



DRAINAGE AND GRADING PLAN

3737 PRINCETON NE

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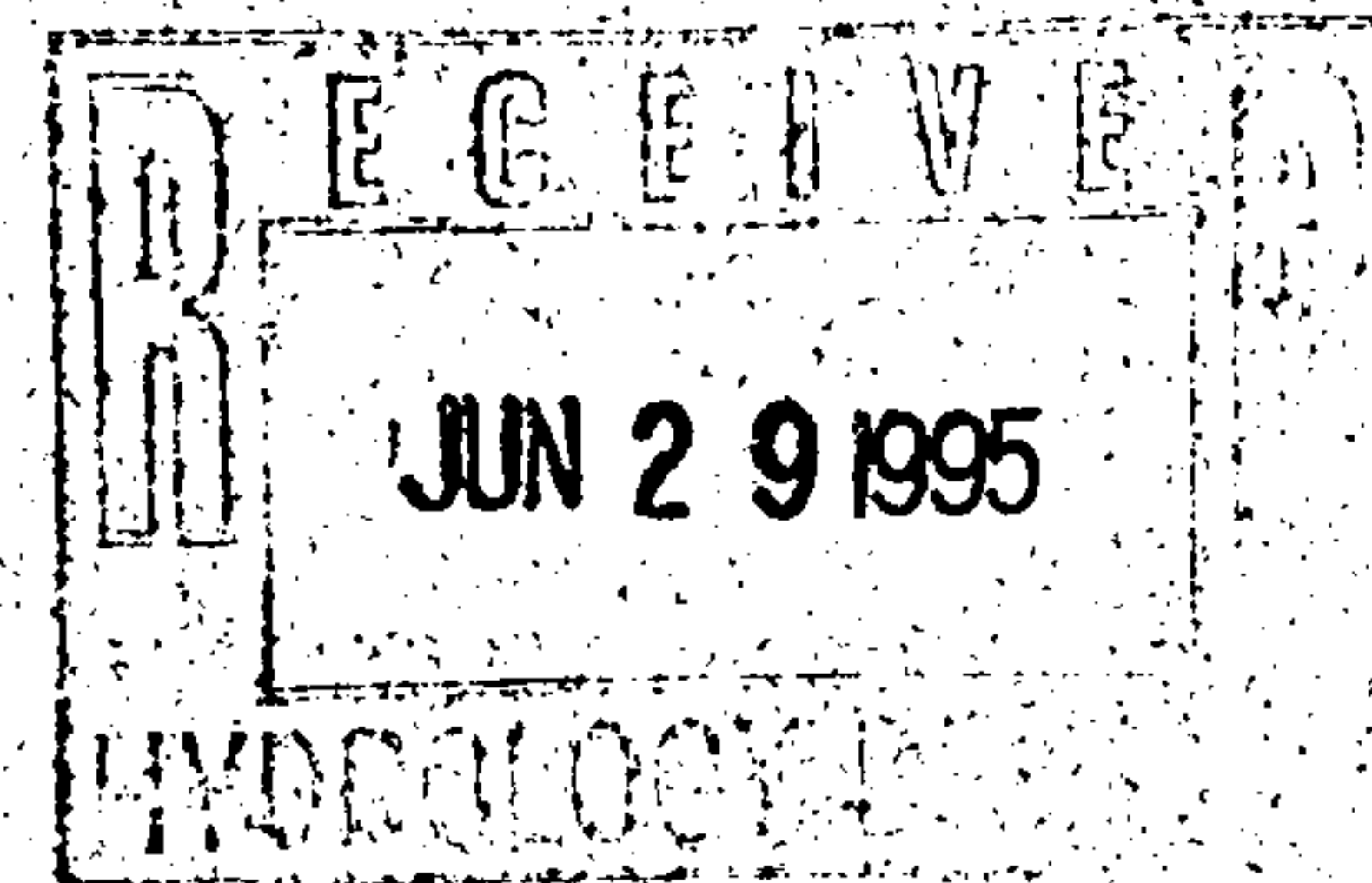
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6/28/95

To John Curtin
From Celia Tomlinson

If the plan
is difficult to
read.

Thanks.



DATE PREPARED: June 8, 1995

DRAINAGE AND GRADING PLAN FOR
PROPOSED ADDITIONAL PARKING LOT AT 3737 PRINCETON NE

ZONE MAP: G-16

LEGAL DESCRIPTION: Lot 7, Cutter Industrial Park, Unit 6
Albuquerque, NM; filed July 27, 1972

ADDRESS: 3737 Princeton Drive NE, Albuquerque, NM

FLOODPLAIN INFORMATION: The property is located on Zone C, areas of minimal flooding, according to the Floodway Boundary and Floodway Map of the City of Albuquerque, New Mexico, Community Panel 350002 0023, effective October 14, 1983.

EXISTING CONDITIONS: The area proposed for development has existing buildings, concrete walks, asphalt pavement and landscaping.

The existing commercial building complex site is bounded by improved streets. The east and south sides of the property drain to Princeton; the north side to Comanche; the west side to the Frontage Road through a pond and a pipe. The site has a minor ponding problem on the south site pavement.

PROPOSED IMPROVEMENTS: Additional paved parking and an all-weather entryway to the existing structure will be built. The entryway will have a flat roof. The practically negligible runoff from the new roof will be directed to the existing roof through a small hole.

EROSION CONTROL: Water, if any, from activities during construction and/or from rain will be temporarily ponded on site to prevent the spread of silt.

METHODOLOGY/CALCULATIONS: The City of Albuquerque's Development Process Manual Section 22.2 Final Rule April 7, 1993 Edition and the Pre-Design Conference Findings by John Curtin, P.E., a city engineer, dated 6/7/95 are followed. An existing drainage and

(more...)

grading plan prepared by Thomas Mann & Associates and information concerning a proposed storm drain under a Bernalillo County Special Assessment District furnished by Carlos Montoya, P.E., another city engineer are considered in the preparation of this grading and drainage plan. The hydrology of the entire site is recalculated based on the 1993 criteria. Detailed analysis for the affected area is presented.

Offsite Flows: No offsite flows enter the site.

Onsite Flows: Only the precipitation that flows on this fully developed lot is considered.

Existing Conditions: The existing site has a landscaped area of 33,215 square feet, roof area of 15,132 sf, and asphalt/concrete area of 22,321 sf, for a total of 70,828 sf.

Proposed Conditions: The proposed improvement consists of developing the north grassed area into a paved parking lot resulting in 4820 sf of asphalt/concrete area.

Runoff Volume Increase: Presently, the runoff from 4820 sf grassed area discharges to Comanche Road with a total 100-year volume of 454 cubic feet. The proposed parking lot will generate a runoff volume of 852 cf -- a difference of 398 cf. To maintain the existing discharge condition of the area, the parking lot will be graded to slope towards Comanche. The curbs will have 6-inch wide openings every three feet. A retention pond will be built downstream of the parking lot to receive the increased volume. The pond will have a base of 8 feet, depth of 1 foot, length of 100 feet, and side slopes of 3:1 -- sufficient to handle 1150 cf of runoff for 10-day, 100-year storm.

Computations:

Existing Condition: Runoff Volume, 6-hr/100-yr = $4820 \times 1.13/12$
= 454 cf

Proposed Condition: Runoff volume, 6-hr/100-yr = $4820 \times 2.12/12$
= 852 cf

Additional Runoff volume = $852 - 454 = 398$ cf

Pond Volume = 1150 cf 10-day/100-yr

(more...)

Runoff Volume for proposed parking lot = 1495 cf 10day/100-year

$$1495 - 1150 = 345 \text{ 10day/100yr}$$

The computed total runoff volume for 10-day, 100-year storm is 1495 cf. The 345 cf excess will flow to Comanche Road.

Presently, the area discharges 454 cf to Comanche Road.

Therefore, the affected area will generate less discharge to Comanche after the proposed improvement is built.

CONCLUSION: The proposed additions will not have any adverse effect on or will be adversely affected by the existing drainage of the building complex at 3737 Princeton Drive NE.

Prepared by: *Celia S. Tomlinson*
Celia S. Tomlinson, P.E.
June 8, 1995



PROJECT: 3737 Princeton NE
ZONE: C

PEAK DISCHARGE

AREAS:

LAND TREATMENT	AREA (SQUARE FEET)	AREA (ACRES)	PER CENT OF TOTAL AREA
A			
B			
C	28395 ³³²¹⁵	.652 ^{.763}	40.09 %
D	42433	.974	59.91 %
TOTAL	70828	1.626	100.00 %

PEAK DISCHARGE: (FROM DPM 22.2, PAGE A-9, TABLE A-9)
ZONE 2

LAND TREATMENT	100-YEAR (CFS/ACRE)	10-YEAR (CFS/ACRE)
A	1.56	.38
B	2.28	.95
C	3.14	1.71
D	4.70	3.14

Q100: (FROM ABOVE-SHOWN TABLES)

LAND TREATMENT	AREA (ACRES)	PEAK DISCHARGE (CFS/ACRE)	TOTAL DISCHARGE (CFS)
A			
B			
C	.652 x	3.14	= 2.05
D	.974 x	4.70	= 4.58
TOTAL			6.63

$$4814sf = .1105 Ac \times 2.28 = 0.25 cfs$$
$$\times 4.70 = 0.52 cfs$$

DRAINAGE

RHOMBUS FORM # 1

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
UTILITY DEVELOPMENT DIVISION/HYDROLOGY SECTION

PRE-DESIGN CONFERENCE

DRAINAGE FILE/ZONE ATLAS PAGE NO.: G16/D29 DATE: 6-7-95

EPC NO.: _____ DRB NO.: _____ ZONE: _____

SUBJECT: _____

STREET ADDRESS: 3737 Princeton NE

LEGAL DESCRIPTION: _____

APPROVAL REQUESTED: _____ PRELIMINARY PLAT _____ FINAL PLAT
_____ SITE DEVELOPMENT PLAN _____ BUILDING PERMIT
☒ GRADING/PAVING PERMIT _____ OTHER _____

ATTENDANCE: ^{WHO} Celia Tomlinson ^{REPRESENTING} Rhombus
John Curtin C.O.A./PWD/Hyd

FINDINGS:
FIRM Panel 2.3 indicates that
site is not in or adjacent to a 100 year
Flood Hazard Zone.

Existing ~~Plan~~ Development was covered
by the Grading & Drainage Plan prepared
by Tom Mann in 1982.

Recalculate Hydrology based on
1993 criteria. ~~Down~~

County SAD will put storm drain in
Comanche.

Site discharge is limited to the
existing rate.

The undersigned agrees that the above findings are summarized accurately and are only subject to change if further investigation reveals that they are not reasonable or that they are based on inaccurate information.

SIGNED: John P. Curtin SIGNED: Celia Tomlinson
TITLE: CE/Hydrology TITLE: Principal
DATE: 6-7-95 DATE: 6/7/95

****NOTE**** PLEASE PROVIDE A COPY OF THIS PRE-DESIGN FORM WITH THE DRAINAGE SUBMITTAL.

DRAINAGE INFORMATION SHEET

PROJECT TITLE: **3737 PRINCETON NE** ZONE ATLAS **G-16 / 1129**
 ZONE: 01103/0000, FILE #:
 LEGAL DESCRIPTION: Lot 7, Cutter Industrial Park, Unit 6
 CITY ADDRESS: 3737 Princeton NE Albuquerque, NM
 ENGINEERING FIRM: **RHOMBUS P.A., INC.** CONTACT: **CELIA S. TOMLINSON, P.E.**
 ADDRESS: 2620 San Mateo NE Suite B PHONE: **881-6690**
 CITY: Albuquerque, NM 87110
 ARCHITECT: **KEVIN GEORGES & ASSOCIATES** CONTACT: **SIMON BIALOBRODA**
 ADDRESS: 127 Jefferson NE PHONE: 255-4975
 CITY: Albq., NM 87108
 SUPERVISOR: **RHOMBUS P.A., INC.** CONTACT: **CELIA TOMLINSON**
 ADDRESS: 2620 San Mateo NE Albuq. NM 87110 PHONE: 881-6690
 CONTRACTOR: CONTACT:
 ADDRESS: PHONE:

PRE-DESIGN MEETING:

X YES

NO

COPIES OF CONFERENCE RECORD SHEET PROVIDED

DRP NO.

EPC NO.

PROJ. NO.

TYPE OF SUBMITTAL:

- X DRAINAGE AND GRADING PLAN**
- DRAINAGE PLAN
- CONSTRUCTION GRADING & DRAINAGE PLAN
- GRADING PLAN
- EROSION CONTROL PLAN
- ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL REQUIRED:

- SKETCH PLAN APPROVAL
- PRELIMINARY PLAN APPROVAL
- SITE DEVELOPMENT PLAN APPROVAL
- FINAL PLAN APPROVAL
- BUILDING PERMIT APPROVAL
- FOUNDATION PERMIT APPROVAL
- CERTIFICATE OF OCCUPANCY APPROVAL
- ROUGH GRADING PERMIT APPROVAL
- X GRADING/PAVING PERMIT**
- OTHER

DATE SUBMITTED:

BY:

6/27/95
Celia S. Tomlinson

JUN 28 1995

HYDROLOGY DIVISION



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 20, 1995

Celia S. Tomlinson, PE
Rhombus PA, Inc.
2620 San Mateo NE #B
Albuquerque, NM 87110

RE: GRADING & DRAINAGE PLAN FOR 3737 PRINCETON NE (G-16/D29)
RECEIVED JUNE 28, 1995 FOR GRADING/PAVING PERMIT
ENGINEER'S STAMP DATED 6-27-95

Dear Ms. Tomlinson:

Based on the information included in the submittal referenced above, City Hydrology accepts the Grading & Drainage Plan for Grading/Paving Permit.

It is City Hydrology's understanding that the retention pond along Comanche Rd will be removed when the County constructs the storm drain in Greigos Rd.

Engineer's Certification of grading & drainage per DPM checklist is required for this project.

If you have any questions about this project, You may contact me at 768-2727.

Sincerely,

John P. Curtin, P.E.
Civil Engineer/Hydrology

c: Andrew Garcia