

CITY OF ALBUQUERQUE



May 8, 2018

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. N.E.
Albuquerque, NM 87108

RE: **Global Storage- Coors**
3421 Coors Blvd NW
Grading and Drainage Plan
Engineer's Stamp Date 4/30/18
Hydrology File: G11D071

Dear Mr. Arfman:

Based on the information provided in the submittal received on 4/30/18 the above-referenced submittal cannot be approved until the following are corrected:

Prior to Site Plan for Building Permit:

1. Correct the land treatment type for the historic flows; land treatment B is more appropriate for an undeveloped site.
2. Please clarify areas of impervious vs. pervious surfacing. The covered RV storage areas in Basin 1 need to be assessed as impervious area for your developed conditions flow.
3. The detention ponds along Coors need to be sized and shown on this plan, as well and their outfalls (orifice plates). Additional details can be shown on the building permit plan.

Prior to Building Permit:

4. Along Atrisco, size the retention areas to be able to pond the portions of Atrisco that drain to them. Since this will all occur within the ROW, a work order, or excavation permit at minimum, will be needed. Also include a 0.87' water block at this drive entrance unless calculations can be provided to support a smaller water block.
5. There appear to be a few areas around the dumpster access where impervious areas are not being retained on-site. Please add detail to show how these areas are being captured. If unable to capture and retain on-site, quantify the first flush bypass volume and state on plans. Payment of fee in-lieu will then be required at building permit.

Orig: Drainage file



6. A Drainage Covenant is required for the stormwater quality ponds and for the detention ponds and their outfall structures. The original notarized form, exhibit A (legible on 8.5x11 paper), and recording fee (\$25, payable to City of Albuquerque) must be turned into DRC (4th, Plaza del Sol) for routing. Please contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996) or Madeline Carruthers (mtafoya@cabq.gov, 924-3997) regarding the routing and recording process for covenants.
7. This project requires an ESC Plan, submitted to the Stormwater Quality Engineer (Curtis Cherne PE, ccherne@cabq.gov or 924-3420).
8. Payment of the Fee in Lieu for the first flush bypass must be made.
9. Additional comments may be provided at Building Permit, based on the outcome of the above remarks and level of detail shown on plans.

Prior to Certificate of Occupancy:

10. The Drainage Covenant must be recorded with Bernalillo County and a copy included with the drainage certification.

PO Box 1293

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

Albuquerque

Sincerely,

NM 87103

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

www.cabq.gov



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: _____ **Building Permit #:** _____ **City Drainage #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: _____
City Address: _____

Engineering Firm: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____
bryanb@iacivil.com

Owner: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Architect: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

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) _____

IS THIS A RESUBMITTAL?: ☒ Yes ☐ No

CHECK 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
☐ OTHER (SPECIFY) _____

DATE SUBMITTED: April 30, 2018 By: Fred C. Arfman

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____



April 30, 2018

City of Albuquerque
Hydrology Dept.
Attn: Dana Peterson P.E.

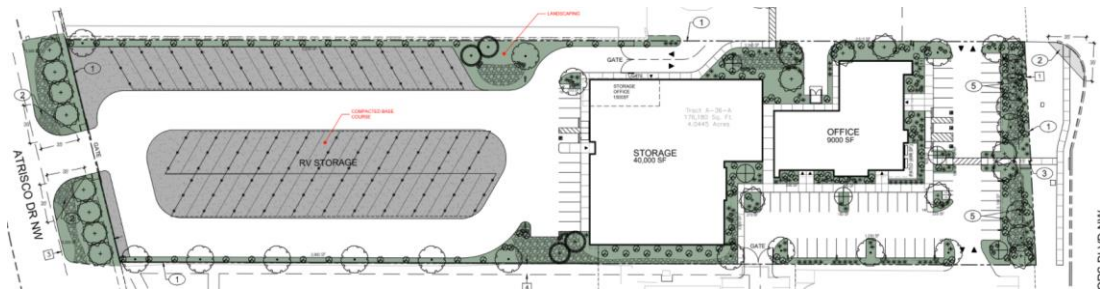
**RE: GLOBAL STOARGE – COORS
Grading and Drainage Plan (G11/D071)**

Dear Mr. Peterson:

Attached with this letter are two copies of the revised Grading and Drainage Plan for the above referenced project. Revisions are based on general site plan revisions and responses to your numbered comments as follows:

1. Based on submittal comments received from NMDOT's Tim Trujillo, the site is permitted to discharge per historic conditions. As part of the building permit Grading and Drainage Plan, a detention pond with orifice control will be designed and NMDOT approval will be obtained. The following note has been added to the plan: No work shall be performed in the N.M.D.O.T. ROW, including stormwater discharge to the N.M.D.O.T. storm drain system without an approval from N.M.D.O.T.
2. A note has been added that "No work shall be performed in the public ROW without an approved Work Order or Excavation Permit."
3. The property to the north (same owner) will provide permission cross lot access. The property to the south connections are not yet determined. Grades for both north and south have been revised to show that no drainage will cross the property lines. A note has been added to the plan.
4. Additional spot elevations have been added along the property line to show that no cross-lot drainage occurs.
5. Driveway entrances and dumpster access grades have been modified to direct all impervious areas to landscaping. First flush basin locations are shown. Specific volume will be quantified as part of the building permit submittal once final roof discharge locations and areas are determined.

6. Areas of impervious vs pervious surfacing is clarified on the CG-102 exhibit and as shown below (impervious is unshaded.) The final building permit submittal will update impervious / pervious area calculations.



The following note has been added to the plans: “For the building permit submittal, all drainage sub-basins and the associated first flush pond volumes will be clarified to ensure all impervious surface first flush discharge is retained.”

7. Curb openings and retention will be provided for the portions of Atrisco fronting the property. Notes regarding work in the public ROW (see comment 2).
8. A recorded SIA with financial guarantee will be provided.

Sincerely,
Isaacson & Arfman, PA

Bryan J. Bobrick

Bryan J. Bobrick
Project Manager

PROJECT DATA

PROPERTY: THE SITE IS AN UNDEVELOPED PROPERTY LOCATED WITHIN C.O.A. VICINITY MAP G-11. THE SITE IS BOUND TO THE EAST BY COORS BLVD. TO THE WEST BY ATRISCO DR., TO THE NORTH BY A STORAGE FACILITY COMPLEX AND TO THE SOUTH BY DEVELOPED COMMERCIAL PROPERTY.

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE TWO COMMERCIAL BUILDINGS WITH ASSOCIATED ASPHALT PAVED ACCESS, PARKING, AND LANDSCAPING.

LEGAL: TRACT A-36-A TOWN OF ATRISCO GRANT NORTHEAST ADDITION, ALBUQUERQUE, NM

SITE AREA: 4.04 ACRES

BENCHMARK: ACS BRASS TABLET STAMPED "8-G11", ELEVATION = 5116.009 FEET (NAD 1983)

OFF-SITE FLOW: WEST PROPERTY R.O.W. HISTORICALLY DRAINS INTO SITE. A WATER BLOCK WILL BE PROVIDED TO CONTAIN FLOWS WITHIN ATRISCO RD. THE UNDEVELOPED R.O.W. PORTION BETWEEN THE STREET AND PROPERTY LINE WILL BE GRADED TO SELF-POND.

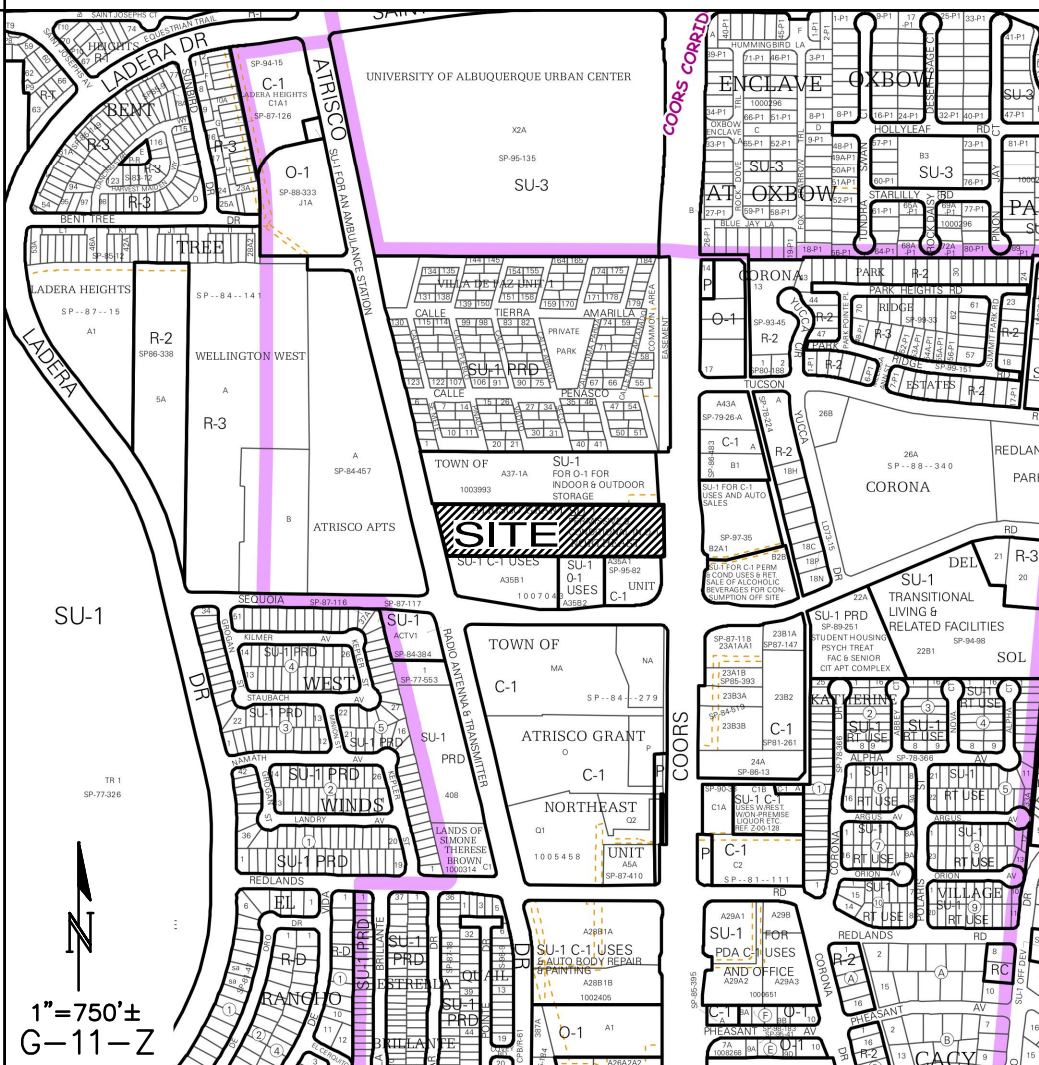
FLOOD HAZARD: PER BERNALILLO COUNTY FIRM MAP #35001C0327J, THE SITE IS LOCATED WITHIN FLOODZONE 'X' DESIGNATED AS AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN.

DRAINAGE PLAN CONCEPT: THE DEVELOPED PROPERTY IS DIVIDED INTO TWO DRAINAGE BASINS. THE WEST RV STORAGE AREA (BASIN 1 = 1.9 ACRES) WILL DRAIN TO THE MIDPOINT FIRST FLUSH RETENTION POND. FLOW IN EXCESS OF POND CAPACITY WILL DISCHARGE TO THE EAST PAVEMENT AND DRAIN TO COORS BLVD. DISCHARGE FROM THE TWO COMMERCIAL BUILDINGS AND THE EAST PARKING AREA (BASIN 2 = 2.1 ACRES) WILL BE DIRECTED TO FIRST FLUSH PONDING ALONG COORS BLVD. EXCESS FLOW WILL FREE DISCHARGE TO THE COORS R.O.W. TO ENTER THE PUBLIC STORM DRAIN SYSTEM AT THE EXISTING DOME INLET IN THE R.O.W. THE INCREASE IN DISCHARGE DUE TO DEVELOPMENT IS 4.3 CFS.

ENGINEER: FRED C. ARFMAN: NMPE 7322
ISAACSON & ARFMAN, PA
128 MONROE NE 87108
505-268-8828

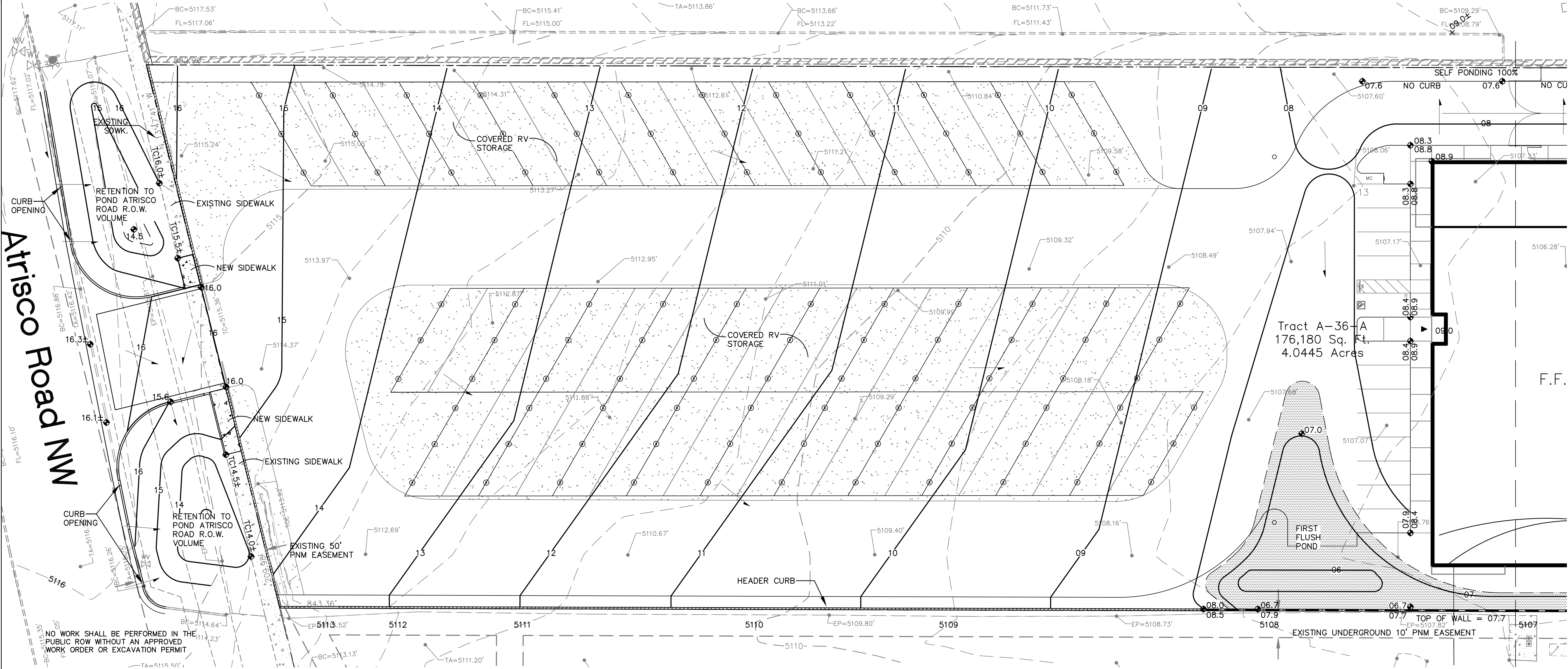
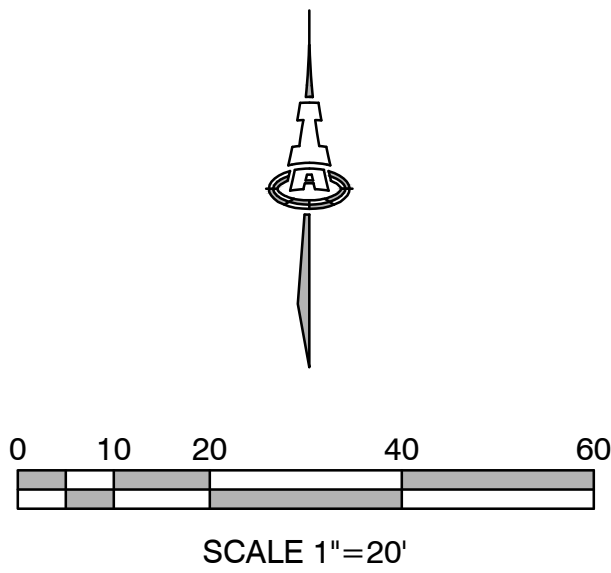
SURVEYOR: WILL PLOTNER JR: NMPS NO. 14271
CARTESIAN SURVEYS, INC
P.O. BOX 44414 RIO RANCHO, NM 87174
505-896-3050

VICINITY MAP



LEGEND

- 5105.65' EXISTING SPOT ELEVATION
- - - 5110 - - - EXISTING CONTOUR
- - - 12 - - - PROPOSED CONTOUR (1' INCREMENT)
- - - 10 - - - PROPOSED CONTOUR (0.5' INCREMENT)
- 08.9 PROPOSED SPOT ELEVATION
- FLOW ARROW
- [Hatched Area] PROPOSED FIRST FLUSH RETENTION POND



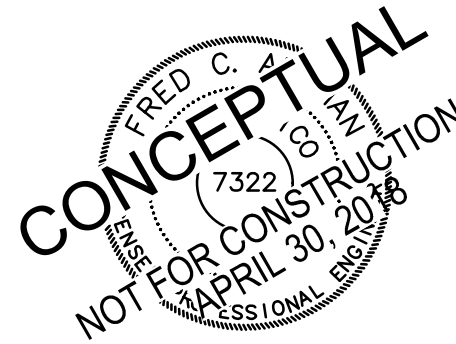
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armando lopez architecture

221 N Main St Studio E
Las Cruces NM 88001

575. 652. 5540
armando@alopezarc.com

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CONSULTANTS



PROJECT

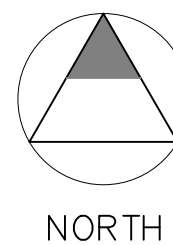
GLOBAL STORAGE - COORS

3421 Coors Road NW
Albuquerque, New Mexico

ISSUE

REVISION

SHEET



CONCEPTUAL
GRADING &
DRAINAGE PLAN
1 OF 2

CG-101

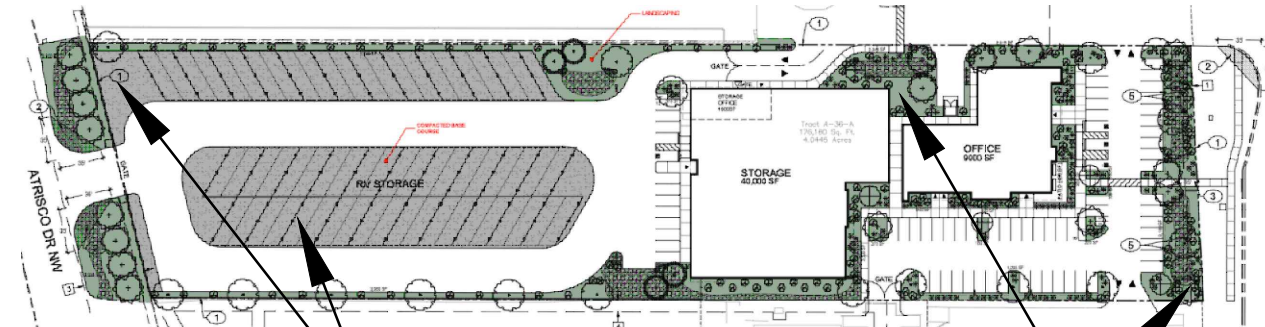
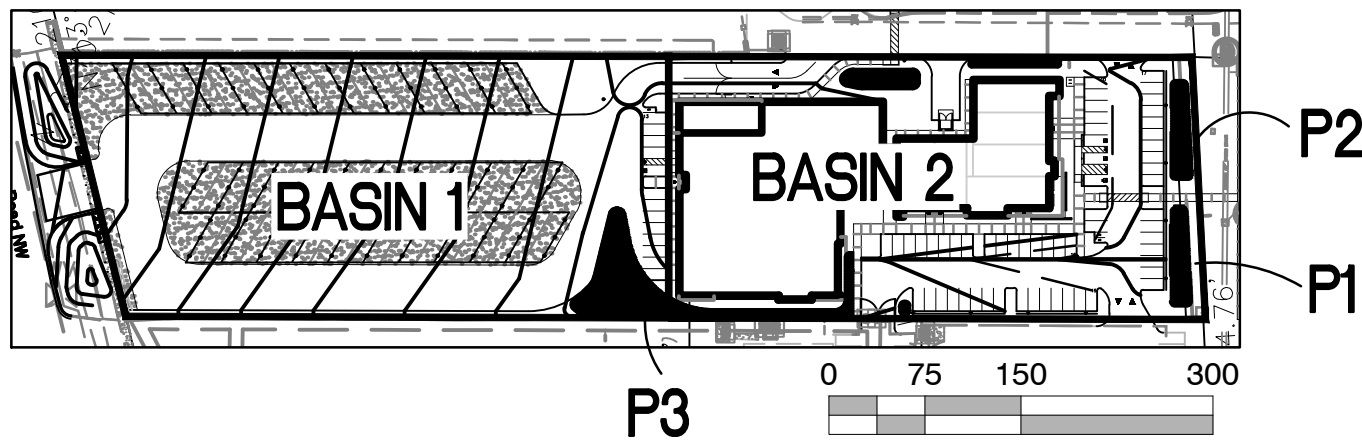
FIRST FLUSH RETENTION

POND #1		
Contour	Area	Volume
5105.40	1040.7	940 CF
5104.00	301.55	
TOTAL VOL.		940 CF
POND #2		
Contour	Area	Volume
5107.00	850	1467 CF
5104.00	128	
TOTAL VOL.		1467 CF
POND #3		
Contour	Area	Volume
5107.20	3752	2324 CF
5106.00	121	
TOTAL VOL.		2324 CF

FOR THE BUILDING PERMIT SUBMITTAL, ALL DRAINAGE SUB-BASINS AND THE ASSOCIATED FIRST FLUSH POND VOLUMES WILL BE CLARIFIED TO ENSURE ALL IMPERVIOUS SURFACE FIRST FLUSH DISCHARGE IS RETAINED.

ON-SITE DRAINAGE BASINS

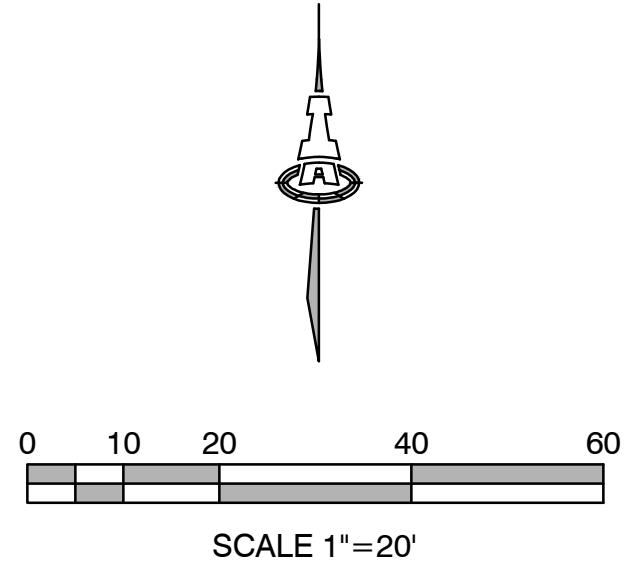
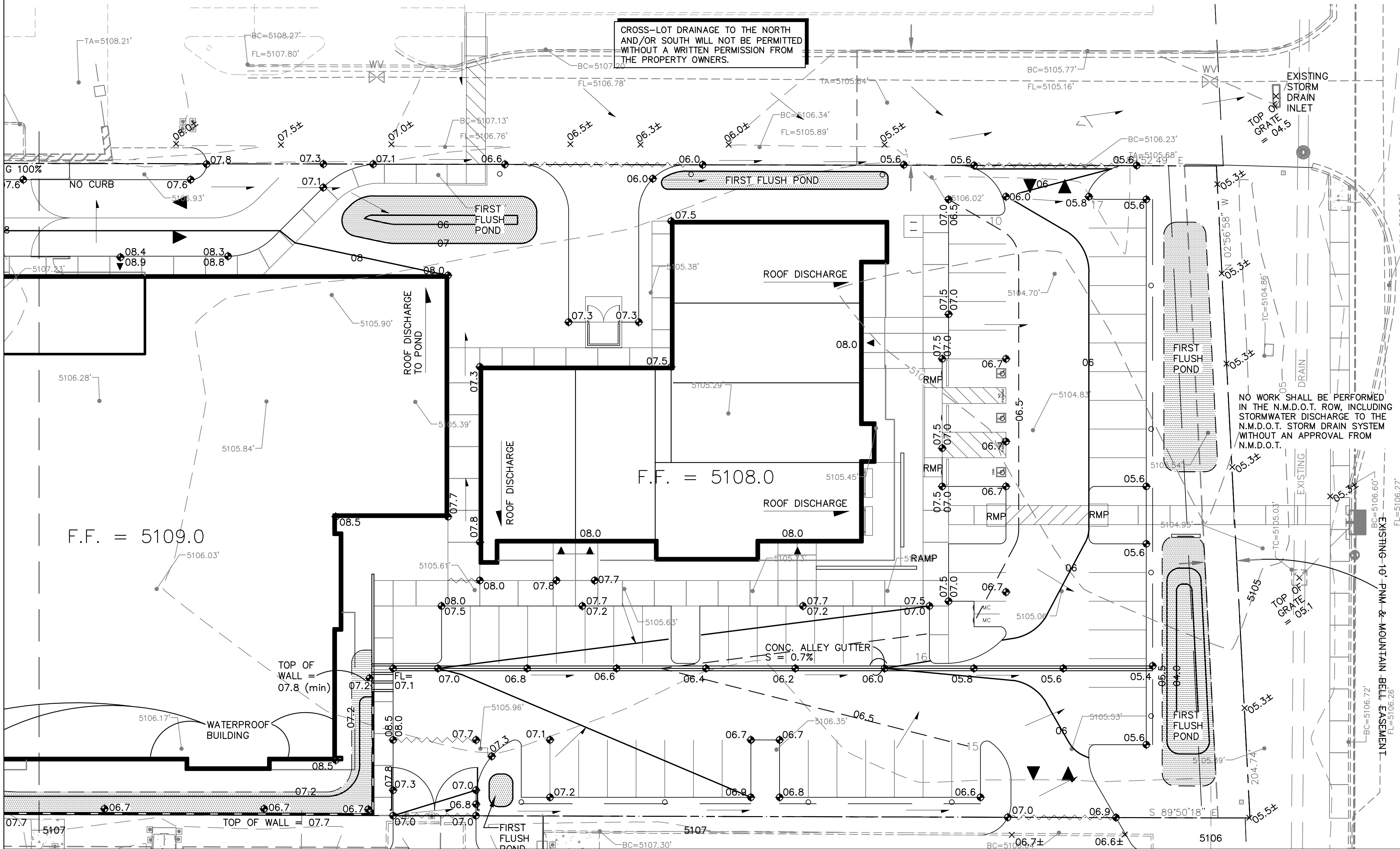
BASIN NO.	1	DESCRIPTION	WEST-SIDE (RV STORAGE AREA)
Area of basin flows =	91619 SF		2.1 Ac
The following calculations are based on Treatment areas as shown in table to the right			
Sub-basin Weighted Excess Precipitation (see formula above)		LAND TREATMENT	
Weighted E = 1.68 in.		A = 0%	
Sub-basin Volume of Runoff (see formula above)		B = 14%	
V ₅₆₀ = 12828 CF		C = 11%	
Sub-basin Peak Discharge Rate: (see formula above)		D = 75%	
Q _p = 8.2 cfs		FIRST FLUSH VOL.	
		1947 CF	
BASIN NO.	2	DESCRIPTION	EAST-SIDE
Area of basin flows =	84561 SF		1.9 Ac
The following calculations are based on Treatment areas as shown in table to the right			
Sub-basin Weighted Excess Precipitation (see formula above)		LAND TREATMENT	
Weighted E = 1.73 in.		A = 0%	
Sub-basin Volume of Runoff (see formula above)		B = 6%	
V ₅₆₀ = 12158 CF		C = 17%	
Sub-basin Peak Discharge Rate: (see formula above)		D = 77%	
Q _p = 7.7 cfs		FIRST FLUSH VOL.	
		1845 CF	



PERVIOUS (SHADED)

100-YEAR 6-HOUR STORM CALCULATIONS

CALCULATIONS: GLOBAL SELF STORAGE :									
Based on Drainage Design Criteria for City of Albuquerque Section 22.2, DPM, Vol 2, dated Jan., 1993									
ON-SITE									
AREA OF SITE:		176180		SF		=		4.0	
		100-year, 6-hour							
HISTORIC FLOWS:				DEVELOPED FLOWS:				EXCESS PRECIP:	
	Treatment	SF	%		Treatment	SF	%	Precip. Zone	1
Area A	=	0	0%	Area A	=	0	0%	E _A	= 0.44
Area B	=	0	0%	Area B	=	17618	10%	E _B	= 0.67
Area C	=	176180	100%	Area C	=	24665	14%	E _C	= 0.99
Area D	=	0	0%	Area D	=	133897	76%	E _D	= 1.97
Total Area	=	176180	100%	Total Area	=	176180	100%		
On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)									
Weighted E =		$\frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$							
Historic E		=	0.99 in.	Developed E		=	1.70 in.		
On-Site Volume of Runoff: V ₃₆₀		=	E*A / 12						
Historic V ₃₆₀		=	14535 CF	Developed V ₃₆₀		=	25000 CF		
On-Site Peak Discharge Rate: Q _p = Q _{pA} A _A + Q _{pB} A _B + Q _{pC} A _C + Q _{pD} A _D / 43,560									
For Precipitation Zone 1									
Q _{pA}		=	1.29	Q _{pC}		=	2.87		
Q _{pB}		=	2.03	Q _{pD}		=	4.37		
Historic Q _p		=	11.6 CFS	Developed Q _p		=	15.9 CFS		



Coors Boulevard NW

LEGEND

• 5105.65'	EXISTING SPOT ELEVATION
— 5110 —	EXISTING CONTOUR
— 12 —	PROPOSED CONTOUR (1' INCREMENT)
— 10 —	PROPOSED CONTOUR (0.5' INCREMENT)
08.9	PROPOSED SPOT ELEVATION
→	FLOW ARROW
[Pattern]	PROPOSED FIRST FLUSH RETENTION POND

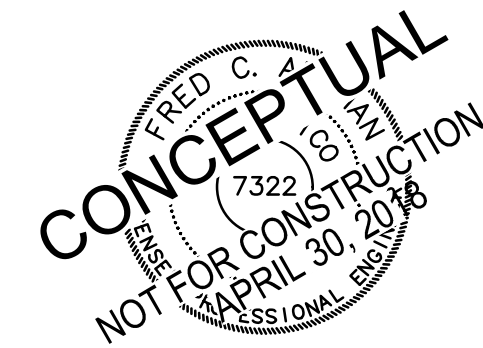
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CONSULTANTS

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico 87108
Ph. 505-268-8828 www.isacivil.com

PROJECT

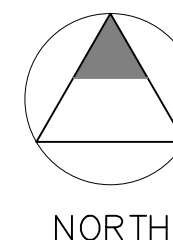
GLOBAL STORAGE - COORS

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Albuquerque, New Mexico

ISSUE

REVISION

SHEET



CONCEPTUAL
GRADING &
DRAINAGE PLAN
2 OF 2

CG-102