

Resent email just to show the prop owner
that the concept is ok; they don't intend
to build anytime soon.

Abiel X. Carrillo

From: Abiel X. Carrillo
Sent: Wednesday, March 09, 2016 2:32 PM
To: 'Michelle Madrid'
Cc: 'georgen@smithengineering.pro'
Subject: Central KOA Conceptual Grading and Drainage Plan - K22D056

email dated 3/2/16 is
still official response
T AC 3/9/16

Ms. Madrid:

This email is being sent in lieu of an attached comment letter in order to expedite the response for intermediate reviews. Responses to comments should continue to be included in a re-submittal. A reply to this email with responses to comments will not be considered a re-submittal.

Based upon the information provided in your submittal received 1-20-16, the above referenced Grading Plan is approved conceptually, and appears to comply in general, with the City's Drainage Ordinance. Please be aware that this is not an approval to move forward with grading or construction.

Should the owner of the property decide to move forward with the project, a re-submittal will be required that addresses the following comments:

1. The sidewalk culvert array will need to be installed flush with the sidewalk and following the sidewalk slope without any grade breaks. The channel would be then be slightly rotated, relative to the wall opening. I recommend extending the metal plate of the culvert no more than 2 feet behind the sidewalk (no less than 18"), so that the Contractor can transition and tie to the wall opening properly. This will also allow the City to clean the culvert without needing to access the other side of the wall.
2. The work proposed within City Right of Way will require a SO-19 Permit (Private Drainage facilities in the Right of Way), and the inspection and acceptance of the facility. Please add the Standard SO-19 notes (attached) to the plan.
3. It appears that the top of the wall is to be set at the existing ground. Is there any barrier/fence to separate vehicles and/or pedestrians from the vertical drop?
4. The typical drainage channel shows a fence aligned with the sidewall of the channel, we recommend (not require) off-setting the channel from the fence to avoid the need to shape the wall around the fence posts.

Also, as mentioned in our coordination meeting today, the first flush volume can be based on the impervious area within the project footprint, not the entire (existing) site, which would lower the total volume that needs to be managed.

If you have any question just let me know.

Abiel Carrillo, P.E.

Principal Engineer - Hydrology

Planning Department

Development Review Services Division

Abiel X. Carrillo

From: Abiel X. Carrillo
Sent: Wednesday, March 02, 2016 3:28 PM
To: 'Michelle Madrid'
Subject: Central KOA Question - K22D056
Attachments: SO 19 NOTES with sig C.doc

Ms. Madrid:

This email is being sent in lieu of an attached comment letter in order to expedite the response for intermediate reviews. Responses to comments should continue to be included in a re-submittal. A reply to this email with responses to comments will not be considered a re-submittal.

Based upon the information provided in your submittal received 1-20-16, the above referenced Grading Plan cannot be approved for Grading Permit until the following items are addressed:

1. The sidewalk culvert array will need to be installed flush with the sidewalk and following the sidewalk slope without any grade breaks. The channel would be then be slightly rotated, relative to the wall opening. I recommend extending the metal plate of the culvert no more than 2 feet behind the sidewalk (no less than 18"), so that the Contractor can transition and tie to the wall opening properly. This will also allow the City to clean the culvert without needing to access the other side of the wall.
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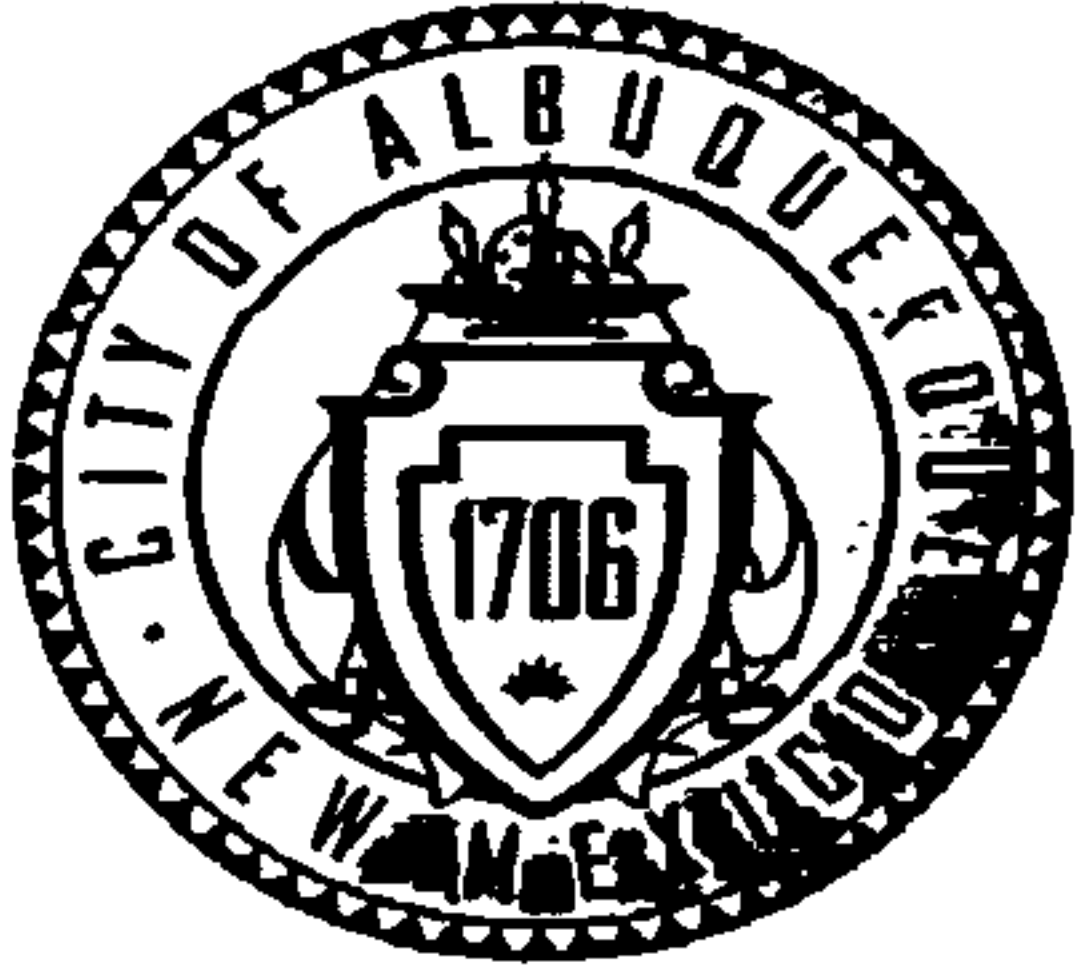
If you have any question just let me know.

FYI - During the beginning of the year we experienced a backlog in reviews. The review of the resubmittal should only have a turnaround of about a week. We appreciate your patience.

Abiel Carrillo, P.E.

Principal Engineer - Hydrology
Planning Department
Development Review Services Division
City of Albuquerque
505-924-3986
acarrillo@cabq.gov
600 2nd Street NW
Albuquerque, NM 87102

Resend approving concept



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: Central Albuquerque KOA Kampground Building Permit #: _____ City Drainage #: K220056

DRB#: _____ EPC#: 1004382 Work Order#: _____

Legal Description: KOA Subdivision, Lot A

City Address: 12400 Skyline Rd NE, Albuquerque, NM 87123

Engineering Firm: Smith Engineering Company Contact: Michelle Madrid

Address: 2201 San Pedro Drive NE, Building 4, Suite 200, Albuquerque, NM, 87110

Phone#: 505-884-0700 Fax#: 505-884-2376 E-mail: michellem@smithengineering.pro

Owner: Kampgrounds of America, Inc. Contact: _____

Address: P.O. Box 30558, Billings, Montana, 59114-0558

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

Architect: Consensus Planning Contact: Jackie Fishman

Address: 302 Eighth St NW, Albuquerque, NM, 87102

Phone#: 505-764-9801 Fax#: _____ E-mail: fishman@consensusplanning.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:

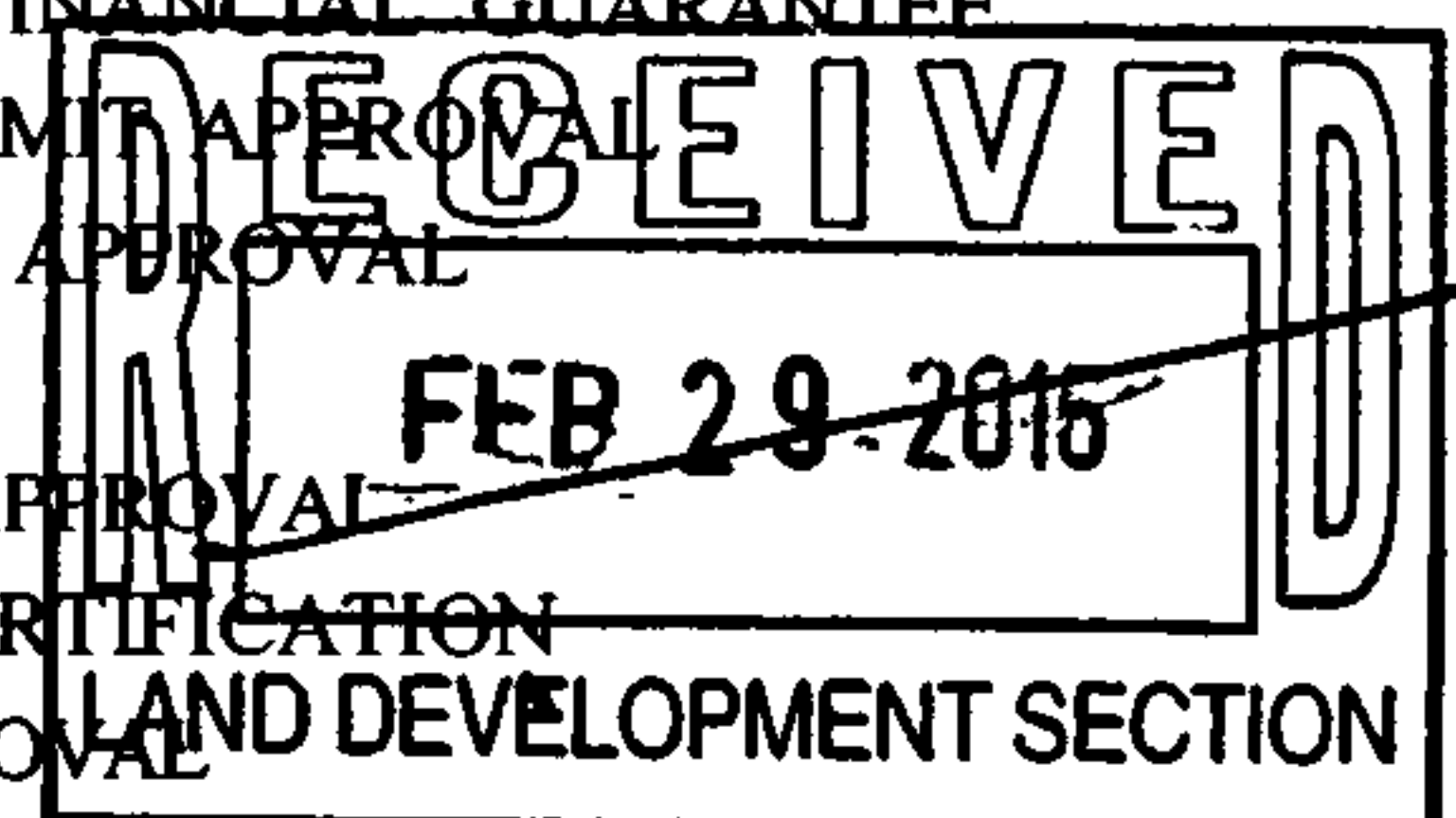
- ☐ ENGINEER/ ARCHITECT CERTIFICATION
- ☒ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ DRAINAGE MASTER PLAN
☐ DRAINAGE REPORT
☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ☐ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL? ☐ Yes ☒ No

DATE SUBMITTED: _____ By: _____

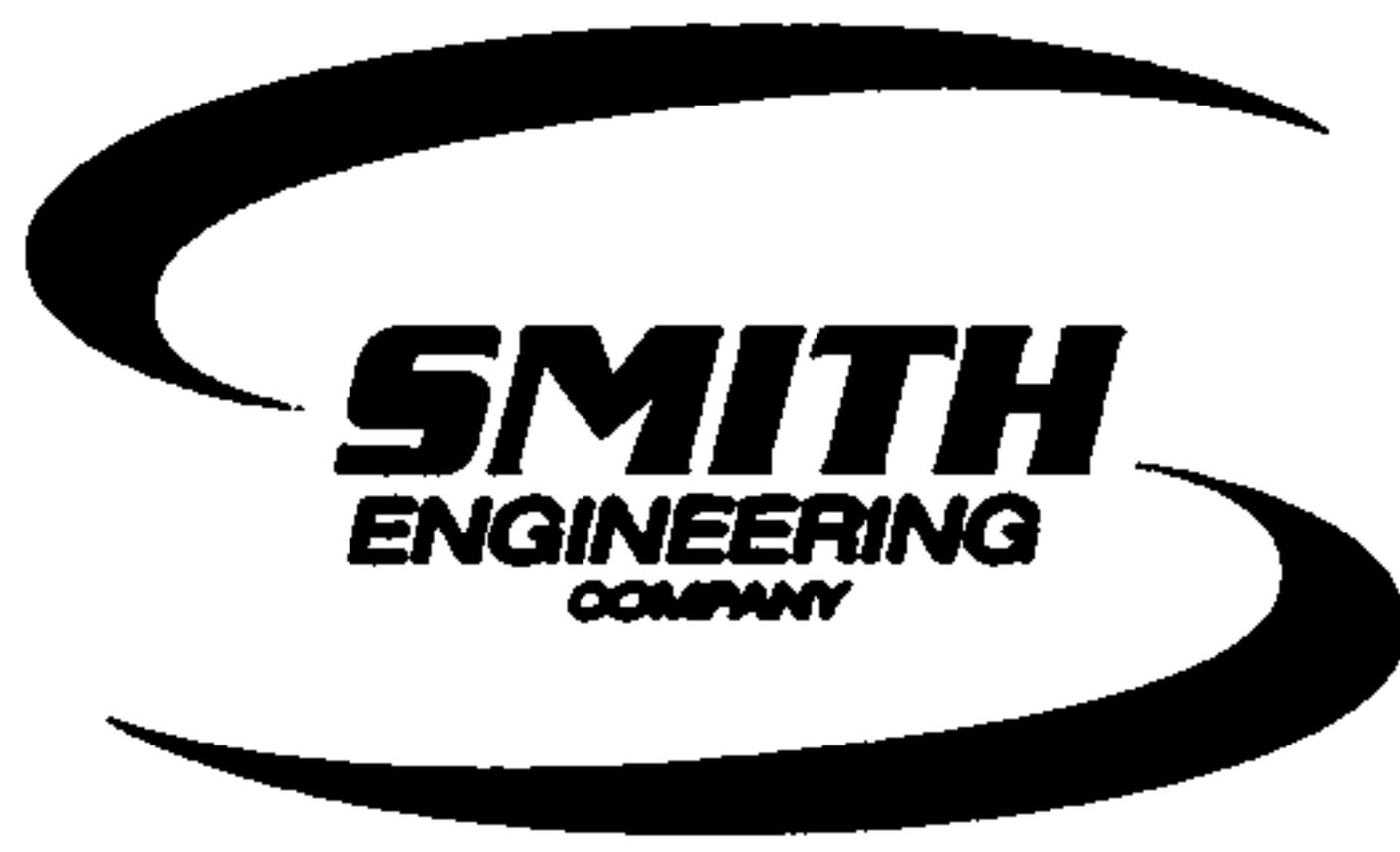
CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☐ 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) _____



1/20/16

AC



Solutions for Today...

Vision for Tomorrow

January 20, 2016

City of Albuquerque Planning Department
Hydrology Section
600 2nd Street NW, Suite 201
Albuquerque, NM 87102

**Re: Central Albuquerque KOA Kampground
Grading Permit Submittal
Smith Project #115805**

Smith Engineering is providing this submittal for review and approval by the City of Albuquerque for a Grading Permit. The project includes the converting a portion of overnight parking areas on the KOA Kampground site into covered storage for recreational vehicles (RVs). The drainage infrastructure required as a result of the proposed improvements will require work within the City of Albuquerque right-of-way. The anticipated work within the City of Albuquerque right-of-way includes installation of sidewalk culverts at the southwest corner of the site. The sidewalk culverts will serve as the outlet of the proposed detention pond.

The following items are included with the Drainage Plan:

- Drainage Details sheet
- Calculation spreadsheet
- Drainage and Transportation Information Sheet

Thank you in advance for your time and please let me know if you have any questions or need additional information.

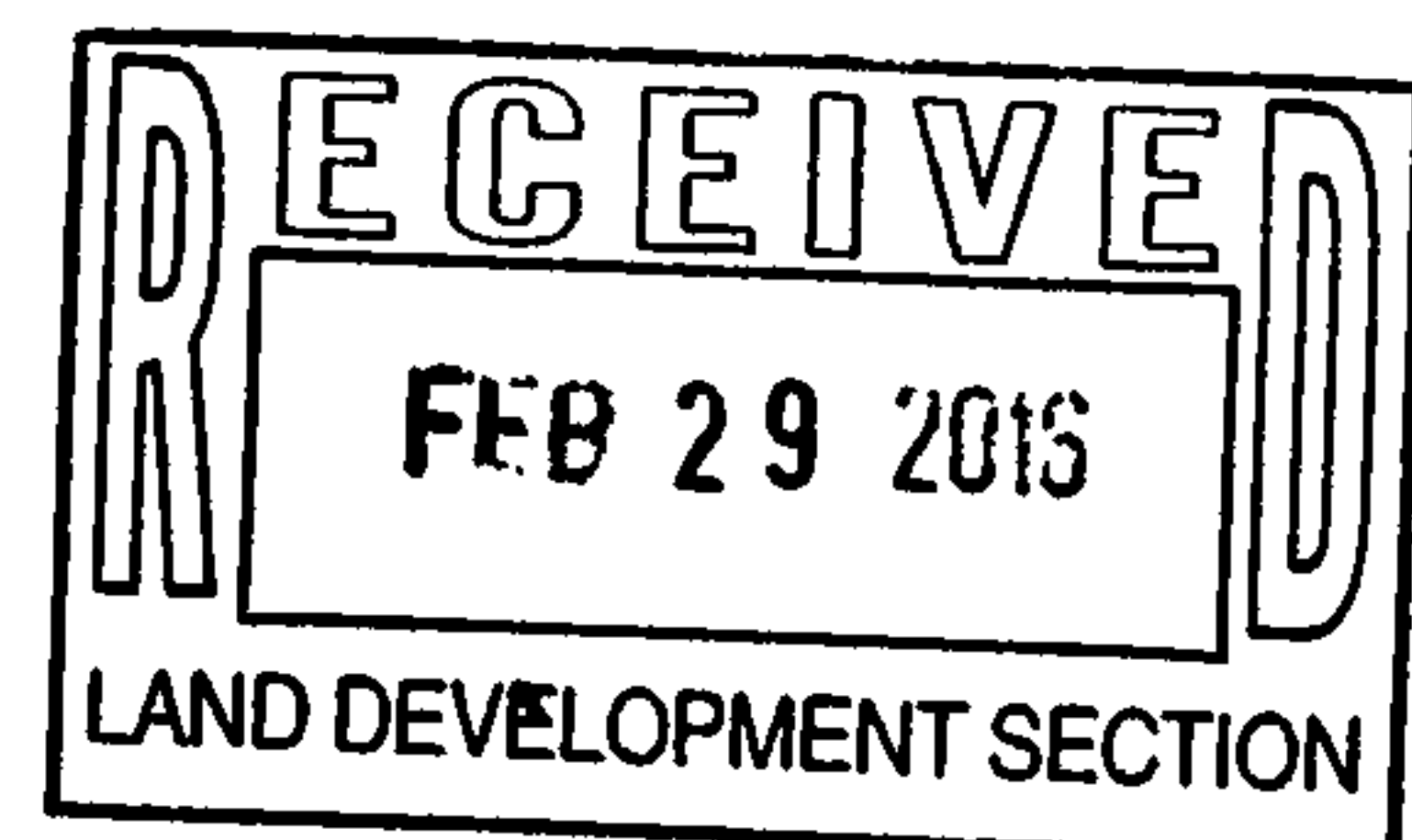
Sincerely,

Smith Engineering Company

A handwritten signature in black ink, appearing to read "Michelle Madrid", is written over a horizontal line.

Michelle Madrid, EI
Engineering Associate

Enclosure



2201 San Pedro Drive, NE
Tel: 505.884.0700

Building 4, Suite 200
MichelleM@smithengineering.pro

Albuquerque, NM 87110
Fax: 505.884.2376

Central Albuquerque KOA Kampground
Smith Project No.: 115805

Runoff Calculations per COA DPM Volume II, Chapter 22 2, Part A
Prepared for Grading Permit Application

COA Precipitation Zone 3

COA Precipitation Zone 3 Data

Land Treatment	Peak Discharge (cfs/ac)	6-hour Excess Precipitation, E (in)	Precipitation Depth for 6-hour Storm	Precipitation Depth for 24-hour Storm
A	1.87	0.66	2.2	2.66
B	2.60	0.92		
C	3.45	1.29		
D	5.02	2.36		

Existing Conditions									
Land Use Percentages						Peak Discharge	Weighted E	V ₃₆₀	V ₁₄₄₀
Basin	Area (ac)	A	B	C	D	(cfs)	(in)	(ac-ft)	(ac-ft)
A	5.17	0%	0%	39%	61%	23	1.94	0.84	0.96
B	7.09	0%	0%	43%	57%	31	1.90	1.12	1.28
C	3.14	0%	0%	46%	54%	13	1.87	0.49	0.55
Off-Site	0.16	0%	0%	100%	0%	1	1.29	0.02	0.02
TOTAL	15.56					67		2.47	2.81

Proposed Conditions											
Land Use Percentages						Peak Discharge	Weighted E	V ₃₆₀	V ₁₄₄₀	Change In Impervious Area	Runoff Volume from First 0.44" of Excess Precipitation
Basin	Area (ac)	A	B	C	D	(cfs)	(in)	(ac-ft)	(ac-ft)	(ac)	(ac-ft)
A	5.17	0%	0%	39%	61%	23	1.94	0.84	0.96	0.00	0.00
B	7.09	0%	0%	16%	84%	34	2.18	1.29	1.52	1.89	0.07
C	3.14	0%	0%	30%	70%	14	2.04	0.53	0.62	0.50	0.02
Off-Site	0.16	0%	0%	100%	0%	1	1.29	0.02	0.02	0.00	0.00
TOTAL	15.4					71		2.68	3.11	2.39	0.09

Detention pond will be required to limit proposed conditions peak discharge to existing conditions peak discharge. Retention of 0.09 ac-ft will be required for storm water quality. Detention pond will be located in the southwest corner of the site. Runoff from Basins A and B will be directed to the detention pond. Runoff will be discharged from the detention pond to Skyline Road through a series of 9 sidewalk culverts. The invert of the lowest sidewalk culvert is 5559.40. There will be retention storage below elevation 5559.40 for storm water quality.

Pond Volume Computations

Contour Elevation (ft)	Contour Area (ft ²)	Incremental Storage Volume (ac-ft)	Cumulative Storage Volume (ac-ft)	Cumulative Storage Volume Above Retention Pond (ac-ft)
5558.70	5635	0.000	0.000	0
5559.00	5635	0.039	0.039	0
5559.40	5635	0.052	0.091	0
5560.00	5635	0.078	0.168	0.078
5561.00	5635	0.129	0.298	0.207
5561.50	5635	0.065	0.362	0.272

Pond Discharge Computations

Maximum Storage Elevation (ft):	5561.5
Slope of Sidewalk (ft/ft):	0.0290
Distance Between Culverts (Center-to-Center) (ft):	3
Culvert Width (ft):	2

Culvert Number	Invert Elevation in Pond (ft)	Head (ft)	Discharge (from FlowMaster) (cfs)
1	5559.40	2.10	6.49
2	5559.49	2.01	6.30
3	5559.57	1.93	6.13
4	5559.66	1.84	5.93
5	5559.75	1.75	5.72
6	5559.84	1.66	5.50
7	5559.92	1.58	5.30
8	5560.01	1.49	5.07
9	5560.10	1.40	4.82
		Total	51.26

Verify That Available Storage Meets Required Storage

Hydrograph per COA DPM Volume II, Chapter 22.2 Part A.8

	T_b	T_p	$.25 \cdot A_d / A_t$
	(hr)	(hr)	(hr)
Basin A	0.78	0.22	0.15
Basin B	0.76	0.20	0.21

Notes:

T_b is the hydrograph base time

T_p is the time to peak

$.25 \cdot A_d / A_t$ is the length of the peak

Analysis of Pond Volume Required to Limit Outflow to 51.26 cfs

Time	Basin A Q	Basin B Q	Sum of Basin A and Basin B Q*	Sum Minus 51.26	Required Storage Volume
(hr)	(cfs)	(cfs)	(cfs)	cfs	(ac-ft)
0	0	0	0	0	0.00
0.2	21	34	55	3.74	0.03
0.22	23	34	57	5.74	0.01
0.37	23	34	57	5.74	0.07
0.41	21	34	55	3.74	0.02
0.76	0.2	0	0.2	0	0.05
0.78	0	0	0	0	0.00
				Total	0.18

Available storage exceeds required storage --> OK

Q:\SEC---PROJECTS\115805 KOA Kampground RV-Boat Phase 1\ENGINEERING_CIVIL\COA Hydrology Grading Permit Application\[Runoff Calcs.xlsx]Calcs with Areas from CAD