

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development Review Services



Richard J. Berry, Mayor

July 21, 2016

Kelly Klein
Mark Goodwin & Associates, P.A.
P.O. Box 90606
Albuquerque, NM 87199

RE: **Bio Park Zoo – Bird Annex
Grading and Drainage Plan
Engineer's Stamp Date 6/20/2016 (File:K13D034F)**

Dear Ms. Klein:

Based upon the information provided in your submittal received 6-20-2016, the above referenced submittal is approved for Building Permit.

PO Box 1293

Please attach a copy of this approved plan in the construction sets when submitting for a building permit. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

Albuquerque

If you have any questions you can contact me at 924-3986.

New Mexico 87103

Sincerely,

Abiel Carrillo, P.E.
Principal Engineer, Planning Dept.
Development Review Services

www.cabq.gov

Orig: Drainage file



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:** _____

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) _____

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) _____

IS THIS A RESUBMITTAL?: ☐ Yes ☐ No

DATE SUBMITTED: _____ **By:** _____

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____

GENERAL NOTES

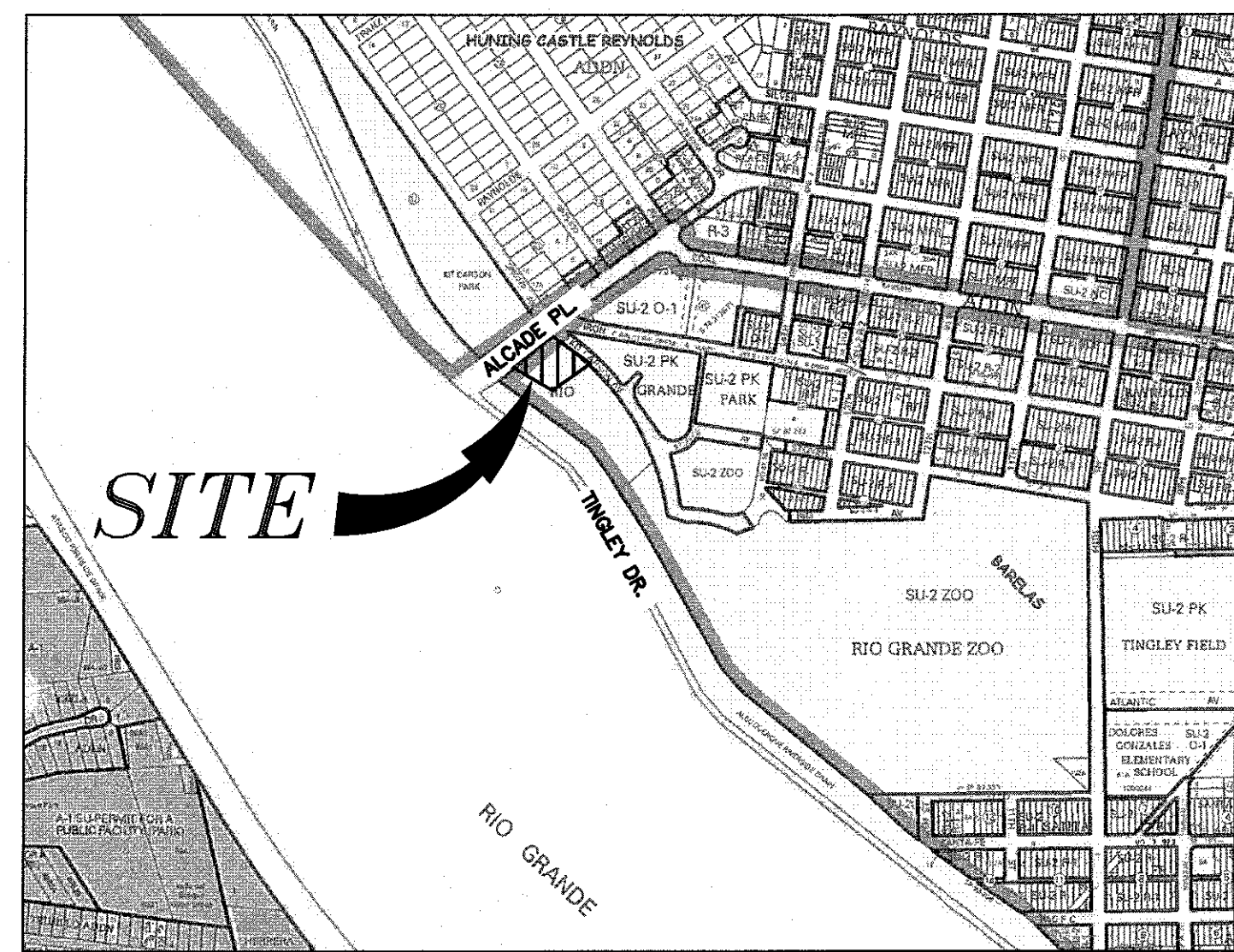
1. SEE ARCHITECTURAL SITE PLAN FOR TRUE DIMENSIONS.
2. CITY OF ALBUQUERQUE DETAILS SHALL BE USED WHEN APPLICABLE.

KEYED NOTES

1. CREATE NEW DRAINAGE SWALE IN NEW ASPHALT. SLOPE = 0.5% MIN
2. REMOVE AND REPLACE ASPHALT TO CREATE DEPRESSED AREA IN NEW ASPHALT PER "FIRST FLUSH" POND 2.
3. EXISTING DEPRESSED AREA WILL SERVE AS "FIRST FLUSH" POND 1.
4. EXISTING FLOW PATHS TO EXISTING CATCH BASIN
5. INCREASE SLOPE OF THE LAST 3' WIDTH OF CONCRETE APRON TO MATCH GRADE OF EXISTING SURFACE.

LEGEND

---	PROPERTY LINE
- - - -	EXISTING CONTOUR
+ 2050	EXISTING SPOT ELEVATION
---	EXISTING STORM DRAIN
CB	EXISTING STORM DRAIN INLET
00.00.	PROPOSED SPOT ELEVATION
---	DIRECTION OF FLOW
---	PROPOSED SWALE
---	EXISTING DEPRESSED AREA
---	NEW DEPRESSED AREA
---	EXISTING FIRE HYDRANT



VICINITY MAP

ZONE MAP K-13-Z

NTS

HYDROLOGY NOTES

OVERALL HYDROLOGY PLAN:

THIS SITE IS PART OF THE ALBUQUERQUE BIO PARK ZOO AND IS LOCATED ON THE CORNER OF ALAMEDA PL. AND TINGLEY DR. SW. THE PROJECT WILL DEMO EXISTING BUILDINGS FOR THE ADDITION OF NEW BUILDINGS. THE PROJECT PROPOSES TO USE EXISTING DRAINAGE PATTERNS BUT WILL ADDRESS STORMWATER QUALITY FOR THE RUNOFF GENERATED BY THE DISTURBED AREA.

THE INTENT OF THIS PLAN IS TO MAINTAIN THE SAME DRAINAGE PATHS FOR THE PROJECT SITE AS DETERMINED PER EXISTING CONDITIONS, EXISTING TOPOGRAPHY AND EXISTING STORMDRAIN INFRASTRUCTURE. THE SITE WILL BE GRADED TO DIRECT FLOWS TO THE "FIRST FLUSH" PONDS BEFORE DISCHARGING TO THE EXISTING INLET ON THE SOUTH EAST CORNER.

EXISTING CONDITIONS INCLUDE ASPHALT PARKING AND BUILDINGS THUS PROVIDING 100% IMPERVIOUS AREA. THE PROPOSED CONDITIONS INCLUDES A LARGER SQUARE FOOTAGE OF NEW BUILDINGS, BUT THE FOOTPRINT OF THESE NEW BUILDINGS REPLACE EXISTING ASPHALT. THEREFORE, THE PROPOSED CONDITIONS MAINTAIN THE EXISTING 100% IMPERVIOUS AREA AND WILL NOT INCREASE THE FLOW ENTERING THE EXISTING STORM INFRASTRUCTURE. IN FACT, SINCE "FIRST FLUSH" PONDS ARE BEING ADDED FOR STORMWATER QUALITY CONTROL, FLOWS INTO THE EXISTING INLET WILL BE REDUCED.

THE SITE IS RATED "ZONE X" PER FEMA MAP 35001C0331H AND IS DEFINED AS AN AREA OF 0.2% CHANCE ANNUAL CHANCE OF FLOOD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FT OR WITH AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEE FROM 1% ANNUAL CHANCE FLOOD.

THE HYDROLOGY FOR THE PROJECT SITE WAS CALCULATED FOR THE 100 YEAR 6 HOUR STORM EVENT PER COA DPM (ZONE2) FOR SMALL WATERSHEDS. THE RESULTS ARE SUMMARIZED BELOW:

DEVELOPED AND EXISTING CONDITIONS A:

SITE AREA = 0.53 ACRES (area includes Building #1 and #2)
LAND TREATMENTS: A=0% B=0% C=0% D=100%
TOTAL PROJECT SITE: Q=2.49cfs V=0.11 AC-FT

DEVELOPED CONDITIONS B:

SITE AREA = 0.13 ACRES (area of new construction only - Building #2)
LAND TREATMENTS: A=0% B=0% C=0% D=100%
TOTAL PROJECT SITE: Q=0.61cfs V=0.027 AC-FT

THERE ARE NO OFFSITE FLOWS ENTERING THE SITE.

FIRST FLUSH

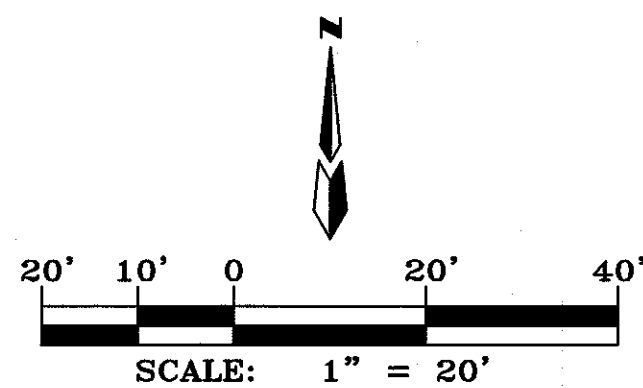
THE "FIRST FLUSH" IS BEING ACCOMPLISHED THROUGH DEPRESSED AREAS AS SHOWN ON THE PLAN.

REQUIRED VOLUME = 0.34" X IMPERVIOUS AREA (OF NEW CONSTRUCTION ONLY)
= 0.34"/12 X (9000 SF)
= 259 CF

VOLUME PROVIDED = 305 CF

(P1) POND TOP = 49.25' POND BOTTOM = 49.00'
DEPTH = 0.25' (3")
AREA = 1000 SF
VOLUME = 250 CF

(P2) POND TOP = 49.30' POND BOTTOM = 49.05'
DEPTH = 0.25' (3")
AREA = 220 SF
VOLUME = 55 CF



dmg MARK GOODWIN & ASSOCIATES, P.A. CONSULTING ENGINEERS			
P.O. BOX 90606 ALBUQUERQUE, NEW MEXICO 87199 (505)828-2200, FAX (505)797-9539			
Designed: KMK	Drawn: KMK	Checked: DMG	
Scale:	Date: 06/10/16	Job: A16014	

project title

City of Albuquerque Bio Park Zoo - Bird Annex

903 10th Street SW
Albuquerque, New Mexico 87102

sheet title

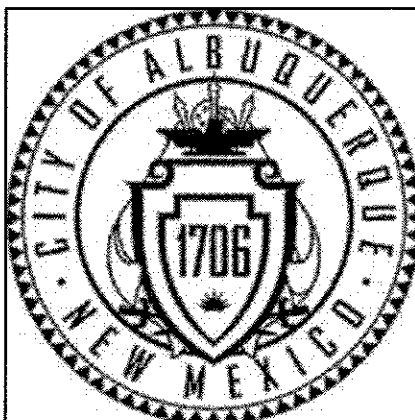
Grading and Drainage Plan

revision

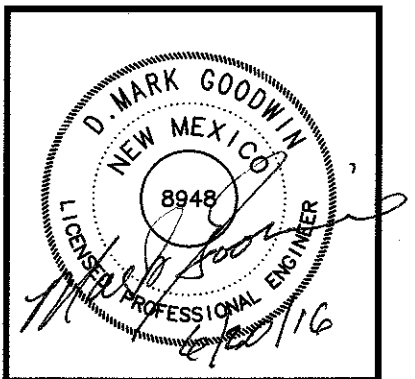
by

date

rev



Mullen Heller
Architecture P.C.
1718 Central Avenue SW
Suite D
Albuquerque, NM 87104
505 268 4144[p]



job number

16-06

drawn by

rmvs

project manager

Michelle Mullen, AIA

date

06/21/2016

sheet-

C101