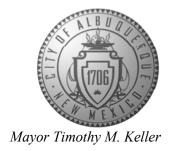
# CITY OF ALBUQUERQUE

Planning Department Brennon Williams, Director



March 18, 2021

Amit Pathak, P.E. Bohannan Huston, Inc. 7500 Jefferson St NE Albuquerque, NM 87109

RE: BioPark – Australia Exhibit

903 10th Street SW

Grading and Drainage Plan Engineer's Stamp Date: 02/25/21

Hydrology File: K13D034J

Dear Mr. Pathak:

Based upon the information provided in your submittal received 03/02/2021, the Grading &

Drainage Plan is approved for Building Permit and Grading Permit.

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 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.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Renée C. Brissette

Albuquerque

www.cabq.gov

Renée C. Brissette, P.E. CFM

Senior Engineer, Hydrology

Planning Department



# City of Albuquerque

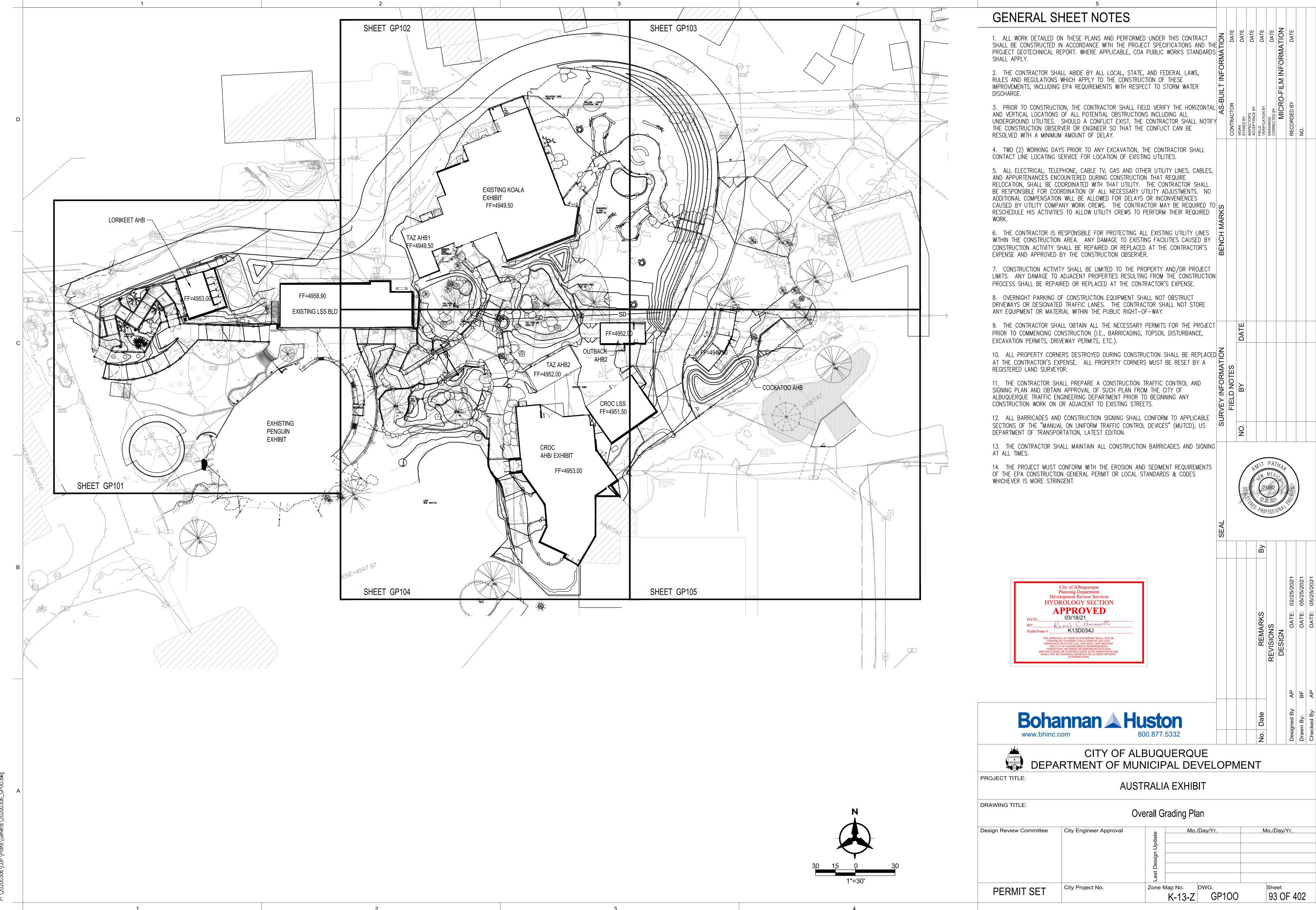
### Planning Department

### Development & Building Services Division

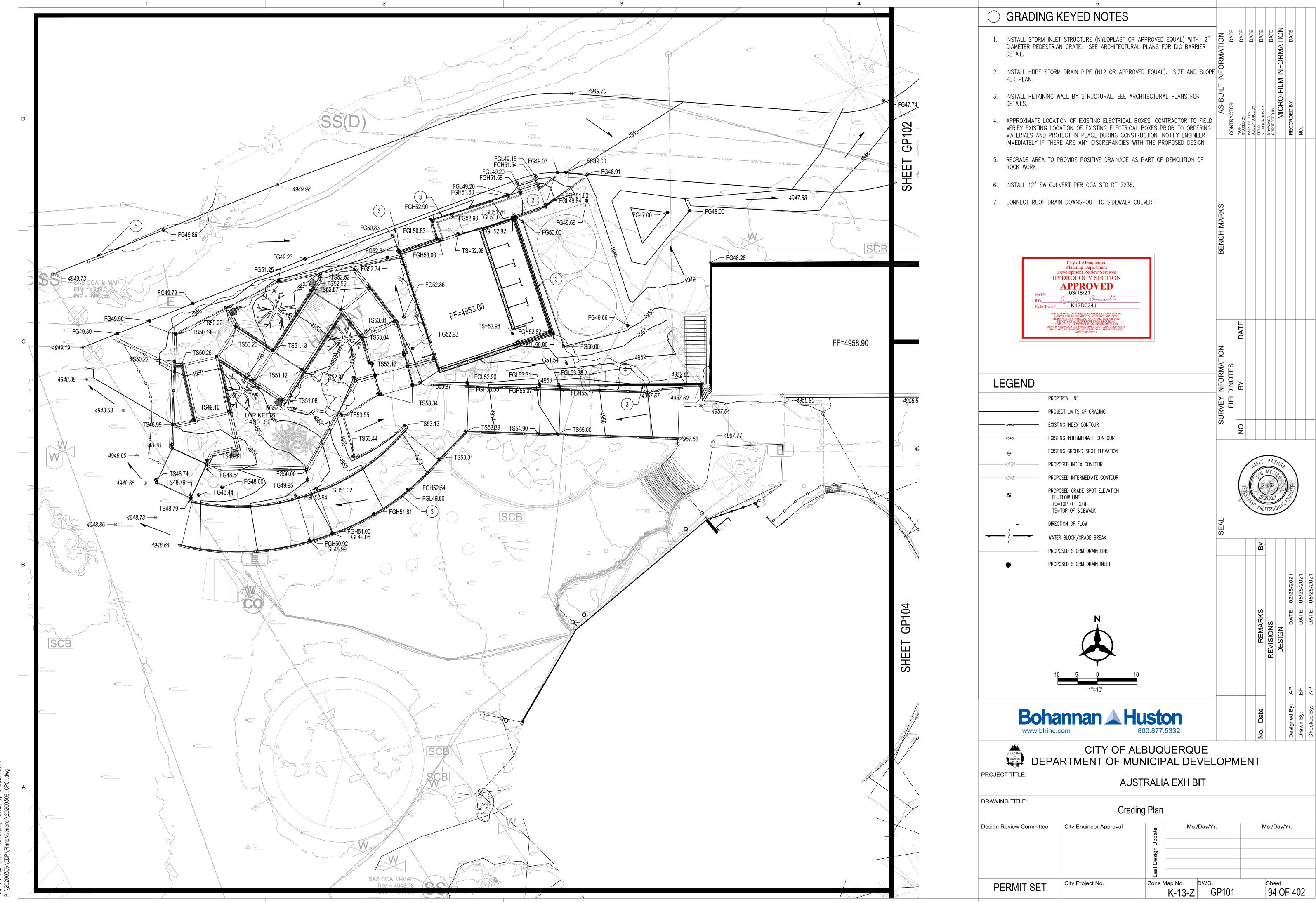
#### DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

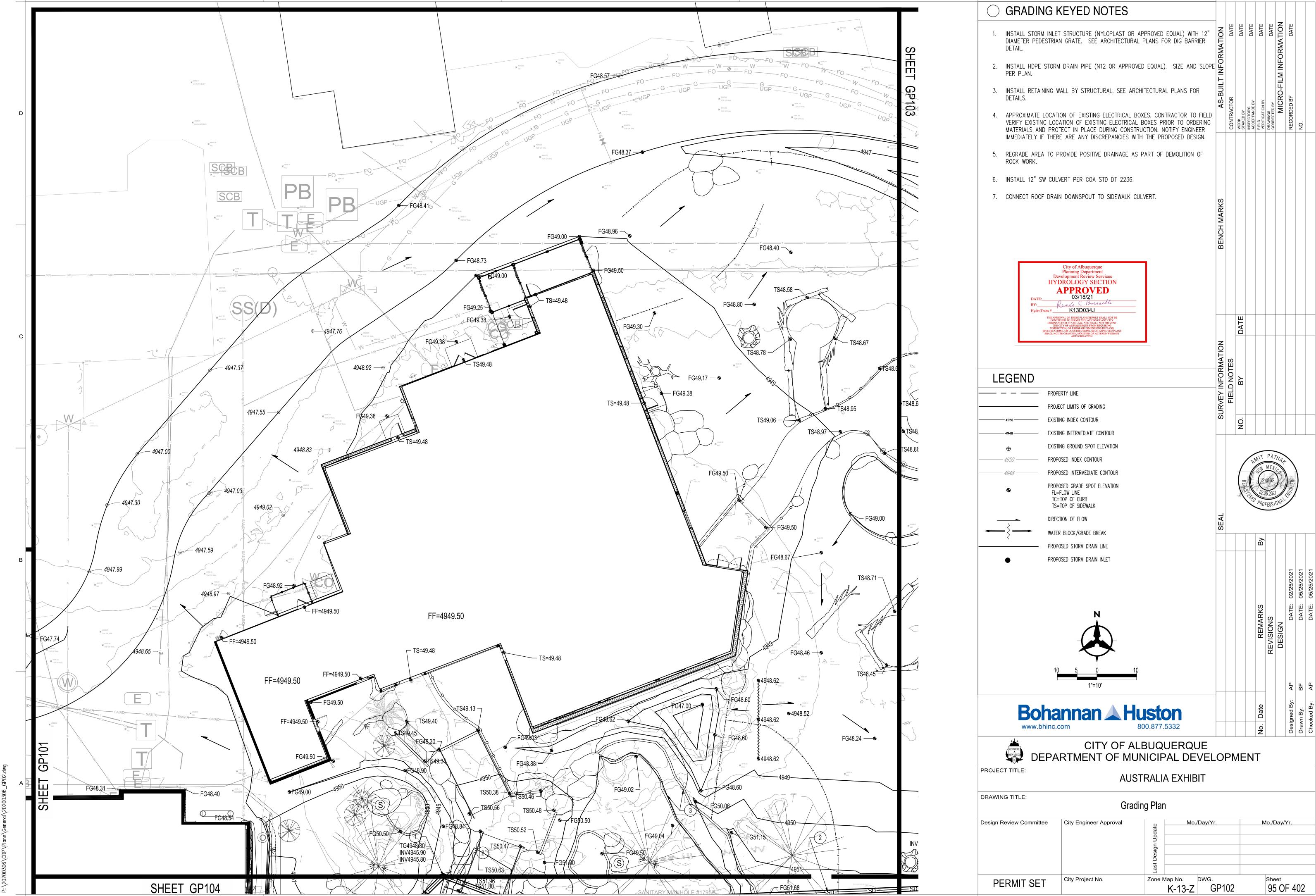
Project Title: Building H		ermit #:	Hydrology File #:		
DRB#:	EPC#:				
Legal Description:					
City Address:					
Applicant:			Contact:		
Address:					
Phone#:			E-mail:		
Other Contact:			Contact:		
Address:					
Phone#:					
TYPE OF DEVELOPMENT:	PLAT (# of lots)	RESIDENCE	DRB SITE ADI	MIN SITE	
IS THIS A RESUBMITTAL?	Yes No				
DEPARTMENT TRANSPOR		DROLOGY/DRAINAG	7F		
Check all that Apply:  TYPE OF SUBMITTAL:  ENGINEER/ARCHITECT CER' PAD CERTIFICATION  CONCEPTUAL G & D PLAN  GRADING PLAN  DRAINAGE REPORT  DRAINAGE MASTER PLAN  FLOODPLAIN DEVELOPMEN' ELEVATION CERTIFICATE  CLOMR/LOMR  TRAFFIC CIRCULATION LAY  TRAFFIC IMPACT STUDY (TI STREET LIGHT LAYOUT  OTHER (SPECIFY)  PRE-DESIGN MEETING?	T PERMIT APPLIC TOUT (TCL)	BUILDING CERTIFICA  PRELIMINA SITE PLAN SITE PLAN FINAL PLA  SIA/ RELE FOUNDAT GRADING SO-19 APP PAVING PI GRADING/ WORK ORE CLOMR/LC	ASE OF FINANCIAL GUAR ION PERMIT APPROVAL PERMIT APPROVAL ROVAL ERMIT APPROVAL PAD CERTIFICATION DER APPROVAL	ROVAL ANTEE	
DATE SUBMITTED:					

FEE PAID:

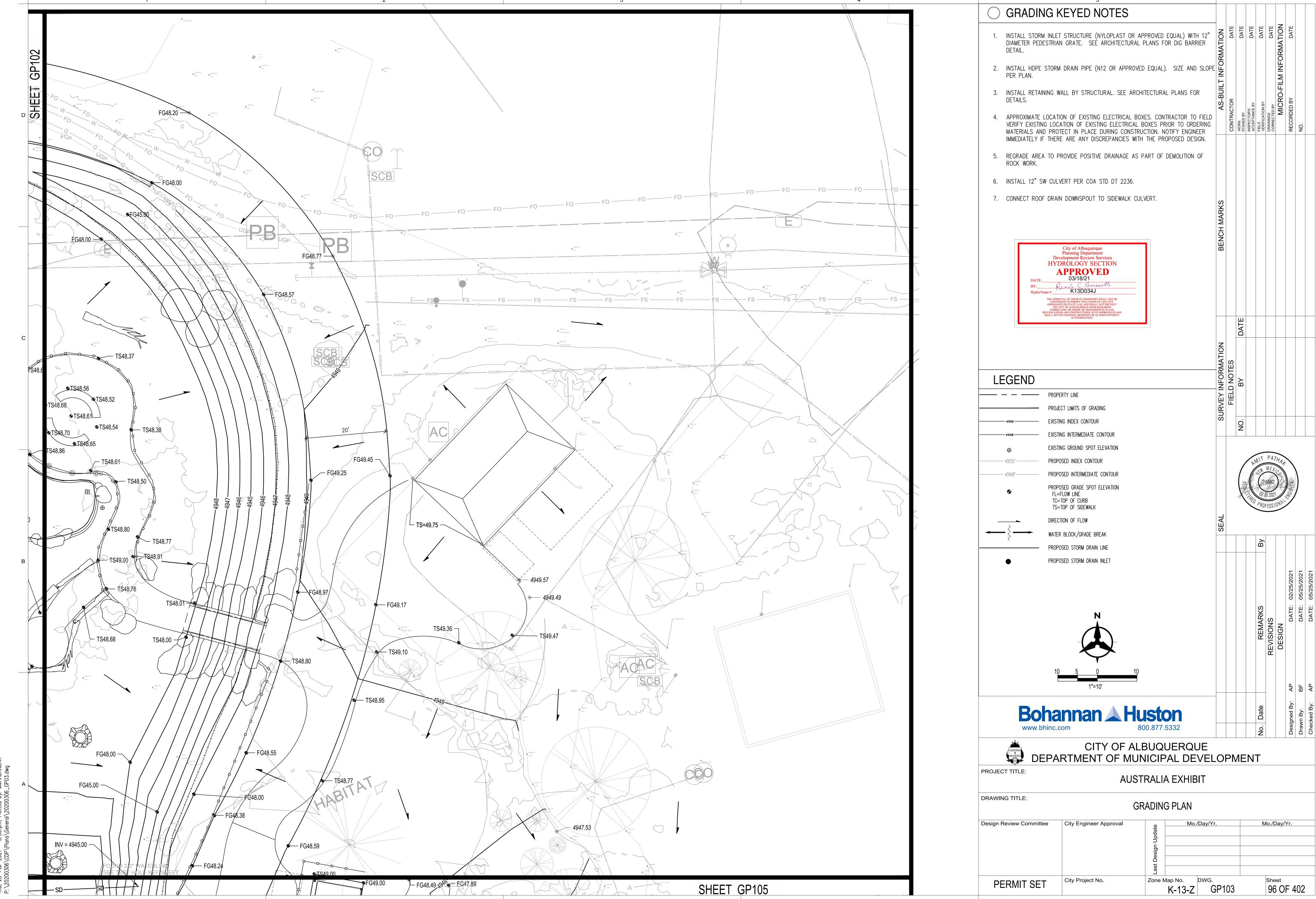


Thu, 25-Feb-2021 - 5:48:pm, Plotted by. MMAADANDA P:\20200306\CDP\Plans\Genera\20200306\_GP00.dwq

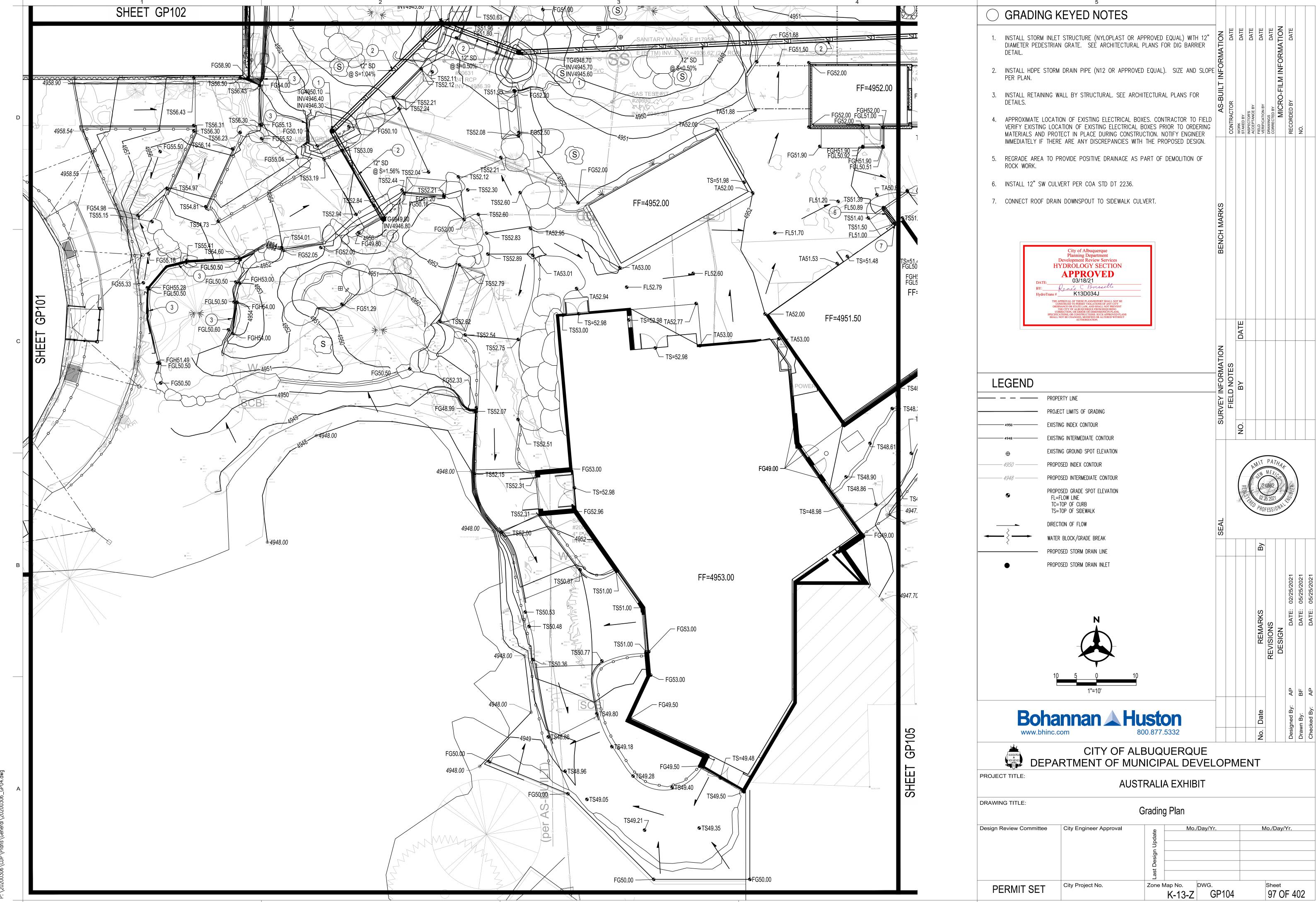




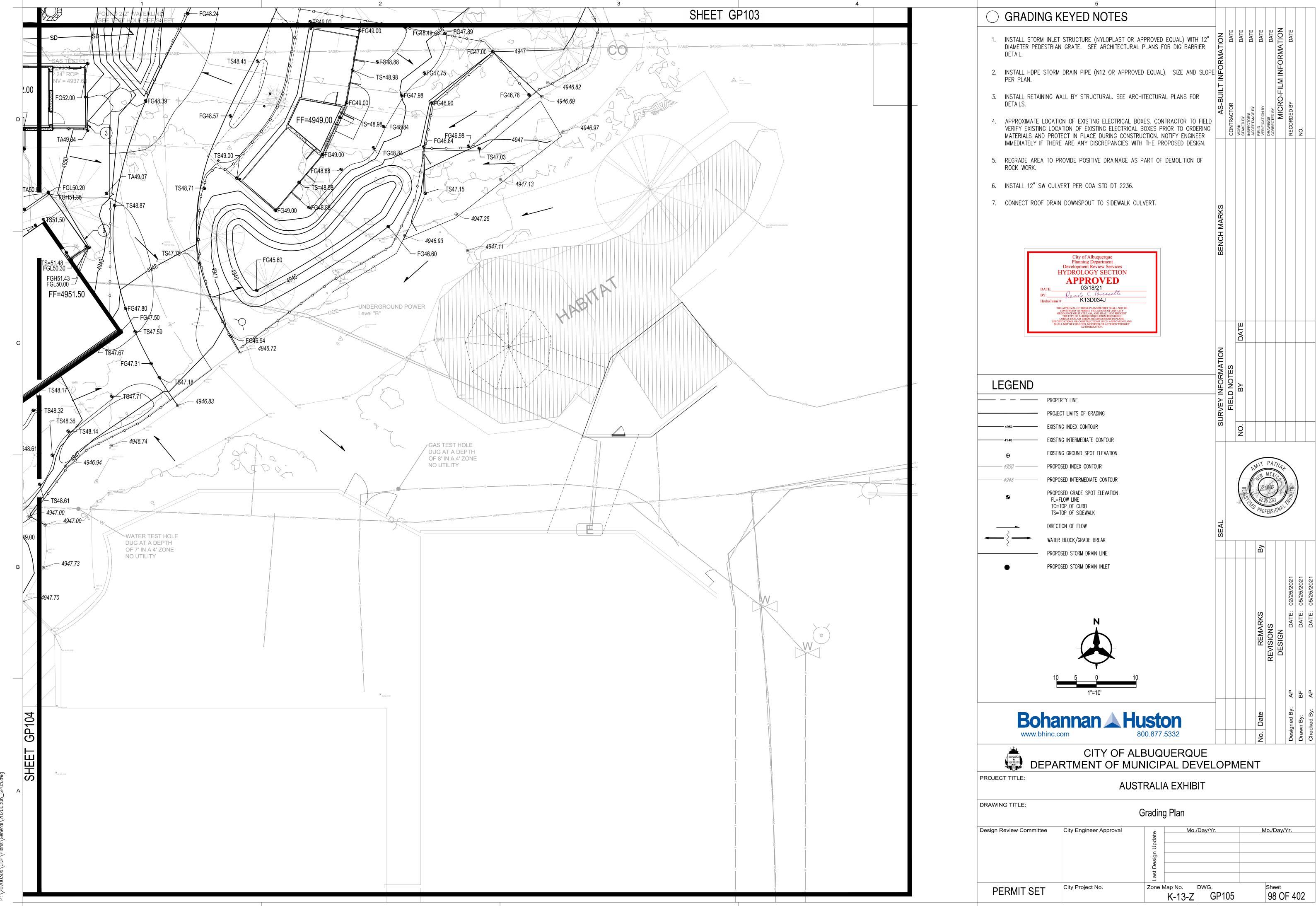
1, 25—Feb—2021 — 5:50:pm, Plotted by: MMA/ 20200306\CDP\Plans\General\20200306 GPO



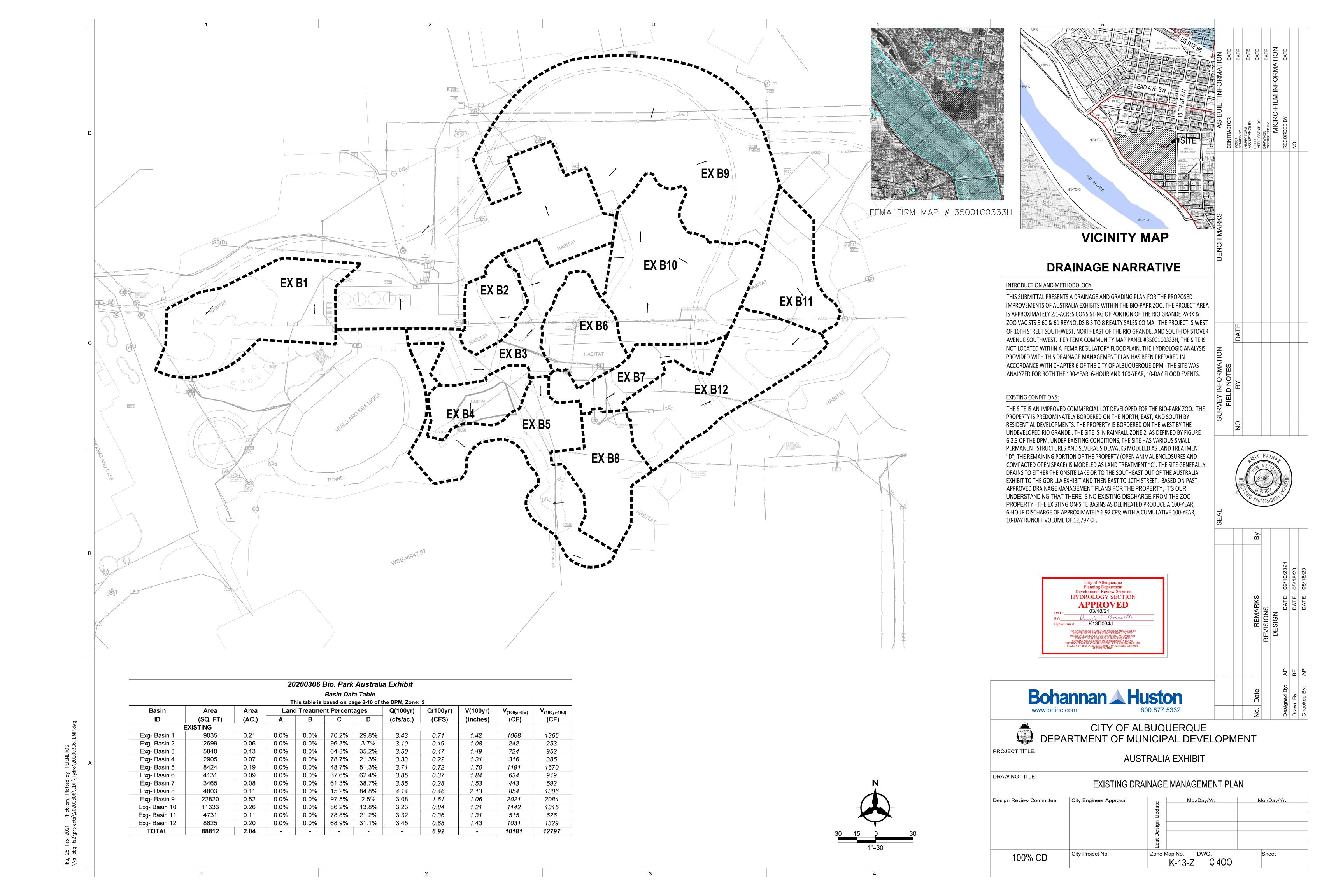
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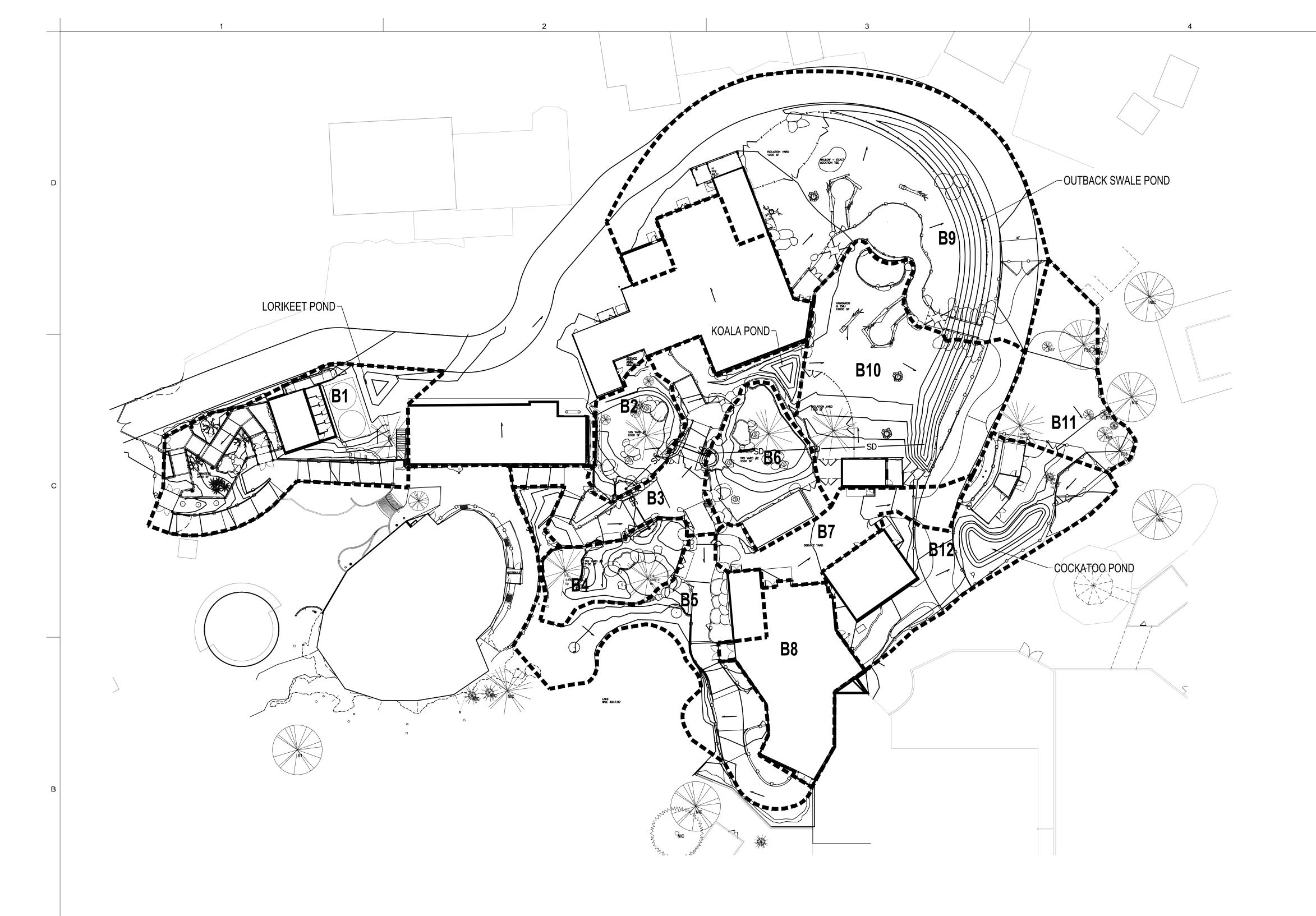


าน, 25–Feb–2021 – 6:13:pm, Plotted by: MMAA[ \วกวกกรกล\ChD\Plans\กลกลาก



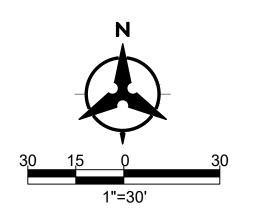
25-Feb-2021 - 5:52:pm, Plotted by: MMAADANE

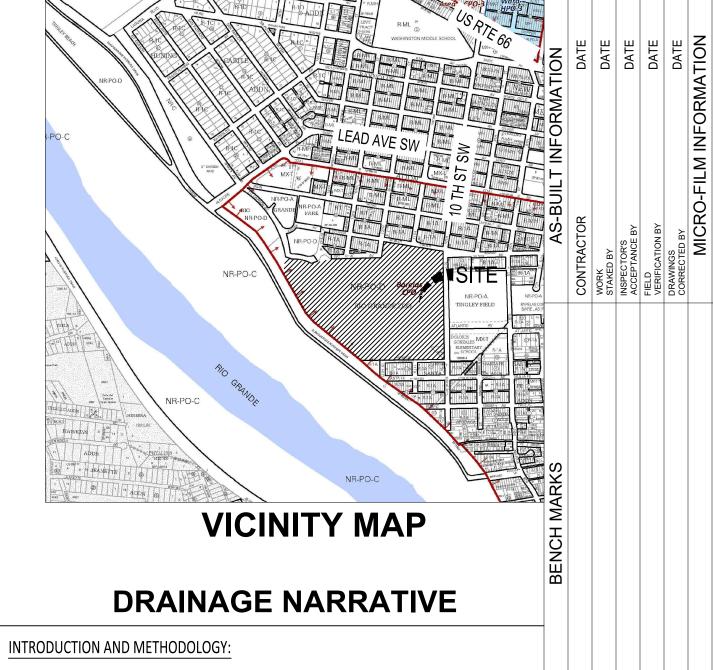




	CON	COMPARISON OF 10-DAY VOLUMES					
		EXISTING	PROPOSED	VOLUME			
		<b>V</b> <sub>(100yr-10d)</sub>	<b>V</b> <sub>(100yr-10d)</sub>	REQUIRED			
V <sub>(100yr-10d)</sub>	BASIN #	(CF)	(CF)	(CF)			
(CF)							
,	Basin 1	1366	1895	528			
1895	Basin 2	253	349	96			
349	Basin 3	952	1504	552			
1504	Basin 4	385	335	0			
335	Basin 5	1670	1582	0			
1582	Basin 6	919	673	0			
673	Basin 7	592	1009	417			
1009							
1465	Basin 8	1306	1465	160			
3058	Basin 9	2084	3058	974			
1659	Basin 10	1315	1659	343			
619	Basin 11	626	619	0			
1607	Basin 12	1329	1607	278			
15755	TOTAL	12797	15755	3349			

F 10-DAY VOLUMES			Tributary	Volume	Volume	Pond Bottom	Maximum Water	
PROPOSED	VOLUME		Basins	(REQUIRED)	(ACTUAL)	Polia Bottolli	Surface Elevation	
<b>V</b> <sub>(100yr-10d)</sub>	REQUIRED			(cf)	(cf)	(ft)	(ft)	
(CF)	(CF)	Lorikeet Pond	B1	528	135	47.00	48.00	
(0. )	(0.)	Koala Pond	B3	552	242	47.00	48.60	
1895	528	Cockatoo Pond	B7,12	696	525	45.60	46.60	
349	96	Wombat Yard	B6	0	1575	49.00	50.00	
1504	552	Taz Yard	B4	0	647	50.00	51.00	
335	0	* Outback Swale Pond	B2-4,6,9-10	1723	6222	45.00	48.00	
1582	0	Total	-	3349	9346	_	-	
673	0	* SWALE POND CO	LLECTS RESIDU			M BASINS.		
1009	417	3		.,	5 5. 511(E)	27 (31.10.		





THIS SUBMITTAL PRESENTS A DRAINAGE AND GRADING PLAN FOR THE PROPOSED ZOO VAC STS B 60 & 61 REYNOLDS B 5 TO 8 REALTY SALES CO MA. THE PROJECT IS WEST OF 10TH STREET SOUTHWEST, NORTHEAST OF THE RIO GRANDE, AND SOUTH OF STOVER NOT LOCATED WITHIN A FEMA REGULATORY FLOODPLAIN. THE HYDROLOGIC ANALYSIS PROVIDED WITH THIS DRAINAGE MANAGEMENT PLAN HAS BEEN PREPARED IN ACCORDANCE WITH CHAPTER 6 OF THE CITY OF ALBUQUERQUE DPM. THE SITE WAS ANALYZED FOR BOTH THE 100-YEAR, 6-HOUR AND 100-YEAR, 10-DAY FLOOD EVENTS.

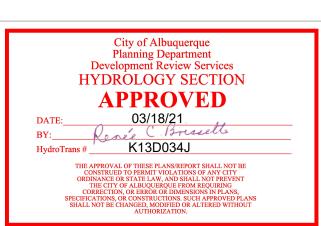
#### PROPOSED CONDITIONS:

ALSO MODELED AS LAND TREATMENT "D". OTHER SITE IMPROVEMENT SUCH AS LANDSCAPING, AND OPEN ANIMAL EXHIBITS WILL NOT CHANGE THE EXISTING LAND TREATMENT AND IS THEREFORE MODELED AS LAND TREATMENT "C". THE SITE IS CURRENTLY DESIGNED TO RETAIN THE NET INCREASED RUNOFF VOLUMES PRODUCED BY THE INCREASED IMPERVIOUS AREAS (ROOF AND PAVEMENT) WITHIN THE PONDS LIMITING THE NET OFF-SITE FLOWS TO PRE-DEVELOPED CONDITIONS.

## CONCLUSION:

DRAWING TITLE:

THE PEAK DISCHARGE OF THE 100-YEAR, 6-HOUR STORM FROM THE PROPOSED CONDITIONS IS 7.32 CFS WHICH IS SIMILAR TO THE EXISTING CONDITIONS AT 6.92 CFS. THE STORM WATER RUNOFF FROM THE FIRST FLUSH IS PASSIVELY TREATED WITHIN THE PROPOSED PONDS WHICH PROVIDE FULL RETENTION. THE DRAINAGE MANAGEMENT PLAN DEMONSTRATES THAT THE DESIGN INTENT IS IN CONFORMANCE WITH THE CITY OF ALBUQUERQUE HYDROLOGY REQUIREMENTS AND WE REQUEST BUILDING PERMIT APPROVAL.





ALBUQUERQUE	CITY OF ALBUQUERQUE				
NEW MEXICO	DEPARTMENT OF MUNICIPAL DEVEL	Ol	PN	1E	N.

PROJECT TITLE: **AUSTRALIA EXHIBIT** 

PROPOSED DRAINAGE MANAGEMENT PLAN Design Review Committee Mo./Day/Yr. City Engineer Approval Mo./Day/Yr. City Project No. Zone Map No. DWG. 100% CD K-13-Z C 401

20200306 Bio. Park Australia Exhibit

Basin Data Table

Land Treatment Percentages

A B C D

Area

(SQ. FT)

4131

22820

11333

8625

88812

PROPOSED

ID

Basin 3

Basin 4

Basin 5

Basin 6

Basin 7

Basin 8

Basin 9

Basin 10

Basin 12

TOTAL

(AC.)

This table is based on page 6-10 of the DPM, Zone: 2

43.5% 56.5%

72.4% 27.6%

79.5% 20.5%

54.1% 45.9%

0.0%

78.0%

0.0%

0.0%

0.0%

35.1%

93.7%

Q(100yr)

(cfs/ac.)

4.06

3.22

3.65

3.50

Q(100yr)

(CFS)

0.54

0.21

0.71

0.33

0.34

0.48

1.75

0.89

0.36

0.72

7.32

V(100yr)

(inches)

1.76

1.29

2.05

1.20

1.63

1.49

2.25

2.33

1.32

1.39

1.30

1.63

V<sub>(100yr-6hr)</sub>

1329

290

1148

512

933

2502

1312

511

1169

11643