED(AD)}{AA + AB + AC + AD}$$

$$V-360 = E (AA + AB + AC + AD)$$

$$V-10 \text{ Day} = V-360 + AD (P-10 \text{ Day} - P-360) / 12 \text{ in/ft}$$

$$EA = 0.53$$

$$EB = 0.78$$

$$EC = 1.13$$

$$ED = 2.12$$

$$AA = 0.00\%$$

$$AB = 10.00\%$$

$$AC = 0.00\%$$

$$AD = 90.00\%$$

$$P-60 = 2.01$$

$$P-360 = 2.35$$

$$P-1440 = 2.75$$

$$P-10 \text{ Day} = 3.95$$

$$E = 1.9860 \quad \text{IN}$$

$$V-360 = 0.0824 \quad \text{AC-FT}$$

$$AD = 0.4484 \quad \text{AC}$$

$$V-10 \text{ Day} = 0.1422 \quad \text{AC-FT}$$

$$V-10 \text{ DAY} = 6,195.56 \quad \text{CF}$$