

# CITY OF ALBUQUERQUE

Planning Department  
Brennon Williams, Director



Mayor Timothy M. Keller

October 2, 2019

Richard Dourte, P.E.  
RHD Engineering, LLC.  
4305 Purple Sage Ave. NW  
Albuquerque, NM 87120

RE: **B&D Industries**  
**9720 Bell Ave SE**  
**Grading Plan Stamp Date 9/10/19**  
**Hydrology File: L20D071**

Dear Mr. Dourte:

Based on the submittal received on 9/12/19, this project cannot be approved until the following corrections are made:

PO Box 1293

Prior to Building Permit and SO-19 Permit:

Albuquerque

1. Please include the latest [standard SO-19](#) notes on the grading plan.
2. Include project datum; all existing survey, proposed grades, and benchmarks must be provided in NAVD 88.
3. Because these corrections are minor, the administrative resubmittal fee of \$40 may be used. Please include a copy of this letter when resubmitting in order to receive the reduced fee.

NM 87103

[www.cabq.gov](http://www.cabq.gov)

Prior to Certificate of Occupancy (For Information):

4. Engineer's Certification, per the DPM Chapter 22.7: *Engineer's Certification Checklist For Non-Subdivision* is required.
5. The sidewalk culverts must be inspected and approved by Storm Drain Maintenance (Augie Armijo at (505) 857-8607).
6. A Bernalillo County Recorded [Private Facility Drainage Covenant](#) is required for the stormwater quality pond. The original notarized form, exhibit A (legible on 8.5x11 paper), and recording fee (\$25, payable to Bernalillo County) must be turned into DRC (4th, Plaza del Sol) for routing. Please contact Charlotte LaBadie ([clabadie@cabq.gov](mailto:clabadie@cabq.gov), 924-3996) regarding the routing and recording process for covenants. The routing and recording process for covenants can take a month or longer; Hydrology recommends beginning this process as soon as possible as to not delay approval for certificate of occupancy.

# CITY OF ALBUQUERQUE

*Planning Department*  
Brennon Williams, Director



*Mayor Timothy M. Keller*

If you have any questions, please contact me at 924-3695 or [dpeterson@cabq.gov](mailto:dpeterson@cabq.gov).

Sincerely,

A handwritten signature in dark ink, appearing to read 'D. Peterson'.

Dana Peterson, P.E.  
Senior Engineer, Planning Dept.  
Development Review Services

PO Box 1293

Albuquerque

NM 87103

[www.cabq.gov](http://www.cabq.gov)



# City of Albuquerque

Planning Department  
Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

**Project Title:** B&D Industries, Inc. Building Permit #: \_\_\_\_\_ Hydrology File #: \_\_\_\_\_

DRB#: \_\_\_\_\_ EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_

Legal Description: Tract B, Block 21, Skyline Heights

City Address: 9720 Bell Ave. SE

**Applicant:** RHD Engineering, LLC Contact: Richard Dourte

Address: 4305 Purple Sage Ave. NW, Alb. NM, 87120

Phone#: 505.288.1621 Fax#: \_\_\_\_\_ E-mail: rhengineering@outlook.com

**Other Contact:** Joe Simons Architecture Contact: Joe Simons

Address: PO Box 67408, Albuquerque NM, 87193-7406

Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: joe@simonsarchitecture.com

**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: 9-12-19 By: Richard Dourte

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

FEE PAID: \_\_\_\_\_



### DRAINAGE NARRATIVE:

1. THIS SITE IS LOCATED IN A FEMA FLOOD HAZARD ZONE X ( REFER TO THE FIRM MAP 35001C0358H, EXCERPT ATTACHED).
2. THIS SITE IS IN A FREE DISCHARGE AREA.
3. LANDSCAPED AREA = 14%  
IMPERVIOUS AREA = 86%
4. THE VOLUME OF WATER GENERATED BY THIS SITE FOR THE 100YR 6HR RAIN FALL EVENT IS 4336CF.
5. THE FIRST FLUSH PONDING REQUIREMENT IS 492CF. THE PONDING PROVIDED IS 510CF, THUS THE PONDING PROVIDED IS GREATER THAN THE REQUIRED PONDING.

### S.O.19 : NOTICE TO CONTRACTORS

- |   |                                                                                                                                                                                                                                                                     |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | AN EXCAVATION / CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN THE CITY RIGHT-OF -WAY.                                                                                                                                                       |
| 2 | ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THRU UPDATE #8. |
| 3 | TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (CALL 811) 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 RESLOVED WITH A MINIMUM AMOUNT OF DELAY.  |
| 5 | BACKFILL SOMPACTION SHALL BE ACCORDING TO TRAFFIC / STREET USE.                                                                                                                                                                                                     |
| 6 | MAINTENANCE OF THESE FACILITIES SHALL BE TE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.                                                                                                                                                                     |
| 7 | WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.                                                                                                                                                                                                     |
| 8 | THE WORK IN THE CITY ROW MUST BE INSPECTED AND ACCEPTED. THE CONTRACTOR MUST CONTACT JASON RODRIGUEZ AT 235-8016 AND CONSTRUCTION COORDINATION AT 924-3416 TO SCHEDULE INSPECTIONS.                                                                                 |

### GENERAL NOTES:

1. THIS SITE IS LOCATED IN A FEMA FLOOD HAZARD ZONE X ( REFER TO THE FIRM MAP 35001C0358H, EXCERPT ATTACHED).
2. RHD ENGINEERING, LLC RECOMMENDS THAT THE OWNER OBTAIN A GEOTECHNICAL REPORT PRIOR TO DESIGN OF BUILDING FOOTING/FOUNDATION.
3. GEOBRUGG TECCO STEEL MESH( OR EQUIV. ) SHALL BE USED FOR SOIL STABILIZATION ON SLOPES GREATER THAN A 3:1 SLOPE, PER MANUFACTURER RECOMMENDATIONS.
4. MODIFICATIONS OR ADJUSTMENTS TO EXISTING DRAINAGE STRUCTURES/EROSION MITIGATION IMPROVEMENTS SHALL BE DONE IN THE SAME MANNER AS THE ORIGINAL IMPROVEMENT.
5. ALL SWPPP REQUIREMENTS SHALL BE ADHERED TO.
6. RESEED GRADED AREAS (INCLUDING THE DRAINAGE SWALE) TO MITIGATE EROSION.
7. ALL WORK ON THIS PLAN SHALL BE DONE IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARDS. ALL APPLICABLE PERMITS SHALL BE OBTAINED PRIOR TO WORK COMMENCING.
8. ALL WORK IN THE RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARDS.
9. THE SURVEY INFORMATION WAS PROVIDED BY THE SURVEY OFFICE, INC.
10. CONSTRUCT 1-2' SIDEWALK CULVERT PER STD DWG. 2236 (SO-19 REQUIRED, SEE NOTES ON THIS SHEET INV. IN = 40.1, INV. OUT = 39.82± MATCH EXST. FL EXTEND STEEL COVER PLATE 1' PAST PROPERTY LINE, TACK WELD TIE DOWN BOLTS.

### 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.

### WEIR CALCULATIONS

$Q = CLH^{3/2}$   
 $C = 3.2$   
 $L = 2.0'$   
 $H = 0.5'$   
 $Q = 3.2(2.0)((0.5)^{1.5}) = 2.3CFS$  PER SIDEWALK CULVERT

THIS SITE GENERATES 2.2CFS FOR THE 100YR, 6HR EVENT, THUS 1 SIDEWALK CULVERT IS NEEDED.

### 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.

Project: BD Industries					
Drainage Calculations - Zone 3					
Depth (inches) at 100yr Storm					
Zone	P <sub>60</sub>	P <sub>30</sub>	P <sub>1440</sub>	P <sub>days</sub>	P <sub>10days</sub>
1	1.87	2.20	2.66	3.12	3.67
2	2.01	2.35	2.75	3.30	3.95
3	2.14	2.60	3.10	3.95	4.90
4	2.23	2.90	3.65	4.70	5.95

Weighted E =  $((E_r \cdot A_r) + (E_s \cdot A_s) + (E_c \cdot A_c) + (E_o \cdot A_o)) / (A_r + A_s + A_c + A_o)$   
 $V_{360} = (\text{Weighted E} \cdot A) / 12 \text{ in/ft}$   
 $V_{1440} = V_{360} \cdot A_o \cdot (P_{1440} - P_{360}) / 12 \text{ in/ft}$   
 $V_{4days} = V_{360} \cdot A_o \cdot (P_{4days} - P_{360}) / 12 \text{ in/ft}$   
 $V_{10days} = V_{360} \cdot A_o \cdot (P_{10days} - P_{360}) / 12 \text{ in/ft}$

Excess Precipitation, E(inches) - 6 HR Treatment				
Zone	A	B	C	D
1	0.44	0.67	0.99	1.97
2	0.53	0.78	1.13	2.12
3	0.66	0.92	1.29	2.36
4	0.80	1.08	1.46	2.64

Peak Discharge (CFS/ACRE) 100 YR Treatment				
Zone	A	B	C	D
1	1.29	2.03	2.87	4.37
2	1.56	2.28	3.14	4.70
3	1.87	2.60	3.45	5.02
4	2.20	2.92	3.73	5.25

*****EXISTING CONDITIONS*****				
Area	SQ. FT	Acres	% Total	
A=	0	0.000	0%	
B=	0	0.000	0%	
C=	20147	0.463	100%	
D=	0	0.000	0%	
Total	20147	0.463	100%	
Weighted E=		1.290		

	V <sub>360</sub>	V <sub>1440</sub>	V <sub>4days</sub>	V <sub>10days</sub>
Cubic feet	2166	2166	2166	2166
Acre-ft	0.05	0.05	0.05	0.05

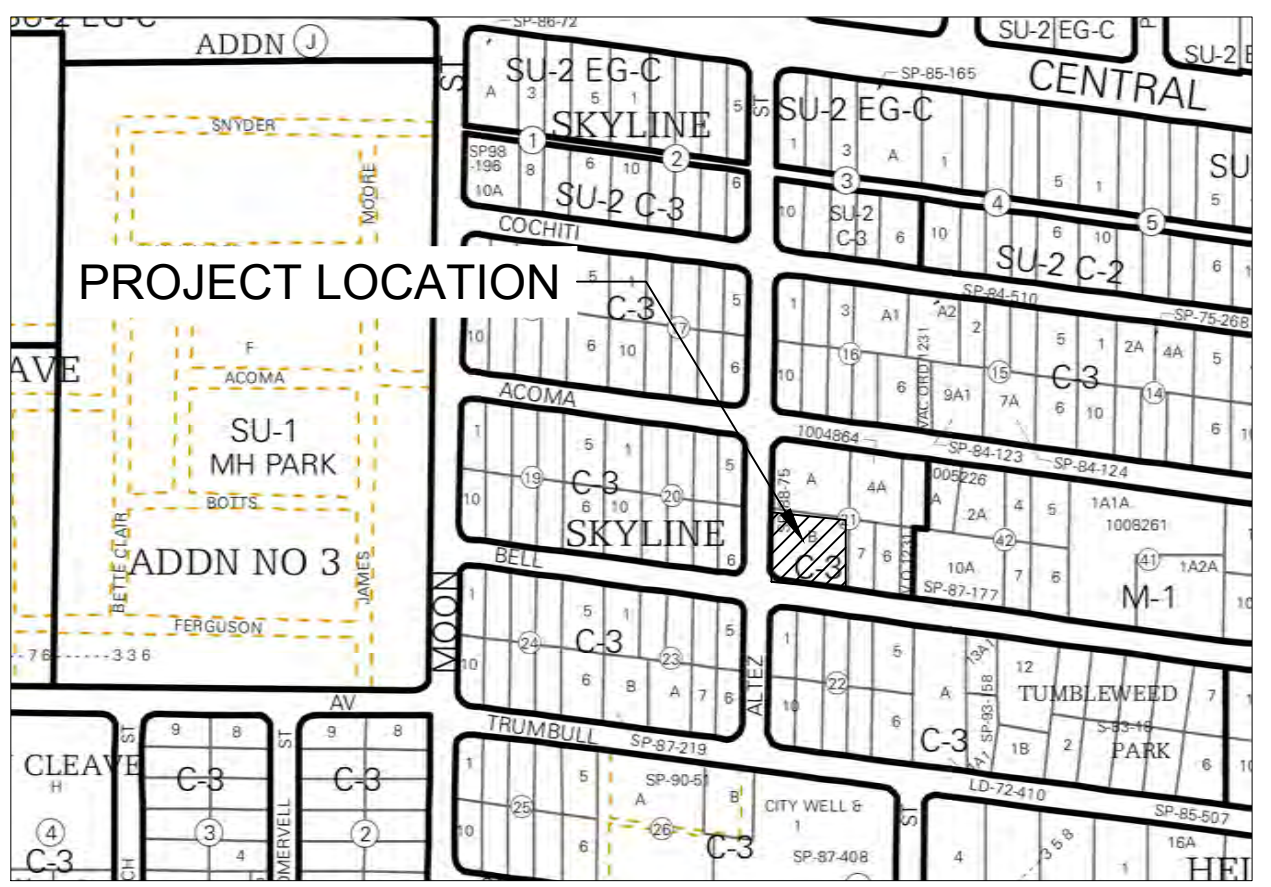
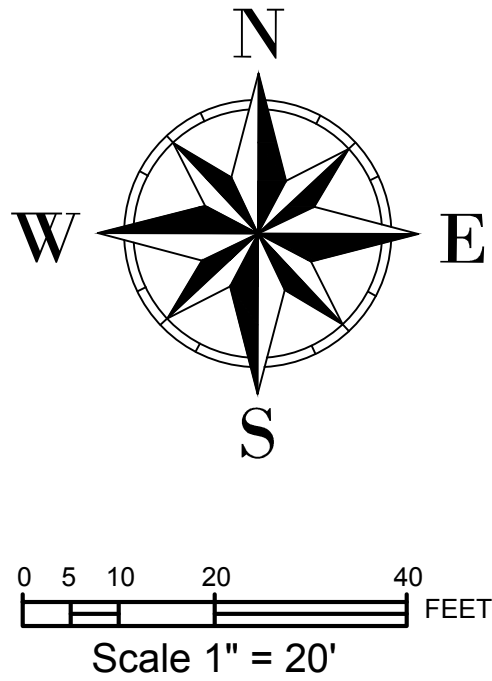
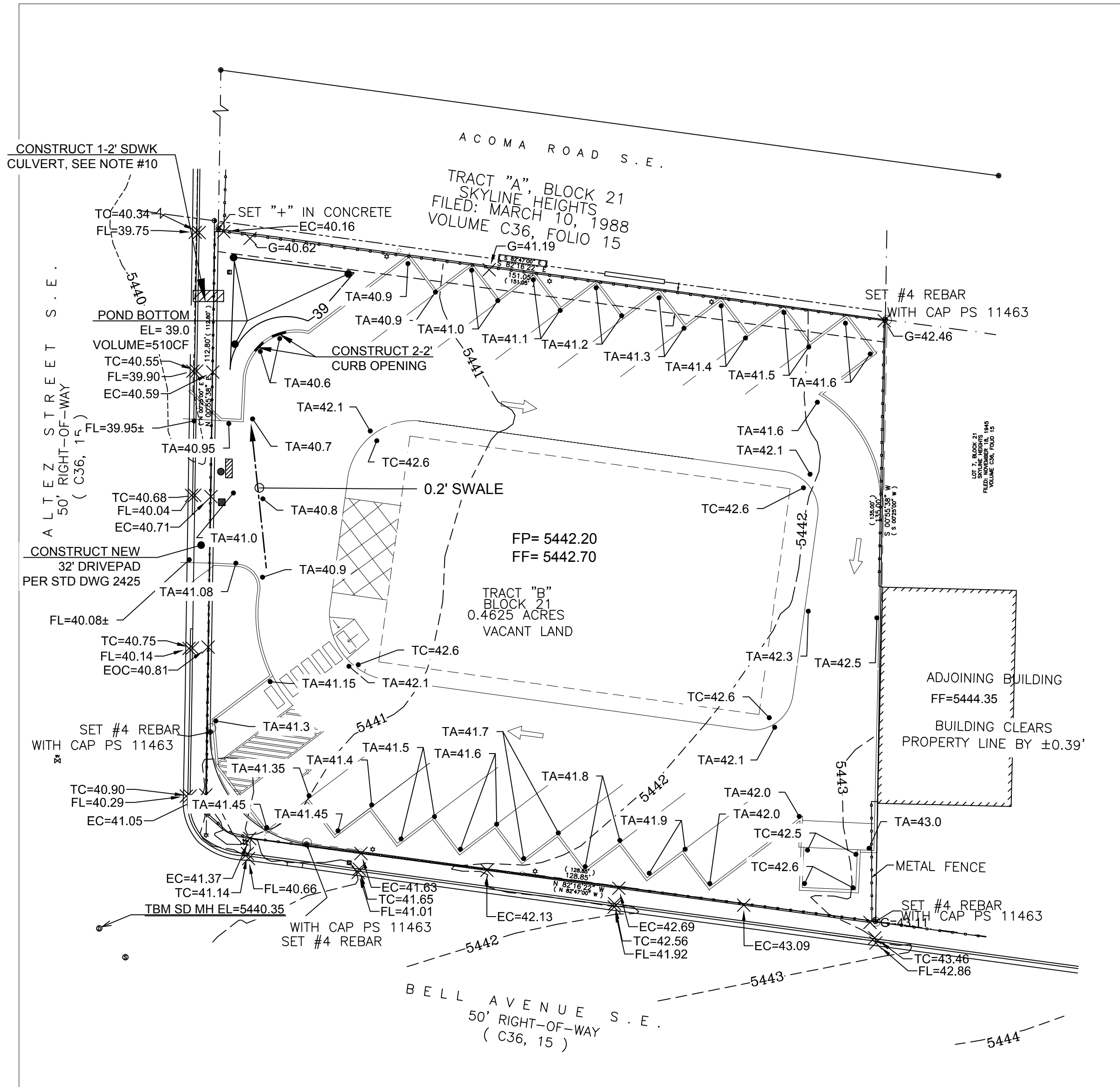
*****PROPOSED CONDITIONS*****				
Area	SQ. FT	Acres	% Total	
A=	0	0.000	0%	
B=	0	0.000	0%	
C=	2795	0.064	14%	
D=	17352	0.398	86%	
Total	20147	0.463	100%	
Weighted E=		2.212		

	V <sub>360</sub>	V <sub>1440</sub>	V <sub>4days</sub>	V <sub>10days</sub>
Cubic feet	3713	4436	5665	7039
Acre-ft	0.09	0.10	0.13	0.16

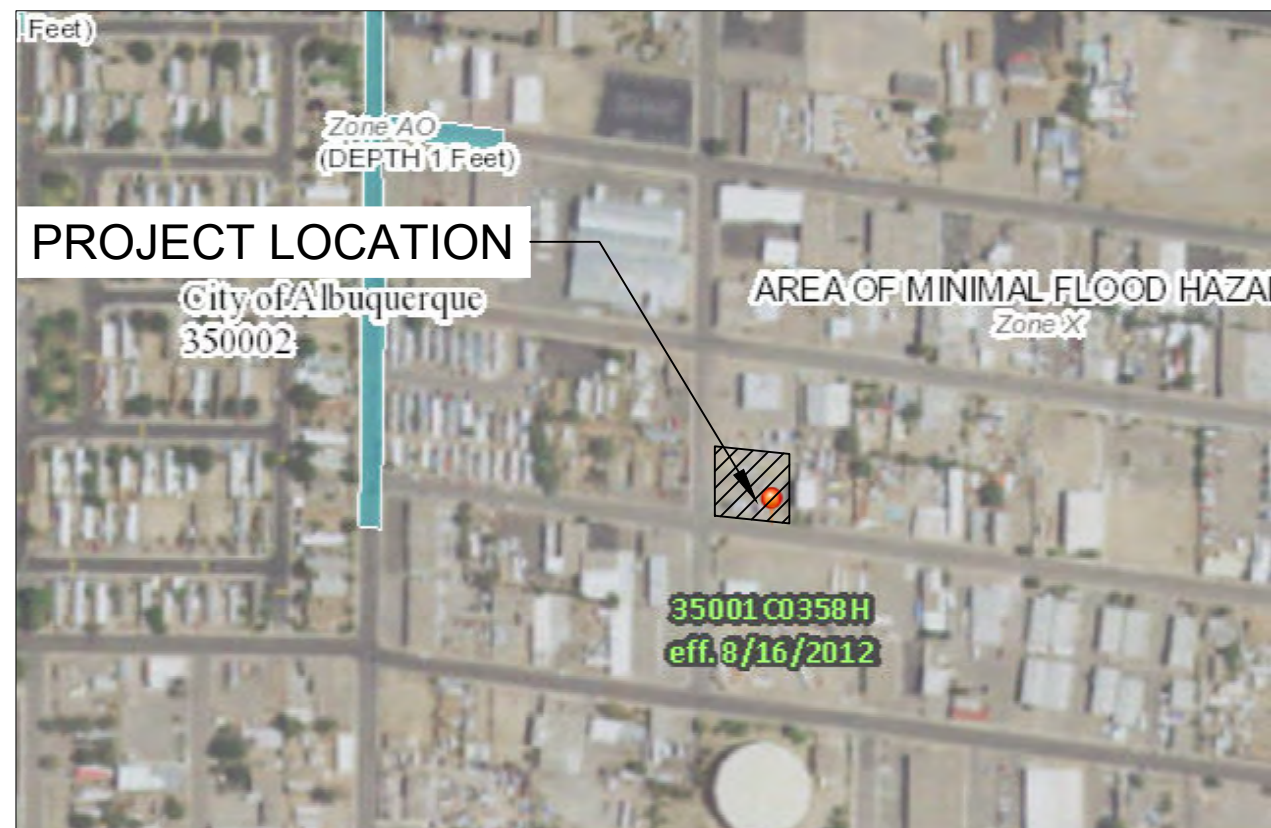
The 100 year peak flows for this developed site is 2.2 CFS and the existing flows are 1.6 CFS for an increase of 0.6 CFS. The 100 year 6 hr volume increase is 3713-2166 = 1547CF.

Storm Water Quality Ponding Requirement =  $A_o \cdot 0.34 \text{ in/12in/ft} = 492 \text{ CF}$

TBM BENCH MARK INFORMATION:  
SD MANHOLE RIM IN BELL AVE, ELEVATION= 5440.35



VICINITY MAP: L20-Z



FIRM MAP: FM35001C0358H

### LEGAL DESCRIPTION:

TRACT B, BLOCK 21, SKYLINE HEIGHTS  
BERNALILLO COUNTY, NEW MEXICO

### NOTES:

1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.
2. RETAIN THE FIRST .34' OF STORM RUNOFF FROM ENTIRE DEVELOPMENT TO CONFORM TO THE WATER QUALITY REQUIREMENTS

### LEGEND

- 46.00 PROPOSED SPOT ELEVATION
- TW=44.00 BW=39.00 TOP OF WALL ELEVATION BOTTOM OF WALL ELEVATION
- 5601 --- EXISTING CONTOUR
- 5600 --- EXISTING INDEX CONTOUR
- 5601 --- PROPOSED CONTOUR
- 5600 --- PROPOSED INDEX CONTOUR
- LOT LINE
- CENTERLINE
- RIGHT-OF-WAY
- PROPOSED RETAINING WALL
- PROPOSED ROCK FACE WALL
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- PROPOSED EDGE OF CONCRETE
- PROPOSED FLOWLINE
- EXISTING WALL
- PROPOSED BASIN BOUNDARY

I HAVE PERSONALLY INSPECTED THE PROPERTY ON 9-7-19 NO EARTHWORK HAS BEEN PERFORMED AND THE SITE IS CONSISTENT WITH THE TOPO SHOWN.  
Richard Dourte P.E. #10854 DATE

ENGINEER'S SEAL	Title: B&D INDUSTRIES, INC. 9720 BELL AVE. SE	DRAWN BY
	GRADING AND DRAINAGE PLAN	DATE
9-10-19	RHD Engineering, LLC 4303 Purple Sage Ave. NW ALBUQUERQUE, NM 87120 (505) 288-1621	SHEET # 1 OF 1
Richard Dourte P.E. #10854		JOB #